

ii. Project Narrative

Project Identifier Information

- a) Funding Opportunity Number: HRSA-20-047
- b) Project Title: Early Hearing Detection and Intervention Program
- c) Organization Name: Wyoming Department of Health
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Introduction

From early seminal papers (Yoshinaga-Itano and Apuzzo 1998, Yoshinaga-Itano et al. 1998) to more recent findings from longitudinal studies (Tomblin et al. 2015), research continues to demonstrate that early identification of hearing loss and appropriate early intervention (EI) is needed if children who are deaf/hard of hearing (D/HH) are to avoid significant delays in language, literacy, and psychosocial development (Calderon 2000, Kushalnagar et al. 2010, Ambrose et al. 2015). Such studies, in part, contributed to the Joint Committee on Infant Hearing (JCIH) releasing their Position Statement for newborn hearing screening in 2007 (JCIH 2007). This Position Statement established what is now widely known as the “1-3-6” guidelines. These guidelines, in summary, state that the best possible outcomes for children can be achieved if they are a) screened before one month of age, b) receive a diagnosis (if needed) prior to three months of age, and c) participate in EI (if appropriate) by six months of age. In recognition of this, states/territories have implemented early hearing detection and intervention (EHDI) programs that are designed to meet the JCIH (2007) recommendations. However, regardless of how well designed EHDI programs may be, their success in achieving the “1-3-6” goals is heavily dependent upon families being able to access/navigate the EHDI system and the services available to both them and their children (Yoshinaga-Itano 2003, JCIH 2013).

Wyoming EHDI is excited for this Funding Opportunity (FO) from the Maternal Child and Health Bureau (MCHB). We are confident that the activities and partnerships we propose in this application will enable Wyoming to maintain its existing newborn hearing screening program, continue to use quality improvement (QI) strategies to reduce rates of lost to follow-up, and, by exploring ways to engage parents, D/HH adults, health professionals, and service providers in Wyoming’s EHDI system, grow an informed community in the state and increase the access that families have to services for their children. Wyoming EHDI is also thrilled to see MCHB’s continued emphasis on family-to-family support and looks forward to expanding the availability of D/HH adult-to-family support through the activities proposed in this application.

If this application is successful, Wyoming EHDI will continue with efforts to engage, support, and empower parents with children who are D/HH so that they, in turn, can help their children develop to their fullest potential. Engagement of parents and families through the Wyoming EHDI Program is achieved

through a collaboration with Wyoming Families for Hands & Voices, Guide By Your Side (GBYS), and other organizations that support parents and families (e.g., Parent Information Center).

Needs Assessment

Wyoming is a frontier state with the ninth largest land area and the lowest population among the 50 states. Based on 2010 resident population data from the United States Census Bureau, with an estimated 6.0 people/square mile, Wyoming ranks second only to Alaska (1.3 people/square mile) as having the lowest population density of the 50 states. Wyoming's population is primarily white, non-Hispanic (~86%) with Hispanic and American Indian populations of ~9% and ~2%, respectively. Wyoming's economy is highly dependent upon natural resource/energy production and, consequently, the population of Wyoming is subject to fluctuations in energy markets (e.g., coal, natural gas, oil). A language other than English is spoken in ~7% of homes and ~11% of Wyoming's population lives below the federal poverty level. If Wyoming residents require specialized health care, they often are required to travel to bordering states to receive it. For example, there are no Level III neonatal intensive care units (NICU) in Wyoming and only three Level II units.

The "1-3-6" JCIH Guidelines in Wyoming

According to the Centers for Disease Control and Prevention (CDC) Hearing Screening and Follow-up Survey (HSFS), there were 6,270 total occurrent births in Wyoming in 2017. Newborn hearing screening data for 2017 show that 6,108 (97.4%) of newborns received a final newborn hearing screening prior to one month of age (2017 CDC HSFS). Irrespective of age, 6,158 of the 6,270 total occurrent births in Wyoming have documented hearing screening results. This represents ~98.2% of all occurrent births in 2017. Of the 112 babies born in Wyoming with no documented hearing screening results, 89 (~71.5%) were home/out of hospital (OOH) births and 23 (~20.5%) either declined/waived the screening, died, or were transferred out of the state (2017 CDC HSFS). A key to increasing the percentage of newborns with documented hearing screening results by one month of age will be to obtain an increasing percentage of hearing screening results for home/OOH births.

Due to the low population in Wyoming, only three Level II nurseries are located within the state. Therefore, any newborn requiring a high level of care is transferred to a tertiary care hospital in one of the six surrounding states (*i.e.*, Colorado, Idaho, Montana, Nebraska, South Dakota, Utah). During 2017, 117 Wyoming infants (1.9%) were transferred to out-of-state tertiary care hospitals. Of those 117 infants, newborn hearing screening results or information regarding infant deaths were received for 111 infants (~94.9%). Those results include four (3.4% of those transferred) infants who were referred for evaluation with two identified with permanent hearing loss (16.7% of Wyoming infants with permanent hearing loss in 2017) and one identified with transient conductive hearing loss. Receiving results for the remaining ~5.1% of transferred infants is a need because of the NICU population is at an increased risk of hearing loss relative to baby in well nurseries. Sharing of transferred newborn results is dependent upon relationships between Wyoming EHDI staff, other State EHDI Coordinators, and newborn hearing screening coordinators in tertiary care hospitals.

Newborns in Wyoming's 20 birthing hospitals are screened with automated auditory brainstem response (AABR); licensed midwives who have been trained by the Wyoming EHDI Program to do hearing screenings use otoacoustic emission (OAE) technology. Figure 1 (page 3) shows the percentage of newborns who were screened in Wyoming by one month of age between the years 2008 and 2017.

Figure 1: Newborns receiving a final hearing screening by one month of age

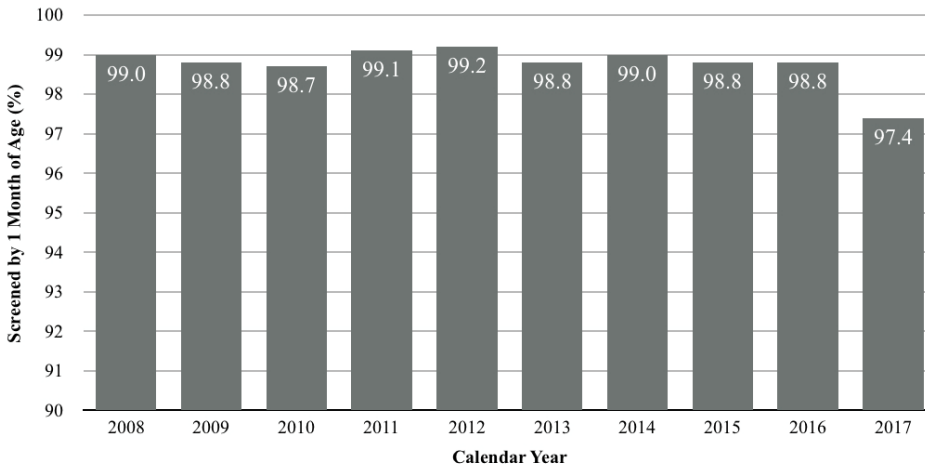
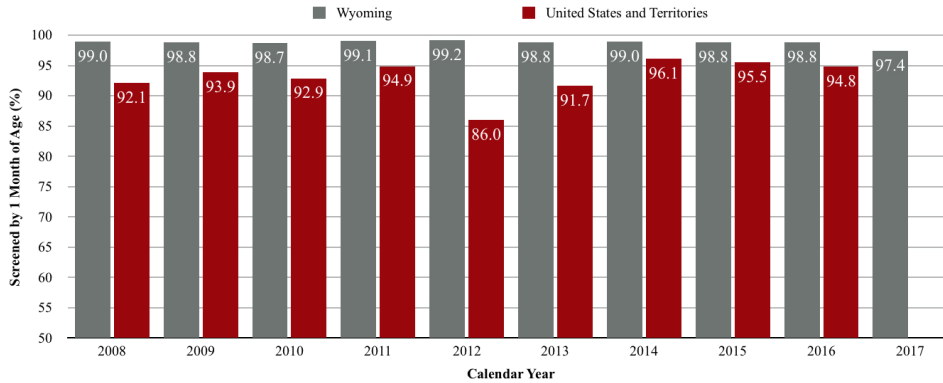


Figure 2 (below) shows how the percentages in Figure 1 compare to the national average.

Figure 2: Newborns receiving a final hearing screening by one month of age in Wyoming relative to the national average



Data shown in Figs. 1 and 2 are from the Centers for Disease Control and Prevention (<https://www.cdc.gov/ncbddd/hearingloss/ehdi-data.html>). The 2017 data for Wyoming have been submitted but are not yet publicly available.

Wyoming newborn hearing screening protocol recommends a rescreening seven to ten days after a failed initial screening and prior to referral for diagnostic evaluation. Of the 143 children who failed an initial hearing screening at Wyoming birthing hospitals in 2017, 128 (89.5%) received a hearing rescreening by one month of age.

The Wyoming EHDI Co-Coordinator (Newborn System) generates monthly reports to the birthing hospitals regarding newborn hearing screening data and infants in need of follow-up. This follow-up includes screenings, rescreening, and audiological evaluations. These monthly reports serve to support Wyoming hospital nursery staff in their work to have families return for timely rescreenings. Wyoming EHDI will work to increase the number of rescreenings that occur by one month of age by encouraging newborn hearing screening personnel to schedule rescreening appointments prior to hospital discharge and to provide both written and verbal reminders of the appointments to families.

In 2017, 20 newborns did not pass their final hearing screening. Of those 20 newborns, 17 (85.0%) received an audiological diagnostic evaluation (2017 CDC HSFS). Of the 20 newborns in need of an evaluation, 15 (75.0%) received it by three months of age (2017 CDC HSFS) and 17 (85.0%) received it irrespective of age. Of the three newborns who were not evaluated, one died, one moved out of state, and one family declined the diagnostic evaluation. Figure 3 (below) plots the percentage of newborns in Wyoming that were evaluated by three months of age between the years 2008 and 2017, and Figure 4 (below) shows these data relative to the national average.

Figure 3: Newborns receiving an audiological diagnostic evaluation by three months of age

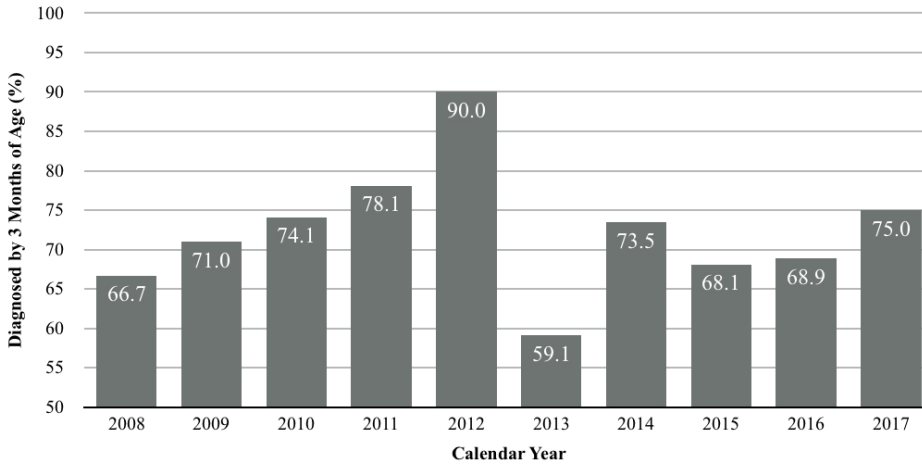
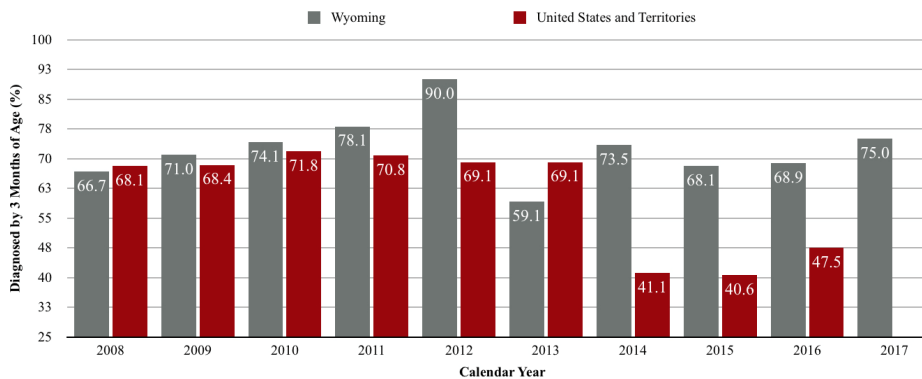


Figure 4: Newborns receiving an audiological diagnostic evaluation by three months of age in Wyoming relative to the national average



Data shown in Figs. 3 and 4 are from the Centers for Disease Control and Prevention (<https://www.cdc.gov/ncbddd/hearingloss/ehdi-data.html>). The 2017 data for Wyoming have been submitted but are not yet publicly available.

Wyoming EHDI refers all infants identified with permanent hearing loss to Part C early intervention (EI) providers through a telephone call followed by faxing a written EI referral form. The form requests that the EI providers acknowledge receipt of the referral. In 2017, 12 newborns were identified with permanent hearing loss (2017 CDC HSFS). Of these 12, eight (66.7%) were documented to be enrolled in EI by six months of age and ten (83.3%) were documented to be enrolled in EI irrespective of age. Two of the 12 families declined EI services. Figure 5 (page 5) shows the percentage of newborns

enrolled in EI by six months of age between the years 2008 and 2017, and Figure 6 (below) plots these data for Wyoming against the national average.

Figure 5: Newborns who are deaf/hard of hearing (D/HH) enrolled in early intervention (EI) by six months of age

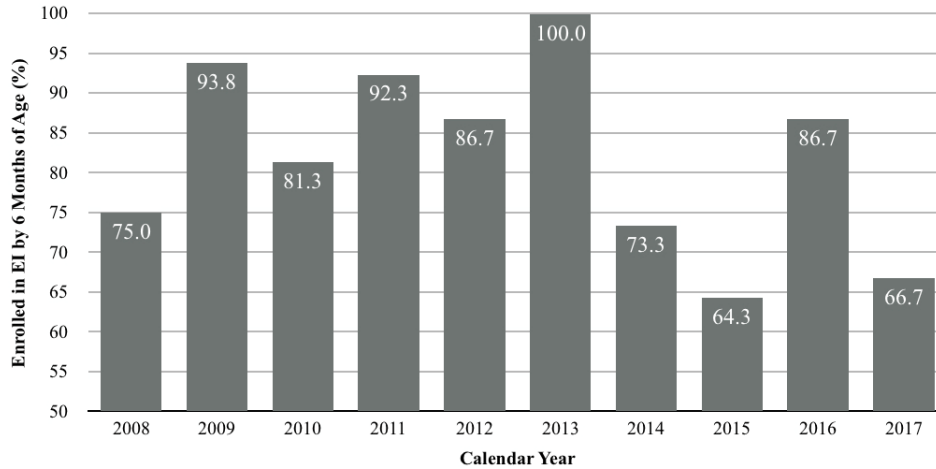
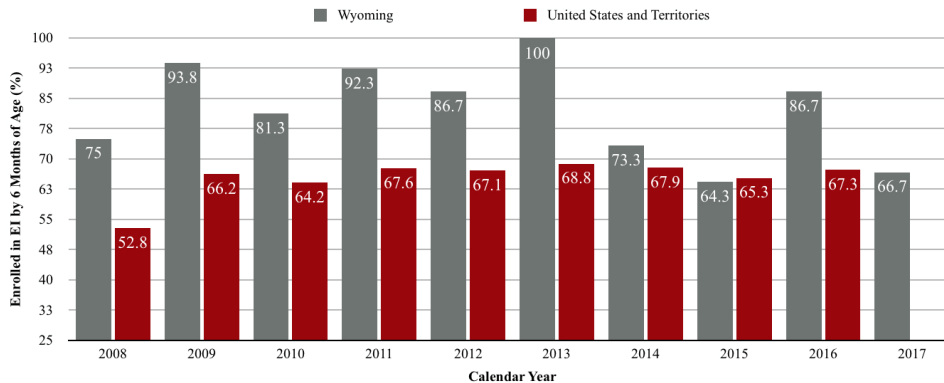


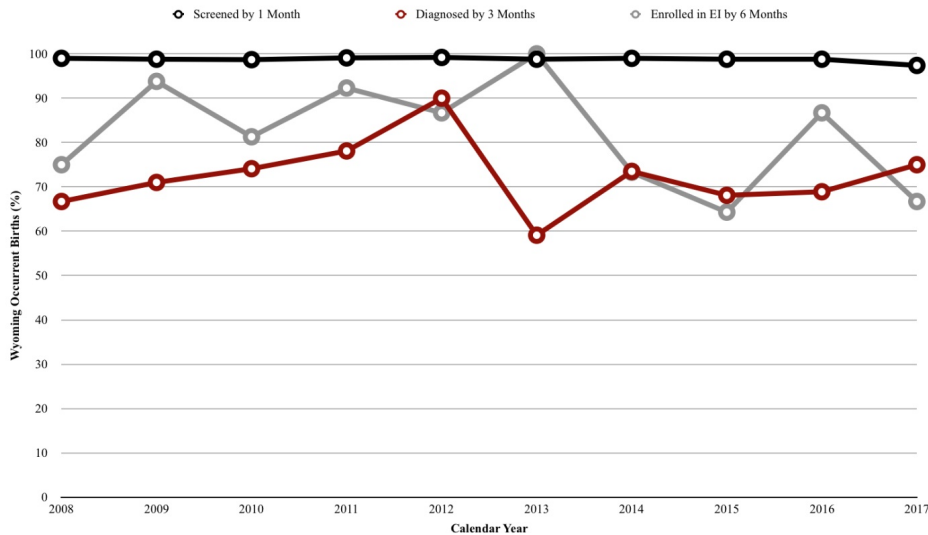
Figure 6: Newborns who are deaf/hard of hearing (D/HH) enrolled in early intervention (EI) by six months of age in Wyoming relative to the national average



Data shown in Figs. 5 and 6 are from the Centers for Disease Control and Prevention (<https://www.cdc.gov/ncbddd/hearingloss/ehdi-data.html>). The 2017 data for Wyoming have been submitted but are not yet publicly available.

Figure 7 (page 6) summarizes the Wyoming EHDI Program’s progress towards meeting the “1-3-6” JCIH guidelines.

Figure 7: “1-3-6” in Wyoming Between 2008 and 2017



The Wyoming Pediatric Audiology Specialty Clinic is Evolving

In 2009, Wyoming EHCI found that for infants who failed hearing screenings/rescreenings and were referred for diagnostic evaluation, many incomplete, inaccurate or delayed diagnoses occurred. This finding was determined through independent pediatric audiologist evaluation and review of audiometric reports provided for Wyoming infants referred from newborn hearing screening from December 2006 through December 2008. It is clear from the results of this independent evaluation that Wyoming’s infants were receiving incomplete, non-definitive, and/or delayed audiological diagnoses. MCHB grant funds were used in 2009 to create the WPASC. The WPASC makes available audiologists with the training, experience, and equipment necessary to provide families with complete, accurate diagnostic information regarding their children’s hearing status. This information is needed in order for families to make informed decisions concerning management of their children’s audiological and early intervention needs to ensure the best possible outcomes for their children with hearing loss.

From January 2009 through the end of 2018, 158 individual children have received an age appropriate audiometric diagnostic evaluation at the WPASC. Of these 158 children, 93 were diagnosed with hearing loss. The majority of children evaluated at the WPASC were referred from newborn hearing screening (~53%) with the remainder referred from Late Onset Hearing Loss (LOHL; periodic childhood) screenings and/or parents who had concerns regarding their child’s hearing status. Some children were referred due to failure to secure accurate and/or complete diagnostic information by audiologists whose practices are primarily targeted towards adults and older children.

To assure the audiological evaluation and reports generated from the WPASC reflected improved quality, final WPASC diagnostic reports continue to be sent for independent evaluation. According to the evaluations of the WPASC reports, it is clear that there continues to be a need for the WPASC in Wyoming. Infants and children in Wyoming are receiving more complete and accurate diagnoses through the WPASC. One hundred percent (100%) of parents who returned a parent evaluation after having their child diagnosed at the WPASC indicated that the tests and explanations of what the tests measured were done professionally; one hundred percent (100%) of parents also stated they felt their questions and

concerns were listened to; and 96% said they received explanations and answers that were clear to understand.

In an effort to further address the need for age appropriate audiological diagnostic evaluations in Wyoming, the Wyoming EHDI Program recently embarked on a partnership with the Child Development Center of Natrona County to 1) expand the availability of appointment times for parents and 2) equip the clinic so that children birth to five years-old who are D/HH can be fitted with amplification. This expanded clinic, still located in Casper, Wyoming, has undergone a change in name. Instead of being referred to as the WPASC, it has been re-branded as the CDC+ Audiology Clinic. Appointments at this expanded clinic will still be flexible to families' schedules and will provide enough time for a complete evaluation based on the needs of each child. The audiologist who sees children at this clinic splits her time equally between clinical work at the CDC+ Audiology Clinic (0.50 full-time equivalent [FTE]) and performing education/outreach for the Wyoming EHDI Program (0.5 FTE).

Collaboration with Wyoming Families for Hands & Voices

Wyoming EHDI has been partnering with family-based organizations and parents of children who are D/HH in the state for over a decade. In 2012, for example, Wyoming EHDI offered guidance to Wyoming Families for Hands & Voices as they approached the Wyoming Legislature to secure funding for families to purchase hearing aids for their children. The idea behind this effort was to address the gap between families whose insurance covers the cost of hearing aids and those families who need to pay out of pocket. Wyoming Families for Hands & Voices efforts were successful and, in 2012, led to the establishment of the Wyoming Children's Hearing Aid Program (WYCHAP). This program allocates \$50,000 each year to help families purchase hearing aids for their children (birth through high school graduation) who have been diagnosed with hearing loss. Wyoming EHDI continues to support Wyoming Families for Hands & Voices by providing an audiologist to review diagnostic results in WYCHAP applications, establish required practice guidelines for dispensing audiologists in the state, and any additional support/guidance as requested.

Another example of the Wyoming EHDI Program's commitment to family-to-family support is the Parent Advocate that is on staff, Kim Reimann. Ms. Reimann is the parent of a child who is D/HH and has served as the Clinic Coordinator at the WPASC for over five years and will continue in that role at the CDC+ Audiology Clinic. She is also the Parent Guide Coordinator for Wyoming's Guide By Your Side (GBYS) chapter, which was established in July 2018 with financial support from MCHB. Part of Ms. Reimann's work as the Parent Advocate for the Wyoming EHDI Program and the WPASC Clinic Coordinator is to provide support to families before, during, and after a child's diagnostic evaluation.

Funding from the previous MCHB grant was instrumental in solidifying the partnership between Wyoming EHDI and Wyoming Families for Hands & Voices. In particular, it helped to grow the Reading Early Accelerates Development (R.E.A.D.) Plus Program that Wyoming Families for Hands & Voices offers to support families with a child who is D/HH. This program is led by Susan Fischer, M.Sc., CCC-SLP and promotes non-biased language and literacy development by teaching families developmentally appropriate book sharing/reading strategies and ways to incorporate sign language into daily routines. Families are also given support with respect to understanding their child's hearing loss and empowered with strategies to foster their child's speech and language development. Families participating in the R.E.A.D. Plus Program have the opportunity to complete National Early Childhood Assessment Project (NECAP) surveys and Language ENvironment Analysis (LENA) sessions to help their child who is D/HH meet developmental targets. The R.E.A.D. Plus Program is offered to at no cost to families and EI providers are encouraged to attend sessions with the family.

Should this application be successful, we look forward to working with this organization to expand both family-to-family and D/HH adult-to family support services in the state.

Late Onset Hearing Loss Hearing Screenings in Wyoming

Periodic (or late onset hearing loss [LOHL]; birth to five years-old) hearing screening and follow-up is being addressed by the Wyoming EHDI Program. Contracts between the Early Intervention and Education Program (EIEP; Wyoming Department of Health) and the Child Development Center Regions (14 Regions with 43 sites spread throughout the state) mandate the use of a uniform screening protocol, trained screening personnel, and calibrated equipment. The Wyoming EHDI - Information System (EHDI-IS) is used for the reporting of hearing screening results and follow-up actions. Wyoming EHDI inventories hearing screening equipment at each of the state’s Child Development Center sites. These equipment inventories are used to assure that adequate and calibrated equipment are in use.

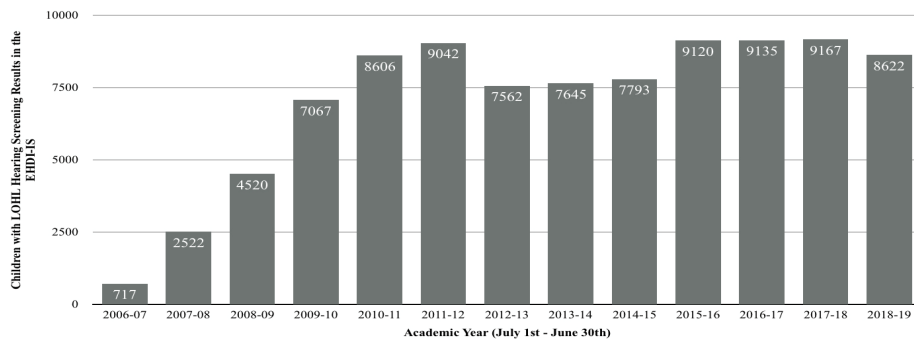
A LOHL hearing screening in the state of Wyoming consists of the following:

- Otoscopy;
- Otoacoustic emission (OAE; < 3 years-old) or pure tone screening (≥ 3 years-old); and
- Tympanometry (≥ 9 months of age) with acoustic reflex.

The above must all be done bilaterally (provided the child has two ears) when the age requirements for each of the three LOHL screening components are met. Children who are D/HH are screened using otoscopy and tympanometry with acoustic reflex to monitor middle ear health. If a child fails an initial LOHL hearing screening, s/he is rescreened in 4-6 weeks. If/when an LOHL hearing rescreening is failed, a child is referred to the appropriate health professional (*i.e.*, audiologist, ear nose throat physician, primary care physician) based on which component(s) of the hearing screening the child did not pass. Wyoming EHDI guidelines recommend an annual LOHL hearing screening for children birth to five years-old or until they enter school. These LOHL hearing screenings are available at no cost to families and are included in all developmental screenings. Funding is being requested from MCHB for the EHDI Co-Coordinator (Late Onset System) position to support the continued statewide coordination of periodic childhood screenings by the Wyoming EHDI Program.

Figure 8 shows the number of children with documented hearing screening results in the EHDI-IS between July 1, 2006 and June 30, 2019. The sharp increase of these results between 2006-07 and 2010-11 reflects increasing acceptance of the EHDI-IS by child development centers in the state.

Figure 8: Documented Late Onset Hearing Loss (LOHL) Hearing Screening Results in the Wyoming EHDI - Information System (EHDI-IS) by Academic Year



Methodology

Wyoming EHDI has implemented systems to achieve the following for children who are born or reside in the state:

- Receive a hearing screening using calibrated equipment from a competent screener before discharge from the hospital at the time of their birth or as soon as possible after their birth for those children born outside a hospital;
- Receive a LOHL hearing screening using calibrated equipment from a competent screening at a child development center;
- Secure a rescreening for those infants, toddlers, and preschoolers who fail their initial hearing screen;
- Secure an accurate audiological diagnosis from a competent pediatric audiologist before the child is three months of age for those who fail both their initial hearing screening and rescreening;
- Refer the families of infants diagnosed with hearing loss to EI before the child is six months of age;
- Support Part C staff in developing and providing appropriate EI to families;
- Help families with children who are D/HH connect with family-to-family support networks and services;
- Support medical homes as they coordinate care for children who are D/HH; and
- Plan for future sustainability of the “1-3-6” guidelines in Wyoming’s EHDI system.

Over the four years of this FO, a variety of methodologies will be identified, used, analyzed, adapted, and reevaluated as the process measures and outcome measures described within the Work Plan (Attachment 1) of this application are carried out. Decisions regarding the methodologies used will be based on accurate, relevant, and timely data. Data related to the Goals and Objectives of this project will be generated from the Wyoming EHDI-IS. The Wyoming EHDI-IS contains aggregate data for the state as well as individual child results. Wyoming EHDI staff and Advisory Board members will work with stakeholder organizations, agencies, and relevant individuals to analyze these data.

Wyoming EHDI staff and Wyoming Families for Hands & Voices personnel will meet monthly to evaluate progress toward the stated Goals and Objectives of this project. All Wyoming EHDI and Wyoming Families for Hands & Voices staff are familiar with and knowledgeable about using Plan-Do-Study-Act (PDSA) cycles in a quality improvement (QI) context. When small tests of change demonstrate a desired effect, an organized framework will be identified to implement and spread the change throughout the state. These efforts will be directed to improvements for individual families, but reflected in aggregate data. The Wyoming Department of Health and extended partners, such as the University of Wyoming, the Wyoming Medical Society, Wyoming’s Parent Information Center, and the Wyoming Department of Education - Services for Deaf/Hard of Hearing Outreach, will be engaged and informed as data dictates is necessary and prudent. Small tests of change applied to very specific problems and involving reasonable numbers of participants will allow us to use the resources available to us through this FO responsibly and efficiently.

Work Plan

Below are the Goals that the Wyoming EHDI Program will pursue during the four-year grant cycle of this FO. See Attachment 1 (Work Plan) for a detailed description of the activities being proposed to meet them.

Goal 1: By March 31, 2024, increase the percentage of newborns who have documented final hearing screening results by one month of age from 97.4% (2017 Centers for Disease Control and Prevention [CDC] Hearing Screening and Follow-up Survey [HSFS]) to 97.5%. This represents a 4% increase from the 2017 baseline over the course of the project period (1% increase per year).

Goal 2: By March 31, 2024, increase the percentage of newborns that receive an audiological diagnostic evaluation (when needed) by three months of age from 75.0% (2017 CDC HSFS) to 85.0%. This represents an increase of 40% over the course of the four-year project period to meet the minimum rate of 85.0%.

Goal 3: By March 31, 2024, increase the number of D/HH newborns and infants who are enrolled in early EI by six months of age from 66.7% (2017 CDC HSFS) to 80.0%. This is a ~40.0% increase that's needed to achieve the minimum rate by the end of the project period.

Goal 4: By March 31, 2024, increase by 10% the number of health professionals and service providers trained on key aspects of the EHDI program from the baseline determined in Year 1.

Objectives and activities related to family-to-family and D/HH adult-to-family support services are included under Goal 3 (see Attachment 1: Work Plan).

Resolution of Challenges

Challenges that arise will be addressed by Wyoming EHDI staff, identified stakeholders, and others as needed using problem solving techniques. The core Wyoming EHDI team has multiple years of experience in finding creative solutions to reduce or eliminate barriers. Because of Wyoming's small population, stakeholders are often able to communicate with one another quickly and directly. Wyoming EHDI's consistent and regular data analysis has allowed for potential problems to be identified early and tackled before becoming widespread. The continuing partnership between Wyoming EHDI and Wyoming Families for Hands & Voices proposed in this application is expected to be especially helpful in troubleshooting/resolving barriers parents of children diagnosed with hearing loss may have to accessing the services that are available to them. Additional resources and personnel are available when systematic challenges arise. The continued governance and support provided to Wyoming EHDI from the Wyoming Department of Health, Behavioral Health Division has been integral to resolving such challenges and establishing statewide systems.

Wyoming EHDI considers the financial sustainability of the newborn hearing screening program and the "1-3-6" JCIH guidelines to be one of their foremost responsibilities. Sustainability has been addressed with the Wyoming Legislature. Currently, fees levied by the Wyoming Department of Health for newborn hearing screening in birthing hospitals support core functions of the Wyoming EHDI program. Although the overall effectiveness of EHDI in Wyoming would suffer if federal support for this program were discontinued, these fees ensure that newborn screening and referral to diagnosis and EI would continue in Wyoming in the absence of grant support from federal agencies.

Evaluation and Technical Support Capacity

Progress toward the Goals and Objectives proposed in this application will be evaluated with multiple methods, tools, and sources. Individuals from the Wyoming EHDI staff, the Wyoming EHDI Advisory Board, and Wyoming Families for Hands & Voices as well as the Unit Manager and Part C Coordinator from the EIEP (Wyoming Department of Health) will evaluate progress. Accurate, complete, timely, and relevant data derived from the Wyoming EHDI-IS and other Wyoming EHDI databases will be analyzed monthly by Wyoming EHDI staff. Identified areas of need will be addressed expeditiously.

Wyoming EHDI staff and key stakeholders from Wyoming Families for Hands & Voices will meet monthly to review PDSA cycles for the Goals, Objectives, and activities listed in the Work Plan (Attachment 1). The Wyoming EHDI Co-Coordinator will meet quarterly with the EIEP Unit Manager and with the Wyoming EHDI Advisory Board to evaluate program statistics and determine progress towards meeting the “1-3-6” guidelines and the specific objectives outlined in this application.

Evaluation of training efforts consist of pre-/post-test measures. Documentation of the number of training workshops, support sessions for EI providers, site visits, and conference participation will be tracked. Qualitative evaluations are completed by workshop participants and reviewed for customer satisfaction, suggestions for improvement, and additional training needs.

An extensive annual online survey completed by nursery managers is used to secure feedback on all aspects of the newborn hearing screening process, policies, and procedures. Compliance with completion of this survey has been 100% over the previous five years. Survey results offer insights into each hospital program as well as providing a statewide overview. Responses from the annual survey showed 95% rated communication with Wyoming EHDI staff as the highest possible with 5% percent reporting the second highest rating possible. Survey results are compiled and shared with the Wyoming EHDI Advisory Board and the staff of the EIEP (Wyoming Department of Health).

Periodically, additional evaluation information is available *via* opportunities offered through the National Center for Hearing and Management (NCHAM). Participation in a NCHAM survey regarding physicians’ understanding of newborn hearing screening yielded valuable information from Wyoming physicians. Any and all opportunities provided by NCHAM are considered, and if at all possible completed, for the purpose of gleaning additional technical assistance and improving components of Wyoming’ EHDI system.

Organizational Information

Wyoming EHDI is supported within the EIEP of the Wyoming Department of Health (Behavioral Health Division, Operations Section; see Attachment 5: Organizational Chart). The mission of the Behavioral Health Division is to be the entity of state government that is responsive to the behavioral health needs of Wyoming residents by developing and overseeing a quality continuum of care that is customer-focused, collaborative, evidenced-based, and outcome driven. Within the Behavioral Health Division, the EIEP is responsible for ensuring that services are provided to children birth to five years of age with developmental delays and disabilities in accordance with the Individuals with Disabilities Education Act (IDEA) and Wyoming State Law. Furthermore, the EIEP provides assistance and oversight to Child Development Center Regions in the state that serve children with disabilities (birth to five years-old) and their families.

Wyoming EHDI’s relationship within the organizational structure of the Wyoming Department of Health facilitates coordination with federally funded EI programs, such as Part C of IDEA, to ensure that newborns and infants who are D/HH are referred to a system of EI providers (*e.g.*, speech language pathologists, early childhood special education teachers) that are knowledgeable about the specialized needs of D/HH children and can inform families of the spectrum of communication modalities that are available to them and their child. Part C within the EIEP also partners with Wyoming EHDI to analyze data regarding timely access to EI services for infants and toddlers diagnosed with hearing loss to comply with the reporting requirements of federal funding agencies (*e.g.*, Centers for Disease Control and Prevention, MCHB).

Within the Department of Health's organizational structure are a number of other programs that collaborate with Wyoming EHDI. The Public Health Division houses the following sections and units that partner with Wyoming EHDI to provide continuity of care for infants in need of hearing rescreenings and diagnostic evaluations: Children's Special Health, Newborn Metabolic Screening, Public Health Nursing, Nurse-Family Partnerships, and Best Beginnings.

Another important partnership for Wyoming EHDI is with Vital Statistics Services (Wyoming Department of Health, Public Health Division; see Attachment 4: Letters of Agreement, Memoranda of Understanding, and/or Descriptions of Proposed/Existing Contracts). This partnership allows for newborn records in the Wyoming EHDI-IS to be matched with the state's birth certificate registry.

Wyoming EHDI has benefited from partnerships with programs outside the Wyoming Department of Health. For example, although the Wyoming Health Department has administrative oversight of Wyoming EHDI, the implementation of the EHDI program occurs through a sub-grantee contract with the Developmental Preschool and Daycare Center (DPDC; Laramie, Wyoming; see Attachment 4: Letters of Agreement, Memoranda of Understanding, and/or Descriptions of Proposed/Existing Contracts). The DPDC is the fiscal/personnel agent for Wyoming EHDI and provides both Part C and Part B EI services.

Outside of governmental entities, Wyoming EHDI has worked closely with Wyoming Families for Hands & Voices for over a decade. Partnerships between Wyoming EHDI and this family-based organization have focused on improving education/awareness of the critical role that hearing plays in literacy and language development among medical homes, increasing the quality of EI services that children who are D/HH receive, and educating parents of newborns who fail their initial hearing screening on the importance of having their child's hearing rescreened by one month of age.

Wyoming EHDI continues to benefit from the strong leadership and guidance provided through its Advisory Board. Board Members with their affiliation are listed below. Parents/family members of children who are D/HH and D/HH adult consumers comprise ~23.5% (four of 17 individuals) of the Wyoming EHDI Advisory Board.

- Audiology: Katey Staeben (Audiology Department, Laramie County School District #1; Cheyenne, Wyoming);
- Birthing facility: Deb Dawson (Nursery Manager, Ivinson Memorial Hospital; Laramie, Wyoming);
- State agency responsible for the implementation of Part C of IDEA: Christine DeMers (Part C Coordinator; Cheyenne, Wyoming);
- State Chapter of the American Academy of Pediatrics; Indian Health Services: Jacqueline Nelson (EHDI Chapter Champion; Fort Washakie, Wyoming);
- Early Intervention and Education Program (Wyoming Department of Health): Kathy Escobedo (Unit Manager) and the Part B/619 Coordinator (at the time of writing, this position was in the process of being filled);
- *Parent of a child who is D/HH*: Kim Reimann (Wyoming EHDI Parent Advocate, Guide By Your Side Parent Guide Coordinator; Casper, Wyoming) and Mandy Bangerter (Assistant Director, Wyoming Families for Hands & Voices; Cheyenne, Wyoming);
- State Title V Program, Metabolic/Newborn Screening: Carleigh Soule (Newborn Screening and Genetics, Wyoming Department of Health; Cheyenne, Wyoming);

- Maternal and Child Health: Danielle Marks (Woman and Infant Health Program Manager, Maternal and Child Health Unit, Public Health Division, Wyoming Department of Health; Cheyenne, Wyoming);
- Outreach Services for the Deaf/Hard of Hearing, Wyoming Department of Education: Jo Otterholt (*D/HH adult*) and Billie Wortham (Riverton, Wyoming);
- Family Organization: Wendy Hewitt (Executive Director, Wyoming Families for Hands & Voices; Mountain View, Wyoming; *parent of a child who is D/HH*);
- Public Health Nursing: Kim Wann (Torrington, Wyoming);
- Early Head Start/Head Start: Helena Wagner (Director, Head Start Collaboration Office; Cheyenne, Wyoming);
- State Medicaid agency: James Bush (State Medicaid Medical Coordinator, Office of Health Care Financing, Wyoming Department of Health; Cheyenne, Wyoming); and
- University of Wyoming: Mary Jo Cooley Hidecker (Division of Communication Disorders; Laramie, Wyoming).

Targeted Needs Assessment: Work Plan and Budget

The Wyoming EHDI Program is proposing a targeted needs assessment during Year 1 of this project period that evaluates the quality of EI services that children who are D/HH receive and the system through which these services are delivered. The work plan, budget, and assessment tool for this proposed project are available in Attachment 7, 8, and 9, respectively.

The intended goals of this assessment are as follows:

- Achieve consensus regarding the current status of EI in Wyoming available to families that have a child who is D/HH;
- Identify gaps between this current status and the recommended JCIH (2013) and National Association of State Directors of Special Education (NASDSE; 2018) guidelines;
- Determine statewide priorities regarding the quality of EI services and how they are delivered to children who are D/HH and their families;
- Lay plans to close identified gaps in Years 2-4 of the project period; and
- Determine what resources are available/required to ensure that the plans to address gaps are both sustainable and achievable.

If approved, stakeholders will be identified within the first month that funding is available. These stakeholders will have decision making authority and are likely to include representation from the following groups:

- Audiologists;
- Child development center administration (*i.e.*, Executive Director);
- D/HH adult consumers;
- Early Hearing Detection and Intervention (EHDI) staff (*i.e.*, Program Co-Coordination);

- Early Interventionists;
- Family Service Coordinators (Part C);
- Parents of children who are D/HH and D/HH+;
- Special Education Directors (Part B/619);
- Speech Language Pathologists;
- State Health Department staff (e.g. Director, Part B/619 Coordinator, Part C Coordinator); and
- Teachers of the Deaf.

The Wyoming EHDI Program will be responsible for data collection and oversee completion of this targeted needs assessment. Wyoming EHDI is proposing that a representative from the Marion Downs Center participate in this project and facilitate in-person meetings. Cheryl DeConde Johnson, Ed.D. from the Marion Downs Center is widely considered as an expert at assessing EI systems for children who are D/HH. Pending approval from MCHB, she has agreed to facilitate in-person meetings amongst stakeholders and contribute her time in-kind.

Barriers to successfully addressing the gaps between the current EI system in Wyoming and what is recommended for children who are D/HH may be substantial; however, with support from MCHB, Wyoming stakeholders will have an opportunity to critically evaluate both the quality of services available and the system by which they are delivered.

The Wyoming EHDI Program is requesting \$5,570 from MCHB for this targeted needs assessment. This request will be allocated to travel costs for 15 individual stakeholders for two in-person meetings (20 hotel stay nights at \$150/night = \$3,000, 20 per diem stipends at \$60/day = \$1,200, and mileage reimbursement for 1,500 miles at \$0.58/mile = \$870) and \$500 for providing materials to stakeholders.

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