Screening for Substance Use in Pregnancy

Screening Tools, Toxicology, Brief Intervention, Resources

October 18, 2024

Bradley M. Buchheit, MD MS, *Addiction Medicine (Family Medicine)*
Syrrita Mason, *Peer Recovery Specialist*
Kristin C. Prewitt MD MPH, *Maternal-Fetal Medicine & Addiction Medicine Fellow (Ob/Gyn)*
Eleasa Sokolski, MD, *Addiction Medicine (Psychiatry & Internal Medicine)*

Disclosures

- None

General Substance Use in Pregnancy

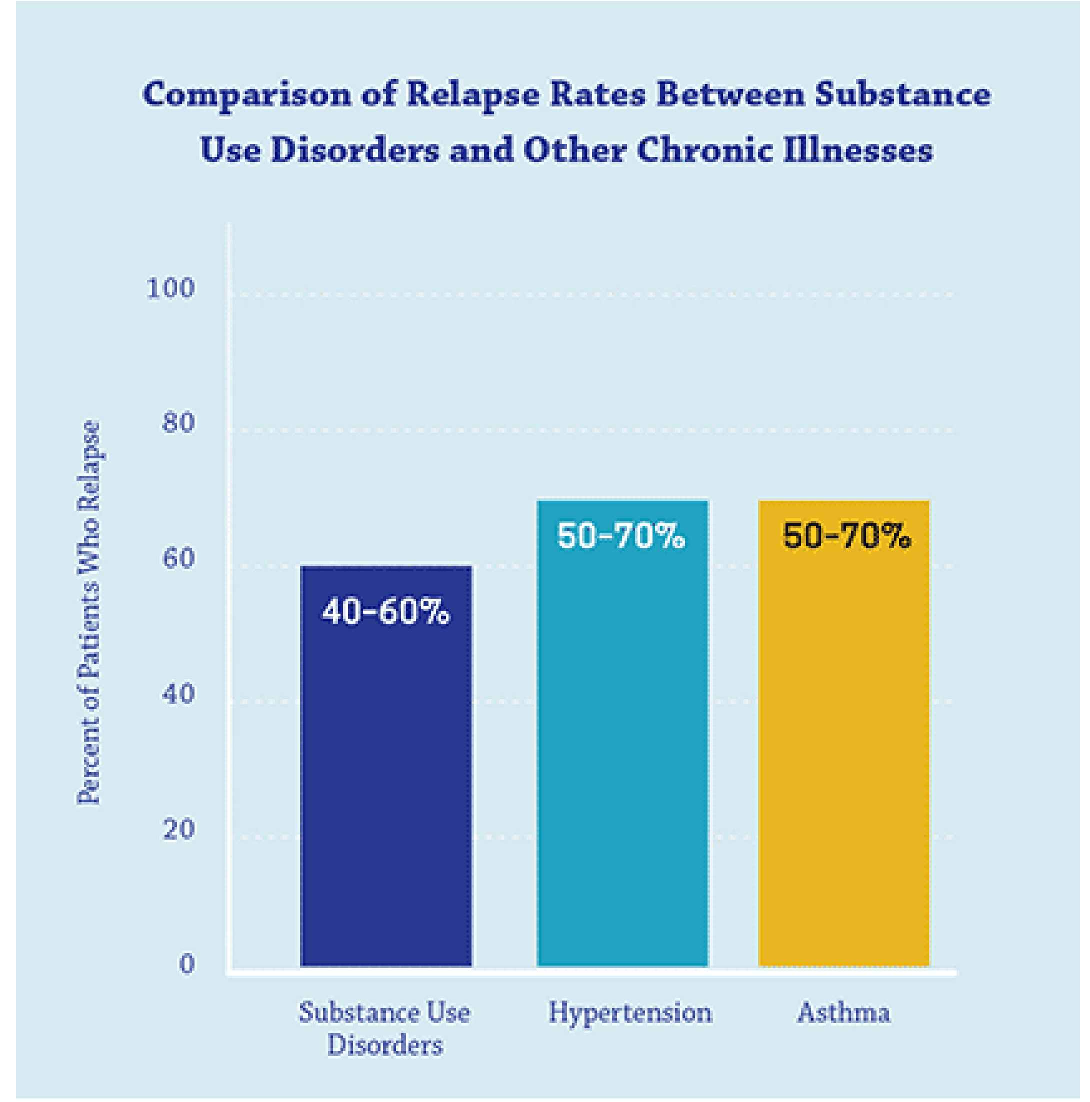
- Pregnancy affects prevalence of use
- Use decreases by trimester
- Surveys underestimate rate by 50%
- Those continuing to use in pregnancy likely have a substance use disorder (SUD)

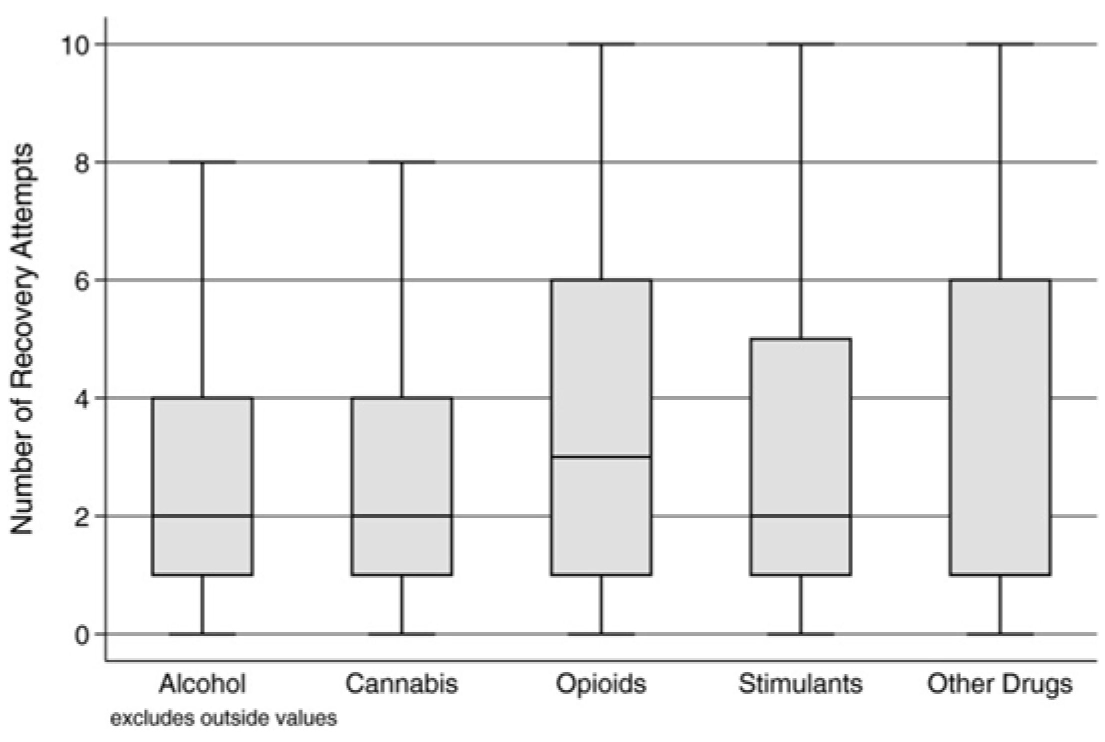
Substance use among pregnant individuals (age 15-44), National Survey on Drug Use and Health, 2019

18.6%

Used an illicit substance, nicotine product or alcohol in past month

Substance Use Disorder Relapse





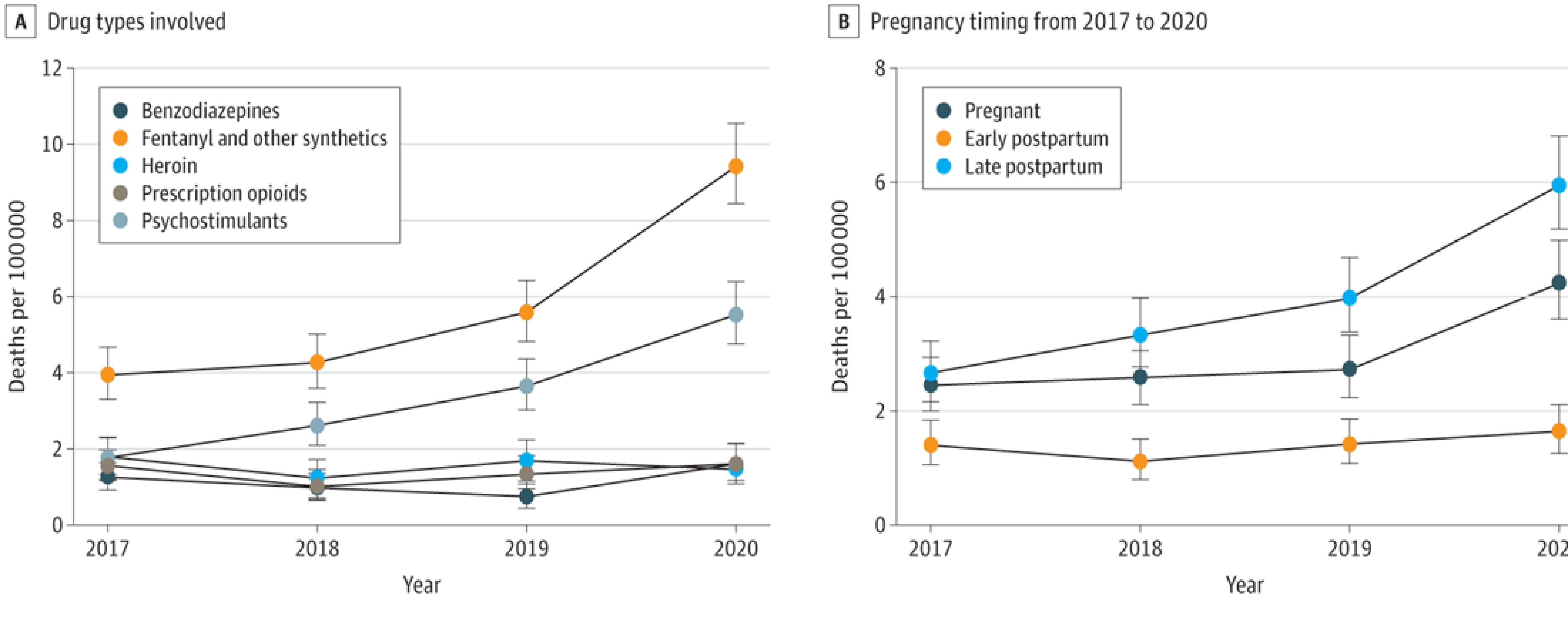
Kelly JF, Greene MC, Bergman BG, White WL, Hoeppner BB. How Many Recovery Attempts Does it Take to Successfully Resolve an Alcohol or Drug Problem? Estimates and Correlates From a National Study of Recovering U.S. Adults. Alcohol Clin Exp Res. 2019 Jul;43(7):1533-1544.

US Trends in Drug Overdose Mortality Among Pregnant and Postpartum Persons, 2017-2020

Emilie Bruzelius, MPH[1]; Silvia S. Martins, MD, PHD[1]

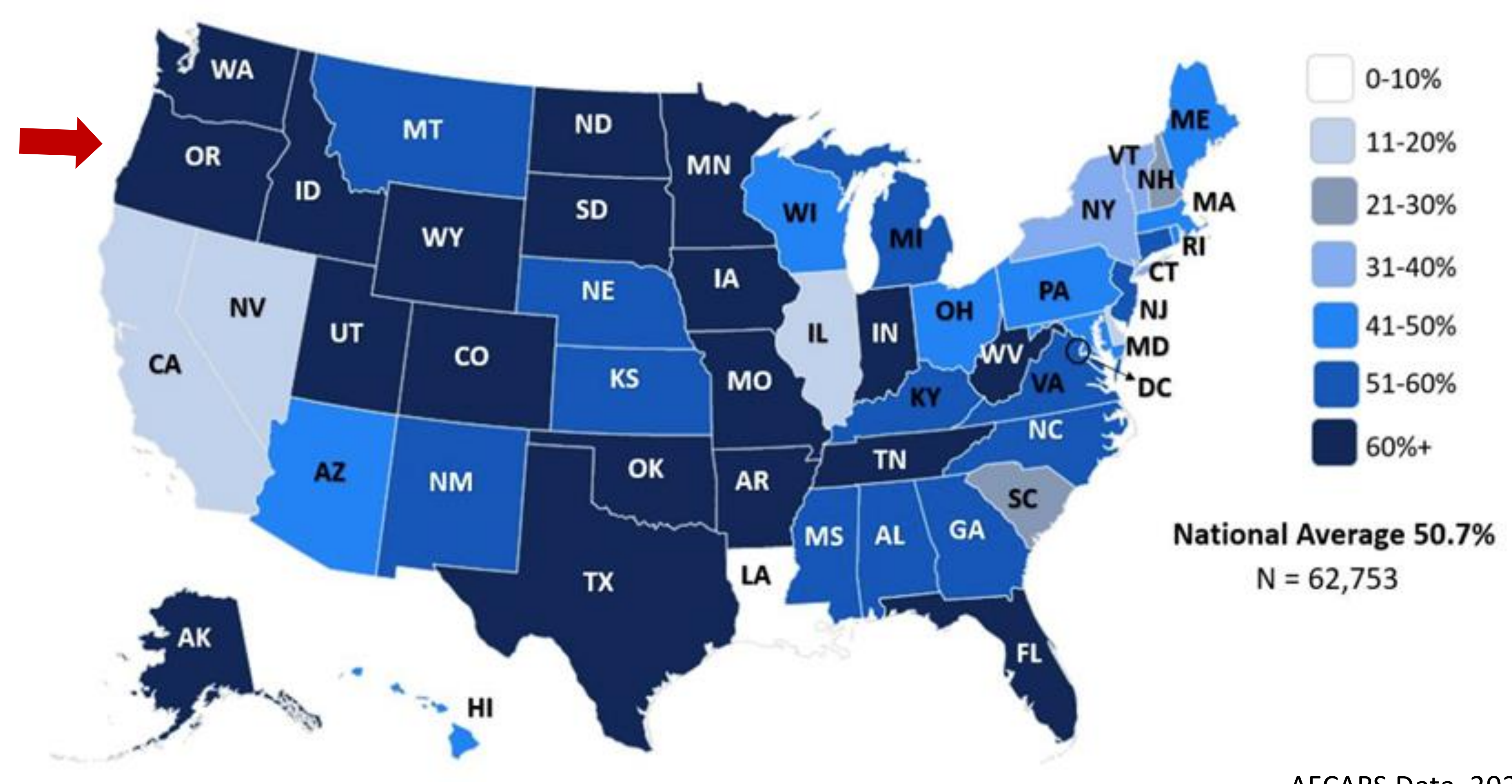
» Author Affiliations | Article Information

JAMA. 2022;328(21):2159-2161. doi:10.1001/jama.2022.17045



Child Removal

Parental Alcohol or Drug Abuse as an Identified Condition of Removal for Children Under 1 Year, 2020



AFCARS Data, 2020

Child Removal

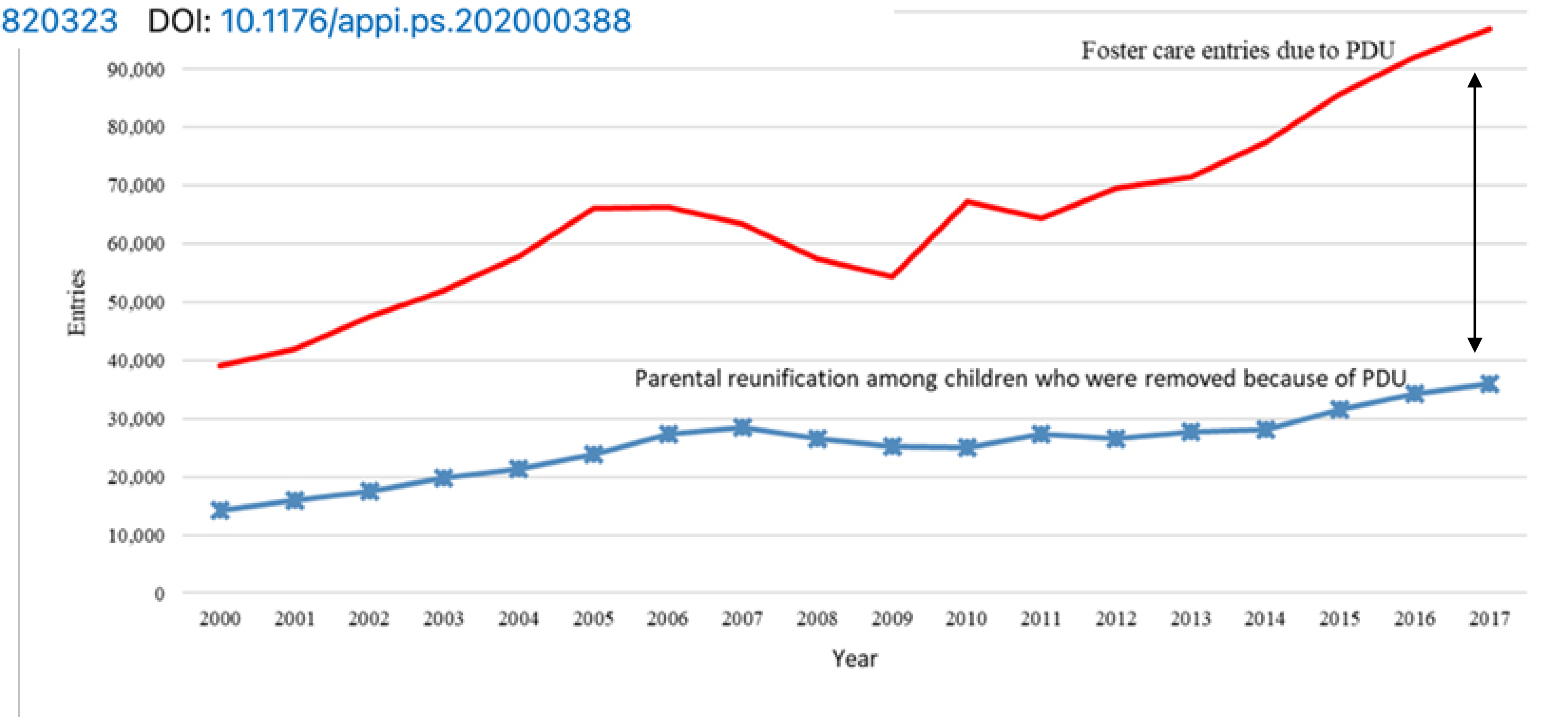
> Psychiatr Serv. 2021 Jun;72(6):728. doi: 10.1176/appi.ps.202000388. Epub 2020 Nov 10.

Parental Drug Use and Family Reunification

Maria X Sanmartin [1], Mir M Ali [1], Angélica Meinhofer [1]

Affiliations + expand

PMID: 33167816 PMCID: PMC8820323 DOI: 10.1176/appi.ps.202000388



Child Removal

Federal

- Child Abuse Prevention and Treatment Act (CAPTA)
- Comprehensive Addiction and Recovery Act (CARA)

Child Removal

Federal

- Child Abuse Prevention and Treatment Act (CAPTA)
- Comprehensive Addiction and Recovery Act (CARA)

Oregon[98]

- A drug test on a pregnant or birthing person is **NOT** required by law.
  - If screening indicates the need for a drug test, providers should ask for and get informed consent prior to drug testing a pregnant or birthing person.
- A drug test on a newborn is **NOT** required by law.
- If a newborn is drug tested and the result is positive,[99] a child abuse or neglect report is **NOT** required by state law.

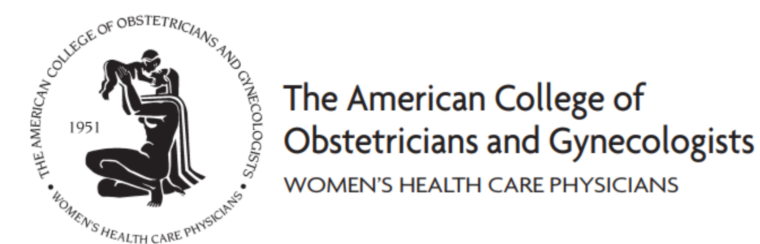
Screenings in Pregnancy

Diagnosis	Rate
Trisomy 21	<1%
Chlamydia	2%
Anemia	2-11%
Gestational Diabetes	9%
Preeclampsia	7%
Substance Use	18%

11% ObGyns use a validated tool for substance use screening

Ko JY, Tong VT, Haight SC, Terplan M, Stark L, Snead C, Schulkin J. Obstetrician-gynecologists' practices and attitudes on substance use screening during pregnancy. J Perinatol. 2020 Mar;40(3):422-432.

Screening in Pregnancy – ACOG Recommendations

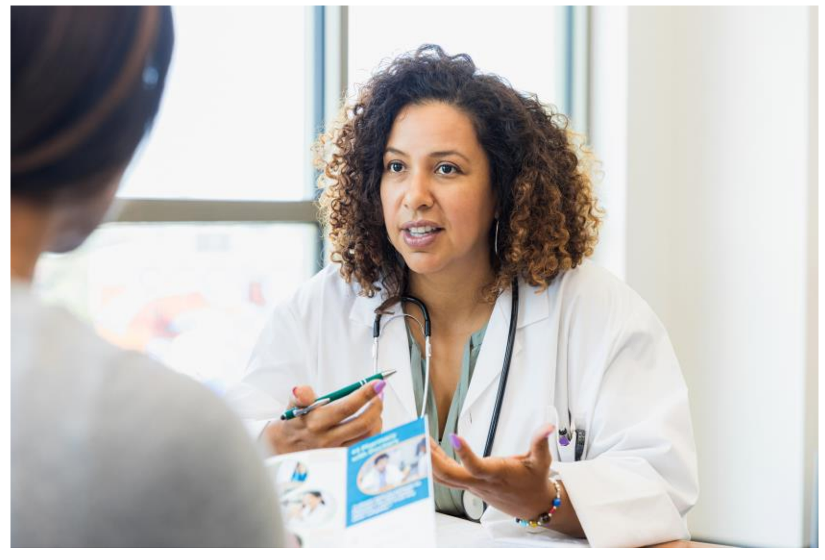


- Early universal screening at first prenatal visit
- Routine screening should rely on validated screening tools or conversations with patients
- Routine screening for substance use disorder should be applied equally to all people, regardless of age, sex, race, ethnicity, or socioeconomic status
- Routine laboratory testing of biologic samples is not required

Committee Opinion. Number 633. www.acog.org
Committee Opinion. Number 711. www.acog.org

Verbal Screening Tools

- NIDA Quick Screen - ASSIST
- 4Ps
- CRAFFT



NIDA Quick Screen - ASSIST

NIDA *Quick Screen* Question: In the past year, how often have you used the following?	Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
Alcohol • For men, 5 or more drinks a day • For women, 4 or more drinks a day					
Tobacco Products					
Prescription Drugs for Non-Medical Reasons					
Illegal Drugs					

Sensitivity 10-27%
Specificity 99%

Any answer greater than "Never" should trigger further questions (Consider NIDA ASSIST Questionnaire)/brief intervention/referral to treatment.

NIDA Quick Screen V1.0. https://nida.nih.gov/sites/default/files/pdf/nmassist.pdf
Ondersma, et al. *Addiction*. 2019 September ; 114(9): 1683–1693. doi:10.1111/add.14651.

NIDA Quick Screen - ASSIST

Ask the patient about *lifetime* drug use.

Q1. Which one of the following substances have you ever used *in your lifetime?*

a. Cannabis (marijuana, pot, grass, hash, etc.)

b. Cocaine (coke, crack, etc.)

c. Prescription stimulants* (Ritalin, Concerta, Dexedrine, Adderall, diet pills, etc.)

d. Methamphetamine (speed, ice, etc.)

e. Inhalants (nitrous, glue, gas, paint thinner, etc.)

f. Sedatives or sleeping pills* (Valium, Serepax, Xanax, etc.)

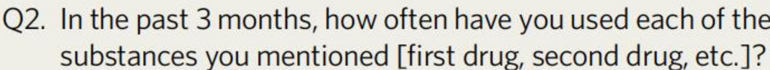
g. Hallucinogens (LSD, acid, mushrooms, PCP, Special K, ecstasy, etc.)

h. Street opioids (heroin, opium, etc.)

i. Prescription opioids* (fentanyl, oxycodone, hydrocodone, methadone, buprenorphine, etc.)

j. Other—Specify

* *Please report nonmedical use only: Do not record medications that are used as prescribed by a doctor.*



Q2. In the past 3 months, how often have you used each of the substances you mentioned [first drug, second drug, etc.]?

If the answer to Question 2 is "never," skip to Question 6. Otherwise, continue: *In the past three months...*

Q3. How often have you had a strong desire or urge to use?

Q4. How often has your use of [first drug, second drug, etc.] led to health, social, legal, or financial problems?

Q5. How often have you failed to do what was normally expected of you because of your use of [first drug, second drug, etc.]?

For each substance *ever used* (i.e., those mentioned in the "lifetime" question):

Q6. Has a friend or relative or anyone else ever expressed concern about your use of [first drug, second drug, etc.]?

Q7. Have you ever tried and failed to control, cut down, or stop using [first drug, second drug, etc.]?

Q8. Have you ever used any drug by injection? *(nonmedical use only)*

Sensitivity 79.7%
Specificity 82.8%

NIDA Quick Screen-ASSIST. https://nida.nih.gov/sites/default/files/pdf/screening_qr.pdf
Coleman-Cowger, et al. *Obstet Gynecol*. 2019 May;133(5):952-961. doi: 10.1097/AOG.0000000000003230.

4Ps

- “Did any of your **p**arents have a problem with alcohol or other drug use?” [PARENTS]
- “Does your **p**artner have a problem with alcohol or drug use?” [PARTNER]
- “In the **p**ast, have you had difficulties in your life because of alcohol or other drugs, including prescription medications?” [PAST]
- “In the past month, have you drunk any alcohol or used other drugs?” [PRESENT]

Any “yes” should trigger further questions/brief intervention/referral to treatment.

Ewing, H. Martinez (CA): The Born Free Project, Contra Costa County Department of Health Services; 1990.
Ondersma, et al. *Addiction*. 2019 September ; 114(9): 1683–1693. doi:10.1111/add.14651.
Coleman-Cowger, et al. *Obstet Gynecol*. 2019 May;133(5):952-961. doi: 10.1097/AOG.0000000000003230.

CRAFFT (Ages 12-21)

Begin: *"I'm going to ask you a few questions that I ask all my patients. Please be honest. I will keep your answers confidential."*

Part A

During the PAST 12 MONTHS, on how many days did you:

1.	Drink more than a few sips of beer, wine, or any drink containing **alcohol**? Say "0" if none.	☐ # of days
2.	Use any **marijuana** (cannabis, weed, oil, wax, or hash by smoking, vaping, dabbing, or in edibles) or "**synthetic marijuana**" (like "K2," "Spice")? Say "0" if none.	☐ # of days
3.	Use **anything else to get high** (like other illegal drugs, pills, prescription or over-the-counter medications, and things that you sniff, huff, vape, or inject)? Say "0" if none.	☐ # of days

Did the patient answer "0" for all questions in Part A?

Yes ☐	**No** ☐
↓	↓
Ask 1st question only in Part B, then STOP	**Ask all 6 questions in Part B**

© John R. Knight, MD, Boston Children's Hospital, 2020. Reproduced with permission from the Center for Adolescent Behavioral Health Research (CABHRe), Boston Children's Hospital.

CRAFFT (Ages 12-21)

Part B		**Circle one**	
C	Have you ever ridden in a **CAR** driven by someone (including yourself) who was "high" or had been using alcohol or drugs?	**No**	**Yes**
R	Do you ever use alcohol or drugs to **RELAX**, feel better about yourself, or fit in?	**No**	**Yes**
A	Do you ever use alcohol or drugs while you are by yourself, or **ALONE**?	**No**	**Yes**
F	Do you ever **FORGET** things you did while using alcohol or drugs?	**No**	**Yes**
F	Do your **FAMILY** or **FRIENDS** ever tell you that you should cut down on your drinking or drug use?	**No**	**Yes**
T	Have you ever gotten into **TROUBLE** while you were using alcohol or drugs?	**No**	**Yes**

Sensitivity 80%
Specificity 86%

≥ 2 "Yes" answers is considered a positive screen

© John R. Knight, MD, Boston Children's Hospital, 2020. Reproduced with permission from the Center for Adolescent Behavioral Health Research (CABHRe), Boston Children's Hospital.

Harris, et al. *Subst Abus*. 2016;37(1):197-203. doi: 10.1080/08897077.2015.1014615

Language for Screening

Location matters: Allow patients to have privacy to discuss without a group. Sit at the patient level.

Permission: "We ask all patients questions on substance use to make sure we can help support them and their babies. Can I ask you some questions about substance use?"

General History: "Do you use any substances that aren't prescribed? Tell me about that."

Substance type: You can ask specifically about substances (nicotine, alcohol, benzodiazepines, opioids, etc.).

Resources: "Some people who use substances want to stop using, some want to use less, and others want to keep using but want support and resources to keep them safe from overdose. Do any of these sound like something you would like our support with?"

Transparency: Let patients know what you'll do with the information they shared. E.g. consult social work refer to withdrawal management /residential, engage harm reduction resources, engage Addiction Consult or OBGYN team

Validate: "I appreciate you sharing that information with me." "That sounds hard." "I see you working really hard to be a good parent."

Can I use urine toxicology testing instead of verbal screening?

Overview of Toxicology Testing

- Does not make a SUD diagnosis
- False results common
- Order confirmatory testing
- Discourages medical care engagement
- Consider for changes in clinical management

Commonly accepted windows of detection by specimen type.

Specimen type	Detection window	Comment
Maternal urine	2–5 days	For most drugs, most used
Maternal blood	1–2 days	Uncommon for this purpose due to short detection window and high expense
Maternal hair	Up to approximately 12 weeks	Using 1.5 inches of hair Hair color and cosmetic treatment are variables May detect environmental exposure
Newborn Urine	1–2 days	First void is best practice Very dilute
Newborn hair	8 weeks	Detection starts when hair starts forming Many babies do not have enough hair
Meconium	Up to approximately 20 weeks	Difficult multi step collection process Issues with sample amount compliance
Umbilical Cord	12 weeks	Developed to mirror meconium Universal specimen type

Pros and Cons of UDS Testing

Pros

- Confirms substance used
- Confirms treatment medication
- Accounts for adulterations and education

Cons

- Often used as a substitute to conversation and history
- False positive and negative results
- Rarely changes clinical management not obtained from history
- Dissuades medical care
- Coercion and bias

Racism in Selective UDS

Published: 06 January 2022

Racial and Ethnic Differences in Urine Drug Screening on Labor and Delivery

Mae-Lan Winchester, Parmida Shahiri, Emily Boevers-Solverson, Abigail Hartmann, Meghan Ross, Sharon Fitzgerald & Marc Parrish

Maternal and Child Health Journal 26, 124–130 (2022) | Cite this article

Research Letter

April 14, 2023

Association of Race With Urine Toxicology Testing Among Pregnant Patients During Labor and Delivery

Marian Jarlenski, PhD, MPH[1]; Jay Shroff, MS[1]; Mishka Terplan, MD[2]; et al

Author Affiliations | Article Information

JAMA Health Forum. 2023;4(4):e230441. doi:10.1001/jamahealthforum.2023.0441

Comparative Study > Obstet Gynecol. 2023 Nov 1;142(5):1169-1178.
doi: 10.1097/AOG.0000000000005385. Epub 2023 Sep 28.

Racial Inequities in Drug Tests Ordered by Clinicians for Pregnant People Who Disclose Prenatal Substance Use

Abisola Olaniyan [1], Mary Hawk, Dara D Mendez, Steven M Albert, Marian Jarlenski, Judy C Chang

Affiliations + expand

PMID: 37769307 DOI: 10.1097/AOG.0000000000005385

JAMA Netw Open. 2023 Mar; 6(3): e232058. PMCID: PMC9996400
Published online 2023 Mar 8. doi: 10.1001/jamanetworkopen.2023.2058 PMID: 36884249

Incidence of Newborn Drug Testing and Variations by Birthing Parent Race and Ethnicity Before and After Recreational Cannabis Legalization

Sebastian Schoneich, MD, [1] Melissa Plegue, MA, [2] Victoria Waidley, MD, [3] Katharine McCabe, PhD, [4] Justine Wu, MD, MPH, [1,5] P. Paul Chandanabhumma, PhD, MPH, [1,5] Carol Shetty, MD, [1] Christopher J. Frank, MD, PhD, [1] and Lauren Oshman, MD, MPH [1,5]

American Journal of Obstetrics & Gynecology MFM
Volume 5, Issue 7, July 2023, 100963

Original Research

Assessing the clinical utility of toxicology testing in the peripartum period

Molly R. Siegel MD [1], Samuel J. Cohen MD [2], Kathleen Koenigs MD [1], Gregory T. Woods MD [1], Leah N. Schwartz BA [3], Leela Sarathy MD [4], Joseph H. Chou MD, PhD [4], Mishka Terplan MD, MPH [5], Timothy Wilens MD [6], Jeffrey L. Ecker MD [1], Sarah N. Bernstein MD [1], Davida M. Schiff MD [7]

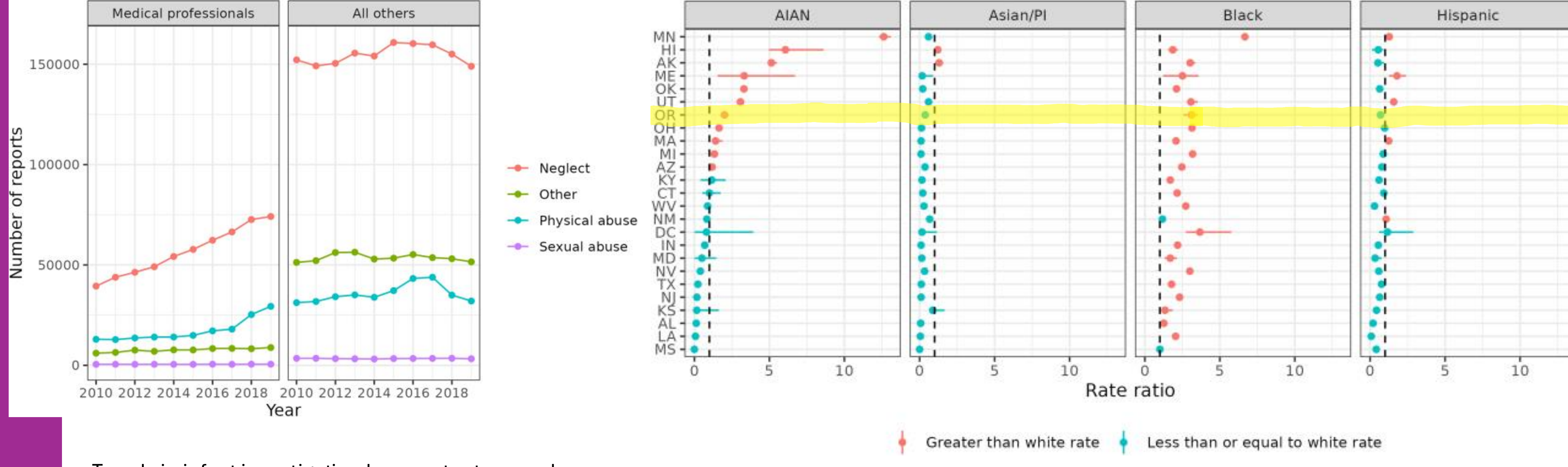
- Unexpected positive test result in 3.9% of tests
- UDS did not change clinical management
- UDS changed DHS/CPS reporting
- Only 32.5% were referred to SUD treatment
- 30% received no counseling related to their positive UDS result
- 62% did not attend a postpartum visit

Health Equity. 2023; 7(1): 653–662.
Published online September 2023. doi: 10.1089/heq.2023.0136

PMCID: PMC10541941
PMID: 37786528

Medical Professional Reports and Child Welfare System Infant Investigations: An Analysis of National Child Abuse and Neglect Data System Data

Frank Edwards,[1,*] Sarah C.M. Roberts,[2] Kathleen S. Kenny,[3] Mical Raz,[4] Matty Lichtenstein,[5] and Mishka Terplan[6]



Trends in infant investigation by reporter type and alleged maltreatment type (2010-2019)

Inequity in child welfare investigations of infants <1 yr reported by medical professionals
Dashed line = equality (relative to white infants)

Example UDS Guideline

Title: URINE TOXICOLOGY TESTING for Medical Indications in the Zuckerberg San Francisco General Birth Center and Nursery

Indications

Universal verbal screening (preferably NIDA—see Appendix A) **is the gold standard for assessing and identifying families affected by substance use disorder. If verbal disclosure is obtained and documented, urine toxicology is not indicated and risks creating a counterproductive lack of trust. If there is a physical symptom prompting evaluation for drug use, then verbal screening is indicated.**

Indications for urine toxicology testing are to be driven by the need for a change in clinical management based on toxicology results.
If a patient is in substance use treatment, the treatment provider should be contacted before obtaining a urine drug test, unless waiting to make contact would put the patient's health at risk.

Birthing Pareny

1. Acute mental status changes, changed level of consciousness not otherwise explained.
2. Unexplained disorientation, psychosis, manic symptoms, ataxia, hallucinations, internal preoccupation, severe psychomotor agitation, confusion, and or somnolence where a toxicology test would dictate medical management.
3. If desired by the birthing person (e.g., to demonstrate recovery and/or safety of chest/breastfeeding).

Newborn considerations for urine toxicology of birthing person*:

1. If a birthing person desires to chest/breastfeed and the following conditions exist:
   - Report of substance use or positive urine toxicology screen during last trimester of pregnancy or within three months of presentation (excluding THC), AND
   - Birthing person is not engaging in substance use treatment or there is no negative toxicology screen subsequent to a positive toxicology screen.
     - Talking to the continuity provider who has a longitudinal relationship with the birthing person is strongly recommended in assessing the level of engagement with recovery.

Research Letter | Health and the 2024 US Election ONLINE FIRST

May 6, 2024

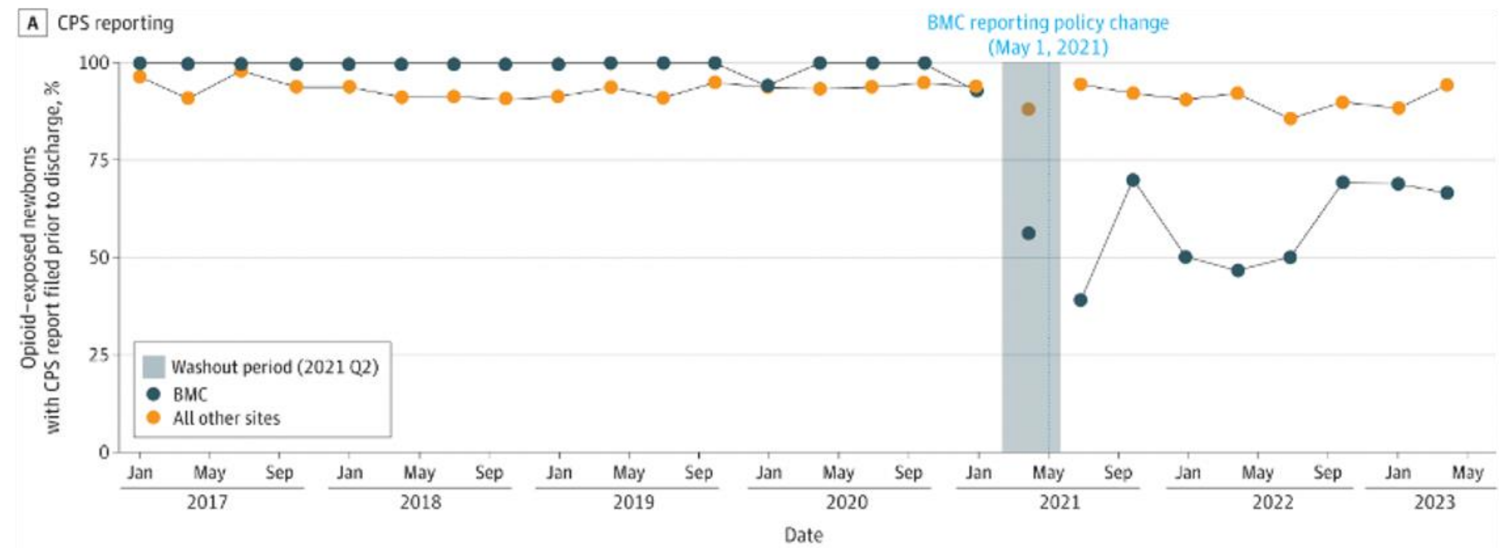
Mandatory Child Protective Services Reporting for Substance-Exposed Newborns and Peripartum Outcomes

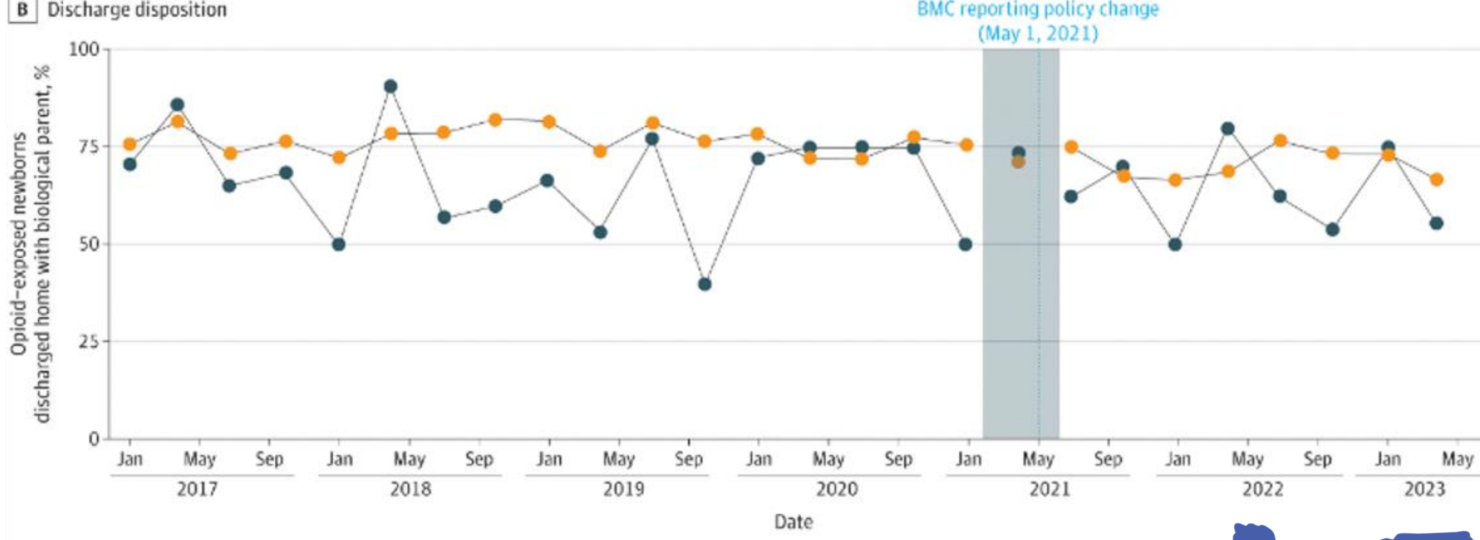
A Difference-in-Differences Analysis

Rohan Khazanchi, MD, MPH[1]; Elisha M. Wachman, MD[2]; Davida M. Schiff, MD[3]; et al

› Author Affiliations | Article Information

JAMA Pediatr. Published online May 6, 2024. doi:10.1001/jamapediatrics.2024.0903





- BMC implemented a new DHS reporting policy 2021
- BMC's guidance explicitly noted that CPS reports should not automatically be filed for prescribed opioid or MOUD use, positive toxicology tests, or positive substance use screens in the absence of protective concerns
- Found significant decrease in reporting without a change in initial discharge disposition

opc

Drug testing is <u>not</u> a truth serum or a parenting test.

- Best history is the one from the patient
- Hospitals protocols reduce bias
- Always get consent
- Do not be coercive when obtaining consent
- Always get confirmatory testing
- Account for medications that can result in positive toxicology

Brief Intervention

- Aims to increase insight into potential harms of substance use and assess readiness for change.
- Rooted in motivational interviewing.
- Typically occurs in short conversations lasting 10-20 minutes (can take place over several visits).

Starting the Conversation

- Ask for permission!
- Approach the conversation with non-judgmental attitude and non-stigmatizing language
- Explain why it's importance to discuss – family health, potential for CPS/DHS involvement
- Assess feelings about substance use
- Assess goals – Discontinue use? Reduce use? Minimize harms?

FRAMES Model

- **Feedback**
- **Responsibility**
- **Advice**
- **Menu**
- **Empathy**
- **Self-Efficacy**

FRAMES Model

- **Feedback** -- "*You said you drinking 3 glasses of wine per night. Would it be ok with you if I shared some information about alcohol use in pregnancy?*"
- Responsibility
- Advice
- Menu
- Empathy
- Self-Efficacy

FRAMES Model

- Feedback
- **Responsibility** (placed on patient)-- *"After hearing this feedback, do you want to make changes to the amount you drink?" "What are the pros/cons of continued alcohol use?" "From 1-10, how ready are you to make this change?"*
- Advice
- Menu
- Empathy
- Self-Efficacy

FRAMES Model

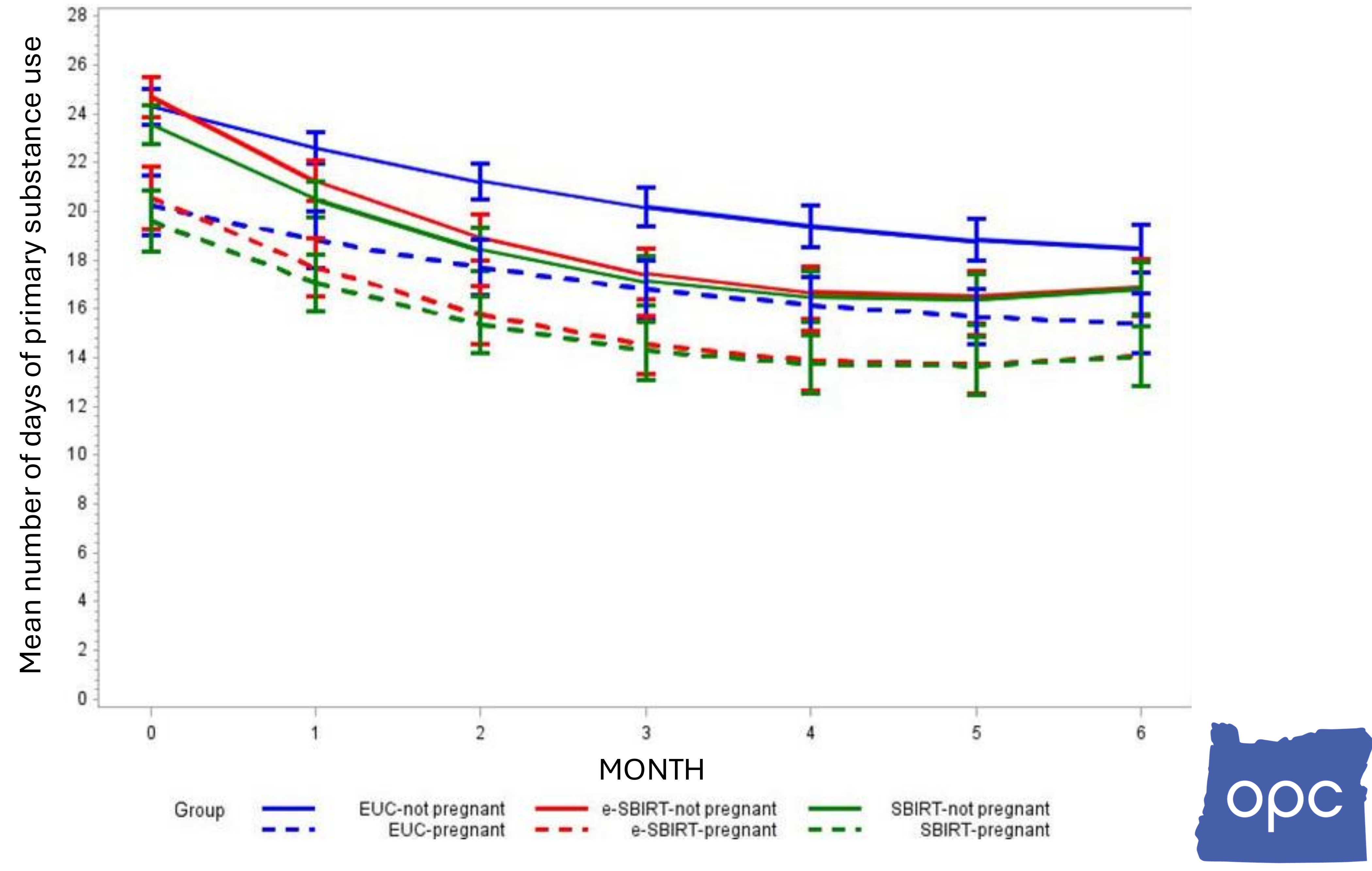
- Feedback
- Responsibility
- **Advice –** *"My recommendation is to discontinue alcohol use while you are pregnant."*
- Menu
- Empathy
- Self-Efficacy

FRAMES Model

- Feedback
- Responsibility
- Advice
- **Menu** -- *"Here are the treatment options available to you..."*
- Empathy
- Self-Efficacy

FRAMES Model

- Feedback
- Responsibility
- Advice
- Menu
- **Empathy** – *Approach the patient in a non-judgmental way*
- **Self-Efficacy** – *Empower them to make change*



Martino, *Am J Obstet Gynecol*, 2018

Specialty Addiction Care Referral Resources

- For Providers:
  - Substance Use Warmline
    - Mon-Fri, 9AM-8PM ET
    - https://nccc.ucsf.edu/clinical-resources/substance-use-resources/
    - 855-300-3595
  - OHSU Addiction Medicine Consult Line
    - Mon-Fri, 8AM-5PM PT
    - https://www.ohsu.edu/health/ohsu-addiction-consult-line
    - 503-494-4567, and ask for Addiction Consult Line
- For Patients:
  - Harm Reduction and BRidges to Care (HRBR) Clinic
    - Mon-Fri, 10AM-7PM, 503-494-2100
    - www.ohsu.edu/hrbr
  - Project Nurture, Nurture Oregon
    - https://www.healthshareoregon.org/health-equity/project-nurture
    - https://www.peersupportoregon.org/nurture-oregon
  - California Warm Line

OHSU's Harm Reduction & BRidges to Care (HRBR) - *Oregon State Resource*

- Low barrier, after-hours, on-demand, addiction treatment clinic
  - Mon-Fri, 10AM-7PM
- 100% telemedicine visits
- 350-400 patient visits/month
- **Serves all Oregon counties**
  - Currently patients from 34 of Oregon's 36 counties
- Addiction medicine provider, peer recovery specialist, LCSW, and support staff
- One of very few clinics in OR that provides MOUD services to young Adults (>15yo) and pregnant patients
- Patients are not required to commit to complete abstinence or abstinence from all substances while receiving care at HRBR.
- Emphasis on medication management, harm reduction and overdose prevention and connections to ongoing care.

503-494-2100

Leave a voicemail!

www.ohsu.edu/hrbr

Harm Reduction

Harm reduction and treatment can be part of a cyclical continuum. Their distinct goals support each other.

Journal of Substance Abuse Treatment
Volume 19, Issue 3, October 2000, Pages 247-252

Article

Reduced injection frequency and increased entry and retention in drug treatment associated with needle-exchange participation in Seattle drug injectors

Holly Hagan M.P.H., Ph.D. [a b], James P McGough Ph.D., M.P.H. [a], Hanne Thiede D.V.M., M.P.H. [a b], Sharon Hopkins D.V.M., M.P.H. [a b], Jeffrey Duchin M.D. [a c], E.Russell Alexander M.D. [a b]

Engagement in needle exchange (harm reduction) versus no engagement resulted in:

5x times more likely to engage in treatment

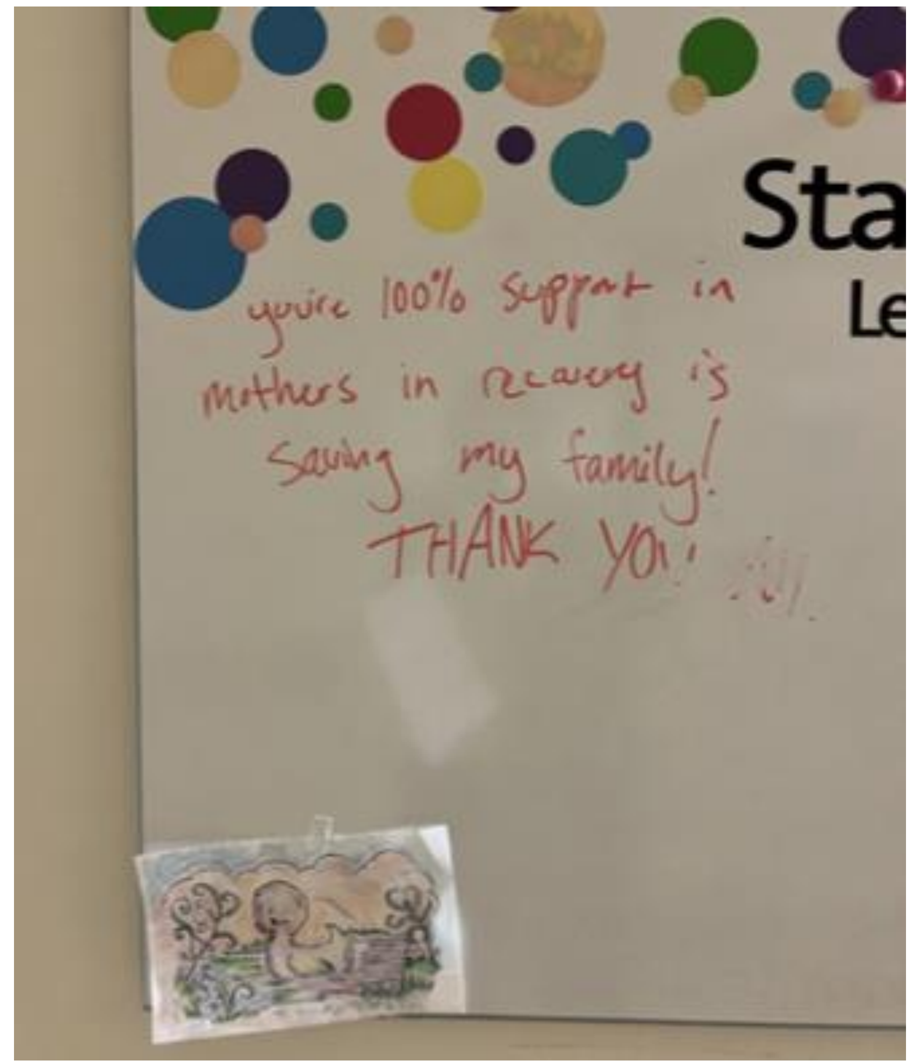
3x times more likely to stop using drugs

Harm Reduction

- **NARCAN/NALOXONE!**
- Lock box
- Encourage patients to know what they're using & their supplies
- Discuss how and where using
- Preventing HIV, Hep C, STIs
- Wound Care
- Don't mix substances
- Safe sleep, driving, and breastfeeding
- Pediatric counseling
- Connect partners to treatment

brave.coop/overdose-detection-app

No data? No Problem.
You can call NORS 1 (888) 688-6677



Written by a patient at OHSU's L&D

Take Aways

- **Universal verbal screening is recommended**
- Better screening and interventions improve maternal and neonatal outcomes
- UDS with confirmatory testing should be ordered only when it would change clinical management
- Hospital systems need UDS guidelines to mitigate bias
- Brief interventions are recommended when verbal screening is positive
- There are state and national referral resources
- Harm reduction saves lives

opc

THANK YOU!

Bradley M. Buchheit, MD MS, *Addiction Medicine (Family Medicine)* - buchheit@ ohsu.edu
Syrrita Mason, *Peer Recovery Specialist* – masonsyr@ohsu.edu
Kristin C. Prewitt MD MPH, *MFM & Addiction Medicine Fellow (Ob/Gyn)* - prewittk@ohsu.edu
Eleasa Sokolski, MD, *Addiction Medicine (Psychiatry & Internal Medicine)* - sokolski@ohsu.edu

Resources

- **HRBR Clinic -** 503-494-2100
- **OHSU Addiction Provider Consult Line -** 503-494-4567
- **Project Nurture**
- **SAHMSA** – "Clinical Guide for Treating Pregnant and Parenting Women with OUD and Their Infants"
- **Academy of Perinatal Harm Reduction** – perinatalharmreduction.org
- **CA Bridge** – bridgetotreatment.org/addiction-treatment/ca-bridge/
- **https://www.harmreductionactioncenter.org/**
- **National Association for Children of Addiction**