Prevalence and Consequences of Alcohol Use and Abuse

I. Patterns of Use
II. Types of Drinking
III. Measures of Problem Drinking
IV. Personal and Societal Costs
I. Patterns of Use

For example:

Age
Gender
Race/Ethnicity
Type of Alcohol
Skewed concentration
International Differences
Alcohol Sales in the United States

There's nothing as perfect as an iced cold "T&T."

Purchases of alcoholic beverages represent over 50% of total dollars spent on beverages in the United States.

While 61% of U.S. Adults Are Current Drinkers . . .

- Current Drinker 61%
- Former Regular Drinker 6%
- Former Infrequent Drinker 8%
- Lifetime Abstainer 25%

. . . the Majority Are Infrequent or Light Drinkers

- Light Drinker 48%
- Moderate Drinker 24%
- Infrequent Drinker 20%
- Heavier Drinker 8%

NOTES: Data are annual averages from the 2005 to 2007 National Health Interview Survey (NHIS), a survey of the U.S. civilian noninstitutionalized population collected using computer-assisted personal interviews of adults aged 18 years and older. Lifetime Abstainer: had fewer than 12 drinks in entire lifetime; Former Infrequent Drinker: had 12 drinks or more in lifetime, but never as many as 12 drinks in a single year, and had no drinks in the past year; Former Regular Drinker: had 12 drinks or more in one year, but no drinks in the past year; Current Drinker: had at least 12 drinks in lifetime and at least 1 drink in the past year; Infrequent Drinker: had at least 12 drinks in lifetime and 1-11 drinks in past year; Light Drinker: had 3 drinks or less per week, on average, in the past year; Moderate Drinker: had more than 3 and up to and including 14 drinks per week for men, and more than 3 and up to and including 7 drinks per week for women, on average, in the past year; Heavier Drinker: had more than 14 drinks per week for men and more than 7 drinks per week for women, on average, in the past year.

Percentage of U.S. 12th Grade Students Reporting Past Month Use of Top Ten Drugs, 2004 (N=15,222 12th graders in 128 schools)

- Alcohol: 48.0%
- Cigarettes: 25.0%
- Marijuana: 19.9%
- Smokeless Tobacco: 6.7%
- Amphetamines: 4.6%
- Other Narcotics: 4.3%
- Tranquilizers: 3.1%
- Sedatives: 2.9%
- Cocaine: 2.3%
- Hallucinogens: 1.9%

A. Alcohol is the drug of choice among adolescents.
Figure 1. Total per capita ethanol consumption, United States, 1935–94.
Trends in Alcohol Use, 1850–1997

Annual per Capita Consumption in Gallons of Ethanol

- 1850
- 1860
- 1861–1865 Civil War
- 1874 Women’s Christian Temperance Union formed
- 1897 Carrie Nation begins anti-saloon campaign
- 1914–1918 World War I
- 1919–1923 Prohibition
- 1930, The Great Depression
- 1939 Alcoholics Anonymous founded
- 1939–1945 World War II
- 1950–1953 Korean War
- 1954 Alcoholism declared a disease by the AMA
- 1961–1975 Vietnam War
- Early 1970s Drinking age lowered in 29 states
- 1980 Mothers Against Drunk Driving (MADD) founded
- 1984 National Minimum Drinking Age Act
- 1987 All states comply with age 21 drinking requirement
- 1989 Alcohol implicated in Exxon Valdez oil spill off Alaska
- 1992 Widespread rates of binge drinking documented in first College Alcohol Study by Harvard
- 1994 Naltrexone approved for treatment of alcoholism
- 1996 Radio and TV advertising ban reversed by liquor industry
- 1999 National Alcohol Screening Day launched by Surgeon General
- 2000 Law signed for 0.08 BAC national standard for alcohol-impaired driving

Source: Substance Abuse The Nation’s Number One Health Problem (Robert Wood Johnson Foundation).
Percentage of U.S. Adults Reporting That They Drink Alcohol, 1939 to 2010

Year of Survey

NOTES: Respondents were asked “Do you have occasion to use alcoholic beverages such as liquor, wine, or beer, or are you a total abstainer?” Data for 2010 are based on national telephone (land-line and cellular) interviews conducted July 8-11, 2010 with a random sample of 1,020 adults (ages 18 and older) living in the continental U.S. The margin of error is ±4 percentage points. If more than one poll was conducted in a year, the poll that occurred closest to the month of July was used in the above graph. Surveys were only conducted in years that have a data point marker.

Fig. 5. Per capita consumption of beer, wine, and spirits in the United States: new estimates and Alcohol Epidemiologic Data System (AEDS) estimates for comparison. ◆, spirits; ■, wine; ●, beer. Dark lines show new estimates and lighter lines are AEDS estimates.

Fig. 6. Per capita consumption of alcohol in the United States from 1950 to 2002: new estimates and Alcohol Epidemiologic Data System (AEDS) estimates for comparison. ●, new estimates of per capita consumption; *, estimates based on AEDS conversion factors.

Trends in estimated mean alcohol concentration for beer and wine in the United States. •, wine alcohol content by volume (%ABV); ◆, beer %ABV.

Percentage of U.S. 8th, 10th, and 12th Grade Students Reporting Past Month Alcohol Use, 1975-2010

*The Monitoring the Future survey began surveying 12th graders in 1975. Surveys of 8th and 10th graders were added in 1991.

B. Youth drink less frequently than adults, but drink more per occasion.

- **Drinks per Occasion**
- **Drinking Days per Month**

---

**Number of Drinks**

- Underage (12-17)
- Adults (26+)

---

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
Past-Month Heavy Alcohol Use Among Adults Aged 21 or Older, by Age (2013)

In 2013, young adults aged 21–25 had the highest percentage of heavy alcohol use among adults aged 21 or older.

In the United States, 6.7% of persons aged 21 or older (an estimated 15.1 million individuals) in 2013 reported heavy alcohol use within the month prior to being surveyed. This percentage has not changed significantly since 2009.
Figure 1 Percentages of current drinking and episodic heavy drinking by age (graph on the left), and mean frequency and quantity of drinking by age (graph on the right), NESARC, 2001–2002.
Percentage of U.S. Adults Reporting 12-Month Prevalence of Alcohol Abuse and Alcohol Dependence, by Age, 2001-2002
(N = 43,093)

Percentage of U.S. Adults Reporting Past Month Alcohol Drinking and Cigarette Smoking, by Income Level
(2005-2007 Annual Average)

Current Drinker

Income Level

Below Poverty Level  | ≥1 to <2 Times Poverty Level | ≥2 to <4 Times Poverty Level | 4 Times Poverty Level
45.2% | 50.0% | 59.9% | 72.6%

Current Smoker

Income Level

Below Poverty Level  | ≥1 to <2 Times Poverty Level | ≥2 to <4 Times Poverty Level | 4 Times Poverty Level
28.3% | 25.1% | 21.8% | 15.1%

NOTE: Data are combined annual averages from 79,096 completed interviews from the 2005 to 2007 National Health Interview Surveys (NHIS), an annual computer-assisted in-person survey of the U.S. civilian noninstitutionalized population ages 18 and older.

Figure 10. Per capita consumption from all beverages in gallons of ethanol by State, 1994.
Indicator 11
Heavy Alcohol Use by Youth Varies by Race and Ethnic Group

Percent of High School Seniors Who Are Heavy Users

Source: Substance Abuse The Nation's Number One Health Problem (Robert Wood Johnson Foundation).
Past-Month Binge Alcohol Use Among Adolescents Aged 12–17, by Race/Ethnicity (2013)

- White: 7.3%
- Black: 3.9%
- American Indian or Alaska Native: 5.6%
- Native Hawaiian or Other Pacific Islander: 4.5%
- Asian: 2.8%
- Hispanic or Latino: 6.3%

Among U.S. adolescents, higher percentages of whites and Hispanics engaged in past-month binge drinking than did blacks or Asians.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2013.
National Spirit

Average alcohol consumption has fallen in many nations, but it has gone up in the U.K.

<table>
<thead>
<tr>
<th>Country</th>
<th>Annual alcohol consumption, liters per capita (15 years and older), 2007</th>
<th>Percentage change in annual per capita alcohol consumption, 1980-2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkey</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Norway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iceland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Korea</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Netherlands*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OECD average</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>United Kingdom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Czech Republic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denmark</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Austria*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>France*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hungary*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*2006
Source: Organization for Economic Cooperation and Development
### What's Your Country Drinking?

#### Vodka

<table>
<thead>
<tr>
<th>Country</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td>45.0%</td>
</tr>
<tr>
<td>U.S.</td>
<td>13.2</td>
</tr>
<tr>
<td>Ukraine</td>
<td>8.1</td>
</tr>
<tr>
<td>Poland</td>
<td>6.2</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>2.8</td>
</tr>
<tr>
<td>Others</td>
<td>24.8</td>
</tr>
</tbody>
</table>

45% of the world's vodka is sold in Russia.

#### Whiskey

<table>
<thead>
<tr>
<th>Country</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>46.7%</td>
</tr>
<tr>
<td>U.S.</td>
<td>14.4</td>
</tr>
<tr>
<td>France</td>
<td>4.8</td>
</tr>
<tr>
<td>Japan</td>
<td>3.4</td>
</tr>
<tr>
<td>U.K.</td>
<td>2.5</td>
</tr>
<tr>
<td>Others</td>
<td>28.2</td>
</tr>
</tbody>
</table>

#### Brandy

<table>
<thead>
<tr>
<th>Country</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>26.7%</td>
</tr>
<tr>
<td>Philippines</td>
<td>16.1</td>
</tr>
<tr>
<td>Russia</td>
<td>7.4</td>
</tr>
<tr>
<td>U.S.</td>
<td>6.3</td>
</tr>
<tr>
<td>Brazil</td>
<td>4.7</td>
</tr>
<tr>
<td>Others</td>
<td>38.8</td>
</tr>
</tbody>
</table>

#### Gin

<table>
<thead>
<tr>
<th>Country</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philippines</td>
<td>36.0%</td>
</tr>
<tr>
<td>U.S.</td>
<td>21.2</td>
</tr>
<tr>
<td>Spain</td>
<td>6.6</td>
</tr>
<tr>
<td>U.K.</td>
<td>5.1</td>
</tr>
<tr>
<td>India</td>
<td>4.3</td>
</tr>
<tr>
<td>Others</td>
<td>26.9</td>
</tr>
</tbody>
</table>

#### Tequila

<table>
<thead>
<tr>
<th>Country</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.</td>
<td>50.2%</td>
</tr>
<tr>
<td>Mexico</td>
<td>33.6</td>
</tr>
<tr>
<td>Russia</td>
<td>1.5</td>
</tr>
<tr>
<td>Germany</td>
<td>1.5</td>
</tr>
<tr>
<td>Canada</td>
<td>1.1</td>
</tr>
<tr>
<td>Others</td>
<td>12.0</td>
</tr>
</tbody>
</table>

#### Rum

<table>
<thead>
<tr>
<th>Country</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>31.8%</td>
</tr>
<tr>
<td>U.S.</td>
<td>15.8</td>
</tr>
<tr>
<td>Philippines</td>
<td>10.9</td>
</tr>
<tr>
<td>Cuba</td>
<td>4.1</td>
</tr>
<tr>
<td>Spain</td>
<td>3.0</td>
</tr>
<tr>
<td>Others</td>
<td>34.3</td>
</tr>
</tbody>
</table>
Frequency of drinking and of getting drunk during the last 30 days among European and American 15- and 16-year-olds, 2003. Data on European adolescents were taken from the 2003 European School Project on Alcohol and Other Drugs (ESPAD).

II. Cultural Types of Drinking

Religious/Ritual

Convivial/Social

Utilitarian/Hedonistic
III. Measures of Problem Drinking

Self–identity
Reasons
Frequency
Quantity
BAC levels
Contexts
Consequences
For example:

Date rape and violence
Alcohol-related vehicle crashes
Transportation workers
Lost work hours
Medical service costs and organs
FAS
Alcohol and Health

Thirty to fifty percent of all hospital admissions are for alcohol and other drug related diseases.

A partial list includes:

- Ulcers
- Colitis
- Birth Defects
- High Blood Pressure
- Damage to the Immune System
- Cancers of the Liver, Larynx, Esophagus, Stomach, Colon, and Breast
- Renal Failure
- Stroke

Source: DASPOP (Drug and Alcohol Service Providers Organization of Pennsylvania). Suite III, Host Inn, 4751 Lindle Road, Harrisburg, PA, 17111.
### Alcohol Involvement in Injuries and Deaths

<table>
<thead>
<tr>
<th>Injury Type</th>
<th>Percentage Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aviation deaths</td>
<td>14% to 32%</td>
</tr>
<tr>
<td>Drownings</td>
<td>34% to 62%</td>
</tr>
<tr>
<td>Fatal falls</td>
<td>21% to 48%</td>
</tr>
<tr>
<td>Fatal fires</td>
<td>30% to 54%</td>
</tr>
<tr>
<td>Traffic fatalities</td>
<td>41%</td>
</tr>
<tr>
<td>ATV fatalities</td>
<td>75%</td>
</tr>
<tr>
<td>Passenger and pedestrian deaths</td>
<td>33%</td>
</tr>
<tr>
<td>Nonfatal bicycle injuries</td>
<td>25% to 50%</td>
</tr>
</tbody>
</table>

### Alcohol Involvement in Injuries and Deaths as Estimated by Various Studies

<table>
<thead>
<tr>
<th>Category</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homicides</td>
<td>50%</td>
</tr>
<tr>
<td>Suicides</td>
<td>33-50%</td>
</tr>
<tr>
<td>Wife Beating Injuries</td>
<td>50%</td>
</tr>
<tr>
<td>Nonfatal Intentional Injuries</td>
<td>25-50%</td>
</tr>
<tr>
<td>Industrial/Occupational Deaths</td>
<td>9-40%</td>
</tr>
<tr>
<td>Nonfatal Unintentional Injuries Up to</td>
<td>50%</td>
</tr>
</tbody>
</table>

Campus Problems Associated With Alcohol

<table>
<thead>
<tr>
<th>Problem</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Problems</td>
<td>34</td>
</tr>
<tr>
<td>Dropouts</td>
<td>25</td>
</tr>
<tr>
<td>Violent Behavior</td>
<td>64</td>
</tr>
<tr>
<td>Damage to Residence Halls</td>
<td>69</td>
</tr>
</tbody>
</table>

Alcohol and Other Drug Problems in Business

- Alcohol use alone accounts for more than half of the estimated $102 billion lost each year to reduced and lost productivity\(^1\)

- Alcohol is involved in 47% of industrial accidents\(^2\)


Results of Alcohol Misuse

- 50% of Spouse Abuse
- 20-35% of Suicides
- 62% of Assaults
- 52% of Rapes
- 38% of Child Abuse
- 69% of Drownings
- 68% of Manslaughter Charges
- 49% of Murders
- 50% of Traffic Fatalities

Source: As reported in the NIAAA Sixth Special Report to Congress, 1997, 1993
• Fetal Alcohol Syndrome is the third leading cause of birth defects in the United States affecting 1 out of every 750 live births.

• FAS is caused by women drinking alcohol during pregnancy.

• Fetal Alcohol Syndrome is 100 percent preventable.

Indicator 40

**Arrests for Alcohol Offenses Have Decreased since the Early '80s**

Source: Substance Abuse The Nation's Number One Health Problem (Robert Wood Johnson Foundation).
Estimated Number of Arrests in the United States, 2011 (Top Ten Offenses)

Drug Abuse Violations: 1,531,251
Larceny-Theft: 1,264,986
Driving Under the Influence: 1,215,077
Disorderly Conduct: 582,158
Drunkenness: 534,218
Liquor Laws: 500,648
Aggravated Assault: 397,707
Burglary: 296,707
Vandalism: 237,638
Fraud: 168,217

Estimated Percentage of Weekend Nighttime Drivers with BACs $\geq 0.08$ g/dL

*The National Roadside Survey (NRS) is a stratified random sample of weekend nighttime drivers in the contiguous 48 states conducted by either the National Highway Traffic Safety Administration and/or the Insurance Institute for Highway Safety. In the 2007 survey, breath-alcohol measurements were obtained from 9,413 drivers.

Percentage of U.S. High School Seniors Reporting Driving After Heavy Drinking and/or Illicit Drug Use or Riding in a Vehicle After Such Use by the Driver, 2001 to 2006

Indicator 4

Economic Costs of Substance Abuse Are High, 1995

**Alcohol Abuse**

- $166.5 billion
- 46% Illness
- 21 Deaths
- 12 Medical
- 11 Other Related Costs
- 9 Crime
- 1 Special Conditions

**Smoking**

- $138.0 billion
- 58% Medical
- 36 Deaths
- 6 Illness

**Drug Abuse**

- $109.9 billion
- 58% Crime
- 16 Illness
- 15 Deaths
- 7 Medical
- 4 Special Conditions

Source: Substance Abuse The Nation's Number One Health Problem (Robert Wood Johnson Foundation).
Substances Used among Persons Enrolled in Substance Use Treatment: Single-Day Count (2013)\textsuperscript{16,17}

- Drug Use Only: 43.0%
- Alcohol Use Only: 17.4%
- Both Drug and Alcohol Use: 39.6%

1,249,629 People In Substance Use Treatment In a Single-Day Count

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey of Substance Abuse Treatment Services, 2013.