# Summary of 2009 National CDC EHDI Data

**Data Source:** 2009 CDC EHDI Hearing Screening & Follow-up Survey (HSFS)

**Number of Respondents:** 50 (47 states and 3 territories)

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

**Note:** The number of respondents for the below data items varies because some jurisdictions were only able to report partial or incomplete data (e.g., only hearing screening data).

## 2009 Documented EHDI Data Items

| Total Occurrent Births (according to state & territorial EHDI programs)\(^\wedge\) | 4,018,885 |
| Occurrent Births (according to by Vital Records programs)\(^\dagger\) | 4,059,221 |
| **Documented Hearing Screening**\(^\wedge\) |  |
| Percent Screened | 97.4% (n = 3,915,360) |
| \(\circ\) Percent Screened (excluding infant deaths & parental refusals) | 98.0% |
| \(\circ\) Percent Screened (based on the # of births reported by Vital Records) | 96.5% |
| \(\circ\) Percent Screened before 1 Month of Age | 93.9% (n = 3,675,149) |
| Percent Not Passing final / most recent screening | 1.6% (n =62,501) |
| \(\circ\) Percent Not Passing Inpatient Screen and Not Receiving an Outpatient Screen | 20.8% (n=13,020) |
| **Documented Diagnosis**\(^\wedge\wedge\) (based on 56,794 infants not passing) |  |
| Percent with No Hearing Loss (i.e., no diagnosed hearing loss) | 39.0% (n = 22,124) |
| Percent with Hearing Loss | 8.9% (n = 5,073) |
| Percent Diagnosed (normal hearing + hearing loss) before 3 Months of Age | 68.4% (n = 18,603) |
| Prevalence of Hearing Loss | 1.4 per 1,000 screened (Range 0 - 4.6 per 1,000) |
| **No Documented Diagnosis**\(^\wedge\wedge\) |  |
| Percent w. No Documented Diagnosis (of those not passing): | 52.1% (n = 29,597) |
| \(\circ\) In Process | 3.1% (n = 1,753) |
| \(\circ\) Infant Died / Parents Declined | 2.3% (n = 1,315) |
| \(\circ\) Non-Resident / Moved | 1.6% (n = 894) |
| \(\circ\) Percent Loss to Follow-up (LFU) / Loss to Documentation (LTD) for Diagnosis | 45.1% (n = 25,635) (Range 3.8% - 98%) |
| \(\circ\) LFU/LTD = # Parents/Family Contacted but Unresponsive (7,172) + # Unable to Contact (4,537) + # Unknown (13,622) |
| **Documented Referral to Early Intervention (EI)**\(^\wedge\) (based on 5,103 infants w. hearing loss) |  |
| Percent Referred to Part C EI (of those with hearing loss) | 87.8% (n = 4,482) |
| \(\circ\) Percent Eligible for Part C EI (of those referred) | 91.1% (n = 4,083) |
| Percent Not Referred to Part C and Unknown (of those with hearing loss) | 12.2% (n = 621) |
| **Documented Enrollment in EI**\(^\wedge\) |  |
| Percent w. Hearing Loss Receiving EI (Part C & Non-Part C) | 67.5% (n = 3,445) (Range 0% - 100%) |
| \(\circ\) Receiving EI = # in Part C EI (3,224) + # in Non-Part C EI (221) |
| \(\circ\) Percent Receiving EI before 6 Months of Age (Part C & Non-Part C) | 66.2% (n = 2,282) |
| **No Documented Enrollment in EI**\(^\wedge\) |  |
| Percent Receiving only Monitoring Services | 1.0% (n = 52) |
| Percent Receiving No EI Services (of those with hearing loss) | 31.5% (n = 1,606) |
| \(\circ\) Infant Died / Parents Declined (of those with hearing loss) | 4.2% (n = 214) |
| \(\circ\) Non-Resident / Moved (of those with hearing loss) | 1.5% (n = 75) |
| \(\circ\) Not Eligible for Part C EI | 1.3% (n = 68) |
| \(\circ\) Percent LFU / LTD for Intervention | 24.5% (n = 1,249) (Range 0% - 100%) |
| \(\circ\) LFU/LTD = # Parents/Family Contacted but Unresponsive (114) + # Unable to Contact (89) + # Unknown (1,045) |

**Number of Respondents:** 50 States & Territories; \(^\wedge\wedge\wedge\)48 States & Territories; \(^\wedge\wedge\)49 States & Territories

**Note:** \(^\dagger\) Vital Records data not available from all respondents. As a result this total includes estimated data about the # of births
Summary of 2009 National CDC EHDI Data

Percent Screened for Hearing Loss by Different Denominators, 2006 - 2009

- Screened (excluding Refusals / Infant Deaths)
- Screened (based on EHDI reported Births)
- Screened (based on births according to Vital Records)

Documented Diagnostic Status of Infants Not Passing Hearing Screening
(U.S., 2009) Total Not Pass = 56,794

- LFU/LTD., 45.1%
- Hearing Loss, 8.9%
- Non-resident / Moved, 1.6%
- Died / Declined, 2.3%
- In Process, 3.1%
- Normal Hearing, 39.0%

Documented Intervention Status of Infants with Hearing Loss
(U.S., 2009) Total w. Hearing Loss = 5,103

- LFU/LTD., 24.5%
- Died/Declined, 4.2%
- Not Eligible Part C, 1.3%
- Monitoring Only (No EI), 1.0%
- Non-resident / Moved, 1.5%
- Receiving EI, 67.5%
### 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 2009.
- **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):** Subgroup 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 2009 Calculations

#### Documented Hearing Screening (based on data from 50 States & Territories)

**Percent Screened**

\[
\frac{3,915,360 \text{ (# screened)}}{4,018,885 \text{ (# reported by EHDI programs)}} \times 100 = 97.4\%
\]

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

\[
\frac{3,915,360 \text{ (# screened)}}{3,994,942 \text{ (# reported by EHDI programs excluding infant deaths & parental refusals)}} \times 100 = 98.0\%
\]

**Percent Screened (based on the # of births reported by Vital Records)**

\[
\frac{3,915,360 \text{ (# screened)}}{4,057,310 \text{ (# reported by Vital Records)}} \times 100 = 96.5\%
\]

**Percent Screened Before 1 Month of Age**

\[
\frac{3,675,149 \text{ (# pass and # not pass before 1 Month of Age)}}{3,915,360 \text{ (# pass + # not pass)}} \times 100 = 93.9\%
\]

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

\[
\frac{62,501 \text{ (# not pass)}}{3,915,360 \text{ (# screened)}} \times 100 = 1.6\%
\]

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

\[
\frac{13,020 \text{ (# not passing IP screen and not receiving OP screen)}}{62,501 \text{ (# not pass)}} \times 100 = 20.8\%
\]

#### Documented Diagnosis (based on 56,794 infants not passing / data from 48 States & Territories)

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

\[
\frac{22,124 \text{ (# w. no hearing loss)}}{56,794 \text{ (# not pass)}} \times 100 = 39.0\%
\]

**Percent Hearing Loss**

\[
\frac{5,073 \text{ (# with diagnosed permanent hearing loss)}}{56,794 \text{ (# not pass)}} \times 100 = 8.9\%
\]

**Percent Diagnosed before 3 Months of Age**

\[
\frac{18,603 \text{ (# diagnosed with no hearing loss} + \# \text{ with permanent hearing loss before 3 Months)}}{27,197 \text{ (# diagnosed with no hearing loss} + \# \text{ with permanent hearing loss)}} \times 100 = 68.4\%
\]

**Prevalence of Hearing Loss**

\[
\frac{5,073 \text{ (# with diagnosed permanent hearing loss)}}{3,614,918 \text{ (# screened)}} \times 1,000 = 1.4 \text{ per 1,000 screened}
\]

#### No Documented Diagnosis (based on 56,794 infants not passing / data from 48 States & Territories)

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

\[
\frac{29,597 \text{ (# with no documented diagnosis)}}{56,794 \text{ (# not pass)}} \times 100 = 52.1\%
\]
Summary of 2009 National CDC EHDI Data

Percent In Process
1,753 (# in process) / 56,794 (# not pass) x 100 = 3.1%

Percent Infant Died / Parents Declined Services
1,315 (# infant died / parents declined services) / 56,794 (# not pass) x 100 = 2.3%

Percent Non-resident or Moved Out of Jurisdiction
894 (# non-resident or moved out of jurisdiction) / 56,794 (# not pass) x 100 = 1.6%

Percent LFU / LTD (i.e., Unable to Contact / Unresponsive / Unknown)
25,635 (# unable to contact / unresponsive / unknown) / 56,794 (# not pass) x 100 = 45.1%

Documented Referral to EI (based on 5,103 infants w. hearing loss / 49 States & Territories)

Percent Referred to Part C EI (of those with hearing loss)
4,482 (# referred to Part C EI) / 5,103 (# w. permanent hearing loss) x 100 = 87.8%

Percent Eligible for Part C EI (of those referred)
4,083 (# eligible for Part C) / 4,482 (# referred to Part C) x 100 = 91.1%

Percent Not Eligible / Eligibility Unknown (of those referred)
399 (# not eligible for Part C and with unknown eligibility) / 4,482 (# referred to Part C) x 100 = 8.9%

Percent Not Referred to Part C and Unknown (of those with hearing loss)
621 (# not referred to Part C and unknown) / 5,103 (# w. permanent hearing loss) x 100 = 12.2%

Documented Enrollment in EI (based on 5,103 infants w. hearing loss / 49 States & Territories)

Percent w. Hearing Loss Receiving EI (Part C & Non-Part C)
3,445 (# w. hearing loss receiving Part C & non-Part C EI) / 5,103 (# w. permanent hearing loss) x 100 = 67.5%

Percent Receiving EI before 6 Months of Age (Part C & Non-Part C)
2,282 (# receiving Part C EI before 6 months + # receiving Non-Part C EI before 6 Months) /
3,445 (# receiving Part C EI + # receiving Non-Part C EI) x 100 = 66.2%

No Documented Enrollment in EI (based on 5,103 infants w. hearing loss / 49 States & Territories)

Percent Receiving only Monitoring Services
52 (# receiving only Monitoring Services) / 5,103 (# w. permanent hearing loss) x 100 = 1.0%

Percent Receiving No EI Services (of those with hearing loss)
1,606 (# not receiving any EI services) / 5,103 (# w. permanent hearing loss) x 100 = 31.5%

Percent Infant Died / Parents Declined (of those with hearing loss)
214 (# infant died / parents declined services) / 5,103 (# w. permanent hearing loss) x 100 = 4.2%

Percent Non-Resident / Moved (of those with hearing loss)
75 (# non-resident or moved out of jurisdiction) / 5,103 (# w. permanent hearing loss) x 100 = 1.5%

Percent Not Eligible for Part C Intervention
68 (# not eligible for Part C Intervention) / 5,103 (# w. permanent hearing loss) x 100 = 1.3%

Percent LFU / LTD for Intervention
1,249 (# unable to contact / unresponsive / unknown) / 5,103 (# w. permanent hearing loss) x 100 = 24.5%