



# Developing A Better Understanding



## UNDERSTANDING NALOXONE AND RESPONDING TO OPIOID OVERDOSES

### What is Naloxone? How does it Work?

Naloxone is a medication that is an “opioid antagonist” used to counter the effects of opioid overdose. When administered during an overdose, naloxone blocks the effects of the opioids on the brain and quickly restores breathing. Specifically, naloxone is used in opioid overdoses to counteract life-threatening depression of the central nervous system and respiratory system, allowing an overdose victim to breathe normally. Naloxone only works if a person has opioids in their system; the medication has no effect if opioids are absent. Although traditionally administered by emergency response personnel, naloxone can be administered by minimally trained laypeople, which makes it ideal for treating overdoses in individuals who have been prescribed opioid pain medication and in individuals who use heroin and other opioids. Naloxone has no potential for abuse.

Naloxone can be administered through an injection or through a nasal spray. Naloxone works quickly, usually in 2-8 minutes and wears off in 20 to 90 minutes. Naloxone is manufactured and distributed under the brand names Narcan, Narcan Nasal Spray, and Evzio. As naloxone has become easier to administer, there has been an increasing focus on providing education about how to carry and administer naloxone in the event of an overdose to individuals who are at-risk of overdose, their family members, and others who may be in a position to help.

*“The more doses that are available, the more lives can be saved.”*

~ Ohio Attorney General Mike DeWine

*“Living after an overdose is often dependent upon emergency personnel arriving and administering the antidote, but giving families and friends increased access to naloxone will result in greater opportunities to stabilize users before first responders arrive.”*

~ Ohio State Representative Robert Sprague

### Impact of Fentanyl on Overdoses in Ohio

The following information was reported in a Health Alert issued by the CDC in October of 2015: Fentanyl, a synthetic and short-acting opioid, is 50-100 times more potent than morphine and approved for managing acute or chronic pain associated with advanced cancer. Although pharmaceutical fentanyl can be diverted for misuse, most cases of fentanyl-related morbidity and mortality have been linked to illicitly manufactured fentanyl and fentanyl analogs, collectively referred to as non-pharmaceutical fentanyl (NPF). NPF is sold via illicit drug markets for its heroin-like effect and often mixed with heroin and/or cocaine as a combination product—with or without the user’s knowledge—to increase its euphoric effects. While NPF-related overdoses can be reversed with naloxone, a higher dose or multiple number of doses per overdose event may be required to revive a patient due to the high potency of NPF.

During 2014, Ohio reported 514 fentanyl-related overdoses, up dramatically from 92 in 2013. During the same year, the DEA reported that more than 80% of fentanyl seizures were concentrated in 10 states in 2014. Ohio led the nation in the number of fentanyl seizures at 1,245, followed by Massachusetts at 630, Pennsylvania at 419, and Maryland at 311.

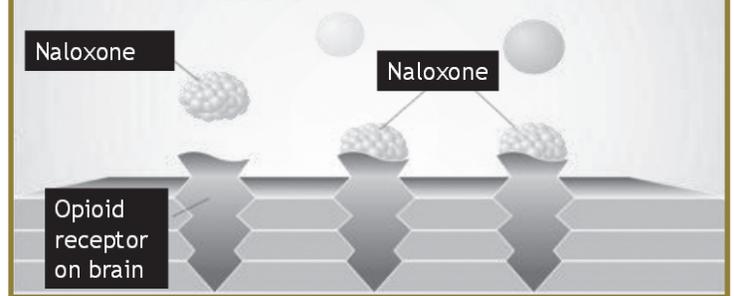
In the past year, Ohio’s communities have seen an increase in the use of heroin laced with fentanyl. The compounding impact of heroin mixed with fentanyl results in a more potent product, more overdoses, and more deaths. Communities are seeing a corresponding increase in demand for naloxone and education for individuals, family members, and others about how to recognize an overdose and administer naloxone.

## Understanding Naloxone

An overdose occurs when an opioid fits in too many opioid receptors in the brain resulting in the slowing and then stopping of a person's breathing.



Naloxone has a stronger affinity to the opioid receptors than opioids like heroin or Percocet, so it knocks the opioids off the receptors for a brief time. This allows the person to breathe again and effectively reverses the overdose.



~ Taken from the Ohio Department of Health's Project DAWN presentation

### Symptoms of an overdose may include:

- seizures
- slowed heartbeat
- slowed and shallow breathing
- irritability
- anxiety
- tension
- suspiciousness
- difficulty concentrating
- sadness
- loss of appetite
- dizziness
- heaviness
- sweating
- nausea/stomach pain

## Project DAWN

Project DAWN (Deaths Avoided with Naloxone) is a community-based overdose education and naloxone distribution program. Project DAWN participants receive training on:

- Overdose prevention techniques
- Recognizing the signs and symptoms of overdoses
- Distinguishing between different types of overdose
- Performing rescue breathing
- Calling emergency medical services
- Naloxone storage, carrying, and administration in an emergency situation
- Reporting of overdose and refill procedures
- Post-overdose follow-up care

According to the Centers for Disease Control and Prevention, between 1996 and June 2010, more than 53,000 individuals have been trained and given naloxone by overdose prevention programs, leading to reports of over 10,100 overdose reversals during this period. Communities throughout Ohio continue to develop Project DAWN sites in treatment provider agencies, hospitals, and community settings. The Project DAWN program emphasizes the importance of talking with family members and teaching overdose response techniques, including the administration of naloxone to naloxone recipients and others who might be in a position to administer the medication.

### Recent Ohio Legislation and Funding Expanding Access to Naloxone

In 2014, House Bill 170 allowed naloxone to be prescribed to a friend, family member, or other individual in a position to provide assistance to an individual who there is a reason to believe is at risk of experiencing an opioid-related overdose. In 2015, House Bill 4 went a step further and removed the requirement for a prescriber to be present when the medication is distributing allowing physicians to authorize the furnishing naloxone to someone at risk of an opioid-related overdose. An appropriation in the biennial budget, a rebate negotiated by the Ohio Attorney General, and additional local investments have resulted in an increasing understanding and distribution of naloxone.