



Expanding Evidence-Based Hearing Screening Services for Children Birth to Three Years of Age: Building State and Community-level Partnerships

This document is a companion resource to the EHD Coordinator Instructional Module entitled, "Expanding EHD for Children Up to Three Years of Age" found at infanthearing.org

Rationale

The Reauthorization of the Early Hearing Detection and Intervention (EHD) Act of 2017 includes an expanded focus on identifying children who are deaf or hard of hearing up to three years age. This represents an opportunity for EHD systems to coordinate efforts, share resources, and work together to expand evidence-based hearing screening practices to a broader range of early care and education providers for the benefit of a wider population of children.

Research indicates that by the time children enter school, at least 6 in 1000 are deaf or hard of hearing. Newborn hearing screening is able to identify approximately half of these children (2 - 3 in 1000), but what about the other half who experience late onset or progressive loss or whose congenital hearing loss was not identified at birth? Health care providers do not consistently perform evidence-based hearing screenings as a part of well-child visits for children birth to three years of age. In fact, there is no system for universal periodic hearing screening of young children. There are, however, a range of early care and education settings in which screening could occur and some programs that have an existing commitment to determining the status of hearing of children being served. For example, Early Head Start/Head Start programs have regulations requiring hearing screening of all children being served while early intervention programs operated under Part C of the Individuals with Disabilities Education (IDEA) Act have a commitment to determining the developmental status of children in all areas, including hearing.

Support for Expanding the Scope of EHD from Newborn Screening to 0 - 3 Screening

Starting in 2001, the Early Childhood Hearing Outreach (ECHO) Initiative within the National Center for Hearing Assessment and Management (NCHAM) at Utah State University served as a National Technical Assistance Resource Center to assist Early Head Start, Head Start and other early care and education providers in developing evidence-based hearing screening and follow-up practices for children under five years of age. In addition to providing direct technical assistance and training to early childhood programs across the country, the ECHO Initiative provided assistance, training, and practical resources to state and local leaders in developing hearing screening and follow-up practices aimed at early identification of hearing loss in children 0 – 3 years of age.

As State EHDs work toward increasing hearing screening opportunities for children up to age three, the ECHO Initiative stands ready to add support with a range of resources. The Figure on the following page provides a general framework for conceptualizing how EHDs can potentially draw on existing ECHO resources to effectively engage with early care and education programs at the state and community levels. The subsequent pages of this document provide additional relevant information that will be helpful to EHDs in initiating or strengthening partnerships

Potential Strategies and Resources for Hearing Screening Program Development in Early Care and Education Settings



1. Engage in Statewide outreach to educate professionals and parents about periodic hearing screening.
2. Identify potential partners (programs/agencies/individuals regularly serving children 0 – 3 years of age) that are already providing, or could be trained to provide, hearing screening services.
3. If a partner program has State-level leadership or representation, meet with the representative to:
 - Learn about program organization and infrastructure and any existing guidelines that inform hearing screening practices.
 - Share information about evidence-based hearing screening practices, EHDl goals, and State EHDl/ECHO Initiative resources.
 - Explore what is/is not known about the hearing screening capacity of each local program, needs for Training and Technical Assistance (TA) and how to effectively make contact with local Coordinators to further collaborate on initiating, sustaining or expanding quality screening practices.
4. Engage in local Community-based Program-level Outreach, TA and Training using ECHO resources that may include some or all of the following activities:

Outreach

- TA Provider*/Trainer** contacts program staff to learn about current practices and provides information on evidence-based practices, resources and available support:
 - ✓ Individual contact
 - ✓ ECHO Survey

Planning TA

- TA Provider*/Trainer** uses KidsHearing.org resources to discuss Planning elements with program staff:
 - ✓ Pediatric audiologist partner (Trainer may fill this role)
 - ✓ Equipment selection (or functionality of previously purchased equipment)
 - ✓ “Big Picture Resources”
 - ✓ Screening & Follow-up Protocol
 - ✓ Planning Checklist
 - ✓ Implementation Tools (Letters, Documentation Forms, Tracking Tool, etc.)

Training

- Trainer** assists program staff in accessing available training, (see kidshearing.org) and provides additional live “hands-on” training time screening children

Or

- Trainer** assists programs in to completing online training independently but meets in-person with participants to complete and and then provides live “hands on” training time screening children

Or

- Trainer** provides full in-person training experience using online training system, practice activities and live “hands on” training time screening children

Follow-up TA

- TA Provider*/Trainer** uses KidsHearing.org resources to review Follow-up elements with program staff:
 - ✓ Tracking process, adherence to protocol steps
 - ✓ Monitoring program quality including Initial pass/refer rates
 - ✓ Additional training/retraining in response to staff need and turnover

*TA Providers can be individuals within EHDl who are knowledgeable about the OAE screening process and ECHO resources.

**Trainers must be individuals (preferably pediatric audiologists) with extensive experience using OAE equipment to screen young children.

particularly with Early Head Start and Part C early intervention. Engaging with these programs is likely to be productive and will also inform development efforts with other potential partners. The ECHO training and technical assistance resources referenced throughout this document have been designed specifically for easy adaptation across program settings and contexts.

Potential Strategies and Resources for Hearing Screening Program Development in Early Care and Education Settings

Because there is no single organization or infrastructure for providing hearing screening to all children 0 – 3 years of age, expanding screening to this population will require building partnerships with any number of early care and education programs and providers within each state. Four basic strategies and available resources are described below that can serve as a template and a springboard for other collaborative activities:

- 1. Engage in Statewide outreach to educate professionals and parents about the need for periodic hearing screening and the evidence-based practices that can help to identify children at risk for permanent hearing loss.** Most people are not aware of how many young children are affected by permanent hearing loss. Many parents and professionals erroneously assume that when health care providers examine a child’s ears during well-child visits, possibly using tympanometry or pneumatic otoscopy, they are screening a child’s hearing. In reality, providers are typically looking at the general health of the outer and middle ear and do not have the equipment needed to conduct evidence-based hearing screening with children under 3 years of age. Both the [American Speech-Language Hearing Association](#) and the [American Academy of Audiology](#) recommend OAE screening as the most appropriate method that trained screeners can reliably use with children 0 – 3 to identify those who need further evaluation for potential permanent hearing loss.

Consequently, health care providers, early care and education professionals, as well as parents, will benefit from learning about the importance of ongoing early childhood hearing screening, and currently recommended evidence-based hearing screening practices for children 0 - 3 years of age.

An awareness and education campaign can target specific provider groups or it may be very broad. Potential activities can include:

- Electronic dissemination of resources (email).
- Live presentations at professional conferences or community coordination meetings.
- Individual correspondence via email, phone or social media to share ideas and resources.
- Targeted inquiries to specific providers or provider groups to learn about current interest and/or practices pertaining to early childhood hearing screening.

Leadership and Planning resources on [infanthearing.org](#) include ready-to-use handouts, short video clips and links to resources that can be used to build awareness.

- 2. Identify potential partners (programs/agencies/individuals regularly serving children 0 – 3 years of age) that are already providing, or could be trained to provide, hearing screening services.** Although there are a number of different early care and education settings where hearing screening could potentially be integrated into other services being provided to children 0 – 3 years of age, not every context will support successful screening program implementation. EHDIs may want to initiate partnerships with programs that have both the commitment to screening and the capacity to support follow-up. As with newborn hearing screening, periodic screening must be integrated into a comprehensive protocol that includes medical and audiological assessment of children not passing the screening. Some programs lack the structure essential for supporting effective follow-up. As EHDIs engage with a range of early care and education programs, it can be helpful to use this list of considerations in evaluating program capacity. Focusing intensive training efforts and energies on programs that already have a service infrastructure that has the potential to support and sustain screening and follow-up is likely to be the most productive use of resources.

Two particular partnerships merit exploration because of existing program commitment to determining the hearing status of children being served and the capacity to support follow-up:

Early Head Start. Head Start is a federal program that promotes school readiness for children in low-income families by offering educational, nutritional, health, social, and other services. One of the largest programs serving low-income infants and young children, Head Start includes preschool programs for children 3 - 5 years of age, and **Early Head Start** programs for children 0 - 3 years of age. Additionally, **Migrant Head Start** and **American Indian/Alaska Native Head Start** programs serve children 0 - 5 years of age in their respective populations. Since its beginning in 1965, Head Start has served over 35 million children. Currently Early Head Start and Head Start programs are found in every state, each of which is required by Head Start Performance Standards to ensure that every child receives an annual hearing screening using an evidence-based method. A precise screening methodology is not specified, permitting for changes in best practice to evolve over time without the need for updating the Standards. Given this, the involvement of state and local experts in operationalizing the Performance Standards is critical, especially in technical areas like hearing screening.

Early Intervention programs operated under Part C of the Individuals with Disabilities Education (IDEA) Act. These programs not only serve children 0 – 3 years of age already identified as deaf or hard of hearing, often from the EHDI system, but also actively engage in “Child Find” efforts of their own. Hence, Part C represents not only an opportunity to link previously identified children with early intervention services, but also exists as a system that can actively help to identify additional children with late onset or progressive hearing loss or children who were lost to follow-up after newborn screening.

Children who are manifesting a range of developmental delays or behavioral issues may be referred to the Part C system for evaluation to determine their eligibility for enrollment.

It is important to remember, and to remind programs, however, that children who have an unidentified hearing loss will not necessarily present with indicators that would cause parents or professionals to suspect hearing as a primary source of concern. There is evidence that not all children entering Part C early intervention programs receive a hearing screening or

evaluation. This may be true even when children present with concerns about speech and language development, one of the most common reasons for referral to Part C.

In addition to Head Start and Early Intervention programs, states may have other programs that include early childhood hearing screening. These may reside in local health departments, school districts, home visiting programs or health care settings. It may also be helpful to identify services systems that may partner with EHDI programs in outreach activities to promote periodic early childhood hearing screening and the importance of follow-up when screenings have been completed. Potential partners may include:

Early Periodic Screening, Diagnostic and Treatment (EPSDT) Program, Newborn Bloodspot Screening Program, Special Supplemental Nutrition Program for Women, Infants and Children (WIC), Title V Children and Youth with Special Health Care Needs Program, Family-to-Family Health Information Centers, and Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program.

3. If an early childhood program has State-level leadership or representation, meet with the representative to:

- Learn about program organization and infrastructure and any existing guidelines that inform hearing screening practices.
- Share information about evidence-based hearing screening practices, EHDI goals, and State EHDI/ECHO Initiative resources.
- Explore what is/is not known about the hearing screening capacity of local programs, their needs for Training and Technical Assistance (TA) and how to effectively make contact with local coordinators to further collaborate on initiating, sustaining or expanding quality screening practices. You may also want to explore reporting and data sharing agreements.

The following information and links will help you to get better acquainted with Early Head Start and Part C representation at the State level:

Early Head Start. Each local Early Head Start grantee (program) is a direct recipient of federal Office of Head Start funding. Before making contact with individual programs within a State, it can be helpful to contact the [Head Start State Collaboration Office \(HSSCO\)](#). This Office coordinates with other state systems and may assist you in disseminating information and establishing connections with individual community-based programs. While HSSCO's do not have oversight authority pertaining to individual Early Head Start or Head Start programs at the local program level, they can help you learn about the Head Start infrastructure, programmatic components, how to locate various programs in your state and to facilitate connections. They may also help establish any formal collaboration agreements you may wish to enter into with individual community programs.

The [Head Start Center Locator](#) can help you locate all of the local community-based programs within a State or community. Every program has its own local Health Services Advisory Committee (HSAC) that, among other things, provides guidance on screening methods to be used in the program. It is important to note that relatively few HSACs include a pediatric audiologist to help determine hearing screening practices. As a result, programs within a state may not all use the same screening method and some may not use methods considered

current or evidence-based. While many local programs have adopted evidence-based hearing screening practices as a consequence of the earlier training and technical offered by the ECHO Initiative, not all have, and sustaining quality practices is an ongoing challenge. State EHDI programs have a potential role in updating screening practices across all Early Head Start programs and, if desired, in establishing data and information sharing agreements that will enhance the overall quality of follow-up services provided to children identified from these screening efforts.

Part C Early Intervention Programs. Part C of the Individuals with Disabilities Education (IDEA) act provides for a range of services for children birth to three years of age with disabilities (or at risk for disabilities). The EHDI system has a two-pronged connection with the Part C system:

- a. Children identified as being deaf or hard of hearing as a result of newborn hearing screening and follow-up are referred to Part C to access early intervention services; predominantly children with congenital hearing loss.
- b. Children referred to Part C from other systems who are evaluated and identified as being deaf or hard of hearing as a result of the Part C intake and evaluation process and then referred to the EHDI system to obtain additional support and information for families; predominantly children with late-onset or progressive hearing loss, or children who did not receive a newborn hearing screening or were lost to follow-up.

Each state has a [Part C Coordinator](#) and EHDIs may want to meet the State Part C Coordinator to discuss relevant regulations and practices, keeping in mind the two-pronged connection between EHDI and Part C. Prior to meeting, it is helpful to learn more about [Part C regulations](#) especially as they relate to [multidisciplinary evaluation and assessment](#).

The ECHO Initiative sought guidance from the Office of Special Education program specifically with regard to the second prong regarding hearing screening requirements within Part C.

- Read the [Guidance Request and Response](#).

It would be helpful for EHDI leaders to address the following questions with State Part C Coordinators:

- Where in the eligibility determination/intake process does or can a hearing evaluation/screening occur? How might this vary from program to program?
- What hearing screening/evaluation method(s) are used and what follow-up protocol is implemented?
- Do all children entering Part C service receive a hearing screening/evaluation and, if not, what criteria is used to determine who does?
- What are the current needs for technical assistance or training to ensure evidence-based practices are being used for hearing screening/evaluations of children in Part C?

- 4. Engage in Local Program-level Partner Outreach, TA and Training.** With a general understanding of the organizational structure and the existing guidelines shaping local approaches to service provision and screening, consider reaching out to some or all Early Head

Start and Part C programs serving children 0 - 3 years of age within your State to learn about existing screening methods and to offer Technical Assistance and Training.

- **Outreach.** In addition to providing general awareness information such as described above, outreach activities may specifically target early care and education providers with information aimed at helping them move forward in developing evidence-based screening and facilitating their access to technical assistance and training. This level of outreach would inform programs about available support in terms of identifying a local pediatric audiologist to assist with program development, assistance with planning hearing screening programs, guidance for accessing training, and information about ongoing available technical assistance.

Initial contact might be made through email, phone calls and/or through disseminating any of the resources found under Early Childhood Hearing Screening - Leadership and Planning tools at infanthearing.org. You may also consider gathering information from programs about current screening practices and needs for training and technical assistance.

- **Planning.** When a program or provider indicates a serious commitment to developing evidence-based hearing screening practices, the first step is to complete a set of planning activities. Rather than starting with training, planning activities ensure that appropriate groundwork has been prepared prior to training so that the actual training is immediately followed by implementation. Planning activities supported by an EHDI coordinator, pediatric audiologist, or experienced screener is recommended. One of the ways EHDI leadership can assist local, community-based programs is in locating local pediatric audiologists with whom local programs can consult when developing screening activities, selecting equipment, and obtaining training. During the planning phase EHDI leaders can also explore what data sharing agreements, if any, they would like to have with the program and establish systems for facilitating this. Keep in mind, you are exploring partnerships with existing programs that may already have requirements related to data sharing. The [Planning Checklist for Implementing an OAE Screening Program](#) can be useful in helping programs think through the most critical planning components.
- **Training.** Once planning has been completed, training in evidence-based hearing screening is an important next step. While equipment distributors often offer “training,” it is important to note that rarely will this constitute the type of training needed. Distributors are typically prepared to acquaint users with the functions of the equipment, but usually they are not able to prepare lay screeners to develop screening skills with a variety of children being screened in a range of environments, nor to develop the other features of a screening program that pertains to documentation of outcomes, implementing a follow-up protocol, or sharing screening outcomes.

Based on more than 20 years of experience providing training on evidence-based hearing screening with young children, NCHAM’s Early Childhood Hearing Outreach (ECHO) Initiative identified key content areas as well as hands-on practice experiences that are recommended as a part of a training process focusing on either the OAE or Pure Tone Audiometry screening methods. Information on how to access training that incorporates

these elements is provided on kidshearing.org. The recommended elements of a training process are outlined below.

1. An Introductory Overview

- The rationale for periodic early childhood hearing screening
- General overview of the recommended method(s) and how the method works
- A general overview of the follow-up protocol for when children do not pass an initial screening
- Elements to consider when planning a screening program including equipment acquisition, determining who will be trained to be screeners, who else in the program needs to participate in the training), and preliminary overview of the screening device being used and how it is operated.
- The ultimate goal of ensuring that children who are identified with a hearing loss gain access to the supports and services they need.

2. The Screening Procedure

- A detailed description and demonstration of the screening process, step-by-step, outlining criteria that screeners must adhere to in order to ensure reliable screening outcomes.
- A review and demonstration of how environmental factors, inappropriate use of the equipment or behavior of the individual being screened can affect the screening process and potentially jeopardize the reliability of the results.
- A hands-on practice exercise getting acquainted with the equipment and how it operates, testing the equipment on oneself and other adults while also being guided through an experience that illustrates how changes in the environment or behavior of the individual being screened can affect the screening process and outcomes.

3. Screening Young Children

- A detailed description and demonstration of strategies for completing the screening procedure on children and the various technique for engaging or otherwise eliciting the cooperation of children in ways that facilitates adherence to the standardized screening process.
- A hands-on practice exercise screening children of different ages and developing skills for managing behavior while adhering to the recommended screening criteria.

4. Follow-up, Documentation and Tracking

- A review of strategies for documenting screening outcomes and the follow-up steps for when a child does not pass the screening on one or both ears.
- An outline of the elements of a tracking system when screening a group of children with the goal of ensuring that all children who do not pass the initial or subsequent screenings receive the follow-up they need in a timely and appropriate sequence.
- A review of practical tools screeners will need to implement a screening program such as letters to parents, documentation forms, referral letters for when children do not pass, and a tracking system etc. as well as guidance on how to access existing implementation tools such as those that are available on kidshearing.org.

- **Technical Assistance (TA).** Once training has been completed and implementation of evidence-based hearing screening practices is underway, a TA provider or trainer can assist participants with various elements of the screening program including:
 - ✓ Screening techniques
 - ✓ Tracking process and adherence to follow-up protocol steps
 - ✓ Monitoring program quality including initial pass/refer rates

State Leaders can facilitate any of the above TA options and/or serve as the TA providers or trainer if s/he has the skills to do so.

Rarely are all programs in a state at the same place in developing and implementing evidence-based hearing screening. Therefore, the outreach-planning-training-technical assistance process is completed either for one program at a time, or in small cohorts of programs and then the process is replicated with another program or group of programs, allowing the leadership to refine its process over time. This process also allows leadership to explore how experience with one provider group, such as Early Head Start, may inform replication activities in another provider group such as Part C Early Intervention evaluation teams. Note that all of the primary training, technical assistance resources and Implementation Tools were designed for easy adaptation across program settings and contexts. Also be aware that staff turn-over is a reality in nearly every early childhood system. This means that it is usually essential to repeat these processes, in part or in entirety, with programs on an as-needed basis, often annually.

Resource Links

Head Start

Performance Standards: <http://www.infanthearing.org/earlychildhood/docs/New-Performance-Standards-on-Hearing-Screening.pdf>

Collaboration Office: <https://eclkc.ohs.acf.hhs.gov/programs/head-start-collaboration-offices-state>

Center Locator: <https://eclkc.ohs.acf.hhs.gov/center-locator>

Part C

Eligibility for enrollment:

https://www.govregs.com/regulations/expand/title34_chapterIII_part303_subpartD_subjgrp115_section303.321#title34_chapterIII_part303_subpartD_subjgrp115_section303.321

Coordinator: <https://ectacenter.org/contact/contact.asp>

Regulations: <https://sites.ed.gov/idea/regs/c/a/303.21/a/1;>

https://www.govregs.com/regulations/expand/title34_chapterIII_part303_subpartD_subjgrp115_section303.321#title34_chapterIII_part303_subpartD_subjgrp115_section303.321

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