Reducing Harm in Pregnant Persons with Substance Use

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The faculty and planning committee have no relevant financial relationships to disclose.

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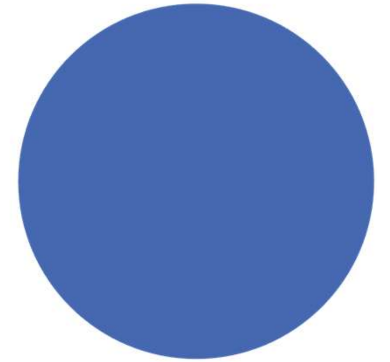
Objectives

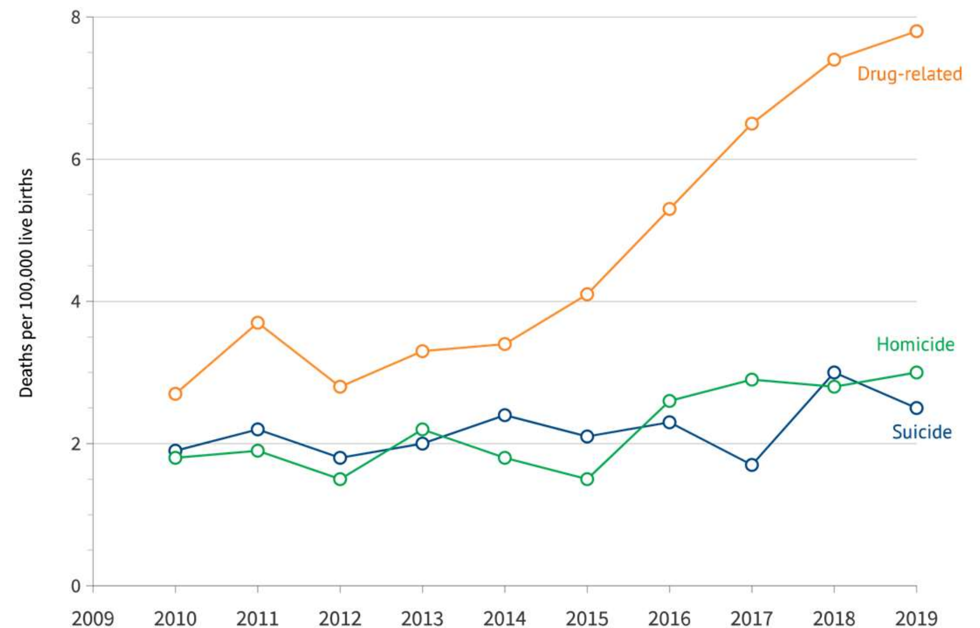
- Describe the prevalence of substance use in pregnant persons.
- Recognize potential risks related to substances of use during pregnancy and breastfeeding
- Recall two practical interventions to minimize adverse outcomes
- Identify at least three harm reduction strategies to engage and reduce risks pregnant and postpartum persons with substance use expereince

General principles for harm reduction and pregnancy



Prevalence

- **Overdose** is now a **leading cause of death associated with pregnancy and postpartum periods** with mortality rates rising over 80% (2017-2020)
- **1 in 5 persons** with recent live birth reported **polysubstance** use during pregnancy
  - Most frequently reported cigarettes, alcohol, cannabis
- **1 in 7** pregnant women reported **alcohol use** in past 30 days
- Number of women with opioid-related diagnoses at delivery increased by 131% (2010 to 2017)



(Board et al., 2023)
(Margerison, et al, 2022)
(CDC, 2025)
(Curran & Manuel, 2024); (SMID et al., 2019); (Bruzelius & Martins, 2022)

Harm reduction

- Harm Reduction
  - Social justice movement
  - Policy
  - Funding

- harm reduction
  - Day to day practical interventions or skills
    - Sterile syringe access, substance use supplies (safer sniffing/smoking), MOUD, contraception access (free of coercion)

When making important
Healthcare Decisions
use your BRAIN

B — BENEFITS What can I expect if I choose this option? When would we see results?

R — RISKS What are the possible side effects? How can we reduce the risks of problems?

A — ALTERNATIVES Does this respect my values + preferences? What are my options?

I — INFORMATION Do I know everything that I need to know to make an informed decision?

N — NOTHING What are the risks of waiting to make a decision? What if we do nothing?

perinatalharmreduction.org

Image Source: Academy of Perinatal Harm Reduction
(Puccio, 2023)
(Hawk et al., 2017)

The Importance of harm reduction in pregnancy

PREGNANCY
AND
SUBSTANCE USE

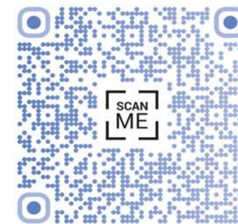
A HARM REDUCTION
TOOLKIT

NATIONAL
HARM REDUCTION
COALITION

As seen in other populations who use drugs, harm reduction in the peripartum population has been shown to improve health outcomes

- Increase engagement and retention in prenatal services
- Reducing preterm and low-weight births
- Increase likelihood of discharging the dyad together
- Increase breastfeeding rates and facilitate early attachment

Follow the link or QR code to view this perinatal harm reduction toolkit



(Weber et al., 2021)

Unconditional Positive Regard

Unconditional positive regard is the basic acceptance and support of a person regardless of their decisions in the context of patient-centered care or therapy

- Supports the whole person during the peripartum period
- Respect for autonomous decision-making
- Improves quality of patient-treatment team discussions

Belief that patients are competent

& capable of making the best choice for their unique circumstances

(National Harm Reduction Coalition, 2023)
(APA, 2023)

Anti-Stigma

- Stigma: widely known barrier to healthcare utilization for individuals with SUD, particularly reproductive-aged women
- Females engaging in substance use more likely than male counterparts to suffer from perceived judgment from community and healthcare workers
- Further complicated by pregnancy and cultural view of motherhood
- In obstetrics, mandatory reporting and child protective services reinforce negative experiences and mistrust
- Leads to decreased or delayed engagement in prenatal care which is an independent risk factor for poor obstetrical outcomes

(Wakeman et al., 2021)
(Weber et al., 2021)
(Lennox et al., 2021)

Opportunity for empowerment

Empowerment: process by which individuals acquire mastery and control over their lives

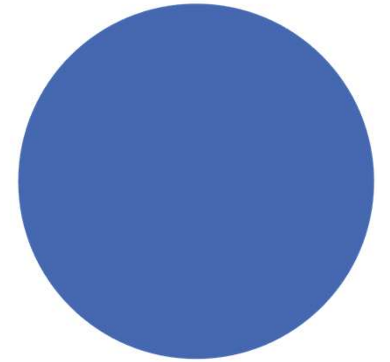
- Empowered parents have access to knowledge, skills and resources used to improve the quality of their own and their children's lives

Parenting self-efficacy: the belief one can effectively perform or manage the tasks related to parenting

(Zand et al., 2017)
(Matsuda et al., 2019)
(Raynor, 2013)

Pre-conception & Antepartum Considerations

Options matter!



Family planning

- Reproductive-aged people with SUD may experience different reproductive health outcomes compared to those without SUD
  - Higher rates of sexually transmitted infections and unintended or unplanned pregnancies
  - Access to contraception limited during inpatient SUD treatment
- Make no assumptions about desire for pregnancy
- Access to contraception for persons receiving treatment for SUD is desired and preferred within SUD treatment
- Provide access to Emergency Contraception

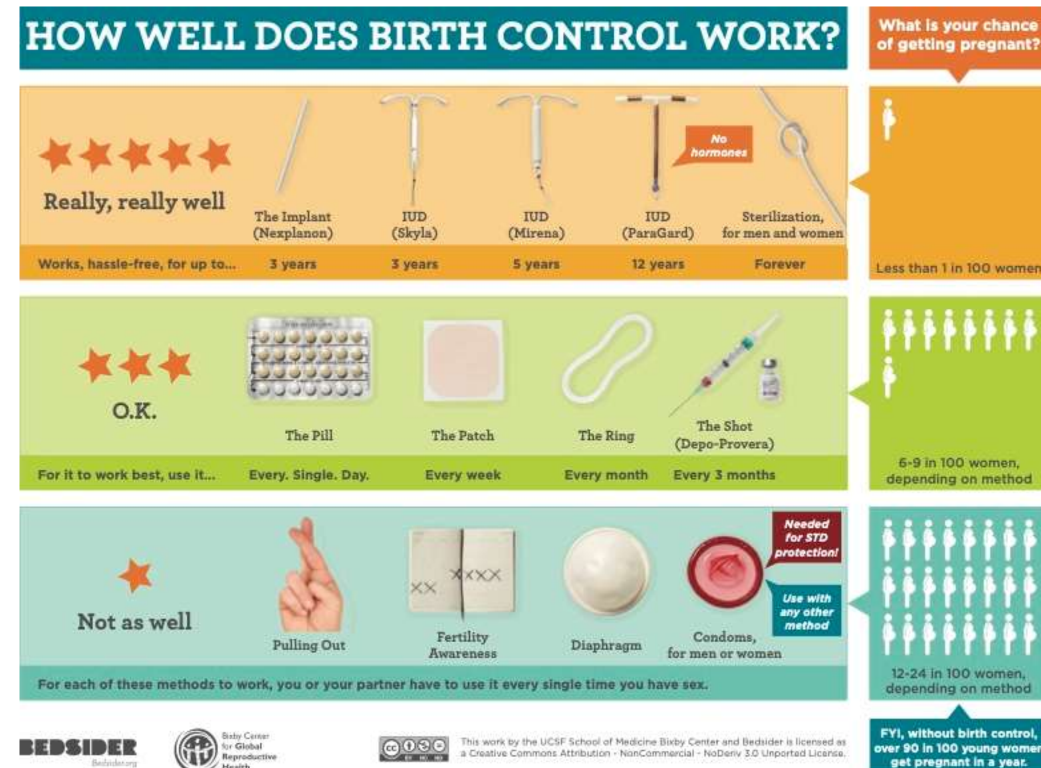


Image Source: Bedsider, Birth Control Effectiveness Table
(Robinowitz, et al, 2016)
(Woodhams et al, 2022)

Family planning

- NO limitations to prescribing any contraceptive method for patients who use opioids or other substances
  - Consider risk vs benefit in smoking age greater than 35
- All contraceptive methods are considered safe for people at increased risk for HIV and hepatitis C
- Shared decision making is critical - persons and clinicians working together, sharing knowledge and medical expertise to arrive at a choice meeting the person's medical needs, preferences and values

Birth Control Methods Chart, Reproductive Health National Training Center
https://rhntc.org/resources/birth-control-methods-chart
Birth Control Methods - Tools to explore and compare options, Bedsider
https://www.bedsider.org/birth-control

(Woodhams et al, 2022)

All Options Counseling

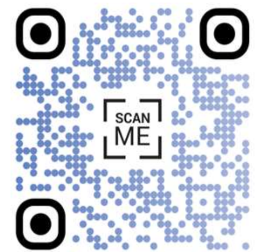
Reproductive JUSTICE: pregnancy, parenting, abortion, and adoption are all accessible and supported without bias, coercion or judgement

End the pregnancy

- Emergency conception
- Medical abortions
- Procedural abortions

Continue the pregnancy

- Adoption
- Parenthood



Abortionfinder.com

Empathetic listening

Build Trust

Validate

Non-judgmental

Make Space

Normalize

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(Reproductive Health Access Project, 2017)
(Woodhams et al, 2022)

Reproductive Coercion

RELIABLE INFORMATION

- Reproductive Health Access Project reproductiveaccess.org
- Abortion Care Network abortioncarenetwork.org 202-419-1444
- National Abortion Federation prochoice.org 1-800-772-9100

What is reproductive coercion?

- Behaviors or policies impeding autonomous decision-making about contraception and pregnancy
- US health providers often complicit in perpetuating reproductive coercion
  - Sends the message that some are "more fit" to parent than others
- Systemic oppression of black, indigenous, imprisoned, disabled, persons who use substances

Strategies to mitigate bias

- Recognize personal biases related to contraception and parenting
- Inform patients about full range of contraceptive options
- Ensure decisions about contraception and pregnancy are completely voluntary
- Prioritize patients' experience and preferences, rather than in a particular method, outcome, or efficacy rate

Slide Credit: Antonietta Camara, Chelsea Faso, MD
(Committee on Health Care for Underserved Women, 2013)

Reproductive Coercion

- Screen for Inter-partner violence (IPV) at periodic intervals
- Ensure education on reproductive coercion and IPV and associated harms
- Offer long-acting contraceptive methods that have increased efficacy and are less detectable to partners

Birth Control Sabotage: e.g.: refusing to wear or removing condoms during sex; throwing way birth control pills

Abortion Coercion: e.g.: Pressuring, threatening or forcing partner to have or not have an abortion against their wishes; threatening to harm partner or baby if partner does not have an abortion

Pregnancy Coercion: e.g.: threatening to end a relationship, or harm a partner if they did not get pregnant

NATIONAL DOMESTIC VIOLENCE HOTLINE

1.800.799.SAFE
Text "START" to 88788

Slide Credit Antonietta Camara
(Gerson, 2023)
(Tarzia & Hegarty, 2021)

Supporting people with ongoing use during pregnancy

Supplies, skills, and pills

Providing safe consumption supplies

In a community-based and hospital-based settings:

- Consider offering safe consumption supplies on site
- Provide supplies in conjunction with information to available programs and resources
- Naloxone distribution
- Sterile supply kits
- Peer education re: safer injection practices with lived experience (how to inject, where to inject).

Providing safer consumption supplies

Safer Sniffing Kit

Safer Injection Kit

Safer Smoking Kit

Overdose Prevention

- Harm reduction education:
  - Never use alone
  - Access substances from the same source
  - Avoid combining sedating substances
  - Test potency
  - Aseptic technique
  - HIV and hepatitis screening and prevention
- Refer to appropriate SUD treatment
- Syringe service programs (SSPs)

TIP: The National Harm Reduction Coalition has a Guide To Developing And Managing Overdose Prevention And Take Home Naloxone Projects. Click here or scan the QR code to access.

(Wolff et al., 2022)
(National Harm Reduction Coalition, 2024)

Overdose Prevention Strategies for Using Alone

Try to avoid using alone but if you are using alone…

- Tell a friend so they can check on you.
- Leave door unlocked
- Leave naloxone at your side in case you sense yourself going out or to be used by somehow who may have found you down.
- Utilize virtual spotting such as overdose detection hotlines or technology

TIP: Scan the QR code to access the video "How to use an overdose prevention helpline" from BMC Grayken TTA

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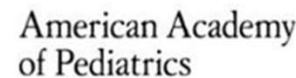
(Seo et al., 2024)
(Rioux, Marshall & Ghosh, 2023)
(Safespot)
(Never use alone)

Low-barrier, No-barrier Access to MOUD

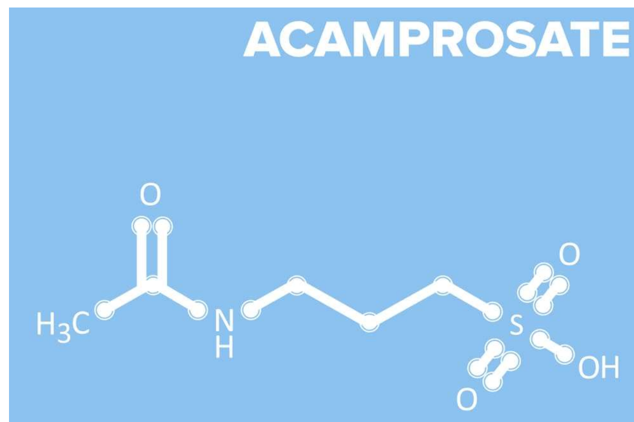
- Opioid Agonist Treatment with methadone or buprenorphine is the **standard of care** for treatment of Opioid Use Disorder (OUD) in pregnancy
  - Proven morbidity and mortality benefit
- Pharmacotherapy is preferable to medically assisted withdrawal because withdrawal is associated with high relapse rates which lead to worse outcomes

- ACOG Committee Opinion, 2017



Low barrier, No barrier Access to MAUD

- There is no safe amount of alcohol use in pregnancy
- Current data suggests the benefit of decreased or discontinued alcohol use outweighs risk that may be associated with use of naltrexone and acamprosate
- Acamprosate and naltrexone have not been shown to be associated with substantial risks of congenital malformations or other serious consequences
- Safety of disulfiram has NOT been established and this medication has the potential to cause serious fetal harm



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(Kelty, et al, 2021)

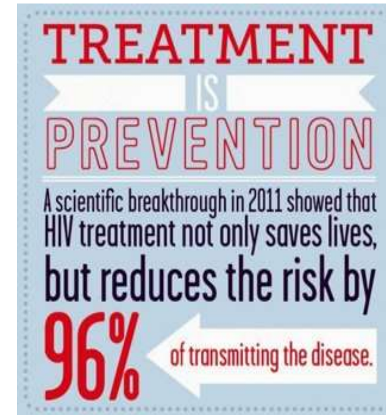
Collaborative Decision Making for Medications for StUD

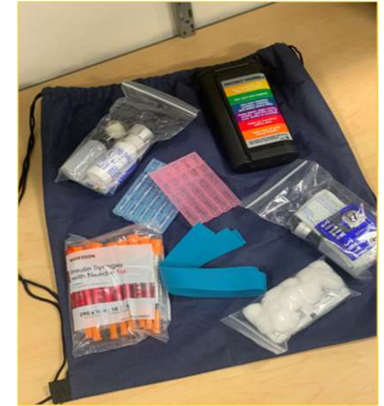
- There are no FDA-approved medications available for the treatment stimulant use disorders (StUD)
- Some medications have been used off-label for treatment of StUD
- Shared decision-making discussions and education re: risk vs benefit should guide treatment planning
  - Naltrexone 380mg IM Q 3 weeks with bupropion XR 450mg daily
  - Mirtazapine 30-45mg nightly for methamphetamine use
  - Topiramate +/- MAS-XR, collaborative decisions are key!!
- Counsel about good nutrition, adequate rest, and multivitamins

(Smid, et al, 2019)
(Wakeman, Kremer & Schulkin, 2021)
(WAAC, 2021)

Infectious disease prevention

- Screening for HIV, HCV, HBV
- Prevention Medications - PrEP and PeP
- TASP – Treatment as prevention
- Vaccinations
  - Safe in pregnancy – Covid, Flu, Pertussis
- Safe consumption supplies





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HIV Prevention Medications – Safe in pregnancy

Post-Exposure Prophylaxis (PEP)

What is PEP?

Medications used to prevent seroconversion of HIV.

Duration?

Take within 72 hours of suspected contact for 28 days following an exposure

Who should take it?

Anyone with an exposure to HIV through a needle, sex, or other potential route of transmission.

VS

Pre-Exposure Prophylaxis (PrEP)

What is PrEP?

Medications used to prevent seroconversion of HIV.

Duration?

Pts generally take it daily or see their health care provider once every two months*

Who should take it?

Anyone with repeated exposures to HIV through a needle, sex, or other potential transmission route.

(CDC US Public Health Service, 2024)
(AETC, 2021)
(NIH, 2024)
(Zimmerman & Vogl, 2024)

PrEP in Pregnancy

Discuss

- PrEP with all sexually active people including those trying to conceive, pregnant, postpartum or breastfeeding
- Benefits of PrEP to avoid HIV acquisition and perinatal transmission
- Risk vs benefit

Test

- HIV testing preferably with a 4th generation p24 Ab/Ag
- Consider checking HIV viral load at transition
- It may be prudent to check HIV status every month during the first three months of PrEP to detect any early seroconversion

Prescribe

- For high-risk sexual contact consider doxy-PEP and emergency contraception
- The only FDA-approved PrEP option with known safety and efficacy during pregnancy and breastfeeding is tenofovir disoproxil fumarate/emtricitabine

(NY State Department of Health AIDS Institute, 2020)
(AIDS AETC, 2021)
(NIH, 2024)

Harm reduction considerations during the birth experience

Creating a safe space in labor and delivery

Hospitalization during active use

- Prospective cohort studies of patients with SUD in Canada found that 43.9% of participants had used substance during a hospital stay
  - Most common reasons: “wanting to use” and “being in withdrawal”
- Ethnographic study highlighted patients may attempt to conceal their use, for example using in a locked bathroom
- Concealed inpatient use may increase adverse outcomes:
  - infection, increased LOS, unintentional death
- Poorly measured and studied
- Identifying patient needs (e.g. pain management, withdrawal, cravings) can reduce use

(Martin et al., 2023)
(Flynn et al., 2022)

What about smoking?

- Inpatient smokers have a higher rate of "against medical advice" (AMA) discharge
- Nicotine withdrawal must be adequately managed with medications like nicotine replacement therapy (NRT)
- Metabolism of nicotine is higher in pregnancy, higher doses of NRT may be needed
- NRT can result in reduction or cessation of use, which may improve birth outcomes
- Switching to noncombustible nicotine sources such as NRT or e-cigarettes during pregnancy/postpartum could reduce smoking-related harms
    - Limited data exists for the safety and efficacy of e-cigarettes on the pregnant mother and fetus

(Kumar & Gould, 2019)
(Prochaska, 2009)

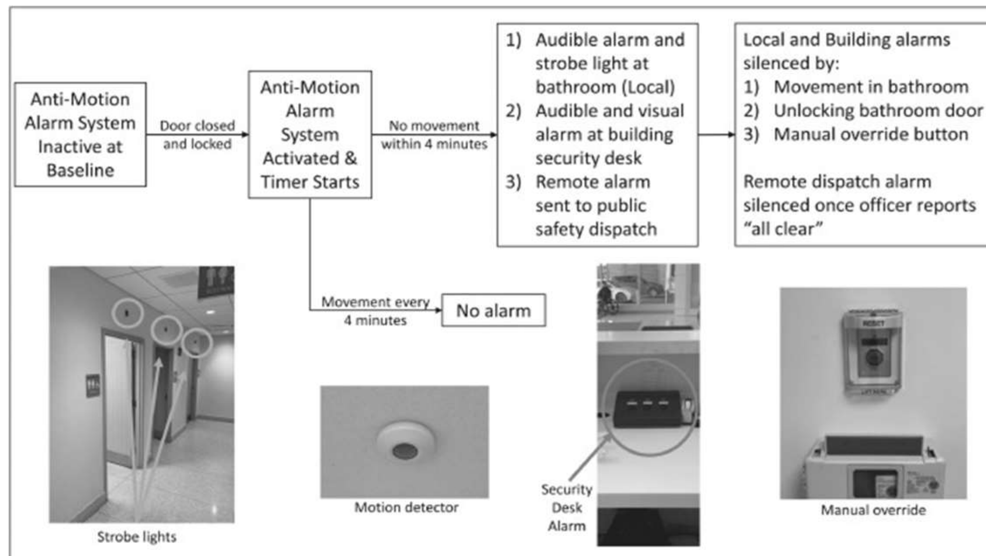
Intrapartum substance use risk reduction

- Clear organization policies regarding management
- Universal screening for SUD on admission for early intervention
- Ensure adequate pain and withdrawal management
- Punitive or authoritarian measures may impact therapeutic relationships
- Minimize engagement of security or law enforcement
- Initiate clinical treatment for SUD
- Engage multidisciplinary team including addiction medicine if possible
- Provision of naloxone at bedside
- If illicit substances found, should be kept in personal belongings area until time of discharge

(Martin et al., 2023)
(Flynn et al., 2022)

Inpatient Overdose Prevention Strategies

- Multiple models of using technology to sense an individual “down” or unconscious due to overdose to reduce risk while inpatient
- Restrooms are common locations for substance use where overdose can occur
- To quickly detect overdose, some organizations have implemented anti-motion alarm systems as a prevention approach.



Visit **saferbathrooms.ca** for more information on bathroom safety and to download ressources:

(Buchheit et al., 2021)
(Gagnon et al., 2023)
(Canadian Institute for Substance Use Research, n.d.)

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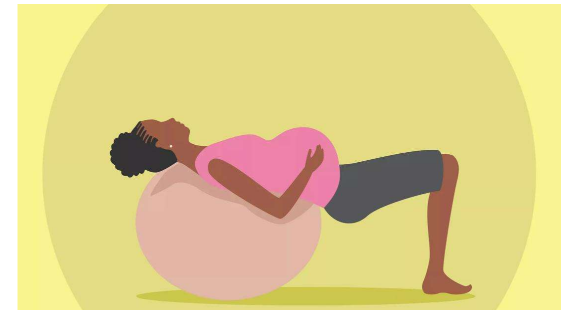
Intrapartum Pain Management

- MOUD should be continued
- Reassure patients pain will be managed
- Epidural
  - Regional anesthetic – patients should be reassured there are no psychotropic effects
- Non-pharmacologic pain interventions
  - Deep breathing, massage, warm baths, positioning changes, movement, acupressure, continuous labor support, music, and using a birthing ball

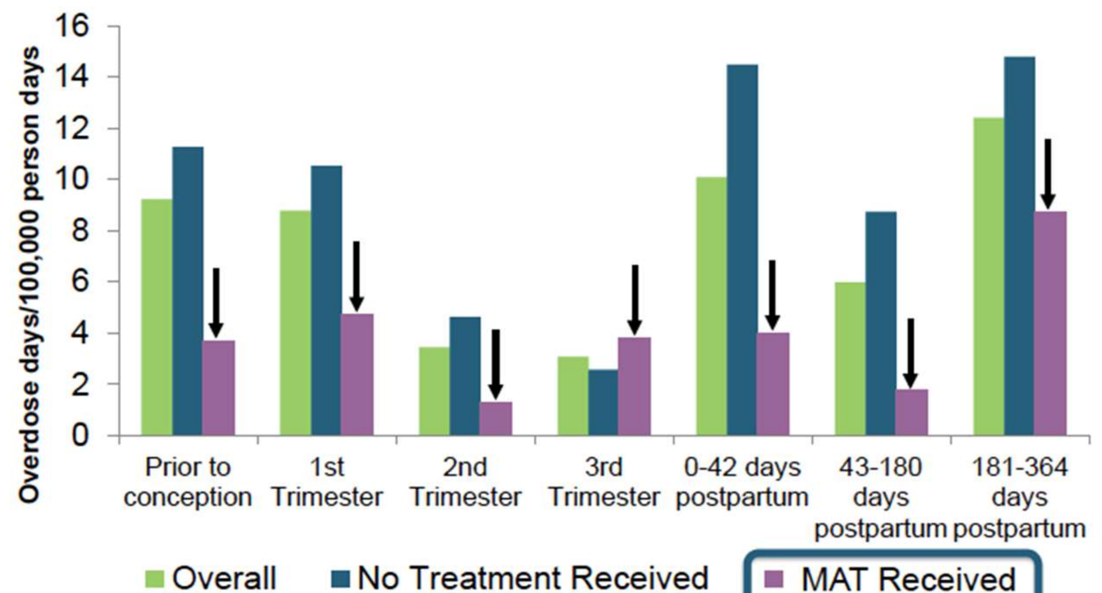


(ACOG, 2024)
(AWHONN, 2023)
(Nowakoski et al., 2023)

Post-partum strategies to reduce harm for the birthing person and the family unit
Reducing oppression from systems of power

MOUD Reduces Maternal Overdoses

- Overdose rates **highest 7–12 months after delivery**
  - Lowest in 3rd trimester
- Overall, 64.3% of patients with OUD in the year before delivery received any pharmacotherapy in the year before delivery
- Individuals receiving MOUD had reduced overdose rates



(Schiff et al., 2018)
(AMA, 2024)

MAT Breastfeeding

- Methadone and buprenorphine first-line in pregnancy and breastfeeding
- Breastfeeding should be encouraged in birthing persons who are stable on opioid agonists and who have no other contraindications
- Newborn benefit: decreases length of stay and reduces the need for pharmacologic treatment of NAS by 30-50%
  - Methadone concentrations in breastmilk low
    - Infants receiving an estimated dose of methadone ranging from 1 to 3% of the birthing person's weight-adjusted methadone dosage.
  - Poor oral bioavailability of buprenorphine/naloxone, infant is exposed to only 1/10 of the buprenorphine/naloxone ingested
- Limited data indicate **naltrexone** is minimally excreted into breastmilk, insufficient evidence of harms to a breastfeeding infant

(NIH, 2024)
(LactMed, 2024)

Breastfeeding – HIV and HCV

HIV

- Can replace breastfeeding with formula or pasteurized donor human mild – eliminates risk of transmission to infant, new guidelines stress collaborative decision making
- Can achieve and maintain viral suppression through ART – decreased the risk of transmission to less than 1%

HCV

- Breastfeeding is not a risk for HCV maternal to child transmission
- Data shows similar rates of maternal infection in breast-fed and bottle-fed infants

(CDC, 2024)
(AASLD & IDSA, 2023)
(Panagiotakopoulos, 2023)
(Blauvelt et al., 2024)

Breastfeeding and Substance Exposure

BEST PRACTICES

Human Milk and Substance Exposure

www.perinatalharmreduction.org/NANN

SUBSTANCE	BEST PRACTICES	EVIDENCE
Alcohol	Pump or feed before you drink. Wait 3-4 hours after each alcohol serving before providing milk to the baby.[1 - 2]	Alcohol is present in human milk and has been linked to many of the same problems seen with prenatal exposure. Alcohol does not increase milk production or let-down.[1]
Benzodiazepines	Take medication as prescribed. Feed the baby. Watch for signs of sedation.[3]	Most benzodiazepines are considered safe or moderately safe at therapeutic doses.[3] Infants exposed to benzodiazepines via breastmilk may exhibit signs of sedation, such as apnea.[4]
Cannabis	It is safest to reduce or eliminate use during the lactation period.[5, 6, 7] However, in the case of continued medical or recreational use, experts agree that the proven benefits of human milk likely outweigh the risk of cannabis exposure. It is unacceptable to withhold lactation support.[8, 9]	Cannabis transfer rate into human milk is estimated to be 0.8-1% of maternal dose.[8, 10, 11, 12] Bioavailability is incomplete in infants' GI tract. So infants absorb 0.1% of the parent's dose.[11] Little data on the effects of exposure via breast milk, with inconclusive results.[13, 14]
Opioids	Long- or short-term opiate use is not a contraindication to breastfeeding, regardless of dose.[15, 16] Because of individual differences in metabolism, codeine is not recommended while breastfeeding, due to risk of infant overdose.[16]	Most opioids transfer into human milk at rates estimated at 1-3 % of maternal dose.[17] Because bioavailability is poor in infants' gastrointestinal tracts, it is likely that even less is absorbed.
Stimulants	Abstinence during lactation is recommended. In the case of a relapse, wait 24 hours after cocaine use and 48 hours after methamphetamine use to provide milk.[16, 18] Caffeine doses of ≤ 200mg are considered safe for lactation.[19]	Caffeine, cocaine, and methamphetamine are present in the human milk of parents who use them. Infant exposure should be limited by feeding or pumping before use.[16, 18, 19, 20]
Smoking	Despite the risks, breast/chestfeeding while smoking is considered safer than formula feeding while smoking because of the proven health benefits of human milk, including a 50% reduction in the incidence of SIDS.[5, 21, 22]	Smoking during lactation has been associated with decreased milk supply, shorter lactation duration, altered composition of milk, increased incidence of SIDS, and asthma in offspring.[5, 23]

REFERENCE

1. ACOG (2011)
2. Liston (1998)
3. Uguz (2021)
4. AAP (2013)
5. AAP (2012)
6. ACOG (2017)
7. Reece-Stretman and Marinelli (2015)
8. Hill and Reed (2013)
9. Metz and Stickrath (2013)
10. Perez-Reyes (1982)
11. Bertrand (2018)
12. D'Apolito (2013)
13. Astley and Little (1990)
14. NIDA (1985)
15. Darke, et al. (2007)
16. LactMed
17. ABM (2012)
18. Bartu, Dusci, and Ilett (2008)
19. LLL (2006)
20. Temple, et al. (2017)
21. Dorea (2007)
22. Vennemenn, et al. (2009)
23. Napierala (2016)

(APHR, 2024)

Navigating the child welfare system

- SUD leading cause for social service involvement
- Persons of color are ten times more likely to be reported to the criminal-legal system or child protective agencies
- Ensure consistent and open communication and documentation of care across the team to allow for advocacy to agencies
- Abuse or neglect are reportable
  - A diagnosis of an SUD does not equate with abuse or neglect
- Mandatory reporting regulations may vary by state

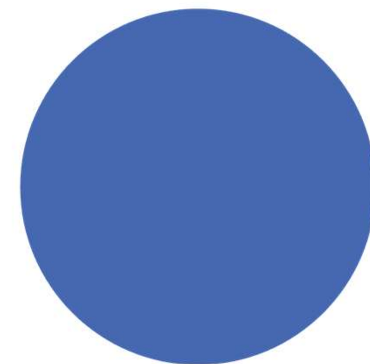
(NCSACW, 2020)
(Slavin, 2023)

Final thoughts

- Numerous opportunities to reduce harm and improve outcomes present throughout prenatal, intrapartum and postpartum periods
- The best care for persons with SUD is that which empowers and promotes autonomy
- Shared decision-making is critical to perinatal care of persons with SUD

Whether or not a person is using substances, healthy pregnancies can be achieved!

Resources



Harm Reduction Short Videos

we're excited to announce our new

HARM REDUCTION SHORT VIDEO SERIES

The new Harm Reduction Educational Series is a collection of **15 short videos** now available as part of our virtual harm reduction toolkit developed to equip healthcare professionals and community partners with **practical harm reduction skills to better support patients who use substances**. Topics covered include **safer smoking**, **injecting**, **sniffing**, **booty bumping**, and **overdose prevention and reversal**.

Click here or scan QR code to watch!