

Maternal Health: NAS Recommendations and Beyond

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Kentucky Public Health
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CABINET FOR HEALTH
AND FAMILY SERVICES

The presenter has no financial interest to disclose.

Objectives

- 🛡️ Define primary, secondary, and tertiary prevention as they relate to NAS
- 🛡️ Describe how data inform recommendations for NAS prevention
- 🛡️ Identify ways to implement NAS prevention strategies within your agency or community

What is NAS?

Neonatal Abstinence Syndrome (NAS)

- Signs and symptoms associated with sudden discontinuation of prenatal substance exposure at delivery
- Can be caused by prescription and over-the-counter substances
- Diagnosis does not inherently indicate illegal activity

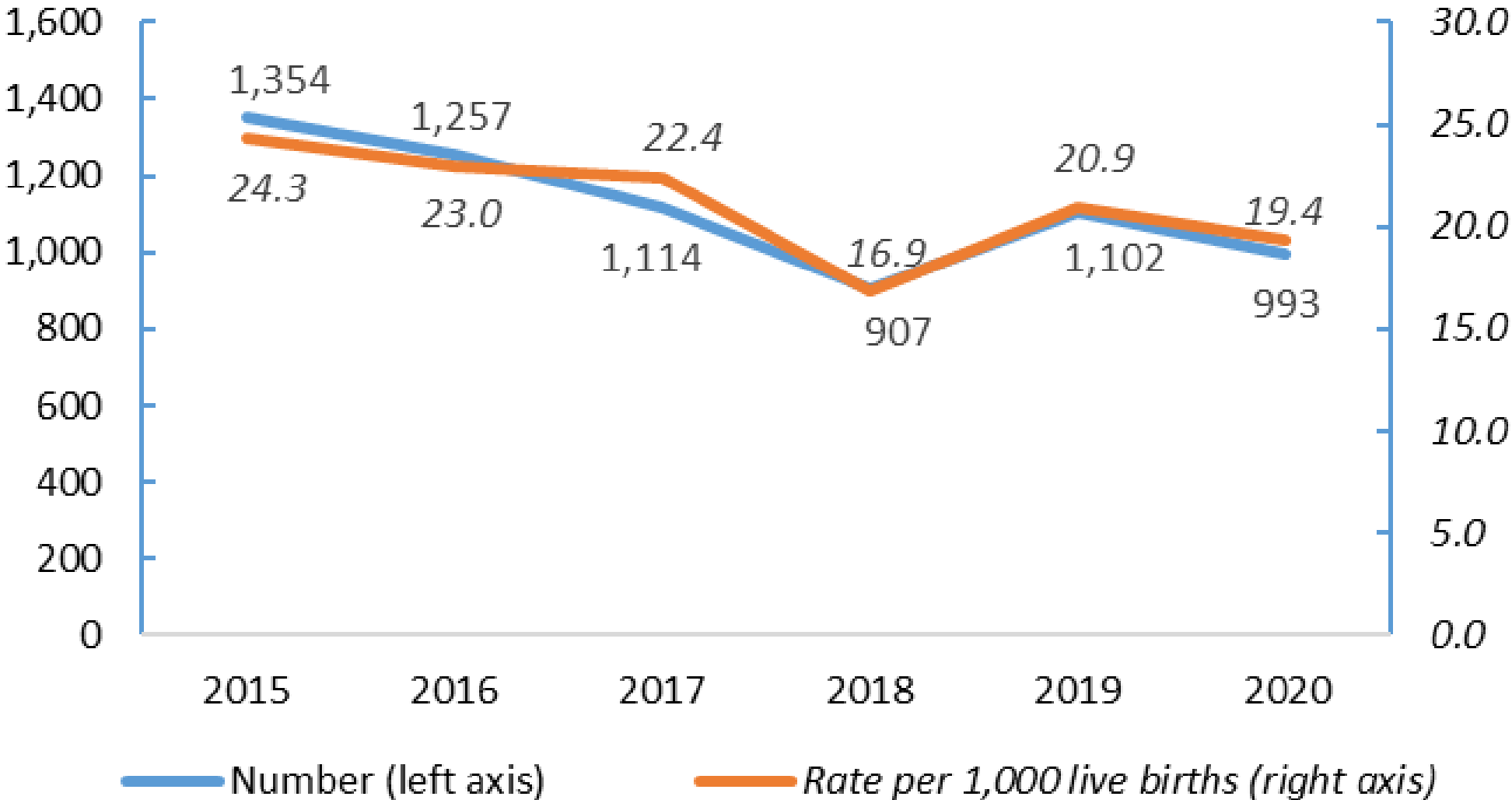
Presentation of NAS

- Non-specific, severity, onset, and duration may vary
- Similar to withdrawal in adults- restlessness, tremors, seizure, vomiting, fever, sweating, and apnea
- Treatment through comfort care or pharmacological interventions

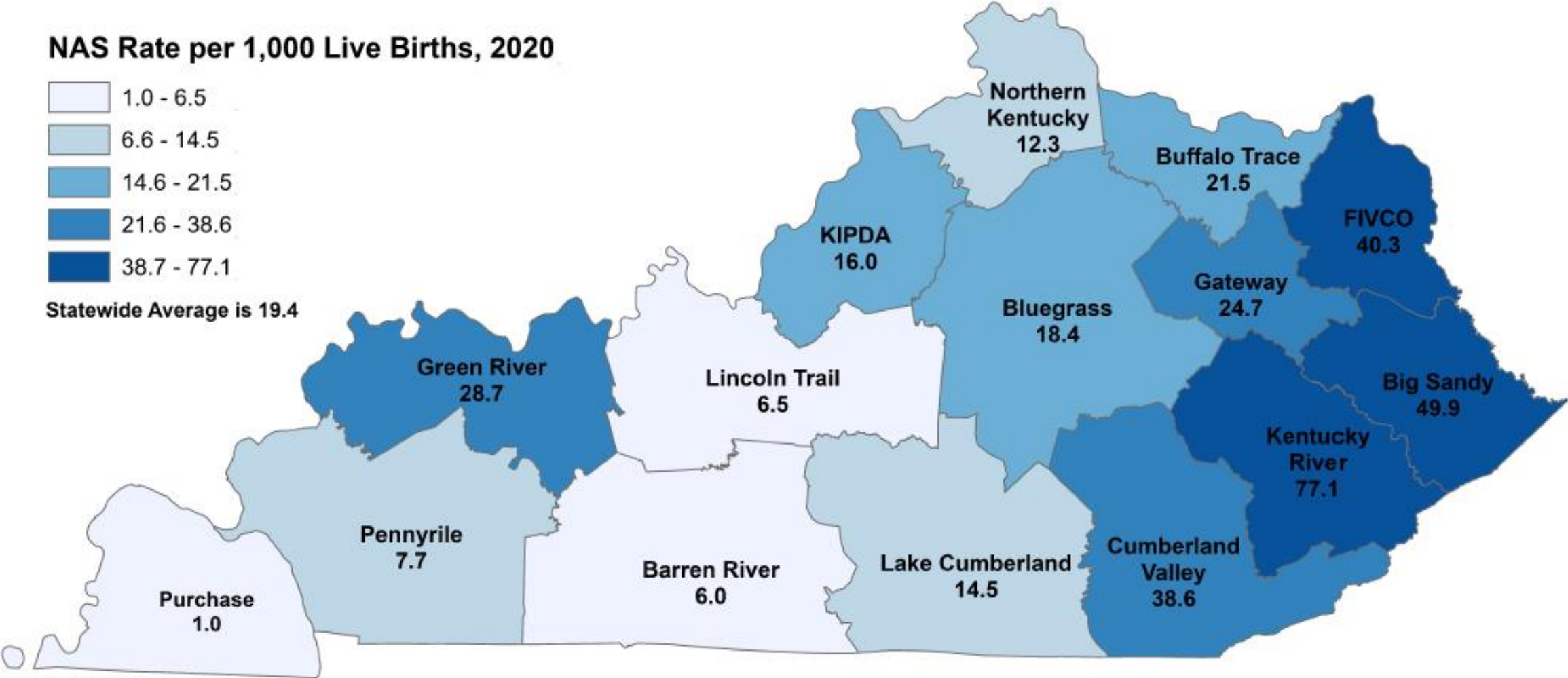
Public Health NAS Reporting Registry

- 🛡️ In 2013 the Kentucky General Assembly enacted Kentucky Revised Statute (KRS) 211.676
- 🛡️ Effective July 15, 2014, NAS became a reportable condition with mandatory reporting of cases that meet all criteria:
 - Kentucky residents
 - NAS
 - History of prenatal substance exposure
 - Reporting of other cases is allowable and sometimes encouraged
- 🛡️ A second law, KRS 211.678, calls for an annual data report

Kentucky Resident NAS Cases, 2015-2020



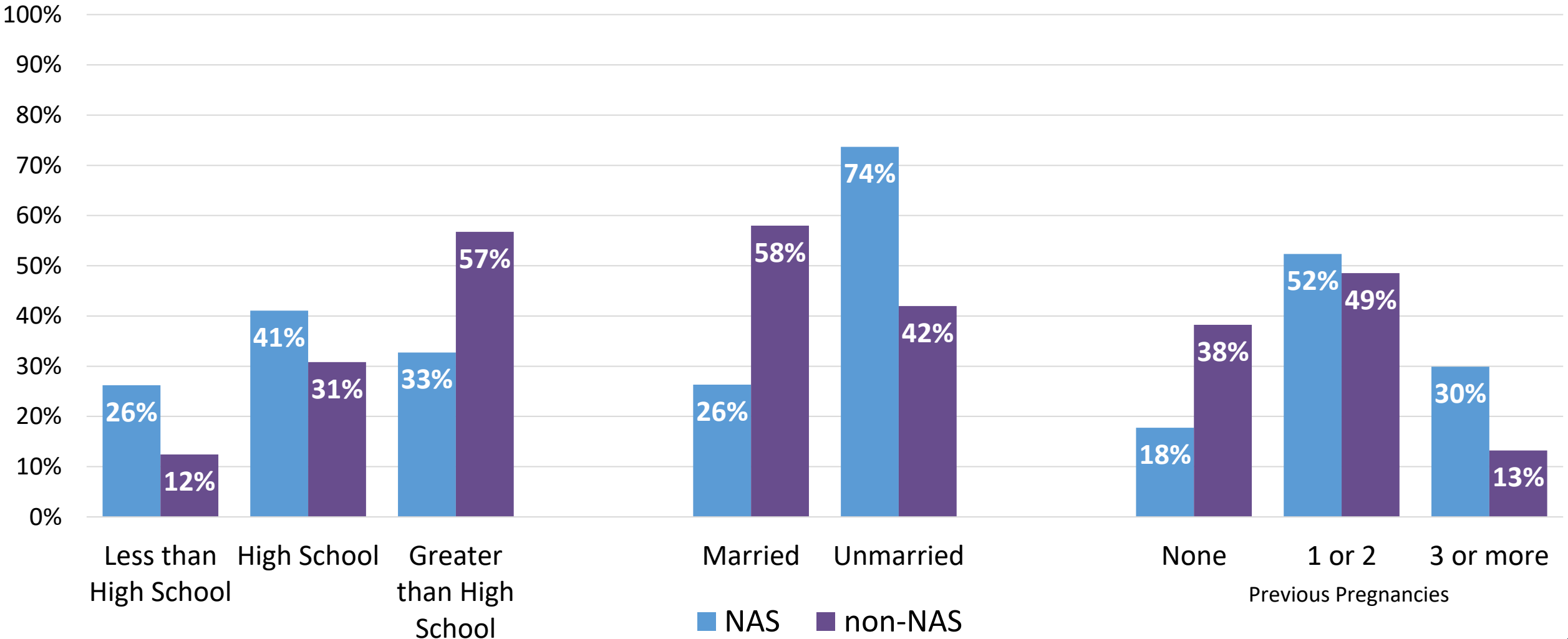
NAS Rate by ADD of Residence, 2020



April 5, 2023

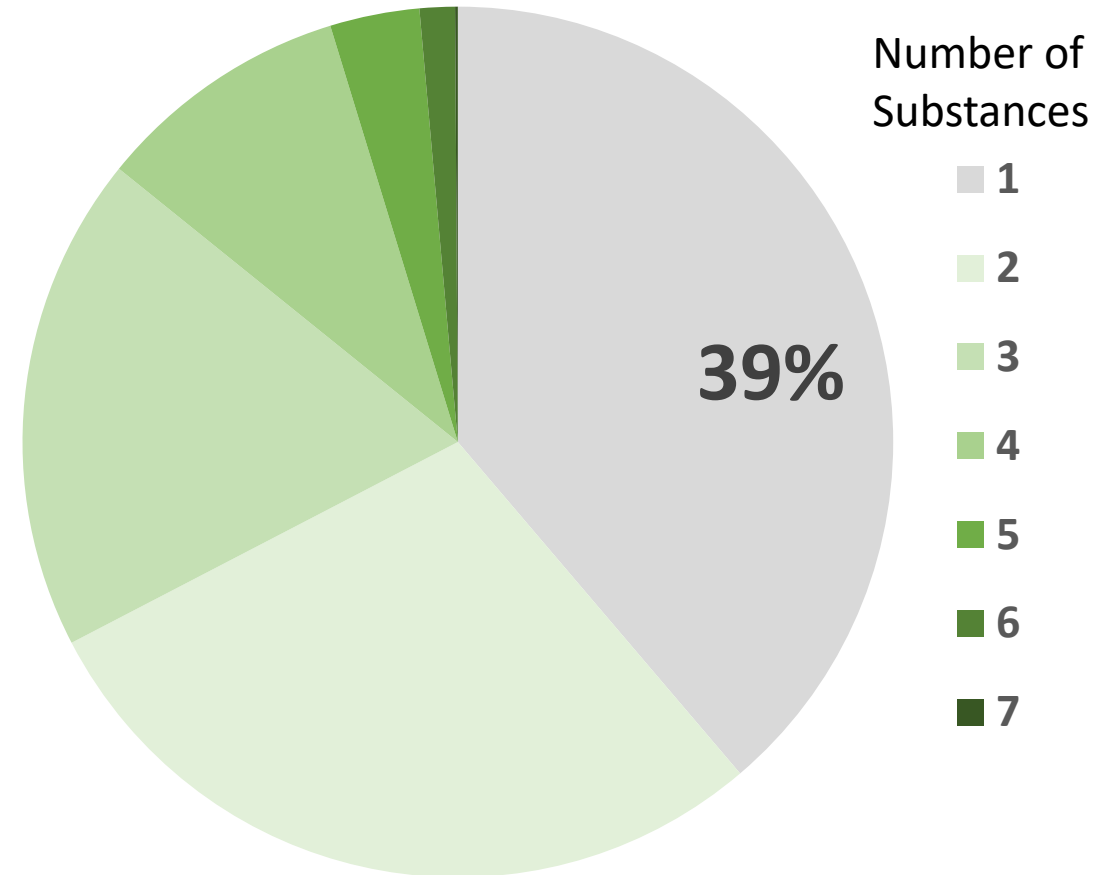
Data Source: Neonatal Abstinence Syndrome Reporting Registry; Kentucky Certificate of Live Birth
Shapefiles from Kentucky Geography Network

Sociodemographic Factors



Reported Substances

Type	Percent
Any of the below opioids	86%
Buprenorphine	64%
Heroin	19%
Methadone	11%
Fentanyl	10%
Amphetamines*	36%
Cannabis	28%
Benzodiazepines	11%




*including methamphetamine

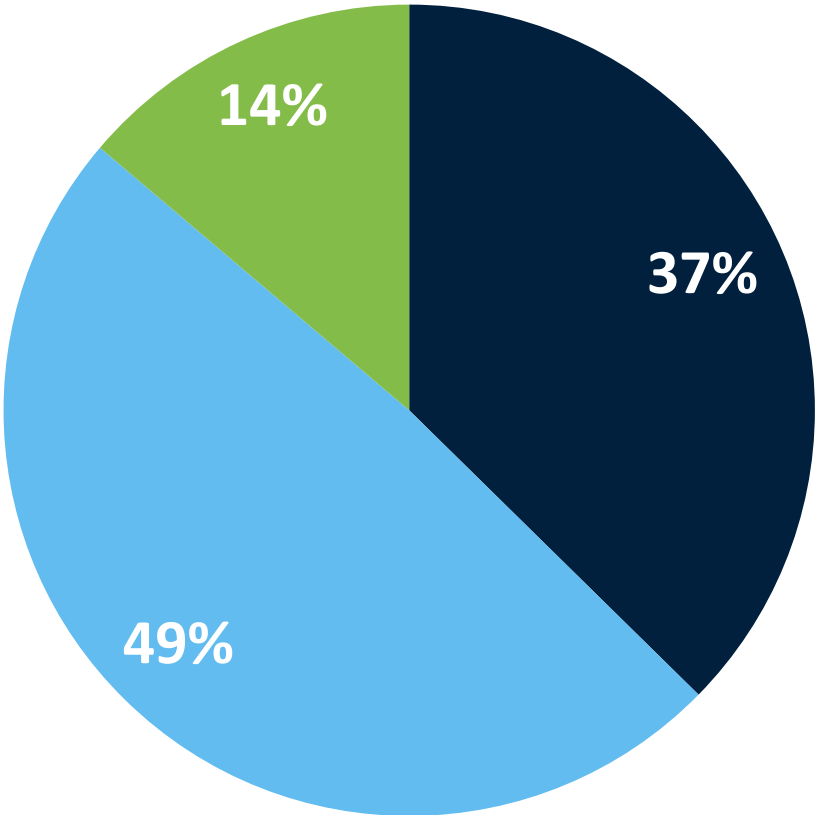
Prenatal Health and Access to Care

	NAS	Non-NAS
Medicaid	85%	47%
Uninsured	6%	4%
Less than adequate prenatal care	46%	20%
Hepatitis C	38%	2%
Smoking during pregnancy	68%	14%
WIC enrollment	54%	37%

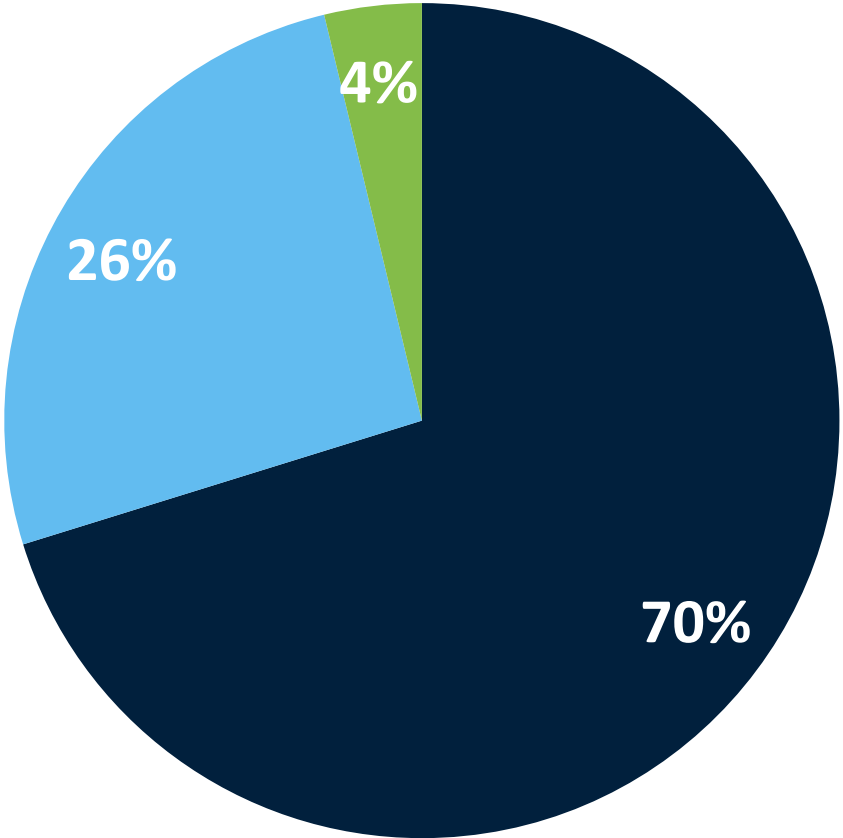
Newborn Outcomes

-  Babies with NAS are
- 2x as likely to be low birth weight
 - 3x as likely to get admitted to the NICU
 - in the hospital 3.5x longer
 - 0.5x as likely to have mothers plan to breastfeed
- compared to babies without NAS

Child Welfare



- Referred to child welfare services, accepted
- Referred to child welfare services, not accepted
- Not referred



- Discharged to parent(s)
- Discharged to foster care, adoption, kinship care, or institution
- Other discharge

Prevention and Harm Reduction

Primary prevention

- Reducing the occurrence of prenatal substance exposure

Secondary prevention


- Treating known substance use to minimize the severity of consequences

Tertiary prevention

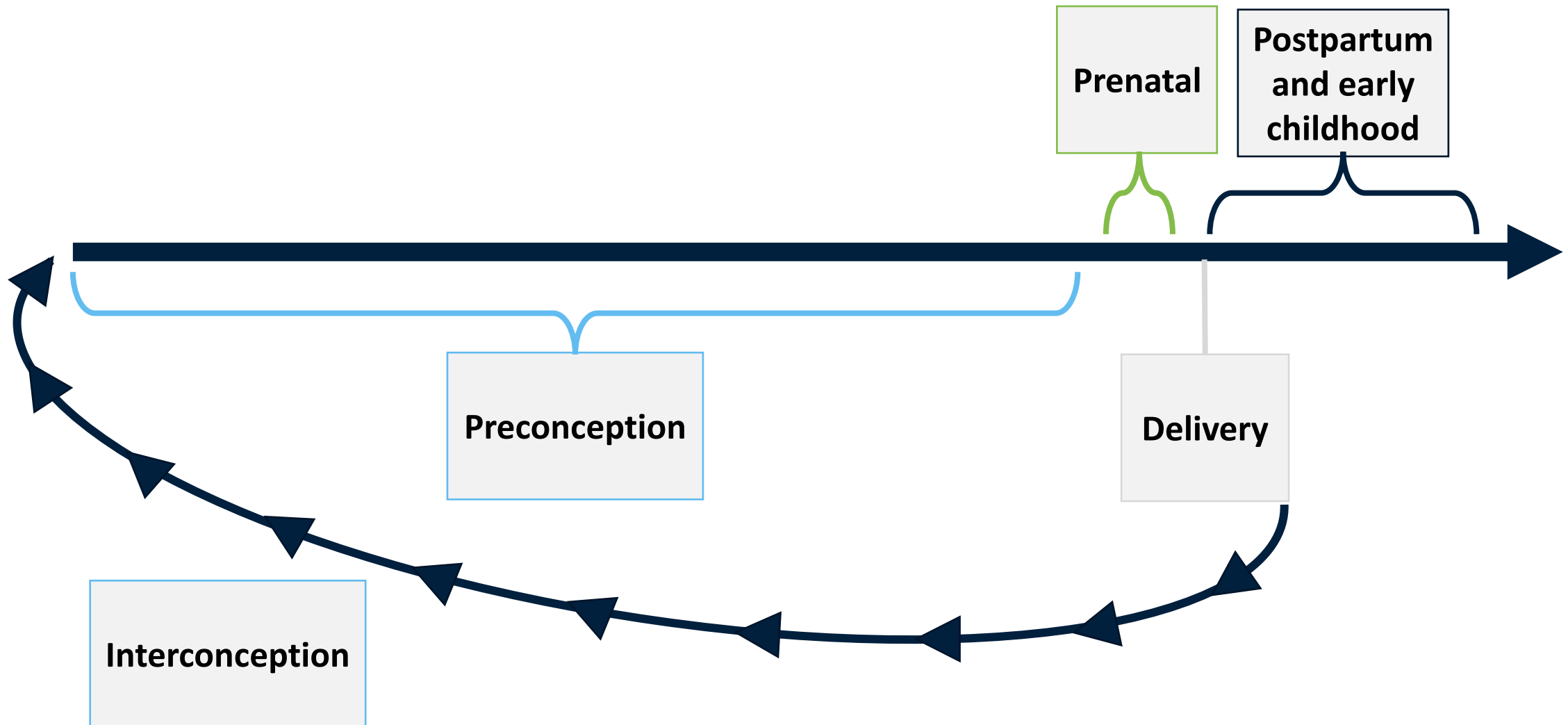
- Promoting long-term well-being for children with NAS and their families

Harm reduction

- Usually, overlap with secondary and tertiary prevention

 For more examples and activities, check out the [NICHQ NAS Framework](#)

NAS Prevention Timeline



Reviewing the Recommendations

- 🛡️ 8 recommendations that span the period from preconception through early childhood (including interconception)
- 🛡️ Review each recommendation
 - Rationale
 - Data
- 🛡️ Break down each component
 - Opportunity to brainstorm implementation
 - Please take notes!
 - Report out ideas

Across the Timeline

Promote optimal well-woman health, periconceptional health, prenatal care, and postpartum care

- 🛡️ Screening for substance use disorder (SUD)
- 🛡️ Screening for comorbidities
 - Hepatitis C – 38%
- 🛡️ Referral to treatment and counseling
- 🛡️ Prescription management
 - Replacement therapy – 54%
 - Pain therapy – 6%
 - Psychiatric or neurological – 5%
- 🛡️ Monitoring for fetal complications
 - Low birth weight – 15%

Remember: 46% of mothers in the registry had prenatal care that was less than adequate.

Implementing this Recommendation

- 🛡️ Optimal well-woman health
- 🛡️ Periconceptional health
- 🛡️ Prenatal care
- 🛡️ Postpartum care

- 🛡️ What can your agency do?
- 🛡️ Share:
 - Type of agency
 - Suggestion
 - How it furthers this goal
 - Barriers or facilitators

Across the Timeline

Referral and enrollment in medication for opioid use disorder (MOUD) programs

🏥 MOUD programs can be very successful.

- Buprenorphine is the most common substance in the NAS Registry.

🏥 [findhelpnowky.org](https://www.findhelpnowky.org) can be used to locate a variety of treatment options.

🏥 MOUD providers should:

- incorporate comprehensive services to address the complex needs of the mother and family
- be accessible while pregnant or postpartum
- be trained in family-oriented protocols

Remember, 54% of mothers in the registry had prescriptions for replacement therapy.

Implementing this Recommendation

 Screening

 Referral

 Enrollment

 Continued engagement

 What can your agency do?

 Share:


- Type of agency
- Suggestion
- How it furthers this goal
- Barriers or facilitators

Preconception and Postpartum

Improve access to long-acting reversible contraception (LARC)

Highly effective birth control

- Intrauterine device
- Arm implant

 18% of infants with NAS were their mothers' first live birth, compared to 42% of infants without NAS.

Kentucky Medicaid covers LARCs

Providers should make LARCs and other birth control accessible

- Syringe exchange programs could facilitate injectable contraception

Nearly 90% of pregnancies among women with opioid use disorder (OUD) are unintended (Heil et al., 2010)

Implementing this Recommendation

- 🛡️ Insurance coverage
- 🛡️ Accessibility
- 🛡️ Perception
- 🛡️ Timing of insertion

- 🛡️ What can your agency do?
- 🛡️ Share:
 - Type of agency
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Prenatal Through Early Childhood

Increase enrollment in services such as WIC and Health Access Nurturing Development Services (HANDS)

Opportunities for engagement

- Substance use education
- Referrals to counseling or treatment
- Referrals to community resources
- Monitoring well-being

Breastfeeding support

- Mothers of babies with NAS are less likely to plan on breastfeeding (39% vs 73%) and about 22% actually initiate breastfeeding.
- It can reduce the severity of NAS and is recommended unless contraindicated.

Remember, 54% of mothers whose babies have NAS enrolled in WIC prenatally

Implementing this Recommendation

 Referrals to WIC

 Referrals to HANDS

 Enrollment processes

 Encouraging engagement

 What can your agency do?

 Share:

- Type of agency
- Suggestion
- How it furthers this goal
- Barriers or facilitators

Prenatal through Delivery

Implement a plan of safe care

- 🛡️ All babies should have a plan of safe care before hospital discharge
 - Especially in families with SUD
- 🛡️ Coordinate and integrate services needed for the impacted child, parent(s), and/or caregiver(s)

- 🛡️ Will require interagency collaboration at the state and community levels
 - Public health
 - Behavioral health
 - Child welfare
 - Others

86% of infants in the NAS Registry were referred to DCBS and 43% of those were accepted

Implementing this Recommendation

 Systems collaboration

 Partner buy-in

 Hospital uptake

 What can your agency do?

 Share:

- Type of agency
- Suggestion
- How it furthers this goal
- Barriers or facilitators

Prenatal through Delivery

Education for parents on abusive head trauma (AHT) and safe sleep

- 🛡️ All families should receive
 - In-person, evidence-informed education
 - Prenatally and at delivery
 - Regardless of number of previous children

- 🛡️ Use the ABCDs of safe sleep
 - **A**lone
 - On their **B**ack
 - In a **C**rib
 - Without **D**anger from a caregiver being tired, impaired, or distracted

Substance use is a common risk factor in the Child Fatality and Near Fatality Eternal Review Panel, especially among AHT cases.

Implementing this Recommendation

 Healthcare facility buy-in

 Uptake by providers

 Family reception

 What can your agency do?

 Share:

- Type of agency
- Suggestion
- How it furthers this goal
- Barriers or facilitators

Delivery

Implement the practice of modeling safe sleep among healthcare and childcare providers

Benefits of modeling

- Modeling reinforces education
- Seeing unsafe sleep practices can weaken or counteract messaging

Universal recommendation

- All staff have a role
- Educate and intervene when unsafe sleep is being practiced
- Explain medically necessary modifications, when needed

Substance use is a risk factor in 32% of SUID Registry cases.

Implementing this Recommendation

- 🛡️ Collect and share data
- 🛡️ Implement prevention activities
- 🛡️ Evaluate outcomes
- 🛡️ What can your agency do?
- 🛡️ Share:
 - Type of agency
 - Suggestion
 - How it furthers this goal
 - Barriers or facilitators

Systems

Increase collaboration among programs that address and prevent OUD and maternal morbidities and mortality

- 🏥 Programs should work together
 - Collect and share data
 - Implement prevention activities
 - Evaluate outcomes

- 🏥 Kentucky Perinatal Quality Collaborative (KyPQC)
- 🏥 KY Alliance for Innovation on Maternal Health (AIM)
- 🏥 Maternal Mortality Review Committee (MMRC)
- 🏥 NAS Public Health Reporting Registry

Implementing this Recommendation

 Healthcare facility buy-in

 Uptake by providers

 Uptake by all staff

 Family reception

 What can your agency do?

 Share:

- Type of agency
- Suggestion
- How it furthers this goal
- Barriers or facilitators

Recap - Implementing recommendations

1. Promote optimal health
2. Referral to MOUD
3. Increase LARC access
4. Referral to WIC and HANDS
5. Implement plan of safe care
6. Educate on AHT and safe sleep
7. Model safe sleep
8. Interagency collaboration

 What can your agency do?

 Share:

- Type of agency
- Suggestion
- How it furthers this goal
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Thank you!

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