Marijuana and Opioids:
A Research Perspective
John S Searles, Ph.D.
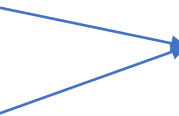## Substance Abuse Research and Policy Analyst

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December 11, 2017

Cannabis Use and Risk of Prescription Opioid Use Disorder in the United States

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Sample

- National Epidemiological Survey on Alcohol and Related Conditions (NESARC) – A nationally representative sample of the civilian noninstitutionalized adult (18+) US population.
    - Wave 1 2001 - 2002 Response rate = 81.0%
    - Wave 2 2004 - 2005 Response rate = 86.7%

    Cumulative response rate = 70.2% (n=34,653)

- DSM-IV Criteria for assessment

Results

Adjustments for background and clinical characteristics (e.g., age, sex, race/ethnicity, family history variables, antisocial personality disorder, other substance use disorder, mood & anxiety orders at wave 1)

Wave 1 past year cannabis use predicting:

Wave 2 nonmedical opioid use prevalence adjusted OR = 3.54 (2.74 – 4.57)

Wave 2 nonmedical opioid use incidence adjusted OR = 2.62 (1.86 – 3.69)
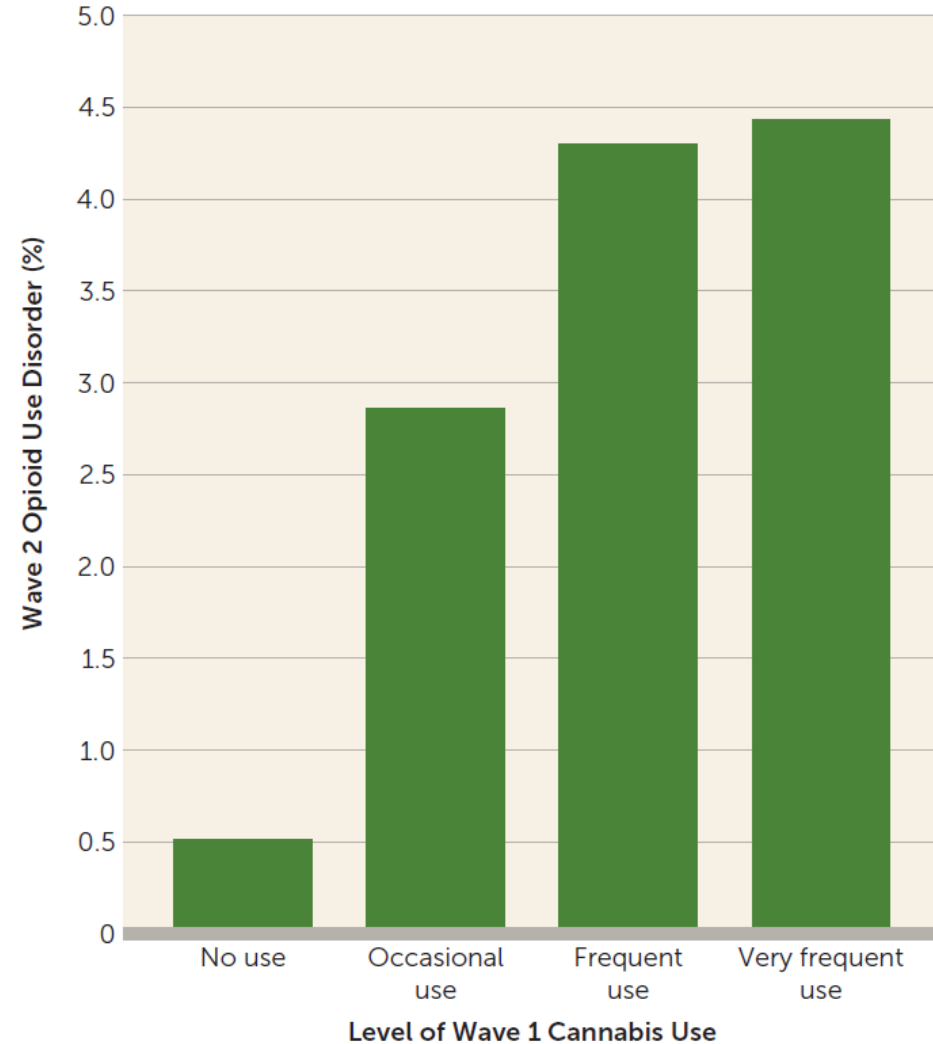
Prevalence of Opioid Use Disorder in Wave 2 Is Dose Dependent on Level of Cannabis Use in Wave 1

Occasional = Less than once/month

Frequent = Once a month or more to 2 times/week

Very Frequent = 3 times/week to every day

FIGURE 1. Level of Wave 1 Cannabis Use and Incident Wave 2 Prescription Opioid Use Disorder in the NESARC[a]

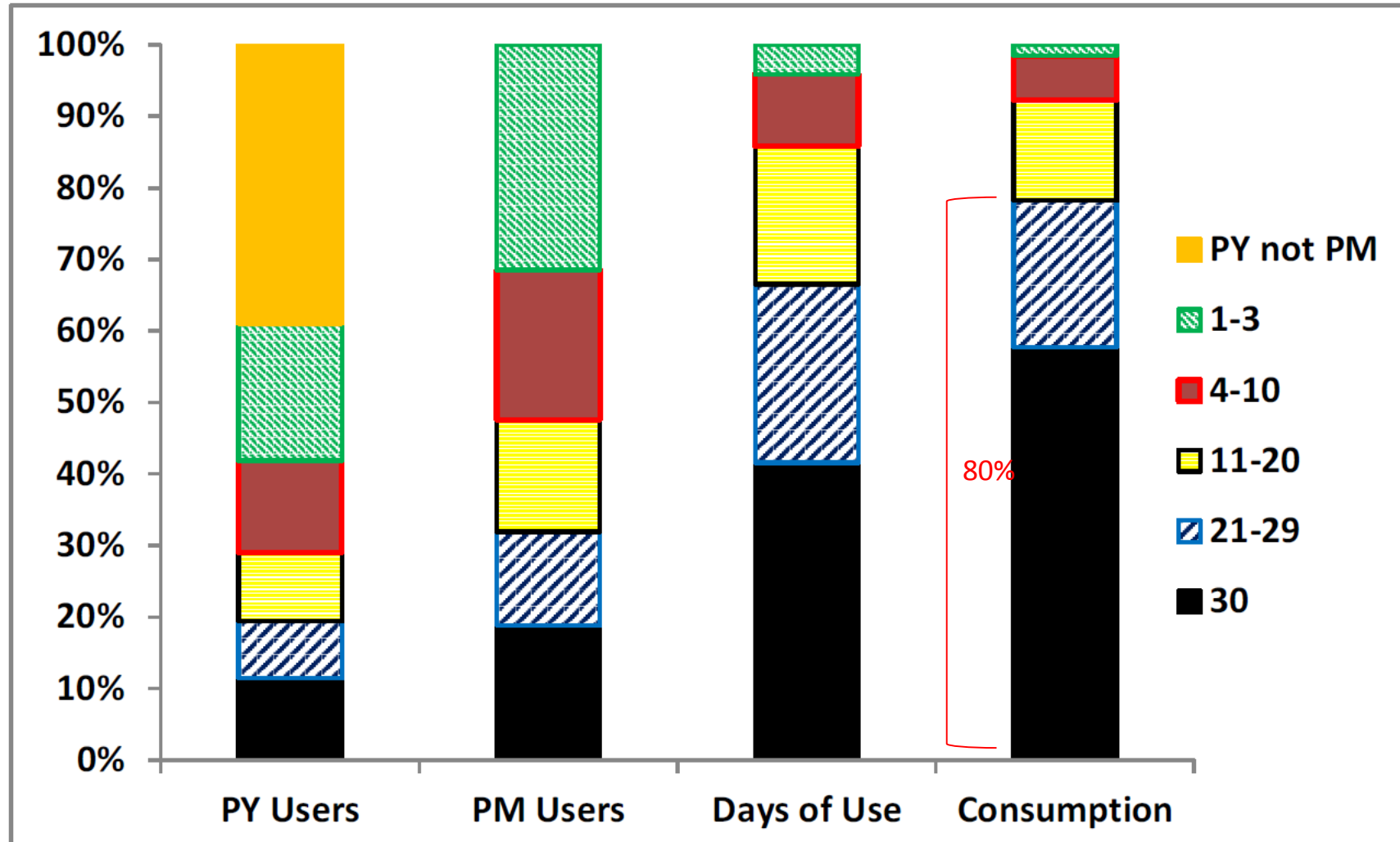# The Relatively Small Number of Daily Users Dominates Use & Use-Related Harm
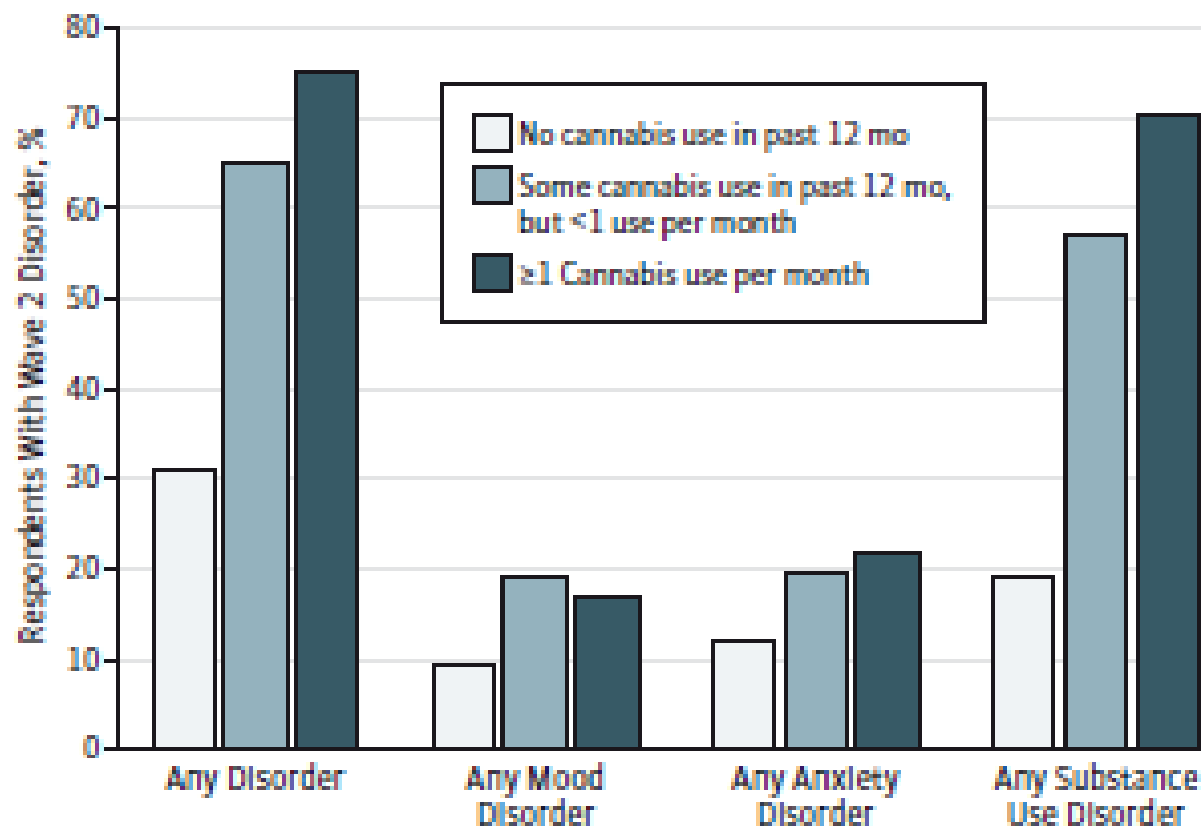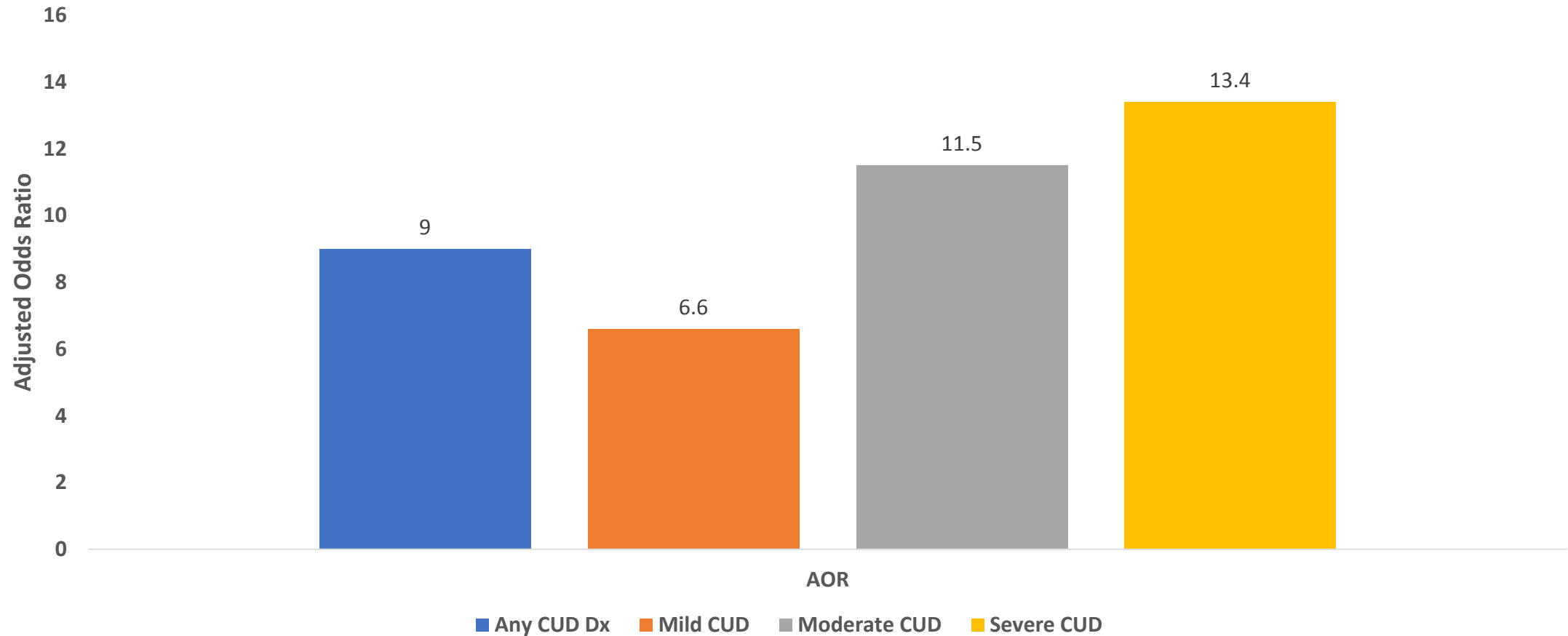
Figure. Prevalence of Psychiatric Disorders in Wave 2 of the National Epidemiologic Survey on Alcohol and Related Conditions by Level of Cannabis Use in Wave 1

Risk of Any Other Drug Use Disorder with Past Year Cannabis Use Disorder

Source: Hasin et al. (2016). Prevalence and Correlates of DSM-5 Cannabis Use Disorder, 2012-2013: Findings from the National Epidemiological Survey on Alcohol and Related Conditions – III. *American Journal of Psychiatry, 163*, 588-599.

Change in Prevalence Rankings– Colorado

(National Survey on Drug Use and Health)

2012/2013

	12+	12-17	18-25	26+	18+
Past 30 Day Use of Marijuana	2	3	2	5	2
Past Year Nonmedical Use of Pain Relievers	12	4	10	16	13

2013/2014

	12+	12-17	18-25	26+	18+
Past 30 Day Use of Marijuana	1	1	1	1	1
Past Year Nonmedical Use of Pain Relievers	2	3	7	1	2

Olfson et al. (2017) Conclusions

- "Cannabis use appears to increase rather than decrease the risk of developing nonmedical prescription opioid use and opioid use disorder."

- "If cannabis use tends to increase opioid use, it is possible that the recent increase in cannabis use may have worsened the opioid crisis."