



Mother/Infant Opioid Substance Use Treatment and Recovery Effort (MOSTaRE) Initiative Charter

Background:

A pressing priority for the Minnesota Perinatal Quality Collaborative (MNPQC) is to address the opioid crisis and impact of substance use disorders (SUDs) on pregnant people and infants. The purpose of the Mother/Infant Opioid and Substance Use Treatment and Recovery Effort (MOSTaRE) is to work with providers, hospitals, and other stakeholders to improve identification, clinical care, and coordinated treatment/support for pregnant and parenting people with substance use disorder and their infants through a family-centered approach to care.

- The prevalence of opioid use disorder in pregnant people at delivery is 6.5 per 1,000.
- SUD was identified as a cause or contributing factor in 31.3 % of pregnancy-associated deaths.¹
- It is estimated that 55% to 94% of newborns whose mothers consistently used opioids while pregnant (either illicit use or medication-assisted therapy for SUD) will develop neonatal abstinence syndrome (NAS).²
- A diagnosis of NAS can include infant withdrawal from any substance not including alcohol such as cocaine, amphetamines, opioids, and benzodiazepines. From 2012 to 2020, there were 3,251 NAS hospital-visits in Minnesota.³
- According to MN Medicaid claims data, maternal opioid use disorder and infant NAS diagnoses more than doubled from 2012 to 2020, before the start of the COVID-19 pandemic. The incidence of these diagnoses is increasing fastest among rural residents.
- Unfortunately, rural areas in the state have the fewest neonatal intensive care units (NICUs) and have seen the most closures of hospitals where babies can be delivered.⁴ The rate NAS diagnosis has increased from 59.1 per 10,000 live births in 2014 to 102.5 per 10,000 live births in 2019.⁵
- Northern Minnesota has the highest rates of prenatal opioid use. Within these rural communities, the average rate of prenatal opioid use is 9.8%, compared to the statewide average of 1.5% for all Medicaid-covered births.

A key recommendation from the Maternal Mortality Review Committee is “to support statewide improvements for birthing people who have substance use disorders, including adequate identification of substance use in the birthing population, referral to services and support groups, and increased funding to expand treatment and access to treatment throughout the state”.

The MOSTaRE Initiative will emphasize family-centered care that maintains the maternal-infant dyad and will address prevention and treatment of substance exposure during and after pregnancy for both caregivers and infants.

¹ Minnesota Department of Health. (2022). *Minnesota Maternal Mortality Report. Reporting for 2017-2018.*

² McQueen, K. and Murphy-Oikonen, J. (2016). *Neonatal abstinence syndrome. New England Journal of Medicine, 375, 2468-2479.*

³ Giesel, S., Corey, L., & Wright, N. (2021) *Neonatal Abstinence Syndrome: Statewide and County Trends, Data Brief. Minnesota Department of Health. Retrieved from <https://www.health.state.mn.us/communities/opioids/opioid-dashboard/resources.html#data>*

⁴ Kozhimannil, K.B., Chantarat, T., Ecklund, A.M., Henning-Smith, C., & Jones, C. (2018). *Maternal opioid use disorder and neonatal abstinence syndrome among rural US residents, 2007-2014. The Journal of Rural Health 35,(1), 122-132.*

⁵ *Hospital Discharge Data, Injury and Violence Prevention Section, Minnesota Department of Health, 2012-2019.*



AIM:

By December 2023, our aim is to increase the identification and treatment of substance use disorders (SUDs) in pregnant people and substance exposure in infants by 50% or more in order to improve pregnancy and postpartum outcomes, increase the use of non-pharmacologic methods for treating infants exposed to opioids and reduce the average length of stay for these infants.

Family of Measures

Stratify by race/ethnicity where available.

State Surveillance:

- SUD among pregnant and postpartum people (SS1)
- Severe Maternal Morbidity (SMM) (including transfusion codes) among people with SUD (SS2)
- Severe Maternal Morbidity (SMM) (excluding transfusion codes) among people with SUD (SS3)
- Proportion of pregnancy associated deaths due to overdose (SS4)

Outcome Measures:

- Percent of newborns exposed to substances in utero who were discharged to either birth parent (O1)
- Percent of pregnant and postpartum people who screened positive, received, or were referred to recovery treatment services (O3)
- Length of stay of each newborn exposed to opioids

Process Measures:

- Percent of pregnant and postpartum people screened using a validated tool for SUDs (P1)
- Provider and Nursing education – SUDs (P5)
- Provider and Nursing education - Respectful and Equitable Care (P6)

Structure Measures:

- Resource Mapping/ Identification of Community Resources (S1)
- Patient Event Debriefs (S2)
- General Pain Management Guidelines (S3)
- OUD Pain Management Guidelines (S4)
- Validated Screening Tools and Resources Shared with Prenatal Care Sites (S5)

Theory of Change – The Driver Diagram

Pregnant and Postpartum Person Theory of Change – Driver Diagram		
Primary Drivers	Secondary Drivers	Changes
Stigma	Education and Awareness	<p>Educate pregnant and postpartum people, community members, clinicians, and staff about substance-use disorders (SUD) in general, with specific education on opioid use disorder (OUD). Include:</p> <ul style="list-style-type: none"> • Trauma-Informed Care • Harm/Risk reduction model of care • Health equity and social determinants of health • Culturally responsive care • Acknowledgement of the impact of historical/generational trauma • New approach to NAS treatment in the hospital and how this may differ from previous experiences people have had. <p>Mandated reporting requirements:</p> <ul style="list-style-type: none"> • Inform providers and staff on mandated reporting changes and best practices in communication with patients about reporting. • Update providers and staff on changes to mandated reporting laws related to substance use during pregnancy, as well as best practices around making reports and communication about reporting with patients.
Screening & Assessment	On Admission	<p>Create [policy] and procedures for all screening process</p> <p>Emphasize informed consent in screening and ask patient’s permission prior to using above screening tools.</p> <p>Universal screening for SUD with a validated written statement or validated screening tools, such as:</p> <ul style="list-style-type: none"> • 4Ps Plus (Copyrighted and fee required) • 5Ps (currently undergoing validation) • SURP-P

		<p>Discuss and discourage the use of urine toxicology and other biological testing as screening tools</p> <p>Screen for postpartum depression (PPD) and provide education to patients on postpartum depression.</p>
Care Management & Coordination	During Stay	<p>Follow screening with brief intervention and referral to treatment (SBIRT).</p> <p>Overall “Standardize in-hospital caregiver/infant care” change ideas below:</p> <ul style="list-style-type: none"> • Create pain management protocols that optimize pain management while also maximizing opportunities to initiate and/or maintaining long-term SUD/ODU recovery. • Promote pain management protocols that prevent unneeded release of opioids into the community and educate providers and patients on safe disposal of unused opioids. • Proactively plan for pain management during the postpartum period, specifically around surgical deliveries. • Discuss and establish patient-centered family planning goals. <p>Discuss benefits and safety of breastfeeding while on MAT program.</p> <p>Support breastfeeding in an empowering and non-judgmental way, making sure not to stigmatize formula use, particularly for medical indications.</p>
Care Management & Coordination	Discharge preparation	<p>Implement mechanisms for collaboration of care and coordination across care systems and modalities of treatment (Overall “Collaboration Care and Coordination” change ideas below).</p> <ul style="list-style-type: none"> • Utilize Medication Assisted Treatment (MAT) where appropriate. MAT is the standard of care for OUD. • Early referral to and collaboration with social services. • Create collaborative care teams that provide patient and family support. • Promote policy consistent with MN statute change from 2021, which does not mandate reporting of substance use for patients who are engaged in care. • Provide equitable and culturally responsive care. • Acknowledge and address the impact of social determinants of health, such as access to transportation, food or housing insecurity, and threats to the patient and family’s personal safety.

		<p>Implement comprehensive discharge planning activities, synchronize with discharge.</p> <p>Plan for, anticipate, and ensure appropriate postpartum care and treatment, emphasizing the “4th Trimester.” (Overall “4th trimester” change ideas below)</p> <ul style="list-style-type: none"> • Establish early postpartum follow-up including obstetric and family planning care, substance use treatment, and naloxone distribution. • Create a harm reduction-based safety plan (family care plan or plan of safe care) to minimize return to non-prescribed substance use and reduce the risk of overdose. • Ensure early and timely outpatient follow-up for patients with SUD. • Where possible, coordinate care with infant’s outpatient providers. • Establish, where possible, peer recovery and/or other public health support for new parents. <p>Collect barriers to postpartum and infant follow up and begin action plans</p>
Infant Theory of Change: Driver Diagram		
Primary Drivers	Secondary Drivers	Changes
Identification of substance exposure	Prior to birth or at Birth	<p>Improve parental screening.</p> <p>Create a safe environment for disclosure.</p>
Education	During Stay	<p>Provide education for staff and families on the Family Care Plan (also called “Plan of Safe Care”).</p> <p>Emphasize keeping birth parents and infants together, identifying their support system, collaborating on safety planning, anticipating difficult situations that could come up and providing appropriate support from social services</p>
Family Centered Care	During Stay	<p>Follow Eat, Sleep, Console, or similar Family Centered care plan.</p> <p>Focus on non-pharmacologic care for substance-exposed infants and reduced separation of maternal-infant dyad during hospitalization.</p>

		<p>Reduce exposure to opioid and other adjunct medications to treat signs and symptoms of opioid withdrawal.</p> <p>Minimize urine or other biological screening methods for substance exposure, particularly when this will not change medical management. Emphasize informed consent and open communication with families when these methods are used.</p> <p>Maintain the maternal-infant dyad, with opportunities for short periods of respite care for the infant as available and appropriate (Overall “Maternal-infant dyad” change idea below).</p> <ul style="list-style-type: none"> • Support caregivers in attending to their own healthcare and family needs, particularly as relates to continuing to receive MAT. • Assist caregivers in recognizing dangerous levels of fatigue and encourage them to ask for help in order to reduce the risk of sleep related falls or suffocation. • Provide some flexibility around visitor policies and other policies that impact a family’s ability to provide support and/or respite to substance exposed infants and their parents.
<p>Family Centered Care</p>	<p>Discharge</p>	<p>Provide safe, coordinated discharge with birth parent as often as possible.</p> <p>Understand the role of child protective services and their current protocols to maximize support to patients and families affected by SUD/OD.</p> <p>Acknowledge the long history of trauma that many communities have around CPS involvement and persistent inequalities in reporting that affect marginalized communities.</p> <p>Discuss SUID (previously called SIDS) and sleep asphyxia with families, with emphasis on providing simple risk-reduction strategies.</p> <p>Make referrals to family home visiting prior to discharge.</p> <p>Identify infant PCP and provide warm handoff with this person prior to discharge. Discuss their comfort level with managing infants who may still be experiencing mild signs and symptoms of withdrawal and/or difficulty gaining weight.</p>



Overall Benefits for:

Pregnant People with substance use disorders

- Improved screening for SUD
- Improved patient, caregiver, and public education about SUD
- Provision of trauma-informed care
- Fostering of collaboration among healthcare providers and across healthcare systems
- Increased patient access to additional support services and medication-assisted treatment (MAT)

Infants exposed to substances

- Improved screening for substance exposure
- Increased adoption of nonpharmacologic methods of treating Neonatal Abstinence Syndrome or Neonatal Opioid Withdrawal Syndrome (NAS/NOWS), such as “Eat, Sleep, Console” model.
- Increased emphasis on “rooming in” to promote maintenance of maternal-infant dyad.

Birthing Facilities:

- Assistance with implementation of best practice guidelines using information gained from learning collaboratives and tools created by MNPQC.
- Access to educational activities offering continuing education (CE) credits.
- Maintenance of Certification credits offered via the American College of Obstetricians and Gynecologists (ACOG).
- Assistance meeting Centers for Medicare and Medicaid Services (CMS) requirement outlined in the CMS memorandum, to report on Maternal Morbidity Structural Measure.
- Access to Project ECHO for quality improvement education.
- Quality improvement analysis of your organization’s data with comparison to regional/state/national reports.
- Opportunity to add structural measures from Alliance for Innovation on Maternal Health (AIM), which synchronizes MNPQC reporting with other states involved in AIM program.

Expectations of Birthing Facility:

- Approved participation: Support of initiative from relevant leadership in your facility according to your system hierarchy.
- Assemble a team: Identify a team and team leader based on recommended roles below (team sizes may vary based on hospital/system size, minimum of two members):
 - Hospital leadership champions (ideally a champion from both obstetric and infant services)
 - At least one healthcare provider from obstetrics and one from pediatrics
 - Pharmacy representative
 - Bedside nursing staff
 - Navigator/Case Manager/Care Coordinator/Social Worker
- Attend initiative activities: All team members actively participate in virtual collaborative activities during the initiative period (estimated 12-18 months).
 - Learning Session 1 – Wednesday September 28, 2022 11:00 am – 2:00 pm
 - Monthly Initiative Action Period calls for teams first Wednesday of the month, 12:00-1:00pm with first call on November 2nd.
 - Learning Session 2 and/or final Learning Session (Dates TBD)



- Regular local team meetings: Commitment to convene team for monthly QI meetings to:
 - Test (PDSA cycles)
 - Implement
 - Monitor/share initiative progress (data collection, feedback from patients, healthcare team members)
- Monthly reports: Teams will input data monthly to MNPQC through SimpleQi using the data collection tools to audit up to 30 charts/cases per month.
 - Structural measures survey biannually
 - Present baseline data during Learning Session 1
 - Using PDSA cycles for testing and implementation
 - Develop a spread plan for health systems statewide
 - Evaluation, ongoing and final summary
- Participation in reports based on Aggregate non-Organization Specific Reports and AIM Metrics. AIM metrics provides national benchmarking of deidentified hospital measures used to evaluate the Initiatives. MNPQC may publish these reports publicly.
- Data collection: As a quality improvement initiative, data is gathered to learn and inform PDSA cycle to result in improvement.
 - MNPQC will not request personal health identifiers (PHIs).
 - Data collection and reporting will be deidentified and any disclosed numbers would be aggregated data to partners.
 - Data will be submitted via the AIM portal.

MNPQC MOSTaRE Faculty

Adrienne Richardson, MD	MOSTaRE Chair
Rachel Cooper, MD	MOSTaRE Vice Chair
Todd Stanhope, MD	MNPQC Chair
Jane Taylor, Ed.D.	Improvement Advisor
Susan Boehm, RN, MS	MNPQC Director
Anne Walaszek, MPH	MOSTaRE Faculty
Brittany Gunderson	MNPQC Program and Marketing Manager