Better Maternal Outcomes Public Webinar Series

Substance Use Disorder in Pregnancy
WebEx Quick Reference

- Please use chat to “All Participants” for discussion & questions
- For technology issues only, please chat to “Host”
Microphone Feature

To mute your line, please press the microphone icon
Press it again to unmute.

Muted

Able to speak
Today’s Agenda

• Welcome & Introductions

• Substance Use Disorder in Pregnancy: Daisy Goodman, CNM, DNP, MPH

• Questions and Discussion

• Follow-Up & Staying Connected
Please type your **name** and the **organization** you represent in the chat box and send to “All Participants”

Example: Mara Lee, Midwest Health
Where are you joining from?
Partnering for Improved Birth Outcomes

The Institute for Healthcare Improvement (IHI) Better Maternal Outcomes Initiative and the National Network of Perinatal Quality Collaboratives (NNPQC), coordinated by NICHQ, are partnering to provide participants with a valuable set of webinars on health equity, respectful care and other critical maternal health topics. This partnership recognizes the shared commitment of these two initiatives to improve hospitals and health systems by elevating and spreading evidence-based efforts and examples of improvement from across the country so that families experience better birth outcomes. By bringing all participants together to engage in shared learning, the NNPQC and the Better Maternal Outcomes Initiative will encourage collaboration and innovation among teams with a shared mission, and ultimately accelerate national improvement.
The IHI Better Maternal Outcomes Initiative aims to reduce maternal morbidity and mortality by supporting national efforts to implement reliable evidence-based care for women and newborns around the time of birth, and by facilitating locally driven, co-designed rapid improvements in four communities, targeting the interface of health care delivery, the experience of birthers, and community support systems.

The National Network of Perinatal Quality Collaboratives (NNPQC), coordinated by NICHQ, supports the development and enhances the ability of state perinatal quality collaboratives to make measurable improvements in statewide maternal and infant healthcare and health outcomes by providing resources and expertise to nationwide state-based perinatal quality collaboratives (PQCs).
Substance Use Disorder in Pregnancy

Daisy Goodman, CNM, DNP, MPH
Director of Women's Health Services, Dartmouth-Hitchcock
Perinatal Addiction Program
Daisy Goodman is a certified nurse midwife and researcher at Dartmouth Hitchcock Medical Center and the Geisel School of Medicine. She divides her time between clinical practice, research, and program development to improve care for pregnant and postpartum women with substance use disorders. Her research focuses on the intersection of trauma history and drug addiction during pregnancy, and opportunities for patient engagement and co-production of care within this context. She teaches continuing improvement of healthcare at the Dartmouth Institute for Health Policy and Clinical Practice and has recently been involved in the revision of the SQUIRE guidelines for the publication of quality improvement work.
Improving Care for Pregnant and Postpartum People with Substance Use Disorders

Daisy Goodman, DNP, MPH, CNM, CARN-AP
Dartmouth-Hitchcock Medical Center
Northern New England Perinatal Quality Improvement Network
Disclosures

- No financial conflicts
- Many acknowledgements
  - March of Dimes Foundation
  - New Hampshire Charitable Foundation
  - The Dartmouth Collaboratory for Implementation Science
  - The Patient Centered Outcomes Research Institute (PCORI)
  - NNEPQIN partners
  - Our patients
Objectives

• Briefly discuss the impact of perinatal SUD on maternal-child health
• Describe key elements of an evidence-based program of care for perinatal people with substance use disorders
• Introduce the Alliance for Innovation in Maternal Health (AIM) Patient Safety Bundle: *Obstetric Care of Women with Opioid Use Disorder*
• Describe the implementation of a checklist to standardize care for pregnant patients with OUD in a NNEPQIN learning collaborative pilot
Impact of the Current Opioid Crisis on Maternal-Child Health

Opioid-Related Overdose Death Rates Among U.S. Women in 2017

Source: Kaiser Family Foundation

Neonatal Abstinence Rates per 1,000 LB


Maternity care provides a critical point of intervention

Source: Kaiser Family Foundation
Pregnancy-Associated Morbidity and Mortality and Maternal Substance Use

- Between 2007-2016, the proportion of total maternal deaths attributed to opioid use increased from 4% to 10%.
- The odds of in-hospital death at time of delivery are four times greater for pregnant patients with opioid use disorder.
- In New Hampshire, 9 of the 12 maternal deaths occurring 2016-2017 were caused by drug overdose.

Morbidity and Mortality During Delivery Hospitalization in Opioid-dependent Women

<table>
<thead>
<tr>
<th>Perinatal Outcomes</th>
<th>OR</th>
</tr>
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<tbody>
<tr>
<td>In Hospital Death</td>
<td>4.6</td>
</tr>
<tr>
<td>Cardiac Arrest</td>
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<tr>
<td>Cerebrovascular Event</td>
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<td>Placental Abruption</td>
<td>2.4</td>
</tr>
<tr>
<td>Growth Restriction</td>
<td>2.7</td>
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<td>Stillbirth</td>
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<tr>
<td>Prematurity</td>
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<tr>
<td>Sepsis</td>
<td>1.3</td>
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</tbody>
</table>

Population-based study of maternal OUD treatment and overdose risk in Massachusetts

Fatal and nonfatal overdose rates highest at 7-12 months postpartum
  • Only 64% received pharmacotherapy for OUD in the year before delivery
  • Prenatal OUD linked to anxiety, depression, homelessness
  • Women receiving pharmacotherapy were much less likely to overdose

Recommendations
  • Universal prenatal screening and referral to MOUD
  • Access to mental health treatment
  • Housing
  • Overdose education/access to naloxone
  • Longitudinal care in the postpartum period

Opportunities
Impact of Perinatal Substance Use - the Medical Perspective

**Medical/Obstetric**
- Infectious disease
  - Rising rates of STIs
  - Hepatitis
  - HIV
- Cardiac infections
- Thrombosis and embolism
- Bleeding
- Rh Isoimmunization
- Fetal loss
- Overdose

**Psychosocial**
- Trauma
- Untreated mental health needs
- Housing instability and homelessness
- Partner violence
- Polysubstance use including tobacco

**Neonatal**
- Low birth weight
- Prematurity
- Neonatal withdrawal (NOWS)
- Developmental sequelae
Provider Perspectives

Q5. How does substance use in pregnancy affect prenatal care or hospital-based care for your patients?

- “My patients on replacement have two separate care teams. One for substance abuse and one for OB care and we don’t talk to each other. It does not seem safe.”
- “Not infrequently brings out anger and negativity….resulting in less than optimal clinical care”
- “There is lack of knowledge amongst staff in how to respond to some of the issues without judgement and with support.”
- “It is so multifaceted and extensive”

(NNEPQIN Member Survey, 2016)
Impact of Covid-19

Increased Risk
- Job loss
- Housing/food insecurity
- Isolation
- Increased family stress
- Changes in substance availability/source/type
- Social services accessible primarily by phone/web

Impact on Treatment
- Decrease in face-to-face contact
- Emphasis on digital technology
  - Disparity in access (devices/internet)
  - Lack of privacy
  - Cost
- Loss of peer support/community
- Fear of engaging with healthcare
Improving Quality and Outcomes

Increase joy in work for healthcare professionals
- Improve retention
- Provide ongoing anti-bias training for professionals

Decrease Maternal and Infant Morbidity and Mortality
- Preterm birth
- Infectious disease
- NAS severity and duration
- Overdose death

Reduce Cost of Care
- Decrease maternal morbidities
- Avoid Emergency Department visits
- Decrease NICU admissions and LOS

Increase Engagement
- Reduce experience of stigma
- Increase alliance between families and care teams
- Increase knowledge and confidence about infant care
- Increase linkage to community resources

Adapted from: http://www.ihi.org/Engage/Initiatives/TripleAim/Pages/default.aspx
“I believe more strongly than ever that the antidote to heroin is community”
- Sam Quinones
Alliance for Innovation in Maternal Health (AIM) Patient Safety Bundle: Obstetric Care for Women with Opioid Use Disorder
• Provide education to promote understanding of opioid use disorder (OUD) as a chronic disease.
  • Emphasize that opioid pharmacotherapy and behavioral therapy are effective treatments

• Identify local SUD treatment facilities that provide women-centered care.

• Know state reporting guidelines regarding the use of opioid pharmacotherapy and identification of illicit substance use during pregnancy.

• Know federal (Child Abuse Prevention Treatment Act – CAPTA), state and county reporting guidelines for substance-exposed infants.
Every provider/clinical setting

- Assess all pregnant women for SUDs.
  - Incorporate a screening, brief intervention and referral to treatment (SBIRT) approach in the maternity care setting.
  - Match response to each woman’s stage of readiness
Example of a Tablet-based SBIRT Process in the Prenatal Clinic
Every provider/clinical setting
• Screen and evaluate all pregnant women with OUD for commonly occurring co-morbidities.
  • Ensure the ability to screen for infectious disease
  • Ensure the ability to screen for psychiatric disorders, physical and sexual violence.
  • Provide interventions for smoking cessation.

RESPONSE
• Establish communication with OUD treatment providers and obtain consent to share information
• Develop clinical pathways to facilitate comprehensive care
## Alliance for Innovation in Maternal Health OUD Safety Bundle Measures (AIM Participants)

### Outcomes
- **O1:** Severe Maternal Morbidity
- **O2:** Severe Maternal Morbidity
- **O3:** Pregnancy Associated Opioid Deaths
- **O4:** Average length of stay for newborns with Neonatal Abstinence Syndrome (NAS)

### Process
- **P1:** Percent of women with OUD during pregnancy who receive medication assisted treatment (MAT) or behavioral health treatment (tx)
- **P2:** Percent of Opioid Exposed Newborns receiving mother’s milk at newborn discharge
- **P3:** Percent of Opioid Exposed Newborns who go home to biological mother
- **P4:** Universal Screening at Prenatal Care Sites

### Structure
- **S1:** Universal Screening on Labor and Delivery (L&D)
- **S2:** General pain management practices
- **S3:** OUD pain management guidelines

### State Surveillance
- **SS1:** Percent of newborns diagnosed as affected by maternal use of opiates
- **SS2:** Percent of newborns diagnosed with NAS
AIM Patient Safety Bundle:
Reduction of Peripartum Racial and Ethnic Disparities

Reduction of Peripartum Racial and Ethnic Disparities
A Conceptual Framework and Maternal Safety Consensus Bundle

Elizabeth A. Howell, MD, MPP, Haywood Brown, MD, Jessica Brunley, CNM, PhD, Allison S. Bryant, MD, MPH, Aaron B. Caughey, MD, PhD, Andria M. Cornell, MSPH, Jacqueline H. Grant, MD, MPH, Kimberly D. Gregory, MD, MPH, Susan M. Gullo, RN, MS, Katy B. Kozhimannil, PhD, MPA, Jill M. Mhyre, MD, Paloma Toledo, MD, MPH, Robyn D’Oria, MA, RNC, Martha Ngoie, MPH, and William A. Grobman, MD, MBA

(Obstet Gynecol 2018;131:770–82)
Developing Clinical Pathways for Comprehensive Care

✓ Linkage to care
  • Behavioral Health care
  • Substance use treatment
  • Naloxone access

✓ Screening for infectious disease/follow up
  • HIV
  • Hepatitis
  • Sexually transmitted infections

✓ Screen for and address material needs
  • Housing
  • Food insecurity
  • Safety

✓ Anticipatory guidance
  • Infant care/NOWS
  • Hospital policies (toxicology; mandated reporting)
  • Plan of Safe Care

✓ Education
  • Breastfeeding
  • Pain management
  • Birth spacing/contraceptive options
  • Warning signs/Postpartum care
  • Overdose prevention

✓ Focus on equity
  • Anti-bias and cultural humility training for staff
  • Seamless language and communication access
  • Respectful, accurate collection of demographic data
  • Analyze outcomes by race, ethnicity, payor, rurality
Example:
A Checklist of Key Bundle Elements

(1) Using a checklist to standardize practice

(2) Monthly learning sessions provide education and an opportunity to share strategies

(3) Web-based toolkit includes resources for both providers and patient: www.nnepqin.org/clinical-guidelines/

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<tr>
<th>Element</th>
<th>Date</th>
<th>Comments</th>
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<tr>
<td>Federal consent to share medical information</td>
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<td>Name of Consent signed and shared with patient and treatment provider</td>
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<td>HIV status</td>
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<td>Hepatitis C antibody, if + draw viral load</td>
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<tr>
<td>Hepatic Function Test</td>
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<td>Institutional drug testing policy reviewed</td>
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<tr>
<td>Plan of Safe Care and mandated reporting requirements discussed</td>
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<tr>
<td>Behavioral Health Needs assessment and/or Care Management</td>
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<td>Risks of non-prescribed drugs and alcohol discussed</td>
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<td>Marijuana counseling</td>
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<td>Tobacco counseling</td>
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<td>Nicotine counseling and Rx offered</td>
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<td>Third Trimester</td>
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<td>Repeat HIV, HCV, HBSAg</td>
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<tr>
<td>GGT/ALT</td>
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<td>HCV antibody, if + draw viral load</td>
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<td>Ultrasound for growth/fetal</td>
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<td>UDAN w/ confirmation sent (consent required)</td>
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<td>Review Plan of Safe Care</td>
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<td>Breastfeeding information reviewed</td>
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<td>Pain management discussed</td>
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<td>Family Planning discussed</td>
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<tr>
<td>OTHER</td>
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</tbody>
</table>

- Obtain consent to share information with substance use treatment provider
- Offer tobacco treatment
- Provide access to naloxone
- Screen for Hepatitis C, Hepatitis B, HIV, coordinate follow up if indicated
- Review hospital policies and Plan of Safe Care
Comparing Quality Before and After Checklist Implementation in a NNEQPIN Learning Collaborative

<table>
<thead>
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<th>QUALITY OF CARE</th>
<th>Pre (n=55)</th>
<th>Post (n=168)</th>
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<tbody>
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<td>Treated for co-occurring mental health condition</td>
<td>18.2%</td>
<td>29.3%</td>
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<tr>
<td>Provided access to Naloxone</td>
<td>10.9%</td>
<td>36.3%</td>
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<tr>
<td>Screened for Hepatitis C</td>
<td>89.1%</td>
<td>95.2%</td>
<td>NS</td>
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<tr>
<td>Tested for Hepatitis C chronicity</td>
<td>66.7%</td>
<td>88.9%</td>
<td>.04</td>
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<tr>
<td>Provided NRT</td>
<td>7.3%</td>
<td>23.8%</td>
<td>&lt;.01</td>
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<table>
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<tr>
<th>CLINICAL OUTCOMES</th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Tobacco use at time of delivery</td>
<td>80 %</td>
<td>84.5%</td>
<td>NS</td>
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<tr>
<td>Positive Drug Screen, 3\textsuperscript{rd} Trimester or Admission</td>
<td>38.2%</td>
<td>29.9%</td>
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<tr>
<td>Singleton low birthweight</td>
<td>16.7%</td>
<td>12.2%</td>
<td>NS</td>
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<tr>
<td>Preterm delivery rate</td>
<td>11.1%</td>
<td>10.4%</td>
<td>NS</td>
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Fourth Trimester Global Aims

- Trauma informed Parenting Support
- Well Child Care
- Medication-Assisted Treatment
- Recovery Support
- Mental Health Care
- Women’s Health Care

Mother and Child
Summary

• Substance-related morbidity and mortality is contributing to our regional and national maternal health crisis

• Screening is a critical first step in linking perinatal patients to treatment, but must be done in a safe environment where they are not put at increased risk for disclosing a need for services

• Maternal-child health providers should address the range of medical, psychiatric, substance-related, and social needs of the people we serve

• Structural and interpersonal barriers to providing equitable care need to be addressed at the health systems level

• Implementing key components of the AIM Maternal Safety bundles can improve quality and outcomes for perinatal patients with OUD/SUD
“When problems are very complex, ill-defined, require sourcing knowledge from multiple disciplines or locations, and require different levels of expertise, groups can outperform individuals.”

http://www.ahrq.gov/research/findings/final-reports/learningcollab/learning3.html#fig2

daisy.j.goodman@hitchcock.org
Creanga, et al. Maternal morbidity and mortality in the United States, where are we now? *J Women’s Health* 2014; 23; 1;
Center for Disease Control. CDC *Report of 9 MMRCs*. 2018;
Kaiser Family Foundation. 2017. Accessed from; [http://kff.org/other/state-indicator/opioid-overdose-death-rates/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D](http://kff.org/other/state-indicator/opioid-overdose-death-rates/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D)
Citations


Wall-Weiler, et al. Suicide attempts and completions among mothers whose children were taken into custody. *Canadian J of Psychiatry*. 2018.
Questions and Discussion
Staying Connected

• All slides, materials, and call recordings will be shared with participants following the call and also posted to the IHI website (www.ihi.org/maternalhealth)

• If you’d like to be added to the IHI maternal health email list or have additional questions about this programming, please contact us at maternalhealth@ihi.org.

• Public webinars are offered approximately once per month. Information about upcoming calls will be shared ahead of time through IHI and NNPQC listservs.
Thank you for joining us

IHI Better Maternal Outcomes Initiative