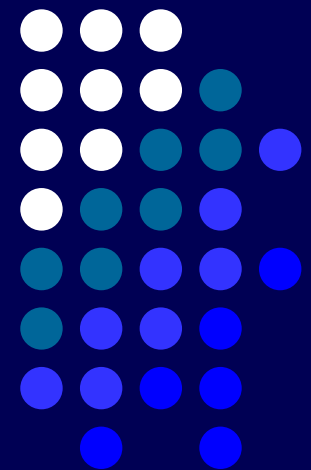


Prescription Opioid and Alcohol Co-ingestion among U.S. Adolescents

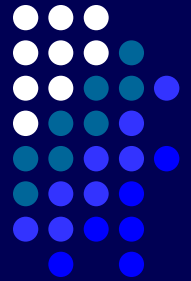
Sean Esteban McCabe, Ph.D.
Research Associate Professor
Carol J. Boyd, Ph.D.

Professor and Director
University of Michigan
Institute for Research on Women and Gender
Substance Abuse Research Center

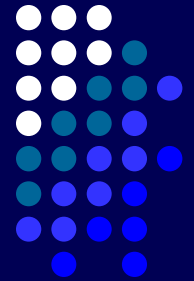
Tufts Health Care Institute
Boston, MA
November 20, 2008



Learning Objectives

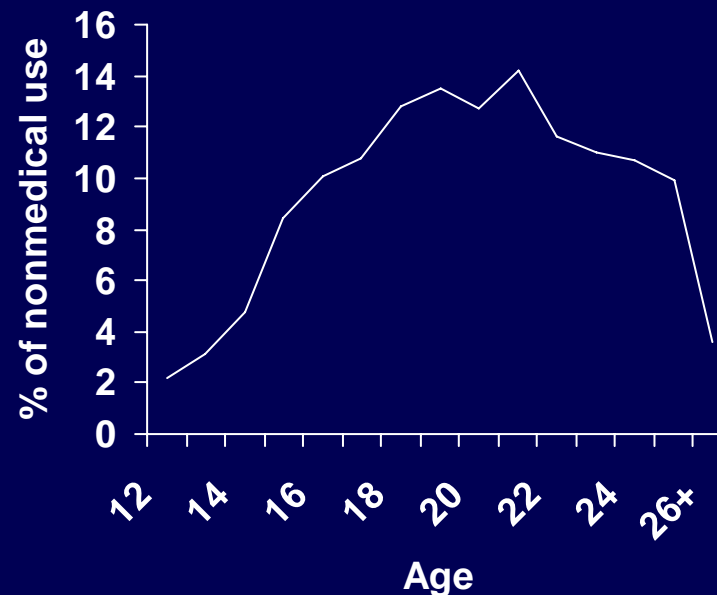


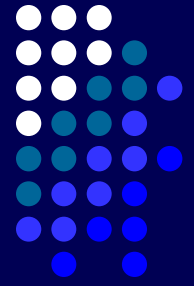
- Identify the prevalence of nonmedical use of prescription opioids among adolescents and young adults in the United States
- Examine the relationship between past-year drinking behaviors and nonmedical use of prescription opioids
- Document the prevalence and frequency of co-ingestion of prescription opioids and alcohol among adolescents
- Identify demographic characteristics and drug behaviors associated with the co-ingestion of prescription opioids and alcohol among adolescents



Background

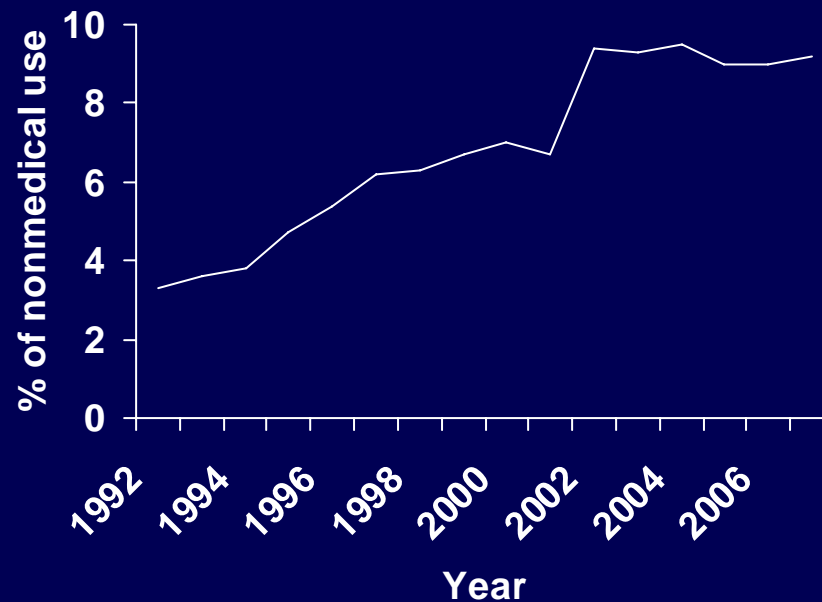
- Nonmedical use of prescription opioids is most prevalent among adolescents and young adults (SAMHSA, 2008)
- In 2007, past-year nonmedical use of prescription opioids:
 - ages 12-17 (6.7%)
 - ages 18-25 (12.1%)
 - ages 26+ (3.6%)



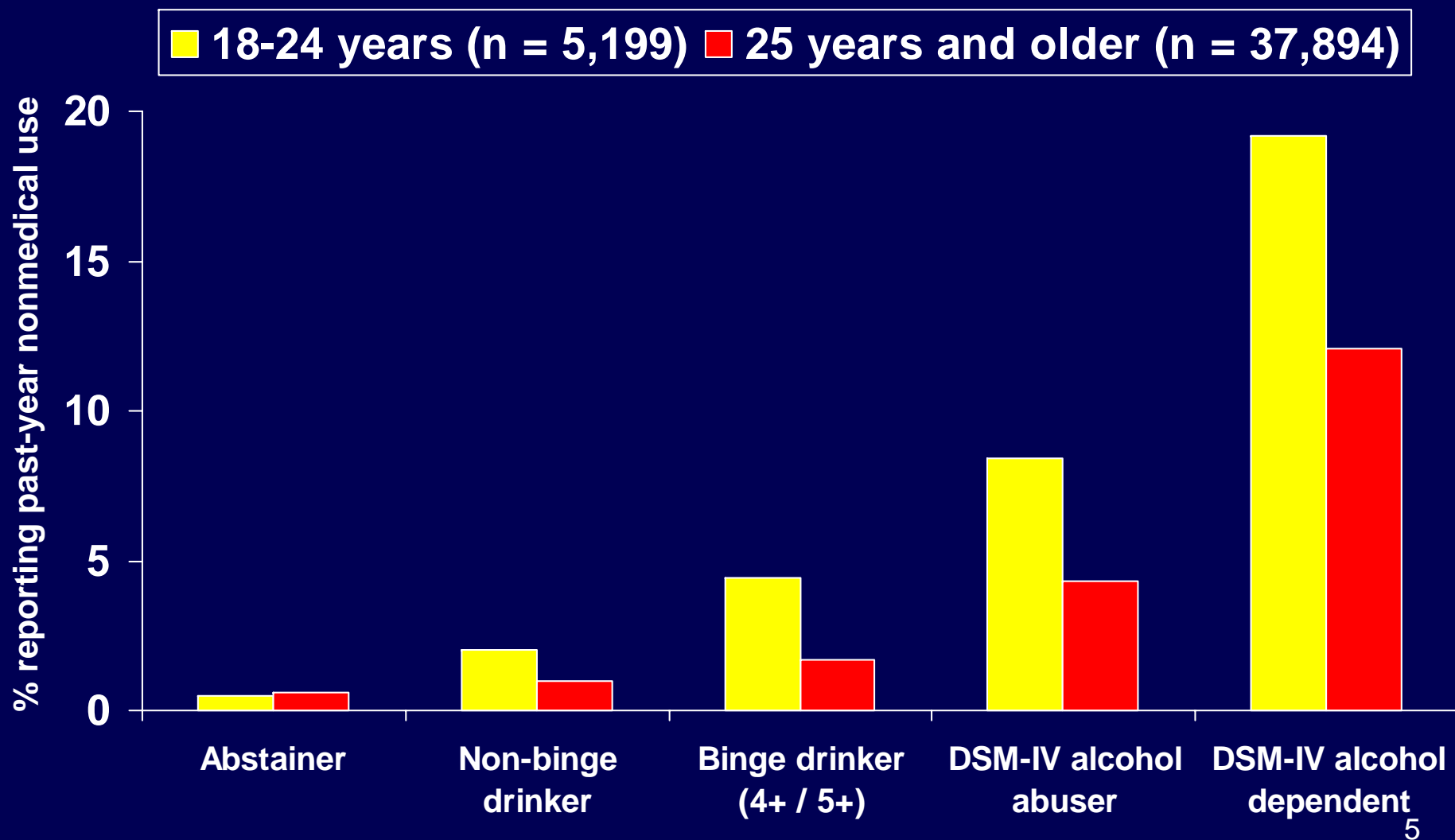


Background

- The prevalence of nonmedical use of prescription opioids among 12th grade students has increased over the past 15 years ([Johnston et al., 2008](#))
 - Past-year nonmedical use of prescription opioids in U.S. high school seniors increased from 3.3% in 1992 to 9.2% in 2007

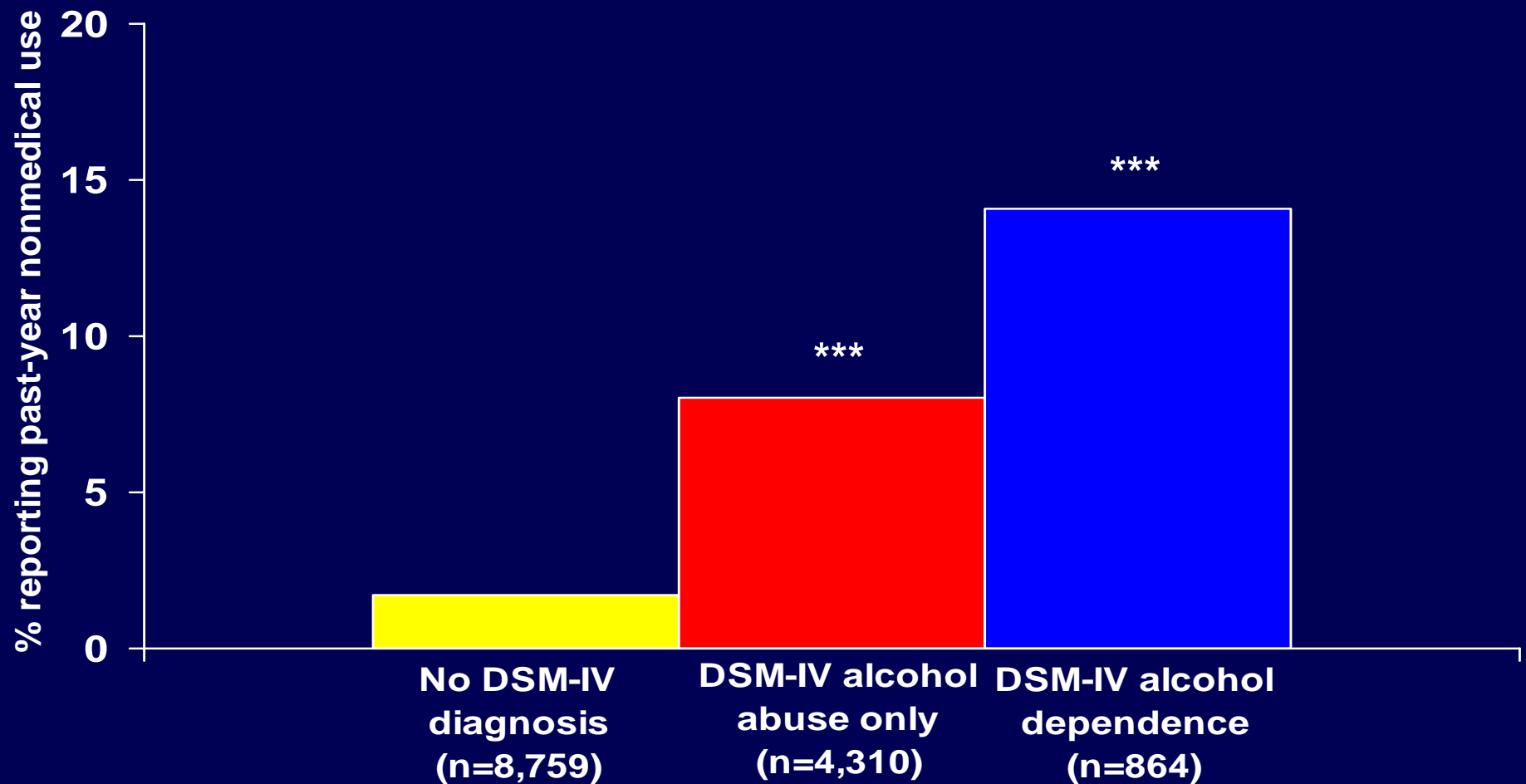


Past-Year Nonmedical Use of Prescription Opioids by Past-Year Drinking Status in the U.S.



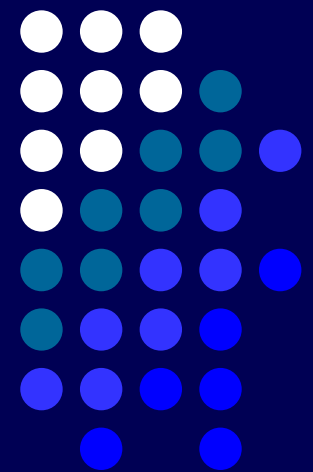
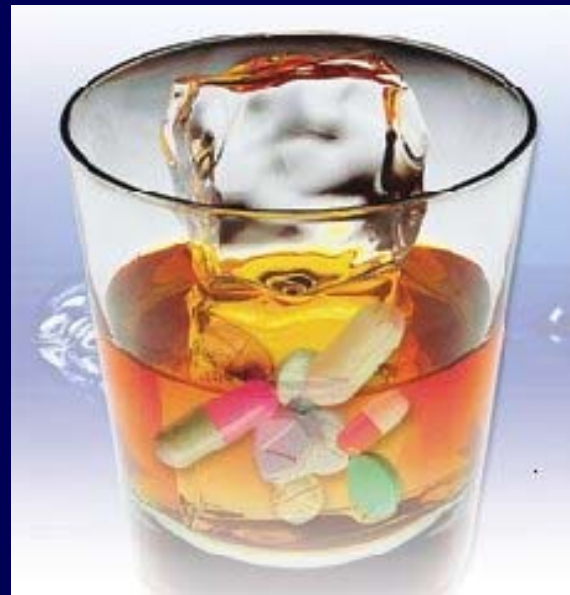
Source: McCabe et al., 2006

Nonmedical Use of Prescription Opioids Based on DSM-IV Alcohol Use Disorder Diagnosis, U.S. College Students

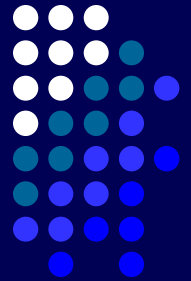


*** $p < 0.001$ based on logistic regression using "no DSM-IV alcohol diagnosis" as reference group and adjusting for gender, race/ethnicity, and age.

Co-Ingestion: Taking a Closer Look

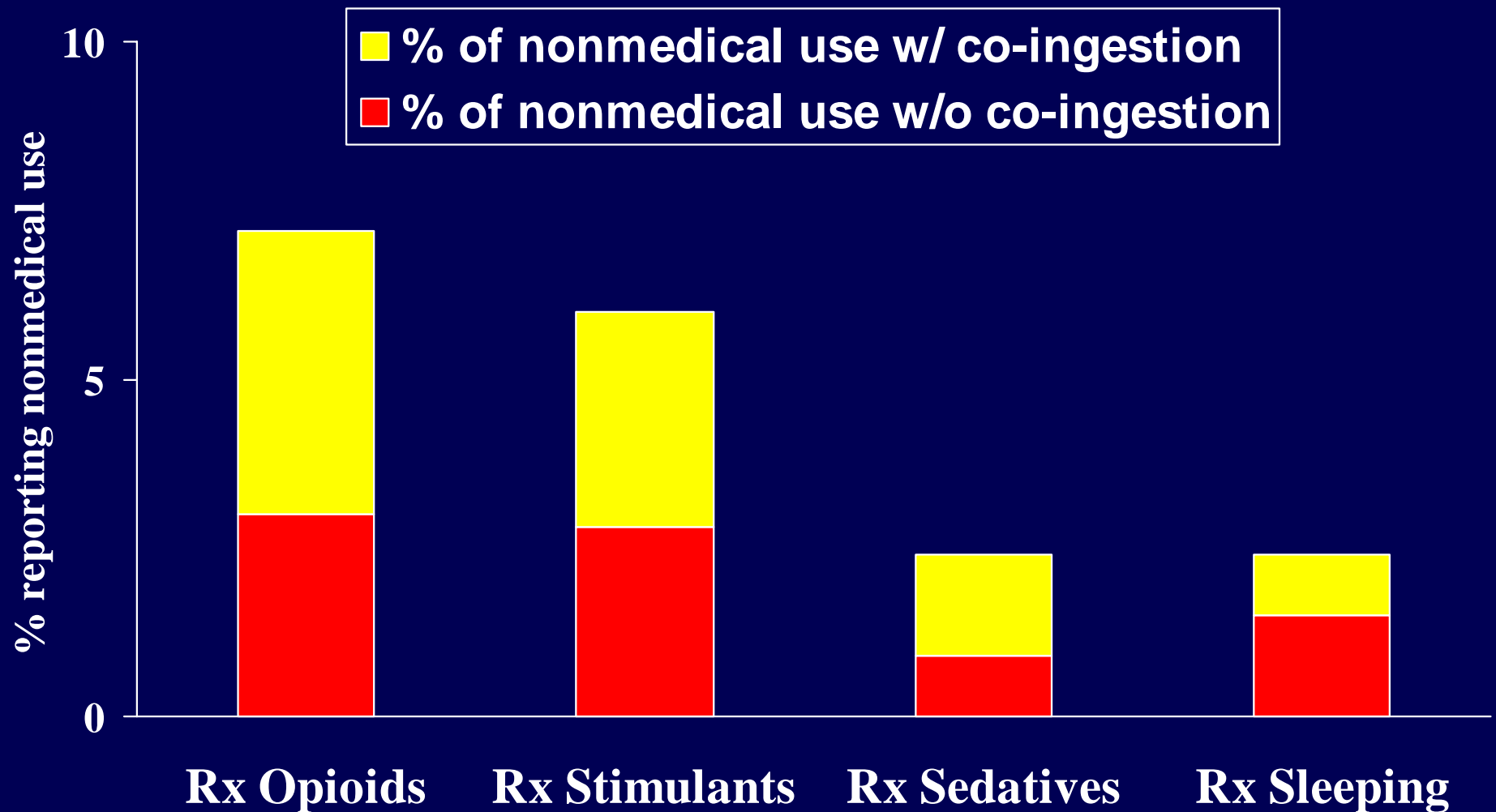


College Student Life Survey



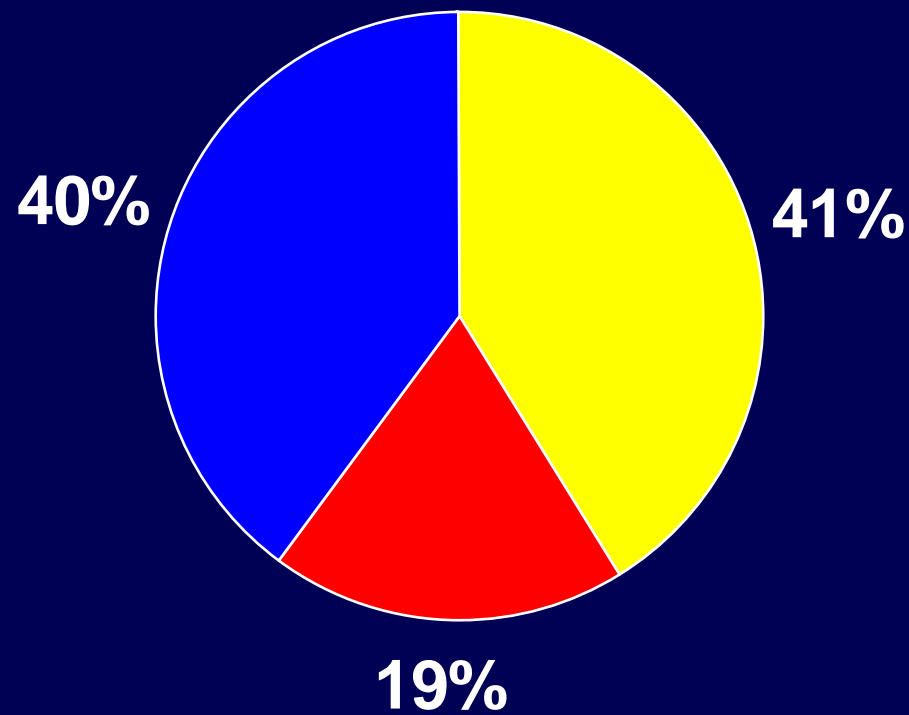
- Data collected biannually since 1999
- Random undergraduate samples drawn from each school
- Web survey has good response rates (e.g. 68% in 2005)
 - Follow-up study of nonresponders showed minimal bias
- The average time to complete the survey was about 20 minutes and the completion rate was 97%

Past Year Co-Ingestion of Alcohol and Prescription Medications (n = 4,580)

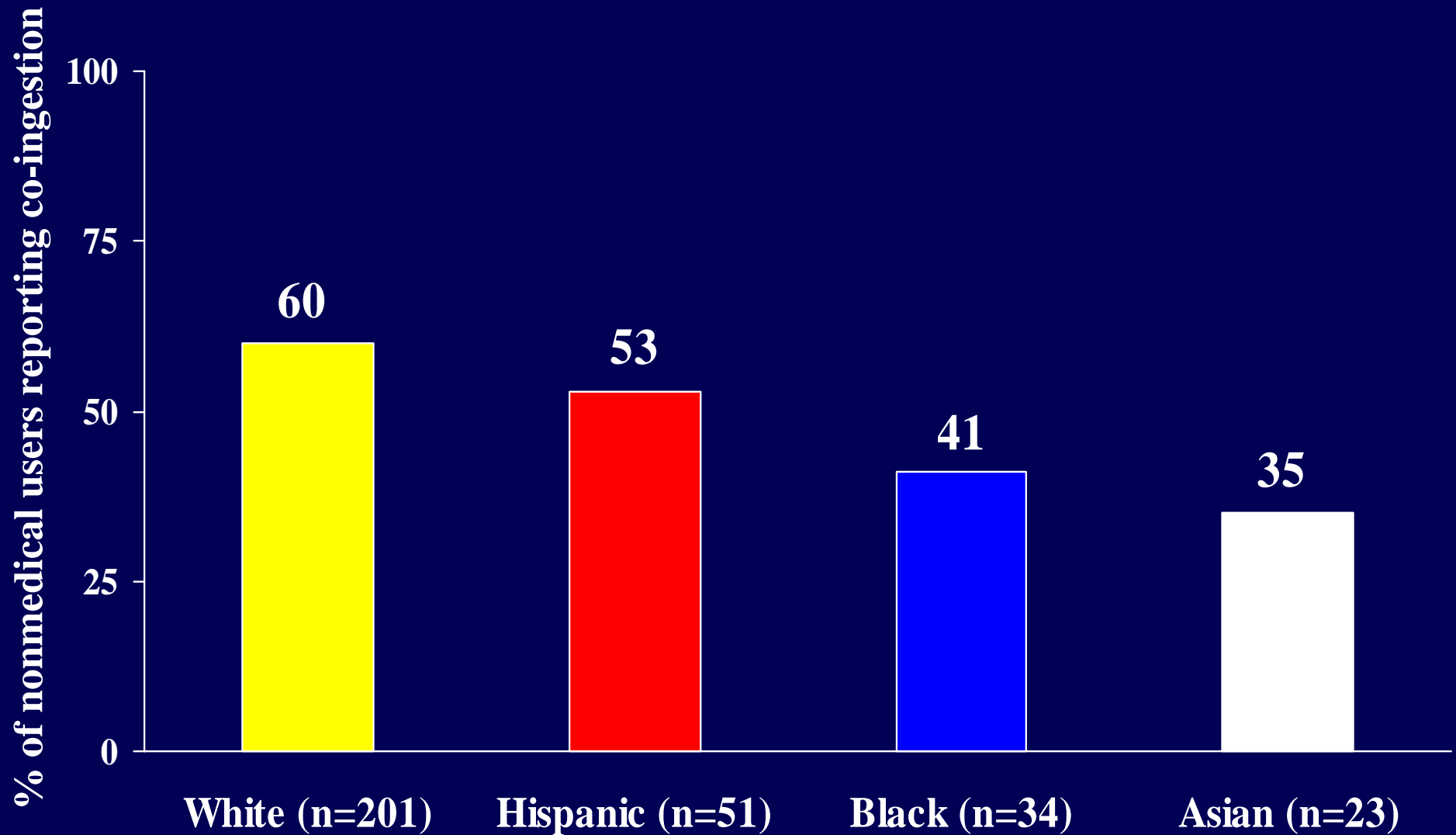


Frequency: Past Year Co-Ingestion of Prescription Opioids and Alcohol (n=174)

■ 1 time ■ 2 times ■ 3 or more times



Race and Co-Ingestion with Alcohol: Past Year Nonmedical Users of Prescription Opioids



Co-Ingestion In Their Voices...

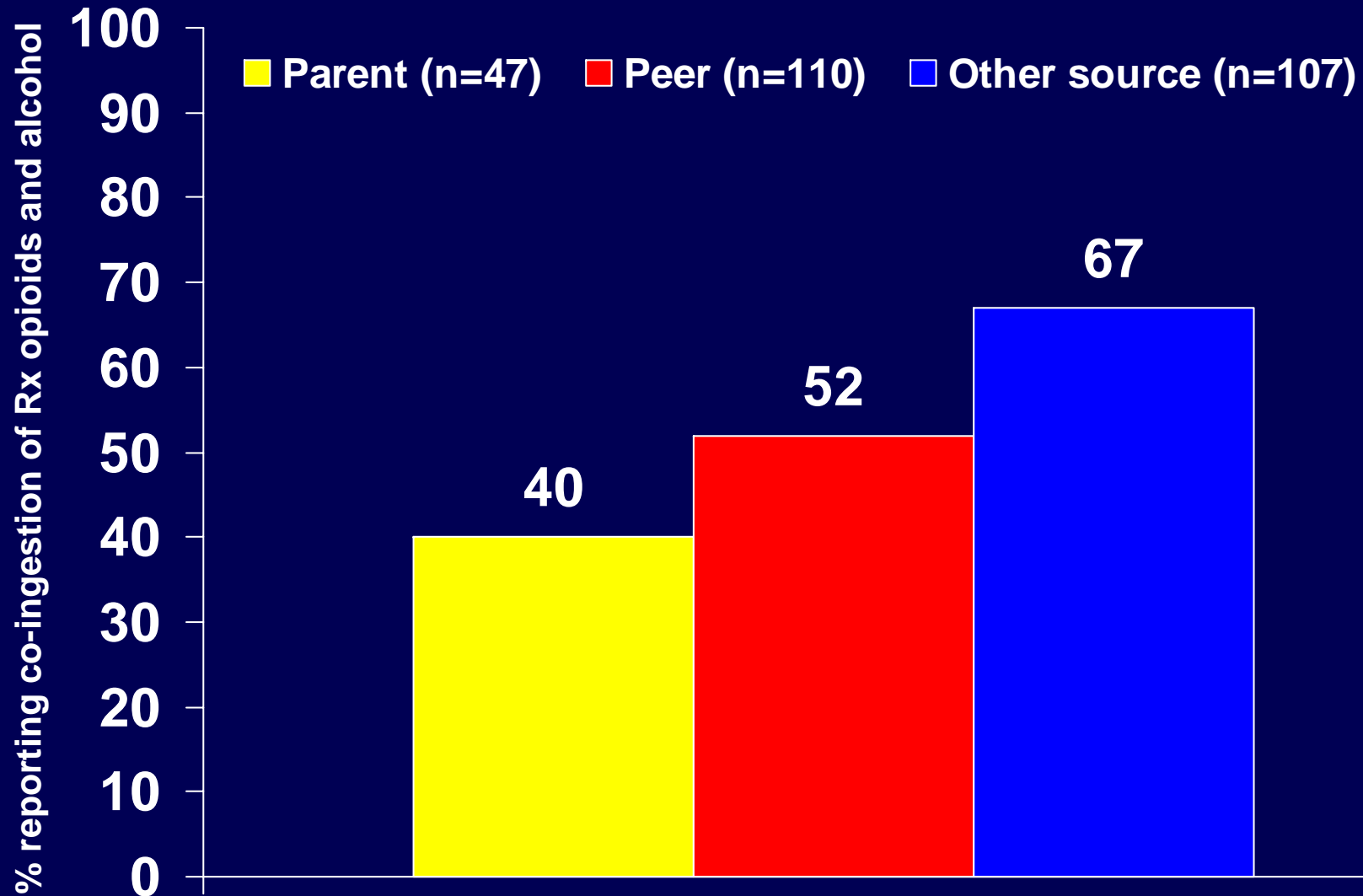
*“My **friend**...went to the emergency room and they gave him a prescription for Tylenol 3®. A week later I was at his house having a few beers and he told me that mixing Tylenol 3 with beers ‘gave you a really nice buzz’ so I tried one pill and had 4 beers.”*
(White male)



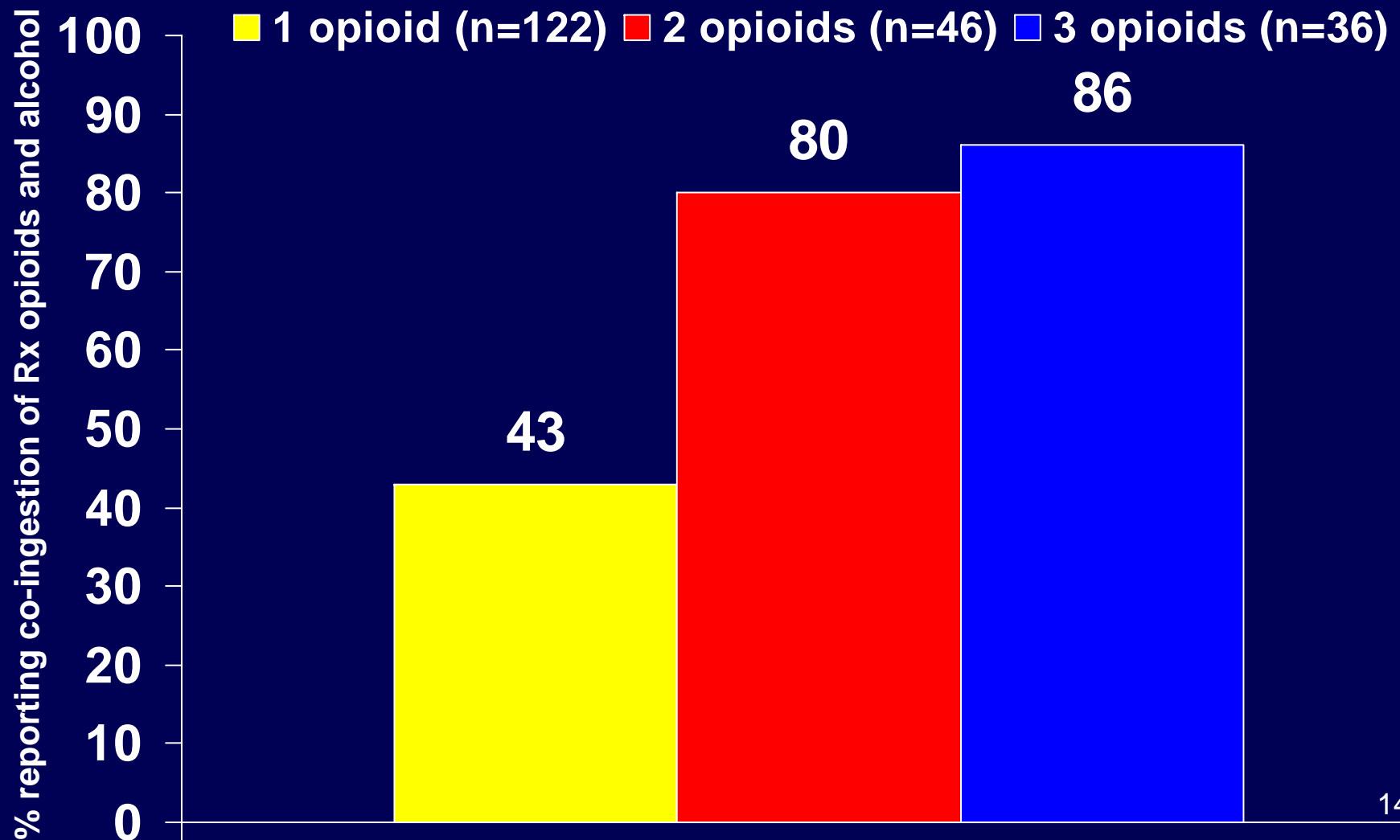
*“...a **friend** had some and thought it would be fun to split a Vicodin® while drinking...”*
(White female)

*“It (pain medication) was prescribed to a **friend** and he gave me a couple before we started drinking...”*
(White male)

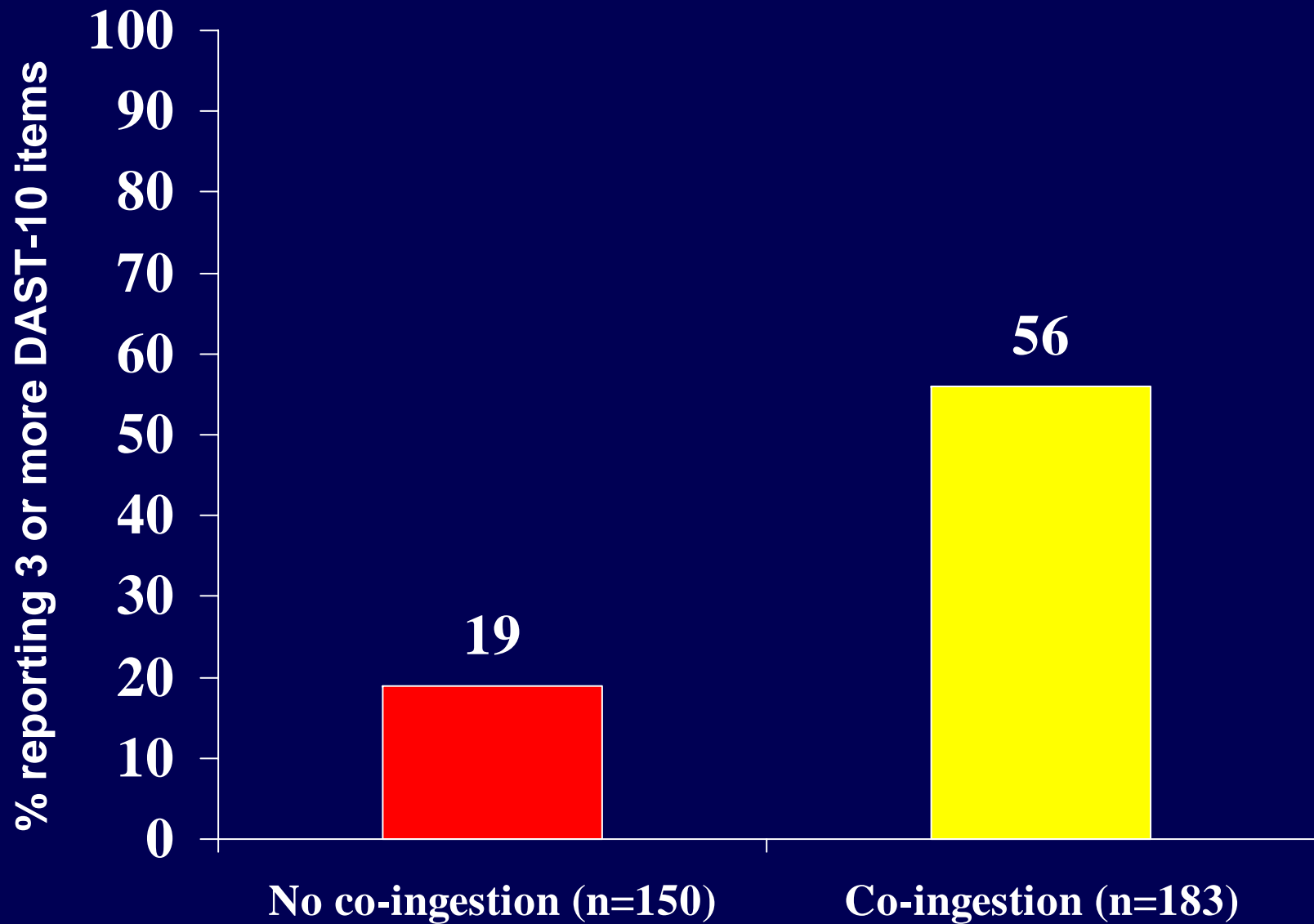
Source and Co-Ingestion with Alcohol: Past Year Nonmedical Users of Prescription Opioids



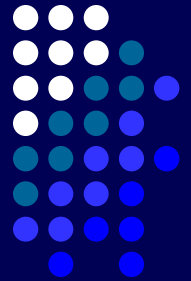
Number of Prescription Opioids and Co-Ingestion with Alcohol: Past Year Nonmedical Users



Past Year Drug Abuse by Co-ingestion with Alcohol: Past Year Nonmedical Users of Prescription Opioids

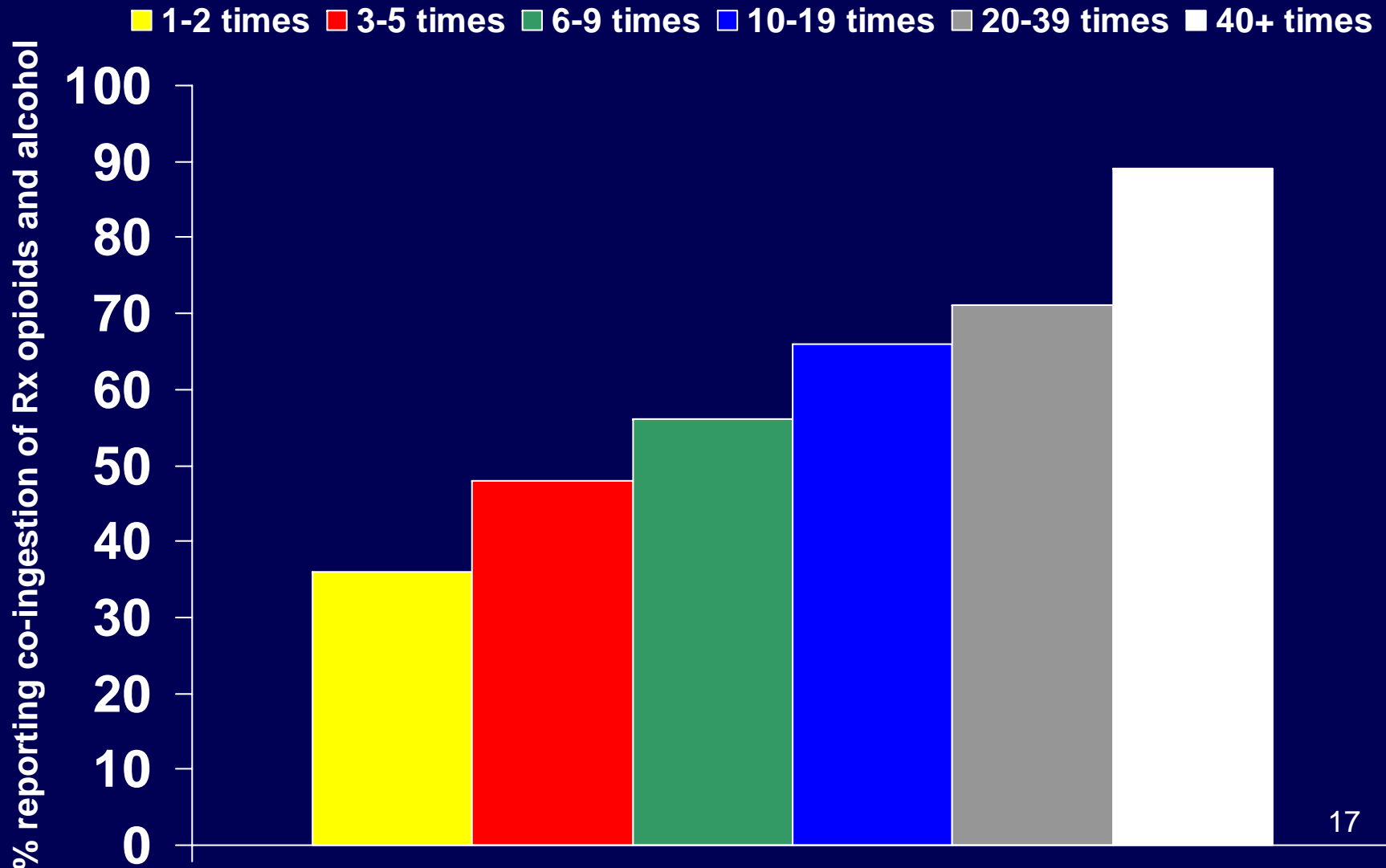


Monitoring the Future Study

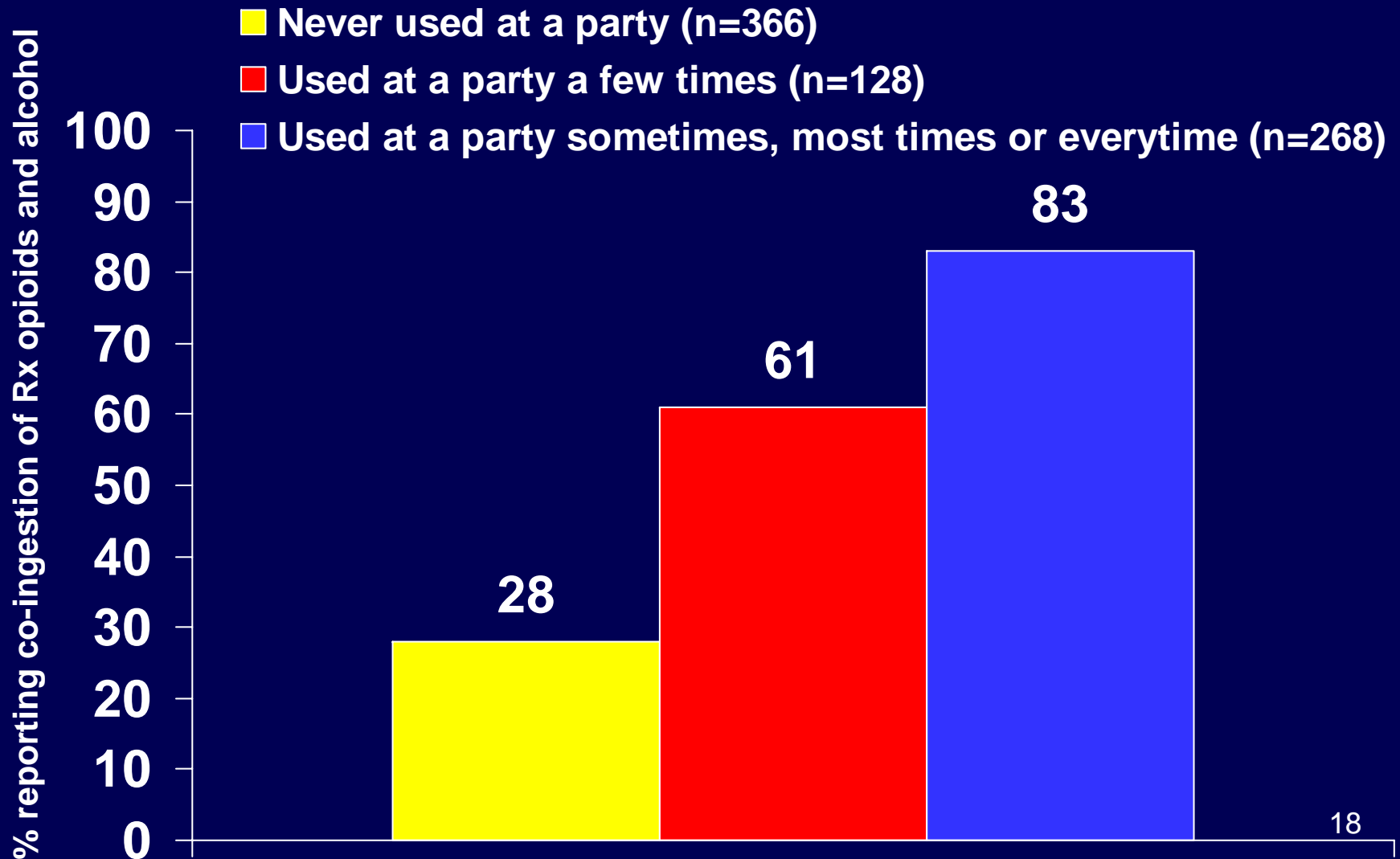


- Ongoing study of drug use behaviors and attitudes among secondary school students in the United States (Johnston et al., 2008)
- Data collected annually from nationally representative samples of approximately 50,000 8th, 10th, and 12th grade students in the United States since 1991.
- Students complete surveys each year in their classrooms during the Spring and student response rates range from 81% to 84% among 12th grade students since 1991.

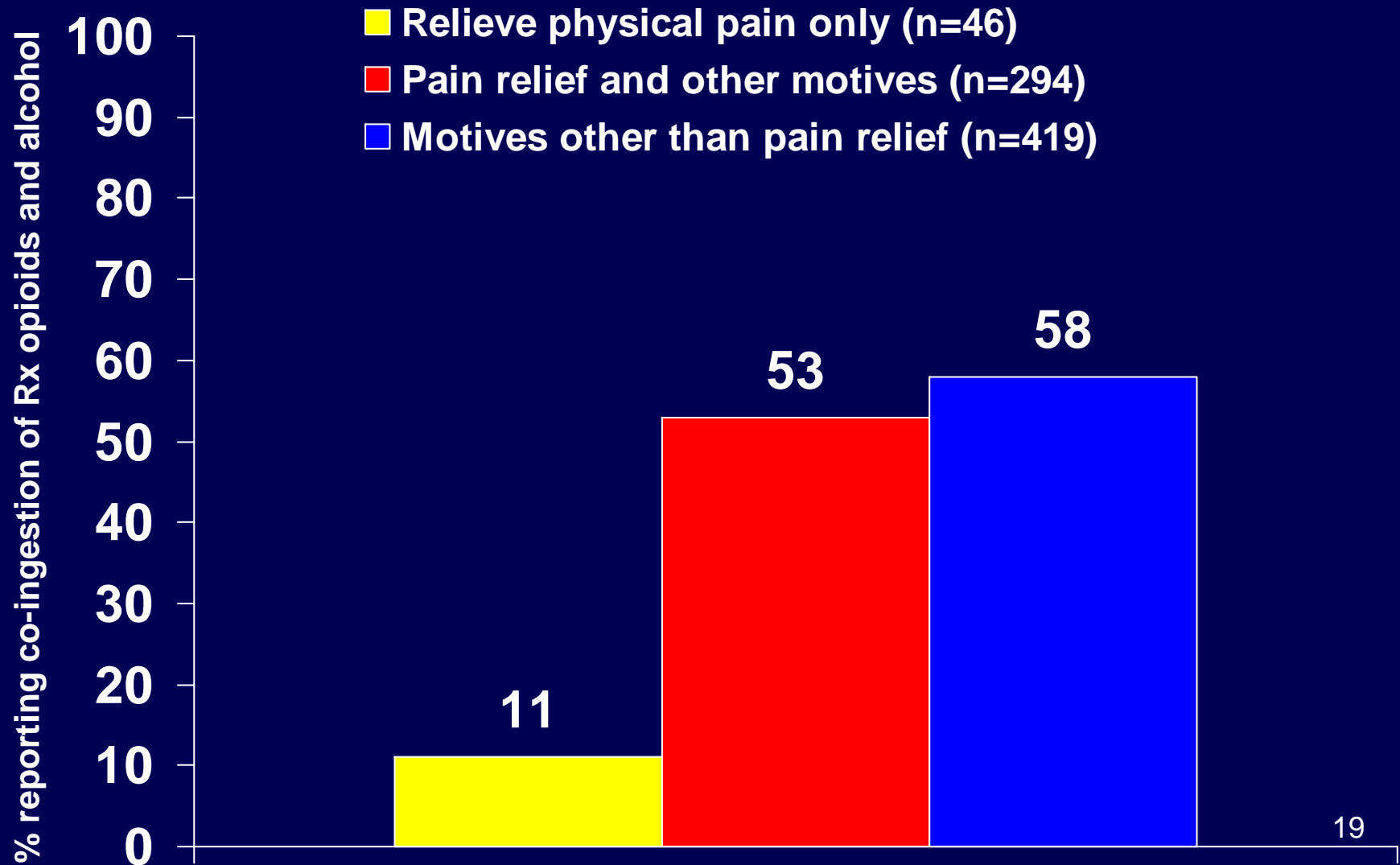
Frequency and Co-Ingestion with Alcohol: Past Year Nonmedical Users of Prescription Opioids



Context and Co-Ingestion with Alcohol: Past Year Nonmedical Users of Prescription Opioids

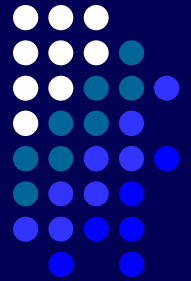


Motive and Co-Ingestion with Alcohol: Past Year Nonmedical Users of Prescription Opioids



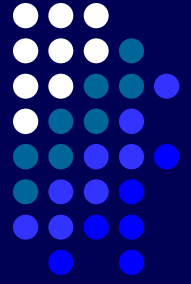
Source: McCabe et al., in press

Summary

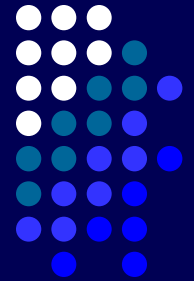


- Majority of past-year nonmedical users of prescription opioids reported co-ingestion with alcohol
- Co-ingestion with alcohol is more prevalent among past-year nonmedical users of prescription opioids than other scheduled medication classes

Summary



- Alcohol-opioid co-ingestion is more prevalent:
 - Male vs. female
 - White and Hispanic vs. Asian and Black
 - Non-parental sources vs. parental source
 - Multiple opioids vs. single opioid
 - Frequent use vs. infrequent use
 - Party context vs. non-party context
 - Reasons other than pain relief vs. pain relief only

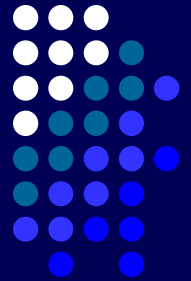


Acknowledgements

- National Institute on Drug Abuse
 - R03DA019492 (PI: McCabe)
 - R03DA018271 (PI: Boyd)
 - R03DA018239 (PI: McCabe)
 - R03DA020899 (PI: McCabe)
- National Institute on Alcohol Abuse and Alcoholism
 - U18AA015275 (PI: McCabe)
- Drs. Carol Boyd, James Cranford, Michele Morales, Christian Teter, Amy Young and Mr. Brady West
- MSI Research and Social Sciences Group
- University of Michigan Substance Abuse Research Center and Institute for Research on Women and Gender

For More Information...

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