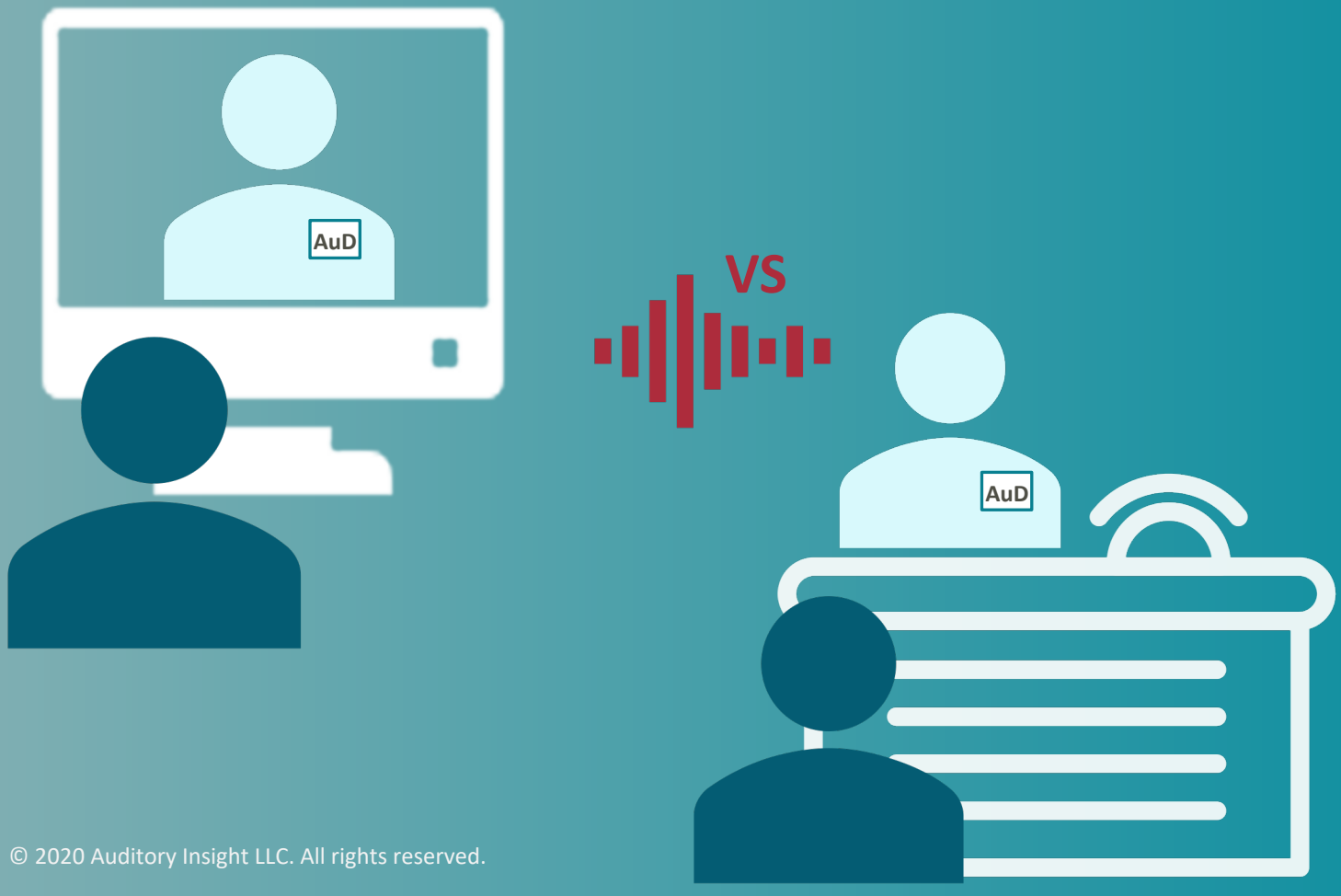
Auditory Insight®

RESEARCH NOTE

Quality of Care Comparison for Telehealth vs. Face-to-Face Audiology in Hearing Healthcare



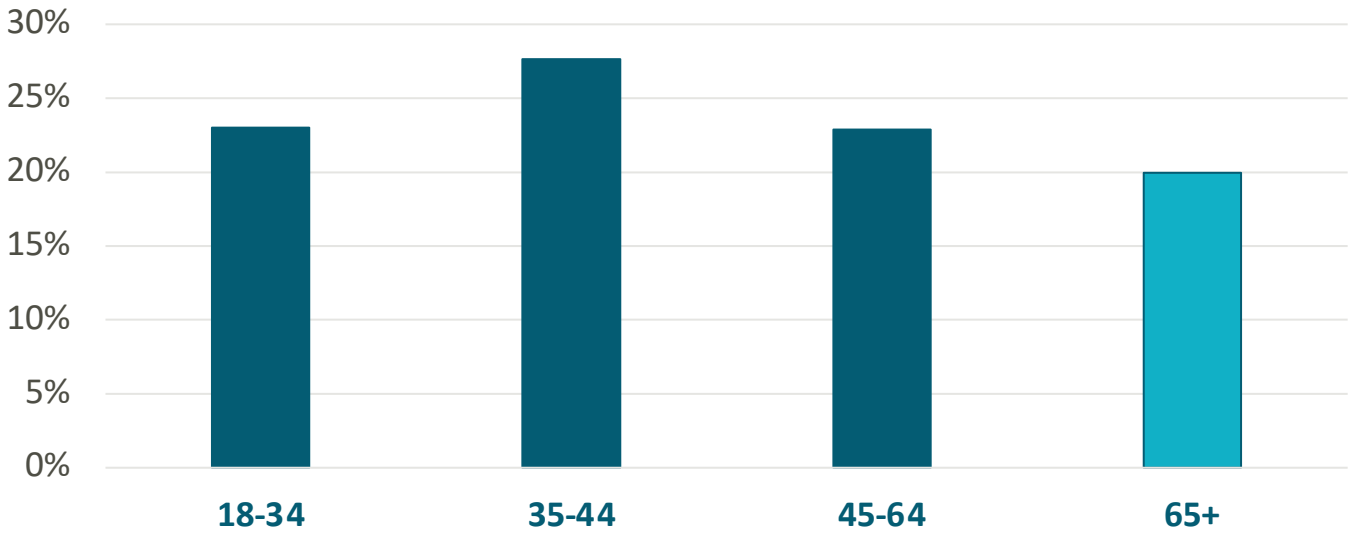
Telehealth presents an important growth opportunity in hearing healthcare.

Seniors, who comprise the sweet spot for the premium hearing aid market, are more likely to use telehealth than generally believed. During the pandemic's first wave, **fully 20% of people aged 65 and older had used telehealth, compared to 24% for younger cohorts combined**. (Chart below.)

Moreover, half of seniors on Medicare Advantage report being comfortable using telehealth services to receive health care. (Chart next page.)

Select direct-to-consumer (D2C) hearing aid companies are addressing this growth opportunity by expanding beyond selling inexpensive hearing devices. These **telehealth hearing companies package fully-functional hearing aids at mid-range prices with care and services traditionally offered by audiologists**.

Use of Telehealth Services for Appointment with Doctor, Hospital, or Specialist, by May 2020, by Age Cohort, in U.S.



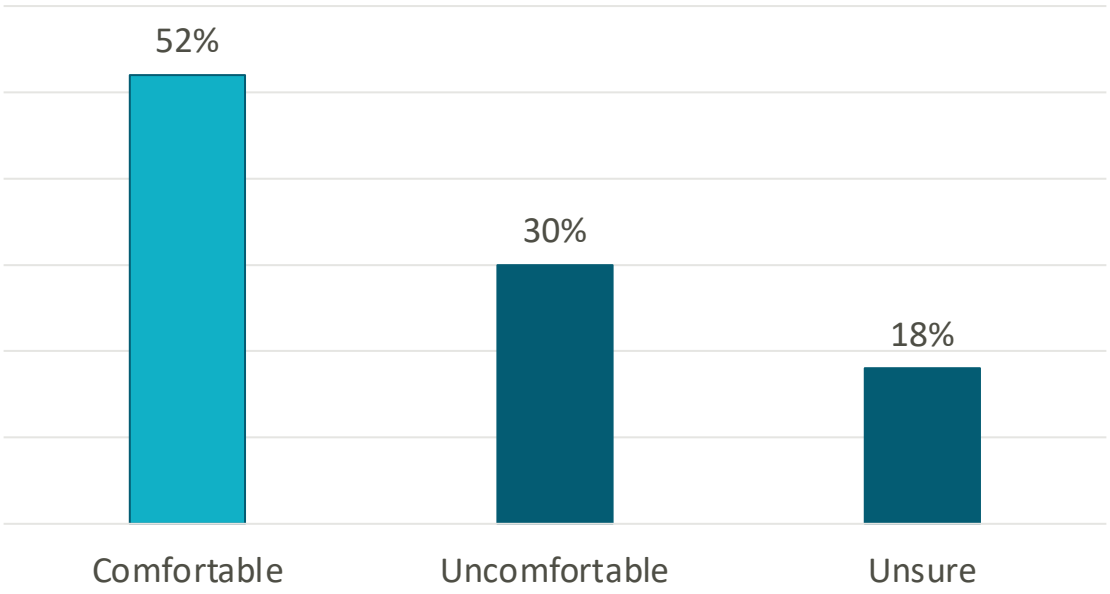
Source: Morning Consult National Tracking Poll

D2C companies who have expanded into full-service hearing telehealth are **closing the quality-of-care gap** relative to traditional audiology clinics.

Auditory Insight has evaluated how the quality of care provided by one such company, Listen Lively (Lively), compares to two types of face-to-face (F2F) hearing clinics: one that employs clinical best practices and one that is typical of the norm.

The Lively telehealth model is a useful benchmark because it replicates the F2F clinical model remotely and digitally. Lively offers hearing aids programmed with the patient's unique profile, a video welcome call with an audiologist, and a robust goal setting program.

Medicare Advantage Seniors' Comfort Using Telehealth Services to Receive Health Care, April 2020



Source: Morning Consult National Tracking Poll

The table below shows an overview of findings. The Lively telehealth model's **primary disadvantage is in assessment of conductive hearing loss** for referral. However, patients with conductive hearing loss are only 2% of a general population aged 70 [1]. In addition, the technology exists to to detect conductive hearing loss remotely.

Verification via real ear measurement is the other dimension where the Lively telehealth model has a disadvantage, but only relative to the best-practice clinics, about one-third of all F2F clinics.

In terms of **reducing COVID-19 infection risk and goal setting, the Lively telehealth model has an advantage** relative to typical clinics.

The following pages explore each of the dimensions below in detail.

Auditory Insight High-Level Evaluation Of Selected Quality of Care Dimensions for Listen Lively vs. Hearing Clinics

Dimension	Best-Practice Clinic	Typical Clinic
Assessments for hearing aid fittings	Parity	Parity
Detection of possible ear disease for referral	Parity	Parity
Assessment of conductive hearing loss for referral	Disadvantage	Disadvantage
Verification via real ear measurement	Disadvantage	Parity
Reduced COVID-19 infection risk from home-based care	Parity	Advantage
Goal setting using validated instrument	Parity	Advantage

Assessments for hearing aid fittings

Lively relies on an online hearing test to generate patients' hearing profile for programming hearing aids. Compared to both the best-practice and typical clinic models, **the Lively model's quality of care is at parity**.

Detection of possible ear disease for referral

In order to detect possible ear disease, Lively requires patients, before receiving their hearing aids, to complete the Consumer Ear Disease Risk Assessment (CEDRA)[2], a validated questionnaire with a false negative rate of 10%. Those patients who create a flag on the CEDRA, or earlier during the online hearing test, must speak with an audiologist on a video call to determine the need for a referral for a full hearing exam.

For detection of possible ear disease, **the Lively model's quality of care is at parity compared to both the best-practice and typical clinic models.**

Assessment of conductive hearing loss for referral

Almost all audiologists conduct pure-tone air and bone conduction audiometry—tests sufficient to rule out the presence of conductive hearing loss—as noted by Traynor and Hall [3]. Bone conduction audiometry requires the patient's presence in the clinic, and as of this writing, Lively does not use the antiphasic and diotic digits-in-noise testing, advocated by Swanepoel and Hall [4], to detect conductive hearing loss remotely. **The Lively model's quality of care is at a disadvantage relative to both the best-practice and typical clinic** in identifying possible conductive hearing loss for referral.

Verification via real ear measurement

Real-ear-measurement (REM) verifies a hearing aid's prescription by placing a probe microphone into the ear canal while the patient is wearing their hearing aids. The patient must be present in the clinic for the audiologist to conduct REM.

Compared to the best-practice clinic, the Lively model's quality of care is at a disadvantage.

Yet how many audiologists actually conduct REM? Despite "best-practice recommendations by a number of professional bodies, only 57% of respondents own REM equipment," asserted Amlani et al [5]. Moreover, "a mere 34% of respondents reported using the equipment consistently."

Compared to the two-thirds of clinics who do not conduct REM, Lively's telehealth model is at parity.

Reduced COVID-19 infection risk from home-based care

One of the clear benefits of telehealth is that it eliminates patients' risk of COVID-19 infection from visiting a hearing healthcare clinic in-person.

Yet the use of telehealth varies by clinic. In the Hearing Review's COVID-19 Impact Survey #3 [6], just under half of clinics reported deploying telehealth in response to the pandemic, with most of those clinics leveraging tele-audiology for hearing aid adjustments, as well as follow-ups and counseling. Only 4% of clinics reported using telehealth for audiological evaluations.

Along this dimension, the Lively model's quality of care is at parity with the small proportion of clinics that use telehealth for all patient interactions. **Relative to the remaining clinics, Lively's telehealth model has an advantage.**

Goal setting using validated instrument

Auditory Insight analysis shows that only 70% of hearing aid owners wear their hearing aids on a regular basis. Best practices include a goal setting program based on a clinically validated instrument such as the Client Oriented Scale of Improvement (COSI) [7], a clinical tool to document patients' needs and measure improvements in hearing ability.

"Most audiologists conduct, at a minimum, some cursory goal setting with patients. For instance, the audiologist may ask about telephone use or communication in noisy listening situations," reports Dr. Brian Taylor, AuD, director of scientific and project marketing at Signia. Taylor clarified, however, that "very few audiologists appear to have a systematic way of documenting how individuals are functioning and what strategies and technology they may benefit from over an entire range of daily activities."

In contrast, Lively has COSI goals on file for 98% of their patients who complete the orientation call. During subsequent calls, Lively audiologists follow up on patient goals and track changes. Along the goal-setting dimension, the Lively telehealth model's quality of care is at **parity with a best-practices clinic and enjoys an advantage over the typical clinic**.

Implications

As hearing healthcare prepares for 2021, the telehealth model offers an important growth opportunity. A key challenge for telehealth hearing companies will be communicating their quality-of-care to potential and current customers, in order to differentiate themselves from D2C companies with not only inferior product but also a lower quality of care.

About the Author

A strategic advisor and thought-leader on transforming hearing healthcare, Nancy M. Williams is Founder and President of Auditory Insight.

Advising Leaders on Transforming Hearing Healthcare

Auditory Insight partners with senior leaders of device and pharma companies to develop successful commercialization strategies based on deep insight into patient needs, practical understanding of clinical behaviors of audiologists and ENTs, and unique viewpoints on how hearing healthcare is evolving.

Endnotes

[1] Maria Hoff, Tomas Tengstrand, André Sadeghi, Ingmar Skoog & Ulf Rosenhall (2020). "Auditory function and prevalence of specific ear and hearing related pathologies in the general population at age 70." *International Journal of Audiology.* 59:9, 682-693
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[3] Traynor R, Hall III J. "Competing in the new era of hearing healthcare Part 2: Differentiating a practice with comorbidity screening, monitoring, and diagnostics." *Hearing Review*. 2019;26(11):16-19.
https://www.hearingreview.com/practice-building/competing-in-the-new-era-of-hearing-healthcare-part-2-differentiating-a-practice-with-comorbidity-screening-monitoring-and-diagnostics

[4] Swanepoel, De Wet PhD; Hall, James W. PhD. "Making Audiology Work During COVID-19 and Beyond." *The Hearing Journal*: June 2020 - Volume 73 - Issue 6 - p 20,22,23,24
DOI: 10.1097/01.HJ.0000669852.90548.75

[5] Amlani AM, Pumford J, Gessling E. "Real-ear measurement and its impact on aided audibility and patient loyalty." *Hearing Review*. 2017;24(10):12-21.
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[6] Strom, Karl. "Results of the Covid-19 Impact Survey #3 (May 13-22) for Hearing Healthcare Practices." *Hearing Review.* June 2020, Online feature
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An earlier version of this Auditory Insight Research Note was published as “How Listen Lively’s Telehealth Model Stacks Up Against Clinics,,” Hearing Health & Technology Matters, November 3, 2020