

Contributing Factors in the Successful Cessation of Drug and Alcohol Abuse in Dependent Pregnant Mothers

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NEONATAL ABSTINENCE SYNDROME

Definition: Neonatal Abstinence Syndrome (NAS)

• “Neonatal abstinence syndrome is a result of the sudden discontinuation of fetal exposure to substances that were used or abused by the mother during pregnancy” (Kocherlakota, 2014).

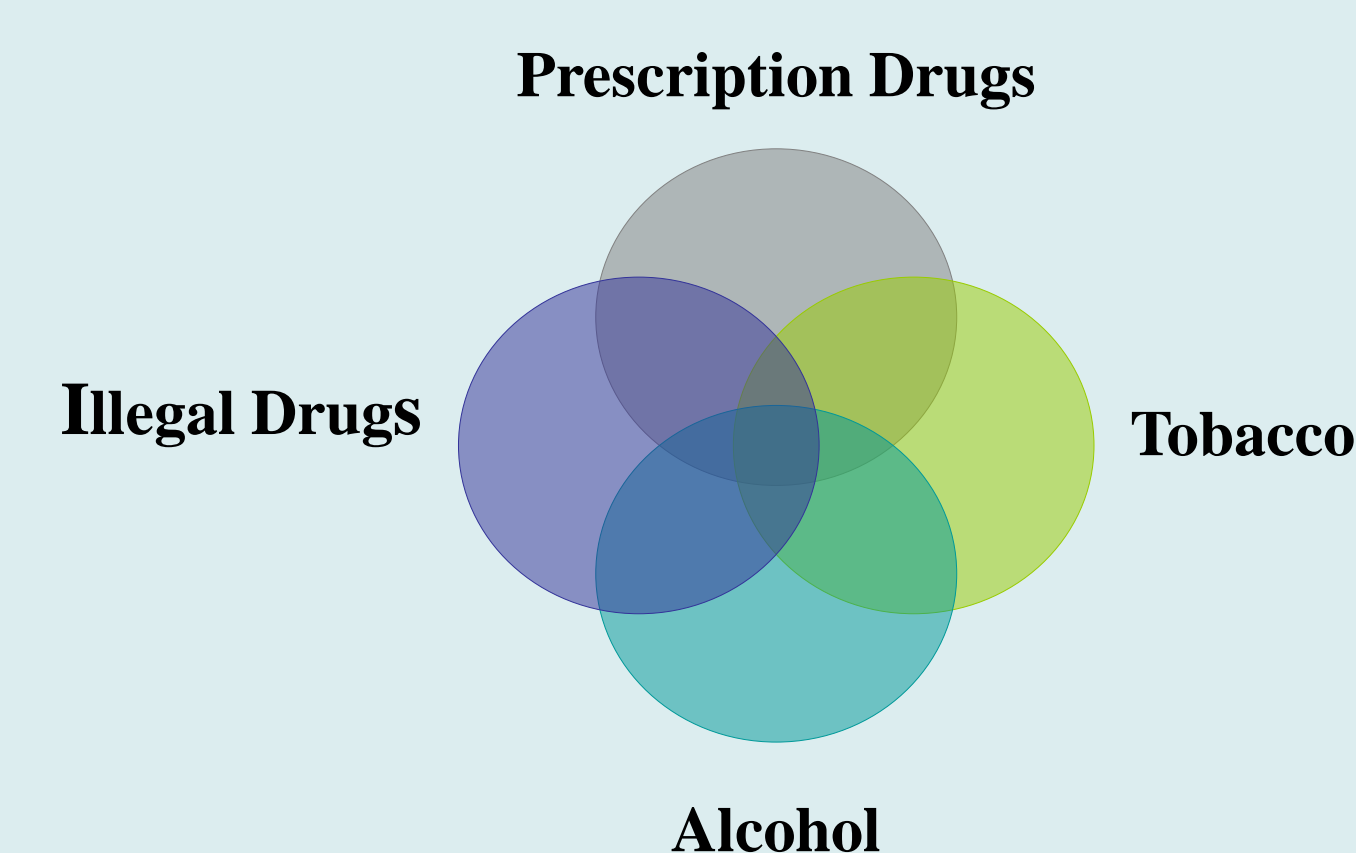
History:

- NAS is becoming increasingly more common, especially in rural areas in Indiana
- NAS is most frequently caused by opioid use during pregnancy such as:
 - Hydrocodone
 - Morphine
 - Oxycodone
- Sometime physicians prescribe opiate replacement therapy (Methadone)
 - Results are showing similar and sometimes worsened symptoms in newborns
- Prescribed antidepressants such as benzodiazepines can also lead to NAS
- NAS babies require extensive care in the Neonatal Intensive Care Unit (NICU)

Why NAS?

We realize the best way to help babies suffering from NAS is to first help the mothers who are suffering from addictions while pregnant.

Substances used during pregnancy causing NAS:



Signs & Symptoms of Neonatal Abstinence Syndrome in infants:

- Tremors/Seizures
- Fever/Sweating
- Tight muscle tone
- Vomiting
- Excessive crying
- Poor intrauterine growth
- Hyperactive reflexes
- Premature birth
- Difficulty feeding/Dehydration
- Birth defects

*This project was partially funded by the Office of Student Research at IUPUC.

STUDY

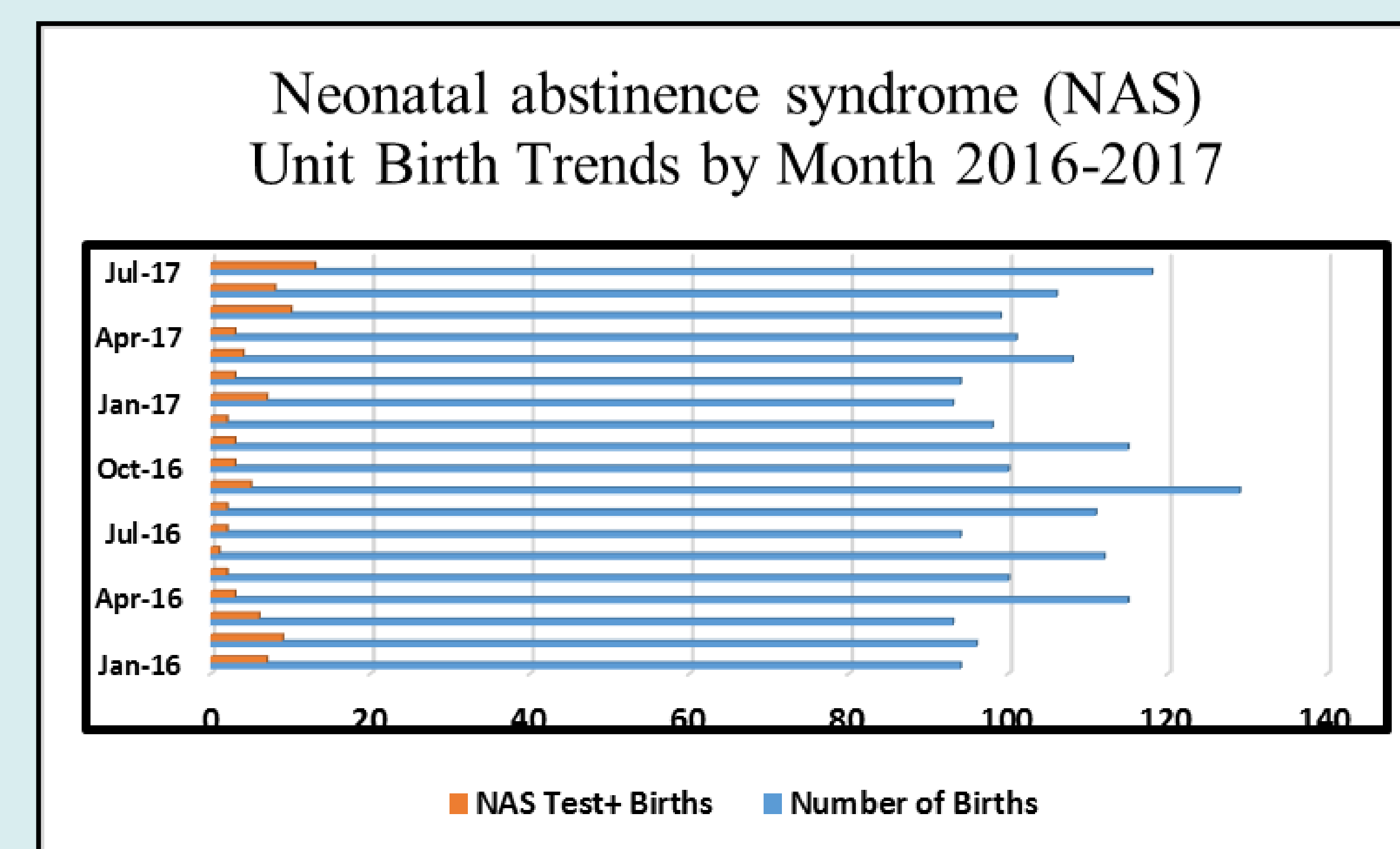
Purpose or Significance:

- Identify the numbers and any increase in these dependent mothers
- Understand the barriers pregnant women face when continuing abuse of drugs and alcohol
- Discover factors that influence women to cease substance abuse while pregnant

Study Design and Timeline:

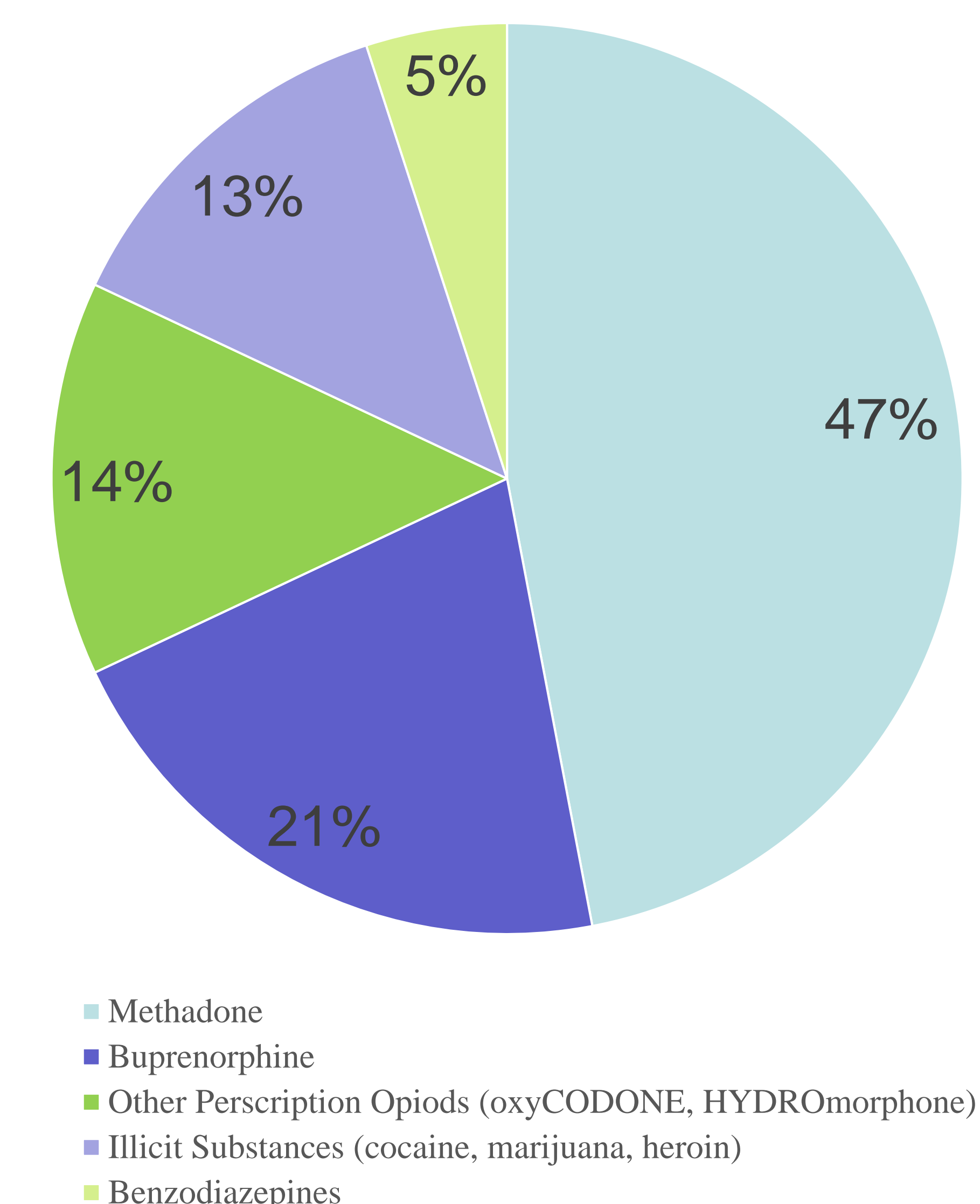
- Permission to conduct the study at regional south central Indiana acute care facility March 2017
- University Institutional Review Board (IRB) approval March 23, 2017
- Approval through the hospital IRB August 7, 2017
- Study launch meeting with unit manager of August 25, 2017
- Screen participants based on inclusion/exclusion criteria August-September 2017
- Invited participants the option to complete the survey
- Research will be compiled and null hypothesis will be either rejected or fail to be rejected based on study results
- Meeting with unit staff to disseminate study results in December of 2017
- Poster presentation at the Sigma Theta Tau International Conference October 28-29, 2017
- Continue data collection with possible expansion to another facility

PRELIMINARY FINDINGS:



The monthly unit data collected for 2016-2017 is reflected in the graphic above. The numbers represent positive NAS screened births in orange as compared to the overall number of births on the unit in blue. Self-reported drug and/or alcohol dependent mothers admitted to the unit had umbilical cord blood collected for the screening in accordance with the request from the Indiana State Health Department (this has occurred since July 2016 with daily toxicology reports). Incidence of NAS positive tested babies (NAS+ Diagnosis) at the hospital reflected less than 4 total for the entire year of 2015. These numbers coincide with the overall increase of NAS incidence of approximately 250-300% increase nationally (CDC, 2016). Dependent mothers also tested during the same 2016-2017 time period show positive results for tetrahydrocannabinol and opiates (90% of positive cases) with the addition of methamphetamine (10% of positive cases) for remaining cases.

Drug use in pregnant women



Setting:

- The study will focus primarily on participants in rural regions of Indiana due to the increased prevalence of NAS
- The hospital involved in this study is Columbus Regional Health
- The surveys will be filled out with patients in their individual rooms

Participants (Inclusion Criteria):

- Women who are within 72 hours postpartum
- Participant must screen positive for drugs or alcohol upon admission to the Labor and Delivery Unit at CRH
- Participant must be 18 years of age or older
- Participant must be a resident of Indiana
- Participant must be able to read, write, and speak English
- Participant must be capable of filling out the survey

Confidentiality:

- Participants will be given an information sheet as well as a consent form prior to filling out the survey
- Participants will have the opportunity to ask questions before participating in the survey
- Surveys will be kept in a locked box in the manager's office
- Surveys will be deidentified
- Survey administrator will stress that no information given will be turned over to authorities

GOALS

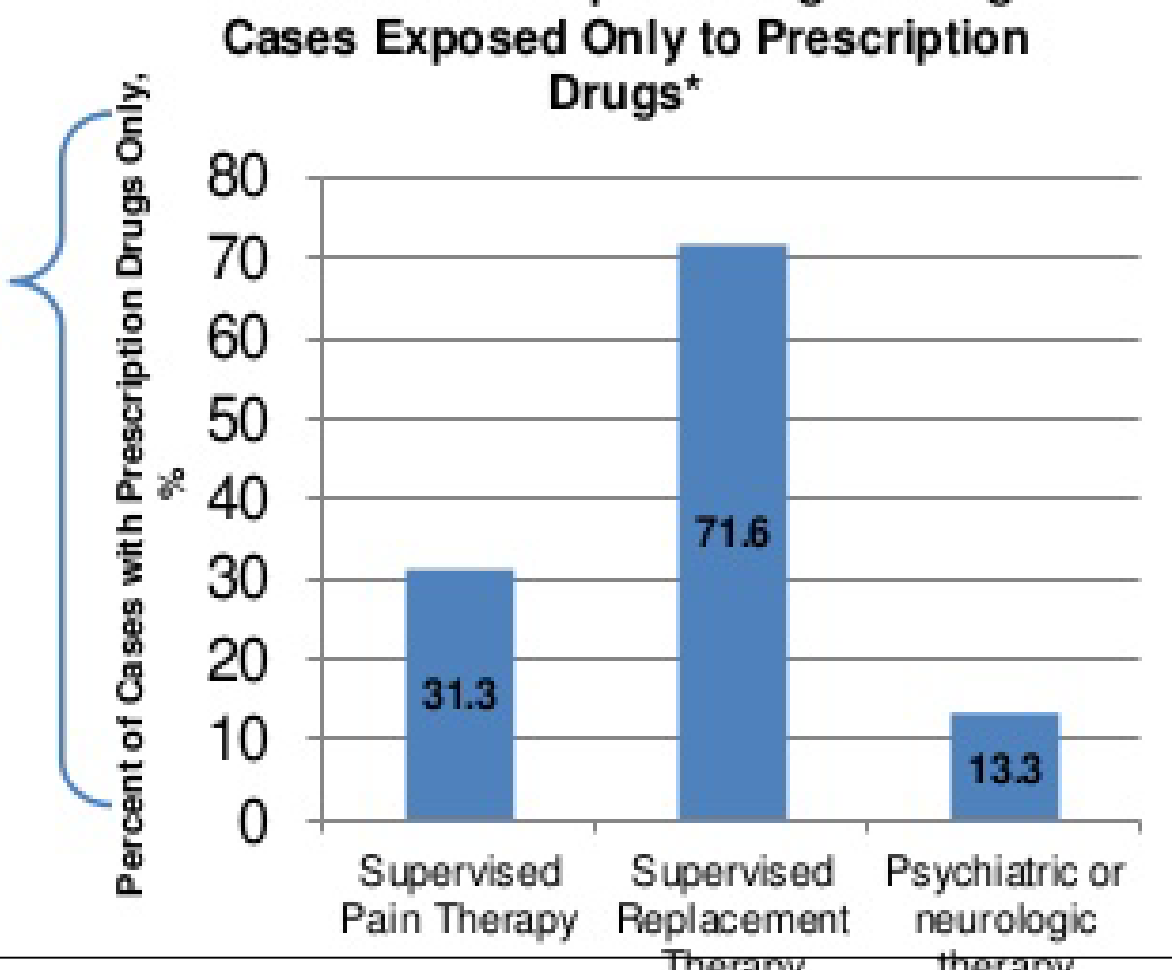


Long-Term Goals

- Using the original study as a springboard, we intend to launch a wider study involving the community which dives deeper into the contributing factors of drug and alcohol dependency for pregnant mothers
 - Seeking to find ways to help the mothers avoid becoming addicted to drugs prior to becoming pregnant
 - Expanding upon this study to accomplish an additional goal of researching the drug issues affecting many in the population
- Understanding the long-term effects
 - We also desire to further understanding of the long-term effects of NAS on the affected child as well as the possible differences/similarities between prescribed versus illicit drug use.

Mutually Exclusive Sources of Exposure

Source	Cases	Percent, %
Prescription Drugs Only	384	41.7
Illicit/Diverted Drugs Only	305	33.2
Prescription and Illicit Drugs	199	21.6
Unknown	32	3.5



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