



*PARTICIPANT HANDOUTS*  
**Maternal Health Learning Collaborative:  
Perinatal Substance Use Disorders: Increasing Awareness and Screening to Reduce Impact on the Maternal/Child Dyad**

*Thank you for attending today's training. By doing so you are strengthening the ability of your community-based and patient-directed health center to deliver comprehensive, culturally competent, high-quality primary health care services. The CHAMPS 2022 Maternal Health Learning Collaborative: Supporting and Advancing Perinatal Health is a free series that was created in partnership with the HRSA Office of Intergovernmental and External Affairs (IEA) Region 8 Office.*

**Presented by:**

Maridee Shogren, DNP, CNM, CLC/SAMHSA [Mountain Plains Addiction Technology Transfer Center \(MPATTC\)](#), and the [Mountain Plains Mental Health Technology Transfer Center \(MPMHTTC\)](#)

**Live Broadcast Date/Time:**

Thursday, January 27, 2022  
11:30AM–1:00PM Mountain Time / 12:30–2:00PM Central Time

**Target Audience:**

This series is intended for integrated clinical care teams that may include clinical leadership, clinicians, and clinical support staff at Region VIII (CO, MT, ND, SD, UT, WY) health centers.

**Event Overview:**

This session provides foundational information regarding maternal and fetal outcomes associated with perinatal substance exposure and includes a brief overview of Neonatal Withdrawal Syndromes. The importance of increasing awareness about perinatal substance use disorders as well as using the SBIRT technique to screen for substance use during the perinatal period will be addressed. This session will also include a brief overview from Tressie White with the [Montana Meadowlark Initiative](#).

**Learning Objectives:**

Upon completion of this session, participants should be able to:

1. Identify the impact different substances like alcohol and opioids have on the maternal/child dyad during pregnancy and while breastfeeding
2. Consider opportunities to use the SBIRT technique to increase awareness of and screening for substance use disorders during the perinatal period
3. Describe neonatal withdrawal syndromes

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## **CHAMPS ARCHIVES**

This event will be archived online. This online version will be posted within two weeks of the live event and will be available for at least one year from the live presentation date. For information about all CHAMPS archives, please visit [www.CHAMPSonline.org/events-trainings/distance-learning](http://www.CHAMPSonline.org/events-trainings/distance-learning).

## **DESCRIPTION OF CHAMPS**

Community Health Association of Mountain/Plains States (CHAMPS) is a non-profit organization dedicated to supporting all Region VIII (CO, MT, ND, SD, UT, and WY) federally-designated Community, Migrant, and Homeless Health Centers so they can better serve their patients and communities. Currently, CHAMPS programs and services focus on education and training, collaboration and networking, workforce development, policy and funding communications, and the collection and dissemination of regional data. Staff and board members of [CHAMPS Organizational Members](#) receive targeted benefits in the areas of business intelligence, networking and peer support, recognition and awards, recruitment and retention, training discounts and reimbursement, and more.

**For over 35 years, CHAMPS has been an essential resource for Community Health Center training and support!** Be sure to take advantage of CHAMPS' programs, products, resources, and other services. For more information about CHAMPS, please visit [www.CHAMPSonline.org](http://www.CHAMPSonline.org). The Happenings box on the lower left side of the CHAMPS home page highlights the newest CHAMPS offerings, while the CHAMPS Membership box on the lower right side of the page lists current benefits for CHAMPS Organizational Members.

## **SPEAKER BIOGRAPHY**

Dr. Maridee Shogren is a Clinical Professor at the University of North Dakota and a Certified Nurse-Midwife. She has practiced women's health, obstetrics, and family planning in a variety of settings where she shares her passion for women's health with her colleagues and her patients. Maridee has been a faculty member at the UND College of Nursing and Professional Disciplines since 2008. Maridee has also been involved in SAMHSA funded grant work at UND where she spent three years on an interprofessional SBIRT training grant and currently works with the Region 8: Mountain Plains Addiction Technology Transfer Center and the Mountain Plains Mental Health Technology Transfer Center Network grant teams. In 2020, Dr. Shogren began work as the principal investigator on the Foundation for Opioid Response Efforts grant funded program, Don't Quit the Quit, where she is working to increase access to care and grow community support for persons who are pregnant or postpartum and in recovery from opioid use disorder. Dr. Shogren has published and has presented nationally on the impact of stigma and substance use disorders in pregnant and parenting persons.

## CHAMPS 2022 Maternal Health Learning Collaborative Series



# Perinatal Substance Use Disorders: Increasing Awareness & Screening to Reduce Impact on the Maternal/Child Dyad

Maridee Shogren, DNP,

CNM, CLC/SAMHSA

Thursday, January 27, 2022

11:30AM-1PM MT | 12:30-2PM CT

The AAFP has reviewed CHAMPS Maternal Health Learning Collaborative Series: Supporting and Advancing Perinatal Health, and deemed it acceptable for AAFP credit. Term of approval is from 01/13/2022 to 02/10/2022. This session is approved for 1.5 AAFP Prescribed credits.

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# Perinatal Substance Use Disorders: Increasing Awareness & Screening to Reduce Impact on the Maternal/Child Dyad



Mountain Plains ATTC (HHS Region 8)

**ATTC**

Addiction Technology Transfer Center Network  
Funded by Substance Abuse and Mental Health Services Administration

# Disclaimer and Funding Statement

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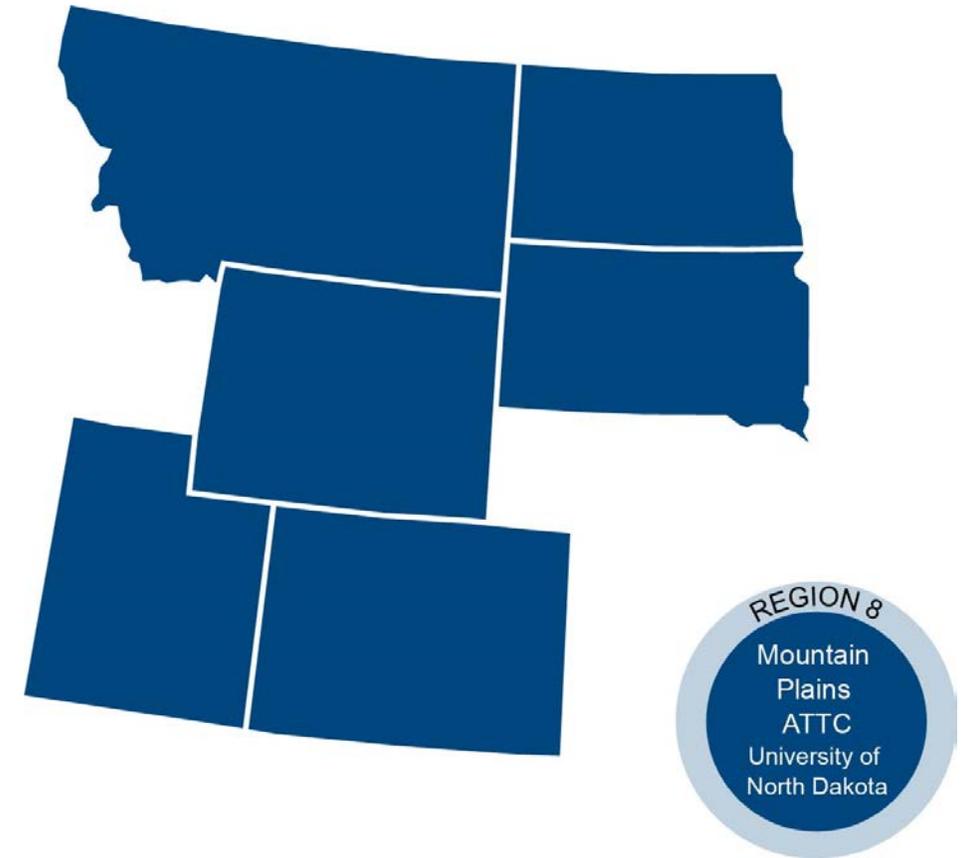
At the time of this presentation, Tom Coderre served as acting SAMHSA Assistant Secretary. The opinions expressed herein are the views of Maridee Shogren and do not reflect the official position of the Department of Health and Human Services (DHHS), or SAMHSA. No official support or endorsement of DHHS, SAMHSA, for the opinions described in this presentation is intended or should be inferred.

The work of the Mountain Plains ATTC is supported by grant TI080200\_01 from the Department of Health and Human Services, Substance Abuse and Mental Health Services Administration.

# The Mountain Plains Addiction Technology Transfer Center

The Mountain Plains Addiction Technology Transfer Center (Mountain Plains ATTC) supports and enhances substance use disorder treatment and recovery services for individuals and family members throughout Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming).

We belong to the Technology Transfer Center (TTC) Network, a national network of training and technical assistance centers serving the needs of mental health, substance use and prevention providers. The work of the TTC Network is under a cooperative agreement by the Substance Abuse and Mental Health Service Administration (SAMHSA).





**ATTC**

Addiction Technology Transfer Center Network  
Funded by Substance Abuse and Mental Health Services Administration

# Objectives

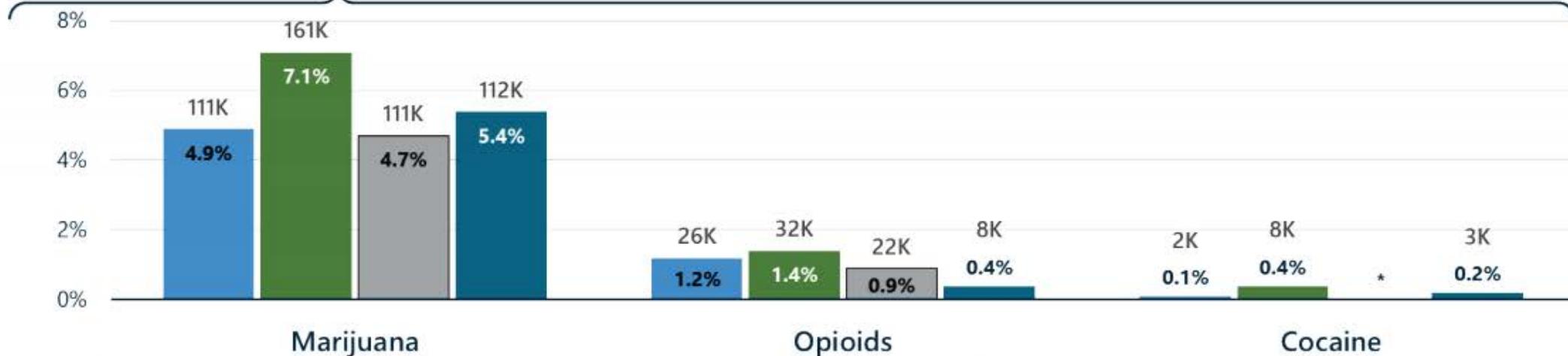
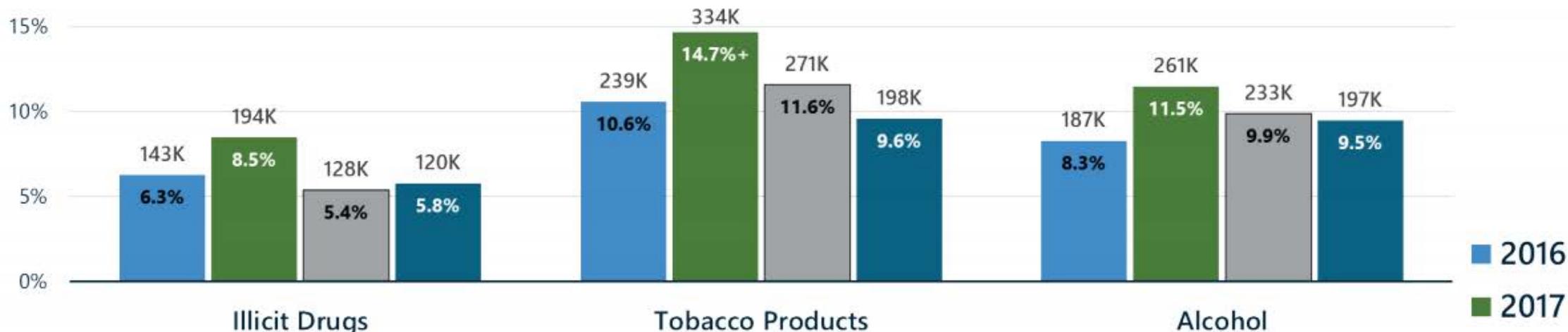
- Identify the impact that different substances like alcohol and opioids have on the maternal/child dyad during pregnancy and while breastfeeding
- Consider opportunities to use the SBIRT technique to increase awareness of and screening for substance use disorders during the perinatal period
- Describe neonatal withdrawal syndromes



# The Current State of Substance Use

# Past Month Substance Use among Pregnant Women

PAST MONTH, 2016-2019 NSDUH, Women 15-44



\* Estimate not shown due to low precision.

Tobacco products are defined as cigarettes, smokeless tobacco, cigars, and pipe tobacco.

+ Difference between this estimate and the 2019 estimate is statistically significant at the .05 level.



**Table 2. Number of Pregnancy-Associated Deaths by Cause and Year, Pregnancy-Associated Death Ratios by Cause, and Percentage of all Deaths by Cause in 33 U.S. States and the District of Columbia, 2010–2019**

Measure	Pregnancy-Associated Deaths						No. of Births
	Drug-Related	Suicide	Homicide	Obstetric	Other	Total	
No. of deaths							
Year							
2010	80	56	54	618	263	1,071	2,954,034
2011	108	65	56	679	269	1,177	2,914,824
2012	83	53	44	660	182	1,022	2,915,408
2013	97	57	65	728	213	1,160	2,898,700
2014	99	71	54	716	227	1,167	2,943,675
2015	121	63	45	686	242	1,157	2,936,361
2016	155	66	77	718	189	1,205	2,911,965
2017	184	49	81	711	203	1,228	2,838,136
2018	206	85	78	703	224	1,296	2,789,355
2019	216	69	82	770	162	1,299	2,753,979
All years	1,349	634	636	6,989	2,174	11,782	28,856,437
Pregnancy-associated death ratio*	4.7	2.2	2.2	24.2	7.5	—	—
% of all deaths	11.4	5.4	5.4	59.3	18.5	—	—

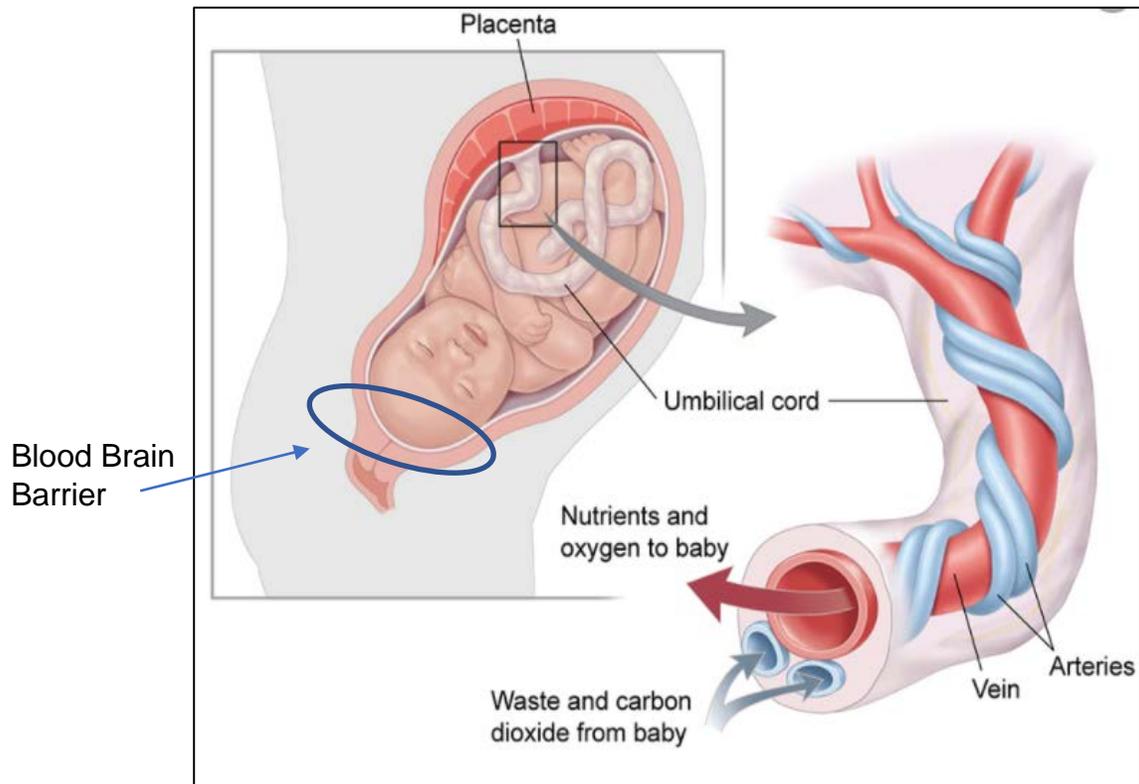
Data are n unless otherwise specified.

\* Pregnancy-associated death ratio =  $\frac{\text{pregnancy-associated deaths}}{\text{live births}} \times 100,000$

# Substance Use in Pregnancy

- Substance use in pregnancy **INDIRECTLY** linked to
  - Lack of nutrition
  - Perinatal intimate partner violence
  - Increased risk of mental illness/infection...All of which can impact the dyad
- Any maternal substance use has potential to transfer to the fetus, **DIRECTLY** linked to
  - Growth
  - Alterations in brain organization
  - Placental insufficiency
  - Labor complications
  - Poorer health of mom and baby

# Transfer of Licit and Illicit Drugs to Fetus



(Babycenter, 2021)

Alcohol and drugs readily pass from maternal blood into fetal blood

Once in fetal blood, they travel through the body just like in mother and can reach concentrations similar to those in mother's blood level

Fetus has limited ability to metabolize these products;  
Liver and kidneys are immature;  
Typically transferred back to mother for final metabolism

**This takes time! Alcohol levels especially may remain higher in embryo/fetus for longer periods of time which increases risk of exposure** (Behnke, 2013, Brimacombe et al, 2009)



Alcohol

# Alcohol: “A little bit is ok, right?”

- Some types of alcohol, such as red wine, are safer to drink occasionally during pregnancy.

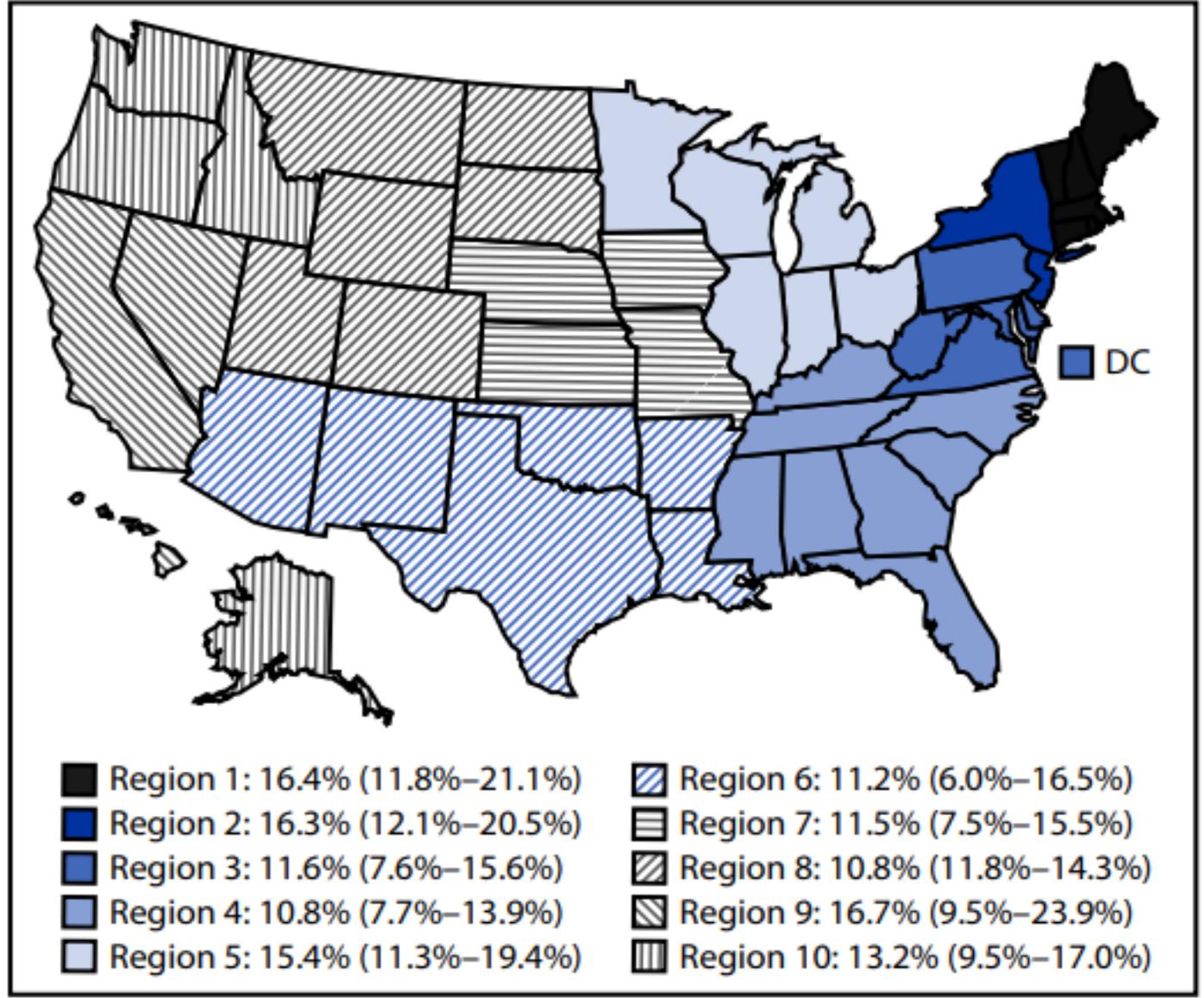
True or False?

“A little bit is ok, right?”

**FALSE!**

- Red wine is no safer than white wine, beer, or hard liquor
- A 4-ounce glass of red or white wine has the same amount of alcohol as a 12-ounce can of beer or a 1.5 ounce shot of straight liquor
- It's also NOT safer than “umbrella drinks”
  - Umbrella drinks may have MORE than one standard drink in each cocktail!

**FIGURE. Estimated prevalence\* of current drinking† among pregnant adults aged 18–49 years (N = 6,327), by U.S. Department of Health and Human Services regions<sup>§</sup> — Behavioral Risk Factor Surveillance System, United States, 2018–2020**



Morbidity and Mortality Weekly Report 10 MMWR / January 7, 2022 / Vol. 71 / No. 1  
 US Department of Health and Human Services/Centers for Disease Control and Prevention  
 Alcohol Consumption and Binge Drinking During Pregnancy Among Adults Aged 18–49 Years — United States, 2018–2020  
 Lucas K. Gosdin, PhD, Nicholas P. Deputy, PhD; Shin Y. Kim, MPH, Elizabeth P. Dang, MPH; Clark H. Denny, PhD

# Prenatal Alcohol Exposure (PAE)



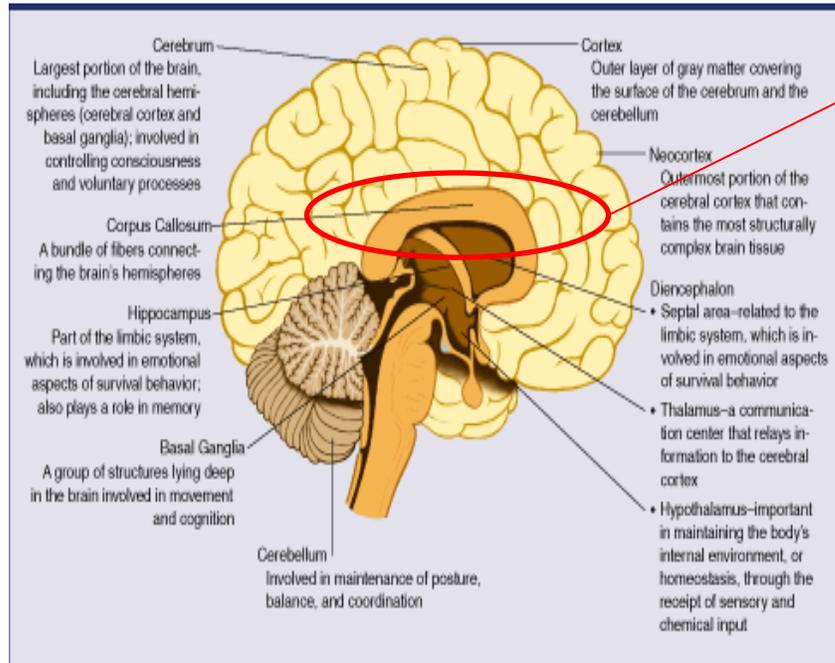
- **Alcohol** use during pregnancy is the leading cause of developmental disabilities and birth defects in U.S.
  - Fetal Alcohol Syndrome (FAS)
  - Fetal Alcohol Spectrum Disorders
  - Also associated with growth deficiencies, miscarriage, preterm labor/birth & stillbirth

Alcohol can affect the development of all organs, but the brain is the main target.

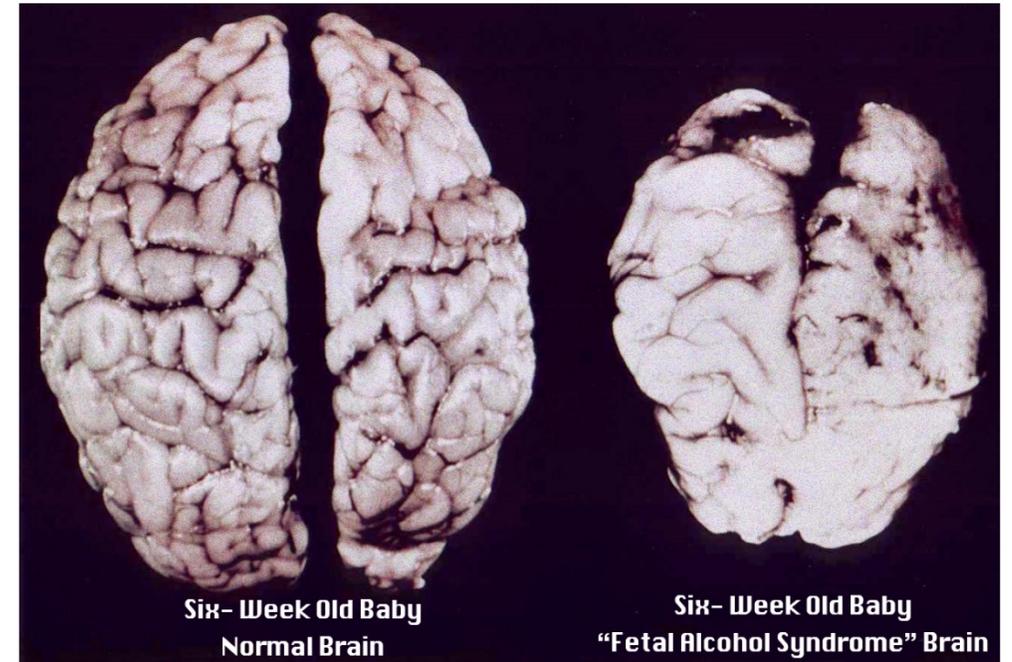
There is no known safe amount, no safe time, and no safe type of alcohol use during pregnancy.

# Fetal Brain

- No area of the fetal brain is resistant to the effects of alcohol exposure
  - Alcohol can lead to deficits in attention, intellectual function, reading, learning, verbal memory, and executive and psychosocial functioning



Alcohol thins the CC, causes atrophy, may even prevent its development



Mattson, S.N. et al. 1994;  
Brimacombe, 2009

Streissguth A.P., & Little,  
R.E. (1994)

# Risks of Alcohol Use in Perinatal Persons

- Poorer nutrition
- Polysubstance use (Smoking)
- Less weight gain
- Stigma
- Potential legal consequences
- Breastfeeding
  - Alcohol may decrease oxytocin and prolactin levels; impact let-down and decrease milk supply
    - Can subsequently impact nutrition status of infant
  - Takes about 2 hours to eliminate alcohol (one standard drink) in breastmilk
  - Alcohol can change infant sleep patterns
    - Further impacts mother's ability to sleep, recover too



# Cigarettes

# Cigarette Smoking

- Exposure to over 5000 compounds through cigarette smoking
  - Nicotine
    - Decreases amount of oxygen available to fetus (hypoxia)
      - Low Birth Weight / Growth Deficiencies
      - Prematurity, PPRROM
    - Major risk factor in Sudden Infant Death Syndrome
    - Potential for placenta abruption/previa
    - Association with oral facial clefts
    - 1.8-2.8x greater risk of stillbirth
      - Even passive exposure linked to a 2.1x greater risk of stillbirth (NIDA, 2020)
    - Childhood problems: developmental delay, asthma, behavioral problems, childhood obesity

# Cigarettes

- E-cigarettes (ENDS: electronic nicotine delivery systems)
  - ~4% (up to 15%) of pregnant people use ENDS; ~ 9.6% use tobacco products in general (NSDUH, 2019) (Rollins, 2020)
    - Many switch to e-cigs once become pregnant because they think is safer; however, up to 50% of pregnant people **ADD** ENDS to current cigarette use
- Breastfeeding
  - Nicotine lowers serum prolactin and can reduce milk yield
  - During smoking, milk nicotine concentration about 200 mcg/L.
    - Milk nicotine concentrations were lower than smoking levels with the patch: 21 mg patch = ~ 175 mcg/L, 14 and 7 mg patches = ~140 and 70 mcg/L, respectively
    - Patches: sustained and lower nicotine plasma level
  - Nicotine gum
    - Levels 30-60% less than smoking; large variation in peak levels with chewing
    - Refrain from breastfeeding 2-3 hours after using gum
  - ENDS: literature inconclusive



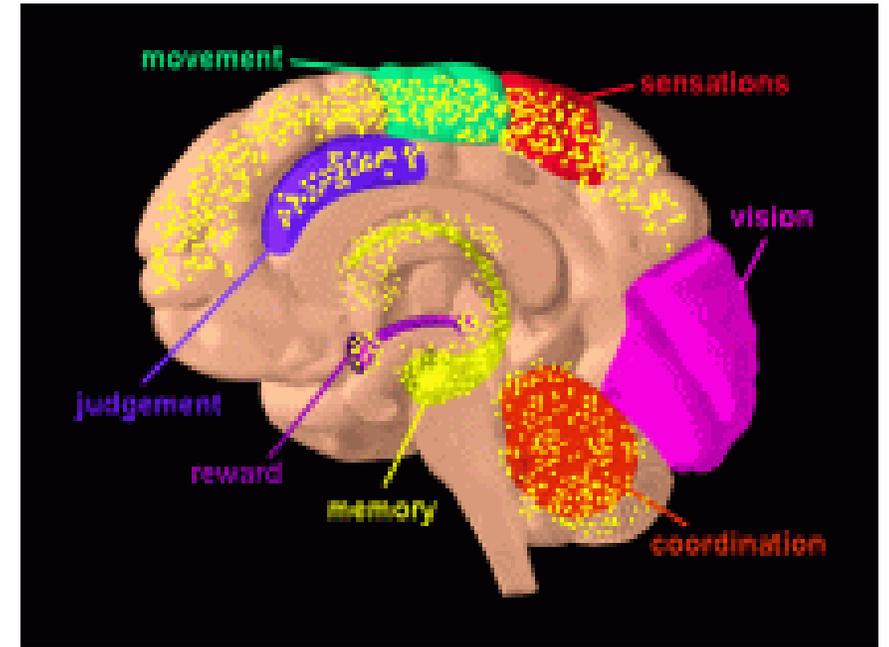
# Marijuana

# Marijuana

- Estimated 1 in 25 persons using marijuana during pregnancy
  - Perception of women reporting “no risk” of harm with use is increasing (Polcaro & Vettrano, 2020)
  - >400 chemicals, ~60 cannabinoids, >2000 compounds produced during smoking
    - THC is major concern
      - Decreases fetal folic acid uptake which is essential for placental and embryo development.
      - Crosses the placenta
        - 99% protein bound, low molecular weight, increased lipid solubility
        - There is storage of THC in lipid predominate tissue such as the brain (Martin, 2020)

# Marijuana

- Neither regulated nor evaluated by U.S. FDA for use in pregnancy/lactation
- No approved indications, contraindications safety precautions, or recommendations
- No standardized formulations, dosages, or delivery systems
- No amount of marijuana use considered safe in pregnancy
- Impacts many areas of the brain
  - Chronic exposure vs episodic exposure may be different
  - Potency of product varies
    - Concentrations of THC have risen over past several years
    - 4% in 1995 vs 16% in 2018



NIDA, 2019

# Marijuana

- Use in pregnancy associated with
  - Fetal growth restriction and LBW\*
  - Increased risk of stillbirth\*
    - At least weekly use; \*Most studies somewhat confounded by concurrent cigarette use
  - Preterm birth
  - Increased risk of dysfunctional labor-mixed
  - Meconium-stained amniotic fluid
- Long term effects
  - Neurodevelopmental effects affecting memory, learning, behavior (hyperactivity, poor cognitive function, impulsivity)
  - Does not appear to be associated with congenital anomalies

(ACOG, 2021)

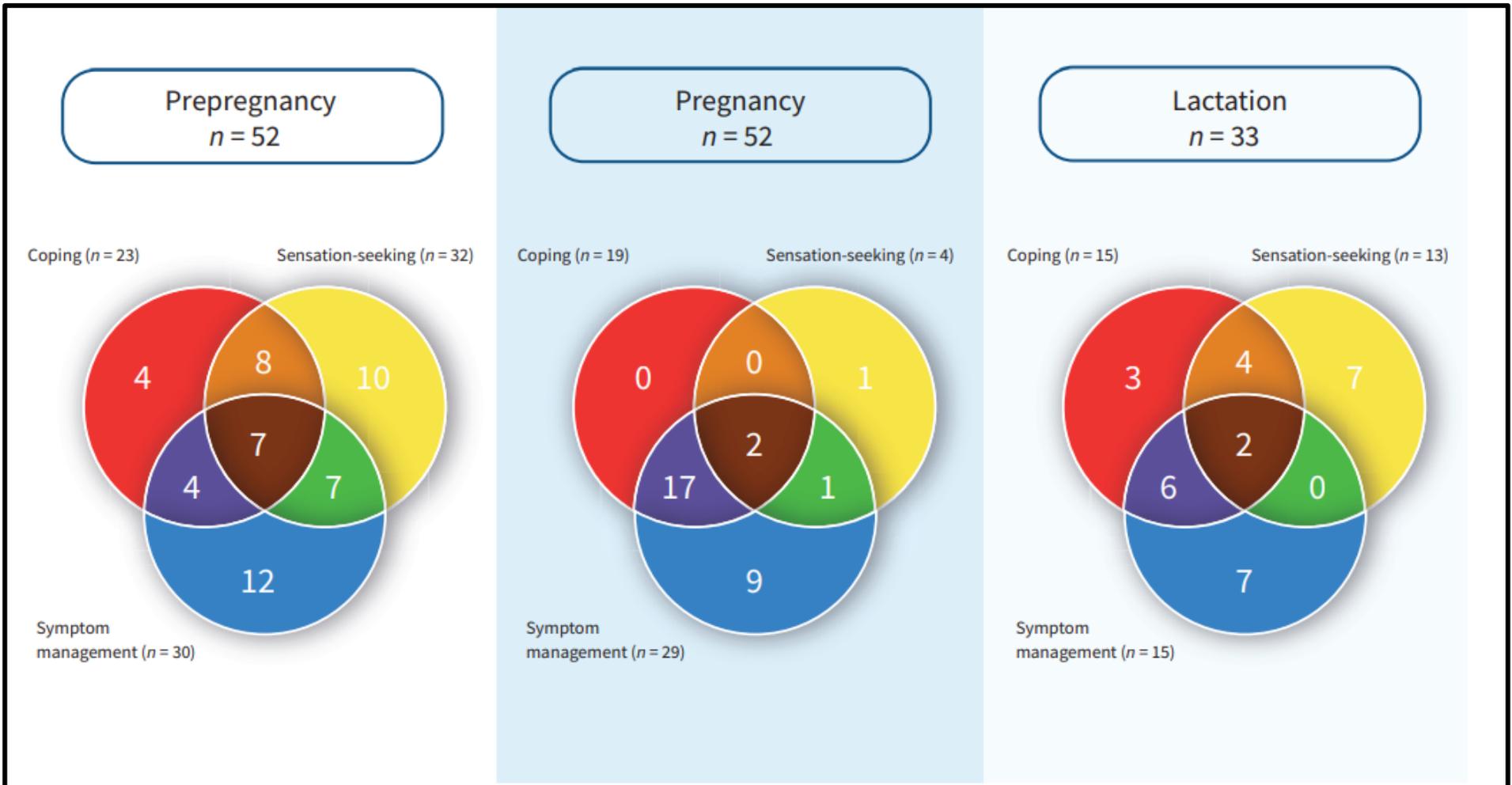
# Marijuana

- Breastfeeding

- THC stored in fat and slowly released over time, potentially continuing exposure even after stopping use;
  - Eight-fold accumulation in breast milk in comparison with plasma levels (Ordean & Kim, 2019)
- American Academy of Pediatrics & The American College of Obstetricians and Gynecologists recommend against marijuana use during this breastfeeding
  - If not able to quit use, consider reducing risk of exposure to highest concentration of THC in breast milk by avoiding breastfeeding within 1 hour of inhaled cannabis use (Ordean & Kim, 2019)

# Reasons for Perinatal Marijuana Use

- Pregnant people might use for
  - **Sensation-Seeking**
  - **Symptom Management**
  - **Coping**
    - Nausea and vomiting of pregnancy
    - Weight gain (increase appetite)
    - Depression/Stress/Anxiety
    - General discomforts of pregnancy
    - Fun
    - Insomnia/sleep difficulty
    - Manage pre-existing conditions (mental health, pain) (Vanstone et al, 2021)



**Figure 1:** Reasons for using cannabis in each stage of reproduction, and overlap in reasons for use. Each Venn diagram depicts the number of participants who described their use as pertaining to a specific category at the described stage of reproduction. Each of the 3 categories is represented by a primary-coloured circle. The overlapping areas represent the number of participants who described their use as pertaining to multiple categories.



# Stimulants

# Stimulants (cocaine, methamphetamines, ecstasy, prescription stimulants)

- Cocaine
  - Maternal impact: HTN, MI, renal failure, CVA, death
  - Rapidly crosses placenta/BBB
  - Causes constriction of vessels and decreases blood flow to the fetus
    - Utero-placental insufficiency
    - Preterm birth
    - Growth deficiencies
    - Placental abruption, uterine rupture
  - Affects areas of fetal brain that regulate attention, executive functioning:
    - Arousal
    - Memory
    - Impulsivity, difficulty with self-regulation
  - Possible genitourinary defects, limb reduction, intestinal atresia
  - Transfers into breastmilk; use contraindicated

# Stimulants

- Methamphetamine (Speed, crank, crystal meth)
  - Smoked, snorted, injected, oral or anal use
    - Smoking/injecting causes a “rush” within a few minutes
    - Snorting (in 3-5 mins) or oral (15-20 mins) causes sense of euphoria
    - All methods lead to increased wakefulness and energy, decreased appetite
  - Potential maternal complications:
    - Heart arrhythmias/MI
    - HTN, gestational HTN, preeclampsia
    - Seizures/CVA
    - Hyperthermia
    - Increased sexual activity (STIs, sexual violence, mistimed pregnancies)
      - Increasing risk for hepatitis and HIV
    - Decreased appetite can lead to poorer nutrition
    - Poor oral health

# Methamphetamine use in Pregnancy

- Increased maternal blood pressure can lead to restriction of nutrients/oxygen to fetus
  - Growth deficiencies/LBW/ smaller head circumference
  - Preterm birth
  - Placental abruption / uterine rupture
  - Some connection to cleft palate
  - Fetal death
- Infants may exhibit withdrawal symptoms
  - Disorganized state, poor movement, stress, jitteriness, drowsiness, respiratory distress
    - Onset ~24-60 hours; typically resolved in 1 month of birth
- Abnormal behavioral, poorer cognitive function changes observed in children up to 7.5 years of age
  - Increased anxiety, emotional problems, aggressive behaviors, inhibitory control / ADHD symptoms
  - Exposure impairs brain reward pathways, may increase predisposition for substance use later in life  
(Graves, et al, 2021)
- Contraindicated with breastfeeding
  - $\frac{1}{2}$  life anywhere from 11.3-30.3 hours

# Stimulants

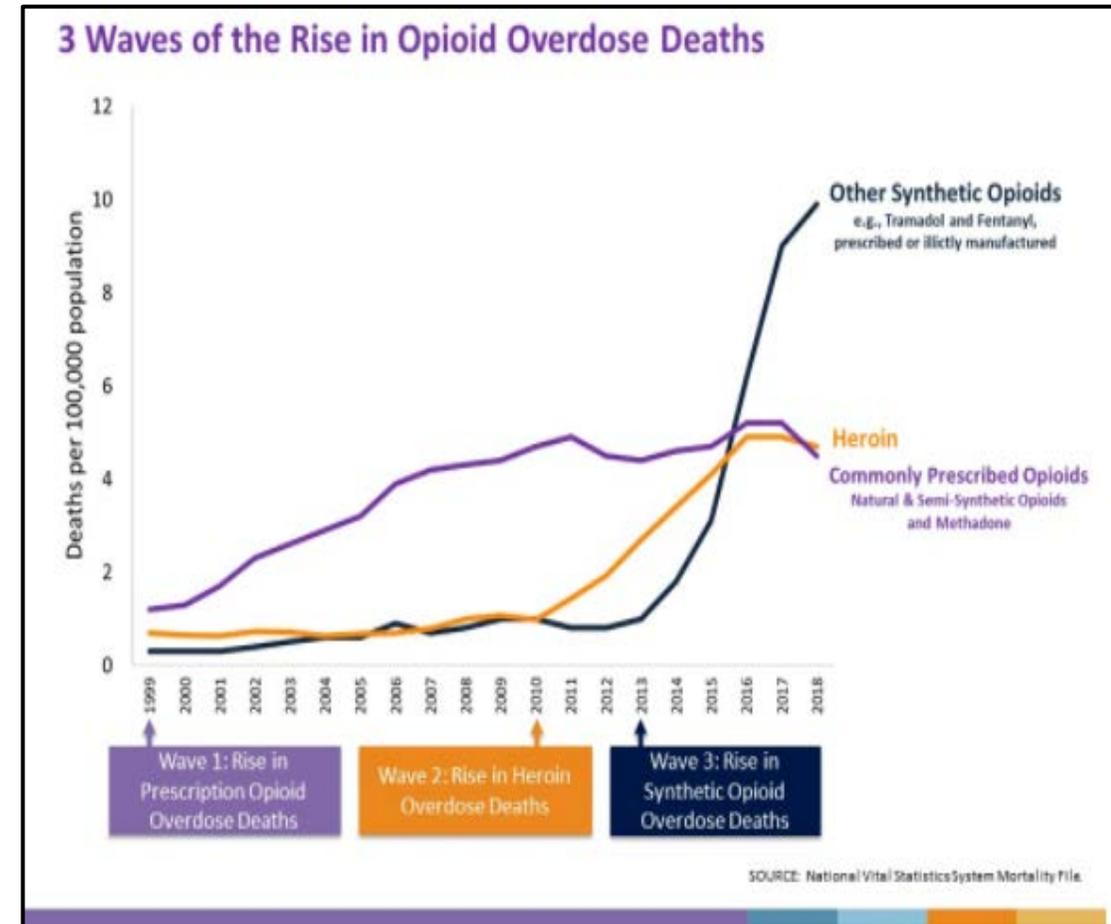
- Prescription amphetamines (Adderall, Ritalin)
  - When taken as prescribed & well managed, less noted risk
  - Some increased risk of Pre-E, preterm birth, placental abruption (Smid et al, 2019)
  - Transfers into breastmilk
    - Illicit use contraindicated
    - Prescribed use-mixed reviews
- Ecstasy
  - Limited information
  - Possible increased risk of musculoskeletal malformations (clubbed foot), cardiovascular effects
  - Observed developmental delays for at least 24 months
  - Contraindicated with breastfeeding



# Opioids

# Opioid Use and Overdoses

- 3 Waves of Opioid Overdose Deaths in U.S.
  - 1999-2018: Nearly 450,000 people died from overdoses involving ANY opioid, including prescription and illicit opioids
    - Current: 128 people die every day from opioid overdose
  - 1990's: Increased prescribing of opioids
  - 2010: Rapid increase in heroin overdoses
  - 2013: Synthetic opioids
- Now experiencing the 4<sup>th</sup> Wave: The rise of stimulants like methamphetamine and cocaine along side opioids



CDC, 2020

\* **Opioid overdose deaths have increased 471% in women over last 15yrs** (Proulx, 2020)

# Pregnancy and Opioid Use Disorder (OUD)

- 4x higher maternal mortality for pregnant persons with OUD
  - Particularly affects those of reproductive age in rural communities
    - Often connected to socioeconomic disparities, limited access to healthcare
  - Co-occurring behavioral health disorders common in persons with OUD
    - Especially depression (30%)
      - OUD heightens risk of Postpartum Depression (40%) in first year postpartum
- 6x higher risk for OB complications (often associated with a lack of prenatal care)
  - 3<sup>rd</sup> trimester bleeding
  - Placental abruption
  - Preterm labor and/or birth
  - Early passage of meconium

# Pregnancy and OUD

- Fetal/Newborn Impact
  - Vasoconstriction reduces blood flow and oxygen to fetus
    - Overall growth defects
    - Low birth weight
    - Some connection to hearing loss
  - Can decrease fetal brain growth
    - Linked to cognitive impairment and academic underachievement (verbal, arithmetic, reading abilities)
  - Fetal distress
  - No clear visible (external), physical anomalies
  - Complications are primarily related to withdrawal after birth

# Breastfeeding & Opioids

- Not advised with illicit use of opioids
- Breastfeeding on medications for OUD treatment (MOUD) may
  - Decrease severity of neonatal withdrawal syndrome (NOWS/NAS) symptoms
  - Lessen need for pharmacotherapy for infant
    - 89% less morphine needed to treat NAS
    - 43% shorter hospital stay
    - 58% shorter duration of NOWS treatment (Saia et al, 2016; SAMHSA, 2018)
  - **Enhances maternal confidence and encourages active maternal participation in the management of the infant**
    - May help reinforce absence of use and healthier lifestyle choices

# MOUD While Breastfeeding

- Transfer of MOUD into breastmilk is minimal and poses little risk to infants (SAMHSA, 2018)
  - Compared to mother's weight-adjusted dose, relative infant dose (RID) is about 1.4% for buprenorphine, even less with buprenorphine/naloxone, and about 1-6% for methadone
- Infants should be monitored for signs of
  - Increased sleepiness
  - Difficulty breastfeeding
  - Breathing difficulties
  - Limpness
  - Observe for withdrawal signs if breastfeeding is stopped abruptly (LactMed, 2019)

# Breastfeeding and Substance Use Disorders

- Rates of breastfeeding are lower in postpartum persons with SUDs
- Pregnant persons with SUDs may:
  - Have fewer role models
  - Have lower self-esteem
  - Assume that successful breastfeeding is not achievable or not even an option
- Breastfeeding may trigger flashbacks (hx of abuse)
- Breastfeeding may feel overwhelming in addition to SUD treatment
- Recommendation to breastfeed should be based on evaluation of the person's desire for SUD treatment and be free of provider bias



# Neonatal Withdrawal Syndromes

# Neonatal Withdrawal Syndromes

- **Neonatal Abstinence Syndrome (NAS)** (Klaman et al, 2017; Kocherlakota, 2014)
  - Broad non-specific term assigned to withdrawal presentation in NB
  - Expected and treatable condition that affects about 45-94% of infants exposed in utero (ACOG, 2017; Forray, 2016)
  - Onset of symptoms typically occurs within 24-72 hours of birth
  - Rarely fatal
  - NAS is not limited to opioids
    - Infants are typically exposed to multiple substances (Klaman, 2017)

# Neonatal Withdrawal Syndromes

- **Neonatal Opioid Withdrawal Syndrome (NOWS)**

- Term specific to opioids; used since 2016
- Can occur from illicit opioid use or from medications that treat OUD
  - When related to treatment medications, about 30-80% of infants born to persons being treated for OUD will experience NOWS that is typically milder and more readily managed

- A notable and sustained increase of NAS/NOWS exists among rural residents

- Lack of local treatment options and resources
- Stigma
- Often includes the added financial burden of a costly transfer of rural infants to another hospital following delivery; which separates mothers and infants, potentially interfering with bonding and attachment

- We have become more aware of Neonatal Withdrawal Syndromes in recent years, **BUT** they are not new!

- First case identified in 1875

# Newborn Withdrawal Symptoms

- Identifiable signs and symptoms typically occur 48-72 hours post-birth

**TABLE 1** Onset, Duration, and Frequency of NAS Caused by Various Substances

Drug	Onset, h	Frequency, %	Duration, d
<b>Opioids</b>			
Heroin	24–48	40–80 <sup>27</sup>	8–10
Methadone	48–72	13–94 <sup>37</sup>	Up to 30 or more
Buprenorphine	36–60	22–67 <sup>46,48</sup>	Up to 28 or more
Prescription opioid medications	36–72	5–20 <sup>56,60</sup>	10–30
<b>Nonopioids</b>			
SSRIs	24–48	20–30 <sup>64</sup>	2–6
TCA's	24–48	20–50 <sup>64</sup>	2–6
Methamphetamines	24	2–49 <sup>101</sup>	7–10
Inhalants	24–48	48 <sup>70</sup>	2–7

NAS symptoms present as combination of neurologic, GI, musculoskeletal disturbances that are highly variable

## NAS SYMPTOMS

Yawning

Sneezing

Irritability

Excessive cry/High-pitched cry

Poor/erratic sleep

Uncoordinated sucking reflexes > poor feeding

Fever

Rapid breathing

Increased heart rate

Seizures

Sweating/Temperature instability

Startle Tremors

Diarrhea

Poor feeding / Slow weight gain

Vomiting

Blotchy skin coloring

# Newborn Assessment of Withdrawal

- Non-pharmacologic approach is **INITIAL** treatment option for NAS
  - Environmental measures
    - Quiet, low lights
    - Avoidance of waking sleeping infants
    - Free from external excitatory stimulus
  - Gentle handling
    - Kangaroo care
    - Careful swaddling
    - Individualized developmental care
    - Non-nutritive suckling
    - Rooming-in if stable
    - Small, frequent feedings with high calorie formula
    - **ACTIVE MATERNAL PARTICIPATION IS THE BEST NONPHARMACOLOGIC CARE!**
- Pharmacologic treatment is required if no improvement or infant develops severe withdrawal symptoms

# Mothers Often Feel Unprepared for NAS

- More than 50% of pregnant persons describe gaps in knowledge and understanding of impact of substance use on their infants (Kramlich, 2020)
  - Many express importance of respect and understanding from health care providers
    - Accurate information needed during preconception, pregnancy, and postpartum
    - Education can help decrease self-stigma or internal stigma
  - Consider the “information impact” on rural families when infants are transferred out of community for NAS care OR if mom needs to be transferred for a high-risk pregnancy/delivery
    - How will parent(s) be included in care of infant from a distance?
    - Are parent(s) worried about bonding?
    - Are social service supports available to assist families?



# Screening for SUDs During the Perinatal Period

# What is SBIRT?

(Osborne & Benner, 2012; SAMHSA, 2012)

- Screening
  - Universal, quick assessment
  - Can and should occur in a variety of settings (e.g., public health, primary care settings, community social services)
- Brief Intervention
  - Brief motivation and awareness-raising through short conversations aimed at Education, Harm Reduction and Prevention
- Referral to Treatment
  - Really, this is a general referral for services
  - May include referral for further evaluation for specialty care (Osborne & Benner, 2012; SAMHSA, 2012)
  - May include referral to recovery support services

# SBIRT for SUDs

- There is much benefit to initiating conversations about substance use:
  - Maintaining/Encouraging abstinence from substances during pregnancy and while breastfeeding
  - Helping mothers to stay in recovery
  - Providing education about resources
  - Discussing risk of return to use during high-risk times
    - Stress, Post-partum especially
  - Harm Reduction

# SBIRT During the Perinatal Period

- Associated outcomes of SBIRT (SAMHSA, 2019)
  - Decreased number of infants exposed to maternal illicit substance use
  - Decreased alcohol use during pregnancy
  - Decreased preterm labor rates
  - Decreased neonatal intensive care admissions
- The SBIRT technique can also be used with Perinatal Mental Health screening!

# Perinatal Screening

- AAP, ACOG, & ASAM: Recommend screening **ALL** pregnant persons for substance use:
  - Validated screening questionnaires
    - 4P's, T-WEAK, AUDIT-C, AUDIT
  - Intervention techniques to counsel abstinence; refer to treatment if needed and desired
- Routine lab testing of biologic samples is not always required (ACOG)
  - Validated screening questionnaires are linked with education and intervention strategies, and can be superior to urine drug screening (UDS) to detect use
    - Substances stay in maternal urine and breastmilk for different lengths of time, assays vary, medications can cross-react, use of reflex confirmatory tests may be inconsistent, false-positives and -negatives can occur
    - A negative UDS test does not preclude use, nor does a positive test guarantee that the breastmilk contains harmful levels of a drug (Bartholomew & Lee, 2019)
  - UDS requires informed consent; should be ordered as a preliminary test with a reflex confirmatory test
  - UDS to triage breastfeeding has limitations and potential to stigmatize and drive people away from medical care

# Brief Intervention

- Brief, awareness raising conversation
  - Goal: identify & effectively intervene with those at moderate or high-risk for psychosocial or health care problems
  - Create non-biased awareness of perinatal SUDs and their impact on mothers, infants, and families
- How to start the conversation
  - Go with the **FLO!**
    - The FLO (Feedback, Listen, Options) mnemonic was developed to encompass the three major elements of a brief motivational intervention

**OR**

- It's OK to **CUS!**
  - Concern
  - Uncomfortable
  - Safety

# It's OK to CUS!

- I am **Concerned** about..... “ the number of drinks you are having each day”
- I am **Uncomfortable** with..... “keeping your substance use to yourself”
- I believe (whose) **Safety** is at risk .....“if you continue to misuse your opioid prescription”

# Referral to Treatment (or for Services)

- May be referred to
  - Obstetric provider
  - Primary care provider
  - Behavioral health provider
- Explain that providers can help determine next steps: monitor, start counseling, start medications, maybe all three!
- “Meets the Clients Where They Are”
  - Pregnant people have a choice in their care
  - Remember...it is not your role to “fix” the person

# Improving Care for Pregnant People with SUDs

Prenatal care +  
Screening +  
Education +  
Social Services +  
SUD Treatment =

**Harm Reduction**

**Mitigation of Complications**

**Comprehensive Care**



# Questions



# The Meadowlark Initiative

HEALTHY PREGNANCIES  
& SECURE FAMILIES

# The Meadowlark Initiative

**The Montana Healthcare Foundation**

December 9, 2021

[MTHCF.ORG](https://MTHCF.ORG)

# Presenters

## Montana Healthcare Foundation



Tressie White  
Program Director



# The Meadowlark Initiative

## Overview



**Goal: To reduce the adverse outcomes of perinatal mental illness and substance use disorders for newborns and families, by implementing team-based integrated prenatal care in every Montana community with a delivering hospital.**

The Meadowlark Initiative brings together clinical and community teams to provide the right care at the right time for patients and their families; improve maternal outcomes, reduce newborn drug exposure, neonatal abstinence syndrome, and perinatal complications; and keep families together and children out of foster care.

# Why Do We Need The Meadowlark Initiative?

## Scope of the Problem

- **Between 2011 and 2016, the number of children in foster care more than doubled;** in 2016, 64% were removed from the home because of parental substance abuse.
- Many delivering hospitals report increasing numbers of drug and alcohol-exposed newborns; NAS rate increased between 2012 and 2015 (partly related to new AAP definition)
- In a 2015 survey, 42% of Montana moms reported symptoms of post-partum depression.
- At the beginning of this initiative in 2017, **only 6% of Montana's state-licensed substance use disorder treatment programs served pregnant women.**
- Screening and treatment for prevalent mental illnesses are not yet routine in prenatal and post-partum care.



# List of Current Grantees

## List of Grantee Sites

Benefis Health System  
Blackfeet Tribal Health  
Bozeman Health  
Community Hospital of Anaconda  
Community Medical Center  
Holy Rosary Healthcare  
Kalispell Regional Medical Center, Inc.  
Livingston HealthCare  
One Health  
Providence Montana Health  
Sidney Health Center  
St. James Healthcare  
St. Luke Community Healthcare  
St. Peter's Health  
St. Vincent Healthcare Foundation

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# The Meadowlark Initiative

**A simple set of clinical and community interventions can:**

- ✓ Reduce the rate of drug positive newborns
- ✓ Reduce the rate of NAS
- ✓ Reduce the need for foster care placement
- ✓ Improve maternal/family health and social outcomes
- ✓ Improve access to behavioral health services for pregnant women, and improve mental health and SUD-related outcomes

# The Clinical Team

Mothers and their families receive care from prenatal and behavioral health providers with support from a care coordinator. These three make up the core of the Clinical Team.

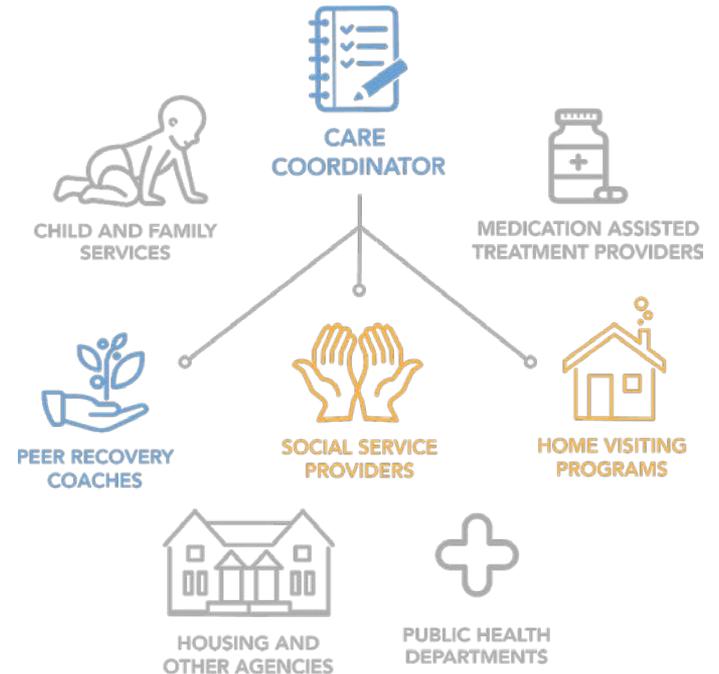
- The Prenatal Care Provider
- The Behavioral Health Provider
- The Care Coordinator



# The Community Team

The Community Team consists of a group of agencies and organizations that can provide critically needed support for pregnant and postpartum women and their families.

**The Care Coordinator helps build and coordinate the Community Team.**



# The Meadowlark Initiative

## Model of Care

The Clinical Team and Community Team work collaboratively to form a support system for the patient and their family.



# Additional Support

## Montana Healthcare Foundation's Role

- Provide expert training and technical assistance to grantees through the National Council of Behavioral Health and DPHHS.
- Assist practices with data collection and evaluation of project.
- Provide support to grantees through Healthy Mothers Healthy Babies to identify critical community resources.
- Provide Meadowlark Initiative-branded marketing and education materials to grantees.



# Additional Support

## The National Council for Behavioral Health

- Provides grantees with grant development support
- Collects project data and helps with evaluation
- Facilitates grantee learning community
- Conducts individual calls with each grantee
- Provides SBIRT Training
- Helps grantees execute their individual work plans, including:
  - Implementing the Meadowlark Initiative Model of Care
  - Financing
  - Building buy in and community participation
  - Using data to drive clinical care





QUESTIONS?

# Thank You!

If you have any questions about The Meadowlark Initiative or anything we talked about today, please visit our website or contact our office.

[mthcf.org/the-meadowlark-initiative](http://mthcf.org/the-meadowlark-initiative)

[info@mthcf.org](mailto:info@mthcf.org)

406-451-7060

Find us on social media @MTHealthcareFdn



# Thank you for joining us!

By attending today's event you are strengthening the ability of your mission driven, community based, patient-directed health center deliver comprehensive, culturally competent, high quality primary care services.

To learn about other upcoming CHAMPS events, visit:

<http://champsonline.org/events-trainings/distance-learning/upcoming-live-distance-learning-events>



Community  
Health  
Association of  
Mountain/  
Plains  
States

**The evaluation, including the CME section if you wish to receive CME credit, will be available at the end of the 2022 Maternal Health Learning Collaborative Series.**

# Perinatal Substance Use Disorders: Increasing Awareness & Screening to Reduce Impact on the Maternal/Child Dyad

*Supplemental Teaching Tools*  
**January 27, 2022**



Mountain Plains ATTC (HHS Region 8)

**ATTC**

Addiction Technology Transfer Center Network  
Funded by Substance Abuse and Mental Health Services Administration

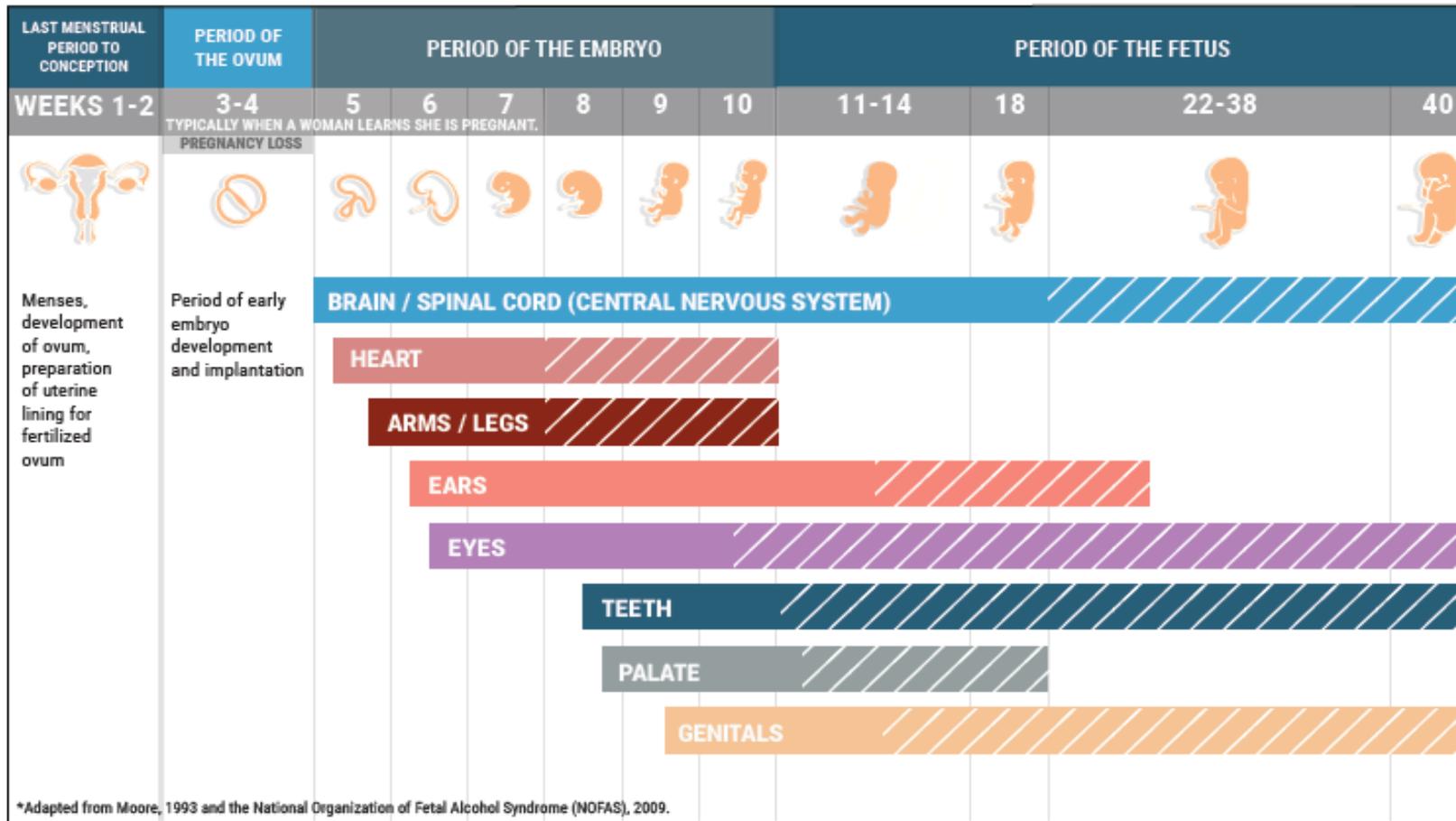
***SAMHSA***  
Substance Abuse and Mental Health  
Services Administration



# Alcohol

# ALCOHOL AND PREGNANCY DON'T MIX

BRAIN DEVELOPMENT CAN BE AFFECTED BY ALCOHOL AT ANY TIME DURING PREGNANCY



Teratogens are substances that can cause abnormal fetal development.

Alcohol is a powerful teratogen that targets the brain.

The disabilities caused by alcohol exposure during pregnancy are called fetal alcohol spectrum disorders (FASDs) and last a lifetime.

For more information, please visit [www.cdc.gov/fasd](http://www.cdc.gov/fasd)  
 Supported through the Centers for Disease Control and Prevention  
 Cooperative Agreements 1U01DD001143, 1U01DD001144, and 1U84DD001135

MAJOR STRUCTURAL defects can occur.

MAJOR FUNCTIONAL and MINOR STRUCTURAL defects can occur.



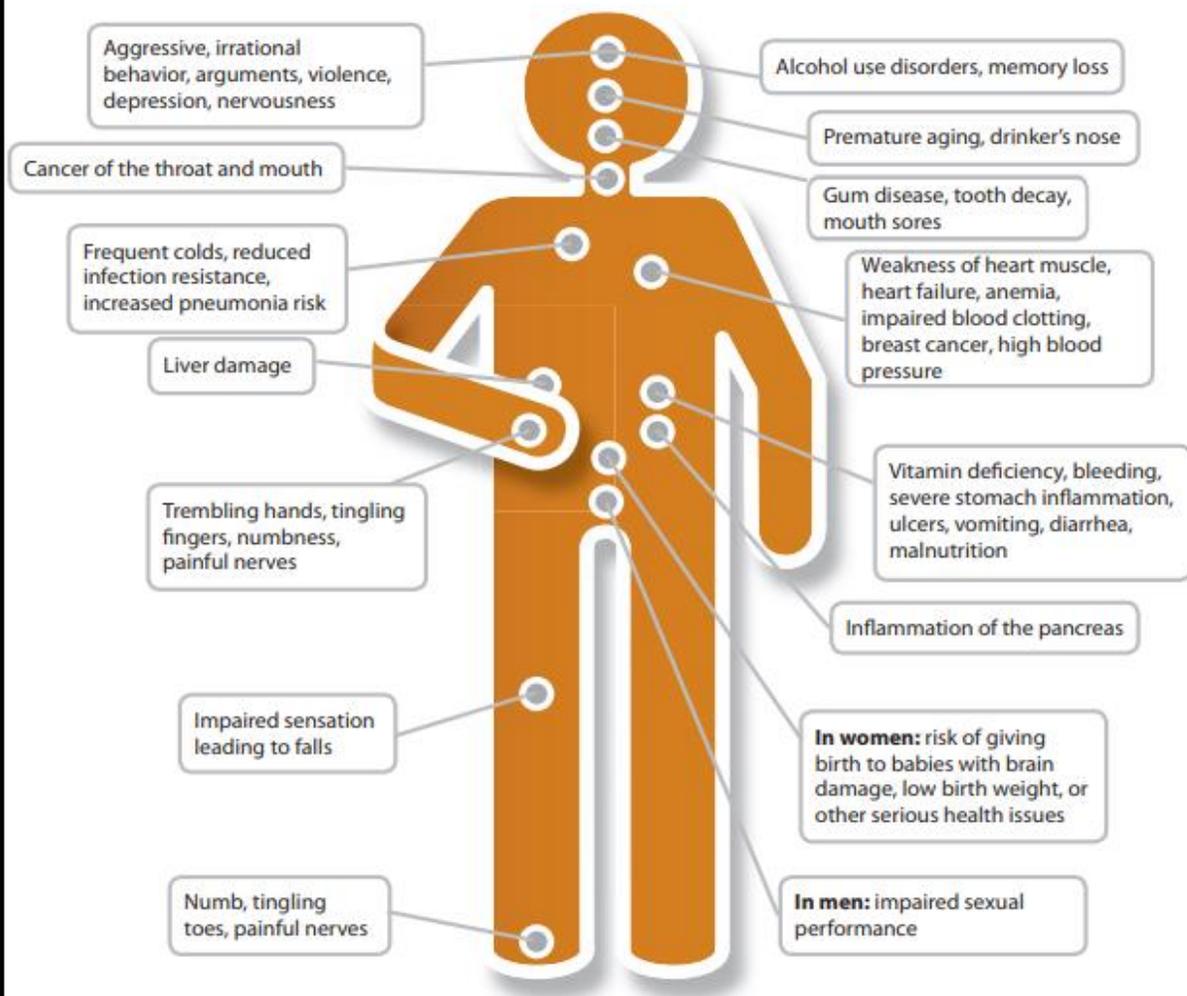
King, Edwards, Smith.(2021). Institute of Social and Economic Research, University of Alaska Anchorage

# Alcohol

- Alcohol affects women significantly even outside of pregnancy
  - Telescoping
    - Accelerated progression from initiation of alcohol use to onset of dependence and first admission to treatment
  - Women have lower percent of total body water, lower levels of ADH, and slower rates of alcohol metabolism than men
    - Absorb more alcohol and blood alcohol concentration levels tends to be higher
    - Blood ethanol concentrations peak in ~1hour
  - Women are more likely to use alcohol in response to stress & negative emotions
  - Associated with sexual violence, unintended or mistimed pregnancy

# RISKY AND HARMFUL ALCOHOL USE

## Effects on the Body



### Alcohol can worsen existing health problems:

- Liver disease
- Heart disease and high blood pressure
- Diabetes
- Ulcers and stomach problems
- Depression and anxiety
- Sleep problems

### Something to think about:

Risky and harmful alcohol use frequently leads to social, legal, medical, domestic, job, and financial problems. Alcohol may shorten your lifespan and lead to accidental injury or death.

Women more likely to develop alcoholic hepatitis and cirrhosis

Women are more susceptible to alcohol-related heart disease

Alcohol misuse produces brain damage more quickly in women; more disruption of normal brain development in teen girls (especially in memory and decision-making)

Women are more susceptible to alcohol-related blackouts

Can impact fertility and menstrual disorders

Women who consume 1 alcoholic drink per day have a 5-9% increased risk of developing breast cancer, & risk increases with every additional drink (NIAAA, 2021)

Adapted from: Babor, T.F., Higgins-Biddle, J.C., Saunders, J.B., and Monteiro, M.G. (2001). The Alcohol Use Disorders Identification Test: Guidelines for Use in Primary Care (Second Edition). World Health Organization; sbirtinaction.org; [www.sbirt.care](http://www.sbirt.care)

# Alcohol and Breast Cancer

## Alcohol...

- Increases levels of estrogen
  - Estrogen can encourage breast cells to grow and multiply > increases breast density > increases risk of hormone-receptor-positive cancer
- Reduces levels of folate
  - Folate helps make and maintain DNA; if this is disrupted, a cell's DNA can become damaged and more likely to become cancerous
- Breaks down into a chemical called acetaldehyde: a cancer-causing agent
  - Damages DNA; inhibits repair of that damage

(Drink Less for your Breasts (2021); <https://drinklessforyourbreasts.org/>)

# Pay Attention to Your Drinking!

Understand how much alcohol you are consuming in each drink

## Each of these has 14 grams of alcohol

12 fl. oz  
regular beer



about  
5% alcohol

8-9 fl. oz  
malt liquor  
in a 12 oz. glass



about  
7% alcohol

5 fl. oz  
table wine



about  
12% alcohol

1.5 fl. oz shot  
80-proof spirits  
hard liquor—  
whisky, gin, rum,  
vodka, tequila, etc.



about  
40% alcohol

In the United States, a “standard” drink is any drink that has 0.6 ounces or 14 grams of pure alcohol. Here are examples of different drink types (beer, wine, liquor) and their “standard” drink sizes.

How many shots of alcohol are in one “umbrella drink”?

Drink Less for your Breasts (2021)  
<https://drinklessforyourbreasts.org/>

# Screening Reminders

- What constitutes a Standard Drink?
- Educate about moderate vs at-risk alcohol use & binge drinking
- Include screening for illicit drug use & misuse of prescribed drugs
- Don't forget tobacco screening!



**5 ounces  
of wine**



**12 ounces  
of beer**



**1.5 ounces  
of hard  
alcohol**



# **Marijuana**

# ACOG Committee Opinion 722

(2017, Reaffirmed October 2021)

- Women who are pregnant or contemplating pregnancy should be encouraged to to discontinue marijuana use
- Insufficient data to evaluate the effects of marijuana use on infants during lactation and breastfeeding, and in the absence of such data, marijuana use is discouraged

**Marijuana AND Pregnancy**  
If you use marijuana during pregnancy, you may be putting your health and your fetus's health at risk.

Possible Effects on Your Fetus	Possible Effects on You
 Disruption of brain development before birth	 Permanent lung injury from smoking marijuana
 Smaller size at birth Higher risk of stillbirth	 Dizziness, putting you at risk of falls
 Higher chance of being born too early, especially when a woman uses both marijuana and cigarettes during pregnancy	 Impaired judgment, putting you at risk of injury
 Harm from secondhand marijuana smoke Behavioral problems in childhood and trouble paying attention in school	 Lower levels of oxygen in the body, which can lead to breathing problems

**DID YOU KNOW?**

- ▶ Medical marijuana is not safer than recreational marijuana. Recreational and medical marijuana may be legal in some states, but both are illegal under federal law.
- ▶ There's no evidence that marijuana helps morning sickness (ask your obstetrician-gynecologist [ob-gyn] about safer treatments).
- ▶ You also should avoid marijuana before pregnancy and while breastfeeding.

Marijuana and pregnancy don't mix. If you're pregnant or thinking about getting pregnant, don't use marijuana. 

If you need help quitting marijuana, talk with your ob-gyn or other health care professional.

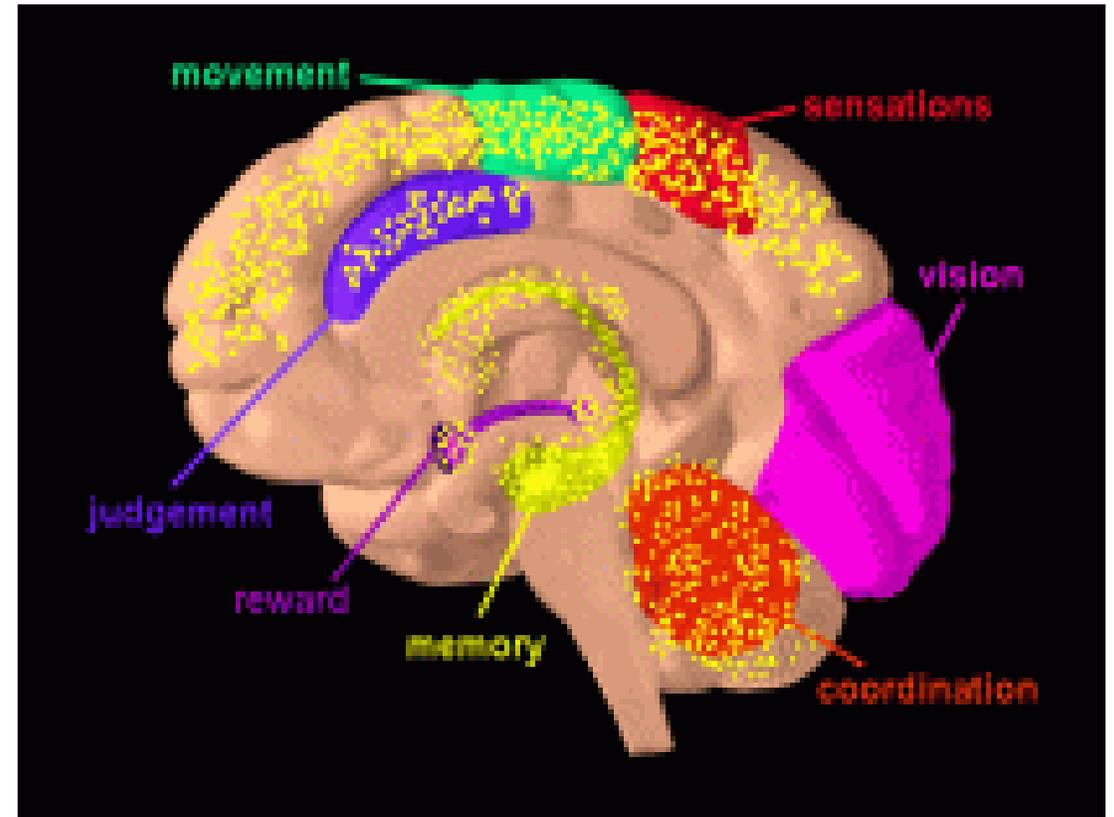
Research is limited on the harms of marijuana use for a pregnant woman and her fetus. Because all of the possible harms are not fully known, the American College of Obstetricians and Gynecologists (ACOG) recommends that women who are pregnant, planning to get pregnant, or breastfeeding not use marijuana. ACOG believes women who have a marijuana use problem should receive medical care and counseling services to help them quit.

**ACOG**  
The American College of Obstetricians and Gynecologists  
4001 12th Street SW  
Washington, DC 20024-2188  
www.acog.org

FIGURE 12. This information is designed as an educational aid to patients and does not constitute information and opinions related to women's health. It is not intended as a substitute for the standard of care, nor does it represent all proper treatments or methods of care. It is not a substitute for a health care provider's independent professional judgment. For ACOG's complete guidelines, visit www.acog.org/WomensHealthBulletin. Copyright May 2018 by the American College of Obstetricians and Gynecologists. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, printed on the internet, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior written permission from the publisher.

# THC & the Brain

- Diagram: THC acts on all brain areas where yellow is noted
- <https://www.samhsa.gov/marijuana/marijuana-pregnancy>





# Stimulants

# Treatment for Stimulant Use Disorders

UPDATED 2021

TREATMENT IMPROVEMENT PROTOCOL

# TIP 33

**SAMHSA**  
Substance Abuse and Mental Health  
Services Administration

SAMHSA, 2021

<https://store.samhsa.gov/product/treatment-for-stimulant-use-disorders/PEP21-02-01-004>



# Opioids



**A COLLABORATIVE  
APPROACH TO THE  
TREATMENT OF  
PREGNANT WOMEN  
WITH OPIOID USE  
DISORDERS**

Practice and Policy Considerations for Child Welfare,  
Collaborating Medical, and Service Providers



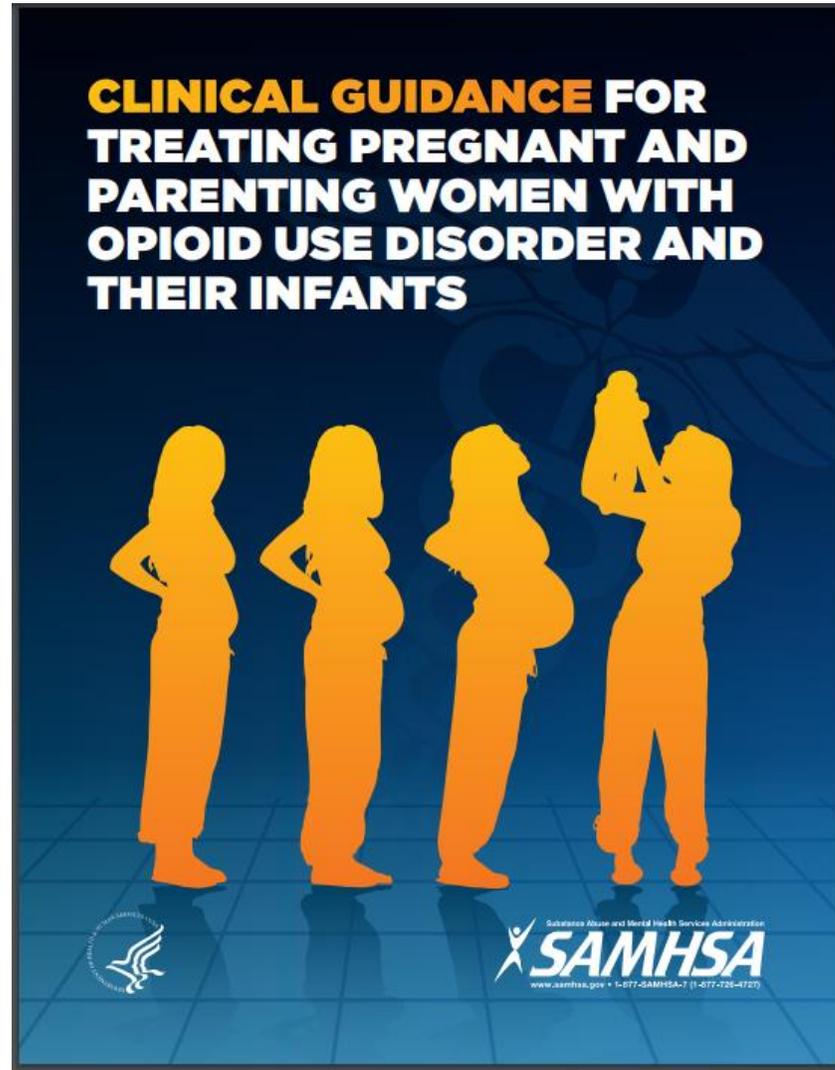
**SAMHSA, 2016**

[https://ncsacw.samhsa.gov/files/Collaborative Approach 508.pdf](https://ncsacw.samhsa.gov/files/Collaborative_Approach_508.pdf)

**SAMHSA, 2018**

<https://store.samhsa.gov/sites/default/files/d7/priv/sma18-5054.pdf>

**CLINICAL GUIDANCE FOR  
TREATING PREGNANT AND  
PARENTING WOMEN WITH  
OPIOID USE DISORDER AND  
THEIR INFANTS**




# Medications to Treat Opioid Use Disorder (MOUD)

- **Methadone: Opioid Full Agonist**
- **Buprenorphine (Subutex): Opioid Partial Agonist**
- **Buprenorphine and Naloxone (Suboxone): Opioid Partial Agonist and Opiate Antagonist**



## **What is an Agonist?**

An **agonist** activates certain receptors in the brain. Full **agonist** opioids activate the opioid receptors in the brain resulting in the full opioid effect; oxycodone, methadone, hydrocodone, morphine

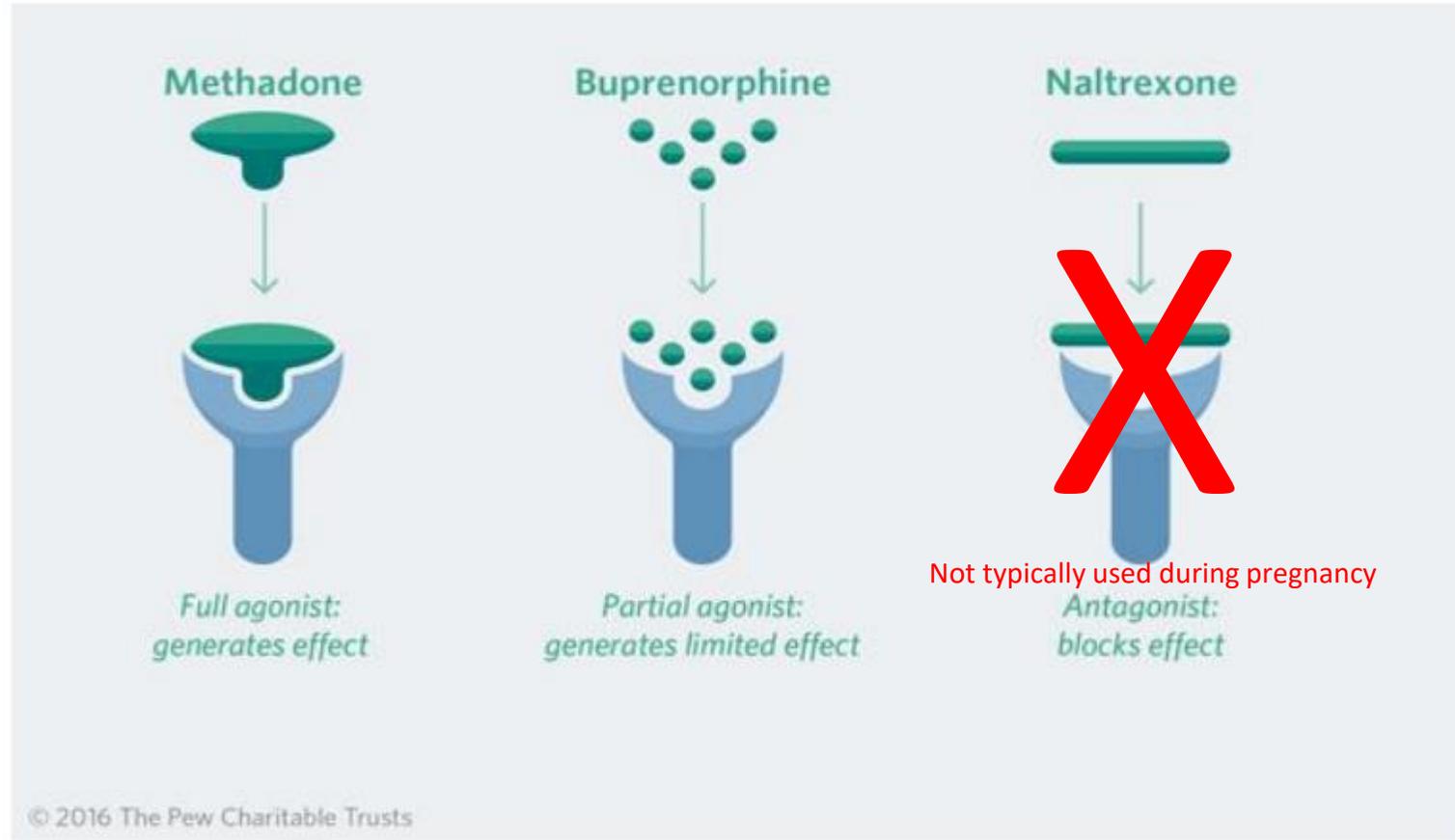
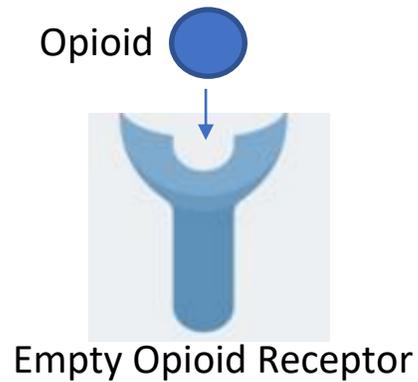
## **What is a Partial Agonist?**

A **partial agonist** attaches to the receptors but **does** not fully activate them; buprenorphine

## **What is an Antagonist?**

A molecule that binds to a target and prevents other molecules (e.g., **agonists**) from binding; naltrexone

# How medications for OUD work



## Naltrexone in Pregnancy

- a. There is insufficient evidence for the safety and efficacy of naltrexone in pregnancy to routinely recommend initiating pregnant patients on naltrexone.
- b. Initiation of MAT with naltrexone is not advised for pregnant women with active OUD because it requires a period of opioid withdrawal, which exposes women and fetuses to physiologic instability and increases the likelihood of relapse, treatment discontinuation, opioid overdose and death. Treatment with naltrexone is associated with lower treatment retention in nonpregnant populations.
- c. Buprenorphine and methadone are easier to initiate and have more evidence supporting their safety and efficacy in pregnancy.
- d. Patients who become pregnant while successfully treated on a stable regimen of naltrexone should understand the risks, benefits and alternatives to continuing treatment with naltrexone. It is advised that the decision to continue naltrexone be a carefully weighed, shared decision.
- e. While transitioning from one MAT agent to another in pregnancy is discouraged, if the decision is made to change MAT agent, transition from naltrexone to buprenorphine or methadone is best conducted under the supervision of an addiction medicine specialist.
- f. Preliminary evidence and some expert opinion suggests that naltrexone use in pregnancy may be safe and effective for select women for the treatment of OUD and/or AUD.
  - i. A small retrospective cohort study found that the use of implant naltrexone during pregnancy was not associated with higher rates of congenital anomalies, stillbirth or neonatal mortality, though neonates born to women receiving naltrexone were smaller and had longer hospital stays than infants who were not substance exposed.<sup>705</sup>
  - ii. As use of naltrexone for treatment of OUD increases, the need for further research into the safety and efficacy of naltrexone in pregnancy is clear.

## Colorado's Opioid Solution: Clinicians United to Resolve the Epidemic (CO's CURE)

Obstetrics and Gynecology

## 2020 Opioid Prescribing and Treatment Guidelines

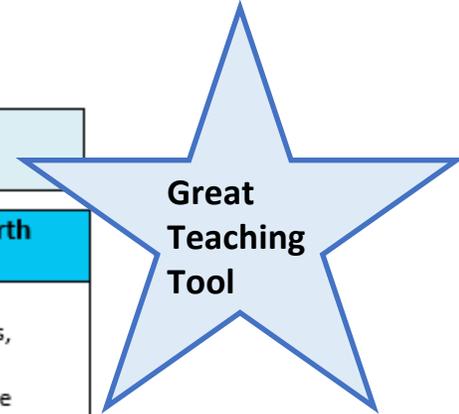
[https://cha.com/wp-content/uploads/2021/05/CURE\\_ACOG\\_final.pdf](https://cha.com/wp-content/uploads/2021/05/CURE_ACOG_final.pdf)



**General**

## Potential Effects of Substance Use Disorders in Pregnancy (Shogren, MPATTC, 2021)

Drug	Concerning Causative Impact	Physical Impact	Neurological Impact	Other Impact	Effects Noted at Birth
<b>Alcohol</b>	Alters growth and development, Changes brain structure, left and right brain halves do not connect properly	Fetal Alcohol Syndrome: Facial abnormalities like the vertical groove between the nose and lip is smooth, thin upper lip, small palpebral fissure (opening between eyelids)	Attention problems, cognitive delays, reading, learning deficits, poor memory, and executive functioning	Preterm labor, Low birth weight, increased risk for miscarriage, stillbirth	Sleep problems, poor sucking patterns, irritability, tremors, may be more difficult to console
<b>Cigarettes</b>	Blood vessels constrict, reduces blood and oxygen flow to baby	Possible link to oral / facial clefts, increased risk childhood respiratory illnesses	Possible impulsivity, attention problems	Preterm labor, low birth weight, smaller size, increased risk for stillbirth, SIDS	Poorer self-regulation, may be more difficult to console
<b>Marijuana</b>	Exposure to carbon monoxide, reduces blood and oxygen flow to baby	Low birth weight, fetal growth restriction 2-3x increased risk of stillbirth	Possible impulsivity, attention problems, cognition delays, memory changes	Preterm or very rapid labor, meconium present in amniotic fluid	Increased startles, tremors, poor feeding, poor muscle tone, sleep problems
<b>Cocaine</b>	Reduces blood and oxygen flow to baby	May change brain structure, possible limb reduction, genitourinary defects, intestinal atresia	Subtle attention deficits, memory problems, impulsivity, learning problems	Preterm labor, small size, placental abruption, miscarriage	Tremors, high-pitched cry, irritability, excessive sucking
<b>Meth-amphetamines</b>	Reduces blood and oxygen flow to baby	Possible decreased head circumference and length, heart and brain abnormalities, association with cleft palate	Increased anxiety, emotional problems, aggressive behaviors, inhibitory control, ADHD-like symptoms up to 7.5 years of age	Preterm labor, low birth weight and small size, placenta detaches before birth, fetal death	Disorganized state, NAS may present, less often needs pharmacologic intervention
<b>Opioids</b>	Reduces blood and oxygen flow to baby	Overall growth deficits, low birth weight, hearing loss, decreased brain growth	Cognitive impairment, academic under-achievement in verbal, arithmetic, reading ability	Preterm labor, placental abruption, low birth weight, meconium in amniotic fluid, LBW	NOWS often needing pharmacologic management



Great Teaching Tool

# SAMHSA ADVISORY

Substance Abuse and Mental Health  
Services Administration

## ADDRESSING THE SPECIFIC NEEDS OF WOMEN FOR TREATMENT OF SUBSTANCE USE DISORDERS

Initiation of substance use by women is often related to family or partner use, a co-occurring mood disorder such as depression or anxiety, or an eating disorder (Bahji et al., 2019; Khan, Okuda, et al., 2013; Khan, Secades-Villa, et al., 2013). For example, some women may start injecting drugs as a way to initiate and maintain intimate relationships (Guise et al., 2017). Mood disorders are more common in women with substance use disorders (SUDs) than women without SUDs (Khan, Okuda, et al., 2013; McHugh et al., 2018). Women who have a SUD are also more likely to have histories of trauma (Devries et al., 2014), including sexual or physical abuse, and abuse or witnessing abuse in childhood (Cafferky et al., 2018; Muchimba, 2020; Stein et al., 2017; Tripodi & Pettus-Davis, 2013; Ullman et al., 2013).

While studies have consistently shown a greater prevalence of SUD among men, rates of substance use by gender are age-dependent (Substance Abuse and Mental Health Services Administration, 2020). According to the National Survey on Drug Use and Health (NSDUH), in 2019, females between 12 and 17 years of age were more likely than males to report having a SUD in the past year (5.0 percent of females versus 4.0 percent of males). While the prevalence of SUD among men overtakes that of women 18 years and older, women continue to constitute approximately one third of adults reporting a SUD.

Consequences of substance use for women include physical complications, the risk of losing custody of children under their care, and exposure to partner violence. Women develop physiological complications from substance use, especially alcohol, in a shorter time and with lower consumption than men (Brasiliano et al., 2020; Peters et al., 2019). Reproductive consequences for pregnant women may include fetal alcohol spectrum disorders, long-term cognitive deficits, low birth weight, or miscarriage (McHugh et al., 2018).

Women with SUDs are likely to curtail or stop use of alcohol or illicit drugs during pregnancy; however, they are also likely to resume substance use after the pregnancy (Forray, 2016; Forray et al., 2015; McHugh et al., 2018). Some women are motivated to address their SUD by entering and completing treatment because of their roles as mothers and caregivers (McCrary & Epstein, 2013). However, some women may fear the legal or social ramifications of engaging in treatment while pregnant and parenting (National Institute on Drug Abuse, 2020).

Over the past decade much has been learned about treating women with SUDs. This *Advisory* is intended to add to some of the information (e.g., pharmacological approaches) currently found in the Substance Abuse and Mental Health Services Administration (SAMHSA) Treatment Improvement Protocol (TIP) 51, *Substance Abuse Treatment: Addressing the Specific Needs of Women*. It offers guidance to providers and administrators about the particular needs of women during SUD treatment. It summarizes key messages, recommendations for screening and assessment, gender-focused approaches to treatment and support, and considerations for women in specific racial/ethnic populations.

**SAMHSA, 2021**

[https://store.samhsa.gov/sites/default/files/SAMHSA\\_Digital\\_Download/PEP20-06-04-002.pdf](https://store.samhsa.gov/sites/default/files/SAMHSA_Digital_Download/PEP20-06-04-002.pdf)

# SCREENING TOOLS

- Standardized, validated screening tools for substance use are often utilized in healthcare settings
- Examples include:
  - **AUDIT**
    - Check Your Drinking: An interactive self-test: <https://auditscreen.org/>
  - **NIDA Quick Screen**
    - NIDA-Modified ASSIST Online Screening Tool: <https://archives.drugabuse.gov/nmassist/>
  - **4 P's**
    - Freely available and published in Committee on Obstetric Practice. Committee Opinion No. 711: Opioid Use and Opioid Use Disorder in Pregnancy. Obstet Gynecol. 2017;130(2):488–489
    - <https://www.acog.org/-/media/project/acog/acogorg/clinical/files/committee-opinion/articles/2017/08/opioid-use-and-opioid-use-disorder-in-pregnancy.pdf>

## + NIDA Drug Screening Tool

NIDA-Modified ASSIST (NM ASSIST)

Clinician's Screening Tool for Drug Use in General Medical Settings\*

In the past year, how often have you used the following?

Alcohol (For men, 5 or more drinks a day. For women, 4 or more drinks a day)

Never

Once or Twice

Monthly

Weekly

Daily or Almost Daily

Tobacco Products

Never

Once or Twice

Monthly

Weekly

Daily or Almost Daily

Prescription Drugs for Non-Medical Reasons

Never

Once or Twice

Monthly

Weekly

Daily or Almost Daily

Illegal Drugs

Never

Once or Twice

Monthly

Weekly

Daily or Almost Daily

### 4 Ps\*

**Parents:** Did any of your parents have a problem with alcohol or other drug use?

**Partner:** Does your partner have a problem with alcohol or drug use?

**Past:** In the past, have you had difficulties in your life because of alcohol or other drugs, including prescription medications?

**Present:** In the past month have you drunk any alcohol or used other drugs?

**Scoring:** Any "yes" should trigger further questions.

# FLO: Feedback

- Ask Permission to give **FEEDBACK**:
  - “Is it ok if we talk about your answers?”
- Give Information:
  - “Because substance use can be harmful to both mothers and babies, we screen ALL people for substance use during pregnancy and postpartum”
  - “Based on your answers, it seems that you have been (drinking alcohol daily or using opioids in a different way than prescribed)”
  - “We know that opioid use during pregnancy increases your risk for complications like having a baby that is very small”
- Elicit Reaction:
  - “What are your thoughts about that?”

# FLO: Listen and Provide Options

- **LISTEN**

- Answer follow up questions
- Assist with decision making

- **OPTIONS** (monitor, counseling, medications)

- “What are some options/steps that will work for you to cut down your use?”
- “What do you think you can do to stay healthy and safe?”
- “Would you like to discuss treatment options?”

# Assess Readiness to Change



The Readiness Ruler is a helpful tool to support the use of Motivational Interviewing

# Resources

- ACOG Committee Opinion 722: Marijuana use during pregnancy and lactation. (2017). <https://www.acog.org/-/media/project/acog/acogorg/clinical/files/committee-opinion/articles/2017/10/marijuana-use-during-pregnancy-and-lactation.pdf>
- American Academy of Pediatrics. (2018). Marijuana use during pregnancy and breastfeeding: Implications for neonatal and childhood outcomes. <https://pediatrics.aappublications.org/content/pediatrics/142/3/e20181889.full.pdf>
- Bartholomew, M., & Lee. (2019). Substance use in the breastfeeding woman, *Contemporary OB/GYN*, 64(9), 22-24

# Resources

- Smid, M., Metz, T., Gordon, A. (2019). Stimulant use in pregnancy: An under-recognized epidemic among pregnant women. *Clinical Obstetrics and Gynecology*, 62(1) 168-184.
- SAMHSA. (2019). Preventing the use of marijuana: Focus on women and pregnancy. <https://store.samhsa.gov/product/preventing-use-marijuana-focus-women-and-pregnancy>
- [Don't Quit the Quit Resource Guide: First Steps to Serving Perinatal Clients with OUD](#)
- [Culturally and Linguistically Appropriate Services \(CLAS\) in Maternal Health Care](#)