

EHDI Pediatric Audiology Levels of Service (PALS)

**A National Pediatric
Audiology Facilities Directory**



WORKING GROUP



EHDI PALS: Purpose



- To develop an internet based tool to assist families and professionals in locating Audiology Centers (facilities and personnel) that provide clinical services for infants and young children, and their families.
- Visitors to this site will find:



Key Principles of Infant Audiology Services

- Seamless service provision within family centered context
- Knowledge of entire pediatric hearing health care service delivery system
- Audiologic services delivered within context of the EHDI system
- Personnel experienced in assessment & management of infants and children with HL
- Knowledge & test equipment
 - consistent with current pediatric hearing assessment methods & hearing aid selection and evaluation procedures
- Audiologic diagnostic process is ongoing
 - frequent follow-up visits required
- Timely provision of services

Why is a National Directory Needed?

- **Newborn hearing screening is most effective when linked to timely and effective follow up**
 - ✦ **The Joint Committee on Infant Hearing (JCIH) advocates:**
 - **Access to hearing screening before 1 month of age;**
 - **Audiologic assessment to confirm the presence of hearing loss before 3 months of age;**
 - **Intervention services before 6 months.**

(The *1-3-6 Guideline*)

Why is a National Directory Needed?



- To delineate **Centers for Infant Audiology Service** by facilities (equipment & services) and personnel to facilitate communication and access to services by:
 - Families
 - State EHDI Coordinators
 - Early Intervention Officials
 - Allied Health Professionals

Why is a National Directory Needed?



- To Coordinate **Quality** with **Accountability**
 - The **Quality Infant Audiology Services** (QIAS) project identified the “skills set”
 - **ASHA (2004)** provides **guidelines** for the audiologic assessment of children from birth to 5 years of age

Importantly:

- A National Directory can educate consumers about the necessary level of equipment/service needed to effectively manage the pediatric population as well as existing practice standards that can be expected

Quality Infant Audiology Services (QIAS: 2003-2004)



- Contract from Maternal and Child Health Bureau (MCHB/HRSA)
 - ✦ Administered through Boys Town National Research Hospital
- Deliverables:
 - ✦ Develop and ultimately publish strong and comprehensive recommendations on *Quality Infant Audiology Services*.
 - *Objective Components (Assessment Procedures)*
 - *Behavioral Components (Assessment Procedures)*
 - *Programmatic Issues (Reporting; Minimal requirements)*
 - *Related Components (Counseling, Referrals)*
 - *Amplification Considerations (Selection & Fitting)*

Guidelines for the Audiologic Assessment of Children From Birth to 5 Years of Age (ASHA-2004)



- To achieve improved outcomes for children, audiologic practice patterns must link UNHS programs and early intervention programs.
 - To this end, a comprehensive pediatric audiology assessment is essential as early as required.
 - ✦ Once a child is suspected of having hearing loss, the diagnostic process must proceed on a timely basis by well-qualified service providers.
 - Physiologic measures
 - Behavioral measures
 - Developmental measures

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Achieving
Quality
Through
Accountability



Steps in the Process



National working group creates survey of Pediatric Audiology facilities



CDC creates mock up of “Smart” Tool



EHDI Coordinators provide feedback on the survey questions



EHDI Coordinators provide advisement on ways to disseminate survey and smart tool



Collaborate with EHDI Coordinators to implement a nationwide facility database/resource

Tiered Infant-compatible Audiology Facilities



TIER	Description of facility	Equipment & Services
III	Comprehensive (Audiology & Medical)	<u>In-house</u> complete diagnostic and amplification services, medical services
II	<i>Audiology</i> Comprehensive	Diagnostic and amplification services, <u>without in-house</u> medical
I	Diagnostic only <u>or</u> Amplification only	Diagnostic <u>or</u> amplification services; <u>there may or may not be</u> in-house medical

Tier III Infant-compatible Audiology Facilities



TIER	Description of facility	Equipment and services
III	Comprehensive (Audiology & Medical)	<u>In-house</u> complete diagnostic and amplification services, medical services

Diagnostic audiology testing:

Otoacoustic emissions (OAE), high-frequency tympanometry, Auditory brainstem response (*unseated, seated and general anesthesia*),

Visual reinforcement audiometry (VRA)

Amplification services:

Hearing aids/FM with real ear measures

Earmold impressions and modifications

Cochlear implant hook-up and programming

Medical services available in-house

Tier II Infant-compatible Audiology Facilities



TIER	Description of facility	Equipment and services
III	Comprehensive (Audiology & Medical)	<i>In-house</i> complete diagnostic and amplification services; <i>in-house</i> medical services
II	<i>Audiology</i> Comprehensive	Diagnostic and amplification services, <u>without in-house</u> medical

Diagnostic audiology testing:

Otoacoustic emissions (OAE), high-frequency tympanometry, Auditory brainstem response (***unsedated only***), Visual reinforcement audiometry (VRA)

Amplification services:

Hearing aids/FM with real ear measures
Earmold impressions and modifications
Cochlear implant hook-up and programming

Medical services referral base

Tier I Infant-compatible Audiology Facilities



TIER	Description of facility	Equipment and services
III	Comprehensive (Audiology & Medical)	<i>In-house</i> complete diagnostic and amplification services; <i>in-house</i> medical services
II	<i>Audiology</i> Comprehensive	Diagnostic and amplification services, without in-house medical services
I	Diagnostic <i>only</i> <u>or</u> Amplification <i>only</i>	Diagnostic or amplification services; there may or may not be in-house medical

Diagnostic Audiology Testing

Otoacoustic emissions (OAE)
high-frequency tympanometry
Auditory brainstem response
Visual reinforcement audiometry

Or

Amplification Services

Hearing aids/FM with real ear measures
Earmold impressions and modifications
and/or
Cochlear implant programming

Target Audience for Smart Tool



Family & Providers

- Family members
- Physicians
- Nurses
- Early Intervention Providers
- Audiologists
- SLPs

System Supports

- EHDI coordinators
- Services Coordinators
- Hospitals
- Medical Home
- Nurses
- Educational Administrators
- Audiologists

Provider Search “Smart” Tool Mock-Up



ILLUSTRATION



National Center on Birth Defects and Developmental Disabilities

**Early Hearing Detection
and Intervention Program**



Welcome to the EHDI Care Locator

The purpose of the EHDI Care Locator is to help connect families to appropriate services for newborn hearing screening, diagnosis, and service. Depending on your child's age, previous testing, and family preferences, different providers offer may offer different services and capabilities that may or may not be important for your child. Using information from your state or territory's EHDI program, the EHDI Care Locator can help you identify services close to home that are best suited for your child's specific individual needs. Simply answer the following questions, which will lead to an individualized recommendation for your child. You can follow your progress through the status bar at the bottom of this window.

[Information on newborn hearing loss from the National Center on Birth Defects and Developmental Disabilities](#)

[Information regarding state/territorial EHDI programs](#)

Continue



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National Center on Birth Defects and Developmental Disabilities

Early Hearing Detection and Intervention Program



EHDI Care Locator – Background Information

Where do you live ? State:

City:

What is the age of your child *in months* ?

Did your child already received a hearing screening ?

[Continue](#)

Progress



[Information on newborn hearing loss from the National Center on Birth Defects and Developmental Disabilities](#)

[Information regarding state/territorial EHDI programs](#)



National Center on Birth Defects and Developmental Disabilities

Early Hearing Detection
and Intervention Program



Parent Feedback and Next Steps

Given your child's age, it will likely be useful to find a diagnostic center that offers sedation. For testing, it is important that the child be relatively still and quiet. The child sleeping through the procedure is ideal. However, children over 6 months of age may require sedation in order to sufficiently quiet them down for a valid test. Consequently, given your baby is 9 months old, it may be important that the diagnostic center offers sedation.

Sedation may be all the more important if you have to travel longer distances to find a provider. If the diagnostic center is a few hours away, it is all the more important that one does not require a return visit simply because the baby could not relax quietly.

....This report could include similar additional information based on other answers the parent gave that reflect the factors that went into deciding on the narrowed down list of providers...

Continue



[Information on newborn hearing loss from the National Center on Birth Defects and Developmental Disabilities](#)

[Information regarding state/territorial EHDI programs](#)



National Center on Birth Defects and Developmental Disabilities

Early Hearing Detection
and Intervention Program



Parent Feedback and Next Steps – Map

The following screen indicates the nearest programs that satisfy the needs described in your report.

- ★ Audiological facilities that fully meet these criteria are identified with a green star
- ★ Other providers in the area that don't fully meet these criteria are identified with a blue star
- ★ For larger maps when no providers are nearby, the home town you indicated is identified with a black star.

One can click on markers in order to see additional information, such as services offered, contact information and provider email address (when available).

Continue



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[Information regarding state/territorial EHDI programs](#)

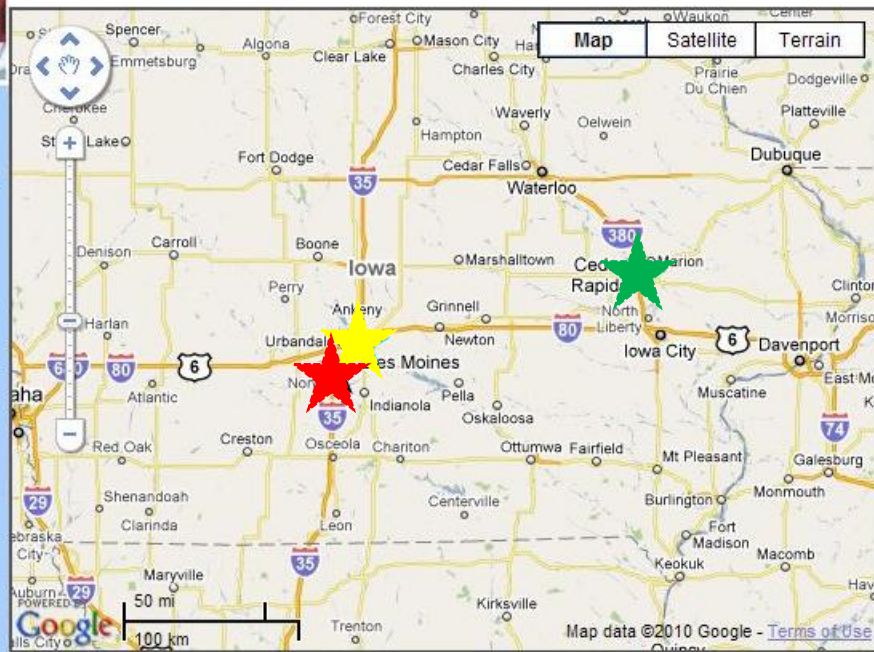


National Center on Birth Defects and Developmental Disabilities

Early Hearing Detection and Intervention Program



EHDI Care Locator – Map



Audiologist	ADDRESS	PHONE
Center for Disabilities & Development, University of Iowa Health Care	100 Hawkins Dr Iowa City IA 52242	319-356-1168/ 877-686-0031

Dept of Otolaryngology, University of Iowa Health Care	200 Hawkins Dr Iowa City IA 52242	319-356-2201
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Birthing Facility	ADDRESS	PHONE
Mercy Hospital - Iowa City	500 E. Market Street Iowa City IA 52245	

U of IA Hospitals and Clinics	200 Hawkins Dr. Iowa City IA 52242	
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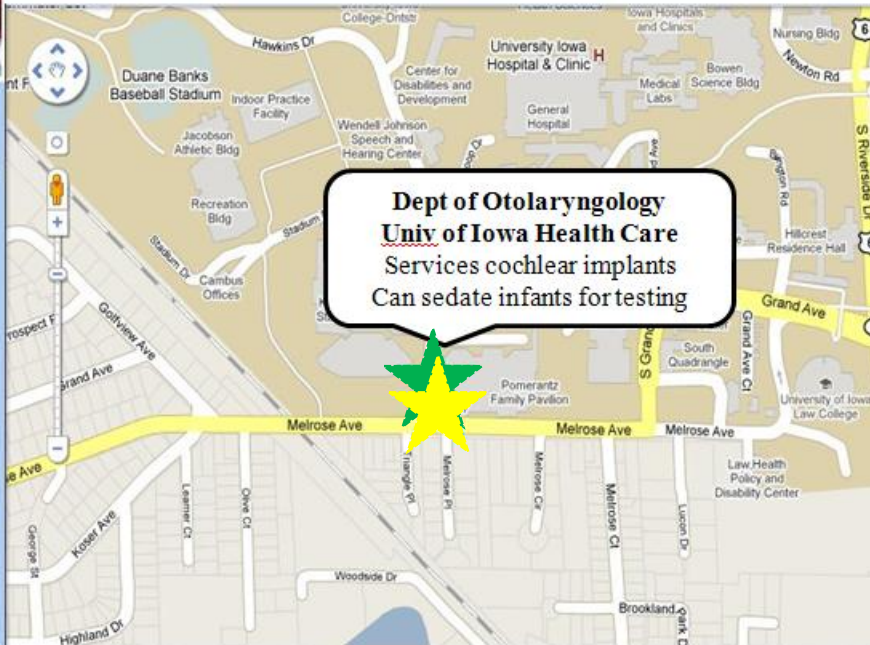


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Interested in the smart tool
development detail?



Please attend

**Tuesday 3-3:30pm section
at Dogwood A**

**Screening/ Audiology
facilities at the tip of your
fingers to benefit families and
state**

NEXT STEP



- **If you are interested in bringing this project to your state, we need 2 key personnel (“gate-keepers”):**
 1. To disseminate, oversee, maintain, and upkeep the facility directory.
 2. To be the contact person for a facility.
- **Please let Michelle King (Michelle.King@ky.gov) and Patti Martin (MartinPF@archildrens.org) know the names and e-mail addresses of the “gate-keepers”.**

Soliciting for feedback & suggestion



- **We want your feedback. Let's break for small group discussion**
- **Groups of 5**
- **2 moderators for each group**