

Marijuana Use Among Students at Institutions of Higher Education

Marijuana is the most frequently used illicit drug in the United States, with approximately 33 percent (72 million) of all Americans having tried it at least once in their lifetime.¹ Following a decade of decline in the 1980s, the use of marijuana among youth has risen since the early 1990s. This increase is of particular concern because marijuana may act as a “gateway” drug, serving as an introduction to the “drug scene” and additional types of drug use. In fact, studies have found that “nearly all adolescents who use illicit drugs other than marijuana also used marijuana. The proportions of those who used other illicit drugs prior to (or without any) marijuana use are for the most part less than 5 percent.”² Frequent marijuana use may be physically and emotionally harmful and is also associated with a host of other social and behavioral problems, including isolation, poor academic performance, violence, and crime.



College Use

The Core Institute’s annual data on alcohol and other drug use at colleges and universities indicate that the trend of increased marijuana use holds true among college students. According to this data, annual usage (defined as the prevalence of use in the last year) among college students has steadily increased since 1990 (see table 1).³

The Harvard School of Public Health conducted three surveys between 1993 and 1999, examining the drug and alcohol use of 44,265 college students nationwide.⁴ The study found that 9 out of 10

students (91 percent) who use marijuana participate in other high-risk activities such as heavy drinking or cigarette smoking.

Core Institute 1995–1996 data also suggest that marijuana use is higher among students who engage in other high-risk behaviors. For example, comparing marijuana users with nonusers, 98.7 percent versus 75.4 percent had also used alcohol, 75.7 percent versus 30.2 percent used tobacco, 30.5 percent versus 12.5 percent had drunk alcohol the last time they had sexual intercourse, and 13.3 percent versus 0.7 percent used other drugs the last time they had sexual intercourse.³

According to the Harvard study, other factors associated with marijuana use include spending more time at parties and socializing with friends, spending less time studying, and perceiving religion and community service as not important. Students at large schools, commuter schools, and coeducational schools were also more likely to use marijuana, while students from historically black colleges and colleges in small or rural towns were less likely to use the drug. Marijuana use was also associated with poorer academic performance. Students who used marijuana were less likely than those who did not use it to study for two or more hours a day and were more likely to have a grade point average of B or less.



Athletes

In June 2001, the National Collegiate Athletic Association (NCAA) surveyed 21,225 college athletes from 713 institutions across the United States. Past surveys had shown a sharp decrease of marijuana use in the late 1980s and early 1990s (see table 2). In a reversal of that trend, 28.4 percent of the athletes surveyed in 1997 reported using marijuana at least once during the previous year. This figure dropped slightly to 27.3 percent in 2001.

The majority of the athletes surveyed had started using marijuana prior to coming to college. Specifically, 63.7 percent of users started in high school, while 12.9 percent started during their first year in college and 8.6 percent after their first year in college. By ethnic group, the highest rate of marijuana use was found among Caucasians, a trend also found among college students in general.

Among athletes, 60.4 percent of marijuana users state that they use marijuana to serve recreational or social purposes, and 33.8 percent say that they use it because it makes them feel good. For those who do not use marijuana, 27.1 percent said that they refrained because they had no desire for the effects created by marijuana, 24.1 percent refrained because they were concerned about their health, and 13.4 percent refrained because it was against their religious or moral beliefs.⁵

Table 1: Annual Marijuana Usage Among College Students 1989–2000³

Year	Annual Usage
1989-1991	26.4%
1990-1992	24.2%
1991-1993	24.5%
1992-1994	27.7%
1995	29.8%
1996	32.2%
1997	32.3%
1998	32.4%
1999	32.5%
2000	33.6%

Table 2: Annual Marijuana Usage Among College Athletes 1985–2001⁴

Year	Annual Usage
1985	35.3%
1989	27.5%
1993	21.4%
1997	28.4%
2001	27.3%

For additional information

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Consequences

Marijuana is seen by some college students as a “recreational” drug that serves as a rite of passage from adolescence into adulthood. Just as with the use of alcohol, this dangerous perception fails to acknowledge the potential dangers of marijuana use. Contrary to popular opinion, marijuana can be addictive.

The use of alcohol and other drugs may be associated with a wide range of negative consequences, such as decreased academic performance, fighting, vandalism, acquaintance rape, and unprotected sex.^{6,7} While these consequences are associated with marijuana use, there is no evidence that marijuana use directly causes these behaviors to happen.

The specific effects of marijuana depend upon the type of cannabis used, the way in which it is taken, the setting in which it is used, the expectations of the user, and whether or not it is used in conjunction with other drugs.⁸

Potential short-term effects of marijuana use are as follows:⁹

- feelings of intoxication
- rapid heartbeat
- dry mouth and throat
- bloodshot eyes
- loss of coordination or poor sense of balance
- decreased reaction time
- difficulty in listening or speaking
- impaired or reduced short-term memory
- impaired or reduced comprehension
- impairments in learning and memory, perception, problem solving, and judgment
- altered sense of time
- reduced ability to perform tasks requiring concentration and coordination, such as driving a car
- altered motivation and cognition, making the acquisition of new information difficult
- paranoia
- intense anxiety or panic attacks
- psychological dependence

*Long-term effects.*¹⁰ Because marijuana use is highly associated with cigarette smoking, determining which consequences may be attributed to marijuana use rather than to cigarette use is difficult. While not enough research has been done to determine the specific effects of marijuana, according to the American Council for Drug Education there is growing evidence that it may affect the brain, lungs, heart, and immune system. Marijuana use may

- lead to a decreased ability to concentrate
- lead to a decreased ability to learn and remember things

- delay the onset of puberty in men
- decrease sperm production in men
- disrupt the menstrual cycle and inhibit discharge of eggs from the ovaries
- damage the immune system
- increase cancer rates
- increase rates of respiratory problems and disease



Implications for Academic Success

Sustained marijuana use may directly affect academic achievement among college students who may experience increasing difficulty in problem solving and poor long-term memory. Long-term use might also lead to “amotivational syndrome,”¹⁰ in which students are unmotivated to be involved in campus life or to achieve academic, career, and personal goals. Long-term use may also lead to a decreased ability to deal with the stress that often accompanies personal growth and achievement in college. It should be noted, however, that whether or not marijuana use causes this syndrome, leads to it, or is merely associated with it has not yet been determined.



Other Causes for Concern

While not everyone becomes addicted to marijuana, in 1995 more than 165,000 people entering drug treatment programs reported marijuana as their primary drug of abuse.¹² In addition, withdrawal symptoms from marijuana may cause reactions similar to withdrawal symptoms associated with other drugs such as heroin, cocaine, and alcohol.¹²

Recent research also indicates that marijuana may alter brain chemicals in a way that makes users particularly vulnerable by priming the brain for other drug use.¹² Substance abuse, including marijuana use, is associated with a range of other problems, including violence, HIV infection, and decreased productivity.¹³

National, state, and local-level policies are aimed at reducing the use of drugs among youth in the United States. These include the Drug-Free Schools and Campuses Act, which requires that institutions of higher education adopt and implement programs to prevent the unlawful possession, use, or distribution of alcohol and other drugs by school students and employees.¹⁴ The trend toward increased use of marijuana by college students, as well as teenagers, should be recognized as problematic and addressed by institutions of higher education.



Notes

- ¹ National Institute on Drug Abuse: Marijuana Update. <<http://165.112.78.61/NIDACapsules/NCMarijuana.html>> (October 26, 2001).
- ² Mackesy-Amiti, M. E.; Fendrich, M.; and Goldstein, P. J. “Sequence of Drug Use Among Serious Drug Users: Typical vs. Atypical Progression,” *Drug and Alcohol Dependence* 45 (1997): 185–196.
- ³ Core Institute. *Statistics on Alcohol and Other Drug Use on American Campuses*. <http://www.siu.edu/departments/coreinst/public_html/recent.html>; figures for 1995–96, 1997, 1998, 1999, and 2000 (Carbondale, Ill.: The Core Institute, Southern Illinois University, 1999).
- ⁴ Gledhill-Hoyt, J.; Lee, H.; Strote, J.; Wechsler, H. “Increased Use of Marijuana and Other Illicit Drugs at U.S. Colleges in the 1990s: Results of Three National Surveys,” *Addiction* 95, no. 11 (2000): 1655–1667.
- ⁵ NCAA Research Staff. *NCAA Study of Substance Use Habits of College Student-Athletes* (The National Collegiate Athletic Association, 2001). http://www.ncaa.org/library/research/substance_use_habits/2001/substance_use_habits.pdf
- ⁶ Presley, C.A.; Meilman, P.W.; Cashin, J.R.; and Lyerla, R. *Alcohol and Drugs on American College Campuses: Use, Consequences, and Perceptions of the Campus Environment, Volume III, 1991–1993* (Carbondale, Ill.: Core Institute, Southern Illinois University, 1996).
- ⁷ Abbey, A. “Acquaintance Rape and Alcohol Consumption on College Campuses: How Are They Linked?” *Journal of American College Health* 39 (1991): 165–169.
- ⁸ NIDA. “Marijuana: Facts Parents Need to Know.” <<http://165.112.78.61/MarijBroch/Marijparentstxt.html>>.
- ⁹ Partnership for a Drug-Free America Homepage. <http://www.drugfreeamerica.org/mar_ne.html>
- ¹⁰ American Council for Drug Education. *Basic Facts About Drugs: Marijuana* (1999). <<http://www.acde.org/common/Marijana.htm>>.
- ¹¹ NIDA. “Marijuana: Facts Parents Need to Know.” <<http://165.112.78.61/MarijBroch/Marijparentstxt.html>>.
- ¹² “Not So Benign: New Findings on Marijuana,” *Prevention File* (Winter 1998): 15–17.
- ¹³ Pittayathikhun, T.; Ku, R.; Rigby, D.; Mattsson, M.; and DeJong, W. *Complying with the Drug-Free Schools and Campuses Regulations [34 CFR Part 86]: A Guide for University and College Administrators* (Washington, D.C.: U.S. Department of Education, Higher Education Center for Alcohol and Other Drug Prevention, 1997).
- ¹⁴ *Drug-Free Schools and Campuses Regulations*.

RESOURCES

The Higher Education Center for Alcohol and Other Drug Prevention



The Higher Education Center for Alcohol and Other Drug Prevention

Education Development Center, Inc.
55 Chapel Street
Newton, MA 02458-1060
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(800) 676-1730; fax (617) 928-1537
HigherEdCtr@edc.org

The Higher Education Center for Alcohol and Other Drug Prevention, established by the U.S. Department of Education, provides nationwide support for campus alcohol and other drug prevention efforts. The mission of the Higher Education Center for Alcohol and Other Drug Prevention is to assist institutions of higher education in developing alcohol and other drug (AOD) prevention policies and programs that will foster students' academic and social development and promote campus and community safety.

The Center provides the following services:

- Training and professional development activities
- Technical assistance: resources, referrals, and consultations
- Publication and dissemination of prevention materials
- Support for the Network of Colleges and Universities Committed to the Elimination of Drug and Alcohol Abuse
- Assessment, evaluation, and analysis activities



Other Organizations

National Collegiate Athletic Association (NCAA)

6201 College Boulevard
Overland Park, KS 66211
(913) 339-1906
www.ncaa.org

The National Collegiate Athletic Association is a voluntary association of more than 1,200 institutions, conferences, organizations, and individuals devoted to the administration of college athletics. The organization's aim is to maintain athletics as part of college programs and to ensure that intercollegiate athletic teams and students represent good conduct. The *NCAA Study of Substance Use and Abuse: Habits of College Student-Athletes* has measured the

substance use patterns of NCAA college athletes since 1985 and provides NCAA policymakers with trends in athlete substance use, as well as with insight into reasons for drug use and student athlete attitudes toward drug testing.

The Core Institute

Center for Alcohol and Drug Studies
Student Health Programs
Southern Illinois University at Carbondale
Carbondale, IL 62901-6802
(618) 453-4420
www.siu.edu/~coreinst/

The Core Institute is a federally funded program that assists colleges and universities in alcohol and other drug prevention efforts. The institute offers copies of the Core Alcohol and Drug Survey, a four-page questionnaire designed to be used as a pretest-posttest measure of the effectiveness of campus-based prevention programs. The survey includes questions on academic performance as well as substance use, campus climate, campus violence, beliefs about the effects of alcohol, participation in campus activities, perceptions of group norms, risks involved in using alcohol and other drugs, and secondary effects of drinking. The institute provides technical assistance on survey administration and data analysis and interpretation. The Core Survey is widely used by colleges and universities around the country and was designed to be easily administered. It is statistically reliable and valid. Copies of the Core Survey can be ordered by contacting the institute.

National Clearinghouse on Alcohol and Drug Information (NCADI)

P.O. Box 2345
Rockville, MD 20847-2345
(800) 729-6686
(301) 468-2600; fax (301) 468-6433
www.health.org

The National Clearinghouse for Alcohol and Drug Information (NCADI) is the information service of the Center for Substance Abuse Prevention of the Substance Abuse and Mental Health Services Administration in the U.S. Department of Health and Human Services. NCADI is a major resource for current information and materials concerning substance abuse. The organization responds to

public inquiries regarding alcohol and other drug use, distributes free or low-cost informational, culturally appropriate materials on prevention, intervention, and treatment, and provides access to several alcohol and other drug prevention databases.

Monitoring the Future Study

Institute for Social Research
University of Michigan
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Ann Arbor, MI 48104
(313) 764-1817
www.isr.umich.edu/src/mtf/

Each year since 1975, Monitoring the Future has surveyed a nationwide sample of high school seniors. Since 1991, the project has also included nationwide samples of 8th and 10th grade students. In addition, annual follow-up surveys are mailed to a sample of each graduating class for a number of years after their initial participation. This survey assesses the beliefs, attitudes, and behaviors of young people in the United States. Follow-up survey results are reported for undergraduate students attending college. The Monitoring the Future project is conducted by the University of Michigan's Survey Research Center.



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