

scan HEALTH PLAN NYU Langone Health NYU Aging Incubator CALTECH

Welcome Hearing Health Care Symposium

March 18, 2021

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Housekeeping

- This webinar is being recorded.
- To help keep background noise to a minimum, all lines have been muted.
- Please use the chat feature to submit your questions.
- Please avoid multitasking and make sure you are in a space where you can control noise and interruptions.

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Faculty

Romilla Batra, MD, MBA
Chief Medical Officer
SCAN Health Plan

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PUTTING OUR MISSION INTO ACTION

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ABOUT SCAN

- 220,000 Members
 - 93% Medicare Advantage
 - 7% Dual-eligible
- 11 California counties
- 4.5 Stars since 2018
- \$3B+ Revenue
- 1,200 Employees

KEEPING SENIORS HEALTHY AND INDEPENDENT

MISSION

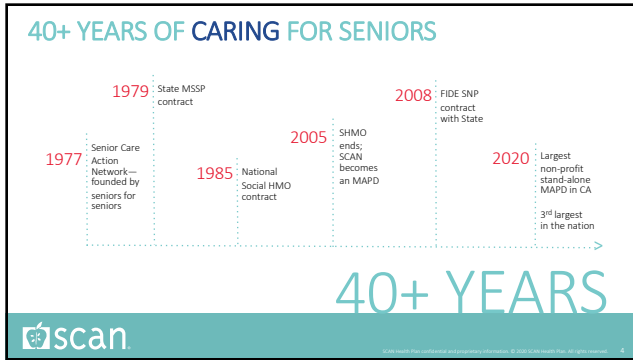
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CREATING A SENIOR-FOCUSED ORGANIZATION

THE TRUTH ABOUT THE 12 ANGRY SENIORS

- Petitioned the city of Long Beach to improve access to the services they needed to age in place
- Formed the Long Beach Area Geriatric Healthcare Council
- Renamed the organization and introduced Senior Care Action Network, now SCAN

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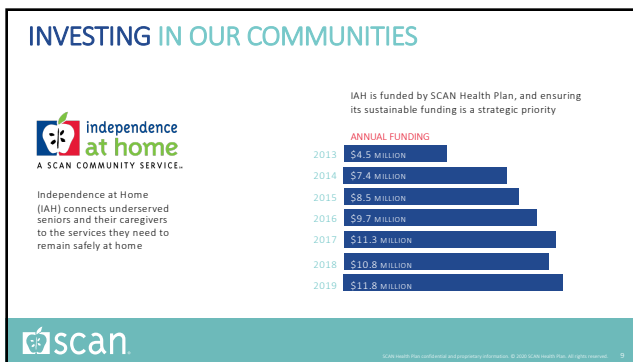
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LEADING THE INDUSTRY

- 2nd Largest in CA**
Not-for-profit MAPD
- Recognized Brand**
"Best" MAPD in CA 2019 & 2020
- 4.5 Stars**
Quality care & service
Four years in a row!
- 90% Satisfaction**
(Medicare & You, 2021)
Three years in a row!
- Loyal Customers**
NPS-69: Highest of non-integrated MA plans in our market
- Strong Financials**
Strong and consistent profit margins for multiple years
- Award-winning Service**
(2020 Stevies for Customer Service)
- Technology Awards**
Trading Ages Virtual Reality 360-Video Branded category

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Moderator and Faculty

Joshua Chodosh, MD, MSHS, FACP
Department of Medicine
NYU Langone Health

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FACULTY

David R. Friedmann, MD, MSc
Department Otolaryngology
Head & Neck Surgery
NYU Langone Health

Barbara E. Weinstein, Ph.D., FAHA
Doctor of Audiology Program
Graduate Center
CUNY

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AGE-RELATED HEARING LOSS (ARHL)

David R. Friedmann, MD, MSc
Barbara E. Weinstein, PhD

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Hearing Loss From a (Neuro-)otologist's Perspective



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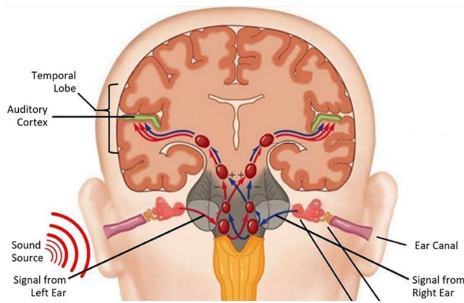
Why is Hearing So Important?

- It is a social sense
- We rely on hearing to communicate and stay engaged and connect with others
- It keeps us safe through awareness of our environment



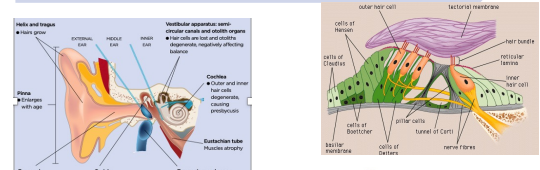
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How Do We Hear? (A review)



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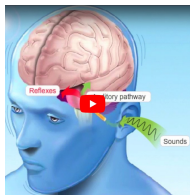
- Sound waves travel from the outer ear through the middle ear to the inner ear
- The inner ear vibrates and stimulates hair cells in the cochlea
- The hair cells send electrical signals to the nerves to which they are connected



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The nerves send the electrical impulses to the brain which translates them into sounds which we know and understand

The brain helps us focus on the sounds that are important and tries to filter out the noise so we can focus on listening and understanding



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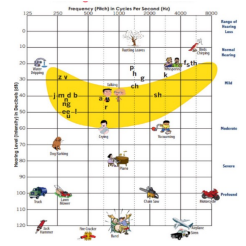
Why Does Hearing (often) Fail As We Age?

The ear fails:


- Hair cells in the cochlea die off, and can't regenerate
- First lose speech clarity, not audibility
- Preferentially affects high frequency sounds: **Presbycusis**

The central nervous system fails:

- Ability to filter and provide "top down" control declines
 - Ability to process sound meaning declines
- Age-related loss has central (brain) and peripheral (ear) component:




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Prevalence and Severity of ARHL on the Rise

- More than 2/3 of those over 70 have meaningful hearing difficulties
- During the next 43 years the number of people with hearing loss will almost double, as the population ages




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“Under-recognized, under-valued, under-treated” (NIDCD)

Potential for reducing burden is great

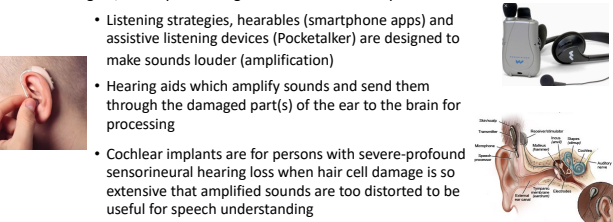


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Hearing Rehabilitation Requires Tailored Approaches

There are a spectrum of treatments depending on the degree/severity of hearing loss or level of auditory wellness

- Listening strategies, hearables (smartphone apps) and assistive listening devices (Pocketalker) are designed to make sounds louder (amplification)
- Hearing aids which amplify sounds and send them through the damaged part(s) of the ear to the brain for processing
- Cochlear implants are for persons with severe-profound sensorineural hearing loss when hair cell damage is so extensive that amplified sounds are too distorted to be useful for speech understanding



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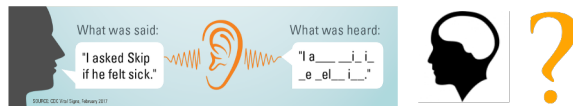
Hearing Loss From an Audiologist’s Perspective




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Hearing Loss Affects Speech Sounds Selectively

- Vowel sounds are LOUD and low-pitch and are easy to hear
- Consonant sounds are *soft* and high-pitch and are difficult to hear

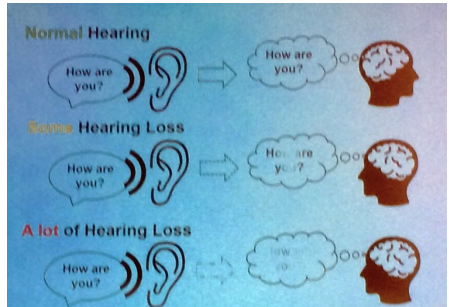


- Brain must fill in the blanks, and does not always get it right

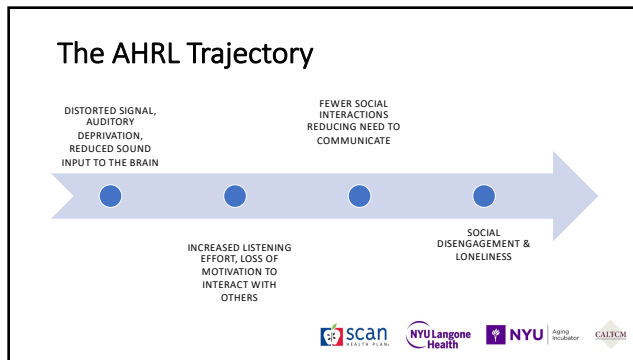


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Grades of Hearing Loss



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Life as a Person With Hearing Loss

- Disability is Invisible
- Conversation an effort
- Missed opportunities for information exchange, humor, emotion
- “Shutdown” and avoidance of noisy environments (restaurants, family gatherings)
- Walking and talking at same time increases risk of falling

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Life as a Patient With Hearing Loss

- Difficulty providing information to clinicians and caregivers
- Difficulty understanding treatment options
- Difficulty understanding and following treatment recommendations
- Difficulty participating in decisions
- Difficulty understanding care

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Consequences of ARHL in Healthcare Settings: Worse Quality, Less Safety, Higher Costs

People with hearing loss

- Report that their communication with providers is worse
- Report that their medical care is worse
- Are less “activated”
- Are more likely to be hospitalized
- Are more likely to be readmitted, once discharged
- Have higher costs of care

(Chang, et al., 2018; Chang, et al., 2016; Mick, et al., 2014)

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Providing Better Opportunities to Hear for Older, Frail People

Simple strategies can go a long way

- Extracting cerumen
- Using behavioral strategies
- Controlling ambient noise
- Employing assistive technology (eg. PTs)

Complex devices can be transformative, with support and habilitation

- Hearing aids
- Cochlear implants

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Self-Management Strategies

- H – Hearing Assistance
- E – Engage
- L – Look at Person when Speaking
- P – Position Yourself Away from Noise

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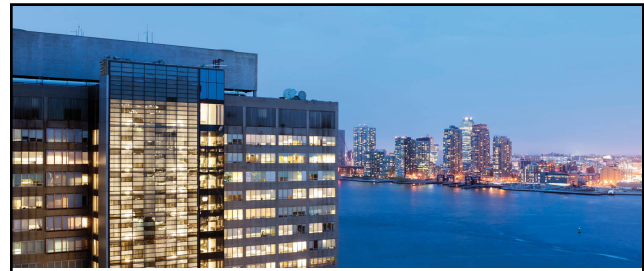
Postscript: AHRL in the COVID Era

Baseline social isolation exacerbated by social distancing/quarantine
 Reduced social contacts → reduced use of hearing aids → further disconnection from the world of sound

**** Masks impede speechreading and reading of emotions ****
 Increased social isolation, loneliness, disability



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Thank you!



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Providing Hearing Assistance to Low Income Adults at Risk for Social Isolation

Joshua Chodosh, MD, MSHS
 Division of Geriatrics and Palliative Care
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Acknowledgments and Disclosures

The research reported during this presentation was supported by Independence at Home (IAH), a community benefit of SCAN Health Plan, Long Beach, CA.

The investigators retained full independence in the conduct of this research.

No conflicts of interest to report.



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Working With Those That Need It Most

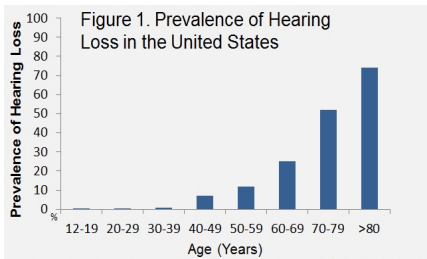


Figure 1: Prevalence of hearing loss in the United States by age, 2001-2008. Hearing loss is defined by a pure tone average of 0.5-4 kHz thresholds in the better hearing ear > 25 dB HL. Yamasoba et al. *Hearing Research* 2013; v303

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Study Motivation

- Human social interaction is largely dependent on oral communication.
- People with hearing loss struggle to understand speech, limiting conversation, possibly leading to social withdrawal and isolation.
- Observations support strong relationships between social isolation, loneliness and depression, and hearing loss



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Hearing Assessment Inventory

Hearing Handicap Inventory – Screen (HHI-S)

1. Does a hearing problem cause you to feel embarrassed when meeting new people?
2. Does a hearing problem cause you to feel frustrated when talking to members of your family?
3. Do you have difficulty hearing when someone speaks in a whisper?
4. Do you feel handicapped by a hearing problem?
5. Does a hearing problem cause you difficulty when visiting friends, relatives, or neighbors?
6. Does a hearing problem cause you to attend religious services less often than you would like?
7. Does a hearing problem cause you to have arguments with family members?
8. Does a hearing problem cause you difficulty when listening to TV or radio?
9. Do you feel that any difficulty with your hearing limits or hampers your personal or social life?
10. Does a hearing problem cause you difficulty when in a restaurant with relatives of friends?

Scores are yes, 4 points; sometimes 2 points; or no 0 points, to each question. Range:0-40

Weinstein BE. Validity of a screening protocol for identifying elderly people with hearing problems. *ASHA*. 1986;28(5):41-45.



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Objective Hearing Assessment



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One Strategy: Personal Amplifier



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PHASE Pilot Study: Providing Hearing Assistance to Low Income Adults at Risk for Social Isolation

Test the feasibility and potential benefit of providing a personal amplifier to older adults with hearing loss who are at risk for social isolation, loneliness, and depression.

- Screening for self-reported hearing difficulty in those > 60 years Hearing Handicap Inventory – Survey
- Portable Audiometer (SHOEBOX™)

Subjects are taught how to use the personal amplifier at baseline and learning is reinforced at a one-week check in.



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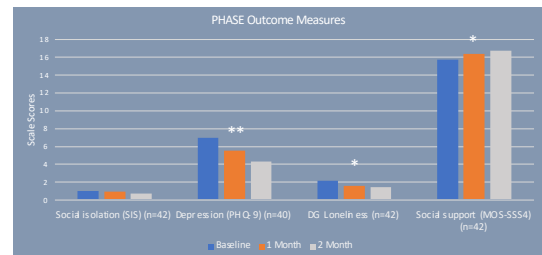
PHASE Pilot Study: Results

- 77 residents expressed interest in participating, 76 consented
- 74 (83% on either) met either the subjective (HHI-S) or objective (audiometric) criteria and were enrolled in the study.
- 42 residents (57% of enrollees) completed both 1- and 2-month follow-up visits



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Outcomes



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Conclusions

- In a vulnerable older population hearing loss was common and simple personal amplifiers were enthusiastically received.
- Loneliness was common among people with hearing loss
- Personal amplifiers may have improved subjects' social functioning and mood.
- Further work with stronger study designs is needed to shed more light on the effectiveness of this approach.



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Our Team

- Romilla Batra, MD, MBA
- Denise Likar, MSW
- Freddi Segal-Gidan, PA, PhD
- Annette Gomez, BA
- Kate Radcliffe, BA
- Dan Osterweil, MD
- Barbara E. Weinstein, MA, PhD
- Jan Blustein, MD, PhD



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Thank you!



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Break

3:00-3:10 PDT
6:00-6:10pm EDT



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**Hear VA-ED
Hearing Impairment, Strategies And Outcomes
In VA Emergency Departments**

Joshua Chodosh, MD, MSHS
Division of Geriatrics and Palliative Care
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Acknowledgments and Disclosures

The research reported during this presentation was supported by a VA HSR&D Merit Award (IIR 17-068). The Ralph S. French Charitable Foundation Trust provided additional support for the personal amplifiers provided to Veterans.

The investigators retained full independence in the conduct of this research.

No conflicts of interest to report



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Pragmatic Strategies to Improve Care



Hearing Handicap Inventory – Screen (HHI-S)

1. Does a hearing problem cause you to feel embarrassed when meeting new people?
2. Does a hearing problem cause you to feel frustrated when talking to members of your family?
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Scores are yes, 4 points; sometimes 2 points; or no 0 points, to each question. Range:0-40

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The HEAR-VA Pilot Study: Hearing Assistance Provided to Older Adults in Emergency Departments

Testing the feasibility and potential benefit of providing a simple hearing assistance device (personal amplifier) during an emergency department (ED) visit, for people who reported difficulty hearing

- Screening for self-reported hearing difficulty for patients 60 years and older and likely to be discharged home (ESI: 3-5)
- Hearing Handicap Inventory – Screen (10 items)
- RCT – 1:1 randomization
 - intervention received personal amplifiers



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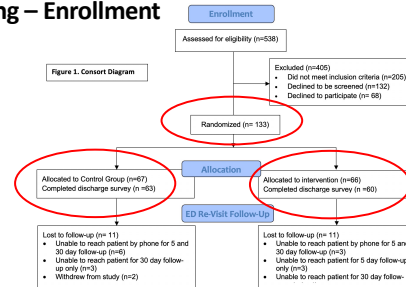
HEAR-VA Pilot Study: Outcome Measures

- Post-discharge survey
 - 6-item Hearing and Understanding Questionnaire (HUQ)
 - 3-item Patient Understanding of Discharge Information (PUDI).
 - Use of the personal amplifier during their ED visit.
- Follow-up phone calls at 4 days and 35 days post-ED visit
 - Information on return ED visits after discharge



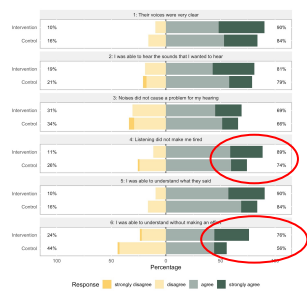
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Screening – Enrollment 7 months



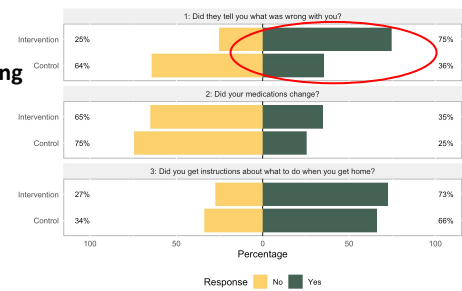
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Hear-VA: Hearing and Understanding



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Understanding of Discharge Instructions



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Conclusions

- Hearing loss is an emerging healthcare quality and safety issue.
- Providing hearing assistance (a personal amplifier) improved self-reported understanding of discharge needs and the presenting problem.
- Reductions in ED re-admission at 3 days were substantial.
- Pilot findings may not be generalizable to other patients or settings.
- Unknown whether amplifiers objectively improved discharge preparation
- The high level of participation (66%) and strong indications favoring benefit warrant an additional implementation trial



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Our Team

- Jan Blustein MD, PhD
- Keith Goldfeld DrPH
- Barbara E. Weinstein, PhD
- Victoria Dickson PhD
- Corita Grudzen MD, MSHS
- Scott Sherman MD, MPH
- Jessica Smilowitz MPH
- Kate Radcliffe, BA
- Madeleine Burlingame BA
- Annalie Brody, BA



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Thank you!




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Faculty



Jan Blustein, MD, PhD
 Professor of Health Policy and Medicine
 NYU/Wagner



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Getting Hearing Loss on the Radar Screen: Opportunities and Challenges

Jan Blustein, M.D., Ph.D




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Overview

Hearing loss is a big problem, but it generally isn't on our radar screens

- In our personal lives
- In our lives as clinicians
- In our lives as managers/directors/policymakers

Why, and what can we do about it?



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Challenges: Mindset, Awareness, Complexity

Societal lack of awareness
 Stigma/ageism
 Limited training of health/social service professionals
 Device-centric mindset (hearing aids are the cure)
 Not a single problem with a single solution



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Challenges: Barriers to Institutional Change

Dearth of evidence-based protocols
 Institutional interest (not incentivized)
 Institutional capacity (cost, competing priorities)
 Staff education/ staff turnover



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Opportunities: Bedside/Residential

Simple strategies can improve hearing

- Extracting cerumen
- Using behavioral strategies
- Controlling ambient noise
- Employing assistive technology (e.g. PTs)

Staff training and education



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Opportunities: Societal

Growing awareness of HL as boomers age
 Increasing research showing that HL matters for outcomes and safety
 New appreciation of the role of public health
 Legislative/regulatory change (OTC HA)
 Technologic innovation



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Resources

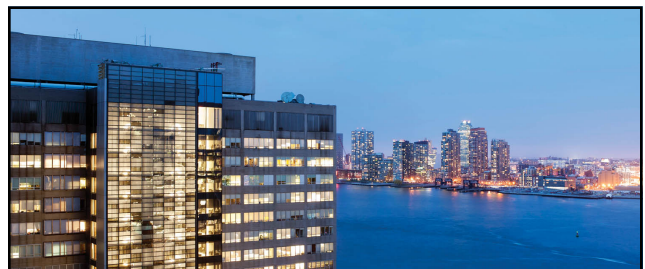
SCAN/NYU Manual -- Coming soon!
 Writings on hearing loss in health care settings

- Mansfield-Cohen (2 part) JAMDA (2004)
- Pryce, Gooberman-Hill Age Aging (2012)
- McCreedy et al. JAMDA (2018)
- Blustein, Weinstein, Chodosh *BMJ* (2016)

Hearing Loss Association of America



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Thank you!



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