

Every Second Counts: Recognizing and Responding to Opioid Overdose

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Every Second Counts: Recognizing and Responding to Opioid Overdose

Scott Walters, PhD



The Pallas Morning News

Texas' Leading News Source

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Dallas News.com

How did we get here?

Easy-to-get fentanyl kills often, its victims are young, and no end is in sight





Time to treat the overdose crisis in Dallas as a poison control problem



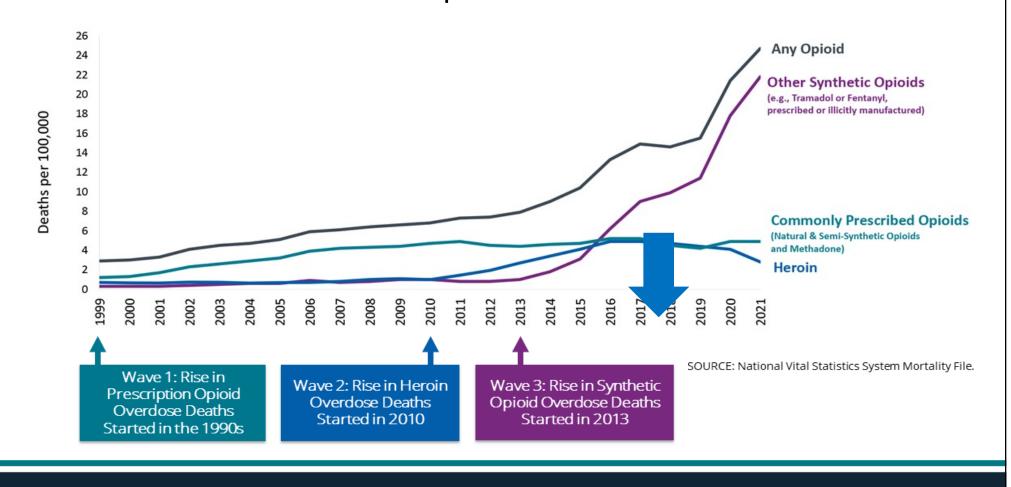
There are proven strategies that can help children against fentanyl

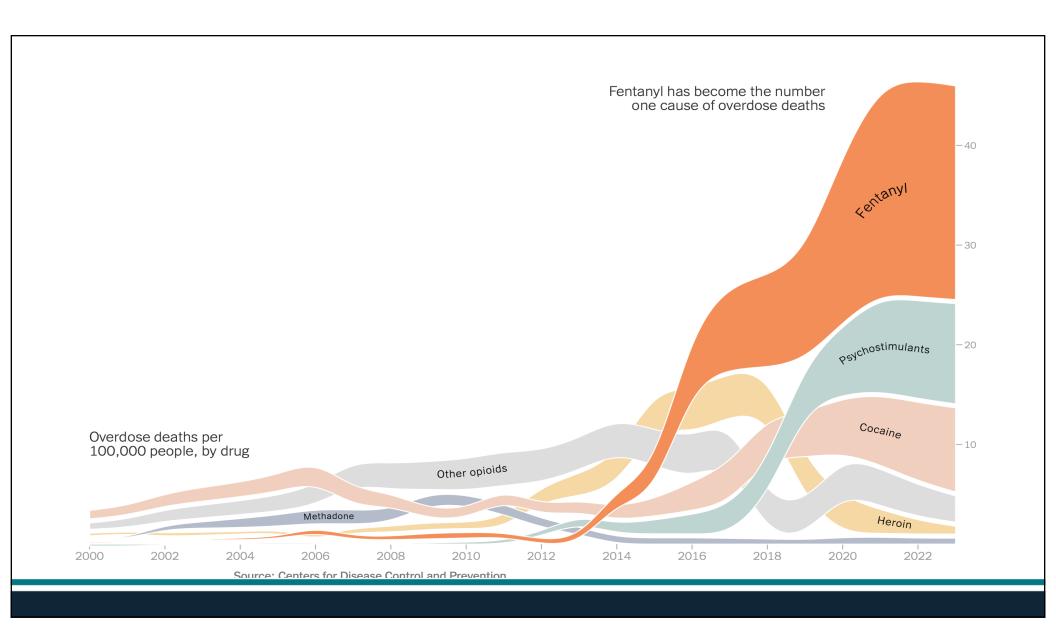
What would Jesus do about fentanyl?

The good Samaritan is relevant for today's crisis



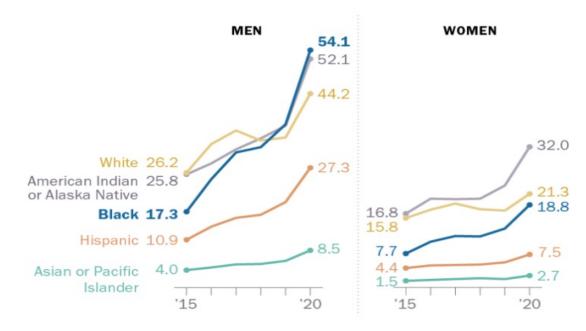
Three Waves of Opioid Overdose Deaths





U.S. drug overdose death rate per 100,000 people, by race and ethnicity (age-adjusted)

Drug Overdose rate for Black men more than tripled between 2015-2020



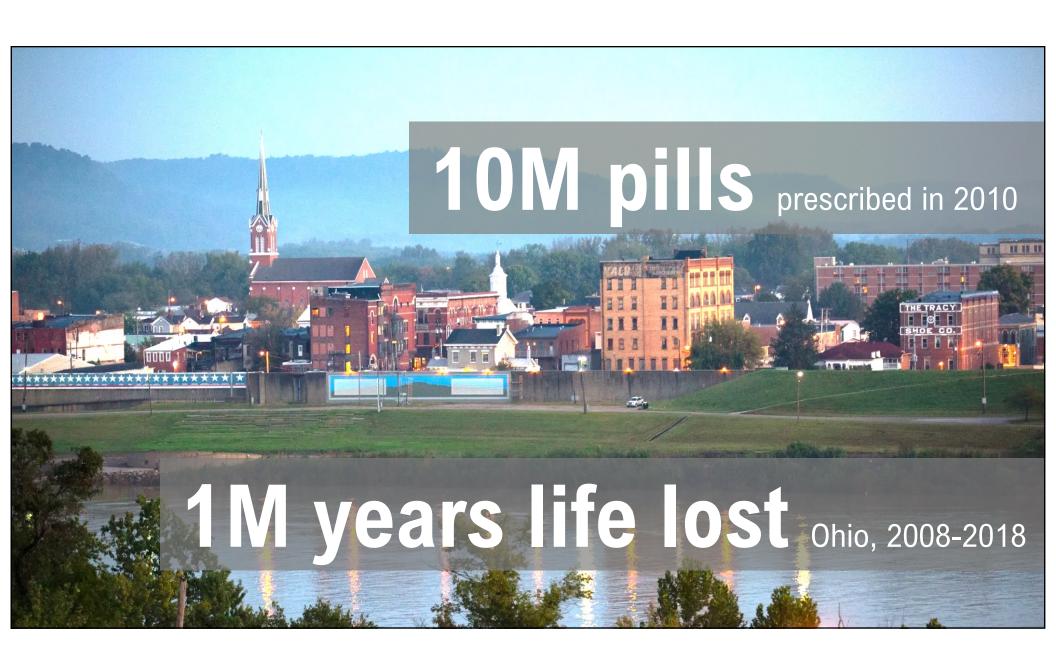
Note: All racial categories include people of one race, as well as those who are multiracial. For those who are multiracial, the CDC selects a single race to allow for consistent comparisons. All racial groups refer to non-Hispanic members of those groups, while Hispanics are of any race.

Source: CDC/Pew Research Center



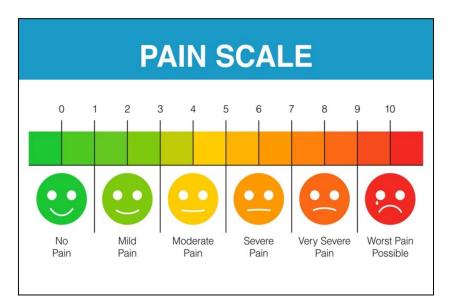
How did we get here?

Easy-to-get fentanyl kills often, its victims are young, and no end is in sight



1. Changes in prescribing practices led to overprescribing and pill diversion

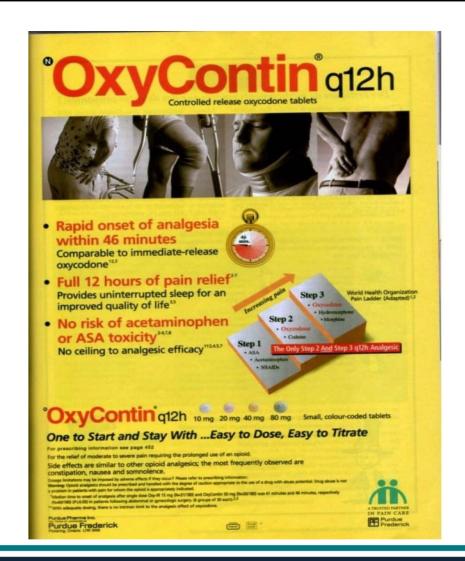
Aggressive marketing of opioids by pharmaceutical companies Lax oversight by Overprescribing by regulators physicians



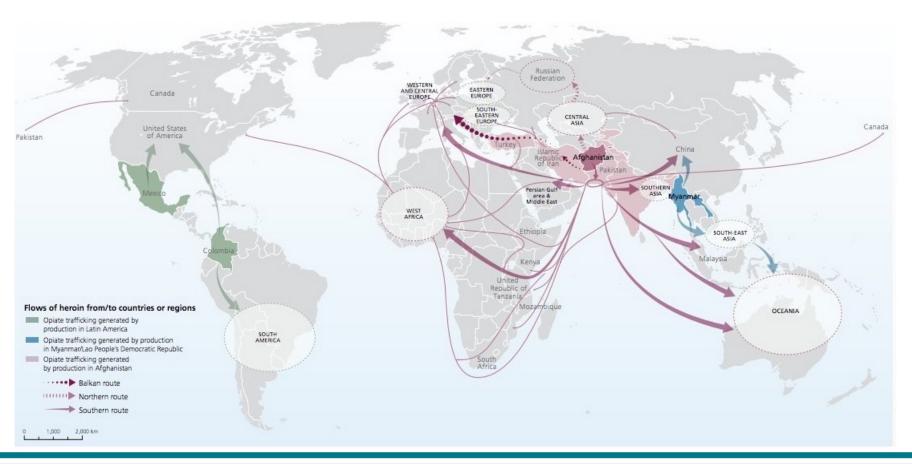
earlier stages, 30% to 45% of cancer patients experience moderate to severe pain.

Unlike short-acting pain medications, which must be taken every 3 to 6 hours – often on an "as needed" basis – OxyContin Tablets are taken every 12 hours, providing smooth and sustained pain control all day and all night. Dosing with OxyContin Tablets on a regular schedule spares patients from anxious "clock-watching" when pain must be controlled over long periods.

Twice-daily dosing simplifies and improves patients' lives
"The importance of pain control with twice-daily dosing can't be
stressed strongly enough," reported Paul D. Goldenheim, M.D., Vice
President of Purdue Pharma. "Until now, patients with persistent pain
had to take products such as Percocet(R), Vicodin(R), and Tylenol(R)
with Codeine as often as six times a day. Now, with every twelve-hour



2. The Heroin Supply Changed



Source: UNODC, 201



3. Economic Changes Affected Drug Mortality

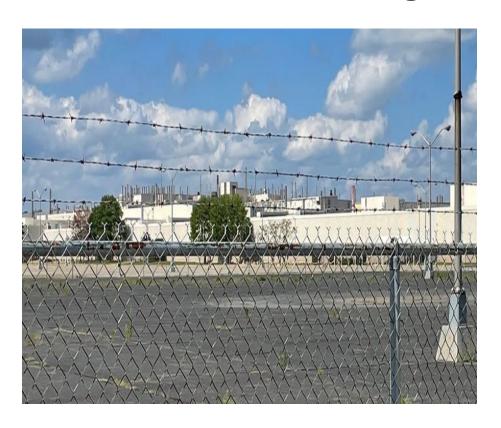
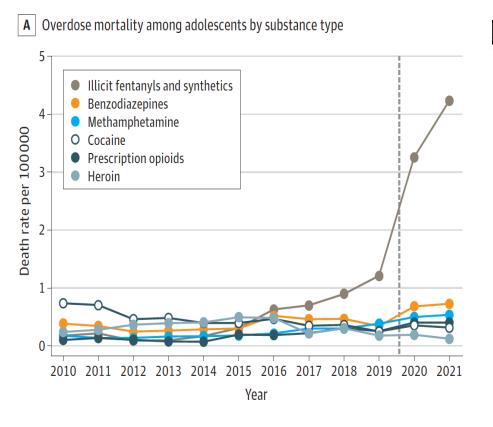


Figure 2. Unadjusted Trends and Adjusted Difference-in-Differences Estimates of the Association Between Automotive Assembly Plant Closures and Opioid Overdose Mortality Rates



Source: Venkataramani et al., 2019

4. The Drug Supply Became a Lot More Poisonous



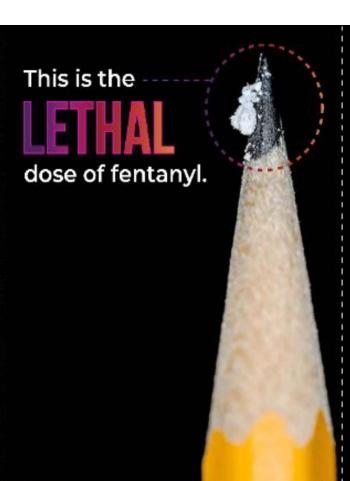


FENTANYL

often contaminates other drugs, including:

- Cocaine
- Heroin
- Methamphetamine
- Xanax™
- Percocet[™]

Assume overdose risk no matter what drug you're using.



CALL 911

and give naloxone if you encounter someone who has:

- Difficulty staying awake or unconscious
- Slow / shallow breathing
- Choking sounds, or snore-like gurgling noise
- Discoloration of lips or fingernails

Help save lives. CARRY NALOXONE.









Examples of Authentic vs. Counterfeit Pills

Adderall

Oxycodone









Xanax



Community "Poison Control" Programs









OTC at most pharmacies





Many states have programs that provide free naloxone!



Police using Narcan to reverse an overdose (2 min)





"Last Mile" Problem of Overdose Prevention

Strategies

- Naloxone distribution
- Safer prescribing
- Medications for OUD
- Fentanyl test strips
- Good Samaritan policies



Barriers

- Sigma against PWUD
- Laws, policies, "folk law"
- Insurance/Medicaid/cost
- Provider workforce
- Transportation/childcare
- Health literacy

The "Last Mile" of Overdose Prevention

1

Understand the Landscape:
Community
needs, priorities,
workforce,
geography

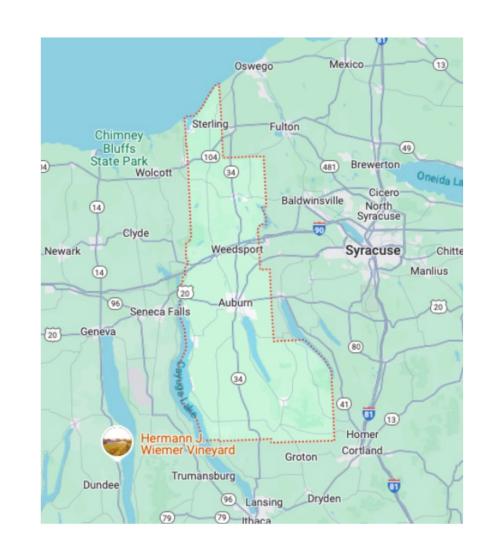
2

Plan Efficient Routes: Map hotspots, maximize convenience, low-barrier options 3

Engage the
Customer:
Address stigma
& misinformation, use
trusted
messengers

4

Track Progress:
Work with (and around) data systems to track progress and forecast trends





Frequently Asked Questions

01

Is fentanyl really the leading cause of death for adults age 18-45?

02

Can you really buy fentanyl on the internet? Uh...how does that work?

03

Why would people sell pills they know will kill people?

04

What does an overdose look like?

05

Will you harm someone by giving them Narcan if they are not overdosing?



Overdose Education

Prevention and Intervention

Morgan Green, MA



Objectives

- By the end of this session, I hope you have:
 - Gained general knowledge about Good Samaritan Acts
 - Importance of the various opioid formulations and drug mixtures
 - Understand how naloxone fits into intervention strategies for opioid use
 - Overdose Reversal Medications available
 - How to recognize and respond to an opioid overdose

Good Samaritan Acts

 As of March 2023, 48 States and the District of Columbia had some overdose focused Good Samaritan laws (CDC, 2023)

 Good Samaritan laws are designed to provide protection (civil & criminal) for individuals who act in good faith in the assistance of those they believe to be in distress

Levels of protections vary by state



Common Limitations

- Good Samaritan vs Failure to Act Laws
 - Good Samaritan is voluntary, Failure to Act posits that bystanders have a legal duty to intervene
- Exceptions for specialized populations
 - Health care workers and First responders are often targeted or limited outside of specialized training
- Calling 911
 - Most states grant immunity to those who call 911



Opioids

- Opioids are psychoactive substances derived from the opium poppy, or their synthetic analogues
- Act on the central nervous system to relieve pain
- Due to their pharmacological effects, opioids in high doses can cause respiratory depression and death



Formulas

Natural Opiates	Semi-synthetic/manmade opioids	Fully synthetic/manmade opioids
Morphine	Oxycodone (OxyContin)	Fentanyl
Codeine	Hydromorphone (Dilaudid)	Methadone
Opium	Hydrocodone (Vicodin)	Tramadol
	Heroin	Meperidine (Demerol)



Figure 13. Top 10 Fentanyl Adulterants

United States: NFLIS Reported Top Ten Drugs Mixed with Fentanyl		
Rank	2019	2024*
1	Heroin	Xylazine
2	Acetyl fentanyl	Heroin
3	4-ANPP	Acetaminophen
4	Cocaine	para-Fluorofentanyl
5	Tramadol	4-ANPP
6	Methamphetamine	Fluorofentanyl
7	Caffeine	Cocaine
8	Acetaminophen	Methamphetamine
9	Xylazine	Caffeine
10	Valeryl fentanyl	Medetomidine
Total	172	239

*2024 data is preliminary and subject to change Source: National Forensic Laboratory Information System, data retrieved April 10, 2025



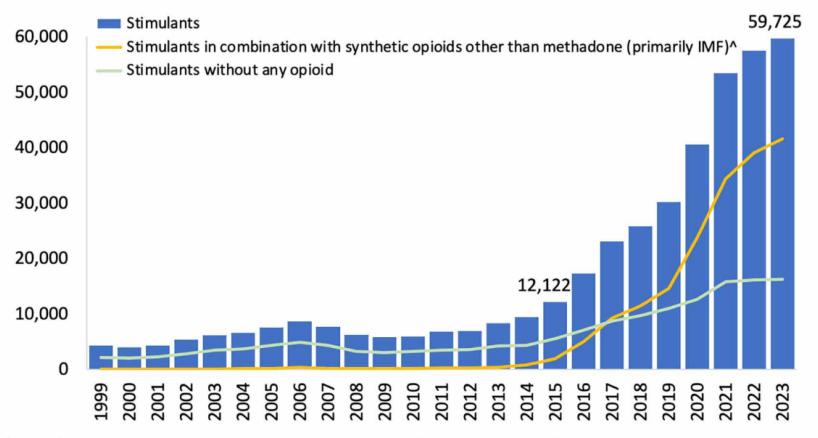
Common Opioid Polyuse Trends: Psychostimulants

- Methamphetamine use is increasing among those who use opioids
- The growing use of synthetic opioids in combination with cocaine and methamphetamine has resulted in significant increases in co-userelated overdose deaths

- It has been suggested that individuals who use concurrent opioids and stimulants believe:
 - stimulants are safer,
 - combining stimulants and opioids to offset the negative effects of opioids, such as withdrawal symptoms,
 - limiting opioid use,
 - finding cheaper substitutes for heroin,
 - relieving fatigue,
 - lethargy, and
 - some combining to enhance a "high"



Figure 6. U.S. Overdose Deaths Involving Stimulants (Cocaine or Psychostimulants with Abuse Potential), 1999-2023



^{*}Among deaths with drug overdose as the underlying cause, the stimulants category included cocaine and psychostimulants with abuse potential (primarily methamphetamine) determined by the T40.5 and the T43.6 ICD-10 multiple cause-of-death codes, respectively. Aillicitly manufactured fentanyl. Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2023 on CDC WONDER Online Database, released 1/2025.

Common Opioid Polyuse Trends: Xylazine (Tranq)

- Is a large animal tranquilizer
- Is a depressant on the Central Nervous System
- Not an opioid but can lengthen the effects of opioids and increase the likelihood of an overdose
 - Opioid antagonists will not reverse effects of Xylazine

- Effects of Xylazine include:
 - Sedation
 - difficulty breathing
 - dangerously low blood pressure
 - slowed heart rate
 - wounds that can become infected and spread
 - severe withdrawal symptoms
 - death



(U) Figure 1. DEA Forensic Laboratory Identifications of Xylazine by Region

Region	2020	2021	Percent Increase
Northeast	346	556	61%
South	198	580	193%
Midwest	110	118	7%
West	77	163	112%

Source: DEA

(U) Figure 2. Number of Xylazine-Positive Overdose Deaths by Region

Region	2020	2021	Percent Increase
Northeast	631	1,281	103%
South	116	1,423	1,127%
Midwest	57	351	516%
West	4	34	750%

Source: DEA



Overdose Medications on the Market

Naloxone Based

- RiVive (OTC): 3 mg of naloxone HCl.
- Narcan (OTC) generic (Rx): 4 mg of naloxone HCl.
- Kloxxado (Rx): 8 mg of naloxone HCl.
- Rezenopy (Rx): 10 mg of naloxone
 HCl.
- Evzio, Zimhi & Narcan (Injection, Rx)

Nalmefene Based

- Opvee (Rx)
- Revex (Injection, Rx)



Naloxone

- Naloxone is an opioid antagonist- it works by knocking the opioid off the receptors for 30-90 minutes-when naloxone wears off the overdose can return
- A second dose can be given within 2-3 minutes, if the first dose does not help

- Naloxone only works to reverse opiate overdoses and will not work for stimulant, benzodiazepine, or any other drug or medication
- Naloxone cannot be over administered



Naloxone Storage

 To make sure it lasts as long as possible, naloxone should be kept in a dark and dry place between 59°F to 77°F (15°C to 25°C) if possible

• Do not freeze

It is important to have it at hand when an overdose might happen

 Spray before the expiration date on the box



Factors that Increase the Risk of Overdose

Reduced Tolerance

 Individuals are at increased risk after a period of abstinence, change in dose, released from prison or residential treatment

Actively Using Alone

 Individuals are at increased risk when they use illicit substances in the absence of others who can intervene if an overdose occurs



Factors that Increase the Risk of Overdose

Mixing Substances

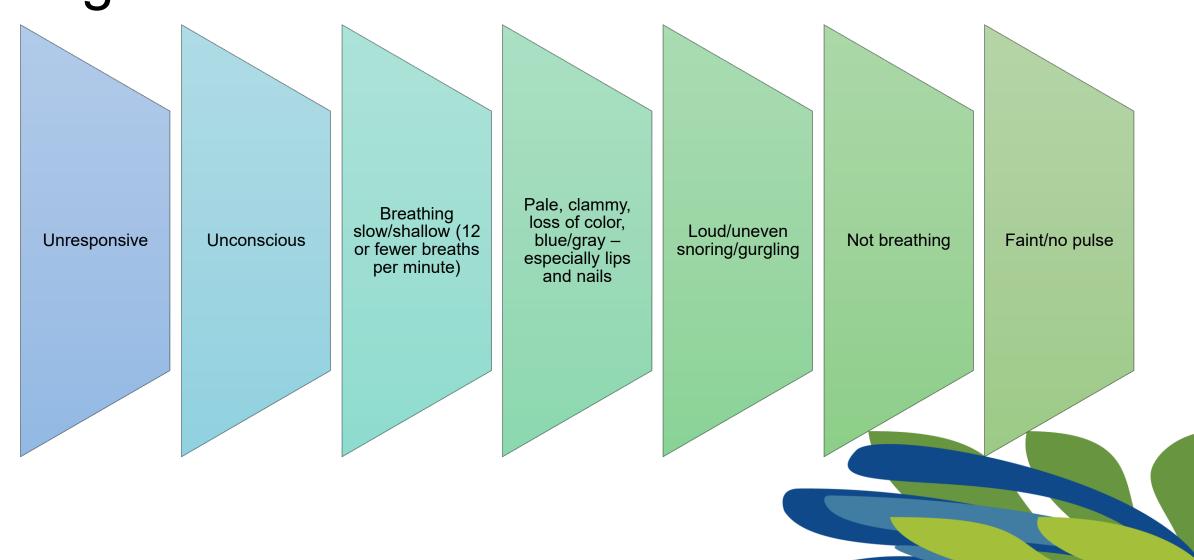
- For example-mixing opioids with alcohol, benzodiazepines, stimulants (cocaine), prescription medications
 - Majority of opioid overdose deaths involve at least one other drug (CDC, 2013)

Medical

 Acute medical conditions such as HIV, liver or lung disease or suffer from depression (WHO, 2014)



Signs of an Overdose



Intervention Steps

1

Call 911

2

Start rescue breathing and CPR Perform CPR only if trained 3

Give naloxone
Give 2nd dose if 1st
dose does not work
within 2-3 minutes

4

Resume rescue breathing and CPR Perform CPR only if trained 5

Monitor the person until help arrives



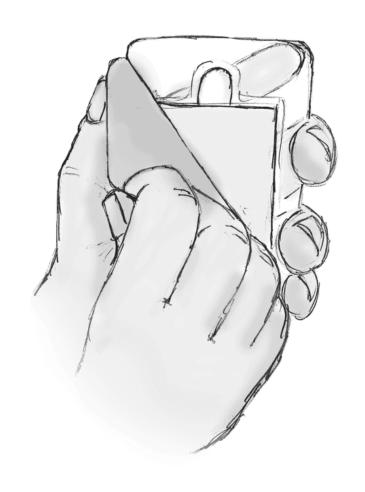
Overdose Myths

Some people have experience using these methods. However, these can cause harm. Do Not: Slap or punch and individual to resuscitate, it may lead to the bruising or breaking of the nose/jaw. Do Not: Place an unconscious individual in cold water or use ice, this makes the body cold, slow even more, and can lead to hypothermia

Do Not: Provide an individual with any milk product. Milk increases mucus production further compromising lung function



Narcan Nasal Spray Instructions





Review



Responses after Naloxone Administered

- People may respond differently after naloxone has been administered.
- For those who come back to consciousness
 - Individuals may become agitated when they regain consciousness
 - Ensure that there are no objects that are within immediate reach of the individual
- For those who remain unconscious
 - Monitor that they continue breathing
 - Place in rescue position to keep airways open



Personal Safety

- If you see any powder present, cover with wet cloth
- Wash skin with soap and water
 - NOT with hand sanitizer





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Thank you!

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