

**Attachment 7: Summary Progress Report  
NH Maternal & Child Health Section, EHDI Program**

ACCOMPLISHMENT SUMMARY

(Grant period 4/1/13 – 3/31/14)

The NH Early Hearing Diagnosis and Intervention (EHDI) Program continued to use the Model for Improvement developed by Associates in Process Improvement<sup>1</sup> to improve outcomes for the all-newborn hearing screening activities in New Hampshire. The EHDI Program used this model to reduce loss to follow-up of families of infants who did not pass their final hearing screening. The percent of infants receiving diagnostic testing has increased from 69% in 2011 to 72.9% in 2012. Since February 2012, four diagnostic centers are available in New Hampshire. Depending on their location and insurance coverage, families may also select diagnostic centers in Massachusetts or Portland, Maine. In early 2014, an additional diagnostic center with two audiologists is scheduled to open in Manchester, the largest New Hampshire city. Manchester is located in the most densely populated area of the state.

The NH EHDI Program used the nine national and four state-specific strategies to further reduce the number of infants lost to follow up in the 2011- 2013 grant period.

**Strategy #1**, scripting the screener’s message to parents

In 2008, the EHDI staff worked with representatives from several of the twenty birth hospitals to develop a parent-friendly message for birth facility staff to use when telling parents that their infants did not pass their hearing screening. Several hospitals tried the message and gave feedback to the workgroup. During the NICHQ Collaborative in 2011 & 2012, data was collected from New Hampshire hospitals while a workgroup continued to test, modify and refine the message. The New Hampshire team shared their experiences with the other State teams in the NICHQ Collaborative. In 2012, the EHDI Program Coordinator shared the final message, and the process of how it was developed and tested, at a state Perinatal Nurse Managers’ meeting to encourage use by the birth hospitals. EHDI staff has informal feedback that most of the hospitals are following the script.

**Strategy #2**, using FAX-back forms between multiple providers

In the past year, staff at eight hospital newborn hearing screening programs began using fax forms for referrals to Pediatric Audiology Diagnostic Centers in New Hampshire. Staff at eight other hospitals schedule diagnostic testing appointments at the time of discharge for infants who did not pass their final newborn hearing screening. Staff at four hospitals gives the list of diagnostic testing facilities and tells either the family or the infant’s health care provider to

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<sup>1</sup>From the IHI.org, A Resource from the Institute for Healthcare Improvement at <http://www.ihl.org>

schedule an appointment for diagnostic testing. The EHDI staff plans to work with the hearing screening manager at each birth facility beginning in early 2014 to determine whether their current scheduling method facilitates completion of diagnostic testing by three months of age. Because of the low number of refers at each facility, this may take up to several years. Three New Hampshire hospitals had the highest referral rate: 43 out of 1,302 infants born at Concord Hospital, 30 out of 485 infants born at St. Joseph Hospital and 54 out of 1,350 infants born at Southern New Hampshire Medical Center. If the current method is not effective, the manager will be asked to try a different method.

**Strategy #3**, ascertaining the name of the infant's primary care provider

The name of the “infant’s provider after discharge” is a required field in the New Hampshire data tracking system. Every screener training program includes a discussion of the need for entry of the “after discharge” provider, which is often not the provider attending the infant in the hospital. If the follow-up coordinator (a contractor, not an employee of the NH Department of Health & Human Services) cannot reach the family of an infant who needs follow-up, she requests that the EHDI staff contact the infant’s health care provider. The EHDI staff contacts the provider entered in the tracking system. If this is not the correct provider, the EHDI staff contacts the birth facility staff, reports that the provider listed in the tracking system was not the infant’s provider, and requests the name of the infant’s health care provider after discharge. The birth facility staff usually finds the correct provider in the discharge summary. The EHDI coordinator was unable to obtain the correct provider only once in 2010, and once in 2012. All staff at these facilities were reminded that timely follow-up depends on accurate data entry including the name of the health care provider after discharge. The need for the correct “provider after discharge” is always stressed and requested during every training session for facility staff who provide newborn hearing screening or enter newborn hearing screening results.

**Strategy #4**, identifying a second point of contact for the family

This strategy was initiated in 2011 because the telephone numbers entered into the tracking system were frequently not in service or incorrect. Discussion with the newborn hearing screening program managers led to creating new data fields for adding another contact person, their relation to the family and their telephone number, but this has not been effective. This will be a topic for the future Quality Improvement Committee to discuss and consider for future small tests of change.

**Strategy #5**, making rescreening and/or audiology appointments for the infant at hospital discharge,

At the beginning of 2013, hearing screening program managers at all New Hampshire hospitals with birth units were asked how their staff schedules audiology appointments for infants who do not pass their final hearing screening. Some birth facilities schedule diagnostic appointments before hospital discharge and other facilities fax the referral and contact information to the

diagnostic center for their staff to talk with the family and schedule a diagnostic testing appointment. Hearing screening program managers at birth facilities with many missed appointments will be asked to conduct small tests using a successful scheduling method. It is anticipated that different methods will be tried at different birth facilities. The EHDI staff will guide them through small tests of change when additional infants do not pass their final hearing screening. This process is expected to take two years because of the low number of infants who refer at each birth facility. For seven New Hampshire hospitals and all three freestanding birth facilities the annual number of referred infants is extremely low, between zero and five. Of the remaining fourteen hospitals, six facilities had less than twelve referred infants and seven had more than twelve infants last year. All successful procedures will be incorporated in the facilities' policies.

**Strategy #6**, using telephone reminder calls for appointments

Reminder calls are not made by the audiologists at the largest diagnostic center in New Hampshire. Reminder calls are made by scheduling staff for the entire hospital, not by staff in the Audiology Department. The audiologists do not know whether a family member was reached, what was said to them or if the family had any questions.

Only two of the twenty hospitals with birth facilities use OAE-only equipment and both facilities do outpatient rescreening. Parents of infants born at these facilities who did not pass their initial hearing screening are given an appointment card for an outpatient hearing rescreen in ten to fourteen days. Reminder calls are not made for these outpatient appointments. However, staff at both facilities calls the parents if they do not keep the scheduled appointment and schedule a new appointment to complete the rescreen. In 2012, Cottage Hospital staff rescreened 95.5% (twenty-one of the twenty-two infants) who did not pass their initial hearing screening had a rescreen. Also in 2012, Alice Peck Day Hospital staff rescreened 76.3% (twenty-nine of the thirty-eight infants) who did not pass their initial hearing screening had a rescreen.

**Strategy #7**, scheduling two audiology appointments two weeks apart at hospital discharge

No audiologists at diagnostic testing facilities were willing to try scheduling two appointments.

**Strategy #8**, streamlining the EI referral process and obtaining consent for release of information

The EHDI Coordinator, the director of the Family-Centered Early Supports and Services (ESS) (the title of the regional early intervention agencies in New Hampshire) and the director of the MICE (Multisensory Intervention Through Consultation and Education) Program, a specialized early intervention program for infants and toddlers with vision or hearing loss, met several times in 2011 and developed a permission form to release information among the three agencies. Use of the 3-way permission form resulted in the MICE Program being able to share the date a child is enrolled in ESS with the EHDI Program staff, by phone.

**Strategy #9**, improving data tracking systems

Since 2004, the NH EHDI has used a tracking system designed for use in New Hampshire. During the past year, several reports in the tracking system were revised to align with changes to the CDC Data Summary Report. It is now possible to measure the progress of all infants who did not pass their final hearing screening through the audiologic testing process. Reports of infants identified as deaf or hard of hearing were aligned to facilitate submission of the annual CDC EHDI report. Revisions were also made to the report of the age of infant at the time of diagnostic testing when the results are normal hearing. In 2012, 86% (147 of 171 infants) were tested by three months of age, 12% (20 of 171 infants) were tested between three and six months of age) and 2% (four of 171 infants) were over six months of age when tested. The EHDI staff and consultants will discuss and prioritize requests for new reports or changes to existing reports.

**New Hampshire Strategy #10**, increasing the number and percent of infants born in freestanding birth centers or at home who are offered newborn hearing screening

A pilot study to determine the feasibility of certified lay midwives providing newborn hearing screening to infants in their care was conducted in 2008 at one of the four freestanding birth centers. Since January 2009, every infant born at the pilot site has been offered newborn hearing screening. During 2012, certified lay midwives at two freestanding birth centers learned how to perform newborn hearing screening and now offer newborn hearing screening. In 2012, 65% (64 of 98) infants born at freestanding birth centers had newborn hearing screening results documented in the tracking system. Reasons for the 35% without documentation of results include: the parents declined screening, the family did not have a follow-up visit, infants were born before the midwife had the hearing screening equipment, and some may have been missed. It is anticipated that the percentage of infants with results in the tracking system will increase due to more midwives having equipment, more parent education on the importance of screening, and better follow up.

**New Hampshire Strategy #11**, measure the effectiveness of all current newborn hearing screening activities and educational materials by collecting and analyzing feedback from families of infants who received hearing screening and/or diagnostic testing at New Hampshire facilities.

Parents reviewed and provided feedback about the content when the newborn hearing screening brochure was updated in 2011. The EHDI team is currently updating the diagnostic testing brochure and will again seek input from parents. The team will reach out to parents with young children referred to us by the Co-Directors at Family Voices, and the staff at several child care agencies. Parents of infants without hearing loss will be asked to review and provide feedback on the revised brochure.

**New Hampshire Strategy # 12**, collaborate with Head Start leaders to promote hearing screening in New Hampshire Head Start Programs.

The nurses at three Early Head Start Programs in Belknap and Merrimack County obtain parental permission and request newborn hearing screening results for infants enrolled in their program. These nurses also provide hearing screening to infants and toddlers in their programs. Additional Early Head Start programs in Cheshire, Hillsborough and Strafford also provide hearing screening for all infants and toddlers in their programs. The EHDI Program Coordinator has also offered to help the Head Start staff find audiologists with the skills needed to test infants who do not pass their hearing screenings.

**New Hampshire Strategy # 13**, Collaborate with Home Visiting Coordinator to promote hearing screening in NH Home Visiting Programs.

On June 26, 2013, the EHDI Program Coordinator met with home visitors from the eight agencies funded by the NH Division of Public Health Services for Home Visiting NH and Healthy Family America programs. Information was shared about the newborn hearing screening process and the importance of timely follow up for infants needing diagnostic testing and referral for early intervention services, if indicated. Many home visitors were not aware of the newborn hearing screening process, and asked many questions. Discussion was held on the role that they could play in assuring that infants in need of follow up, have appointments scheduled, and receive needed services.