

Indiana's Opioid Epidemic: Impact on Women & Children

*The Bright Side: A Women and Children's Health Symposium
September 21, 2018*

Kris Box, MD, FACOG
State Health Commissioner



Indiana State
Department of Health

Infant Mortality Goal

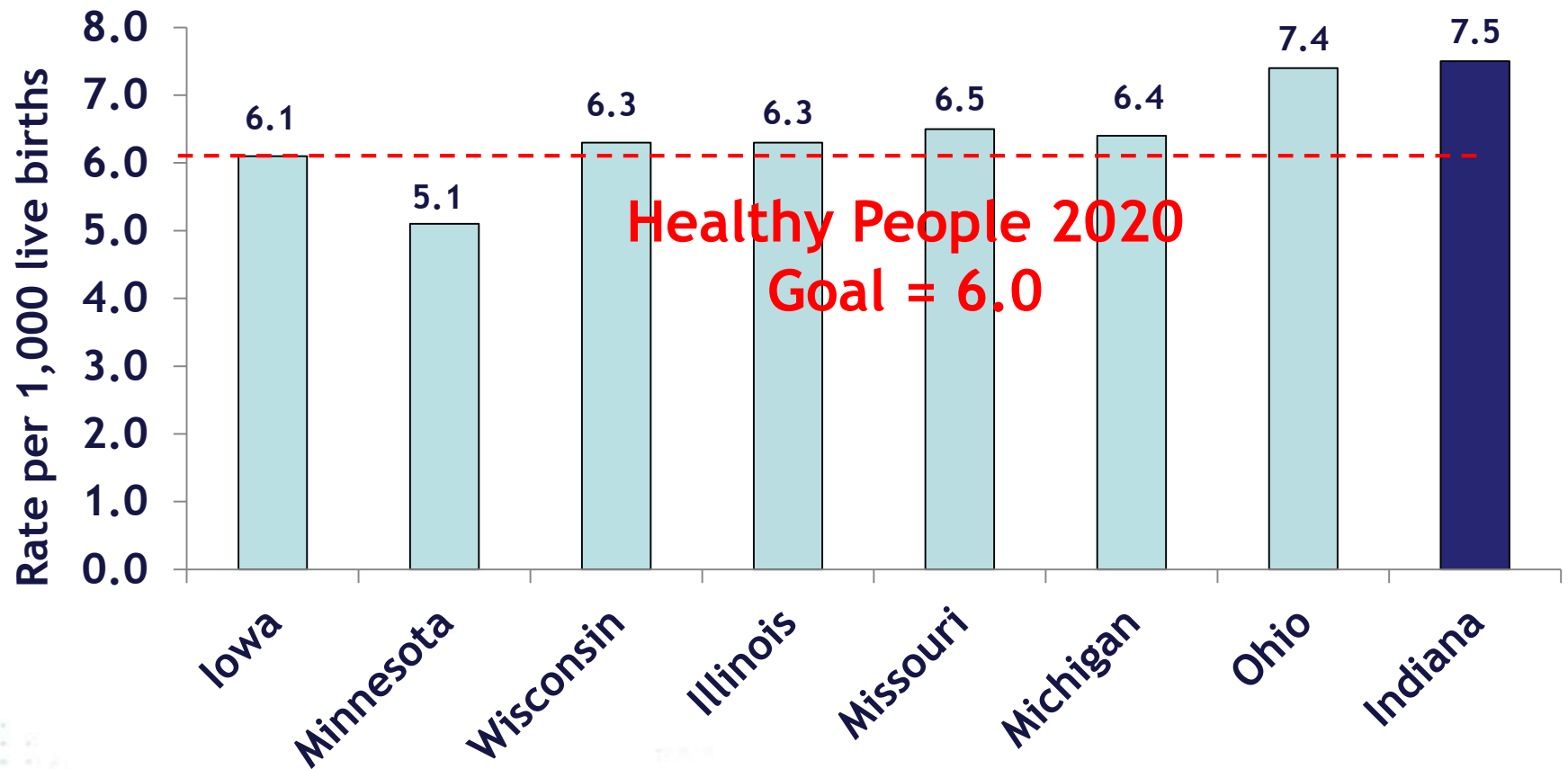
“Indiana will be the best state in the Midwest for infant mortality by 2024.”

— Governor Eric Holcomb

Indiana State of the State address, January 2018



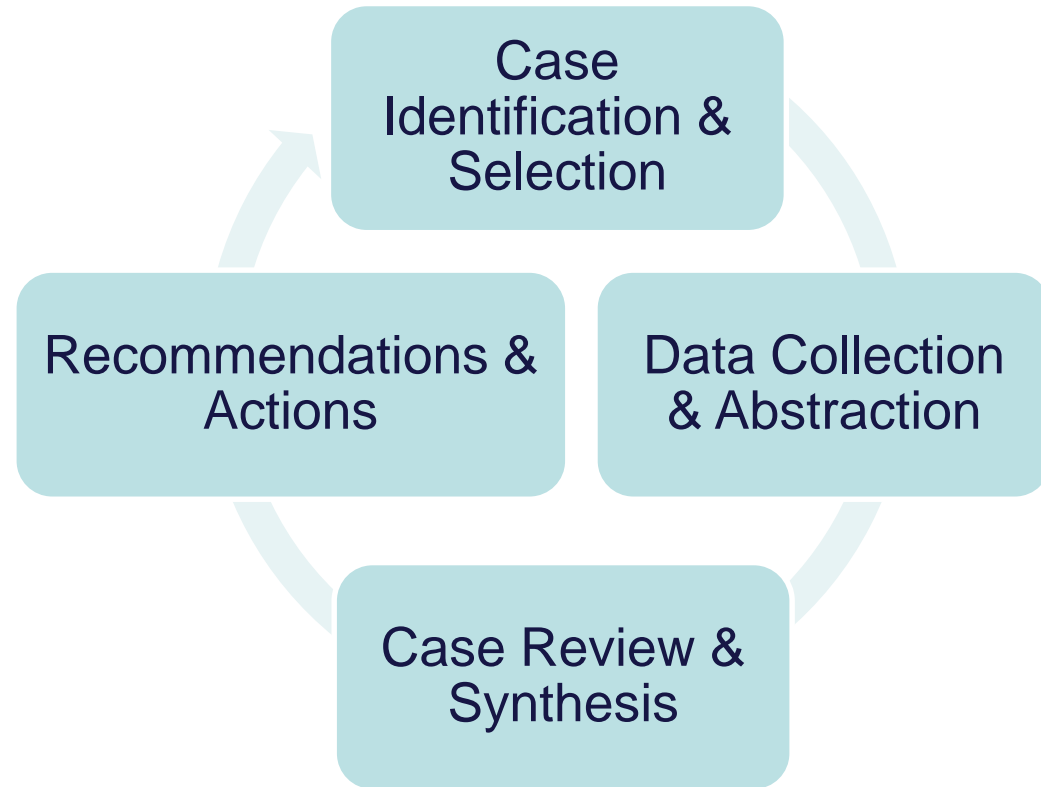
Preliminary Infant Mortality Rates Midwest, 2016



Maternal Mortality Review (MMR)

Through Title V funds, ISDH has hired a full-time MMR Coordinator who will:

- Review all maternal deaths in Indiana
- Examine data related to age, cause of death, geographical location, ethnicity
- Propose recommendations to prevent future maternal deaths



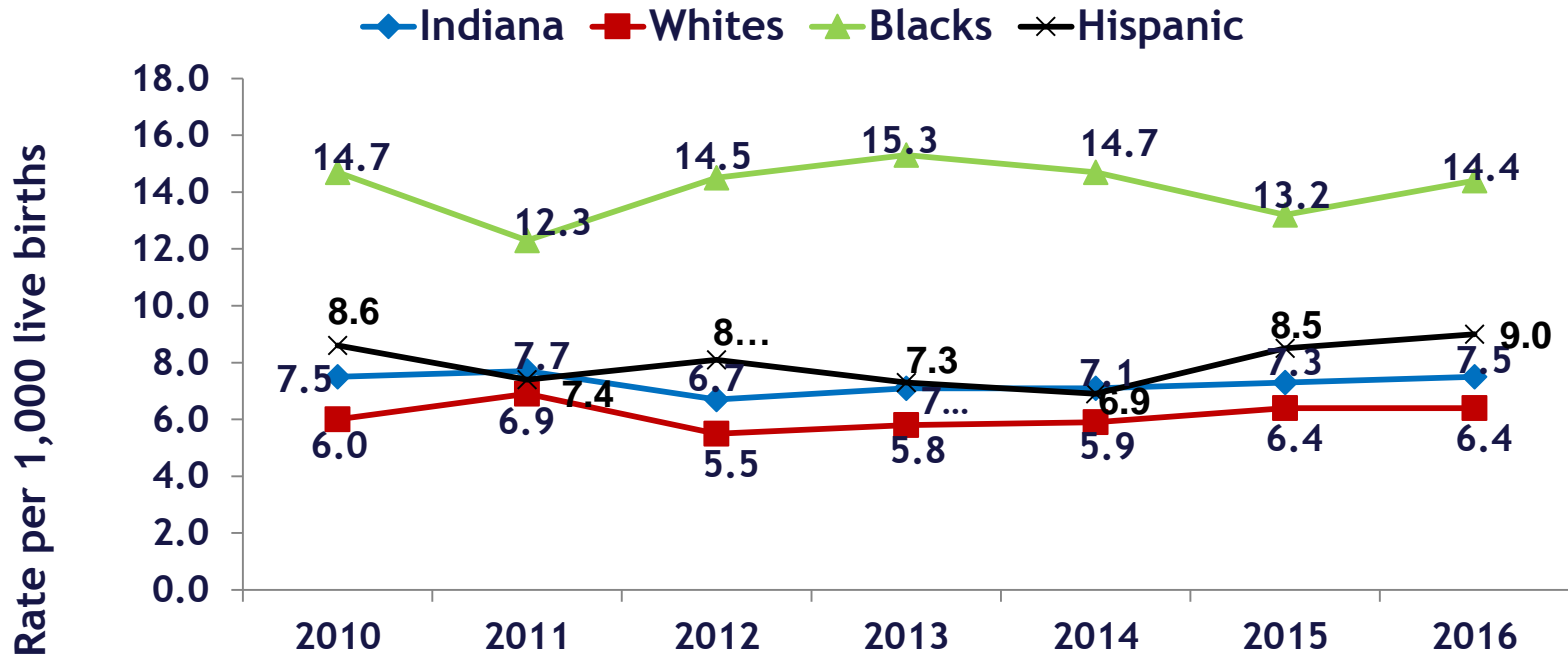
Indiana Infant Mortality Overview

Healthy People 2020 Goal = 6.0 deaths per 1,000 live births

- U.S. = 5.9 deaths per 1,000 live births
- IN = **7.5 deaths** per 1,000 live births
- Black infants die **2 times** more often than white infants in Indiana.
- Indiana's rate of SUIDs deaths is typically **worse** than the national rate.

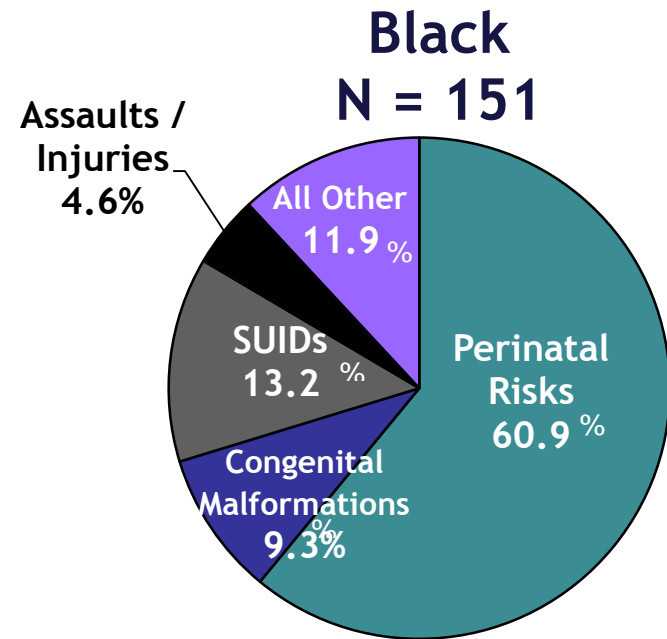
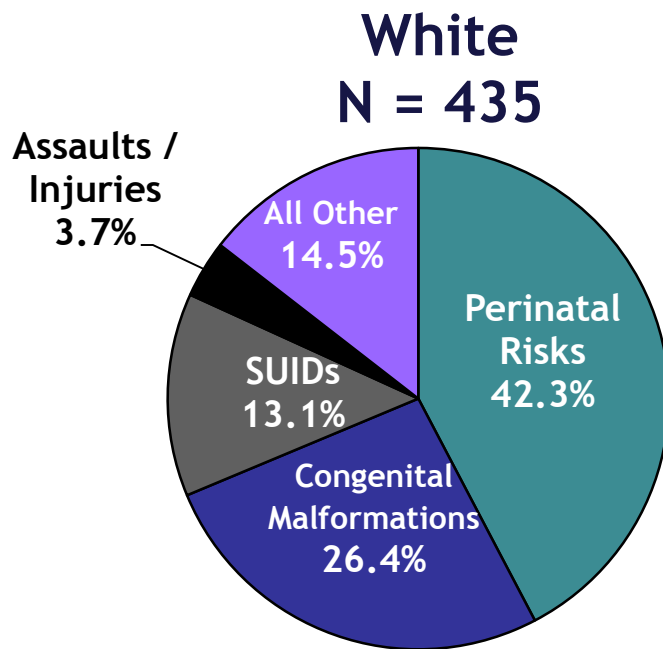


Infant Mortality Rates by Race & Ethnicity, Indiana, 2010 - 2016



Source: Indiana State Department of Health, Maternal & Child Health Epidemiology Division [January 5, 2018]
 Indiana Original Source: Indiana State Department of Health, PHPC, ERC, Data Analysis Team

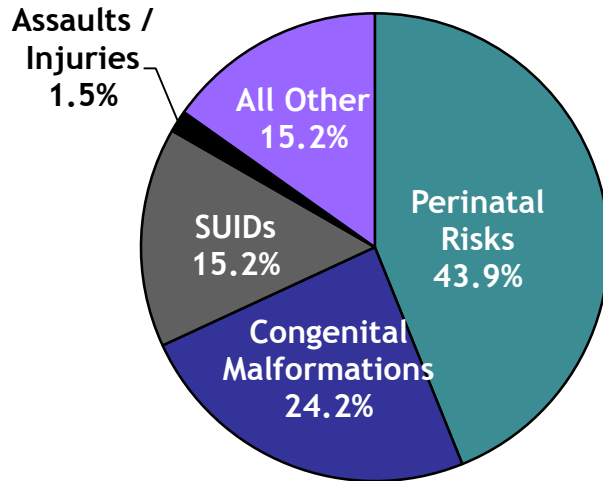
Causes of Infant Mortality by Race Indiana 2016



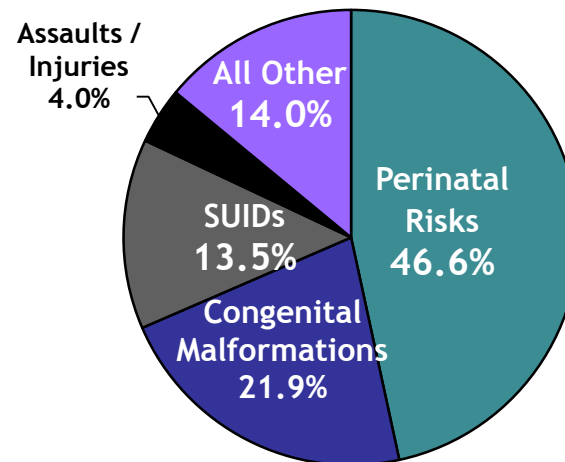
Source: Indiana State Department of Health, Maternal & Child Health Epidemiology Division [January 5, 2018]
Indiana Original Source: Indiana State Department of Health, PHPC, ERC, Data Analysis Team

Causes of Infant Mortality by Ethnicity Indiana 2016

**% Distribution of Infant Deaths
Hispanic
N = 67**



**% Distribution of Infant Deaths
Non-Hispanic
N = 556**



Source: Indiana State Department of Health, Maternal & Child Health Epidemiology Division [January 5, 2018]
Indiana Original Source: Indiana State Department of Health, PHPC, ERC, Data Analysis Team

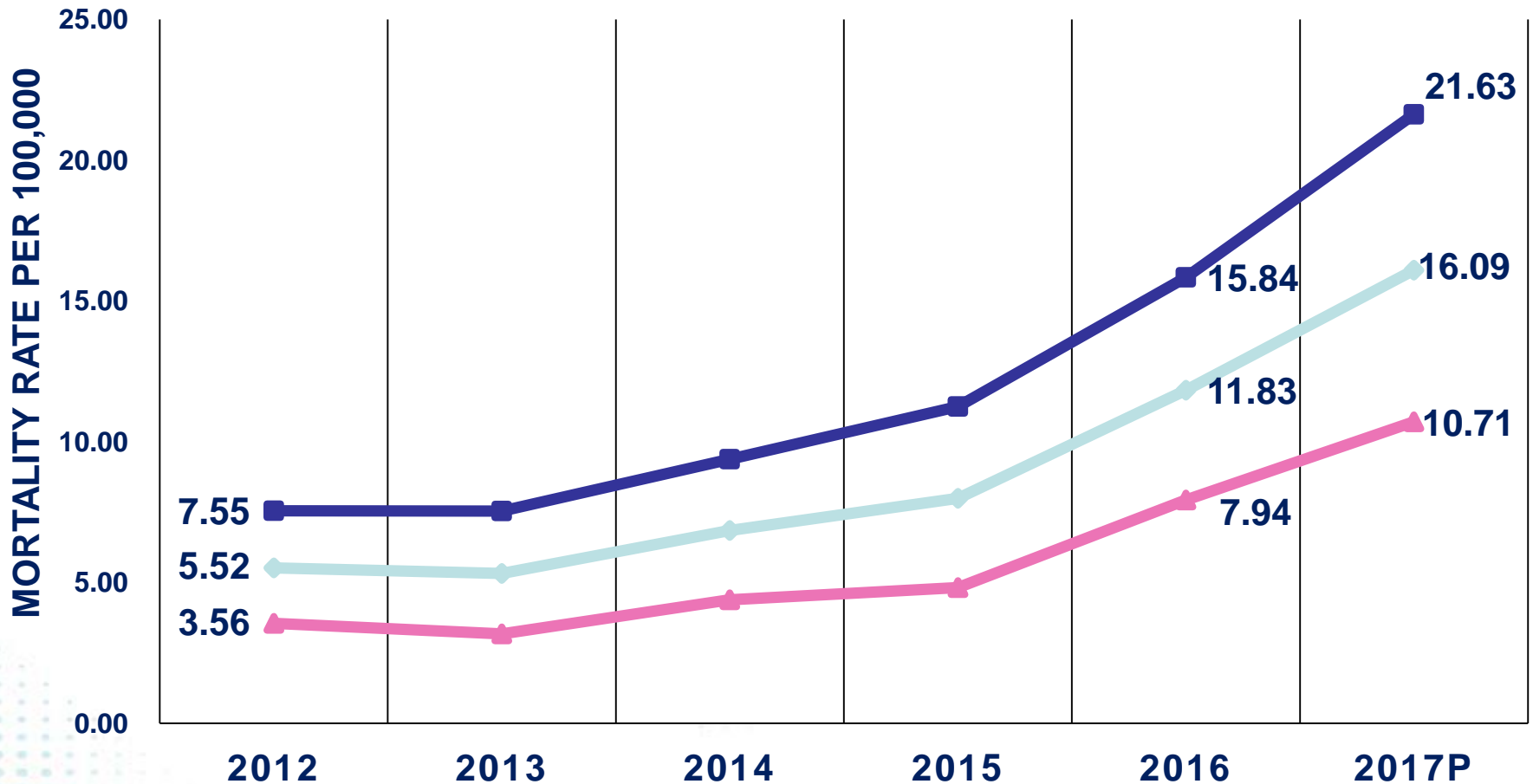


The Opioid Epidemic's Impact on Infant Mortality in Indiana

Opioid-involved Overdose Death Rates by Gender

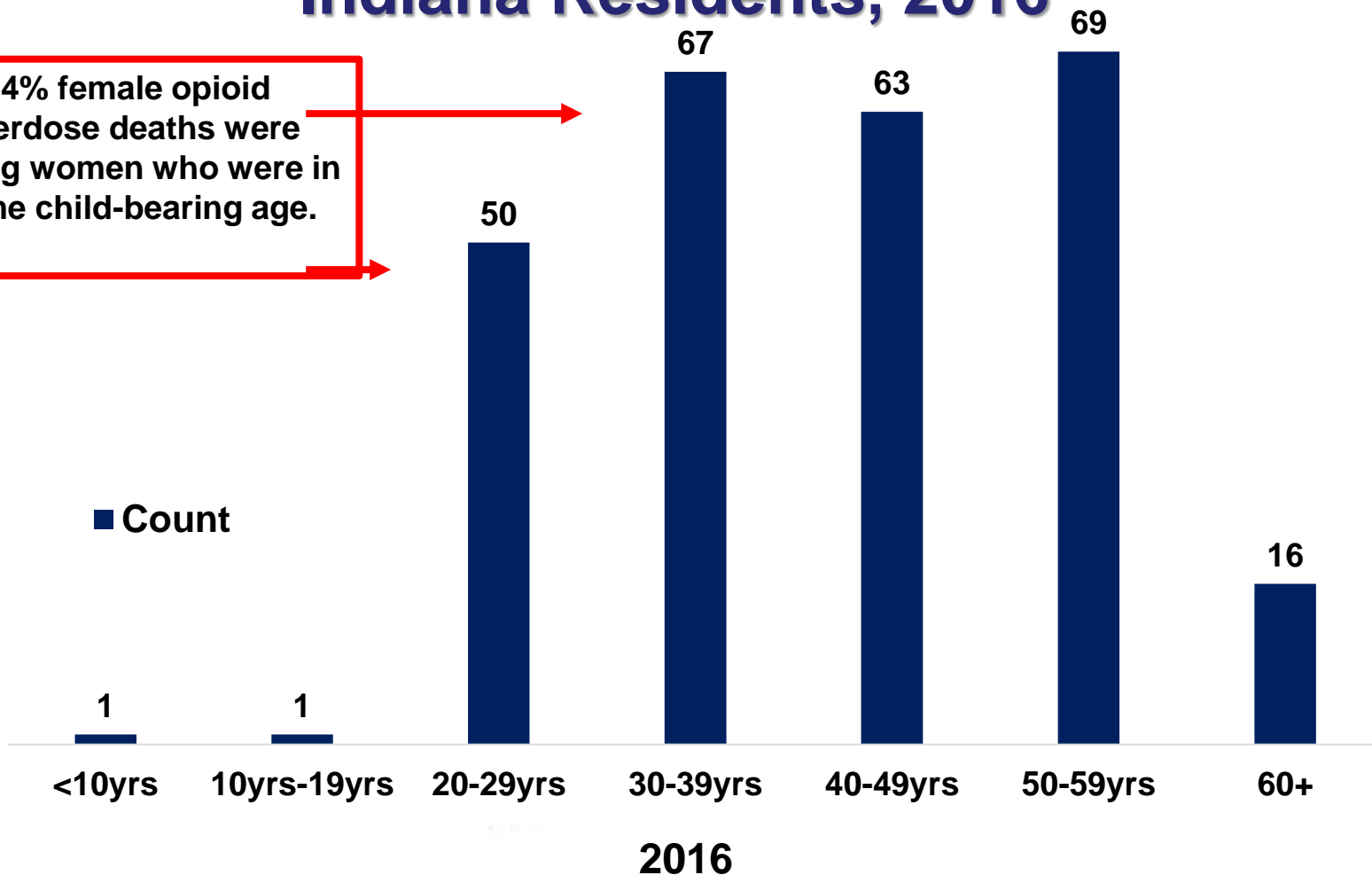
Indiana Residents, 2012-2017p

—◆— Indiana —■— Male —▲— Female



Opioid-Involved Overdose Deaths for Women by Age Group, Indiana Residents, 2016

44% female opioid overdose deaths were among women who were in prime child-bearing age.





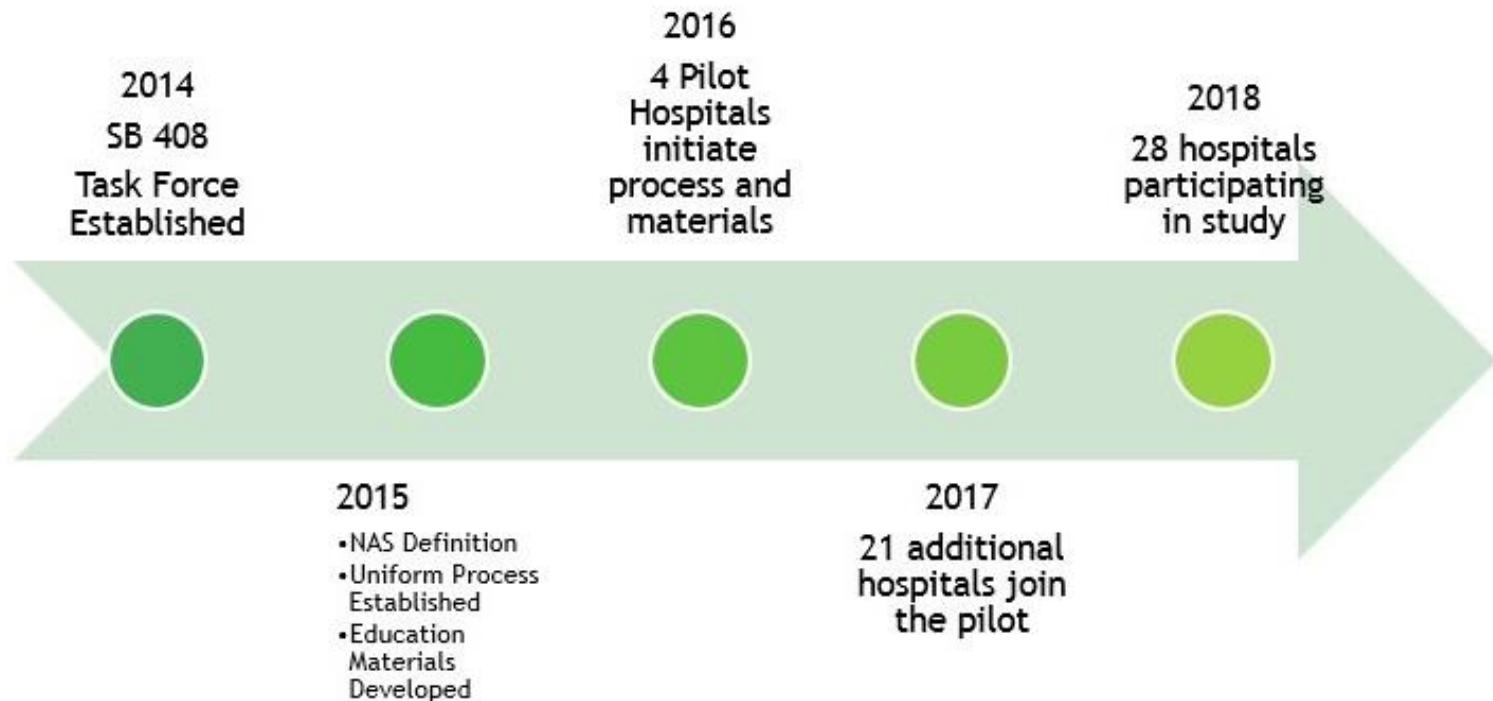
Perinatal Substance Use Disorder

Compulsory Screening

Public Health Response vs. Punitive Approach to SUD in Pregnancy

- Preventing unintended pregnancies
- Universal verbal screening for alcohol and drugs for all women of child bearing age
- Universal verbal / targeted lab screening for all pregnant women, and improved access to SUD treatment in pregnancy.
- Improved funding and support for social services and child welfare

History of Perinatal Substance Abuse Task Force



Neonatal Abstinence Syndrome Definition

- A drug withdrawal syndrome that presents in newborns after birth when the transfer of harmful substances from the mother to the fetus abruptly stops at the time of delivery.
- NAS most frequently is a result of opioid use in the mother but may also occur as a result of exposure to benzodiazepines and alcohol

NAS Revised Definition

- Symptomatic; tremors/jitteriness, difficult to console, poor feeding, or abnormal sleep and
- Have one of the following:
 - 1) A positive toxicology test, or
 - 2) A maternal history with a positive verbal screen or toxicology test.

Perinatal Substance Use Study

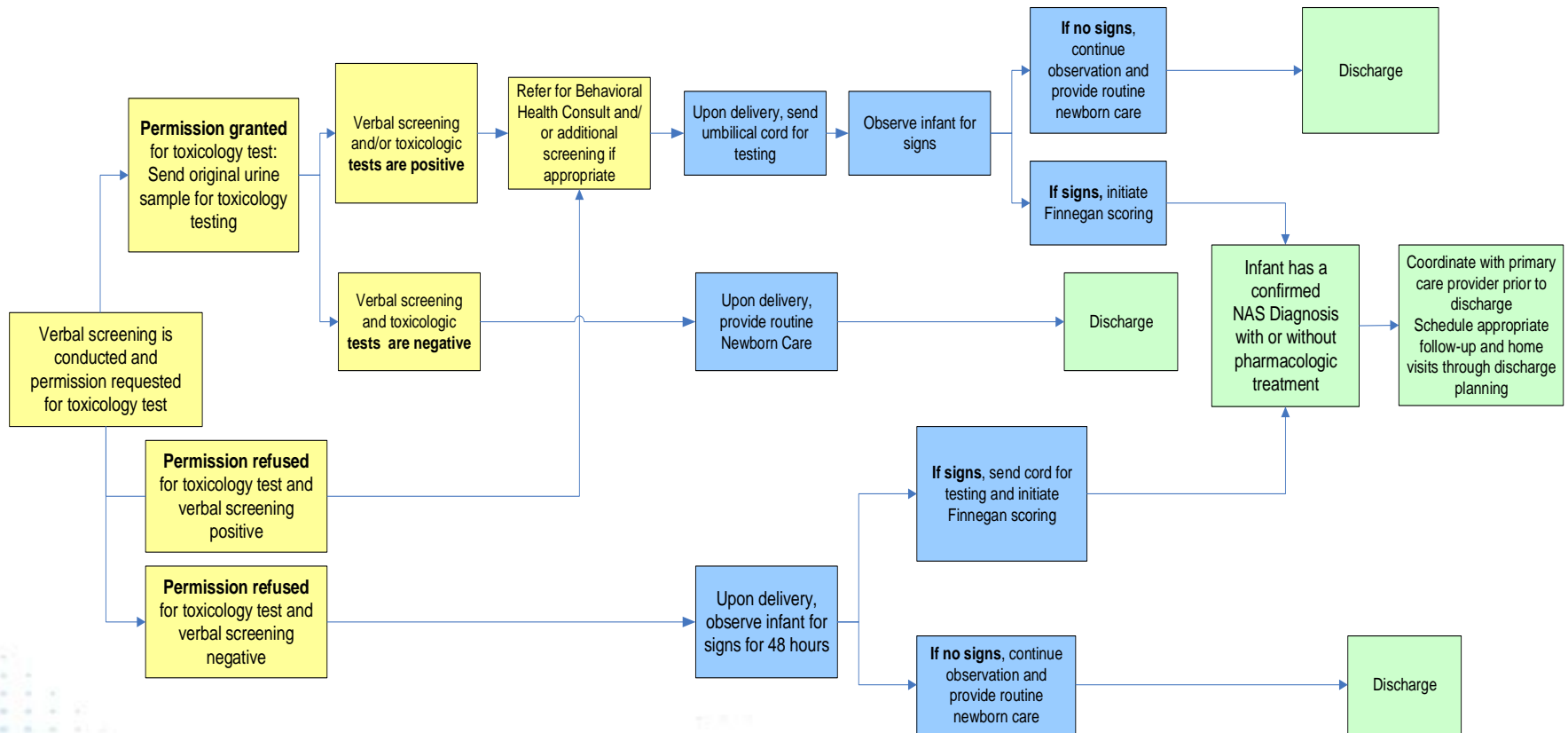
- Launched in 2016
- 28 hospitals participating to date
- Over 7,000 umbilical cords tested
- Goal is to better understand prevalence of babies born drug-exposed

Neonatal Abstinence Syndrome and In-Utero Drug Exposure Algorithm

UNIVERSAL MATERNAL TESTING: verbal screening and toxicology testing for maternal use of illicit drugs, opiates or alcohol at the first prenatal visit and again at presentation for delivery.

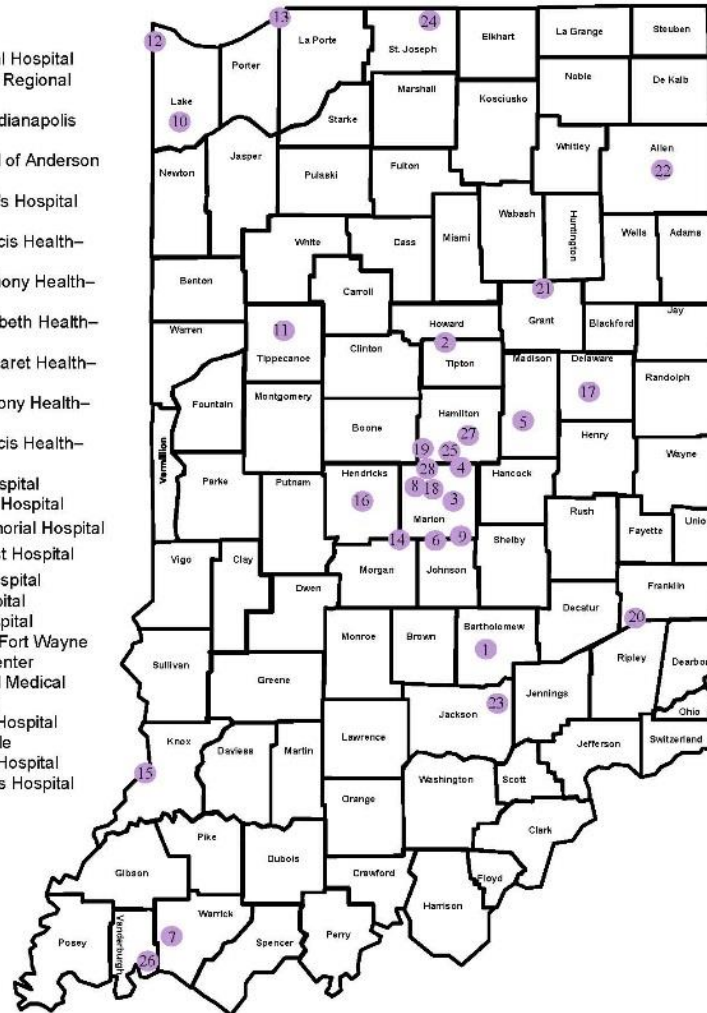
INFANT SCREENING AND TESTING: all newborns will have umbilical cord samples saved for two weeks

DISCHARGE



Perinatal Substance Use Pilot Hospitals

1. *Columbus Regional Hospital
2. Community Howard Regional Health
3. Community East- Indianapolis
4. Community North
5. Community Hospital of Anderson
6. Community South
7. Deaconess Women's Hospital
8. Eskenazi Health
9. Franciscan St. Francis Health- Indianapolis
10. Franciscan St. Anthony Health- Crown Point
11. Franciscan St. Elizabeth Health- Lafayette East
12. Franciscan St. Margaret Health- Hammond
13. Franciscan St. Anthony Health- Michigan City
14. Franciscan St. Francis Health- Mooresville
15. Good Samaritan Hospital
16. Hendricks Regional Hospital
17. *IU Health Ball Memorial Hospital
18. *IU Health Methodist Hospital
19. *IU Health North Hospital
20. Margaret Mary Hospital
21. Marion General Hospital
22. Parkview Hospital- Fort Wayne
23. Schneck Medical Center
24. St. Joseph Regional Medical Center- Mishawaka
25. St. Vincent Carmel Hospital
26. St. Vincent Evansville
27. St. Vincent Fishers Hospital
28. St. Vincent Women's Hospital



Source: Indiana State Department of Health,
Division of Maternal and Child Health
[Updated July, 2018]

*Data is included in screening results.

OB/Pediatric Provider Protocol

- Destigmatization of SUD in pregnancy
- Validated verbal screen
- Urine toxicology screening (opt out)
- Obstetrical team able to provide MAT
- Wrap around services in the same clinic with:
 - Mental health professional
 - Patient care coordinator/OB navigator
- Inpatient Care / like Fresh start of Fayette regional
- Transition to recovery housing
- Standardize definition of NAS/treatment
- Discharge planning and follow-up for babies/families
- Maternal LARC

Hospital Study Findings

- Drug of choice varies depending on location
- Comorbidities can affect the outcomes
- Lack of treatment programs for mothers
- Interruption in care when a referral is made
- Support services are needed during and after pregnancy
- Need to change the culture of providers and pregnant women

Indiana Using 10 Panel Screen of Umbilical Cord

- Amphetamine
- Cocaine
- Cannabinoids
- Barbiturates
- Methadone
- Benzodiazepine
- Oxycodone
- Buprenorphine
- Opiates
- Fentanyl

Alcohol blood spot test

Treatment Data from One Pilot Site

- Entire hospital network
- 5 hospitals
- Year to date 2018
- Initial visit Screen Positive in 21.3% of 2,602
- Not all hospitals were testing at start 2018 at first visit
- At delivery 7.11% positive of 5,115 deliveries

Opioid Dependence during Pregnancy

- Intrauterine fetal demise
- Low birth weight (31% versus 5-8 %)
- Preterm labor and birth (25% versus 9.6%)
- Contributes to infant mortality via fetal and infant loss
- (women who use substances in pregnancy are 3-4
- times more likely to experience fetal or infant
- death)

Fiscal Impact

Basic Urine Drug
Screen is
approximately 29\$

- Submitted to Medicaid and private insurance as billable lab and eligible for reimbursement
- Testing all women on admission for delivery or at the first prenatal visit, 2.4 million per year, (29\$ x 83,000 deliveries)
- Impact to Medicaid, 53% of births apprx. 1.25 million

Cord Blood Testing
of at risk Infants
USDTL 137\$

- Testing for ten drugs and blood alcohol spot test
- 17% of births (14,110 x 137\$ = 1.9 million)
- This number would be expected to go up as we test every woman and find a higher prevalence.

Mandatory referral
to First Steps

- Mandatory referral to First Steps for all babies with positive tests.
- Mandatory referral to First Steps for all babies whose Mom's have positive tests.
- Price tag difficult to estimate

Consequences to Child Development

- Opioids - studies have too many confounding factors like: poly drug exposure, low birth weight, postnatal environment. To date no evidence for long term consequences 10-15 years out for NAS babies.
- Marijuana – studies support associated cognitive deficits in visuospatial function and attention, and impulsive behavior and hyperactivity, deficits in problem solving skills and learning and memory.
- Concentrates in breast milk associated with sedation, low tone, poor sucking and delayed motor function at one year
- Alcohol – leading cause of preventable birth defects, well documented abnormal brain development and neuro behavioral effects

WHY

- SUD is associated with our infant mortality according to national statistics and our fetal infant mortality review teams across the state.
- SUD has been the major contributing factor to DCS referrals and removal of children from their parents home.
- SUD has a major impact on our work force across the state.
- Women are more likely to address SUD during pregnancy and newborn period.
- Short term consequences economically with prolonged hospitalizations for NAS, and preterm birth.
- Long-term economic consequences associated with poor cognitive, behavioral and social emotional development of drug exposed children.

Pregnancy Mobile Application

- The ISDH contracted with Indianapolis-based technology solutions company **eImagine** to create and implement a pregnancy mobile application.
- The application provides valuable health resources to parents, caregivers and to women of child bearing age that are pregnant, parenting or planning to be pregnant.
- The main goal is to reduce infant mortality by improving the health of Indiana women and children.
- Launched in November 2017
- Further development and marketing continues

Labor of Love Pregnancy Mobile App



- Mobile app designed to reduce infant mortality
- Provides evidence-based information and local resources to women of child bearing age who are pregnant, parenting or planning to be pregnant.
- Partnered with **eImagine**, a local software development company
- Content areas include:
 - Breastfeeding
 - Car Seat Safety
 - Insurance Enrollment
 - Safe Sleep Education
 - Perinatal Health



116 DAYS TO GO
2nd TRIMESTER

23
WEEKS

Ask
Liv



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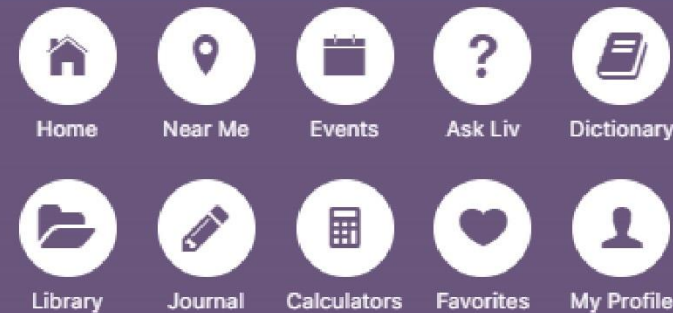
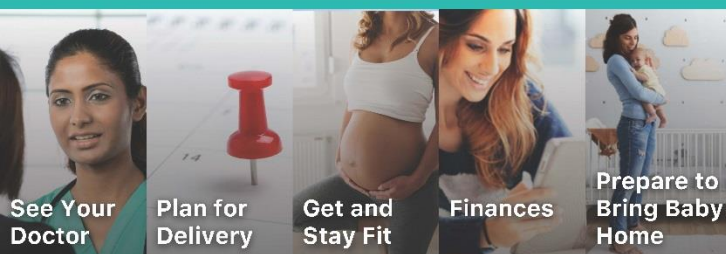


Your baby is the size of a box of mac and cheese.

Your baby is the size of a box of mac and cheese.



CRITICAL STEPS



10 Ways to Prepare for Pregnancy >
Healthy Women

Follow these steps to prepare your body and mind to conceive and carry your baby to a healthy delivery.



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Car Seat Recall >

May be difficult to release harness buckle, which could cause risk to child in emergency.



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May be difficult to release harness buckle, which could cause risk to child in emergency.





Labor of Love Summit 2018

Healthy Babies Start with Healthy Moms

Race to 2024

Wednesday, November 14, 2018

JW Marriott | 10 S. West Street, Indianapolis, IN 46204

#INlaboroflove



Indiana State
Department of Health

*Together, we can celebrate
more 1st birthdays in Indiana!*

