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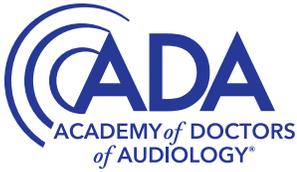
The Power to Practice

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A Most Challenging Year

Well, here we are in the last month of one of the most challenging years of our lives. COVID-19 brought the world to a halt in many ways. ADA, like many organizations, businesses, and your practices, had to find new ways of engaging those whom we serve. We hope you found the resources on the website helpful as you navigated with providing services to your patients in the safest way.

In the throes of the pandemic, ADA also responded, like many organizations, businesses and your practices, to the continued loss of life due to systemic racism. The ADA Diversity, Equity, and Inclusion Task Force meets monthly, and is examining how to attract diverse students into the profession, diverse audiologists into practice ownership, and how to provide your practices with tools to improve health equity in your local community.

The first ever virtual AuDacity Conference is now a fond memory (but the content isn't—you can still get that for CE through 2021). I hope that it exceeded your expectations as it did mine! I would like to thank the ADA 2020 Program Committee Chairs Drs. Aryn Amlani and David Citron and committee members, Drs. Audra Branham, Alicia Spoor, Victor Bray, Ram Nileswhar, Brian Urban, Greg Frazer, Larry Schmidbauer, Tom Tedeschi, Julie Link, Chrissy Lemley, and Henry Botzum.

I would also like to thank the Independent Audiologists Australia and the Independent Audiologists New Zealand for their incredible contributions to the program, as well as the participation from so many state organizations including: The Colorado Academy of Audiology, the Kentucky Academy of Audiology, the Louisiana Academy of Audiology, the Massachusetts Academy of Audiology, the North Carolina Academy of Audiology, the Oregon Academy of Audiology, the Pennsylvania Academy of Audiology, the South Carolina Academy of Audiology, and the Washington State Academy of Audiology. With the help of this entire community, and the tremendous contributions of speakers, sponsors, and staff members, we did indeed Forge Ahead!

It has been an honor to have served as President of ADA for 2020 with this incredible, collegial, and caring board that includes Past President, Dr. Ram Nileswhar, President Elect, Dr. Victor Bray, Treasurer, Dr. Rachel Magann Faivre, Secretary, Dr. Kristin Davis, and members at large, Dr. Audra Branham, Dr. Stephanie Sjoblad, Dr. Tim Steele, and SADA liaison, Mx. Kate Witham. These are brilliant colleagues, many of whom I had never met until our paths crossed here. Congratulations to incoming 2021 ADA Board members, Dr. Jason Leyendecker and Dr. Dawn Heiman—I look forward to serving alongside you in the coming year! I also want to thank my employer, Audigy. I am immensely grateful for the support, the encouragement, and the love they have extended to me, but especially this year.

Mostly, I would like to thank ADA members. Thank you, for all you do for your patients and your profession. Even with all of the uncertainty, disruption, and economic stress, 2020 brought out the best in audiologists! We honed our virtual skills to provide services and work remotely via telehealth. We demonstrated our resourcefulness in delivering curbside services, and we learned how to make the most of Zoom (including how to pair a nice jacket or shirt with our shorts and flip flops).

So, Happy New Year! Here's to a happy, healthy, and hotel-friendly 2021, where I hope to see you all in person in Portland in October for AuDacity 2021! ■

HEAR AND NOW Early Career AuD Resources



The Academy of Doctors of Audiology offers a variety of resources for early career professionals.

Early Career Resources: A collection of resources that will help you in your transition from student to professional.

Mentorship Program: What did you do right? What was harder than you expected? What do you wish you could change? As a recent graduate, you are a perfect candidate to help shape the future of audiology by becoming a mentor! Mentee opportunities are also available.

Monthly Virtual Networking/Learning: Join fellow early career professionals in an informal virtual environment for networking and learning and participate in an early career messaging group.

Visit audiologist.org for access to these resources and more!





Disparities in Healthcare Quality Permeate Audiology, Too

The United States is home to stark and persistent disparities in health coverage, chronic health conditions, mental health, and mortality. Many believe these disparities are the result of decades of systematic inequality in American economic, housing, and health care systems. During the 2020 pandemic, these large and persistent gaps in healthcare access and quality have become even more jarring. It is well-established, for example, that non-white, socioeconomically disadvantaged, and non-English-speaking populations shoulder disproportionate COVID-19 burdens.

A Research Letter, published online at JAMA Internal Medicine on December 7, delineates how these disparities impact hearing aid ownership rates in the US. Dr. Nick Reed and other Johns Hopkins researchers analyzed data from the National Health Aging and Trends Study, a longitudinal study of Medicare beneficiaries. Study participants were adults aged 70 and older, who were asked the following survey question: *In the last month, have you used a hearing aid or other hearing device?*

Figure. Proportion of Hearing Aid Use Among Adults 70 Years and Older by Sex and Race From 2011 to 2018

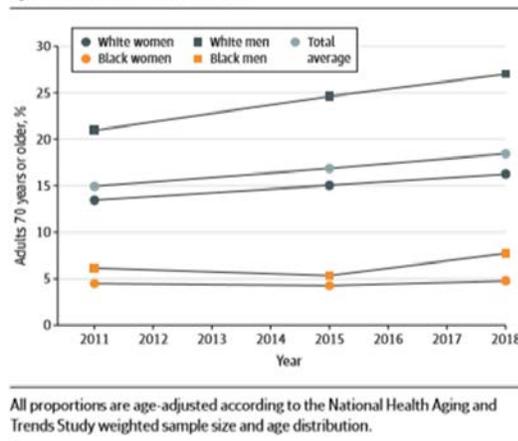


Figure. Researchers found large disparities in hearing aid ownership across race and gender. Image credit JAMAs.

The researchers also noted the keen disparity of hearing aid ownership in adults living under the federal poverty level compared to those older individuals well above it, as those living at less than 100% of the federal poverty level saw an overall decline in hearing aid ownership over the eight year period, while those at 200% or above the poverty level saw an almost five-point improvement in hearing aid ownership during that same time frame.

Results showed those who own and use hearing aids in this group rose from 15.0% in 2011 to 16.9% in 2015 and 18.5% in 2018. However, as shown in the accompanying Figure from the article, there were large disparities in ownership across gender and race. As noted in the article, “fewer Black Americans owned and used hearing aids across time and experienced a smaller overall increase in the proportion who owned and used hearing aids over the 8-year period compared with White Americans (+0.8% vs +4.3%). Black women experienced the smallest growth in hearing aid use across subgroups during the 8-year period. In contrast to White men, who saw a 28.7% increase in hearing aid use.”

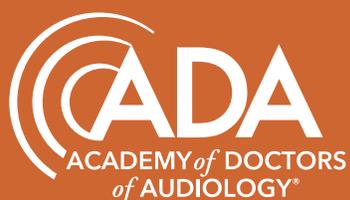
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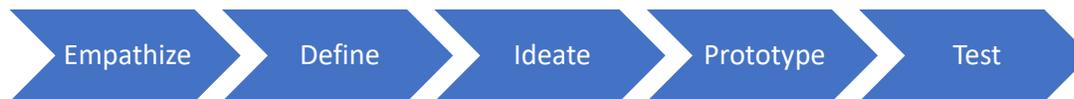
The Power to Practice



Ring in the New Year and Bringing in Design Thinking

AuDacity 2020 introduced design thinking and some of its practical applications for audiology. I had the privilege of working with Dr. Aryn Amlani and Dr. Kate Baldocchi, whose advice was invaluable to building the program. Through their efforts, and the commitment of hundreds of willing, wonderful audiologists, students, and industry leaders from around the world, we were able to come together virtually to focus intently on design thinking components. One of my resolutions for 2021 is to apply design thinking skills to more effectively advance ADA initiatives and to better serve ADA members.

DESIGN THINKING STEPS



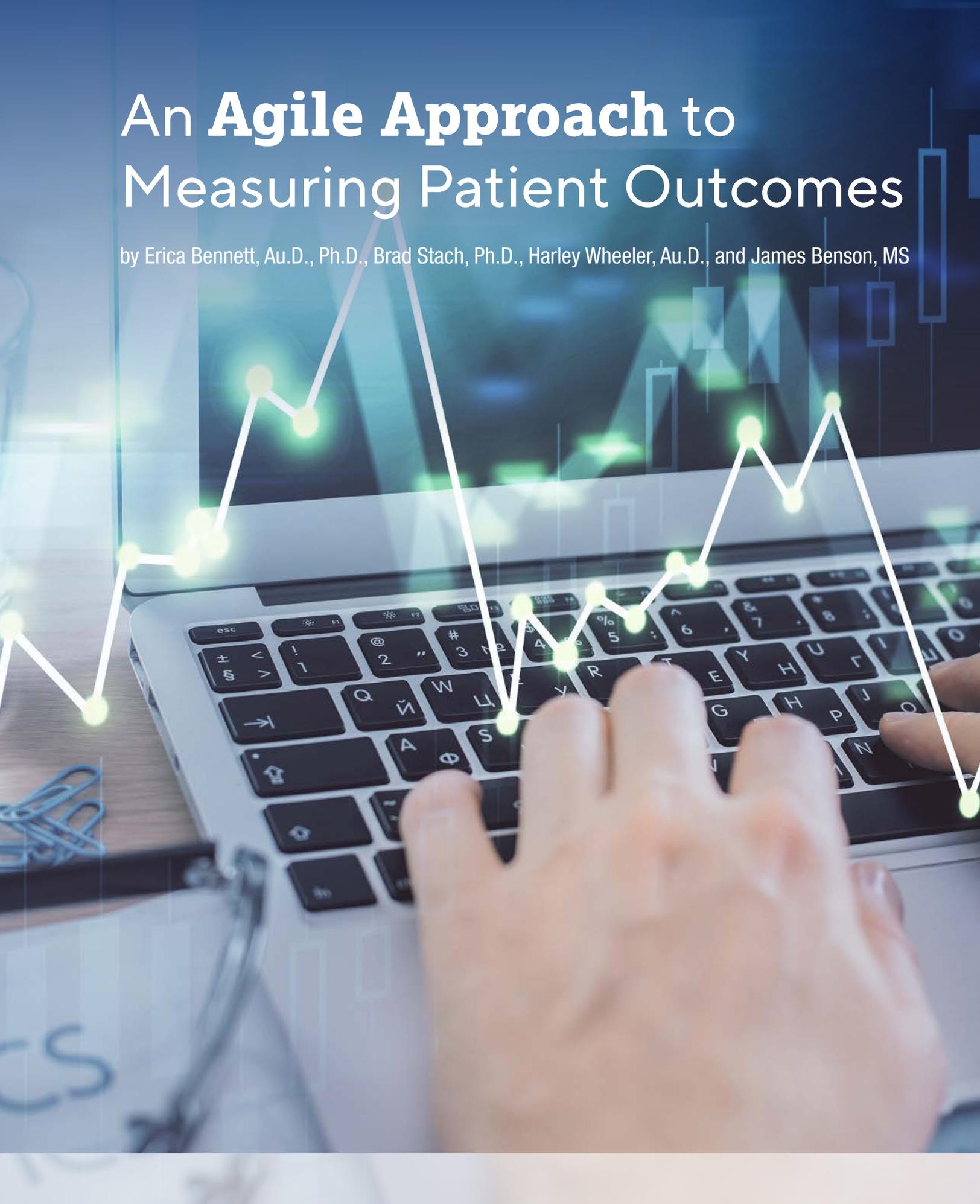
One main takeaway from AuDacity's design thinking sessions was the emphasis on the value of examining processes through the eyes and experiences of the end-user. Using observation that is grounded in empathy can provide valuable insight for evaluating any type of business or clinical process. Patience and a commitment to listen for the purpose of understanding (not for the purpose of responding) is a skill that must be developed to successfully apply design thinking to a problem. As the "define" principle was reinforced throughout the day, I found myself increasingly aware (as one who is prone to jump directly to brainstorming and problem solving) that I need to focus more intentionally on problem definition going forward.

The other design thinking concept that resonated strongly with me is the need to be liberal with prototyping and testing. Like many of us, I naturally seek to limit potential solutions to reduce the likelihood of failure. Yet, when it comes to innovation, epic failures are often more illuminating and drive bigger improvements than the prototypes that result in limited (safe) successes. A propensity towards risk in designing programs and services runs counter to my conditioning, so I look forward to growing in this area during 2021. One strategy that I plan to employ is to adopt a research mentality, which will help remove emotion and self-blame from prototype experiments that fail.

I look forward to ringing in 2021 and bringing in design thinking as a tool to evaluate processes and improve ADA member experiences. In the meantime, I wish you a happy, healthy, and prosperous New Year! ■

An **Agile Approach** to Measuring Patient Outcomes

by Erica Bennett, Au.D., Ph.D., Brad Stach, Ph.D., Harley Wheeler, Au.D., and James Benson, MS





Outcome validation is an important component of any aspect of health care. Hearing aid treatment is no exception. Validation of outcomes can take one of several forms and has the potential to impact audiologic practice in several ways.

The most used outcome measures are designed to assess the impact of hearing aid amplification on self-perception of communication success. Results from self-assessment scales administered following hearing aid fittings can be useful in providing feedback about the quality and success of care related to an individual patient. Feedback from patients can direct providers in their decisions about technologies or additional care that may be necessary for success. Outcome measures can also be used administratively as important quality metrics for assessing the effectiveness of providers and programs. Finally, in their aggregate form, outcome measures can provide more generalized data to drive health care policy.

There are primarily two sources of gathering hearing aid outcome data, those that are market-based and those that are patient-based. The largest market-based source is MarkeTrak^{1,2}, a multi-part data-gathering approach that identifies significant trends and issues in the hearing loss population. This approach is based on a survey that is sent to a National Opinion Panel, which consists of households that are balanced based on the latest US census information. The survey targets individuals with hearing loss, regardless of whether they wear hearing aids. The survey is designed to investigate hearing aid adoption rate, consumer satisfaction, and general demographics of both hearing aid owners and non-adopters. To date, the MarkeTrak data have been very beneficial in providing generalized trends across a large sampling of the population. However, the approach is not without limitation. One challenge is that the survey requires self-reporting of hearing loss, which any clinician would understand is an inexact approach at best. Also, the survey is not limited to hearing aid users and excludes important populations, such as individuals in nursing homes. In addition, the survey does not ask individuals to compare their hearing before and after hearing aid usage.

The other source of hearing aid outcome data is patient-based. These data are generated from self-assessment of communication function with or without, or before and after, hearing aid use. These self-assessment scales are generally designed to answer the following questions:

1. How did the intervention affect not only the patient, but their communication partners?
2. How did the intervention improve the communication abilities of the patient?
3. Were the goals for the intervention successfully met?

There are several subjective self-assessment scales available that attempt to address these questions. For example, measures, such as the Abbreviated Profile of Hearing Aid Benefit (APHAB)³ and the International Outcome Inventory for Hearing Aids (IOI-HA)⁴ have been used in an effort to validate hearing aid fitting outcomes. These are based on standard questions relating to patient experience. Another, the Client-Oriented Scale of Improvement (COSI)⁵, involves the audiologist and patient participating in joint goal setting at the outset of the evaluation, which are then re-assessed following the implementation of treatment.

The value of validation of outcomes on an individual patient is important as it allows for assessment of treatment outcomes, recognizes areas for improvement, and aids in counseling. Yet, despite its value, and despite the availability of these self-assessment measures, outcome validation of hearing aid intervention is fairly uncommon. According to survey data⁶, less than 20% of clinicians routinely administer any type of self-report of outcome. There are several reasons that such measures and data collection are not in widespread use, most of which are simply practical limitations to their implementation. Many of these outcome measures are lengthy and time consuming to administer. In addition, the majority do not seem to capture the audiologist's clinical needs and do not engage the patient. Indeed, the very process of administration of the measures, scoring the outcome, collecting data over time, receiving individual patient feedback and being able to view the patient data in aggregate can be quite cumbersome to the busy clinician.

In this paper, we describe the implementation of an approach to hearing aid outcome validation and data collection aimed at reducing the burden incumbent in the process of self-assessment outcome measurement. Several years ago, we began assessing outcomes on all patients fit with hearing aids at the Henry Ford Health System in Detroit, Michigan. Patients are surveyed at periodic time intervals, and data are automatically assessed in individual patients and, over time, in the aggregate. Here we describe both the process of data collection and a summary of the results obtained over the past year.

Project Description

The questionnaire used in the hearing aid outcome data collection is called the Patient Centered Outcome Measure (PCOM). This measure was designed by integrating well-established self-report outcome measures of hearing aid users. Four of the questions were derived from the International Classification of Functioning (ICF) Measure of Participation and Activities Screener, two questions were from the International Outcome Inventory for Hearing Aids (IOI-HA), and two additional questions were added to address the quality of support for patients and their willingness to recommend hearing aids to others. The survey was administered through a cloud-based patient engagement system called SEngage. SEngage is a solution provided by QM2 Solutions, a company dedicated to assisting practices with patient engagement. They are a leader in patient outcomes and expert in data collection, garnering consistent high participation by connecting to patients through email and/or text, then linking patients into a HIPAA secure portal to leave feedback.

SEngage allows patients to complete a patient interview (or survey) on their home computer, laptop, smart phone, tablet, or other device with a web browser. SEngage does not require the patient to download an application, rather the web enabled solution requires only internet access and a web browser. In addition, SEngage sends the patient customized, practice branded emails or texts that include instructions, education, and a secure link into the system's patient portal. Finally, SEngage schedules the patient communication per the project guidelines and sends reminders to patients who have not completed their scheduled engagement. Patients are uploaded into the system from the practice's legacy system through automated uploads. This process does not require interaction from the providers or staff of the department. (Smaller organizations may manually enroll a patient into the SEngage system). A key element of this project evaluates the level of effort a practice would need to implement an outcomes/experience program and the level of patient data up-take through an automated, web-based engagement system.

The PCOM was conducted with patients via the communication mode of their choice (e-mail or text). The approach was designed to provide consistent monitoring of patients' experience and satisfaction with their care over time. For this study, all patients received surveys at 14, 90 and 180 days following their hearing aid delivery appointments. The survey, shown in Figure 1a, asks patients a series of eight questions. The first four questions require patients to compare their hearing abilities both before and after the hearing aid intervention recommended by their audiologist. The final four questions address overall satisfaction with the devices and their providers, and the amount of time devices are used. Figure 1b shows a view of the survey from the patient's mobile device or laptop.

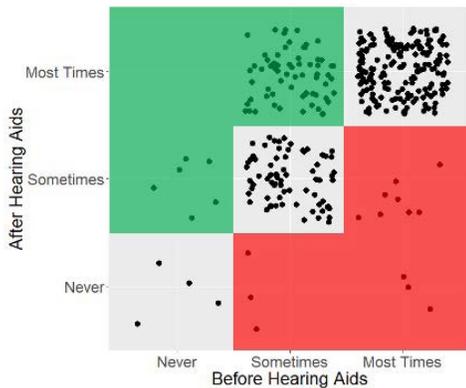


Figure 4. Individual patient responses to the statement “Considering your hearing’s effect on your life you routinely engage in community or social activities”. Responses are displayed before hearing aids (x-axis) and after hearing aids (y-axis). The red shaded area indicates a negative change, whereas the green shaded area indicates a positive change.

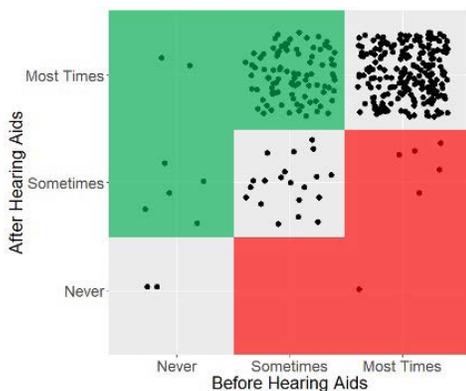


Figure 5. Individual patient responses to the statement “Considering your hearing, describe your willingness to actively talk to family members or friends who are sitting in the same quiet room with you”. Responses are displayed before hearing aids (x-axis) and after hearing aids (y-axis). The red shaded area indicates a negative change, whereas the green shaded area indicates a positive change.

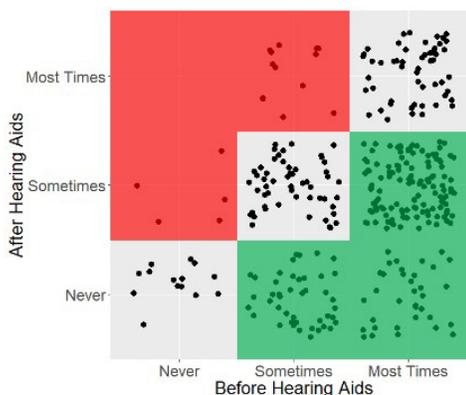


Figure 6. Individual patient responses to the statement “Because of hearing difficulties, you move away from a background noise source or move closer to a speaker to better hear or see them in conversation”. Responses are displayed before hearing aids (x-axis) and after hearing aids (y-axis). The red shaded area indicates a negative change, whereas the green shaded area indicates a positive change.

Individual patient responses to the statement “Considering your hearing’s effect on your life you routinely engage in community or social activities” are shown in Figure 4. Results from the PCOM demonstrate that 4% of patients reported a negative change, meaning they were less likely to engage in social activities after hearing aid use. 75% of patients indicated no change and 21% of patients indicated a positive change, meaning they were more likely to engage in community or social activities following hearing aid uptake.

Individual patient responses to the statement “Considering your hearing, describe your willingness to actively talk to family members or friends who are sitting in the same quiet room with you” are shown in Figure 5. Two percent of patients demonstrate a negative change, meaning they were less likely to talk to communication partners in quiet rooms, 70% demonstrated no change and 28% demonstrated a positive change, meaning they were more likely to engage in conversation in a quiet room.

Results from individual patient responses to the statement “Because of hearing difficulties, you move away from a background noise source or move closer to a speaker to better hear or see them in conversation” are displayed in Figure 6. This statement demonstrated the greatest change following hearing aid use with 60% of patients reporting a positive change, suggesting they do not need to move away from a background noise source as frequently when utilizing amplification. Only 5% of patients reported a negative change and 35% of patients reported no change.

The average number of hours patients utilized hearing aids/day is shown in Figure 7. Most patients (90%) report use of their hearing aids at least 4-8 hours/day. This is significantly higher than previously reported data as compared to the study by Cox and Alexander³ (reporting 74% wear their hearing aids 4+ hours per day) and MarkeTrak² (reporting 69.1% for new users).

Figure 8 shows the average patient response by rating to the statement “Think about the situation where you most wanted to hear better before you got your hearing aids. In recent weeks, rate how much the hearing aids have helped in those situations”. On this scale, a score of 10 meant that the hearing aids were extremely helpful and a score of 0 meant the hearing aids were not helpful at all. Most patients (82%) reported that their hearing aids were helpful indicating a rating of 7 or higher. No direct comparison can be made with MarkeTrak data; however, similar MarkeTrak questions asked if patients had a hearing handicap reduction (54% of patients reported a reduction²) and if patients reported benefit with their devices (63% reported they did²).

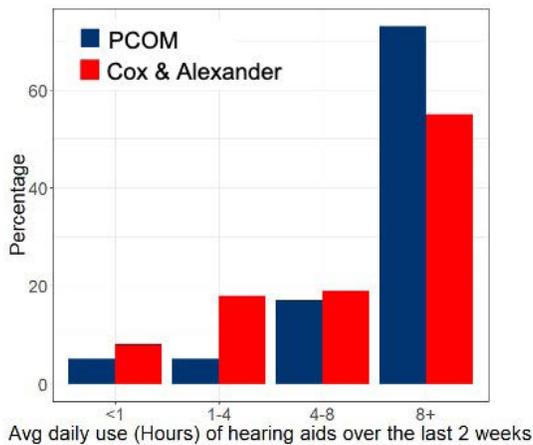


Figure 7. Percentage of participants reported use per day by number of hours for the current study compared to previous research by Cox and Alexander (1995).

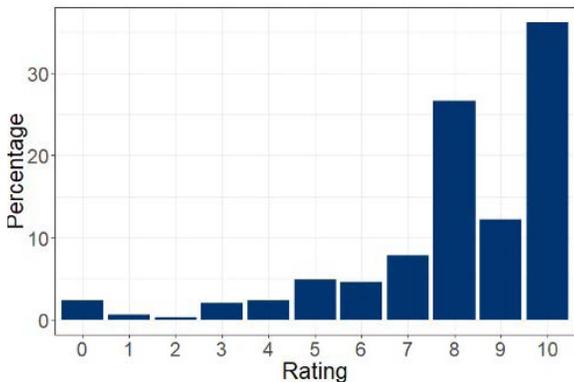


Figure 8. Percentage by rating for patient response to the statement "Think about the situation where you most wanted to hear better before you got your hearing aids. In recent weeks, rate how much the hearing aids have helped in those situations"

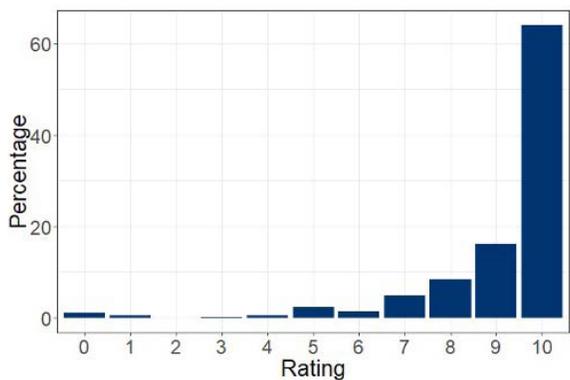


Figure 9. Percentage by rating for patient response to the statement "Based on my current hearing health experience, I would recommend hearing aids to my family and friends"

The average patient response to the question "Independent of how your hearing aids are performing, how would you rate the quality of support that you have received for your hearing aids?" is shown in Figure 9. A score of 10 indicates that their audiologist support was outstanding and a score of 0 indicates that their audiologist support was poor. The average patient response to this question was a score of 9, indicating that patients were highly satisfied with the clinical care provided by the audiologists. In addition, 94% of patients indicated a score of 7 or higher suggesting a high satisfaction with their care provider.

The average patient response to the question "Based on my current hearing health experience, I would recommend hearing aids to my family and friends" is shown in Figure 10. A score of 10 indicates that the patients strongly agree with this statement, while a score of 0 indicates that patients strongly disagree with this statement. On average, patients reported a 9.5 on this scale indicating that they are very likely to recommend hearing aids to others. When looking at percentage by individual rating, 90% of patients reported a 7 or higher, suggesting the vast majority would recommend hearing aids to their friends. This is significantly higher than previous reports with the MarkeTrak data² indicating 75% of patients would recommend hearing aids to others.

Finally, this SEngage was used to engage 1,094 patients at Henry Ford Health System (HFHS) and has become standard of care for our patients. Thus far, the survey has consistently high participation and low attrition rates, with an uptake of 31.5%. Anecdotally, many patients reported that the survey was enjoyable and made them feel involved in their healthcare. The responses led to a robust set of data for analysis and normalization of this questionnaire for our clinical population.

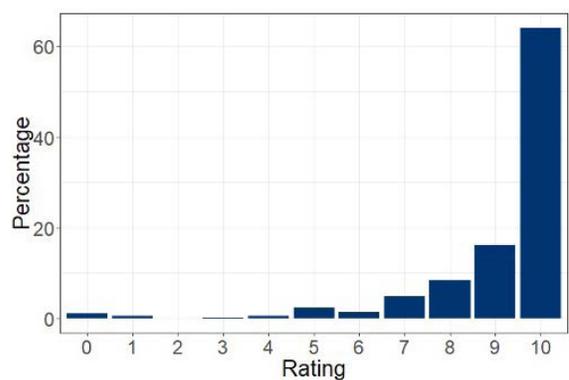


Figure 10. Percentage by rating for patient response to the statement "Independent of how your hearing aids are performing, how would you rate the quality of support that you have received for your health aids"

Discussion

Subjective outcome measures are not used routinely by many clinical audiologists. We describe a new outcome-measure process that is easy to use for the audiologist and the patient and provides valuable data for clinical care. The PCOM proved to be feasible and easy to use for the audiologist with an almost seamless integration into our clinical practice. As described, the survey is automatically sent to all patients who receive a hearing aid delivery at our clinic via their preferred mode of communication, requiring no extra effort on behalf of the audiologist. In addition, the survey is sent at numerous time points (14, 90 and 180 days) so the audiologist can track patients over time. The survey is short and easy to manage for patients, resulting in high participation and low attrition, with a 31% uptake. Following completion of the survey, the data are available to audiologists in a user-friendly format. Data can be organized by audiologist, patient name, date of delivery, etc., in a manner that allows the audiologists to view their own patients and track their progress throughout time.

Once the survey was deemed to be clinically efficient, it was important to determine how patients were subjectively performing with hearing aids in our clinical population. To date, very little published data exist on large sets of patients regarding hearing aid outcomes. The first four questions asked patients to compare their hearing abilities before and after hearing aid use. Results from those questions indicate patients showed substantial improvements with their devices, with the most notable change in background noise, something that is typically problematic for patients. The smallest change was noted in the question pertaining to quiet settings; however, this is likely because many patients did not demonstrate difficulty with quiet situations prior to hearing aid use.

The final four questions asked patients to report utilization of devices and rank general satisfaction with the devices and their care team. Ninety percent of patients were wearing their hearing aids at least four hours per day, with 73% of patients wearing them eight hours or more per day. In addition, when asked about overall satisfaction with devices, their care team, and willingness to recommend the devices to family and friends, the majority of patients had responses of seven or higher for all questions, consistent with a high satisfaction rate.

Overall, the PCOM was efficient, patient friendly, and provided useful clinical data for our staff and program. The results of the PCOM were consistent with other hearing loss surveys, demonstrating the ability to capture accurate patient responses in a more clinically useful way. Future use of the data will include automatic e-mails or texts offering virtual visits to patients that indicate a low rating on any of the questions.

Considerations

As the audiology landscape changes, including the addition of delivery models such as telehealth and over the counter devices, outcome measures and consumer driven care are becoming a priority. It is important for audiologists to have an easy to use tool to subjectively measure patient performance and to compare the results of their patients to those of similar demographics. Through collection and use of these data clinically, more effective treatment decisions can be made for patients. As this survey is implemented clinically, future research on patient performance with various styles and levels of hearing aid technology can be evaluated.

In addition, as other treatment models become more common, the efficacy of telehealth and other strategies can also be validated. Beyond the use of a new survey, the use of on-going, digital patient engagement tool to collect patient feedback is an important advancement in the management of chronic disease. A growing body of research demonstrates that the use of secure portals to collect information from patients in real time increases engagement, patient understanding, activation, and improved coordination of care.

In a large healthcare system, the PCOM has proven to be an effective measure to monitor patient performance and to assist patients in feeling more involved in their own healthcare. ■

Erica Bennett, Au.D, Ph.D. is a senior staff audiologist at Henry Ford Health System. She earned her AuD and PhD from the University of Wisconsin. She completed her externship at Henry Ford Health System and has been working as a clinical audiologist there since 2017. Her clinical areas include amplification, cochlear implants, and diagnostics. In addition to clinic, Dr. Bennett is also the research coordinator for the Audiology department and helps facilitate ongoing research projects.

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The Value of Crafting Individualized Patient G@als

by Brian Taylor, Au.D.

Most audiologists conduct, at a minimum, some cursory goal setting with patients. For instance, the audiologist may ask about telephone use or communication in noisy listening situations. Very few audiologists, however, appear to have a systematic way of documenting how individuals are functioning and what strategies and/or technology they may be using over an entire range of daily activities. This is a lost opportunity to leverage relationship centered communication in the quest for optimal patient outcomes.



Perhaps the most critical component of the help seeking appointment is the audiologist's ability to elicit comprehensive functional treatment goals that genuinely reflect the priorities of the individual. After all, it would be easy to assume the typical help seeking patient is challenged to communicate with grandchildren, on the phone, or in busy restaurants. Given the frequency of occurrence of these situations, the audiologist would not be wrong if they simply jotted down these common troublesome environments as places the help seekers wanted to improve with treatment. However, not taking the time to learn specifically where a help seeker is a lost opportunity. Let's say, for example, the audiologist, with limited input from the help seeker, recorded three basic goals to improve with hearing aids, as listed:

- Restaurants
- Grandchildren
- Television

Yes, the audiologist has targeted three situations for improvement, but because the goals are so vague and unspecific, it is difficult to gauge success or analyze, post treatment how to improve outcomes through counseling or adjustments to the hearing aid.

Once the patient, with input from their communication partner, starts to formulate where they want to experience improved communication, along with some of the emotions associated with not being able to effectively communicate because of their hearing loss, the provider can begin recording these targeted goals. Figure 1 is an example of the Patient Expectations Worksheet (PEW). It is used to formalize or record the patient's targeted goals. Notice in Figure 1 two specific goals that have been recorded and the patient has rated, using a 1 to 5 scale, and how they communicate in that specific situation prior to treatment. Experience suggests that goal setting proceeds more smoothly when both a listening situation and an accompanying emotion associated with it are paired together.

Expectations and Goals

According to Palmer and Cox (1999) expectations are what a patient believes will happen given a particular course of action. The expectation may be the actual level of success that one believes can be achieved with a particular intervention. In other words, a patient may believe that he will be successful most of the time if a particular course of action is taken and only successful half of the time if some other action is taken. Functional goals are created from realistic expectations, and require give and take from the audiologist, patient, and communication partner. When each party weighs in on the goal setting process, realistic expectations should translate directly into the goal setting process. The intervention or treatment plan is created directly from the goals that have been agreed upon by all parties, and success is measured by going back to the original expectation and evaluating how the individual is functioning. Let's take a look at how this goal setting process unfolds during a help seeking appointment using the Patient's Expectation Worksheet (PEW).

How to Create Collaborative Goals

The most effective goals require collaboration and reflect the real world demands of the person with hearing loss. Additionally, each goal should pair a specific listening situation targeted by the patient with an emotion that the patient wants to experience more of if it is a positive emotion (enjoyment) or less of if it is a negative emotion (frustration). Armed with these two pieces of critical information, the audiologist records collaborative goals along with patient expectations as part of an individualized treatment or intervention plan. A modified version of the Client-oriented Scale of Improvement (COSI), the PEW is where goals and expectations are recorded. The PEW allows the patient and audiologist to rate on a 1 to 5 scale four factors, corresponding with each targeted goal.

After two to five goals have been identified, the patient indicates how often he is successful in the situation currently (C), prior to intervention, and how he expects to function after the intervention (E). The audiologist marks the PEW with a check mark

Goal	Hardly Ever	Occasionally	Half the Time	Most of the time	Almost Always
To enjoy my visits with family at dinners		C			E ✓
To become more actively involved in my church group meetings	C				E ✓

Figure 1. An example of the completed Patient Expectations Worksheet where treatment goals are recorded. C = how patient rates their current ability to communicate, E = how the patient expects to communicate post-intervention

Goal	Hardly Ever	Occasionally	Half the Time	Most of the time	Almost Always
To enjoy my visits with family at dinners		C			E
To become more actively involved in my church group meetings	C				E

Figure 2. An example of the completed Patient Expectations Worksheet where treatment goals, expectations are recorded. Expectations of the patient are compared to how the audiologist believes the patient will be achieved post intervention. C = how patient rates their current ability to communicate, E = how the patient expects to communicate post-intervention, I = audiologist's belief of what outcome the patient will achieve.

(“✓”) to indicate what she believes is a realistic expectation given the individual characteristics of the patient (audiologic and non-audiologic information). Recall that a fundamental principle of relationship centered communication is the patient is the expert on his condition and what to expect from intervention, but equally important, the audiologist is an expert on hearing disorders and the advantages and limitations of various interventions for each particular patient. Completing the PEW together is an example of the value of what each party, respectively, brings to the treatment planning process.

If the “E” and “✓” are not in agreement, the audiologist counsels the patient until he understands why the expectations were either high or low, or how the planned intervention ought to be modified to better meet the expectations of the patient. Interventions are planned based on the identified goals and the audiologist creates ways to measure each functional goal. Figure 2 shows an example of a completed PEW in which the patient’s expectations and the audiologist’s judgments of success are in alignment. To illustrate this point, let’s say the patient in this example has an unaided Quick SIN score of 5 dB SNR loss in each ear and recognizes he has a significant hearing loss and it highly motivated to receive help from the audiologist. Note in Figure 2 the audiologist has applied this information in her judgment of expectations for this patient. When the audiologist and patient are in alignment on goals and expectations, an optimistic outlook of patient outcomes can be communicated by the audiologist. Given the results in Figure 2, the audiologists might say something like this to the patient, “If we work together....I

Goal	Hardly Ever	Occasionally	Half the Time	Most of the time	Almost Always
To enjoy my visits with family at dinners		C		✓	E
To become more actively involved in my church group meetings	C		✓		E

Figure 3. A second example of the completed Patient Expectations Worksheet where treatment goals, expectations are recorded. Expectations of the patient are compared to how the audiologist believes the patient will be achieved post intervention. Note the misalignment. C = how patient rates their current ability to communicate, E = how the patient expects to communicate post-intervention, I = audiologist's belief of what outcome the patient will achieve.

will teach you all you need to know and make sure the hearing aids are fitting properly and if you follow my directions, we have a good chance of achieving these goals.”

Contrast the example in Figure 2 with the example shown in Figure 3, in which there is misalignment between the patient's expectations and the audiologist's prognosis for successful outcomes. The example in Figure 3 shows the same goals and expectations as those in the previous example of Figure 2 with one major difference: Unaided Quick SIN score of 12 dB in each ear and patient who has been judged by the audiologist to be unmotivated to get help. Given this information, the audiologist is compelled to take one of two courses: Counsel the patient about lowering his expectations or offer a more rigorous treatment plan that may include the consistent use of Bluetooth-enabled remote microphone technology or comprehensive auditory training courses – both of which add complexity and cost to the intervention. In this case, as outlined in Figure 3, the audiologist may share with the patient the following message, “I am going to ask you to do something that may be outside your comfort zone.....How do you feel about that? Based on what I am seeing you have two options: 1. I'd like you to re-think your expectations. They might be a little too high. or 2. I need to recommend an accessory to your hearing aids that will help you achieve your goals....this accessory will take some time to learn how to use and it will add to the cost. But it's necessary to achieve the outcomes you wish for.”

Goal	Hardly Ever	Occasionally	Half the Time	Most of the time	Almost Always
To enjoy my visits with family at dinners		C		I	E ✓
To become more actively involved in my church group meetings	C				E ✓ I

Figure 4. Legend: In this example of the completed PEW, the “I” designates final outcome on the 1-5 scale, one-month post intervention

Acceptable vs. Ideal

The PEW is a useful example of how information, beyond the basic hearing test, can be readily gathered during a routine help seeking appointment, discussed by the audiologist and help seeker, and then turned into functional goals in a collaborative manner. When expectations are added to the goal setting process, the dialogue between the audiologist and help seeker is allowed to evolve into a discussion of what might be ideally achieved through treatment and what is realistic or acceptable. It is up to the audiologist, using their expertise along with the information gathered during the appointment, to lead a discussion on when expected outcomes might be less than ideal. Equipped with this knowledge, the help seeker must then decide to lower expectations or investigate other courses of action, such as using hearing aid accessories or additional auditory training exercises that might result in superior outcomes, but add complexity and expense. This is the type of honest and frank conversation that is an essential component of relationship centered communication and shared decision making. Recall, there are three essential pillars to shared decision-making: (1.) educating the help seeker on his condition and treatment option; (2.) identifying the values, preferences, and goals of the help seeker; and (3) collaboration to identify the most appropriate and individualized treatment plan. The PEW is a sort of canvas where this discussion and shared decision making occurs.

Finally, the PEW can be used again post-intervention as an outcome measure, as illustrated in Figure 4. The patient marks the sheet with the letter “I” to indicate the level of success after the intervention. If the “I” does not match the original expectation, the audiologist re-examines both the expectation and the intervention and modifies the treatment plan as needed. For more details on how aligning goals and expectations using the PEW fit into clinical practice, see Palmer (2005). ■

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Generating Specific and Targeted Treatment Goals

In addition to being specific and actionable, treatment goals need to be **time-bound** and **collaborative**. This means that the audiologist and patient agree to a timeframe for when goals should be achieved and what each party (audiologist and patient) will do to achieve each goal.

Finally, when collaborating on a set of goals, make sure the goals are **functional** in nature. That is, the goals need to reflect the communication experiences of the individual - where that person wants or needs to improve in their daily living.



Using an Unbundled Pricing Model to Drive Sustainability in a Large Academic Medical Audiology Clinic: A Case Study

by Meagan Lewis, Au.D.

Multiple events such as the 2017 Over-the-Counter Hearing Aid Act and the rising popularity of Medicare Advantage programs in recent years have changed the face and direction of hearing healthcare. Additionally, the Affordable Care Act, changes in Medicare reimbursement, insurance coverage or benefits for hearing aids, and the advent of telehealth will have an impact on the larger healthcare arena. Because hearing aids are often an out-of-pocket expense, many audiology clinics rely on the sale of them to remain financially stable. Given the disruptive factors mentioned above, the financial stability of audiology practices from the dispensing of hearing aids is at risk.

Although hearing aids have an uptake rate among adults with hearing loss of approximately 20%, there is fear that OTC hearing aids will erode the revenue generated from the sale of hearing aids in medical audiology clinics. If OTC hearing aids, which by definition are purchased without the assistance of a licensed professional, erode revenues generated from the sale of traditional hearing aids, it may become essential for these clinics to offset lost revenue by conducting more diagnostics hearing tests on more individuals. The concern for most medical audiology clinics is that they will not be able survive on diagnostic procedures alone – by no means an irrational concern as reimbursement for diagnostics has substantially decreased.

In response to these external forces, the Wake Forest University clinics chose to look at our own services and how to respond in a changing healthcare environment. Wake Forest University clinics are comprised of three audiology centers that employ 16 audiologists. Historically, the facility has dispensed hearing aids in a bundled manner in which professional services are included in the retail price of hearing aids.

Two years ago, Wake Forest Baptist Health Audiology employed 15 audiologists and 3 clinic locations. At our staff meeting, we started asking each other what we were providing that offered our patients the best outcome and if that was different from what they would receive from an over-the-counter device. While we agreed that quality service was our mission, we did not have solid evidence to present to patients as to what that quality difference looked like. Our aim was to first create an operational protocol that would allow for evidence-based practice and then to make it financially sustainable.

Our task force was comprised of seven audiologists working across the lifespan. They researched guidelines from the American Academy of Audiology and the American Speech Hearing Association in addition to protocols from the University of Memphis and Marketrak data. Their objective was to create an evidence based protocol to be implemented and confidently explain the value to patients. My job was to then take that protocol and assign fees.

Methods and Results

The team spent upwards of 20 hours reviewing protocols and discussing as a group to arrive at a consensus and protocol. While we thought that we were offering a quality product prior to this exercise, it has changed the way in which we practice. We added several metrics, including speech-in-noise testing, electroacoustic analysis, unaided loudness discomfort levels, and subjective lifestyle questionnaires.

After identifying the protocol and key items, we assigned CPT codes to each procedure. With the help of administration, we calculated the break-even cost to the clinic for each audiologist. That break-even figure included salary, benefits, overhead, and vacation. The length of time needed to complete each procedure was estimated for each CPT code in our protocol and assigned pricing based on our break-even plus desired profit.

Many of us had been counseling patients on the purchase of hearing aids for years using a bundled model. Talking with patients about specific services and the value provided required reframing. Once we agreed on an unbundled pricing model, the audiologists, as a group, practiced how they would communicate these unbundled service packages with patients.

Discussion

Several of my colleagues were concerned, when we first began the discussion of itemization, that patients would be irritated by the idea of paying for services in an “a la carte” fashion rather than in a bundled format. Interestingly, it seems that while there are some questions for established patients, new hearing aid patients do not have a preference for different types of billing structures, as they are new to the entire hearing aid acquisition process. But it is critical that the audiologist is able to explain the benefit to their patient of each type of service provided. It is much more challenging to list services and tell the patient why each is needed instead of giving a flat fee and telling the patient that fee reflects the cost of the hearing aids. In the bundled model, we told patients the “cost of the hearing aid” without mentioning the time and expertise needed to fit it. In many ways this process is similar to going to the car mechanic. If you need a new part for the car, you also pay for installation, not just the part and it is listed on the bill. There are some consumers who choose an extended service

plan for their car rather than paying for service each time they get an oil change. There are some hearing aid patients who prefer to purchase a service plan rather than paying to have the tubing changed periodically. However, I do think we are doing a better job of explaining that a hearing aid wearer does not simply purchase the BTE tubing but, in addition, the expertise of getting it placed into the earmold correctly.

Another key to this process is the involvement of our billing specialist. Itemization of the patient’s charges has allowed us to be more flexible in how we bill payers. Some prefer services to be bundled and others itemized. Having an individual who can research those benefits and counsel patients regarding their benefit has been extremely helpful. While that is something that most patients have access to, through a portal of some type or by calling the insurance company, most do not have any idea if they have a hearing aid benefit or what it might cover. The ability of the billing specialist to research the third party insurance benefits of every individual prior to their appointment has been incredibly helpful for both clinicians and patients.

Outcome

In the two years since we implemented changes in protocols, the number of hearing aids dispensed has increased and even more importantly, we are better able to serve patients who come in the door with a variety of different hearing aid technology. One could argue that you can see transfer patients in a bundled model, and that is true. However, it is much more transparent to tell a person that you are charging for specific services, rather than charging for a vague office visit. For example, charging for a hearing aid clean and check and hearing aid adjustment (both of which have CPT codes) rather than charging a transfer of care fee. Additionally, if the person has a hearing aid insurance benefit you could bill their insurance instead of charging a transfer of care fee for which there is no CPT code.

I also find it interesting that our particular clinic has sold only a handful of service packages. Patients are given the option at the hearing aid fitting or even at follow-up appointments to purchase a comprehensive service package that would cover an unlimited number of follow-ups during a set time period (usually a year or three years). The vast majority of patients have chosen to pay for services as they receive them. I know there are other clinics that have had exactly the opposite experience. Therefore, one has to think that the difference lies in how the options are presented. ■

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Functional & Communication Needs Assessment

Translating Results into Recommendations

by Alicia D.D. Spoor, Au.D.

"It's an epic story of enduring appeal across generations." The description of Margaret Mitchell's *Gone With the Wind* could also accurately describe the presentation of Functional and Communication Needs Assessment (F&CNA) at AuDaCITY 2020. The three-hour long (not including Intermission), Tier-1 ABA talk is a thorough review of the literature, hearing aid evaluations, each F&CNA testing/screening procedure, and recommendation. The recording is available through ADA's archived convention website and includes pictures of the equipment used in each assessment and videos of a patient completing each task. A recorded, condensed 90-minute F&CNA presentation is available through AudiologyOnline. [Videos can also be accessed at <https://DesignerAudiology.com/AOvideos>] This article introduces and summarizes key points about the F&CNA.

Completing each procedure of an F&CNA efficiently and accurately is necessary, but not sufficient. Being able to interpret the results and create a plan of care (sometimes referred to as "care plan") is what will differentiate audiologists who complete F&CNA appointments versus those providing a hearing aid evaluation and non-traditional methods of amplification treatment such as over-the-counter hearing aids.

An F&CNA encompasses an audiologist's entire of scope of practice. It includes audiologic and vestibular testing and also screening procedures to look at the entire person. "Functional" is a commonly used term in healthcare relating to musculoskeletal/neuromusculoskeletal capacity. Diagnostic evaluations of the vestibular system (e.g. 92540) determine if an individual has an impairment or loss of physical function related to this capacity¹. Without the term "functional" in the name, the appointment appears to focus only on the hearing portion of the audio-vestibular system (e.g. Communication Needs Assessment, Auditory Needs Assessment). Audiologists need to expand their definition of communication beyond hearing to encompass the exchange of information via any medium² (e.g., sign language, alerting

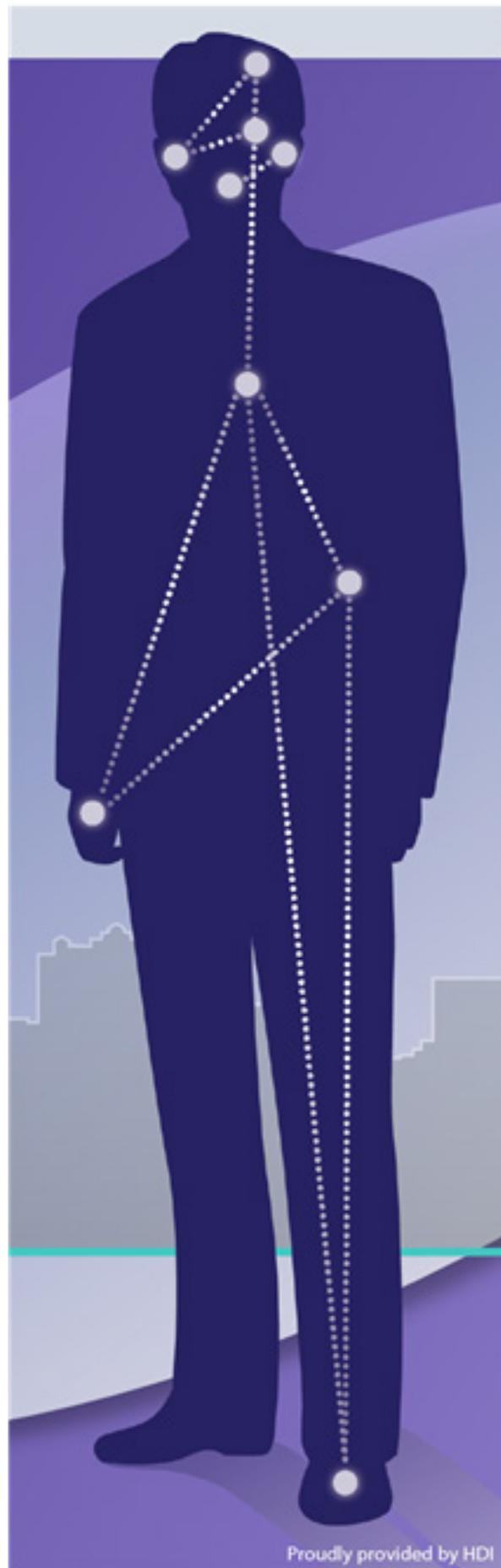
signals). Perhaps most importantly, licensure laws need to be reviewed prior to implementing an F&CNA appointment. Licensure laws, while similar for audiology, are not uniform in all 50 states and the District of Columbia. Some states are intentionally vague, allowing the state's Board of Examiners to make decisions about what is included within audiology licensure. This contrasts with licensure laws in other states which name each and every procedure allowed and, therefore, require a change in law to include any new field of audiology and/or screening procedure. Each test and screening used with an F&CNA must be within the scope of practice for an audiologist to offer it. In the case where licensure is vague, it is essential the audiologist ask the Board whether or not s/he can perform the procedure and obtain the answer in writing. While it sounds simple, this task may take months to complete since many Boards of Examiners are required to meet (commonly monthly) to discuss such topics, state lawyers may be involved, and a public announcement is often posted.

The literature around needs assessments, both communication and functional, is limited. Today, the two most commonly referenced materials are those by Cynthia Compton-Conley, Ph.D. and Robert Sweetow, Ph.D. Dr. Compton-Conley expands the traditional role of communication to include the four areas for hearing enhancement: (1) face-to-face, (2) reception of electronic media, (3) telecommunications, and (4) alerting. She also stresses that the individual's needs should inform the technology, not vice versa³. Dr. Sweetow was one of the first to discuss a care plan, noting that it should include education, counseling, communication strategies, auditory training, and devices⁴. National associations and peer-reviewed literature may provide additional insights about needs assessments, although the body of work is scarce.

F&CNA Testing/Screening Procedures

A comprehensive F&CNA is non-trivial. An entire hour was devoted to the procedures of an F&CNA appointment in the AuDaCITY presentation. In practice, a 30-45 minute F&CNA protocol is completed for one reason: to create a comprehensive plan of care. The plan of care may or may not include a recommendation for hearing aids via a traditional delivery model (e.g., via an audiologist, physician, or hearing aid dispenser) and must provide recommendations for all concerns noted by the patient and outcomes from the procedures. This is not a simple task and requires an ethical and knowledgeable provider.

There are numerous testing and screening instruments available for an F&CNA. Quality of Life (QoL) questionnaires should be dispensed to the patient prior to the appointment to allow for completion and proper reflection from the patient and/or caregivers, family, and friends. Each QoL questionnaire should address an area of possible concern: anxiety, depression, dizziness, hearing, hyperacusis, motivation, and tinnitus. Screening for dizziness/vestibular difficulties can be accomplished using the Timed Up and Go (TUG³) with minimal equipment. These



two procedures can be an easy first step towards a comprehensive F&CNA. Vision loss, among the affected population, plays an important role in safety (falls risk) and treatment options. A Snellen eye chart can be used to screen for both nearsightedness and farsightedness, is practical in spaces as small as 10 feet, and is inexpensive to purchase. Blood pressure screening is likely best completed with an automated screening (e.g. Easy@Home digital upper arm blood pressure monitor^{6,7}) to rule out cardiovascular issues. ADA has long advocated for elevating the profession of audiology to a doctoral-level. A thorough case history with the Review of Body Systems is key to providing comprehensive care to an individual, not just their ears. [Purchase the ‘Adult Case History’ from the Forms Library⁸.] A dexterity screening tool (e.g., the Purdue Pegboard Test⁹) may need to be purchased, if only to obtain consistent, evidenced-based results to compare with normative data.

Irrespective of the order of audiologic testing, most comfortable listening levels (MCLs) with recorded and monitored live voice and uncomfortable listening levels (UCLs) need to be obtained for the right ear, left ear, and bilaterally. Diving further in to the auditory system, measurements for noise tolerance (e.g. Acceptable Noise Level¹⁰), binaural interference, speech in noise, and cochlear dead regions are straightforward to obtain and the test materials are now being incorporated in audiometry diagnostic equipment. An auditory processing (APD) screening is likely the most time-intensive component of an F&CNA, requires the purchase of screening/diagnostic materials, and requires a two-channel diagnostic audiometer. Cognitive screening – assuming it is within the scope of practice – needs to be administered after audibility is verified. This is becoming more widely recognized with emerging literature around hearing loss and cognition. Incorporating working memory protocols (e.g. Word Auditory Recognition and Recall Measure¹¹) completes the screening/testing F&CNA appointment.

Results to Recommendations

Since the goal of an F&CNA appointment is to provide a comprehensive treatment plan, the purchase of hearing aids is not essential; however, a take-home plan of care document is required. The plan of care will naturally commence from results obtained during each procedure of an F&CNA. Documentation may easily be two or more pages in length when customized to a patient. The care plan needs to be aesthetically pleasing and handed to each patient at the end of the appointment. Not only does this treatment plan show value for the cost of the appointment (an out-of-pocket expense), it also allows the patient to choose his or her treatment path with an audiologist, another provider, or no provider. Table 1 shows the general outcomes that are derived from each of the tests/screenings completed.

Table 1

	Additional Testing	Referral	Treatment Plan	Follow-up/Return Timeline
Questionnaires	X	X	X	X
Vestibular Screening	X	X	X	X
Vision Screening		X	X	
Blood Pressure Screening		X	X	X
Dexterity Screening		X	X	X
Most Comfortable Listening Levels	X	X	X	X
Acceptable Noise Level Test	X	X	X	X
Speech in Noise Test	X		X	X
Binaural Interference Test	X		X	X
Cognition Screening		X	X	
Auditory Processing Screening	X	X	X	X
Tolerance Test	X	X	X	X
Cochlear Dead Region Test	X	X	X	
Working Memory Test		X	X	

Questionnaires

A variety of relevant questionnaires are available to inform the patient's overall assessment. A hearing-related QoL questionnaires may suggest additional testing (e.g., otoacoustic emissions) that needs to be completed to determine or rule-out a diagnosis, treatment outcomes (e.g., communication strategies), and the timeframe for a patient to return (e.g., 1 year) for follow-up testing. Dizziness QoL questionnaires may suggest additional testing (e.g., positional testing) or a referral to a vestibular audiologist, referral to another provider for further testing (e.g., imaging), vestibular treatments (e.g., Canalith Repositioning Testing), and the timeframe (e.g., 30 days) to return to the clinic. A tinnitus QoL questionnaire may suggest additional testing (e.g., tinnitus evaluation) or a referral to an audiologist who specializes in tinnitus, referral to another provider for further testing (e.g., dentist), tinnitus treatments (e.g., tinnitus masker), and the timeframe (e.g., 6 months) to return to the clinic. A limited number of hyperacusis QoL questionnaires are available and results may suggest additional testing (e.g., UCLs), referrals to an audiologist specializing in hyperacusis/misophonia and/or another provider (e.g., medication management), and the timeframe to follow-up (e.g., 1 month). Motivational QoL questionnaires may indicate treatment options (e.g., alerting devices) and the timeframe to return (e.g., 4 months). Depression QoL questionnaires are often in the public domain for healthcare professionals (e.g., PHQ-2). A positive screening result will require a referral to a provider who can further evaluate, diagnose, and treat the individual as needed (e.g. psychologist). Anxiety QoL questionnaires (e.g., GAD) may suggest treatment options (e.g., working in small steps with devices over the course of a year, rather than an osseointegrated device the first month), and referral to another provider (e.g., psychiatrist).

Vestibular Screening

Using the Centers for Disease Control and Prevention's (CDC) Timed Up & Go (TUG) criteria⁵, a positive screening is a result longer than 12 seconds. In such situations, further vestibular evaluations are required which may require a referral to another practice. Depending on the patient's history, a referral to another provider may also (or instead of) be needed, such as a physical therapist or optometrist. A home hazard evaluation (e.g., Johns Hopkins Falls Risk Assessment Tool) should be completed to ensure safety in the patient's primary residence with suggestions for improved safety made. Treatment recommendations may include assistive devices such as a walker, more consistent use of an assistive device, and may warrant fall detection alerts within or separate from hearing devices.

Vision Screening

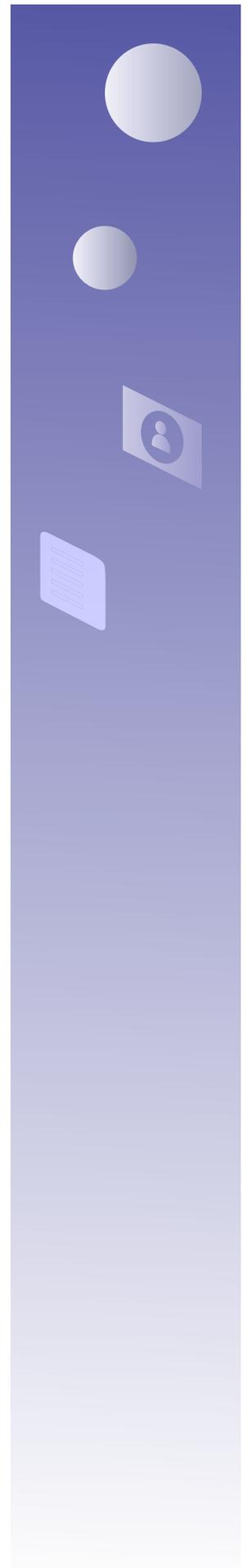
Depending on the results of both the nearsighted and farsighted vision screening, and whether or not the screening was completed with corrective lenses (e.g., contacts), a referral to an optometrist or ophthalmologist may be required. Audiologic treatment options such as hearing aids may need to be significantly larger than usual, have direct power sources (e.g., TV Ears), and/or visual text (e.g., captioned phones) for full benefit. Accessories could also be warranted for optimal control, if amplification/osseointegrated devices are needed.

Blood Pressure Screening

Vestibular testing may be impacted by high or low blood pressure and medication from a prescribing physician could be required. Cardiovascular treatments require a referral to another provider (e.g. cardiologist). Follow-up testing and treatment can also be affected by the blood pressure screening results. If amplification is warranted, technology that incorporates body/health measurements should be recommended when available.

Dexterity Screening

The Purdue Pegboard Test (PPBT) has four different conditions and results are timed to compare with normative data. Depending on the needs and wants of the patient, treatment may need to be



adjusted based on the results. For example, if a patient cannot adequately feel small objects such as the pins in the PPBT or #10 batteries, the plan of care should have recommendations that meet the patient's needs, not wants. Treatment options should be considered with smartphone compatibility, hearing aid accessories/remote controls, raised and onboard program buttons and volume controls, rechargeable batteries, coupling options, and extended-wear devices. Non-traditional devices may also play a role in treatment: alerting devices (e.g., Sonic Boom alarm clocks), television amplification (e.g., TV Ears), and even non-traditional amplification (e.g., iPad with Live Listen and headphones).

Most Comfortable Listening Levels

Most Comfortable Listening Levels (MCLs) can identify non-organic hearing loss, which would require a referral to another provider such as a psychiatrist. Additional testing (e.g., auditory brainstem response) may also be warranted to confirm measurements. Results from MCLs will provide a starting point for hearing aid programming and, if MCLs are low, the timeframe to return to the clinic to properly adapt to amplification will be evident.

Acceptable Noise Level Test

Along with a thorough case history, the Acceptable Noise Level Test (ANL) can estimate if an individual will be successful with treatment. For those unlikely to be successful, support groups (e.g. Hearing Loss Association of America) are a common recommendation to help cope or share information about hearing loss. Local, national, veterans, and online organizations provide such services with minimal cost. ANL results of less than 7 dB suggest good success with amplification; individuals with results between 7 dB and 13 dB can still be successful, but will often need professional involvement. A traditional dispensing model needs to be recommended for these patients and gain may be minimal for the first few months (or year!). Follow-up treatment may also need to occur more often to increase the gain in the hearing aid and support the patient in the process.

Speech in Noise Test

Speech in Noise (SIN) testing can help to diagnose non-organic hearing loss and the need for additional audiologic testing such as otoacoustic emissions. Poor SIN results may also indicate poor auditory processing and suggest a full auditory processing (APD) test and/or referral to a provider who completes APD testing. Pure tone thresholds within normal limits and poor SIN results verify a patient's complaint of difficulties hearing and may be the first indicator of a "hidden" hearing loss. Follow-up testing may be indicated sooner than initially anticipated (e.g., 1 year) with poorer than expected

SIN results. Treatment options for those with more than a 3 dB signal-to-noise ratio (SNR) loss should include communication strategies and possible aural rehabilitation. Along with questionnaire results, amplification for specific listening environments (e.g., large meetings, restaurants) may be recommended as a part of the care plan. SIN scores greater than 10 dB SNR loss may warrant accessories for optimal communication, in addition to high-level technology amplification with directional microphones, and noise reduction. Such accessories include a television streamer, remote microphone, phone clip, and/or FM system. Treatment options for SIN scores 6-10 dB SNR loss need to include devices, size/style with directional microphones, noise reduction, multiple listening programs, automatic program adjustments, technology levels (minimum mid-level technology), phone connectivity, and upgradability.

Cognitive Screening

Depending on the screening tool used, the cut-off for a "positive" result will vary. Some tools (e.g. miniCOG) have different cut-offs for cognition (less than 4) versus dementia (less than 3). Referrals to appropriate providers for any positive results are essential. Follow-up timelines will be influenced by the results. For example, an individual may need to have more appointments to learn communication strategies if s/he has poor cognition/memory. Support groups can also be helpful for both the patient and caregivers. Assistive devices which incorporate visual cues can be helpful and treatment devices may need to incorporate a smartphone. Amplification treatment options may incorporate rechargeable batteries, automatic controls, extended-wear devices, and/or smartphone compatibility. Accessories could also be helpful, such as a smartphone app, television streamer, or remote control. Extended warranties may also need to be discussed.

Auditory Processing Screening

The plan of care may vary depending on which subsection(s) of the APD screening indicated difficulties. Additional APD testing, or a referral to an audiologist who performs APD testing, is required when screening results specify refer. Treatment options may require communication strategies, aural rehabilitation, and use of a device. A decision must be made for personal amplifiers, low-gain hearing aids, directional microphones, and/or noise reduction.

Uncomfortable Listening Levels

Measuring speech and tonal Uncomfortable Listening Levels (UCL) will screen for sound tolerance issues. Hyperacusis and/or misophonia can be measured with the Hearing Aid Research Lab (HARL) Contour Test¹². Treatment for hyperacusis must be completed prior to consistent amplification

use. A referral may be warranted to an audiologist who is specifically trained in hyperacusis/misophonia and/or another provider to help with sensitivity issues (e.g., sleep medication). The follow-up timeline will be more frequent with these individuals compared to the average patient. Hearing protection devices (e.g., musician earplugs with filters) may be needed to help the patient acclimate to environmental sounds. UCL and Contour Test results will also be utilized to program amplification (which may not be available via over-the-counter devices), Maximum Power Output (MPO) levels, and (automatic) adaptation settings.

Cochlear Dead Regions

Additional testing, or referral to a provider who can provide testing for osseointegrated devices, may be needed with a significant (4 or more) number of cochlear dead regions. With any number of cochlear dead regions, hearing aids need to have a frequency transposition, frequency compression, or frequency lowering features to ensure audibility of sounds.

Cost to Implement F&CNA

Implementing a well-thought-out Functional and Communication Needs Assessment requires investment. The largest cost is the need for a 2-channel audiometer to provide auditory processing screenings. The remaining equipment is relatively inexpensive, likely less than \$1,200. Audiologists who wish to pursue comprehensive auditory processing, musician, tinnitus, hyperacusis, and misophonia, and vestibular training can expect to pay \$10,000 for additional workshops. However, even considering this \$11,200 investment and an average audiology hourly rate, the clinic may break-even with less than 120 F&CNA appointments.

Additional Information

For more details and information, the epic AuDaCITY 2020 presentation is available through the AuDaCITY convention website. AudiologyOnline hosted the 90-minute, shortened presentation. A plan of care patient handout can be customized with a clinic's logo and is available for purchase from High Definition Impressions (HDI). ■

Dr. Spoor owns and operates Designer Audiology, LLC, a private practice located in Highland, Maryland. She holds a Doctor of Audiology (AuD) degree from Gallaudet University and a Bachelor of Arts (BA) degree from Michigan State University in Audiology and Speech Sciences.

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Escaping the HIPAA MINEFIELD from Mobile Devices

by Josiah Dykstra, Ph.D.

If you secure just one electronic device in your practice, it should be your smartphone.

Surprised? Not all computing devices are created equal. When individuals think of Health Information Portability and Accountability Act (HIPAA) security, they naturally focus first on protecting the desktop computers that are used for testing, programming, and administration. There are no special HIPAA rules for smartphones or tablets, but protected health information (PHI) must be secured no matter the technology. Yet, mobile devices – smartphones, tablets, and laptops – present unique and critical risk to PHI and the practice because of their principal feature: portability.

Portability is a powerful and desirable feature in technology, allowing users to connect and work without being confined to one place. Given computing power today, mobile devices provide seamless access to email, calendars, banking, contacts, photos, and more. A \$1,000 phone or \$2,000 laptop is an access point to the user's most sensitive and private information worth much more than the device itself. Nearly all online accounts, for example, are connected to an email address. If a criminal steals a smartphone and can access the user's email, the criminal can potentially use that to access other services such as bank accounts by simply send a password reset by email.

According to Verizon, 38% of healthcare organizations were the victim of a security compromise involving a mobile device in the past year.¹ The prevalence of mobile devices in the profession of audiology suggests the potential for debilitating cyber incidents and data breaches. Designer Security surveyed 131 private practice audiologists and found that that 90% reported at least one laptop in use for work-related purposes. Additionally, 70% of the survey respondents reported use of at least

one smartphone in a practice.¹ Whether staff are permitted to use their personal devices for work purposes (known as “bring your own device”), or the practice supplies mobile devices, there are numerous steps that can be taken to avoid the landmines of HIPAA violations.

Authentication – including passwords, pins, fingerprints, and facial recognition – “gets in the way” of the use of mobile devices for many users. More than a quarter of smartphone owners have no screen lock.² Many find it cumbersome or impractical to have long, secure passwords for mobile devices. As a result, it is easier for a thief to gain access to a smartphone than a desktop computer. Any PIN or password is better than having none, but best practice is to select a PIN or password that is easy to remember and difficult to guess. Do not use birthdays or convenient passwords such as 123456 (the most common password in 2019³) or 111111 (the 9th most common password) that are easy for a hacker to guess. Biometrics such as fingerprints or face ID are also convenient, and while better than nothing, are less secure than a good password or PIN.

Unlike most work computers, it is more common for people to share smartphones and tablets with friends and family members. Maybe kids watch videos on the phone, or a partner browses the internet on the tablet. These are mild to moderate risks that practice owners may be willing to accept, but they increase threats to the device and accessible PHI. If the smartphone connects to guest Wi-Fi at restaurants or hotels without a VPN, that is severe risk akin to sharing the device with strangers. Each of these sharing activities compounds the risk to the device, and subsequently to access PHI, sensitive business accounts, and other connected information.

At AuDacity 2020, Designer Security presented seven practical steps to improve security and security on iPhone and Android phones. The steps are briefly summarized below and step-by-step are videos available online.⁴

1. Install software updates.

Hackers commonly attack vulnerabilities in unpatched software. Bug fixes and new features are released for smartphone apps on a routine basis. Enable automatic updates or manually check each week for both operating system and app updates.

2. Setup strong authentication.

Make it difficult for a thief to get data even with physical access to the device. Enable one or more ways to authenticate to the mobile device, such as a password,

PIN, or fingerprint. Longer passwords are more secure and select one easy to remember and difficult to guess.

3. Set a screen lock and timeout.

Require authentication every time the user accesses the device and enable automatic lock after a short inactivity period (5 or 10 seconds is best). This increases protection if the device is lost or stolen.

4. Install a password manager.

It is difficult to generate and remember many strong passwords for websites and apps. Instead, install password manager software such as LastPass or 1Password to store and manage strong passwords automatically.

5. Setup “find my phone” and remote wipe.

Both iPhone and Android have features to locate, lock, and erase the phone remotely if it is lost or stolen. Health and Human Services (HHS) may assume a HIPAA data breach unless PHI can be rendered unreadable or the owner can demonstrate low probability that PHI has been compromised.

6. Anonymize advertiser ID.

Every device has a unique mobile advertising identifier in the operating system. Increase personal privacy by resetting the ID that advertisers use to track activity and location.

7. Encrypt all mobile devices.

Encryption is useful if a phone, tablet, or laptop is lost or stolen because data stored on the device cannot be recovered. Once encryption is enabled, there is practically no noticeable difference when using the device.

In addition to the seven recommendations above, here are three additional safeguards for mobile devices:

1. Beware of dangerous app permissions.

When installing apps on devices, pay careful attention to the list of permissions needed and only download apps that request reasonable permissions. A flashlight app, for example, should not need access to the camera or contacts. Malicious apps could use these permissions to access or steal sensitive information.

2. Securely wipe old phones.

Before giving away or donating an old phone, be sure to securely erase data that could be left behind. Deleting files does not guarantee that a hacker couldn't recover them. Step-by-step guides are available online to securely erase and reset most devices.



Figure 1. Prevent unwanted data access with a USB data blocker when charging a phone.

3. Use a USB data blocker.

Be very cautious about charging devices using USB ports in a public place, including bars, airports, and hotels. USB can transmit both data and power, and hackers may attempt to access data on the phone. Consider an inexpensive USB data blocker (also called a USB condom) that physically disables data transmission (Figure 1).

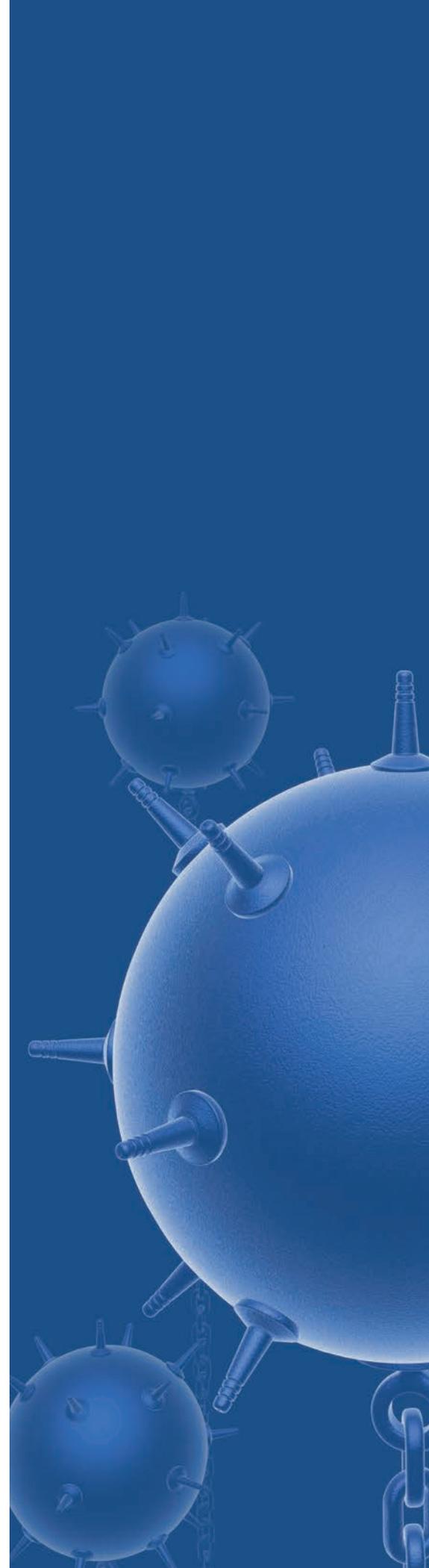
Escaping the landmines from mobile devices is possible with prevention and dedication. As technology continues to break down barriers about where and how we work, diligence is required to safeguard PHI and other sensitive data, no matter the technology. Cybersecurity professionals are also available to help assess individual situations and recommend or deploy layered defenses.

Start defending your smartphone today, and then consider doing the same with your other computers. ■

Josiah Dykstra, Ph.D. is Founder and Cybersecurity Consultant at Designer Security which provides cyber services for audiologists. He has more than 16 years' experience in cybersecurity research, practice, and education. Contact him at Josiah@DesignerSecurity.com.

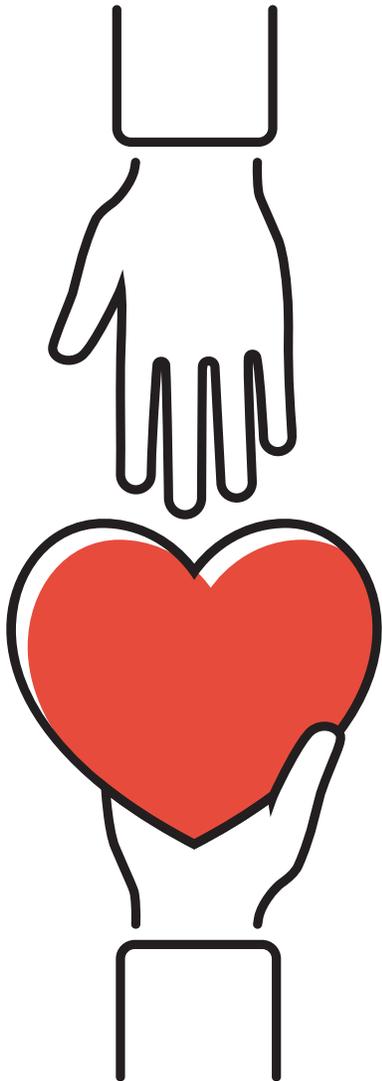
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Inspired to **GIVE**

Humanitarian Audiology in Practice



Forward by Stephanie Czuhajewski, MPH, CAE

Many ADA members were inspired by the presentation delivered by Dr. Jane Baxter and Dr. Deborah Clark at AuDacity 2020, in which they shared their passion for humanitarian audiology, and their experiences establishing a non-profit clinic in their community and their global humanitarian adventures. If you missed the presentation by Dr. Baxter and Dr. Clark, you can view it at audiologypractices.org.

Since AuDacity 2020, I have received numerous requests for additional information and examples of audiologists who are incorporating humanitarian audiology into their practices. I am excited to be able to bring readers two such stories in this issue and I plan to include humanitarian audiology as a regular series in *Audiology Practices*.

Please join me in learning more about the Norm and JoAnn Frink Hearing Foundation and Hearing the Call Colorado! If you have a story to share for publication, please submit it to me at sczuhajewski@audiologist.org.

THE NORM AND JOANN FRINK HEARING FOUNDATION

A Non-Profit's Journey from Concept to Creation

By Scot Frink, Au.D. & Bryan Greenaway, Au.D.

Three years shy of our 40th anniversary, we, the owners of Salem Audiology Clinic in Salem, Oregon, along with one of our employees, decided to expand our charitable giving from a seasonal tradition to a year-round program. To that end, we created a separate non-profit entity, the Norm and JoAnn Frink Hearing Foundation, to serve those in our community who previously lacked access to quality hearing health services. Over the past year we have taken our non-profit from an idea, through development, and into the early days of serving patients.

We were honored to be asked to write an article for this issue of *Audiology Practice* and were excited by the opportunity to introduce our colleagues to our new endeavor. More than that, though, we hope our story will also offer a look into our formation process for those who may have a similar calling to serve those patients who have fallen through the cracks of traditional delivery models. While not everyone's journey will be the same as ours, we hope our story offers inspiration and insights into the non-profit creation process.

Building on a tradition of
GIVING BACK *to the community*

Founded in 1982, Salem Audiology Clinic has grown a proud reputation of opening its doors to all who need service, whether traditionally insured, on Medicaid, or uninsured. In 2005, our clinic had its first annual “Gift of Hearing” holiday program. The program, which was supported by Phonak in that first year, asked community members to nominate people who were in need and deserving of hearing aids but could not afford them. Phonak donated one set of mid-range devices for the program, but after receiving over twenty letters nominating people with inspiring stories, it was clear one set would not be enough. By pulling devices from the clinic’s used hearing aid stock, nearly every person who was nominated that year received amplification.

After the success of that first year, the program became an annual project, providing services for as many deserving patients as possible. By partnering with local churches and community organizations, we were able to continue to find candidates year after year. On the supply side, hearing aid manufacturers stepped up with donations most years. By supplementing the donations with devices from the clinic’s used and trade-in stock, we were able to meet the needs of our patients every year.

In 2019, after 14 years of successful “Gift of Hearing” events and a new hire with a passion for humanitarian audiology, the decision was made to take the clinic’s charitable giving to the next level. Planning began in late 2019 to create a separate 501(c)(3) non-profit organization, the Norm and JoAnn Frink Hearing Foundation, to serve the types of patients the Gift of Hearing program helped in a year-round capacity.

Determining our
WHO, our WHAT, and our HOW

In the early days after deciding to start a non-profit, we only had three aspects of the Foundation decided. First, we wanted to serve our community. Second, the Foundation would be named for Norm and JoAnn Frink, the generous and community-focused founders of Salem Audiology Clinic. And finally, the Foundation would see patients on Fridays, as Dr. Greenaway had been hired on at four days a week to allow him to do charity work on Fridays.

From there, the first decision was to determine exactly who the new Foundation would serve and what services would be offered. We drew early inspiration from the work of providers like William Diles, M.S., who started a hospice hearing aid program within his clinic. The idea of tackling a specific niche was appealing, however, at the end of the day we had to look at our community and listen to what its needs were. We had an early meeting with a local free clinic which was in need of an audiologist to take their referrals. This interaction, along with further research into the community, led us to the conclusion that the patients and needs of our community were broad, and thus our approach to serving it would need to be equally broad. This meeting also helped us realize that, while we had an early focus on hearing aids, there was also a need for quality diagnostic testing for the underserved population we were targeting. By letting our community and its members help shape our mission, we were able to create an organization that would best serve them.

In the end, we decided on setting our patient criteria based on the geographic location and financial need of patients. Geographic location was important for two reasons. First, it allowed us to ensure it was truly members of our community who we were serving. Second, as we began to research possible grants for future funding of the non-profit, we discovered many restricted or gave preference to organizations who focused their work on certain counties or regions.

With regard to financial need, we found that many healthcare non-profits in the area used the Federal Poverty Guideline in establishing their financial means tests. Selecting an actual dollar amount was one of the more difficult parts of the early policy-making process. We wanted to pick a number that would ensure our limited resources would go to those that most needed them first, but we also did not want to exclude patients who truly had no other options for hearing health care. An upper income limit of two hundred percent of the federal poverty guideline, based on household size was eventually selected, with the understanding that flexibility may be needed in the future.

At this point we had our “who”—we would serve local patients whose needs were not being met by existing systems due to financial constraints. We also knew what services we would be providing – largely hearing aid-based care, but with the addition of diagnostic services when needed. The final ingredient, the how, was easy for us. Since we were spinning off from an established and successful best practices clinic, we were able to borrow a great deal of Salem Audiology Clinic’s procedure manual and patient forms. The ability to not reinvent the wheel by starting from scratch was a welcome shortcut in the process. The final piece of the puzzle was where patients would be seen. This was also made easy by the ties to Salem Audiology Clinic. After consulting with an attorney who specialized in non-profit formation, we established Salem Audiology could donate the needed clinic space on Fridays. This allowed us to see patients in an existing clinic and use their equipment, which eliminated what could have been an expensive and complicated part of the non-profit.

The final part of building the clinical side of the non-profit was establishing sources of hearing aids with which to fit our patients. Early on, it was assumed that we would rely heavily on Salem Audiology Clinic’s used hearing aid stock to meet our needs. While this is still a significant resource for the Foundation, we have been surprised and overwhelmed by the number of donations which have come directly from patients who have heard about the Foundation and wanted to help out. While we currently are maintaining a sufficient stock of devices to meet our patient needs, we hope to continue the tradition of manufacturer partnerships, as well as partnering with other clinics and providers who wish to donate to the cause.

Finally, while putting our clinical procedures together, we were simultaneously moving through the sometimes tedious process of registering the Foundation with the State of Oregon and establishing our tax-exempt status with the Internal Revenue Service. While this was the most intimidating part of the experience going into it, a little patience, a lot of internet research, and consultation with an excellent non-profit attorney paid off when we opened our doors as an established 501(c)(3) non-profit at the end of the summer of 2020.

Seeing the **PAYOFF** *and looking* *to the* **FUTURE**

As a year worth of work and planning came together into a functioning non-profit, there were three moments at which it truly felt like all our efforts had been worthwhile. The first was seeing the launch of our website, frinkfoundation.org, which felt like the closest thing to a ribbon cutting ceremony a non-profit could get in the middle of a global pandemic. The second was the overwhelming support we received from the very beginning on social media from both members of our local community and members of our larger audiology community.

The third moment – the one that really brought home the weight of what we had built – was when we fit our first patient with hearing aids. This patient had moved to Oregon after losing everything in the Camp Fire in Paradise California in 2018. Among their lost possessions were their hearing aids. They had been without amplification for well over a year as they had started to build a new life in Oregon. With all the expenses of relocating and starting over in a new town, and with no benefit through insurance, the patient did not think they would be able to get hearing aids again.

The opportunity to fit that patient with hearing aids and the joy she felt in being able to easily communicate with her friends and family were more rewarding than we could have imagined when we started this process. Knowing there are stories, like that first patient's, all across our region is what inspires us to keep pushing forward and doing the humanitarian audiology work that we have started.

As we look to the future, we see opportunities to continue serving patients just like our first one, but we also see opportunities for growth. The key to our success has been and will continue to be in our relationships with audiologists, with community groups and leaders, and with referring providers who can identify candidates for our services and send them our way. As we move forward we hope to build more of these relationships and strengthen the ones we have through collaboration and education.

We also see an opportunity to grow in how we serve our patients by acting as a source of information. While building the Foundation, we envisioned a successful patient interaction ending with us fitting the patient with hearing aids. After only a short time in practice, however, we've seen potential patients who we discovered were eligible for services through the Veterans Administration, vocational rehabilitation programs, or Medicaid. Helping these patients meant taking on the role of informer more than practitioner. Through these experiences it has become obvious that connecting patients with resources can be as valuable as our core product of amplification. As the landscape of audiology changes in the coming years, we look forward to finding new and exciting ways to meet our patients' needs.

As audiologists know well, good hearing health has far reaching benefits for individuals, their loved ones, and their communities. Through the Norm and JoAnn Frink Hearing Foundation, we hope to provide high quality, best practice audiological care that will help our neighbors reach their full potential. Whether that means finding meaningful employment, reconnecting with friends and family, or rediscovering a hobby that hearing loss took away from them, better hearing is the first step. We look forward to continuing to help those who need it most and to growing with our community.

For more information on the Norm and JoAnn Frink Hearing Foundation, visit us at frinkfoundation.org or on Facebook.

C. Scot Frink, Au.D., FAAA is co-owner of Salem Audiology Clinic, founded by his father in 1982, and is one of the first private practice audiology clinics in the United States.

Bryan Greenaway, Au.D. is a clinical audiologist at Salem Audiology Clinic. He has a professional passion for diagnostics, hearing aids, aural rehabilitation, and tinnitus.



Norm and JoAnn Frink

Entheos *and* Hearing the Call Colorado

Bring Audiologists Together to Give the Gift of Hearing that Encourages the Recipient to **PAY IT FORWARD**

ADA Staff Reports

On October 3, 2020 representatives from six Colorado audiology practices and the Entheos cooperative came together to take part in Hearing the Call Colorado, a unique humanitarian effort that allows audiologists to give the gift of hearing and create a “circle of giving” to benefit their local communities.

Volunteers convened at Longmont Hearing and Tinnitus Center, owned by Dr. D’Anne Rudden, for the inaugural Hearing the Call Colorado clinic, designed to provide underserved members of the community with the audiology services they need but cannot afford. However, unlike many free clinics, Hearing the Call Colorado isn’t a hand-out, but a hand-up that encourages good works to go forward. In return for hearing healthcare and low/no cost hearing aids (based on the patient’s income), Hearing the Call patients make a commitment to volunteer hours back in their community with any organization in need. In this way, the circle of giving continues and the impact from Hearing the Call is heard and felt well beyond the clinic as patients “pay it forward.”

“One of the most magical moments is the *hearing smile*, that moment when a person hears for the first time or has their hearing partially restored. It is hard to put into words the reaction. Sometimes people break out into tears, sometimes they are so quiet trying to take everything in. Either way, it’s an amazing moment,” says Dr. Rudden.

The COVID-19 pandemic has increased the already heavy economic and health burdens for those who are under-insured and working on the front lines. At the same time, face mask and social distancing requirements have exacerbated the communication challenges associated with untreated hearing loss. Hearing the Call Colorado couldn’t come at a better time.

Twins Angela and Amanda were among the fourteen patients who were evaluated and/or treated during October’s Hearing the Call Colorado clinic. View their story at: <https://www.youtube.com/watch?v=96mUiIQzKbg>. The next Hearing the Call Colorado clinic is scheduled for January 23, 2021 in Arvada, Colorado. Qualified participants demonstrate proof of financial need and are given a scheduled appointment time (no walk-ins are allowed).

Hearing the Call is a global non-profit organization, affiliated with Entheos and based in Fort Wayne, Indiana. In addition to delivering long-term, sustainable hearing health care through global humanitarian trips, Hearing the Call has expanded efforts to serve local and regional communities. For more information, visit www.hearingthecall.org. Participating Hearing the Call Colorado clinics include Animas Valley Audiology (Durango), Columbine Hearing Care (Littleton), Flatirons Audiology (Lafayette), Longmont Hearing & Tinnitus Center (Longmont), McArthur Audiology (Burlington) and New Leaf Hearing Clinic (Arvada). Please contact Alan@EntheosHearing.com for more information.



2021 Coding and Reimbursement Updates

BY KIM CAVITT, Au.D.

MEDICARE ALLOWABLE RATES

The 2021 Physician Fee Schedule Final Rule indicated an average 6 - 7% cut in allowable rate for all audiology services. Please consult your local Medicare fee schedule when available.

2021 TRADITIONAL MEDICARE BENEFICIARY DEDUCTIBLE

The 2021 traditional Medicare beneficiary deductible is \$203.

CPT CODING CHANGES

There will be seven new CPT codes for audiology, effective January 1, 2021. Two audiology codes have been deleted.

These coding additions are:

- 92517: Vestibular evoked myogenic potential (VEMP) testing, with interpretation and report, cervical (cVEMP)
- 92518: Vestibular evoked myogenic potential (VEMP) testing, with interpretation and report, ocular (oVEMP)
- 92519: Vestibular evoked myogenic potential (VEMP) testing, with interpretation and report, cervical (cVEMP) and ocular (oVEMP)
- 92650: Auditory evoked potentials; screening of auditory potential with broadband stimuli, automated analysis
 - Replaces 92586.
 - Used for pass/fail newborn and pediatric hearing screening.
- 92651: Auditory evoked potentials; for hearing status determination, broadband stimuli, with interpretation and report
 - Replaces 92585.
 - Used for auditory evoked potential testing, used broadband stimuli, at a high and/or low intensity level to rule out conductive or sensorineural hearing losses and/or auditory neuropathy.

- 92652: Auditory evoked potentials; for threshold determination at multiple frequencies, with interpretation and report

–Replaces 92585.

–Used for a threshold search ABR.

- 92653: Auditory evoked potentials; neurodiagnostic, with interpretation and report

–Replaces 92585.

–Used for site of lesion testing.

These codes were deleted:

- 92585: Auditory evoked potentials for evoked response audiometry and/or testing of the central nervous system; comprehensive

- 92586: Auditory evoked potentials for evoked response audiometry and/or testing of the central nervous system; limited

None of the new codes contain a TC/PC split. In other words, they do not have the capacity for the testing to be performed by a technician or an assistant and interpreted and reported by an audiologist or physician. The audiologist or physician must personally perform, interpret and report the procedures.

HCPCS CODING CHANGES

There are no significant HCPCS code changes that impact audiology in 2021.

ICD 10 CODING CHANGES

No significant ICD 10 coding changes went into effect on October 1, 2020.

EVALUATION AND MANAGEMENT CODING CHANGES

Code 99201 was deleted.

MEDICARE COVERAGE OF TELEHEALTH

92601-92604 are the only procedures Medicare covers via telehealth.

When providing telehealth services, you will need to either change your place of service code to 02 OR add the 95 modifier (synchronous telemedicine service rendered via a real-time audio and video telecommunications system). Please consult your payer guidance for which approach they recommend. Using the wrong approach can and will affect allowable rates.

MERIT BASED INCENTIVE PAYMENT SYSTEM (MIPS)

The MIPS requirements are unchanged for 2021. The low volume threshold remains as:

- Dollar Amount (\$90,000) or
- Number of Beneficiaries (200) or
- Number of Covered Professional Services (200)

The nine audiology MIPS measures for 2021 are:

- Documentation of Current Medications in the Medical Record
- Preventive Care and Screening: Screening for Depression and Follow-Up Plan
- Falls: Risk Assessment
- Falls: Plan of Care
- Referral for Otologic Evaluation for Patients with Acute or Chronic Dizziness
- Preventative Care and Screening: Tobacco Use: Screening and Cessation Intervention
- Elder Maltreatment Screen and Follow-Up Plan
 - Already a requirement of many state audiology licensure acts.
- Functional Outcome Assessment
- Falls: Screening for Future Falls Risk

MEDICARE COVERAGE OF TELEHEALTH

The Blue Cross Blue Shield Federal Employee Health Plan coverage of hearing aids for adults (over 21 years of age) is now eligible every five years rather than every three years.

Although there have been many anecdotal comments, we have received or viewed no written communications that indicate that members who purchased hearing aids in 2018, 2019, or 2020 will be eligible in three years rather than five years. This grandfather clause is NOT indicated in the plan documents. Please contact your local payer for confirmation.

THIRD-PARTY NETWORKS/PLANS

Many hearing aid benefits will become offered by or transitioned to third-party networks in 2021. Please make sure to verify all hearing aid benefits. Most benefits offered by third-party administrator plans have no out of network benefit.

Please also review the third-party administrator process and pricing changes for 2021. Some are significantly changing in the new year.

For further questions, the Academy of Doctors of Audiology has a webinar that outlines these 2021 changes. Also, members may reach out to Kim Cavitt, Au.D. at kim.cavitt@audiologyresources.com or 773-960-6625 for personal guidance and support. ■

Dr. Kim Cavitt was a clinical audiologist and preceptor at The Ohio State University and Northwestern University for the first ten years of her career. Since 2001, Dr. Cavitt has operated her own Audiology consulting firm, Audiology Resources, Inc. She currently serves on the State of Illinois Speech Pathology and Audiology Licensure Board. She also serves on committees through AAA and ASHA and is an Adjunct Lecturer at Northwestern University.

EDITOR'S MESSAGE

Continued from page 7

This study reflects how the current hearing aid delivery system too often caters to the needs and demands of a more affluent, White population. It also provides clinicians and other key stakeholders with an opportunity to contemplate how they can build a more equitable hearing healthcare system that better meets the needs of all older individuals. Given the wide range of research over the past decade that has demonstrated the negative consequences age-related hearing loss has on health-related quality of life outcomes, audiologists can heed the findings of this study by embracing several innovations, including regulatory updates and technological improvements that promote high-quality self-fitting hearing aids sold over-the-counter, supporting third party reimbursement plans that expand the market for hearing aids and endorsing the use of para-professionals that might improve access to services for everyone, especially those of low income and communities of color. ■

Reference

Reed NS, Garcia-Morales E, Willink A. Trends in Hearing Aid Ownership Among Older Adults in the United States From 2011 to 2018. *JAMA Intern Med.* Published online December 07, 2020.



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student standpoint

THE AUDACITY EXPERIENCE: A STUDENT'S PERSPECTIVE

BY BRYNN MORALES

As an audiology student, I have found AuDacity conferences to be invaluable in so many ways. Although the two that I have attended were very different, they both brought new experiences that will shape me as a professional. Last year, the Academy of Doctors of Audiology did an incredible job of making the students feel welcome and important. Every aspect of the weekend was designed to ensure students and professionals received a great education, all while having a good time. Lobby Day, a day dedicated to meetings with congressional members of Capitol Hill to lobby for the Medicare Audiologist Access and Services Act, was the stand-out event that made the entire weekend so unique. Hundreds of audiologists swarmed the Hill to advocate for our profession. This enthusiasm from so many audiologists showed students how dedicated the ADA is to the future of the profession. For me personally, last year's conference set a high bar for all future conferences.

Though AuDacity 2020: Forge Ahead and Forge Ahead Down Under looked a little bit different this year, it was still chock-full of invaluable classes and events. As a student, I received a Starkey student scholarship to attend the conference, and with that scholarship came special student events. In past years, this scholarship included travel costs, registration for the conference, lodging and special swag. This year the scholarship still covered registration, and the swag was sent by mail. Opening the package containing a book, notebooks, a thermos, a hat, a games, and many more treats really set the tone for the weekend!

This year certainly lived up to that expectation, even though it looked a little bit different. The conference started off jam-packed with educational classes on Friday. The options seemed endless, from Diagnosing Dizzy to Industrial Leadership panels; Friday started the weekend strong. The 'Design Thinking' theme highlighted the importance of thinking creatively as an audiologist, especially in the current climate. The presentations emphasized the importance of thinking outside of the box for the ever-evolving field of audiology. As a student, it is always important to hear current professionals speaking to the evolving nature of the field. Listening to seasoned and enthusiastic audiologists talk about the future of the field inspires me as a student to think innovatively to push the profession even further. After these classes, the students had an opportunity to meet together in a Zoom call to chat, play some audiology bingo, and meet Starkey representatives. This time together felt as natural as it possibly could have through a screen! Students from all over the world were sharing their experiences with COVID,

clinical placements, and university classes. This time felt very special, as it was a unique way to meet my future colleagues. Seeing so many young and determined faces made me so proud of my field knowing that it is and will be filled with life-long learners. The ADA and Starkey did an exceptional job at creating a space for students to network with each other and learn from other's experiences. This time was the perfect platform for reconnecting with old friends and meeting new students who are excited about autonomous audiology. I think I can speak for most of the students when I say that this reception was an integral part of the weekend for making us feel connected and excited.

Though the day was over for ADA members, the other portion of the conference was just beginning for many of the other attendees. The Independent Audiologists Australia and Independent Audiologists New Zealand began their classes as we waited eagerly for our next day of classes to begin. Seeing the ADA partner with audiologists from across the world made me very excited as well. Often times, students can get tunnel vision and lose focus that there is a huge world of audiology beyond our university. Being able to learn from audiologists who have a completely different education system was very special. This partnership fostered ingenuity and encouraged the opportunity to learn from a different perspective. As a student, getting this different perspective opened my eyes to new trains of thought that will ultimately make me a better audiologist. By utilizing the virtual platform, AuDacity made it possible to learn from our colleagues all the way around the world.

Continuing into Saturday, the education did not slow. The last day of the conference was packed with new and intriguing workshops. The vast array of topics showed the diversity of knowledge and wisdom that was brought to the conference. One of the best parts about the conference this day was the ability to pop in and out of sessions to learn about relevant topics. Workshops like the industry showcase highlighted the new technology that we will be working with for years to come. Overall, the Saturday workshops were extremely relevant to the times.

The students also attended a track tailored specifically for us. In these courses, we learned about the most current technologies, schools of thought, and best-practices. Even though we were not together physically, the virtual learning was still extremely engaging. And knowing that this track

was designed specifically for students made it all the more important. The information we were receiving created a great foundation for what we were seeing at our individual clinic sites and classes. The topics sparked conversations that were applicable to our current positions in school. Even with first- through fourth-years being present, the information managed to stay relevant to all students.

Throughout the entire weekend, AuDacity managed to make virtual conference feel extremely welcoming and informative. The little things the ADA did are what really made it a special event. By making the platform look like a conference center filled with avatars and booths, the ADA made the event feel like it did in person. They really thought of everything when they made spaces like the networking area and the Exhibit Hall. With this attention to detail, it was obvious from a student perspective that AuDacity 2020 was planned with intention. I felt comfortable as a student going into the main event hall to pop into a class, or going to the networking area to meet audiologists and ask questions. The entire weekend made me feel confident in my profession and confident in choosing the AuDacity Conference as a place to learn. I look forward to joining my colleagues at future AuDacity conferences to learn and continue forging ahead! ■





HAVE YOU HEARD?

ADA Board Members Transition Terms with the New Year

On January 1, 2021, **Dr. Victor Bray** will begin a one-year term as President of the Academy of Doctors of Audiology (ADA). Dr. Bray is an associate professor at the Osborne College of Audiology at Salus University. He holds a Ph.D. degree in Speech & Hearing Science from the University of Texas at Austin.

Dr. Kristin Davis will begin her term as President-elect for the organization. Dr. Davis, who currently serves as ADA Secretary, is a clinical audiologist and owner of Davis Audiology, with three practice locations in upstate South Carolina.

Also beginning three-year terms of service in January are **Dr. Jason Leyendecker** and **Dr. Dawn Heiman**. Dr. Leyendecker is a clinical audiologist and owner of Audiology Concepts, a private audiology practice with five locations in Minnesota. Dr. Heiman is a clinical audiologist and owner of Advanced Audiology Consultants, a private audiology practice located in Woodridge, Illinois.

Returning to the ADA Board of Directors for 2021 are **Dr. Debbie Abel** (Immediate Past President), **Dr. Audra Branham** (Treasurer), **Dr. Stephanie Sjoblad** (Director-at-large), **Dr. Tim Steele** (Director-at-large).

ADA would like to thank Immediate Past President **Dr. Ram Nileswhar** and Treasurer **Dr. Rachel Magann Faivre**, who are completing their terms of service on the ADA Board of Directors on December 31, 2020. They have made tremendous, long-lasting contributions to ADA that will help ensure its success in the years to come.



Dr. Victor Bray



Dr. Kristin Davis

Renee McDowell Places First at ADA Student Business Plan Competition and Places a Spotlight on Industrial Audiology



B. Renee McDowell

ADA is pleased to announce that third-year University of Arkansas for Medical Sciences student **B. Renee McDowell** earned first place honors and an \$8,000 cash grant during the 2020 ADA Student Business Plan Competition, held virtually in October 2020. McDowell's proposed business, Magnolia Industrial Hearing Services,

LLC, features a mobile testing unit and will allow for scalability in terms of size and services.

The ADA Business Plan Competition is geared for audiology students seeking meaningful hands-on business experience, and the opportunity to showcase their knowledge and creativity. Early-round activities included development of a written executive summary and business plan, which was judged on creativity, feasibility, completeness, cohesiveness, professionalism and polish.

"The business acumen and resourcefulness demonstrated by Renee over the past six months of competition exemplifies what it takes to own a practice," said ADA President Deb Abel, Au.D. "The level of knowledge and resourcefulness displayed by all of the 2020 finalists offers great assurance that the future of audiology is secure!"

ADA 2020 Student Business Plan Competition honorable mentions go to **Jade Faulkner, Au.D.**, a recent graduate from the City University New York, who finished in second place and **Miranda McDonnell**, a second-year student at Northwestern University. Competition Judges included **Tom Tedeschi, Au.D.**, **Charlie Stone, Au.D.**, **Bob Traynor, Ed.D., MBA**, and **Stacy O'Brien, Au.D.**



ADA is grateful to Amplifon for its tremendous support of the ADA Student Business Plan Competition, particularly throughout this difficult year. Amplifon's donation of time and resources allowed this important program to continue and provided a much-needed opportunity for audiology students to build resiliency and build practice management skills. We are also grateful for the judges for teaching these students valuable lessons that will allow them to flourish in whatever practice setting that they choose.

Luz Angela Sanchez Carrillo and Jennifer Maikell Selected as Recipients of Inaugural AudiologyOnline Emerging Leaders Scholarships



AudiologyOnline, a world-wide leader in continuing education for audiologists, has selected **Luz Angela Sanchez Carrillo** and **Jennifer**

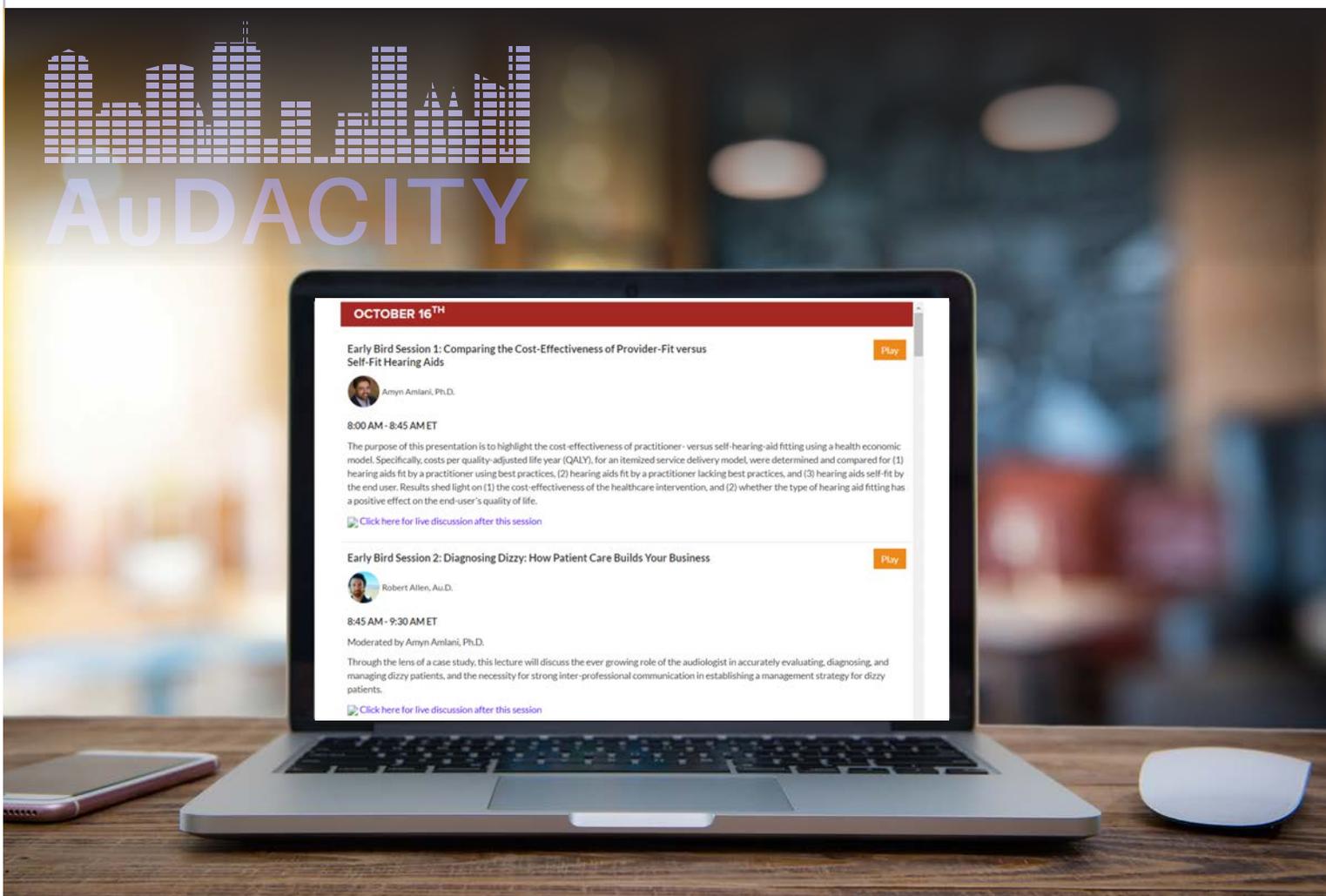
Maikell as recipients of the inaugural Emerging Leaders Scholarship Awards, which recognize Student Academy of Doctors of Audiology (SADA) members who demonstrate academic excellence, contribute to their community outside of the classroom, and have a compelling vision for audiology's future.

Carrillo, a 2023 Au.D. candidate at the Long Island Au.D. Consortium, is described as a focused and compassionate clinician, dedicated to helping those around her function at their best. Ms. Carrillo's aspirations to deliver international pediatric care will be aided by her fluency in both English and Spanish and her unique experiences, which include earning a degree in speech therapy and audiology from the Universidad Nacional de Columbia and working as a speech language therapist in Columbia.

Maikell, a 2021 Au.D. candidate at Wayne State University, routinely receives accolades for her clinical and academic performance. Beyond the classroom and the clinic, she demonstrates servant leadership as a volunteer in her church, her local Student Academy of Audiology (SAA) chapter, and through her service to children at the University of Michigan Family Matters Conference and the A.G. Bell Michigan Community Expo. Maikell is a passionate advocate and a regular participant in SAA Lobby Day where she meets with Michigan legislators to advance policy initiatives that support exceptional patient care.

AUDIOLOGYonline

SADA would like to thank AudiologyOnline for its commitment to future Doctors of Audiology.



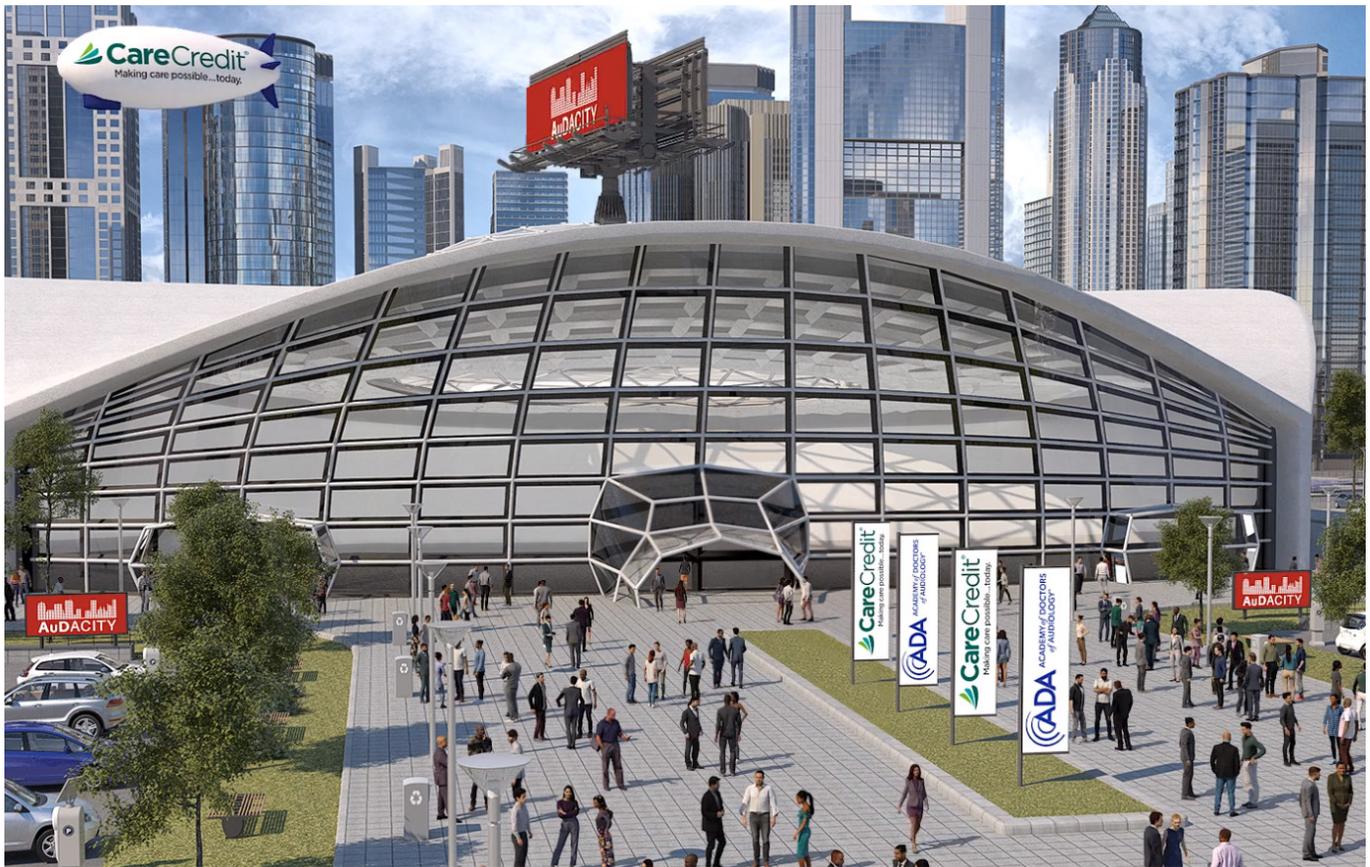
AuDacity 2020: Forging Ahead, Full Speed

When it comes to social distancing, six feet can feel like six million miles. ADA's conventional convention was out of the question this year, but our desire to convene, connect, learn, share, grow, and socialize was stronger than ever!

On October 16-17, 2020, AuDacity brought together 12 associations, 40 companies, and more than 700 audiologists, students, and industry professionals! We enjoyed fast-paced panel sessions, and keynote presentations devoted to design thinking, along with a cadre of innovative workshops, designed to provide practical information and innovative new ways to network in a virtual environment!

If you missed any of this great programming—you are not too late. You can still register to access more than 40 hours of CE programming, which will be available through 2021. For more information, visit audiologist.org.





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