

Magnitude and Prevention of College and Underage Drinking Problems



Ralph Hingson, Sc.D., M.P.H.



**Director, Division of Epidemiology and Prevention
Research**

National Institute on Alcohol Abuse and Alcoholism

National Institute of Alcohol and Drug Policy (NIADP)

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Alcohol and Global Health

- In 2002, harmful alcohol use caused:
 - 2.3 million premature deaths
 - 3.7% of global mortality
 - 4.4% of global burden of disease (after controlling for protective effects of low-moderate alcohol consumption)
- Harmful use of alcohol is the 3rd leading risk factor for death and disability in developed countries

Source: World Health Organization, 2009

Alcohol and Health in the Americas

- Alcohol surpasses smoking as the most important risk factor for burden of disease
- Alcohol consumption averaged more than 50% higher than worldwide
- Alcohol consumption contributed to:
 - 279,000 deaths
 - 4.8% of all deaths
 - 9.7% of all disability years of life lost
- Intentional and unintentional injuries accounted for:
 - 50% alcohol-related deaths
 - 38% alcohol-related disease burden

Source: Rehm & Montiero, *Pan American Journal of Public Health*, 2005



Alcohol Attributable Deaths in the United States, Annual Average, 2001-2005

- 79,696
- 3rd leading cause of preventable deaths
- Injury (including poisoning): 43,731
- Chronic disease: 35,915

Source: CDC, ARDI, 2009

Disability Adjusted Life Years (DALYs)

- Alcohol is the 5th leading cause of DALYs among males
 - Ischemic heart disease
 - Road traffic injury
 - Lung cancer
 - HIV/AIDS
 - Alcohol
- Alcohol is the 11th leading cause of DALYs among women

Source: McKenna, *Am J Prev Med*, 2005



Alcohol Attributable Deaths: Acute Conditions 43,731

National Institute on Alcohol Abuse and Alcoholism

Motor Vehicle Traffic	13,819
Homicide	7,787
Suicide	7,235
Falls	5,532
Poisoning (Not alcohol)	5,416
Poisoning (Alcohol)	370
Fire Injuries	1,158
Drowning	868
Other	1,546

Source: CDC: ARDI, 2009



Alcohol Attributable Deaths: Chronic Disease 35,915

Alcohol Liver Disease	12,219
Liver Cirrhosis, Unspecified	7,055
Alcohol Dependence Syndrome	3,857
Alcohol Abuse	2,382
Stroke	2,451
Hypertension	1,363
Pancreatitis	924
Other	5,664

Source: CDC: ARDI, 2009

- Alcohol-attributable injury deaths more often involve younger people than do chronic disease deaths
- Alcohol injury deaths account for twice as many years of life lost as chronic alcohol disease deaths

(Source: CDC, ARDI, 2009)



THE SUN



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NO STIMULUS CHECK?

THOSE WHO JUGGLE MARRIED, MAIDEN NAMES RISK DELAYS

Now Phelps tackles fame

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LOWER DRINKING AGE IS BACKED

21 'is not working,'
Md. college officials say

BY STEPHEN KIEHL
(SUN REPORTER)

Top university officials in Maryland — including the chancellor of the state university system and the president of the Johns Hopkins University — say the current drinking age of 21 "is not working" and has led to dangerous binges in which students have harmed themselves and others.

Six college presidents in Maryland are among more than 100 college and university presidents nationwide who have signed a statement calling for a public debate on rethinking the drinking age.

"Kids are going to drink whether it's legal or illegal," said Johns Hopkins President William R. Brody, who supports lowering the drinking age to 18. "We'd at least be able to have a more open dialogue with students about drinking as opposed to this sham where people don't want to talk about it because it's a violation of the law."

The presidents of the University of Maryland, College Park; Towson University; the College of Notre Dame of Maryland; Goucher College; Washington College; and the University of Maryland, Baltimore are among the signatories.

TODAY

ELDER EAGLE

WESTMINSTER
MAN EARNS
SCOUTING'S
HIGHEST HONOR
AT AGE 50







- 2,227 alcohol attributable deaths are ages 18-20
 - <3% of total
 - <4% of preventable years of life lost

- 9,625 alcohol attributable deaths are ages 25 or younger
 - 12% of deaths
 - ¼ of preventable years of life lost

Low-Risk Drinking Limits



Low-risk drinking limits		MEN	WOMEN
	On any single DAY	No more than 4 ■■■■ drinks on any day	No more than 3 ■■■ drinks on any day
	Per WEEK	AND No more than 14 ■■■■■■ drinks per week	AND No more than 7 ■■■■■■ drinks per week

Source: NIAAA, Rethinking Drinking: Alcohol and Your Health, 2009

Youth Ages 18-24 Are Most Likely to Exceed Low-Risk Drinking Limits

- 9% of people age 18 and older exceed both daily and weekly limits for low-risk drinking as established by the National Institute on Alcohol Abuse and Alcoholism (20 million people)
- The problem is greater among youth ages 18-24

	Percent	Number
Ages 18-20	24%	2,984,000
Ages 21-24	25%	4,193,000
Total 18-24		7,177,000

- Youth 18-24 are 16% of the population age 18 and older, but more than 1/3 of that population who exceed both daily and weekly limits



Youth Ages 18-24 Are Most Likely to Experience Alcohol Dependence

- 4% of the adult U.S. population met alcohol dependence criteria in the past year, representing 7.9 million people
- Youth are most affected
 - 12.5% of persons ages 18-20 (1.6 million)
 - 11% of persons ages 21-24 (1.8 million)
 - Total ages 18-24 (3.4 million)
- Youth 18-24 are:
 - 16% of the population age 18 and older
 - 43% of that population who met alcohol dependence criteria in the past year

Source: NIAAA, NESARC, 2002

A CALL TO ACTION:

CHANGING THE CULTURE OF DRINKING AT U.S. COLLEGES



Task Force of the National Advisory Council
on Alcohol Abuse and Alcoholism

National Institutes of Health

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

www.collegedrinkingprevention.gov



What Colleges Need to Know Now

An Update on College Drinking Research

College Drinking and Its Consequences: New Data

The comprehensive reports released by the National Institute on Alcohol Abuse and Alcoholism's (NIAAA's) Task Force on College Drinking turned a national spotlight on the problem of harmful drinking among college students. The central report, *A Call to Action: Changing the Culture of Drinking at U.S. Colleges*, has proven influential in the college alcohol and other drug (AOD) prevention and treatment field. Statistics first introduced in the report are now routinely used to convey the magnitude of college drinking problems and their consequences. Policymakers, legal experts, and organizations that provide college programming assistance have modified their efforts to reflect the Task Force recommendations.

College drinking research remains a high priority for NIAAA, and ongoing projects continue to yield important new information. This bulletin summarizes these recent findings with updated statistics, analysis, and recommendations.

As national headlines attest, students continue to be seriously injured or die as a result of drinking. Are these attention-grabbing headlines designed to simply sell newspapers, or is the problem as extensive today as it was in 2002 when the NIAAA Task Force first reported its findings?

The news is mixed. Among college students and other 18- to 24-year-olds, binge drinking (see the textbox, page 2, for a definition) and, in particular, driving while intoxicated (DWI), have increased since 1998. The number of students who reported DWI increased from 2.3 million students to 2.8 million (1). The number of alcohol-related deaths also have increased. In 2001, there were an estimated 1,700 alcohol-related unintentional injury deaths among students 18–24, an increase of 6 percent among college students (that is, per college population) since 1998 (1). In addition, it is estimated that each year, more than 696,000 students between the ages of 18 and 24 are assaulted by another student who has been drinking, and more than 97,000 students between the ages of 18 and 24 are victims of alcohol-related sexual assault or date rape (1). Clearly, alcohol-related problems on campus still exist (1).

Another line of research is examining how becoming intoxicated at a young age is linked to later drinking problems during the college years. The results showed that college students who first became intoxicated prior to age 19 were significantly more likely to be alcohol dependent and

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NATIONAL INSTITUTE ON ALCOHOL ABUSE AND ALCOHOLISM

Magnitude of Alcohol Problems on U.S. College Campuses



Dr. Margaret
Moore

Jonathan
Levy

Travis
Stedman



Numbers of College Students 18-24 Experiencing Alcohol Problems 2001

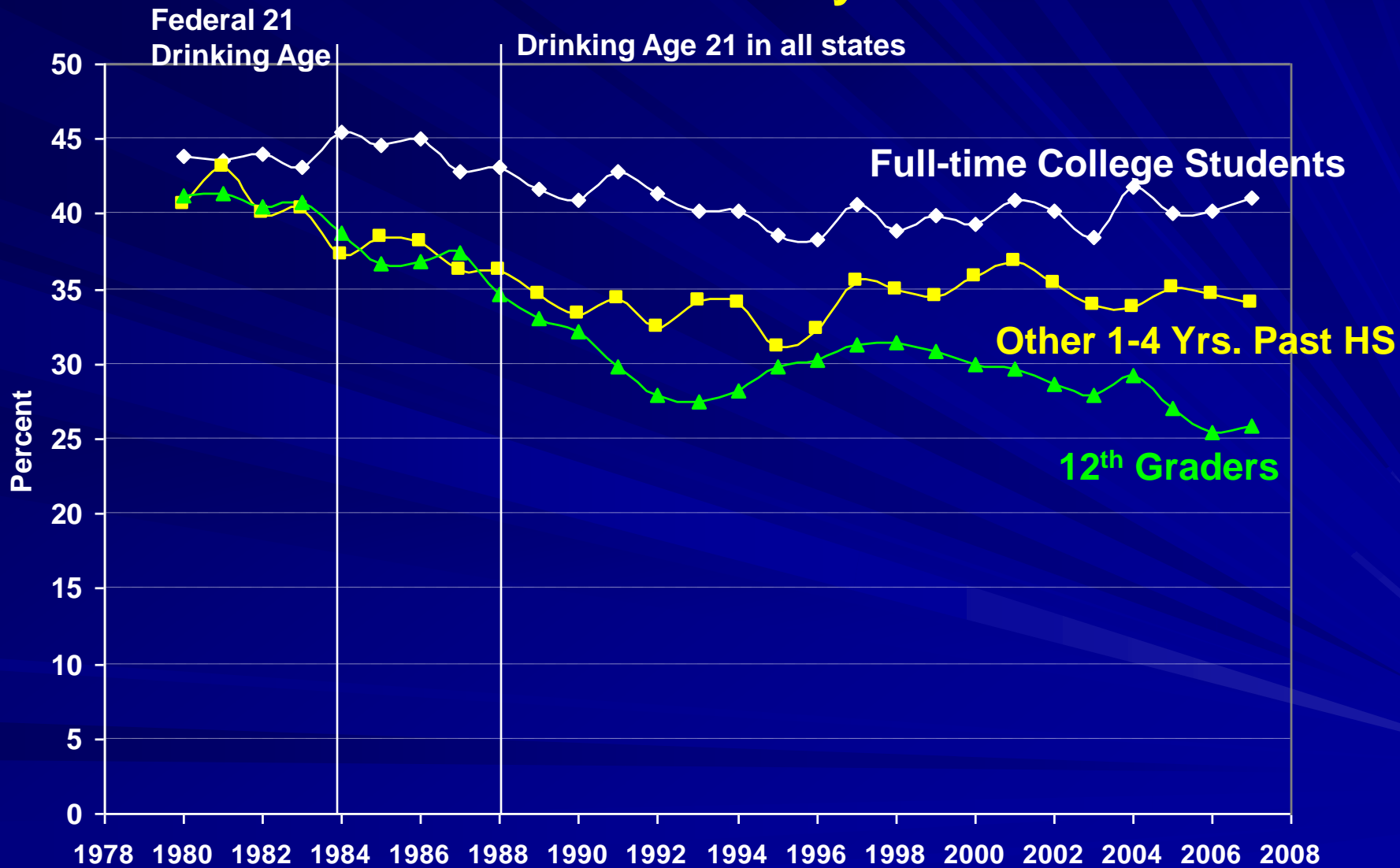
Alcohol Related Injury Deaths	1,700
Injured under influence of alcohol	599,000
Assaulted by another college student	690,000
Sex assault/date rape	97,000
Full time 4 year college students	6.4 million

Sources: College Alcohol Survey, National Household Survey on Drug Use and Health



Alcohol: Trends in 2-Week Prevalence of 5 or More Drinks in a Row among College Students vs. Others 1-4 Years Beyond HS

National Institute on Alcohol Abuse and Alcoholism

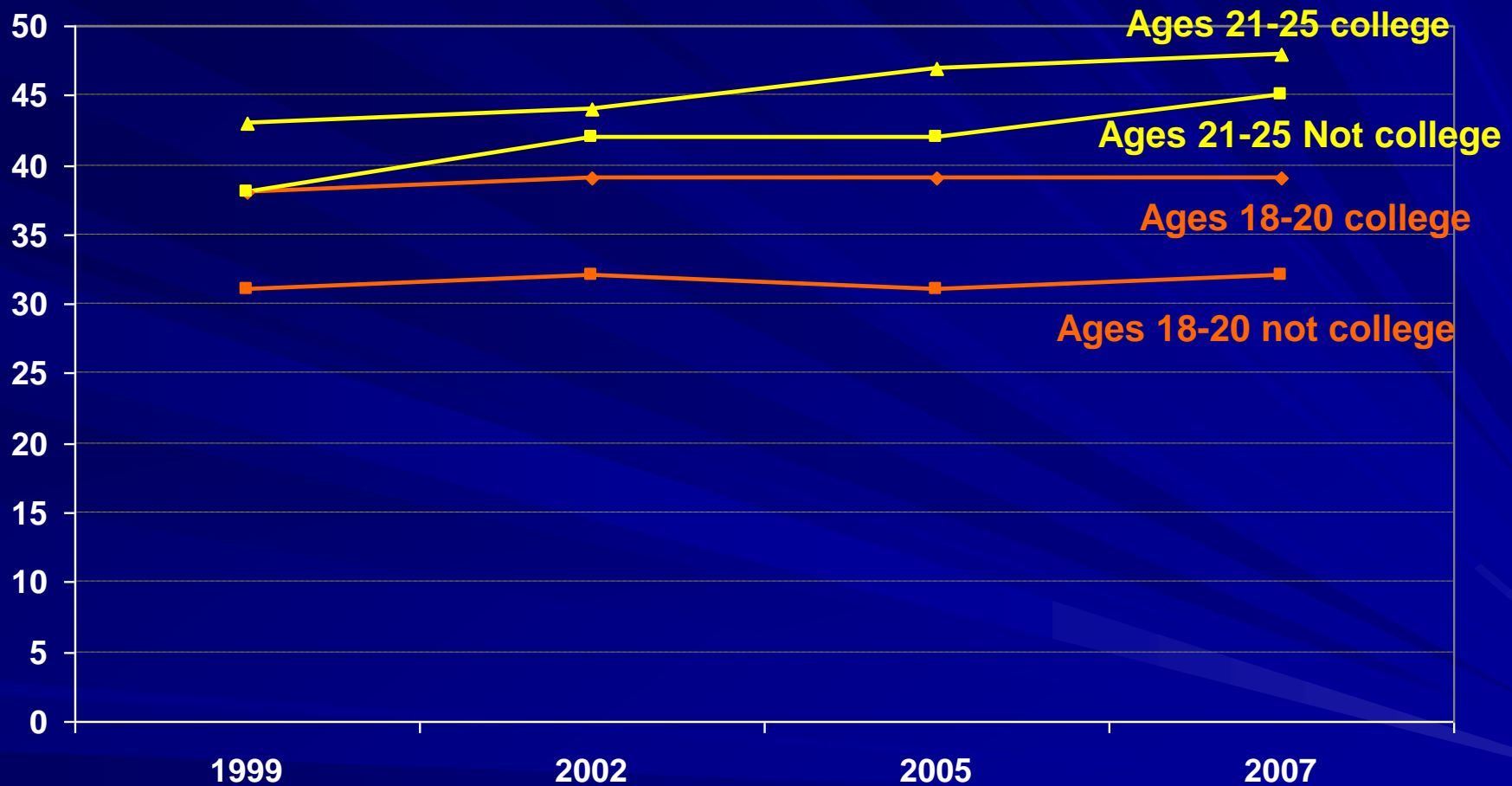


Source: Monitoring the Future, 2007



Percentage Binge Drinking, Ages 18-20 & 21-25 in College and Not in College

National Institute on Alcohol Abuse and Alcoholism



National Household Survey on Drug Use and Health, 2007



Percentage Drove Under the Influence of Alcohol, Ages 18-20 & 21-25 in College and Not in College

National Institute on Alcohol Abuse and Alcoholism

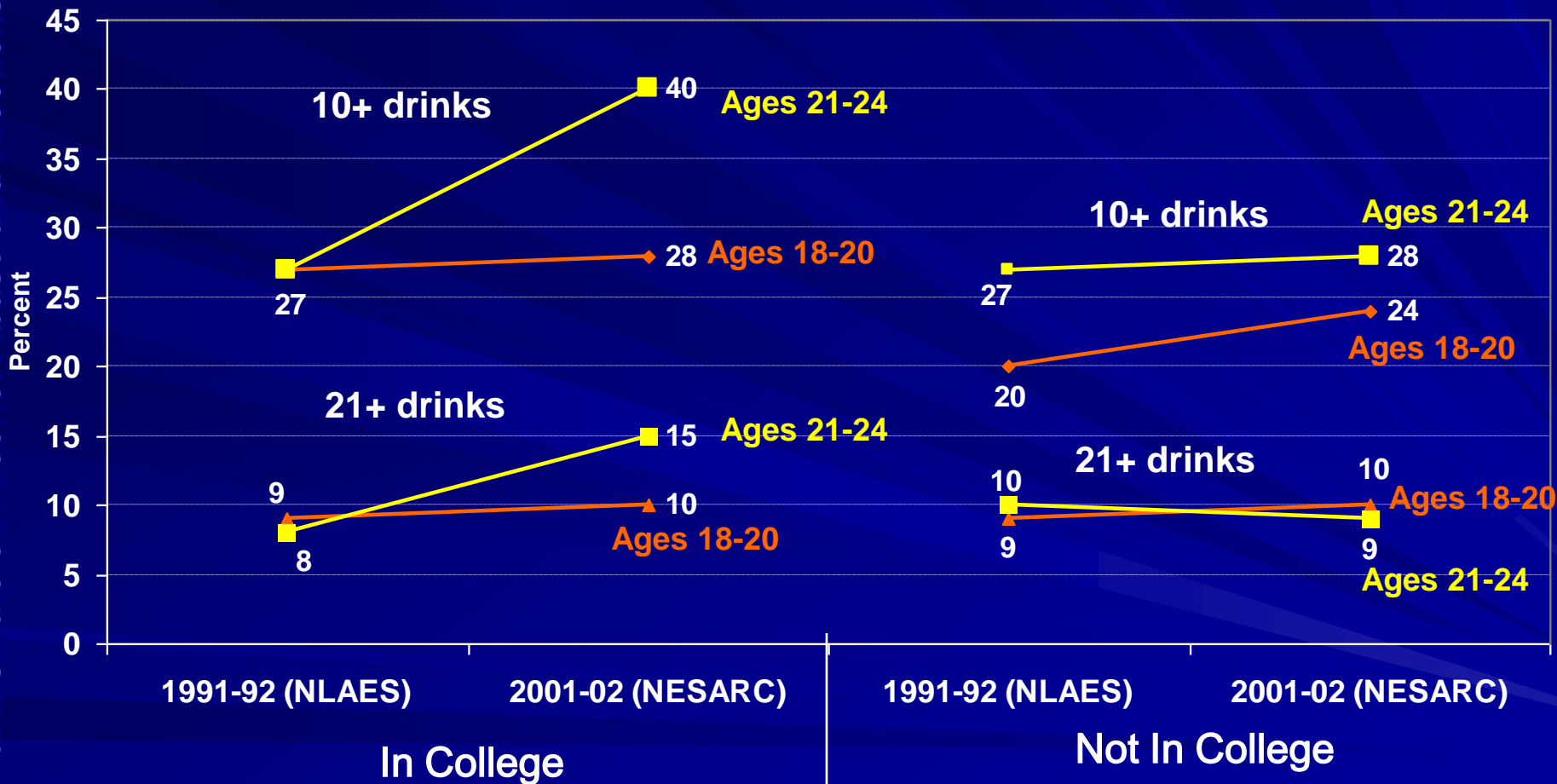


National Household Survey on Drug Use and Health, 2007



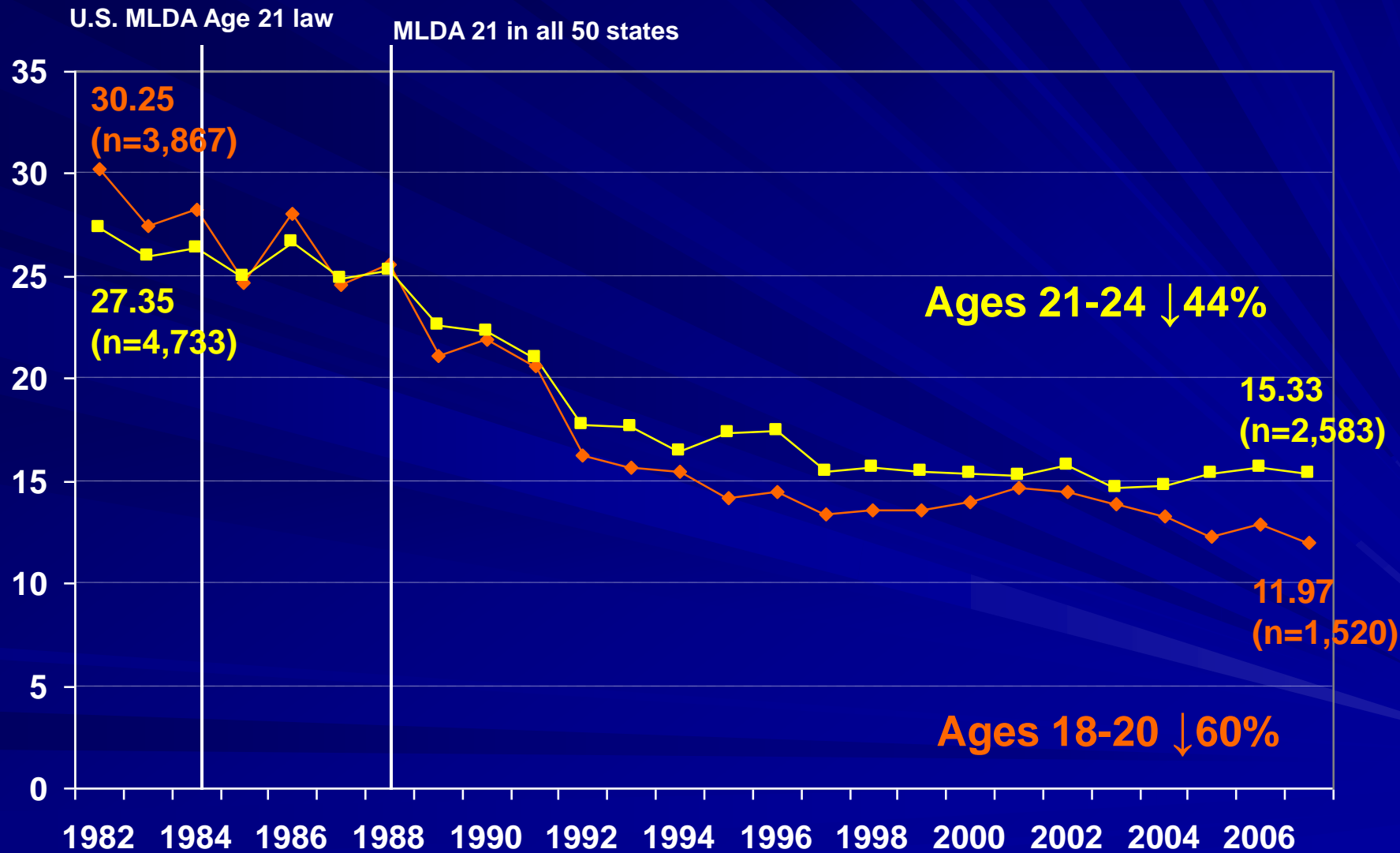
Consumption of 10+ Drinks or More or 21+ Drinks on an Occasion in Past Year by U.S. 18-20 and 21-24 Year Olds, 1991-92 vs. 2001-02

National Institute on Alcohol Abuse and Alcoholism



Alcohol-Related Traffic Fatalities, Rate per 100,000, Ages 18-20 vs. 21-24, United States, 1982-2007

National Institute on Alcohol Abuse and Alcoholism

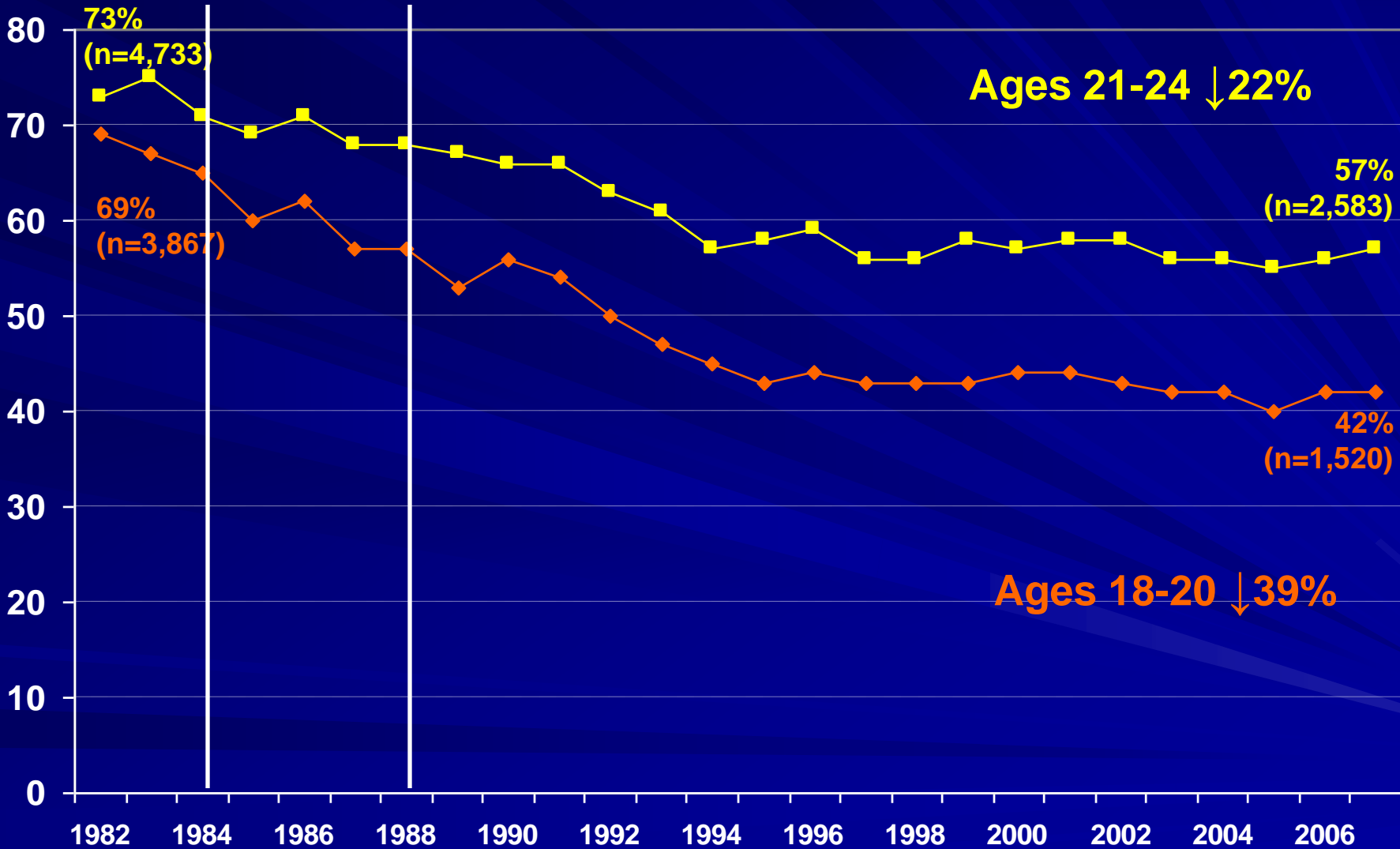




Proportion of Fatal Crash Deaths in the U.S. that were Alcohol-Related, Ages 18-20 vs. 21-24, United States, 1982-2007

National Institute on Alcohol Abuse and Alcoholism

U.S. MLDA Age 21 law MLDA 21 in all 50 states

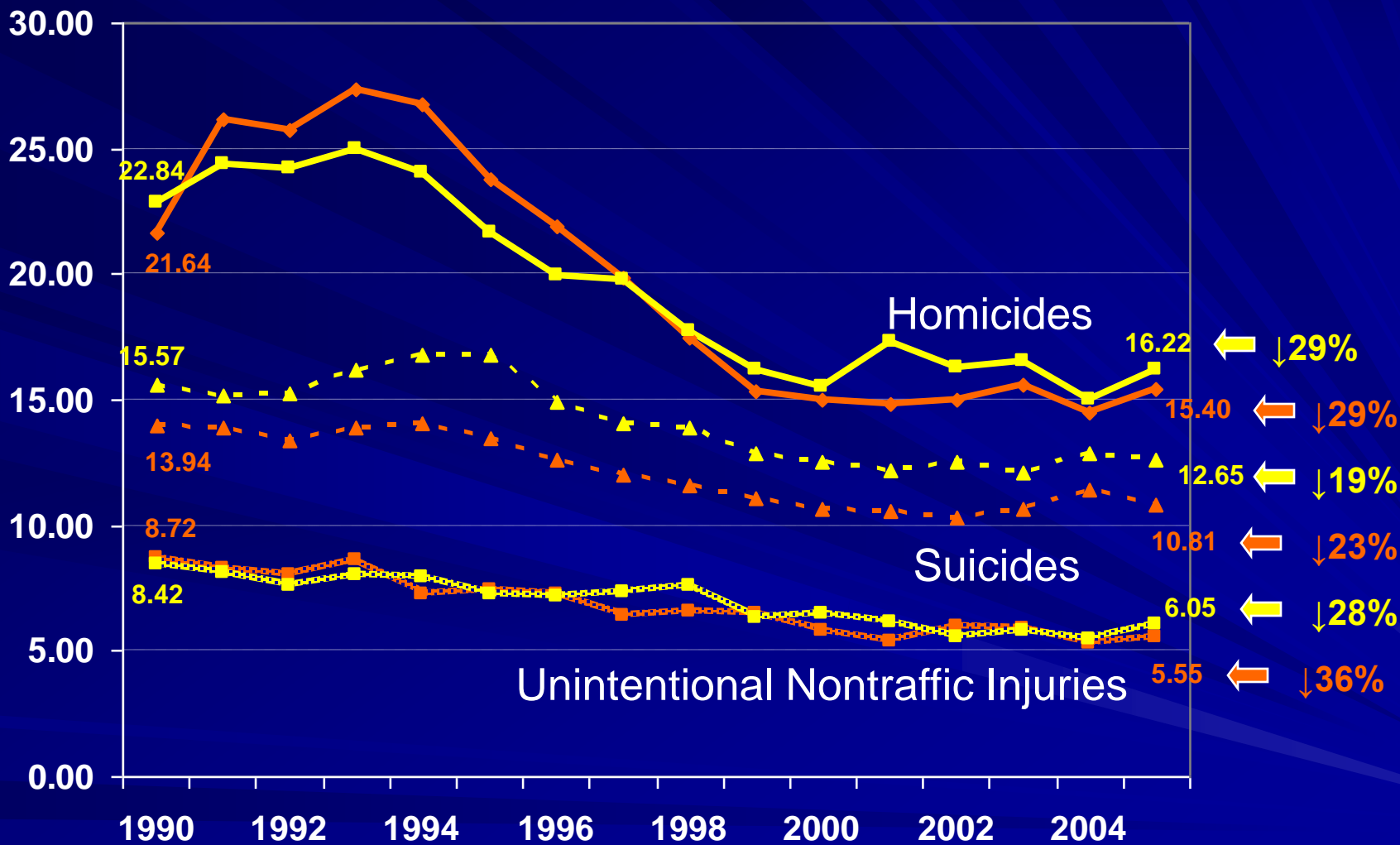


Source: U.S. Fatality Analysis Reporting System, 2009



Homicides, Suicides, and Unintentional Nontraffic Injuries, Rates per 100,000, Persons Ages 18-20 vs. 21-24, United States, 1990-2005

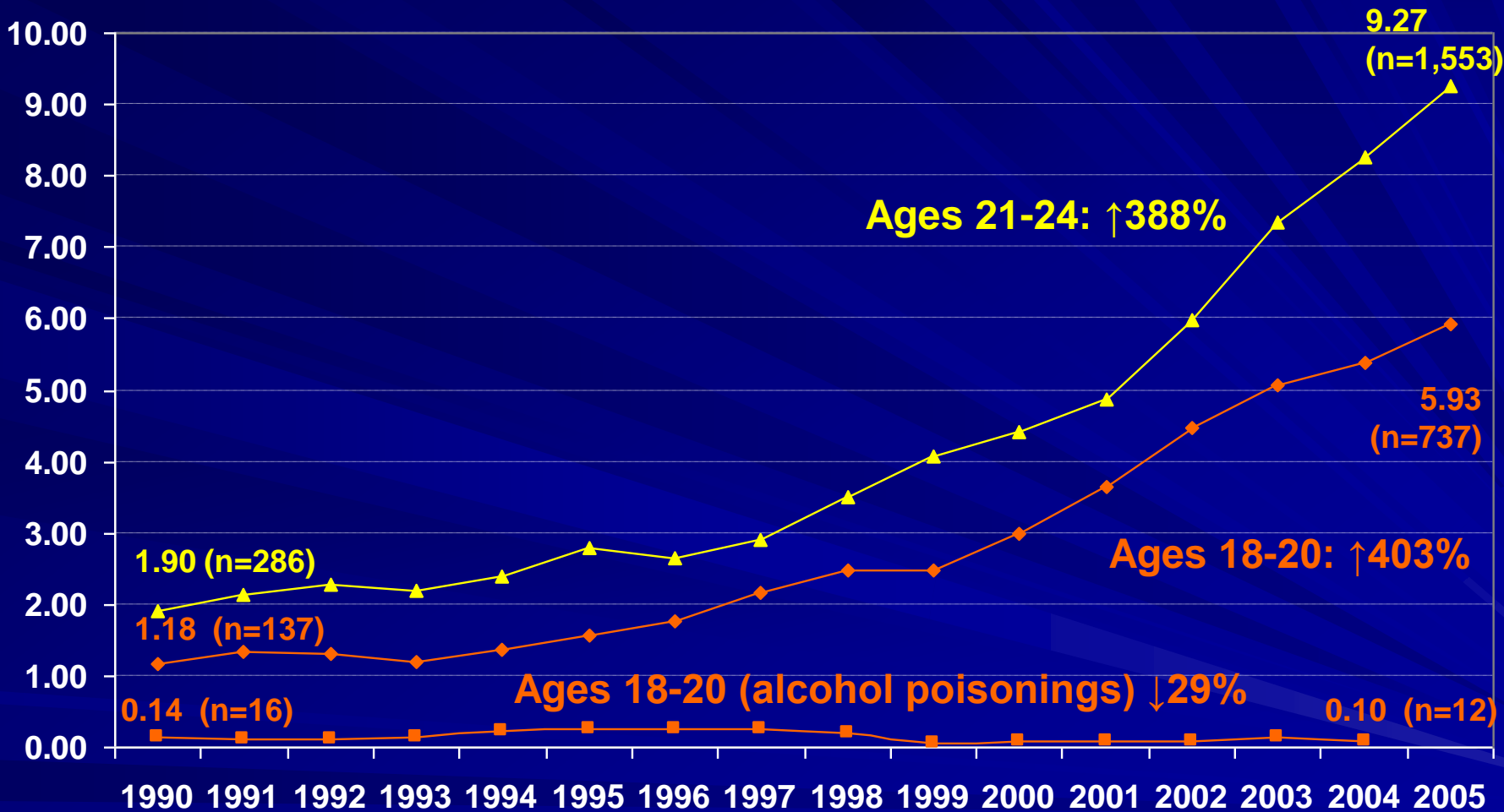
National Institute on Alcohol Abuse and Alcoholism





Poisoning Deaths, Rate per 100,000, Ages 18-20 vs. 21-24, United States, 1982-2007

National Institute on Alcohol Abuse and Alcoholism



Source: CDC WISQARS, 2009; CDC WONDER, 2009; U.S. Census Bureau, 2009



Alcohol Related Behaviors and Consequences of 18-24 Year Olds in the U.S. 2005 (Estimates)

	College	Non College	Total
■ Drank 5+ on an occasion past month	4.4 million (45%)	7.9 million (40%)	12.3 million
■ Past year drove under the influence of alcohol	2.8 million (29%)	4.5 million (23%)	7.3 million
■ Died of alcohol-related unintentional injury	1,825	3,575	5,500

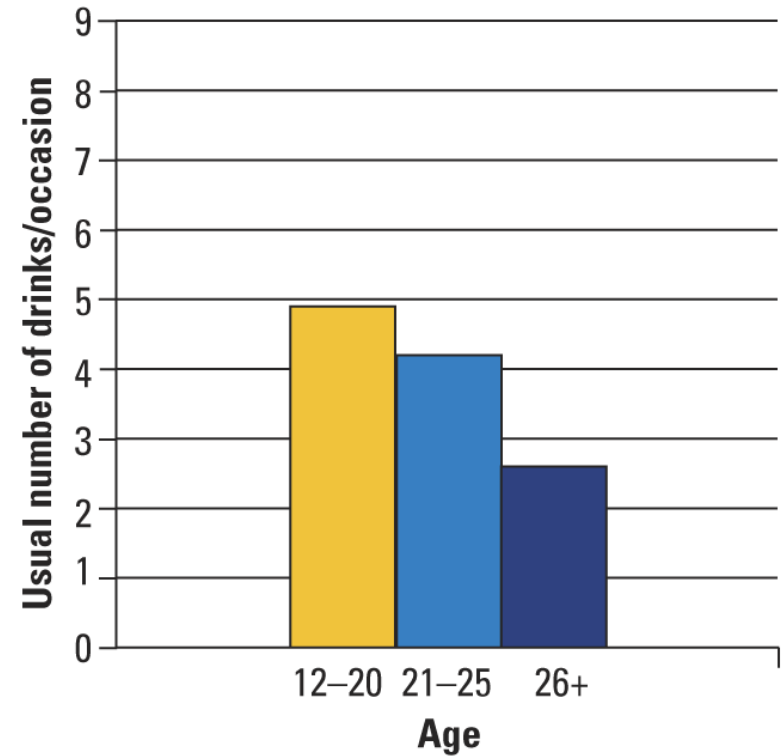
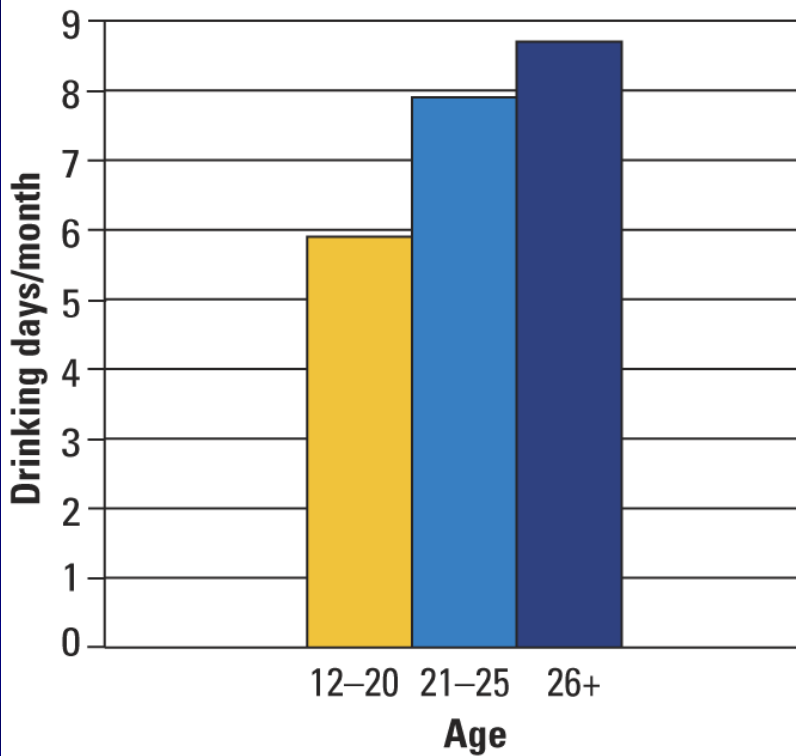
College Alcohol Study

The younger college students were when first drunk, the more likely they will experience in college:

- Alcohol Dependence
- Drive after drinking
- Alcohol related injury
- Unplanned and unprotected sex after drinking

Source: Hingson, Heeren, Winter. J. Studies on Alcohol 2003, Pediatrics 2003

Adolescents Drink Less Frequently than Adults But More Per Occasion



Source: SAMHSA National Survey on Drug Use and Health 2005

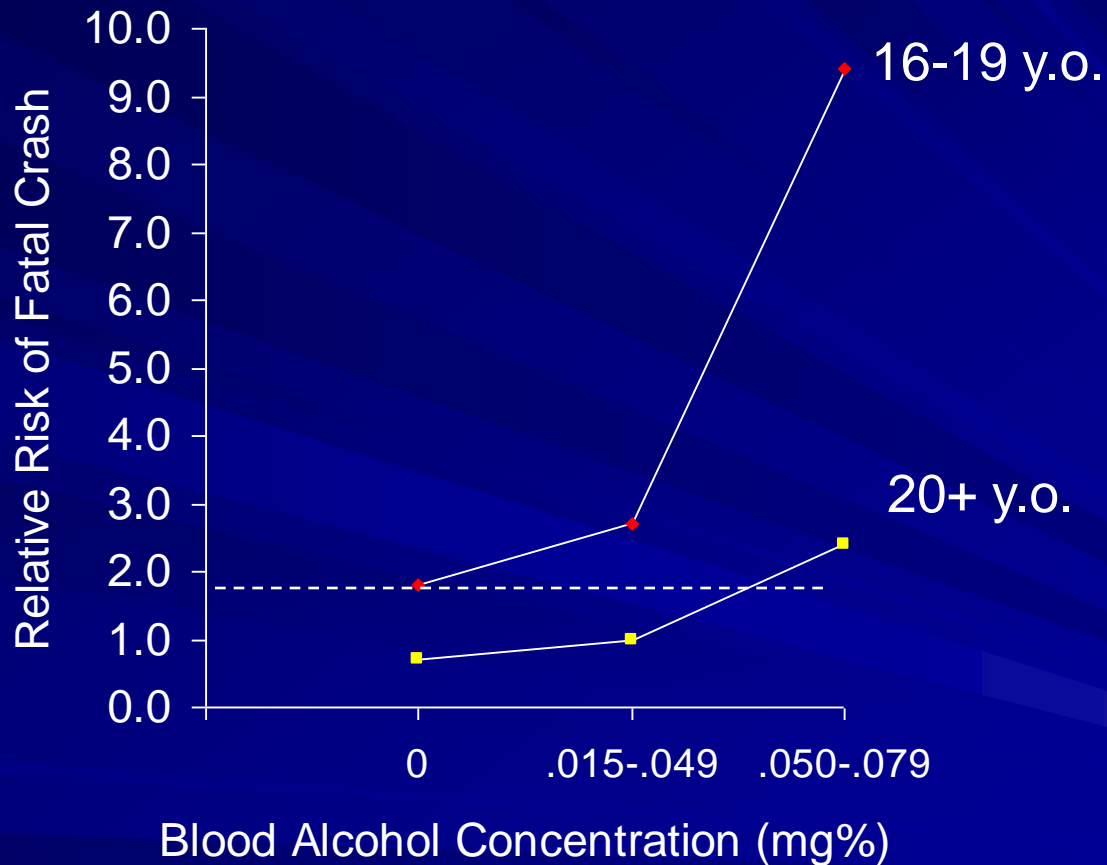
BAC and Impairment

.10		
.09		
.08	←	Concentrated Attention, Speed Control, Braking, Steering, Gear Changing, Lane Tracking, Judgement
.07		
.06		
.05	←	Tracking, Divided Attention, Coordination, Comprehension, Eye Movement
.04	←	Simple Reaction Time, Emergency Response
.03	←	Choice Reaction Time
.02		
.01		
BAC		

- Key driving functions are impaired at levels as low as .02-.04%.

Relative Risk of Fatal Crash

Drivers Age 16-19 and 20+ As a function of BAC



- The risk of fatal crash increases more with each drink among young drivers than drivers age 20 and older.

Source: Simpson, H. 1989

Increased Risk of Driver Single Vehicle Crash Death at Blood Alcohol Concentration of .08% - .10% Relative to Sober Drivers

National Institute on Alcohol Abuse and Alcoholism

Male	Relative Risk
Age 16-20	51.4
21-34	13.4
35+	11.4

Source: (Zador P., Krawchuck S., Voas R., J. Studies on Alcohol, 2000)



CDC Youth Risk Behavior Survey 2003

- 28% of high school students start to drink before age 13.
- They are 7 times more likely by age 17 to binge frequently (5 or more drinks/6 or more times per month).
- There are over 1 million frequent bingers in high school.



Youth Risk Behavior Survey 2003

- There are 1 million high school students who consumed 5 or more drinks 6 or more times per month. They are much more likely to
 - Ride with a drinking driver
 - Drive after Drinking
 - Never wear safety belts
 - Carry weapons/guns
 - Be injured in a fight
 - Be injured in a suicide attempt
 - Be forced to have sex
 - Had sex with 6 or more partner
 - Have unprotected sex
 - Been or gotten someone pregnant
 - Use Marijuana/cocaine
 - Ever injected drugs