


# Strategies for Addressing Substance Abuse

NDACo CONFERENCE  
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- ▶ More than 65,000 Americans died of drug overdose in 2016.
    - ▶ More than number of Americans killed in the Vietnam war
    - ▶ Literally a public health crisis

Goal : To reduce morbidity and mortality from opioid overdose by training First Responders in the administration of naloxone.



# North Dakota Stats

- ▶ 38 Preliminary Drug Overdose deaths in 2019\* (Jan 1 through Aug 31)
- ▶ 44 babies born with Neonatal Abstinence Syndrome in 2018
- ▶ 103 Patients received Narcan doses through EMS in 2019\*
- ▶ 13,177 total drug related crimes in 2018
- ▶ 406,785 total opioid prescriptions in 2018
- ▶ 85% of all incoming offenders of ND Dept of Corrections and Rehab have substance use disorders

# Strategies

- ▶ Community Partnerships
- ▶ Alcohol Prevention
  - ▶ ID Bands, Scanners
- ▶ Narcan training/ Distribution
- ▶ Detera Bags
- ▶ Drug Take Back Programs
- ▶ Medication Assisted-- only 4 in state
  - ▶ Methadone, Suboxone and Subutex
  - ▶ Sublocade Injections—ND Prisons
- ▶ Syringe Exchange Programs



# Definitions

- ▶ Substance use disorder is the medical term used to describe a pattern of using a substance (drug) that causes significant problems or distress.
- ▶ Substance dependence is the medical term used to describe use of drugs or alcohol that continues even when significant problems related to their use have developed.

Reference: <https://www.hopkinsmedicine.org/health/conditions-and-diseases/substance-abuse-chemical-dependency>

# Examples

- ▶ Alcohol
  - ▶ Marijuana
  - ▶ Prescription medicines, such as pain pills, stimulants, or anxiety pills
  - ▶ Methamphetamine
  - ▶ Cocaine
  - ▶ Opiates
  - ▶ Hallucinogens
  - ▶ Inhalants-- Vapes
- ▶ Reference: <https://www.hopkinsmedicine.org/health/conditions-and-diseases/substance-abuse-chemical-dependency>



# Question 1

- ▶ What Popular Beverage Contained Cocaine?

# Common opioids

- ▶ Heroin
- ▶ Codeine (Tylenol #3)
- ▶ Morphine (Kadian, Avinza)
- ▶ Fentanyl (Actiq, Duragesic, Fentora)
- ▶ Hydrocodone (Vicodin, Lortab, Vicoprofen)
- ▶ Oxycodone (Percocet, Oxycontin)
- ▶ Hydromorphone (Dilaudid)
- ▶ Methadone
- ▶ Meperidine (Demerol)
- ▶ Tramadol (Ultram, Ultracet)
- ▶ Buprenorphine (Buprenex, Suboxone, Subutex)



## Question 2

- ▶ What drugs were commonly used in the 1800's?

# Opioids

After prolonged use of these substances, tolerance and/or addiction may occur, requiring increasing doses for the same effect

Common side effects include:

- respiratory depression
- drowsiness
- itching
- nausea and vomiting
- dry mouth
- miosis (constricted pupils)
- constipation



# Heroin

- Heroin is an illegal opioid which may be injected, snorted, or smoked.
- It has no medicinal purposes





# Fentanyl

Synthetic opioid

More potent than morphine and heroin

2 mg thought to be the lethal dose

Different types of Fentanyl like carfentanil which is 10,000 times more potent than morphine

No medical use other than tranquilizer for elephants

Comes in different forms like powder, tablet, capsule, rock, nasal spray

Forms change often

Increase in recent availability as it is cheaper but doesn't last as long as heroin

Users need to dose more often increasing risks of overdose





HEROIN



FENTANYL



CARFENTANYL

## Question 3

▶ In 2017, Fentanyl was responsible for how many deaths in the US?



# High Risk for Opioid Addiction

Individuals using prescriptions from multiple medical visits and multiple doctors.

- Users of prescriptions that are intended for someone else.
- Elderly patients using opiates or opioids for pain relief.
- Patients using pain relieving patches incorrectly
- Children who accidentally take pain-killers in their homes or homes of others.
- Users who inject drugs for greater effects.
- Former users who are recently released from prison or who are entering and exiting from drug treatment programs



# Scene

- ▶ Scene Safety is top priority
- ▶ Ensure you have enough resources present (patient may wake combative)
- ▶ Remain non-judgmental and non-confrontational
- ▶ Attempt to determine what was ingested, inhaled, or injected (or transdermal patch) and when.
- ▶ Consider there may have more than one substance used.
- ▶ Remember naloxone may have been administered by a bystander prior to your arrival
  - ▶ Do not let that stop you from administering more if the patient needs it.



# Protecting yourself vs Possible Exposure

- ▶ Use PPE
- ▶ Disturbing clothing can make opioid particles airborne
- ▶ Any cleaning or vacuuming could also cause particles to become airborne
- ▶ Mucus membrane exposure number one cause of exposure
- ▶ Remove gloves as soon as you can after handling objects
- ▶ Alert supervisor or a friend/partner
- ▶ Prevent further contamination
- ▶ Do not touch your eyes, nose or mouth
- ▶ Wash exposed area with soap and water, not hand sanitizer
- ▶ Remove contaminated outer garments following standard decontamination protocol



# Signs and Symptoms of Opioid Overdose

- ▶ Unresponsive or minimally responsive, with a pulse
- ▶ Depressed respiratory rate
- ▶ Respiratory arrest
- ▶ Cyanosis
- ▶ Miosis (constricted pupils)
- ▶ Face is clammy
- ▶ Face has lost its color
- ▶ Body is limp
- ▶ Fingernails or lips have blue or purple tinge
- ▶ Vomiting or gurgling noises
- ▶ Unable to speak
- ▶ Slow heart rate
- ▶ Slow respiratory rate



# Naloxone Forms

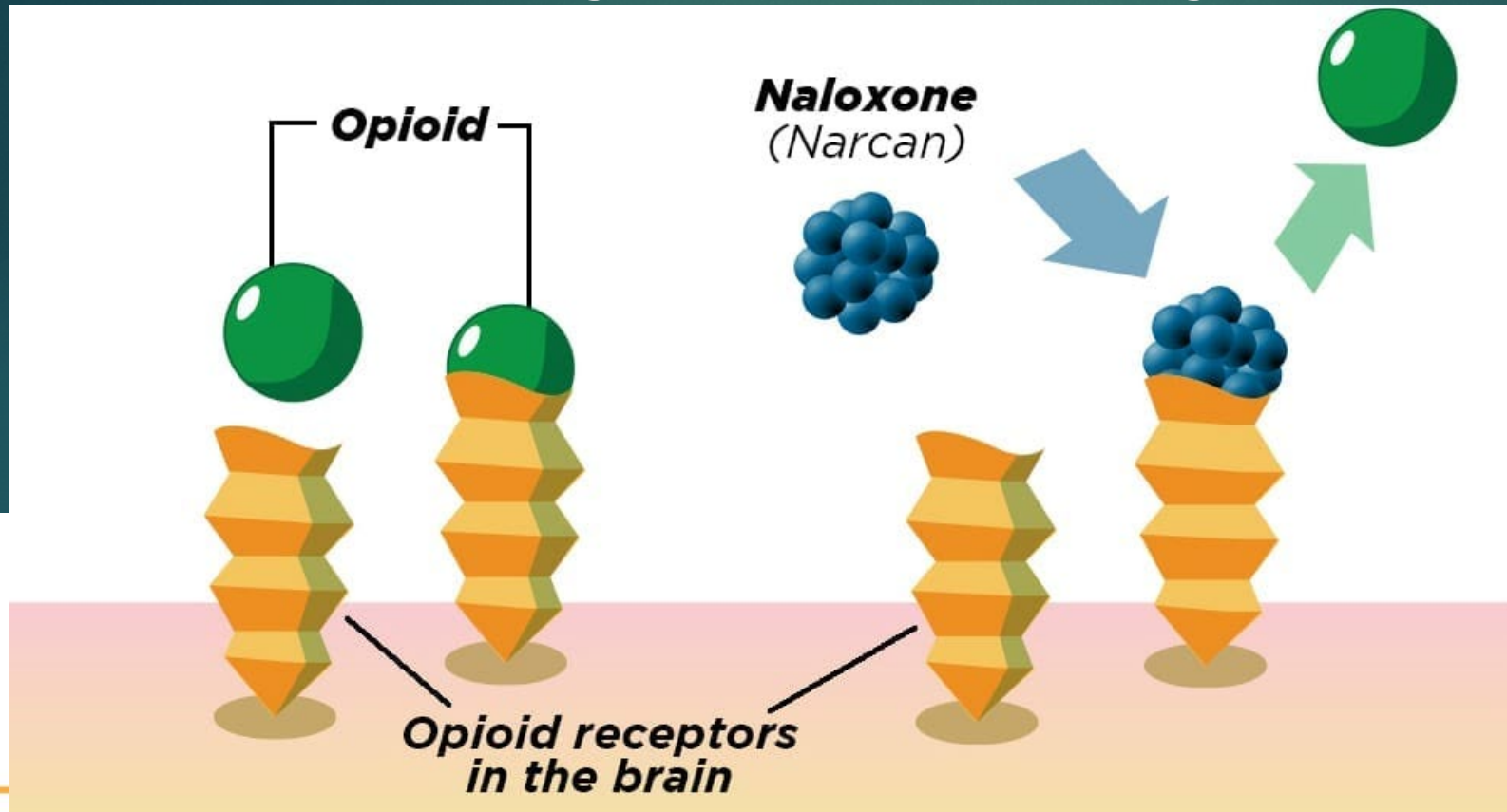


Figure 1. Evzio home-use auto-injector to reverse the effects of an opioid overdose.





**Naloxone** is an antidote to overdose of heroin or other opioid drugs. It works by blocking the effects of opioids in a person's system, helping to restore breathing.







Naloxone is **EFFECTIVE** when the overdose is due to usage of an **OPIOID**

Heroin

Morphine

Hydromorphone (Dilaudid)

Oxycodone (Oxycontin, Percocet)

Hydrocodone (Norco, Vicodin)

Fentanyl

Buprenorphine

Codeine

Methadone

Tramadol

Naloxone will have **NO EFFECT** when overdose is due to usage of:

Alcohol

Benzodiazepines (Valium, Ativan, Xanax, Klonopin,)

Antidepressants (Paxil, Prozac, Lexapro, Wellbutrin)

Other medications

Other illicit drugs such as methamphetamine





# Responding to an Overdose

**1.** Call 911  
and begin  
rescue breaths



**2.** Administer  
naloxone and  
continue  
rescue breaths



**3.** Stay on  
scene until first  
responders  
arrive





# Contraindications

- ▶ Medication expired
- ▶ Known allergy
- ▶ Discolored or particulate matter is noted
- ▶ No age restriction but for patients under 5 years of age consider Medical Direction or follow agency protocol

# Effects of Narcan

- ▶ Musculoskeletal pain
- ▶ Increased blood pressure
- ▶ Headache
- ▶ Nasal dryness
- ▶ Nasal edema
- ▶ Nasal congestion
- ▶ Nasal inflammation
- ▶ Agitation and combativeness:  
Caution, strong language
- ▶ Tachycardia
- ▶ Pulmonary Edema
  - ▶ Thought to be brought on by rapid reversal of severe overdose
- ▶ Nausea and vomiting
- ▶ Seizures
- ▶ Cardiac arrest, v-fib
- ▶ Abdominal cramps/Diarrhea
- ▶ Tremulousness



# Narcan use

- ▶ Document the time, dose and route given
  - ▶ Wait at least 5 minutes in between doses
- ▶ Watch for and assess patients response to treatment
  - ▶ Be aware: the patient may become combative
- ▶ Document response to treatment
- ▶ Frequently reassess your patient as many patients require more than one dose
  - ▶ Naloxone does not last as long as most opioids in the body.
- ▶ Every effort should be made to transport the patient to definitive care
  - ▶ Law enforcement involvement may be needed to help facilitate this.

# Note

- ▶ Continue to provide respiratory assistance as needed.
- ▶ If no pulse, with or without agonal breathing, begin CPR.
- ▶ Do not administer naloxone to patients in cardiac arrest.
- ▶ If respirations adequate, provide supportive care.
- ▶ Naloxone is not effective against overdose from non-opiate drugs.

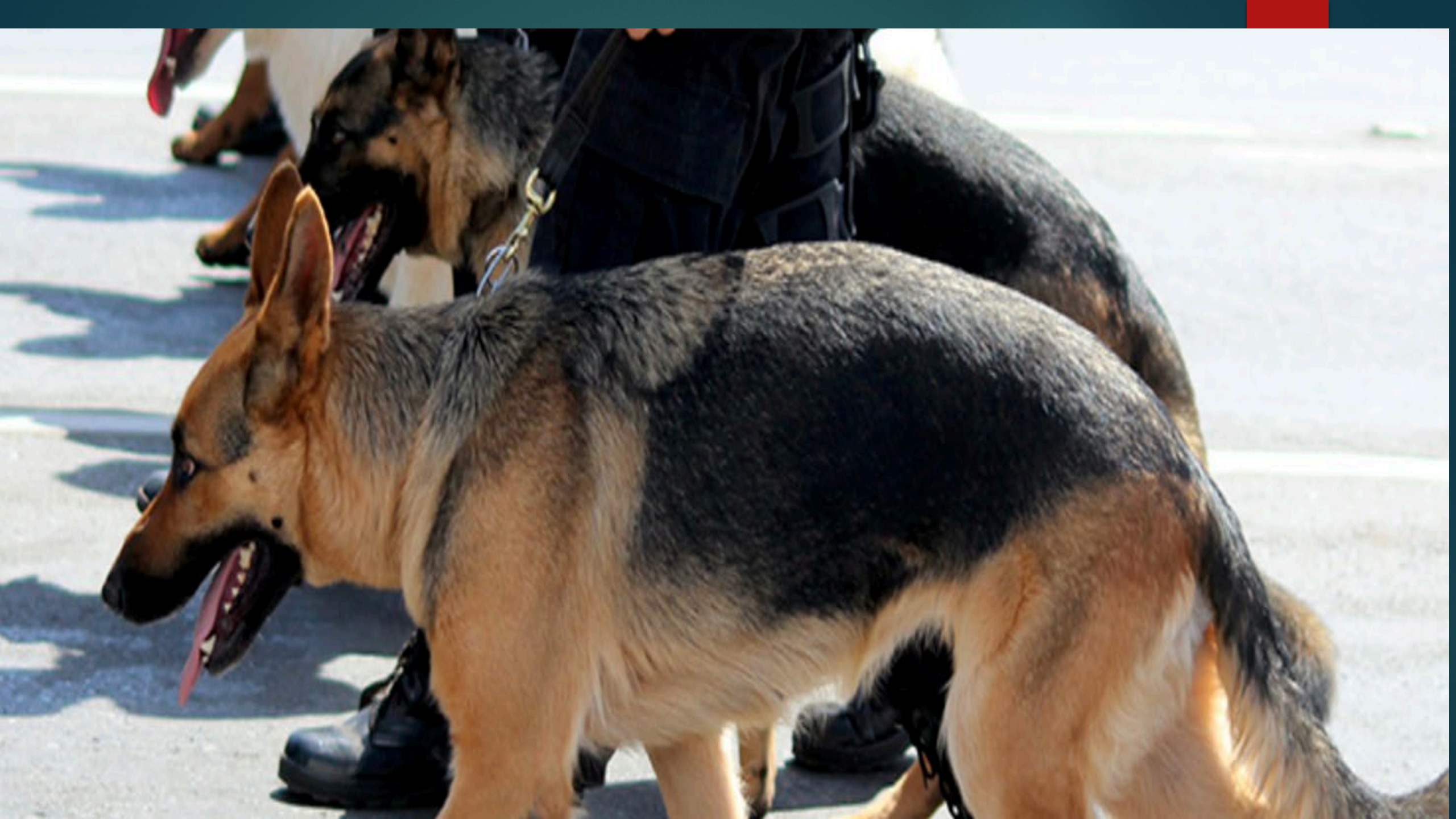


# Question 4


- ▶ What drug did the Mad Hatter inhale in Alice in Wonderland?

# Working Dogs








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- ▶ Fentanyl is the big player
  - ▶ Dogs use their nose to detect drugs which makes them vulnerable to exposure
  - ▶ Dogs have the same opioid receptors as humans but not as sensitive
    - ▶ Takes about 20 times the dose of fentanyl as humans according to data obtained from performing anesthesia on canines.
    - ▶ If dogs start showing symptoms, means there was a very large dose.



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- ▶ Naloxone works great in dogs
    - ▶ Both injected and intranasal
  - ▶ Still need to be observed by veterinarian as effects of a large dose can outlast the effects of naloxone
  - ▶ Dogs exposed to sufficient amounts of fentanyl can stop breathing in a minute or two. Need to treat with naloxone prior to going to the vet.

# Phases of opioid intoxication in canines

- ▶ Respiration rate increases early (Panting, salivating, whining and become anxious)
- ▶ As it progresses will become more sedated, heart rate slows, then breathing slows.
- ▶ Eventually breathing stops
- ▶ Handlers need protective equipment to prevent their own exposure
- ▶ Some recommend handlers carry multiple doses (One for officer and one for canine)



# Naloxone Storage

- ▶ Keep out of light and temperature extremes (above 104 degrees)
- ▶ Store at room temperature (68-77 degrees F) – it freezes at temps below 5 degrees F
- ▶ Ensure not expired
- ▶ Check the color of the medication in the syringe or injector

Questions???

