

CANNABIS USE AND HIGH RISK SUBSTANCE USE BEHAVIORS IN THE UNITED STATES NON-MEDICAL USE OF PRESCRIPTION DRUGS (NMURx) NATIONAL SURVEY

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Introduction

- Patterns of cannabis use associated with prescription drug and illicit drug misuse and abuse are poorly understood.
- Conflicting data have been used to conclude that cannabis use is associated with lower risks of opioid use, as well as with higher risks of opioid use.
- To better understand substance use behaviors of those who use cannabis, we compared the proportion of various substance use behaviors among those use who cannabis, smoke cigarettes, and use alcohol using the United States Non-Medical Use of Prescription Drugs (NMURx) national survey.

Methods

The NMURx Program is a large-scale, repeated, cross-sectional survey of adults in multiple countries, including the United States.

- NMURx collects data on nonmedical use (NMU) of prescription drugs, illicit drugs, and over the counter medications, as well as demographics and behaviors.
- Prescription drug NMU was defined as use in a way not directed by your healthcare provider.
- NMURx data from the 3rd quarter of 2018 are presented.
- Calibration weights were applied to represent national adult population distributions.
- National prevalence and proportion of past 12 month behaviors among those who use cannabis, smoke cigarettes, and drink more than 7 alcoholic beverages per week are reported.
- Percent of those with each associated behavior and 95% confidence intervals are reported.

Behavior	Cannabis Users % (95% CI)	Cannabis Non-Users % (95% CI)	Cigarette Smokers % (95% CI)	Non-Smokers % (95% CI)	>7 Alcoholic Drinks / Wk % (95% CI)	≤7 Alcoholic Drinks /Wk % (95% CI)
Co-NMU with Opioids	14.9 (13.9, 15.9)	3.8 (3.5, 4.0)	17.0 (16.1, 17.9)	3.9 (3.7, 4.2)	11.4 (10.2, 12.5)	5.1 (4.8, 5.4)
Co-Use with Illicits (excluding cannabis)	19.0 (17.8, 20.1)	3.8 (3.5, 4.0)	16.5 (15.6, 17.4)	3.0 (2.8, 3.3)	12.1 (10.9, 13.3)	4.1 (3.8, 4.3)
Injection of pain reliever pills	1.6 (1.3, 1.9)	0.28 (0.21, 0.34)	2.8 (2.4, 3.1)	0.16 (0.10, 0.22)	1.9 (1.4, 2.3)	0.37 (0.30, 0.44)
DAST-10 Category						
None, 0	32.3 (29.9, 32.7)	70.4 (69.7, 71.0)	43.4 (42.2, 44.6)	66.6 (65.9, 67.3)	52.0 (50.1, 53.8)	64.7 (64.0, 65.3)
Low, 1-2	50.3 (48.8, 51.8)	27.4 (26.8, 28.0)	39.7 (38.5, 40.9)	30.1 (29.5, 30.8)	36.1 (34.3, 37.9)	31.0 (30.3, 31.6)
Moderate, 3-5	13.5 (12.5, 14.5)	1.7 (1.6, 1.9)	11.3 (10.5, 12.1)	2.6 (2.4, 2.9)	8.5 (7.5, 9.5)	3.3 (3.1, 3.5)
Substantial, 6-8	3.9 (3.4, 4.4)	0.41 (0.33, 0.49)	4.2 (3.7, 4.7)	0.52 (0.42, 0.63)	2.3 (1.8, 2.8)	0.90 (0.78, 1.01)
Severe, 9-10	1.1 (0.8, 1.4)	0.11 (0.06, 0.15)	1.4 (1.1, 1.7)	0.11 (0.06, 0.15)	1.1 (0.8, 1.5)	0.19 (0.14, 0.24)
Mean DAST Score	1.51 (1.46, 1.56)	0.40 (0.39, 0.41)	1.34 (1.29, 1.39)	0.48 (0.47, 0.50)	1.03 (0.97, 1.08)	0.55 (0.54, 0.57)

Results

- The estimated national prevalence of 12 month cannabis use was 45,109,079 adults or 17.9%, estimated prevalence of cigarette smoking was 35,144,420 adults or 13.9%, and estimated prevalence of drinking more than 7 alcoholic beverages per week was 25,857,764 adults or 10.3%.
- Among those who used cannabis, 14.9% (13.9-15.9%) also nonmedically used prescription opioids compared to 3.8% of those who did not use cannabis. Similarly, 19.0% endorsing cannabis use also reported use of an illicit drug, compared to 3.8% of those who did not use cannabis.
- Overall, cannabis users had higher rates of other substance use behavior than those who did not use cannabis, including injection of prescription opioid pills, and higher Drug Abuse Screening Test (DAST-10) scores.
- Similar patterns of substance use behaviors were also observed among those who smoke cigarettes and those who drink greater than 7 alcoholic drinks per week. Cannabis use was associated with slightly higher rates of use of illicit drugs and mean DAST-10 scores than cigarette smoking or alcohol use.

Conclusions

- The estimated national prevalence of cannabis use in the United States in NMURx data was greater than either cigarette smoking or alcohol consumption of greater than 7 drinks per week.
- Those who used cannabis had higher rates of opioid nonmedical use, illicit drug use, injection of prescription opioid pills, and DAST-10 scores than those who did not use cannabis. However, both tobacco and alcohol use were also associated with these risky substance use behaviors.

Limitations

Like any Internet survey, the study is limited by certain design features of NMURx and the possibility of observation, selection, response and memory recall biases.

Disclosure

The RADARS System is supported by subscriptions from pharmaceutical manufacturers, government and non-government agencies for surveillance, research and reporting services. RADARS System is the property of Denver Health and Hospital Authority, a political subdivision of the State of Colorado. Denver Health retains exclusive ownership of all data, databases and systems. Subscribers do not participate in data collection nor do they have access to the raw data.