



Failing a Newborn Hearing Screening: What's Next?



Courtney Bartz Harrell DNP, CRNA • The University of Texas at Austin School of Nursing

The Problem:

- Implementation of the Universal Newborn Hearing Screenings has facilitated earlier identification, referral to services and diagnosis of hearing loss (Centers for Disease Control and Prevention, 2016)
- In 2014, 42% of infants in the U.S. and 55% in Texas had no documented diagnostic hearing care (CDC, 2016b, 2016c)
- Timely intervention decisions after hearing loss diagnosis for children who are deaf or hard of hearing (DHH) to early intervention programs can significantly advance language acquisition and speech development (Russ, Hanna, DesGeorges & Foresman, 2010; Sorkin & Zwolan, 2008; Yoshinaga-Itano, Sedey, Coulter, & Mehl, 1998; Yoshinaga-Itano, Sedey, Wiggan, & Chung, 2017)

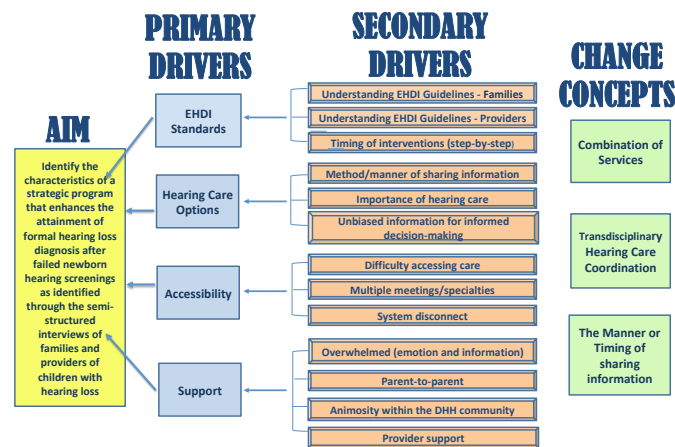
Objectives:

- Evaluate the perceptions of families whose children are DHH regarding audiological follow-up after a failed newborn hearing screening
- Evaluate the perceptions of various types of hearing care providers regarding audiological follow-up after a failed newborn hearing screening
- Develop a strategic support system based upon the unique characteristics identified by both providers and families of children who are DHH that enhances audiological services after failed newborn hearing screening

Project Design:

- Exploratory, qualitative study utilizing Framework Analysis (FA)
- Purposeful sample (n=14)
 - Hearing Care Providers (n=5)
 - Parents of children who are DHH (n=9)
 - ASL (n=3), hearing aid (n=3), Cochlear Implant (n=3)

Evaluation:



Opportunities:

- Reach populations with history of poor access to care (indigent, immigrant, rural)
- Facilitates earlier access to the hearing care community
- Identified participant challenges can guide hearing care providers with more purposeful, targeted, and unbiased education for the families of children who are DHH
- Transdisciplinary hearing care teams can utilize the identified challenges to care to set a standard of excellence for the development of a parent tool to guide and empower families through the diagnostic hearing journey

Conclusion:

- Four themes emerged from the FA:
 - Knowledge or understanding of EHDI standards
 - Hearing care options
 - Accessibility
 - Support
- Participants identified three target areas to address for enhanced care of children who are DHH:
 - Coordination of support services
 - Transdisciplinary hearing care coordination
 - The manner and timing of sharing hearing loss information after failed screenings

References:

- Centers for Disease Control and Prevention. (2016a). *Hearing loss data: Three insights*. Atlanta, GA: Author Retrieved from <https://www.cdc.gov/features/hearing-loss-data/index.html>.
- Centers for Disease Control and Prevention. (2016b). *Summary of 2014 National CDC EHDI Data: States*. Atlanta, GA: Author Retrieved from https://www.cdc.gov/ncbddd/hearingloss/2014data/2014_ehdi_hsfh_summary_h.pdf.
- Centers for Disease Control and Prevention. (2016c). *Summary of diagnosis and loss to follow-up / loss to documentation in 2014*. Atlanta, GA: Author Retrieved from https://www.cdc.gov/ncbddd/hearingloss/2014-data/2014_LFU_Summary_Web_3.pdf.
- Russ, S. A., Hanna, D., DesGeorges, J., & Forsman, I. (2010). Improving follow-up to newborn hearing screening: A learning-collaborative experience. *Pediatrics*, 126 Suppl 1(Supplement 1), S59-69. doi:10.1542/peds.2010-0354K
- Sorkin, D., & Zwolan, T. (2008). Parental perspectives regarding early intervention and its role in cochlear implantation in children. *Otology and Neurotology*, 29(2), 137-141.
- Yoshinaga-Itano, C., Sedey, A. L., Coulter, D. K., & Mehl, A. L. (1998). Language of early- and later-identified children with hearing loss. *Pediatrics*, 102(5), 1161-1171.
- Yoshinaga-Itano, C., Sedey, A. L., Wiggan, M., & Chung, W. (2017). Early hearing detection and vocabulary of children with hearing loss. *Pediatrics*. doi:10.1542/peds.2016-2964.