Collaborations between early intervention in the home and the audiological team have proven to be beneficial for all involved including the family and the child diagnosed with hearing loss. Nechodom and Swartwout presented a case study at the National EHDI conference in Jacksonville Florida, which described the coordination of care. Swartwout was invited to attend the diagnostic auditory brainstem response (ABR) evaluation for newborn, Olivia Erickson, who had failed her first hearing screens after Olivia’s parents, Wes and Megan, provided permission to attend the ABR. When the hearing loss was confirmed, the transition from audiology to home-based services began immediately at the time of diagnosis.

The Ericksons shared their detailed experience of the collaborative model. The family expressed that they cannot imagine having their daughter’s diagnosis happen any other way. Most importantly, it established a relationship of teamwork and support from the very beginning and outlined the continuum of care their daughter would receive moving forward.

Every child deserves a chance at a brilliant future, and we strive to afford every single child the opportunity to reach his or her greatest potential. This is our foundation and we build upon it every day that we work with children with hearing loss and their families. We realize that in order to have even the slightest chance at achieving this end goal, we need to actively engage our families from the beginning while relying upon a host of other professionals for their expertise.

(Continued on page 4)
Moving the Needle: Decreasing North Dakota’s Population of Infants Lost to Follow-up

By Sue Routledge, ND EHDI Specialist

In 2012, North Dakota’s Early Hearing Detection and Intervention (ND EHDI) Program indicated 99% of infants birthed in North Dakota had their hearing screened. Additionally, there have been yearly decreases in the number of infants termed as “lost to follow-up” for complete hearing screening. While this is a reason to celebrate, the lost to follow-up population has a need to be addressed to assure complete hearing care for all infants. Without documented hearing care, these infants may be at risk for undiagnosed hearing loss or delayed hearing loss diagnosis if complete screening has not occurred. They may also miss an opportunity for available statewide family supports should a hearing loss be suspected. North Dakota’s recent and continual population growth and increasing birth rates has heightened this need. ND EHDI strives to continually work in collaboration and partnership with North Dakota’s hearing healthcare providers to identify and help implement methods for reducing loss to follow-up populations.

In North Dakota, loss to follow-up at the birth screen level has been identified to be infants who were not screened at birth (“missed” having a birth hearing screen). This group is largely comprised of two populations. The first population is home births. At present the home birth population is identifiable; however, it is unknown how many are being screened and screening rates are thought to be minimal. The second population, while smaller, is none-the-less important and is represented by infants discharged from a birthing hospital without a completed birth hearing screen and who did return for an outpatient screen. While the number of hospital missed birth hearing screens has remained low (10 in 2012, 6 in 2013), it is important to note North Dakota’s growing home birth population. Vital Records indicated home births doubled between 2009 and 2012 as well as indicated a 24% increase (from 69 to 91 home births) between 2011 and 2012.

An additional Loss to Follow-up population has been identified as infants who did not pass the birth hearing screening (including missed and referred/did not pass outcomes) and did not return for an outpatient follow-up. In 2012, 205 infants were documented as missed or did not pass the initial screening and did not complete outpatient screening. In 2013, 297 infants were documented as missed
or did not pass the initial screening and did not complete outpatient screening.

A third identified lost to follow-up population are infants designated as “Lost Contact” in the ND EHDI state reporting system. This population did not complete recommended hearing screenings and/or audiological assessments and have been contacted by ND EHDI, outpatient providers and early intervention support providers without response.

ND EHDI’s goal is to support the improvement of systems to ensure improved hearing outcomes for ALL children. ND EHDI’s past collaborative experiences with North Dakota’s hearing partners have been wonderful and much has been accomplished and improved towards assuring complete hearing healthcare for infants birthed in North Dakota. ND EHDI plans to continue and expand upon these efforts with current partners and approach new allies for continued reduction in the “Loss to Follow-up” effort.

At the birth screen level, ND EHDI will continue to support hospital efforts to ensure missed birth screen rates remain low to non-existent. ND EHDI will also be approaching North Dakota and bordering state midwifery programs with hopes of a collaborative effort to establish a means of hearing care assurance for the home birth population. Continued and increased efforts to identify strategies/methods to assure infants return for recommended outpatient screening and decrease the population of infants deemed lost contact are also being pursued utilizing a quality improvement methodology called the Plan Do Study Act (PDSA) model. Collaboration with hospital nursery staff, midwives, audiologists, early interventionists and family support program representatives will help assure all aspects of the loss to follow-up effort is being addressed.

The identification, development and implementation of useful strategies and methods will help “move the needle” in a positive direction toward the reduction of loss to follow-up. It takes a team. Through networking and by working together with North Dakota’s hearing health providers, North Dakota’s growing population of infants will be afforded many methods and opportunities to assure complete hearing health care.

Contact Vickie for more brochures and growth charts at vickie.brabandt@minotstateu.edu.
The 1-3-6 model is the well-established framework for children suspected of or having been newly diagnosed with hearing loss. Children will be screened for hearing loss by one month, receive diagnosis by three months and receive appropriate intervention by six months. Early intervention is the process of providing services, education and support to young children and their families who are deemed to have an established hearing loss. The earlier this process begins, the better.

Evidence-based research has indicated many key outcomes that strengthen the importance of 1-3-6 for implementation of early intervention. The brain is being shaped by auditory stimulation, and the foundation for hearing, language, and speech is being laid in the first six months before a child utters their first real word.

Children born with hearing loss that are identified and given appropriate intervention before 6 months of age demonstrate significantly better speech and reading comprehension than children identified after 6 months of age. Children with hearing loss who begin early intervention earlier have significantly better developmental outcomes than similar children who begin intervention later and typically progress at age-appropriate rates.

These are the facts established by many of our diligent predecessors. Working together in a forever-evolving collaboration provides successful early intervention for each child to have their unique opportunity to shine. Collaboration is an interactive process that enables teams of people with diverse expertise to generate creative solutions to mutually defined problems. The child and family are at the center and the various professionals hold equal roles in the partnership. The situations each child and family face are unique, and the professionals working with them bring diverse backgrounds of expertise to provide ample ideas to best address these needs.

There are countless professional guidelines and years of evidence-based research that guide the team’s decision-making. The Joint Committee on Infant Hearing Loss sums it up best: “We must never lose sight of our ultimate goal to optimize the communicative, social, academic, and vocational outcomes of every single child with a permanent hearing loss.” The collaborative team solidly believes that we must all bring our expertise together to achieve this goal for each child we work with.

*Coming together is a beginning, staying together is progress, and working together is success.* —Henry Ford
Suggested Reading for Young Deaf and Hard of Hearing Children

<table>
<thead>
<tr>
<th>Age 2-3</th>
<th>Book</th>
<th>Author</th>
<th>Age 3-5</th>
<th>Book</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>Peek-a-Bloom!</em></td>
<td>Marie Torres Cimarusti</td>
<td></td>
<td><em>Mirror</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Peek-a-Moo!</em></td>
<td></td>
<td></td>
<td><em>Shadow</em></td>
<td>Suzy Lee</td>
</tr>
<tr>
<td></td>
<td><em>Peek-a-Zoo</em></td>
<td></td>
<td></td>
<td><em>Wave</em></td>
<td></td>
</tr>
</tbody>
</table>

Source: Reading to Young D/HH Children, June 2011, S. Fairbanks, A. King, P. Muldowney, L. Rollins

Calendar of Events

**July**
Independence Day - EHDI offices closed Friday, July 4, 2014

**August**
Move the Needle Webinar - cCMV 101: Congenital Cytomegalovirus from Prevention to Treatment Thursday, August 21, 2014 1:30-2:30pm EST

**September**
Labor Day - EHDI offices closed Monday, September 1, 2014
Online Webinar - Promoting EHDI-PALS Thursday, September 18, 2014 11:30am-12:30pm MT
[http://www.infanthearing.org/resources_home/events/index.html](http://www.infanthearing.org/resources_home/events/index.html)
Hands & Voices 11th Annual Leadership Conference September 19-21, 2014 Savannah, Georgia

Follow us on Facebook. [ND EHDI Program](#)
What is EHDI?

EHDI (Early Hearing Detection & Intervention) programs are located in states and are designed to identify infants with hearing loss by universal screening. This allows identified infants to be enrolled in an early intervention program. These intervention programs are designed to help facilitate the development of visual and/or spoken language and the cognitive (thinking) skills needed to succeed academically and socially.

Chime In!

Check out the most updated ND EHDI website at [www.ndcpd.org/ehdi](http://www.ndcpd.org/ehdi) for information or to meet the staff. If you have questions, find broken links or typos, or have suggestions, please let us know.