KEEPING SCORE ON ALCOHOL





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INTRODUCTION

rug Strategies prepares *Keeping Score* annually to capture the dimensions of the nation's drug abuse problems and to assess the impact of Federal spending to address these problems. This report, supported by a grant from the Carnegie Corporation of New York, is designed to help Americans understand the priorities reflected in Federal spending so that they can judge for themselves the effectiveness of Federal policies. *Keeping Score* also identifies strategies and programs that are making a difference in communities across the country.

As the nation enters the next millennium, we have chosen to focus *Keeping Score 1999* on America's most pervasive drug problem: alcohol. To underscore alcohol's far reaching effects on society, we examine drinking from many different perspectives including public health, criminal justice, the workplace, the impact on children and young adults, treatment and prevention. Among the nation's 113 million drinkers, 10 million are underage and 33 million binge drink (have five or more drinks at a time). An estimated 14 million Americans need treatment for alcohol problems. Alcohol-related deaths outnumber deaths related to illicit drugs four to one, and accidents, health problems, crime and lost productivity due to alcohol abuse cost \$167 billion each year.

Most Americans are well aware of the devastating toll illicit drugs take on the nation's health, safety and general well-being. Adults and children alike point to illicit drugs as one of the biggest problems facing youth today. However, underage drinking has not elicited similar widespread concern. Even though the costs of alcohol abuse to society are 50 percent greater than all illicit drug abuse costs combined, voters are not telling elected officials that alcohol abuse presents a pressing problem.

Although the nation has a clearly defined Federal strategy for combating illicit drug problems, with exact dollar figures tied to specific goals, the same cannot be said for alcohol. There has been relatively little Federal investment and no comprehensive strategy to address alcohol-related problems despite their pervasiveness and adverse consequences for public health and safety.

One of the Federal government's largest drug prevention initiatives—the Office of National Drug Control Policy's anti-drug media campaign—is aimed at preventing illicit drug use among youth. No similar effort exists for underage drinking. Yet, alcohol is the drug of choice among young people; more teenagers drink than use all illicit drugs combined. Federal funding for research on alcohol also has not kept pace with funding for research on illicit drugs.

Keeping Score 1999 explores the many dimensions of drinking among youth and adults and the myriad effects of alcohol on families and communities. Underage drinkers are much more likely than non-drinkers to participate in risky behaviors, such as unprotected sex and other drug use. Alcohol abuse is a factor in seven out of ten child abuse and neglect cases. Despite the well-known risks, drinking is increasing among pregnant women. Four in ten violent offenders report having been drinking when they committed their crimes.

Keeping Score 1999 also looks at the availability of alcohol in America and the impact on society. Alcohol excise taxes have not kept pace with inflation; a six-pack of beer is well within a youngster's budget. At least two-thirds of licensed alcohol outlets sell to underage buyers.

Despite the lack of concentrated Federal response to alcohol abuse, much has been learned over the past several years about pharmacological treatments for alcoholism, the effectiveness of brief interventions by physicians and the risks associated with early initiation of alcohol use. Nonetheless, significant problems remain. These problems will persist well into the next century unless greater leadership emerges to address alcohol abuse and its consequences.

TEENAGE ALCOHOL USE

lcohol is the drug of choice among youth. The total cost of underage drinking is more than \$58 billion annually, including costs from traffic accidents, violent crime, suicide attempts and treatment. Half of 12th graders have had at least one drink in the past month. According to the 1998 *Monitoring the Future Study*, which surveys junior high and high school students, more youth used alcohol in the past month than used all illicit drugs combined. Among 8th graders, for example, if the rates of past month use for marijuana, hallucinogens, cocaine, heroin, methamphetamine and barbiturates are added together, the total is lower than the rate of past month alcohol use (13 percent vs. 19 percent). The pattern holds true for older teens as well. Young people are also getting drunk more often than in

RISK OF ALCOHOL DEPENDENCE DROPS EACH YEAR DRINKING IS POSTPONED

60%
40%
30%
20%
10%
≤13 14 15 16 17 18 19 20 ≥21

Age of drinking onset

National Institute on Alcohol Abuse and Alcoholism, 1997

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the past. In 1998, one in three high school seniors reported being drunk in the preceding month, up 13 percent since 1993. Among teenagers and young adults, illicit drug use accounts for half as many deaths as alcohol-related traffic accidents alone.

Risks of Early Drinking

Many youth begin drinking at early ages, putting themselves at great risk for alcohol problems later in life. Almost one-third of teenagers report having had their first drink (more than a few sips) before their 13th birthday. According to the National Institute on Alcohol Abuse and Alcoholism (NIAAA), youth who drink before age 15 are four times more likely to develop alcohol dependence than those who begin drinking at age 21. For each year's delay in initiation of drinking, the likelihood of later alcohol abuse problems decreases markedly.

Youth who drink alcohol participate in other risky behaviors more often than those who abstain. According to the American Academy of Pediatrics, the more youth drink, the more likely they are to drink and drive, or ride in a car where the driver has been drinking. In addition, alcohol can impair adolescents' judgments about sex and contraception, placing them at increased risk for HIV infection, other sexually transmitted diseases and unplanned pregnancy.

Young drinkers use tobacco and other drugs more often than non-drinkers. The 1998 National Household Survey on Drug Abuse found that one in three youth aged 12 to 17 who used alcohol in the preceding month also used illicit drugs, compared to only one in 34

non-drinkers. Rates of illicit drug use continue to increase as the quantity of drinking rises. For example, among youth who binged in the past month (five or more drinks at a time), half also used illicit drugs; among youth who binged at least five times in the past month, two-thirds also used illicit drugs.

Teen Attitudes and Perceptions

Teenagers are not well informed about alcohol's effects. Nearly one-third of the teens responding to a 1998 American Academy of Pediatrics survey mistakenly believed that a 12 ounce can of beer contains less alcohol than a standard shot of distilled spirits. In addition, eight in ten teens said there is nothing wrong with underage drinking as long as teens are responsible about the amount they consume.

Despite the higher number of accidents and deaths associated with alcohol use, teens perceive alcohol to be less dangerous than other drugs. Almost half of teenagers (48 percent) viewed illicit drugs as the biggest problem facing their generation, while less than 10 percent cited alcohol.

Youth Prevention Efforts

Research over the past two decades supports the effectiveness of alcohol, tobacco and other drug prevention programs. In addition, these programs save money. For example, an economic analysis of the Midwestern Prevention Project found that every dollar spent on prevention programs saved \$68 per affected family in health and social costs.

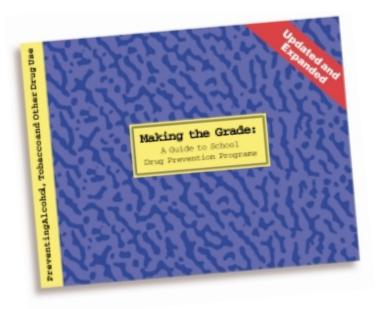
Project Northland, a prevention model supported by NIAAA, is aimed specifically at teenage alcohol use. The program stresses resistance techniques and decision making for middle school students; well-developed family materials are also included to strengthen relationGirls are drinking at earlier ages.

According to the National Household Survey on Drug Abuse, in 1995, 31 percent of girls used alcohol for the first time between the ages of 10-14, compared to 7 percent in 1965.

ships and communication. The program has been found to reduce teen drinking (as well as marijuana and tobacco use) and to change students' perceptions that drinking is normal teenage behavior.

Project Northland received an "A" in Drug Strategies' *Making the Grade: A Guide to School Drug Prevention Programs.* The guide assesses the extent to which prevention curricula address key areas and promote the necessary skills that research has shown to be essential for successful programming. The expanded 1999 edition of *Making the Grade*—which includes both alcohol- and tobacco-specific curricula—rates how well each program:

- helps students recognize internal pressures, like anxiety and stress, and external pressures, like peer attitudes and advertising, that influence them to use alcohol, tobacco and other drugs;
- develops personal, social and refusal skills to resist these pressures;
- teaches that using alcohol, tobacco and other drugs is not the norm among teenagers, even if students think that "everyone is doing it";
- provides developmentally appropriate material and activities, including information about the



short-term effects and long-term consequences of alcohol, tobacco and other drugs;

- uses interactive teaching techniques, such as role plays, discussion, brainstorming and cooperative learning;
- covers necessary prevention elements in at least ten sessions a year (with a minimum of three to five booster sessions in two succeeding years);
- · actively involves the family and the community;
- includes teacher training and support; and
- contains material that is easy for teachers to implement and culturally relevant for students.

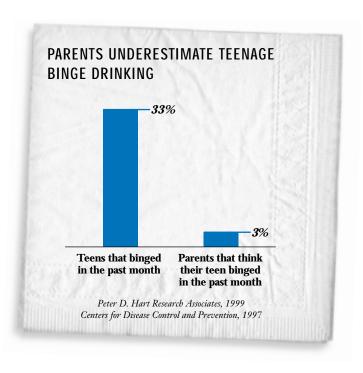
Parental involvement is critical to prevention. The more connected teens feel to their parents and schools, the less likely they are to drink, smoke and use other drugs, according to the 1997 report of the National Longitudinal Study of Adolescent Health. Unfortunately, fewer than one-quarter of parents give their children a no-use message about alcohol. A 1998 Hazelden Foundation survey found that only 23 percent of parents expressly forbid their children to drink before they reach legal age.

In addition, parents view drinking as a "lesser evil" compared with other drugs. In a 1997 Robert Wood Johnson Foundation survey, 56 percent of adults cited drugs as the biggest problem facing youth in America today. Despite the serious dangers associated with underage drinking and its widespread prevalence, only 8 percent of respondents mentioned alcohol. The view that underage drinking is not a big problem, or that it is somebody else's problem, may discourage parents from talking with their children. According to the Centers for Disease Control and Prevention (CDC), one-third of high school students have binged on alcohol in the past month; however, in a 1999 Peter Hart Poll, just 3 percent of high school students' parents thought their teen had done so.

Youth Access

Teenagers know how to get alcohol. Whether they obtain it from friends, siblings, unlocked liquor cabinets or licensed alcohol establishments, nearly 90 percent of 10th graders say alcohol is easy to get. When they first start drinking, most youth get alcohol from home, with or without their parents' permission. As they get older, teens are more likely to get alcohol from friends and siblings over age 21 and at parties.

Older teens are also more likely to report buying alcohol from licensed alcohol outlets. Minimum legal



drinking age laws, which set the legal drinking age at 21, exist in every state. In addition, it is illegal to sell alcohol to minors. However, many merchants do not comply with these laws. The CDC estimates that at least two-thirds of alcohol outlets sell to underage purchasers without asking for identification.

Underage drinkers also purchase alcohol through home delivery services. When alcohol is delivered, underage buyers are often not detected. For example, 10 percent of 12th graders report having successfully purchased alcohol through home delivery. Nonetheless, many states do not monitor home delivery services. A University of Minnesota survey found that agencies within the same states often differ as to whether or not home delivery of alcohol is allowed under state law.

Lax enforcement of the minimum legal drinking age laws sends young people a mixed message. Increased law enforcement, including the use of sting operations against alcohol merchants, is an important element of underage drinking prevention which has been shown to be effective. The Denver Police Department's compliance check program, aimed at packaged beer outlets, reported a decrease in sales to underage buyers from nearly 60 percent of attempts at the program's start to 26 percent after two waves of compliance checks. Other alcohol control policies can also help reduce underage drinking. For example, a 1996 study of bars in Minnesota found those with server training programs were 20 percent less likely to sell to minors than bars without such programs. Restricting drinking in public places where youth are known to drink, such as beaches, parks and parking lots, is also effective.

In 1998, Congress created a new \$25 million program in the Office of Juvenile Justice and Delinquency Prevention. The Combating Underage Drinking Initiative provides at least \$360,000 to each state to help stop illegal alcohol sales to minors and

In a 1999 Peter Hart Poll, one in four parents of 9th-12th graders said they would allow their teens to attend a Millennium New Year's Eve Party where they suspected alcohol would be served.



create new programs to prevent underage drinking. Some states have made good use of these funds. For example, North Carolina combined the funds with a grant from the Robert Wood Johnson Foundation to expand compliance checks, increase communication between local law enforcement and retailers, develop a media campaign, and reduce alcohol outlet density in targeted communities.

PREVENTION PROGRAMS

Joining Forces to Tackle Campus Drinking

In 1997, the Boston Coalition—a group formed in 1991 to fight substance abuse and reduce violence established the Task Force on Campus Drinking. Originally funded by the Federal Center for Substance Abuse Prevention, the Task Force united more than 24 colleges and universities in the Boston area in a cooperative agreement. In an intensive 1-year planning process, the schools developed a 53-point plan to decrease problem drinking and illegal drinking on campuses. The plan includes increasing the availability of alcohol-free programs and housing for underage students, prohibiting commercial delivery of alcohol to first-year residence halls, and enhancing support for students who need alcohol counseling. The plan also calls for prohibiting alcohol from fraternity and sorority rush activities; reducing alcohol advertising on campus; and imposing strict university penalties against the manufacture, sale, distribution or use of false ID cards. Regular meetings with local law enforcement, businesses, students, parents, alumni and other concerned citizens are part of the Task Force's collaboration. The project will be evaluated on an ongoing basis. For more details about the Task Force on Campus Drinking, call (617) 451-1441.

Highlighting Signs of Success

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Residents of some neighborhoods believe they have been specially targeted by advertisements that link alcohol with images of wealth, prestige, success and social approval. This is the case in Detroit, where up to 50 percent of the city's billboards once advertised

alcohol and cigarettes. In lower-income areas the figure was 58 percent, compared to 43 percent in higherincome neighborhoods. In 1988, Detroit residents created the Coalition Against Billboard Advertising of Alcohol and Tobacco (CABAAT). The Coalition was inspired by a rally protesting a Wild Irish Rose alcohol billboard located a few feet from a shelter for runaway teens. Led by Congressman John Conyers and City Council member Alberta Tinsley-Talabi, the rally motivated residents to call for tougher restrictions on billboard advertising. CABAAT's efforts made a difference. Neighborhoods where CABAAT was active saw a 50 percent decline in the number of alcohol billboards, according to a 1997 study by Wayne State University. In addition to its billboard crusades, CABAAT led substance abuse prevention and education workshops and provided technical assistance to other groups. Gratified at having met their goals, CABAAT leaders disbanded the group in 1999. To learn about CABAAT's history, contact Alberta Tinsley-Talabi at (313) 224-1645.

Cleaner, Drier Neighborhoods

Through the collaboration of residents, law enforcement officials and local leaders, neighborhoods can reduce their vulnerability to alcohol-related problems. Various communities in South Chicago have voted for a local ban on alcohol sales as a step toward revitalizing their neighborhoods. By closing local liquor stores, which can foster public intoxication, crime and neighborhood deterioration, leaders and residents aim to improve the community environment and attract

new businesses. In one South Chicago neighborhood, a local minister has spearheaded the effort to "go dry." In another church-based effort, an abandoned "booze house" was converted into a Christian bookstore with a cappuccino bar. Nineteen percent of the city's 2,500 precincts have voted to go dry or have supported partial bans, closing down alcohol outlets and other buildings considered dangerous. In order to buy alcohol, residents from these communities must go elsewhere—sometimes more than 15 blocks. Leaders hope the effort required to obtain alcohol will help reduce problem drinking. To learn more about the dry precincts initiative in South Chicago, call South Chicago's Local Liquor Control Commission at (312) 744-8071.

A Comprehensive Intervention

In 1993, Project Northland was established as a 3-year pilot study to help prevent youth drinking in ten Minnesota communities. Developed at the University of Minnesota with support from the National Institute on Alcohol Abuse and Alcoholism, the study included 24 Minnesota school districts, including schools on seven Native American Reservations with high rates of death and disability from alcohol abuse. In eight sessions each year, middle school students learn about the risks associated with drinking. Community strategies, action-based curricula and peer leadership activities all encourage positive individual behavior and environmental change. Students also develop decision making skills through role playing and receive take-home family assignments. In 1996, a 3-year follow-up study published in the American Journal of Public Health found that past month drinking rates among Project Northland youth were 28 percent lower than rates among youth who did not participate in the program (15 percent vs. 21 percent). To learn more about Project Northland, call (800) 328-9000.

Coalitions to Reduce Youth Drinking

Between 1995 and 1998, the Robert Wood Johnson Foundation (RWJF) awarded nearly \$14 million through its grant program Reducing Underage Drinking Through Coalitions. One of its grantees, the North Carolina Governor's Institute on Alcohol and Substance Abuse, used its nearly \$1 million grant to create the Initiative to Reduce Underage Drinking. Coalition activities have led to passage of two state laws: the first establishing mandatory minimum penalties for adults who provide alcohol to minors, and the second limiting alcohol outlet density in lowincome areas. A statewide media campaign to educate adults about the dangers of underage drinking, and a website to help inform alcohol retailers and licensed outlets, are other Initiative accomplishments. The American Medical Association's Office of Alcohol and Other Drug Abuse provides technical support and direction to the RWJF coalitions. A University of Minnesota evaluation of the multi-state project will be completed in 2001. For more information on Reducing Underage Drinking Through Coalitions, contact the American Medical Association's Office of Alcohol and Other Drug Abuse at (312) 464-4202; for details on North Carolina's Initiative to Reduce Underage Drinking, visit the Initiative at www.initiative.org or call (919) 990-9559.

ALCOHOL AND ADULTS

lcohol is the most widely abused drug among adults, especially among young adults.

According to the 1998 National Household Survey on Drug Abuse, one in three adults aged 18 to 25 are binge drinkers (at least five drinks at a time). Rates of binge drinking and heavy drinking (binging at least five times a month) are consistently higher among men than women. For example, 43 percent of men aged 18 to 25 are binge drinkers, compared to 21 percent of women. However, this gap may be closing; drinking rates are increasing much faster for teenage girls than for boys.

Problems on the Job

Eighty-five percent of heavy drinkers in the United States are employed—about 10 million people. Many more employees drink to a lesser degree. A common misconception among employers is that alcoholics are responsible for most of the workplace problems related to alcohol. However, according to the 1998 Corporate Alcohol Study by the Harvard School of Public Health, light and moderate drinkers cause 60 percent of alcohol-related incidents of absenteeism, tardiness and poor quality of work, while dependent drinkers cause 40 percent. The impact of even small amounts of alcohol on work performance is well-known. For example, commercial airlines prohibit their pilots from flying within 24 hours of consuming any alcohol.

The National Institute on Alcohol Abuse and Alcoholism (NIAAA) estimates that lost productivity due to drinking costs nearly \$70 billion each year. These estimates do not include the "secondhand" effects of alcohol

use. The Harvard study found one in five workers report being injured, having to cover for a co-worker, or needing to work harder due to other employees' drinking. Nearly one-third of workers who consider their jobs to be dangerous report experiencing "secondhand" alcohol effects.

The Harvard study suggests that companies should educate all employees about the effects of occasional excessive drinking (or any drinking during the workday) on job performance. Half of employees surveyed in the study supported random alcohol testing during the workday; nearly three-quarters of employees in manufacturing or transportation jobs supported testing.

Employer Intervention

Many employers offer employee assistance programs (EAPs) designed to promote healthy lifestyles for workers. An estimated 20,000 EAPs exist nationwide. According to the U.S. Department of Labor, for every dollar invested in an EAP, employers can save \$5-\$16.

Many companies do not have alcohol policies; those that do may not enforce them effectively. Nearly 60 percent of managers and supervisors say their companies are "tough" on illicit drugs but "soft" on alcohol; 80 percent say they have inadequate training in how to address employee performance problems. More managers (23 percent) and supervisors (11 percent) actually report drinking during the workday and at company functions than do other employees (8 percent), which may contribute to a corporate culture that encourages drinking.

According to a 1998 Peter Hart Poll, employers often encounter denial (75 percent) and anger

(42 percent) when they approach workers about alcohol problems. However, mandatory referral to treatment and the risk of job loss are strong motivations for treatment compliance. A 1996 study by the Pennsylvania Veterans Administration Center for Studies of Addiction found that employees who are required to enter alcohol treatment programs tend to perform as well in treatment as employees who voluntarily seek it. Drinking dropped 74 percent after six months of "coerced" treatment and 78 percent after six months of "self-referred."

Even when alcohol programs are available, many employees do not take advantage of them. Employers can encourage participation by informing employees about the confidentiality of programs designed to help workers deal with alcohol and other drug problems. Increased public education focused on treatment successes may encourage more participation in alcohol interventions among both employers and employees.

Children of Alcoholics

At least 11 million of the nation's children live in households with an alcoholic parent. According to NIAAA, these children are four times more likely than others to develop alcoholism in later life. Research consistently shows that genes play a role in the development of alcoholism, particularly among men. Those carrying a genetic risk for alcoholism do not inevitably develop the disorder; however, it may make youngsters more susceptible to the environmental stressors which contribute to alcoholism. Families of alcoholics are characterized by marital instability, lack of emotional support, poor discipline and family conflict. Children of alcoholics are more susceptible to alcohol cravings and have less effective biological responses to stress, both of which can make them

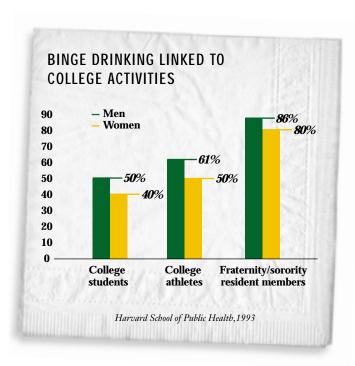
more likely to become alcoholics themselves, according to a 1998 Johns Hopkins University study.

College Binge Drinking

An increasing number of college students are drinking to get drunk. According to the 1997 College Alcohol Study conducted by Harvard University researchers, more than half of college students (52 percent) say they drink to get drunk, compared to 39 percent in 1993. Two in five college students nationwide binge drink (defined as five or more drinks at a time); one in five binge at least once a week.

There is some good news on campus: in 1997, 19 percent of college students abstained from drinking, up from 16 percent in 1993. However, students who abstain are still vulnerable to "secondhand" effects of drinking. On campuses with significant binge drinking activity, 90 percent of students report being pushed, hit or assaulted; experiencing an unwanted sexual advance; or otherwise being bothered by the alcohol-related behavior of other students.

Each year, college students spend approximately \$5.5 billion on alcohol—more than they spend on soft drinks, milk, juice, tea, coffee and books combined.



Students who binge drink are more likely than non-drinkers to be in trouble with campus authorities, experience injuries and display poor academic performance. Frequent binge drinkers are five times more likely than non-binge drinkers to engage in unplanned sexual activity and not to use protection. In a national 1997 George Mason University College Alcohol Survey, school administrators estimated alcohol played a role in 75 percent of acquaintance rapes.

Binge drinking is commonplace in fraternities and sororities. Four in five resident members are binge drinkers, compared to two in five students in the general college population. The trend is leading some Greek organizations to change their alcohol policies. For example, half of Phi Delta Theta fraternity affiliates nationwide have outlawed drinking in their houses.

College athletes are also more likely to drink heavily than other students. The Harvard College Alcohol Study found close to two-thirds of male college athletes are binge drinkers, as are half of female In January 1998, Secretary of Health and Human Services Donna Shalala called for colleges to sever the tie between college sports and drinking by following these guidelines:

- No alcohol advertising on the premises of an intercollegiate athletic event;
- No bringing alcohol to the site of an event;
- No turning a
 blind eye to
 underage drinking
 at tailgate parties
 and on campus; and
- No alcohol sponsorship of intercollegiate sporting events.



college athletes. Although student athletes drink more than other students, they smoke less. Researchers point out that athletes view smoking as harmful to their performance, while the same perception may not hold for drinking.

WORKPLACE PROGRAMS

Working With Employees

For over 30 years, Chevron's Employee Assistance Program (EAP) has offered help to employees who suffer from alcohol and other drug abuse problems. Chevron was the first major oil company to establish a substance abuse/mental health package with financial incentives for those who seek treatment: the company covers the first \$5,000 in treatment costs and 80 percent of the remaining costs. Through on-site EAP counselors, employees can obtain treatment referrals. Random drug tests and Breathalyzer tests are administered to employees during the work day; those who test positive are required to undergo a substance abuse assessment, after which EAP staff recommend an appropriate treatment plan. After completing treatment, employees are screened weekly for one year. Chevron's "return to work" contract requires employees who have undergone treatment to attend 12-step meetings, complete aftercare and contact EAP staff every two weeks for 21 months following treatment. Eighty percent of employees with alcohol problems have recovered and returned to work. Chevron estimates that at least 50 percent of employees who tested positive for alcohol or other drugs and have been formally referred would otherwise have been fired because of poor job performance. To learn more about Chevron's EAP, call (415) 894-0533.

Caring for Health Care Workers

Medical professionals have high rates of substance abuse. Two Colorado organizations address alcohol and other drug related problems among health care professionals. Launched in 1984, Peer Assistance Services (PAS) offers prevention and intervention services to nurses, pharmacists, dentists and other health care providers. PAS was developed by health care workers and provides assessment, referral to treatment, monitoring and follow-up services to approximately 150 nurses and heath care workers annually. PAS also maintains statewide peer support groups, a 24-hour assistance line, and serves about 1,000 people annually through prevention education programs. In 1994, the program received the Governor's Award for program excellence in the field of employee assistance programming. PAS receives funding from the Colorado Department of Health and Human Services.

The Colorado Physician Health Program (PHP) provides assessment, referral, monitoring and support to physicians in need of health care, particularly addiction treatment. PHP was established in 1986 by the Denver Medical Society, Copic Insurance Company and a local physician. Most doctors who participate in the program are self-referred or referred by colleagues. Typical treatment involves outpatient care as well as inpatient services for those with concurrent mental health problems or other complications. PHP is funded by Colorado physician and physician assistant license fees.

For more information on Peer Assistance Services, call (303) 369-0039. For information on the Colorado Physician Health Program, call (303) 860-0122.

WORKPLACE PROGRAMS

TIPS on Responsible Service

Restaurants and bars can help combat public intoxication as well as drinking and driving. Through role playing, Training for Intervention Procedures (TIPS) teaches bartenders and waiters how to identify and stop serving customers who have had too much to drink. TIPS also educates the public about responsible drinking. TIPS was developed in 1982 by Dr. Morris Chafetz, the founding director of the National Institute on Alcohol Abuse and Alcoholism (NIAAA). A 1987 NIAAA evaluation indicated that no customers served by TIPS-trained servers left the establishment legally intoxicated, compared to nearly 40 percent of customers served by non-trained servers. The initial success of TIPS led to the development of programs to reach other alcohol-serving venues, including "Off Premise, Concessions and Social Functions," "TIPS for Casinos," and "University, Parents and the Workplace." TIPS has certified over 25,000 trainers and almost one million servers throughout the United States and abroad. Many insurance companies offer liquor liability discounts of up to 25 percent to TIPS graduates. TIPS also has a toll-free information line and a quarterly newsletter. For more information, visit the TIPS website at www.gettips.com or call (703) 524-1200.

Uniting to Tackle Alcohol

In 1992, the International Brotherhood of Electrical Workers voted to implement a Member Assistance Program (MAP) to promote safe working conditions, family unity and worker health. Peer Group Assistance, a key part of MAP, educates workers about substance abuse and treats those with alcoholism and other addictions. Peer group members are trained to identify co-workers who need treatment, and with the help of other union members, employees are taught to "unlearn" alcohol-related problem behaviors. Peer groups meet regularly for additional training and ongoing mutual support. Through September 1999, 1,056 employees, spouses and children have used the program, which has led to decreased health care costs and increased member satisfaction. The program is supported by the Union Benefits Fund and contributions from employers. For more details about Peer Group Assistance, call (630) 416-2183.

PRICING, AVAILABILITY AND ADVERTISING

Alcohol Excise Taxes

ost young people can easily afford to buy alcohol. In real dollars, alcohol costs less today than in 1981 because alcohol excise tax rates have failed to keep up with inflation. According to the Beer Institute's 1998 annual report, brewers can look forward to increased domestic sales over the next several years if they "can avoid significant new tax or regulatory measures." With a cost as low as \$4, the average teenager can easily afford to buy a six pack of beer.

Researchers at the National Bureau of Economic Research estimate that if alcohol taxes had kept pace with

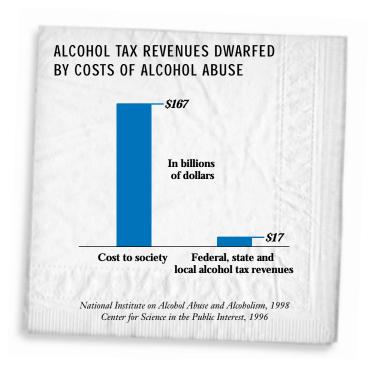
number of youth who drink beer would have declined by 24 percent.

Underage drinkers are not the only consumers affected by the cost of alcohol. Price increases reduce consumption rates among adult heavy drinkers, with subsequent reductions in cirrhosis levels; a 9 percent drop in cirrhosis deaths corresponds to every 10 percent increase in alcohol tax rates.

A 1998 Robert Wood Johnson Foundation survey found that eight in ten Americans support a tax increase on alcohol to fund youth prevention and treatment efforts. Increasing alcohol excise taxes can provide a substantial source of new revenue; several states, including New Mexico and Montana, use a portion of alcohol excise taxes to support alcohol treatment.

The Federal government also collects alcohol excise taxes: 5¢ per 12 ounce can of beer, \$2.14 for a 750 ml. bottle of distilled spirits and an average of 42¢ for a 750 ml. bottle of wine. However, alcohol excise tax revenues pale in comparison to the costs alcohol imposes on society; in 1995, alcohol costs were estimated at nearly \$167 billion while combined Federal, state and local alcohol tax revenues reached just \$17 billion.

In 1998, alcohol excise taxes collected by the Federal government totaled \$7.5 billion. This revenue, which goes into the general treasury fund along with



tobacco excise tax revenue, is not earmarked for alcohol prevention and treatment programs.

State alcohol excise tax rates depend to some degree on the influence of the alcohol industry. For example, the average state excise tax on beer is 19¢ per gallon, while the tax rates in Missouri (home to Anheuser-Busch) and Wisconsin (home to Miller Brewing) are only 6¢ per gallon. Although taxes on tobacco products have been rising, most states have failed to take advantage of the power of alcohol tax increases to both prevent alcohol abuse and generate revenue. In 1998, state tobacco excise tax revenues totaled \$7.7 billion, compared to \$3.8 billion in alcohol excise taxes.

The armed forces' zero-tolerance policy and prevention efforts have effectively reduced illicit drug use within the four branches of the military. In a 1998 survey, less than 3 percent of military personnel reported using illicit drugs in the past month—half the rate among adults in the general population. In contrast, the rate of heavy drinking in the military is nearly 3 times that of adults nationwide (16 percent vs.

Alcohol Pricing in the Military

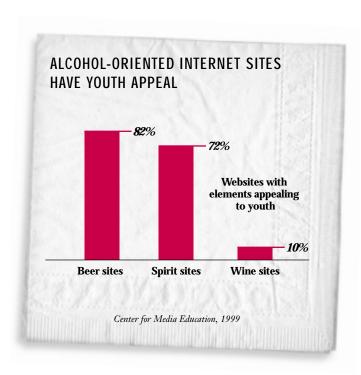
Historically, there has been no regulation of prices of alcoholic beverages sold on military bases, which have averaged 50 percent below market value. In response to high rates of alcohol abuse within the military, in 1998 the Department of Defense ordered retail outlets on military bases to raise the prices of distilled spirits. Prices are now required to be comparable to those in the surrounding communities. However, similar pricing regulations do not apply to beer and wine.

Alcohol Availability

The availability of alcohol within a community can influence drinking rates and related problems. For example, a 1994 study of alcohol outlet density in Los Angeles County found a 0.5 percent increase in motor vehicle accidents for every 1 percent increase in the number of alcohol outlets.

In some cities, outlets licensed to sell alcohol for off-premises consumption (i.e., not a restaurant or bar) tend to be concentrated in low-income neighborhoods with high percentages of minority residents. In Washington, D.C., nearly 80 percent of alcohol outlets in wards with predominantly African American residents are licensed for off-premises consumption, compared to just over 20 percent of outlets in other wards. Liquor or convenience stores can create additional problems, such as street-corner drinking, which degrade neighborhoods. A 1999 study of off-site alcohol outlets in New Orleans found a 2 percent increase in the homicide rate for every 10 percent increase in the density of alcohol outlets.

According to a 1998 Robert Wood Johnson Foundation survey on youth access to alcohol, two in three Americans favored the right of voters to pass local laws controlling the sale and consumption of



alcohol in individual communities. Chicago residents are using the ballot to reduce alcohol availability in their communities; 19 percent of the city's precincts have voted themselves dry, or opted to close problematic establishments.

Alcohol on the Internet

The Internet is gaining popularity as a place for beer, wine and liquor manufacturers to promote their products. According to the Center for Media Education, alcohol websites on the Internet have grown from 43 in 1997 to 77 in 1999. The Center reports that more than half contain elements that are appealing to youth, such as cartoons, games and youth-oriented language. Beer sites were the most likely to have these elements (82 percent), followed by spirits sites (72 percent) and wine sites (10 percent). Less than half of the sites require visitors to be of legal age to view the material, but even when sites screen viewers, most

barriers are ineffective; a youngster can easily enter a false birth date to gain entry.

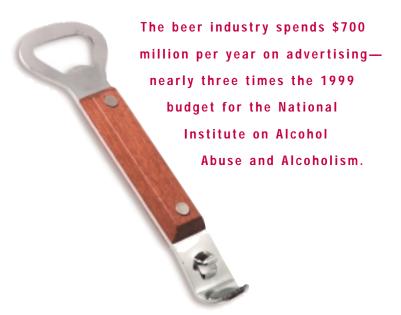
A new challenge in regulating alcohol access is the use of the Internet to purchase alcohol. Verifying legal age is even more problematic when the purchase takes place in cyberspace; age verification is not even required on all sites. Research on the effect of home delivery on underage drinking has not yet explored the impact of Internet sales.

Alcohol Advertising

Alcohol manufacturers spend more than \$1 billion each year advertising their products. Miller Brewing alone spends nearly as much money on advertisements (about \$240 million) as the Federal government spends on alcohol research through NIAAA (\$259 million in 1999). Broadcast advertising receives the lion's share of media spending by manufacturers of beer (89 percent) and wine (66 percent). In 1996, the nation's distillers decided to lift their 50-year self-imposed ban on broadcast advertising, and in 1997, spending on television and radio ads reached \$10 million.

Billboard advertising is also a popular medium for promoting alcohol, especially in minority neighborhoods. For example, in San Francisco, African American neighborhoods have more than three times as many alcohol billboards per capita as white neighborhoods, and Latino neighborhoods have more than twice as many. Some cities have banned outdoor alcohol advertisements. In 1997, the Supreme Court let stand an advertising ban on alcohol and tobacco ads in Baltimore. Since then, numerous cities have launched partial or complete bans, including Chicago, Los Angeles, Milwaukee and Tucson.

Alcohol advertisers promote their products through placement in movies, and pay a premium to



have their brands featured in films. Among the most popular movie rentals in 1996 and 1997, drinking was depicted in more than 90 percent; alcohol brand names were identified in 43 percent of these films. Even movies for children show characters drinking. A 1999 study published in the *Journal of the American Medical Association* found that among 50 G-rated animated movies made in the past 60 years, half portrayed alcohol use, and half of the drinkers were "good" characters. None of the films depicted the negative health consequences of alcohol use.

Exposure to alcohol ads may predispose young people to drinking. A 1994 study in Northern California found that 5th and 6th graders who recognized beer advertisements held more favorable beliefs about drinking and intended to drink more frequently later in life. A 1999 Federal Trade Commission report on alcohol industry advertising practices found the need for reducing the appeal of ads to underage consumers, curtailing underage exposure to alcohol ads through changes in placement, restricting placement of

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products to R and NC-17 rated films, and curbing oncampus and spring break sponsorships and advertising.

Although advertising by beer and distilled spirits companies has largely disappeared from college newspapers since passage of minimum legal drinking age laws, in its place promotions for local alcohol retailers, bars, taverns and distributors have grown significantly. The Center for Science in the Public Interest (CSPI) found that between 1984 and 1996, the average space in college newspapers devoted to advertising by local alcohol outlets increased by 68 percent. CSPI's analysis revealed that in 1996, one-third of the local alcohol ads promoted heavy drinking, including "all you can drink" events and "penny a pitcher" nights. Bar promoters also distribute handbills to students on campus and stuff student mailboxes with promotional material.

Companies outside the alcohol industry also use alcohol to sell their products to college students. In the Fall of 1998, for example, Abercrombie and Fitch included ten recipes for mixed drinks and instructions for a drinking game in its back-to-college catalogue under the heading "Drinking 101." The material was eventually removed, but only after strong public opposition from groups such as Mothers Against Drunk Driving.

In recent years, the alcohol industry has taken steps toward encouraging responsible drinking. For example, in 1999, Anheuser-Busch launched a \$40 million "Responsible Drinking" campaign to run on television, radio, print and billboard ads. The campaign focuses on reinforcing the efforts of designated drivers, bartenders who serve drinks responsibly, parents who talk to their children about drinking and retailers who check identification.

ALCOHOL AND CRIME

Arrests for Drinking and Driving

ccording to the U.S. Department of Justice, one in ten arrests nationwide in 1997 was for driving under the influence of alcohol (DUI)—one arrest for every 122 licensed drivers. Nonetheless, DUI arrest rates have declined since 1983, when the rate peaked at one DUI arrest for every 80 licensed drivers.

Some states have laws designed to prevent DUI offenders from continuing to drink and drive. In 1988, Maine lowered the legal blood alcohol content (BAC) limit from .10 to .05 for people with previous DUI convictions. By 1994, fatal car accidents involving previously convicted drunk drivers had declined by 25 percent. Meanwhile, the rest of New England experienced increases in fatal accidents involving repeat offenders. Maine now prohibits individuals with previous DUI convictions from driving with any alcohol in their blood. Both Utah and Maryland also have such policies for DUI offenders, and North Carolina has a .05 BAC limit for these drivers. However, no other New England state has adopted such laws.

The Legal Limit Debate

Research indicates that BAC levels as low as .02 affect driving ability and crash rates. Compared to sober drivers, drivers with BACs between .02 and .04 have twice the risk of being in a fatal crash; those with BAC .05-.09 have 11 times the risk. According to the National Highway Traffic Safety Administration (NHTSA), the vast majority of drivers are impaired at

In 1998, 38 percent of fatal traffic accidents in the United States were alcohol-related; on New Year's Day, the figure was 51 percent.

.08 BAC with regard to critical driving tasks, including braking, steering and lane changing. Studies find that performance of some of these tasks decreases by up to 70 percent at .08 BAC.

Seventeen states and Washington, D.C. have lowered their BAC limits from .10 to .08. A 1998 survey conducted by Mothers Against Drunk Driving (MADD) found that 70 percent of Americans supported the .08 BAC threshold. In 1998, Congress created an incentive program which authorized \$500 million in Federal grants over six years to states that use a .08 BAC limit.

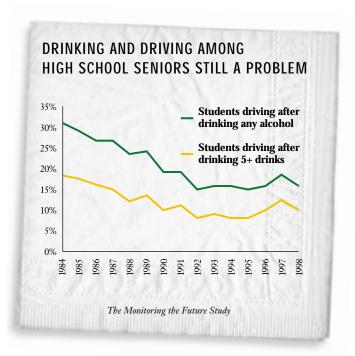
There has been a significant national debate over the effectiveness of lowering the legal limit to .08 BAC. According to the General Accounting Office,

a .08 BAC law is not sufficient to deter drinking and driving; however, it can enhance the success of a larger, comprehensive package of measures aimed at decreasing drinking and driving rates. NHTSA and MADD support such comprehensive strategies, including license revocation at the arrest scene, sobriety checkpoints, reduced BAC limits for DUI offenders, alcohol interlock devices, mandatory treatment and graduated licenses for youth.

Policies to Reduce Drinking and Driving

Policies aimed at teens, such as the minimum legal drinking age and "zero tolerance" laws (no alcohol for underage drinkers) have helped reduce drinking and driving among youth. Since 1975 traffic deaths involving drivers aged 18 to 20 have dropped 13 percent, saving more than 18,000 lives.

Social pressure can enhance the general deterrent effect of laws as shown by the success of the



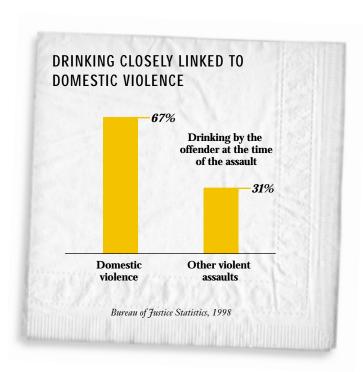
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designated driver campaign. A couple or group selects one person to abstain from drinking and be responsible for driving, while the others are free to drink or not as they choose. Between 1988 and 1992, more public service announcements were aired about designated drivers than about any other subject. In addition to commercials, dialogue was included in top-rated television series regarding the importance of designated drivers. Gallup surveys indicated the success of the campaign in changing drivers' behavior. In September 1988, two months prior to the campaign's start, 62 percent of all respondents said they and their friends regularly used a designated driver. By mid-1989, that figure rose to 72 percent. Among male respondents, use of designated drivers increased from 54 percent to 71 percent.

University of Michigan researchers say waning prevention messages aimed at younger drivers may lead to a resurgence of drinking and driving among youth. According to *Monitoring the Future*, the percent of teens who reported driving after drinking in the past two weeks dropped by half between 1984 to 1995, from 31 percent to 15 percent; however, in recent years, the rate has stabilized, and even increased slightly to 16 percent in 1998. In addition, an increasing number of teenagers say they have been in a car with a driver who has been drinking.

Alcohol and Violent Crime

Alcohol is closely linked with violence. According to the Bureau of Justice Statistics, many more violent crimes are committed under the influence of alcohol than all other drugs. In 1995, four in ten probationers reported drinking at the time of a violent offense, compared to one in ten who reported other drug use.



A 1990 review of 15 studies found that approximately 60 percent of people convicted of homicide were drinking at the time of the offense. According to the National Institute on Alcohol Abuse and Alcoholism, drinking by the victim, the assailant or both is also involved in over half of sexual assaults. A large number of probationers have alcohol problems. For example, half have had alcohol-related domestic disputes and almost one-third have been in a physical fight after drinking.

The relationship between alcohol and violence is obvious in trauma centers. A 1993 study of emergency room (ER) trauma found that patients with violence-related injuries were at least twice as likely to have been drinking than patients with injuries from other causes. Overall, heavy drinkers and people with a history of treatment for alcohol abuse are overrepresented in ER populations. In addition, a 1999 Johns Hopkins University study found that almost

one-third of people who are murdered or die of injuries (other than traffic crash injuries) are legally drunk at the time of death.

Family Violence

Drinking is closely linked to violence against intimates. More than two-thirds of victims in cases of domestic violence (spouses or significant others) report that the offender was using alcohol, compared to fewer than one-third of cases where the assailant is a stranger. In many domestic violence cases, both the assailant and the victim have been drinking. Half of alcoholic women have been victims of domestic violence.

Alcohol abuse frequently plays a role in child abuse and neglect cases. Alcohol and other drug abuse by a parent or guardian is involved in 7 out of 10 cases of child abuse and neglect; 90 percent of child welfare professionals cite alcohol as the drug of choice in these cases.

According to a 1993
study conducted by
the Research Institute
on Addictions, nearly
nine in ten alcoholic
women were physically or
sexually abused as children.

CRIMINAL JUSTICE PROGRAMS

Locking Out Drunk Drivers

While many law enforcement programs help identify drunk drivers on the road, modern technology can keep them from driving at all. The Ignition Interlock device, which connects a Breathalyzer to the automobile ignition, is widely used as a sanction for drivers convicted of driving under the influence (DUI), as an alternative to long-term license revocation. DUI probationers must blow into the device before starting their vehicles; if they have been drinking, their ignitions will not operate. The Ignition Interlock device also includes random re-tests while the car is in motion; if the driver fails the test, the device sets off a blaring horn and flashing headlights. In Hancock County, Indiana, for example, almost all repeat DUI offenders had the Ignition Interlock device in their cars by 1993. Between 1990 and 1995, DUI arrests in Hancock County dropped 40 percent. Local law enforcement officials attribute the drop to the Ignition Interlock Program. For more information about the Hancock County Ignition Interlock Program, call (317) 462-4617.

Working MADDly Against Underage Drinking

Underage drinking costs society more than \$58 billion a year. Mothers Against Drunk Driving (MADD) uses grassroots efforts to reduce the economic and human costs associated with underage drinking and alcohol-related crashes. Founded in 1980 by Candy Lightner, whose daughter was killed by a drunk driver, MADD's 600 chapters are dedicated to stopping drinking and driving and underage drinking. MADD's Youth In

Action campaign began in 1996 to combat underage drinking through close monitoring of alcohol sales to minors, merchant compliance and use of fake identification. The campaign is expanding thanks to a new partnership with the Office of Juvenile Justice and Delinquency Prevention. Funding for MADD comes from its three million supporters, as well as the U.S. Department of Transportation. Students Against Drunk Driving (SADD) was formed in 1981, changing its name to Students Against Destructive Decisions in 1998, to include all the problems faced by teenagers today, including violence and drug use. Rating the States, MADD's report card on state policies related to drinking and driving, sets high standards for state lawmakers. Visit MADD's website at www.madd.org or call (214) 744-MADD.

A Sobering Alternative

In the early 1990s, public intoxication and disorderliness were overwhelming problems for Santa Barbara's Police Department (SBPD). In 1994, SBPD established California's fourth Community Sobering Center.

Administered by Thresholds to Recovery—an employment agency for recovering alcoholics and other drug addicts—the Sobering Center serves intoxicated individuals who otherwise would be charged with disorderly conduct or first-time driving under the influence offenses. Instead of arresting intoxicated offenders, local police take them to the Sobering Center for a minimum stay of four hours. Offenders are allowed a maximum of five Sobering Center visits per year without arrest. The Sobering Center served more than

4,900 individuals between 1994 and 1998, giving police more time on the streets and less time processing paperwork. Although the program has not been formally evaluated, more than 600 participants have entered treatment since its inception. The Community Sobering Center is funded by SBPD. For more information, call (805) 966-3017.

Investing In Safety

A 1997 Robert Wood Johnson Foundation survey found that 82 percent of Americans would be willing to raise alcohol taxes by 5¢ per drink if the funds supported alcohol prevention and treatment programs for youth. Several states do allocate excise tax revenues for such programs as well as education and law enforcement efforts which address drinking and driving. In West Virginia, all of the revenues from a 6 percent excise tax on alcoholic beverages sold in clubs are used to fund the State Police Commission on Drunk Driving Prevention. In 1998, revenues were nearly \$1 million. Since 1983, the funds have provided grants to police departments throughout the state to help fund overtime patrols, sobriety checkpoints and studies of local drunk driving trends. The Commission's efforts helped reduce alcohol-related traffic fatalities in the state from 243 in 1983 to 145 in 1998 (a 40 percent decline). Raising alcohol excise taxes has other benefits: research indicates that higher prices reduce alcohol consumption, as well as alcohol-related crime, traffic fatalities and cirrhosis mortality. For more information about West Virginia's State Police Commission on Drunk Driving Prevention, call (304) 746-2120.

Checking On Drivers

Sobriety checkpoints are a visible way for police officers to deter drunk driving. According to the National Highway Traffic Safety Administration (NHTSA), checkpoints can reduce alcohol-related crashes by at least 15 percent, saving lives and saving communities millions of dollars. In 1993, Tennessee law enforcement agencies entered a partnership with NHTSA to establish the Statewide Sobriety Checkpoint Program. Every county in the state actively implemented sobriety checkpoints, which were publicized through public service announcements. Nearly 900 new checkpoints were established throughout the state. Each weekend, there were checkpoints in at least four counties, and in all counties on five weekends during the program year. Checkpoints involved license examination and random testing to determine whether a driver had been drinking. In the first year of the program, 145,000 vehicles were checked and over 9,000 drivers were detained for further investigation. The incorporation of sobriety checkpoints resulted in a 20 percent reduction of alcohol-related crashes and extensive cost savings. For more information about Tennessee's Statewide Sobriety Checkpoint Program, call (615) 741-0065.

ALCOHOL AND HEALTH

Health Risks

early 110,000 people die every year from alcohol-related causes—more than four times the number of deaths from illicit drug use. Indeed, alcohol-related mortality ranks third among causes of death in the United States, and alcoholism is associated with 25 percent of all general hospital admissions. One of the more common health problems associated with heavy drinking is liver disease, which affects more than 2 million Americans. Up to 40 percent of heavy drinkers develop alcohol cirrhosis (or scarring of the liver), a leading cause of death among young and middle-aged adults in the United States. Heavy drinking is also associated with increased risk of high blood pressure, heart disease, stroke, certain forms of cancer and pancreatitis. Moreover, alcohol depresses the immune system, which may increase susceptibility to infectious disease and cancer, according to the National Institute on Alcohol Abuse and Alcoholism (NIAAA).

Alcohol abuse has been linked with high-risk sexual behavior, which contributes to the spread of sexually transmitted diseases. According to NIAAA, alcohol abusers have an increased risk of exposure to HIV (the virus which causes AIDS), due to a higher number of sex partners and reduced likelihood of using condoms. Alcohol is also a factor in 50 to 65 percent of suicides among youth.

Moderate Drinking

NIAAA defines "moderate drinking" as two drinks a day for men, and only one drink a day for women and anyone age 65 and over. Moderate drinking may decrease the risk of heart disease among those at greatest risk, such as men over age 50 and postmenopausal women.

The Federal government's *Dietary Guidelines for Americans* cites evidence of the lower risk of heart disease for moderate drinkers. However, moderate drinking can also increase the risk of other health problems (such as liver disease and cancer). In 1999, the Bureau of Alcohol, Tobacco and Firearms decided to allow wine producers to put labels on their products recommending that consumers talk with their physicians about the health effects of drinking wine. According to a marketing manager for the wine company Robert Mondavi Coastal, "[Health] announcements are increasing consumption more than anything else."

A 1999 National Health and Nutrition Examination survey found that one in four people over age 65 are either binge drinkers or heavy drinkers.

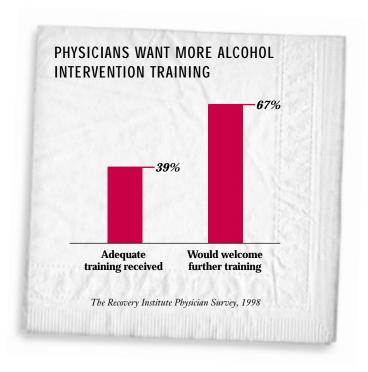
Alcoholic beverages (primarily wine and beer) recently replaced coffee as Americans' favorite dinner drink.

As people age, their bodies are less able to break down alcohol; what is considered moderate drinking in young adulthood can cause problems if continued later in life. While moderate drinking is believed to help prevent heart attacks in certain aging populations, rates of alcohol-related admissions for the elderly in some hospitals are comparable to admissions for heart attacks. The message can be confusing: drink moderately to protect your health but not enough to endanger it. In addition, the elderly often use both prescription and over-the-counter medications, many of which can interact lethally with alcohol. NIAAA advises those who take medications to abstain from alcohol.

According to NIAAA, all persons age 65 years and older should consume no more than one drink per day. Symptoms of alcohol problems among the elderly, such as stomach problems, delirium and falls, often are mistaken for other conditions associated with aging; as a result, alcohol abuse in this population tends to go undiagnosed.

The Role of Primary Care

One in five patients treated in general medical practices drink at levels that increase health risks. Brief intervention, involving early detection of alcohol abuse, can be conducted in general health care settings by health professionals who do not specialize in addiction treatment. The physician can convey information about health risks associated with drinking, recommend behavioral changes, and provide guidance for limiting alcohol use. Studies of these brief interventions show drops in alcohol consumption averaging 27 percent. Brief interventions are also effective for motivating patients to enter treatment for alcohol depend-



ence, and reducing problem drinking among the elderly. A University of Wisconsin study found a nearly 75 percent reduction in binge drinking among patients aged 65 and older who received brief interventions from their physicians.

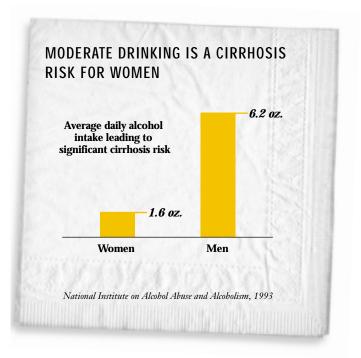
Since 11 million children live with an alcoholic parent, pediatricians should expect to encounter families with alcoholism regularly. In 1997, a panel of experts led by the National Association for Children of Alcoholics developed materials to help health care professionals identify and assist these children.

Despite the success of brief intervention, in a 1998 national Peter Hart Poll conducted for the Recovery Institute, 82 percent of doctors said their peers avoid addressing alcohol problems with patients. A possible explanation for physician inaction is denial by drinkers; seven in ten doctors said when they raise concerns about alcohol use, patient denial is the most common reaction.

According to the American Medical Association, several other factors also contribute to physicians' failure to address alcohol abuse among patients: lack of training, lack of time with patients, and lack of awareness of treatment availability and effectiveness. Close to two-thirds of the doctors surveyed said their training in recognizing and responding to alcoholism is less than adequate, and nearly one-fifth said they received no such training in medical school. Lack of training does not necessarily indicate a lack of interest; more than two-thirds of the doctors said they would welcome further training on alcohol problem intervention.

Health Impact on Women

Women are at increased risk of developing certain alcohol-related health problems because of how they metabolize alcohol. For women, the risk of developing liver cirrhosis is significant at less than two drinks a day (1.6 oz. pure alcohol), whereas for men the risk is not significant until they consume at least six drinks



per day (6.2 oz. pure alcohol). Women also become intoxicated more easily than men for several reasons. First, women produce less dehydrogenase (an enzyme that breaks down alcohol), so that alcohol is more likely to be absorbed in its most potent form. As women age, this enzyme gradually becomes less effective, allowing more and more undiluted alcohol into their systems. Second, women usually have less body mass in which to distribute the alcohol than men. Third, estrogen enhances alcohol absorption, which is particularly important for women taking birth control pills or hormone replacement therapy. Because alcohol is so easily absorbed into women's bloodstreams, health complications tend to begin earlier in women—after 13 years of alcohol consumption compared to 22 years for men.

Women who drink also have an increased risk for breast cancer. According to a 1998 analysis by the Harvard School of Public Health, women consuming two to five drinks per day have a 41 percent greater risk for breast cancer than non-drinkers. In addition, drinking is associated with fertility problems, even for women who have less than one drink a day.

Women of different ethnicities experience varying degrees of alcohol-related health problems. Although heavy drinking rates are comparable for African American and white women, alcoholic African American women are nearly twice as likely to die from cirrhosis.

Drinking by Pregnant Women

According to the CDC's Behavioral Risk Factor Surveillance System, the rate of drinking during pregnancy increased more than 60 percent between 1992 (9.5 percent) and 1995 (15.3 percent). These women are unlikely to seek treatment due to the stigma attached to alcohol use during pregnancy. The recent increase in drinking among pregnant women is a signal that health care providers must reinforce the message of abstinence during pregnancy and increase referrals to alcohol treatment programs.

To increase social pressure against drinking during pregnancy, the Federal government mandated that all alcoholic beverage containers carry warning labels regarding the dangers to pregnant women. But these messages compete with others which portray moderate drinking during pregnancy as benign. For example, The Girlfriend's Guide to Pregnancy, a popular, nonprofessional guide through pregnancy, tells its readers, "...women who are coming to the end of a healthy and uneventful pregnancy deserve an occasional glass of wine before bed." In addition, the Wine Institute's website, under the heading of women's health, states, "...light drinking has not been associated with any harm to the health of the unborn child or mother." While it is unclear whether there is a minimum amount of alcohol that must be consumed before damage to the fetus occurs, there is also no proof that small amounts of alcohol are safe.

Fetal Alcohol Syndrome

When a pregnant woman drinks, blood alcohol levels in mother and fetus are almost equal within minutes after consumption. *In utero* alcohol exposure, usually heavy drinking, can cause fetal alcohol syndrome (FAS), the leading preventable cause of birth defects in the United States. FAS is a serious, lifelong condition characterized by facial abnormalities, arrested growth, central nervous system deficits including learning and developmental disorders, and mental retardation. Alcohol exposure *in utero* also disrupts normal development of the immune system. Lifetime costs associated with one case of FAS are estimated to be \$1.4 million. The cost of treating all

A 1998 study conducted at the University of Washington found that prenatal alcohol exposure is more predictive of adolescent drinking than is family history of alcohol problems.

FAS-affected children and adults in the United States for one year is estimated at \$1.9 billion.

The prevalence of FAS is not really known since there is no single reporting system from which to calculate statistics. NIAAA estimates that as many as 3 in every 1,000 children born in the United States has FAS—nearly double the incidence of Down's syndrome and almost five times that of spina bifida. In addition, Fetal Alcohol Effects (FAE), a less severe cluster of abnormalities, are estimated to occur three times more often than FAS. Studies suggest that genetics may play a role in susceptibility to FAS; risk of FAS is seven times higher among African Americans than whites, even when alcohol intake is comparable. Similarly, among some Native American populations, more than 10 in every 1,000 children are born with FAS.

Few physicians are trained to recognize FAS and FAE; the physical features are often hard to recognize at birth, and it can be years before the mental deficits are detectable. According to the National Organization on Fetal Alcohol Syndrome, as many as two-thirds of all children in special education classes have been affected by alcohol in some way.

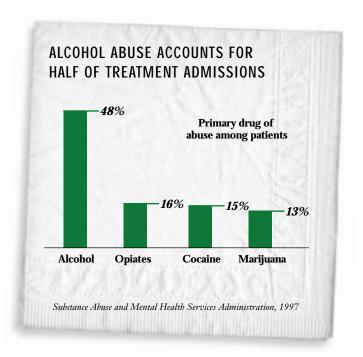
Many children with FAS and FAE are unable to understand cause-and-effect relationships and long-term consequences; in addition, damage to the central nervous system creates behavior problems for these children. Under-reporting of the disorders makes it difficult to identify those needing intervention.

TREATMENT FOR ALCOHOL PROBLEMS

Treatment Effectiveness

ccording to the Substance Abuse and Mental Health Services Administration (SAMHSA), alcohol abuse was involved in over 70 percent of substance abuse treatment admissions in 1997, and about half of people entering treatment reported alcohol as their primary drug of abuse. Opiates, the next most commonly used drugs, accounted for 16 percent of admissions, followed by cocaine at 15 percent.

The 1997 National Treatment Improvement Evaluation Study of addiction treatment effectiveness found a 70 percent reduction in the number of clients reporting problems with alcohol in the year following treatment. The study also found that arrests among



treatment clients decreased by nearly two-thirds, alcohol and other drug-related medical visits decreased by over 50 percent and suicide attempts decreased by 40 percent.

Treatment also reduces social costs. Treatment accounts for only 13 percent of the \$167 billion in annual alcohol-related costs. However, the 1994 California Drug and Alcohol Treatment Assessment (a statewide evaluation of treatment outcomes and cost-effectiveness) found that \$1 invested in alcohol and other drug treatment saved taxpayers \$7 in future spending associated mainly with criminal justice and health care costs. In 1996, a statewide study of the costs and benefits associated with treatment in Ohio found a \$4 return for every \$1 spent, even when treatment achieved only a 50 percent abstinence rate. Reductions in criminal justice costs accounted for the bulk of cost savings in both studies.

Self-Help Programs

Community-based, self-help programs designed to serve alcoholics are widely available; the most well known is Alcoholics Anonymous (AA). An estimated 6 million people have attended AA. Many intensive treatment programs require participation in a self-help group. AA consists of fellowship meetings, a one-to-one sponsor system and the 12-step philosophy, with no ties to any formal counseling. In addition to self-help programs for alcoholics, related organizations, like Al-Anon and Alateen, support families and friends of alcoholics.

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It is difficult to study AA's effectiveness in part because of the anonymity of its members; however, a 1990 study of alcohol treatment outcomes found AA participation to be the only significant predictor of sobriety during long-term follow up. Becoming an AA sponsor was an even greater indicator of success, with 91 percent of sponsors reporting sobriety.

Pharmacological Treatments

The development of medications to reduce relapse and to increase abstinence has evolved substantially over the past several years. Naltrexone was originally approved in 1984 to treat heroin addiction. In 1994, the Food and Drug Administration approved naltrexone to treat alcoholism. Patients treated with both naltrexone and outpatient therapy are twice as likely to abstain from any drinking and from reverting back to heavy drinking than patients only receiving outpatient therapy.

However, naltrexone is not widely prescribed, in part because some treatment providers are reluctant to treat a drug problem with a drug. In addition, naltrexone has not been extensively marketed to primary care providers, the major point of treatment contact for most alcoholics.

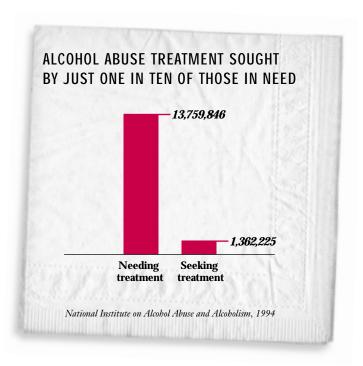
In addition to naltrexone, research trials on new drugs show promise for future success. A study of nalmefene, for example, found that alcoholic patients who received the drug were 58 percent less likely to relapse than patients who received a placebo. And while findings from U.S. trials on acamprosate have not yet been published, the drug has been found effective in various European trials and has been approved in France since 1989.

Naltrexone is the first medication approved to treat alcohol dependence since the 1940s. In contrast, the last two decades have seen development of dozens of medications to treat clinical depression.

The next step in pharmacological advancements will be combining medications which act on different brain receptors in order to improve outcomes. In 2000, the National Institute on Alcohol Abuse and Alcoholism (NIAAA) plans to launch Project Combine to test whether these combinations, along with counseling, can significantly improve alcoholism treatment.

Alcohol and Nicotine Addiction

An estimated 80 to 95 percent of alcoholics are heavy smokers—three times the rate in the general population. Studies of the links between drinking and smoking suggest smoking may trigger relapse among alcoholics who have completed treatment. According to NIAAA, smoking and alcohol dependence can be treated simultaneously without endangering alcoholism recovery. In addition, treating both dependencies can significantly reduce risks for hypertension and certain forms of cancer.



Treatment Access

Approximately 14 million Americans have alcohol abuse problems serious enough to require treatment. However, only one in ten individuals who need treatment have sought it. Financial, geographic and cultural barriers to treatment; denial that treatment is needed; and concern about the stigma of alcoholism are primary reasons.

Women are also less likely than men to receive treatment for alcohol problems. Doctors are more likely to identify men than women with drinking problems. One possible explanation is that men more often exhibit public signs of problem drinking, while women may experience less obvious symptoms, such as depression. In addition, police are less likely to arrest women than men for drunk driving, which means fewer women face court-ordered treatment.

One of the most significant barriers to alcohol treatment is the cost. As cost containment has become a national priority, significant changes have occurred in the financing of alcohol treatment services. The

field has seen reductions in inpatient care; increases in outpatient care, including outpatient detoxification; fewer individual therapy sessions and more group therapy sessions; and use of less costly providers. One of the greatest challenges facing alcohol treatment providers is maintaining the quality of care in the face of these constraints. Many physicians have little confidence in the effectiveness of treatment. According to a 1998 Peter Hart Poll conducted for the Recovery Institute, doctors believe that fewer than one-third of alcoholics in treatment are able to achieve lifelong recovery. In addition, treatment approaches known to be effective in reducing alcohol use, such as use of medications combined with counseling, are underutilized partly because of their higher cost.

Parity for alcohol and other drug treatment—insurance coverage on par with other medical services—would make treatment more accessible. Typically, health plans and third-party payers provide less coverage for alcohol and other drug abuse treatment than for other medical services. Some insurance companies provide none. Federal parity legislation would not only increase access to treatment but would also help stimulate development of treatment medications and protocols, which the current system discourages.

Many fear parity because of the anticipated cost to third-party payers. However, a series of studies published in 1998 and 1999 showed that the costs of parity are small, while the benefits to individuals, employers and society are significant. One report conducted by SAMHSA found that parity would increase insurance premiums by only 0.2 percent. Nonetheless, no Federal parity legislation has been passed, and only five states have passed parity laws. President Clinton has called for all Federal employee health plans to include substance abuse and mental health treatment parity by 2001, which may help spur Congress and states to follow suit.

Increasing access to treatment services may lead to small increases in up-front costs, but the long-term savings make it cost-effective. Health care costs for treated alcoholics are nearly 25 percent lower than for untreated alcoholics. General health care costs for families of alcohol abusers can be as much as three times higher than those for other families. However, these costs also drop substantially after successful treatment.

Youth Treatment

Although nearly half of adult treatment participants report alcohol as their primary drug of abuse, only one-third of adolescents in treatment report major alcohol problems. The number of youth in alcohol and other drug abuse treatment programs rose by more than one-third between 1992 and 1997. However, adolescents continue to be underserved.

According to the 1998 National Household Survey on Drug Abuse, only 16 percent of 12-17 year olds dependent on alcohol or marijuana had received any treatment.



Adolescents have unique treatment needs.

Concurrent mental illness; legal problems; family and community environment; and emotional, intellectual and physical development must all be considered in planning effective treatment. It is also critical to meet the educational needs of youth in treatment.

Treatment for adolescents should encourage family involvement, incorporate a wide range of social services, and provide aftercare services to reinforce progress achieved in treatment.

In addition to developing more youth-specific treatment approaches, SAMHSA recommends screening youth to identify those most likely to have addiction problems. This includes teens who exhibit warning signs of abuse, including substantial behavioral changes, significant changes in academic performance, trauma injuries, and contact with the juvenile justice system or the child welfare system. Homeless and runaway teens in shelters, and all teens who receive mental health assessments should also be screened for addiction treatment needs. According to SAMHSA, adolescents with severe emotional and behavioral problems are significantly more likely to have alcohol and other drug abuse problems than other adolescents.

ADDICTION RECOVERY PROGRAMS

12 Steps Toward Recovery

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Since 1935, alcoholics have sought help at Alcoholics Anonymous (AA). A grassroots network, AA advances the concept that alcoholism is a lifelong illness that can only be changed through abstinence. AA members adopt a daily recovery approach based on anonymous self-help meetings. The confidentiality and support offered in AA meetings began as part of the movement's Twelve Traditions—the origin of today's 12-Step recovery program endorsed by the Alcoholics Anonymous International Convention in 1950. AA's 12-Steps offer guidance in maintaining a healthy lifestyle throughout the recovery process. AA was the first in a group of 12-Step recovery models that also includes Narcotics Anonymous, Gamblers Anonymous and Overeaters Anonymous. AA is self-governed, and each group is free to develop its own schedule and meeting style. AA is also self-supporting and declines any outside contributions. While members are not required to pay fees, contributions are solicited from attendees. AA has more than 2 million members throughout the world. Families and teenagers whose lives are affected by a family member's alcoholism may attend Al-Anon Family Groups or Alateen sessions. To learn more about Alcoholics Anonymous, visit its website at www.alcoholics-anonymous.org or call (212) 870-3400.

The Road to Recovery

In 1982, after her own struggle with alcoholism, Betty Ford established a recovery center for individuals with alcohol and other drug problems. The Betty Ford Center in Rancho Mirage, California offers inpatient and outpatient treatment, as well as child and family programs. Treatment components include individual counseling, lectures, films and group therapy based on the 12-steps of Alcoholics Anonymous. Treatment teams include medical professionals, therapists and nutritional specialists. Following graduation from inpatient care, patients are encouraged to stay clean and sober by participating in 12-step meetings, an aftercare program and alumni renewal meetings and reunions. With 47 chapters in the United States, Europe and Pacific areas, members can regularly attend meetings with other Betty Ford Center graduates. Since the Center was established in 1982, more than 36,500 patients have received treatment. Each year, the Center awards \$1 million in patient scholarships. For more details, visit the Betty Ford Center website at www.bettyfordcenter.org or call (760) 773-4121.

A Step in the Right Direction

In 1949, the Hazelden Foundation was established to treat adults with alcohol and other drug problems. Treatment services take place at Hazelden's 488-acre campus in Center City, Minnesota. The Alcoholics Anonymous 12-step philosophy is an integral part of

Hazelden's treatment approach. Upon program completion, professional staff including psychologists, certified counselors, nurses and case managers help clients access local resources as well as Hazelden alumni as part of their continuing care. Other services include a Women and Children's Recovery Community and a mental health program, as well as centers for renewal, recreation and education. The University of Minnesota Department of Psychiatry completed a study of 1,083 clients admitted between 1989 and 1991. One year after treatment, 53 percent of Hazelden clients remained abstinent, and an additional 35 percent had reduced their alcohol and other drug use. In addition, up to 80 percent had improved relationships with friends and family and reported better job performance. To learn more, visit the Hazelden website at www.hazelden.org or call (800) 257-7810.

Just What the Doctor Ordered

In the past several years, research on pharmacological treatments for alcohol dependence has evolved substantially. U.S. clinical trials of naltrexone and nalmefene, and European studies of acamprosate, have found that combining medication with outpatient therapy reduces relapse, heavy drinking and alcohol cravings. A pilot study in Washington State found naltrexone to be an effective addition to traditional treatment of alcohol dependence. Naltrexone decreased the craving for alcohol among 72 percent of participants and helped maintain total abstinence for 50 percent of patients. In addition, 72 percent of patients who did resume drinking while taking naltrexone drank less

than they did before starting the medication.

Naltrexone also reduced use of other drugs. These results prompted the State Medical Assistance

Administration to authorize use of naltrexone in state-certified substance abuse treatment programs.

To learn more about naltrexone, contact the Center for Substance Abuse Treatment at (301) 443-6549.

Screening for Alcohol

The first National Alcohol Screening Day (NASD), a program of the National Mental Illness Screening Project (NMISP) and the National Institute on Alcohol Abuse and Alcoholism, took place in April 1999. The goal of NASD is to boost public awareness of alcohol problems, and refer individuals with these problems to treatment. At NASD sites, individuals can be screened for alcohol problems through the Alcohol Use Disorders Identification Test (AUDIT), a written screening tool developed by the World Health Organization. Educational presentations, brochures, videos and posters help participants learn to recognize alcohol problems and how to find help. NASD is a free, anonymous program. In its first year, over 1,700 sites, including 500 colleges, participated in NASD. Out of the 30,000 people screened for alcohol problems, 29 percent from college sites and 38 percent from other sites were referred for treatment. The next NASD will be held in April 2000. Funding for NASD is provided by NIAAA, the American Psychiatric Foundation and Charter Behavioral Health Systems. To learn more about National Alcohol Screening Day, call (781) 239-0071.

FEDERAL FUNDING TO REDUCE ALCOHOL ABUSE

espite the costs of alcohol abuse to the nation, estimated at \$167 billion annually, no comprehensive Federal strategy has been developed to reduce this problem. Federal spending on alcohol problems does not begin to compare with expenditures for reducing illicit drug use, for example. In Fiscal Year 1999, alcohol-specific programs funded by the Federal government totaled less than \$1 billion (compared to \$18 billion for illicit drug programs). This figure does not include spending on alcohol prevention and treatment initiatives in numerous Federal agencies, since funds for these initiatives are embedded in other programs and cannot be determined.

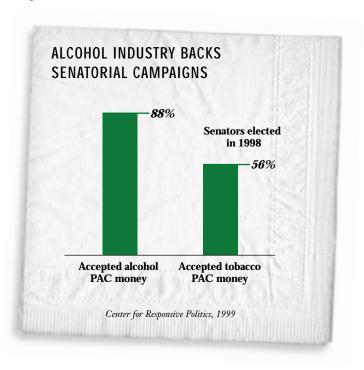
Even efforts aimed at reducing underage drinking take a back seat to efforts aimed at other drug problems. For example, the Federal government's current \$1 billion anti-drug media campaign is dedicated to preventing the use of illicit drugs. According to the Office of National Drug Control Policy, some private donors to the campaign have requested that their funds be spent on alcohol prevention (\$10 million as of September 1999). However, no Federal funds have been used for this purpose.

Although the rate of alcohol abuse in the military is three times as high as in the civilian population, alcohol abuse does not receive the same level of attention as illicit drugs. The Prevention Safety and Health Promotion Council in the Department of Defense is the first effort which coordinates alcohol abuse, smoking and injury prevention activities across all branches of the military. Although the Secretary of Defense has approved

the Council's charter, no funds have been assigned to the project. However, individual branches support alcohol-specific programming; for example, the U.S. Navy's Right Spirit Campaign to deglamorize and combat alcohol abuse is funded at \$735,000.

Alcohol research suffers the same disadvantage as prevention. Since 1985, funding for the National Institute on Drug Abuse has increased seven fold, rising from \$81 million to \$600 million in 1999. In contrast, the budget for the National Institute on Alcohol Abuse and Alcoholism has increased just four fold, from \$62 million to \$259 million.

Several Federal agencies do support important initiatives to reduce alcohol abuse and related problems. For example, in Fiscal Year 1999, the Department of Transportation (DOT) spent \$57 million on incentive grants to states that use a .08 BAC limit. Additional



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alcohol-related research, incentive grants and an impaired driving program funded by DOT totaled \$46 million. Department of Education programs aimed at reducing drinking and related problems totaled \$2.4 million, primarily for higher education. The Centers for Disease Control and Prevention spend \$4.5 million on activities related to Fetal Alcohol Syndrome and alcohol-related injuries. Thirty-five percent of the Substance Abuse and Mental Health Services Administration's \$1.5 billion Substance Abuse Block Grant is allocated for alcohol treatment.

Federal grantees have discretion to implement substance abuse programs even if they do not have a specific mandate to address alcohol or to report on spending for alcohol programs. For example, the Department of Education's Safe and Drug-Free Schools and Communities Program supports drug and violence prevention programs, which often include alcohol prevention. Similarly, the Drug-Free Communities Support Program, funded at over \$100 million over five years, supports anti-drug community coalitions, many of which address underage alcohol use. The Department of Defense has \$14.5 million for medical research, some of which is used to examine causes of heavy drinking in the military; however, the Department does not report how much funding is used for this specific project.

The lower priority assigned to alcohol compared with other drugs may be due in part to voter attitudes. Voters have demanded action to stop illicit drug problems, but have not expressed similar concerns about alcohol. Most voters are not aware of the costs associated with alcohol abuse, and Congress does not hear from large numbers of constituents that alcohol abuse presents a pressing problem.

The alcohol industry pays careful attention to the legislative process and commits considerable resources

The alcohol industry is a firmly bipartisan donor. Among Senators elected in 1998, 94 percent of Republicans and 83 percent of Democrats accepted alcohol PAC money. By comparison, only 56 percent of the same candidates accepted tobacco PAC money—94 percent of Republicans, but just 22 percent of Democrats.

to making its concerns known to elected officials. Trade groups such as the Distilled Spirits Council of the United States, the National Beer Wholesalers Association and the Wine and Spirits Wholesalers of America represent alcohol industry interests to the media, the public and especially the government. Through its political action committees (PACs), the alcohol industry gave \$2.3 million to Federal candidates during the 1997-1998 campaign cycle—as much as contributions by the tobacco industry, 21 percent more than the gun lobby (\$1.9 million), 77 percent more than the dairy industry (\$1.3 million) and twice the contributions made by the livestock, poultry and egg industries combined (\$1.1 million). Thirty out of 34 Senators elected in 1998—including 15 Republicans and 15 Democrats—accepted contributions from alcohol PACs totaling more than \$400,000.

Drug Strategies fully recognizes the devastating impact of illicit drug use on Americans and has for years promoted more effective approaches to this problem. At the same time, the costly consequences of alcohol abuse must also be acknowledged. Without Federal leadership—concentrated, coordinated programs with well-defined goals and adequate funding—the enormous cost of alcohol abuse in both human and economic terms will only increase.

PETER D. HART RESEARCH ASSOCIATES POLL CONDUCTED FOR DRUG STRATEGIES

Findings from a Recent Survey Conducted Among Parents on the Topic of Youth and Alcohol

From October 8 to 17, 1999, Peter D. Hart Research conducted a nationwide telephone survey among a representative sample of 574 parents of 10-to 17-year olds, including 296 parents of high school students. The margin of error is +4.2 among all parents of children aged 10 to 17 and +5.8 among parents of high school students. The findings are presented below.

As a parent, which ONE of the following activities do you worry most about your child doing?

	All Parents	Parents of 9th-12th Graders
Using drugs	21%	22%
Having sex	14%	14%
Drinking alcohol	5%	7%
Smoking cigarettes	4%	3%
All (volunteered)	39%	38%
None (volunteered)	16%	15%
Not sure	1%	1%

Thinking about the same list of activities, please tell me which ONE you think can best be described as a rite of passage for teenagers and is something that is really not that harmful.

	All Parents	Parents of 9th-12th Graders
Smoking cigarettes	17%	17%
Having sex	10%	10%
Drinking alcohol	6%	7%
Using drugs	2%	1%
All (volunteered)	15%	19%
None (volunteered)	47%	43%
Not sure	3%	3%

Suppose your child were invited to a New Year's Eve party to celebrate the Millennium where you suspected that alcohol was going to be served, but you knew that everyone would be required to give their keys to the host and that no one would be able to drive themselves home afterwards. How likely would you be to allow your child to go to that Millennium party?

	All Parents	Parents of 9th-12th Graders
Definitely would allow	9%	9%
Probably would allow	14%	16%
Probably would NOT allow	14%	16%
Definitely would NOT allow	59%	55%
Depends (volunteered)	3%	2%
Not sure	1%	2%

Do you think your child has ever had a drink of alcohol in (his/her) life that was more than just a few sips?

	Parents of 9th-12th Graders	9th-12th Graders*
Yes, has had a drink	42%	79%
No, has not had a drink	56%	21%
Not sure	2%	

During the past thirty days, do you think that your child has had five or more drinks of alcohol in a row, that is, within a couple of hours?

	Parents of 9th-12th Graders	9th-12th Graders*
Yes, has had five or more drinks	3%	33%
No, has not had five or more drinks	95% 2%	67%
Not sure	L /0	

^{*}Data from the Youth Risk Behavior Survey (YRBS), Centers for Disease Control and Prevention, 1997.

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Drug Strategies

The mission of Drug Strategies is to promote more effective approaches to the nation's drug problems and to support private and public initiatives that reduce the demand for drugs through prevention, education, treatment and law enforcement.

This project is guided by Drug Strategies' Board of Directors as well as by a distinguished panel of experts from many fields, including law, medicine, criminal justice, public health and education. We are grateful for their help and their wisdom. However, *Keeping Score* reflects the judgment of Drug Strategies alone, not necessarily the views of our advisors or funders.

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*The National Institute on Alcohol Abuse and Alcoholism has reviewed

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