NH AIM/ERASE Monthly Webinar
December 8, 2022

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The AIM Safety Bundle for the Care of Pregnant and Parenting People with Substance Use Disorders: Implementation Challenges and Strategies For Overcoming Obstacles

NH AIM/ERASE Monthly Webinar
December 8, 2022

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Disclosures

Today's speakers have no financial disclosures
Session Objectives

• Describe challenges encountered by NH Hospitals implementing the AIM Care for Pregnant and Postpartum People with Substance Use Disorders (CPPPSUD) safety bundle
• Explore contextual factors contributing to delays in improving care for pregnant and parenting people with SUD, and identify opportunities for improvement
• Provide tools and resources to support bundle implementation

Agenda

• Data update: impact of perinatal SUD in NH
• Role of context in implementation work
• Questions raised by hospitals implementing the CPPPSUD bundle
  • Tools for screening for non-prescribed drug and alcohol use
  • Resources for staff trainings
  • Data collection challenges
A quality improvement initiative to support best practices that make birth safer, improve maternal health outcomes and save lives.

CDC works with MMRCs to improve review processes that inform recommendations for preventing future deaths.

Critical Collaborations: NNEPQIN, ERASE and AIM
Why the CPPPSUD Bundle?
NH State Data Update

Causes of Maternal Deaths among NH-MMRC Reviewed Cases (2012-2020)
Causes of Pregnancy Associated Deaths in NH (2017-2021)

- Blunt head Injuries (MVA) - 1 (3.1%)
- Cancer - 2 (6.3%)
- Hemorrhage - 2 (6.3%)
- Amniotic Fluid Embolism - 2 (6.3%)
- Suicide (Hanging/Neck Wounds) - 2 (6.3%)
- Cardiovascular and or Cardiomyopathy - 4 (12.5%)
- Overdose (Drug Abuse: Fentanyl, Cocaine, etc.) - 19 (59.4%)

Selected committee determinations on circumstances surrounding death for reviewed cases

<table>
<thead>
<tr>
<th>Committee determinations</th>
<th>Yes</th>
<th>No</th>
<th>Probably</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did obesity contribute to the death?</td>
<td>2</td>
<td>23</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Did discrimination contribute to the death?</td>
<td>0</td>
<td>13</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Did mental health conditions contribute to the death?</td>
<td>13</td>
<td>7</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Did substance use disorder contribute to the death?</td>
<td>15</td>
<td>7</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Was this death a suicide?</td>
<td>2</td>
<td>19</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Was this death a homicide?</td>
<td>0</td>
<td>25</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Data Source: MMRIA


Pregnancy Status of 2020 and 2021 Reviewed and Confirmed Cases

<table>
<thead>
<tr>
<th>Pregnancy Status</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnant</td>
<td>2</td>
</tr>
<tr>
<td>Postpartum</td>
<td>9</td>
</tr>
</tbody>
</table>

Timing of 2020 and 2021 Reviewed and Confirmed Pregnancy Associated Deaths

<table>
<thead>
<tr>
<th>Months postpartum</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>During pregnancy</td>
<td>2</td>
</tr>
<tr>
<td>&lt; 3 months</td>
<td>6</td>
</tr>
<tr>
<td>3-6 months</td>
<td>0</td>
</tr>
<tr>
<td>6-12 months</td>
<td>3</td>
</tr>
</tbody>
</table>

Cause and/or Manner of Pregnancy-Associated Deaths

<table>
<thead>
<tr>
<th>Cause</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overdose (acute intoxication by fentanyl and or cocaine, etc.)</td>
<td>4</td>
</tr>
<tr>
<td>Cardiac</td>
<td>2</td>
</tr>
<tr>
<td>Medical Causes (amniotic fluid embolism, hemorrhage, cancer, hypovolemic shock etc.)</td>
<td>5</td>
</tr>
</tbody>
</table>
Vital Records Data Sources for Perinatal Substance Exposure

- The statistics on the following slides include all births that occurred in New Hampshire from May 1st, 2020 through November 29th, 2022.
- Out-of-state residents born in NH are included.
- New Hampshire residents born out-of-state are excluded because the substance exposure question was not asked (fields marked as unknown).

**Q1: Is there documentation that access to naloxone (e.g., Narcan) was discussed with the patient?**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Plan of Safe/Supportive Care**

- Was a Plan of Safe/Supportive Care (POSC) created? Yes No

**82A: Infants Monitored for Substance Exposure (2022 Births Occurring in NH Hospitals)**

<table>
<thead>
<tr>
<th>Number of Infants Monitored</th>
<th>692</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of Infants</td>
<td>6.3%</td>
</tr>
<tr>
<td>Total number of hospital births</td>
<td>10,916</td>
</tr>
</tbody>
</table>

Data Source: VR_BIRTH (EBI_DATAMART) NHDPHS Maternal and Child Health Section
The World Health Organization doubled the recommended number of health visits for pregnant women from four to eight. 


The proportion of women not seeking enough number of prenatal care visits (8 or more) as recommended by WHO is more in the substance exposed group as compared to non exposed.

- The proportion of birthing people who start seeking prenatal care during the 2nd and 3rd trimester is double in the exposed as compared to the non exposed.

- Significantly more birthing individuals did not receive prenatal care in the exposed group as compared to non-exposed across the years.
The proportion of LBW among the exposed is 13.5% when preterm births are included, however, many risk factors other than substance use are associated with preterm births therefore I excluded preterm births.

Low Birth Weight Among Term Infants by Substance Exposure During Pregnancy (2020-2022)

<table>
<thead>
<tr>
<th>Subst Exp 8..</th>
<th>&lt;2500g</th>
<th>2500+g</th>
<th>Unknown</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposed</td>
<td>6.7% (116)</td>
<td>93.2% (1,604)</td>
<td>0.1% (1)</td>
<td>100.0% (1,721)</td>
</tr>
<tr>
<td>Non-Exposed</td>
<td>2.2% (595)</td>
<td>97.8% (26,865)</td>
<td>0.1% (22)</td>
<td>100.0% (27,482)</td>
</tr>
<tr>
<td>Unknown</td>
<td>2.4% (79)</td>
<td>97.6% (3,252)</td>
<td>0.1% (23)</td>
<td>100.0% (3,331)</td>
</tr>
<tr>
<td>Grand Total</td>
<td>2.4% (790)</td>
<td>97.5% (31,721)</td>
<td>0.1% (23)</td>
<td>100.0% (32,534)</td>
</tr>
</tbody>
</table>

Data Source: VD_BIRTH [EBI_DATAMART] NHDPS Maternal and Child Health Section
Readiness — Every Unit

• Provide education to pregnant and postpartum people related to substance use disorder (SUD), naloxone use, harm reduction strategies, and care of infants with in-utero substance exposure.

Recognition & Prevention — Every Patient

• Screen all pregnant and postpartum people for SUDs using validated self-reported screening tools and methodologies during prenatal care and during the delivery admission.

Reporting and Systems Learning — Every Unit

• Identify and monitor data related to SUD treatment and care outcomes and process metrics for pregnant and postpartum people with disaggregation by race, ethnicity, and payor as able.

State Surveillance Outcome measures

Severe Maternal Morbidity Excluding Blood Transfusions (Collaborative-wide -- Sum of individual facilities' numerators and denominators). *

Source: https://www.maternalsafety.org/hospitals/2495/measure_lists?measure_type=process
# Example of Process and Outcome Measures to be Collected Quarterly by each Hospital

**Process Measures**

- P1. Pregnant and postpartum people during their birth admission
- P2. Among the denominator, those with documentation of having been screened for SUD using a validated screening tool during their birth admission
- P3. Pregnant and postpartum people with OUD during their birth admission
- P4. Among the denominator, those with documentation of counseling for MUID prenatally or during their birth admission
- P5. Pregnant and postpartum people with SUD including OUD during their birth admission
- P6. Among the denominator, those with documentation of counseling for recovery treatment set during their birth admission
- P7. Pregnant and postpartum people with OUD during their birth admission

**Outcome measures**

- O1. Newborns exposed to substances in utero
- O2. Pregnant and postpartum people with OUD
- O3. Pregnant and postpartum people with SUD
- O4. Among the denominator, those who were discharged to either birth parent
- O5. Among the denominator, those with documentation of having received or been referred to MUID
- O6. Among the denominator, those with documentation of having received or been referred to recovery treatment services

**Data source:** [https://www.maternalsafety.org/hospitals/2495/process_measure_data_entries](https://www.maternalsafety.org/hospitals/2495/process_measure_data_entries)

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# Context and Bundle Implementation

How to avoid getting stuck in the mud.....
Model for Improvement

What are we trying to accomplish?
How will we know that a change is an improvement?
What change can we make that will result in improvement?

PLAN
DO
STUDY
ACT

This sounds so simple....
Why does it feel so hard right now?

Adapted from: Langley et al., The Improvement Guide, 1996

The Role of “Context” In Improvement Work

Context
“Characteristics of the organizational setting, the environment, and the individual and their role in the organization or QI project”

“Context Is Everything”
-Paul Bate

Context, Approach, And Implementation

Adapted from Bate, P: https://health.org.uk/sites/default/files/PerspectivesOnContextBateContextIsEverything.pdf
Barriers To Postpartum Naloxone Distribution

- **Materials**
  - Naloxone not readily available to dispense

- **People**
  - Providers lack knowledge about naloxone & how to teach patients to use it

- **Policy**
  - Institutional policies prohibit dispensing of medications

- **Environment**
  - Postpartum unit is busy and understaffed

***Patients with SUD don’t receive naloxone at discharge***

Adapted from: https://www.ihi.org/resources/Pages/Tools/Quality-Improvement-Essentials-Toolkit.aspx

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Model for Improvement

- **Aim**
  - What are we trying to accomplish?
- **Measures**
  - How will we know that a change is an improvement?
- **Changes**
  - What change can we make that will result in improvement?
- **Process Analysis**
  - PLAN
  - DO
  - STUDY

Adapted from: Langley et al., *The Improvement Guide*, 1996
Implementation Challenges Raised By Hospital Teams

• This is new for all of us!
• Time and bandwidth
• Data collection challenges
• Quarterly reporting
• Validated screening tools
• Provider education resources

Screening For Substance Use

What?
• Validated screening instruments

How?
• Resources for bundle implementation: https://www.nnepqin.org/sud-bundle-implementation-resources/

(Obstetrics & Gynecology 2022)
Comparison of Baseline (2021) and 2022 NH Birthing Hospital Surveys: Use of Evidence-based Screening Approaches

2022 2021

Naloxone use this link: [NNEPQIN-Toolkit-Updated-11_5_21.pdf]
Comparison of Baseline (2021) to 2022 NH Birthing Hospital Surveys: Providing Access to Naloxone

Is there documentation that access to naloxone was discussed? (by substance exposure)

Combined data 2020-2021

- 320 birthing people with prenatal substance exposure indicated had a discussion documented. (23.3% of exposed)
- 1,051 birthing people with prenatal substance exposure indicated did not have a discussion documented. (76.6% of exposed)
- 1,191 birthing people with no indication of prenatal substance exposure had a discussion documented (6.1% of not exposed)

(Narcan/Naloxone discussion question activated ~2/1/2021)
Staff Training Resources

About the NHSA-AIM CCI Racial Equity Learning Series (RELS)

Recent maternal mortality data released by the CDC National Health Statistics in February 2022 showed that maternal deaths in the U.S. increased from 764 in 2019 to 889 in 2020. New reports show an overwhelming number of deaths are preventable. According to the Centers for Disease Control and Prevention, more than 60%, or roughly 4 in 5 maternal deaths in a two-year period were preventable. More than 90% of Indigenous mothers’ deaths were preventable, with most due to mental health conditions and hemorrhage. Non-Hispanic Black mothers and birthing persons remain three times as likely as their White counterparts to die, making up 3rd of deaths from 2017-2019. Inequitable treatment during pregnancy and the postpartum period is a significant factor in this tragic disparity, and racism is at the root of such inequity.

We hope our compilation of equity-focused resources are useful and applicable to individuals and organizational teams, to deepen your understanding of the devastating effects of racism and explore strategies to combat racism from the workplace to the boardroom, and beyond.


Data Collection Challenges

• Lack of a defined structure on how to collect and keep a record of substance exposed birthing individuals on a quarterly basis

• Availability of a data collection tool which is in line with AIM bundle measures (RedCap)

• Staff shortages

• Clarity/definition of the bundle measure

• Some measures target perinatal care providers,
  • hence need to create a collaboration with the perinatal care providers in implementing the bundle
Welcome Inderveer Saini
AIM Data Support!

Discussion

How long should NH-AIM focus on implementing the CPPPSUD bundle?
• Should we enter several cycles of data in the portal, before starting another bundle?
• Should we undertake another bundle now?

Approaches to implementing the CPPPSUD, Postpartum Discharge Transition, and Perinatal Mental Health Conditions bundles are similar
• Scope spans hospital and community maternity care settings
• Improvements made with a systems perspective
• Some bundle and metrics overlap from one bundle to another
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Citations

ACOG. Opioid use and opioid use disorder in pregnancy. ACOG Committee Opinion 711. 2017.
Bate, P. Context is Everything. In Perspectives on Context. The Health Foundation, ND.
https://health.org.uk/sites/default/files/PerspectivesOnContextBateContextIsEverything.pdf