April 15, 2022 Spring 2022 Nebraska, USA



The Nebraska Early Hearing Detection and Intervention Program develops, promotes, and supports systems to ensure all newborns in Nebraska receive hearing screenings, family-centered evaluations, and early intervention as appropriate.



EHDI-PALS is a web-based searchable national directory that helps families, healthcare professionals, and state public health organizations find pediatric audiology expertise for children ages birth to five. The website also provides information about childhood hearing to support families and professionals through the process of screening, diagnosis, and intervention. At the heart of EHDI-PALS is a national web-based directory of facilities that offer pediatric audiology services to children younger than five years. To be listed in the EHDI-PALS Directory, facilities must complete an online survey. You will be asked to create a login and password to uniquely identify your facility.

This will enable you to update information about your facility should your services change. You will then be taken to the survey where you will create your profile and enter your facilities information in the EHDI-PALS directory.

To complete the survey, you will need the following estimates for the prior year:

- Number of hearing tests done and number of children confirmed with permanent hearing loss for the following age groups: 0-30 days of age; 1-3 months of age; 4-24 months of age; 25-60 months of age.
- Number of children with hearing aids being followed and the number of children dispensed with hearing aids in your facility for the following age groups: 0-6 months; 6 months-3 years; 3-5 years.
- Number of children (0-5 years of age) with cochlear implants currently managed by your facility.
- Typical wait time for patients to access the different types of appointments.



#### Joint Committee on Infant Hearing FAQ's

In 2019, the Joint Committee on Infant Hearing (JCIH) published an updated position statement. Since then, EHDI programs, audiologists, and other medical professionals have submitted questions and requests for clarifications, leading the JCIH to publish FAQs on JCIH.org. NE-EHDI would like to highlight some of the most frequently asked questions that our Nebraska partners have requested additional information on.



# 01

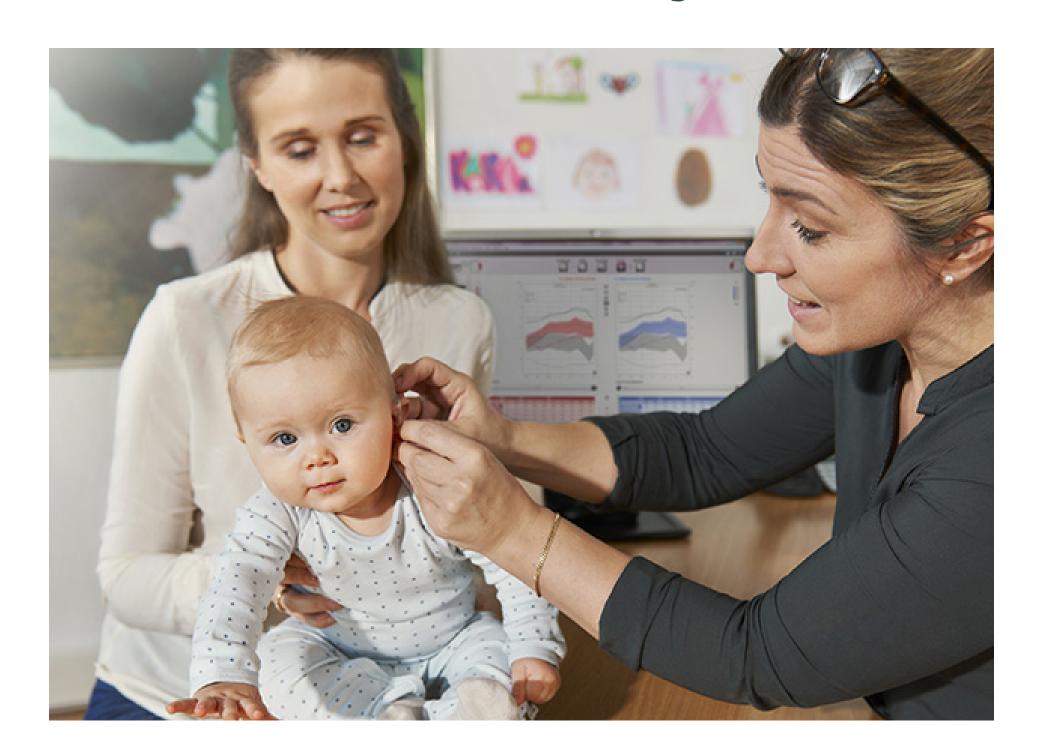
# Evaluations on children with risk factors

The new risk factor table seems to recommend diagnostic audiology follow-up for all risk factors. If a baby has passed AABR, is re-screening with OAEs for the risk factor follow-up appropriate? Can the committee expand on this topic and the rationale for diagnostic testing?

For follow-up due to risk factors, JCIH is recommending a comprehensive diagnostic audiologic evaluation including, tympanometry, OAE, acoustic reflexes, and behavioral testing as the gold standard for hearing assessment when developmentally appropriate. Continued use of OAE alone for monitoring hearing is insufficient for assessing children with mild hearing loss.

# 02

### Middle Ear Fluid should not delay Dx



• When middle ear fluid is found during the diagnostic assessment, how soon should an ABR re-assessment be completed?

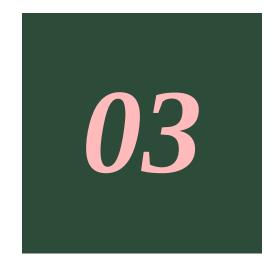
**A**:

Diagnostic assessment should be *completed* before 3 months of age. The presence of middle ear fluid should not delay diagnostic assessments. Testing includes bone-conducted stimuli when air-conducted thresholds are elevated to rule out underlying sensory loss and facilitate intervention recommendations. When middle ear fluid is present and bone-conduction testing indicates permanent sensorineural hearing loss, hearing aid fitting, CI candidacy evaluation if indicated, and/or enrollment in early intervention should not be delayed.

Page 15 of the <u>statement</u> says "management of middle-ear fluid should be coordinated by the infant's pediatrician/primary-care provider and/or a pediatric otologist, with the audiologist's input, and in conjunction with the family's preferences." Ongoing audiologic monitoring should be completed following resolution of middle ear fluid.



http://www.jcih.org/contact/



# Prolonged NICU Stays



## • What is considered a 'prolonged stay in the NICU' and how are recommendations different for babies in a Special Care Nursery versus a NICU?

The definition of prolonged stay in the NICU is greater than 5 days (<u>Table 1</u>, <u>risk factor 2</u>). The rationale for including a prolonged stay in the NICU is related to literature findings that those who have been in the NICU have a higher rate of hearing loss as compared to the general population among populations of NICU graduates (Hille et al 2007, Coenraad et al 2010, Kraft 2014). Additionally, some authors have tried to tease apart the multiple potential risk factors associated with hearing loss (such as ECMO and needing ventilation) {Kraft 2014}.

It is most likely a compilation of multiple risk factors within NICU babies that prompt this high rate of hearing loss. Using the risk factor of NICU stay provides a readily identifiable event to ensure clinicians and public health systems can identify and monitor a specific child for late-onset hearing loss. Considerations for babies in the special care nursery should be individualized for the infant based on specific risk factors.

# 04

## Assisted Ventilation

• What about assisted ventilation? Is this still considered a risk factor for possible delayed HL? If so, what type(s) of devices are considered assisted ventilation?

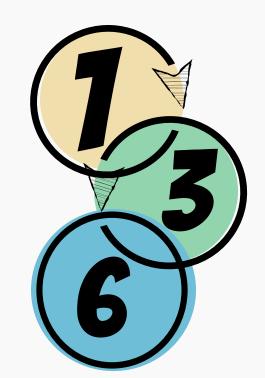
**A**:

The literature has supported the association of assisted ventilation to be an independent risk factor on hearing status (Hille et al 2007). The literature does not specifically describe the type of assisted ventilation.



#### JCIH 1-3-6 Goals

The Joint Committee on Infant Hearing has established 1-3-6 goals for newborn hearing screening and follow-up.



All infants should receive a hearing screening by **one** month of age.

All infants who refer should receive a diagnostic evaluation prior to **three** months of age.

All infants who are identified as deaf or hard of hearing should begin receiving early intervention services by <u>six</u> months of age.



# 1-3-6 Benchmarks are based on Adjusted Age



• When referring to preterm babies, does the committee mean actual age or adjusted age in their example of the 3-month-old in the NICU? Does this answer affect the recommendation?

**A**:

The 1-3-6 benchmarks are based on full term newborns. Should the baby be premature, decisions about timing for diagnostic evaluation should be discussed with the physician and the pediatric audiologist.





# Isolated Ear Pits & Tags not a Risk Factor

**Q**:

I noticed that specifying ear tags and pits as a risk factor for follow-up were eliminated from the 2019 statement. Do you have any additional insight on this, specifically if the committee still recommends follow-up for these babies when they pass the NHS and what that timeline should be?

**A**:

Isolated ear pits and tags have no higher reported incidence of hearing loss than other children (without ear pits and tags). The committee based their recommendations off papers such as "Isolated preauricular pits and tags: is it necessary to investigate renal abnormalities and hearing impairment" (2008). The main finding was that the prevalence of hearing loss and renal problems were similar to a control group without tags or other pinna anomalies. There is a similar recommendation from a 2017 paper, "Is routine audiometric testing necessary for children with isolated preauricular lesions (2017)).

The committee recognizes that programs may institute guidelines that are stricter than what is recommended in the current statement. There remains a lack of conclusive evidence that children with isolated external ear anomalies require additional care beyond universal newborn hearing screening.





National Cytomegalovirus (CMV) Awareness Month is an annual observance held in June to increase awareness of CMV, the most common infectious cause of birth defects in the United States.

About 1 out of 5 babies with congenital CMV infection will have birth defects or other long-term health problems, such as hearing loss. In 2011, Congress passed a resolution naming June "National CMV Awareness Month." CDC takes this opportunity to increase awareness of congenital cytomegalovirus (CMV) among healthcare providers, pregnant women, and parents.

## More information can be found at the National CMV Foundation website



Every pregnant woman is at risk of acquiring CMV...
but only 9% of women know about it.



of babies born with CMV will appear healthy at birth

## Signs of congenital CMV in newborns can include:

- Rash
- Jaundice (yellowing of skin or whites of the eyes)
- Microcephaly (small head)
- Low birth weight
- Hepatosplenomegaly (enlarged liver and spleen)
- Seizures
- Retinitis (damaged eye retina)

### Some babies with signs of congenital CMV at birth may benefit from medicines:

• Babies who show signs of congenital CMV disease can be treated with medicines called antivirals. Antivirals may decrease the severity of the hearing loss. Babies who get treated with antivirals should be closely watched by their doctor because of possible side effects.

#### Hearing loss can be present at birth or develop later:

• Babies with congenital CMV may have hearing loss in one ear and may later develop hearing loss in the other ear. Progression may occur through adolescence.

#### Children with hearing loss can benefit from services:

• Children diagnosed with hearing loss should receive services such as speech or occupational therapy. These services help ensure they develop important communication, language, and social skills. Children with hearing loss can also learn other ways to communicate, such as using sign language and using devices such as hearing aids and cochlear implants.

Click the play button to watch a short video about CMV

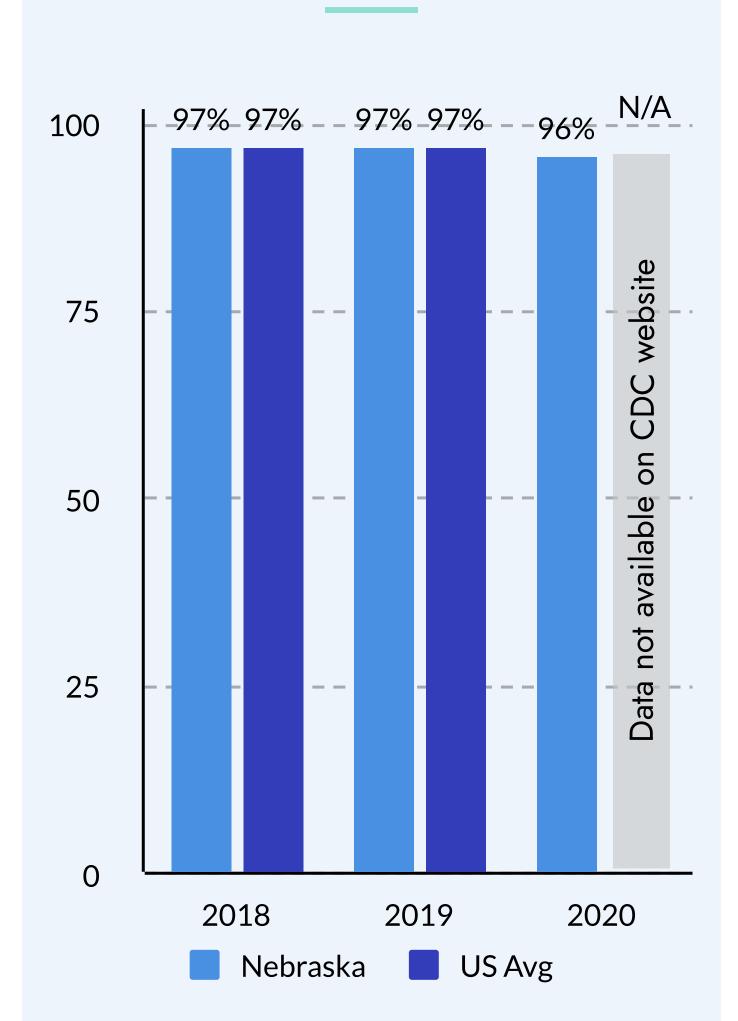


Current 1-3-6 Data dhhs.ne.gov/EHDI

## 1-3-6 Data Nebraska vs. National Average



All infants should receive a hearing screening by **one** month of age.

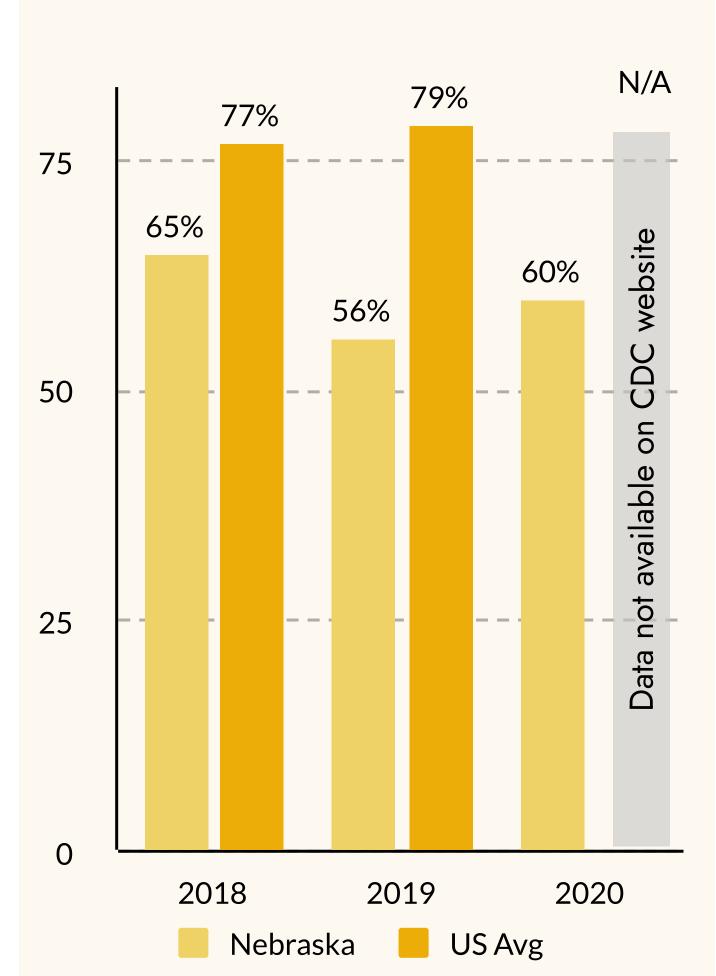


#### Did you know?

- When the Infant hearing act was passed in 2000, only 16% of hospitals were routinely conducting newborn hearing screenings.
- Since 2003, 100% of hospitals have complied with offering a newborn hearing screening.



All infants who refer should receive a diagnostic evaluation by **three** months of age.



### Reasons for Delay

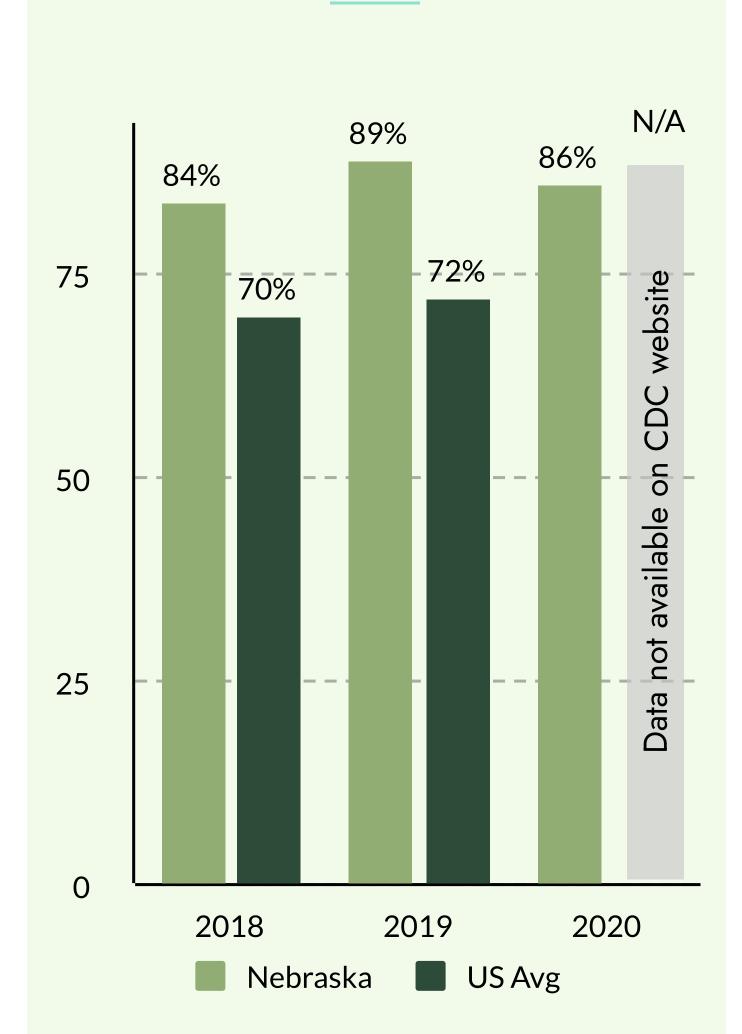
The most common reasons for delayed diagnosis\* in 2020 were:

- Persistent middle ear issues
- Extended NICU stay due to prematurity or medically fragile
- Noncompliant parents

\*Some babies were diagnosed very shortly after 90 days



All infants who are identified should begin receiving El services by **six** months of age.





#### **Statistics**

- From 2016-2020, there was an average of <u>66</u> children identified as deaf or hard of hearing each year in Nebraska.
- When late-onset hearing loss is factored in, the average number of children identified each year in Nebraska increases to <u>76</u>.



Please e-mail any ideas you have for improvement to the NE-EHDI Program so we can work together to enhance services for children who are deaf or hard of hearing.

DHHS.NEEHDI@Nebraska.gov



for all the work you do to provide timely and quality services to children and families!

## Deaf and Hard of Hearing (D/HH) Mentor Program



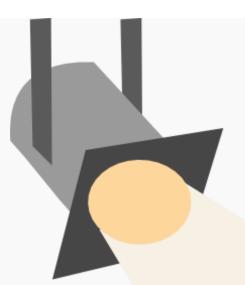
NE-EHDI has awarded a subgrant to the Nebraska Association of the Deaf (NeAD) to implement a formal Deaf and Hard of Hearing Mentor/Role Model/Guide program in Nebraska. The intent of this type of support is for parents of newly identified children to connect with a D/HH individual so they can better understand Deaf culture and their lived experiences. Currently, NeAD is determining which curriculum would be most beneficial for families, and they plan to start hiring and training D/HH mentors this spring. We hope to have the program fully implemented and ready to be offered to families by April 2023. Stay tuned for more updates on this exciting initiative!

## Recent Updates

to the NE-EHDI Summary and Reporting Guidelines for Audiologists

- Per LB741/AM2402 Audiologists may provide parents with information about cCMV at their first outpatient screening or evaluation.
- The 1-3-6 benchmarks are based on full-term newborns. Should the baby be premature, decisions about the timing for diagnostic evaluation should be discussed with the physician and the pediatric audiologist.
- For an infant in the NICU whose duration of stay would impact the 1-3-6 benchmarks, a diagnostic ABR is recommended as best practice for babies to meet milestones.
- Report to NE-EHDI late identifications on children ages birth-<u>5</u> years.

Learn More



## Professiomal Spotlight

Amanda Adams joined the Nebraska EHDI Program on January 18, 2022, as the Program Coordinator, replacing Brenda Coufal. Amanda brings 15 years of experience working in human services and advocating for others in her community, with seven of those years working within the Nebraska Department of Health and Human Services. Her career has focused on assisting children and adults with navigating several state assistance programs as well as finding support to live more independently. Amanda graduated from Iowa State University with a Bachelor of Arts in Communications, specializing in nonverbal communication. She went on to earn a Masters in Human Service Administration from Bellevue University. Please join us in welcoming Amanda to the NE-EHDI team!

"I look forward to working with the many partners the Nebraska EHDI team has gained over the years, and appreciate the connections I have made so far. It is clear to me that there are so many people dedicated to the success of all children born in Nebraska, and I am excited to be a part of it!"

-Amanda Adams



Amanda Adams, MS
NE-EHDI Program Coordinator