



Opioid Prevention Toolkit

to know more about preventing opioid deaths

Introduction

Our country is overrun with drug misuse and addiction. Drug overdoses are now the leading cause of death for Americans under the age of 50 and media reports cite opioid deaths have now surpassed the peaks in death by car crash in 1972, AIDS deaths in 1995 and gun deaths in 1993. Substance abuse significantly impacts all areas of our lives and no race or economic class is immune to these impacts.

While alcohol and marijuana remain the most common drugs of abuse, the nonmedical use of prescription painkillers and other opioids has resulted in a significant increase in drug overdose deaths.



This toolkit has been designed to help you learn more about the opioid epidemic and the strategies one can utilize to improve community health as it pertains to this issue. There is no single solution to solve this problem. The toolkit is intended to encourage collaboration with different community sectors and stakeholders in order to make successful and lasting change.

What is an Opiate and Opioid?

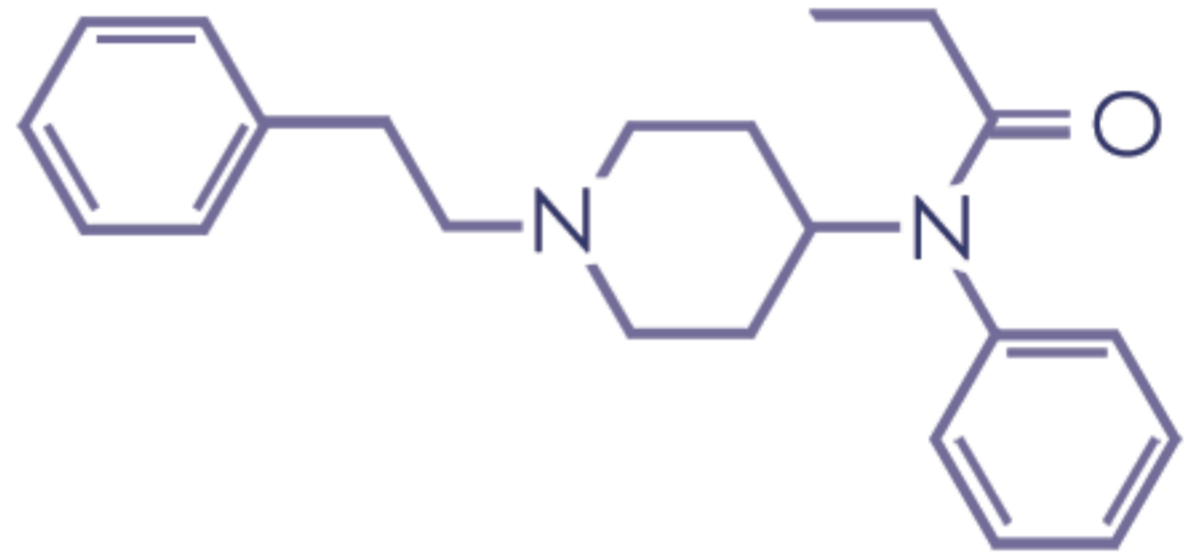
Opium Poppy

Heads and Seeds



Synthetic Opioid

Fentanyl



The terms opiate and opioid are often used in what would seem the same way but there is a difference.

Opiates are natural substances that come from opium and include morphine and codeine. Opioids are synthetic drugs that emulate opiates. Examples of synthetic opioids include fentanyl, methadone, oxycodone and hydrocodone.

Most people have now moved away from differentiating between opiate and opioid and use the term opioid. For purposes of this toolkit, we will do the same.

The Scope of the Problem

Of the 20.5 million Americans 12 or older that had a substance use disorder in 2016, 2 million had a substance abuse disorder involving prescription pain relievers and 591,000 had a substance use disorder involving heroin.ⁱ The latest data available reflects a 64% increase for inpatient hospital care and a 99% increase for emergency room treatment for opioid-related issues.ⁱⁱ



When used wisely and correctly, prescription medications can contribute to favorable treatment outcomes and quality of life. However, opioid painkillers, now the most widely prescribed pain relievers, are highly abused and diverted for nonmedical use. Several factors contributed to the severity of the current prescription drug abuse problem. They include drastic increases in the number of prescriptions dispensed, aggressive marketing by pharmaceutical companies, social acceptability to taking and sharing medications outside their intended use, changes in healthcare privacy laws, pain being listed as the fifth vital sign, and lax laws in states that allowed pain clinics to operate with little oversight.

Consider the Following

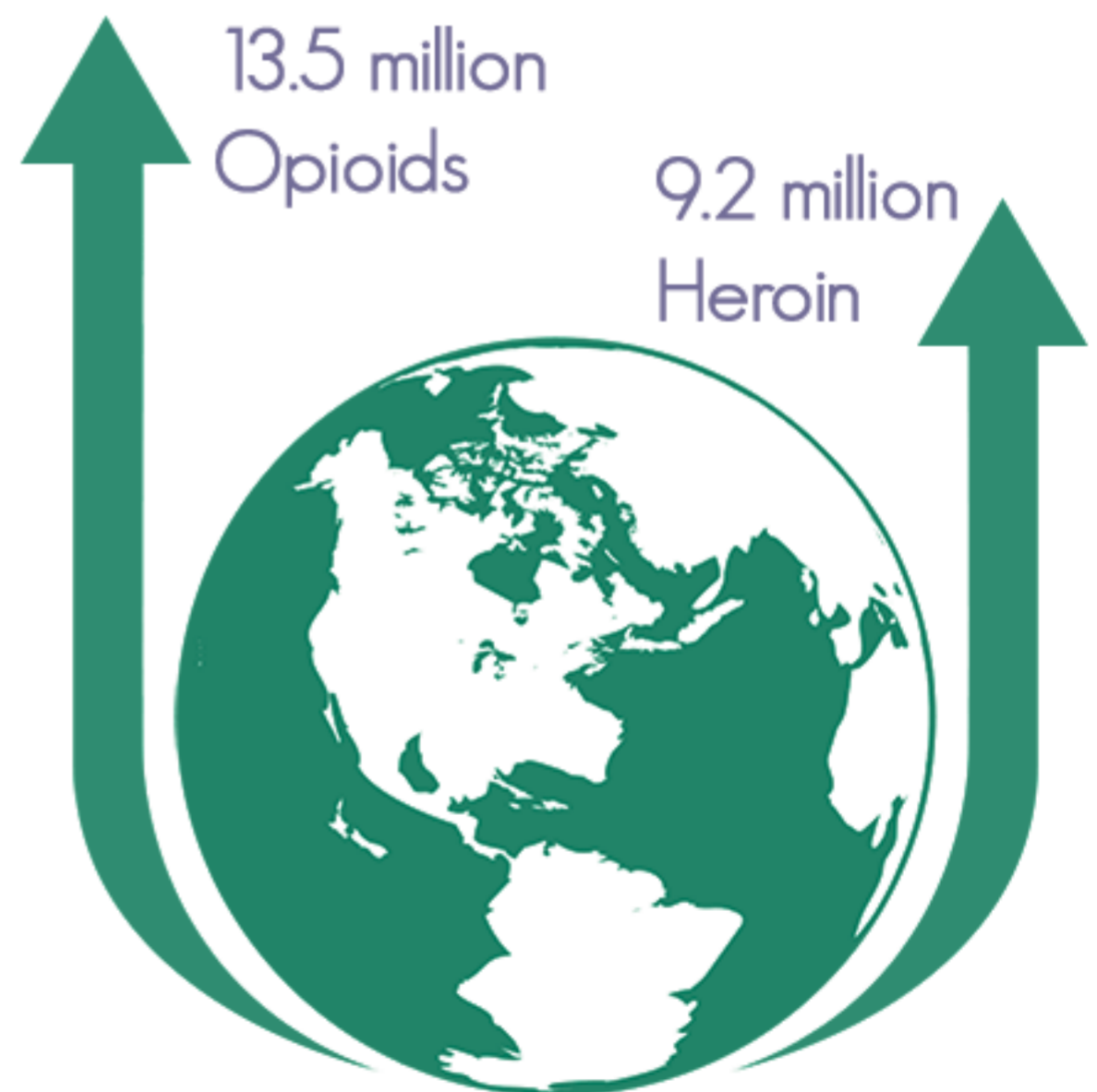
To put the increased number of prescriptions dispensed into perspective, consider that in 1997, drug distribution through the pharmaceutical supply chain was the equivalent of 96 mg of morphine per person in the United States. Ten years later, in 2007 it was an equivalent of approximately 700 mg per person, an increase of more than 600 percent!ⁱⁱⁱ

Opioid abuse reaches beyond stereotypes of “addicts and drug seekers.” A recent study in *JAMA Internal Medicine* showed that more than half of chronic abusers, those who took pills for at least 200 days during the past year, received those pills from prescriptions written to them or to their friends and family.^{iv} This underscores the need for prescribing guidelines and safe, locked storage for these prescriptions in homes.

Recently passed state laws to curb doctor shopping and implement prescription monitoring programs and enhanced prescribing guidelines made getting prescription pain killers more difficult. Heroin and fentanyl analogs became a more accessible and cheaper alternative to harder to get prescription drugs.^v

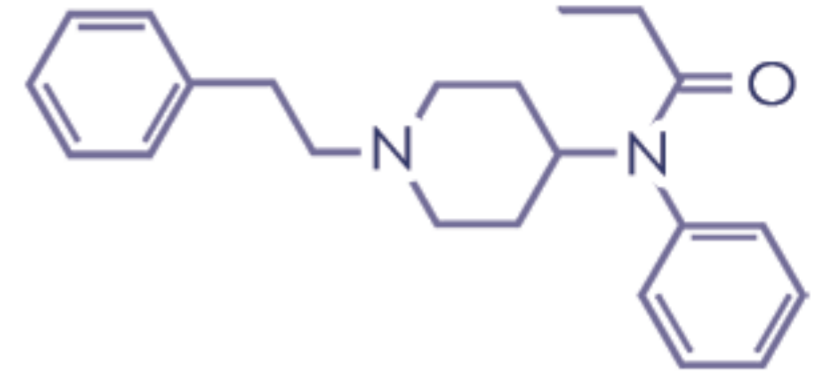
Heroin use has reached the highest level in 20 years in the United States. According to the most recent data, there were about one million heroin users in the U.S. as of 2014, almost three times the number in 2003 and deaths related to heroin use have increased five-fold since 2000.^{vi} Reports have shown a global increase in production, transportation, and consumption of opioids, mainly heroin. The worldwide production of heroin has more than doubled or tripled since 1985.

Global Estimates^{vii} of people who take opioids and use heroin



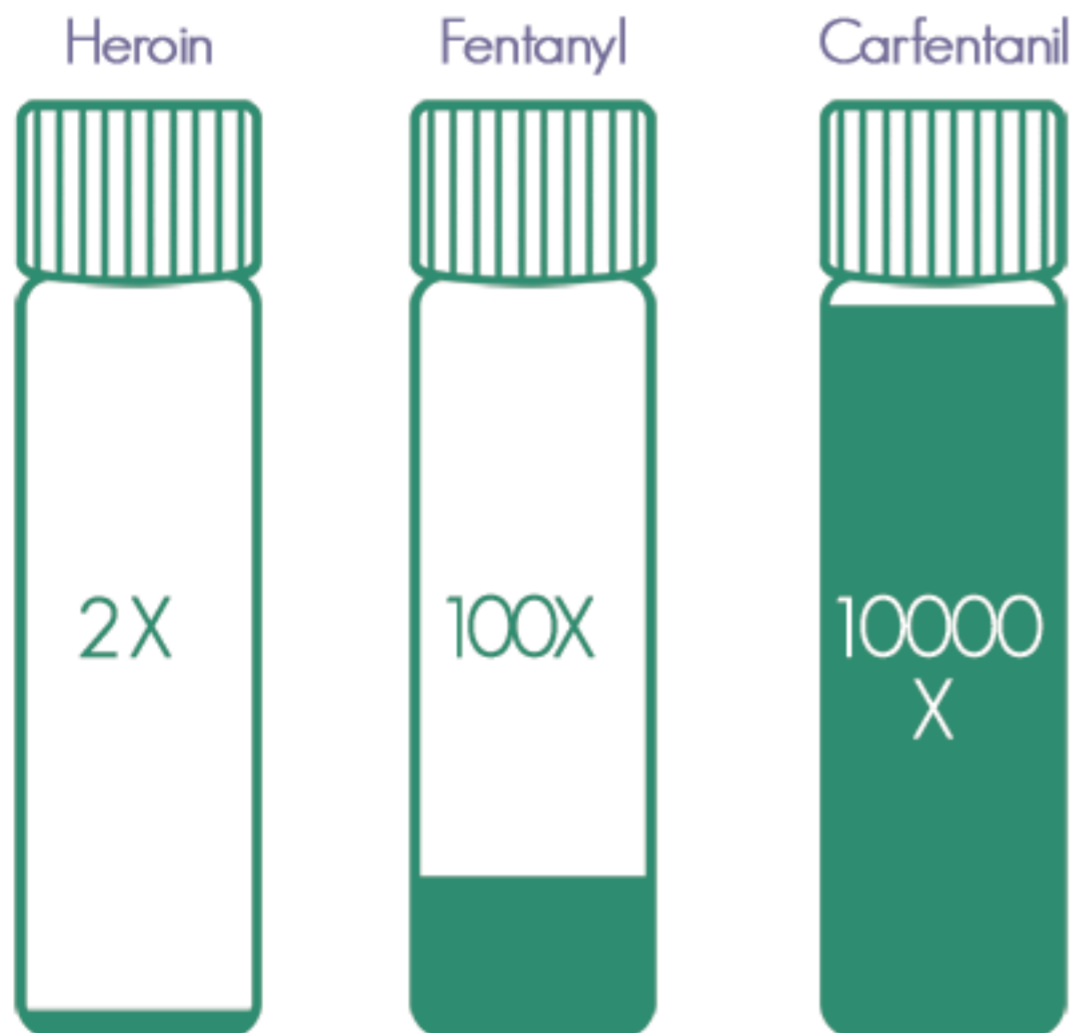
The newest wave of the opioid epidemic is the use of fentanyl and fentanyl analogs. Fentanyl is a synthetic opioid that mimics the effects of morphine in the body but has a potency level 50 - 100 times stronger.

Fentanyl Structure



Due to the high potency and availability of fentanyl it is increasingly being used as an adulterant to heroin. Pharmaceutical fentanyl, in the form of patches and tablets, is diverted on a smaller scale. Current opioid-related deaths are driven by illicitly produced fentanyl coming mostly from China and Mexico. Often, illicit fentanyl or fentanyl-related substances are sold on the street in pill or capsule form resembling OxyContin or Xanax.^{viii}

Comparing the Potency (Compared against morphine potency x1)



Carfentanil is a fentanyl-related substance that is 10,000 times more potent than morphine. A toxic dose of Carfentanil for humans is unknown but we do know that it is 100 times more potent than fentanyl and it would only take 2 to 3 milligrams of fentanyl (same size as 5 to 7 grains of table salt) to induce respiratory depression, arrest and possibly death.^{ix}

You may be wondering why opioids are so addictive. Opioids act by attaching to and activating opioid receptor proteins, which are found on nerve cells in the brain, spinal cord, gastrointestinal tract, and other organs in the body. When these drugs attach to their receptors, they inhibit the transmission of pain signals. Stimulating the opioid receptors or "reward centers" in the brain can also trigger other systems in the body, such as those responsible for regulating mood, breathing, and blood pressure.^x

How are Opioids a Continuing Health Problem?

Opioids are dangerous because the difference between the amount needed to feel their effects and the amount needed to kill a person is small and unpredictable.

Respiratory Depression

Respiratory depression is the chief hazard associated with opioid painkillers. Often people are poly-drug users and that adds additional health concerns. Alcohol, sleeping pills, and anti-anxiety medications increase the respiratory depression caused by opioids. If someone is drinking or taking sleeping pills and takes an opioid, he or she may pass out, stop breathing and die. Mixing extended-release and long-acting opioids can also be deadly. The pain-relieving and euphoria-inducing aspect of opioids may wear off before the tendency to depress breathing does.^{xi}



Prescription opioids are most dangerous and addictive when taken via methods that increase their euphoric effects such as crushing the pills and snorting or injecting the powder, or combining the pills with alcohol or other drugs. Even people taking them for their intended purpose risk dangerous adverse reactions by not taking them exactly as prescribed (e.g., taking more pills at once, or taking them more frequently or combining them with medications for which they are not being properly controlled).^{xii}

Opioids, when taken for a long time, can cause tolerance, dependence, and addiction. These are all different. Not everyone who takes opioids develops these problems.

Tolerance

Dependence and tolerance occur more commonly than addiction. If you have been taking opioids for a long time, they do not work as well as they did in the beginning. You may need a higher dose to treat your pain. This is called tolerance.^{xiii}

Dependence

If you gradually become more tolerant of the opioid, you may become dependent on it. This is not the same as addiction. It means that if you miss a dose, or stop the opioid suddenly, you may have withdrawal symptoms. You may need to keep taking the medicine to avoid the withdrawal symptoms. Dependence is treated by a planned gradual reduction in the opioid medicine. The dose is gradually reduced in such a way that your body can become used to it so that you do not experience withdrawal symptoms. This does not mean you are addicted to the opioid.^{xiv}

Addiction

Unlike tolerance and dependence, addiction is defined as a primary, chronic disease of brain reward, motivation, memory and related circuitry. Addiction is characterized by inability to consistently abstain, impairment in behavioral control, craving, diminished recognition of significant problems with one's behaviors and interpersonal relationships, and a dysfunctional emotional response.



Overdose^{xv}

A variety of effects can occur after a person takes opioids, ranging from pleasure to nausea, vomiting, severe allergic reactions, and overdose; this is when breathing and heartbeat slow or even stop.

Overdose can occur when:

- 1.) someone deliberately misuses a prescription opioid or an illicit drug such as heroin
- 2.) a patient takes an opioid as directed, but the prescriber miscalculated the opioid dose or an error was made by the dispensing pharmacist
- 3.) the patient misunderstood the directions for use



Preventing the Misuse of RX Opioids and Overdose Deaths

Be Your Own Health Advocate^{xvi}

There are a number of steps that can be taken to reduce your risk of opioid overdose.

- 1.) It is important to discuss non-opioid alternatives with your doctor and if an opioid is still indicated, discuss taking the lowest dose possible for the shortest duration.
- 2.) Also, make sure to tell your doctor about the various medications and drugs you take and about how much alcohol you consume. If you have a history of drug dependence, you should also discuss this with your doctor.
- 3.) Ask your doctor about how long the medicine will be in your body and whether you should drive or operate machinery.
- 4.) Do not use more of the medication than prescribed by a doctor, and avoid mixing opioids with alcohol, sleeping pills, and anti-anxiety medication.
- 5.) You can obtain a prescription for naloxone or carry a naloxone overdose prevention kit if you or a family member is using a high daily dosage of opioids. Naloxone is used to treat the effects of opioid overdose until medical help arrives.



Store and Dispose of Medications Properly

Safeguarding prescription medication is important for the health and safety of your family. Proper storage reduces the risk of theft by visitors and accidental injection by kids and pets. Lockboxes are available for purchase to ensure safe storage.

Dispose of Medications Properly. Consumers and caregivers should remove expired, unwanted, or unused medicines from their home as quickly as possible to help reduce the chance that others may accidentally take or intentionally misuse the unneeded medicine.

Medicine take-back programs are a good way to safely dispose of most types of unneeded medicines.

The U.S. Drug Enforcement Administration (DEA) periodically hosts National Prescription Drug Take-Back events where collection sites are set up in communities nationwide for safe disposal of prescription drugs. Local law enforcement agencies may also sponsor medicine take-back programs in your community. Likewise, consumers can contact their local waste management authorities to learn about medication disposal options and guidelines for their area.

When disposing of medicines in the household trash, make sure to mix the medicine with an unpalatable substance such as dirt, kitty litter, or coffee grounds. Next, place the mixture in a container such as a sealed plastic bag and throw this container in the trash can and make sure to scratch out any personal information found on the pill bottle. This should be done so that no one may regain access to these medicines. There are also kits available for purchase that allow convenient and proper disposal.



For More Information

Consumers can visit the DEA's website for more information about drug disposal, National Prescription Drug Take-Back Day events and to locate a DEA-authorized collector in their area.

Recognize the Signs of an Overdose

There are specific symptoms that you can look for that indicate a potential opioid overdose.

Pinpoint Pupils



Unconsciousness



Respiratory Depression



Opioid Overdose Triad

An opioid overdose can be identified by a combination of three signs and symptoms referred to as the "opioid overdose triad". The symptoms of the triad are: pinpoint pupils, unconsciousness and respiratory depression.^{xvii} Seek medical help immediately if you believe someone is experiencing an overdose; every minute matters. If you are in possession of naloxone and know how to use it, administer the drug and call for medical assistance.

Naloxone

Naloxone is a short-acting opioid antagonist that binds to opioid receptors, replacing other opioids that may be there and blocking other opioids from binding. Naloxone counteracts depression of the respiratory system and the central nervous system, allowing an overdose victim to breathe normally. Naloxone may be injected in the muscle, vein or under the skin, or it can be administered as a spray into the nose using an atomizer.^{xviii}

There is no single effective dose of naloxone for all opioid overdoses.^{xix} In some cases multiple doses of naloxone are needed to revive someone. The effects of naloxone start to wear off in 30 minutes and should be completely gone in 90 minutes. In the case of long-acting opioids like methadone, or highly potent fentanyl analogs, a patient could need additional naloxone after the initial treatment wears off.^{xx} The need for multiple doses underscores the importance of seeking immediate medical attention even after the naloxone was used.

Community and Advocacy Action



By advocating for change, you may identify a number of areas where you and other advocates can help address the opioid epidemic at the local, state and national levels.

We each have a unique role to play and can make a difference.

Grassroots Advocacy

Grassroots advocacy is when ordinary people get together to advocate on behalf of an issue. You are at the grassroots level, which makes you very powerful. You are impacted by local, state and federal policies or lack of policies to address this issue. By speaking up and voicing concern on how drug abuse impacts your community, no matter what level of experience, you can make a difference and possibly save a life.

Prevention Campaigns

Creating events that raise awareness of the opioid problem in communities is essential to curbing the epidemic. Prevention of misuse and abuse of opioids is our best defense against overdose. For a campaign or program to succeed, it's important to bring people together, discuss details, and organize. Events require careful planning of both large and small details. It is important to raise awareness among community leaders, families, physicians, and among others, members of the media. Local newspapers, TV news, magazines, and local web bloggers can help to spread the word and rally support for your initiative.



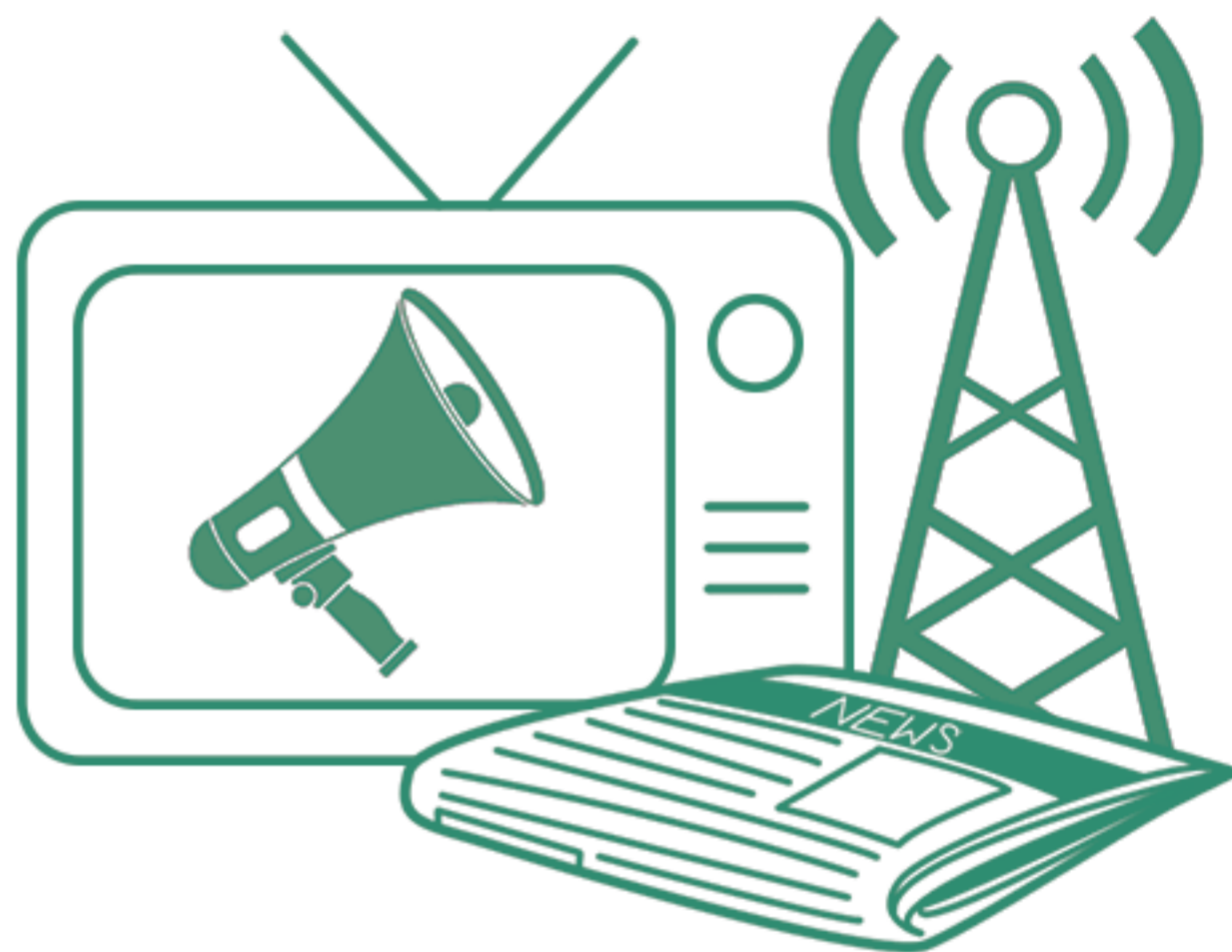
If you already have an idea for an event, write a mission statement. It should specifically state what the event aims to accomplish so that others can quickly and clearly understand your objective. If you don't have a mission statement, brainstorm ideas and draft one with your planning team. Bringing together people who already understand something about prescription drug abuse and overdose in your community will help to build momentum for creating an event because they will likely have a genuine interest in seeing it succeed.

Gathering data is a vital component for building a community awareness event.

Analyzing data helps to communicate the impact that the opioid problem is having on your community. Your local community anti-drug coalitions should be able to access much of this data. When your team has gathered data, it's important to interpret what the data means and how it impacts individuals, families, and your community.

Media as a Resource

Local media is an important resource for raising awareness around your event and campaign. Many media platforms exist such as television, radio, billboards, newspapers and magazines, and popular social media networks like Facebook, Twitter, and YouTube.



Additional Tips

- 1.) Make sure your prevention campaign materials are easy to read and understand.
- 2.) Make sure your prevention campaign materials are based on current research.
- 3.) Keep your campaign positive.
- 4.) Focus on healthy alternatives to drug use.

Areas of Advocacy

Prescription Drug Monitoring Programs (PDMPs)

PDMPs collect, monitor, and analyze electronically transmitted dispensing data submitted by pharmacies and, in some cases, dispensing practitioners. PDMPs produce a patient history and activity report for each patient. These reports provide a physician with a list of the controlled substances and prescription drugs that were prescribed to the patient, the name of the practitioner issuing each prescription, and the pharmacy where each prescription was filled. Generally, PDMPs distribute data to authorized medical professionals upon request; and in some states, distribute data proactively. The patient activity report assists the physician in determining if a patient altered the number of drugs prescribed or forged the physician's name on prescriptions. The report also flags doctor shopping which yields multiple doses of a controlled substance.^{xxi}

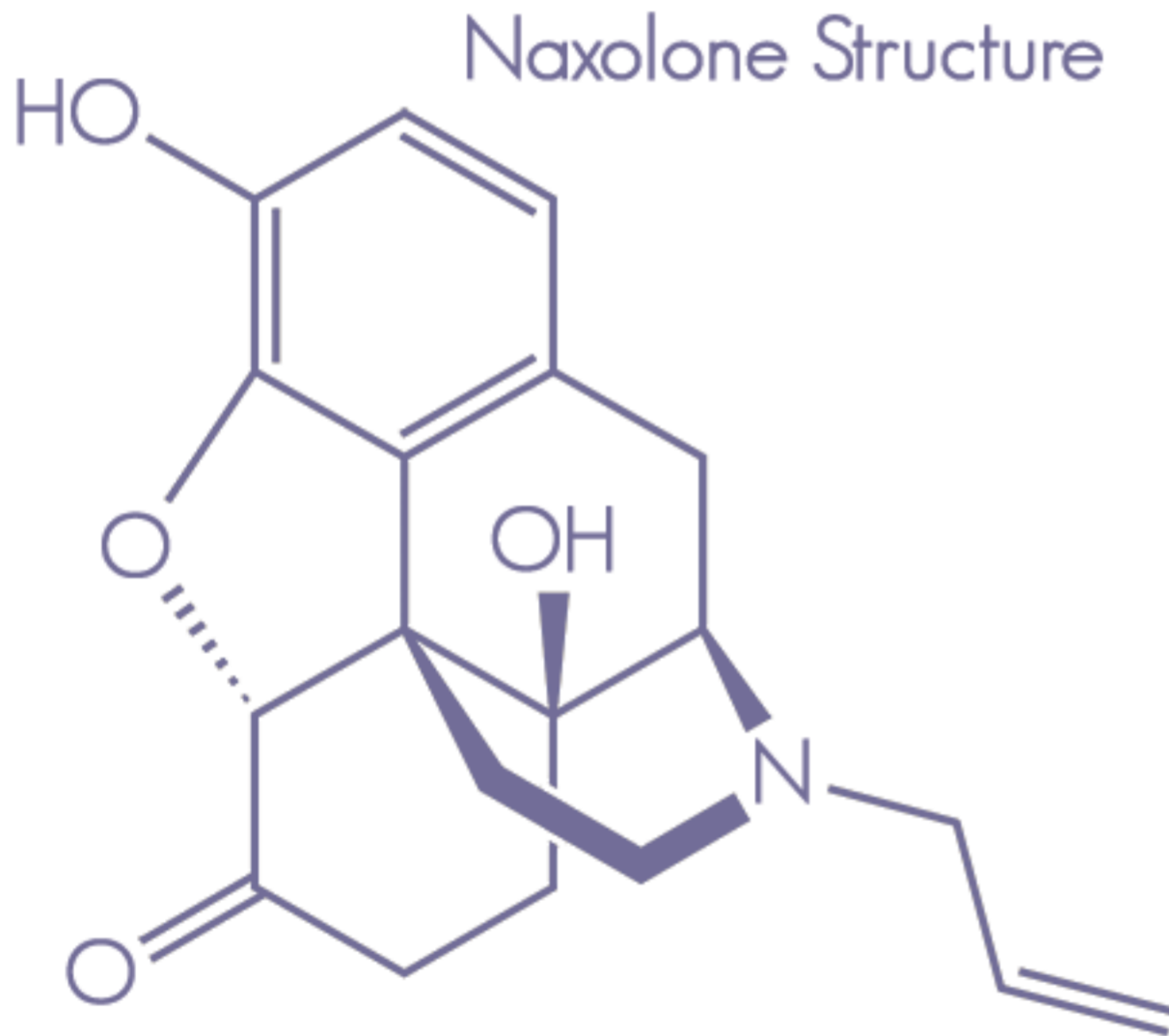


Not all PDMPs are equal. A model program would be one that is universally used by prescribers and pharmacists, operates in real time, is actively managed, and is easy to use and access. State-level policies that enhance PDMPs have shown some promising results in the reduction of fraudulent scripts and doctor shopping.

Naloxone Distribution Programs

A naloxone distribution program puts the antidote directly into the hands of those most likely to witness an overdose and respond first; drug users, their families, outreach workers, and even the police.

Many states allow third party access to naloxone. This means that a family member or friend of someone who uses or abuses opioids can receive a naloxone prescription and have it on hand in case of an emergency. Community advocacy efforts should focus on expanding naloxone availability and accessibility.



It is important that naloxone distribution programs include training on how to administer the drug, how to recognize the signs of an opioid overdose, the need to seek additional medical attention, and the access to treatment and recovery services.

Resources for Community Members

- 1.) Centers for Disease Control and Prevention (CDC) - www.cdc.gov
- 2.) Drug Free America Foundation - www.dfaf.org
- 3.) Prevention Overdose Strategies - www.overdosepreventionstrategies.org
- 4.) Narcotics Overdose Prevention and Educations (NOPE) Task Force - www.nopetaskforce.org
- 5.) National Substance Abuse Treatment Facility Locator - www.findtreatment.samhsa.gov/TreatmentLocator
- 6.) National Treatment Referral Helpline- 1-800-662-HELP (4357) or 1-800-487-4889 (TDD – for hearing impaired)
- 7.) Substance Abuse and Mental Health Services Administration (SAMHSA) - www.samhsa.gov
- 8.) White House Office of National Drug Control Policy (ONDCP) - www.whitehouse.gov/ondcp

References

- i** Abuse, National Institute on Drug. "Introduction." NIDA. N.p., 2014. Web. 01 June 2017
- ii** Weiss AJ (IBM Watson Health), Bailey MK (IBM Watson Health), O'Malley L (IBM Watson Health), Barrett ML (M.L. Barrett, Inc.), Elixhauser A (AHRQ), Steiner CA (Institute for Health Research, Kaiser Permanente). Patient Characteristics of Opioid-Related Inpatient Stays and Emergency Department Visits Nationally and by State, 2014. HCUP Statistical Brief #224. June 2017. Agency for Healthcare Research and Quality, Rockville, MD. www.hcup-us.ahrq.gov/reports/statbriefs/sb224-Patient-CharacteristicsOpioid-Hospital-Stays-ED-Visits-by-State.pdf
- iii** Paulozzi, Leonard J., Baldwin, Grant., et al. (2012). CDC Grand Rounds: Prescription Drug Overdoses – a U.S. Epidemic. *MMWR*, 61(1), 10-13.
- iv** Sources of Prescription Opioid Pain Relievers by Frequency of Past-Year Nonmedical Use United States, 2008-2011 Christopher M. Jones, PharmD, MPH; Leonard J. Paulozzi, MD, MPH; Karin A. Mack, PhD. *JAMA Intern Med.* 2014; 174(5):802-803. doi:10.1001/jamainternmed.2013.12809
- v** America's Addiction to Opioids: Heroin and Prescription Drug Abuse, May 14, 2014 presented by Nora D. Volkow, M.D. Senate Caucus on International Narcotics Control. Accessed online July 2017 at <https://www.drugabuse.gov/about-nida/legislative-activities/testimony-to-congress/2016/americas-addiction-to-opioids-heroin-prescription-drug-abuse>
- vi** 2016 World Drug Report, UN Office on Drugs and Crime.
- vii** National Institute on Drug Abuse. "America's Addiction to Opioids: Heroin and Prescription Drug Abuse." NIDA. N.p., 14 May 2014. Web. 17 Mar. 2017.
- viii** U.S. Department of Justice, DEA. A Briefing Guide for First Responders.
- ix** National Center for Biotechnology Information. PubChem Compound Database; CID=62156, <https://pubchem.ncbi.nlm.nih.gov/compound/62156> (accessed July 28, 2017).
- x** National Institute on Drug Abuse. "Introduction." NIDA. N.p., 2014. Web. 01 June 2017
- xi** National Institute on Drug Abuse. "America's Addiction to Opioids: Heroin and Prescription Drug Abuse." NIDA. N.p., 14 May 2014. Web. 17 Mar. 2017.
- xii** National Institute on Drug Abuse. "America's Addiction to Opioids: Heroin and Prescription Drug Abuse." NIDA. N.p., 14 May 2014. Web. 17 Mar. 2017.
- xiii** Dasgupta, A. (2009). Workplace Drug Testing: SAMHSA and Non-SAMHSA Drugs. Beating Drug Tests and Defending Positive Results, 29-44. doi:10.1007/978-1-60761-527-9_3
- xiv** Dasgupta, A. (2009). Workplace Drug Testing: SAMHSA and Non-SAMHSA Drugs. Beating Drug Tests and Defending Positive Results, 29-44. doi:10.1007/978-1-60761-527-9_3
- xv** National Institute on Drug Abuse. "Which Classes of Prescription Drugs Are Commonly Misused?" NIDA. N.p., n.d. Web. 17 Mar. 2017.
- xvi** Abuse, N. I. (n.d.). How can prescription drug misuse be prevented? Retrieved April 03, 2017, from <https://www.drugabuse.gov/publications/research-reports/misuse-prescription-drugs/how-can-prescription-drug-misuse-be-prevented>
- xvii** World Health Organization, Guidelines for the Psychosocially Assisted Pharmacological Treatment of Opioid Dependence.
- xviii** Opioid overdose: preventing and reducing opioid overdose mortality. Discussion paper UNODC/WHO 2013. Web accessed July 2017 <https://www.unodc.org/docs/treatment/overdose.pdf>
- xix** Joint Meeting of the Anesthetic and Analgesic Drug Products Advisory Committee and the Drug Safety and Risk Management Advisory Committee on October 5, 2016. FDA Advisory Committee on the Most Appropriate Dose or Doses of Naloxone to Reverse the Effects of Life-threatening Opioid Overdose in the Community Settings. Web accessed July 2017 <https://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/Drugs/AnestheticAndAnalgesicDrugProductsAdvisoryCommittee/UCM522688.pdf>
- xx** Roosevelt University's Illinois Consortium on Drug Policy. Web accessed July 2017 <http://stopoverdoseil.org/narcan.html>
- xxi** Rosenblum, A., Marsch, L. A., Joseph, H., & Portenoy, R. K. (2008, October). Opioids and the Treatment of Chronic Pain: Controversies, Current Status, and Future Directions. Retrieved March 17, 2017, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2711509/>



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