



Commission on Improving the Status of Children in Indiana  
2/14/18

# Agenda

- Welcome and Introductions
  - Welcome new member Terry Stigdon
- Approval of Minutes from meeting on November 8, 2017

# Agenda

- Strategic Priority: Child Safety & Services
  - Dr. Box and Dr. Walthall: Detailed data on Medicaid births

# Commission on Improving the Status of Children in Indiana

*Neonatal Abstinence Syndrome (NAS)*

Kris Box, MD, FACOG  
State Health Commissioner  
February 14, 2018



Indiana State  
Department of Health

# **Neonatal Abstinence Syndrome**

When a newborn is born to a mother with an opioid use disorder (or other substances) and has withdrawal symptoms

# Withdrawal

- Usually 4 to 7 days exposed to opioids
- Withdrawal determined by what drug or combination of drugs used, when last used, maternal and fetal factors

## Clinical Manifestations

- ❑ High pitched crying and irritability
- ❑ Sleep and wake disturbances
- ❑ Alterations in tone, hyperactivity, tremors
- ❑ Feeding difficulties
- ❑ Vomiting and loose stools
- ❑ Sweating, sneezing, fever, yawning
- ❑ Failure to thrive
- ❑ Low birthweight
- ❑ Seizures

## **NAS**

Should not be defined by the need for pharmacotherapy but by the cardinal signs of opioid withdrawal



## Several Scoring Systems

- ❑ Lipsitz, Finnegan, Neonatal Abstinence Scoring System and modified versions
- ❑ Used to initiate, adjust and wean pharmacologic therapy

# Goals of Treatment

- ❑ Adequate sleep and nutrition
- ❑ Establish consistent weight gain
- ❑ Help infant to integrate into his/her environment and manage stimuli

# Treatment Approach

- ❑ Supportive Nonpharmacologic care
  - ❑ Rooming in, skin to skin, bundling, rocking, decreased stimuli
- ❑ Pharmacologic Therapy
  - ❑ Morphine
  - ❑ Buprenorphine

# Multidisciplinary Team

- ❑ Obstetricians
- ❑ Mental Health Therapists
- ❑ Psychiatrists
- ❑ Pediatricians
- ❑ Nurses
- ❑ Social Workers

## Long Term Childhood Effects of Opioids

- Unclear whether there are any long-term adverse effects on the neurodevelopmental outcome in children who are exposed to prenatal opioids
  - Many studies show mental and behavioral disorders, poor national test scores and lower IQs

# Long Term Outcome

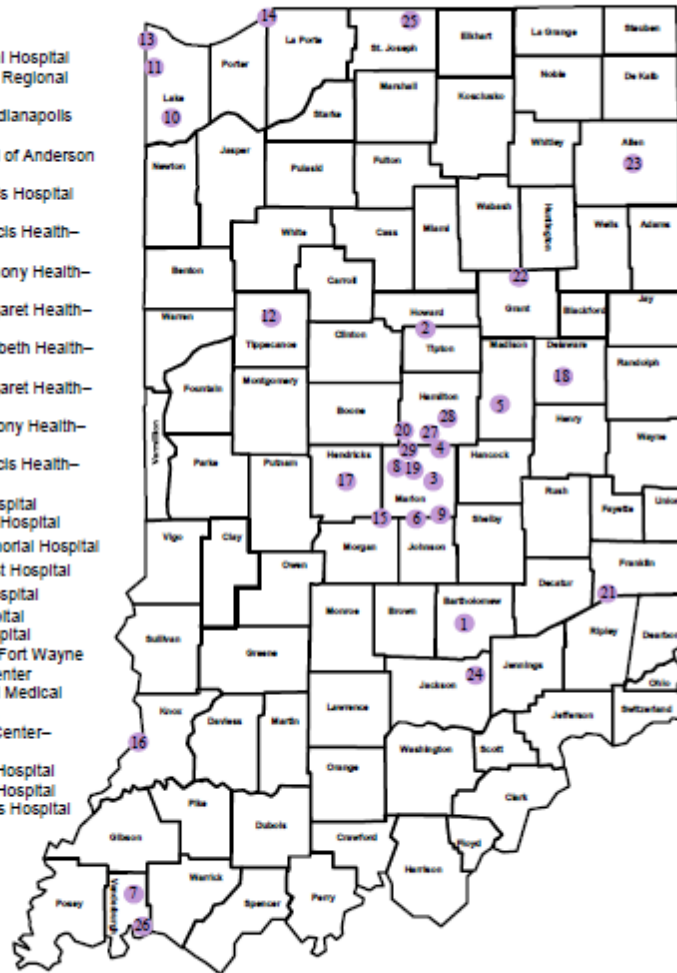
- ❑ Confounding Variables
  - ❑ Prenatal - polysubstances, prematurity, low birthweight
  - ❑ Postnatal - continued maternal SUD, violence exposure, lower socioeconomic and educational levels

# Prenatal Marijuana Exposed Children

- ❑ Many studies confirm these children have:
  - ❑ Specific cognitive deficits in visuospatial function and attention
  - ❑ Impulsive behavior and hyperactivity
  - ❑ Anxiety and depression
  - ❑ Deficits in problem-solving skills
  - ❑ Deficits in learning and memory

## 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. Margaret Health- Dyer
12. Franciscan St. Elizabeth Health- Lafayette East
13. Franciscan St. Margaret Health- Hammond
14. Franciscan St. Anthony Health- Michigan City
15. Franciscan St. Francis Health- Mooresville
16. Good Samaritan Hospital
17. Hendricks Regional Hospital
18. \*IU Health Ball Memorial Hospital
19. \*IU Health Methodist Hospital
20. \*IU Health North Hospital
21. Margaret Mary Hospital
22. Marion General Hospital
23. Parkview Hospital- Fort Wayne
24. Schneck Medical Center
25. St. Joseph Regional Medical Center- Mishawaka
26. St. Mary's Medical Center- Evansville
27. St. Vincent Carmel Hospital
28. St. Vincent Fishers Hospital
29. St. Vincent Women's Hospital



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

\*Data is included in screening results.



## 2017 Screening Data

Births in Participating Hospitals for the months they have participated: 19,048

Number of Cords Tested: 2,953 (15.5% of births)  
Rate per 1000 births: 155.02

Number of Positive Cords: 1,165 (39.5% of cords tested)  
Rate per 1000 births: 61.16  
Rate per 1000 cords tested: 394.5

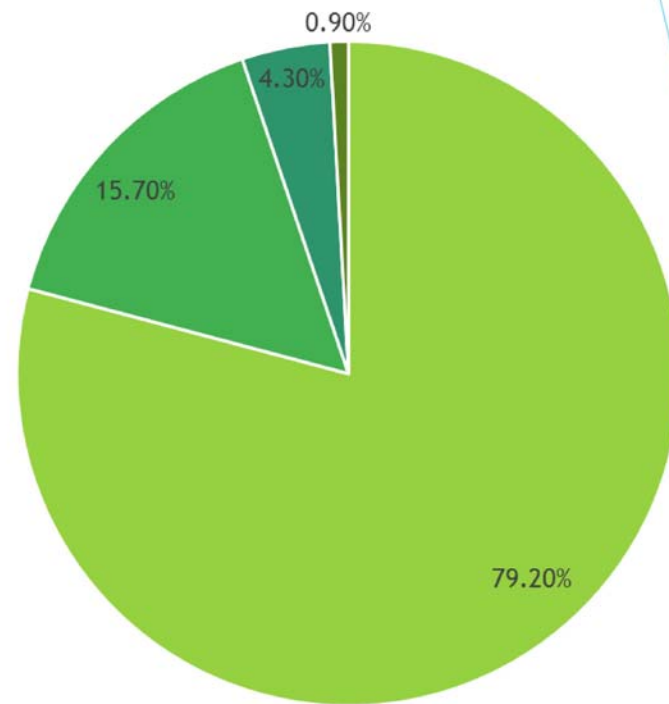
NAS Diagnosis: 131 (11.24% of positive cords)  
Rate per 1000 births: 6.9  
Rate per 1000 cords tested: 44.36

## 2017 Positivity Testing Results

21 hospitals  
2,938 Cords Tested

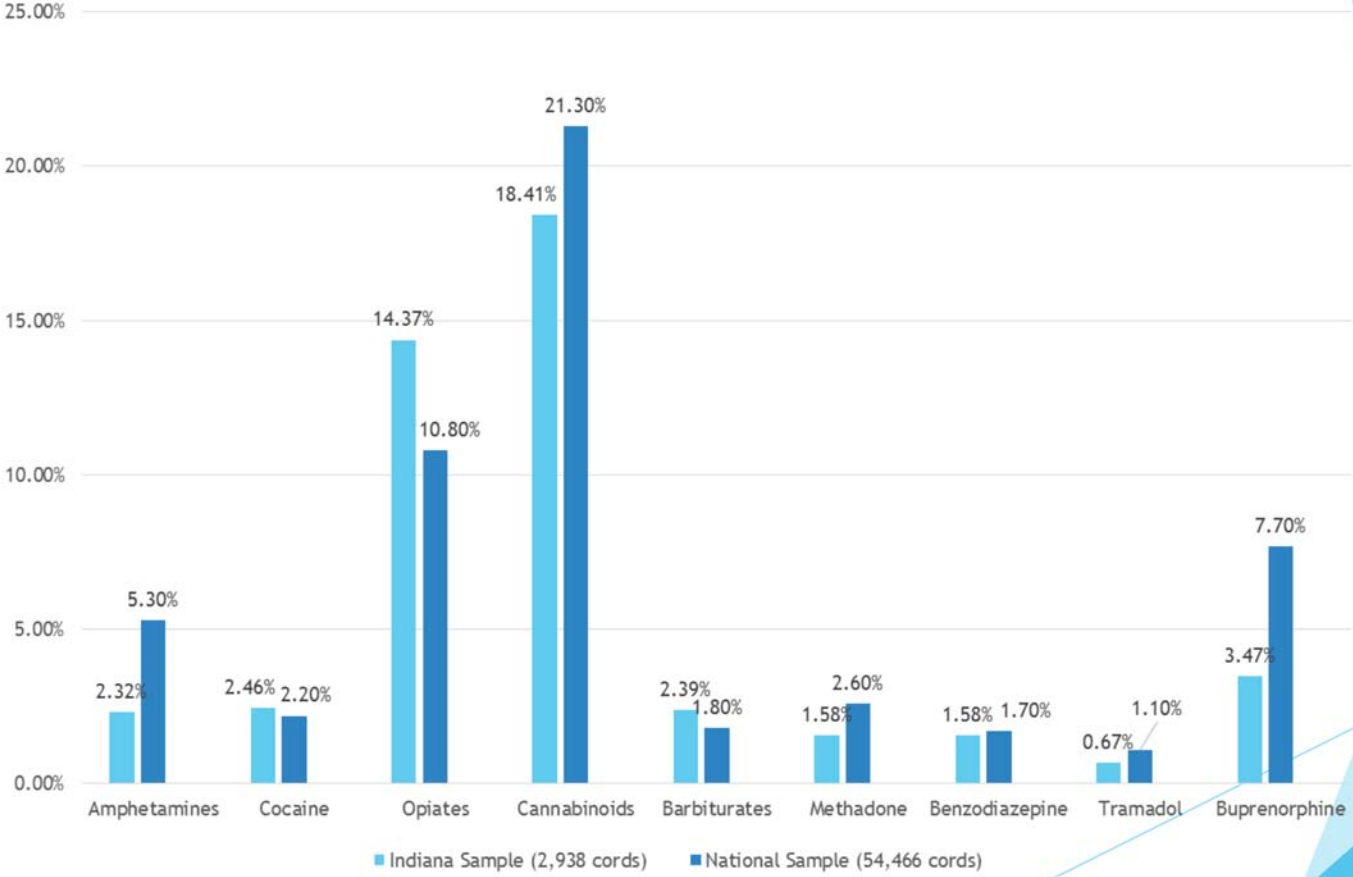
Drug	Total Positive	Indiana Percentage Positive	National Percentage Positive
AMPHETAMINES	69	2.32%	5.3%
COCAINES	73	2.46%	2.2%
OPIATES	427	14.37%	10.8%
CANNABINOIDS	547	18.41%	21.3%
BARBITURATES	71	2.39%	1.8%
METHADONE	47	1.58%	2.6%
BENZODIAZEPINE	47	1.58%	1.7%
TRAMADOL	20	0.67%	1.1%
BUPRENORPHINE	103	3.47%	7.7%
ETHYL GLUCURONIDE	28	0.94%	2.4%

# Number of Substances Present in Positive Cords



- One Substance
- Two Substances
- Three Substances
- Four Substances

### 2017 Positivity Testing Results



# Neonatal Abstinence Syndrome: Cost and Impact to Indiana Medicaid

Jennifer Walthall, MD MPH  
Secretary, FSSA



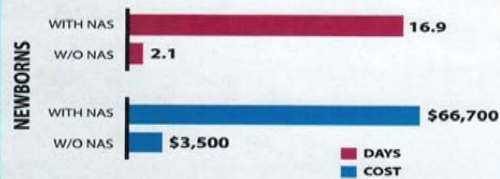
# DRAMATIC INCREASES IN MATERNAL OPIOID USE AND NEONATAL ABSTINENCE SYNDROME

THE USE OF OPIOIDS DURING PREGNANCY CAN RESULT IN A DRUG WITHDRAWAL SYNDROME IN NEWBORNS CALLED **NEONATAL ABSTINENCE SYNDROME (NAS)**, WHICH CAUSES **LENGTHY AND COSTLY** HOSPITAL STAYS. ACCORDING TO A NEW STUDY, AN ESTIMATED **21,732 BABIES** WERE BORN WITH THIS SYNDROME IN THE UNITED STATES IN 2012, A **5-FOLD INCREASE** SINCE 2000.

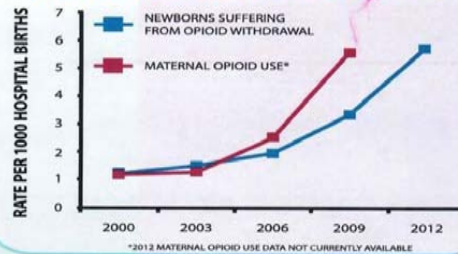


**EVERY 25 MINUTES,  
A BABY IS BORN SUFFERING  
FROM OPIOID WITHDRAWAL.**

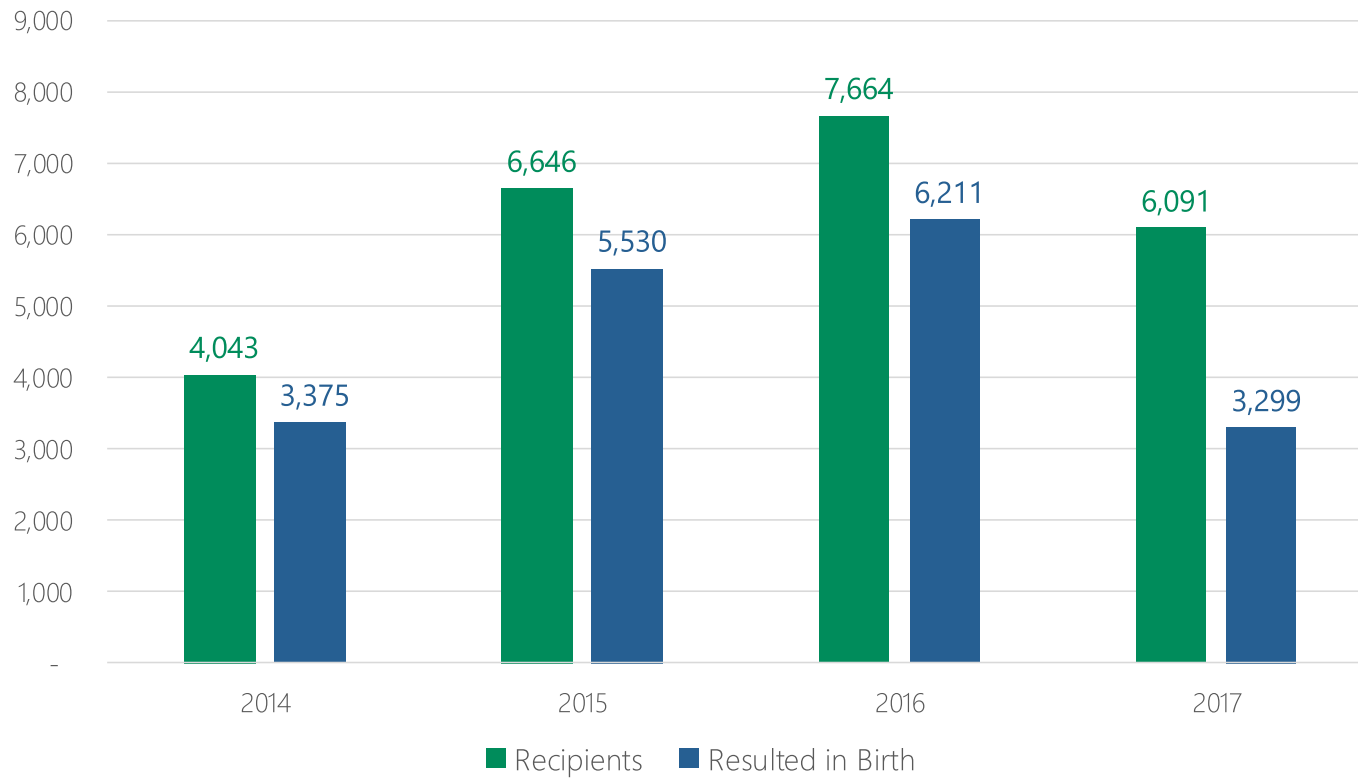
## AVERAGE LENGTH OR COST OF HOSPITAL STAY



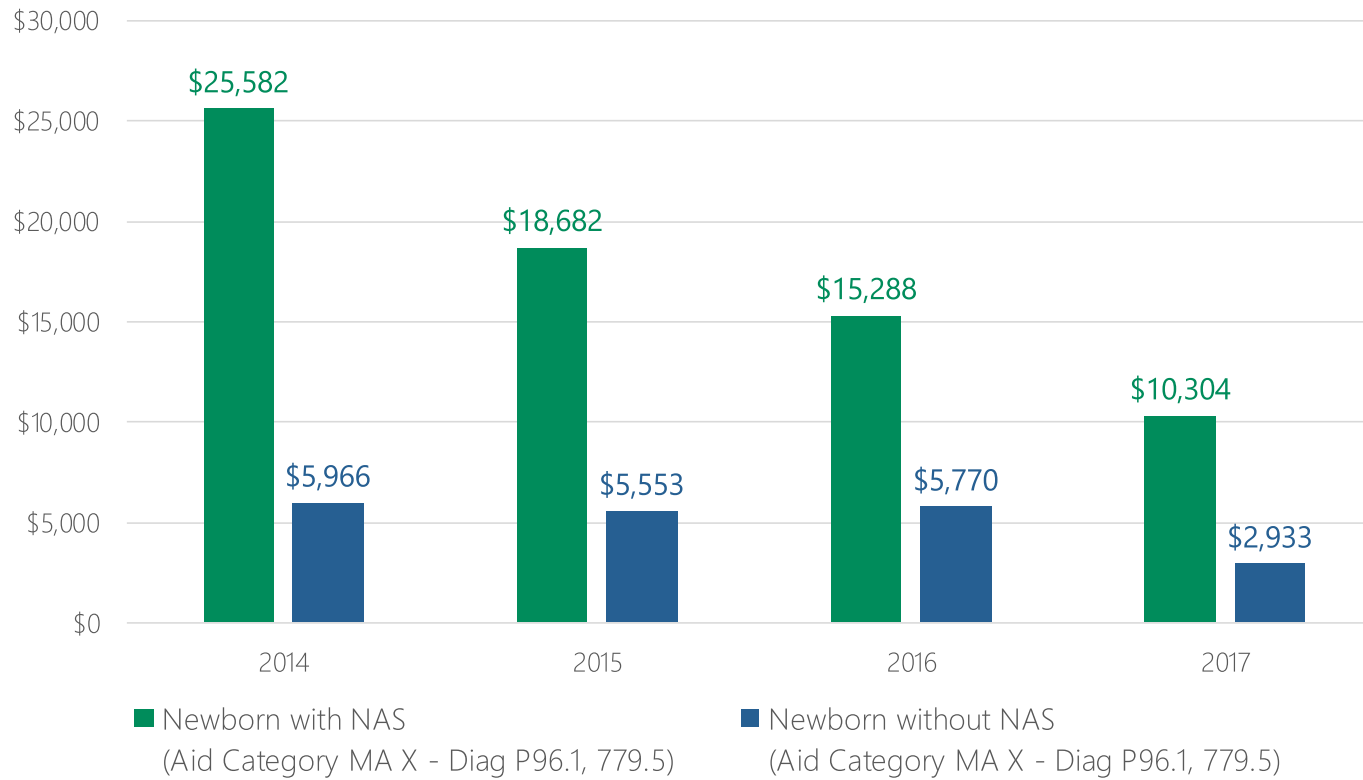
## NAS AND MATERNAL OPIOID USE ON THE RISE



## Pregnant Women with Substance Abuse Disorder (SUD) Diagnosis

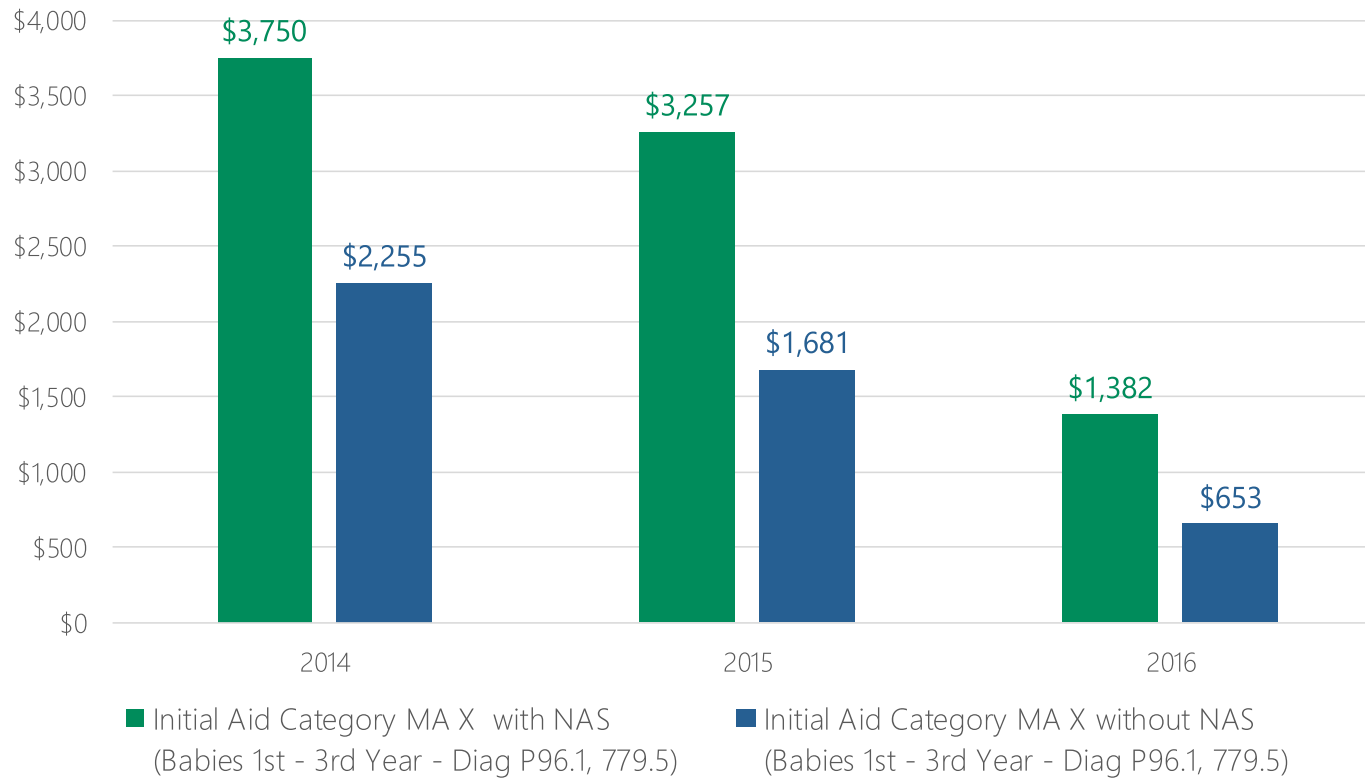


## Newborns with Neonatal Abstinence Syndrome (NAS) vs. Newborns without NAS: Average Cost

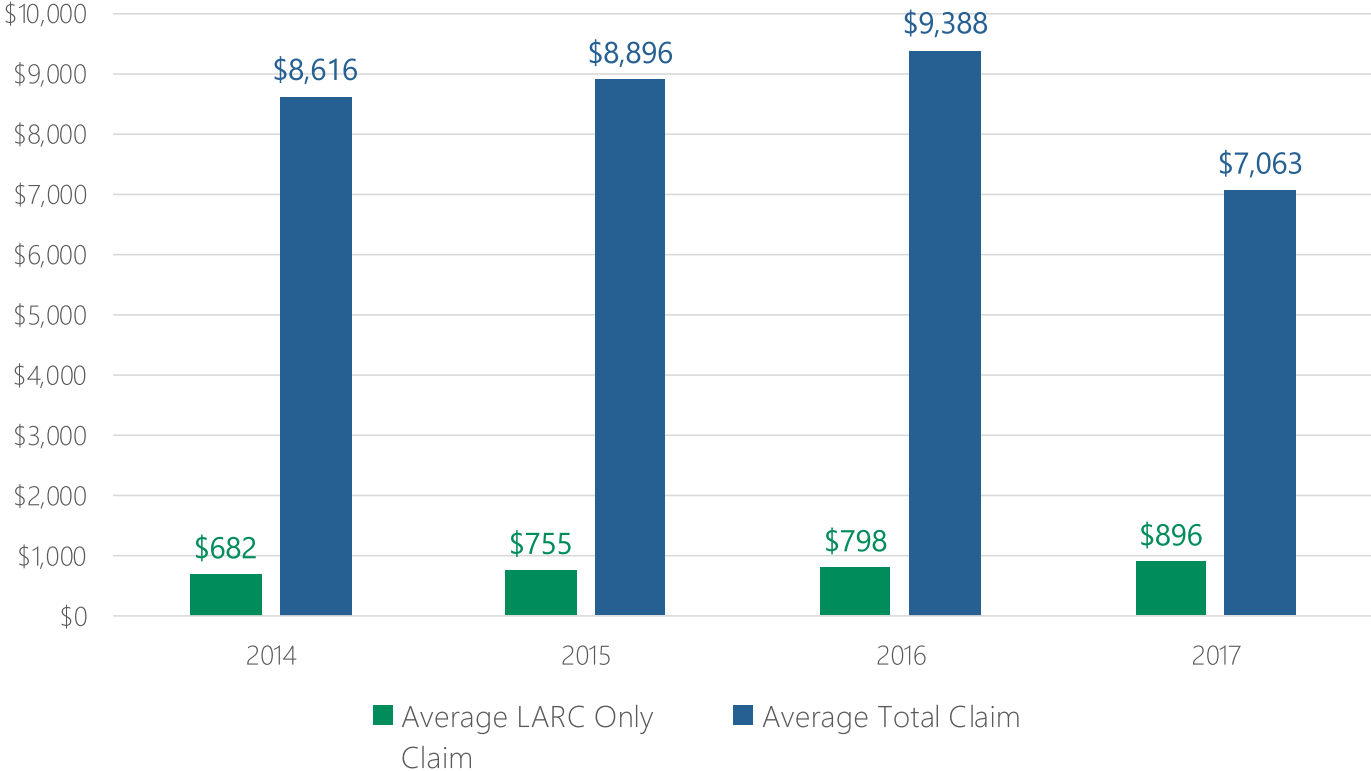




### Initial Aid Category MA X with NAS vs. MA X without NAS: Average 1-3 Years Claim



### Pregnant Women with SUD Diagnosis Used Long-Acting Reversible Contraceptives (LARC): Average Cost



# Summary

- Early diagnosis and supportive care improve long term cost
- Decrease in practice variation is driving down cost and length of stay
- Supportive recovery and spacing services may increase quality and decrease cost
- Imperative to align goals across Medicaid, ISDH, and DCS



# Agenda

- Strategic Priority: Child Safety & Services
  - Terry Stigdon and John Hammond: Update on DCS assessment process

# Agenda

- Strategic Priority: Child Safety & Services
  - Rep. Wendy McNamara: Child Services Oversight Committee Brief Update

# Agenda

- Strategic Priority: Child Safety & Services
  - Dr. Leslie Hulvershorn: Child Safety and Services Task Force Brief Update

# Agenda

- Strategic Priority: Mental Health & Substance Abuse
  - Sirrilla Blackmon: Mental Health and Substance Abuse Task Force Brief Update

# Agenda

- Strategic Priority: Educational Outcomes
  - Melaina Gant: Educational Outcomes Task Force Brief Update



# Agenda

- Strategic Priority: Juvenile Justice and Cross-System Youth
  - Don Travis and Judge Charlie Pratt: Juvenile Justice and Cross-system Youth Task Force Brief update

# Agenda

- Committee Brief Updates
  - Tamara Weaver and Tyler Brown: Data Sharing and Mapping Committee Brief Update

# Agenda

- Committee Brief Updates
  - Kathryn Dolan: Communications Committee Brief Update

# Agenda

- Executive Director Updates
  - Julie Whitman, CISC Executive Director
    - Action required: adopt Roles and Responsibilities document
    - Update on strategic plan implementation

# Agenda

- Legislative Updates
  - Updates on agency bills by DCS, FSSA, ISDH, IDOE, Courts

# Agenda

- Discussion: Future Meeting Topics or other Items from Commission Members
- Next Meeting: April 18, 2018



**2018 Meeting Dates**  
**10 a.m. – noon**

February 14 (Indiana State Library, History Reference Room 211)

April 18 (Indiana State Library, History Reference Room 211)

June 20 (IGCS, Conference Room C)

August 15 (IGCS, Conference Room C)

October 17 (Indiana State Library, History Reference Room 211)

December 19 (IGCS, Conference Room A)