# Preschool Hearing and Speech Education – University of Pittsburgh (PHASE-UP)

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## What is PHASE-UP?

The Preschool Hearing and Speech Education — University of Pittsburgh (PHASE-UP) program collaborates with local preschools in the Pittsburgh community to offer no-cost, evidence-based hearing and speech-language screenings to preschoolers from a broad diversity of backgrounds. Over 50% of the preschools participating in PHASE-UP have certified PreK Counts and/or Early Head Start programs. On average, 800-1,000 preschool children are seen through PHASE-UP every year.

Under the supervision of a certified clinical audiologist and speech-language pathologist, 1<sup>st</sup>-year graduate students in the Doctor of Audiology (AuD) and Master of Arts/Master of Sciences in Speech-Language Pathology (SLP) programs perform the hearing and speech-language screenings.

Handheld screener: otoacoustic emissions (OAEs), pure-tone audiometry

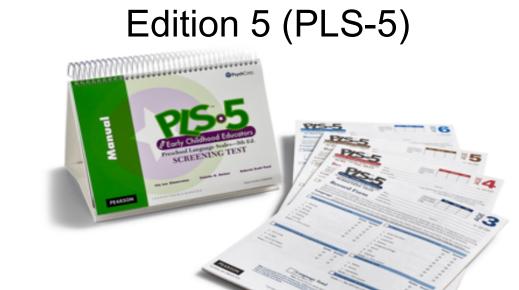


Desktop screener:
OAEs, tympanometry,
pure-tone audiometry



Otoscope





Preschool Language Scales-

and loss to follow-up and/or documentation.

enhances clinical skillsets across disciplines.

**Equipment & Supplies** 

Personal Protective Equipment (PPE)



Headphone covers, stickers, clipboards, & pens



Additional Items

- Paperwork (cover letter, parent letter, data collection sheets)
- Toys that target ageappropriate fine motor tasks

## **Coordination & Training**

#### Coordination

- Preschools are scheduled for screenings by the PHASE-UP Coordinator every summer
- Confirmation emails are sent to schools in June/July
- Two rounds of reminder emails are sent to schools
  - Each reminder includes parent consent form and flyer
- Confirmation call and/or email occurs one week prior to the screening

### **Student Training**

- Training for 1<sup>st</sup>-year AuD and SLP students occurs over 1.5 days prior to the start of fall semester
- Training consists of didactic sessions and hands-on learning
- A peer teaching model involving 2<sup>nd</sup>- & 3<sup>rd</sup>-year AuD students is implemented for hearing screening training
- Training topics include:
  - Rationale for screenings
  - Hearing and speech-language screening protocols
  - Accessing the screening schedule
  - Site location directory and transit options
  - Process of checking-in and out screening equipment





Reference: 2020 CDC Early Hearing Detection and Intervention (EHDI) Hearing Screening & Follow-up Survey (HSFS). (2023, August 4). 2020 type and severity summary of identified cases of hearing loss (by ear): ASHA classification. Centers for Disease Control and Prevention.

# Preparation

- Graduate students and clinical instructor arrive 30 minutes prior to the start of the screenings
- Screening stations are set up to minimize visual distractions and the influence of external noise
- Graduate students conduct:
  - biologic listening checks on screening equipment
- ambient noise-level readings on the National Institute for Occupational Safety & Health (NIOSH) smartphone app

**A Typical Screening Day** 

The Importance of PHASE-UP

Universal newborn hearing screening (UNHS) has significantly lowered the age at which children are identified as

congenitally deaf/hard-of-hearing (D/HH). As a result, children who are D/HH can now receive early intervention within

their first year of life. However, UNHS does not ensure that all D/HH children are identified and receive early intervention

due to factors such as false-negative screening results; fluctuating, late-onset, mild, and/or progressive hearing loss;

The prevalence of childhood hearing loss rises from 1-3 cases per 1,000 at birth to 9-10 cases per 1,000 at school-age

PHASE-UP seeks to identify childhood hearing loss during crucial periods of development. This benefits children and

families of local communities and in turn provides students with a unique academic and personal experience that

(CDC, 2020). Children may experience unidentified hearing loss during the time between UNHS and school entry.

- Clinical instructor coordinates logistics of screening flow with school staff
- Graduate students and clinical instructors discuss screening and clinical education goals for the day

#### Screenings

- Everyone adheres to appropriate PPE, sanitization, and hygiene protocols
- School staff and/or graduate students transport children to the screening room
- Graduate students establish rapport with each child
- Screening begins with a task that is comfortable to the child
- Clinical instructor assists with any screening needs
- Each child receives a sticker when screening is complete

Screening	Protocol
Hearing	<ul> <li>Tympanometry and/or otoscopy</li> <li>OAEs at 2, 3, 4, 5, &amp; 6 kHz,</li> <li>Pure-tone sweep at 20 dB HL at 1, 2, &amp; 4 kHz</li> </ul>
Speech- Language	<ul> <li>PLS-5</li> <li>Brief screening (&lt;10 min) of language, articulation, fluency, voice, &amp; social/interpersonal communication skills</li> </ul>

## Results

- Screen results are documented on the following:
  - Discipline-specific data collection sheet
  - Cover letter explaining the screening procedures in plain language
  - Parent letter indicating child's screening results and recommendations in plain language



Graduate students return equipment, finish documentation, enter clinical contact hours, and complete reflections



