

The TEDS Report

April 3, 2014

Gender Differences in Primary Substance of Abuse across Age Groups

National data consistently show that gender is an important factor to consider when examining patterns of substance abuse, such as overall prevalence rates and substances of choice.^{1,2} For example, males are more likely than females to report marijuana and alcohol use, whereas females are more likely than males to report nonmedical use of prescription drugs.^{3,4} Also, differences in substance abuse patterns among men and women vary by age. Data from the 2011 National Survey on Drug Use and Health show that men aged 18 or older have almost twice the rate of substance dependence as adult women, but among youths aged 12 to 17, the rate of substance dependence for both genders is the same (6.9 percent).¹ Knowledge of how gender can interact with age and patterns of substance abuse may be useful to those responsible for the design of outreach, prevention, and treatment programs.

The Treatment Episode Data Set (TEDS) collects data on admissions to substance abuse treatment facilities across the United States and can be used to examine differences in primary substance of abuse among males and females by age. TEDS collects information on up to three substances of abuse that led to the treatment episode. The main substance abused by the client is known as the “primary substance of abuse.” For each admission, data on primary substance of abuse are reported at the time of treatment entry. The analyses in this report are based on TEDS data for 2011.

TEDS is a census of all admissions to treatment facilities reported to the Substance Abuse and Mental Health Services Administration (SAMHSA) by State substance abuse agencies. Because TEDS involves actual counts rather than estimates, statistical significance and confidence intervals are not applicable. The differences mentioned in the text of this report have Cohen’s h effect size ≥ 0.20 , indicating that they are considered to be meaningful.



IN BRIEF

In 2011, about 609,000 of the 1.84 million admissions to substance abuse treatment were female (33.1 percent), and 1.23 million were male (66.9 percent)

Compared with their male counterparts, a larger proportion of female admissions aged 12 to 17 reported alcohol as their primary substance of abuse (21.7 vs. 10.5 percent)

Marijuana as the primary substance of abuse was less common among female than male admissions aged 12 to 17 (60.8 vs. 80.7 percent) and 18 to 24 (22.1 vs. 33.4 percent)

Within the 65 or older age group, the proportion of female admissions reporting primary abuse of prescription pain relievers (e.g., oxycodone) was nearly 3 times that of their male counterparts (7.2 vs. 2.8 percent)

Overview and Demographic Characteristics

In 2011, about 609,000 of the 1.84 million admissions to substance abuse treatment were female (33.1 percent), and 1.23 million were male (66.9 percent). In general, the proportions of female and male admissions are similar for each of the seven age categories shown in Table 1.

No meaningful gender differences were found by race/ethnicity. Specifically, the majority of female and male

admissions (66.4 and 58.2 percent, respectively) were non-Hispanic White. The percentages of female and male admissions that were non-Hispanic Black and Hispanic were similar.

Gender Profiles

No appreciable gender differences were found by primary substances of abuse overall (Figure 1). Alcohol was the most commonly reported primary substance of

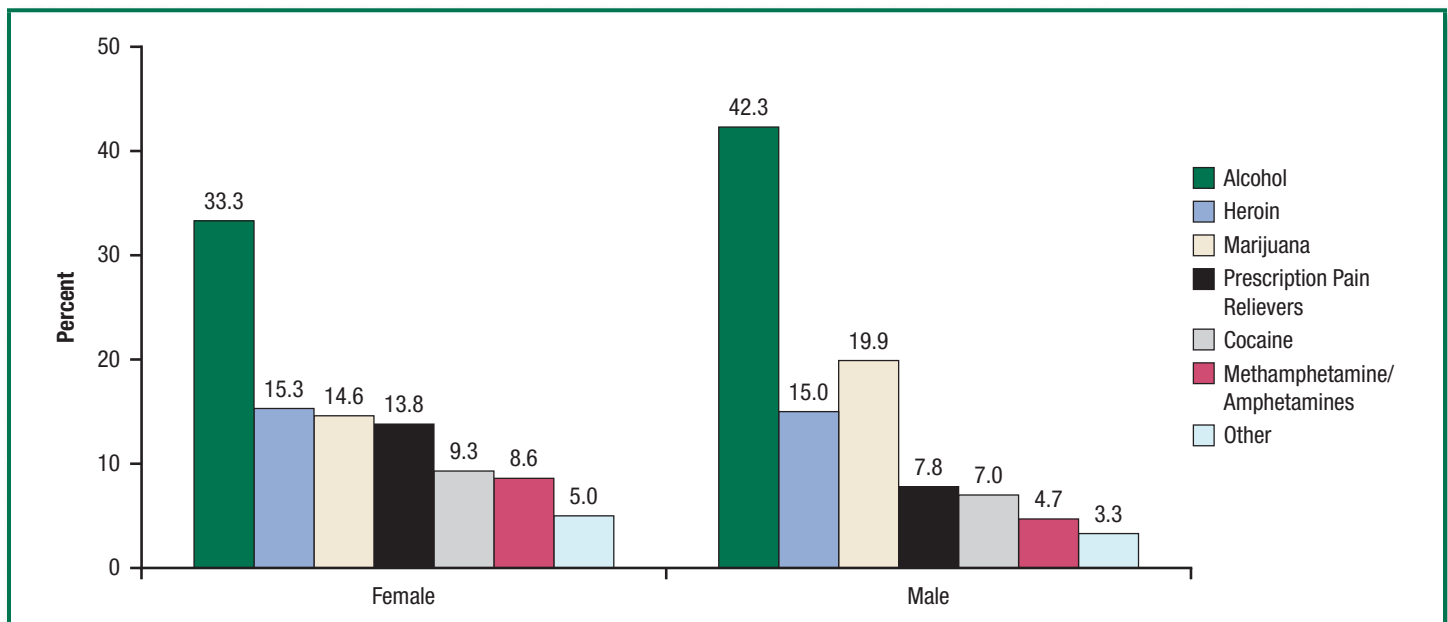
Table 1. Substance Abuse Treatment Admissions Aged 12 or Older, by Gender and Age Group: 2011

	Female		Male		Total	
	Number	Percent	Number	Percent	Number	Percent
12-17	38,185	6.3	99,650	8.1	137,835	7.5
18-24	121,949	20.0	222,604	18.0	344,553	18.7
25-34	196,519	32.3	329,512	26.7	526,031	28.6
35-44	124,361	20.4	250,682	20.3	375,043	20.4
45-54	100,501	16.5	242,690	19.7	343,191	18.6
55-64	24,561	4.0	78,199	6.3	102,760	5.6
65 or Older	3,108	0.5	9,969	0.8	13,077	0.7
TOTAL	609,184	100	1,233,306	100	1,842,490	100

Note: The percentages may not sum to 100 percent due to rounding.

Source: SAMHSA Treatment Episode Data Set (TEDS), 2011.

Figure 1. Substance Abuse Treatment Admissions Aged 12 or Older, by Gender and Primary Substance of Abuse: 2011



Note: The percentages may not sum to 100 percent due to rounding.

Source: SAMHSA Treatment Episode Data Set (TEDS), 2011.

abuse by female (33.3 percent) and male (42.3 percent) admissions. Among females, alcohol was followed by heroin (15.3 percent), marijuana (14.6 percent), and prescription pain relievers (13.8 percent); among males, the next most frequently reported substances were marijuana (19.9 percent), heroin (15.0 percent), and prescription pain relievers (7.8 percent).

Differences in Primary Substance of Abuse

Analyses by gender and age were conducted for the six most commonly reported primary substances of abuse: alcohol, marijuana, heroin, prescription pain relievers, cocaine, and methamphetamine/amphetamines. Four of these substances (the exceptions were cocaine and heroin) showed meaningful gender difference (Cohen's $h \geq .20$) in at least one age group.

Alcohol and Marijuana

Compared with their male counterparts, a larger proportion of female admissions aged 12 to 17 reported alcohol as their primary substance of abuse (21.7 vs. 10.5 percent) (Figure 2). This pattern changed among

adult admissions. Among admissions aged 25 to 34, a smaller proportion of female admissions than male admissions reported alcohol as their primary substance of abuse (25.9 vs. 36.5 percent).

Marijuana was reported as the primary substance of abuse less frequently by females than males among admissions aged 12 to 17 (60.8 vs. 80.7 percent) and 18 to 24 (22.1 vs. 33.4 percent) (Figure 3). There was no variation by gender in primary marijuana abuse among admissions aged 25 or older.

Methamphetamine/Amphetamines

The proportions of female and male admissions reporting methamphetamine/amphetamines as their primary substance of abuse were similar across all age groups with the exception of those aged 18 to 24. Specifically, among admissions aged 18 to 24, 8.9 percent of female admissions reported primary methamphetamine/amphetamine abuse compared with 3.7 percent of male admissions (Figure 4).

Figure 2. Alcohol as the Primary Substance of Abuse among Substance Abuse Treatment Admissions Aged 12 or Older, by Gender and Age: 2011

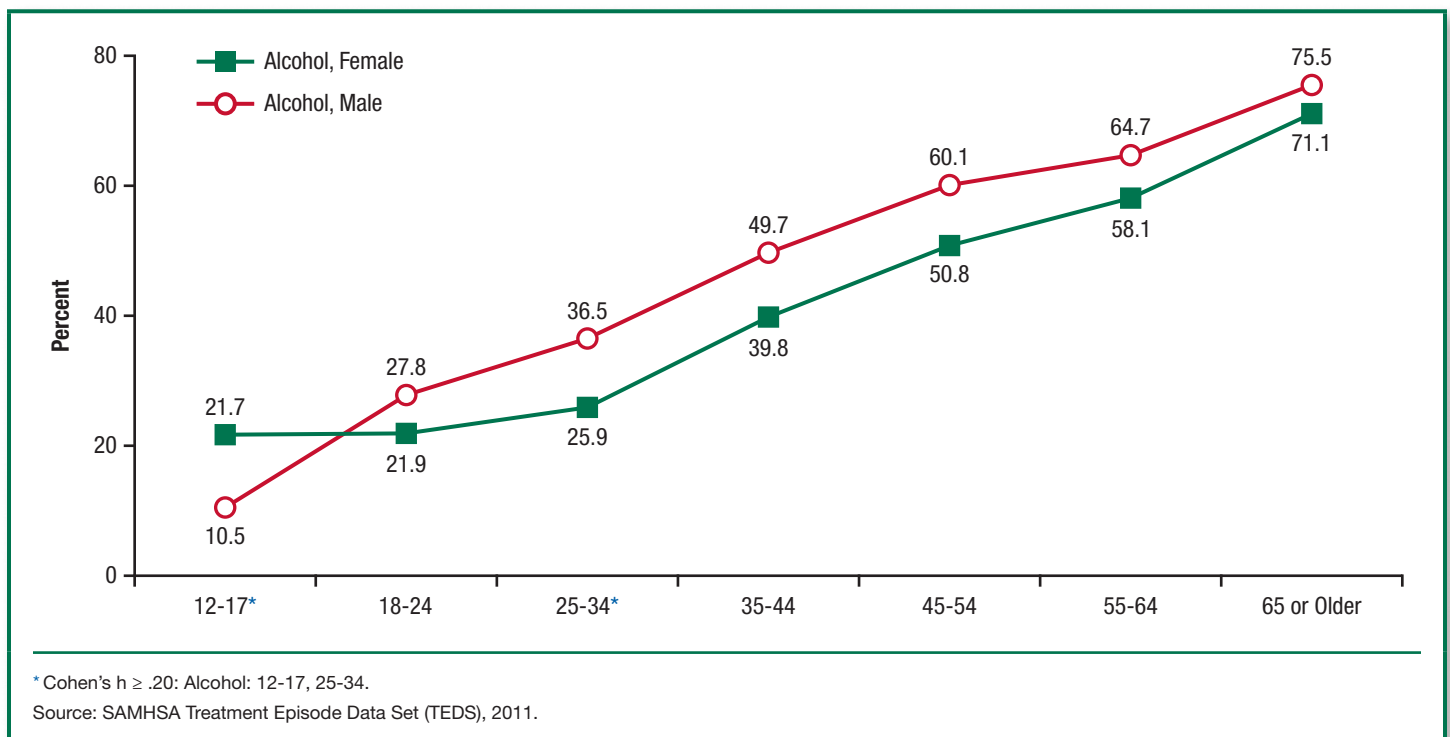


Figure 3. Marijuana as the Primary Substance of Abuse among Substance Abuse Treatment Admissions Aged 12 or Older, by Gender and Age: 2011

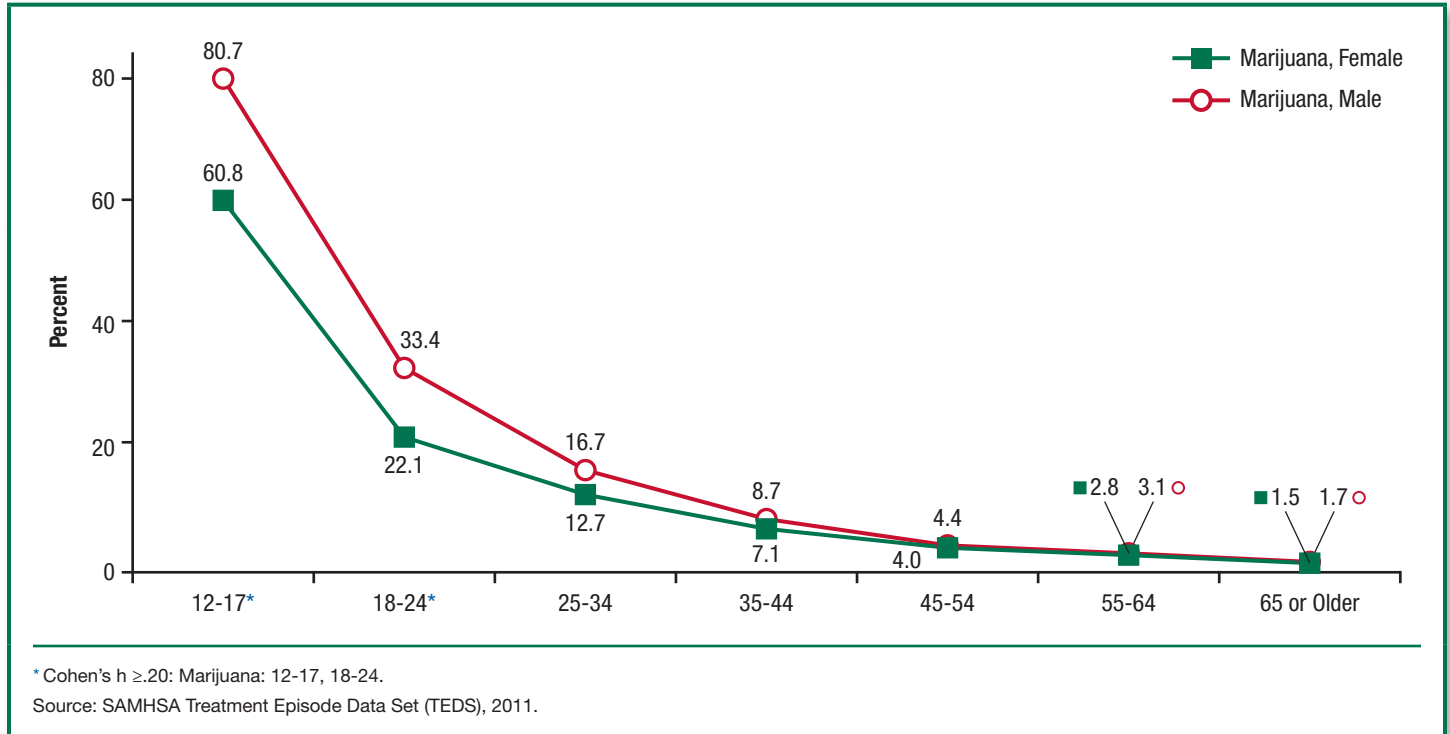
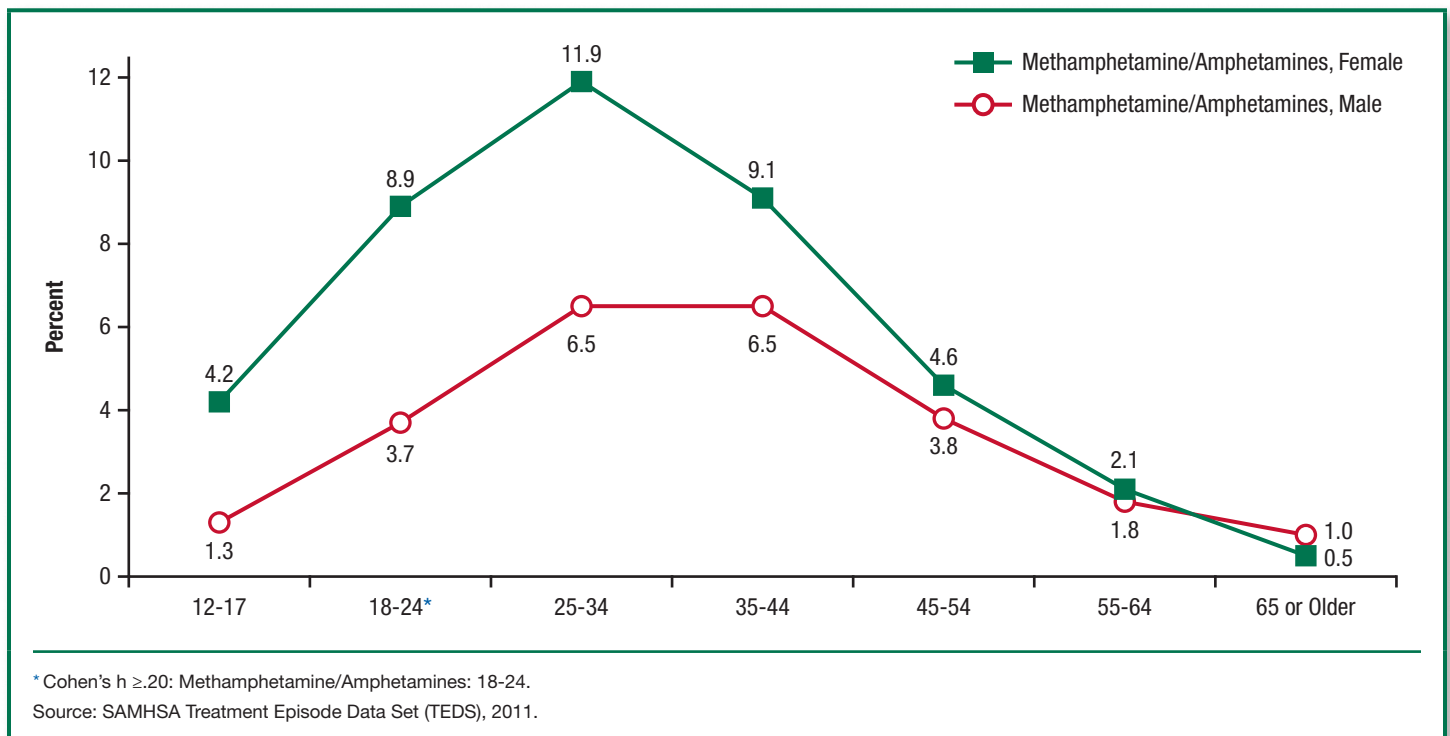


Figure 4. Methamphetamine/Amphetamines as the Primary Substance of Abuse among Substance Abuse Treatment Admissions Aged 12 or Older, by Gender and Age: 2011



Prescription Pain Relievers

The highest proportions of primary abuse of prescription pain relievers (e.g., oxycodone) were found among admissions aged 18 to 24 and 25 to 34 (Figure 5). In the 25 to 34 age group, 19.0 percent of female admissions and 12.2 percent of male admissions reported prescription pain relievers as their primary substance of abuse. In terms of the effect size, however, the differences between male and female admissions in these age groups were negligible. The only meaningful difference by effect size between males and females was observed among admissions aged 65 or older. Within the 65 or older age group, the proportion of female admissions reporting primary abuse of prescription pain relievers was nearly 3 times that of their male counterparts (7.2 vs. 2.8 percent).

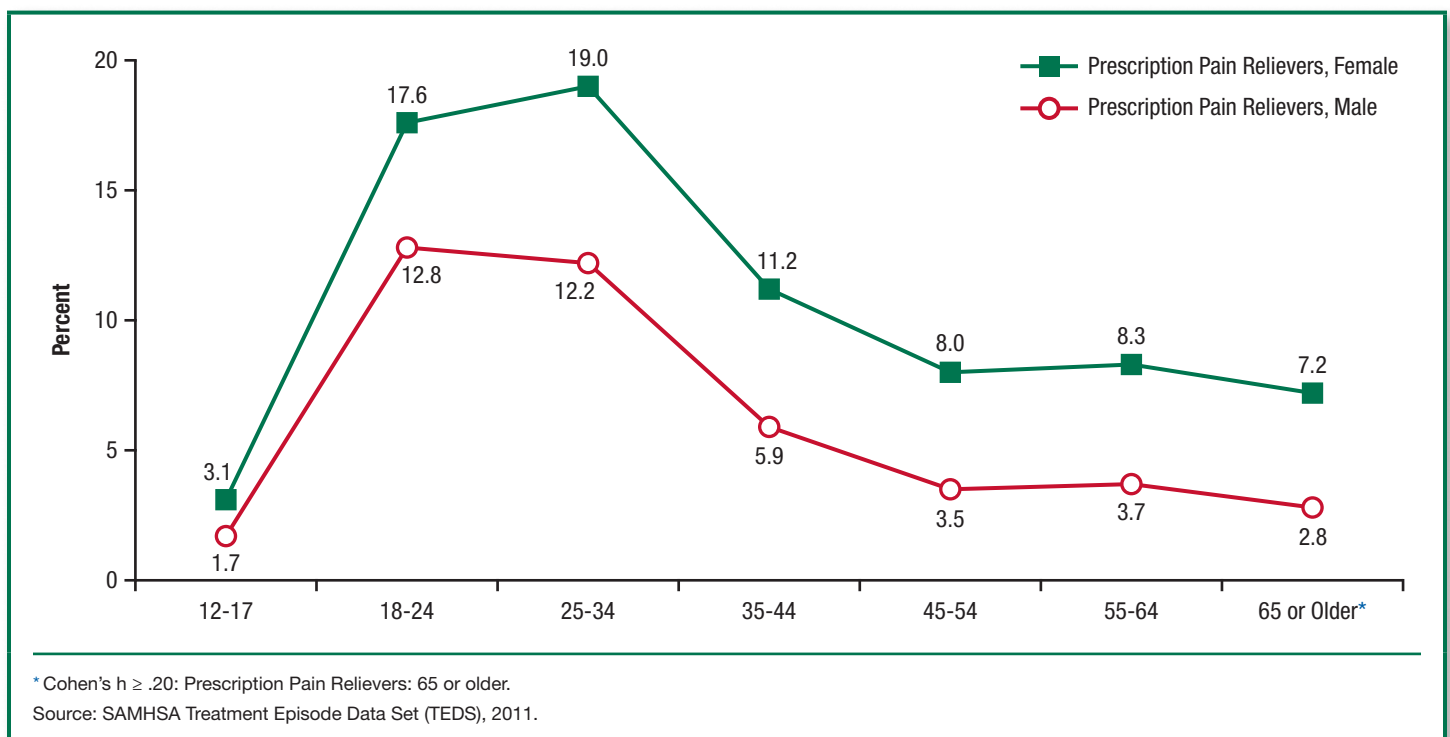
Discussion

This report highlights important differences in primary substance of abuse between males and females admitted to substance abuse treatment. These differences were found at various stages of life, from adolescence

through older adulthood, particularly for abuse of alcohol, marijuana, methamphetamine/amphetamines, and prescription pain relievers.

Although this report does not explain the potential reasons for these differences, it brings awareness to the fact that they exist. This may help inform the design of prevention, outreach, and treatment services for specific gender and age groups across multiple settings, including primary care. For example, other research shows that compared with men, women have been found to initiate use of methamphetamine at younger ages and have a greater vulnerability to methamphetamine dependence due to physiological factors.⁵ This research, coupled with the findings in this report, might suggest that age-appropriate methamphetamine prevention and outreach efforts directed towards adolescents and young women in particular may be important in areas with moderate to high rates of methamphetamine use. Additionally, the findings related to differences in the abuse of prescription pain relievers between older adult males and females may warrant further investigation

Figure 5. Prescription Pain Relievers as the Primary Substance of Abuse among Substance Abuse Treatment Admissions Aged 12 or Older, by Gender and Age: 2011



particularly in the context of older adults receiving medications in general medical settings. Further research is needed to understand who would benefit from programs that target particular gender and age groups compared with gender-specific programs and standard treatment.³

End Notes

1. Center for Behavioral Health Statistics and Quality. (2012). *Results from the 2011 National Survey on Drug Use and Health: Summary of national findings* (HHS Publication No. SMA 12-4713, NSDUH Series H-44). Rockville, MD: Substance Abuse and Mental Health Services Administration.
2. Center for Behavioral Health Statistics and Quality. (2013). *Treatment Episode Data Set (TEDS): 2001-2011. National admissions to substance abuse treatment services* (HHS Publication No. SMA 13-4772, DASIS Series S-65). Rockville, MD: Substance Abuse and Mental Health Services Administration.
3. Greenfield, S. F., Back, S. E., Lawson, K., Brady, K. T. (June 2010). Substance abuse in women. *Psychiatric Clinics of North America*, 33(2), 339-355.
4. Cotto, J. H., Davis, E., Dowling, G. J., Elcano, J. C., Stanton, A. B., & Weiss, S. R. B. (2010). Gender effects on drug use, abuse, and dependence: A special analysis of results from the National Survey on Drug Use and Health. *Gender Medicine*, 7(5), 402-413.
5. Dluzen, D. E. & Liu, B. (2008). Gender differences in methamphetamine use and responses: A review. *Gender Medicine*, 5(1), 24-35.

Suggested Citation

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The Substance Abuse and Mental Health Services Administration (SAMHSA) is the agency within the U.S. Department of Health and Human Services that leads public health efforts to advance the behavioral health of the nation. SAMHSA's mission is to reduce the impact of substance abuse and mental illness on America's communities.

The Treatment Episode Data Set (TEDS) is an administrative data system that provides descriptive information about the national flow of admissions aged 12 or older to providers of substance abuse treatment. TEDS intends to collect data on all treatment admissions to substance abuse treatment programs in the United States receiving public funds. Treatment programs receiving any public funds are requested to provide TEDS data on publicly and privately funded clients.

TEDS is one component of the Behavioral Health Services Information System (BHSIS), maintained by the Center for Behavioral Health Statistics and Quality (CBHSQ), SAMHSA. TEDS records represent admissions rather than individuals, as a person may be admitted to treatment more than once. Information on treatment admissions is routinely collected by State administrative systems and then submitted to SAMHSA in a standard format.

There are significant differences among State data collection systems. Sources of State variation include the amount of public funding available and the constraints placed on the use of funds, facilities reporting TEDS data, clients included, services offered, and completeness and timeliness of reporting. See the annual TEDS reports for details. In 2011, TEDS received approximately 1.8 million treatment admission records from 46 States, the District of Columbia, and Puerto Rico. Definitions of demographic, substance abuse, and other measures mentioned in this report are available in Appendix B of the annual TEDS report on national admissions (see latest report at: <http://www.samhsa.gov/data/2k13/TEDS2011/TEDS2011NAppB.htm>).

The TEDS Report is prepared by the Center for Behavioral Health Statistics and Quality, SAMHSA; Synectics for Management Decisions, Inc., Arlington, VA; and RTI International, Research Triangle Park, NC. **Information and data for this issue are based on data reported to TEDS through October 15, 2012.**

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