Executive Summary

The issue of opioid use during pregnancy is tethered to medicine, behavioral health, child protection, civil rights and women’s issues — perhaps in a way that no other public health crisis affecting women has. The impact of maternal opioid use on both the mother and unborn fetus is a serious community concern. As individuals and professionals in our communities, all of us have a role in improving maternal and infant health. Neonatal abstinence syndrome is a drug withdrawal syndrome experienced shortly after birth by infants who were exposed to opioids in utero. NAS affects between six and 20 newborns per 1,000 live U.S. births, and infant withdrawal from licit or illicit opioids is increasing at an alarming rate throughout the nation. In Missouri, the incidence of NAS increased 270 percent between 2008 and 2017. In addition, novel surveillance techniques suggest substantial variability in how NAS is diagnosed and managed in Missouri.

Women often experience pressure not to engage in recovery, treatment or self-care due to the many demands placed on them by their children, partners, extended family, careers and beyond. Additionally, concerns about fetal drug exposure have given rise to new laws and applications of existing laws that seek to deter women from using opioids during their pregnancies and to enforce accountability for those mothers that continue to use them. Pregnant women who give birth to drug-exposed infants are immediately confronted with individual and institutional stigma, and find themselves at the nexus of public health, criminal justice and family court intervention.

Stress and fear of court intervention creates a significant barrier to identifying maternal opioid use and supporting mother-baby dyad care models. One study found that women were afraid of being identified as substance users during their pregnancies. The scenarios they were most fearful of were testing positive for substances at prenatal visits or after delivery, losing custody of their newborns and/or their other children, and experiencing criminal justice consequences for their substance use thereby leading to minimal, if any, prenatal care during pregnancy. Managing this risk of detection can lead to social isolation, skipping OUD and prenatal treatment appointments, or avoiding treatment altogether. Women face tremendous stigma and challenges navigating health and legal consequences while also attempting to access needed OUD treatment, namely medication-assisted treatment (MAT) and recovery support in their communities.

“Withdrawal for a newborn is treatable! But if you destroy their family because you can’t manage a woman’s treatment and recovery, that’s way more difficult to treat.”

Dr. Jaye Shyken
Supporting the Mother-Baby Dyad Through Recovery-Oriented Systems Of Care

One of the strategies of national health care reform is the expansion of coverage for pregnant and post-partum women with behavioral health disorders. In 2018, the Missouri legislature passed Senate Bill 718, declaring that the years from 2018 to 2028 shall be designated as the “Show-Me Freedom from Opioid Addiction Decade.”

During this same legislative session, Missouri authorized as much as 12 additional months of Medicaid coverage of substance use and mental health treatment for post-partum women who receive substance use treatment within 60 days of giving birth and who adhere to the treatment program (House Bill 2280). A promising approach in this reform is a public health model that promotes recovery-oriented systems of care (ROSC) through its vision of prevention, screening and early intervention, treatment, recovery, and integration with primary health care. By design, ROSC provides individuals and families with more options to make informed decisions regarding their care — services are meant to be accessible, welcoming and easy to navigate. A fundamental value of ROSC is the involvement of people in recovery, including their families and the community, to continually improve access to care and increase the quality of services. Through this social ecological lens and systems approach, agencies that treat and care for women can offer a more holistic approach that is responsive to the whole woman, her environment and the entire family unit.

Analysis of data from more than 50,000 participants in the National Survey on Drug Use and Health found that among prescription opioid users, men reported significantly higher rates of treatment utilization (11 percent lifetime; 5 percent past year) compared with women (6 percent lifetime; 3 percent past year). The reasons why women have lower treatment utilization are not well understood; although, the National Survey of Substance Abuse Treatment Service research suggests a lack of services for women may play a role. When women do enter treatment for substance use disorder, they typically present with medical, behavioral, psychological and social problems (e.g. domestic violence, physical illness) that are generally more severe than for men. As a result of these differences, women with OUD benefit from gender-responsive treatment programs — programs that are tailored to the unique needs of women. Approximately 70 percent of women entering substance use disorder treatment services have children.
Universal Screening: Beginning a Conversation That Could Save Two Lives

Patients generally are reluctant to discuss substance use in medical settings. For women, often this reluctance turns into avoidance because admitting to opioid use during pregnancy may lead to involvement with the criminal justice system and social services. A welcoming environment can help patients feel safe to disclose facts they may find embarrassing and shameful. Motivational interviewing strategies, such as asking open-ended questions, foster successful assessment. Protocols for screening for OUD should be similar to screening processes for other chronic diseases.

It is recommended that OUD screening be universal (i.e., all patients should be screened at every visit) and that, at a minimum, patients should be screened annually unless they represent a priority population known to be at higher risk of opioid misuse and overdose. The integration of universal screening to detect OUD can help gauge its severity, inform treatment planning, clarify potential drug interactions and highlight the negative consequences of a patient’s opioid use. There are a number of validated alcohol and substance use screening questionnaires that can be administered to patients, on paper or orally, by a health care provider. Commonly used validated screening tools for alcohol and other drug use include the following.

- Alcohol Use Disorders Identification Test (AUDIT)
- Drug Abuse Screening Test (DAST)
- Alcohol, Smoking, Substance Involvement, Screening Test (ASSIST)
- Cut Down, Annoyed, Guilty, Eye-Opener (CAGE)
- Open-ended, thought-provoking questions encourage patients to explore their own experiences. Ask questions like, “In what ways has oxycodone affected your life?”, or “What could you do to prevent infections like this in the future?”
- Closed-ended questions with yes/no answers — such as, “Has oxycodone caused your family trouble?” — can seem judgmental to patients who already feel ashamed and defensive. Closed-ended questions don’t help patients become aware of and express their own circumstances and motivations, nor do they encourage patients to identify what they see as the consequences of their substance use.

Screening Options for Mom

SAMHSA recommends a five Ps screening tool be administered at every primary care, prenatal or hospital visit for female patients of childbearing age. A patient with a score of two or higher will be referred for an assessment. This tool is five simple questions. Using the Screening, Brief Intervention and Referral to Treatment (SBIRT) screening tool, a patient with a score of four or more will be referred for an assessment. The benefits of this screening tool is that clinicians are trained to provide immediate feedback to the client, and it is a useful screening tool for all substances. To administer the SBIRT, a clinician needs to complete four hours of free, online training.
A 2016 study found that men were nearly **THREE TIMES** more likely than women to receive naloxone in emergency medical services opioid overdose resuscitation efforts.\(^{xxi}\)

**What We Learned From Our Hospital Members — How Mothers and Infants Can Benefit**

In 2018, the Missouri Hospital Association administered a survey to birthing hospitals to discern adoption of universal OUD screening protocols and the scope of services and care models currently being offered to mothers and their infants. To conduct broader examination on the prevalence of opioid misuse and NAS, MHA resurveyed members in February 2019, and reached beyond birthing centers to also include children’s hospitals, emergency departments, and directors of obstetrics and neonatology. Key findings from the surveys are listed below.

- In the 2018 survey of birthing centers, \(75\%\) reported the practice of screening for opioids or other substance use.
- Of the 2019 survey respondents, two out of 18 (\(12\%\)) conduct OUD screening at every visit; \(56\%\) conduct OUD screening with varying frequency.
- According to the 2019 survey, barriers to screening mothers centered on the need for consent, time needed to conduct the interview, collecting urine specimens during triage and wait times for urine lab results.
- Of all survey respondents, \(56\%\) are not offering pregnant women MAT options.

- A significant number of respondents report patients’ substance use to a children’s division based on mandated reporting of suspected abuse and/or neglect.
- Collectively, \(78\%\) of respondents reported no mechanism for follow-up on community-based resources provided to mothers.
- Several respondents noted no referral or resource provision for pregnant or post-partum mothers.
- Respondents identified the need for additional training and education on screening instruments, OUD and evidence-based treatment options that support mother-baby dyad care models.
- Additionally, 2019 survey results revealed that \(33\%\) of hospitals are not screening infants for NAS. For hospitals that do screen infants, respondents reported difficulty collecting and receiving lab results in a timely manner; however, decreasing delays in testing would enable medical personnel to diagnose and refer more appropriately. Several hospital staff indicated difficulty speaking with the mother when NAS or opioid exposure was suspected. Respondents also identified workforce shortages and gaps in professional development as a barrier to providing evidence-based OUD treatment options in support of mother-baby dyad care models.

As applied to infants, it is imperative that health care providers integrate valid and reliable screening methods (e.g. the Modified Finnegan or Finnegan; Eat, Sleep, Console model or the Lipsitz Neonatal Drug Withdrawal Scoring System)\(^{xxv}\) to improve identification of NAS and subsequent care coordination. Symptoms to consider when screening infants include excessive crying, continuous sleep, Moro reflex, tremors, increased muscle tone, excoration, seizure, poor feeding, hyperthermia, nasal stuffiness, vomiting, slowed respiratory rate, sneezing, yawning, loose stools and irritability.\(^{xx, xxii}\) Onset of withdrawal begins within 24-72 hours after delivery and can last as long as five days.\(^{xx, xxiii}\) The Eat, Sleep, Console model is found to reduce hospital stays and pharmacologic intervention for opioid-exposed infants.\(^{xxiii}\) Other recommended treatments to include, with or without induction of pharmacotherapy, are skin-to-skin contact, frequent feedings and breastfeeding unless contraindicated for another reason. Breastfeeding, stimulation, swaddling and pacifier use with frequency all have been found to reduce the severity of NAS.\(^{xx, xxii, xxiv, xxv}\)

**Medication-Assisted Treatment: A Standard of Care for Pregnant Women With OUD**

MAT is an evidence-based treatment approach for individuals with OUD. It is the standard of care for pregnant women with OUD and leads to improved birth outcomes, including higher birthweight, reduced incidence of NAS and shorter hospital stays for the infant. It is reported that \(50\%\) of pregnant women with OUD in publicly-funded treatment programs receive MAT.\(^{xxiv}\)
# MEDICATION-ASSISTED TREATMENT

## FDA-APPROVED DRUGS FOR THE TREATMENT OF OPIOID USE DISORDER

<table>
<thead>
<tr>
<th>Medication</th>
<th>MOA</th>
<th>Formulations</th>
<th>Dosing Frequency</th>
<th>As an APRN Can I Prescribe?</th>
<th>Special Consideration</th>
<th>Covered Under Medicaid?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methadone</td>
<td>Full agonist</td>
<td>Pill, liquid and water forms</td>
<td>Daily</td>
<td>No</td>
<td>Client must have reliable transportation to Opioid Treatment Center.</td>
<td>Yes</td>
</tr>
<tr>
<td>Naltrexone</td>
<td>Antagonist</td>
<td>Pill or extended release injection</td>
<td>Daily for pill. Monthly for IM injection</td>
<td>Yes</td>
<td>Client requires med alert bracelet or dog tags.</td>
<td>Yes</td>
</tr>
</tbody>
</table>

## SPECIAL POPULATIONS (ADAPTED FROM ASAM GUIDELINES)

- **Pregnancy**
  - Methadone or buprenorphine. Encourage breastfeeding. Both methadone and buprenorphine have an L2 rating for breastfeeding.

- **Adolescents**
  - Methadone, buprenorphine-malazone combination product, oral or LAI naltrexone.

- **Psychiatric Disorders**
  - Methadone, buprenorphine-malazone combination product, oral or LAI naltrexone. Manage drug interactions and stabilize patient before initiating treatment.

- **Incarceration**
  - Methadone, buprenorphine-naloxone combination product, LAI naltrexone (Initiate RX>30 days before release).
A meta-analysis published by the *Journal of Addiction Medicine* summarized the results from 75 studies that focused on prenatal and postnatal OUD treatment of women and their opioid-exposed infants and children. The findings point to several conclusions.  

Although withdrawal from opioids to an opioid-free state is possible during pregnancy, relapse rates are high; and repeated cycles of intoxication and withdrawal are associated with possible adverse effects, including opioid overdose.

The accepted treatment for OUD during pregnancy is long-acting opioid agonist MAT that includes methadone or buprenorphine provided within the context of a comprehensive program of obstetrical care and behavioral intervention.

Breastfeeding among women not using other substances and maintained on methadone or buprenorphine can encourage and promote maternal-infant bonding, and likely have mitigating effects on NAS severity.

NAS severity may be less with buprenorphine than with methadone; however, other factors such as maternal tobacco use, maternal benzodiazepine use, dyad genetics, NAS medication regimens and hospital protocols determining where infants reside (e.g., neonatal intensive care unit or rooming-in) may alter this relationship.

Protecting Our Next Generation

NAS remains a critical public health issue associated with significant medical, economic and personal burden for Missourians. For the first time in decades, there is a decline in life expectancy among rural residents. Multiple contributing factors, including transportation, housing, employment and lack of medical providers, have contributed to this decline — opioid use and overdose play a significant role.

Mothers using opiates and neonates diagnosed with NAS are more likely to be covered by Medicaid and live in a low-income ZIP code. The increase in NAS contributes to significantly increased hospital charges — eight out of 10 NAS births in Missouri are reimbursed through Medicaid. NAS is very relevant to state Medicaid budgets, prompting the need for better NAS care coordination strategies and prevention. Emerging data on drivers of maternal OUD, assessment of withdrawal and treatment for NAS provide clinicians and hospitals with new knowledge and an urgency to promote standardization of care for mothers and infants.

Access to OUD treatment within a continuum of obstetric, medical and community care is vital for women of childbearing age and pregnant women. In addition to expanded substance use treatment coverage, one of the key reforms of the Affordable Care Act is comprehensive coverage of preventive services for women and young children, including preconception and prenatal care visits. OUD and NAS are identifiable and treatable conditions; yet, are largely hidden from our system of care due to fear, stigma, shame, existing gaps in standardized screening, and access to treatment and recovery resources.

Providing an informed and accessible system of care for mothers should be part of larger health care reform strategies, particularly those focused on addressing social determinants of health, containing costs, improving medical outcomes and enhancing population health. Begin a conversation that could save two lives.
References


ix. Centers for Disease Control and Prevention. (2017). Multiple Cause of Death Data on CDC WONDER Online Database.


Suggested Citation