

## Introduction

Although South Dakota is one of the few states that does not have EHDI legislation, the state has an initial screening rate of over 98% (Messersmith et al., 2014; South Dakota Department, 2016). Reducing the loss to follow-up rate, which was 61.9% in 2015, has been a priority (SD DOH, 2018). Utilization of teleaudiology for the diagnostic step of the EHDI program was identified as one means for improving the loss to follow-up rate. Efforts to build a teleaudiology infrastructure have been underway since 2016.

**Percent of Infants Who Did Not Pass Screening that were Lost to Follow-up\***

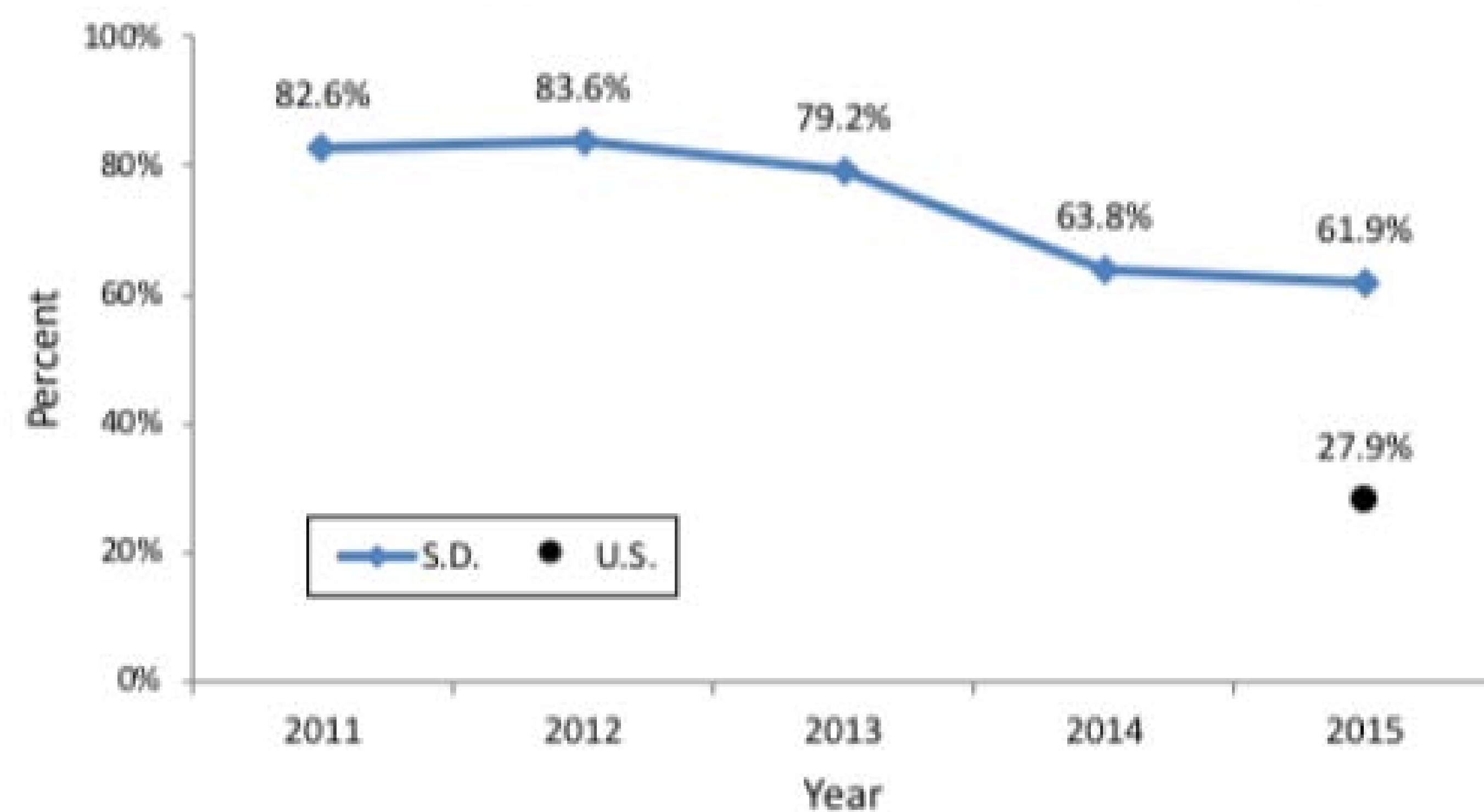


Figure 1. Percent of South Dakota infants who did not pass screening that were lost to follow-up compared to national average (SD DOH, 2018)

## Reducing Loss To Follow-Up

Efforts undertaken in attempt to improve the loss to follow-up rate in South Dakota are highlighted in figure 2. To optimize outcomes of children who are born with hearing loss, barriers to timely follow-up and treatment were identified from parents' perspectives through focus groups across South Dakota. One primary barrier parents from western and central South Dakota identified were the lack of pediatric audiologists throughout the geographic spread of the state. The majority of the pediatric audiologists in South Dakota are located in the southeastern corner of the state.



Figure 2. Recent actions to reduce loss to follow-up rate.

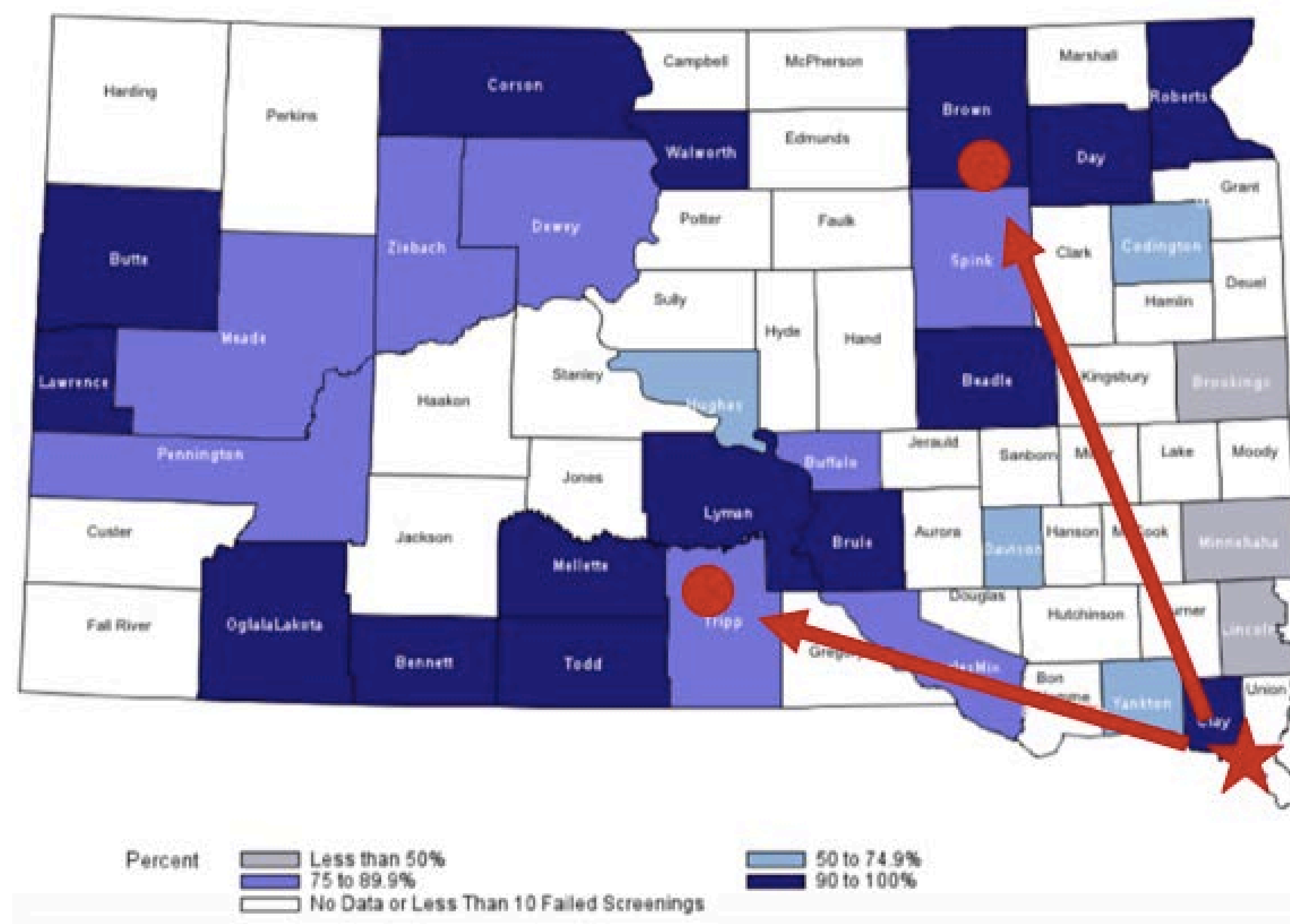


Figure 3. Percentage of infants who were loss to follow-up by county (SD DOH, 2018). Teleaudiology hub site is represented by a star going out to the two spoke site locations represented by filled circles.

## What We Did: Infrastructure Set-Up

Although creating teleaudiology infrastructure in a facility not affiliated with a medical center has its challenges, its potential impact on reducing loss to follow-up in the state of South Dakota outweigh those difficulties. Figure 4 highlights the steps taken to create this infrastructure.

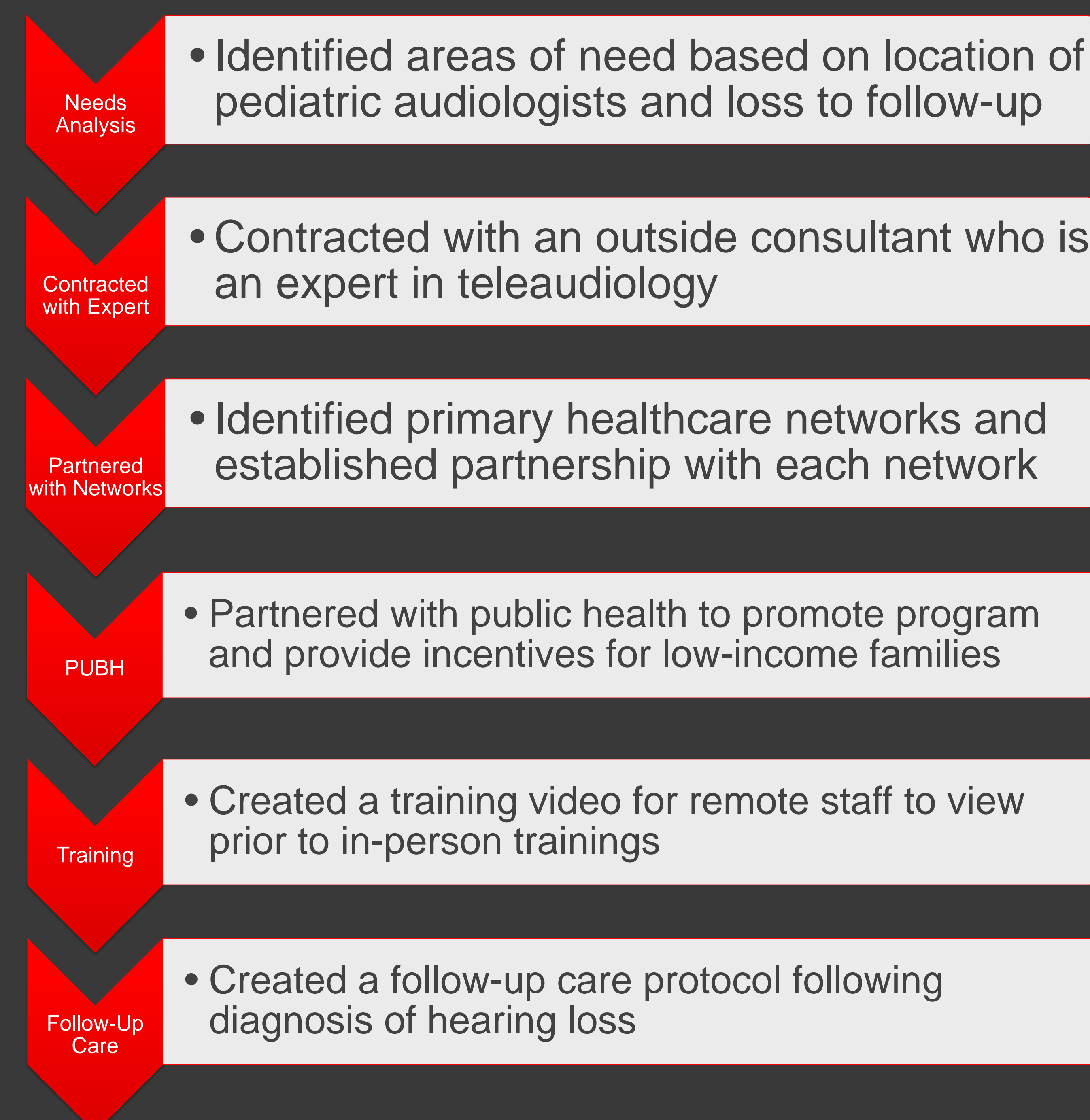


Figure 4: Summary of steps involved creating teleaudiology infrastructure not affiliated with a medical site .

## What We Did: After Hearing Loss Diagnosis

When hearing loss is identified via teleaudiology, additional steps will be taken to create a follow-up plan for the family. Figure 5 highlights the protocol for follow-up care.

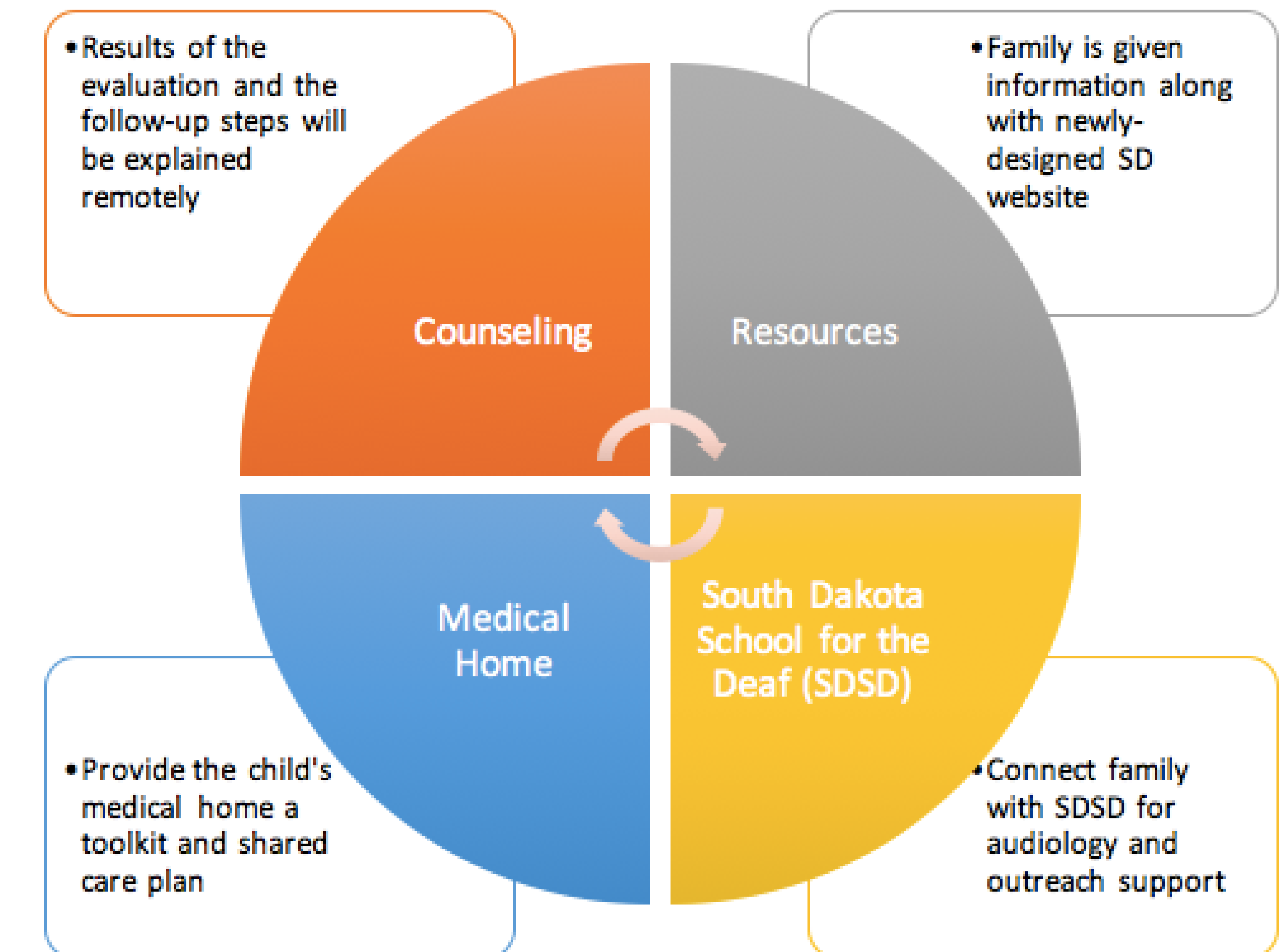


Figure 5: Four primary components of follow-up care following diagnosis of hearing loss via teleaudiology in South Dakota.

## What We Learned

Creating a teleaudiology infrastructure in South Dakota did not come without barriers. Through collaboration with numerous professionals and organizations, South Dakota families will soon have easier access to diagnostic audiology support with a protocol in place to involve early intervention and the medical home, and reinforcement of reporting results to the state Department of Health. The next steps in this process will include:

- Explore Medicaid Coverage
- Parent Interviews in Central/Western SD

## References

Messersmith, J. J., Lockie, J., Jorgensen, L., Bauer Vaith, S., & Falk, E. (2014). Legislation impacting audiology and the provision of audiological services: A review of legislation across the United States. *American Journal of Audiology*, 23(2), 142-150. doi:10.1044/2014\_AJA-13-0051

South Dakota Department of Health Public Health Bulletin. (2018). *Early hearing detection and intervention (EHDI) in South Dakota, report from the South Dakota newborn screening program, EHDI, 2010-2015*. Pierre, SD.

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