ACCESS Mental Health for Moms

Your link to psychiatric consultation, support, and resources

Conflicts of Interest

With respect to the following presentation, there has been no relevant (direct or indirect) financial relationship with any for-profit company which could be considered a conflict of interest.

Grant funding:

- PCORI MAT-2018C2-12891 (PI: Forray/Yonkers)
- NIMHD R21 (PI: Forray)

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Background on perinatal substance use

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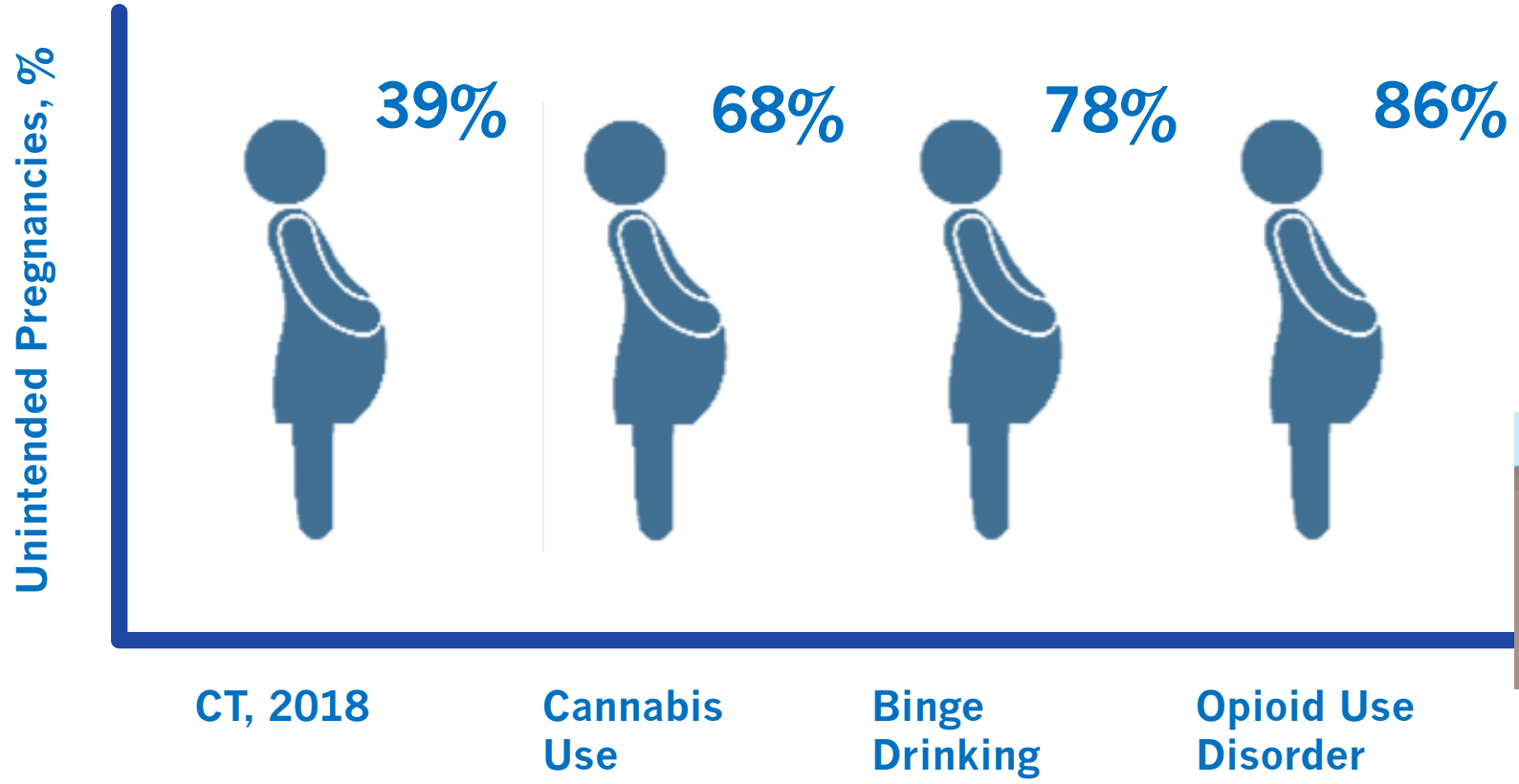
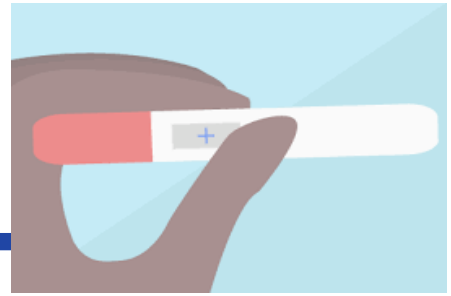
Unplanned Pregnancies and Substance Use





Finer LB & Zolna MR, NEJM. 2016; 374:843-85
Kost K, Guttmacher Institute, 2015
Lundsberg LS et al., J Addict Med. 2018;12(4):321-328
Connecticut Department of Public Health. Connecticut Pregnancy Risk Assessment Monitoring System (PRAMS) 2018 Data Report. Hartford, CT; October 2019

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What are risk factors for substance use in pregnancy?

- Demographic Factors: Rates of substance use during pregnancy **do NOT** seem to be influenced by race, social class, or age
- Environmental Factors
  - Adverse childhood experiences (ACE): women with **5 or more ACES are 7-10x** more likely to engage in illicit drug use, have SUD
  - Childhood sexual abuse: **3X** more likely to have SUD adulthood
- Hormones: Ovarian hormones influence the effects of drugs and may contribute to an accelerated progression of initiation to dependency known as telescoping

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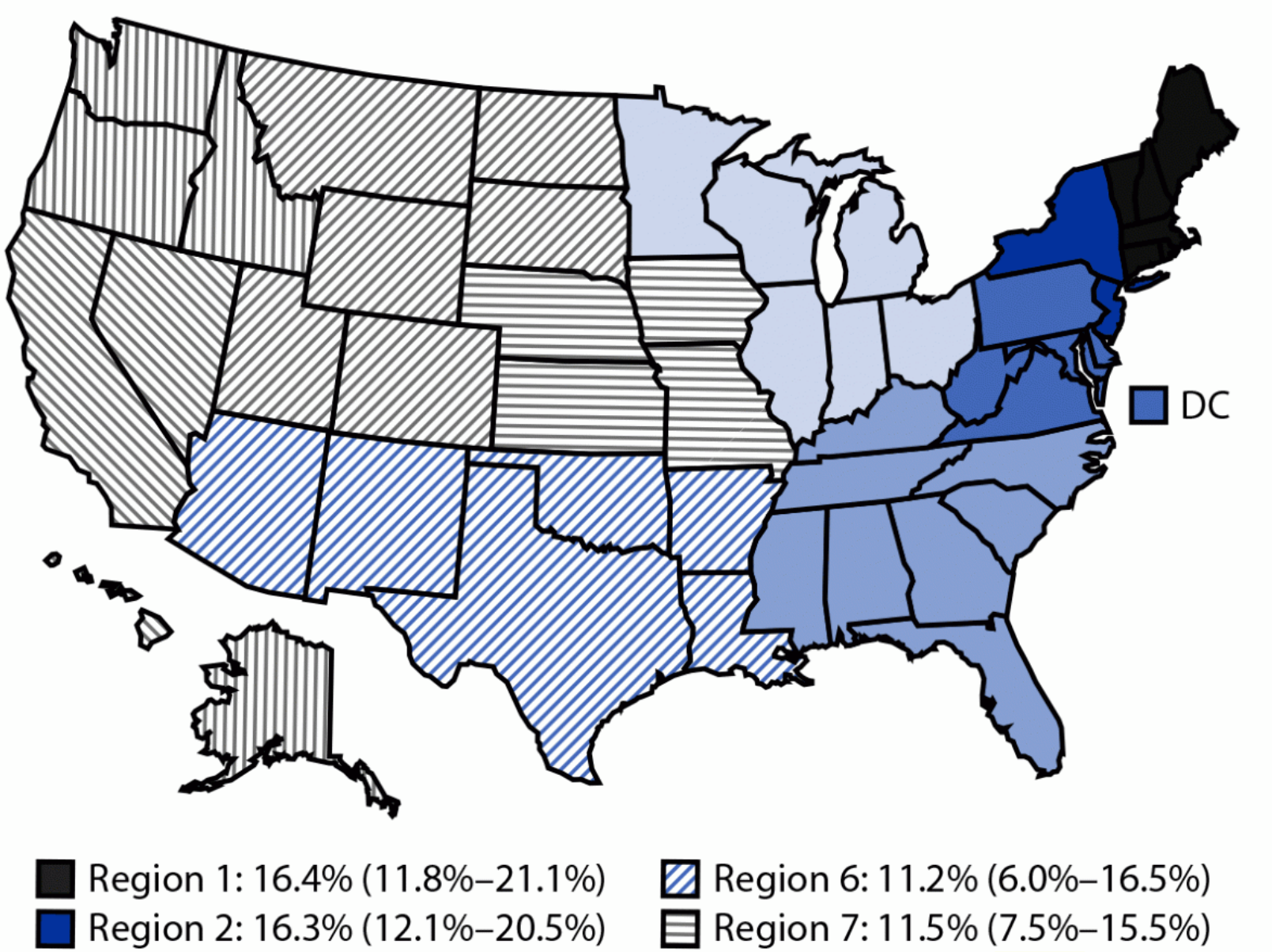
Alcohol Use Among Pregnant Individuals: 2018-2020



Overall 14%

White 13%

Black 15%

Hispanic 13%

Other 17%

Gosdin et al., MMWR Morb Mortal Wkly Rep 2022;71(1):10-13

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CT Prevalence of Perinatal Alcohol Use

Question		n	Weighted %	95% CI
Alcohol use in past 2 years				
	No	609	31.4	(28.5-34.3)
	Yes	800	68.6	(65.7-71.5)
Alcohol use 3 months prior to pregnancy				
	No	757	41.5	(38.3-44.7)
	Yes	647	58.5	(55.3-61.7)
Alcohol use during last 3 months of pregnancy				
	No	1,323	92.5	(90.6-94.3)
	Yes	87	7.5	(5.7-9.4)
Changes in alcohol during pregnancy				
	Nondrinker	755	41.4	(38.3-44.6)
	Drinker quit	561	51.0	(47.6-54.4)
	Drinker reduced	39	4.4	(2.8-5.9)
	Drinker same/more	46	3.1	(2.0-4.2)
	Nondrinker resumed	*Insufficient data to report*		

Connecticut Department of Public Health. Connecticut Pregnancy Risk Assessment Monitoring System (PRAMS) 2018 Data Report. Hartford, CT; October 2019

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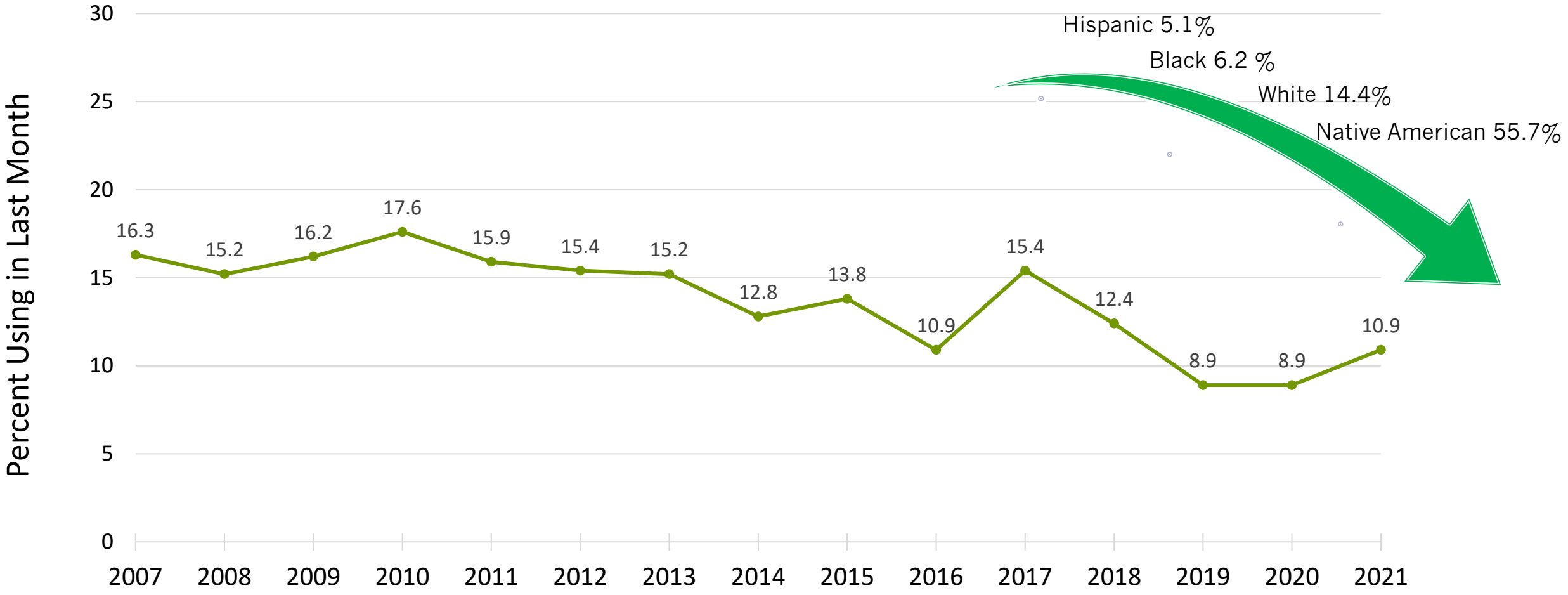
Tobacco Use Trend in Pregnancy 2007-2021



NSDUH, 2007-2021: https://pdas.samhsa.gov/

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CT Prevalence of Perinatal Smoking

Question		n	Weighted %	95% CI
Tobacco use in past 2 years				
	No	1,218	84.1	(81.2-86.9)
	Yes	195	15.9	(13.1-18.8)
Tobacco use 3 months prior to pregnancy				
	No	1,245	86.0	(83.3-88.7)
	Yes	169	14.0	(11.3-16.7)
Tobacco use during last 3 months of pregnancy				
	No	1,354	94.2	(92.1-96.3)
	Yes	61	5.8	(3.7-7.9)
Tobacco use now				
	No	1,318	92.2	(90.0-94.4)
	Yes	98	7.8	(5.6-10.0)
Changes in tobacco use during pregnancy				
	Nonsmoker	1,245	86.0	(83.3-88.7)
	Smoker quit	107	8.2	(6.2-10.1)
	Smoker reduced	43	4.8	(2.8-6.8)
	Smoker same/more	18	1.0	(0.4-1.6)
	Nonsmoker resumed	0	--	--

Connecticut Department of Public Health. Connecticut Pregnancy Risk Assessment Monitoring System (PRAMS) 2018 Data Report. Hartford, CT; October 2019

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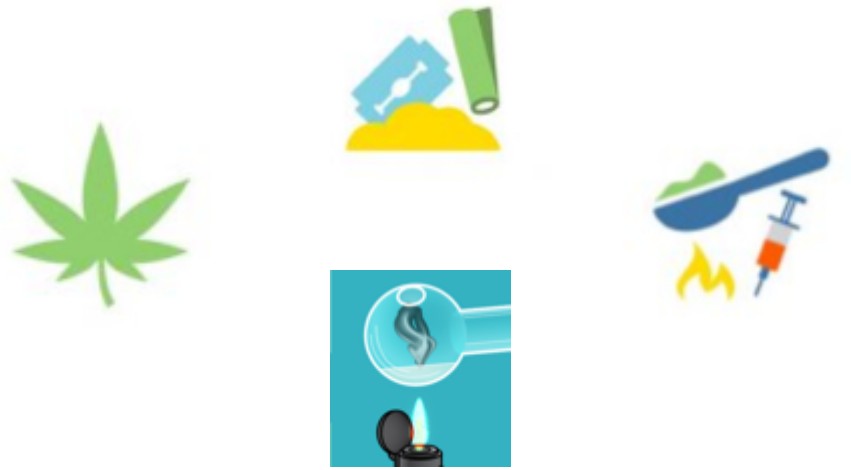
Illicit Substance Use in Pregnancy - 2021

7.8% of all pregnant people



- White 5.2%
- Black 7.9%
- Hispanic 16.1%
- Native American 39.5%

NSDUH, 2021: https://pdas.samhsa.gov/#/survey/NSDUH-2021-DS0001

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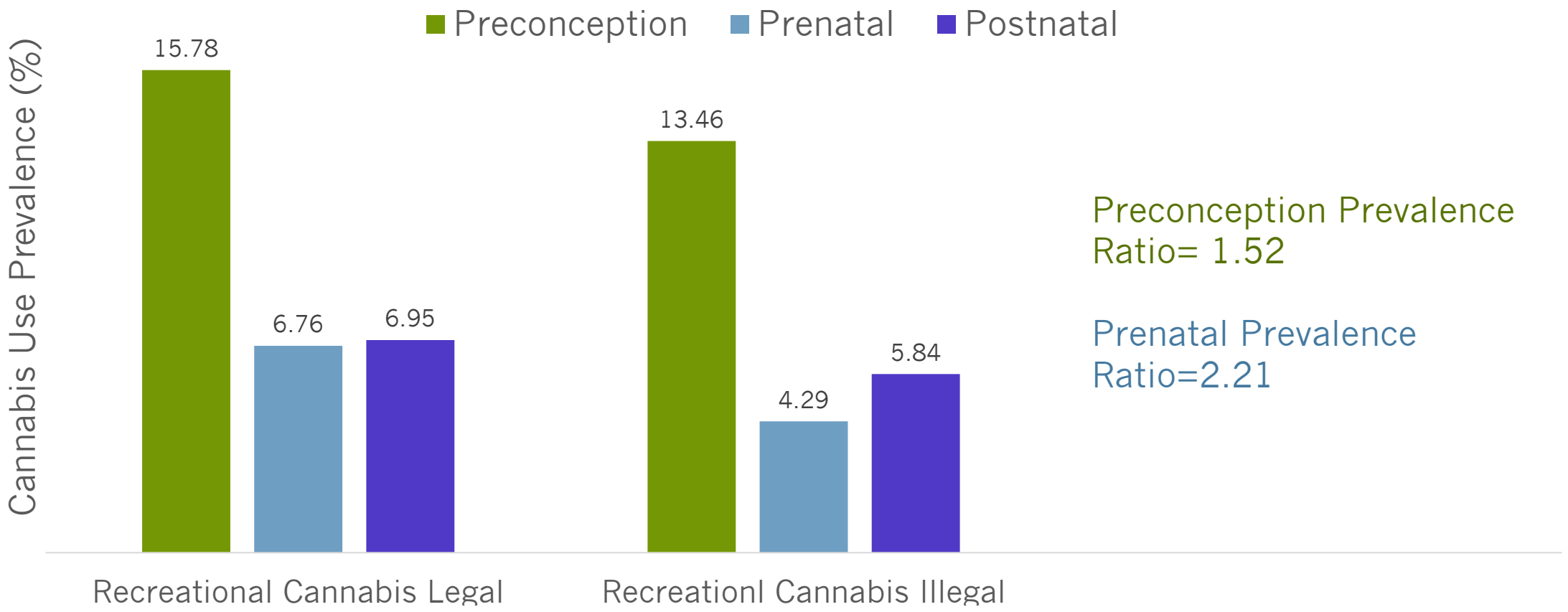
Impact of Legalization on Cannabis Use



Preconception Prevalence Ratio= 1.52

Prenatal Prevalence Ratio=2.21

Skelton et al. International J of Environmental Resarch & Public Health, 2020

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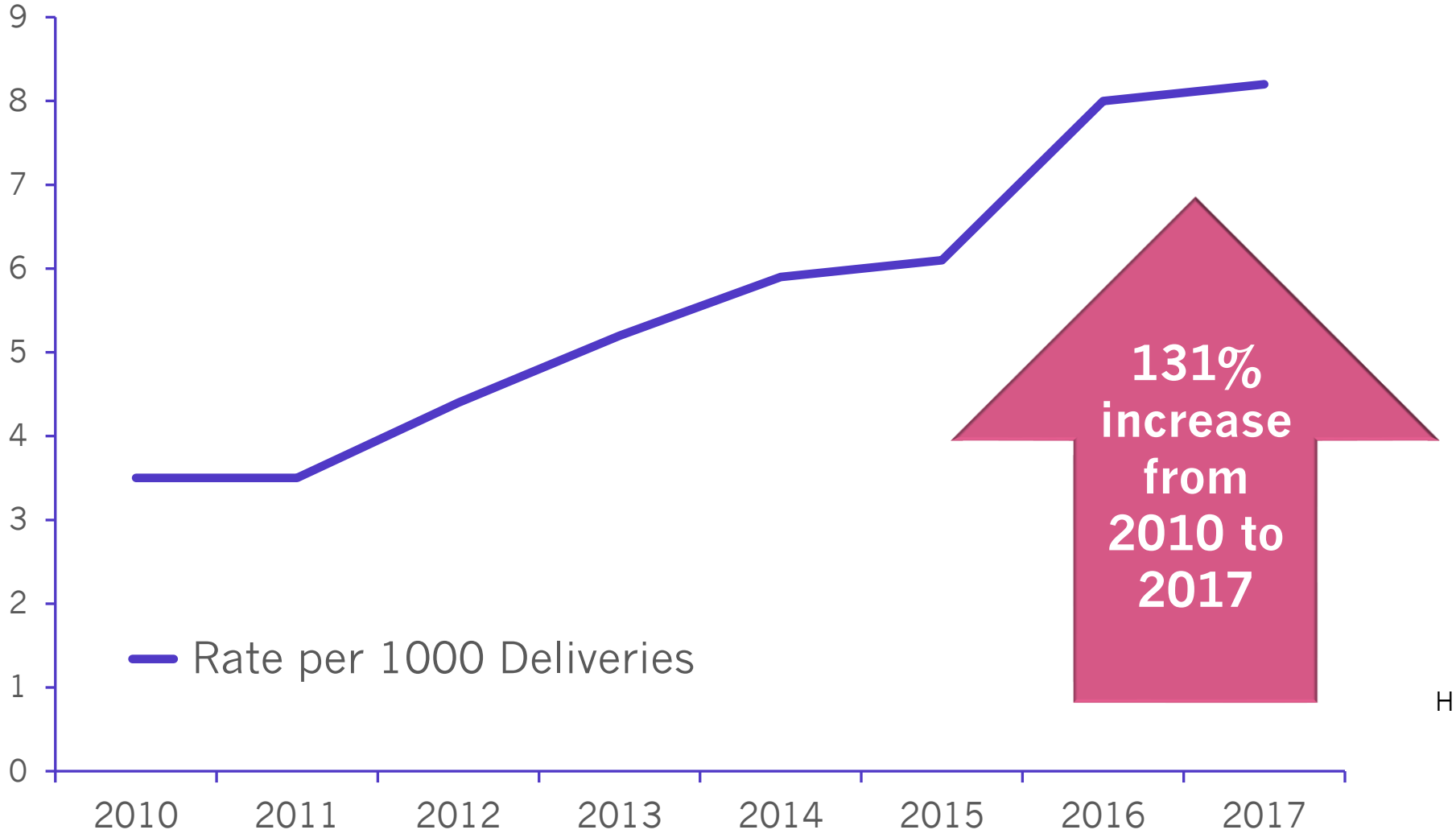
Maternal Opioid-related Diagnosis: 2010-2017



Hirai et al., *JAMA.* 2021;325(2):146-155

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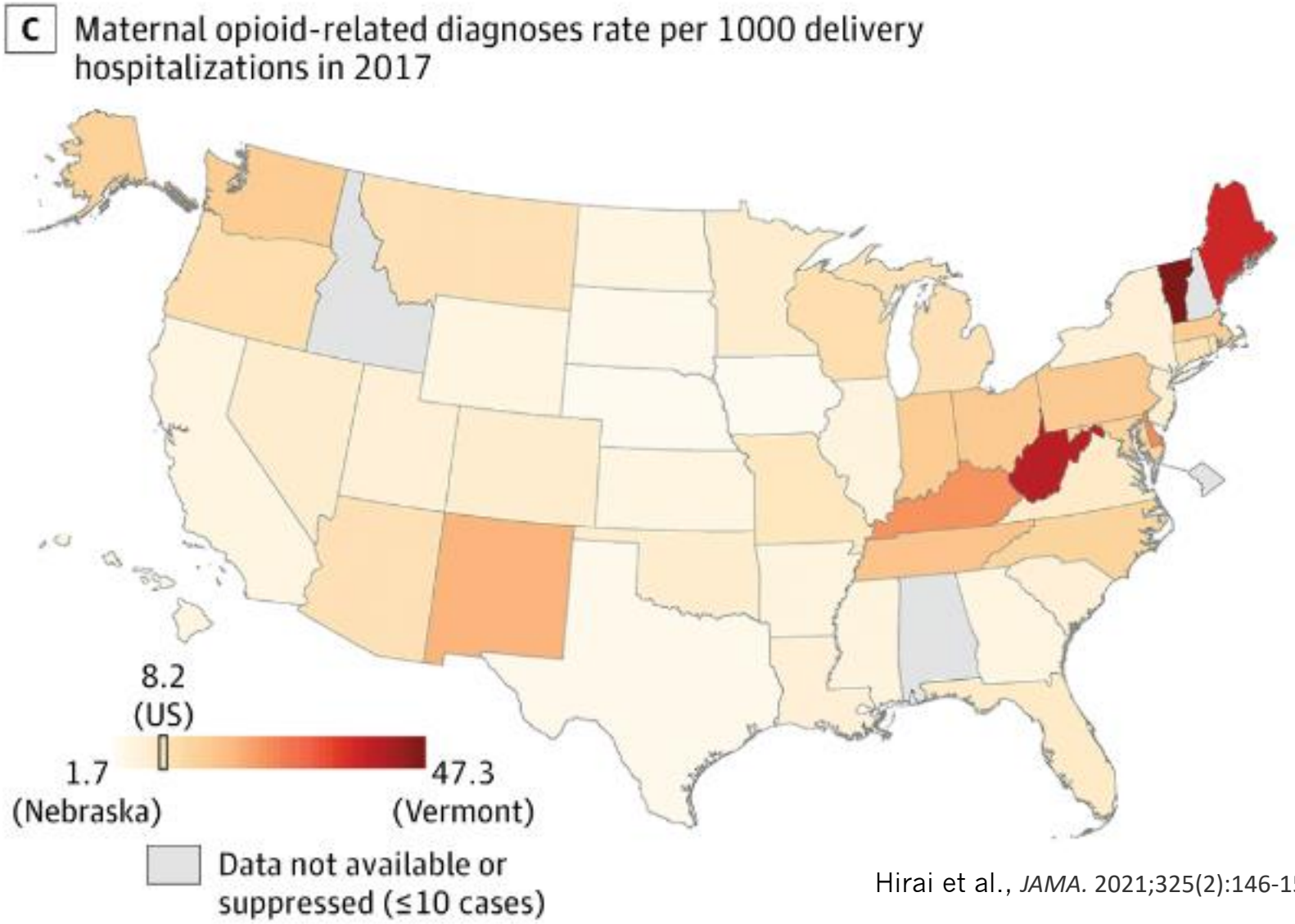
Maternal Opioid-related Diagnosis: 2010-2017



2010: 5.0
2017: 9.7
93% increase

Hirai et al., *JAMA.* 2021;325(2):146-155

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Trauma in Women

91% of survivors of rape and sexual assault are women

1 in 3 women experience intimate partner violence (IPV)

~90% of women with SUD have experienced at least 1 traumatic event

1 in 5 women experience childhood sexual abuse

Women with PTSD are ....

2.48 times more likely to have an Alcohol Use Disorder

4.46 times more likely to have other Substance Use Disorder

Kessler RC et al., Arch Gen Psychiatry 1995; 52:1048–1060

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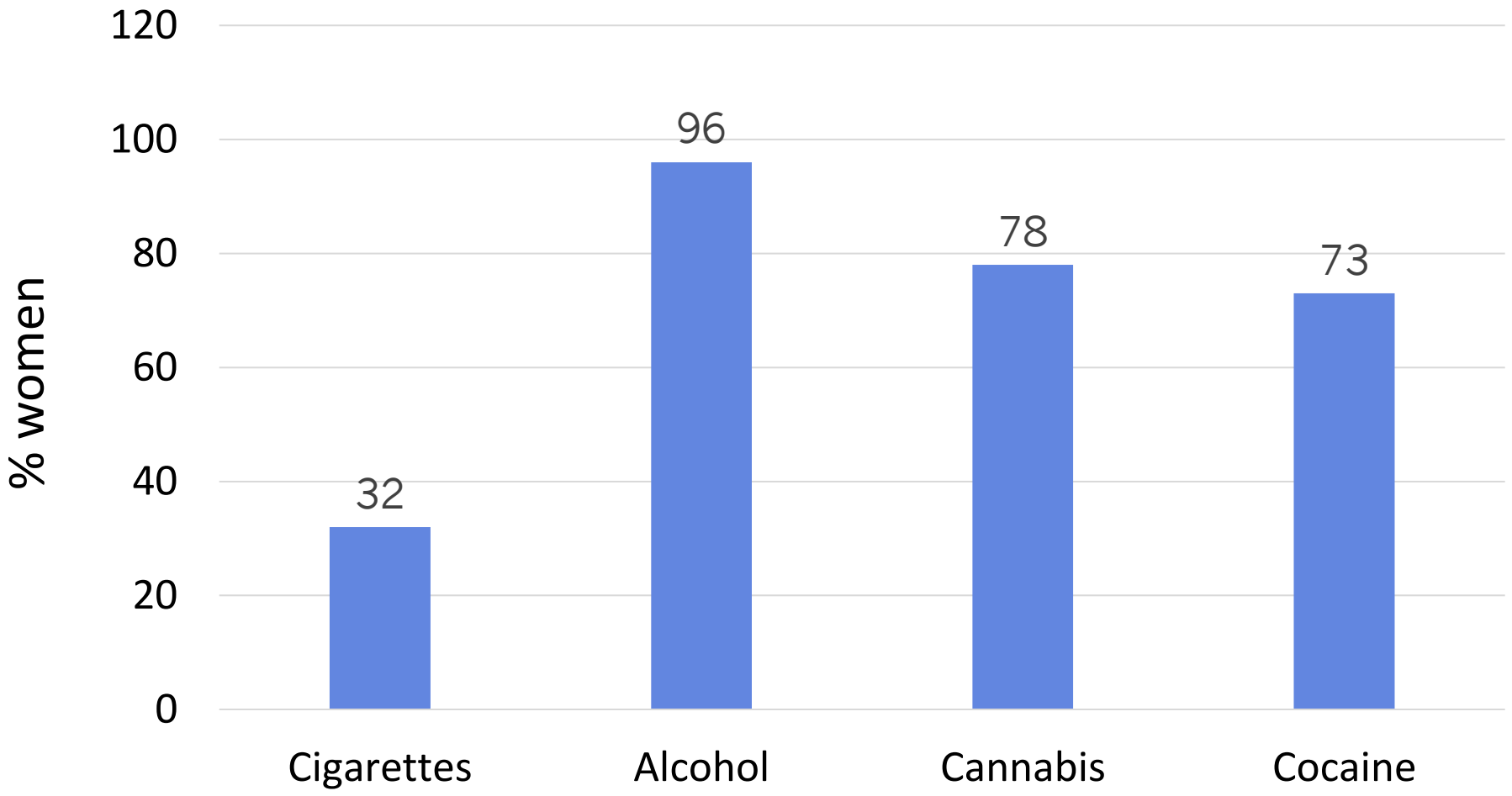
What Happens to Substance Use in Pregnancy?

Abstinence by Substance Group



Forray A et al., Drug & Alcohol Dependence, 2015

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What Happens After Delivery?

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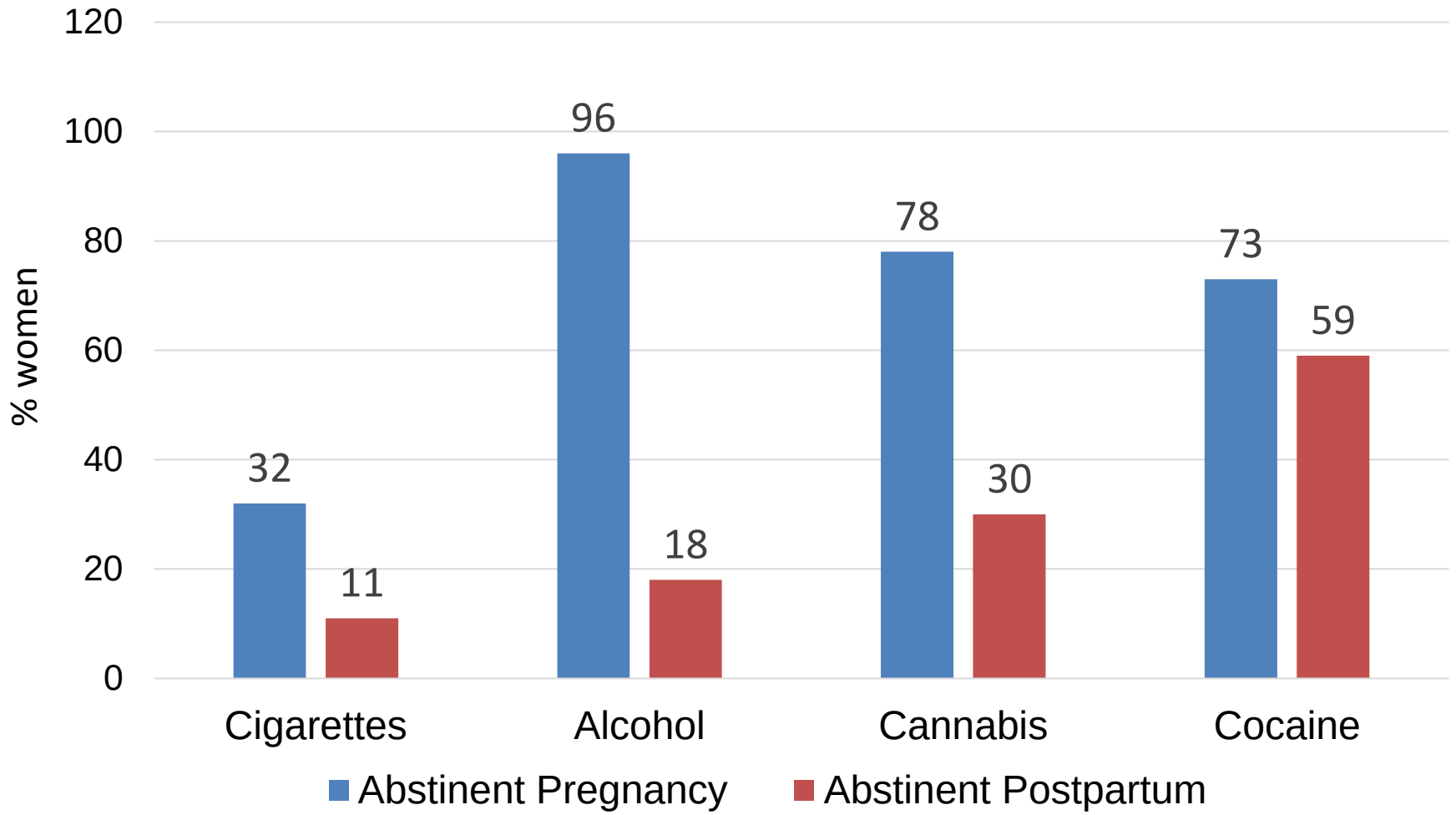
Abstinence and Relapse by Substance Group



Forray A et al., Drug & Alcohol Dependence, 2015

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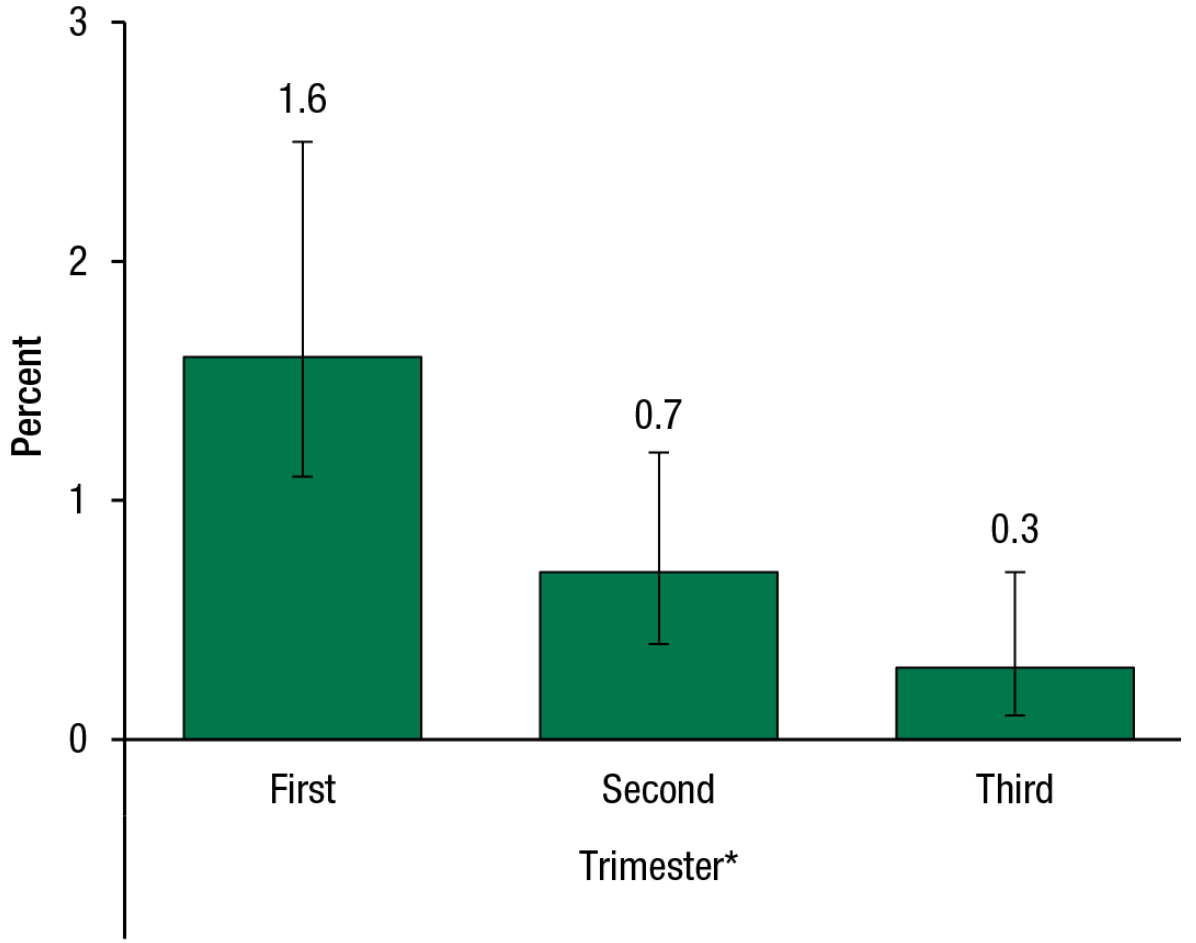
Opiate Use Across Pregnancy



Smith, K. and Lipari, R.N. *Women of childbearing age and opioids*. The CBHSQ Report: January 17, 2017.

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The Good, Bad and Ugly

- The good: substance use decreases throughout pregnancy
- The bad: > 80% of postpartum women relapse to drug or alcohol use after delivery
- The ugly: substance use in pregnancy is associated with adverse pregnancy outcomes and can have physical & cognitive effects on offspring

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IMPACT OF SUBSTANCE USE IN PREGNANCY

Caveats in Assessing the Effects of Substance Use in Pregnancy

- Delayed care or no prenatal care
- Co-occurring substance use is more the rule than the exception and one must account for multiple possible drug effects
- Those that are heavy users of a substance are more likely to use multiple substances
- Co-morbid psychiatric disorders
- Chaotic neonatal environment has a strong impact on child development

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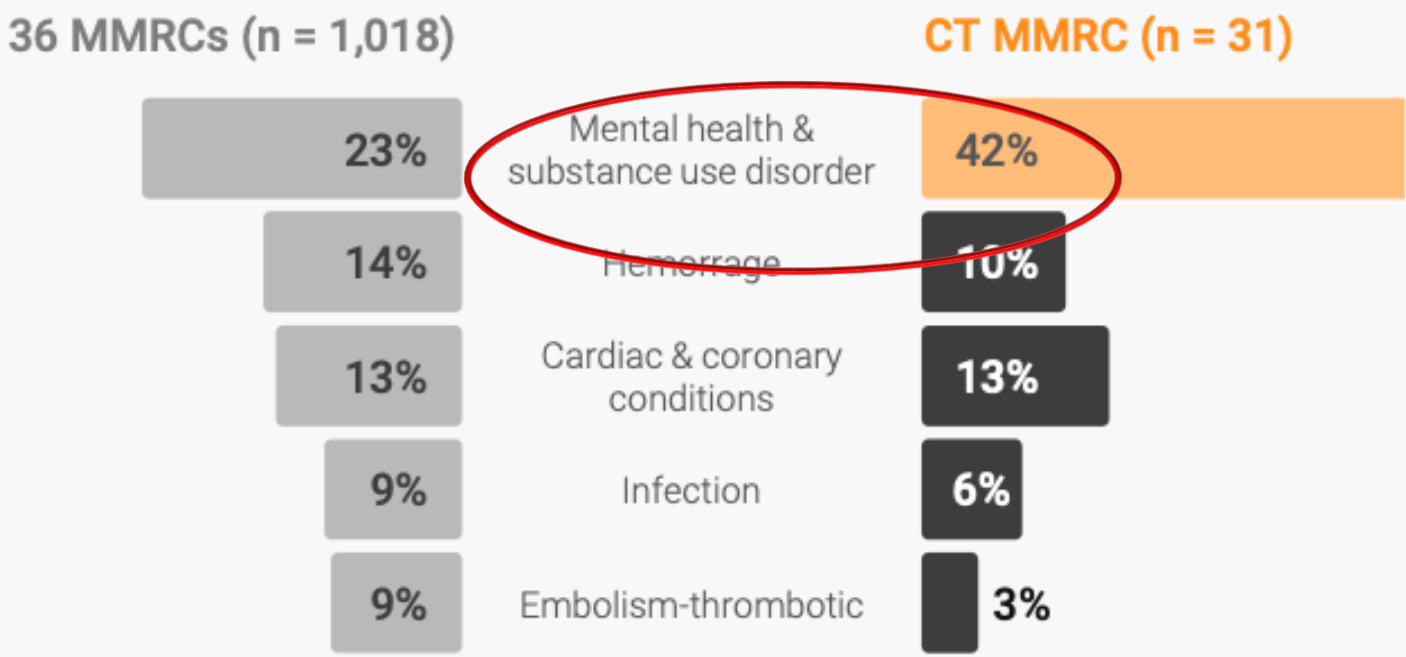
Leading Underlying Causes of Pregnancy-related Deaths

Mental health conditions, including substance use disorder, were the leading underlying causes of death both in Connecticut and in 36 US states that contributed data to the CDC's analysis of pregnancy-related deaths.



Data Sources: Connecticut Maternal Mortality Review Information Application (CT-MMRIA), 2015-2020 and data from Maternal Mortality Review Committees in 36 US states, 2017-2019.

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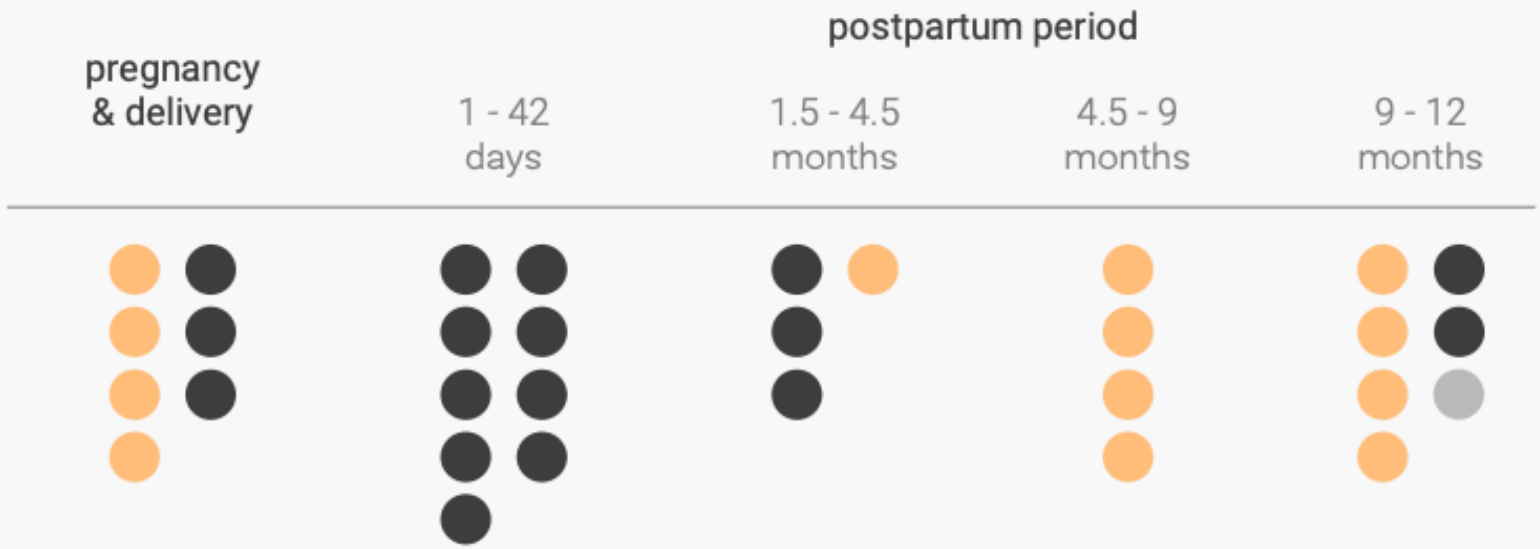
Timing of Pregnancy-related Deaths

More than half of pregnancy-related deaths due to medical disease occurred within 1-42 days (6 weeks) after the end of pregnancy, whereas 7 in 10 deaths due to mental health conditions occurred 3-12 months after the end of pregnancy.



Cause of Death
- medical disease
- MHCs & SUD
- unknown

Note: MHC=mental health conditions; SUD=substance use disorder.

Data Source: MMRC case narratives for pregnancy-related deaths to which substance use disorder contributed or probably contributed, 2015-2020.

Pregnancy-Related Deaths in Connecticut, Data from CT MMRC, 2015-2020
https://portal.ct.gov/-/media/DPH/Maternal-Mortality/2015-2020-Maternal-Mortality-in-Connecticut-Report_Final.pdf

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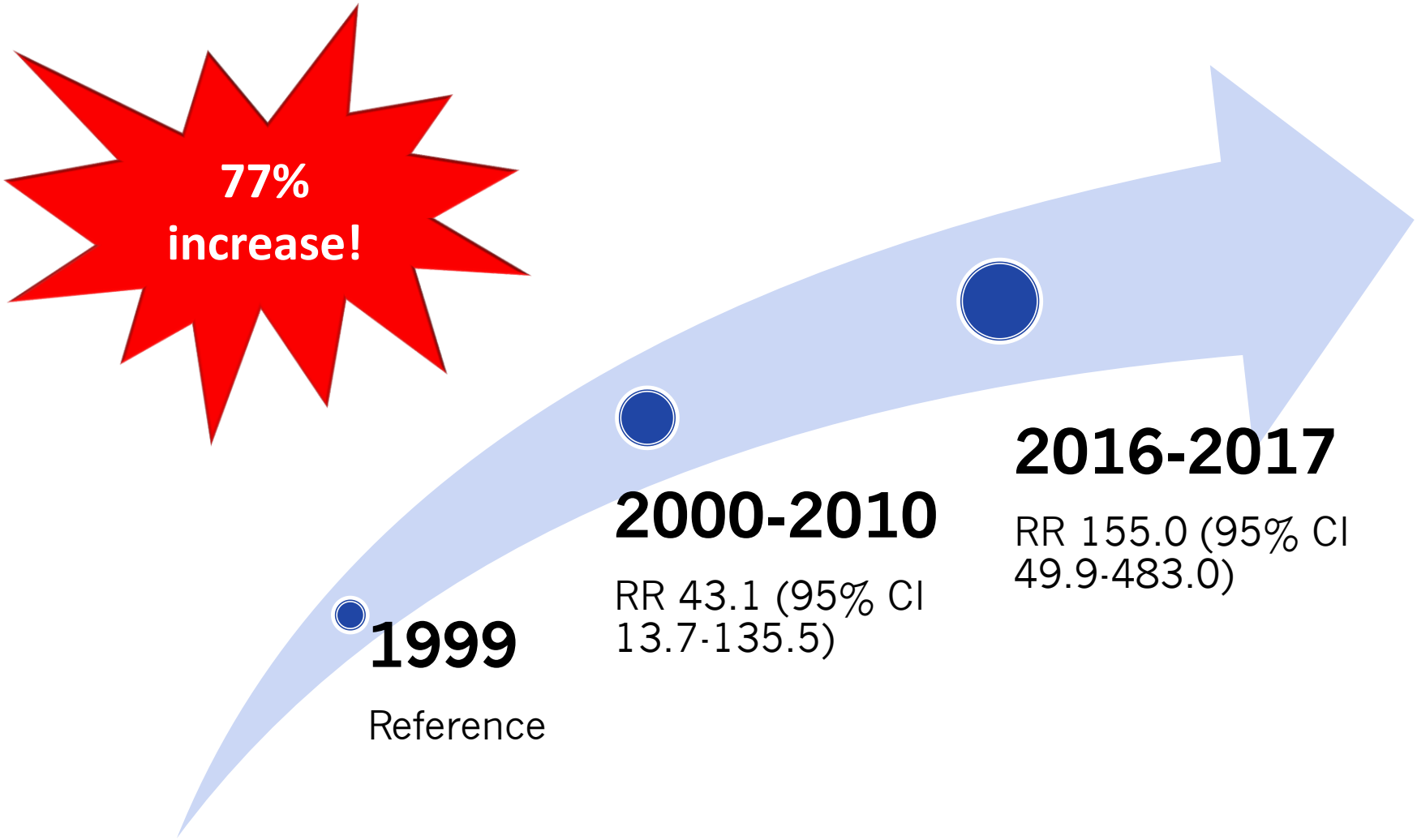
OUD-related Maternal Deaths 1999-2017



Mitra A et al., Obstet Gynecol. 2020;135:56S.

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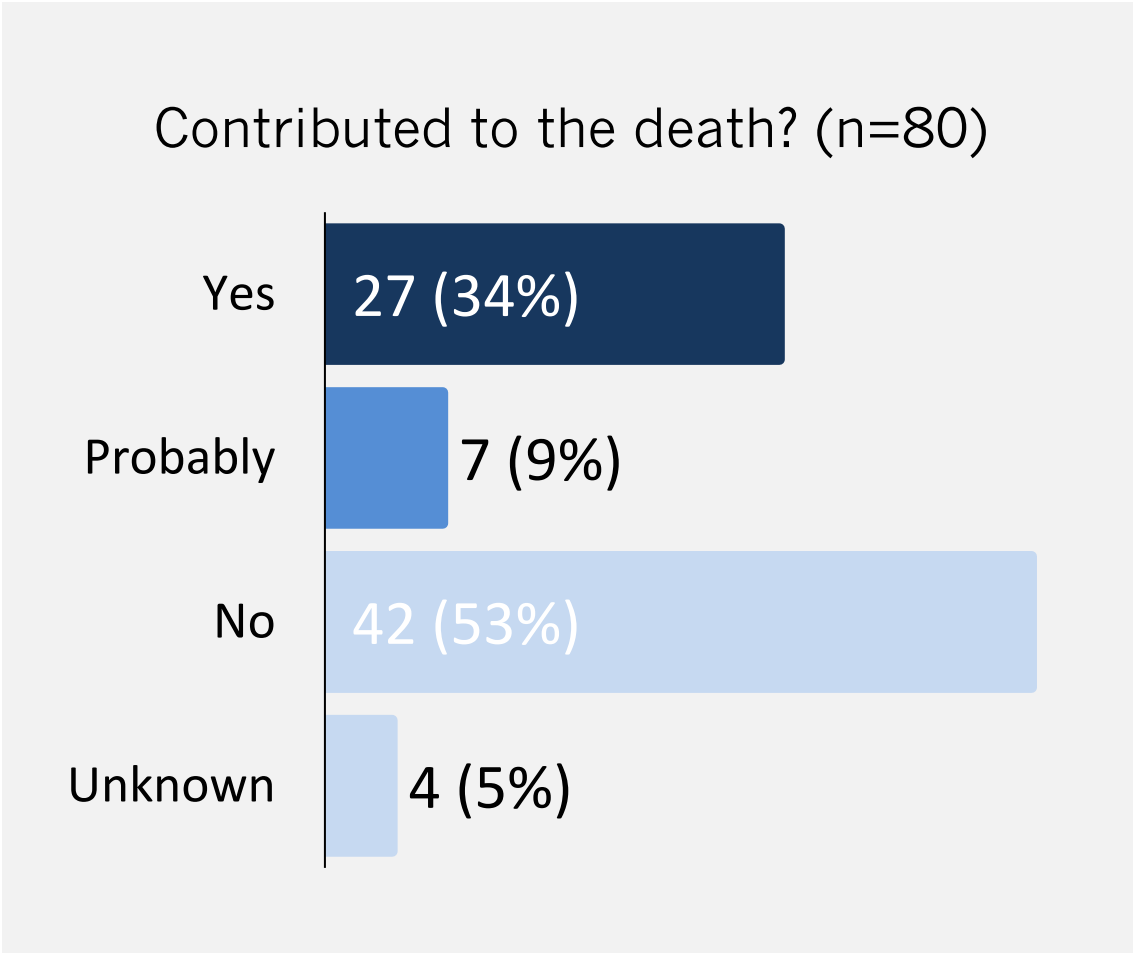
Substance Use Disorder



- Contributed to over one-third (34%) of pregnancy-associated deaths in Connecticut between 2015 and 2020
- *Probably* contributed to an additional 9% of pregnancy-associated deaths
- One-third (n = 9/27, 33.3%) were pregnancy-related

Pregnancy-Related Deaths in Connecticut, Data from CT MMRC, 2015-2020
https://portal.ct.gov/-/media/DPH/Maternal-Mortality/2015-2020-Maternal-Mortality-in-Connecticut-Report_Final.pdf

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Preventability

All 27 deaths to which substance use conditions contributed were preventable

Pregnancy-Related Deaths in Connecticut, Data from CT MMRC, 2015-2020
https://portal.ct.gov/-/media/DPH/Maternal-Mortality/2015-2020-Maternal-Mortality-in-Connecticut-Report_Final.pdf

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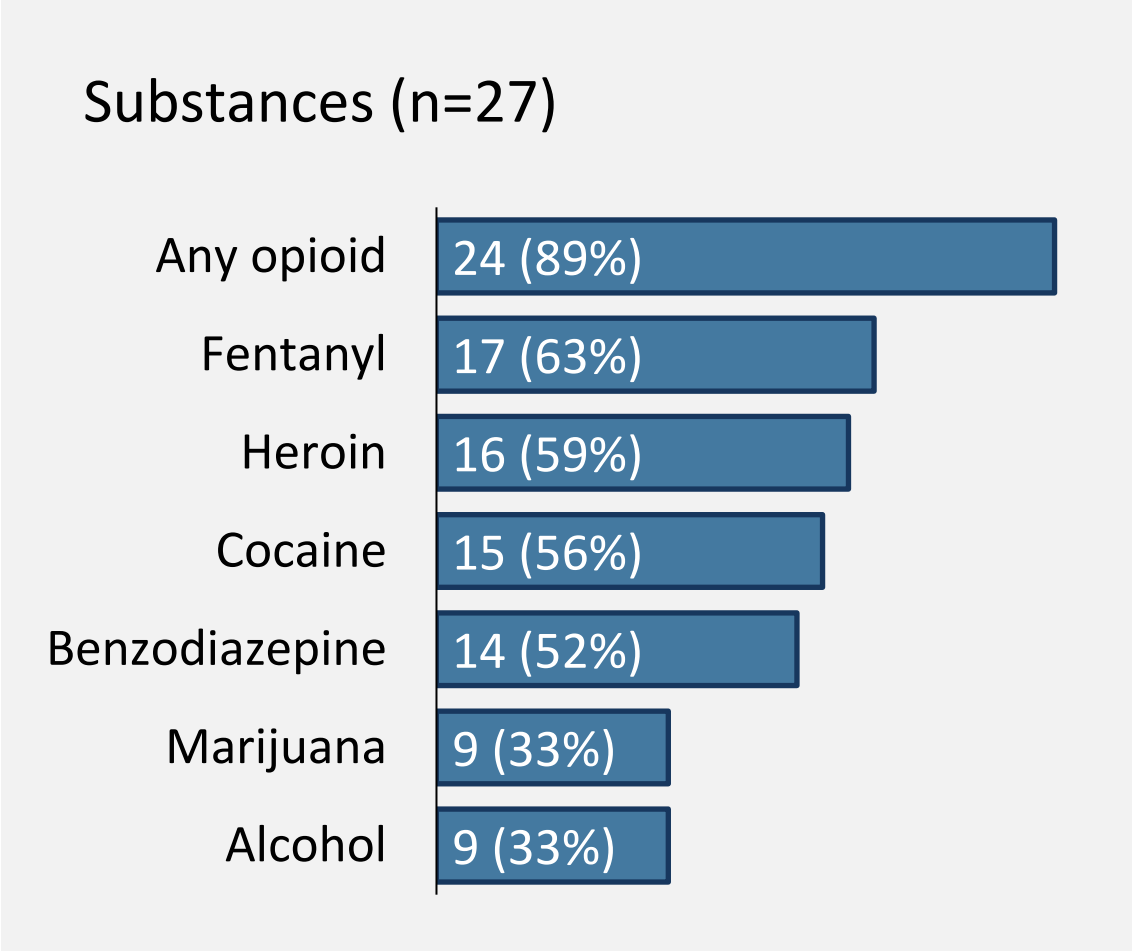
Types of Substances Used



Pregnancy-Related Deaths in Connecticut, Data from CT MMRC, 2015-2020
https://portal.ct.gov/-/media/DPH/Maternal-Mortality/2015-2020-Maternal-Mortality-in-Connecticut-Report_Final.pdf

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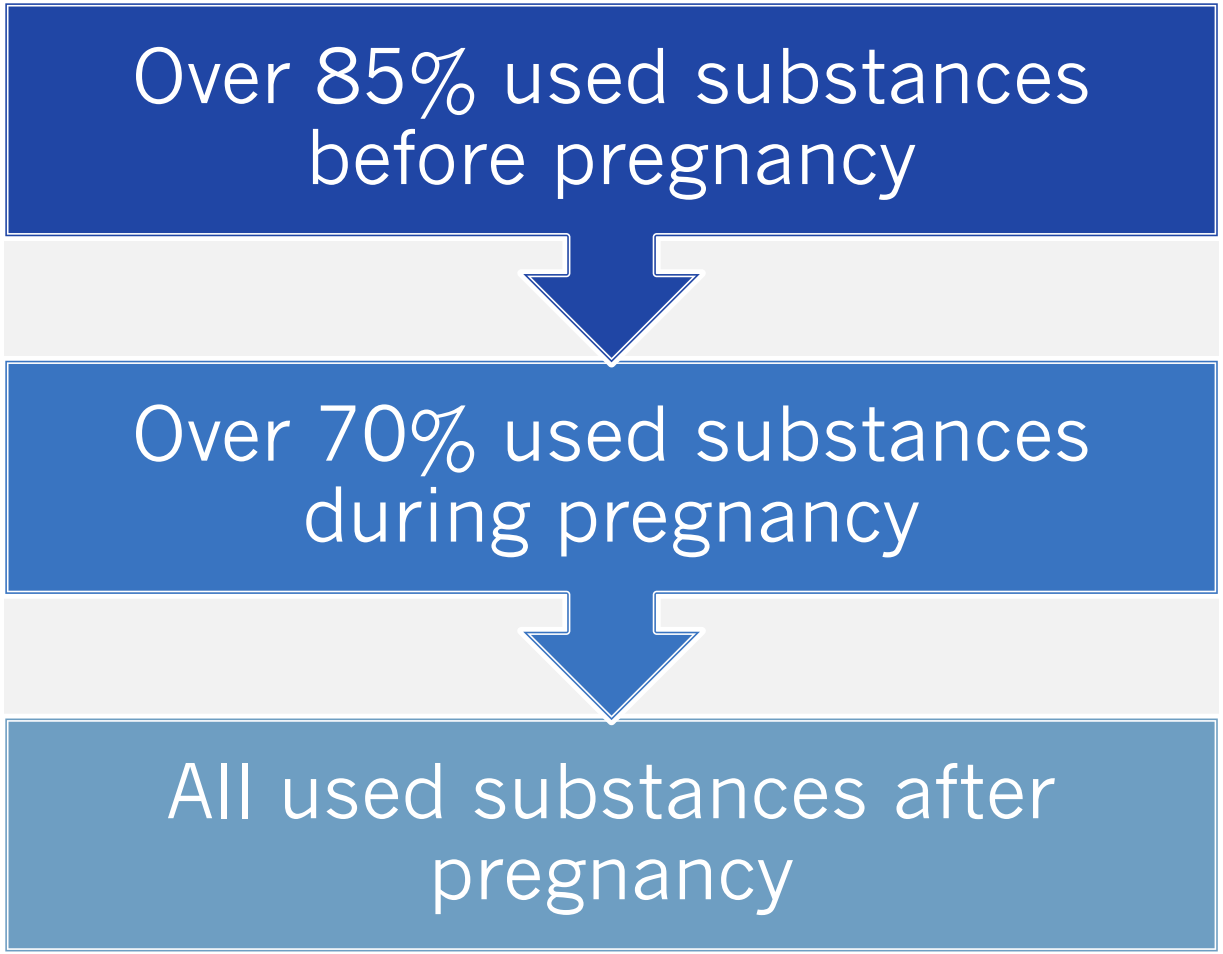
Timing of Substance Use



Pregnancy-Related Deaths in Connecticut, Data from CT MMRC, 2015-2020
https://portal.ct.gov/-/media/DPH/Maternal-Mortality/2015-2020-Maternal-Mortality-in-Connecticut-Report_Final.pdf

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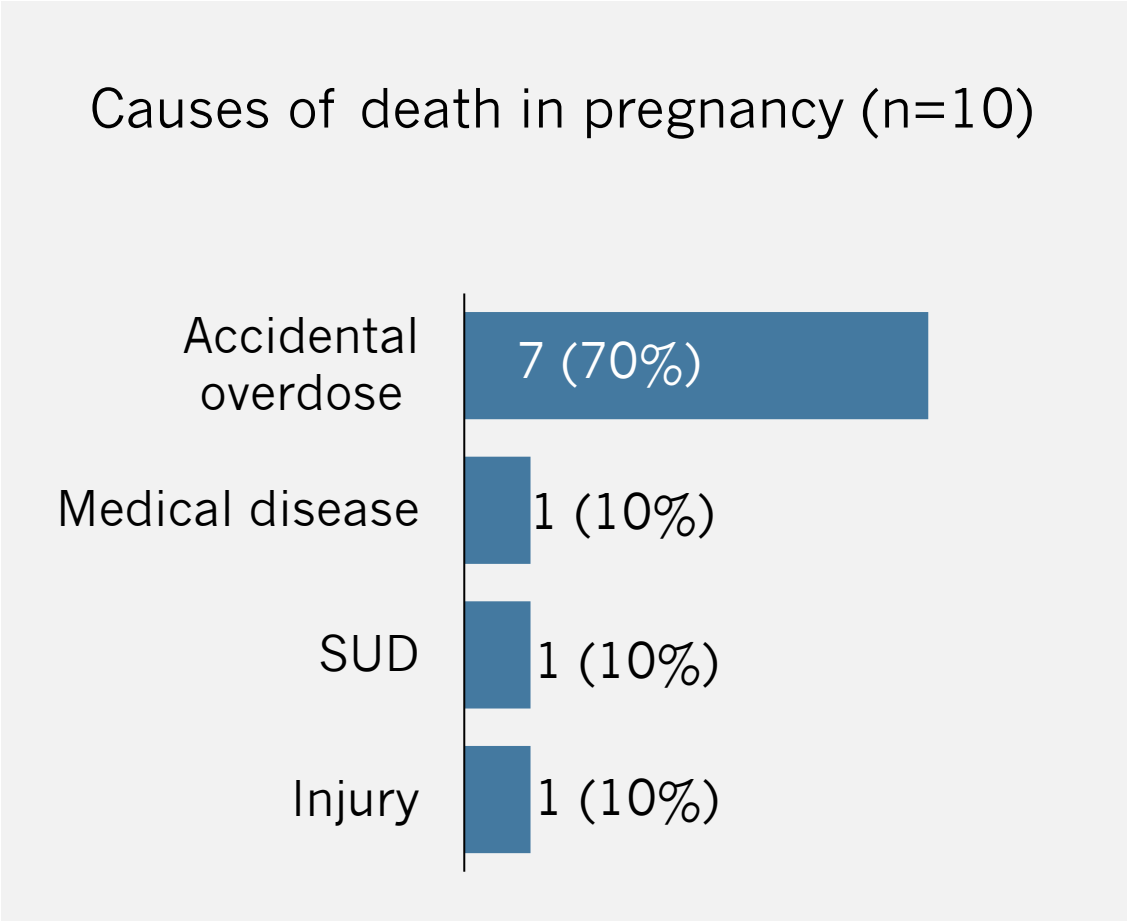
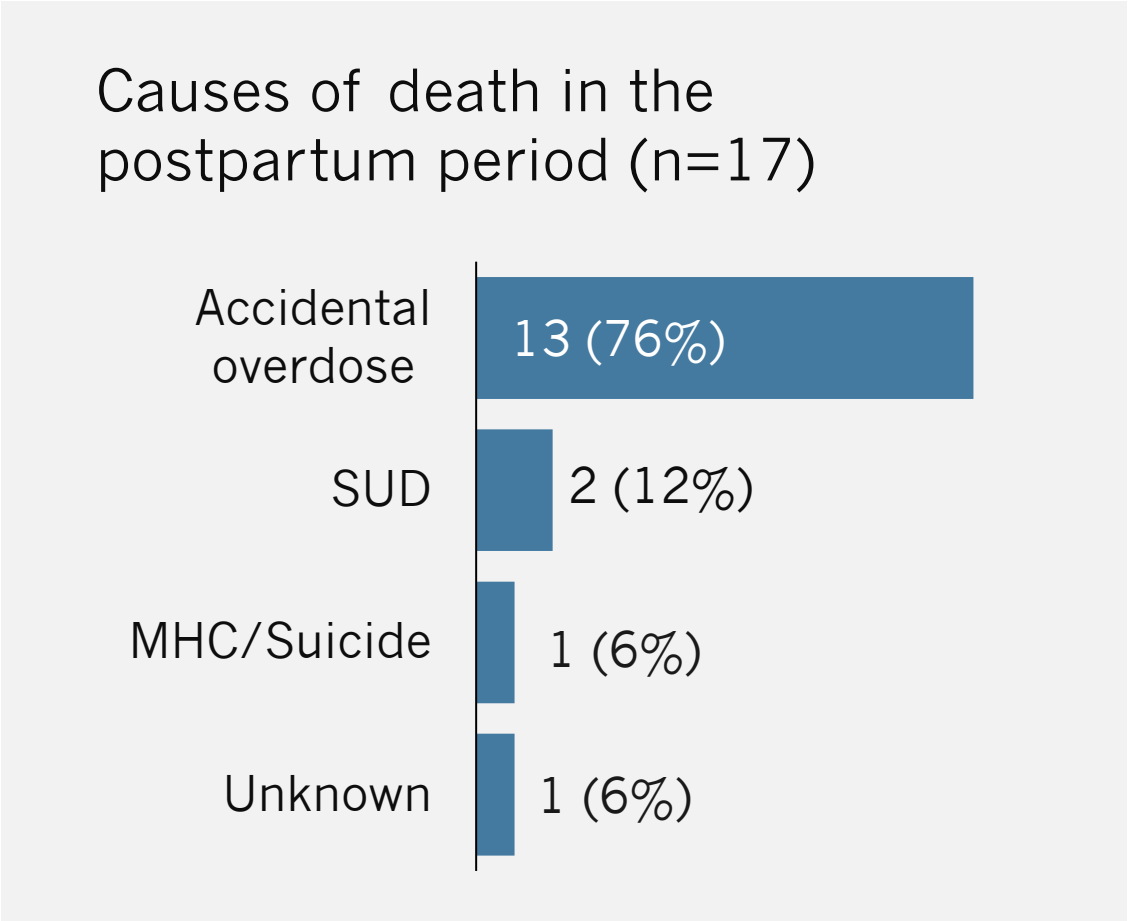
Timing and Cause of Death





Pregnancy-Related Deaths in Connecticut, Data from CT MMRC, 2015-2020
https://portal.ct.gov/-/media/DPH/Maternal-Mortality/2015-2020-Maternal-Mortality-in-Connecticut-Report_Final.pdf

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Summary of Perinatal Substance Use Effects on Pregnancy and Infant Outcomes

	Tobacco	Alcohol	Cannabis	Stimulants	Opiates
Pregnancy outcomes					
Preterm birth	✓	✓	✓	✓	✓
Small for gestational age	✓	✓	✓	✓	✓
Low birthweight	✓	✓	✓	✓	✓
Miscarriage/Spontaneous abortion	✓	✓		✓	
Placental abruption	✓			✓	✓
Premature rupture of membranes	✓			✓	
Ectopic pregnancy	✓				
Infant effects					
Cognitive deficits	✓	✓	✓	✓	✓
Teratogenicity		✓			
Infant mortality/Sudden Infant Death Syndrome	✓			✓	✓
Neonatal Withdrawal/Abstinence Syndrome		✓			✓
Behavioral Problems	✓	✓	✓	✓	✓

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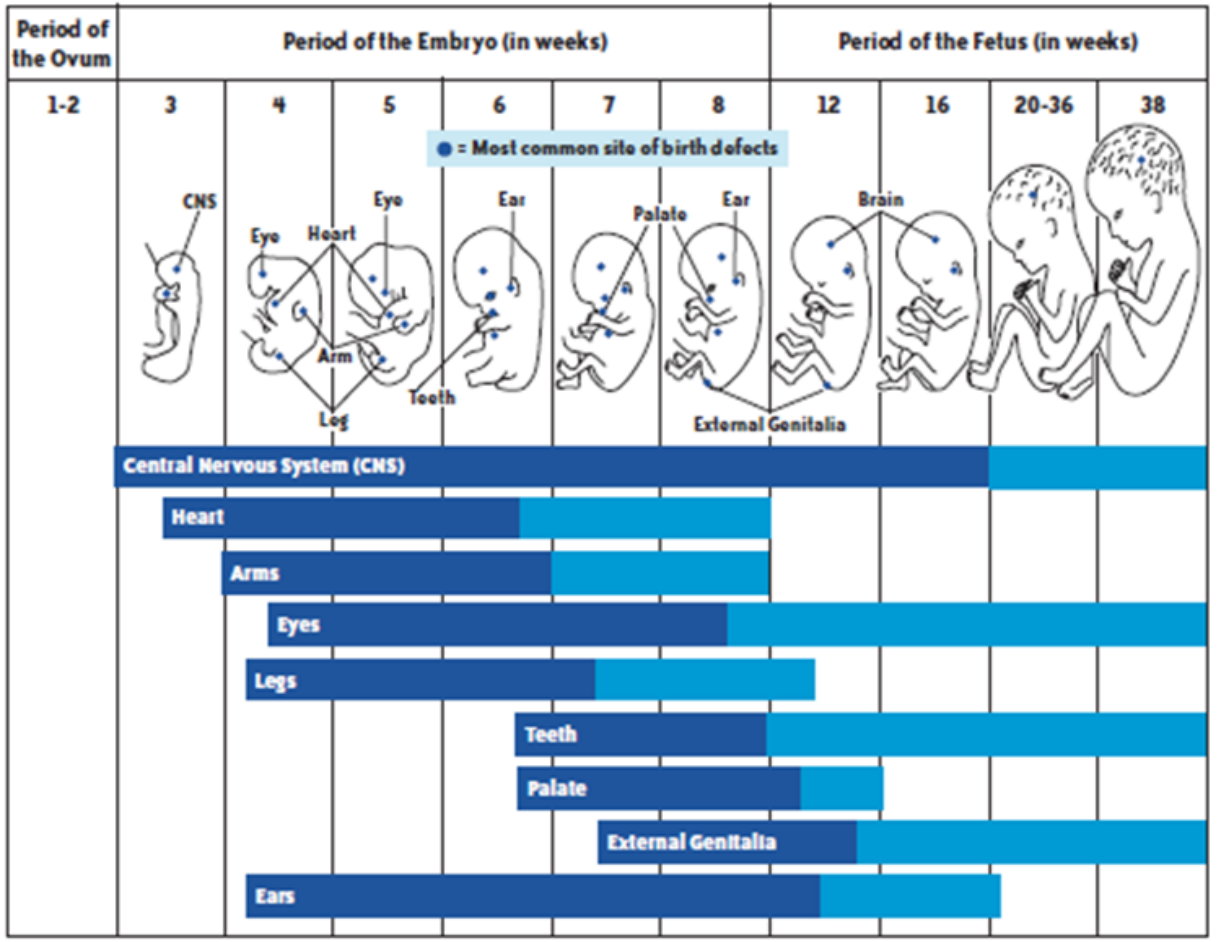
NO SAFE Time.

NO SAFE Amount.

NO SAFE Alcohol during Pregnancy.

PERIOD.

Fetal Development Chart



Vulnerability of the fetus to defects during different periods of development. The dark blue portion of the bars represents the most sensitive periods of development, during which teratogenic effects on the sites listed would result in major structural abnormalities in the child. The lighte blue portion of the bars represents periods of development during which physiological defects and minor structural abnormalities would occur.

SOURCE: Adapted from Moore 1993.

National Organization on Fetal Alcohol Syndrome

Helping children & families by advocating for the prevention and intervention of Fetal Alcohol Spectrum Disorders, the leading known cause of mental retardation & birth defects in the United States.

Intrauterine Opiate Withdrawal

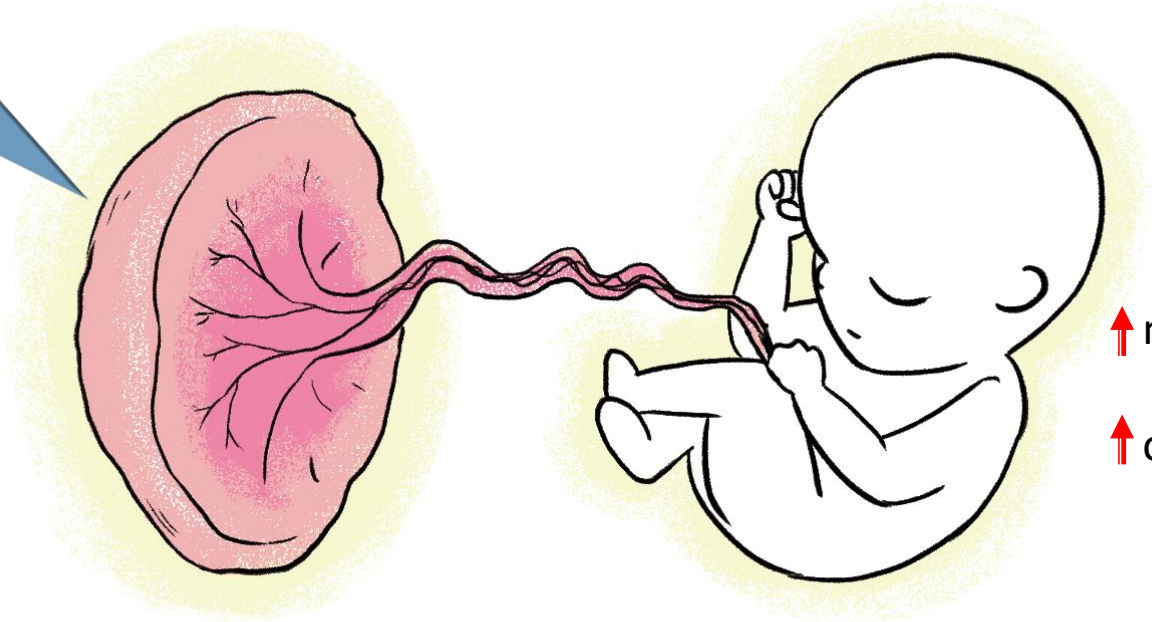
Acute maternal withdrawal

Acute fetal withdrawal

Catecholamine surge

↑ Uterine contractions

↓ Placental blood flow and O_2 supply



↑ motor activity

↑ oxygen demands

McCarthy et al. Am J Obstet Gynecol. 2016

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Neonatal Opioid Withdrawal Syndrome

Occurs in 45%-95% of exposed infants

Seizures

Tremors

Vomiting

Hyperreflexia

Irritability

Disorganized sleep

Increased sweating

Poor feeding and sucking

Loose stools and dehydration

Excessive or high-pitched crying

Yawning, stuffy nose, or sneezing

Patrick et al., JAMA, 2012
Committee on Drugs, Pediatrics, 1998;101:1079-1086
Ballard, J Perinat Neonat Nurs, 2002;15:76-85

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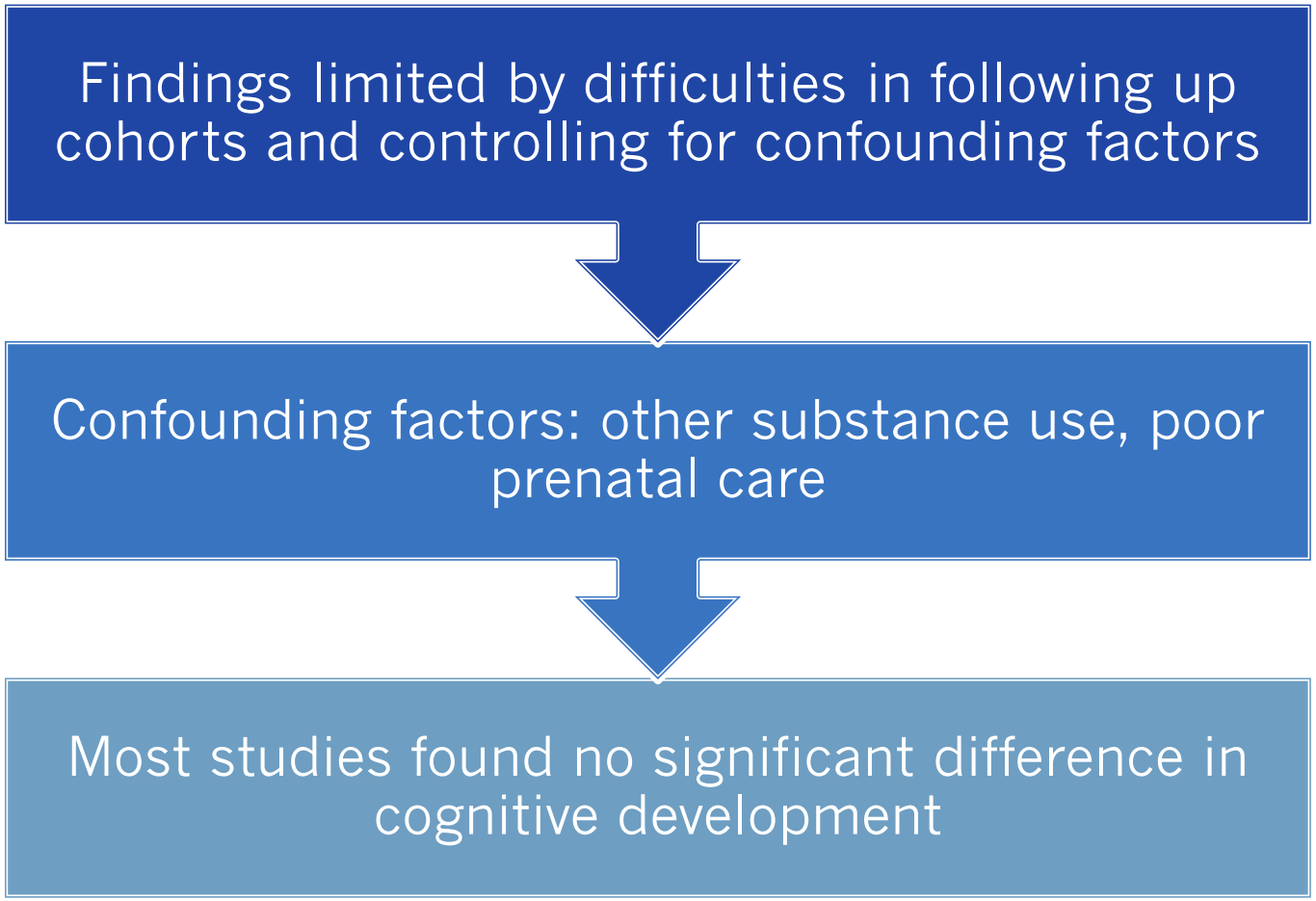
Neurodevelopmental Outcomes in Offspring Exposed to Opioids In Utero



Logan et al., Clin Obstet Gynecol. 2013:56(1):186-192

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TREATMENT

Alcohol Use Treatment in Pregnancy

Brief interventions, in particular those that utilize motivational interviewing, have been shown to reduce prenatal alcohol use

No published studies on the safety or efficacy of of naltrexone for use in AUD in pregnant women

Chang G et al., Obstet Gynecol. 2005;105(5 Pt 1):991-8
Osterman RL et al., J Subst Abuse Treat. 2014;47(1):10-9
Rendall-Mkosi K et al., Addiction. 2013 Apr;108(4):725-32
DeVido et al., Harv Rev Psychiatry. 2015; 23(2): 112–121

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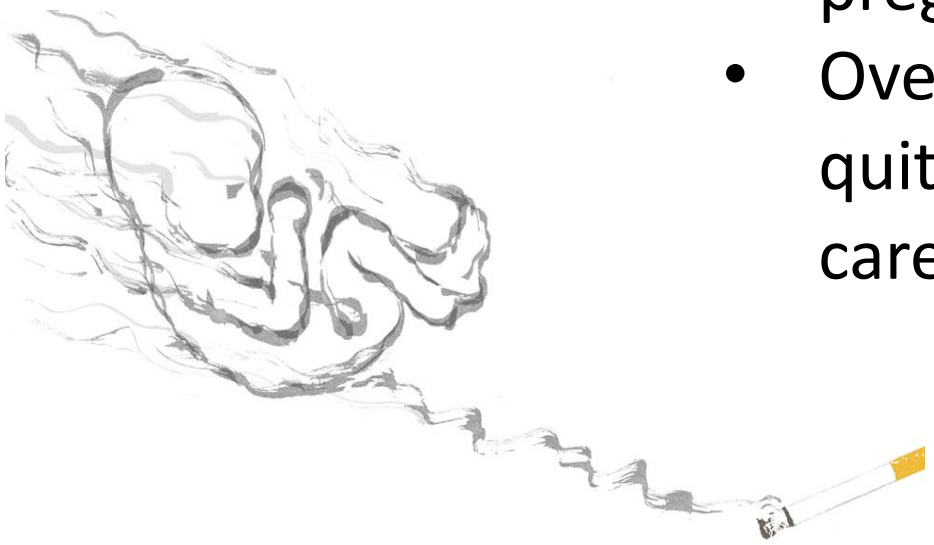
Treatment of Smoking in Pregnancy



- Behavioral counseling is the recommended treatment for pregnant smokers
- Overall has *small* effects - increasing quit rates by 6% to 10% over usual care

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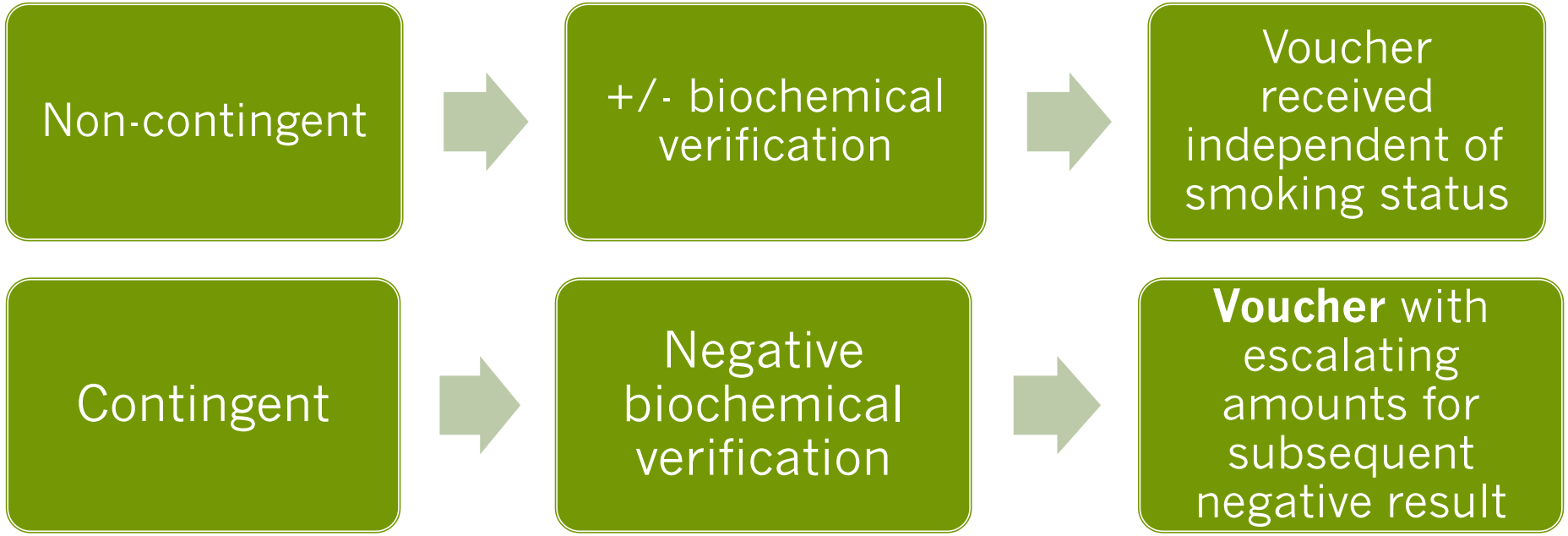
Contingency Management (CM)



- Effective in increasing smoking abstinence by 27% to 39% in pregnancy and early postpartum
- Shown to decrease percentage of low birthweight deliveries (5.9% vs. 18.5%, p = 0.02)

Higgins et al., Preventive Medicine, 2012
Ierfino et al., Addiction, 2015

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Pharmacologic Treatments

- The efficacy and safety of anti-smoking medications are not yet established in pregnant and postpartum smokers

- To date, all placebo-controlled trials of nicotine-replacement therapy (NRT) in pregnancy have been negative

Coleman, et al., NEJM, 2012

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Silver Lining

There seems to be a dose response, so even reducing the number of cigarettes smoked daily improves the chances of a healthier pregnancy and baby

Cnattingius, S. *Nicotine & Tobacco Research, 2004: 6*(2);S125-S140

Opioid Use Disorder Treatment in Pregnancy

- There is general agreement that women with opioid use disorder should remain on medication for opioid use disorder (MOUD)
- Some consensus that total withdrawal from opiates should be limited to 2nd trimester
- Methadone is still considered the gold standard for treatment of those who are pregnant and have an opioid use disorder

MOUD Treatment During Pregnancy

Advantages of maintenance treatment

- Increases adherence to prenatal care
- Reduces illicit drug use
- Reduces infection exposure secondary to IVDU
- Improves maternal nutrition and infant birth weight

★ Despite recent evidence suggesting fetal safety of medically assisted opioid withdrawal in pregnancy, studies have found low abstinence and high relapse rates (59-99%)

Bell et al, Am J Obstet Gynecol. 2016;215(3):374
Jones et al, Am J Addict. 2008;17:372–86
Mozurkewich et al, Obstet Gynecol Clin N Am. 2014;41:241–53

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Use of Methadone in Pregnancy

- Protects against “fetal withdrawal”
- Associated with increases in birth weight
- Decreases craving for other drugs
- 90% bioavailable but half life decreases across pregnancy
- May need to be increased in the 3rd trimester
- Use of other drugs and methadone may have worsened outcomes

Hulse et al, Addiction, 1997; 92:1571-1579
Johnson et al, Addiction, 2003;98:785-789
Archie et al., Curr Opin Obstet Gyn, 1998;10:435-440

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Buprenorphine in Pregnancy

Approved since 2002

Buprenorphine + naloxone = suboxone

- Limited data in pregnancy but appears safe
- No difference in neonatal outcomes compared to buprenorphine alone

Typically requires 16 mg/d or higher

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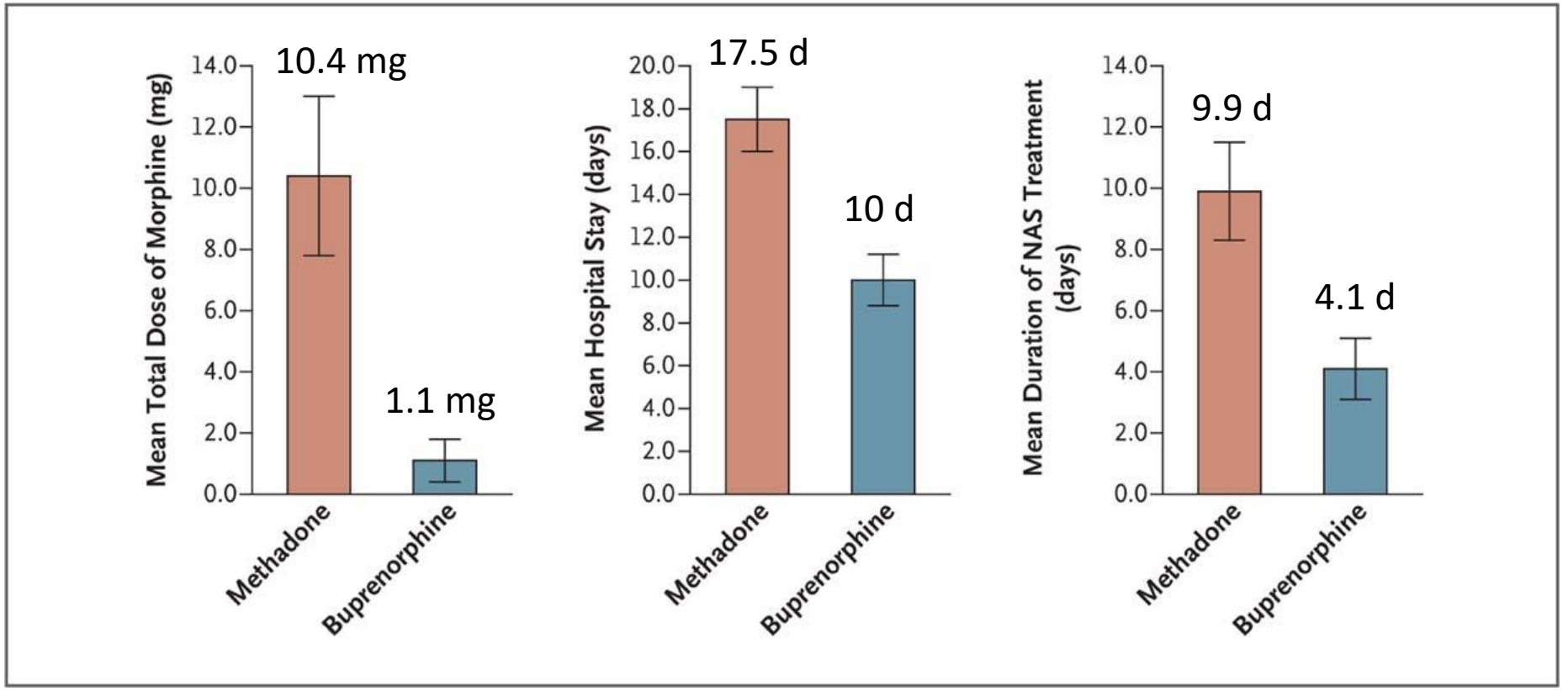
Neonatal Abstinence Syndrome after Methadone or Buprenorphine Exposure: the MOTHER Study

Mean Neonatal Morphine Dose: 89% less (p=0.009)
Length of Neonatal Hospital Stay: 43% less time (p=0.009)
Duration of Treatment for Neonatal Abstinence Syndrome: 58% less time (p=0.003)



Jones H et al., N Engl J Med. 2010;363(24):2320-2331

Methadone vs. Buprenorphine

Advantages	Methadone	Buprenorphine
Reduces cravings for opioids	x	x
Prevents withdrawal	x	x
Blocks the effects of other opioids	x	x
Promotes increased health	x	x
Higher treatment retention	x	
Lower risk of overdose, fewer drug interactions, shorter NOWS		x
Office-based treatment		x

Regardless of treatment concurrent smoking increases risk and severity of NOWS

Jones HE, et al. *Drug Alcohol Depend.* 2013; 131(3):271-7.

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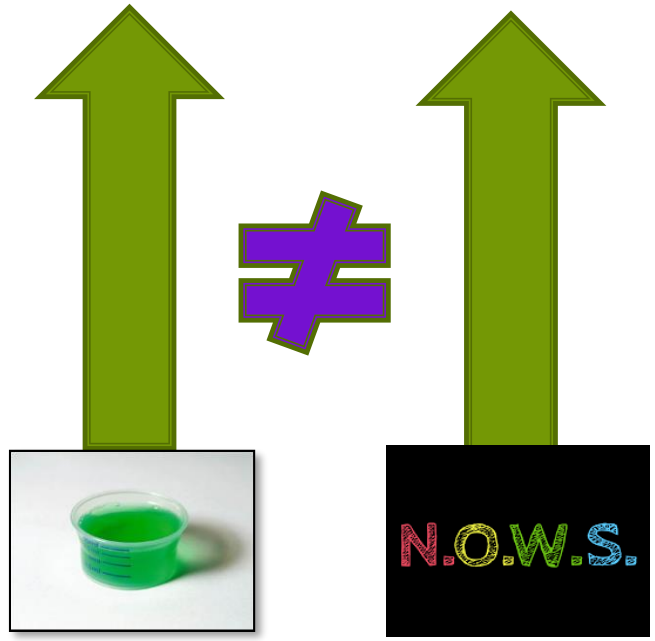
MOUD Dosing in Pregnancy

- MOUD dose is not consistently related to NOWS severity
- Will need to increase MOUD dose as pregnancy progresses
- Recommend **split dosing** starting in second trimester
  - Maternal Benefits
    - ✓ Increase drug negative urines during treatment
    - ✓ Increased adherence with treatment
    - ✓ Decrease withdrawal symptoms
  - Fetal Benefits
    - ✓ Minimizes the reduction in breathing and movement
    - ✓ Fetal movement-fetal heart rate coupling less suppressed



Jansson et al., J Opioid Manag. 2009; 5(1): 47–55
McCarthy et al., J Addict Med. 2018;12(3):241-246

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Naltrexone in Pregnancy

- Opiate agonist (oral/injectable/long-term implant)
- Limited data in pregnancy – appears safe
- Oral administration not superior to placebo
- Not typically initiated in pregnancy as detoxification must be achieved first → withdrawal symptoms → fetal stress
- Due to mechanism of action can be difficult to manage pain in labor/cesarean section and postpartum

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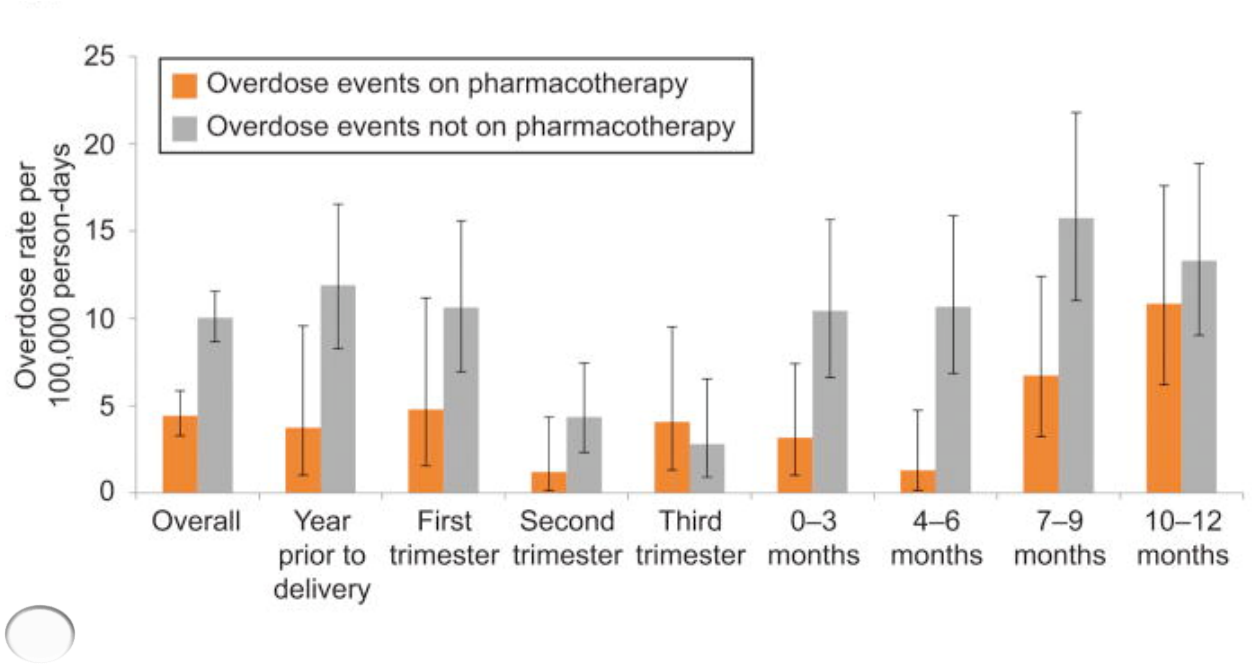
Why MOUD and Harm Reduction is so Important in Pregnant and Postpartum Individuals

Overdose Mortality in MA 2012-2014



Schiff DM et al., Obstet Gynecol. 2018;132(2):466-474.

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Key Reminders for Substance Use in Pregnancy

Harm Reduction

https://portal.ct.gov/-/media/DMHAS/Opioid-Resources/CT-Harm-Reduction-Resources-Flyer-2022.pdf

Family Care Plans

https://www.sepict.org/professionals/resources-for-professionals/

Link to SEPI-CT recorded training:
https://drive.google.com/file/d/1T7Qe4CJoq0-P4wjNlNty7g8W-VsOgW3W/view?usp=sharing

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Resources

FOR ADDITIONAL SUPPORT FOR WOMEN

For additional community-based support for women who may be struggling with substance use, please contact the Women's REACH (Recovery, Engagement, Access, Coaching & Healing) program.

https://portal.ct.gov/DMHAS-REACH

HERE TO HELP

Or, for real time statewide residential Substance Use Disorder treatment bed availability please visit:

ctaddictionservices.com

THE PROUD PROGRAM

If you have additional questions about PROUD or any Substance Use Disorder treatment options for women please visit **http://www.CT.gov/DMHAS**

PROUD IS FUNDED BY

SAMHSA
Substance Abuse and Mental Health Services Administration

Wheeler
mcca
InterCommunity Health Care
Health Care for the Whole Person
dmhas
The Connecticut Women's Consortium
CHA CONNECTICUT HOSPITAL ASSOCIATION

PROUD
PARENTS RECOVERING FROM OPIOID USE DISORDERS

portal.ct.gov/PROUD

SEPI-CT Substance Exposed Pregnancy Initiative of Connecticut

SUPPORTING PROVIDERS IN PROMOTING THE BEST OUTCOMES

for infants born substance-exposed and their families.

ABOUT US

The Substance Exposed Pregnancy Initiative of CT (SEPI-CT) works collaboratively with CT DCF and CT DMHAS to bring awareness to substance exposure during pregnancy, and to ensure families have access to the treatment, recovery, and support resources they need.

SEPI-CT provides free trainings and technical support to assist providers in:

- Meeting the legislative requirements of CAPTA (Child Abuse Prevention and Treatment Act)
- Creating Family Care Plans to ensure families have access to treatment, recovery, and support resources

FOR INDIVIDUALS AND FAMILIES

If you are pregnant and struggling with reducing or stopping your substance use, you are not alone. For impacted families in Connecticut, there are treatment, health, and recovery resources that can help.

OUR TRAININGS

The Evolution of CAPTA: Supporting Families Impacted by Substance Use

Presentation Contents:
- CAPTA/CARA Legislation
- CAPTA Notification
- DCF Report Considerations
- Family Care Plan Development
- Awareness of Stigma/Health Inequities
- Community Connections and Resources

CAPTA Notification Process

Presentation Contents:
- CAPTA Notification Requirements
- How to Access the Portal
- Screen by Screen Review of Notification
- DCF Report Considerations

Additional Presentations:
DMHAS Women's Services
DCF Mandated Reporter Training

FOR PROFESSIONALS

We provide resources that build your capacity to offer compassionate care to families and birthing people touched by prenatal substance exposure.

Ways to Contact SEPI-CT:

Mary Fitzgerald, SEPI-CT Family Care Plan Coordinator: mkfitzgerald@wheelerclinic.org

Pamela Mulready, SEPI-CT Project Manager: pamulready@wheelerclinic.org

Visit Our Website:
SEPICT.ORG

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Additional Resources

- DMHAS Women's Services brochure: https://portal.ct.gov/-/media/DMHAS/Publications/DMHAS-WS-Brochure--updated-2023.pdf

- DMHAS Access Line https://portal.ct.gov/DMHAS/Programs-and-Services/Finding-Services/Access-Line-for-Substance-Use-Treatment

- DMHAS SUD Tx Bed Availability https://www.ctaddictionservices.com/

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Questions

ACCESS
Mental Health
for Moms