How the opioid crisis affects the workplace

No one is exempt from the opioid epidemic. Since these drugs are blind to factors such as age, race, gender, education, income, employment status, and geography. This crisis affects our families and communities as well as our workplaces. Although many discussions focus on prescribing guidelines, access to treatment, and overcoming the stigma of addiction, we want to help employers be proactive and aware of the impacts of opioids in the workplace. As a result, the objective of this white paper is to provide additional education and data about opioids while examining how these drugs impact the American workforce and economy.

It's important to start with a common language. Many people use the terms opiates and opioids interchangeably and are confused about the differences. The following definitions from Barry Sample, PhD, senior director of science & technology at Quest Diagnostics, explains the significant distinctions between the two and helps to further clarify the verbiage.

- **Opiate** refers to natural, psychoactive substances with morphine-like effects derived from the flowering opium poppy plant. These compounds share a number of chemical and structural characteristics. Opiates provide pain relief by depressing the central nervous system in the human body. They are a subset of opioids.

- **Semi-synthetic opiates** are man-made substances derived from compounds found in the opium poppy plant. These drugs include hydrocodone, hydromorphone, oxycodone, and oxymorphone.

- **Opioid** refers to all drugs — synthetic, semi-synthetic, or naturally occurring — with morphine-like properties that act on the opioid receptor. More specifically, this broad term includes synthetic (eg, fentanyl), semi-synthetic (eg, oxycodone), and naturally occurring (eg, morphine) substances as well as antagonists (eg, naloxone) that bind with the opioid receptors in the body. Synthetic compounds such as fentanyl and tramadol, while able to act upon the opioid receptor, do not share structural similarity with naturally occurring and semi-synthetic opiates.

Federal testing

In the context of the US Department of Transportation (DOT) regulations, "opioids" refers to codeine, morphine, and 6-AM, as well as hydrocodone, hydromorphone, oxycodone, and oxymorphone — the four semi-synthetic opiates which were added to the DOT panel on January 1, 2018. Under DOT guidelines, opioids does not refer to other members of the broader category of opioids such as fentanyl or other synthetic and semi-synthetic opioids.

Data from the Quest Diagnostics Drug Testing Index™ shows that for the past five years, opiate (codeine and morphine) positivity among this workforce hovered between 0.17% and 0.21%. In the first quarter of 2018, this positivity rate held steady. In that same quarter in 2018, positivity for the recently added semi-synthetic opiates was notably higher than the rate observed among the traditionally tested opiates.[1]

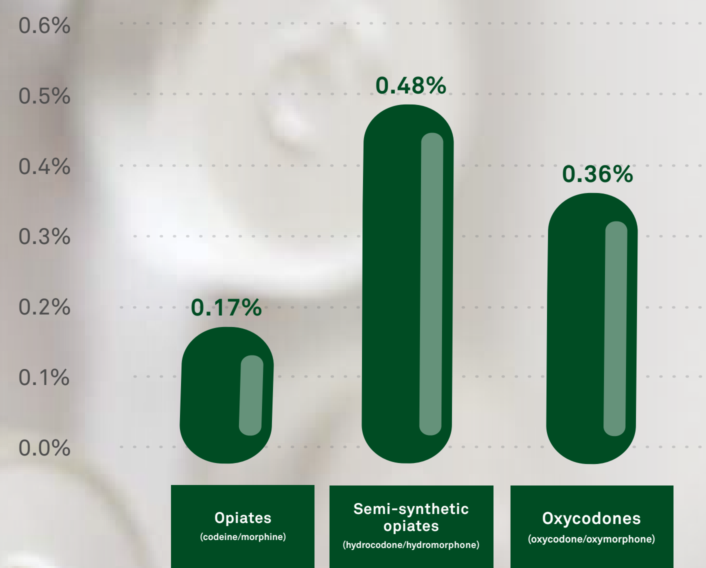
52%

of Americans misused their prescription drugs in 2017

Source: Quest Diagnostics Health Trends

Federal drug testing expanded opiate panel positivity

Source: Quest Diagnostics



Among federally mandated, safety-sensitive drug tests performed in Q1 2018

Increasing prescriptions

High prescribing rates are considered a key contributor to the opioid crisis. According to Express Scripts, a leading pharmacy benefit management organization, “the U.S. population makes up less than 5% of the global population, but it consumes nearly 80% of the world’s opioid supply.”[2]

The Centers for Disease Control and Prevention (CDC) echoes these numbers with data showing that the sales of prescription opioids nearly quadrupled from 1999 to 2014, yet there was no overall change in the amount of pain reported by Americans.[3] *The Morbidity and Mortality Weekly Report (MMWR)* published in March 2017 by the CDC found that the likelihood of chronic opioid use increased with each additional day of medication supplied starting with the third day, with the sharpest increases in chronic opioid use observed after the fifth and thirty-first day on therapy.[3]

Recently, the CDC revised its *Guideline for Prescribing Opioids for Chronic Pain*[4] to emphasize patient safety. It reminds healthcare providers that opioids are not routine therapy for chronic pain, encourages communication with patients about the risks and benefits of opioids, and gives specific clinical recommendations.

174 Lives lost daily[5]

Overdose rates were most significant in adults between the ages of 25 and 54

Drug overdose rates were significantly higher for males than females

West Virginia, Ohio, and New Hampshire ranked highest in overdose death rates

Iowa, North Dakota, and Texas ranked lowest in overdose death rates

Source: CDC

Opioid addiction

Research shows that 21% to 29% of patients who are prescribed opioids for chronic pain end up misusing them, and 8% to 12% of those develop an opioid use disorder. Results from the latest National Survey on Drug Use and Health (NSDUH)[6] estimate that more than 2.1 million Americans struggle with an opioid use disorder for either prescription pain relievers or heroin. Approximately 80% of people who use heroin first misused prescription opioids.

The term opioid use disorder was introduced in 2013 in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders*, DSM-5, and covers a wide range of opioids. A physician can diagnose an individual with an opioid use disorder if he or she suffers from two or more of the 12 identified symptoms within a 1-year period. Some symptoms include craving opioids, developing a tolerance to the drug, experiencing withdrawal symptoms when trying to stop, facing problems at home or work due to drug use, pulling away from friends and activities, and using opioids even when it is physically unsafe.

Street drugs

Prescription opioid use has been noted as a risk factor for heroin use in some populations. The National Institute on Drug Abuse (NIDA) states that "these substances are all part of the same opioid drug category and overlap in important ways." This similarity, combined with easier access and lower prices, is likely why many people suffering from addiction progress from prescription painkillers, such as OxyContin® and Vicodin®, to street drugs such as heroin.

- Heroin use was 19 times higher among those who previously used pain relievers than those who did not.[7]
- Researchers estimated that 4 to 6% of people who misuse prescription opioids transition to heroin.[7]
- Overall positivity rates for heroin declined in the general U.S. workforce (0.033% positivity, a three-year low and down nearly 11% in 2017 compared to 2016), according to the Quest Diagnostics Drug Testing Index.[1]

Uptick in overdoses

The opioid epidemic does not stop at the front doors of employers in our country. Between 2013 and 2016, at-work overdose deaths attributed to the non-medical use of drugs or alcohol increased by 38% annually, according to the Bureau of Labor Statistics.[8] The National Center for Health Statistics reports that 2017 was the worst year on record for drug overdose deaths in America with nearly 200 people dying each day. This upsurge is strongly linked to fentanyl.[9]

The highly addictive drug fentanyl played a part in 60% of opioid-related deaths in 2017.[9] This compound is 50 to 100 times more potent than morphine and 50 times more potent than many forms of heroin. Fentanyl can be grouped into two forms.

1. **Pharmaceutical fentanyl.** This is considered to be the most powerful prescription opioid available. It is prescribed by physicians to treat severe and chronic pain and to offer palliative, end-of-life care. Due to its high potential for abuse, fentanyl is a Schedule II narcotic under the Controlled Substances Act. Abuse of this drug can result in severe psychological and/or physical dependence.

2. **Illicitly manufactured, or street, fentanyl.** This compound is made in clandestine labs, with the potency and chemical compositions of street fentanyl varying widely in an effort to dodge detection in drug testing. In February 2018, the Drug Enforcement Administration (DEA) took a strong stance against drug traffickers and scheduled the whole class of fentanyl-related substances as Schedule I to reduce its flow into the United States from China and Mexico.

Dangerous drug combinations

In addition to the addiction and overdose challenges that opioids pose on their own, these drugs are also known to have potential negative interactions with many other drugs. Mixing drugs can alter the potencies of the individual drugs and can overwhelm even the most experienced drug user. Drug mixing is a contributing factor to overdose deaths and is the most frequent form of misuse, according to *Quest Diagnostics Health Trends: Drug Misuse in America 2018*.[10] In 2017, 45% of patients whose tests results showed signs of misuse had evidence of combining their prescribed drug(s) with one or more other drugs, including illicit drugs. Among these, two types of drug combinations stood out: fentanyl with heroin and benzodiazepines with opioids.

Additionally, NIDA reported that 30% of opioid overdoses involved benzodiazepines. Benzodiazepines, or “benzos,” are a non-opioid class of drugs typically prescribed as sedatives, muscle relaxers, anticonvulsants, and are frequently used to combat anxiety and insomnia. Fatal overdoses involving benzodiazepines have increased eight-fold since 1999.[11]

Research published in *The New England Journal of Medicine* by Dr. Anna Lembke speculates that benzodiazepines may be this country’s “other prescription drug problem.” The number of adults who filled a benzodiazepine prescription increased by 67% from 1996 to 2013. Many studies emphasize the risks of co-prescribing benzodiazepines and opioids and both substances carry a U.S. Food and Drug Administration (FDA) black box warning cautioning people of the dangers of using the drugs together. Dr. Lembke stresses that education about long-term use, addiction, and the safe prescribing of opioids also applies to benzodiazepines.[12]

Overcoming the stigma

US Surgeon General Jerome M. Adams wants to raise awareness that "addiction is a brain disease that touches families across America." Sadly, only about one in four people with a disorder receive specialty treatment, largely due to a lack of access, an inability to afford care, or a refusal to quit misusing opioids. In a September 2018 report, the Surgeon General said that only 53% of Americans consider opioid addiction a major concern,[13] yet he continues to advocate for the public to:

- Talk about opioid misuse
- Only take opioid medications as prescribed and dispose of unused medication properly
- Talk to your doctor about treatment options for pain
- Understand that addiction is a chronic disease and people do recover
- Prepare for overdoses and learn how to use naloxone

> "Addiction is a brain disease that touches families across America."

Economic impact

Researchers studying the opioid epidemic are trying to measure its scale and impact on the American workforce. The National Center for Injury Prevention and Control estimated that the total annual economic burden of prescription opioid misuse in the United States is $78.5 billion, which includes the costs of increased healthcare, substance abuse treatment, lost productivity, and criminal justice.[14] Businesses also suffer financial losses such as absenteeism, lost productivity, job turnover, and retraining.

In its effort to achieve maximum employment—meaning every potential worker who wants a job has one—the Federal Reserve tracks employment through the labor force participation rate (LFP). Recently, Federal Reserve Chairman Jerome Powell reported that LFP declined from 66.1% in June 2008 to 62.9% in June 2018. Powell cited two striking facts from research by economist Alan Krueger. First, the number of young men entering the workforce has dropped in recent years and second, 44% of men who were not in the active labor force reported taking some form of pain medication the previous day. Additionally, data from Krueger shows that LFP "has fallen more in areas where relatively more opioid pain medication is prescribed, causing the problem of depressed labor force participation and the opioid crisis to become intertwined."[15]

70%

of employers reported being effected by the opioid epidemic in 2017

Source: National Safety Council

Coordinated response

On December 14, 2016, the White House declared the opioid crisis a national public health emergency and announced the availability of new funding to combat the crisis. Many government agencies have also increased their budgets for opioid addiction research and earmarked money to track opioid-related overdoses and better identify geographic areas that need assistance.

The Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities Act, or *HR 6*, was signed into law on October 24, 2018 by President Trump. In addition to many provisions related to the current opioid abuse issues in the United States, Title VIII, Subtitle I outlines the requirements for rulemaking and implementation of changes to the Federal guidelines for drug testing in the transportation sectors. The law will also direct funding to a variety of solutions including research to develop non-addictive painkillers; expanded programs for prevention, treatment, and recovery; support for families and caregivers; dosage restrictions for opioid prescriptions; and efforts to end the flow of illegal drugs into the United States.

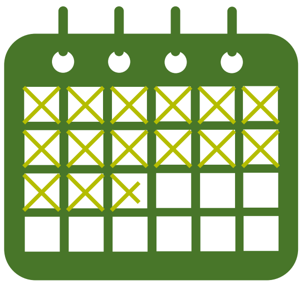
The U.S. Health & Human Services (HHS) has prioritized five specific strategies to fight the opioid crisis.

1. Improving access to treatment and recovery services
2. Promoting the use of overdose-reversing drugs
3. Strengthening our understanding of the epidemic through better public health surveillance
4. Providing support for cutting edge research on pain and addiction
5. Advancing better practices

What should employers do?

If you are concerned about opioid misuse in the workplace, there are a number of options to consider in addition to staying informed about the crisis and being aware of the unique challenges that the workforce is facing. Regardless of size, businesses large and small can make a difference by implementing some of the following strategies.

- Write a clear, current, and comprehensive substance abuse policy that includes language about illegal drugs, legal drugs, and taking prescription medication as prescribed by a physician
- Determine if a zero-tolerance policy or more relaxed standards are right for your business
- Educate employees about the risks of opioids using programs focused on health and well-being
- Train supervisors on how to recognize warning signs of someone abusing opioids and how to intervene early
- Reduce the stigma of drug addiction and treatment though continued education
- Allow for voluntary disclosure of substance abuse and ensure confidentiality
- Evaluate and define fitness-for-duty by role
- Refine your return-to-work policies for employees taking impairing medications
- Inform workers about second chance and employee assistance programs (EAP) offered by the company
- Support peer prevention programs where volunteers can support co-workers recovering from addiction
- Add opioids to your workplace drug testing program
- Outline guidelines for responding to a non-negative drug test result



An employee suffering from a substance use disorder misses an average of

14.8 days

of work each year

4 days more than most employees[16]

Source: CDC

Overview

Federal testing

Increasing prescriptions

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Overcoming the stigma

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Drug testing for opioids by employers is legal; however it is important to follow all applicable state laws and consult with a licensed attorney. Regardless of the drug, research shows that drug testing filters out drug users and deters drug use at work. Pre-employment drug screenings can identify applicants who abuse opioids, while random testing can put employees on notice that the company will not tolerate drug use. A drug-free work environment can help to reduce on-the-job accidents, decrease absenteeism, reduce employee turnover, improve productivity, and make safety the highest priority. Research best practices to design the most effective program to address your specific needs.

Despite the resources dedicated to help those struggling with opioid misuse and addiction, the epidemic is far from over. Embrace your role to create a safe, drug-free work environment with a clear substance abuse policy, access to treatment, and programs that educate employees about the dangers of opioids.

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