# Assessing Audiology Access: Exploring the Barriers to Early Hearing Healthcare for North **Carolina Families**



NC-LEND Audiology Trainees: Alana Epstein, BS; Courtney Greene, BS; Grace Rowland, BS Faculty Advisors: Hannah Siburt, AuD, PhD; Caitlin Sapp, AuD, PhD

## Introduction

The authors are full-time graduate students in UNC's Doctor of Audiology (AuD) program. They are conducting this investigation in conjunction with their participation as audiology trainees in the North Carolina LEND Program (Leadership Education in Neuro-developmental and Related Disabilities). The findings reported here are part of an ongoing investigation and represent current work in progress

### Background

Current JCIH guidelines describe a standard of care for the early management of hearing loss in infants and young children. With 1.6 out of every 1000 births in the United States experiencing hearing loss, it is critical that timely and effective treatment be accessible (Bush et al., 2017). Timely access to care after a failed newborn hearing screening is paramount to limit the effects of unmanaged early hearing loss on children's language, developmental, and educational outcomes. It is important to note that access to hearing care is not equal for all, with a family's economic status and geographical location playing a significant role in determining the attainability of hearing care.



After a newborn hearing screening, families who receive atypical results have difficulty understanding the meaning of the results and the next necessary steps. Families, especially from rural communities, have difficulty with inconsistent information, minimal resources, insurance delays, scheduling conflicts, and communication difficulties (Elpers et al., 2016). Timely access to effective care and intervention is another significant barrier families face. The delay in care may be a result of socioeconomic status, insurance type, and parental education levels (Noblitt et al., 2018). Significant research has been activitied and continue to aroun in identifician pariors to bodth been established and continues to grow in identifying barriers to health care from a family's perspective; however, limited research recognizes these barriers from a professional perspective



Our goal is to inform families and providers of the discrepancies in barrier and quality of care perception to accurately address the needs of families and improve access. This information could allow providers to better assist caregivers when seeking resources and identifying areas lacking systemic healthcare support to promote systemic lacking support to quality audiological care in North Carolina and across the nation for children with hearing loss

#### Purpose

The purpose of this investigation is to inform families and providers of the discrepancies in barriers and quality of care perception to accurately address the needs of families and improve access to hearing healthcare in North Carolina.

#### Methods

In February 2024, an electronic survey (Qualtrics) was distributed to caregivers and audiologists in North Carolina. The invitation was directed to caregivers of children with hearing loss and audiologists practicing in the state of North Carolina. Recruitment of participants was through collaboration with the CARE Project, NC EHDI Parent Support Team, and North Carolina audiologists. The 37-question caregiver survey and 27-item audiologist survey was developed to assess barriers in healthcare, discrepancies in barrier perception between families and audiologists, and resources used by families in North Carolina.



Audiologists perceive travel, family support, cost, and family understanding as the most frequent barriers that families encounter



ENCSD: Eastern North Carolina School for the Deaf, ELSSP-HI: Early Learning Sensory Support Program for Children with Hearin Impairments; CDSA: Children's Developmental Services Agency; NCDHHS: North Carolina Department of Health and Human Sen

Beginnings, a non-profit supporting families of children who are deaf or hard-of-hearing, is the main resource provided by audiologists following a child's initial diagnosis.



Following initial diagnosis, nearly all respondents relied heavily on the familiar sounds audiogram when counseling families. Second to this, information about appropriate technology and early intervention were commonly utilized.

## Preliminary Findings Continued



erceived lack of follow up with recommendations varies greatly. In this group, the most common response was the perception that caregivers don't follow up with provided recommendations around 50% of the time.



Audiologists perceive families to utilize their individualized clinic resources and pamphlets most frequently compared to other resources distributed.

#### Discussion

Our current findings draw on the surveys of nine licensed audiologists from various regions across the state of North Carolina. Results of these surveys displayed the importance of barrier perception to improve future audiology care for the state. The next steps in this study will include surveying caregivers of children with hearing loss to discern if the resources and barriers perceived by audiologists are comparative. The survey will continue to be distributed in Spanish and English to North Carolina audiologists and families of children with hearing loss to increase reliability and representation.

#### References

1. Bush, M. L., Kaufman, M. R., & McNulty, B. N. (2017). Disparities in access to pediatric hearing health care. Current opinion in otolaryngology & head and neck surgery, 25(5), 359-

 https://doi.org/10.1097/MOO.00000000000388
Elpers, J., Lester, C., Shinn, J. B., & Bush, M. L. (2016). Rural family perspectives and experiences with early infant hearing detection and intervention: A qualitative study. *Journal of* Community Health, 41(2), 226– 233. https://doi.org/10.1007/s10900-015-0086-1

3. Noblitt, B., Alfonso, K. P., Adkins, M., & Bush, M. L. (2018). Barriers to rehabilitation care in pediatric cochlear implant recipients. *Otology & Neurotology*, *39*(5), e307–e313. https://doi.org/10.1097/MAO.000000000001777

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