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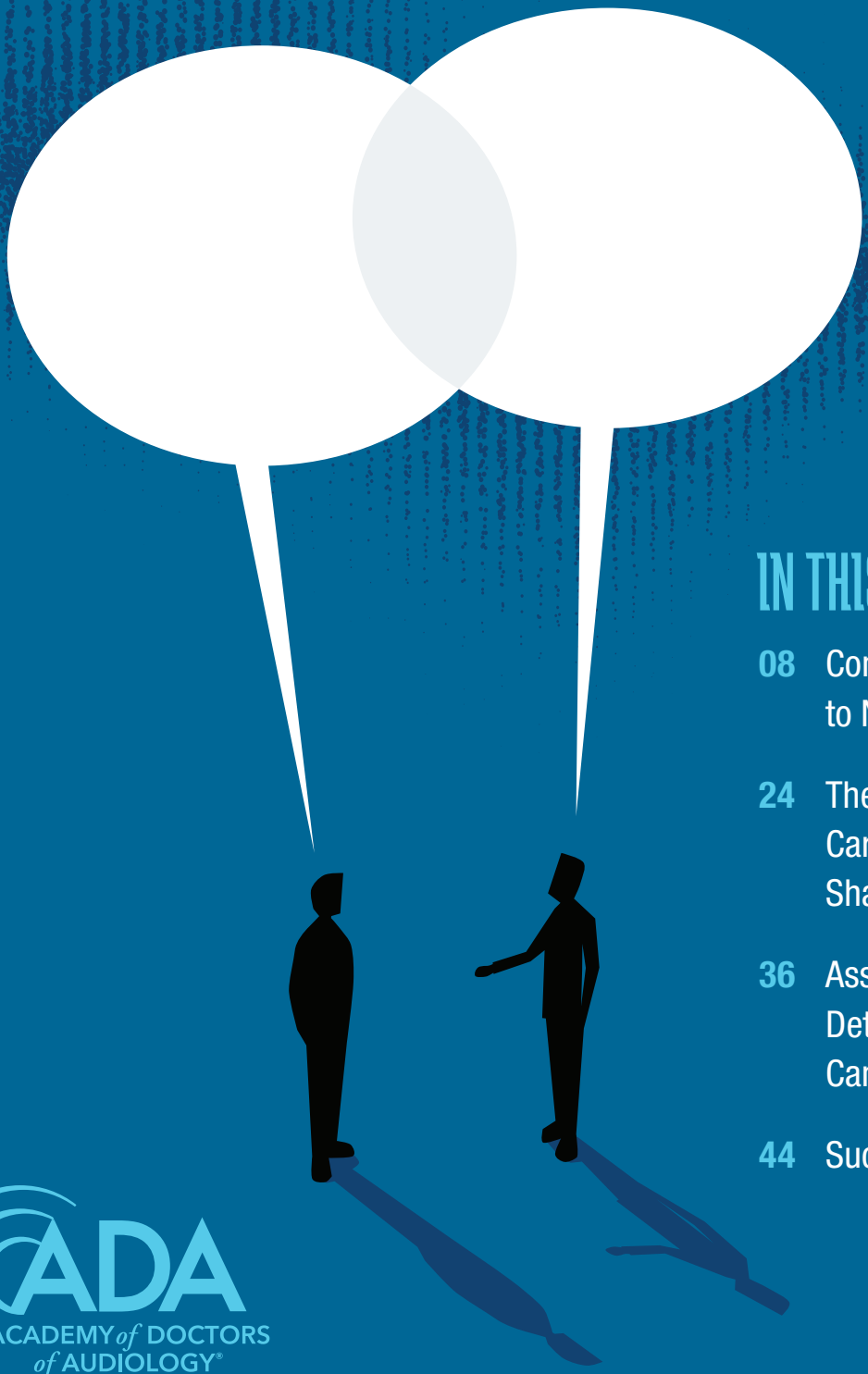

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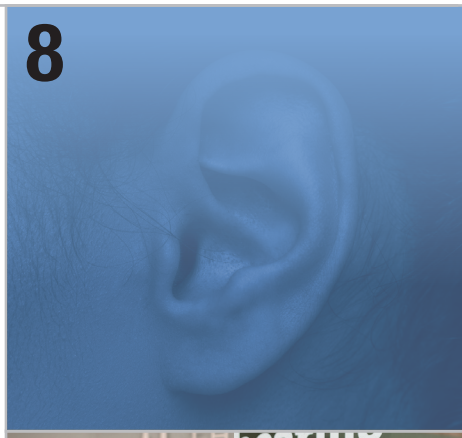

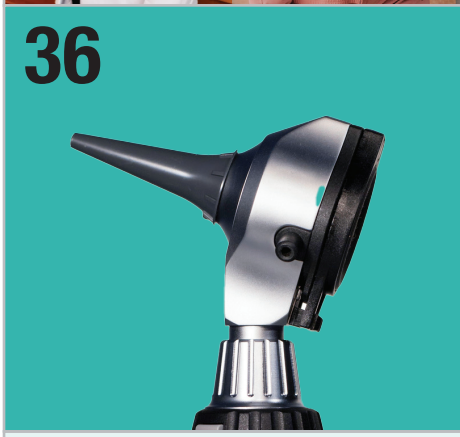

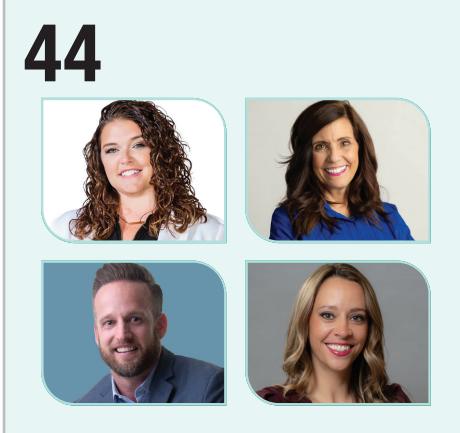

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Amyn Amlani, Ph.D.

Hanging Out Your Shingle

As I drive through my fair burg on the outskirts of Dallas—currently one of the fastest-growing suburban cities in the United States—I'm struck by the sheer pace of transformation. Construction is everywhere. Less than five years ago, these lands were plowed, seeded, and harvested, with horses, cows, and longhorns grazing freely in the open fields. Today, those same pastures are filled with new housing developments and widened roadways to accommodate a flood of new residents and vehicles. But one of the most notable developments is the surge in independently owned healthcare practices. At some intersections, independent providers occupy three of the four corners—professional competitors in plain view of one another. Across this evolving cityscape, professional services in dentistry, optometry, physical therapy, counseling, speech-language pathology, and medical specialties are flourishing. Yet something is conspicuously missing. Nowhere have I seen a sign proclaiming the availability of professional hearing and balance care. Not a single *'shingle'* has been hung to represent audiology.

The professional autonomy of the independent practice channel in hearing healthcare has been increasingly moderated over the past two decades. Prior to 2004, approximately 49% of hearing aids supplied in the U.S. market were dispensed through independently owned practices.[1] By 2004, that share had declined to 39%, while manufacturer-owned retail outlets accounted for 25% of hearing aid distribution.[1] The trend continued: by 2016, independently owned practices were estimated to dispense just 15% of hearing aids,[2] whereas manufacturer-owned outlets had grown to supply 33% of the market.[3] As of 2023, the independent channel's share is believed to have fallen below 15%,[4] while manufacturer-owned retail outlets now account for approximately 37.7% of hearing aid supply.[5] This shifting landscape signals a fundamental transformation in how hearing care is delivered—raising important concerns about professional autonomy, consumer choice, and the long-term viability of independent practice models in an increasingly vertically integrated marketplace.

The rise in manufacturer-owned retail outlets has coincided with a notable decline in the number of private audiology practices operated by independent providers. In 2004, there were an estimated 5,060 independently owned practices.2 By 2011, that number had dropped to 2,760.2 More recently, a conversation with a well-respected industry leader suggested that, as of 2024, the number of independently owned practices may be closer to 2,000.4 This downward trend is driven in part by manufacturers acquiring practices directly from individual owners, and in part by a generational shift—where newer providers are often less inclined to assume the risks and responsibilities associated with entrepreneurship, despite its potential rewards. This consolidation not only reshapes the professional landscape but raises important questions about autonomy, competition, and the long-term sustainability of diverse practice models in hearing healthcare.

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Brian Taylor, Au.D.

Talk is Cheap – Results Aren't… OTCs are Good, but AuDs are Better

Unlike prescription hearing aids, OTCs are sold directly to individuals without any involvement from a licensed professional. Because there is no direct involvement, and OTCs exist alongside prescription hearing aids, this presents several interesting questions for us to ponder. For example, how do consumers learn about and buy OTC hearing aids? Do consumers know the difference between OTCs, PSAPs and prescription hearing aids? How big is the demand for OTC? Perhaps the most important question are these: Do higher levels of hearing aid technology, and/or associated fitting services, lead to better patient outcomes?

A recently published randomized-controlled trial (RCT) sheds light on the latter question. Researchers from two prestigious institutions, University of Iowa and Vanderbilt University assigned 245 adults older than 55 years with mild to moderate hearing loss and no previous hearing aid experience, into one of six parallel treatment groups, representing three service models and two technology levels (premier and basic).

The 3 service models:

- AUD, in which audiologists fitted prescription hearing aid following best-practices.
- OTC+, in which audiologists provided limited services for OTC-like hearing aids.
- OTC, in which participants independently used OTC-like hearing aids.

Because the RCT started in February 2019, more than three years before the advent of the FDA OTC act, traditional hearing aids were used to simulate pre-set OTC hearing aids. The primary outcome measures were the Satisfaction in Daily Living (SADL) and the Glasgow Hearing Aid Benefit Profile (GHABP), which were administered using ecological momentary assessment (EMA), beginning before the hearing aid fittings and throughout the seven weeks of hearing aid use.

They reported no differences in outcomes between the two hearing aid technology levels – a finding consistent with several other studies. On the other hand, their results showed significant positive benefits from OTC and the limited services hearing aid (OTC+) delivery models; however, the most clinically significantly satisfaction and benefit was obtained from the AuD model, in which the study participants received best practice care. The bottom line: all FDA-regulated hearing aids work, but hearing aids fitted by audiologists work the best. The figure on page 54 illustrates this "win" for AUD best-practice care.

For audiologists who follow best-practice guidelines, the result of this study underscores what they have been telling patients for years: Professional care and expert guidance, delivered in-person by an audiologist, provides the best results, regardless of the technology level of the hearing aids dispensed.

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Stephanie Czuhajewski, MPH, CAE, Executive Director

The Critical Role of Private Practice Preceptors in Shaping the Future of Audiology

The role of private practices in shaping the next generation of audiologists has never been more vital to audiology's desired future, which is reflected in *Audiology 2050*. While academic programs provide essential foundational knowledge, it is within the walls of private practices that students are often professionally socialized into the real-world identity of clinical doctoring professionals. This transition from student to competent, confident, autonomous practitioner requires intentional mentorship and immersion in a clinical environment that models what audiology aspires to become.

Professional Socialization in a Private Practice Setting

Professional socialization is the process by which students internalize the values, behaviors, and identity of the profession. In audiology, this transformation requires more than supervised clinical hours; it requires mentorship from practicing audiologists who model patient-centered care, ethical decision-making, and a deep commitment to professional autonomy.

Private practices are uniquely positioned to foster this environment. Private practices are well suited to allow students to experience a full spectrum of patient care and practice management. Serving under a private practice preceptor allows students to witness firsthand how business ownership intersects with patient advocacy, and how clinicians navigate complex clinical and operational decisions independently. During their externships, students are also able to gain a deep understanding of how audiologists in private practice build trusted relationships within their communities.

Advancing the Goals of Audiology 2050

Audiology 2050 presents a transformative vision for the profession, one that supports ADA's mission to ensure that audiologists are recognized as autonomous doctoring professionals, delivering comprehensive hearing and balance care across the lifespan. Key pillars of this vision include modernizing state and federal laws reflect audiologists' extensive education and training, equitable reimbursement, and expanded access to auditory and vestibular healthcare.

Private practice preceptorship directly contributes to these goals by:

- **Demonstrating Autonomy in Action:** Students see how audiologists function as primary entry points for hearing and balance care—evaluating, diagnosing, managing, and treating patients, and referring when necessary.
- **Building Entrepreneurial and Advocacy Mindsets:** Exposure to private practice empowers students to consider ownership or management roles. They learn the importance of advocating for the profession, influencing policy, and driving innovation.

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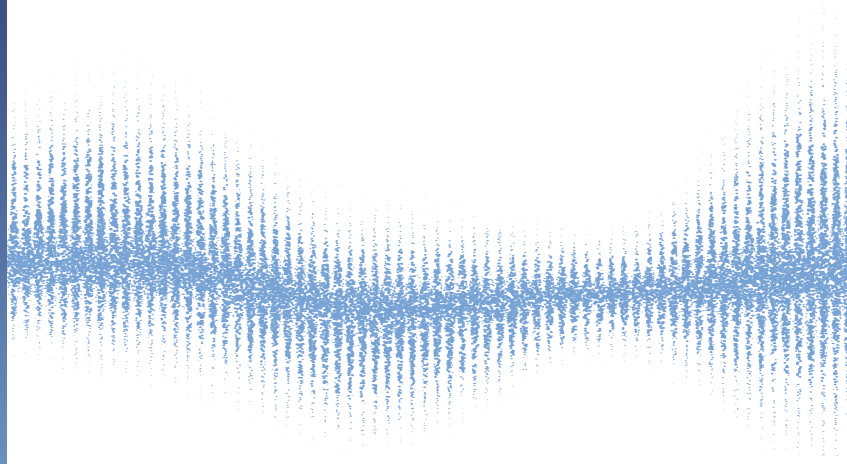
Comparing AutoREM Accuracy to NAL-NL2 Targets:

How Accurately Does AutoREM from Four Hearing Aid Manufacturers Match NAL-NL2 Fitting Targets when Evaluated Using Both Simulated Real Patient Data?

By Emily Brand

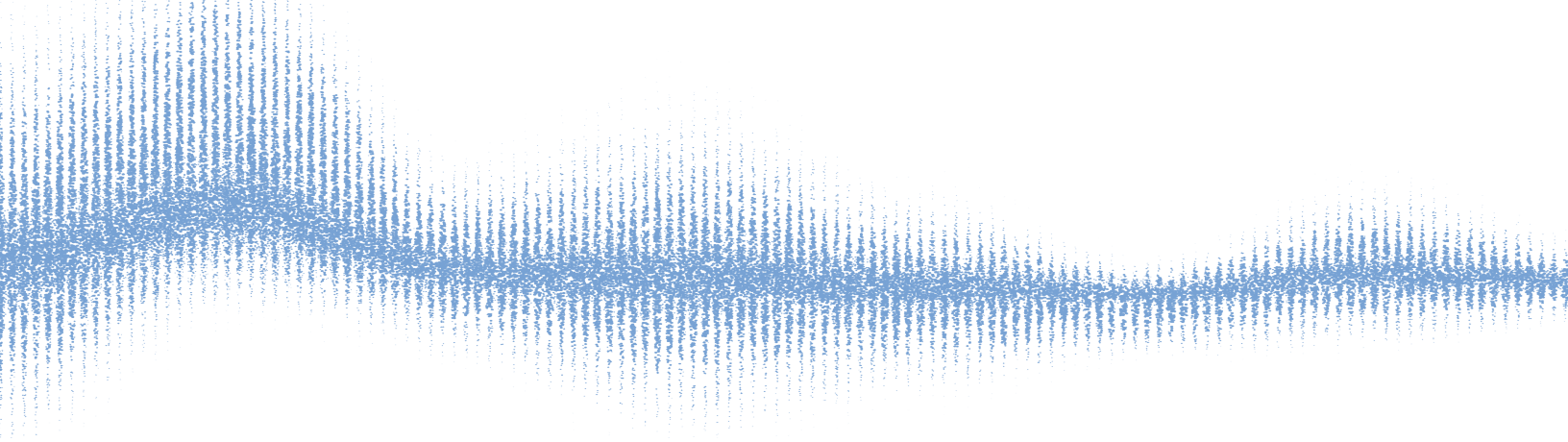


INTRODUCTION

Within hearing aid software, Automatic Real Ear Measurements (AutoREMs) are available and proposed to enable audiologists to perform REMs more precisely and effectively (Osman et al., 2024), without the audiologist needing to make manual changes. Each manufacturer's software offers multiple hearing aid prescription options, including its own proprietary target (BSA, 2018). Audiologists may be able to improve the accuracy of fittings and save a significant amount of time by incorporating these automated solutions into clinical practice.

AutoREMs are especially valuable in busy clinical environments, where time constraints may lead to compromises in best practices for the sake of efficiency and have the potential to improve clinical workflows, reduce the time burden on clinicians, and enhance the overall consistency of hearing aid fittings. Additionally, improved accuracy in fitting may lead to better patient outcomes, such as increased satisfaction and improved speech perception. However, AutoREM typically relies on target data from the hearing aid fitting software (Mueller and Ricketts, 2018), raising the question of whether manufacturers adhere to the prescribed target. If they do not, AutoREM can only verify the manufacturer's version of the target rather than the true NAL-NL2 prescription.

This study provides a thorough comparison of different hearing aid models, assessing whether they achieve the gold standard target and evaluating the effectiveness of AutoREM accuracy. The primary goal is to determine the accuracy of AutoREM systems from various hearing aid manufacturers in matching NAL-NL2 fitting targets, using both simulated and actual patient data. This study aims to evaluate how accurately AutoREM features from various hearing aid manufacturers match NAL-NL2 fitting targets when assessed with both simulated data and actual patient data.



EXECUTIVE SUMMARY

This study evaluates the accuracy of Automatic Real Ear Measurements (AutoREMs) in matching the NAL-NL2 prescription across different hearing aid manufacturers. Using both simulated and actual patient data, the study compares the performance of AutoREMs in Phonak, Signia, Starkey, and Oticon hearing aids. Real Ear Aided Response (REAR) measurements at 50dB SPL, 65dB SPL, and 80dB SPL were analyzed to determine AutoREM accuracy. Results indicate that AutoREMs align with NAL-NL2 targets, though variability exists, particularly at lower input levels and higher frequencies. Signia demonstrated the most consistent accuracy, while Phonak showed deviations at 50dB SPL. Statistical analysis confirmed significant results at 65dB SPL and 80dB SPL but highlighted inconsistencies at 50dB SPL. The study suggests that while AutoREMs improve efficiency, refinements in detection algorithms and machine learning integration could enhance accuracy. Future research should explore broader datasets, additional hearing aid models, and conductive hearing loss applications to further validate the reliability of AutoREM. It is recommended that if using AutoREM as a tool for faster or more consistent probe microphone measurements, that a stand-alone REAR measurement is recorded for verification.

METHODOLOGY

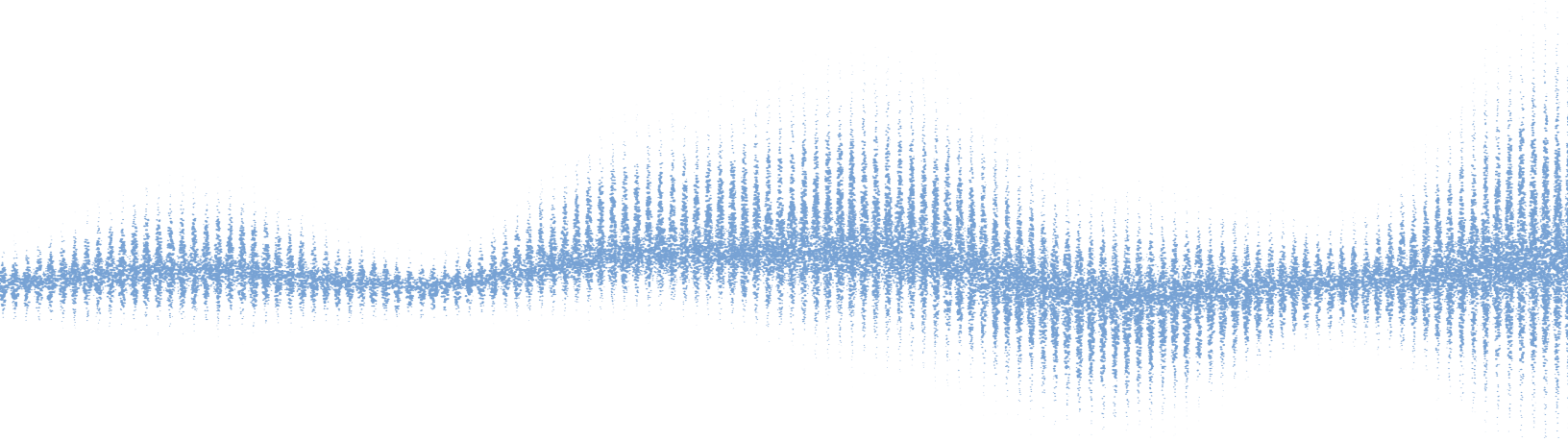
Both simulated and patient data were used to assess AutoREM's accuracy, reliability, and clinical applicability. AHead Solutions' ear simulator CARL enabled standardized, repeatable measurements, eliminating human variability and ensuring any deviations were system related. Following simulated testing, real REM sessions assessed AutoREM's functionality in clinical environments where anatomical variances and patient movement impact results. This combined approach strengthened the study's reliability and relevance.

Results indicate that AutoREMs align with NAL-NL2 targets, though variability exists, particularly at lower input levels and higher frequencies.

Phonak, Signia, Oticon, and Starkey were selected because they are industry leaders in hearing aid advancements, integrating innovative technology into their devices. By evaluating AutoREM accuracy across these brands, this study ensures a comprehensive analysis of the most advanced and widely used hearing aid technologies in clinical practice.

The simulated data included three hearing loss configurations: presbycusis, flat sensorineural hearing loss, and upward sloping sensorineural hearing loss. Each manufacturer's product was tested using two hearing aid models per configuration. RIC hearing aids were tested with vented and closed domes, while Behind-The-Ear (BTE) models used a skeleton mould with a 2mm vent and a closed vent. The tested models included Phonak Infinio Sphere 90 RIC and Naida Lumity 90 BTE, Signia Pure 7IX and Motion 7X BTE, Starkey Edge AI 24 and Evolv 24 BTE, and Oticon Intent 1 and Real 1 BTE.

For patient data, a wider range of hearing loss configurations but a smaller range of hearing aids were tested. A broader selection of venting options was included, including open, closed, and vented domes, and earmolds with various venting. The hearing aids tested were Phonak's Infinio Sphere 90 RIC, Signia's Pure C&G 7IX RIC, Starkey's Edge AI 2400 RIC and Genesis AI 2400 RIC, and Oticon's Intent 1 RIC. Due to the limited number of BTE hearing aids dispensed in the clinic, only RIC models were included in the patient testing.



Simulated data collection included 72 datasets per manufacturer, while patient data collection totalled 30 datasets per manufacturer, except for Phonak, which had 36 due to the inclusion of a conductive loss case. The total dataset count was 414. The single case of conductive hearing loss in the Phonak data was not used for comparative analysis due to the small sample size, ensuring a more robust comparison. Further studies with a larger sample size are necessary to assess AutoREM's effectiveness in conductive hearing loss.

A dedicated study with a larger sample would be required for meaningful conclusions on conductive losses. For the patient data, the quality of the REM sessions was carefully reviewed to identify discrepancies or errors in the measurements. In cases where data quality issues were detected, such as invalid measurements due to patient movement or equipment malfunction, those measurements were repeated. For both simulated and patient data, AutoREM was performed within the manufacturer's software for each dataset using the NAL-NL2 prescription. The speech signal used in this study was the International Speech Test Signal (ISTS). Real-ear Aid Response (REAR) measurements were conducted at 50dB, 65dB, and 80dB SPL, and the extracted data were analyzed. AutoREMs do not measure Maximum Power Output (MPO) and were therefore excluded from this analysis.

To ensure the integrity of the dataset and minimise potential biases, all datasets were checked for completeness before analysis. Although no data were missing, any inconsistencies in the frequency-specific data points were flagged and reviewed to ensure accuracy, with no individual dataset excluded.

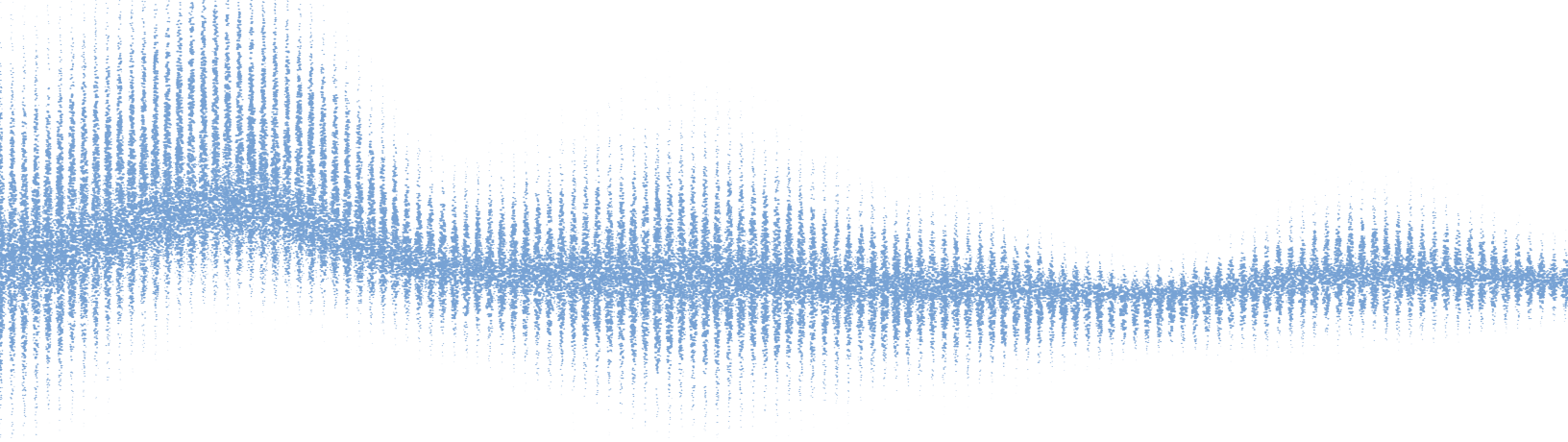
Absolute differences between Probe Mic SPL and REAR Target SPL were calculated across the frequency range of 250Hz to 6300Hz. Since data at 6000Hz was unavailable, the analysis was extended to 6300Hz to align with BSA (2018) guidelines, which specify 250Hz-6000Hz as the focus frequencies. These absolute differences were then used for the statistical analysis.

Outliers were detected using mean, standard deviation, mean absolute deviation (MAD), and z-scores, with values greater than 2 flagged. However, no outliers were found. Mean Absolute Error (MAE) was determined for each input level, indicating the average magnitude of prediction errors, with lower values reflecting better accuracy. Root Mean Square Error (RMSE) was calculated to weigh more significant deviations, where lower values signified better performance. RMSE p-values were used to evaluate statistical significance, with lower values suggesting errors were not due to chance. Boxplots assessed consistency across manufacturers by visualising variability and potential outliers. Paired t-tests determined statistical significance in fitting accuracy differences between manufacturers.

RESULTS

Across all data from all manufacturers (Figure 1, Appendix A), the median absolute difference remains steady, indicating a uniform spread of absolute differences at most frequencies. However, outliers highlight extreme deviations, particularly at higher frequencies such as 5000Hz and 6300Hz, suggesting abnormal values deviate significantly. Table 1, Appendix B demonstrates that at the 50dB SPL level, the model exhibits a good fit, with a Root Mean Square Error (RMSE) of 4.30 and a Mean Absolute Error (MAE) of 4.20, both within the acceptable error range. The statistical analysis results show a T-statistic of -1.98 and a p-value of 0.07, which is above 0.05 and therefore not statistically significant at the 95% confidence level. This indicates that the observed difference may have occurred by chance, and there is insufficient evidence to confidently support a meaningful effect (Tenny and Abdelgawad, 2023).

At the 65dB SPL level, the model exhibits an improved fit, with an RMSE of 3.67 and an MAE of 3.62, both lower than those observed at 50dB SPL. A T-statistic of -5.51 and a p-value of 0.00 indicate statistical significance as it is below 0.05. At the 80dB SPL level, the model achieves its best



performance among the three levels, with the lowest RMSE of 3.41 and MAE of 3.31. The statistical analysis results show a T-statistic of -4.85 and a p-value of 0.00, again showing statistical significance as it is below 0.05. Figure 6, Appendix C shows the mean absolute difference of each frequency is below 5dB SPL, demonstrating they meet the guidelines from BSA, 2018.

Phonak's lower frequencies (Figure 2, Appendix A) exhibit more extreme outliers. The median values remain consistent across frequencies, typically between 2 and 5. Although most frequencies contain some outliers, they stand out significantly at 250Hz and 315Hz.Notably, the distribution at 4000Hz appears to have the lowest median value. Table 2, Appendix B shows that at the 50dB SPL level, the RMSE is 5.67 and the MAE is 5.43. The RMSE slightly exceeds 5, suggesting that while the model fit is good, there is room for improvement. The statistical analysis results include a T-statistic of 1.16 and a p-value of 0.26, which is above 0.05 and therefore not statistically significant, indicating that the model's performance may require improvement for greater consistency.

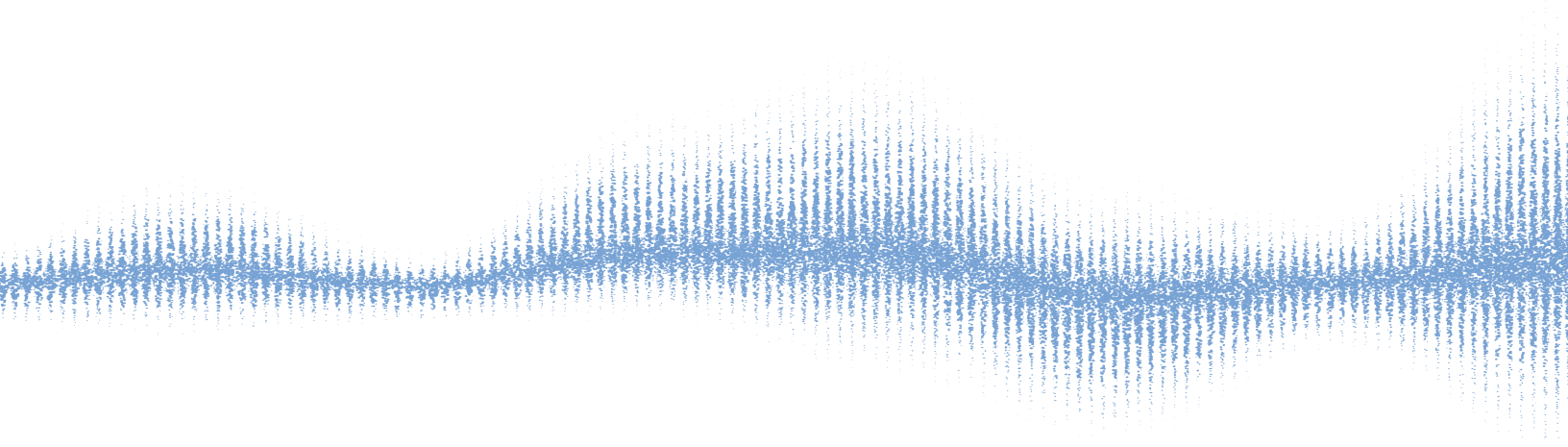
At the 65dB SPL level, the model demonstrates a better fit, with an RMSE of 4.13 and an MAE of 4.03. The statistical analysis results show a T-statistic of -2.47 and a p-value of 0.03, below 0.05 and therefore statistically significant. At the 80dB SPL level, the model achieves its best fit, with the lowest RMSE of 3.35 and MAE of 3.19. The statistical analysis results indicate a T-statistic of -5.68 and a p-value of 0.00, confirming statistical significance. Figure 7 (Appendix C) shows that on average, 250Hz, 315Hz, and 3150Hz exceed the 5dB threshold.

While the conductive hearing loss dataset was excluded, any missing or inconsistent data across manufacturers were carefully handled using imputation techniques, ensuring that the analysis remained robust. Table 3, Appendix B shows at the 50dB SPL level, the model's MAE is 5.17, indicating that the average prediction error is 5.17 units. The RMSE is 5.35, suggesting larger errors may be present within the predictions. The statistical analysis results include a T-statistic of 0.74 and a p-value of 0.47, which is above 0.05 and therefore not statistically significant. Since Phonak's data at 50dB SPL is not statistically significant, this highlights that the model's performance at this level may require further refinement for more consistent results.

The model's performance improves at the 65dB SPL level, with an MAE of 3.82 and an RMSE of 3.91. The statistical analysis results show a T-statistic of -4.38 and a p-value of 0.00, which is below 0.05 and therefore statistically significant. At the 80dB SPL level, the model achieves its best accuracy, with an MAE of 2.97 and an RMSE of 3.17. The statistical analysis results indicate a T-statistic of -6.31 and a p-value of 0.00, confirming strong statistical significance.

Signia's data (Figure 3, Appendix A) demonstrates that 250Hz and 1600Hz exhibit the greatest variability, as indicated by their taller interquartile range boxes. Most frequencies contain some outliers, with 500Hz showing the most concentrated cluster. Median values range between 2 and 5, while 1000Hz and 1250Hz display lower variability. Table 4, Appendix B shows that at 50dB SPL, the model demonstrates a good fit, with an RMSE of 3.71 and an MAE of 3.57, both within the acceptable error range. The statistical analysis results include a T-statistic of -4.30 and a p-value of 0.00, confirming statistical significance.

The model exhibits improved performance at the 65dB SPL level, achieving the lowest RMSE (3.11) and MAE (3.01) among the three levels. The statistical analysis results show a T-statistic of -8.15 and a p-value of 0.00, confirming statistical significance. The model performs well at the 80dB SPL level, with an RMSE of 3.28 and an MAE of 3.17. The statistical analysis results indicate a T-statistic of -7.12 and a p-value of 0.00, again confirming statistical significance. Figure 8, Appendix C demonstrates that all frequencies fit within the 5dB tolerance.



Starkey's data (Figure 4, Appendix A) shows that 250Hz, 315Hz, and 800Hz have taller boxes, indicating greater variability, while 1600Hz has the shortest box, suggesting less variability. Notable outliers appear at 500Hz, 630Hz, 800Hz, and 1000Hz, with 315Hz showing long whiskers, indicating a wide spread of non-outlier data. In general, the median values fall between 2 and 5. Table 5, Appendix B shows that at 50dB SPL, the model demonstrates a good fit, with an RMSE of 4.19 and an MAE of 3.99. However, the statistical analysis results (T-stat = -2.00, p = 0.07) indicate that the difference from the baseline is not statistically significant.

The model performs better at the 65dB SPL level, with an RMSE of 3.91 and an MAE of 3.73. The statistical analysis (T-stat = -3.09, p = 0.01) confirms statistical significance. At the 80dB SPL level, the model achieves its best performance, with an RMSE of 3.62 and an MAE of 3.49. The statistical analysis (T-stat = -4.84, p = 0.00) confirms strong statistical significance. Figure 9, Appendix C demonstrates that 315Hz and 800Hz exceed the 5dB tolerance.

Oticon's data (Figure 5, Appendix A) shows that 6300Hz stands out with the tallest box and the highest median, indicating greater values and variability. Table 6, Appendix B shows the 50dB SPL level demonstrates a good fit with an RMSE of 3.86 and an MAE of 3.72, with statistical significance confirmed by a T-stat of -3.17 and a p-value of 0.01. At the 80dB SPL level, the model remains a good fit with an RMSE of 4.21 and an MAE of 3.38. However, the result is not statistically significant (T-stat = -1.00, p = 0.33), suggesting that the observed change could be due to chance. Figure 10, Appendix C confirms that 6300Hz is the only frequency exceeding the 5dB tolerance.

DISCUSSION

Given that REMs are a gold standard in hearing aid verification but are often overlooked due to time constraints and clinician training gaps (Mueller, 2014), this study examines whether AutoREMs can serve as a reliable alternative. The results provide insights into accuracy, helping determine if AutoREMs can improve clinical efficiency without compromising fitting results. This audit contributes to understanding whether AutoREM can integrate into audiological practice and enhance patient outcomes by ensuring consistent adherence to prescriptive targets.

A comparison of hearing aid manufacturers Phonak, Signia, Starkey, and Oticon reveals key insights into their performance across frequencies. Most manufacturers show median values in the 2-5dB range, indicating good fits for most users. However, Oticon's 6300Hz frequency stands out with a slightly higher median of 5-6dB, suggesting challenges at this high frequency. The interquartile ranges, represented by the blue boxes, indicate variability, with most values remaining within a consistent range. Starkey exhibits greater variability at 250Hz and 315Hz, while Oticon shows larger boxes at 315Hz and 6300Hz. Some of these ranges extend beyond the 5dB tolerance, indicating poorer fits at specific frequencies.

Outliers provide further insights, with Phonak showing extreme outliers at lower frequencies like 250Hz and 315Hz, reaching 35-38dB. Signia's outliers are in the 10-14dB range, while Starkey's reach 15dB. Oticon has extreme outliers, especially at 6300Hz, with one reaching 25dB. Phonak performs better in mid-range frequencies, particularly 1250-2000Hz. Signia is more consistent across all frequencies, while Starkey excels at 400Hz and 1600Hz. Oticon performs well at 1250Hz but faces challenges at 6300Hz. Overall, Signia offers the most consistent performance, with Phonak and Oticon showing variability in specific ranges. Starkey's strengths lie in mid-range frequencies.

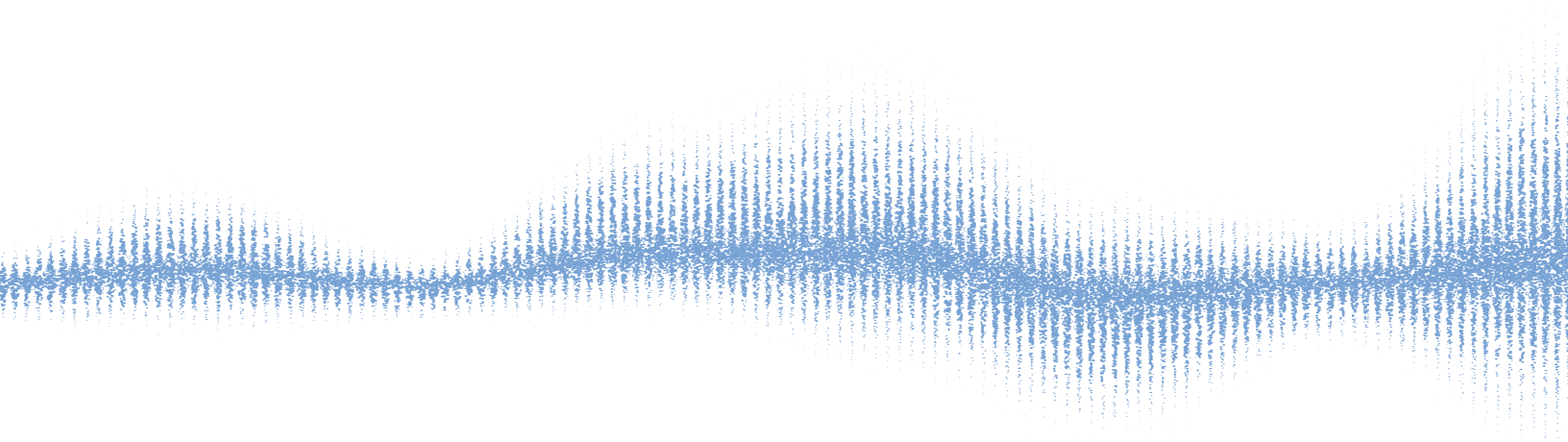
Looking at the RMSE and MAE of each manufacturer's input level, Phonak was the only manufacturer to exceed the 5dB tolerance, with a 50dB SPL input level showing RMSE = 5.67 and MAE = 5.43, including the conductive loss. Without the conductive loss, the RMSE and MAE were 5.35

and 5.17 respectively, still exceeding the tolerance. However, the p-value is 0.26, meaning the result is not statistically significant. The results that were not statistically significant include all manufacturers at the 50dB SPL level ($p = 0.07$), Phonak at the 50dB SPL level ($p = 0.26$), and Phonak without conductive loss at 50dB SPL ($p = 0.47$). Additionally, Starkey showed no significant results at the 50dB SPL level ($p = 0.07$), and Oticon did not demonstrate statistical significance at the 80dB SPL level ($p = 0.33$).

While the results at 65dB SPL and 80dB SPL show statistical significance, clinicians must consider variability at lower levels and higher frequencies to ensure AutoREM remains reliable. Patient-related factors like ear canal size, cooperation, and environmental factors such as background noise and room acoustics can affect measurement accuracy. Proper probe positioning is essential, and head movement can introduce errors. These issues may explain the variability in results, leading to significant findings in some cases. Since the rest of the findings have p-values of 0.05 or below, we can conclude that AutoREMs are generally effective in providing statistically significant results at higher dB levels. The lack of significance of Phonak and Starkey's 50dB SPL levels suggests that sensitivity and detection algorithms require refinement to improve accuracy and reliability.

The software's detection abilities could be refined to enhance its effectiveness at lower input levels. Subtle sound variations may be harder to detect at lower dB SPL levels, meaning fine-tuning should be implemented to improve accuracy. The software's ability to detect lower levels may improve using machine learning models, enabling tailored modifications that increase practical success. By reducing background interference, noise reduction techniques could also improve the clarity of faint sounds, resulting in more statistically significant data. A larger sample size could help detect differences that may be missed, especially at lower dB SPL levels, minimising anomalies, and random variations for more stable and reliable data (Biau, Kernéis, and Porcher, 2008).

While the results at 65dB SPL and 80dB SPL show statistical significance, clinicians must consider variability at lower levels and higher frequencies to ensure AutoREM remains reliable.



This audit integrates simulated and actual patient data to evaluate AutoREMs target-matching accuracy. Analyzing the simulated and actual patient data separately could provide valuable insights into whether movement influences the statistical significance of the results. Simulated data may be generated under controlled conditions where movement is typically absent, providing a clearer picture of AutoREMs accuracy in ideal circumstances. If movement introduces substantial variability, actual patient data analysis might show reduced target-matching accuracy or non-significant results compared to simulated data.

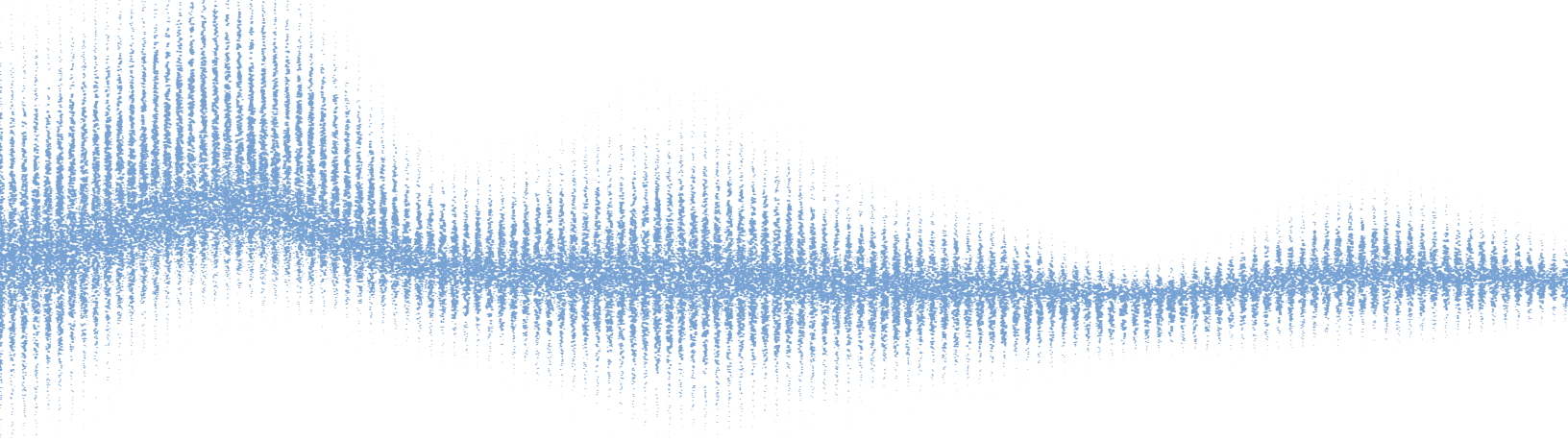
Including multiple hearing aid manufacturers ensures a comprehensive analysis across leading brands, allowing for an in-depth comparison of AutoREMs performance. The AHead Solutions' CARL ear simulator eliminates human variability in the simulation phase, providing standardized and repeatable measurements, while actual patient data collection simulates actual clinical environments, accounting for anatomical variations and patient movement. This dual approach strengthens the study's reliability and relevance. The study's inclusion of multiple hearing loss configurations and venting options adds depth, providing a more comprehensive understanding of AutoREMs capabilities across different conditions. MAE and RMSE provide an in-depth evaluation of accuracy, while statistical tests ensure conscientious analysis. Incorporating machine learning models into the AutoREM process could allow real-time adjustments based on dynamic patient variables, further improving fitting accuracy. Similarly, advanced noise reduction algorithms could help mitigate background noise in clinical environments, ensuring more reliable results.

However, several limitations should be acknowledged. The small sample size, particularly in the actual patient data set, limits the validity of the findings. With only 30 datasets per manufacturer, except for Phonak with 36, the sample may not fully represent the diversity of patient profiles encountered in real settings. Future studies should increase the sample size to enhance external validity. Additionally, the study's focus on SNHL configurations excludes other types of hearing loss, such as conductive losses. The sole case of conductive loss in the Phonak dataset was not used in the comparative analysis due to the small sample size. Future audits could expand on this work by including larger and more varied samples to draw more definitive conclusions on AutoREMs accuracy across different hearing loss types. Data quality issues such as missing frequencies (e.g., 6000Hz) may have impacted the thoroughness of the analysis, requiring further data collection to ensure a complete frequency range is accounted for.

Future audits could investigate AutoREMs ability to accurately target conductive hearing losses, which may require different fitting parameters than sensorineural losses. Including a larger sample of patients with conductive hearing loss would reveal whether AutoREMs can be used effectively across a wider range of hearing impairments. The current study focused primarily on RIC and BTE hearing aids commonly used in clinical practice. Future research could include In-the-Canal (ITC) and In-the-Ear (ITE) hearing aids, which have different acoustic properties and fitting requirements. Including these devices would offer a more comprehensive understanding of AutoREMs accuracy and versatility.

Further studies can expand upon this research by including additional hearing aid manufacturers, such as Resound and others, to provide a more comprehensive assessment of AutoREM accuracy across the industry. Analysing other manufacturers may offer insights into how different technological approaches are compared to established industry leaders. This broader evaluation would enhance the relevancy of findings and provide clinicians with a more complete understanding of AutoREM performance across various hearing aid brands.

This study highlights that AutoREMs could be a promising alternative to manual REMs, offering potential efficiency



benefits without significantly compromising accuracy. Variability was discovered at different frequencies among manufacturers, and while statistical significance was achieved at higher dB SPL levels, refinements are needed for improved accuracy at lower levels. Future advancements, including machine learning and noise reduction techniques, could enhance AutoREMs accuracy. Despite limitations such as small sample sizes and exclusion of conductive losses, this study provides valuable insights into AutoREMs clinical potential. Expanding research across different hearing aid styles, manufacturers, and hearing loss types will further validate AutoREMs role in modern audiology practice.

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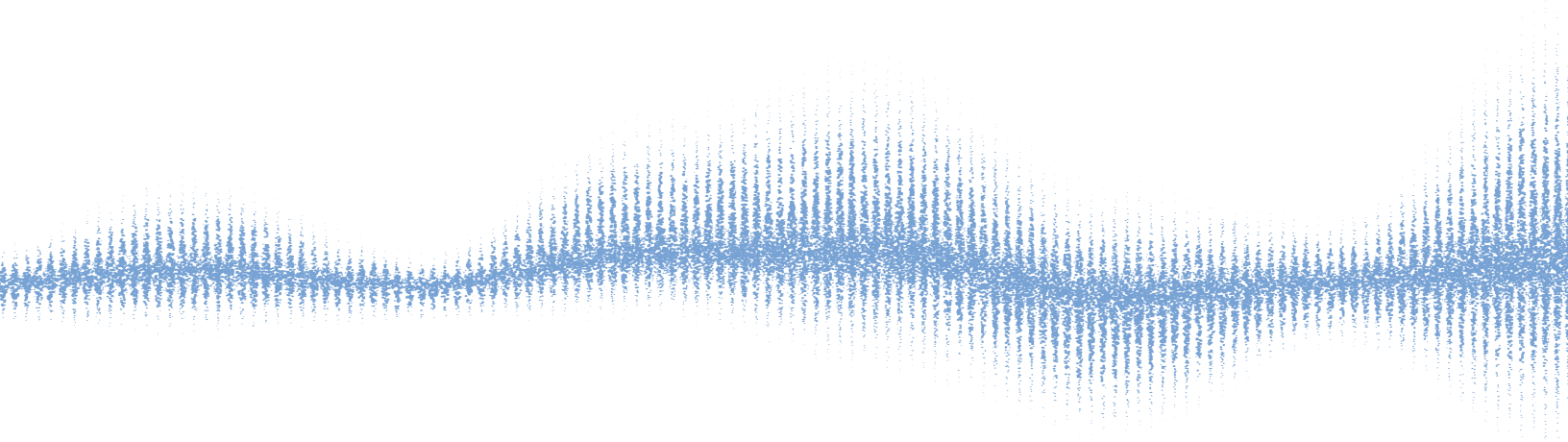

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APPENDIX A: Boxplot Data

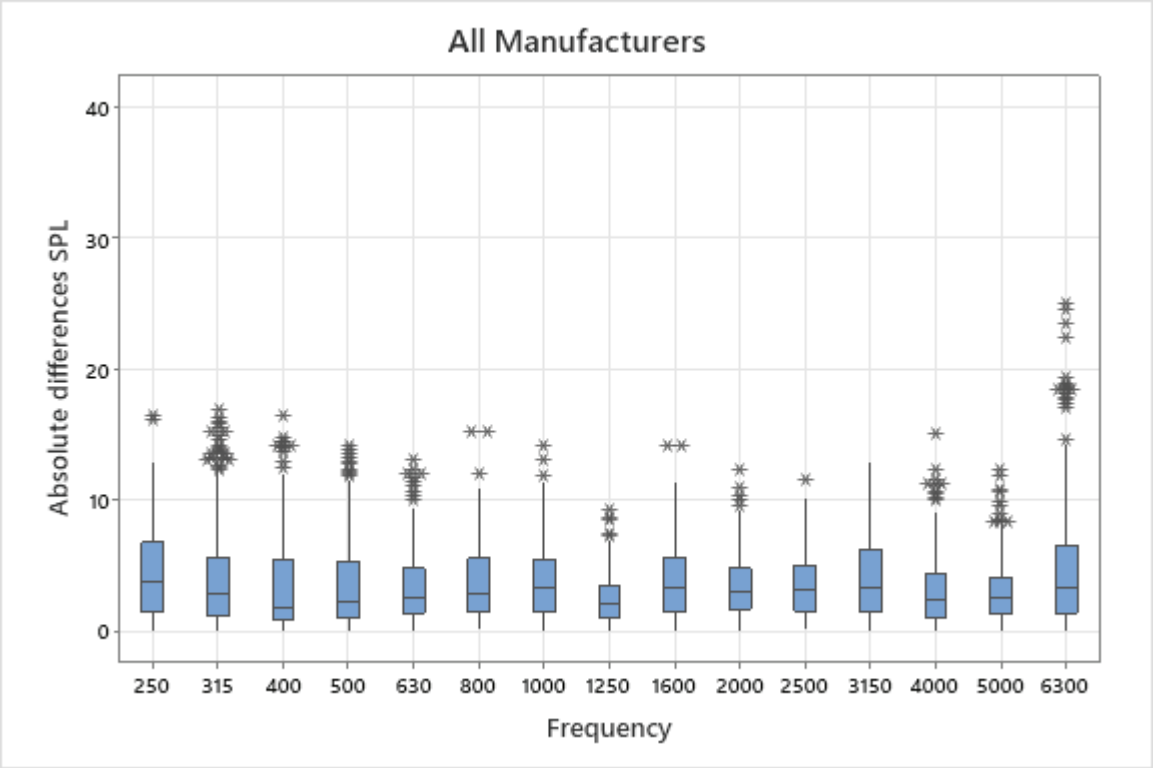

Figure 1: All Manufacturers Data Boxplot

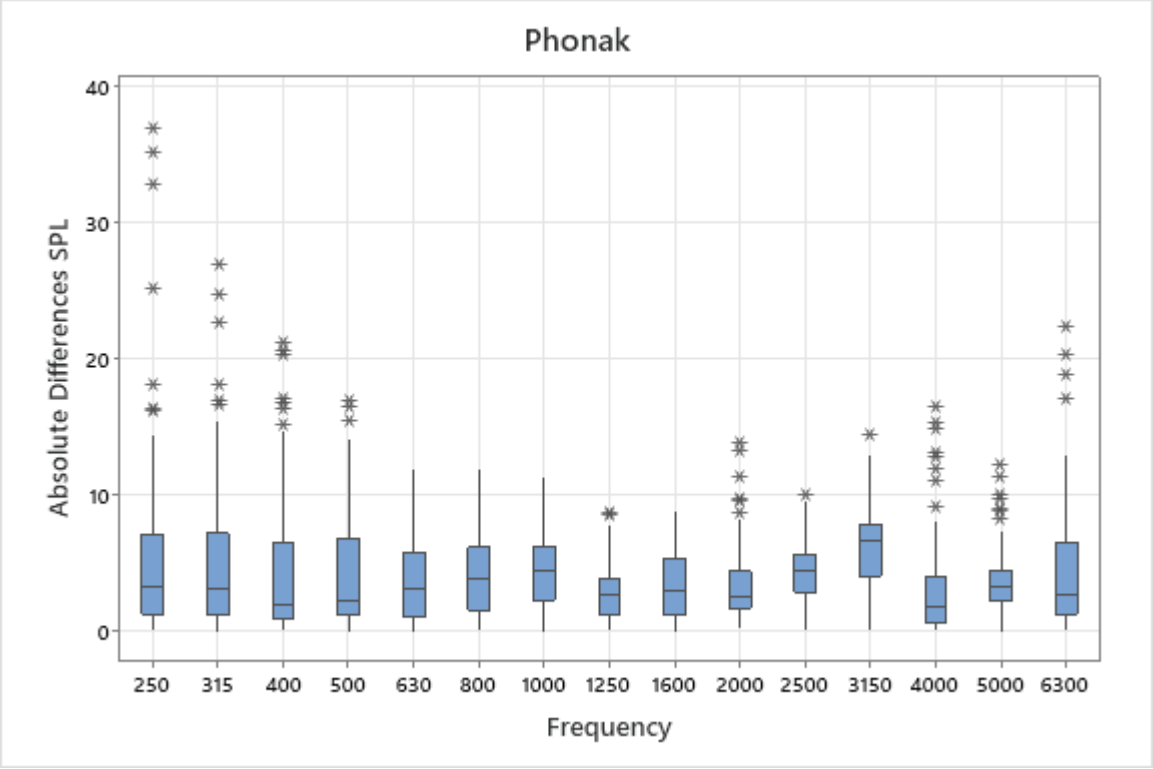

Figure 2: All Phonak Data Boxplot

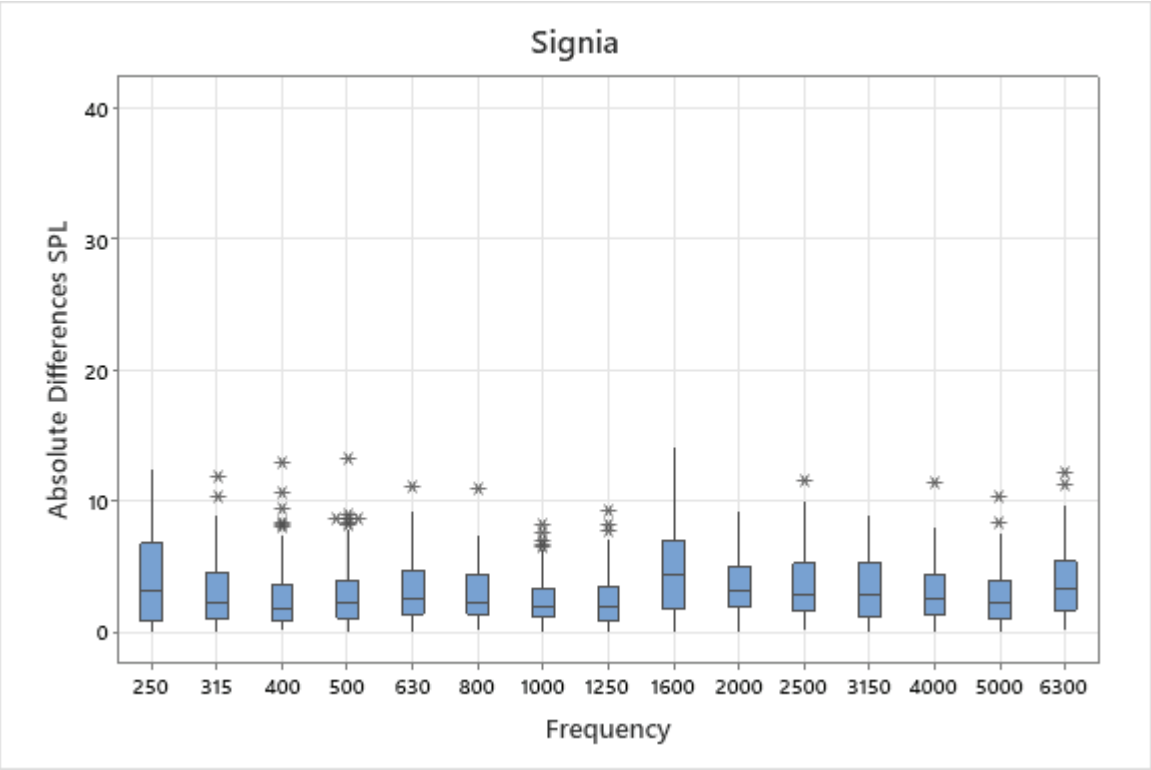

Figure 3: All Signia Data Boxplot

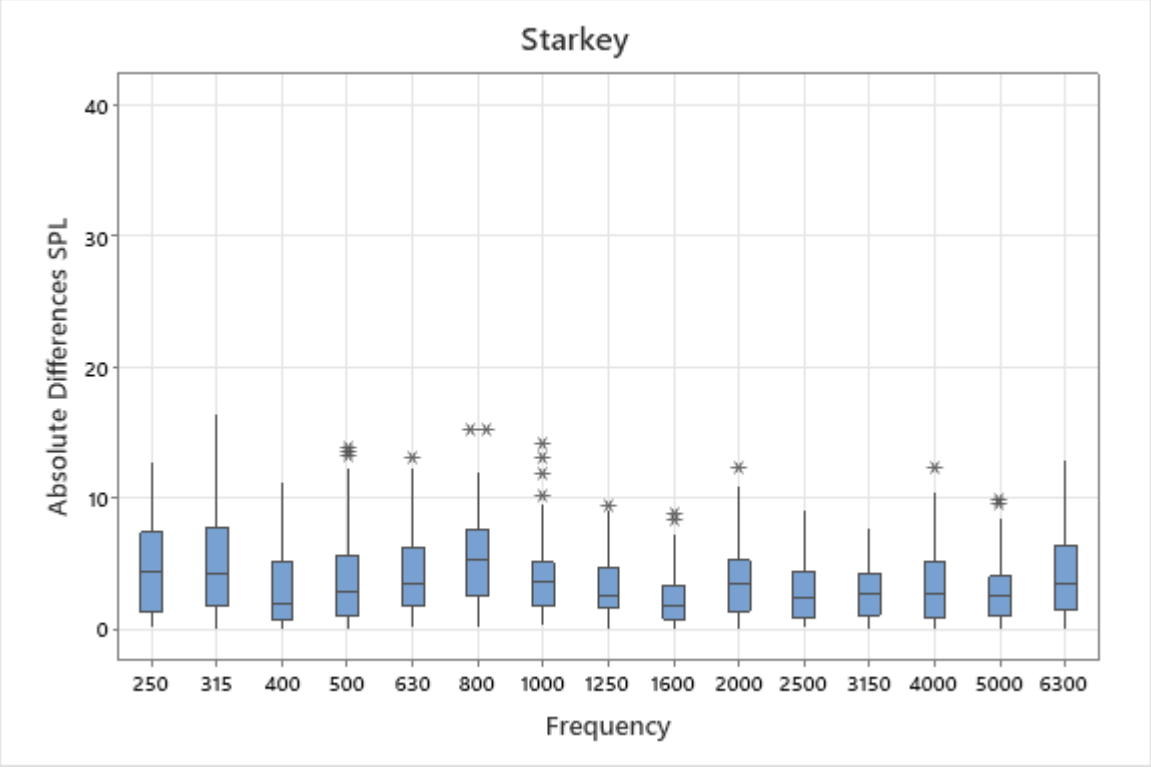

Figure 4: All Starkey Data Boxplot

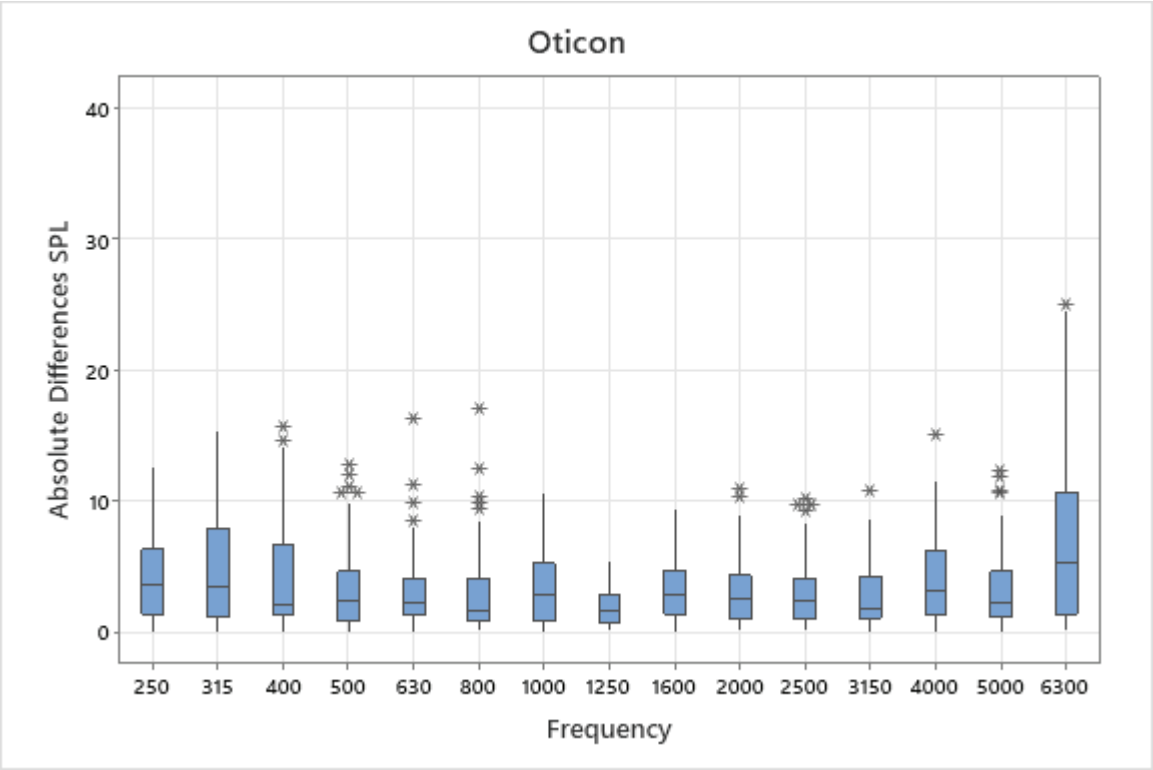

Figure 5: All Oticon Data Boxplot

APPENDIX B: Statistical Data

Input (SPL)	Total MAE	Total RMSE	T Stat	Total RMSE P value
50dB	5.43	5.67	1.16	0.26
65dB	4.03	4.13	-2.47	0.03
80dB	3.19	3.35	-5.68	0.00

Table 1: All Manufacturers Data Stats

Input (SPL)	Total MAE	Total RMSE	T Stat	Total RMSE P value
50dB	5.43	5.67	1.16	0.26
65dB	4.03	4.13	-2.47	0.03
80dB	3.19	3.35	-5.68	0.00

Table 2: Phonak All Data Stats

Input (SPL)	Total MAE	Total RMSE	T Stat	Total RMSE P value
50dB	5.17	5.35	0.74	0.47
65dB	3.82	3.91	-4.38	0.00
80dB	2.97	3.17	-6.31	0.00

Table 3: Phonak data with no conductive loss stats

Input	Total MAE	Total RMSE	T Stat	Total RMSE P value
50dB	3.57	3.71	-4.30	0.00
65dB	3.01	3.11	-8.15	0.00
80dB	3.17	3.28	-7.12	0.00

Table 4: Signia All Data Stats

Input	Total MAE	Total RMSE	T Stat	Total RMSE P value
50dB	3.99	4.19	-2.00	0.07
65dB	3.73	3.91	-3.09	0.01
80dB	3.49	3.62	-4.84	0.00

Table 5: Starkey Total Data Stats

Input	Total MAE	Total RMSE	T Stat	Total RMSE P value
50dB	3.72	3.86	-3.17	0.01
65dB	3.67	3.82	-3.42	0.00
80dB	3.38	4.21	-1.00	0.33

Table 6: Oticon All Data Stats

APPENDIX C: Mean Bar Charts

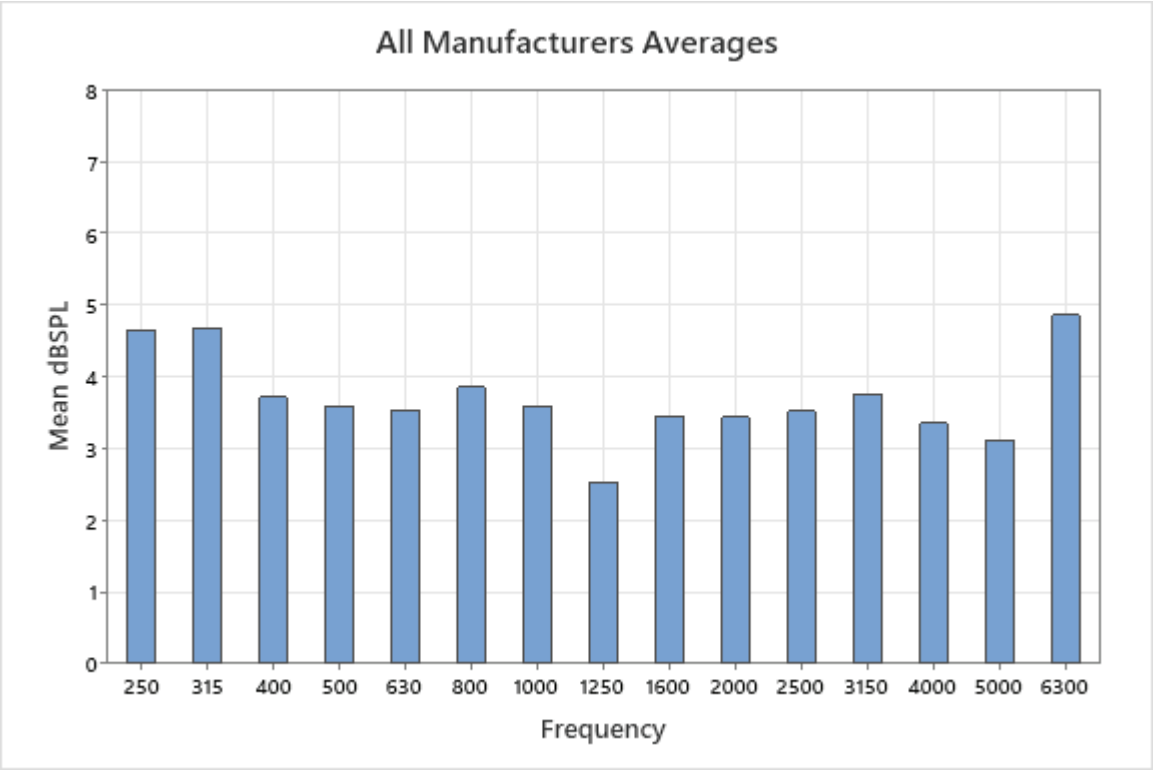

Figure 6: All manufacturers' data averages per frequency

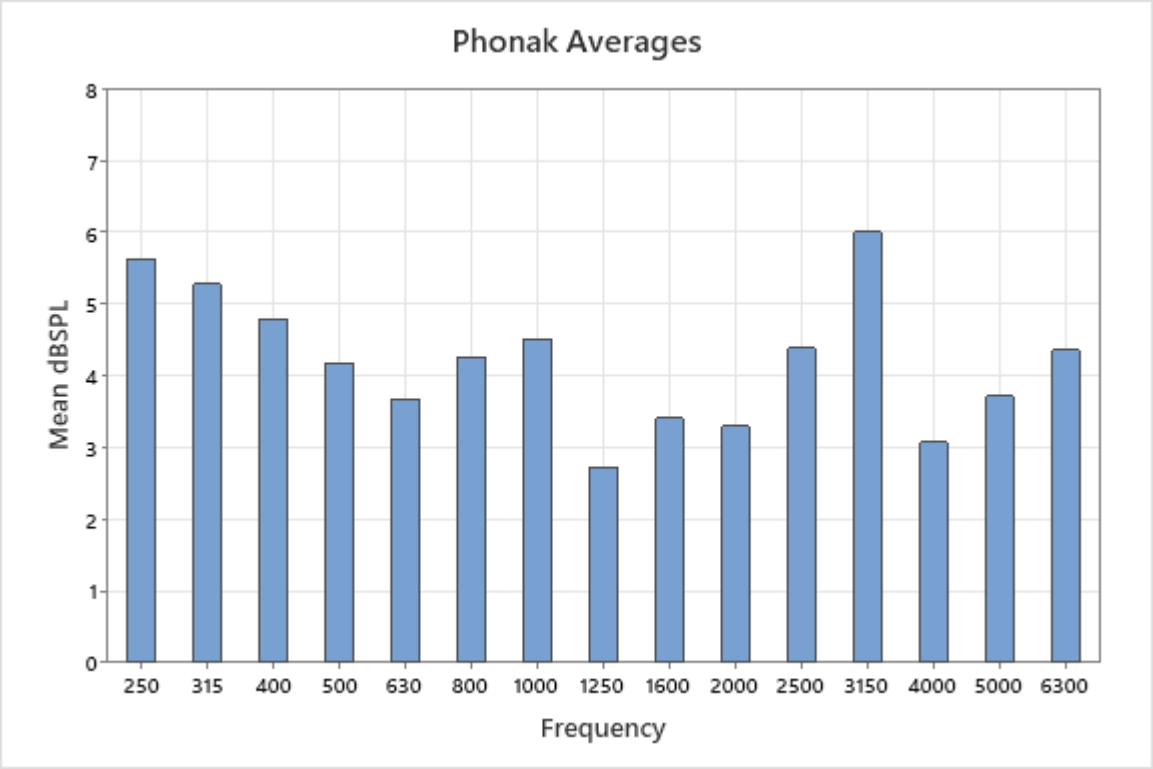

Figure 7: Phonak all data averages per frequency

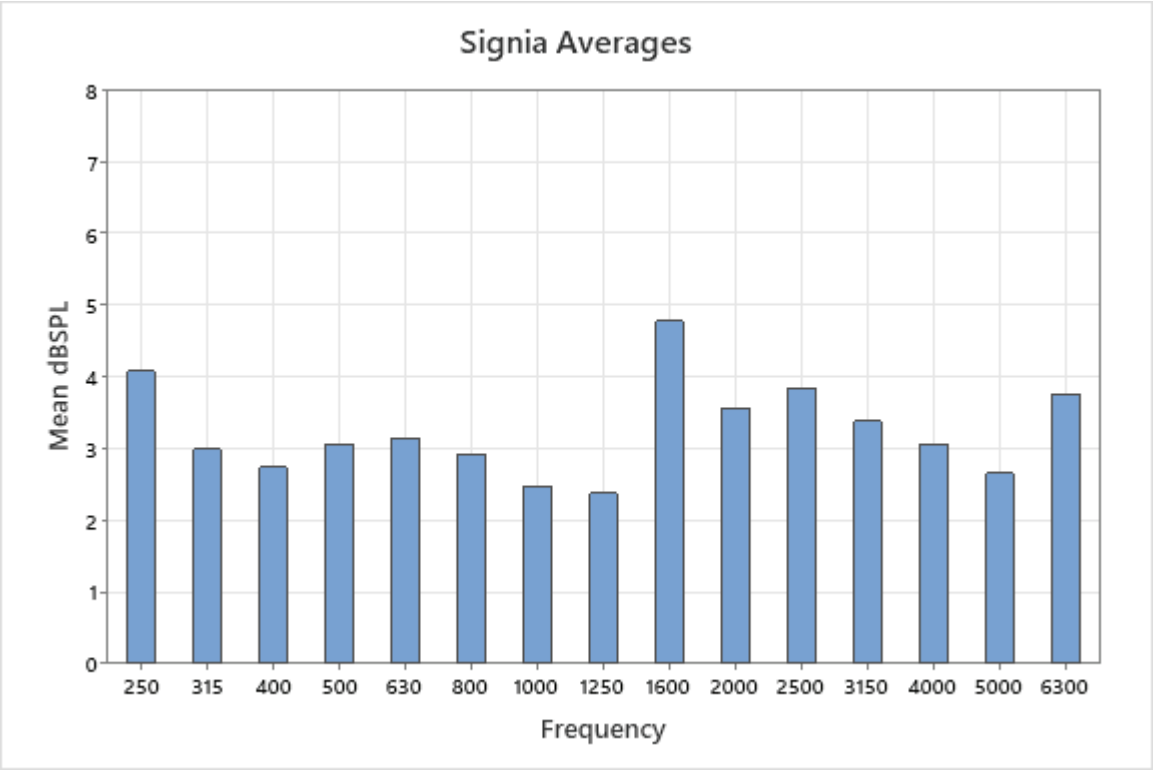

Figure 8: Signia all data averages per frequency

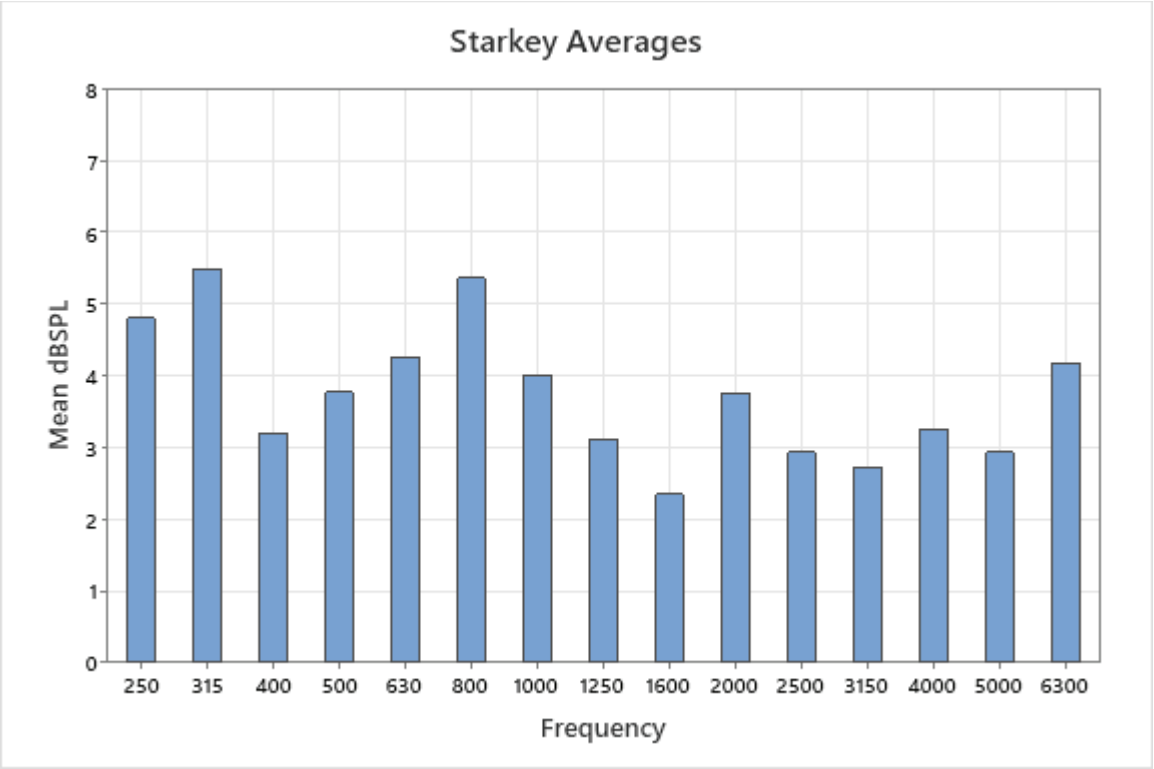

Figure 9: Starkey all data averages per frequency

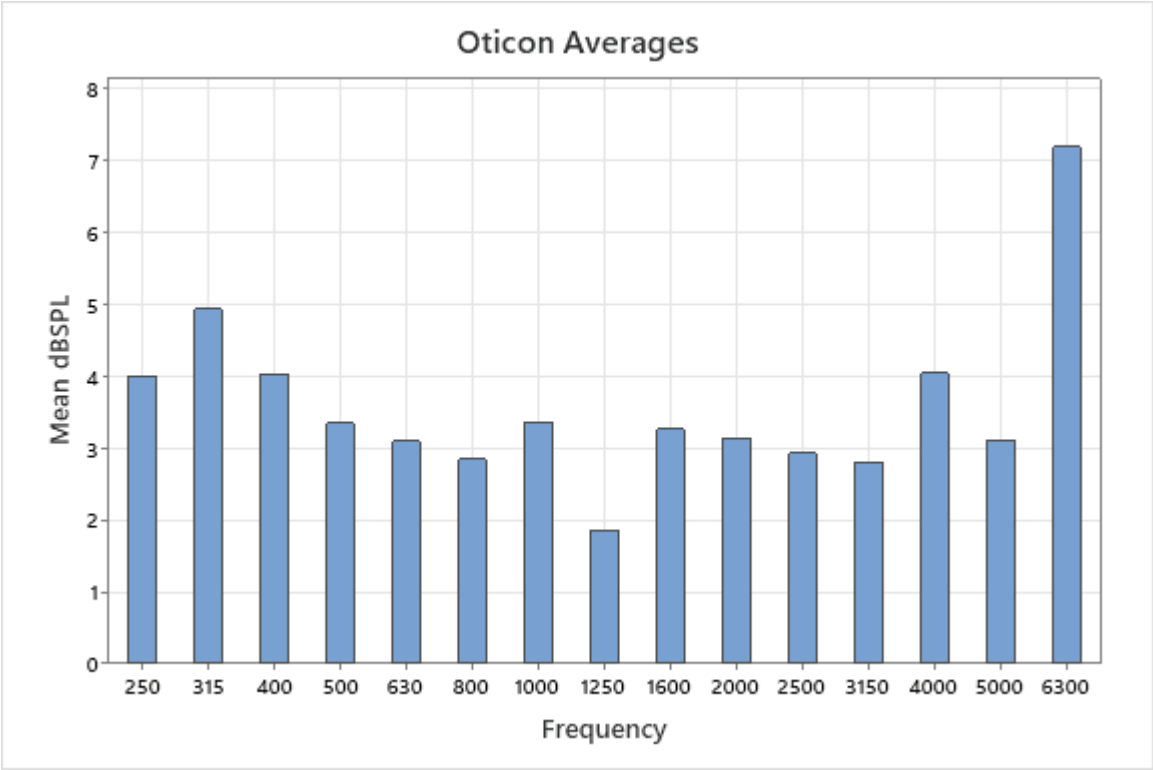

Figure 10: Oticon all data averages per frequency

Emily Brand, *Middlesex University and Click Hearing, Inc* ■

THE NEXT GENERATION OF HEARING CARE:

Meet Two Entrepreneurs Shaping the Future of Audiology

Ashley Goryl, AuD and Lindsey Koble, AuD, sat down with Audiology Practices editor, Brian Taylor, for a wide-ranging interview. If you are an AuD student or a recent graduate you might find their career journey worthy of your attention, as they cover an assortment of timely and relevant topics related to practicing clinical audiology in a small business atmosphere.

Ashley Goryl, AuD

The Hearing Doctors
Wheaton, Illinois
www.thehearingdoctors.com

Lindsey Koble, AuD

Audiology Always
Auburn, Indiana
www.audiologyalways.com

Q AP: Thanks for both of you for sitting down with me. I know you are both doctors of audiology. I hope it's ok to use first names. Lindsey, I'll ask you first, Where is your practice located?

A **Dr. K.:** First names are fine. We are located in Auburn, Indiana which is a town of about 16,000 people just north of Fort Wayne.

AP: And you, Ashley?

A **Dr. G.:** My practice is in Wheaton, IL, which is in suburban Chicagoland. West of downtown.

Q AP: Describe an ideal day in your practice. Dr, Goryl, let's start with you.

A **Dr. G.:** Throughout the day, I see a variety of patients—from fittings and follow-ups to diagnostics and counseling. I take pride in ensuring that every patient receives not only the highest quality of care but also a personalized experience that reflects the values of our practice.

As a business owner, I also spend part of the day managing operations—checking in with staff, reviewing billing, overseeing marketing efforts, and making sure the practice runs smoothly and efficiently. I enjoy the challenge of balancing patient care with strategic planning and business growth, all while fostering a positive and collaborative team environment.

A **Dr. K.:** For me, an ideal day is typically quite diverse. From diagnostic testing on ages 4+ to hearing aid evaluations, fittings, and maintenance to veteran compensation and pension exams to cochlear implant programming to tinnitus evaluation and management to wax removal – we do it all. Outside of patient care, some of my typical tasks include opening the mail, checking Quickbooks and the bank accounts, placing office supply orders on Amazon, paying manufacturer bills, corresponding with my insurance specialist, ensuring schedule optimization, and planning marketing initiatives and events.

THE ENTREPRENEURIAL PATH

Q AP: Tell us about your career path. What jobs did you do before opening your practice? Dr. Koble, let's start with you this time.

A **Dr. K.:** I spent my 4th year of my AuD training at ENT Associates and The Hearing Center in Fort Wayne, IN. This was "home" for me. I always knew I wanted to do my 4th year closer to home. I continued working there for 2 years after finishing my 4th year. As I reflect, I am so thankful for that job. It gave me a strong clinical foundation, taught me to work in a fast-paced environment, gave me the exposure to learn and collaborate with ENT physicians, and allowed me to be a colleague of an awesome group of audiologists who had so much experience and expertise.

"I enjoy the challenge of balancing patient care with strategic planning and business growth."

— Ashley Goryl, AuD

In 2019 the opportunity opened for me to join Signia as the Territory Account Manager for Indiana. I worked for Signia from 2019 until December 2022. Working as an account manager forced me to lean into the business and marketing side of audiology and taught me a great deal about time management, prioritization, and being a reliable resource for my customers. While at Signia I had a great boss, Brian Pecka, who always pushed me to improve myself for the betterment of my customers, and myself. As a result of his encouragement, I pursued, and completed, my MBA through the University of Illinois from 2020-2023. I opened the doors to Audiology Always in April of 2023 – just over two years ago!

A **Dr. G.:** I have a similar path. I began my career in a large private audiology practice, where I gained seven years of valuable clinical experience. Following that, like Dr. Koble, I transitioned into the industry side of hearing healthcare, joining one of the leading hearing aid manufacturers as a representative. In that role, which I held for about five years, I worked closely with professionals across the field, providing product support, training, and consultation.

Q AP: How did your prior work experiences contribute to your realization of opening a private practice?

A **Dr. K.:** My clinical experience from the ENT setting, in addition to the business acumen that I learned while with Signia, gave me the confidence and knowledge to open my own practice. In addition to audiology and business-related skills, my time with Signia allowed me to form a network with industry veterans and fellow practice owners that was invaluable in the earliest days of opening my practice.

A **Dr. G.:** Like Dr. Koble, my past work experiences played a huge role in shaping my decision to open a private practice. Early in my career, I worked as a clinician in a fast-paced private practice, which gave me a strong foundation in patient care and showed me firsthand how a successful clinic operates. Later, I stepped into the role of Director of Audiology, where I started to learn more about the business side—operations, team management, and the importance of workflow and efficiency.

Eventually, I transitioned into a role as a manufacturer rep, working with audiologists throughout Illinois. That experience gave me a broader perspective on different practice models, challenges, and strategies. I saw what worked well across a variety of clinics and what didn't—and it really solidified my desire to create a practice that reflected the kind of care, culture, and service I value most. All those roles helped prepare me to take the leap into ownership with confidence and a clear vision.

Q AP: From what I gather, gaining a few years of clinical experience and networking with others really helped you both prepare to take the leap into private practice. Along those lines, I'd like to hear from each of you, when did you know that private practice was in the cards?

A **Dr. K.:** From the earliest days of me wanting to become an audiologist, I knew private practice was in the cards. As an undergraduate, I would spend my Fridays in the summer shadowing at a private practice near my home. During graduate school, I had two private practice placements that further solidified my thoughts that I'd enjoy ownership. Reflecting now, I am glad that I built my career the way that I did with ENT and manufacturer experience prior to opening Audiology Always.

A **Dr. G.:** For me, I realized private practice was the right path after several years of clinical experience in a large practice setting. I loved working directly with patients, but I also found myself drawn to the operational side—thinking about how to improve processes, enhance patient experience, and build a strong team culture. Over time, it became clear that I wanted the freedom and responsibility that comes with owning a practice -- where I could shape both the quality of care and the direction of the business. That combination of clinical impact and entrepreneurial challenge really motivated me to take that step.

"Reflecting now, I am glad that I built my career the way that I did with ENT and manufacturer experience prior to opening Audiology Always."

— Lindsey Koble, AuD

Q AP: It seems that entrepreneurial spirit – by that I mean a willingness to take risks and leave your comfort zone in a clinic — is an essential characteristic for those thinking about private practice.

A **Dr. G. and Dr. K:** Both emphatically nod their heads.

Q AP: Let's go back to the beginning stages of ownership, how did you acquire or start your private practice?

A **Dr. G.:** I was connected to an audiologist who owned her private practice, The Hearing Doctors, for 17 years and was preparing for retirement. She was looking for the right person to take over—someone who shared her values and would continue providing quality, patient-focused care. My husband and I have three small children, and I was honestly nervous about taking such a big step. But owning a practice had been a longtime dream of mine, and with his encouragement, I decided to move forward. I officially became the new owner of The Hearing Doctors in May of 2024, and it's been one of the most fulfilling decisions I've ever made.

A **Dr. K.:** I started from scratch in the neighboring town to my hometown.

Lindsey Koble, AuD and team.

Audiology Always

Auburn, Indiana

www.audiologyalways.com

Q AP: It is really interesting that you both began ownership at about the same time, but you went about it in different ways. I am wondering, because you acquired or started your practices in different ways, if your challenges and obstacles were different, too.

A Dr. K.: I didn't run into any major obstacles when opening, but the whole journey was just a process of steps. From projection planning, to contacting a lawyer, to securing a loan, to budgeting, to finding a space to hiring a contractor for a buildout, to choosing equipment and everything in between. It was a long 3-4 months, involving many decisions. I leaned on many practice owners around the country who had 'been there, done that' and it was invaluable support in the earliest phases.

A Dr. G.: The biggest obstacle to purchasing an existing audiology practice was ensuring a smooth transition—both financially and operationally. While the foundation was already in place, I had to thoroughly evaluate the business to understand its true value, assess financial health, and negotiate terms that made sense long-term. Beyond the numbers, I also had to consider how to maintain continuity of care for existing patients while gradually implementing changes to align the practice with my vision. Balancing respect for the established practice with the need for growth and modernization was both challenging and rewarding.

COMPETITIVE ADVANTAGE AND THE PATIENT EXPERIENCE

Q AP: My take-away is that starting from scratch versus acquiring an existing practice comes with different challenges. Let's shift gears and discuss competition. Today, we have OTC hearing aids, Costco big-box and a range of direct-to-consumer sales channels all competing for business. What differentiates your practice from competitors?

A Dr. K.: I am the only independently owned hearing care practice of my three competitors in my town of 16,000 people. We have one location staffed with 3 audiologists and we are open 5 days per week. Most importantly, we practice to the top of our scope utilizing clinical best practices. This starts with our intake forms through the hearing evaluation and culminates in the way we discuss treatment options. We put a great deal of intention on the patient experience. We use the same scent in a diffuser daily, offer free coffee and soda, have the Smithsonian channel on TV, and have fun music on the radio. When patients walk into our office they feel the difference and often comment on it.

A Dr. G.: What sets The Hearing Doctors apart is our commitment to a highly personalized, patient-centered approach. We don't just focus on hearing loss—we focus on the individual. From the moment a patient walks through our doors, we take the time to understand their lifestyle, communication needs, and long-term goals.

Additionally, we stay on the leading edge of technology and best practices. This allows us to offer advanced care in a warm, accessible, and supportive environment—something that truly builds trust and long-term relationships.

Q AP: Based on those comments, I think it is fair to say that the competitive advantage of a small, independently owned and operated practice is the provision of a highly personalized patient experience. That seems to be something that many individuals seeking hearing care services strongly desire, and one that cannot be duplicated online or with buying from a so-called big-box store.

Thanks for sharing your go-to-market or brand strategy. I'd like to talk more about day-to-day operations inside your practice. We all know the importance of generating consistent revenue. Besides fitting hearing aids, what other revenue sources do you rely on?

A Dr. G.: We bring in revenue through a few other areas that really support patient care. We offer earwax removal, custom earplugs, and assistive listening devices that pair well with hearing aids. We also use LACE aural rehab to help patients get the most out of their hearing, which they really appreciate. On top of that, things like batteries, accessories, and service plans help keep patients coming back and provide steady income.

A Dr. K.: Between our three audiologists, we have a wide range of specialties beyond hearing aids, from pediatrics to tinnitus management to cochlear implants. We do accept managed care and fit all our hearing aids with a 1-year service plan, so we collect office visits and service fees beyond that one year. We do charge extra for a communication needs assessment at the initial consultation, and we also charge for real ear measurement at the fitting. We perform wax removal using curette, suction, and/or irrigation, and we are actually starting to see more referrals from physicians in town who

either were unsuccessful or didn't have the time to remove it in office.

Two of us are the tinnitus specialists of the office. We are Lenire providers and a Modern Tinnitus partner clinic. We collect money for the initial tinnitus consultation and offer a range of treatment plans and options that patients can opt into. One of my providers spends most of her time completing VA Compensation and Pension exams and we have found this to be a consistent and reliable, stream of revenue since Day 1 of opening our practice.

Q AP: Tell us about how you acquire patients. What marketing and advertising strategies do you find to be the most effective?

A **Dr. G.:** We've found that the most effective way to acquire and retain patients is through relationship-based marketing and community involvement. Patient referrals are a major source of growth for us, which we take as a sign that people trust our care enough to recommend us to family and friends. We also maintain an active presence in the community as members of our local Chamber of Commerce, which helps us build connections and visibility.

In terms of advertising, we focus on a mix of digital and traditional strategies. A well-maintained website with strong SEO, along with patient education through social media and email newsletters, has helped us reach new patients who are actively looking for hearing care. At the same time, we've found that word-of-mouth and community presence remain some of the most powerful tools for building long-term trust and loyalty.

A **Dr. K.:** We use many of the same marketing tactics that Ashley outlined. My strategy for marketing is to be the face of transparent hearing care for my community. To do this, I attend senior fairs, I give presentations at senior clubs and the YMCA. I sponsor little league teams and car shows, and I network with local professionals and physicians. When I present a message it is not a sales pitch or a product pitch, it always comes from the angle of education as the local expert.

I find that my online presence has also been vital for our quick growth. Facebook has worked for me. My Facebook page is full of real pictures that I take, patient success stories, information about our staff, and relatable content. We also often get compliments from our website. Patients feel like they know us before they ever walk through our doors because I was very intentional about the website content when I built out my site. I'm just starting to dabbling in the world of YouTube and TikTok- ask me more about that in another year!

My goal as far as patient acquisition is concerned is to build superfans, I reward my patients with an additional year of service if they refer a friend and we call them to thank them for spreading their positive experience in the community.

BUSINESS OPERATIONS

Q AP: It's notable that your patient acquisition and marketing tactics align with your brand strategy. You're striving to be authentic in your messaging. I bet it's your messaging that brings patients into your practices is consistent with the experience they get. When those two components align, patients are usually extremely satisfied and act as disciplines of the practice.

I know that insurance contracts and managed care are a real hot-button issue. Could you share with us, how does your practice handle third-party billing and other types of insurance plans?

A **Dr. K.:** I would be happy to elaborate. We are in network with the major managed care plans in our area and we are also in network with Medicare, Medicaid, and Anthem. We handle the third-party billing in house utilizing their portals and our own payment tracking system that we've establishing. When it comes to Medicare, Medicaid, Anthem, and any other commercial billing we work with an independent insurance biller based out of Michigan. She owns her own business and bills remotely via my CounselEar/Claim MD. Outsourcing billing was one of the best decisions that I made when I opened by practice.

A **Dr. G.:** We also work with third-party administrators and are in-network with all major insurance companies, which makes the process smoother for our patients. Our team is well-versed in handling insurance verification, authorizations, and billing, so we make sure patients understand their coverage and any out-of-pocket costs upfront. We aim to take as much of the administrative burden off the patient as possible, so they can focus on their care.

Q AP: What financial reports do you review and how often do you review them?

A **Dr. G.:** In my practice, I regularly review key financial

reports to keep a clear picture of how the business is performing. On a monthly basis, I look at the profit and loss statement, balance sheet, and cash flow report. These help me track revenue, expenses, and overall financial health.

I also keep a close eye on hearing aid sales reports, average revenue per patient, and appointment volume to understand trends and identify areas for growth.

Staying on top of the numbers is important to me—not just for running a successful business, but so we can continue to invest in technology, training, and patient care.

A **Dr. K.:** The three tabs that I view every day are my CounselEar, MVP, and QuickBooks. In CounselEar my #1 dashboard box is revenue broken down by month. I can easily break this down further by provider and revenue type when I need to. My #2 dashboard box is payment summary-this tells me how much money we've actually received for the month. I like looking at MVP for a quick snapshot of trends-weekly, monthly, and annually. In QuickBooks I have all my bank accounts and credit cards linked so I can see the overall financial status of the practice.

At this point, a few years into operating my practice, I have a general idea of my total monthly expenses so I know where we need to be in monthly revenue to trend towards my annual goals. I do a deep dive on my monthly expenses about once a quarter to keep an eye on any subtle changes. As expenses increase, my cost per hour to maintain profitability increases so this guides me to make pricing changes when needed.

Q **AP: Tell us about your staff. How many people do you employ and what are their roles inside each of your practices?**

A **Dr. K.:** I have a staff of five that come to the office, but really I would say it's a staff of seven. Dr. Shelley, Dr. Jessica, and I are the staff audiologists. Dr. Shelley has 20+ years of experience and her expertise is cochlear implants, hearing aids, and tinnitus management. Dr. Jessica has been an audiologist since 2018 and enjoys pediatric work, but also runs our VA Compensation & Pension program and works with hearing aids for all ages. My clinical focus is hearing aids and tinnitus management.

Amanda is our office manager. She has been with me since Day 1. Prior to working at Audiology Always she came from many years in the restaurant industry as a waitress and bartender. She has evolved from receptionist, to audiology assistant, to office manager. She helps with walk-ins, prepares intake forms, checks in hearing aids, helps with phone answering, adds patients to insurance portals, and works through schedule optimization for our providers.

Abby is our newest hire within the past couple of months. We hired her as a receptionist to help Amanda with the phone 2 days per week. I foresee Abby also taking on more of a role of audiology assistant in tandem with her receptionist duties.

The other two that I consider part of team Audiology Always are Tanya, who does our insurance billing remotely from Michigan, and my mom, who does our scanning and enters payments into CounselEar.

A **Dr. G.:** We're a small team compared to Lindsey. Because we are small and close-knit it allows us to provide a highly personalized experience for our patients. In addition to myself, I have one full-time audiologist—who also happens to be my sister. We share the same values when it comes to patient care, and it's been a dream being able to work alongside my sister.

Our office manager has been with the practice for over 15 years and is truly the backbone of our day-to-day operations. We also have a part-time receptionist who supports the front desk and helps create a welcoming environment for our patients.

Q **AP: Wow, I didn't know you and your sister worked together in the same office.**

A **Dr. K.:** You want to know something, my sister is also an audiologist, and she owns her own practice in the Cincinnati area. Well, she's not my biological sister, but my "sister" who is attached to my hip.

Q **AP: That's unbelievable. There must be something in the genes for all four of you to be working in private practice.**

A **Dr. G.:** Maybe it's something in the water.

Q **AP: Since you work with your sister, it must present some interesting challenges. I am curious to know how you describe your management approach.**

A **Dr. G.:** My management style is pretty collaborative and hands-on. I like to keep the lines of communication open and make sure everyone feels comfortable sharing their ideas or concerns. I believe in leading by example, so I try to stay involved and be approachable.

I also make sure the team has what they need to succeed, whether that's training, guidance, or just support when things get busy. I want everyone to feel valued and confident

Ashley Goryl, AuD and her sister, Taylor Bender, AuD.

The Hearing Doctors

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in their role, and ultimately, I aim to create a positive environment where we all work together to give our patients the best care possible.

A **Dr. K.:** Mine is similar. I am strongly focused on harmony within the practice, while empowering my staff with the tools, training, and space to be the best at their craft. When I hired my staff I did it very intentionally and chose the people who I knew had skills that would complement what I was already doing, and who would treat our patients just as I would. I have the luxury of having previously worked with both of my audiologists, I knew Amanda from her restaurant days, and Abby was a year older than me in high school. We are all moms and have other obligations outside of Audiology Always. I encourage the family first, never miss a game, and take vacation time when you need to mentality.

I am not a helicopter boss because I have full trust in them to do best by the patient in front of them and complete all notes, paperwork, billing, etc. without me having to look over their shoulder. Of course, we have checks and balances in place because mistakes do happen. My staff has full visibility to the practice revenue and their personal revenue and I believe this helps to hold people accountable to understand their contribution to the practice success.

When I make changes to pricing, processes, or procedures in the office we always have a meeting to discuss the 'why' behind my decision and how we're going to move forward. The staff respects that business decisions must be made and I have found that with a reasonable explanation for the 'why' they get behind it an adapt quickly.

Q **AP: I find that many new practice owners – ones that recently became audiologists – are more collaborative and democratic in their management style compared to owners from 25 or 30 years ago. In addition to management style, I am interested in your take on office culture. What is the culture of your practice like, and how does it reflect your personal values?**

A **Dr. K.:** Welcoming and humanistic. Patients feel this and I hope my staff does, too. I want people to come as they are. It's not uncommon that I'll sit out in the waiting room and chat with a patient and Amanda for 5-10 minutes when they're the last one of the day. Or Amanda may run out to their car and help them make it to the door. We've been known to do house calls when our patients cannot get to the office and we know they need help. Our patients often ask about our families, and we are happy to share- this makes us human. We treat people with respect and enjoy what we do because of it.

My staff understands that they can come as they are- tired because they were up all night with a kid, family health issues, long weekend of travel. We all understand life outside of work can be tough and we help pick up the slack when someone isn't at 100%. I think this makes my staff feel comfortable, appreciated, and real.

Our work pace is efficient. I never want our patients to feel rushed and I also don't want my providers to feel as though they have to rush through an appointment. I believe patients recognize this pace and appreciate it. My hope is that this pace helps my audiologists to stay sharp during each appointment and avoids the frustration of feeling pushed to work too quickly.

Q **AP: That very much reflects your competitive advantage that you mentioned before.**

A **Dr. G.:** I think it must all fit together. Culture is incredibly important to me, both for our staff and our patients. I believe the way we interact with each other directly impacts the care we provide. Working alongside my sister, we view this practice as a family business, and we treat every patient like they're an extended part of our family. When the culture is strong and everyone feels valued, that translates into the kind of care and connection our patients experience.

Q **AP: What type of patients do you enjoy working with most, and why?**

A **Dr. G.:** I enjoy working with patients who are motivated to improve their hearing and open to trying new solutions. Helping them regain confidence and reconnect with loved ones is very rewarding, especially with older adults who appreciate the impact of better hearing.

A **Dr. K.:** My answer is a little different. My favorite patient to work with is a tinnitus patient who feels like they've tried everything. These patients often come to us feeling defeated, but hopeful. We spend 90 minutes with our initial tinnitus consultation, and it gives me time to get to know these patients on a pretty intimate level. It's amazing how they open up when they feel someone truly cares. Over the past two years I have worked diligently to build out a tinnitus program - that is something I am proud of. The customization of a tinnitus management program is my favorite part as each patient presents so uniquely. I find myself continuing to learn and invest in opportunities to further my skills when it comes to tinnitus care, and I believe the constant pursuit to become an expert is why I enjoy it so much.

PATIENT CARE

Q AP: What is your typical approach to the initial audiology examination with a new patient?

A **Dr. K.:** We start with an extensive case history and the screening version of the Hearing Handicap Inventory for the Elderly (HHIE-). We then bring the patient back to the booth for otoscopy and then complete air conduction, SRT, WRS at 50 dB HL, WRS at MCL, QuickSIN, and bone conduction. We will perform tymps and OAEs if needed.

A **Dr. G.:** Lindsey is giving you the technical details and in my practice we do about the same. Here is something else I try to do: When I see a new patient, I always start by learning about what's important to them. I want to understand their hearing challenges and how it's affecting their daily life. It's often a big step for patients to come in for a hearing test—it can take years for them to make that decision—so I want to make them feel as comfortable as possible.

We use a bit of humor and laughter during the exam to help ease any tension and make the process more relaxed. I find that when patients feel at ease, it's easier to have an open conversation about their results and the best treatment options. Ultimately, I want to make sure they feel confident and supported in taking the next steps toward better hearing.

Q AP: As you look into the future of your practice, what, if anything, keeps you up at night?

A **Dr. G.:** I wouldn't say that I'm concerned about the future of my practice; in fact, I'm really excited about it. What keeps me up at night are all the ideas and ways I can continue to improve and expand the care we provide for our patients. Whether it's adopting new technologies, refining patient experiences, or finding new ways to reach people who could benefit from our services, there's always something I'm brainstorming. I'm constantly thinking about how we can evolve and do more for our patients, and that drive for continuous improvement is what fuels my passion.

A **Dr. K.:** Ha! Is everything an option? The opportunities within audiology are endless right now. We are currently at our max capacity with our office space as far as provider rooms, so I am often thinking about what's next when it comes to growth. The options that are reasonable are finding a larger space, opening a second location in a neighboring town, or doing all we can to maximize profitability in our current space that we're in prior to making any other moves. I foresee the next one to two years being a chance for me to look at schedule utilization, the percentage of managed care business, and pricing structure to see how we can stay with one location, continue to serve our community, and achieve max profitability with our three providers.

THE FUTURE OF AUDIOLOGY AS A SMALL BUSINESS

Q AP: I love how you are constantly thinking about and planning for the future. That is certainly the hallmark of an effective leader. Ashley, since you mentioned adopting new technologies, I would like to start with you on the next question. How do you keep up with the latest research and technology in audiology?

A **Dr. G.:** I make it a priority to stay current because audiology is always evolving, especially with how quickly hearing aid technology and best practices change. I regularly attend professional conferences, webinars, and manufacturer trainings, and I stay connected through professional organizations where new research and ideas are shared.

That said, as a business owner and a mom of three small kids, it can definitely be challenging to find the time. But I carve out space whenever I can. Staying up to date is important to me because it helps me give my patients the best care possible, and it keeps me feeling engaged and inspired in my work.

A **Dr. K.:** I'll expand on what Ashley said because staying current is more than reading journal articles and talking to technology experts. I am active on LinkedIn. I follow many colleagues who I would consider experts and reliable sources in the audiology space. I enjoy reading their opinions and I also find this to be a great space to see the latest research releases. I also follow JAMA and AAO as I believe with the evolution of Audiology we need to stay informed on the way medicine is changing.

I do follow each of the manufacturers closely to stay up to date on what each of them are investing their resources in. I try to attend as many manufacturer events as possible. We fit all brands at Audiology Always so I feel an obligation to fully understand the technology, and research, behind each offering. Socially, I do follow HearingTracker, HearAdvisor, Dr.Cliff, and Matthew Allsop for hearing aid and technology content. Ultimately, I read, and I listen. If someone from the field shares an article that I believe could influence the way I practice, I read it. If there is a webinar that I believe is informative and useful, I will make time to join.

Q AP: Let's stay on this line of thinking. What are your current thoughts on tele-audiology, remote testing and OTC?

A **Dr. K.:** There is no doubt that tele-audiology can be successful in audiology and there is a part of the population that wishes to receive treatment that way. In my office, most patients prefer to come in for an in-person appointment. We do have a small number of patients set up for remote support, but it has rarely been utilized by us over the past 2 years.

I also believe the process of remote testing has been validated to the point that I trust the results if guided by a professional. We do not use remote testing in my clinic, but I will never say never. I do have an online screener embedded on my website. If nothing else, I think it is an easy way for people to gauge where they're at without taking the steps to make an appointment. I just recently saw a patient who came in to see us after completing our online screener.

Over-the-counter hearing aids (OTC) have not had any notable impact on my practice. When I first opened my practice, I was trying to incorporate OTC into my offerings, however, I found that most patients interested in OTC had a managed care plan that had a programmable hearing aid option at less of a cost than what they could get an OTC. I do get occasional questions on the differences and if I would recommend it for their hearing loss or not. I do not view OTC as competition as currently my patient base still seems to value the in person, expert guided, model of care. However, I do try to stay up to date on the best OTC options to have informative conversations with my patients.

A **Dr. G.:** I think tele-audiology and remote care have opened up some great opportunities to reach patients who might otherwise have difficulty accessing hearing healthcare—especially those in rural areas or with mobility issues. It's not a replacement for in-person care, but when used thoughtfully, it can be a great complement to what we do in the clinic.

As for OTC hearing aids, I think they have a place in the hearing care landscape. They can be a good first step for people who might not be ready to commit to a full hearing aid fitting or aren't sure what kind of help they need. That said, I still believe the guidance of a hearing professional is key. Hearing loss is complex, and having a proper diagnosis, counseling, and follow-up care makes a huge difference in long-term success.

Overall, I'm open to technology and innovation as long as it's used in a way that supports better patient outcomes. The goal is always to meet people where they are and help them hear better in a way that works for their individual needs.

Q AP: What advice do you have for an aspiring practice owner? I'll start with you, Lindsey.

A **Dr. K.:** My advice is to put yourself out there to make connections with current practice owners. To do this, I encourage attending state meetings and national conferences. The support that I have received from practice owners around the country has been invaluable.

Gaining management experience within a healthcare setting, working at a private practice, or working for a manufacturer also provides a unique skillset to learn management skills, further understand business decisions, and form a greater understanding for the industry as a whole.

I would also encourage all providers to connect with their hearing aid reps from all the brands. Even if you don't fit a certain company I guarantee you can learn from them, and they may have a connection that you didn't know you needed.

Q AP: Ashley, I will give you the last word. Same question – any advice for aspiring owners?

A **Dr. G.:** My biggest piece of advice is to be confident in your clinical skills but also be prepared to learn the business side—it's a whole different world. Don't be afraid to ask questions, seek mentorship, and surround yourself with people who can support you, whether that's an accountant, attorney, or experienced practice owner.

Also, be really clear on your 'why'—what kind of practice you want to build and what values will drive it. That vision will guide your decisions when things get overwhelming. And finally, be patient with yourself. Growth takes time, and you'll learn a lot along the way. It's incredibly rewarding to build something of your own and see the difference you can make in your community.

Q AP: How can aspiring entrepreneurial audiologists contact you?

A **Dr. K.:** drlindsey@audiologyalways.com

A **Dr. G.:** drashley@thehearingdoctors.com ■

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CLINICAL BULLETIN #4

Brian Taylor, Au.D.

Assessing Digital Literacy and Determining Wireless Streaming Candidacy

As most audiologists know, there are myriad wireless technologies available in all prescription hearing aids, including several different Bluetooth streaming protocols. Regardless of the specific streaming protocol in a smartphone-integrated hearing aid, many individuals underuse or flat-out do not use Bluetooth streaming to listen to podcasts, enjoy music or talk on the phone.

Some individuals may value wireless streaming and benefit from it on Day 1 of hearing aid use. Others may choose to ignore the wireless streaming features and never use them. A few even might be wireless streaming-curious, needing coaxing and coaching to begin using their smartphone-integrated hearing aids – sometimes a year or more after acquiring it.

The purpose of Clinical Bulletin #4 is to outline a practical strategy for determining how Bluetooth wireless streaming features can be prioritized for new hearing aid wearers. Further, this bulletin provides common-sense insights on when and how to introduce Bluetooth streaming into the individual's communication goals as targeted on the Client-oriented Scale of Improvement (COSI).

Smartphone-integrated Hearing Aids Are Needed

To fully adopt and use smartphone-integrated hearing aids, of course, wearers must first possess a smartphone. According to the most recent Pew Research surveys, the percentage of older adults owning smartphones has risen substantially in recent years, with a 2021 survey showing that 61% of those 65 and older own a smartphone. This is up from 53% in 2019 (Pendlebury, 2021) and reflects a continuing trend: increased smartphone-enabled technology adoption by older adults.

Wireless streaming, a feature requiring smartphone-integrated hearing aids, and its popularity also appears to be rising. A recent analysis of more than 891,000 adult hearing aid wearers from around the world indicated that over 50% of wearers of a recently launched premium hearing aid used their hearing aids to stream music, podcasts or phone calls at least once a day (Pruess & Bulut, 2025). The researchers also reported that respondents' current streaming time with the newest model represented a 5 to 8% increase in streaming time compared to wearers of earlier platforms of the same brand. Finally, the researchers reported the average amount of time per day streaming was 36.5 minutes, a three-to-four-minute increase over earlier platforms. These data suggest that a growing number of hearing aid wearers, albeit slowly, are spending more time streaming directly to their hearing aids to do three things in roughly equal numbers: listening to music, listening to podcasts or conversing on the phone.

Overcoming the Digital Divide:

Identifying Wireless Streaming Candidates

According to the Audiology Practice Standards Association (APSO) guideline S2.1 Hearing Aid Fitting for Adult & Geriatric Patients (2021), "assistive technology and accessories are considered to facilitate accessibility to other devices and to satisfy the wearer's listening and communication needs." Given these best-practice guidelines, a key part of hearing aid fitting procedures should include a careful assessment of wireless streaming candidacy.

If the availability of Bluetooth wireless streaming on hearing aids leads to better outcomes and APSO guidelines call for recommending it, then clinicians should triage candidates into the following three categories during the hearing aid evaluation:

1. Competent and Confident Streamers: Wearers likely to benefit from wireless streaming immediately and need little to no additional instruction and guidance on how to integrate their smartphone into the wireless streaming process.
2. Coachable Streamers: Wearers likely to benefit from wireless streaming but require additional instruction and guidance on how to successfully integrate their smartphone into the wireless streaming process.
3. Non-streamers: Wearers unlikely to want or need wireless streaming. However, their desire or need to use wireless streaming may change in the future. Therefore, wireless streaming abilities should be re-assessed at periodic follow-up visits.

Wireless Streaming Candidacy Considerations:

Three Categories, Five Questions

Self-assessment inventories have been a valuable part of the hearing aid selection and fitting process for many years. As detailed by Taylor & Mueller (2025), self-assessment inventories can be used to a.) determine if there is impairment, b.) as a needs assessment for treatment planning, and c.) as a validation measure of benefit, satisfaction and quality of life improvements. During an initial consultation self-assessment inventories can be a particularly useful way to quickly identify listening situations where the individual is experiencing communication difficulties and to prioritize hearing aid features important to the individual.

Some self-assessment inventories help clinicians select the most suitable hearing aid features based on the individual's priorities and needs. The Hearing Aid Selection Profile (HASP), developed by Jacobson et al (2001), and its cousin, the 9-question Characteristics of Amplification Tool (COAT), developed by Sandridge and Newman (2006) are two such self-assessments that have been used to prioritize hearing aid features for the individual. The COAT is clinically useful, developed 20 years ago, does not have any questions that rate the importance of wireless streaming. Consequently, its usefulness with smartphone-integrated hearing aids is limited.

Recently, audiologists at Western University developed the Hearing Aid Attribute Feature and Importance Evaluation (HAFIE) questionnaire (Saleh, et al 2023). The HAFIE is divided into nine sections: Smartphone-based Technology, Multi-environment Functionality, Comfort and Appearance, Convenience and Connectivity, Ease of Use, Audibility and Speech Intelligibility, Streaming, Batteries & Charging, and Hearing Aid Styles. The creators of the HAFIE have also

developed a 14-item shortened version. Although 14-items is still too long for clinical use, there are three HAFIE questions, when modified, that can be used in the wireless streaming candidacy triaging process.

The first step in the wireless streaming triaging process is determining the importance of using wireless features for the individual. This step is completed by administering the three streaming questions, adapted from the HAFIE. Figure 1 illustrates the three streaming questions that are asked during the communication assessment to judge the priorities and needs of the prospective wearer. If the individual ranks any of the three questions as "very important" or "important," this would be an indication the individual falls into either Category 1 (Competent and Confident Streamer) or Category 2 (Coachable Streamer), and communication goals that involve wireless streaming can be immediately targeted.

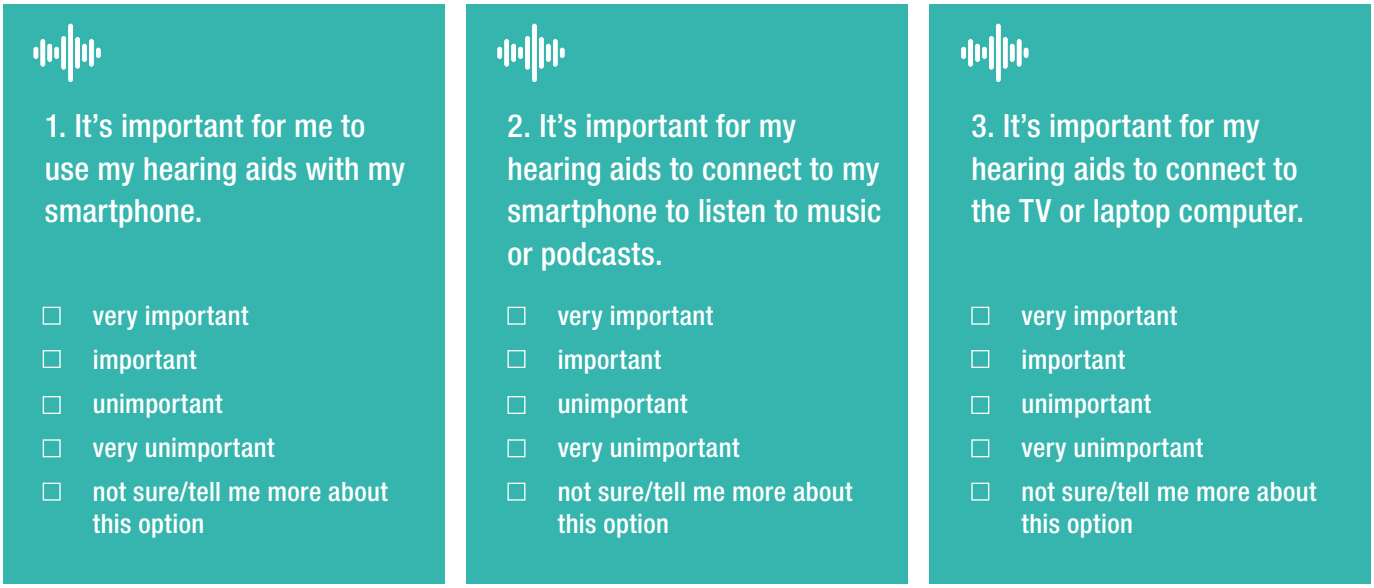

Figure 1. Three wireless streaming questions, modified from the HAFIE (Saleh, et al 2024).

The second step in the wireless streaming triaging process is assessing the digital literacy of the individual. After all, if an individual lacks the skills and confidence to navigate smartphone-integrated features, even when deemed important, that person is unlikely to receive benefit from them. Digital literacy refers to the ability to effectively and responsibly use a smartphone, computer and other forms of modern electronic communication in everyday life. Included in this definition is the ability to navigate the basic interface of a smartphone, use the smartphone or computer to communicate with others via texting, talking, e-mailing, and the ability to search for, assess, and verify the credibility of online information accessed through a smartphone or computer (Roque & Boot, 2018). In short, to effectively use smartphone-integrated wireless streaming in hearing aids, individuals must demonstrate digital literacy.

Given the prevalence of smartphone-integrated hearing aids and their potential benefits, assessing digital literacy of prospective wearers is essential. The two-question Digital Literacy (DL-2Q) questionnaire was developed by Ferguson et al (2024) to better understand the tech savviness of hearing aid candidates. The DL-2Q, illustrated in Figure 2, is comprised of two questions, one that evaluates smartphone skills (competency) and the other that evaluates self-belief (confidence) in using smartphones. Note that in the original version of the DL-2Q, the term, mobile phone is used. The version shown here substitutes the term, smartphone, a term more commonly used in the U.S.

Ferguson et al (2024) validated the DL-2Q by comparing results of 110 adults ranging in age from 52 to 96 years to the 16-question Mobile Device Proficiency Questionnaire (MDPQ-16) (Roque & Boot, 2018). They showed a positive association between the MDPQ-16 and DL-2Q, indicating the DL-2Q is a valid measure of smartphone digital literacy.

1. How would you rate your skill level using a smartphone?

- ☐ never used
- ☐ beginner/novice
- ☐ competent: "I use my smartphone and apps daily."

2. How confident are you using a smartphone?

- ☐ not confident and usually need help
- ☐ it depends on the task
- ☐ I am confident

Figure 2. The DL-2Q developed and validated by Ferguson, et al (2024).

In their validation of the DL-2Q, which compared participant scores on it to the MDPQ-16, Ferguson et al (2024) uncovered two clinically useful findings, illustrated in Figure 3. First, it shows that younger adults (52 to 64 years old) and older adults (86 to 92 years old) are aligned with how we might expect age to influence digital literacy: The oldest adults have poor digital literacy relative to the youngest adults who participated in the study. Second, as illustrated by the red box in Figure 3, 76% of the adults aged 65 to 85 years old had digital proficiency scores better than the average MDPQ-16 score, indicating that 24% of adults in this age range score below average on digital literacy competence (represented by the blue box).

Further, Ferguson et al (2024) states there was a mismatch between competence and confidence for the group aged 65 to 85 years old. They reported that 44% of individuals in this age group were digitally competent but lacked confidence when completing smartphone-related tasks. Considering most first-time hearing aid wearers are in the 65- to 85-year-old age range, these findings are clinically meaningful and suggest there are ample opportunities for audiologists to improve smartphone literacy skills through education, training and empowerment.

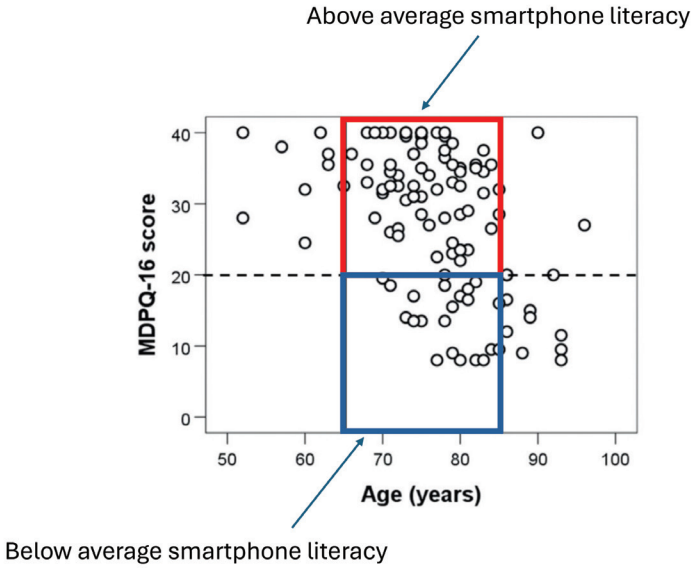

Figure 3. Each circle represents a participant's score on the MDPQ-16 as a function of age. The dotted line is the midpoint for the MDPQ-16. The vertical lines show the midpoint scores for the 65- to 85-year-olds. Modified from Ferguson et al (2024).

Putting It All Together:

Using the 5-Questions in Goal Setting and Treatment Planning

The three streaming questions from the modified HAFIE, combined with the DL-2Q is a useful approach to triaging wearers into three categories a.) Competent and Confident Wireless Streamers b.) Coachable Streamers, or c.) Non-Streamers. Table 1 illustrates the results for the 3-questions HAFIE and DL-2Q along with how to apply those findings in the goal setting and treatment planning process.

Wearer Category	Competent and Confident Streamers	Coachable Wireless Streamers	Wireless Non-Streamers
Results of 3-streaming questions	"important" or "very important" rating for 1 or more questions	"important" or "very important" rating for 1 or more questions	"unimportant" or "very unimportant" ratings for all 3 questions
Results of DL-2Q	"confident" and "competent" rating	"never used"/"beginner" *and/or* "not confident"/ "depends on the task" rating	"never used"/"beginner" *and/or* "not confident"/ "depends on the task" rating
How to Apply Findings (Next Steps)	Move immediately to setting goals that involve wireless connectivity	Provide additional personalized instruction and guidance on smartphone integration as part of the initial wearer experience	Re-evaluate in 6 to 12 months by re-asking the five questions

Table 1. Three categories of smartphone-integrated hearing aid wearers, results from 3-streaming questions + the DL-2Q and a summary of how to apply those findings in the goal setting process.

Smartphone-Competency vs. Smartphone-Confidence

What Needs to be Coached?

The DL-2Q assesses digital literacy along two fronts: competency and confidence. Competence refers to an individual's skills, knowledge, and abilities an individual possesses to perform a specific task effectively. Confidence, on the other hand, is the belief in one's ability to succeed and take action, even if that individual is competent in the specific skill or expertise. There are many ways to describe the difference between competence and confidence. One example is an athlete competing in the Olympics. Obviously, the athlete who has qualified for the Olympics is highly competent, but if he is so nervous before this monumental event that his performance suffers, it is possible his low self-confidence might be a contributing factor. In contrast, the sprinter who dominates in the 100-meter dash at his local high school might be abundantly confident he can compete with Division I sprinters. But when the opportunity to compete with them arises, he falls woefully short of his expectations and embarrasses himself. The latter is an example of overconfidence.

You don't need to be an athlete to appreciate that the same holds true with smartphone-integrated hearing aids. A wearer might display a high level of smartphone competence but when faced with a new task, like integrating it with hearing aids to stream a favorite podcast, low self-confidence inhibits successful use. Conversely, a wearer might be so overconfident in using the streaming capabilities of his new smartphone-integrated hearing aids that he is embarrassed by his own ineptness gives up too soon and never attempts streaming with his hearing aids again. The challenge for audiologists is recognizing when the wearer needs a boost in self-belief in ability (confidence) or improved skills (competence) and then providing the proper assistance.

Applying the work of Gomez et al (2021), Table 2 outlines interventions strategies, employed by the audiologist, that can be used to boost the confidence or competence of wearers who wish to integrate the audio streaming capability of their smartphone with their hearing aids.

Boost self-belief through empowerment (confidence)	Improve skills (competence)
Use testimonials from other wearers who are successfully streaming with hearing aids	Instruct on how to perform key behaviors/actions associated with streaming
Reframe use of smartphone-integrated hearing aid as a tool that promotes better engagement	Demonstrate key functions and model behaviors/actions
Encourage self-monitoring of streaming successes. Discuss successes with audiologist	Practice these behaviors/actions with the audiologist

Table 2. A summary of tactics that can be used in the clinic to promote improved digital literacy and empowerment with smartphone-integrated hearing aids and streaming.

Empowered wearers with the skills to independently navigate smartphone-integrated hearing aids are much more likely to be successful adopters of streaming technology. However, it is the role of the audiologist to recognize who might need additional coaching and to determine when streaming technology should be introduced into the treatment plan.

For individuals deemed to be confident and competent streamers, clinicians are encouraged to move directly into the goal setting process. Using the Client-Oriented Scale of Improvement (COSI), goals that involve use of wireless streaming can be individualized and recorded, as shown in Figure 4.

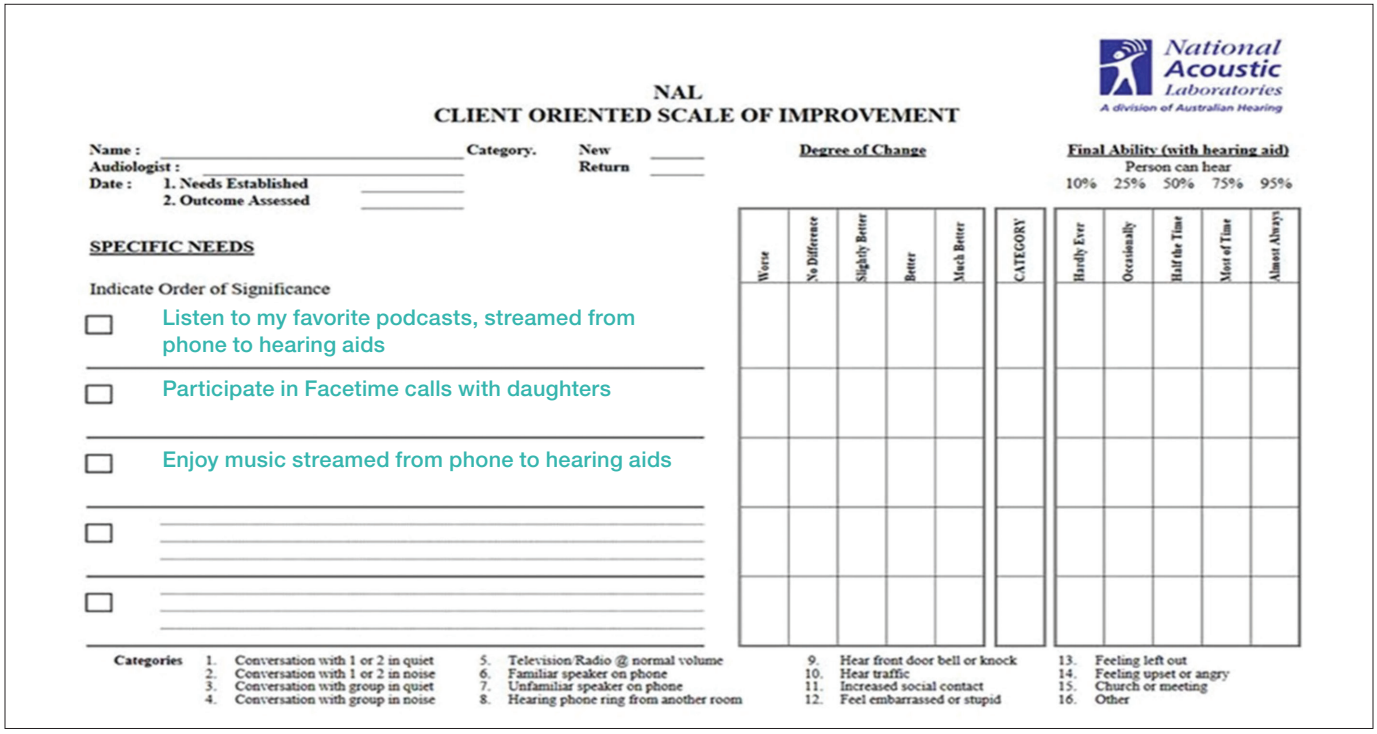

Figure 4. An example of the COSI with goals for an individual deemed to be confident and competent streamers. Note these goals are created after the individual has been deemed to be a competent and confident streamer.

For individuals who express that wireless streaming is important, but lack competence or confidence (Coachable Streamers), clinicians are encouraged to provide more detailed instruction on smartphone-integrated hearing aids. This instruction should be geared to skill development and empowerment that enable the wearer to become a self-confident and independent wireless streamer. Intervention strategies, summarized in Table 2, could take the form of an unbundled, fee-for-service arrangement for Coachable Streamers.

Finally, for individuals who are determined to be non-streamers at their initial evaluation, their status should be re-assessed using the same five questions at periodic follow-up appointments. Skills training and confidence building can be introduced several months, even years, after their initial hearing aid acquisition and provided as a fee-for-service. Given the substantially higher satisfaction ratings of individuals with wireless streaming on their hearing aids, as illustrated in Figure 5, all wearers, regardless of age or digital literacy, should be given the opportunity to take advantage of smartphone-integrated hearing aids and wireless streaming - now or in a few years.

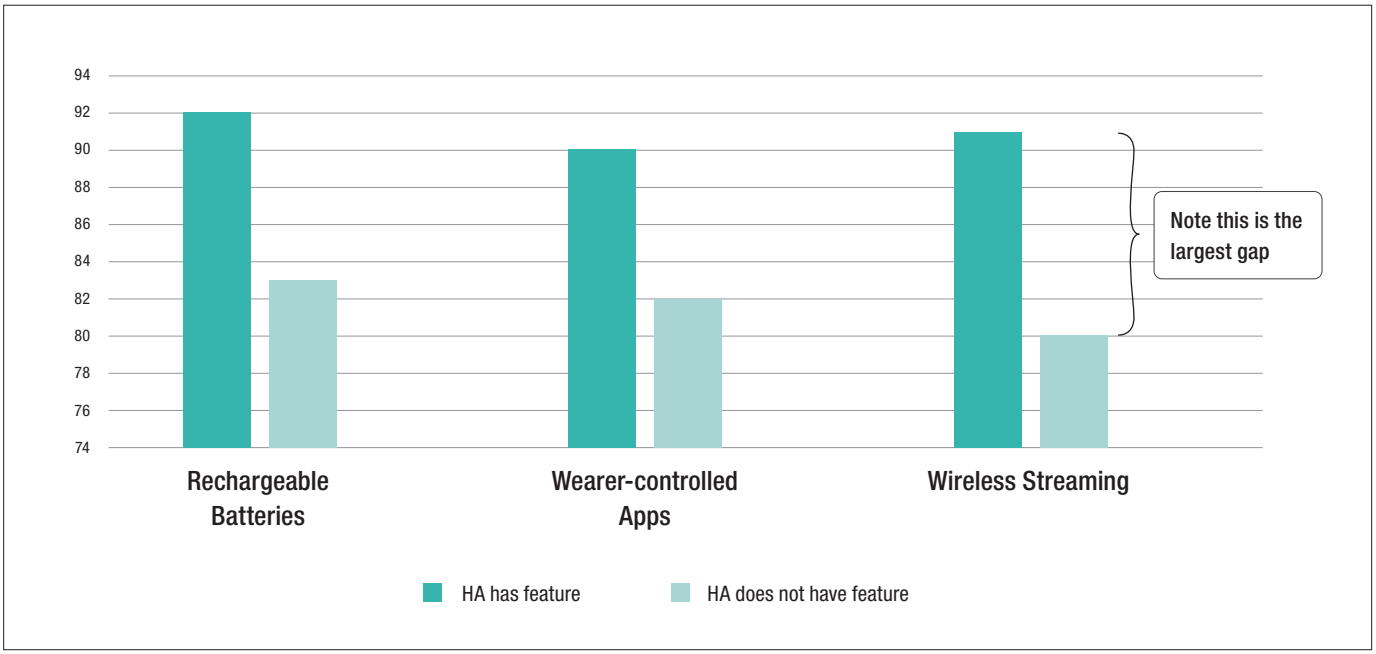

Figure 5. Overall satisfaction scores for two groups of wearers for three new generation hearing aid features. Adapted from Picou (2022).

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Success Strategies

from an Audiologist, Veterinarian, Dentist and Optometrist.

Dr. Melissa Rose

Dr. Kathy Wiederkehr

Dr. Brian Harris

Dr. Brianna Rhue

As part of CareCredit's commitment to not only providing financing solutions that work but also value that may help independent practices grow, together with the ADA we are bringing a group of successful doctors across several health and wellness disciplines to share what's worked for them. These are real-life, proven strategies to address the common challenges clinical practice owners face — like attracting new patients, patient retention, team training and more — as well as how to optimize shared opportunities.

Q What are some of the challenges you've faced being the clinician/practice owner?

Dr. Brian Harris:
The biggest challenge is distractions. Saying yes out of guilt or excitement and over committing myself to things that take me away from the things that I do best. I feel like that's a challenge most practitioners have. They naturally want to just be the best provider they can be. And oftentimes we over commit and that has us showing up, not as our best.

Dr. Melissa Rose:
One of the biggest challenges is feeling very responsible for my patients and employees. Anybody who owns a private practice probably is awake at night worrying, "Did we do everything that were supposed to do? Do we have the income coming in and are the schedules full?"

Dr. Kathy Wiederkehr:
My biggest challenge was actually management of the staff. There's a lot involved, especially as you grow as a business. It's really important to have a person you trust that is good at inspiring, motivating and coaching so that all of your employees follow processes and procedures, and create the culture you want to present to the team and patients.

Dr. Brianna Rhue:
The biggest challenge is decision making. You have so many decisions coming at you and have to prioritize them. Making quick decisions right now is the new currency. Don't be paralyzed by decision making. You have your clinical brain and your business brain. In clinic, you cannot take risk. On the business side, a little risk is okay because it is usually fixable. It's important to have people around you that are trusted and trained to make some of those decisions, so you can get big decisions made quickly, remembering you can always go back to rethink it if it doesn't produce the desired results. Quick decision making will free up so much of your head space.

Q What trends should clinicians/practice owners be paying attention to right now?

Dr. Brianna Rhue:
You have to be found on things like ChatGPT, things that are found on the cloud. Yes, Google mattered. It's not starting to matter really anymore. Now people are asking, "Find me an audiologist that's open on Mondays, that takes my insurance and has really good reviews." That's where SEO comes in to make sure that you can be found the way people are searching now.

Dr. Brian Harris:
Consumers are looking for that personal connection — especially with their health provider. They're not looking

for some sort of automated response or a bot on the website. The more access they can have to the actual team and the provider, the better it is for patients and the practice. There's so much expertise and information out there it's really all about connection, transparency, trust and really a personal relationship with each patient.

Dr. Melissa Rose:
Small businesses really need to reevaluate the landscape of audiology in 2025 because it's changed so much every year. There's something new added onto our plate that we have to learn to navigate. A year or two ago, OTC came out, and we just thought it was going to be the end of the world, and it wasn't. Right now what we're trying to learn to navigate is third parties. Which ones are you going to use? Which ones are you maybe not going to use? The landscape of audiology is always going to change, and you have to be willing to change with it. Be willing to look outside of the box.

Dr. Kathy Wiederkehr:
The buzzword, of course, is artificial intelligence and social media. Artificial intelligence maybe scares a lot of people, but it is a tool that we can all use to gather information to help us think of ideas maybe we wouldn't have thought of by ourselves. I'm one lonely brain here. Why not use as many brains as possible? Realizing what artificial intelligence can do to help you with efficiency and social media and looking for ways to utilize it knowing it's every changing.

Q What is your top tip?

Dr. Brian Harris:
Find the thing that you love doing the most and just do more of that and get really good at that. I think there's the temptation to try to be like a little bit good at everything and the result is you're a little bit good at everything. So nobody's ever really going to be talking about how great you are. Just focus on one or two things and be the best. That's what will get people talking.

Dr. Melissa Rose:
Run your practice like a business but lead it with compassion. If we're not successful, we don't exist and we don't have staff and we don't have patients. But if you're not leading the business with complete compassion for your staff and your patients, you also don't have a business.

Dr. Kathy Wiederkehr:
It's really important to define who you are, who you want to be, what is your mission in life. For example, I felt like it was really important that patients, when they came in the door, had a great experience, that they felt cared for, almost like I'm the neighborhood mom. Anything you need, I'm here for you. That was my mission. And everybody has a different mission in life but really questioning yourself about what you want to give to society is important.

Dr. Brianna Rhue:
Be part of your profession. You have got to stay curious. So check in with your vendors. Build a community of colleagues. Go network at trade events. Find out what's new, what's coming and what you could add to your practice to increase your success. You're not going to say yes to everything but you are looking for that "something" that may make a big difference to your patients and practice.

If you're attending AuDacity in Washington, DC, these doctors will be sharing even more insights and ideas and answering YOUR questions on September 26th on the main stage at 1:45pm. In conjunction with the ADA, CareCredit will be providing attendees a copy of "Private Practice Thrival Guide: Practical Wisdom from Successful Colleagues" featuring the doctors on the panel and several more sharing their best practices.

For more valuable resources, scan the QR code or visit https://www.carecredit.com/lovetohear02

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HAVE YOU HEARD?

ADA and ACLM Announce Strategic Partnership to Advance Collaborative Care

The Academy of Doctors of Audiology (ADA) and the American College of Lifestyle Medicine (ACLM) are proud to announce a new strategic partnership designed to amplify the shared missions of both organizations and address urgent healthcare challenges in the U.S. Audiologists see firsthand the effects of chronic health conditions like diabetes and cardiovascular disease in their practice.

Through this collaboration, ADA and ACLM will promote interdisciplinary approaches to clinical care, with a special emphasis on improving outcomes related to chronic disease, workforce burnout, and health disparities. The agreement establishes a framework for joint advocacy and expanded access to high-value continuing education opportunities for audiologists and other healthcare professionals. The partnership will focus on tackling several pressing issues including the burden of lifestyle-related chronic disease affecting more than 60% of U.S. adults and the value of whole-person, interdisciplinary care in improving long-term patient outcomes.

Explore ACLM resources at www.lifestylemedicine.org and save 10% off resources using code **ADA2025**. Bonus: Get started with the **"Lifestyle Medicine and Food as Medicine Essentials"** course—**FREE** with code **ADA2025** at checkout. Not only are the principles of lifestyle medicine good for patients, but they are important for providers also!

ADA is honored to partner with ACLM in advancing a more integrated, prevention-first model of care. One of the key pillars of Lifestyle Medicine is maintaining social connections, and audiologists play a key role in helping patients with that objective. **Scan the QR code to read the ACLM article on positive social connections.** ADA and ACLM will announce further initiatives in the months to come. This partnership represents a meaningful step toward a more collaborative, equitable, and person-centered healthcare.

ACLM Article

U.S. Senate Reintroduces Medicare Audiology Access Improvement Act (S.1996): AARP Endorses this Landmark Legislation

On June 13, the Medicare Audiology Access Improvement Act (MAAIA), S. 1996, was reintroduced in the U.S. Senate. This bipartisan legislation, led by Senators Elizabeth Warren (D-MA), Rand Paul (R-KY), and Chuck Grassley (R-IA), aims to modernize Medicare and expand access to critical hearing and balance care services for older Americans and people with disabilities.

The bill, once enacted, will:

- Eliminate diagnostic order requirements so beneficiaries have streamlined access to audiologists, saving seniors out of pocket costs for extra office visits.
- Support continuity of care by authorizing audiologists to be reimbursed for the Medicare-covered diagnostic and treatment services that they are licensed to provide.
- Reclassify audiologists as practitioners under the Medicare statute, enabling services to be furnished through telehealth beyond the current September 30, 2025, expiration of such authority.

Senator Warren emphasized, "Outdated Medicare rules are preventing seniors from accessing the vital services audiologists provide. We're introducing this bill because older Americans and people with disabilities deserve access to the full range of care they need."

The legislation has long earned strong support from audiologists, consumers, and hearing industry leaders. AARP's endorsement further underscores the importance of expanding access to audiology services for Medicare beneficiaries.

For additional resources, please refer to Senator Warren's official press release (scan the QR code).

Senator Warren's Press Release

Join Us in Washington for ADA Lobby Day – September 25, 2025

As part of our continued advocacy efforts, ADA invites all members, stakeholders, and audiology students to register for ADA Lobby Day this September 25th, which will kick-off the AuDacity "Empowered" Conference. This is your opportunity to meet with members of Congress and make your voice heard in support of S. 1996 (and its companion bill, H.R. 2757) and other critical issues affecting the future of the profession.

Register for Lobby Day

Scan the QR code to register for Lobby Day: https://audiologist.site-ym.com/event/audacity2025.
See page 52 for the AuDacity schedule.

Support Audiology Advocacy

Your voice and your financial support help fuel the advocacy that makes change possible.

Donate to the Eric N. Hagberg Advocacy Fund, which helps underwrite ADA's legislative and regulatory efforts to advance autonomous practice and access to audiology care.

Contribute to the ADA Political Action Committee (PAC) to support federal candidates who champion audiology and patient-centered healthcare policies.

Support Advocacy

Stearns Bank: A Trusted Financial Partner for Audiologists

As President-Elect of the Academy of Doctors of Audiology (ADA) and an audiology practice owner, I understand the unique financial challenges our profession faces. Navigating practice ownership requires not just clinical expertise but also reliable financial support. That's why I am so excited that Stearns Bank is ADA's exclusive financial services partner!

Stearns Bank offers a program tailored specifically for ADA members, that is tailored to the nuances of our profession. Their services include competitive small business loans, specialized equipment financing, and comprehensive banking solutions designed with audiologists in mind. What sets them apart is their commitment to speed and efficiency, and a dedication to understanding the specific needs of private practices.

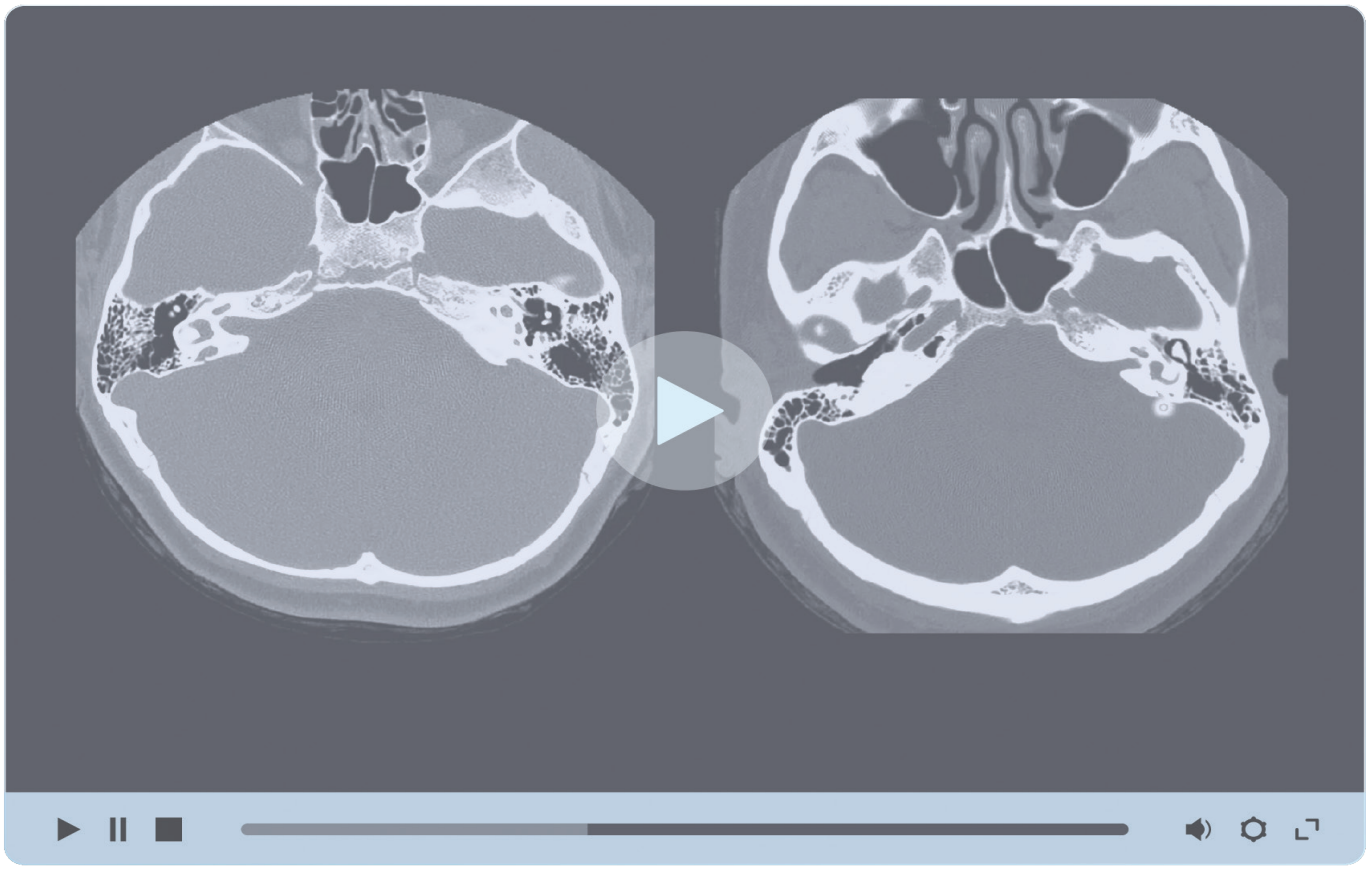
Stearns Bank provided key information for my practice after I elected to transition away from a manufacturer loan. Their team demonstrated a deep understanding of the audiology landscape and provided guidance and support that aligned with my goals. The loan process was seamless, allowing me to focus on delivering quality care to my patients.

I encourage fellow ADA members to explore the benefits of this partnership. Whether you're starting a new practice or looking to grow an existing one, Stearns Bank offers resources that can make a significant difference. For more information, scan the QR code to visit their ADA partnership page: Stearns Bank + ADA.

Stearns Bank + ADA

Warm regards,

Jill Davis, Au.D.
President-Elect, Academy of Doctors of Audiology
Owner, Victory Hearing & Balance



Featured Webcast: Radiology for Audiology, Sponsored by the Maryland Academy of Audiology

ADA is pleased to announce the launch of Radiology for Audiology, a webcast, sponsored by the Maryland Academy of Audiology.

Dr. Sudhir Kathuria's presentation, *Radiology for Audiology*, is a comprehensive educational session designed to bridge the knowledge gap between radiologic imaging and clinical audiology. Originally delivered at the Maryland Academy of Audiology Conference, the session is aimed at helping audiologists understand when and how to utilize CT and MRI imaging for temporal bone pathologies. Dr. Kathuria's, a board-certified neuroradiologist with two decades of experience, offers a detailed exploration of both imaging modalities, their indications, limitations, and their relevance in evaluating hearing disorders.

A substantial portion of the presentation is devoted to clinical case reviews, demonstrating how imaging findings correlate with audiogram results. Dr. Kathuria discusses congenital anomalies, infections, neoplasms, traumatic injuries, and post-surgical outcomes using real patient examples. Each case is paired with diagnostic imaging and audiograms, reinforcing the importance of integrating radiologic and audiologic data. He also addresses special considerations such as the use of contrast material, contraindications due to renal function or implanted devices, and artifacts that may obscure image quality.

Webinar

Scan the QR code to view the presentation: https://audiologist.org/library/topics-3/webinars/item/radiology-for-audiology. ■

The Tools You Need to Run Your Practice.

ADA's Practice Resource Library offers a comprehensive collection of off-the-shelf forms, documents, and guidance materials. These resources will assist audiologists and their staff with practice operations, compliance, and patient management.

- Adult Case History
- Business Associate Agreement
- Employee Manual
- Hearing Aid Bill of Sale/Purchase Agreement
- Hearing Aid Insurance Waiver
- Hearing Aid Loaner Agreement
- Hearing Aid Orientation Checklist
- Hearing Aid Upgrade Notice
- HIPAA Security Policy Template
- Insurance Verification Form
- Notice of Non-Coverage
- Office and Financial Policies
- Patient Registration Form
- Policies and Procedures Manual
- Price Quote Form

ADA members receive a discounted rate when purchasing any of the above forms. Visit audiologist.org/forms for details!

ADA
ACADEMY of DOCTORS of AUDIOLOGY®

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AuDACITY

SEPTEMBER 25-28, 2025

WASHINGTON HILTON HOTEL

WEDNESDAY, SEPTEMBER 24, 2025	
5:00 PM - 8:00 PM	Lobby Day Packet Pickup and Registration
THURSDAY, SEPTEMBER 25, 2025	
7:00 AM - 5:00 PM	Lobby Day Packet Pickup, Issue Briefing and Day on Capitol Hill
11:00 AM - 4:00 PM	Technology Specialist/Audiology Assistant Workshop Sponsored by: Phonak
4:30 PM - 5:30 PM	Featured General Session: Meaningful Outcome Measures in Adult Hearing Health Care Speaker: Nicholas Reed, Au.D., Ph.D.
5:30 PM - 7:00 PM	ADA Member Meeting
7:00 PM - 9:00 PM	Opening Reception and Dinner in the Exhibit Hall
FRIDAY, SEPTEMBER 26, 2025	
7:00 AM - 8:00 AM	Breakfast in the Exhibit Hall
8:00 AM - 8:30 AM	President's Address & Awards Speaker: Amyn Amlani, Ph.D.
8:30 AM - 10:00 AM	Keynote Presentation: Rebel Health: The Patient-Led Revolution in Medical Care Sponsored by: WSA Speaker: Susannah Fox
10:00 AM - 10:30 AM	Break in the Exhibit Hall & "Rebel Health" Book Signing
10:30 AM - 11:15 AM	General Session: Advancing AI in Audiology: Predictive, Generative, Prescriptive, and Agentic (Part 1) Speaker: Lucy Orr-Ewing
11:15 AM - 11:30 AM	Business Plan Competition, Team 1
11:30 AM - 12:15 PM	General Session: Advancing AI in Audiology: Predictive, Generative, Prescriptive, and Agentic (Part 2) Speaker: Lucy Orr-Ewing
12:15 PM - 1:45 PM	Lunch in the Exhibit Hall/MAA Member Meeting
1:45 PM - 2:30 PM	General Session: A Dentist, an Optometrist, and a Veterinarian Walk into an Audiology Conference (Part 1) Sponsored by: Care Credit | Speakers: Dr. Brian Harris, DDS; Brianna Rhue, OD, FAAO; Melissa Carnes Rose, Au.D.; Kathy Wiederkehr (Wentworth), V.M.D.
2:30 PM - 2:45 PM	Business Plan Competition, Team 2
2:45 PM - 3:30 PM	General Session: A Dentist, an Optometrist, and a Veterinarian Walk into an Audiology Conference (Part 2) Sponsored by: Care Credit | Speakers: Dr. Brian Harris, DDS; Brianna Rhue, OD, FAAO; Melissa Carnes Rose, Au.D.; Kathy Wiederkehr (Wentworth), V.M.D.
3:30 PM - 4:00 PM	Break in the Exhibit Hall
4:00 PM - 4:45 PM	General Session: Medical Imaging for the Audiologist (Part 1) Speakers: Alicia Spoor, Au.D.; Meslissa Segev, Au.D.
4:45 PM - 5:00 PM	Business Plan Competition, Team 3
5:00 PM - 5:45 PM	General Session: Medical Imaging for the Audiologist (Part 2) Speakers: Alicia Spoor, Au.D.; Meslissa Segev, Au.D.
5:45 PM - 6:00 PM	Business Plan Competition Selection and Awards Presentation
6:00 PM - 7:00 PM	Reception in the Exhibit Hall

SATURDAY, SEPTEMBER 27, 2025	
7:00 AM - 8:00 AM	Breakfast in the Exhibit Hall
8:00 AM - 9:30 AM	Effectively Deploying Assistants and Dispensers in your Practice to Optimize Outcomes Speakers: Amyn Amlani, Ph.D.; Alyssa Ricevuto, Au.D.
	AI and Audiology Outreach (Part 1): Enhancing Consumer Outreach with AI-Driven Strategies Speaker: Michelle Carroll
	Speaking Their Language: How to Position Yourself as the Go-To Audiologist for Physicians Speaker: Katie Armotoski, Au.D.
	Recruiting Best Practices and Strategies Speaker: Steve Hughbanks
	Marketrak25: Industry Landscape Speaker: Bridget Dobyan, JD; Tom Powers, Ph.D.
8:00 AM - 1:00 PM	Student Track Sponsored by: Starkey
09:30 AM - 10:00 AM	Break in the Exhibit Hall
10:00 AM - 11:30 AM	Pharmaceutical Intervention for Cisplatin-Related Ototoxicity Speaker: TBD
	AI and Audiology Outreach (Part 2): Breaking the Sound Barrier: AI, Prompt Engineering & Health Literacy Strategies to Revolutionize Hearing Healthcare Marketing & Advocacy Speakers: Nora Visscher-Simon, Au.D.; Maansi Aghera, Au.D.
	Lifestyle Medicine Marketing: Making the Audiology Connection to Connectedness Speakers: Sheena Oliver, Au.D.; Jill Davis, Au.D.
	Mastering Crucial Conversations: Proven Strategies for Navigating High-Stakes Conversations Resulting in Stronger Relationships Speaker: Laurel Gregory, MA
	Hearing Aid Fittings for the Cognitively Impaired Speaker: Heidi Hill, Au.D.
11:30 AM - 1:00 PM	Lunch in the Exhibit Hall
1:00 PM - 2:30 PM	Cerumen Management Workshop Speakers: Jiovanne Hughart, Au.D.; Rita Chaiken, Au.D.
	Integrating Multi-Modal Biomarkers for Personalized Auditory and Associated Mental Health Insights: The SAiWELL Audiological Insights Platform Speaker: Prasad Panchangam
	The Social Consequences of Hearing Loss: Are Hearing Aids Enough? Speaker: Brian Taylor, Au.D.
	Speech & Noise Testing Speaker: Matthew Fitzgerald, Au.D.
2:30 PM - 3:00 PM	Final Break in the Exhibit Hall
3:00 PM - 4:30 PM	Cerumen Management Workshop Speakers: Jiovanne Hughart, Au.D.; Rita Chaiken, Au.D.
	AI-Powered Aural Rehab in Clinical Practice Speakers: Rick Carlson, MBA; Miles Aron, Ph.D.
	Hearing Aids and SCIF Speaker: Kimberly Jenkins, Au.D.
	State Advocacy: Scope Modernization Speakers: Bryan Greenaway, Au.D.; Jana Brown; Alicia Spoor, Au.D.; Stephanie Czuhajewski, MPH
05:30 PM - 06:30 PM	Closing Reception
SUNDAY, SEPTEMBER 28, 2025	
8:00 AM - 9:45 AM	Legal Issues in Audiology (Part 1) Speaker: Brandon Pauley, ESQ.
	Tinnitus Workshop (Part 1) Speakers: Jason Leyendecker, Au.D.; Emily McMahan, Au.D.
	Billing & Coding Workshop (Part 1) Speaker: Kim Cavitt, Au.D.
9:45 AM - 10:00 AM	Break
9:45 AM - 11:30 AM	Legal Issues in Audiology (Part 2) Speaker: Brandon Pauley, ESQ.
	Tinnitus Workshop (Part 2) Speakers: Jason Leyendecker, Au.D.; Emily McMahan, Au.D.
	Billing & Coding Workshop (Part 2) Speaker: Kim Cavitt, Au.D.

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Mastering the Insurance Game: How to Successfully Participate in Medicaid, Commercial Insurance, or Hearing Benefit Plans

BY KIM CAVITT, Au.D.

Other than traditional Medicare, MOST practices and providers, regardless of the setting, should not be in-network with every Medicaid, Medicare Advantage, Commercial, and hearing benefit plan in their community. I find that the vast majority of managed care and, specifically, claims issues are created by the provider/practice and not the health plan.

Many audiology practices and their administration and ownership do not invest the time and treasure required to effectively and profitably operationalize their revenue cycle processes. As more and more health plans are requiring that providers jump through more administrative hoops in order to get paid in a timely manner, more claims issues and denials are arising. Health plans are finding legal (and sometimes non-compliant) ways to drag payment out or not pay claims at all. They know some will give up. This is why is it so important to have the provider side of the equation as buttoned up as possible.

There are practices, including large health systems and audiology private practices, who have mastered the insurance game. In my experience, this is what practices have to have in place to successfully (professionally, operationally and financially) participate in Medicaid, commercial insurance, or hearing benefit plans:

- Access to and/or investment in a healthcare attorney for contract review, negotiation and claims disputes.
- Modernized scopes of practice (this is accomplished through coordinated advocacy at the state level).
- An understanding of their practice breakeven rate and financial or budgetary goals, both short and long term.
- Training in compliance (required by all Medicare and Medicare Advantage plans), coding, billing, reimbursement, and insurance for ALL stakeholders (scheduling to payment), including especially, service providers.
- Office management systems and focused training on its functionality and capacities, including payer, claims and accounts receivable reporting.
- Staffing to support scheduling, insurance verification (cannot successfully be completed by front desk person), collection of payment, and claims processing and management.
- Leadership and/or ownership with a working knowledge and understanding of the medical and coverage policies, guidelines, and rights and responsibilities of each health plan that they participate with as well as the health plan portal and its functionality and limitations.
- Leadership and/or ownership with a foundational understanding of the revenue cycle process and oversight of managed care contracting, accounts payable and accounts receivable.
- Defined, no exceptions financial (payment of deductibles, co-payments, co-insurance, and non-covered services at time of visit) and practice policies.
- The required forms and documents, containing the required/appropriate language, including good faith estimates, advanced beneficiary notices, notices of non-coverage, upgrade waivers (as allowed by the health plan), insurance waivers, and bills of sale/hearing aid receipts (most I review do not meet the legal requirements of the state) for patient transparency.
- Care, pricing, and delivery models that reflect research evidence based, professional standards of care, which allow for amplification options within the hearing aid benefit, and which offer pricing and care that is consistent for all patients, regardless of their payment source or health plan.
- Clear, honest, transparent communication, also in captioned video and written formats (as audiology patients are often hard of hearing), about their rights and responsibilities as it pertains to their health plan and any coverage or benefit limitations or requirements.
- Clear documentation in the medical record of medical necessity for every item and service provided and of what occurred in each respective visit.

These steps can all be learned and accomplished. It just takes investment of time and treasure!

If an audiology practice cannot do or accomplish these things listed above, they should strongly consider becoming an out of network provider for Medicaid, Medicare Advantage and commercial health plans. The participation decision should be the result of research on the plan and its allowable rates and the running of a SWOT, referral and financial analysis for each individual health or hearing benefit plan they are contracted with as, once a practice terminates, the practice may not be able to get back in network (especially in Florida and Arizona).

Without following these steps, the claims problems will remain and may continue to grow as health plans use more AI and predictive analytics in their aspect of the process. Audits may also become more common. Billing and claims processing is always a "junk in, junk out" situation. The provider and practice will always have the largest role in revenue cycle success or failure. Problems are not solved by outsourcing billing if the information provided to the biller is incorrect or incomplete.

Now, let's say that the practice wants to be, at this point, out of network for philosophical, personal or business reasons or cannot or do not want to follow the guidance outlined above for successful in-network participation and/or want to terminate managed care engagement. No problem. Managed care participation is optional. There are many financially and professionally successful audiology practices, especially in the private sector, that are out of network with every health plan but Medicare.

An audiology practice must be enrolled in Medicare if they see patients who have Medicare or Medicare Advantage (generally anyone over the age of 65 years) and want to charge for diagnostic or audiologic testing. Audiologists cannot opt out of Medicare and enter into private contracts with Medicare beneficiaries.

Non-participation does have some limitations that are important to note:

- Marketing of a practice by a health plan is free to the practice. Non-participation can increase the costs of new patient acquisition. Managed care plans (through their provider directories and referral processes) and the healthcare providers who participate in them refer patients to the practice.
- Some patients will not see out of network providers.
- Some healthcare providers may not refer to an out of network practice as their managed care contracts require that they refer to in-network providers when available.
- For Medicare Advantage, out of network providers can only collect the Medicare Limiting Charge for Medicare covered services.
- Patients may still expect verifications of coverage and benefits, especially related to hearing aids. As a result, the practice may still need to assign a staff member to this task.
- No Surprises Act provisions (Good Faith Estimates) apply to all self-pay situations.
- Practices will still need to utilize notices of non-coverage (i.e. Medicare Advantage and Medicaid) and Insurance Waivers (i.e. Medicaid) when providing certain items and services in many situations.
- The practice will still need to have the capacity to submit diagnostic claims to Medicare Advantage and Medicare Dual plans. For Dual plan members, the provider cannot collect the Medicare Limiting Charge, unmet deductible, co-insurance, or co-payments from the member (recommend that these patients are referred to in-network providers).
- The practice must have the communications, personnel, policies and processes required to collect payment at the time of visit.
- The socioeconomics of the specific practice community may not allow for collections of the usual and customary rate at the time of visit. This could affect the overall profitability and growth of the business.

When making the initial managed care participation decision, it is strongly recommended that owners and managers do the following:

- Complete a market analysis and determine what health plans are commonly accepted by referral sources and competitors in the community.
- Review the websites of the common health plans in the community and personally initiate the enrollment process (which does not obligate the practice to participating) through the health plan website.
- Before signing a managed care agreement, read it and any associated medical policies or provider guidance,

review the allowable rates for all of the items and services the practice currently provides or plans to provide for all of the health plan products the contract or agreement obligates the practice to accept and ask questions, in writing, if additional clarification is needed. If the practice is not provided allowable rate information or questions are not answered, do not sign the agreement until the information is provided.

- Make a participation decision based upon a SWOT analysis and the individual practices' ability to operationalize and monetize care within the terms of each, specific managed care agreement. Some health plans may be easier to navigate than others given their systems, policies, and allowable rates.

When an existing practice is considering termination, consider the following:

- Service lines offered in the practice. It is challenging to be out of network when the practice receives a large number of physician referrals or provides large amounts of diagnostic services, specifically pediatric, vestibular and implantable device services.
- Findings from queries and reporting from the office management system about the worst-case scenarios: the maximum number of referrals and dollars billed and collected from each specific health plan. This is what the practice could lose if they terminate.
- That the practice may not get back in-network once they terminate.
- That the practice may be valued at a lower dollar amount when up for sale.
- Completion of a SWOT analysis and an analysis of the individual practices' ability to operationalize and monetize care within the terms of each, specific managed care agreement.

As with any business decision, there are always pros and cons. It is important that managed care participation be approached with a thoughtful, objective mindset and analysis. For some, participation, specifically strategic participation, is the answer. For others, out of network is the best option. There is no singular, correct answer that applies to every practice, business situation, or geographical location. The best advice is that whatever decision the practice makes, they make it for themselves and based upon data, metrics, reliable information, and their own personal, professional and business goals.

Academy of Doctors of Audiology members (individual and practice) have access to ADA resources for support on compliance, coding, billing, reimbursement, and insurance questions. This is a value-added benefit of ADA membership. Contact ***Kim Cavitt*** *at kim.cavitt@audiologyresources.com for any questions, guidance or support.* ■

PRESIDENT'S MESSAGE

Continued from page 3

I was recently talking with a close friend who reminded me of the idiom, *'hanging out your shingle.'* This phrase, which dates to the early 1800s, refers to independent lawyers and physicians who would hang painted wooden shingles outside their offices to signal their readiness to serve. Today, with recent legislative wins—such as scope of practice modernization in Maryland[6] and Arkansas[7]—and ongoing efforts like the Audiology 2050 initiative,[8] which supports service expansion through hearing healthcare extenders and federal measures like the Medicare Audiology Access Improvement Act (HB 2757,[9] SB 1996[10]), the audiology profession finds itself at a pivotal moment. The independent practice segment, in particular, is well-positioned to *'hang its shingle'* once again—this time symbolizing a renewed era of autonomy, with expanded authority to deliver preventative, diagnostic, and rehabilitative hearing healthcare services. This is more than symbolism; it's a signal of professional growth, market empowerment, and a deeper commitment to accessible, patient-centered care.

An increase in independent practice ownership should be embraced by the profession of audiology and its industry partners alike. A growing cohort of independently owned practices strengthens the market by enhancing the perceived presence and visibility of the profession—promoting clinical autonomy, increasing public awareness, and contributing to financial sustainability. These factors serve as a powerful antidote to workforce attrition. Economically, independent practices drive greater elasticity of demand and expand market power—leading to increased revenue and a broader reach of services to patients. In contrast, corporate vertical integration has contributed to market consolidation, reduced competition, and diminished consumer choice. A robust landscape of independent practices is not only a marker of professional health—it is essential for a vibrant, competitive, and patient-centered hearing healthcare ecosystem.

I look forward to driving through any city and being delighted by the number of *'shingles'* hung by my audiology peers—a testament to their professional and personal successes in an autonomous profession serving its patient population.

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[6] https://mgaleg.maryland.gov/mgawebsite/Legislation/Details/SB0795?ys=2024RS

[7] https://arkleg.state.ar.us/Bills/Detail?id=SB118&ddBienniumSession=2025%2F2025R

[8] https://www.audiologist.org/resources/advocacy/audiology-2050

[9] https://www.congress.gov/bill/119th-congress/house-bill/2757

[10] https://www.congress.gov/bill/119th-congress/senate-bill/1996 ■

EDITOR'S MESSAGE

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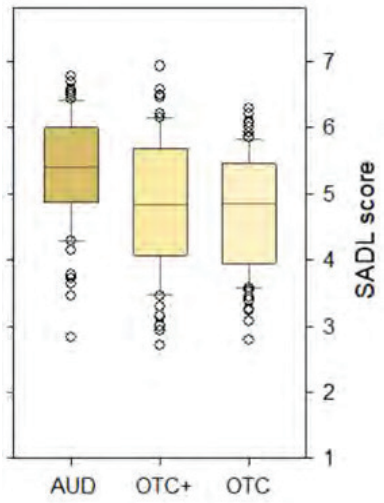
Figure. Bar and whisker plot illustration of SADL scores for three service models from Wu et al (2025). All three models yield reasonably good satisfaction scores, but the AUD model outperforms both OTC and OTC+.



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HEADQUARTER'S REPORT

Continued from page 7

- **Ensuring Critical Thinking in Real-World Practice:** Students learn to think on their feet, function in a fast-paced environment, apply critical thinking skills, and to receive and use immediate feedback.

A Call to Action for Private Practitioner Preceptors

To realize the vision of *Audiology 2050*, we must create an educational pipeline that prepares students for the challenges and opportunities that lie ahead. We must also hold university programs accountable for their portrayal of private practice, preceptor requirements, and the clinical readiness and professional socialization of students as clinical doctoring professionals.

Preceptors have tremendous leverage with institutions seeking to place students, and we must take the opportunity to help shape educational programs and externships of the future. I encourage you to use your precepting power to push the profession towards the goals outlined in *Audiology 2050*, and I thank you for continuing to lift as you climb, by leading today's students into a successful tomorrow. ■

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SAVE THE DATE!

The Academy of Doctors of Audiology (ADA) and the Maryland Academy of Audiology (MAA) are excited to announce that they have partnered to co-host **AuDacity 2025: EMPOWERED!** This premier event will unite audiologists from Maryland and across the nation for advocacy, education, and professional development.

ADVOCACY + ACCELERATION

EMPOWERED will launch on Thursday, September 25th with AuDiology AuDvocacy Day on Capitol Hill, providing attendees with a powerful platform to engage directly with policymakers to advocate for improved access to audiologic care for millions of Americans and improved coverage and reimbursement for audiology services. This signature event will set the stage for an action-packed program, designed to inspire innovation, foster meaningful connections, and drive the profession forward.

> **With a focus on advocacy and the acceleration of optimal clinical and business outcomes, AuDacity 2025: EMPOWERED, aims to move us rapidly forward.**
>
> — DR. AMYN AMLANI, PRESIDENT OF ADA

VIEW THE AGENDA

By bringing together ADA's national leadership in advancing the autonomous practice of audiology and MAA's unrivaled advocacy efforts to advance the profession and patient care in Maryland and the surrounding region, this collaboration will deliver an unparalleled experience for audiologists at every stage of their careers.

Connection can help combat the social isolation epidemic

The 2023 U.S. Surgeon General's Advisory on social isolation identified a growing health crisis among Americans – one that hearing healthcare professionals are confronted with every day. Often, people with hearing loss withdraw from social interactions and even phone conversations – especially as everyday conversations become challenging. This isolation can lead to significant health consequences, including:

- Increased risk of dementia
- Higher rates of depression and anxiety
- Poorer overall health outcomes

The advisory provides valuable insights into addressing social isolation – such as how important meaningful connections can be. It's a must-read for any hearing healthcare professional.

Get The Advisory At HamiltonCapTel.com/ADA625

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The purpose of the **ADA Student Academy of Doctors of Audiology (SADA)** is to serve the varied needs and concerns of student and emerging graduated members of ADA. SADA members have access to exclusive student resources, ADA's mentoring program, eligibility to participate in the Student Business Plan competition at the annual AuDacity Conference, and can help set the direction of ADA student initiatives.

Get involved today! Visit audiologist.org/sada for more information.