



Community Action for
Substance Free Youth

Presentation to LYSB Board

September 25, 2012

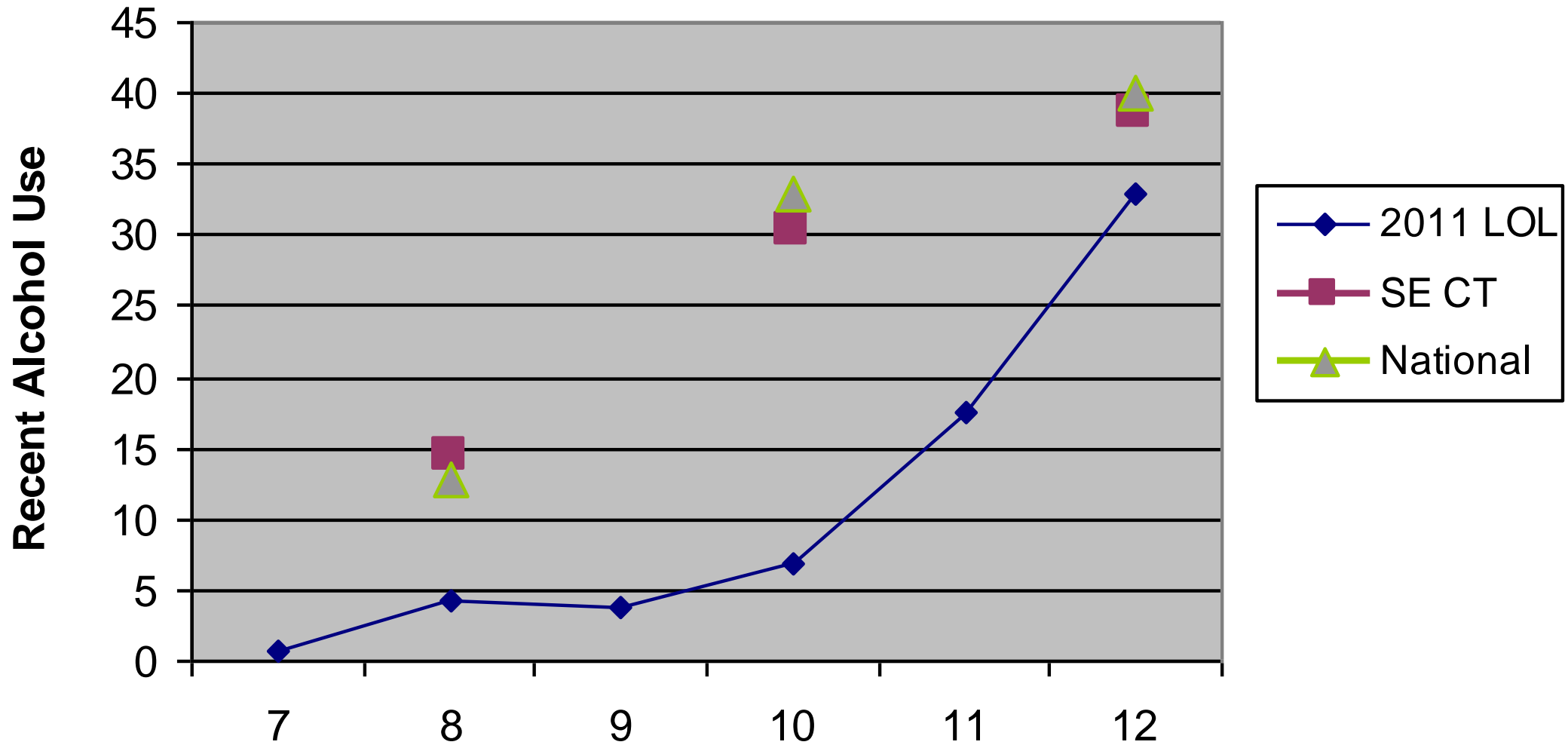
Karen Fischer, CASFY Prevention Coordinator

CASFY Mission

To prevent and reduce alcohol and other drug use among youth by collaborating with the community to raise awareness, modify social norms, educate youth and adults, initiate policy change and promote healthy activities.

Recent Alcohol Use

Lyme/Old Lyme vs National and Regional Results



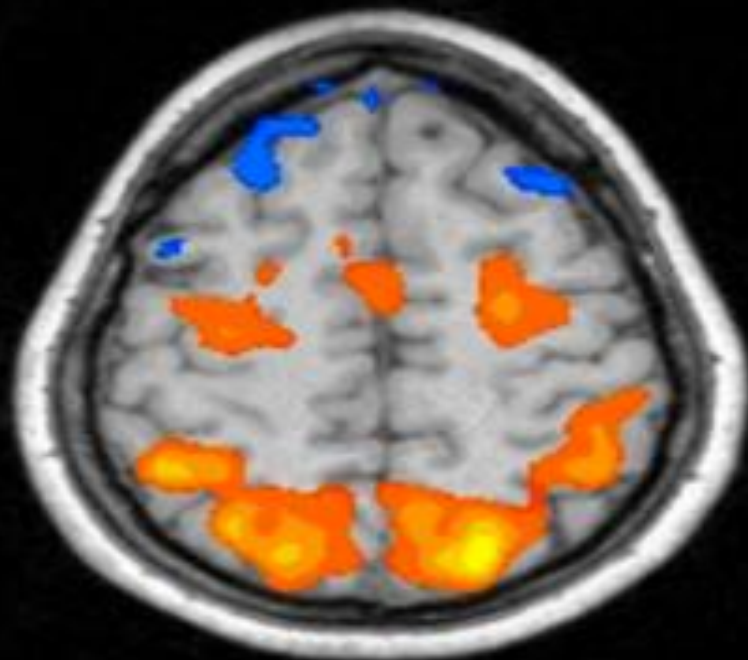
Concerns about drinkers

- Binge drinking (4-5 drinks)
- Males- much higher rate of drinking than females (true for all substances)
- Users of alcohol-likely users of other substances

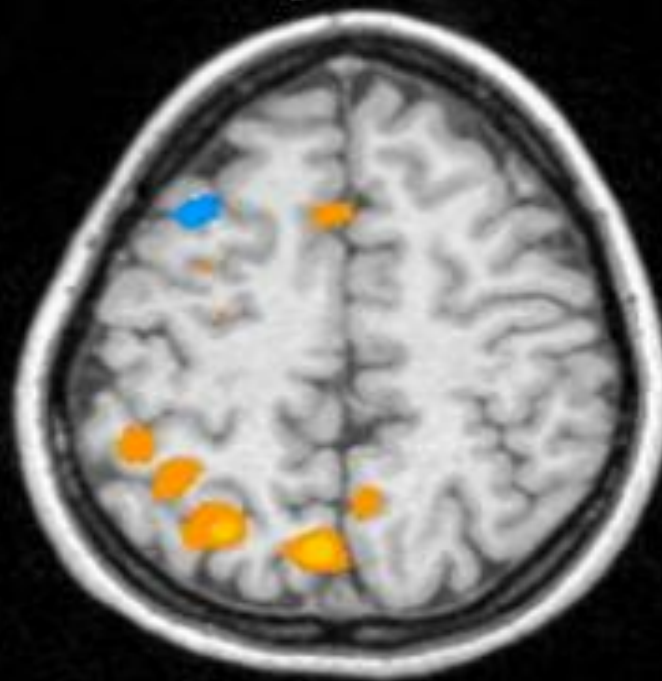
Imaging during task

Brain scans showing activity

normal brain

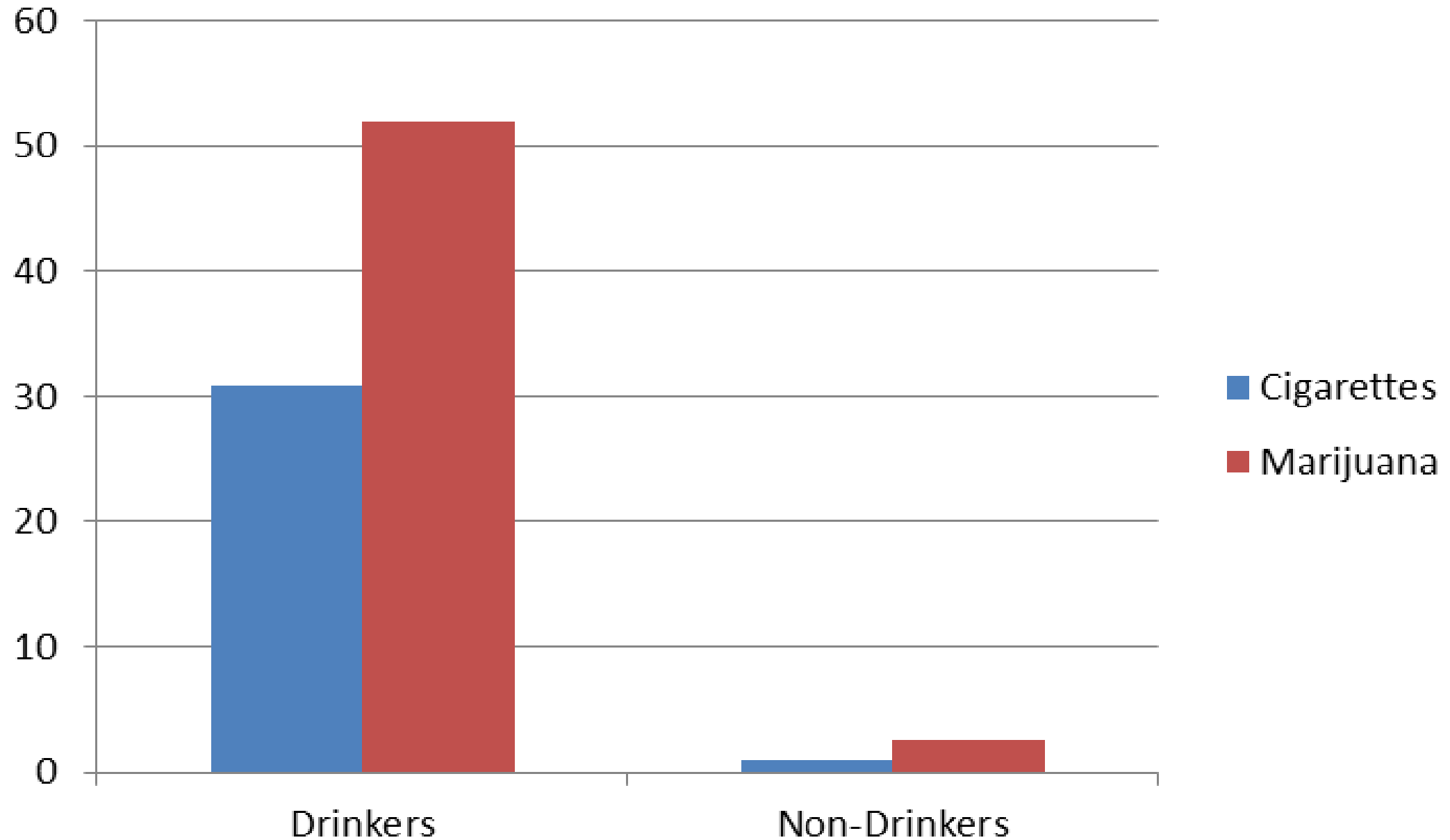


heavy drinker

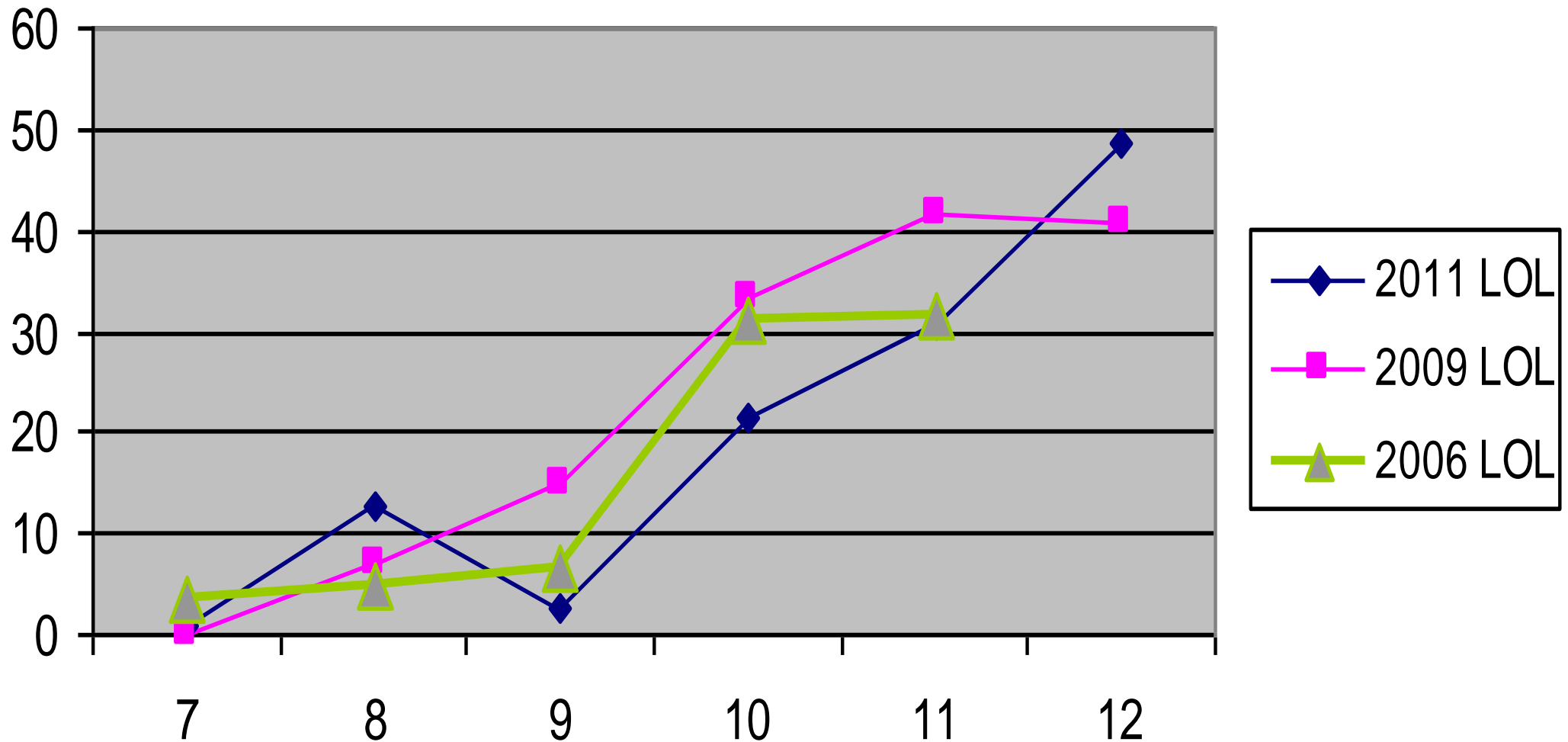


Slide courtesy of Susan Tapert, PhD.

Other Substance Use - Drinkers vs. Non Drinkers



Lifetime Use of Marijuana



A green cannabis leaf with serrated edges is positioned in the foreground, partially obscuring a vibrant rainbow. The rainbow is a spectrum of colors including red, orange, yellow, green, blue, and purple, set against a solid black background.

MARIJUANA:

Selected Effects on Brain, Body & Behavior

February, 2012



Marijuana is the Most Commonly Used Illicit Drug In the U.S.

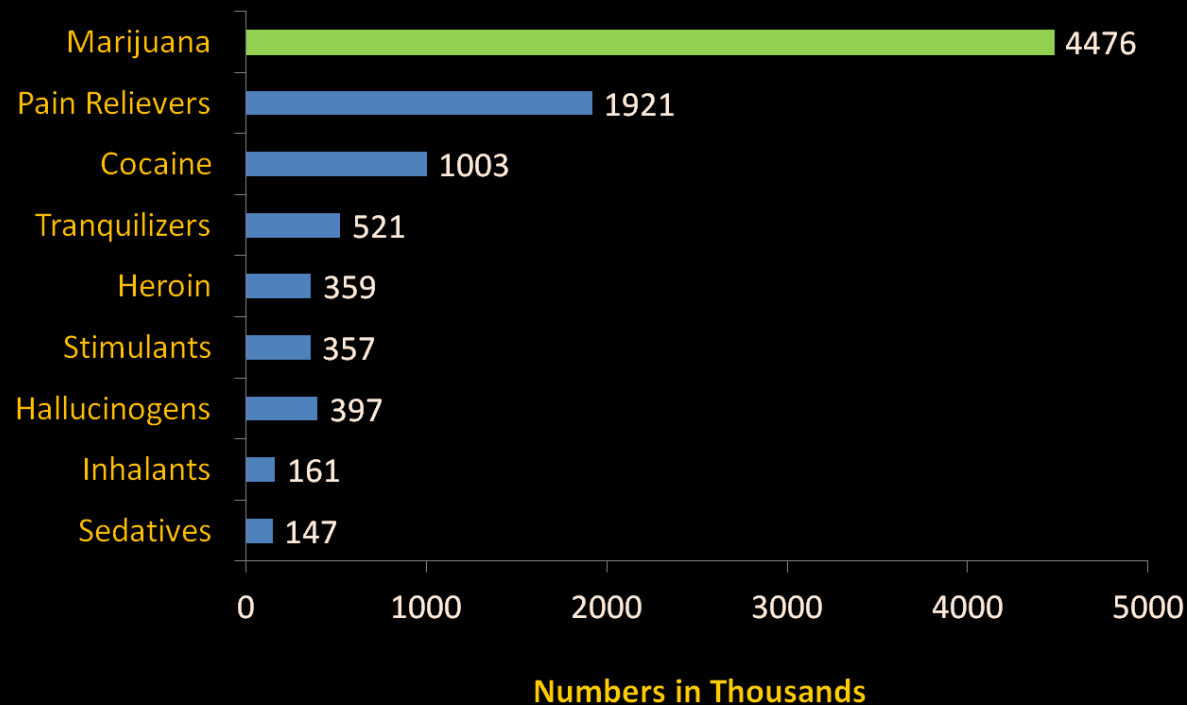


- Over 106 million Americans have tried it at least once
- An estimated 2.4 million Americans used it for the first time in 2010



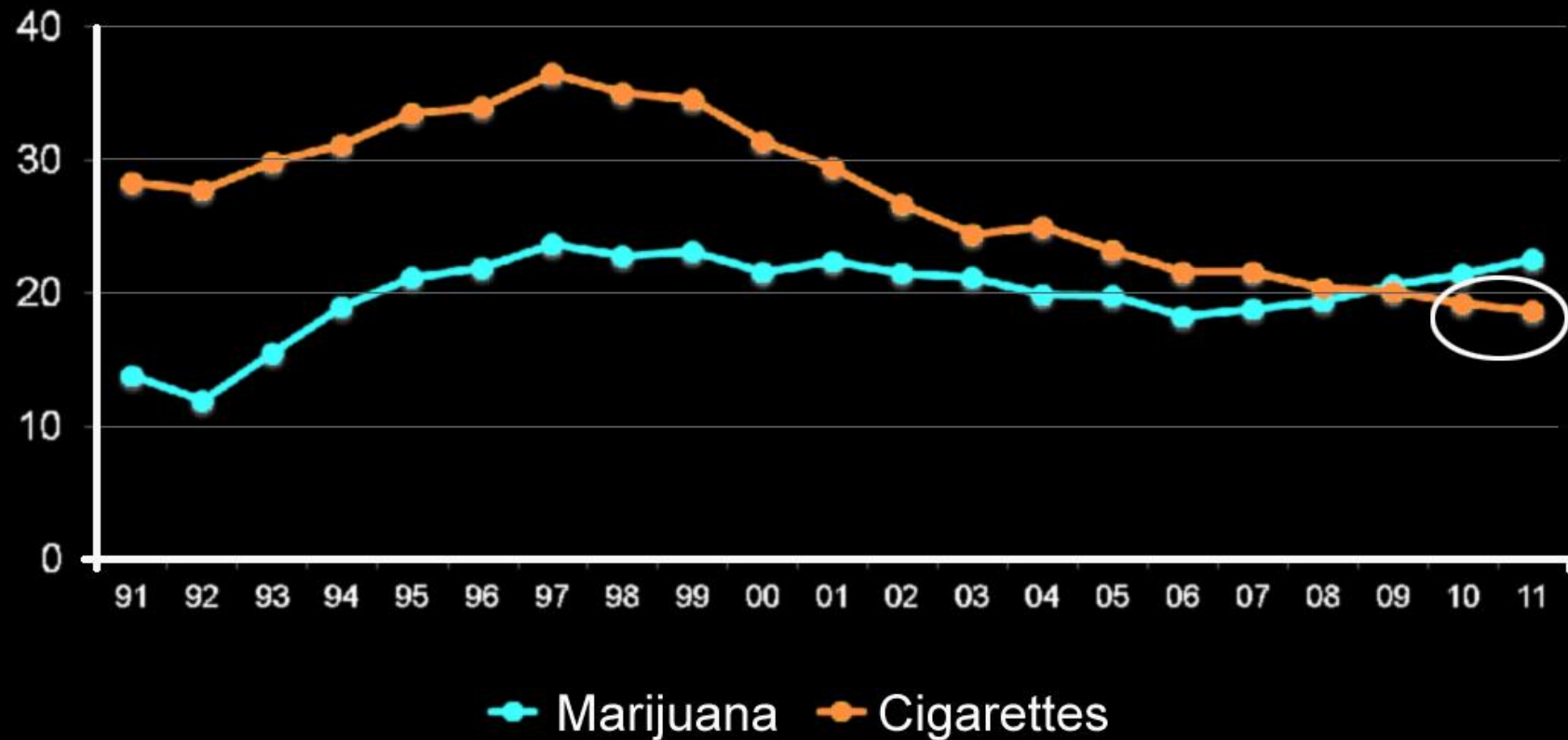
Tetrahydrocannabinol (THC)
Active Ingredient in Marijuana

High Rates of Past Year Dependence or Abuse on Marijuana (Comparison to other Drugs Among Persons 12 or older, 2010)

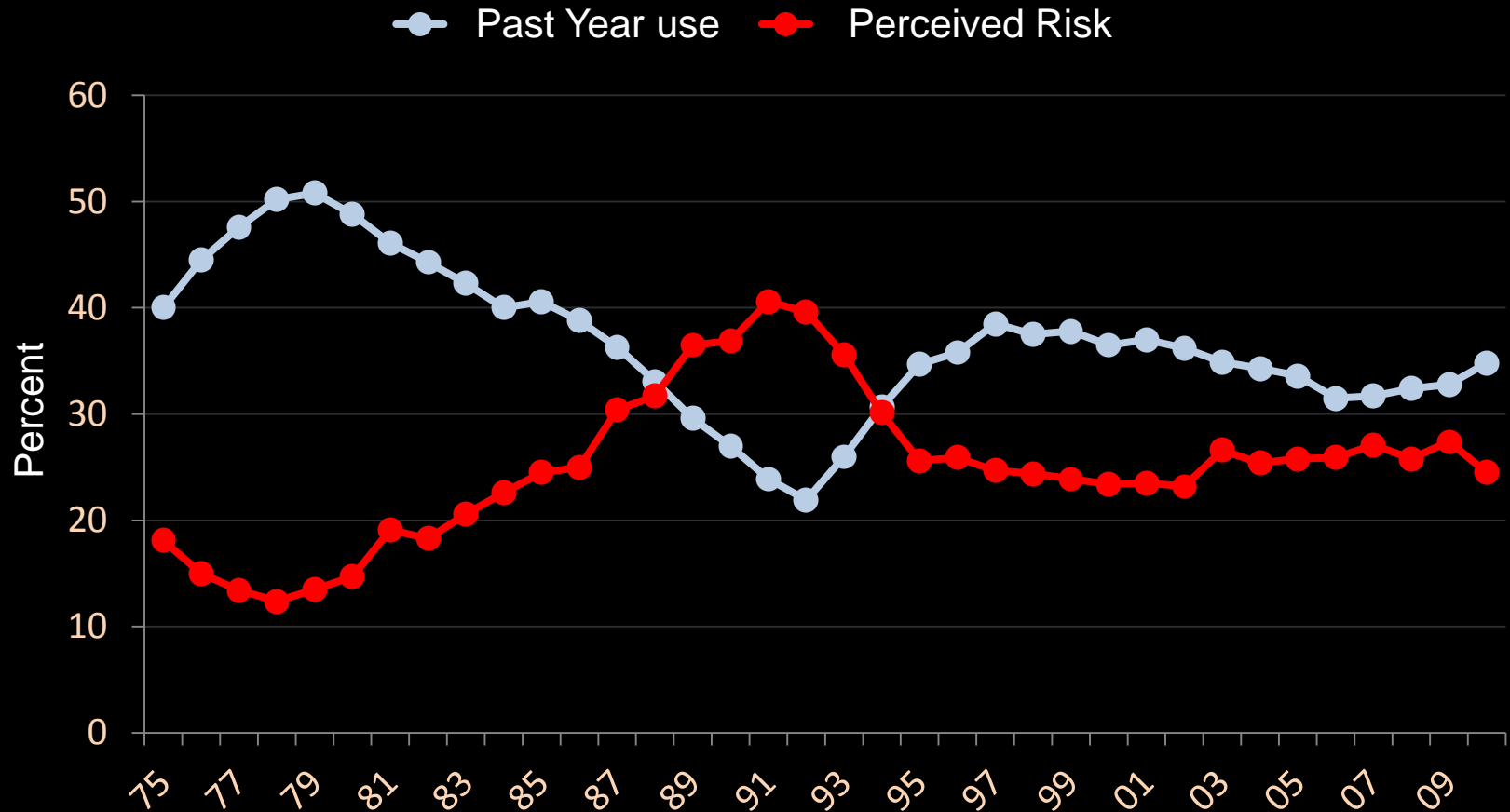


Numbers in Thousands

In 2009, Reports of Past Month Use of Marijuana Among 12th Graders Exceeded that of Cigarette for the First Time in the Survey's History



Changes in Attitude Lead to Changes in Use: Marijuana Use and Perceived Risk in 12th Graders, (1975 to 2010)



Source: The Monitoring the Future study, the University of Michigan

Why Do People Take Drugs in The First Place?

They like what it does to their brains



To Feel Good



To Feel Better

Drugs Can be Chemical Imposters

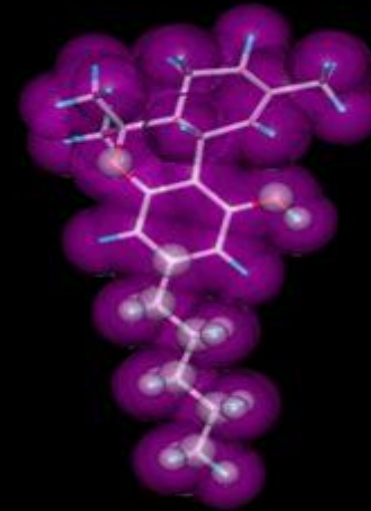
(THC mimics a natural brain chemical)

Brain's Chemical



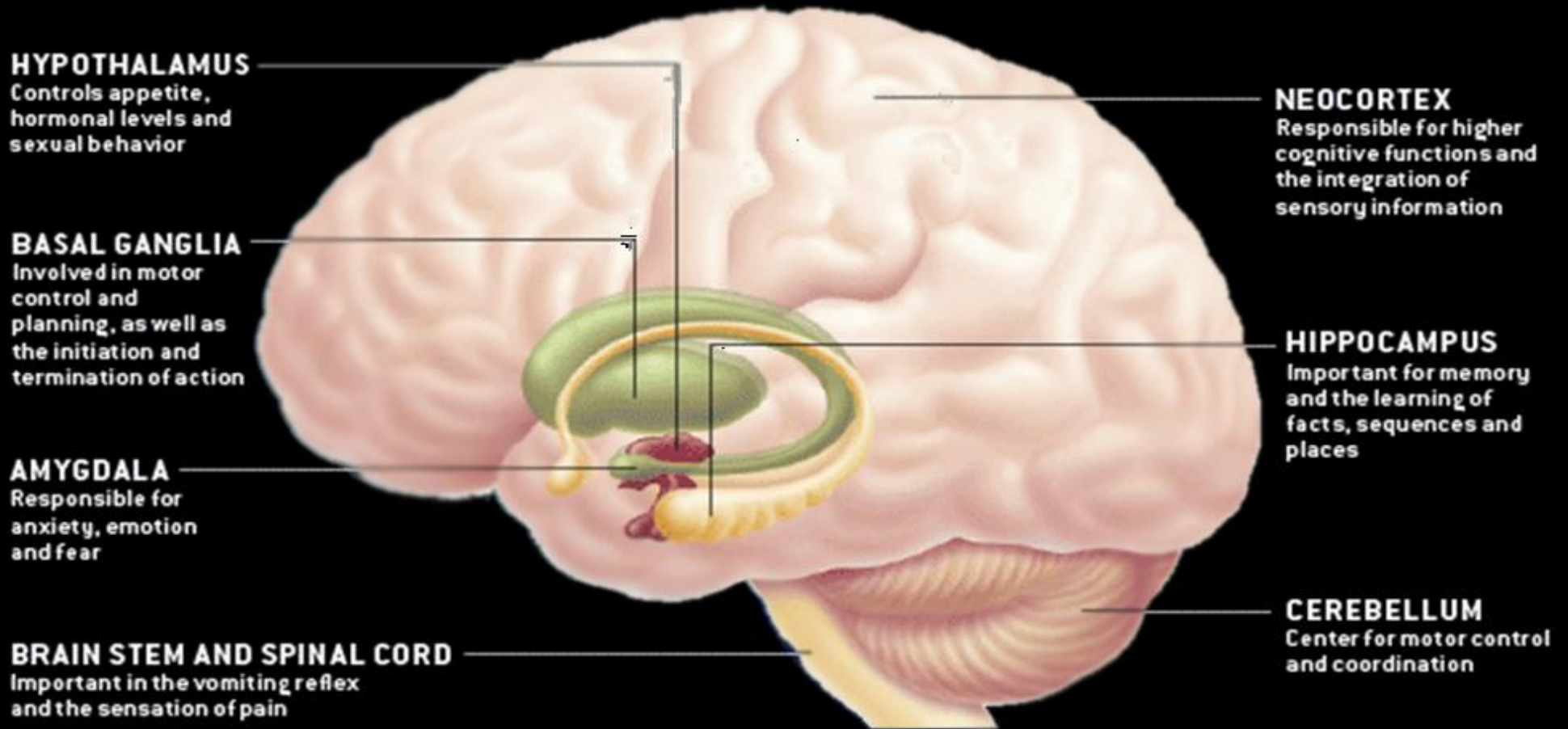
Anandamide

Drug



THC

Marijuana Acts in Many Parts of the Human Brain



Marijuana's Many Acute Effects (Intoxication phase)

- Euphoria
- Calmness
- Appetite stimulation
- Altered perception of time
- Impairs coordination and balance
- Acute psychosis; Panic (anxiety)
- Increased heart rate: 20 - 100%
 - Some evidence for increased risk of heart attack, may be exacerbated in vulnerable individuals (e.g., baby boomers)

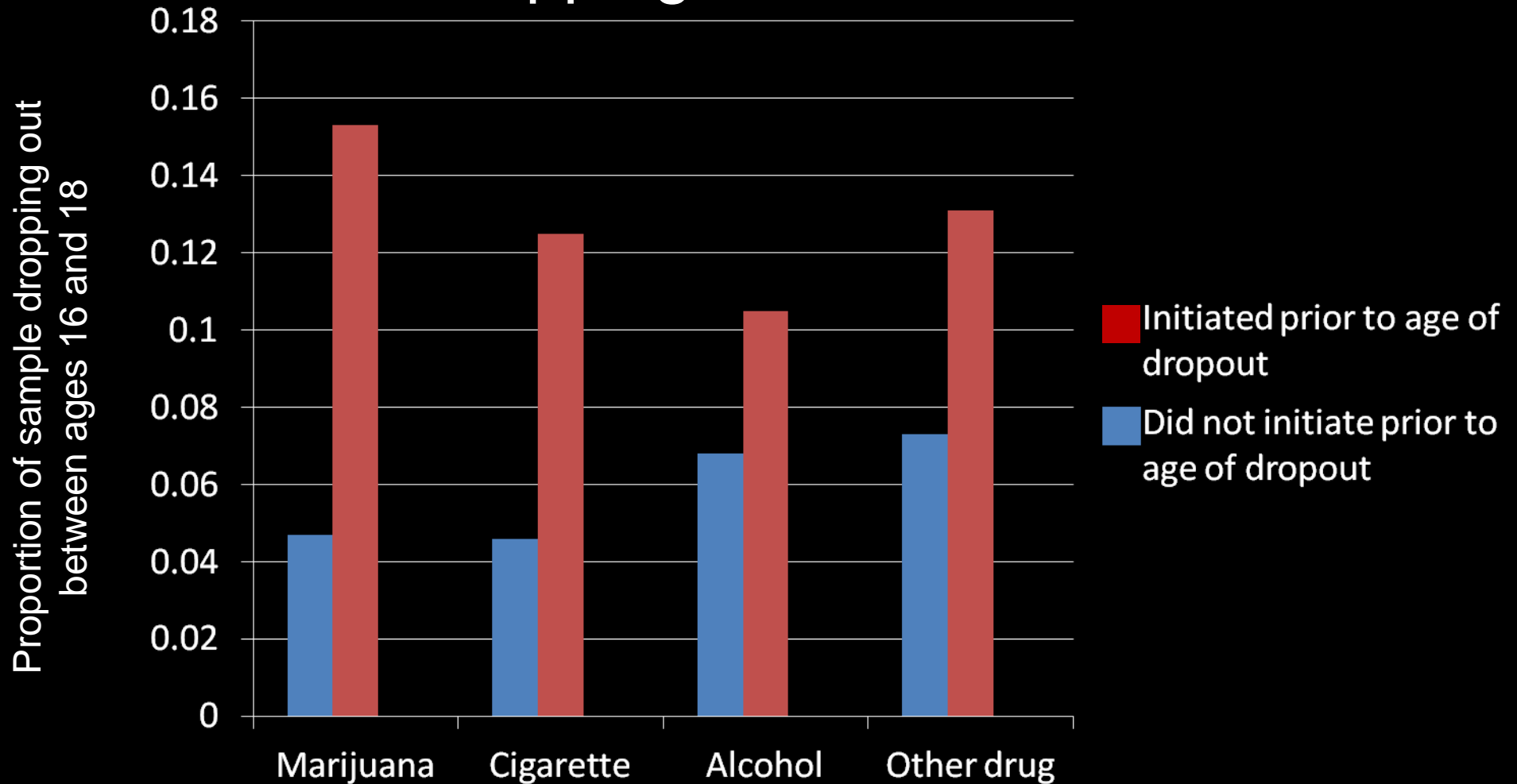
Marijuana's Many Acute Effects (Intoxication phase)

- Cognitive Dysfunction
 - Impaired short-term memory
 - Difficulty with complex tasks
 - Difficulty learning
 - Impaired decision-making
 - Increased risky sexual behavior – HIV
- Impaired Driving
 - Increased risk of accidents
 - Increased culpability
- Acute health effects
 - In 2009, there were >375,000 Marijuana-related ED visits

Long Term Risks of Marijuana Use

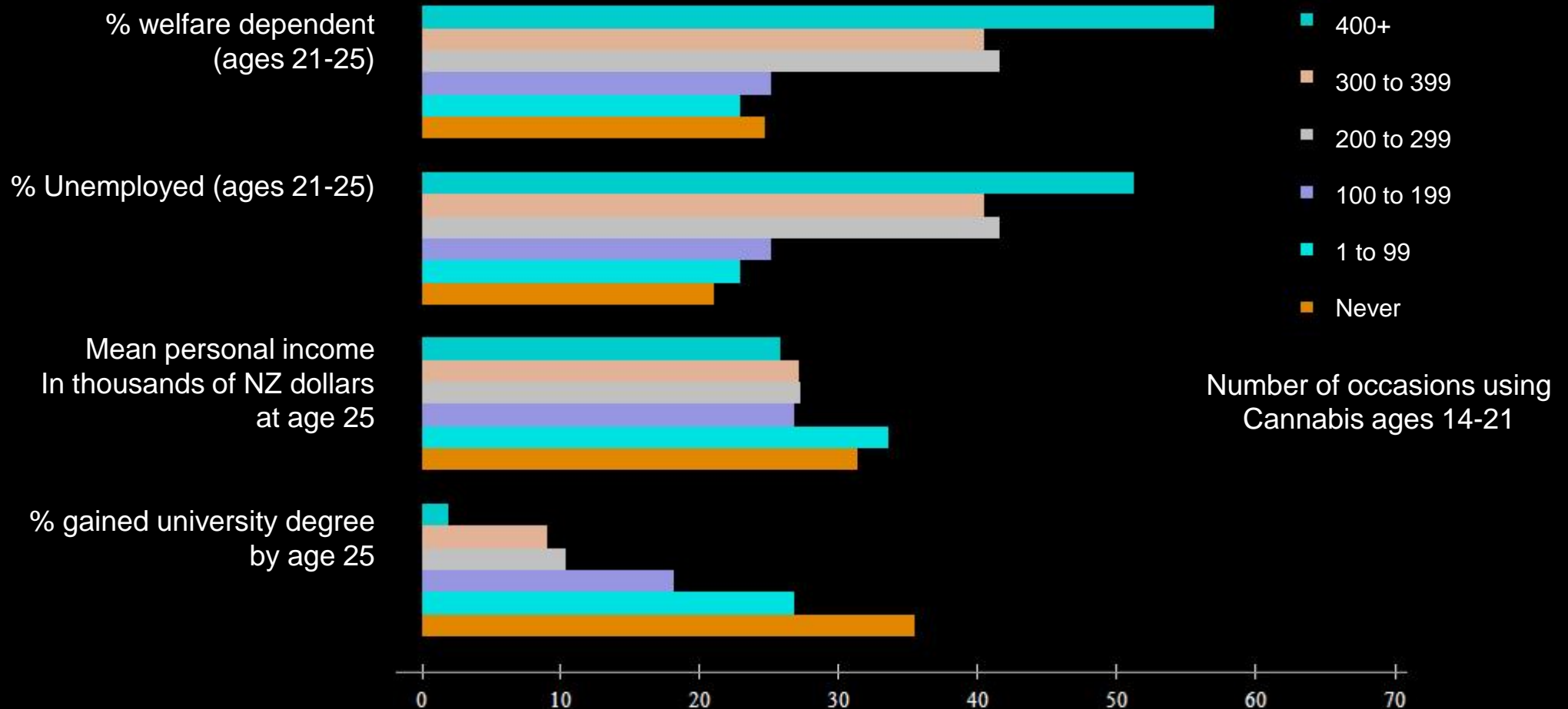
- Academic failure and low professional achievement
- Poorer long-term life outcomes
- Mental health problems
- Addiction

Early Marijuana (and other drug) Use Linked to Dropping Out of School



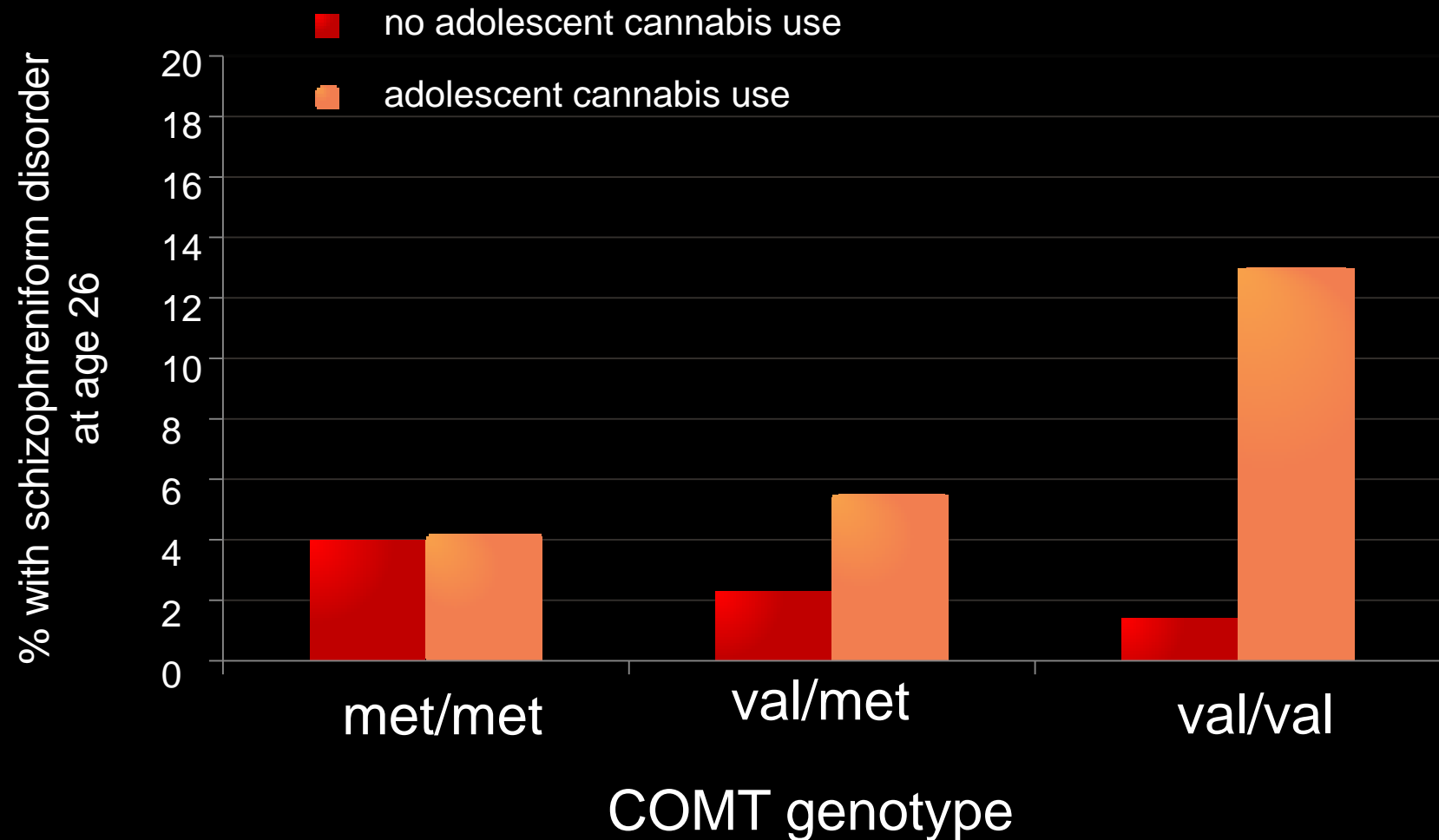
Source: Bray et al. Health Economics, 9(1), pp. 9-18, 2000.

Cannabis Use and Later Life Outcomes are Dose Dependent

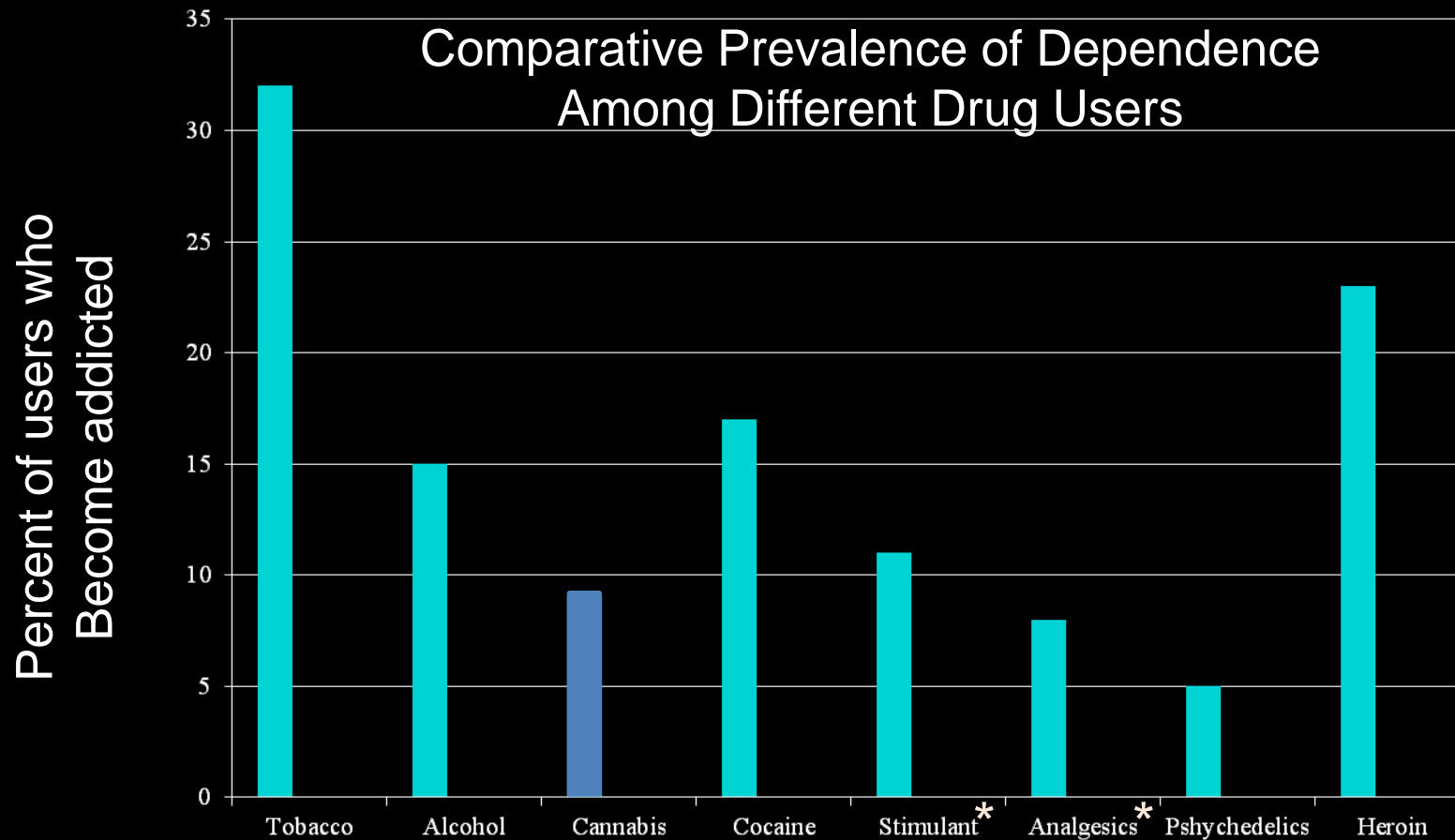


Source: Fergusson and Boden. Addiction, 103, pp. 969-976, 2008.

Adolescent Cannabis Use Increases the Risk for Adult Psychosis in Genetically Vulnerable Individuals



Addiction: About 9% of cannabis users may become dependent
1 in 6 who start use in adolescence, 25-50% of daily users



* Nonmedical Use

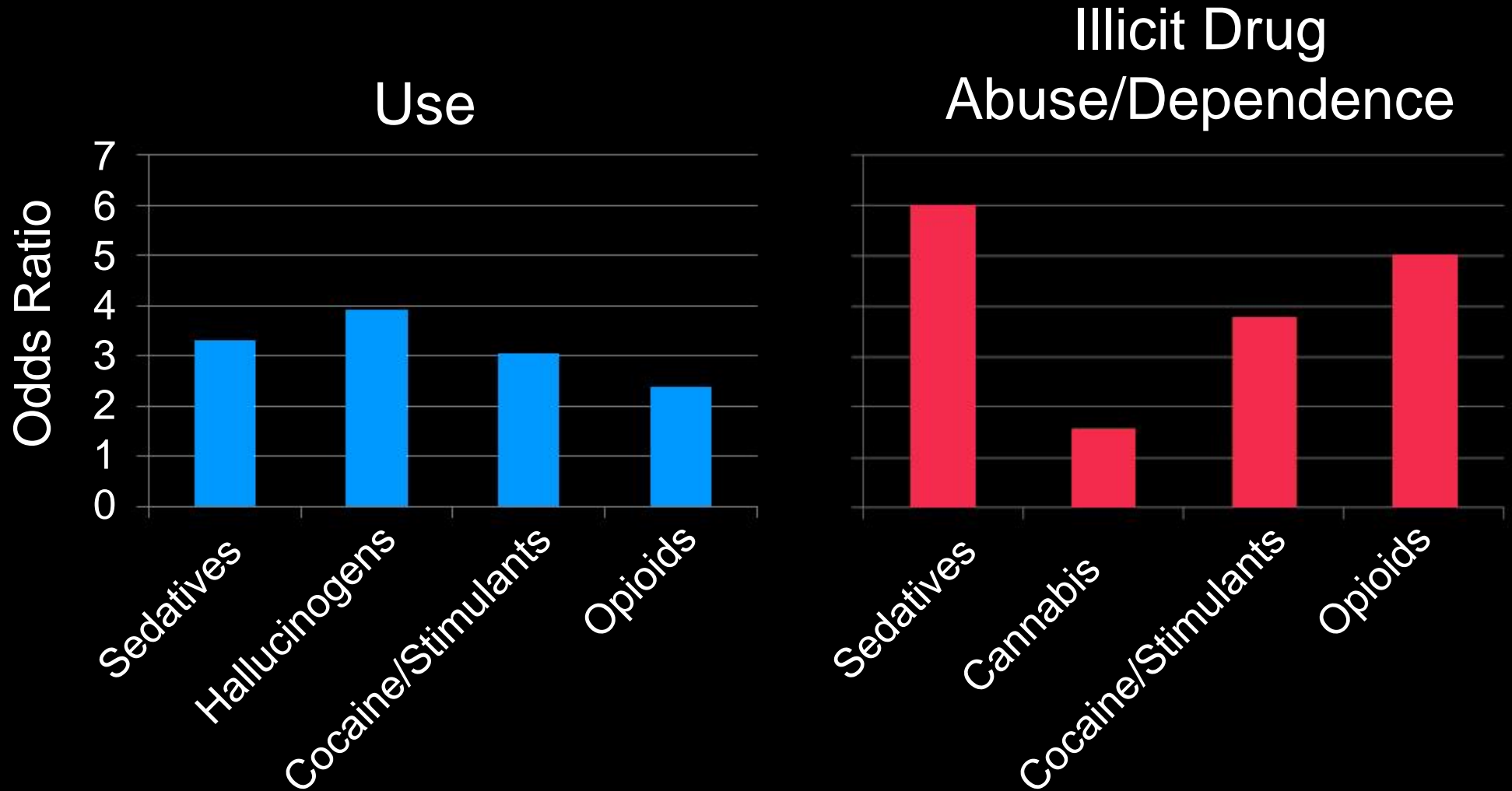
Source: Anthony et al. Exp. Clin. Psychopharmacol. 2(3), pp.244-268 (1994)

Marijuana addiction is also linked to a withdrawal syndrome that can make it hard to quit. Symptoms include:

- irritability,
- sleeping difficulties,
- craving,
- anxiety, and
- increased aggression.



Drug Use Outcomes in Twin Pairs (n =234) Discordant for Cannabis Use Before Age 17

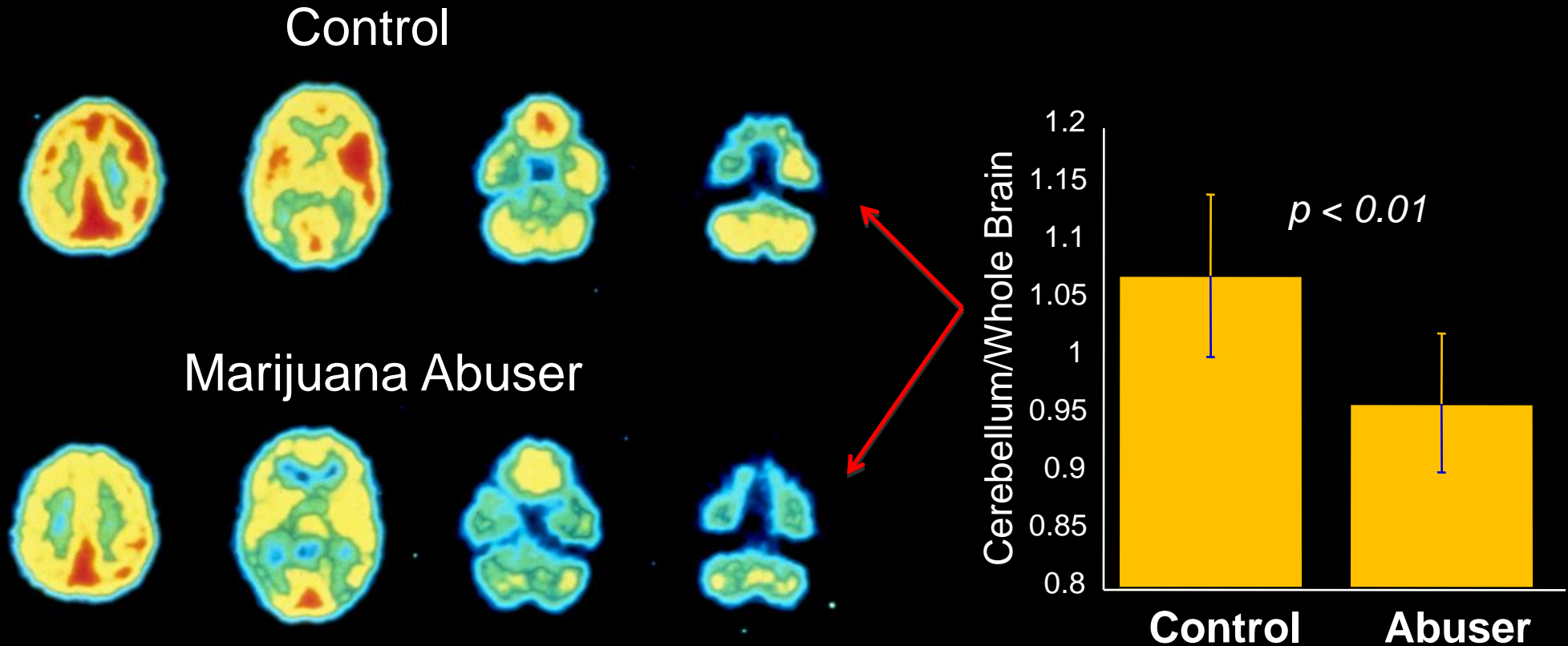


Source: Lynskey, MT et al., JAMA, 289, pp. 427-433, 2003.

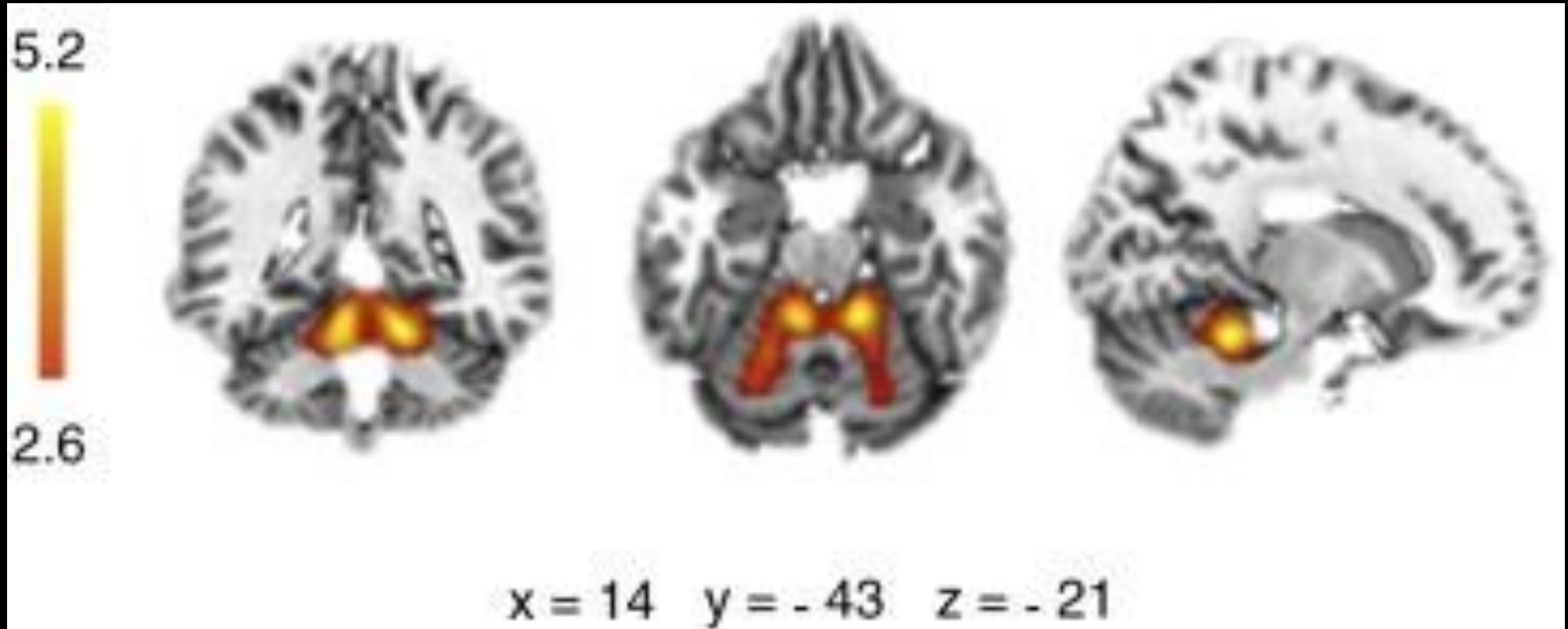
Possible impact of chronic Marijuana use on brain structure and function



The Lower Baseline Cerebellar Metabolism in Marijuana Abusers is likely to Result in Motor Deficits



Heavy cannabis users display differences in cerebellar volume



To learn more about marijuana and other drugs of abuse visit NIDA's website at:

www.drugabuse.gov, or NIDA's teen site at www.teens.drugabuse.gov

To order publications on these topics free of charge in English or Spanish, contact the DrugPubs Research Dissemination Center at 877-NIDA-NIH (877-643-2644; TTY/TDD: 240-645-0228) or www.drugpubs.drugabuse.gov

Lifetime Use of Marijuana

