Indiana Department of Health

INDIANA NEWBORN SCREENING PROGRAMS

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NEWBORN SCREENING

EARLY HEARING DETECTION AND INTERVENTION

2025

IDOH MISSION:

To promote, protect, and improve the health and safety of all Hoosiers.

IDOH VISION:

Every Hoosier reaches optimal health regardless of where they live, learn, work, or play.

Basics and importance of newborn screening

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Do you know?

- Why Folic Acid is important for prenatal care?
- Newborn screening results of your child?
  - If not, contact me! 317-232-0972
- Why is it important to have a primary medical provider (pediatrician, family practice, clinic) to monitor health of your child?
- The importance of home activities on early brain and language development?
- How to monitor your child's development?

Developmental Milestones to age 5

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Indiana Kindergarten Readiness

What is newborn screening?

- A **public health program** that aims to quickly identify babies at risk for serious health conditions to ensure timely diagnostic and intervention services for those identified.
- Every state has their own unique newborn screening program
- **A set of 3 screens**
  - Heel stick/Blood Spot screen
  - Pulse oximetry/Critical Congenital Heart Disease (CCHD) screen
  - Newborn hearing screen

Importance of NBS

NEWBORN SCREENING
INDIANA

1. Early diagnosis and treatment of screened conditions
2. Avoidance of associated disability, morbidity and mortality
3. Data and information to improve services for affected children within Indiana

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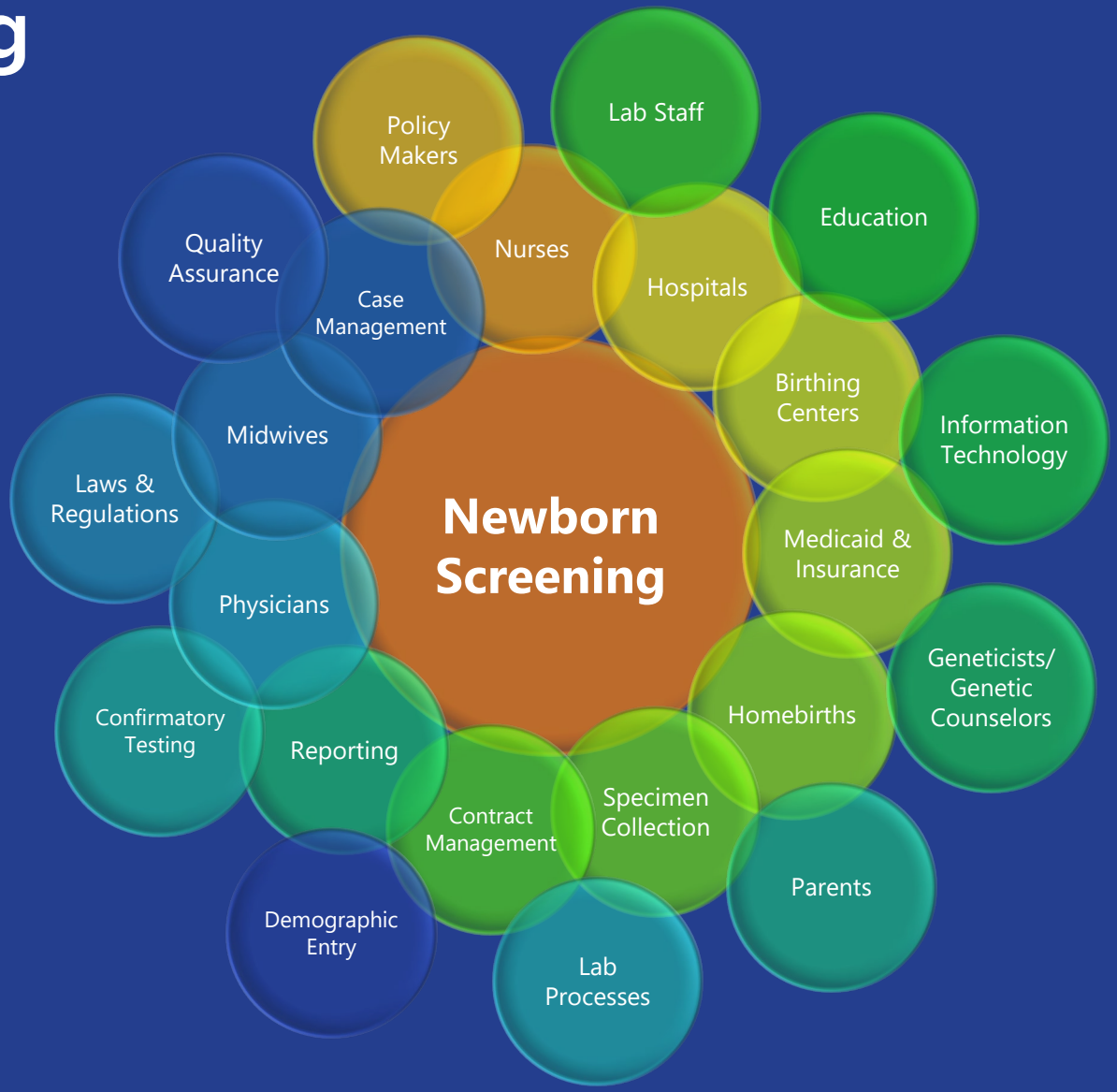
Newborn screening is a system



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Indiana's NBS process

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1: Newborn Heel Stick

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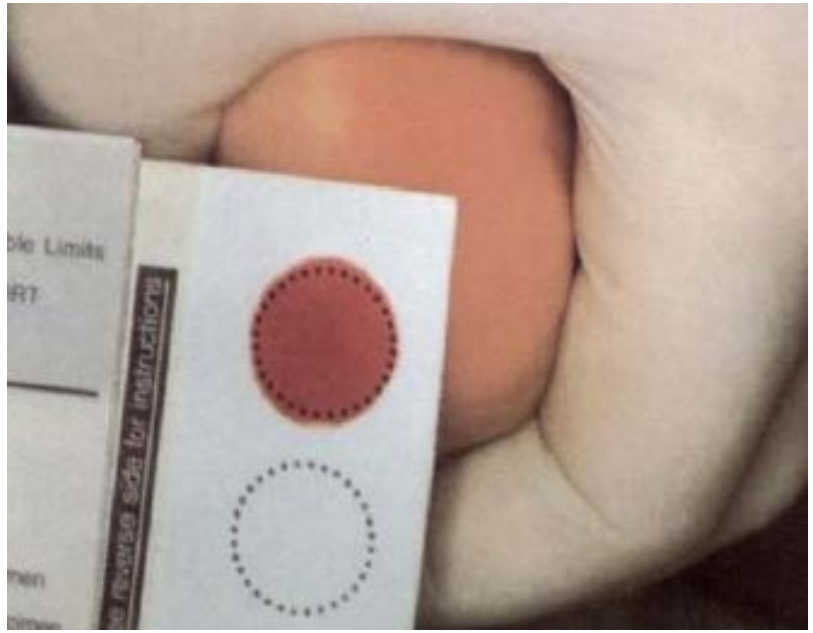
Newborn heel stick

- **Performed between 24-48 hours after birth, before baby leaves the hospital.**
- Small sample of blood taken from outer edges of heel
- Screens for more than 50 rare genetic conditions
- These conditions require early intervention for best outcomes and sometimes life-saving measures.
- Any infants who are not screened must be reported by birthing staff to alert NBS Program.



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2. CCHD screening through pulse oximetry

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CCHD screening

- Screens for **critical congenital heart disease (CCHD)** through pulse oximetry
- Heart defects are the **most common type of birth defect**
- About **200 newborns in Indiana** are born with CCHD each year
- **CCHDs require surgery or intervention** shortly after birth for best health outcomes

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Pulse oximetry results and follow-up

Birthing staff should write pulse oximetry saturation scores on the NBS Keepsake Handout for family:

If baby passes screen, it means the baby's results did not show low levels of oxygen in the blood.

It is *unlikely* the baby has a critical congenital heart defect, but **not all babies with CCHD will have a low level of oxygen in the blood** that is detected during newborn screening.

If baby fails the screen, this means the baby's blood oxygen saturation indicated an increased risk of CCHD.

An **echocardiogram must be scheduled immediately** to determine whether baby has a CCHD or other health condition.

Inform all families of signs of CCHD regardless of result: bluish color of lips and skin, grunting, fast breathing, poor weight gain, excessive sleepiness, increased irritability, difficulty in breathing and/or feeding.

This information should be relayed to families before discharge from the hospital.

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3. Newborn hearing screen

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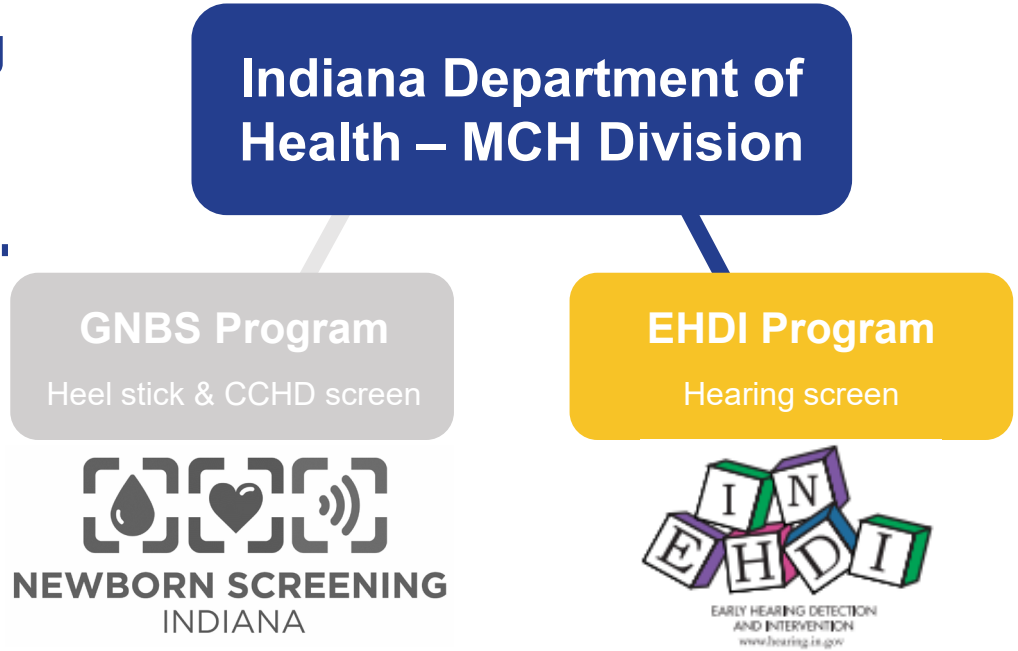
What is the EHDI Program?

- IDOH program responsible for newborn hearing screening throughout Indiana.
- **Timely follow up is critical, as congenital hearing loss is considered a "developmental neurological emergency."**
- EHDI staff follows all babies who do not pass newborn hearing screening until one year of age.
- Babies who do not pass hearing screening should be referred directly to an authorized audiology facility for diagnostic testing before leaving birthing hospital. (see list at www.hearing.in.gov)
- NOT ALL AUDIOLOGISTS CAN TEST INFANTS



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EHDI “1-3-6” national and state goals

All babies born in Indiana should receive newborn hearing screening by **1 month of age**.

If baby does not pass UNHS, obtain diagnostic audiology test **by 3 months**.

If baby identified as Deaf or Hard of Hearing (DHH), enroll in early intervention **by 6 months of age** (Indiana First Steps).

Congenital & childhood hearing loss

- **Congenital hearing loss is considered a neurodevelopmental emergency**
- Most common congenital condition
- 3 /1000 born with permanent hearing loss
- 3/1000 additional children dx after UNHS **(age 1 to 18)**
- 90% of DHH children are born to hearing parents
- 30% DHH children are likely to repeat a grade regardless of severity of hearing loss

Who needs a hearing screening?

Speech and language delay

Parent Concern

Risk factors for progressive hearing loss (see back of page)

Did not pass newborn hearing screening

History of ear infections

Inconsistent responses to sounds

Indiana EHDI Risk Factors for Progressive Hearing loss

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School hearing screens

Schools are required to provide hearing screenings (IC 20-34-3-14)

- Students in grade 1, 4, 7 and 10.
- Students transferred into the school corporation
- A student who is suspected of having hearing defects

No surveillance on follow up for abnormal screens:

- We can provide resources and referrals for follow up testing
- IDOH Emergency Preparedness Team can provide onsite school hearing screenings

Talk to Me–set me up for SUCCESS!

1 The more talk the better.
The amount of talking your baby hears is more important than what you are saying, and babies and very young children should hear many, many thousands of words each day.

2 Human interaction is best.
Radio, TV or music do not replace parent or family member interaction with your baby for language development.

3 What an expert says:
Talking and singing to babies are the most important things for parents to do! "Parent talk is probably the most valuable resource in our world. No matter the language, the culture, the nuances of vocabulary, or the socioeconomic status, language is the element that helps develop the brain to its optimal potential. In the same way, the lack of language is the enemy of brain development."[1]

EARLY HEARING DETECTION AND INTERVENTION
www.hearing.in.gov

4 Ready to Learn!
Talking to our babies gets them ready to learn and succeed in school and in life.

5 Ready to Go!
Kids who hear more words are more likely to do well in school, earn more money and be ready to learn and reach their goals.

6 Brain-building.
By the time you baby is 4, his or her brain will be developed. When you talk, read, and sing to your babies and toddlers, you build their brains and help them learn everything from creativity and problem-solving to reasoning and self-discipline.

7 Overcome adversity.
On average, kids from lower-income households hear as many as 30 million fewer words by their fourth birthdays than their higher income peers. This means they start kindergarten with less than 1/2 the words which means they may be more likely to fall behind in school. **YOU** can make a difference by talking to your baby.

1(Thirty Million Words, Building a Child's Brain, Dana Suskind, M.D., p. 1, 2015.)

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Talk to Me–set me up for SUCCESS!

Talk to me about what you are doing during the day.
Say things like "Mommy is cooking dinner. This pan is heavy. I am filling the pot with water."

Read.
Read to your child at least 15 minutes every day. Reading five minutes gives your child 800,000 words per year. Reading 20 minutes gives them 1.8 million words per year.[1]

Sing.
Sing songs and nursery rhymes. Singing helps the brain detect pitch changes in speech.

Questions.
Talk about what we hear. "Is that an airplane? Where is the airplane? An airplane flies in the sky-see?"

Watch: Viral video of baby **talking to his dad** will melt your heart

Dad&son

Home language.
Talk to your child in the language your **home language.**

Conversation.
Take turns chatting back and forth with me. **Give me time to respond.**

Action.
Talk to me about what I am doing. Using words to describe your baby's actions and feelings helps your baby learn those words too.

Places, people, activities.
Talk about where you go, what you do there, and who and what you see; **especially when traveling together.**

Watch: Talking to baby

Talking to baby

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www.hearing.in.gov

1(Thirty Million Words, Building a Child's Brain, Dana Suskind, M.D., p. 1, 2015.)

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Order form on www.hearing.in.gov

"THE MOST POWERFUL WAY TO DEVELOP LEARNING POTENTIAL (IQ) WAS EARLY LANGUAGE ENVIRONMENT:

HOW MUCH AND HOW AN ADULT TALKS TO THE CHILD"

Dana Suskind

Dad talking to baby

"75% of all preschoolers with speech and language delay are at risk for reading disorders."

PARENT EDUCATION/SUPPORT

Support responsive relationship in the home

How to interact with children

Reduce sources of stress

Moms Help Line

Strengthen core skills

Daily routines

Emotional regulation

Tune in

- Get their attention
- Put down your phone
- Get on child's level
- Play what child wants

Talk More

GRANDPA

Tone of voice

Loving tone

Sing!

Nursery Rhymes!

Pitch changes add meaning!

"Huuuuggge dog"

Increase # of words

"Narration" talk about what you are doing

Take Turns

Use any experience	Let them respond even if not clear	Ask questions while reading
Use Why and how" Questions Less "what"	Let them change the topic	Offer choices for them to respond

Dad talking to baby

Why read to children at all ages?

Empathy

Math

New Words

Problem solving

Words

Emotion

Why should we read to our children of any age?

Read anything! Magazines, signs while driving, grocery items

1-5 minutes per day

250,000 words per school year

Average brain function/grades

20 minutes per day

1,800,000 words per school year

Above average brain function/grades

Praise and Feedback

Praise for effort

"You tried to find that bug" vs...."You are so smart"

Identify behavior, not character

"Be a good boy" vs "Please listen"

"You were a bad girl" vs "You do not bite other children"

Middle ear infections

If your child has ongoing ear infections request a hearing test from your physician.

Have your child's ears checked at every physician office.

(even with lack of symptoms)

30% of school age children experience periods of hearing loss due to ear infections without symptoms

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Do you care for a deaf/hard of hearing child?

Contact me as our program provides free support and resources

317-232-0972

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Moms Helpline-In Dept of Health

- Diapers
- Baby Clothing
- Car Seats
- Baby Formula
- Child Care
- Food Assistance
- Pregnancy
- Parenting

Mom's Helpline
1-844-624-MOMS (6667)
https://www.in.gov/health/mch/moms-helpline/

- Prenatal Care
- Infant & Toddler Development
- Doctor Locators
- Housing Assistance
- Health Insurance
- Safe Sleep
- Bill Assistance

Indiana services for DHH children

Early Hearing Detection and Intervention (EHDI) **www.hearing.in.gov**

Center for Deaf and Hard of Hearing Education: Center for Deaf and Hard of Hearing Education

Early Intervention is key. https://www.in.gov/fssa/firststeps Services per county for parents to enroll. Indiana First Steps specializes in services for DHH children,

Haapi-Hearing Aid Assistance program of Indiana is a state program that provides hearing aids for children from age 3 through their school years. (https://haapindiana.org)

haapi hearing aid assistance program of indiana administered by hear INDIANA

FIRST STEPS AND HAAPI PROVIDE HEARING AIDS FOR CHILDREN FROM BIRTH- 21 YRS OLD

Organizations for DHH children

- Indiana Hands and Voices (www.inhandsandvoices.org)
- Hear Indiana (www.hearindiana.org)
- Indiana School for the Deaf (www.deafhoosiers.com)
- St. Joseph Institute for the Deaf (www.sjid.org)

Additional NBS resources

- **IDOH Newborn Screening Program Websites** – View and request bilingual resources for families and resources for healthcare partners
  - **GNBS Program** (heel stick & CCHD screens) – www.nbs.in.gov
  - **EHDI Program** (hearing screen) – www.hearing.in.gov
    - FAQ regarding newborn hearing screening
    - Developmental Milestones
    - FAQ regarding school hearing screening follow up
    - List of audiologists who can test infants in Indiana
    - Talk to Me (improve development in young children)
- **IN-TRAIN:** Free online trainings available from GNBS - EHDI trainings coming soon!
  - See a complete list on our website at www.nbs.in.gov (Provider information>Training Modules)
- **Baby's First Test:** https://www.babysfirsttest.org/
- **Health Resources and Services Administration** www.hrsa.gov
- **CDC:** Centers for Disease Control www.cdc.gov

Contact information

Newborn Screening Program
Early Hearing Detection and Intervention (EHDI)

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317-232-0972

www.hearing.in.gov

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