



# **Santa Barbara County Public Safety First Aid Provider Optional Skills Agency**

## **Naloxone Administration Training**



# Introduction

[Video of Narcan Use by Police in the Field](#)



# Course Objectives

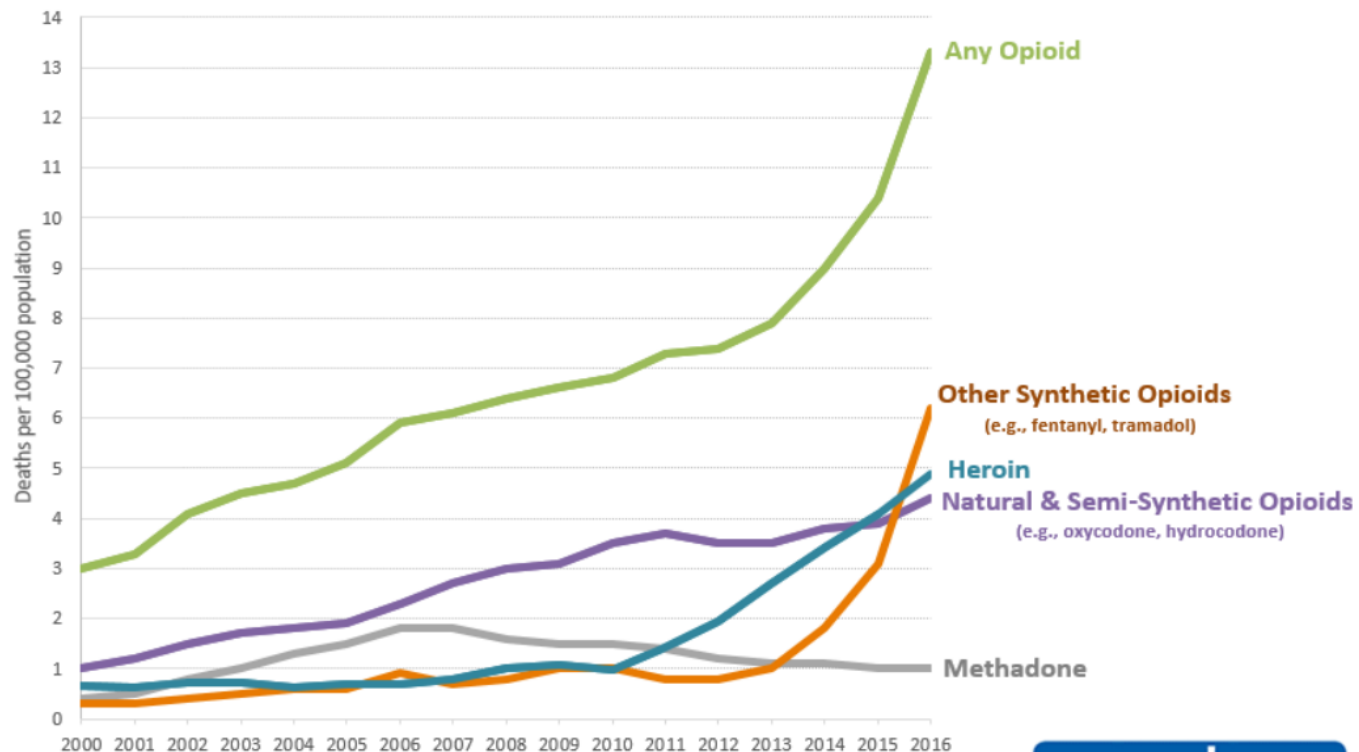
- **Recognize** the signs and symptoms of a potential opioid overdose
- **Identify** appropriate health care interventions for possible overdose situations
- **Identify** the indications and contraindications of administering naloxone (Narcan)
- **Demonstrate** competency in preparing and administering naloxone via intranasal
- **Describe** the on-going patient management after the administration of naloxone



# National Statistics

- ❖ In 2016 there were 32,445 deaths involving prescription opioids, equivalent to about 89 deaths per day. This was an increase from approximately 22,598 in 2015.

**Overdose Deaths Involving Opioids, by Type of Opioid, United States, 2000-2016**



SOURCE: CDC/NCHS, National Vital Statistics System, Mortality. CDC WONDER, Atlanta, GA: US Department of Health and Human Services, CDC; 2017.  
<https://wonder.cdc.gov/>.





# Epidemic Example Springfield, OH

- ❖ SW Ohio
- ❖ Population of apx 61,000 in city, 138,000 total in metropolitan area
- ❖ Public safety responded to at least 130 drug overdoses in January 2017 and EMS administered 250 doses of nasal naloxone
- ❖ 18 suspected drug overdose deaths in January 2017
- ❖ Majority of drug deaths involved multiple drugs including synthetic fentanyl

## Ohio

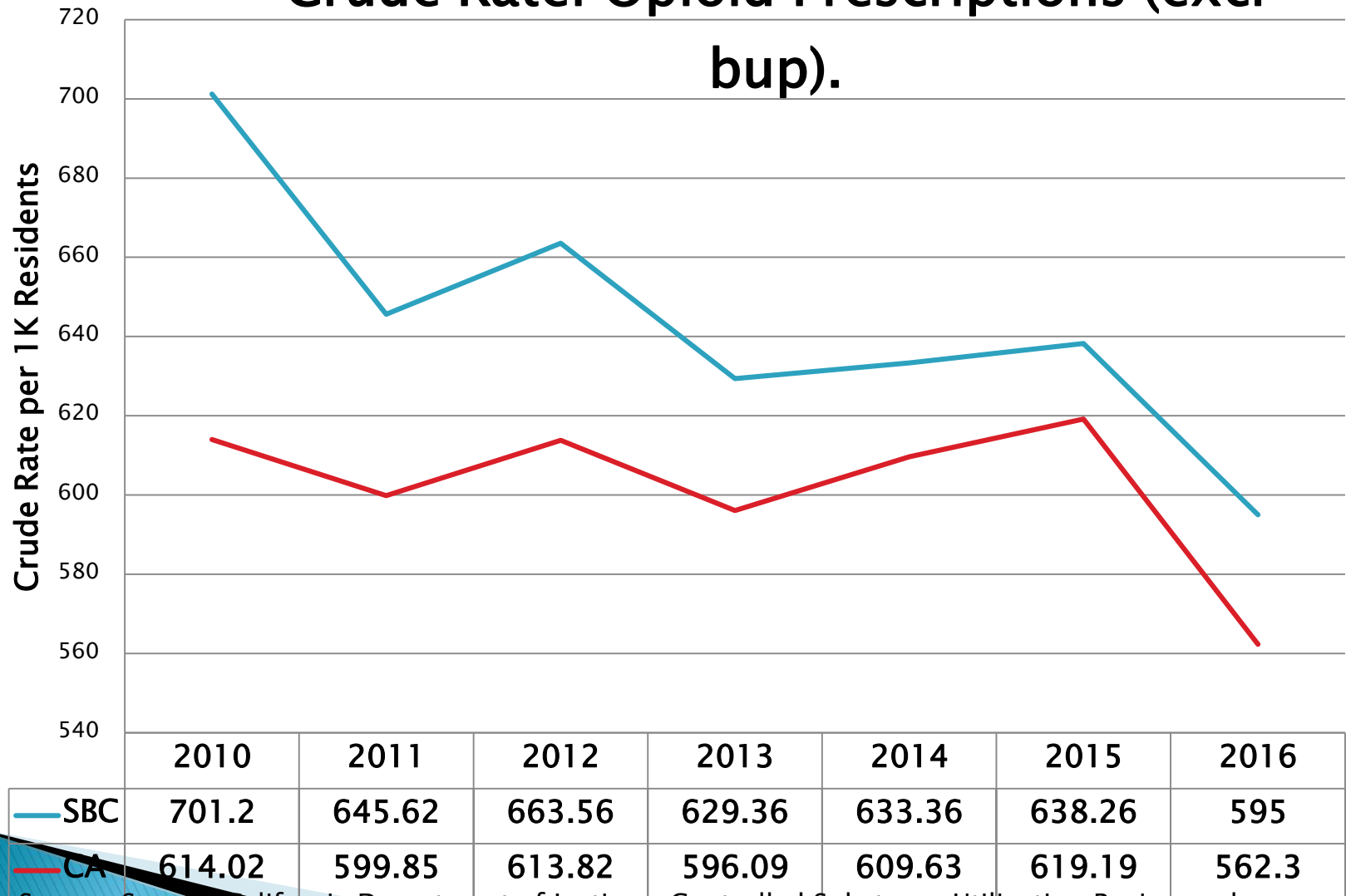


# Central Coast Opioid Statistics

| 2016   | CA    | SBC  | Ventura | SLO   |
|--|-------|------|---------|-------|
| Opioid overdose deaths per 100K residents            | 4.9   | 6.9  | 4.7     | 6.4   |
| Opioid overdose ED visits per 100K residents         | NA    | 14.4 | 9.9     | 15.1  |
| Opioid inpatient hospitalizations per 100K residents | NA    | 8.2  | 12.3    | 8.8   |
| Opioid prescriptions per 1K residents                | 562.3 | 595  | 608.2   | 649.9 |

# Prescriptions: Santa Barbara County vs CA

## Crude Rate: Opioid Prescriptions (excl bup).



Source: Source: California Department of Justice – Controlled Substance Utilization Review and



# Map of 2015–2017 Narcan use and Deaths

- ▶ <https://drive.google.com/open?id=1xLHLc4QE0ml9-DRrRmY0PH3R66U>
  
- ▶ Santa Barbara County 2017 Totals
  - EMS Response with Narcan Administration: (2)  
*(Source: ImageTrend EPCR Reports, Santa Barbara County EMS Agency)*
  - Coroner death report with toxicology indicating opioid found: (43) *(Source: Santa Barbara County Coroner's Office)*
  
  - 2015: 193 Narcan administrations & 53 Opioid related deaths
  - 2016: 255 Narcan administrations & 47 Opioid related deaths



# SBC 911 –Calls with Naloxone Administration

- ▶ Narcan can be administered for several reasons:
  - First responder on scene determines the patient not breathing and decides to administer
    - Recreational narcotics use – IVDU, snorting, ingestion
    - Accidental drug overdose due to confusion of being on several medications

| Year | Total 911–Transported Patients | Narcan Administered 911 Calls |
|------|--------------------------------|-------------------------------|
| 2015 | 26269                          | 193                           |
| 2016 | 26497                          | 255                           |
| 2017 | 26664                          | 243                           |



# Opioids

- ▶ Act on the central nervous system as a depressant to:
  - Decrease the perception of pain
- ▶ May be prescribed for acute, debilitating, or chronic pain
- ▶ May be abused to induce euphoria or a “high”
- ▶ May be injected, taken orally or intranasally



# Types of Opioids

| Generic                         | Brand  | Street  |
|---------------------------------|--|---|
| Heroin                          | (illegal)  | Brown sugar, China White, Dope, H, Horse, Junk, Skag, Skunk, Smack, White Horse                         |
| Codeine                         | Colrex, Tylenol with Codeine #3/4, Phenflu CDX, Maxiflu CD, Rolatuss | Captain Cody, Cody, Lean, Schoolboy, Sizzurp, Purple Drank  |
| Fentanyl                        | Actiq®, Duragesic®, Sublimaze®                                       | Apache, China Girl, China White, Dance Fever, Friend, Goodfella, Jackpot, Murder 8, Tango and Cash, TNT |
| Hydrocodone or dihydrocodeinone | Vicodin®, Lortab®, Lorcet®   | Vike, Watson-387  |
| Hydromorphone                   | Dilaudid®  | D, Dillies, Footballs, Juice, Smack   |
| Meperidine                      | Demerol®   | Demmies, Pain Killer  |
| Methadone                       | Duramorph®, Roxanol®   | M, Miss Emma, Monkey, White Stuff   |
| Oxycodone                       | OxyContin®, Percodan®, Percocet®                                     | O.C., Oxycet, Oxycotton, Oxy, Hillbilly Heroin, Percs   |
| Oxymorphone                     | Opana®   | Biscuits, Blue Heaven, Blues, Mrs. O, O Bomb, Octagons, Stop Signs                                      |

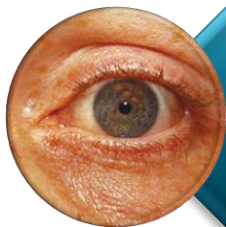


# People at higher risk of opioid overdose

- ▶ **Individuals with opioid dependency**, especially following detoxification, release from incarceration, cessation of treatment
- ▶ **Intravenous drug users**
- ▶ **Users of prescription opioids**, especially higher doses
- ▶ **Users who combine opioids** with other sedating substances( benzodiazepines)
- ▶ **Users with medical problems** (HIV, liver/lung disease, depression)
- ▶ **Household members of users**



# Opioid Overdose Triad



**Pinpoint Pupils**



**Unconsciousness**



**Respiratory Depression**





# Recognizing an Opioid Overdose

| REALLY HIGH  | OVERDOSE   | CARDIAC ARREST             |
|--|--|----------------------------|
| Muscles become relaxed                                     | Deep snoring or gurgling (death rattle)                | No muscle control          |
| Speech is slowed/slurred                                   | Minimal or no verbal response                          | No verbal response         |
| Sleepy looking   | Pale, clammy skin                                      | Pale, may be cyanotic      |
| Nodding  | <i>Heavy</i> nod                                       | Apnea                      |
| Respond to stimulation: yelling, sternal rub, pinching,... | No response to stimulation                             | No response to stimulation |
| Breathing rate 12/min or more, pulse present               | Breathing rate less than 12/min, slow heart beat/pulse | No Breathing<br>No Pulse   |



# Naloxone

## Description:

Intranasal Opioid Antagonist

## Pharmacology:

Competitive narcotic antagonist, which reverses all effects of opioids ONLY (morphine, fentanyl, etc.) such as respiratory depression and central and peripheral nervous system effects.







# Naloxone

## Indications:

To reverse respiratory depression and central nervous system depression induced by opioids.

## Onset:

Within 1–3 minutes.

## Duration:

Approximately **30–60** minutes. (Then what happens?)



# Naloxone

## Contraindications:

- Nasal trauma
- Nasal obstruction
- Seizure activity
- Cardiac arrest



## Adverse Reactions (due to rapid opioid withdrawal):

- Nausea/ Vomiting
- Tachycardia
- Hypertension, hypotension
- Cardiac disturbances (i.e.: cardiac arrest)
- Epistaxis
- Violent Behavior





# Narcan is for opioid OD only

- ▶ **NARCAN WILL NOT HAVE AN AFFECT ON OTHER DRUG OVERDOSES**
  - However, no harm will be done to patient if administered without opioids onboard





# NARCAN WILL NOT RESTART THE HEART

- **Always** respond to a potential drug overdose with your **AED**
- Only give Narcan to a patient with depressed respirations
- **No pulse? No respirations? Perform CPR!**





# On Scene

Track Marks



Bystander Report

Drug Paraphernalia



Heroin  
Balloons





# Treatment Plan

<https://youtu.be/pCJrgcC3sgl?t=63>

## 1. Scene Approach

- Scene safety
- AED and Narcan kit in hand
- Personal protective equipment

## 2. Stimulate the person

- Verbal
- Sternal Rub

## 3. No response

- Ensure EMS enroute. Open Airway Shark Hook

## 4. Respirations <12/min & suspicion of OD

- Ensure EMS enroute and administer NARCAN

## 5. NO respirations, NO pulse

- Place AED: CPR as directed
- No CPR directed, administer Narcan

# Open Airway Using “Shark Hook” Technique



## Look for Respiratory Effort

[https://www.youtube.com/watch?v=Xb\\_S1AMSvDc](https://www.youtube.com/watch?v=Xb_S1AMSvDc)



# Look for Respiratory Effort ~



**Is it 12/minute or more?**

Request EMS, Maintain Airway Support, Monitor Rate

**Is it Less than 12/minute?**

Request EMS, Administer Narcan, Maintain Airway Support, if breathing improves, position on side

**Is it ABSENT ?**

Request EMS, place AED, follow AED commands

\* if compressions not directed, administer Narcan and maintain airway support

# Agonal Breathing



JOE

<https://youtu.be/pioQSVEUpP0?t=12>

# Agonal Breathing



ACTOR

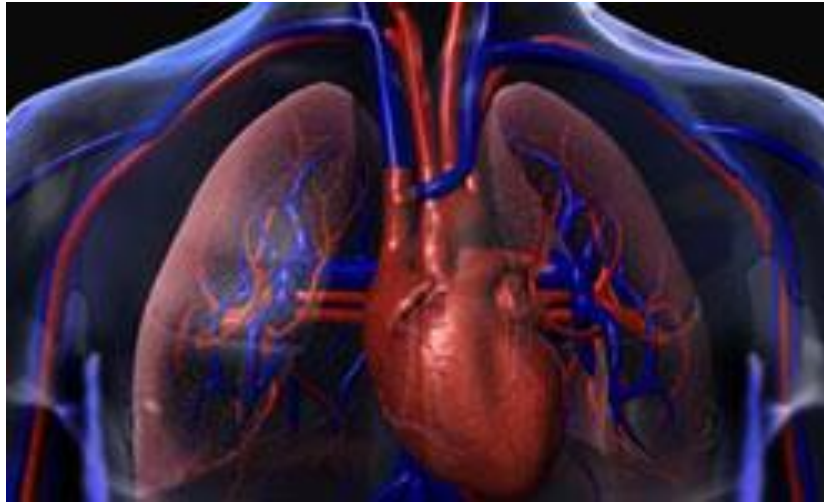
<https://youtu.be/CBMxH4xtE8w?t=14>

<https://www.youtube.com/watch?v=q-1T5AXDVPo>

# Agonal Breathing – For Real!

Dispatcher

<https://youtu.be/w32PUDL2lb8?t=145>



Bondii Beach

[https://www.youtube.com/watch?v=Fn\\_tSfHVMP9M](https://www.youtube.com/watch?v=Fn_tSfHVMP9M)

# Chest Compressions

- Continuous High Quality Chest compressions
  - **Rate-----Optimal is 110 CPM**
  - **Depth----At least 2 inches**
  - **Recoil----Fully off the chest**
- Perfuses Heart and Brain
  - Increases likelihood of successful defibrillation
  - Maintains brain viability – Cerebral Performance
- Think “Brain-Heart-Brain-Heart”
- **Get the AED!!**

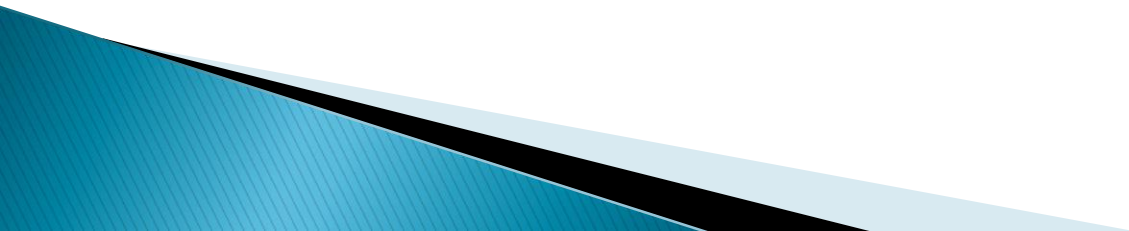




# Review

- ▶ The goal of Naloxone administration is to improve respiratory drive, NOT to return patient to their full mental capacity.
- ▶ If Naloxone administration is indicated, EMS *must* be requested.
  - Second dose may be administered **3 minutes** after the first dose if the following conditions are present:
    - Fire and EMS resources have not arrived on scene to take over medical care of the patient.
    - The patient is still unconscious
    - Patient has less than 12 respirations per minute or inadequate respiratory effort.
    - If respiratory drive is not present, deputies should transition to CPR protocols
- ▶ If respiratory drive becomes adequate – ABC's until arrival of EMS

# Skill Competency





# Intranasal Naloxone Administration

- Assess the patient to ensure his/her nasal cavity is free of blood or mucous
- Control patient's head with one hand
- Gently but firmly place atomizer within one nostril, carefully occluding the opposite nostril



# Intranasal Naloxone Administration, continued

- Aim slightly upwards and toward ear on same side as the nostril
- Briskly compress syringe to administer the total dose (4mg in 0.4cc of atomized spray)



# Post-Narcan Position

- ▶ As you wait for ALS, place patient in recovery position
- ▶ Continue to monitor frequently to ensure patient is still breathing





# SB County EMS Protocol #16 PSFA Guidelines

- ▶ Candidates for intranasal (IN) administration of naloxone are:
  - Adults with suspected narcotic overdose and respiratory depression only.
  - Patients must meet both of the following criteria to be eligible for IN naloxone administration:
    - Unconscious.
    - Respiratory depression defined as a respiratory rate  $< 12$  or inadequate respiratory efforts.





# County EMS Protocol #16 – PSFA Guidelines

- ▶ Administration Procedure (continued):
  - Monitor and support ABC's until ALS arrival.
  - **Provide details directly to the responding EMS Paramedic including:**
    - Respiratory rate upon arrival
    - Time and amount of Narcan administered
    - Any changes to patient condition following Narcan administration



# SB County EMS Protocol

## ► Documentation:

- Utilize SB County PSFA Optional Skills Patient Care Report
- Document demographics, basic assessment and treatment on the patient care report.
- Record time of administration/dose.
- A copy of the PSFA PCR must be submitted to the SB County EMS Agency within 24 hours *(so report can be attached to patient's hospital Medical Record appropriately.)*
- It must be secure emailed to [phdems@co.santa-barbara.ca.us](mailto:phdems@co.santa-barbara.ca.us) or secure faxed to 805 681 5142



# Any Questions ???

# Thank You!

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