

Preventing Overdose, Saving Lives

Strategies for Combating
a National Crisis

DRUG POLICY ALLIANCE

Reason. Compassion. Justice.

Preventing Overdose, Saving Lives:
Strategies for Combating a National Crisis

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Introduction

A serious but largely overlooked crisis has taken root in the United States. Accidental drug overdose – from both legal and illegal drugs – now ranks second only to auto collisions among leading causes of accidental death in the United States, having surpassed deaths due to firearms in 2005.¹ This epidemic continues virtually unchecked despite the existence of practical, low-cost interventions.

Overdose prevention efforts around the nation demonstrate the immense value and efficacy of a public health and safety approach to the problem of drug misuse in society. Proven strategies are available to reduce the harms associated with drug use, treat dependence and addiction, improve immediate overdose responses, enhance public safety and prevent fatalities. These include expanding access to the life-saving medicine naloxone and associated training; enacting legal protections that encourage people to call for help for overdose victims; and training people who use drugs in how to respond to an overdose.

To reduce the incidence of accidental overdose and prevent overdose fatalities over the longer term, expanding and improving drug treatment options – particularly opioid

Facts about Drug Overdose

- More than 22,400 people died following an accidental drug overdose in 2005.
- Nationally, accidental drug overdose deaths increased more than 400 percent between 1980 and 1999 and more than doubled between 1999 and 2005.
- Overdose is the number one injury-related killer among adults ages 35-54.

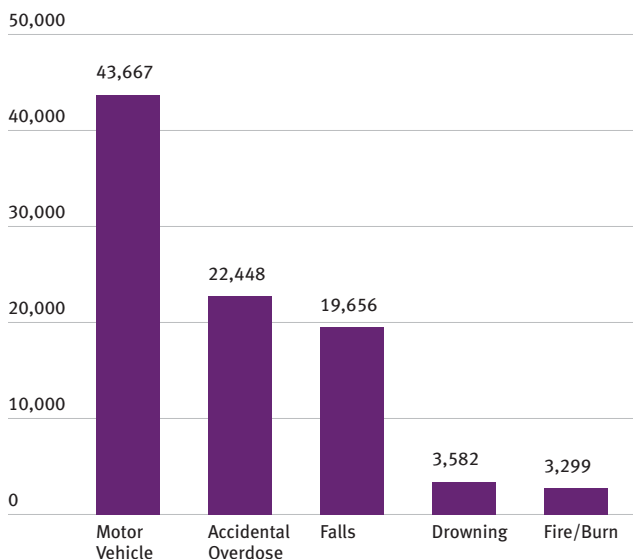
replacement therapy – are shown to decrease drug use, dependence and overall overdose risk. Additionally, harm reduction measures such as syringe exchange programs provide critical health and safety outreach to drug users and have been shown to minimize health risks while increasing public safety.

Individually, and particularly when employed together within a comprehensive intervention system, these policy solutions have a successful track record of saving lives. If implemented on a broader scale nationally, they could potentially save tens of thousands of lives every year in the U.S. Despite their promise, however, these interventions remain widely under-used. The drug war's combination of misinformation about drug use and policies that focus almost exclusively on interdiction, enforcement and abstinence continue to distract attention from this nationwide emergency and from the benefits of a public health approach to addressing the crisis.

Overdose is associated with the misuse or illegal diversion of prescription pharmaceuticals such as morphine, methadone, oxycodone and hydrocodone as well as with illegal use of street drugs like heroin.² While this report primarily deals with opioid overdose prevention, non-opioid overdoses are also common in the U.S. and require similar policy responses. Cocaine and anti-anxiety drugs (benzodiazepines) are frequently cited as a contributing cause of fatal overdose, and more than 350 poisoning deaths are attributed every year directly to the legal drug alcohol – a major source of concern on many college campuses.³ But most accidental drug overdoses are linked to opioid medications, followed by cocaine and heroin.⁴

This report, “Preventing Overdose, Saving Lives” assesses the crisis at hand by examining the policy solutions available and how they have been successfully implemented across the U.S. It identifies areas in need of further study and investment, and offers a roadmap for responding to the national opioid overdose crisis with rational, compassionate and responsible public health policies.

Figure 1.
Leading Injury-Related Deaths, 2005



Source: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics. “10 Leading Causes of Unintentional Injury Deaths, United States.” *WISQARS Injury Mortality Reports, 2005* (all races, both sexes).

Scale and Urgency of the Overdose Crisis

Drug-poisoning overdoses – caused by the consumption of illegal and/or legal drugs that are misused or diverted – account for nearly all poisoning deaths in the United States.⁵ Accidental drug overdose accounted for more than 22,400 reported deaths in the U.S. in 2005, the last year for which data are available.⁶ By comparison, just over 17,000 homicides occurred in the same year.⁷

Nationally, accidental drug overdose deaths have increased dramatically. Overdoses jumped by more than 400 percent between 1980 and 1999⁸ and more than doubled between 1999 and 2005.⁹ In 2005, data from the Centers for Disease Control and Prevention (CDC) showed that, for the first time, more people in the 45-54 age group died of drug overdoses than in automobile collisions.¹⁰ Among adults ages 35-54, overdose is the number one injury-related killer, and among young adults ages 15-34 it is number two.¹¹

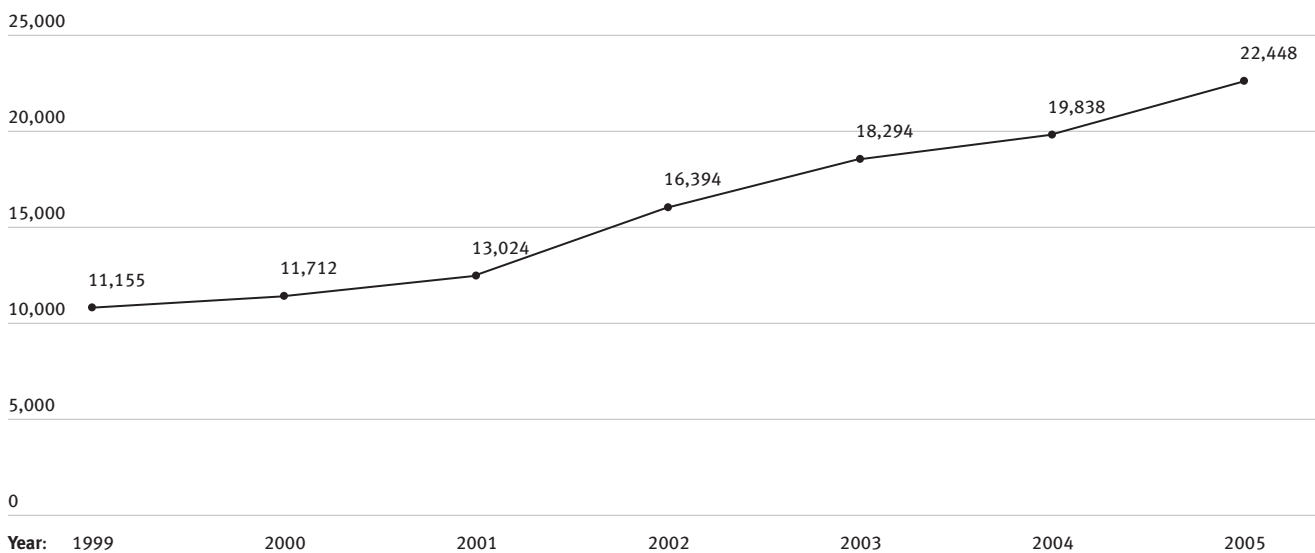
This previously unrecognized national crisis causes more deaths than firearms and workplace accidents and even diabetes, HIV/AIDS and stroke in many regions of the country.¹² Moreover, these statistics almost certainly under-

represent the problem. Data collection and reporting practices are insufficient in most jurisdictions, creating a lack of information necessary to quickly and accurately identify and combat trends in overdose incidents and related fatalities.¹³

It is no longer possible to ignore the crisis of widespread fatal drug overdose. Nor can the problem be dismissed as the exclusive domain of people who use illicit injection drugs. Across the country, young adults are trading and using prescription opioids at “pharm’ parties;” opioid pharmaceuticals are being sold on a booming black market; and pain patients are, both deliberately and accidentally, exceeding the prescribed dosage of their opioid medications. Today’s overdose crisis touches the lives of every type of family and individual, regardless of age, class, ethnicity or gender.

A national response is urgently needed and long overdue. Elected leaders, public officials and medical professionals can no longer delay the implementation of effective overdose reduction measures in every state and community. Failure to do so will result in thousands of needless deaths each year.

Figure 2.
Accidental Overdose Fatalities 1999 – 2005



Source: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics. CDC Wonder, Compressed Mortality. ICD-10 codes X40-X44.

Scale and Urgency of the Overdose Crisis

continued from page 3

Prescription Drug Overdose Risk on the Rise

Accidental drug overdose is most frequently associated in the public imagination with the use of illicit drugs such as heroin, but evidence suggests that misuse of prescription drugs is outstripping that of illegal drugs as a cause of accidental death.¹⁴ According to CDC medical epidemiologist Leonard J. Paulozzi, M.D., M.P.H.,

“One might assume that the increase in drug overdose deaths is due to an increased use of street drugs like heroin and cocaine, because we have in the past associated such drugs with overdoses. However ...we found that street drugs were not behind the increase. The increase from 1999 to 2004 was driven largely by opioid analgesics, with a smaller contribution from cocaine, and essentially no contribution from heroin. The number of deaths in the narcotics category that involved prescription opioid analgesics increased from 2,900 in 1999 to at least 7,500 in 2004, an increase of 160 percent in just five years. By 2004, opioid painkiller deaths numbered more than the total of deaths involving heroin and cocaine in this category.”¹⁵

A study conducted in 2007 by the Florida Medical Examiners Commission found that overdoses attributed to misused or diverted legal, prescription drugs were triple the number caused by all illegal street drugs like cocaine, heroin and methamphetamine, combined.¹⁶ In 2007, 2,328 people in Florida died from accidental overdose of opioid painkillers

“When the FDA changed [methadone’s] recommended dosage levels markedly [from 80] to a ceiling of 30 milligrams a day, it did very little to call attention to that change.”

Robert Newman, M.D., Director of the Baron Edmond de Rothschild Chemical Dependency Institute at Beth Israel Medical Center

and another 743 died from an overdose of anti-anxiety drugs containing benzodiazepine (3,071 in all), a 30 percent increase over the previous year. That’s more than three times the 989 deaths attributed that year to cocaine (843), heroin (121) and methamphetamine (25), combined.¹⁷

One troubling consequence is the rise in recent years of prescription drug misuse among teens. According to the U.S. National Institute on Drug Abuse’s (NIDA) report, “Monitoring the Future: National Results on Adolescent Drug Use,” the use of prescription painkillers among high school students has remained high. More than 15 percent of seniors reported using prescription drugs for non-medical reasons.¹⁸ Ten percent of seniors reported that they used Vicodin™ and nearly 5 percent said they used Oxycontin™ in the past year.

A tragic consequence of this rise in misuse of prescription medications, especially opioid painkillers, is a concurrent rise in some areas of heroin use among teens. In eight western New York counties, rehabilitation check-ins for heroin and other opioids more than doubled between 2002 and 2006. Experts cite the misuse of pain relievers as a factor that is leading growing numbers of young people to heroin use.¹⁹

Methadone Can Harm or Heal

A major cause of this rise in overdoses among prescription drug users appears to be the changing nature of modern medicine’s approach to pain management. The *Archives of Internal Medicine* reports that accidental overdose deaths rose sharply over the past 20 years due in part to the rising at-home use of prescription painkillers and other potent medications, which were previously given out primarily in hospitals.²⁰ Some prescription opioids like oxycodone and methadone are playing an increasingly central role in overdose deaths, according to several new studies.²¹ From this, one should not draw the conclusion that doctors are prescribing too much pain medication. In fact, pain is one of the most severely undertreated conditions in the U.S. today.²² The issue is that the growing need for pain medication in an aging society calls for new programs and practices that address the full range of risks associated with opioid pain medications.

Users of methadone for pain relief have been particularly susceptible to overdose. The upswing in deaths associated with methadone prescribed for pain may be related to the fact that, until November 2006, the Food and Drug Administration



(FDA) and drug manufacturers recommended a standard pain relief dosage for methadone of up to 80 milligrams (mg) per day. This recommended dosage can kill patients who are not tolerant to opioids, according to Robert Newman, M.D., director of the Baron Edmond de Rothschild Chemical Dependency Institute at Beth Israel Medical Center.

The FDA issued a warning about the methadone dosage problem in November 2006 and, in March 2007, finally approved revisions to methadone safety labeling.²³ Unfortunately, when the FDA revised those recommended dosage levels downward to a ceiling of 30 mg per day – a more than 50 percent reduction – the agency failed to publicize the change effectively.²⁴ The FDA could likely have quickly and inexpensively prevented many methadone-related overdose fatalities by better highlighting the dosage change and alerting every prescribing physician and pharmacy in the country.²⁵

“The increase from 1999 to 2004 [in drug overdose deaths] was driven largely by opioid analgesics, with a smaller contribution from cocaine, and essentially no contribution from heroin. By 2004, opioid painkiller deaths numbered more than the total of deaths involving heroin and cocaine...”

*Len Paulozzi, CDC Medical Epidemiologist,
U.S. Department of Health and Human Services*

Methadone is a highly effective pain reliever that can restore a high quality of life when properly prescribed. Methadone overdoses can be significantly curtailed by improving training for prescribing physicians as well as providing better consumer education in light of the new federal dosage guidelines. Accidental overdoses can be substantially reduced by ensuring that medical professionals are armed with the most current information on prescribing opioids for pain management and that they convey that information to their patients.

Heroin Users Remain at High Risk

Heroin overdose in the U.S. is a preventable tragedy. Between 1995 and 2002 nationwide, heroin-related emergency room visits climbed from 69,556 to 93,519.²⁶ One study placed the average annual mortality risk for heroin users at 2 percent, a rate between 6 and 20 times that of their non-drug-using peers.²⁷ Other research indicates that up to two-thirds of heroin users have survived at least one overdose in their lifetimes.²⁸ While overdose rates are increasing across drug categories, a number of factors make heroin users particularly susceptible.

The potency of heroin sold in the U.S. has increased significantly in recent years while its cost has dropped. Today, a dose of high-grade heroin is available for about the price of a six-pack of beer.²⁹ Another factor influencing heroin overdose rates is the simultaneous use of multiple drugs, such as alcohol, cocaine and other depressants.³⁰

Additional complications inherent in prohibition and an illicit drug market can arise from taking new batches of street heroin, buying from a new source selling a stronger drug, or from the presence of adulterants, that increase the potency of heroin.³¹ The most notable of these additives is fentanyl, a potent synthetic opioid analgesic that is relatively easy to make and to smuggle. Fentanyl, whether in prescription or illegal analog form, is many times more potent than morphine. When added to heroin, fentanyl can cause immediate overdose in unsuspecting users.³² Users are also at highest risk of overdose following a period of abstinence or reduced use that leads to lowered tolerance, for example, upon release from a correctional or treatment facility.

Overdose Treatment and Fatality Prevention

The public health crisis of fatal opioid drug overdoses can be substantially addressed. Proven strategies exist to reduce the incidence of overdose and to dramatically lower the chance of fatality when an overdose does occur. By expanding the availability of low-risk, low-cost overdose interventions and improving education and outreach for people at high risk of overdose, policymakers can help to prevent the tragic and unnecessary loss of life.

Naloxone Saves Lives

Chief among today's highly effective available practices to halt and reverse the growing toll of accidental opioid overdose fatalities is naloxone hydrochloride (also known as Narcan™), a low-cost drug available generically that was first approved by the FDA in 1971. Naloxone is an opioid antagonist that blocks the brain cell receptors activated by heroin and other opioids, temporarily restoring normal breathing within two to three minutes of administration. Naloxone works by taking up opioid receptor sites in the brain; it has a higher affinity for the opioid receptor sites and stays bound longer than the opioid activators that bind and release rapidly.

Ideally, emergency medical responders are summoned as soon as an overdose is detected. A dose of naloxone is then administered and rescue breathing is initiated if necessary. If the victim has not been revived after two minutes, another dose of naloxone is administered and so on until the naloxone has the desired effect. Naloxone's effects last for 30 to 75 minutes, allowing time for the arrival of emergency medical assistance.³³ Though the research is contradictory, some studies suggest that once the naloxone effect wears off, opioids in the circulatory system may become toxic again and without medical attention victims can subsequently cease breathing again.³⁴

Naloxone is most commonly administered via intramuscular injection, but it can also be administered intranasally using an atomizer device that delivers a mist to the nasal mucus membrane. The device used for this latter form of administration is not yet FDA approved, but it is in use by EMS responders in Utah and New Mexico and by overdose prevention groups in Massachusetts and New Mexico.

Naloxone's only effects are to reverse respiratory failure resulting from an opioid overdose and to cause uncomfortable withdrawal symptoms in the dependent user.³⁵ It has no pharmacological effect if administered to a person who has not taken opioids³⁶ and has no potential for abuse.³⁷ It is impossible to overdose on naloxone.

Overdose Prevention Programs

Overdose prevention programs provide a variety of vital services. In states like California, New Mexico and New York, government-sanctioned and -managed overdose prevention programs provide target populations with naloxone and train them in rescue breathing and the importance of dialing 911 before naloxone administration. Overdose prevention programs also provide treatment referrals, access to sterile syringes to prevent the spread of HIV and hepatitis and connections to other basic needs.

Naloxone Training for the Public

Naloxone-distribution programs train potential overdose witnesses to correctly administer the drug to a peer in need, greatly reducing the risk of accidental death. In addition, the programs involve overdose prevention education and training in how to recognize overdoses, perform rescue breathing and contact emergency medical services. Such efforts are small when compared to the scope of the national accidental overdose crisis, but their results are highly encouraging. More than 2,600 overdoses have been reversed in 16 programs operating across the nation.³⁸

Overall, participation in naloxone distribution programs has been found to improve participants' recognition of and response to overdose. A 2008 study, conducted by Yale University researchers, found that drug users can learn to identify and respond to opioid overdoses just as effectively as medical professionals. The study, funded by the National Institute of Mental Health, found that heroin users who receive training can recognize an overdose and determine whether and when naloxone should be administered.³⁹ Furthermore, research suggests that people who use drugs are enthusiastic about naloxone-availability programs. A survey of injection drug users in San Francisco revealed that 87 percent would actively participate in an overdose prevention program that included take-home naloxone and overdose response training.⁴⁰

Expanding the Availability of Naloxone

Providing take-home naloxone to opioid users for later administration in case of an overdose is a “simple, inexpensive measure that has the potential to significantly reduce mortality caused by heroin overdose.”⁴¹ Several community programs in major metropolitan areas are making important strides in increasing public access to naloxone. In recent years, a number of syringe exchange programs in major U.S. cities have begun making naloxone available to people who inject illicit drugs. Many overdose prevention programs are paired with syringe exchange programs, creating important linkages between services that can help prevent both accidental overdose and the spread of HIV/AIDS, hepatitis and other infectious diseases among people who use injection drugs.

Naloxone-availability efforts have been undertaken in cities and states around the country with considerable success:

- An evaluation of the Chicago Recovery Alliance program – launched in 1998 and expanded in 2000 – in which physicians prescribe naloxone through mobile vans,⁴² found that an estimated 10,211 people had engaged in the program and that 1,011 overdoses were reversed through naloxone administration as of December 2007.⁴³ Chicago, which had experienced a 135 percent increase in heroin overdose deaths between 1996 and 2000, saw a 30 percent decline in opioid overdose deaths, from 466 in 2000 to 324 in 2003.⁴⁴
- The Baltimore City Department of Health announced in 2004 that at least 52 overdoses had been reversed through its naloxone overdose prevention program.⁴⁵ Reduction of overdose deaths in Baltimore to a 10-year low in 2005 was partly attributed to naloxone distribution.⁴⁶
- San Francisco reported 148 heroin overdose reversals over three years (2004-06) as a direct result of its naloxone-availability efforts.⁴⁷ Overdose deaths in the city declined in 2004, while overdoses in the rest of California increased by 42 percent.
- Reported overdose deaths in New Mexico, which has had a chronically high drug-related death rate, have dropped by 20 percent since the state’s Department of Health began a naloxone-distribution program in 2001.⁴⁸
- Following the introduction in 2006 of a naloxone-access program, Boston recorded 60 peer overdose reversals using naloxone in just over a year.⁴⁹

- A December 2004 study of the Overdose Prevention and Reversal Program at the Lower East Side Harm Reduction Center in New York City revealed that naloxone is “undeniably advantageous for individuals to effectively revive an overdosing friend or family member, instead of resorting to potentially harmful and less effective methods of resuscitation.”⁵⁰
- New York State passed legislation in 2005 establishing that physicians may lawfully prescribe naloxone explicitly for potential future opiate overdose.⁵¹
- In 2007 in North Carolina, recognizing the rising rate of overdose among pain patients, the state medical board approved Project Lazarus in Wilkes County. The program asks providers prescribing opioid pain medications to also prescribe naloxone to a broad range of patients who may be at high risk of overdose. It also dispenses naloxone nasal sprays to other high-risk populations leaving hospital emergency rooms, detox centers and jails.⁵²

Some European countries are promoting increasingly unrestricted naloxone access for more effective overdose prevention:

- In June 2005, the United Kingdom added naloxone to the list of medicines (such as emergency adrenaline, glucagons and snake antivenom) that may be given by injection “by anyone for the purpose of saving life in an emergency” without specific medical instruction.⁵³
- The drug has also been available over the counter without problems for many years in Italy.⁵⁴

One key barrier to broader naloxone access in the U.S. is its status as a prescription drug. Depending on state law, prescriptions for naloxone must either be written to individuals who have requested to carry the drug or may be made by programs operating under standing orders from a physician.

Advocates in some states are examining an alternative approach to increasing access to naloxone – changing the drug’s FDA status from “prescription only” to “over the counter” (OTC). Given that it has little to no potential for misuse, naloxone could meet OTC standards, making this option worthy of further consideration.

Overdose Treatment and Fatality Prevention

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Improving Naloxone Awareness among Professionals

Although naloxone is the standard treatment for reversing respiratory failure due to heroin overdose and is widely used by EMS and other medical personnel,⁵⁵ lack of awareness about public need and physician bias against drug users are ongoing obstacles to wider naloxone distribution. In a 2006 survey of 571 physicians, just 23 percent were aware of the practice of prescribing naloxone to prevent heroin overdose, and 54 percent said they would never “consider prescribing naloxone and explaining its use to a patient (who uses injection drugs) because of their own negative views of injection drug users.”⁵⁶

Support is growing among some physicians and other health professionals for regularly pairing naloxone with all opioid prescriptions.⁵⁷ Under this scenario, physicians would routinely write a prescription for naloxone to accompany every prescription for opioid medications. Such a convention would have the dual benefits of safeguarding the life of the patient and normalizing naloxone by educating the greater public about its function and proper use.

It is particularly important to make naloxone available in methadone clinics, addiction treatment programs, syringe exchange programs and emergency rooms. Law enforcement professionals and prison personnel should also be trained on how to respond to opioid overdose, including rescue breathing and administration of naloxone.

Managing Unintended Consequences

Some physicians and policymakers have expressed concerns that expanding access to naloxone could promote unintended consequences. The fear is that naloxone availability will encourage additional risky behavior on the part of overdose victims, including failing to seek medical attention, using larger dosages and/or injecting or ingesting additional opioids after naloxone administration to counter the unpleasant effects of naloxone-induced withdrawal.

Ongoing research does not support such claims. Two European studies found no serious adverse effects and observed no increase in risky behavior associated with naloxone availability.⁵⁸ One survey of people who inject heroin found that few would use more heroin following administration of naloxone.⁵⁹ In another, participants in naloxone programs reported no interest in increasing dosage or injecting more frequently as a result of naloxone availability.⁶⁰

Some encouraging data are also emerging regarding the provision of care. A 2005 study of San Francisco’s pilot naloxone-access program found that, of 20 overdoses witnessed by drug users trained in overdose response, 19 victims received CPR or naloxone from the trainee and all 20 survived.⁶¹ Expansion of naloxone availability and carefully monitored analyses of its impact would provide important evidence on its potential and on whether concerns about unintended effects are justified.



Photo courtesy of Harry Peronius, Harm Reduction Coalition.

DPA's Work on Overdose and Fatality Prevention

- The predecessor to the Drug Policy Alliance (DPA), the Lindesmith Center, began working on overdose prevention and released a report on the subject in 1998.
- In 2000, DPA organized the world's first international conference on preventing heroin overdoses. The event was attended by more than 250 people from around the world and is credited with sparking major overdose prevention initiatives in Canada, Australia and elsewhere.
- From 2001 to 2003, DPA made hundreds of thousands of dollars in grants for overdose prevention projects across the country. DPA's grants program continues to identify and fund worthy overdose prevention efforts in the U.S.
- DPA's New Mexico office has championed several initiatives which have made the state a model in overdose prevention, including:
 - Passing legislation in 2001 creating civil and criminal immunity for administering, dispensing, using or possessing naloxone or other opioid antagonists,
 - Working with the state's Department of Health to enact regulations allowing public health programs to distribute naloxone,
 - Passing the nation's first 911 Good Samaritan immunity law in 2007, and
 - Expanding naloxone access through pharmacies under New Mexico's Overdose Prevention and Response Initiative.
- DPA has also been active on a number of initiatives in California including:
 - Passing legislation in 2001 (later vetoed by Governor Gray Davis) that would have established a statewide program to coordinate data collection and create an overdose prevention grants program,
 - Passing legislation in 2002 authorizing counties to establish training and certification programs for designated emergency medical technicians to administer naloxone and to require the state's Department of Alcohol and Drug Programs to post overdose trends and rates on the Internet, and
 - Achieving a key victory in 2006 when Los Angeles County approved the creation of a DPA-sponsored pilot project to publicly distribute naloxone.
- In 2006, DPA worked with U.S. Senator Richard Durbin of Illinois to introduce legislation in the 109th Congress that would have established a federal overdose prevention grants program, tasked a federal agency with reducing overdose and improved data collection and reporting requirements. Though unsuccessful, the bill provides a model for future overdose prevention legislation.
- In 2008, DPA's Rapid Response Grants Program supported Project Lazarus in Wilkes County, North Carolina. The program seeks to reduce overdose fatalities through the prescription and distribution of naloxone to populations at high risk of accidental overdose, such as pain patients.
- DPA is currently working in California, Maryland, New York, New Jersey and other states to pass 911 Good Samaritan immunity legislation and expand overdose prevention.
- In early 2009, DPA initiated a nationwide campaign, "Purple Ribbons for Overdose Prevention," focused on raising awareness of the overdose epidemic and the preventable nature of many drug overdoses.



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Legal Protections Encourage Overdose Prevention and Response

Risk of criminal prosecution or civil litigation can deter medical professionals, drug users and bystanders from aiding overdose victims. Well-crafted legislation can provide simple protections to alleviate these fears, improve emergency overdose responses and save lives.

Good Samaritan Immunity Laws

The chance of surviving an overdose, like that of surviving a heart attack, depends greatly on how fast one receives medical assistance. Witnesses to heart attacks rarely think twice about calling 911, but witnesses to an overdose often squander precious time hesitating to call for help or, in many cases, simply don't make the call. The most common reason people cite for not calling 911 is fear of police involvement. People using drugs illegally often fear arrest, even in cases where they need professional medical assistance for a friend or family member. In the case of naloxone use by non-professionals, there may also be fear of criminal prosecution if resuscitation is unsuccessful and the victim dies.⁶² The best way to encourage overdose witnesses to seek medical help is to exempt them from criminal prosecution, an approach often referred to as 911 Good Samaritan immunity laws.

Multiple studies show that most deaths actually occur one to three hours after the victim has initially ingested or injected drugs.⁶³ The time that elapses before an overdose becomes a fatality presents a vital opportunity to intervene and seek medical help. However, "...It has been estimated that only between 10 percent and 56 percent of individuals who witness a drug overdose call for emergency medical services, with most of those doing so only after other attempts to revive the overdose victim (e.g., inflicting pain or applying ice) have proved unsuccessful."⁶⁴ Furthermore, severe penalties for possession and use of illicit drugs, including state laws that impose criminal charges on individuals who provide drugs to someone who subsequently dies of an overdose, only intensify the fear that prevents many witnesses from seeking emergency medical help.

Good Samaritan immunity laws provide protection from prosecution for witnesses who call 911. These laws are loosely based on Good Samaritan policies currently in effect on more than 90 U.S. college and university campuses for the purpose of preventing fatal alcohol overdoses. Laws encouraging overdose witnesses and victims to seek medical attention may also be accompanied by training for law enforcement, EMS and other emergency and public safety personnel.

In New Mexico, the state's 911 Good Samaritan Act – the first of its kind in the country – prevents prosecution for drug possession based on evidence "gained as a result of the seeking of medical assistance" to treat a drug overdose.⁶⁵ Signed by Governor Bill Richardson, the law took effect on June 15, 2007. The law does not protect witnesses from prosecution for other offenses, including drug trafficking, or for outstanding warrants and does not interfere with law enforcement protocols to secure the scene of an overdose.

New Mexico is currently the only U.S. state with a statewide Good Samaritan law. Similar Good Samaritan immunity legislation is under consideration by state legislatures in California, Connecticut, Florida, Illinois, Maryland, New York, New Jersey, Rhode Island, Washington and elsewhere. More such laws and protections are needed to improve overdose responses and prevent fatalities.

Liability Mitigation

Even though naloxone is already governed by state and federal prescription drug laws, some physicians may be discouraged from distributing naloxone because of legal concerns.⁶⁶ After years of federal prosecutions against physicians accused of professional negligence or corruption for prescribing opioids for pain, doctors supportive of naloxone availability are understandably concerned about potential liabilities stemming from any incorrect use of the drug or from unintended results.⁶⁷

Explicit legal protection for naloxone distribution programs and/or prescribers is offered by only a handful of states. This lack of a consistent legal framework supporting national naloxone availability casts a shadow of uncertainty over good-faith efforts to save lives. Though no guarantees exist, several reviews of existing law have concluded that prescribing naloxone and providing proper training in its use does not expose physicians to an unusual risk of medical liability as long as the physician acts (1) in good faith, (2) in the course of professional practice and (3) for a legitimate medical purpose.⁶⁸

In California, Governor Arnold Schwarzenegger signed the Overdose Treatment Liability Act (Senate Bill 767), which went into effect on January 1, 2008. The legislation protects physicians and healthcare providers who prescribe take-home naloxone to people at risk of overdose. Community-based syringe exchange and drug treatment programs that target opioid users in Los Angeles receive county funding to train clients on how to prevent an overdose, administer naloxone and assist with rescue breathing. Clients also receive information about treatment services and other resources.



“I have always been committed to prevention and rehabilitation of drug users. If we can encourage people to save themselves or others from a drug-related death or trauma, then we should do that. This bill will encourage families and friends of addicts to seek medical care and prevent their loved one from dying.”

*Governor Bill Richardson regarding
New Mexico’s 911 Good Samaritan Law,
04 April 2007*

Nevertheless, it remains illegal in most jurisdictions for physicians to prescribe naloxone to a family member for use on a loved one who has not seen the doctor. Neither is it legal for the prescription recipient to use naloxone on another person for whom it was not prescribed. New Mexico’s Overdose Prevention and Response Initiative addresses these failings by explicitly authorizing non-healthcare providers “to administer an opioid antagonist if they believe in good faith that the other person is experiencing an opioid drug overdose and they act with reasonable care.”⁶⁹

A handful of other states have taken similar action to protect naloxone availability. For example, in 2005, New York State passed a far-reaching law that provides for state regulation of overdose prevention programs, defines the use of naloxone as “first aid” and clarifies that persons who administer naloxone are immune from civil liability or criminal prosecution for the provision of overdose treatment in good faith. The law also directs the state commissioner to publish opioid overdose death and emergency data,⁷⁰ an invaluable tool in tracking and responding to accidental drug overdoses. These approaches to expanding naloxone availability could serve as models for other states’ overdose prevention policies.

Experts generally agree that any possible malpractice liability can be reduced by ensuring that those who are given a naloxone overdose kit understand its proper use⁷¹ and that naloxone programs train participants in the full range of overdose responses and maintain thorough documentation.⁷² Experts also point to the routine practice of making lifesaving medications available to third parties trained in emergency management;⁷³ to the training of family and friends to administer drugs such as glucagon for diabetes or epinephrine for anaphylaxis, both of which have far greater potential for adverse reactions than naloxone;⁷⁴ and to the wide latitude provided by federal law for the prescription of drugs for uses or circumstances beyond those indicated on their labels.⁷⁵

Coordinated Overdose Prevention

Among the best and least expensive strategies for countering the trends of increased opioid overdoses and fatalities is simple information gathering and dissemination. Improving the collection of critical data and making that information available to drug users, medical professionals, public health officials and local overdose prevention initiatives can reduce the incidence of overdose, improve coordination of prevention and response measures and save lives.

User Outreach and Education

Providing practical, life-saving information to people who use opioids can dramatically reduce the likelihood of fatal overdose. A major factor in drug overdose incidence in New Mexico, for example, is the mixing of drugs such as heroin with alcohol or cocaine. In response, the state has undertaken an outreach and education initiative to inform users about the risks of using multiple substances simultaneously.

Additionally, overdose risk is significantly greater following an extended period of abstinence or reduced use – whether of a voluntary nature, such as spending time in a rehabilitation facility, or involuntary, such as incarceration. Injection heroin users have seven times the risk of death from an overdose during the first two weeks after their release from incarceration.⁷⁶ A recent study found that, during the first two weeks post-release, individuals released from Washington State prisons had an overdose rate nearly 13 times that of the general population.⁷⁷

Drug treatment, prison pre-release programs and other outreach efforts such as sterile syringe exchanges, provide an opportunity to educate people who use opioids about the main factors contributing to overdose risk: simultaneous use of multiple drugs, especially certain combinations; trends in the U.S. leading to the increased potency of available heroin; potentially harmful additives such as fentanyl; and tolerance risks resulting from periods of abstinence.

Similarly, the key to combating the rise in overdose among users of pain medications is education, not only for patients, but also for their doctors and caregivers. Pain patients must be adequately informed about the dangers of taking larger and/or more frequent doses of opioid medication than prescribed, and mixing opioids with alcohol or other drugs. Medication-specific risks must be carefully explained, and patients must be given detailed dosages, time frames and information about companion pain-management strategies.

Government Data Gathering and Dissemination

The Drug Enforcement Administration (DEA) seizes, analyzes and destroys around six million kilograms of illicit drugs each year, but no mechanism exists to share the information gathered with local authorities.⁷⁸ As a result, critical information that could be used to prevent overdose fatalities is not communicated to local or state agencies.

Lack of protocols around data sharing between federal and local agencies hampers effective response to regional overdose trends. In early 2005, 26 overdose cases involving heroin and clenbuterol were reported by hospitals in Connecticut, New Jersey, New York, North Carolina and South Carolina. Clenbuterol is a veterinary drug that is also used illicitly as an alternative to anabolic steroids. Taken together, these reports highlighted a regional spike in poisoning from clenbuterol,⁷⁹ but these cases probably “represent a fraction of actual cases of clenbuterol poisoning,” since fear of criminal prosecution likely kept some overdose victims away from hospitals and medical evaluation.⁸⁰ Unfortunately, no systemic changes were implemented as a result of this widespread overdose event to improve national early warning capabilities.

“The time has come to put an end to these tragedies. I urge my colleagues to join me in supporting the Drug Overdose Reduction Act to bring resources to community-based efforts to prevent unnecessary deaths by providing information about the dangers of drug abuse, how to find help to break addictions and how to stay alive in the interim.”

U.S. Senator Richard J. Durbin (IL), speaking from the floor of the U.S. Senate as he introduced the Drug Overdose Reduction Act, 22 June 2006

The following year, federal agencies were again slow to respond to the sharp rise in overdose fatalities connected to drug supplies laced with the painkiller fentanyl.⁸¹ A 2008 CDC report concluded, “The fentanyl outbreak ...suggests a need to improve methods for identifying and reporting of drug-related deaths to detect increases in drug overdoses and enable prompt response by law enforcement (e.g., seizing implicated drugs) and by public health agencies.”⁸² According to the report, more than a thousand lives might have been saved between April 4, 2005 and March 28, 2007 had an intergovernmental mechanism existed for early detection and rapid response to the fentanyl overdose crisis in the northeastern U.S.⁸³

The situation is further complicated by a serious lack of coordination in reporting standards between and among existing data sources. Major data-collection agencies, including the Substance Abuse and Mental Health Services Administration’s (SAMHSA) Drug Abuse Warning Network, the CDC, and county medical examiners’ offices, all measure and record overdose data differently: i.e. “drug misuse death,” “unintentional poisoning death,” and “drug induced death,” respectively. These categories vary significantly with respect to how they qualify fatalities: i.e. drug-related homicides, suicides, accidental deaths from medical (prescribed) drug use, and deaths from psychotropic drugs (including psychiatric medications) as well as how they account for other data such as mental illness as a contributing factor. As a result, there is currently no reliable or consistent source of national accidental drug overdose data.⁸⁴

One model data collection and reporting system can be found at the Baltimore City Health Department where medical examiners’ reports include a listing of different drug combinations detected in each decedent’s blood. A unified reporting system would screen for multiple drugs, identify the demographics and place of death of overdose victims, look for trends and evaluate whether overdoses were intentional, of an undetermined intent or “accidental poisonings.”⁸⁵ Ideally, a national overdose surveillance system would compile uniform reporting by the CDC and other relevant federal agencies of both nonfatal and fatal overdoses, as well as data from medical examiners’ and coroners’ offices at the state and county levels, poison control centers, hospitals and private sources based on this model.⁸⁶

By streamlining data collection and distribution, establishing protocols for regional and national overdose emergency preparedness and making essential epidemiological information available in a timely fashion, both federal and state governments can help localities better trace, anticipate and respond to drug overdose trends.



Model Federal Legislation

In 2006, U.S. Senator Richard Durbin (IL) sought to make overdose prevention a national priority by introducing S. 3557, the Drug Overdose Reduction Act (DORA). The bill would have established a federal grants program to fund state overdose prevention efforts and would have mandated federal collection of data on overdose deaths. Public health agencies and community-based organizations operating overdose prevention programs and medical and law enforcement personnel responsible for responding to overdoses could have received support under DORA.⁸⁷ Though ultimately unsuccessful, the bill provides a model for future federal overdose prevention legislation.

Overdose Prevention Strategies on the Horizon

The strategies discussed in this report have been demonstrated – both in research and in practice in states across the U.S. – to prevent overdoses and overdose fatalities, to provide benefits for communities and to be politically and fiscally feasible. Other strategies already in use in Europe and elsewhere around the world, such as supervised injection facilities, also have been shown to be effective in reducing instances of accidental overdose and preventing fatalities. Though it represents the vanguard of overdose prevention, to counter the national overdose crisis, this strategy must be given serious and immediate consideration in the United States.

Supervised Injection Facilities

One emerging strategy that is proving effective for reducing overdose-related harm is medically supervised heroin injection facilities – controlled settings where people can inject drugs and receive healthcare information, counseling and referrals to social services. Supervised injection facilities first emerged in England and the Netherlands in the late 1970s and early 1980s.⁸⁸ Approximately 65 supervised injection facilities currently operate in eight countries worldwide.⁸⁹ North America’s only supervised injection facility is in Vancouver, British Columbia.

A significant and growing body of evidence indicates that supervised injection facilities are effective in reducing the harms associated with injection drug use and in improving the health and wellbeing of both drug users and their surrounding communities without creating new problems. To date, 28 methodologically rigorous studies on the impact of supervised injection facilities have been published in leading peer-reviewed medical journals. These studies indicate that supervised injection sites “are associated with reductions in needle and syringe sharing, overdoses, public injecting, the number of publicly discarded syringes; and with increased uptake of detox and addiction treatment, and have not led to increases in drug-related crime or rates of relapse among former drug users.”⁹⁰

Evidence from Vancouver’s medically supervised injection facility, called Insite, suggests that, while individuals using such facilities are still susceptible to overdose, the city’s overdose fatality rate is much lower than before the facility’s establishment. Specifically, the program recorded 336 overdoses in the 18 months from March 2004 through August 2005 but not a single overdose-related death.⁹¹

A study of the Insite facility found that participation was associated with a 30 percent increase in detoxification program entries and increased uptake of methadone maintenance therapy and other treatment.⁹² Participation in the program was also associated with reduced hospital visits, lower medical costs absorbed by taxpayers and fewer deaths.⁹³ According to Libby Davies, member of Parliament for Vancouver East, “...harm reduction programs like Insite are a necessary component of a broader strategy that includes prevention, treatment and enforcement.”⁹⁴

The objection most frequently raised against supervised injection facilities is that they may “attract” drug users to the neighborhood where the facility is sited. In fact, the key to success for these facilities is to locate them where injection drug users already congregate, to provide services in a controlled, clinical setting. These facilities help providers establish contact with hard-to-reach populations at high risk for HIV/AIDS, hepatitis C and other harms associated with injection drug use.⁹⁵

One major U.S. city, San Francisco, is taking this research to heart. Since 2006, the Alliance for Saving Lives, a coalition of advocates, researchers, service providers and others has been educating stakeholders and building support for a supervised injection facility. The San Francisco Department of Public Health and the Alliance co-sponsored a 2007 symposium that explored the idea of opening a legal supervised injection facility in San Francisco.

Prominent community members living in San Francisco’s Tenderloin neighborhood, including SF Police Captain Gary Jimenez, have spoken out in favor of a supervised injection facility in the Tenderloin, an area of high drug use.⁹⁶ One of the reasons cited is a desire to reduce the visibility of injection drug use in an area that is home to an estimated 3,500 children by creating a sanctuary that would move drug use off the streets and provide a safe place for disposal of used syringes.⁹⁷

Research has repeatedly shown that the people most likely to use these facilities are also most likely to have difficulty accessing sterile syringes; to use injection drugs frequently; to work in the sex trade; and/or to use injection drugs in public.⁹⁸ Services available at supervised injection sites are designed to reduce transmission of deadly infectious diseases, promote the use of condoms and discourage the sharing of used syringes. The result is a healthier population, fewer overdoses and, as a side benefit, increased public safety through the reduction of a public nuisance.

“Harm reduction programs like Insite are a necessary component of a broader strategy that includes prevention, treatment and enforcement.”

*Libby Davies,
Member of Parliament for
Vancouver East, Canada*



Top: The injection room at Insite, Vancouver's safe injection facility.
Bottom: The front entrance at Insite.

Photos courtesy of
Vancouver Coastal Health

Recommendations

The following public policy recommendations, if implemented, would significantly reduce the incidence of accidental overdose, especially those involving opioids, and resulting deaths in the United States.

- 1) Enhance overdose prevention education.
- 2) Improve monitoring, research, outreach and coordination to build awareness of the overdose crisis, its ramifications and public health approaches to reducing it.⁹⁹
- 3) Remove barriers to naloxone access.
- 4) Promote 911 Good Samaritan immunity law reform.
- 5) Establish trial supervised injection facilities.

Congress should:

- act to improve overdose data collection and collaboration between relevant federal and state agencies.
- develop a national annual report on nonfatal and fatal overdoses that includes trends in polydrug use in victims, full toxicology and victim profiles. Ideally, such a report would document which drugs were in the bloodstreams of overdose victims; underlying drugs resulting in overdose deaths; age, sex and race of victims; and location of death, i.e. home, hospital or street.
- make ongoing NIDA grants to existing research projects for determining: the circumstances and risk factors of overdose deaths due to contaminants; the efficiency of current naloxone protocols; what overdose and drug abuse prevention messages work best; and who is overdosing, what they're overdosing on, why they're overdosing and how it can be prevented.
- quickly disseminate SAMHSA information on model overdose prevention programs and fund training and technical assistance to implement them.
- develop a national alert system for handling regional overdose-related emergencies and widely share DEA information on drug contaminants or other factors affecting the potency and purity of street drugs.
- direct the U.S. Department of Health and Human Services to work with the above-mentioned agencies and the FDA to describe the overdose crisis for Congress, with a state-by-state review that includes overdose patterns, prevention methods, data collection recommendations and programs to improve emergency responses.
- fund clinical trials necessary to assess the feasibility of nationwide over-the-counter access to naloxone and direct the FDA to fast track research and decision making. Federally funded research and design around an FDA-approved intranasal delivery device (similar to an asthma inhaler or nasal decongestant spray) would help enable over-the-counter naloxone.
- establish trial research programs that examine the efficacy of supervised injection facilities and gather more data.

Congress and States should:

- expand funding for overdose prevention programs to include naloxone distribution and training.
- pass legislation to shield medical professionals, law enforcement and laypeople from civil or criminal liability for participating in naloxone programs or for emergency administration of naloxone.
- support uniform training of first responders, emergency medical technicians and law enforcement personnel on overdose prevention and management and on the proper use of naloxone.

States and Cities should:

- provide education in prevention and overdose reversal to people residing in homeless shelters and to individuals prior to their release from jails, prisons, residential treatment and detoxification programs.
- provide overdose education at methadone clinics and all syringe exchange programs.
- support public education initiatives to foster and improve cooperation with ambulance and police services.
- train drug users in CPR and rescue breathing and address treatment and relapse concerns.
- encourage doctors to prescribe naloxone to opioid pain patients and better educate their patients about the risks inherent to opioid analgesics.
- devise overdose trainings and education campaigns targeted at general- and family-practice physicians, registered nurses, pharmacists and other medical personnel.
- enact 911 Good Samaritan immunity laws at all jurisdictional levels to protect overdose witnesses from criminal prosecution.
- shield first responders from liability should the use of naloxone prove ineffective.
- consider the benefits of medically supervised injection facilities as a method of reducing drug-related harm to individuals, reducing crime and improving public safety and quality of life.

Doctors should:

- provide patients using prescription methadone or other opioids for pain management with overdose prevention instruction that covers diversion to “non-medical” use.
- be encouraged to prescribe naloxone to opioid pain patients and better educate their patients about the risks inherent to opioid analgesics.

Conclusion

Rising incidences of injury and death related to accidental drug overdoses remain a hidden crisis in the United States. The first step in combating this crisis must be the promotion of informed public discussion and debate about the problem, which claims tens of thousands of lives each year.

The federal government, in particular, through its drug interdiction efforts, has the capacity to track relevant information, warn state and local governments about factors contributing to an increased overdose risk and coordinate a regional or national response. Should the federal government act to provide this basic public service, the results would be immediate and substantial: saving precious lives and public resources, mitigating a nationwide public health crisis and building public trust.

By employing the appropriate public health approaches, federal, state and local authorities can effectively reduce overdose risk and fatality rates. Increased public spending is needed to improve interagency coordination and to expand the study of what approaches work best. Together, improved gathering and dissemination of critical drug-related information, expansion of access to naloxone, and provision of basic legal protections for good Samaritans and medical personnel, as well as genuine exploration of more cutting-edge strategies can prevent overdoses and save thousands of lives.



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About the Drug Policy Alliance

The Drug Policy Alliance (DPA) is the nation's leading organization promoting alternatives to the drug war that are grounded in science, compassion, health and human rights. For more than 20 years, DPA has served as a national watchdog and global advocate of sane and responsible drug policies. It is headquartered in New York and has offices in California, New Jersey, New Mexico and Washington, D.C.

Since 2000, DPA has focused substantial resources on overdose prevention in a variety of ways, including by funding overdose prevention and naloxone access through its domestic grants program. Working in New Mexico, DPA achieved several major milestones that have transformed a state with one of the highest per capita rates of overdose fatality in the country to a model in state overdose prevention. DPA New Mexico created and expanded immunity protections around naloxone distribution and, in 2007, passed the nation's first Good Samaritan immunity law in 2007. DPA is also active in California, Maryland, New York, New Jersey and at the federal level to pass Good Samaritan immunity legislation and further expand and strengthen overdose prevention efforts.

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