



PUBLIC HEALTH

**ALWAYS WORKING FOR A SAFER AND
HEALTHIER WASHINGTON**

Early Hearing-loss Detection, Diagnosis and Intervention (EHDDI) Program

November 2009

Infant Hearing Loss

- Up to 270 infants may be born deaf or with hearing loss in Washington State each year.
- The first two years of life are critical for learning speech and language.
- Even a mild hearing loss can interfere with a child's ability to learn speech and language.
- Early intervention services by 6 months of age helps with age appropriate language and social-emotional development.

Early Detection of Hearing Loss

- 90% of infants with hearing loss are born to hearing parents.
- Over 50% of infants with hearing loss have no known risk factor for hearing loss.
- Without screening, hearing loss is not typically diagnosed until 12-25 months of age; child may suffer communication or cognitive delays.
- The EHDDI program works to ensure newborns are screened and receive appropriate follow-up care when needed.

EHDDI Program Goals

Ensure that all infants born in Washington:

- Are screened for hearing loss before hospital discharge or at least by **one** month of age.
- Receive a diagnostic audiological evaluation by **three** months of age.
- Are enrolled in early intervention (EI) services by **six** months of age if needed.

Newborn Hearing Screening

- Is **NOT** a test where someone:

claps

whispers

rings a bell



Newborn Hearing Screening

- Non-invasive
- Baby asleep
- Automated Test
- 10-20 minutes
- Result is “pass” or “refer”
- Two types of testing methods

Otoacoustic Emissions (OAE)

- Probe placed in infants ear.
- Tiny microphone sends sounds into the ear.
- Inner ear (cochlea) produces an “echo” that is recorded by the microphone in the probe and processed by the machine.



Auditory Brainstem Response (ABR)

- Auditory stimuli presented to child
- Electrodes measure brain response to sound.



Hearing Screening Surveillance

- 68 birthing hospitals – all have Universal Newborn Hearing Screening (UNHS) programs
- No mandate for hearing screening
- 65 hospitals submitting results to the EHDDI program
- Use revised blood spot card

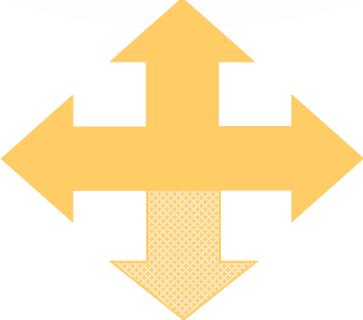
Hospitals
-birth rosters
-dried blood screen
-hearing screen results



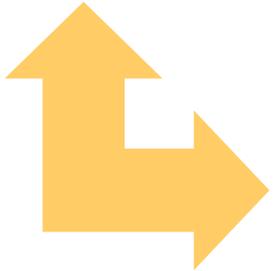
DOH
Office of Newborn Screening
-process all cards



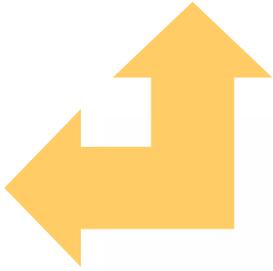
EHDDI
Tracking and Surveillance
System



Primary Care Provider

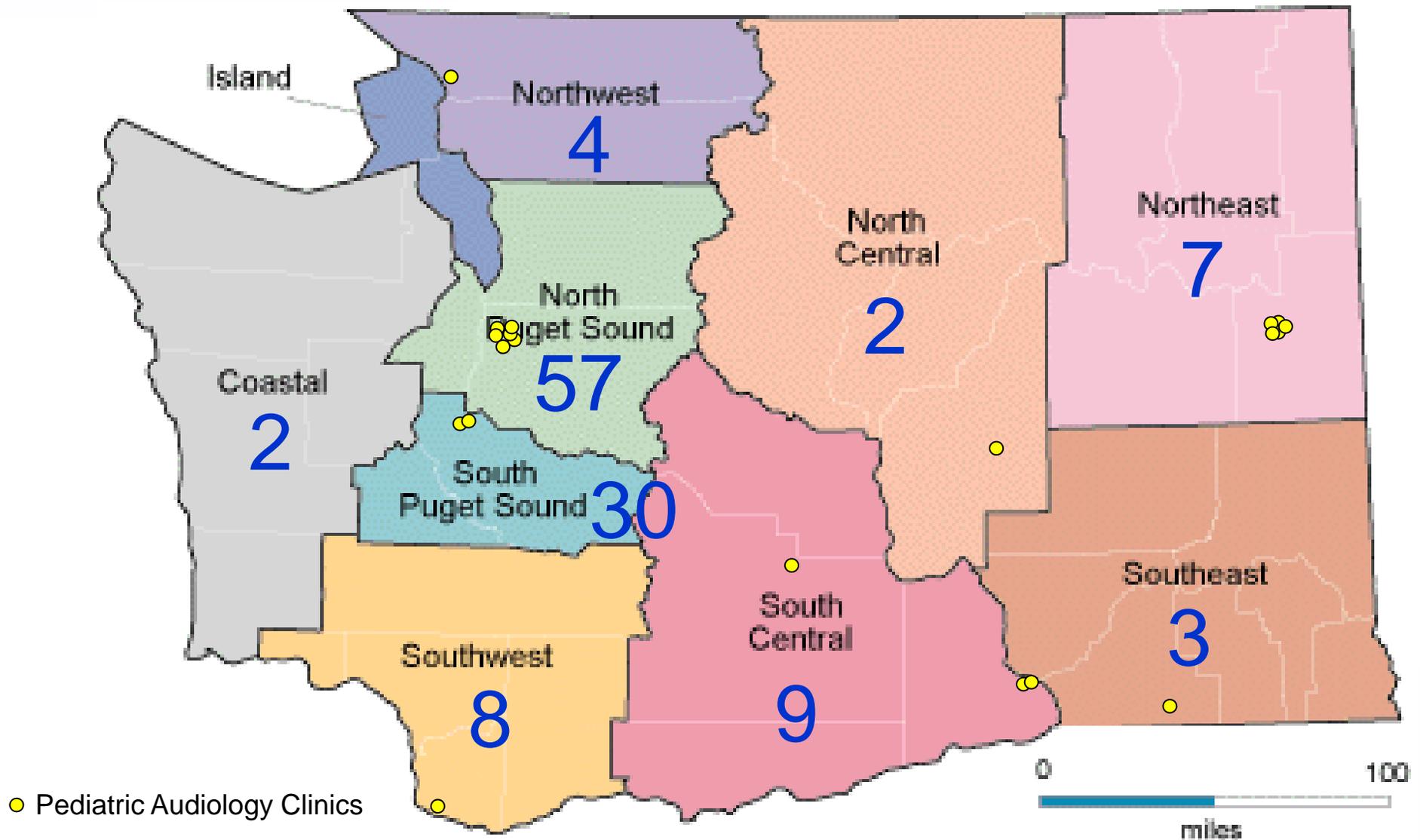


Audiologist



Patient

Number of Infants Born in 2008 Diagnosed with HL by Region of Birth



Loss to Follow-up in Washington

- > 95% of infants are screened for hearing loss before one month of age.
- However,
 - 30% of those missed at the hospital never return for a hearing screen.
 - 35-40% of infants who are referred to an audiologist after not passing their newborn hearing screens do not have a reported diagnostic evaluation.

Are Infants With Hearing Loss Making It To Early Intervention?

- Audiologists report a referral to EI to the EHDDI program.
- Of the 122 infants diagnosed with hearing loss in 2008, 35 (29%) were recorded as having been referred to EI services.

Linking With The Infant Toddler Early Intervention Program (ITEIP)

- Currently exploring a linkage between ITEIP and EHDDI databases to make referrals seamless and accurately reported.
- Determine if infants are being enrolled into EI by 6 months of age.



Washington State
Department of Social
& Health Services



PUBLIC HEALTH
ALWAYS WORKING FOR A SAFER AND
HEALTHIER WASHINGTON



Contact Information

EHDDI Program

1610 NE 150th St.

Shoreline, WA 98155

Ph: (206) 418-5613

Fax: (206) 418-5415

ehddi2@doh.wa.gov

Website:

<http://www.doh.wa.gov/cfh/mch/Genetics/ehddi/>

Karin Neidt, MPH

Ph: (206) 418-5609

Fax: (206) 418-5415

karin.neidt@doh.wa.gov

PUBLIC HEALTH

**ALWAYS WORKING FOR A SAFER AND
HEALTHIER WASHINGTON**