## Summary of 2012 National CDC EHDI Data

### Data Source: 2012 CDC EHDI Hearing Screening & Follow-up Survey (HSFS)

**Number of Respondents:** 57\(^a\) (50 states, 6 territories, and the District of Columbia)

AL, AK, American Samoa, AR, AZ, CA, CNMI, CO, CT, DC, DE, FL, GA, Guam, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MI, Micronesia, MN, MO, MS, MT, NC, ND, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, Palau, Republic of the Marshall Islands, RI, SC, SD, TN, TX, UT, VA, VT, WA, WI, WV, WY

### 2012 Documented EHDI Data Items

<table>
<thead>
<tr>
<th>Documented Hearing Screening(^a)</th>
<th>Percent Screened</th>
<th>96.6% (n = 3,820,624)</th>
</tr>
</thead>
<tbody>
<tr>
<td>o Percent Screened (excluding infant deaths &amp; parental refusals)</td>
<td>97.1%</td>
<td></td>
</tr>
<tr>
<td>o Percent Screened before 1 Month of Age</td>
<td>86.0% (n = 3,287,614)</td>
<td></td>
</tr>
<tr>
<td>Percent Not Passing final / most recent screening</td>
<td>1.6% (n = 60,760)</td>
<td></td>
</tr>
<tr>
<td>o Percent Not Passing Inpatient Screen and Not Receiving an Outpatient Screen</td>
<td>12.1% (n = 7,328)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Documented Diagnosis(^b) (based on 52,961 infants not passing)</th>
<th>Percent Diagnosed</th>
<th>54.9% (n = 29,074)</th>
</tr>
</thead>
<tbody>
<tr>
<td>o Percent with No Hearing Loss (i.e., no diagnosed hearing loss)</td>
<td>44.6% (n = 23,603)</td>
<td></td>
</tr>
<tr>
<td>o Percent with Hearing Loss</td>
<td>10.3% (n = 5,475)</td>
<td></td>
</tr>
<tr>
<td>o Percent Diagnosed (normal hearing + hearing loss) before 3 Months of Age</td>
<td>69.1% (n = 20,102)</td>
<td></td>
</tr>
</tbody>
</table>

### Prevalence of Hearing Loss

1.6 per 1,000 screened (Range 0.0 – 4.3 per 1,000)

### No Documented Diagnosis\(^*\)

<table>
<thead>
<tr>
<th>Percent w. No Documented Diagnosis (of those not passing):</th>
<th>45.1% (n = 23,883)</th>
</tr>
</thead>
<tbody>
<tr>
<td>o Infant Died / Parents Declined</td>
<td>2.0% (n = 1,037)</td>
</tr>
<tr>
<td>o Non-Resident / Moved</td>
<td>4.0% (n = 2,141)</td>
</tr>
<tr>
<td>o Percent Loss to Follow-up (LFU) / Loss to Documentation (LTD) for Diagnosis</td>
<td>2.8% (n = 1,505)</td>
</tr>
<tr>
<td>o LFU/LTD = # Parents/Family Contacted but Unresponsive (9,547) + # Unable to Contact (2,773) + # Unknown (6,686)</td>
<td>35.9% (n = 19,006) (Range 2.5 – 83.6%)</td>
</tr>
<tr>
<td>o Percent LFU/LTD for Diagnosis excluding Infants Not Passing an Inpatient Screen and not having a documented Outpatient Screen</td>
<td>23.4% (n = 12,401)</td>
</tr>
</tbody>
</table>

### Other Cases of Hearing Loss

<table>
<thead>
<tr>
<th>Number of Additional Cases (e.g., late-onset hearing loss &amp; infants not screened at birth)</th>
<th>n = 438</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Cases of Non-Permanent / Transient Hearing Loss</td>
<td>n = 1,375</td>
</tr>
</tbody>
</table>

### Documented Referral to Early Intervention (EI)\(^b\) (based on 5,718 infants w. hearing loss)

<table>
<thead>
<tr>
<th>Percent Referred to Part C EI (of those with hearing loss)</th>
<th>87.6% (n = 5,011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>o Percent Eligible for Part C EI (of those referred)</td>
<td>83.1% (n = 4,163)</td>
</tr>
<tr>
<td>Percent Not Referred to Part C and Unknown (of those with hearing loss)</td>
<td>13.0% (n = 742)</td>
</tr>
</tbody>
</table>

### Documented Enrollment in EI\(^b\)

<table>
<thead>
<tr>
<th>Percent w. Hearing Loss Receiving EI (Part C &amp; Non-Part C)</th>
<th>61.7% (n = 3,527) (Range 0.0% - 100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>o Receiving EI = # in Part C EI (3,427) + # in Non-Part C EI (100)</td>
<td></td>
</tr>
<tr>
<td>o Percent Receiving EI before 6 Months of Age (Part C &amp; Non-Part C)</td>
<td>67.1% (n = 2,367)</td>
</tr>
</tbody>
</table>

### No Documented Enrollment in EI\(^b\)

<table>
<thead>
<tr>
<th>Percent Receiving No EI Services (of those with hearing loss)</th>
<th>36.8% (n = 2,105)</th>
</tr>
</thead>
<tbody>
<tr>
<td>o Infant Died / Parents Declined (of those with hearing loss)</td>
<td>7.3% (n = 415)</td>
</tr>
<tr>
<td>o Non-Resident / Moved (of those with hearing loss)</td>
<td>1.6% (n = 92)</td>
</tr>
<tr>
<td>o Not Eligible for Part C EI</td>
<td>3.3% (n = 191)</td>
</tr>
<tr>
<td>o Percent LFU / LTD for Intervention</td>
<td>24.6% (n = 1,404) (Range 0.0 % - 100%)</td>
</tr>
</tbody>
</table>

\(\text{Notes}\): Some jurisdictions only reported partial data (e.g., only hearing screening data) Number of Respondents: \(^a\)57 States & Territories; \(^b\) 54 States & Territories; \(^*\) 54 States & Territories (different than States & Territories reporting diagnostic data)
Summary of 2012 National CDC EHDI Data

Percent Screened for Hearing Loss by Different Denominators, 2008-2012

- 2012 (n=57): 96.6% Screened (excluding Refusals/Infant Deaths), 97.1% Screened (based on EHDI reported births)
- 2011 (n=53): 97.9% Screened (excluding Refusals/Infant Deaths), 98.4% Screened (based on EHDI reported births)
- 2010 (n=54): 97.9% Screened (excluding Refusals/Infant Deaths), 98.3% Screened (based on EHDI reported births)
- 2009 (n=50): 87.4% Screened (excluding Refusals/Infant Deaths), 98.0% Screened (based on EHDI reported births)
- 2008 (n=50): 96.9% Screened (excluding Refusals/Infant Deaths), 97.4% Screened (based on EHDI reported births)

Documented Diagnostic Status of Infants Not Passing Hearing Screening
(U.S., 2012) Total Not Pass= 52,961

- No Hearing Loss, 44.6%
- Hearing Loss, 10.3%
- Non-resident / Moved, 2.8%
- Died / Declined, 4.0%
- In Process, 2.0%
- LFU/LTD, 35.9%
Summary of 2012 National CDC EHDI Data

Documented Intervention Status of Infants with Hearing Loss
(U.S., 2012) Total w. Hearing Loss = 5,718

- Receiving EI, 61.7%
- LFU/LTD, 24.6%
- Died/Declined, 7.3%
- Not Eligible Part C, 3.3%
- Monitoring Only (No EI), 1.5%
- Non-resident / Moved, 1.6%
## Data Notes

- HSFS data reflects information that states and territories have reportedly **documented** without estimation. As a result, data reported by CDC EHDI may differ from other sources.
- Some respondents **only** provided partial data (e.g., hearing screening data only). As a result the number of reporting states and territories and denominators varies for some of the data sections.
- This data is **subject to change** if additional states and/or territories report data for year 2012.
- **In Process:** Respondents were advised that to be reported in this category each infant **must** have been seen for diagnostic testing at least one time and have a follow-up appointment already scheduled.
- **LFU (Loss to Follow-up) / LTD (Loss to Documentation):** Sub group of “No Documented Diagnosis / Undetermined” and “No Intervention Services.” Includes instances where infant’s families were **Unable to be contacted or Unresponsive, and Unknown cases.**

## Explanation of 2012 Calculations

**Documented Hearing Screening** (based on data from 57 States & Territories)

**Percent Screened**

\[
\frac{3,820,624 \text{ (# screened)}}{3,953,986 \text{ (occurrent births reported by EHDI programs)}} \times 100 = 96.6\%
\]

**Percent Screened (excluding infant deaths & parental refusals)**

\[
\frac{3,820,624 \text{ (# screened)}}{3,933,508 \text{ (occurrent births excluding infant deaths & parental refusals)}} \times 100 = 97.1\%
\]

**Percent Screened Before 1 Month of Age**

\[
\frac{3,287,614 \text{ (# Pass and # Not Pass before 1 Month of Age)}}{3,820,624 \text{ (# Pass + # Not Pass)}} \times 100 = 86.0\%
\]

**Percent Not Passing final / most recent hearing screening**

\[
\frac{60,760 \text{ (# not pass)}}{3,820,624 \text{ (# screened)}} \times 100 = 1.6\%
\]

**Percent Not Passing Inpatient (IP) Screen and Not Receiving an Outpatient (OP) Screen**

\[
\frac{7,328 \text{ (# not passing IP screen and not receiving an OP screen)}}{60,760 \text{ (# not pass)}} \times 100 = 12.1\%
\]

**Documented Diagnosis** (based on 52,961 infants not passing / data from 54 States & Territories)

**Percent Diagnosed**

\[
\frac{23,603 \text{ (# w. no hearing loss) + 5,475 (# with diagnosed permanent hearing loss)}}{52,961 \text{ (# not pass)}} \times 100 = 54.9\%
\]

**Percent with No Hearing Loss (i.e., no diagnosed hearing loss)**

\[
\frac{23,603 \text{ (# w. no hearing loss)}}{52,961 \text{ (# not pass)}} \times 100 = 44.6\%
\]

**Percent Hearing Loss**

\[
\frac{5,475 \text{ (# with diagnosed permanent hearing loss)}}{52,961 \text{ (# not pass)}} \times 100 = 10.3\%
\]

**Percent Diagnosed before 3 Months of Age**

\[
\frac{20,102 \text{ (# diagnosed with no hearing loss + # with permanent hearing loss before 3 Months)}}{29,078 \text{ (# diagnosed with no hearing loss + # with permanent hearing loss)}} \times 100 = 69.1\%
\]

**Prevalence of Hearing Loss**

\[
\frac{5,475 \text{ (# with diagnosed permanent hearing loss)}}{3,463,374 \text{ (# screened)}} \times 1,000 = 1.6 \text{ per 1,000 screened}
\]

**No Documented Diagnosis** (based on 52,961 infants not passing / data from 54 States & Territories)

**Percent with No Documented Diagnosis (of those Not Passing)**

\[
\frac{23,883 \text{ (# with no documented diagnosis)}}{52,961 \text{ (# not pass)}} \times 100 = 45.1\%
\]
Summary of 2012 National CDC EHDI Data

**Percent In Process**
\[
\frac{1,037 \text{ (# in process)}}{52,961 \text{ (# not pass)}} \times 100 = 2.0\%
\]

**Percent Infant Died / Parents Declined Services**
\[
\frac{2,141 \text{ (# infant died / parents declined services)}}{52,961 \text{ (# not pass)}} \times 100 = 4.0\%
\]

**Percent Non-resident or Moved Out of Jurisdiction**
\[
\frac{1,505 \text{ (# non-resident or moved out of jurisdiction)}}{52,961 \text{ (# not pass)}} \times 100 = 2.8\%
\]

**Percent LFU / LTD (i.e., Unable to Contact / Unresponsive / Unknown)**
\[
\frac{19,006 \text{ (# unable to contact / unresponsive / unknown)}}{52,961 \text{ (# not pass)}} \times 100 = 35.9\%
\]

**Percent LFU/LTD for Diagnosis excluding Infants Not Passing an Inpatient Screen and not having a documented Outpatient Screen**
\[
\frac{19,006 \text{ (# unable to contact / unresponsive / unknown) - 6.605 (# not passing IP screen and not receiving an OP screen)}}{52,961 \text{ (# not pass)}} = 23.4\%
\]

**Documented Referral to EI** *(based on 5,718 infants w. hearing loss / 54 States & Territories)*

**Percent Referred to Part C EI (of those with hearing loss)**
\[
\frac{5,011 \text{ (# referred to Part C EI)}}{5,718 \text{ (# w. permanent hearing loss)}} \times 100 = 87.6\%
\]

**Percent Eligible for Part C EI (of those referred)**
\[
\frac{4,163 \text{ (# eligible for Part C)}}{5,011 \text{ (# referred to Part C)}} \times 100 = 83.1\%
\]

**Percent Not Referred to Part C and Unknown (of those with hearing loss)**
\[
\frac{742 \text{ (# not referred to Part C and unknown)}}{5,718 \text{ (# w. permanent hearing loss)}} \times 100 = 13.0\%
\]

**Documented Enrollment in EI** *(based on 5,718 infants w. hearing loss / 54 States & Territories)*

**Percent w. Hearing Loss Receiving EI (Part C & Non-Part C)**
\[
\frac{3,527 \text{ (# w. hearing loss receiving Part C & non-Part C EI)}}{5,718 \text{ (# w. permanent hearing loss)}} \times 100 = 61.7\%
\]

**Percent Receiving EI before 6 Months of Age (Part C & Non-Part C)**
\[
\frac{2,367 \text{ (# receiving Part C EI before 6 months) + # receiving Non-Part C EI before 6 Months)}}{3,527 \text{ (# receiving Part C EI + # receiving Non-Part C EI)}} \times 100 = 67.1\%
\]

**No Documented Enrollment in EI** *(based on 5,718 infants w. hearing loss / 54 States & Territories)*

**Percent Receiving No EI Services (of those with hearing loss)**
\[
\frac{2,105 \text{ (# not receiving any EI services)}}{5,718 \text{ (# w. permanent hearing loss)}} \times 100 = 36.8\%
\]

**Percent Infant Died / Parents Declined (of those with hearing loss)**
\[
\frac{415 \text{ (# infant died / parents declined services)}}{5,718 \text{ (# w. permanent hearing loss)}} \times 100 = 7.3\%
\]

**Percent Non-Resident / Moved (of those with hearing loss)**
\[
\frac{92 \text{ (# non-resident or moved out of jurisdiction)}}{5,718 \text{ (# w. permanent hearing loss)}} \times 100 = 1.6\%
\]

**Percent Not Eligible for Part C Intervention**
\[
\frac{191 \text{ (# not eligible for Part C Intervention)}}{5,718 \text{ (# w. permanent hearing loss)}} \times 100 = 3.3\%
\]

**Percent LFU / LTD for Intervention**
\[
\frac{1,404 \text{ (# unable to contact / unresponsive / unknown)}}{5,718 \text{ (# w. permanent hearing loss)}} \times 100 = 24.6\%
\]