



Emergency Medical Services Agency (SCEMSA)  
Naloxone Training Program

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Division of Public Health  
2023

# Emergency Medical Services Agency (SCEMSA) Naloxone Training Program

- Naloxone for Public Safety Personnel is regulated under California Code of Regulations, Title 22, Division 9, Prehospital Emergency Medical Services. Local Emergency Medical Service Agencies oversee the programs within their jurisdiction.
- Sacramento County Emergency Medical Services Agency Naloxone Training Program for Law Enforcement was started in late 2017 and Sacramento area Law Enforcement agencies began to apply for approval in 2018.
- Within the Sacramento area, all local Police Departments, California Highway Patrol, some College/High School Police Departments, State Parks, Department of Justice(s) and Department of Alcoholic Beverage Control carry Naloxone.
- Each provider is responsible for training, tracking, and reporting, Naloxone.



# Learning Objectives

1. Recognize the national and local opioid overdose epidemic
2. Learn how opioids work
3. Recognize an opioid overdose
4. Respond to an opioid overdose



**223 ( 14.3 /100k)**  
 Deaths Related to Any Opioid Overdose in Sacramento County, 2021

**748 ( 48.1 /100k)**  
 ED Visits Related to Any Opioid Overdose in Sacramento County, 2021

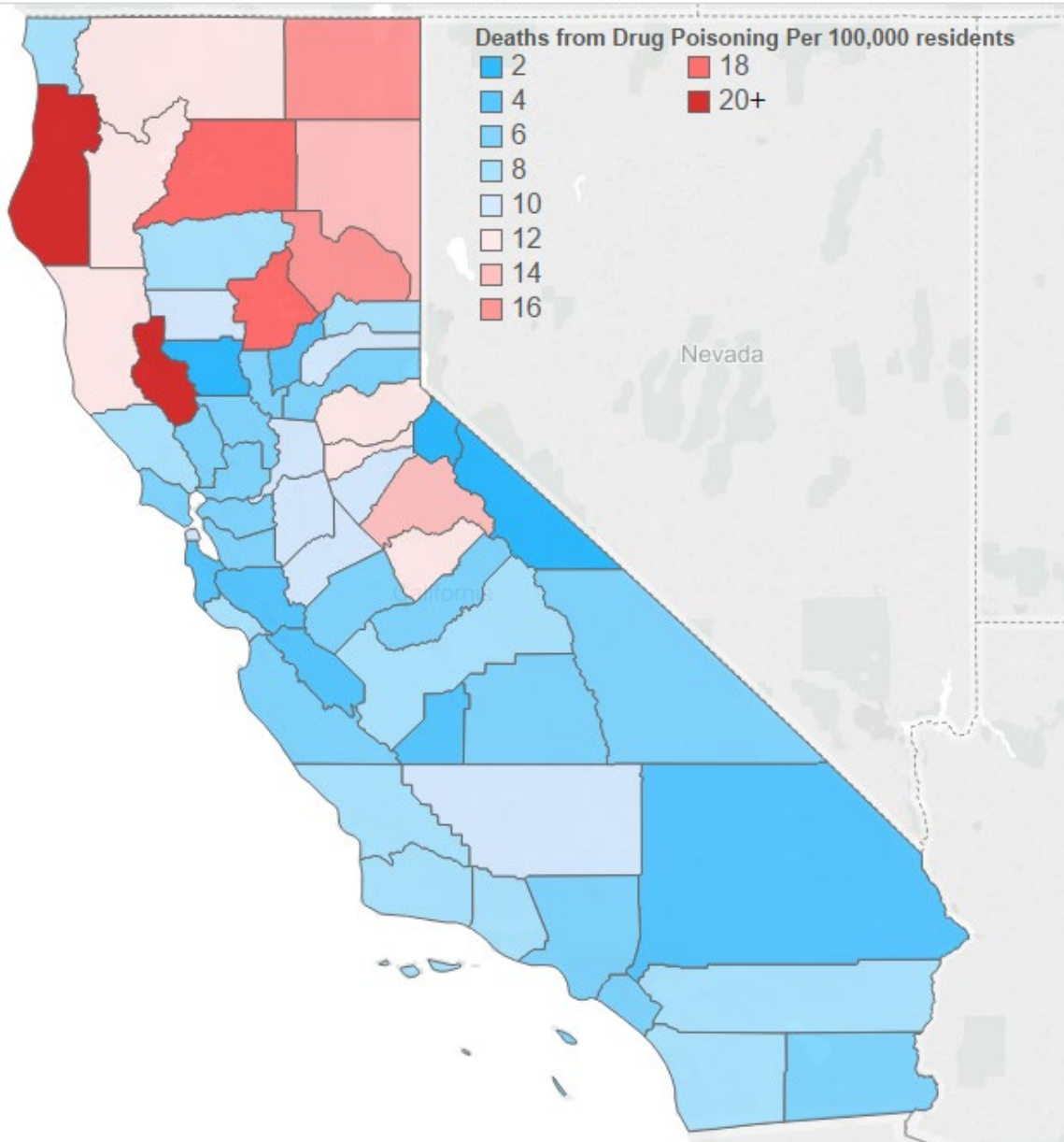
**180 ( 10.8 /100k)**  
 Hospitalizations Related to Any Opioid Overdose in Sacramento County, 2021

**728,520 ( 419.5 /1k)**  
 Prescriptions for Opioids in Sacramento County, 2021

Number of times Naloxone was administered in 2021 vs. 2022

Month	Year	
	2021	2022
Jan	141	172
Feb	139	158
Mar	177	173
Apr	186	162
May	167	195
Jun	203	195
Jul	185	180
Aug	187	201
Sep	206	178
Oct	173	176
Nov	154	150
Dec	166	178
<b>Total</b>	<b>2084</b>	<b>2118</b>

### Drug Poisoning Deaths by County, 2002



Sacramento Opioid Overdose Snapshot: 2019-Q1 through 2022-Q3

Report downloaded 07-25-2023

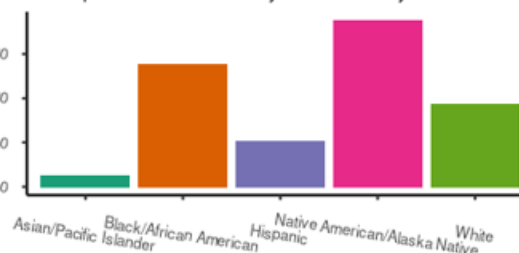
Sacramento experienced 223 opioid-related overdose deaths in 2021, the most recent full year of data available. The annual crude mortality rate for 2021 was 14.31 per 100k residents, an increase of 87% from 2019. The following charts present 12-month rates for selected overdose indicators\* (visit the CA Overdose Surveillance Dashboard Data Definitions page for indicator details). The map displays the annual age-adjusted rates for Any Opioid-Related overdose deaths by zip code. Synthetic opioid overdose deaths may be largely related to fentanyl.



Any Opioid-Related Overdose, 2021 Age-Adjusted Annual Death Rates by Zip Code



Any Opioid-Related Overdose, 2021 Age-Adjusted Death Rates per 100k Residents by Race/Ethnicity



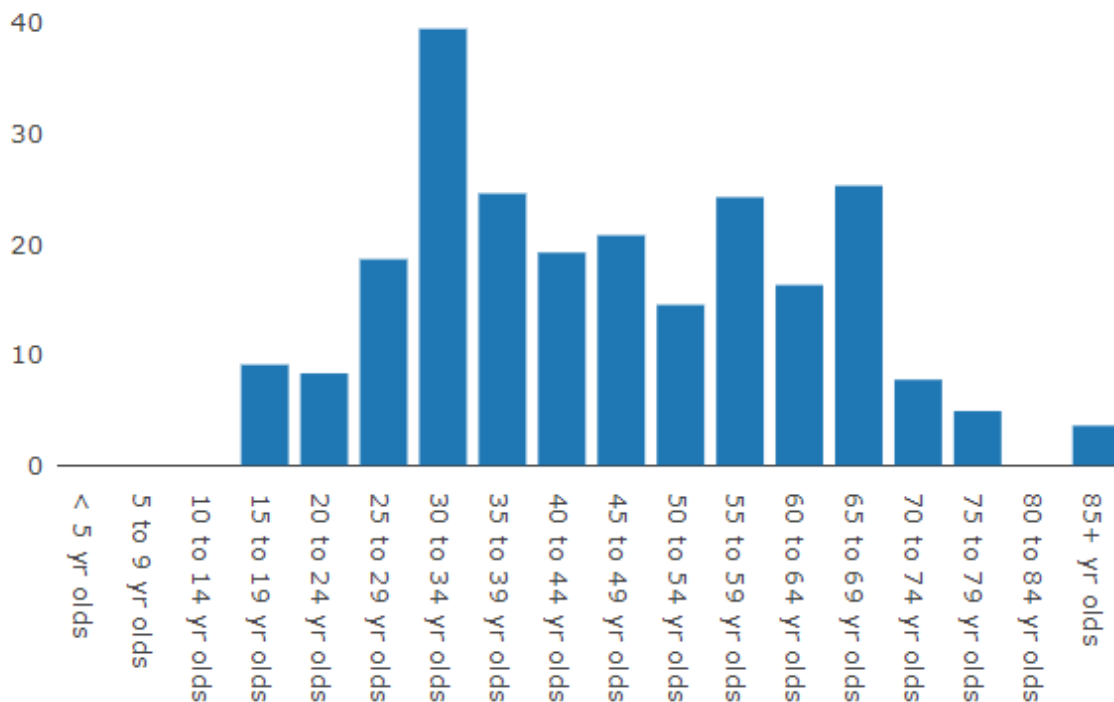
Footnotes: \*data for most recent year may be preliminary. 12-month rates are based on moving averages; OD = Overdose. Report produced by the California Overdose Surveillance Dashboard: <https://odph.ca.gov/opioidashboard/>

# Opioid –Related Overdose Deaths in Sacramento

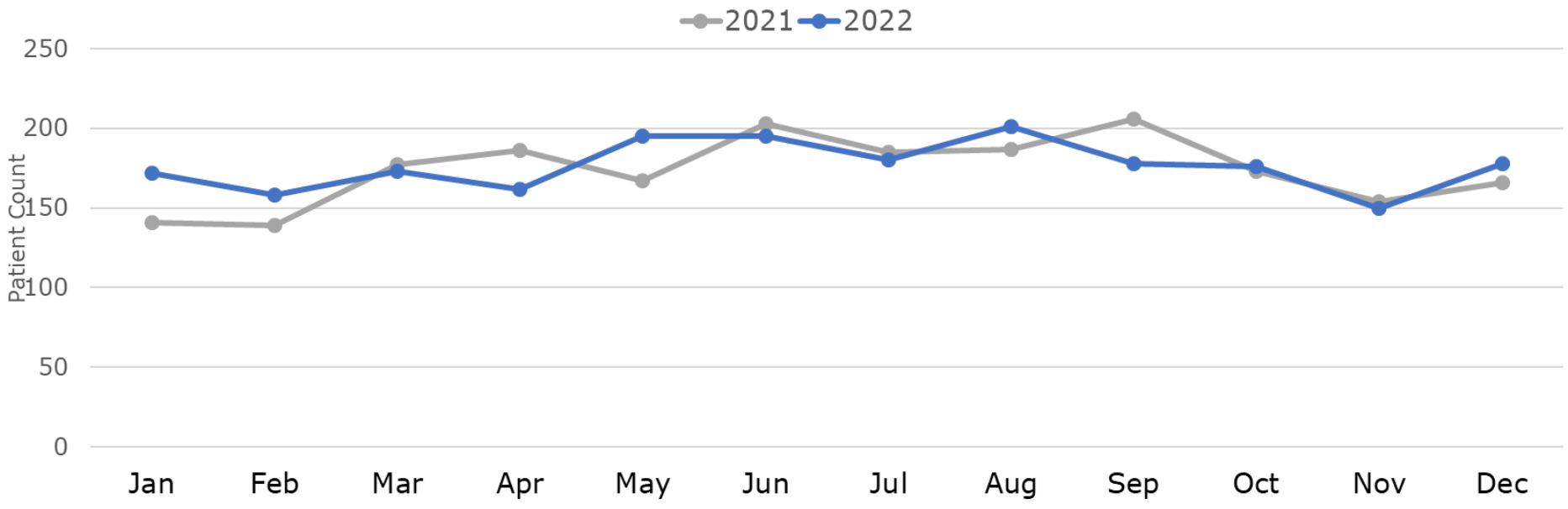
## Demographic Breakdown

**Any Opioid-Related Overdose Deaths** by Age Groups, 2021

Crude Rate per 100,000 Residents



Sacramento EMS Patient Count of Narcan use per Month 2021 vs 2022





# Opioids and Opiates



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# Opioids vs Opiates

Although these terms are often used interchangeably, they are different

## Opioids

- Refer to all natural semisynthetic and synthetic opioids such as oxycodone, hydrocodone (Vicodin), codeine, morphine, fentanyl etc.



## Opiates

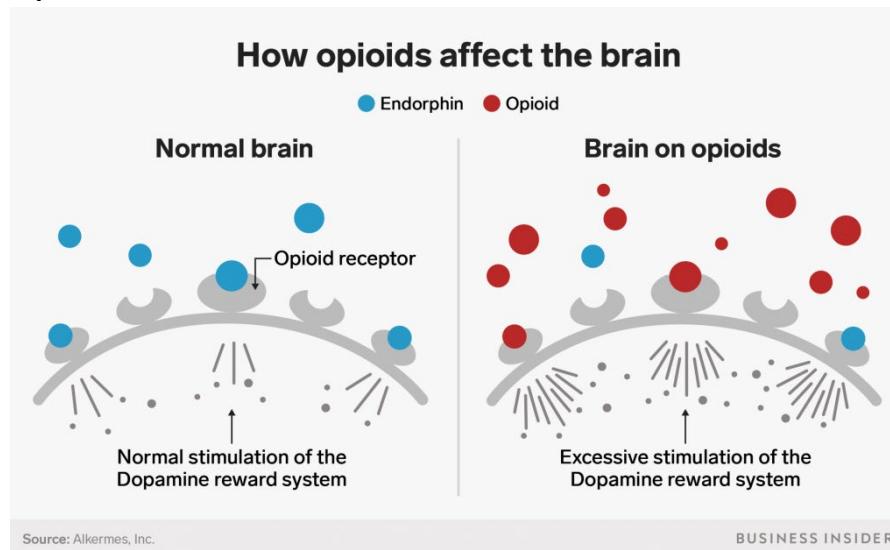
- Refer to natural opioids such as heroin, morphine, opium, codeine, etc.



# Opioids and Opiates

- Natural, synthetic, or semisynthetic chemicals that interact with opioid receptors on nerve cells in the body and brain and reduce the intensity of pain signals and feelings of pain.
- Prescription opioids are generally safe when taken for a short period of time and in the medical direction of a physician, but due to the euphoric feeling produced and in addition to pain relief, they can be misused and have addiction potential

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# Tolerance, Dependence, Addiction

- Opioid Tolerance: A reduced response to a drug or medication, requiring more opioids to experience the same effect.
- Opioid Dependence: The body adjusts its normal functioning around regular opioid use. Heavy withdrawal symptoms can occur.
- Opioid Addiction (OUD): Chronic use of opioids that causes clinically significant distress or impairment.



# Opioid Use Disorder (OUD)

- Opioid Use Disorder also known as:
  - “opioid abuse or dependence”
  - “opioid addiction”
- Opioid Use Disorder is the pattern of opioid use that causes significant impairment of distress.
  - This diagnosis is based on specific criteria such as:
    - Unsuccessful efforts to cut down or control use.
    - Societal problems being affected due to dependency.
    - Failure to fulfill obligations at work, school, or home.
    - Etc.



# Overdose

- Overdose: an injury to the body (poisoning) that happens when a drug is taken in excessive amounts
- An overdose can be fatal or nonfatal
- Symptoms:
  - Respiratory failure
  - Slow breathing
  - Small pupils
  - Unresponsiveness
  - Blue skin from poor circulation
  - Signs – paraphernalia, history from family/friends, prescription drug bottles



# Indications of Overdose

- Suspected or confirmed opiate overdose:
  - Environment is suspicious of illegal or prescription use of opiates, AND
  - Victim is unconscious/poorly responsive and respiratory (breathing) rate appears slow ( $< 8$ ) or shallow/inadequate; or victim is unconscious and not breathing.
- Need for complete or partial reversal of Central Nervous System and respiratory depression induced by opioids.
- Decreased sensorium of unknown origin
- Law Enforcement personnel or First Responders with known or suspected Opiate exposure (Fentanyl) AND signs and symptoms of Opiate overdose.



# Narcan in Law Enforcement



Opioid overdose is reversible through the timely administration of naloxone, which has been used by emergency medical services for decades. Law enforcement officers (LEOs) are often the first emergency responders to arrive at an overdose, by equipping LEOs with naloxone there can be a reduced amount of time between the onset of respiratory depression and the administration of naloxone.





# Narcan

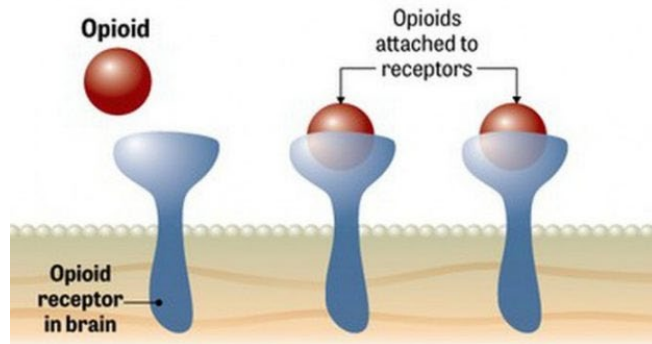
- Naloxone is a medication approved by the Food and Drug Administration (FDA) designed to rapidly reverse opioid overdose.
- It is an opioid antagonist—meaning that it binds to opioid receptors and can reverse and block the effects of other opioids.
- Temporary treatment, the effects do not last long 30- 90 minutes.
  - Critical to obtain medical intervention as soon as possible after administering/receiving naloxone.
- Medication can be given:
  - Intranasal spray
  - Intramuscular
  - Subcutaneous
  - Intravenous injection



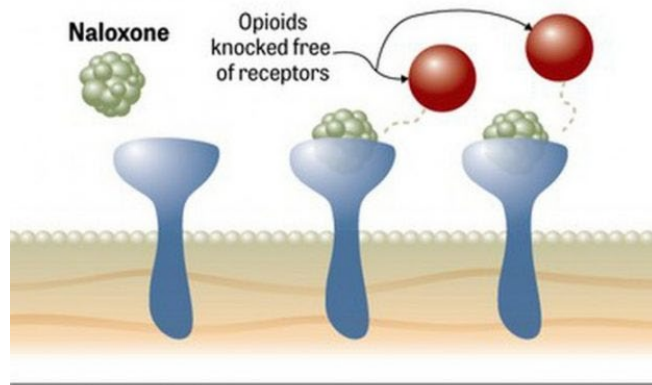
# Narcan in the Brain

## OPIOID OVERDOSE

The brain has many receptors for opioids. An overdose occurs when too much of an opioid (heroin, OxyContin, Percocet) fits in too many receptors, stopping the person's breathing.



Naloxone has a stronger affinity to the opioid receptors than opioid drugs, so it knocks the opioids off the receptors for a short time. This allows the person to breathe again and reverses the overdose.



Source: harmreduction.org

(MLive.com)

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# Protocol

- IN Naloxone Administration:
  - Ensure EMS has been activated using the 9-1-1 system.
  - Maintain standard blood and body fluid precautions, use personal protective equipment.
  - Check patient/victim for responsiveness.
  - Open the airway using Basic Life Support techniques.
  - Perform rescue breathing, if indicated. Perform CPR if pulseless.
  - Administer intranasal (IN) Naloxone:
    - a) **Preload Naloxone, administer 4 mg IN.** If no improvement, consider repeat dose in 2-3 minutes if no response to initial dose (up to a total of three (3) doses) OR
    - b) **Atomizer Naloxone administer 2 mg IN** (administer ½ of dose to each nostril). Consider repeat dose in 2-3 minutes if no response to initial dose (up to a total of six (6) doses)
  - If response to naloxone and patient is possibly a chronic opiate user, prepare for possible narcotic reversal behavior or withdrawal symptoms (vomiting and agitation).
  - Notify transporting EMS personnel of Naloxone administration.



# Administration Methods

<https://www.youtube.com/watch?v=-xTKsHFBXII>



# Side Effects of Narcan

- Patient may become agitated or violent after drug is administered.
- Rapid administration may cause vomiting.
  - Consider body substance isolation (BSI)
- Acute opioid withdrawal symptoms:
  - Agitation,
  - Nausea,
  - Vomiting,
  - Diarrhea,
  - Tearing,
  - Runny nose, and
  - Yawning



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# Personal Safety

- BSI with use of personal protective equipment.
- Be aware that IV drug users may be carrying unsafe sharps.
- Narcotic patches may transfer medication to your skin if exposed for an extended period of time.
  - Heat and moisture also increase transfer
- Exercise caution while engaged in physical contact



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# SCEMSA Data Reporting

- Participating law enforcement agencies shall report all cases of Naloxone administration
  - Within 48 hours of utilization using the First Responder Naloxone Utilization form:  
<https://scemsareports.wufoo.com/forms/m1jb9bmc1uq1j7y/>



# Questions??



Please contact the SCEMSA liaison with any additional questions or concerns.