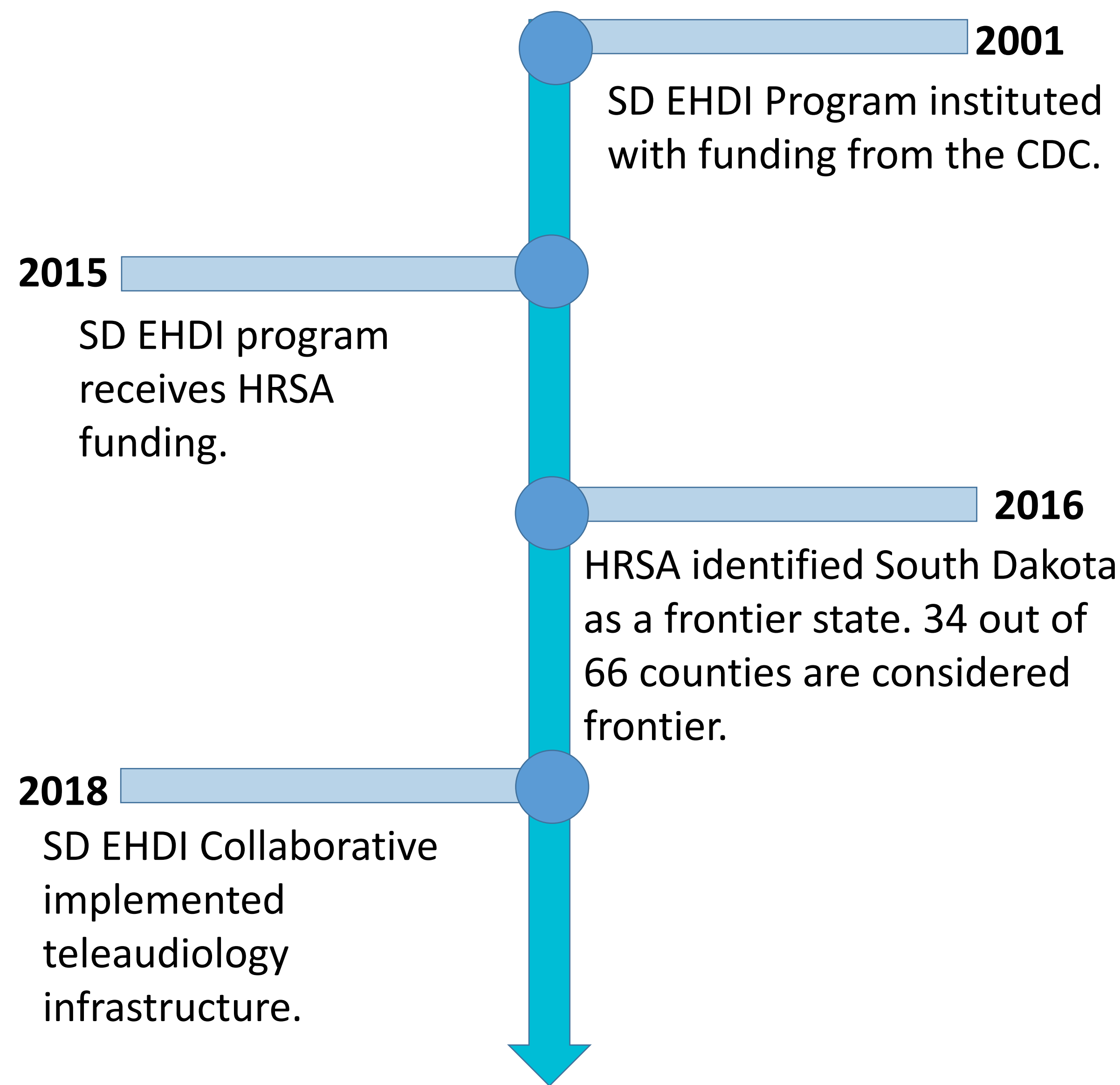


Barriers to Audiologic Care in South Dakota: 5 Years After Teleaudiology

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Background/Timeline



Barriers to Care in Rural States (Public Health, 2015)

- Cultural and Financial Constraints
- Scarcity of Services
- Lack of Trained Physicians
- Insufficient Public Transit
- Poor Availability of Broadband Internet Services

Loss to Follow-Up/Documentation

- LTF/D Rate in SD for the past 7-years > 60%
- No Legislation Mandating UNHS

Method

Data Retrieval

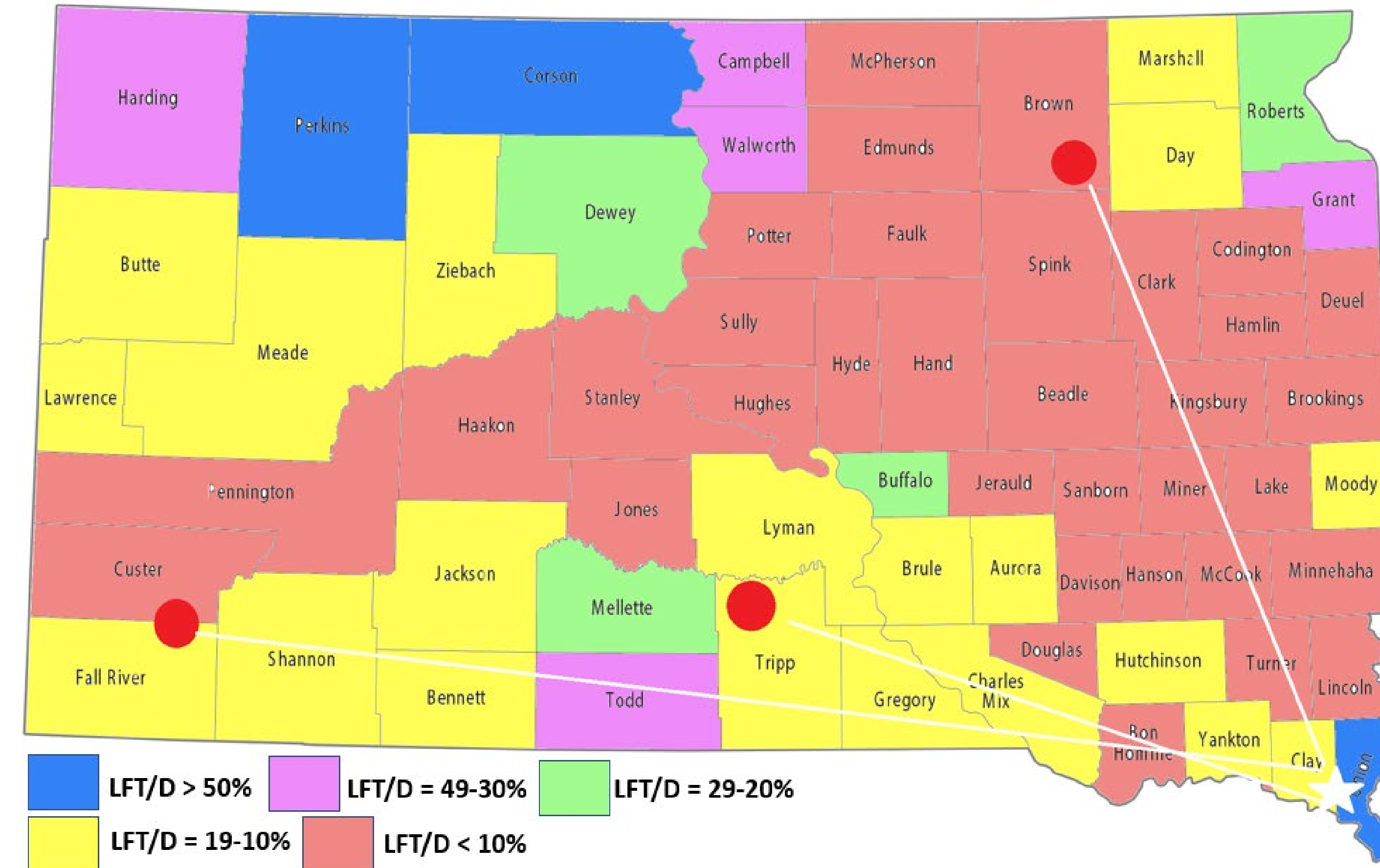
- Retrospective Chart Review
- USD Speech & Hearing Clinic EMR
 - Zip code of infant ABR via teleaudiology
- Public Reports from SDDOH 2016-2021
 - Births
 - Hearing Screens
 - Babies Referred
 - Audiology Visits

Data Analysis

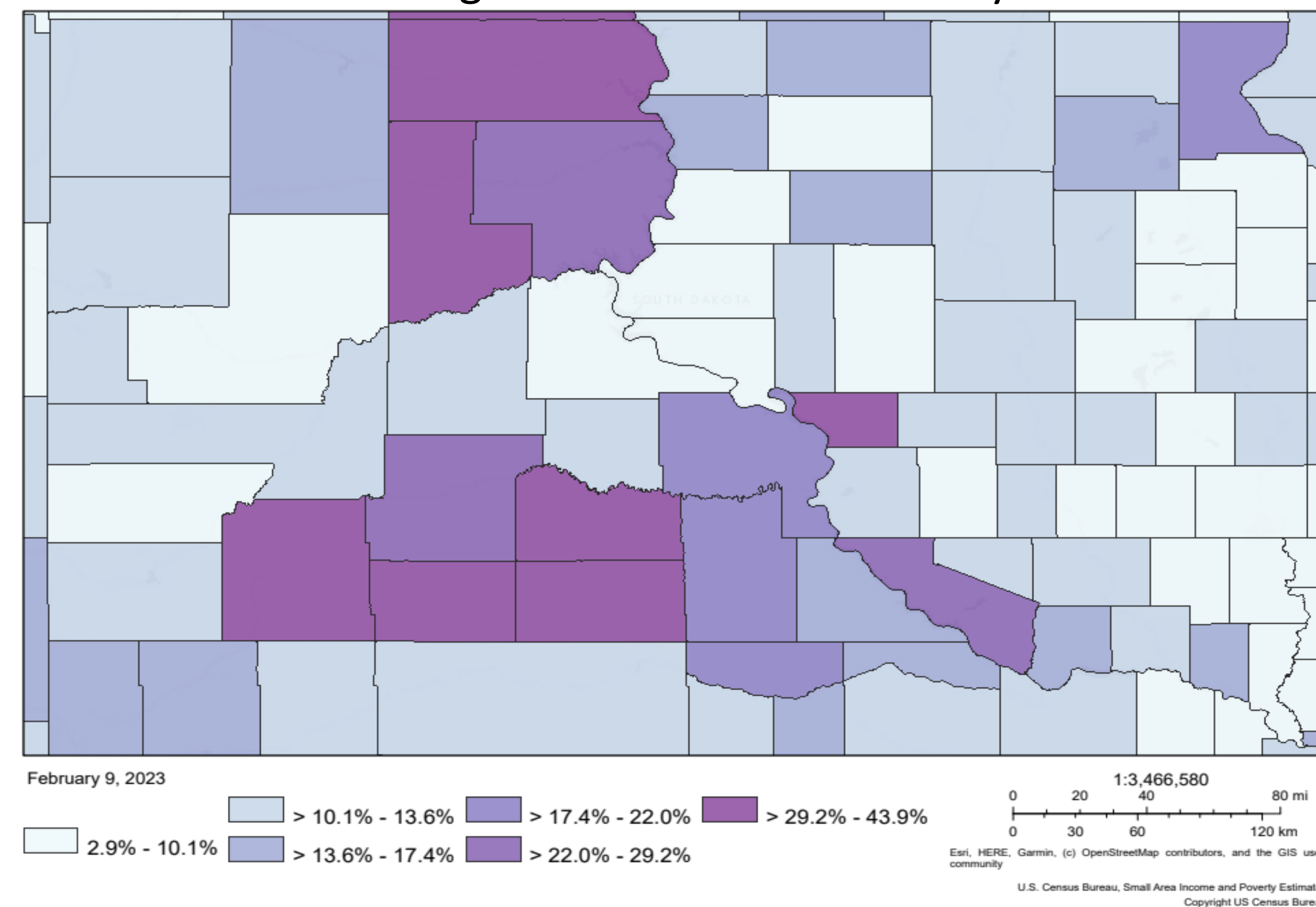
- LTF Percentage / SD County vs. Poverty Rate /SD County
- Teleaudiology
 - Regions where most care is being provided
 - Regions where additional sites would be beneficial

Results

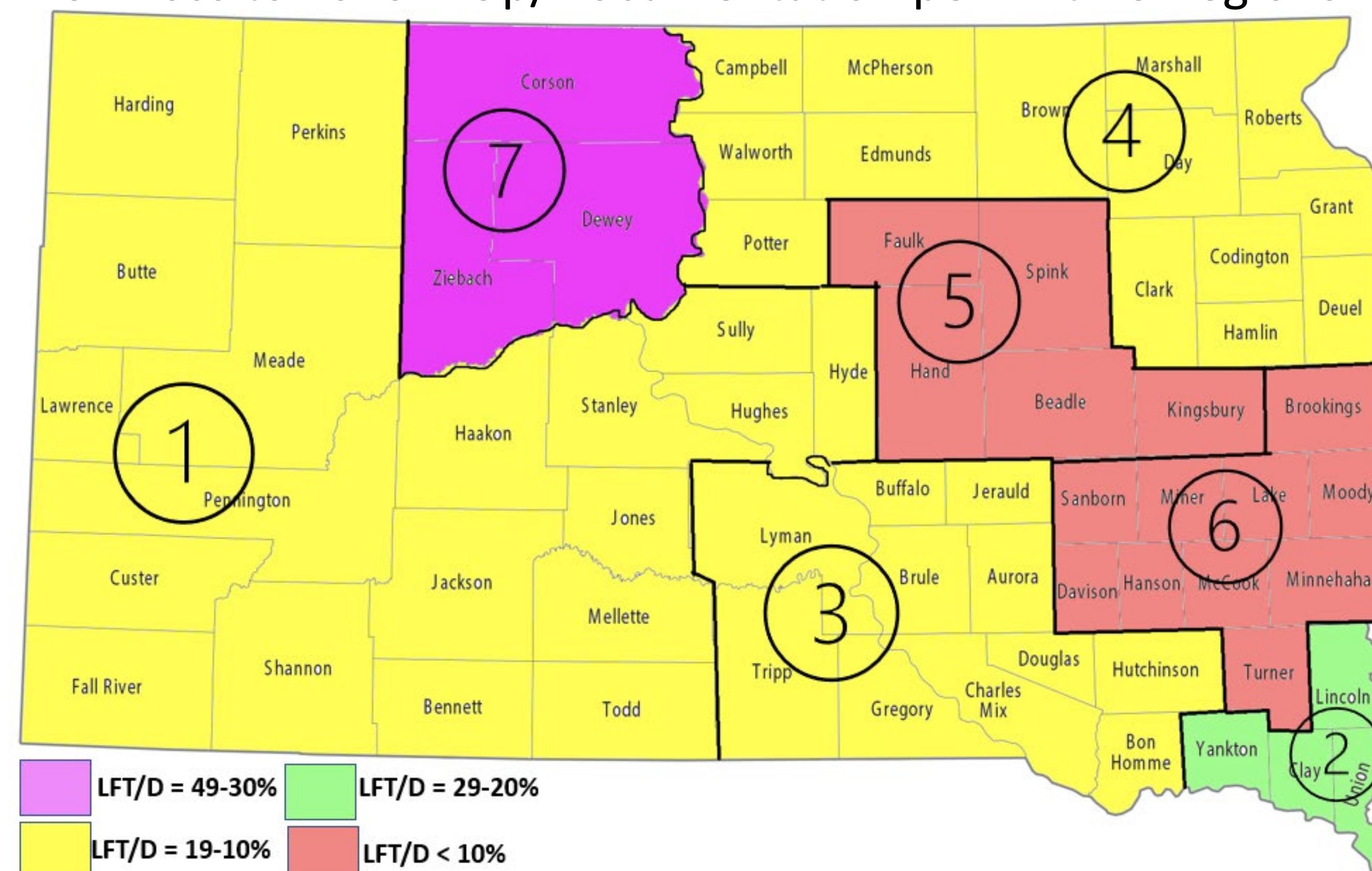
SD Loss to Follow-Up/Documentation Rates per County 2019-2021



SD Percentage of Individuals in Poverty 2021



SD Loss to Follow-Up/Documentation per Birth-3 Regions



Next Steps

Improving LTF/D Rates

- Educate Health Care Professionals
- Simplify Reporting Process
- EHDI 136
- Improve Communicate Across Providers

Tackling Barriers

- Transportation Resources
- Financial Assistance

Teleaudiology

- Additional Sites
- Education
- Streamline HubSite Design

Our Resource:
EHDI136.COM



References

- American Speech-Language-Hearing Association (ASHA). (2001, December). Telepractices and ASHA: Report of the telepractices team. <https://leader.pubs.asha.org/doi/10.1044/leader.an.06232001.1>
- Centers for Disease Control and Prevention. (2022, October 5). Key findings: Infants with suspected hearing loss may not receive timely diagnosis or early intervention. Centers for Disease Control and Prevention. Retrieved October 22, 2022, from <https://www.cdc.gov/ncbddd/hearingloss/features/infants-suspected-hearing-loss.html>
- Early hearing detection and intervention (EHDI). Health Resources and Services Administration;
- Douthit, N., Kiv, S., Dwolatzky, T., & Biswas, S. (2015, May 27). Exposing some important barriers to health care access in the Rural USA. Public Health. Retrieved February 20, 2023, from <https://www.sciencedirect.com/science/article/abs/pii/S0033350615001584?via%3Dihub>
- Maternal and Child Health. (2022, June). Retrieved from <https://mchb.hrsa.gov/programs-impact/early-hearing-detection-intervention-ehdi>
- Williams, H. Riley, E. & Messersmith, J. (2020). South Dakota Early Hearing Detection and Intervention Program: Using Teleaudiology to Conduct Infant Diagnostic Assessments. Journal of Early Hearing Detection and Intervention, 5(1), 47-53. DOI: <https://doi.org/10.26077/xvdk565>
- Messersmith, J., Heuer, B., Jorgensen, L., & Phelan, J. (2021, June 9). Grand Rounds: Pediatrics, presented in partnership with the University of South Dakota. AudiologyOnline. Retrieved November 25, 2022, from <https://www.audiologyonline.com/E/36841/481917/e47cb9f3a633916105>