

# WHAT IS NAS?

Neonatal abstinence syndrome (NAS) is a condition in which a baby is exposed to certain medications and illicit drugs during pregnancy. The baby becomes dependent while in the womb and then suffers from withdrawal after birth<sup>1</sup>.

Symptoms of NAS include<sup>1</sup>:

- Vomiting and diarrhea
- Excessive or high-pitched crying
- Irritability
- Difficult to console.
- Sneezing
- Fever
- Feeding difficulties
- Tremors and seizures
- Rapid breathing
- Sweating

*\*Symptoms vary based on substance type, how the mother's body breaks down the drug, the amount and length of time the drug was used, and the baby's gestation<sup>1</sup>.*

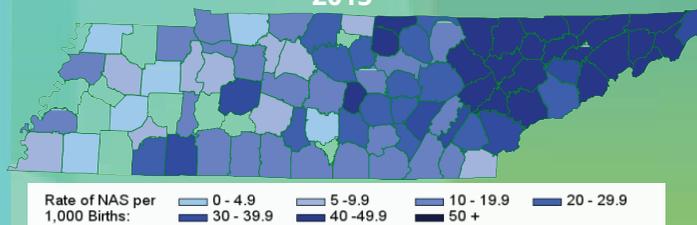
# MEDICATIONS THAT CAN CAUSE NAS

- **Opioids/narcotics**
  - Heroin
  - Methadone
  - Codeine
  - Fentanyl
- **Benzodiazepines**
  - Diazepam

# TENNESSEE STATISTICS

- State rate: 13.1/1,000 live births.<sup>2</sup>
- Rates are considerably higher in east and middle Tennessee than in the western part of the state (see Figure 1).<sup>3</sup>
- In 2015, TennCare infants with NAS were 11 times more likely to be in DCS custody within 1 year of birth than infants without NAS.<sup>3</sup>
- The rate of NAS increased tenfold between 2002 and 2013 in Tennessee.<sup>2</sup>

Figure 1:  
NAS Incidence among Tenn Care Recipients  
2015



	All TennCare Live Births (2015)	TennCare Infants with NAS (2015)
Number of Births	46,900	1,197
Total costs for infants in first year of life	\$398,346,174	\$53,043,353
Average cost per child	\$8,494	\$44,314
Average length of stay in hospital (days)	3.5	21.0

# PREVENTION

## Primary:

Reduce likelihood that women taking narcotics will become pregnant.

- Counsel women of childbearing age about the risk of becoming pregnant while taking opioids. Discuss family planning options before prescribing opioids and during treatment.
- **PRESCRIBER EDUCATION:**
  - Follow recommended guidelines for prescribing opioids.
  - Consider non-opioid treatment for chronic pain, especially among women of childbearing age.
  - If opioids are needed, prescribe the lowest effective dose.
- Target outreach/education for women at risk.

## Secondary:

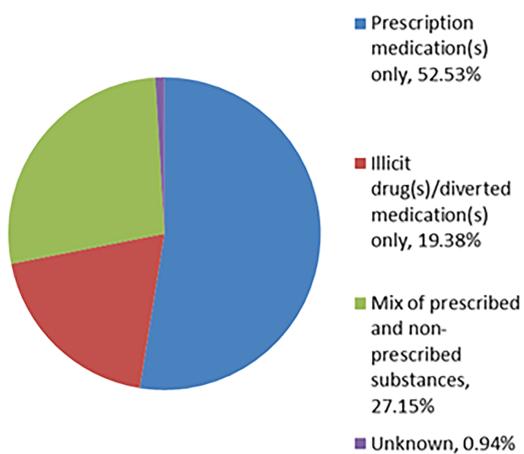
Ensure pregnant women who are taking opioids receive proper care.

- Identify pregnant women who are using opioids early in their pregnancy and connect them with doctors or programs that have experience treating such individuals.
- Provide early and regular prenatal care.
- Develop an environment that is comfortable and safe for women seeking assistance and treatment

# Why does Tennessee have such high rates of NAS?

- As in many other states in the US, TN is experiencing an opioid crisis.
- TN has one of the highest opioid prescribing rates in the nation at 107.5 opioid prescriptions dispensed per 100 persons.<sup>4</sup>
- The number of opioid prescriptions issued to pregnant women has increased.<sup>2</sup>

Figure 2: Sources of Exposure for NAS Cases, 2016



# Reporting NAS Cases to the TN Department of Health TDH

- All cases of NAS among TN resident births should be reported to TDH at the time of diagnosis via the NAS Reporting Portal.
- Please visit: <https://www.tn.gov/health/nas.html#reporting>

## References

- 1- [https://www.tn.gov/content/dam/tn/health/documents/nas/NAS\\_FAQ.pdf](https://www.tn.gov/content/dam/tn/health/documents/nas/NAS_FAQ.pdf)
- 2- Miller AM, McDonald M and Warren MD (2017). Neonatal Abstinence Syndrome Surveillance Annual Report 2016. Tennessee Department of Health, Nashville, TN.
- 3- Tennessee Division of Health Care Finance & Administration. Neonatal Abstinence Syndrome among TennCare enrollees. 2014 and 2015 data. Accessed [2/22/18] from: <https://www.tn.gov/content/dam/tn/tenncare/documents/TennCareNASData2015.pdf>
- 4- Centers for Disease Control and Prevention. Annual Surveillance Report of Drug-Related Risks and Outcomes — United States, 2017. Surveillance Special Report 1. Centers for Disease Control and Prevention, U.S. Department of Health and Human Services. Published August 31, 2017. Accessed [2/22/18] from: <https://www.cdc.gov/drugoverdose/pdf/pubs/2017-cdc-drug-surveillance-report.pdf>.

# NEONATAL ABSTINENCE SYNDROME IN TENNESSEE



Find more Neonatal Abstinence Syndrome information on the Tennessee Department of Health website at [tn.gov/health/topic/nas](https://www.tn.gov/health/topic/nas).

What can we do about it?

INFORMATION FOR PROFESSIONALS AND COMMUNITY PARTNERS

