

The Role of Public Health in Addiction Medicine

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Outline

- Background on Public Health (PH) and Substance Abuse
- PH Impact of Excessive Alcohol Consumption
- Role of Public Health in the Prevention of Excessive Alcohol Consumption
- PH Surveillance on Alcohol-Related Conditions and Alcohol Consumption
- Evaluation of Intervention Strategies
- Building State Public Health Capacity to Prevent Alcohol Problems
- Role of Partner Organizations
- Relationship to Addiction Medicine

WHO Definition of Public Health

Public health is “The science and art of promoting health, preventing disease, and prolonging life through the organized efforts of society”.

Acheson Report, London, 1988

Clinical and Public Health Practice

	<u>Clinical</u>	<u>Public Health</u>
<i>Orientation</i>	Individuals	Populations
<i>Objective</i>	Care for Sick Pts	Prevent and Control Conditions
<i>Competencies</i>	Dx and Rx	Assessment, Pgm Dev, Evaluation
<i>Setting</i>	Clinic, Hospital	Agency, Field Site

IOM: *Broadening the Base of Treatment*, 1990



Key Points in IOM Report

- Challenged us to recognize that "Alcohol problems are heterogeneous".
- Noted that "the effective reduction of the burden of alcohol problems can not be the sole responsibility of specialized treatment programs".
- Emphasized the need to consider the context within which alcohol and other drugs are used.
- Helped articulate a role for public health (PH) agencies in addressing alcohol problems.

Historical Involvement of PH Agencies in Substance Abuse

- Limited, except in those situations where substance abuse is a key risk factor for other PH problems (e.g., HIV).
- Largely focused on tobacco control, although this effort is relatively new.
- State PH and substance abuse agencies tend to live in separate worlds.

Public Health Focus on Alcohol

- **Pro**
 - Alcohol is the most commonly abused substance in the U.S.
 - Huge Public Health impact.
 - Amenable to policy and environmental controls similar to those used to address smoking
- **Con**
 - Alcohol is just one of many addictive substances.
 - Polydrug abuse is common.

Public Health Impact of Excessive Drinking

- 3rd leading actual cause of death.
- \$184 billion in total economic costs.
- 4% of global burden of disease, only slightly less than burden imposed by tobacco and high blood pressure.
- Most excessive drinkers are not alcohol dependent.

Alcohol-Related Health Effects

- Chronic conditions (e.g., cirrhosis, stroke, and various cancers)
- Acute conditions (e.g., MV crash deaths and interpersonal violence)
- Other health problems (unintended pregnancy and STDs)

HP 2010 Objectives for Alcohol Abuse

- Reduce binge drinking (5 or more drinks on one occasion) (Objective 26-11)
- Reduce proportion of adults who exceed guidelines for low-risk drinking (Women: >7 drinks/week or 3 drinks/occasion; Men >14 drinks/week or 4 drinks/occasion) (Objective 26-13).

Role of Public Health/CDC in Preventing Excessive Drinking

- PH Surveillance and Technical Assistance
- Capacity Bldg in State Health Departments
- Implementation of policy & environmental strategies to prevent binge and underage drinking
- Demonstration Projects and Applied Public Health Research
- Building partnerships & collaborating with other organizations

CDC State Alcohol Planning Mtg, 2004

Alcohol-Related Disease Impact (ARDI) Software

- Alcohol-attributable deaths & Years of Potential Life Lost (YPLL)
- Alcohol-Attributable Fractions (AAFs) for 54 conditions
- Life expectancies from life tables
- Funding from the Robert Wood Johnson Foundation (RWJF)
- Available at: www.cdc.gov/alcohol

Conditions included in ARDI

- Chronic conditions:
 - Liver disease
 - Cancers
- Acute conditions:
 - Unintentional injuries (e.g. MVCs)
 - Violence

Deaths and YPLL due to Excessive Drinking, 2001

- 75,000 Alcohol-Attributable Deaths
- 2.3 million YPLL (30 yrs lost/death)
- Over half of deaths and two-thirds of YPLL involved binge drinking.
- Half of deaths involved men >age 35

Stahre M, et al MMWR 2004; 53:866-70.

ARDI, Phase 2

- Expanding software to assess economic impacts.
- Emphasizing the impact of excessive drinking.
- Targeting state health departments.
- Funding from RWJF.

Patterns of Alcohol Consumption

- Binge (≥ 5 drinks/occasion)
- Heavy (average >2 drinks/day for men; >1 drink/day for women)
- Moderate (≤ 2 drinks/day for men; ≤ 1 drink/day for women)

National Institute on Alcohol Abuse and Alcoholism (NIAAA) Definition of Binge Drinking

"A 'binge' is a pattern of drinking alcohol that brings blood alcohol concentration (BAC) to 0.08 gram percent or above. For the typical adult, this pattern corresponds to consuming 5 or more drinks (male), or 4 or more drinks (female), in about 2 hours. Binge drinking is clearly dangerous for the drinker and for society."

NIAAA Advisory Council, 2004



CDC Behavioral Risk Factor Surveillance System (BRFSS)

- Random-digit dial telephone survey of adults age 18 years and older
- Data collected in all states, District of Columbia, and 3 territories
- State-based system coordinated by CDC
- Over 300,000 interviews in 2004

BRFSS Alcohol Questions

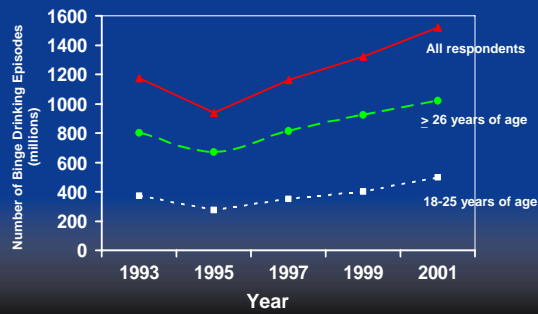
1. A drink of alcohol is 1 can or bottle of beer, 1 glass of wine, 1 can or bottle of wine cooler, 1 cocktail, or 1 shot of liquor. During the past 30 days, how often have you had at least one drink of any alcoholic beverage?
2. On the days when you drank, about how many drinks did you drink on the average?
3. Considering all types of alcoholic beverages, how many times during the past 30 days did you have 5 or more drinks on an occasion?

Binge Drinking among U.S. Adults, BRFSS, 1993-2001

Measure	1993	2001	Change
Prevalence	14.2%	14.3%	+ 1%
Total Episodes	1.2 billion	1.5 billion	+ 29%
Episodes per Person	6.3	7.4	+ 17%

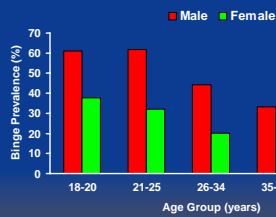
Naimi, JAMA, 2003

Binge Drinking Episodes by Age and Year, BRFSS, 1993-2001



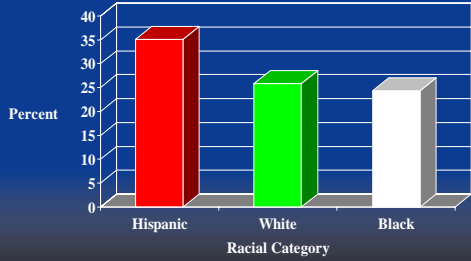
Naimi, JAMA, 2003

Binge Drinking among Current Drinkers, BRFSS, 2001



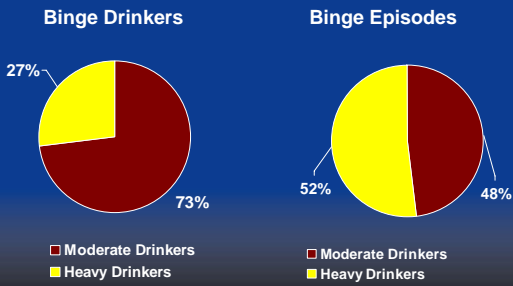
Naimi, JAMA, 2003

Binge Drinking among Current Drinkers, BRFSS, 2001



Naimi, JAMA, 2003

Binge Drinking by Average Alcohol Consumption, BRFSS, 2001



Naimi, JAMA, 2003

BRFSS Binge Drinking Module

- Used to collect more detailed information on last binge episode
- 13 states in 2003; 14 states in 2004
- 7103 total respondents in 2003 (Range: 276-736 per state)

Mean Drinks per Binge Episode by Gender and Age, BRFSS, 2003

<u>Gender</u>	<u>Age</u>	<u>Mean</u>
Male	18-34	9.1
	35-54	8.0
	55+	7.2
Female	18-34	7.4
	35-54	6.4
	55+	6.0

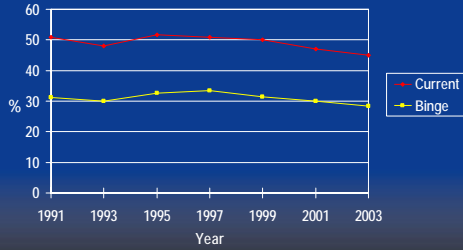
CDC National Youth Risk Behavior Survey (YRBS)

- Monitors health risk behaviors
- Self-administered paper survey
- High school students in grades 9 thru 12
- Conducted biannually
- Sample size of 15,214

CDC/YRBS Definitions of Alcohol Consumption

- Current drinker – Reports consuming at least one drink of alcohol on one or more days in the past 30 days.
- Binge drinker – Reports consuming 5 or more drinks of alcohol in a row on one or more days during the past 30 days.

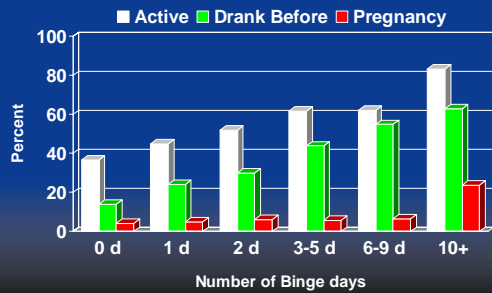
Alcohol Use Among Youth, YRBS, 1991-2003



Alcohol Use Among Youth, YRBS, 2003

Characteristic	Non-drinker (%)	Current Drinker (%)	Binge Drinker (%)
Sex			
Male	56.2	43.8	29.0
Female	54.2	45.8	27.5
Age			
12-14 years	67.9	32.1	17.3
15-17 years	55.0	45.0	28.5
18 years or older	43.6	56.4	38.0

Sexual Activity Among Youth by Binge Drinking Days, YRBS, 2003



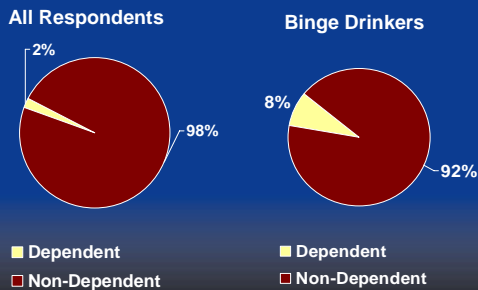
State Capacity Bldg

- Funded Alcohol Epidemiologists in New Mexico and California
 - Public health surveillance
 - Developing partnerships
 - Planning and evaluating interventions
- Collaborated with other state-based epidemiologists (e.g., NH)

State Activities in Alcohol Epidemiology

- **New Mexico**
 - Studied prevalence of alcohol dependence among excessive drinkers in NM
 - Studied alcohol-related hospital charges; results used to support alcohol tax increase.
- **California**
 - Assessed binge drinking among CA adults; manuscript to be submitted for publication.
 - Developed working group on binge drinking with the state SA agency and injury program

Prevalence of Past-Year Alcohol Dependency, NM BRFSS, 2002



Community Guide Chapter

- Prevention and Control of Excessive Alcohol Consumption and Related Harms
- Systematic Reviews of 3-5 Interventions over next 3 years
- Recommendations on Intervention Effectiveness by Task Force for Community Preventive Services

Priority Interventions for Systematic Review

- Increasing alcohol excise taxes
- Enforcement of minimum drinking age laws (i.e., MLDA laws)
- Restricting Alcohol Outlet Density

Potential Impact of Increasing Alcohol Taxes

- 10% increase in tax could reduce binge episodes by 8% (Sloan, 1995)
- 1% increase beer price could reduce traffic fatalities by 0.9% (Ruhm, 1996)

Public Support for Increasing Alcohol Taxes

- 51% strongly favor an increase in alcohol taxes.
- 65% support using alcohol tax to reduce budget deficits
- When informed of their state beer tax, more than half think it should be increased

AMA, 2004

Key Federal Partners

- National Institute for Alcohol Abuse and Alcoholism (NIAAA)
 - Emphasis on basic research
 - Community Intervention Trials
- Substance Abuse Mental Health Services Administration (SAMHSA)
 - Block Grant – Emphasis on Rx
 - State Incentive Grant

Other Key Partners: Medical Organizations

- American Medical Association, Office of Alcohol and Other Drugs
- American College of Preventive Medicine
- American Society for Addiction Medicine and State Affiliates

Alcohol Resolutions passed by the AMA House of Delegates, 2005

1. Eliminate Underage Alcohol Consumption
2. Increase Taxes on Alcoholic Beverages

AMA Resolution on Eliminating Underage Alcohol Consumption

- Resolved that the AMA would actively oppose underage drinking by “working toward a comprehensive, community-based, environmental approach that includes local and state policies and medical services”.
- Resolved that the AMA “support evidence-based public health/environmental policies to curtail destructive and high-risk drinking”.

AMA House of Delegates, June 2005

AMA Resolution on Increasing Taxes on Alcoholic Beverages

- Resolved that the AMA “support increases in federal taxes on beer, wine, and liquor, with a substantial proportion of the new revenues to be earmarked to the prevention of alcohol abuse and drunk driving, treatment of persons with alcohol dependence or at-risk drinking patterns, and public health and medical programs that serve vulnerable populations”.
- Resolved that the AMA “encourage state and local medical societies to support increases in state and local taxes on beer, wine, and liquor...”.

AMA House of Delegates, June 2005

Public Health and Addiction Medicine

- Many opportunities to work together to reduce excessive drinking.
- Promote evidence-based policy and environmental strategies to reduce excessive drinking.
- Increase availability and quality of clinical care for persons who are drinking excessively (e.g., screening and counseling).
- Change social norms around drinking.

Summary & Conclusions

- Excessive drinking (e.g., binge drinking) is a huge public health problem.
- Public health has an important role in the prevention of excessive drinking.
- Many opportunities for Public Health and Addiction Medicine to work together to reduce excessive alcohol consumption.

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