



Maternal SUD & NAS Summit

March 31 – April 1, 2026

IN PARTNERSHIP WITH THE



Back to Basics: Getting Comfortable Being Uncomfortable in Clinical Conversations

Fred Rottnek, MD

Program Director, Addiction Medicine Fellowship

Maternal SUD and NAS Summit

March 31, 2026



Objectives

Objectives: As a result of attending this session, participants will be able to

- Recall our natural discomfort with asking certain questions
- Create realistic expectations for initial conversations in their own clinical settings
- Practice a balance of open-ended and focused questions to get the information you need from a client
- Identify team members who may have additional conversational approaches
- Provide a core set of safety interventions with any conversation

Objectives

Objectives: As a result of attending this session, participants will be able to

- Recall our natural discomfort with asking certain questions
- Create realistic expectations for initial conversations in their own clinical settings
- Practice a balance of open-ended and focused questions to get the information you need from a client
- Identify team members who may have additional conversational approaches
- Provide a core set of safety interventions with any conversation

Recommendations for Screening for Problematic Substance Use

- ACOG, WHO, USPSTF, CDC, SAMHSA, NIDA, ASAM, and NASW recommend universal, non-punitive screening for substance use in pregnancy using validated tools rather than routine toxicology testing
- So why are we so uncomfortable discussing problematic substance use with our patients?
 - Maternal-Infant Dyad Affected by Substance Use Disorder, <https://mopqc.org/missouri-pqc-initiatives/maternal-infant-dyad-affected-by-substance-use-disorder/>

Why Are Clinicians Uncomfortable Asking Patients About Substance Use?

Key clinician-level reasons

- Insufficient training and low confidence
- Discomfort and fear of damaging rapport
- Belief that talking won't help
- What else?
 - How to ask about substance use, <https://pcl.psychiatry.uw.edu/how-to-ask-about-substance-use/>

Why Are Clinicians Uncomfortable Asking Patients About Substance Use?

System and workflow barriers

- Competing priorities and time pressure
- Lack of clear processes and tools
- Poor access to treatment resources
- What else?
 - Maternal-Infant Dyad Affected by Substance Use Disorder, <https://mopqc.org/missouri-pqc-initiatives/maternal-infant-dyad-affected-by-substance-use-disorder/>
 - Missouri AIM—Missouri Alliance for Innovation on Maternal Health, [https://www.mhanet.com/mhaimages/SQI/Maternal Health/2021 AIM Report REVLR.pdf](https://www.mhanet.com/mhaimages/SQI/Maternal_Health/2021_AIM_Report_REVLR.pdf)

Why Are Clinicians Uncomfortable Asking Patients About Substance Use?

Attitudes, stigma, and social norms

- Stigma and ambivalence about problematic substance use
- Prioritizing other risk factors
- What else?
 - <https://pmc.ncbi.nlm.nih.gov/articles/PMC10598938/>
 - <https://ctnlibrary.org/document/1309/>

Objectives

Objectives: As a result of attending this session, participants will be able to

- Recall our natural discomfort with asking certain questions
- Create realistic expectations for initial conversations in their own clinical settings
- Practice a balance of open-ended and focused questions to get the information you need from a client
- Identify team members who may have additional conversational approaches
- Provide a core set of safety interventions with any conversation

And How Do We Improve our Skills? At any Stage in our Practice

Lessons from Med 101: Clinical Interviewing

- Listen to experts
- Do what they say
- Practice
- Examples
 - Sports
 - Musical instrument
 - Driving



Interview Checklist Components

You will be graded on the following:

1. Establishing patient rapport
2. Ask relevant questions based on patient's problem
3. Body Language

Introducing the Topic with Patients: Screening Tools

- Put up posters; use pamphlets so conversations are expected
- Use validated screening tools, e.g., Audit-C, 4Ps, NIDA Quick Screen, CRAFFT for younger patients; T-ACE specifically for alcohol in pregnancy
 - Portal prior to appointment
 - Paper or kiosk while in waiting room
 - Have a policy and procedure
- Review the results of the screening tool prior to initiating a conversation
- Normalize the conversation: “I ask all my patients about alcohol because it can affect health in many ways.”
- ~~• Ask permission before sharing information: “Would it be okay if I share how drinking can affect sleep, mood, and blood pressure?”~~

After the screen, then what?

Substance Use: Open-Ended Questions

- After the screen...ask the next questions.
- Pivot: Next, I'm going to ask some questions so that I can get to know you better.
- Tell me about your [...] use.
 - More focused questions
 - What do you use most frequently?
 - Have you experience any problems because of use?
 - How do you use it?
 - How often do you use it?
 - Would you like to stop? Or cut down?

Substance Use: Open-Ended Questions

- After the screen...
- Tell me about your tobacco use.
 - Describe your tobacco use.
 - Why do you smoke?
 - Examples of more focused questions
 - What form of tobacco do you use? How often?
 - When did you start using it?
 - Would you like to stop or cut back?
- Tell me about your alcohol use.
 - Describe your alcohol use.
 - Why do you drink?
 - Example more focused questions
 - What type of alcohol do you use? How often?
 - When did you start using it?
 - Would you like to stop or cut back?

Assessing Readiness and Goals

- Explore pros and cons: “What do you like about drinking/using? What are some not-so-good things you’ve noticed?”
- Use scaling questions: “On a scale from 0 to 10, how important is it for you to cut back even a little?”
- Emphasize autonomy: “You’re in charge of what, if anything, you’d like to change.”
 - <https://rethinkingdrinking.niaaa.nih.gov/thinking-about-change/cut-down-or-quit>

Brief Advice Framed Around Benefits

- Tie advice to patient priorities (e.g., sleep, mood, blood pressure, relationships)
- Example: “Because your blood pressure and sleep are so important to you, cutting back to within low-risk limits could help both.”
- Reinforce that even small steps (e.g., fewer drinks per occasion, more alcohol-free days) can produce meaningful health gains.
 - https://www.niaaa.nih.gov/sites/default/files/publications/NIAAA_RethinkingDrinking.pdf

Collaborative Treatment Planning and Tools

- Lead with benefits: better chance of carrying to term, safer delivery, less chaos with withdrawal/overdose, and structured planning for NOWS or other withdrawal syndromes that avoids last-minute crises
- Help the patient choose specific, achievable changes (e.g., drink-free days, drink limits, slower pacing).
- Talk about medications useful for treating problematic substance use
- Encourage support from family, peers, or counseling when appropriate.
 - <https://pmc.ncbi.nlm.nih.gov/articles/PMC9931937/>

Objectives

Objectives: As a result of attending this session, participants will be able to

- Recall our natural discomfort with asking certain questions
- Create realistic expectations for initial conversations in their own clinical settings
- Practice a balance of open-ended and focused questions to get the information you need from a client
- Identify team members who may have additional conversational approaches
- Provide a core set of safety interventions with any conversation

Core Interprofessional Team

- **Nurses**
- **Clinicians/NPs/PA-Cs**
- **Addiction counselors/psychologists**
- **Social workers**
- **Case managers/care coordinators**
- **Peer recovery specialists:** Use lived experience to build trust, enhance motivation, provide recovery coaching in hospital, residential, and community, support linkage to other healthcare and mutual-help/recovery communities, and help sustain engagement over time

AUD/SUD-Adjacent Care

- **Pharmacists**
- **Primary Care and Reproductive Care Providers**
- **Dentists**
- **Physical Therapists and Occupational Therapists**
- **Psychiatrists, Psychologists, and Other Behavioral Health Specialists**

- Mutual Support Groups
- Digital Resources

Objectives

Objectives: As a result of attending this session, participants will be able to

- Recall our natural discomfort with asking certain questions
- Create realistic expectations for initial conversations in their own clinical settings
- Practice a balance of open-ended and focused questions to get the information you need from a client
- Identify team members who may have additional conversational approaches
- Provide a core set of safety interventions with any conversation

Maternal medical and mental health safety

- Maintain continuity of substance use treatment (MOUD, counseling, recovery supports) because overdose and relapse frequently increase in the first postpartum year.
- Screen regularly for postpartum depression, anxiety, and PTSD, and ensure rapid access to perinatal mental health care, as untreated mood disorders significantly raise relapse and suicide risk.
- Provide naloxone to pregnant and postpartum women with opioid use disorder and **women who have opioids in their home**. Train family members in overdose recognition and response.
 - <https://pmc.ncbi.nlm.nih.gov/articles/PMC8490333/>
 - Missouri AIM—Missouri Alliance for Innovation on Maternal Health, https://www.mhanet.com/mhaimages/SQI/Maternal_Health/2021_AIM_Report_REVLR.pdf

Infant safety and caregiving capacity

- Continue to monitor infants with prenatal substance exposure for neonatal abstinence/neonatal opioid withdrawal and ensure close pediatric follow-up after discharge.
- Assess the parent's ability to provide safe care (alertness, intoxication risk, mental health stability, support system) and create plans so another safe adult can care for the infant if the parent is sedated, withdrawing, or in crisis.
- Teach safe sleep, car-seat, and home-safety practices, emphasizing avoidance of bed-sharing when the caregiver is sedated or using substances.

Family-centered supports

- Offer parenting and attachment supports (home visiting, dyadic therapy, peer recovery coaches) that reduce stress, improve bonding, and lower relapse risk.
- Educate partners and relatives about the distinctive vulnerability of the postpartum year, warning signs of relapse or mental health crisis, and how to activate emergency and treatment resources.
- Coordinate with social services and child-welfare–prevention programs so that safety concerns can be addressed proactively while preserving the parent-infant relationship whenever possible.
 - <https://pmc.ncbi.nlm.nih.gov/articles/PMC9119270/>

Resources: Agencies and Organizations

- Substance Abuse and Mental Health Administration,
– <http://buprenorphine.samhsa.gov/forms/select-practitioner-type.php>
- American Society of Addiction Medicine,
– <http://www.asam.org/>
- National Institute of Drug Abuse (NIDA),
– <https://www.drugabuse.gov/>
- National Institute of Alcohol Abuse and Alcoholism (NIAAA),
– <https://www.niaaa.nih.gov/>

Objectives

Objectives: As a result of attending this session, participants will be able to

- Recall our natural discomfort with asking certain questions
- Create realistic expectations for initial conversations in their own clinical settings
- Practice a balance of open-ended and focused questions to get the information you need from a client
- Identify team members who may have additional conversational approaches
- Provide a core set of safety interventions with any conversation

Questions? Comments?
Text them to 314-485-9697



Contact information

Fred Rottnek, MD, MAHCM

✧ Fred.Rottnek@slucare.ssmhealth.com

✧ Saint Louis University Addiction Medicine Fellowship,
<https://www.slu.edu/medicine/family-medicine/addiction-medicine.php>

Pain Management, Treatment, and Risk Mitigation in 2026: What Do We Know and What are We Learning to Promote Individual and Family Safety?

Fred Rottnek, MD

Program Director, Addiction Medicine Fellowship

Maternal SUD and NAS Summit

March 31, 2026



Objectives

Objectives: As a result of attending this session, participants will be able to

- Recall current standards in escalating analgesics to optimize pain management
- Adapt pain management plans for individuals at higher risk of inadequate pain control or with life situations that present higher safety risks
- Provide guidance on safety upon patient discharge to home
- Advocate for pain and analgesic protocols in policy and protocols, training, and customization of health records

SSM Health SLUCare Options for Care: What are Yours?

- Addiction Medicine: DePaul, SLUCare, SLU GIM Residency Program (TBD)
- SSM Health Psychiatry and Sports Medicine: Hospital and outpatient care
- SSM Health Palliative Care
- SSM Health Physical Therapy: Persistent Pain Specialists
- SSM Health Behavioral Health: DePaul, SLUCare, Outpatient programs
- SLU Medical Family Therapy services: Co-located in SLUCare Family Medicine and the Center for Counseling and Family Therapy
- SSM Health ORRCA service

CDC Opioid Guidelines 2022

This clinical practice guideline addresses the following areas:

1. **Determining** whether or not to initiate opioids for pain
2. **Selecting** opioids and determining opioid dosages
3. **Deciding** duration of initial opioid prescription and conducting follow-up
4. **Assessing** risk and addressing potential harms of opioid use

Analgesia Prescribing

1. **Non-pharmacologic options**
2. **Topical** treatments
3. **Local and minimally invasive** medications—
trigger point injections, joint injections, etc.
4. **Local and more invasive** medications—
spinal/epidural injections

Analgesia Prescribing

5. **Systemic oral analgesics** (define course and treatment goals)

1. Acetaminophen/NSAIDS
2. Long-acting NSAIDS
3. Psychotropics/Neurologic agents: gabapentin, duloxetine, tricyclics
4. Opioids: lower potency, lower frequency
 1. Short-acting
 2. Long-acting (rarely)
 3. Patches (rarely)

6. **Mix and match above**

1. Analgesic effects are additive
2. Create a basal and breakthrough approach

Objectives

Objectives: As a result of attending this session, participants will be able to

- Recall current standards in escalating analgesics to optimize pain management
- Adapt pain management plans for individuals at higher risk of inadequate pain control or with life situations that present higher safety risks
- Provide guidance on safety upon patient discharge to home
- Advocate for pain and analgesic protocols in policy and protocols, training, and customization of health records

Helping an Individual Describe Their Pain

- More accurate diagnosis and triage
- Better-tailored and safer treatment
- Focus on function and meaningful goals
- Focus on function and meaningful goals
- Monitoring progress and outcomes over time

Core pain history

- “Where is your pain located? Does it stay in one place or move anywhere else?”
- “When did this pain start? Has it been constant or does it come and go?”
- “How would you describe what the pain feels like (sharp, dull, burning, aching, cramping, shooting)?”
- “On a scale from 0 to 10, how intense is your pain right now, at its worst, and on average?” (e.g., PEG or similar numeric rating).
- “How long does the pain last when it comes? Has the duration changed over time?”

Provoking, palliating, and temporal features

- “What seems to make your pain worse (movement, certain positions, activity, stress, time of day)?”
- “What makes your pain better (rest, medications, heat/ice, specific positions, therapies)?”
- “Has your pain pattern changed recently in terms of frequency, intensity, or duration?”

Functional and psychosocial impact

- “How does the pain affect your ability to function day to day (walking, self-care, work, household tasks)?”
- “How does your pain affect your mood, sleep, and relationships?”
- “What activities have you stopped or limited because of the pain?”
- “What are your main goals for pain treatment—less pain, better function, improved sleep, something else?”

Associated symptoms and risk factors

- “Do you have other symptoms with the pain, such as weakness, numbness, tingling, fevers, weight loss, or bowel/bladder changes?” (red-flag context from AAFP low back and abdominal pain evaluations).
- “What medical conditions do you have that might relate to your pain?”
- “Have you ever had problems with alcohol or drug use, or medications prescribed for pain?”

Treatment history and response

- “What treatments have you tried for this pain (medications, injections, surgery, physical therapy, complementary therapies)?”
- “Which treatments have helped, which have not helped, and did any cause side effects or problems?”

Objectives

Objectives: As a result of attending this session, participants will be able to

- Recall current standards in escalating analgesics to optimize pain management
- Adapt pain management plans for individuals at higher risk of inadequate pain control or with life situations that present higher safety risks
- Provide guidance on safety upon patient discharge to home
- Advocate for pain and analgesic protocols in policy and protocols, training, and customization of health records

Patient Safety

- Lowest effective dose (and fill) of the safest medication
- Naloxone co-prescription—for every home that contains an opioid
- Lock boxes
- Medication destruction and disposal systems
 - Missouri AIM—Missouri Alliance for Innovation on Maternal Health,
https://www.mhanet.com/mhaimages/SQI/Maternal_Health/2021_AIM_Report_REVLR.pdf

Objectives

Objectives: As a result of attending this session, participants will be able to

- Recall current standards in escalating analgesics to optimize pain management
- Adapt pain management plans for individuals at higher risk of inadequate pain control or with life situations that present higher safety risks
- Provide guidance on safety upon patient discharge to home
- Advocate for pain and analgesic protocols in policy and protocols, training, and customization of health records

Formalize Best Practices

- Policies and procedures
- Staff training and refreshing
- Integration of processes into the EHR
- Sharing your best practices, your P&Ps, and your processes with you partners so they know how to support shared patients/clients.

Resources: Agencies and Organizations

- Substance Abuse and Mental Health Administration,
– <http://buprenorphine.samhsa.gov/forms/select-practitioner-type.php>
- American Society of Addiction Medicine,
– <http://www.asam.org/>
- National Institute of Drug Abuse (NIDA),
– <https://www.drugabuse.gov/>
- National Institute of Alcohol Abuse and Alcoholism (NIAAA),
– <https://www.niaaa.nih.gov/>

Objectives

Objectives: As a result of attending this session, participants will be able to

- Recall current standards in escalating analgesics to optimize pain management
- Adapt pain management plans for individuals at higher risk of inadequate pain control or with life situations that present higher safety risks
- Provide guidance on safety upon patient discharge to home
- Advocate for pain and analgesic protocols in policy and protocols, training, and customization of health records

Questions? Comments?
Text them to 314-485-9697



Contact information

Fred Rottnek, MD, MAHCM

- ✧ Fred.Rottnek@slucare.ssmhealth.com
- ✧ Saint Louis University Addiction Medicine Fellowship,
<https://www.slu.edu/medicine/family-medicine/addiction-medicine.php>

Perinatal SUD in Missouri: Perception and Awareness Survey

March 2026

Background and Considerations

- MHA's clinical quality improvement, maternal and infant health, and substance use disorder (SUD) specialty teams have collaborated in the past on many projects specifically surrounding perinatal SUD and the associated resources, protocols, advocacy initiatives, and clinical recommendations.
- The SUD team works especially closely with Missouri's Children's Division, Office of Juvenile Justice, and a broad network of behavioral health providers and affiliated Certified Peer Specialists connected to families experiencing SUD before, during, or following the birth of a child.
- There is a mutual desire among these teams to understand the perception and awareness of various components of how perinatal SUD is approached and addressed from the perspectives of various audiences interacting with families in order to inform their and partners' work.

Research Objectives

Among five identified segments including **clinical providers, community-based providers, Children's Division (CD) staff, Juvenile Office staff, and Certified Peer Specialists** who work with birthing people during the prenatal and postpartum (up to 12mos) periods, ascertain the following:

- Understanding and perception of available treatments/protocols for treating pregnant persons in active addiction
- Perception of when a referral to CD, "hotlining," is required—i.e. for which positive screens, in which time frames
- Perception of next steps following a referral to CD
- Awareness and perception of CD's recently evolved model of care
- Perception of accessibility to, and value of, Peer Specialists
- Barriers to accessing the latest, up-to-date protocols, requirements, and resources surrounding families who are managing SUD

Methodology

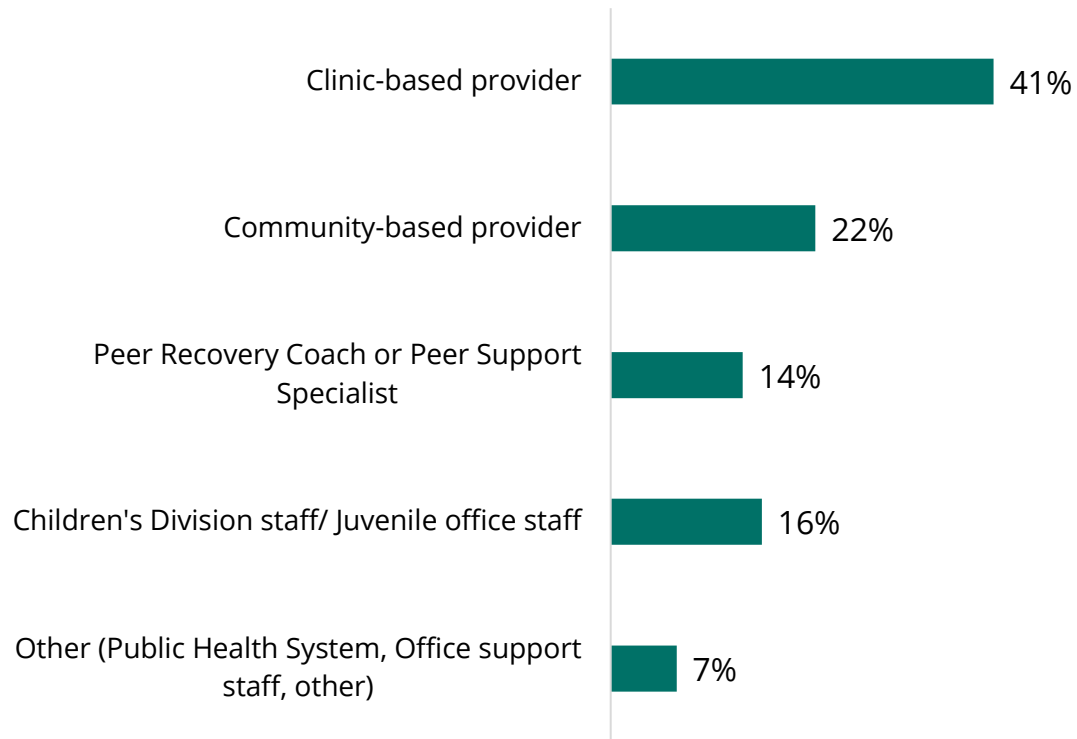
- An online survey was distributed to respondents representing each of the 5 segments previously noted; fielding took place from October 2025-January 2026
- MHA and PQC worked collaboratively to disseminate survey via existing listservs, social media channels, and community partners
- Children’s Division and Juvenile Justice shared in dissemination efforts to their teams
- The survey was administered on SSLLC’s Qualtrics platform
- The aim was to obtain interviews among each segment; the following are the final counts*:

	<u>Number of Interviews</u>
Total	143
Clinic-based provider	58
Community-based provider	31
Peer Recovery Coach or Peer Support Specialist	20
Children's Division staff/Juvenile office staff	24
Other (Public Health System, Office support staff, other)	10

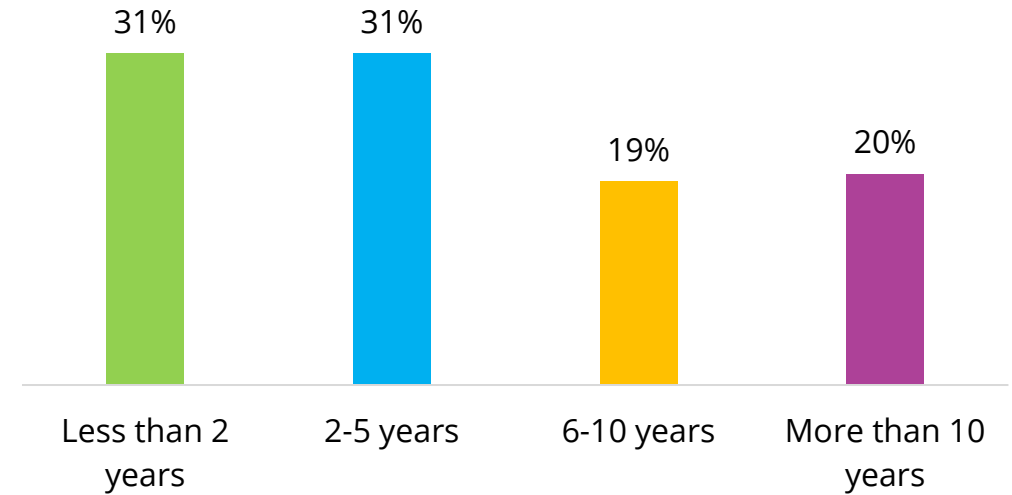
- Incentives: a random drawing was held among those fully completing the survey; 5 respondents were each awarded a \$100 Amazon e-gift card

*Note: small sample sizes can yield valid, reliable and statistically sound results when appropriate statistical tests (e.g., t-test) are used.

Role



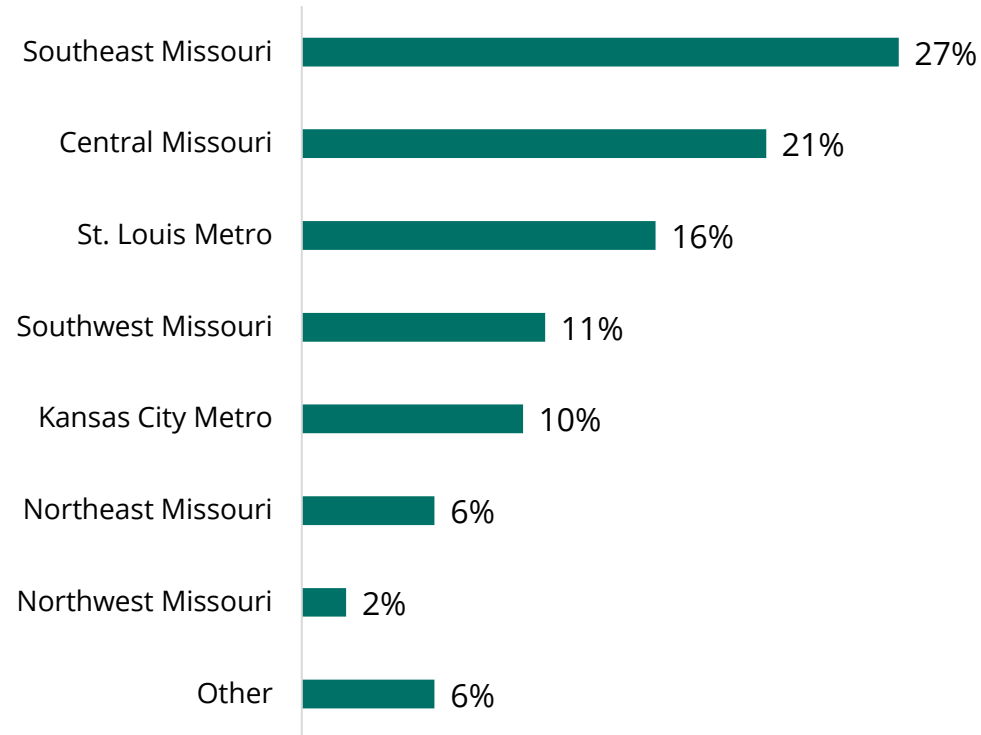
Tenure



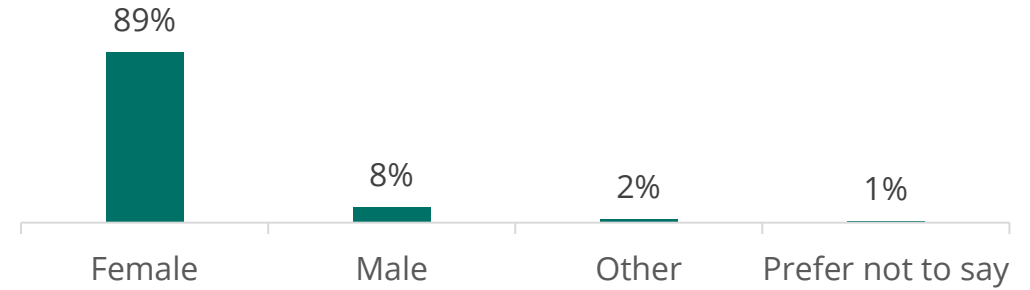
Total sample n=143

Q: What is your role in working with women with active substance use/substance use disorder during the prenatal, pregnancy, and postpartum periods? If more than one applies, please select the closest description to your main role. / Q: How long have you been serving in this role?

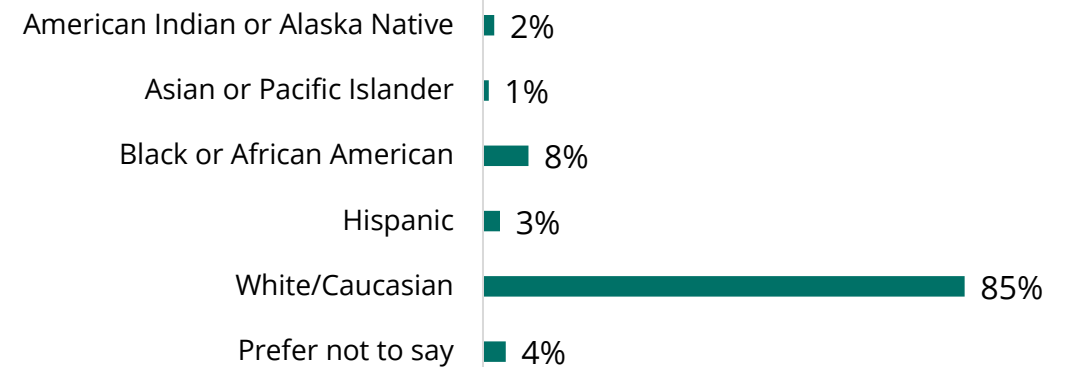
Geography



Gender



Ethnicity



Q: Which of the following best describes where you work? / How do you identify your gender? / Which race or ethnicity best describes you? (Please choose all that apply.)

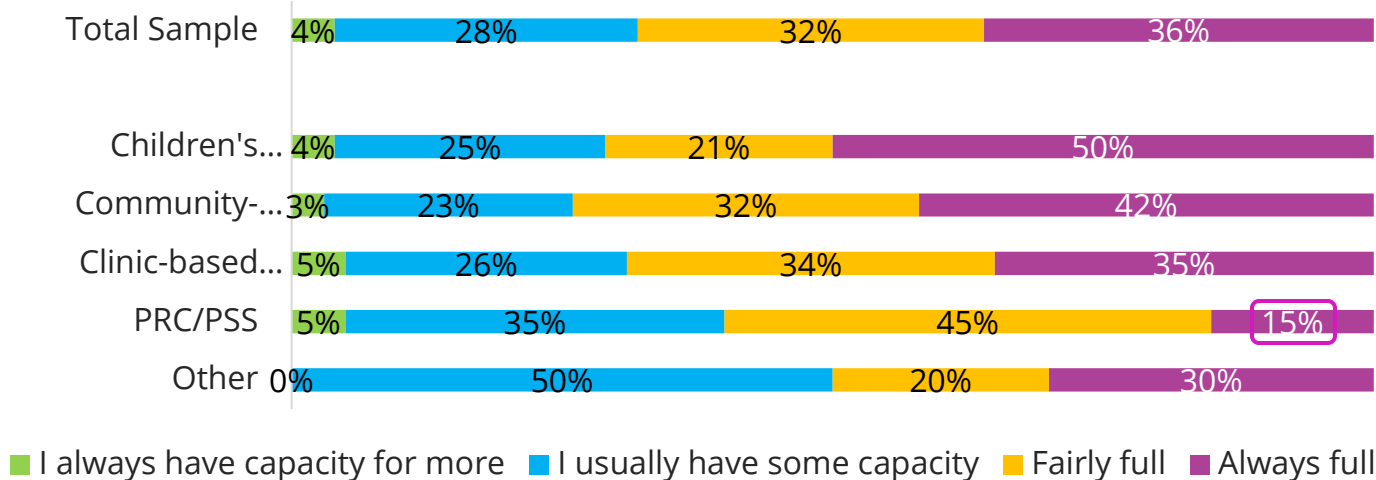
Total sample n=143

Key Takeaways

Caseload and Capacity

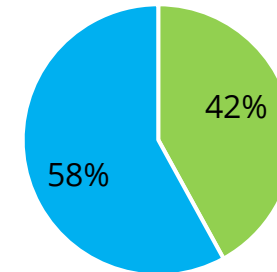
- Respondent reported **caseloads are generally full**, however capacity varied among segments
- Children's Division staff reported being the most full, and **Peers reported having the most untapped capacity**
- However, there is very **low awareness of the role of Peers and how to access their services**

Caseload



n=143

Do you know how to access PRCs/PSSs for the mothers you serve? (n=102)



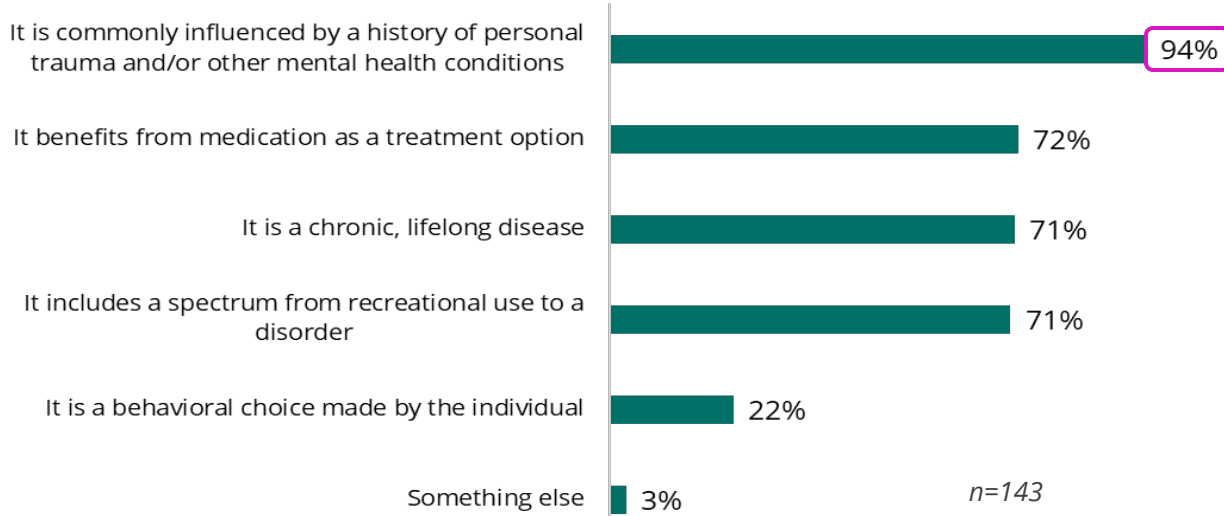
■ Yes
 ■ No

15% Significantly lower than other segments at the 90% confidence level.

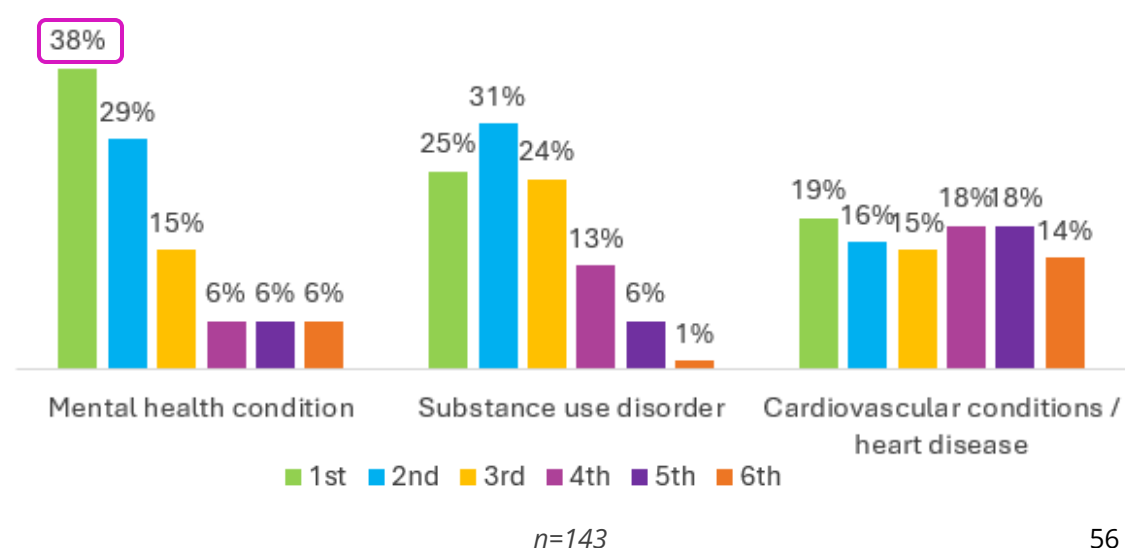
Root Causes of SUD, Effects on MM

- Almost **all respondents (95%)** reported their belief that **SUD is strongly influenced by trauma and mental illness**, and almost three-fourths reported their belief that it is a chronic illness and that it benefits from medication as a treatment
- Almost **one-fourth of respondents** reported they believe **SUD is a behavioral choice** made by individuals
- Respondents identified **mental health and SUD as the leading causes of maternal mortality**, in alignment with PAMR findings

Influences of SUD



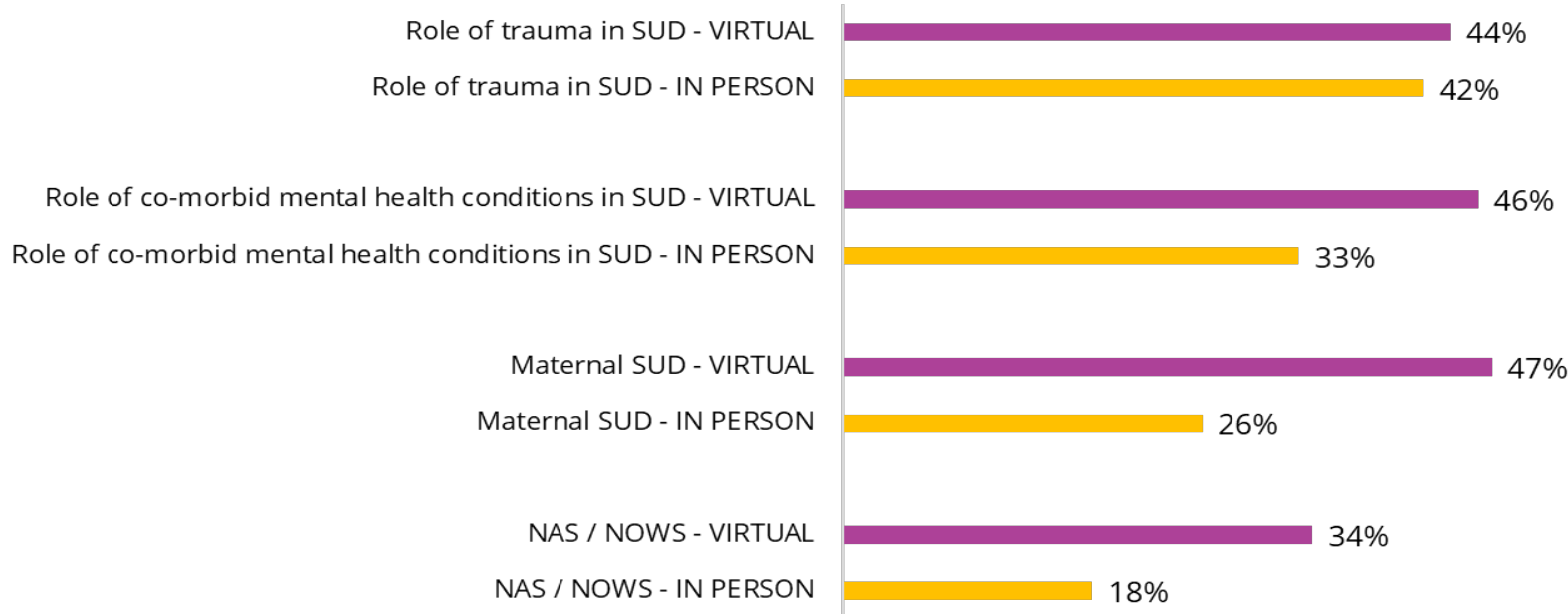
Causes of MM



Significantly higher than other statements/causes at the 90% confidence level.

Training on Management of SUD

- Almost one-fifth of respondents reported **never having received training on the management of SUD** in the past 5 years
- For those that had received training, the most common pertained the **role of trauma in SUD**, followed closely by the training on co-morbid mental health conditions

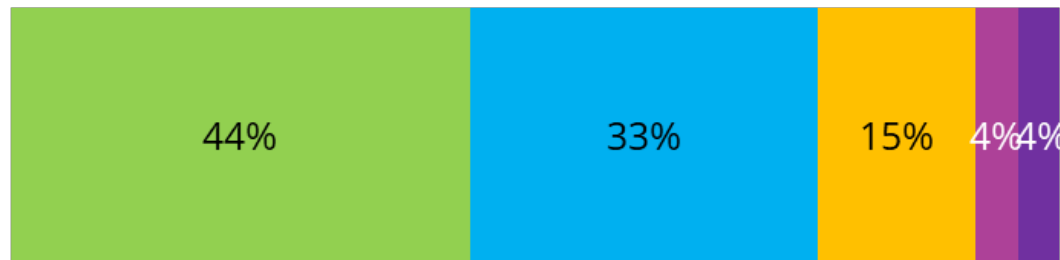


19% of respondents received no training at all.

Stigma and Bias

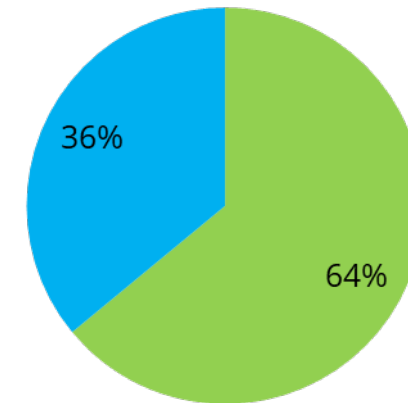
- A large majority—three-fourths of respondents—report that they witness or experience situations **where stigma, bias, or discrimination affects how care is provided to mothers with SUD**
- More than **one-third of respondents (36%) reported receiving no training** on stigma or bias

Witnessed or experienced situations where stigma, bias, or discrimination affects how care is provided to mothers with SUD? (n=135)



■ Yes, frequently ■ Yes, occasionally ■ Yes, but rarely
■ No, never ■ I'm not sure

Received training on stigma, bias, and/or discrimination related to SUD within the last 5 years? (n=135)

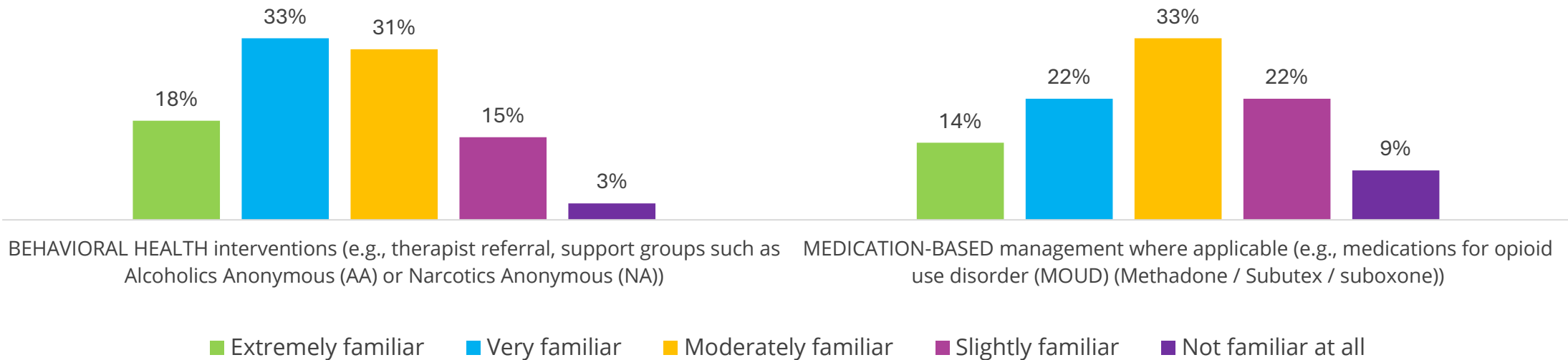


■ Yes ■ No

Interventions

- There is much **lower familiarity with medication-based management** than behavioral health interventions

FAMILIARITY with treatments/protocols for treating pregnant women in active addiction

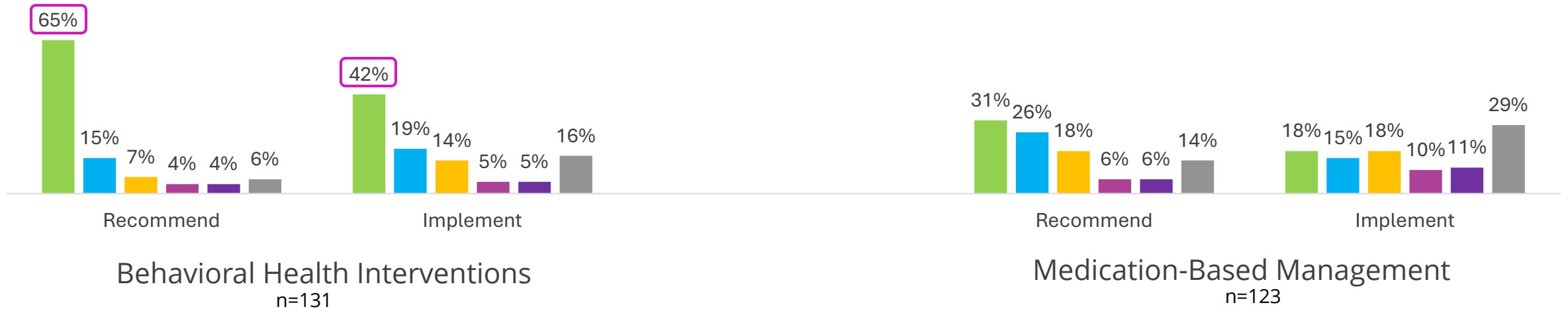


Total sample n=137

Interventions (cont'd)

- Respondents also expressed much lower comfort levels with recommending medication-based management, with **community-based providers expressing lowest comfort level and Peers expressing the highest comfort level, followed closely by clinic-based providers**

COMFORT LEVEL with Recommending and Implementing Treatments



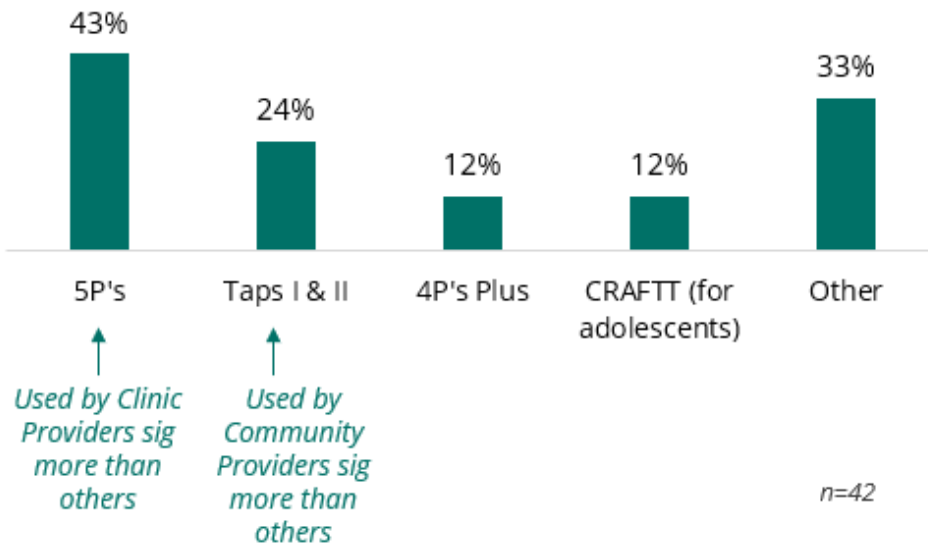
■ Extremely comfortable ■ Somewhat comfortable ■ Neither comfortable nor uncomfortable ■ Somewhat uncomfortable ■ Extremely uncomfortable ■ Not applicable to my work

□ Significantly higher than medication-based management at the 90% confidence level.

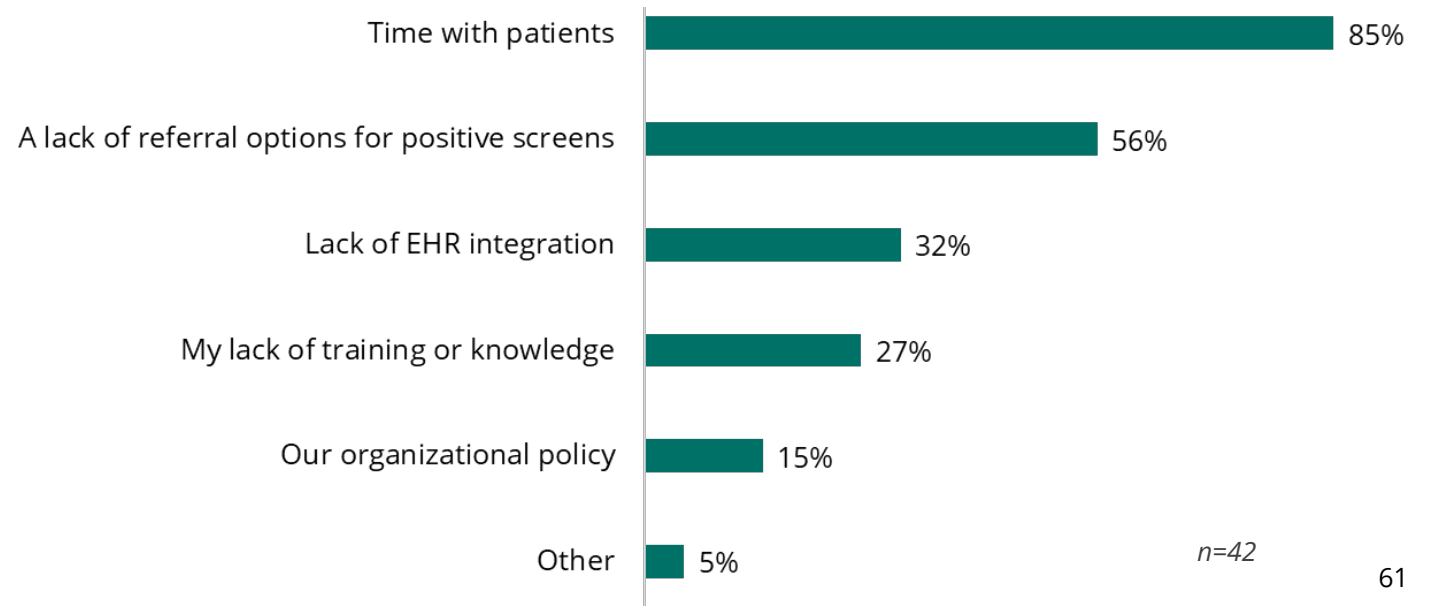
SUD Screening

- One-third of respondents reported being responsible for administering screening, and **over half were clinic- based providers**
- The most common **screening tool identified was the 5Ps tool**, and almost **all respondents reported screening in prenatal, postpartum, and inter-conception periods**
- Overwhelmingly, respondents reported **lack of time with patients (85%)** and **lack of referral resources** as the biggest barriers to screening (57%), followed next by lack of EHR integration

Screening Tools Used



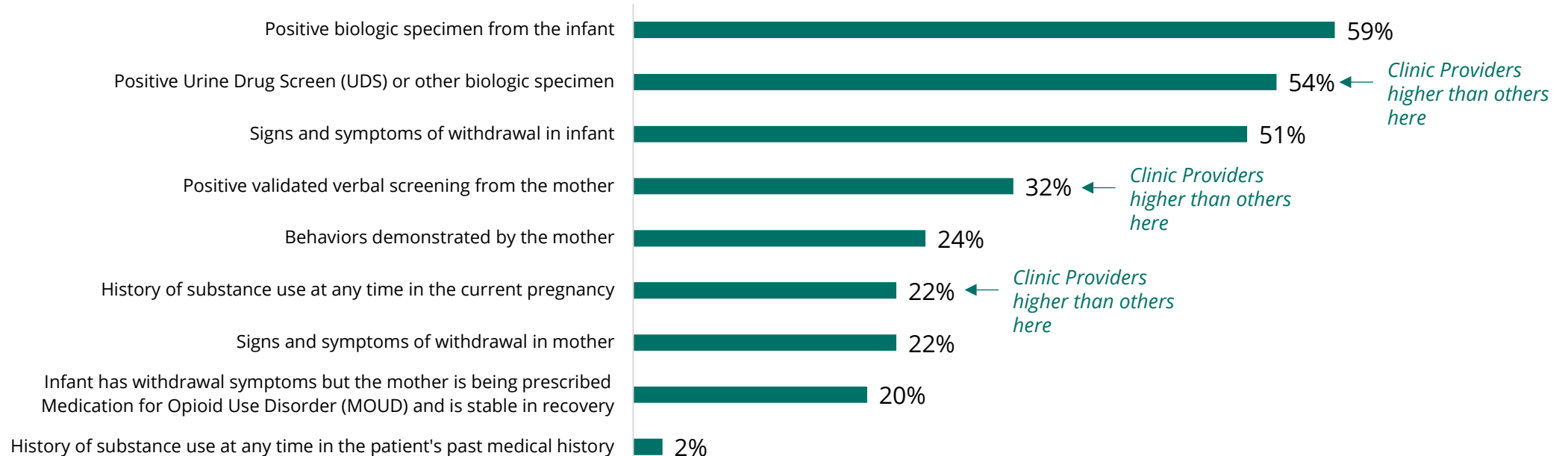
Barriers to Screening



Referrals or “Hotlining”

- The majority of respondents noted **positive specimens from mother or baby** and **signs of infant withdrawal** as factors that require a call to Children’s Division
- Almost **one-fourth reported that behaviors demonstrated by a mother** and **reported substance use at any time during the pregnancy** required a call to Children’s Division

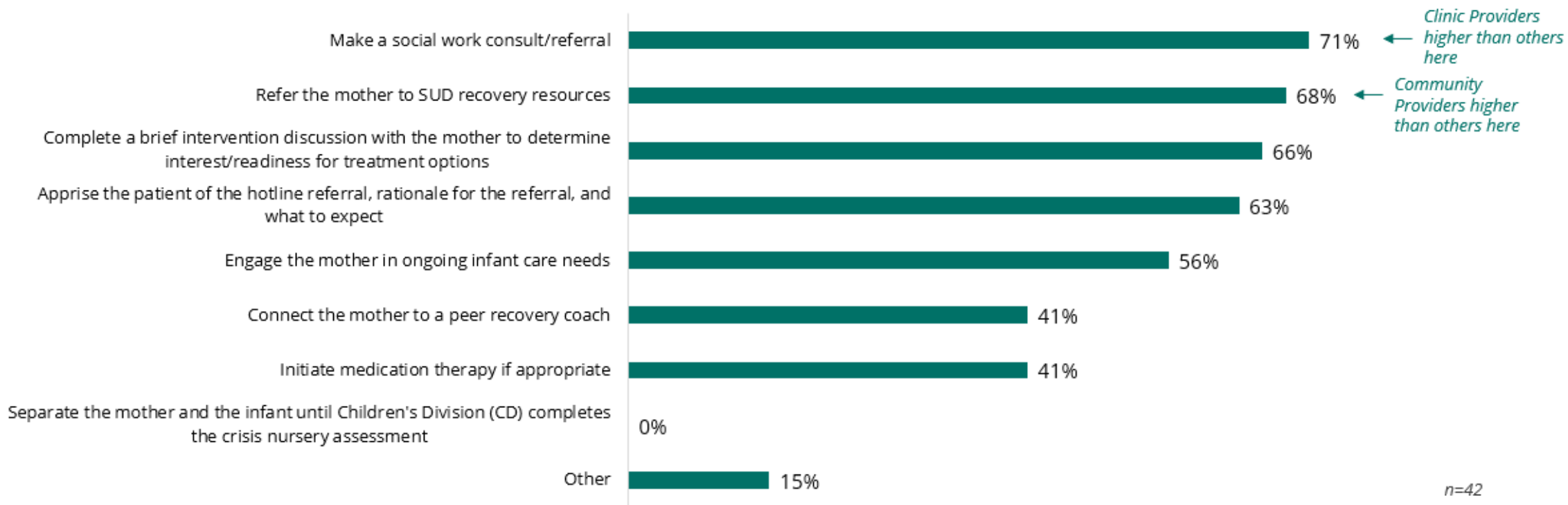
Requires a Call



Referrals or “Hotlining” (cont’d)

- While 70% reported connecting mothers to social workers as a next step, only **40% reported connecting to Peers** as the next step

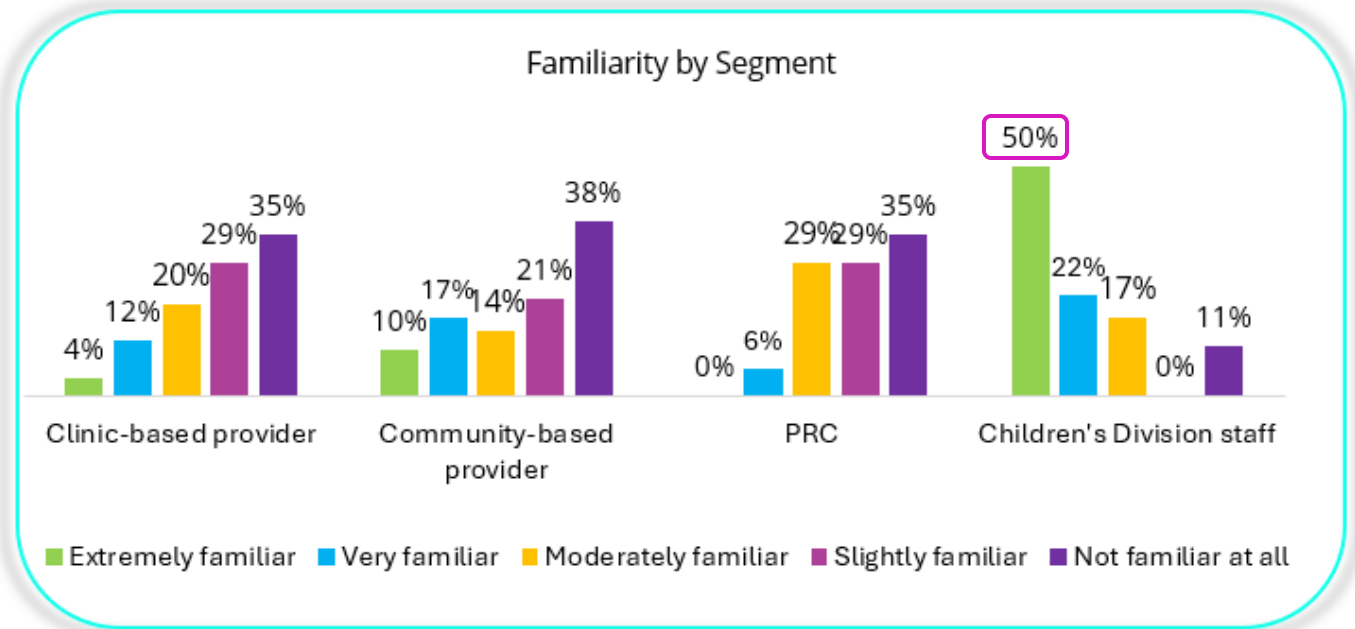
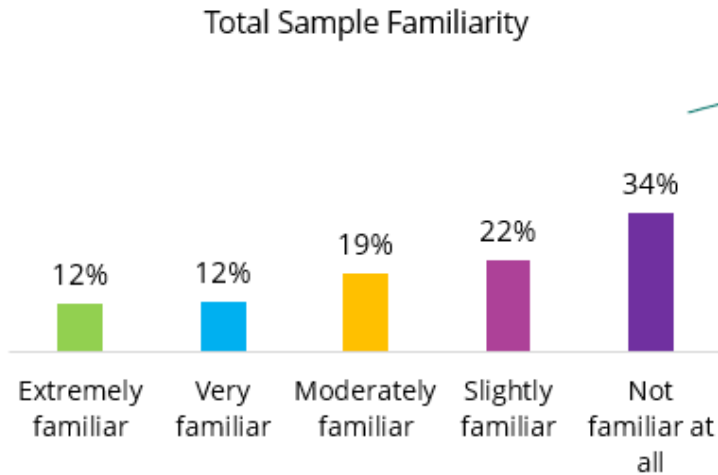
Typical Next Steps after Making a call to the Child Abuse and Neglect Hotline



Awareness of Protocols and Programs

- There is very **low awareness of Children’s Division four overarching program areas** and protocols for each

Familiarity with CD’s four overarching program areas and the policies and procedures for each



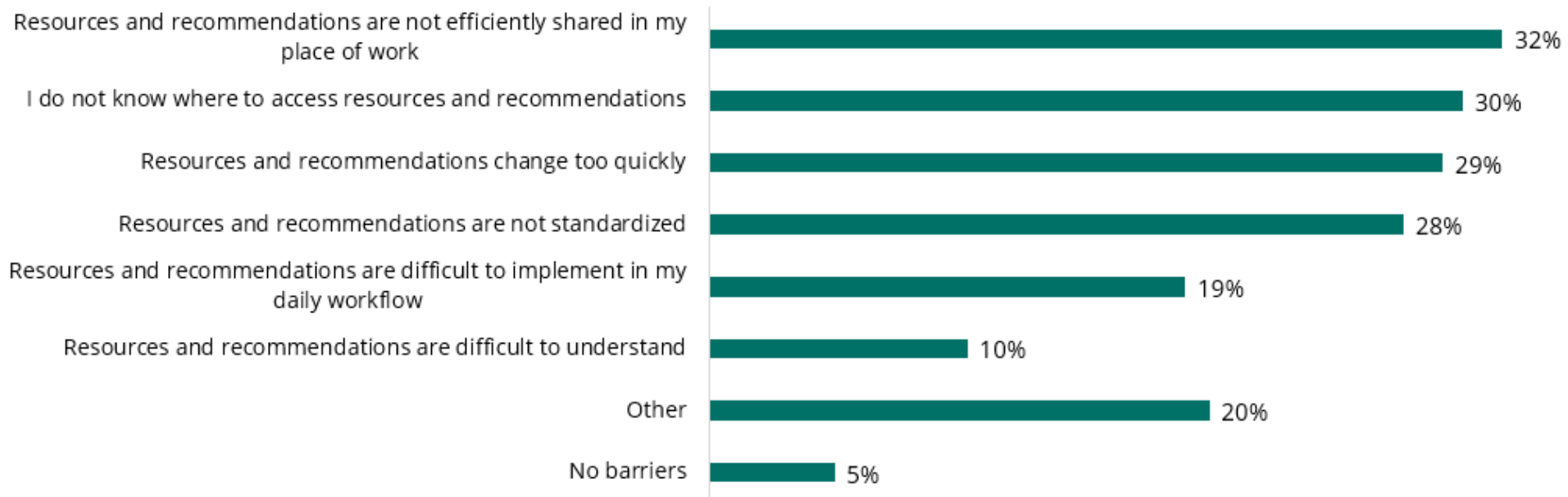
Total sample n=132

 Significantly higher than other segments at the 90% confidence level.

Awareness of Protocols and Programs (cont'd)

- Respondents expressed many barriers to accessing the latest protocols and recommendations around SUD management, noting **they are not shared within the workplace, they are not in easily accessible, and they change quickly and often**

Barriers to accessing the latest, up-to-date protocols, requirements, and resources surrounding families who are managing SUD



Key Learnings and Implications



While caseloads are high, **Peer Specialists are an under-utilized resource**. There is a need to provide further education on their role and on how to access Peers, as well as a need to address the stabilization of Peer wages/reimbursement.



The majority believe **SUD to be strongly influenced by trauma and mental illness**, and understand it to be **a leading cause of maternal mortality**



Stigma and bias continue to be pervasive in care settings, and training is not universally provided or accessible, with more than 1/3 of respondents **never having received training in this area**.



There is **not shared understanding of what requires a referral to Children's Division**, nor what their programs/protocols are regarding perinatal SUD. While most point to biologic specimens as requiring report, some identify any previous drug use (in pregnancy or prior) or behavior observed as requiring report.



There are **low levels of familiarity and comfort in recommending medication-based management of SUD**, particularly among community-based providers. Peers have the highest level of both familiarity and comfort.

Questions?
Text: 314-485-9697

Reggi Rideout
rrideout@simplystrategy.net

Jenny Klenke
jklenke@simplystrategy.net

Table Discussions

Thank You

Reggi Rideout
rrideout@simplystrategy.net

Jenny Klenke
jklenke@simplystrategy.net

Emerging Substance Use Threats in Perinatal Addiction

Niraj Chavan, MD, MPH, FACOG, FASAM

Associate Professor, Div. of Maternal Fetal Medicine
Medical Director, WISH Center
Program Director, MFM Fellowship
Regional Obstetric Quality Chair – SSM Health
Saint Louis University | SSM Health





Disclosures

- Speaker Honorarium – Vertex Pharmaceuticals
- Board of Directors – American College of Obstetrics & Gynecology (ACOG)
- Board of Directors – American Society of Addiction Medicine (ASAM)



Learning Objectives

- Review some of the most significant emerging substances in the US drug supply and their potential perinatal effects
 - adulterants/additives
 - herbal or natural supplements
- Discuss the pharmacology and clinical effects of emerging substance use threats
- Present key learning pearls that every obstetric practitioner would want to know about emerging substances in the perinatal context



Emerging Substances

- Rapid evolution of the illicit substance supply in the US
- 8% of pregnant individuals used a non-legal, non-prescribed substance (2020)
- Emerging: relatively new or resurging, with potential novel human effects and impact on pregnancy outcomes
- Limited data on perinatal exposure



Adulterants

Xylazine, Medetomidine, Nitazenes



Adulteration (cutting agents) – Why does this happen?

Why do substances get added to drugs?

- Bulk or dilute the drug
- Complement or enhance the effects
- Facilitate use of the drug

- Common examples of substances that get adulterated: Cocaine, Heroin, Fentanyl, Methamphetamine

- Common examples of adulterants: Caffeine, quinine, phenacetin, acetaminophen, scopolamine, procaine / lidocaine, diphendramine

A decorative graphic on the left side of the slide. It features a solid blue arrow pointing to the right, with several thin, curved lines in shades of blue and purple extending from its base. The background is a dark blue gradient.

Xylazine

Flesh-eating 'zombie drug' saturating Los Angeles streets, officials say

BY VIVIAN CHOW AND KAREEN WYNTER - 05/12/23 9:41 AM ET



HEALTH

\$2 tests to detect 'tranq' are first strike at US 'zombie drug' epidemic

By Andrew Court

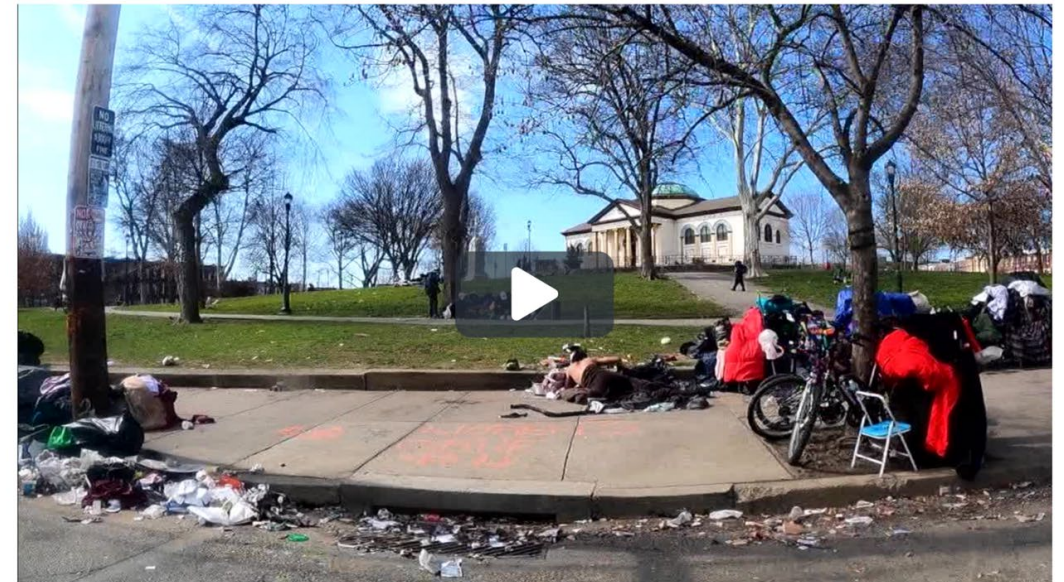
Published March 27, 2023 | Updated March 27, 2023, 5:21 p.m. ET

'Good luck': A warning from Philadelphia as xylazine spreads to Minnesota's drug supply

Ryan Raiche KSTP

Updated: May 2, 2023 - 7:08 PM

Published: May 1, 2023 - 9:44 AM



<https://kstp.com/5-investigates/good-luck-a-warning-from-philadelphia-as-xylazine-spreads-to-minnesotas-drug-supply/>

<https://nypost.com/2023/03/27/tests-to-detect-flesh-rotting-tranq-move-to-market-amid-fear-of-new-nationwide-drug-epidemic/>

<https://thehill.com/homenews/4001566-flesh-eating-zombie-drug-saturating-los-angeles-streets-officials-say/>

APRIL 12, 2023

Biden-Harris Administration Designates Fentanyl Combined with Xylazine as an Emerging Threat to the United States



▶ ONDCP

▶ BRIEFING ROOM

▶ PRESS RELEASES

<https://www.whitehouse.gov/ondcp/briefing-room/2023/04/12/biden-harris-administration-designates-fentanyl-combined-with-xylazine-as-an-emerging-threat-to-the-united-states/>

Xylazine



- Developed in 1962 by Bayer pharmaceuticals as an antihypertensive
- Trials in humans stopped due to hypotension and CNS depression
- Primarily veterinary use: sedative, analgesic, muscle relaxant
- Inhibits the release of norepinephrine - CNS alpha-2 agonist

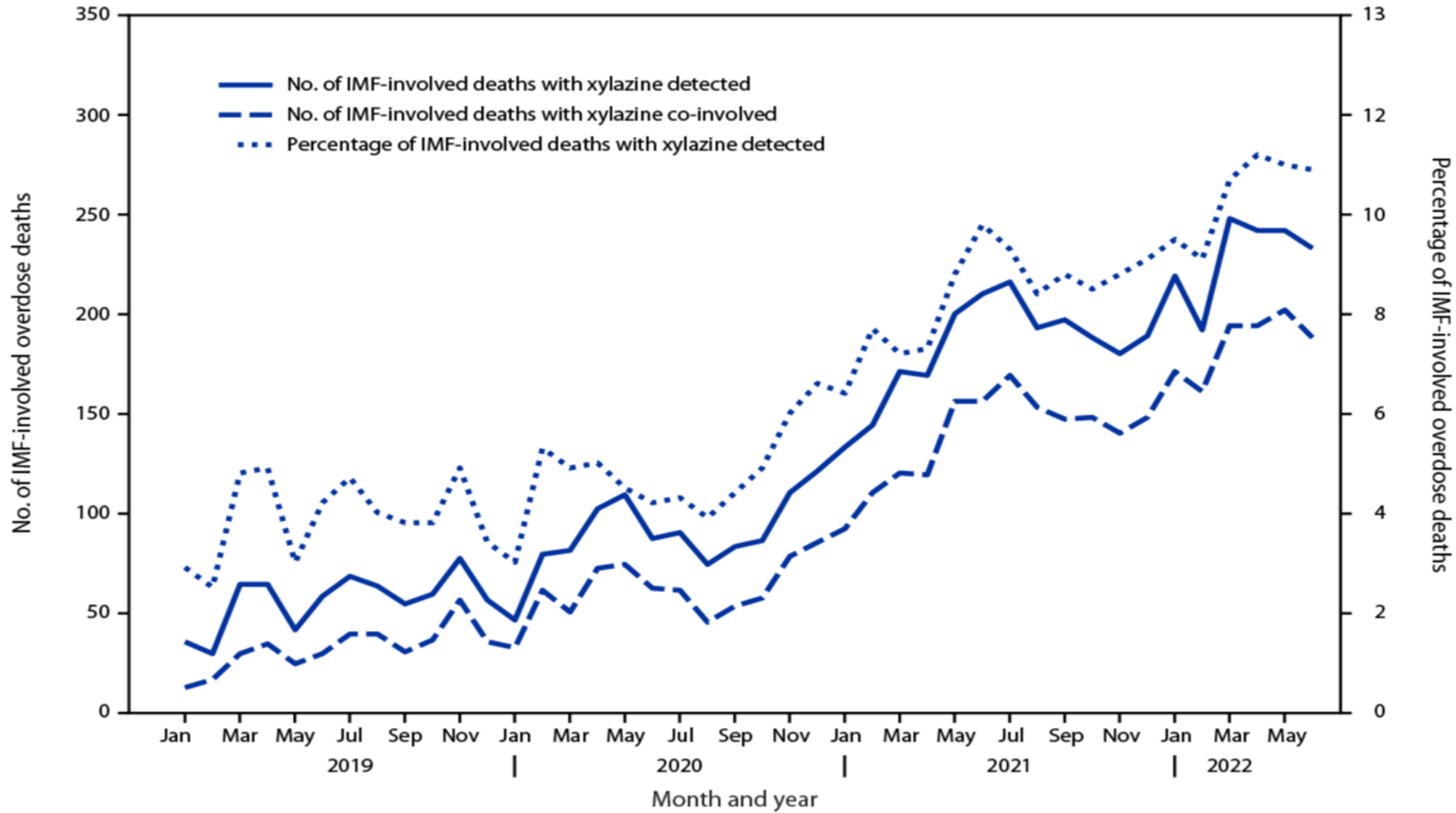
Xylazine as an Adulterant/Additive

PERCENT FENTANYL SAMPLES ADULTERATED WITH XYLAZINE (source: DEA laboratory system)

CY	FENTANYL/XYLAZINE (TABLETS)	FENTANYL/XYLAZINE (POWDER)
2019	0.9%	7.7%
2020	1.9%	11.8%
2021	4.4%	19.0%
2022	7.7%	24.0%
2023**	5.2%	27.0%

- Found in combination - xylazine in bags of heroin/fentanyl
- Pharmaceutical grade adulteration
 - Added locally
 - Salting of liquid
- Xylazine powder => from China

FIGURE 1. Number and percentage of drug overdose deaths involving* illicitly manufactured fentanyls,[†] by month and xylazine detection or co-involvement — State Unintentional Drug Overdose Reporting System, 21 jurisdictions,[§] January 2019–June 2022



Abbreviations: IMF = illicitly manufactured fentanyl; SUDORS = State Unintentional Drug Overdose Reporting System.

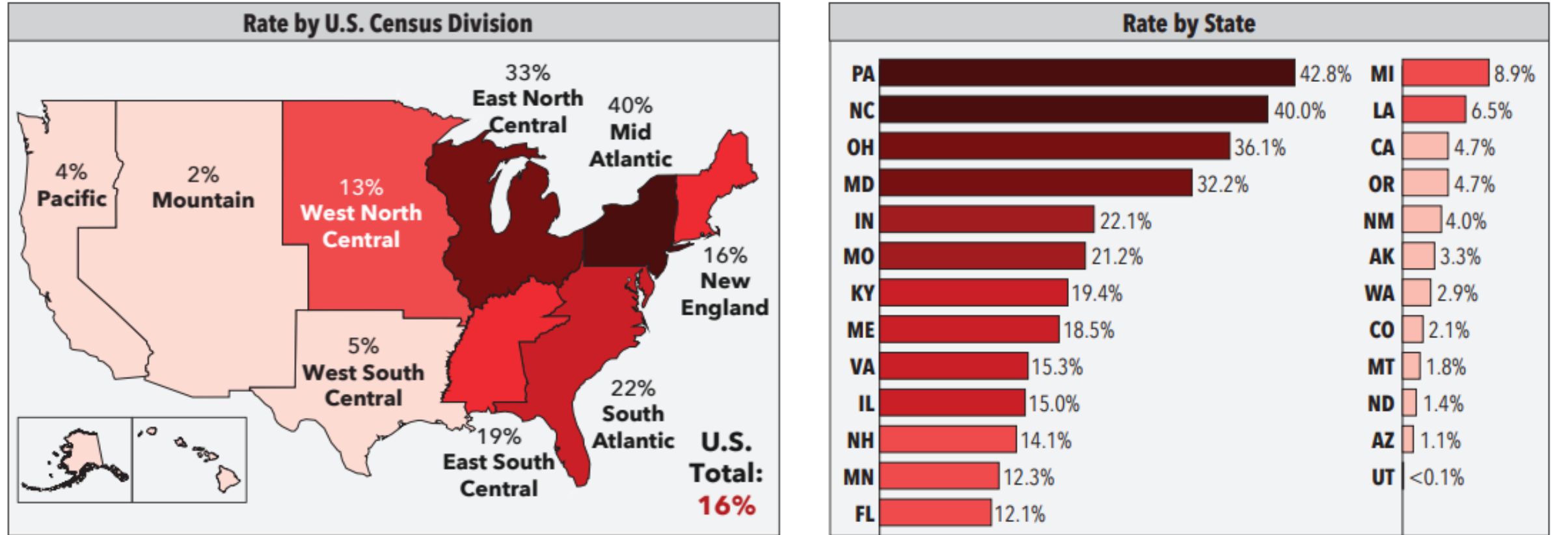
Millennium Health Signals Report™

Zeroing in on Xylazine:

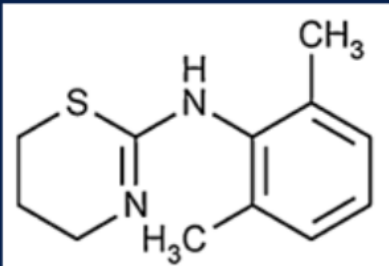
The First 100 Days After U.S. Emerging Threat Designation

Volume 5.1 | Published September 2023

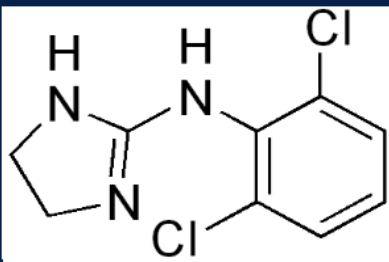
Figure 1. Geographical Analysis of Xylazine Detection in Fentanyl-Positive Specimens



Xylazine – Pharmacology



Xylazine

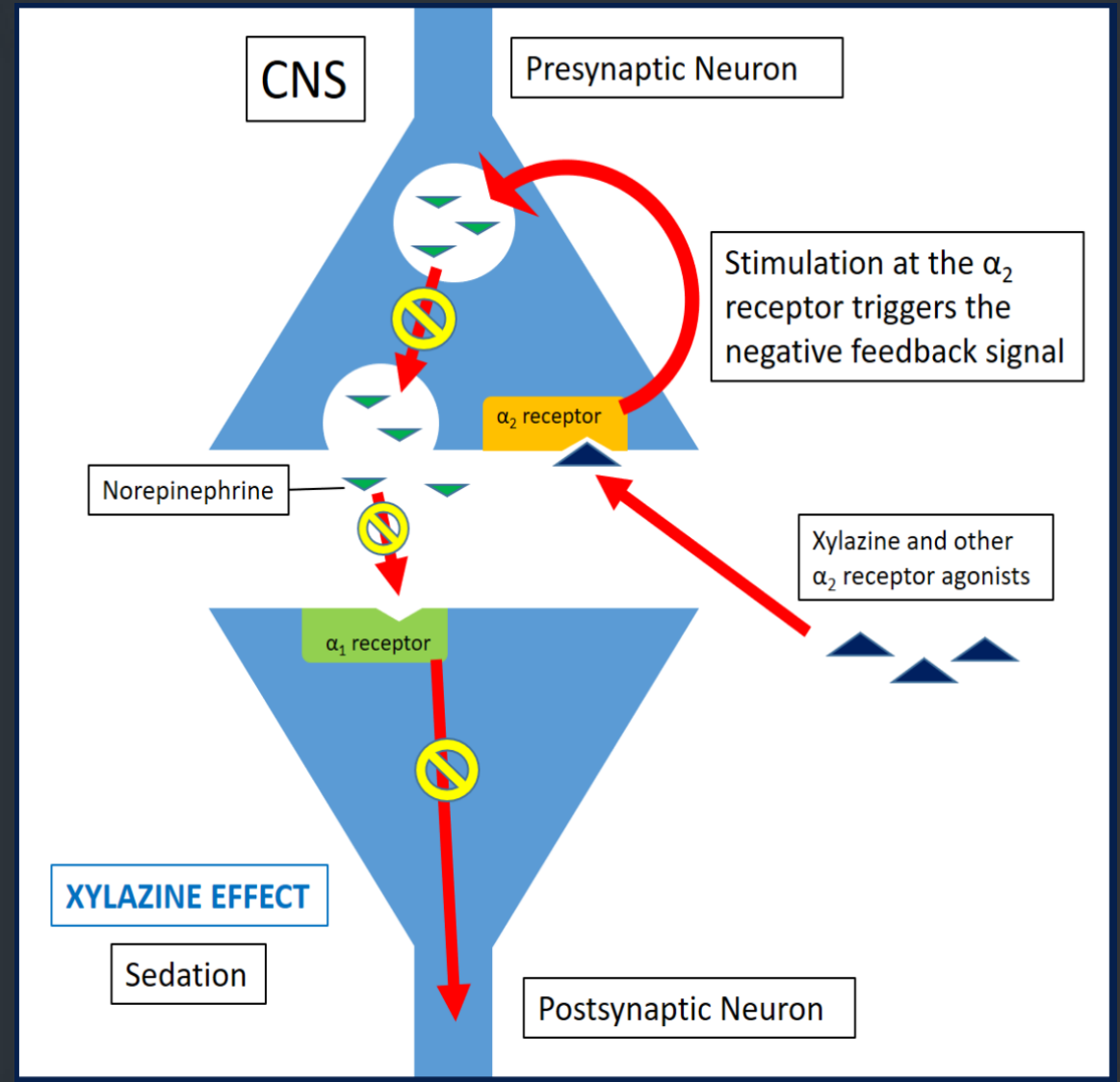
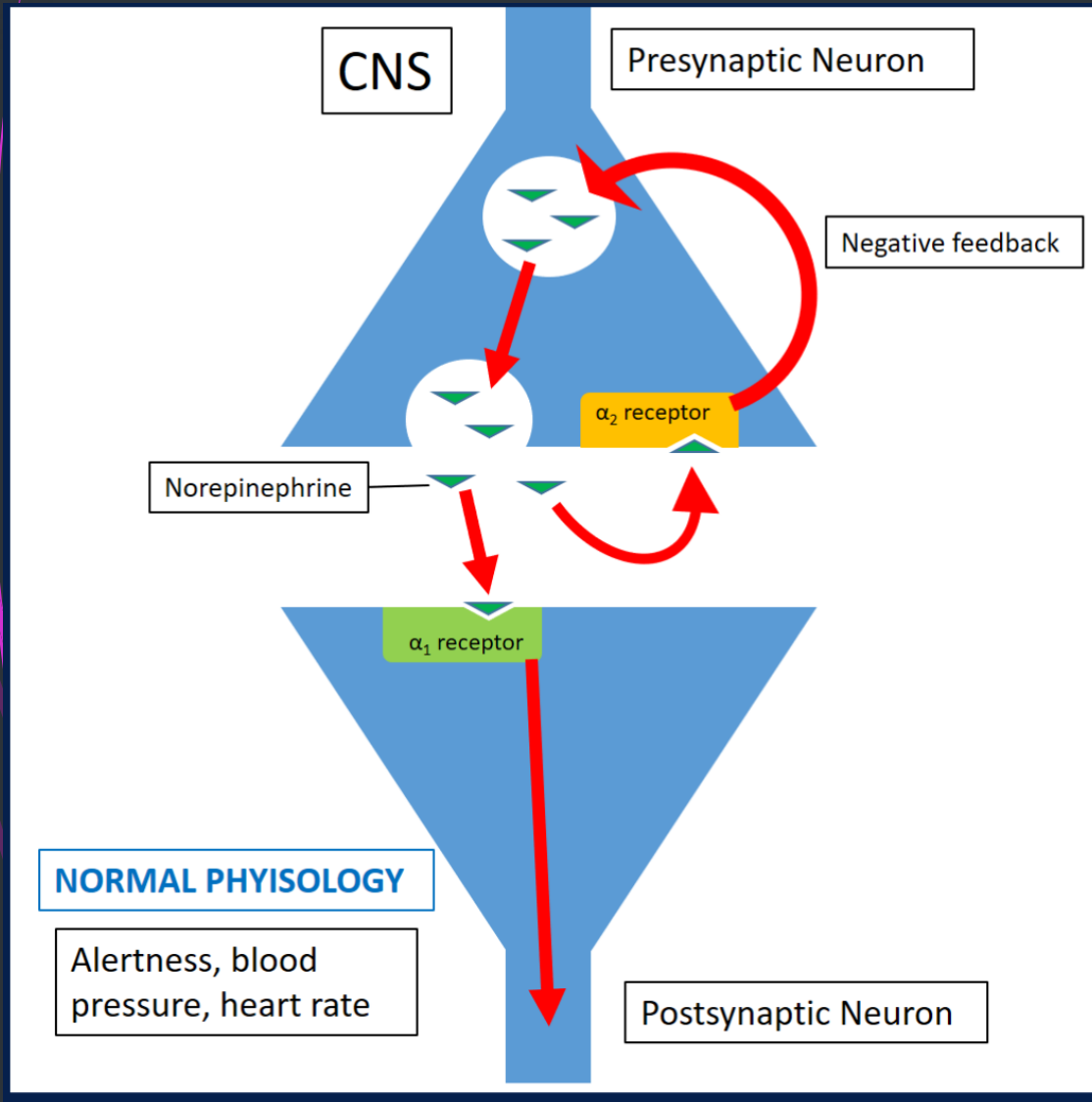


Clonidine

Xylazine and clonidine are structurally similar and have *some* similar effects

- **Alpha-2 adrenergic agonist at central receptors:**
 - Decreases sympathetic outflow → sedation
 - Not reversible with naloxone
- **Similar to imidazoline compounds**
 - Clonidine, dexmedetomidine, tizanidine, lofexidine
- **Pharmacokinetics**
 - Time to effect is 1-2 minutes (IV)
 - Duration of effect up to 4 hours

Pharmacology / Toxicology of Xylazine



Xylazine: Acute Overdose

- Slowed breathing
- Bradycardia, hypotension
- Loss of consciousness and physical sensation
- Immobility leading to muscle and nerve damage
- Constricted pupils
- Amnesia
- Effects of chronic xylazine exposure => insufficient data

Management of Suspected Xylazine Poisoning

- Naloxone - opioid co-use
- Bradycardia, hypotension - fluids, atropine, vasopressors
- Supportive care
- Ongoing research in animal cases
 - Intranasal atipamezole (canine)
 - Yohimbe, tolazoline (equine)

Xylazine Withdrawal- Overlapping Symptoms

Xylazine	Opioid	Benzodiazepine
Anxiety Dysphoria Restlessness	Tachycardia Diaphoresis Restlessness Mydriasis Body aches Rhinorrhea GI symptoms Tremor Yawning Piloerection Anxiety Dysphoria	Tachycardia Hypertension Diaphoresis Anxiety Tremor Altered mental status Seizures Dysphoria

Xylazine Withdrawal Treatment

(**no** currently approved treatment)

Reported as potential treatment

- Benzodiazepines
- Clonidine
- Antipsychotics
- Phenobarbital
- Gabapentin

ICU (severe symptoms)

- Dexmedetomidine
- Ketamine

Xylazine Associated Wounds – Early Stages



Wound Treatments

- **Wound care**
 - Clean with soap and water
 - Petrolatum based ointments or medical grade honey
 - Non-adherent dressing with regular changes
- **Antibiotics** for secondary infection
- **Education** - risk of bacteremia, endocarditis, osteomyelitis
- **Harm reduction** - intranasal use, wound care, avoid injection near wound area



Xylazine and pregnancy – what do we know?

- Very limited human data
- Inpatient labor & delivery cross sectional data - Prevalence is more common than previously thought
- Human umbilical cord studies - crosses the placenta
- Animal studies - decreased uterine blood flow, increased uterine vascular resistance, and decreased fetal growth

Summary of Pregnancy Data

Review

Xylazine Use in Pregnancy: The Effects of the Fentanyl Adulterant Xylazine on Pregnant Patients and the Developing Fetus

Grace Noonan, B.A.¹, Roopa Sethi, M.D.^{1,2}

¹University of Kansas School of Medicine, Kansas City, KS

²Department of Psychiatry and Behavioral Sciences

Received June 2, 2023; Accepted for publication Oct. 2, 2023; Published online Oct. 30, 2023
<https://doi.org/10.17161/kjm.vol16.20624>

Xylazine and Pregnancy: Animal Data

Animal studies included in final analysis.

Study	Objective	N	Results
Hodgson DS, et. al ¹¹	To determine effects of sedation achieved by xylazine on cardiopulmonary function and uterine blood flow in cows in late gestation	8	Xylazine reduces uterine blood flow and accessibility of oxygenated blood to the uterus.
Waldvogel D, et. al ¹²	To determine changes in Doppler sonographic measures of uterine and placental blood vessels in cows during the last four weeks of pregnancy after receiving Xylazine	9	Xylazine decreased maternal and fetal pulse rate and decreased uterine blood flow while increasing the uterine artery resistance index.
Thaete LG, et. al ¹³	To identify effects of a Ketamine/Xylazine combination on fetal growth rate at different points in gestation in mice	203	Ketamine/Xylazine cohort showed significantly decreased fetal growth at various times throughout gestation

Xylazine and Pregnancy: Human Data

Human studies included in final analysis.

Study	Objective	N	Results
Spoerke DG, et. al10	Case series of Xylazine overdose	3	All patients developed bradycardia and respiratory depression in response to Xylazine
Midthun KM, et. al14	To use umbilical cord tissue from drug-exposed mothers to identify common drugs of abuse and adulterants as a marker of in utero exposure	300	Xylazine in 3% of the study participants' umbilical cord tissue of all who were positive for opioid use.

Implications of Xylazine Exposure in Pregnancy: A Narrative Review

Ilana HULL, MD, MSc^{1,2,*}, Raagini JAWA, MD, MPH^{2,3,*}, Margaret SHANG, MD, MS², Corey DAVIS, BSN, RN¹, Cambria KING, CRS¹, Gary MCMURTRIE, BA¹, Elizabeth KRANS, MD, MSc^{1,4}

- Expert opinion, high xylazine prevalence community
- Withdrawal - anxiety, irritability, dysphoria, HTN - *not* resolved by MOUD
 - tizanidine, gabapentin, hydroxyzine; clonidine as tolerated
 - add benzodiazepines, low-dose antipsychotics for severe anxiety
- Overdose - prolonged sedation, hypoxia
 - supplemental oxygen, frequent repositioning

Table 1.**Clinical care suggestions for pregnant persons at risk for or with xylazine exposure**

Clinical consideration	Plan of care suggestion
Recognition and testing	<ul style="list-style-type: none">• Xylazine is not detected by existing standard urine drug screening immunoassays in healthcare settings.• Gas chromatography/mass spectrometry tests can detect the presence of xylazine in biologic samples, but may take several days to result.• Xylazine test strips can provide point of care identification of xylazine in drug samples but are not approved for use in the healthcare setting.
Withdrawal	<ul style="list-style-type: none">• Xylazine withdrawal symptoms may overlap with opioid withdrawal symptoms and can include anxiety, restlessness, and/or hypertension.• A variety of medications have been used in case reports to manage xylazine withdrawal symptoms including alpha-2 agonists like clonidine, benzodiazepines, gabapentin, hydroxyzine, phenobarbital, tizanidine, ketamine and low-dose antipsychotics.• Example regimen: clonidine 0.1–0.2 mg, tizanidine 2–4mg, gabapentin 300mg every 8 hours.
Wound care	<ul style="list-style-type: none">• Screen all patients for new necrotic wounds and/or ulcers and look at injection and non-injection sites.• If wounds have evidence of supra-infection with purulence or localized abscess, or cellulitis, consider short courses of systemic antibiotics based on local antibiogram• Clean wounds regularly with soap and water or gentle antimicrobial cleansers. Apply petrolatum-based ointment or medical grade honey on nonviable tissue (ie: eschar). Cover wound with non-adherent dressing and secure the dressing.• Avoid corrosive agents such as rubbing alcohol and hydrogen peroxide to cleanse the wound.
Overdose management	<ul style="list-style-type: none">• Give naloxone even in xylazine-associated overdoses.• Monitor respiratory status and give rescue breaths. Provide supplemental oxygen if available.• Rotate position or perform limb massage during prolonged periods of sedation.
Patient education	<ul style="list-style-type: none">• Provide harm reduction education to all patients at risk for xylazine exposure.• Distribute or provide access to xylazine test strips if available.

Prenatal Xylazine Use – Reality Check

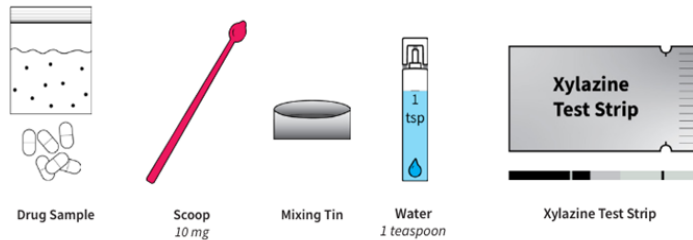
- No currently approved medication to treat xylazine overdose
- No currently approved medication to treat xylazine withdrawal
- Non-healing skin lesions, forearms and lower legs => Necrosis/eschar 1-3 days from initial wound
- Very limited data available on human pregnancy and embryo development

Harm Reduction: Xylazine Test Strips

Xylazine Test Strip Instructions

Instructions for testing pill and powdered substances. Always test before using! Xylazine test strips should only be used on opiates.

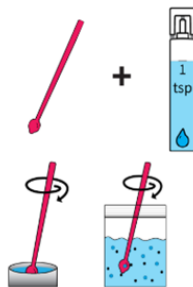
1 What you'll need



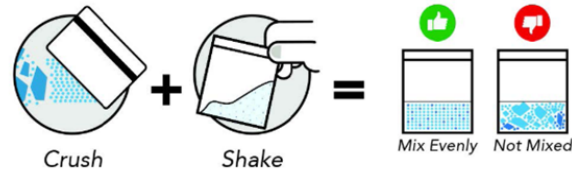
This fact sheet serves as a guide to testing a portion of the substance. This method should be used if you cannot dilute and test all of it.

3 Measure & dilute

1. Scoop and dilute.
1 scoop + 1 teaspoon water
2. Stir it up.
Make sure drug sample and water are well mixed.



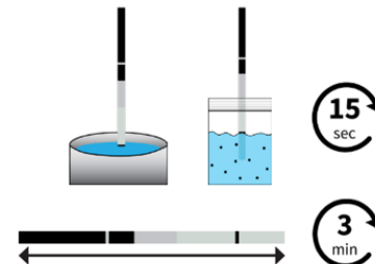
2 Prepare mixture



Before testing, make sure the drugs are well mixed. Xylazine can clump in one part of the sample, which can give inaccurate test results if not thoroughly mixed.

4 Use test strip

1. Hold strip in mixture for 15 seconds.
2. Place strip on flat surface for 3 minutes.



5 Interpret the results

Read results:



1 red line = xylazine detected



2 red lines = no xylazine detected



1 red line on the bottom of strip = invalid test

A decorative graphic on the left side of the slide features a solid blue arrow pointing right, with several thin, curved lines in shades of blue and purple extending from its base. The background is a dark, solid blue.

Medetomidine



What is Medetomidine?

- Veterinary medication
- Alpha - 2 adrenergic agonist
- Racemic mixture - levomedetomidine, dexmedetomidine (Precedex)
- More potent than xylazine



Medetomidine Poisoning

- Profound bradycardia, hypotension and sedation
- Naloxone administration
- Focus on breathing, not consciousness
- Supportive respiratory care and proper management of blood pressure

Medetomidine Withdrawal

- Rapid transition (intoxication to withdrawal)
- Tachycardia
- Fever
- Severe hypertension
- Vomiting
- Encephalopathy

MATCOE

Promoting excellence in addiction medicine to
expand care and end stigma while saving lives

snjmatcoe.org

Medetomidine Withdrawal versus Preeclampsia?

- Delayed withdrawal management - seizures, posterior reversible encephalopathy syndrome (PRES)
- Unique sign - tremor without clonus or hyperreflexivity, in jaw and whole body rigors
- Refractory, copious vomiting
- Aspiration and intubation are common
 - Ondansetron
 - Prochlorperazine IV every 6 hours
 - Olanzapine IV every 12 hours

Fentanyl/Medetomidine Withdrawal

- Multicenter, Philadelphia, 209 patients 2024-25
 - Opioid withdrawal with severe sympathetic activation needing hospitalization
 - 20% intubation
 - 35% encephalopathy
 - 28% myocardial injury
 - 5% seizures
 - Median COWS score 23

London KS. Severe Fentanyl Withdrawal Associated With Medetomidine Adulteration: A Multicenter Study From Philadelphia, PA. *J Addict Med.*



Journal of the Academy of Consultation-Liaison Psychiatry

Available online 16 June 2025

[In Press, Corrected Proof](#) [? What's this?](#)



Letter to the Editor: Subjects of Interest to C-L Psychiatry

Diagnosis and Management of Medetomidine Withdrawal: Clinical Implications of the Shifting Illicit Opioid Landscape

[Ross J. Johnson M.D.](#), [Emily R. Casey Pharm.D.](#), [Samantha J. Zwiebel M.D., M.A.](#)  

- 12-24 hours since last drug use
- Severe autonomic dysfunction (170/110 or higher)
- Tachycardia > 120 bpm
- 90% needing ICU treatment



Treatment Protocols

- Limited published peer reviewed protocols
- Data largely from case reports
- Circulated through harm reduction communities
- No treatment protocols in pregnancy



Journal of the Academy of Consultation-Liaison Psychiatry

Available online 16 June 2025

In Press, Corrected Proof [? What's this?](#)



Letter to the Editor: Subjects of Interest to C-L Psychiatry

Diagnosis and Management of Medetomidine Withdrawal: Clinical Implications of the Shifting Illicit Opioid Landscape

Ross J. Johnson M.D., Emily R. Casey Pharm.D., Samantha J. Zwiebel M.D., M.A.  

- IV dexmedetomidine 1.5 mcg/kg/hr 1-2 days
- Clonidine 0.3-0.5 mg Q 6 hours (if enteral access)
- IV Nicardipine drip for refractory cases
- ICU care typical 2-5 days
- Transfer to floor: clonidine 0.3-0.5 mg PO Q 6 hours

Guidance for Managing Medetomidine Exposure



Treatment of Medetomidine Withdrawal

- Aggressive opioid withdrawal management:
 - Start methadone 40-60mg PO daily plus 10mg PO Q 6 PRN COWS >4
 - Alternatively, for NPO patients: start methadone 20-30mg IV daily or hydromorphone 1mg/hr continuous infusion and titrate to effect
- Alpha-2 agonist therapy
 - Clonidine 0.3 mg PO Q8 scheduled PLUS 0.3 mg/24 hr patch
 - For symptoms refractory to clonidine, start dexmedetomidine infusion and rapidly titrate to 1.5mcg/kg/hr
- Aggressive withdrawal management is preferred over isolated BP control
- Agitation management:
 - Consider PRN antipsychotics (olanzapine) and/or benzodiazepines
 - Or phenobarbital 10mg/kg loading dose

Patient presents 6-24 hours after last opioid use: autonomic dysfunction, hypertension, vomiting, encephalopathy and tremors.. think medetomidine and ICU



And...don't forget to treat
opioid withdrawal at the
same time!



A decorative graphic on a dark blue background. On the left, a solid blue arrow points to the right. Several thin, light blue curved lines originate from the left side and sweep across the upper and lower portions of the frame. The word "Nitazenes" is written in a bold, italicized, light blue sans-serif font, positioned to the right of the arrow.

Nitazenes



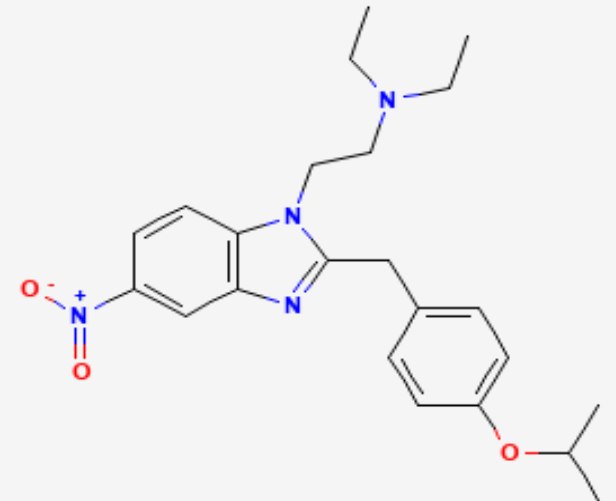
Nitazenes

- Developed in the 1950s
- Analgesics
- Never approved
- Synthesis using historical pharmacology research

Novel psychoactive substances (NPS) - actual or alleged morphine-like or other psychoactive properties, not currently regulated by national/international law

Nitazenes

- Isotonitazene
- Iso, Tony
- Illicit drug supply - 2019





Nitazenes

- Synthetic opioids similar to fentanyl, higher potency
- Introduced to get around regulatory actions, drug scheduling
- Origin - often from vendors in China
- Complex synthesis
- Low magnitude of prevalence in US supply

Yes – it's very much here in Missouri...

03-24-2026 DHSS HAd - Health Risks Associated with Nitazenes

Missouri Department of Health and Senior Services sent this bulletin at 03/24/2026 01:24 PM CDT



Health Advisory

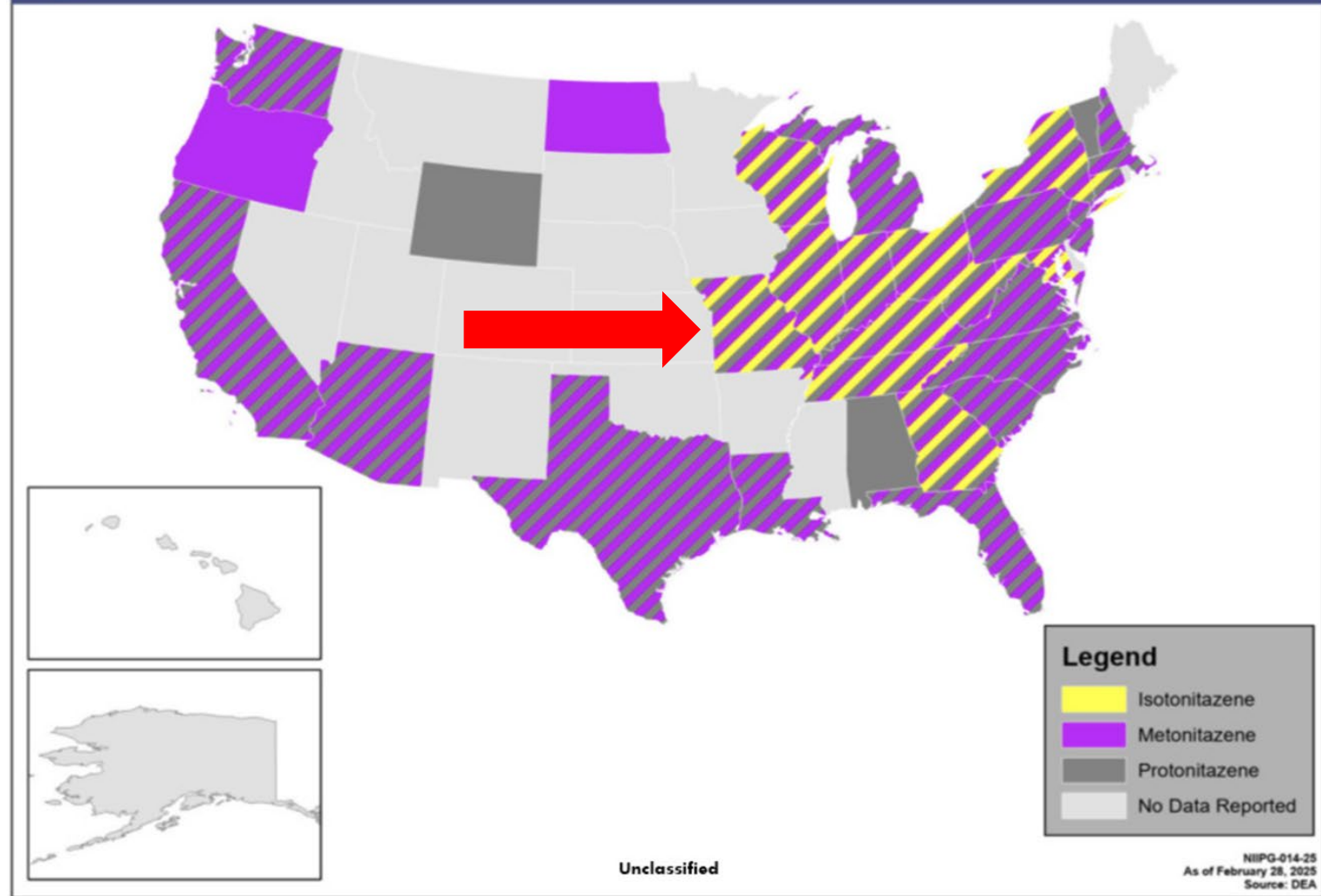
March 24, 2026

**Health Risks Associated with Nitazenes -
Summary**

The Missouri Department of Health & Senior Services (DHSS) uses four types of documents to provide important information to medical and public health professionals, and to other interested persons:



Figure 3: Most Common Nitazene Exhibits by State 2024



Most Exhibits of Isotonitazene	Maryland - 30 Exhibits
Most Exhibits of Metonitazene	Florida - 69 Exhibits
Most Exhibits of Protonitazene	Florida - 96 Exhibits
Most Exhibits of ALL Nitazene Compounds	Florida - 209 Exhibits

<https://www.getsmartaboutdrugs.gov/sites/default/files/2025-11/Nitazenes-Emerging-Threat-Diverse-Group-Synthetic-Opioids.pdf>

Where are Nitazenes found?

- Contaminants or laced with products => Illicitly manufactured tablets
- Other controlled substances such as fentanyl, heroin, methamphetamines, and cocaine
- Unregulated cannabis products
- Other non-controlled substances such as xylazine and bromazolam
- Nitazene-laced vapes and unregulated products such as synthetic cannabis.

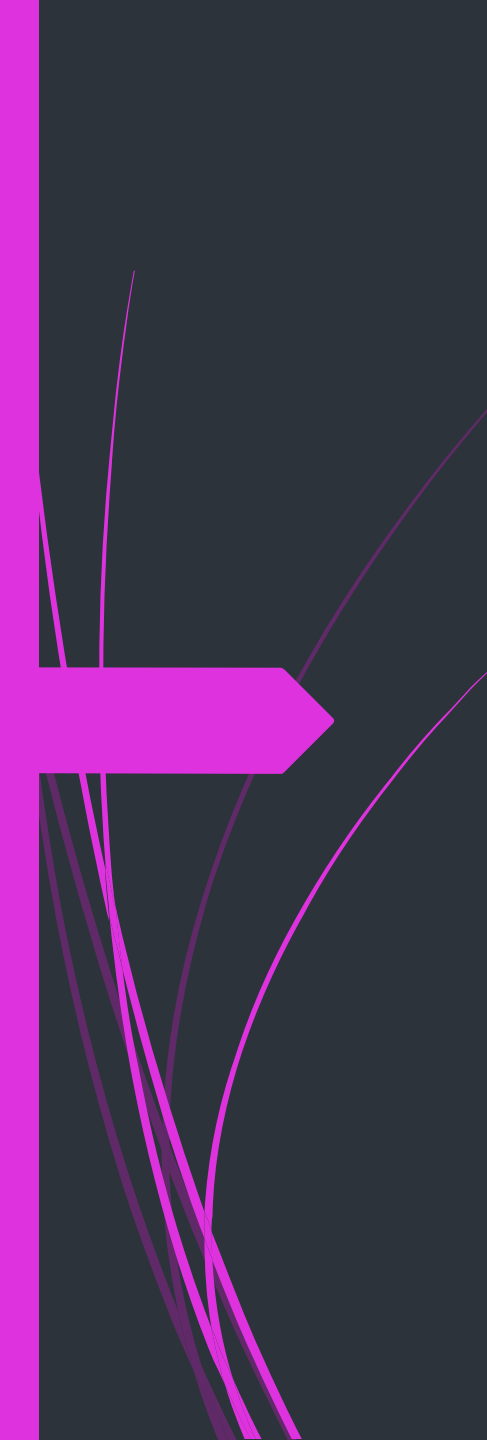


Clinical Effects of Nitazenes

- Dependence and addiction
- Withdrawal symptoms such as diarrhea, irritability, cold sweats, and body aches
- Slowed or shallow breathing
- Constricted pupils
- Vomiting, Nausea, Constipation
- Sweating
- Itchiness
- Drowsiness
- Euphoric sensations
- Overdose

Nitazenes

- Implicated in 200+ overdose deaths
- Limited testing capabilities
- Temporarily schedule I (2021)
- Unknown responsiveness to naloxone => recommend administering for all overdose cases
- Limited information on overdose/poisoning, withdrawal, or perinatal implications



*Health Enhancers,
Supplements or
Emerging Substances?*

Kratom and Tianeptine



Kratom

Case Discussion

MS is a 23 y/o G3P2002 – currently pregnant at 12 weeks gestation who reports long standing history of off and on use of illicit opioids – since the last 5 years – she has been unable to continue with methadone as medication for opioid use disorder (MOUD) due to access barriers and has been afraid about initiating buprenorphine for fear of having to go through moderate withdrawal.

Of late – she has started using Kratom that she is able to obtain from an online website to supplement her use and this was recommended to her from a friend as a natural organic option to address her opioid use. She presents for initial prenatal care visit and wants to discuss implications for pregnancy management



Case Discussion

- What do you tell MS about impact of Kratom use on implications for pregnancy outcomes?
- What are some of the management options that you can offer this patient?
- From a neonatal standpoint – how do you counsel this patient about potential outcomes and management strategies?

What is Kratom?

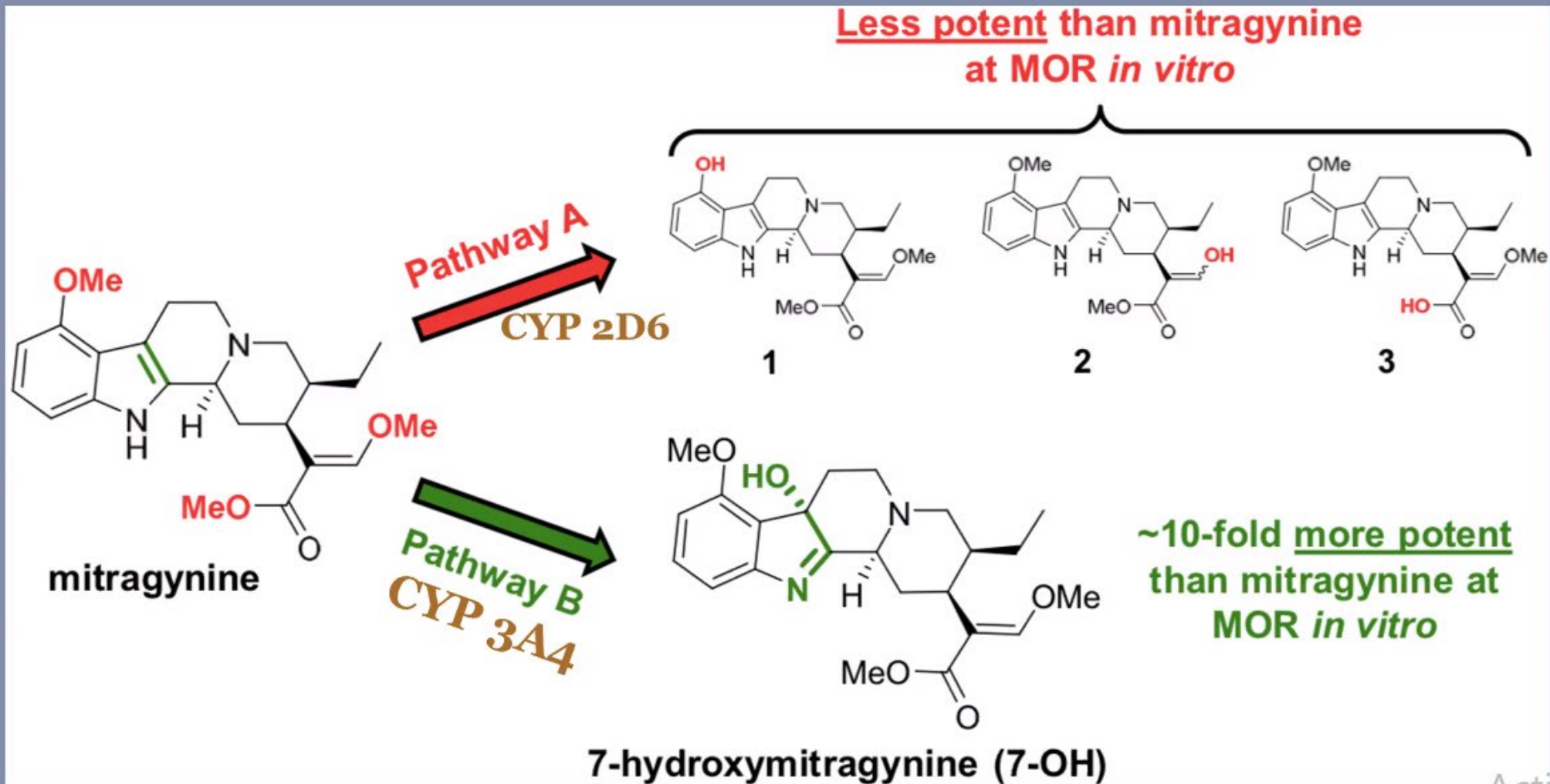
- *Mitragyna speciosa*: tree native to Southeast Asia => products derived from its leaves are marketed as herbal supplements
- Partial opioid agonist: bioactive alkaloids => mitragynine and 7-hydroxymitragynine
- Effects: Analgesia, mood-enhancing, can lead to opioid withdrawal symptoms
- About a fifth to a third of all patients with SUD report use
- Used as treatment for opioid withdrawal - more accessible than structured OUD treatment and illicit opioids



Kratom Effects

- Low dose (1-5g): stimulant effects – used to reduce fatigue among laborers
- Moderate dose (5-15g): opioid effects
- High dose (>15g): severe opioid effects including euphoria

Kratom Metabolism



Kratom – What do we know?

- Sold as tea, capsules, tablets, raw leaves, herbal supplement as and concentrated extracts.
- Metabolites => do not appear on a standard urine toxicology
- Detection => requires more sophisticated liquid chromatography with tandem mass spectrometry (LCMS) (may take 1-2 weeks)
- Primary reasons for use => stop or reduce opioid use by reduction of withdrawal symptoms, reduce cravings, manage anxiety/depression, chronic pain management

Kratom is everywhere!



Kratom Use in the Perinatal Period

- Pregnancy prevalence unknown
 - 0.8% general population
- Perinatal SUD (single institution survey, n = 80)
 - 32.5% ever use
 - 5% pregnancy
 - 1% lactation
 - 80% used to relieve withdrawal

Kratom Effects and Management

- Initial stimulatory effects, mimics opioids with chronic use
- Physiologic withdrawal syndrome – can be similar to opiate withdrawal
- Not detected on standard toxicology
- Has been associated with lethal overdose
- Overdose: respiratory depression, agitation, tachycardia, hypertension
- Case reports of reversal with naloxone

Management

- ▶ Case reports / Case series on management of Kratom use with:
 - Buprenorphine
 - Methadone
 - Clonidine
 - Morphine base detoxification
 - Tricyclic antidepressants
 - Contingency Management

Perinatal Kratom Use

- Data is largely from case reports / case series
- Pregnant patients
 - Often reported opioid withdrawal symptoms upon reducing / stopping kratom use
 - Managed during pregnancy with buprenorphine, methadone, and rapid detoxification with morphine-based weaning
- Neonates
 - May exhibit symptoms of neonatal opioid withdrawal syndrome (NOWS)
 - May require pharmacologic treatment with morphine weaning protocols +/- clonidine

Perinatal Kratom Use

- Ask about supplements, other natural interventions – Kratom use is more common than you think!
- Detection requires LCMS – will not be picked by routine urine drug screens
- Effective treatment with buprenorphine has been described in pregnancy => consider standard dose buprenorphine induction
- Untreated and unaddressed perinatal kratom use is a risk for neonatal withdrawal symptoms, similar to NOWS

The Newer Kratom: 7-OH

Hiding in Plain Sight: 7-OH Products are Designed to Look Like Everyday Treats Like Gummies, Candies and Ice Cream.



Note: These images are select illustrative examples and do not represent the full scope of 7-OH products on the market. Consumers should read packaging and labels carefully to determine whether a product contains 7-OH.

Source:
FDA News
Release

- Emerging use of 7-OH or 7-OHM
- Contains 7-hydroxymitragynine
- More potent than kratom
- NOT part of the naturally occurring plant
- Widely prevalent – across multiple sources
- FDA warning on 07/2026 – marking it as unlawful

A decorative graphic on the left side of the slide. It features a solid blue arrow pointing to the right, with several thin, curved lines in shades of blue and purple extending from its base. The background is a dark blue gradient.

Tianeptine



Case Discussion

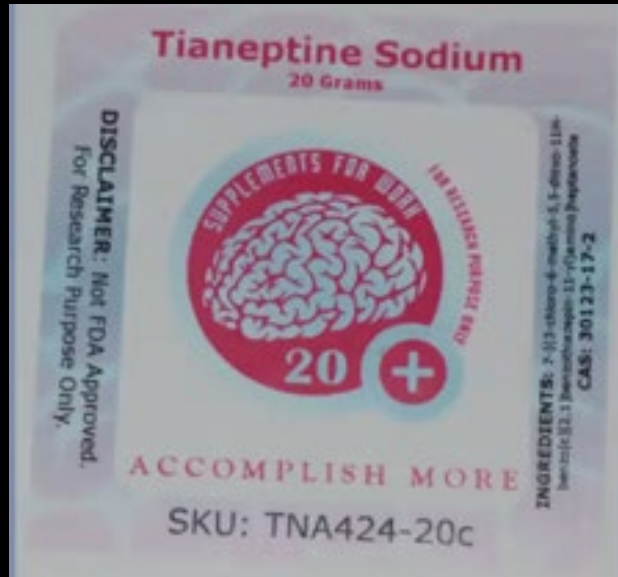
34 y/o G4P3 presents for prenatal care at 12 weeks – with a long-standing history of opioid use disorder and was on suboxone for this, which she stopped as soon as she found out about her pregnancy.

She began using an organic supplement known as “Pegasus” and tells you that she is unsure of the contents when you ask her more about this.

She is unable to find more of this from the gas station that she bought it from previously – and is now experiencing withdrawal symptoms 12 hours after last use with nausea, sweats and severe anxiety

Tianeptine

- Antidepressant vs. nootropic supplement
- Opioid μ receptor agonist, anxiolytic
- Zaza, Tiana Red, gas station heroin
- Prescribed dose 50 mg/day; non-prescribed 2500+ mg
- Europe - prescription anxiolytic, antidepressant
- United States - supplement, up to 50 times prescribed dose





Tianeptine

- Overdose - case report of treatment with naloxone
- Withdrawal => prolonged agitation
- No data on treatment of intoxication or withdrawal
- Supportive care => mainstay of treatment
- ?MOUD for treatment



Perinatal Effects

- Animal models: inhibition of uterine contractility and increased dopamine affinity in brain of the offspring
- Human case report: neonatal withdrawal treated with morphine
- No data on toxicology testing, breast milk excretion or other fetal/neonatal/infant effects
- Toxicology testing can be ordered through mass spectrometry



Patient Education is Key

- Discuss potency and risk of overdose
- Limited research of pregnancy-specific effects
- Marketed as an antidepressant but has opioid-like effects at high doses.
- Risk of dependence, withdrawal symptoms, and respiratory depression
- Can cause liver toxicity and cardiovascular effects



Perinatal Tianeptine Use

- Discuss limitations of prenatal data
- Inquire about indications for use
- If symptoms of depression and anxiety, consider alternative treatment

Remember to ask your patients about supplements, including those that are not purchased at a pharmacy or wellness store.





Emerging Substances: In Conclusion

- The substance use landscape is ever changing and affects our pregnant patients
- Harm reduction is key to improved patient outcomes
- Patient and provider education is key



Narrative Review

Emerging Substances and Perinatal Health

A Narrative Review

Cresta W. Jones, MD, Maria Manriquez, MD, and Niraj R. Chavan, MD, MPH

(Obstet Gynecol 2025;00:1–9)

DOI: 10.1097/AOG.0000000000006110

Questions?
Text: 314-485-9697

Thank you!...



PREPARING FOR ESC: A FAMILY-CENTERED PARTNERSHIP

Becky Boedeker DNP, RNC-MNN, C-ONQS

#1

KNOW YOUR STUFF

Gain a firm understanding of the basics
before you begin

NAS/NOWS

TYPICAL SIGNS AND SYMPTOMS

ACUTE TOXICITY VS WITHDRAWAL

Some drugs cause *acute toxicity*. Signs and symptoms abate with drug elimination (time). Most seen in neonates exposed to SSRIs

Signs and symptoms of *withdrawal* worsen with drug elimination (time), e.g., opioids

WHAT ARE WE DEALING WITH?

Neonatal Abstinence Syndrome (NAS)

1. Fetal exposure to any drug may result in adverse effects on the fetus. E.g., SSRIs, methamphetamines, benzodiazepines.
2. It may result in transient neonatal signs consistent with withdrawal or acute toxicity

Neonatal Opioid Withdrawal Syndrome (NOWS)

1. Result of fetal exposure to illicit or prescription **opioid** use by the mother prenatally.
2. Results in transient neonatal signs consistent with withdrawal
3. May have **semi-permanent neurodevelopmental sequelae**, which extinguish with time, such as hypertonicity and poor state regulation.



CLINICAL PRESENTATION OF NOWS VARIES BASED ON:

- The opioid
- Maternal drug history, such as timing of most recent use
- Maternal metabolism
- Net transfer of drug across the placenta
- Placental metabolism
- Infant metabolism and excretion
- Other concomitant drug use, such as cigarettes, methamphetamines, SSRIs, etc.

Signs and symptoms of NAS/NOWS

Neurological: irritability, increased wakefulness, high-pitched cry, tremors, increased muscle tone, frequent yawning and sneezing.

Gastrointestinal: vomiting and/or diarrhea, poor weight gain, poor feeding, uncoordinated and constant sucking

Autonomic symptoms: diaphoresis, nasal stuffiness, fever, mottling, temperature instability, mild elevations in respiratory rate or blood pressure

Typical neonate behavior: poor feeding, sweating, tachypnea, restlessness/irritability, tremors, sleep disturbances, high-pitched cry, more frequent crying, and hypertonia.

Duration of NAS symptoms

Acute withdrawal vs semi-permanent neurologic state

Acute Withdrawal

- Usually peaks in the first three days and is resolving by 5-7 days

Semi-permanent neurologic state

- Can last for months
- Most commonly includes
 - Hypertonicity
 - Irritability
 - Tremors
 - Poor state regulation
 - Poor feeding

LOCATION OF CARE

EVIDENCE-BASED MEASURES TO IMPROVE THE SYMPTOMS OF NOWS

Infant-mother rooming-in

Breastfeeding

Optimizing non-pharmacologic supportive measures

It's SIMPLE:

- Babies do better with their moms
- Moms do better with their babies



ASSESSING BABY:

TOOLS MATTER

THEY CHANGE OUTCOMES

ESC FUNCTIONAL ASSESSMENT



EAT

- Is the infant breastfeeding well or taking at least 1 ounce (or age-appropriate amount)?

Sleep

- Does the infant sleep at least one hour between feedings?

Console

- Can you calm the infant in 10 minutes?

(Grossman, Pediatrics 2017)

WHEN THE ANSWER TO ANY OF 3 IS “NO”

Care team huddle

- Evaluate
- Optimize non-pharm interventions

Still “NO”

- PRN dose morphine (at that moment)

Continue to evaluate

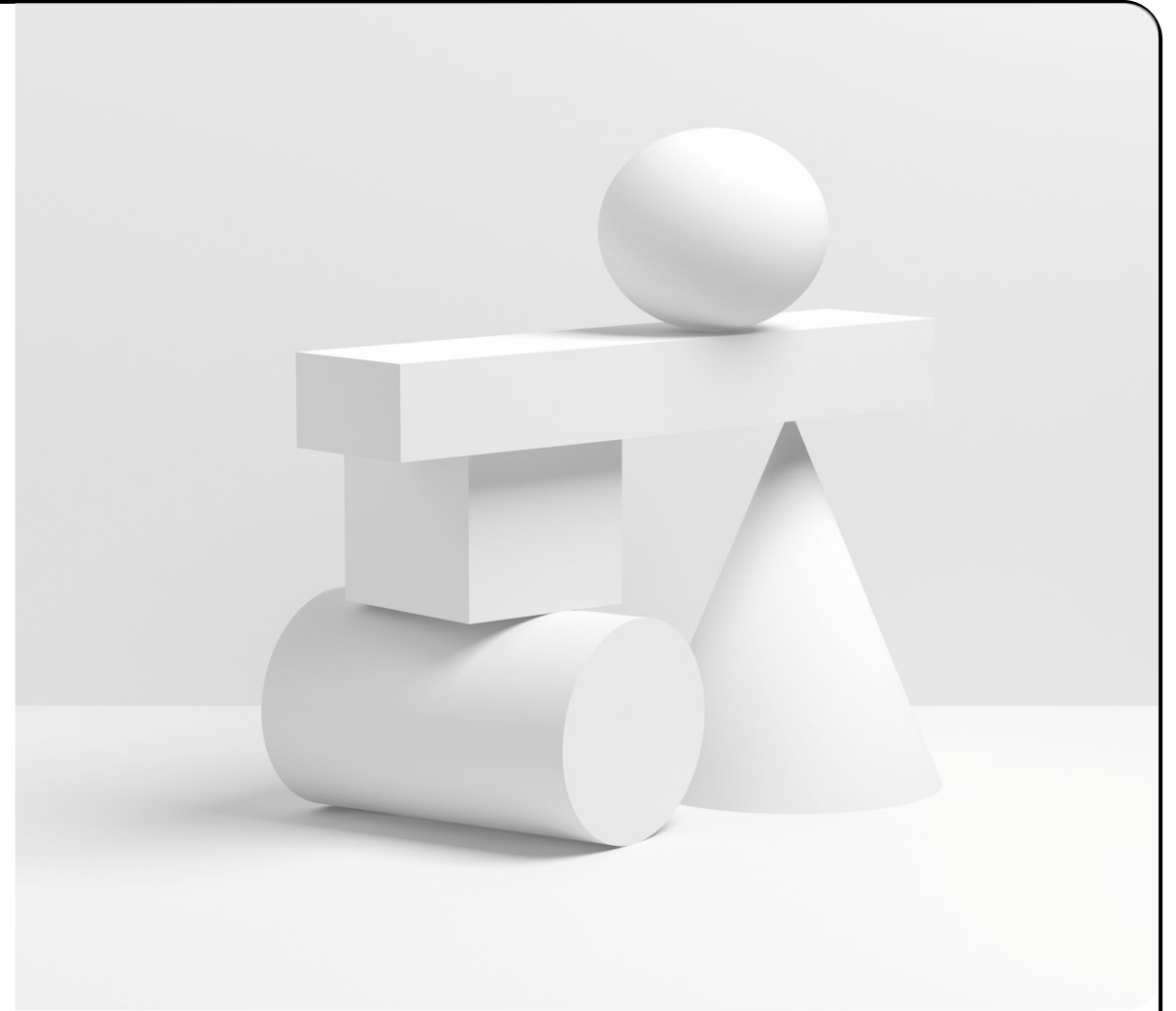
- Continue to optimize non-pharm care



WHAT CAN I DO?

TREATING
NAS/NOWS

NON-PHARMACOLOGIC
CARE IS THE KEY



Mom is the treatment



Feeding on demand

Swaddling

Holding, cuddling, or gently rocking

Non-nutritive sucking

Rooming-in

Breastfeeding or pumping milk as appropriate

Keep lights, noise, visitors to a minimum

Skin-to-skin

Gently handling

Avoid waking baby

BREASTFEEDING



- Benefits of breastfeeding and breast milk in the context of NAS/NOWS
- Possible need for supplementation
- Higher calorie formula
- Fortified breastmilk
- Breastfeeding contraindications
- OK to breastfeed with Hepatitis C infection

IMPORTANCE OF BREASTFEEDING WHEN EXPERIENCING NAS

Typical symptom

GI

- Excessive sucking
- Vomiting/reflux
- Loose stools



Breastfeeding

- More sucking without overfeeding
- Quicker/easier digestion
- Soothes the gut

CNS

- Tremors
- Sleep disturbances
- Irritability



- More contact with mom
- More holding/skin-to-skin
- Neural growth/white matter development

Separation from Mom

- Impaired bonding
- Prolonged hospitalization



- Improved bonding
- Decreased hospitalization days

Mom	Baby
Decreased Infections	➤ Reduced incidence/severity of NAS
➤ Enhanced maternal-Infant Attachment	➤ Enhanced maternal-Infant Attachment
➤ May reinforce maternal abstinence in some women	➤ Shortened hospital stay for NAS
Convenience/financial benefit	➤ Less pharmacologic treatment
➤ Mom may feel more relaxed and less anxious	➤ Decreased risk of SIDS which was increased by in-utero drug exposure
➤ May decrease post-partum depression	➤ Breastfeeding itself – soothes agitated infants
➤ Increase bond with baby and desire to protect baby increases	General health benefits of breastfeeding/mothers' milk

IMPORTANT FACTS:



The concentration of methadone in milk is not related to the maternal dose

The amount of both methadone and buprenorphine in milk is clinically insignificant

The amount of these drugs in milk will neither keep a baby from withdrawing nor will it keep a baby dependent

ACADEMY OF BREASTFEEDING MEDICINE CLINICAL PROTOCOL #21

GUIDELINES FOR BREASTFEEDING AND SUBSTANCE USE OR SUBSTANCE USE DISORDER, REVISED 2015

Who Should Breastfeed?

- In substance use treatment, and has given consent to communicate
- Counselors/Providers confirm sobriety
- Plan to continue treatment in the postpartum period
- No relapse for 90 days before delivery, maintained sobriety in an outpatient setting
- Negative UDS at time of delivery
- Received consistent prenatal care

Who Should NOT Immediately Breastfeed?

- No prenatal care (with confirmed substance use/abuse)
- Relapsed within 30 days of delivery
- Not willing to engage in treatment and/or will not give consent for communication among providers
- Positive UDS at time of delivery
- No plans for postpartum treatment or pediatric care
- Demonstrating behavioral qualities or other indicators of active use

Case by Case

- Relapsing in the 90-30 days before delivery, but substance-free in the last 30 days
- Use of other medications incompatible with lactation
- Started prenatal care and/or substance abuse treatment during or after the second trimester
- Sobriety in an inpatient setting only

WHEN CAN I/WE GO HOME?

DISCHARGE EXPECTATIONS

- MOCD reporting
- Inpatient monitoring for 4-7 days if no pharmacologic treatment needed
- If receiving scheduled meds, need to wean from those
- Approximately 48 hours after stopping pharmacologic treatment
- Need for optimal weight gain
- Need for close follow-up with the baby's pediatrician



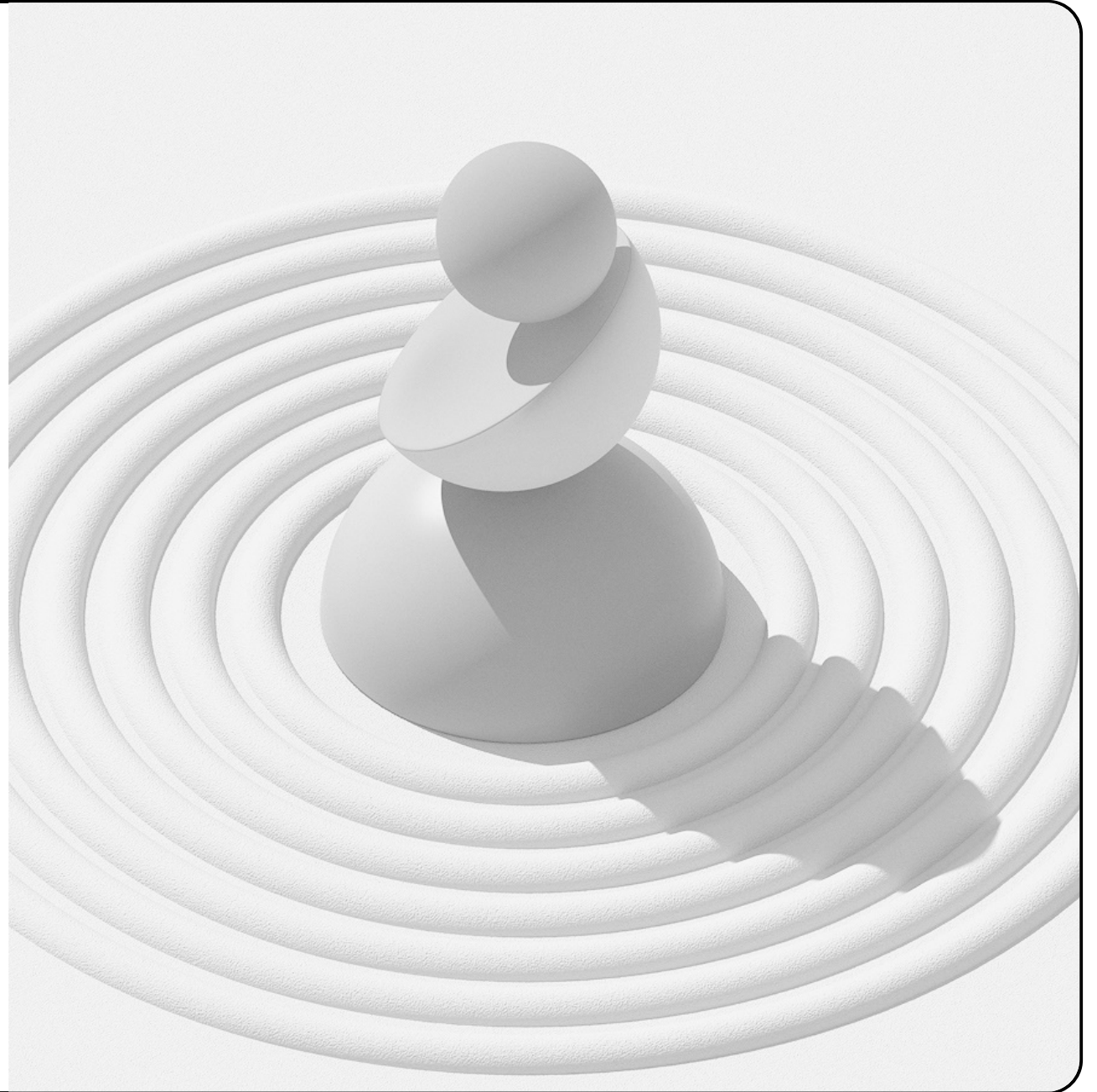
PULLING IT ALL TOGETHER

| Prenatal Consultation

DEMYSTIFY THE POSTPARTUM PERIOD

What should I expect?

- Normal signs and symptoms
- Duration of symptoms
- Location of care – baby and family
- Assessment and treatment
- What can I do?
- When can I go home?



KEEP IT SIMPLE: REVIEW SELECTED TOPICS

Topics to Discuss

MOM'S ROLE

- You are the treatment
- Plan to stay until baby is discharged
- Barriers to staying with baby
- Importance of breastfeeding or providing milk

WHAT TO EXPECT

- Symptoms of Neonatal Abstinence Syndrome (NAS)
- How baby will be assessed
- Treatment without medicine
- Treatment with medicine
- Discharge

WHAT CAN I DO

- Rooming-in
- Breastfeeding or pumping milk
- Keep lights, noise, visitors to a minimum
- Feed and comfort baby on demand
- Figure out what works best for your baby

FOLLOW-UP CARE

- Choose baby's pediatrician and make first appointment
- Schedule for continuing appointments

Give concise, written material that covers the most important topics:

- Location of baby
- Importance of mom/family
- Symptoms of NAS
- How baby will be assessed
- Nonpharmacologic treatment



YOU WILL LEARN WHAT WORKS BEST FOR YOUR OWN BABY

Planning for your baby

Prepare now and be ready

What to expect in the first few days

Your baby will experience a period of withdrawal from the medication you have been taking. This is called Neonatal Abstinence Syndrome, or NAS for short.

Some symptoms you might see include tremors or trembling, irritability, excessive crying, high-pitched crying, sleep problems, tight muscle tone, hyperactive reflexes, yawning, stuffy nose, sneezing, poor feeding and suck, diarrhea, vomiting, sweating, and fever.

The good news is that these symptoms are usually manageable with simple comfort measures. The first step is to keep baby and mother/family together.



Some things you can try to soothe your own baby:

Decrease Stimulation

Limit the number of visitors. Keep lights dim and sound low. Don't disturb baby if sleeping.

Hold Baby

Hold skin-to-skin. Swaddle in a light blanket. Rock gently.

Feed on Demand

Breastfeed. Short, frequent feedings. Pacifier as needed.

If your baby can effectively feed, sleep for at least an hour at a time, and be consoled within 10 minutes, then things are going well.

If any of these things are not happening, the nurses and doctors will work together with you to come up with a plan to make things better for your baby.

In these first few days, *you* will become the expert in caring for your baby, with the hospital staff there to support and assist you.

So, make arrangements in advance and plan to stay until your baby is ready to go home.

Once you are home, the journey continues

Make sure you take baby to all scheduled appointments.

You and your baby may need extra attention along the way, so stay connected to ensure a happy, healthy life for the whole family.

Breastfeeding:

- Benefits for mom
- Benefits for baby
- Symptoms of NAS
- Medication effects
- What do I need to do



THE SCOOP ON BREASTFEEDING

BREASTFEEDING IS BETTER FOR YOU AND YOUR BABY

For You:

- ✓ Your body makes hormones when you make milk. These hormones help you to feel relaxed, calm, less anxious, and may even lower your risk of postpartum depression.
- ✓ Makes the bond with your baby even stronger and makes you want to protect your baby more.
- ✓ All of this leads to a better home life for you and your baby.

For Your Baby:

- ✓ Your baby will get the perfect infant food. Your milk is easier on baby's tummy, so he feels better.
- ✓ Babies who get their mom's milk usually spend less time in the hospital and have a lower chance of needing medicine than those who don't.
- ✓ Your milk gives your baby benefits for life. It helps build a strong immune system and can lead to less ear infections, colds, and other more serious illnesses.
- ✓ It helps with brain development.

IF YOU CAN:

Stay in a treatment program

Get regular prenatal care

Have no relapses within at least a month of delivery

Have a negative UDS at the time of delivery

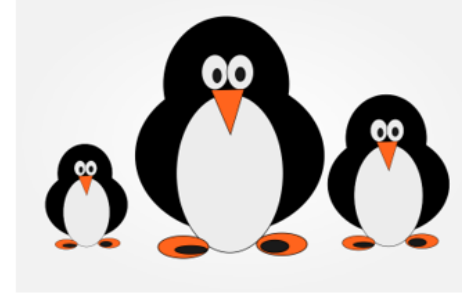
THEN LET'S TALK ABOUT BREASTFEEDING!!

THERE IS NOT ENOUGH BUPRENORPHINE OR METHADONE IN YOUR MILK TO HAVE ANY EFFECT ON YOUR BABY

IT CANNOT PREVENT WITHDRAWAL OR KEEP BABY DEPENDENT

Following up after discharge - basics:

- Importance of follow-up
- Make appointment
- Reschedule missed appointments
- Services are available



BABIES GROW UP

FOLLOW-UP IS THE KEY TO A HAPPY & HEALTHY LIFE

You have already taken the first steps to making a great life for your family – But this is just the beginning...

Good follow-up care will help ensure that your baby's development is on track, and can keep you involved in the services your family needs.

Choose a provider and make the first appointment before you and your baby even leave the hospital.

Keep regularly scheduled appointments and be sure to reschedule if you miss one.

Take your baby to all follow-up appointments

Regular visits for a check-up and immunizations:

One week
One month
Two months
4 - 6 -and 9 months
One year
18 months
Two years

Get connected with services that help your child stay on track

Children should be evaluated at 6 months, and again by 18 months

**THERE ARE SERVICES
AVAILABLE - ESPECIALLY
DESIGNED FOR YOUR
CHILDREN**

Optimizing the Involvement of Women with Opioid Use Disorder in the Care of Their Infants Experiencing Neonatal Abstinence Syndrome

Rebecca J Boedeker, DNP, RN, IBCLC

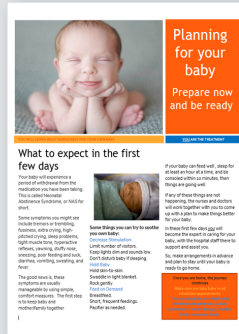
SSM Health St. Mary's Hospital – St. Louis, MO



PURPOSE

- The purpose of this project was to evaluate the effects of a prenatal consult designed to educate, motivate, and prepare mothers with OUD to participate in the nonpharmacologic care of their newborns.

- In neonates experiencing NAS, how does the maternal prenatal consult, compared to previous practice, affect the consistency of mothers rooming-in and breastfeeding to treat NAS in the first 5-7 days, as measured by:
 - the extent to which the mother rooms-in with her baby,
 - the percentage of babies who receive their mother's milk, and
 - the length of hospital stay for the baby
 - whether the baby was treated with morphine,
 - number of NICU admissions



BACKGROUND

The incidence of opioid use disorder (OUD) in the United States has grown to epidemic proportions

- The prevalence of OUD in pregnant women increased by 127% from 1998 to 2011 (Maeda, Bateman, Clancy, Creanga, and Leffert, 2014).
- Current research indicates maximizing non-pharmacologic, supportive management decreases NICU admissions, the length of stay, and the severity of NAS (Grossman et al, 2017).
- Breastfeeding and rooming-in are simple, non-pharmacologic measures that improve immediate outcomes for babies, but also set the stage for improving longer-term outcomes by enhancing the relationship and strengthening the bond between parents and their babies
- Parents need to be informed in advance of the significant role they are expected to play during the first 5-7 days after birth, requiring a longer stay in the hospital. Without the active participation of the parents, neither of these interventions can be employed.

METHODS

Setting

- Women and Infants Help (WISH) Center
 - Specialty prenatal clinic for women with OUD
 - Site for antenatal consults
- St. Mary's Hospital
 - Postpartum care for mom/baby from WISH

Design

- Antenatal consults at the WISH Center 1/22/18-4/24/18
- Retrospective chart review of deliveries from 11/6/17-4/24/18

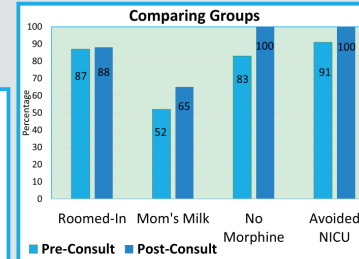
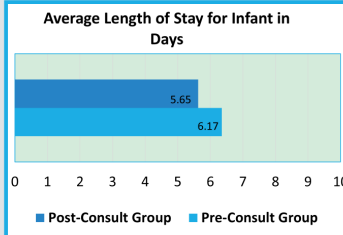
Sample

Mother/infant dyads:

- Inclusion** – Only mothers who received prenatal care at the WISH Center
- Exclusion** – Infants who were admitted to NICU for reasons other than NAS
- 23 subjects delivering 11/6/17-1/21/18 - no consult
- 17 subjects delivering 1/22/18-4/24/18 - received consult

RESULTS

While there was a clinical improvement, the difference in the average length of stay for the infants in each group was not statistically significant.



While there was a clinical improvement noted in each category, the relationship with the consult did not reach statistical significance.

Significant Correlations

	Correlation Coefficient	p-value
As the incidence of rooming-in decreased the length of stay increased.	r = 0.44	p = .005
As the incidence of receiving mom's milk decreased the length of stay increased.	r = 0.39	p = .014
As the incidence of rooming-in increased, the incidence of receiving mom's milk increased.	r = 0.41	p = .008

CONCLUSION

- The overall success of the model of care provided to this population during the study period warrants continuation.
- Further investigation is needed to identify and refine the factors which contribute to this success

IMPLICATIONS

- Future study should focus on the refinement of practices which support mother/family-centered, non-pharmacologic measures to treat infants at risk for NAS, and specialty prenatal care options.
- Research is needed to follow more long-term outcomes for these families. This would include associating the delivery of family-centered, nonpharmacologic care with the outcomes of :
 - Child development and behavior
 - Breastfeeding rates and duration
 - Quality of mother-infant bonding
 - Family stability

ACKNOWLEDGEMENTS

- I would like to express my sincere gratitude to my Committee Chairperson, Dr. Susan Dean-Baar, and my committee members Dr. Lisa Merritt and Pamela Lesser, and to Dr. Annah Bender for her assistance with data analysis.
- I would also like to thank my co-workers who allowed me time to focus on this work, and the staff and patients of the WISH Center who welcomed me into their lives.

REFERENCES

- Center for Behavioral Health Statistics and Quality. (2015). Behavioral health trends in the United States: Results from the 2014 National Survey on Drug Use and Health (HHS Publication No. SMA 15-4927, NSDUH Series H-50). Retrieved from <http://www.samhsa.gov/data/>
- Edwards, L., & Brown, L. F. (2016). Nonpharmacologic management of neonatal abstinence syndrome: an integrative review. *Neonatal Network, 35*(5), 305-313
- Grossman, M. R., Berkwitz, A. K., Osborn, R. R., Xu, Y., Esserman, D. A., Shapiro, E. D., & Bizzarro, M. J. (2017). An Initiative to Improve the Quality of Care of Infants with Neonatal Abstinence Syndrome. *Pediatrics, 139*(6), e20163360.
- Maeda, A., Bateman, B. T., Clancy, C. R., Creanga, A. A., & Leffert, L. R. (2014). Opioid abuse and dependence during pregnancy: temporal trends and obstetrical outcomes. *Anesthesiology: The Journal of the American Society of Anesthesiologists, 121*(6), 1158-1165. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/25405293>
- Mcqueen, K., & Murphy-Oikonen, J. (2016). Neonatal Abstinence Syndrome. *New England Journal of Medicine, 375*(25), 2468-2479. doi:10.1056/nejma1600879

QUESTIONS?

TEXT: 314-485-9697

REFERENCES

- Bogen, D. L., Perel, J. M., Helsel, J. C., Hanusa, B. H., Thompson, M., & Wisner, K. L. (2011). Estimated Infant Exposure to Enantiomer-Specific Methadone Levels in Breastmilk. *Breastfeeding Medicine*, 6(6), 377-384. doi:10.1089/bfm.2010.0060
- Deoni, S. C., Dean, D. C., Piryatinsky, I., O'muircheartaigh, J., Waskiewicz, N., Lehman, K., . . . Dirks, H. (2013). Breastfeeding and early white matter development: A cross-sectional study. *NeuroImage*, 82, 77-86. doi: 10.1016/j.neuroimage.2013.05.090
- Grossman, M., Berkwitz, A., Osborn, R., Xu, Y., Esserman, D., Shapiro, E., and Bizzarro, M. (2017) An Initiative to Improve the Quality of Care of Infants With Neonatal Abstinence Syndrome. *Pediatrics* DOI 10.1542/peds.2016-3360.
- Hale, T. & Rowe, H. (2017). *Medications and Mothers' Milk 2017*. Springer Publishing Company.
- Hirai, A. H., Ko, J. Y., Owens, P. L., Stocks, C., & Patrick, S. W. (2021). Neonatal abstinence syndrome and maternal opioid-related diagnoses in the US, 2010-2017. *JAMA*, 325(2), 146. <https://doi.org/10.1001/jama.2020.24991>
- Howard, M.B., Schiff, D., Penwill, N., Si, W., Wolfgang, T., Moses, J., and Wachman, E. (2017) Impact of Parental Presence at Infants' Bedside on Neonatal Abstinence Syndrome. *Hospital Pediatrics*. DOI: 10.1542/hpeds.2016-0147.
- Illinois Perinatal Quality Collaborative. (2018). Mothers and newborns affected by opioids. Retrieved from <http://ilpqc.org/>.
- Jansson, L. (2015) Lactation and Substance-Exposed Mother/Infant Dyad. *Vermont Oxford Network*.
- Ko, J., Wolicki, S., Barfield, W., Patrick, S., Broussard, C., Yonkers, K., Naimon, R., and Iskander, J. (2017) CDC Grand Rounds: Public Health Strategies to Prevent Neonatal Abstinence Syndrome. *Centers for Disease Control and Prevention*. March 10, 2017/66(9);242-245.
- Macmillan, K., Rendon, C., Verma, K., Riblet, N., Washer, D., Holmes, A. (2018) Association of Rooming-in With Outcomes for Neonatal Abstinence Syndrome A Systematic Review and Meta-analysis. *JAMA Pediatrics* doi: 10.1001/jamapediatrics.2017.5195.
- Perlman J, Deodhar P, Sanders V, Jerome J, McDaniel C. Improving Care for Infants With Neonatal Abstinence Syndrome: A Multicenter, Community Hospital-Based Study. *Hosp Pediatr*. 2019 Aug;9(8):608-614. doi: 10.1542/hpeds.2019-0083. Epub 2019 Jul 15. PMID: 31308049.

REFERENCES

- Reece-Stremtan, S., & Marinelli, K. A. (2015). ABM Clinical Protocol #21: Guidelines for Breastfeeding and Substance Use or Substance Use Disorder, Revised 2015. *Breastfeeding Medicine*, 10(3), 135-141. doi:10.1089/bfm.2015.9992
- Ryan K, Moyer A, Glait M, Yan K, Dasgupta M, Saudek K, Cabacungan E. Correlating Scores but Contrasting Outcomes for Eat Sleep Console Versus Modified Finnegan. *Hosp Pediatr*. 2021 Apr;11(4):350-357. doi: 10.1542/hpeds.2020-003665. Epub 2021 Mar 2. PMID: 33653727.
- Spence, K, Boedeker, R., Harhausen, M., Kaushal G., Buchman, P., and Josephsen, J. (2020) Avoiding NICU Transfers for Newborns With Neonatal Opioid Withdrawal Syndrome (NOWS): A Quality Improvement Initiative to Manage NOWS on the Mother-Baby Unit. *American Society of Addiction Medicine*.
- Wachman, E. Grossman, M., Schiff, D., Philipp, B., Minear, S., Hutton, E., Kelley, S., FNU, N., Khattab, A., Nolin, A., Alvarez, C., Barry, K., Combs, G., Stickney, C., Driscoll, J., Humphreys, R., Burke, J., Farrell, C., Shrestha, H., Whalen, B. (2018) Quality improvement initiative to improve outcomes for Neonatal Abstinence Syndrome. *Journal of Perinatology* (2018) 38:1114-1122.
- Wachman, E. M., Saia, K., Humphreys, R., Minear, S., Combs, G., & Philipp, B. L. (2016). Revision of Breastfeeding Guidelines in the Setting of Maternal Opioid Use Disorder. *Journal of Human Lactation*, 32(2), 382-387. doi:10.1177/0890334415613823



Show-Me Grace: Recovery-Oriented Systems of Care for Pregnant & Postpartum Families *Panel Discussion*

April 1, 2026

IN PARTNERSHIP WITH THE



Why This Matters: Maternal Health

- Pregnant and postpartum individuals face **high risk for substance use** and **mental health challenges**
- Substance use and overdose are **leading causes of maternal death** during pregnancy and up to 1 yr after birth
- **Risk increases during postpartum** — a period when care and support often drop off
- Pregnancy status **impacts access to treatment**
- **Very few** pregnant individuals **receive SUD treatment**

Why This Matters: Families

National Data:

- **72,271** children in the US entered foster care due to parental drug or alcohol use in 2022.
- Children under age 1 are especially vulnerable: **51.3% of infants** removed had parental substance use as a factor.

Missouri Data:

- **46%** of foster care placements in 2022 were due to parental substance use (**2,723 children** in one year).
- Higher than the national average of 33%.
- **Less than half** (45%) of these families achieve reunification

The Current Reality for Families

- Conflicting expectations across systems
- Fear of disclosure, removal, or punishment
- Stigma around substance use in pregnancy
- Limited understanding of rights, processes, and timelines
- Histories of trauma that impact trust and engagement

Why a Coordinated Approach Matters

- Recovery improves when providers communicate across roles/systems
- Collaboration reduces conflicting directives and mixed messages
- Non-punitive, relational responses promote trust and engagement
- Family-centered care strengthens attachment and long-term outcomes

What is a ROSC?



Core Tenets of a ROSC

- ✓ Person-centered
- ✓ Self-directed
- ✓ Strengths-based
- ✓ Trauma-informed
- ✓ Evidence-based
- ✓ Culturally responsive
- ✓ Peer & Family Support
- ✓ Cross-system collaboration
- ✓ Continuous, long-term support

Purpose of Today's Panel

Our discussion will cover:

- What recovery-oriented care looks like in different systems
- Where breakdowns happen and why
- Points where fear, stigma, or confusion derail families
- Real examples of collaboration that works
- The impact of punitive vs. supportive approaches
- What each system can do differently tomorrow

Meet The Panelists

Dr. Bridget Galati, DO, FASAM, PMH-C
Perinatal Addiction Psychiatrist
WashU School of Medicine

Brittany Estes, CPS
Lead Peer Specialist
EPICC Program

Judge Shannon Dougherty
Circuit Judge / Administrative Judge
Jefferson County Family Court &
Treatment Courts

Merissa Fisk
Supervisor
Greene County Juvenile Office
Abuse & Neglect Unit

Panel Discussion



BUILDING WHAT WE NEED

HOW LIVED EXPERIENCE IS INFORMING PROGRAM DESIGN AND LEADING SYSTEM INNOVATION

Missouri Maternal Health Action Network (MHAN) at the UMKC Institute for Human Development

Bryce Starr, Project Manager, MHAN

Heather Reams, Lived Experience, MHAN

Kri Korte, Lived Experience, MHAN

Session Etiquette

To ensure the privacy of our speakers, we ask that the personal experiences and encounters shared with you today remain confidential. What is shared in this space should remain in this space unless you have permission from the individual.

Please help us in creating a safe and trauma-aware environment by reviewing the session etiquette:

- Promote a safe, warm and welcoming space for all.
- Stay present and minimize distractions
- Give grace and respect to other's voices.
- Listen with empathy and understanding.
- Value the diverse experiences and backgrounds of those who share.
- Engage in discussion when the time comes.



Why Voices of Lived Experience Matter

Today we will explore:

- Why voices of lived experience are essential to strengthening maternal health systems.
- Barriers mothers and families encounter navigating services.
- How MHAN integrates lived experience leadership.
- Examples of initiatives shaped by lived experience perspectives.
- How organizations can integrate lived experience voices into program design and systems improvement.

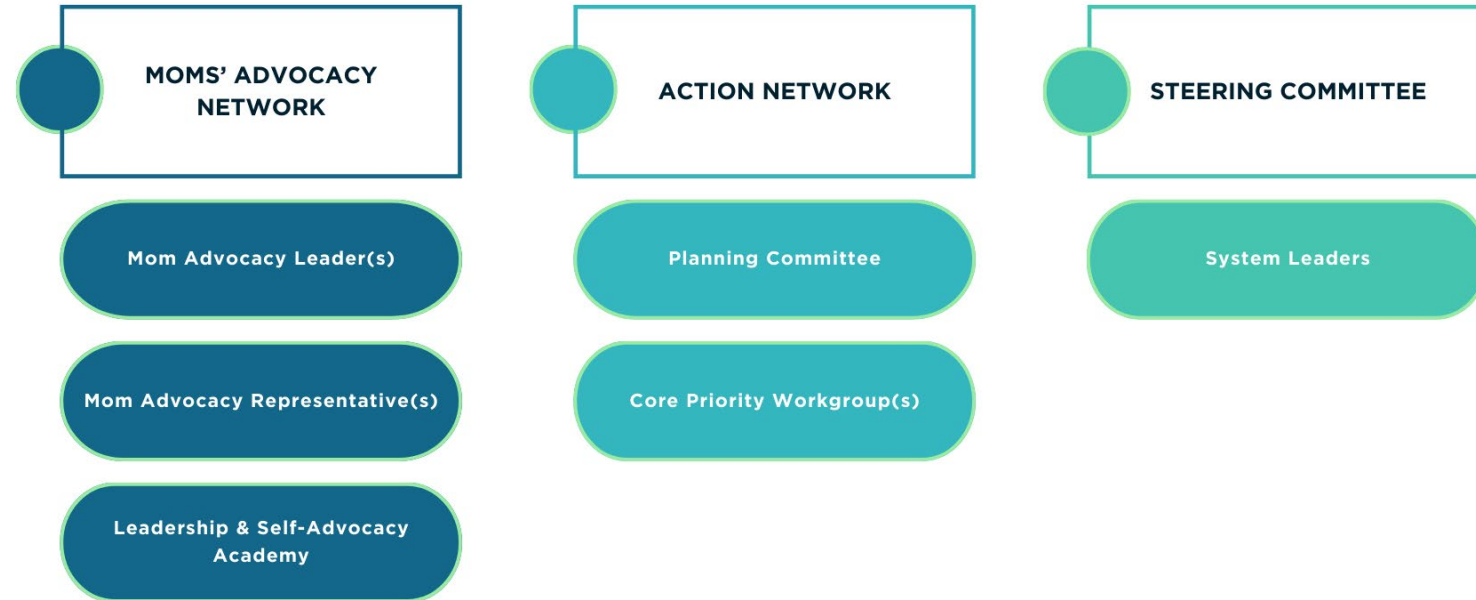
Individuals with lived experience will provide insight into:

- Barriers accessing services.
- Navigating multiple systems.
- Gaps between services and real-world needs.
- What supports families need to feel respected and supported.



The MHAN Approach to Strengthening Systems of Care

- **Voices of Lived Experience**
(Authentic perspectives driving insight)
- **Leadership Development**
(Building skills, confidence, and advocacy)
- **Community & Systems Engagement**
(Bridging lived experience with providers and systems)
- **Program & Initiative Development**
(Co-creating solutions and strategies)
- **Statewide Systems Improvement**
(Transforming policies, practices, and outcomes)



MHAN is setting a new standard for how lived experience is authentically integrated, meaningfully compensated, and intentionally elevated as equal partners in shaping policy, practice, and systems change. By embedding lived experience at every level of decision making and leadership, MHAN is advancing a model where those most impacted are not only heard but are driving the strategies and solutions that transform maternal health systems across Missouri.



Why This Matters Now

Across the country, maternal health systems are working to address:

- Barriers to behavioral health & substance use services.
- Fragmentation across systems.
- Workforce capacity & integration gaps.
- Opportunities to strengthen person- & family-centered care.
- Gaps in early identification, navigation & follow-up.
- System misalignment across sectors.

Voices of lived experience provide insight that helps systems identify practical solutions and opportunities for improvement.



Mapping the Systems Mothers Navigate

Step 1: Think about a mother seeking support during pregnancy or after birth.

She may be navigating multiple needs at once, including physical health, mental health, recovery, parenting, and basic needs like housing and transportation.

Step 2: What systems might she interact with while trying to access care?

Each system has its own processes, eligibility requirements, language, and expectations, often without clear coordination or shared communication.

Examples:

- Obstetric care
- Behavioral health services
- Substance use treatment
- Housing supports
- Transportation
- Child welfare
- Community programs





VOICES OF LIVED EXPERIENCE

HEATHER REAMS, LIVED EXPERIENCE, MHAN FFY25 MOM ADVOCACY REPRESENTATIVE – CENTRAL REGION



VOICES OF LIVED EXPERIENCE

KRI KORTE, LIVED EXPERIENCE, MHAN FFY24 MOM ADVOCACY LEADER/REPRESENTATIVE – NORTHEAST REGION

Navigating Multiple Systems

Families often interact with multiple, unconnected systems when seeking support during pregnancy and postpartum. These systems may include:

- Obstetric care
- Behavioral health services
- Substance use treatment
- Housing supports
- Transportation
- Child welfare
- Community programs

Why This Matters

- Families are often responsible for navigating complex systems on their own.
- Referral pathways are not always clear or connected.
- Communication across systems is inconsistent.
- Opportunities for warm handoffs and follow-up are often missed.



Barriers Identified Through Community Engagement

Common Barriers Families Experience:

- **Navigation Challenges**

Unclear entry points and complex systems make it difficult for families to know where to start or how to access services.

- **Coordination Challenges**

Limited communication and disconnected systems lead to gaps in referrals, follow-up, and continuity of care.

- **Social Barriers**

Negative social perceptions related to mental health and substance use can impact trust, engagement, and willingness to seek support.

- **Practical Barriers**

Transportation, childcare, and other day-to-day needs create additional obstacles to attending appointments and staying connected to care.

- **System & Legal Barriers**

Involvement with the justice system or child welfare system can create fear, confusion, and additional complexity in accessing services.

At MHAN, lived experience not only identifies these barriers but leads the way in shaping solutions. Our approach to advancing lived experience leadership is how we intentionally build, support, and elevate that leadership to drive real systems change.



MHAN Approach to Advancing Lived Experience Leadership

MHAN supports lived experience leadership through intentional, structured pathways that center mothers and families as partners in shaping programs, practices, and systems:

- **Moms' Advocacy Network**
A statewide community of mothers and families with lived experience that fosters peer connection, shared learning, and meaningful engagement across the pregnancy and postpartum continuum.
- **Leadership & Self-Advocacy Academy**
A year-long leadership development experience that builds confidence, knowledge, and advocacy skills, preparing participants to engage in systems-level conversations and influence change.
- **Mom Advocacy Representatives & Alumni Network**
Graduates of the Academy and engaged members take on regional and statewide leadership roles, elevating community voice, informing decision-making, and strengthening connections between local communities and state systems.
- **Statewide Community Engagement & Peer Connection**
Ongoing opportunities for connection, storytelling, and peer support that ensure lived experience remains grounded in real-time community needs and experiences across Missouri.
- **Participation in Advisory Groups, Workgroups & System Initiatives**
Lived experience leaders are actively integrated into advisory groups, statewide initiatives, and cross-sector workgroups, ensuring their perspectives directly inform program design, policy discussions, and implementation strategies.
- **Co-Design of Programs, Initiatives & Systems Strategies**
MHAN engages lived experience leaders as partners in developing initiatives such as peer workforce integration, navigation models, self-screening approaches, and community-to-clinical alignment strategies.
- **Pathways to Workforce & Systems Integration**
Opportunities for lived experience leaders to engage in and transition into roles such as peer support specialists, community health workers, doulas, and system advisors, supporting sustainable workforce development and integration.



What Mothers Told Us, What MHAN Built

Mothers told us they want opportunities to lead, grow, and advance and to be seen as equal partners in decision-making

So we created: Leadership & Self-Advocacy Academy, ongoing development opportunities, and pathways into roles like Certified Peer Specialist so lived experience is not just included, but actively driving policy, practice, and systems change.

Mothers told us negative social perceptions of MAT are impacting their experiences and outcomes across systems

So we created: MAT & Family Unification CLE to bring partners together, align on evidence-based approaches, and support more consistent, person-centered decision-making.

Mothers told us systems feel overwhelming, disconnected, and hard to navigate

So we created: Maternal Self-Screening Initiative to create clearer entry points, strengthen navigation, and connect families to the right supports at the right time.

Mothers told us peers, doulas, and community health workers are not consistently integrated or supported

So we are developing: Statewide Community-to-Clinical Integration Framework to better define roles, strengthen coordination, and build sustainable pathways across systems.

Mothers told us there is a lack of coordination, follow-up, and real connection across systems

So we are advancing: Whole-person and whole-family centered care through community-to-clinical alignment strategies that prioritize warm handoffs, continuity, and meaningful support across the pregnancy and postpartum journey.



Education Access & Quality



CONTINUING LEGAL EDUCATION

Medication-Assisted Treatment (MAT) and Family Unification: *Bridging Justice and Recovery*

Friday, April 10

Free, full-day CLE via Zoom

REGISTER TODAY!



UMKC Institute for
Human Development



Learn More &
Register



Statewide Peer-Based Recovery Support TAC

We're excited to share that the UMKC Institute for Human Development has been awarded a new grant from the Missouri Department of Health and Senior Services to establish a Maternal Peer-Based Recovery Support Technical Assistance Center (TAC).

Purpose: This new initiative will focus on strengthening peer-based recovery support programs for pregnant and postpartum individuals experiencing substance use and co-occurring mental health conditions.

What the TAC will do: Through this work, the TAC will provide training, technical assistance, and evaluation support to partners and programs across Missouri.

Building on Existing Work: What makes this effort especially meaningful is that it builds directly on the foundation many of you have helped create through the Maternal Health Action Network (MHAN) and the Moms' Advocacy Network. The TAC will continue to bring together providers, peer leaders, and mothers with lived experience to strengthen systems of care and improve outcomes for families across the state.

Why this matters: We're really excited about the opportunity this brings to deepen our impact, expand support for the peer workforce, and continue advancing more connected, person- and family-centered care across Missouri.

More to come soon as this work continues to take shape. Thank you all for being part of what makes this possible.



MHAN Lived Experience Leadership & Self-Advocacy

Academy participants and alumni engage in a variety leadership and capacity building activities, including:

- Serving as Mom Advocacy Representatives across Missouri.
- Participating in state and regional advisory groups.
- Presenting at conferences and trainings.
- Supporting community outreach and engagement.
- Mentoring other mothers and advocates.
- Contributing to program development and systems improvement efforts.



Cohort & Alumni Accomplishments:

Cohort Accomplishments

- One participant received certification to be a Certified Peer Specialist through the Missouri Credentialing Board (MCB).
- One received Missouri Associate Alcohol and Drug Counselor II Certification.
- One gained employment at Queen of Peace Center supporting women and families impacted by substance use.
- One served on as an Executive Leadership Board member for The Naloxone Project (TNP) of Missouri with the Missouri Hospital Association (MHA).
- One served as an Advocate for Safe Babies Court in Jackson County to promote family-centered approaches to child welfare.
- One collaborated with Missouri Appleseed to develop and deliver Medication-Assisted Treatment (MAT) training.
- One served as a speaker at the Perinatal Quality Collaborative (PCQ) Neonatal Abstinence Syndrome Summit.
- Five panelists spoke for Voices of Lived Experience Panel at the MHAN Summit.
- Five panel speakers at the Maternal and Infant Health Convening.
- One served as guest lecturer for the University of Missouri–Kansas City (UMKC) Law Class on lived experience and maternal health advocacy.

Alumni Accomplishments

- One pursuing GED and working toward Certified Peer Specialist through MCB.
- Two serve on the Maternal and Child Health (MCH) Alliance with DHSS.
- One contributes to MHA/PQC MC-LAN initiatives.
- One pursuing a bachelor's degree in psychology with dual major in addiction studies and child & adolescent development.
- One developed Substance Use Disorder Training with Korédé House.
- One serves as a trainer for MCB Pregnant and Parenting Families (PPF) Credential.
- One is working with DHSS/DMH on Overdose Strategic Plan.
- Two shared lived experiences at state and regional events.



Network Impact

Lived experience is not only informing the work but also driving meaningful systems conversations and change across Missouri.

Examples include:

- Peer Workforce Advancement & Career Pathways
- Community-to-Clinical Integration of Peers, Doulas, and CHWs
- Maternal Self-Screening Initiative
- MAT & Family Unification CLE

These efforts highlight how lived experience leadership contributes to practical systems improvement.





An AMCHP-designated Emerging Practice

Emerging Practice

Missouri Maternal Health Action Network: Building Sustainable Infrastructure to Improve Maternal Behavioral Health Outcomes

MHAN Entry
Page



Integrating Voices of Lived Experience as Equal Partners

Organizations can strengthen systems by intentionally integrating voices of lived experience. MHAN's model focuses on partnership rather than consultation.

Key practices include:

- Shared decision-making.
- Leadership development opportunities.
- Compensation and recognition of lived experience expertise.
- Trauma-informed engagement environments.



Strengthening Systems of Care

When voices of lived experience inform programs and partnerships:

- Programs become more accessible.
- Systems become more collaborative.
- Services better reflect the needs of mothers and families.



Key Takeaways

- Voices of lived experience provide insight into barriers systems may not see.
- Authentic engagement strengthens programs and services.
- Leadership opportunities allow lived experience voices to inform systems improvement.
- Collaboration across community and clinical partners strengthens systems of care.



Audience Reflection

How might your organization strengthen engagement with voices of lived experience when designing:

- Programs
- Initiatives
- Policies
- Cross-sector collaborations?

What opportunities exist to engage lived experience voices as partners in shaping solutions?



Funding Provided By



MISSOURI DEPARTMENT OF **HEALTH & SENIOR SERVICES**

This project is/was funded in part by the Missouri Department of Health and Senior Services Title V Maternal and Child Health Services Multisector Action Network Contract #DH250057001, and is/was supported by the Health Resources Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant #B04MC52935, Maternal and Child Health Services for \$12,742,189, of which \$0 is from non-governmental sources. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.



Get Involved

- Join or lead a Workgroup by completing the brief [Workgroup Sign-up Form](#).
- Share system updates or organizational news by completing the brief [Bee in the Know - System Updates, Organizational News](#)
- Share your [programs and initiatives](#)
- Stay current on all things MCH in Missouri:
 - [Action Network Announcement Page](#)
 - [Weekly Snapshot](#)
- Connect with us on social media:
 - [Facebook](#)
 - [MO Action Network Website](#)
 - Email: mo_actionnetwork@umkc.edu
- [Refer mothers and families](#) who have been affected by perinatal substance use, and mental or behavioral health challenges.
- [Refer colleagues, providers, or organizations](#) who would benefit from being a part of the conversation.
- Sponsor a mother to participate in further capacity-building and leadership opportunities? Contact mo_actionnetwork@umkc.edu



Contact Us

UMKC-IHD MHAN Project Team

Danielle Chiang, PhD, PI

chiangd@umkc.edu

Bryce Starr, MS, ASN, Project Manager

starrb@umkc.edu

Missouri Maternal Health Action Network (MHAN)

Email: mo_actionnetwork@umkc.edu

Website: moactionnetwork.org

Facebook: <https://www.facebook.com/MissouriMHAN>

MHAN Website



Contact Us

UMKC-IHD MHAN Project Team

Danielle Chiang, PhD, PI

chiangd@umkc.edu

Bryce Starr, MS, ASN, Project Manager

starrb@umkc.edu

Missouri Maternal Health Action Network (MHAN)

Email: mo_actionnetwork@umkc.edu

Website: moactionnetwork.org

Facebook: <https://www.facebook.com/MissouriMHAN>

MHAN Website

