



Connecting Children and Families: Enrollment and Access to EHCI System Partners in Minnesota

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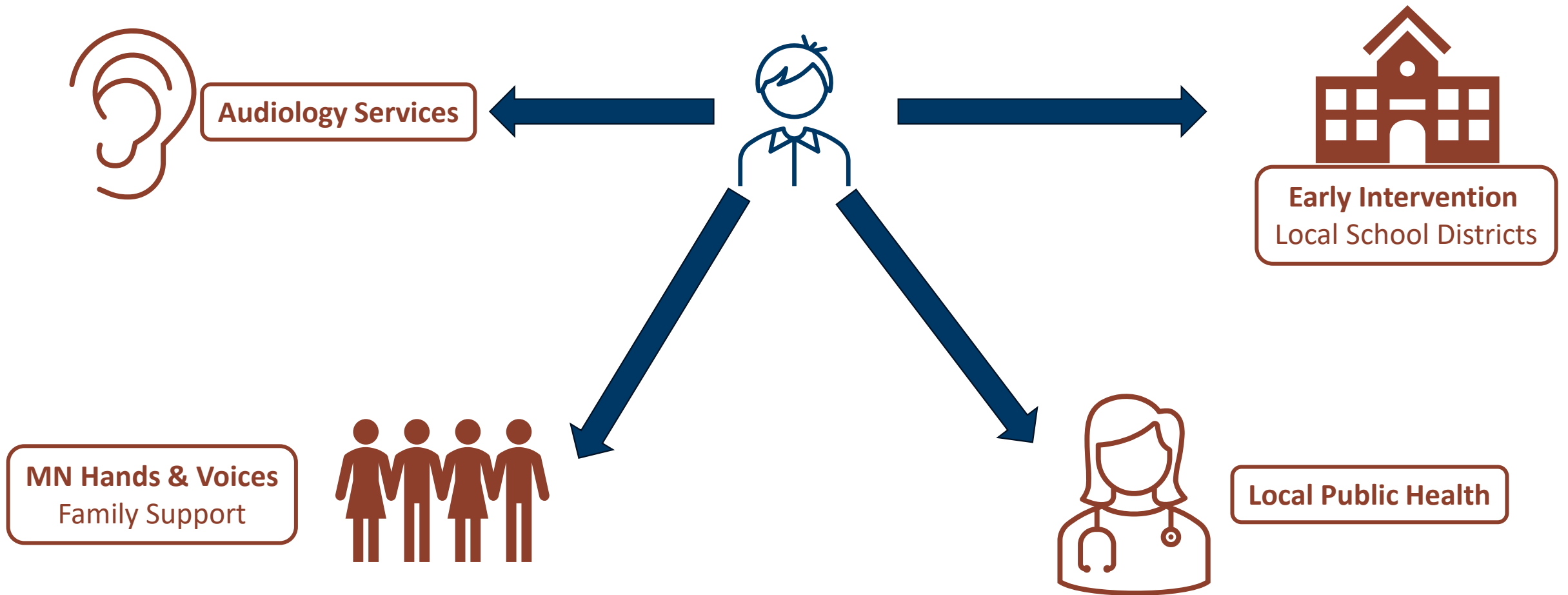
Darcia Dierking, Bridget Walde, Venessa Heiland

EHCI Conference (March 2026)

Learning Objectives

- Assess the current reach of MN EHDI system partners by identifying the proportion of Minnesota children who are deaf and hard of hearing (DHH) who are connected to services, including early intervention (EI), local public health (LPH), MN Hands & Voices (MNH&V), and audiology services.
- Understand patterns in service connection and utilization of Minnesota children and families' enrollment with EHDI partners.
- Identify key factors that influence enrollment in EHDI services to better target outreach, identify barriers to enrolling in services, and ways to increase support for children who are deaf and hard of hearing (DHH).

Children who are DHH are referred and can be connected to numerous system partners across the state



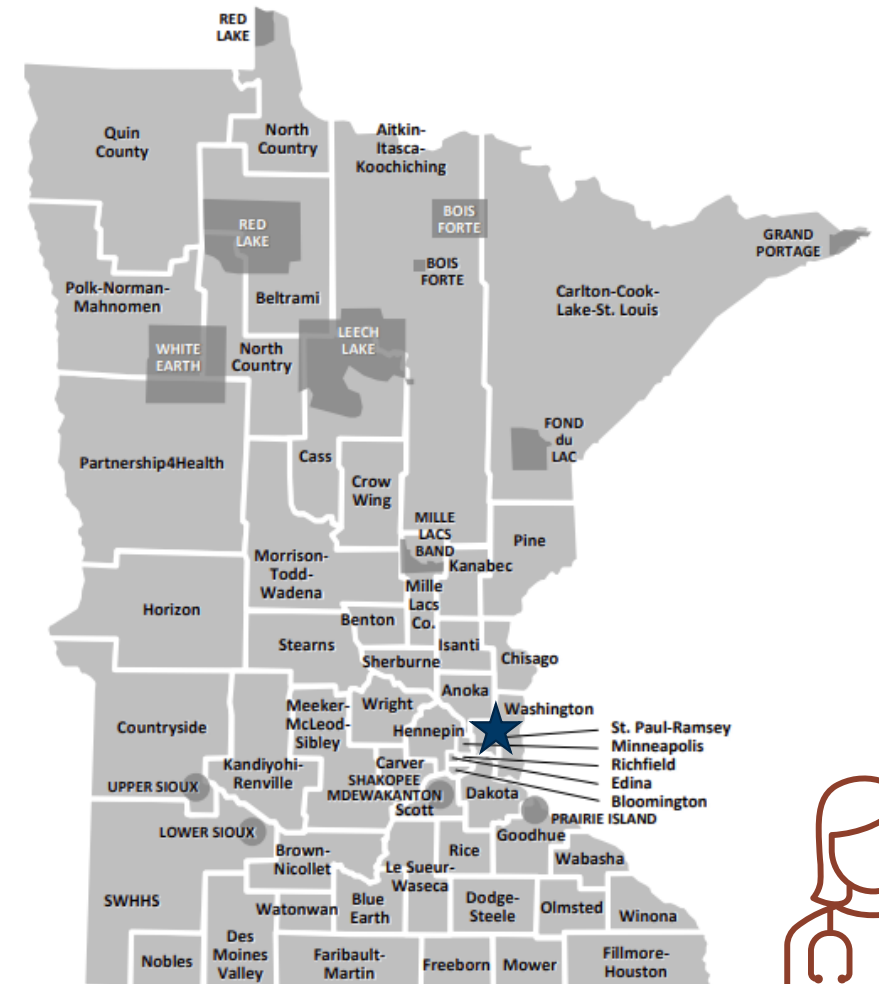
MDH receives Part C enrollment data from MDE

- Children identified as DHH are referred to early intervention (EI) by their audiologist, system partners, or MDH. Part C EI is located at local school districts through the Minnesota Department of Education (MDE).
- The Minnesota Department of Health (MDH) and the Minnesota Department of Education (MDE) have a data sharing agreement (DSA) in place to share Part C enrollment data of children in the MDH EHDI Program as well as language acquisition outcomes at Part C exit
- Data is shared annually in the spring and is typically about 1.5 - 2 years delayed (data through 2023 will be shown).
- **Children were considered connected with Part C early intervention if they were diagnosed with a hearing loss before the age of 3 AND had a Part C enrollment date received from MDE.**



MDH refers children and their families to their local public health (LPH) nurse

- Children are referred by MDH to local public health nurses in their jurisdiction for a nursing assessment. This assessment is typically done assessed over the phone
- Nurses can assess up to 5 domains
- Provides MDH information on insurance status, and home language
- Nurses can provide referrals to early intervention and Family Home Visiting
- Link families to other additional resources or supports across the state
- **Children were considered connected with Local Public Health if they received a nursing assessment**



Children are referred to Minnesota Hands & Voices

- Audiologists are encouraged to refer families of children who are DHH to MN Hands & Voices for parent-to-parent support. MDH provides a back-up referral.
- MNH&V reports referral and enrollment data to MDH.
- **Children were considered connected with MNH&V if they have a date of enrollment with MNH&V.**

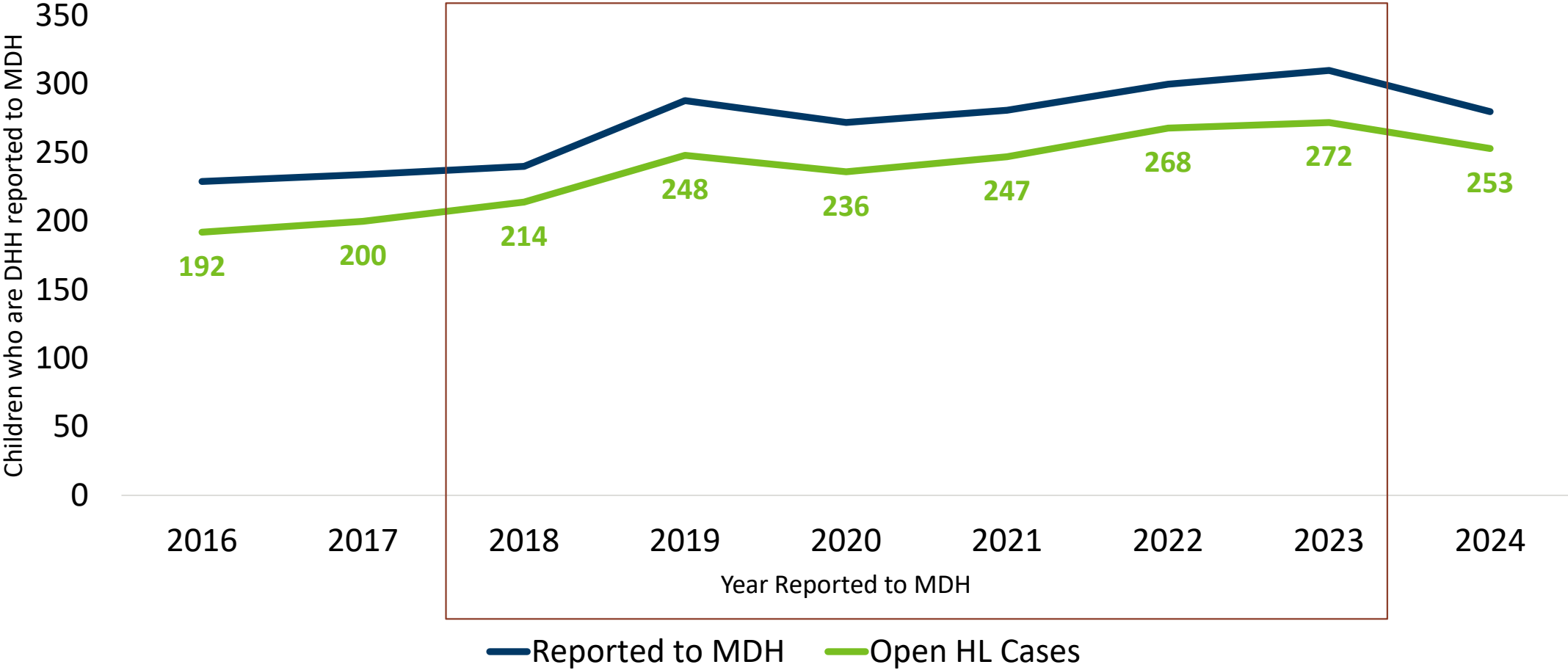



Audiology follow-up information is collected through multiple sources.

- Audiologists report children who newly identified as DHH from birth through age 10 to MDH.
- MDH has chart abstraction access for more than 70% of health systems across Minnesota. For health systems where MDH does not have abstraction access, MDH contacts audiology clinics for follow-up information.
- **Children were considered connected with audiology if they have an appointment with an audiologist or a hearing technology fitting within 12 months after their initial diagnosis of permanent hearing loss.**



Reports to MDH have increased in the past 9 years; on average, 270 children are reported annually





Are children and families
connecting with local and
state-wide EHDI services
across Minnesota?

How did we define connection with MN EHDI services?



Children were considered connected with audiology if they have an appointment with an audiologist or a hearing technology fitting within 12 months after their initial diagnosis of permanent hearing loss.



Children were considered connected with MNH&V if they have a date of enrollment with MNH&V.



Children were considered connected with Part C early intervention if they were diagnosed with a hearing loss before the age of 3 AND had a Part C enrollment date received from MDE.



Children were considered connected with Local Public Health if they received a nursing assessment.

Children and families are highly connected to EHDI services across the state (Reported 2018 – 2023) (n = 1,485)



82%



82%



78%*



68%

*Among children diagnosed with hearing loss before age 3 (n = 1,076)

How many children connected with all *eligible* MN EHDI Services?

Children diagnosed with hearing loss BEFORE age 3

How did we define connection with MN EHDI services?



Children were considered connected with audiology if they have an appointment with an audiologist or a hearing technology fitting within 12 months of their initial diagnosis of permanent hearing loss.



Children were considered connected with MNH&A if they have a date of enrollment with MNH&A.

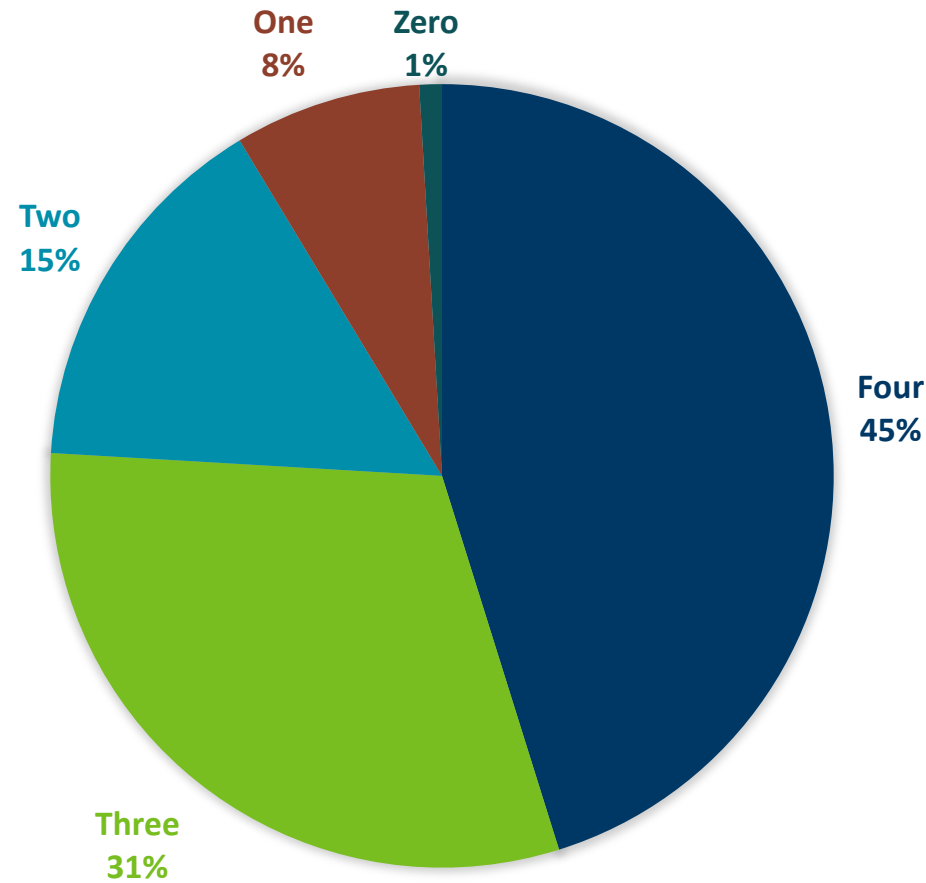


Children were considered connected with Part C Early intervention if they were diagnosed with hearing loss before the age of 3 AND had a Part C enrollment date received from MDE.



Children were considered connected with Local Public Health if they received a nursing assessment.

Three-quarters of children diagnosed before age 3 are connected with three or four services (n = 1,076).



How many children connected with all *eligible* MN EHDI Services?

Children diagnosed with hearing loss AFTER age 3

How did we define connection with MN EHDI services?



Children were considered connected with audiology if they have an appointment with an audiologist or a hearing technology fitting within 12 months of their initial diagnosis of permanent hearing loss.



Children were considered connected with MNH&A if they have a date of enrollment with MNH&A.

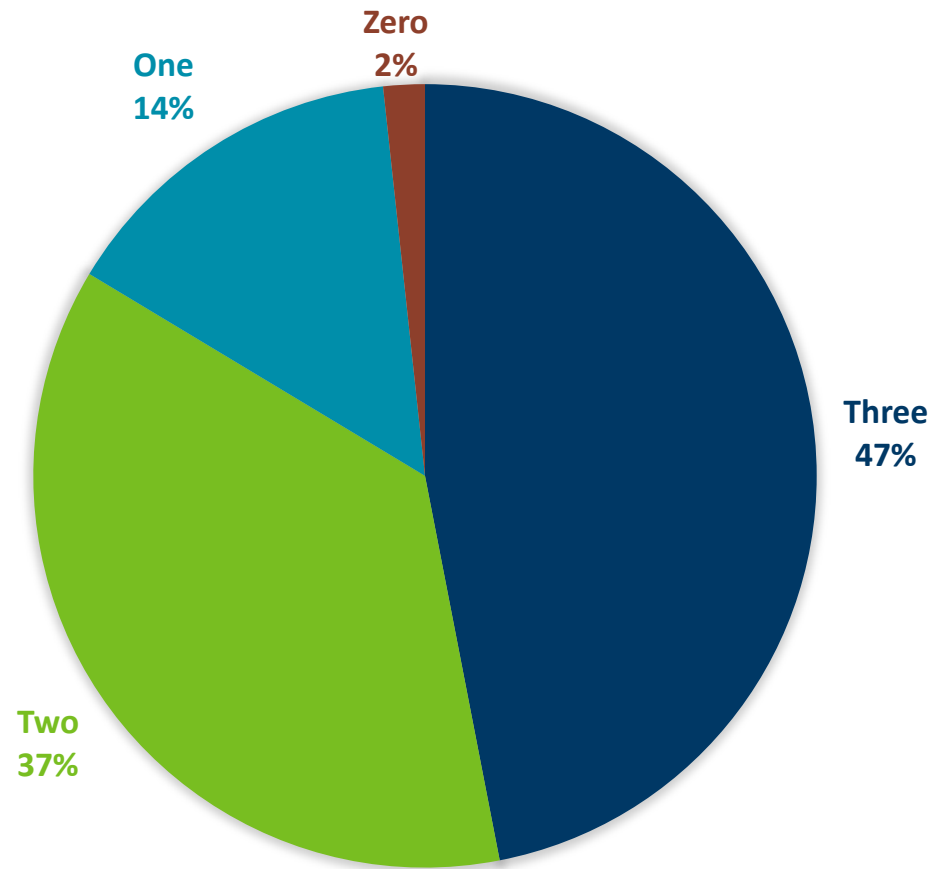


Children were considered connected with Part C early intervention if they were diagnosed with hearing loss before the age of 3 AND had a Part C enrollment date received from MDE.



Children were considered connected with Local Public Health if they received a nursing assessment.

Nearly half of children diagnosed after age 3 were connected with all eligible services. One-third were connected with 2. (n = 409)



Overall, children across Minnesota are connected with EHDI-system services

- More than 80% of children who are DHH are connected with audiology services within one-year of diagnosis and MN Hands & Voices.
- Nearly 70% of families are connected with their local public health nurse and received a local public health nursing assessment.
- Among children diagnosed with hearing loss before the age of 3, more than three-quarters are enrolled in early intervention.

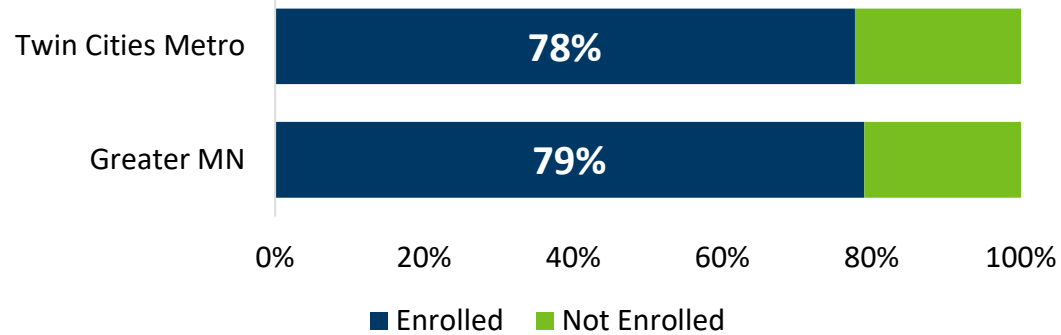


What factors are associated with connecting with EHDI services?

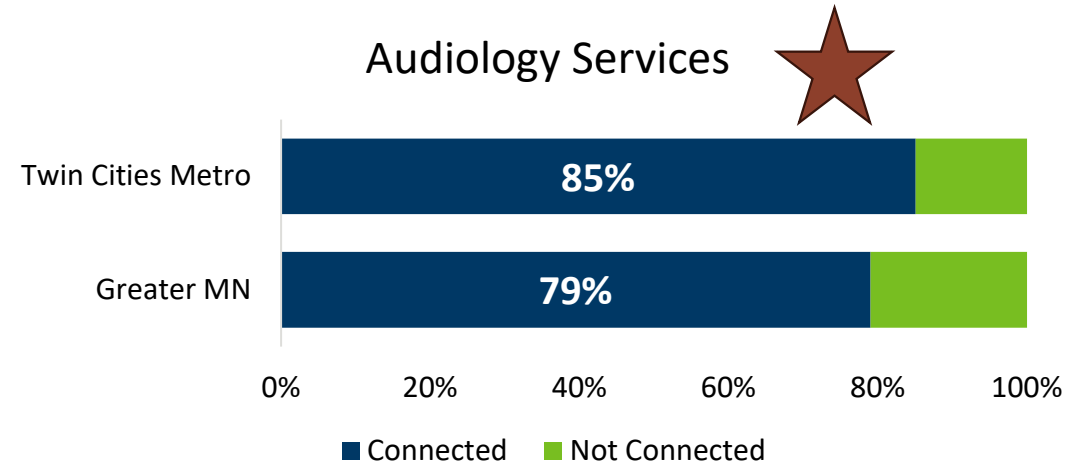
Children in the Twin Cities Metro are slightly more likely to be connected with audiology & Hands and Voices

Early Intervention*

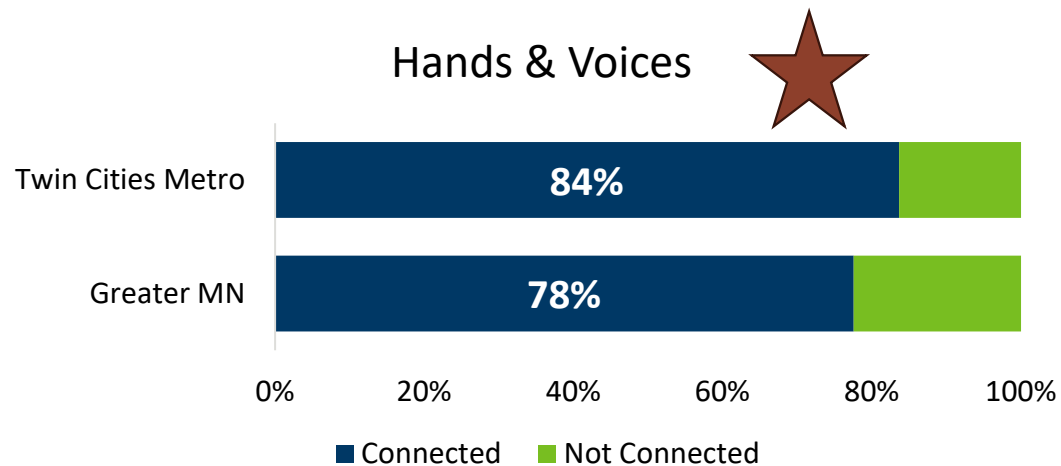
* Among children diagnosed before age 3



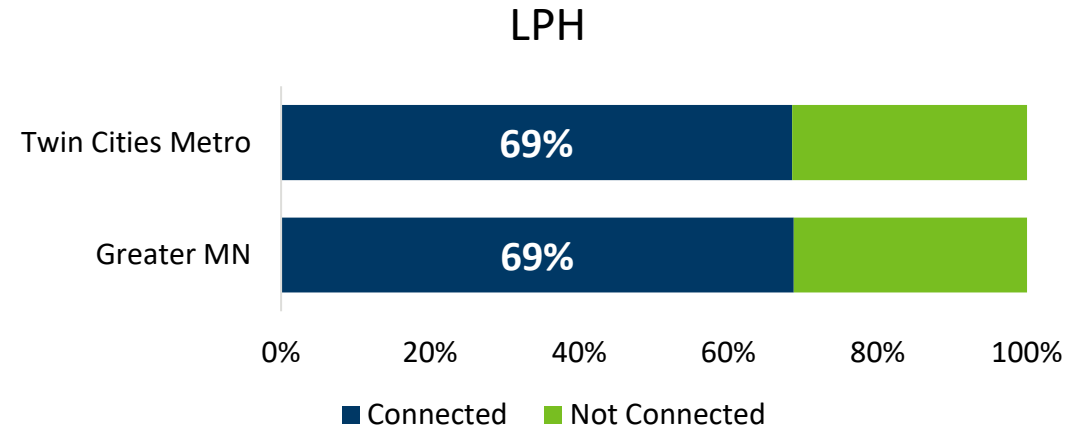
Audiology Services



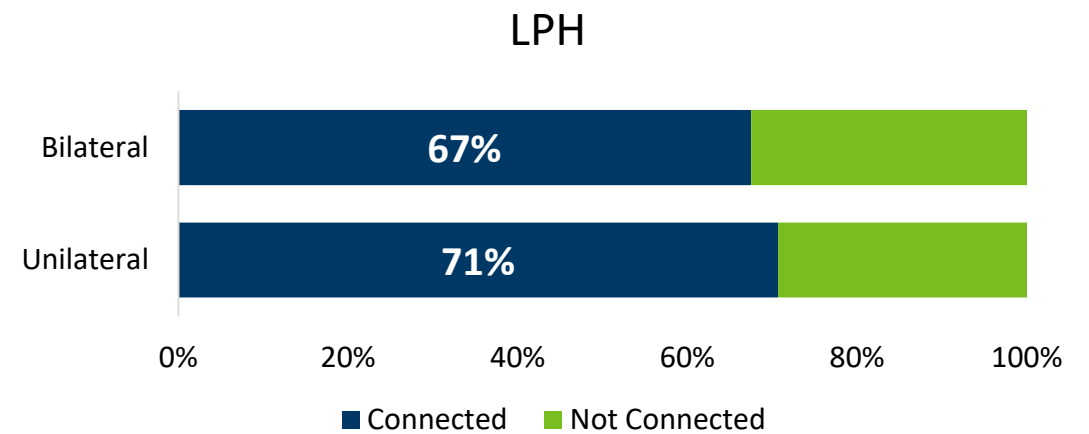
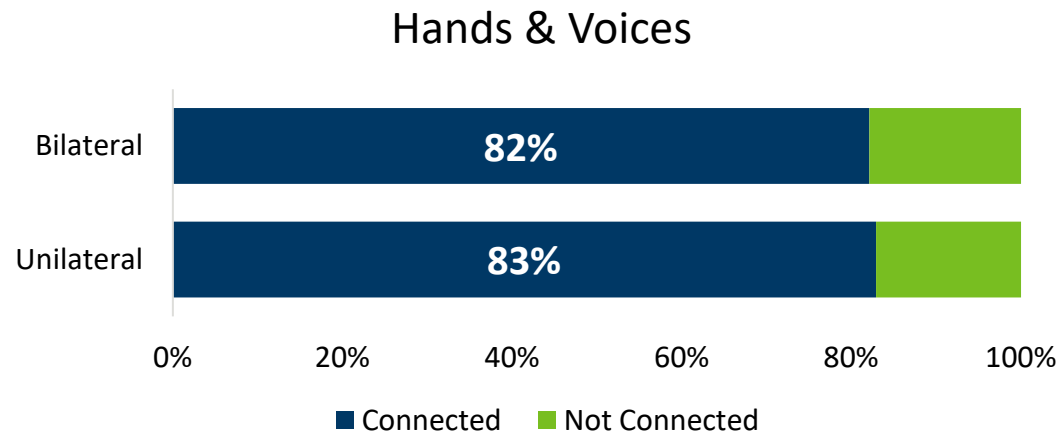
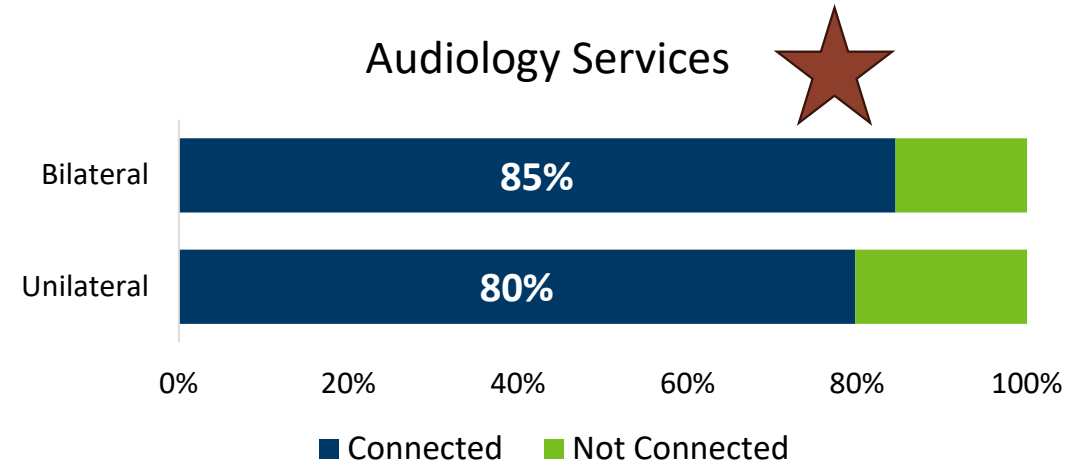
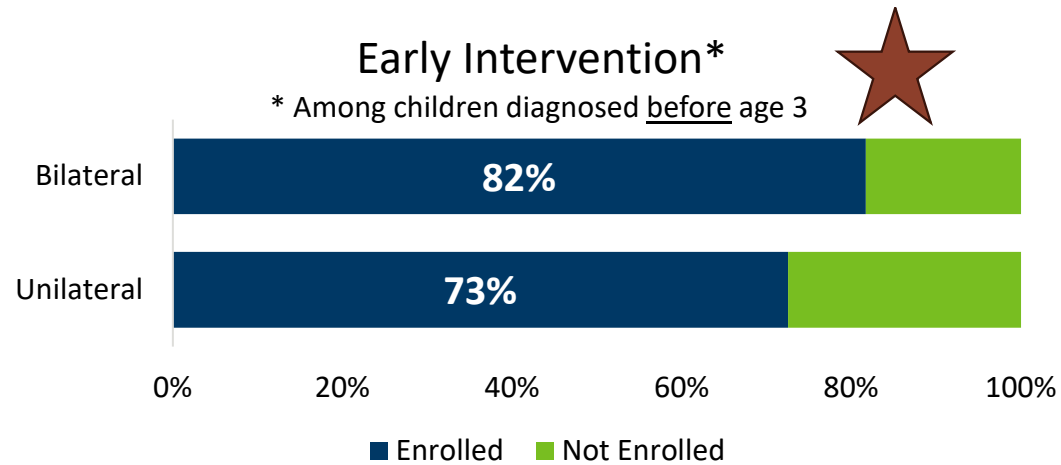
Hands & Voices



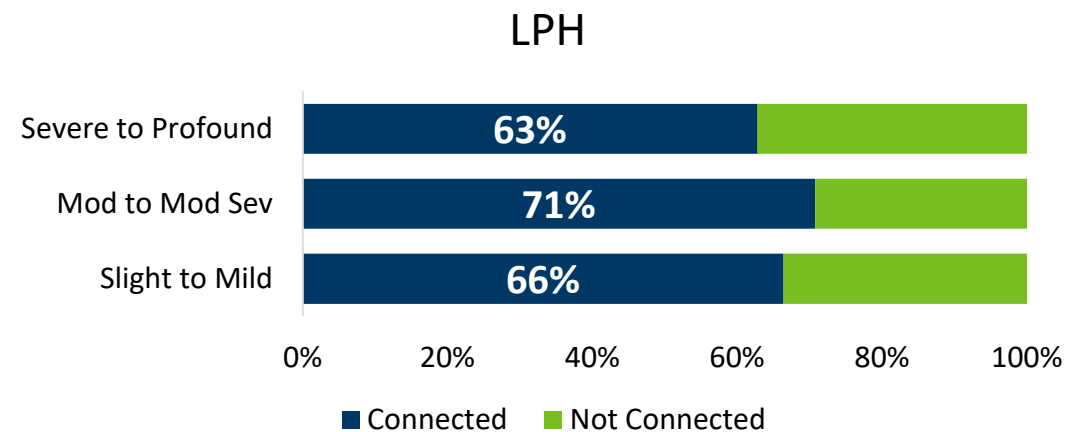
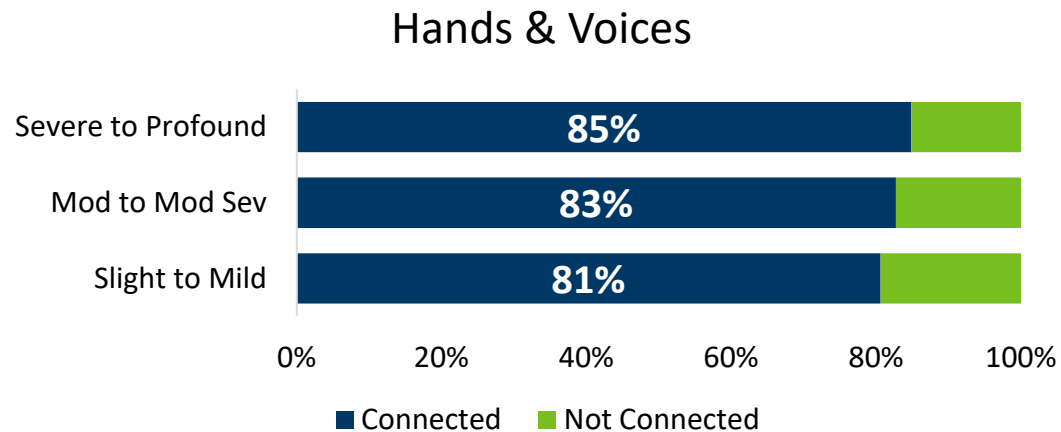
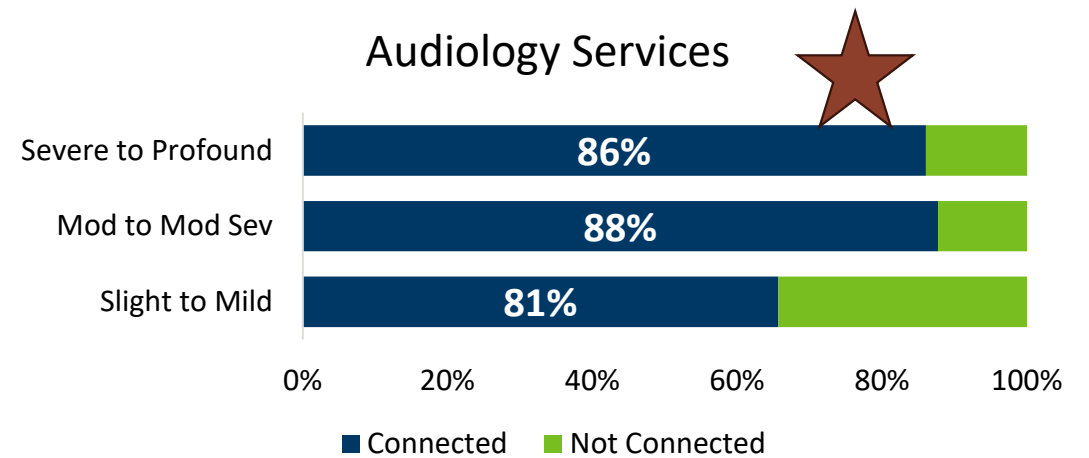
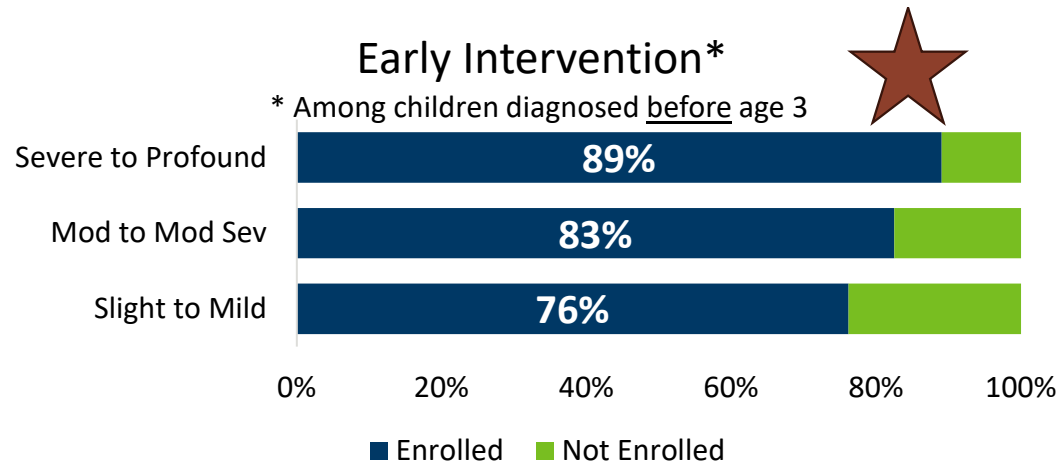
LPH



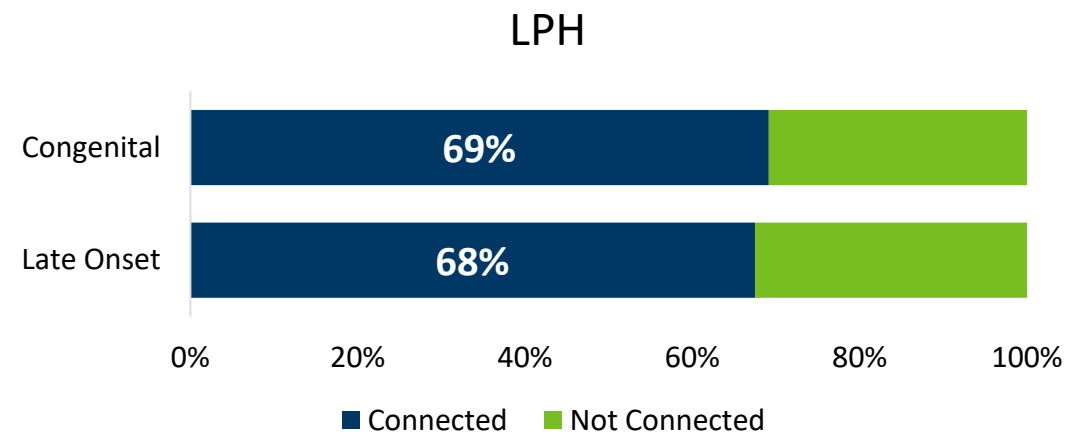
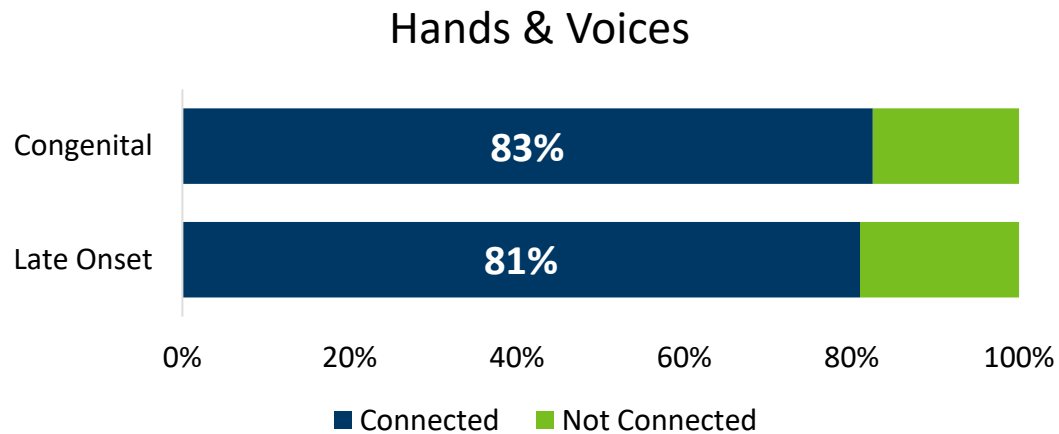
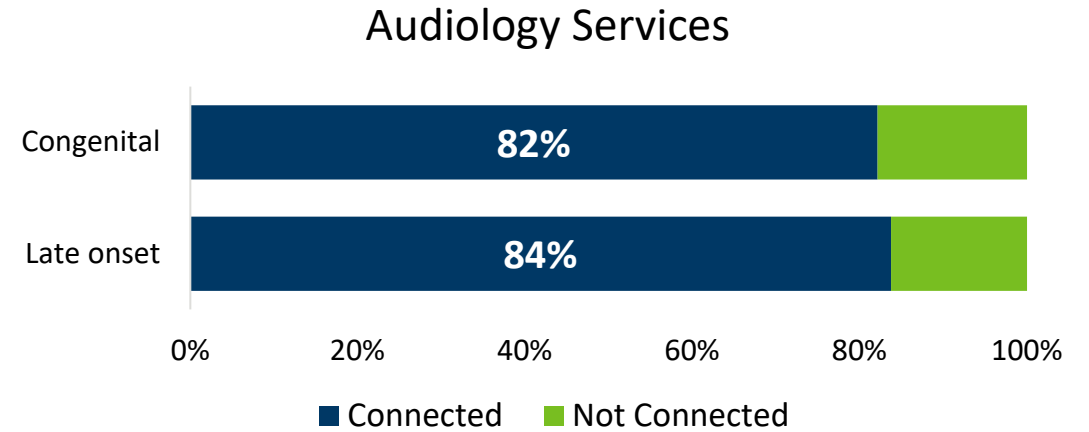
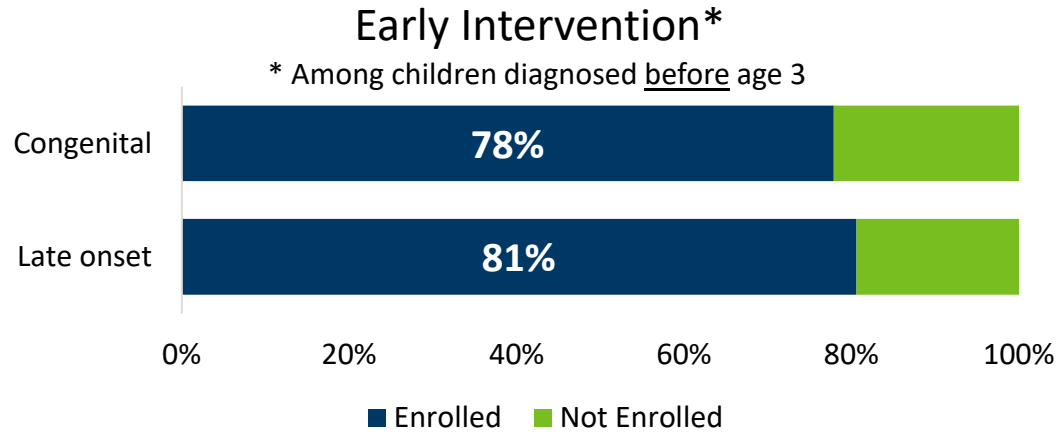
Children with bilateral hearing loss are slightly more likely to be connected with early intervention & audiology



Children with greater degree of hearing loss in their better ear are more likely to be enrolled in Early Intervention and connected with audiology (Bilateral Hearing Loss) (n = 929)



Onset of hearing loss is not associated with connection to services



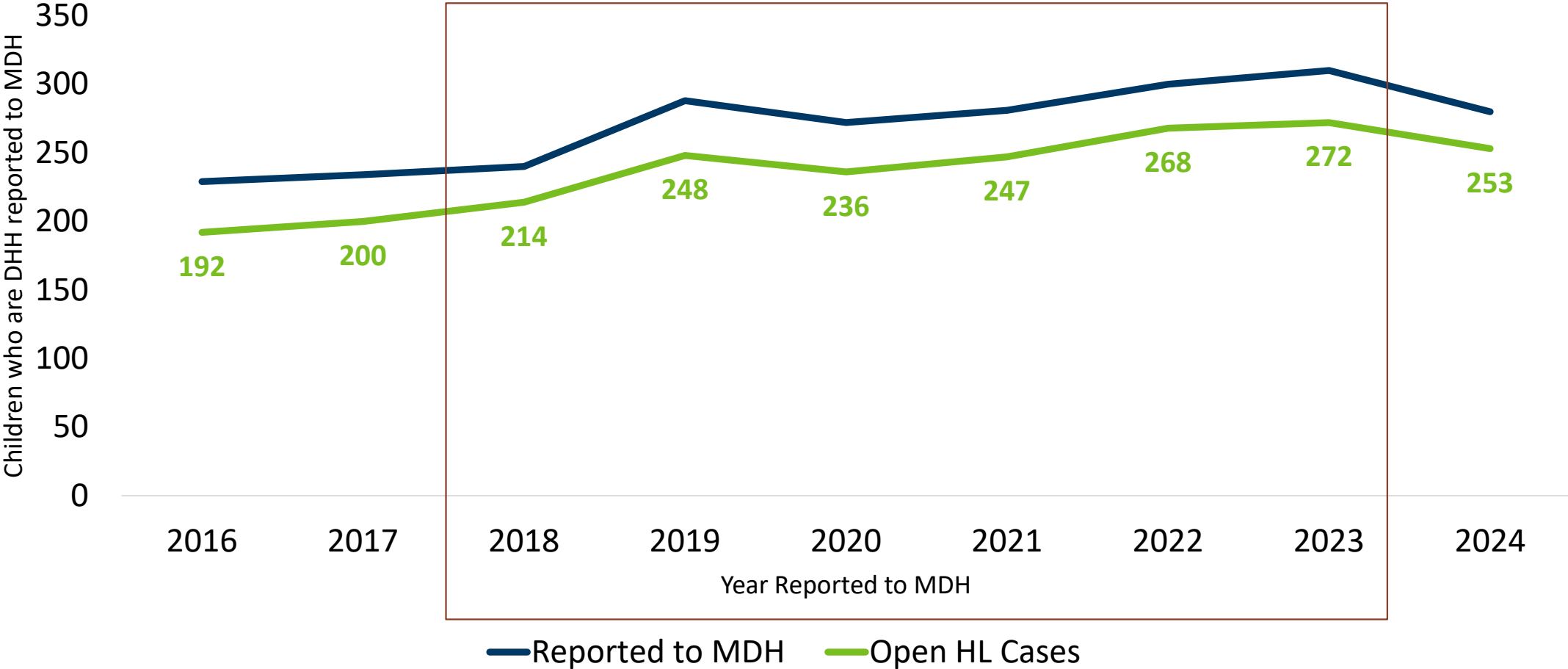
Geography, laterality of hearing loss, and degree of hearing loss are associated with connection to services

- Overall, enrollment and connection with local and statewide EHDI services was high for all families. Nearly 50% of children and their families were connected or enrolled in all *eligible* services available to them
- Early Intervention: Children with bilateral hearing loss and greater degree of hearing loss in their better ear are more likely to enroll in early intervention
- Audiology Services: Children with bilateral hearing loss, greater degree of hearing loss in their better ear, and children in the metro are more likely to be connected with audiology
- Hands and Voices: Children in the Twin Cities metro are more likely to be connected with MN H&V



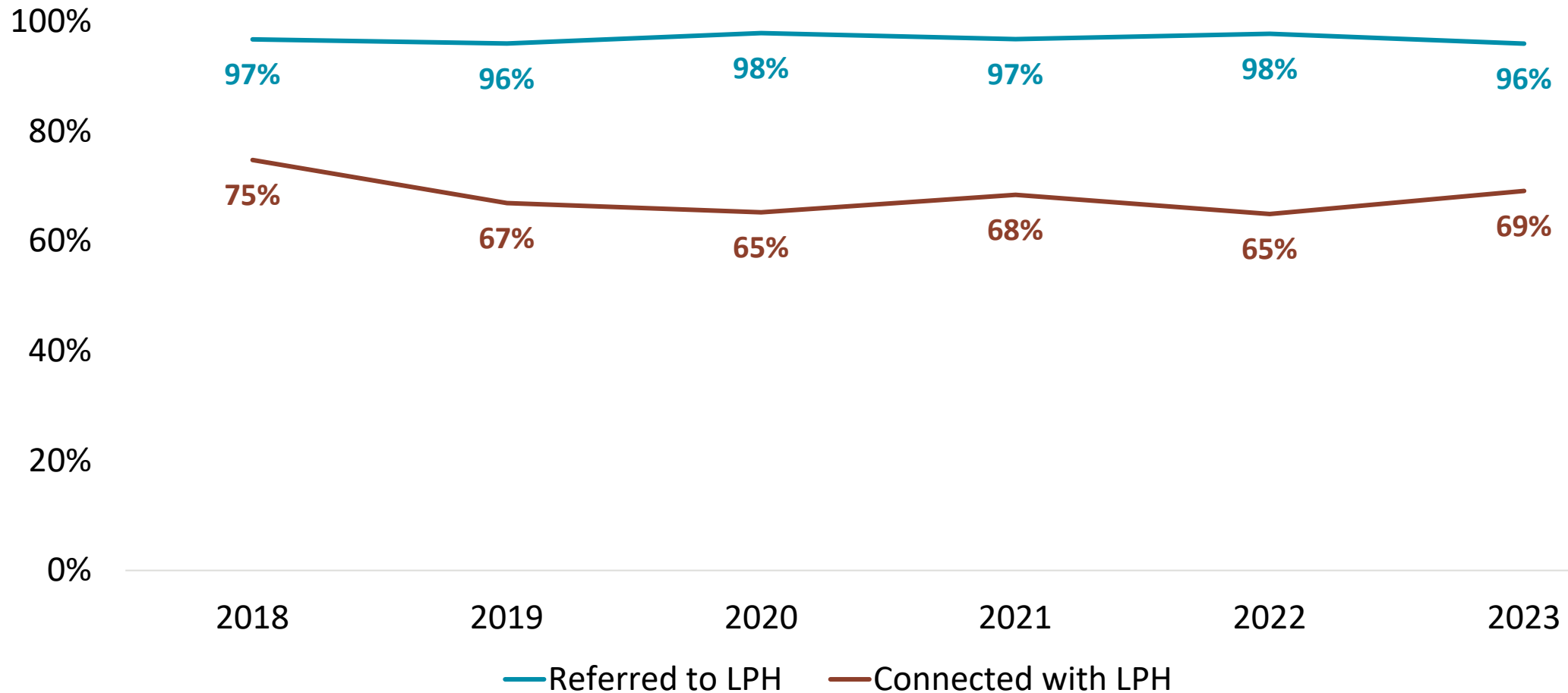
What are the trends
for connection to
services?

Reports to MDH have increased in the past 9 years; on average, 270 children are reported annually



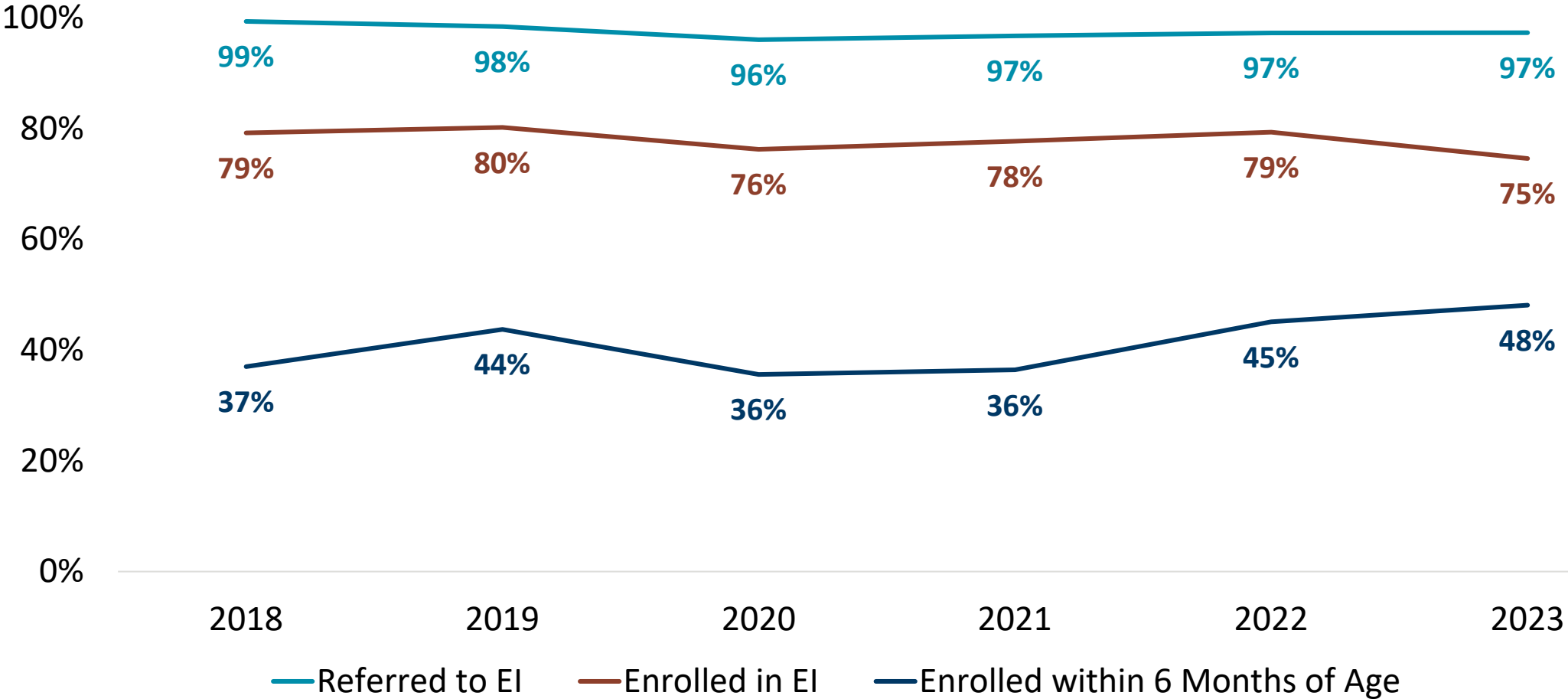
Local Public Health

95+% of children are referred to LPH. More than two-thirds of children completed an assessment with a LPH nurse

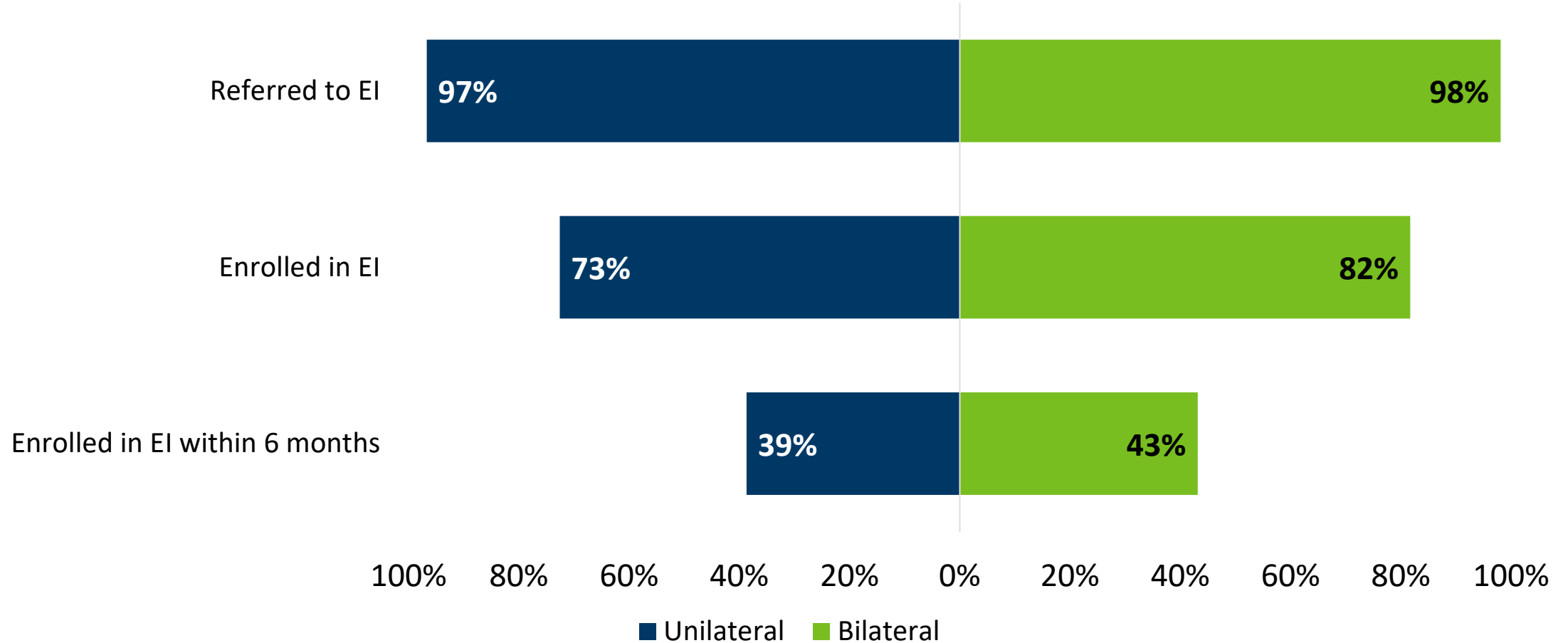


Early Intervention

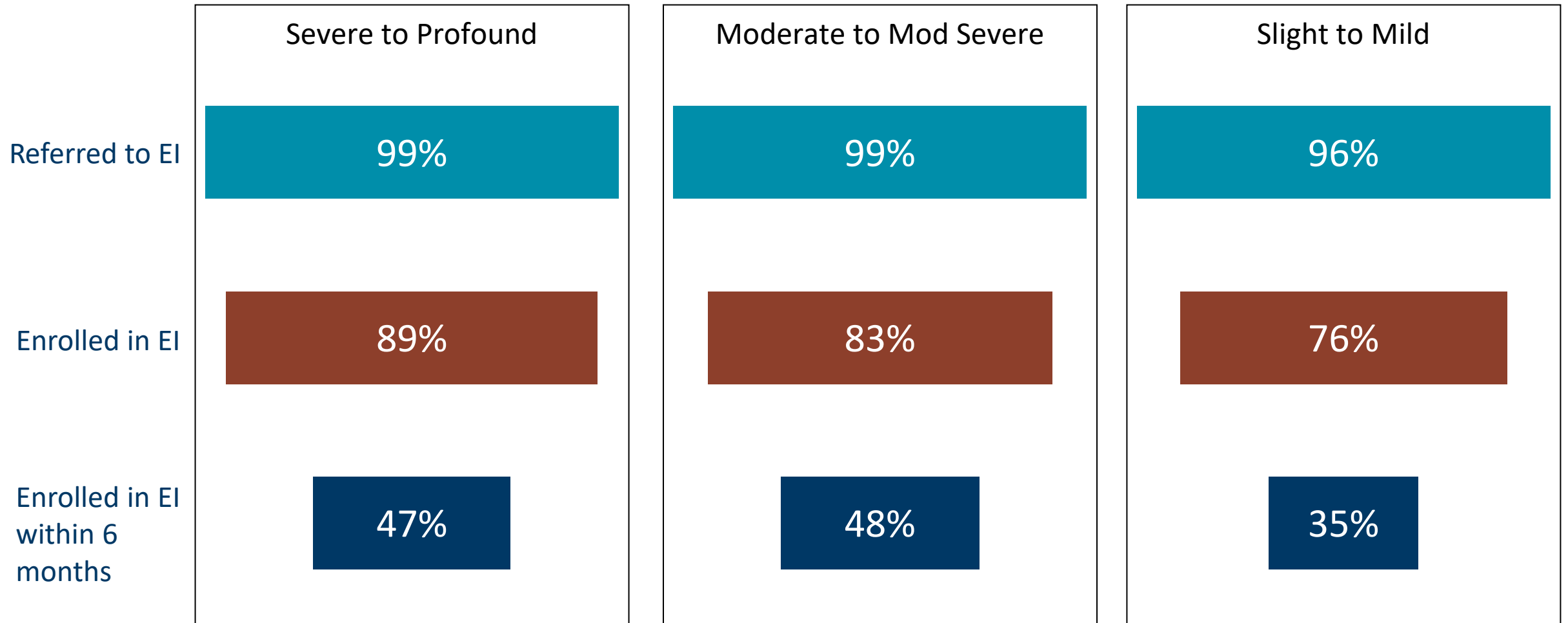
More than 95% of children diagnosed before age 3 were referred to Early Intervention.



Less than 50% of children diagnosed before age 3 enroll in EI within 6 months of age.

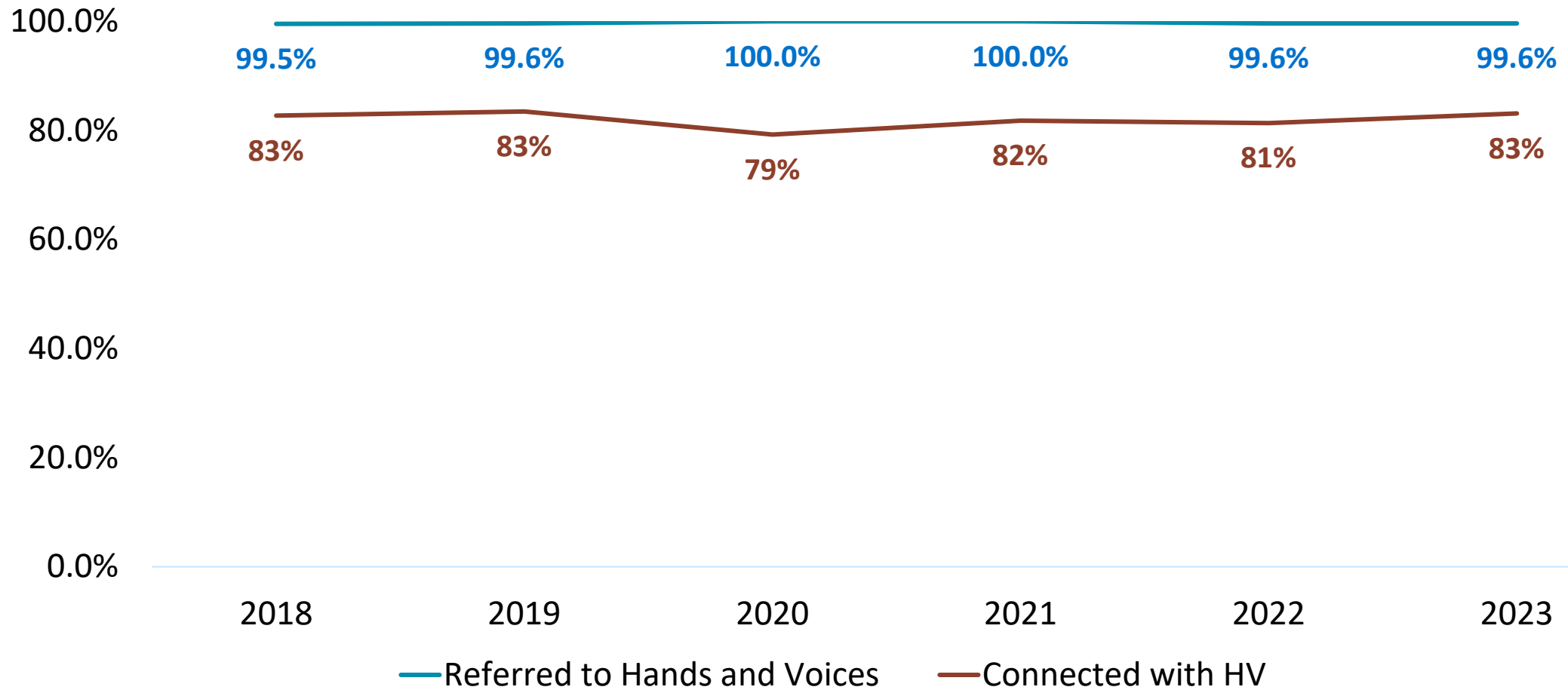


Nearly half of children with moderate to profound bilateral hearing loss enroll in EI within 6 months of age compared to one-third of those with slight to mild bilateral hearing loss.



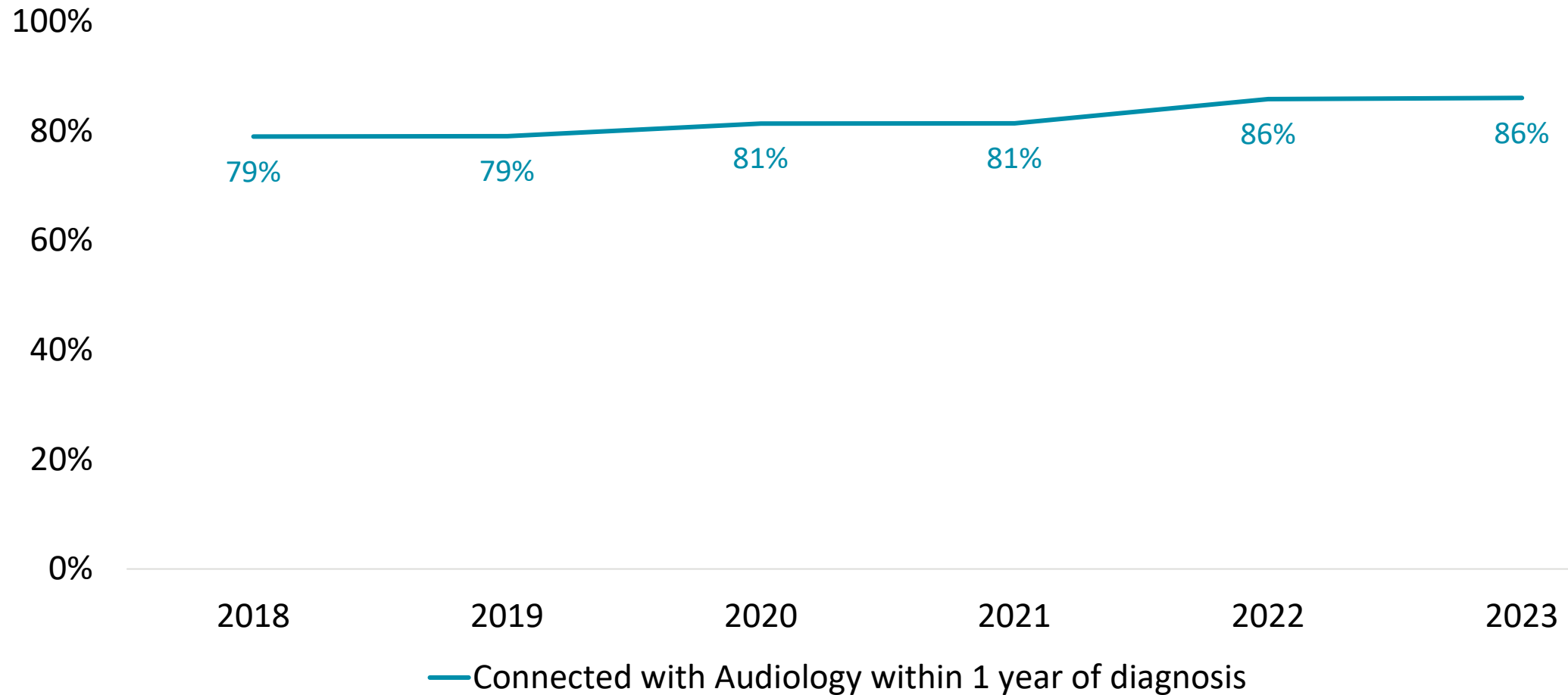
Hands and Voices

Nearly 100% of children and families are referred to MN Hands & Voices for parent-to-parent support and approximately 80% are connected

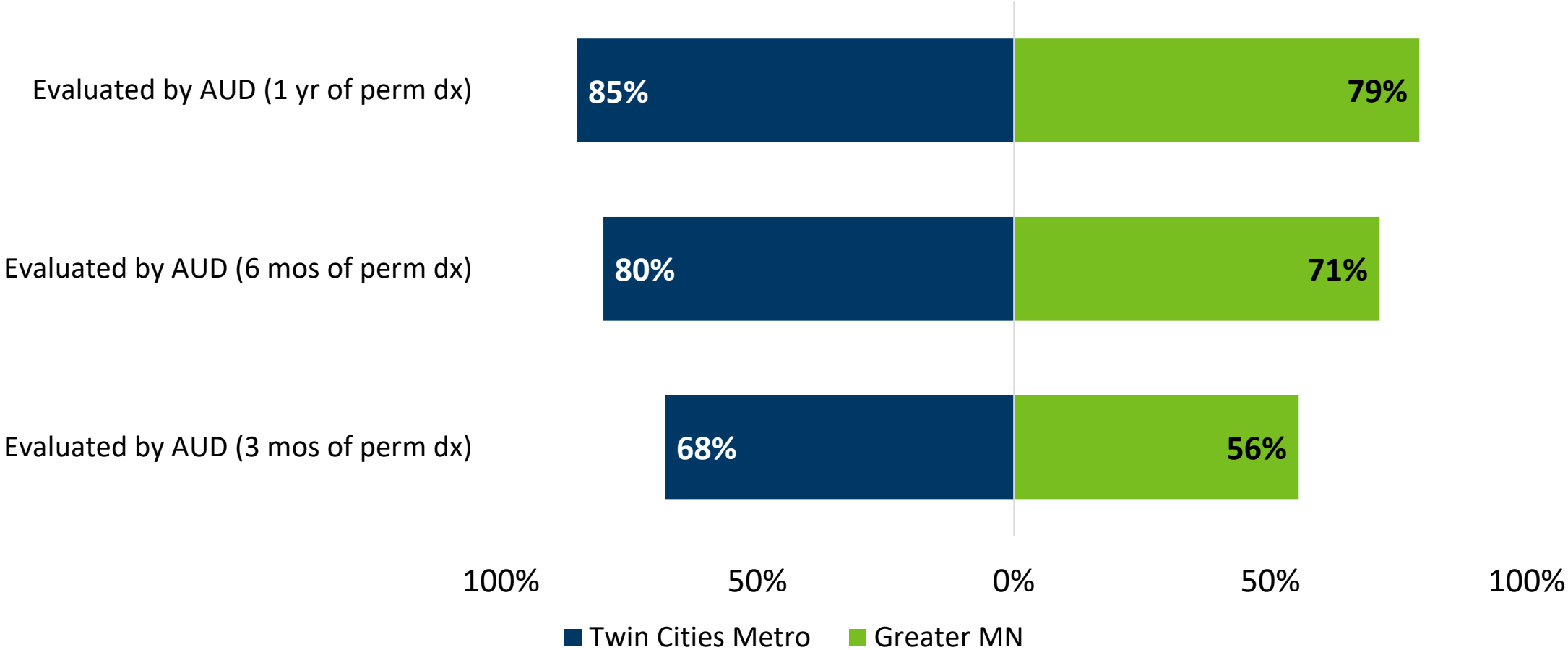


Audiology

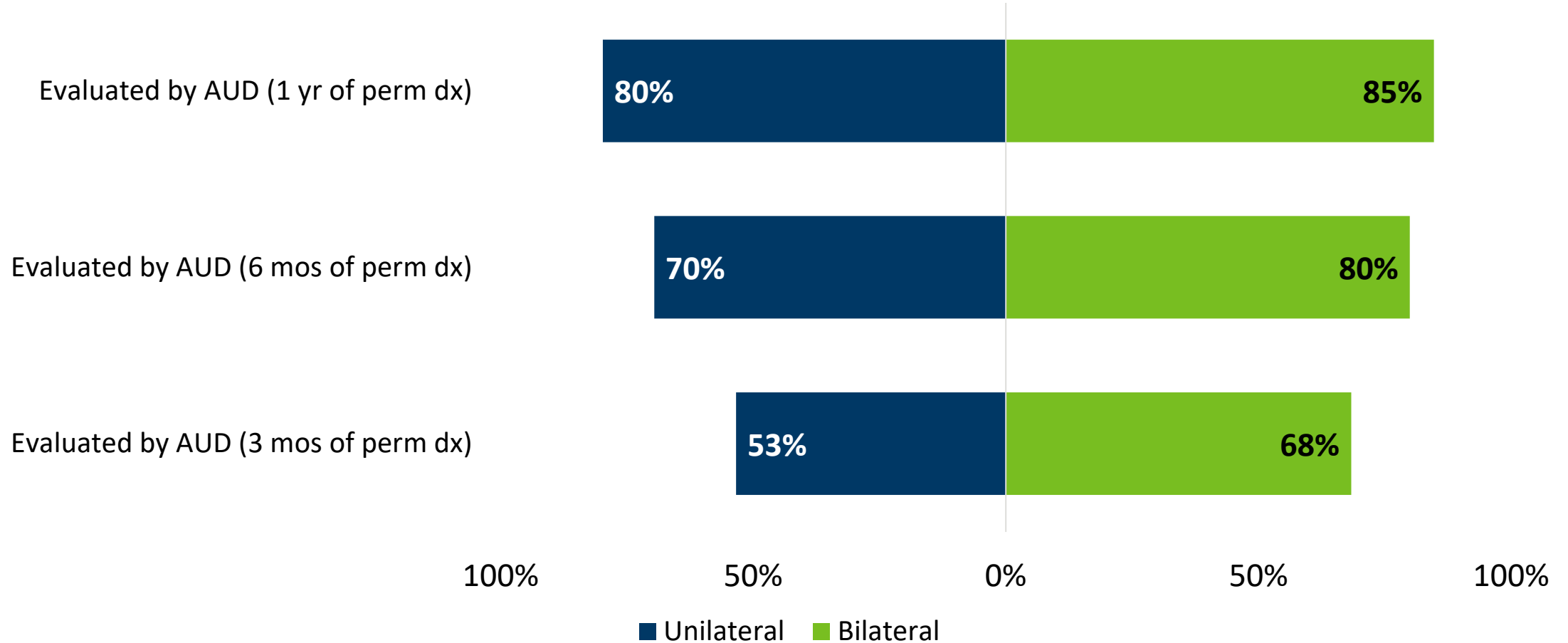
Children connected with audiology within 1 year of diagnosis appears to be increasing



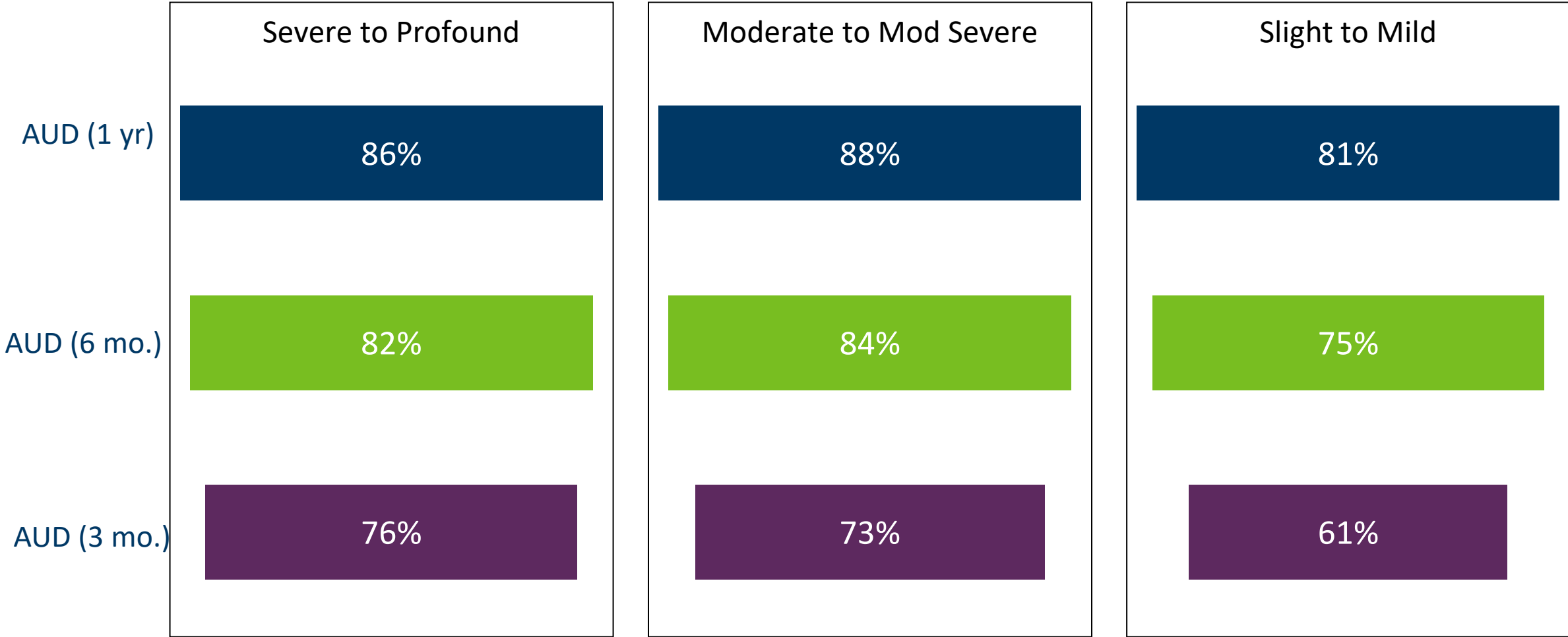
Children living in the Twin Cities metro are more likely to be evaluated sooner than children living in Greater MN.



Children with bilateral hearing loss connect with audiology services sooner than children with unilateral hearing loss



Children with moderate to profound bilateral hearing loss may be more likely to be evaluated by audiology sooner compared to children with bilateral slight to mild hearing loss



- Early Intervention: Referrals and enrollment in EI have remained stable over time.
 - Children with moderate to profound bilateral hearing loss may enroll in early intervention sooner than those with slight to mild bilateral hearing loss
- Audiology Services: Connection with audiology has increased slightly
 - Children with moderate to profound bilateral hearing loss may connect with audiology sooner than children with slight to mild bilateral hearing loss
 - Children in the Twin Cities metro may connect with audiology sooner than children in Greater MN.
- MN Hands & Voices: Referral and enrollment have remained stable over time
- Local Public Health: Referral and enrollment have remained stable over time

Thank You!

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