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## Prevalence of Illicit Drug Use and Non-Medical Prescription Drug Use among Pregnant Women in the United States

### Key Findings

- An estimated 9.35% of pregnant women in the United States ages 18-49 years have used an illicit drug or non-medically used a prescription drug in the last month. This is largely driven by cannabis use, with a last month use prevalence of 7.49%
- Of the prescription drug classes examined, the last month non-medical use prevalence among pregnant women was highest for stimulants, at 2.09%
- Last month illicit drug use or non-medical prescription drug use was significantly higher among Hispanic pregnant women compared to non-Hispanic pregnant women and among pregnant women who had experienced chronic or acute pain in the past year compared to those who had not

### Introduction

Illicit drug use and non-medical prescription drug use during pregnancy have the potential to acutely harm the mother and fetus as well as lead to teratogenic changes that may affect the child for life. Assessing illicit drug use and non-medical prescription drug use in pregnant women is challenging as many women are hesitant to disclose such use, and the accuracy of even validated screening tools for clinical use has recently come into question (1). Probability surveys that have traditionally been used to provide national prevalence estimates such as the National Health and Nutrition Examination Survey (NHANES) and the National Survey on Drug Use and Health (NSDUH) are limited by excessive delays between data collection and publication as well as the relative immutability of these surveys; such limitations preclude these surveys from painting a real-time picture of the shifting trends in illicit drug use and non-medical prescription drug use in pregnant women. The Survey of Non-Medical Use of Prescription Drugs overcomes several of these limitations and can provide near real-time data on drug use during pregnancy (2). The purpose of this report is to describe national prevalence estimates of last-month illicit or non-medical prescription drug use among pregnant women in the United States.

### Methods

The RADARS Survey of Non-Medical Use of Prescription Drugs (NMURx) Program is a cross-sectional, online, anonymous survey of the general adult population in the United States. Using data from the 3rd quarter 2018 survey launch, prevalence estimates of last month use of any illicit drug or non-medical use (NMU) of any prescription pain reliever, sedative, or stimulant were calculated among self-identified pregnant women and between 18-49 years of age. Calibration weighting was utilized to provide national prevalence estimates. Illicit drugs included anabolic steroids not prescribed by a healthcare professional, alkyl nitrites, nitrous oxide, cannabis, cocaine powder, crack cocaine, gamma hydroxybutyrate/gamma butyrolactone (GHB/GBL), heroin, ketamine, kratom, lysergic acid diethylamide (LSD), 3,4-methylenedioxymethamphetamine (MDMA), mephedrone, mescaline,

methamphetamine, non-pharmaceutical amphetamine, non-pharmaceutical fentanyl, phencyclidine (PCP), psilocybin or mushrooms, salvia, or synthetic cannabinoid receptor agonists. NMU of prescription drugs was defined as use in any way not directed by a healthcare provider. The prevalence of any drug use in the last month among respondents with different demographic characteristics were explored; differences were tested using Rao-Scott chi-square tests.

## Results

An estimated 9.35% of pregnant women in the US ages 18-49 years have used an illicit drug or non-medically used a prescription drug in the last month; this corresponds to an estimated 228,291 pregnant women nationally (Figure 1). For comparison, an estimated 16.53% of non-pregnant women ages 18-49 years have used an illicit drug or non-medically used a prescription drug in the last month (95% CI 15.54%, 17.51%). In pregnant women, such use was largely driven by illicit drug use, with a last month use prevalence of 8.86%, and specifically cannabis, with a last month use prevalence of 7.49%. Of the prescription drug classes examined, prescription stimulant NMU had the highest prevalence at 2.09%, corresponding to an estimated 50,974 pregnant women nationally. The prevalence of last month use of any illicit drug or NMU of any prescription pain reliever, sedative, or stimulant was significantly higher among Hispanic pregnant women compared to non-Hispanic pregnant women (22.46% vs 6.73%,  $p=0.0015$ , respectively) and among pregnant women who had experienced chronic or acute pain in the past year compared to those who had not (chronic: 24.29% vs 6.71%,  $p=0.0004$ ; acute: 21.49% vs 6.61%,  $p=0.0013$ , respectively). In contrast, the prevalence of last month use of any illicit drug or NMU of any prescription drug examined did not differ significantly with respect to other demographic characteristics such as census region, marital status, education, employment status, or annual household income (Table 1).

Figure 1: Prevalence of Last Month Illicit Drug Use or Non-Medical Prescription Drug Use Among Pregnant Women Ages 18-49 Years

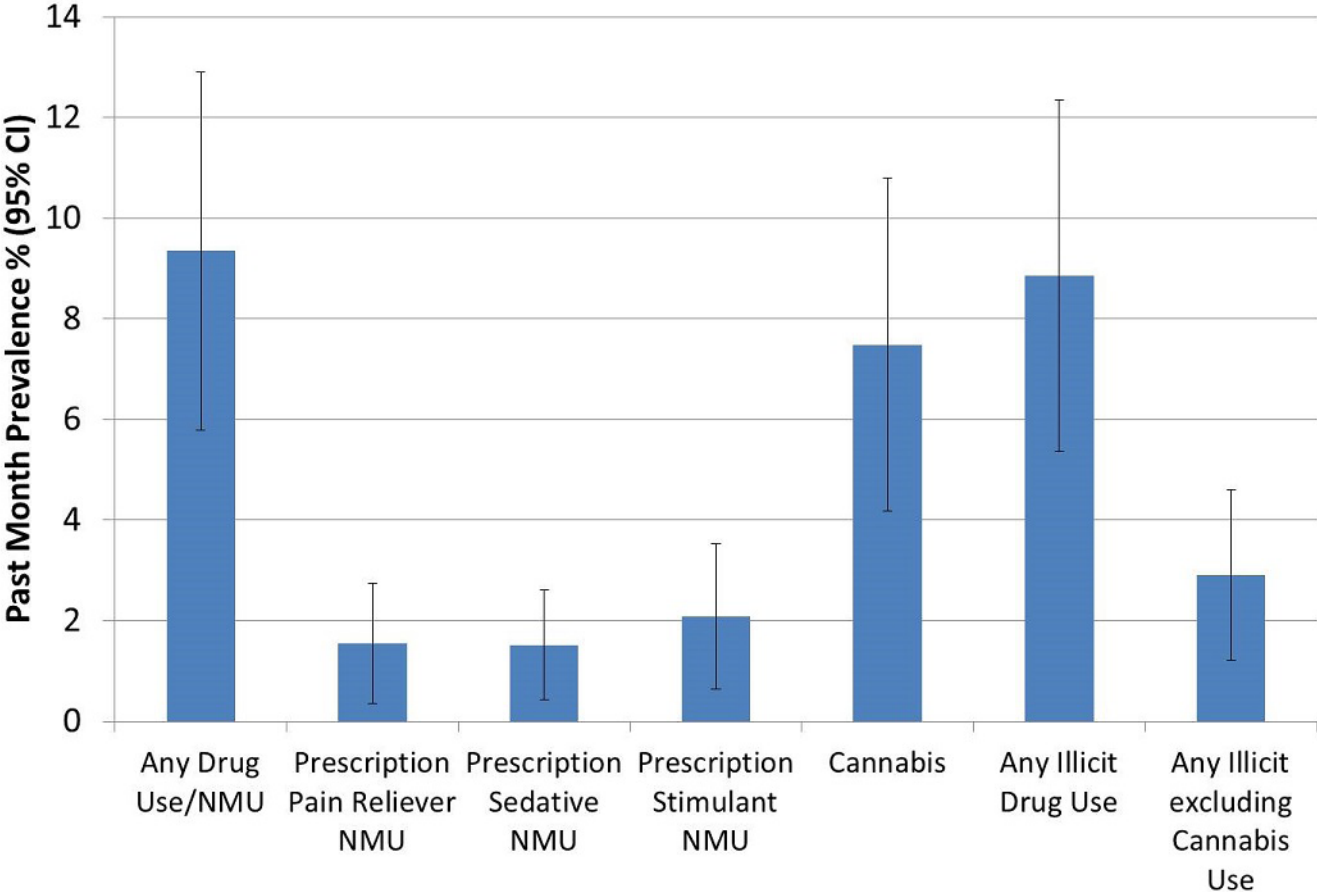


Table 1: Last Month Prevalence of Any Drug Use or NMU by Demographic or Other Characteristics Among Pregnant Women Ages 18-49 Years

	Last Month Any Drug Use/NMU <sup>a</sup> Prevalence % (95% CI)	p-value <sup>b</sup>
All Pregnant Women	9.35 (5.79, 12.92)	-
Age (years), Median (IQR)	29.02 (24.37, 33.19)	
Census Region		
Northeast	12.69 (1.62, 23.75)	0.6483
Midwest	Suppressed	
South	8.73 (3.75, 13.72)	
West	11.20 (2.74, 19.66)	
Ethnicity		
Hispanic	22.46 (9.82, 35.10)	0.0015
Non-Hispanic	6.73 (3.34, 10.11)	
Race <sup>c</sup>		
White	9.01 (5.16, 12.87)	0.7382
Black	10.83 (0.78, 20.88)	0.7355
Other	Suppressed	-
Marital Status		
Married	7.41 (3.39, 11.42)	0.1401
Divorced/Separated/Widowed	7.49 (0.44, 14.53)	
Never Married	15.15 (5.81, 24.49)	
Education		
High School or Less	11.12 (3.05, 19.20)	0.7423
Some College	10.25 (3.38, 17.12)	
Bachelor's Degree or Higher, Trade School	7.89 (3.16, 12.62)	
Household Annual Income		
<\$50,000	11.12 (5.35, 16.90)	0.5093
\$50,000-99,999	6.72 (2.51, 10.92)	
≥\$100,000	9.29 (0.32, 18.25)	
No. of People in the Home		
1 or 2	8.47 (2.11, 14.82)	0.9252
3	10.15 (3.87, 16.42)	
4 or more	9.44 (3.83, 15.05)	
Employed in the last week		
Yes	7.49 (2.68, 12.30)	0.3296
No	11.09 (5.86, 16.31)	
Chronic Pain in the last year		
Yes	24.29 (12.34, 36.25)	0.0004
No	6.71 (3.11, 10.32)	
Acute Pain in the last year		
Yes	21.49 (10.64, 32.34)	0.0013
No	6.61 (3.04, 10.18)	

Data in cell are suppressed due to disclosure risk (numerator <5 respondents) or statistical validity considerations (denominator <25 respondents)

a. Any illicit drug use, cannabis use, or NMU of prescription pain relievers, sedatives, stimulants, or cannabinoids

b. p-value for chi-square test of differences in proportions

c. Respondents can endorse multiple races; significance was tested between white and non-white, and between black and non-black, respectively

## Conclusions

Illicit drug use and non-medical prescription drug use during pregnancy is not uncommon in the United States and may disproportionately occur in Hispanic women and women who have experienced pain in the past year. Cannabis use and prescription stimulant NMU had the highest prevalence estimates among illicit and prescription drug classes, respectively. These findings will assist clinicians in more effectively tailoring their screening for illicit drug use and non-medical prescription drug use among pregnant patients and will allow public health officials to focus their educational efforts on the most impactful topics. Further studies to better characterize the details of these drug use patterns in pregnant women and their changes over time are warranted.

## Suggested Citation

Seidel Halmo L, Rockhill K, Black JC, Dart RC, Iwanicki JL (2019). Prevalence of illicit drug use and non-medical prescription drug use among pregnant women in the United States. RADARS® System Technical Report, 2019-Q4.

## References

1. Ondersma SJ, Chang G, Blake-Lamb T, Gilstad-Hayden K, Orav J, Beatty JR, Goyert GL, Yonkers KA (2019). Accuracy of five self-report screening instruments for substance use in pregnancy [published online ahead of print, 19 June 2019]. *Addiction*. Doi 10.1111/add.14651.
2. Black JC, Rockhill K, Forber A, Amioka E, May KP, Haynes CM, Dart RC (2019). Redesign of Survey of Non-Medical Use of Prescription Drugs Program Improves Benchmark Estimates. RADARS® System Technical Report, 2019-Q1.

