

# **CESAR FAX** Annual Volume

Volume 21 2012

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#### ACKNOWLEDGMENTS

CESAR is pleased to provide this 2012 Annual Volume of the *CESAR FAX*. To assist you in using this volume, the Table of Contents indexes the 2012 issues by title and subject area.

The *CESAR FAX* was produced and maintained during the past year by Wanda Hauser, with assistance from CESAR interns Alyson Listhaus, Ashley Belton, and Mike Anderson. Dr. Eric D. Wish provided content and editorial review. Other CESAR staff provide valuable assistance in the selection of *CESAR FAX* topics by continuously monitoring crime and drug abuse issues and data sources.

Since the first fax transmission to 150 recipients on February 17, 1992, the *CESAR FAX* audience has grown tremendously. The *CESAR FAX* transitioned from fax to email as its primary dissemination method in 2004, and is now being sent to more than 6,100 recipients worldwide. The *CESAR FAX* continues to provide timely and relevant substance abuse information in an easy-to-read format.

## CESAR FAX Volume 21 (2012)

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## A Weekly FAX from the Center for Substance Abuse Research o f

#### Maryland, College University Park

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## A Weekly FAX from the Center for Substance Abuse Research

University of Maryland, College Park

## Drug Users, Treatment Providers, and Law Enforcement Officers Describe Increasing Suboxone<sup>®</sup> Misuse in Ohio

Since 1999, the Ohio Substance Abuse Monitoring Network (OSAM) has been monitoring local substance abuse trends. Their most recent report, covering January to June 2011, indicates that the "availability of Suboxone<sup>®</sup> remains high in all regions, with the exception of Toledo where it remains moderately available" (p. 4). Obtaining Suboxone is described by another user as "super easy; Like candy machines, a dime a dozen" (p. 33). According to a treatment provider, Suboxone "is becoming easier to get than methadone" (p. 17). Following is a summary of Suboxone use in Ohio, in the words of users (U), treatment providers (TP), and law enforcement officers (LE). For more information on Suboxone (buprenorphine), see the *CESAR FAX Special Series: Buprenorphine*, available online at http://www.cesar.umd.edu.

**How Is Suboxone Obtained?** "You've got people at [12-step] meetings handing them [Suboxone] off. They're being sold like any other drug" (TP, p. 4). "When they prescribe it ..., they prescribe a lot of it, and people don't use the whole prescription. They [users] would then sell it on the street" (LE, p. 82). "They're [heroin addicts] getting Suboxone and turning around and selling it" (U, p. 66). "People pick up prescriptions [for Suboxone] and call [their dealer] and sell them" (U, p. 66). "The dealers will give them [users] a free Suboxone with their heroin. Customer satisfaction." (TP, p. 82).

#### Why Is Suboxone Used?

**Fight Withdrawal:** "[Some users] don't want to get off [opioids] for good. They just want to not be sick, so they have Suboxone stashed away for when they feel sick" (TP, p. 115). "They [opiate addicts] use it ... like Tylenol 3<sup>®</sup>, to use till they can get a fix. [Suboxone is] a drug of convenience" (TP, p. 83). "Some start off using it ... to assist with withdrawal, but find that they like how it feels and become addicted" (TP, p. 34). "I quartered them [Suboxone] ... to take the bare minimum, so I wouldn't be sick, but that way I could still use an opiate; I would buy them ... to come off other stuff, but it never worked that way. 'Cuz you could get high off Suboxone if you hadn't had any opiates in a couple of days ... If you are addicted to opiates, you take the smallest piece of Suboxone—it makes you feel normal" (U, p. 133).

**Get High:** "If you are clean [opioid free], you will get very high from Suboxone" (U, p. 17). "For a buzz ... can snort Suboxone, as long as you don't have other opiates in the system" (U, p. 50). "If you are not addicted to opiates and you take a Suboxone, it's very, very strong. It can make you high for three days" (U, p. 133). "People ... will use Xanax<sup>®</sup> a half-hour before Suboxone and will get high. Some clients say the effects are as good as, or better than, that of OxyContin<sup>®</sup>" (TP, p. 17). "[A] lot of people are being introduced to opioids through Suboxone now because, if they were not Suboxone users, the buprenorphine ... the active agent in Suboxone is giving them the opiate effect, and now they're looking for stronger opioids. So now it's ... a gateway drug to opioid addiction" (TP, p. 133).

**Avoid Detection:** "Participants also reported that individuals who need to avoid detection of drug use on urine drug screens (probationers) use Suboxone because it is often not screened" (Report, p. 4). "[Suboxone is] the institutional drug of choice" (U, p. 17).

**How Is Suboxone Being Used?** "People typically put them … under their tongue, or they chew them up. I've actually witnessed a couple people shoot [inject] them up; I would eat the full 8 mg Suboxone" (U, p. 132). "I snorted it … when I would take it. It made me not sick" (U, p. 132). "Well, I shoot [Suboxone] in my neck, so, um, it goes straight to you, you know" (U, p. 133). "I do know a few people that when switched to the films [Suboxone strips], they say that those are a lot easier to shoot up [inject]. Yeah, 'cause they dissolve in water; they dissolve completely, and I've heard people say that those actually work really well" (U, p. 133).

SOURCE: Adapted by CESAR from Ohio Department of Alcohol and Drug Addiction Services, *Ohio Substance Abuse Monitoring Network: Surveillance of Drug Abuse Trends in the State of Ohio, January-June 2011*, 2011. Available online at http://www.odadas.state.oh.us/public/OsamHome.aspx.



## Number of Drug Poisoning Deaths Now Rival Motor Vehicle Traffic Deaths

Nearly as many people die each year from drug poisoning as from motor vehicle traffic accidents, according to data from the Centers for Disease Control and Prevention (CDC). The number of drug poisoning deaths, which includes deaths resulting from illegal, prescription, and over-the-counter drug misuse, has increased nearly every year since 1980. The most significant increases, however, have occurred in the last two decades. Since 1990, the number of deaths related to drug poisonings has more than quadrupled, increasing from 8,413 to 36,450 in 2008 (the most recent year for which data are available). This increase is largely due to an increase in drug poisoning deaths involving natural and semi-synthetic opioids (see next week's issue of the *CESAR FAX* for more information). Drug poisoning deaths are now the second leading cause of death from injuries, second only to motor vehicle traffic accidents. According to the authors, "Government agencies and other organizations joined together to achieve great reductions in the number of deaths from motor vehicle crashes in the past three decades. . . . Using a comprehensive, multifaceted approach, it may be possible to reverse the trend in drug poisoning mortality" (p. 6).



- NOTES: Drug poisoning deaths include unintentional (accidental) (77%), intentional (suicide and homicide) (13%), and undetermined intent (9%) poisoning deaths caused by exposure to narcotics, hallucinogens, antiepileptics, sedativehypnotics, antiparkinsonisms, psychotropics, nonopiod analgesics, antipyretics, antirheumatics, other drugs acting on the autonomic nervous system, and other and unspecified drugs, medicaments, and biological substances (ICD-10 codes X40-X44, X60-X64, X86, and Y10-Y14 and ICD-9 codes E850-E858, E950.0-E950.5, E962.0, and E980.0-E980.5). Motor-vehicle traffic deaths include pedestrians, pedal cyclists, or occupants, and involve any type of motor vehicle on public roads. When the ICD-10 replaced the ICD-9 in 1999, approximately 5% fewer deaths were classified as motor vehicle deaths and 2% more deaths were classified as poisoning deaths. Injury deaths include deaths that are caused by forces external to the body (e.g., drowning, falls, firearm, motor vehicle traffic, poisoning).
- SOURCE: Adapted by CESAR from Centers for Disease Control and Prevention (CDC), National Center for Injury Prevention and Control (NCIPC), *Drug Poisoning Deaths in the United States*, 1980-2008, 2011 (available online at http://www.cdc.gov/nchs/data/databriefs/db81.pdf).



#### **Opioid Analgesics Involved in More Drug Poisoning Deaths Than Any Other Drug**

Drug poisoning deaths are the second leading cause of injury deaths in the U.S. (see *CESAR FAX*, Volume 21, Issue 3). Of the 36,450 drug poisoning deaths in the U.S. in 2008, slightly more than 40%—14,800—involved opioid analgesics, according to the most recent data from the Centers for Disease Control and Prevention (CDC). In contrast, only one-third of drug poisoning deaths involved specified drugs other than opioid analgesics, including cocaine (about 5,100 deaths) and heroin (about 3,000 deaths). The majority of opioid analgesic drug poisoning deaths involved natural and semi-synthetic opioid analgesics, such as morphine, hydrocodone, and oxycodone. In addition, drug poisoning deaths involving these drugs have been increasing steadily over the last decade, reaching a record high of 9,119 deaths in 2008. Deaths from synthetic opioid analgesics, such as methadone and fentanyl, have declined in recent years.



\*Opioid analgesic categories are not mutually exclusive. Deaths involving more than one opioid analgesic category shown in this figure are counted multiple times. The substances tested for and circumstances in which the tests are performed at autopsy vary by jurisdiction. It is also likely that tests for some substances, such as buprenorphine, are not performed.

- NOTES: Drug poisoning deaths include unintentional (accidental), intentional (suicide and homicide), and undetermined intent poisoning deaths caused by exposure to narcotics, hallucinogens, antiepileptics, sedative-hypnotics, antiparkinsonisms, psychotropics, nonopiod analgesics, antipyretics, antirheumatics, other drugs acting on the autonomic nervous system, and other and unspecified drugs, medicaments, and biological substances (ICD-10 codes X40-X44, X60-X64, X86, and Y10-Y14). Nonspecified drugs are those in which the type of drugs involved was not specified on the death certificate.
- SOURCE: Adapted by CESAR from Centers for Disease Control and Prevention (CDC), National Center for Injury Prevention and Control (NCIPC), *Drug Poisoning Deaths in the United States*, 1980-2008, 2011 (available online at http://www.cdc.gov/nchs/data/databriefs/db81.pdf).



## One in Nine U.S. High School Seniors Report Using Synthetic Marijuana in the Past Year

Marijuana and synthetic marijuana are the most prevalent illicit drugs used by 12<sup>th</sup> graders, according to recent data from the 2011 Monitoring the Future (MTF) survey. Slightly more than one-third (36.4%) of high school seniors reported using marijuana in the past year, including 11.4% who reported using synthetic marijuana, compared with less than 10% for all other illicit drugs (see figure below). Synthetic marijuana, an herbal drug mixture that usually contains synthetic cannabinoids, was readily available on the internet and in smaller retail establishments until it was scheduled by the Drug Enforcement Administration (DEA) in March 2011 (see *CESAR FAX*, Volume 20, Issue 17, for more information about synthetic marijuana). Questions about synthetic marijuana use were included for the first time in the Spring 2011 MTF survey, and therefore measured use over a considerable period of time prior to the drug's scheduling. The authors note that "next year's survey results should reflect any effects of the scheduling by the DEA" (p. 5).



Percentage of U.S. 12<sup>th</sup> Grade Students Reporting Past Year Use of Drugs\* Other Than Alcohol and Tobacco, 2011

Percentage of U.S. 12th Grade Students

\*Amphetamines include Adderall<sup>®</sup> (6.5%), Ritalin<sup>®</sup> (2.6%), Provigil (1.5%), methamphetamine (1.4%), and crystal methamphetamine (1.2%). Hallucinogens include salvia (5.9%), ecstasy (5.3%), LSD (2.7%), and PCP (1.3%). Other narcotic drugs used nonmedically include Vicodin<sup>®</sup> (8.1%) and Oxycontin<sup>®</sup> (4.9%). OTC Cough/Cold refers to use for the explicit purpose of getting high. Drugs with less than 2% prevalence were ketamine (1.7%), GHB (1.4%), Rohypnol<sup>®</sup> (1.3%), steroids (1.2%), and heroin (0.8%).

SOURCE: Adapted by CESAR from National Institute of Drug Abuse, *Monitoring the Future: National Results on Adolescent Drug Use*, 2011. Available online at http://www.monitoringthefuture.org/pubs/monographs/mtf-overview2011.pdf.



## Binge Drinking Not Just a Youth Problem: Nearly One in Five Adults Ages 35 to 44 Binge Drink

While binge drinking is typically associated with youth and young adults, data from the 2010 Behavioral Risk Factor Surveillance System (BRFSS) show that this behavior is also prevalent among older adults. More than one-fourth (28.2%) of young adults ages 18 to 24 reported binge drinking, defined as consuming four or more drinks for women or five or more drinks for men on an occasion during the past 30 days. Older adults also reported binge drinking in relatively high, albeit decreasing, numbers—more than one-fourth (27.9%) of persons ages 25 to 34, nearly one-fifth (19.2%) of those ages 35 to 44, and more than one-tenth (13.3%) of those ages 45 to 64 reported binge drinking. And while only 3.8% of adults ages 65 or older reported binge drinking, this age group had the highest frequency of binge drinking (5.5 episodes per month, compared to 4.1 to 4.7 for other ages; data not shown). The authors note that "binge drinking places those exposed and others at substantially increased risk for alcohol-attributable harms, and contributes disproportionately to productivity losses, health care expenses, and excess burden on the criminal justice system" (p. 17).



Estimated Percentage of U.S. Adults Reporting Binge Drinking, 2010

(N sampled=457,677)

NOTES: The 2010 BRFSS was a state-based, random-digit-dialed telephone survey of noninstitutionalized, civilian U.S. adults administered to landline and cellular telephone-only residents of 48 states (all except South Dakota and Tennessee) and DC. A total of 457,677 respondents (422,039 landline respondents and 35,638 cellular telephone respondents) were included in the analysis.

SOURCE: Adapted by CESAR Centers for Disease Control and Prevention, "Vital Signs: Binge Drinking Prevalence, Frequency, and Intensity Among Adults—United States, 2010," *Morbidity and Mortality Weekly Report* 61(1):14-19, 2012. Available online at http://www.cdc.gov/mmwr/pdf/wk/mm6101.pdf.



## Lack of Motivation to Quit and Health Coverage Top Reasons for Not Receiving Needed Alcohol or Drug Treatment

An estimated 20.5 million people needed but did not receive alcohol or drug treatment in the past year, according to data from the 2010 National Survey on Drug Use and Health (NSDUH). The primary reason for not receiving treatment among those who were classified as needing—and felt they needed—treatment was not being ready to stop using alcohol or illicit drugs (40.2%). The second most commonly cited reason for not receiving treatment was having no health coverage and not being able to afford the cost (32.9%). People in need of alcohol treatment were more likely than those in need of drug treatment to cite not being ready to stop using (45.1% vs. 30.7%; data not shown), while those needing drug treatment were more likely to cite not having health coverage and could not afford the cost (41.8% vs. 30.9%; data not shown). Other reasons given were not knowing where to go for treatment, thinking that going to treatment might have a negative effect on their job or social relationships, or thinking that they could handle the problem without treatment (see figure below).

#### Reasons Given for Not Receiving Alcohol or Illicit Drug Treatment in the Past Year, 2007 to 2010 Annual Averages



(N=an estimated 1,341,000 U.S. residents ages 12 and older classified as needing and perceiving a need for—but not receiving—treatment)

NOTES: Respondents were classified as *needing treatment* if in the past year they met the diagnostic criteria for abuse or dependence on the substance or received treatment for the substance at a specialty facility. A *specialty facility* was defined as an inpatient or outpatient rehabilitation facility, an inpatient hospital, or a mental health center.

SOURCE: Adapted by CESAR from Substance Abuse and Mental Health Services Administration (SAMHSA), *Results from the 2007-2010 National Survey on Drug Use and Health: National Findings*, 2010. Available online at http://www.samhsa.gov/data/NSDUH/2k10ResultsTables/Web/PDFW/Cover.pdf.



#### Governor's Maryland Community Services Locator (MDCSL) Connects Residents to Needed Community Services

The Maryland Community Services Locator (www.mdcsl.org) is an interactive online directory developed to connect residents to needed community services. The MDCSL is funded by a grant from the Maryland Governor's Office of Crime Control & Prevention. This valuable tool allows users to search for specific services, specify certain criteria such as payment options or populations served, obtain organizational contact information, map resources by location, and receive instant directions to programs. Since its launch in October 2007, the website has expanded to include more than 9,000 criminal justice, health, and social service programs throughout Maryland, which are each verified annually by MDCSL staff. The number of MDCSL program searches per month has steadily increased, reaching more than 16,000 in January 2012 (see figure).

In addition to making it easier for all Maryland residents to locate community services, the MDCSL also assists professionals in making referrals for clients to community services. For example, the MDCSL recently partnered with the Maryland Correctional Institution for Women and the Montgomery County Pre-Release Center to improve transition to the community by allowing inmates to access the MDCSL website inside their correctional facilities. To



encourage the use of the MDCSL as a referral tool, MDCSL provides webinar trainings and community resource-sharing events. To date, the MDCSL has trained approximately 15,400 professionals from a wide range of service organizations across the state. In 2011, the MDCSL applied the Maryland branding standards to the website to improve awareness and recognition of the site as a state resource.

The MDCSL can be a valuable and time-saving resource for professionals who need to make referrals to social service programs, as well as for residents looking for help. CESAR can share lessons learned and provide development and management consultation services to other organizations looking to develop a similar program in their county or state. For more information, please contact the Amy Billing at mdcsl@umd.edu or 301-405-9796.

SOURCE: CESAR, The Maryland Community Services Locator (MDCSL). Funded by the Governor's Office of Crime Control and Prevention under grant number BJNT 2009-1565.

#### Let Us Know How You Use the MDCSL

The MDCSL is up for refunding by the Governor's Office of Crime Control & Prevention. We are asking users who find the website valuable to send an email of support (mdcsl@umd.edu) which can be included with our grant application. We are interested to know how you use the site, what makes it useful to you, and how we can make it better. Your assistance would be greatly appreciated and will help us continue to provide this valuable resource to the State of Maryland.



## March 5, 2012 Vol. 21, Issue 9

## A Weekly FAX from the Center for Substance Abuse Research University of Maryland, College Park

## **CESAR Publishes Report Warning of Emerging Epidemic of Buprenorphine Misuse**

"Although the therapeutic benefits of buprenorphine treatment are well substantiated, it is important to recognize the unintended consequences of newly introduced analgesics, which have historically taken years to address. We need to act quickly to avoid suffering such consequences again" (p. 6-7).

Prior research has shown that criminal offenders' drug test results can help identify emerging drug epidemics well before they become evident in surveys and other community indicators. CESAR staff recently pilot tested the Adult Offender Population Urine Screening (OPUS) Program in Maryland as a rapid, low-cost tool for detecting and assessing emerging local drug trends. In 2008, 1,061 urine specimens\* originally collected and screened for 5 or fewer drugs by Maryland Division of Parole and Probation (DPP) agents were systematically sampled and sent to an independent laboratory for expanded testing for 31 drugs. The results showed an increase in the percentage of persons testing possible misuse. Of the 98 specimens that tested positive for buprenorphine, 45% also contained other drugs, suggesting possible misuse. Of the 98 specimens that tested positive for buprenorphine, 45% also contained two or more additional drugs and more than 60% contained other opioids (data not shown). The drugs most frequently found were morphine (45%), cocaine (27%), marijuana (19%), and benzodiazepines (19%; see figure below). Both other opioids and benzodiazepines could have lethal consequences if used with buprenorphine<sup>1</sup>.

A unique benefit of OPUS is that it enables the identification of local areas where drug misuse may be emerging. Once specific hot spots are identified, follow-up interviews can provide concrete details about substance use that can be used to guide criminal justice and public health efforts. CESAR staff conducted interviews in 2010 with 15 supervisees in one of the six probation offices close to Baltimore that submitted a high percentage of buprenorphinepositive specimens. The supervisees reported wide-spread availability of buprenorphine in the street and in prisons. While the most frequently mentioned reason for using buprenorphine was for self-medication to manage withdrawal symptoms, several participants mentioned that buprenorphine could be used to get high or to enhance the effects of other drugs. Additional reports of the smuggling of buprenorphine into jails and diversion of the drug to the street have also been reported across the country<sup>2</sup>.

#### Percentage of Buprenorphine-Positive Specimens Testing Positive for Other Drugs, 2008 (N=98)



The Maryland Adult OPUS findings, combined with national indicators of increased buprenorphine availability, diversion, and nonmedical use, suggest that there may be an epidemic of buprenorphine misuse emerging across the U.S. Unfortunately, "current testing protocols do not routinely include buprenorphine and cannot inform us of the magnitude and scope of buprenorphine misuse. Thus, offenders smuggle the drug into jails and prisons because its use will go undetected and buprenorphine-related deaths cannot be tracked because medical examiners and coroners do not routinely test for the drug in most states" (p. 6). The authors recommend that "buprenorphine be added to all relevant drug testing regimens, if only to gauge the extent of diversion and misuse" (p. 6). In addition, the authors suggest that physician education programs "redouble their efforts to teach strategies to deter diversion and misuse of the drug" (p. 3) and that doctors closely monitor dosing "to ensure that the appropriate amount is prescribed, thereby reducing the likelihood of diversion" (p. 6). The OPUS model could be easily replicated in other states interested in tracking emerging prescription and other drug problems.

\*To enhance the likelihood of detecting less commonly used drugs, we targeted random samples of 15 drug-positive specimens and 5 drug-negative specimens submitted by each DPP office.

<sup>1</sup>Reckitt Benckiser Pharmaceuticals Inc., *Suboxone Tablet Product Information*, 2012. Available online at http://www.suboxone.com/pdfs/SuboxonePI\_tablet.pdf. <sup>2</sup>*CESAR FAX*, Volume 20, Issue 33 and *CESAR FAX Buprenorphine Series*, 2012. Available online at www.cesar.umd.edu.

SOURCE: Adapted by CESAR from Wish, ED, Artigiani, E, Billing, A, Hauser, W, Hemberg, J, Shiplet, M, and DuPont, R, "The Emerging Buprenorphine Epidemic in the United States," *Journal of Addictive Diseases* 31(1):3-7, 2012. Available online at http://www.tandfonline.com/doi/abs/10.1080/10550887.2011.642757. For more information, contact CESAR at cesar@umd.edu.



## Percentage of D.C. Arrestees Testing Positive for Cocaine Reaches Lowest Level in More Than 20 Years; Documents End of Cocaine Epidemic

Cocaine use among D.C. arrestees continues to decline, according to data from the D.C. Pretrial Services Agency. The percentage of both adult and juvenile arrestees testing positive for cocaine peaked in 1988 in the midst of the cocaine epidemic, at 64% and 22%, respectively. Since then, cocaine positive rates among arrestees have declined significantly. In 2011, only 21% of adult arrestees tested positive for cocaine—the second lowest level since data collection began in 1984 when 19% of arrestees tested positive. While juvenile arrestees tested positive for cocaine at much lower rates than adults, similar decreases were also seen over the past 20 years. Approximately 1% of juvenile arrestees tested positive for cocaine each year from 2009 to 2011, the lowest levels recorded since juvenile testing began in 1987.

#### Percentage of Washington, D.C., Adult and Juvenile Arrestees Testing Positive for Cocaine, 1984 to 2011



(N ranged from 10,990 to 24,375 tests for adults and 1,896 to 4,449 for juveniles)

SOURCE: Adapted by CESAR from data from the District of Columbia Pretrial Services Agency. Available online at http://www.dcpsa.gov/foia/foiaERRpsa.htm. For more information, contact Jerome Robinson, Director of Forensic Research at the D.C. Pretrial Services Agency, at jerome.robinson@csosa.gov.



#### Binge Drinking Among 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Students Continues to Decline; Reaches Record Low

The percentage of 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> graders reporting binge drinking reached record lows\* in 2011, according to data from the national Monitoring the Future study. Slightly more than 20% of 12<sup>th</sup> grades reported binge drinking—drinking five or more drinks in a row at least once in the two weeks prior to the survey, compared to the peak prevalence of 41.4% reached in 1981. Binge drinking prevalence rates among 8<sup>th</sup> and 10<sup>th</sup> graders (6.4% and 14.7%, respectively) are also at the lowest levels since these grades were first included in the study in 1991 (see figure below). Similar decreases and record lows have occurred for all measures of alcohol use—lifetime, annual, 30-day, and daily.



Percentage of U.S. 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Students Reporting Binge Drinking, 1975-2011

\*The Monitoring the Future survey began surveying 12<sup>th</sup> graders in 1975. Surveys of 8<sup>th</sup> and 10<sup>th</sup> graders were added in 1991.

SOURCE: Adapted by CESAR from University of Michigan, *Monitoring the Future: National Results on Adolescent Drug Use, Overview of Key Findings* 2011, 2012. Available online at http://www.monitoringthefuture.org/pubs/monographs/mtf-overview2011.pdf.



University of Maryland, College Park

## Study Suggests Alcohol-Induced Blackouts Among College Students Are a Strong Predictor of Future Emergency Department Visits

Alcohol-induced blackouts among college students are associated with future emergency department (ED) visits, according to data from a study of full-time students at five universities. Approximately one-half of high-risk college drinkers reported an alcohol-induced blackout\* in the past year. While students were most likely to report experiencing one or two blackouts, approximately 15% reported three to five blackouts and 7% reported six or more blackouts (see figure below). Students reporting three to five or six or more blackouts were more likely than those reporting no blackouts to be treated in the emergency department (ED) for any reason in the 24 months after the study (1.39 and 1.75 times more likely, respectively; data not shown). Blackouts were associated with future emergency department use even after controlling for alcohol intake, sensation-seeking, and demographic factors. The authors conclude that "blackouts are a strong predictor of emergency department visits for college drinkers and that prevention efforts aimed at students with a history of blackouts might reduce injuries and emergency department costs" (p. 1).



#### Percentage of High-Risk College Drinkers Reporting Blackouts in the Past 12 Months, 2004-2009

#### **Blackout Frequency in Past 12 Months**

\*Students were asked "How many times has this happened to you while you were drinking or because of your drinking during the last year?" for the survey item "Suddenly found yourself in a place that you could not remember getting to."

- NOTES: Data were collected between October 2004 and February 2009 as part of the College Health Intervention Projects (CHIPS) study from full-time college students age 18 or older attending one of 5 universities located in Wisconsin, Washington, and British Columbia. High-risk drinking was defined as drinking either more than 12 drinks for women and more than 15 drinks for men in the past seven days; or more than 40 drinks for women or more than 50 drinks for men or women.
- women. SOURCE: Adapted by CESAR from Mundt, Marlon P. and Zakletskaia, Larissa I., "Prevention for College Students Who Suffer Alcohol-Induced Blackouts Could Deter High-Cost Emergency Department Visits," *Health Affairs* 31(4), 2012. For more information, contact Dr. Marlon Mundt at marlon.mundt@fammed.wisc.edu.



#### Buprenorphine Now More Likely Than Methadone to Be Found in U.S. Law Enforcement Drug Seizures

Buprenorphine is now more likely than methadone to be found in law enforcement drug seizures that are submitted to and analyzed by forensic laboratories across the country, according to data from the National Forensic Laboratory Information System (NFLIS). NFLIS monitors illicit drug abuse and trafficking, including the diversion of legally manufactured pharmaceuticals into illegal markets. From 2003 to 2009, the number of methadone reports increased gradually, reaching a peak of 10,016 in 2009, and then decreased slightly to 9,477 in 2010. In contrast, the number of buprenorphine reports has increased dramatically, from 90 in 2003, to 10,537 in 2010. Regardless of whether diverted buprenorphine is being used nonmedically to self-treat opiate addiction or to get high, unsupervised use of diverted buprenorphine places users at serious risk for potential adverse health effects, especially when taken in combination with other opioids or with depressants such as sedatives, tranquilizers, or alcohol. The next issue of the *CESAR FAX* will discuss regional trends in buprenorphine drug seizures.

#### Estimated Number of Total Methadone and Buprenorphine Reports, U.S. Law Enforcement-Seized Drug Exhibits Analyzed by Forensic Laboratories, 2003-2010



NOTES: Estimates are calculated using the National Estimates Based on All Reports (NEAR) methodology (see www.nflis.deadiversion.usdoj.gov/Reports.aspx). Annual data are based on drugs submitted to laboratories during the calendar year and analyzed within three months of the end of the calendar year. Up to three drugs can be reported for each drug item or exhibit analyzed by a laboratory. State and local policies related to the enforcement and prosecution of specific drugs may affect drug evidence submissions to laboratories for analysis. Laboratory policies and procedures for handling drug evidence may also vary. For example, some analyze all evidence submitted, while others analyze only selected items.

SOURCES: Adapted by CESAR from data provided by the U.S. Drug Enforcement Administration (DEA), Office of Diversion Control, Drug and Chemical Evaluation Section, Data Analysis Unit on 3/21/2012.



University of Maryland, College Park

## Northeastern and Southern Regions of Country Account for Largest Increases in Buprenorphine Found in Law Enforcement Drug Seizures

Since 2003, the amount of U.S. law enforcement-seized buprenorphine analyzed by state and local laboratories has increased dramatically, surpassing that of methadone (see *CESAR FAX*, Volume 21, Issue 13). According to data from the Drug Enforcement Administration (DEA)'s National Forensic Laboratory Information System (NFLIS), the largest increases have occurred in the Northeast (from 49 in 2003 to 4,161 in 2010) and the South\* (from 25 to 3,856). The estimated number of buprenorphine reports in the Midwest and West have also increased, but at a slower pace and at lower levels. In 2010, there were an estimated 1,689 buprenorphine reports in the Midwest and 831 in the West.





\*Northeast: CT, MA, ME, NH, NJ, NY, PA, RI, VT
South: AL, AR, DC, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA WV
Midwest: IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD, WI
West: AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY
Buprenorphine estimates for the South and West regions do not meet the DEA's standard of precision and reliability.

NOTES: Estimates are calculated using the National Estimates Based on All Reports (NEAR) methodology (see www.nflis.deadiversion.usdoj.gov/Reports.aspx). Annual data are based on drugs submitted to State and local laboratories during the calendar year and analyzed within three months of the end of the calendar year. Up to three drugs can be reported for each drug item or exhibit analyzed by a laboratory. State and local policies related to the enforcement and prosecution of specific drugs may affect drug evidence submissions to laboratories for analysis. Laboratory policies and procedures for handling drug evidence may also vary. For example, some analyze all evidence submitted, while others analyze only selected items.

SOURCES: Adapted by CESAR from data provided by the U.S. Drug Enforcement Administration (DEA), Office of Diversion Control, Drug and Chemical Evaluation Section, Data Analysis Unit on 3/21/2012.



## April 16, 2012 Vol. 21, Issue 15

A Weekly FAX from the Center for Substance Abuse Research University of Maryland, College Park

#### National Treatment Data Shows Prescription Drug Users Enter Treatment Sooner Than Users of Other Drugs

It takes an adult drug user an average of 15.6 years to enter treatment after the first-time use of their primary drug of abuse, according to data from the national Treatment Episode Data Set (TEDS). However, there are significant differences in the duration of time between first use and admission into a treatment program depending on the primary drug of abuse. For example, the longest period of use was for alcohol, with an average of 20.2 years between first use and treatment entry. The average durations of use among adult first-time cocaine, heroin, marijuana, and stimulant drug treatment admissions ranged from 12 to 14 years. Prescription drugs had the shortest duration period between first-time use and first entry into a treatment program, at 7.8 years (see data below). According to the authors, the relative short time between first use and treatment admission for prescription drugs "may indicate a high potential for problematic substance abuse patterns to develop quickly. Therefore it is critical that physicians and other healthcare professionals be vigilant in looking for signs of misuse of these drugs that intervention can occur as soon as possible" (p. 3).





SOURCE: Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Behavioral Health Statistics and Quality (CBHSQ), "Length of Time from First Use to Adult Treatment Admission," *The TEDS Report*, September 29, 2011. Available online at http://store.samhsa.gov/product/Length-of-Time-from-First-Use-to-Adult-Treatment-Admission/TEDS11-0929.

![](_page_30_Picture_0.jpeg)

## High School Seniors Who Misuse Prescription Narcotics Most Likely to Obtain Drugs from a Friend/Relative or a Personal Prescription

Nearly one in ten U.S. 12<sup>th</sup> graders reported using prescription narcotics without a doctor's order in the past year, according to data from the 2011 Monitoring the Future survey. Users of prescription narcotics were most likely to report getting the drugs for free from friends or relatives (70%), followed by buying them from a friend or relative (40%,) and getting them from their own prescription (35%). These findings are similar to those of the National Survey on Drug Use and Health (NSDUH), which asks about the use of prescription pain relievers that were not prescribed for the user or were used only for the experience or feeling the drug causes (see *CESAR FAX*, Volume 20, Issue 41). Reducing the available supply of prescription drugs in households (e.g., through prescription drug takeback programs\*) and limiting over prescribing and doctor shopping (e.g., through prescription drug monitoring programs) may help reduce the diversion of prescription pain relievers for nonmedical use.

![](_page_30_Figure_3.jpeg)

Source of Narcotic Prescription Drugs Used Without a Doctor's Orders, Among U.S. 12<sup>th</sup> Graders Who Reported Use in the Past Year

NOTES: Percentages sum to more than 100% because respondents could indicate multiple sources from which they obtained narcotics other than heroin for past year use without a doctor's orders. The response option "Other Method" was reported by 11% of users of narcotics other than heroin.

SOURCE: Adapted by CESAR from the University of Michigan, "Marijuana Use Continues to Rise Among U.S. Teens, While Alcohol Use Hits Historic Lows," Table 5: Source of Prescription Drugs, *Monitoring the Future Press Release*, December 14, 2011. Available online at http://www.monitoringthefuture.org/data/11data/pr11t5.pdf.

#### \*National Prescription Drug Take-Back Day to Be Held Saturday, April 28th, 10:00 am to 2:00 pm

As part of the DEA's 4<sup>th</sup> National Prescription Drug Take-Back Day, collection sites around the country will take any expired, unused, or unwanted prescription drugs for safe, legal, and environmentally-friendly disposal. Visit http://www.deadiversion.usdoj.gov/drug\_disposal/takeback/index.html to learn more and to view take-back locations.

![](_page_31_Picture_0.jpeg)

## Study Describes Illicit Use of Buprenorphine Among Nonmedical Users of Opioids in Ohio

"Our study clearly indicates that non-medical use of buprenorphine has found a niche in the streets among illicit users of pharmaceutical opioids" (p. 206).

While buprenorphine misuse has been reported in many states, most studies have focused on opioid-dependent individuals, heroin users, and/or those in treatment. For example, an Ohio study of treatment providers, law enforcement officials, and drug users recruited through treatment programs found evidence of increasing buprenorphine misuse (see *CESAR FAX*, Volume 21, Issue 2). New research in Ohio now provides evidence of illicit use of buprenorphine among a population not previously studied—young adults not involved with heroin or injection drug use nor dependent on pharmaceutical opioids. Following are findings from this community-recruited sample\* of young adults from the Columbus, Ohio area:

<u>Knowledge About Buprenorphine</u>: The majority of users reported that when they were first introduced to buprenorphine they had limited knowledge about the drug. Some had no idea it was used to treat opioid dependence and were told that it would work like any other pain pill.

<u>Street Availability</u>: While the majority of respondents reported that buprenorphine was more difficult to obtain than more commonly used prescription opioids (such as oxycodone or hydrocodone), several respondents reported that they felt the popularity of and demand for buprenorphine has been rising. Friends or acquaintances who were addicted to prescription opioids or heroin and networks of users with legitimate prescriptions were the most common sources of illicitly used buprenorphine. In fact, some users "expressed a belief that buprenorphine doses prescribed by physicians were too high for most patients who needed much lower amounts to control their withdrawal symptoms" (p. 205).

<u>Use to Get High</u>: While approximately one-half said that they took buprenorphine to get high, the reported effects ranged from no effect to too intense. Those who used buprenorphine to get high typically used it on very few occasions, either because the street availability was limited or they did not get the euphoric effects they expected or wanted. Some believed that you need to inhale buprenorphine and/or have a low tolerance to opiates to get high.

<u>Use to Self-Medicate</u>: About one-half reported using buprenorphine to self-medicate withdrawal symptoms\*, using the drug regularly to replace their preferred opiates, to reduce their illicit pain pill use, or to quit altogether. Self-medication was preferred to going to a substance abuse treatment program because of the high cost of buprenorphine-based treatment at primary care, waiting lists at publicly-funded facilities, and the stigma related to seeking drug treatment.

\*A total of 396 nonmedical users of pharmaceutical opioids ages 18-23 years old who were living in the Columbus, Ohio area were recruited using respondent-driven sampling. Participants had to 1) self-report the nonmedical use of prescription opioids at least 5 times in the past 90 days; 2) have no lifetime dependence on opioids; 3) have no history of heroin or injection drug use; 4) not have been in formal treatment in the last 30 days; 5) intend to use again nonmedically; and 6) not currently be awaiting trial or have pending criminal charges. Quantitative data were collected on all participants, qualitative data was collected on a subset of 51 individuals, and 20 of these were also interviewed 12-18 months after baseline.

SOURCE: Adapted by CESAR from Daniulaityte, R., Falck, R., and Carlson, R.G., "Illicit Use of Buprenorphine in a Community Sample of Young Adult Non-Medical Users of Pharmaceutical Opioids," *Drug and Alcohol Dependence* 122(3):201-207, 2012. For more information, contact Raminta Daniulaityte at raminta.daniulaityte@wright.edu.

#### **CESAR FAX** Buprenorphine Series Updated Regularly and Available Online

While research indicates that buprenorphine is an effective drug for treating opioid dependence, we feel that the potential for its nonmedical use and related unintended consequences may be going unnoticed. CESAR has been closely following indicators of increased availability, diversion, and misuse of buprenorphine. The compilation of *CESAR FAX* issues related to buprenorphine is regularly updated as new issues are published and can be found online at www.cesar.umd.edu.

![](_page_32_Picture_0.jpeg)

## U.S. High School Seniors More Likely to Use Marijuana Than to Smoke Cigarettes

High school seniors are more likely to use marijuana than to smoke cigarettes in the past month, according to the most recent data from the national Monitoring the Future survey. In 2011, 18.7% of 12<sup>th</sup> graders reported smoking cigarettes in the past month, continuing a substantial decline from the most recent high of 36.5% in 1997. In contrast, marijuana use has been increasing since 2006, reaching 22.6% in 2011—a level not seen since the mid-1980s. Similar trends in cigarette and marijuana use have occurred among 8<sup>th</sup> and 10<sup>th</sup> graders.\* One possible explanation for these findings is a change in the perception of risk for these substances. The percentage of 12<sup>th</sup> grades who perceive a great risk of harm in smoking one or more packs of cigarettes per day has increased over the last two decades, reaching 77.7% in 2011. At the same time, the percentage who perceive a great risk of harm from smoking marijuana regularly has decreased to 45.7% in 2011 (data not shown).

![](_page_32_Figure_3.jpeg)

![](_page_32_Figure_4.jpeg)

\*In 2011, 6.1% of 8<sup>th</sup> graders reported smoking cigarettes in the past month and 7.2% reported using marijuana. Among 10<sup>th</sup> graders, 11.8% reported smoking cigarettes, and 17.6% reported using marijuana.

- SOURCE: Adapted by CESAR from University of Michigan, "Trends in 30-Day Prevalence of Use of Various Drugs in Grade 12," Monitoring the Future Study, 2011. Available online at http://www.monitoringthefuture.org/data/11data/pr11t17.pdf
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![](_page_33_Picture_0.jpeg)

#### For the First Time One-Half of Both College Freshmen and Household Residents Believe That Marijuana Should be Legalized

One-half of both college freshmen and adult household residents in the believe that marijuana should be legalized, following a decade of increased support among both populations. In 2011, 49% of college freshmen reported that they though marijuana should be legalized, a percentage not seen since the record high of 51% in 1977. At that time, support by household residents for marijuana legalization was much lower, ranging from 15% to 28% during the 1970s. Since then, the percentage of household residents who think that marijuana should be legalized has increased, reaching a record high of 50% in 2011.

#### Percentage of U.S. College Freshmen and Household Residents (Ages 18 and Older) That Think Marijuana Should Be Legalized, 1969-2011

![](_page_33_Figure_6.jpeg)

\*In 2010 the CIRP Freshman Survey did not ask students of their views of whether marijuana should be legalized.

- NOTES: College freshmen data are from the *CIRP Freshman Survey*, and are based on the responses of first-time, fulltime first-year students entering a selected number of four-year colleges and universities in the United States. The data are statistically adjusted to reflect the responses of the number of actual first-time students. Household resident data are from the *Gallup Poll Social Series: Crime* survey, and are based on telephone interviews with a random sample of adults ages 18 and older living in the 50 U.S. States and the District of Columbia. Samples are weighted and the margin of error for the 2011 survey was ±4 percentage points.
- SOURCES: Adapted by CESAR from data from the Higher Education Research Institute (HERI), CIRP Freshmen Survey (available online at www.heri.ucla.edu); and Gallup, "Record-High 50% of Americans Favor Legalizing Marijuana Use," *Press Release*, October 17, 2011. Available online at http://www.gallup.com/poll/150149/Record-High-Americans-Favor-Legalizing-Marijuana.aspx.

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![](_page_34_Picture_0.jpeg)

A Weekly FAX from the Center for Substance Abuse Research

University of Maryland, College Park

## Marijuana Most Commonly Detected Drug Among Male Arrestees Tested by ADAM II in Ten U.S. Sites

Marijuana continues to be the most commonly detected drug among U.S. male arrestees, according to data from the recently released 2011 Arrestee Drug Abuse Monitoring II (ADAM II) report. ADAM II monitors arrestee drug use through self-report and urinalysis from a probability sample of arrestees at booking facilities in ten sites across the nation. In 2011, the percentage of arrestees testing positive for marijuana ranged from 36% to 56%, making it the third year in a row that marijuana has been the most commonly detected drug among this population. While cocaine was the second most commonly detected drug in eight of the ten sites (with positives ranging from 10% to 33%), cocaine positives have declined among arrestees in all sites over the last ten years. Methamphetamine was the second most commonly detected drug in two sites, Sacramento (43%) and Portland (23%). While not nationally representative, this data is important because the arrestee population is often missing from traditional general population substance abuse surveys and treatment provider data\*. In addition, illicit drug use epidemics historically appear first among the arrestee population.

ADAM II Site	Any Drug**	Marijuana	Cocaine	Opiates	Metham- phetamine
Atlanta	64%	36%	33%	7%	<1%
Charlotte	67%	53%	19%	2%	<1%
Chicago	81%	55%	25%	19%	1%
Denver	69%	44%	25%	10%	6%
Indianapolis	67%	48%	20%	10%	2%
Minneapolis	70%	51%	21%	8%	3%
New York	73%	49%	25%	8%	<1%
Portland	73%	49%	15%	14%	23%
Sacramento	81%	56%	10%	10%	43%
Washington, D.C.	68%	45%	18%	11%	<1%
Range	64%-81%	36%-56%	10%-33%	2%-19%	0.1%-43%

# Estimated Percentage of U.S. Adult Male Arrestees Testing Positive by Urinalysis for Illicit Drugs, 2011 (N=4,412 specimens)

\*More than three-fourths (78%) of ADAM II arrestees have never sought treatment for drug or alcohol abuse.

\*\*Urinalysis specimens are tested for marijuana, cocaine, opiates, barbiturates, PCP, amphetamine (including methamphetamine), methadone, oxycodone, propoxyphene, and benzodiazepines.

SOURCE: Adapted by CESAR from Office of National Drug Control Policy, *ADAM II 2011 Annual Report*, 2012. Available online at http://www.whitehouse.gov/sites/default/files/email-files/adam\_ii\_2011\_annual\_rpt\_web\_version\_corrected.pdf.

![](_page_35_Picture_0.jpeg)

#### Nearly One in Ten U.S. High School Students Report Heavy Marijuana Use in the Past Month; One-Third or More of Heavy Users Also Used Cocaine, Ecstasy, or Other Drugs

Maryland,

College

Park

Nearly one in ten high school students (9%) reported using marijuana 20 times or more in the past month, according to recently released data from the 2011 Partnership Attitude Tracking Study. While all past month marijuana users were more likely than nonusers to also report the use of other licit or illicit drugs in the past year, heavy marijuana users were most likely to report such use. For example, heavy marijuana users were nearly twice as likely as non-heavy marijuana users (31% vs. 17%) and 30 times more likely than those who did not use marijuana at all (31% vs. 1%) to report cocaine or crack use. In fact, heavy marijuana use was associated with increased use of all drugs asked about in this survey, including alcohol, cigarettes, pain relievers, ecstasy (see figure below), OTC cough medicine\*, substances that are huffed or sniffed, and methamphetamine (data not shown). These findings suggest that health practitioners and prevention professionals should be aware that clients who frequently use marijuana may be likely to be using other drugs as well.

#### Percentage of U.S. High School Students Reporting Past Year Substance Use, by Past Month Marijuana Use, 2011

![](_page_35_Figure_4.jpeg)

#### Substance Used in Past Year

\*Used to get high or change their mood.

University

o f

- NOTES: The 2011 survey, conducted by the Roper Public Affairs Division of GfK Custom Research North America, surveyed 3,322 high school students in grades 9-12 between March and June 2011. The margin of error for this sample is +/- 3.0 percent.
- SOURCE: Adapted by CESAR from The Partnership at Drugfree.org and the MetLife Foundation, *The Partnership Attitude Tracking Study: 2011 Parents and Teens Full Report,* 2012. Available online at http://www.drugfree.org/wp-content/uploads/2012/05/PATS-FULL-Report-FINAL-May-2-PDF-.pdf.

![](_page_36_Picture_0.jpeg)

## Daily Marijuana Use by High School Seniors Highest in 30 Years

Daily use of marijuana by high school seniors is now at the highest level since 1981, according to data from the national Monitoring the Future survey. In 2011, 6.6% of 12<sup>th</sup> grade students reported smoking marijuana on 20 or more occasions in the last month, compared to 7% in 1981 and the record high of 10.7% in 1978 (see figure below). "Put another way, one in every fifteen high school seniors today is smoking pot on a daily or near daily basis," according to Lloyd Johnston, the principal investigator of the study. Rates of daily marijuana use have also increased for 10<sup>th</sup> and 8<sup>th</sup> graders, reaching 3.6% and 1.6% respectively in 2011 (data not shown). Frequent marijuana use has been associated with increased use of other licit and illicit drugs, including cocaine, ecstasy, and prescription pain relievers used nonmedically (see *CESAR FAX* Volume 21, Issue 21).

![](_page_36_Figure_3.jpeg)

#### Percentage of U.S. 12<sup>th</sup> Grade Students Reporting Daily Marijuana Use in the Past Month, 1975 to 2011

- NOTE: A nationally representative sample of 47,000 8th-, 10th-, and 12th-grade students, attending 400 public and private secondary schools, participated in the Monitoring the Future 2011 survey.
- SOURCE: Adapted by CESAR from University of Michigan, "Long-Term Trends in 30-Day Prevalence of Daily Use of Various Drugs in Grade 12," *Monitoring the Future Study*, 2011. Available online at http://www.monitoringthefuture.org/data/11data/pr11t18.pdf.
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![](_page_37_Picture_0.jpeg)

#### More Than One-Fourth of U.S. Teens Who Use Alcohol Regularly Meet Criteria for Alcohol Abuse and/or Dependence

More than one-fourth of U.S. teens who use alcohol regularly meet the criteria for alcohol abuse and/or dependence, according to data from the Adolescent Supplement of the National Comorbidity Survey. The majority (60%) of teens ages 13 to 18 reported using alcohol at some point in their lifetime (data not shown). Of these lifetime users, 42% reported regular use—at least 12 drinks within a single year—and slightly more than one-fourth (26%) of regular users met the criteria for alcohol abuse with or without dependence. Similar results were found for illicit drug use, but with a slightly higher percentage of users meeting the criteria for abuse and/or dependence (37%). The authors suggest that "prevention and treatment efforts would benefit from careful attention to the correlates and risk factors that are specific for the stage of substance use in adolescents" (p. 390).

![](_page_37_Figure_4.jpeg)

- NOTES: The National Comorbity Survey-Adolescent Supplement was a nationally representative, face-to-face survey of 10,123 teens ages 13 to 18 in the continental U.S. conducted between 2/1/2001 and 1/30/2004. Regular alcohol use was defined as consuming at least 12 drinks within a single year.
- SOURCE: Adapted by CESAR from Swendsen, J., Burstein, M., Case, B., Conway, K.P., Dierker, L., He, J., and Merikangas, K.R., "Use and Abuse of Alcohol and Illicit Drugs in US Adolescents," *Archives of General Psychiatry* 69(4):390-398, 2012.

![](_page_38_Picture_0.jpeg)

#### Study Finds Underage Youth in U.S. Easily Purchase Alcohol Online

"Age verification procedures used by internet alcohol vendors do not adequately prevent online sales to minors," according to the first peer-reviewed study to examine the age verification practices of internet alcohol vendors and the ability of minors can purchase alcohol online. Underage adults ages 18 to 20 attempted to purchase alcohol from 100 popular internet vendors. The underage purchasers were allowed by the study protocol to misrepresent their age by clicking a checkbox indicating they were 21 or older or by providing a false birth date, but were not allowed to alter their own identification card, use a friends' or relative's identification, or use any other strategies to misrepresent their age. Of 100 alcohol purchase attempts, 45% were successfully purchased and delivered to these underage buyers. Beer was most likely to be successfully purchased and delivered (57%), followed by liquor (53%) and wine (42%; see figure below). Forty-one percent of the vendors made no attempts to verify age at the point of order and 18% used weak or no age verification techniques, including checkboxes or buttons indicating age and passive consent of age by merely submitting an order (data not shown). In addition, "age verification at delivery was inconsistently conducted and, when attempted, failed about half of the time" (p. E1). The authors suggest that future research look at the "proportion of minors who buy alcohol online and test purchases from more vendors to inform enforcement of existing policies and creation of new policies to reduce youth access to alcohol online" (p. E1).

![](_page_38_Figure_3.jpeg)

#### Percentage of Internet Alcohol Orders Successfully Purchased by and Delivered to U.S. Underage Buyers

NOTES: Eight 18- to 20-year-old individuals in the U.S. attempted to purchase alcohol online from 100 popular alcohol vendor websites, under the supervision of study staff, from July 14-27, 2011.

SOURCE: Adapted by CESAR from Williams, Rebecca S. and Ribisl, Kurt M., "Internet Alcohol Sales to Minors," *Archives of Pediatric Adolescent Medicine*, published online May 7, 2012. Available online at http://archpedi.jamanetwork.com/article.aspx?articleid=1149402. For more information, contact Dr. Williams at rebeccawilliams@unc.edu.

Also see the accompanying editorial: Jernigan, D. H., "Who is Minding the Virtual Alcohol Store?", *Archives of Pediatric Adolescent Medicine*, published online May 7, 2012. Available online at http://archpedi.jamanetwork.com/article.aspx?articleid=1149406.

![](_page_39_Picture_0.jpeg)

One-Third of U.S. Treatment Applicants Report Buprenorphine/Naloxone Sold on Street; One-Fifth Report the Drug Is Used to Get High

"Diversion and abuse of buprenorphine/naloxone have steadily increased since 2005 through 2009," according to data from a national post-marketing surveillance program\* funded by the manufacturer. One of the indicators of diversion and abuse utilized by the surveillance program is a survey of nearly 19,000 applicants to 86 substance abuse treatment programs in 30 states. Both the percentage of applicants who reported knowing that buprenorphine/naloxone, which has been approved for opioid therapy since 2002, was sold on the street and those that reported knowing that the drug was used to get high increased from 2005 to 2009, reaching 33% and 21%, respectively. In comparison, the percentage who reported that methadone, which has been used since the 1950s for opioid therapy, was sold on the street or used to get high has remained relatively stable over the past three years (see figure below). The authors note that "the increases in diversion and abuse measures indicate the need to take active attempts to curb diversion and abuse as well as continuous monitoring and surveillance of all buprenorphine products" (p. 190).

Percentage of Applicants to U.S. Treatment Programs Who Knew of Methadone and Buprenorphine/Naloxone Being Sold on the Street or Being Used to Get High, 2005-2009 (n=18,956 from 2005 to 2009)

![](_page_39_Figure_5.jpeg)

\*Conducted for Reckitt Benckiser Pharmaceuticals by an independent contractor, the Surveillance of Diversion and Abuse of Therapeutic Agents (SODATA) utilizes several national indicators of diversion and abuse combined with a survey of applicants to substance abuse treatment programs and a survey of CSAT-certified physicians.

\*\*Surveys were conducted at 86 treatment programs (both providing and not providing pharmacotherapy) from 30 states providing a total of 18,956 completed surveys from 2005 to 2009. While the treatment applicant survey was not a probability sample, the demographic characteristics of the applicant sample were similar to that of the national census of publicly-funded treatment admissions. The applicant survey does not estimate either the incidence or the prevalence of diversion/abuse, but it is an indication of changes in perception of diversion/abuse among a population likely to be knowledgeable about illegal markets through their own experiences, that of others, and direct observations.

See Wish, ED, Artigiani, E, Billing, A, Hauser, W, Hemberg, J, Shiplet, M, and DuPont, R, "The Emerging Buprenorphine Epidemic in the United States," *Journal of Addictive Diseases* 31(1):3-7, 2012 for more information on buprenorphine diversion and abuse.

SOURCE: Adapted by CESAR from Johanson, C-E; Arfken, C. L.; di Menza, S.; and Schuster, C. R., "Diversion and Abuse of Buprenorphine: Findings from National Surveys of Treatment Patients and Physicians," *Journal of Drug and Alcohol Dependence* 120:190-195, 2012. For more information, contact Chris-Ellyn Johanson at cjohans@med.wayne.edu.

![](_page_40_Picture_0.jpeg)

### Majority of Buprenorphine-Certified Physicians Think Buprenorphine Is Easier to Get Illegally Than Methadone

Physicians who are certified to prescribe buprenorphine are increasingly likely to perceive diversion and abuse of the drug, according to a survey funded by the manufacturer as part of a national post-marketing surveillance program\*. Nearly one-half (46%) of physicians certified to prescribe buprenorphine in 2009 knew of buprenorphine products being bought or sold on the street, compared to 27% in 2005. In addition, a majority (81%) of the physicians surveyed believed that buprenorphine was easier than methadone to buy on the street in their community in 2009, a 56% increase from 2005 (see figure below). Forty-four percent reported that they knew someone who used illegal buprenorphine/naloxone to manage opioid withdrawal, 34% for maintenance until entering treatment, 17% to try out its effect, and 7% to get high (data not shown). The authors suggest that "the increase in diversion may be driven by the increase in abuse" (p. 194), as evidenced by the increasing percentage of treatment applicants who said they knew of buprenorphine being used to get high (from 5% in 2005 to 21% in 2009; see *CESAR FAX*, Volume 21, Issue 25). However, the increase in diversion may also "be driven by therapeutic demand, suggesting treatment expansion may be necessary. Finding a balance between diversion and abuse of a medication versus expanded treatment remains a challenge" (p. 194).

![](_page_40_Figure_4.jpeg)

#### **Perceptions of Buprenorphine Diversion/Misuse, Physicians Federally Certified to Prescribe Buprenorphine** (n=8,194 from 2005 to 2009)

\*Conducted by an independent contractor for Reckitt Benckiser Pharmaceuticals, the Surveillance of Diversion and Abuse of Therapeutic Agents (SODATA) utilizes several national indicators of diversion and abuse combined with a survey of applicants to substance abuse treatment programs and a survey of CSAT-certified physicians. A total of 8,194 quarterly surveys were conducted with randomly-selected physicians federally-certified to prescribe buprenorphine from 2005 to 2009.

See Wish, ED, Artigiani, E, Billing, A, Hauser, W, Hemberg, J, Shiplet, M, and DuPont, R, "The Emerging Buprenorphine Epidemic in the United States," *Journal of Addictive Diseases* 31(1):3-7, 2012 for more information on buprenorphine diversion and abuse.

SOURCE: Adapted by CESAR from Johanson, C-E; Arfken, C. L.; di Menza, S.; and Schuster, C. R., "Diversion and Abuse of Buprenorphine: Findings from National Surveys of Treatment Patients and Physicians," *Journal of Drug and Alcohol Dependence* 120:190-195, 2012. For more information, contact Chris-Ellyn Johanson at cjohans@med.wayne.edu.

![](_page_41_Picture_0.jpeg)

#### Youth Initiation of Alcohol, Tobacco, and Marijuana Highest in Summer Months

First-time use of alcohol, tobacco, and marijuana by youth peak during the months of June and July, according to data from the National Survey on Drug Use and Health (NSDUH). On an average day in June, July, or December, more than 11,000 youths ages 12 to 17 used alcohol for the first time, and about 9,600 used for the first time in January, compared to 5,000 to 8,000 new users each day in other months. Similar peaks in June and July occur for cigarettes and marijuana (see below), as well as for cigars and smokeless tobacco (data not shown). According to the authors, "these months include periods when adolescents are on break from school and may have more idle time, fewer responsibilities, and less adult supervision" (p. 6). In contrast, the initiation of other substances—cocaine, hallucinogens, inhalants, and prescription drugs used nonmedically—remain relatively constant over the course of a year. The authors suggest that alcohol, tobacco, and marijuana prevention efforts, such as media campaigns, alternative activities and events, and law enforcement campaigns, may be more effective during June and July.

#### Number of Youths Ages 12 to 17 Reporting First Time Alcohol, Cigarette, or Marijuana Use on an Average Day, by Month

![](_page_41_Figure_4.jpeg)

(2002 to 2010 Annual Averages Combined)

SOURCE: Adapted by CESAR from Substance Abuse and Mental Health Services Administration (SAMHSA), "Monthly Variation in Substance Use Initiation Among Adolescents," *The NSDUH Report*, 2012. Available online at http://www.samhsa.gov/data/2k12/NSDUH080/SR080InitiationSubstanceUse2012.pdf.

![](_page_42_Picture_0.jpeg)

University of Maryland, College Park

## Chronic Nonmedical Use of Prescription Opioid Pain Relievers Nearly Doubles Since 2002

While overall nonmedical use of prescription pain relievers did not increase from 2002-2003 to 2009-2010, chronic nonmedical use—use on 200 or more days in the past year—increased significantly, from a rate of 2.2 to 3.8 per 1,000 people. According to data from the National Survey on Drug Use and Health (NSDUH), there were statistically significant increases in the chronic nonmedical use of prescription pain relievers among 18 to 25, 26 to 34, and 35 to 49 year olds. Chronic nonmedical use among people 50 years and older more than doubled, but did not reach statistical significance. According to the authors, these findings are important because they parallel "increases in overdose deaths, treatment admissions, and other negative effects associated with opioid pain relievers in recent years" (p. E1). Since 2006, opioid analgesics have been involved in more drug poisoning deaths than any other drug (see *CESAR FAX*, Volume 21, Issue 4).

#### Rate (per 1,000 People 12 Years and Older) of Chronic Past Year Nonmedical Use of Prescription Drugs

![](_page_42_Figure_5.jpeg)

\*Difference between the 2002-2003 and 2009-2010 annual average rate is statistically significant at the P < .01 level. \*\*Difference between the 2002-2003 and 2009-2010 annual average rate is statistically significant at the P < .05 level.

- NOTES: Data are from the National Survey on Drug Use and Health (NSDUH), an annual survey of the noninstitutionalized, civilian population 12 years and older. Chronic past year nonmedical use of prescription pain relievers is defined as use of prescription pain relievers on 200 or more days in the prior 12 months without a prescription or use simply for the experience or feeling it causes. Prescription pain relievers include prescription opioid pain relievers and selected barbiturate combination products.
- SOURCE: Adapted by CESAR from Jones, C.M., "Frequency of Prescription Pain Reliever Nonmedical Use: 2002-2003 and 2009-2010", *Archives of Internal Medicine*, published online 6/25/2012. For more information, contact Dr. Jones at fjr0@cdc.gov.

![](_page_43_Picture_0.jpeg)

## Estimated Number of Emergency Department Visits for Misuse or Abuse of Pharmaceuticals More Than Doubles from 2004 to 2010

The estimated number of drug-related emergency department (ED) visits involving the misuse or abuse of pharmaceuticals increased significantly from 2004 to 2010, according to data from the Drug Abuse Warning Network (DAWN). More than 626,000 ED visits in 2004 were related to the misuse or abuse of pharmaceuticals, compared to more than 1.3 million in 2010. In 2010, approximately one-half (49%) of these pharmaceutical misuse or abuse visits involved pain relievers (both opioid and non-opioid) and more than one-third (35%) involved drugs to treat insomnia and anxiety. In contrast, the number of ED visits involving illicit drug use was relatively stable from 2004 to 2009, and then increased by 20% from 2009 to 2010 (see figure below). There were more than 1.1 million ED visits related to the misuse or abuse or illicit drugs in 2010, primarily for cocaine (42%) and marijuana (39%). The authors suggest that educational efforts "emphasize the difference between appropriate therapeutic use and drug misuse or abuse" and that "raising awareness among first responders, such as emergency medical technicians and emergency department staff, about the possible effects of pharmaceuticals and appropriate treatments can also help reduce the negative effects of these drugs on patients' health and well-being" (p. 6-7).

![](_page_43_Figure_4.jpeg)

#### Estimated Number of Drug-Related Emergency Department Visits Related to the Misuse or Abuse of Pharmaceuticals and Illicit Drugs, 2004 to 2010

NOTES: Estimates may be slightly different than those reported in previous years due to updating of DAWNS's drug categorization system and resultant reassignment of drugs to drug codes. Drug misuse or abuse is defined as visits that involve illicit drugs, nonmedical use of pharmaceuticals, and alcohol-related visits (in combination with other drugs for patients of all ages plus visits involving alcohol use with no other drugs for patients under the age of 21).

SOURCE: Adapted by CESAR from Substance Abuse and Mental health Services Administration (SAMHSA), "Highlights of the 2010 Drug Abuse Warning Network (DAWN) Findings on Drug-Related Emergency Department Visits," *The DAWN Report*, July 2, 2012. Available online at http://www.samhsa.gov/data/2k12/DAWN096/SR096EDHighlights2010.pdf.

![](_page_44_Picture_0.jpeg)

## National Treatment Admissions for Opiates Other Than Heroin Continue to Increase; Now Surpass Cocaine and Methamphetamine

The percentage of admissions to state-funded substance abuse treatment facilities citing opiates other than heroin as a primary substance of abuse continue to increase, according to recently released data from the national Treatment Episode Data Set (TEDS). Admissions for the primary abuse of other opiates, such as oxycodone, hydrocodone, and codeine, have increased steadily since 1997, from 1.0% to 8.6% in 2010 (the most recent year data are available). Opiates other than heroin are now more likely than either cocaine (8.1%) or methamphetamine (5.7%) to be cited as a primary substance of abuse by treatment clients. Treatment admissions for the primary abuse of marijuana have also shown recent increases (from 16.0% in 2007 to 18.4% in 2010), while heroin admissions have remained stable.

![](_page_44_Figure_4.jpeg)

![](_page_44_Figure_5.jpeg)

NOTE: While the focus of this analysis is on treatment admissions for drugs other than alcohol, it should be noted that admissions for the primary abuse of alcohol decreased over the period from 59.3% in 1992 to 40.9% in 2010.

SOURCE: Adapted by CESAR from the Office of Applied Studies, SAMHSA, *Treatment Episode Dataset (TEDS) Highlights*—2010, *National Admissions to Substance Abuse Treatment Services*, 2012 Available online at http://www.samhsa.gov/data/2k12/TEDS2010N/TEDS2010NWeb.pdf.

#### Want to Establish a Community Services Locator in Your County or State?

Since 2007, CESAR has operated the interactive Maryland Community Services Locator (MDCSL) website (www.mdcsl.org), which allows users to quickly find detailed resource listings and directions to a variety of Maryland community resources, including substance abuse treatment, housing services, job readiness/employment programs and many others. If you are interested in establishing a community services locator in your county or state, CESAR can share lessons learned, provide consultant services, or manage the development of your program. Please send inquiries to mdcsl@umd.edu.

![](_page_45_Picture_0.jpeg)

A Weekly FAX from the Center for Substance Abuse Research

University of Maryland, College Park

## Estimated Number of Buprenorphine- and Hydromorphone-Related ED Visits More Than Doubles from 2006 to 2010

The estimated number of emergency department (ED) visits related to the nonmedical use of opioid pain killers increased 79% from 201,280 in 2006 to 359,921 in 2010, according to the most recent data from the Drug Abuse Warning Network (DAWN). The greatest increases were seen in buprenorphine- and hydromorphone-related ED visits. In 2006, the nonmedical use of buprenorphine was involved as either a direct cause or a contributing factor in an estimated 4,440 ED visits, compared to 15,778 in 2010—an increase of 255%. The estimated number of visits related to the nonmedical use of hydromorphone increased 161% over the same 5-year period (see figure below). While the number of ED visits for the nonmedical use of buprenorphine and hydromorphone is relatively small compared to other opioid pain relievers, the magnitude of the increase suggests that there may be emerging problems with the nonmedical use of these drugs that warrant the monitoring of their use and related consequences.

Drug Name (Common Brand Names)	Number of ED Visits for Nonmedical Use		Percent Change	
	2006	2010	2006 to 2010	
Buprenorphine (Suboxone, Subutex, Temgesic, Buprenex)	4,440	15,778	+255%	
Hydromorphone (Palladone, Dilaudid)	6,780	17,666	+161%	
Oxycodone (Oxycontin, Percodan, Percocet)	64,891	146,355	+126%	
Hydrocodone (Vicodin, Lorcet, Lortab)	57,550	95,972	+67%	
Methadone (Methadose)	45,130	65,945	+46%	
Morphine (MS Contin, Morphine IR)	20,416	29,605	+45%	
Propoxyphene (Darvon)	6,220	8,832	+42%	
Fentanyl (Actiq, Duragesic)	16,012	21,196	+32%	
Codeine (Tylenol with Codeine)	6,928	7,928	+14%	
Meperidine (Demerol)	1,440	1,151	-20%	
Total Opioid Pain Relievers	201,280	359,921	+79%	

#### Estimated Number of U.S. Emergency Department Visits Related to the Nonmedical Use of Opioid Pain Relievers, 2006 to 2010

- NOTES: Nonmedical use includes taking more than the prescribed dose; taking a drug prescribed for another individual; deliberate poisoning by another person; and documented misuse or abuse. Five categories of opioid pain relievers (dihydrocodeine, opium, pentazocine, phenacetin, and all other narcotic analgesics) were not included in the above table because the estimate for either 2006 and/or 2010 did not meet standards of precision (relative standard error greater than 50% or an unweighted count or estimate less than 30).
- SOURCE: Adapted by CESAR from Substance Abuse and Mental Health Services Administration (SAMHSA), *National Estimates of Drug-Related Emergency Department Visits, 2004-2010 Nonmedical Use of Pharmaceuticals,* 2012. Available online at http://www.samhsa.gov/data/DAWN.aspx#DAWN%202010%20ED%20Excel%20Files%20-%20National%20Tables.

## **CESAR Responds to NPR's Story on Suboxone**

CESAR's Director was recently interviewed for NPR's July 31st Planet Money episode, "The Anti-Addiction Pill That's Big Business For Drug Dealers." A podcast of the episode and CESAR's expanded comments about the segment are available at http://www.npr.org/blogs/money/2012/07/31/157665908/episode-391-the-anti-addiction-pill-thats-big-business-for-drugdealers (sort comments by "oldest first" and CESAR's is the fourth comment).

![](_page_46_Picture_0.jpeg)

## Youth Less Likely to Try Alcohol and Cigarettes Before Age 13 Now Than 20 Years Ago; Prevalence of Early Marijuana Initiation Has Not Changed

The percentage of high school students who first tried alcohol or cigarettes before the age of 13 has declined considerably since 1991, with much of the decline occurring in the past decade, according to recently released data from the national Youth Risk Behavior Survey (YRBS). In 1991, 33% of high school students reported drinking more than a few sips of alcohol before age 13, compared to 29% in 2007 and 21% in 2011. The percentage reporting smoking a whole cigarette for the first time before age 13 also declined, from 24% in 1991 to 10% in 2011. Marijuana initiation before age 13, however, did not change significantly over the same period (see figure below). While the decreases in early alcohol and cigarette use are encouraging, one in five students still try alcohol and one in ten try cigarettes before age 13.

#### Percentage of High School Students Who Tried<sup>†</sup> Alcohol, Cigarettes, or Marijuana for the First Time Before Age 13, 1991, 2001, and 2011

![](_page_46_Figure_5.jpeg)

<sup>†</sup>Tried a cigarette is defined as smoking a whole cigarette. Tried alcohol is defined as drinking more than a few sips of alcohol.

\*Difference between 1991 and 2011 is statistically significant at p < 0.01.

NOTE: The Youth Risk Behavior Surveillance (YRBS) survey uses a three-stage cluster sample design to produce a nationally representative sample of public and private school students in grades 9 to 12.

SOURCE: Adapted by CESAR from the Centers for Disease Control and Prevention, 1991-2011 High School Youth Risk Behavior Survey Data, accessed 8/9/12 (available online at http://apps.nccd.cdc.gov/youthonline).

![](_page_47_Picture_0.jpeg)

#### As Tobacco Retailers Continue to Comply with Underage Tobacco Sales Laws, Fewer Underage Smokers Are Able to Purchase Cigarettes

U.S. tobacco retailers continue to comply with underage tobacco sales laws, according to data from the most recent annual Synar report. U.S. states and jurisdictions are required to not only have laws prohibiting the sale of tobacco products to those younger than 18, but also to conduct annual random, unannounced inspections of a valid sample of tobacco retailers accessible to youth to ensure compliance with these laws. The average national compliance rate from these inspections has increased from a baseline of 59% in FY1997 to a record high of 91.5% in FY2004. At the same time, underage smokers are substantially less likely to report being able to purchase cigarettes in stores or gas stations. According to data from the national Youth Risk Behavior Survey (YRBS), the percentage of U.S. high school current smokers who had purchased cigarettes at a store or gas station in the past 30 days decreased from 39% in 1995 to 14% in 2011. According to the authors, "while this drop is not attributable to the Synar program alone, the Synar requirements have contributed to a culture change in which youth tobacco use is discouraged" (p. 5).

#### As the Average National Percentage of Tobacco Retailers Passing Inspections Has Increased, the Percentage of High School Current Smokers Who Purchased Cigarettes at a Store or Gas Station in the Past 30 Days Has Decreased

![](_page_47_Figure_5.jpeg)

NOTES: Tobacco retailer inspection years are in Federal Fiscal Years (from 10/1 to 9/30). High school smokers were youth younger than 18 who had smoked cigarettes on one or more of the 30 days prior to the survey.

SOURCES: Adapted by CESAR from Substance Abuse and Mental Health Services Administration (SAMHSA), *FFY2011* Annual Synar Reports: Tobacco Sales to Youth, 2012 (available online at http://www.samhsa.gov/prevention/2011-Annual-Synar-Report.pdf) and Centers for Disease Control and Prevention, 1991-2011 High School Youth Risk Behavior Survey Data, accessed 8/9/12 (available online at http://apps.nccd.cdc.gov/youthonline).

![](_page_48_Picture_0.jpeg)

## Persons Who Start Using Alcohol Before Age 15 More Than Five Times More Likely to Abuse or Be Dependent on Alcohol as Adults

Early alcohol use is associated with a higher risk of meeting the criteria for alcohol abuse or dependence as an adult, according to data from the National Survey on Drug Use and Health (NSDUH). In 2010, 6.9% of adults aged 21 or older met the criteria for alcohol abuse or dependence in the past year. However, this figure changes dramatically when the age at first alcohol use (not counting a sip or two of alcohol) is taken into account. Those who first used alcohol before the age of 15 were nearly four times more likely to meet the criteria for past year alcohol abuse or dependence than those who started using alcohol between the ages of 18 and 20 (15.1% vs. 4.4%) and more than five times more likely than those who began using at or after age 21 (15.1% vs. 2.7%). These findings suggest that early alcohol use may be a warning sign for youth at high risk for developing alcohol abuse or dependence.

![](_page_48_Figure_4.jpeg)

![](_page_48_Figure_5.jpeg)

![](_page_48_Figure_6.jpeg)

- NOTES: Alcohol use is defined as having more than a sip or two of alcohol. Dependence or abuse is based on DSM-IV definitions.
- SOURCE: Adapted by CESAR from the Substance Abuse and Mental Health Services Administration, *Results from the 2010 National Survey on Drug Use and Health: Summary of National Findings*, 2011. Available online at http://www.samhsa.gov/data/NSDUH/2k10ResultsRev/NSDUHresultsRev2010.pdf.

![](_page_49_Picture_0.jpeg)

## Marijuana and Nonmedical Use of Psychotherapeutics Have Highest Rates of Past Year Abuse or Dependence Among U.S. Residents

An estimated 7.1 million persons aged 12 or older met the criteria for past year illicit drug abuse or dependence in 2010, according to data from the most recent National Survey on Drug Use and Health (NSDUH). Of these, 63.0%—more than 4.4 million—were classified with marijuana or hashish abuse or dependence, 33.5% met the criteria for abuse or dependence on psychotherapeutics used nonmedically (primarily pain relievers), and 14.1% abused or were dependent on cocaine. These findings parallel those of national treatment admissions, which show that the majority of illicit drug admissions are for marijuana and that admissions for marijuana and opiates other than heroin (i.e., prescription pain relievers) have been increasing in recent years (see *CESAR FAX*, Volume 21, Issue 30).

![](_page_49_Figure_3.jpeg)

#### Specific Substance of Abuse or Dependence Among U.S. Household Residents Classified with Past Year Illicit Abuse or Dependence, 2010\*

\*Percentages do not sum to 100 because a person could meet the criteria for abuse or dependence for more than one substance.

NOTES: Nonmedical use of psychotherapeutics is defined as use of one or more prescription-type psychotherapeutics (pain relievers, sedatives, stimulants, and tranquilizers) without a prescription belonging to the respondent or use that occurred simply for the experience or feeling the drug caused.

Abuse of illicit drugs was defined as meeting one or more of the four criteria for abuse included in the 4<sup>th</sup> edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) and if the definition for dependence was not met for that substance.

Dependence on illicit drugs was defined as meeting three out of seven dependence criteria (for substances that included questions to measure a withdrawal criterion) or three out of six dependence criteria (for substances that did not include withdrawal questions; i.e., marijuana, hallucinogens, inhalants) for that substance, based on DSM-IV criteria. Additional criteria for marijuana abuse or dependence included the use of these substances on 6 or more days in the past 12 months.

SOURCE: Adapted by CESAR from Substance Abuse and Mental Health Services Administration (SAMHSA), *Results from the 2010 National Survey on Drug Use and Health: Detailed Tables*, 2011. Available online at http://www.samhsa.gov/data/NSDUH/2k10ResultsTables/NSDUHTables2010R/PDF/Cover.pdf.

![](_page_50_Picture_0.jpeg)

A Weekly FAX from the Center for Substance Abuse Research

University of Maryland, College Park

## Opioids Other Than Heroin Now Account for Two-Thirds of All Youth Opioid Treatment Admissions

Youth are more likely to receive treatment for opioids other than heroin\* than for heroin, according to data from the national Treatment Episode Dataset (TEDS). Treatment admissions for opioids other than heroin, which have been increasing steadily since 1997, now surpass admissions for methamphetamine and cocaine for all ages (see *CESAR FAX*, Volume 21, Issue 30). In addition, treatment admissions for other opioids among youth ages 12 to 17, while small in number, have surpassed heroin as the primary substance of abuse since 2006 (see figure below) and accounted for two-thirds of all adolescent opioid admissions in 2010. While treatment admissions for other opioids have increased steadily for persons 18 and older, they remain below those of heroin.

#### - Other Opioids — Heroin 12 to 17 Year Olds 18 to 24 Year Olds (scale is reduced improve visualization) 10,000 200,000 Number of 8,000 160,000 Treatment 6,000 120,000 Admissions 4,000 80,000 2,000 40,000 0 ſ '93 '95 '97 '99 '01 '03 '05 '07 '09 '93 '95 '97 '99 '01 '03 '05 '07 '09 '92 '94 '96 '98 '00 '02 '04 '06 '08 '10 '92 '94 '96 '98 '00 '02 '04 '06 '08 '10 25 to 34 Year Olds 35 and Older 200.000 200,000 160,000 160.000 Number of Treatment 120,000 120,000 Admissions 80,000 80,000 40,000 40,000 n 93 95 97 99 01 03 05 07 09 '93 '95 '97 '99 '01 '03 '05 '07 '09 '92 '94 '96 '98 '00 '02 '04 '06 '08 '10 '92 '94 '96 '98 '00 '02 '04 '06 '08 '10

#### Number of 12- to 17-Year Old Treatment Admissions to U.S. State Licensed or Certified Substance Abuse Treatment Facilities with Opioids as a Primary Substance of Abuse, 1992 to 2010

\*"Opioids other than heroin" include buprenorphine, codeine, hydrocodone, hydromorphone, meperidine, morphine, opium, oxycodone, pentazocine, propoxyphene, tramadol, and any other drug with morphine-like effects.

SOURCE: Adapted by CESAR from the Substance Abuse and Mental Health Data Archive (SAMHDA), *Treatment Episode Data Set -- Admissions (TEDS-A) -- Concatenated, 1992 to 2010,* 2012. Available online at http://www.icpsr.umich.edu/icpsrweb/SAMHDA/studies/25221?utm\_source=web&utm\_medium=website&utm\_camp aign=teds-a\_concat\_homepage (accessed 8/2/12).

![](_page_51_Picture_0.jpeg)

University of Maryland, College Park

## Youths Cite Cigarettes and Beer as the Easiest Substances for Someone Their Age to Get

Youths are equally likely to say that cigarettes or beer are the easiest for them to obtain, according to data from the 2012 *National Survey of American Attitudes on Substance Abuse*. Slightly more than one-fourth (27%) of youths said that cigarettes were the easiest for someone their age to get while 24% cited beer. The third most prevalent response was marijuana (19%), followed by prescription drugs (13%). Slightly more youths say prescription drugs are easier to get than other drugs this year than in 2011 (13% vs. 10%), while slightly less say marijuana is easier to get (19% vs. 22%; data not shown). Previous research has shown that youths are most likely to obtain alcohol and prescription drugs from family members (see *CESAR FAX*, Volume 20, Issue 9 and Volume 21, Issue 16).

#### Percentage of Youths Reporting Which Substance (Cigarettes, Beer, Marijuana, Prescription Drugs Without a Prescription) Is Easiest for Someone Their Age to Get\*, 2012

![](_page_51_Figure_5.jpeg)

(n=1,003 youths ages 12 to 17)

- \*Respondents were asked, "Which is easiest for someone your age to get: cigarettes, beer, marijuana, or prescription drugs without a prescription, drugs such as Oxycontin, Vicodin, Xanax or Ritalin?"
- NOTES: Data are from a random sample of households in the 48 continental states who had a person ages 12 to 17 living in the household. Computer-assisted telephone interviews were conducted between April 18 and May 17, 2012 with 1,003 youths who were randomly selected from the nationally representative household sample frame. The margin of error is +/-3.1 percent at a 95 percent confidence level (unadjusted for weighting).
- SOURCE: Adapted by CESAR from The National Center on Addiction and Substance Abuse at Columbia University (CASA), *National Survey of American Attitudes on Substance Abuse XVII: Teens*, 2012. Available online at http://www.casacolumbia.org/upload/2012/20120822teensurvey.pdf.

![](_page_52_Picture_0.jpeg)

Total # of Example

A Weekly FAX from the Center for Substance Abuse Research University of Maryland, College Park

#### Thus Far in 2012 More Than One-Half of U.S. States Have Had Media Reports of Buprenorphine Misuse or Diversion

There were a total of 186 media reports of buprenorphine misuse or diversion from January 1 to August 31, 2012, according to an update of an informal analysis first conducted by CESAR in 2011 (see *CESAR FAX*, Volume 20, Issue 33). The most common types of media reports were of persons possessing (56%) or selling (25%) buprenorphine, often along with other drugs such as prescription opioids and benzodiazepines, marijuana, heroin, and cocaine. There were also reports of smuggling into correctional institutions (14%), diversion by theft and fraud (8%), and use by children (3%). More than one-third (35%) of the media reports involved other drugs and approximately one-fifth (19%) involved other crimes, including trafficking of other drugs, burglary, and robbery. Massachusetts had the highest number of media reports (39), followed by New York (24), Maine (19), Pennsylvania (15), Kentucky (14), and New Hampshire (14). Below is a list of the 27 states and one territory that had at least one buprenorphine media report in the first eight months of 2012, the total number of media reports per state, and a brief description of one of the media reports. The full list of media reports is available online at www.cesar.umd.edu.

#### Selected Articles from U.S. States Reporting on Buprenorphine Misuse or Diversion, January-August 2012

(N=186 media reports in 27 States and 1 Territory)

State	Articles	Article Subject	Example Article Description
٨V	AK 1	possession	Man arrested for possession of methadone, Xanax, and Suboxone.
AN			("Alaska Department of Public Safety Issues Trooper Dispatches," Targeted News Service, 6/6/12)
			Woman found in possession of Suboxone when arrested for distribution of methadone and
AL 1	possession	hydrocodone to undercover officer.	
		("Woman Arrested on Drug Counts," Chattanooga Times Free Press, 1/21/12)	
CA 5	possession	Two people found to be in possession of Suboxone pills after being arrested for felony	
		drug sales. ("Meth, Pot, Heroin Found at Eureka Home Today," Eureka Times Standard, 4/11/12)	
CO 1	death	Man died with cocaine, Xanax, Subutex and alcohol in his system; buddies drove around	
		with him dead in car and used his credit cards.	
		("2 Colo. Men Get Probation in Real-Life 'Weekend at Bernie's' Case," Gannett News Service, 3/9/12)	
CT 3	possession, selling	Man charged with possession of 40 grams of powdered cocaine, 4 oxycodone tablets,	
		1 Suboxone tablet, and 3 Suboxone strips.	
		("Drug Probe Leads to Arrest of West Haven Man," New Haven Register, 7/11/12)	
DE 1	possession	Two men charged with possession of 125 grams of heroin, 10 Suboxone films,	
		40 hydroxyzine pills, 19 grams of marijuana, and three shotguns.	
		("Drug Arrests In Angola by The Bay," Cape Gazette, 6/1/12)	
FL 1	use by child	Two persons charged with giving two children Buprenorphine.	
	use by ennu	("Two Charged with Giving Drugs to Children," Northwest Florida Daily News, 6/7/12)	
IN 6	smuggling into jail/prison	Correctional officer smuggled 80 Suboxone strips and 280 grams of marijuana into prison.	
		("Prison Guard Catches Coworker Trying to Smuggle Drugs," The Herald Bulletin, 2/24/12)	
<b>KV</b> 14	14	diversion	Home burglary in which a wallet, cell phone and Suboxone strips were stolen.
I 71	14		("Brief: Woman Reports Assaults, Thefts," The Daily Independent, 8/13/12)
MΔ	39	9 possession	Woman charged with drug trafficking and possession of marijuana, heroin, and Suboxone.
IVIA	57		("DA: Falmouth Woman Deals Drugs with Baby in Car," The Associated Press State & Local Wire, 2/7/12)

Table continued on second page.

SOURCE: CESAR search of LexisNexis Academic database for "All News" in the "United States" with the terms "buprenorphine," "Suboxone," "Subutex," "Butrans," or "Buprenex." Only articles describing misuse or diversion were included. Only one article per news report/incident was included. If two unrelated incidents were reported in one article (e.g., "Police Beat" articles), each incident was counted individually. The state listed is the state in which the incident occurred.

![](_page_53_Picture_0.jpeg)

Total # of Example

## A Weekly FAX from the Center for Substance Abuse Research

University Maryland, College o f Park

#### Selected Articles from U.S. States Reporting on Buprenorphine Misuse or Diversion, January-August 2012

(N=186 media reports in 27 States and 1 Territory) d

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State	Articles	Article Subject	Example Article Description
MD	2	colling	Man arrested for drug distribution; hundreds of pills found in home, including Suboxone,
MD 5	sennig	methadone, Xanax, and oxycodone. ("Police Beat," The Capital, 1/11/12)	
ME	ME 19	colling	Suboxone tablets, heroin, and drug paraphernalia found in home of man arrested for drug
NIE		sennig	trafficking. ("Southwest Harbor Man Gets 9 Years for Dealing Drugs," Bangor Daily News, 6/7/12)
MN	1	possession	Woman charged with possession of 8 tablets of Suboxone and methamphetamine. ("Minneapolis Firefighter from Coon Rapids Sold Meth Out of Fire Station, Court Papers Say," <i>St. Paul Pioneer Press</i> , 3/28/12)
MS	5	selling	Man sold Suboxone to an undercover police officer. ("Two Arrested for Separate Drug Sale Cases," <i>Picayune Item</i> , 3/28/12)
NC	1	possession, selling	Three women arrested on prostitution charges also charged with possession and selling of marijuana, morphine, alprazolam and Suboxone. ("Police Bring Prostitution Charges," <i>Times-News</i> , 5/14/12)
NH	14	selling	Man charged with sale of Suboxone. ("8 Arrests Made in Nashua Drug Sweep in Wake Of Probe," <i>The Union Leader</i> , 5/31/12)
NJ	2	possession	Man charged with possession of Suboxone and heroin after motor vehicle stop. ("Police Blotter," <i>Glen Rock Gazette</i> , 8/31/12)
NM	6	smuggling into jail/prison	Woman charged with attempting to smuggle 59 strips and 5 tablets of Suboxone to an incarcerated individual. ("Woman Charged with Attempt to Smuggle Drugs at Las Cruces Prison," <i>Las Cruces Sun-News</i> , 8/27/12)
NY	24	selling	Woman charged with selling Suboxone and oxymorphone, for which she was prescribed. ("Niagara Police & Courts," <i>Buffalo News</i> , 6/22/12)
ОН	3	possession	Man in possession of 6 grams of marijuana, 11 Xanax pills and 1 Suboxone pill after intoxicated driving traffic stop. ("Police: Children, Drugs Inside Car During OVI Stop," <i>Dayton Daily News</i> , 7/28/12)
PA	15	possession, selling	Man arrested for possession and sale of Suboxone and DMT. ("Erie County Man Arrested Following Search of Suspected 'DMT' Drug Lab in Girard," <i>States News Service</i> , 1/11/12)
Puerto Rico	1	smuggling into jail/prison	Woman attempted to smuggle 30 Suboxone pills, 100 Suboxone strips, and 13 grams of marijuana into federal detention center. ("Visitor Arrested for Attempting to Smuggle Contraband into Metropolitan Detention Center," <i>Justice Department Documents and Publications</i> , 3/19/12)
RI	4	possession	Two charged with possession of Suboxone, as well as possession of heroin, marijuana, and receiving stolen goods. ("Detective Bureau," <i>US State News</i> , 3/9/12)
TN	2	diversion, selling	Woman charged with using TennCare benefits to purchase Suboxone and then selling to an undercover agent. ("Overton County Drug Round-Up Includes TennCare Fraud Charges," <i>States News Service</i> , 2/14/12)
VA	7	selling	Two charged with distribution of Suboxone and crack cocaine. ("Bristol, VA Grand Jury Returns More Than 100 Drug Charges," <i>Bristol Herald Courier</i> , 5/23/12)
VT	1	use by child	Man pled guilty to child cruelty after one-year-old daughter swallowed Suboxone pill that he had bought illegally. ("Vt. Dad Admits He Left Out Pill, Baby Swallowed It," <i>The Associated Press State &amp; Local Wire</i> , 3/12/12)
WA	3	possession	Man arrested on drug charges and trafficking in stolen property after his home was searched and police found Suboxone, heroin, marijuana, mushrooms, firearms and stolen property. ("Drug Trade Cleaned Up in S-W," <i>Skagit Valley Herald</i> , 3/23/12)
WV	3	possession	90 Suboxone pills found as part of seizure of more than 7,100 prescription pills. ("Officers Seize Cache of Pills: Drug Unit Detectives Nab More Than 7,100 Prescription Pills in Separate Traffic Stops," <i>Charleston Daily Mail</i> , 2/23/12)

SOURCE: CESAR search of LexisNexis Academic database for "All News" in the "United States" with the terms "buprenorphine," "Suboxone," "Subutex," "Butrans," or "Buprenex." Only articles describing misuse or diversion were included. Only one article per news report/incident was included. If two unrelated incidents were reported in one article (e.g., "Police Beat" articles), each incident was counted individually. The state listed is the state in which the incident occurred.

![](_page_54_Picture_0.jpeg)

#### Percentage of D.C. Arrestees Testing Positive for Cocaine Reaches Lowest Level Since Data Collection Began in 1980s

Cocaine use among D.C. arrestees has reached the lowest level in the history of the D.C. Pretrial Services Agency drug testing program. When data collection began in the 1980s, 18.9% of adult arrestees and 14.0% of juvenile arrestees tested positive for cocaine. The percentage of both adult and juvenile arrestees testing positive for cocaine peaked in 1988 in the midst of the cocaine epidemic, at 64% and 22%, respectively. Since then, cocaine positive rates among arrestees have declined dramatically. In the first eight months of 2012, 17.3% of adult and 0.02% of juvenile arrestees tested positive for cocaine—the lowest levels since testing began. As the use of specific drugs among arrestees is often a leading indicator of drug use trends in the general population, it is not surprising that other community indicators of cocaine use and related consequences have shown similar declines (see *CESAR FAX* Vol. 21, Iss. 30, Vol. 20, Iss. 36, and Vol. 19, Iss 46).

![](_page_54_Figure_5.jpeg)

\*Data for 2012 are from the first eight months.

SOURCE: Adapted by CESAR from data from the District of Columbia Pretrial Services Agency. Available online at http://www.dcpsa.gov/home/drug-stats.html. For more information, contact Jerome Robinson, Director of Forensic Research at the D.C. Pretrial Services Agency Office of Forensic Toxicology Services, at jerome.robinson@csosa.gov.

![](_page_55_Picture_0.jpeg)

#### Marijuana Continues to Be the Most Commonly Used Illicit Drug Among U.S. Residents; Nonmedical Use of Prescription Drugs Decreases

Marijuana continues to be the most commonly used illicit drug among U.S. residents ages 12 and older, according to recently released data from the 2011 National Survey on Drug Use and Health (NSDUH). An estimated 29.7 million residents reported using marijuana in the past year, a statistically significant increase from 25.9 million in 2008. While the nonmedical use of prescription drugs continues to be the second most commonly used illicit substance, the number of past year users declined for the first time since 2008, from an estimated 16.1 million in 2010 to 14.7 million in 2011. The number of past year cocaine users decreased 21% from 2006 to 2011 (from 4.5 million to 3.9 million), while the number of past year hallucinogen users decreased from 4.5 million in 2010 to 4.1 million in 2011. In contrast, the number of past year users of heroin and inhalants has not changed significantly in recent years.

![](_page_55_Figure_4.jpeg)

![](_page_55_Figure_5.jpeg)

\*The difference between the 2010 and 2011 estimate is statistically significant at the  $p \le 0.05$  level.

NOTES: While the NSDUH (previously named the National Household Survey on Drug Abuse) has been conducted since 1971, the survey underwent several methodological improvements in 2002 that affected prevalence estimates. As a result, the 2002 through 2010 estimates are not comparable with estimates before 2002. Nonmedical Use of Prescription Drugs is defined as use of pain relievers, tranquilizers, stimulants, and/or sedatives without a prescription belonging to the respondent or use that occurred simply for the experience or feeling the drug caused. It does not include the use of over-the-counter drugs.

SOURCE: Adapted by CESAR from Substance Abuse and Mental Health Services Administration, *Results from the 2011 National Survey on Drug Use and Health: Detailed Tables*, 2012. Available online at http://www.samhsa.gov/data/NSDUH/2011SummNatFindDetTables/Index.aspx.

![](_page_56_Picture_0.jpeg)

A Weekly FAX from the Center for Substance Abuse Research

University of Maryland, College Park

#### Decrease in Nonmedical Use of Prescription Drugs Among U.S. Residents Fueled by Decrease in Pain Reliever Use

While the nonmedical use of prescription drugs continues to be the second most commonly used illicit drug among U.S. residents, the number of past year users recently declined for the first time since 2008 (see *CESAR FAX*, Volume 21, Issue 40). According to data from the National Survey on Drug Use and Health (NSDUH), the decline was driven by a decrease in the nonmedical use of pain relievers. In 2011, 14.7 million U.S. residents reported the nonmedical use of prescription pain relievers, down from the most recent peak of 16.5 million in 2006. Decreases in nonmedical use of pain relievers occurred among youth (12 to 17 years old) as well as young adults (18 to 25), while use among adults ages 26 or older has remained unchanged for the past ten years (data not shown). The only other prescription drug to decrease from 2010 to 2011 was the nonmedical use of sedatives, which decreased from 906,000 to 526,000—primarily due to a decrease in use by adults ages 26 or older.

![](_page_56_Figure_5.jpeg)

#### Estimated Number (in thousands) of Past Year Users of Prescription Drugs Used Nonmedically, U.S. Residents Ages 12 and Older, 2002-2011

\*The difference between the 2010 and 2011 estimate is statistically significant at  $p \le 0.05$ .

NOTES: While the NSDUH (previously named the National Household Survey on Drug Abuse) has been conducted since 1971, the survey underwent several methodological improvements in 2002 that affected prevalence estimates. As a result, the 2002 through 2010 estimates are not comparable with estimates before 2002. Nonmedical Use of Prescription Drugs is defined as use of pain relievers, tranquilizers, stimulants, and/or sedatives without a prescription belonging to the respondent or use that occurred simply for the experience or feeling the drug caused. It does not include the use of over-the-counter drugs.

SOURCE: Adapted by CESAR from Substance Abuse and Mental Health Services Administration, *Results from the 2011 National Survey on Drug Use and Health: Detailed Tables*, 2012. Available online at http://www.samhsa.gov/data/NSDUH/2011SummNatFindDetTables/Index.aspx.

![](_page_57_Picture_0.jpeg)

## More Than Two-Thirds of U.S. Residents Who First Started Using Drugs in the Past Year Began with Marijuana; 22% Started with Nonmedical Use of Prescription Drugs

An estimated 3.1 million persons ages 12 or older—an average of approximately 8,400 per day used a drug other than alcohol for the first time in the past year, according to data from the 2011 National Survey on Drug Use and Health. More than two-thirds (68%) of these new users reported that marijuana was the first drug they tried. Slightly more than one-fifth (22%) reported that prescription drugs used nonmedically were the first drug they tried, including 14% with pain relievers, 4% with tranquilizers, 3% with stimulants, and 1% with sedatives. Less than 10% reported that their first use of drugs involved inhalants and hallucinogens, and very few initiates started using with cocaine or heroin. These findings suggest that drug use prevention efforts might focus on marijuana and the nonmedical use of prescription drugs, as these are the drugs that are most often used first.

#### Specific Drug Used When First Starting to Use Drugs, Among U.S. Residents Who First Started Using Drugs in the Past Year, 2011

![](_page_57_Figure_5.jpeg)

\*Nonmedical use of prescription drugs is defined as use of pain relievers, tranquilizers, stimulants, and/or sedatives without a prescription belonging to the respondent or use that occurred simply for the experience or feeling the drug caused. It does not include use of over-the-counter drugs.

- NOTES: Percentages may not add to 100 due to rounding or because a small number of respondents initiated multiple drugs on the same day. In 2011, an estimated 3,083,000 residents initiated drug use in the past year, based on 70,109 completed interviews.
- SOURCE: Adapted by CESAR from Substance Abuse and Mental Health Services Administration, *Results from the 2011 National Survey on Drug Use and Health: Detailed Tables*, 2012. Available online at http://www.samhsa.gov/data/NSDUH/2011SummNatFindDetTables/Index.aspx.

![](_page_58_Picture_0.jpeg)

## About One-Third to One-Half of Youth Report That They Can Get Alcohol, Cigarettes, Prescription Drugs to Get High, or Marijuana Within a Day or Less

Between 31% and 50% of youth ages 12 to 17 report that they can get alcohol, cigarettes, prescription drugs to get high, or marijuana within a day or less, according to data from the 2012 National Survey of American Attitudes on Substance Abuse. Alcohol and cigarettes were the most readily accessible substances, with 50% and 44%, respectively, of youth reporting that they could obtain them within a day. Youth were least likely to report that they could get marijuana within a day (31%); 45% report that they would be unable to get marijuana at all. It will be interesting to see if reported access to marijuana increases if more states pass medical marijuana and marijuana decriminalization laws. While marijuana use remains illegal under federal law, 17 states and the District of Columbia have some type of law allowing for the medical use of marijuana and 14 states have some type of marijuana decriminalization law. Medical marijuana laws are on the ballot in two states (Arkansas and Massachusetts) in the coming election, and initiatives to legalize marijuana for recreational use are on the ballot in three states (Colorado, Washington, and Oregon).

#### Percentage of U.S. Youths Reporting How Long It Would Take Them to Get Alcohol, Cigarettes, Prescription Drugs to Get High, or Marijuana, 2012 (n=1,003 youths ages 12 to 17)

![](_page_58_Figure_5.jpeg)

\*Respondents were asked "If you wanted to get [cigarettes, alcohol, marijuana, prescription drugs in order to get high] right now, how long would it take you to get them: an hour or less, a few hours, within a day, within a week, longer than a week, or would you be unable to get them?"

NOTES: Data are from a random sample of households in the 48 continental states who had a person ages 12 to 17 living in the household. Computer-assisted telephone interviews were conducted between April 18 and May 17, 2012 with 1,003 youths who were randomly selected from the nationally representative household sample frame. The margin of error is +/-3.1 percent at a 95 percent confidence level (unadjusted for weighting).

SOURCE: Adapted by CESAR from The National Center on Addiction and Substance Abuse at Columbia University (CASA), National Survey of American Attitudes on Substance Abuse XVII: Teens, 2012. Available online at http://www.casacolumbia.org/upload/2012/20120822teensurvey.pdf.

![](_page_59_Picture_0.jpeg)

## Highest Number of Arrests in the U.S. Are for Drug Abuse Violations

There were an estimated 12,408,899 arrests in the United States in 2011, according to data from the national Uniform Crime Reporting (UCR) Program. The highest number of arrests were for drug abuse violations—selling, manufacturing, or possessing drugs, followed by larceny-theft and driving under the influence (see figure below). The majority (82%) of these arrests were for possession and one-half of these drug abuse violations involved marijuana (data not shown). A poll conducted in 2011 found that one-half of U.S. residents think that marijuana should be legalized (see *CESAR FAX*, Volume 21, Issue 19) and initiatives to legalize marijuana for recreational use are on the ballot in the coming election in three states (Colorado, Washington, and Oregon).

![](_page_59_Figure_3.jpeg)

Estimated Number of Arrests in the United States, 2011 (Top Ten Offenses)

SOURCE: Adapted by CESAR from U.S. Department of Justice, Federal Bureau of Investigation, *Crime in the United States*, 2011, 2012 (available online at http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2011/crime-in-the-u.s.-2011/persons-arrested/persons-arrested).

![](_page_60_Picture_0.jpeg)

## 60% of High School Students Report Drugs Are Used, Kept, or Sold in Their Schools

For the sixth year in a row, 60% or more of high school students report that drugs are used, kept, or sold on their school grounds, according to a telephone survey of U.S. youth ages 12 to 17. While the percentage of students reporting that there are drugs in their school has decreased from the high of 66% in 2010 to 60% in 2012, the current percentage remains higher than a decade ago (44%; see figure below). The survey also found that 36% of high school students believe that it is fairly or very easy for students to smoke, drink or use drugs during the day at their school without getting caught and more than half (52%) say that there is a place on school grounds or near their school where students go to smoke, drink, or use drugs during the school day (data not shown).

![](_page_60_Figure_4.jpeg)

Percentage of High School Students Reporting That

- NOTES: Data are from a random sample of households in the 48 continental states who had a person ages 12 to 17 living in the household. Computer-assisted telephone interviews were conducted between April 18 and May 17, 2012 with 1,003 youths who were randomly selected from the nationally representative household sample frame. The margin of error is +/-3.1 percent at a 95 percent confidence level (unadjusted for weighting).
- SOURCE: Adapted by CESAR from The National Center on Addiction and Substance Abuse at Columbia University (CASA), National Survey of American Attitudes on Substance Abuse XVII: Teens, 2012. Available online at http://www.casacolumbia.org/upload/2012/20120822teensurvey.pdf.
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![](_page_61_Picture_0.jpeg)

A Weekly FAX from the Center for Substance Abuse Research

University of Maryland, College Park

### Alcohol Reported as Primary Substance of Abuse in 62% of Veterans' Treatment Admissions

There were nearly 58,000 admissions of veterans to substance abuse treatment facilities in 2010, according to the most recent data from the Treatment Episode Data Set (TEDS). TEDS, a database of treatment admissions to primarily publicly-funded substance abuse treatment facilities, excludes admissions to Veterans Affairs (VA) facilities. Therefore, the veteran admissions in TEDS represent veterans who chose to seek substance abuse treatment in a non-VA facility.\* While alcohol was most likely to be reported as the primary substance of abuse among veterans and nonveterans alike, veterans were much more likely than nonveterans to report alcohol as their primary substance of abuse (62% vs. 42%). Veterans were less likely than nonveterans to report marijuana (7% vs. 15%) or heroin (8% vs. 16%) as their primary substance of abuse. No other substance besides alcohol was reported by more than 10% of veterans as a primary substance of abuse, suggesting that use prevention, intervention, and treatment programs for military personnel and veterans should focus their resources on alcohol.

#### Primary Substance of Abuse in Treatment Admissions Ages 18 and Older, by Veteran Status, 2010

![](_page_61_Figure_6.jpeg)

![](_page_61_Figure_7.jpeg)

\*It is possible that veterans receiving treatment from VA treatment facilities may have a different pattern of primary substances of abuse than those found in TEDS.

- NOTES: A veteran is defined by TEDS as a person 16 years or over who has served (even for a short time), but is not now serving, on active duty in the US Army, Navy, Marine Corps, Coast Guard, or Commissioned Corps of the US Public Health Service or National Oceanic and Atmospheric Administration, or who served as a Merchant Marine seaman during World War II. Persons who served in the National Guard or Military Reserves are classified as veterans only if they were ever called or ordered to active duty, not counting the 4-6 months for initial training or yearly summer camps.
- SOURCES: Adapted by CESAR from Substance Abuse and Mental Health Data Archive (SAMHDA), online analysis of the concatenated1992-2010 Treatment Episode Data Set (TEDS), based on data received through 10/10/11, conducted 11/14/12 (available online at http://www.icpsr.umich.edu/icpsrweb/SAMHDA); and Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Behavioral Health Statistics and Quality, "Half of Substance Abuse Treatment Admissions among Veterans Aged 21 to 39 Involve Alcohol as the Primary Substance of Abuse," *Data Spotlight*, November 8, 2012 (available online at www.samhsa.gov/data/2k12/TEDS2010N/TEDS2010NWeb.pdf).

![](_page_62_Picture_0.jpeg)

## **One-Half of Buprenorphine-Related Emergency Department Visits for Nonmedical Use**

Slightly more than one-half (52%) of the estimated 30,135 buprenorphine-related emergency department visits in the U.S. in 2010 were for nonmedical use of the drug, according to data from the Drug Abuse Warning Network (DAWN). Approximately one-fourth of these visits, in which buprenorphine was involved as either a direct cause or a contributing factor, were related to seeking detoxification and 13% were for adverse reactions. The estimated number of emergency department visits related to the nonmedical use of buprenorphine has more than tripled since 2006 (see *CESAR FAX*, Volume 21, Issue 31).

Types of U.S. Buprenorphine-Related Emergency Department Visits, 2010

![](_page_62_Figure_4.jpeg)

NOTES: Nonmedical use of buprenorphine includes taking more than the prescribed dose; taking buprenorphine prescribed for another individual; deliberate poisoning with buprenorphine by another person; and documented misuse or abuse of buprenorphine. Adverse reaction includes visits related to adverse reactions, side effects, drug-drug interactions, and drug-alcohol interactions resulting from using buprenorphine for therapeutic purposes. Seeking detox includes patients seeking substance abuse treatment, drug rehabilitation, or medical clearance for admission to a drug treatment or detoxification unit. Accidental ingestion includes childhood drug poisonings, individuals who take the wrong medication by mistake, and a caregiver administering the wrong medicine by mistake. It does not include a patient taking more medicine than directed because the patient forgot to take it earlier. Suicide includes visits for overdoses, as well as suicide attempts by other means if drugs were involved or related to the suicide attempt.

\*The number of buprenorphine-related ED visits categorized as accidental ingestion and as suicide attempts did not meet DAWN's standards of precision (i.e., the estimate had a standard of error greater than 50% or the unweighted count or estimate was less than 30). For this analysis, the two categories were combined and the percentage derived from the difference remaining after accounting for the categories that were known. Percentages do not sum to 100 due to rounding.

SOURCE: Adapted by CESAR from data from the Substance Abuse and Mental Health Services Administration (SAMHSA), *Drug Abuse Warning Network, 2010: Selected Tables of National Estimates of Drug-Related Emergency Department Visits*, online at http://www.samhsa.gov/data/DAWN.aspx#DAWN%202010%20ED%20Excel%20Files%20-%20National%20Tables (accessed 11/19/12).

![](_page_63_Picture_0.jpeg)

## California Roadside Survey Finds Twice as Many Weekend Nighttime Drivers Test Positive for Other Drugs as for Alcohol; Marijuana as Likely as Alcohol

Drugs that may affect driving were detected in one of every seven weekend nighttime drivers in California, according to data from the first statewide roadside survey of alcohol and drug use by drivers. Anonymous breath tests, oral fluid samples, and responses to questionnaires were collected from a random sample of weekend nighttime drivers in nine California jurisdictions. Twice as many drivers tested positive for other drugs (14.0%) as for alcohol (7.4%), and just as many drivers tested positive for marijuana as for alcohol (see figure below). Marijuana (either alone or in combination with other drugs) was the drug most likely to be detected, comprising 53% of all drug positives. The study also found that 23% of those testing positive for alcohol tested positive for at least one other drug, usually marijuana (data not shown). The authors caution that "these figures describe the prevalence rates for the presence of these drugs in drivers and do not address whether those drivers were impaired by these substances" (p. 2).

![](_page_63_Figure_3.jpeg)

#### Percentage of California Nighttime Weekend Drivers Testing Positive for Alcohol or Drugs, 2012

NOTES: Data are from a random sample of nighttime drivers interviewed on Friday and Saturday nights from 10 p.m. to midnight and 1:00 a.m. to 3:00 a.m. Data were collected on one weekend in eight communities and on two weekends in one community during the summer of 2012. Among eligible drivers approached to participate in the survey, 81% (1,375 drivers) agreed to answer questions, 85.3% (1,449 drivers) provided a breath sample, and 77.3% (1,313 drivers) provided an oral fluid sample. The breath alcohol samples were analyzed for alcohol and the oral fluid samples were analyzed for nearly 50 drugs, including prescription, illegal, and over-the-counter drugs. The methodology was modeled after NHTSA's "2007 National Roadside Survey of Alcohol and Drug Use by Drivers" (http://www.nhtsa.gov/Driving+Safety/Research+&+Evaluation/2007+National+Roadside+Survey+of+Alcohol+and+D rug+Use+by+Drivers).

\*The percentages for the BAC do not add to the total for "Any Alcohol" due to rounding. The percentages for "Marijuana," "Other Illegal Drug," and "Medication" do not add to the total for "Any Drug" because individuals may have tested positive for more than one drug.

SOURCE: Adapted by CESAR from Pacific Institute for Research and Evaluation (PIRE), *Results of the 2012 California Roadside Survey of Nighttime Weekend Drivers' Alcohol and Drug Use*, 2012. Available online at http://www.ots.ca.gov/Media\_and\_Research/Press\_Room/2012/doc/2012\_Drug\_And\_Alcohol\_Roadside\_Survey.pdf.

![](_page_64_Picture_0.jpeg)

University of Maryland, College Park

## Suboxone<sup>®</sup> Sales Estimated to Reach \$1.4 Billion in 2012—More Than Viagra<sup>®</sup> or Adderall<sup>®</sup>

Sales data from the first three quarters of 2012 indicate that Suboxone retail sales in the U.S. will likely reach \$1.4 billion\* this year—nearly a ten-fold increase over the \$137.1 million in sales in 2006 (see figure below). Suboxone currently has the 28<sup>th</sup> highest retail sales of all prescription drugs<sup>1</sup> in the U.S., up from 198<sup>th</sup> in 2006. Suboxone sales will likely continue to increase in light of new SAMHSA regulations allowing Opioid Treatment Programs (OTPs) to dispense a multiple days' supply of take-home buprenorphine, the main ingredient in Suboxone, to eligible patients without having to adhere to previous length of time in treatment requirements.<sup>2</sup> The steady and rapid increase in Suboxone sales suggests that the drug is being widely adopted in the treatment of opioid dependence, likely because of its effectiveness<sup>3</sup> and because it can be prescribed in both private physicians' offices and OTPs.

While increased availability means that more opioid<br/>dependent persons are being treated, it is also likely that<br/>diversion and nonmedical use will increase. Prior issues<br/>of the CESAR FAX have indicated that buprenorphine<br/>is being diverted for use by those who do not have a<br/>prescription and that there has been an increase in the<br/>health-related consequences of nonmedical use of<br/>buprenorphine.<sup>3</sup> Furthermore, a recent State of Florida<br/>medical examiner report<sup>4</sup> found that the number of<br/>buprenorphine-related deaths had increased from 6 in 2009<br/>to 27 in 2011 (compared to 62 heroin-related deaths in<br/>2011). These figures likely underestimate buprenorphine-related\$1,600<br/>\$1,200

![](_page_64_Figure_5.jpeg)

![](_page_64_Figure_6.jpeg)

\*Sales for the 4<sup>th</sup> quarter of 2012 were estimated using the average of the first three quarters of 2012 (Q1: \$338.8; Q2: \$342.8; Q3: \$393.0)

deaths because, unlike heroin, buprenorphine is not systematically tested for by State of Florida medical examiners.

*Editor's Note:* The true magnitude and scope of buprenorphine diversion, misuse, and adverse consequences is unknown because current epidemiologic measures do not systematically monitor buprenorphine. Routine drug testing protocols used by workplaces and the criminal justice system may not include buprenorphine. Similarly, buprenorphine-related deaths are not accurately tracked because medical examiners and coroners do not routinely test for the drug. *We believe that in order to maximize the effectiveness and legitimacy of buprenorphine as a treatment for opioid dependence, it is essential that adequate systems for monitoring potential diversion, misuse, and adverse consequences be put in place throughout the country. According to the manufacturer, Suboxone "can cause serious life-threatening respiratory depression and death, particularly when taken by the intravenous (IV) route in combination with benzodiazepines or other central nervous system (CNS) depressants."<sup>5</sup> Failure to adequately assess the potential risks of diversion and misuse could result in serious public health consequences and more limitations on the drug's use.* 

<sup>1</sup>As ranked in the 3<sup>rd</sup> quarter of 2012. To put Suboxone sales in perspective with other commonly prescribed drugs, OxyContin was ranked 13<sup>th</sup> in the 3<sup>rd</sup> quarter of 2012, Viagra 48<sup>th</sup>, and Adderall XR 81<sup>st</sup>. Methadone did not rank in the top 100 in any year examined. Figures include sales through both retail and hospital channels. <sup>2</sup>See http://www.ofr.gov/OFRUpload/OFRData/2012-29417\_PI.pdf. <sup>3</sup>See the *CESAR FAX Buprenorphine Series* (online at www.cesar.umd.edu). <sup>4</sup>Florida Department of Law Enforcement, Medical Examiners Commission, *Drugs Identified in Deceased Persons by Florida Medical Examiners: 2011 Report*, October 2012. Online at http://www.fdle.state.fl.us/Content/getdoc/fa86790e-7b50-45f3-909d-c0a4759fefa8/2011-Drug-Report\_Final.aspx (accessed 12/7/12). <sup>5</sup>Reckitt Benckiser Pharmaceuticals Inc., "Suboxone Important Safety Information," undated. Online at www.suboxone.com/patients/safety/Default.aspx (accessed 12/10/12).

SOURCE: Drugs.com, Suboxone Sales Data, November 2012. Online at http://www.drugs.com/stats/suboxone (accessed 12/7/12).

![](_page_65_Picture_0.jpeg)

#### Weekly Cigarette Smoking Among U.S. Adults at All Time Low; Largest Decrease Among Adults Ages 18 to 29

Cigarette smoking among adults in the United States continues to remain at record low levels, according to the results of a national Gallup poll of adults conducted in July 2012. After peaking at 45% in 1954, the percentage of adults reporting smoking in the past week gradually declined, reaching 21% in 2007. Between 2007 and 2012 the percentage did not change, remaining within the poll's error rate of 4 percentage points. The largest overall decline in weekly smoking occurred among adults ages 18 to 29, dropping 26% between 2001 and 2012\* (data not shown). According to the authors, "this may reflect a decline in smoking among teens and other minors-the ages at which a lifetime of smoking often starts—and . . . increases the likelihood that smoking rates will continue to fall in the years ahead."

![](_page_65_Figure_4.jpeg)

Percentage of U.S. Adult Household Residents Reporting

\*Combined data from multiple years were used in analyzing demographic subgroups. In 2001-2005, 34% of adults ages 18 to 29 reported smoking in the past week, compared to 25% in 2011-2012.

- NOTES: Data for 2012 are from national telephone (land-line and cellular) interviews with a random sample of 1,014 adults ages 18 and older conducted July 9-12, 2012. The margin of error is 4 percentage points for the total sample. If more than one poll was conducted in a year, the poll that occurred closest to the month of July was used in the above graph. Surveys were only conducted in years that have a data point marker.
- SOURCE: Adapted by CESAR from Gallup, One in Five U.S. Adults Smoke, Tied for All-Time Low, August 2012 (available online at http://www.gallup.com/poll/156833/one-five-adults-smoke-tied-time-low.aspx).

#### **CESAR Wishes You a Very Happy Holiday Season!**

This is the final issue of the CESAR FAX for 2012. The CESAR FAX will resume with Volume 22, Issue 1 on January 7th, 2013. Thank you for your support during the past year!