



Children's Safety  
Network



Education  
Development  
Center

March 20<sup>th</sup>, 2018

# Public Health Approaches to Addressing Neonatal Abstinence Syndrome



# Technical Tips



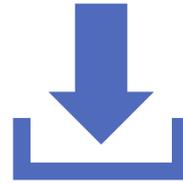
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# Presenters



**Shanna Cox**



**Janine Breyel**

## Disclosure and Disclaimer

No financial relationships to disclose.

The findings and conclusions in this presentation are those of the presenter and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



# Public Health Approaches to Addressing Neonatal Abstinence Syndrome



Shanna Cox, MSPH  
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CDC Division of Reproductive Health  
March 20, 2018

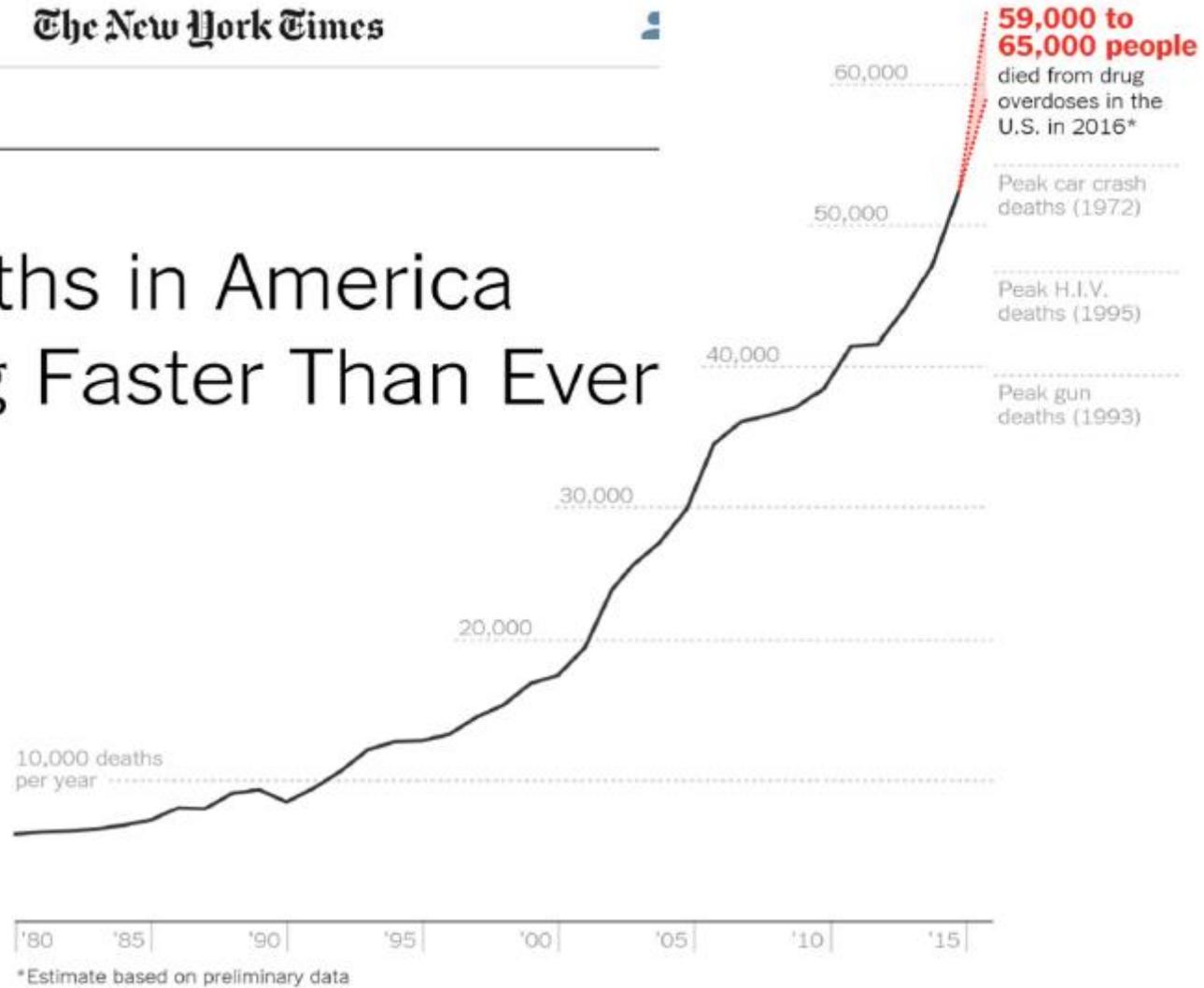
# Epidemiological Data

Opioid use generally and among women of reproductive age

Neonatal Abstinence Syndrome (NAS)

# Drug Deaths in America Are Rising Faster Than Ever

By **JOSH KATZ** JUNE 5, 2017

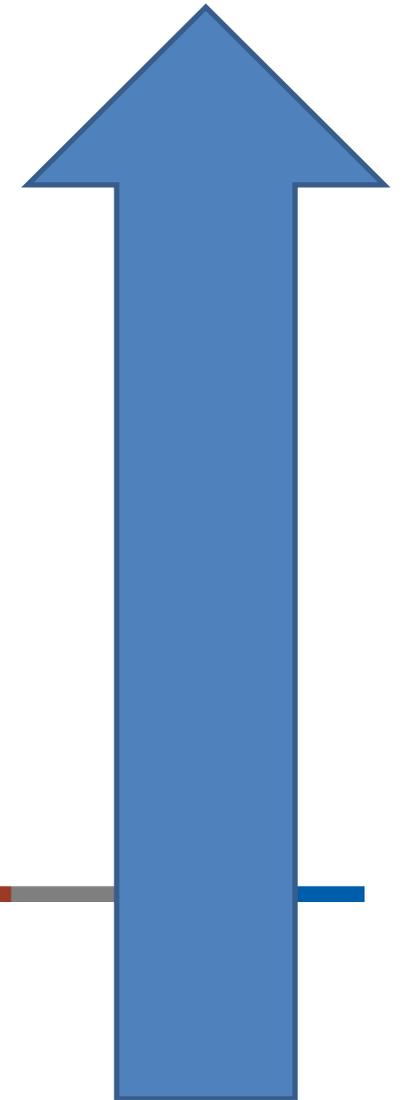


Source: New York Times, The Upshot, June 5, 2017: <https://www.nytimes.com/interactive/2017/06/05/upshot/opioid-epidemic-drug-overdose-deaths-are-rising-faster-than-ever.html>

# Opioid Overdose ED Visits Continue to Rise

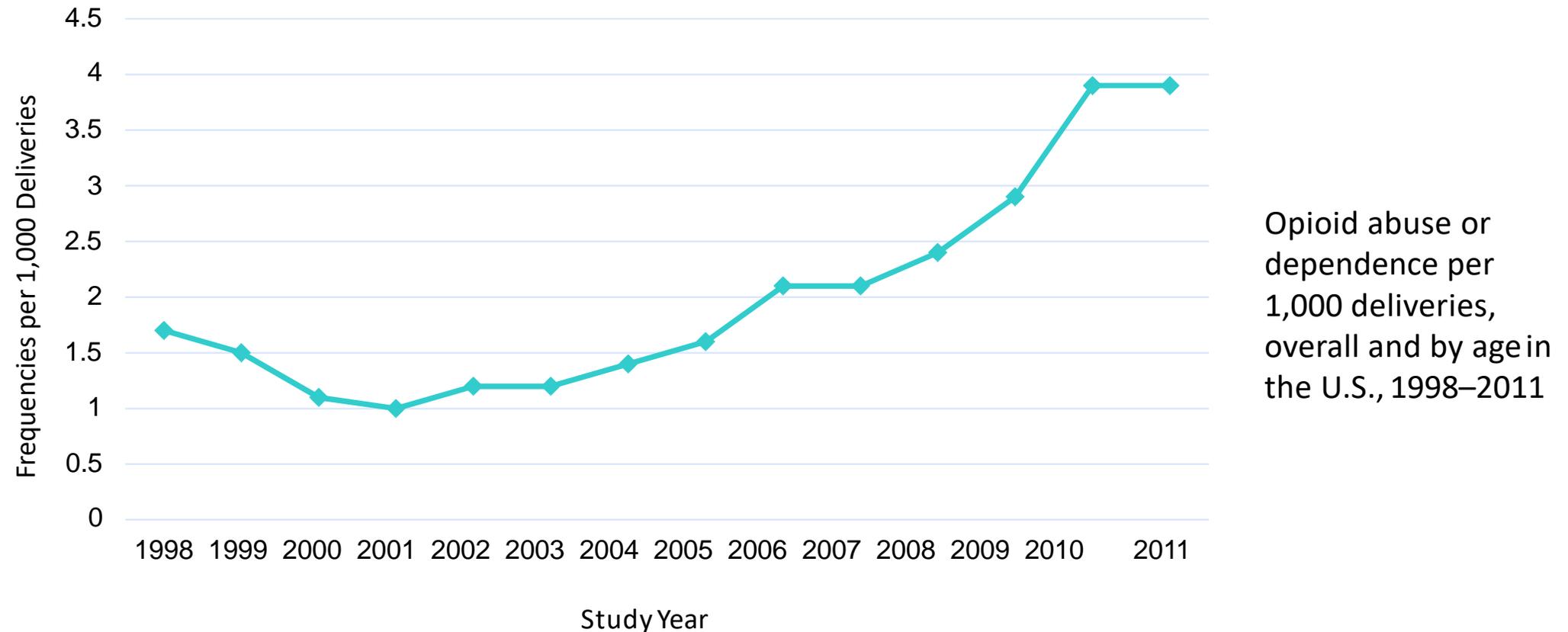
From July 2016 – September 2017, opioid overdoses increased for:

- Men (up 30%) and women (up 24%)
- People age 25 – 34 (up 31%); 35 – 54 (up 36%); and 55 and over (up 32%)
- Most states (up 30% average) – esp. in the Midwest (up 70% average)



SOURCE: CDC's National Syndromic Surveillance Program, 52 jurisdictions in 45 states reporting.

# Opioid Abuse and Dependence Among Pregnant Women



Source: Maeda et al., *Anesthesiology*, 2014.

# Opioid Prescription Use Among Women of Reproductive Age and Pregnant Women

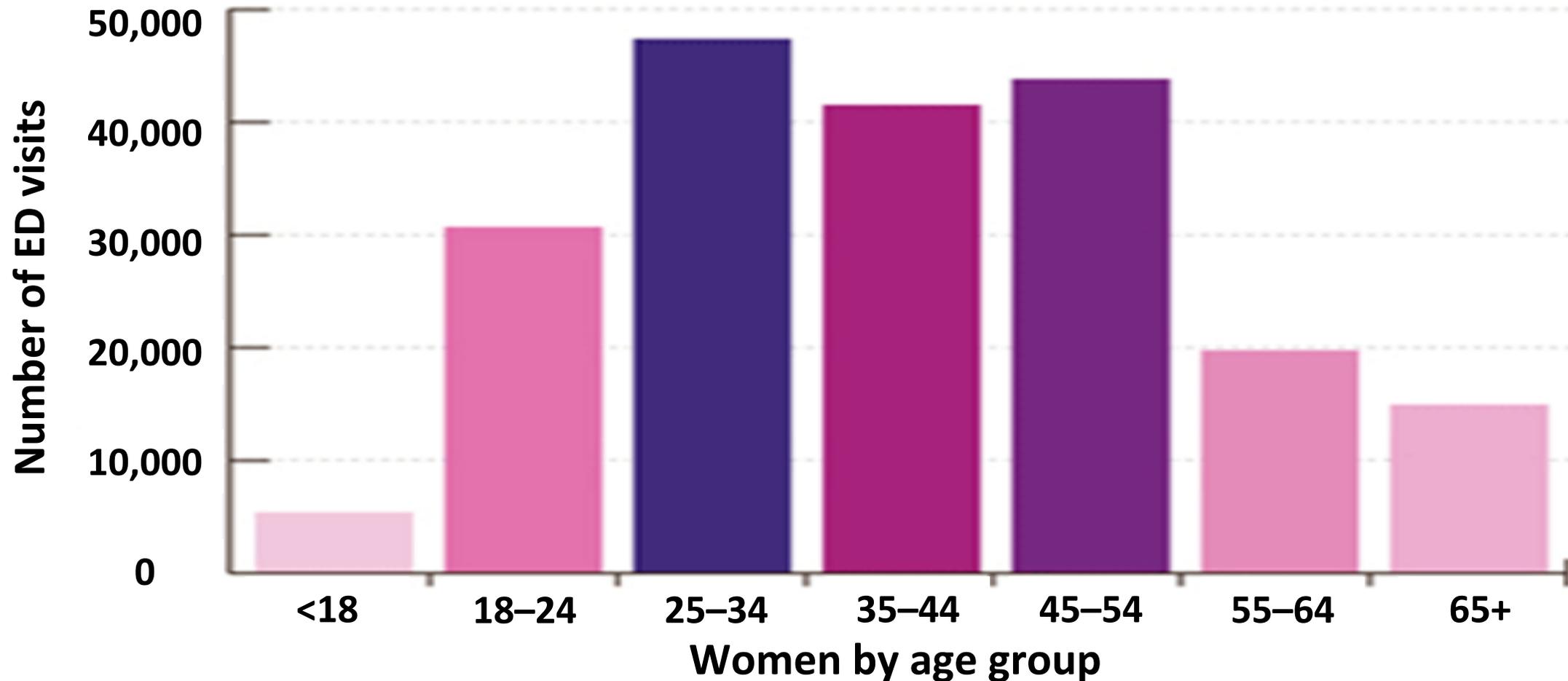
According to U.S. estimates:

- One-third of reproductive-aged women filled a prescription for an opioid medication
- 14% – 22% of women filled an opioid medication prescription during pregnancy

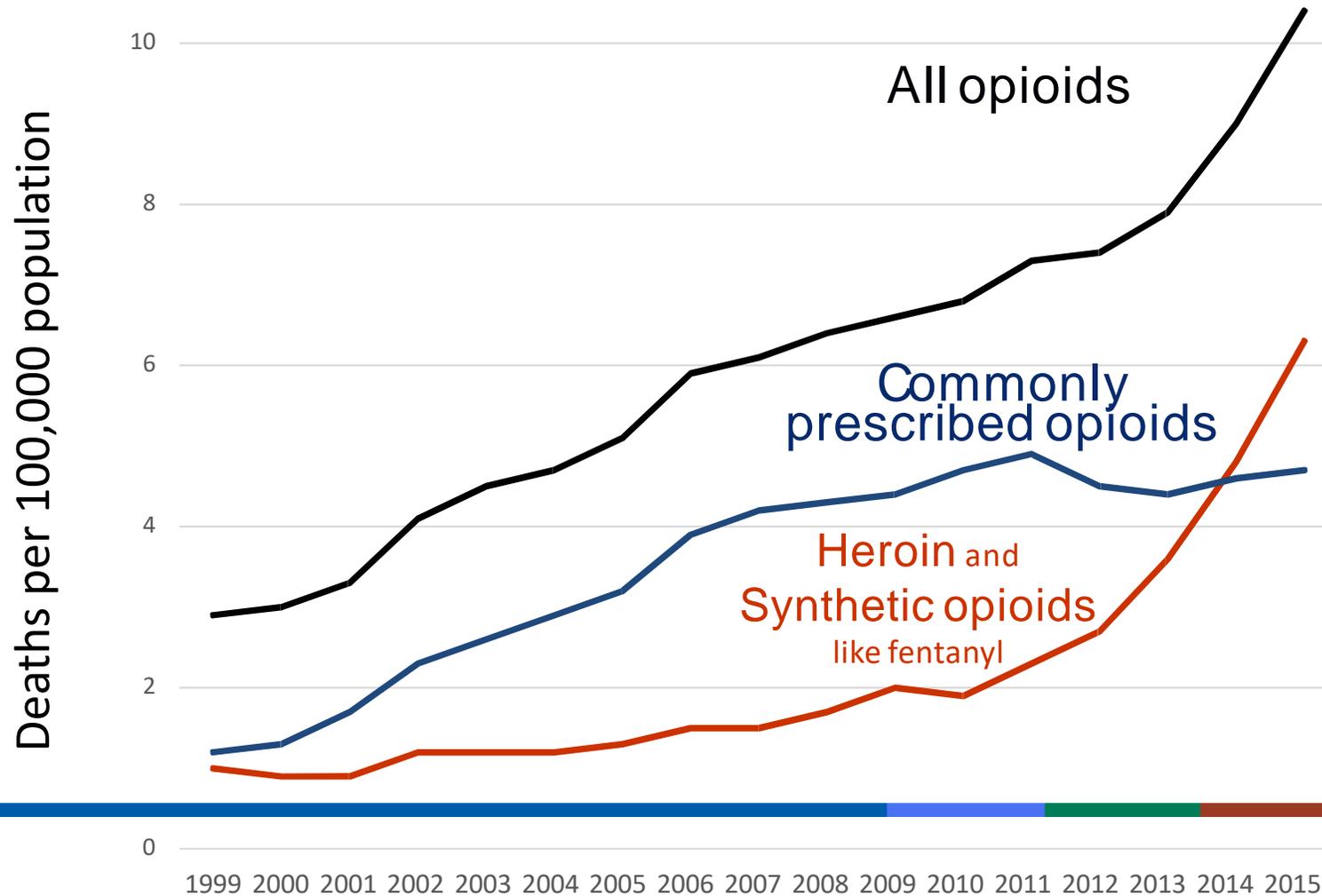


Sources: Ailes et al., *MMWR*, 2015; Bateman et al., *Anesthesiology*, 2014; Desai et al., *Obstet Gynecol.*, 2014; Maeda et al., *Anesthesiology*, 2014.

# Every 3 minutes, a woman goes to the emergency department for prescription pain reliever misuse or abuse



# Opioid-Related Overdose Deaths, U.S., 1999-2015



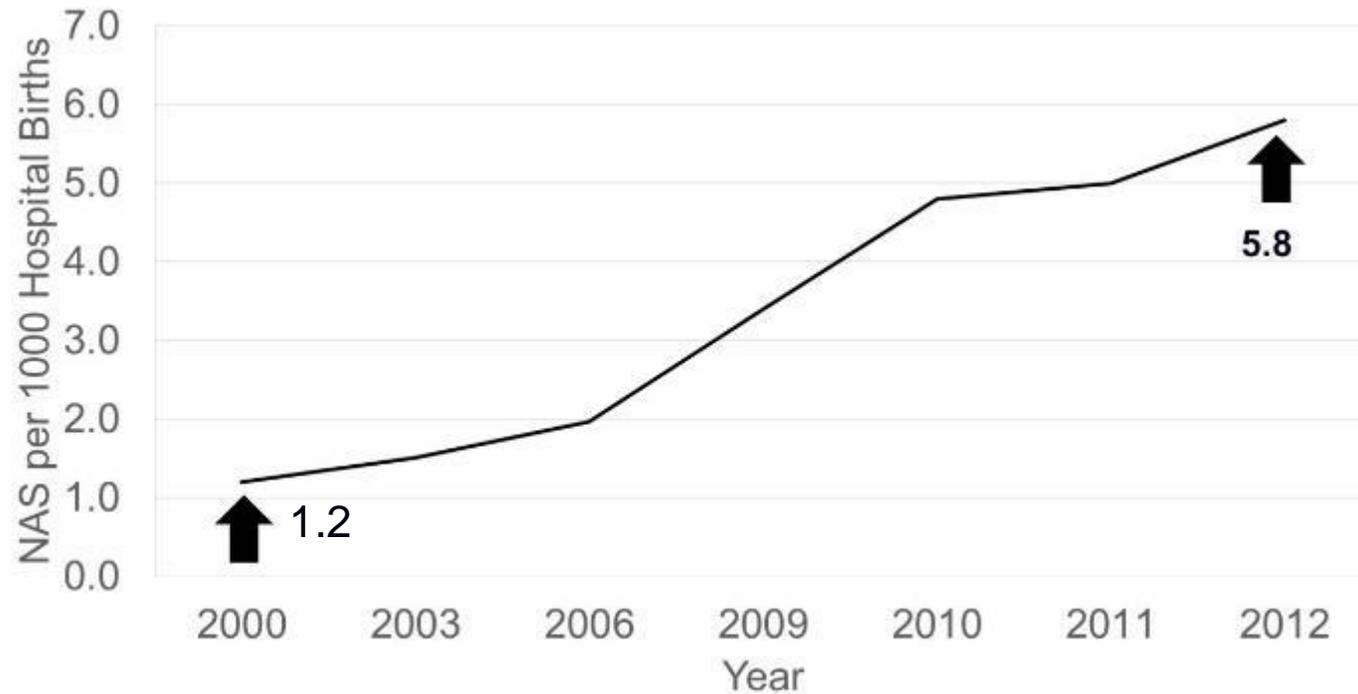
Source: National Vital Statistics System Mortality File – <https://www.cdc.gov/nchs/products/databriefs/db273.htm>.

# Neonatal Abstinence Syndrome (NAS)

- Drug withdrawal syndrome in newborns with fetal exposure to substances
  - Opioid exposure: prescription pain relievers, illicit substances, opioid maintenance therapy
- Withdrawal symptoms most commonly occur 48–72 hours after birth
  - Tremors, hyperactive reflexes, seizures
  - Excessive or high-pitched crying, irritability, yawning, stuffy nose, sneezing, sleep disturbances
  - Poor feeding and sucking, vomiting, loose stools, dehydration, poor weight gain
  - Increased sweating, temperature instability, fever



# NAS on the Rise

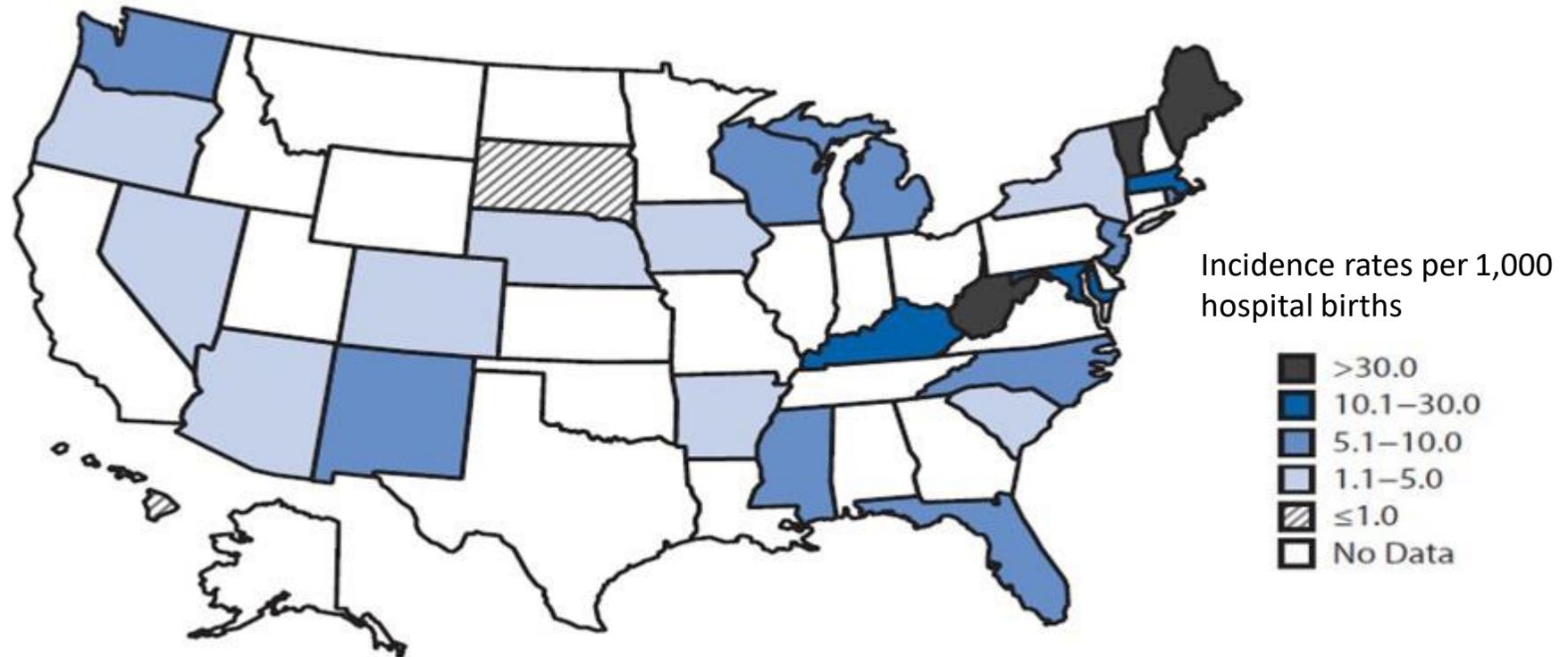


- 2,920 infants with NAS in 2000
- 21,732 infants with NAS in 2012
- In 2012, one infant with NAS was born every 25 minutes

Sources: Patrick et al., *JAMA*, 2012; Patrick et al., *J Perinatol.*, 2015.



# Incidence of NAS, 25 States, 2012–2013



Source: Ko et al., *MMWR Morb Mortal Wkly Rep*, 2016.

# Infants with NAS: Treatment and Costs

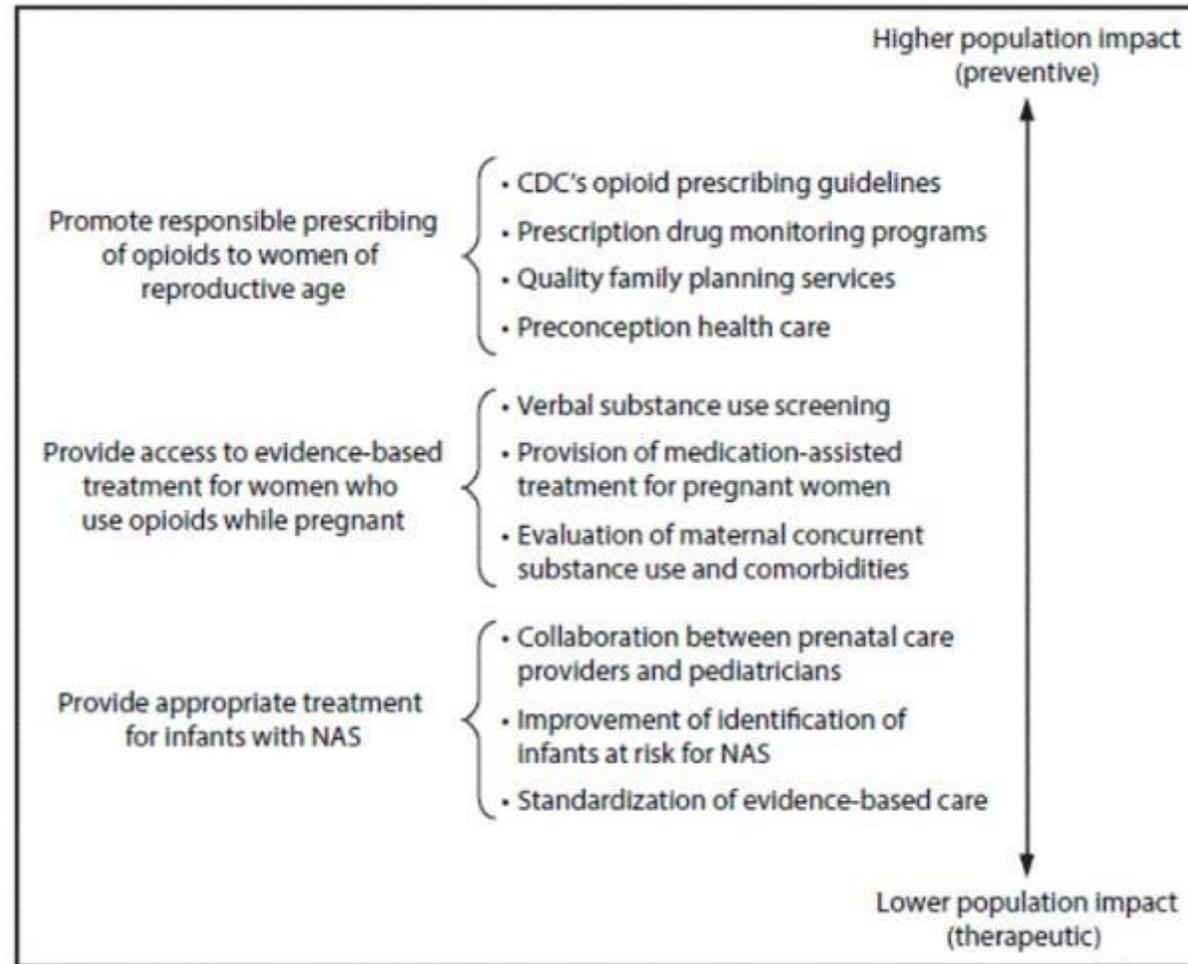
- Exposed infants can require pharmacologic treatment (morphine, methadone, phenobarbital, etc.)
  - 30%, 68%, 91% of NAS infants required pharmacologic treatment in separate studies
- Mean length of stay: 23 days
- Mean hospital charge: \$93,400 per infant
- Total cost: \$1.5 billion
  - Medicaid is the most common payer (\$1.2 billion)



Sources: Ebner et al., *Drug Alcohol Depend.*, 2007; Greig et al., *Arch Gynecol Obstet.*, 2012.; Kuschel. *Semin Fetal Neonatal Med.*, 2007.; Patrick et al., *J Perinatol.*, 2015.; Strauss et al., *Am J Obstet Gynecol.*, 1974.

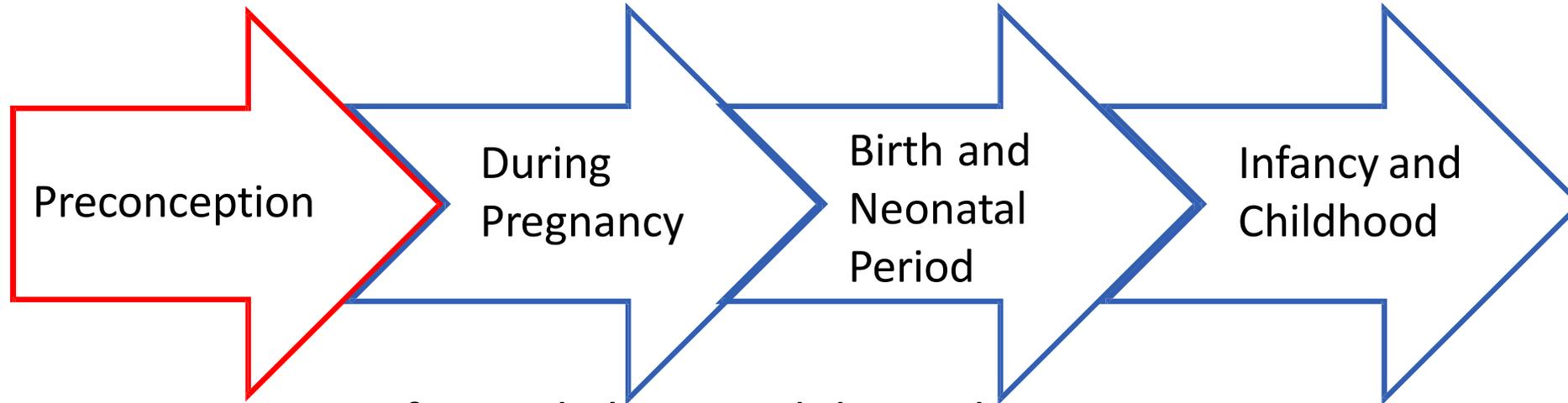
**What is CDC Doing to Reduce the Opioid Epidemic and NAS?**

# Public Health Strategies to Address NAS



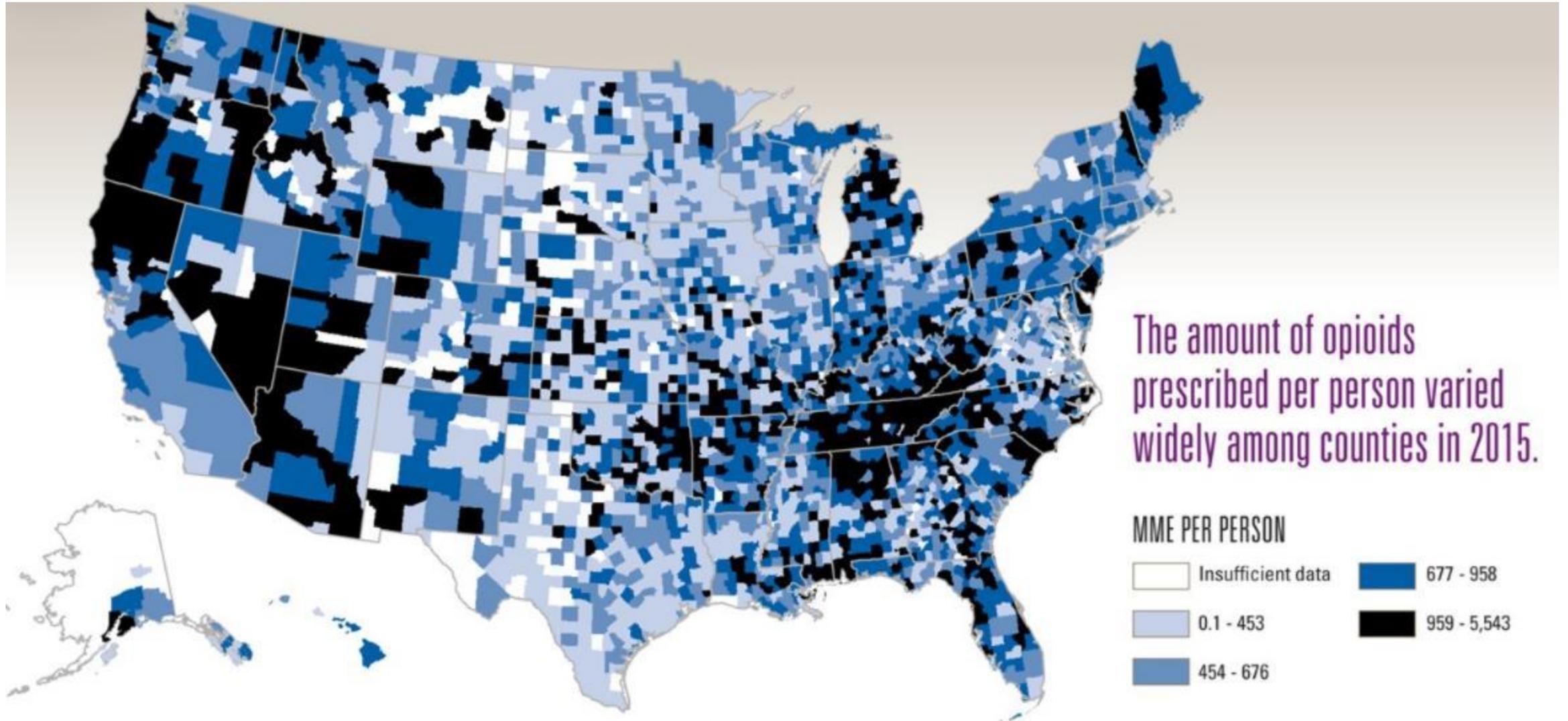
Source: Ko et al., *MMWR Morb Mortal Wkly Rep*, 2016.

# Public Health Strategies to Address NAS



- Prevention of opioid abuse and dependence
  - Appropriate prescribing
  - Prescription drug monitoring programs
- Decrease unintended pregnancies among women who abuse opioids
  - Preconception health care
  - Quality family planning services

# Opioids Prescribed Per Person, 2015



Source: CDC Vital Signs, July 2017: <https://www.cdc.gov/vitalsigns/opioids/index.html>

# Three Pillars of CDC's Work to Reverse the Prescription Drug Overdose Epidemic

- **Improve data quality and track trends**
- **Strengthen state efforts** by scaling up effective public health interventions
- **Supply healthcare providers with resources** to improve patient safety



**START LOW. GO SLOW.**

[www.cdc.gov](http://www.cdc.gov)

GUIDELINE FOR PRESCRIBING  
OPIOIDS FOR CHRONIC PAIN

Centers for Disease Control and Prevention

**MMWR**

Morbidity and Mortality Weekly Report

Recommendations and Reports / Vol. 65 / No. 1

March 18, 2016

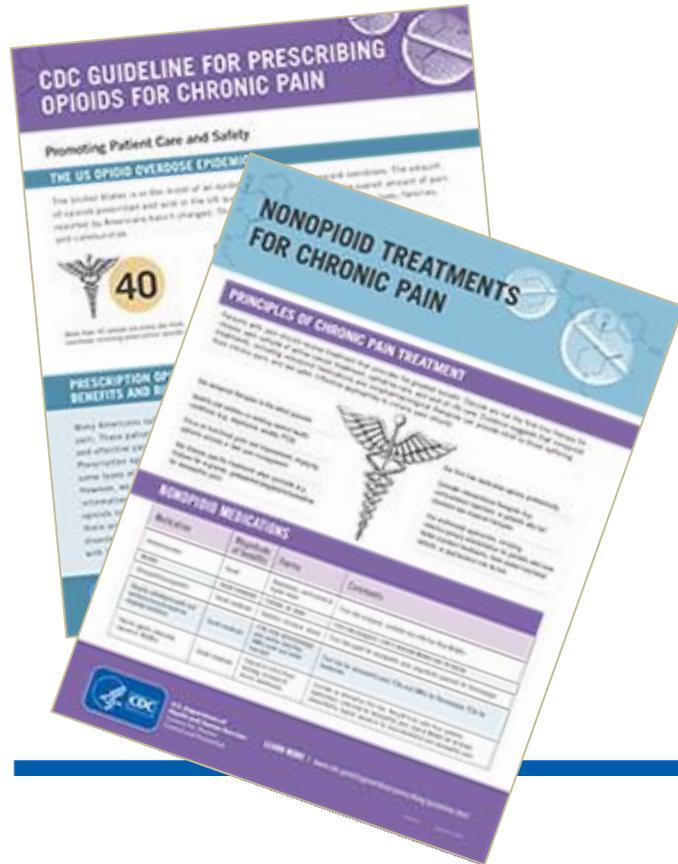
CDC Guideline for Prescribing Opioids for  
Chronic Pain — United States, 2016

TREATING  
 *for* TWO 

*Safer Medication Use in Pregnancy*

# Tackling the Opioid Epidemic: Prevention Efforts at CDC

## Prescribing Guideline



## Data to Drive Action



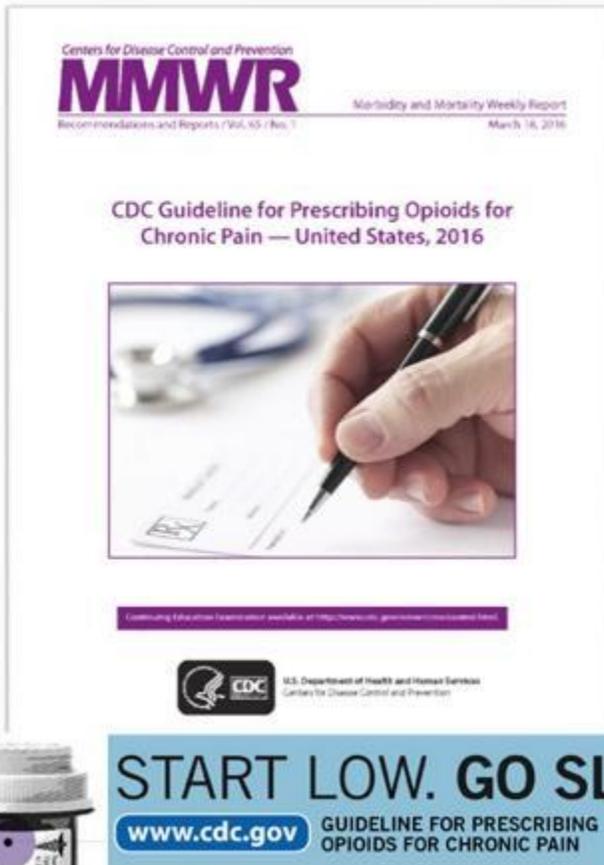
## Prescription Drug Monitoring Program

*See patterns of misuse*



**Goal: Integrated into electronic health systems and linked directly to coroner and medical examiners**

# CDC Recommendations for Providers for Preconception and Pregnant Women



- Reproductive-aged women
  - “... discuss family planning and how long-term opioid use might affect any future pregnancy”
- Pregnant women
  - “Carefully weigh risks and benefits ...when making decisions about whether to initiate opioid therapy”
- Pregnant women with opioid use disorder
  - “...medication-assisted therapy with buprenorphine (without naloxone) or methadone has been associated with improved maternal outcomes and should be offered”

Source: Dowell et al., *MMWR Recomm Rep.*, 2016.

# Prescription Drug Monitoring Programs (PDMPs)

- State-based databases (N=49)\* of controlled prescription drugs dispensed by pharmacies
- Contain critical clinical data that can help:
  - Identify patients at risk for opioid-related overdoses and struggling with opioid use disorder
  - On high total doses, receiving from multiple sources
  - Inform providers of other medications the patient is receiving that may interact with those prescribed
- Studies have shown reduction in opioid-related overdose and deaths in the general population

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\*Missouri does not have a PDMP

Source: CDC National Center for Injury Prevention and Control: [pdmpefficiency.org/sites/all/pdfs/COE\\_briefing\\_mandates\\_2nd\\_rev.pdf](https://pdmpefficiency.org/sites/all/pdfs/COE_briefing_mandates_2nd_rev.pdf)

# Improving Preconception Health



- Nearly 50% of all pregnancies in the U.S. are unintended
- 86% of pregnancies among women who abuse opioids are unintended
- Achieve optimal health and wellness fostering a healthy life course for them and any children they may have
  - Increase access to effective contraception among women who do not intend to become pregnant



# Examples in Action

- CHOICES and fetal alcohol syndrome
  - At 9 month follow-up evaluation, 69% of women in CHOICES intervention reported reducing risk of alcohol-exposed pregnancies vs. 54% of women in usual care
- Partnerships to provide education and family planning services to non-traditional sites (TN, WV)
  - Reach women with substance abuse in drug court, upon release from incarceration, during needle exchanges, and at maternal addiction recovery centers

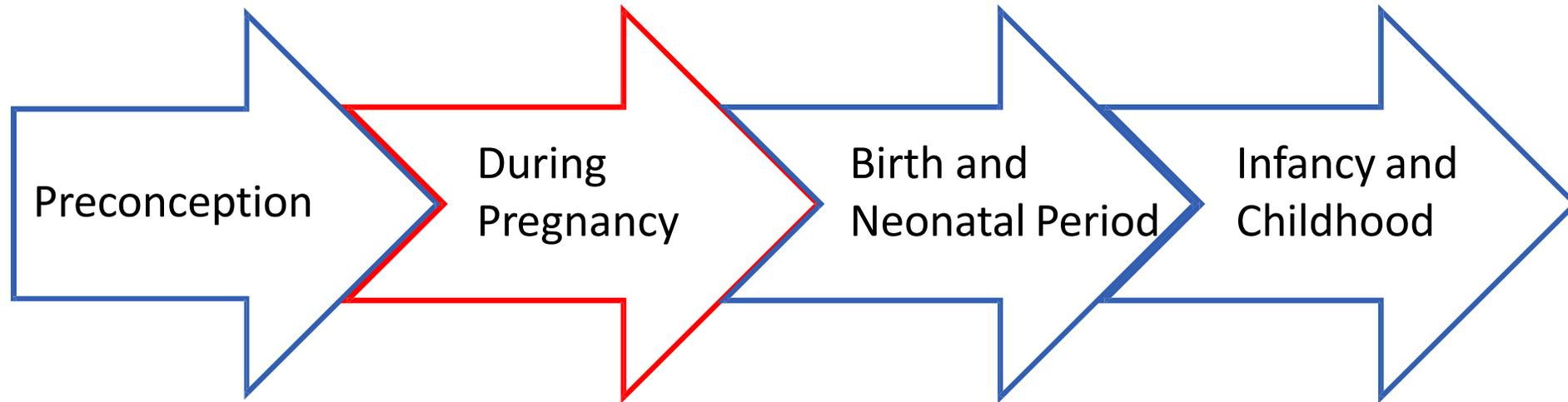
# Challenges to primary prevention of NAS

- High prescribing and uptake of 2016 clinical guidelines
  - Amount of opioids prescribed in 2015 remained approximately three times as high as in 1999
- PDMPs are not widely adopted
  - Provider time constraints, lack of data integration into electronic medical records
- Preconception health and family planning
  - Logistical challenges, patient preference, myths, providers not trained, partial reimbursement

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Sources: Patrick et al., *Health Aff* 2016; Tyler et al., *Obstet Gynecol.* 2012; Madden et al., *Contraception.* 2010; Holland et al., *Womens Health Issues.* 2015

# Public Health Strategies to Address NAS



- Universal screening for substance use
- Access to treatment
- Evaluation of maternal concurrent substance use and comorbidities

# American College of Obstetricians and Gynecologists (ACOG) Recommendations

- Early screening, brief intervention, and referral for treatment (SBIRT) improves maternal and infant outcomes
- Screening is part of comprehensive obstetric care and should be done at the first prenatal visit in partnership with pregnant woman
  - Essential that it is universal
  - Use validated screening tools (e.g., 4Ps, NIDA quick screen, CRAFFT for women 26 years or younger)
  - Maintain caring and non-judgmental approach



Source: American College of Obstetricians and Gynecologists and American Society of Addiction Medicine, 2017

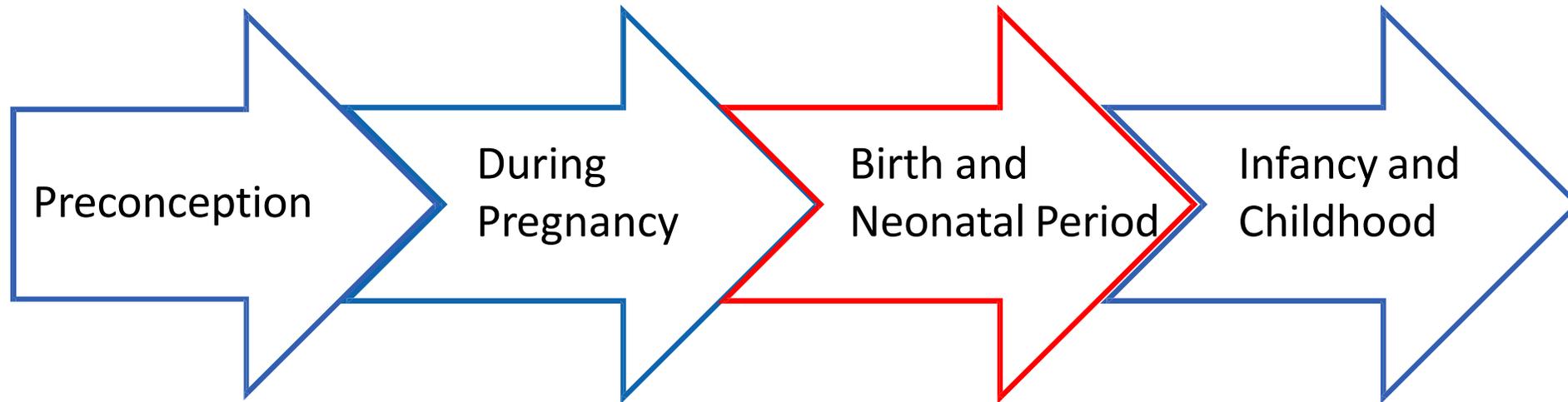
# Challenges to Addressing Needs of Pregnant Women

- Screening
  - Few screening instruments validated for use among pregnant woman
  - Debate on when and how often to screen, whether biological specimens should be used in conjunction
  - Varying state laws and policies
- Unmet need for referrals and resources
  - Addition of 20,398 waived physicians (30-day or 100-day patient limit) and 100 opioid treatment programs from 2003-2012
- Evaluation of maternal concurrent substance use and comorbidities

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Source: ACOG Committee on Health Care for Underserved Women, American Society of Addiction Medicine. *Obstet Gynecol.*, 2012, Jones et al., *AJPH*, 2015

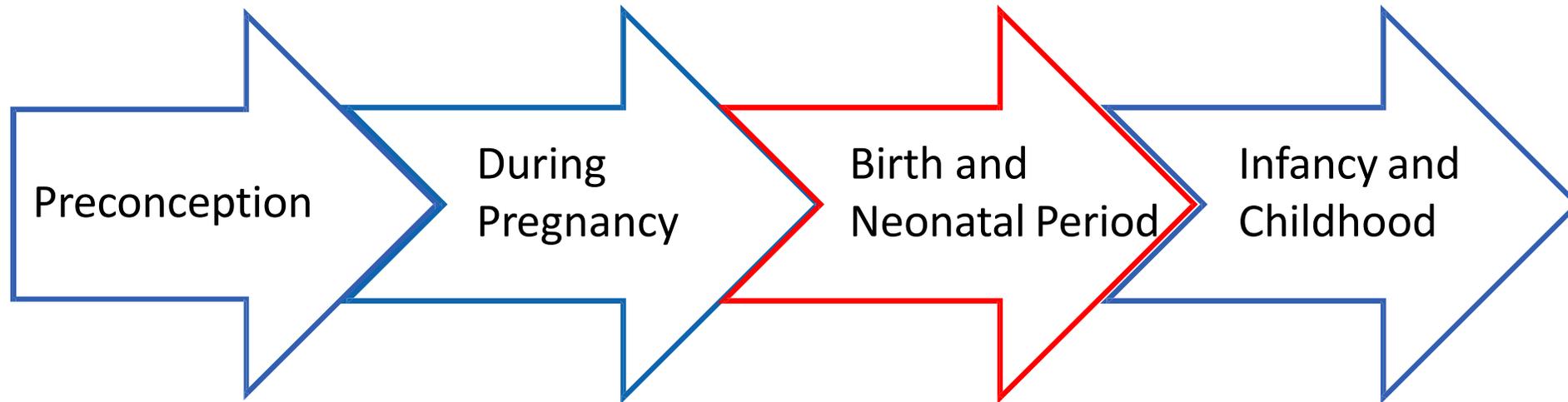
# Public Health Strategies to Address NAS



- Collaboration between prenatal care providers and pediatricians
- Improved identification of infants at-risk for NAS
- Standardize evidence-based care

Source: Ko et al., *MMWR Morb Mortal Wkly Rep*, 2016.

# Public Health Strategies to Address NAS



- Decrease readmission risk
- Services for long-term outcomes
- Safe care plans

Source: <https://www.congress.gov/bill/114th-congress/senate-bill/524/text>

# Challenges to Addressing Needs of Infants with NAS

- Limited data on readmission risk
- Limited evidence on prenatal exposure and long-term developmental outcomes
  - Timing and type of exposure
  - Role of environment and parental comorbidities
- Need for collaborative and coordinated services for both child and family

# Addressing Needs of Women and Infants

- Improving surveillance
  - Pregnancy Risk Assessment Monitoring System (PRAMS) substance abuse modules
  - Birth certificate and claims data linkage
  - Maternal Mortality Review Committees
- Providing technical assistance to state health departments
- Supporting state perinatal quality collaboratives (PQCs) implementing evidence-informed treatment protocols to improve outcomes for infants and reduce costs



# Take Home Message





# Thank you!

For more information, contact CDC  
1-800-CDC-INFO (232-4636)  
TTY: 1-888-232-6348 [www.cdc.gov](http://www.cdc.gov)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



# West Virginia's Approach to Addressing Neonatal Abstinence Syndrome

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*A presentation to the Children's Safety Network*

Janine Breyel  
West Virginia Perinatal Partnership  
March 20, 2018



# West Virginia

## Statistical Overview 2016

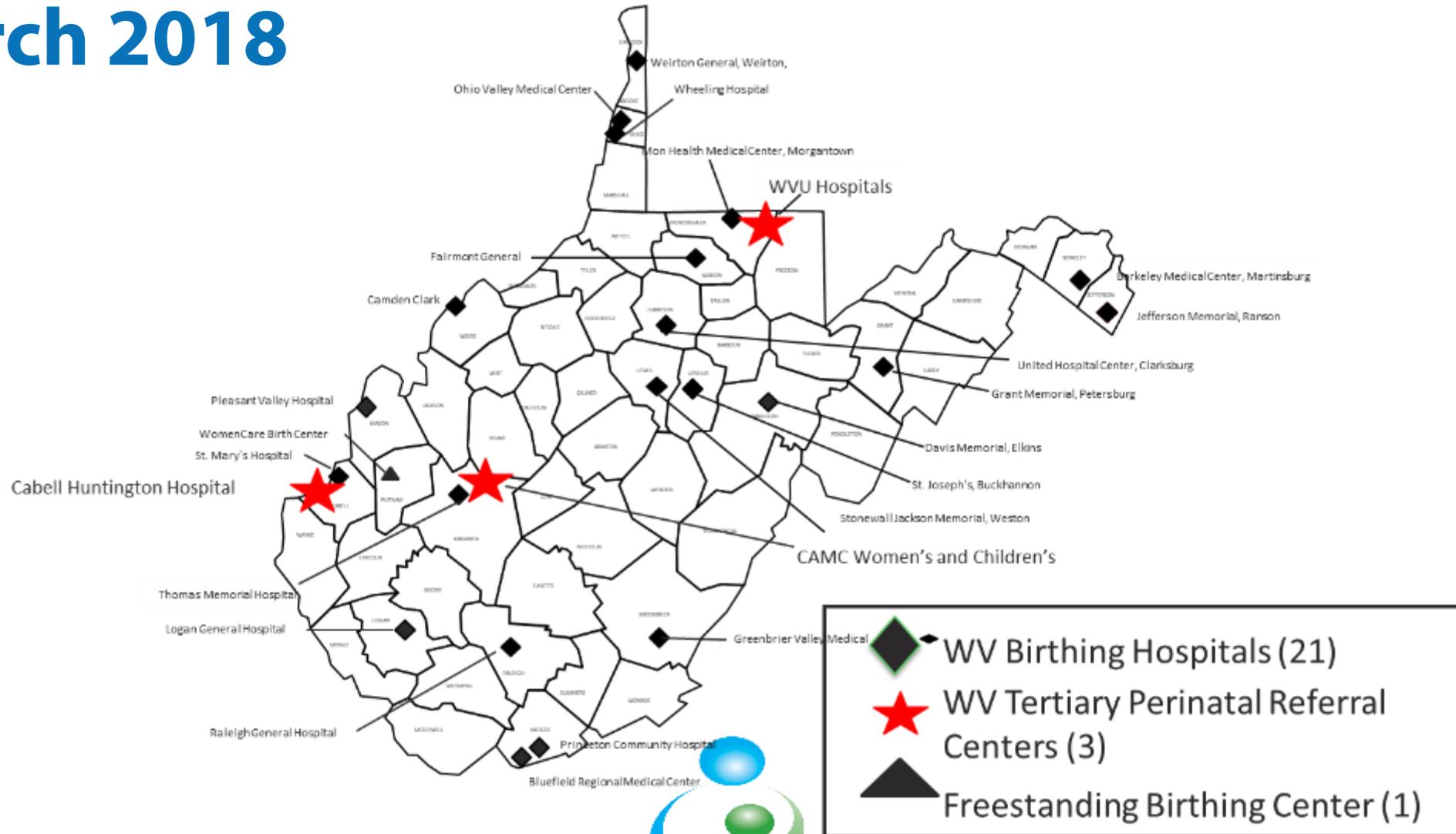
- 1.8 million population
- 20,000 births annually
- 25 Birthing facilities
  - 3 Tertiary Centers with Level III Neonatal Intensive Care Units
  - 3 Medical Schools (2 allopathic, 1 osteopathic)

*Data Source: WV Health Statistics Center, Vital Statistics System*



# West Virginia Birthing Facilities

## March 2018



# West Virginia Perinatal Partnership

*A statewide partnership of healthcare professionals and public and private organizations committed to improving perinatal health in West Virginia.*

## Our Vision

Healthy mothers and healthy babies in a supportive community.

## Our Mission

To engage and unite health care providers and stakeholders in improving maternal and infant health outcomes.



# Perinatal Partnership Structure



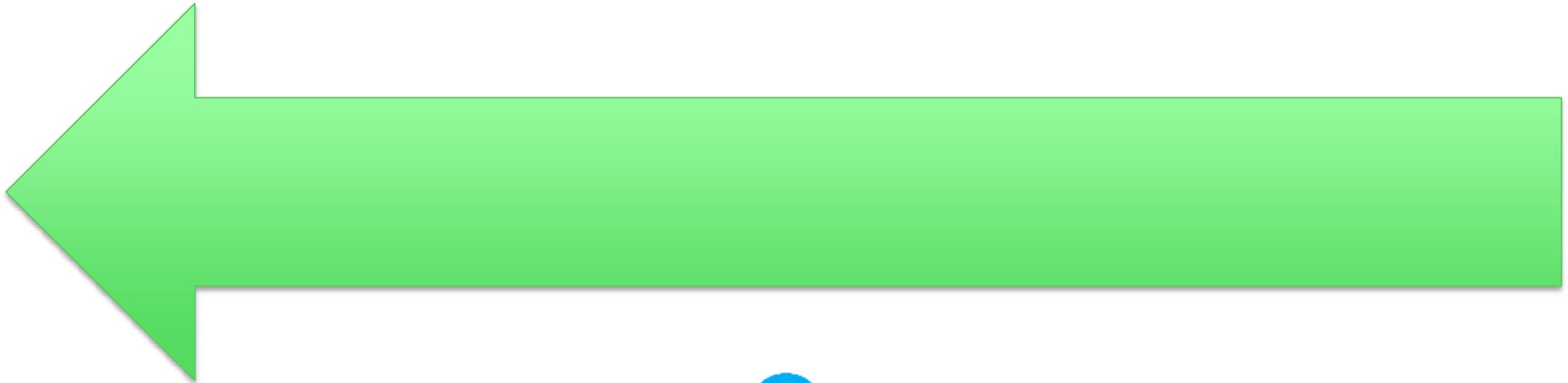
# Substance use in pregnancy

- Serious problem for Mother and Baby
- Drug withdrawal and illnesses from high risk behavior in Mom
- Poor prenatal care
- Withdrawal in the baby or effects such as low birthweight, congenital malformations, prematurity, long term cognitive problems or adverse effects on growth



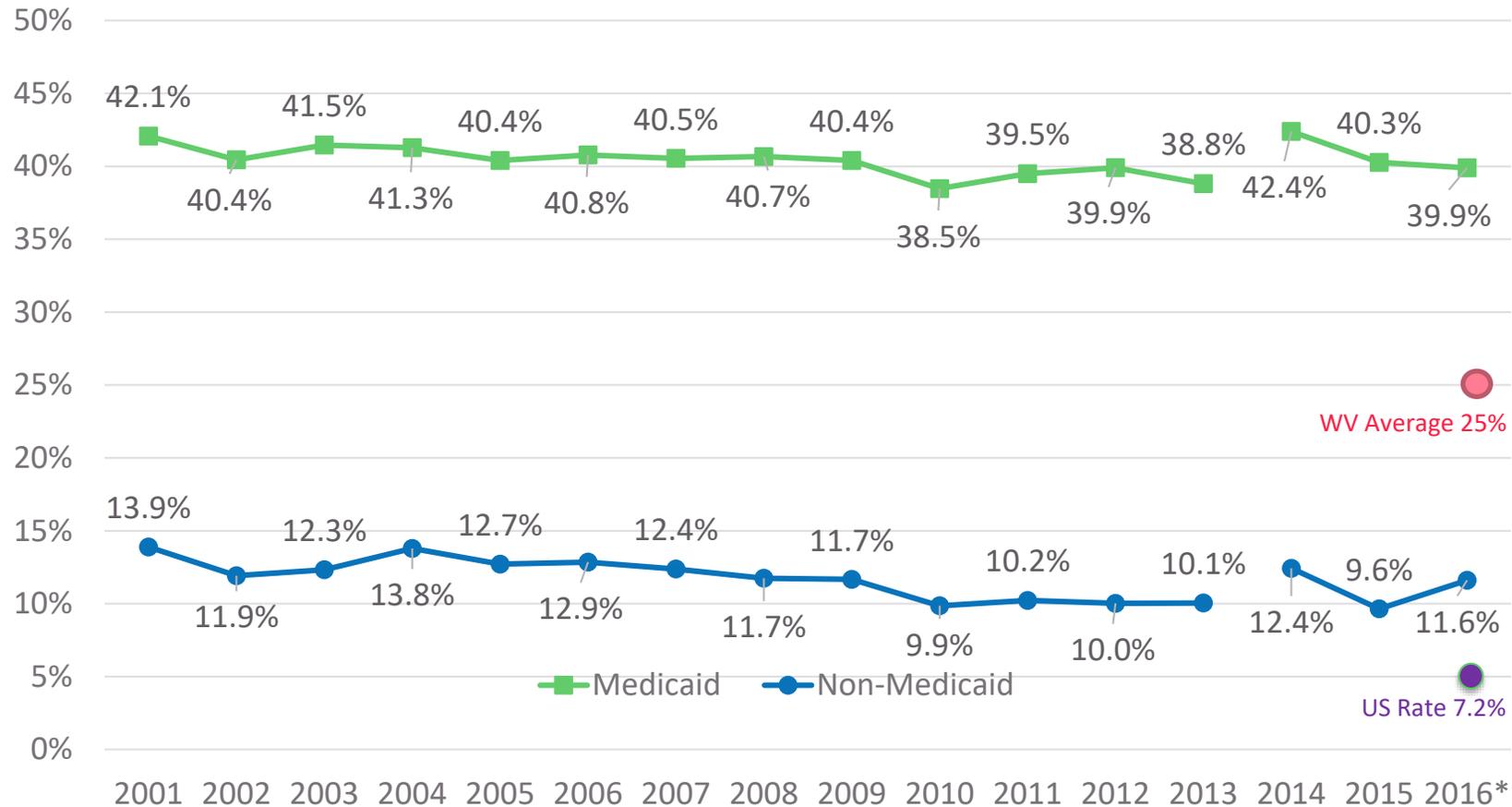
# Poll Question

What is the most common substance used in pregnancy?



# Tobacco Use During Pregnancy

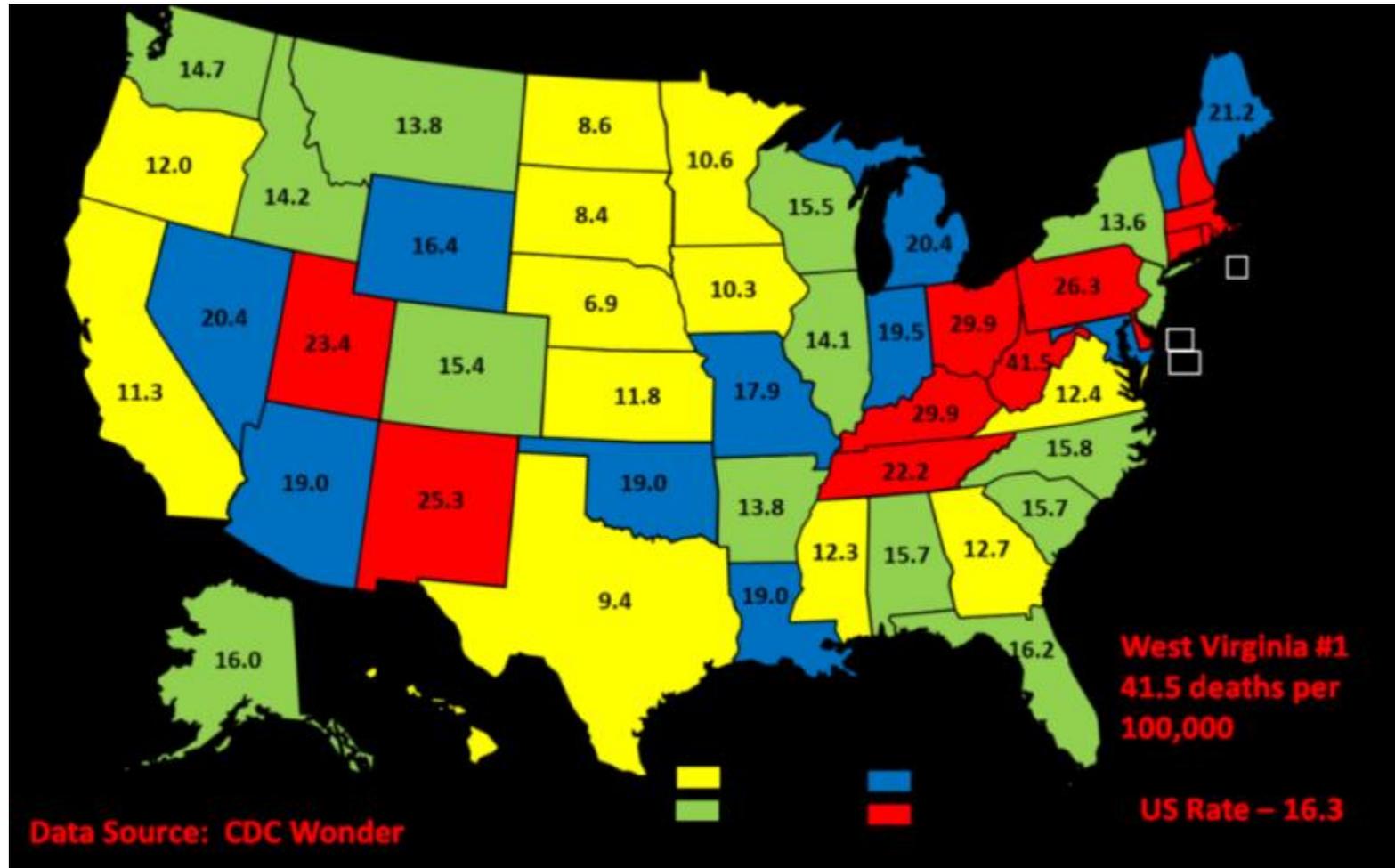
2001-2016 WV Births by Medicaid Status  
Percentage of Mothers Who Smoked During Pregnancy



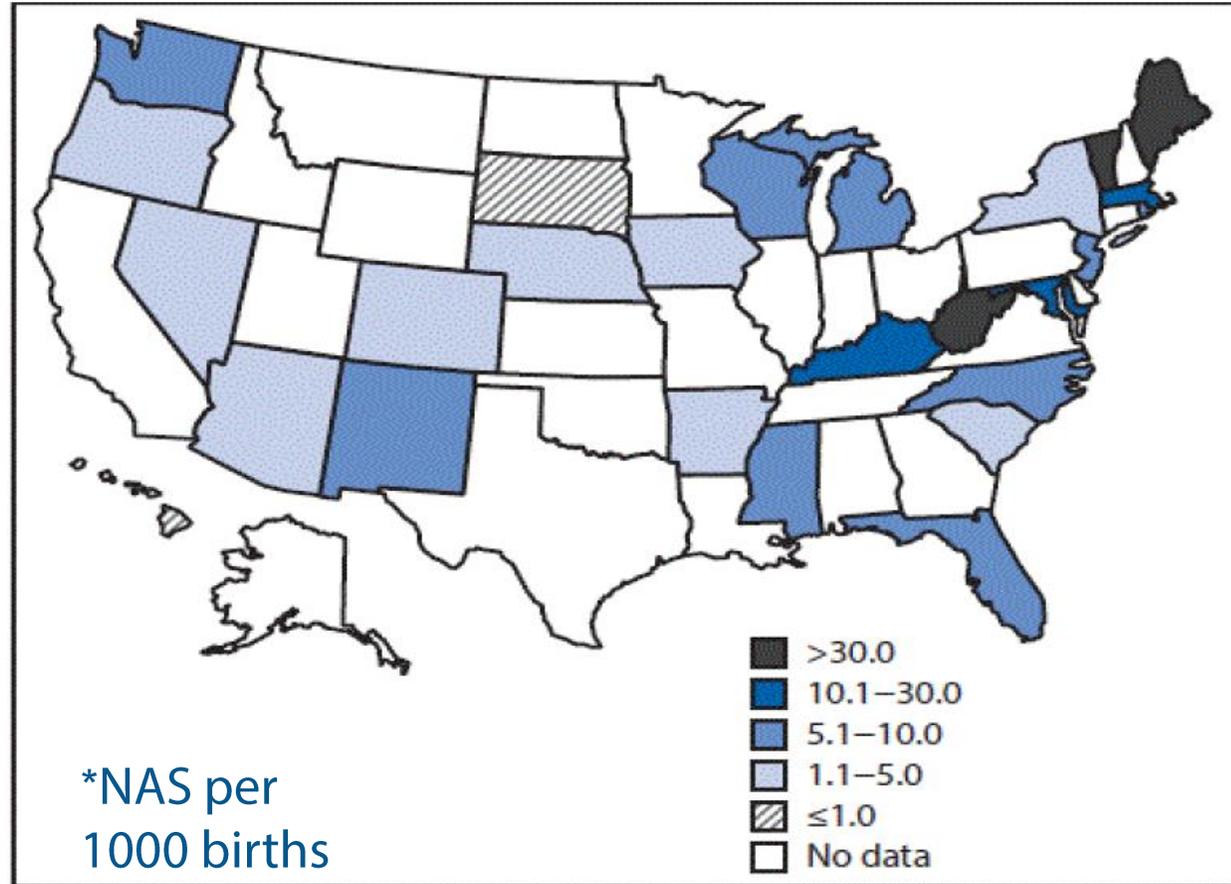
Preliminary Data  
Source: West Virginia Health Statistics Center, Vital Statistics System, 2018



# U.S. Overdose Deaths, 2015



# NAS\* Incidence Rates 2012-2013



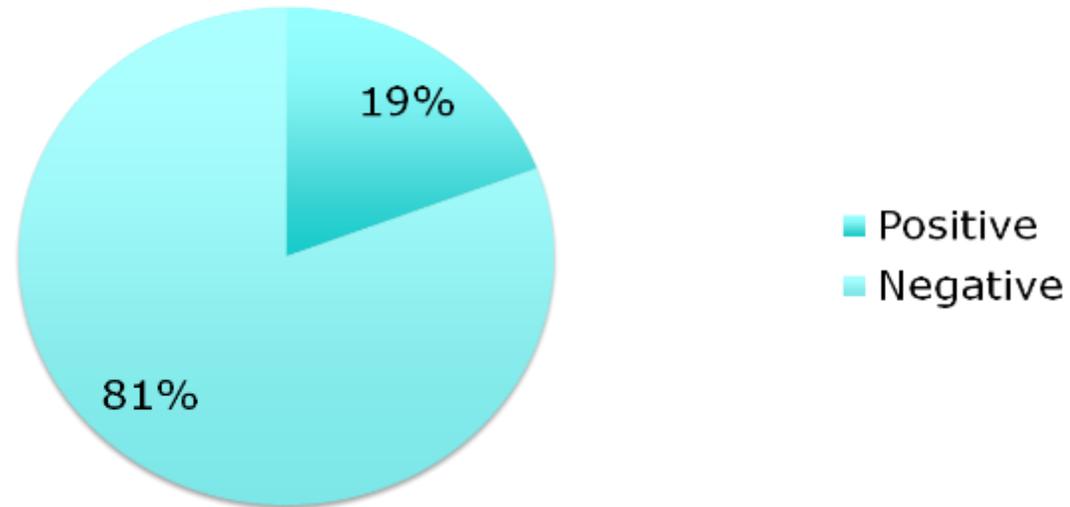
WV 33.4  
per 1000  
births

Source: State Inpatient Databases, Healthcare Cost and Utilization Project



# WV Umbilical Cord Study, 2009

759 Total Cords



Study funded by WV Bureau for  
Public Health, Office of Maternal  
and Child Health

Source: Stitley, Michael,  
MD, et.al. "Prevalence of  
Drug Use in Pregnant  
West Virginia Patients,"  
*West Virginia Medical  
Journal*, Voll. 106, No.  
4, 2010.



# Healthy Moms Make Healthy Babies!



# Drug Free Moms and Babies Project (DFMB)

*GOAL: Seek to deliver drug free babies or lessen the effects of prenatal substance exposure.*

3 yr project funded by

- Claude Worthington Benedum Foundation,
  - DHHR, Bureau of Behavioral Health and Health Facilities, and
  - DHHR, Bureau for Public Health, Office of Maternal, Child, and Family Health
- Comprehensive and integrated maternity and behavioral health care model.
  - Data component to assess effectiveness.



# DFMB Model

- Screening using SBIRT approach
- Comprehensive medical care
- Drug and alcohol counseling
- Recovery Coaching
- Follow-up of moms and babies
- Home visitation



# Evaluation

- Urine tests throughout and after pregnancy.
- Cord tissue collection/testing.
- Surveys of sites to identify strategies and barriers.

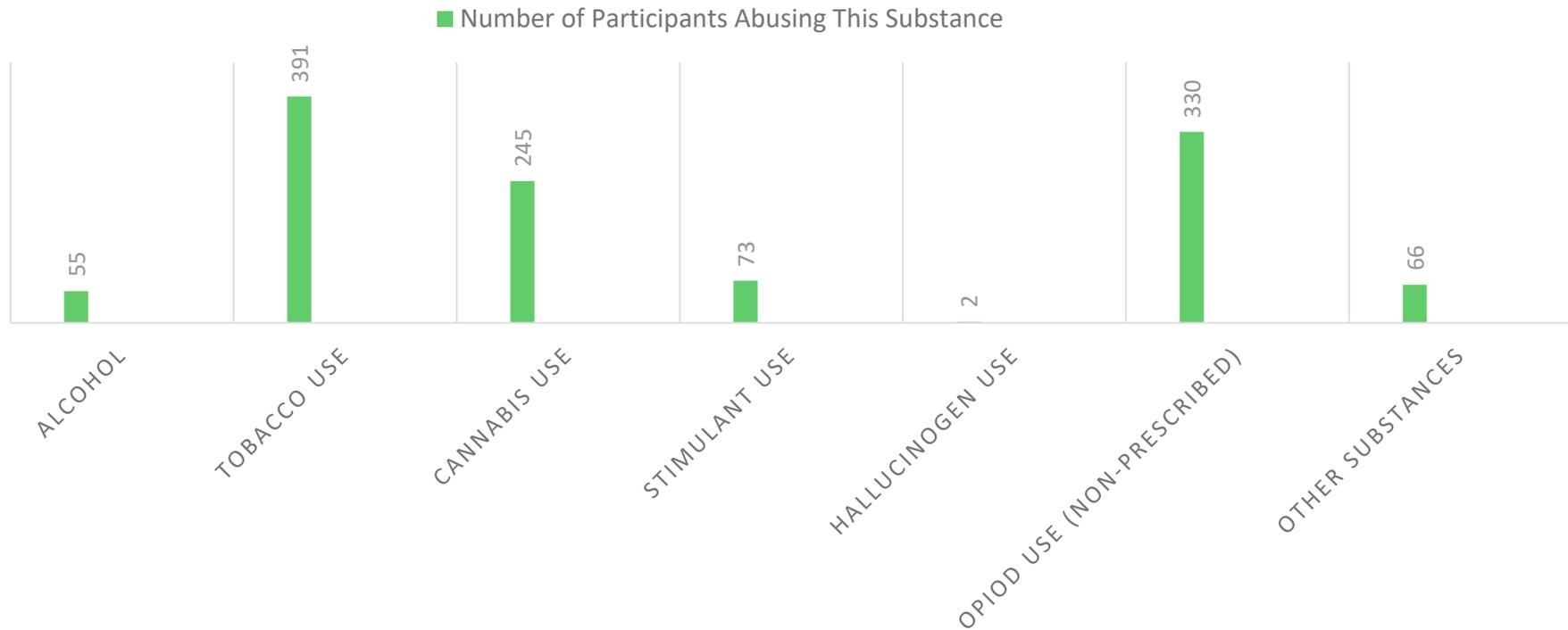


# Drug Free Moms and Babies Pilot Project Sites

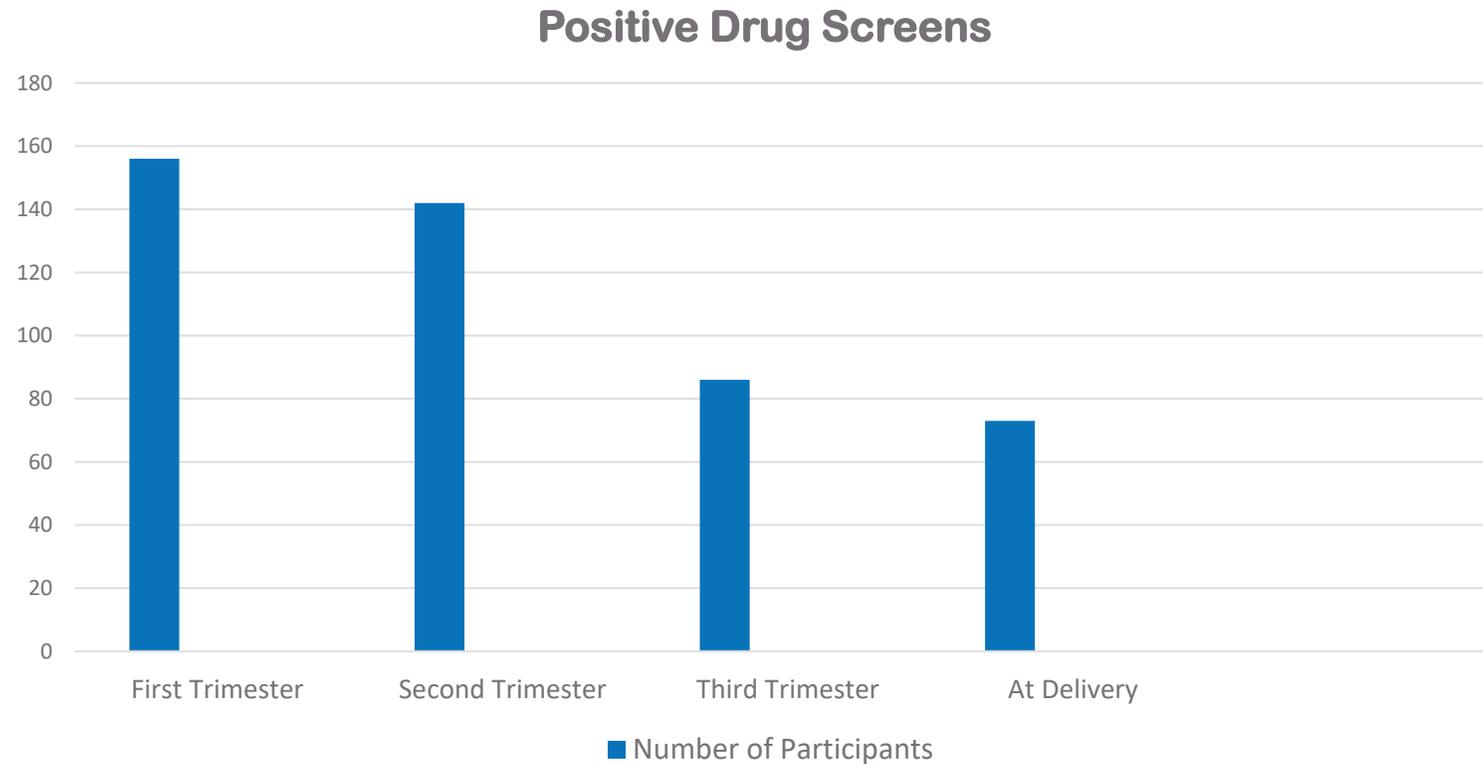


# Results of DFMB Project

## SUBSTANCE USE OF DFMB PARTICIPANTS

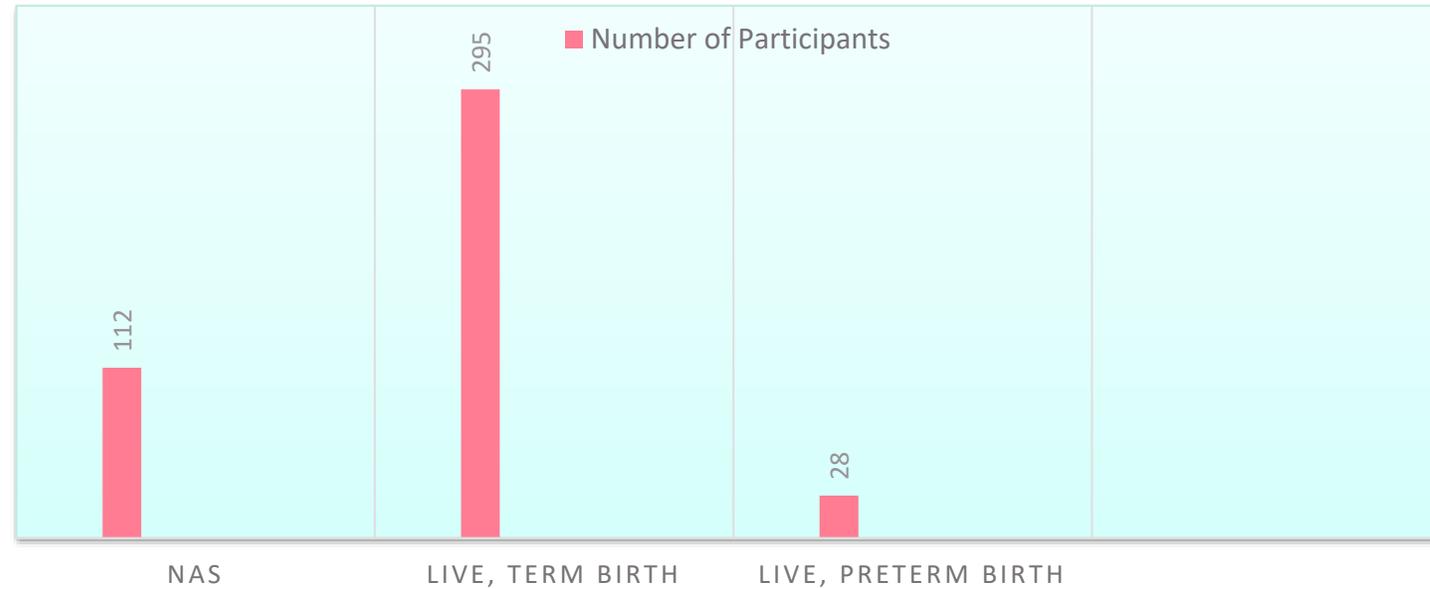


# Results of DFMB Project



# Results of DFMB Project

## BIRTH OUTCOME

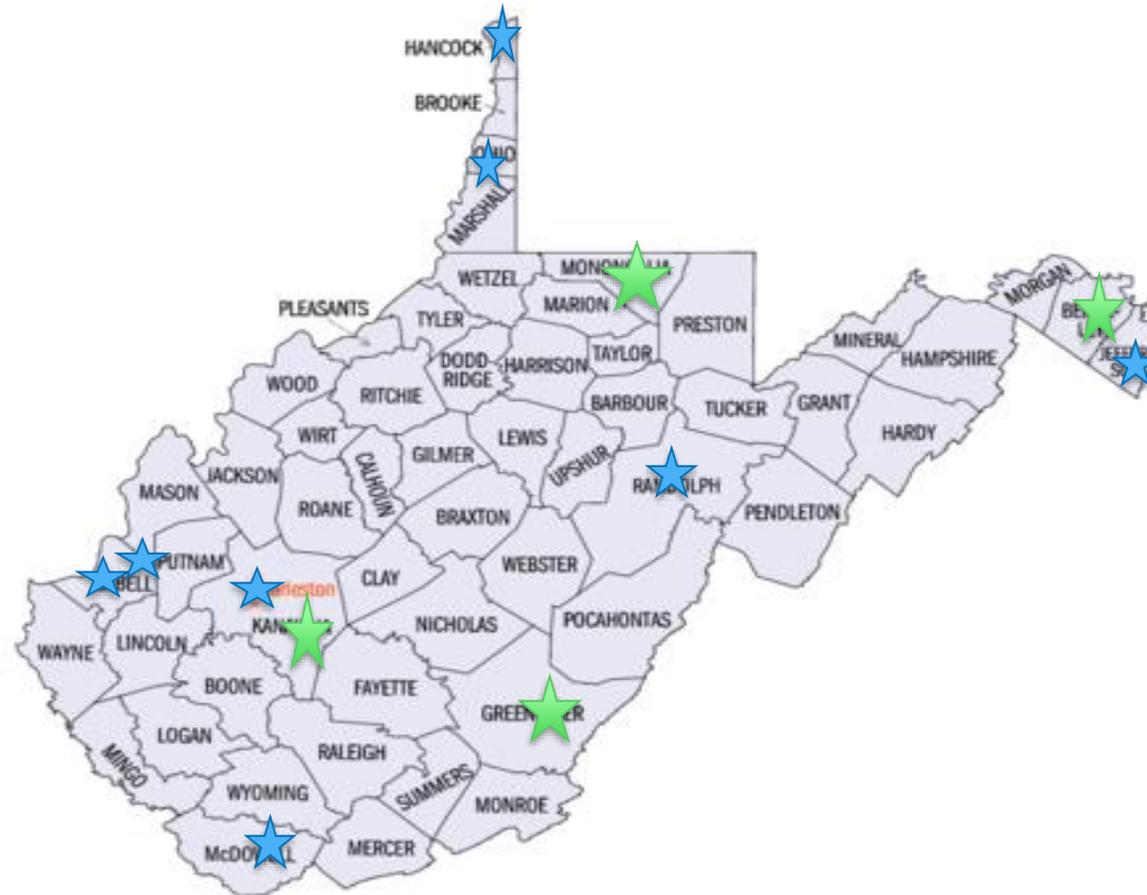


# DFMB Results: Lessons Learned

- Takes more time than anticipated
- A dedicated staff position is critical to moving the project forward
- Care coordination/patient navigation services are key
- A collaborative treatment team needs to be developed and nurtured
- Flexibility to enhance/revise program is needed
- Incentives can be effective



# Drug Free Moms and Babies 2018 Expansion



# Educational Materials

- Drugs and Pregnancy
- Caring for Babies Affected by Drug Exposure
- Guide for Home Visitation Programs
  - Working with families with infants affected by substance exposure



CIGARETTES CRACK  
 ALCOHOL BENZOS  
 COCAINE WEED QUELLPOT SPEED FENTANYL ICE  
 OXYS LORTAB  
 HEROIN METH CAFFEINE  
 XANAX BOOZE  
 MARIJUANA  
 OXYS E-CIGARETTES CRANK



Alcohol, tobacco and drugs can harm your baby and cause serious problems.

USING THESE WHILE PREGNANT IS RISKY AND MAY CAUSE YOUR BABY TO:

- Be born too small or too early
- Be stillborn or die in infancy
- Go through withdrawal after birth
- Have breathing problems
- Have birth defects
- Have learning, behavioral or other health problems throughout life

This pamphlet is made possible through a generous grant from the Claude Worthington Benedum Foundation and the WV Department of Health and Human Resources, Bureau for Behavioral Health and Health Facilities and Bureau for Public Health, Office of Maternal, Child and Family Health.

WORKING TOGETHER FOR HEALTHIER MOTHERS AND BABIES.

Information provided by:



With the support of:



A healthier future is **IN YOUR HANDS** and within your reach

*With your courage and the support and compassionate care of your health care providers, a better future is possible.*

**Drugs and Pregnancy**



## PRENATAL CARE

If you are pregnant, it is important that you see a doctor or midwife as soon as possible, and keep all of your prenatal appointments. Talk openly with your doctor or midwife about any drugs or medications you are taking or have taken in the past. Any changes in your medications or drug habits can affect you and your baby's health.

Weaning from certain drugs (whether prescribed or off the street) may be dangerous. Do NOT attempt to rapidly wean yourself at any time, including just prior to delivery. This can cause serious health problems for you and your baby.

If you are in a treatment program and receiving medication assisted treatment (MAT), such as methadone or Subutex/Suboxone (buprenorphine), be sure to tell your doctor.

You should sign a release of information so your doctor can access your treatment records. It is important that information about your health and pregnancy be shared with those caring for you and your baby.

It is important you stay in treatment and continue to take your medication as prescribed.

## I'M AFRAID FOR OTHERS TO KNOW I AM USING

It is understandable that you may be afraid to talk about your drug use, but your doctor needs to know so that you and your baby receive the best care possible. They can help arrange treatment and make sure you have the best care for you and your baby.

*Mothers who seek treatment during pregnancy receive the support they need and are less likely to have custody issues after birth.*

## SUPPORT AND ASSISTANCE FOR YOU AND YOUR FAMILY

It is recommended that you participate in a home visitation program for support, for help linking to needed resources, and for follow up care for your baby. More information about home visitation services can be found at:

<https://www.homevisitwv.org/>



## SUBSTANCE USE IN PREGNANCY

Almost every substance you take when pregnant can pass into your baby. This means that the baby shares the caffeine, alcohol, drugs, nicotine, medications and other substances you take while you are pregnant. Your baby may go through withdrawal once he or she is born.

This is called Neonatal Abstinence Syndrome (NAS) or neonatal withdrawal.

## GET THE SUPPORT YOU NEED

*If you or someone you know needs help with substance abuse,*

### CALL

# 1-844-HELP4WV



## SAFE SLEEP

Smoking during pregnancy, using alcohol and drugs during pregnancy, and exposure to second and third hand smoke increase your baby's risk for Sudden Infant Death Syndrome and Sudden Unexpected Infant Death (SIDS/SUID).

- Babies should always sleep in rooms and homes that are smoke-free.
- Toys, heavy or loose blankets, bumper pads and pillows can cause suffocation and should be removed from your baby's crib, bassinet, or pack and play.

## ONCE YOUR BABY GOES HOME

Your baby needs the same calm, gentle care at home as he or she had in the hospital. It is important for your baby to have a regular routine. Try to keep your baby's surroundings quiet and soothing.

Your baby may continue to show some signs of withdrawal, such as crying and being fussy after leaving the hospital. Dealing with a fussy baby can be overwhelming and frustrating. Let people you trust help you.

It is very important to follow the **ABC's of infant safe sleep**



### **A**lone

Your baby should always sleep alone, but nearby. Your baby should never sleep in a bed with an adult or other child.

### **B**ack

Always place your baby on his back to sleep for every bedtime and nap time.

### **C**rib

Babies should only sleep in a safety approved crib, bassinet, or pack-n-play, and not on a couch, adult bed, chair or recliner.



A healthier future is **IN YOUR HANDS** and within reach

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**WORKING TOGETHER FOR HEALTHIER MOTHERS AND BABIES.**

Information provided by:



With the support of:



*If you or someone you know needs help with substance abuse, call:*

**1-844-HELP4WV**  
(1-844-435-7498)  
**OR VISIT**  
**HELP4WV.com**



*With your courage and the support and compassionate care of your health care providers, a better future is possible.*

**Caring for Babies Affected by Drug Exposure**

## SUBSTANCE USE IN PREGNANCY

Almost every substance you take when pregnant can pass into your baby. This means that the baby shares the caffeine, alcohol, drugs, nicotine, medications and other substances you take while you are pregnant. Your baby may go through withdrawal once he or she is born. This is called Neonatal Abstinence Syndrome (NAS) or neonatal withdrawal.

### UNDERSTANDING NAS

(Neonatal Abstinence Syndrome)

Some substances contain addictive qualities, and just like you, your unborn baby may become dependent upon the substance(s) you are using. Your baby may go through withdrawal once he or she is born and no longer receiving those substances from you. This is called Neonatal Abstinence Syndrome (NAS), or neonatal withdrawal.

There is no way to know if your baby will go through withdrawal or how bad it will be. The use of more than one drug (known as poly-substance or poly-drug use) can make withdrawal worse for the baby, especially when mothers also smoke or use nicotine products.

## WHAT TO EXPECT WHEN YOUR BABY IS BORN

Babies whose mothers used certain drugs while pregnant, (whether the drug is a prescription or not) may be kept at the hospital for at least 3-5 days after birth to watch for symptoms of withdrawal. Nurses will measure your baby's symptoms using a scoring system. Your baby's score helps the doctor and nurses decide if your baby needs medication.

Most babies who require medication to control withdrawal symptoms need to stay in the hospital 2-4 weeks, but some may need to stay longer. Your baby's medication will gradually be reduced. This process is called weaning. It can take several weeks or longer to fully wean your baby.

### YOUR BABY'S SYMPTOMS MAY APPEAR



on average at  
**72 HOURS**

as late as  
**4 WEEKS**

and include:

- trembling or shaking, even when sleeping
- a stuffy nose
- loose watery stools
- feeding poorly - weak suck, spitting up
- sensitivity to light, sounds and touch
- sweating
- fussiness
- trouble sleeping
- crying a lot
- yawning a lot
- sneezing a lot

## HOW CAN YOU HELP YOUR BABY?

Your love and care are most important to your baby.

During your baby's stay at the hospital, plan to spend as much time as possible with your baby. The nursing staff will help you learn special ways to handle your baby.

## BE GENTLE, BE QUIET, AND BE CALM.



## Gentle

- Care for your baby without handling him or her too much.
- Gently and slowly rub or pat your baby's back.
- Touch and move your baby gently and slowly.
- Do not overdress your baby or add too many blankets.
- Hold your baby:
  - (1) Skin to Skin
  - (2) With baby's arms close to his or her chest
  - (3) Upright rocking your baby with smooth, slow, upward-and-down movements
- Swaddle your baby when he or she is not skin-to-skin.

## Quiet

- Keep your baby's surroundings quiet and calm.
- Use a soft voice.
- Keep visitors to a minimum.

## Calm

- Keep the lights low.
- Breastfeeding is encouraged if recommended by your pediatrician.
- Let your baby sleep. Only wake him or her for feeding.
- Let your baby suck on a pacifier.





If you or someone you know needs help with substance abuse, call:

**1-844-HELP4WV**  
SUBSTANCE ABUSE AND BEHAVIORAL HEALTH SERVICES

**WORKING TOGETHER FOR HEALTHIER MOTHERS AND BABIES**

Information provided by:  With the support of



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The information contained in this document is presented for educational and informational purposes only and should not be viewed or used as a substitute for the advice, diagnosis, or treatment from a qualified physician or other medical professional. Do not disregard medical advice due to any information contained herein. This document may not include information such as FDA warnings or alerts, new developments in medical research, interactions between certain drugs and/or medications, or other unusual/unpredictable medical circumstances.

*Working with infants at risk for NAS*

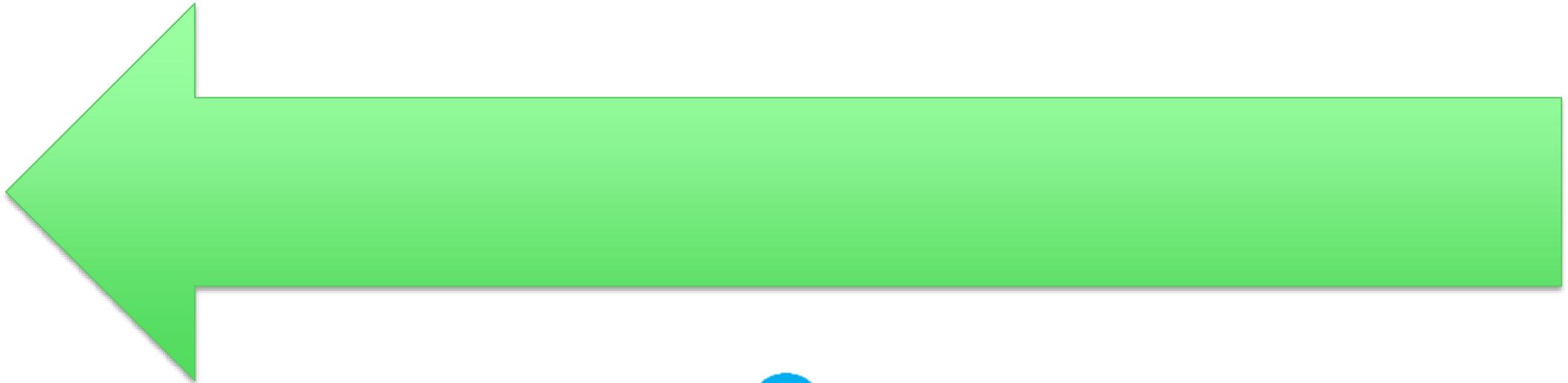


**HOME VISITOR GUIDE**



# Poll Question

Are babies whose mothers use opioids and other drugs born addicted?



# False

## *Babies cannot be addicts*

According to the American Society of Addiction Medicine:

Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry.

Addiction is characterized by inability to consistently abstain, impairment in behavioral control, craving, diminished recognition of significant problems with one's behaviors and interpersonal relationships, and a dysfunctional emotional response. Like other chronic diseases, addiction often involves cycles of relapse and remission.

*An addict will continue to use despite negative consequences.*



# Project on Substance–Exposed Newborns and Neonatal Abstinence Syndrome (NAS)

Benedum Foundation funded the Perinatal Partnership to develop a statewide project in 2015:

- To improve the care of babies exposed to substances in utero
- To improve the state’s ability to track prevalence and costs of substance-exposed newborns
- To explore strategies to decrease the incidence and costs associated with substance exposed newborns



# Diagnosis of NAS

- Neonate has intrauterine exposure to a neuroactive substance, *and*
- Exhibits clinical signs and symptoms of withdrawal
- Regardless of whether or not pharmacological treatment is required



# Provider Outreach Education

- Neonatologist Champions from our 3 tertiary care centers delivered training to every delivery hospital
- Training for nurses on assessing signs and symptoms of NAS
- Training to nurses and other providers on therapeutic handling and non-pharmalogical approaches to managing babies experiencing withdrawal symptoms



# West Virginia NAS Surveillance

- West Virginia Birth Score\* collects data on every newborn born in WV birthing hospitals/facilities to identify infants who are at a high risk of infant mortality
- Beginning in October 2016, a question detailing whether or not there was intrauterine substance exposure (IUSE) was added to the electronic data submission form
- Infants who had IUSE were assessed for symptoms consistent with the previously agreed upon statewide definition of NAS, defined as an infant who had intrauterine substance exposure (IUSE) and exhibited clinical signs/symptoms of withdrawal, regardless of whether a pharmacological treatment was required or not

\* Birth Score is part of WV Project WATCH, a program of the WV Office of Maternal, Child and Family Health.



# WV Project WATCH: NAS Surveillance data

- Oct 1, 2016 – August 1, 2017 (approx. 16,000 births)
- 14% rate of Intrauterine Substance Exposure
- 5.8% diagnosed with NAS

Source: *Using a current surveillance tool to assess the incidence of neonatal abstinence syndrome (NAS) in West Virginia*, John, Collin, et al  
Poster Presentation at 2017 APHA conference



# Lily's Place

- Non-hospital, residential setting for infants needing treatment for withdrawal
- Located in Huntington, WV
- In addition to weaning, includes therapeutic handling, parent education, and referrals to social and health support, including recovery programs for parents.



# Questions?



# Questions?



Please enter your questions in the Q & A pod

# Thank you!

Please fill out our evaluation: <https://www.surveymonkey.com/r/DNDJH5R>

Visit our website:  
[www.ChildrensSafetyNetwork.org](http://www.ChildrensSafetyNetwork.org)