

Infant Development and Tracking Developmental Milestones

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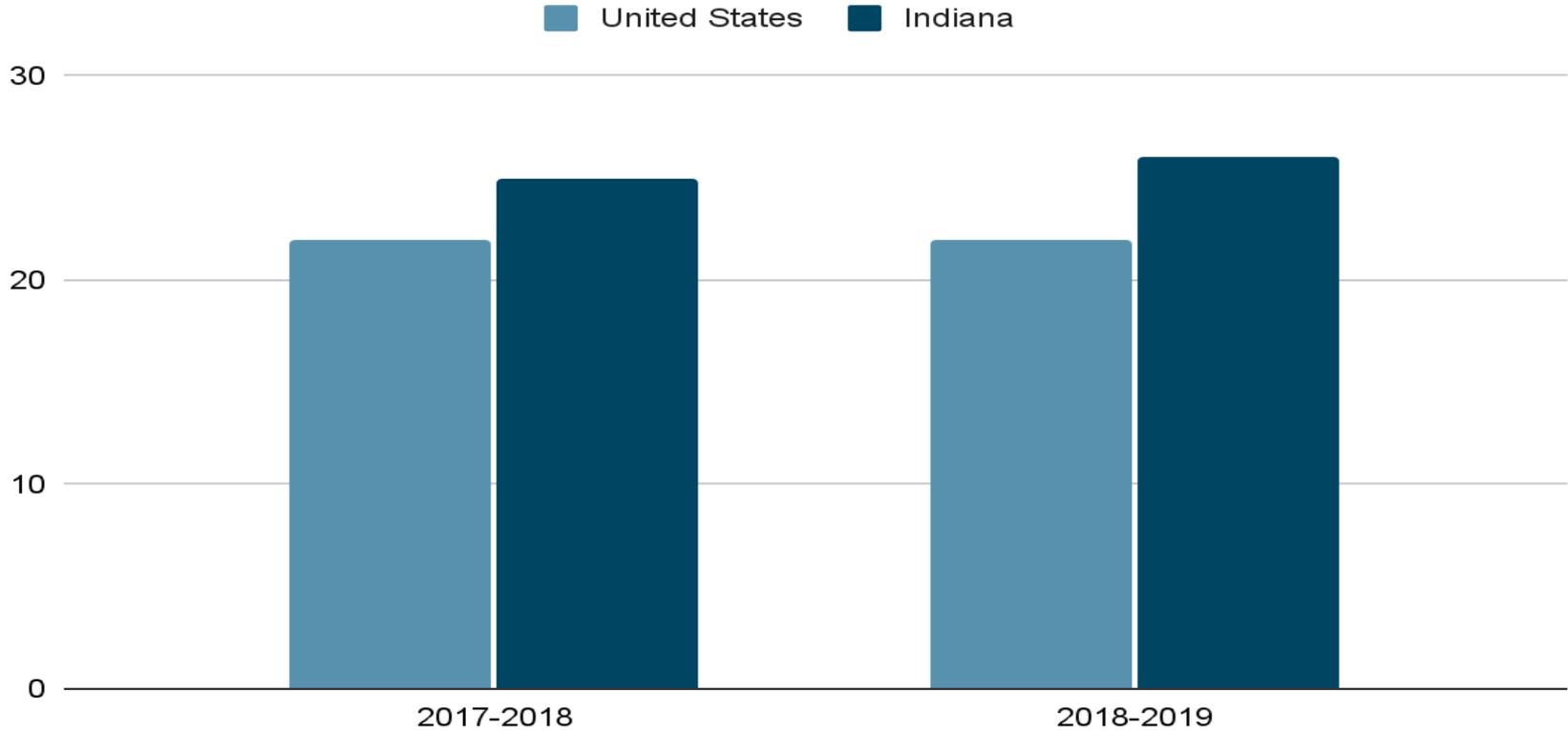


Developmental and Behavioral Screening

- An estimated 16.7% of children in the USA have a developmental disability or developmental delay. (CDC report, NCBDDD.2018)
- An estimated 20-25% of youth in the US will meet criteria for a mental health disorder with severe impairment over their lifetime. J Am Acad Child Adolesc Psychiatry.2010
- Young children from low income families are at greater risk to have a developmental delay.
- Delays in development are linked to behavior problems and poor academic achievement later in life.
- Screening and surveillance can help identify these problems early and allow the child to receive appropriate services in a timely manner.

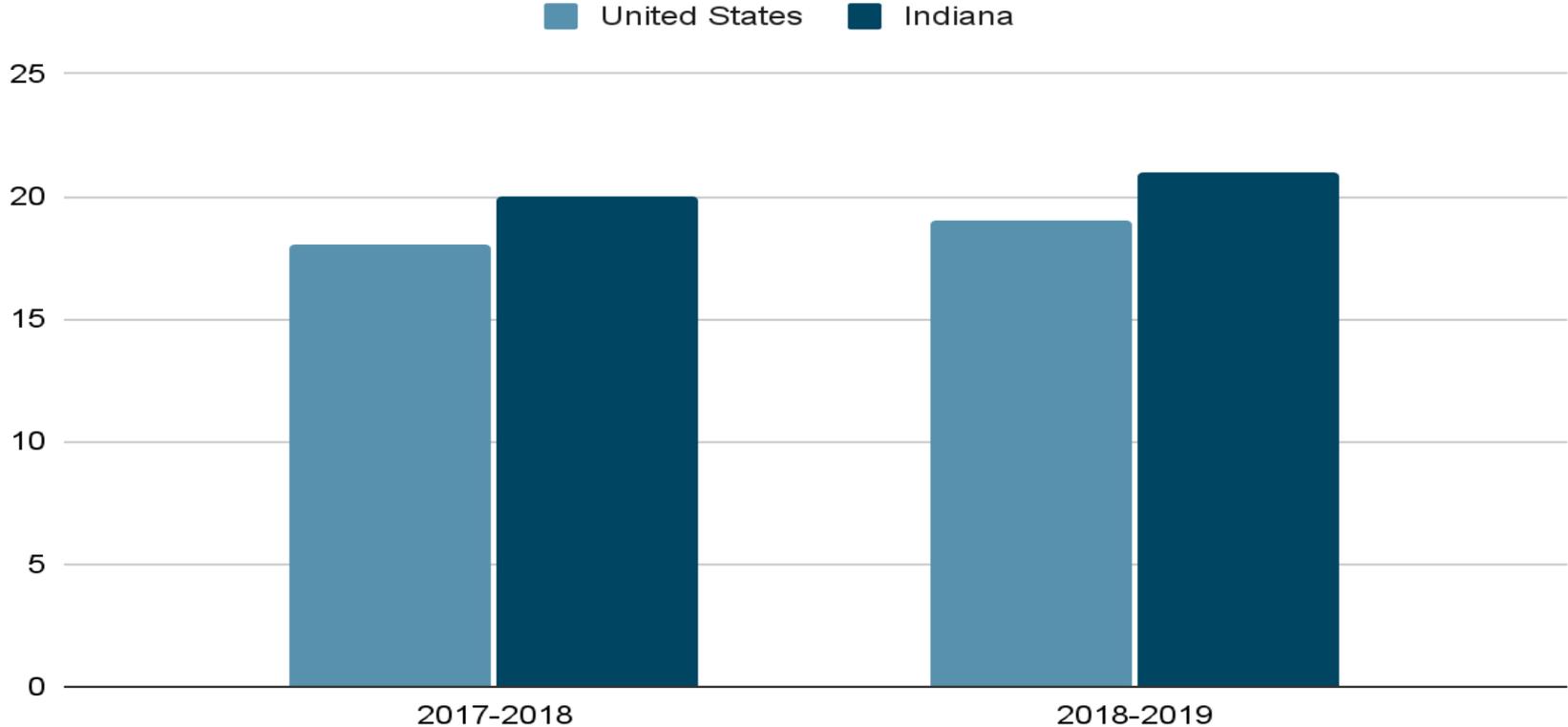
Percent of children who have one or more emotional, behavioral, or developmental conditions in Indiana

(Kids Count Data Center)



Percent of children with special health care needs in Indiana

(Kids Count Data Center)



Benefits Of Developmental Screening and Surveillance

Screening and surveillance for developmental/behavioral problems in children increases early identification, allowing for early intervention and improved outcomes.

The response to interventions is greater in early childhood.

Children with undetected developmental delays are at increased risk for social and emotional problems, early school problems and school failure.

Several studies have demonstrated better short and long term outcomes when developmental problems are identified early and services are provided for children at increased risk.

Early intervention has been associated with decreased need for special education services during the school years, higher graduation rates, reduced teen pregnancy rates, and a decrease in criminal behavior and violence.

Factors that influence child development and behavior

Child maltreatment, abuse and neglect

Adverse childhood experiences (ACEs)

- poverty
- unstable housing
- parental stress
- exposure to alcohol, substance abuse
- violence/trauma
- Poor nutrition

Parental mental health problems, unemployment

Medical conditions: lead poisoning, genetic conditions, prematurity

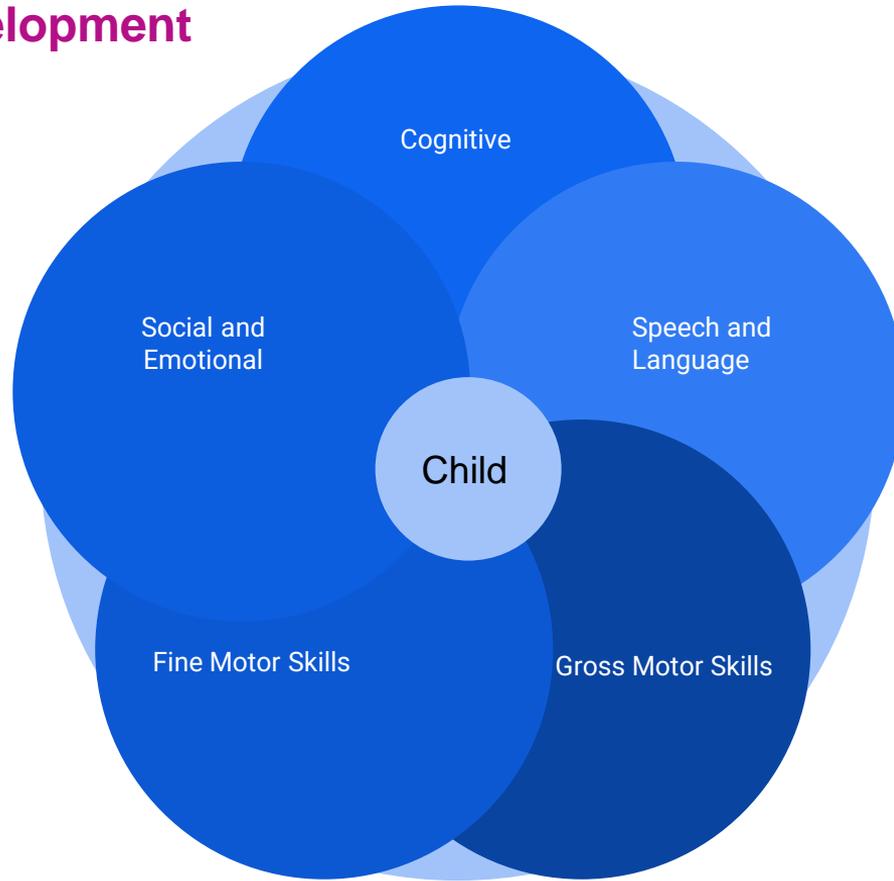
Definitions

Developmental Disorders: A group of conditions caused by impairments in learning, language, behavior or motor skills.

Developmental Surveillance: Process by which children who are at risk for or have developmental delay are identified. Performed at any well child visit or any time a concern is raised.

Developmental Screening: The use of a standardized test to identify children at risk for a developmental disorder.

Areas of Child Development



Developmental Surveillance (clinical impression)

Strategy:

Identify parental concerns

Maintain developmental history

Observe parent child interactions

Identify risk factors

Maintain accurate records

Collaborate with other providers and professionals

Developmental Screening (validated screening tests)

Timing:

Any time a parent or clinician has concerns or when a risk factor is identified

During well child visits

Nine month visit: motor, vision, hearing and communication problems

Eighteen month visit: fine and gross motor delays, language delays, symptoms of ASD

Thirty month visit: motor, language and cognitive delays

Four year old visit: school readiness

Five and over visit: mental health disorders and impaired psychosocial functioning

Screening Tests

General for children without identified conditions or specific for targeted conditions:

Developmental Screening Tests

- Cognitive, language, motor, social
- Specific concerns- language delay, ASD

Behavioral Screening Tests

- Behavioral conditions (ADHD)
- Social emotional development
- Self help skills

Nine Month Visit: Developmental Milestones

Gross Motor:

Stands with support

Begins creeping

Pulls to stand

Crawls (bear walks)

Fine Motor:

Picks up small objects with 2 fingers and thumb

Bangs two cubes together

Moves objects from one hand to another

Cognitive:

Plays peek-a-boo

Rings bell after demo

Pulls string to obtain attached toy out of reach

Speech and Language:

Orients to name

Says “mama” (nonspecific)

Babbles

Imitates sounds

Social/emotional:

Separation Anxiety

Follows a point

Recognizes familiar people

Eighteen Month Visit: Developmental Milestones

Gross Motor:

Runs well

Seats self in a chair

Throws ball

Fine Motor:

Builds tower of 4 cubes

Drinks from a cup

Eats with a spoon

Cognitive:

Matches pairs of objects

Points to get the attention of others

Scribbles

Speech and Language:

Points to two or three objects when named

Uses 10-25 words

Understands "mine"

Social/emotional:

Engages in pretend play with other people

Begins to show shame and possessiveness

Thirty Month Visit: Developmental Milestones

Gross Motor:

Walks up stairs alternating feet

Stands on tiptoe

Kicks a ball

Fine Motor:

Imitates horizontal and vertical lines

Builds a train with 4 blocks

Copies straight lines and circles

Cognitive:

Matches pairs of objects

Sorts shapes and colors

Points to things in a book

Speech and Language:

Names objects by use

Fills in words of well known stories

Names 10-12 pictures

Social/emotional:

Imitates adult activities (talking on the phone, cleaning)

Four Year Old Visit: Screening

Focus is on school readiness:

- Social emotional well being
- Family engagement in the child's education
- Five Rs (reading, rhyming, routines, rewards, relationships)
- Risk factors for developmental delays

Children Ages 5 and Over: Screening for Mental Health Disorders and Impaired Psychosocial Functioning

Indications:

- Psychosocial concerns expressed by the family
- Family disruption
- Poor school performance
- Behavioral difficulty
- Recurrent somatic complaints
- Involvement of a social service or juvenile justice agency

Children Ages 5 and Over: Screening for Mental Health Disorders and Impaired Psychosocial Functioning

An estimated 20-25% of youth in the US will meet criteria for a mental health disorder with severe impairment during their lifetime. Am Acad Child Adolesc Psychiatry, 2010.

Most common:

- Anxiety - median age 6 years
- Behavioral disorders (ADHD, ODD, Conduct Disorder) - median age 11 years
- Mood disorders - median age 13 years
- Substance Use Disorders - median age 13 years

Developmental Outcomes of Opioid Exposed Children

- Lower cognitive scores
- Behavioral, attention and sensory deficits
- Deficits in gross motor and fine motor function
- Developmental delays, speech and/or language impairments
- Increased incidence in disorders of conduct
- Poor performance on academic testing
- Increased incidence of anxiety, emotional disturbances

Intervention Strategies for Families with Opioid Exposed Children

- Family centered approach
- Support for positive parenting behaviors
- Case management to help coordinate services
- Integrated pediatric and maternal health care
- Early intervention and screening
- Peer to peer support
- **Communication among integrated systems**

Fetal Alcohol Spectrum Disorder

FASD is a term that encompasses the range of physical, mental health, behavioral and cognitive effects that occur in children with prenatal alcohol exposure.

Early identification is associated with improved outcomes and could prevent FASDs in subsequent pregnancies.

Asymptomatic children at risk for FASD should be monitored for symptoms that may emerge during development (delayed milestones, school problems, impairment in adaptive and self help skills).

Resources

- **CDC Learn the Signs, Act Early**
- **Help Me Grow**
- **First Steps**

