

The DAWN Report

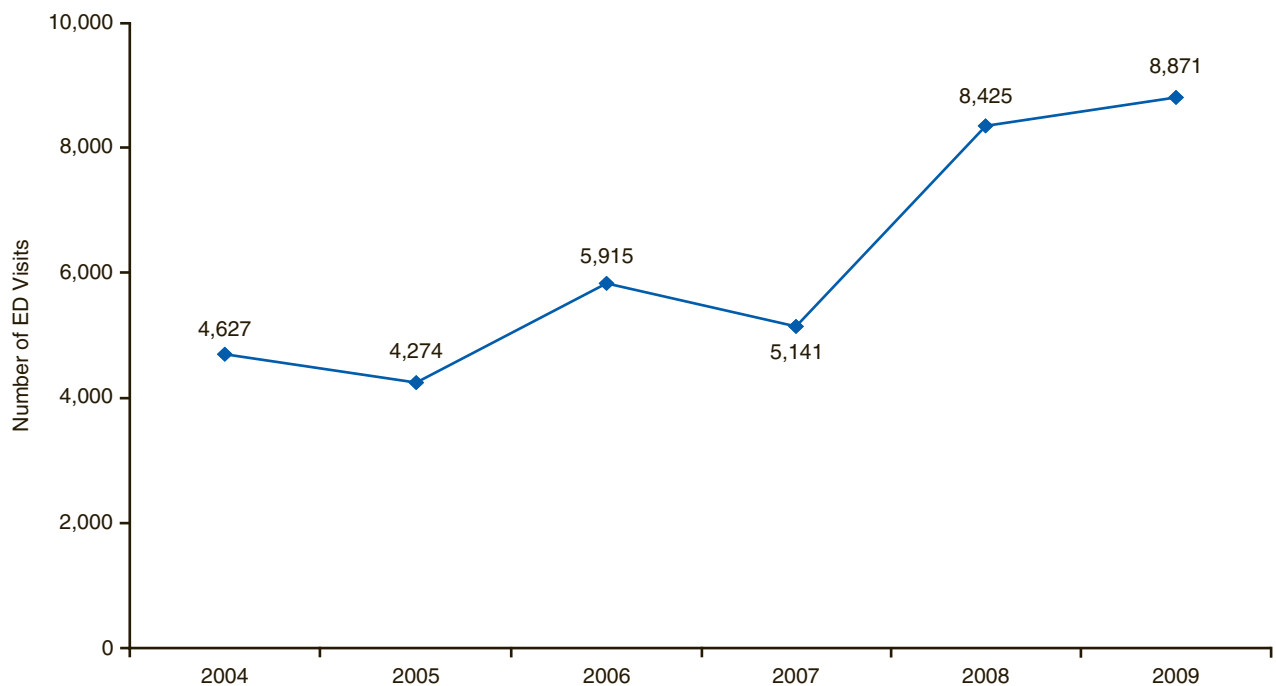
December 8, 2011

Emergency Department Visits Involving Illicit Drug Use among Females

In Brief

- Combined 2004 to 2009 data indicate that females made an annual average of 333,780 emergency department (ED) visits involving illicit drugs
- Cocaine was the most commonly identified drug among ED visits involving the use of illicit drugs among females (53.7 percent), followed by marijuana (31.9 percent), and heroin (18.3 percent)
- Among ED visits involving illicit drugs among females, about two fifths (42.8 percent) of visits involved only one illicit drug, while about three fifths (57.2 percent) involved an illicit drug in combination with other drugs
- Among ED visits by females involving illicit drugs, 56.9 percent were treated and released, 28.7 percent were hospitalized, and 14.4 percent had some other disposition

Although females have lower rates of illicit drug use than males, a significant number of females still use illicit drugs. Specifically, data from the National Survey on Drug Use and Health (NSDUH) show that 6.6 percent of females aged 12 or older reported past month illicit drug use in 2009, which represented a slight increase from the 2007 rate (5.8 percent).¹ Current evidence shows important differences between males and females with respect to illicit drug use or abuse. Compared with males, for example, females may progress from first use to dependence more quickly and be less likely to seek treatment.^{2,3} Also, females who enter drug abuse treatment have a higher prevalence of co-occurring mental health disorders compared with males.⁴ The study of the characteristics of female patients entering the emergency department (ED) for medical emergencies related to illicit drug use may help identify the treatment needs of women and ensure their inclusion in drug treatment planning.

Figure 1. Emergency Department (ED) Visits Involving Ecstasy among Females, by Year: 2004 to 2009*

* The difference between the number of visits for 2004 and 2009 is statistically significant at the 0.05 level.

Source: 2004 to 2009 (08/2009 update) SAMHSA Drug Abuse Warning Network (DAWN).

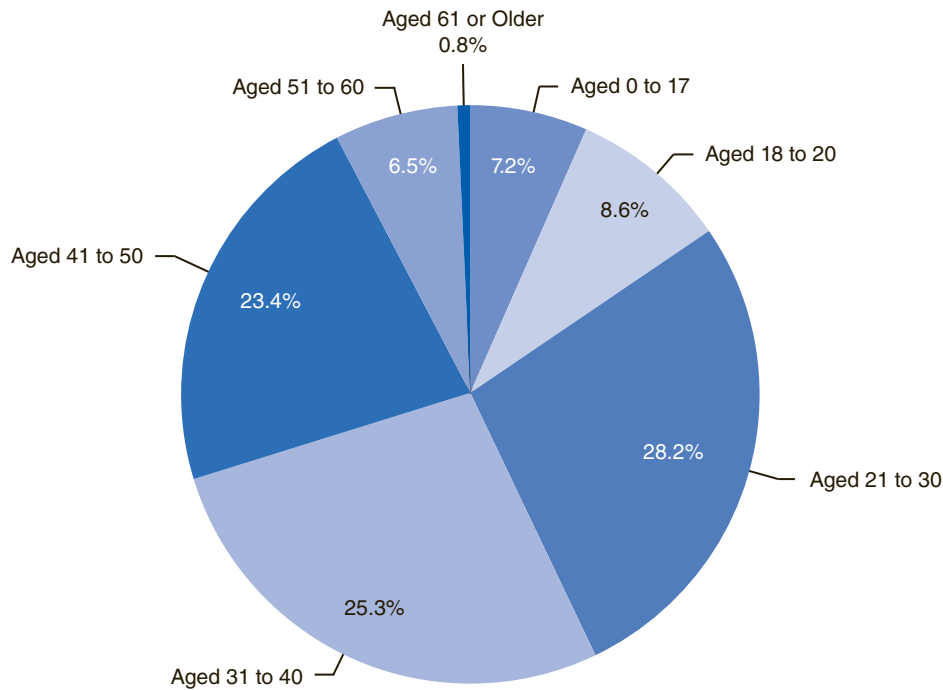
The Drug Abuse Warning Network (DAWN) is a public health surveillance system that monitors drug-related ED visits in the United States. To be a DAWN case, an ED visit must have involved a drug, either as the direct cause of or as a contributing factor to the ED visit. Data are collected on numerous illicit drugs, including cocaine, marijuana, heroin, amphetamines and hallucinogens, as well as prescription drugs, over-the-counter medications, and nutritional supplements. Data also are collected for visits involving alcohol in combination with other drugs for persons aged 21 or older and for visits with any alcohol involvement for persons aged 20 or younger. This issue of *The DAWN Report* focuses on ED visits involving illicit drug use among females based on annual averages for combined 2004 to 2009 data and the trends between these years. A separate issue of *The DAWN Report* addresses ED visits involving illicit drug use among males.⁵

Trends in ED Visits

Combined 2004 to 2009 data indicate that females made an annual average of 333,780 ED visits that involved illicit drugs. From 2004 to 2009, the number of ED visits involving illicit drugs among females was unchanged overall, with no significant improvements for cocaine, heroin, or stimulants. The number of visits involving marijuana among females was 88,317 visits in 2004 compared with 130,672 visits in 2009, although the difference was not statistically significant.

Visits involving one illicit drug showed a statistically significant increase. Specifically, the number of ED visits involving Ecstasy among females increased 91.7 percent, from 4,627 visits in 2004 to 8,871 visits in 2009 (Figure 1).

Figure 2. Age Distribution for Emergency Department (ED) Visits Involving Illicit Drugs among Females: 2004 to 2009



Source: 2004 to 2009 (08/2009 update) SAMHSA Drug Abuse Warning Network (DAWN).

Age

Combined 2004 to 2009 data indicate that females aged 21 to 50 accounted for about 75 percent of ED visits involving abuse of illicit drugs by females (Figure 2). Specifically, females aged 21 to 30 made 28.2 percent, females aged 31 to 40 made 25.3 percent, and females aged 41 to 50 made 23.4 percent of these ED visits.

Types of Illicit Drugs Involved in ED Visits

For ED visits among females, the most frequently involved illicit drug was cocaine (53.7 percent) (Table 1). Nearly one third (31.9 percent) of visits involved marijuana, nearly one fifth (18.3 percent) involved heroin, and more than one tenth (12.8 percent) involved stimulants. Among females aged 17 or younger and those aged 18 to 20, marijuana was the drug most commonly involved (72.6 and

55.1 percent, respectively); however, cocaine was the drug most commonly involved in visits made by females aged 21 or older (data not shown).

Among ED visits involving illicit drugs among females, about two fifths (42.8 percent) of visits involved only one illicit drug, while about three fifths (57.2 percent) involved an illicit drug in combination with other drugs (Table 1). Overall, one fifth (20.3 percent) involved multiple illicit drugs with no alcohol or pharmaceutical involvement. Other visits involved illicit drug(s) in combination with alcohol only (20.7 percent) or illicit drug(s) in combination with pharmaceutical(s) only (19.5 percent).

Disposition of ED Visits

Among ED visits by females involving illicit drugs, 56.9 percent were treated and released (Figure 3). Of these, 46.6 percent were discharged to home, 7.0 percent were referred to drug detoxification

treatment, and 3.4 percent were discharged back into police custody (data not shown).

Over one in four (28.7 percent, or 95,857 visits annually) ED visits involving illicit drugs by females resulted in hospitalization. Of these, 9.3 percent were admitted to the psychiatric unit, 3.8 percent were admitted to an intensive or critical care unit, 3.0 percent were admitted to an inpatient chemical dependency or drug detoxification unit, and 12.6 percent were admitted to another inpatient unit (data not shown).

Discussion

Comparison of these findings with those in a previously published report⁵ regarding ED visits involving illicit drugs among males reveals that visits by women are more likely to involve combinations of illicit drugs with pharmaceuticals, while visits by men are more likely to involve combinations of illicit drugs with alcohol. These differences in substance use behaviors can be considered during planning of prevention and treatment programs.

The findings in this report suggest that prevention and intervention campaigns focusing on illicit drug use can benefit females of all ages. Health clinics that specialize in women’s health, including obstetric and gynecologic medical practices, may be one avenue for prevention efforts to reach both younger and older

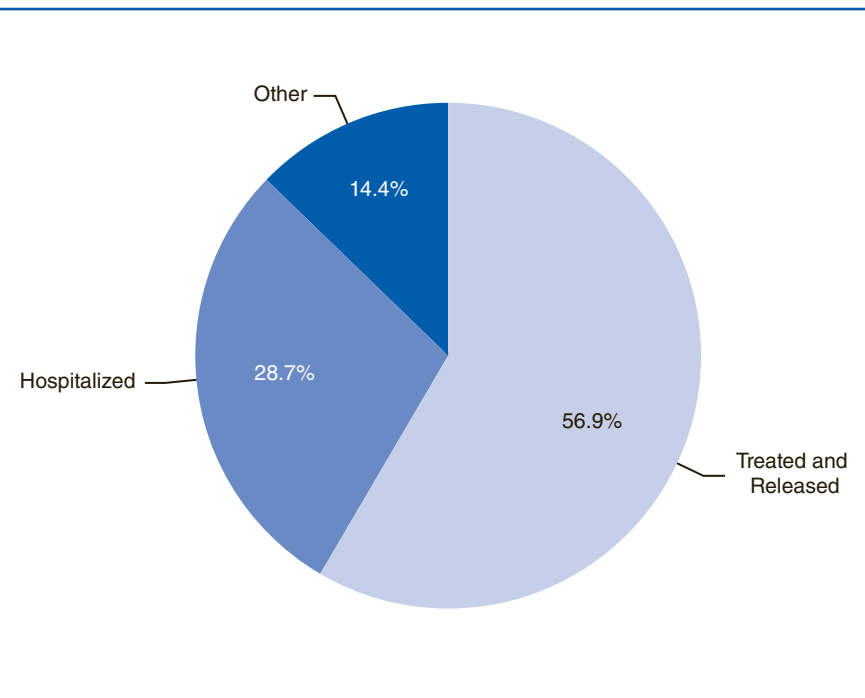
Table 1. Emergency Department (ED) Visits Involving Illicit Drugs among Females: 2004 to 2009

Drug Category/Combination	Annual Average Number of ED Visits	Percentage of Visits*
Total ED Visits	333,780	100.0
Cocaine	179,095	53.7
Marijuana	106,349	31.9
Heroin	60,966	18.3
Stimulants	42,831	12.8
Methamphetamines	31,183	9.3
Amphetamines	13,928	4.2
One Illicit Drug Only	142,989	42.8
Illicit Drugs in Combination*	190,791	57.2
Multiple Illicit Drugs Only	67,819	20.3
Illicit Drug(s) and Alcohol	68,962	20.7
Illicit Drug(s) and Pharmaceutical Drug(s)	65,216	19.5
Illicit Drug(s), Alcohol, and Pharmaceutical Drug(s)	24,372	7.3

* Because multiple drugs may be involved in each visit, estimates of visits by drug may add to more than the total and percentages may add to more than 100 percent.

Source: 2004 to 2009 (08/2009 update) SAMHSA Drug Abuse Warning Network (DAWN).

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



Source: 2004 to 2009 (08/2009 update) SAMHSA Drug Abuse Warning Network (DAWN).

females. Middle and high schools, community colleges, and universities may provide additional avenues for prevention campaigns targeting younger females.

For the 3 in 10 ED visits involving illicit drugs that result in hospitalization, the hospital stay may extend the opportunity for providers to give women information about the risks of using illicit drugs in general and combining drugs in particular. In addition, the stay may be an opportunity for assessment of and screening for substance abuse. Hospital and ED services also can provide a link to available treatment options within the community.

In order to be comprehensive, substance abuse treatment programs must address issues specific to women's needs. Services associated with parenting and pregnancy can promote positive birth outcomes and child welfare; ancillary services such as child care support a mother's ability to stay in treatment. Mental health services also are important; studies show that women with substance abuse problems are more likely than men to have co-occurring mental health disorders.⁶ The Substance Abuse and Mental Health Administration (SAMHSA) makes available materials addressing women's specific treatment needs to assist providers who treat adult women with substance use disorders. For example, SAMHSA's Center for Substance Abuse Treatment has published a review on gender-specific research and best practices, such as common patterns of initiation of substance use among women, and specific treatment issues and strategies.⁷

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://www.oas.samhsa.gov/NSDUH/2k9NSDUH/2k9ResultsP.pdf>]
- ² Yan, J. (2010, July 2). Gender a key consideration in substance abuse treatment. *Psychiatric News*, 45(13),16. Retrieved August 31, 2010 from <http://pn.psychiatryonline.org/content/45/13/16.1.full>.
- ³ Greenfield, S. F., Brooks, A. J., Gordon, S. M., Green, C. A., Kropp, F., McHugh, R. K., Lincoln, M., Hien, D., & Miele, G. M. (2007). Substance abuse treatment entry, retention, and outcome in women: A review of the literature. *Drug and Alcohol Dependence*, 86, 1-21.
- ⁴ Torrens, M., Gilchrist, G., Domingo-Salvany, A., & the psyCoBarcelona Group. (2011). Psychiatric comorbidity in illicit drug users: Substance-induced versus independent disorders. *Drug and Alcohol Dependence*, 113, 147-156.
- ⁵ Substance Abuse and Mental Health Services Administration. (2011, July 21). *The DAWN Report: Emergency department visits involving illicit drug use among males*. Rockville, MD: Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality.
- ⁶ Brady, T. M., & Ashley, O. S. (Eds.). (2005). *Women in substance abuse treatment: Results from the Alcohol and Drug Services Study (ADSS)* (DHHS Publication No. SMA 04-3968, Analytic Series A-26). Rockville, MD: Substance Abuse and Mental Health Services Administration, Office of Applied Studies.
- ⁷ Center for Substance Abuse Treatment. (2009). *Substance abuse treatment: Addressing the specific needs of women* (Treatment Improvement Protocol [TIP] Series 51. HHS Publication No. SMA 09-4426). 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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