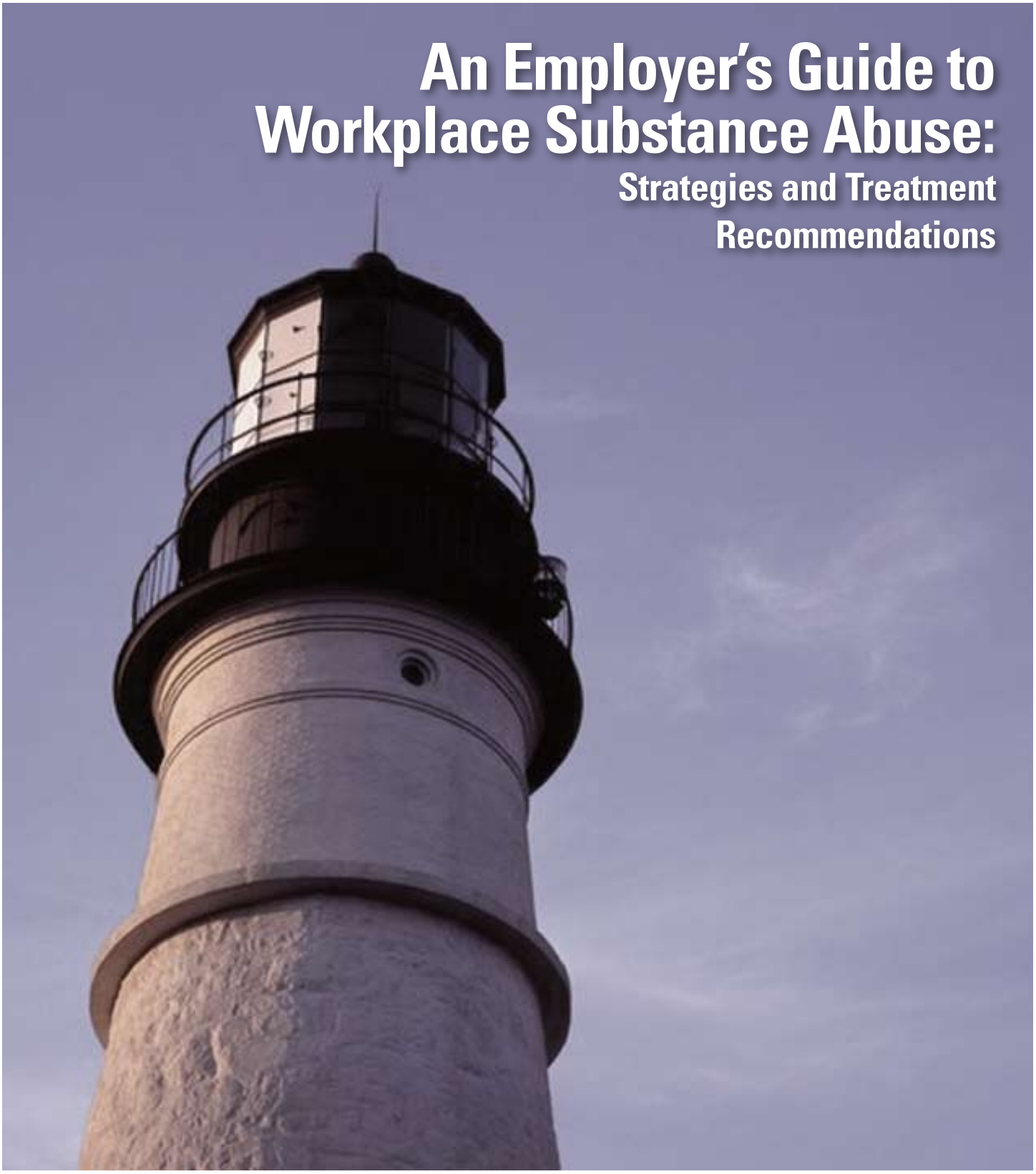
National Business Group on Health

CENTER FOR PREVENTION AND HEALTH SERVICES

An Employer's Guide to Workplace Substance Abuse:

Strategies and Treatment Recommendations



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Acknowledgements

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Overview

Substance abuse is common, and the costs of substance abuse are high for employers. Of the 20 million adults classified as having problems with substance dependence or abuse in 2007, approximately 12 million (60%) were employed full time.[1] In addition to higher absenteeism and lower job productivity and performance, substance abuse also leads to greater health care expenses for injuries and illnesses. Furthermore, safety and other risks for employers can increase workers' compensation and disability claims.

It is essential that employers understand addiction, the prevalence of substance abuse among working adults, and the costs related to substance abuse. Substance abuse is treatable, particularly when it is addressed as a chronic disease. Reducing employee substance abuse can help employers improve productivity, reduce workplace injuries, and decrease health care costs.

This guide offers practical solutions for addressing substance abuse. Employers can address substance use and abuse in their employee population by:

- Implementing drug-free workplace and other written substance abuse policies;
- Offering health benefits that provide comprehensive coverage for substance use disorders, including aftercare and counseling;
- Educating employees about the health and productivity hazards of substance abuse through company wellness programs, Employee Assistance Programs (EAPs) and Work/Life programs;
- Utilizing EAP services to help employees with substance abuse;
- Respecting employees' privacy; and
- Reducing stigma in the workplace.

I. Why should employers care about workforce substance abuse?

Each year, substance abuse costs the United States billions of dollars in expenditures for health care, workplace injuries, disability payments and productivity losses. Drug and alcohol problems cost the United States an estimated $276 billion a year.[2] In 2007, approximately 60% of adults with substance dependence were employed full time.[1] Since most adults who have problems with alcohol or drug use are in the workforce, employers incur a large share of the costs related to lost productivity and increased health care needs.[2]

Substance abuse by employees results in:[2]

- Higher health care expenses for injuries and illnesses;
- Higher rates of absenteeism (see Figures 1 and 2);
- Reductions in job productivity and performance;
- More workers' compensation and disability claims; and
- Safety and other risks for employers.

Employees with substance abuse issues often:[3]

- Fail to fulfill major role obligations at work, school or home.
- Use substances in situations where it is physically hazardous (e.g. driving an automobile or operating a machine when impaired by substance use).
- Have recurrent substance-related legal or financial problems.
- Continue to use substances despite persistent social or interpersonal problems that are a result of the substance use.

UNMET TREATMENT NEEDS

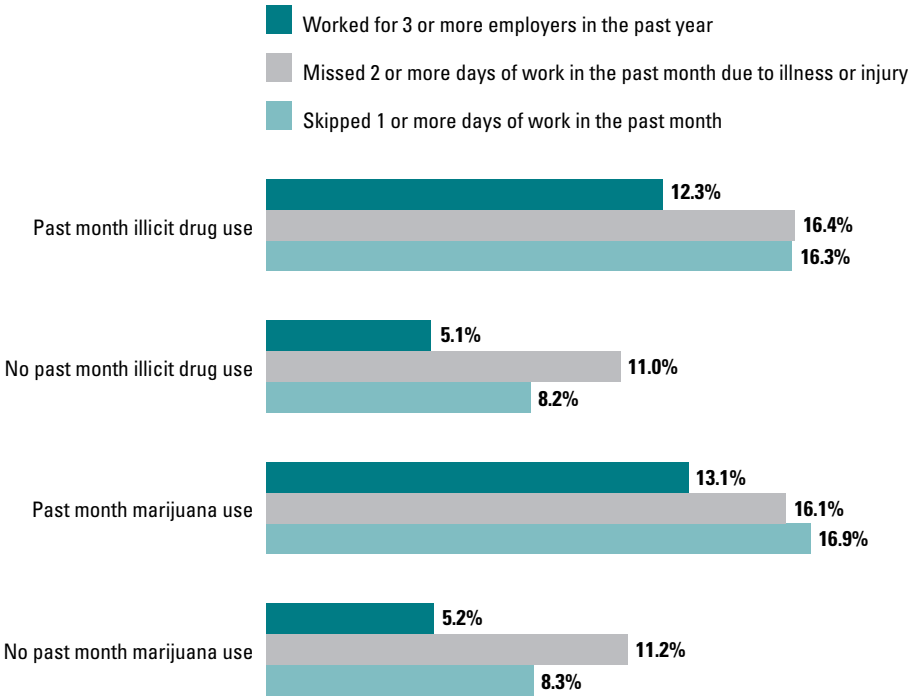
Unfortunately, a significant proportion of individuals with substance use disorders do not receive the care they need. Research shows that 47% of men and 41% of women in need of treatment for illicit drug abuse are not treated. This unmet need is not limited to the uninsured—one study showed that almost half of individuals in need of substance abuse treatment had private insurance.[4] This inability to obtain treatment often results from a lack of education about the treatment that is available and/or a lack of resources to pay for treatment.[5] Many individuals with addiction may also be in denial about their need for treatment.

The adequacy of substance abuse treatment is a problem as well. A 2006 study showed that only about 11% of persons with alcohol dependence received the recommended care.[6] Also, physicians tend to make fewer diagnoses of alcohol dependence among regular or binge drinkers than are warranted, and to underuse treatment referrals for persons given a diagnosis of alcohol dependence.[7]

Individuals who do not receive effective care can be a source of high costs for employers. Furthermore, people who have an unmet need for substance abuse treatment report more emergency department visits in the past 12 months than their peers.[8] Almost half of all emergency room visits for trauma and/or

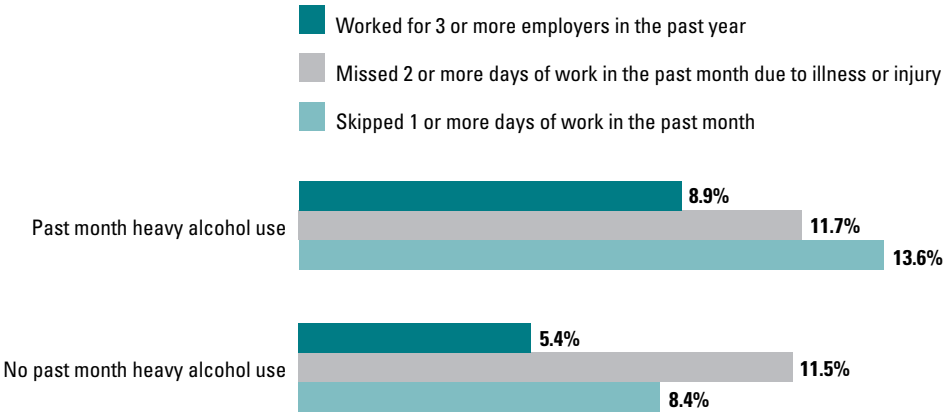
injury are alcohol-related.[9] People in need of substance abuse treatment also have higher costs related to reduced productivity and health care usage.[10] For example, employees with alcohol-related problems have health care costs that are double those of their peers.[11]

Figure 1. Workplace Behaviors among Full-Time Workers Aged 18 to 64, by Past Month Substance Use: 2002-2004 Combined



Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies. *Worker substance use and workplace policies and programs*. Available at: **http://www.oas.samhsa.gov/work2k7/work.htm#6.1**. Accessed June 10, 2009.

Figure 2. Workplace Behaviors among Full-Time Workers Aged 18 to 64, by Past Month Heavy Alcohol Use: 2002-2004 Combined



Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies. *Worker substance use and workplace policies and programs*. Available at: **http://www.oas.samhsa.gov/work2k7/work.htm#6.1**. Accessed June 10, 2009.

WHAT IS ADDICTION?

Addiction is a brain disease that disrupts the mechanisms responsible for cognitive, emotional and social behavior. Changes in the brain lead to "uncontrollable, compulsive drug-seeking and use."[12] While many addicts would like to stop using substances, they may find it extremely difficult or impossible to do so. This is not because they are weak; rather, the neurological changes associated with addiction cause the addict to lose the ability to make conscious decisions about whether or not to use drugs.

When a person abuses a substance, the brain is flooded with dopamine. Dopamine is a neurotransmitter that resides in the parts of the brain that control movement, emotion, cognition, motivation and feelings of pleasure. When these systems are overloaded by substances, a person experiences euphoria—a feeling that many drug abusers attempt to recreate by repeatedly abusing a substance. However, the brain of a substance abuser adjusts by producing less dopamine or reducing the number of receptors that can receive or transmit signals. As long as people are addicted to or abusing substances, they cannot feel the joy and pleasure of everyday life. Many drug abusers feel depressed or flat when they are not taking drugs and need to take drugs to get their dopamine levels back to normal.[13]

Not everyone who uses alcohol or drugs is an addict or substance abuser. A person becomes a substance abuser when the substance becomes so crucial that he or she is willing to risk other important aspects of life in order to have the substance. This may be after the first time a substance is used, or it may take years. Examples of this continued use despite negative consequences include using illicit drugs despite a drug-free workplace policy or using someone else's prescription medication for the purposes of becoming impaired, among others.[5]

According to the U.S. Department of Labor, the following signs and symptoms *may* (but do not necessarily) indicate possible substance abuse:

Performance

- Inconsistent work quality;
- Poor concentration;
- Lowered productivity;
- Increased absenteeism;
- Unexplained disappearances from the jobsite;
- Carelessness, mistakes;
- Errors in judgment;
- Needless risk taking;
- Disregard for safety; and
- Extended lunch periods and early departures.

Behavior

- Frequent financial problems;
- Avoidance of friends and colleagues;
- Blaming others for own problems and shortcomings;
- Complaints about problems at home;
- Deterioration in personal appearance; and
- Complaints and excuses of vaguely defined illnesses.

Source: United States Department of Labor. Available at: **http://www.dol.gov/asp/programs/drugs/workingpartners/materials/symptoms.asp**

A person becomes addicted once he or she is psychologically or physically dependent on a substance. Psychological dependence means that an individual believes that he or she cannot function in social, work or other settings without being intoxicated in some way. About 15% of regular substance users become psychologically dependent on the substance.[3] Physical dependence, on the other hand, includes one or both of the following experiences over time:[3, 5]

- **Tolerance:** A need for increased amounts of a substance to achieve intoxication.
- **Withdrawal:** Symptoms such as nausea, chills, and/or vomiting upon discontinuing use of the substance.

Addiction to alcohol or other drugs may be:[5]

- **Chronic**—Once an addiction is developed, it will always be a condition that requires management. For the large majority of people, it is not possible to use the substance again in the future without further negative consequences.
- **Progressive**—Addiction gets worse over time.
- **Primary**—Addiction is not just a symptom of an underlying psychological problem. Once the use of alcohol or drugs becomes an addiction, the addiction itself needs to be treated as the primary illness.
- **Fatal**—Addiction to alcohol or other drugs often leads to death through damage to major organs of the body.

Table 1. Commonly Abused Substances[14-17]

NAME	TYPE	EXAMPLE SIDE EFFECTS	POTENTIAL NEGATIVE OR LONG-TERM EFFECTS
Opioids	Narcotic	Drowsiness, constipation, lack of pain perception	Respiratory depression, death
CNS Depressants	Depressant	Sleepiness, lack of coordination	Seizures
Prescription Stimulants	Stimulant	Elevated blood pressure/heart rate, sleep deprivation	Cardiovascular problems, seizures
Cocaine	Stimulant	Increased sensation, euphoria, elevated heart rate	Cardiovascular problems, seizures
Heroin	Narcotic	Euphoria, flushed skin, dry mouth	Sudden death, pulmonary problems
LSD	Hallucinogen	Delusions, hallucinations, elevated heart rate	Psychoses, flashbacks, depression
Marijuana	Cannabis	Euphoria, sleepiness, hunger, thirst, panic	Respiratory problems, memory damage
MDMA (Ecstasy)	Hallucinogen	Muscle tension, teeth clenching, blurred vision, nausea	Damage to mood, thinking, judgment
Methamphetamine	Stimulant	Elevated body temperature, convulsions	Psychoses, suicidality, paranoia
Alcohol	Depressant	Slurred speech, blurred vision, impaired memory	Liver disease, brain damage, mood disorders

BACKGROUND AND PREVALENCE

Alcohol

The majority (63%) of adults in the workforce consume alcohol in their free time.[1] Of these, approximately 9% are heavy users of alcohol (defined here as five or more drinks on the same occasion on each of 5 or more days in the past 30 days).[1] Moreover, employees who are addicted to alcohol are not the only source of health, safety and productivity costs for companies—light and moderate drinkers may also be affecting the workplace. More than 30% of all working Americans engage in binge drinking, defined as consuming five or more drinks at any one time within the past month.[1] These "risky" but not addicted drinkers account for a substantial share of the workplace costs associated with misuse of alcohol. Indeed, research demonstrates that excessive drinking during employees' free time may adversely affect their productivity at work. It may also lead to higher rates of injury and disability.[18, 19]

A 2006 national study showed that more than 15% of employees drank alcohol before coming to work, used alcohol during the workday, were under the influence of alcohol during the workday, or came to work with a hangover at least once in a 12-month period.[18] Specifically, in the past year:[18]

- About 2% of employees (approximately 2 million workers) were at work under the influence of alcohol at least once. 58% were under the influence less than monthly, 24% monthly and 18% weekly.
- About 2% (approximately 2 million workers) used alcohol at least once before reporting to work. 71% did so less than monthly, 25% monthly and 4% weekly.
- About 7% (approximately 9 million workers) used alcohol at least once during the workday. 62% did so less than monthly, 24% monthly and 14% weekly. This included workers who drank alcohol during lunch, during other breaks, or while actually working.
- About 9% (approximately 12 million workers) were at work with a hangover at least once. 79% were at work with a hangover less than monthly, 15% monthly and 6% weekly.

Chronic and/or excessive drinking may cause physical or psychological problems such as injuries, alcohol poisoning, stroke, heart attacks, depression, liver diseases,[20] immune system problems and brain damage.[21] Alcohol withdrawal can also be dangerous—and fatal in rare cases. Individuals with a history of severe withdrawal symptoms (including but not limited to seizures and delirium tremors), or who have gone through multiple alcohol withdrawals, or who have a co-morbid physical or mental illness or are pregnant, should be in inpatient treatment for detoxification. Others may be able to go through detoxification on an outpatient basis, but they should be assessed daily by a medical provider.[22]

Illicit Drugs

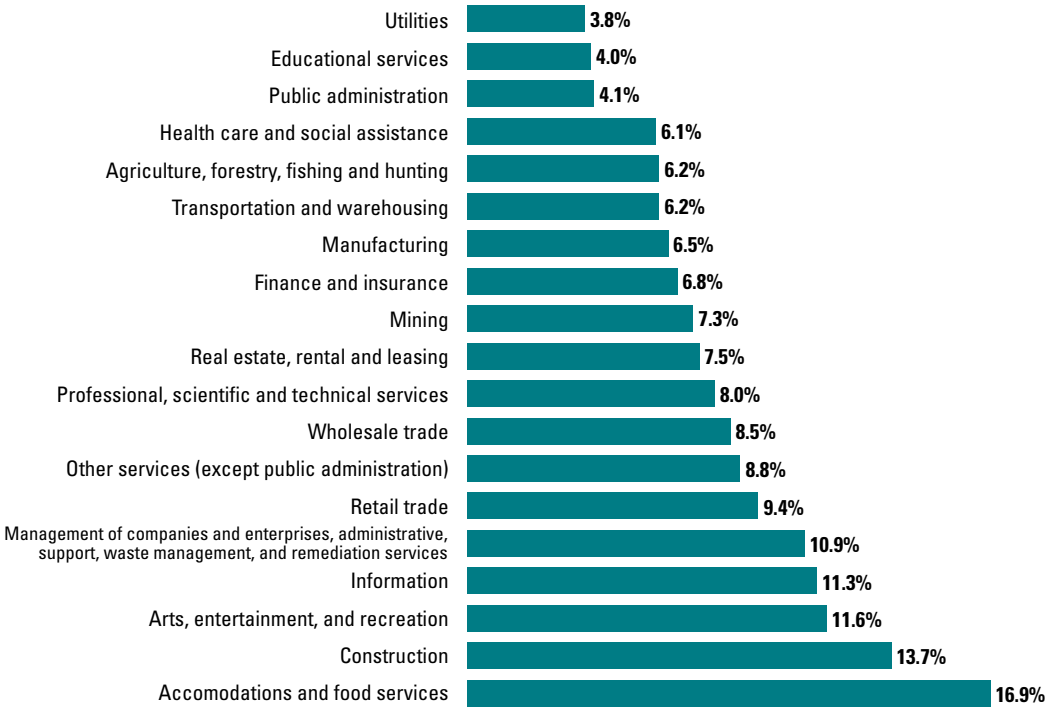
An estimated 14.8 million Americans currently use illicit drugs, and more than 75% of these are employed.[23] During the past month, 8-10% of employees report engaging in illicit drug use.[1] Approximately 3% of employed adults have used an illicit drug before reporting to work, and/or are at work while under the influence of an illicit drug, in the past year.[24]

Employees who use illicit drugs tend to be between the ages of 18 and 25, less educated, male, unmarried, white and low-paid.[23] The industries with some of the highest rates of illicit drug use include:

- Food service
- Construction
- Arts, entertainment, and recreation
- Retail
- Transportation

For more information about commonly abused illicit drugs, please see Appendix I.

Figure 3. Past Month Illicit Drug Use Among Full-Time Workers aged 18-64, 2002-2004 Combined



Source: U.S. Department of Health and Human Services. *Results from the 2007 National Survey on Drug Use and Health: national findings*. Rockville, MD: Substance Abuse and Mental Health Services Administration, Office of Applied Studies; 2008. NSDUH Series H-34, DHHS Publication No. SMA 08-4343.

Prescription Drugs

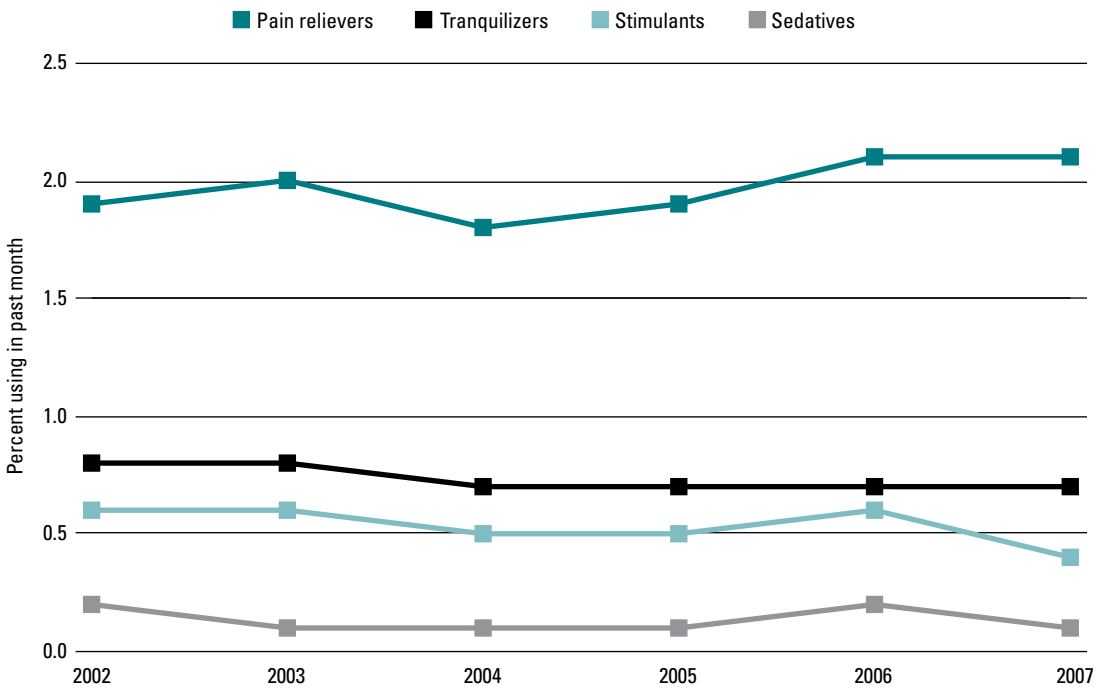
When drugs are taken as prescribed for medical reasons, they can be very effective. However, in recent years, there has been an increase in the number of people who abuse prescription drugs. Young adults aged 18 to 25 are more likely than any other age group to misuse prescription drugs.[25] The most common classes of prescriptions drugs that are abused are:[14]

- Opioids, which are usually prescribed to treat pain;
- Central nervous system (CNS) depressants, which are prescribed for sleep and anxiety disorders; and
- Stimulants, which are usually prescribed for disorders such as narcolepsy and attention-deficit hyperactivity disorder (ADHD).

In 2004, an estimated 6 million people (3%) had used a prescription drug non-medically (defined as use without a prescription of the individual's own, or simply for the experience or feeling caused by the drug) in the past month. Non-medical use within the past year was reported by 14.6 million people (6%), and at least one lifetime use of prescription drugs for non-medical reasons was reported by 48 million people (20%).[26] More than half the individuals who take prescription drugs non-medically report getting them from a friend or relative for free.[1] The long-term abuse of prescription medications can lead to physical dependence, health problems and addiction.[27]

It is also important that employers understand the risk of addiction for patients who have been prescribed certain prescription drugs, particularly pain medication. It is therefore important that physicians make every effort to control indiscriminate prescribing, even when they are under pressure

Figure 4. Past Month Nonmedical Use of Types of Psychotherapeutic Drugs among Persons Aged 12 or Older: 2002 through 2007



Source: U.S. Department of Health and Human Services. *Results from the 2007 National Survey on Drug Use and Health: national findings*. Rockville, MD: Substance Abuse and Mental Health Services Administration, Office of Applied Studies; 2008. NSDUH Series H-34, DHHS Publication No. SMA 08-4343.

by patients to increase the dose of opioids.[28] Even if individuals taking these drugs do not become psychologically addicted and crave the drug, they may still experience withdrawal symptoms if they abruptly stop taking the drug instead of gradually tapering the dosage.[29]

For more information about commonly abused prescription drugs, please see Appendix II.

CO-OCCURRING DISORDERS

Many individuals with substance use disorders also suffer from mental health disorders.[13] In one study, 52% of privately-insured individuals being treated for a substance use disorder had also been diagnosed with at least one psychiatric condition. The most common were depression (35%), adjustment disorder (11%), bipolar disorder (8%), anxiety disorder (6%) and personality disorder (5%).[30] Sometimes, the co-occurring psychiatric disorder is related to substance use and may disappear as a result of substance abuse treatment. It is important that people are observed and evaluated appropriately for psychiatric treatment. If possible, this observation should take place over a 3-4 week drug-free period.[3] Substance abusers should also be monitored for suicidality since they complete suicide at a rate three to four times higher than the general population.[31]

Certain general medical conditions may also be related to substance use. For example, the chronic use of alcohol can cause damage to the gastrointestinal, cardiovascular and nervous systems. Approximately 15% of heavy users of alcohol have cirrhosis of the liver and/or pancreatitis.[3] Long-term use of alcohol may also lead to hypertension, high cholesterol, and increased levels of triglycerides. Persons who inject opioids are at risk for hepatitis, HIV, and tuberculosis; cocaine users may have sinusitis, malnutrition, or myocardial infarction, among other health problems.[3]

Prescription Drugs

Pain Relievers

- propoxyphene or codeine products (e.g., Darvocet®, Tylenol® with Codeine)
- oxycodone products (e.g., Percocet®, OxyContin®)
- hydrocodone products (e.g., Vicodin®)
- tramadol products (e.g., Ultram®)

Stimulants

- amphetamine, dextroamphetamine, and phentermine products (e.g., Biphetamine®, Dexedrine®, Fastin®)
- mazindol products (e.g., Mazanor®)

Central Nervous System (CNS) Depressants

- temazepam, flurazepam, or triazolam (benzodiazepines that are generally used as sedatives rather than anxiolytics, e.g., Restoril®, Dalmane®, Halcion®)
- any barbiturates (e.g., Amytal®, Butisol®, Tuinal®)
- benzodiazepines (those that are typically used as anxiolytics rather than as sedatives, e.g., Valium®, Xanax®)
- meprobamate products (e.g., Equanil®)
- muscle relaxants (e.g., Flexeril®)

Source: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Office of Applied Statistics. *Patterns in Nonmedical Use of Specific Prescription Drugs*. Available at: **http://www.oas.samhsa.gov/prescription/Ch3.htm#3.2**. Accessed May 22, 2009.

II. Worker Substance Abuse Brings High Costs to Employers

Although costs for substance abuse treatment may appear low as reflected in an employer's health plan, drug and alcohol problems cost the United States an estimated $276 billion per year. The majority of these expenses result from lost work productivity (which will not be reflected in a health plan) and health care costs related to substance abuse.[2]

INCREASED HEALTH CARE COSTS

Employees with alcohol-related problems have health care costs that are double those of their peers.[11] In fact, individuals who abuse alcohol use four times as many hospital days as nondrinkers. Furthermore, almost half of all emergency room visits for trauma and/or injury are alcohol-related.[9] Excessive use of alcohol and other substances is connected to untreated depression or other mental illnesses.[32] High expenditures for physical health care often mask substance abuse. Excessive consumption of alcohol puts employees at risk for developing a range of costly physical health problems, such as liver disease, heart disease, cancer, pancreatitis, breast cancer, and fetal alcohol syndrome in children.[21]

In 2003, an estimated $21 billion was spent in the United States for treatment of substance-related disorders.[33] Private insurance payments on substance abuse claims grew at an average rate of only 0.1% annually between 1993 and 2003, while the private payment annual growth rate for all health care increased by 7.3%.[33] The minimal increase in insurance payments for substance abuse treatment can possibly be attributed to the implementation of managed care, less generous coverage and more tightly controlled use of substance abuse services. Controlling health costs was one of the reasons for implementing managed care during this 10-year period.

Alcohol and drug abuse not only bring higher costs for the substance abuser, but also for dependents. Research shows that family members of alcohol and drug abusers also incur more health care costs and have more health issues. A 2007 study showed that after adjusting for demographic differences, the family members of individuals with alcohol and/or drug problems cost an average of $433-490 more per year than their peers.[34] These family members are also more likely to be diagnosed with substance use disorders, depression, and trauma—even when compared to family members of persons with other chronic diseases, such as asthma and diabetes.[35]

REDUCED PRODUCTIVITY AND ABSENTEEISM

Lost work productivity related to substance abuse (including absenteeism and poor job performance) cost the United States an estimated $129 billion in 2002.[2] Research demonstrates that excessive drinking outside normal working hours adversely affects productivity at work.[19] Productivity can be reduced at any level of dependence. Employees with light and moderate alcohol use cause 60% of alcohol-related absenteeism, tardiness, and poor work quality. Studies have shown that substance-abusing employees function at about two thirds of their capability and that employees who use drugs are three times more likely to be late for work.[23]

In addition, having family members who abuse substances also lowers an employee's productivity. In one study, more than half of the employed family members of individuals with alcohol dependence reported that their own ability to function at work and at home was negatively affected by their family member's drinking.[2]

An estimated 500 million workdays are lost annually due to alcohol abuse.[23] Employees who use drugs are twice as likely to request early dismissal or time off and are two and a half times more likely to have absences of eight days or more.[23]

MORE TURNOVER

Substance abuse can also increase employee turnover. Individuals with drug or alcohol problems are more likely than non-substance abusers to report having worked for three or more employers in the previous year.[2] Turnover is expensive for employers. Replacing an employee can cost from 25% to almost 200% of the employee's annual compensation—not including the loss of institutional knowledge and service continuity and the damage to co-worker productivity and morale that can accompany employee turnover.[2]

A 2007 Survey of Human Resources Professionals*

- 67% of the HR professionals surveyed believe that substance abuse/addiction is one of the most serious issues they face in their company.
- The most significant problems that companies experienced due to employee substance abuse and addiction are as follows:
  - Absenteeism (62%);
  - Reduced productivity (49%);
  - Lack of trustworthiness (39%);
  - Negative impact on the company's external reputation (32%);
  - Missed deadlines (31%);
  - Increased health care costs (29%); and
  - Unpredictable, defensive interpersonal relations (29%).
- 22% of HR professionals say their companies openly and proactively deal with employee substance abuse and addiction issues.
- 54% of HR professionals believe that getting employees to acknowledge or talk about the issue is their toughest challenge.
- 49% of HR professionals cited at least one of four personal obstacles to helping their employees with substance abuse and addiction issues:
  - Lack of experience in identifying substance abuse and addiction (20%);
  - Lack of information regarding treatment options (16%);
  - Personal discomfort in approaching employees about the issue (13%); and
  - Not having enough time to deal with substance abuse and addiction issues (13%).

*1,300 human resources professionals surveyed nationwide.
Source: Hazelden Foundation. *National survey highlights.* Available at: **http://www.hazelden.org/web/public/ade080609.page**. Accessed December 19, 2008.

WORKPLACE INJURIES AND VIOLENCE

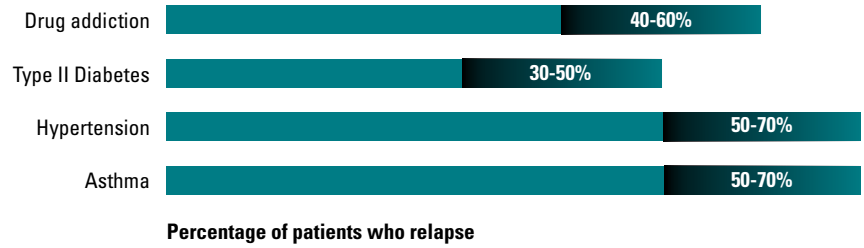
Many disability claims—for workplace and automobile injuries as well as family and workplace violence—can be attributed to substance abuse.[19] Employees who abuse alcohol or drugs are three and a half times more likely to be involved in a workplace accident than other workers.[2] Up to 40% of industrial fatalities and 47% of industrial injuries can be linked to alcohol use and alcoholism.[23] Furthermore, employees who use drugs are five times more likely to file a workers' compensation claim than those who do not use drugs.[23]

III. Treatment Recommendations

Reducing employee substance abuse can help employers decrease health care costs, reduce workplace injuries and improve productivity. Practical solutions for preventing and addressing substance abuse are available. There is a growing understanding that substance addictions are chronic conditions—not unlike asthma, diabetes or hypertension.

Similar to these chronic diseases, substance addiction can be managed successfully. As with other chronic diseases, it is not uncommon for a person to relapse—in this case, to begin abusing substances again. Relapse, however, does not mean failure—rather, it indicates that treatment should be reinstated or adjusted, or that alternate treatment is needed.[36]

Figure 5. Relapse Rates Are Similar for Addiction and Other Chronic Illnesses



SOURCE: McLellan AT, Lewis DC, O'Brien CP, Kleber HD. Drug dependence, a chronic medical illness: implications for treatment, insurance, and outcomes evaluation. *JAMA*. 2000;284(13):1689-1695.

As with other health conditions, identifying substance abuse early can prevent employees and companies from incurring higher subsequent health and productivity costs. Employer substance abuse benefits and programs may include workplace policies, drug testing, employee education/health promotion, Employee Assistance Programs (EAPs), and health plan treatment coverage.

A comprehensive employer substance abuse program should include:

- A workplace substance abuse education component.
- Confidential screening by an EAP or health professional.
- Treatment referrals to an EAP or health professional.
- Confidential follow-up care to support individuals in recovery.

WORKPLACE POLICIES AND DRUG TESTING

Employers can implement a drug-free workplace initiative with written substance abuse policies. A comprehensive substance abuse policy may include:[38]

- Purpose and objectives of the program.
- Definition of substance abuse.
- Who is covered by the policy and/or program.
- Under what circumstances will drug or alcohol testing be conducted.
- Employee rights to confidentiality.

- Educational opportunities for employees about substance abuse (e.g., a substance-free awareness program).
- Employee and supervisor training in identifying impaired behavior and other signs of substance abuse.
- Outline of how to deal with impaired workers.
- Provisions for assisting chronic substance abusers.
- Possible disciplinary actions.

Some industries or employers have specific legal obligations to address workplace substance abuse. For example, employers of safety-sensitive transportation employees need to ensure the safety of their employees and the traveling public. The U.S. Department of Transportation and the Federal Motor Carrier Safety Administration (FMCSA) have regulations governing employee substance abuse and drug testing.[39] For additional information about FMCSA regulations, please see Appendix III.

Furthermore, it is essential that employers be aware of patient/employee substance abuse confidentiality rules. The Department of Health and Human Services has issued federal regulations regarding the confidentiality of alcohol and drug abuse patient records. Employers need to emphasize that employees can seek treatment in the assurance that their privacy and confidentiality will be protected.

Workplace Solutions for Prevention and Treatment of Substance Abuse

- Implement drug-free workplace and other written substance abuse policies.
- Publicize drug-free workplace policies and reiterate that use of alcohol or drugs is never permitted in the workplace.
- Communicate information about the health risks of alcohol and drug use through company websites and health and wellness initiatives.
- Educate employees about the health and productivity hazards of drinking excessively and using illicit substances through company wellness programs, Employee Assistance Programs and Work/Life programs.
- Incorporate substance abuse information in workplace wellness strategies, such as learning about good nutrition, exercise, seat belt use, etc.
- Offer health benefits that provide comprehensive coverage for substance use disorders, including aftercare and counseling.
- Ensure that company wellness programs, Employee Assistance Programs and Work/Life programs provide education, screening and follow-up services for employees' drug and alcohol problems.
- Respect employees' privacy. Employers may not know who among their employees is in recovery from alcohol or drug abuse. If company officials have this information, however, they must recognize and appreciate the delicate balance between wanting to help, and respecting an employee's need and desire for privacy.

Source: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration. *14 short employer cost savings briefs.* Available at: **http://ncadistore.samhsa.gov/catalog/productDetails.aspx?ProductID=17943**. Accessed January 26, 2009.

WORKPLACE HEALTH AND WELLNESS PROGRAMS

Employers can play an important role in preventing the unhealthy and hazardous use of substances, especially alcohol, by:

- Sending the message that drinking and illicit drug use are not condoned;
- Combating the stigma against seeking help and telling employees they can seek treatment confidentially without jeopardizing their jobs;
- Incorporating information on the appropriate use of alcohol and legal substances like prescription medications into overall wellness and risk prevention strategies;
- Providing factual information on the harmful health effects of excessive use of alcohol; and
- Reminding employees that excessive or binge drinking outside of work has an impact on safety and job performance at work.

EMPLOYEE ASSISTANCE PROGRAMS (EAP)

Most large employers offer access to employee assistance programs (EAPs) that have expertise in providing information, resources, referrals and counseling on issues such as substance use, mental health, stress, work and family problems, and a range of related concerns. EAPs help employers address a variety of employee problems and proactively deal with workplace issues that can lead to workplace violence, physical and mental health issues and/or declining morale among employees. These programs are staffed by professionals who provide preventive services and short-term problem-resolution services to individual employees and families. EAPs can provide confidential substance abuse screening, education, treatment referral and support in recovery. Coupled with health benefits, these programs play a vital role in encouraging employee wellness while reducing substance use and other health risks.

HEALTH PLANS

Health plans should provide coverage for substance abuse screening, counseling, therapy and aftercare/treatment follow-up. Employers can help make treatment as successful as possible by offering comprehensive health plan benefits that support a broad range of services, including:

- Confidential substance abuse screening;
- Brief intervention;
- Outpatient and inpatient treatment;
- Medication;
- Peer support groups;
- Illness self-management programs;
- Counseling and medical services; and
- Follow-up services during treatment and recovery.

Table 2. Summary Plan Description Language: Alcohol Misuse

Screening	
Covered Screening	Screening for alcohol misuse is a covered benefit. Coverage includes the use of validated screening tools such as: ■ Single-question alcohol screens. ■ Alcohol Use Disorders Identification Test (AUDIT) or AUDIT-C. ■ CAGE Questionaire.
Initiation, Cessation and Interval	Screening is a covered benefit beginning at age 18. Coverage is provided for younger populations depending on risk and need. For average-risk populations, one screening per year is covered. More frequent screening is covered for individuals at risk of misusing alcohol, including people with a history of alcohol misuse or alcohol-related health problems.
Counseling	
Covered Counseling	Counseling is a covered benefit for patients who meet criteria for alcohol misuse. Three levels of counseling are covered: ■ "Very brief" interventions that last up to 5 minutes and have no follow-up. ■ "Brief" counseling interventions that last 15 minutes and have no follow-up. ■ "Multi-contact" interventions that include one initial session lasting at least 15 minutes that is followed by several additional contacts.
Initiation, Cessation and Interval	Eight (8) counseling sessions are covered per calendar year. Establishing intervals between counseling sessions is at the discretion of the provider.

Source: Campbell KP, Lanza A, Dixon R, Chattopadhyay S, Molinari N, Finch RA, editors. *A Purchaser's Guide to Clinical Preventive Services: Moving Science into Coverage.* Washington, DC: National Business Group on Health; 2006.

TREATMENT

According to the Center for Substance Abuse Treatment (CSAT), "treatment" is defined as "in- or out-patient services that focus on initiating and maintaining an individual's recovery from alcohol or drug abuse and on preventing relapse."

Unfortunately, a significant proportion of individuals with substance use disorders do not receive the care they need. Research shows that 47% of men and 41% of women in need of treatment for illicit drug abuse are not treated.[4] The strongest argument for using the solutions offered in this issue brief is the opportunity to reduce the enormous costs—health, disability and liability—that companies face as a result of undiagnosed and untreated substance abuse. As shown in Figure 5, treatment of substance abuse and addiction is as successful as treatment of other chronic diseases, such as asthma, diabetes, and hypertension.[5] Some studies show that up to 70% of patients who are treated for substance dependence eventually recover.[31]

Individuals who receive treatment for addiction have:

- Better long-term outcomes,
- Improved long-term health,
- Reduced relapse, and
- Improved family and other relationships.[40]

SCREENING AND ASSESSMENT

Screening is used to determine whether an individual exhibits key indicators of substance abuse. This process seeks to identify potential or actual substance abusers as early as possible so that appropriate interventions can be provided. Screening can be done in many settings, such as online, in the workplace, at home or in a physician's office. For substance abusers, screening can be the first step to recovery.[41]

The two most widely used self-report screening instruments for alcoholism are the CAGE and the Michigan Alcoholism Screening Test (MAST). The Substance Abuse Subtle Screening Inventory (SASSI) is used to identify alcohol and drug abusers and differentiate them from social drinkers and people with other psychiatric issues.[41]

Assessment means a thorough evaluation to definitively establish the presence or absence of a diagnosable substance abuse problem. When substance abuse is present, assessments can also be helpful in determining the most appropriate type of treatment. Structured and semi-structured interviews are used for assessments. The Addiction Severity Index (ASI) is the most widely used measure of problem severity among addicted individuals entering treatment.[41]

OPTIMAL TREATMENT SETTINGS AND DURATION

It is important that addiction be treated as a chronic disorder rather than an acute disease.[42] The typical course of treatment for addiction should include three stages: 1) detoxification, a medical procedure to reduce the physical effects of withdrawal from substances, 2) acute care, consisting of behavioral and medication-assisted therapies, and 3) maintenance or continuing care.[43]

Treatment for addiction must be of sufficient duration and intensity to maximize the likelihood that the employee will remain abstinent following acute care. In general, better outcomes are typically associated with outpatient treatment lengths that are greater than 90 days.[42] In fact, research shows that for either residential or outpatient treatment, lengths of less than 90 days are of little or no effectiveness.[42] Persons with more severe or multiple problems may need a longer duration.

There is a range of treatment settings, including:

- Inpatient care,
- Residential treatment programs,
- Intensive outpatient care,
- Outpatient care, and
- Community support programs, such as 12-step programs.[43]

This continuum of care allows people to enter treatment at the setting most appropriate for the severity of their addiction and permits step-up or step-down adjustments as needed.[44] The choice of setting should be based on treatment needs, patient preferences and clinical characteristics of the patient, but the least restrictive, most appropriate treatment setting provides the opportunity to maximize outcomes while controlling costs.[3, 12] Individuals with more severe substance abuse problems typically have better outcomes when they enroll in more intensive treatment programs. Those who are relatively stable and/or have less severe addictions may not need these higher-intensity programs.[45]

Inpatient Treatment
Inpatient treatment/hospitalization is typically recommended for persons who:

- Are at risk for severe withdrawal problems,
- Have comorbid medical conditions that might make outpatient detoxification unsafe,
- Have a history of not benefiting from less intensive treatment,
- Have a comorbid psychiatric condition that would impair the ability to comply with treatment plans, or would require hospitalization on its own, or
- Represent a danger to themselves or others.[31]

Some individuals may need detoxification in an inpatient setting but may then be treated on an outpatient basis, particularly if they have a strong support system.

Residential Treatment
Residential treatment is generally recommended for people who do not have medical issues that require hospitalization but who need strong support to remain abstinent. They may have limited social or vocational supports that would allow them to be successful in a less restrictive setting.[31]

Partial Hospitalization/Intensive Outpatient Treatment
This level of care is appropriate for people who need intensive care but are likely to be able to refrain from substance use when in a less restricted setting. It may also serve as an intermediate step for those who have completed treatment in an inpatient or residential setting but are at high risk for relapse (because of low motivation, psychiatric comorbidities, a history of relapse, and/or a high-risk home environment).[31] Additionally, individuals who are most suited for this level of treatment but still need to be away from their typical environment may benefit from residing in a "halfway house" while completing treatment.

Outpatient Treatment
Outpatient treatment is recommended for persons who do not require more intensive levels of care; however, it is important that it includes a comprehensive approach that combines psychotherapeutic and pharmacologic (when needed) interventions.[31]

Behavioral Therapies
Behavioral therapies help individuals to modify their drug and alcohol-related behaviors and strengthen healthy life skills.[46] They may also help keep people in treatment longer.[10, 46] There are many accepted behavioral therapies that have been evaluated and found to be effective for treating addictions to substances.[47] Behavioral therapies include the following:[10]

- Cognitive Behavioral Therapy: Helps patients recognize and cope with situations in which they would typically use substances.
- Multidimensional Family Therapy: Addresses a range of influences on drug use and is designed for patients and their families.
- Motivational Interviewing: Uses the patient's own motivations in order to change behavior and encourage getting treatment.
- Motivational Incentives (Contingency Management): Uses positive reinforcement to reward patients for remaining abstinent from substances.

Brief Therapies

There is considerable evidence to support the effectiveness of brief therapies. Brief therapies are geared to providing patients with the tools to change their attitude toward themselves and their use of substances. Research shows that brief counseling for alcohol abusers leads to reduced alcohol consumption and reductions in adverse alcohol-related health outcomes.[48-51]

These therapies use the same techniques as long-term therapy, but are of shorter duration and lower cost, lasting typically between 6 and 20 sessions. Screening and counseling for alcohol misuse reduces both health care costs and costs to society.[50, 52] Each $1 invested in screening and brief counseling interventions saves approximately $4 in health care costs.[50, 52] Yet despite the fact that screening and brief counseling are among the most cost-effective clinical preventive services and have a proven impact on health outcomes, only 20% of employer-sponsored health plans offered such services in 2006.[48, 53]

Brief therapies are the most effective for individuals who have:

- Ready access to treatment;
- Support from EAPs or other employee programs;
- Strong family, work and community ties;
- Substance use problems of short duration;
- Desire to minimize disruption of work and family life;
- Strong motivation to change; and
- Confidence that their therapy will reduce their substance use.[43]

Medication-Assisted Treatment

Medications also can play an important role in treatment during detoxification, as an adjunct to behavioral therapy during the acute care stage, and to help prevent subsequent relapse. Neuroscience has begun to identify the many mechanisms at work in developing addictions. This information has led to the creation of medications aimed at reducing both the pleasurable effects of substances and the neurological changes that cause craving and relapse.[43]

Table 3. Commonly used medications for substance abuse treatment[46, 54]

MEDICATION	SUBSTANCE ABUSE CATEGORY
Naltrexone	Alcohol, Opioids
Disulfiram	Alcohol
Acamprosate Calcium	Alcohol
Methadone	Opioids
Buprenorphine	Opioids

When medication is used to treat withdrawal, it is important to remember that this is only the first step in treatment and does little to change long-term behaviors. The medications used in the withdrawal phase do help to curb cravings and may make people more receptive to other forms of treatment.[10] Overall, research shows that combining medication (when available) with behavioral therapies is most effective in treating addiction.[46]

Integrated Care
Drug and alcohol problems can affect a person's overall mental, emotional and physical health. The Institute of Medicine recommends that health care for physical, mental, and substance abuse problems and illnesses be delivered with an understanding of the inherent interactions between mind and body.

To achieve integrated care, health insurance plans should:[2]

- Include patients and their families in making decisions about care;
- Require coordination of care and clinical information sharing (with the patient's consent) among primary care, mental health, and substance abuse treatment providers; and
- Cover case management services that can help coordinate patients' care and identify treatment and recovery resources.

Employers should ensure that health plans require physicians to screen all patients for substance use disorders. Primary care practitioners can play an important role in helping individuals with substance use disorders maintain abstinence and achieve other self-management goals by approaches such as:

- Telephone monitoring;
- Scheduling check-ups on a regular basis or at times of unusual stress; and
- Prescribing anti-craving medications.

RECOVERY

Individuals who have participated in and finished treatment programs are considered to be "in recovery." Recovery is "an ongoing process of improvement—biologically, psychologically, socially and spiritually—while attempting to maintain abstinence from alcohol and other drugs." There are six stages that individuals must go through for long-term recovery:[5]

Transition—The period of time needed for individuals to realize that safe use of alcohol or other drugs is not possible for them.

Stabilization—The period of time in which the individual experiences physical withdrawal and other medical problems and learns how to separate himself or herself from the people, places and things that promote drug abuse.

Early recovery—The period of time in which an individual faces the need to establish a substance-free lifestyle and build relationships that support long-term recovery.

Middle recovery— The period of time for developing a balanced lifestyle where repairing past damage is critical.

Late recovery—The period of time when the individual identifies and changes mistaken beliefs (about himself or herself, others, and the world) that cause or promote irrational thinking.

Maintenance—The lifelong process of continued growth, development and management of routine life problems.[5]

AFTERCARE

A number of large employers currently include participation in continuing care as part of their overall treatment benefits. They expect that employees will participate in long-term treatment including peer social support like Alcoholics Anonymous (AA). Often these companies are subject to the U.S. Department of Transportation regulations governing employee substance abuse, and they may use random testing. Companies may also require employees to "contract" for abstinence as a condition of returning to work following acute care, and they may require participation in continuing care. These employers feel confident that the treatments offered employees with substance use disorders are effective in providing them with the optimal opportunity to remain abstinent and continue successfully at work.[43]

FAMILY AND MEDICAL LEAVE ACT (FMLA)

The Family and Medical Leave Act (FMLA) gives many employees the right to take up to 12 weeks of unpaid leave in a 12-month period when needed to receive treatment for a "serious health condition" —which, under the FMLA, may include substance abuse. Individuals with substance abuse problems may take leave under the FMLA, but only for treatment that is administered by a health care provider or on referral by a health care provider. The leave must be for treatment; absence because of the employee's use of the substance, rather than for treatment, does not qualify for FMLA leave.[55]

DISABILITY

Treatment plans play a major role in recovery and returning to work. Employers should ensure that disability plan administrators verify that there is a documented treatment plan for employees who are on disability for a substance abuse disorder. In addition, employers should ensure that disability plan administrators, return-to-work programs and EAPs coordinate referral and treatment activities.[56]

Return-to-Work Agreements[57]

A Return-to-Work Agreement (RTWA) is a written document that explains the expectations that the employer and the employee assistance/medical professional have of an employee who has completed mandated treatment for a substance abuse problem. The consequences if the expectations are not met are also outlined. This agreement can be used if an employee has violated the drug-free workplace policy and has been provided the opportunity to participate in rehabilitation as a condition of continued or re-employment.

Developing a RTWA requires:

- Coordination between the employee, employer, union, Employee Assistance Program and/or treatment professionals.
- Compliance with the organization's policies and legal obligations as well as with medical recommendations.
- Prior notification through company policy documents that an RTWA would be expected as a condition of continued employment.

Appendix I. Commonly Abused Illicit Drugs

Heroin[58]
Heroin is derived from morphine and is powerfully addictive. Like cocaine, it is snorted, injected or smoked. All three methods may lead to addiction and other health problems. Short-term effects include euphoria, decreased mental function and drowsiness. Chronic heroin users may develop physical dependence and experience withdrawal symptoms upon discontinuing the drug. Negative long-term effects of heroin use include liver or kidney disease, pneumonia, HIV/AIDS or hepatitis (as a result of sharing needles), organ damage or collapsed veins.

Cocaine[58]
Cocaine is an extremely addictive drug that is snorted, injected or smoked. Immediate effects include increased energy, reduced fatigue and mental alertness. However, these effects last only about 5 to 30 minutes, depending on the route of administration. Repeat cocaine users develop tolerance to the drug and have to use increasing amounts in order to achieve the same effect, which in turn increases the risk of harmful effects such as irritability, headaches, gastrointestinal issues, heart attacks, seizures or psychoses.

Inhalants[58]
Inhalants are a group of substances that produce mind-altering effects when inhaled. Inhalants may include common household items such as cleaning products, gasoline, art supplies, hair sprays or rubber cement. Children and adolescents are especially at risk for using inhalants because of the ease of obtaining them. The "high" caused by inhalants only lasts a few minutes, so individuals may use them continuously over several hours to maintain the effects. The impact of using inhalants is similar to that of alcohol—lack of coordination, euphoria and dizziness. Long-term effects include brain damage, muscle spasms and problems with coordination and/or movement.

Hallucinogens[58]
Hallucinogens include lysergic acid diethylamide ("acid" or LSD), peyote, psilocybin ("magic" mushrooms), and phencyclidine (PCP). The effects of hallucinogens vary, so the impact of using them is hard to predict, but generally they cause people to see, hear or feel things that do not actually exist. They may also cause intense mood swings. Negative side effects differ by substance. PCP may cause users to become violent, and its use may result in seizures, coma or death. Psilocybin may cause nausea, drowsiness or vomiting; the misidentification of the mushrooms may lead to poisoning. LSD and peyote can raise body temperature, heart rate and blood pressure.

Marijuana[58]
Marijuana is usually smoked in cigarette, pipe or cigar form. The main ingredient in marijuana, tetrahydrocannabinol (THC), acts on cannabinoid receptors in the brain to cause a "high" feeling. The effects include distorted perceptions, problems in thinking/problem solving, impaired coordination and difficulty with memory. These side effects may last even after the drug has worn off. Adverse health effects associated with marijuana include heart attacks, respiratory problems and lung infections. Studies also show that employees who use marijuana have increased absences, tardiness, accidents and workers' compensation claims compared to non-users.

Methamphetamine[58]
Methamphetamine is a white powder that is snorted, injected, smoked or taken orally. It is available as a prescription, but much of the methamphetamine available in this country is made in illegal labs. In the short term, methamphetamine increases dopamine production, which is related to pleasure, motivation and motor function. However, in the long term, chronic methamphetamine use is associated with a decrease in motor performance, reduced learning ability and emotional/cognitive problems. Methamphetamine may also cause extreme weight loss, dental problems, violent behavior, anxiety and insomnia.

Ecstasy[58]
Methylenedioxymethamphetamine (MDMA), known as ecstasy, is taken orally and has stimulant and psychedelic properties (meaning that it can cause hallucinations). Short-term effects include increased feelings of energy, mental stimulation, emotional warmth and sensory perception. However, ecstasy may also cause confusion, depression, insomnia and anxiety. Chronic use may lead to memory problems. On rare occasions, individuals have died from the use of ecstasy.

Appendix II. Commonly Abused Prescription Drugs

Opioids[14]
Opioids (examples include codeine and morphine) block pain by attaching to opioid receptors in the brain, spinal cord and gastrointestinal tract. They may also cause feelings of relaxation and euphoria. Opioids are typically taken orally, but individuals who abuse these drugs may crush and then snort or inject them to get a quicker "high." Long-term use of opioids may cause physical dependence; when individuals attempt to stop using them, they may experience serious withdrawal symptoms.

According to the National Survey on Drug Use and Health (NSDUH), between 2002 and 2007, 2.1% of adults (5.2 million people) reported taking prescription pain relievers for non-medical use in the 30-day period before they were surveyed. Between 2002 and 2004, there were increases in the lifetime misuse of hydrocodone and oxycodone products: the percentage of adults who had used any product containing hydrocodone non-medically in their lifetime increased from 5.9% to 7.4%; the non-medical use of Vicodin®, Lortab® or Lorcet® increased from 5.6% to 6.9%; and the use of generic hydrocodone increased from 1.9% to 2.5%.[26]

Furthermore, according to NSDUH, the rate of lifetime misuse of any oxycodone product increased from 4.3% to 5% from 2002 to 2004. There was an increase in the non-medical use of OxyContin® (from 0.8% to 1.3%) and Percocet®, Percodan® or Tylox® (from 4.1% to 4.6%). In addition, the survey found increases in the non-medical use of methadone (from 0.4% to 0.5%) and of any tramadol product (from 0.4% to 0.5%—tramadol products include generic tramadol and Ultram®). On the other hand, decreases in lifetime non-medical use were recorded for Demerol® (from 1.2% to 1.0%), Phenaphen® with Codeine (from 0.4% to 0.2%), and Talwin® (from 0.3% to 0.1%).[26]

Central Nervous System (CNS) Depressants[14]
CNS depressants, also known as sedatives or hypnotics, treat anxiety and/or sleep disorders by slowing normal brain function. Individuals who use these drugs long-term develop tolerance quickly and must use increasing amounts in order to feel an effect. People who abuse CNS depressants should not attempt to stop on their own due to the risks of withdrawal, which may be life-threatening. For example, when someone stops taking CNS depressants, his or her brain activity may rebound so quickly that seizures result.

According to NSDUH, the lifetime non-medical use of Xanax®, generic alprazolam, Ativan®, or generic lorazepam increased from 3.5% in 2002 to 3.9% in 2004. But the rate of lifetime non-medical use of any barbiturate decreased from 1.7% in 2002 to 1.4% in 2004. Corresponding decreases were seen for the separate categories of generic barbiturates and phenobarbital.[26]

Stimulants[14]
Stimulants, including Adderall® and Ritalin®, increase mental alertness, attention and energy. They also raise blood pressure, blood glucose, heart rate and respiration, potentially causing heart failure or seizures when taken in high doses. Individuals who abuse stimulants may become hostile or paranoid and may have trouble with their mood or sleep patterns.

According to NSDUH, between 2002 and 2004, lifetime non-medical use of stimulants declined from 9% to 8.3%. Specifically, there were decreases in the misuse of prescription diet pills (from 3.8% to 3.4%) and the stimulant Dexedrine® (from 1.4% to 1.1%).[26]

Appendix III. Safety-Sensitive Transportation Regulations[59]

Employers of safety-sensitive transportation employees need to ensure the safety of their employees and the traveling public. The U.S. Department of Transportation and the Federal Motor Carrier Safety Administration (FMCSA) have regulations governing employee substance abuse and drug testing.[39]

- Alcohol and drug testing is mandatory for persons whose jobs require a commercial driver's license (CDL).
- All supervisors and officials of businesses that employ safety-sensitive drivers must attend at least one hour of training on the signs and symptoms of drug abuse.
- Employers must provide information on drug use and treatment resources to safety-sensitive drivers.
- Employees who engage in prohibited alcohol conduct and/or have a positive drug test result must be immediately removed from safety-sensitive functions. Drivers must also be removed from performing such duties for 24 hours.
- Drivers who violate the alcohol and drug rules will be referred to a substance abuse professional for evaluation.

FMCSA prohibits safety-sensitive employees from operating a vehicle:

- While using alcohol.
- With a breath alcohol concentration of 0.04% or greater (as indicated by an alcohol breath test).
- Within four hours after using alcohol.
- Upon having a positive drug test result.

Employees who have engaged in alcohol misuse or unauthorized use of a controlled substance cannot return to safety-sensitive duties until:

- They have been evaluated by a substance abuse professional;
- They have complied with any treatment recommendations to assist them with an alcohol or drug problem; and
- They have a negative result on a return-to-duty alcohol or drug test.

Follow-up testing to monitor their continued abstinence from alcohol or drug use is also required.

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CENTER FOR PREVENTION AND HEALTH SERVICES

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ABOUT THE CENTER FOR PREVENTION AND HEALTH SERVICES

Mission:

- Educate large employers about diseases and health issues in order to protect and promote health and wellbeing among their employees and beneficiaries as well as control costs.
- The Center:
  - Identifies strategies and develops tools to address health and benefits issues.
  - Translates health research into practical solutions for large employers.
  - Provides the national voice for large employers and links them with national expertise and resources.

For more information, e-mail healthservices@businessgrouphealth.org.

ABOUT THE NATIONAL BUSINESS GROUP ON HEALTH

Founded in 1974, the National Business Group on Health is the nation's only non-profit organization devoted exclusively to representing large employers' perspectives on national health policy issues and providing practical solutions to its members' most important health care problems. Its 285 members, including 59 of the Fortune 100 companies, provide health coverage for more than 50 million U.S. workers, retirees and their families. Business Group members are actively engaged in pursuing solutions to controlling health care costs, improving patient safety and quality of care and sharing best practices in health benefits management.

Helen Darling, President