Commonly Misused Substances

For all types of substance use disorders, millions of lives have been improved dramatically through treatment and recovery.[1] America has seen great progress in reducing drug and alcohol addiction. Rates of current alcohol, tobacco, and illicit drug use among youth aged 12 to 17 have steadily declined from 2002. According to John P. Walters, Director of the National Drug Control Policy, as documented in a September 7, 2006, Substance Abuse and Mental Health Services Administration (SAMHSA) press release, "Something important is happening with American teens. They are getting the message that using drugs limits their futures, and they are turning away from the destructive patterns and cruelly misinformed perceptions about substance abuse that have so damaged previous generations."[2]

I was a multi-addicted speed lover from the sixties. In 1978, I quit alcohol, speed, sugar, and chocolate, and was already clean from nicotine and caffeine. I had to quit everything because doing one substance led me to crave another. Although I was involved in recovery programs, it wasn't enough. I started working in the field of addiction. I was told I was the first recovering person to be hired in a government treatment program in Australia. It was an experiment because they heard it worked well in America. Since then, I moved to the United States and started working on the education and prevention side. It is an exciting, evolving field. Being multi-addicted is more common these days, and I am happy to say, it is possible to have long-term recovery from all addictions.

Gabrielle Antolovich
Executive Director, National Council on Alcoholism and Drug Dependence, NCADD in the Silicon Valley

A **substance use disorder*** involves the dependence on, or abuse of, alcohol and/or drugs, including the nonmedical use of prescription drugs. Substance use disorders can affect people regardless of their race, ethnicity, class, employment status, or community. Therefore, it is important to recognize that like other chronic physical and mental disorders, substance use disorders are medical conditions that can be treated effectively.[3, 4, 5]

Substance use disorders are still a major health problem that impacts society on multiple levels. They cost our nation more than $484 billion per year in health care expenditures, lost earnings, and costs associated with crime and accidents.[6, 7, 8] In 2005, 23.2 million people aged 12 or older needed treatment for an illicit drug or alcohol use problem. Of these, only 2.3 million received treatment at a specialty facility, leaving 20.9 million people who needed but did not receive treatment.[9]

There is a great need to increase awareness of and access to **treatment***, so that people can find successful paths to sustaining **recovery***. In fact, cost or insurance barriers are common reasons why people who need illicit drug or alcohol use treatment do not receive it.[10]

Although substance use has recently declined among young people, older adults are showing signs of increased use. Among adults aged 50 to 59–the Baby Boomer generation–the rate of current illicit drug use increased from 2.7 percent to 4.4 percent between 2002 and 2005.[11]

* *See "Glossary" at the end of the document for definitions of highlighted and starred terms.*

Additionally, past-month nonmedical use of prescription-type drugs among young adults aged 18 to 25 increased from 5.4 percent in 2002 to 6.3 percent in 2005, primarily due to an increase in pain reliever use.[12]

To generate a greater understanding that substance use disorders are treatable and to enable the people who need it to have access to affordable and convenient treatment options, there is a need to analyze the impact substance use disorders have on individuals, families, and the community. As you read the following facts about the most commonly misused substances in the United States, consider the consequences alcohol and/or drugs have on the nation.

Alcohol

The Facts:

- In 2005, as many as 18.7 million people were classified with dependence on or abuse of alcohol.[13]
- Rates of **binge alcohol use*** were highest among people aged 21 to 23 in 2005.[14]
- Most binge and **heavy alcohol users*** were employed in 2005. Among the 52.6 million adult binge drinkers, 42.1 million were employed either full or part time.[15]
- In 2005, the level of alcohol use was associated with illicit drug use. Among the 16 million heavy drinkers aged 12 or older, 32 percent were also current illicit drug users.[16]

The Cost:

- Even drinking at moderate levels can affect driving ability, interact with medications, and lead to alcohol-related birth defects.[17] Drinking alcohol can lead to a loss of coordination, poor judgment, slowed reflexes, distorted vision, memory lapses, and blackouts.[18]
- Consumption of alcohol can increase the risk of certain cancers, especially those of the liver, esophagus, throat, and larynx (voice box). Heavy drinking can cause liver cirrhosis (scarring), immune system problems, and brain damage.[19]
- In 2004, an estimated 363,641 emergency department visits involved the use of alcohol in combination with another drug.[20]
- Alcoholism is estimated to cost 500 million lost workdays annually.[21]

Anabolic Steroids

The Facts:

- Anabolic steroids are synthetic derivatives of the male hormone testosterone. They promote the growth of skeletal muscle and the development of male sexual characteristics.[22]
- Steroids can be taken orally or via needle injection.[23]
- Common street names for anabolic steroids include "roids" and "juice."[24]
- It is estimated that hundreds of thousands of people aged 18 and older misuse steroids at least once a year.[25]
- The abuse of steroids, both in the past year and in the past 30 days, decreased significantly among 12th graders between 2004 and 2005, and the perceived availability of steroids decreased significantly among 8th graders.[26]

The Cost:

- When used inappropriately, anabolic steroids can cause severe, long-lasting, and often irreversible negative health consequences.[27]
- Some consequences of steroid use are increased risk of heart attacks and stroke, liver problems, stunted growth, infertility, and testicular shrinkage.[28, 29]
- Because steroids are often injected, users risk contracting or transmitting HIV or hepatitis.[30]

Living happy, joyous, and free…That seemed almost impossible to do 8 years ago when I thought, felt, and believed I would die a crack addict and alcoholic. During my second and final prison sentence, I made a promise to God and a commitment to myself to live life on life's terms. Since that time, my life has made a complete turn-around. I am loved and trusted more, and my word stands stronger today. I am actually giving back to others. I went from a crack addict, liar, and thief to a beautiful woman of God. I now thank God each day for a praying family. I play a big part in my son's and daughter's lives. My precious gifts are my grand-boys, who only see the redeemed and sober "ganny." My mother is now my best friend. Today I don't define myself by my victimhood. Life gets better and far more realistic once you muster up the courage to take responsibility for your own life.

Audrey Smith
Recovery Advocate

Cocaine and "Crack"

The Facts:

- Cocaine is a powerfully addictive stimulant that directly affects the brain. One form of cocaine is hydrochloric salt, a white powder that dissolves in water and can be taken either intravenously or through the nose. The other form, freebase (crack), is cocaine that has not been neutralized by an acid and can be smoked.[31]

- In 2005, there were an estimated 2.4 million current cocaine users aged 12 or older, which is an increase of 400,000 from 2004.[32]
- The average age at first-time use of cocaine was 19.7 years in 2005.[33]
- The number of past-month cocaine users increased from about 2 million in 2004 to 2.4 million in 2005.[34]
- The number of past-month crack users increased from 467,000 in 2004 to 682,000 in 2005.[35]

The Cost:

- The medical complications associated with cocaine use include disturbances in heart rhythm and heart attacks, chest pain and respiratory failure, stroke, seizure, and gastrointestinal complications.[36]
- The interaction between cocaine and alcohol is the most common two-substance combination that results in drug-related death.[37]
- Cocaine was involved in an estimated 383,350 of the nearly 2 million drug-related emergency department visits in 2004.[38]

Ecstasy (also known as MDMA)

The Facts:

- Ecstasy is a synthetic illicit drug that causes both hallucinogenic and stimulant effects. It is generally sold as a tablet to be taken orally.[39]
- Lifetime abuse and the perceived availability of Ecstasy decreased significantly among youths in 12th grade from 2004 to 2005.[40]
- The number of past-year first-time Ecstasy users decreased from 1.2 million in 2002 to 615,000 in 2005.[41]
- In 2005, the average age of first using Ecstasy for those ages 12 to 49 was 20.7 years.[42]

The Cost:

- Ecstasy causes brain and neurological damage.[43] Using Ecstasy can cause confusion, depression, anxiety, sleeplessness, craving for the drug, and paranoia.[44]
- People who use Ecstasy during physical exertion or in hot environments risk dehydration, hyperthermia, and heart or kidney failure and face the possibility of death. People with circulatory problems or heart disease face particular risks because Ecstasy can increase heart rate and blood pressure.[45]
- In 2004, Ecstasy was involved in an estimated 8,621 emergency department visits.[46]

Hallucinogens

The Facts:

- Hallucinogens, including lysergic acid diethylamide (LSD), mescaline, and psilocybin mushrooms, are drugs that disrupt a person's ability to think and communicate rationally and can confuse one's perception of reality.[47]
- Drugs such as phencyclidine (PCP) and ketamine, which were initially developed as general anesthetics for surgery, distort perceptions of sight and sound and produce feelings of detachment and dissociation from the environment and self.[48]
- In 2005, there were 953,000 people who used hallucinogens for the first time, including 243,000 people who used LSD for the first time.[49]
- The most common hallucinogen used in 2004 among teenagers was psilocybin mushrooms, also known as "'shrooms."[50]

The Cost:

- In addition to causing short-term effects on perception and mood, hallucinogens are associated with psychotic-like episodes that can occur long after a person has taken the drug and can cause respiratory depression and heart abnormalities.[51]
- Long-term effects of LSD may include persistent mental disorders.[52]
- In 2004, LSD was involved in an estimated 1,953 emergency department visits.[53]

Heroin/Opioids

The Facts:

- Heroin is processed from morphine. It can be injected, inhaled (snorted), or smoked.[54]
- Opioids are narcotics and include morphine, oxycodone, hydrocodone, and codeine. They are prescribed by physicians to treat pain from cancer, terminal illness, severe injury, or surgery.[55]
- In 2005, there were 136,000 current heroin users.[56] There were no significant changes in the number of new heroin users (108,000), or in the average age at first use of heroin (22.2 years), from 2002.[57]
- Past-year initiation of substance use among people 12 and older for the nonmedical use of OxyContin® was 526,000 in 2005.[58]
- Street names for codeine include "Captain Cody," "Cody," "schoolboy," "doors & fours," "loads," and "pancakes & syrup." Street names for heroin include "brown sugar," "H," and "smack."[59]

The Cost:

- Heroin use is associated with serious health conditions, including fatal overdose, spontaneous abortion, collapsed veins, and infectious diseases, including HIV/AIDS and hepatitis.[60]
- Misuse and abuse of opioids may lead to dependence and uncomfortable withdrawal symptoms when use is reduced or stopped. Withdrawal symptoms include muscle and bone pain, diarrhea, vomiting, cold flashes, involuntary leg movements, rapid or irregular heart beat, reduced appetite, weight loss, heart failure, nervousness, and insomnia.[61, 62]
- Opioids are the second-most frequent reason for being admitted to treatment among older adults, after alcohol.[63]
- In 2004, heroin was involved in an estimated 162,137 drug-related emergency department visits. Opiate pain medications were involved in an estimated 158,281 emergency department visits related to the nonmedical use of drugs. Codeine pain medication was involved in approximately 5,836 of these visits.[64]
- The cost of heroin addiction in the United States was $21.9 billion in 1996. Of these costs, productivity losses accounted for $11.5 billion (53 percent), criminal activities cost $5.2 billion (24 percent), medical care cost $5 billion (23 percent), and social welfare cost $100 million (0.5 percent). The large economic burden resulting from heroin addiction highlights the importance of investing in prevention and treatment.[65]

Inhalants

The Facts:

- The term "inhalants" refers to more than 1,000 different household and commercial products that can be intentionally misused by inhaling them through the mouth or nose for an intoxicating effect. These products are composed of volatile solvents and substances commonly found in felt-tip marker fluids, gasoline, cleaning solutions, and paint products.[66]
- In 2005, 877,000 people used inhalants for the first time; 72.3 percent were under age 18 when they first used them.[67]

The Cost:

- Inhalant users can suffer physical consequences ranging from drowsiness and lightheadedness to damaged lungs, paralysis, brain damage, and death.[68, 69]
- In 2004, inhalants were involved in an estimated 9,275 emergency department visits.[70]

- Inhalant users also can suffer heart dysfunction as a result of agitation, which can cause Sudden Sniffing Death Syndrome (SSDS). SSDS can happen the 1st, 10th, or 100th time a person uses an inhalant.[71]
- If inhalants are used during pregnancy, results similar to Fetal Alcohol Syndrome may occur.[72]

Marijuana

The Facts:

- Marijuana is the most commonly used illicit drug, with 14.6 million past-month users.[73]
- Marijuana was used by 74.2 percent of current illicit drug users in 2005.[74]
- The rate of current marijuana use among youths aged 12 to 17 declined from 8.2 percent in 2002 to 6.8 percent in 2005.[75]
- In 2005, among past-year marijuana users, 3.4 million people used marijuana on a daily or almost-daily basis.[76]
- There were 4.1 million people classified with dependence on or abuse of marijuana in 2005.[77]

The Cost:

- Marijuana use impairs physical and mental health, specifically cognitive abilities.[78]
- Heavy marijuana use critically lowers learning skills; daily use may result in overall reduced intellectual functioning.[79, 80]
- Recent research points to an association between early marijuana use and a heightened risk of developing schizophrenia or other psychological disorders.[81, 82, 83]
- In 2004, marijuana was involved in an estimated 215,665 emergency department visits.[84]

Methamphetamine/Amphetamines

The Facts:

- Methamphetamine (meth) and amphetamines are central nervous system stimulants. They can be consumed orally or by smoking, snorting, intravenous injection, or inhalation.[85]
- Drugs known collectively as meth have been nicknamed “crank,” “ice,” “crystal,” “speed,” and many other regional variations.[86]

- The widespread production, distribution, and use of meth affect urban, suburban, and rural communities nationwide.[87, 88]
- In 2005, there were 512,000 current users of meth.[89]
- The number of recent new users of meth when taken nonmedically among people aged 12 or older was 192,000 in 2005. The average age of first-time meth use for those ages 12 to 49 was 18.6 years.[90]
- Law enforcement officials have seen a decrease in the number of meth lab busts as a result of laws that restrict the sale of cold medicines, such as pseudoephedrine, which are used to manufacture meth.[91]

The Cost:

- Meth has been known to cause heart failure, brain damage, stroke, and sometimes death. It can also cause many psychological changes, including anger, panic, paranoia, hallucinations, and aggressive acts that can lead to suicide.[92]
- Cleanups of meth labs are extremely resource-intensive and beyond the financial capabilities of most jurisdictions. While the average cost of a cleanup is about $5,000, cleanup costs can reach up to $100,000 or more due to the extent of environmental contamination. Each pound of meth produced leaves behind five or six pounds of toxic waste. Meth "cooks" often pour leftover chemicals and by-product sludge down drains in nearby plumbing, storm drains, or directly onto the ground. Chlorinated solvents and other toxic by-products used to make meth pose long-term hazards because they can persist in soil and groundwater for years.[93]
- Children living in meth labs or living with a meth user have been known to suffer consequences, including testing positive for having meth in their bodies and exposure to second-hand smoke. Symptoms may include shortness of breath, cough, and chest pain. Chronic exposure to the chemicals used to manufacture meth can cause a range of health effects, including cancer; damage to the brain, liver, and kidneys; birth defects; and reproductive problems, such as miscarriages.[94]
- In 2004, amphetamines were involved in an estimated 32,686 emergency department visits, and meth was involved in an estimated 73,400 emergency department visits.[95]

Prescription Drugs

- Prescription drugs are safe and effective when used correctly, but, if misused, can lead to abuse and addiction.[96] Nonmedical use of prescription drugs is defined as taking a higher-than-prescribed or recommended dose of a pharmaceutical, taking a pharmaceutical prescribed for another individual, malicious poisoning of another individual, or substance abuse involving pharmaceuticals.[97]
- Based on combined data from 2002 through 2004, an annual average of 2.7 million people aged 12 or older first misused any prescription psychotherapeutic drug in the past year.[98]
- In 2005, there were 6.4 million people who used prescription drugs nonmedically in the past month.[99]
- In 2005, the most prevalent source from which recently used drugs were obtained among nonmedical users of prescription-type drugs was "from a friend or relative for free."[100]
- In 2004, almost 2 million people aged 12 or older met criteria for past-year dependence on or abuse of prescription drugs, including 1.4 million people for pain relievers, 573,000 for tranquilizers, 470,000 for stimulants, and 128,000 for sedatives. Only 12.5 percent of those with a prescription drug use disorder in the past year received specialty treatment for drug problems in that period, based on combined data from 2002, 2003, and 2004.[101]
- People aged 12 or older who were living in small metropolitan areas with populations of fewer than 250,000 people had the highest rates by population density for misuse of any prescription psychotherapeutic drug from 2002 through 2004.[102]
- There were nearly a half million estimated emergency department visits involving the nonmedical use of pharmaceuticals in 2004.[103]

My story holds many similarities to those who came before me. I started drinking at age 3 because my parents thought it was "cute," and by the time I was 8, I was the proud family bartender. I fell in love with the numbing effects of a painkiller prescribed for my ear infections at age 10. I vividly recall the moment my father was told if he didn't stop drinking he was going to die. He died less than a year later. I was 13 and my own active disease progressively ran the next 24 years of my life. I used drugs when I said I wasn't going to; I drank when I swore I'd never do it again. I meant it with every fiber of my being, and still I continued on my path of self-destruction. I knew that if I didn't get some serious help, I was going to die, and probably within a few days. My mind had become insane. Today, my disease is under arrest, not by my own will, but by the loving support, guidance, and hope so graciously given to me by others who understand this illness. We do recover, with appropriate treatment for the appropriate length of time. Through education, advocacy, and outreach, I now strive to serve the needs of the recovery community by providing a voice to those in the recovery process.

Barbara Genna
Recovery Advocate

There are several types of prescription drugs that are commonly misused:

Central nervous system (CNS) depressants

The Facts:

- These drugs may be prescribed by physicians to treat anxiety and sleep disorders.[104]
- They include barbiturates, such as mephobarbital (Mebaral®) and pentobarbital sodium (Nembutal®), and benzodiazepines, such as diazepam (Valium®), chlordiazepoxide HCl (Librium®), and alprazolam (Xanax®).[105]
- All CNS depressants work by slowing the brain's activity.[106]

The Cost:

- Withdrawal from CNS depressants can be difficult and even dangerous.
- When people stop taking CNS depressants, the brain's activity may rebound and race out of control, possibly leading to seizures and other harmful consequences. (For this reason, someone who is thinking about discontinuing CNS depressant therapy or who is suffering withdrawal from a CNS depressant should visit a physician.)[107]
- Muscle relaxants, a type of CNS depressant, were involved in more than 28,000 emergency department visits related to the nonmedical use of prescription drugs in 2004.[108]
- In 2005, 4.7 million people used narcotic pain relievers nonmedically in the past month; 1.8 million used tranquilizers and 272,000 used sedatives—all of which are classified as CNS depressants.[109]

Stimulants

The Facts:

- Stimulants are used to increase alertness and physical activity; they often are prescribed to treat narcolepsy, attention deficit hyperactivity disorder, and obesity.[110]
- Some common stimulants include Ritalin® to treat attention deficit hyperactivity disorder and Dexedrine® to treat narcolepsy.[111]

- In 2005, 1.1 million people used stimulants nonmedically in the past month (including 512,000 who used methamphetamine).[112]
- In 2005, nearly 2.8 million people used stimulants nonmedically in the past year, a decrease from 2002 when nearly 3.2 million people reported using stimulants nonmedically.[113]

The Cost:

- Misuse of these drugs narrows blood vessels, reducing the flow of blood and oxygen to the heart, which results in “starving” the heart muscle.[114]
- Taking inappropriately high doses of a stimulant may result in an irregular heartbeat, dangerously high body temperature, cardiovascular failure, or lethal seizures.[115]
- In 2004, 151,409 people received treatment for the dependence on and/or abuse of stimulants, including methamphetamine.[116]
- Stimulants, including amphetamines, methamphetamine, and prescription stimulants used nonmedically, were involved in an estimated 110,815 emergency department visits in 2004.[117]

Tobacco

The Facts:

- Researchers have identified more than 4,800 chemical compounds in tobacco smoke; of these, at least 69 cause cancers in humans and animals.[118]
- An estimated 71.5 million Americans (29.4 percent of the population aged 12 or older) were current users of a tobacco product in 2005: 60.5 million people (24.9 percent) smoked cigarettes, 13.6 million people (5.6 percent) smoked cigars, 7.7 million people (3.2 percent) used smokeless tobacco, and 2.2 million people (0.9 percent) smoked tobacco in pipes.[119]
- Young adults aged 18 to 25 had the highest rate of current use of a tobacco product at 44.3 percent.[120]
- Use of illicit drugs and alcohol was more common among current cigarette smokers than nonsmokers in 2005.[121]

The Cost:

- Cigarette smoking causes approximately 440,000 deaths annually in the United States. It is also the most preventable cause of death in the country.[122]
- Smoking is associated with an increased risk for at least 15 types of cancers, such as those of the lungs, esophagus, cervix, kidneys, bladder, and stomach. In fact, it is the most important risk factor for lung cancer.[123]
- More than 8.6 million people in the United States have at least one serious illness caused by smoking.[124]
- Research has shown that women's smoking during pregnancy increases the risk of pregnancy complications, premature deliveries, low-birth-weight infants, stillbirths, and sudden infant death syndrome (SIDS).[125]
- An estimated $92 billion in productivity losses occurs annually from deaths due to smoking. The economic costs of smoking are more than $167 billion, including an additional $75.5 billion in smoking-related medical expenditures.[126]

For more resources and organizations that can help provide treatment, visit the *Recovery Month* Web site at *www.recoverymonth.gov*. For additional *Recovery Month* materials, visit *www.recoverymonth.gov* or call 1-800-662-HELP.

Glossary

Much has been written about substance abuse, dependence, and addiction; many studies have used different terminology to explain their findings. To foster a greater understanding and avoid perpetuating any stigma associated with these conditions, the phrase “substance use disorders” is used as an umbrella term to encompass these concepts.

Below you will find extensive definitions of substance use disorders, as well as other terms that are highlighted throughout this document. Unless otherwise noted, more detailed definitions and criteria can be found in the ***2005 National Survey on Drug Use and Health: National Findings*** at *www.oas.samhsa.gov/nsduh.htm*.

Substance use disorders – Substance use disorders involve the dependence on or abuse of alcohol and/or drugs. Dependence on and abuse of alcohol and illicit drugs, which include the nonmedical use of prescription drugs, are defined using the American Psychiatric Association’s criteria specified in the ***Diagnostic and Statistical Manual of Mental Disorders***, 4th edition (DSM-IV). Dependence indicates a more severe substance problem than abuse; individuals are classified with abuse of a certain substance only if they are not dependent on it.[127]

Treatment – Treatment is a path of recovery that can involve many interventions and attempts at abstinence. It is offered in different settings, and types of treatment greatly depend on the substances misused, as well as a person’s individual needs and characteristics. Treatment is offered in residential and outpatient programs and can include counseling or other behavioral therapy, family therapy, medication, or a combination of services.[128, 129, 130] For more information, please refer to “A Guide To Treatment: Methods To Help People With Substance Use Disorders” in this planning toolkit.

Recovery – Recovery from alcohol and drug problems is a process of change through which an individual achieves abstinence and improved health, wellness, and quality of life. Individuals from the recovery community and treatment-related service providers developed this definition through the National Summit on Recovery process sponsored by the Substance Abuse and Mental Health Services Administration’s (SAMHSA’s) Center for Substance Abuse Treatment (CSAT).

Specialty facility – Specialty facilities include alcohol or drug rehabilitation facilities (inpatient or outpatient), hospitals (inpatient services only), and mental health centers.[131]

Binge use – Binge use of alcohol is defined as drinking 5 or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days.

Heavy use – Heavy use of alcohol is defined as drinking 5 or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on 5 or more days in the past 30 days. Heavy alcohol users also are considered binge users of alcohol.

Drink – For the purposes of some of the research provided in this document, a “drink” is considered a can or bottle of beer, a glass of wine or a wine cooler, a shot of liquor, or a mixed drink with liquor in it.[132]

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