

Ohio "Project DAWN"- Deaths Avoided With Naloxone



Lisa Roberts R.N.
Portsmouth City Health Department

Objectives: Understand Community-Based Naloxone as Overdose Reversal:

Uses "Harm Reduction" as a basis for public health intervention measures:

1. Describe the mechanism of action and implications for usage of the drug Naloxone
2. Describe populations who are at increased risk of fatal opiate overdose.
3. Describe the common barriers and legal issues surrounding lay-saver Naloxone Programs in Ohio, and the efforts being done by the state to reduce these barriers
4. Describe the key components of a Community-Based Naloxone Program

Purpose of Project DAWN

Naloxone Distribution Programs (NDP) serve to:

"To save lives in Ohio by preventing death from unintentional prescription opioid overdose"

- *Naloxone represents one component of a comprehensive response to the growing epidemic of opioid abuse and misuse. Studies of current Naloxone prescription programs suggest that overdose survivors (through the administration of Naloxone) were more likely to reduce injection frequency, discuss substance abuse treatment options, and enter drug treatment.*

What's up with Scioto County?



Unintentional prescription medicine overdose death rates by Ohio counties from 2004 to 2008



- Long history of illegitimate Pain Clinics or “Pill Mills”
- Ideal environment for proliferation of pill trafficking/ deception
- Lax laws lead to the establishment of these “criminal enterprises”
- 9.7M pain pills dispensed 2010
- HB 93-signed April 2011 led to 100% reduction in Pill Mills
- Addiction levels remain high as does high-risk behaviors

Scioto County: Fatal OD Facts

- Rx OD rate more than double state average/
highest in Ohio
- 92% of decedents died from Rx drug poisoning-
opiate present nearly all deaths
- 65% did not have their own Rx
- #1 Hepatitis C, Hep B, and homicide rate in Ohio

DEA considers Scioto County among the most significant places for pill trafficking in the USA

**HIDTA designation-2011*

Ohio Pilot Project-April 2012



- Scioto County-"Pilot County" for targeted interventions per Gov. John Kasich -2011
- "Prescription for Community Recovery" Year 3-funded by ODH BHPRR for 4 years
- Ohio-"Project DAWN" funded at \$40,000 by ODH then will be sustained by PCHD
- Compliments SEP, HIV, and Vivitrol Programs at PCHD
- 95% SEP participants opiate addicted (oxy or heroin via oxy)



Leslie DAWN Cooper

- 34 y/o victim of a Scioto County Pill Mill-Oct. 2009
- Died the day she received her first Rx for oxycodone, xanax, and soma
- Witnessed and symptomatic but no rescue attempt was made

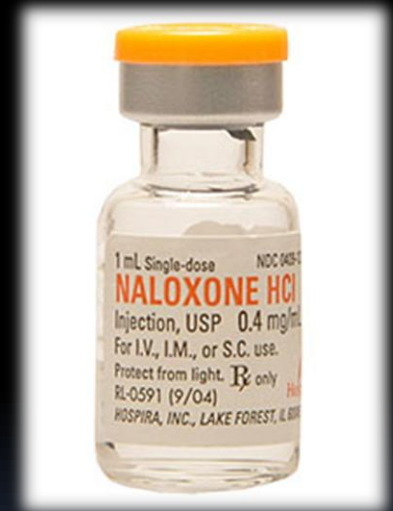


Scioto County: Death Reviews

- 87% of OD decedents were with another adult at the time of their death
- Most common description of events “Last heard snoring loudly”
- Average EMS response time 18.1 minutes (Rural county)
- EMT’s –basics make up 55% of Scioto Co. EMS (naloxone not in scope of practice)

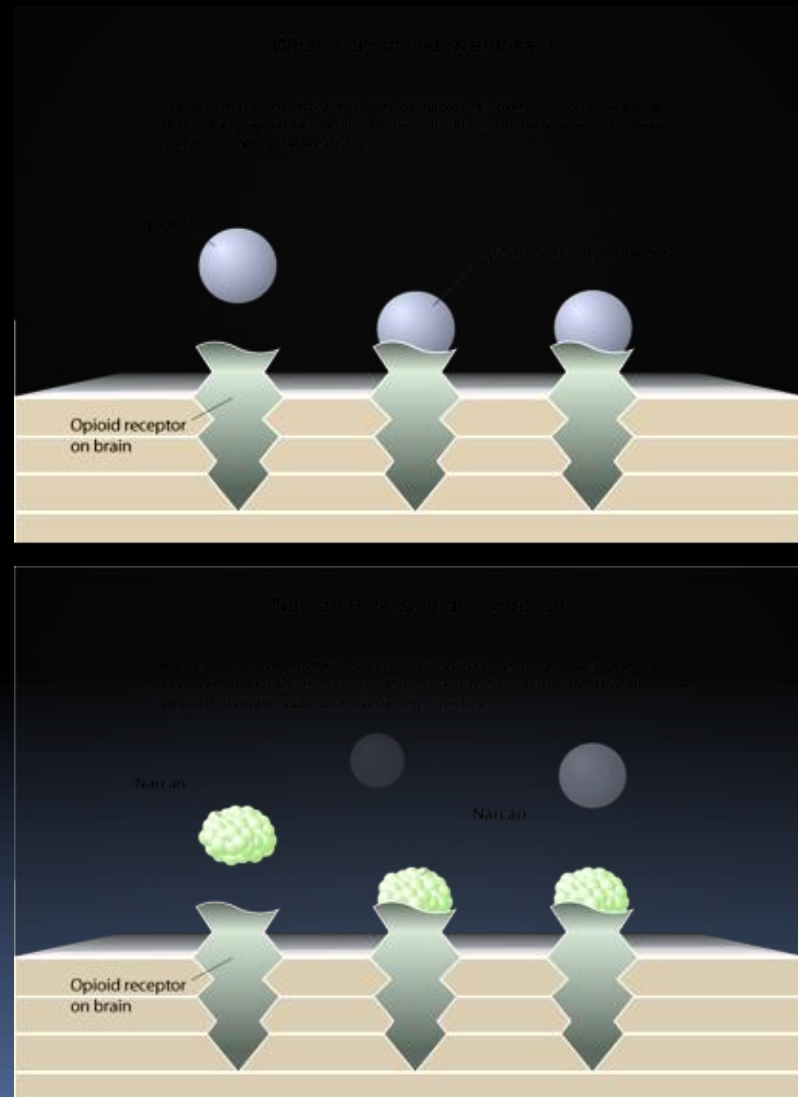
What is Naloxone?

- Naloxone is an opioid antagonist already utilized by medical professionals.
 - Ejects heroin and other opioids from receptors in the brain reversing the respiratory depression caused by an overdose.
- Has no pharmacological effect and has no potential for abuse (non-scheduled).
- Can be safely administered by intranasal, intravenous or intramuscular injection.
- Few serious negative side effects reported with administration are usually associated with the onset of withdrawal symptoms or health problems unrelated to Naloxone.
- Administered by emergency medical professionals as the standard treatment for a suspected opioid overdose.



Naloxone is an opioid antagonist:

- Acts like a “Super Hero”
- Ejects heroin and other opioids from receptors in the brain reversing the respiratory and CNS depression caused by an opiate overdose.
- Rapidly enters bloodstream
- No effect if opiates not present
- Works rapidly (2-8 min.) and wears off in 20-90 minutes



A Rescue Approach:



- A rescue approach is often necessary because overdoses are still going to occur despite prevention efforts.
- If a dangerous dose of opioids is consumed, *death* can be prevented at a low cost.
 - Opioid overdose death typically occurs over the course of several hours and is preceded by an increasingly coma-like state.
- Studies of current prescription programs suggest that overdose survivors were more likely to reduce injection frequency, discuss substance abuse treatment options, and enter drug treatment.

Advantages of intranasal administration:



- Easy administration
- No needles ! Uses MAD300 nasal adaptor
- Needles pose major risks: HIV, Hep B and C (high-risk population)
- Eliminates hassles of HIV prophylaxis to provider and family after needle stick
- IV access difficult and time consuming in IVDU's
- Fewer WD side effects than IV

Naloxone Distribution Programs (NDPs)

- Most programs include a standard training curriculum which includes:
 - Recognizing the signs and symptoms of overdose;
 - Distinguishing between different types of overdose;
 - Rescue breathing and the rescue position;
 - The importance of calling 911; and
 - Proper administration of Naloxone.
- NDPs initially focused on preventing heroin overdose among IDUs but many have adapted to address prescription opioids (i.e. NC Project Lazarus).

Naloxone Distribution Programs

- As of 2010, 194 sites distribute Naloxone in 15 states.
- Between 1996 and June 2010, a total of **53,032** individuals have been trained and given Naloxone and programs have received reports of **10,171** overdose reversals using Naloxone.

(Source: Unpublished Survey - Harm Reduction Coalition, Eliza Wheeler, November 2010)

- Chicago Recovery Alliance (1999)
 - 21,092 individuals trained.
 - 2,601 OD reversals reported.
- Boston Public Health (2007)
 - 10,000 individuals trained.
 - 1,000 OD reversals reported.

N.C. Project Lazarus (2009)

- First NDP specifically aimed at reducing prescription opioid overdose among 14 subpopulations in Wilkes County, North Carolina (a rural county unlike other programs in Metro areas.)
- Prescription of intranasal Naloxone by medical care providers following the influenza vaccination paradigm (i.e. one page in-take form).
- North Carolina State Medical Board endorsed the program in 2008.

Ohio- “Project DAWN”- uses best practice as used by other programs:

- Education components include:
 1. Recognizing the signs of an opioid overdose
 2. Emphasizes is the importance of calling 911
 3. How to administer rescue breathing
 4. How to administer Naloxone to the victim
 5. Referrals and options for drug treatment if desired
- ❖ Naloxone is a prescription drug, therefore it is PATIENT SPECIFIC
- Program emphasizes the importance of talking with family members. Ohio law permits teaching overdose response techniques including the administration of Naloxone to Naloxone recipients and others who might be in a position to administer it. A take home video DVD will be provided soon.

Who's the target population?

Medical and non-medical users of opiates with risk factors for overdose.....

- History of prior overdose
- High doses of opiates (>100 mg. morphine equivalent/day) medical or non-medical
- Methadone clients (maintenance or pain)
- Opioid Rx with respiratory disease or illness/ risk factor such as COPD or smoking
- Opioid Rx with liver or kidney disease
- Opioid Rx with other Rx known to induce sleepiness or respiratory depression, or client who uses alcohol
- Users with period of abstinence (by force or choice)
- Voluntary request
- Any other risk factor (IDU, Chronic Pain pts., MAT Clients)

Indicators and Risk Factors for opioid overdose:

	Potential Indication/Patient population	Risk Factor for Overdose
1	Recipient of emergency medical care for acute opioid poisoning	Increased risk for subsequent accidental poisoning and self-harm
2	Suspected illicit or nonmedical opioid user	Risk for polydrug use; continued polydrug use; reduced opioid tolerance among inpatients
3	High-dose opioid prescription (> 100 mg of morphine equivalence/day)	Patient incorrectly administers opioid resulting in higher risk of toxic levels
4	Any methadone prescription to opioid naïve patient	Low threshold for overdose; inexperience with long-acting opioids
5	Any opioid prescription and smoking/COPD/emphysema or other respiratory illness or obstruction	Increased risk of respiratory depression due to comorbidities
6	Any opioid prescription for patients with renal dysfunction, hepatic disease	Prolonged and/or increased serum concentrations of opioid due to decreased metabolism and/or excretion
7	Any opioid prescription and known or suspected concurrent alcohol use	Additive effect of multiple CNS depressants
8	Any opioid prescription and concurrent benzodiazepine prescription	Additive effect of multiple CNS depressants
9	Any opioid prescription and concurrent SSRI or TCA anti-depressant prescription	Increased toxicological risk for opioid poisoning; higher risk for substance use and self-harm
10	Released prisoners from correctional facilities	Relapse to/initiation of nonmedical opioid use; reduced opioid tolerance; risk for multiple substance use
11	Release from opioid detoxification or mandatory abstinence program	Relapse to nonmedical opioid use; reduced opioid tolerance; risk for multiple substance use
12	Voluntary request	Perceived risk for opioid exposure
13	Patients entering methadone maintenance treatment programs (for addiction or pain)	Increased risk for poisoning in first month; risk for multiple substance use
14	Patient may have difficulty accessing emergency medical services	Emergency medical services may have difficulty reaching residents of remote areas quickly

Program participants have a documented medical encounter/ training/ and a kit:



- Kit with 2 doses of 1 mg/1 mL naloxone hydrochloride in pre-filled needleless syringes, nasal adaptors, instructions, referrals to local substance abuse/dependence treatment/ owner card
- * Must use 300 MAD adaptor for intranasal use
- Take-home DVD to share with significant others and friends
- Total cost=approx. \$50

Community-based program=education!



- Community education and training of first responders, law enforcement, and healthcare providers
- Training components similar to program participants
- Will use pre-packaged participants kit only (Rx specific to individual except for licensed EMS use in emergency)

Minor concerns to be addressed:

Liability of Health Care Providers.

- Currently illegal in Ohio to provide patients and participants Naloxone with the express purpose of administering the drug to others.
- Naloxone can be prescribed by any HCP with prescriptive privileges (if on their professional formulary) but must be **dispensed** by RPh or Physician

Liability of Lay Savers.

- An overdose witness without medical credentials who administers an opioid antagonist is technically practicing Medicine without a license.
- * Groups are seeking policy changes to overcome barriers.

Ohio policy changes being pursued:



- Prescriber liability protections
- Criminal and/or civil immunity for laypersons in order to possess and administer Naloxone (Good Samaritan Laws)
- Removal of Dispensing Restrictions
- Authorization for Protocols for Naloxone Prescription Programs

Cost of Drug Overdoses-Ohio

Estimated average annual costs of fatal and non-fatal, hospital-admitted unintentional drug overdose in Ohio¹

Type of Costs	Fatal Costs ²	Non-fatal, hospital admitted costs ³
Medical	\$4.9 million	\$19.1 million
Work loss	\$1.2 billion	\$5.2 million
Quality-of-Life loss	\$2.2 billion	\$7.6 million
Total	\$3.5 Billion	\$31.9 Million

¹Source: Children's Safety Network Economics & Data Analysis Resource Center, at Pacific Institute for Research and Evaluation, 2005; ²Year 2004 Dollars, Based on 2004-2007 average Ohio incidence ³Year 2005 Dollars, Based on Year 2003 Ohio incidence

Costs of a NDP include:



Kits=

- MAD= \$3.00 apiece
- Two doses Naloxone=\$44
- Literature/Case=\$3.00
- Total cost- \$50.00

Other costs: Medical Director
and staff/ CPR demo dummies

Emergency First Aid for a suspected opiate overdose:

If a person is exhibiting signs of opiate overdose, these following life-saving measures should be taken immediately:

1. Attempt to wake them up.
2. Check their airway and clear the mouth and nose if necessary. If breathing has stopped or is very slow, pinch the nose shut and give 2-3 breaths by mouth until the chest rises.
3. Call 911-say "I have a person who has stopped breathing".
4. If Naloxone is available, assemble the kit and spray 1/2 of dose (1 cc) into each nostril (will use entire vial).
5. Continue rescue breathing at one breath every 5 or 6 seconds.
6. If the person is not arousing or breathing after 3 to 5 minutes-give a second dose of Naloxone (repeat step 4).
7. Continue rescue breathing (one breath every 5 seconds) until 911 arrives.
8. If the victim awakens and begins breathing on their own-turn them onto their left side. Continue to monitor their respirations and assist with breathing if respirations are below 10 breaths a minute.
9. If vomiting occurs-manually clear their mouth and nose.
10. Stay with them until EMS arrives!



For information on how to obtain an overdose kit contact the Portsmouth City Health Department.



PORTSMOUTH CITY HEALTH DEPARTMENT

"A Prescription for Community Recovery" Overdose Prevention Project

**Funded by the Bureau for Health Promotion/Risk Reduction*

605 Washington Street
Portsmouth, Ohio 45662
Phone: (740) 353-8863 Extension 234



Phone: (740) 353-8863 ext. 234

PORTSMOUTH CITY HEALTH DEPARTMENT



**DEATHS
AVOIDED
WITH
NALOXONE**

A community based approach to reversing fatal opiate overdose in a rural setting prior to professional Emergency Response.



NALOXONE— OVERDOSE REVERSAL IN THE COMMUNITY SETTING

What is Naloxone?

Naloxone is a liquid prescription medication that works to reverse an overdose that is caused by an opiate drug. It works by



Naloxone solution combined with a nasal adaptor allows for the drug to be given as a nasal spray.

removing the opiate drug from the receptors in the brain and therefore eliminates the effects of the opiate drug, including the life-threatening symptoms such as respiratory suppression. Also known as Narcan, naloxone has been used in the health-care setting for years to reverse overdose. It has no potential for abuse, and no other usage ex-

cept for opiate receptor blocking in the brain. If it is given to a person who is not experiencing an opiate overdose, it is harmless. If naloxone is administered to a person who is dependent on opiates, it will produce withdrawal symptoms. Opiate withdrawal, although uncomfortable, is not life-threatening. Common opiate drugs include many narcotic "pain pills" and heroin. Naloxone does not reverse overdoses that are caused by non-opiate drugs, such as cocaine, benzodiazepines, methamphetamine, or alcohol.

Fatal overdoses from prescription drugs and heroin have reached epidemic proportions in the United States. Opiate "pain medications" and taking multiple prescription medications increase the risk of fatal overdose.

What are some common opiate drugs?

Many prescription drugs contain opiates and are often used to treat pain. Some common ones include Opana, Vicodin, Percocet, Percodan, Lorecet, OxyContin, OxyNeo, oxycodone, morphine, dilaudid, Demerol, and hydrocodone. Heroin is also an opiate drug.

How do I know if someone is overdosing?

A person who is experiencing an overdose may have the following symptoms:

- sleepy or nodding off; vomiting; cool clammy skin; slurred speech; body limpness; slow breathing or absence of breathing altogether; choking or loud snoring noises; small pupils; not respond to shaking or be unable to be awakened; skin may turn gray, blue, or ashen.

Overdose is a medical emergency. Call 911 immediately and begin First Aid. (See Back)

Who is at risk for overdose?

These populations are at the greatest risk for fatal overdose:

1. Recent medical care for opioid poisoning/intoxication/overdose
2. Suspected or confirmed history of heroin or nonmedical opioid use
3. High-dose opioid prescription (≥ 100 mg/day morphine equivalence)
4. Any methadone prescription for opioid naive patient
5. Recent release from jail or prison
6. Recent release from mandatory abstinence program or drug detox program
7. Enrolled in methadone or buprenorphine detox/maintenance (for addiction or pain)
8. Voluntary patient request
9. Any opioid prescription and known or suspected: Smoking, COPD, emphysema, asthma, sleep apnea, or other respiratory system disease
10. Renal or hepatic disease
11. Alcohol use
12. Concurrent benzodiazepine use
13. Concurrent antidepressant prescription
14. Remoteness from or difficulty accessing medical care

Frequently Asked Questions

- NDPs Abetting Illicit Drug Use?
 - NPPs may serve as a platform to engage substance users to address concerns about their consumption and provide treatment referrals.
 - Studies suggest that increasing health awareness through training programs that accompany Naloxone distribution actually reduces the use of opioids and increases users' desire to seek addiction treatment.
- What are the adverse side effects of Naloxone administration?
 - Life threatening and side effects are rare and are usually related to withdrawal symptoms.
 - A study of 1192 Naloxone administrations by EMS in Norway indicates the following adverse events: confusion (32%), headache (22%), nausea/emesis (9%), aggressiveness (8%), tachycardia (6%), shivering (5%), seizures (4%), sweating (3%), and tremor (1%).
 - It is often noted that administering glucagon for diabetes or epinephrine for anaphylaxis have far greater potential for adverse reactions than Naloxone.

Questions?



For more information on Project DAWN, please visit:

<http://www.healthyohioprogram.org/vipp/drug/ProjectDAWN.aspx>

“Project DAWN” Training Video is on youtube

Contact info:

Lisa Roberts (740) 353-8863 Ext. 234

Lisa.Roberts@odh.ohio.gov