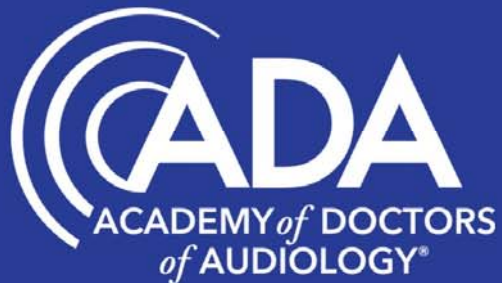
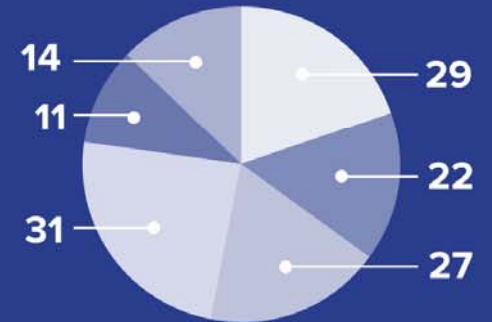
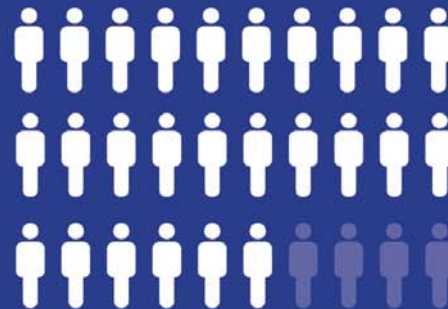
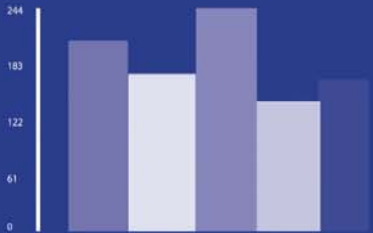


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The Business Case for Disruptive Innovations in Audiology Practice



Amy M. Amlani, Ph.D.

Disclosure Statement:

Financial: Unitron, CareCredit; Consulting fee, speaking fee, honoraria, grants.

Nonfinancial: No relevant nonfinancial relationships to disclose.



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Barry Freeman, Ph.D.

Disclosure Statement: No relevant financial or nonfinancial relationships to disclose.



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Presenters

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In the midst of
CHAOS
there is also
OPPORTUNITY

Sun Tzu



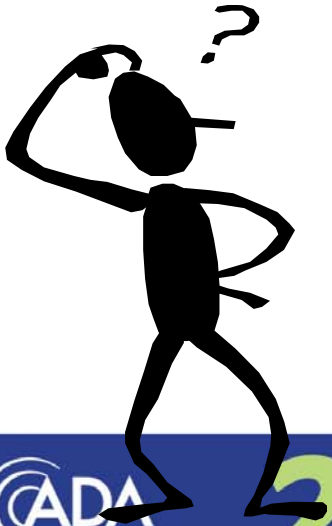
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For a lot of years we've been talking about professionalism and professional autonomy and trying to answer the question:

- *How can we receive better recognition for who we are and what we do?*



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For decades we have tried to...

- *Identify the **intrinsic*** and **extrinsic**** factors that impact our recognition as qualified cost-effective practitioners.*

- *How we view ourselves as health care providers
- **How others view us as health care providers



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WHAT MATTERS MOST
IS HOW YOU SEE YOURSELF.



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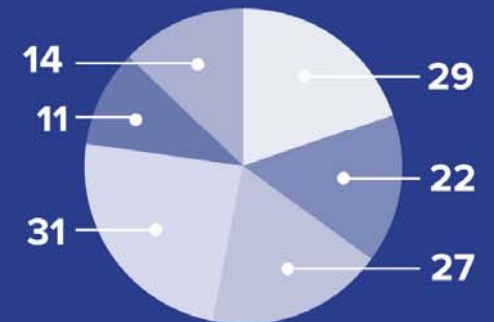
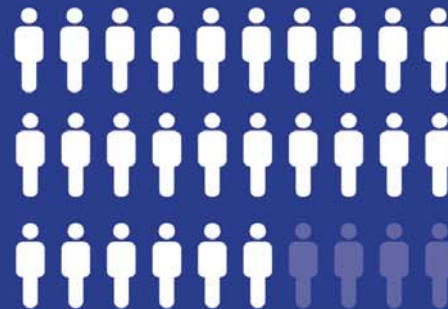
CAPITAL IDEAS





ADA Practice Trends Survey – Preliminary Results

Amy M. Amlani, Ph.D.
Department of Audiology & Speech-Language Pathology
University of North Texas
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Practice Survey Trends – Rationale

- Assess performance indicators that would help ADA members reach their business goals
 - Benchmark Metric = Total Gross Revenue
 - Business Practice Variables
 - External (e.g., competition, website, marketing, referrals)
 - Internal (e.g., patient demographics, service provision, reimbursement, dispensing of technologies)



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Practice Survey Trends – Development

- Working group was organized after the 2013 ADA Annual Convention, consisting of
 - Stephanie Czuhajewski (Chair)
 - Jason Aird
 - Aryn Amlani
 - Barry Freeman
 - Brian Taylor
 - Jerry Yanz



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Practice Survey Trends – Methodology

- Web-based survey
 - Response period ran from September 2014 – November 2014
 - Respondents were ADA members
 - 316 respondents provided responses
 - Only 187 respondents provided a response for “Total Gross Revenue”
 - Discarded 129 responses
- Data analyzed by a third-party data analyses firm

clockwork
It's Time



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Practice Survey Trends – Data Analyses

- Sample size is too small to show significant differences between/among
 - Sexes
 - Practice Types (e.g., ENT, Private Practice, Hospital, Retail)



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Practice Survey Trends – Data Analyses

- Two statistical approaches
 - Chi-square (i.e., differences)
 - Compared questions that were nominal (e.g., yes/no) and ordinal (e.g., likely, neutral, not likely)
 - Statistical significance ($p < .1$ and $p < .05$) was calculated between sub-categories of total gross revenue for expected frequencies vs. observed frequencies
 - Expected frequencies derived by, for example, 37% of respondents indicating that their total gross revenue yield \$1 million or more
 - Observed frequencies are the actual responses



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Practice Survey Trends – Data Analyses

- Two statistical approaches
 - Spearman correlations (i.e., relationships)
 - Based on ratio data (e.g., cost of goods sold, time spent working)
 - Relationship was calculated between a response to a question and total gross revenue
 - Values of $r_s \geq |.6|$ are high
 - Values of r_s between $|.3|$ and $|.59|$ are moderate

Does NOT Explain Why Relationship Exists – NO Casual Effect

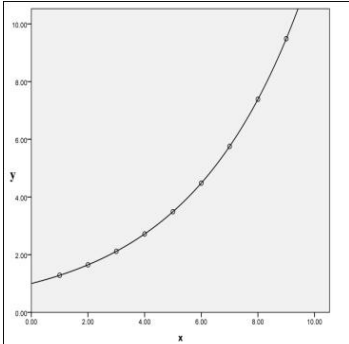


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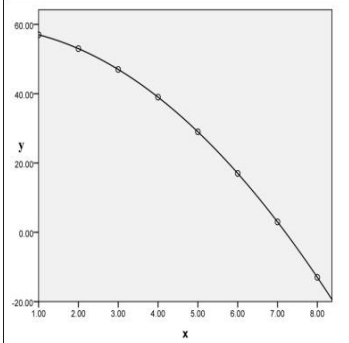
CAPITAL IDEAS



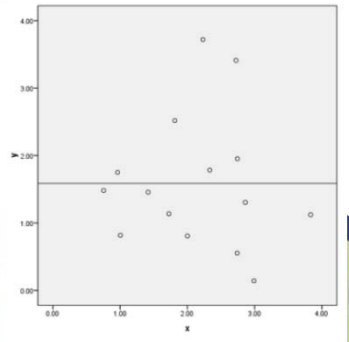
Spearman Correlation Patterns



Positive r_s indicates that as variable x increases, total gross revenue is also increasing



Negative r_s indicates that as variable x decreases, total gross revenue decreases



Values of r_s close to 0 indicate no relationship between variable x and total gross revenue



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Data Analyses Categories

Internal
Practice Management
Patient Demographics
Services Provided
Technology Provided

External
Practice Value
Competition
Marketing Strategy



Data Analyses Categories

Internal
Practice Management
Patient Demographics
Services Provided
Technology Provided

External
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Practice Survey Trends – Chi-Square

- Practice Management

- Owner

- Level of education in business/finance ($p < .05$)
 - Annually established financial goals ($p < .001$)
 - Office management systems ($p < .05$)
 - Staff meetings - weekly/bi-weekly ($p < .001$)
 - Affiliation with third-party (i.e., manufacturer, network, buying group) ($p < .1$)
 - Overwhelming majority still bundle prices ($p < .05$)

- Staff

- Paid vacation ($p < .01$)
 - Retirement plan ($p < .01$)
 - Health insurance ($p < .01$)
 - Profit sharing ($p < .05$)



Practice Survey Trends – Spearman

- Practice Management

- Hearing aids dispensed annually all locations ($r_s = .76$)
- Hearing aids dispensed annually per location ($r_s = .56$)
- Reduced gross expenses ($r_s = .69$)
- Reduced cost of goods sold ($r_s = .43$)

- Staff

- Number of audiologists employed 1 per location ($r_s = .22$)
- Number of audiologists employed 2-3 per location ($r_s = .68$)
- Number of audiologists employed ≥ 3 per location ($r_s = .33$)
- Employee training ($r_s = .62$)



Data Analyses Categories

Internal
Practice Management
Patient Demographics
Services Provided
Technology Provided

External
Practice Value
Competition
Marketing Strategy



Practice Survey Trends – Chi-Square

- Patient Demographics

- Age

- Children 11-17 years ($p < .01$)
 - Adults aged 61-80 years ($p = .01$)
 - Adults aged 41-60 years ($p < .05$)
 - Adults aged 18-40 years ($p < .1$)

- Revenue based on returning patients, **not** new patients ($p < .01$)



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Data Analyses Categories

Internal
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Practice Survey Trends – Chi-Square

- Services Provided
 - Tasks performed by non-audiology staff
 - Standard audiologic assessment ($p < .05$)
 - Services Provided by Practitioner
 - Billing for audiologic assessment
 - New patients ($p < .05$)
 - Central auditory processing assessment
 - New and returning ($p < .05$)
 - Tinnitus
 - New patients ($p < .1$)
 - Vestibular
 - Returning patients ($p < .1$)
- Services Provided by Practitioner (cont)
 - Hearing aid
 - Counseling fee – Returning patients ($p < .05$)
 - Fitting fee ($p < .1$)
 - Follow-up (6-month appt) ($p = .1$)



Data Analyses Categories

Internal
Practice Management
Patient Demographics
Services Provided
Technology Provided

External
Practice Value
Competition
Marketing Strategy



Practice Survey Trends – Spearman

- Technology Provided
 - Hearing aids dispensed annually ($r_s = .76$)
 - Binaural Fittings ($r_s = .76$)
 - Hearing Aid Brand ($r_s = -.36$)
 - Fewer Hearing Aid Returns ($r_s = .57$)



Practice Survey Trends – Spearman

- Technology Provided
 - Revenue based on adult patients, but increases when children are provided services and technology
 - Previous adult hearing aid users from your practice ($r_s = .64$)
 - Previous child hearing aid users from your practice ($r_s = .29$)
 - New adult hearing aid users from another practice ($r_s = .52$)
 - New child hearing aid users from another practice ($r_s = .24$)
 - Adults who are new users of hearing aids ($r_s = .39$)
 - Children who are new users of hearing aids ($r_s = .22$)
 - Adults who are users of PSAP/Smartphones ($r_s = .24$)
 - Children who are users of PSAP/Smartphones ($r_s = .08$)



Practice Survey Trends – Spearman

- Services Provided for Technology
 - Adult hearing aids verified using probe-mic ($r_s = .64$)
 - Child hearing aids verified using probe-mic ($r_s = .29$)
 - Adult hearing aids verified using soundfield ($r_s = .28$)
 - Child hearing aids verified using soundfield ($r_s = .05$)



Data Analyses Categories

Internal
Practice Management
Patient Demographics
Services Provided
Technology Provided

External
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Marketing Strategy



Practice Survey Trends – Chi-Square

- Practice Value
 - Population of community ($p < .01$)
- Website
 - Internet presence ($p < .1$)
 - Information about hearing loss and treatment ($p < .01$)
 - Information about audiologic disorders and treatment ($p < .01$)
 - Information about for patients (e.g., payment options, hours, location) ($p < .05$)



Data Analyses Categories

Internal
Practice Management
Patient Demographics
Services Provided
Technology Provided

External
Practice Value
Competition
Marketing Strategy



Practice Survey Trends – Chi-Square

- Disruptive Competition
 - ENT Practice within 10 miles ($p < .05$)
 - VA within 10 miles ($p < .1$)
 - Internet ($p < .1$)
- **Not**
 - Big-box retailer ($p = .18$)
 - University clinic ($p = .24$)
 - Corporate-affiliated practice ($p = .25$)
 - Independent-owned practice ($p = .37$)
 - Manufacturer-owned practice ($p = .69$)



Data Analyses Categories

Internal
Practice Management
Patient Demographics
Services Provided
Technology Provided

External
Practice Value
Competition
Marketing Strategy



Practice Survey Trends – Spearman

- Marketing Strategy
 - Web/social media ($r_s = .58$)
 - Newspaper ($r_s = .50$)
 - Direct mail ($r_s = .47$)
- **Not** helpful
 - Television ($r_s = .12$)
 - Radio ($r_s = .04$)





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For decades we have tried to...

- *Identify the intrinsic* and extrinsic** factors that impact our recognition as qualified cost-effective practitioners*
- *How we view ourselves as health care providers
- **How others view us as health care providers



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Healthy People 2020



US. Department of Health and Human Services
<http://www.healthypeople.gov/>



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Hearing and Balance Disorders

- Goals

- Reduce prevalence and severity of disorders of hearing and balance.
- Increase proportion use of hearing aids or assistive listening devices.
- Increase proportion of persons who have regularly scheduled hearing examinations.
- Increase use of hearing protection devices.
- Increase proportion of adults with balance or dizziness problems in the past 12 months who have ever ...[been evaluated]...



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Overall Impact on the Profession of Audiology

- Recognition of Audiology as appropriate providers to diagnose, manage, and treat hearing and balance disorders.
- A “call to action” for audiologists to offer a full scope of professional practice.



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The National Academies of
SCIENCES • ENGINEERING • MEDICINE

Institute of Medicine

Four (4) meetings hosted by Institute of Medicine (IOM) at the National Academy of Sciences in past year to examine:

Affordable and Accessible Hearing Care for Adults



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Committee on Accessible and Affordable Hearing Healthcare for Adults

- Hearing loss is a major healthcare issue.
- Hearing aids and hearing tests are underutilized.
- Federal policies and regulations affect accessibility and affordability.



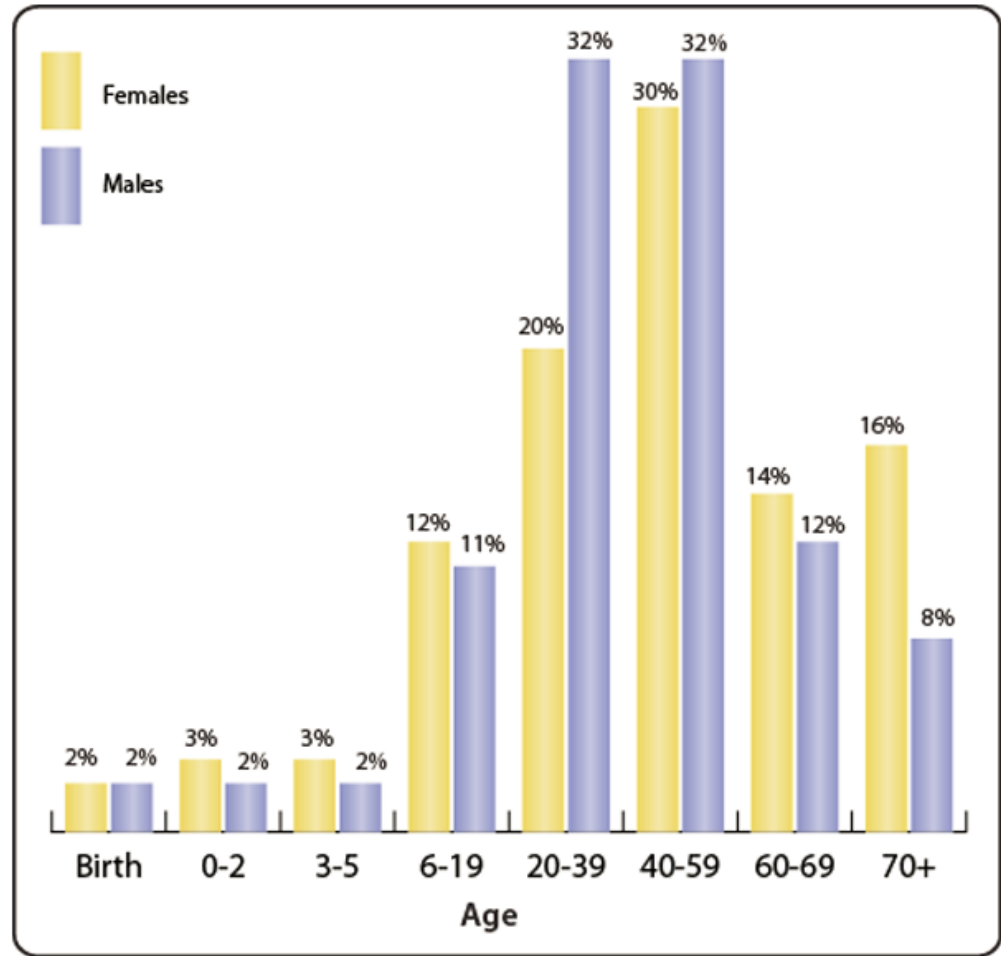
Hearing Care Could Be Self-Directed

- Consumer driven decisions
- Access care prior to engaging professionals
- Examples
 - Colds (OTC medications)
 - Joint pain (OTC medications, applications)
 - Vision (readers)

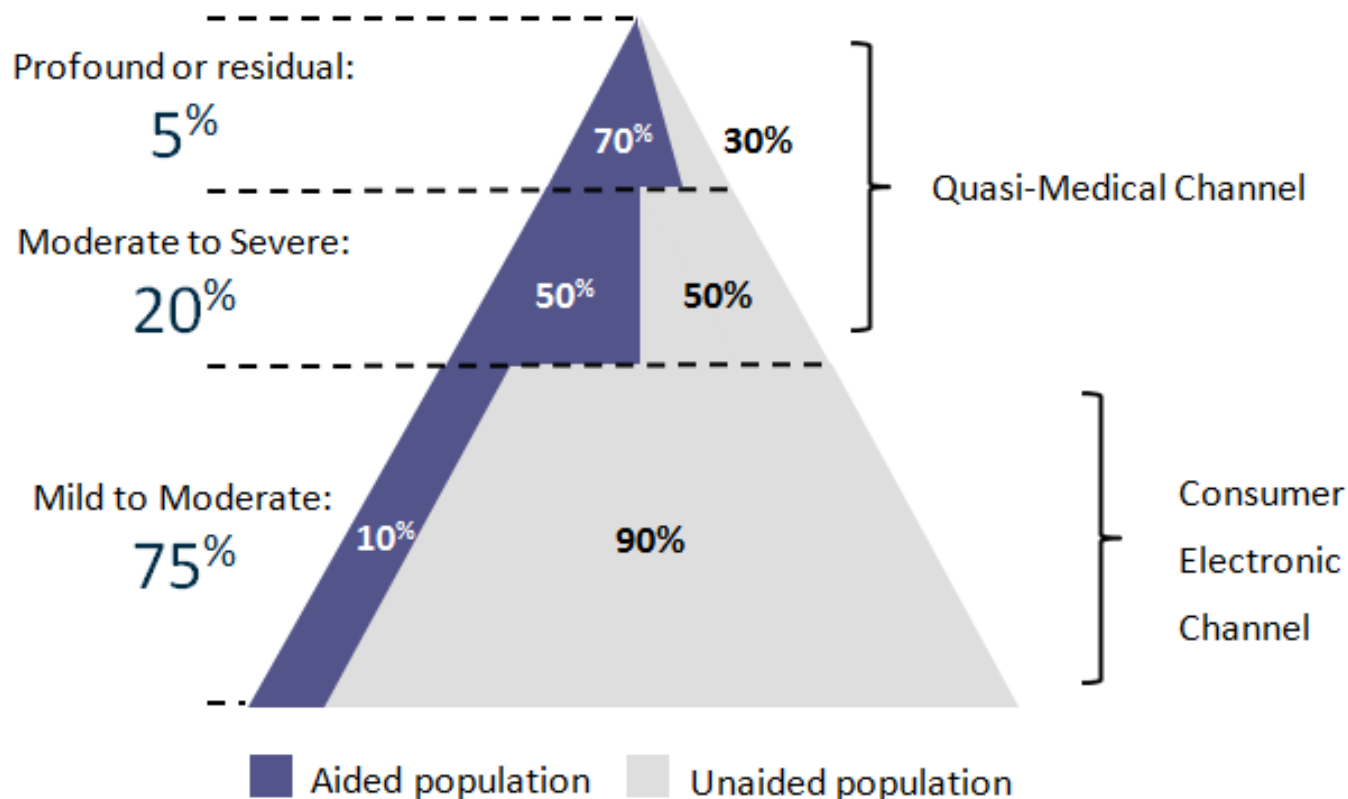


Onset of Hearing Loss NIDCD, 2012

Age at Which Hearing Loss Begins



The Unmet Need



Committee on Accessible and Affordable Hearing Healthcare for Adults

- Committee members include:
 - **Ashley Predith** is the Assistant Executive Director of the President's Council of Advisors on Science and Technology (PCAST) at the White House.
 - **Carlton Reeves**, President's Council of Advisors on Science and Technology (PCAST) .





Office of Science and Technology Policy

*President's Council of Advisors
on
Science and Technology (PCAST)*



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Urgent Need to Improve Hearing Care

- Major health and social problem
- Growing importance with aging population
- Untreated hearing loss associated with higher risks of social isolation; depression; dementia; falls with injury; and inability to work, travel, or be physically active.
- Few adults with hearing loss use hearing aids (~15-30%)



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Barriers to Wider Use of Hearing Technologies

- **Cost of technology**

- Hearing aids have not experienced the reductions in price and increases in features routinely seen across consumer electronics.
- Average price: \$2,363, with premium models costing \$2,898



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Barriers to Wider Use of Hearing Technologies

- **Complexity of access**

- Out of pocket expense
- Medicare precluded from covering

“In the near future, people could check their hearing using automated hearing tests available online ... Interfaces ...could allow adaptive self-fitting by devices in response to user needs. Custom earbuds and configurations could be made routinely by 3D printing. Wirelessly integrated with smartphones and other wearable electronics, hearing aids could merge with hearables.”



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Barriers to Wider Use of Hearing Technologies

- **Social stigma and limited consumer awareness**
 - The association of hearing aids with old age or infirmity—is a barrier.
 - Public and Healthcare Provider (i.e., physician) education needed.



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of AUDIOLOGY

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Barriers to Wider Use of Hearing Technologies

- **Vertical Integration of Industry**

- Big six account for 98% global market and industry lacks influx of new innovative companies.
- Big six have expanded into retail by purchasing chains of practices, while independent audiologists are frequently offered contracts and incentives that favor a single brand.



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Barriers to Wider Use of Hearing Technologies

- **Vertical Integration of Industry**

- Audiologists have disincentive to selling hearing aids from a wide range of manufacturers.
- New device designers and manufacturers inhibited from releasing competitive devices unless they establish own dedicated dispensing channels.
- Patients must visit multiple clinics to try different innovative products.



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Barriers to Wider Use of Hearing Technologies

- **Distribution System**

- Bundling is a common practice
- Technology accounts for less than half the bundled price
- Bundled services not always used (e.g., don't use follow-up appointments)
- Patients get locked into the services of one professional and cannot easily shop around or change location.



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Barriers to Wider Use of Hearing Technologies

- Distribution System

- Providers may not follow evidence-based practice (EBP) guidelines.
- Provider preference or relationship has a bigger influence on treatment and product recommendations than the needs of patient.
- Audiologists rely more on information from manufacturers (and presumably distribution agreements) rather than EBP.
- *Vertical integration reduces consumer choice.*



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Recommendations

- New FDA category: “**Basic**” hearing aids for bilateral, gradual onset, mild-to-moderate age-related hearing loss.
- PSAPs: Intended to augment, improve, or extend the sense of hearing in individuals.
- FTC: Require audiologists to provide a copy of their test results at no additional cost (analogous to Optometry Prescription Release Rule).



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Prescription Release Rule (FTC, 1980)

What did this mean for Optometry?

- Learned to offer eyewear at a fair price, increased eyewear selection and options, focused on providing quality customer service and patient centered treatment programs.
- 88% of all consumers report having a family eye specialist whom they see for appointments regularly.



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Where does this leave us?



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Marketing

- An estimated \$500m is spent annually by dispensing practices on product focused advertising.



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HIA Survey of “Delight” with Hearing Aid

1 Audiologist

2 Continued Connection to Provider

3 Verification and validation

4 Experimentation

5 Strong Recommendation

6 Personal Counseling

7 Thorough Evaluation

8 Professionalism

9 Personal Motivation

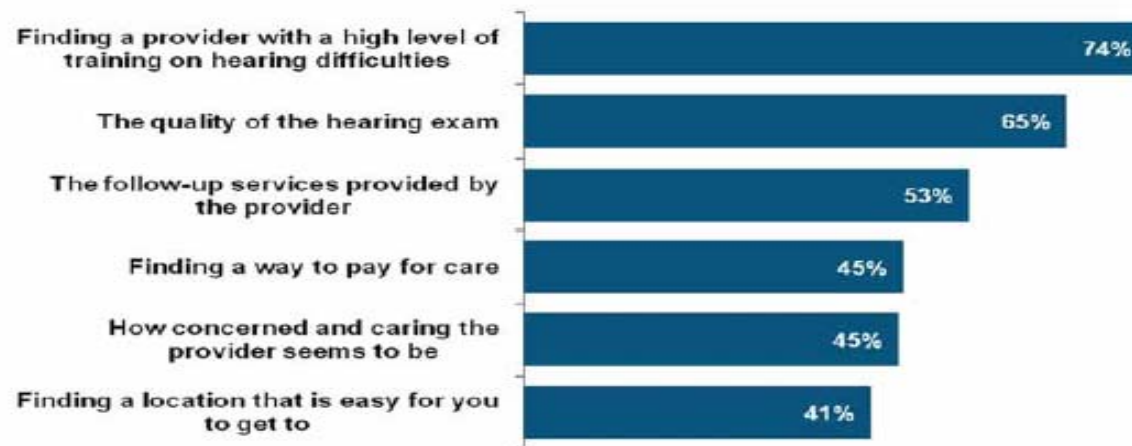
10 Hearing Aids Really Work!



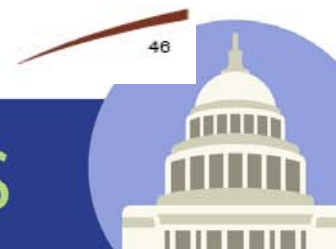


Finding a health provider trained in hearing difficulties is a primary concern

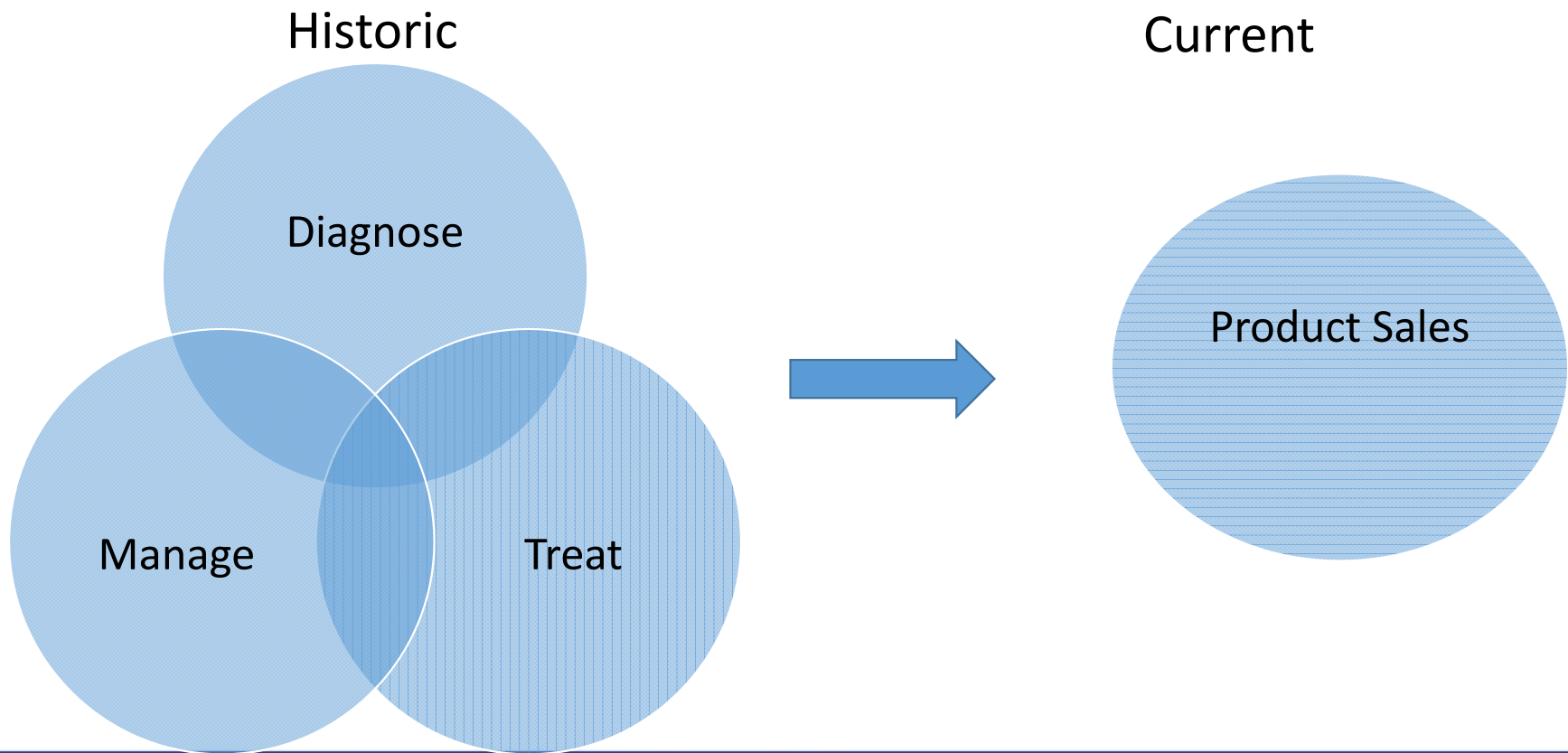
Which would be critically important to you if you were to seek help for a hearing difficulty?



Q235 All respondents (n=2,232)



Core Focus: A shift from LLP to Retail Sales



“If all you do is sell a product, differentiation is impossible because your industry can be cannibalized by corporate America.”

Woods (2013)



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Cannibalization

A shift from our goal of becoming LLPs who Diagnose, Manage, and Treat their patients



A goal of selling more products today than yesterday



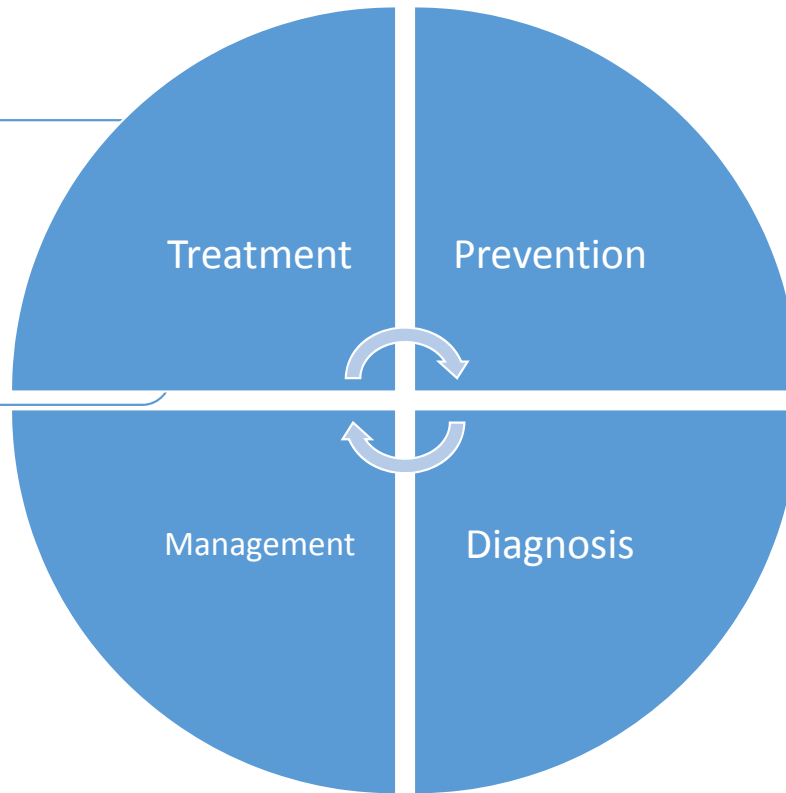
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The Language of Trust (P. Marincovich, 2014)

- An opportunity to differentiate our profession and practices



“People don’t buy what you do, but why you do it. They buy the benefits that these products and services offer to them” (S. Sinek, 2012)



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It's a Good Time to be an Audiologist!

- **Forbes** magazine:

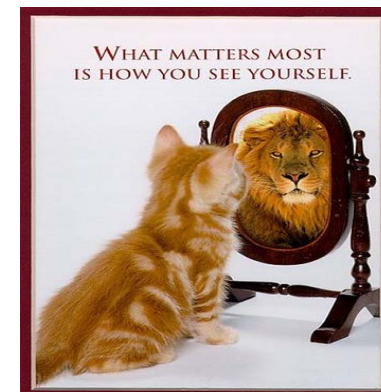
The “Offices of Audiologists” are #15 of the 20 Most Profitable Small Businesses in America.

- **Time** magazine

Audiology is the best profession...

- **US News & World Report/U.S. Department of Labor:**

- 4 consecutive years #1
- “One-on-one helping career”
- “Under-the-radar career”
- “Great independent practice opportunities”



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Thank you for listening



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