

# Growing the Relationship Between the State EHDI Program and Pediatric Audiologists in the Community: A Case Study

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# Learner Objectives

Participants will:

- be able to list two ways to increase engagement with the pediatric audiology community.
- be able to explain how collaborative resource development results in increased use of resources.
- be able to describe how an audiology database can be created to increase access to services for families with children who are deaf/hard of hearing.



# Maine

## 7 Category A Facilities

- 26 Audiologists

## 16 Category B Facilities

- 41 Audiologists

Maine's population concentrated near the coast and southern part of the state

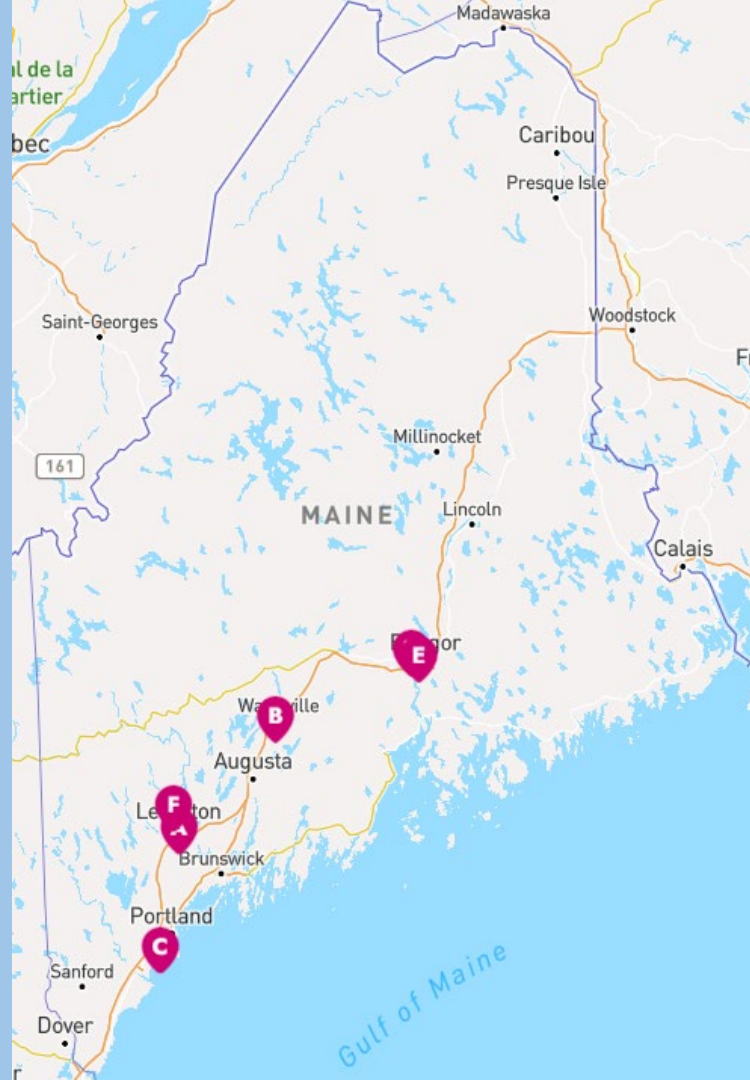
Most providers in southern Maine, creating challenges for access to audiological services for families in rural parts of the state



# Category A Facilities

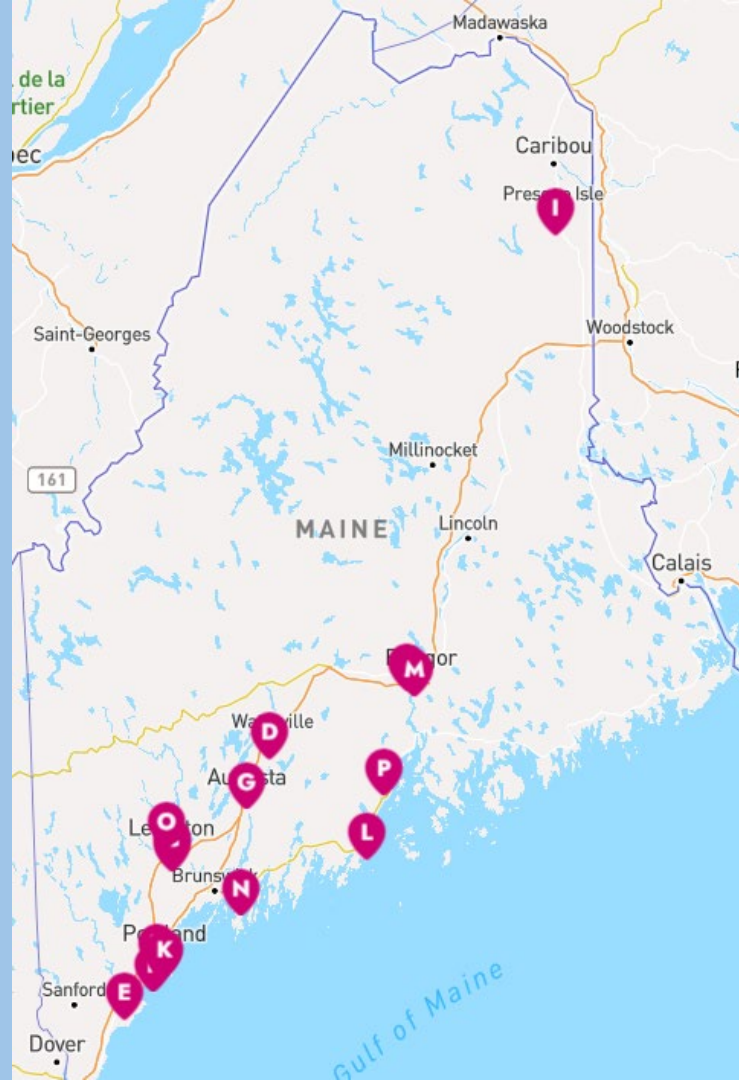
Audiologists who provide testing for children from birth to 6 months of age

- Also provide services for children 6 months and older



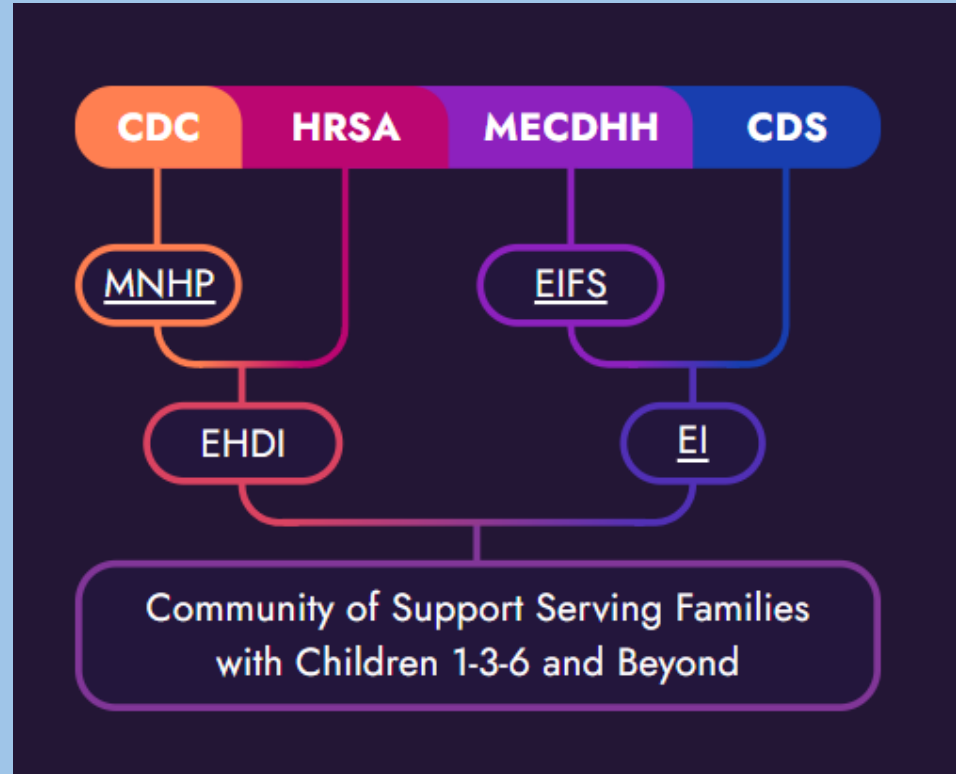
# Category B Facilities

Audiologists who  
provide testing for  
children 6 months of  
age and older



# Maine EHDI Program

Collaboration between The Maine Educational Center for the Deaf and Hard of Hearing (HRSA grantee) and Maine Centers for Disease Control and Prevention (CDC grantee)



# Role of the Clinical Audiologist

- One of the first providers encountered by the family
- Tasked with presenting diagnostic information and counseling families on next steps in process
- Crucial team member in EHDI process; sharing of diagnostic results triggers other EHDI program activities
  - EI referral
  - Parent Consultant communication
  - Data system entry



# Maine Pediatric Audiology Workgroup

- Consists of all interested audiologists in the state who serve the pediatric population
- Managed by Audiology Consultant to the State EHDI Program
- Goals of the group
  - Intrastate Collaboration
  - Information and training re: EHDI system
  - Resource development
  - Continuing education opportunities





# Information and Training

- Constant dialogue regarding data reporting to EHDI program
  - Feedback re: difficulties/ quirks with system
- Consultation regarding complex patients
  - Clarity on reporting, referrals to EI
- Information regarding available resources
- Relevant continuing education opportunities



# Resource Development

- On a voluntary basis
- Opportunity for the clinical audiologists to share their perspectives, experience, and expertise
  - Important as EHDI program staff are not clinical audiologists
- Resources created to date:
  - Tipsheets
    - ABR
    - Behavioral testing
    - Hearing technology (hearing aids, cochlear implants)
    - Risk Monitoring



# Resource Development

- Resources in process:
  - Tipsheets
    - Ear infections and temporary conductive hearing levels
    - Auditory Neuropathy Spectrum Disorder
    - Hearing aid care and troubleshooting
    - Permanent conductive hearing levels
    - Technology options for children with unilateral hearing levels
  - Physician resource
    - Letter to physicians re: impacts of hearing loss, importance of additional referrals, and available resources in state



# A Parent's Guide to ABR Testing



## Why does my child need this test?

Your child may have referred for any of the following reasons:

- Your baby did not pass their newborn hearing screening in one or both ears, or did not receive a newborn hearing screening at birth.
- Your baby may have had certain birth complications that can put them at greater risk for hearing loss.
- Your baby has other medical conditions that are linked with hearing loss.
- You may have a known family history of permanent hearing loss during childhood.
- Your child's audiologist could not obtain reliable results using other types of hearing testing.



## How will it be done?

- There will be a 2–3 hour long appointment with a few types of non-invasive, painless tests, completed by an audiologist.
- An audiologist is a doctor who specializes in hearing and balance testing, and who may also fit hearing technology.
- The Auditory Brainstem Response (ABR) evaluation tests your child's auditory system while they sleep, or while they are under sedation.
  - This involves measuring their brain's responses to sound using electrode stickers on their head.
  - Small earphones will be placed in your child's ear to play/present sounds.
- The ABR test can confirm the presence, type, and degree of any hearing loss.
- Your audiologist may also check the health of your child's ears. These tests involve a small rubber tip held in your child's ear for a few seconds or minutes. Types of tests include:

- The tympanogram is a test of eardrum health & function—to detect fluid or congestion which can impact hearing.
- The Otoacoustic Emissions (OAE) test is a test of inner ear health. The results of the OAE test can provide some basic information about the presence/absence of hearing loss.

## How can I prepare for this test?

- Your baby must be asleep for ABR testing.
- Try your best to make sure they are tired and hungry before your appointment!
- Schedule your appointment during a regular nap time or feeding time to help them fall asleep.
- Communicate with your child's audiologist regarding what works best for your baby (rocking, pacifier use, etc.)
- Bring what you will need to help them feel comfortable and fall asleep, i.e., a bottle, diapers, blankets, pacifier, etc.
- They will sleep in your arms, your car seat/stroller, or in a crib during testing.

When the audiologist is finished, you can tell you how your child hears or they may require you to come back for additional testing.

**Some of these tests may not be completed in one appointment due to babies being babies!** Because a calm, sleeping baby is required for most of the testing, it is not uncommon for families to be asked to return for additional testing. This allows the audiologist to get a more complete picture of your child's hearing; this does not necessarily mean they have a hearing loss. While this can be a stressful process, it is important to complete **all** testing so appropriate referrals and recommendations can be made to support your child's language development. As a parent, you can help this process by bringing whatever your baby might need to stay asleep. Despite your best efforts, your child may not want to sleep, and that's okay!



This project was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$235,000 Award number: H61MC030766. Maine Educational Center for the Deaf and Hard of Hearing, "Earliest Interactions: Supporting 1-3-6 and Family Engagement". The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement by HRSA, HHS or the U.S. Government.



## Frequently Asked Questions (FAQs)



### Why an ABR test?

- This kind of test is used on infants ages birth to 6 months while they sleep, so we can test their hearing without requiring a response from them.
- Children over 6 months may require sedation to complete the ABR.



### Will I know the results right away?

- Your audiologist can tell you when they are finished if your baby's hearing is "normal", or they will ask you to come back for a repeat ABR.



### Why would I need another test?

- Sometimes testing cannot be completed in one appointment. Multiple types of tests are used to get a complete picture of your child's hearing; one test alone is not enough.
- Your baby may need additional testing if they woke up too soon, the results were inconclusive, or hearing loss was found.



### What if hearing loss is detected?

- Your audiologist will confirm results with a follow-up ABR.
- Then, they will refer you to an Ear, Nose, and Throat (ENT) physician, who specializes in the health and structure of ears and hearing, to look for a potential cause for hearing loss. If your child is a candidate for hearing technology, the ENT will provide the medical clearance for hearing technology required before fitting.
- Once medically cleared, the audiologist can provide recommendations and guidance of hearing technology to help increase your child's access to sound, which may support their development of spoken language if that is your family's goal.
- You can also receive support from multiple service providers to help support your child, and your family. Your audiologist will refer you to the appropriate service providers.



Maine CDC Newborn Hearing Program  
286 Water Street  
Augusta, Maine 04333-0011  
Tel.: (207) 287-8427; Fax: (207) 287-4743  
TTY Users: Dial 711 (Maine Relay)

## Resources

- If you have any additional questions, you should bring them up to your audiologist, pediatrician, or other service providers on your child's team.

### EIFS Specialist

207-781-6230, [referrals@mecdhh.org](mailto:referrals@mecdhh.org)

- The Early Intervention and Family Services (EIFS) team at the Maine Educational Center for the Deaf and Hard of Hearing (MECDHH) is trained to support families through the process of audiological testing. You may already have an EIFS specialist as part of your team through Child Development Services. If not, please contact us for more information and support.

### MNHP Parent Consultant

207-239-7300, [parentconsultantmnhp@gmail.com](mailto:parentconsultantmnhp@gmail.com)

- If your child is diagnosed with hearing loss **before the age of 4 years**, the Parent Consultant from the Maine Newborn Hearing Program will call you to discuss available resources and next steps. The Parent Consultant is the parent of a deaf child who offers parent-to-parent support as someone who has previously been through this journey with their own child.

### Parent Guides

[mainegbys@gmail.com](mailto:mainegbys@gmail.com)

- Parent Guides from the Maine Hands & Voices Guide By Your Side Program provide unbiased support through specially trained parents of children who are deaf or hard of hearing.

### Maine's EHDI Process App

- Maine's EHDI Process App was developed to help families and the professionals who support them better understand the newborn hearing screening through diagnosis and into early intervention process, as well as make them aware of available resources. The App is available to download at no cost.

Scan this QR code to see the iOS App →



Scan this QR code to see the Android App →



# A Parent's Guide to Behavioral Testing



## Why does my child need this test?

A hearing test is warranted any time you, a healthcare provider, or teacher are concerned about your child's hearing.

A hearing test is important to make sure your child can hear all the sounds they need for their continued speech and language development. Even a mild hearing loss can affect language learning and social skills.

Your child's pediatrician may refer you for a hearing test after an initial hearing screening.

Sometimes we need to monitor your child's hearing due to complications when they were born or other medical conditions that can put them at risk for hearing loss.

## How will it be done?

Your audiologist will do their best to turn the hearing test into a fun and engaging game.

Sounds will be played through speakers, or through over-the-ear or in-the-ear headphones.

Multiple methods can be used to test your child's hearing. These can include:

- Looking for your child's response to sounds with consistent changes in their behavior, such as looking for the sound.
- Playing various listening games, such as dropping a block into a bucket whenever they hear a beep.

Your audiologist may also check the health of your child's ears. These tests involve a small rubber tip held in your child's ear for a few seconds or minutes. Types of tests include:

- Tympanometry**, which can detect any fluid or other middle ear problems that can impact hearing.
- An **Otoacoustic Emission (OAE)** screening, which can make sure your child's inner ears are healthy.

## What should I expect?

Your audiologist will help you figure out your role in the testing process. For some tests, you may be asked to help keep your child quiet while the test is being completed. Sometimes, your child may sit on your lap and you might be asked to be quiet and not respond to the sounds being presented so that the audiologist can judge your child's responses accurately. Other times, you may be asked to distract your child or help them with a "listening game." If you are ever unsure about your role during testing, please ask the audiologist for clarification.

Your audiologist may not be able to complete all testing to acquire a full picture of your child's hearing in one session. This is common and requires a follow up appointment to complete the tests!

This happens because the audiologist needs to obtain information regarding your child's hearing in both ears and at multiple pitches or frequencies. It is very normal for a young child to get tired or bored during testing, which can result in the audiologist needing to stop testing before all of the information is obtained.

## Frequently Asked Questions (FAQs)

- How long will this appointment take?**
  - 30 minutes to 1 hour.
- Is there anything I can do to help make the appointment go smoothly?**
  - Try to schedule your appointment during a time when your child will be alert—avoid scheduling during typical nap or meal times.
  - If possible, leave other children or siblings at home for this visit to minimize distractions, and to allow a parent/caregiver to fully participate in the appointment.
  - It is helpful if your child is accompanied by a caregiver or family member who knows them well to answer questions about their hearing and medical history.
  - If you have records from hearing tests your child has already had, bring them to the visit.

## What if my child will not wear headphones or let someone touch their ears?

- Your audiologist is flexible and has a lot of tricks up their sleeve to make the hearing test comfortable for your child.
- It can be helpful for parents to "role play" the audiology appointment at home, using headphones so that their child can get comfortable with wearing something on or in the ears.

## What if hearing loss is found?

- Your audiologist will want additional testing to confirm these results.
- They will ask you to follow up with your pediatrician, as well as an Ear, Nose, and Throat (ENT) physician. The ENT will complete a medical evaluation of your child's ears to help decide whether hearing technology would be helpful for your child.
- If hearing loss is confirmed, the audiologist may discuss hearing technology options to increase your child's access to sound, which may support their development of spoken language skills.

## Resources

- You can also receive support from multiple service providers to help support your child, and your family. If hearing loss is found **your audiologist** will refer you to the appropriate service providers.
- If you have any additional questions, you should bring them up to your **audiologist, pediatrician, or other service providers** on your child's team.

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# A Parent's Guide to Hearing Aids



## Why are hearing aids recommended for young children?

 If your family's goal is spoken language development, early and consistent use of hearing aids can give them the best chance at reaching that goal.

- o Children are sponges! They learn to speak by accessing/hearing all of the sounds of language around them. They hear people talking directly to them, and they overhear conversations from a short distance. This ability to overhear is critical for developing speech and language.
- o Hearing aids provide your child with improved access to the sounds of spoken language, both direct, and overheard.

 Children who are hard of hearing or deaf have limited access to the sounds of spoken language. Limited exposure to language can result in delays in language development and social skills. Hearing aids are one way to improve access to language. Other ways to provide access to language include visual modalities, such as American Sign Language.

Children whose families chose a visual modality for communication may use hearing aids to support access to sounds in their environment.




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## How will hearing aids be fit to my child?




 Your audiologist will work with you and your child to select hearing aids that work best for your child.

- o The aids will be custom fit to your child's ear and to their hearing levels.
- o Your child's hearing aids will be programmed by your audiologist to make the important sounds of speech as accessible as possible to your child.
- o Regular follow up visits are important to ensure proper fit and function of the aids, and to make sure your child has consistent access to the sounds of spoken language.

## What should I expect?



 Hearing aids make sounds louder to give your child improved access. The aids do not restore "typical" hearing.

- o Even with appropriately fit hearing aids, most children will be unable to access some parts of spoken language and certain sounds in their environment.
- o Your child's success is dependent on a combination of their hearing aids, support from your family, intervention services, and their school.
- o If your child's hearing changes, their hearing aids can be changed too. Same goes for growth spurts—new earmolds can be made to better fit your child's growing ears!



## Frequently Asked Questions (FAQs)



### Can I go to any local audiologist?

- o When you call to make an appointment, you should ask to see an audiologist who is experienced with pediatric hearing aids.



### How much does my child need to wear their hearing aids?

- o Families are encouraged to provide access to hearing aids as much as possible throughout the day, with the understanding that some activities (naps, baths, swimming, playing outside in the rain, etc.) may prevent hearing aid use. Taking short breaks from their hearing aids is also okay!
- o Hearing aid use is important if the goal is to encourage spoken language development. When using hearing aids, your child may have better access to new vocabulary and the conversations happening around them. Learning does not end at school; children benefit greatly from overhearing conversations in the car, at the playground, and at home.
- o If you have questions, ask your audiologist about strategies to help your child and your family adjust to consistent use of hearing aids.



### What can I do to help my child?

- o Give them as many examples of language as possible: read to your child, sing to them, and narrate what you are doing as you go about your day.
- o Make sure you check the proper function of their hearing aids often. Your audiologist will show you how.
- o Become a strong advocate for your child's communication needs at home and at school.
- o Consistently engage in intervention services, educational supports, and follow-up visits with your audiologist.



### Find more resources from Earliest Interactions:

Website: [earliestinteractions.com](http://earliestinteractions.com)

Email: [info@earliestinteractions.com](mailto:info@earliestinteractions.com)

Call: [207 781-6335](tel:2077816335)



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# Continuing Education Opportunities

- Targeted CE opportunities for pediatric audiologists
- Free or low-cost opportunities
- Zoom or in-person locally
- AAA Journal Club





# Pediatric Audiologist Database



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Search location, procedure, etc.



**A Audiology Associates of Central Maine**

Lewiston

ABR Evaluation, Hearing Aids, 6+ Months and  
1 other service

**B Hammond Associates**

Portland

ABR Evaluation, Hearing Aids, 6+ Months and  
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**C LA Hearing Center**

Lewiston

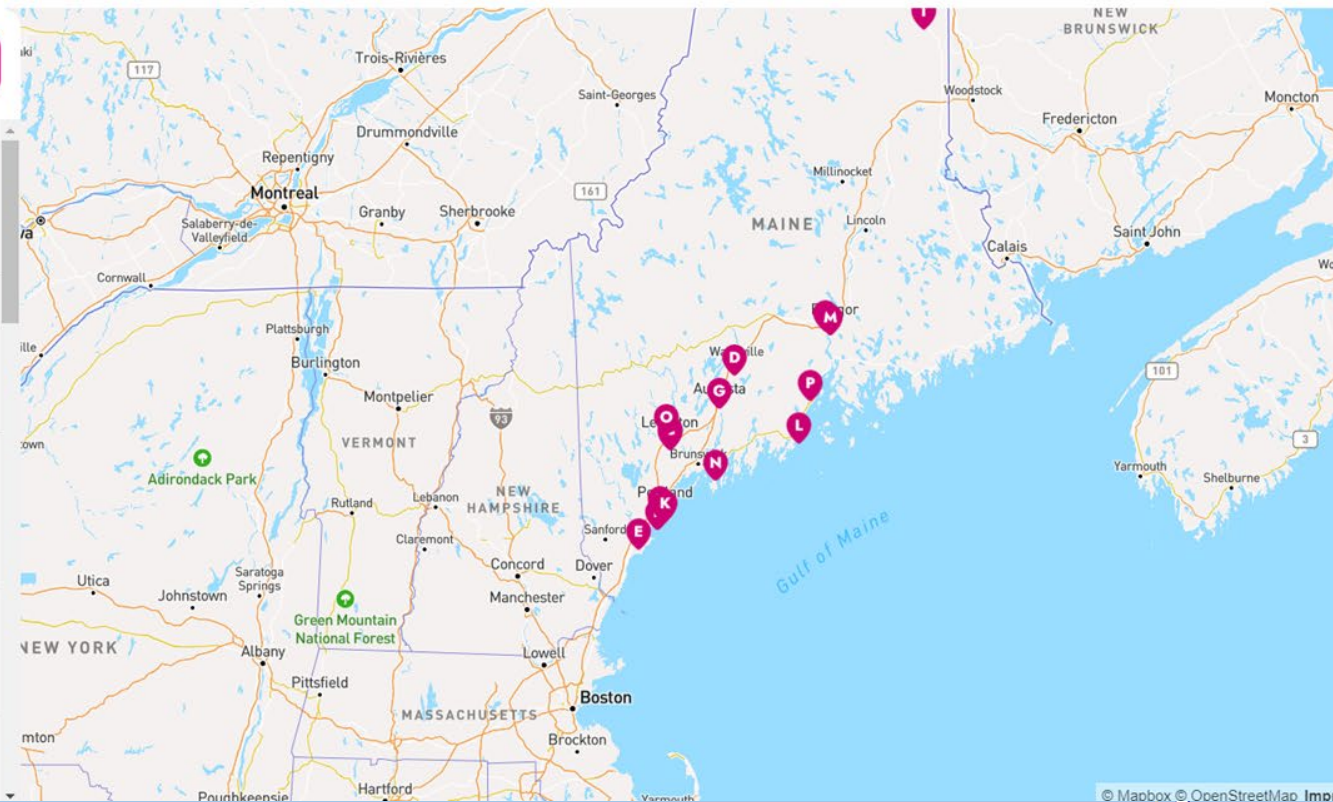
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**D Maine General Medical Center**

Waterville

ABR Evaluation, 6+ Months

**E Maine Medical Partners  
Otolaryngology Biddeford**





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ABR



## **A** Audiology Associates of Central Maine

Lewiston

ABR Evaluation, Hearing Aids, 6+ Months and 1 other service

## **B** Maine General Medical Center

Waterville

ABR Evaluation, 6+ Months

## **C** Maine Medical Partners Otolaryngology- Scarborough

Scarborough

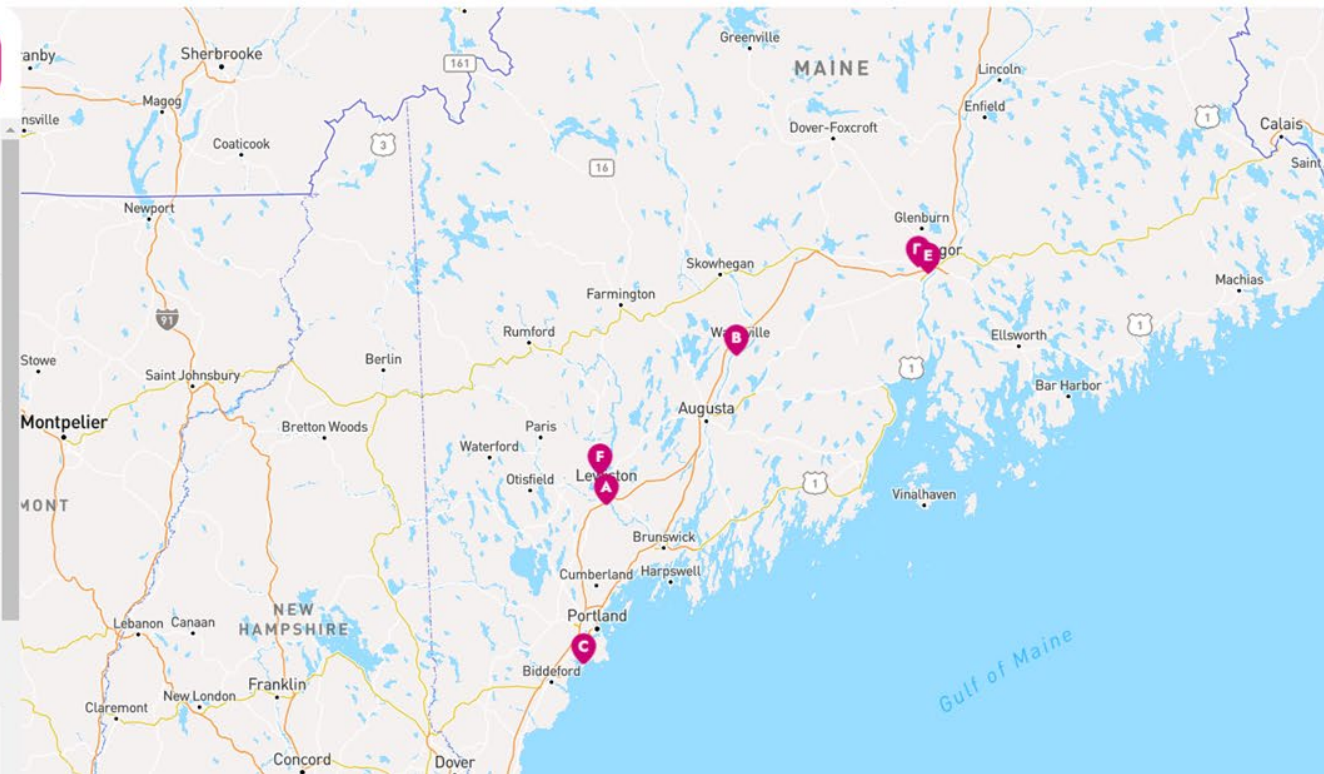
ABR Evaluation, Hearing Aids, 6+ Months

## **D** Northern Light Eastern Maine Medical Center

Bangor

ABR Evaluation, 6+ Months

## **E** Penobscot Community Health Care - Warren Center



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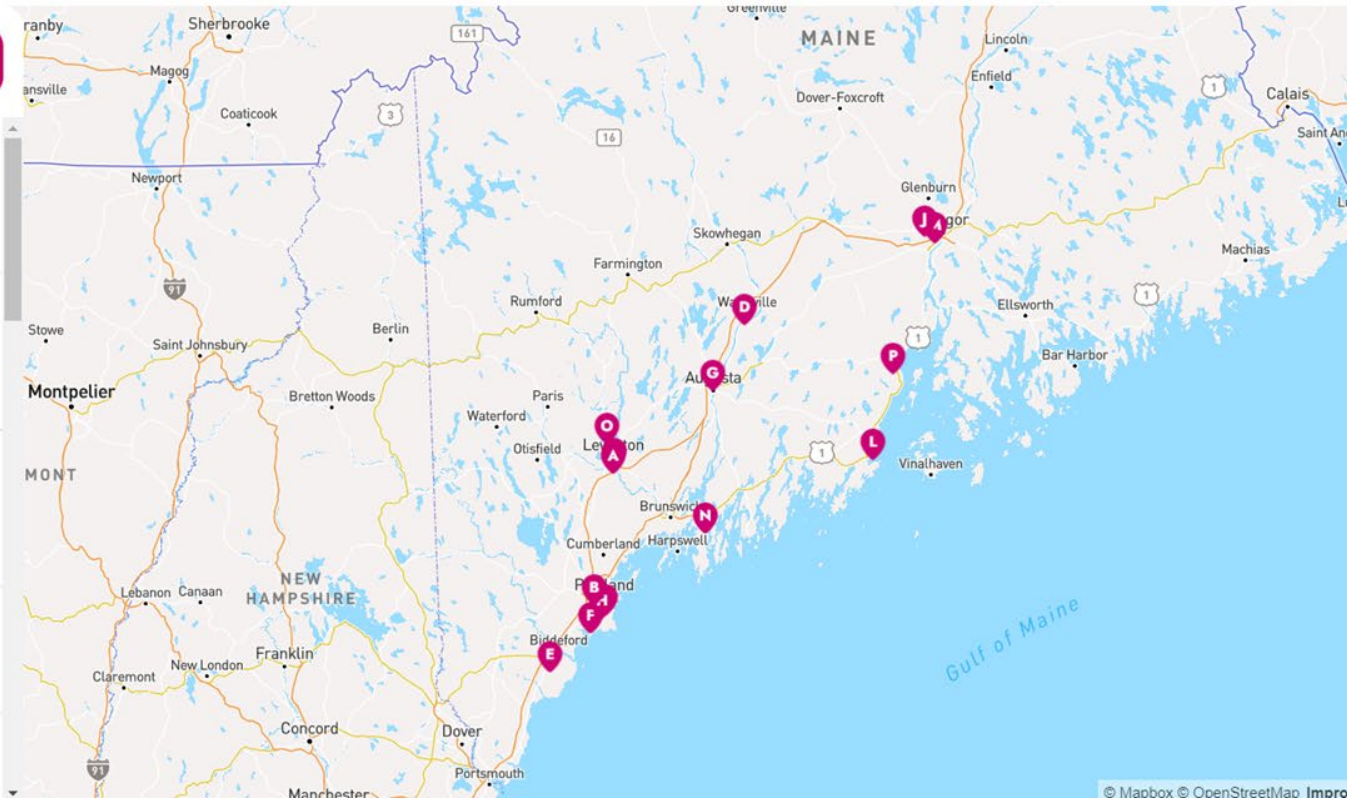
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# Pediatric Audiologist Database



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## Red Maple Audiology, LLC

Turner, Maine



### Details

#### Address

7 Cobblestone Dr. St. 10,  
Turner, Maine 04282

#### Website

<https://red-maple-audiology.business.site/>

#### Phone

2072240222

#### Fax

2072240040

### Good to Know

Sedation NOT available  MaineCare provider

### Services & Procedures

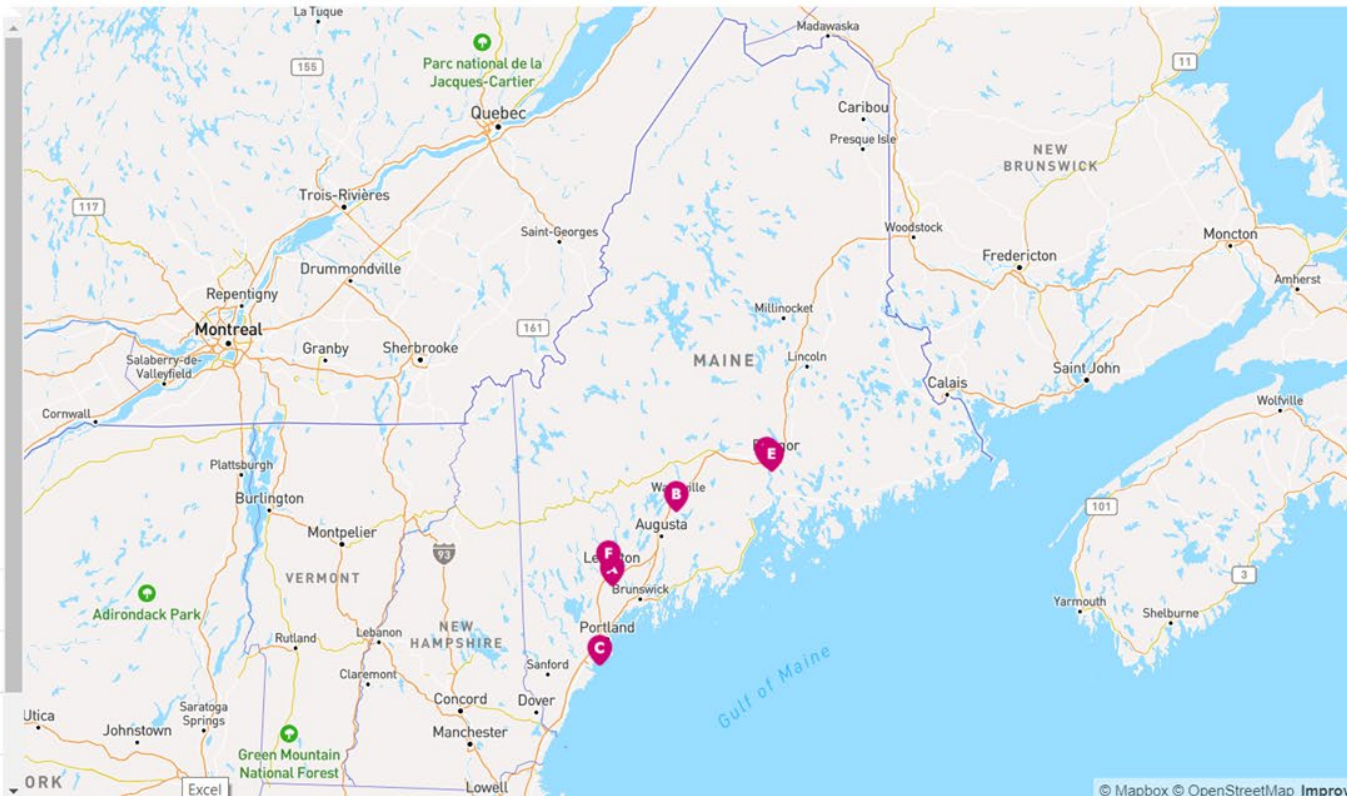
ABR Evaluation >

Hearing Aids >

Testing for infants 6+ months of age >

CDS Services >

### Audiologists





# Why is this important?

- Workgroup Meetings: Opportunities for collaboration among clinicians, discussions about issues impacting state
- Resource Development: Ownership over resources being shared with families, ability to share information that might not be as obvious to EHDI program staff during development of resources
  - Families receiving similar information regardless of clinic
- Continuing Education: Unique opportunities to learn about relevant topics in pediatric audiology close to home
- Pediatric Audiologist Database: increasing visibility of clinics across the state, making details about clinic offerings more readily available to the public



# How to implement in another state?

- Outreach/networking
- Regional groups if necessary depending on size of state/number of audiologists
- Surveys
- Actionable changes based on audiologist feedback
- Offer CEU opportunities
- Invite audiologists to be a part of as much as possible





# Questions/Comments?

[katherine.duncan@mecdhh.org](mailto:katherine.duncan@mecdhh.org)

