



Alcohol, Other Drugs & Team Success

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APPLE & Gordie Center faculty & staff are here to help!



Michelle

Susie

Joe

Debra

Holly

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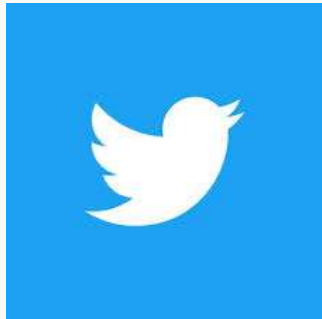
UNIVERSITY
of VIRGINIA

Educational Partners



Drug Free Sport

myPlaybook



@APPLEathletics
#APPLEathletics2019



APPLE_athletics



Conference Presentation Slides

www.APPEathletics.org

The image shows a screenshot of the APPLE Training Institute website. At the top left is the University of Virginia logo. The main header features the 'APPLE TRAINING INSTITUTE' logo and the tagline 'Promoting Student-Athlete Wellness and Substance Abuse Prevention'. A navigation menu is visible with items: 'APPLE Model', 'Training Institute', 'DII Institute', 'Resources', 'About', and 'Home'. A yellow arrow points from the 'Training Institute' menu item to a dropdown menu. The dropdown menu contains the following items: 'Locations', 'Registration', 'Schedules', 'Faculty & Presenters', and 'Presentations'. The 'Presentations' item is highlighted with a grey background and circled in orange. Below the navigation menu, the page content includes a 'TRAINING INSTITUTE' sub-header, a 'Presentations' section, and a '2019 Conference Presentations' section. The 'Presentations' section lists 'Administrator Orientation & Registration' and 'Susie Bruce, M.Ed.'.

UNIVERSITY of VIRGINIA

Search

APPLE
TRAINING INSTITUTE

APPLE Model Training Institute DII Institute Resources About Home

Promoting Student-Athlete Wellness and Substance Abuse Prevention

TRAINING INSTITUTE

Locations

Registration

Schedules

Presentations

2019 Conference Presentations

Administrator Orientation & Registration

Susie Bruce, M.Ed.

APPLE Goal:

prevent misuse of
alcohol, tobacco,
and other drugs
(ATOD) through:

Education

Empowering teams

Networking

Post-training
coaching



APPLE founders Dr. Susan Grossman & Dr. Joe Gieck





Student- Athlete Substance Use

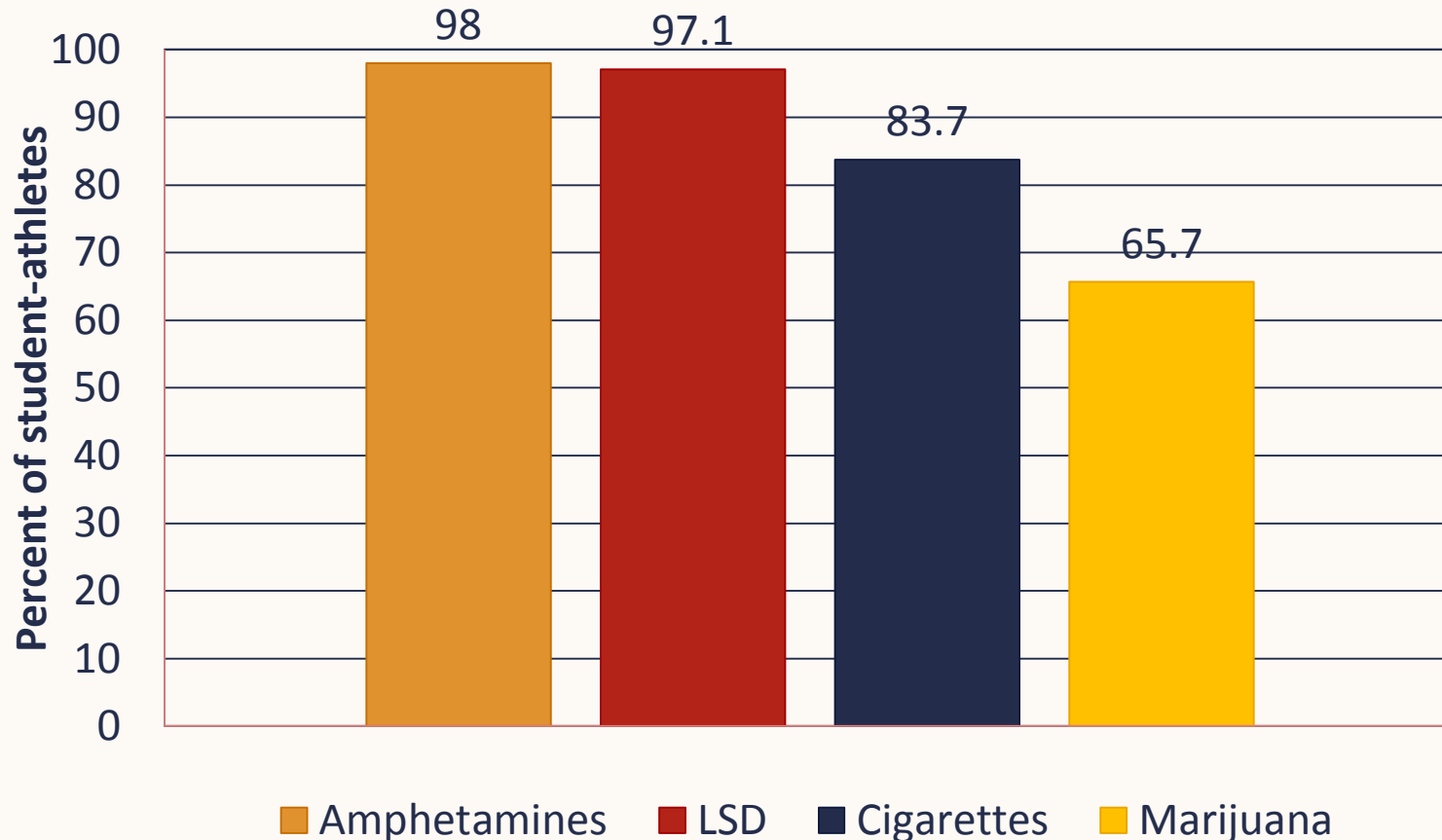


NCAA National Study on Substance Use Habits of College Student-Athletes

June 2018

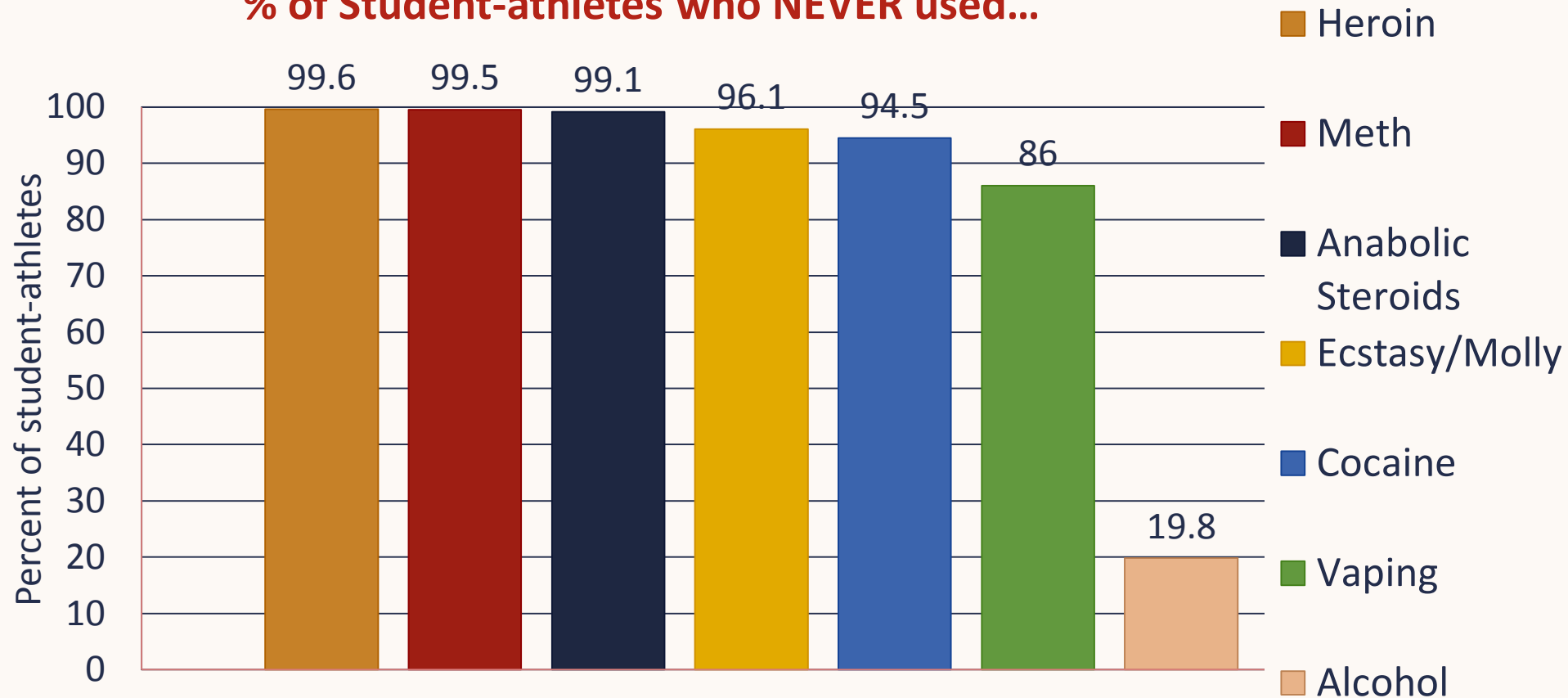
Compared to all college students in 2017, student-athletes are **LESS** likely to use...

% of Student-athletes who NEVER used...



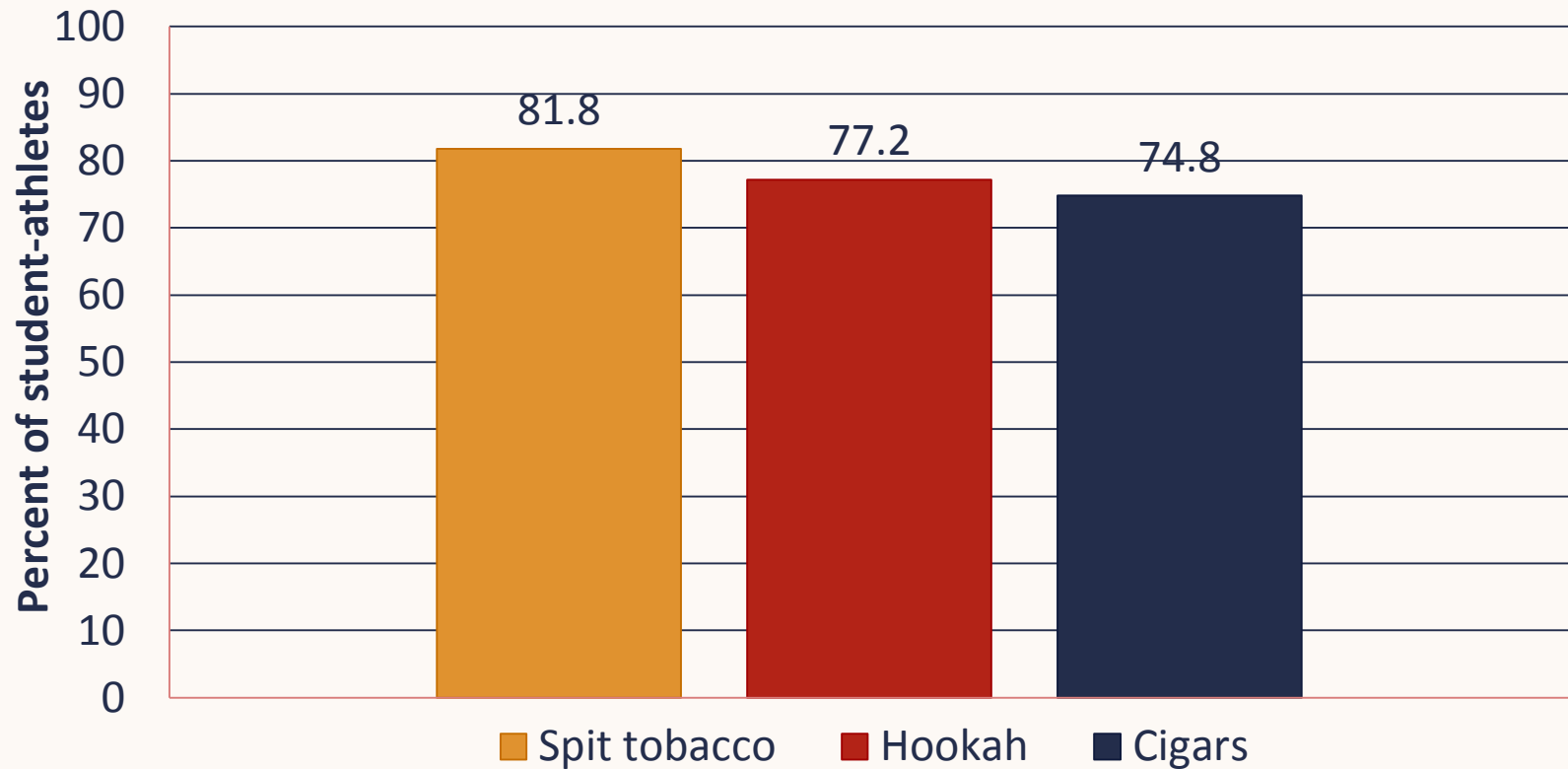
Compared to all college students in 2017, student-athletes are **EQUALLY** likely to use...

% of Student-athletes who NEVER used...



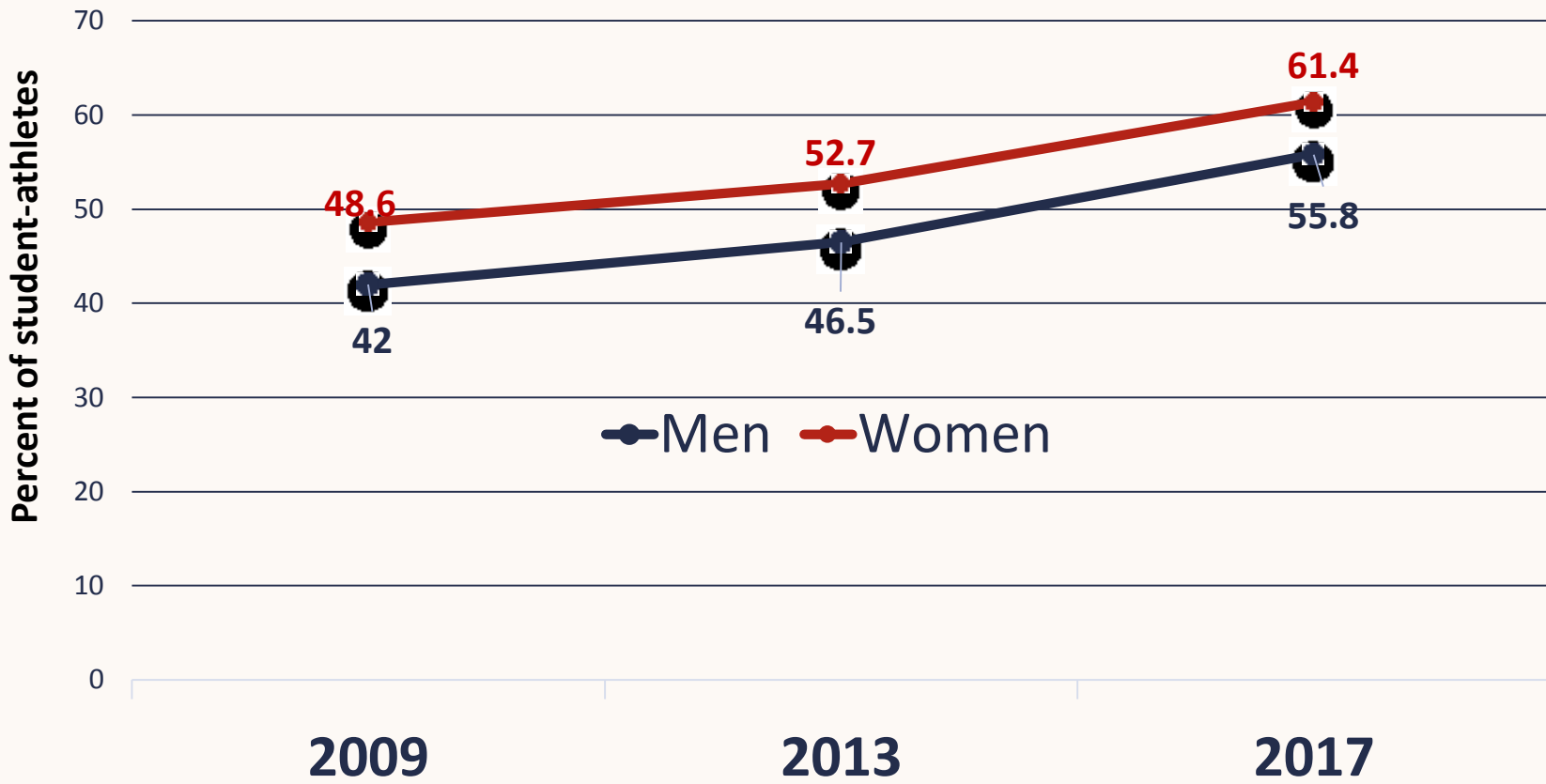
Compared to all college students in 2017, student-athletes are **MORE** likely to use...

% of Student-athletes who NEVER used...

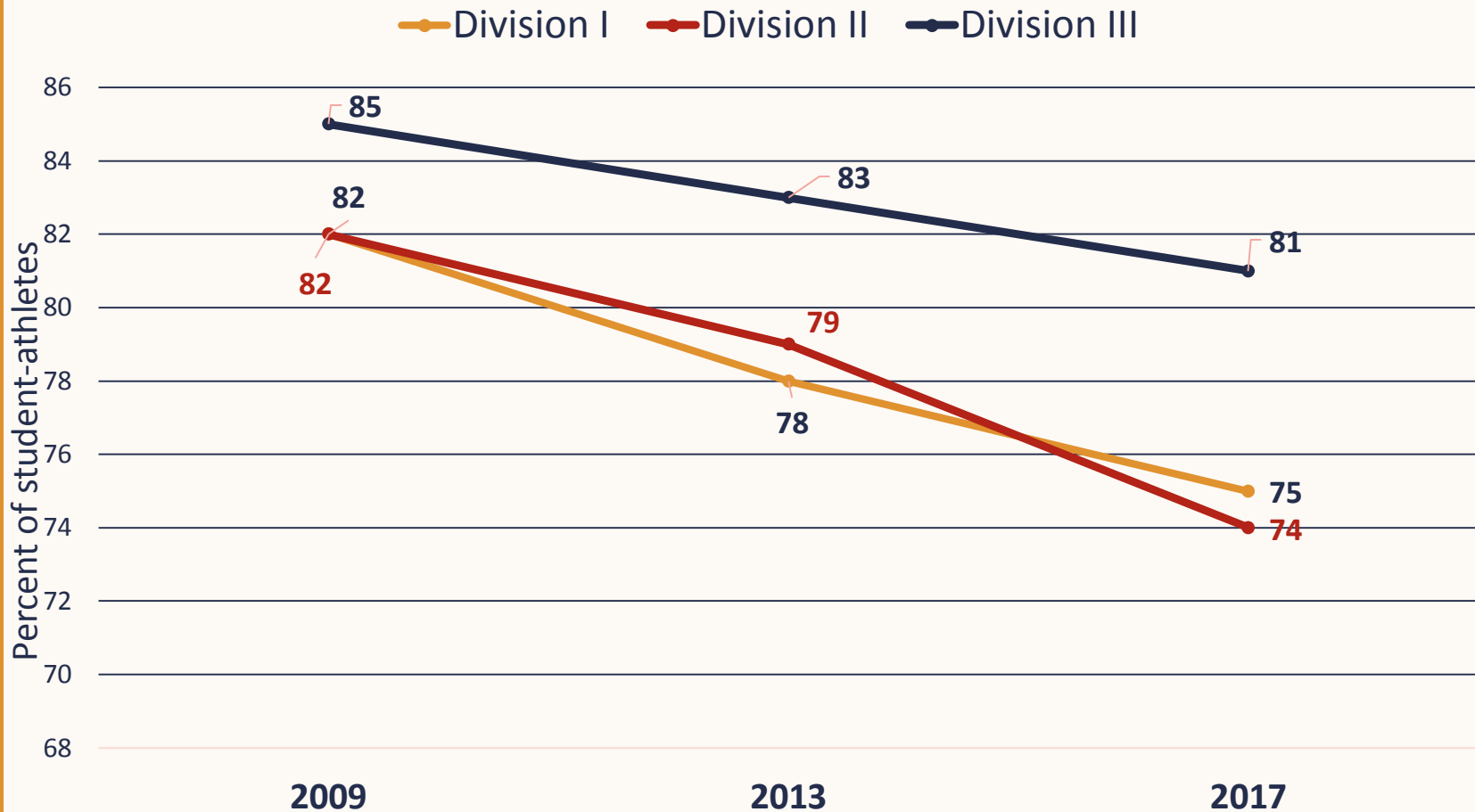


Low-risk drinking has **INCREASED** significantly among student-athletes.

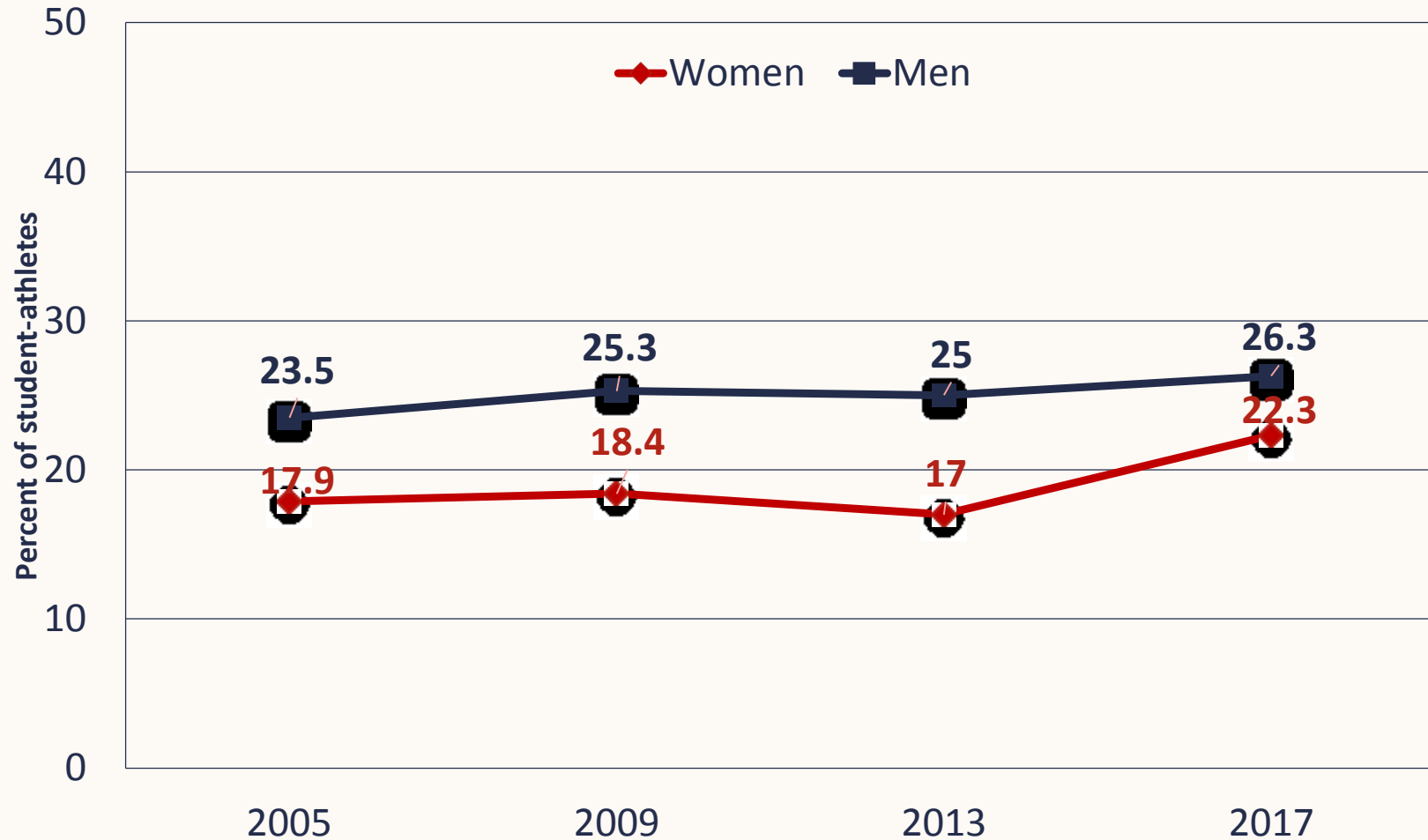
(<4 drinks for women/ <5 drinks for men in a sitting)



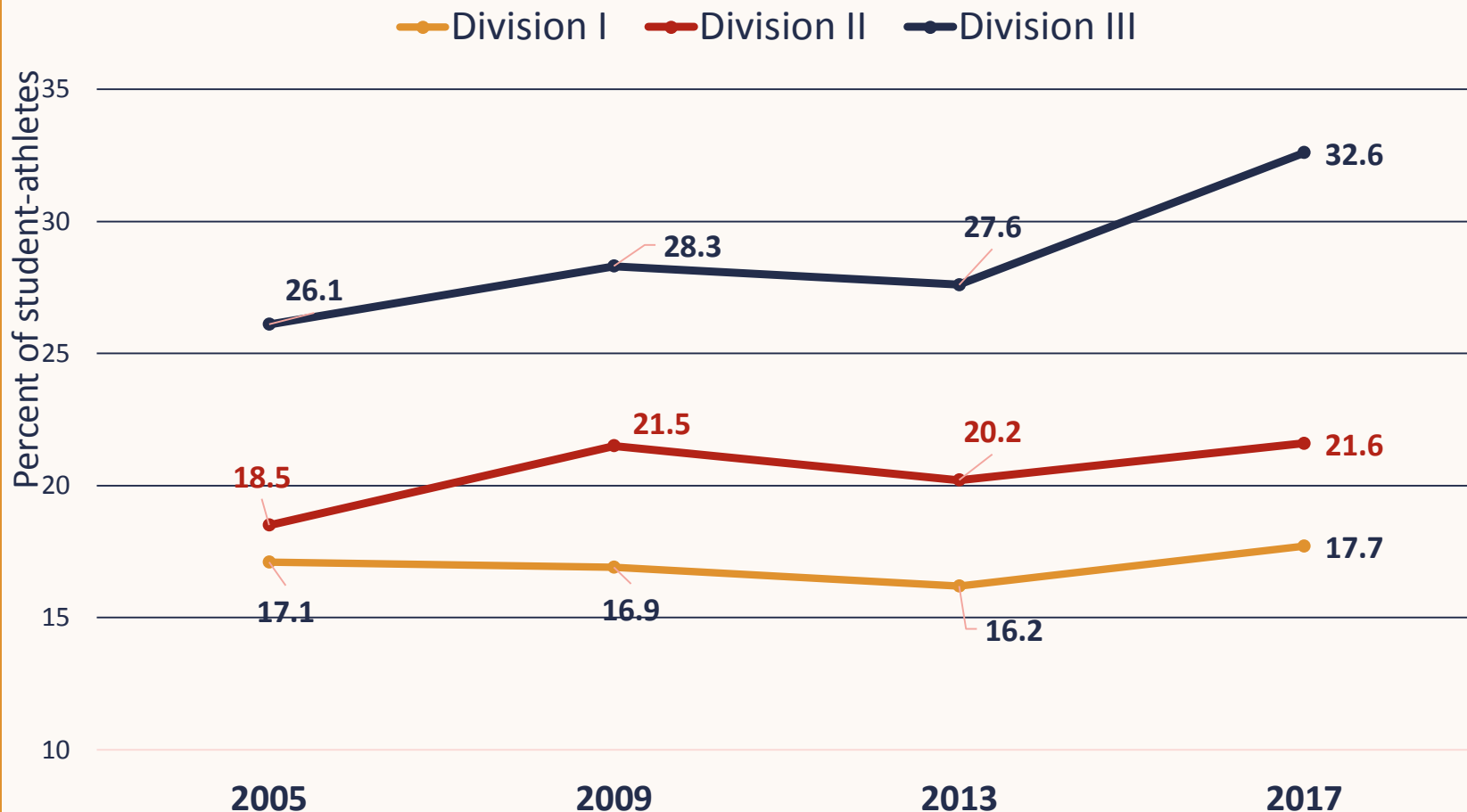
Student-Athlete Alcohol Use: Past Year by NCAA Division



Student-Athlete Marijuana Use: Past Year by Sex



Student-Athlete Marijuana Use: Past Year by NCAA Division



NCAA National Study of Substance Use Habits of College Student-Athletes, 2005, 2009, 2013, 2017. *For 2017, marijuana use was reported by specific methods, whereas in previous years it was reported as a general substance category. Therefore, the percentage of marijuana use for 2017 includes those who reported “inhaling” or “Ingesting” marijuana.

Which **WOMEN's sports** have the **lowest rates** of alcohol use in the past 12 months?

Golf (26% didn't use) Basketball (29% didn't use)
Track (35% didn't use)



Which **MEN's sports** have the **lowest rates** of alcohol use in the past 12 months?

Football (28% didn't use) Basketball (32% didn't use)
Track (33% didn't use)



Top Reasons Student-Athletes Don't Drink:

#1: No desire to experience effects

Don't want to hurt athletic performance

Concerned about how it may affect health

Don't want to hurt my academic
performance

Against beliefs/values

Most student-athletes' alcohol use does NOT interfere with their sport.

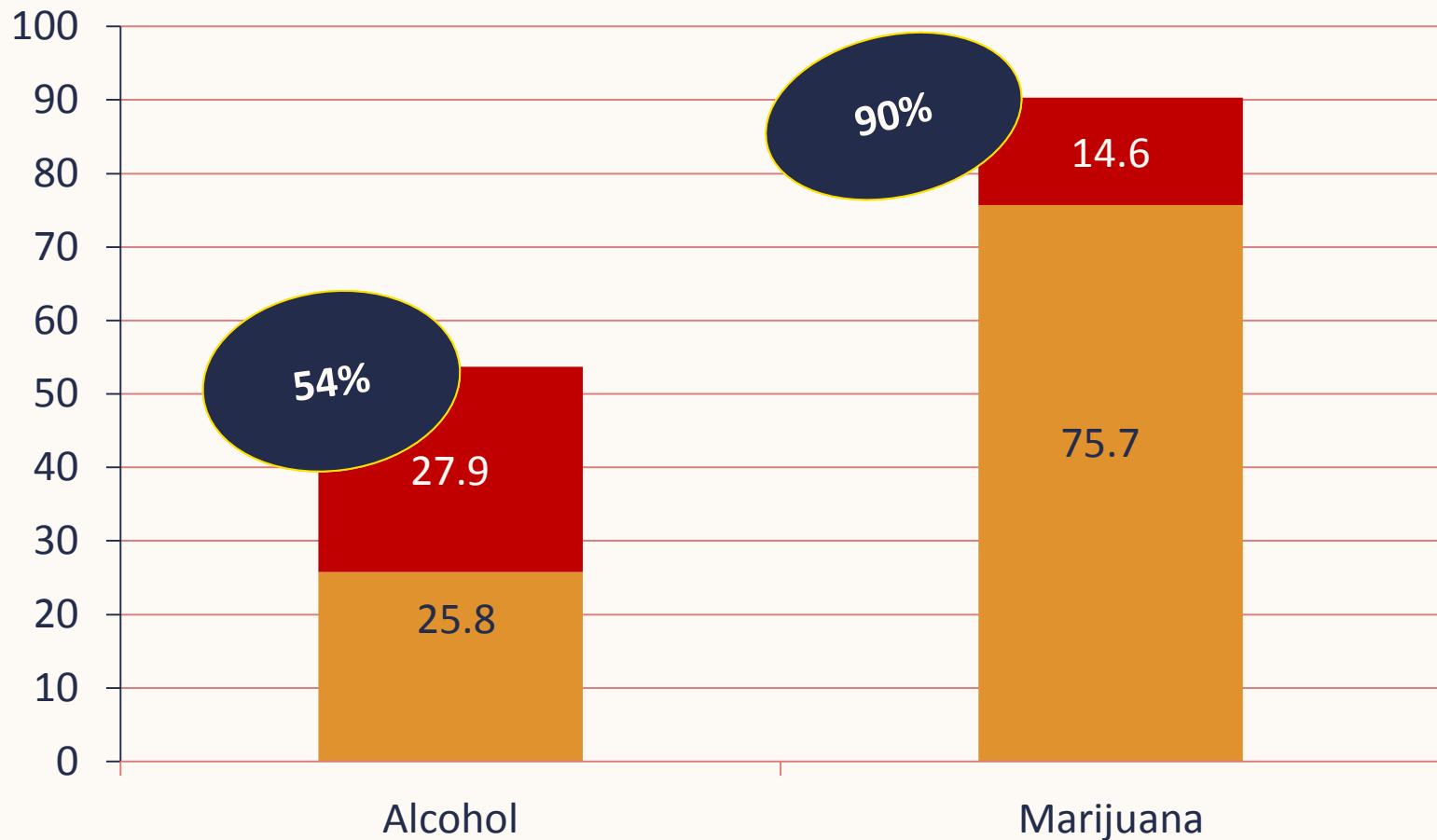


97% didn't show up late or miss a practice or competition.

93% didn't perform poorly in a practice or competition.

Student-Athletes who **NEVER** Use During Competition Season

■ No use in past year ■ Did not use in season



Compared to other student drinkers, student-athletes who drink...

- Consume more alcohol
- Drink more frequently
- Have **more negative consequences** including
 - Driving under the influence
 - Unsafe sexual behaviors
 - Criminal offenses



Student-Athletes, Hazing & Alcohol

Student-Athlete Experiences	
At least one form of hazing while in college.	74%
Hazed by participating in drinking games	47%
Hazed by having to drink large amounts of alcohol to the point of getting sick or passing out	23%
Believed coaches and/or advisors were aware of the activities.	25%

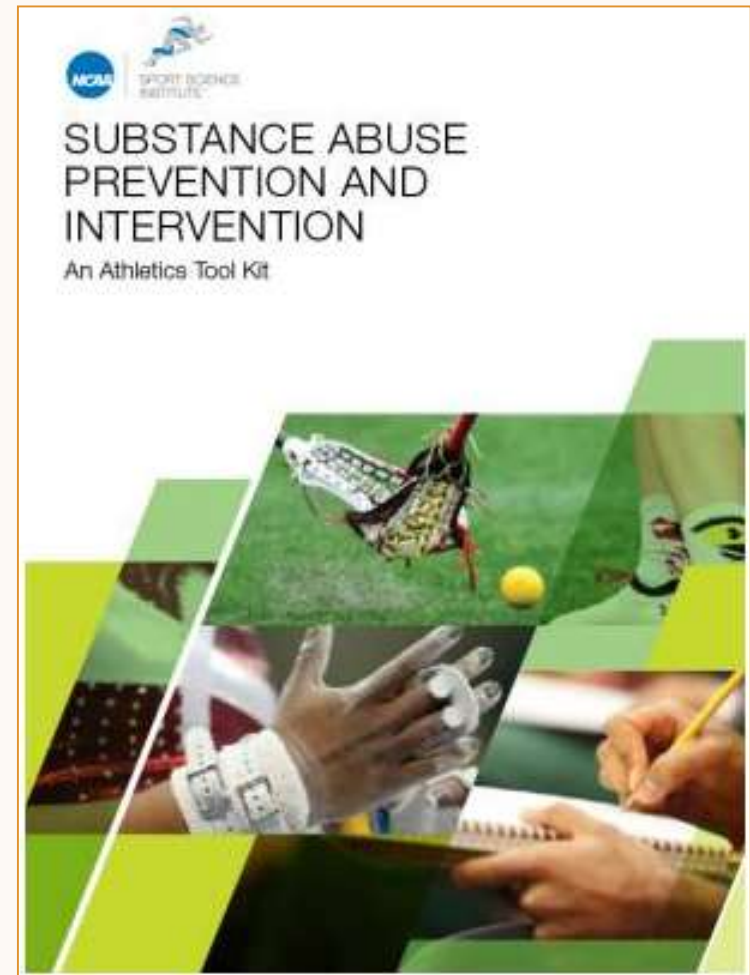
In your team,
discuss how
much you
personally agree
or disagree with
this statement.

**“Alcohol and
other drug use
can be the
difference
between a
winning and a
losing season.”**



Alcohol & Athletic Performance

NCAA Resources



Alcohol Negatively Impacts Body Composition

Increases body fat +

Often mixed with high-calorie drinks
and high-calorie foods =

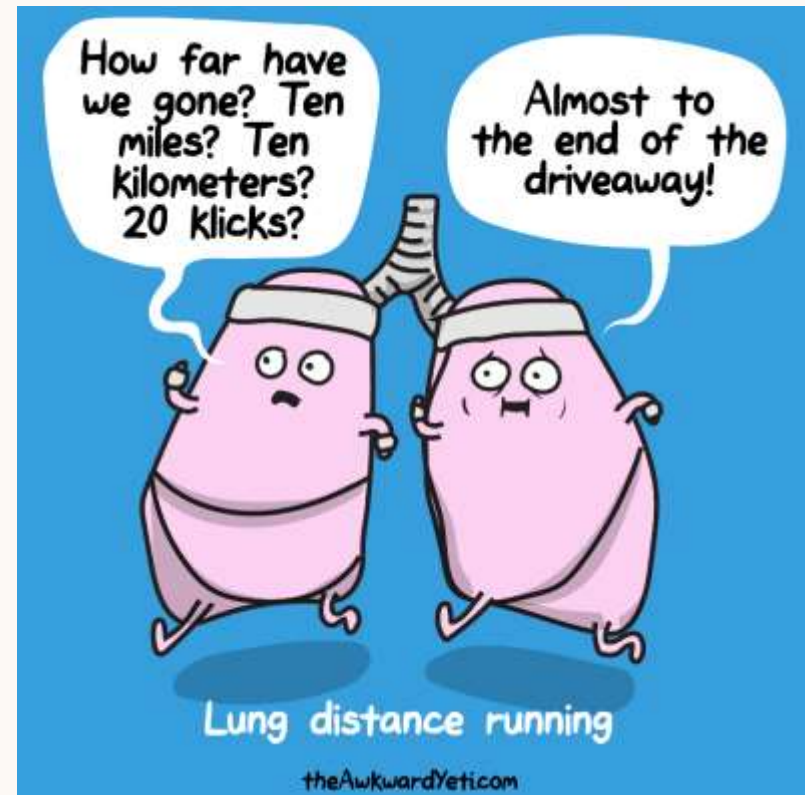
Overall weight gain



Alcohol Decreases Aerobic Performance

blood flow to
muscles and
organs

energy available
for muscles to
perform





Alcohol Dehydrates

Up to 3% body weight loss
within 4 hours of drinking

fluid loss

chance of heat cramps, exhaustion and stroke

temperature tolerance

reverses heat acclimation training

Berning, J. (1996)
Shirreffs & Maughan (2006)
Yusko, D.A., et al., (2008)
O'Brien & Lyons (2000)

How many
cups of water
may an athlete
need to
rehydrate after
5 standard
alcoholic
drinks?

17

Athletes + Rehydration

12+ cups of fluid **per day**

1 alcoholic drink = at least **1 additional cup** of fluid

5 alcoholic drinks = **17+ cups** of fluid



Alcohol Inhibits Absorption of Key Nutrients

...needed for:

- Converting food into fuel
- Healthy red blood and nerve cells
- Making new oxygen-carrying cells
- Energy metabolism and endurance



27% of student-athletes report to practice with low blood glucose levels (not all due to alcohol use)

Why does alcohol matter?

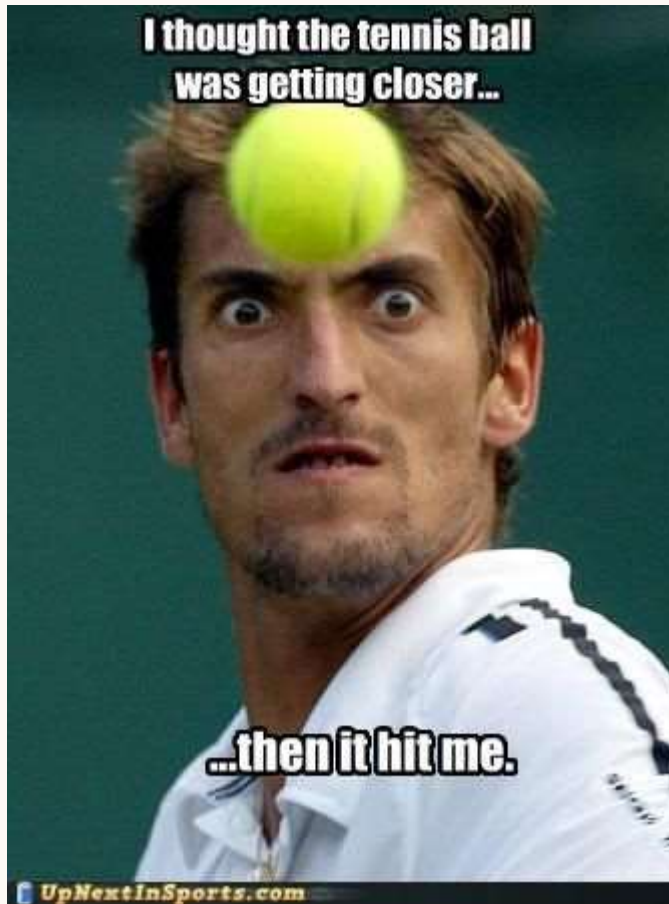
The body spends energy metabolizing alcohol, **not making more glucose.**

So What?

Can lead to **severe hypoglycemia** 6 to 36 hours after heavy drinking.



Alcohol Impairs Motor Skills



- Decreases strength, power and sprint performance for up to **three days** (72 hours)
- Decreases HGH secretion by up to **70%**
- Reaction time can be affected up to **12 hours** after drinking



Needed for
muscle
growth



Decreased motor
skills

Up to
70%

Decreased muscle
growth & repair

Alcohol Disrupts Sleep & Learning



Reduces time spent in deep, restful sleep.

Impedes memory formation

Disrupts muscle repair

How well can game plans be learned?

Alcohol Slows Recovery

Alcohol delays muscle repair

Drinking after competition hinders recovery

Risk of injury is doubled:

Injury rate for non-drinkers 23.5%

Injury rate for drinkers 54.8%



**#1 Day of the
Week
for Injuries:**

Monday

Yusko, D.A., et al., (2008)
O'Brien & Lyons (2000)

American Athletic Institute:
www.americanathleticinstitute.org

Alcohol Increases Risk of Illness



Drinking depresses
immune function.

Athletes who drink
get **sick** more often.

What's the harm in a hangover?

41% of student-athletes had at least one hangover in the past year (half of all who reported drinking).

EFFECTS of a hangover:

- Increased heart rate
- Decreased left ventricular performance
- Increased blood pressure
- Decreased endurance performance
- Dehydration



Getting drunk 1
time can
negate up to
how many days
of training
effects?



Due to lost physiological
conditioning including:
Heart rate
Ventilation
Muscle enzymes

ALCOHOL AND ATHLETE: A Comparative Case Study of
Enzymatic Activity, Training Effect and Alcohol
Ingestion on an Elite Level Athlete, *John Greig*
Underwood American Athletic Institute



**Break out session
tomorrow @ 2:30 pm**



MARIJUANA'S IMPACT ON PERFORMANCE

Lingering Impact



Can last several
days beyond
initial use

Respiratory system

Cardiovascular system

Cognition

Psychomotor
performance

Perception

Motivation

Mental health

Immune System



Respiratory Systems

Muscles deprived of
optimal energy level

More quickly fatigued

Decreased performance

Cardiovascular System

- heart rate
- blood pressure
- efficiency in oxygen distribution
- stamina
- endurance

Can affect ability to regulate body temperature



Cognitive and Psychomotor Performance

Skill impairment may last up to 36 hours

- Slowed reflexes
- Disrupted balance and posture
- **Increased risk of injury**

- Increased time needed to learn
(**up to 5 hours after use**)
- Reduced ability to problem-solve



Brain is not fully developed until about age 25:

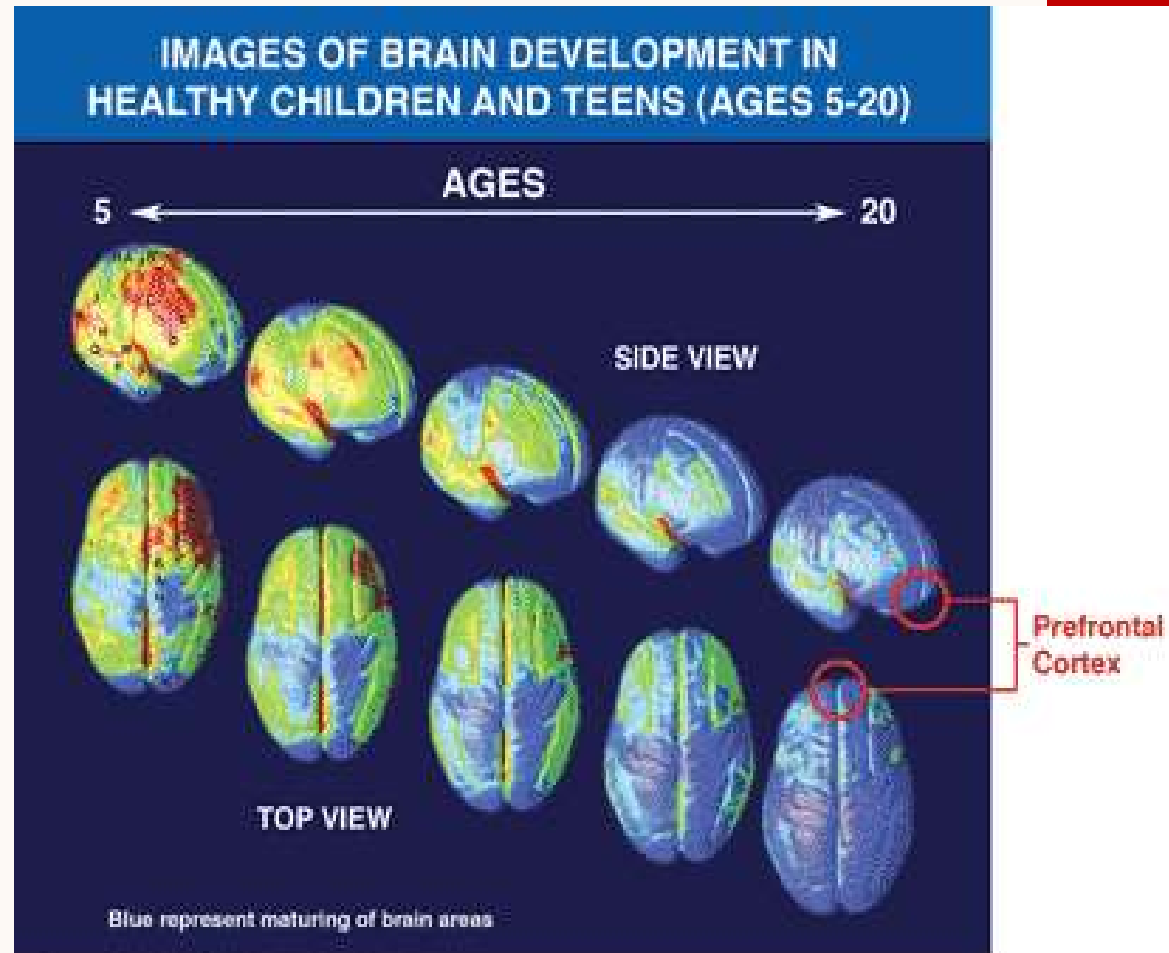
Impacts:

Reasoning

Impulse control

Planning

Decision-making



Source: Copyright PNAS ;101(21):8174-9. 2004

Cannabis 'more harmful than alcohol' for teen brains

3 October 2018



Teenagers using cannabis are causing long-lasting damage to their developing brains, a Canadian study suggests.

- Caused changes in normal brain structure development
- Greater impact on thinking skills
- Effects remained after drug use stopped

IQ
↓

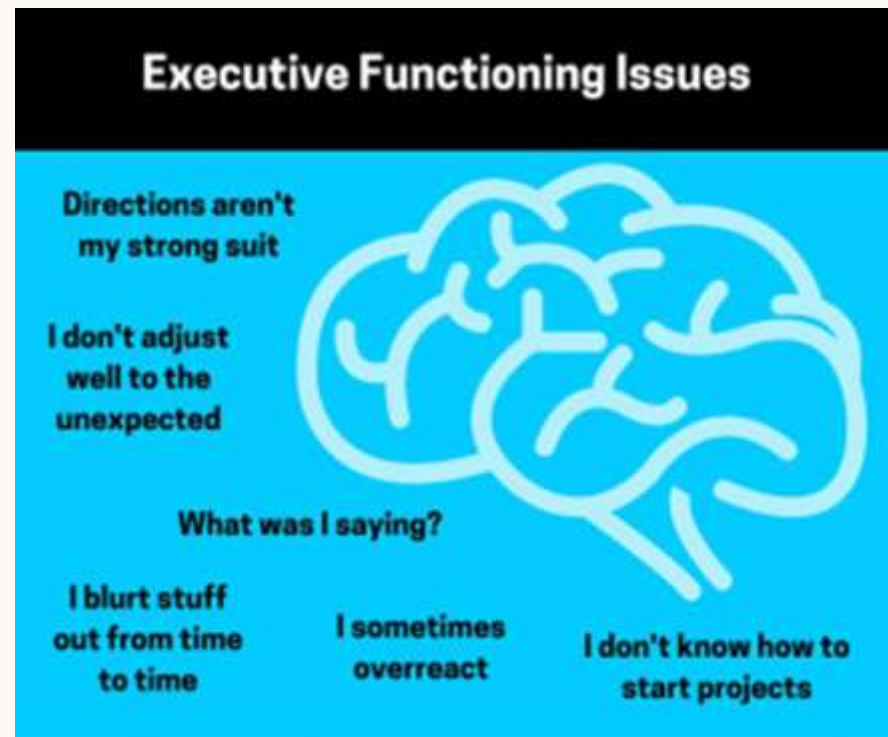
Regular heavy marijuana use by teens can lead to an IQ drop of up to **8 points**³

4 year study of 3,800 adolescents, starting at age 13

Lingering Impacts of Chronic Use in Adolescence

Even after a month of abstinence, users had decreased:

Visual perception
Psychomotor speed
Control over inhibition
Attention
Abstract reasoning
Memory
Executive functioning



Source: Medina KL, Nagel BJ, Taper SF. Abnormal cerebellar morphometry in abstinent adolescent marijuana users. *Psychiatry Research: Neuroimaging* 182: 152-159, 2010.

Jill Schlabig Williams, NIDA Notes, Vol. 18, #5



Alcohol and Team Success

Abstaining from alcohol use while in season can increase the likelihood of having a successful season.



Alcohol and Performance Potential

The lingering effects of alcohol hangovers
reduces athletic performance by up to
11.4%
in elite athletes (e.g., national teams)

Impacts are **higher** for college student-athletes.



Source: American Athletic Institute: www.americanathleticsinstitute.org

“The Hangover Effect Or Disturbed Recovery Process”

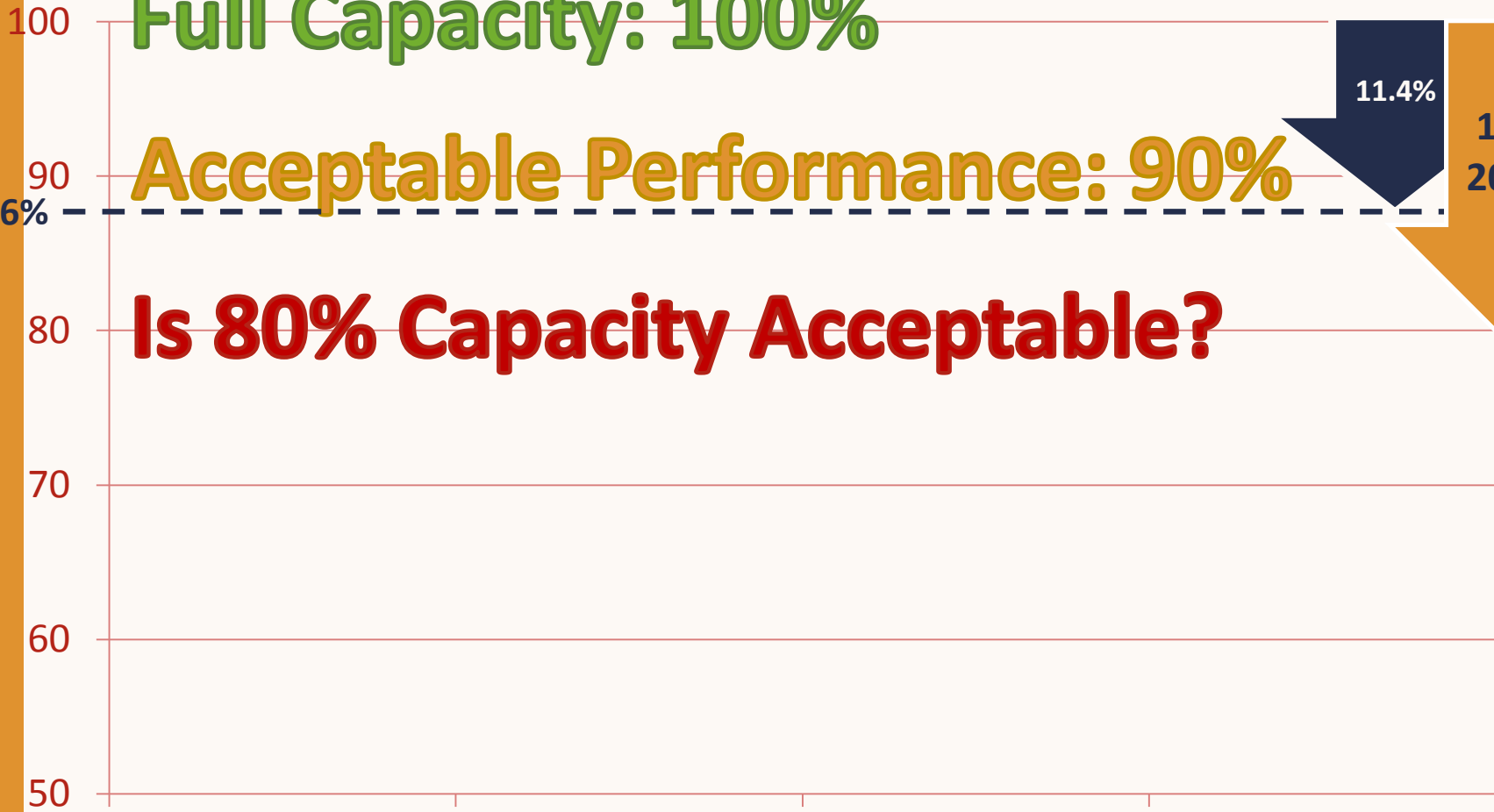
O'Brien, CP and Lyons, F. Alcohol and the Athlete. Sports Med 2000 May; 29 (5): 295-300

What Is Acceptable Performance?

Full Capacity: 100%

Acceptable Performance: 90%

Is 80% Capacity Acceptable?



Source: American Athletic Institute: www.americanathleticsinstitute.org; "The Hangover Effect Or Disturbed Recovery Process"

O'Brien, CP and Lyons, F. Alcohol and the Athlete. Sports Med 2000 May; 29 (5): 295-300

What would a
15% performance INCREASE
look like for your team?

For your individual
performance?





Football 4-2

5-1

All-American
10-2

PTS 160	184
Opp. 133	113
Rush 1158	1331
Opp. 854	725
Pass 1443	1659
Opp. 1001	850

15% increase



Softball 24-31

28-27

NCAAS
Six 1-Run
Losses

Avg. .254

Opp. .285

OBP .336

ERA 4.35

15% increase

.292

.242

.386

3.69

Test Your Knowledge! Prizes!



On your phone or other
device, go to
kahoot.it

Enter GAME PIN

333307

Create a nickname

Enter the answer on your device by matching color/shape.

Accuracy AND speed count!

Kahoot.it

← → ↻ 🏠 <https://create.kahoot.it/v/p/preview/fc7d4bc3-2e39-48bf-830c-2e20d019e992>

Which of these is NOT a standard drink?

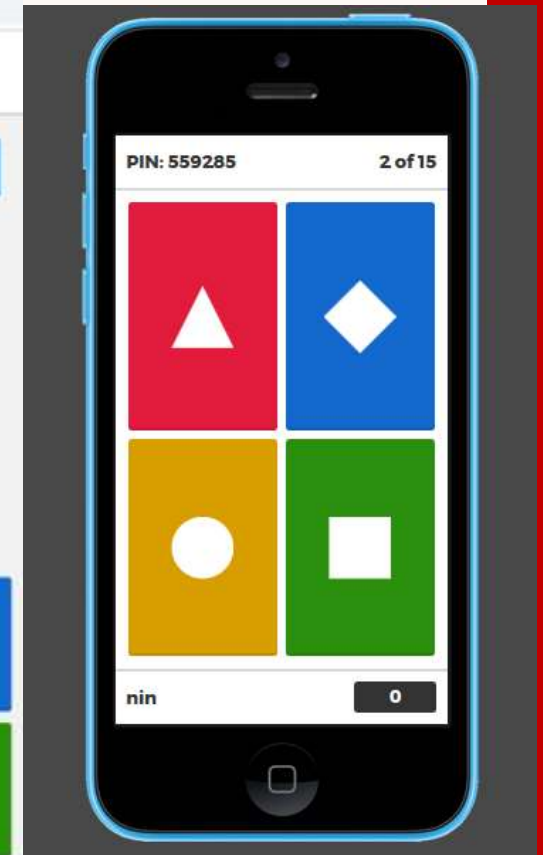


9

Skip

0 Answers

▲ 12 oz beer	◆ 5 oz glass of wine
● 1.5 oz shot of liquor	■ 24 oz. alcoholic energy drink



Prizes for top student-athlete AND top administrator score!

Save your screen image!

GAME PIN

333307

