

The DAWN Report

December 8, 2011

Emergency Department Visits Involving Illicit Drug Use among Males

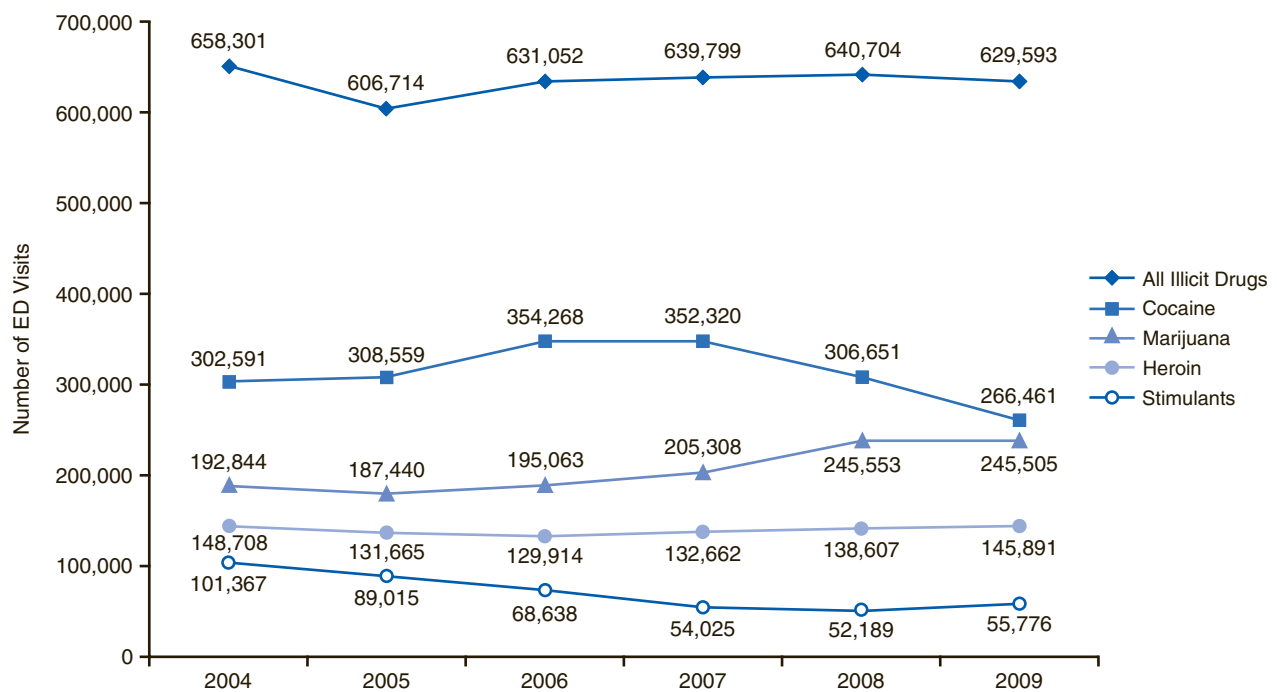
The use of illicit drugs (e.g., marijuana, heroin, and cocaine) may lead to serious health issues such as unintentional injuries, car

accidents, and overdoses that may require acute emergency care. National Survey on Drug Use and Health (NSDUH) data show that 1 in 10 males aged 12 or older reported past month illicit drug use in 2009, compared with 1 in 15 females.¹ The same data show that males were also more likely than females to be past month users of marijuana (8.6 vs. 4.8 percent),¹ the use of which has been found to contribute to traffic accidents and other injuries.² The higher illicit drug rates for males suggests that negative consequences associated with illicit drug use, such as emergency department (ED) visits, may be disproportionately found among males.

The Drug Abuse Warning Network (DAWN) is a public health surveillance system that monitors drug-related ED visits in the United States. To be a DAWN case, an ED visit must have involved a drug, either as the direct cause of the visit or as a contributing factor. Data are collected on numerous illicit drugs, including cocaine, marijuana, heroin, and stimulants (i.e., amphetamines and methamphetamines).

In Brief

- Combined 2004 to 2009 data indicate that males made an annual average of 634,361 emergency department (ED) visits involving illicit drugs
- Cocaine was involved in nearly half of all the ED visits involving the use of illicit drugs among males (49.7 percent)
- About two fifths (43.4 percent) of visits for illicit drugs among males involved one illicit drug only, whereas one fifth (20.3 percent) of visits involved multiple illicit drugs
- Nearly 3 in 10 (29.2 percent, or 185,016 visits annually) ED visits involving illicit drugs by males resulted in hospitalization

Figure 1. Emergency Department (ED) Visits Involving Illicit Drugs among Males, by Year: 2004 to 2009

Source: 2004 to 2009 estimates from the 2009 SAMHSA Drug Abuse Warning Network (DAWN).

This issue of *The DAWN Report* focuses on ED visits involving illicit drug use among males. Data for 2004 to 2009 are presented, both as trends over time and also as annual averages for the 6-year period. Illicit drug use among females is covered in a separate report.

Trends in ED Visits

Combined 2004 to 2009 data indicate that males made an annual average of 634,361 ED visits involving illicit drugs. From 2004 to 2009, the number of ED visits involving illicit drugs among males remained unchanged (Figure 1). Although the number of ED visits involving marijuana appeared to increase between 2004 (192,844 visits) and 2009 (245,505 visits), the difference was not statistically significant. Similarly, the number of stimulant-related ED

visits appears to decline between 2004 (101,367 visits) and 2009 (55,776 visits), but the difference was not statistically significant.

Age

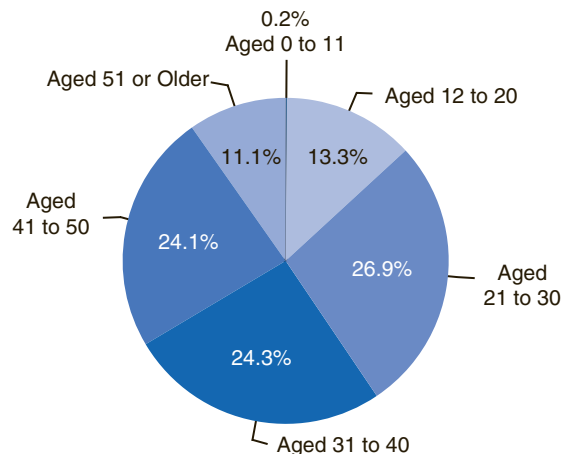
Approximately three fourths of drug-related visits among males involving illicit drugs were evenly distributed among three groups: males aged 21 to 30, males aged 31 to 40, and males aged 41 to 50 (Figure 2). Specifically, 26.9 percent of visits were made by males aged 21 to 30, 24.3 percent were made by males aged 31 to 40, and 24.1 percent were made by males aged 41 to 50. The remaining ED visits among persons aged 12 to 20 and aged 51 to 60 were similar to each other—each comprised slightly more than 10 percent of visits.

Types of Illicit Drugs Involved in ED Visits

Cocaine was the most commonly involved drug among ED visits involving the use of illicit drugs among males (49.7 percent) (Table 1). About 1 in 3 visits (33.4 percent) involved marijuana, about 1 in 5 visits (21.7 percent) involved heroin, and about 1 in 10 visits (11.1 percent) involved stimulants. Marijuana was the drug most commonly involved in visits among males aged 20 or younger, whereas cocaine was the drug most commonly involved in visits made by males aged 31 or older.

About two fifths (43.4 percent) of visits for illicit drugs among males involved one illicit drug only, whereas one fifth (20.3 percent) of visits involved multiple illicit drugs (Table 1). Many visits also involved illicit drugs combined with alcohol only (27.4 percent), illicit drugs combined with pharmaceuticals only

Figure 2. Emergency Department (ED) Visits Involving Illicit Drugs among Males, by Age: 2004 to 2009



Source: 2004 to 2009 estimates from the 2009 SAMHSA Drug Abuse Warning Network (DAWN).

Table 1. Emergency Department (ED) Visits Involving Illicit Drugs among Males, by Drug Category and Combination: 2004 to 2009

Drug Category/Combination*	Estimated Number of ED Visits	Percentage of Visits
Total ED Visits	634,361	100.0
Cocaine	315,142	49.7
Marijuana	211,952	33.4
Heroin	137,908	21.7
Stimulants	70,168	11.1
Methamphetamines	55,560	8.8
Amphetamines	18,008	2.8
One Illicit Drug Only	275,339	43.4
Illicit Drugs in Combination*	359,022	56.6
Multiple Illicit Drugs	129,048	20.3
Illicit Drug(s) and Alcohol Only	174,036	27.4
Illicit Drug(s) and Pharmaceutical Drug(s) Only	83,669	13.2
Illicit Drug(s), Alcohol, and Pharmaceutical Drug(s)	41,416	6.5

* Because multiple drugs may be involved in each visit, estimates of visits by drug add to more than the total, and percentages add to more than 100 percent. Visits involving multiple illicit drugs may also include alcohol or pharmaceuticals.

Source: 2004 to 2009 estimates from the 2009 SAMHSA Drug Abuse Warning Network (DAWN).

(13.2 percent), and illicit drugs combined with alcohol and pharmaceuticals (6.5 percent).

Disposition of ED Visits

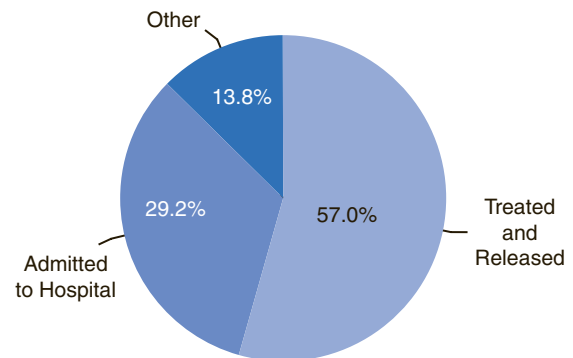
More than half (57.0 percent) of males making an ED visit for illicit drugs were treated and released (Figure 3). Of the total ED visits, the majority (44.4 percent) were discharged to home, with 7.2 percent referred to drug detoxification treatment, and 5.4 percent discharged back into police custody (data not shown).

Nearly 3 in 10 (29.2 percent, or 185,016 visits annually) ED visits involving illicit drugs by males resulted in hospitalization. Of these, 3.1 percent were admitted to the intensive or critical care unit, 3.1 percent were admitted to an inpatient chemical dependency or drug detoxification unit, and 12.9 percent were admitted to another inpatient unit.

Discussion

National rates of male ED visits for illicit drugs remained essentially unchanged between 2004 and 2009, indicating little improvement in preventing medically significant sequelae from use of illicit substances by this population. That approximately 30 percent of males who make ED visits related to illicit drugs are hospitalized as a result of their visit indicates that this is a serious public health problem. The findings in this report suggest that drug prevention and treatment programs including older males should address cocaine use and that programs involving younger males should emphasize the dangerous effects of marijuana. Although marijuana is sometimes perceived as harmless, studies show that marijuana impairs coordination, and early initiation and prolonged use can impact cognition and mental health.³

Figure 3. Disposition of Emergency Department (ED) Visits Involving Illicit Drugs among Males: 2004 to 2009



Source: 2004 to 2009 estimates from the 2009 SAMHSA Drug Abuse Warning Network (DAWN).

More than half of visits among males involved an illicit drug in combination with one or more other drugs. This is a cause for concern because polydrug use (use of more than one substance concurrently in the past year) has been found to be significantly associated with poorer mental health among the general population, and polydrug use in general is more common among males.⁴ In the short term, these patients may experience dangerous drug interactions, requiring more advanced treatment in the ED. Assessing and documenting the presence of multiple drugs in the ED can inform appropriate drug treatment and safe detoxification, especially when alcohol or pharmaceutical drugs are also involved.⁵ In the long term, the ED offers an effective venue to identify males at risk for experiencing the negative consequences of drug use and directing them to appropriate treatment within the community.

End Notes

- ¹ Office of Applied Studies. (2010). *Results from the 2009 National Survey on Drug Use and Health: Volume I. Summary of national findings* (NSDUH Series H-38A, HHS Publication No. SMA 10-4586Findings). Rockville, MD: Substance Abuse and Mental Health Services Administration. [Available at <http://oas.samhsa.gov/nsduhLatest.htm>]
- ² Ramaekers, J. G., Berghaus, G., van Laar, M., & Drummer, O. H. (2004). Dose related risk of motor vehicle crashes after cannabis use. *Drug and Alcohol Dependence*, 73(2), 109-119.
- ³ National Institute on Drug Abuse. (2010, November). *NIDA Infofacts: Marijuana*. Bethesda, MD: Author. [Available as a PDF at <http://www.nida.nih.gov/PDF/InfoFacts/Marijuana.pdf>]
- ⁴ Smith, G. W., Farrell, M., Bunting, B. P., Houston, J. E., & Shevlin, M. (2011). Patterns of polydrug use in Great Britain: Findings from a national household population survey. *Drug and Alcohol Dependence*, 113(2-3).
- ⁵ Center for Substance Abuse Treatment. (2006). Physical detoxification services for withdrawal from specific substances. In Center for Substance Abuse Treatment, *Detoxification and substance abuse treatment* (Treatment Improvement Protocol [TIP] No. 45 DHHS Publication No. SMA 06-4131; pp. 41-111). Rockville, MD: Substance Abuse and Mental Health Services Administration.

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Findings from SAMHSA's 2004 to 2009 Drug Abuse Warning Network (DAWN)

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The Drug Abuse Warning Network (DAWN) is a public health surveillance system that monitors drug-related morbidity and mortality. DAWN uses a probability sample of hospitals to produce estimates of drug-related emergency department (ED) visits for the United States and selected metropolitan areas annually. DAWN also produces annual profiles of drug-related deaths reviewed by medical examiners or coroners in selected metropolitan areas and States.

Any ED visit related to recent drug use is included in DAWN. All types of drugs—licit and illicit—are covered. Alcohol involvement is documented for patients of all ages if it occurs with another drug. Alcohol is considered an illicit drug for minors and is documented even if no other drug is involved. The classification of drugs used in DAWN is derived from the Multum *Lexicon*, copyright 2010 Lexi-Comp, Inc., and/or Cerner Multum, Inc. The Multum Licensing Agreement governing use of the *Lexicon* can be found at http://dawninfo.samhsa.gov/drug_vocab.

DAWN is one of three major surveys conducted by the Substance Abuse and Mental Health Services Administration's Center for Behavioral Health Statistics and Quality (SAMHSA/CBHSQ). For more information on other CBHSQ surveys, go to <http://www.oas.samhsa.gov/>. SAMHSA has contracts with Westat (Rockville, MD) and RTI International (Research Triangle Park, NC) to operate the DAWN system and produce publications.

For publications and additional information about DAWN, go to <http://DAWNinfo.samhsa.gov>



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