

# CDC's Learn the Signs. Act Early. (LTSAE) and EHDI



THE UNIVERSITY  
of NORTH CAROLINA  
at CHAPEL HILL

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The author is a full-time graduate student in UNC's Doctor of Audiology (AuD) program, conducting this project in cooperation with the NC-EHDI program as an audiology trainee in the North Carolina LEND (Leadership Education in Neurodevelopmental and Related Disabilities) program. The information reported here is part of an ongoing project and represents current work in progress.

## Abstract

The nationwide implementation of newborn hearing screening and the development of Early Hearing Detection and Intervention (EHDI) programs have led to earlier identification, diagnosis, and management of hearing loss in infants and children. However, approximately 40% of children with congenital hearing loss are likely to be diagnosed with one or more neurodevelopmental or related disabilities (Gallaudet Research Institute, 2014; Wiley et al., 2019). These conditions include autism spectrum disorder, intellectual disabilities, social-emotional disorders, sensory integration dysfunction, visual impairment, motor delays, learning differences, and a variety of other health-related conditions. The Centers for Disease Control and Prevention (CDC) initiated the *Learn the Signs. Act Early.* (LTSAE) program to engage parents and other early care providers in developmental monitoring aimed at facilitating earlier identification of children with developmental delays and disabilities. This poster will: 1) examine conditions that co-occur in children who are deaf or hard of hearing, 2) describe LTSAE materials developed by the CDC to promote early identification of developmental delays and disabilities in young children, and 3) describe how the Carolina Institute for Developmental Disabilities and NC-LEND are collaborating with the North Carolina EHDI program to promote and integrate LTSAE resources in our state and how this can be replicated in other states.

## Background

Approximately 40% of children identified with congenital hearing loss may be diagnosed with one or more neurodevelopmental or related disabilities. Several conditions occur at a much higher rate in children who are D/HH than they do in the general population.

Type of Disability	Rates for D/HH Children (%)	Rates for General Population (%)
No other disabilities	59	86
Intellectual disability	9.2	0.7
Learning disability	7.3*	5-10
Speech-language impairment	7.3	1-2
Low vision and legal blindness	4.4	0.1
Autism spectrum disorder	3.0	1.0

\*The prevalence of learning disabilities may be higher. The presence of hearing loss can make it more difficult to diagnose learning disabilities and other co-occurring conditions. **How do we monitor development in children who are at risk for co-occurring conditions?**

## Learn the Signs. Act Early.

Empowering parents and other care providers to 'learn the signs' of typical development and 'act early' on developmental concerns so children and families can get the services and support they need, as early as possible.

### Developmental Monitoring

**WHO:** You — parents, grandparents, other caregivers

**WHAT:** Look for developmental milestones

**WHEN:** From birth to 5 years

**WHY:** To help you:  
 ▶ celebrate your child's development  
 ▶ talk about your child's progress with doctors and child care providers  
 ▶ learn what to expect next  
 ▶ identify any concerns early

**HOW:** With easy, free checklists — get yours at [www.cdc.gov/Milestones](http://www.cdc.gov/Milestones)

### Developmental Screening

**WHO:** Healthcare provider, early childhood teacher, or other trained provider

**WHAT:** Look for developmental milestones

**WHEN:** At 9, 18, and 24 or 30 months, or whenever there is a concern

**WHY:** To find out:  
 ▶ if your child needs more help with development, because it is not always obvious to doctors, child care providers, or parents  
 ▶ if a developmental evaluation is recommended

**HOW:** With a formal, validated screening tool — learn more at [www.hhs.gov/WatchMeThrive](http://www.hhs.gov/WatchMeThrive)

▶ All young children need both developmental monitoring and developmental screening.

Individuals working with children can make valuable observations about a child's development, but *developmental monitoring is not a substitute for validated developmental screening.*

## Materials

LTSAE materials are designed to encourage ongoing conversations about developmental milestones, offer tips for providers about talking with parents, and provide tips for how parents can facilitate their child's development.



Milestone Checklists

Milestone Tracker App



Milestone Moments Booklet

The Milestones Tracker App can be downloaded for free from the App Store or Google Play in English or Spanish. It includes 10 milestone checklists for ages 2 months to 5 years, a summary of milestones, activity suggestions to help with development, tips for what to do if concerns arise, and appointment reminders.

## LTSAE & EHDI

Newborn Hearing Screening is now a standard of care throughout the country providing opportunities to engage parents and family members for all infants at an early age.

In North Carolina, LTSAE materials have been shared with a variety of audiences including:

- North Carolina EHDI Leadership and Regional Consultants
- North Carolina EHDI Advisory Committee
- Pediatric Audiologists at UNC Hospitals
- Pediatric Audiologists and Speech-Language Pathologists at the Children's Cochlear Implant Center at UNC
- Audiology Students at UNC

We are currently exploring distribution of LTSAE materials at:

- NC Birthing Hospitals
- NC Birthing Centers
- NICUs and Special Care Nurseries
- Pediatric Audiology Centers



## Key Points

- ▶ Children who are deaf or hard of hearing may be at higher risk for several co-occurring conditions
- ▶ EHDI provides a unique opportunity for engaging parents in developmental monitoring from a very early age
- ▶ *Learn the Signs. Act Early.* materials are designed to engage parents, caregivers, and providers in ongoing developmental monitoring through age 5 years
- ▶ Developmental monitoring is **not** a substitute for standardized, validated developmental screening

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