

**Fact Sheet**

**ADOLESCENT SUBSTANCE ABUSE**

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**Introduction**

Adolescent substance abuse is a serious concern nationwide. From the 1980s to the 1990s, the percentage of American youth ages 14-18 who required treatment for substance abuse doubled. Although rates of substance abuse have decreased since the 1990s, American secondary students have one of the highest rates of illicit drug use in an industrialized country (Johnston, O'Malley, Bachman, & Schulenberg, 2009).

Substance use by youth has serious health and social implications. For example, although most youth who use drugs do not commit violent crimes, there is a correlation between frequency and severity of drug use and frequency and severity of juvenile delinquency. In addition, health issues, such as the long-term physical effects of tobacco use and increased risk of childhood injuries, are critical concerns related to substance abuse by adolescents.

**Scope of the Problem**

Illicit Drugs

According to the National Survey on Drug Use and Health (NSDUH), illicit drugs include marijuana (includes hashish), cocaine (includes crack), heroin, hallucinogens, inhalants, and non-medical use of prescription type pain relievers, tranquilizers, sedatives, and stimulants.

In 2008, an estimated 20.1 million Americans aged 12 or older stated that they have used an illicit drug during the month prior to the NSDUH survey. Marijuana was the most commonly used illicit drug, used by 75.7% of current illicit drug users in 2008 (Substance Abuse and Mental Health Services Administration, 2009). The second most prevalent illicit drug used by youth is prescription psychotherapeutics or prescription stimulants, used by 16% of youth aged 18-20 (Griffin, 2010). Moreover, although there has been a year-to-year decline in the use of heroin, cocaine and amphetamines among adolescents in recent years, the misuse of over-the-counter medications is a growing concern. It is estimated that 5% of people ages 12 to 25 have used over-the-counter cough and cold medication to get high.

The rate of illicit drug use varies by age. The 2008 NSDUH indicated that 3.3% of 12–13 year olds used illicit drugs within the past year; 21.5% of 18–20 year olds used illicit drugs within the past year; and for those 20 years and older, the rates generally declined (Substance Abuse and Mental Health Services Administration, 2009).

Illicit drug use also varies by gender and race/ethnicity (Johnston et al., 2009). Males generally use illicit drugs at a higher rate than females, although this difference tends to emerge in middle to late adolescence. With regard to racial-ethnic differences, African Americans have lower rates of illicit substance use than White or Hispanic 12th graders. White students in the 12<sup>th</sup> grade have the highest lifetime and annual prevalence rates of most illicit substances. However, Hispanic 12<sup>th</sup> graders have the highest prevalence rates for crack and heroin.

### Alcohol

Alcohol use among 12–20 year-olds has declined since 2002. In 2008, 10.1 million (26.4%) youth in this age group reported drinking alcohol in the past month. Of those, 6.6 million (17.4%) were binge drinkers, and 2.1 million (5.5%) were heavy drinkers (Substance Abuse and Mental Health Services Administration, 2009).

Rates of alcohol use by adolescents increase with age. For example, in 2008, 3.4% of youth age 12 to 13 had used alcohol in the previous month whereas 48.7% of 20 year olds had used alcohol the previous month. In addition, college students ages 18–22 were more likely than non-college students of the same age group to drink, binge drink, and drink heavily (Substance Abuse and Mental Health Services Administration, 2009).

During adolescence, there are no significant differences in alcohol use between genders, although male usage rates are higher in adulthood (Substance Abuse and Mental Health Services Administration, 2009). Whites aged 12 and older have higher rates of alcohol use (54.2%), and Asians (11.9%) have the lowest rate of alcohol use.

### Tobacco

Tobacco use includes cigarette smoking, cigar smoking, and use of smokeless (chewing) tobacco.

In 2008, approximately eleven percent (11.4%) of youth aged 12 to 17 reported using a tobacco product in the previous 30 days (Substance Abuse and Mental Health Services Administration, 2009). The percent of youth who report recent tobacco use has been declining. In 2001, 13% percent of youth reported using tobacco but by 2008, only 9.1% reported tobacco use.

Tobacco use varies greatly by age, gender and race/ethnicity (Substance Abuse and Mental Health Services Administration, 2009). Young adults aged 18 to 25 reported the highest rate of current use of any tobacco products (44.8%). In contrast, only 14.4% of youths aged 12 to 17 reported using a tobacco product in the past month. Use of any

tobacco product by persons 12 and older is higher among males than females, but there is not significant difference in current cigarette smoking between 12 to 17-year-old males and females. Among youth aged 12 to 17, cigarette smoking was more prevalent among Whites (10.6%) than among African American (5%), Hispanic (7.9%), or Asian (3.8%) youth.

The use of illicit drugs and alcohol is more common among smokers than nonsmokers (Substance Abuse and Mental Health Services Administration, 2009). Among people aged 12 and older, 20.4% of smokers reported use of an illicit substance, whereas 4.2% of nonsmokers reported use of an illicit drug. Smokers also report more alcohol use than nonsmokers.

### **Risk Factors**

A variety of biological, psychosocial, and environmental factors act alone or in combination to place youth at risk for substance abuse (Mayberry, Espelage, & Koenig, 2009; Oetting & Lynch, 2006; Weinberg, 2001; National Youth Violence Prevention Resource Center, 2001). Research indicates that youth most likely to engage in substance abuse exhibit a range of dysfunctional and antisocial behaviors and are poorly bonded to school, families, or prosocial peers (Eggert & Randell, 2006).

#### Genetics and Biology

Studies of twins and sibling pairs indicate that some adolescents may be genetically vulnerable to substance use and abuse (Hasin & Katz, 2010). More specifically, research suggests that certain chromosomes contain genes related to substance use and dependency, although variations in genes that affect the nervous system may also play a part in substance use disorders. In the past five years, researchers have started to investigate the extent to which environmental factors interact with genetic susceptibility to substance use and abuse. These studies suggest that certain stressors may put genetically vulnerable adolescents at a greater risk for developing substance abuse disorders. Independent of the genetic factor, however, prenatal exposure to tobacco, alcohol and drugs puts infants at risk to develop substance problems later on (Volkow and Li 2005; Weinberg, 2001). In addition, biological factors such as temperament (impulsivity, aggression, hyperactivity, sensation seeking, and rigidity) and brain chemistry (dopamine/drug interaction) are associated with substance abuse (Fagan, 2006; Weinberg, 2001). Certain developmental processes during adolescence, like changes in the prefrontal cortex, may also affect youth's susceptibility to drug use (Kulis, Nieri, Yabiku, Stromwall, & Marisiglia, 2007).

#### Psychosocial Influences

Some psychosocial factors have been associated with adolescent substance abuse. For example, childhood psychopathology such as conduct disorder and ADHD, academic failure and learning difficulties, low self-esteem, and deficits in social competency have been linked to tobacco, alcohol, and drug use in teenagers (Fagan,

2006; Wilens, 2006). Adolescent antisocial behavior such as aggression, fighting, and truancy, as well as antisocial beliefs and values about substance use, are also considered to be risk factors.

### Environment

Various aspects of family life, peer groups, school environment, and community contribute to adolescents' proclivity toward substance abuse. Risk factors within the family include: a family history of substance abuse; access to tobacco, alcohol, or drugs in the home; poor family management, lack of discipline, and low parental monitoring; low levels of nurturing and attachment; and abuse in the home (Mayberry et al., 2009; Kliewer, 2010).

Having peers who use drugs or hold positive beliefs about substance use increases adolescents' risk for substance abuse (Pandina, Johnson, & Rashink-White, 2010; Oetting & Lynch, 2006). The opposite is also true. That is, the likelihood of using drugs decreases among youth whose peers have positive values and anti-drug attitudes. In addition, school-related factors influence youth substance abuse (Ennett and Haws, 2010). For example, lack of belonging or bonding to school and low achievement and poor academic performance are indicators of risk for drug use.

Risk factors for substance abuse also are found in the community (Gardner, Barajas & Brooks-Gunn, 2010; Snyder & Nadorff, 2010; Pandina et al., 2010). Risks include low levels of community resources and opportunities, lack of community bonding, pro-drug attitudes within the community, pro-drug messages in the media, and lack of services and opportunities for youth.

### **Promising Strategies**

Traditional intervention and prevention strategies such as incarceration, detoxification and rehabilitation, and public health education have not had much sustainable impact on reducing adolescent substance use and abuse. Some recent successes have been documented using the social influence approach and the competence enhancement approach (Botvin & Griffin, 2006; Botvin, 2000).

The social influence approach focuses on the social and psychological factors that contribute to onset of use. Two major components of this approach include normative education and resistance skills training. The purpose of normative education is to rid teenagers of the belief that "everybody does it." Resistance skills training teaches teens skills to resist pro-drug influences from peers, media, and society. Studies show social influence approaches to yield a 30 to 50 percent reduction in smoking prevalence, alcohol, and marijuana use (Botvin, 2000). In addition, follow-up studies show positive behavioral changes for up to three years. However, long-term follow-up studies indicate a decay of positive effects over time. The most popular program based on the social influence model is DARE, but evaluation studies suggest that DARE has little to no impact on drug use (Botvin & Griffin, 2006).

Life Skills Training (LST) represents a variation of the social influence approach known as competence enhancement. LST is based on social learning theory and problem behavior theory. The underlying assumption is that drug use is a learned behavior influenced by the interaction of social and personal factors. Thus, LST teaches youth social and personal management skills. Examples of skills taught are: decision making and problem solving; cognitive skills for resisting social and media influences; personal control; goal setting; stress and anxiety management; assertiveness; and general social skills. Prevention efforts are generally aimed at 7<sup>th</sup> – 10<sup>th</sup> graders and typically vary in length from 7 to 20 sessions. Skills are taught by teachers and/or outside professionals such as project staff, graduate students, and social workers.

This approach has been empirically tested and demonstrated to reduce tobacco, alcohol, marijuana, and polydrug use in adolescents (Botvin, Griffin, Diaz, Scheier, Williams, & Epstein, 2000). Furthermore, the effects seem to be stable over time. In addition, the efficacy of LST with different populations and under different intervention conditions has been tested (Botvin & Griffin 2010). Studies indicate that LST is effective among minority youth and high risk youth and that it works equally well regardless of who the program provider is (e.g. teachers, peer leaders, or health educators). LST has also been found to reduce other behaviors like risky driving, violence and delinquency, and HIV/AIDS risk behaviors. A number of other evidence based prevention and intervention programs can be found at <http://www.nrepp.samhsa.gov/>.

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### **Internet Resources**

- Center for Substance Abuse Prevention: <http://prevention.samhsa.gov/>
- Centers for Disease Control and Prevention: <http://www.cdc.gov>
- National Clearinghouse for Alcohol and Drug Information: <http://www.health.org>
- National Institute of Health: <http://www.nih.gov>
- National Institute on Alcohol Abuse and Alcoholism: <http://www.niaaa.nih.gov>
- National Institute on Drug Abuse: <http://www.nida.nih.gov>
- Office of National Drug Control Policy: <http://www.whitehousedrugpolicy.gov/>
- U.S. Department of Health and Human Services: <http://www.dhhs.gov>

Your Time, Their Future: <http://www.health.org/yourtime>