



## Nevada Early Hearing Detection and Intervention (NV EHDI) Program Project Narrative

### Introduction:

The purpose of the Nevada Early Hearing Detection and Intervention (NV EHDI) Program is to ensure all children born in Nevada are screened for hearing loss at birth and those identified with hearing loss receive timely and appropriate audiological, educational and medical intervention. NV EHDI promotes the national EHDI goals and timelines developed by the Joint Committee on Infant Hearing.

The primary goals for the NV EHDI Program as identified and endorsed by participants in a strategic planning process, include the following:

- All newborns will be screened for hearing loss before one month of age, preferably before hospital discharge.
- All infants who screen positive will have a diagnostic audiologic evaluation before three months of age.
- All infants identified with hearing loss will receive appropriate intervention services including medical, audiologic, and early intervention (EI) before six months of age.
- All infants and children with late onset, progressive or acquired hearing loss will be identified at the earliest possible time.
- All infants with hearing loss will have a medical home as defined by the American Academy of Pediatrics (AAP).
- Nevada will have a complete NV EHDI Tracking and Surveillance System which will minimize loss to follow-up.

I've seen the difference in families that have had early intervention and the difference it makes in the educational opportunities and life in general for their children. Nevada will benefit from a uniform plan, and it will positively impact all service providers and families.

EHDI Stakeholder

Additionally, the goals and objectives pertaining to this grant will be incorporated into the daily operation and functioning of Nevada EHDI. The principle goal and purpose of this grant is:

To enhance the state/territory EHDI system infrastructure to improve language acquisition for deaf and hard-of-hearing (DHH) children up to age 3. Funding will support state and territory EHDI systems of service so that DHH newborns, infants, and young children up to age 3 receive appropriate and timely services, including hearing screening, diagnosis, and early intervention (EI).

This purpose will be accomplished through ongoing plan development, plan execution, evaluation of key components, and plan upgrades based on evaluation outcomes. These steps will be undertaken in ongoing collaboration with the EHDI Team, Early Intervention providers, The IDEA Part C Office and their language data, hospital hearing screening staff and screening companies, the Office of Vital Records, the Office of Analytics, audiologists, parents of DHH children, parent-based organizations, and the HRSA EHDI technical assistance center (NCHAM).

### **Organizational Information:**

The Nevada Early Hearing Detection and Intervention (NV EHDI) Program is located within the Bureau of Child, Family and Community Wellness (BCFCW), Nevada Division of Public and Behavioral Health (DPBH) in the Nevada Department of Health and Human Services. As a result, NV EHDI has the opportunity to work closely and collaboratively with a variety of programs and agencies which provide support services to a similar population of infants and children less than three years of age. These programs include, but are not limited to, the following:

- Maternal and Child Health Program, including the Children and Youth with Special Health Care Needs (CYSHCN) Program (Title V Block Grant)
- Nevada Home Visiting Program (MIECHV)
- Nevada IDEA Part C Office (Part C Office)
- Nevada Early Intervention Services (NEIS)
- Women, Infants, and Children (WIC)
- Nevada Office of Vital Records (OVR)
- Nevada Office of Analytics (OOA)

The mission of DPBH is to protect, promote, and improve the physical and behavioral health and safety of all people in Nevada, equitably and regardless of circumstances, so they can live their safest, longest, healthiest, and happiest life.

The vision statement expresses: Preventable health and safety issues no longer impact the opportunity for all people to live in the best possible health.

DPBH and BCFCW have a long history of properly accounting for and documenting the use of federal funds, following grant requirements with fidelity, and documenting staff time and effort per federal requirements.

The EHDI Team staffing plan and job descriptions are located in Attachment 2. The EHDI organizational chart and a listing of stakeholders is contained in Attachment 5.

One of the greatest strengths possessed by the EHDI Program and Team is their longstanding positive relationships with all partners and stakeholders. Working together during the COVID years demonstrated the combined strength of this collaborative team. Relationships have been built over many years with all EHDI partners, appropriate representation from each entity participates on the EHDI Stakeholder Committee and various formal agreements with some of the partners solidifies a joint commitment to EHDI outcomes.

Supporting objectives to that goal include:

By March 2029:

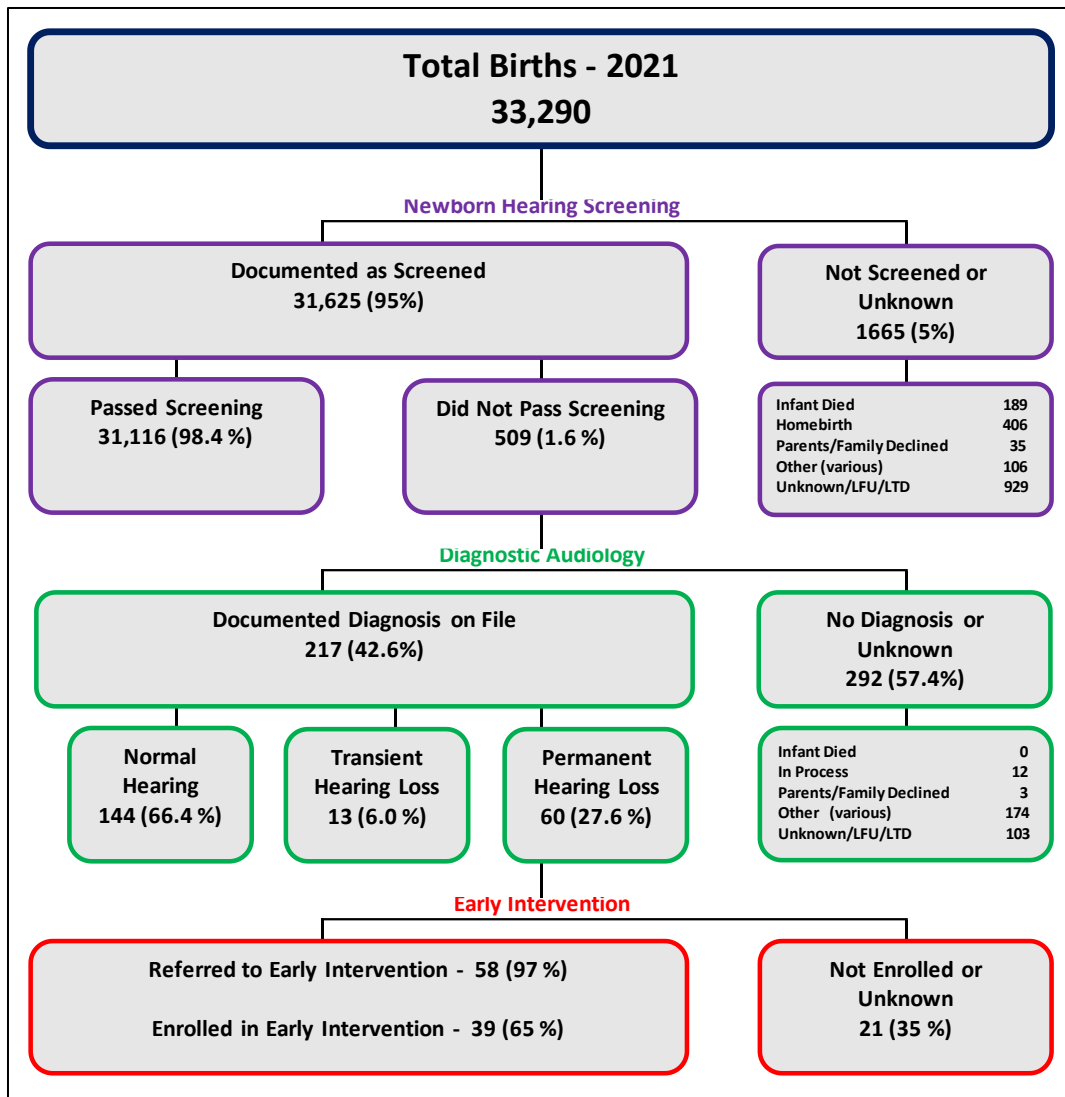
- Increase by 1 percent from baseline per year, or achieve at least a 95 percent screening rate, whichever is lower, the number of infants that completed a newborn hearing screen no later than 1 month of age.
- Increase by 10 percent from baseline, or achieve a minimum rate of 85 percent, whichever is lower, the number of infants that completed a diagnostic audiological evaluation no later than 3 months of age.
- Increase by 15 percent from baseline, or achieve a minimum rate of 80 percent, whichever is lower, the number of infants identified to be deaf or hard of hearing DHH that are enrolled in EI services no later than 6 months of age.

## Needs

For 2021, Nevada observed a rate of 1.8 infants per thousand with documented confirmed hearing loss. With a total of 33,290 births in 2021, 31,625 (95%) were documented as receiving a hearing screening. Of those infants without documentation of a hearing screen, 189 died, parents or family members declined services for another 35, and 406 were planned homebirths. The 106 infants in the “Other” category were either unable to be screened due to medical reasons, or they were transferred to another hospital with no record of a screening. Unknown/Loss to follow-up/Loss to Documentation (LTF/LTD) is composed of families who were contacted but were unresponsive and those whose contact information was inaccurate, disconnected, or missing.

Of all infants screened, 509 (1.6%) did not pass the screening. Further audiologic testing identified 144 of the 509 as typical hearing, 60 as deaf and hard of hearing. Of those with no documented diagnosis, 3 of parents or family members declined services; 13 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 60 infants with confirmed hearing loss, 58 (97%) were referred to Early Intervention Services and 39 (65%) 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 one ear, or travel time commitments to attend EI sessions. Additionally, parents decline through being unresponsive to follow-up from EI services.



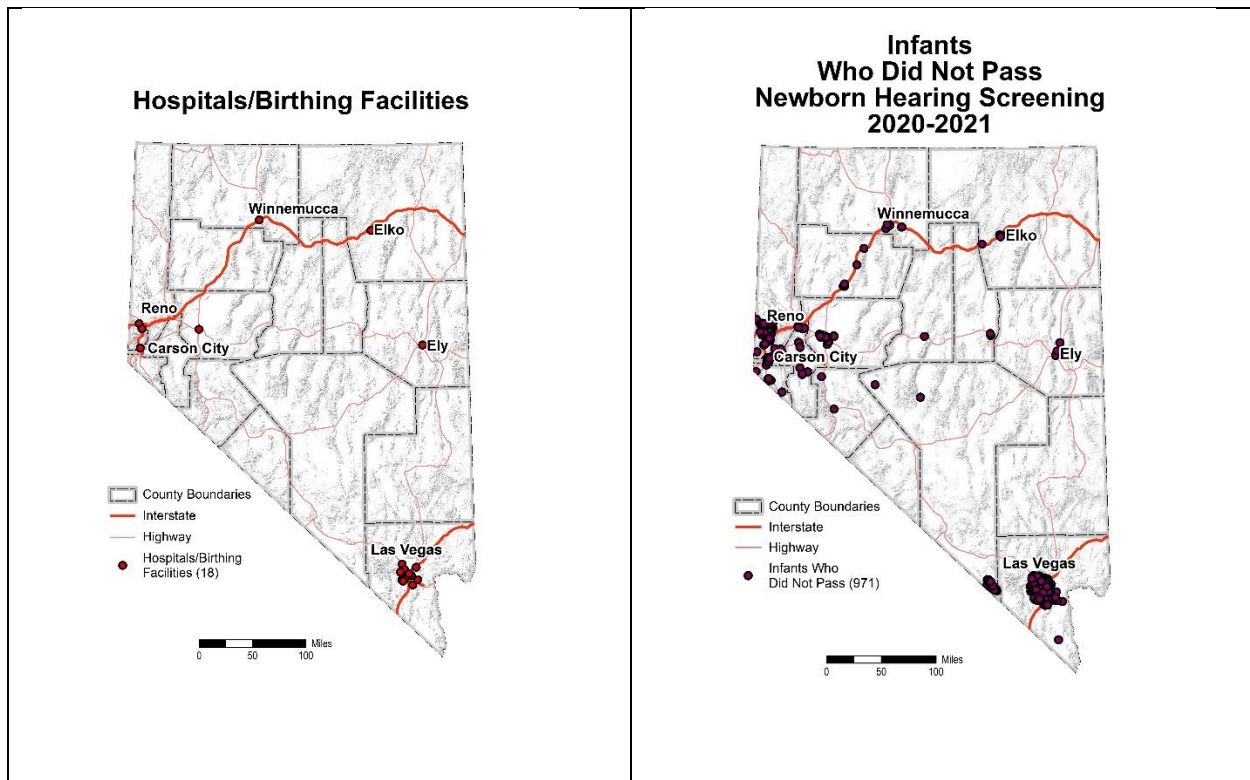
### Challenges

Major identified needs include the following:

- Less than 50% of the failed hearing screens receive a diagnosis
- Of the 97% referred to EI, only 65% are enrolled

These two topics have been discussed at length and their reasons are multifactorial, complex, and occasionally beyond EHDI's control

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.



When birthing facility locations and locations of failed newborn hearing screens 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.

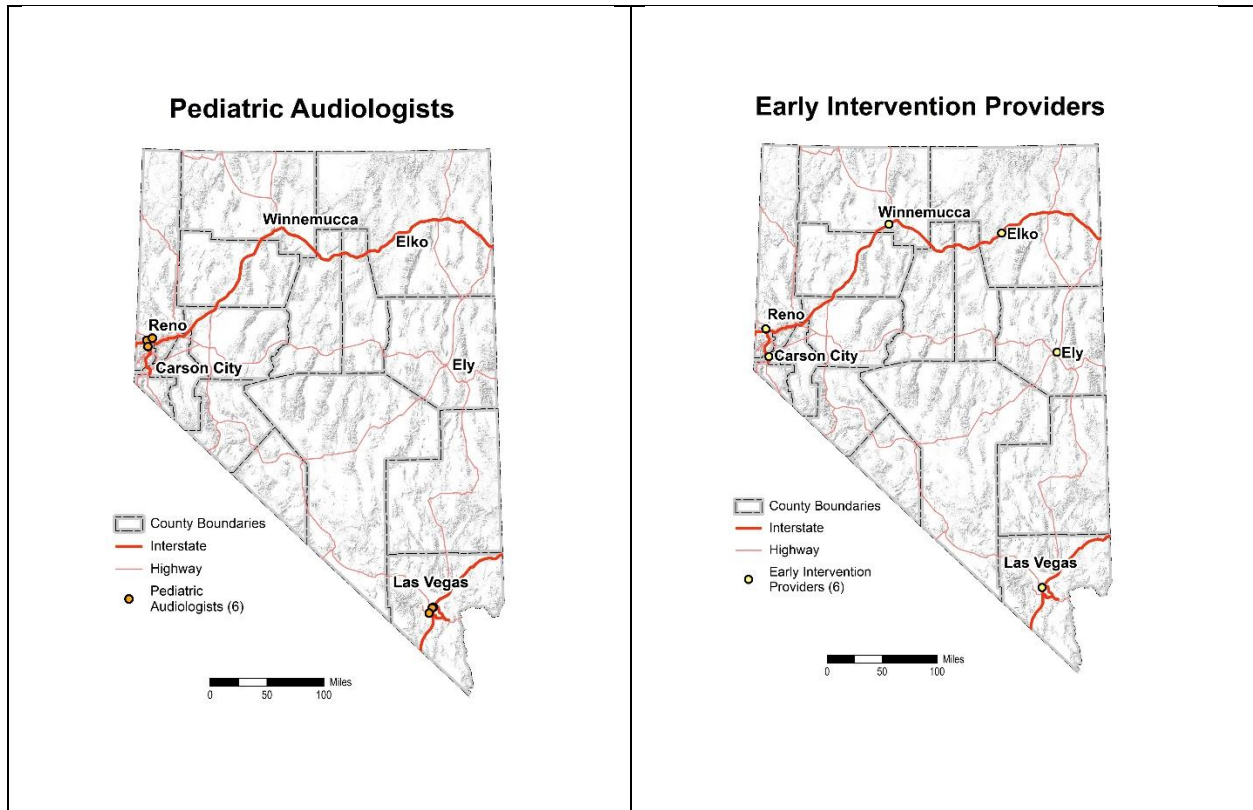
The parental travel distance and time burden is accentuated further when observing the location of pediatric audiologists. Nevada currently has five pediatric audiology facilities which have both a trained audiologist and the appropriate pediatric equipment to provide service to infants. With so few 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 an infant to need more than one diagnostic visit to a pediatric audiologist to complete all diagnostic exams. Families in the northeast section of the state will frequently travel to Salt Lake City, UT for pediatric audiology services.

Early Intervention (EI) Services are also limited with only five 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.



Following many discussions with the EHDI Stakeholder committee and upon review of all EHDI demographic data, it has been a unanimous opinion that the most underserved EHDI population in Nevada is due to geographic imposed travel times and a lack of EHDI related services in the rural and frontier counties.

Currently the EHDI Stakeholder Committee is the only entity taking an active role in finding solutions to address the underserved. The committee is composed of EHDI staff, audiologists, IDEA Part C representation, Nevada Early Intervention staff, Nevada Hands & Voices, and Parents.

### Approach

In this grant application, the NV EHDI Program proposes a project to improve universal newborn hearing screening reporting and timely referral to appropriate audiological and early intervention services through a variety of strategies including, addressing the disparity in underserved populations, and improving language acquisition outcomes:

- Lead efforts to engage and coordinate all stakeholders in the state EHDI system to meet the goals of this program thru a coordinated expanded infrastructure. To include:
  - a plan to collect and report on hearing screenings for children up to age 3,
  - maintain partnerships to accomplish all goals,



- maintain and expand the EHDI Stakeholder Committee,
  - develop a plan to address underserved populations,
  - expand hearing screening up to age 3 years old,
  - collaborate with all partners to improve language acquisition outcomes,
  - maintain quality improvement practices,
  - maintain Nevada EHDI website (ADA compliant),
  - develop sustainability plan.
- Engage, educate, and train health professionals and service providers in the EHDI system. To include:
    - the 1, 3, 6 recommendations,
    - the need for hearing screening up to age 3,
    - importance of tracking language acquisition outcomes,
    - benefits of patient/family centered medical home,
    - importance of communicating accurate information to allow families to make important decisions.
- Strengthen capacity to provide family support and engage families with children who are DHH as well adults who are DHH throughout the EHDI system. To include:
    - Involve family partners in EHDI Program,
    - Conduct outreach and education to inform families,
    - Facilitate partnerships among families and all EHDI partners
    - Use 25 % of funding for family engagement and family support activities,
    - Collaborate with Family Leadership in Language and Learning (FL3 Center).
- Facilitate improved coordination of care and services for families and children who are DHH. To include:
    - formal communication with State IDEA Part C Office,
    - formal communication with Home Visiting,
    - formal communication with Nevada Title V CYSHCN,
    - formal communication with Early Head Start services.
- Participate in the Annual Early Hearing Detection and Intervention meeting. To include:
    - budget for 1-2 staff to attend,
    - budget for one family leader to attend.
- Collaborate with the EHDI National Technical Resource Center to implement initiatives as listed in this Notice of Funding Opportunity.

## **Describe Methods and Strategies**

### Years 1-5

- Strengthen and expand the roles and responsibilities and participants in the EHDI Stakeholder committee and direct them taking a more hands-on role in developing and implementing the goals of this grant.
- Develop data reports using new EHDI-IS to assist in meeting grant goals and outcomes
- Participate in the EHDI Annual Meeting and the EHDI Coordinators Meeting.
- Participate in trainings and webinars provided by the technical assistance center.
- Expand the current Nevada EHDI website to include additional training and data content

### Phase I - Planning

- Develop a statewide infrastructure plan to address all components described in HRSA-24-036 funding opportunity announcement.
- Develop the methods and activities as part of the infrastructure plan along with entity responsibilities and timeframes.

### Phase II – Implementation and Building Sustainable Practices

- Describe how the identified needs in Phase I will be addressed during Phase II
- Identify and maintain partnerships with EHDI system stakeholders to improve language acquisition outcomes in DHH children.
- Support engagement of families with DHH children and DHH adults throughout the EHDI system of services.
- Improve data sharing with state program and EI providers.
- Implement state data systems (EHDI-IS) to collect, track, and monitor progress to improve ability to monitor language acquisition outcomes.
- Engage and educate health care professionals and service providers in EHDI systems.
- Measure and scale up implementation of practices and initiatives that improve access to language acquisition for DHH children up to age 3 and how to financially support and/or maintain these efforts.

### **Work Plan**

Detailed goals, objectives and activities are provided in Attachment 1: Work Plan. The (SMART) format has been used where each activity lists the program staff or stakeholder who has primary responsibility for the activity; timeframes for activity assessment; the type of evaluation data that is used to collect, process, and support the measures; and the expected outcome measures that can be used to continue improvement throughout the project period.

Contributions by key stakeholders to provide meaningful support and collaboration in planning, designing, and implementing activities and the extent to which these contributors reflect the cultural, racial, ethnic, linguistic, and geographic diversity of our population and Nevada communities is vital for the success of the work plan.



## **Resolution of Challenges**

One of Nevada's biggest challenges is the lack of readily available comprehensive services for the deaf and hard of hearing community. Nevada's two major metropolitan areas, Reno and Las Vegas, have adequate levels of appropriate services while the rural communities do not. Reno and Las Vegas are 448 miles apart and the drive time is seven hours. Families who live in rural Nevada may have to drive multiple hours to a birthing facility, a pediatric audiologist, a pediatrician, or an early intervention facility. In addition to the drive time, Nevada has multiple north-south running mountain ranges with numerous peaks over 10,000 feet and the winter climate at times makes travel dangerous or impossible. As the previous and following GIS maps demonstrate, timely and appropriate levels of service are a challenge for the DHH population.

Through the implementation of the EHDI Stakeholder Committee, all members, parents and EHDI staff are aware of the challenges and participate in the formulation of action items to help mitigate these challenges. Through regular communication with representatives from each of the three EHDI components, services for clients may be co-scheduled with multiple appointments so less trips need to be made to metropolitan areas for services.

EHDI staff will continue to educate hospital staff and screeners on appropriate screening and follow-up screening practices. This benefits families by reducing the number of visits for re-screenings and facilitates a smoother referral process to pediatric audiologists.

Working closer with the state's family-based DHH service providers has and will continue to greatly expand the level of their vital services and benefit more families. Nevada EHDI has worked with the state's Hands & Voices (H&V) chapter with the implementation of their Guide-By-Your-Side program which provides parent mentors to new families with a DHH child. H&V has assisted NV EHDI with follow-up phone calls to inform parents on "next steps" in their child's journey. These calls have increased the number of children referred for audiological assessments and EI enrollment and have shortened to time to receive these services.

Nevada EHDI continues to work with midwives by providing otoacoustic (OAE) screening equipment to four midwife groups as part of a pilot project. Results of this project demonstrate this is an excellent mechanism to screen home-birth infants and to begin moving kids through the EHDI process. The midwife groups have been trained on the importance of early hearing screening, screening techniques, data submission to EHDI and referral processes.

Regular scheduled visits to state birthing hospitals and providing them with training and feedback has proved very successful and will continue. The same process is being followed with audiologists and particularly pediatric audiologists and has also proved to be very successful. Nevada EHDI is in the process to shortly begin the same level of formal training and feedback to the public and private EI providers. In the past, NV EHDI has co-sponsored SKI-HI training to EI providers.

## **Evaluation and Technical Support Capacity**

The NV EHDI Program continues to incorporate quality improvement activities into its evaluation efforts. Evaluation is an essential element to determine the success of the work plan activities in enhancing programmatic improvement and successfully meeting the established goals and objectives.

To ensure NV EHDI has evaluation and technical support capacity, the program has access to evaluation, fiscal, and technical expertise within the Nevada Division of Public and Behavioral Health (DPBH). This body of expertise is more fully explained in the organizational information section of this application. Within DPBH are trained evaluators who work with a number of programs on their evaluation activities and who are available for technical support. Nevada EHDI additionally has one of its staff who dedicates a portion of their time specifically to evaluation activities. EHDI currently contracts with an outside vendor to assist and complement existing quality improvement and evaluation efforts and capacity.

NV EHDI works with its evaluation and QI team to develop and enhance and implement its plans to better serve clients while monitoring key questions:

- How well is NV EHDI working with and supporting its partners, stakeholders, families and infants?
- How well is the service delivery system working as a resource for supporting families?
- How well is NV EHDI demonstrating progress towards achieving federally required benchmarks. Such as: 1-3-6 timeframes, reducing lost to follow-up and documentation, etc.
- Is the EHDI Stakeholder Committee well-trained and participatory in their roles.
- Does Nevada EHDI demonstrate strong organizational capacity to implement Work Plan activities.
- How well is Nevada EHDI establishing and strengthening appropriate linkages and referral networks to other community resources which supports families.

NV EHDI has and will continue to use data management systems, performance measurement data, program improvement systems already in place, plus staff and client feedback to systematically review overall program operations. Where areas of concern or inadequacy in the program process are identified, quality improvement steps are implemented utilizing the Plan-Do-Study-Act (PDSA) model for improvement.

The PDSA cycle is used to test changes in work settings and work processes and guides the test of a change to determine if the change is an improvement. The cycle is defined as follows:

- Plan: Collect data and establish a baseline – what is the current process doing now? Identify the areas of concern and the possible causative factors.
- Do: Make changes designed to correct or improve the identified areas of concern.
- Study: Study the effect of these changes on the situation. Collect data on the new process and compare to baseline levels. Evaluate the results and then replicate the change or abandon it and try something different.

- Act: If the result is successful, standardize the changes and then work on further improvements or the next prioritized problem. If the outcome is not yet successful, look for other ways to change the process or identify different causes for the problem.

Nevada EHDI encourages all its partners and stakeholders to implement QI related processes into their organizational practices and services.

Resources and Capabilities:

The Nevada EHDI Program along with the Maternal, Child and Adolescent Health Section possesses numerous years of experience writing and managing multiple grants. This includes grants for EHDI programs, Home Visiting, and MCH Title V Block grants. In addition to the individual program expertise, The Division’s Grant Management and Fiscal Offices have an extensive history of providing needed services, guidance, and feedback to the individual programs. The state’s Vital Records Office also resides within this same Division and the EHDI-IS is built within the vital records system. Additional data management and data analysis resources are available to the EHDI Program through the state’s Office of Analytics.

Support Requested:

In summation, some of the key requirements of this funding opportunity.

- A reasonable budget for each of the 5 years has been proposed which adequately funds the program to meet proposed activities. See Budget and Budget Narrative sections of the application.
- Key EHDI personnel, partners, stakeholders, and state experts working in concert possess the needed knowledge, skills, and abilities to accomplish the listed activities within the timeframes outlined. See Attachments 1-5 and various application sections which detail inhouse expertise.
- The budgets for all 5 years allocate funds for up to two staff and a parent to attend the Annual EHDI Meeting. With all future Annual Meetings, an additional attendee will accompany the state EHDI Coordinator to the Coordinator’s Meeting. See Budget and Budget Narrative
- More than 20% of the awarded budget has been allocated towards statewide family engagement and family support activities. These funds are divided between the Nevada Hands & Voices chapter and EHDI follow-up activities. Both recipients provided needed resources and assistance to families. See Budget and Budget Narrative
- Less than 5% of the awarded funds are used to maintain hearing screening equipment. See Budget and Budget Narrative
- Funds allocated to Nevada Hands & Voices may be used for accessibility accommodations.

The following are a list of items included as attachments:

- Attachment 1: Work Plan
- Attachment 2: Staffing Plan and Job Descriptions for Key Personnel
- Attachment 3: Biographical Sketches for Key Personnel
- Attachment 4: Letters of Agreement/MOUs/Subgrants

- Attachment 5: Project Organizational Chart
- Attachment 7: Multi-Year Budget – 5<sup>th</sup> Year Budget
- Attachment 10: Indirect Cost Rate Agreement