



Trajectories

Aim For Excellence

SEPTEMBER 2018 ■ Integrating Evidence-Based OUD Treatment: A Medication First Model



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Executive Summary

Opioid use disorder, a form of substance use disorder, is classified as a chronic, relapsing brain disease. OUD is associated with increased morbidity and death, and it is linked to a decrease in the nation's average life expectancy.

With effective and ongoing treatment, individuals suffering from OUD can reach long-term remission. However, the Substance Abuse and Mental Health Services Administration estimates that nearly 80 percent of individuals with an OUD do not receive treatment.¹ This is due in large part to the perceived and real stigma attached to substance use, the nation's fragmented care systems, and limited access to effective, evidence-based treatments.

A systematic approach is required to reduce the toll of OUD. An emerging model of care that adopts a "medication first" approach already has produced results in Missouri and nationally. This evidence-based system is expanding throughout Missouri as a component of a three-faceted OUD care, harm reduction and avoidance strategy.

The model includes:

- 1 adopting a medication first model, incorporating both naloxone as a rescue medicine and buprenorphine to treat OUD
- 2 leveraging existing community resources to ensure patient access to treatments through transitions of care
- 3 improving opioid prescribing practices to reduce OUD and overdose prevalence

State and federal resources — including legislation and financial resources — have broadened opportunities to address OUD. The medication first model discussed in this edition of *Trajectories* is taking root throughout the state, and the progress being made is encouraging and suggests further expansion of the model to improve OUD care to reduce harm locally and statewide.



Background

Throughout the past five decades, a gradual and significant paradigm shift has occurred in conceptualizing SUD as a bona fide medical disease — not simply as a moral failing, lack of willpower or an unwillingness to stop. The American Society of Addiction Medicine defines SUD as a primary chronic disease of the brain's reward, motivation, memory and related circuitry.² As with any chronic disease, OUD should be managed by integrating multimodal treatment, personalized to the specific needs of the patient, to ensure the best possible outcome. Pharmacotherapy — also referred to as medication-assisted treatment — recovery support, and psychosocial treatment are components of evidence-based chronic disease management for OUD.

MAT is not intended to imply that medications play an adjunctive role in treatment; rather, medications are central to the concept of effective multimodal treatment for OUD.^{3,4} FDA-approved medications to treat OUD prevent the euphoric effects of opioids, decrease cravings for opioids and decrease withdrawal symptoms by acting as opioid agonists, partial agonists or antagonists — assisting in disease remission, active recovery and treatment retention.^{5,6,7}

Limited access to health and behavioral health care services, inaccessible OUD treatment, inappropriate prescribing practices, and social determinants of health — including homelessness, unemployment and poverty — are contributing factors to Missouri's worsening opioid epidemic.



There is an immediate need to implement a multifaceted, collaborative public health and safety approach to the OUD crisis. Addressing OUD requires expanded community resources, and timely and comprehensive surveillance data to inform decisions. Data-based partnerships will help allocate resources and improve care systems, including naloxone availability, harm reduction services, linkage into treatment (including pharmacotherapies), safe prescribing practices and stigma reduction. A better understanding of the crisis also will support delivery of better care to vulnerable populations, including infants affected by neonatal abstinence syndrome.

Several Missouri initiatives expand access to integrated prevention, treatment and recovery support services for individuals with OUD. These initiatives include multidisciplinary provider and layperson training on opioid overdose education and naloxone distribution; increased patient access to pharmacotherapies,

including buprenorphine, through clinician education; and patient programs designed to promote the safe and timely transfer of patients between levels and settings of care.

Medication First Model: Providing Overdose Education And Increasing Naloxone Access

Naloxone, sometimes called a "rescue shot" due to its ability to reverse an opioid overdose, is a medicine approved by the Food and Drug Administration for emergency treatment of opioid toxicity with respiratory and/or central nervous system depression. The drug is useful in accidental or intentional overdose and acute or chronic toxicity.⁸ Common opioid overdoses treated with naloxone include heroin, fentanyl, carfentanil, hydrocodone, oxycodone, methadone and others. The drug, branded as Narcan and Evzio, can be administered intravenously, intramuscularly, subcutaneously and intranasally.



MHA applauds U.S. Senator Roy Blunt and U.S. Representative Vicki Hartzler for their active engagement in Missouri's efforts to promote widespread access to naloxone and FDA-approved addiction medicines.

Overdose education and naloxone distribution programs help members of the public recognize opioid overdose and administer naloxone to reverse respiratory depression. Most OEND programs also provide education about overdose prevention by instructing potential rescuers to recognize known risk factors for overdose, including mixing opioids with other sedatives, changes in drug potency or purity, using high doses of prescription opioids, and using opioids alone. The program also educates individuals with OUD, recognizing and addressing modifiable risk factors.

Naloxone has long been used in hospitals and by emergency medical practitioners. There is an immediate need to increase naloxone access

to first responders, members of law enforcement, people who use drugs and family members of drug users.

The Missouri Department of Mental Health, the University of Missouri – St. Louis – Missouri Institute of Mental Health, and the Missouri Department of Health and Senior Services lead several statewide OEND initiatives. These programs train practitioners, individuals who use drugs, and their friends and family to recognize signs of overdose, administer rescue breaths, seek emergency help and use naloxone. Through the Missouri State Targeted Response Grant, Missouri Opioid-Heroin Overdose Prevention and Education Project, and the Missouri Overdose Rescue and Education Project, the partners incorporate prevention,

public health and harm reduction strategies to improve knowledge and support practice changes in Missouri. As of July 1, 2018, a total of 4,318 naloxone rescue kits had been distributed statewide, and more than 10,000 individuals throughout the state received training on topics of evidence-based prevention, treatment and recovery support through these efforts.

In support of statewide naloxone distribution efforts, the Missouri Legislature approved Good Samaritan protections for laypersons with high likelihood of responding to an opioid overdose ([RSMO 195.205](#)). This law, adopted in 2017, is designed to save lives by encouraging people to seek emergency medical help if they experience or witness an opioid overdose.



Opioid-STR Project, funded through SAMHSA, expands access to integrated prevention, treatment and recovery support services for individuals with OUD throughout the state.

Additional information on the Opioid-STR Project can be found at <https://missouriopioidstr.org/>.



MO-HOPE Project

MO-HOPE Project, funded through SAMHSA, provides resources to reduce opioid overdose deaths in Missouri through expanded access to overdose education and naloxone, public awareness, assessment, and referral to treatment. The project includes prevention, public health and harm reduction strategies to improve readiness to avoid or respond to opioid overdose events in Missouri.

Additional information on the MO-HOPE Project can be found at <https://mohopeproject.org/>.



MORE Project, funded through SAMHSA and the Bureau of Emergency Medical Services, serves rural Missouri. The project provides naloxone to first responders and trains them to administer the nasal spray to reverse opioid overdoses.

Additional information on the MORE project can be found at <https://health.mo.gov/safety/ems/more/>.

Medication First Model: Increasing Access To Pharmacotherapy

The national opioid misuse and OUD crisis is being addressed through multi-faceted strategies, including research, policy and practice changes. Federal funding is the catalyst for many initiatives, including integrated pharmacological, psychosocial and recovery-oriented approaches to treatment. Medical treatment of OUD is a primary strategy to reduce opioid misuse. Missouri has adopted a medication first model, incorporating naloxone as a rescue medicine and buprenorphine to treat OUD.

There is a strong scientific basis for effectiveness of medication when treating OUD.⁹ The clinical course of OUD involves periods of remission and exacerbation. This pattern mirrors other chronic relapsing conditions — including diabetes and hypertension — in which perfect control of symptoms is difficult, and patient compliance to treatment regimens often is incomplete.¹⁰ Buprenorphine, methadone and naltrexone each were found to be more effective in reducing illicit opioid use than no medication in randomized clinical trials^{11,12,13,14} — the gold standard for demonstrating efficacy in clinical medicine. These medications have been found to reduce opioid use and OUD-related symptoms, and reduce the risk of infectious disease transmission, as well as criminal behavior associated with drug use.¹⁵ Buprenorphine and methadone treatment also were associated with reduced risk of opioid overdose death.^{16,17,18}

This growing body of scientific evidence, combined with clinical advancements, allows for a better understanding of the factors underlying OUD and the development of medications that can help support long-term recovery. Two reports^{5,6} from Yale School of Medicine show positive outcomes when emergency departments provide buprenorphine/naloxone (Suboxone) — a form of pharmacotherapy — for OUD treatment with continuation in primary care. This research represents a paradigm shift for ED-initiated treatment of OUD with referral to community-level care — similar to that used in other chronic disorders, such as hypertension or hyperglycemia.

Through a collaborative approach, DMH is leading statewide Medication First Model integration efforts to ensure rapid and ongoing patient access to evidence-based treatments for OUD.

Missouri Medication First Model

- 1** patients with OUD receive timely pharmacotherapy treatment – prior to lengthy assessments or treatment plan development
- 2** maintenance pharmacotherapy is delivered without contraindicated tapering or time limits
- 3** individualized psychosocial services are offered and encouraged but not required as a condition of pharmacotherapy
- 4** medication only is discontinued if it is clearly worsening the patient's condition

Evan Schwarz, M.D., discusses best practices for treating opioid overdoses in the ED.

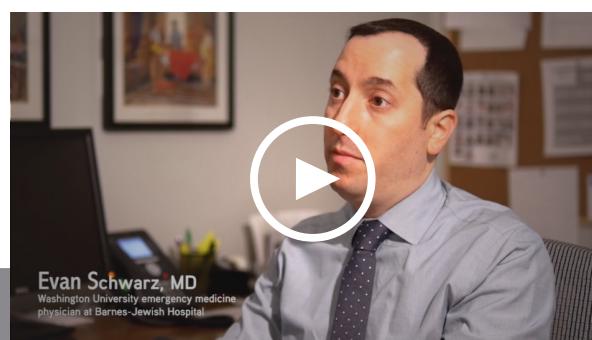
“When patients and physicians were surveyed by SAMHSA about the effectiveness of buprenorphine, they reported an average of an 80% reduction in illicit opioid use, along with significant increases in employment and other indices of recovery.”

—SAMHSA

Debunking Addiction Medicine Myths

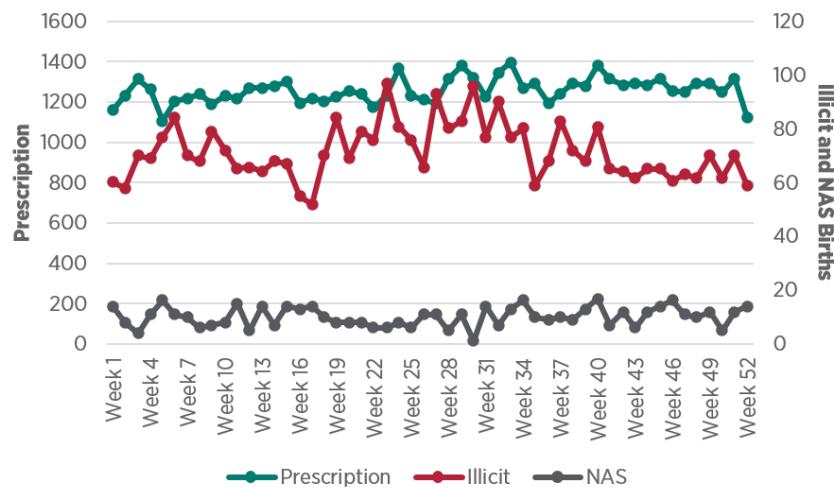
Methadone and buprenorphine DO NOT substitute one addiction for another. When someone is treated for an opioid addiction, the dosage of medication used does not get them high – it helps reduce opioid cravings and withdrawal. These medications restore balance to the brain circuits affected by addiction, allowing the patient’s brain to heal while working toward recovery.

Diversion of buprenorphine is uncommon; when it does occur it is primarily used for managing withdrawal.²⁰ Diversion of prescription pain relievers, including oxycodone and hydrocodone, is far more common. In 2014, buprenorphine made up less than 1 percent of all reported drugs diverted in the U.S.²¹



According to the [Centers for Disease Control and Prevention](#), 1,000 patients are treated daily in EDs for misusing prescription opioids. On average, nearly 190 patients were treated at Missouri hospitals in both inpatient and ED settings for opioid-related symptoms every day during 2017. When combined with the 1,000 annual opioid-related overdose deaths among Missourians,¹ the daily economic burden attributable to the opioid crisis in the state is \$33 million.¹⁹ Figure 1 shows Missouri's weekly hospital visits related to prescription and illicit opioid misuse, in addition to NAS births during 2017. Hospital-based clinicians are well placed to assist patients beyond overdose survival because of the frequency of emergency care for OUD. These health care providers are on the front line, positioned to link patients with behavioral health services, including pharmacotherapy treatment. Unfortunately, behavioral health and OUD treatment has long been underfunded, evidence-based care remains underutilized, and access to critical services is limited. The ED has emerged as the final safety net for patients without alternative access to care for a myriad of disorders — from low back pain and diabetes to myocardial infarction and OUD. Eliminating the disparity between patients with OUD and access to pharmacotherapy is a core underpinning to Missouri's response to the opioid epidemic.

Figure 1: Weekly Number of Opioid-Related Hospitalizations and ED Visits at Missouri Hospitals During 2017



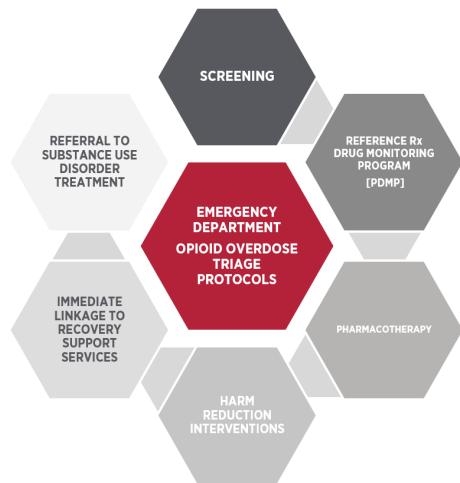
Care Coordination Strategies

In December 2016, the Behavioral Health Network of Greater St. Louis launched an ED-initiated opioid overdose project, Engaging Patients In Care Coordination. The program was a targeted response to identified community gaps in access to evidence-based OUD treatment and recovery support services. Project EPICC was modeled after [AnchorED](#), a Rhode Island-based consortium established to address that state's opioid crisis. The program provides linkage services by peer recovery coaches to establish immediate connections to pharmacotherapy, psychosocial treatments and recovery support services. The goal is to engage patients during emergency room

stabilization with pharmacotherapy and OUD treatment coordination/services to reduce future ED visits and overdoses that may result in death. Concurrently, the program provides opioid overdose education and naloxone distribution, and works to increase the capacity of regional providers offering pharmacotherapy.

According to Wendy Orson, BHN CEO, "EPICC has been a tremendous collaboration across the network of providers, including 14 hospitals spanning multiple health systems and five substance use treatment providers, with several peer recovery coaches who outreach clients across seven Missouri counties. The impact of EPICC is felt not only in the positive outcomes and improved engagement of highly vulnerable clients in need of services, but also in creating a stronger system of behavioral health care. EPICC has fostered innovation in the region, such as the expansion of addiction medicine induction in the emergency department setting. We are grateful for the impressive collaboration of Behavioral Health Network partners in responding to this pressing community need."

The daily economic burden attributable to the opioid crisis in Missouri is \$33 million.¹⁹



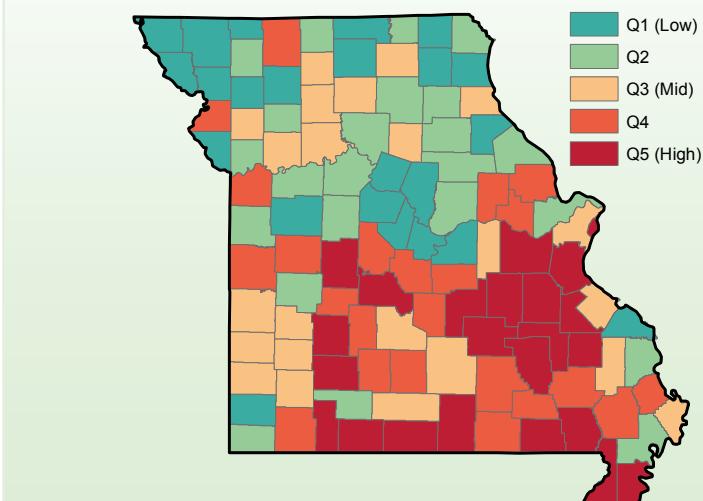
Through August 2018, EPICC St. Louis served more than 1,700 patients from the seven-county Eastern Region (St. Louis City and neighboring counties) who have experienced opioid withdrawal, OUD or overdose. Recovery coach Kael Maness stated, "EPICC outreach is the future of substance use disorder treatment efforts. In its infancy, this initiative has potentially saved over 1,700 lives from living with, and dying from, the horrors of addiction. In conjunction with the tireless efforts of first responders and hospital staff, EPICC is an invaluable tool in the fight against our city's epidemic. The immediate access to medically-assisted treatment that EPICC offers is one of the most important developments the SUD field has ever been a part of. The medication first model is the most sensible. Once our clients are stable with the help of MAT, they are able to more actively participate in their own recovery. It turns off the skewed, inner monologue that yells at them to run away from help and find another fix."

Initial EPICC program outcomes demonstrate an increase in engagement rates for individuals who had pharmacotherapy initiated at the hospital, as opposed to those who did not receive medications. These findings mirror other national programs of similar size and scope.

In an effort to expand EPICC programming, the Missouri Hospital Association collaborated with the Health Industry Data Institute, DMH and UMSL-MIMH to identify additional Missouri communities with an elevated risk of opioid overdose, as well as rural communities with limited access to OUD services and treatments. As noted in Figure 2, 21 Missouri counties were identified at highest risk of opioid overdose prevalence, with 96 percent of those counties being rural.

Figure 2: Opioid Dependence Risk in Missouri Counties

Estimated With Principal Component Analysis of Unemployment, Drug-Related Mortality, Morphine Milligram Equivalents Prescribed Per Capita and Hospital Utilization for Opioid Misuse (component 1 shown in map)



Source: Authors' analysis of data from the U.S. Bureau of Labor Statistics, U.S. Centers for Disease Control and Prevention and Hospital Industry Data Institute.

"As emergency physicians, we are excited about the opportunity to bring together community resources to finally offer evidence-based treatment for patients with opioid use disorder. This program will allow us, for the first time, to offer patients a long-term treatment plan rather than a series of short-term encounters."

—Jonathan Heidt, M.D., Emergency Medicine Medical Director and EM Quality Improvement at MU Health Care

The program uses a peer recovery coach to remove recovery barriers and obstacles by serving as a personal guide. Recovery coaches enter into an ongoing mentoring relationship that helps those who are in recovery, or who are considering recovery from OUDs, to produce extraordinary results in their lives, careers,

businesses or organizations. Recovery coaches themselves are individuals in long-term recovery. The relationship between the coach and the patient is grounded in trust and focused on providing the individual with tools, resources and support to achieve long-term recovery.

Buprenorphine Waiver Management Training

The federal Drug Addiction Treatment Act of 2000 ([DATA 2000](#)) established a program of waivers allowing physicians to dispense or prescribe schedule III, IV and V narcotic drugs approved by the FDA for the treatment of OUD. In 2002, buprenorphine became the first medication — and only approved medication to-date — for use under the DATA waiver program. Unlike methadone treatment — which must be dispensed from a designated opioid treatment program — buprenorphine can be prescribed or dispensed in health care settings, significantly increasing treatment access. Like methadone, careful regulations have been placed on buprenorphine as an OUD treatment.

To receive a waiver to practice opioid dependency treatment with approved buprenorphine medications, physicians, nurse practitioners and physician assistants must notify [SAMHSA](#)'s Center for Substance Abuse Treatment of their intent to practice this form of pharmacotherapy and must complete the required training curriculum. Waivered physicians can prescribe buprenorphine to 30 OUD patients in the first year and 100 patients thereafter – in 2016 this patient cap was increased to 275 through the Comprehensive Addiction and Recovery Act ([CARA](#)).²² A component of Missouri's STR is providing DATA 2000 waiver training throughout the state to increase physician prescribing ability. Visit <https://missouriopioidstr.org/> to begin the waiver process.

A recent survey reported a significant shortage in the number of physicians utilizing buprenorphine as a treatment option in the U.S. Ninety-six percent of states (including the District of Columbia) report higher rates of opioid use or dependence than buprenorphine treatment capacity.²³

Clearly, a vast gap exists between the number of individuals in need of treatment — approximately 2.5 million individuals¹⁰ — and the number of providers willing and able to prescribe buprenorphine.²⁴

MHA, in partnership with the Missouri College of Emergency Physicians, is supporting statewide efforts to increase buprenorphine access in health care settings. Concurrently, MHA is aligned with DMH and UMSL-MIMH to foster improved linkage and referral coordination through transitions of patient care to sustain buprenorphine maintenance at the community level.

Data suggest that simply increasing the number of waivered physicians without making additional resources available to address infrastructure concerns is unlikely to have a significant impact on buprenorphine prescribing.²⁵ An urgent need remains for a more effective approach to continuing patient care of OUD between levels of health care and across care settings.

Addressing Stigma Through Science



Stigma is defined as a set of negative beliefs that a group or society holds about a topic or group of people. According to the World Health Organization, stigma is a major cause of discrimination and exclusion, and it contributes to the abuse of human rights. When a person experiences stigma, they are seen as “less than” because of their real or perceived health status. Stigma rarely is based on facts, but rather on assumptions, preconceptions and generalizations; therefore, its negative impact can be prevented or lessened through education. Stigma results in prejudice, avoidance, rejection and discrimination against people who have a socially undesirable trait or engage in culturally marginalized behaviors, such as drug use.²⁶

Community members experiencing stigma regarding their drug use are less likely to seek treatment — resulting in economic, social and medical costs.²⁷ This chronic stress of discrimination can have profound impacts on the mental and social well-being of individuals who use drugs — often resulting in social isolation. In the U.S., costs associated with untreated SUD — including those related to health care, criminal justice and lost productivity — were estimated at \$510 billion in 2000.²⁸ Additionally, harm reduction strategies — including overdose education and naloxone distribution — are not widely supported by the public and are believed by some to facilitate and encourage drug use, despite evidence demonstrating that they actually decrease drug use.²⁰ It is important to note that OUD is seen in persons from all educational and socioeconomic backgrounds.

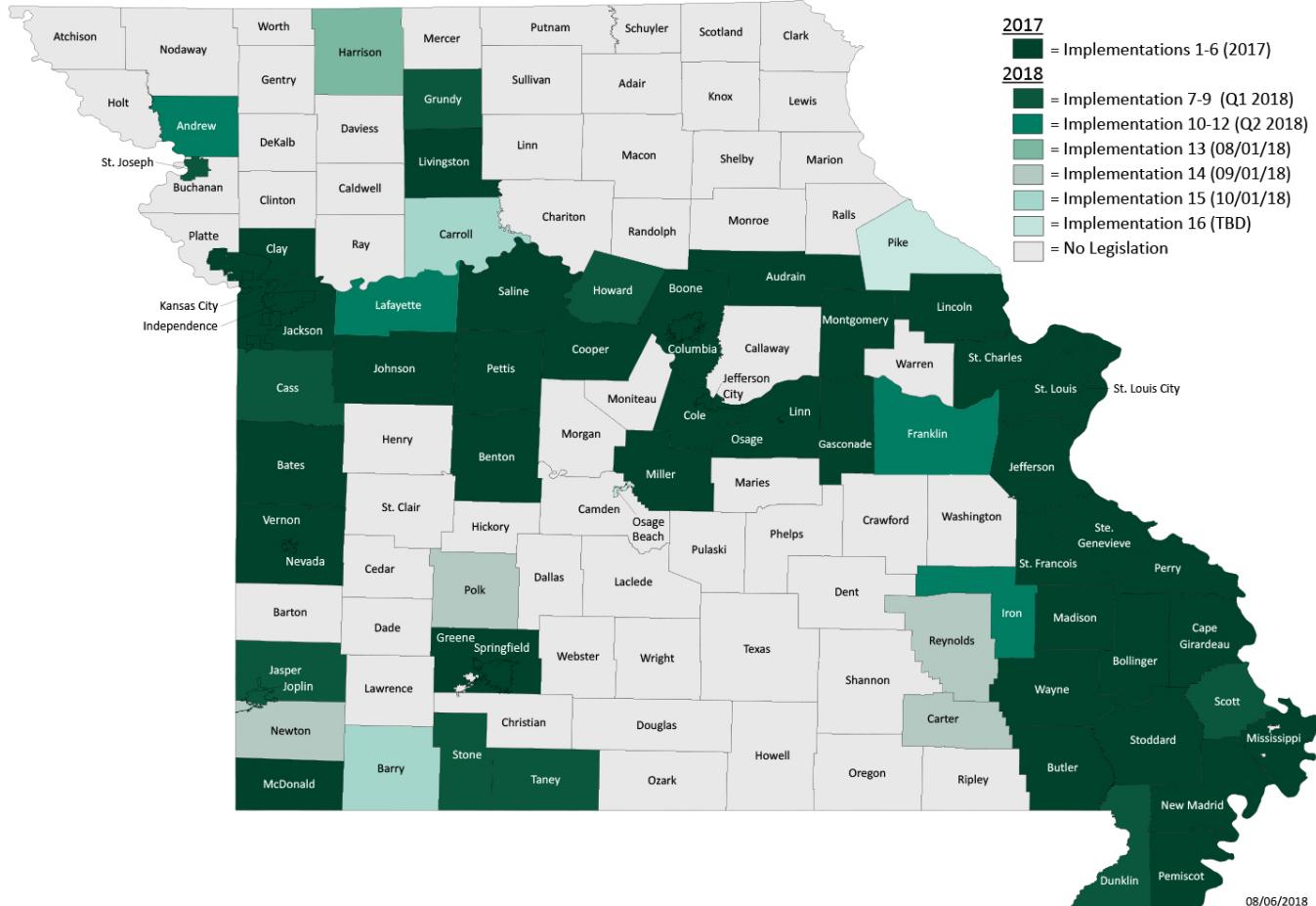
72-Hour Rule: Title 21, Code of Federal Regulations, Part 1306.07(b)

The 72-Hour Rule allows physicians to administer (but not prescribe) opioid drugs for the purpose of relieving acute withdrawal symptoms while arranging for the patient's referral for treatment.

- ***Not more than one day's medication may be administered or given to a patient at one time.***
- ***This daily treatment may not exceed a 72-hour period.***
- ***This 72-hour period cannot be renewed or extended.***



PDMP Participation



Prescription Drug Monitoring Program

Prescription drug monitoring programs represent one of the most promising state-level interventions to protect at-risk patients, improve opioid prescribing and inform clinical practice. Notwithstanding, findings are mixed — evaluations of PDMPs have illustrated changes in prescribing behaviors, use of multiple providers by patients and decreased SUD treatment admissions. Alternatively, recent research found that states with robust PDMPs have a significant effect on reducing opioid dispensation.²⁹

PDMPs have been implemented in a range of ways across the nation.³⁰ These changes have significant

potential for utility, requiring an alignment of data standardization that accounts for intra/inter-state regulatory differences and promotes interoperability across electronic health record platforms.

Missouri remains the only state without a statewide PDMP. Despite the lack of progress on a legislated PDMP, the St. Louis County Department of Public Health enacted a [PDMP](#) system with the capability and capacity to support multijurisdictional participation across Missouri. Presently, 66 Missouri jurisdictions have enacted legislation to participate in the PDMP, representing more than 80 percent of Missouri's population and 92 percent of Missouri's health care providers.

CDC Prescribing Guidelines



IMPROVING PRACTICE THROUGH RECOMMENDATIONS

CDC's Guideline for Prescribing Opioids for Chronic Pain is intended to improve communication between providers and patients about the risks and benefits of opioid therapy for chronic pain, improve the safety and effectiveness of pain treatment, and reduce the risks associated with long-term opioid therapy, including opioid use disorder and overdose. The Guideline is not intended for patients who are in active cancer treatment, palliative care, or end-of-life care.

DETERMINING WHEN TO INITIATE OR CONTINUE OPIOIDS FOR CHRONIC PAIN

- 1 Nonpharmacologic therapy and nonopioid pharmacologic therapy are preferred for chronic pain. Clinicians should consider opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks and benefits. If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate.
- 2 Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients, including realistic goals for pain and function, and should consider how opioid therapy will be discontinued if benefits do not outweigh risks. Opioid therapy should be discontinued if there is little or no clinically meaningful improvement in pain and function that outweighs risks to patient safety.
- 3 Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy.



Neonatal Abstinence Syndrome

By Alison Williams, MBA-HCM, BSN, R.N.

As a recent MHA [Policy Brief](#) demonstrated, pregnant women are a vulnerable population with increasing rates of OUD.³¹ Opioid use — and use of other substances during the prenatal period — has led to a startling increase in Neonatal Abstinence Syndrome. NAS is a group of physiologic and neurobehavioral signs of withdrawal that may occur in a newborn exposed to certain substances in utero. A more specific diagnosis, Neonatal Opioid Withdrawal Syndrome, refers to a group of physiologic withdrawal symptoms primarily seen in opioid-exposed newborns.

Pregnant patients can access opioids by several different means, including the following.

- legal prescription and consumption of opioids for a medical need
- misuse of prescribed opioids (not taking as prescribed)
- illegal use of nonprescribed opioids
- treatment for OUD with medication therapy, i.e. buprenorphine, methadone, etc.
- illicit opiate use

The extent and severity of NAS and NOWS symptoms varies widely depending upon type, frequency and length of exposure to opioids. Pregnancy provides an opportunity to address SUD — including recovery promotion and maintenance of family structures and dynamics — since prenatal care and health care needs are recurring during a focused timeframe. However, providers and community support systems should collaborate to improve access to supportive treatment and care.

Consider the following.

- Mothers with SUD have a mortality rate 8.4 times higher than that of U.S. women of similar age.
- Pregnant women who use illicit substances may delay prenatal care and miss more health care visits than women who do not use substances.
- Prenatal care may help to reduce the negative impact of illicit drug use on birth outcomes.
- Lower prenatal care utilization may be due to a diverse set of barriers to seeking and obtaining care, including fear of child custody issues.
- Ongoing maternal SUDs, and the subsequent dysfunctional home environment, may create detrimental effects on children's psychological growth and development.
- Maternal well-being has been recognized as a key determinant of the health of the next generation.³²

Primary maternal management goals start with effective and open provider-patient communication. Early and ongoing verbal screenings should be considered standard care management throughout the prenatal period. Alternative treatments for pain management, including physical therapy and chiropractic care, during the prenatal period should be offered first. Prescription opioids only should be used when alternative treatments proved ineffective or if the medical necessity requires opioid medication. For pregnant mothers who are prescribed opioids, the frequency and dosage should start with the minimal amount needed to promote function

and comfort. The goal of zero pain is not likely. Rather, medication should be used to maintain a patient's function, to perform daily activities of living and to reach a reasonable level of comfort. Further, patient education should be a priority. Discussions on the appropriate use of medication, duration of need, and potential effects and treatment needs for the newborn, should occur before prescription and throughout the pregnancy to help patients make informed decisions. Discussions should be based on the risks versus the benefits of opioid medication.

When OUD is suspected or diagnosed, the medication first model is the recommended treatment guideline. Pregnant patients should be referred for medication therapy, peer support, and ongoing behavioral health support and treatment, similar to nonpregnant patients. Medication therapy should continue throughout the pregnancy and postpartum period. Ongoing need is patient-dependent.

The key difference for this population is that two (or more) people are affected by maternal exposure to opioids regardless of the means of exposure. The neonate is still exposed to substances likely to cause NAS or NOWS symptoms; however, the landmark [MOTHER's Study](#) noted less severe symptomatology in neonates of mothers on addiction medication treatment versus ongoing, uncontrolled exposure to opioids, opiates and possibly other psychotropic substances. Severity was less for those treated with buprenorphine than with

methadone, and neonates experienced higher overall birth weights, shorter lengths of stay and less need for pharmacologic treatment post-birth. The study also noted no requirement to titrate down medication to avoid NAS, as the risks of maternal relapse did not outweigh potential benefits to the neonate. Additional studies have noted more severe NAS in infants whose mothers smoked tobacco and/or took selective serotonin reuptake inhibitors during pregnancy.^{33,34} This data support stronger action to address smoking in pregnancy.

Recent care for substance-exposed newborns in the hospital setting often has included the following.

- hospital protocols
- Neonatal Intensive Care Unit setting for care
- the NAS assessment choice
- NAS medication choice
- initiation and weaning protocols
- not allowing or promoting breastfeeding
- separating mother and baby

Emerging clinical management calls for a change, including increased involvement of the birth mother and family, with ongoing medication treatment for the mother.

Increasingly, hospitals are implementing the [Eat, Sleep, Console method](#).³⁵ The ESC method is based on the principle that treatment of the infant should be focused on infant function and comfort, rather than reducing signs and symptoms of withdrawal. The model consists of asking three questions with either a “yes” or “no” response.

- 1 *Is the infant eating poorly due to NAS?***
- 2 *Did the infant sleep less than one hour after feeding due to NAS?***
- 3 *Is the infant unable to be consoled within 10 minutes due to NAS?***

Infants then are reassessed based on the effectiveness of interventions.³⁴

All infants should be treated with nonpharmacologic care first. This includes frequent skin-to-skin contact with the mother and father, active promotion and support of frequent breastfeeding, reduced stimulation, swaddling, calming voice and touch, infant positioning, and pacifier use to promote sucking for comfort. Some infants also may receive replacement opioids if function and comfort dictate the need. According to the American Academy of Pediatrics, all opioid-exposed infants should be monitored in the hospital for four to seven days for signs of withdrawal that may require pharmacologic treatment.³⁶

The connection between mother, newborn and family members' mental, social and physiologic support is widely recognized, especially in relation to OUD and SUD. The safety of the newborn and all other children in the home always must be the priority. The mother needs to be in a safe mental and physical position to care for the infant. However, more success stories of sustained recovery are seen when mothers and infants stay together in a supportive environment with ongoing maternal access to medication treatment. Mothers and families can be empowered to support infant recovery while receiving support themselves. These methods are used in a variety of inpatient, outpatient and group home settings to change the culture — breaking generational cycles of poverty and addiction. Nationally, examples include the [SHIELDS for Families](#) program in California, the [CHARM Collaborative](#) out of Vermont, [Lily's Place](#) in West Virginia and the University of North Carolina's [Horizons Program](#). Missouri examples include the [WISH Center](#) at SSM Health St. Mary's Hospital – St. Louis,

[Lily's House](#) in Bates County, and [Amethyst Place](#) and the [Team for Infants Endangered by Substance Abuse](#) at Children's Mercy in Kansas City. The recently established KC Perinatal Recovery Collaborative aims to further promote community-clinician linkages to provide well-rounded support services to women with OUD in the Kansas City area.

Decreased stigma, increased access to medication therapy, and stronger connections between patients, clinicians and communities are critical to reducing the incidence of maternal OUD and subsequent NAS/NOWS.

Additional Resources

[MHA Quality Brief: NAS Guidance to Improve Clinical Documentation and Data Capture](#)

[The American Academy of Pediatrics: Clinical Report, Neonatal Drug Withdrawal](#)

[The American College of Obstetricians and Gynecologists: Alcohol Abuse and Other Substance Use Disorders: Ethical Issues in Obstetric and Gynecologic Practices, Committee Opinion #633](#)

[ACOG and the American Society for Addiction Medicine: Opioid Use and Opioid Use Disorder in Pregnancy, Committee Opinion #711](#)

[SAMHSA: Clinical Guidance for Treating Pregnant and Parenting Women With Opioid Use Disorder and Their Infants](#)

[SAMHSA and National Center on Substance Abuse and Child Welfare](#)

[Treatment of Opioid Use Disorders in Pregnancy and Infants Affected by Neonatal Abstinence Syndrome: Webinar Series](#)



Opioid Policy: 2018 Missouri Legislative Enactments

A variety of legislative initiatives have been considered by the Missouri General Assembly to address the opioid crisis. Noteworthy initiatives include the following.

Senate Bill 718: (1) blocks inclusion of pain scores in quality of care and patient satisfaction data the Missouri Department of Insurance is authorized to collect (2) subject to appropriations, creates an opioid use treatment and prevention program involving advanced practice registered nurses, physician assistants and assistant physicians, in collaboration with physicians

SB 826: (1) limits initial prescriptions of opioids to a duration of seven days, with specified exceptions (2) allows the Bureau of Narcotics and Dangerous Drugs to implement rules so drug disposal boxes may be placed in pharmacies for citizens to use (current Missouri biannual drug take-back events averaged nearly 40,000 pounds per event throughout the past two years) (3) allows pharmacies and other entities to establish drug take-back programs, making it easier for people to clean out medicine cabinets and prevent diversion

SB 951: (1) revises standards for the prescribing of buprenorphine as a medicine for treating OUD under collaborative practice arrangements (2) requires health insurers to offer their enrollees coverage of FDA-approved medicines for SUDs for an additional premium

House Bill 2280: authorizes as much as 12 additional months of Medicaid coverage of substance use and mental health treatment for postpartum women who receive substance use treatment within 60 days of giving birth and who adhere to the treatment program – the added coverage is contingent on federal approval

HB 161: authorizes MO HealthNet (Medicaid) to reimburse providers for telemedicine at the same rates as in-person visits

HB 1516: MO HealthNet will authorize as many as 20 visits for chiropractic care; this may reduce the number of opioid prescriptions being written to manage chronic pain, decreasing the incidence of SUD

SB 660: psychiatric physician assistants, psychiatric advanced practice registered nurses and psychiatric assistant physicians are added to the definition of mental health professionals — increasing patient access to behavioral health care, including OUD

Conclusion

There is clinical agreement within the disciplines of addiction medicine and psychiatry that SUD is a chronic, relapsing brain disease compounded by biological, genetic and psychosocial factors.²⁴ Nonetheless, clinical and societal biases have historically influenced treatment approaches, limiting access to pharmacotherapy, psycho-social treatments and recovery support services. Caregivers have an important role in improving training in addiction medicine — including in primary care residency programs for internal and family medicine. Our educational systems need to be progressive and dynamic, such that education around emerging diseases and trends are integrated into curricula, and that practitioners are adequately informed and able to ameliorate epidemics like the opioid crisis.

Missouri's response to this crisis requires a collective commitment to the comprehensive management of patients with OUDs through transitions of care and utilizing chronic disease models of treatment. Pharmacotherapy, including the use of buprenorphine, reduces rates of overdose and overdose death,³⁷ ED utilization, and recidivism within the criminal justice system,³⁸ while it increases compliance and adherence to medical services.³⁹ Most importantly, it helps put people on the road to recovery and improves their quality of life.⁴⁰ Simply put – it saves lives and reclaims futures.

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