

Department of Health: Neonatal Abstinence Syndrome

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Acting Secretary of Health

Agenda

- Definition of SAI, NOWS, and NAS
- Surveillance Initiatives
- Assessment and Treatment Types
- Legislative Updates
- Prevention and Treatment
- PA Perinatal Quality Collaborative (PA PQC)

Definitions

Neonatal Abstinence Withdrawal Syndrome (NAS)

▶ NAS Case Definition

Neonatal abstinence syndrome (NAS) is a constellation of signs of withdrawal in a newborn following in utero exposure to prescribed medications (including medications used to treat substance use disorder) or illicit drugs including opioids, benzodiazepines, and barbiturates.



NAS Surveillance Authority

- 90-day opioid disaster declaration, renewed 15 times
- Web-based reporting system operational within a month
- State surveillance definition not defined in statute
- Effective 2020 - case definition and reporting system evolved
- NAS reporting continues under Department of Health authority

www.health.pa.gov

Governor Wolf Declares Heroin and Opioid Epidemic a Statewide Disaster Emergency

January 10, 2018



PRESS RELEASE, PUBLIC HEALTH, SUBSTANCE USE DISORDER

Governor Wolf Signs 15th Opioid Disaster Declaration

August 04, 2021



PRESS RELEASE, PUBLIC HEALTH, PUBLIC SAFETY

Surveillance Initiatives

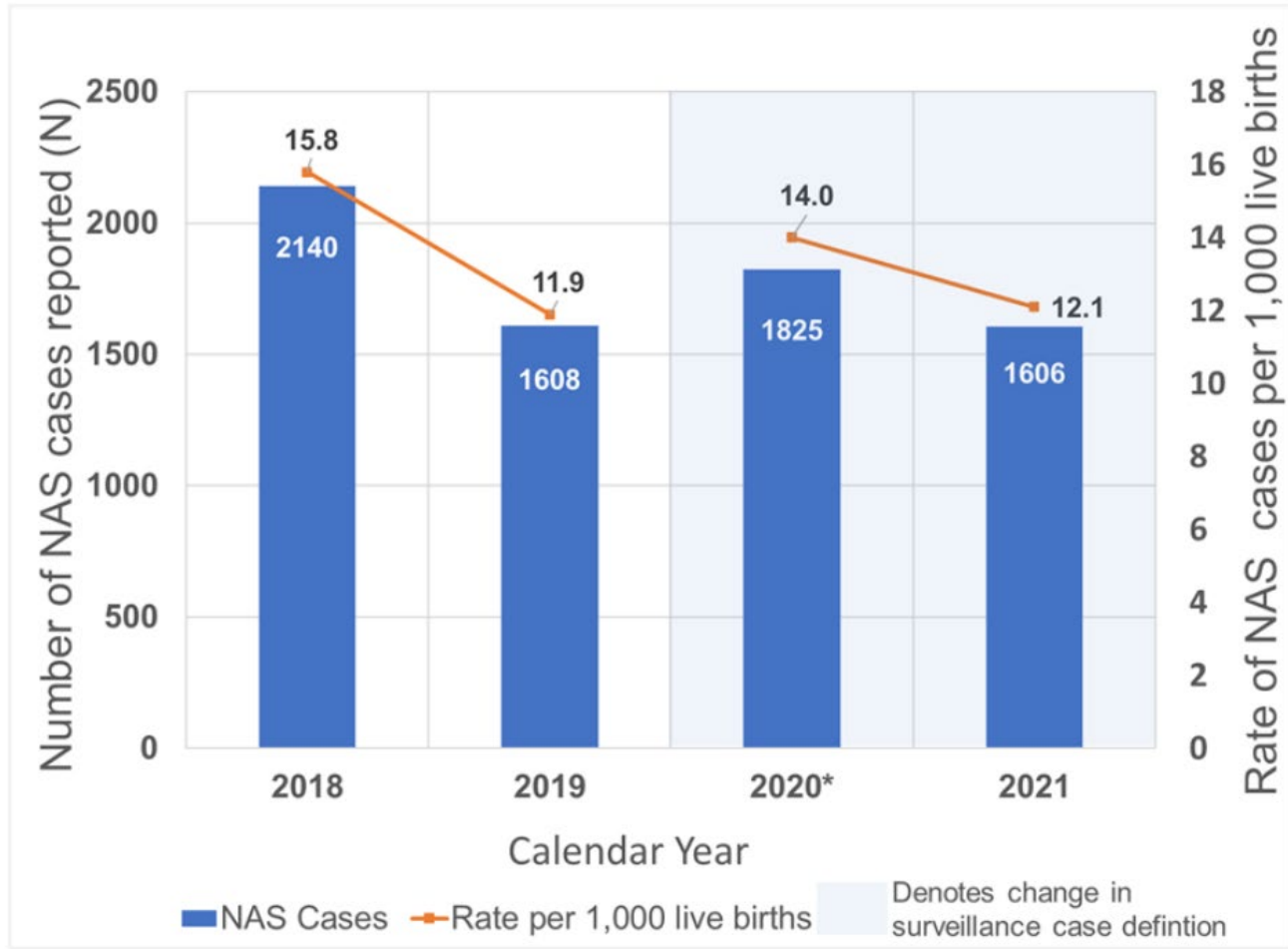
PA NAS data from Bureau of Family Health

Recommendations from Maternal Mortality Review Committee

Prescription Drug Monitoring Program update (PDMP)

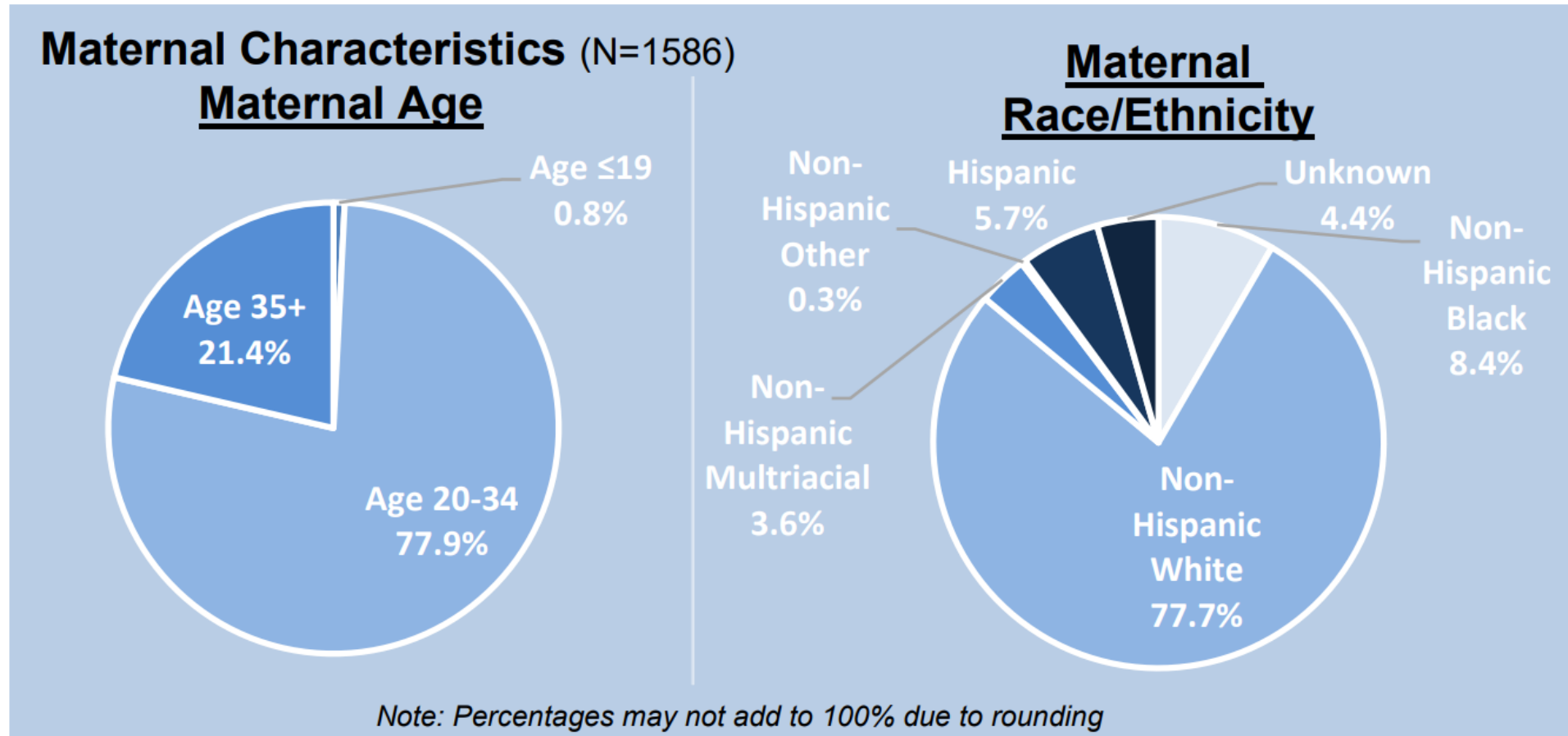
Number of Infants with NAS and Incidence per 1,000 Live Births by Calendar Year

Figure 2. Number of infants with NAS and incidence rate per 1,000 live births by calendar year



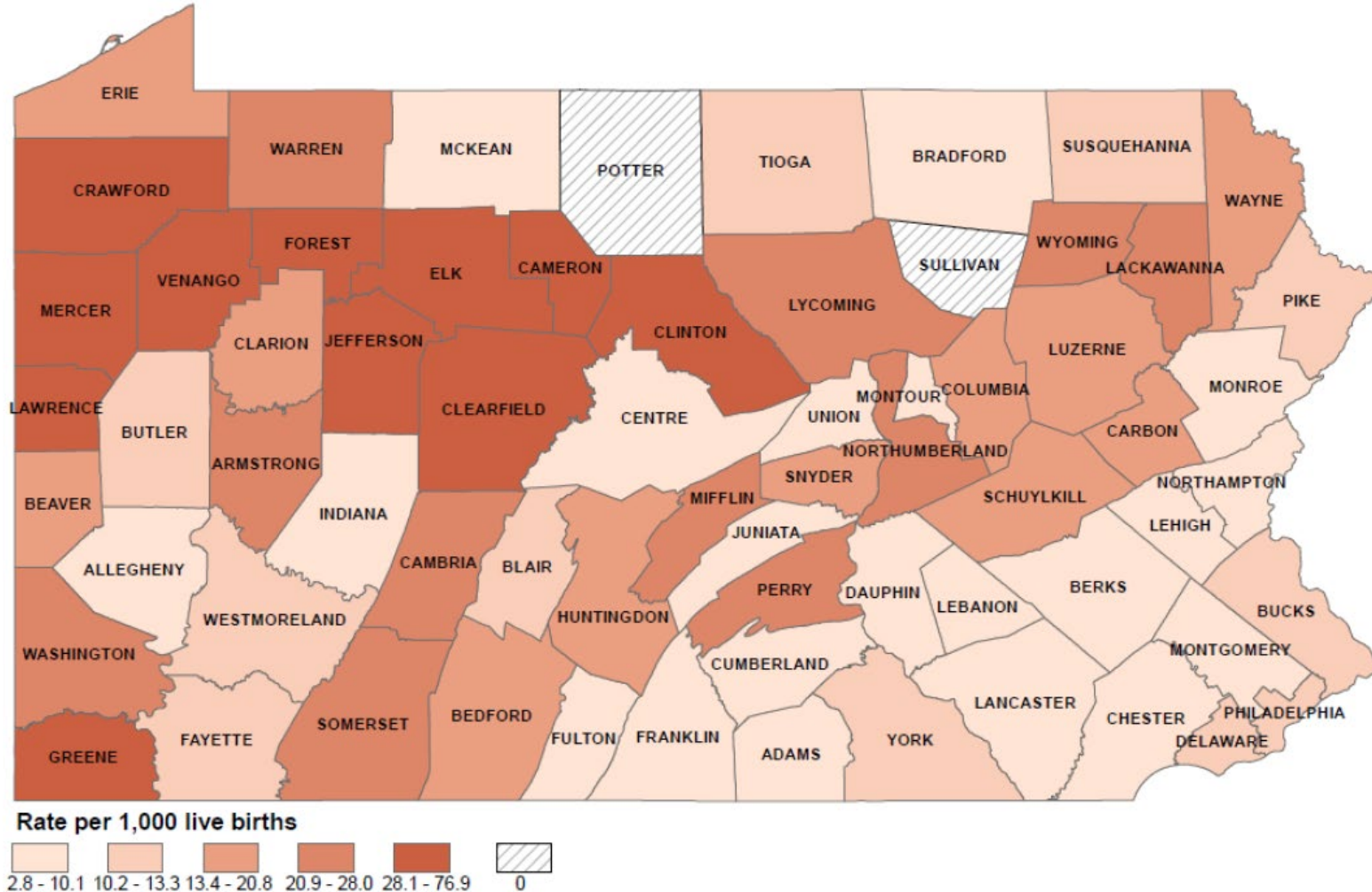
Source: Pennsylvania Department of Health 2021 NAS Annual Report

Maternal Characteristics



NAS Case Incidence Rate per 1,000 by County of Maternal Residence, 2021

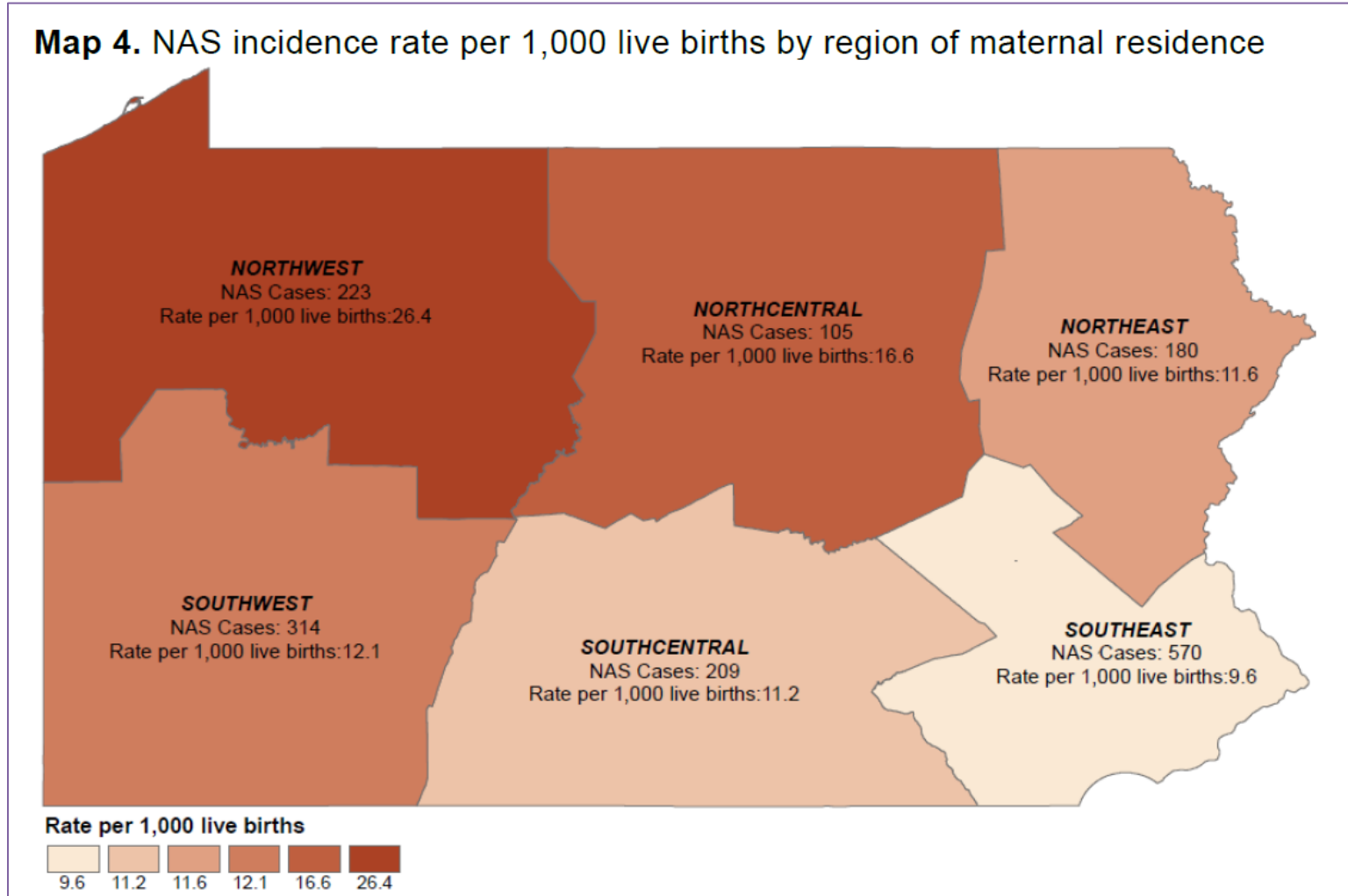
Map 3. NAS incidence rate per 1,000 live births by county of maternal residence



Incidence rates of NAS were highest in Elk (46.5), Clinton (45.5), Greene (45.3), Venango (42.5), and Lawrence (38.3) counties

Source: Pennsylvania Department of Health 2021 NAS Annual Report

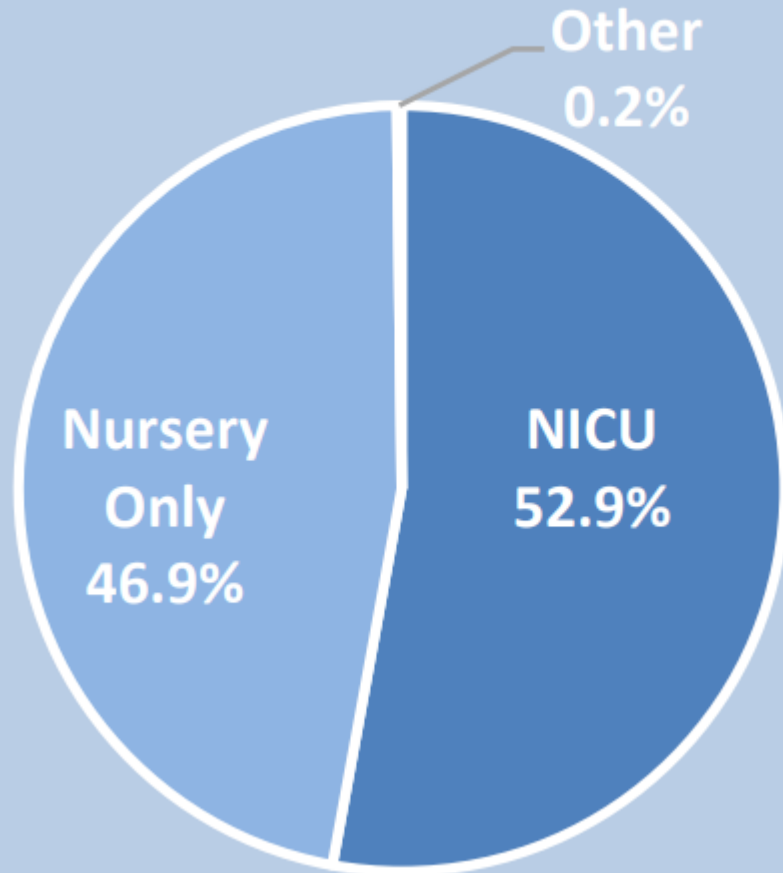
NAS Case Incidence Rate per 1,000 by Region of Maternal Residence, 2021



The northwestern region of the state had the highest incidence rate of 26.4 NAS cases per 1,000 live births – a rate that is 2.8 times higher than the lowest incidence rate in the Southeast (9.6).

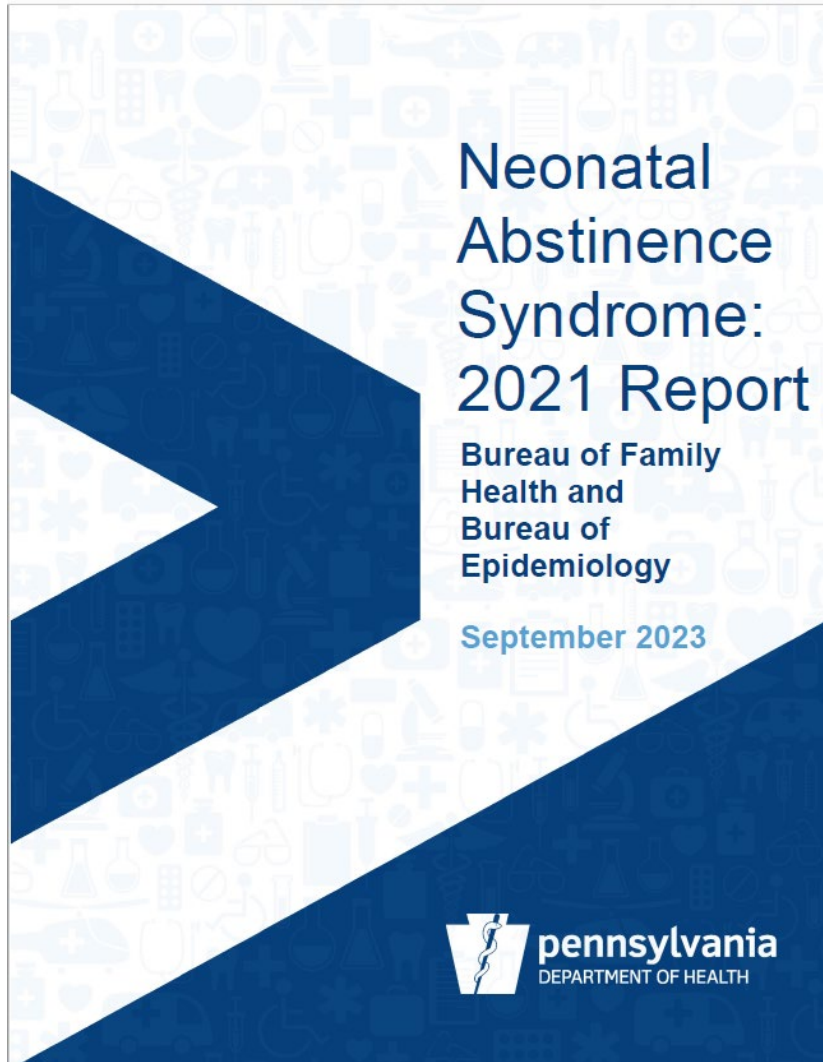
Location of NAS Infant Care

Location of Infant Care



- **Infants with NAS were more likely to be admitted to the NICU for care after delivery than other infants delivered in Pennsylvania (52.9% vs. 9.6%)**
- **Approximately 4 out of every 10 infants with NAS had a hospital length of stay exceeding a week (>7 days)**

Want to Know More ?



Data Source: Pennsylvania Department of Health 2021 NAS Annual Report

- For additional data and statistics on NAS surveillance in Pennsylvania, please see the comprehensive 2021 NAS Annual Report



Maternal Mortality Review

Data

Recommendations

Pennsylvania Maternal Mortality Review

- The PA Maternal Mortality Review Committee (MMRC) reviews deaths of individuals who have died during pregnancy or within one year after the end of pregnancy.
- The Philadelphia Department of Public Health (PDPH) has its own MMRC that reviews deaths of Philadelphia residents while pregnant or within one year after the end of pregnancy. PDPH data and recommendations are included in the information presented unless otherwise noted.
- Pregnancy-associated death is the death of an individual while pregnant or up to one year from the end of a pregnancy regardless of the outcome, duration, or site of the pregnancy. In case year 2020, there were 107 pregnancy-associated deaths.
- Pregnancy-related deaths are those that occur due to physiological effects of the pregnancy or pregnancy complications. Of the 107 pregnancy-associated deaths, 31 were found to be pregnancy-related.

Pregnancy-Associated Deaths by Cause, 2020

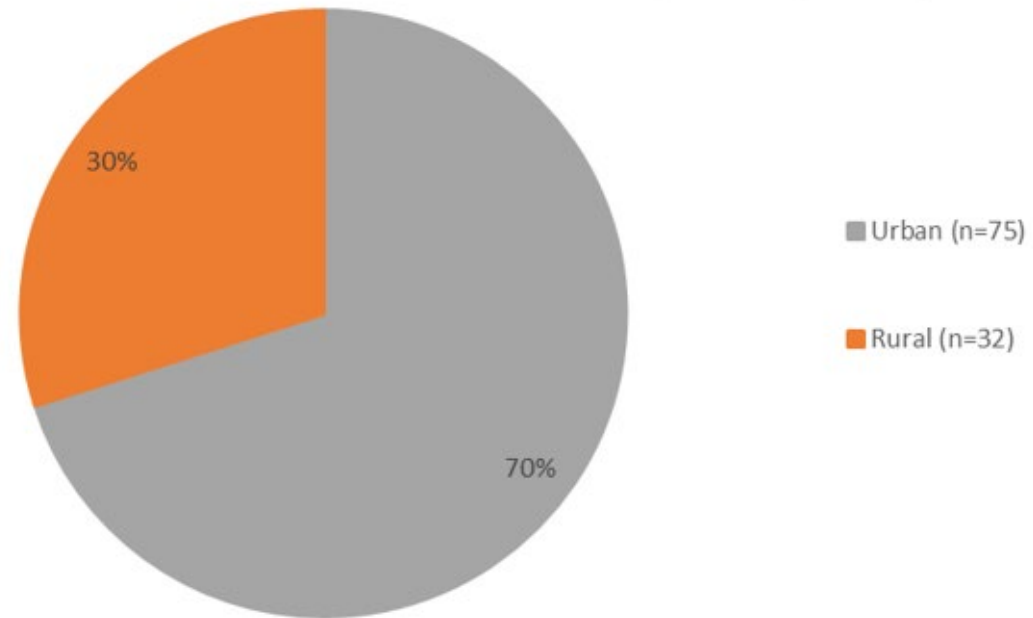
- In 2020, mental health conditions was the leading cause of pregnancy-associated deaths in Pennsylvania.
- Within mental health conditions, overdose and substance use disorder are the primary causes of death.

Categories of Leading Causes of Death for 2020 Pregnancy-Associated Deaths (n=107)	
Category	n(%)
Mental health condition	48 (45%)
Injury	32 (29%)
Cardiac and coronary condition	7 (6%)
Embolism	5 (5%)
Pulmonary condition	4 (4%)
Hemorrhage	4 (4%)
Undetermined	3 (3%)
Metabolic/endocrine condition	1 (1%)
Cancer	1 (1%)
Cerebrovascular accident	1 (1%)
Infection	1 (1%)

Pregnancy-Associated Deaths and Regional Status, 2020

- Of the 107 pregnancy-associated deaths, 70% were considered to live in an urban county, while 30% resided in a rural county.

Figure 8: Regional Status of County for 2020 Pregnancy-Associated Deaths in Pennsylvania (n=107)



Pregnancy-Related Deaths by Cause, 2020

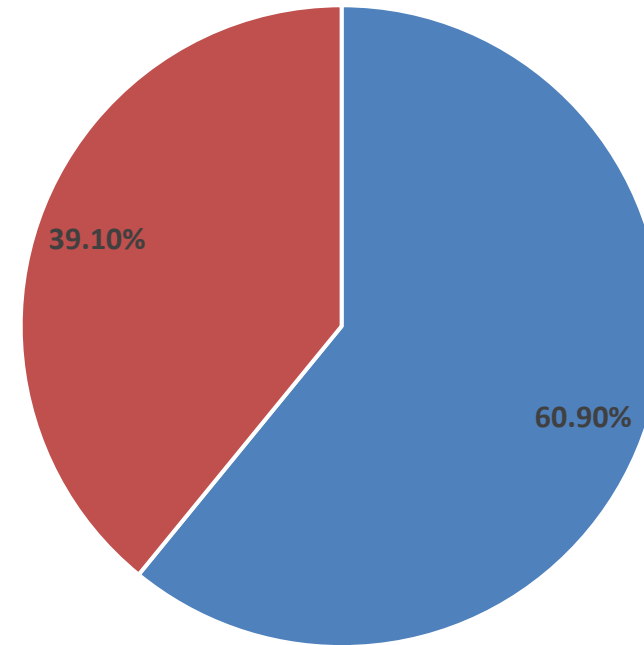
- In 2020, mental health conditions was the leading cause of pregnancy-related deaths in Pennsylvania.
- Within mental health conditions, overdose and substance use disorder are the primary causes of death.

Categories of Leading Causes of Death for 2020 Pregnancy-Related Deaths in Pennsylvania (n=31)	
Category	n (%)
Mental health conditions	14 (45%)
Embolism	5 (16%)
Cardiac and coronary conditions	4 (13%)
Hemorrhage	2 (7%)
Pulmonary conditions	2 (7%)
Cancer	1 (3%)
Cerebrovascular accidents	1 (3%)
Injury	1 (3%)
Undetermined	1 (3%)

Pregnancy-Related Deaths and Regional Status, 2020

- Excluding Philadelphia, of the deaths that were found to be pregnancy-related, 39.1% were of individuals living in rural areas.
- Yet only 31.5% of residents in Pennsylvania (excluding Philadelphia) live in rural areas.

Regional Status of County for 2020 Pregnancy-Related Deaths in Pennsylvania (Excluding Philadelphia)

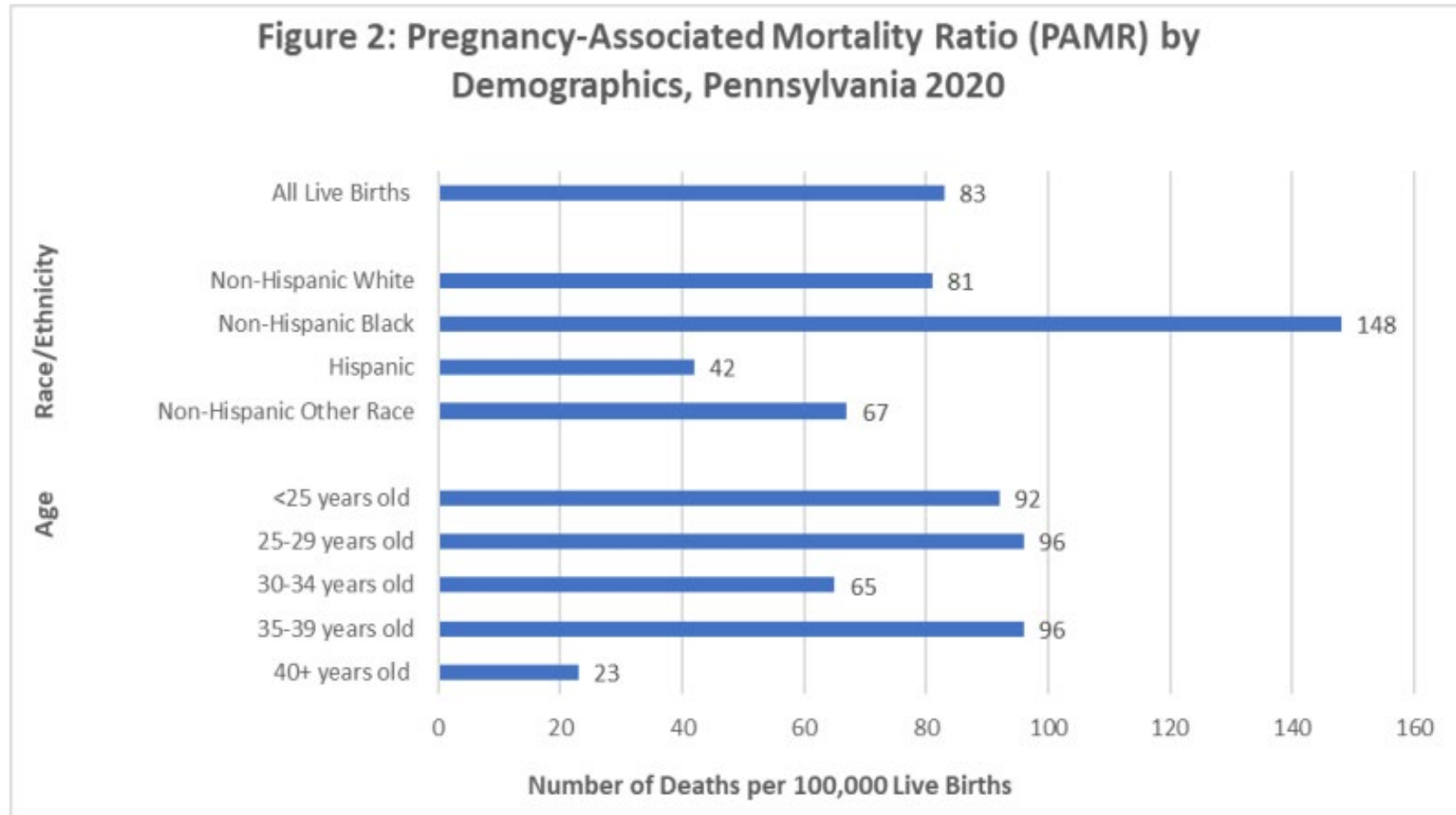


■ Urban ■ Rural

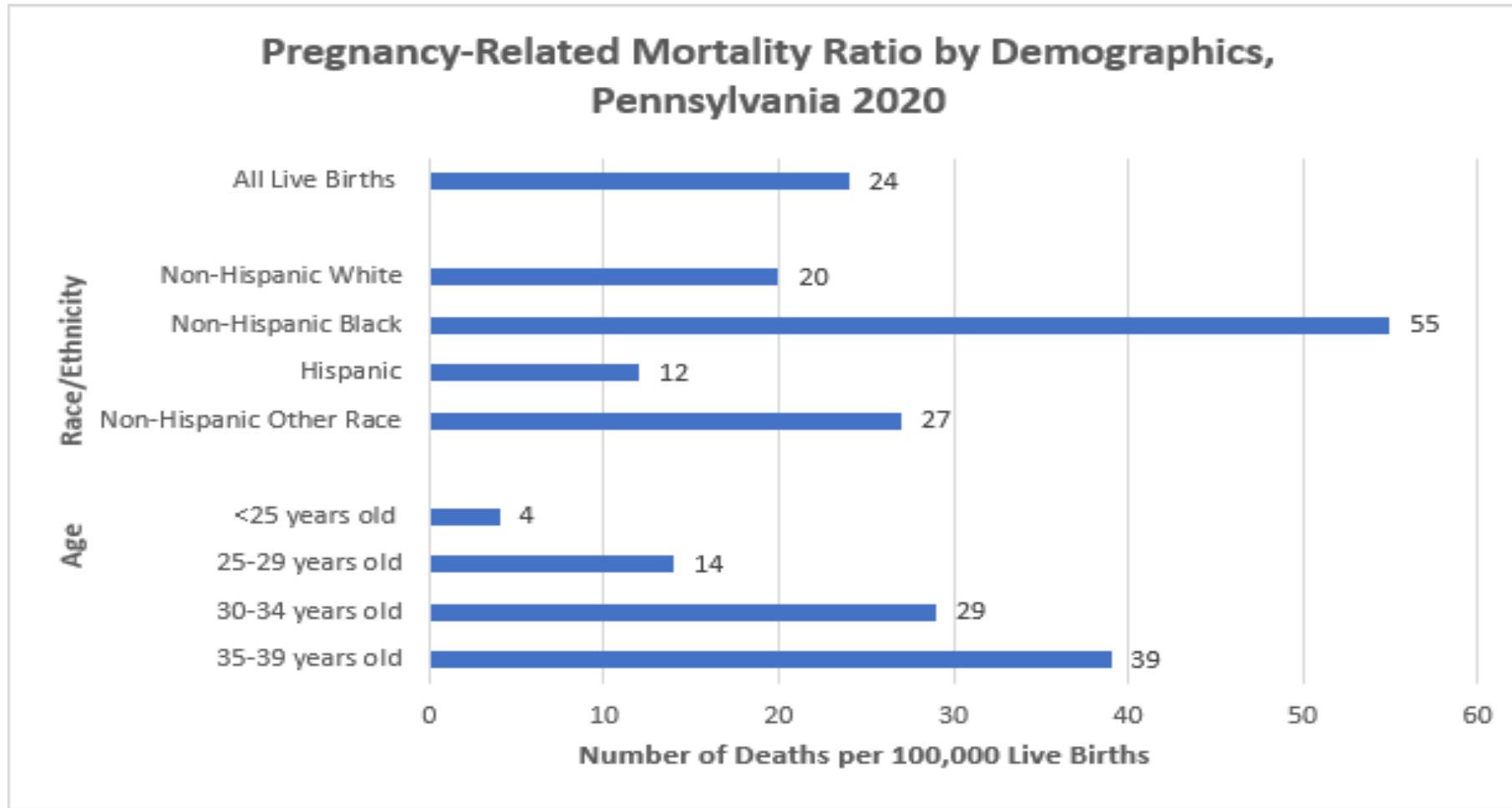
Mortality Ratios

- Pregnancy-Associated Mortality Ratios (PAMR) estimate the number of pregnancy-associated deaths for every 100,000 live births.
- Pregnancy-Related Mortality Ratios (PRMR) estimate the number of pregnancy-related deaths for every 100,000 live births.
- PAMRs and PRMRs depict how mortality affects different populations of individuals.
- Racial disparities in adverse maternal health outcomes persist in Pennsylvania as evidenced by the fact that Non-Hispanic Black individuals had higher ratios than Non-Hispanic White individuals in both the PAMR and PRMR.

Pregnancy-Associated Mortality Ratio



Pregnancy-Related Mortality Ratio



MMRC Recommendations Themes

The recommendations from the MMRC are based on case review of each individual death, and address the following issues:

1. Mental Health

2. Substance Use

3. Comprehensive Medical Care

4. Intimate Partner Violence

▶ Recommendations from MMRC: Substance Use

Recommendations for Policymakers, inclusive of the General Assembly and State Agencies, include the following:

1. The Office of Children, Youth, and Families (OCYF) should connect clients identified with substance use disorder (SUD) to support services when children are removed from custody due to substance use.
2. Create a holistic approach to the care of pregnant individuals with and/or seeking treatment for SUD to include formalizing relationships among County Departments of Drug and Alcohol, community mental health resources, psychiatric providers, and obstetric providers to facilitate the inclusion and prioritization of pregnant individuals into warm hand-off programs.
3. State or local governments should fund personnel to be linked with each hospital system in their jurisdiction who understand the local resources (community, religious, and other support) as well as hospital system resources; they will navigate the care and support of patients with SUD and other psychiatric disorders.

▶ Recommendations from MMRC: Substance Use

Recommendations for Health Care Providers and Hospital Systems include the following:

1. OB/GYN and Family Medicine residents should receive training on SUD in pregnancy. Organizations like the American College of Obstetrics and Gynecologists (ACOG) and the Substance Abuse and Mental Health Services Administration (SAMHSA) should create a training module for residency programs to use and adapt.
2. SUD treatment providers, including medication-assisted treatment (MAT), should offer sexual/reproductive health screening, education, counseling and referral or brief interventions for all clients of reproductive age, to prevent unintended pregnancy during recovery.
3. Emergency Department (ED) staff should provide brief prevention interventions to patients with SUD before discharge.
4. Health care systems, including EDs, and providers, including OB/GYN and social workers, should ensure appropriate comprehensive assessment of SUD and risk of overdose and continuity of care/coordination of care with treatment programs to minimize risk of return to use, overdose, and death.
5. Prior to discharge from hospital, care teams should develop a multi-disciplinary care plan for patients with a history of SUD and/or mental health disorders, that may include social work, case management, community-based organizations, certified recovery specialists, needle exchange programs, home visiting services, community health workers, and involve agencies such as OCYF as appropriate.

Recommendations from MMRC: Substance Use

Recommendations for Community-Based Organizations include:

- Standardized education and counseling about Naloxone use and access should be provided by healthcare, community health systems, and providers to patients, family members, and support people of those who are prescribed opioids in both inpatient and outpatient settings.

Information on Naloxone

Prescription/Access:

- Anyone can access this medication from a pharmacy by obtaining a prescription from their family doctor or by using the **standing order** (a prescription written for the general public, rather than specifically for an individual) issued by the Secretary of Health. The standing order was recently updated on November 15, 2023.
- It can also be accessed through some community-based organizations.

Payment:

- Insurance companies vary in how they cover naloxone. Before filling a prescription, people should check with their insurance provider.

Instructions for Use:

https://www.health.pa.gov/topics/Documents/Opioids/Naloxone_Brochure_DOH.pdf

<https://www.health.pa.gov/topics/Documents/Programs/2024%20MMR%20Annual%20Report.pdf>
<https://www.health.pa.gov/topics/disease/Opioids/Pages/Naloxone.aspx>



STEP 1: Peel back the package to remove the device.

Prescribing Data

PDMP update

▶ Prescription Drug Monitoring Program (PDMP)

The PDMP has helped to reduce opioid prescribing and risky prescribing, including high morphine milligram equivalents (MME) prescribing and multiple provider episodes.

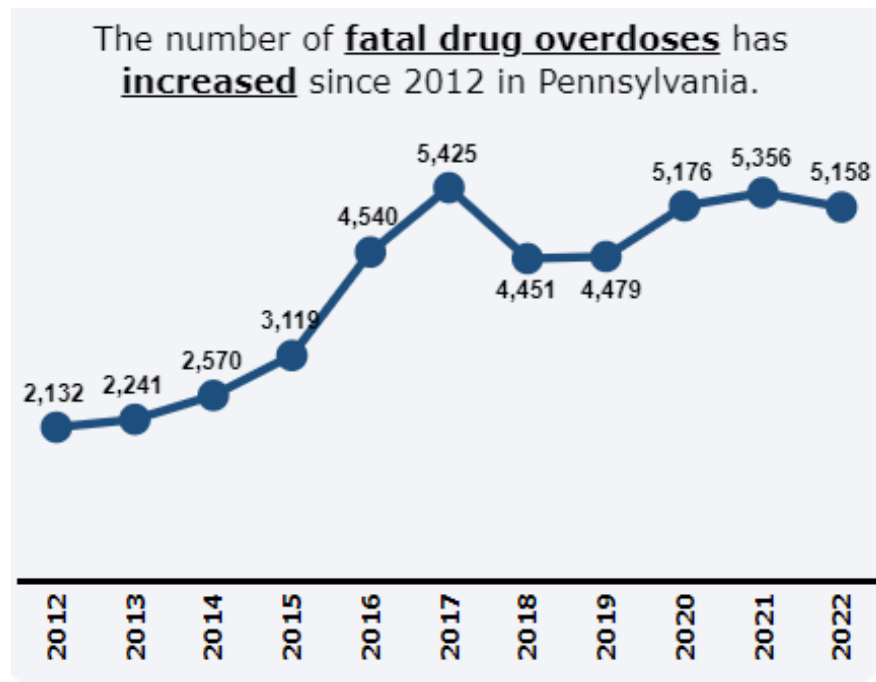
Since Q3 of 2016, PA has seen a

- 47.3% decrease in the number of dispensations of opioids (schedule II) by pharmacy location;
- 67.1% decrease in the rate of individuals with average daily MME >90; and
- 79.5% decrease in the rate of individuals seeing 3+ Prescribers and 3+ Dispensers.

In 2018 and 2019, PA saw a decrease in overdoses. But in 2020 and 2021, overdose deaths climbed to nearly that of 2017, which is currently the peak year for drug overdose deaths in Pennsylvania.

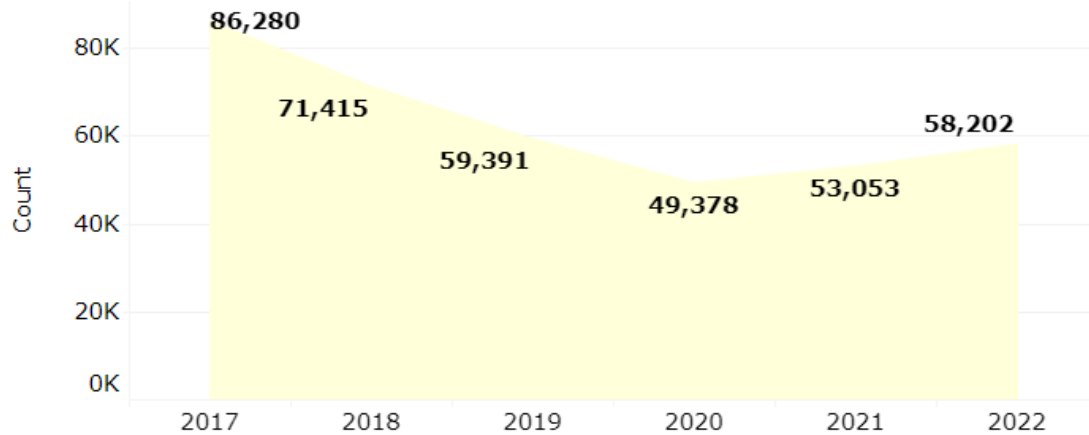
Additional data on controlled substances, overdoses, and prescriber category (specialties) are available on the Office of Drug Surveillance and Misuse Prevention's (ODSMP) interactive data dashboards.

www.health.pa.gov/topics/programs/PDMP/Pages/Data.aspx



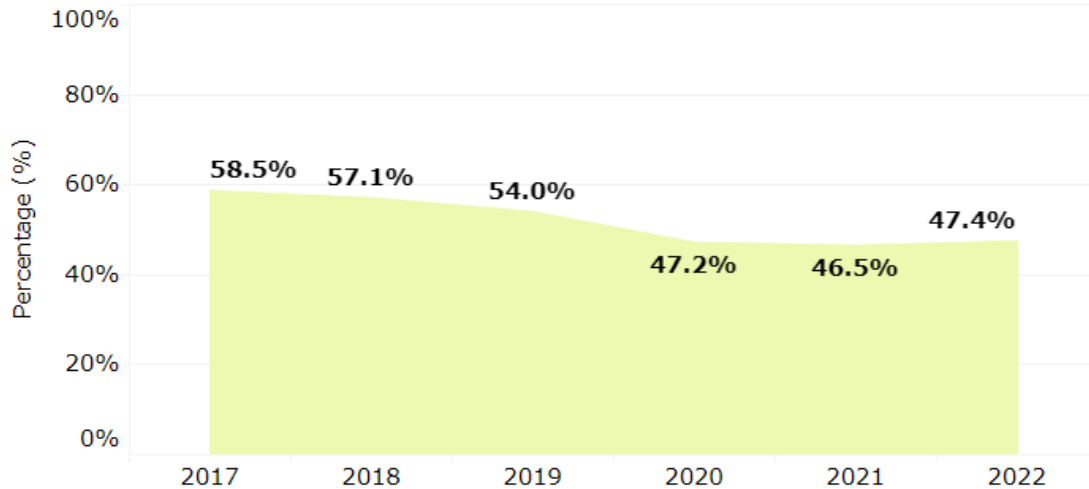
OB/GYNs/Midwives Dispensation Measures

Total Number of Opioid Dispensations by OB/GYNs/Midwives



The number of opioid dispensations by OB/GYNs/Midwives decreased from 2017 to 2022 by 32.5%

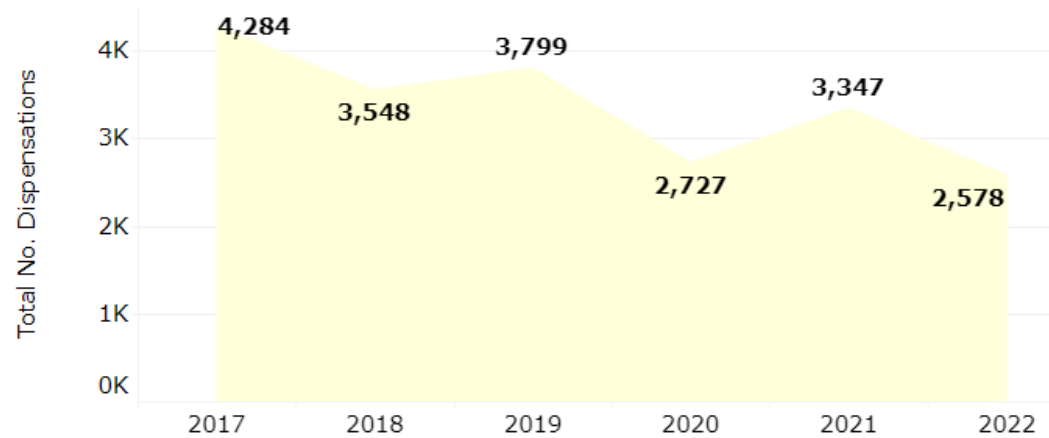
Proportion of Controlled Substance Dispensations by OB/GYNs/Midwives that were Opioids



The proportion of controlled substance dispensations by OB/GYNs/Midwives that were opioids has decreased from 2017 to 2022 by 19.0%

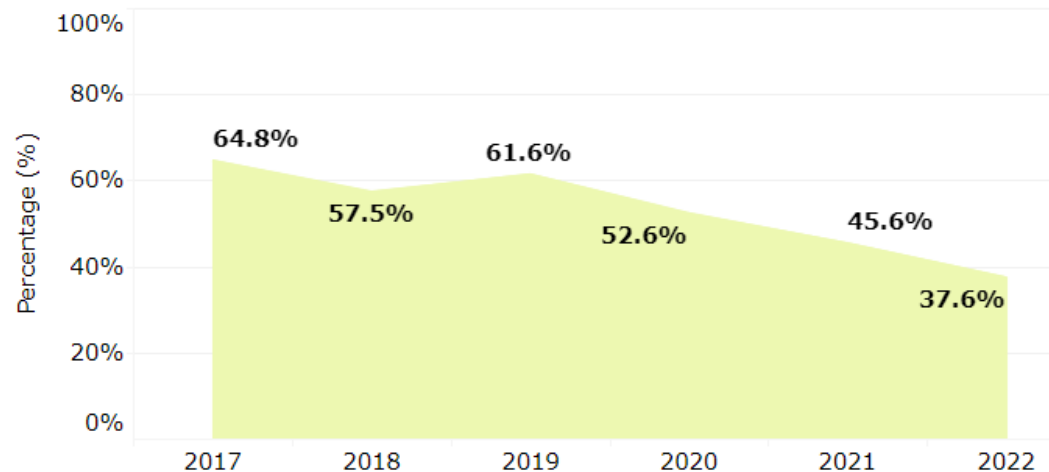
OB/GYN Nurse Practitioners Dispensation Measures

Total Number of Opioid Dispensations by Obstetric/Gynecological NPs



The number of opioid dispensations by OB/GYN Nurse Practitioners decreased from 2017 to 2022 by 39.8%

Proportion of Controlled Substance Dispensations by Obstetric/Gynecological NPs that were Opioids



The proportion of controlled substance dispensations by OB/GYN Nurse Practitioners that were opioids has decreased from 2017 to 2022 by 41.9%

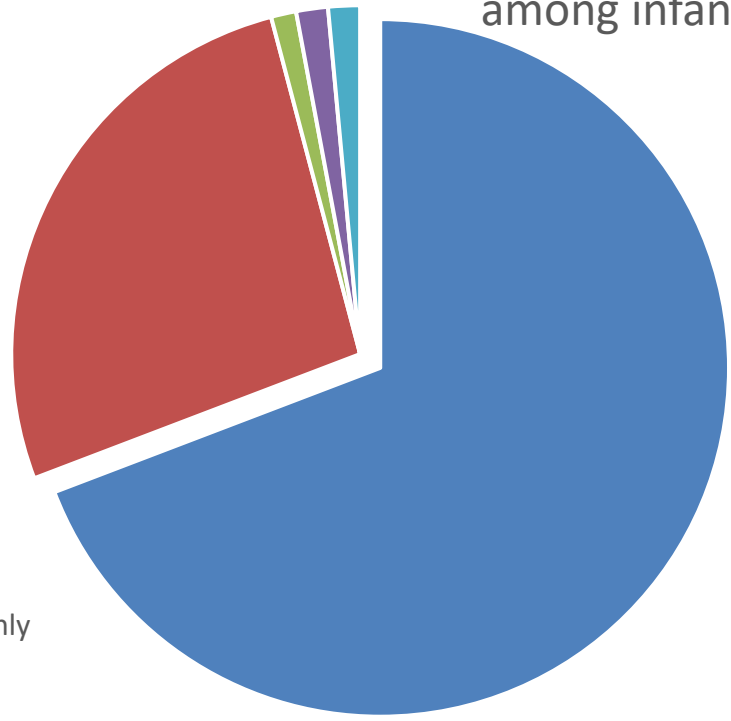
Assessments

Eat Sleep Console

Finnegan Scale

Assessments

Scoring method for identification of NAS and reporting clinically compatible symptoms among infants with NAS



- Finnegan/Modified- Finnegan only
- Eat, Sleep, Console Only
- Finnegan/modified Finnegan and Eat sleep console
- None
- Symptoms not documented/unable to assess symptoms

Data Source: Pennsylvania Department of Health 2021 NAS Annual Report

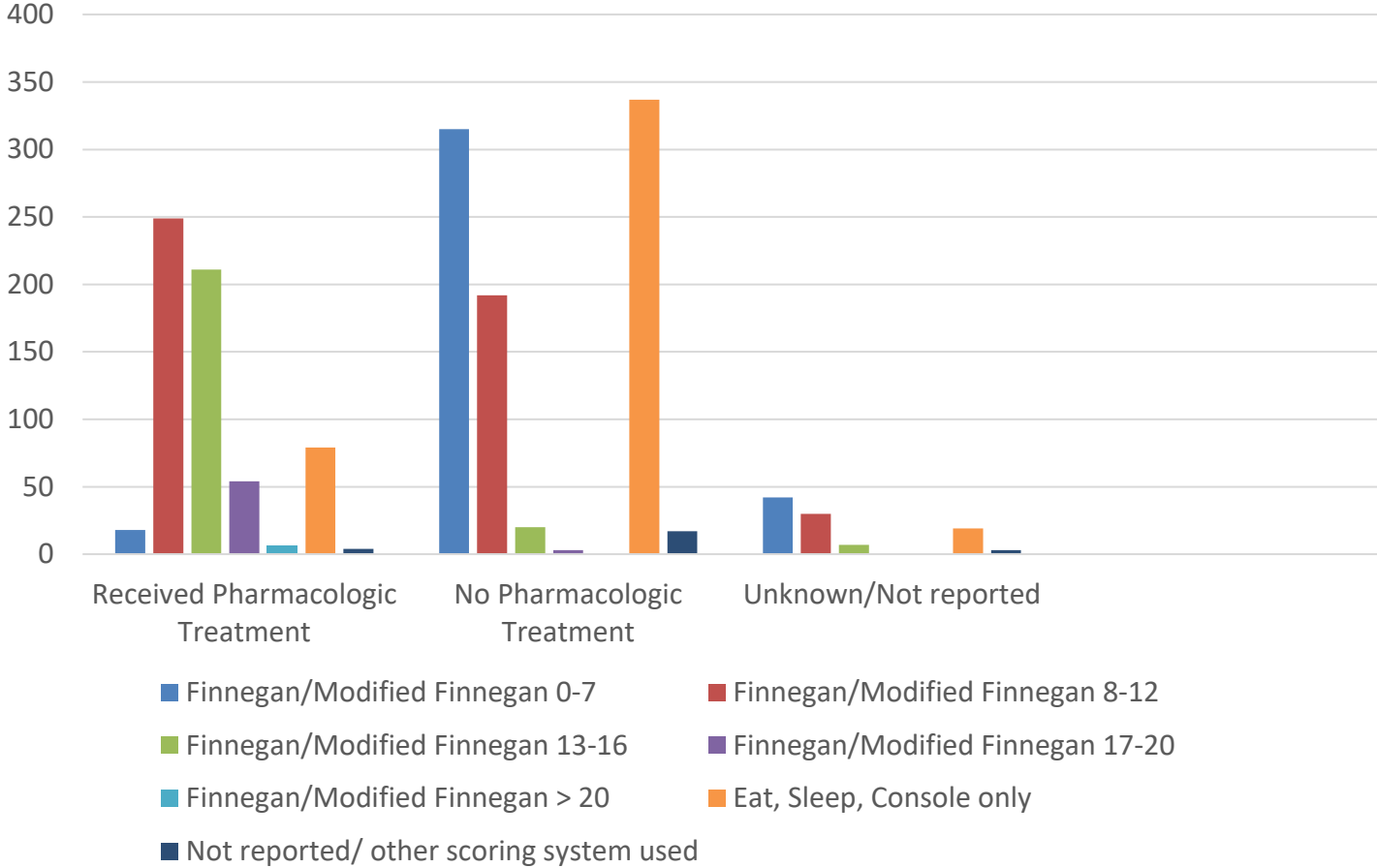
Treatment Types

Pharmacological

Non-Pharmacological

Treatment Types and Scoring

Scoring method and score by treatment type among infants with NAS



Data Source: Pennsylvania Department of Health 2021 NAS Annual Report



Legislative Updates

House Bills

Senate Bills

Legislative Updates

House Bill

- Safe Syringe Program Bill: HB 1245, Passed House Judiciary

Prevention and Treatment Initiatives

Title V Home Visiting and Centering Pregnancy

NAS Family Guide Tool Kit

Naloxone or Narcan

Syringe Service Programs

Fentanyl and Xylazine Test Strips

PA-SUN

Thriving PA

Title V Home Visiting and Centering Pregnancy

Home Visiting

- DOH provides funding to County and Municipal Health Departments (CMHDS) to provide for home visiting services to women who do not fit criteria for traditional home visiting. •
- The programs implemented by CMHDs are national models of home visiting, including Partners for a Healthy Baby, Healthy Families America, Bright Futures, Parents as Teachers and Nurse Family Partnership.

Centering Pregnancy Program

- This patient-centered model of group prenatal care is used to reduce health care disparities, promote healthy behaviors, provide peer support, improve pregnancy outcomes, and reduce infant mortality.
- Studies have shown that group prenatal care can positively influence women's health outcomes after pregnancy and improve the utilization rate of preventive health services.
- Evidence suggests that group prenatal care supports successful outcomes in pregnant women with substance use disorders (SUD), as it does for other vulnerable groups.
- As part of this program, Lancaster General Hospital offers a Centering Pregnancy group for women with substance use disorder/opioid use disorder.

NAS Family Guide Tool Kit

- Facilitates warm hand off for mother
- Empowerment of parent and guardian
- Embeds concepts and initiatives
- Provides immediate resources to caregiver (Kinship)
- Introduces concept of referrals from providers to supporting agencies for parents and caregiver



NEONATAL ABSTINENCE SYNDROME FAMILY GUIDE TOOL KIT



NAS Family Guide Tool Kit Additional Topics

- Opioids
- Hepatitis C
- Transportation
- Medical insurance
- Naloxone or Narcan
- Medication Assisted Treatment
- Fentanyl and fentanyl test strips
- Marijuana and medical marijuana
- Other substances baby maybe exposed to
- Domestic violence, human trafficking and suicide
- Guidelines to make informed decisions about breastfeeding
- Expansion on well-child visits and Immunizations



Naloxone or Narcan

Naloxone, for example Narcan®, is a medicine that can help people who are overdosing on an opioid. Opioids include prescription medications, heroin, and fentanyl. Sometimes other drugs, including cocaine and methamphetamine, are mixed, or laced with fentanyl.

Naloxone temporarily reverses the effects of an overdose from opioids, including:

- Heroin
- Morphine
- Oxycodone (OxyContin®)
- Methadone
- Fentanyl
- Hydrocodone (Vicodin®)
- Codeine
- Hydromorphone
- Buprenorphine



If you think that someone is overdosing, please give them naloxone

www.health.pa.gov
www.cdc.gov

Syringe Service Programs

SSPs are public health programs that serve the community by addressing health needs and risks of people who use drugs. SSPs:

Since Q3 of 2016, PA has seen a

- Save Lives by lowering likelihood of overdose deaths
- Are associated with a 50 percent decline in the risk of HIV transmission.
- Users are five time more likely to enter treatment.
- Result in benefits for law enforcement by reducing needle sticks, and no increase in crime.
- Result in fewer improperly discarded syringe. SSPs are the only programs dedicated to taking back disposing of used syringes.

There are more than 400 SSPs operating in 40 states, the District of Columbia (DC), and Puerto Rico. Local laws allow for SSPs to operate in Allegheny and Philadelphia counties.

Senate Bill 926 of 2021-2022 allows for Syringe Services Programs to operate across PA.

Fentanyl Test Strip Legislation

Since most drug users are unaware there is fentanyl in the substance they are using, they do not take precautions of having naloxone available or using around other people.

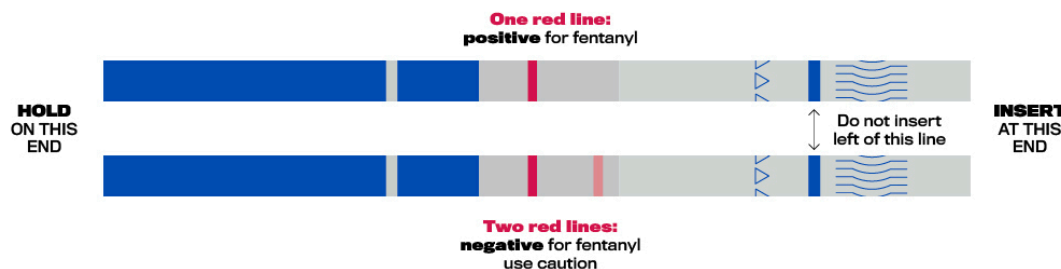
Fentanyl is.....

- 50 time more potent than heroin.
- Increasingly found in the drug supply, including pressed pills.
- Used by drug dealers to stretch supply and increase profits.

Fentanyl Test strips are currently considered “drug paraphernalia” in PA .

House Bill 1393 and Senate Bill 845 amended the Controlled Substance, Drug, Device and Cosmetic Act to allow fentanyl test strips for personal uses.

FENTANYL TEST STRIPS



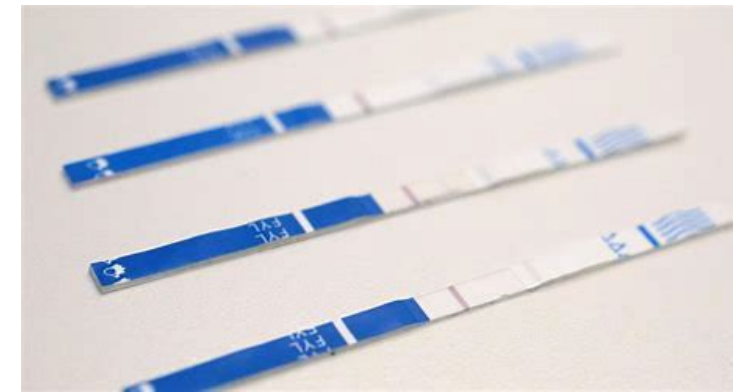
Xylazine Test Strips

Overdose deaths associated with xylazine are on the rise.

Xylazine is often mixed with heroin and/or cocaine, with or without an individual's knowledge.

Xylazine test strips help detect the presence of xylazine and provide people who use illicit drugs information about xylazine in their drug supply.

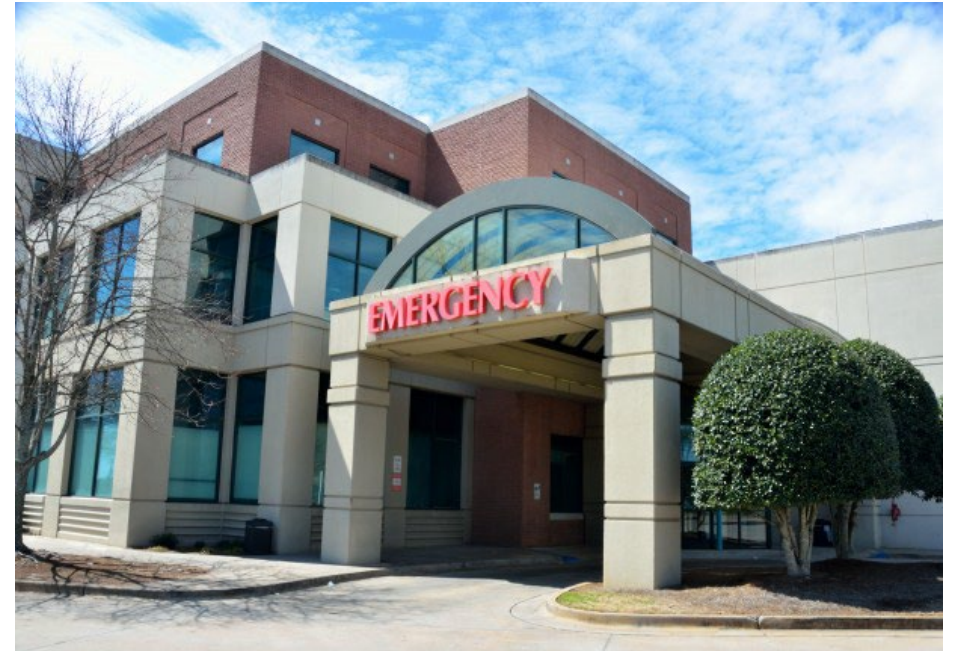
With this information, individuals can take measures that potentially prevent overdose or harm caused by xylazine, such as not using the drugs.



▶ PA-SUN (Substance Use Navigation) Program

PA-SUN aims to reduce opioid overdose deaths by:

- Increasing the number of EDs that are prepared to initiate buprenorphine, prescribe or dispense naloxone, and facilitate linkage to treatment.
- Reducing barriers and supporting clinical quality improvement.



▶ Thriving PA

Here are some key aspects of Thriving PA:

1. Perinatal Health Services:

Thriving PA prioritizes maternal and child health, addressing issues such as maternal mortality and ensuring access to quality perinatal care.

2. Children's Health Insurance:

The campaign advocates for equitable access to health insurance for children, promoting their overall well-being.

3. Nutrition Supports:

Thriving PA recognizes the importance of proper nutrition for families and works to ensure access to programs like the **Women, Infants, and Children (WIC)** program.

4. Lead Screening and Abatement:

The campaign actively supports efforts to identify and address lead exposure in children, safeguarding their health.



▶ PA Perinatal Quality Collaborative Initiatives

1. SUD / OUD Substance Use Disorder
2. SEN / NAS Substance Exposed Newborn
3. Immediate Postpartum Long-Acting Reversible Contraception (IPLARC)
4. Safe Sleep
5. Maternal Sepsis



Questions ?

Thank You
Dr. Debra Bogen