



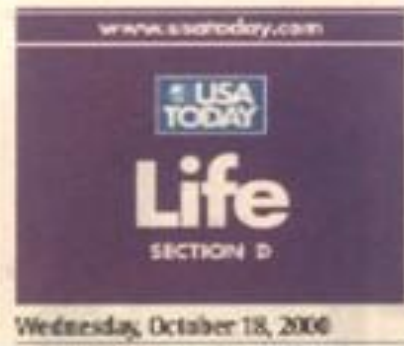
Youth Risk Behavior Survey 2003

- **Frequent binge drinkers compared to abstainers in high school were much more likely in the past month to:**

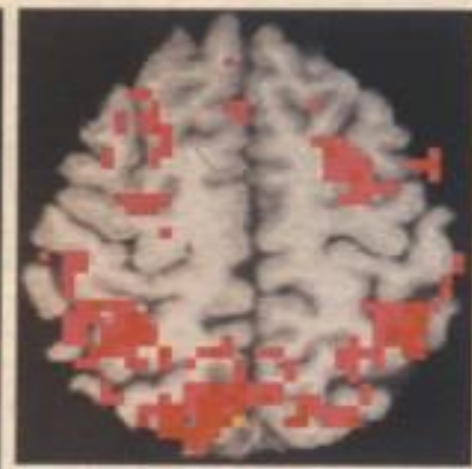
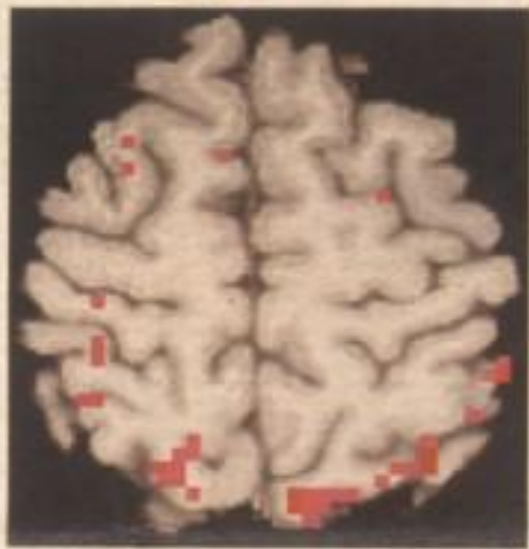
Drink at school **31% vs. 0%**

Use marijuana at school **29% vs. 1%**

Earned mostly D's and F's in school within the past year **13% vs. 4%**



Two 20-year-old women take a memory test. One of them abused alcohol. The MRI scan on the left is her brain, the lack of color indicating a sluggish mind. In contrast, the scan on the right is of the woman who doesn't have a drinking problem. The colors show lots of brain activity. Not surprisingly, she does better on the test.



Cover story

Teen drinking, thinking don't mix

Alcohol appears to damage young brains, early research finds

By Kathleen Schwabauer
USA TODAY

Teens who drink heavily face a slew of hazards, ranging from accidental injuries to death by alcohol poisoning. If early research is correct, scientists might add another danger to that list soon: brain damage.

Preliminary studies indicate that heavy, regular drinking can damage the developing brains of teens and young adults and perhaps delay their ability to learn, to remember and to reason.



Changing youth drinking habits, 80

will be there to do well in school or at work. Child's say it's too early to claim brain damage as alcohol abuse. They say that many teens who drink heavily also abuse other drugs and have other risk factors that could hurt the brain.

But researchers say that though the work is in the early stages, the evidence is pointing a link between alcohol and damage to young brains.

Conclusion

In the U.S. there is an urgent need to expand and improve prevention, screening and treatment programs and policies to reduce alcohol related harm

- Persons under 21
- Among college students
- Persons of similar ages not in college



109TH CONGRESS
2D SESSION

H. R. 864

AN ACT

To provide for programs and activities with respect to the prevention of underage drinking.

1 *Be it enacted by the Senate and House of Representatives*
2 *of the United States of America in Congress assembled,*

Sec. 101. Sense of Congress.

TITLE II—INTERAGENCY COORDINATING COMMITTEE, ANNUAL REPORT ON STATE UNDERAGE DRINKING PREVENTION AND ENFORCEMENT ACTIVITIES

Sec. 201. Interagency coordinating committee on the prevention of underage drinking.
Sec. 202. Annual report on State underage drinking prevention and enforcement activities.
Sec. 203. Authorization of appropriations.

TITLE III—NATIONAL MEDIA CAMPAIGN

Sec. 301. National media campaign to prevent underage drinking.

TITLE IV—INTERVENTIONS

Sec. 401. Community-based coalition enhancement grants to prevent underage drinking.
Sec. 402. Grants directed at preventing and reducing alcohol abuse at institutions of higher education.

TITLE V—ADDITIONAL RESEARCH

Sec. 501. Additional research on underage drinking.
Sec. 502. Authorization of appropriations.

7 SEC. 2. DEFINITIONS.

8 For purposes of this Act:

9 (1) The term “alcohol beverage industry”
10 means the brewers, vintners, distillers, importers,
11 distributors, and retail or online outlets that sell or
12 serve beer, wine, and distilled spirits.

•H.R. 864 EII

The Surgeon General’s Call to Action To Prevent and Reduce Underage Drinking 2007



U.S. Department of Health and Human Services

United States Alcohol and Non-Alcohol Related Traffic Fatalities Per 100,000 Population 1982-2007



Sources: Fatality Analysis Reporting System, National Highway Traffic Safety Administration; U.S. Census Bureau

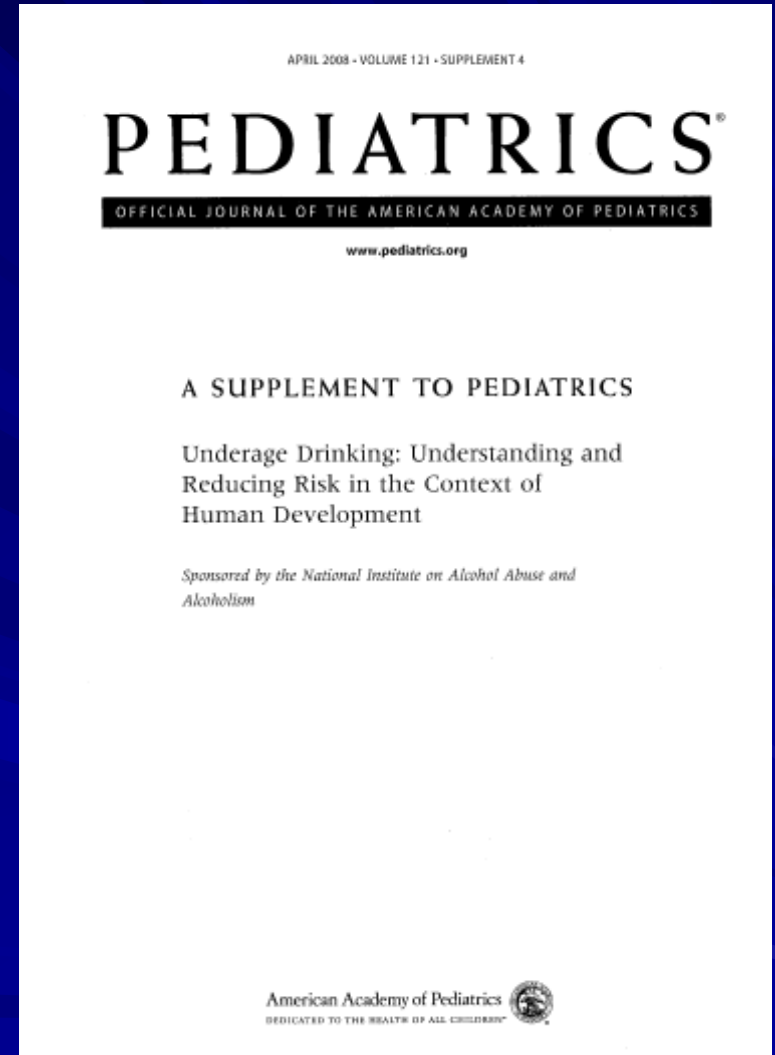
- From 1982-2001 in the U.S, 153,168 lives were saved by decreased drinking and driving. This is more than the combined numbers of lives saved, 149,318, by increased seat belt use (129,207), airbag prevalence (4,305), increase use of motorcycle helmets (6,475) and by increased use of bicycle helmets (239).

Source: Cummings, Rivara, Olson, Smith. Injury Prevention, 2006.



Interventions

- Individually oriented
- School
- Family
- Environmental
- Comprehensive Community Interventions



Gentilello

Brief Motivational Alcohol Intervention in a Trauma Center

Annals of Surgery, 1999

- 46% of injured trauma center patients age 18 and older screened positive for alcohol problems.
- Half (N=336) randomly allocated to receive 30 minute brief intervention to reduce risky drinking and offers links to alcohol treatment

Gentilello

Brief Motivational Alcohol Intervention in a Trauma Center Annals of Surgery, 1999

- Reduced alcohol consumption by an average 21 drinks per week at 1 year follow up
- 47% reduction in new injuries requiring treatment in ED
- 48% reduction in hospital admissions for injury over 3 years
- 23% fewer drunk driving arrests

Nilsen et al.

Systematic Review of Emergency Care Brief Alcohol Intervention

J. Substance Abuse Treatment, 2007

- Reviewed 14 studies of brief intervention (BI) delivered in emergency care settings
- Of 12 studies with pre-post BI comparisons, 11 observed a significant effect on some outcome
 - Alcohol intake
 - Risky drinking practices
 - Alcohol-related negative consequences
 - Injury frequency
- 7 studies showed differences between treatment conditions



Monti

Brief Intervention For Harm Reduction with Alcohol Positive Older Adolescents in a Hospital Emergency Department,

J. Consulting and Clinical Psychology, 1999

- 94 ED patients, mean age 18.4, injured after drinking
- Half randomly allocated to a 35-40 minute motivational intervention (MI) to reduce drinking and related risky behaviors such as DWI
- 89% followed at 6 months, no difference between groups: follow up rate, age, gender

Results:

- MI group had $\frac{1}{4}$
 - Drinking driving occasions
 - Alcohol-Related injury
 - 60% fewer other alcohol-related problems



U.S. Annually

- 2¼ million trauma center admissions
 - Gentilello, personal communication, 2008
- Over 40% alcohol-related
- Peak ages 15-25
 - National Trauma Data Bank, Annual Report, 2008
- 8 million alcohol-related emergency department visits (most for injuries)
 - McDonald et al., *Arch Internal Med*, 2004)
- Peak ages for injuries: 15-25
- 85% of population sees a physician at least once per year (Health United States, 2005, CDC)



Systematic Review of Randomized Trials of Brief Interventions from 1992-2004

(Solberg et al., Am. J. Prev. Med, 2008)

- “Results make alcohol screening and counseling one of the highest ranking preventive services among 25 effective services.”
- Similar score as screening for
 - hypertension
 - colorectal cancer
 - vision for adults age 65 and older

Strong Support for Individual Level Interventions Among College Students

- Reduce drinking and related problems
 - Larimer, *Addictive Behaviors*, 2007
 - Review of 18 experimental studies of brief interventions
 - Carey et al., *Addictive Behaviors*, 2007
 - Meta-analysis of 62 controlled studies
 - Face-to-face interventions most effective
 - Motivational interview
 - Personalized normative feedback

Implementation Gap

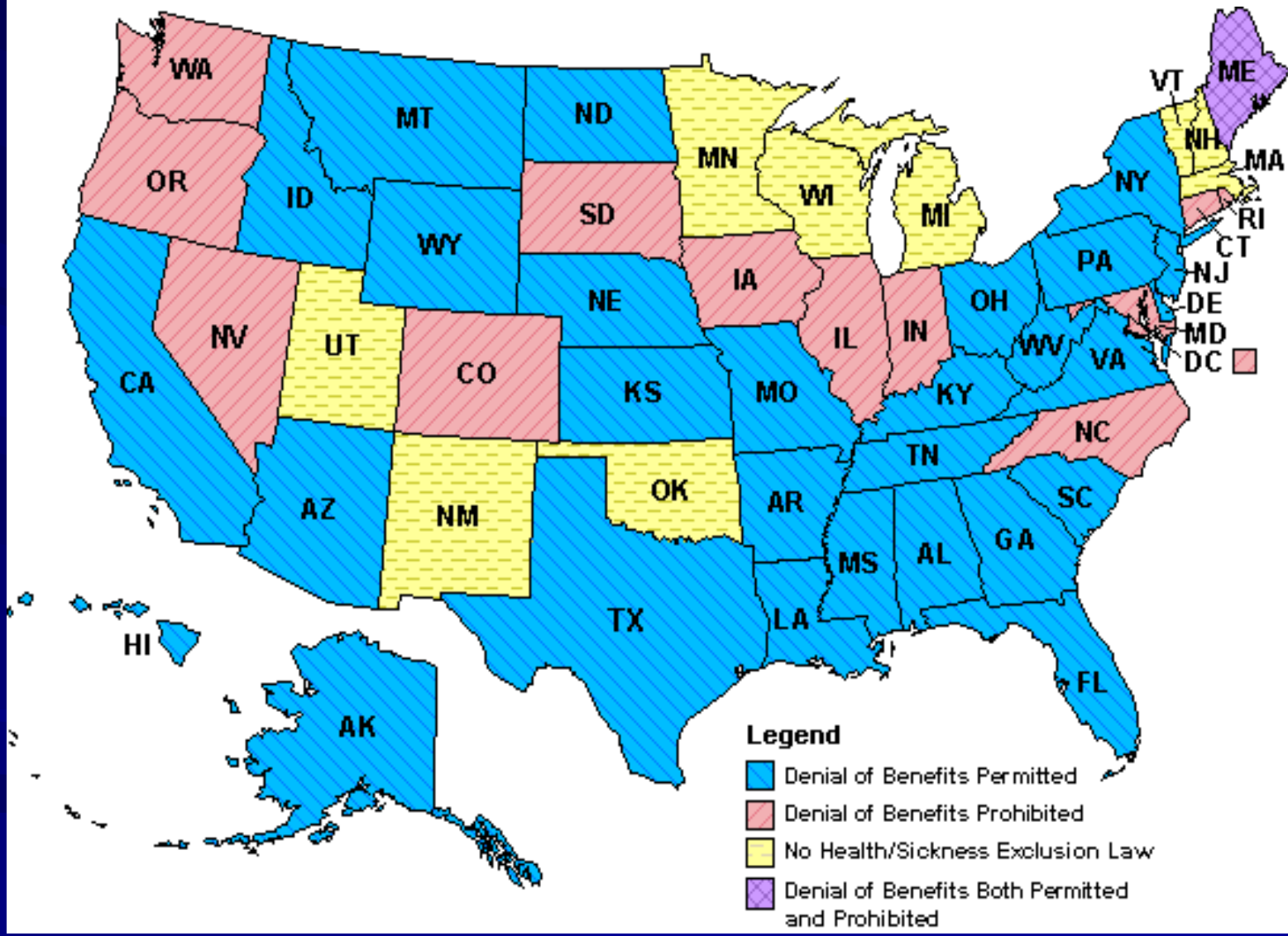
- 19% of College Students 18-24 met DSM IV Alcohol Abuse or Dependence Criteria
- 5% of them sought treatment in the past year
- 1.5 million 12-17 year olds need treatment
- Only 14% have received treatment

Source: National Epidemiologic Study of Alcohol Related Conditions 2002; National Household Survey of Drug Use and Health, 2005

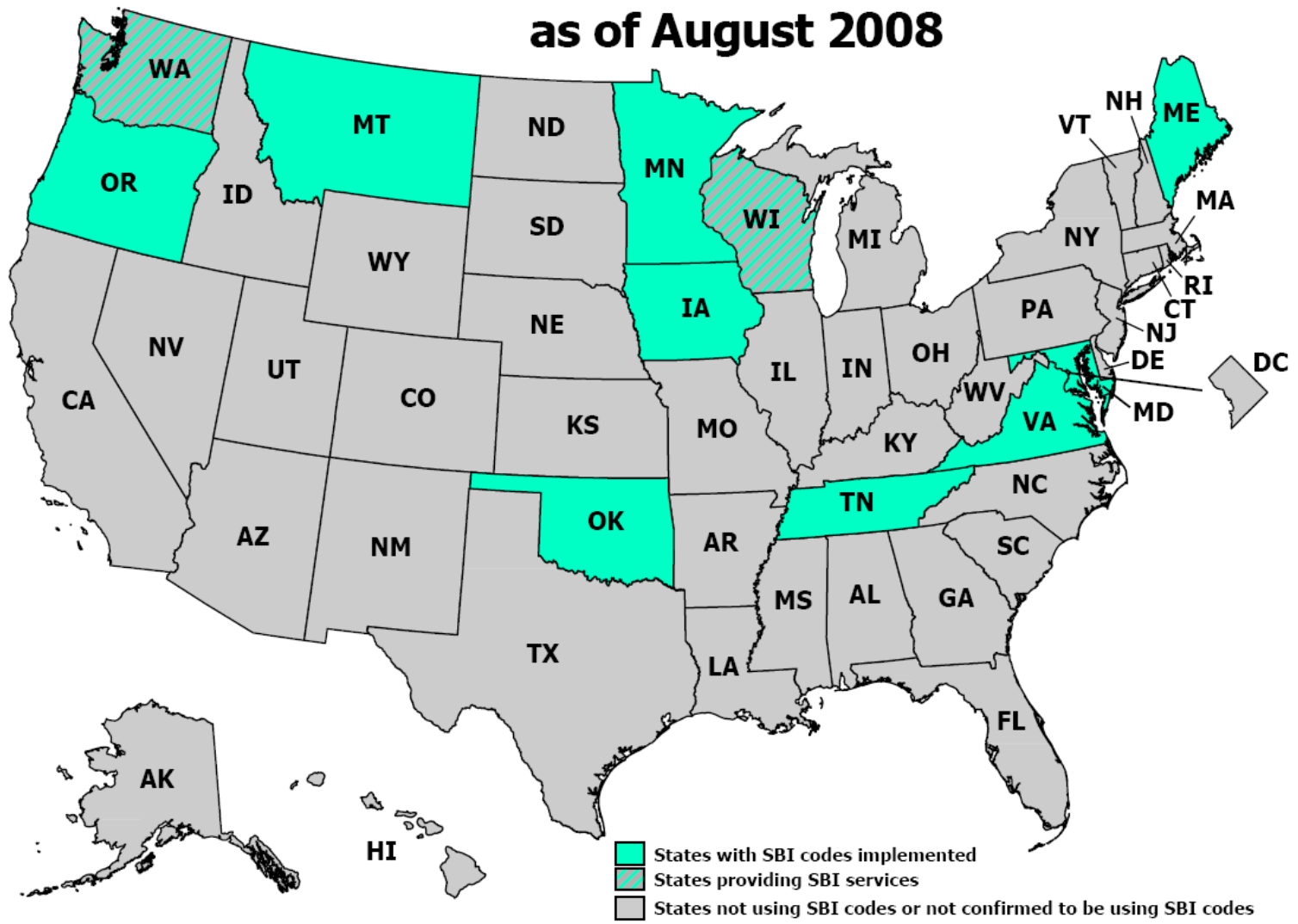
Barriers to Screening

- Time to ask questions
- Time to respond to questions
- Lack of training
- Lack of treatment centers for referral
- Reimbursement issues

Insurers' Liability for Health/ Sickness Losses Due to Intoxication ("UPPL") as of January 1, 2008



States that Have Implemented Screening and Brief Intervention Reimbursement Codes For Medicaid as of August 2008



ONDCP001726

Sources: SAMHSA and ONDCP (September 2008).



School Based Programs

- Programs that rely primarily on increasing knowledge about consequences of drinking are not effective.
- School only program effects are generally small
- Most Effective Programs :
 - Address social pressures to drink and teach resistance skills
 - Include developmentally appropriate information
 - Include peer-led components
 - Provide teacher training
 - Are interactive
 - Include community and family components (e.g. Pentz, 1989; Perry et al., 1996, 2002)

Sources: NIAAA, Alcohol and Development in Youth: A Multidisciplinary Overview, 2005; Spoth et al., 2008



Family Influences on Youth Drinking 12-20

- Children of parents who binge, compared with abstainers, are twice as likely to
 - Binge (20% vs. 10%)
 - Meet alcohol dependence/abuse criteria (10% vs. 5%)

Source: SAMHSA, Findings From the 2002-2006 National Surveys on Drug Use and Health, 2008



Family Interventions

Iowa Strengthening Families Program

Goals:

- Improve parent/child relations
- Strengthen family communication skills
- Increase child coping skills

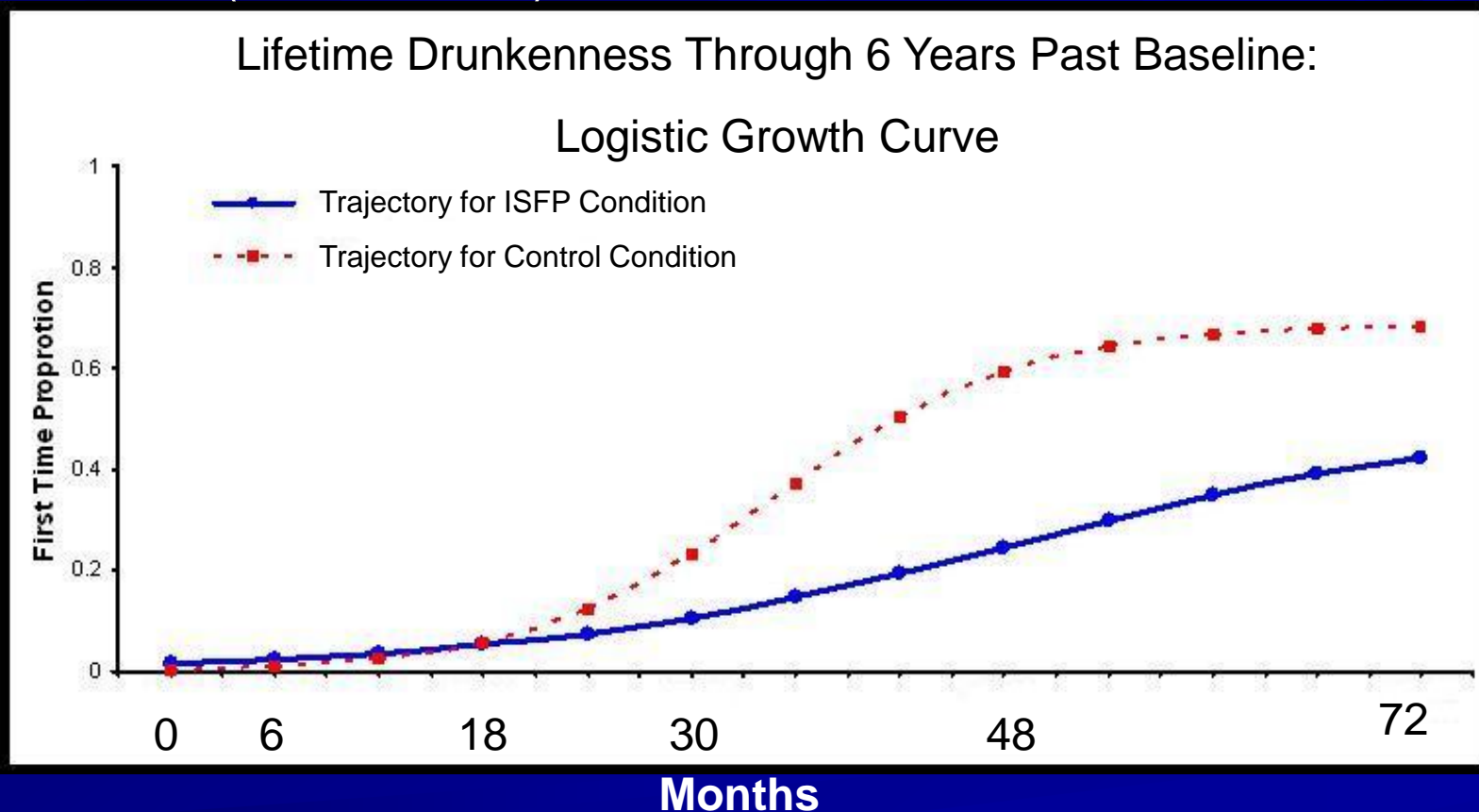
Implementation:

- 7 sessions at school
- 13 hours total
- Parent and child separately and together

Family Interventions

A randomized controlled trial with families of 6th graders:

- Iowa Strengthening Families Program (ISFP) (206 families)
- Preparing for Drug Free Years Program (PDFYP) (221 families)
- Control (221 families)



Source: Spoth, Redmond, Shin *J Consulting Clinical Psychology* (2001, 2004)



Combined Family Interventions & School Based Life skills Program

Randomized controlled trial of 7th graders from 36 rural schools:

- ISFP Plus Life Skills Training (n=549)
- Life Skills Training Only (n=517)
- Control (n=453)

Results: 2 ½ Years Later

- Weekly drunkenness rate among intervention students 1/3 lower
 - Strengthening Family plus Life Skills (p=.03)
 - Life Skills Training (p=.08)

Conclusion:

Family and school interventions combined are more effective than school interventions only

Source: Spoth, et al *Psychology of Addictive Behaviors* (2005)



Environmental Interventions

- Legislation to reduce drinking & driving
 - Criminal per se laws
 - Administrative license revocation laws
 - Mandatory assessment & treatment laws
 - Primary safety belt laws
 - Ignition interlock for first offenders
 - Lower legal blood alcohol limits for convicted offenders
 - 0.08% criminal per se BAC level laws
 - Zero tolerance laws
- Enhanced enforcement- publicized sobriety checkpoints

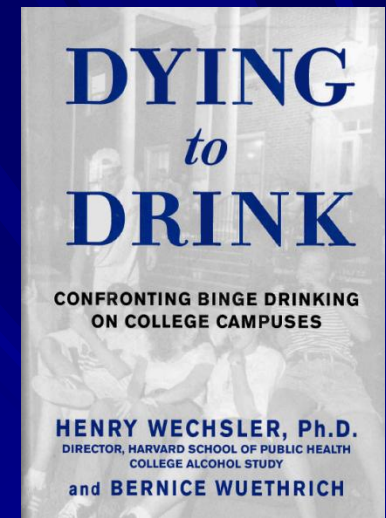
Environmental Interventions (cont.)

- Legislation to reduce availability of alcohol
 - Minimum legal drinking age
(Shults et al., *Am. J. Prev. Med.*, 2001; Wagenaar & Toomey, *J. Stud Alcohol Drugs*, 2002; Institute of Medicine, 2004)
 - Reduce alcohol outlet density
(Gruenewald & Remer, *Alcohol: Clin. Exp. Res.*, 2006)
 - Increase price
(Wagenaar et al., *Addiction*, 2009; Institute of Medicine, 2004)

Environmental Interventions

- When might it be justified to use laws to change behavior to promote health?
 - Problem is important
 - Behavior harms other people
 - Law is effective
 - Law is minimally intrusive
 - No equally effective, less intrusive alternative
 - Public supports the law

2001 Harvard School of Public Health College Alcohol Study



- To what extent do you support or oppose the following possible school policies or procedures?

Alcohol Policy	% Supportive Students
Crack down on underage drinking	67
Enforce rules more strictly	65
Crack down on drinking in Greek houses	60
Prohibit kegs	60
Hold hosts responsible for problems	55

Environmental Approaches

! WARNING ! **CRIMINAL VIOLATION**

ANY PERSON UNDER 21 YEARS

- WHO - PURCHASES ALCOHOLIC BEVERAGES
- WHO - PROCURES OR ATTEMPTS TO PURCHASE ALCOHOLIC BEVERAGES IN ANY WAY
- WHO - WILLFULLY MISREPRESENTS HIS OR HER AGE
- WHO - ALTERS, DEFACES OR FALSIFIES IDENTIFICATION WITH INTENT TO PURCHASE ALCOHOLIC BEVERAGES
- WHO - LIES ABOUT ANOTHER PERSON'S AGE WITH INTENT TO PROCURE ALCOHOL

SHALL BE PUNISHED BY A FINE OF \$300.00

M.G.L. Ch. 138B:34A LIQUOR CONTROL ACT

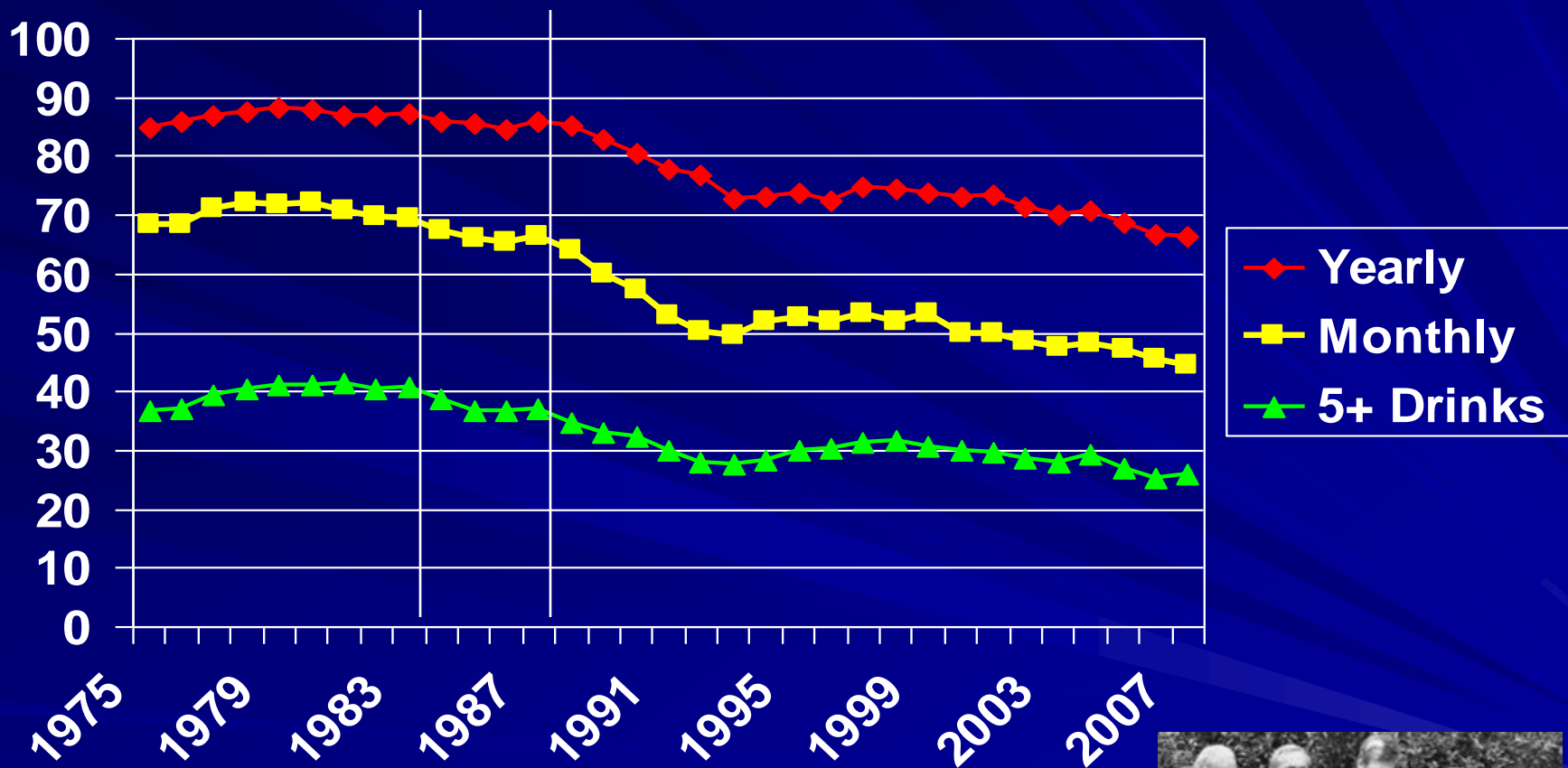
MASSACHUSETTS ALCOHOLIC BEVERAGES CONTROL COMMISSION



Drinking Trends Among High School Seniors, 1975-2007

Federal 21 drinking age Drinking age 21 in all States

National Institute on Alcohol Abuse and Alcoholism



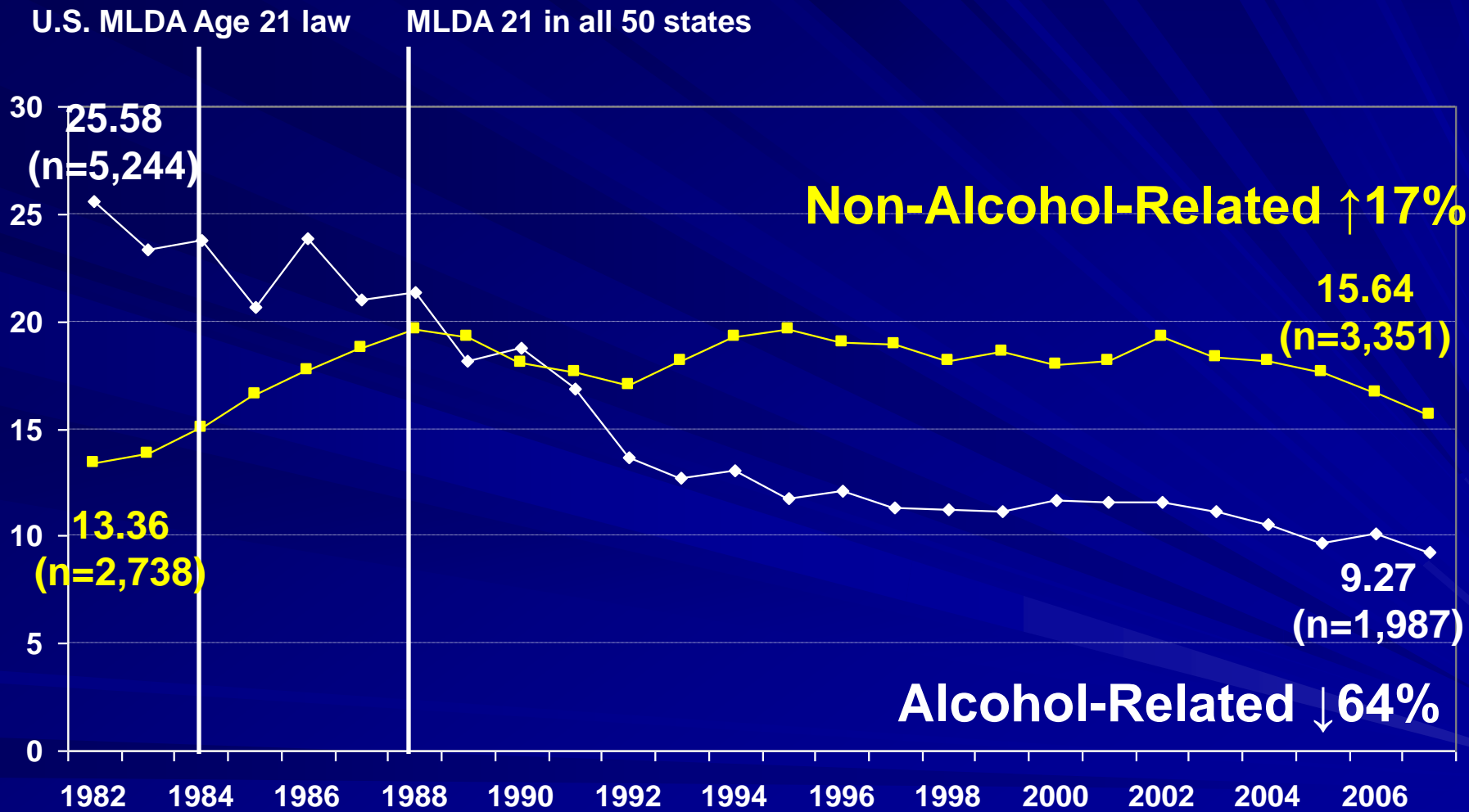
Source: Monitoring the Future, 2007





Alcohol- vs. Non-Alcohol-Related Traffic Fatalities Per 100,000 Population, Ages 16-20, United States, 1982-2007

National Institute on Alcohol Abuse and Alcoholism



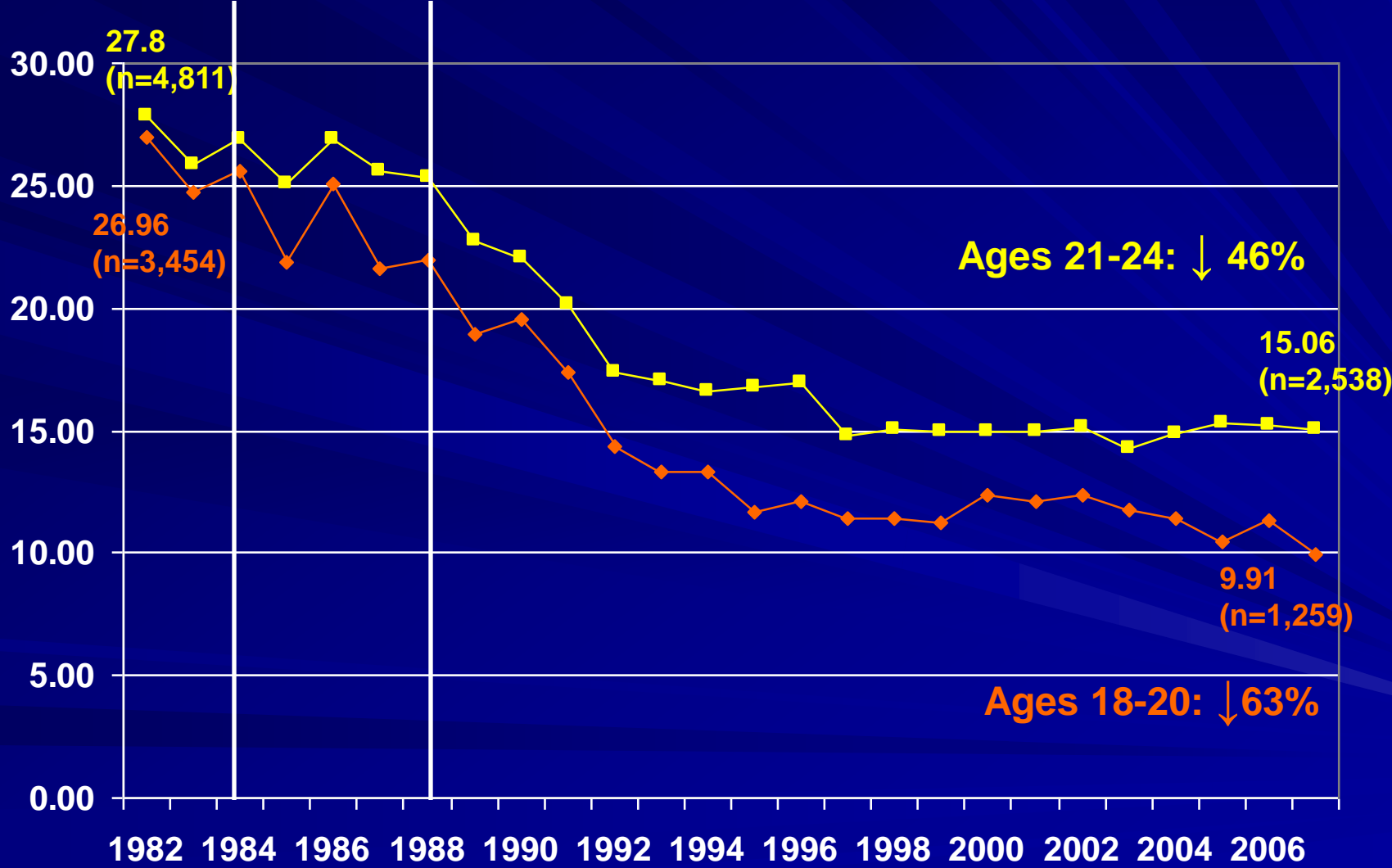
Sources: U.S. Fatality Analysis Reporting System, 2008; U.S. Census Bureau, 2009



Drivers in Fatal Crashes with Positive Blood Alcohol Concentrations, Rate per 100,000, Ages 18-20 vs. 21-24, United States, 1982-2007

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

National Institute on Alcohol Abuse and Alcoholism



Sources: U.S. Fatality Analysis Reporting System, 2009; U.S. Census Bureau, 2009

Proportion of Drivers in Fatal Crashes with Positive Blood Alcohol Concentrations, Ages 18-20 vs. 21-24, 1982-2007

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