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## **Adolescent Illicit Drug Use -- Understanding and Addressing the Problem**

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Illicit drug use accounts for approximately 17,000 deaths annually in the general population of the United States.<sup>[1]</sup> In addition to this significant cause of mortality, illicit drug use in both young and old is associated with substance abuse and dependence and other health and social consequences, such as exacerbation of co-occurring conditions and transmission of HIV, viral hepatitis, and sexually transmitted diseases. The public health impact of drug use involves families and communities and can be linked to motor vehicle crashes and injury due to impaired driving, child abuse and neglect, homelessness, and interpersonal violence. The direct and indirect costs of illicit drug use in the United States amount to over \$160 billion annually and include major effects on the criminal justice and social service systems. Drug abuse has been identified as one of the most serious problems faced by Americans.<sup>[2]</sup>

Drug use during adolescence is linked to several adverse outcomes, such as poor academic performance, violence, and depression. As shown by the National Household Survey on Drug Abuse (NHSDA) report issued in 2002, youths with grades of "D" or lower were more likely to have used cigarettes, alcohol, or illicit drugs within the past month than were youths with higher grades.<sup>[3]</sup> Another finding from this report found that youths involved in violent behavior were more likely to have used illicit drugs or alcohol than were youths not involved in violent behavior.<sup>[4]</sup> Increased risk for depression and suicidal behavior has also been associated with adolescent drug use.<sup>[5]</sup> According to the Substance Abuse and Mental Health Services Administration (SAMHSA), youths who use illicit drugs other than marijuana are more likely to be at risk for suicide than are youths who do not use such drugs (29.4% vs 10.1%).<sup>[6]</sup>

Findings from the 2004 Monitoring the Future survey on adolescent drug use indicate that over half of teenagers have tried an illicit drug by the time they complete high school. Additionally, although the prevalence of use among adolescents has been declining in most drug categories, use of *Vicodin*, *OxyContin*, and inhalants has been stable or on the rise.<sup>[7]</sup> Results from the 2003 Youth Risk Behavior Survey by the Centers for Disease Control and Prevention indicated that 40.2% of the surveyed students used marijuana 1 or more times during their lifetime, 8.7% of the students used cocaine at least once, 12.1% used inhalants, and 11.1% used ecstasy.<sup>[8]</sup>

An adolescent's decision to use drugs or not is the product of many forces, including social acceptability, parental influence, use promotion, substance availability, and drug policies; these mix together to provide the waters in which the adolescent navigates through one of life's most vulnerable stages, a time typified by puberty, the need to "fit in," and stresses at home, school, and in personal relationships.<sup>[9]</sup> The message that parents deliver to their children can go a long way towards an adolescent's choice to try drugs. SAMHSA has specifically studied the influence that parents have on the use of marijuana by their children. The results showed that the use of marijuana by parents increased the risk of the child using marijuana 2-fold, even after adjusting for socioeconomic status, attitude, and behavior.<sup>[10]</sup> Perception of risk by adolescents is also shaped by parental attitudes and can sway use of substances among youth. Adolescents who perceive that their parents will strongly disapprove of marijuana use are much less likely to use than are adolescents who believe that their parents would either somewhat disapprove or be indifferent.<sup>[11]</sup> Adolescents who perceived little risk from using marijuana were 12 times more likely to have used marijuana than were adolescents who believed that there was a greater risk.<sup>[10]</sup>

According to the Office of National Drug Control Policy, the United States government will spend over \$12 billion on its national drug control program in 2005. Although a significant proportion of this is devoted to domestic law enforcement and interdiction, approximately 13% will be used for the prevention of drug use, with an emphasis on prevention in adolescents.<sup>[12]</sup> Preventing adolescents from turning to drugs is challenging; successful interventions have targeted availability, promotion, enforcement, community norms, and individual factors.

Providing young people with effective outlets to connect with others and focus their energies can assist them in the challenges they face in growing up and can prevent drug use. Analysis of data from the 2003 National Survey on Drug Use and Health (NSDUH) revealed that youths who had talked with a parent about drugs were less likely to use illicit drugs than were those who had not. However, only 59% of those surveyed reported having a conversation with their parents.<sup>[13]</sup> The study also revealed that 91% of adolescents aged 12-17 reported engaging in some organized activity; those who did were less likely to use marijuana compared with adolescents who did not participate in organized activities. Lower rates of illicit drug use (other than marijuana) were observed for youths involved in school-based, community-based, and faith-based activities as well.<sup>[14]</sup> These results are consistent with a prior NHSDA report that found that adolescents who participated in team sports were less likely to use any illicit drug compared with those who did not, and were also more likely to report disapproval of peer use of illicit drugs compared with nonparticipants.<sup>[15]</sup>

Efforts to curb adolescent drug use must also address availability of illicit substances. Young people surveyed in the 2002 NSDUH who reported that they were approached by a person selling drugs within the past month were more likely to have used drugs during that same period than were young people who had not been approached. For example, adolescents who were approached by someone selling marijuana were more likely to use than were those who had not been approached by a seller (29.4% vs 3.9%).<sup>[16]</sup> Although

regulation of precursors to methamphetamine production has reduced drug-related hospital admissions and arrests, the extent to which this strategy reduces substance availability and drug use needs further examination.<sup>[17,18]</sup> Similarly, the impact of state-controlled substances monitoring systems and other enforcement activities that diminish prescription narcotic fraud, diversion, and Internet sales on the availability, cost, and nonmedical use requires clarification.<sup>[19]</sup>

Communities can influence the environment surrounding adolescents by implementing policies such as drug-free school zones, ensuring code enforcement to prevent drug use, and creating mass-media campaigns to communicate the unacceptability of drug use in the community.<sup>[20]</sup> One such community-wide mass-media campaign decreased marijuana use among high-sensation-seeking adolescents by 27%.<sup>[21]</sup> Additional methods that communities can employ to make the environment less conducive to adolescent drug use involves renovating or altering existing structures to avoid their use as sites for selling illicit drugs and forming citizen watch programs to keep drug dealers out of neighborhoods.<sup>[22]</sup>

Many undesirable consequences are associated with adolescent substance use. Adolescents who begin the trek down this road increase their risk for sexually transmitted diseases, unintended pregnancy, injury from fights, motor vehicle accidents, and many other sequelae, including death.<sup>[23]</sup> If adolescents abstain from using drugs, significant developmental milestones can be realized; interpersonal, social, and legal harms avoided; and a future of drug addiction potentially averted. A comprehensive public health approach to address adolescent drug use must take into consideration the characteristics and vulnerabilities of this special population, the family and community within which the individuals reside, and the social norms and environmental policies that support the well-being of the population. Further efforts are needed to develop and strengthen strategies that effectively prevent substance use and its consequences among young people.

*For more detailed information on drug use in adolescents, including updates on treatment, please view ACPM's LIVE Webcast, "Current Trends in Drug Use Among Adolescents: Strategies for Prevention and Treatment," on September 28, 2005 at 1:00 pm ET. The live Webcast, and afterwards the archive and written transcript, can be found at: [www.medscape.com/publichealthhome](http://www.medscape.com/publichealthhome).*

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