• Benchmarks were met for hearing screening performed on newborns at the civilian birthing sites before 1 month of age.

• There were no infants lost to follow up (LPU) at the Early Intervention (EI) enrollment level.

• There was a reduction in the percentage of infants lost to follow-up who needed an outpatient rescreen or high risk rescreen.

• Successful strategies used to reduce lost to follow-up of infants needing rescreen included:
  1. Offering alternate hearing screening appointment dates and sites;
  2. Making reminder calls about appointment date/time;
  3. Providing incentives for kept appointments;
  4. Giving hearing screening outpatient appointments from the birthing sites before discharge.

• Public awareness on the importance of early detection of hearing loss through the screening and evaluation processes was greatly enhanced by the Project’s participation in numerous community outreach activities.

• Hearing screeners, physicians, parents and early intervention providers were surveyed to assess the Project’s strengths and needs for quality improvement purposes. The findings of these surveys will identify future training and technical assistance needs that will be addressed.

• Guam EHDI and the University of Hawaii, Telecommunications, and Social Informatics (TASI) Research Program, continue to collaborate on the plan for interoperability between the Electronic Health Record (EHR) at the Department of Public Health and Social Services (DPHSS) and Guam ChildLink - EHDI. Timelines were developed and key staff were designated to specific roles to pilot the interoperability plan by June 30, 2016. Interoperability of data systems is a key milestone for achieving system sustainability.

• The Guam Regional Medical City, Guam’s newest birthing facility, joined the Guam EHDI Collaborative Partnership System.

For more information, visit www.guamehdi.org

Guam EHDI
Phone: 735-2466 TTY: 734-6531 • Email: nenehearing@guamehdi.org
Location: Dean Circle House 22-23, University of Guam
Office Hours: Monday - Friday, 8am - 12 noon; 1pm - 5pm
The Guam EHDI Project was established in 2002 through a federal grant awarded to the University of Guam Center for Excellence in Developmental Disabilities Education, Research, & Service (Guam CEDDERS). The grant was awarded by the U.S. Health and Human Services (HHS), Health Resources and Services Administration (HRSA) to establish Guam’s Newborn Hearing Screening and Intervention Program. In 2003, Guam CEDDERS also received funding to establish an integrated data tracking & surveillance system, through a Cooperative Agreement with the U.S. HHS, Centers for Disease Control and Prevention (CDC), to support the Guam EHDI Project.

Universal Newborn Hearing Screening and Intervention is mandated by Public Law 27-150, “The Universal Newborn Hearing Screening and Intervention Act,” which was enacted in December 2004. Guam’s local legislation aligns with national goals and assures an upgraded standard of care for all babies born on Guam.

Early identification of hearing loss is important because:

- Hearing loss is the most frequent birth defect.*
- Undetected hearing loss has serious negative consequences
- There are dramatic benefits associated with early identification of hearing loss.

The goals of the current Guam EHDI Project are to assure that:

- All babies born on Guam are screened for hearing loss by 1 month of age;
- Babies with hearing loss are diagnosed by 3 months of age;
- Quality early intervention services they need are initiated by 6 months of age

* Source: National Center on Hearing Assessment & Management (NCHAM), Utah State University.

Types of Hearing Loss

<table>
<thead>
<tr>
<th>Type of Hearing Loss</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conductive Hearing Loss</td>
<td>10%</td>
</tr>
<tr>
<td>Sensorineural Hearing Loss</td>
<td>10%</td>
</tr>
<tr>
<td>Mixed Hearing Loss</td>
<td>70%</td>
</tr>
</tbody>
</table>

There were 89 infants identified with a hearing loss since the Guam EHDI project began in 2002. These infants were all identified and offered early intervention services through the Guam Department of Education, Guam Early Intervention System (DOE-GEIS).

Initial Screening*

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent Screened</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>99%</td>
<td>97%</td>
</tr>
<tr>
<td>2013</td>
<td>99%</td>
<td>97%</td>
</tr>
<tr>
<td>2014</td>
<td>99%</td>
<td>97%</td>
</tr>
<tr>
<td>2015</td>
<td>99%</td>
<td>97%</td>
</tr>
</tbody>
</table>

The Guam EHDI project has maintained a 99% initial hearing screening rate at Guam Memorial Hospital Authority (GMHA) and Sagua Malaig Birthing Facility. Guam Regional Medical City (GRMC) data is included in the 2015 screening rate.

Percent Lost to Follow Up (LFU) Outpatient Rescreen*

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent LFU for Outpatient Rescreen</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>6%</td>
<td>10%</td>
</tr>
<tr>
<td>2013</td>
<td>7%</td>
<td>10%</td>
</tr>
<tr>
<td>2014</td>
<td>5%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Percent Lost to Follow Up (LFU) for Outpatient Rescreen decreased from 6% in 2012, increased to 7% in 2013, and further decreased to 5% in 2014, and further decreased to 2% in 2015, exceeding the established Guam EHDI benchmark.

The Lost to Follow Up (LFU) rate for High Risk Rescreen increased to 33% in 2012, and 35% in 2013. However, the rate decreased to 17% in 2014, exceeding the benchmark for that year. In 2015, the rate decreased to 16%, but was over 6% over the established 10% benchmark for the year.

Diagnostic Audiological Evaluation (DAE)*

* Infants also do not pass a follow-up rescreen, receive a DAE to determine whether or not a hearing loss is present and if so, the type and severity of the hearing loss.

The Lost to Follow Up (LFU) rate for High Risk Rescreen increased to 33% in 2012, and 35% in 2013. However, the rate decreased to 17% in 2014, exceeding the benchmark for that year. In 2015, the rate decreased to 16%, but was over 6% over the established 10% benchmark for the year.

*Source: Guam CEDDERS

**Types of Rescreening

- Initial Screening - Screening of infants for potential hearing loss prior to discharge from the birthing site.
- Outpatient Rescreen - Follow-up rescreen of infants who did not pass their initial hearing screening.
- High Risk Rescreen - Follow-up rescreen of infants who passed their initial hearing screening but have risk factors for potential late onset hearing loss.