

NAS

SULLIVAN COUNTY REGIONAL HEALTH DEPARTMENT

Neonatal
Abstinence
Syndrome

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DISCLAIMER

- I am **NOT** affiliated with any MAT clinics, pain management clinics, hospitals, or recovery centers. I cannot and do not oversee the prescribing of any medications, nor do I monitor the incidence of NAS diagnoses. Therefore, I cannot answer any questions on the policies and procedures of other facilities. The Sullivan County Health Dept. follows the TN Department of Health and the CDC for **information** pertaining to Pain Management Guidelines and NAS.
- The NAS program is education **ONLY**; under Title X there is no coercion towards a particular birth control method. The patient **ALWAYS** has the right refuse birth control and other services provided by the health department.

OBJECTIVES

- Understanding Neonatal Abstinence Syndrome
- Importance of preventative education and awareness of NAS in the community
- NAS in Sullivan County

WHAT IS NAS?

- Neonatal abstinence syndrome (NAS) is a term for a group of problems a baby experiences when withdrawing from exposure to a substance.
- Almost every drug passes from the mother's blood stream through the placenta to the fetus. At birth, the umbilical cord is cut and the drug is no longer available, the baby's central nervous system becomes overstimulated causing the symptoms of withdrawal. It also causes autonomic nervous system impairment and GI upset.
- These infants are NOT addicted; they are dependent on the substance used by the mother during pregnancy.

NAS SIGNS/SYMPTOMS

- **High pitched crying**
 - Excessive crying, inconsolability
- **Difficulty sleeping**
- **Jerks, tremors, jitters, irritability**
- **Sweating**
- **Fast breathing, nasal flaring**
- **Excessive sneezing, yawning**
- **Fever**
- **Mottled color (patchy colored skin)**
- **Frantic, uncoordinated sucking (not in response to hunger)**
- **Difficulty feeding**
 - Vomiting
 - Diarrhea
 - Skin breakdown from loose stool/diarrhea
- **Skin breakdown on knees, elbows, chin, nose**
- **Seizures (rare)**

NAS SIGNS/SYMPTOMS

- Video: <https://www.youtube.com/watch?v=kYD73NGxpdw>

HOW IS IT DIAGNOSED?

- **Finnegan Scale** → is a subjective withdrawal assessment tool used by healthcare providers to determine the severity of withdrawal signs and symptoms.

http://www.lkpz.nl/docs/lkpz_pdf_1310485469.pdf

STATISTICS

- Nearly 50% of ALL pregnancies in the U.S. are unintended
- Women who use opioids are more likely to become pregnant than the general population
- 86% of pregnancies are unintended among women who misuse opioids
- Contraceptive knowledge is poor! Average % of correct answers about BC, 23%.
- Lack of health insurance is a primary barrier for BC
- Women who had seen a PCP/or in a clinic for contraception were 3.5x's more likely to use BC than those without such a visit.
- Increase knowledge = Increase BC use *Knowledge IS Power

NAS NURSE EDUCATOR

- Educate people in the community about NAS prevention, VRLAC (Voluntary Reversible Long Acting Contraception) and other methods of BC. Offer BC to those who are interested (Quickstart) or schedule an appointment with our practitioners for same day service.
- **Community**
 - MAT Clinics (Medication Assisted Treatment)
 - Jail
 - Classes for families involved with DCS
 - Hospitals
 - Recovery Centers

****At the Sullivan County Health Department ALL birth control is FREE or on a sliding scale!**

*****Education only! No coercion in choosing a BC method!**

TEACHING MOMENTS

**To help mom is to help baby
To help baby is to help mom**

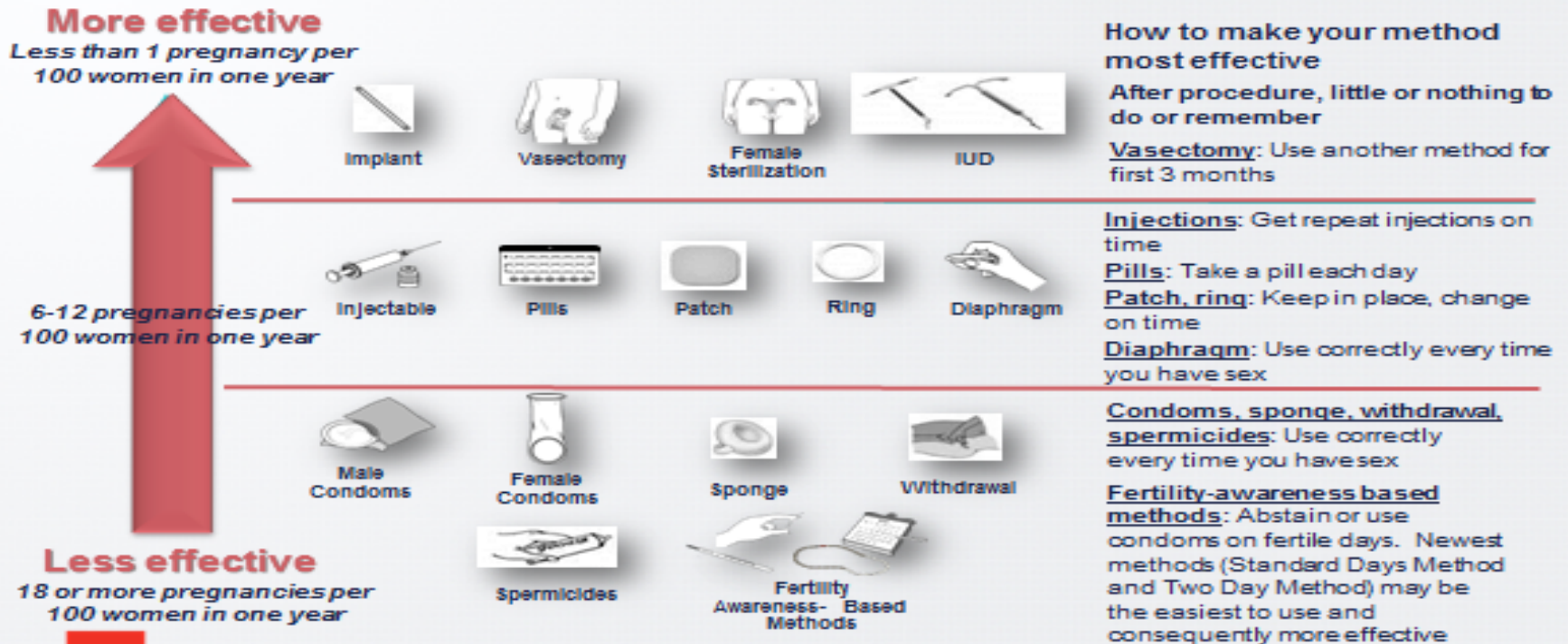
- **Teach parent(s)/caregiver:**
 - **How to use Finnegan Scale**
 - **Timeframes of withdrawal per substance**
 - **How to care for an infant diagnosed with NAS**
 - **Swaddling**
 - **Breast-feeding (with approval)**
 - **Skin-to-skin contact**
 - **Low lighting**
 - **Minimal background noise**
 - **Rub don't pat**

TIMEFRAME OF SIGNS/SYMPTOMS DEPENDING ON SUBSTANCE USED DURING PREGNANCY

- REMEMBER! DIFFERENT DRUGS HAVE DIFFERENT ONSET, PEAK & HALFLIFE → S/S CAN BE DELAYED!!
- Short acting opioids: within 24 hours, long acting between 24-72 hours after birth
 - Benzodiazepines: hours to weeks after birth
 - Barbiturates: 1- 14 days after birth
- SSRI's: hours to days after birth
- Tobacco first 24 hours after birth
- Alcohol 3-12 hours after birth
- What is the substance(s)? What is the dosage (mg)? When was the last dose? How long has this substance been used? Also, how fast/slow is this substance metabolized by each person?

CONTRACEPTION

Comparing Typical Effectiveness of Contraceptive Methods



NAS IN SULLIVAN COUNTY

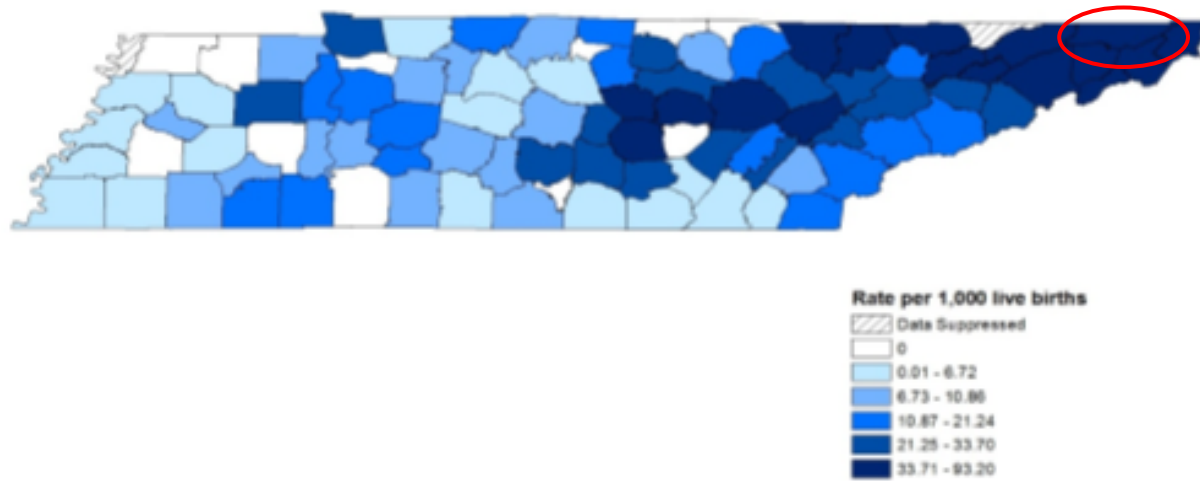


Figure 8: Rate of NAS Cases by County, 2017

TENNCARE

Table 4: Narcotic analgesic and contraceptive use among all TennCare women - 2015 data

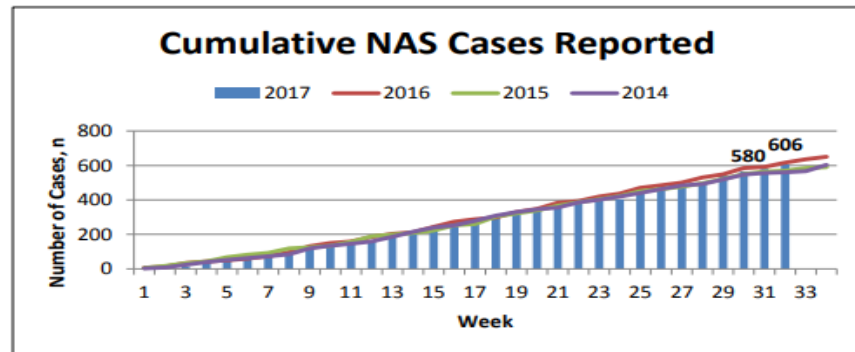
Demographics	TennCare Women	Women Prescribed Narcotics (>30 days supplied)	Narcotic Users Rate per 1,000	Women Prescribed Contraceptives and Narcotics	% of Women on Narcotics and Contraceptives	Women Prescribed Narcotics without Contraceptives	% of Women on Narcotics Not on Contraceptives
All Women	374,851	38,671	103	5,785	15%	32,886	85%
15 - 20	95,167	1,103	12	449	41%	654	59%
21 - 24	58,103	2,644	46	765	29%	1,879	71%
25 - 29	70,419	6,741	96	1,551	23%	5,190	77%
30 - 34	62,298	9,470	152	1,552	16%	7,918	84%
35 - 39	51,731	9,915	192	976	10%	8,939	90%
40 - 44	37,131	8,798	237	492	6%	8,306	94%

EFFECTIVENESS

Neonatal Abstinence Syndrome Surveillance Summary Week 32: August 6– August 12, 2017

Year to Date Reporting Summary		
Total Cases Reported:		606
Sex	Male	337
	Female	268
	Unknown	1

Maternal County of Residence	# Cases	% Cases ²
Davidson	43	7.1
East	120	19.8
Hamilton	18	3.0
Jackson/Madison	8	1.3
Knox	56	9.2
Mid-Cumberland	53	8.8
North East	100	16.5
Shelby	18	3.0
South Central	42	6.9
South East	25	4.1
Sullivan	54	8.9
Upper Cumberland	54	8.9
West	15	2.5
TOTAL	606	100.0



Source of Exposure	# Cases ³	% Cases
Medication assisted treatment	410	67.7
Legal prescription of an opioid pain reliever	37	6.1
Legal prescription of a non-opioid	48	7.9
Prescription opioid obtained without a prescription	172	28.4
Non-opioid prescription substance obtained without a prescription	88	14.5
Heroin	34	5.6
Other non-prescription substance	131	21.6
No known exposure	1	0.2
Other ⁴	16	2.6

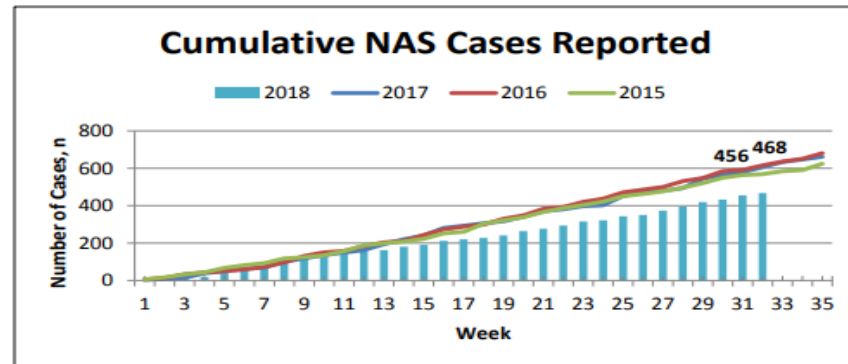
1. Summary reports are archived weekly at: <http://tn.gov/health/article/nas-summary-archive>
2. Total percentage may not equal 100.0% due to rounding.
3. Multiple maternal substances may be reported; therefore the total number of cases in this table may not match the total number of cases reported.
4. Other exposure may include cases reported to the archived surveillance system with classifications not captured in the current system.

EFFECTIVENESS

Neonatal Abstinence Syndrome Surveillance Summary Week 32: August 05 – August 11, 2018

Year to Date Reporting Summary		
Total Cases Reported:		468
Sex	Male	255
	Female	212
	Unknown at this time	1

Maternal County of Residence	# Cases	% Cases ²
Davidson	22	4.7
East	106	22.7
Hamilton	12	2.6
Jackson/Madison	2	0.4
Knox	41	8.8
Mid-Cumberland	50	10.7
North East	86	17.7
Shelby	24	5.1
South Central	17	3.6
South East	11	2.4
Sullivan	27	5.8
Upper Cumberland	59	12.6
West	14	3.0
TOTAL	468	100.1



Source of Exposure	# Cases ³	% Cases
Medication assisted treatment	317	67.7
Legal prescription of an opioid pain reliever	30	6.4
Legal prescription of a non-opioid	31	6.6
Prescription opioid obtained without a prescription	156	33.3
Non-opioid prescription substance obtained without a prescription	56	12.0
Heroin	25	5.3
Other non-prescription substance	101	21.6
No known exposure	3	0.6
Other ⁴	8	1.7

1. Summary reports are archived weekly at: <http://tn.gov/health/nas/nas-summary-archive.html>
2. Total percentage may not equal 100.0% due to rounding.
3. Multiple maternal substances may be reported; therefore the total number of cases in this table may not match the total number of cases reported.
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RESOURCES

- http://pnann.homestead.com/NAS_Scoring.pdf
- CDC
- TN Department of Health
- <https://www.tn.gov/health/topic/nas>
- https://www.tn.gov/assets/entities/health/attachments/NAS_Study_Summary--KCHD_Brown--Approved_03.24.2016_1630.pdf