Navigating Breastfeeding in the Context of Substance and Opioid Use Disorders

Michelle A. Cabán-Ruiz, Ph.D. (she/her/hers) – Addiction Researcher
Angélica M. Fuentes-Armesto, MD, DABFM (she/her/hers) – Addiction Medicine Fellow
Henry X. Nieves-Díaz, MD, DABFM (he/him/his) – Addiction Medicine Fellow

Universidad Central del Caribe - Bayamón, Puerto Rico

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10:30 AM – 11:45 AM

Michelle A. Cabán-Ruiz, Ph.D. (she/her/hers)

Clinical Psychologist and Addiction Researcher
Universidad Central del Caribe

- No disclosures

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Learning Objectives

1

Review and discuss current statistics on breastfeeding and substance use disorders

2

Discuss research findings from our study: Substance use in Puerto Rican breastfeeding persons

3

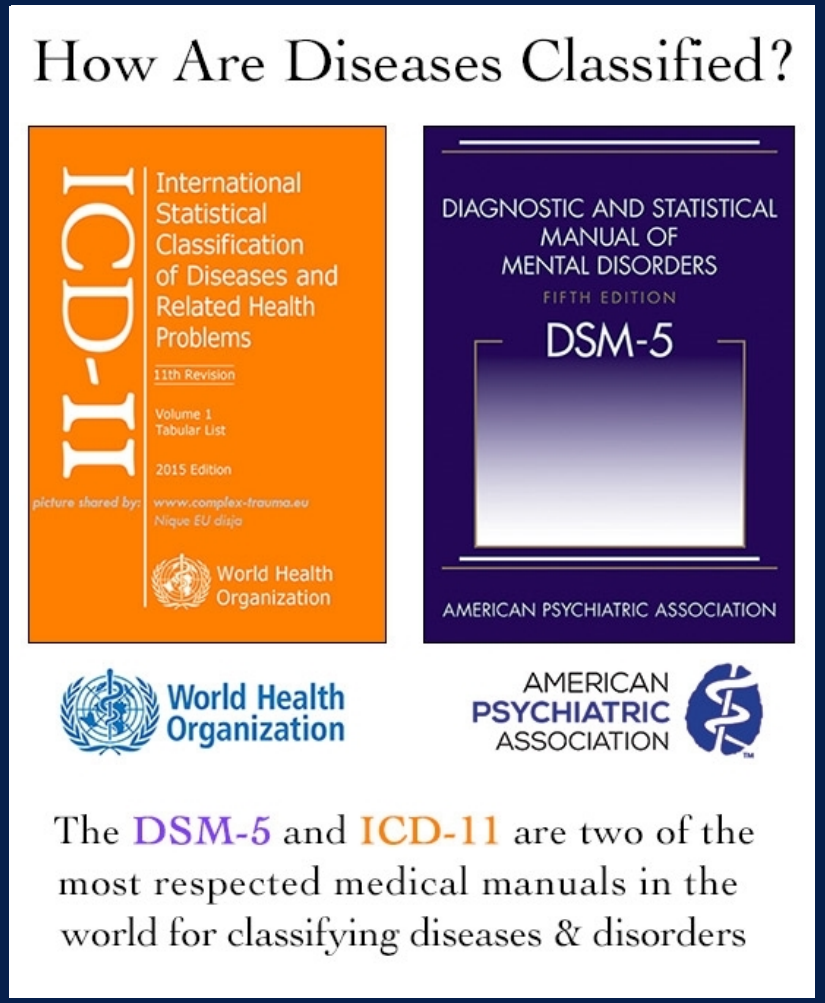
Equip professionals with clinical tools to navigate breastfeeding in patients with substance use disorders (SUD).

4

Discuss evidence-based recommendations and updated protocols (ABM Protocol 21, ASAM, SAMHSA).

Literature review

General Overview of Substance Use Disorders (SUD)



- SUDs involve patterns of substance use that cause harm, impairment, or distress (APA, 2013).
- They are linked with various issues in physical, mental, social, and legal domains.
- Diagnosed using two main classification systems:
  - **ICD-11** (World Health Organization).
  - **DSM-5-TR** (American Psychiatric Association).

American Psychiatric Association, D. S. M. T. F., & American Psychiatric Association, D. S. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5* (Vol. 5, No. 5). Washington, DC: American Psychiatric Association.

Global Prevalence of Substance Use

- Alcohol is the most consumed substance worldwide (2.3 billion users, ~40% of adults) (WHO, 2018).
- Tobacco use has declined but still has **1.1 billion global users** (Reitsma et al., 2021).
- **Cannabis is the most commonly used illicit drug** (200 million users) and involved in more than half of global drug offenses (United Nations Office on Drugs and Crime, 2022).
- **Opioids cause the highest number of drug-related deaths**, increasing by 41% over the past decade (Volkow & Blanco, 2023).

World Health Organization. (2018). *Global status report on alcohol and health 2018*. World Health Organization.

Reitsma, M. B., Kendrick, P. J., Ababneh, E., Abbafati, C., Abbasi-Kangevari, M., Abdoli, A., ... & Gorini, G. (2021). Spatial, temporal, and demographic patterns in prevalence of smoking tobacco use and attributable disease burden in 204 countries and territories, 1990–2019: a systematic analysis from the Global Burden of Disease Study 2019. *The Lancet*, *397*(10292), 2337–2360.

Volkow, N. D., & Blanco, C. (2023). Substance use disorders: a comprehensive update of classification, epidemiology, neurobiology, clinical aspects, treatment and prevention. *World Psychiatry*, *22*(2), 203–229.

Demographic Trends and Gender Disparities

- SUD rates vary by country, socioeconomic status, and specific substances (Degenhardt et al., 2018).
- Historically, SUD was more prevalent in males, but recent trends show **a faster rise among females** (Grant et al., 2017).
- **Alcohol use disorder (AUD) in females increased by 84%**, compared to **35% in males** (Verplaetse et al., 2021).
- This highlights the urgent need for research into **gender and sex disparities** in SUD (Cornish & Prasad, 2021).

Degenhardt, L., Charlson, F., Ferrari, A., Santomauro, D., Erskine, H., Mantilla-Herrara, A., ... & Vos, T. (2018). The global burden of disease attributable to alcohol and drug use in 195 countries and territories, 1990-2016: a systematic analysis for the Global Burden of Disease Study 2016. *The Lancet Psychiatry*, *5*(12), 987-1012.

Grant, B. F., Chou, S. P., Saha, T. D., Pickering, R. P., Kerridge, B. T., Ruan, W. J., ... & Hasin, D. S. (2017). Prevalence of 12-month alcohol use, high-risk drinking, and DSM-IV alcohol use disorder in the United States, 2001-2002 to 2012-2013: results from the National Epidemiologic Survey on Alcohol and Related Conditions. *JAMA psychiatry*, *74*(9), 911-923.

Verplaetse et al., 2021 https://doi.org/10.1016/j.addbeh.2021.107055

Cornish, J. L., & Prasad, A. A. (2021). Sex differences in substance use disorders: a neurobiological perspective. *Frontiers in global women's health*, *2*, 778514.

Substance Use During Pregnancy and Breastfeeding

- **Marijuana is the most commonly used illicit drug during pregnancy**, followed by prescription opioids (Center for Behavioral Health Statistics and Quality, 2016).

- **SUD is less prevalent in pregnant individuals** compared to non-pregnant individuals:
  - 3.6% qualify for **Alcohol Use Disorder (AUD)**.
  - 1.6% meet criteria for a **Drug Use Disorder (DUD)** (Vesga-Lopez et al., 2008).

- **Pre-pregnancy substance use is a strong predictor of prenatal use** (Harrison & Sidebottom, 2009; Ward et al., 2006; McHugh et al., 2018).

Center for Behavioral Health Statistics and Quality. (2016). 2015 National Survey on Drug Use and Health: Detailed Tables. In S. A. a. M. H. S. Administration (Ed.). Rockville, MD.
Vesga-López O, Blanco C, Keyes K, Olfson M, Grant BF, Hasin DS. Psychiatric disorders in pregnant and postpartum women in the United States. Arch Gen Psychiatry. 2008 Jul;65(7):805-15. doi: 10.1001/archpsyc.65.7.805. PMID: 18606953; PMCID: PMC2669282.
McHugh, R. K., Votaw, V. R., Sugarman, D. E., & Greenfield, S. F. (2018). Sex and gender differences in substance use disorders. *Clinical psychology review*, *66*, 12-23.

Substance Use During Pregnancy and Breastfeeding

1

Opioid-affected births have quadrupled over the last decade, to 6.5/1,000 deliveries.

2

Methamphetamine-affected births have also increased over the last decade, to 2.4/1,000 deliveries.

3

Opioid use in pregnancy increases the **risk of maternal death and life-threatening health issues** by 50%, and meth use increases these risks by 150%.

Admon, L. K., Winkelman, T. N., Moniz, M. H., Davis, M. M., Heisler, M., & Dalton, V. K. (2017). Disparities in chronic conditions among women hospitalized for delivery in the United States, 2005–2014. *Obstetrics & Gynecology*, *130*(6), 1319-1326.

Substance use and pregnancy: What we know and what we can do

Substance Use During Pregnancy and Breastfeeding

4

SUDs are increasing among all groups of childbearing persons but the largest increases were reported in rural **communities, low-income communities,** and those with **Medicaid coverage** for their pregnancy care.

5

People **of color have greater risk for life-threatening health issues** compared to white people when their pregnancies are complicated by SUD and other behavioral health conditions.

6

Substance-affected deliveries result in increased healthcare costs. Neonatal abstinence syndrome, a group of problems that can affect infants exposed to opioids in the womb, accounted for $3 billion in hospital costs over the last decade.

Admon, L. K., Winkelman, T. N., Moniz, M. H., Davis, M. M., Heisler, M., & Dalton, V. K. (2017). Disparities in chronic conditions among women hospitalized for delivery in the United States, 2005–2014. *Obstetrics & Gynecology*, *130*(6), 1319-1326.

Substance use and pregnancy: What we know and what we can do

Our Research: Substance use in Puerto Rican breastfeeding persons

Substance Use in Puerto Rican Breastfeeding Persons

- There is limited data on substance use among breastfeeding individuals in Puerto Rico.
- Lack of research limits the effectiveness of public health education and intervention efforts.

- The role of healthcare professionals in educating caregivers about substance use risks remains unclear.

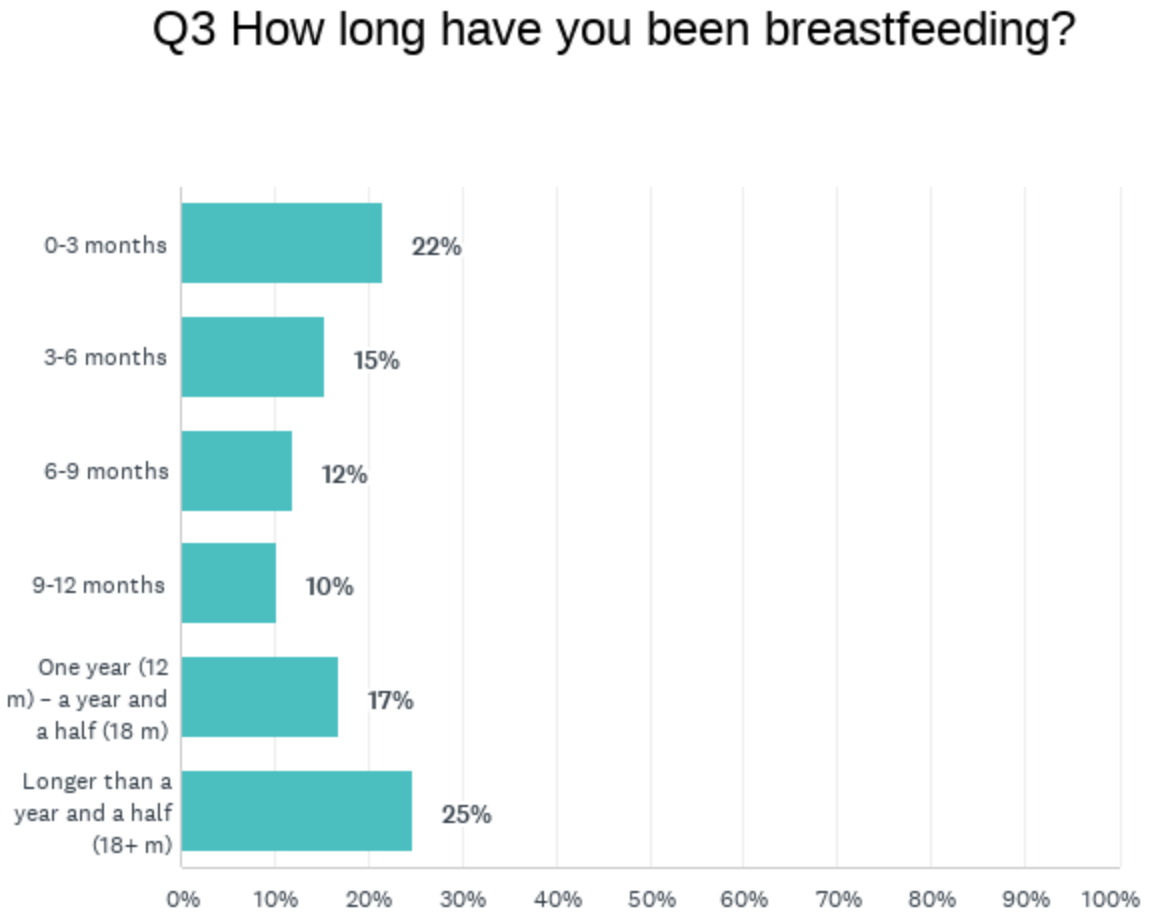
- This study aimed to:
  - Investigate substance consumption patterns among breastfeeding individuals.
  - Assess educational efforts by healthcare professionals.
  - Explore cultural factors influencing substance use behaviors in Puerto Rico.

Substance Use in Puerto Rican Breastfeeding Persons

*67 out of 78 municipalities were represented

Puerto Rican municipalities represented in the sample (N=441)

Substance Use in Puerto Rican Breastfeeding Persons



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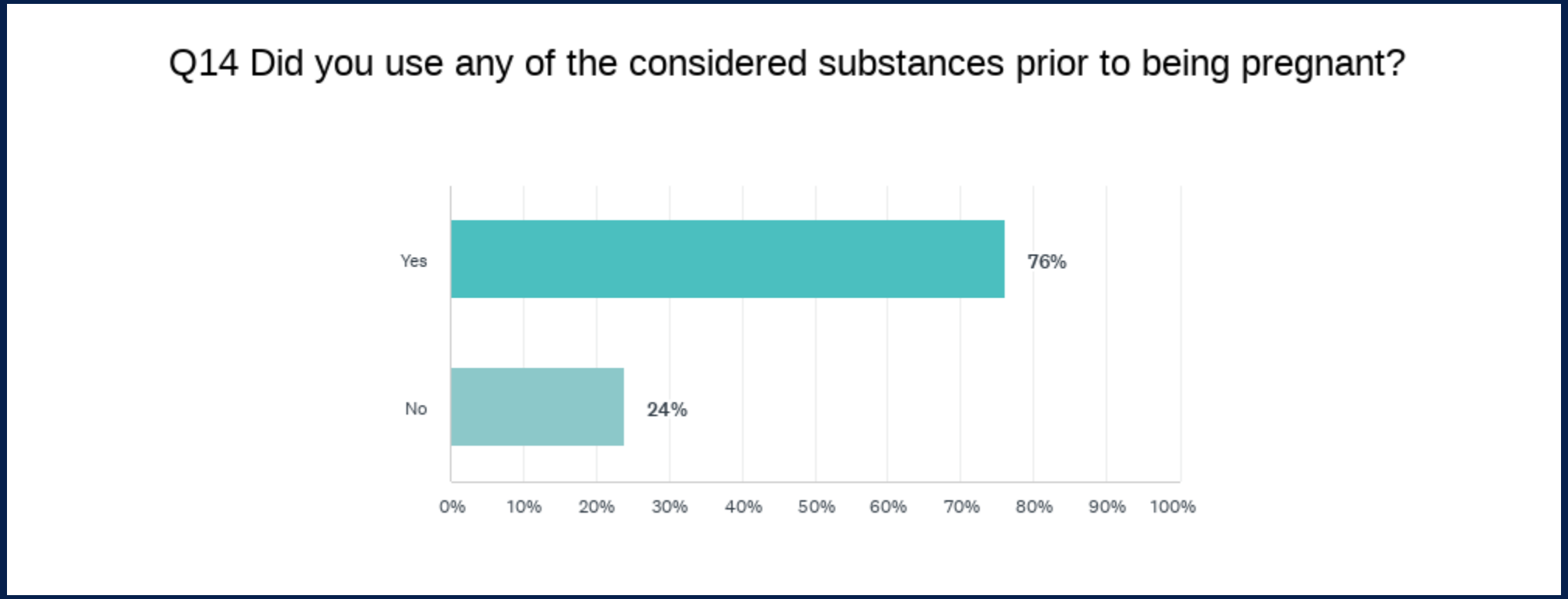

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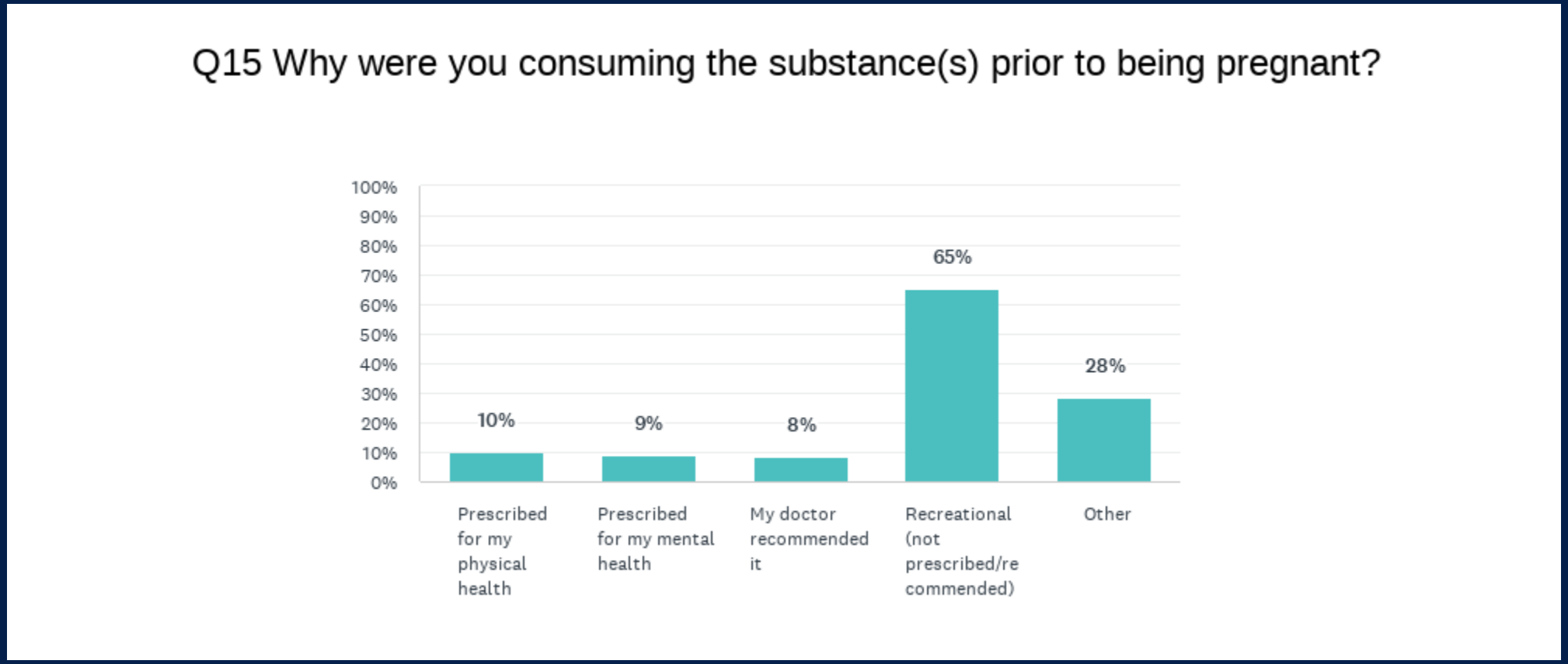

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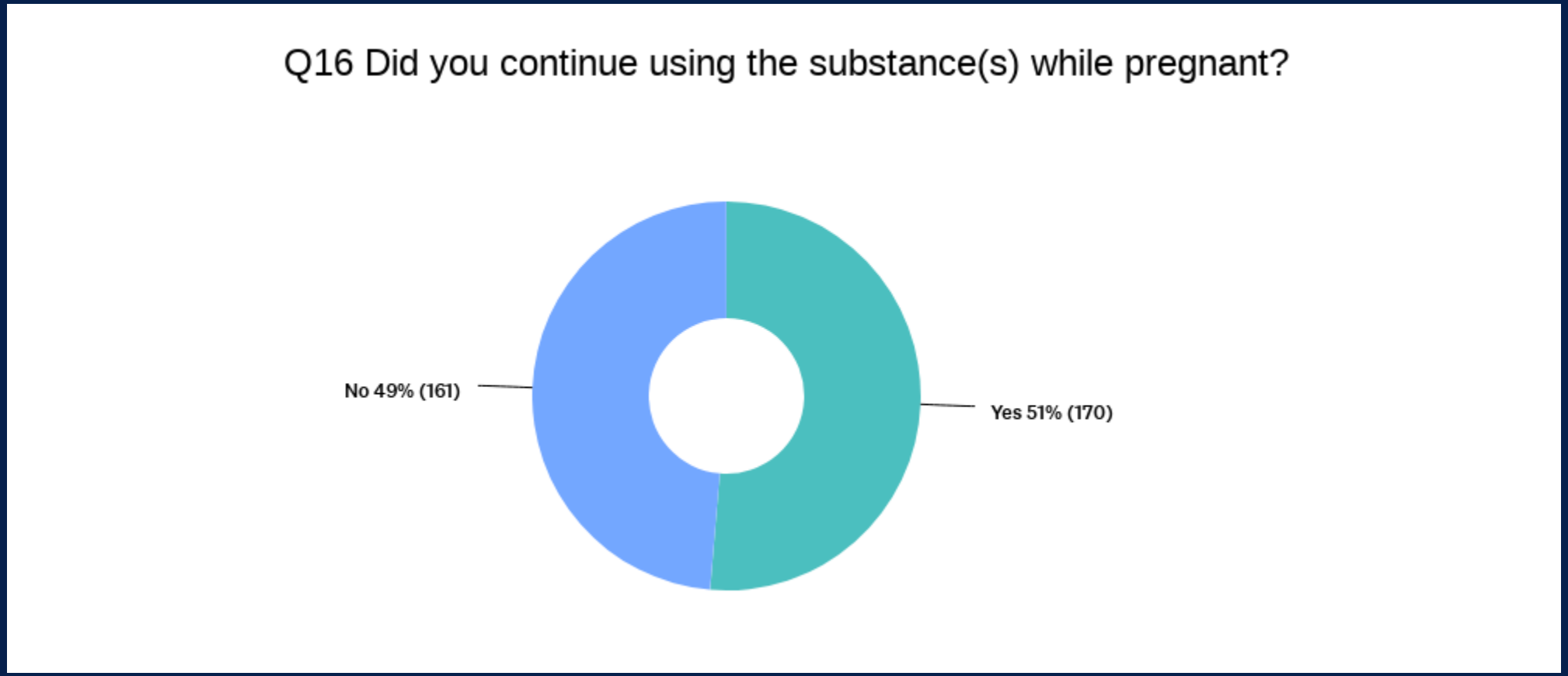

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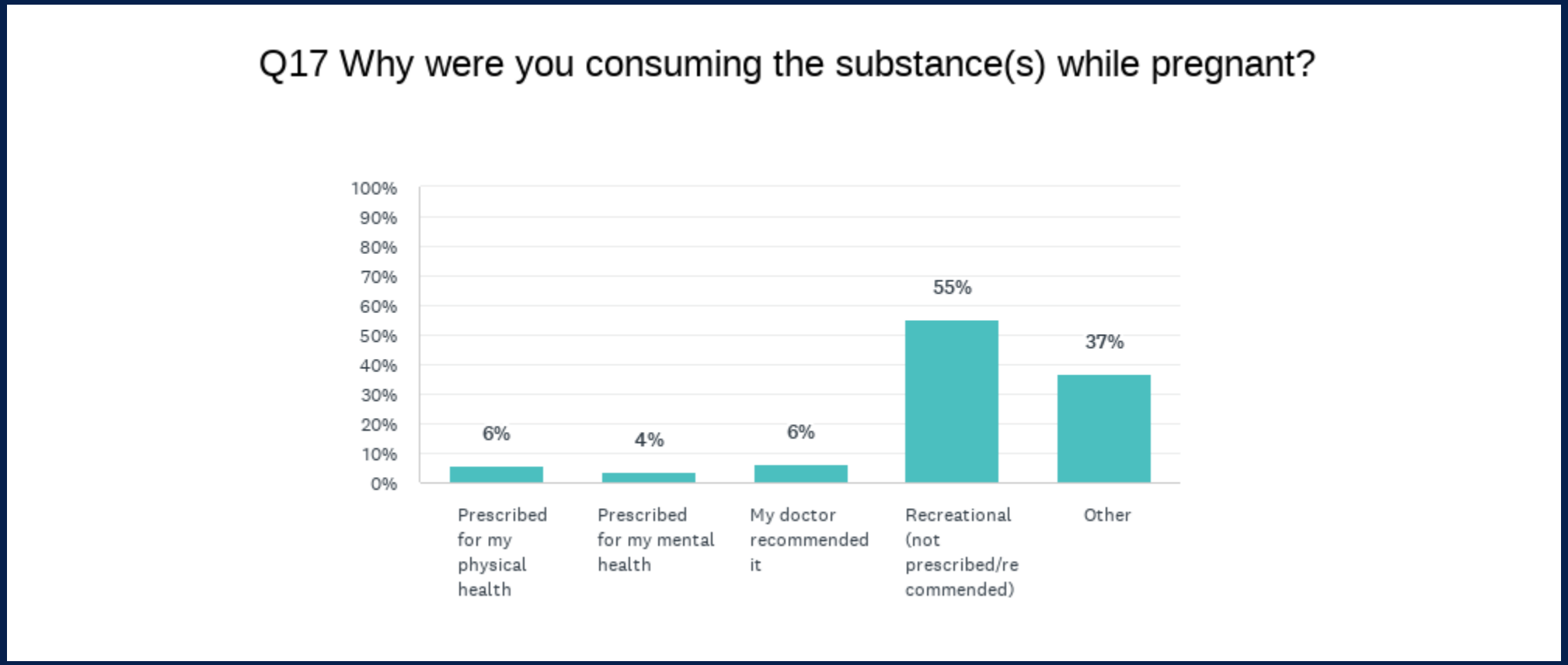

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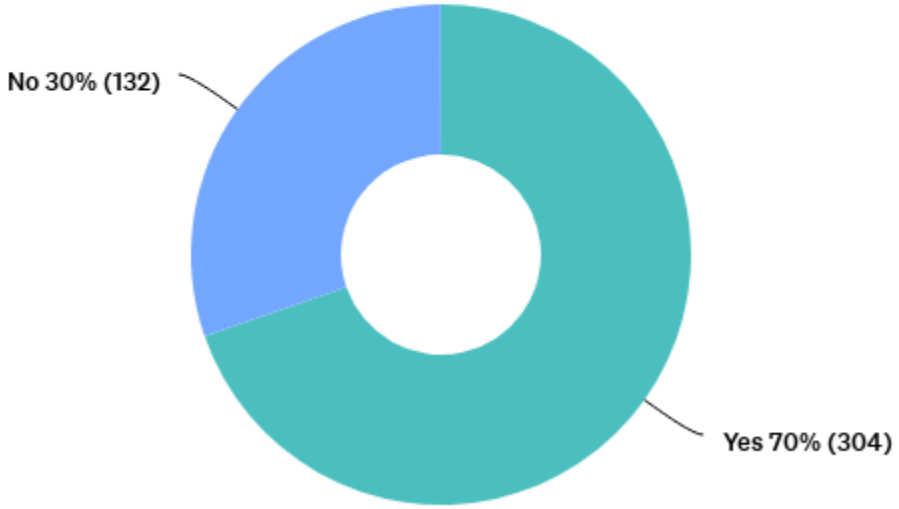
Substance Use in Puerto Rican Breastfeeding Persons

Q18 Have you consumed any of the considered substances during the period that you have been breastfeeding?



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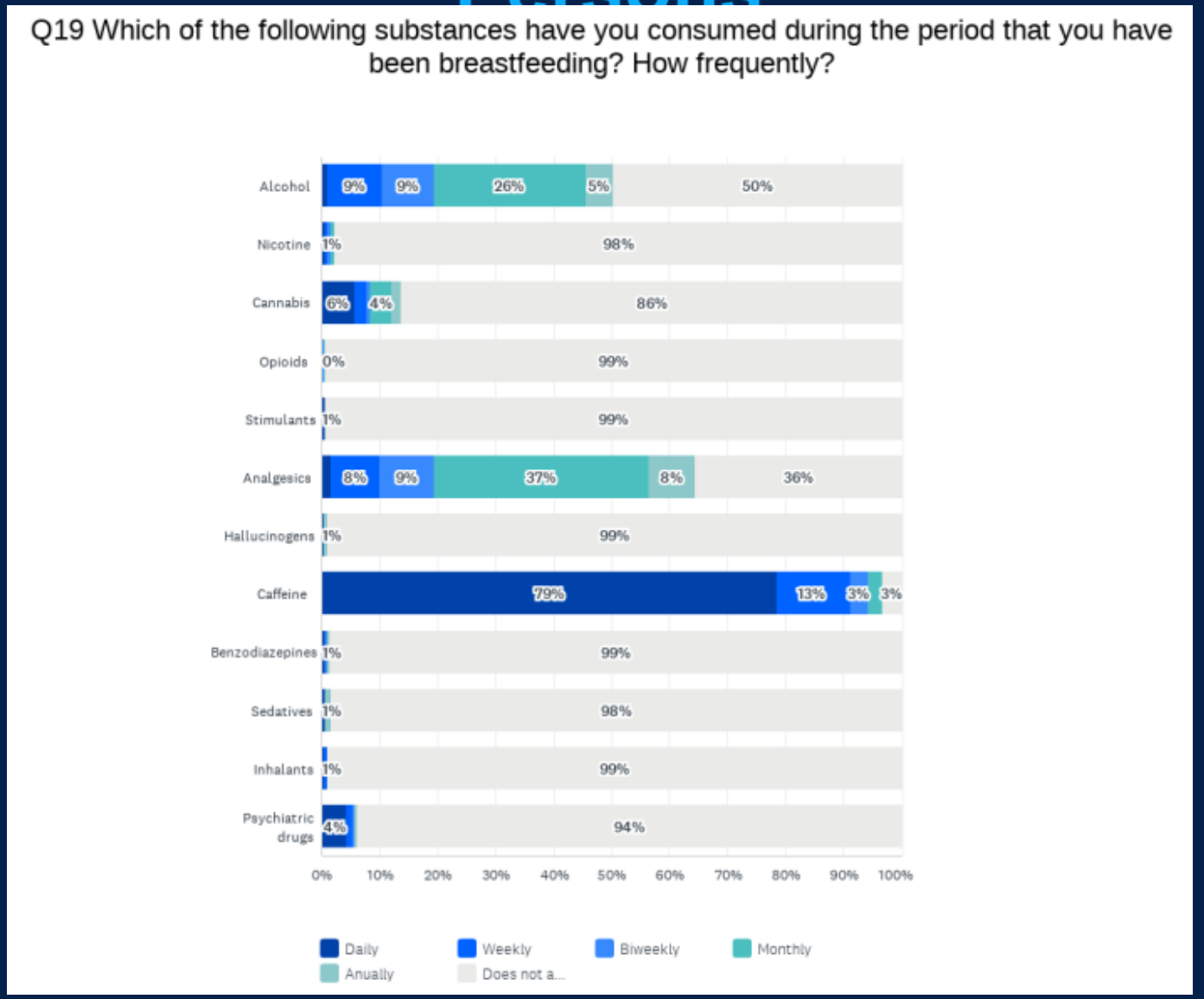

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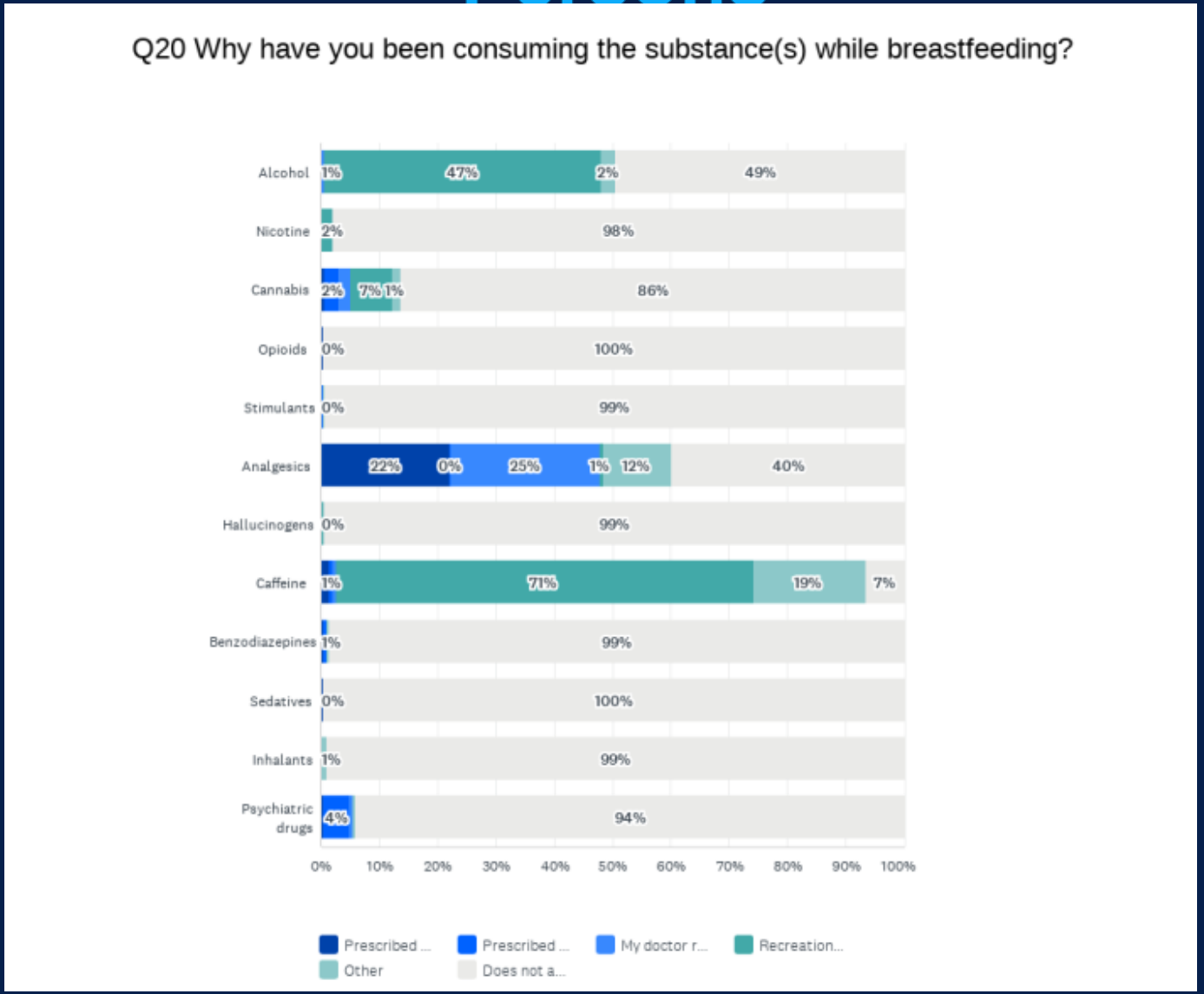

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Substance Use in Puerto Rican Breastfeeding Persons: Results

Breastfeeding

- 50% of participants have exclusively breastfed.
- 25% of participants have breastfed for at least 1.5 years.

Substance use

- 76% of participants reported using at least one substance before pregnancy.
- 51% continued using substances during pregnancy.
- 70% of participants used at least one substance while breastfeeding.

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Substance Use in Puerto Rican Breastfeeding Persons: Discussion

The study reveals a high prevalence of substance use during pregnancy and breastfeeding, highlighting the urgency of improving education during these stages.

Although 71% of participants received information about the risks of substance use during breastfeeding, the consumption persisted.

The results emphasize the need to ensure that the information provided to this population is up-to-date, accessible, culturally adapted, and free of stigma. It is suggested to implement early interventions, including psychoeducation, psychological support, and educational programs, to promote healthy practices and the well-being of breastfeeding persons and their babies.

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Evidence-based recommendations & updated protocols

Benefits of Breastfeeding

Infant

- Optimal nutrition
- Immune protection and reduced risk of developing certain diseases
- Neonatal abstinence syndrome (NAS) reduction
- Easier digestion
- Long-term health benefits

Breastfeeding parent

- Stronger parent-infant bond
- Faster postpartum recovery
- Weight loss
- Reduced risk of chronic diseases
- Costefectiveness and convenience

Rodríguez-Meira, C. A., Buccini, G., Azeredo, C. M., Conde, W. L., & Rinaldi, A. E. M. (2022). *Evolution of breastfeeding indicators and early introduction of foods in Latin American and Caribbean countries in the decades of 1990, 2000 and 2010. International Breastfeeding Journal*, 17(1), 32.

Clinical Scenario #1

- 30-year-old patient with opioid use disorder, currently on MOUD with methadone (60mg/day): requests counseling for breastfeeding a 3-day-old infant with mild NAS (Finnegan score)

- How would you counsel this patient?
  - Is it safe to breastfeed?
  - What monitoring is required?

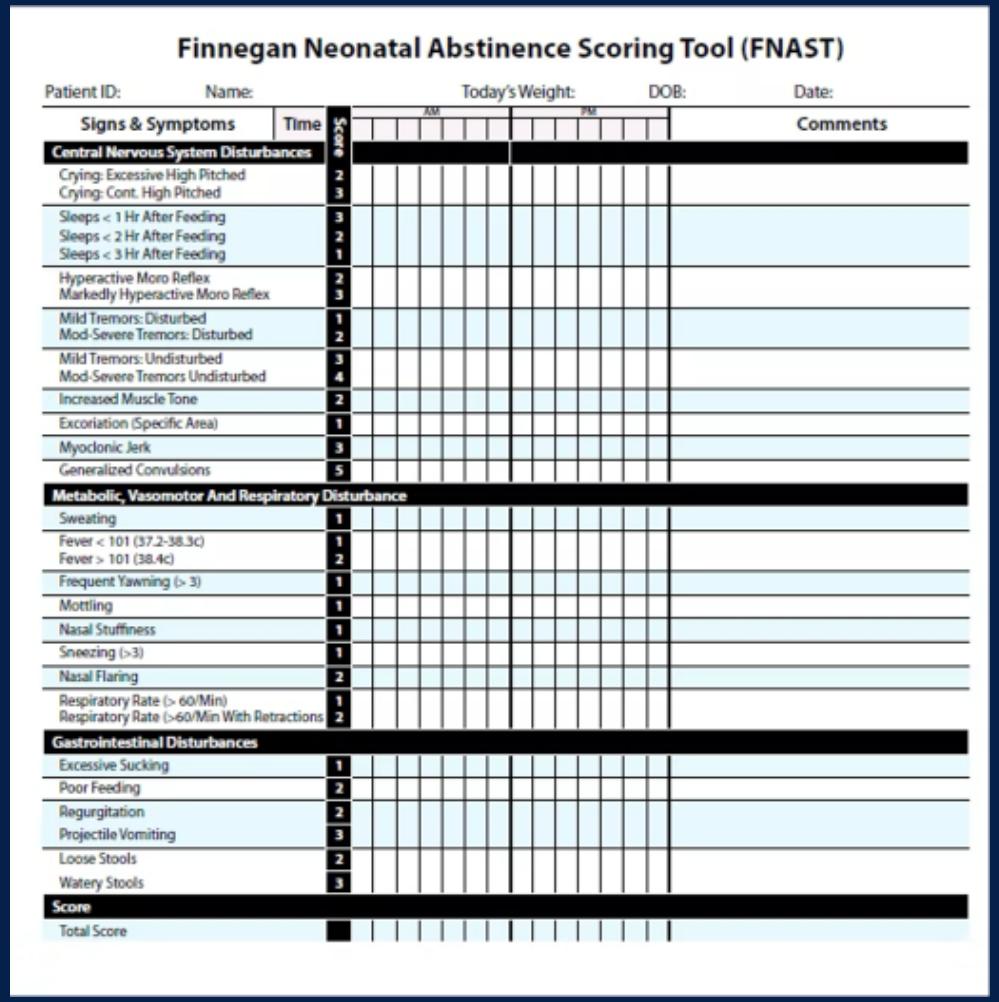
Opioid Use and Breastfeeding

Aspect	Methadone	Buprenorphine	Other opioids (Fentanyl, Heroin)
Compatibility	Compatible (ABM Protocol 21); <3% transfer to milk	Compatible (ABM); lower risk of Neonatal Abstinence Syndrome (NAS)	Contraindicated (ABM); requires abstinence or MOUD.
Transfer	Minimal transfer to breastmilk <3%	Minimal transfer; lower NAS risk compared to methadone	High risk of harmful transfer, unsafe for breastfeeding
Risks	Potential for infant sedation; requires monitoring	Less sedation than methadone; safer for infants	Severe risks to infant; overdose potential, withdrawal, and harm
Recommendations	Adjusted doses (30-120mg/day) safe (ASAM 2020); monitor infant for sedation	Preferred (ASAM); lower NAS risk and less sedation	Refer to treatment (SAMHSA/ASAM); use formula if active use continues

Reece-Stremtan, S., Marinelli, K. A., & Academy of Breastfeeding Medicine. (2023). ABM clinical protocol# 21: guidelines for breastfeeding and substance use or substance use disorder. *Breastfeeding Medicine*, *10*(3), 135-141.

Substance Abuse and Mental Health Services Administration. (2018). Clinical guidance for treating pregnant and parenting women with opioid use disorder and their infants. *Vol HHS Publication No.(SMA) 18-5054*.

Opioid Use and Breastfeeding



Finnegan Neonatal Abstinence Scoring Tool (FNAST)

Patient ID: Name: Today's Weight: DOB: Date:

Signs & Symptoms	Time	Score	AM	PM	Comments
Central Nervous System Disturbances					
Crying: Excessive High Pitched		2			
Crying: Cont. High Pitched		3			
Sleeps < 1 Hr After Feeding		3			
Sleeps < 2 Hr After Feeding		2			
Sleeps < 3 Hr After Feeding		1			
Hyperactive Moro Reflex		2			
Markedly Hyperactive Moro Reflex		3			
Mild Tremors: Disturbed		1			
Mod-Severe Tremors: Disturbed		2			
Mild Tremors: Undisturbed		3			
Mod-Severe Tremors Undisturbed		4			
Increased Muscle Tone		2			
Excoriation (Specific Area)		1			
Myoclonic Jerk		3			
Generalized Convulsions		5			
Metabolic, Vasomotor And Respiratory Disturbance					
Sweating		1			
Fever < 101 (37.2-38.3c)		1			
Fever > 101 (38.4c)		2			
Frequent Yawning (> 3)		1			
Mottling		1			
Nasal Stuffiness		1			
Sneezing (>3)		1			
Nasal Flaring		2			
Respiratory Rate (> 60/Min)		1			
Respiratory Rate (>60/Min With Retractions		2			
Gastrointestinal Disturbances					
Excessive Sucking		1			
Poor Feeding		2			
Regurgitation		2			
Projectile Vomiting		3			
Loose Stools		2			
Watery Stools		3			
Score					
Total Score					

Finnegan Score

Stimulants and Breastfeeding

- Cocaine and methamphetamine:
  - ABM Protocol 21: Contraindicated; high toxicity risk (seizures, hypertension).
  - SAMHSA: Chronic use needs intensive treatment; formula if no abstinence.
  - ASAM: High neonatal risk; prioritize parent stabilization.
- Prescribed Stimulants (e.g., methylphenidate):
  - ABM: Case-by-case (<20 mg/day viable); monitor agitation.
  - ASAM: Assess with psychiatrist; minimal doses preferred.

Reece-Stremtan, S., Marinelli, K. A., & Academy of Breastfeeding Medicine. (2023). ABM clinical protocol# 21: guidelines for breastfeeding and substance use or substance use disorder. *Breastfeeding Medicine*, *10*(3), 135-141.

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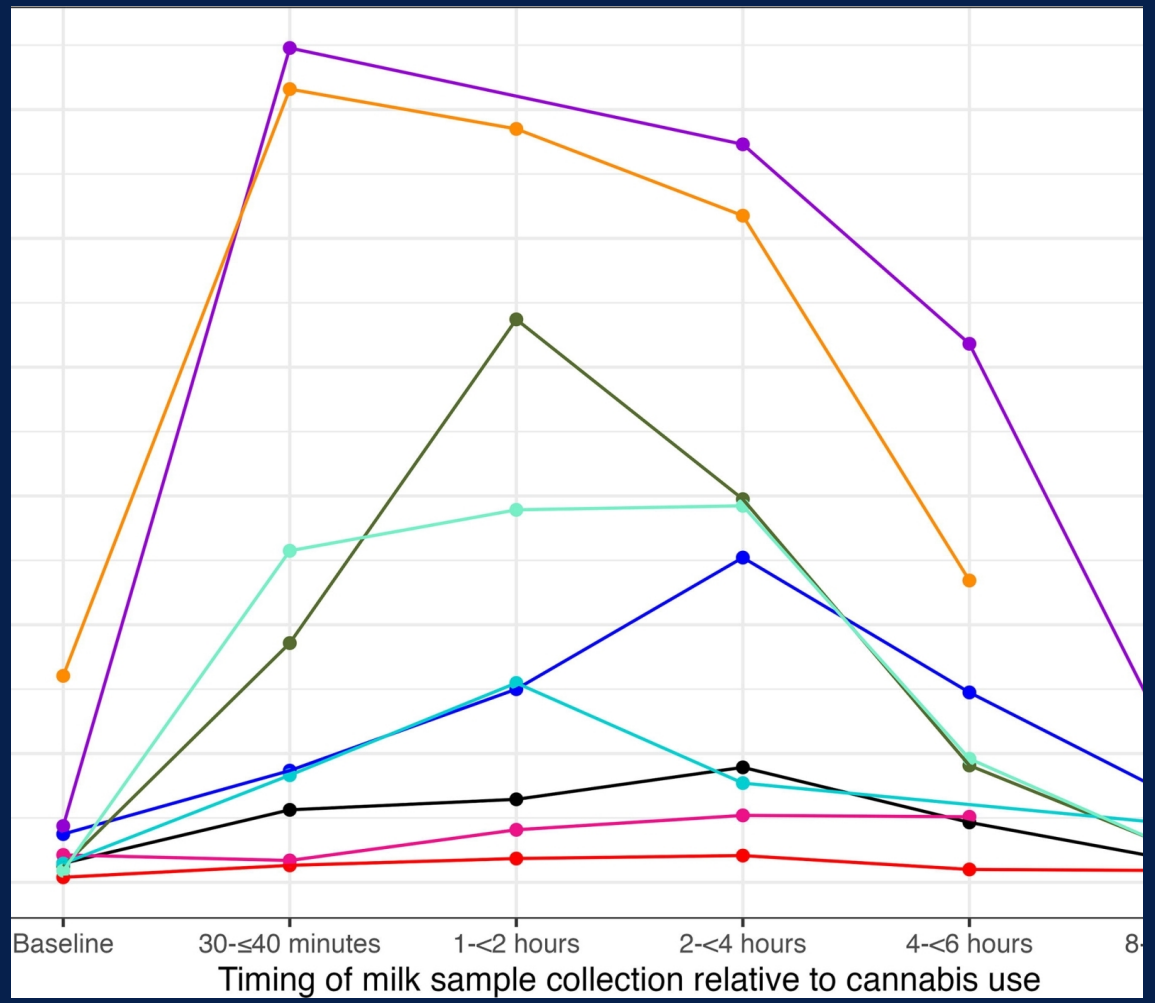
Clinical Scenario #2

- 25-year-old patient uses cannabis occasionally (2-3 times/week) for anxiety, is currently breastfeeding a healthy 2-week-old. Patient is concerned this may affect the baby but worries that postpartum anxiety may worsen resulting in difficulties caring for the baby.

- What advice would you give this patient?

Cannabis and Breastfeeding

- **THC Transfer:**
  - **ABM Protocol 21:** Detectable up to 6 days; cumulative risk.
  - **SAMHSA:** Limited data, advises against due to neurodevelopment.
- **Risks:**
  - **ABM:** Cognitive/motor impact; somnolence.
  - **ASAM:** Insufficient evidence for recreational use; suspend if active.
- **Recommendations:**
  - **ABM:** Discourage; avoid breastfeeding 24-48 hours post-use if continued



(Holdsworth et. al, 2024)

Clinical Scenario #3

- This is a 28-year-old parent who drinks 1-2 glasses of wine on weekends, breastfeeding a 1-month-old with normal growth.

- How would you counsel this patient?

Alcohol and Breastfeeding

- **Alcohol Transfer:**
  - **ABM Protocol 21:** Peak at 30-60 min; wait 90-120 min/drink.
  - **SAMHSA:** Occasional use compatible; avoid in alcohol use disorder (AUD).
- **Risks:**
  - **ABM:** Sedation, chronic cognitive delays.
  - **ASAM:** High doses (>2 drinks) need intervention.
- **Recommendations:**
  - **ABM:** "Pump and dump" if needed; abstinence ideal.

How Long Does it Take for Alcohol to Leave Your Breastmilk?

WEIGHT	1 STANDARD DRINK(S)	2 STANDARD DRINK(S)	3 STANDARD DRINK(S)	4 STANDARD DRINK(S)	5 STANDARD DRINK(S)	6 STANDARD DRINK(S)	7 STANDARD DRINK(S)	8 STANDARD DRINK(S)
	HOURS : MINUTES							
90 LBS	2:50	5:40	8:30	11:20	14:10	17:00	19:51	22:41
95 LBS	2:16	5:32	8:19	11:05	13:52	16:38	19:25	22:11
100 LBS	2:42	5:25	8:08	10:51	13:34	16:17	19:00	21:43
105 LBS	2:39	5:19	7:58	10:38	13:18	15:57	18:37	21:16
110 LBS	2:36	5:12	7:49	10:25	13:01	15:38	18:14	20:50
115 LBS	2:33	5:06	7:39	10:12	12:46	15:19	17:52	20:25
120 LBS	2:30	5:00	7:30	10:00	12:31	15:01	17:31	20:01
125 LBS	2:27	4:54	7:22	9:49	12:16	14:44	17:11	19:38
130 LBS	2:24	4:49	7:13	9:38	12:03	14:27	16:52	19:16
135 LBS	2:21	4:43	7:05	9:27	11.49	14:11	16:33	18:55
140 LBS	2:19	4:38	6:58	9:17	11:37	13:56	16:15	18:35
145 LBS	2:16	4:33	6:50	9:07	11:24	13:41	15:58	18:15
150 LBS	2:14	4:29	6:13	8:58	11:12	13:27	15:41	17:56
155 LBS	2:12	4:24	6:36	8:48	11:01	13:13	15:25	17:37
160 LBS	2:10	4:20	6:30	8:40	10:50	13:00	15:10	17:20
165 LBS	2:07	4:15	6:23	8:31	10:39	12:47	14:54	17:02
170 LBS	2:05	4:11	6:17	8:23	10:28	12:34	14:40	16:46
175 LBS	2:03	4:07	6:11	8:14	10:18	12:22	14:26	16:29
180 LBS	2:01	4:03	6:05	8:07	10:08	12:10	14:12	16:14
185 LBS	1:59	3:59	5:59	7:59	9:59	11:59	13:59	15:59
190 LBS	1:58	3:56	5:54	7:52	9:50	11:48	13:46	15:44
195 LBS	1:56	3:52	5:48	7:44	9:11	11:37	13:33	15:29
200 LBS	1:54	3:49	5:43	7:38	9:32	11:27	13:21	15:16
205 LBS	1:52	3:45	5:38	7:31	9:24	11:17	13:09	15:02
205 LBS	1:52	3:45	5:38	7:31	9:24	11:17	13:09	15:02
210 LBS	1:51	3:42	5:33	7:24	9:16	11:07	12:58	14:49

The Dietary Guidelines for Americans defines **a standard "drink" as 12 ounces of 5% beer; 8 ounces of 7% malt liquor; 5 ounces of 12% wine; or 1.5 ounces of 40% (80 proof) liquor.** All of these drinks contain the same amount (i.e., 14 grams, or 0.6 ounces) of pure alcohol. However, many common drinks contain much more alcohol than this.

Source: www.cdc.gov/breastfeeding/breastfeeding-special-circumstances/vaccinations-medications-drugs/alcohol

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Tobacco and Breastfeeding

- **Nicotine Transfer:**
  - **ABM Protocol 21:** Detectable; secondhand smoke worsens risks.
  - **SAMHSA:** Smoking reduces milk output (250 mL/day less).
- **Risks:**
  - **ABM:** SIDS (2-4x risk), respiratory infections.
  - **ASAM:** nicotine replacement compatible.
- **Recommendations:**
  - **ABM:** Breastfeeding better than formula; support cessation.

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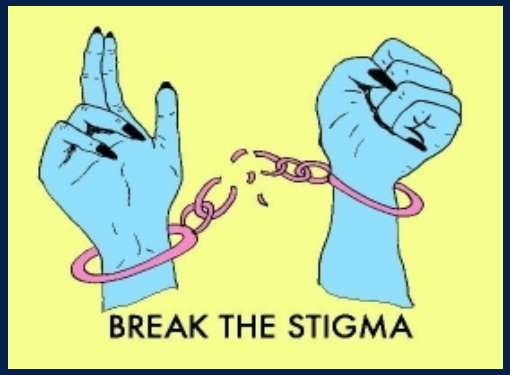
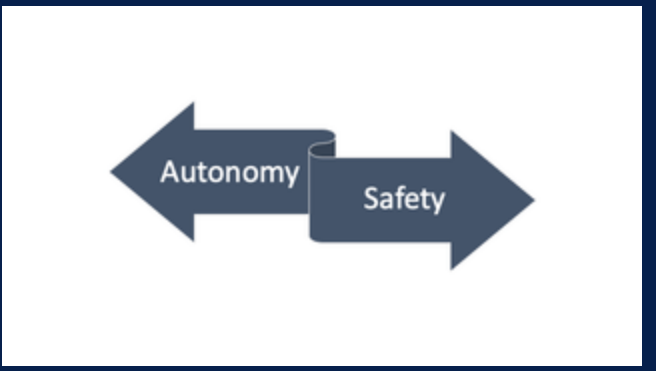
Ethical and Legal Considerations

- **Ethical Dilemmas:**
  - **Autonomy vs. Beneficence:** Balancing parental choice (e.g., breastfeeding on methadone) with infant safety (e.g., heroin use).
  - **Stigma:** Parents with SUD face bias (e.g., “unfit”); risk of withdrawing from care.
  - **Equity:** Unequal access to medication for addiction treatment or lactation support in marginalized communities.
- **Legal Aspects:**
  - **Reporting:** Illicit use may require notification (varies by jurisdiction).
  - **Confidentiality:** Protect data unless imminent risk; informed consent essential.
  - **Custody:** Breastfeeding may factor into child protection cases.





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Final takeaways

- The **transition to parenthood** is a key period where substance use behaviors can significantly affect infant well-being.
- Understanding SUD during pregnancy and breastfeeding is critical due to its impact on both **parental and infant health**.
- **Public health efforts must focus on supporting breastfeeding individuals** in avoiding harmful substance use.

Contact Information

- Michelle A. Cabán-Ruiz, Ph.D.
- michelle.caban@uccaribe.edu
- (787)798-3001; ext. 2707

- Angélica M. Fuentes-Armesto M.D, DABFM
- angelica.fuentes@uccaribe.edu

- Henry X. Nieves-Díaz, M.D, DABFM
- henry.nieves@uccaribe.edu

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