

Preventing Overdose Deaths: A Guide to Co-Prescribing Naloxone

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Conflict of Interest

- I have no financial relationships or conflicts of interest to disclose





From 1999 to 2014, more than
165,000 people died from overdose
related to prescription opioids.

Source: CDC, 2016



**In 2015, opioid overdose
killed more than 33,000
people in the U.S.**

Source: CDC, 2016



**In 2016, opioid overdose
killed more than 63,000
people in the U.S.**

Source: CDC, 2017



In 2017, the average life expectancy in the U.S. dropped by 2 years

Source: CDC, 2017



**The last time U.S. life
expectancy dropped
similarly was in 1918**

Source: CDC, 2017



During the influenza pandemic

Source: CDC, 2017



Learning Objectives

- Describe the scope and evolution of the opioid overdose epidemic in the United States
- Identify situations which present a risk for accidental opioid overdose
- Describe emergency medical services (EMS) limitations in rapidly responding to opioid overdose in Oklahoma
- Prescribe naloxone for appropriate patients
- Discuss use of naloxone with patients, caregivers/families and the community



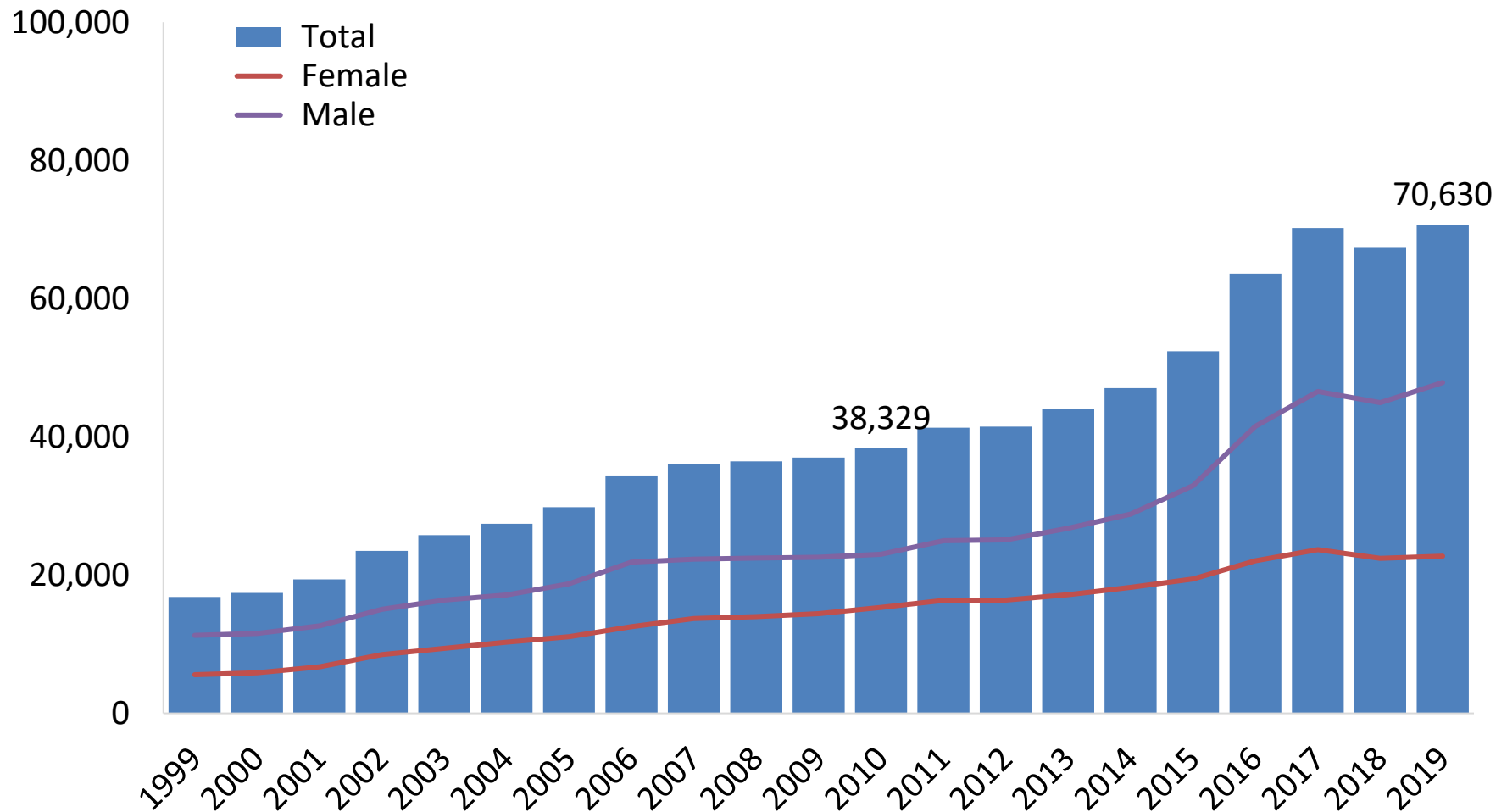
Overdose: Leading Cause of Premature Death

- From 1999 to 2016 the age-adjusted rate of drug overdose deaths in the U.S. **tripled**
 - 1999: 6.1/100,000
 - 2016: 19.8/100,000
- Rate has increased roughly 10% per year from 1999-2016

Source: Hedegaard H, Warner M, Miniño AM. Drug overdose deaths in the United States, 1999–2016. NCHS Data Brief, no 294. Hyattsville, MD: National Center for Health Statistics. 2017.



Overdose: Gender Disparity

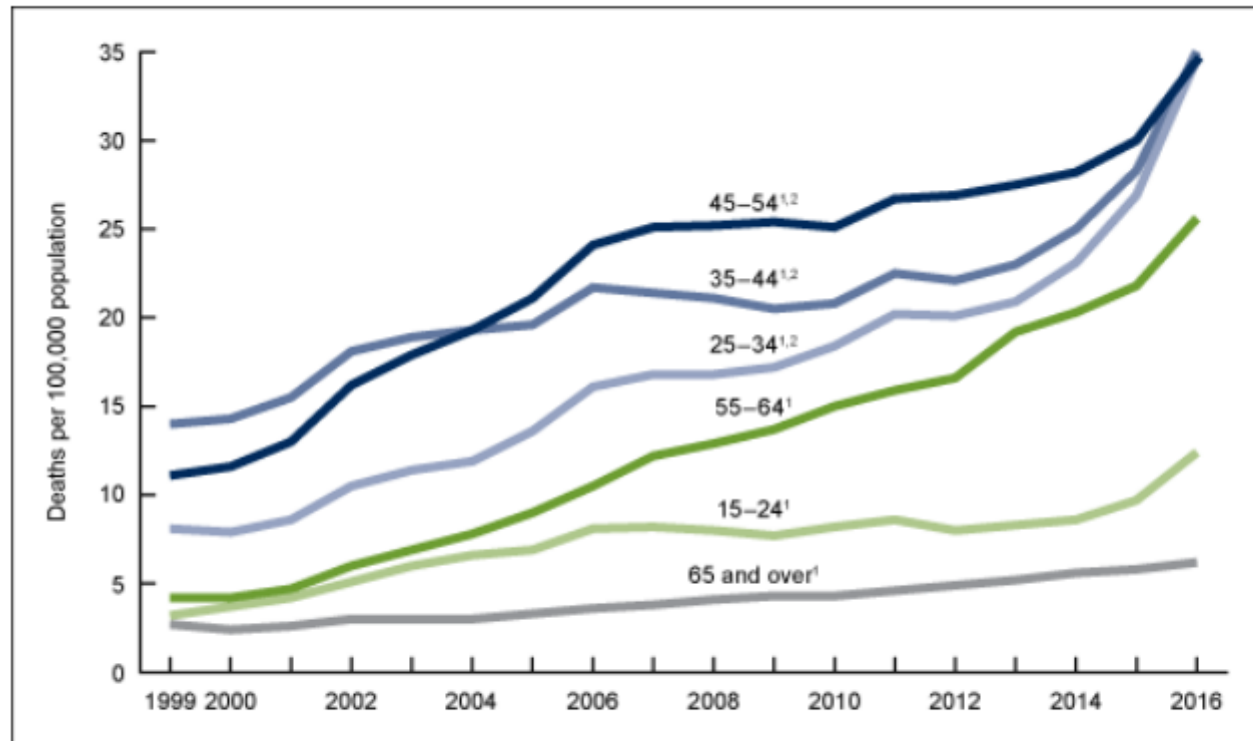


*Includes deaths with underlying causes of unintentional drug poisoning (X40–X44), suicide drug poisoning (X60–X64), homicide drug poisoning (X85), or drug poisoning of undetermined intent (Y10–Y14), as coded in the International Classification of Diseases, 10th Revision.
Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999–2019 on CDC WONDER Online Database, released 12/2020.



Overdose: Age Disparity

Figure 2. Drug overdose death rates, by selected age group: United States, 1999–2016



¹Significant increasing trend from 1999 to 2016 with different rates of change over time, $p < 0.05$.

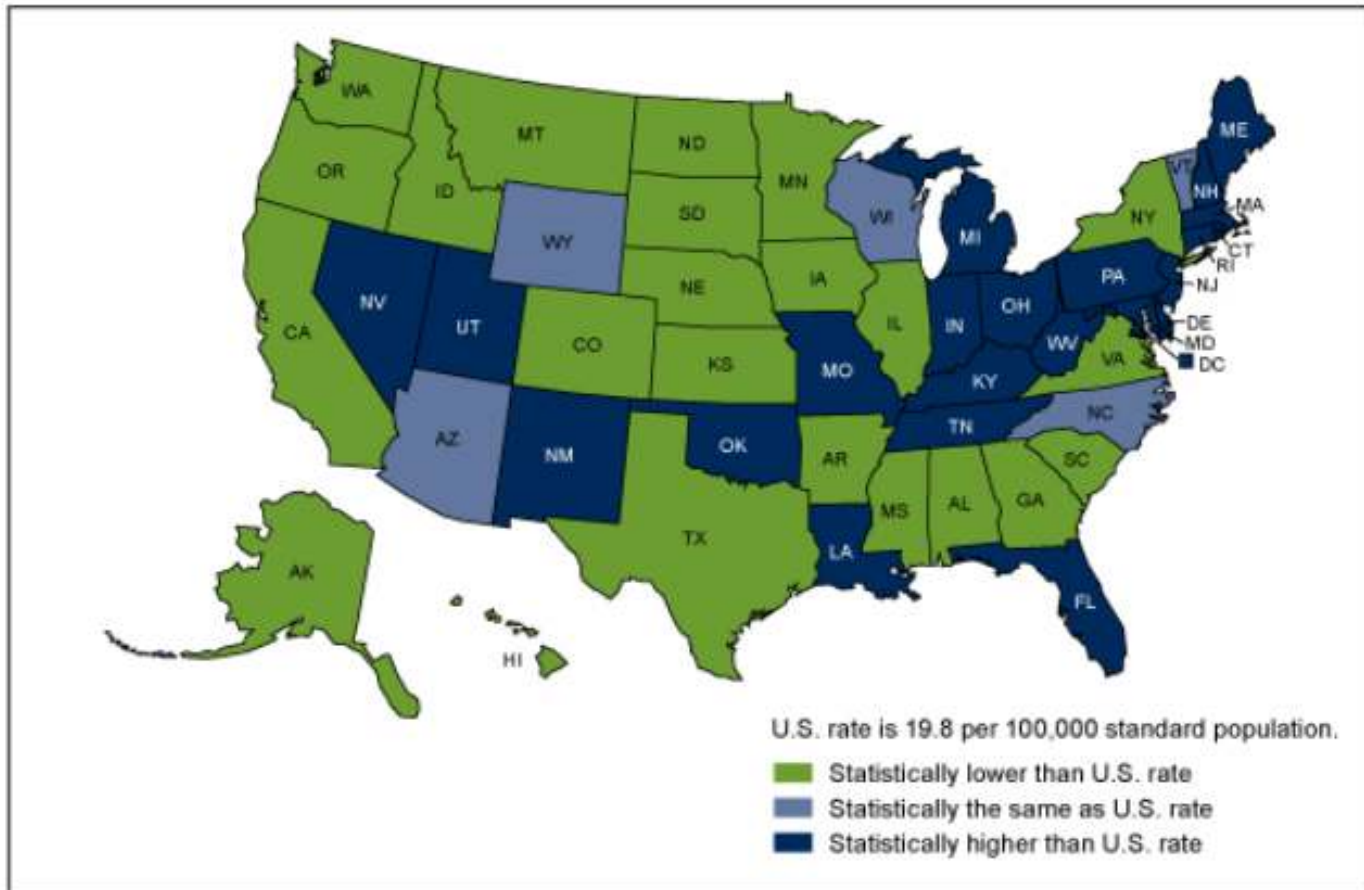
²2016 rate was significantly higher than for the rate for age groups 15-24, 55-64, and 65 and over, $p < 0.05$.

Source: Source: Hedegaard H, Warner M, Miniño AM. Drug overdose deaths in the United States, 1999–2016. NCHS Data Brief, no 294. Hyattsville, MD: National Center for Health Statistics. 2017.



Overdose: Geographic Distribution

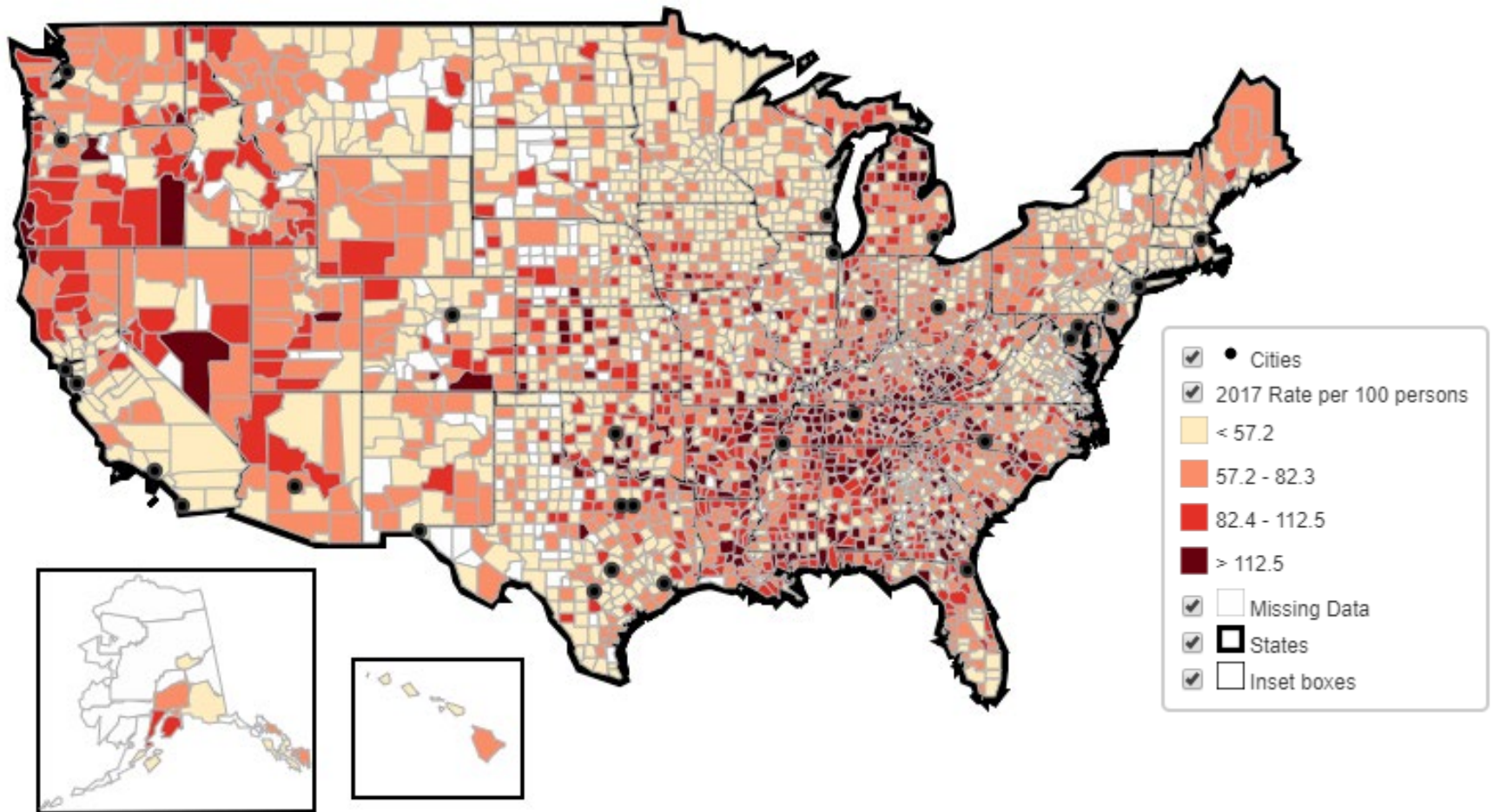
Figure 3. Age-adjusted drug overdose death rates, by state: United States, 2016



Source: Source: Hedegaard H, Warner M, Miniño AM. Drug overdose deaths in the United States, 1999–2016. NCHS Data Brief, no 294. Hyattsville, MD: National Center for Health Statistics. 2017.



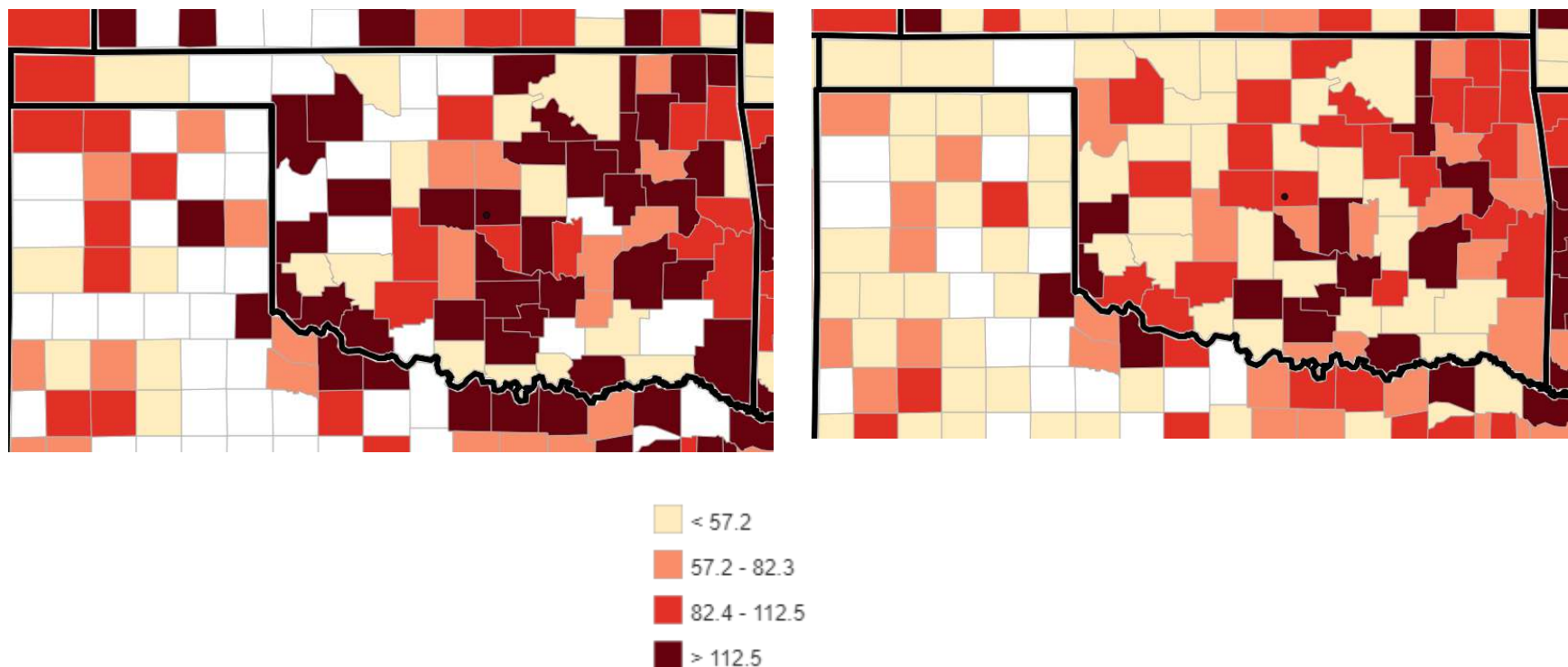
Prescribing: Geographic Distribution, 2017



Source: CDC



Prescribing: Oklahoma, 2012 vs. 2017



Source: CDC



There Is Some Good News

In 2012:

- Prescribing:
 - Nationally: 81 prescriptions per 100 people
 - Oklahoma: 128 per 100
- Oklahoma death rate #10 in nation

In 2017:

- Prescribing:
 - Nationally: 58.7 per 100
 - Oklahoma: 88.1 per 100
 - 68% decrease in prescriptions
- Oklahoma death rate #29 in nation



Not All Opioids Are Prescribed

Death maps show where despair is killing Americans

Alcohol deaths are down, but drug overdoses are way up



— A heroin user prepares to shoot up on the street in a South Bronx neighborhood which has the highest rate of heroin involved overdose deaths in the city. Spencer Platt / Getty Images file

- In 3 rural Oklahoma counties (1980-2014):
 - Mortality rate $+>5000\%$
 - Mortality due to self-harm: top 1% of U.S.
 - Life expectancy dropped 12-20 years
- Nationwide:
 - Mortality due to drug use disorder $+>600\%$

Sources: Image, NBC News

Data: Dwyer-Lindgren L et al. Trends and Patterns of Geographic Variation in Mortality from Substance Use Disorders and Intentional Injuries Among US Counties, 1980-2014. *JAMA*. 2018; 319(10):1013-1023

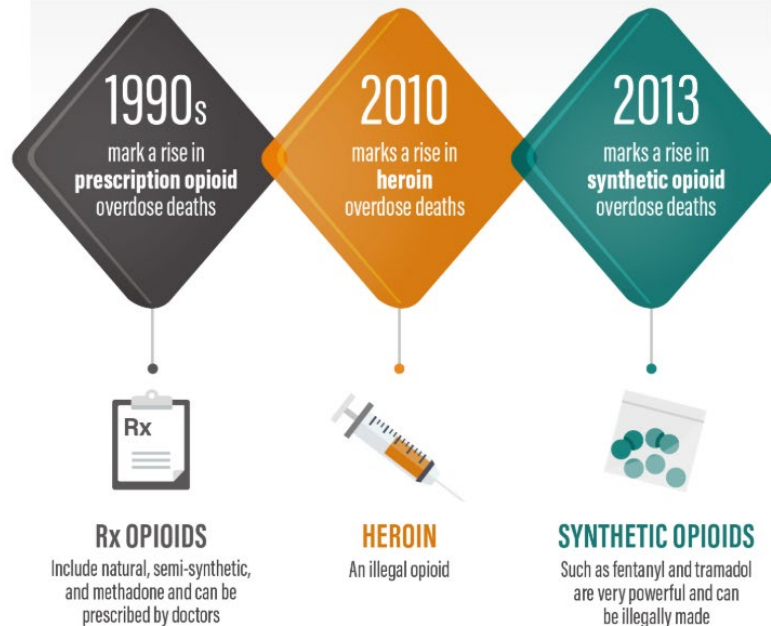


Opioid Overdose: Three Waves

RISE IN OPIOID OVERDOSE DEATHS IN AMERICA

A Multi-Layered Problem in Three Distinct Waves

399,000 people died
from an opioid overdose (1999–2017)

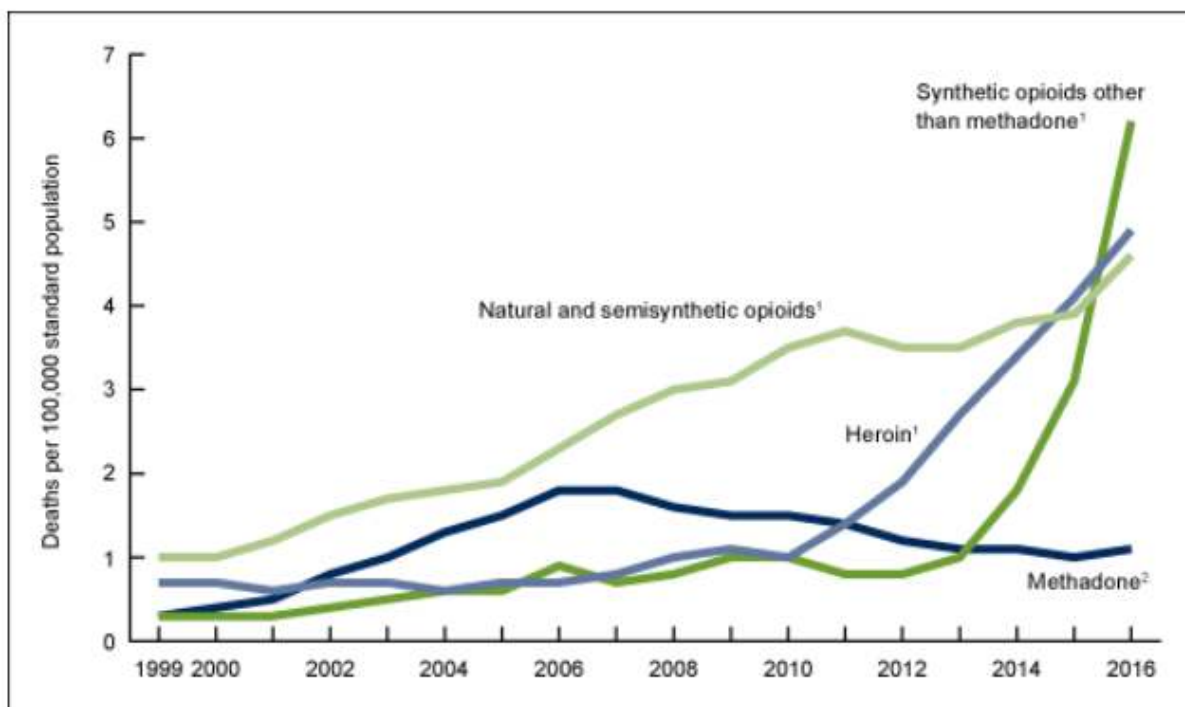


Learn more about the evolving opioid overdose crisis: www.cdc.gov/drugoverdose



Overdose: Drug Categories

Figure 4. Age-adjusted drug overdose death rates, by opioid category: United States, 1999–2016



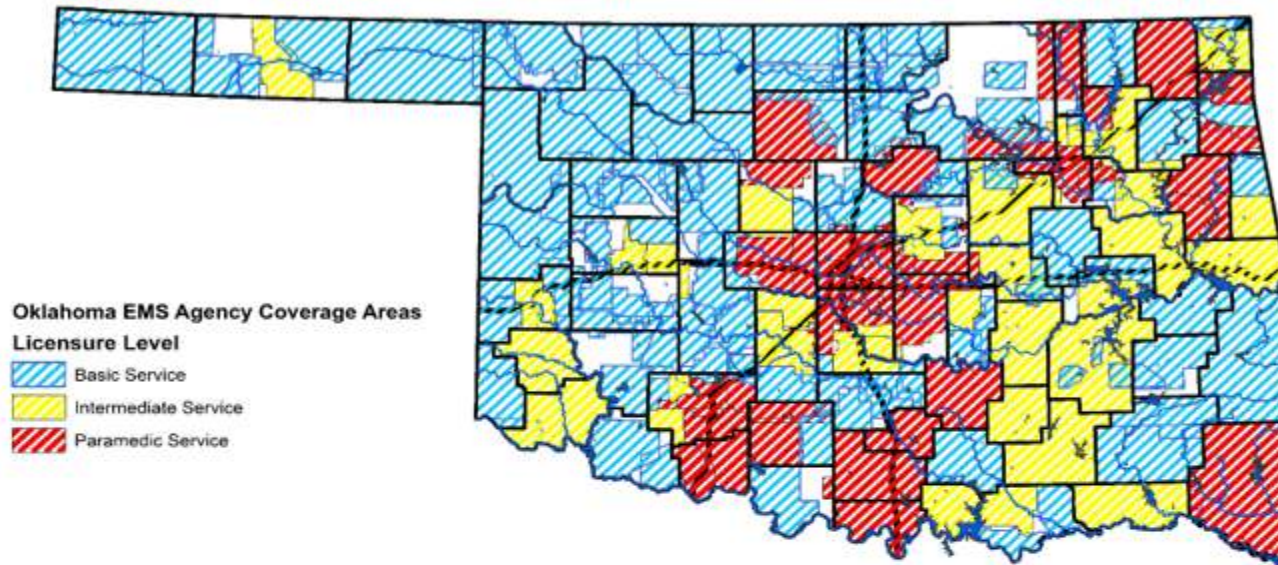
¹Significant increasing trend from 1999 to 2016 with different rates of change over time, $p < 0.05$.

²Significant increasing trend from 1999 to 2006, then decreasing trend from 2006 to 2016, $p < 0.05$.

Source: Hedegaard H, Warner M, Miniño AM. Drug overdose deaths in the United States, 1999–2016. NCHS Data Brief, no 294. Hyattsville, MD: National Center for Health Statistics. 2017.



Overdose: Not All EMS Is Equal



Oklahoma EMS Agency Coverage Areas, by Agency Licensure Level, 2016

Notes: Map reflects current OSDH EMS Agency Licensure data as of 01/01/2016

Data Source: OSDH Emergency Systems EMS Agency Licensure data

Created: 06.21.2016

Created by: Johnnie L. Gilpen Jr, MS NRP GISP (johnnieg@health.ok.gov)

Projection/Coordinate System: NAD 1983 State Plane Oklahoma North FIPS 3501



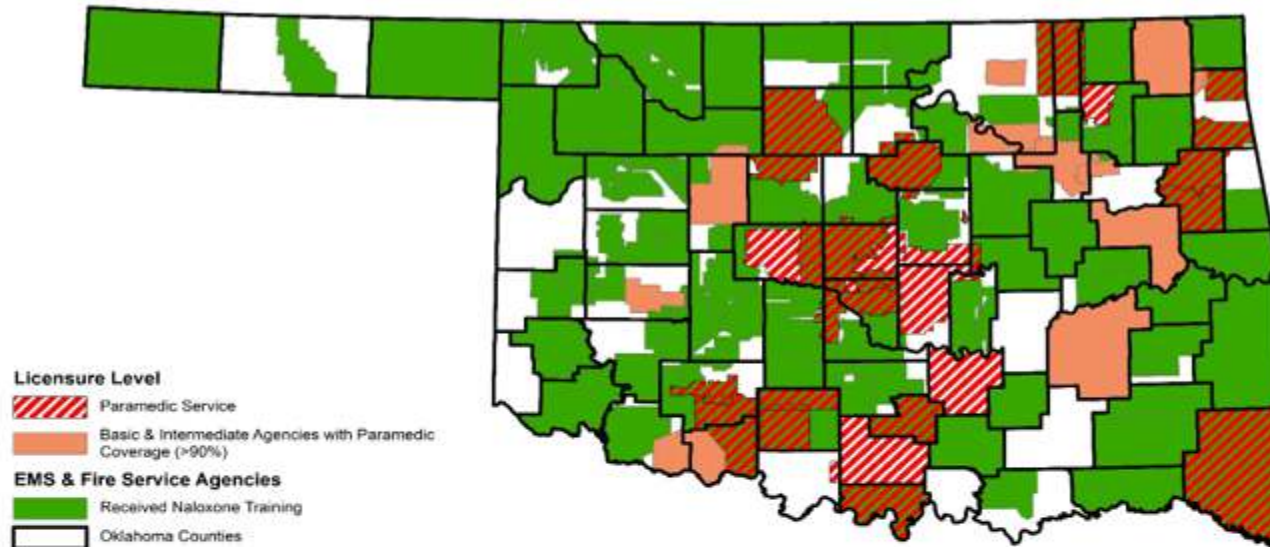
Disclaimer: This map is a compilation of records, information and data from various city, county and state offices and other sources, affecting the area shown, and is the best representation of the data available at the time. The map and data are to be used for reference purposes only. The user acknowledges and accepts all inherent limitations of the map, including the fact that the data are dynamic and in a constant state of maintenance.



Emergency Systems
Protective Health Services
Oklahoma State Department of Health



Overdose: Not All EMS Is Equal



Oklahoma EMS Agencies Participating in the 2016 Naloxone Education and Distribution Program

Notes: Map reflects current OSDH EMS Agency Licensure data as of 01/01/2016

Data Source: OSDH Emergency Systems EMS Agency Licensure data

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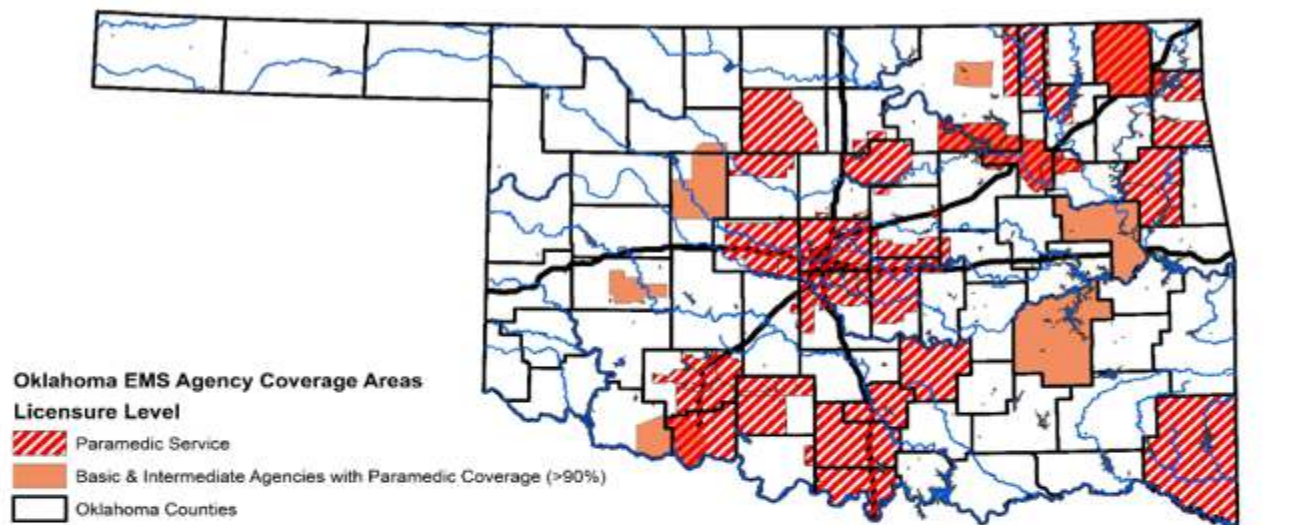
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Overdose: Not All EMS Is Equal



Oklahoma EMS Agencies with Paramedic Level Coverage,
90% of the time or greater, 24/7/365

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Data Source: OSDH Emergency Systems EMS Agency Licensure data

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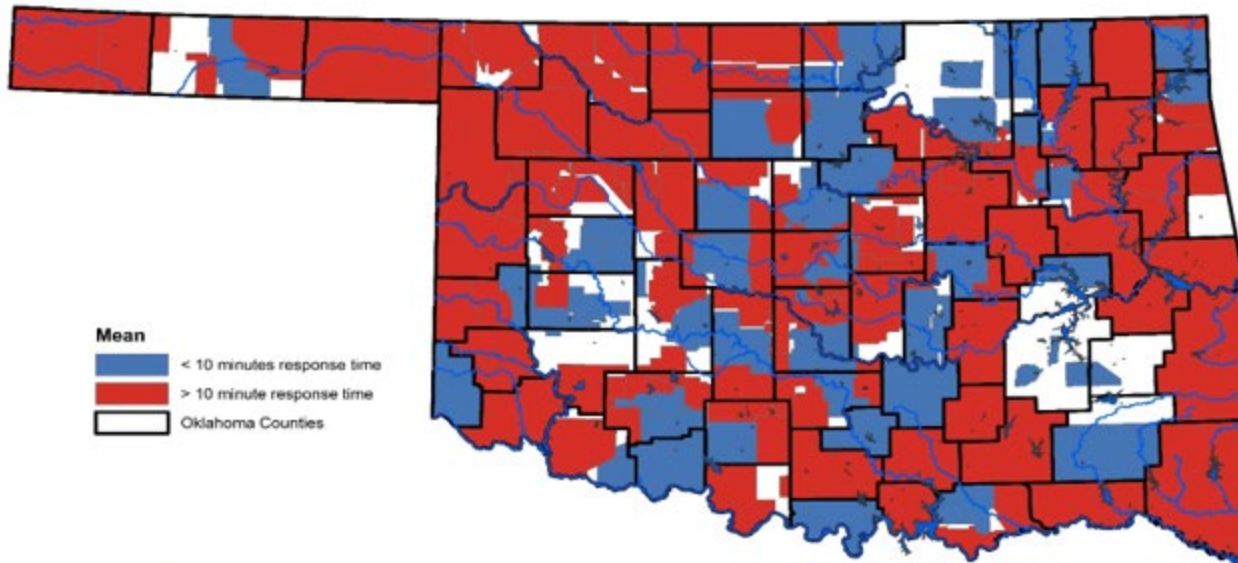
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Overdose: Response Time Matters



Oklahoma EMS Agencies - Mean Response Time, 2015

Notes: Map reflects current OSDH EMS Agency Licensure data as of 01/01/2016

Data Source: OSDH Emergency Systems EMS Agency Licensure data

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Takeaway: Prescribe Naloxone!

- To more patients than you may think
- In more situations than you may consider
- Examples



Takeaway: Prescribe Naloxone!



- “Mayra”
- 80 years old
- Mild dementia, lives independently
- Chronic joint pain
- Home Health loads her pill box
- Opioids are low dose and secured properly

*photos are not actual patients, stories have been altered to protect identities



Prescribe Naloxone! Why?



- Has an 18 month old great-granddaughter
- Lost a pill one day
- Toddlers are curious beasts
- Family made it to hospital in time

*photos are not actual patients, stories have been altered to protect identities



Takeaway: Prescribe Naloxone!



- “Jacob”
- 55 years old
- Recent diagnosis of cancer (laws/guidelines don’t apply, right?)
- Just completed major surgery
- Starting chemo/radiation

*photos are not actual patients, stories have been altered to protect identities



Prescribe Naloxone! Why?



- He's putting on a brave face
- He hasn't reached out to anyone
- Has a moment of desperation, took more than prescribed to cope (pain? depression?)
- His wife finds him
- He doesn't make it
- Cause of death listed as cancer

*photos are not actual patients, stories have been altered to protect identities



Naloxone: Patient Profile

Everyone

- Prescribed opioids at high dose (>90 MME)
- With co-prescription for sedating medication, esp. benzodiazepines
- Substance use disorder (esp. following abstinence)
- Past history of opioid overdose

Strongly consider if

- Prescribed opioids at any dose
- Opioid naïve patients
- Children in the home
- Cancer patients



Naloxone: Clinical Pearl

Writing any prescription, by itself, will NOT
save a life



Naloxone: Ensure Success

- Educate EVERYONE (and train your staff)
 - patient
 - caregivers/friends/family
- Give handouts for posting on refrigerator, other areas
- Prescribe delivery method that is
 - affordable
 - easy to use
- Prescribe multiple doses (at least 2)
- Ensure storage in accessible area



Naloxone: Educate for Success

- Recognize signs of overdose:
 - Pinpoint pupils
 - Not arousable
 - Infrequent, labored or no breathing
 - Blue lips, blue fingertips
 - Gurgling or snoring noises may be present



Caregiver Response to Overdose

- Stimulate patient → no response
- Start rescue measures
 - If alone, call 911 before starting
 - If another person available, have them call 911
- Administer naloxone, give 2 rescue breaths, continue CPR as needed
- If patient responds, lay them in rescue position, monitor
- Keep another naloxone handy



What Is Happening?

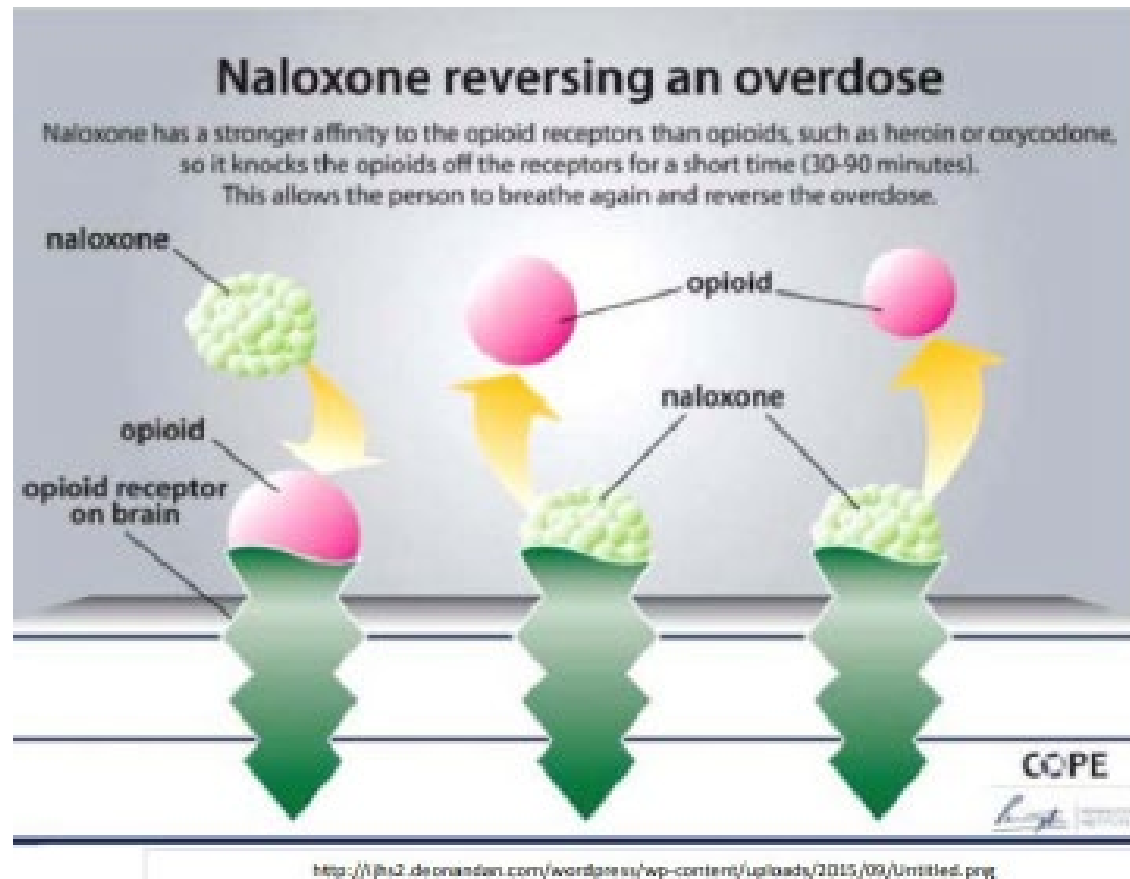


Photo credit: Image Credit: Pennington Institute's Community Overdose Prevention and Education (COPE) Project; Adapted from art work by Maya Doe-Simkins



Prescribing Naloxone

- Multiple formulations
- Name brands
 - Narcan* (inhaled)
 - Evzio* (injected, voice/visual prompts)
- Generics
 - Injectable
 - Intranasal jet



*Name brand



Prescribing Naloxone

- Brand not better than generic
 - Might be easier to use
 - Cost affects compliance (but so does ease of use)
 - OHCA now covers Narcan*

*Name brand



Prescribing Naloxone

- To prescribe generic:
 - Naloxone 2mg/2ml (some EMR have 1mg/1ml, confuses pharmacy)
 - Use as directed and call 911 immediately
 - #2, 2 refills
- To prescribe nasal inhaler:
 - Narcan*
 - Use as directed and call 911
 - #one box (2 inhalers), 2 refills



*Name brand



Prescribing Naloxone

- Cash price (goodrx.com, accessed 2/5/19)
 - Generic syringe with needle (2) \$35.98-62.94
 - Narcan* intranasal (box of 2) \$130.00
 - Evzio* injection (box of 2) \$3,800.00
 - Nasal atomizer (as of 2/5/19)
 - Amazon.com \$12.99
 - Lassiter Drug \$10.00

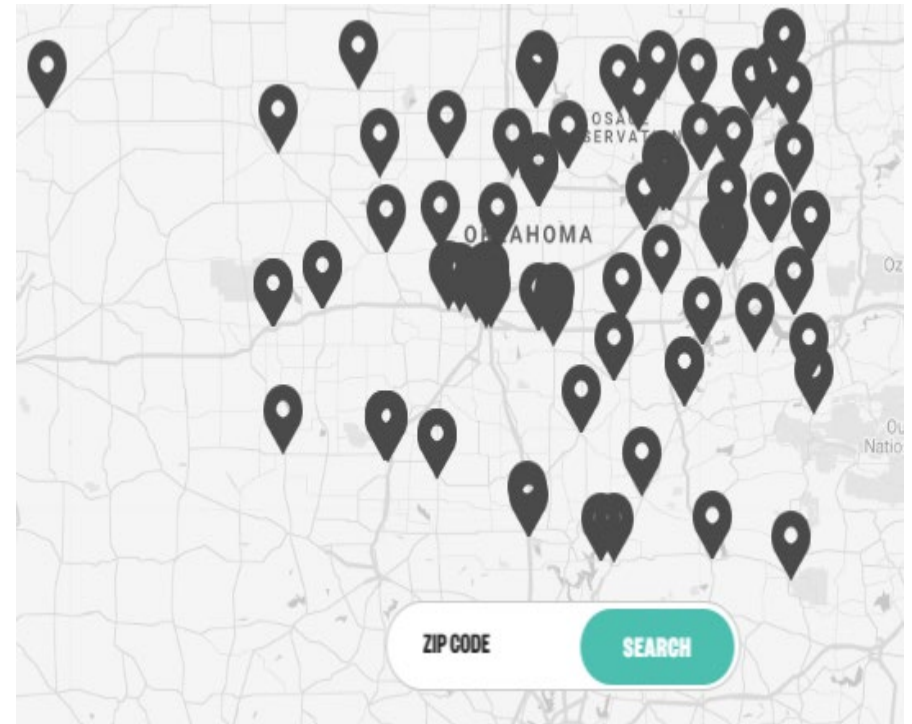


*Name brand



Prescribing Naloxone: Free Options

- 94 locations
- Mailed or curbside pickup options
- No prescription required
- Most are mental health facilities

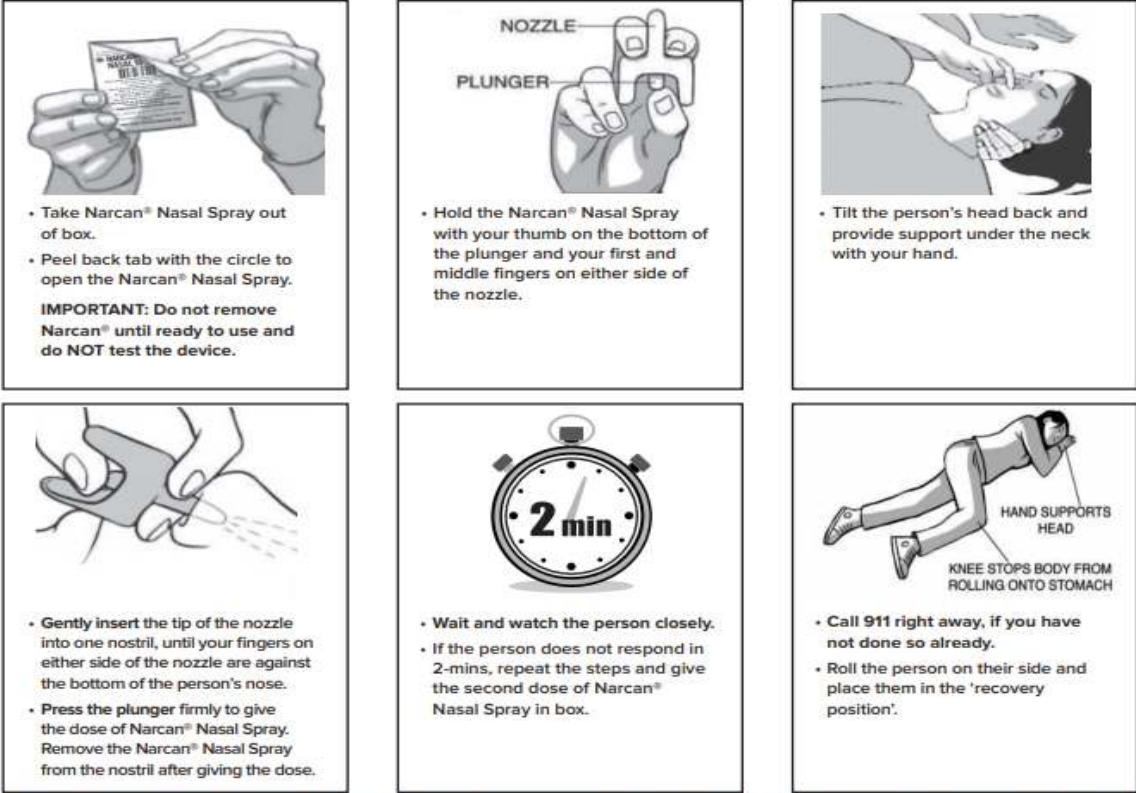


- For information:
www.okimready.org/overdose



Prescribing Naloxone: Educational Materials

How to give Narcan® Nasal Spray



The infographic is divided into six panels, each with an illustration and instructions:

- Panel 1:** Illustration of hands opening the Narcan box. Instructions: Take Narcan® Nasal Spray out of box. Peel back tab with the circle to open the Narcan® Nasal Spray. **IMPORTANT:** Do not remove Narcan® until ready to use and do NOT test the device.
- Panel 2:** Illustration of the hand holding the device with labels for 'NOZZLE' and 'PLUNGER'. Instructions: Hold the Narcan® Nasal Spray with your thumb on the bottom of the plunger and your first and middle fingers on either side of the nozzle.
- Panel 3:** Illustration of a person's head being tilted back. Instructions: Tilt the person's head back and provide support under the neck with your hand.
- Panel 4:** Illustration of the nozzle being inserted into a nostril. Instructions: Gently insert the tip of the nozzle into one nostril, until your fingers on either side of the nozzle are against the bottom of the person's nose. Press the plunger firmly to give the dose of Narcan® Nasal Spray. Remove the Narcan® Nasal Spray from the nostril after giving the dose.
- Panel 5:** Illustration of a 2-minute timer. Instructions: Wait and watch the person closely. If the person does not respond in 2-mins, repeat the steps and give the second dose of Narcan® Nasal Spray in box.
- Panel 6:** Illustration of a person in the recovery position with labels 'HAND SUPPORTS HEAD' and 'KNEE STOPS BODY FROM ROLLING ONTO STOMACH'. Instructions: Call 911 right away, if you have not done so already. Roll the person on their side and place them in the 'recovery position'.

If the person is not breathing, do rescue breathing (or CPR if you know it) ➔

Sources: <http://www.drugpolicy.org/issues/naloxone> and <https://www.pharmacists.ca/news-events/news/how-to-use-naloxone-nasal-spray-in-a-few-simple-steps-new-video-and-infographic/> and https://www.schoolhealthny.com/cms/lib/NY01832015/Centricity/Domain/85/Opioid%20NYSDOH_NalAdminStepsInfographic_2019.pdf



Prescribing Naloxone: Educational Materials

- Video also available
 - Narcan nasal spray:

<https://www.narcan.com/patients/how-to-use-narcan/>

Sources: <http://www.drugpolicy.org/issues/naloxone> and
https://www.ok.gov/health2/documents/UP_Naloxone_fact_sheet.pdf



Thank you

