



# Management of Opioid Use Disorder During Pregnancy

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# Goals/Overview

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- Scope of the problem
- Science of Addiction
- Stigma
- Screening, Brief Intervention, and Referral to Tx
- Navigating Substance use during Pregnancy/Delivery/Postpartum
- Treatment options for Opioid Use Disorder
- EMPOWERED Program

# Perinatal Mental Health

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- Pregnancy and first year postpartum
  - Includes substance use disorders
  - 1 in 5 will experience a PMH condition
  - 75% of PMH symptoms go untreated
  - Most common obstetric complication

# Substance Use

- Substance misuse, dependency, and SUD, including OUD, are prevalent among Nevada adult populations (including individuals of reproductive age).
- During Pregnancy
  - Rates of OUD in pregnant and postpartum patients have increased.
  - Over 40% of pregnant women enrolled in Medicaid receive a prescription for opioids.
  - Roughly 5% of pregnant patients reported using an illicit substance in the past month.

# Substance Use

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What is the impact?

- Increased obstetrical complications including:
  - Pre-eclampsia
  - Miscarriage
  - Premature delivery
  - Fetal growth restriction
  - Fetal death
- Rates of Neonatal Abstinence Syndrome (NAS) have increased more than 300% in the past decade.

# It Is A Common Problem

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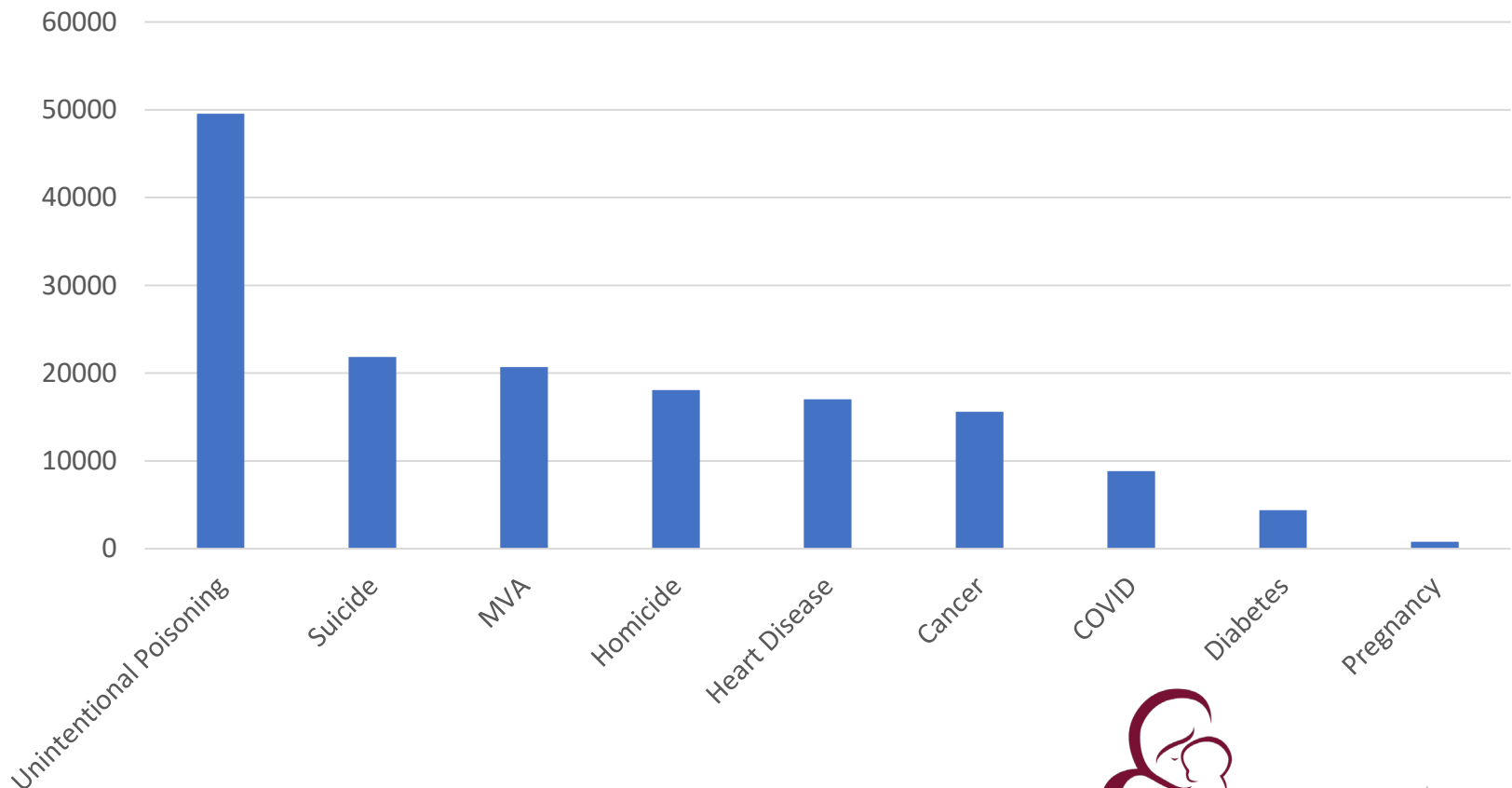
Addiction/Substance Use Disorders (SUDs) are common

- In 2022, over 48 million people (17.3%) had a substance use disorder (SUD).
- There were almost 110,000 drug overdose deaths in 2022.
- Overdose is the **leading** cause of death for reproductive-age persons in the US.
- Overdose is now the **leading** preventable cause of maternal mortality.



# Causes of Death: Reproductive Age\*

Leading Causes of Death 2020\*\*

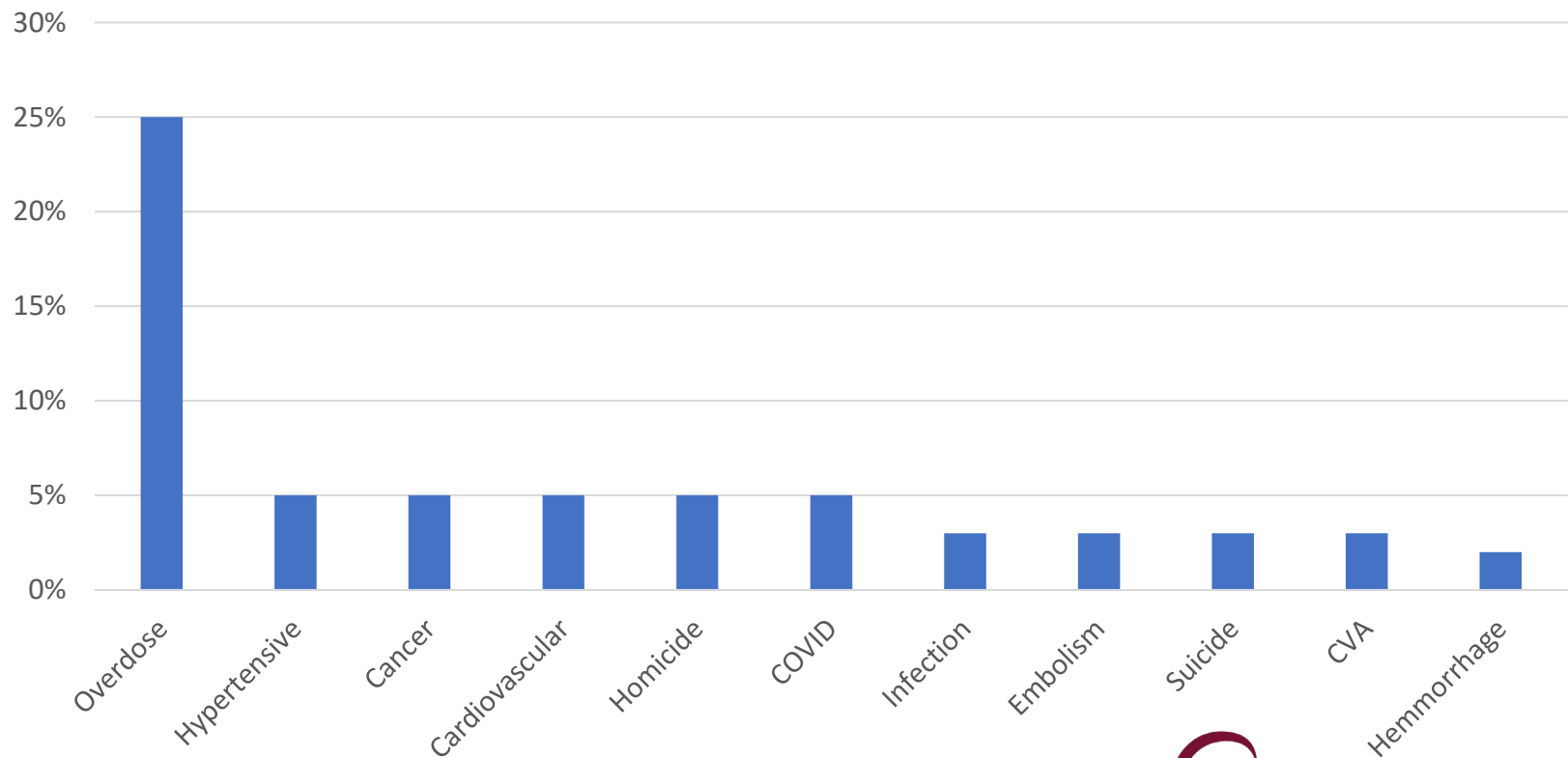


\*Reproductive Age defined as 15-44 years old

\*\*CDC – Web Based Injury Statistics Query and Reporting System

# Pregnancy Associated Deaths

% of Pregnancy Associated Deaths: Nevada\*



\*Office of Analytics. Department of Health and Human Services. Maternal Mortality and Severe Maternal Morbidity Nevada, 2020-2021. Carson City, Nevada. December 2022.



# Addiction is a Chronic Disease

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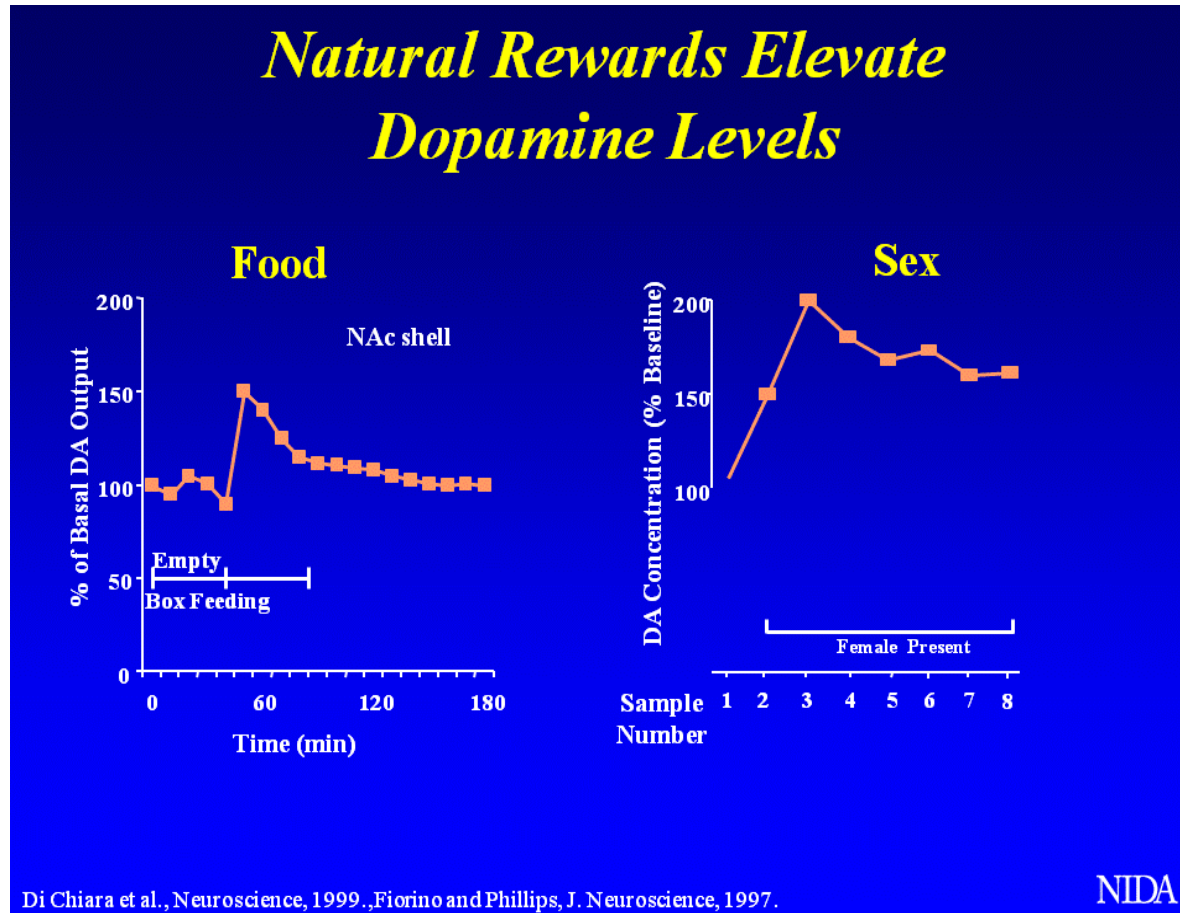
*“Addiction is a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual’s life experiences.”*

# Science of Addiction

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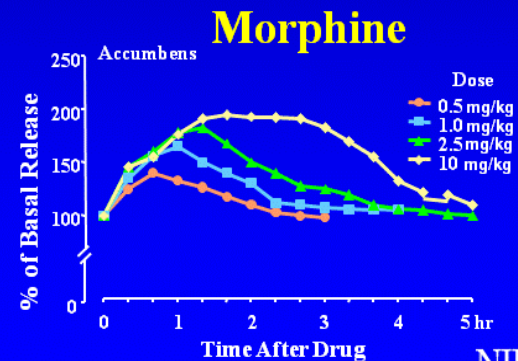
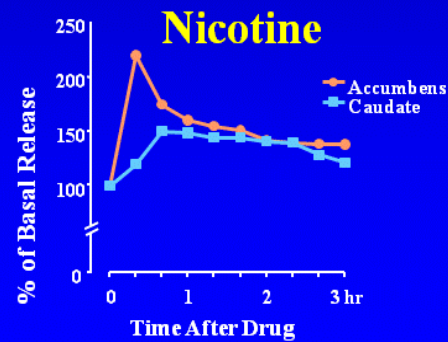
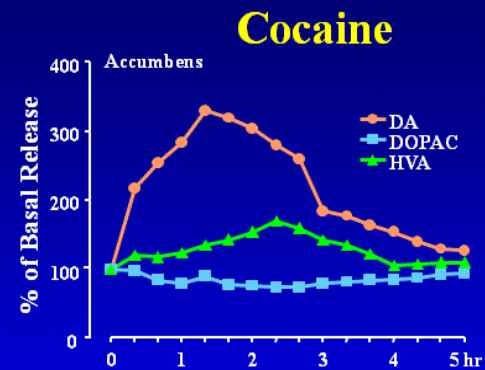
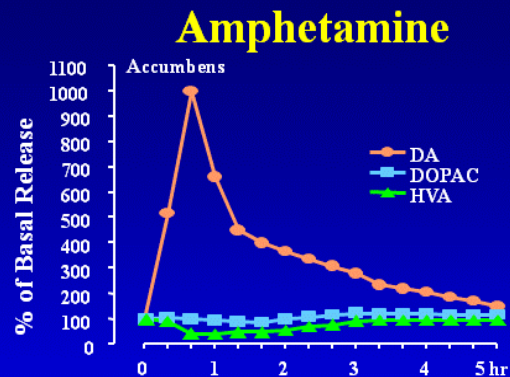
- Dopamine is the reward neurotransmitter
- Regulates:
  - emotion, motivation, cognition, movement, pleasure, etc.
- Life sustaining activities release dopamine
- All drugs of abuse directly or indirectly influence dopamine

# Science of Addiction



# Science of Addiction

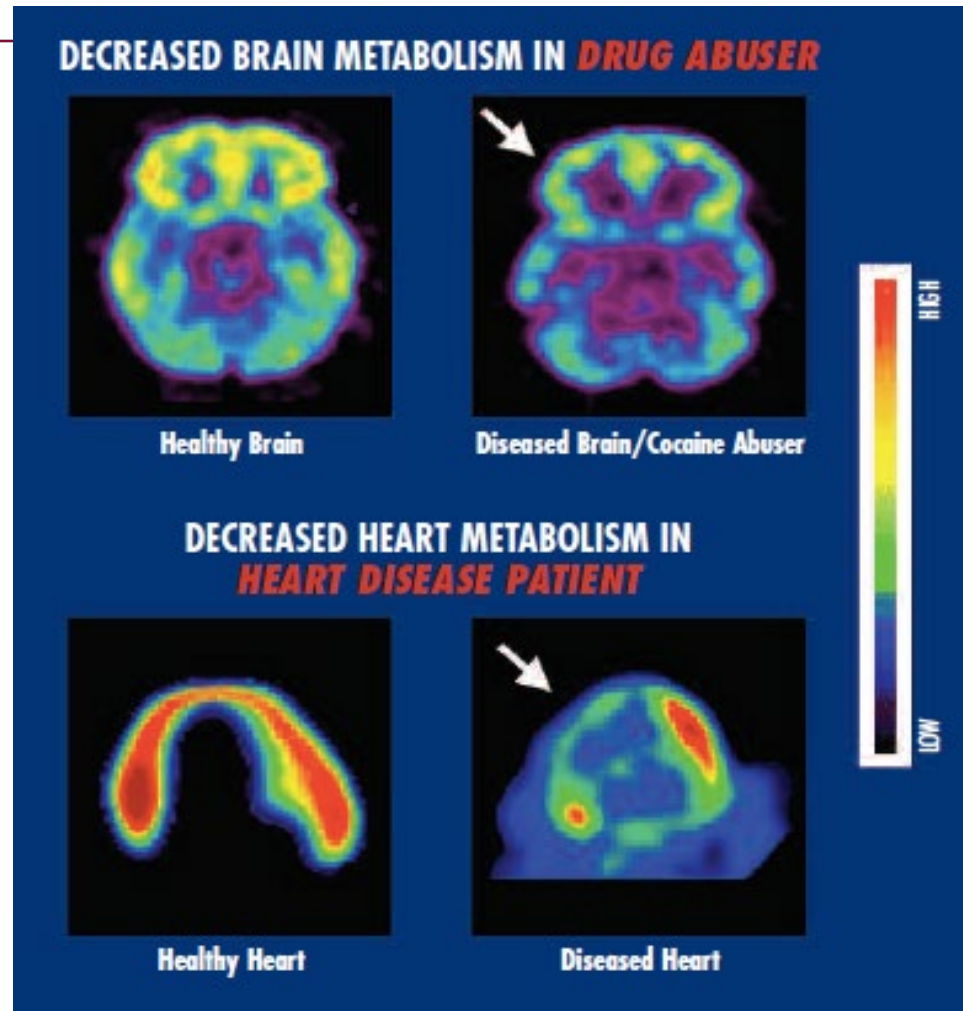
## Effects of Drugs on Dopamine Release



Di Chiara and Imperato, PNAS, 1988

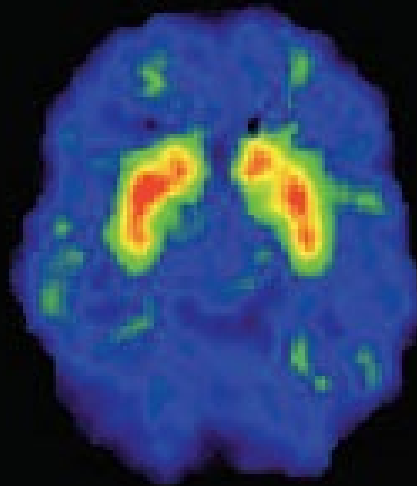
NIDA

# Science of Addiction

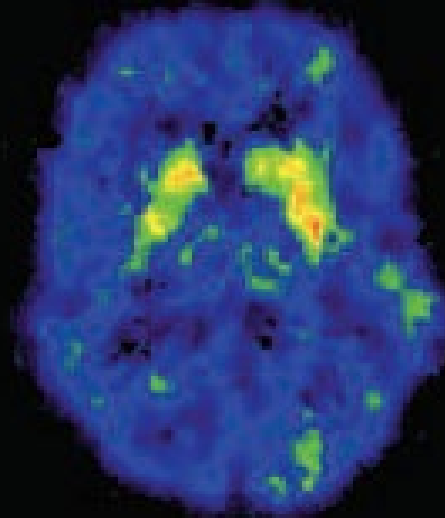


# Science of Addiction

## DECREASED BRAIN FUNCTION IN METHAMPHETAMINE ABUSER



Healthy Control

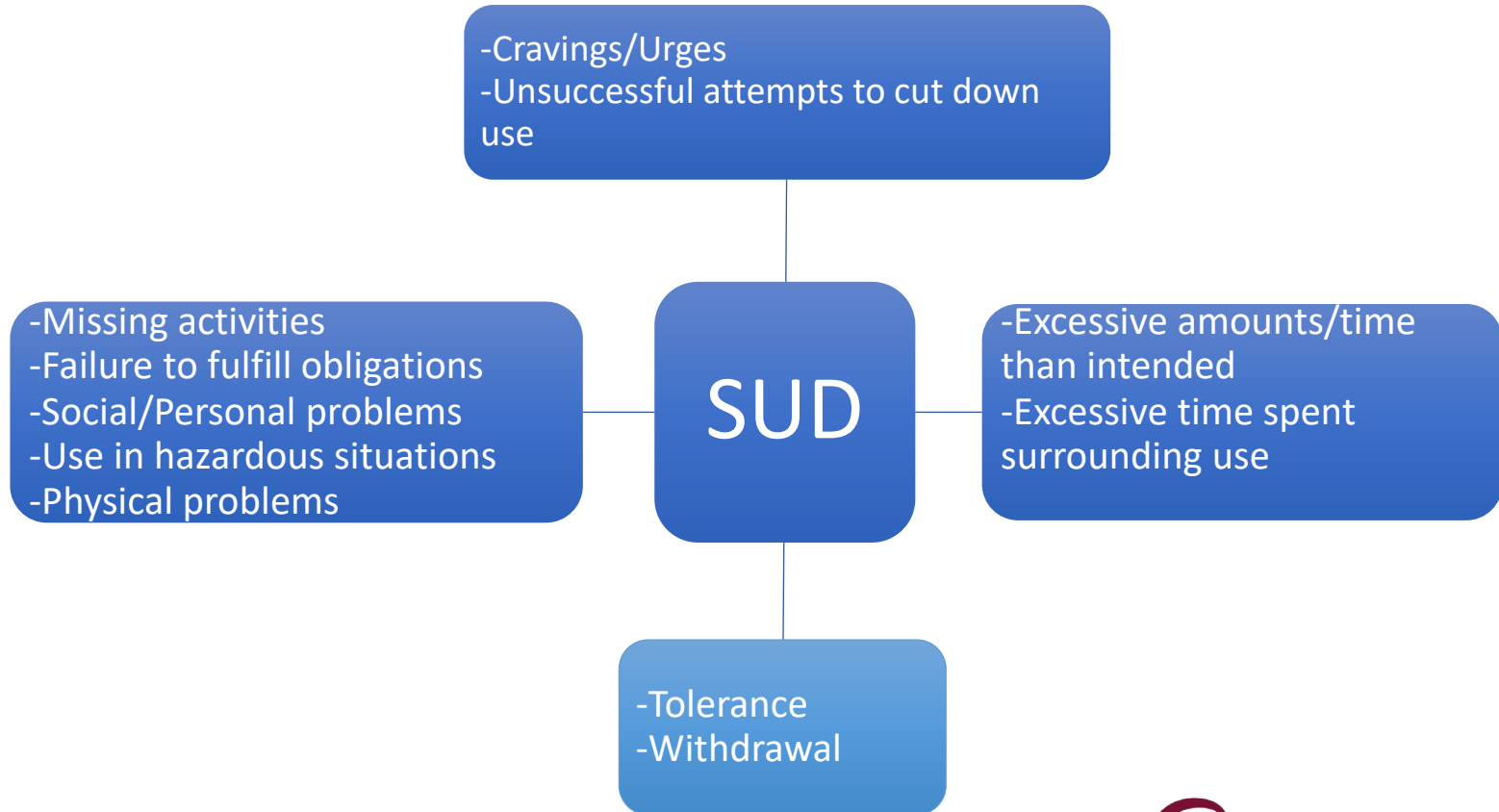


Drug Abuser

Methamphetamine abusers have significant reductions in dopamine transporters.

Source: *Am J Psychiatry* 158:377-382. March 2001.

# Addiction/SUD Criteria



# Can it happen to me??

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Tolerance/Withdrawal

Unsuccessful  
attempts to cut down  
use

Missing activities

Cravings

Use in hazardous  
situations

Excessive time spent



# What is Stigma?

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“A mark of disgrace associated with a particular circumstance, quality, or person.”

- Health Related Stigma is:

“A social process or personal experience related to a health condition, characterized by the perception of exclusion, rejection, and blame, and contributes to psychological, physical, and social morbidity.”

# Why Does Stigma Matter?

People who experience health related stigma experience:

1. Social Isolation
2. Poor quality of life
3. Less access to healthcare
4. Delayed diagnosis of a condition
5. Reduced adherence to treatments
6. Illness and death

# Words to Use/Language

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*“In discussing substance use disorders, words can be powerful when used to inform, clarify, encourage, support, enlighten, and unify. On the other hand, stigmatizing words often discourage, isolate, misinform, shame, and embarrass.”*

# Words to Use/Language

In a study by the Recovery Research Institute, participants were asked how they felt about two people  
*“actively using drugs and alcohol.”*

One person was referred to as a  
**“substance abuser”**



The other person as  
**“having a substance use disorder”**



No further information was given about these hypothetical individuals.

## THE STUDY DISCOVERED THAT PARTICIPANTS FELT THE **“SUBSTANCE ABUSER” WAS:**

- less likely to benefit from treatment
- more likely to benefit from punishment
- more likely to be socially threatening
- more likely to be blamed for their substance related difficulties and less likely that their problem was the result of an innate dysfunction over which they had no control
- they were more able to control their substance use without help



# Use Person First Language

- Person-first language puts the person before the diagnosis. It emphasizes the person, not their medical condition or disability. Rearranging words is a powerful way to not let the diagnosis define the person.
- Does not define a person based on any medical disorder he/she may have
- Is the accepted standard for discussing people with disabilities and/or chronic medical conditions
- It is non judgmental, neutral, and diagnosis is purely clinical
- Proven to reduce stigma and improve treatment

# Words to Avoid

Stigmatizing Language	Positive, Person-First Language
<ul style="list-style-type: none"> <li>Addict/Abuser/Junkie</li> </ul>	<ul style="list-style-type: none"> <li>Person with Substance Use Disorder</li> </ul>
<ul style="list-style-type: none"> <li>User</li> </ul>	<ul style="list-style-type: none"> <li>Person who misuses alcohol/drugs</li> </ul>
<ul style="list-style-type: none"> <li>Drug Abuse/Drug Habit</li> </ul>	<ul style="list-style-type: none"> <li>Substance Use Disorder</li> </ul>
<ul style="list-style-type: none"> <li>Relapse</li> </ul>	<ul style="list-style-type: none"> <li>Return to Use/Recurrence of Use</li> </ul>
<ul style="list-style-type: none"> <li>Clean</li> </ul>	<ul style="list-style-type: none"> <li>Person in recovery/abstinent</li> </ul>
<ul style="list-style-type: none"> <li>Criminal/Felon/Convict</li> </ul>	<ul style="list-style-type: none"> <li>Person with justice involvement</li> </ul>
<ul style="list-style-type: none"> <li>Homeless</li> </ul>	<ul style="list-style-type: none"> <li>Person experiencing homelessness</li> </ul>
<ul style="list-style-type: none"> <li>Medication Assisted Treatment/Replacement Therapy</li> </ul>	<ul style="list-style-type: none"> <li>Medications for addiction treatment</li> <li>SUD/ODD pharmacotherapy</li> </ul>
<ul style="list-style-type: none"> <li>Clean/Dirty (test results)</li> </ul>	<ul style="list-style-type: none"> <li>Positive/Negative for substance use</li> </ul>
<ul style="list-style-type: none"> <li>Addicted Baby</li> </ul>	<ul style="list-style-type: none"> <li>Neonatal Abstinence Syndrome</li> <li>Neonatal Opioid Withdrawal Syndrome</li> </ul>

# Be a Change Agent

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1. Be aware of your own prejudice
2. Always use “person first” language
3. Educate yourself and others
4. Make your work a “judgement-free zone”
5. Start conversations about stigma
6. Form a stigma-free task force

# SBIRT

- Three Major Components
  1. Screening
  2. Brief Intervention
  3. Referral to Treatment
- Universally recommended by (to name a few):
  - American College of Obstetricians and Gynecologists (ACOG)
  - Society for Maternal Fetal Medicine (SMFM)
  - American Society of Addiction Medicine (ASAM)
  - Substance Abuse Mental Health Services Administration (SAMHSA)
  - \*United States Preventative Services Task Force (USPSTF)



# SBIRT - Screening

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## Who can perform screening?

- A wide variety of health care staff including but not limited to:
  - Physicians
  - Nurses
  - Nurse Practitioners
  - Physician Assistants
  - Licensed Midwives
  - Licensed Clinical Social Workers
- Anyone with training that is involved in the care of these patients:
  - Government agencies, specialty offices, first responders, etc.

# SBIRT - Screening

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Who to screen?

- All patients. This is called “universal screening.”
- Do not screen based on non-medically based diagnosis or suspicions (e.g. physical appearance, race, ethnicity, etc.).

# SBIRT - Screening

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When to screen?

- A pregnant or non-pregnant patient of reproductive age is being seen for the first time.
- At the first prenatal visit. Repeat during 3<sup>rd</sup> trimester.
- When you first recognize a pregnancy.
- On an annual basis if you are providing continuous care.
- When a patient is admitted during a pregnancy encounter.

# SBIRT - Screening

## Where to screen?

- All settings where a pregnant or non-pregnant patient of reproductive age seeks services
- OB/GYN and MFM offices
- Primary Care offices (Family, Internal Medicine, etc.)
- Emergency Rooms
- Triage/Labor and Delivery
- Urgent Care
- Specialty offices (Behavioral Health, Pain Management, etc.)
- Government agencies (Health District, Criminal Justice, WIC, etc.)

# SBIRT - Screening

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How to screen?

- Universally – every patient.
- Use a standardized accepted *questionnaire* based tool that asks about substances, both legal and illegal (e.g. 5Ps, NIDA quick screen, SURP-P).
- In private.
- Empathic, compassionate, and non-judgmental.
- Patient-centered.

# SBIRT - Screening

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What about biologic drug testing?

- Universal biologic toxicology testing is **NOT** recommended (e.g. urine, blood, hair, etc.).
- Patient must be able to give informed consent\*
- Not highly sensitive for many substances, false-positives and negatives, occasional vs chronic use...
- Results can neither confirm nor rule out SUD.

\*Ferguson v. City of Charleston

# Urine Drug Testing – Which has SUD?

Substance	Patient 1	Patient 2
THC	negative	positive
(Meth)/Amphetamine	negative	positive
Barbiturates	negative	negative
Benzodiazepines	negative	positive
Opiates	negative	negative
Cocaine	negative	negative
Methadone	negative	positive
PCP	negative	negative

# Urine Drug Testing – Which has SUD?

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## Patient 1

- Using Daily (illicit)
  - Clonazepam
  - Oxycodone
  - Fentanyl
- Using Weekly (illicit)
  - Methamphetamine

## Patient 2

- Using Daily (prescribed)
  - Sertraline (bzd)
  - PPI (thc)
  - Metformin (amp)
- Using PRN
  - Benadryl (met)



# Urine Toxicology Testing

Consider if:

No prenatal care

Precipitous labor

Hypertensive episodes

Cerebrovascular accidents

Repeated spontaneous abortions

Pregnancy fails to coincide with stated gestational age

Inflamed or indurated nasal mucosa

Lethargy, nodding, agitation

Previous unexplained fetal demise

Placental abruption

Severe mood swings

Myocardial infarction

Pupils extremely dilated or constricted

Track marks, abscesses, or edema in upper or lower extremities

Jaundice, pallor, dusky skin

Patient not well oriented

# SBIRT - Screening

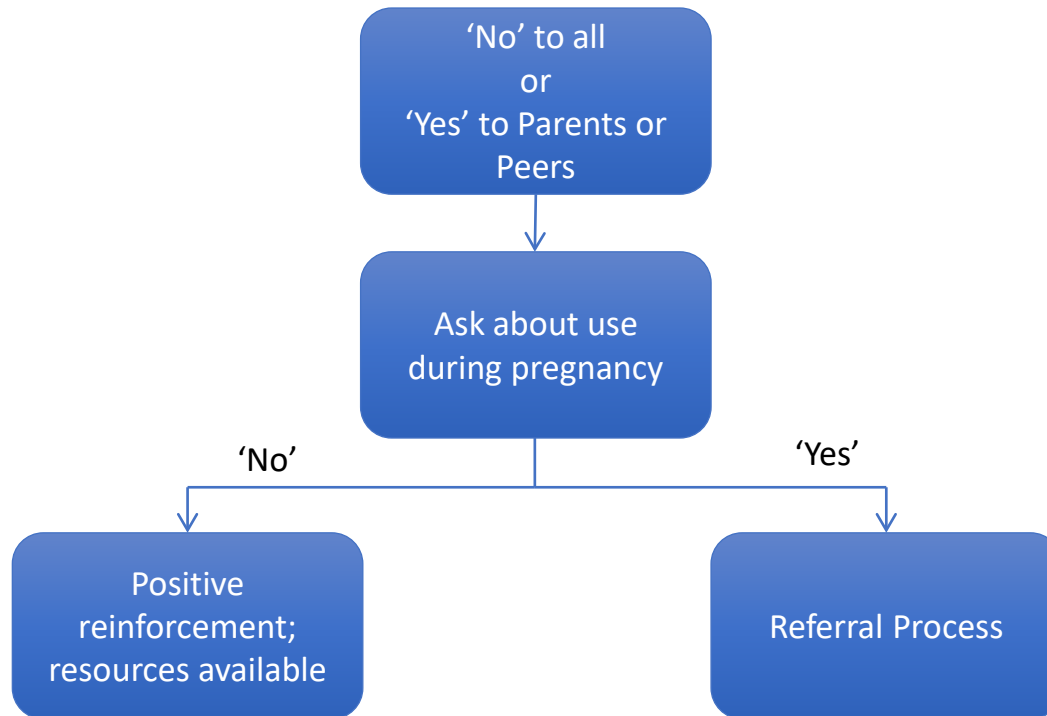
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## 5Ps example

1. Did any of your parents have a problem with alcohol or other drug use?
2. Do any of your friends (peers) have a problem with alcohol or other drug use?
3. Does your partner have a problem with alcohol or other drug use?
4. In the past, have you had difficulties in your life due to alcohol or other drugs, including prescription medications?
5. In the past month (present), have you drunk any alcohol or used other drugs?

# SBIRT - 5 Ps

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# SBIRT - 5 Ps

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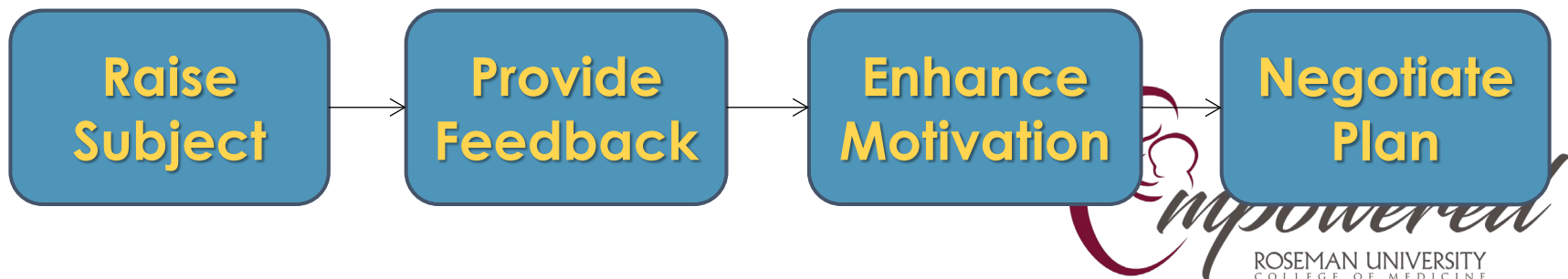
'Yes' to Partner,  
Past, or Present  
(Pregnancy)



Referral Process

# Brief Intervention

- Engage patient showing risky substance use behaviors in a short conversation
- Can be performed by any trained employee
- Employs principles of Motivational Interviewing
- Steps:



# Referral to Treatment

- Provide a referral for additional treatment
- Options Include:
  - Therapy
  - Behavioral Health
  - Addiction Medicine
  - Case Management
  - Social Work
  - Maternal Fetal Medicine
  - Peer Support
  - Mutual Help Groups
- Different Levels of Treatment:
  - I. Outpatient
  - II. Intensive Outpatient
  - III. Residential/Inpatient
  - IV. Medically managed intensive inpatient

# Pregnancy Care

- Obtain recommend lab testing: HIV, STI, Hepatitis
- Screen for psychiatric, domestic violence/intimate partner violence
- Screen for medical issues: Diabetes, thyroid, hypertension
- Discuss contraception (family planning)
- If patient currently on a form of medication for OUD discuss NAS as appropriate
- Referrals as appropriate (Social Work, MFM, etc.)

# Pregnancy Care

- Referral for detailed fetal anatomic US
- Third trimester growth scan (28-32 weeks)
- Weekly antenatal testing starting at 32 weeks
- Repeat STI testing
- Discuss pain management options for L&D
- Contraceptive counseling to include LARC at the hospital after delivery



# Labor and Delivery

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- Perform SBIRT universally
  - Referrals as appropriate
  - Inform pediatrician of substance exposed newborn for monitoring
  - CARA plan of care

# Intrapartum Pain Control

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Goal for pain control should be to:

1. Control withdrawal
2. Control cravings
3. Adequately control pain

Adequate pain control allows the patient to:

1. Mobilize
2. Breastfeed
3. Care for the infant

# Intrapartum Pain Control

Overall strategies include:

- Continuation of MOUD
- Non-opioid pharmacological-adjuncts
- Nonpharmacological-adjuncts

To improve overall perception of and coping with pain:

- Immediate skin-to-skin
- Breastfeeding
- Early ambulation
- Promotion of rest periods

*A common myth is that short-term opioids will result in a return to substance use when in fact inadequate pain treatment is more likely to cause this*

# Postpartum Care

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- Rescreen for substance use
  - Postpartum depression screening
  - Postpartum DV/IPV
  - Breastfeeding recommendations
  - Safe Sleep education
  - Further contraceptive counseling
  - Highest risk of morbidity and mortality including overdose is in the 1<sup>st</sup> year postpartum

# Medications for Opioid Use Disorder (MOUD)

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- There are 3 FDA approved medications for Opioid Use Disorder
  - Methadone
  - Buprenorphine
  - Naltrexone
- All 3 are available for use during pregnancy, but it appears that methadone dominates, buprenorphine is underutilized, and naltrexone is not even considered.

# MOUD Options

	Methadone	Buprenorphine	Naltrexone
Mechanism of Action	Full Opioid Agonist	Partial Opioid Agonist	Opioid Antagonist
Dispensing	Federally Certified Opioid Treatment Programs	Office Setting <i>-X waiver requirement removed</i>	Office Setting
Formulations	Liquid, Tablet	Tablet, Film, Injection, Implant	Tablet, Injection
Pregnancy	Recommended	Recommended (oral formulations including naloxone combo)	Not yet recommended – data is promising
Breastfeeding	Avoid abrupt discontinuation	Can continue	Can continue

# MOUD – buprenorphine vs methadone

Considerations	Oral Buprenorphine	Methadone
Patient Selection	May be preferable to patients who are new to treatment or do not like or want methadone	May be preferable to patients who do not like or want buprenorphine
Dispensing	May be prescribed in office setting <sup>31</sup>	Requires daily visits to a federally certified opioid treatment program
Risk of Medication Interaction	Few known interactions	Medications that use  cytochrome P450 pathway
Mechanism of Action	Partial opioid agonist/antagonist with ceiling effect	Full opioid agonist with no ceiling effect
Risk of Overdose and Death	Generally lower than full opioid agonists (e.g., methadone)	Generally greater than mixed agonist/ antagonist opioids (e.g., buprenorphine)
Ability to Fill at Pharmacy	Possible at pharmacy	Must be administered and dispensed for treatment of OUD at federally certified opioid treatment program, which also may enhance follow up
NAS/NOWS	Generally less incidence, milder symptoms, shorter duration. NOWS is associated with known fetal brain abnormalities	Generally higher incidence, more severe symptoms, and longer duration. NOWS is associated with known fetal brain abnormalities
Dosing frequency	Generally one to two times a day but can be flexible up to four times a day	Generally one time a day but can be twice a day

SAMHSA 2018

# MOUD – buprenorphine vs methadone

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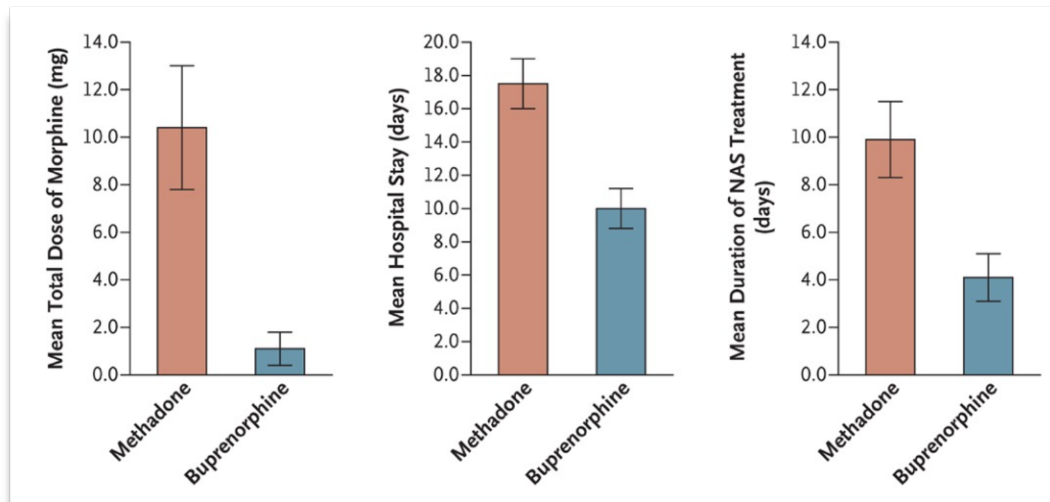
## Buprenorphine (not all inclusive):

- Lower incidence of NAS
- Lower severity of NAS
- Lower duration of NAS
- Lower treatment medication required for NAS
- Lower costs
- Lower incidence of prematurity
- Lower risk of anomalies
- Lower overdose potential
- Lower placental transfer
- Shorter hospital stays
- Lower concentration in breastmilk
- Higher birth weights
- Larger head circumference
- ...



# MOUD – buprenorphine vs methadone

## Neonatal Abstinence Syndrome



Jones 2010

# Is smaller head circumference a big deal?

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- OBs used to give multiple courses of steroids for lung maturation.
- They found that more than two courses led to a 0.3 cm decrease in head circumference.
- This led to a **drastic shift** in practice guidance nationally for all OBs to no longer recommend this.

French 1999; ACOG 2017

# Is smaller head circumference a big deal?

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- Absolutely!
- Smaller head circumference:
  - Serial steroids smaller by avg 0.3 cm
  - **Methadone smaller by avg 0.9 cm**
- This is a significant difference...cranial volume calculation is cubed so differences add up
- Compared to avg, cranial volume is decreased by almost 10%

# The latest recommendations...

- Medication for Opioid Use Disorder (MOUD)/Medication Assisted Treatment (aka MAT) is the standard of care.
  - MOUD is the “gold standard”
  - Options include Methadone, Naltrexone, and **Buprenorphine** – **THINK BUPRENORPHINE AS FIRST LINE!**
  - Opioid withdrawal management on its own, without ongoing pharmacotherapy, is **not** a treatment method for opioid use disorder and is **not** recommended.
- MOUD/MAT should be offered to **EVERY** patient (of reproductive age, pregnancy, and postpartum)
- Reduces the risk of mortality almost six fold, comparable to the baseline for the regular population
- Medications useful for:
  - Treating withdrawal
  - Staying in treatment
  - Preventing relapse

Jacobs 2018; McLellan 2000; ASAM 2020

# Nevada Perinatal Health Initiative

- Reference guides to provide information surrounding reproductive health (pregnancy) and substance use.
- Thus far, two guides for medical professionals and others have been developed:
  1. *Reference Guide for Reproductive Health Complicated by Substance Use*
  2. *Reference Guide for Labor and Delivery Complicated by Substance Use*

<https://nvopioidresponse.org/initiatives/opioid-response/screening/perinatal-health/>

# Thank You

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