

THE OFFICIAL PUBLICATION OF THE ACADEMY OF DOCTORS OF AUDIOLOGY®

# Audiology PRACTICES

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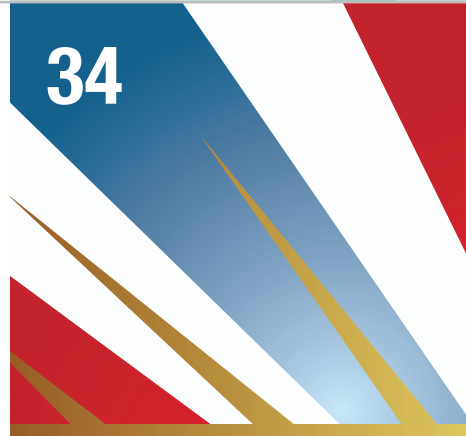
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*bvircks@audiologist.org*

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*sczuhajewski@audiologist.org*

## EDITOR

Brian Taylor, Au.D.  
*Brian.Taylor@unitron.com*

## MANAGING EDITOR

Stephanie Czuhajewski  
*sczuhajewski@audiologist.org*

## GRAPHIC DESIGNER

Julie Loboyko

## ADVERTISING

Stephanie Czuhajewski  
*sczuhajewski@audiologist.org*

## HOW TO REACH US

ADA Headquarters  
3493 Lansdowne Dr., Suite 2  
Lexington, KY 40517  
Phone: 866.493.5544  
Fax: 859.271.0607  
[www.audiologist.org](http://www.audiologist.org)

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The Academy of Doctors of Audiology is dedicated to leadership in advancing practitioner excellence, high ethical standards, professional autonomy, hearing and balance care technology, and sound business practices in the provision of quality audiological care.

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## Serve & Volley

ADA exists to advance the interests and objectives of its members, and ADA represents a very important community—autonomous and private practitioners who not only strive to be excellent clinicians, but also successful business owners and managers.

ADA and its members are to audiology what the “serve and volley” is to tennis. By serving up important initiatives and charging the net to see them through, we have moved our profession forward, while denying opponents the opportunity to determine our professional destiny.

I believe that we are at a critical match point within our profession—and I believe that decisions that we make today will determine whether autonomous audiologists become irrelevant or irreplaceable tomorrow. We must continue to serve and volley in order to defeat outdated protocols, debunk myths and develop efficient and successful models of practice for the future.

Because ADA has no other agenda except helping members achieve their professional goals, ADA takes great care to listen to and implement member feedback when setting priorities and policies for advocacy, education, networking and member resources.

Member feedback has been used to create ADA's Audiology Business Management Training Program, which is designed to equip audiologists with the tools and training needed to effectively manage the business components of a private practice. Module I, Financial Management will

be launched at the 2011 Annual Convention in Bonita Springs, FL on November 3rd. Please visit [www.audiologist.org](http://www.audiologist.org) for more information and to review the complete convention advance program. I am confident that you will find educational programming and networking opportunities that are extremely focused on your business and clinical needs.

Based on ideas and input from ADA's membership, ADA will continue to support the Hearing Aid Tax Credit and Direct Access legislation. We will also advocate for consistent state licensure laws that ensure portability, and whose language references educational requirements for practice rather than a voluntary certification. ADA will also continue its efforts to ensure that qualified preceptors are not wrongfully denied the opportunity to supervise students in their practices. ADA will continue to collaborate with organizations who share a common goal with ADA and its members, and we will continue, without fail, to stand up against those who attempt to advance initiatives that could have a negative impact on ADA members.

Let your voice be heard! I encourage you to become actively involved in ADA—to visit our website, contact a board or staff member with ideas, questions or concerns, to participate in member surveys and to become engaged in volunteer opportunities. With your help and support, ADA will continue to expand its education and resources to serve and volley on behalf of autonomous audiologists. ■



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## Good to Great in an Audiology Practice

Ten years ago Jim Collins, a former professor from the Stanford University Graduate School of Business, wrote one of the most widely read business books of all time. *Good to Great: Why Some Companies Make the Leap ...and Others Don't* describes how average companies make the transition into great companies. "Great" is defined as financial performance several times better than the market average over a sustained period of time. Collins analysis uncovered seven characteristics that differentiate a great company from one that is merely good. These seven characteristics include the following:

- Level 5 Leadership – humble, yet driven leaders that act in the best interest of the company
- First Who, Then What – find and hire people that are the right fit for your business
- Confront the Brutal Facts – confront the cold, hard truth while simultaneously maintaining optimism about the performance of your business
- Hedgehog Concept – identify something you are passionate about and can make money at and then try to be the best in the world at doing it
- Culture of Discipline – Executing on the mundane and ordinary details of your business
- Technology Acceleration – Using technology to accelerate growth of your company
- The Flywheel – Leveraging the additive effect

of many small projects and initiatives that are all geared to generate more revenue for your business

I can tell you from my own experience this is a popular book. Over the past decade I've heard more than a few CEOs and other business leaders refer to this book with extraordinary reverence. If you've read the book you probably agree that it has plenty of actionable ideas to help any business succeed. In 2001 when the book was published 11 businesses made the "great list." Today, a couple of these great companies no longer exist and another six or eight are actually underperforming compared to the S & P 500.

So, what's my point? This popular business book is mostly a look back on past performance. The future is impossible to predict. As a business owner or manager, you don't know exactly what to expect. What made your business successful two years ago may no longer be effective. Although a book like *Good to Great* may help unravel some knotty management problems, it's probably not going to help redefine certain parameters of your business as competitive landscapes and technology evolve.

If we can't rely on best selling business books to provide us with new ideas, where can we turn? A good start might be the ancient Greeks. Aristotle can up with the idea of practical wisdom (phronesis). The Greeks defined practical wisdom as the ability to consider the mode of action to deliver change, especially to enhance the quality

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## Heat up Your Practice with 10 Cool Ideas

ADA's strategic objectives are centered on providing tools and resources that will advance best clinical and business practices in audiology—and that will allow audiologists to obtain the knowledge, resources and skills to achieve an ownership position within a practice.

There are a number of meaningful ways for members to use ADA resources—and as we head towards the second half of 2011, here are 10 cool ideas to heat up your practice.

1. Join an ADA Peer-to-Peer small group: If you are interested in networking with peers on a year-round basis to discuss specific practice management issues, please contact ADA headquarters at [info@audiologist.org](mailto:info@audiologist.org) to sign up to join an ADA Peer-to-Peer small group.
2. Sign up for the ADA 2011 Annual Convention! "Rock the Boat: How to Practice, Manage & Lead in Rough Waters" will be held November 3-5th at the Hyatt Regency Coconut Point Resort in Bonita Springs, FL. Join your peers and thought leaders within the audiology profession for insightful and practical education and meaningful networking opportunities. Visit [www.audiologist.org/events](http://www.audiologist.org/events) for more information and to register today!
3. Enroll in ADA's Audiology Business Management Training Program: ADA is pleased to introduce the Audiology Business Management Training Program, which is designed to equip audiologists with the tools and training needed to effectively manage the business components of a private practice. Module 1: Financial Management will be launched as a six-hour pre-conference workshop. The curriculum, developed by ADA's education committee and delivered by experts, will provide the knowledge and education necessary to expand the skill sets of audiologists who have limited, intermediate and advanced knowledge of business management. For more information visit [www.audiologist.org](http://www.audiologist.org).
4. Serve on a committee: ADA has seven open committees including membership, education, convention, practice resource, advocacy, website and mentoring—there is no better way to network and learn, while sharing your knowledge with ADA members and supporting ADA initiatives.
5. Read *Audiology Practices* for the latest news and informative articles with tools that you can implement in your practice immediately.
6. Submit questions to your peers using the ADA Connect Listserv. It is one of the best ways to get quick feedback and sound advice from other practitioners and to share your experiences with your peers.
7. Listen to archived presentations: ADA's Healthy Practice webinars are available to members and provide informative sessions on financial management, marketing, pricing, reimbursement and business planning. Visit [www.audiologist.org](http://www.audiologist.org) for more information.

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# JUST DOOH IT!

HOW A DIGITAL  
RECEPTION AREA CAN  
ENHANCE YOUR PRACTICE

BY BRAD DODSON

**D’oh is the catch phrase of one Homer Simpson.** Add another “O” and you have DOOH, one of the hottest marketing tactics to hit audiology clinics in years. Some audiologists may have come across the term DOOH, Digital-Out-Of-Home marketing, also known as Place-Based Media or Digital Signage. DOOH has become a very popular educational and advertising delivery vehicle for public and private venues such as retail stores, doctor’s offices and corporate buildings. Recently, DOOH has become available to audiology practices. The purpose of this article is to introduce audiologists to DOOH marketing tactics and how they can be used to improve the overall productivity of a practice.

As tech savvy consumers, we often find ourselves gravitating toward a digital era, as most of us now receive the majority of our information through electronic media, such as the Internet and social media. In the digital era, the success of marketers and advertisers in reaching their core audience relies heavily on using a combination of traditional and non-traditional delivery methods. Offering your audience a unique experience, expanding the way you reach them and changing the modus operandi, or “cookie-cutter approach” to how you do business is a great recipe for differentiating your practice from the competition. Sam Walton, the Founder of Wal-Mart, once said, “Go the other way. Ignore the conventional wisdom. If everybody else is doing it one way, there’s a good chance you can find your niche by going in exactly the opposite direction”. Now is the time for audiologists to embrace some of these non-traditional digital advertising methods and find a niche by bucking the prevailing conventional marketing wisdom of the hearing aid industry.

Recent surveys indicate that DOOH is a useful tool for driving office traffic and consumer buying decisions. InfoTrends, the leading worldwide market research and strategic consulting firm for the digital imaging and document solutions industry, conducted a digital signage study comparing DOOH to more traditional forms of out of home marketing. Results of this survey showed that “digital signage displays have a 47.7% effectiveness on brand awareness, increased the average purchase amount by 29.5%, created a 31.8% upswing in overall sales volumes and generated a 32.8% growth in repeat buyers.”<sup>1</sup> For marketers and business owners, these are certainly impressive numbers worth exploring further.

## **What is DOOH?**

Before going into more details on Digital Out of Home (DOOH) marketing, it is important to understand how it compares to Traditional Out of Home (TOOH) marketing.

Highway billboards, banners on the sides of buses and signs posted on the outfield walls of your favorite ballparks are some of the more common types of TOOH you are likely to encounter every day. Because TOOH relies almost exclusively on visual appeal, it is easy for consumers to ignore. Just think how many times you have driven by the same static billboard on your way to work. After seeing the unchanging image a few times, most people completely tune it out.

On the other hand, DOOH combines audio and video to generate a dynamic and ultimately, more emotionally appealing message. It’s this emotional appeal that attracts attention and enables customers to take action. As the price of digital advertising becomes less expensive, DOOH becomes more widely used by businesses trying to attract more customers. Figures 1 and 2 show how DOOH is quickly supplanting TOOH as a more popular choice relative to TOOH. For the audiologist-manager this suggests that DOOH is becoming the preferred method for out of home advertising.

The core to DOOH marketing is the use of digital signage, which is displayed in the reception area on a flat screen television. The content of the digital signage displayed on the flat screen television is usually controlled using basic personal computers, by way of proprietary software programs. This keeps the costs of DOOH manageable by avoiding any large capital outlays for the controller equipment. Most systems automatically update themselves using a high speed Internet connection, which reduces clinic staff involvement and keeps fresh content in front of your patients. The audiologist or clinic manager simply has to inform the DOOH service of changes and updates in content that is displayed on the flat screen TV.

## **DOOH communicates consistently with patients**

Until now, the hearing health care industry, unlike other healthcare specialties, has been slow to adopt this new educational tool to interact with their patients. In January 2011, a new DOOH subscription service called the Hearing News Network (HNN), dedicated to the hearing care industry, launched in North America to bridge this gap and offer Hearing Professionals a new and dynamic education delivery vehicle that speaks to their patients.

HNN is a customizable digital waiting room billboard designed to captivate your patients as they wait for their exam or consultation. When DOOH is properly implemented in compliments and supports the human element of staff



## DIGITAL OUT-OF-HOME MEDIA SPENDING - USA

TOTAL CATEGORY SPENDING

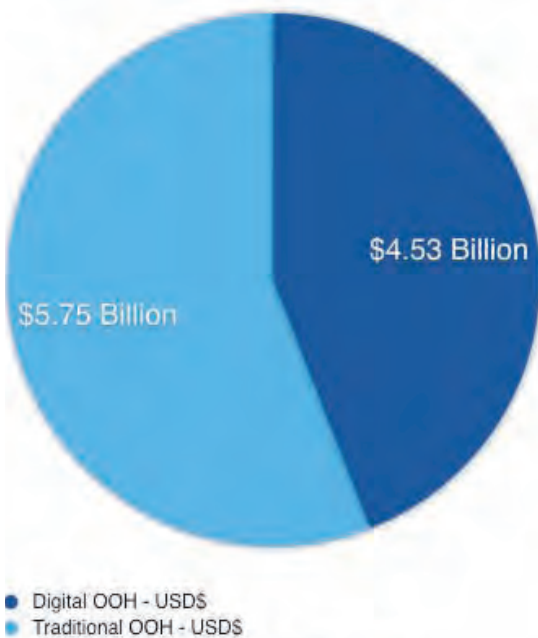


Sources: Adcentricity projections based in part on publicly available data from PO Media, 2008; VSS Communications Industry Forecast 2009-2013. 2009-2012 projected spending based on a 13.2% compounded annual growth rate.

Figure 1. Money spent in the US from 2005 to predicted amounts spent 2011-2013 by firms on DOOH advertising.

## 2013 FORECASTED OOH AD SPENDING - USA

TOTAL AD SPENDING FORECASTED AT \$10.28 B



Sources: VSS Communications Industry Forecast 2009-2013

Figure 2. Forecasted total spend in the US for traditional and digital OOH for 2013.

interaction. In a perfect world, all of your staff would be able to:

- Introduce your company and services perfectly every time
- Bring the company's vision and mission statement to life in every conversation
- Educate patients about all the newest technology available
- Teach proper care for the patients new hearing instrument(s)

Realistically though, time and human error is often a factor. In even the most successful audiology practices, your staff cannot always be at the top of their game. This is a common challenge most business owners face because it directly effects the amount of revenue your generate and the quality of care your clinic delivers to patients. DOOH delivers consistency and the assurance that the "perfect world" scenario is carried out every day in your office.

Information silos and a general lack of detail about progress on a day-to-day basis make it difficult for staff to know whether their behavior is aligned with critical initiatives such as increasing efficiencies, improving the quality of patient care, and removing the bureaucracy that increases the cost of operations. That is why having an effective communication strategy directly with your patients is vital and why many healthcare organizations today are turning to digital signage as one way to help them overcome some of these challenges. According to a new consumer survey by the Nielsen research firm on "Awareness and Effectiveness of Digital Displays", DOOH media increases sales at the point of sale (POS). Four out of five product brands, used in the survey, experienced significant increases of up to 33 percent in additional sales through the use of DOOH media.<sup>1</sup>

DOOH media also has a unique ability to target specific audiences in relevant and meaningful consumer environments. By combining a visual medium in your waiting room such as digital signage with an effective information delivery system, you can leverage existing assets to reduce operating costs and increase efficiency and the quality of service provided. The best analogy for where digital signage fits in your overall strategy is to picture DOOH as being part of the ensemble cast in an epic movie. It's infrequently the lead character in a campaign, but provides a great supporting role when it is part of the overall strategy, thus providing tremendous reach and frequency at numbers that can be far more efficient than mainstream media.

According to Edelman<sup>2</sup>, business success is largely predicated on your ability to increase your "touch-points" with customers. Audiologist-managers understand that success in a

## Getting Started With DOOH

- 1 Obtain a large flat screen television and wall mount for your reception area**
- 2 Connect the television to a high speed Internet connection. Although a wireless connection is sufficient, a high speed wired Internet connection works best**
- 3 Subscribe to a DOOH service (e.g., HNN)**
- 4 Identify and/or create the content you want to run on your 10 to 20 minute loop. This should include a video introducing you and your staff as well as services you offer. Public service videos can also be included.**
- 5 The video content is broadcast in the theater portion of the screen, which comprises about 85% of the area of the flat screen**
- 6 Local weather is broadcast on the right margin of the TV screen and national news on the bottom ticker**

practice is much more than just “selling” product features and services. Rather, long term business success is related to how many times you interact with your patient on their journey toward improved communication. The ability to synchronize your external and internal marketing campaigns to the patient’s journey can dramatically increase your long term success. By simply bringing your content rich websites to life in the waiting room with DOOH a practice can dramatically increase their touch points with patients.

For years, audiology managers have invested in direct mail, yellow pages and print ads, Internet, radio and TV to drive patient acquisition. Although each of these tactics have anecdotal success, unless conversion rates are measured a practice must guess that their overall effectiveness. With many DOOH systems, the clinic owner or manager now has a customizable education tool that interacts and captivates the patient. This approach dramatically improves the patient experience, which is now just as important in the practice as customer service. DOOH will provide an immediate return on investment by increasing closure rates and revenue from improving binaural, battery, accessory, ALD and extended warranty sales. DOOH is a strategic addition to any audiology clinic, satellite office or external source of referral. Simply put, DOOH brings any stagnant waiting room environment into the digital age with real time news, weather and contextually relevant content on hearing health care and community events.

### **DOOH assists with community outreach**

A common and openly admitted shortfall of the practices is a lack of community outreach and referral source building initiatives, often due to time constraints in a busy or growing practice. This can be the difference between a struggling group and one thriving with new patients. DOOH offers practice owners and managers the opportunity to reach out to their local physician, home health agency or senior facility and offer gratis airtime to reinforce a reciprocal relationship.

Using DOOH as a tool to both get closer to the patient and build stronger relationship with professional referral sources has been successfully executed by the Hearing News Network (HNN) The model has been designed to also allow HNN subscribers the opportunity to offer advertising to local companies in the community who are interested in marketing their products and services to the affluent audience viewing the HNN digital venue. This not only strengthens community relationships but also generates additional revenue to offset the subscription costs.



Figure 3. Three screenshots from a HNN clinic feed.  
Source: [www.hearingnewsnetwork.com](http://www.hearingnewsnetwork.com).

Contextually relevant information is delivered directly to patients, by way of high speed Internet, to a strategically positioned flat screen monitor located within the waiting room. HNN is rich in archived data specifically designed to pre-condition the patients prior to testing or dispensing, so that redundant questions are answered in advance. HNN also gives the clinic owner the power to create their own content, introduce the clinic staff and services and offer hearing health care tips to add that personal touch.

This dynamic, rich media platform consists of a main theatre panel, side bar and scrolling informational ticker. The theatre panel displays video, flash, PowerPoint, YouTube, Media RSS feeds and a host of other formats, enabling the subscriber to show product videos, educational information, “Baby Boomer” content, or clinic-specific information. The side bar features local news and weather, medical news or custom content you create to educate your patients. The ticker runs fresh Real Simple Syndication (RSS) from a variety of popular sources including CNN or Google News providing up to the minute detail on current events.

## DOOH vs. websites

It’s also worthwhile noting that the average age of hearing instrument wearers continue to hover around 70. A considerable amount of time and resources is being invested in new interactive, content rich and robust websites. Is this patient demographic looking for your website? Are they fully utilizing the educational material your website has to offer? According to survey data, only 4% of consumers aged 73 + are using the internet and this number only rises to 7% for the population aged between 64 and 72.<sup>3</sup> (See Figure 4 for details). Understandably, a certain percentage of care givers

*Continued on page 47*

Generation name	Birth years, Ages in 2010	% of total adult population*	% of internet-using population*
Millennials	Born 1977-1992, Ages 18-33	30	35
Gen X	Born 1965-1976, Ages 34-45	19	21
Younger Boomers	Born 1955-1964, Ages 46-55	20	20
Older Boomers	Born 1946-1954, Ages 56-64	14	13
Silent Generation	Born 1937-1945, Ages 65-73	7	5
G.I. Generation	Born -1936, Age 74+	9	3

\* Source: Pew Research Center's Internet & American Life Project, April 29-May 30, 2010 Tracking Survey. N=2,252 adults 18 and older.

Figure 4. Results of a 2008 Pew Internet survey. Note that relatively low numbers of people over the age of 55 that are non-users of the Internet.



# DIRECTIONALITY

problems identified & solved

BY LAUREL A. CHRISTENSEN, PH.D.



## More than ten years have passed since hearing aids with directionality experienced a revival in the industry.

Today, most hearing aids dispensed have directionality and enhancements to this basic feature have made the only proven way to help with hearing in noise when using hearing aids even more effective for listeners. This article will focus on some new developments that have solved some problems that remained with this effective feature.

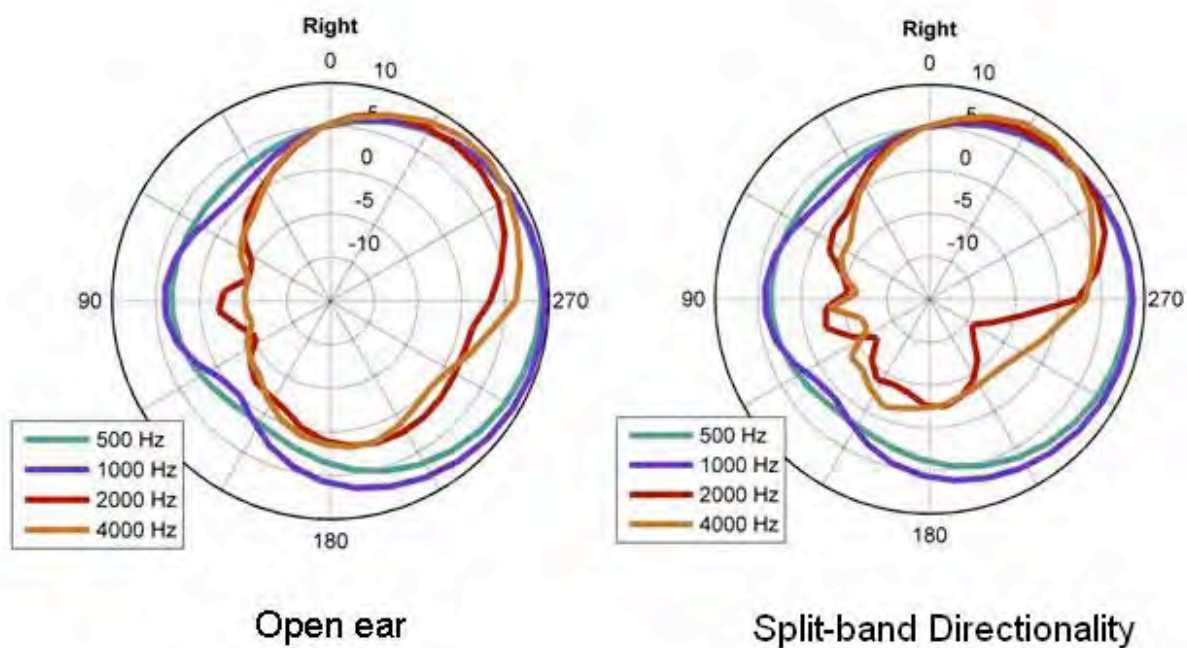
Although directionality in hearing aids is a proven feature improving the signal-to-noise ratio for patients in noisy environments (Killion et al., 1998; Valente et al., 1995; and Walden et al., 2000), many recent improvements have made this feature even more useful to hearing aid users. Directionality has been available in hearing aids since the early 1970s, but the late 1990s marked a resurgence of this feature in hearing aids. Directionality of the 1990s was improved over the 1970s with increased directivity indexes (better performance) and the ability to switch the hearing instrument from omni directional to directional settings either manually or automatically. Recent developments in directional-microphone hearing aids that have tried to further improve user benefit by solving some lingering problems associated with the feature. This article will detail these developments including the emergence of wireless technology which provides the opportunity for even greater help when listening in noise.

### SPLIT-BAND DIRECTIONALITY

**problem solved:** the sound quality in the directional setting is either noisy or tinny.

The benefit of using directionality in noisy environments has been demonstrated in both the real-world and laboratory, listening in the directional setting has often come at the cost of sound quality. Inherent in the design of directional hearing aids is a low-frequency roll-off which occurs because low-frequency sounds have similar phase relationships between the front and rear microphones. To accommodate for the decrease in audibility caused by this roll-off in the directional setting, a boost in low-frequency amplification is usually applied (this is called equalization). Equalization causes the internal noise floor of the hearing aid to increase and ultimately can detract from the benefit of the directional setting (Ricketts and Henry, 2002). The result of not compensating for this low frequency roll-off though has the undesired effect of making the hearing aid sound quality tinny in the directional setting. Thus, traditional designs have the trade off of either being too noisy or too tinny rather than sounding natural.

A solution for this problem is to process the sound in the hearing aid the same way it is processed by a normal-hearing listener. This processing, called split-band directionality, approximates the unaided ear's natural directional characteristics. Figure 1 illustrates how the open ear and split band directionality are similar. The KEMAR response for four frequencies is shown on the left in the polar plot. For the two lower frequencies the response is essentially omnidirectional while the higher frequencies are directional to the front. The panel on the right presents the same



**Figure 1.** This figure shows the directional responses of the open ear on the left and split-band directionality on the right. Note that the two lower frequencies are more omnidirectional while the two higher frequencies are heard more directional with attenuation to the sides and back.

measurements performed on a hearing aid with split-band directionality. There is a good match between the split-band directional response and those of the open ear. Processing sound in a hearing aid this way results in more natural sound quality for the end-user, but preserves the directional benefit that is present in traditional directional settings.

Research findings have shown a preference for listening in omnidirectional settings when compared to directional settings. In a study investigating the impact of visual cues on directional benefit, Wu and Bentler (2010a) reported that many individuals fit with an equalized directional response experienced a “hissing sound”. In a subsequent field trial with the same participants and hearing instruments, Wu and Bentler (2010b) found that loudness and internal noise were the most important predictors for preference of omnidirectional over directional microphone mode. Other studies have also demonstrated strong preferences for omnidirectional microphone mode even in situations where directional processing should provide more benefit (Walden et al., 2004, 2007). Split-band directionality provides a directional pattern closer to a person’s open ear, thereby striking a natural balance between environmental awareness and directional advantage. Groth and colleagues (2010) summarized the results of three studies investigating the effect of directional processing on sound quality. All three investigations used a double-blind design in which hearing-impaired listeners expressed a preference for the split-band directionality, omnidirectional processing or a traditional directional response. Listeners

indicated an overwhelming preference for the sound quality of omnidirectional processing over traditional directional processing and preferred split-band directionality over traditional directionality more than twice as often.

An additional advantage of processing sound in a split-band manner is the spectral preservation of the low frequencies allowing the listener to take advantage of the natural ear timing differences which are important for sound localization. A recent study (Keidser et al., 2011), showed that interaural time differences (ITDs) are the most important cue to preserve for localizing sounds. In fact, the results indicated that interaural intensity differences (IIDs) could be mismatched up to 9 dB by compression in the hearing aid and not affect localization performance as long as some ITD cues were available. These important ITDs are maintained in the split-band approach as evidenced in a recent article from Groth and Laureyns (2011). They reported on a study that examined the effect of different directional processing schemes on left/right and front/back localization performance of hearing-impaired listeners. The results showed that localization ability was maintained relative to the open ear using split-band directional processing.

Some commercially available hearing aids with split-band directionality have the ability to set the frequency at which the processing of the input changes from omnidirectional to directional. This frequency (called the blending point) is set relative to the hearing loss of the patient. In general, if the average of a hearing aid user’s thresholds at 250 and 500 Hz is less than 40 dB, the frequency is set higher. This reduces the

bass boost induced low frequency noise the user may have experienced with traditional directional processing. Conversely, if the average is greater than 40 dB, the frequency is set lower as low frequency noise would be less audible to this user.

In summary, split-band directionality is a method in which omnidirectional processing is applied to the low frequencies and directional processing is applied to the high frequencies and then the signals are mixed. This type of processing allows for better sound quality while also preserving localization cues when listening in the directional hearing aid setting and still delivers good directional SNR improvement to the end users.

## ASYMMETRICAL DIRECTIONALITY

**problem solved:** directionality creates “tunnel” hearing, cutting the user off from signals they may want to attend to.

As stated earlier, directional microphones that were introduced in the early 2000s could be switched from omnidirectional to directional settings manually by the hearing-aid user. In 2004, Cord and colleagues published a study that indicated that many users (30%) did not switch between the settings. The study stated that users often did not know when to switch and/or did not want to do this manual switching in everyday life. To overcome this manual switching problem, automatic switching hearing aids were introduced where the hearing aid automatically changes from an omnidirectional setting to a directional setting depending on the environment. These types of switching algorithms depend on environmental classification systems which analyze the acoustic scene and make a decision about which microphone mode would be most beneficial. Thus these systems are limited by the accuracy of the classification system and have no ability to determine the hearing aid user’s intent in complex listening situations. One field trial of automatic switching systems (Dittberner, A., personal communication), showed that the switching systems were in the directional settings from 5 to 17% of the time. The results of Walden (2004) suggest that the average user is in an environment in which a directional-microphone setting can be beneficial approximately 33% of the time. Thus, the switching algorithms currently used in hearing aids can be too conservative with the end result being that the user is not in the directional setting when it could be beneficial. Additionally, the Cord et al. (2002) study showed that although many patients do not use their manual switching option, those that do prefer the manual mode rather than rely on the decisions of automatic switching algorithms. The reason for this might

be that the automatic switching algorithms are not switching effectively and/or appropriately.

The standard way to use directional processing in a bilateral hearing aid fitting has been to apply directionality simultaneously in both hearing aids of a binaural fitting. In other words, both hearing aids are in the directional setting in a noisy environment. Another way to use directional processing is to keep one hearing aid set to omnidirectional and the other hearing aid set to directional. This seemingly unconventional way to apply directional processing can provide a better listening experience for users of hearing aids and overcomes the limitations of directional systems discussed above. Specifically, an asymmetric fitting can overcome the lack of use of manual systems and the reliance on environmental classification systems. An additional benefit is that it does not cut a listener off from their environment as wearing two hearing aids in directional settings can do. The user can choose to attend to whatever signal they may be interested in hearing. The key to asymmetrical directionality is to understand that one hearing aid in the directional setting and one in the omnidirectional setting provides the same SNR benefit as using two hearing aids set in the directional settings. Several studies have verified this including Bentler et al. (2004), Cord et al. (2007), and Mackenzie and Lutman (2005). Using hearing aids set asymmetrically comes with the added benefit of maintaining maximum auditory awareness for sounds arising from any direction. It was noted in this article that Walden et al. (2004) determined that directional microphones work the best when the signal of interest is close to and in front of the listener and the noise is spatially separated from the signal of interest. In the real-world, there are many environments where these conditions would not be true in a noisy environment. In fact, the signal of interest in real life is not always in front of the listener. This signal can be at any location. There can also be multiple signals of interest in an environment. For example, when a hearing aid user is sitting around a table with many speakers the directional microphone settings might cut a listener off from what they want to hear. If a listener is using two hearing aids set to directional settings they can be cut off from their environment making it difficult to even be aware of sounds from other directions.

Finally, Cord et al. (2007) found improved ease of listening for asymmetric directional fittings as compared to bilateral directional fittings. Users do not feel as isolated from sounds originating from the sides and rear due to the environmental sound cues from the omnidirectional processing that is always available to them.

In summary, the use of an asymmetrical fitting gives the benefit to using two hearing aids set to directional settings without cutting the listener off from the environment. This allows the listener to determine what is important for them to listen to and not rely on an automatic switching hearing aid that does not understand the listener's intent and may not classify the acoustic environment accurately.

## STEERING OF DIRECTIONALITY AND ADJUSTING DIRECTIONAL BEAM WIDTH

**problem:** the listener does not always want to listen to the signal directly in front of them in a noisy environment.

Steering of directionality is the ability of the directional system to move the area of most sensitivity to a location other than the front of the listener. As noted in the prior section on asymmetric directionality, the signal of interest is not always at the listener's front. Consider the often cited situation where the driver of a car might want to hear the passengers in the back seat or the passenger sitting beside him. It is unsafe for drivers to turn their heads toward these speakers. Some switching systems give the user control over where to steer the microphone making it most sensitive to the front, back or the sides. Some devices automatically steer the directionality depending on the environmental input. There is little data to support again that automatic switching of pattern sensitivity is effective, but manual switching or asymmetric directionality may be useful to some patients in specific listening environments.

Adjusting the beam width of the pattern is the ability to make the pattern narrower so as to focus more sharply to the front. Narrowing the beam width has the benefit of filtering out more background noise to the sides and behind the listener. Hearing aids are available on the market where the dispenser can set up a program with a narrower directional beam or the beam can be narrowed automatically dependent upon the level of the signal to the front. Figure 2 shows the different beam width settings of a directional microphone system.

## MICROPHONE ARRAYS

**problem solved:** two microphones designs cannot provide an extremely narrow beam.

Wireless communication between hearing aids has allowed for the implementation of another approach to directionality that uses an array of microphones. In this approach the two



Figure 2. Examples of three settings of a hearing aid with adjustable directional beam widths. From left to right shows Narrow, Medium and Wide correspond to listening scopes of approximately +/- 50, 70, and 90 degrees, respectively.

microphones on one hearing aid are linked to the two microphones on the other hearing. This allows the null points of the beam to be moved further to the front and a narrower beam (approximately +/- 45°) to be created by the array. Traditional dual microphone systems are limited to a beam to the front within an angle of +/- 60°. A narrower beam then provides the potential for a more favorable SNR. The narrow beam described here though is limited to situations where a listener would want to focus on one speaker located in front of them in a diffuse noise environment. The implementation of this feature in current technology requires the user to switch to a separate program to use the narrow beam. As described above in the section on asymmetric fittings, the disadvantage of such a system is being cut off from all other signals coming from other directions.

A research study comparing a narrow beam (+/- 45°) created by a microphone array and a more traditional beam (+/- 60°) resulted in approximately a 1 dB improvement in a laboratory condition. This specific condition utilized a diffuse noise environment with speech shaped noise at ±45°, ±90°, ±135° and 180°. In another condition tested, a diffuse noise environment with continuous babble and ICRA4 noise from ±60° and 90° as well as babble noise from ±135° and 180° showed no difference in performance between the two conditions. These results emphasize the specific environment in which this feature could be useful.

## COMPANION MICROPHONES

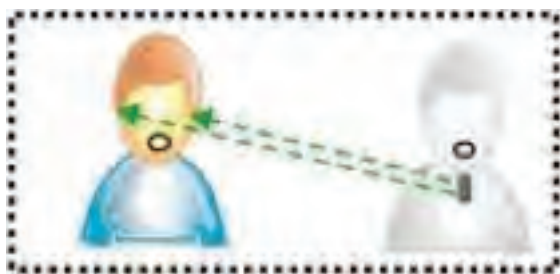
**problem solved:** greater SNR improvements are desired in many environments.

While typically not a directional microphone, companion microphones can dramatically increase the ability to hear from a specific direction. Early systems used a microphone on a wire plugged directly into a hearing aid. More commonly, FM systems have provided this benefit with less wires and



the hardware has reduced significantly over the years. SNR improvements with FM systems can be on the order of 15 to 18 dB depending on the listening environment. These devices though have been most commonly used for children in the classroom and are not widely used by adults even though personal FM systems that can be used with hearing aids have been on the market for many years. The cost of these systems may be one reason that they are not commonly used.

Wireless connectivity in hearing aids has great potential to provide listeners with solutions that provide SNR improvement comparable to FM while being cosmetically acceptable and low cost. Figure 4 shows a listener receiving the speaker's voice directly to his/her hearing aids through a wireless connection. This type of accessory will be beneficial in many environments such as restaurants, meetings, lectures, and an automobile. One such device has been introduced to the market in which a microphone is worn by a speaker and the voice is sent through an intermediary device to the hearing aids. In the future, expect more of these microphones to be introduced. These companion microphones can be given to a speaker in a difficult listening situation and speaker's voice will be picked up and sent wirelessly to the hearing aids. These types of microphones with ranges of up to 15 meters will bring the ability to hear in difficult noisy situations to more users than ever possible before. Future developments will likely make these types of microphones available for more than one speaker so that a hearing aid user can listen to multiple speakers in a noisy environment.



**Figure 3.** This figure depicts on the right a speaker wearing a companion microphone. This speaker's voice is then wirelessly directed to the hearing aid user's hearing aid.

## SUMMARY

This article has overviewed some of the new features that make directionality even more useful to listeners using hearing aids. Listeners using this feature no longer have to compromise on sound quality; and can decide what they want to listen to without feeling completely cut off from their surroundings. In addition, wireless connectivity will bring even greater SNR improvements through the use of wireless


microphones. This is good news for hearing aid users whose biggest complaint has long been "hearing in noise." ■

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Laurel A. Christensen, Ph.D. is Chief Audiology Officer and Vice President of Research & Development at GN Resound. She can be contacted at [lchristensen@gnresound.com](mailto:lchristensen@gnresound.com).

A white piggy bank is the central focus, set against a blue sky with white clouds. Numerous 500 dollar bills are shown falling around the piggy bank, some appearing to be in motion. The overall scene suggests financial growth and investment.

# **Modernizing Your Accounting System Will Affect Both Your Bottom Line and Your Efficiency**

**BY JEREMY KIECKER, CPA**



## You provide your patients with the latest technology in hearing aids, why not do the same for your accounting system?

After all, your accounting system is one of the most important diagnostic tools of your business. Not only does it tell you how much money you've made and where it went, it also tells you if all your hard work is paying off—are you being profitable?

This article introduces you to some powerful financial management tools that help you monitor your business, and modernize your accounting system.

In my financial workshops, when I mention storing your accounting “in the cloud,” business owners often ask me to explain. The simplest answer: The cloud is the Internet—it is a subscription-based service delivered in real time over the Internet by offsite providers.

Last fall, I attended a convention in Las Vegas that brought together all the leading accounting firms in the outsourced accounting services industry. The resounding buzzword that presenters mentioned was the “cloud.” Industry experts anticipate that by 2013, most small businesses will be almost completely functioning in the cloud. They suggested we introduce the cloud to our clients, and assist them in the transition.

Surprisingly, your business might already be functioning over 50% in the cloud if you're:

- Using a patient management system such as Sycle.net.
- Accessing your business' bank accounts or credit card statements online.
- Utilizing LinkedIn to promote your business.
- Using a company website for your business.

For the past eight years, our firm (MTK, LLC) has been working with audiologists and hearing aid dispensers nationwide providing the following services:

- Accounting system implementations (typically QuickBooks and Intacct).
- Monthly oversight—clean up the financials prepared by owner/internal bookkeeper, and communicate results.
- Weekly out-sourced bookkeeping services —record deposits, bank reconciliations, accounts payable entry/payment and financial statement preparation.
- Accounting system consultations—review current accounting system and procedures with owner, bookkeeper or CPA.

During the last couple years, the accounting landscape has experienced some drastic changes. The economic downturn has magnified the importance of receiving timely and accurate financial data about your business. This information helps you make important decisions on how to run your business and maximize profits. The key to getting this financial information is having your accounting system at your fingertips—when you want it, regardless of where you are. The days are fleeting when a business has its accounting software installed and accessible *only* on a computer at the office.

Some common pain points our clients have experienced over the last few months using on-premises systems have been:

- **Loss of QuickBooks files:** In the last few months, I have heard of three practices that lost their QuickBooks files that contained years of data. They did not properly back up their systems, and in one instance, the backup became infected. This required rebuilding the accounting system and reentering all the information. Both a time-consuming and expensive experience.
- **Unreliable computers:** Whether the computer is old or isn't functioning properly, a low-performing computer can add a considerable amount of time to data entry tasks, running reports, and accessing the system. A business needs to keep their technology current and running smoothly.
- **Lack of access to financial information when you need it:** Business owners and their bookkeepers have voiced continued displeasure in not being able to access their accounting systems when they need the information. This often stems from their desire to have the access when they are not in the office.

Utilizing the cloud can alleviate some of these pain points you or your accountant may be experiencing. So you might ask, "How can I use the cloud for accounting?" The following are a few options:

- **SaaS Applications:** Intacct, QuickBooks Online, Net-Suite and Xero.com are a few of the leading cloud-based accounting systems that you may access from any Internet connection. Monthly subscription fees start as low as \$20 per month per user.
- **Virtual Desktops:** Your traditional software-based accounting systems, such as QuickBooks, Sage and Microsoft Dynamics, are hosted on virtual servers with access through the Internet. Monthly subscription fees start at \$40/month plus the cost of the software. While this is not the conventional method of accounting in the cloud, it is

still considered "in the cloud," and mimics many of the benefits of a fully cloud-based application.

Still not sold? Consider some of these benefits of moving to one of the above solutions:

- **Lower costs—**hardware, servers, software upgrades and IT support can be significantly reduced.
- **Easier collaboration** with business partners, employees and your trusted financial advisor (CPA).
- **Automatic updates—**you don't have to remember to do backups.
- **Ease of implementation—**many vendors have a simple upload process with skilled support.
- **Skilled vendors—**those who offer these services are specialists, so they are very knowledgeable in their specific offering.
- **Performance and delivery—**as long as a high-speed Internet connection is available, top performance can be expected.
- **Faster disaster recovery—**if there is a disaster such as a fire or storm, your downtime will be limited to how long your Internet connection is down.

Of course, with anything new comes concern. To address your concerns, most cloud-based vendors are SAS70 compliant. This means they've met or exceed a variety of criteria including security, availability, processing integrity, online privacy and confidentiality. If you are considering working with a cloud-based vendor, be sure to ask if they are SAS70 compliant.

Specific concerns surrounding the cloud include:

- **Privacy/Security—**your personal computer with your on-premises accounting system has a higher chance of being compromised than your cloud-based accounting system. Most cloud-based systems have multiple levels of security, require password updates on a regular basis, and are SAS70 certified, which requires a higher level of security.
- **Availability/Downtime—**most cloud-based solutions can provide historical statistics on downtime/outages when customers couldn't access their accounting system. Many take pride in stating they have very little downtime (some with less than 30 seconds per day), which will undoubtedly be less than the computers on your premises.
- **Data Ownership—**the information entered into your accounting system is yours. Reputable vendors have fast and convenient download features that give you access to



your information that can then be transferred.

- Tool Robustness—cloud-based solutions offer a large network of third-party add-ons that synchronize with your accounting system to create efficiency and visibility of your business. On-premises software can be limited in functionality due to system requirements that can limit the amount of add-ons that function with the software.

Once your accounting system is in the cloud, you can implement some of the following techniques to continue modernizing your accounting system:

### ***Patient Management Systems***

Many practices have enlisted the help of patient management systems to track patients, appointment/testing results, marketing lists and sales information. Some of these systems offer a tool that allows you to synchronize the sales data collected in the patient management system directly into your accounting system—generally QuickBooks. Synchronizing this data can save a considerable amount of data-entry time. The time savings comes from not having to enter the information already in the patient management system a second time into your accounting system.

Another benefit of synchronizing is that it can allow you to track payments from your patient management system to ensure they make it to your bank account. Some practices prefer to keep the patient management system detached from their accounting system. However, linking them together can provide some valuable checks-and-balances to ensure employees are entering the sales information properly so that any holes in the cash collection process are minimal. If you are considering utilizing the synchronization features of a patient management system, we always recommend obtaining help from your accountant or a professional to ensure the process is working properly.

### ***Payroll***

Payroll has become more complex with the recent law changes. Navigating the sea of rules and calculations can be cumbersome and time-consuming. This distraction can take you away from the revenue-generating aspects of your business. If you have a bookkeeper, payroll can also consume a sizable percentage of his or her time that could be dedicated to other accounting tasks. Third-party payroll providers such as ADP, Paychex and CompuPay, are cloud-based alternatives to processing payroll internally. Some of the benefits of using a third-party payroll provider include:

- Timely payment of payroll taxes.
- Preparation and filing of quarterly and annual payroll tax returns.
- Direct deposit of payroll.
- Taxing agency notice resolutions.
- Other add-on services such as HR services, group insurance rates, employee benefit plan administration, etc.

Once you've processed your payroll, you can utilize synchronizing tools that transfer the payroll details into your accounting system by the click of a button. The synchronizer will transfer and code each employee to a specific expense account and location. This allows you to generate more detailed financials to monitor the financial health of your business.

### ***Profit & Loss by Location***

If you have multiple locations, tracking the performance of each is key to the success of your organization as a whole. Analyzing your business from a consolidated standpoint can lead to problems. On numerous occasions, we've seen that one poorly performing location can lead to the demise of an entire business. If one location is not performing well, you need to determine where the problem is—and remedy it. A profit-and-loss statement for each location can serve as a diagnostic tool to identify where the problem may lie.

### ***Electronic Payment of Bills***

With the growing popularity of electronic payment of bills at a personal level, many businesses are now jumping on the same electronic bandwagon. Paying your personal bills through your bank is a convenient experience. However, paying a large number of business bills through your bank can be a tedious process.

Our firm has partnered with Bill.com. This vendor synchronizes with QuickBooks as well as some other popular cloud-based accounting systems. The online product allows you to store copies of vendor invoices in an organized and easily searchable tool. When you receive an invoice, you may upload it to Bill.com, which then links to your QuickBooks for easy data entry. When you pay bills, you access your open invoices through Bill.com, as well as PDF copies of the invoices. You can choose to either electronically pay the selected bills, or Bill.com will mail the checks for you with copies of the invoice so the vendors know how to apply the payments. Setting your vendors up with electronic payment is a relatively smooth process, and appreciated by many of your vendors that prefer to receive electronic payments. This service can be both a document management system, as well

as a bill payment system, thus saving you time from stuffing envelopes and mailing payments.

### **Utilization of Dashboards**

Many accounting packages now offer dashboards. They allow you to pick and choose which financial information you'd like to see on a visually appealing page when you log into your accounting system. Similar to the dashboard in your car, these financial dashboards do a good job of summarizing the information you find most meaningful, so you can pinpoint any problem areas. Now you can address them quickly without having to run a series of time-consuming reports. The most common items found on a dashboard are:

- Checking/savings account balances
- Accounts receivable balance (money owed from patients)
- Accounts payable balances owed to top vendors
- Graphs that show sales by location
- Graphs that show profit/loss by location

### **Ready to Modernize?**

*Modernizing your accounting system will save you time and money— and give you a competitive advantage.*

If you are ready to modernize your accounting system, how do you get there? For a successful transition, you need to embrace the change. It may sound good, in theory, to update your accounting system, but you really have to be ready for the change. As important, your employees also have to be open to change.

In our experience, when businesses updated their accounting systems, employees were often some of the biggest hurdles to overcome. This resistance often stems from fear of change. Employees may have done something a certain way, even if it wasn't efficient. Changing their procedures may take them out of their comfort zone. Some of the technology advances mentioned above will reduce the amount of time they spend entering data, which then reduces their responsibilities. They may view this reduction of responsibilities as a threat to their employment. However, they often can be addressing more valuable accounting tasks, instead of time-consuming data-entry tasks.

If you rely on an outside CPA for consulting on a periodic basis, make sure they are qualified, willing, and technologically savvy to help you make the transition. If they aren't, you may need to seek an accountant that can help you make the transition, and provide ongoing assistance. Many businesses are transitioning to new CPA firms because they feel

their previous accountant didn't have the knowledge and understanding of the changing accounting systems market. Our firm represented businesses that left their previous CPA because they didn't implement or support QuickBooks, which a large majority of small businesses use.

If you're ready to make the transition, keep these five important concerns in mind when modernizing your accounting system:

- 1. Don't overbuy**—buy what's appropriate for the size of your business or what you plan on utilizing in the next year. While you shouldn't start with a larger accounting system or third-party add-on than you need, you should still think about where you'll be in the next few years. Make sure your accounting system and add-ons have room to grow.
- 2. Get creative**—think outside the box and challenge yourself to use some of the time-saving vendors. We are confident you'll find that they save you time and money, as well as giving you a competitive advantage.
- 3. Do a cost evaluation**—sit down and crunch the numbers. What are the true costs between what you've been using, and what you plan on using? Often your accountant can help you do this analysis.
- 4. Evaluate more than one service**—don't just go with the first option. Weigh the pros and cons of each vendor/service. Look for testimonials, ask tough questions, and test it out before signing on the dotted line.
- 5. Ask for help**—ask your peers what they're using or what they've considered. Ask your accountant what they see other businesses using. Get qualified and experienced people to help you so you don't waste valuable time and money.

With the above advances in technology, business owners and bookkeepers are spending less time on data entry tasks and system maintenance. This allows them to focus on other important accounting tasks that impact the business's bottom line. Keeping up with technology changes has become even more important to the long-term success of a business.

Very important is the effect on your bottom line. Embracing these changes will undoubtedly save you time and money, giving you a leg up on the competition. ■

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*Jeremy Kiecker, CPA is a manager at Moquist Thorvilson Kaufmann Kennedy & Pieper LLC in Edina, MN. He can be reached at [Jeremy.Kiecker@mtkcpa.com](mailto:Jeremy.Kiecker@mtkcpa.com)*



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# AWASH IN A STREAM

*of Wireless Solutions*

By Jason A. Galster, Ph.D.

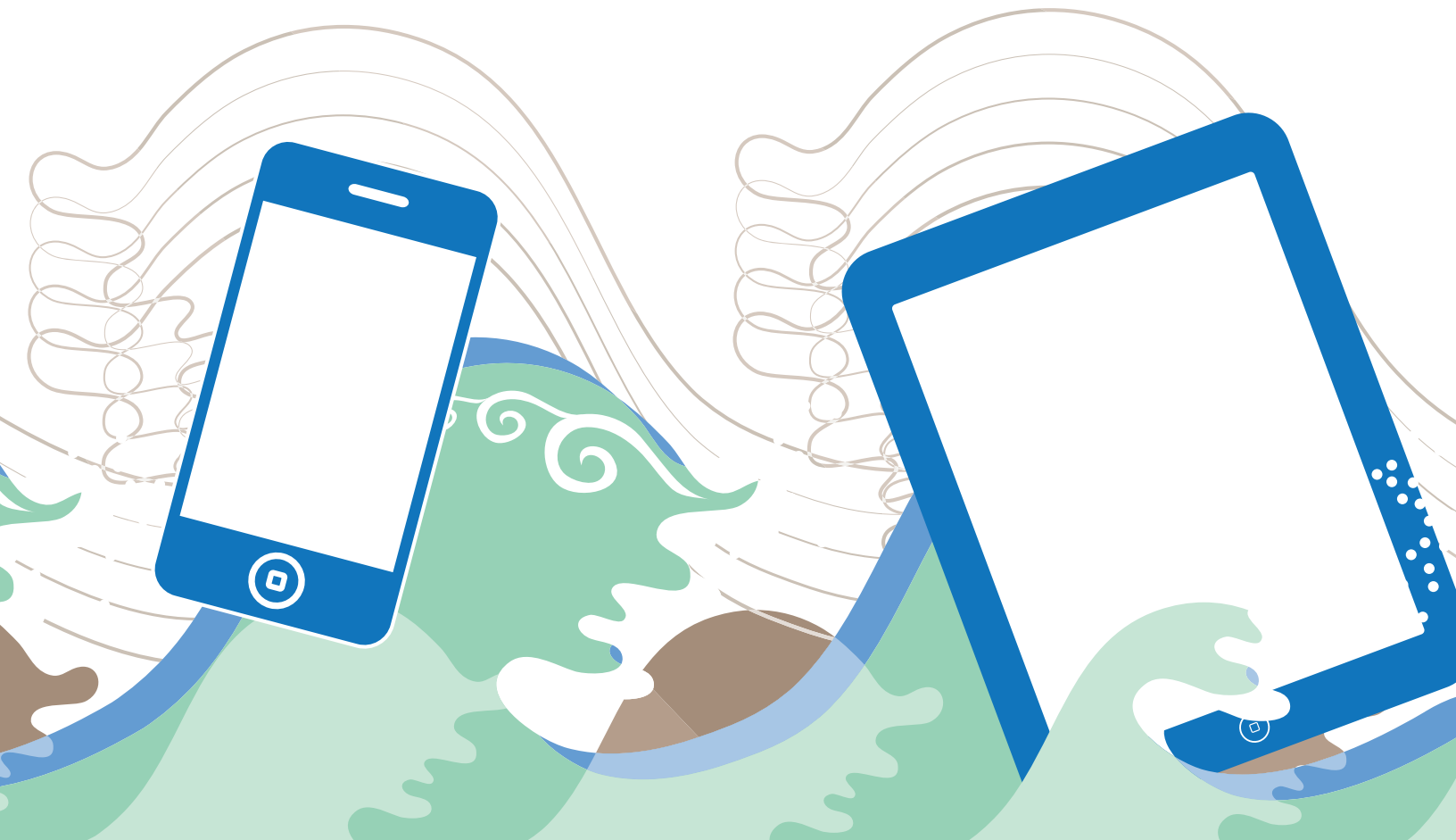




A quick look at today's hearing aids will show many that offer wireless communication. As with any novel technology, companies developing new hearing aid technology clamor to find the ideal method for wireless connectivity; the various methods for wireless connectivity offer different features, benefits, and constraints. As experts in the treatment of hearing loss through amplified listening we are charged with understanding each of these technologies, the differences among them, and making a selection that is consistent with the treatment plan they have selected for a given patient. Although there are a wide range of wireless features in hearing aids, this article aims to clarify modern techniques for wireless audio streaming from media sources (e.g. a television) or a mobile telephone.

First, wireless technology in today's hearing aids can be classified into one of three types: near-field magnetic induction (NFMI), 900 MHz, or 2.4 GHz. These three technologies span a wide wireless frequency range. NFMI uses the lowest range of frequencies and will be referred to as near-field wireless

communication. The NFMI wireless signal easily passes through and around objects such as the human head, making it a favorable option for ear-to-ear signal processing. The disadvantage of NFMI is a relatively short—near-field—wireless transmission range of approximately 1 meter. For this reason, NFMI requires an intermediate relay, typically neck worn, for audio streaming at distances over 1 meter. Using an intermediate transmission frequency, 900 MHz offers both ear-to-ear communication between a pair of hearing aids and what will be referred to as far-field wireless communication. In the context of hearing aids, far-field wireless systems offer wireless communication of approximately 5 meters. Finally, at the highest transmission frequency for wireless hearing aid technology is 2.4 GHz; this high-frequency signal allows for effective far-field connectivity, again up to 5 meters, however the high-frequency nature of 2.4 GHz may constrain the robustness of ear-to-ear signal processing, as the signal does not propagate through or around obstacles with the efficiency of lower frequency signals. Galster (2010) offers additional review of these technologies.



## Connecting to a Media Device

In order to transmit an audio signal from any media device, using a television as the example, the audio signal must first be routed out of the television and converted into a far-field wireless signal; this means that all wireless audio streaming must begin with a transmitter attached to an audio output from the television. The far-field wireless signal might be a Bluetooth audio stream, a 900 MHz audio stream, or a 2.4 GHz audio stream. In the case of hearing aids that use a near-field technology, the audio stream is sent from the transmitter near the television to a relay device either worn by or held near the patient. This relay device changes the far-field signal into the near-field wireless format used by those hearing aids, providing wireless audio streaming. Figure 1 illustrates the stages of audio streaming in hearing aids using near-field wireless technology. An advantage to this strategy is that much of the power consumption required for wireless streaming can be absorbed by the battery in the intermediate streaming device. If however, that rechargeable battery fails during a movie or television show the patient must wait for the device to charge again before having access to their streamed audio.

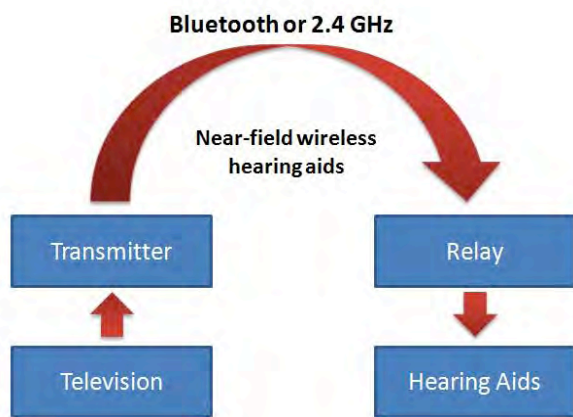


Figure 1. The stages of wireless audio streaming for near-field wireless hearing aids are illustrated.

In the case of hearing aids with far-field wireless capabilities, the wireless signal is sent from the transmitter near the television directly to the hearing aids, eliminating the requirement for a relay device near the patient. This ability to receive a far-field wireless stream by the hearing aid also avoids the cumbersome transcoding of a Bluetooth audio signal. Figure 2 illustrates the stages of audio streaming in hearing aids using far-field wireless technology.

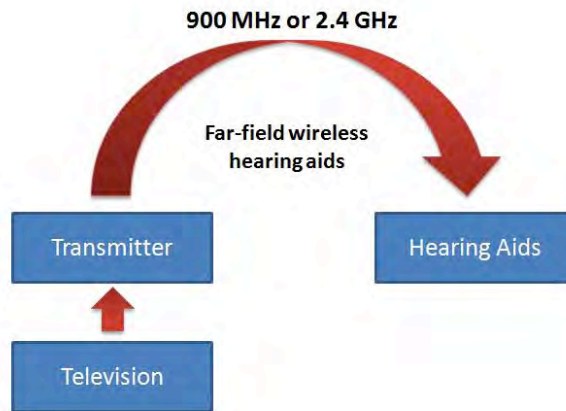


Figure 2. The stages of wireless audio streaming for far-field wireless hearing aids are illustrated.

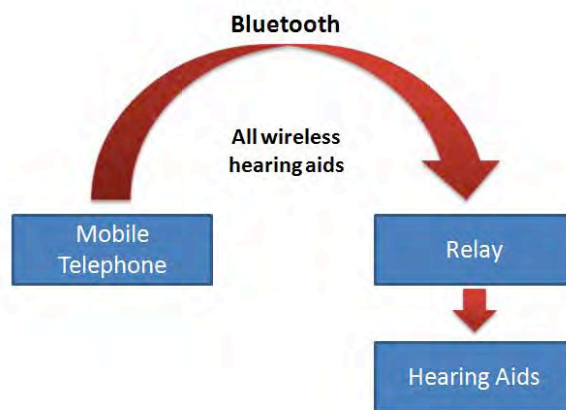


Figure 3. The stages of wireless audio streaming from a mobile telephone to hearing aids are illustrated.

## Connecting to a Mobile Phone

The telecommunications industry has adopted the Bluetooth protocol as the standard format for wireless communication through mobile phones. For reasons, largely related to power consumption, modern hearing aids are not designed to directly receive and transmit wireless information in the Bluetooth format. Because of this, all hearing aids must use a relay device that receives the Bluetooth signal and translates that wireless signal into a signal that can be used by the hearing aids. This is illustrated in Figure 3. Regardless of the wireless technology, near- or far-field, the patient must use this body-worn relay in order to communicate with the mobile phone. Most often, these relays are worn around the neck or clipped to a lapel; this placement has the benefit of orienting the microphone near a patient's mouth allowing for discreet

hands-free conversation. Connectivity with a telephone also offers the option of bilaterally streamed audio that can overcome some limitations related to ambient noise and poor signal-to-noise ratios (Picou & Ricketts, 2011). Wireless connectivity between a mobile phone and hearing aids also allows for the added safety of hands-free phone use while driving.

Wireless features have introduced a new listening experience to many of our patients. To this point, below is a quote from a first-time user of hearing aids featuring wireless technology:

*“Last night was the first time I tried listening to the television wirelessly! It was like being in a movie! The commercials that I’ve been watching in the last couple weeks made more sense last night. I didn’t realize commercials had a valid reason to be on. It was just really nice to be able to enjoy the shows. I’m sure you guys have heard these things before but I just wanted to let you know it was awesome! I was a kid in a candy store!”*

The opportunity to hear the television directly through one’s hearing aids overcomes the disadvantages of distance, ambient noise, and low quality speakers that are often found in televisions. Wireless audio streaming from a telephone improves convenience with added safety and the opportunity to overcome challenges of ambient noise. Each of these features provides a benefit unique to hearing aids; the audio is frequency shaped to the patient’s hearing loss improving audibility of the streamed signal. These advancements allow patients to enjoy a wider variety of content and communication in more situations than were accessible without accustomed to without the benefits of wireless audio streaming. For many patients the ability to access streamed audio can be a large part of their daily routine, providing additional benefit and assisting them toward successful and routine use of their hearing aids. ■

## References

- Galster, J.A., (2010). A new method for wireless connectivity in hearing aids *The Hearing Journal*. 63 (10), 36-39.
- Picou, E.M. & Ricketts, T.A. (2010) Comparison of wireless and acoustic hearing aid based telephone listening strategies. *Ear and Hearing* 31(6), 1-12.

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Jason Galster, Ph.D., is Manager of Clinical Comparative Research at Starkey Laboratories. He can be contacted at [jason\\_galster@starkey.com](mailto:jason_galster@starkey.com)

## Wireless Routing Technology: Clinical Tips and Tricks

by Brian Taylor, AP Editor

All major hearing aid manufacturers offer products that utilize some type of wireless connection between consumer electronic devices, such as cell phones & televisions and the hearing instruments. Additionally, many manufacturers allow for wireless communication between two devices worn by the end user. Currently, there are three types of wireless transmission options, which were outlined in the previous article. Each manufacturer relies on one of these three options in their current wireless product portfolio. For each of these three wireless choices currently available to audiologists, there are advantages and limitations. When comparing these three wireless routing options, the prudent audiologist is encouraged to talk to the manufacturer representatives in order to gain a better understanding of the pros and cons of each specific device. Variables such as transmission distance, ease of use for patients, potential to interfere with medical devices, “future proofing” and battery life are some of the important considerations that need to be discussed with each manufacturer’s representative.

Given the potential of wireless routing to improve communication and overall patient satisfaction in many challenging listening situations, audiologists are advised to include wireless routing benefits as part of the pre-fitting dialogue with all patients. One tool that has potential to enhance this patient-provider dialogue is the TELEGRAM, developed by Linda Thibodeau, Ph.D, of the Callier Center at the University of Texas at Dallas. The TELEGRAM is shown in Figure 1. Each of the letters of the TELEGRAM denotes a specific listening situation. Many of these listening situations have the potential to be improved (e.g. cell phones) when patients are able to utilize wireless devices. Furthermore, the TELEGRAM allows audiologists to evaluate communication in the unaided and aided condition on a 1 to 5 Lickert scale, thus, the TELEGRAM can be used to measure real world benefit of the consumer device audiologists choose to wirelessly connect to the hearing instruments. In an age where measuring real world benefit of hearing aids is required; the TELEGRAM is an essential tool. Audiologists are encouraged to incorporate it into their pre-fitting communication assessment and post-fitting follow-up protocol routines. ■

## Reference

- Thibodeau, L. (2004). Maximizing Communication via Hearing Assistance Technology: Plotting beyond the Audiogram! Special Issue: Assistive Listening Devices. *Hearing Journal*, 57,46-51.



NAME: \_\_\_\_\_ Date of Birth: \_\_\_\_\_ Person completing Telegram: \_\_\_\_\_

**T E L E G R A M**

	Telephone	Employment	Legislation	Entertainment	Groups	Recreation	Alarms	Members of
<b>RATING</b>								
<b>1</b> No Difficulty								Live with Normal Hrg Adult
<b>2</b>								Live with Young Children
<b>3</b> Some Difficulty								Live with Teenagers
<b>4</b>								Live with Adult with Hrg Loss
<b>5</b> Great Difficulty								Live Alone

**C-Cell phone** \_\_\_\_\_ **J-Job** \_\_\_\_\_ **P-Public** \_\_\_\_\_ **T-TV** \_\_\_\_\_ **S-Smoke** \_\_\_\_\_ **Check all that**  
**L-LandLine** \_\_\_\_\_ **S-School** \_\_\_\_\_ **Listening** \_\_\_\_\_ **M-Movies** \_\_\_\_\_ **D-Doorbell** \_\_\_\_\_ **Apply**  
**A-ADA** \_\_\_\_\_ **M-meetings** \_\_\_\_\_ **C-Clock** \_\_\_\_\_

Three Main Problems to Address:

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Recommendations:

T \_\_\_\_\_ E \_\_\_\_\_ L \_\_\_\_\_ E \_\_\_\_\_ G \_\_\_\_\_ R \_\_\_\_\_ A \_\_\_\_\_ M \_\_\_\_\_

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Figure 1. The TELEGRAM questionnaire created by Linda Thibodeau, Ph.D. Reprinted with her permission.

## TELEGRAM Rating Scale Key

<b>Topic</b>	<b>Question</b>	<b>Rating</b>
<b>T</b>	Are you having difficulty with communication over the <b>telephone</b> ?	Difficulty 1=None, 2=Occasional, 3=Often, 4=Always, 5=Can't use the phone <i>Use "L" to designate Landline and "C" to designate Cellphone.</i>
<b>E</b>	Are you having any difficulty with communication in your <b>employment</b> or <b>educational</b> environment?	Difficulty 1=None, 2=Occasional, 3=Often, 4=Always, 5=Stopped working
<b>L</b>	Do you know about <b>Legislation</b> that provides assistance for you to hear in public places or in hotels when you travel?	Knowledge 1=Vast, 2=Considerable, 3=Some, 4=Limited, 5=None
<b>E</b>	Are you having difficulty with hearing during <b>Entertainment</b> activities that you enjoy such as television, movies, or concerts?	Difficulty 1=None, 2=Occasional, 3=Often, 4=Always, 5=Stopped Going
<b>G</b>	Are you having difficulty with communication in <b>Group</b> settings?	Difficulty 1=None, 2=Occasional, 3=Often, 4=Always, 5=Can't hear at all in groups
<b>R</b>	Are you having difficulty with hearing during <b>Recreational</b> activities such as sports, hunting, or sailing?	Difficulty 1=None, 2=Occasional, 3=Often, 4=Always, 5=Stopped the activity
<b>A</b>	Are you having difficulty hearing <b>Alarms</b> or <b>Alerting</b> signals such as the smoke alarm, alarm clock, or the doorbell?	Difficulty 1=None, 2=Occasional, 3=Often, 4=Always, 5=Can't hear alarm <i>Use "S" for Smoke Alarm, "D" for Doorbell, and "A" for Alarm Clock</i>
<b>M</b>	Are you communicating with <b>Members</b> of your family?	1=Live with Normal Hrg Adult, 2=Live with Young Children, 3=Live with Teenagers, 4=Live with Adult with Hrg Loss, 5=Live Alone <i>Check all that apply</i>

Figure 2. Key questions to ask patients when completing the TELEGRAM are listed in the left column. The 1 to 5 rating scale is listed in the right column.



# AuDVOCATE for AUDIOLOGY

## ADA Members Participate in 2011 Hearing on the Hill to Advocate for the Hearing Aid Tax Credit

BY ALICIA D.D. SPOOR, Au.D.  
ADA ADVOCACY COMMITTEE CHAIR

One Wednesday, May 11, 2011, Academy of Doctors of Audiology (ADA) members Drs. Ross Cushing, Gail Linn, and Alicia Spoor spent the day in Washington, D.C. on Capitol Hill promoting the Hearing Aid Assistance Tax Credit Act 2011 (HAATC) legislation. House Bill 1479 (H.R. 1479) was introduced by Representative Thomas Latham (R-IA) on April 12, 2011, and its companion bill, S. 905, was introduced in the U.S. Senate by Senator Thomas Harkin (D-IA) on May 5, 2011. HATC legislation has been introduced in prior Congressional sessions and the goal of Hearing on the Hill was to promote the bill to current Senators and Representatives so it can pass during this year's session.

If passed, H.R. 1479 and S. 905 would provide a tax credit up to \$500 per hearing aid, available once every five years towards the purchase of a

hearing aid, available to individuals who are 55 years of age and over, or for those purchasing a hearing aid for a dependent. The bill includes a \$200,000 per year income eligibility cap.

Members from the Academy of Doctors of Audiology joined forces with the American Academy of Audiology (AAA), the International Hearing Society (IHS), Better Hearing Institute (BHI), and many others to meet with more than 70 members of the Senate and House and their legislative and healthcare staff members/liaisons. Each session was tailored to the specific legislator and his/her constituents. Data about the bill, hearing loss in respective states, and additional contact information was given for future reference. Many offices were interested in additional visits from professional members, as well as follow-up phone calls.

At the end of the day, Hearing on the Hill concluded with a cocktail and hors d'oeuvres reception, complete with hearing screenings! All members of Congress received an invitation and many joined supporters during the evening. The Senate and House sponsors: Tom Harkin (IA), Olympia Snowe (ME), Carolyn McCarthy (NY), and Tom Latham (IA) were honored by staff members, ADA, AAA, IHS, BHI, and other supporters of the bill.

At the time of publication, the House of Representatives had 36 co-sponsors for H.R. 1479 and the Senate had 7 co-sponsors. Although you may not be in the Washington, D.C. area or may not have the time to meet with your elected Congress members in their local offices, you can help support the Hearing Aid Assistance Tax Credit Act. Visit the following website:





**ADA members Gail Linn, Au.D. and Alicia Spoor, Au.D. on Capitol Hill, May 11, 2011, advocating for the Hearing Aid Tax Credit.**

<http://www.audiologist.org/advocacy/contact-congress.html> to locate your elected representatives and to find a template letter to email/write supporting H.R. 1479 and S. 905.

Additionally, help support the ADA with all current and future (Direct Access) legislation by supporting the Academy of Doctors of Audiology Political Action Committee (ADA-PAC). Visit <http://audiologist.org/advocacy/ada-pac.html> to make a secure contribution online. Your voice and your donation can AuDvocate for Audiology and our patients! ■

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*Alicia D.D. Spoor, Au.D. joined Audiology Associates Inc. in 2007. Previously, Dr. Spoor was part of the cochlear implant and hearing aid teams at Mayo Clinic in Arizona. She received her Doctor of Audiology degree and Master of Science degree from Gallaudet University, in Washington, D.C. Clinical internship experiences included Bethesda National Naval Medical Center (BNNMC), Ft. Belvoir Army Community Hospital and Kendall Demonstration Elementary School (KDES). In addition, she has 8 years of formal American Sign Language (ASL) education and has completed intensive coursework in Deaf culture and multicultural sensitivity. Dr. Spoor taught at both the undergraduate and graduate levels while at Gallaudet University. She received her Bachelor of Arts degree from Michigan State University in Audiology and Speech Sciences. She takes a special interest in teaching and educational training at all age levels, tinnitus treatment, assistive technology and humanitarian outreach efforts. Dr. Spoor is the current Past-President of the Maryland Academy of Audiology and chairs the Advocacy Committee for the Academy of Doctors of Audiology.*

## ADA Supports Direct Access Legislation

This legislation would specifically:

*Amend title XVIII (Medicare) of the Social Security Act to provide direct access to qualified audiologists for Medicare beneficiaries, without regard to any requirement that the beneficiary be under the care of (or referred by) a physician or other healthcare practitioner, or that such services are provided under the supervision of a physician or other healthcare practitioner. Covers audiology services under Medicare part B (Supplementary Medical Insurance).*

- Direct Access would provide for the delivery of high-quality patient care. Audiologists are doctoral-educated, licensed healthcare professionals--the only professionals who are university-trained and licensed to specifically identify, evaluate, diagnose, and treat hearing disorders. Audiologists are trained to recognize problems requiring medical attention and to immediately refer such patients to a physician.
- Direct Access is cost-effective. The requirement of an initial physician visit prior to a visit to an audiologist is costly to the Medicare program. Medicare already allows beneficiaries Direct Access to a range of non-physician practitioners such as dentists, podiatrists, optometrists, chiropractors, clinical nurse specialists, clinical psychologists, clinical social workers, nurse-midwives, nurse practitioners, and physician assistants.
- Other federal programs already allow Direct Access to an audiologist. The Department of Veterans Affairs (VA) has allowed veterans Direct Access to audiologists for the past 16 years, with successful results. The Office of Personnel Management allows Federal employees and Members of Congress to directly access audiologists through the Federal Employees Health Benefits Program.

As previously stated, the Academy of Doctors of Audiology unequivocally supports the direct access initiative and will fully concentrate our efforts in that endeavor. We cannot support any legislation that compromises the success or the intent of direct access for Medicare patients to audiologists. Please visit [www.audiologist.org](http://www.audiologist.org) for more information about ADA's advocacy initiatives.



# **ELECTION 2011**

**Completed ballots must be postmarked by Friday September 16, 2011. For additional information on election procedures, please view our bylaws at [www.audiologist.org](http://www.audiologist.org).**

**Please give thoughtful consideration to this year's election and ensure strong leadership for ADA over the next few years.**





## **Nancy N. Green, Au.D.**

**Candidate: President-Elect  
Private Practice Audiologist  
Jacksonville, FL**

### **EDUCATION**

Doctor of Audiology Degree, A.T. Still University, 2000  
Master of Arts Degree, Florida State University, 1981  
Bachelor of Arts Degree, cum laude, Florida State University, 1980

### **PROFESSIONAL ACTIVITIES**

- Private Practice Owner/Operator, Jacksonville, FL, 1983 – Present
- Clinical Audiologist, Communicative Disorders Center, Jacksonville, FL, March, 1982 – November, 1983
- Board Certified in Audiology, American Board of Audiology, 2002 – Present (original national certification held prior to creation of ABA, 1982 - 2002)
- Board Certified as Course Director, Council for Accreditation in Occupational Hearing Conservation (CAOHC), 1984 – Present
- Board Certified as Professional Supervisor/Audiometrics, Council for Accreditation in Occupational Hearing Conservation, (CAOHC), 2007 – Present
- Florida License, Audiology, 1982 – Present
- Florida License, Hearing Aid Specialist, 1982 (until combined with audiology license by DPR)
- Examiner, Florida Department of Professional Regulation, Board of Hearing Aid Specialists, 1988 – 1989

- Fellow, Academy of Doctors of Audiology, Feedback Editor + ADA PAC
- Fellow, American Academy of Audiology + AAA PAC
- American Auditory Society
- Board of Directors, Audiology Foundation of America (9 years)
- Founder, Florida Academy of Audiology + FLAA PAC
- National Hearing Conservation Association
- National Hearing Conservation Association Foundation
- Numerous national and state committees

### **AWARDS/HONORS**

- ADA Outstanding Service Award
- AFA David P. Goldstein, Ph.D. Outstanding Audiologist Award
- ATSU Chair's Circle Award
- Numerous ACE and Scholar Awards for Lifelong Learning
- Who's Who in the South and Southwest, 1986 and 1987
- Who's Who Among Executives and Professionals, 1995

### **POSITION STATEMENT**

As a candidate for the position of President-Elect of ADA, I believe that my goals for the organization should be openly declared to the membership. I have only one item on my ADA agenda, and that is to support the establishment of the complete autonomy of audiological practice, regulation, and education.

ADA should support professional practitioners in the following ways: 1) Continue to recognize private practice as the necessary backbone of the profession, 2) Support audiologists who wish to transition from positions of dependence to autonomous practice, and 3) Lobby for direct access to audiology services for the public.

Any true profession regulates itself, and neither requests, appreciates, nor tolerates attempts by other professions to control it. I believe that only audiologists are qualified to determine if other audiologists have provided services that meet the standard of care for the profession.

To be regarded as a true profession, audiology must also control its own educational processes and resources. It is imperative that we support an accreditation process for Au.D. degree programs which is not affiliated with, influenced by, or supplying members to, any other profession or organization, however benevolent.

This is an enormous task, but that's what the naysayers said about the Au.D. movement, too. They said it was too big; that it couldn't be done. They were wrong then and they're wrong now. With commitment, focus, leadership, and membership support, we can change the world! This is what I want for ADA and its membership. If you want the same thing, then I would appreciate your vote. ■





## **Rita R. Chaiken, Au.D.**

**Candidate: Member-At-Large**

**Founder/Owner, Atlanta Audiology Services, Inc.**

**Atlanta, Georgia**

### **EDUCATION**

- B.S. Syracuse University (1973)
- M.M.S. Emory University (1975)
- Au.D. Salus University (2003)

### **PROFESSIONAL ACTIVITIES**

- Adjunct Instructor - Salus University (2001—present)
- Board Certified in Audiology – American Board of Audiology
- Fellow – Academy of Doctors of Audiology (1981-present)
- Board of Directors – Academy of Doctors of Audiology (Jan. 2010 – present)
- Board Liaison – Mentoring Committee – Academy of Doctors of Audiology
- Fellow – American Academy of Audiology
- Member – Georgia Academy of Audiology
- President – Greater Atlanta Audiology Society (1983-1985)
- Executive Council Member- Georgia Speech, Language and Hearing Association (1984-1986)
- Board Member – State of Georgia Board of Examiners for Speech Pathology and Audiology (1986-1992) Vice Chairman (1991-1992)
- Instructor – Emory University Division of Allied Health Professions (1980-1981)
- Instructor – Nationally and Internationally of Cerumen Management Workshops and Courses
- Peer Reviewer – Audiology Online

### **POSITION STATEMENT**

As a member of ADA for over 30 years, I have participated in the educational, social and leadership opportunities provided by the organization. In fact, my professional career was greatly influenced at the 1991 convention when I was first introduced to cerumen management procedures. It is fair to say that my involvement with ADA and the Cerumen Management Team in the 90's had a great effect on my career. However, it was not until January, 2010, when I became a member-at-large of the ADA's Board of Directors and thus involved with the group in a leadership position, that I came to fully appreciate the breadth and scope of important work for which the ADA plays the leading role.

My audiology career has included a vast array of professional settings, including serving as an educational audiologist in the public schools, southeast regional manager for a hearing aid manufacturer, owner and operator of a private practice, and an educator. I therefore bring to the Board a cross-section of experiences and perspectives that influence the decisions we must make. In the coming years, we will continue to be responsible to our members for directing the role of audiologists with regard to Medicare reimbursement.

A critical issue of immediate importance is debunking the myth that audiologists may not provide clinical services or supervise students unless they hold a particular certification. As an ADA Board member, I will advocate to ensure that our profession is no longer tied to any particular certifying body.

ADA is the home for private practice audiologists, and must remain flexible yet resolute in achieving professional outcomes that serve the best professional and economic objectives of our members. The future success of our members will be influenced by how we promote the profession. Developing materials that assist audiologists in telling their story is an important function of ADA on behalf of our entire profession.

Educating audiologists to better practice our profession has always been, and remains critical to me. ADA's mission to teach our members best practices and certify them in specific areas is a goal that I would like to help the academy achieve.

My greatest passion, however, is bringing students and young practicing audiologists to private practice and into our organization. I believe there is no better arena in which to learn about autonomy than ADA. I would appreciate the opportunity to continue my work with the rewards of private practice.

ADA has had a great impact on my career, and through my ADA Board service, I hope to have a positive impact on the careers of other audiologists. It has been an honor and joy to serve on the Board of Directors since my initial appointment in January 2010. With your support I plan to continue my service and use my experience and abilities to help perpetuate ADA and the profession of audiology. ■



## **Angela Morris, Au.D.** **Board Certified in Audiology**

**Candidate: Member-At-Large**  
**Southeast Kentucky Audiology**  
**Corbin, KY**

### **EDUCATION**

- B.S. - University of Kentucky (1994)
- M.S. - University of Louisville (1999)
- Au.D. - Salus University (2003)

### **PROFESSIONAL ACTIVITIES**

- Private Practice – Audiology (2003 – present)
- Contract Audiologist – Kentucky Commission for Children with Special Health Care Needs
- Contract Audiologist – Daniel Boone Clinic, Dr. Samir Guindi, ENT
- Past President – Kentucky Academy of Audiology
- Conference Chair – Kentucky Academy of Audiology
- Current Board member – Academy of Doctors of Audiology
- Current Membership Chairperson – Academy of Doctors of Audiology
- Board of Governors for the American Board of Audiology
- Regional Captain for the AAA State Leaders Network
- Chairperson – Student Mentor Luncheon at Audiology Now
- Chairperson – Marketing and Fundraising committees with the ABA
- Member – Ethics committee with the ABA
- Fellow – Academy of Doctors of Audiology
- Fellow – American Academy of Audiology
- Member – Audiological Resource Association
- Member- Kentucky Academy of Audiology

- Member – Kentucky Hearing Aid Association
- Graduate – Leadership Tri-County (Awarded Leader among Leader award)
- Graduate – Leadership East Kentucky
- Presenter – KAA and KSHA conferences
- Conduct negotiations on behalf of Audiologists in KY with the Department of Medicaid Services
- Published article in Advance for Hearing Practice Management

### **POSITION STATEMENT**

I have seen many changes in audiology over the past several years, and I am excited for what our profession can and will do in the future. I am passionate about audiology and I am honored to be considered for a Member-at-large position on the ADA Board of Directors.

ADA has always been the epitome of positive change for the future of audiology. I wish to bring my enthusiasm, my knowledge and my desire to move Audiology forward to the ADA board in hopes of continuing this aggressive movement.

I strive in my professional and personal life to be the best I can be at what I am doing. I have a strong focus for the governmental issues side of audiology. I am comfortable talking with legislators regarding audiology issues, and feel it is a responsibility that I have as an audiologist to do my part. Autonomy is a key factor to our success as a profession, and is something we can never let die. Other issues that I have been involved in include reimbursements to audiologists. We have the right to be paid for our services, and we have the right to be paid what we are worth. I feel that my work on the state level, which has yielded great success, will continue to be an asset to the ADA board.

I am aware through my various activities of the challenges we still have as audiologists. I will be involved in resolving existing issues and in promoting positive changes to the profession, not only for my benefit, but for the benefit of the up and coming audiologists and for the future of our profession. Our profession is so important to so many people. It is my personal goal to ensure that other healthcare professionals recognize and value audiologists.

I believe it is most important to educate our students with the proper information regarding our profession. The ADA already has in place wonderful opportunities to provide this information to them. I would love to be involved in continuing this student/fellow relationship. I feel that my experience with working on other mentor programs will be of good use for this endeavor. We have come so far at this point, that the only way to “reap our rewards” is to have our profession stay strong for many years after we are gone.

I am greatly appreciative of the opportunity to serve on the ADA board. It would be an honor and a privilege to continue. I believe that my qualifications are strong for this position, and that I will continue to make an effective member of the board. I will be open, honest and available to all who would want to contact me regarding any issue. This position will not be taken lightly, and I promise to do my best and to look out for the best interests of ADA members. ■



## Kim Cavitt, Au.D

**Candidate: Member-At-Large**  
**Audiology Resources, Inc.**  
**Chicago, IL**

### EDUCATION

**Au.D.**, April, 2005, Pennsylvania College of Optometry, Philadelphia, Pennsylvania

**Master of Arts in Audiology**, December, 1991, Indiana University, Bloomington, Indiana

**Bachelor of Arts in Speech and Hearing Sciences**, May, 1989, Indiana University, Bloomington, Indiana

### PROFESSIONAL ACTIVITIES

- Owner, Audiology Resources, Inc. (2001 to present)
- Adjunct Lecturer, Northwestern University (2009 to present)
- **Medicare Local Coverage Determination-Ohio and West Virginia**, 1995 to 2003
- **American Academy of Audiology Annual Convention, Instructional Course Presenter**, April, 1998, April, 1999, April, 2000, April 2001, April 2008., and April 2010
- **Academy of Dispensing Audiologists Convention Presenter**, September, 2004, October, 2005, October 2007, October 2009 and October 2010
- **Audiology Online** presentations, July, 2008, January 2010, May 2010 and June 2011
- Interviewed for **ADVANCE** article on hearing aid reimbursement, February, 1999

- **Article for *Advance for Audiologists***, “Mastering Reimbursement”, January, 2000
- Interviewed for **ASHA Leader** regarding reimbursement, October, 2000
- **Academy of Dispensing Audiologists** Practice Management area of website, 2003 to present
- Article for **ADA Feedback**, March 2003
- Contributor, **ADA Feedback** and **Audiology Practices**, June 2008 to present
- Numerous regional, state and local presentations
- American Academy of Audiology, Fellow
- Academy of Doctors of Audiology, Fellow
- Association of Otolaryngology Administrators, Associate Member
- American Academy of Otolaryngology-Head and Neck Surgery, Associate Member
- Academy of Doctors of Audiology Mentoring Task Force, Chair, September 2009 to present
- Academy of Doctors of Audiology Representative, ASHA Healthcare Economics Committee, October 2008 to present
- Academy of Doctors of Audiology Representative, ASHA Audiology Quality Consortium, November 2008 to January 2011
- American Academy of Audiology, State Leaders Committee Member, July 2009 to present
- American Academy of Audiology, Compliance Committee Member, April 2010 to present
- American Academy of Audiology, 2008 AudiologyNow Convention Committee Member
- Illinois Academy of Audiology, Co-Vice President of Education, January 2006 to January 2008
- Illinois Academy of Audiology, Co-Vice President of Governmental Affairs, January 2008 to January 2010
- Editorial Advisory Board member, Audiology Coding and Billing Alert, January 2003 to June, 2006
- Editorial Advisory Board member, Audiology Online, September, 2006 to present
- Hawthorne Scholastic Academy, Parent Teacher Association, Assistant Treasurer, June 2010 to present

### POSITION STATEMENT

In my opinion, audiology is at a crossroads. I think the next ten years will determine whether audiology truly fulfills its destiny as a doctoring profession or falters in its quest for relevance in the health care arena.

We have forces, both in and outside the profession, who have agendas that may not prove to be in our best interests. These agendas could produce results detrimental to independent practitioners. We could see increased competition from other medical specialties and manufacturers, increased consolidation of clinics and resources, attempts to limit our scope of practice, and



reduced reimbursements. We also will have to combat those who believe the status quo is acceptable when it comes to the education of future colleagues.

In the past, ADA and its members have been at the forefront of audiology's greatest successes. I want to see us to continue to emerge as a prominent player in molding our path forward. Our members have a wealth of experience and a vision for audiology that needs a voice. This involvement will help us avoid the mistakes of the past, while realizing the full potential of the Au.D. and our profession.

The audiology community must unite together to solve our shared issues and stand up against our common adversaries. It will be more important than ever to institute a grass-roots movement that supports independence, professional autonomy, and our position as the profession best educated and suited to manage a patient's hearing healthcare. We must find a way to engage the ADA membership to become more involved. We cannot afford to sit on the sidelines and let others define us and control our destiny.

Anyone who knows me, knows I am passionate about education. As my mother taught me, education holds the key to your realizing your dreams for tomorrow. If selected for the

Board of ADA, one of my goals for the Board would be for education, of both members and students, to be an objective. I would like to see ADA lead the national discourse on creating national standards regarding the scope and breadth of the current Au.D. curriculum, expansion of the practicum and externship opportunities to include more autonomous professionals, and debunking the myth that certification is a requirement for practice. I would like to expand our mentorship opportunities to reach students across the country. And, I want to explore opportunities for educating our membership that empowers them to better compete in the ever changing marketplace.

All of this is possible, with commitment and a willingness to take risks. As leadership, we will have to communicate with all of you a clear course for the future and provide you with opportunities to get involved. And, most importantly, we have to be transparent in our discourse and in our actions. It is you who are ADA. We are just your representatives. Let's create an organization that truly represents the needs and will of its membership, rather than the personal agendas of a few. Let's again, like we have done in decades past, lead our profession towards a better tomorrow. ■

**WANTED**

**Members Wanted:** ADA seeks bright, collegial audiologists and future audiologists (candidates that like to work hard and to play hard are preferred). Must be committed to advancing the profession of audiology through best clinical and business practices. Should enjoy insightful resources, peer-based networking & support and stellar educational programming. Great member benefits are included. To inquire within or submit your application today, visit [www.audiologist.org](http://www.audiologist.org) or call 866-493-5544. ADA is an equal opportunity membership organization. Some rules and restrictions apply (just a few, really).

**Note to potential applicants:** We hope that this issue of *Audiology Practices* illustrates the passion and perseverance that ADA members embody. Don't miss out on future issues and other great benefits duly reserved for ADA members.

**ADA** | ACADEMY OF DOCTORS OF AUDIOLOGY®

# Managing Your Relationship with Third-Party Payers

BY KIM CAVITT, Au.D.

**Insurance payments constitute a large portion of the reimbursement received by audiologists today. This larger role for third-party payers in the daily practice life of audiology clinics has complicated practice operations and billing strategies. So, how does an audiologist effectively manage her relationships with third-party payers? How do clinics keep abreast of the ever-changing world of third-party contracts, addendums and policy changes?**

There are effective steps practices can take in an attempt to gain control of the third-party abyss. These steps can assist a practice in better maneuvering its third-party contracts and the policies of its third-party payers.

**STEP 1** Assign a staff member to read each third-party contract and create a one-page bulleted list of the most important contract terms, such as renewal date, termination periods, medical necessity, notification terms, patient financial responsibility, referral limitations, provider requirements and credentialing and medical record retention. If you are unsure about the terms of the contract and your legal and financial obligations, consult an attorney who specializes in healthcare. An audiologist can locate an attorney in his area through the American Bar Association at [http://www.americanbar.org/portals/public\\_resources.html](http://www.americanbar.org/portals/public_resources.html).

It is the responsibility of the practice to maintain copies of the contracts. It is not the responsibility of the third-party payer. Payers

have a contractual responsibility to make a good faith effort to notify you of changes to the provider contract/agreement and/or fee schedule. It is important to open (and not discard) and read all correspondence from third-party payers (including that received by mail, e-mail and fax) and to add this correspondence to the packet containing the contract. It is recommended that practices create a one-inch binder for each third-party payer and store all contracts and correspondence within the binder.

**STEP 2** Have that same staff member review the policies and fee schedules available on the third-party payer website. Many payers now post policy changes and pricing on their websites. It is useful to enroll in their website and have access to the information specific to your practice and signed contracts/agreements.

**STEP 3** Complete a cost versus benefit analysis for each third-party payer and analyze the costs versus benefits of being a participating

provider with each plan. It is important to analyze diagnostic services /charges, hearing aid services/charges, referral source requirements, and patient access as part of this analysis. Remember, other than Medicare, audiologists are voluntary participants in third-party payer plans. Audiologists can, within the terms of their contract, terminate their agreements with payers and become an out of network provider.

**STEP 4** Within the time frame allocated by the third-party contract, send a request, in writing, via certified mail to the payer in the event you want to attempt to re-negotiate and/or terminate your provider agreement. This process is completely outlined in each third-party contract. It is important that all modifications to the contract from the payer be provided in writing. Guidance and/or modifications provided verbally, especially that which substantially changes the contracts terms, pricing, or requirements, should be avoided. Again, it may be useful to utilize the skills of an attorney during the re-negotiate and/or termination phase of the process.

**STEP 5** If your clinic opts to continue participating with particular payers, it is important to set forth office policies and procedures that allow the practice to effectively manage the billing and reimbursement. The audiology practice will need to have insurance verification processes, billing forms and procedures, and claims management policies in place to maximize reimbursement and minimize claims difficulties.

This type of approach will also be useful in charting a course as third-party payers adjust and modify their policies. An example would be if a payer opted to allow for the use of an upgrade waiver/notification, yet the use of such a form and process is not outlined in the payer contract or addendums. When a situation like this occurs, it is important to follow Steps 1 and 2, if this process has not yet been completed for the practice. Once the contract terms and payer policies have been defined, it is recommended that the practice contact the payer, in writing, and get a determination as to the whether a form and process such as this is allowed within the contract terms.

These steps can also be useful if the third-party payer makes a substantial change to their national payment policies. For

example, a national third-party payer, for the past several years, has been assigning a substantial provider discount to all of their hearing aid claims. The payer now indicates that they provide coverage of x and no longer mention the provider discount. How does a clinic determine how these claims will be specifically processed? Will the discount still be applied? Again, it is important that every payer contract go through Steps 1 and 2. This will allow the practice to have the most up-to-date information possible regarding their insurance agreements. If there are still questions about how the claims will be processed, there are two options:

**OPTION 1** Send a certified letter to provider relations of the insurance plan and ask for a written determination as to whether or not the provider discount will still be applied to the claim and, if so, if the patient is allowed to complete an upgrade waiver/notification and pay the difference between the allowable/eligible amount and the usual and customary charge. Having a determination like this, in writing, protects your practice in the event the patient files a complaint regarding this action or the payer system does not process the claim appropriately.

**OPTION 2** Experiment with one or two patients and closely monitor how the payer processes the claim. Was the provider discount applied? Should the claim have been unbundled to maximize reimbursement? Was the maximum met? A practice can extrapolate how the claims will most likely be processed by the payer by experimenting with the claims of a few patients.

Audiologists can effectively compete in the third-party arena. It is just going to require practices to commit time and money to better understanding their contractual agreements. This level of understanding is vital if an audiology practice wants to be financially successful in managing third-party contracts. ■

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*Kim Cavitt, Au.D. is currently the owner of her own Audiology consulting firm, Audiology Resources, Inc., which provides comprehensive operational and reimbursement consulting services to hearing healthcare clinics, providers, buying groups, and manufacturers. She also currently serves as the Co-VP of Governmental Affairs for the Illinois Academy of Audiology and is a contributor to ADA.*



# The No-Confusion Way to Choose an EHR

CYNDI BRYANT WALKER, CMB, CHBC

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## Introduction

If you're still weighing the pros and cons of an electronic health record (EHR) purchase, consider this:

Forget about going to an EHR because the government may or may not force you to comply. Think of improving your practice and perhaps your quality of life with the benefits of an EHR. Your coding compliance will increase. You'll have access to data about your practice and patients that would be impossible with a paper chart. An EHR will have a major impact on your practice and the way that you currently triage patients in the office.

Here are common scenarios in offices without an EHR: A paper chart is expensive to produce and you can never seem to find it when you need it most. A chart audit will most likely confirm that your documentation does not add up to the code reported. In my chart reviews I find that physicians are either undercoding or under documenting services performed and that approximately 30% of handwritten charts are not compliant.

Although choosing the right EHR can be confusing, these 10 steps can help ensure that you'll be happy with your selection.

### **1. Take a closer look at ASP technology.**

Application Service Provider (ASP) technology means that the EHR program and data are housed securely at a vendor's or institution's

location; you don't need to have expensive servers and tech support in your office if you have high-speed Internet access.

The ASP EHR model will range from about \$350 to \$650 per month, plus training. Billing software will be an additional cost. The other option is buying an EHR that requires an in-house server and software. Systems like this that I reviewed averaged between \$40,000 and \$60,000 depending on the amount of bells and whistles added.

With ASP models, benefit changes and software improvements are continually updated on your site so that your practice is always using the most recent data and advanced software. You don't need proprietary hardware or additional servers. You do not need to house your own server, and many systems have a minimal cost up front. You also will be able to log in from home to view patient data and reports.

The downside to ASP technology is that when the Internet is down, so are you. Make sure you have good, stable Internet service before considering this option.

### **2. Take your time and evaluate companies thoroughly.**

Two good resources for starting your search are the KLAS reports and CCHIT-certified companies. The KLAS rating will show you detailed information from physicians about software performance and cost. CCHIT (Certification Commission for Health Information Technology) is

an independent organization that performs certification criteria and inspections for EHRs. Products must significantly exceed minimum federal-standards requirements, are rated for usability, and are verified to be in use successfully at multiple sites, according to the CCHIT Website.

You may consider hiring a consultant to help you review your practice's EHR needs. There are several places to locate a consultant with experience. Try your local chapter of the American Medical Association or the National Society of Certified Healthcare Business Consultants. The NSCHBC's Website ([www.nschbc.org](http://www.nschbc.org)) lists consultants by state.

### **3. Check out your software vendor.**

Ask for references in your specialty. Call practices that have worked with the vendor and ask about downtime, software support, and overall satisfaction with the software.

Choosing a company is half the battle. What will you be married to after the salespeople leave?

Once you have done your research, choose 2 or 3 top contenders and then compare what I call the "nuts and bolts," which is the daily interaction with the EHR company.

### **4. Evaluate the EHR company's daily support structure. How does the company handle support calls?**

Some companies require you to send an email with the problem described. These emails may be handled outside of the United States and may be processed by a computer rather than a human being. You will get to speak to a real person only when the email consultation fails. Email is a frustrating medium when your software won't work. Make sure that you are comfortable with your vendor's support system.

### **5. Make sure the company interfaces with your laboratory.**

Most companies can build an interface for lab data. Make sure you ask about the cost of the interface. Some companies will charge as much as \$5,000 plus a monthly fee for an interface.

### **6. Scrutinize the medical notes preloaded in the EHR.**

If you find that most of the data preloaded in the system will not fit within your scope of practice, pass up using that EHR. It has been my experience that it is too overwhelming to learn a new EHR and build templates at the same time. If you have to build it yourself, take a pass and find a company that suits your needs.

### **7. Research the billing package.**

The EHR is only part of the purchase. Discuss the billing package of your new system in detail.

Must-haves in billing software:

**CPT and ICD-9 codes updated yearly.** You want a system that automates this process. Most cutting-edge billing software will automatically update codes every year with a download.

**Automated statements** will save you time and money. Most vendors offer this service at a discounted rate compared with postage. You will get to take advantage of the bulk discount rate.

**Automated verification of benefits** is a big plus for family practice or internal medicine groups. The patient benefits are downloaded into the system. Copays and deductibles are easily identified and save staff hours of time. Your copay can be as much as 30%-40% of your income on an exam, so this is a significant benefit to your practice.

**Rejected claim reports.** Most vendors will tell you that they have a "claim-scrubbing process." The software scrubs the claims for several different factors, and therefore reduces error. This is true to some extent. Invalid CPT Codes and ICD-9 codes without the fifth digit are screened by this process as are claims with other basic coding errors. The most important factor in billing software is the ability to load LCD or CCI edits and specific carrier-required modifiers.

An example of this is screening colonoscopy or well exams. Most carriers only cover a specific diagnosis for these procedures. Good billing software will warn you if you are not billing the service with a covered diagnosis. This tool is a major benefit for billing staff.

**Electronic posting of payments.** This service is a real time-saver. A 20-page EOB from Medicare can be downloaded in seconds. The software posts all payments, adjustments, and rejections. You receive a report of all postings for review.

**EDI transmission reports** are extremely important to your billing success. Investigate how the company reports provide you with a list of claims transmitted. Carrier errors and rejections should be easy to access. You will also want proof of timely filing to be at your fingertips.

*Continued on page 48*



# YOUR STORY

Peer-to-peer exchanges provide exceptional opportunities for knowledge transfer but more importantly for the discovery or rediscovery of camaraderie and common purpose within our profession. For this reason, ADA facilitates the sharing of member experiences through “Your Story”. This month we feature ADA member Dr. Judy Huch.

I am Judy Huch, Au.D., I own two audiology private practices in the Tucson, AZ area. Areas of private practice along with running the businesses, which I have been exposed to is leasing property, being a landlord to another audiologist and building the physical structure, which I own for my practice. I see patients in both offices and on occasion teach at the University of Arizona. I supervise Au.D. students from across the country and I also blog on the challenges of private practice in the hearing industry.

**AP: Tell us a little about your professional journey and how you ended up in private practice.**

**JH:** My career trek to where I am now currently is so different from what I had envisioned when I entered college as an undergraduate in the mid 1980s. To be honest I was never a stellar student in high school and college. I did not want to be perpetually in school because I felt it was so difficult for me to learn. I followed in my mother’s footsteps and went into education when I had to declare a major. It did not take me long to know this was not a calling, but working with children still had appeal. Through the search for another major, I took an Intro to Speech Pathology and Audiology class. It was so interesting, but audiology held my attention more than the speech side. What frightened me more as an undergrad was more math and the looming Masters degree. But I stuck it out and graduated. I squeezed by and entered a University that did not require me to take a GRE (standardized testing of which I have a long hate/hate

relationship). Now, when I admit this to people, their first impression is that I should never have gotten into school. But I found my calling, I graduated with a 3.7 GPA (I almost loved the math) and found that I could make decisions quickly for the benefit of my patient, fellow clinicians and our program. I thought I would be the bridge between the Deaf and Hearing Worlds and still work with children. It was during my 10 week internship in the Kansas City area where working with hearing aids opened a new world for me. There, adult aural rehabilitation and I became well acquainted. I often explain that I have faced forks in the road and my turns brought me to where I am today. I sometimes just went full steam ahead without much deliberation. After I was out of school with my Masters, close to 2 years, I had the opportunity to move to Tucson to work with Holly Hosford-Dunn, Ph.D. I took a leap of faith and moved here sight unseen (so did Dr. Dunn!), and within 6 months I was working solo in the office I would purchase two and half years later. I learned to run the business before I bought it. Since that was not insane enough for me, I married, opened another office, had two children and obtained my Au.D. (I did better than my 3.7 Masters GPA). I also learned in graduate school that I thrived in chaos.

**AP: Can you speak to your ideas on professional autonomy and what it means to you in your current position?**

**JH:** In private practice I have felt that our profession does need to be more autonomous. I would



often be frustrated in grad school because there was not one thing that I could do that another profession could not—a nurse can screen or remove cerumen, a dispenser can work with hearing aids. What I had failed to see is that an audiologist does encompass the best of all of these. Audiologists can better serve by incorporating the medical side of diagnostics and the clinical side of the rehabilitation, with a whole lot of business savvy no matter what the setting. It has taken me 20 years of educating those in my personal and professional life, of the importance of what makes a great audiologist the best professional to see for their hearing health.

**AP: For audiologists in private practice, what do you see as the biggest challenge?**

**JH:** The biggest challenge for me is collecting from insurance and staying competitive in the internet age. For those insurance companies that I have a group contract with, collection is not as difficult as for those insurance companies that I have contracted individually with. Some insurance companies make my front office do so much more work to collect what is the patient's benefit, it gets ridiculous. I am still working on how best to work through this, and I am not giving up! The other area is connected to our autonomy. We know that service along with hearing device purchases make for more successful fits (BHI May 2010) but when the difference is more than 500 dollars, I think patients look more at the bottom line and look past the risk of not being fit optimally. I also do not feel those companies who sell the aids through the internet, or third party payers that offer a fitting fee less than 500, are beneficial to audiology either. People then look at the place they go not the product and expect to be treated the same as their neighbor who purchased directly from your office. It is very difficult to find this balance in any business model.

**AP: What has been your greatest lesson learned from your experiences as a business owner?**

**JH:** My biggest challenge is trying to balance my work, my family, and myself. It's easy to lose track of time and work too much and not exercise enough or come home too late at night.

**AP: What has been your greatest lesson learned from your experiences as a business owner?**

**JH:** Saying "Please", "Thank you", "May I help you" and "Have I answered all of your concerns today?" I have received many blessings and business openings through patients, my employ-

ees, vendors and other networking individuals just by being nice. No matter what your day is like, how you feel, what just happened 10 minutes ago, you NEVER let the patient or the next person you encounter, feel anything but joy and to strive that they feel better when you are finished with their encounter with you. Sending thank you notes (the hand written, snail mail kind) make more of an impact than you realize.

**AP: What do you like the most about being in practice for yourself?**

**JH:** What I enjoy the most about having my own private practices is I can experiment, or go out of the box with technology, advertising, etc. With this flexibility I can bring ideas to my patients and their unique challenges. I also surround myself with people smarter than myself to bring in ideas that maybe I have not envisioned. The most important factor for me is that private practice has also given me the flexibility of being there for my kids, to have them come to work with me or to allow me to go on field trips with them. I don't think I could do all of these things working for someone else. I feel I have so much support from those I work with and my spouse and kids, that we all have found a healthy balance.

**AP: If you could advise a new graduate deciding on a professional setting, what advice would you give them?**

**JH:** Take the risk for crying out loud! There are so many in our profession who want all of the benefits but do not want to put themselves out to achieve those benefits. They want to follow or work for someone else and reap the same thing as those who are risking so much to forge the practice of audiology ahead. I know not everyone is cut out to head their own office or have gifts in management areas, but every employee needs to see what they are bringing to the table for their employer. What they bring in needs to be MORE than what their salary and benefits are, because the owner is risking more than they are. So forge forward, be the best you can be, be kind and make audiology the 'go to' profession for all!

**AP: What do you like best about being an audiologist?**

**JH:** What I like about being an audiologist is I can use my geekiness of loving gadgets and technology along with counseling and just talking with my patients. I think getting people's life story is one of the best side benefits of this job. People are so fascinating and the wisdom we all have is astounding! All of my patients give me a life lesson no matter if they are the kind, gentle ones, or those who are not.

**AP: Was there any one person in your life that was influential in your career choice/path?**

**JH:** One of my favorite phrases which is attributed to an old African proverb is “It takes a Village” and although this was connected to raising children, I see it in so many other aspects of life. My village started with my family, my parents have had the best work ethic and outlook on life. My mother Alma Nealon, who we lost to ALS over 5 years ago, was there without fail to help those who needed it and always with humor. My uncle, Ed Nealon, has been in the hearing industry since the 1950s. He has had a long history with dispensing and the manufacturing side of the business and we have had many thought provoking discussions. My clinical supervisors, Claire Hogan and Larry Ruder, encouraged me to find my calling. Earl Harford, Ph.D. taught me how to physically make a hearing aid and then how to make it work on the patients. And last but not least, Holly Hosford-Dunn, Ph.D. saw something in me and helped me to make that leap into owning my own practice. They are the most instrumental individuals when I have come to the biggest forks in the road. There are so many others as well and I love you all! I am not just saying this for you to forgive me that I did not name you all either!

**AP: What’s one thing you want other audiologists to know about your practice or how you take care of your patients?**

**JH:** I want everyone who comes into contact with my offices, by phone, in person, or by internet to see that we strive to do everything we can to help each person in the most kind, (and if the right patient humorous) and ethical way. Everyone in the office goes above and beyond to work with those who want to prevent hearing loss, but especially those who are affected by it. ■

**EDITOR’S MESSAGE** *Continued from page 5*

of life in the real world. When you look around there are all kinds of examples of how practical wisdom can be applied to everyday business and clinical situations. One example can be found in a recent book by former Navy Seal, Eric Greitens, called *The Heart and The Fist*. His story of humanitarian relief efforts in the war torn Middle East holds immense lessons for any owner, manager or leader. His basic message is that it takes a lot of individual courage (a willingness to stand up and fight for what you believe is right, even in the face of popular opinion) and teamwork to overcome life’s obstacles. There is immense practice wisdom in Greitens story.

Another source for practical wisdom is the work of Dr. Atul Gawande, a Boston-area physician and best selling author. If you’re looking for timeless ways to transform your practice, apply a dose of his practical wisdom.

- Ask unscripted questions – this is an attempt to make our busy world seem a little more human. You never know when that 95 year old patient who’s struggling with their hearing aids was once a famous classically trained pianist during WWII.
- Don’t complain – Lord knows there are a lot of things to be unhappy about these days, but there’s nothing more dispiriting than being around highly trained professionals that like to carp about things they don’t like. The world can be a pretty dreary place when there’s too much complaining. So find something positive to talk about. It could be the last book you read and the TV show you watched last night. Whatever it is, change the subject and don’t fall into the trap of being a chronic complainer
- Measure something – Audiology is a field founded on scientific principles. All of us had to have some background in science in order to get a degree. Take the time to measure something in your practice. It could be number of appointments scheduled, number of hearing aids dispensed per month or real world outcome, when you take the time to measure; you begin the process of improving it.
- Write something – Take the time to write a couple of paragraphs about something you care about. When you offer your thoughts in writing, you make yourself part of a larger world. Your written contributions help build the audiology community. In fact, if you write something, send it to me and I will publish it in AP. All of us are filled with good ideas. The written word is the best way those good ideas get worked into the fabric of our profession.

- Change – the world is full of people who are stagnant and uninspiring. Frankly, they are not much fun to be around. Find something new to try. Stay fresh and interesting. Be an early adaptor of something. Your patients will appreciate it and your business will be better off for it too.

*Aristotle said, “We are what we repeatedly do. Excellence is not an act, but a habit.”*

There is no better way to go from good to great than applying some practical wisdom to your clinic or business.

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## HEADQUARTER’S REPORT *Continued from page 7*

8. Customize marketing materials for your practice with Hear for You: ADA’s Hear for You resources provide audiologists with off the shelf marketing materials including press releases, slide presentations and brochures that you can use to for outreach in your community.
9. Invite ADAM (ADA man) to your office: ADAM was created by Genna Martin (Dangerous Decibels Program) using a used fashion mannequin and a sound level meter wired to a silicon ear. You may reserve ADAM for open houses and other special events in your community. He is a great tool for educating about noise induced hearing loss. Contact ADA headquarters at 866-493-5544 to reserve ADAM for your next special event.
10. Visit [www.audiologist.org](http://www.audiologist.org) on a regular basis for the latest news, tools and educational resources on key topics such as third party reimbursement, financing your practice, human resources, advocacy and business administration. ■

## JUST DOOH IT *Continued from page 13*

are the ones searching for hearing loss solutions, and not necessarily the user, however it’s still important to add another dimension to your website by bringing this rich content to life in the waiting room to further educate the actual wearer. Along with having a website to interact with patients and their influencer, DOOH is needed to more effectively communicate with patients over the age of 55. In the digital age, DOOH is fast becoming an essential tool interacting with patients once they make it into your clinic.

Scientific research has shown that first impressions actually contribute to a consumer’s willingness to form a lasting relationship with a service professional.<sup>4</sup> DOOH is a highly effective method of making a memorable first impression during the initial stages of a patient’s experience in your clinic. Just as the telecommunications industry has evolved from analog to digital telephone lines, the traditional reception area experience must evolve into more than your patient reading outdated magazines during their 15 minute wait. ■

**Disclosure: The AP editor’s employer (Unitron) and HNN have a business relationship.**

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*Brad Dodson is the Director of Business Development and Training for the Hearing News Network. Brad can be reached at [brad@hearingnewsnetwork.com](mailto:brad@hearingnewsnetwork.com).*



## Hints for Introducing an EHR to Your Practice

### *8. Add the scheduling and billing module first before bringing on the EHR.*

If you are adding a new billing system and EHR at the same time, I highly recommend that you add the scheduling and billing system first. This will give you time to populate that patient demographics and allow staff the time to train and become efficient with the scheduling software.

### *9. Set aside enough time to train.*

Regardless of how great the EHR performs, you will not be able to enjoy its full benefits if your staff is not fully trained. Lighten your workload on the first few days of training. Don't schedule meetings or take outside calls if they are not completely necessary. Devote your time allowed for training to the trainer.

I have seen an office spend several thousand dollars for training and not get the full benefit because the patient load was too heavy or other activities were planned at the same time. When the trainer leaves, you will be lost if your staff aren't fully trained. I recommend that you schedule 3-5 full training

days with a follow-up of 2 more days in a couple of weeks. You can absorb only so much information in a single session.

I also advise clients to request a seasoned trainer. EHR sales have sparked in the last 2 years and companies are hiring new trainers. Make sure that if you have a new trainer, the company will send an experienced representative to assist.

### *10. Prepare yourself and your staff for change.*

Even with the best EHR system, you will experience confusion, frustration, and tears. Why? Because everything changes and the prized paper chart is gone. You will forget about your beloved paper after a few weeks of using the EHR, however. Educate your staff about the transition. Prepare them for confusion in the first couple of weeks.

I recommend against using a dual system of paper charts and EHR. Make the break from paper and suffer through the transition. You made the purchase in order to get rid of the paper.

In the end you will have devoted a great deal of time and some financial resources that will pay off for your practice. You will reap the benefits of change. You will wonder why you waited so long, and your beloved paper chart will be all but a bad memory. ■

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ADA IS PLEASED TO ANNOUNCE  
ITS CALL FOR NOMINATIONS FOR  
THE FOLLOWING AWARDS:

*Leo Doerfler Award*  
*Joel Wernick Award*  
*David Goldstein Award*

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# Zoom Technology



StereoZoom. auto ZoomControl. UltraZoom.



## Focused communication in the most challenging environments

Phonak Spice Generation introduces unique Zoom Technology, three groundbreaking innovations designed to delight you and your clients:

- **StereoZoom** – binaural beamforming that focuses on a single voice in a crowd
- **auto ZoomControl** – advanced binaural processing that automatically focuses on speech in any direction
- **UltraZoom** – directional microphone technology reinvented

Experience the advantages that Phonak Spice Generation can bring!

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