The Interplay of Trauma and Substance Use Disorder in Perinatal patients

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Trauma and Trauma Informed Care

Substance Use Disorders in Pregnancy

Impact of alcohol, cannabis, sympathomimetics and opioids in perinatal individuals

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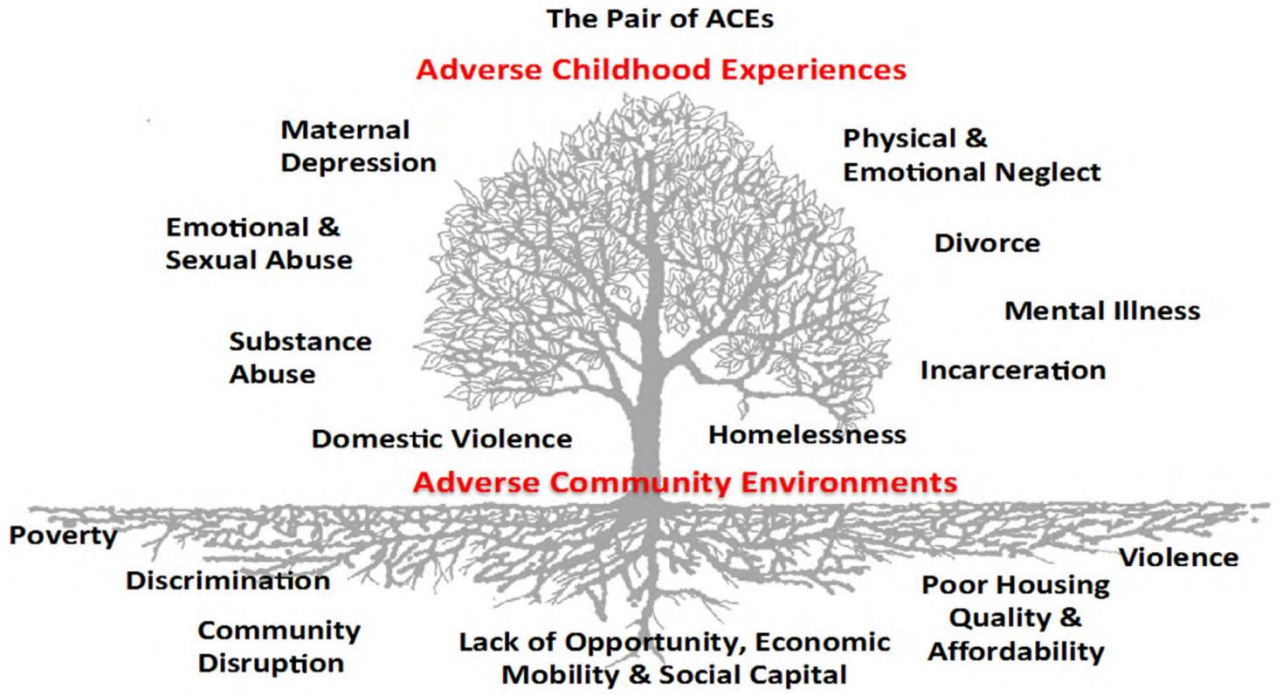
How MCPAP for Moms can help

What is Trauma?

"Trauma is defined as an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or threatening, and that has lasting adverse effects on the individual's functioning and physical, social, emotional, or spiritual well-being."

SAMHSA, 2014

Adverse Childhood Experiences: in the soil and the air



Ellis, W., Dietz, W. (2017) A New Framework for Addressing Adverse Childhood and Community Experiences: The Building Community Resilience (BCR) Model. Academic Pediatrics. 17 (2017) pp. S86-S93. DOI information: 10.1016/j.acap.2016.12.011

From the Center for Community Resilience https://ccr.publichealth.gwu.edu/

Experiences of trauma are widespread

- Majority of individuals (50-90%) have had exposure to a traumatic event in their lifetime
- Interpersonal Violence (IPV) is more common in pregnant women than gestational diabetes

Kessler et al., 1995; Dabelea et al., 2005

Maternal trauma can negatively impact one's pregnancy, postpartum experience and infant health.

- Exacerbation of perinatal mood and anxiety disorders
- Preterm birth risk
- Poor maternal infant bonding
- Low birth weight
- Reduced or early cessation of breastfeeding
- Dysregulation in fetal neurobiological systems

Yonkers et al., 2014; Brand et al., 2010; Meltzer-Brody et al., 2013; Muzik et al., 2016; Smith et al., 2016

Individuals with past trauma and ACES are more likely to experience…

- Substance use disorders
- Suicide attempts
- Adolescent pregnancy
- Fetal death
- Medical co-morbidities

Hills et al., 2004; Feliti et al., 2019

Trauma and Opioid Use Disorder intersect in the perinatal population

Adverse Childhood Experiences (ACEs) were associated with:

- Rates of recent injection drug use and lifetime overdose
  earlier age of initiating opioids

In perinatal individuals:

- 65% of perinatal individuals with OUD had an ACE score of 4 or more (average ACE score 4.3 vs 1.4 in a survey sample)
- 16-26% of pregnant women with OUD are diagnosed with PTSD

Inadequate access to MH services is:

- Associated with hospital admissions in perinatal individuals
- Seen as a barrier to care

Stein, Michael D et al." *Drug and alcohol dependence* vol. 179 (2017): 325-329.; Gannon et al *Comm Mental Health* 2020; Saia et al. Curr Obstet Gynecol Rep 5, 257–263 (2016;) Patrick et al 2020; Titus Glover et al 2020

Health care can be retraumatizing

Interpersonal factors

- Power dynamic between provider and patient
- Gender of provider/patient
- Lack of privacy (physical/emotional)

Physical factors

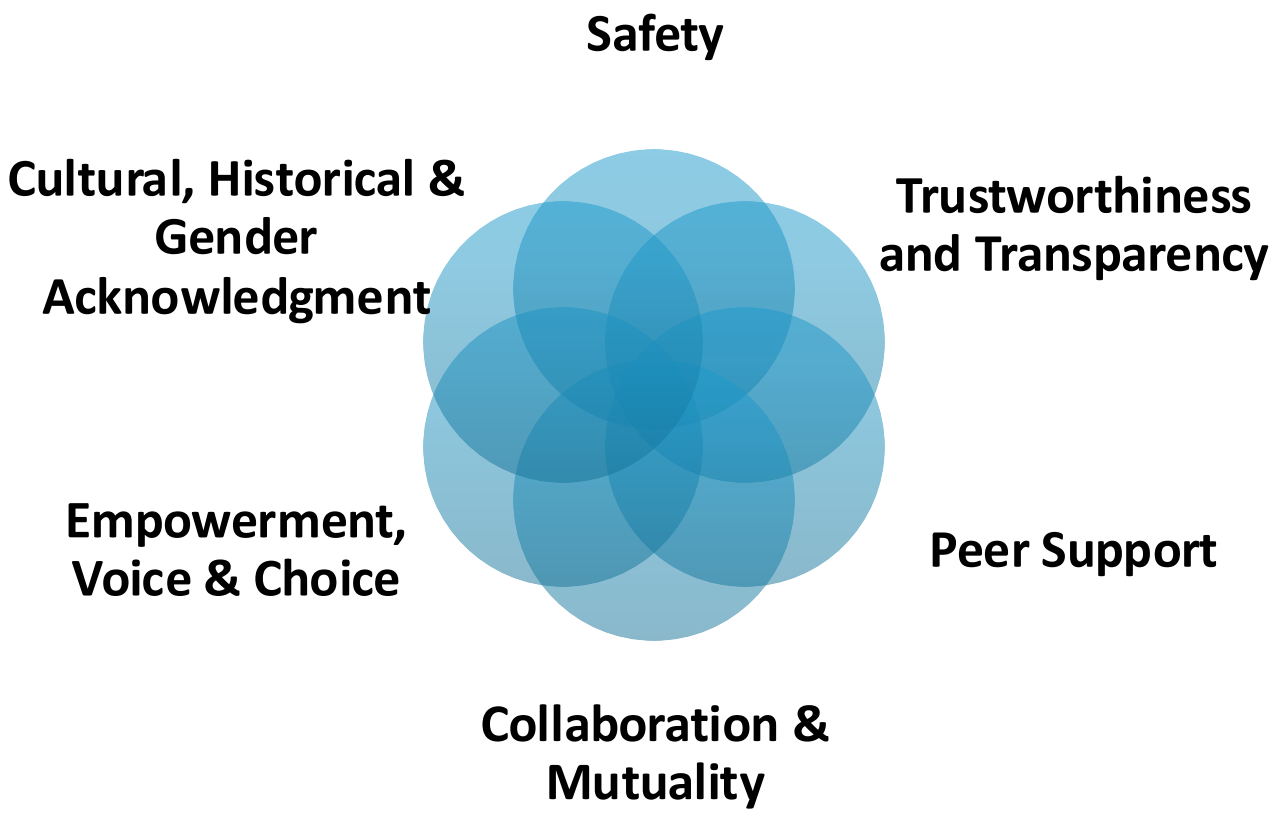
- Exposure during examination
- Discomfort due to symptoms or examination/procedure
- Positioning
- Physical touch

In medical/SUD treatment settings, trauma and PTSD symptoms often go unnoticed

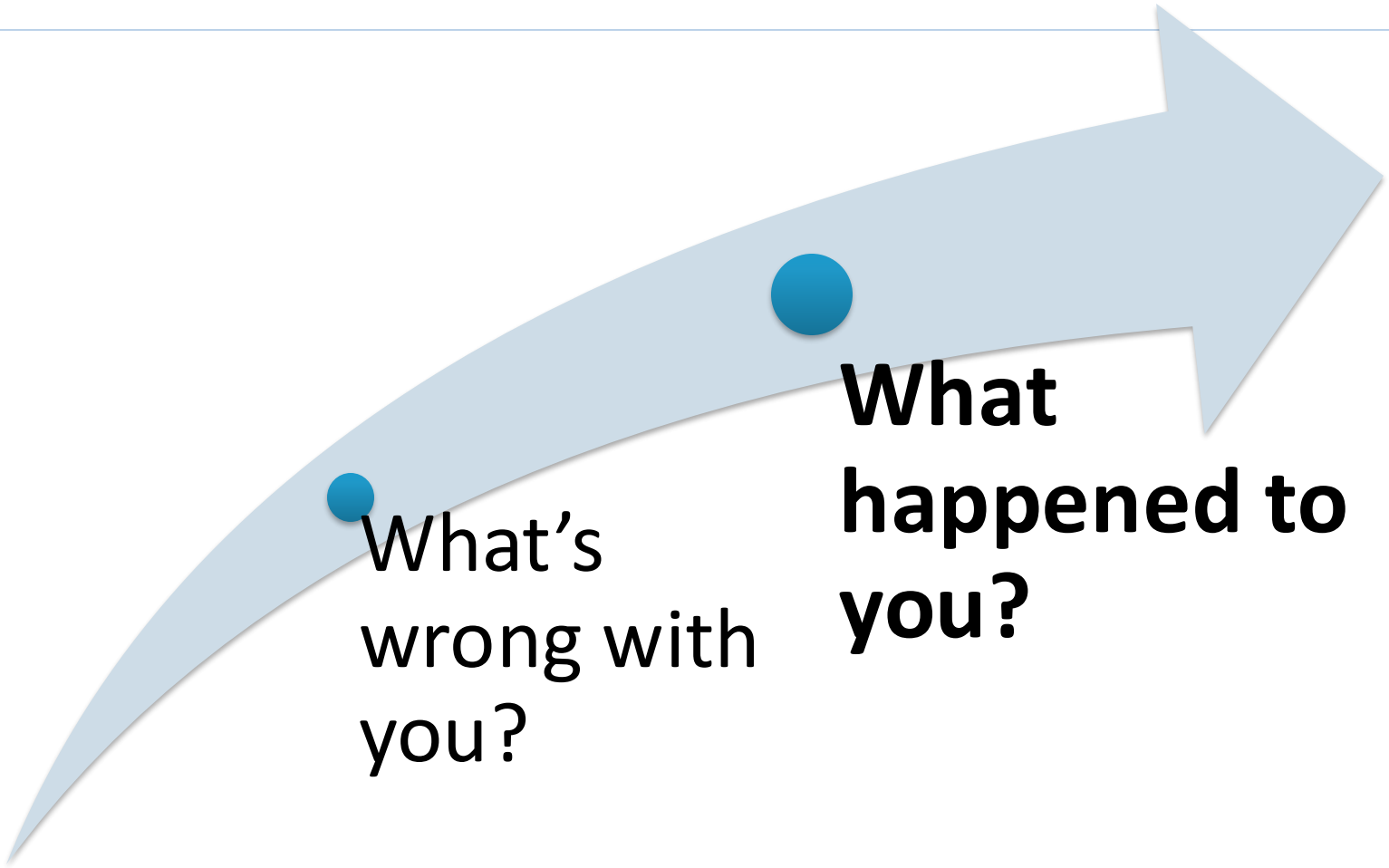
Patients do not disclose because of…
▪ Shame
▪ Helplessness
▪ Stigma
▪ Fear of partner retaliation
▪ Fear of child protective service involvement

Providers do not inquire because of…
▪ Lack of training
▪ Insufficient time
▪ Perceived short supply of support resources
▪ Obstetric care itself can be traumatic

Six core principles of Trauma Informed Care



Shifting the paradigm



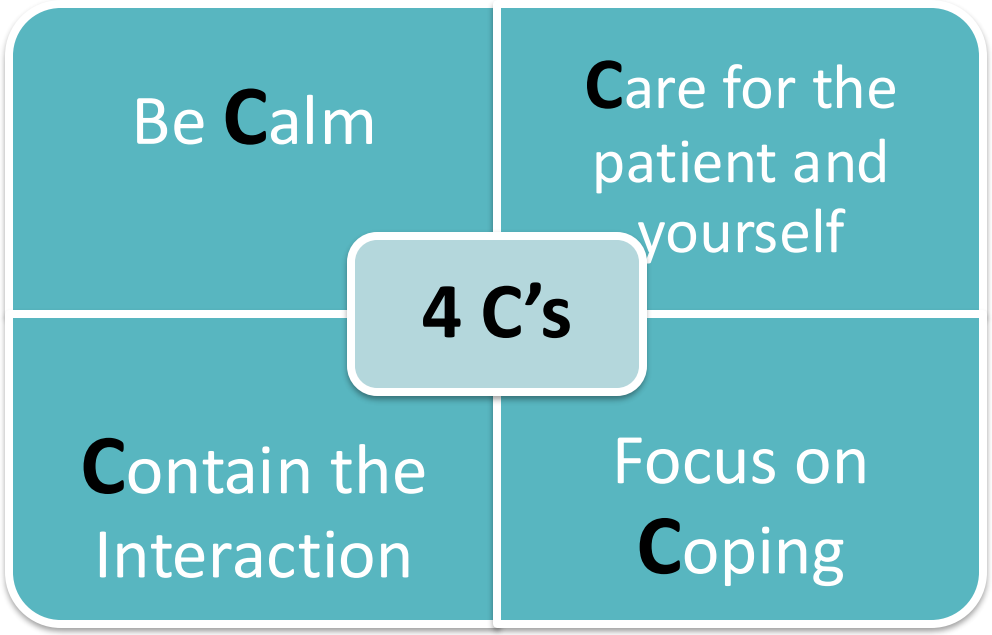
Trauma Informed Care should be applied universally

Utilize TIC principles in all aspects of care.

Environment	Policies	Attitudes/Beliefs
Calm and clean	“No wrong door”	Patient centered
Privacy	Clear and transparent policies	Asking questions, not making assumptions
Accessibility	Language accessibility	Honoring differences in coping
Pleasant	Seeking feedback	
	CAN DO approach	

Prepare to discuss trauma with each patient

Practice Personal Preparation: 4 C's



Mental health conditions are now the leading cause of pregnancy-related deaths

Table 4. Underlying causes of pregnancy-related deaths*, overall and by race or ethnicity[1], data from Maternal Mortality Review Committees in 36 US states, 2017–2019[1]

					Non Hispanic									
	Total		Hispanic		AIAN		Asian		Black		NHOPI		White	
	N	%	n	%	n	%	n	%	n	%	n	%	n	%
Mental health conditions[2]	224	22.7	34	24.1	2	-	1	3.1	21	7.0	0	-	159	34.8
Hemorrhage[3]	135	13.7	30	21.3	2	-	10	31.3	33	10.9	1	-	53	11.6
Cardiac and coronary conditions[4]	126	12.8	15	10.6	1	-	7	21.9	48	15.9	0	-	49	10.7
Infection	91	9.2	15	10.6	1	-	0	0.0	23	7.6	0	-	49	10.7
Embolism-thrombotic	86	8.7	9	6.4	0	-	2	6.3	36	11.9	0	-	34	7.4
Cardiomyopathy	84	8.5	5	3.6	0	-	2	6.3	42	13.9	0	-	33	7.2
Hypertensive disorders of pregnancy	64	6.5	7	5.0	0	-	1	3.1	30	9.9	1	-	22	4.8
Amniotic fluid embolism	37	3.8	6	4.3	1	-	7	21.9	10	3.3	2	-	9	2.0
Injury[5]	35	3.6	5	3.6	1	-	1	3.1	15	5.0	0	-	10	2.2
Cerebrovascular accident	25	2.5	2	1.4	0	-	0	0.0	10	3.3	0	-	13	2.8
Cancer	19	1.9	3	2.1	0	-	1	3.1	7	2.3	0	-	7	1.5
Metabolic/ endocrine conditions	12	1.2	2	1.4	0	-	0	0.0	6	2.0	0	-	3	0.7
Pulmonary conditions	12	1.2	1	0.7	0	-	0	0.0	4	1.3	1	-	5	1.1

Mental Health Conditions:

Mental health conditions include deaths of suicide, overdose/poisoning related to substance use disorder, and other deaths determined by the MMRC to be related to a mental health condition, including substance use disorder.

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Trost SL, Beauregard J, Njie F, et al. Pregnancy-Related Deaths: Data from Maternal Mortality Review Committees in 36 US States, 2017–2019. Atlanta, GA: Centers for Disease Control and Prevention, US Department of Health and Human Services; 2022.

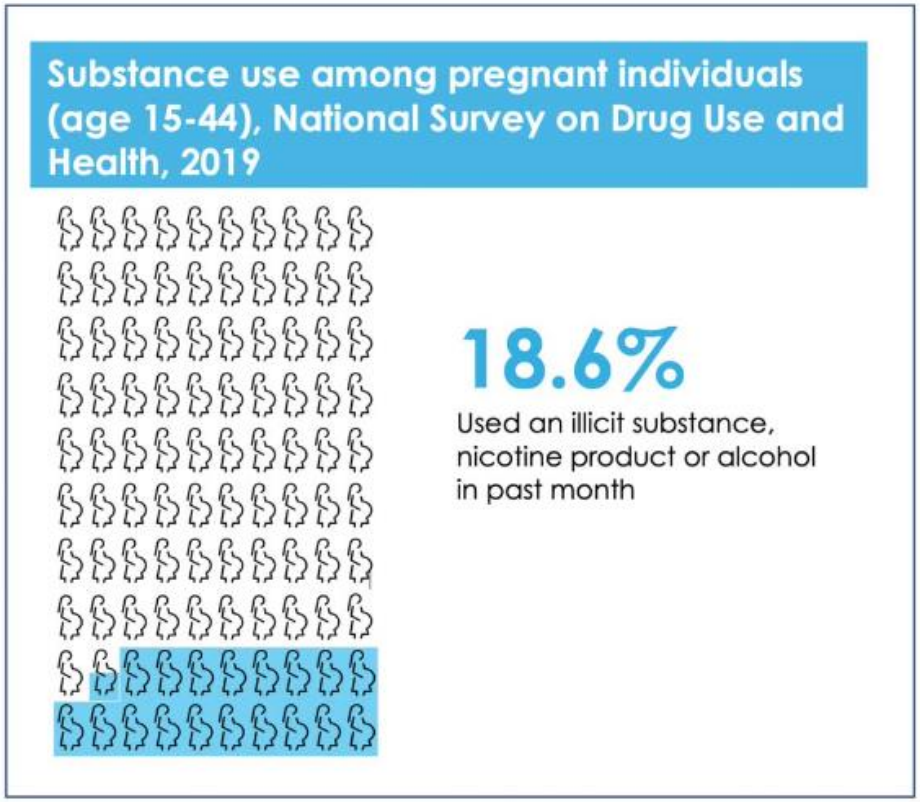


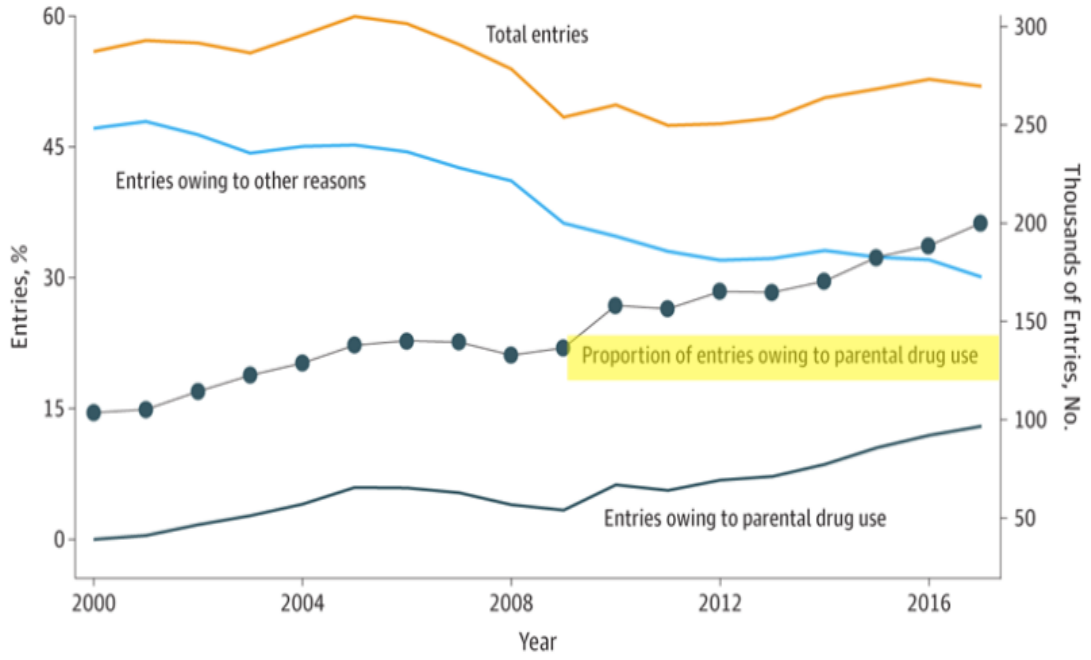
Fig. 1. Proportion of pregnant individuals with past-month substance use, National Survey on Drug Use and Health, 2019.

Smid. Substance Use Disorders Management in Perinatal Period. Obstet Gynecol 2022.

From Smid and Terplan JACOG 2022

Parental substance use is the number cause of foster care placement in the USA

Figure. National Trends in Foster Care Entries Attributable to Parental Drug Use, 2000 to 2017



Between 2000 and 2017 the proportion of removals from home and placement into foster care rose from 14.53% to 36.26% attributed to parental substance use

Children entering because of parental substance use were more likely to be 5 years or younger

Meinfofer A. Anglero-Diaz Y. JAMA Pediatr Published Online: July 15, 2019 2019;173;(9):881-883.

Women with substance use disorders can present throughout pregnancy and the postpartum period

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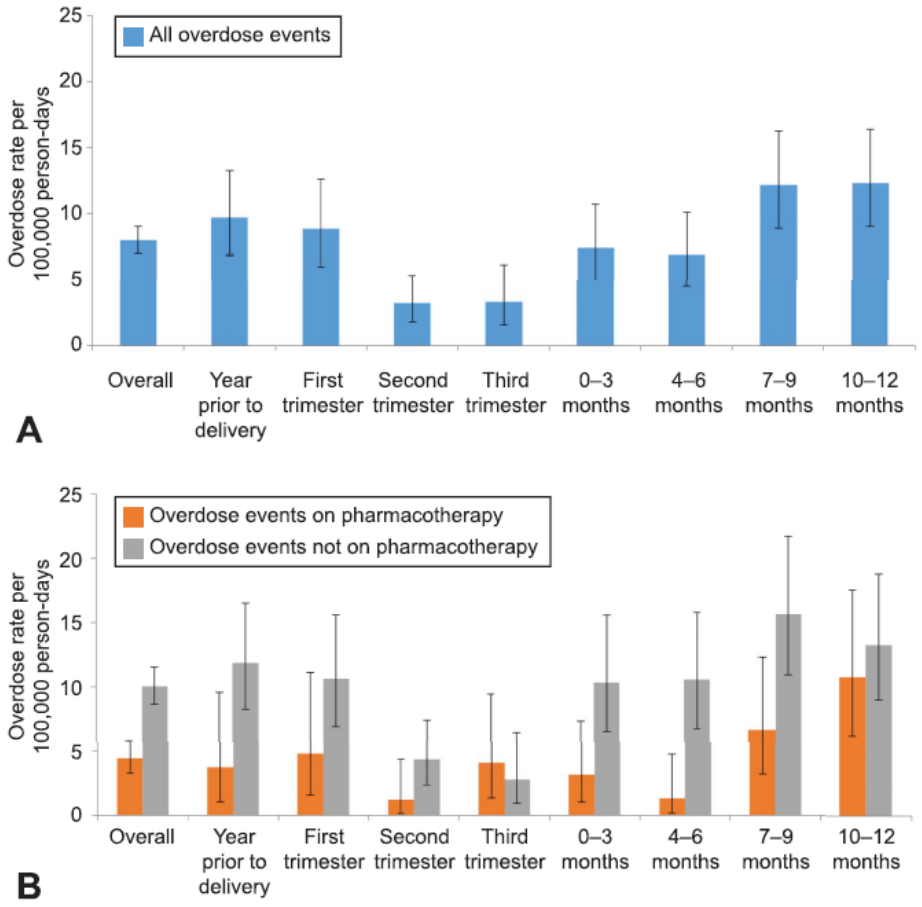
Think pregnancy for ALL reproductive aged women

Half of pregnancies are unplanned – greater proportion in individuals with SUD and psychiatric diagnoses

Finer & Zolna Contraception 2011.

Opioid overdose is a leading cause of maternal mortality



Methadone and Buprenorphine save lives

Mortality is greatest after delivery

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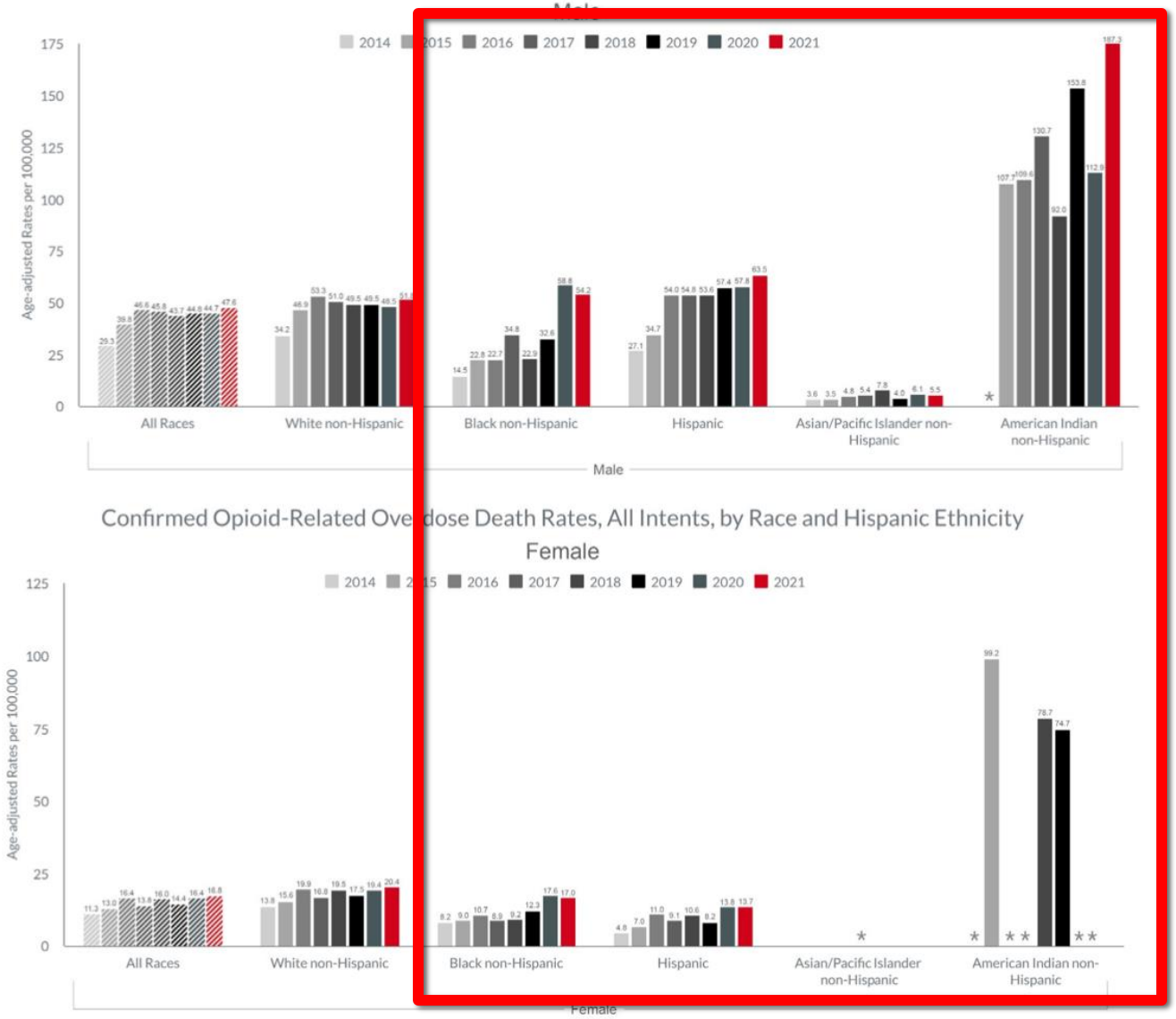
Metz 2016, Schiff et al 2018

There are racial and ethnic inequities in annual mortality related to opioid overdose



*Rate calculations based on death counts less than 5 are excluded due to rate instability.

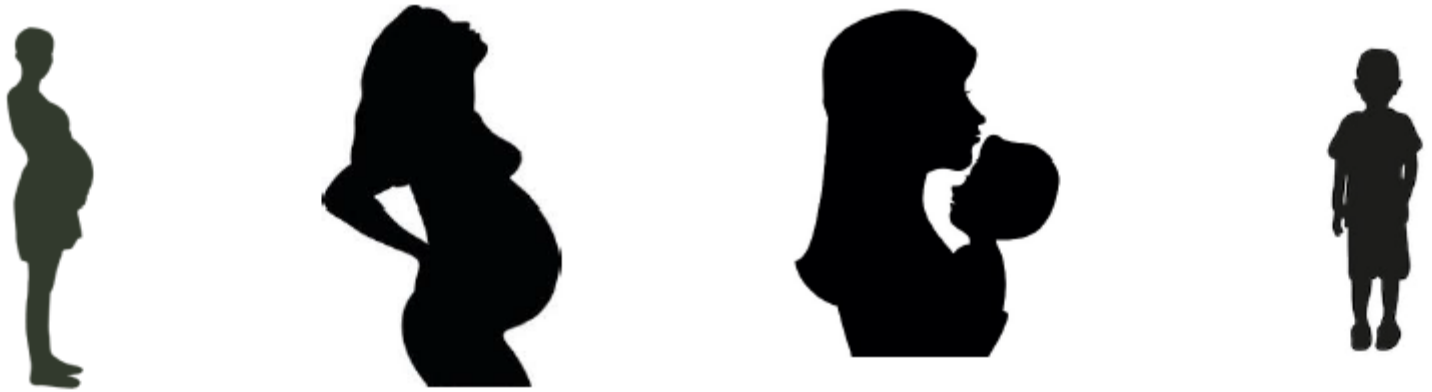
Substance use during pregnancy poses risk to the woman, fetus, and family

Exposure to Teratogens

Poor nutrition

Difficulties with labor management

Overdose



Limited access to prenatal care

Placental insufficiency

Withdrawal

Infectious risk (eg HIV, HCV)

Preventable cause of maternal & infant mortality

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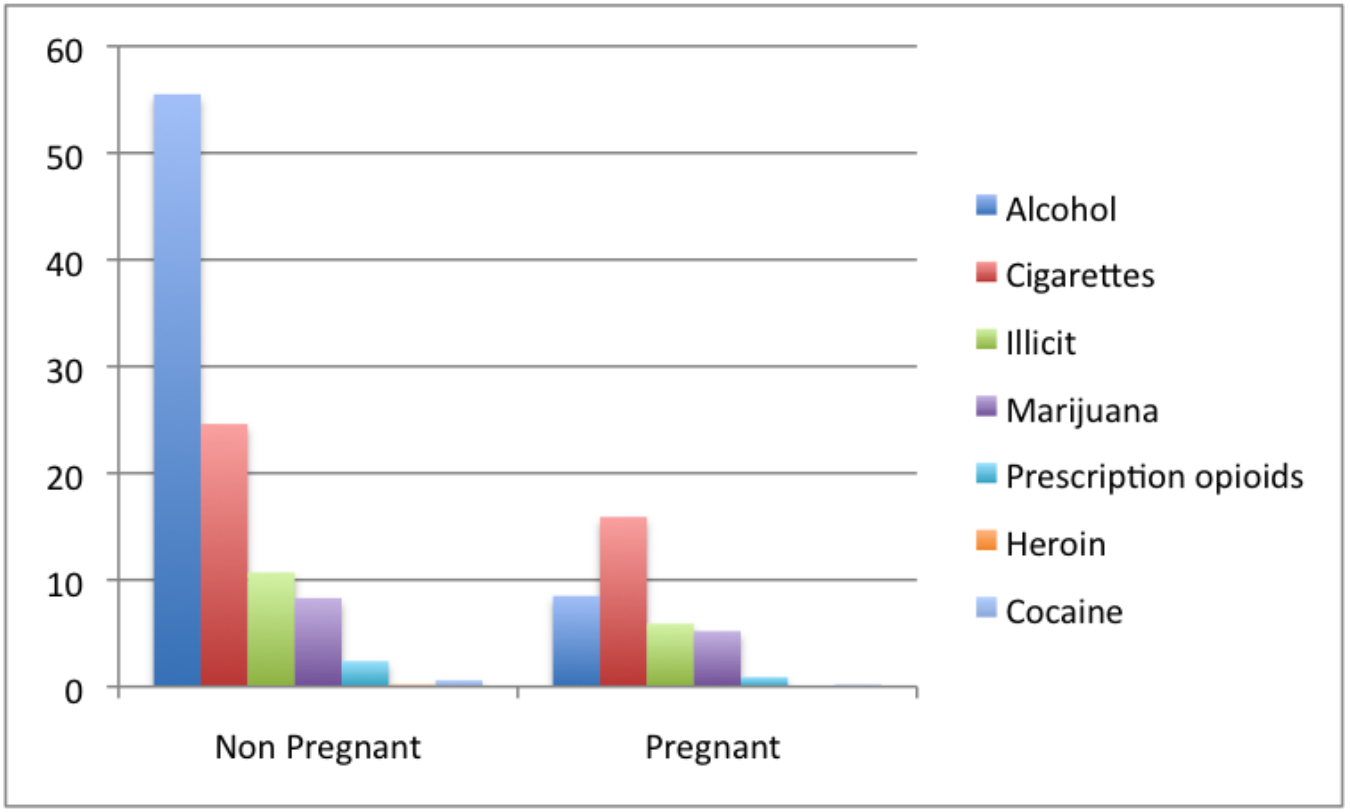
Keegan J et al. J Addictive Diseases. 2010. 29 (2) 175-91

Substance use during pregnancy opportunities and challenges

- Refractory Illness
- Stigma and Shame
- Legal issues
- Providers' own emotional reactions
- Time elapsed before recognition of pregnancy
- Access

Pregnancy is a window of opportunity during which women stop using substances



Drug use in the past month, females 15-44

Havens JR et al. Drug and Alcohol Dependence 99 (2009) 89–95; NSDUH 2012 National Survey on Drug Use and Health (2012); Harrison et al Maternal Child Health J (2009) 13:386–394

Women with any history of substance use should be counseled as early as possible about possible social service reporting after delivery

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Fear of loss of custody greatly impacts women with substance use disorders in pregnancy

Substance use and treatment leads to many reports to social services

There is increased scrutiny in this process for families affected by poverty and families of color

Losing custody increases the risk of substance lapse/relapse

Pregnant and Parenting women with SUD benefit from the development of a team of providers

All perinatal individuals with SUD are encouraged to have a Family Care Plan

Cannabis is the most commonly used substance in pregnancy in the U.S. and recreational use is legal in many states

48-60% of users continue during pregnancy

There are **limited human data** available for THC/CBD use in pregnancy

Marijuana and synthetic cannabinoids are highly potent

NSDUH 2018; Ryan et al Pediatrics 2018

The US Surgeon General, FDA, ACOG and AAP advise women to abstain from cannabis use in pregnancy and lactation

Developmental Risks

Visual processing/cognition
Neural Development

Intrauterine Growth Restriction

Low birth weight
Head circumference

Lactation

Concentrates in breastmilk
May inhibit milk supply

Marijuana use during pregnancy and lactation. Committee Opinion No. 637. American College of Obstetricians and Gynecologists. Obstet Gynecol 2015;126:234–8; Marroun et al (2009) JAACAP; Jacques Journal of Perinatology (2014)

Impacts of Alcohol Use in Pregnancy

Effect on perinatal person

- Acute intoxication
- Risks of chronic use
- Withdrawal syndromes

Effect on fetus/neonate

- Alcohol related birth defects
- Acute neonatal intoxication, hypotonia
- Neonatal withdrawal

Effect on child/family

- Neurobehavioral Disorder associated with prenatal alcohol exposure (DSM-5)
- Impact on parenting/custody

Prenatal Alcohol Exposure

A leading preventable cause of birth defects and neurodevelopmental deficits in the United States

Out of all substances used, alcohol has the greatest neurobehavioral effect on the fetus

It can cause a range of intellectual and behavioral problems, which appear at any time during childhood and last a lifetime

Fetal Alcohol Spectrum Disorder (FASD)

- FASD is not a clinical diagnosis and is used as an umbrella term for a range of physical, cognitive, and behavioral disorders caused by prenatal alcohol exposure

- Prevalence rates are estimated to be 1 in 20 in the U.S.

- It is highly misdiagnosed and underdiagnosed due to stigma, normalization of alcohol use and legislation, and most people with FASD lacking physical identifiers

- For centralized support in MA, visit https://massfasd.org/

FASD (2022)
May et al. (2018)

Brief Interventions can impact alcohol use in pregnancy

Providers can:

1. Screen, assess and provide clear recommendations to abstain
2. Relay education regarding potential harms
3. Set goals and evaluate strategies to avoid triggers

Floyd 2007; Bhat 2015

Medication treatment for alcohol use disorder is dependent on the presenting symptom

Treatment for cravings

- Naltrexone has emerging data
- Less Data
  - Disulfiram
  - Acamprosate
  - Topiramate

Treatment for withdrawal

- Benzodiazepine taper
- Lorazepam is preferred
- Monitor vital signs

Alcohol can negatively impact lactation

Alcohol can *decrease* breastmilk volume and milk ejection reflex

HIGH EXPOSURE RISK

Alcohol equilibrates across membranes within 30-60 minutes

Giglia 2006

The primary risks associated with cocaine use in pregnancy are due to vasoconstriction, not structural teratogenicity or withdrawal

Intoxication can mimic preeclampsia

Vasoconstriction

- Spontaneous abortion
- Placental abruption
- Placental insufficiency

Effects on child growth and neurodevelopment

- Increased risk of ADHD or ODD
- Poor language development
- Reduced executive functioning

Cressman et al JOGC 2014; Cain et al Clin OG 2013

Stimulants carry some risk so therapeutic use should be assessed based on risks of untreated symptoms

VS

Therapeutic use

Abuse

Bolea- Alamanac et al Br Journ Pharmac 2013; Freeman AJP 2014

Opioid use disorders in pregnancy are treated pharmacologically with methadone and buprenorphine

No FDA approved treatment

Mainstays of treatment:

- **Methadone**
- **Buprenorphine (single or combination)**
- **Naltrexone (emerging)**

High risk of relapse after discontinuation of opioids

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Rementeria et al. *AJOG.* 1973; 2. Zuspan *AJOG*.. 3. Fricker *Arch of Pedi & Adol Med*. 1978 4 Luty *J of Sub Abuse Treat*. 2003 5.Towers et al AJOG 2015 6 Jones et al. *The American Journal on Addictions.* 2008

Maintenance treatment is preferred, but medication assisted withdrawal can be considered

Some increasing literature supporting medication assisted withdrawal (aka Detox)

Absence MOUD provider
Pt preference
Risks for relapse remains high

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Freeman et al. *Annals of Clinical Psychiatry* 2013

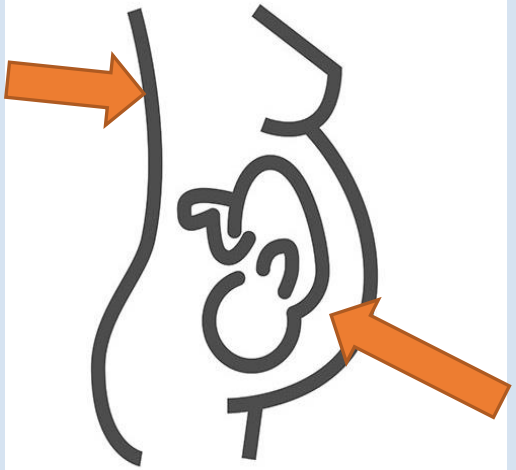
For women with opioid use disorders, there are maternal and fetal benefits to medication during pregnancy

Maternal Benefits:

70% reduction in overdose related deaths

Decrease in risk of HIV, HBV, HCV

Increased engagement in prenatal care and recovery treatment



Fetal Benefits:

Reduces fluctuations in maternal opioid levels; reducing fetal stress

Decrease in intrauterine fetal demise

Decrease in intrauterine growth restriction

Decrease in preterm delivery

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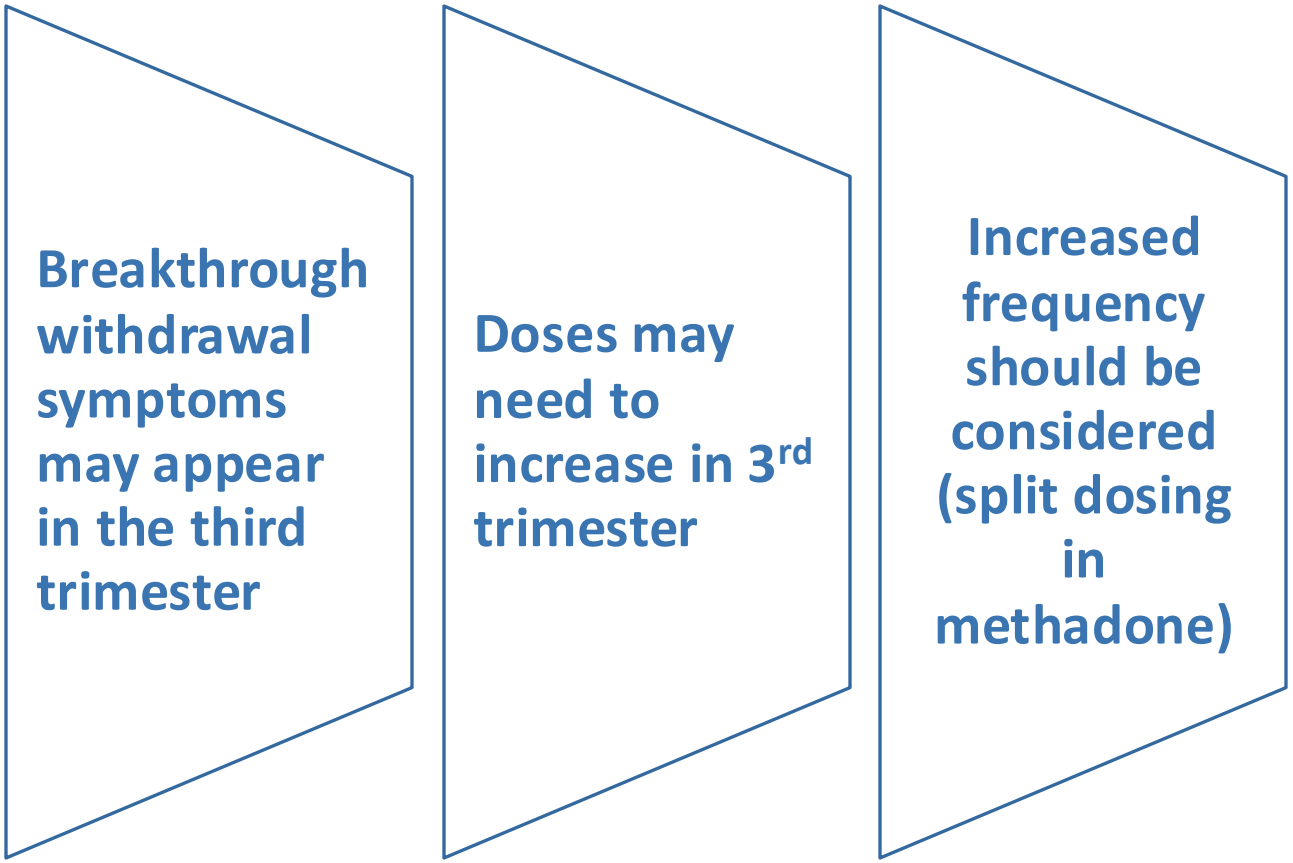
Dose adjustments for MOUD are often needed in the third trimester due to the physiology of pregnancy



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Park 2012

Buprenorphine is as effective as methadone for the treatment of opioid use disorder in pregnancy

No apparent difference between buprenorphine and methadone for:

- Medical complications at delivery
- Illicit drug use/relapse risk
- Abnormal presentation
- Use of analgesia
- Maternal weight gain
- Cesarean section
- Positive drug screen

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Jones 2012

Buprenorphine is now a first line treatment for opioid use disorder during pregnancy with distinct features

Fewer drug interactions

Office based treatment

Babies exposed have less severe withdrawal

Lower risk of overdose and sedation

Single formulation (Subutex) is preferred
*NOT Sublocade

Combination formulation (Suboxone) may be more accessible

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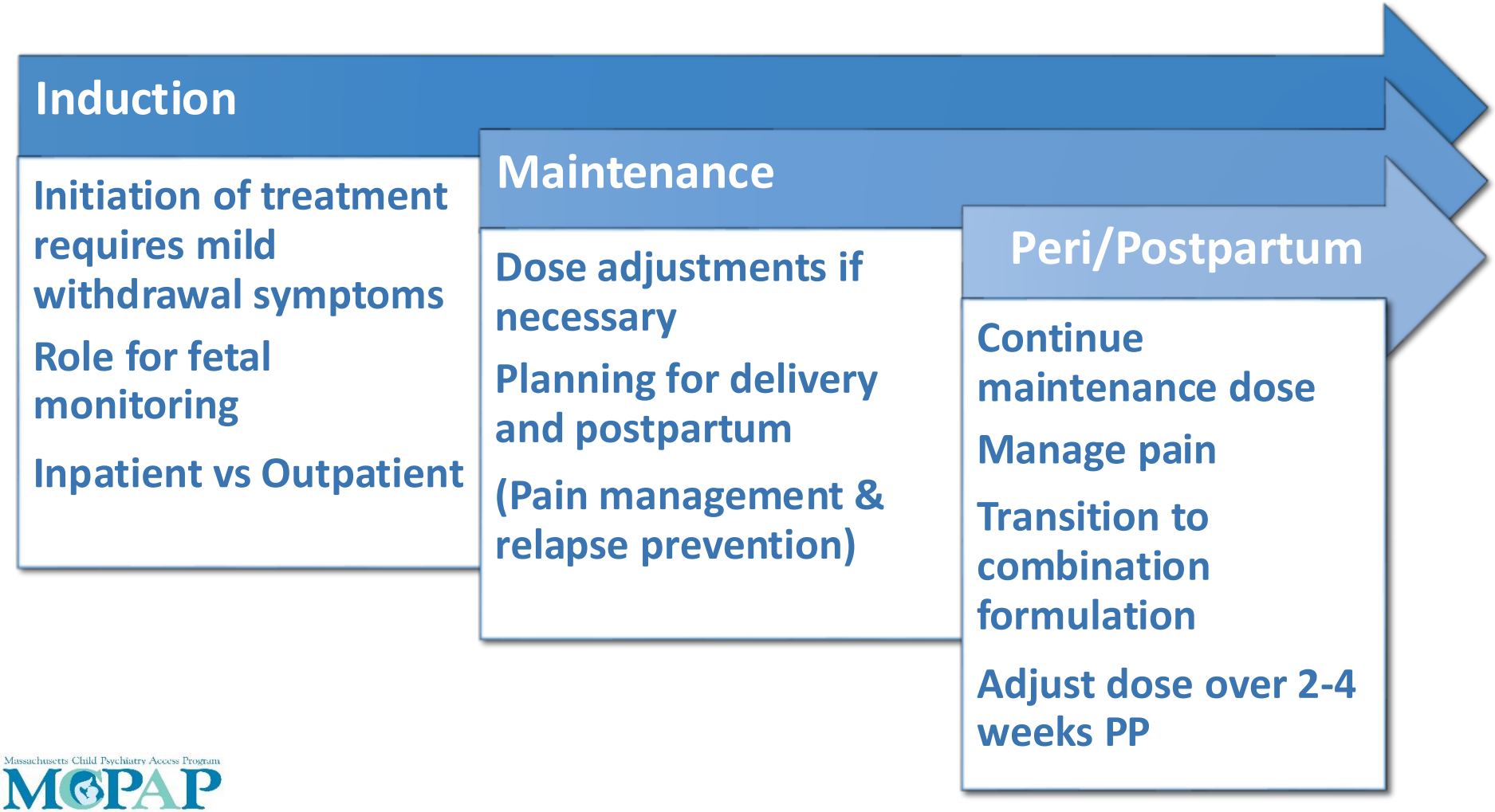
Jones NEJM 2010, Blandthorn 2011, Park *Psychsomatics* 2012

Treatment with buprenorphine during pregnancy consists of three distinct phases of management and monitoring



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Data regarding the use of naltrexone during is emerging

Limited human data

If the patient is stable on naltrexone may be reasonable to continue

Available as daily oral treatment or monthly injectable

Saia 2016

Peripartum pain management for women on buprenorphine and methadone patients requires a few special considerations

- ☑ **Maintenance doses of methadone or buprenorphine are not sufficient analgesia**
- ☑ **Patients on agonist therapy report elevated pain scores and may have higher medication requirements**
- ☑ **Non narcotic pain treatment should always be offered such as regional (epidural or spinal anesthesia) or NSAIDs (postpartum)**
- ☑ **Avoid high affinity partial agonists (eg nalbuphine)**

Alford 2006, Meyer 2010, Park 2012

Shifting from NAS to Neonatal Opioid Withdrawal Syndrome (NOWS)

More descriptive and specific

NAS and the other NAS

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Non pharmacologic treatment for NOWS is first line – Eat Sleep Console (ESC) decreases time in the hospital and empowers mother-infant relationships

30% decrease in the development of NAS

50% decrease in neonatal hospital stay

Breastfeeding should be encouraged if SUD stable though criteria vary by setting/institution

Pritham UA et al. *J Obstet Gynecol Neonatal Nurs.* 2012., Welle-Strand GK et al. *Acta Paediatr*. 2013.,Wachman EM et al. *JAMA.* 2013., Abdel-Latif ME et al. *Pediatrics;* Grossman *Pediatrics* 2017

How can MCPAP for Moms Help?

Call MCPAP for Moms at 855- 666-6272, Monday – Friday 9:00 a.m. – 5:00 p.m. to request the following services:

Trainings and Toolkits
https://www.mcpapformoms.org/Toolkits/Toolkit.aspx

Real-time provider to provider phone consultation

Linkages with community-based resources

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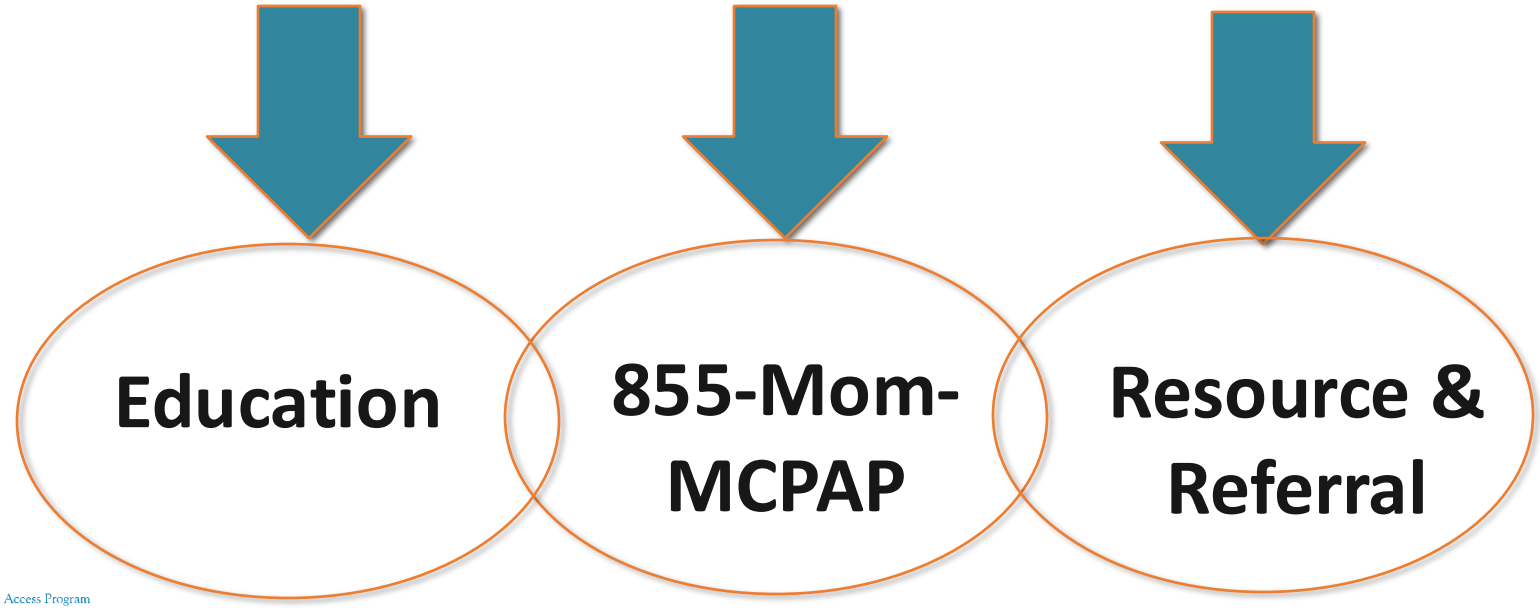
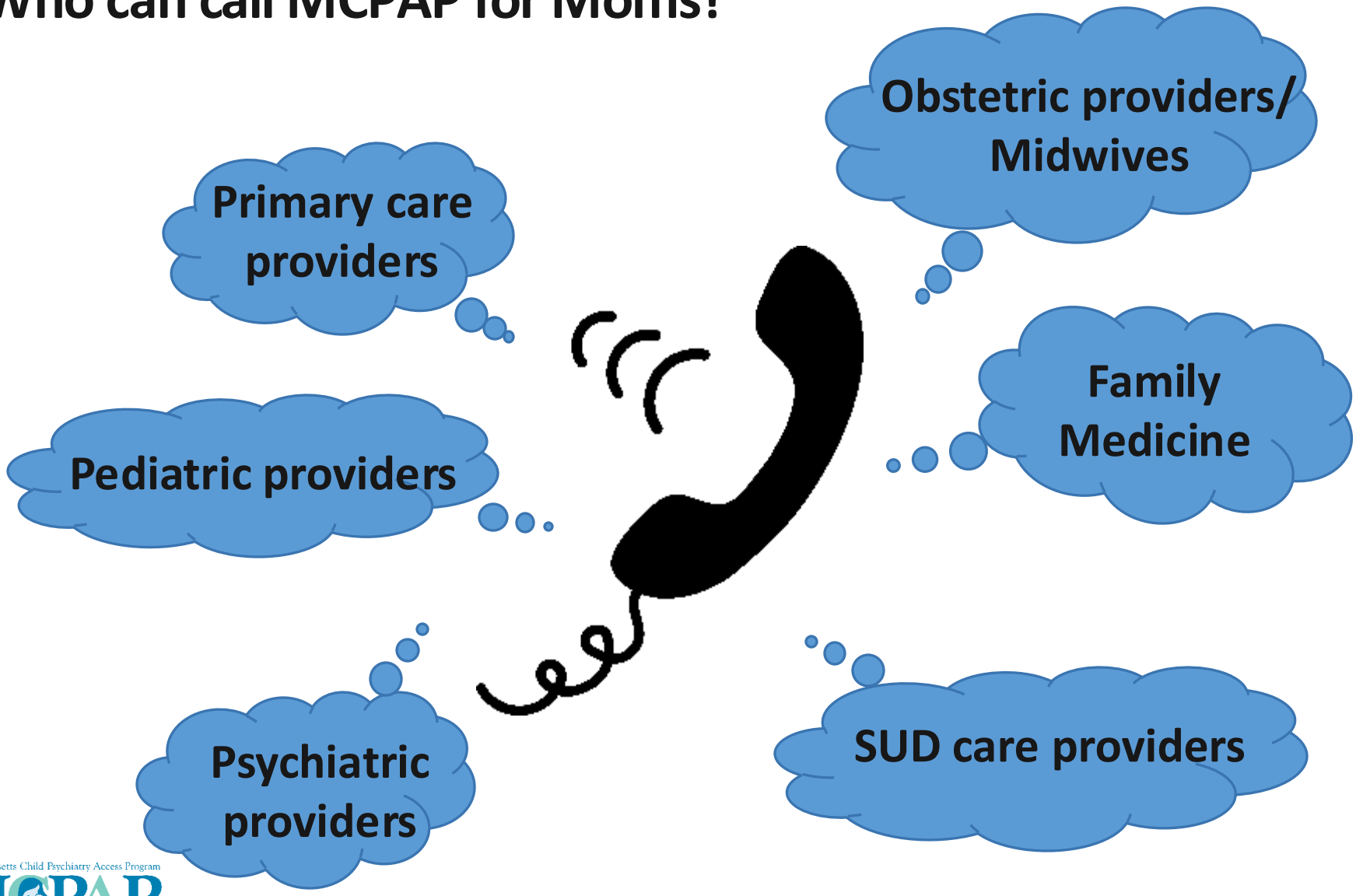


Who can call MCPAP for Moms?



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Providers can call 855-Mom-MCPAP for consultation for mental health and SUD topics

Resource and Referral specialist

Provider to Provider Phone Consultation

Resources to provider

Face to Face Consultation

Resources to patient (Patient Contact)

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Resource and Referral is based on acuity, severity and need

Resources to Provider

- RRS identify 2-3 targeted resources and share in a list form with the provider
- Does not involve speaking with mom

Outreach to Patient

- RRS contact mom and work with them to schedule appointment
- Follow up after 2 weeks

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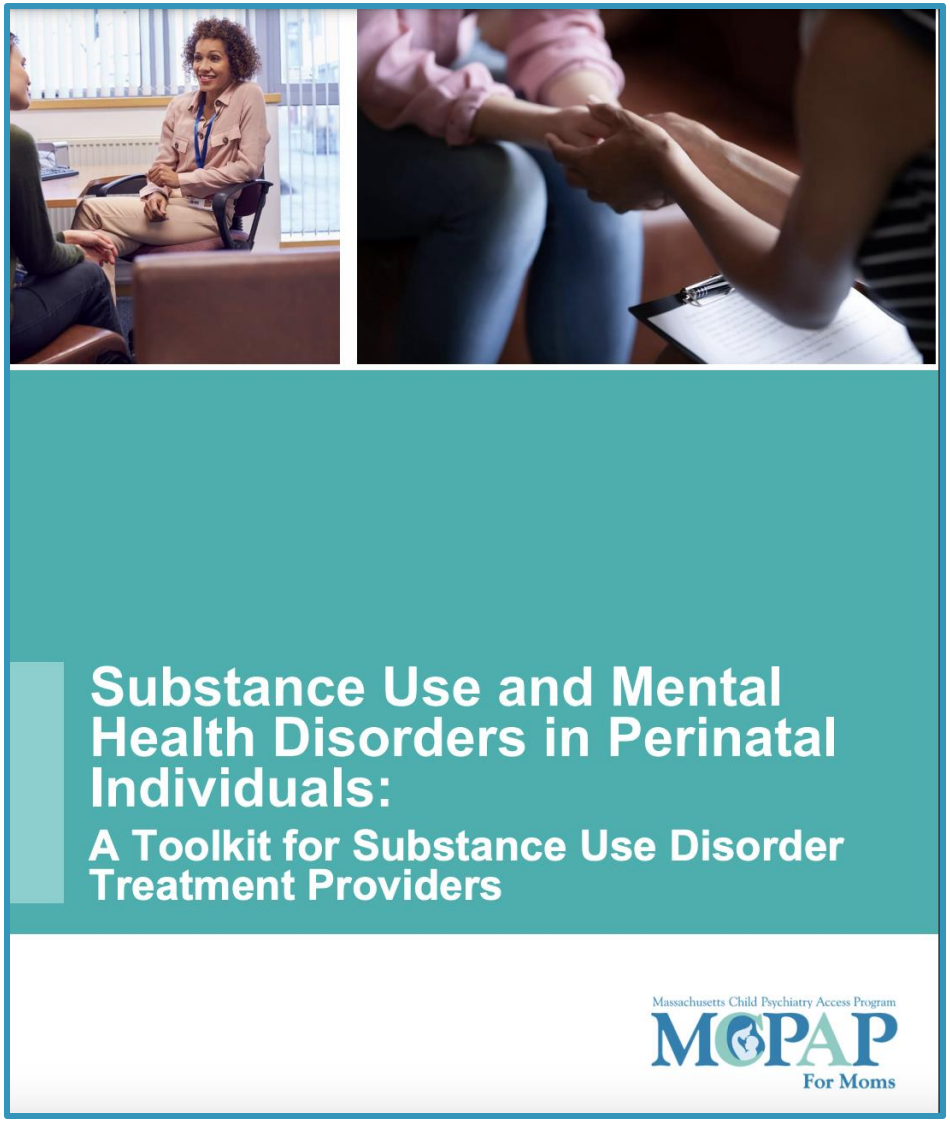
Our website has resources for providers as well as patients and families - www.mcpapformoms.org

SUD Treatment Provider Toolkit

https://www.mcpapformoms.org/Toolkits/SubstanceUseProgramToolkit.aspx



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https://www.mcpapformoms.org/Toolkits/SubstanceUseProgramToolkit.aspx

Non-Stigmatizing Language

Reducing Stigma by Using Strength-Based Language

Substance use disorders are chronic illnesses, and recovery can be achieved with treatment and ongoing support. The language that we use can help create an inclusive environment that promotes treatment. Using strength-based and person-first language can help clients feel respected, valued, and help build trust.

Non-Stigmatizing Language	Stigmatizing Language
Person who uses substances	Substance abuser or drug abuser Alcoholic Addict User Abuser Drunk Junkie
Babies affected by maternal opioid use	Addicted babies/born addicted
Substance use disorder or addiction use, misuse Risky, unhealthy, or heavy use Non-medical use	Drug habit Abuse Drug problem
Substance of use	Drug of choice
Person in recovery Abstinent Not drinking or taking drugs	Clean
Medication for addiction treatment (MAT) Medication for Opioid Use Disorder (MOUD)	Substitution or replacement therapy Medication-Assisted Treatment (MAT)
Positive/aberrant, negative (toxicology screen results)	Clean or dirty urine
Opioid Treatment Program (OTP) Dispensing	Methadone clinic Dosing
Impaired Intoxicated	Nodding Stoned High
Non-adherent	Failed/failure Non-compliant
Discharge Transferred	Termination Shipped out
Former client Seeing multiple providers	Frequent flyer Doctor shopping

Call MCPAP for Moms at 855-MOM-MCPAP (855-666-6272).

Adapted from The Grayken Center for Addiction at Boston Medical Center "Words Matter Pledge."

Summary of Impact and Management of Substance Use in Pregnancy

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Summary of Impact and Management of Substance Use during the Perinatal Period

SUD7

Risks of Maternal Use	Acute Intoxication	Withdrawal	Ongoing Management
Opioids			
Fetal effects: Opioids do not cause structural fetal abnormalities. However, opioid use during pregnancy is associated with intrauterine growth restriction, fetal demise, meconium leakage/aspiration, and preterm labor. **Neonatal effects:** Neonatal Abstinence Syndrome (NAS)/Neonatal Opioid Withdrawal Syndrome (NOWS), hypotonia, respiratory depression at delivery **Maternal effects:** Postpartum hemorrhage, risk of maternal overdose (mortality increases first year postpartum)	**Symptoms:** Sedation, euphoria, decreased respiration	**Symptoms:** Nausea, vomiting, diarrhea, abdominal muscle pain, leg cramping, rhinorrhea, lacrimation, recklessness, sweating, anxiety, hot and cold flashes, tachycardia, and yawning	Pharmacologic treatment is the first line to decrease relapse risk. **Methadone** can only be obtained through a federally licensed clinic. **Buprenorphine (Suboxone, Subutex)** must be prescribed by a waivered provider. Psychosocial treatments like peer supports, counseling, and sober living should be offered concurrently.
	Management: Naloxone (Narcan), monitoring respiratory status	**Management**: Initiate agonist therapy to decrease risk for relapse. There is mixed data regarding the negative impact of maternal opioid withdrawal.	
Alcohol			
Fetal effects: Spontaneous abortion, pre-term labor, stillbirth, intrauterine growth restriction **Neonatal effects:** Fetal Alcohol Spectrum Disorder (FASD) and other developmental/behavioral problems, intoxication, withdrawal, Sudden Infant Death Syndrome (SIDS) **Maternal effects:** Hepatic/pancreatic toxicity, physiologic dependence, risks of injuries/falls	**Symptoms:** Disinhibition, sedation, slowed reaction time, vomiting, loss of coordination, sedation/loss of consciousness	**Symptoms:** Rapid heart rate, increased blood pressure, tremor, anxiety, flushing, diaphoresis, nausea, hallucinosis, delirium tremens, and seizures	**Naltrexone:** Emerging data suggests low risk of adverse birth outcomes. **Disulfiram (Antabuse):** Not recommended for use in pregnancy due to risk of fetal malformation and severe reaction with ETOH use **Acamprosate (Campral):** No human pregnancy data Psychosocial treatments such as peer supports, counseling, or sober living should be offered concurrently.
	Management: IV fluids (supplement with multi-vitamin thiamine and folate), prevention of physical injury	**Management:** Benzodiazepine taper. Lorazepam (Ativan) is preferred over other benzodiazepines. If the patient is using benzodiazepines, manage the taper with same medication being used. There is limited data regarding the impact of withdrawal on pregnancy. The setting for withdrawal management is individually determined based on obstetric status, gestational age, and medical and psychiatric comorbidity.	
Benzodiazepines			
Fetal effects: Not teratogenic, can slow fetal movement **Neonatal effects:** Preterm birth, low birth weight, low apgar, withdrawal syndrome, admission to NICU **Maternal effects:** Physiologic dependence, worsening of depression and anxiety, cognitive decline	**Symptoms:** Anxiolysis, euphoria, amnesia, disinhibition and symptoms similar to alcohol intoxication	**Symptoms:** Rapid heart rate, increased blood pressure, tremor, anxiety, flushing, diaphoresis, nausea, hallucinosis, delirium tremens, and seizures	The primary goal is to manage underlying symptoms and psychiatric comorbidity. Psychosocial treatments such as peer supports, counseling, or sober living should be offered concurrently.
	Management: Flumazenil can be used to reverse acute overdose, though it is associated with increased risk of seizure, and there is no human pregnancy or lactation data.	**Management:** Benzodiazepine taper. Lorazepam (Ativan) is preferred, but may also use the same agent patient is dependent on. If using benzodiazepines, manage the taper with the same medication being used. There is limited data regarding the impact of alcohol or benzodiazepine withdrawal on pregnancy. The setting for withdrawal management is individually determined based on obstetric status, gestational age, and medical and psychiatric comorbidity.	

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(Over)

Summary of Impact and Management of Substance Use during the Perinatal Period (cont'd) SUD8

Risks of Maternal Use	Acute Intoxication	Withdrawal	Ongoing Management
Cannabis			
Fetal effects: There is increased risk for psychiatric and substance use disorders in offspring. There are similar risks associated with smoking tobacco. Lipophilic (e.g., stores in fetal brain and body fat) **Neonatal effects:** Associated with deficits in visual processing, executive function, attention, academic achievement **In lactation:** Levels of cannabinoids in breastmilk can exceed maternal serum levels, and exposure via breastmilk is associated with lethargy, slowed motor development, and increased risk of Sudden Infant Death Syndrome (SIDS). **Maternal effects:** Risks are associated with smoking, exacerbation of depression, anxiety or psychosis; heavy use could trigger hyperemesis syndrome .	**Symptoms:** Euphoria, anxiety or paranoia, impaired judgement, conjunctival injection	**Symptoms:** Irritability, anxiety, sleep difficulty, change in appetite, mood changes, abdominal pain, shakiness, tremors, headache, and diaphoresis	Women should be advised to abstain during pregnancy/breastfeeding. Given the dose response for some risks, like growth restriction, even cutting down may be beneficial. Assess for mental health or comorbid condition. There is no FDA-approved pharmacotherapy for cannabis use disorder. Psychosocial treatments are indicated.
	Management: Supportive care	**Management:** Generally presents within 2-3 days of cessation of use and can last 2-3 weeks. Symptomatic and supportive care.	
Cocaine, Amphetamines, and Other Stimulants			
Fetal effects: Intrauterine growth restriction, placental abruption, increased risk for still birth **Neonatal effects:** Transient hypertonia, irritability, hyperreflexia. Vasoconstriction can increase the risk of necrotizing enterocolitis. There is mixed data on neurodevelopmental impact. **Maternal effects:** Hypertension and coronary vasospasm, pregnancy loss	**Symptoms:** Euphoria, agitation, hyperactivity, anxiety, disorientation, confusion, and psychosis Risk for placental abruption with binge use	**Symptoms:** Sedation/somnolence, dysphoria, vivid dreams	Anti-craving agents such as topiramate, tiagabine, and modafinil are used in non-perinatal patients, however have not been well studied in pregnancy and lactation. Psychosocial treatments are the primary evidence-based treatment – peer supports, counseling, and sober living.
	Management: If severe, manage agitation with benzodiazepines or antipsychotic. Acute intoxication can confound assessment of vital signs and management of labor. ***Avoid beta blockers.***	**Management:** Supportive care: symptomatic treatment for physical symptoms, otherwise does not require pharmacologic treatment	
Tobacco			
Fetal effects: Smoking is associated with spontaneous abortion and intrauterine growth restriction. Nicotine is associated with miscarriage and stillbirth. **Neonatal effects:** Preterm birth, low birth weight, SIDS, persistent pulmonary hypertension of the newborn **Maternal effects:** Increased risk of deep vein thrombosis, pulmonary embolism, stroke, respiratory illness	**Symptoms:** Acute use can result in increased heart rate, blood pressure, and GI activity.	**Symptoms:** Cessation has been associated with cravings, anxiety, insomnia, and irritability.	Quitting is the goal, but cutting down has benefits. Nicotine replacement should be used with a goal of cessation, not for ongoing and/or concurrent use. **E-cigarettes:** not well studied in pregnancy **Bupropion:** minimally effective **Varenicline:** effective, but limited pregnancy data Quitworks offers free phone counseling.
	Management: Supportive care is generally sufficient.	**Management:** Nicotine replacement can help with acute withdrawal, with the goal of eventual, gradual taper.	

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Resources for perinatal individuals with substance use concerns

IHR Programs (Institute for Health and Recovery)

Women and Family Referral Center (WFRC)

Connects pregnant and parenting people with treatment and recovery supports, including direct referrals to residential substance use treatment and family supportive living programs, warm handoffs to all levels of care, interim counseling, and follow-up support. Calls are answered live Monday-Friday, 9-5, or returned within one business day. (866-705-2807)
wfrc.healthrecovery.org

MomsDoCare

A statewide program designed to provide multidisciplinary, peer-led, recovery oriented, wrap around support for pregnant, postpartum and parenting individuals with a history substance abuse. For more information about services and locations please visit: https://momsdocare.org

Promise

A caring and flexible outpatient program for pregnant and parenting people impacted by substance use. Offers assessment and care planning, individual, family and group therapy, recovery coaching, peer support and intensive case management
Referrals: intake@healthrecovery.org or call 617-661-3991

Additional SUD Resources

FirstSte**psTogether**

FIRST (Families In Recovery SupporT) Steps Together is a home visiting program that provides flexible, community based and virtual services.

https://firststepstogetherma.org

Project NESST: Newborns Exposed to Substances:

Support and Therapy (Jewish Family and Children's Services)

Project NESST® offers support and therapy for substance-exposed newborns and their families. For more information call **781-693-1200 or email CERSintake@jfcsboston.org**

The Journey Recovery Project

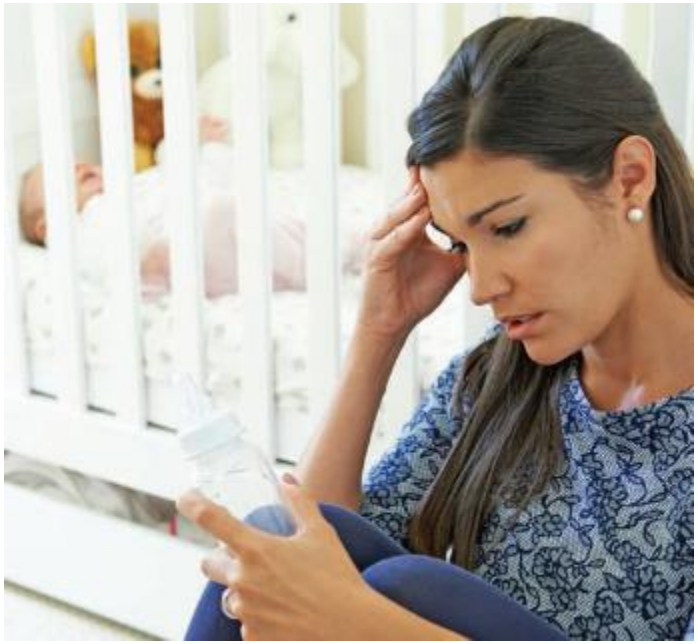
The Journey Project is an interactive Web resource for pregnant and parenting women who have questions or concerns about opioid and other substance use.

https://journeyrecoveryproject.com

Free online substance use recovery group through PSI:

https://postpartum.net

In summary, our aim is to promote maternal and child health by building the capacity of front line providers to address perinatal mental health and substance use disorders.



Massachusetts Child Psychiatry Access Program
MCPAP For Moms

Call 1-855-Mom-MCPAP

www.mcpapformoms.org

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