Highlights
Chapter V – Substance-Free Adolescents

When adolescents use alcohol or other drugs, at best they compromise their ability to make safe and healthy decisions. Teen substance use cuts across race and ethnicity, geographic and socioeconomic lines, and the cost to society is enormous.

Colorado Trends

- ***Alcohol Abuse*** – Sixty percent of 8th graders, 76 percent of 10th graders and 84 percent of high school seniors report alcohol use at least once in their lifetime. Two in five 12th graders, nearly a third of 10th graders, almost a fourth of 8th graders and nearly one-tenth of 6th graders admit to binge drinking.
- ***Drug Abuse*** – By 12th grade, 52.5 percent of the students reported having used marijuana at least once, and about 25 percent reported using marijuana in the 30 days preceding the survey.
- ***Early Initiation*** – Youth in 7th grade report increases in reported risk for every outcome measure, including alcohol, smokeless tobacco, cigarette use, marijuana, cocaine, LSD, stimulants, inhalants and other illegal drugs.

2000 Objectives

Progress Report

Reduce Alcohol Use

- By 2000, decrease to 40.0% the proportion of high school students who report having drunk alcohol in the past month, from the 1990 baseline of 59.9%

  Status: Objective not met. Teen drinking declined to 50.9%

  Source: 2001 Colorado Youth Risk Behavior Survey

Reduce Binge Drinking

- By 2000, reduce to 30.0% the proportion of high school students who report having drunk five drinks in a row (binge drinking), from the 1990 baseline of 38.7%

  Status: Objective not met. Binge drinking declined to 34.3%

  Source: 2001 Colorado Youth Risk Behavior Survey

Reduce Marijuana Use

- By 2000, reduce to 10.0% the proportion of high school students who report having used marijuana in the past month, from the 1990 baseline of 15.9%

  Status: Objective not met. Marijuana use increased to 30.2%

  Source: 2001 Colorado Youth Risk Behavior Survey,

Best Practices

- ***Parents*** – Parents can model responsible behavior, educate themselves about teen drug abuse, give and enforce clear messages about alcohol and other substances, and get involved and stay involved with local and school prevention efforts.
- ***Schools*** – Schools can systematically address risk behaviors through health education, communication and peer-resistance skills, family-community involvement, health services, and counseling. Colorado's school-based health centers are an important venue for substance abuse services.
- ***Communities*** – Health care providers who serves teens should routinely take a history and provide counseling on common risk factors. Policy-level approaches include strengthening enforcement of DUI laws for youth; lowering the blood alcohol content threshold for youth and imposing a zero-tolerance policy for drinking and driving; and enacting keg registration laws. Other approaches include substance abuse training for all those who work with teens to recognize signs of substance abuse; improving, expanding and funding existing prevention programs; and encouraging the hospitality sector to engage in responsible alcohol service, making food available to patrons and not serving those under the age of 21.

2010 Objectives

Reduce Substance Abuse Among High School Students

- By 2010, reduce the proportion of high school students who had a least one drink of alcohol on one or more of the past 30 days to 40%, from the 2000 baseline of 50.9%
- By 2010, reduce the proportion of youth who had five or more drinks of alcohol in a row, within a couple of hours, on one or more of the past 30 days (binge drinking) to 25%, from the 2000 baseline of 34.3%
- By 2010, reduce the proportion of high school students who used marijuana in the past 30 days to 18%, from the 2000 baseline of 30.2%
  Source: 2001 Colorado Youth Risk Behavior Survey

Reduce Substance Abuse Among Middle School Students

- By 2010, reduce the proportion of eighth grade students who had a least one drink of alcohol on one or more of the past 30 days to 23.9%, from the 2000 baseline of 34.2%
- By 2010, reduce the proportion of eighth grade students who used marijuana in the past 30 days to 11.8%, from the 2000 baseline of 15.7%
  Source: Colorado Youth Survey, Colorado Department of Human Services

Websites

Alive @ 25: A Survival Course in Traffic Safety
Developed by the National Safety Council
www.aliveat25.com

American Council for Drug Education
www.acde.org

Center for Adolescent Health and Development
www.allaboutkids.umn.edu/cfahad

Center for Enforcing Underage Drinking Laws
www.udetc.org

Center for the Study and Prevention of Violence
www.colorado.edu/cspv

Child Fatality Review Committee, CDPHE
www.cdphe.state.co.us/pp/cfrc

Child Trends
www.childtrends.org

Children Now
www.childrennow.org

Children's Safety Network

Economics and Insurance Resource Center
www.csneirc.org

Colorado Attorney General's Office
www.ago.state.co.us

Colorado Department of Human Services, Alcohol and Drug Abuse Division
www.cdhs.state.co.us/ohr/adad/index.html

Colorado State Patrol
www.csp.state.co.us

Colorado Trust
www.coloradotrust.org

Federal Interagency Forum on Child and Family Statistics
www.childstats.gov

Guide to Community Preventive Services, CDC
www.thecommunityguide.org

Harvard School of Public Health, College Alcohol Study
www.hsph.harvard.edu/cas

Healthy Generations
www.epi.umn/mch/healthygenerations/hga.html

Henry J. Kaiser Family Foundation
www.kff.org

Mothers Against Drunk Driving (MADD)
www.madd.org

National Center on Addiction and Substance Abuse
www.casacolumbia.org

National Criminal Justice Reference Service
www.ngjrs.org

National Highway Transportation Safety Administration
www.nhtsa.org

National Institute on Drug Abuse
www.drugabuse.gov

National Safety Council
www.nsc.org

Office of Juvenile Justice and Delinquency Prevention
US Department of Justice
www.ojjdp.ncjrs.org

Rocky Mountain Center for Health Promotion and Education
www.preventioncolorado.org

Robert Wood Johnson Foundation
www.rwjf.org

Substance Abuse and Mental Health Services Administration
www.samhsa.gov

Talking With Kids About Tough Issues
www.talkingwithkids.org

Treatment Episode Data Set (TEDS)
Substance Abuse and Mental Health Services Administration
www.samhsa.gov/oas/dasis.htm#teds2

Underage Drinking Enforcement Training Center
www.udetc.org

US Department of Education
www.ed.gov

Chapter V
Substance-Free Adolescents: Alcohol And Other Drugs

When adolescents use alcohol, other drugs[1] or substances such as inhalants, tranquilizers or hallucinogens,[2] at best they compromise their ability to make safe choices and good decisions in their daily routines – whether it is relations with the opposite sex, dealings with peers, driving to the store, riding a bicycle or skiing down a hill. At worst, they can die or kill someone else. Substance use cuts across race and ethnicity, geographic and socioeconomic lines,[3] and the cost to society is enormous.

Nationally, substance abuse and addiction added at least $41 billion to the cost of elementary and secondary education in 2000, due to class disruption and violence, special education and tutoring, teacher turnover, truancy, academic failure, student assistance programs, property damage, injury and counseling. Costs associated with use of alcohol by youth are over $52 billion for medical expenses, the criminal justice system, loss of future earnings, property damage and lost quality of life. [4]

Use of alcohol or other drugs impairs judgment, a skill that adolescents are still developing. Substance abuse is associated with mood changes, memory loss and brain damage, thus increasing the chances of a variety of education-related issues, including poor school performance, truancy, academic failure, dropping out of school and limited expectations for higher education. (See Figures 1 and 2.)

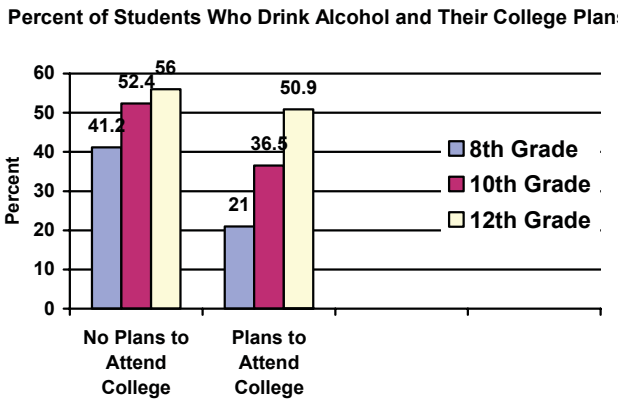

Figure 1: *Source*: National Center on Addiction and Substance Abuse, *Malignant Neglect*, p.20.

Using alcohol and other drugs makes it more difficult to negotiate a way out of trouble in the areas where teens have minimal experience or are just learning to negotiate, such as sexual activity, driving (especially at night), critical decision making, dealing with peers or developing their own identities. Adolescent use of alcohol and other drugs increases the risk of becoming a teen parent, engaging in other high-risk sexual behavior, being injured or injuring others, experiencing physical and mental health problems, and becoming involved with the criminal justice system.[5]

Alcohol

Alcohol, the most commonly used drug during adolescence, is a major contributing factor in approximately half of all youth homicides, suicides and motor vehicle crashes. Motor vehicle crashes, followed by homicides and suicides, are the leading causes of death and disability among young people. (See Chapters II, III, and IV.)

The younger and more often a teen drinks, the higher the risk of developing alcohol-related problems: 26.9 percent of adults who began drinking before they reached the legal drinking age report having alcohol-related problems, compared to only 11 percent of those who begin drinking only after they reach the legal drinking age. The prevalence of alcoholism among those who begin

This chapter addresses teen use of alcohol and other drugs. Chapter VI deals with adolescent use of tobacco products. This chapter explores:

- Trends in adolescent use of alcohol and other drugs
- Particular risks and protective factors (social bonding to family, community and school, health beliefs, and clear standards for behavior may influence youth to avoid drug use and other risky behaviors) specific to drugs and alcohol
- Data snapshots highlight drinking and driving, binge drinking, inhalants and club drugs
- Best practices for preventing drug and alcohol use among teens

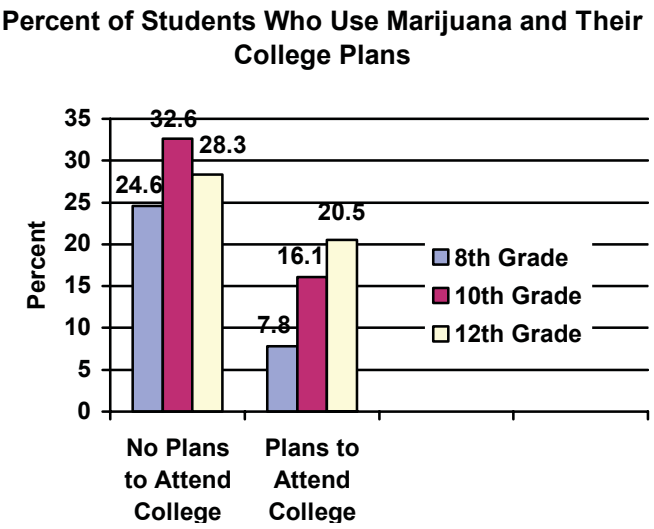

Figure 2: *Source*: National Center on Addiction and Substance Abuse, *Malignant Neglect*, p.22

drinking before age 15 is four times higher than those who do not drink before age 21.[6]

National Trends

In most of the country, including Colorado, an individual must be at least 21 years old to consume or purchase alcoholic beverages legally.[7] Yet, in the latest national *Monitoring the Future* study, teens report wide use of alcohol:

- 52 percent of 8th graders, 71 percent of 10th graders and 80 percent of high school seniors reported alcohol use at least once in their lifetime
- Current alcohol use was reported by almost one quarter (22 percent) of 8th graders, almost half (41 percent) of 10th graders, and half of high school seniors
- 30 percent of 12th graders, a quarter (24.9 percent) of 10th graders and 13 percent of 8th graders admitted to binge drinking (having five or more drinks in a row on one or more occasions) during the past two weeks
- 42 percent of 9th grade students reported drinking alcohol at least once before age 13. Most 10th grade students (88 percent) and 8th grade students (72 percent) say it is "fairly easy" or "very easy" to get alcohol[8]
- The 2001 National Youth Risk Behavior Survey indicates that about half of students polled (grades 9-12) report current alcohol use (within the last 30 days) and almost a third of the students who drink reported binge drinking (having more than five drinks in a row on one or more occasions)[9]

Binge Drinking

Binge drinking, defined as having five or more drinks in a row, which often begins around age 13, tends to increase during adolescence, peak in young adulthood (ages 18 to 22) and then gradually decrease. The most serious consequence of binge drinking is alcohol poisoning – a severe and potentially fatal physical reaction to an alcohol overdose. Other consequences include injury, risky sexual behavior, use of other drugs and poor academic performance.

- Teen heavy drinkers (defined as having consumed five or more drinks on the same occasion on at least five different days in the 30 days prior to the interview) are almost twice as likely as non-drinkers to say their schoolwork is poor (49.2 percent vs. 27.5 percent) and five times more likely to cut classes or skip school (54.7 percent vs. 9.9 percent).
- Teen heavy drinkers are 12 times more likely to be on juvenile probation than teens who do not drink (19 percent vs. 1.5 percent) and seven times more likely to have been arrested and booked for breaking the law (27.7 percent vs. 3.7 percent).[10]

Binge drinking is not only a high school phenomenon – underage drinking and binge drinking are major problems at U.S. colleges.[11]

Colorado Trends

The numbers for Colorado students using alcohol are considerably higher than those of their national *Monitoring the Future* counterparts. According to the 2000 Colorado Youth Survey:

- 60 percent of 8th graders, 76 percent of 10th graders and 84 percent of high school seniors report alcohol use at least once in their lifetime
- 32 percent of 8th graders, 48 percent of 10th graders and 58 percent of high school seniors report current use (defined as use in the past 30 days)
- Two in five 12th graders, nearly a third of 10th graders, almost a fourth of 8th graders and nearly one in 10 6th graders admitted to binge drinking[12]

About 80 percent of high school youth surveyed in the 2001 Colorado Youth Risk Behavior Survey reported alcohol use at least once in their lifetime. Colorado Youth Risk Behavior Surveys have not demonstrated great differences between the drinking habits of male and female high school students.[13] These surveys provide valuable pieces of information about use of substances by Colorado youth, but they have some limitations, chief of which is that they represent only a sample of public school students. Neither the Colorado Youth Risk Behavior Survey nor the Colorado Youth Survey capture home-schooled youth, youth in private or parochial schools, youth who were absent the day of the survey,[14] or those who were hospitalized, incarcerated or had dropped out of school. Regardless of the survey used, however, these figures indicate that the state has a way to go to meet its health objectives for adolescents.

Prevention Pays

Experts estimate that in 1998, youth traffic crashes (fatal and nonfatal) in Colorado attributed to alcohol cost $446 million in medical care, lost work and pain/lost quality of life.[15]

Drinking And Driving

The amount of alcohol in a person's body is measured by the weight of the alcohol in a certain volume of blood. This is called the blood alcohol concentration, or BAC. Because the volume of blood varies with the size of a person, BAC establishes an objective measure to determine levels of impairment. If a BAC is .10 or greater, alcohol makes up one-tenth of one percent of the person's blood. However, a person's driving can be impaired with a BAC that is less than the legal threshold. Nationally, drivers ages 17 to 21 make up the age group most likely to be involved in fatal, low-BAC crashes.[16] Nationally, there are movements to lower BAC thresholds to zero tolerance for teenage drivers.[17]

Colorado has had a "minimum drinking age" law on the books since 1987 prohibiting anyone under age 21 from purchasing alcohol, and a law setting a lower BAC threshold (between .02 and .05) for drivers under 21 since 1997.[18] (Colorado's BAC threshold for drunken driving is .10 percent for persons over 21.) Yet, one out of seven traffic fatalities investigated by the Colorado State Patrol in 1999 involved a driver younger than 20. A teen driving under the influence of alcohol or drugs was involved in 19 percent of those fatalities.[19]

Ask the Experts

Is Driving under the Influence of Alcohol More Dangerous for Youth Than Driving under the Influence of Drugs?

From 1995 to 1997, there were 154 fatal car crashes in Colorado involving a youth driver under age 21. Alcohol (BAC greater than .05 percent) was present in almost the same proportion of these crashes as in child fatality crashes overall (approximately 15 percent). However, drugs were present more often in the crashes involving young drivers, at 14 percent compared to 8 percent of the total. The Colorado Child Fatality Review Committee cautions that these estimates may be conservative because BAC and drug tests are not always performed after a motor vehicle fatality.[20]

Drugs And Other Substances

The earlier adolescents begin to use illegal drugs and/or abuse otherwise legal substances, the more likely they are to continue using substances and to engage in other risky behaviors.[21] Adolescent drug use contributes to a wide variety of public system costs. National surveys have found adolescent drug use in urban, suburban, mountain[22] and rural areas.[23]

National Trends

Generally illicit drug use among adolescents rose during the first half of the 1990s, declined during the latter part of the decade and remained steady in 2000. Rates for use of particular drugs (marijuana, amphetamines, heroin, hallucinogens other than LSD, barbiturates and tranquilizers) mirrored this general trend. In the latest national *Monitoring the Future* study, use of marijuana, the most popular substance, remained statistically unchanged from 2000 to 2001 in each grade for use in the lifetime, past year and past month. (In 2001, 15.4 percent of 8th graders, 32.7 percent of 10th graders, and 37.0 percent of 12th graders reported marijuana use in the past year.[24])

The exception to this trend was the club drug, "ecstasy" (MDMA or methylenedioxymethamphetamine). Use of ecstasy sharply increased in 1999 for older teens; in 2000, use increased at all grade levels, making it more prevalent among teens than cocaine use.

Table 1: Costs Linked to Substance Abuse and Adolescents

- Direct medical costs associated with overdoses and chronic use of substances
- Special programs for kids at risk
- Special education for those with substance related retardation or learning disabilities
- Student assistance programs
- Alcohol- and drug-related truancy and school failure
- Administrative costs linked to coping with alcohol or drug problems of students
- Property damage and liability insurance costs incurred are to alcohol and drug use
- Lost productivity of staff, turnover and added costs of additional staffing
- Legal expenses
- Drug testing costs
- Employee assistance programs
- Employee training, policy and staff development to increase awareness of substance abuse; and capital outlay for special facilities for substance-abusing students.

Source: Malignant Neglect, National Center on Addiction and Substance Abuse (2001)

Club/Rave Drugs and Inhalents

Club drugs made Colorado headlines when two teens died from single doses of the club drug "ecstasy" (also known as E, Adam, Roll, Bean, X, XTC, Clarity, Essence, Stacy, Lover's Speed, and Eve).[25] The term "club drugs" is a general term used for certain illicit substances, primarily synthetic, that are usually found at nightclubs, bars and raves (all-night dance parties). Substances that are often used as club drugs include, but are not limited to, MDMA (ecstasy), GHB (gamma hydroxybutyrate), Rohypnol, and Ketamine.

- MDMA can cause a user's blood pressure and heart rate to increase to dangerous levels, and can lead to heart or kidney failure.
- GHB and Rohypnol are central nervous system depressants that cause muscle relaxation, loss of consciousness and an inability to remember what happened during the hours after ingesting the drug and are often connected with drug-facilitated sexual assault, rape and robbery.
- Ketamine is an animal anesthetic that, when used by humans, can cause impaired motor function, high blood pressure, amnesia, seizures and respiratory depression.[26]

These drugs are of concern not only because of the physical and psychological risks, but also because "raves" are often promoted as alcohol-free events, giving parents a false sense of security that their children will be safe attending such parties.[27] Nationally, more than half (51.4 percent) of high school seniors surveyed in 2000 said that MDMA (ecstasy) was fairly easy or very easy to obtain. This percentage is up from 40.1 percent in 1999.[28]

KidSpeak

"There is nothing better to do and you can always get some. Also most people do it."
Girl, age 15, Weld County

Inhalants – which are known by the slang terms Glue, Kick, Bang, Sniff, Huff, Poppers, Whippets and Texas Shoeshine – continue to be a significant problem for young adolescents. Glue, paints and lacquers, correction fluid, butane, gasoline, room deodorizers, nail polish remover and aerosol propellants are among the most commonly abused. These household substances are cheap, innocent looking, legal to purchase and readily available. Inhalants can seriously damage many

organ systems and can cause death with just one use. Most adolescents are unaware of the dangers posed by inhalants. Nationally and statewide, trends in inhalant use go down as the age of the student reporting such use increases. Experts speculate that older students may be reluctant to report a type of substance use felt to be "immature," or that older students have more disposable income with which to buy more expensive substances.[32]

KidSpeak

"Then I realized that I was lucky. I was lucky to be alive. All of this was because of a pill. It got me arrested. We were in and out of court for three months. In the end we pleaded guilty to one charge. We each were sentenced to one year of probation and 100 hours of community service. Eventually we were able to talk to each other again. Later we learned that we almost got charged with manslaughter. We got expelled from school and had to go to private school. My parents grounded me and I still am grounded. I most likely will be until I am 18. But the worst part is that I lost a friend. Attending a 16-year old girl's funeral is just unreal."[29] *Source: American Council for Drug Education,* http://www.acde.org/alerts/ecstasystory.htm, January 10, 2002

Colorado Trends

In 2000, the Colorado Youth Survey collected data on youth risk behavior from a sample of about 24,000 6th, 8th, 10th and 12th grade public school students from 161 schools in 70 districts across Colorado.[30] (Only two Denver metropolitan area high schools were included.) According to the 2000 Colorado Youth Survey, substance use, both lifetime and within 30 days, appears to reflect national trends, both with the type of substance being used and the grade and gender of the user. The exception was inhalants.

- By 12th grade, more than half (52.5 percent) the students reported using marijuana, and about 25 percent of 12th graders reported using marijuana in the 30 days preceding the survey.
- Colorado Youth Survey students at all grade levels reported inhalant use at levels higher than their national peers.
- The next version of the Colorado Youth Survey will ask about club drugs.

KidSpeak

"Marijuana is entertainment." Girl, age 16, Larimer County

The Colorado Youth Survey data raise two important issues.

- Almost half (45.9 percent) of the students sampled acknowledged their perception that drugs were available, ranging from one-third (34.6 percent) of the reporting 6th graders to almost two-thirds (63.1 percent) of the 12th graders.[31]
- The Colorado Youth Survey data clearly point out the vulnerability of young adolescents in 6th and 7th grades. While not always the largest percentage of reported risk, youth in 7th grade reported increases in reported risk for *every* outcome measure in the survey (alcohol, smokeless tobacco, cigarette use, marijuana, cocaine, LSD, stimulants, inhalants and other illegal drugs – both ever used and used in the preceding 30 days).

KidSpeak

"Teens like smoking marijuana more than tobacco." Boy, age 15, Adams County

The Colorado Youth Risk Behavior Surveys over the decade confirm the Colorado Youth Survey data on use of marijuana and inhalants.

Youth Hospitalization for Substances

Juvenile hospitalization rates for drug-related activities provide another piece of the youth drug-use picture.

- Nationally the number of adolescents ages 12 to 17 admitted to substance abuse treatment rose 45 percent between 1993 and 1999. In 1999, admissions for marijuana abuse accounted for most of the increase in adolescent admissions. While numbers were small, adolescent admissions for opiates and stimulants also increased substantially. Overall, 70 percent of adolescent admissions were male, especially for marijuana. The male:female ratio was much closer for other substances. Almost half (47 percent) of adolescent admissions were through

the criminal justice system. Seventeen percent were individual referrals, and 12 percent were referred through schools.

- In 1999, Colorado young people (here, defined as ages 15-20) made up the bulk of hospital admissions to treatment for hallucinogens (60.7 percent), almost one-half of the admissions for treatment of marijuana (47.1 percent) and stimulants (44.6 percent); and about one-third of the admissions for inhalants (38.0 percent). The bulk of the admissions of these young people were adolescents ages 15 to 17.[33]

This information has limitations and represents only a snapshot of the population. Arrest data are based on enforcement practices, which differ widely; hospitalization data require hospitalization, which may or may not be available to some youth who have experimented with substances.

Prevention Pays

Effective prevention programs are cost effective. For every $1 spent on drug use prevention, communities can save $4 to $5 in costs for drug abuse treatment and counseling.[34]

Best Practices For Prevention

Influences on Adolescent Behaviors

It is important to base prevention programs on what is known about factors that influence teen substance abuse behavior. A teen's choice about use or delay of use of substances is influenced by many of the same factors influencing other behaviors. These include religious beliefs and practices; peer, family and community norms about alcohol use, and youth alcohol use in particular; community norms about drug and substance use; academic competence; social skills; parental modeling; and ease of access.[35]

KidSpeak

"My antidrug is my reputation. Everybody knows that I am an athlete and a good kid, and they know that I don't want to do that stuff, so everyone just leaves me alone. I don't want to be known as the kid who smokes weed all the time." Boy, age 16, Broomfield County

Research has identified several risk and resiliency factors *specifically* related to substance use.

- Protective factors include parents who abstain from drugs, alcohol or tobacco; strong and positive bonds within the family; parental monitoring; clear rules of conduct for youth *and* for adult drinking that are consistently enforced within the family; clear and healthy lines of communication between parents and children; parental support of children; and adoption of conventional norms about drug use, connections with adults and peers at school, involvement with school activities and religious influences.

KidSpeak

"My antidrug is my dreams." Boy, age 16, Boulder County

- Risk factors include chaotic home environments, particularly in which parents abuse substances or suffer from mental illnesses; peers who use substances; and perceptions of approval of drug-using behaviors or drug commerce in family, work, school, peer and community environments.[36] Some experts think that the relationship of use of substances is so linked to peer relations that adolescent substance use needs to be viewed more as a collective, rather than an individual, behavior.[37]

KidSpeak

"The antidrugs can keep you away from drugs and certain people can keep you away from others, but it all comes down to you." Boy, age 16, Adams County

- Particularly risky times are transitions, when youth go from one developmental stage to another, or from elementary to middle school or middle school to high school, as suggested by the data from the Colorado Youth Survey.[38]

Colorado teens experiment most with marijuana. Risk factors with the strongest relationship to recent marijuana use (within 12 months) include:

- Whether anyone offered marijuana to a youth free or for a price
- Close friends' attitudes toward marijuana use
- Close friends' marijuana use
- Perceptions of no risk to moderate risk of marijuana use
- Parental use of cigarettes, alcohol or cocaine

- Parents who perceive little risk with use of marijuana by adolescents
- Adolescent delinquency, truancy and dropout status
- Poor school performance[39]

Experts also note that, general characteristics of effective prevention programs notwithstanding, designing effective drug and alcohol prevention programs requires careful attention to the characteristics of the particular adolescent group to be served. Examples follow.

- The perceived risks and perceived benefits for drugs, such as "rave" or "club" drugs, are often specific to the particular drug. Unfortunately news of perceived benefits spreads faster than news of actual risk or adverse consequences. The former takes only rumor and a few testimonials, the spread of which is hastened greatly by the electronic media and the Internet.[40] News of perceived risks (deaths, overdose reactions and addictive potential) has to gather its own "critical mass" and then be disseminated.
- Adolescent behavior changes rapidly as youth develop, and it can be misleading to treat youth ages 12 to 17 as an undifferentiated age group.[41]
- Similarly, gender differences often require programming differences.[42]

Tips For Parents

Educate yourselves. Get to know your children's friends. Call parents whose home is the next party site. Make it easy for kids to leave a place where substances are being used. Set curfews and enforce them. Talk to your kids. *Source:* Talking with Kids about Tough Issues, www.talkingwithkids.org

Family

It is clear from the protective and risk factors that prevention begins at home – the earlier the better. Parents, grandparents[43] and other adult caretakers have to take the lead, by educating themselves; being directly involved with teen's driving skills and habits;[44] giving and enforcing clear messages about alcohol and other substances; and getting involved and staying involved with local and school prevention efforts.[45]

Schools

Schools are another critical contact point for identification and prevention efforts.[46] Traditional school settings serve most children and youth, except those who have dropped out, are home schooled or suffer from severe behavioral or functional disorders.

- Comprehensive health education with developmentally appropriate, evidence-based programs on substance abuse prevention would reach the bulk of Colorado adolescents.
- Coordinated health programs in schools systematically address risk behaviors through health education, including instruction and hands-on practice in decision-making, communication and peer-resistance skills; family-community involvement; health promotion for staff; healthy school environments; physical education; health services; nutrition services; and counseling.
- Colorado's school-based health centers are another obvious and important venue for substance abuse prevention, diagnosis, treatment, referral and education. Any health care provider who serves teens should routinely take a history and provide counseling on such risk factors as tobacco and other drug use, safety, violence and sexuality. (See Guidelines for Adolescent Preventive Services, also know as GAPS.[47])

Community

The "easy-to-do" strategies in Colorado have been done, such as: laws on minimum age for alcohol purchase; lower blood alcohol content thresholds for youth drivers; laws on drug purchasing, sale and manufacture; and school expulsion policies for drug or alcohol incidents. The tough work is still to be done. Key ideas include:

- Strengthening enforcement of DUI laws for youth
- Lowering the blood alcohol content threshold for youth and imposing a zero-tolerance policy for drinking and driving
- Requiring, rather than encouraging, comprehensive health education in schools
- Enacting keg registration laws

- Requiring substance abuse training for all school administrators, teachers, coaches, counselors, nurses and other school staff to recognize signs of substance abuse and be able to take the next step[48]
- Improving, expanding and funding existing prevention and intervention programs
- Developing and funding programs for high-risk youth, including youth who are homeless, coming out of the juvenile justice system, who have parents with addiction problems and who have co-occurring problems such as depression, anxiety or eating disorders
- Strengthening efforts to improve community environments
- Encouraging the hospitality sector to engage in responsible alcohol service by training servers, making food available to patrons and not serving intoxicated customers or those under the age of 21[49]

End Notes

1. For example, marijuana, heroin, cocaine, crack cocaine, methamphetamines, LSD, barbiturates, club drugs
2. Inhalants (e.g., glue, toluene, nail polish remover, aerosol propellants, paints and lacquers, correction fluid, butane, gasoline, room deodorizers, nail polish remover); hallucinogens other than LSD and cough medicine, etc.
3. RW Blum, T Beuhring and PM Rinehart, *Protecting Teens: Beyond Race, Income and Family Structure*, Center For Adolescent Health and Development, University of Minnesota (2000).
4. See, e.g., DT Levy, TR Miller and KC Cox, *The Cost of Underage Drinking,* Underage Drinking Enforcement Training Center (1999); National Center on Addiction and Substance Abuse at Columbia University (CASA), *Malignant Neglect: Substance Abuse and America's Schools* (2001).
5. See, e.g., Federal Interagency Forum on Child and Family Statistics, *America's Children: Key National Indicators of Wellbeing* (2001; published annually); SF Tapert et al., "Adolescent substance use and sexual risk-taking behavior," *Journal of Adolescent Health* 28(3): 181-189 (2001); Robert Wood Johnson Foundation, *Substance Abuse: The Nation's Number One Health Problem* (2001); CASA, *Malignant Neglect*, p. 20-22, see note 4; C Falkowksi, "An epidemic with staying power: Underage drinking," *Healthy Generations* 2(2): 1-3 (2001); C Kodjo, P Auinger and S Ryan, "Adolescent fighting while under the influence of alcohol or drugs," *Journal of Adolescent Health* 30(2):103 (2002).
6. Colorado Department of Human Services, Alcohol and Drug Abuse Division, *Underage Drinking – A Serious Problem In the U.S. and Colorado* (2002).
7. Colorado Revised Statutes, CRS 12-47-901(1).
8. L Johnston, PM O'Malley and JG Bachman, *Monitoring the Future: A Continuing Study of America's Youth*, Institute for Social Research, University of Michigan, for National Institute on Drug Abuse (2001). The *Monitoring the Future* survey has tracked 12th graders' illicit drug use and attitudes toward drugs since 1975. In 1991, 8th and 10th graders were added to the study. The 2001 study surveyed a representative sample of more than 44,000 students in 424 schools across the nation about lifetime use, past year use, past month use, and daily use of drugs, alcohol, cigarettes and smokeless tobacco.
9. Centers for Disease Control and Prevention, *Youth Risk Behavior Trends From CDC's 1991, 1993, 1995, 1997, and 1999 Youth Risk Behavior Surveys*.
10. Colorado Department of Human Services, *Underage Drinking, s*ee note 6.
11. Harvard School of Public Health, College Alcohol Study, *Trends in College Binge Drinking During a Period of Increased Prevention Efforts: Findings from 4 Harvard School of Public Health College Alcohol Study Surveys: 1993-2001* (2002). Underage college students' drinking behavior, access to alcohol and the influence of deterrence policies.
12. The Colorado Youth Survey report provides helpful information about school, community, family and youth health issues. Taken together, these data provide a comprehensive snapshot of community strengths and weaknesses that can assist in needs assessment and program planning activities, and lead to improvements in the many areas affecting youth, http://www.omni.org/cysreport.pdf. To learn more about the Colorado Youth Survey, please contact the OMNI Institute at (303) 839-9422/(800) 279-2070.
13. See introduction for a discussion of the uses and limitations of the Colorado Youth Risk Behavior Survey.
14. The risk behaviors of students who attend school regularly and those who are frequently absent differ. See, e.g., S Guttmacher et al., "Classroom-based surveys of adolescent risk-taking behaviors: Reducing the bias of absenteeism," *American Journal of Public Health* 92 (2): 235-237 (2002).
15. Medical includes emergency transport, medical, hospital, rehabilitation, pharmaceutical, ancillary and related treatment costs, as well as funeral/coroner expenses for fatalities and administrative costs of processing medical payments to providers. Work loss includes victims' lost wages and the replacement cost of lost household work, as well as fringe benefits and the administrative costs of processing compensation for lost earnings (e.g., through litigation, insurance or public welfare). Quality of life includes the monetary value of pain, suffering and loss of quality of life to victims and their families. Children's Safety Network, Economics and Insurance Resource Center.
16. Office of Juvenile Justice and Delinquency Prevention, *Enforcing the Underage Drinking Laws Program: A Compendium of Resources* (1999); Underage Drinking Enforcement Training Center, *Effective Training Strategies* (no date).
17. They suggest lowering the limit to .08 BAC for adult drivers. See, e.g., Substance Abuse and Mental Health Services Administration, *Impaired Driving among Youth: Trends and Tools for Prevention Technical Report* (US Department of Health and Human Services Pub. No. [SMA] 99-3364) (1999); Centers for Disease Control and Prevention, Task Force on Community Preventive Services, "Motor-vehicle occupant injury: Strategies for increasing use of child safety seats, increasing use of safety belts, and reducing alcohol-impaired driving: A report on recommendations of the Task Force on Community Preventive Services," *MMWR* 50(RR-7): 1-13 (2001).
18. Colorado Revised Statutes, CRS 42-4-1301(2)(a)(a.5).
19. See, e.g., Colorado State Patrol statistics on teens involved in traffic fatalities in 1999 at www.state.co.us/gov_dir/cdps/Stats/Teens/Teens.htm; National Safety Council, *Alive @ 25: A Survival Course in Traffic Safety Developed by the National Safety Council* (no date);

Mothers Against Drunk Driving (MADD), *Rating the States 2001: A Report Card on the Nation's Attention to the Problem of Alcohol- and Other Drug-Impaired Driving*.

20. Child Fatality Review Committee, Colorado Department of Public Health and Environment, *Motor Vehicle-Related Child Fatalities: Colorado 1995-1997* (1999).
21. CASA, *Malignant Neglect*, p. 2, see note 4. Of those high school students who have ever been drunk in 9th grade, 83 percent are still getting drunk in 12th grade; of those 9th graders who have ever tried marijuana, 76 percent are still using it in the 12th grade.
22. Substance Abuse and Mental Health Services Administration, *Summary of Findings from the 2000 National Household Survey on Drug Abuse* (NHSDA Series H-13, DHHS Pub. No. [SMA] 01-3549) (2001).
23. National Center on Addiction and Substance Abuse at Columbia University (CASA), *No Place to Hide: Substance Abuse in Mid-size Cities and Rural America* (2000).
24. US Department of Health and Human Services, *2001 Monitoring The Future Survey Released: Smoking Among Teenagers Decreases Sharply and Increase in Ecstasy Use Slows* (news release, December 19, 2001).
25. M McPhee and J Kirksey, "Indictments target ecstasy ring: Federal grand jury names 34 suspects," *Denver Post* (August 30, 2001).
26. National Criminal Justice Reference Service, *In the Spotlight: Club Drugs* and *Information Bulletin: Raves* (2001).
27. See references cited in note 26.
28. Johnson et al., *Monitoring the Future*, see note 8.
29. American Council for Drug Education, http://www.acde.org/alerts/ecstasystory.htm, January 10, 2002
30. Colorado Youth Survey, see note 12.
31. These data are similar to the reports from the latest Colorado Youth Risk Behavior Survey with regard to the percentage of students who were offered, sold, or given an illegal drug on school property by someone within the twelve months preceding the survey. Colorado Department of Public Health and Environment, Center for Health and Environmental Information and Statistics.
32. TL Kurtzman, KN Otsuka and RA Wahl, "Inhalant abuse by adolescents," *Journal of Adolescent Health* 28(3):170-180 (2001).
33. 1998 Treatment Episode Data Set (TEDS), *Topics of Special Interest: Adolescent Substance Abuse*. The Treatment Episode Data Set (TEDS), available through the Substance Abuse and Mental Health Services Administration (SAMHSA), comprises data that are routinely collected by states in monitoring their individual substance abuse treatment systems. TEDS records substance abuse treatment admissions by primary substance of abuse, and according to sex, age, and race/ethnicity. While TEDS does not represent the total national demand for substance abuse treatment, it does comprise a significant proportion of all admissions to substance abuse treatment, and includes those admissions that constitute a burden on public funds. TEDS is an admission-based system, and TEDS admissions do not identify individuals. An individual admitted to treatment twice within a calendar year would be counted as two admissions.
34. National Institute on Drug Abuse, *Infofax: Lessons from Prevention Research* (NIDA Fact Sheet No.13563) (no date).
35. L Meschke and J Patterson, "Youth substance use prevention: A focus on protective factors," *Healthy Generations* 2(2)(2001); JD Hawkins, RF Catalano, and JY Miller, "Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention," *Psychology Bulletin* 112:64-105 (1992); CASA, *Malignant Neglect*, see note 4; J Lane, D Gerstein, and L Huang, *Risk and Protective Factors for Adolescent Drug Use: Findings from the 1997 National Household Survey on Drug Abuse*, Substance Abuse and Mental Health Services Administration (2002).
36. Lane et al, *Risk and Protective Factors*, see note 35; see also DB Kandel et al., *Parental Influences on Adolescent Marijuana Use and the Baby Boom Generation: Findings from the 1979-1996 National Household Surveys on Drug Abuse*, Substance Abuse and Mental Health Services Administration (2001); National Center on Addiction and Substance Abuse at Columbia University (CASA), *So Help Me God: Substance Abuse, Religion and Spirituality* (2001).
37. DL Lindberg et al., *Teen Risk-Taking: A Statistical Portrait*, Urban Institute (2000); Kurtzman et al., "Inhalant abuse," see note 32
38. National Institute on Drug Abuse, *Preventing Drug Use among Children and Adolescents: A Research-Based Guide* (2001). Also available in Spanish.
39. Substance Abuse and Mental Health Services Administration, *The NHSDA* [National Household Survey on Drug Abuse] *Report*: *Neighborhood Characteristics and Youth Marijuana Use* (2002).
40. Robert Wood Johnson Foundation, *Substance Abuse*, see note 5; PM Wax, "Just a click away: Recreational drug web sites on the Internet." *Pediatrics* 109(6):e96 (2002).
41. Hawkins et al., "Risk and protective factors," see note 35.
42. See e.g., Prevention Information Center, *Female Adolescents and Marijuana Use: Fact Sheet for Adults* (no date).
43. US Department of Education, *Growing Up Drug Free* (1998).
44. KH Beck, J Hartos and B Simons-Morton, "Teen driving risk: The promise of parental influence and public policy," *Health Education and Behavior* 29(1):73-84 (2002).
45. Ibid., see also Talking with Kids About Tough Issues, *Talking with Kids about Alcohol and Drugs.* Also available in Spanish. Talking With Kids About Tough Issues is a national initiative by Children Now and the Kaiser Family Foundation to encourage parents to talk with their children earlier and more often about tough issues like sex, HIV/AIDS, violence, alcohol and drug abuse.
46. D Hallfors and R Van Dorn, "Strengthening the role of two key institutions in the prevention of adolescent substance abuse," *Journal of Adolescent Health* 30(1):17-28 (2002).
47. American Medical Association, *Guidelines for Adolescent Preventive Services: Recommendations* (1997).
48. See, generally, CASA, *Malignant Neglect*, see note 4.
49. National Highway Transportation Safety Administration, *Setting Limits: Saving Lives* (2000).