



Nevada
Early Hearing Detection and Intervention
2020 Annual Report
Of 2019 data

BUREAU OF CHILD, FAMILY AND COMMUNITY WELLNESS
NEVADA DIVISION OF PUBLIC AND BEHAVIORAL HEALTH
DEPARTMENT OF HEALTH AND HUMAN SERVICES

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of families who were contacted but were unresponsive and those whose contact information was inaccurate, disconnected or missing.

Of all infants screened, 530 (1.6%) did not pass the screening. Further audiologic testing identified 185 of the 530 as typical hearing, 54 as deaf and hard of hearing, and the remainder do not have documentation of audiologic testing. Of those with no documented diagnosis, 1 of the infants died; parents or family member declined services for 8 infants; 19 infants were in the process of receiving diagnostic testing, but it had not been completed. The Unknown/Loss to follow-up/Loss to Documentation category is composed of families who were contacted but were unresponsive and those whose contact information was inaccurate, disconnected or missing.

Of the 54 infants with confirmed hearing loss, 52 (96.3%) were referred to Early Intervention Services and 36 (66.7%) are documented as being enrolled in Early Intervention (EI). In Nevada, a diagnosis of any degree of hearing loss is a qualifying diagnosis for EI. Parents may decline enrollment due to the hearing loss being mild, loss is in only in one ear, or travel time commitments to attend EI sessions. Additionally, parent decline through being unresponsive to follow-up from EI services.

Challenges

Hearing loss is one of the most common congenital birth defects; if left undetected, hearing impairment in infants can negatively impact speech and language acquisition, academic achievement, and social and emotional development. When diagnosed early however, these negative impacts can be diminished or even eliminated through early intervention.

Ensuring provision of health care services to those affected with hearing loss is challenging due to unique Nevada characteristics such as geography, the distribution of population and infrastructure, and the distribution of medical and support services. The following maps illustrate some of the challenges faced by parents, physicians, hospitals, audiologists, and early intervention staff.

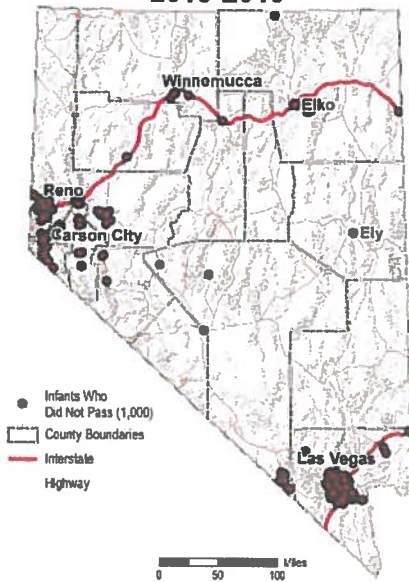


Map 1 – Birthing Facilities

Nevada Birthing Facilities:

- Banner Churchill Community Hospital
- Carson Tahoe Regional Medical Center
- Centennial Hills Hospital
- Henderson Hospital
- Humboldt General Hospital
- Mike O'Callaghan Federal Hospital
- Mountain View Hospital
- Northeastern Nevada Regional Hospital
- Renown Health
- Saint Mary's Regional Medical Center
- St. Rose Dominican Hospital - San Martin
- St. Rose Dominican Hospital - Siena
- Southern Hills Hospital and Medical Center
- Spring Valley Hospital
- Summerlin Hospital
- Sunrise Hospital & Medical Center
- University Medical Center
- William Bee Ririe Hospital

Infants Who Did Not Pass Newborn Hearing Screening 2018-2019



Map 2 – Failed Newborn Hearing Screens

When birthing facility locations (*Map 1*) and location of failed newborn hearing screens (*Map 2*) are compared, it becomes clear many parents are required to travel many hours back to the hospital if their infant requires a follow-up hearing screen.

The parental travel distance and time burden is accentuated further when observing the location of audiologists (*Map 3*) in relation to the distribution of failed newborn hearing screens (*Map 2*).

Pediatric Audiologists 2018-2020



Map 3 – Pediatric Audiologists in Nevada

Nevada currently has five pediatric audiology facilities which have both a trained audiologist and the appropriate pediatric equipment to provide service to infants. With so few resources, comes limited capacity and long wait times for time-sensitive diagnostic appointments.

Communities with Pediatric Audiology Facilities:

- Las Vegas
- Reno

It is not uncommon for infant to need more than one diagnostic visit to a pediatric audiologist to complete all diagnostic exams.

Early Intervention Facilities 2018-2020



Map 4 – Early Intervention Facilities

Early Intervention (EI) Services are also limited with only three communities having trained staff to work with clients who are deaf and hard of hearing. EI services often entail multiple visits per week for infants ages 1-2 months through 3 years of age, and in the years 2018 and 2019 combined, 111 infants were diagnosed as deaf or hard of hearing (*Map 5*).

Infants Identified as Deaf or Hard of Hearing 2018-2019



Map 5 – Infants Identified as Deaf or Hard of Hearing

The cost to travel long distances, multiple times, can be a significant impediment to receiving needed and timely medical or developmental support services not provided locally. The lack of readily accessible services has caused families to move from their homes in rural and frontier locations to in-state metropolitan areas or other states. These unique barriers pose a challenge to parents, physicians, audiologists, early intervention staff, and the NV EHDI program to ensure all infants are screened, receive timely diagnostic audiology services, and are enrolled in early intervention before six months of age.

2019 Statistics

Data presented in this annual report are for the years 2014 through 2019, unless otherwise specified. Each year's EHDI data is considered preliminary until it is reported to the CDC in the annual EHDI Hearing Screening and Follow-up Survey. In 2020, the CDC requested 2018 data. This delay in reporting allows sufficient time for infants to move through the EHDI continuum (screening, diagnosis, and intervention) prior to data being submitted and released to the public.

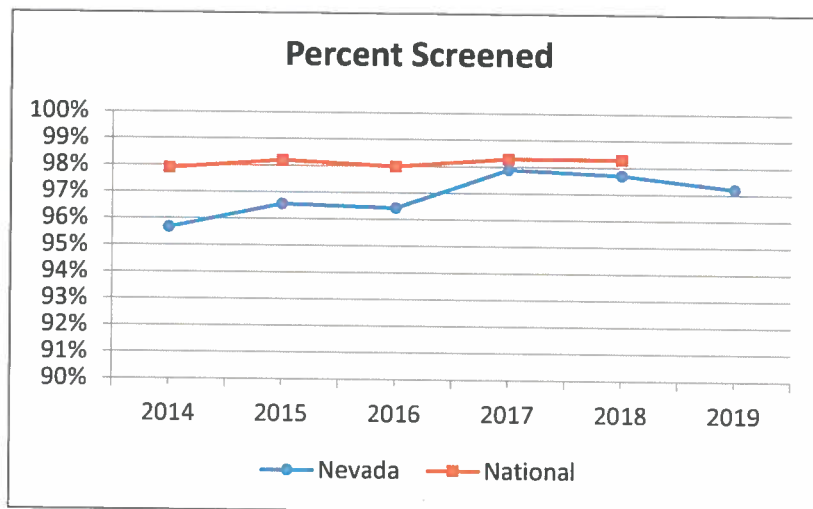


Figure 1 - Total Hearing Screens

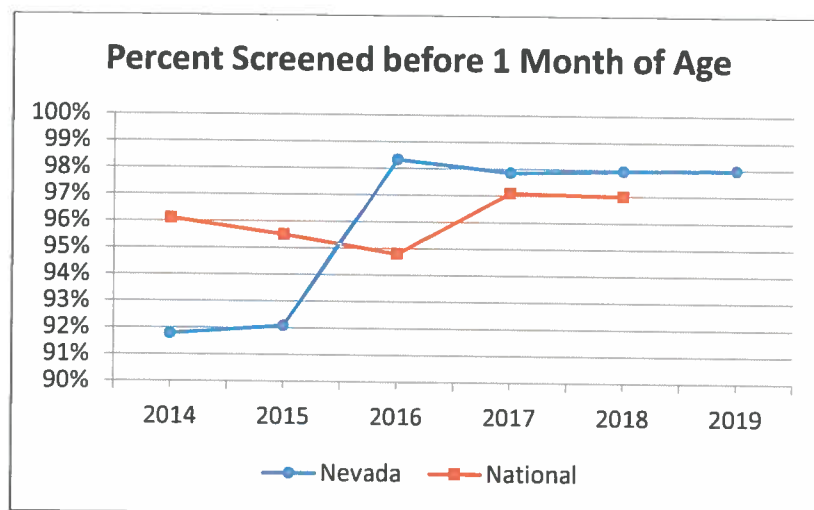


Figure 2 – Percent Screened Before One Month of Age

Figure 1 – Total Hearing Screens

Nevada's percent screened is slightly below the national average. Chart 1 (page 5) categorizes results and describes reasons for the lack of screen documentation for some infants.

Figure 2 – Percent Infants Screened Before One Month of Age

The national goal is to screen infants prior to one month of age and refer for audiologic testing those who do not pass the screen. These percentages reflect how well Nevada screens and refers within the one-month benchmark.

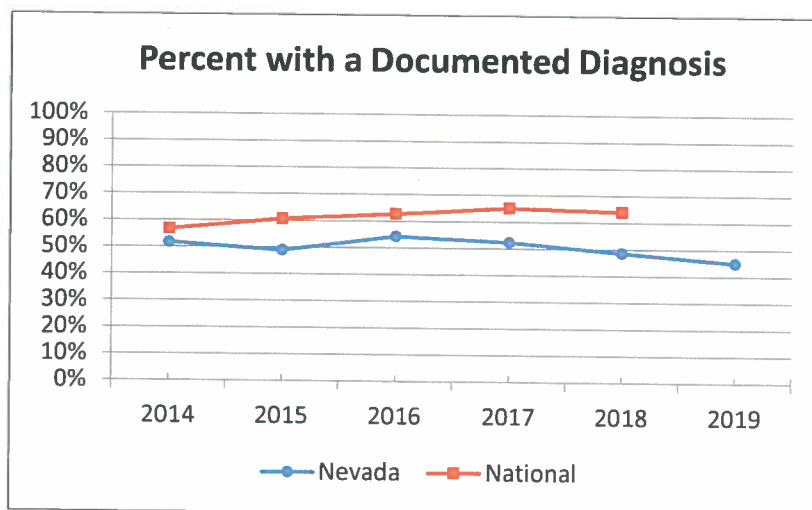


Figure 3 – Percent Infants with an Audiologist’s Confirmed Diagnosis

Figure 3 – Percent Infants with an Audiologist’s Confirmed Diagnosis

This figure represents those infants who did not pass the hearing screen and whose audiological diagnosis has been reported to Nevada EHDI. These diagnoses include those who are hearing and deaf and hard of hearing. Infants whose diagnostic results have not been reported are included in Figure 5 (page 12)- Lost to Follow-up/Lost to Documentation (LFU/LTD).

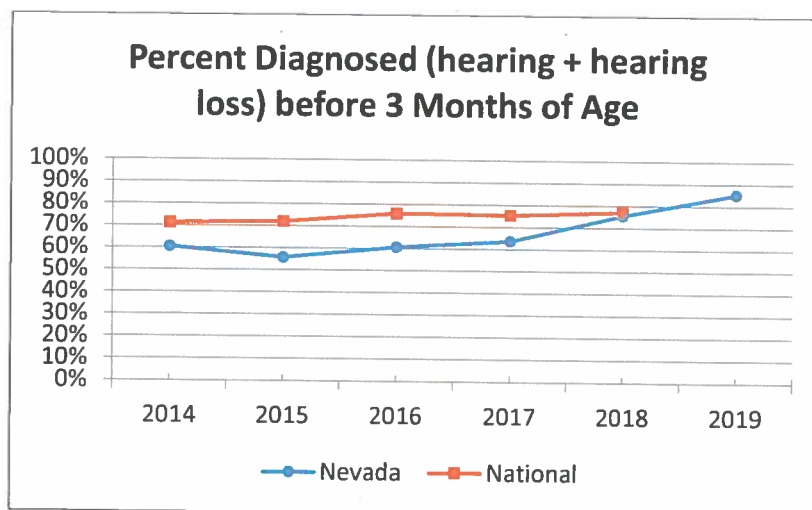


Figure 4 - Infants with a Diagnosis Before Three Months of Age

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The JCIH benchmark for infants to receive an audiologic diagnosis is before three months of age. From 2017 to 2019, Nevada has greatly increased the percentage of infants with a diagnoses before three months of age from 63.7% to 85.4%.

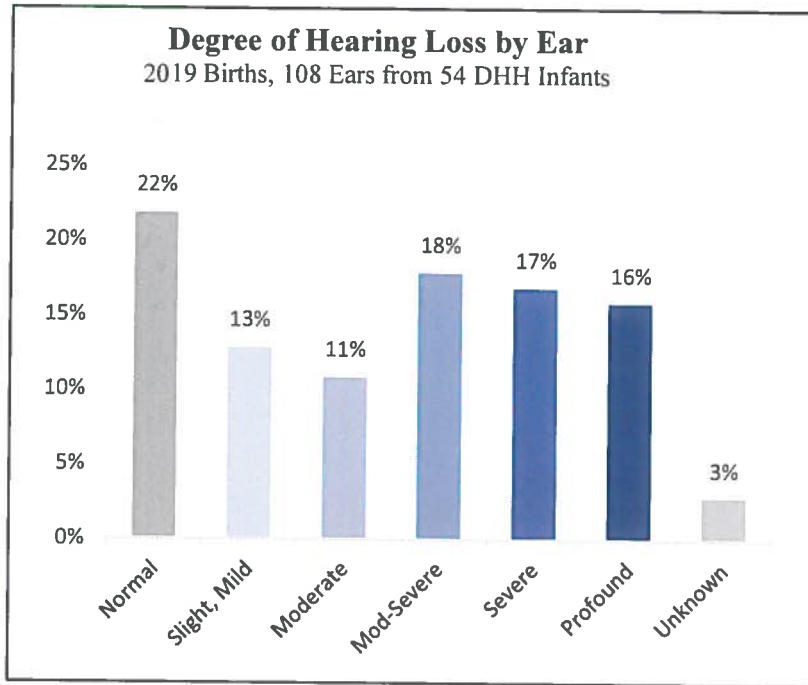


Figure 9 – Degree of Hearing Loss by Ear

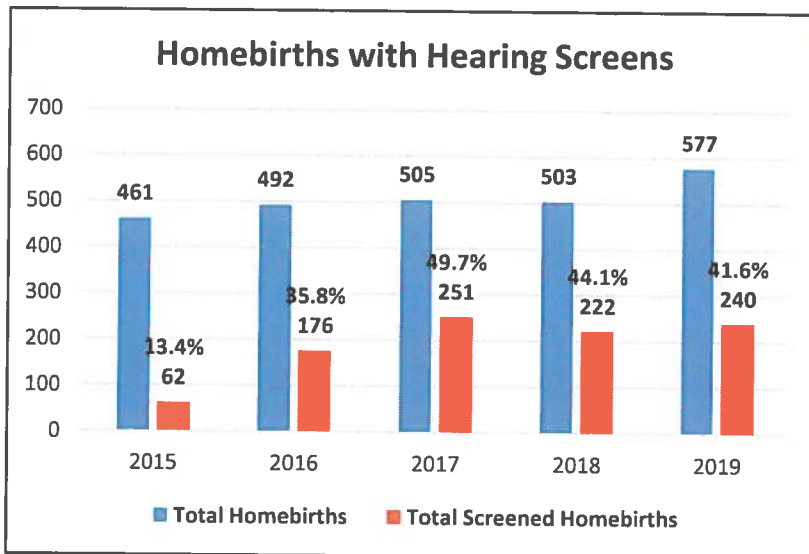


Figure 10 – Homebirths with a Documented Hearing Screen

Figure 9 – Degree of Hearing Loss by Ear

This figure breaks down the degree of hearing loss for each of the 108 ears tested.

It must be noted these children often have a different degree of hearing loss for each ear.

(54 infants who are D/HH * 2 ears = 108 ears)

Figure 10 – Homebirth Infants with a Documented Hearing Screen

Nevada EHDI began a midwife pilot project during 2015 of placing hearing screening equipment in a small number of midwife practices. The project has been a great success and is in the process of expanding.