

# WHAT THEY DIDN'T HEAR:

## The Hidden Variable in Interdisciplinary Assessment

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# Children's *Hearing Program*

## OUR TEAM



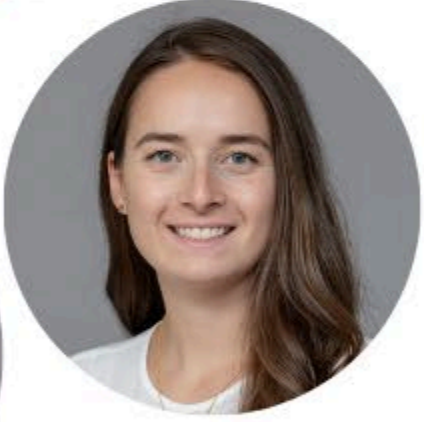
PSYCHOLOGY



SOCIAL WORK



FAMILY NAVIGATOR



DEAF EDUCATION



AUDITORY VERBAL  
THERAPY



AUDIOLOGY

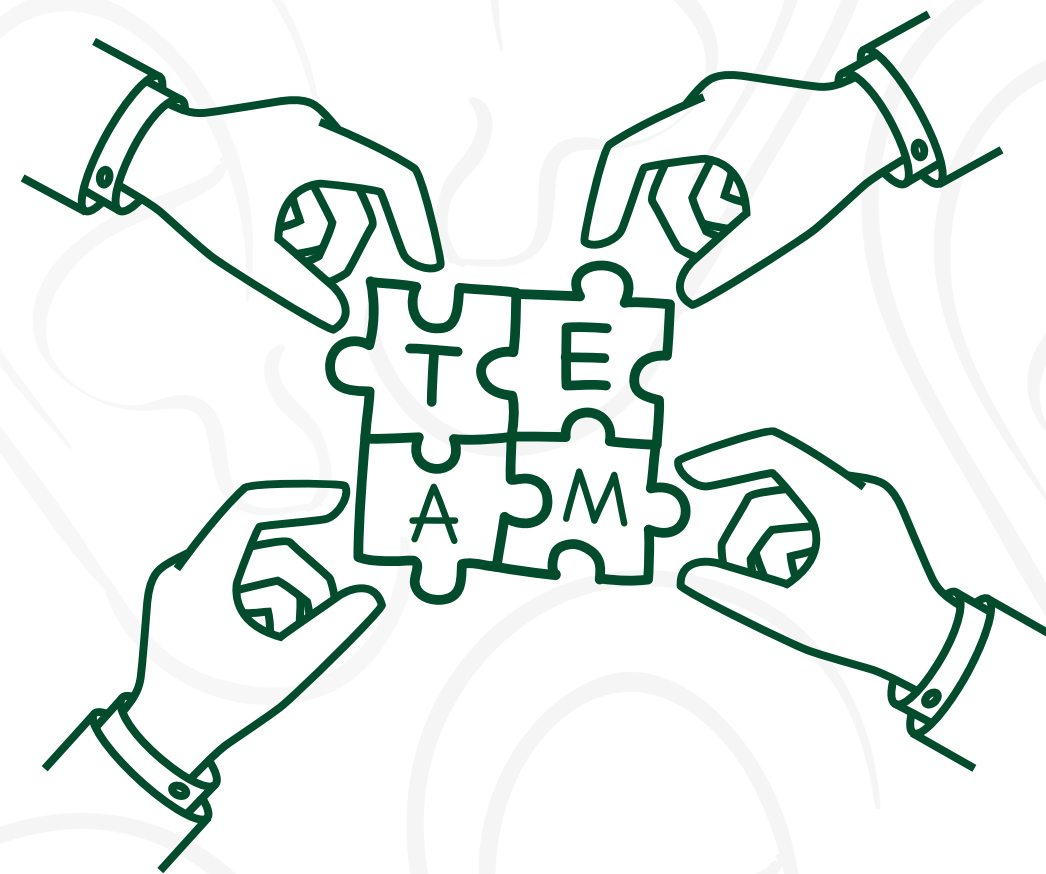
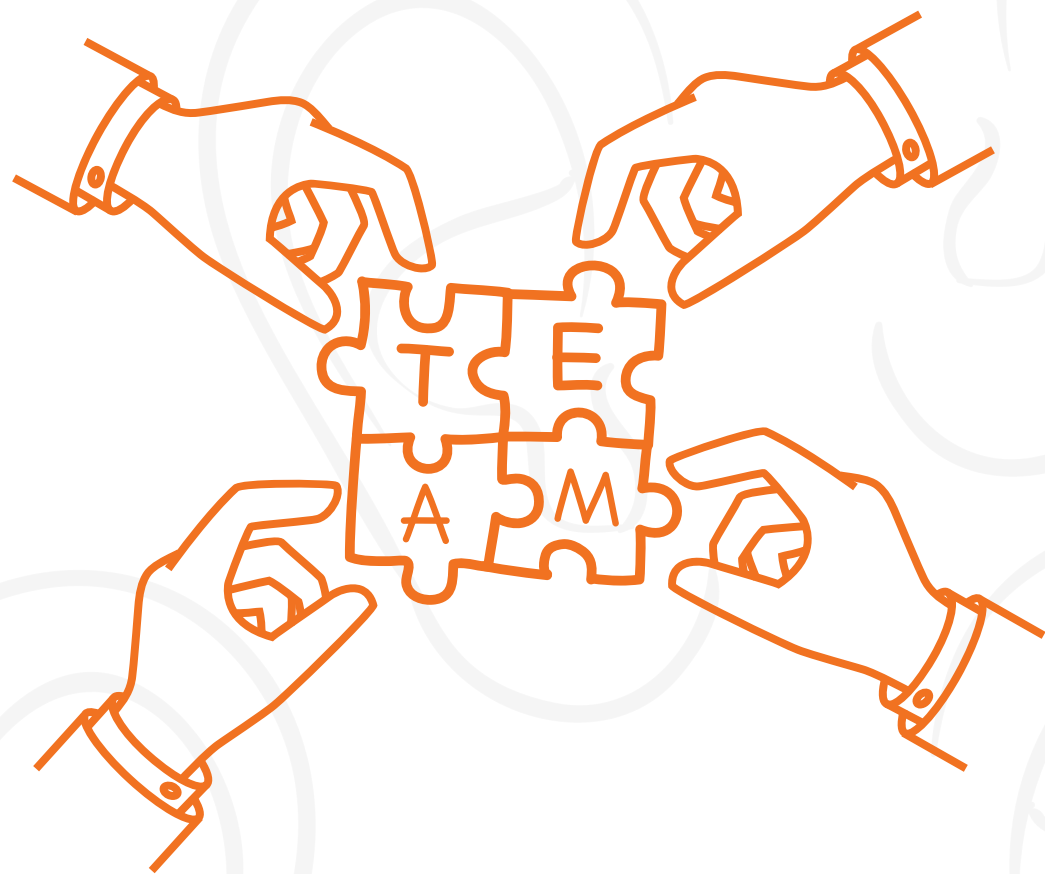


# LEARNING OBJECTIVES

Identify how undiagnosed hearing loss can affect outcomes across multiple disciplines

Describe the clinical and ethical implications of delayed audiological evaluation in interdisciplinary assessment settings

Apply strategies to advocate for earlier audiological involvement within interdisciplinary teams and assert the essential role of audiology in assessments



# ----- DISCIPLINARY CARE

## **Multidisciplinary:**

Involves people from different disciplines working together, each drawing on their disciplinary knowledge. Multidisciplinary work often maintains the boundaries of the disciplines involved.

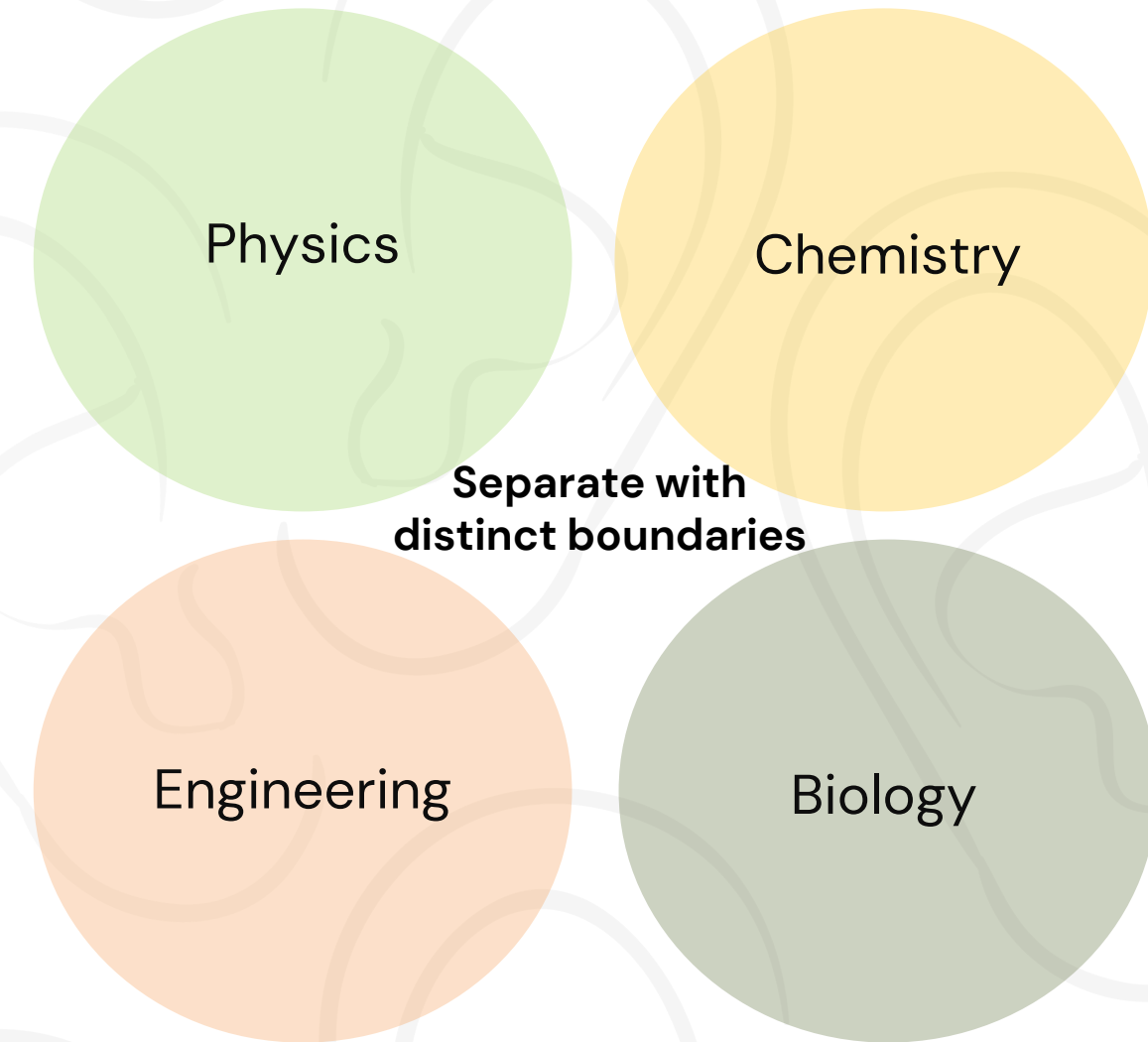
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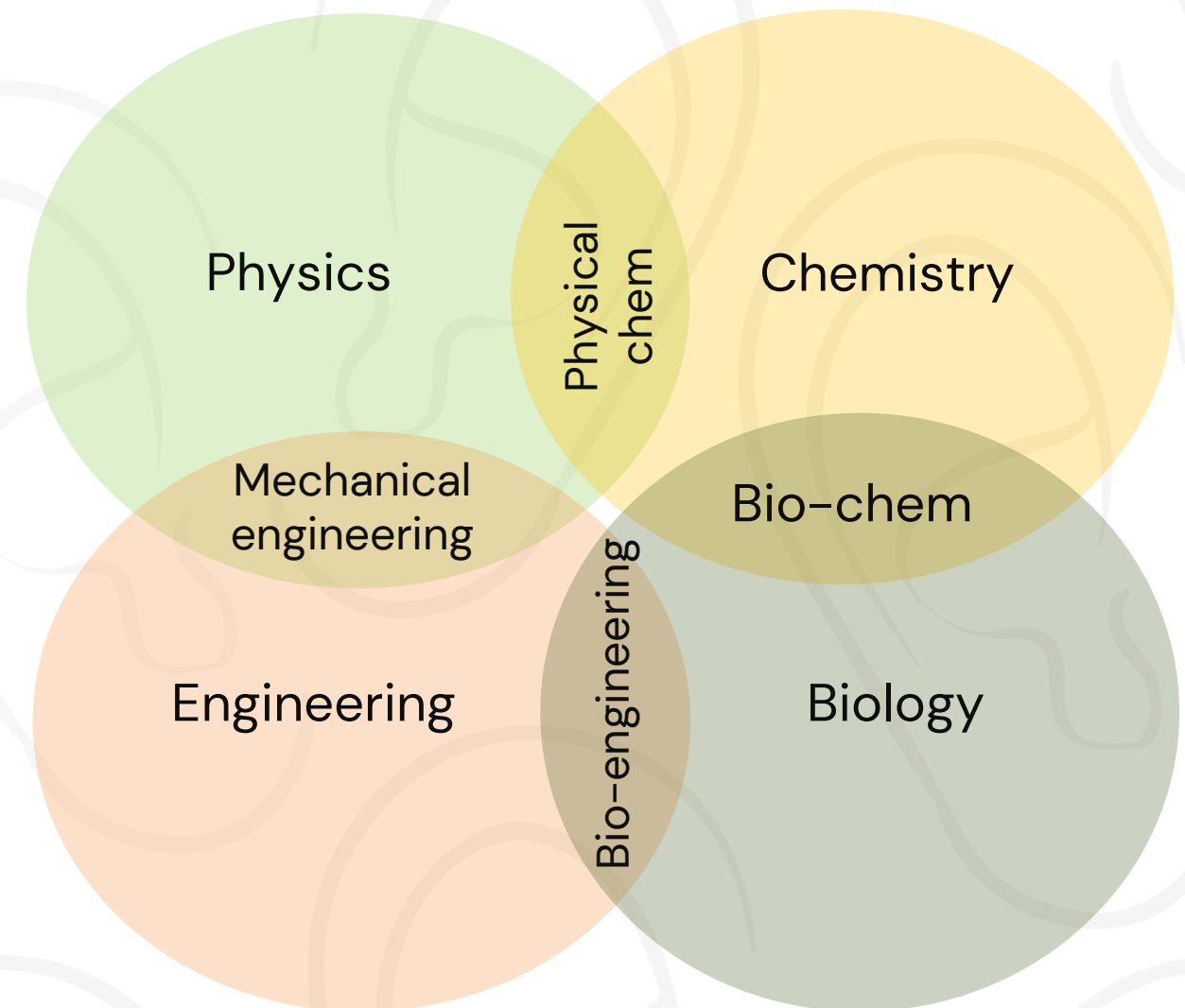
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Sub-divisions are created and formed by close association as boundaries overlap

# TEAM MODEL

Team consists of:

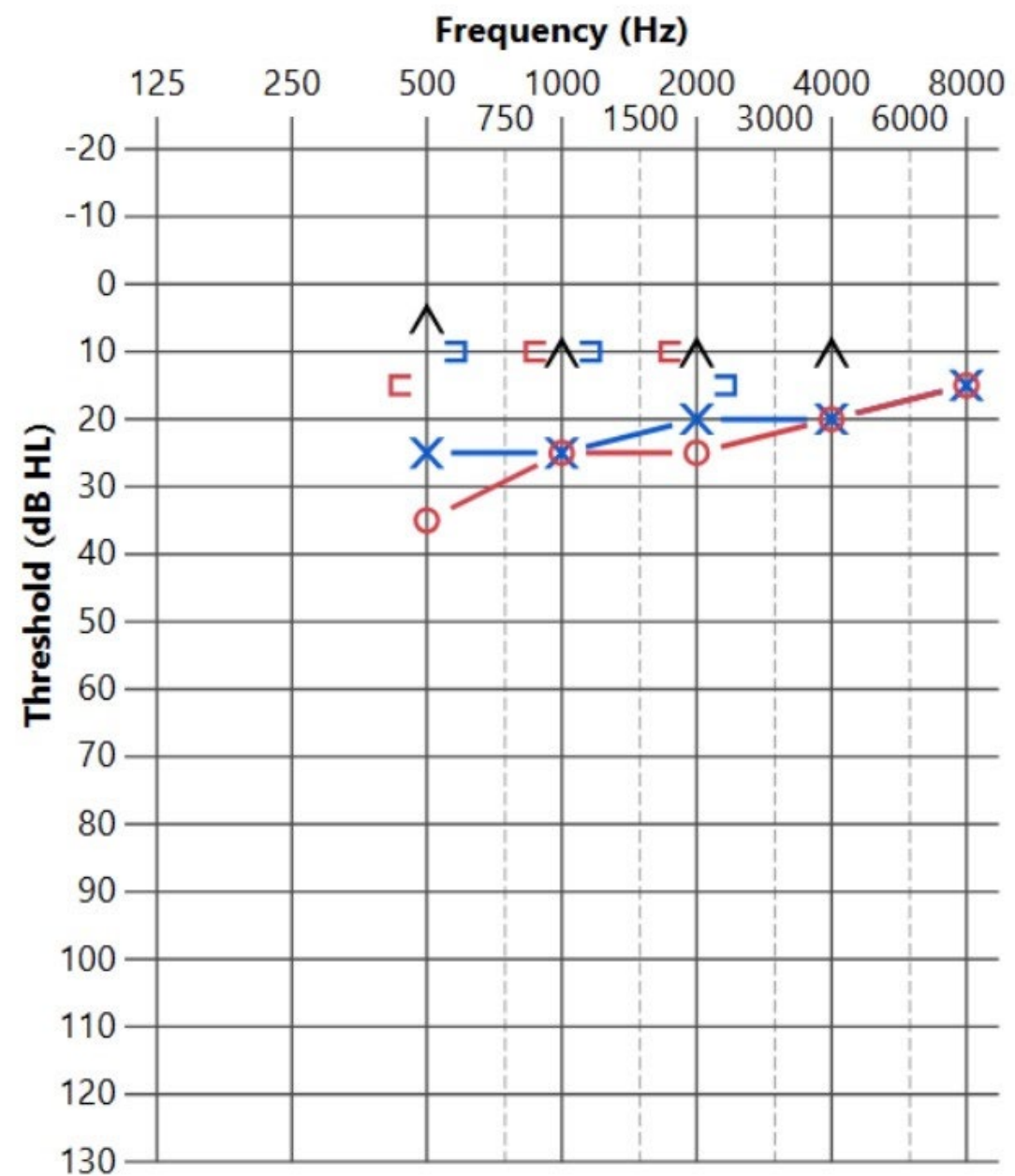
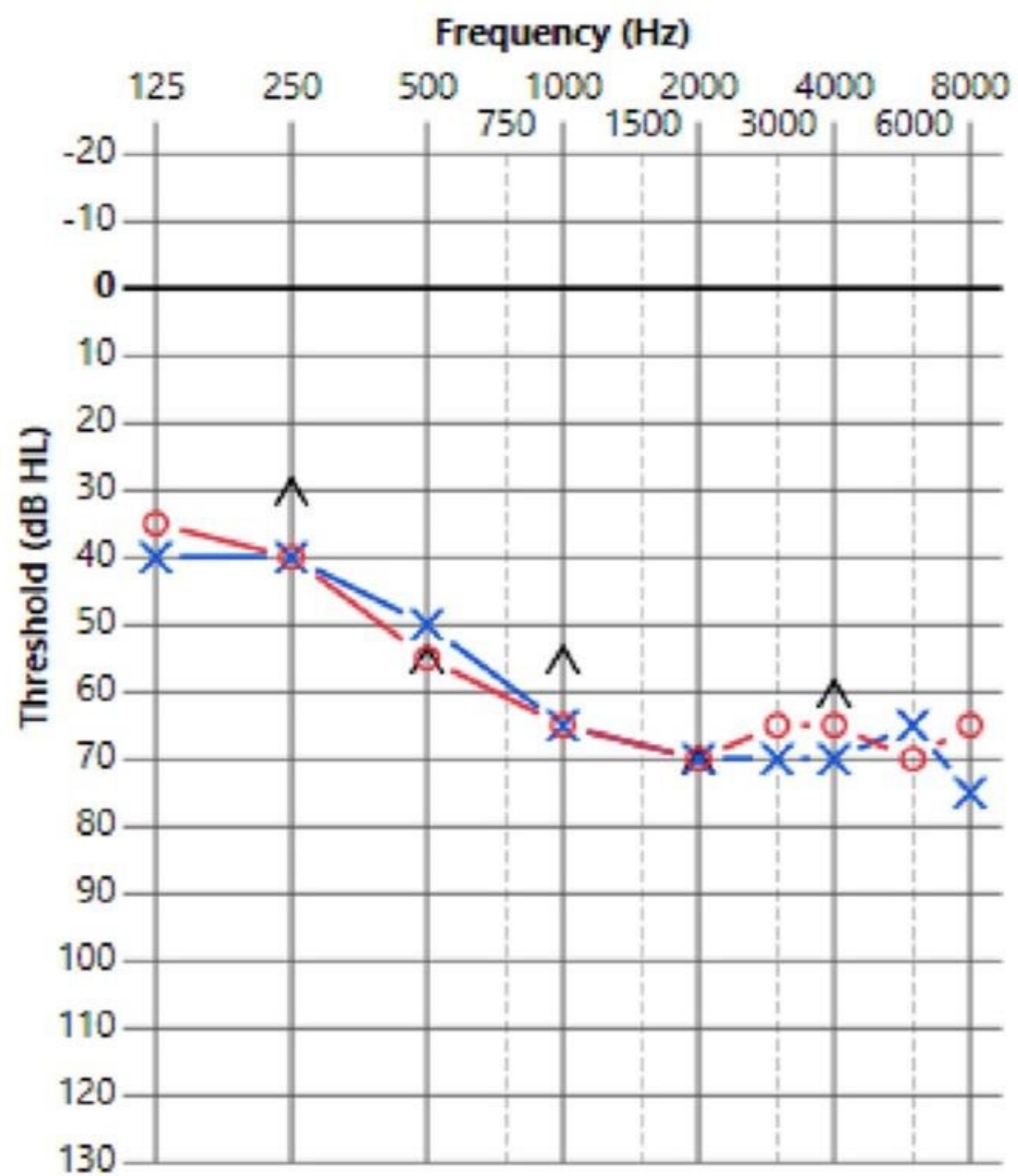
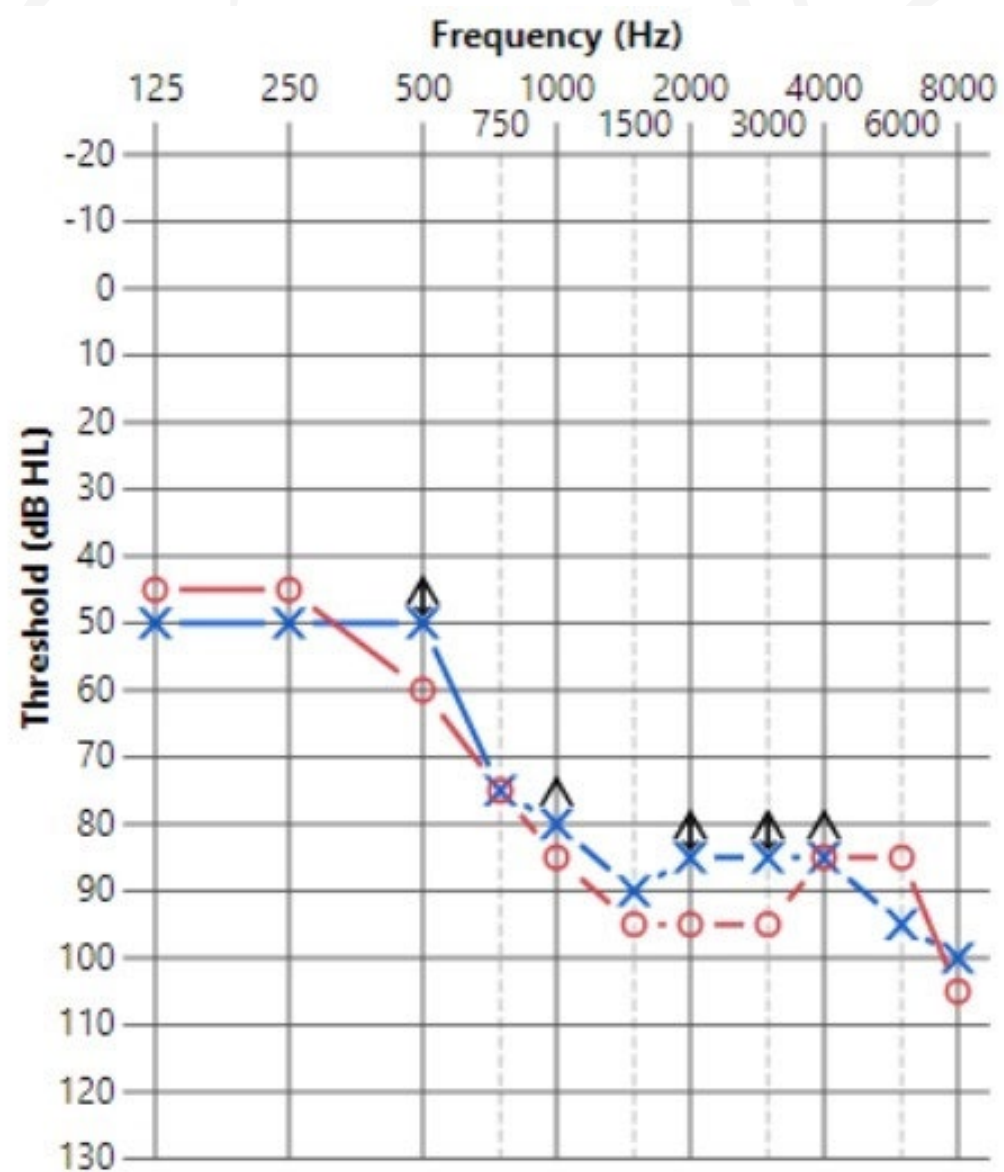
- Developmental Pediatrician
- Psychologist
- Physical Therapist
- Occupational Therapist
- Speech Therapist
- Audiologist

# TEAM MODEL

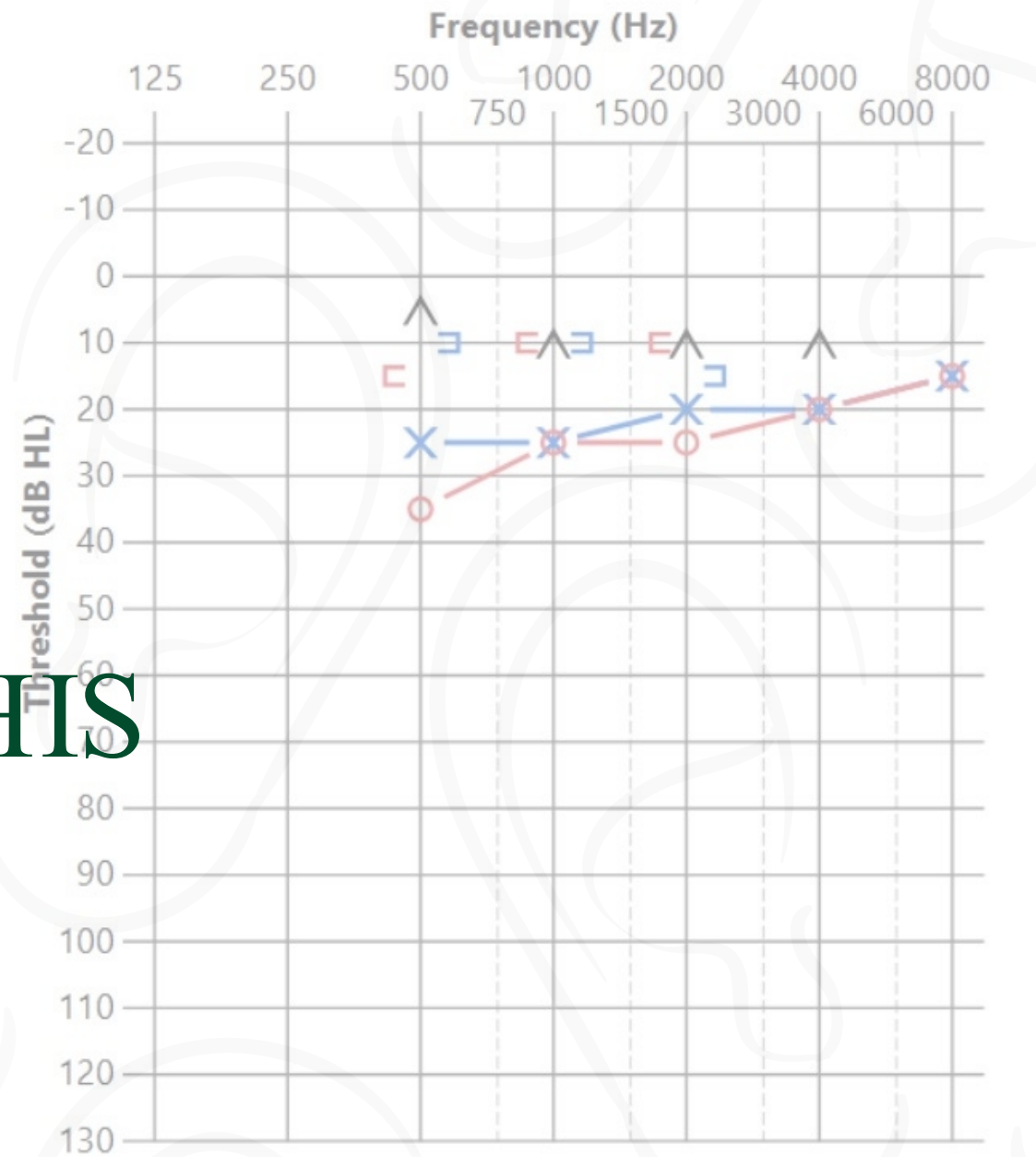
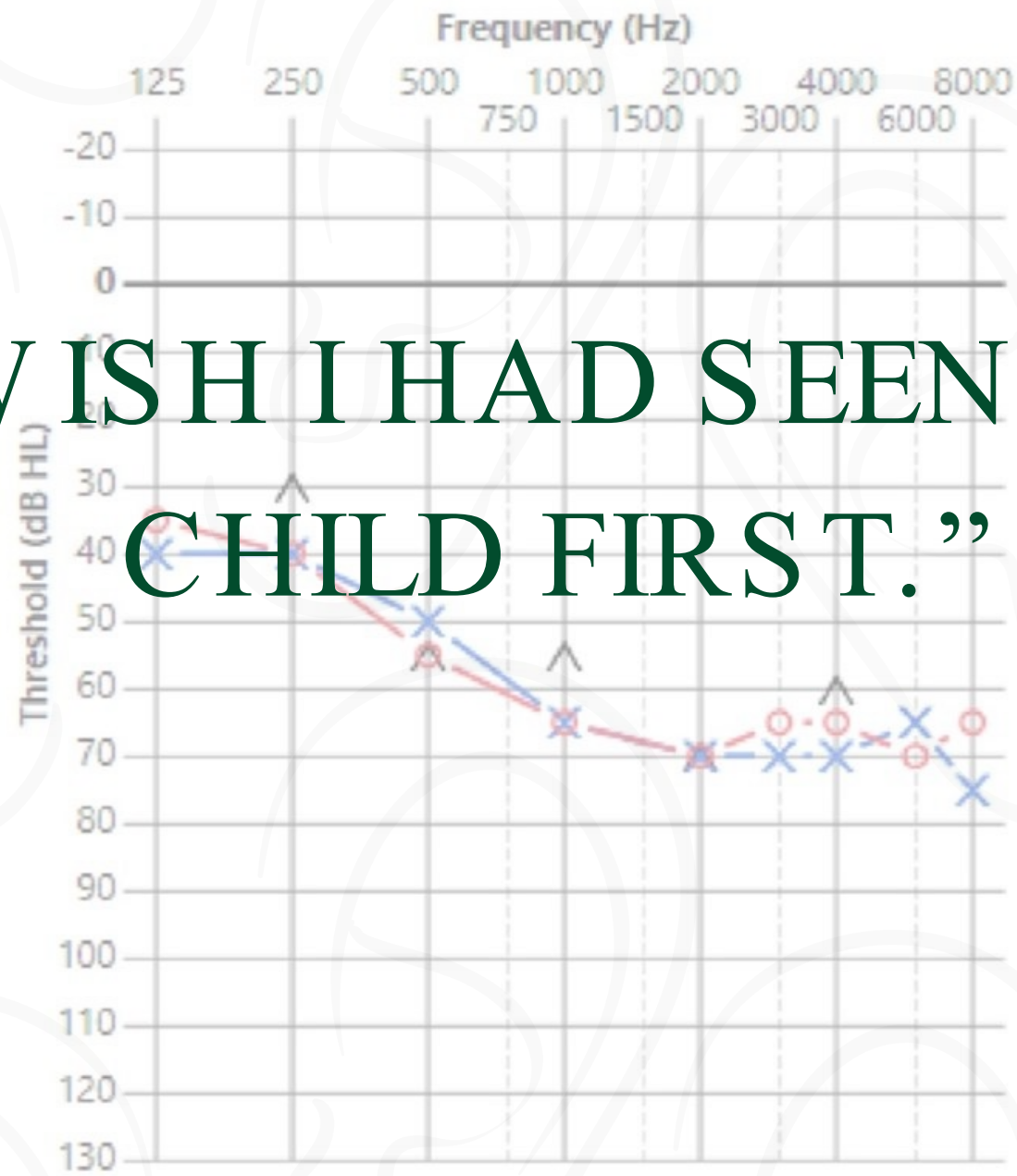
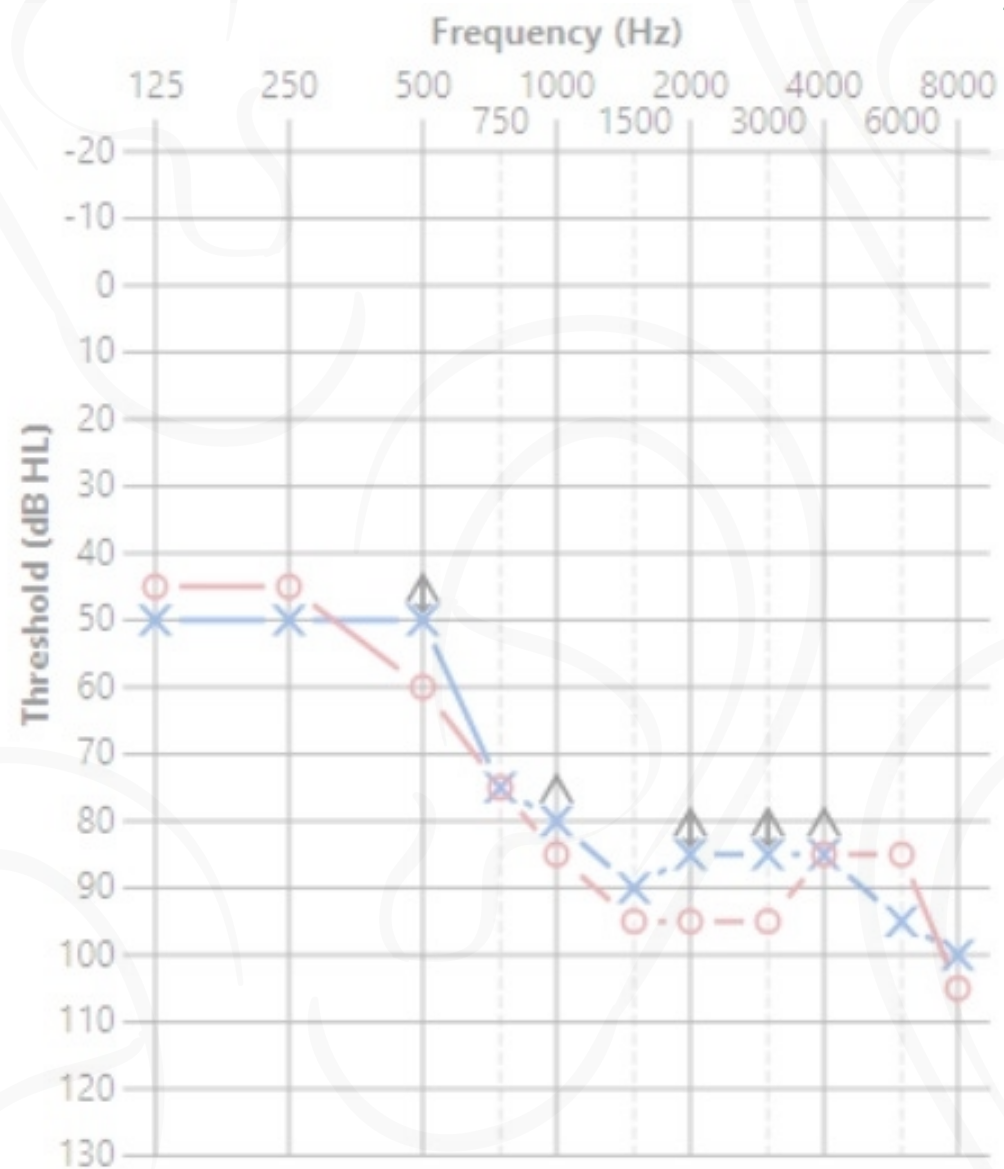
- Process:
  - Intake meeting
  - Typically 2 days of testing
  - Team conference to discuss results
  - Family conference to discuss diagnosis/diagnoses with family and give recommendations

## REFERRALS INCLUDE:

- a child who fails a grade or is constantly struggling in school
- a child who has difficulty communicating or speaking
- a child who finds reading to be especially difficult
- a child who frequently has trouble with a teacher or peers
- a child who is required to attend summer school
- a child who has a developmental delay



“I WISH I HAD SEEN THIS  
CHILD FIRST.”



# HEARING LOSS CAN BE:

- Temporary
- Permanent
- Fluctuating
- Progressive
- Undetected

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Yet they all impact:

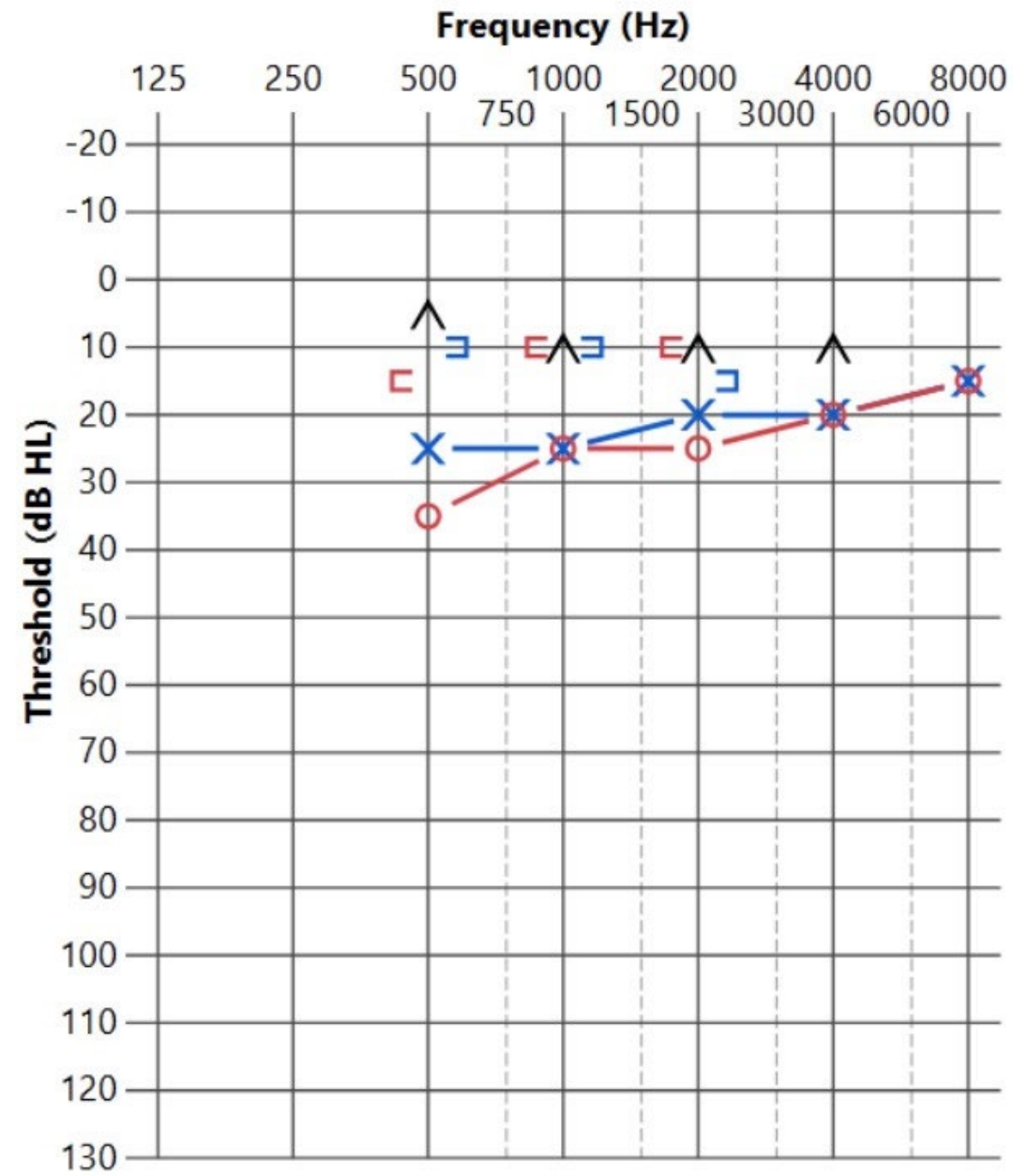
Language | Attention | Social engagement | Regulation | Auditory Processing

# PREVALENCE MATTERS

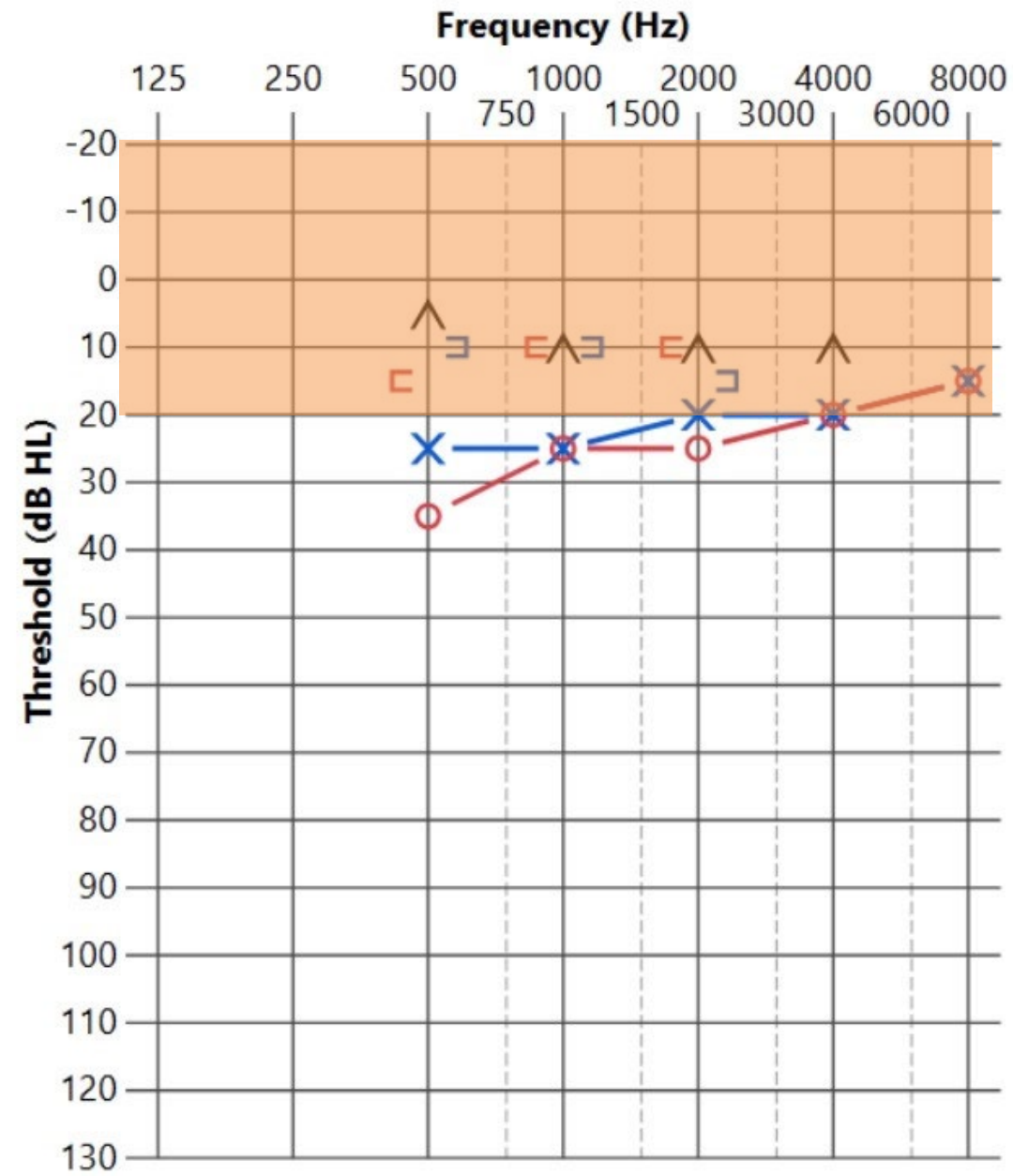
- 15–30% of preschool children experience otitis media annually
- Mild hearing loss can reduce speech audibility by up to 30%
- Late-identified hearing loss persists despite newborn screening

Even *minimal hearing loss* is associated with poorer language outcomes

# CASE EXAMPLE # 1



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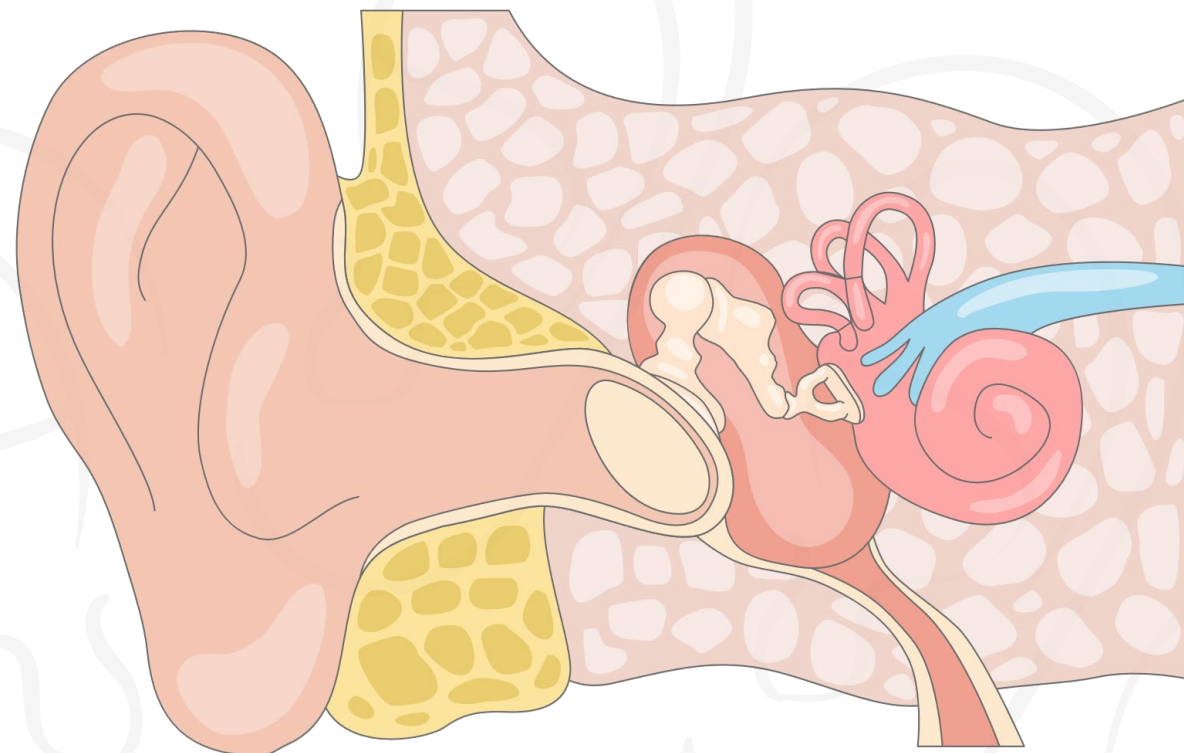
# CASE EXAMPLE # 1

- Referral: Concerns about her learning and academic abilities, inability to focus, and anxiety
- Audio was completed after other testing
- Findings: Bilateral conductive hearing loss in the presence of abnormal middle ear function bilaterally
  - Unable to determine if the middle ear fluid has been chronic or acute
- *Diagnosed with Specific Learning Disorder with impairments in reading and mathematics*



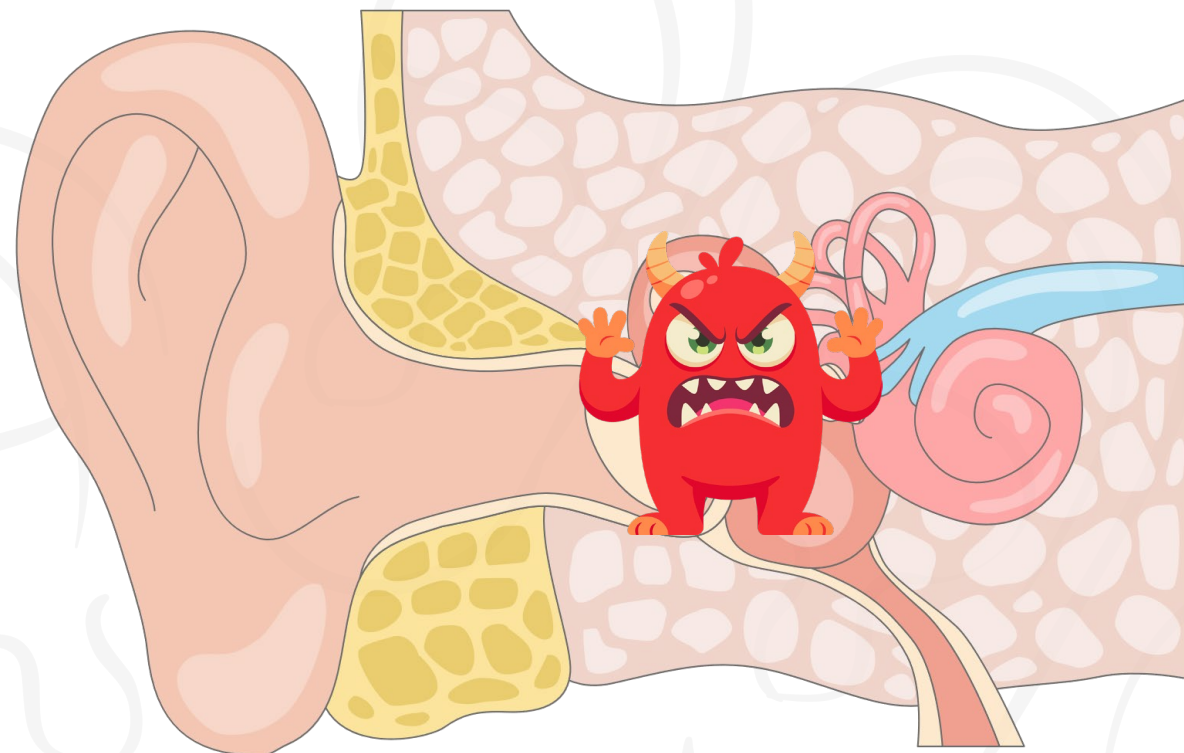
# “IT’S JUST FLUID”

- Chronic Middle Ear Effusion (OME)
- Common in early childhood; may persist into school age
- Often causes mild to moderate fluctuating conductive hearing loss
- Speech audibility may be reduced 20–40 dB
- Listening effort increases in classroom environments
- Associated with language, academic, and attention difficulties

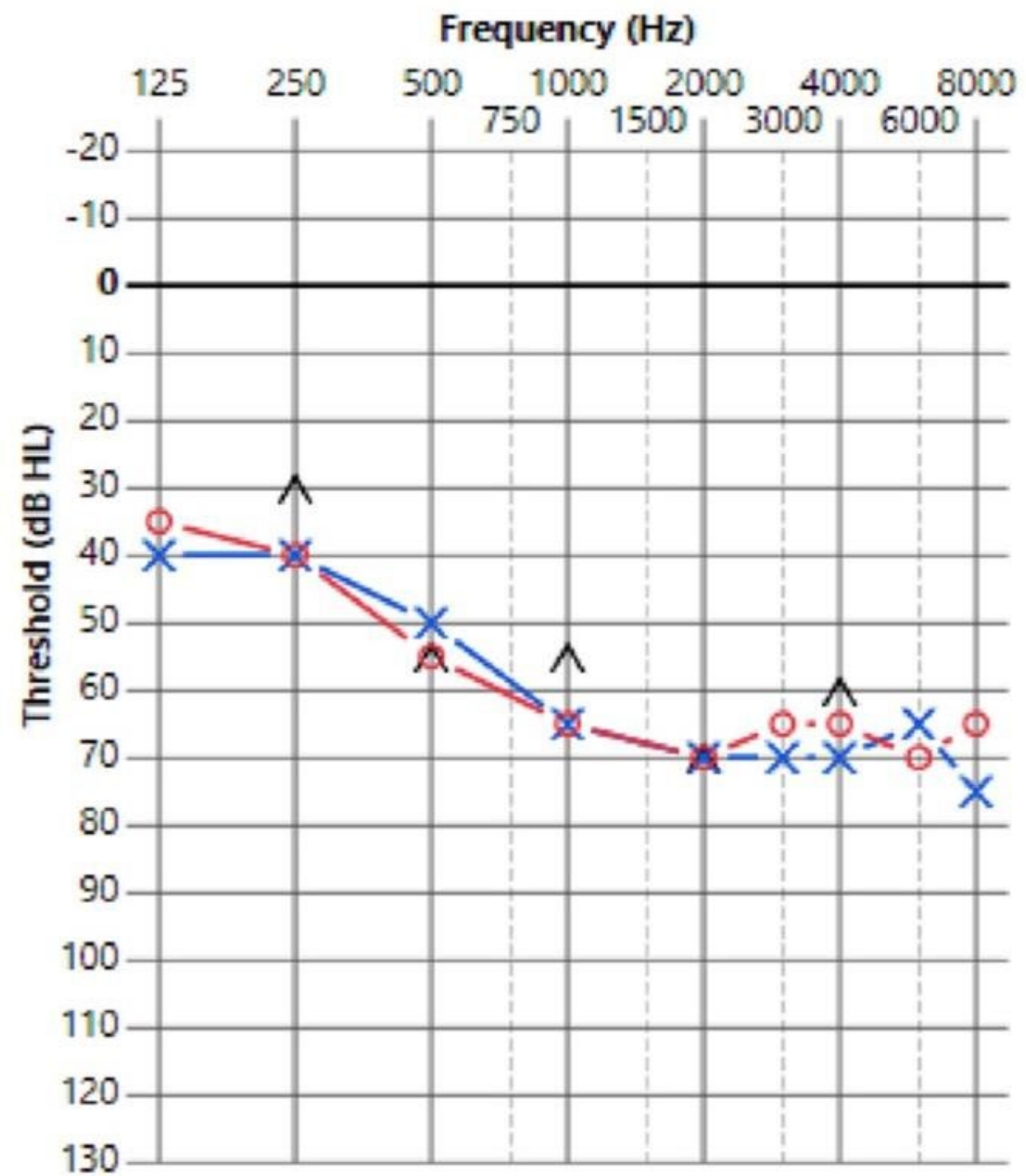


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# CASE EXAMPLE # 2



## CASE EXAMPLE # 2

- Had previously been diagnosed with bilateral hearing loss and wears hearing aids
- Diagnosed with cerebral palsy, intellectual disability, hearing loss, speech sound disorder, disruptive behavior, and seizure disorder
- **Problem?** Not using non-verbal appropriate testing

*Do other providers know how to appropriately assess children with hearing loss?*



# CASE EXAMPLE # 2

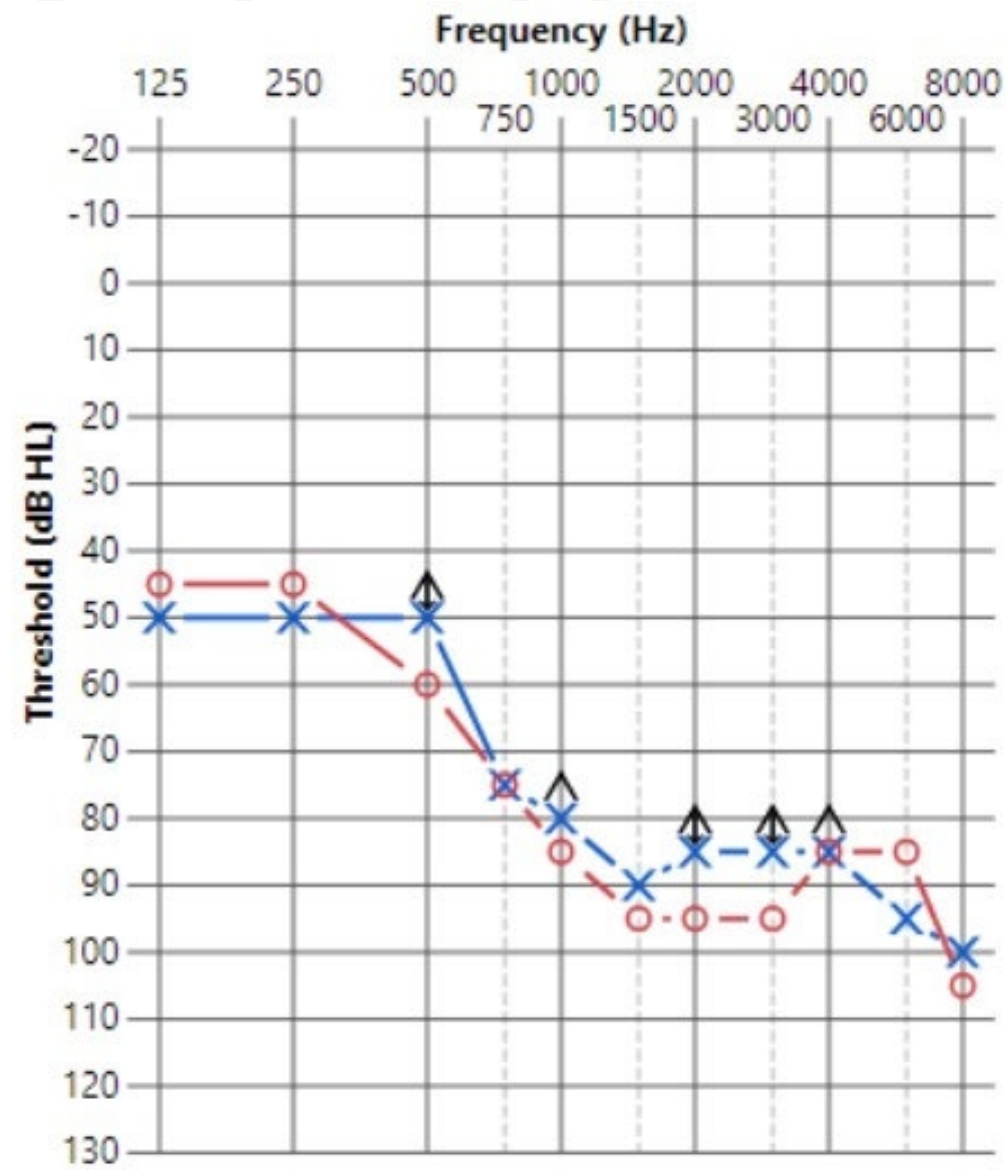
- Children with hearing loss may have:
  - Delayed expressive or receptive language
  - Reduced access to incidental learning
  - Differences in vocabulary due to auditory access, not intelligence
- If a test depends on verbal instructions or verbal responses, lower scores may reflect:
  - Limited access to spoken language *not* lower reasoning ability
- Without requiring strong auditory comprehension, non-verbal assessments help evaluate:
  - Fluid reasoning
  - Visual-spatial processing
  - Pattern recognition
  - Problem solving

# CASE EXAMPLE # 3

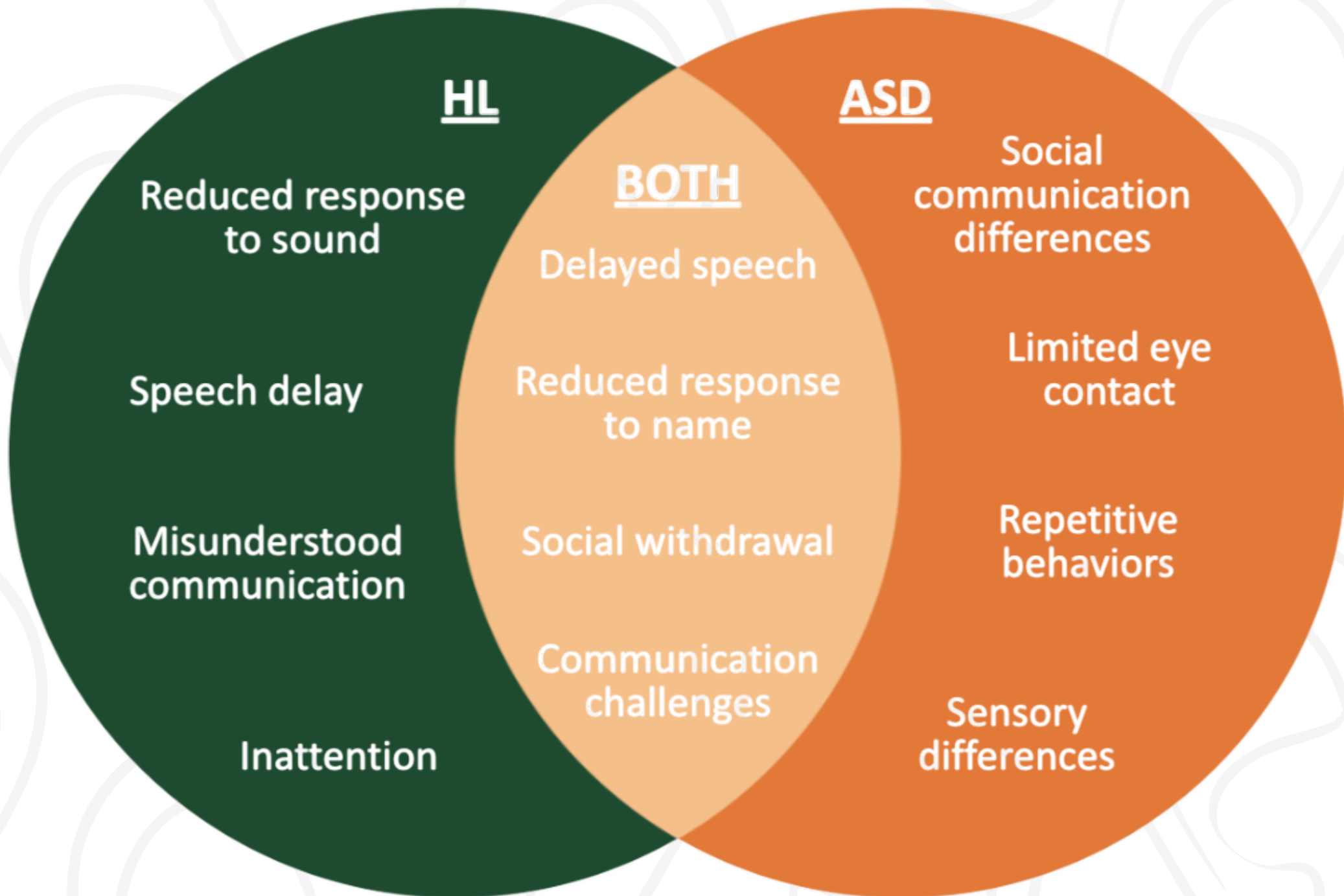
- Born in Cuba
  - *No universal newborn hearing screening program*
- Diagnosed with Autism Spectrum Disorder at age 3 by 2 different outside Neurologists
  - Uses gestures and vocalizations
- Mother reported that she believes Lucia has some degree of hearing loss, but does not think it is a profound hearing loss
- Previously completed Early Steps and is now receiving speech therapy, occupational therapy, and ABA



# CASE EXAMPLE # 3



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## CASE EXAMPLE # 3

- 10 year retrospective chart review, n=164
- 37 children were given a diagnosis of ASD before HL was identified
- 25 of those children never received or were recommended a hearing evaluation prior to their ASD diagnosis
- Internally at the Children's Hearing Program, the psychology team had identified 9 children with hearing loss who had been misdiagnosed with ASD (39%) from outside clinics

## CASE EXAMPLE # 3

“After [CI] surgery, patient has started to vocalize and speak few words, gesture with leads and points, and follow simple commands. She is sociable and interactive, does not isolate herself, makes good eye contact, plays with toys, engages in imaginative play, tolerates changes and transitions, and has no sensory issues. **Patient is presently with no autistic features.**” (Neurologist X)

THE PROBLEM IS...

**Audiology is often last**

# WHAT I BEGAN TO NOTICE

- Audiology scheduled after other disciplines
- Hearing assumed normal based on newborn hearing screening results or parent report
- Diagnoses given without confirmed auditory access

# WHEN HEARING ISN'T CONFIRMED FIRST

- Consequences of delayed audiologic evaluation:
  - Misinterpretation of developmental delays (e.g., misdiagnosis of autism, global delays)
  - Inaccurate speech–language or cognitive testing results
  - Frustration or confusion for families

# CLINICAL & ETHICAL QUESTIONS

- Are we ensuring fair testing conditions?
- Are we interpreting data responsibly?
- Are families receiving accurate information?

# CHALLENGES

- Audiology is often siloed
- Misunderstood by other professionals
- Not prioritized in developmental assessment pathways

The need for systems change: integrate audiology earlier, even as a first touchpoint

# NOW WHAT?

- Advocate for audiology—*first*
- Address pushback, misunderstandings, or assumptions from other professionals
- Educate the team about the ripple effects of hearing loss
- Become more assertive and confident in your clinical expertise

# SHIFT THE CONVERSATION

**“Now that we know the hearing status, let’s  
revisit this diagnosis.”**

# CURRENT MODEL

- Audiology is now a central component of the evaluation process
- Audiology is the first step of the evaluation process
- If hearing is normal:
  - other evaluations proceed as scheduled
- If hearing loss is identified:
  - team conversation is had to assess next steps

HEARING IS FOUNDATIONAL.  
AUDIOLOGY ISN'T A FOLLOW-UP —  
IT'S A FRONT-LINE TOOL.



Thank   
very much

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