

# REDUCING UNDERAGE DRINKING: WHAT IS TO BE DONE?

David Jernigan, PhD

Johns Hopkins Bloomberg School of Public Health

# Disclaimer

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- I am testifying today as a private citizen, and not as an official representative of the Johns Hopkins University.

# Presentation outline

- Statement of the problem
- Review of global experience with minimum drinking ages
- Review of global and U.S. research literature regarding what is effective in reducing underage drinking, including the research on minimum purchase age laws
- Situate the minimum purchase age laws in a broader context

# Shared values

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- Create safe environments for our young people
- Provide access to higher education without undue risk
- Work with respect for scientific evidence
- Do not increase risk for non-college youth

# Review of public health findings

- The earlier young people start to drink, the worse the alcohol-related consequences:
  - ▣ Alcohol dependence
  - ▣ Traffic crashes
  - ▣ Physical violence after drinking
  - ▣ Other unintentional injuries after drinking (e.g. drowning, falls)
  - ▣ Potential damage (through early 20s) to still-developing adolescent brain
  - ▣ Lower chances of success in school
- Bottom line: strong public health interest in delaying onset of drinking

# Harms on college campuses

- First-hand
  - Poor school performance
  - 1,825 deaths (NIAAA 2005 estimate)
  - 599,000 injuries because of alcohol use
- Second-hand
  - 696,000 hit or assaulted by a drinking student
  - 97,000 victims of alcohol-related sexual assault or date rape

# Progress in reducing underage drinking

- High school students (MTF):

|      | <b>Ever drank</b> | <b>Drank in past year</b> | <b>Drank in past 30 days</b> | <b>Binged (5+) in past 2 weeks</b> |
|------|-------------------|---------------------------|------------------------------|------------------------------------|
| 1982 | 93%               | 87%                       | 70%                          | 41%                                |
| 2007 | 72%               | 66%                       | 44%                          | 26%                                |

# Progress in reducing underage drinking

## □ College-aged persons (odds for binge-drinking):

|                    | 1979  | 2006  |
|--------------------|-------|-------|
| MALE               |       |       |
| 18-20 students     | 2.30  | 1.75  |
| 18-20 non-students | 2.66* | 1.18* |
| 21-23 students     | 2.90  | 2.66  |
| 21-23 non-students | 3.22* | 2.44* |
| FEMALE             |       |       |
| 18-20 students     | 0.85  | 1.02  |
| 18-20 non-students | 0.64  | 0.63  |
| 21-23 students     | 0.59* | 1.49* |
| 21-23 non-students | 0.63* | 0.91* |

# Bottom line on progress

- Greatly reduced rates of underage drinking from 1982 to 2007
- General trend is significantly downward on all measures
- Two populations with less success:
  - ▣ College students
  - ▣ Females

# Vermont vs. the rest of the U.S.

## □ High school students (YRBS) – good news

|                           | Vermont | U.S. Average |
|---------------------------|---------|--------------|
| Drank before age 13       | 19.3%   | 23.8%*       |
| Drank in past 30 days     | 42.6%   | 44.7%        |
| 5+ in past 30 days        | 26.1%   | 26.0%        |
| Rode with drinking driver | 23.6%   | 29.1%*       |

## □ 18-20 year-olds (BRFSS) – not so good news

### ▣ 2005-2008 average, 8+ drinks in past 30 days:

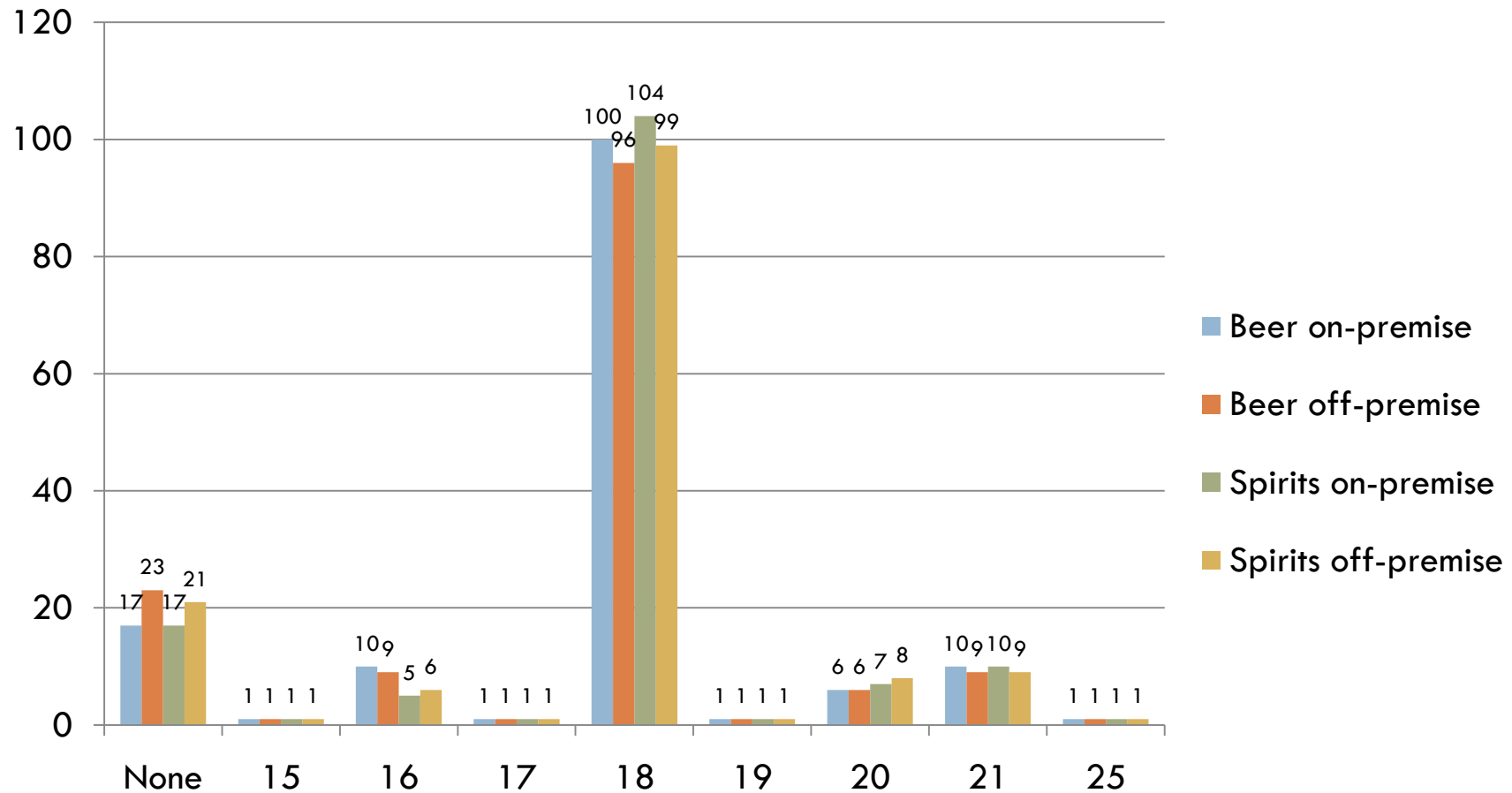
■ Vermont: 17.0%

■ U.S.A.: 10.2%

# Minimum drinking age laws

- One of many steps taken by societies to limit alcohol-related harm
- EVERY society must take on question of how to control intoxicants and their effects
- Minimum drinking age laws only one strategy – cannot be expected to do the whole job
- International experience reflects U.S. experience: minimum age laws do affect onset of drinking

# Age requirement for on- and off-premise purchase of beer and spirits



# Countries greater than 18

## □ 19

- Canada (all but Alberta, Manitoba and Quebec)
- Republic of Korea

## □ 20

- Iceland
- Japan
- Morocco
- Norway
- Paraguay
- Sweden
- Thailand
- Tunisia

## □ 21

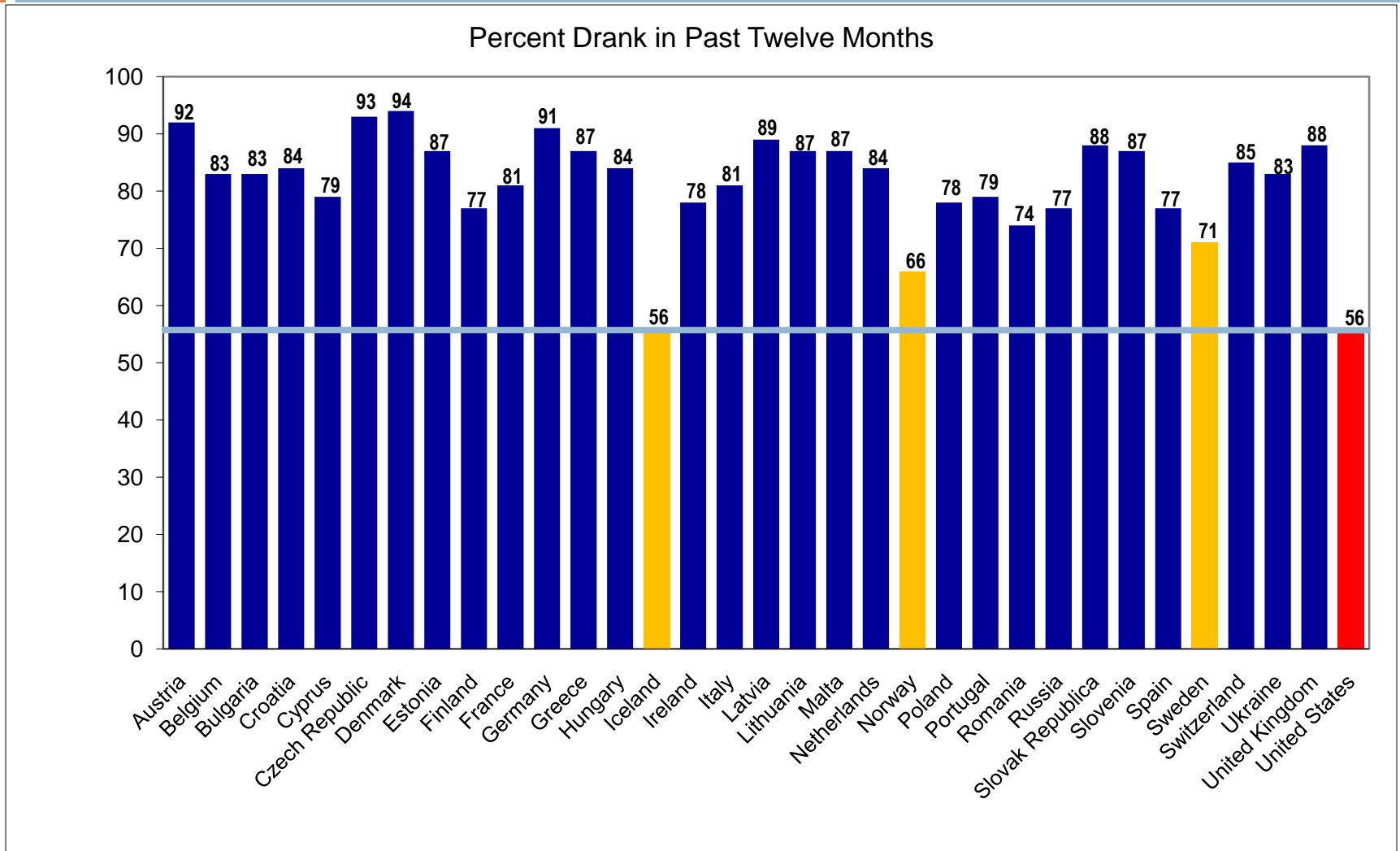
- Cameroon
- Fiji
- Indonesia
- Kiribati
- Micronesia
- Mongolia
- Oman
- Palau
- Sri Lanka
- USA

Source: WHO GAD 2008

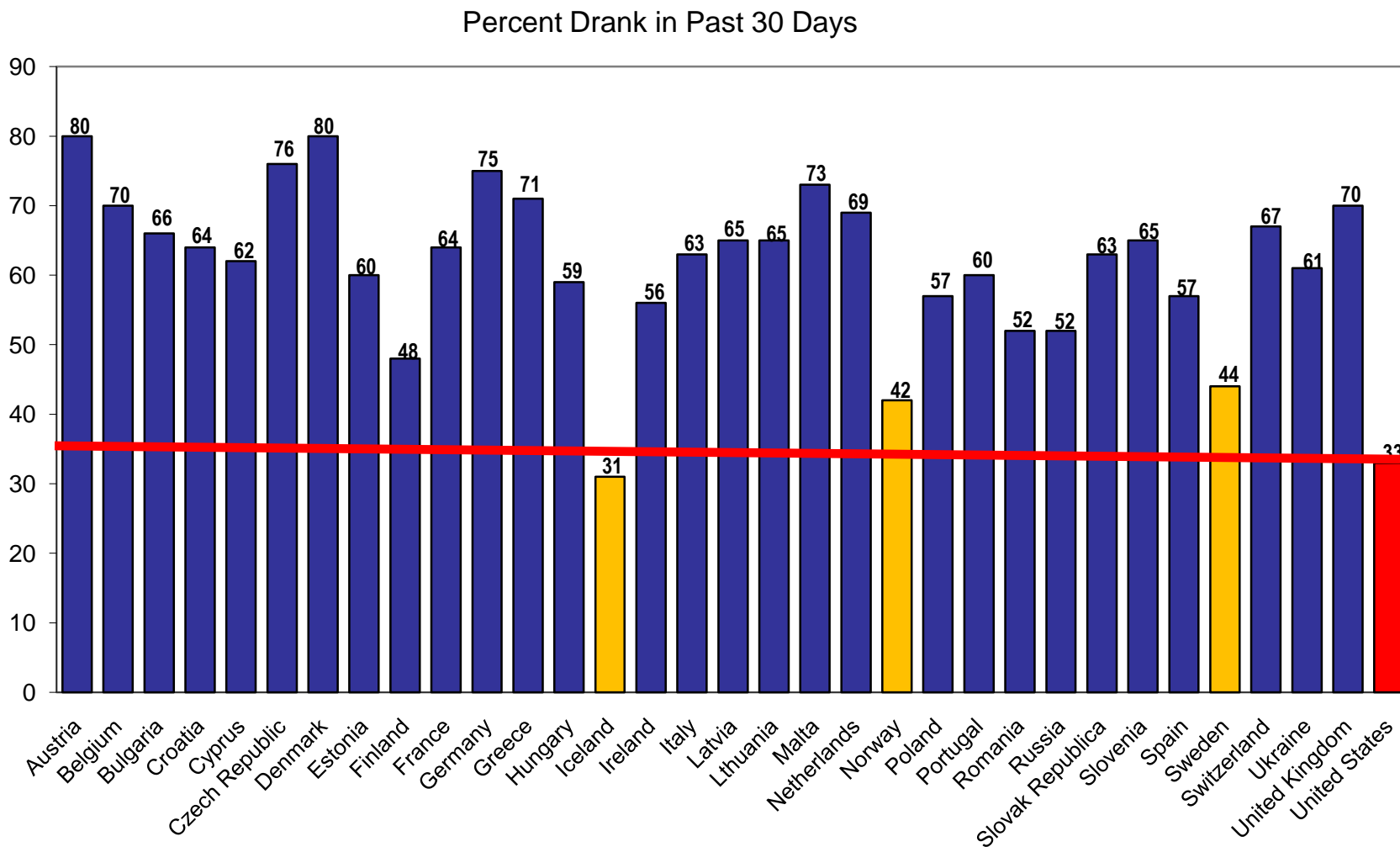
# Drinking Ages in Europe

- 16 – Austria, Italy, Portugal, Spain
- 17 – Malta
- 18 – Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Latvia, Lithuania, Netherlands, Poland, Romania, Russia, Slovakia, Slovenia, Switzerland, Ukraine, United Kingdom
- 20 – Iceland, Norway, Sweden

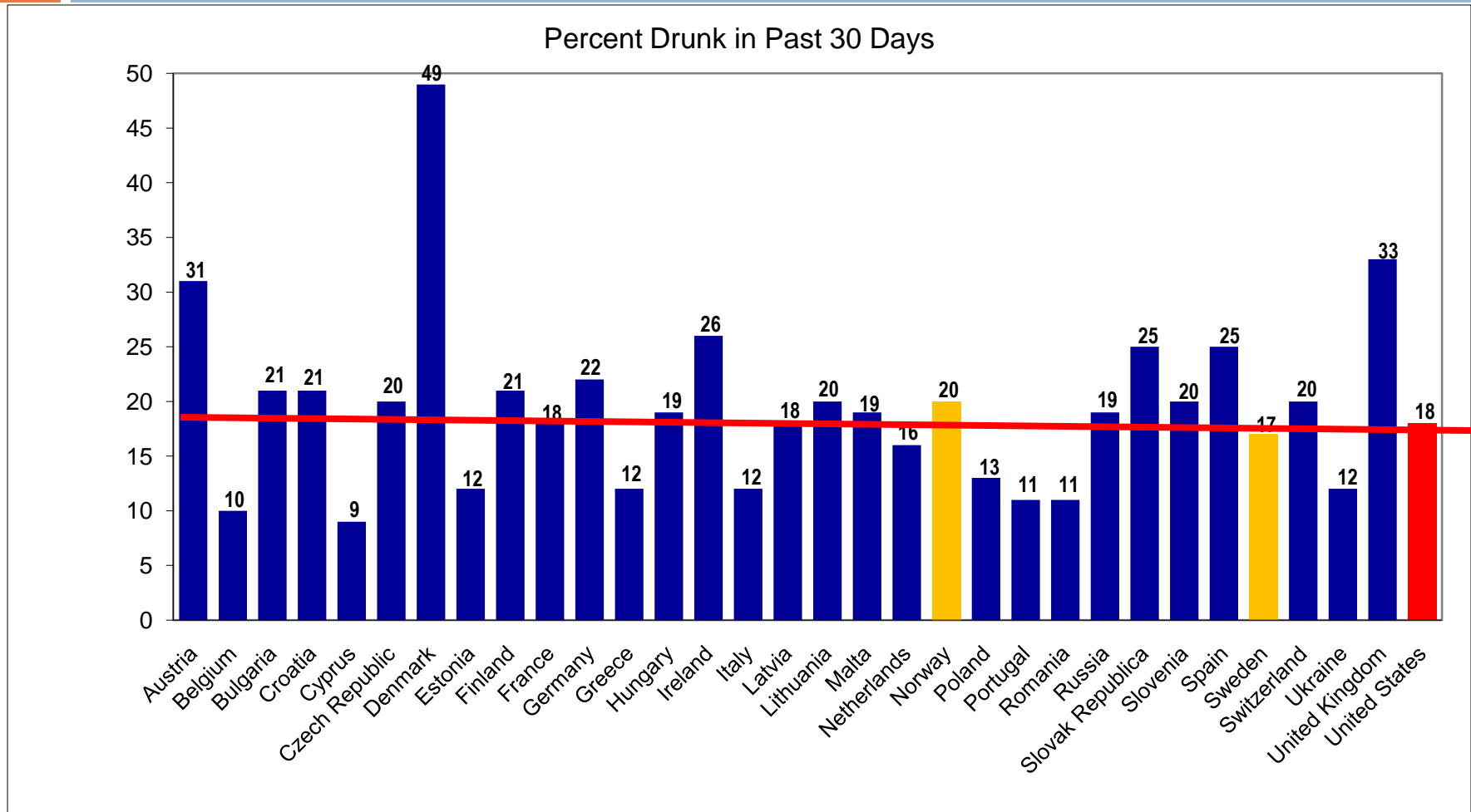
# Drinking Among 15-16 year-olds: U.S. and Europe, 2007



# Drinking Among 15-16 year-olds: U.S. and Europe, 2007



# Drinking Among 15-16 year-olds: U.S. and Europe, 2007



18 of 31 countries exceed U.S. rate

# “Extreme drinking worse in U.S.”

- Actually, looking at indicator “drunk in past 30 days” 20 countries equal to or worse than the U.S., 11 countries better off
- Extreme drunkenness worse in U.S.?
  - ▣ 15-16 year-olds reporting 10-19 incidents of drunkenness in past 30 days
    - 1 percent of U.S. 10<sup>th</sup> graders report this
    - Same percentage as in 14 European countries, including Austria, Italy and Spain

# “Eyeball analyses”

- Many shortcomings – much more going on in each country than this cursory analysis can capture
- More important to review literature in its entirety – never rely on any single study
  - ▣ Single studies may mis-specify variables to “wash out” effects, e.g.
    - Using 15-24 year-olds as focus of analysis
    - Using all traffic crashes instead of alcohol-related traffic crashes as outcome variable
    - Diluting statistical power by performing state-by-state analyses which increase range of error, involve fitting linear analysis to trends that are by no means linear
- Key question: what can international research literature overall tell us?

# Alcohol Problems Prevention 101

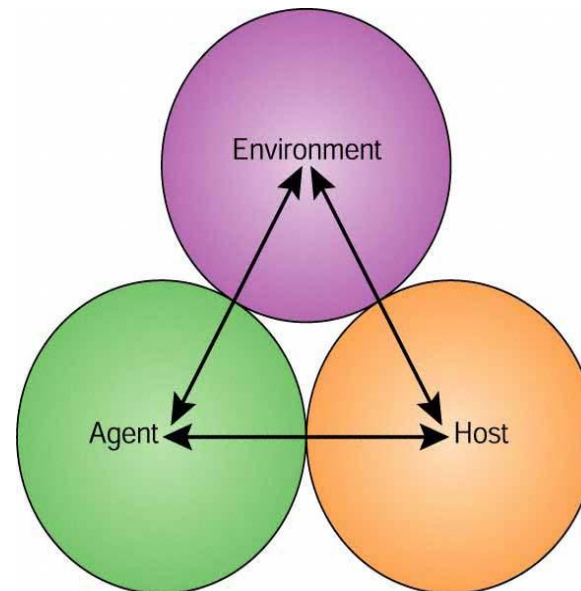
- No Magic Bullet

No single strategy to reduce burden of alcohol-related harm.

- WHO



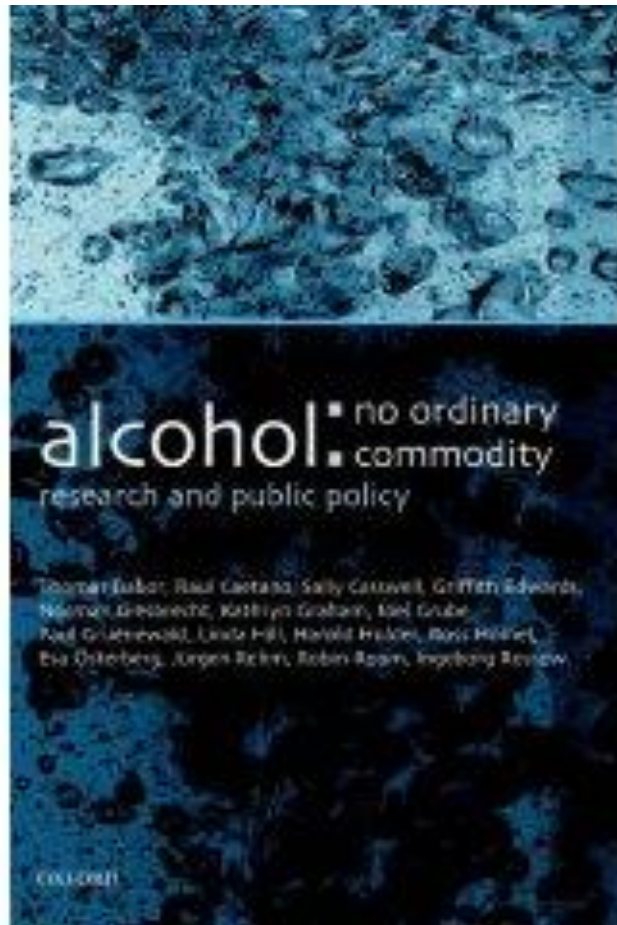
“Need individual & population based approaches that target high risk groups/situations + reduce per capita consumption in general (given prevention paradox)”



# Progress of science

- Moves forward through repetition and replication – single studies are rarely taken as guides to action
- Rely on meta-analyses, systematic reviews to assess the literature periodically, summarize for us what we are learning
- Cannot rely on anecdote or opinion, because research results often surprising, and fly in the face of popular assumptions

# Review of global research literature



- Jointly published by WHO and Oxford University Press
- Result of reviews by 15 of the most prominent scholars globally in alcohol research
- 3<sup>rd</sup> review due out later this year
- Thanks to Dr. Thomas Babor, UConn

# Ratings of 32 Policy-relevant Prevention Strategies and Interventions

- 1) Evidence of Effectiveness – the quality of scientific information
- 2) Breadth of Research Support – quantity and consistency of the evidence
- 3) Tested Across Cultures, e.,g. countries, regions, subgroups
- 4) Cost to Implement and Sustain – monetary and other costs

<sup>a</sup>Rating Scale: 0, +, ++, +++, (?)

<sup>b</sup> Rating Scale: Low, Moderate, High

# Pricing and Taxation

Evidence suggests that:

- People increase their drinking when prices are lowered, and decrease their consumption when prices rise.
- Adolescents and problem drinkers are no exception to this rule.
- Increased alcoholic beverage taxes and prices are related to reductions in alcohol-related problems.
- Alcohol demand is elastic:
  - ▣ In the U.S., a 10% increase in price of alcohol would lead to a 7.4% drop in beer consumption, a 4.9% drop in wine consumption, and a 14.7% drop in distilled spirits consumption
- Alcohol taxes are thus an attractive instrument of alcohol policy because they can be used both to generate direct revenue and to reduce alcohol-related harm.
- The most important downside to raising alcohol taxes is smuggling and illegal in-country alcohol production, so they will only work if the illegal/informal market is under control.

# PRICE

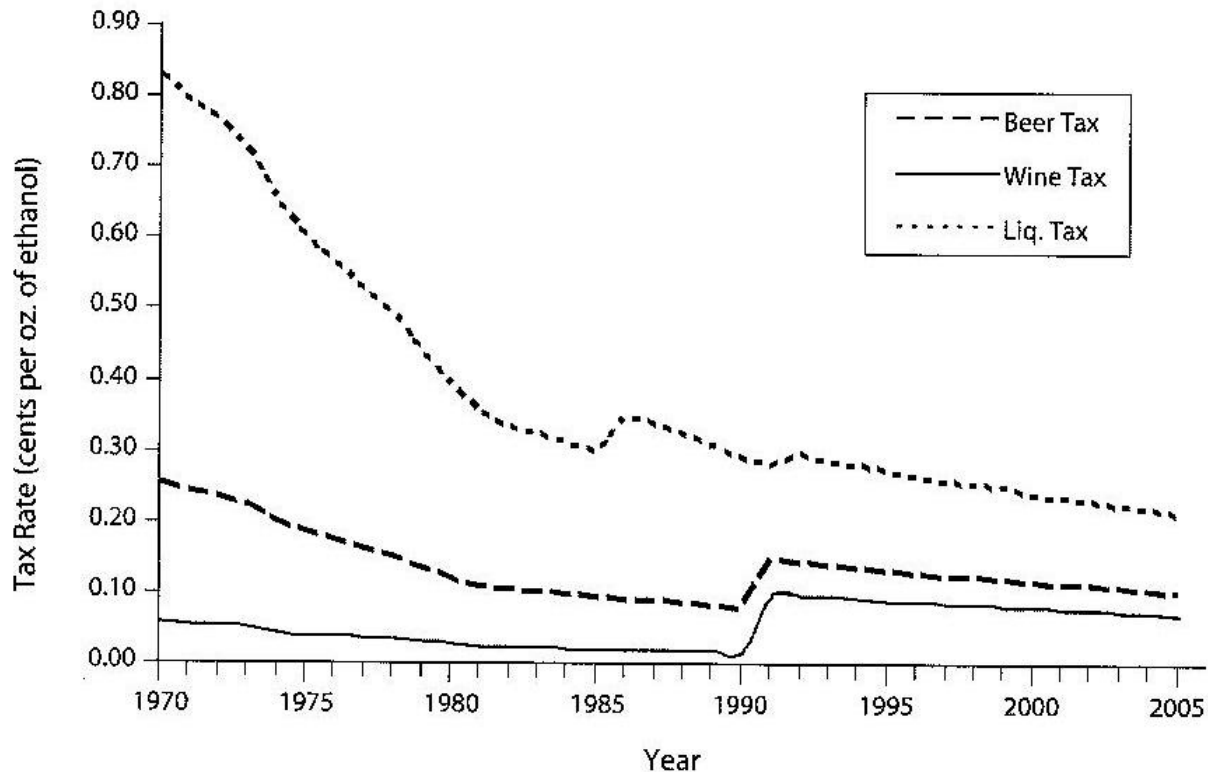


Figure 11.1. Comparing Real Federal Tax Rates for Beer, Wine, and Liquor (1970–2005).

*Note:* Nominal tax rates converted to cents per ounce of included ethanol and converted to 2005 dollar values using the CPI.

# Taxation/Pricing Controls

| Strategy or Intervention  | Effectiveness | Research Support | X-Cultural Testing | Cost |
|---|---------------|------------------|--------------------|------|
| Alcohol Taxes   | +++           | +++              | +++                | Low  |
| Differential price by beverage  | +             | +                | ++                 | Low  |
| Special or additional taxation on alcopops and youth-oriented beverages | +             | +                | ++                 | Low  |

# PRICE

- Other price interventions:
  - ▣ Eliminate happy hours, ladies' nights, other discounting
  - ▣ Eliminate bulk discounts such as sales in pitchers
  - ▣ Establish or raise retail license fees to fund enforcement, prevention, education and surveillance activities

# Regulating Alcohol Availability

- Changes in availability can have large effects in nations or communities where there is popular support for these measures.
- The cost of restricting alcohol availability is cheap relative to the costs of health consequences related to drinking, especially heavy drinking.
- The most notable adverse effects of availability restrictions include increases in informal market activities (e.g., cross-border purchases; home production, illegal imports).

# Regulating Physical Availability

| Strategy or Intervention                   | Effectiveness | Research Support | X-<br>Cultural Testing | Cost |
|--|---------------|------------------|------------------------|------|
| Total ban on sales                         | +++           | +++              | ++                     | High |
| Minimum legal purchase age                 | +++           | +++              | ++                     | Low  |
| Rationing                                  | ++            | ++               | ++                     | High |
| Government monopoly of retail sales        | ++            | +++              | ++                     | Low  |
| Hours and days of sale restrictions        | ++            | ++               | +++                    | Low  |
| Restrictions on density of outlets         | ++            | +++              | ++                     | Low  |
| Different availability by alcohol strength | ++            | ++               | +                      | Low  |
|  |               |                  |                        |      |

# Regulating Alcohol Availability Through Minimum Legal Purchase Age (MLPA)

- Principal source of evidence is U.S. studies
  - Numerous reviews of multiple studies have concluded 21 has been effective in saving young lives.
    - CDC – 49 studies reviewed, including studies using panel data: “...changes in the MLDA result in changes of roughly 10% to 16% in alcohol-related crash outcomes for the targeted age groups.”
    - Wagenaar and Toomey (2002) – review of 241 studies: “preponderance of evidence indicates there is an inverse relationship between the MLDA and two outcome measures: alcohol consumption and traffic crashes.”

# Modifying the Drinking Environment

Many prevention measures seek to re-define the contexts or change the environments where alcohol is typically sold and consumed (e.g., bars and restaurants), under the assumption that such changes can reduce alcohol-related aggression and intoxication

Options include training bar staff, imposing voluntary house policies to refuse service, enforcement of regulations, community mobilization to influence problem establishments

# Modifying the Drinking Environment

| Strategy or Intervention  | Effective-ness | Research Support | X- Cultural Testing | Cost             |
|---|----------------|------------------|---------------------|------------------|
| Staff and manager training in RBS                                     | O/+            | +++              | ++                  | Moderate         |
| Staff and manager training to better manage aggression                | ++             | +                | ++                  | Moderate         |
| Voluntary codes of bar practice                                       | O              | ++               | ++                  | Low              |
| Enhanced enforcement of on-premise regulations and legal requirements | ++             | ++               | ++                  | High             |
| Server liability  | ++             | ++               | +                   | Low              |
| Community action projects   | ++             | ++               | ++                  | Moderate to high |

# Drinking-Driving Countermeasures

- Well-tested and widely implemented set of interventions
- Consistently produce long-term problem reductions of between 5% and 30%.
- Deterrence-based approaches, using innovations such as Random Breath Testing, yield few arrests but substantial accident reductions.
- Another effective measure is the use of graduated licensing for novice drivers, which limits the conditions of driving during the first few years of licensing.

# Drinking-Driving Countermeasures

| Strategy or Intervention                     | Effective-ness | Research Support | X-Cultural Testing | Cost     |
|--|----------------|------------------|--------------------|----------|
| Sobriety check points                        | ++             | +++              | +++                | Moderate |
| Random breath testing (RBT)                  | +++            | ++               | +                  | Moderate |
| Lowered BAC Limits                           | +++            | +++              | ++                 | Low      |
| Administrative license suspension            | ++             | ++               | ++                 | Moderate |
| Low BAC for young drivers (“zero tolerance”) | +++            | ++               | +                  | Low      |
| Graduated licensing for novice drivers       | ++             | ++               | ++                 | Low      |
| Designated drivers and ride services         | O              | +                | +                  | Moderate |
| Severity of punishment                       | O/+            | ++               | ++                 | Moderate |

# PROMOTION

- Industry spends billions on promoting alcoholic beverages
- Promotional activities far outstrip efforts of public health/educators to supply counter-messages
- Industry is more innovative than public health, both in new product development and in pioneering of new forms of marketing and promotion

# Are the alcohol industry's promotional activities effective?

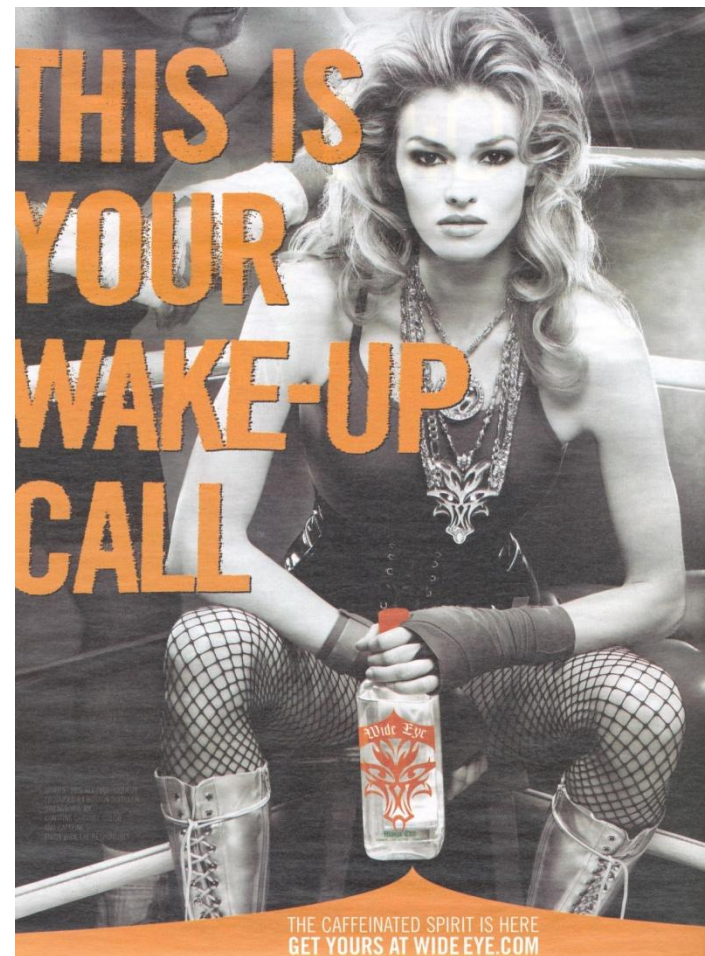
- No one likes to admit that advertising affects them.
- Current research looks at effects on young people.
- Three recently published longitudinal reviews, including one done with alcohol industry representation, concluded that the more young people are exposed to alcohol marketing, the more likely they are to drink, or if already drinking, to drink more.
- Forms of alcohol advertising and marketing that predict drinking onset among youth:
  - Television beer advertisements (Collins et al. 2007, Snyder et al. 2006, Stacy et al. 2004)
  - Alcohol ads in magazines (Collins et al. 2007, Snyder et al. 2006)
  - Alcohol ads on billboards (Snyder et al. 2006, Pasch et al. 2007)
  - In-store beer displays (Collins et al. 2007)
  - Beer concessions at sporting events (Collins et al. 2007)
  - Per capita spending on alcohol advertising in their media market (Snyder et al. 2006)
  - Alcohol use in movies (Sargent et al. 2006)
  - Ownership of alcohol promotional items (McClure et al. 2006, Henriksen et al. 2008)

# Youth exposure to alcohol advertising: magazines

In 2006, compared to adults 21 and over, youth ages 12-20 saw per capita...

- 20% more beer ads
- 34% more ads for alcopops
- 50% fewer wine ads

The overwhelming majority of youth exposure – 77% - came from ads placed in magazines with disproportionate youth audiences. (2005 data in MMWR, 8/3/2007)



# Does the industry “target” youth?

- King et al., 2009, *Journal of Adolescent Health*:
  - ▣ Analysis of advertisements in 118 national magazines, 2002 to 2006
  - ▣ Compared advertising schedules for beverages most popular with youth to those least popular with youth
  - ▣ Controlled for cost of advertising, size of young adult readership, median income of readers, etc.
  - ▣ The ratio of the probability of a youth alcoholic beverage type advertising in a magazine to that of an adult type advertising in a magazine increased from 1.5 to 4.6 as youth readership increased from 0% to 40%.
  - ▣ Thus in magazines with highest youth readerships, youth alcoholic beverage types were more than four times more likely to advertise than adult alcoholic beverage types.

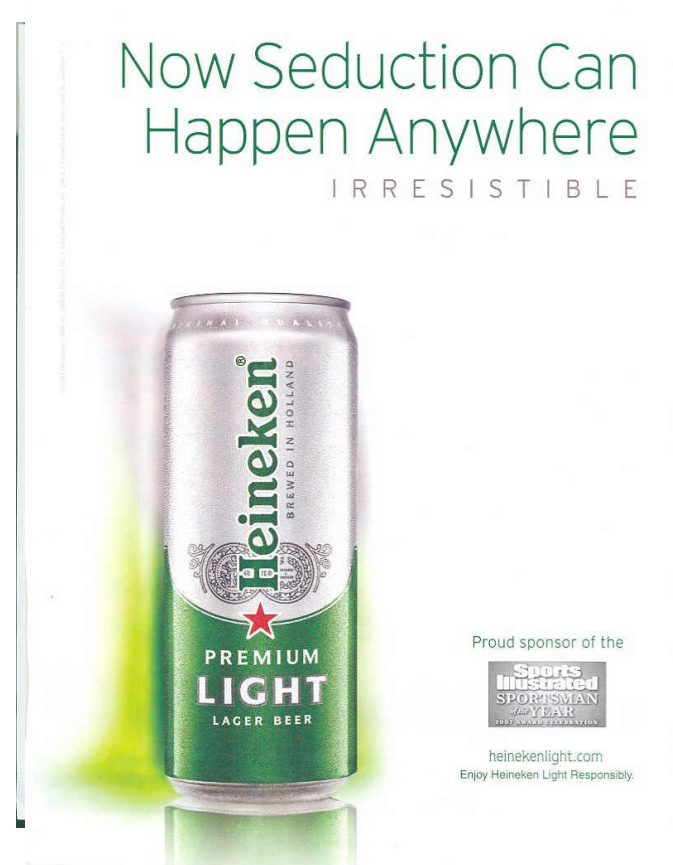
# Does the industry “target” youth?

- Chung et al., 2009, *AJPH*:
  - ▣ Census of 608,591 alcohol advertisements on cable television, 2001 to 2006
  - ▣ Each one-point increase in the percentage of the audience that was adolescent was associated with more beer (+7%), spirits (+15%), and alcopop (+22%) ads per viewer-hour, but fewer wine (-8%) ads ( $P < .001$  for all).

# PROMOTION POLICY INTERVENTIONS:

## Industry self-regulation

- U.S. Beer Institute code:
  - ▣ Beer advertising and marketing materials should not...claim or represent that individuals cannot obtain social, professional, educational, athletic, or financial success or status without beer consumption.



# Limits of self-regulation

- Content provisions unenforceable
- Placement provisions require independent data source and steady monitoring
- Code provisions are weak and can be made weaker with impunity
  - ▣ E.g. 2006 changes in U.S. Beer Institute code

# Promotion policy interventions

- Placement restrictions
  - ▣ % of audience (proportional to youth?)
  - ▣ Time or category watersheds (e.g. nothing before 10 p.m., or nothing on sports programming)
  - ▣ Physical placement restrictions, i.e. outdoor advertising near schools, libraries, playgrounds
  - ▣ Restrictions on public transit advertising

# Promotion policy interventions

- “Equal time” for public health counter-advertising
  - ▣ Effective on tobacco in U.S., provided ads are hard-hitting
  - ▣ Funded in the U.S. at the state level through tobacco tax increases



# Promotion policy interventions

- Warning on advertisements
  - ▣ Some evidence they may be effective
- Ban alcohol industry sponsorship of events
  - ▣ Especially those appealing to children or families
- Prohibit distribution or sale of alcohol promotional items
  - ▣ “Trinkets and trash” strong predictors of alcohol use
  - ▣ Prohibition could be limited to minors but much less effective
- Litigation to prevent industry marketing abuses

# Restrictions on Alcohol Marketing

| Strategy or Intervention                           | Effectiveness | Research Support | X-Cultural Testing | Cost |
|--|---------------|------------------|--------------------|------|
| Legal restrictions on exposure                     | + / ++        | +++              | ++                 | Low  |
| Legal restrictions on content                      | ?             | ○                | ○                  | Low  |
| Alcohol industry's voluntary self-regulation codes | ○             | ++               | ++                 | Low  |

# Promotion policy case study: France's Loi Évin

- Passed in 1985 but not defined and enforced until 1991
- Definition of alcoholic drinks (1.2%)
- No advertising targeted at young people
- No ads on TV or in movies
- No sponsorship of cultural or sporting events

# Promotion policy case study: France's Loi Évin

- Advertising permitted only in the press for adults, on billboards, on radio
- Messages and images should refer only to the qualities of the product such as origin, composition, production, etc.
- A health message must be included on each ad

# Treatment and Early Intervention Services

- In general, exposure to any treatment is associated with significant reductions in alcohol use and related problems, regardless of the type of intervention used.
- There is no consistent evidence that intensive in-patient treatment provides more benefit than less intensive outpatient treatment
- Residential treatment may be indicated for patients who:
  - ▣ 1) are highly resistant to treatment;
  - ▣ 2) have few financial resources;
  - ▣ 3) come from environments that are not conducive to recovery;
  - ▣ 4) have more serious, coexisting medical or psychiatric conditions(Finney et al. 1996)

# Brief interventions

- Consist of one to three sessions of counseling or advice delivered in general medical settings.
- Randomized controlled trials (conducted in a variety of settings) indicate that clinically significant changes in drinking behavior and related problems can follow from brief interventions with non-alcoholic heavy drinkers.

# Treatment and Early Intervention

| Strategy or Intervention                              | Effectiveness | Research Support | X-Cultural Testing | Cost     |
|---|---------------|------------------|--------------------|----------|
| Brief intervention with at-risk drinkers              | +++           | +++              | +++                | Moderate |
| Mutual help/self-help attendance                      | ++            | ++               | ++                 | Low      |
| Mandatory treatment of drink-driving repeat offenders | +             | ++               | +                  | Moderate |
| Medical and social detoxification                     | ○             | ++               | ++                 | High     |
| Talk therapies  | ++            | +++              | ++                 | Moderate |
| Pharmaceutical therapies                              | +             | ++               | ++                 | Moderate |

# Education Strategies

- School-based alcohol education programs are among the most popular types of prevention programs for policymakers.
- Approaches include giving information, values clarification, building self-esteem, teaching general social skills, and “alternatives” approaches that provide activities inconsistent with alcohol use (e.g., sports).

## Public service announcements (PSAs)

- Messages prepared by nongovernmental organizations, health agencies, and media organizations that deal with responsible drinking, the hazards of drinking-driving, and related topics.

Despite their good intentions, PSAs are an ineffective antidote to the high-quality pro-drinking messages that appear much more frequently as paid advertisements in the mass media.

# Education and Persuasion

| Strategy or Intervention                                | Effectiveness | Research Support | X-Cultural Testing | Cost             |
|---|---------------|------------------|--------------------|------------------|
| Classroom education                                     | ○             | +++              | ++                 | Moderate         |
| College student education – universal                   | ○             | +                | +                  | Moderate         |
| Brief interventions with high-risk students             | +             | +                | +                  | High             |
| Mass media campaigns, including drink-driving campaigns | ○             | +++              | ++                 | Moderate         |
| Warning labels and signs                                | ○             | +                | +                  | Low              |
| Social marketing  | ○             | ++               | +                  | Moderate to high |

# Summary: Education Strategies

- The impact of education and persuasion programs tends to be small at best.
- When positive effects are found, they do not persist.
- Among the hundreds of studies, only a few show lasting effects (after 3 years) (Foxcroft et al. 2003).
- AlcoholEdu study cited by CR is producer's own study – not peer-reviewed – one peer-reviewed evaluation is in JACH 2008 – finds no effect on drinking behavior.
- The time is past for arguments on behalf of *substituting* education for other, more effective approaches.
- If educational approaches are to be used, they should be implemented within the framework of broader environmental interventions that address availability of alcohol.

# Best Practices

(++ or +++ effectiveness, with +++ research support)

- Alcohol taxes
- Minimum legal purchase age
- Random breath testing
- Lowered BAC limits
- Lowered BAC limits for young drivers
- Sobriety checkpoints
- Outlet density restrictions
- Government monopoly of retail sales
- Legal restrictions on exposure to alcohol marketing
- Brief interventions for hazardous drinkers
- Treatment in form of talk therapies

# U.S. National Research Literature

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- Most effective strategies will be multi-level:
  - Individual
  - Interpersonal
  - Community
  - Societal

# U.S. National Research Literature

- Most individual-level efforts unsuccessful
  - ▣ Education-only efforts ineffective
  - ▣ Values clarification ineffective
  - ▣ Gender-specific personalized normative feedback may work
  - ▣ Alcohol 101 ineffective
  - ▣ BMI (e.g. BASICS) with personalized feedback, delivered individually, in groups or as stand-alone, effective
  - ▣ Social norming – evidence mixed
  - ▣ BMI or skills-based programs most promising
    - Effective strategies will incorporate personalized normative feedback, BAC training, training in protective behavioral strategies for risk reduction

# U.S. National Research Literature

- Peer interventions:
  - ▣ Peer-delivered BMI may be effective
- Family involvement
  - ▣ Logical but largely unstudied at this level – promising if engaged at earlier ages

# Community/societal levels (“environmental”): underage students

- Decreasing social access to alcohol
  - Decrease number of large drinking parties
    - Prohibit alcohol use in public places
    - Patrol public areas
    - Restrict parties at hotels/motels
    - Have alcohol-free parties/events
  - Prevent underage access at parties
    - Ban beer kegs
    - Implement beer-keg registration
    - Limit quantity per request
    - Create separate drinking areas
    - Do not allow self-service
    - Require server training
    - Check age identification
- Increase awareness of laws
  - Implement awareness campaigns
  - Distribute warning fliers
- Enforce social provision laws
  - Use shoulder tap campaigns
  - Spot check parties
  - Hire security monitors
  - Enact noisy assembly ordinance
  - Enact social-host liability law

Source: Toomey et al. 2007  
review of 110 studies

# Community/societal levels (“environmental”): underage students

- Decreasing commercial access to alcohol
  - Limit alcohol sales
    - Prohibit sales on campus
    - Restrict/ban home deliveries
  - Focus on alcohol establishment behavior
    - Check age identification
    - Provide incentives for checking identification
    - Develop monitoring system
    - Train managers/servers
    - Require server license
    - Restrict age of seller
  - Reduce use of false age-identification cards
    - Penalize users and producers
    - Design cards that are difficult to falsify
  - Enforce commercial provision laws
    - Implement compliance checks
    - Enact administrative penalties
    - Conduct walk-throughs

# Environmental interventions: all college students

- Restricting where, when, and how alcohol is sold and distributed
  - Reduce density of alcohol establishments
    - Increase cost of alcohol license
    - Restrict days/hours of sale
    - Prohibit sales on campus
    - Monitor increases in availability due to privatization or community events
  - Promote responsible alcohol service
    - Serve standard sizes
    - Prohibit pitchers
    - Cut-off service to intoxicated individuals
    - Promote alcohol-free drinks/food
    - Eliminate last-call announcements
    - Require manager/server training
    - Enact dramshop liability
  - Reduce flow of alcohol at parties
    - Ban beer kegs
    - Restrict/ban home deliveries
    - Limit quantity of alcohol at events
    - Do not allow self-service
    - Make alcohol-free drinks and food available
    - Serve low-alcohol content drinks

# Environmental interventions: all college students

- Increasing the price of alcohol
  - ▣ Restrict happy hours/price promotions
  - ▣ Limit free alcohol
  - ▣ Increase alcohol excise tax
- Restricting where alcohol is consumed
  - ▣ Restrict consumption to specific areas
  - ▣ Create dry campuses/residences
  - ▣ Prohibit consumption in locations where heavy drinking occurs

# Summary

- There is a substantial college drinking problem, in the nation and in Vermont
- Much can be done to prevent or reduce this problem, *and much of it is not being done*
- The minimum age drinking laws have been surprisingly effective, given how much is undercutting them...

# Undercutting 21...

- Insufficient federal commitment to the issue of underage drinking
  - The sad tale of ICCPUD
    - Mandated by Congress, seldom meets
  - The sad tale of the STOP Act
    - Authorized in 2006 a minimal \$18 million for underage drinking – thus far only \$11 million appropriated (including \$2.5 million of new funds for college prevention programs – “budget dust”)
  - Illegal drug media campaign vs. underage drinking media campaign
    - More than \$100 million for illegals versus \$1 million for underage drinking
  - OJJDP only federal agency with program funding dedicated solely to underage drinking

# Undercutting 21...

- Laws are not magic – enforcement is key
  - ▣ Even poorly enforced 21 has been effective
  - ▣ Better enforcement leads to lower underage drinking rates (CDC 2007)
- 21 has been left to do the entire job
  - ▣ Public health – multi-level, multi-sectoral interventions key
  - ▣ Weitzman et al. 2004 – evaluation of AMA-sponsored program at 10 college campuses
    - Largest improvements found at campuses that implemented most “environmental” interventions

# PRODUCT

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- Yet another example of how 21 is undercut every day
- Industry tests more than 250 new products per year in U.S.
- Some of these products are clearly youth-oriented

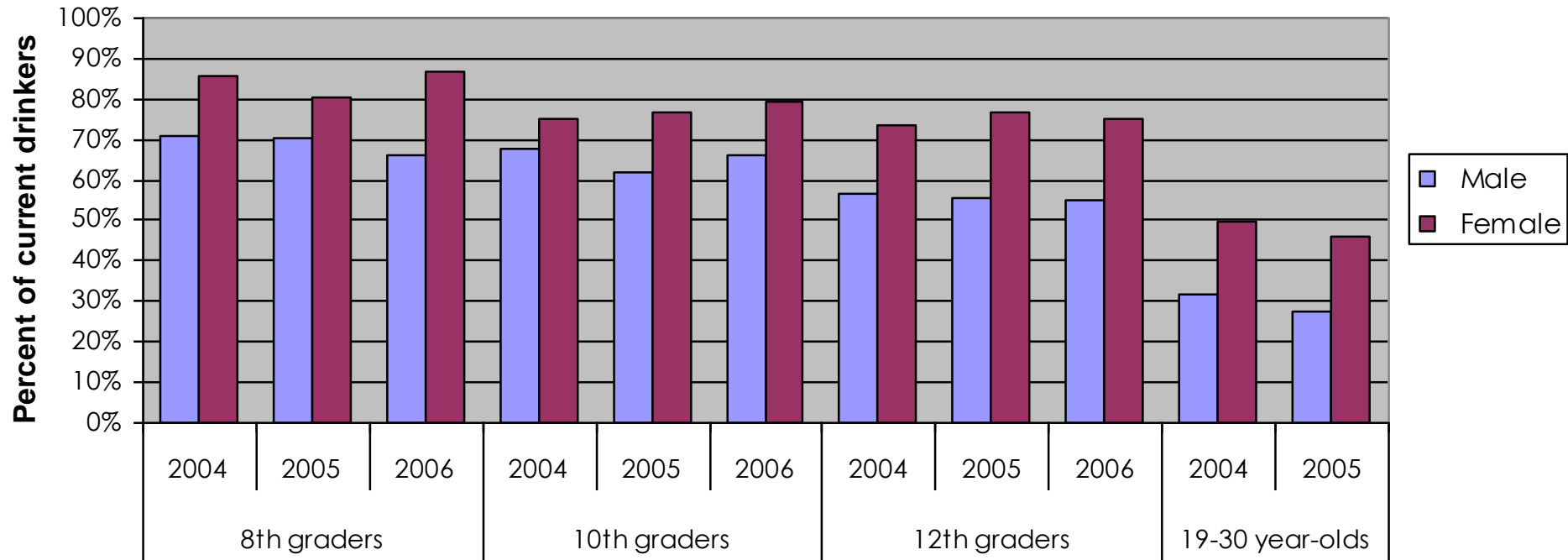
# PRODUCT: “alcopops”

- Industry spokespersons have described alcopops as designed for “entry-level drinkers” and those who do not like the taste of beer.
- Even though most of them have distilled spirits in them, the industry claimed they were made from beer, so that they could be:
  - Taxed lower
  - Sold in convenience stores
  - Advertised on TV

# How popular are alcopops among kids?

- Most popular with the youngest drinkers.
- 78% of current 8<sup>th</sup> grade drinkers (past 30 days) drank alcopops in the past 30 days.
- 71% of current 10<sup>th</sup> grade drinkers (past 30 days) drank alcopops in the past 30 days.
- 65% of current 12<sup>th</sup> grade drinkers (past 30 days) drank alcopops in the past 30 days.
- 42% of current drinkers, age 19 to 30, drank alcopops in the past 30 days.

# Alcopops most popular with females in every age group



# Newer products



# PRODUCT

- ❑ Shotpaks – 17% alcohol – US\$.99 each...
- ❑ Featured on the *Today* show in July 2007 as great innovation



# The alcohol industry and 21

- 1985: Miller Brewing Company (then part of Philip Morris Tobacco Co.):
  - “Strategically, we will be working behind the scenes to encourage the 27 states not already imposing a minimum drinking age of 21 to delay any enactment...”
  - The reason this was strategic for Miller was because they knew that 21 would be effective in reducing sales of alcohol to 18 to 20 year-olds, and they wanted to avoid that.

Source: Bond et al., *Australian Medical Journal*, 2009

# Key priorities in what works

- Campus-community coalitions
- Comprehensive, multi-level strategies
- Environmental interventions to complement individual efforts
- Participatory strategy development
- Evidence-based efforts
- No single magic bullet...

# Beauchamp:

## Public health as social justice

### □ Principles:

- 1) controlling the hazards of this world
- 2) to prevent death and disability
- 3) through organized collective action (government or other)
- 4) shared equally by all except where unequal burdens result in increased protection of everyone's health and especially potential victims of death and disability

- In midst of health care reform debate, we should work for a right to health (not just right to health care), defined as:

**The right to full and equal protection of all persons against preventable death and disability**

# Shared values

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- Create safe environments for our young people
- Provide access to higher education without undue risk
- Work with respect for scientific evidence
- Do not increase risk for non-college youth
- Safeguard the right of our young people to protection from preventable death and disability

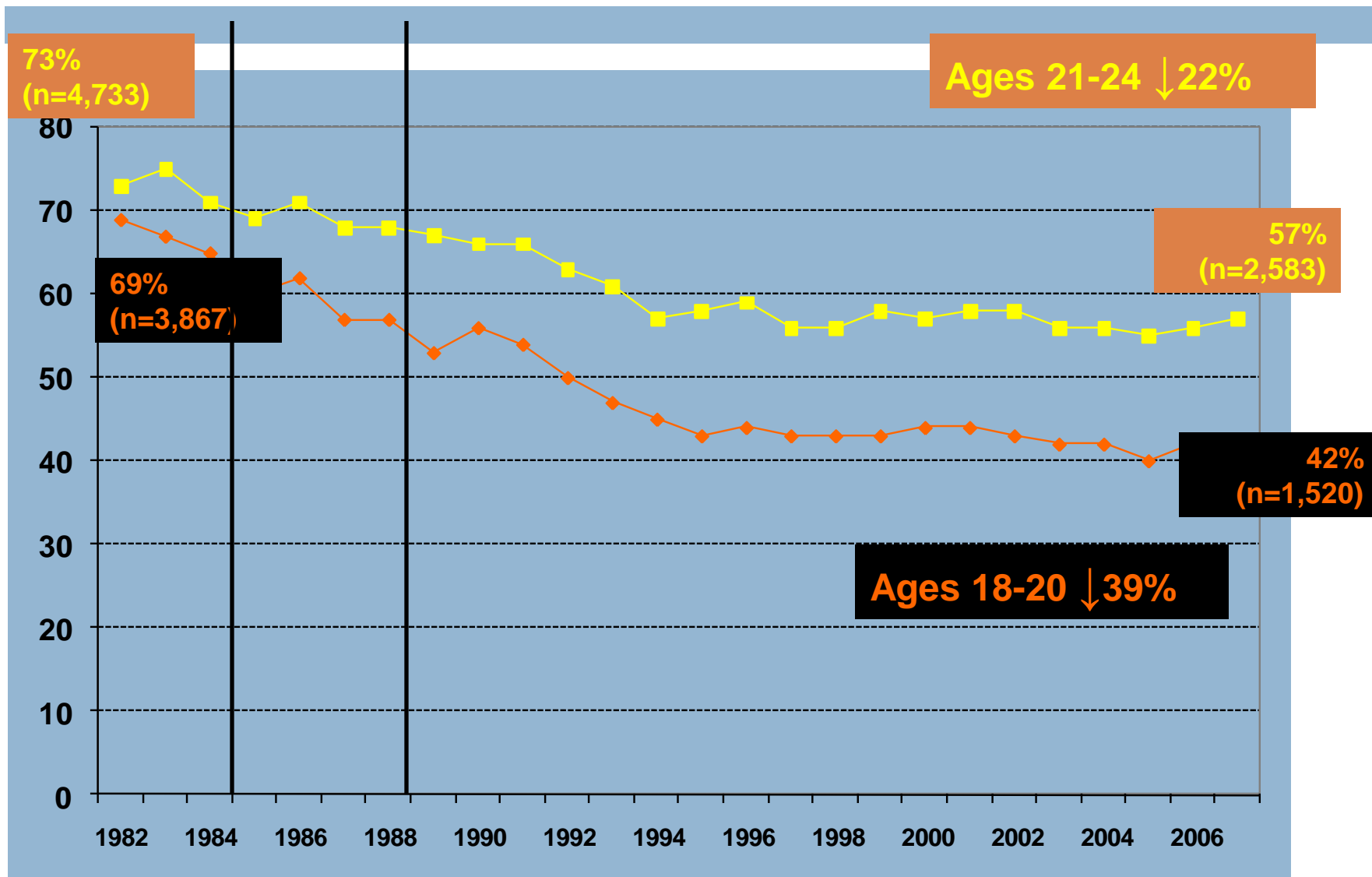
# What we are up against...



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

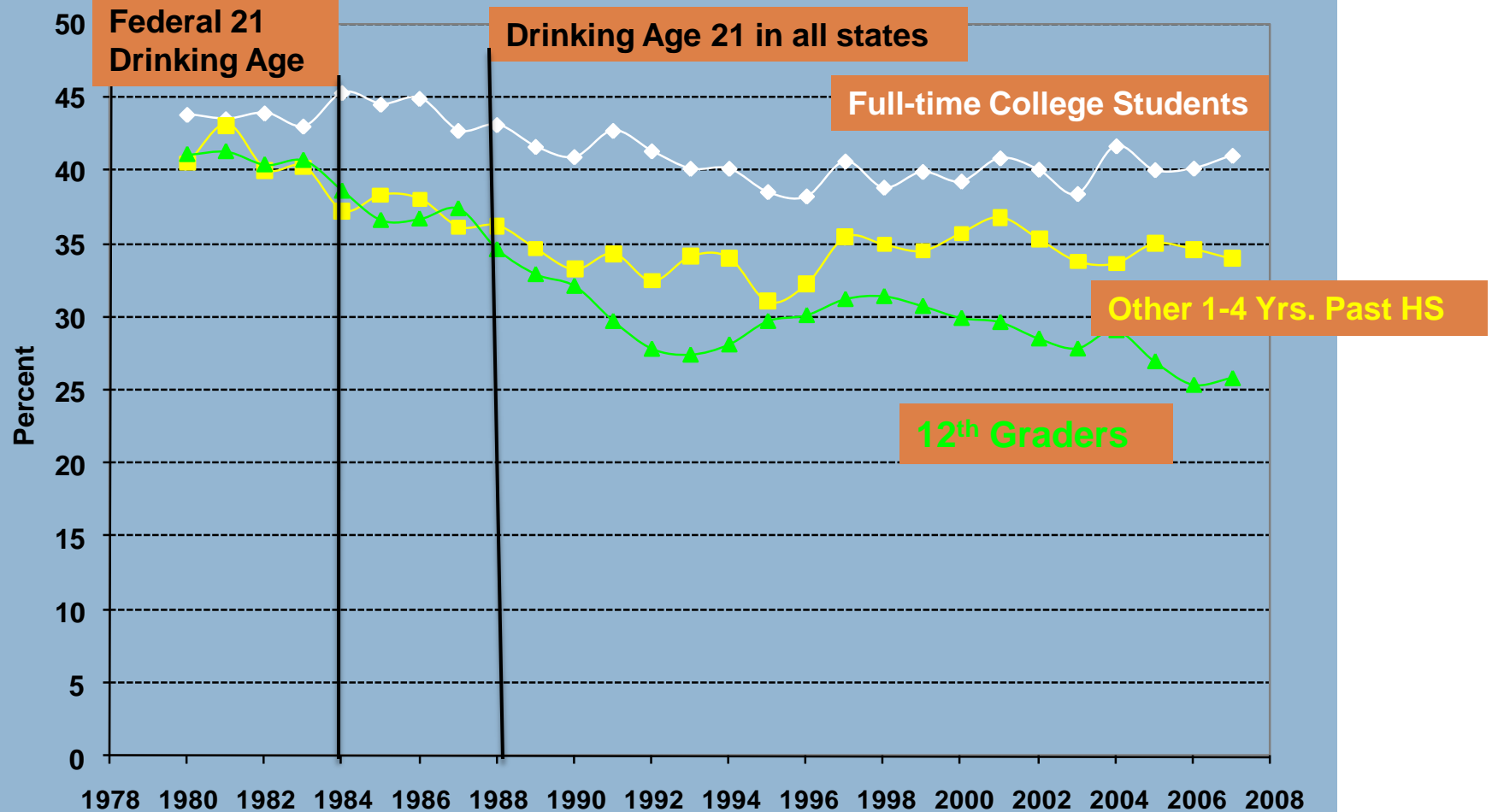
U.S. MLDA Age 21 law

MLDA 21 in all 50 states

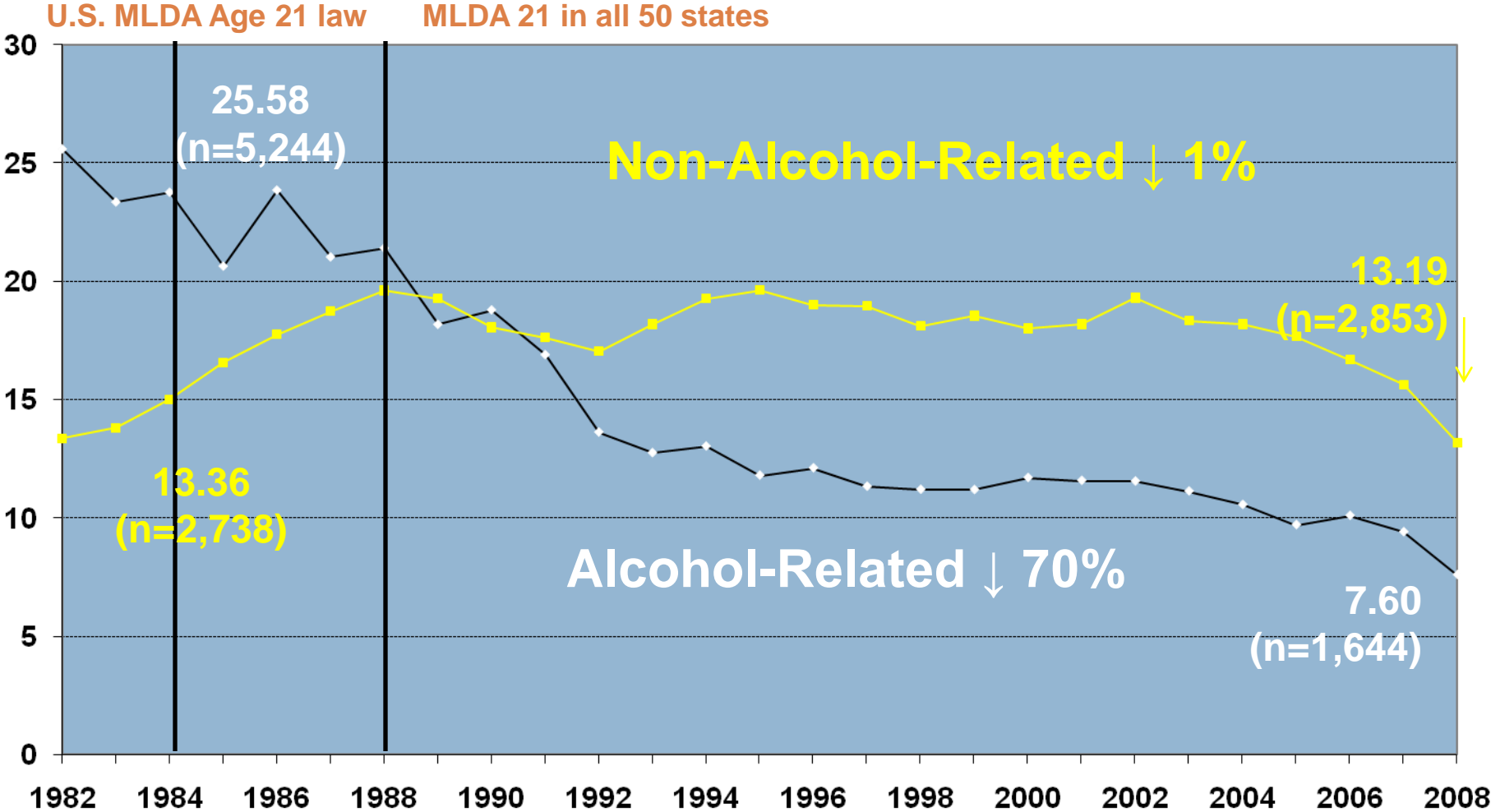


Source: U.S. Fatality Analysis Reporting System, 2009

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



# Alcohol- vs. Non-Alcohol-Related Traffic Fatalities, Rate Per 100,000, Ages 16-20, United States, 1982-2008



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