

DOCTORS OF TOMORROW:

WHY JUST ONE PILL CAN KILL

Aneesha Achar and Dr. Kevin Zacharoff



**1 IN 4 PEOPLE OVER THE AGE OF 12 HAVE
USED AN OPIOID FOR A **NON-MEDICAL**
PURPOSE**



WARM-UP QUESTIONS

Kahoot!

www.kahoot.it

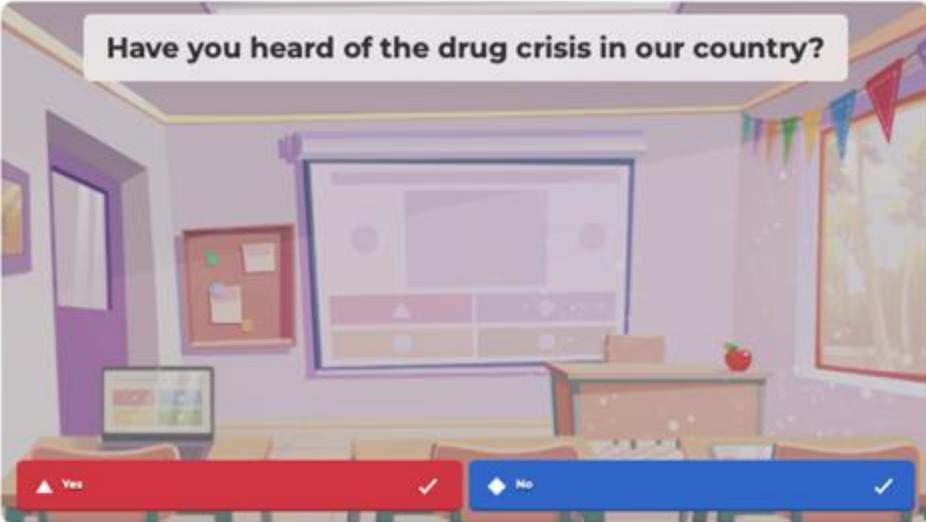
<https://create.kahoot.it/details/6d5f00d1-8470-4516-8c85-10fa7fef1c25>

Questions (5)

 Hide answers



Have you heard of the drug crisis in our country?



What is an "opioid"?



What are common opioid painkillers?

▲ Percocet/Percs ✓

◆ Oxycontin/Oxy ✓

● Heroin ✓

■ Codeine/Lean ✓

How many people died from drug overdose with opioid painkillers in 2024?

▲ 8,391 ✓

◆ 20,391

● 40,391

■ 80,391 ✓

Have you heard of Narcan?

▲ Yes ✓

◆ No ✓

TABLE OF CONTENTS



01

THE DRUGS

How do painkillers work?
What are they used for?

02

THE DRUG CRISIS

Why are some painkillers
risky drugs? What's going
on in the US?

03

NARCAN FAQ

What is Narcan? When
should I use it?

04

NARCAN DEMO

How do I use it?

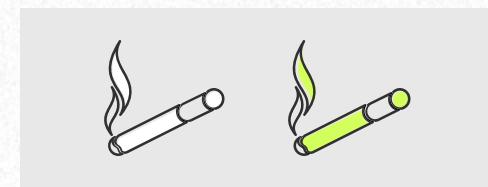


01

THE DRUGS



How do painkillers work? What are they used for?



EXAMPLES OF OPIOID PAINKILLERS



- Oxycodone
- Percocet = oxycodone + tylenol
- Lean = codeine + promethazine + soda
- Morphine
- Fentanyl
- Methadone
- Buprenorphine

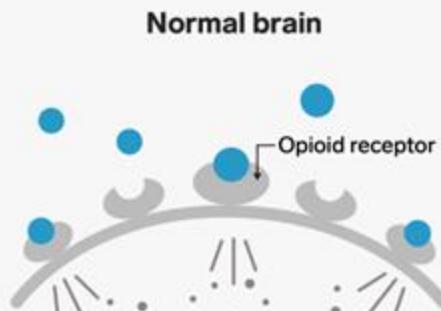
HOW DO THEY WORK?



How opioids affect the brain

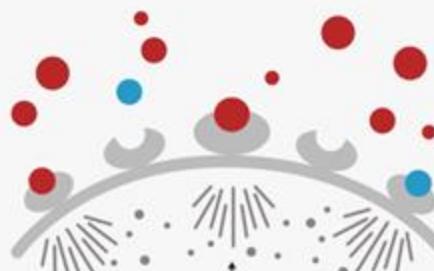
● Endorphin ● Opioid

Normal brain



Normal stimulation of the
Dopamine reward system

Brain on opioids



Excessive stimulation of the
Dopamine reward system

Tolerance?

Withdrawal?



Source: Alkermes, Inc.

BUSINESS INSIDER

<https://www.pursuecare.com/what-are-opioids-opioid-addiction/>

WHAT ARE THE PROBLEMS?



- Tolerance
 - More and more to feel same effect
- Withdrawal
 - Muscle aches, chills and sweating, nausea/vomiting/diarrhea, anxiety, sleeping problems
- Addiction
 - Relationship problems, skipping school, craving, spending time and money, trying to quit but can't (even if it's hurting you), risky situations
- Lacing/Combination with other drugs
 - Mixed with other substances/stronger opioids
 - Alcohol, benzos
- Overdose
 - Effect on breathing

LACING



Along with opioid painkillers, marijuana, cocaine, and other drugs can be laced with fentanyl.

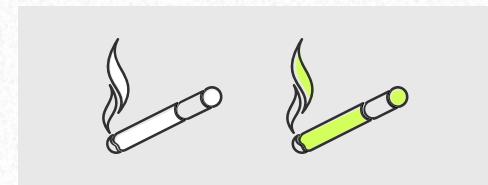


02

THE DRUG CRISIS



Why are some painkillers risky drugs? What's going on in the US?





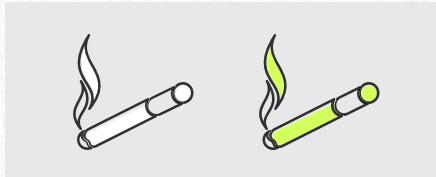
BRIEF HISTORY



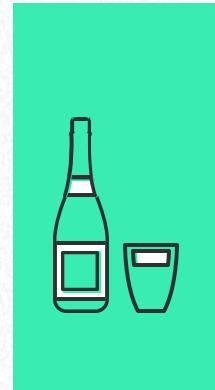


80,391

223 people/day



Number of drug-related deaths
in 2024, 76% involved opioid
painkillers





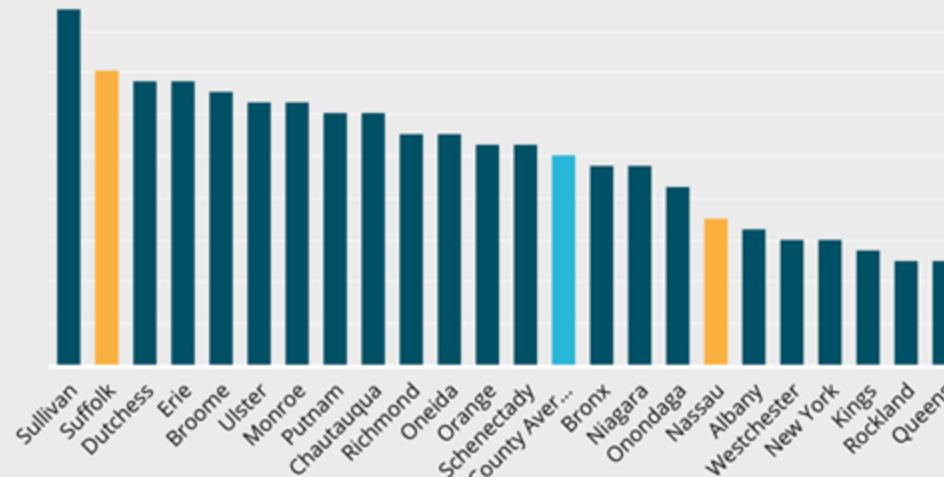
“OPIOID OVERDOSE IS NOW THE LEADING CAUSE OF ACCIDENTAL DEATH IN NEW YORK CITY AND IN THE UNITED STATES, SURPASSING EVEN MOTOR VEHICLE ACCIDENTS” -NYC.GOV



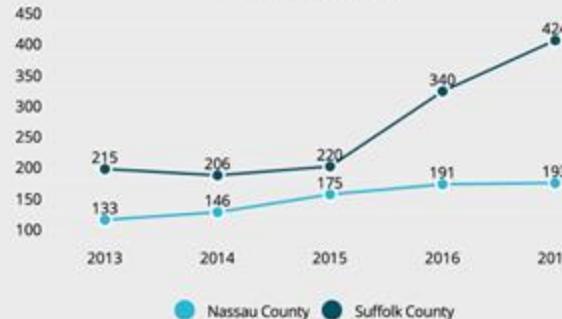
SUFFOLK COUNTY

In 2017, Nassau and Suffolk counties had 617 overdose deaths.

Rate of Opioid Deaths by County in New York State, Per 100,000 Persons in 2017



The Number of Opioid Overdose Deaths in Suffolk County Outpaces Those in Nassau County



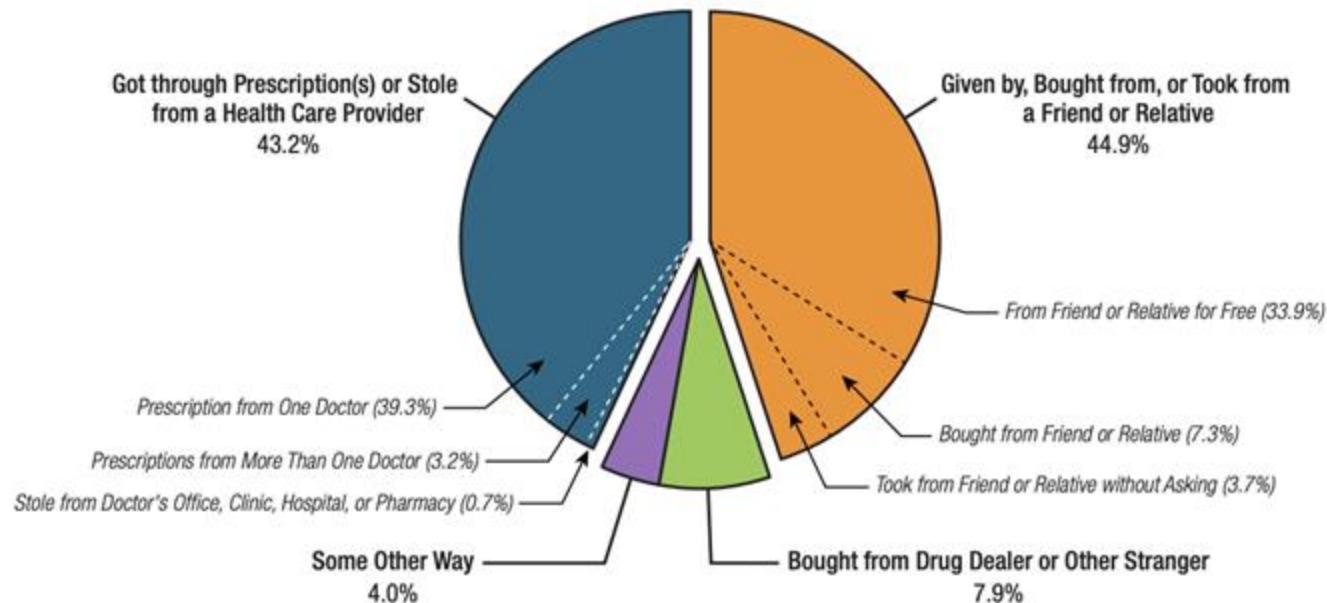
Nearly 70 Percent of All Opioid Overdose Deaths on Long Island Occurred in Suffolk County in 2017



● Share of LI Deaths in Nassau County ● Share of LI Deaths in Suffolk County

FINDINGS

Figure 23. Source Where Pain Relievers Were Obtained for Most Recent Misuse: Among People Aged 12 or Older Who Misused Pain Relievers in the Past Year; 2021



8.7 Million People Aged 12 or Older Who Misused Pain Relievers in the Past Year

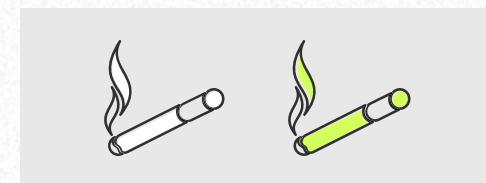


03

NARCAN FAQ



What is Narcan? When should I use it?





WHAT IS NARCAN?



WHEN DO I USE NARCAN?

Signs of opioid painkiller overdose

- Trouble breathing/not breathing
- Snoring
- Gasping, gurgling
- Fingernails/lips are blue/purple
- Extreme sleepiness
- Pale/damp skin
- Slow/no heartbeat
- Passing out
- Tiny pupils (“pinpoint”)
- Not waking up with yelling/shaking

FAQ

Q1

Can I give Narcan without medical training?

Q2

Do I have to respond to a possible overdose?

Q3

What if I am drunk/on drugs too?

Q4

What if something bad happens to the person overdosing?

A1

Yes.

A2

No. If not comfortable, call 911

A3

Give Narcan. Good Samaritan Law

A4

Not legally responsible (unless gave drug or harmed)

“The New York State 911 Good Samaritan Law allows people to call 911 without fear of arrest if they are having a drug or alcohol overdose that requires emergency medical care or if they witness someone overdosing.” - NYS Dep of Health

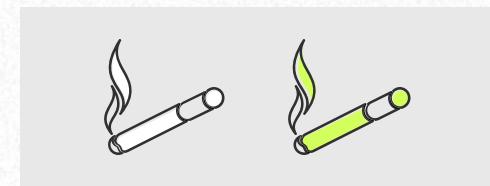


04

NARCAN DEMO



How do I use it?



OVERDOSE REVERSAL STEPS



Emergency Response for Opioid Overdose



Naloxone Nasal Spray

1



Try to Wake the Person Up

- Shake them and shout their name if you know it.
- If no response, perform a sternal rub and/or squeeze their trapezius muscle.
- If they are still not breathing or responding and have cold and clammy skin, assume it is an overdose. Take action!

2



Administer Naloxone Nasal Spray

- Tilt the person's head back.
- Remove the Naloxone nasal spray from its packaging and gently insert the nozzle into one of their nostrils.
- Press the plunger firmly to administer the first dose of Naloxone.
- Wait 2-3 minutes and administer the second dose of Naloxone in the other nostril if the person is still not breathing on their own.

OVERDOSE REVERSAL STEPS

3

Help, someone
isn't breathing!

I need a paramedic
at my location!

Call 911 After
Administering
Naloxone!



- Report only what you see, not what you think happened.
- Avoid words like "drugs" and "overdose."
- When they arrive, tell EMS what drugs were used if known, and the amount of Naloxone given.

Good Samaritan Law
Bystanders who respond to an overdose and administer Naloxone have limited immunity under California's Good Samaritan Law that includes being under the influence yourself and possession of paraphernalia and drugs in small amounts for personal use.

Don't Run - Call 911!

4



Monitor breathing

- If breathing is erratic or stopped, perform rescue breathing or CPR (if trained) in between administering the first and second dose of Naloxone nasal spray.
- Be sure to place a protective barrier between your mouth and theirs.
- Administer a second dose of Naloxone in 2-3 minutes in the other nostril if still not breathing.
- Place in recovery position once they begin to breathe on their own.

5

Stay with the person



- Stay with the person until EMS arrives if possible. Place in recovery position if you need to leave before they arrive.
- As they wake up, calmly explain what happened and create space around them.
- Naloxone wears off in 30 to 90 minutes and if opioids are still present, they may overdose again.
- It is important that they go to the ED for assessment and support, but if they refuse to go, they should be monitored for up to 4 hours in case of overdose again.
- If they do overdose again, repeat the same overdose reversal steps.

Review

Check

Call

Give

Watch

Stay

Check for a suspected overdose

Call 911

Administer 1st dose in the nose

Give doses every 2-3 min until awake

Stay with them until help comes

WHO SHOULD CARRY NARCAN?

Trick question: anyone!

March 2023: Narcan OTC

Strongly encouraged in:

- Friends, family, and people with opioid use disorder
- People taking prescribed high-dose opioid painkillers
- People taking both opioid painkillers and other drowsy medication (benzodiazepine)
- People using illegal opioids

In 2018, study showed in > 40% of opioid painkiller overdose deaths, a bystander was nearby. ~ 19,000 lives could have been saved with Narcan.

WHO SHOULD CARRY NARCAN?



- Per State Health Commissioner Dr. James McDonald in 2023: Narcan available in every pharmacy in NYS
- 8 states have required all public schools to keep naloxone on-site
 - NJ, RI, MD, MN, IL, OR, AR, TX
- NYS schools may obtain 4 doses of Narcan at no cost
- NYC public schools required to carry Narcan
- More available in communal spaces

WHAT ELSE CAN BE DONE?



- Educate!
- Harm Reduction Centers
 - Syringe access/disposal
 - Fentanyl strips
 - Medication assisted treatment
 - Supervised consumption
 - Medical, legal, and housing services
- Safe prescribing practices
- Prescription drug monitoring programs
- Evidence-based policies



<https://www.harmreductionactioncenter.org/what-we-do>

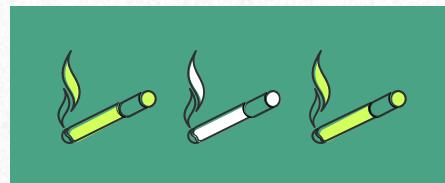
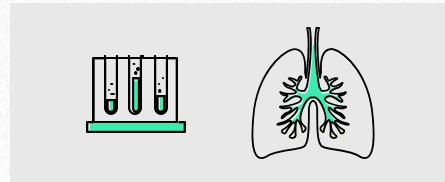
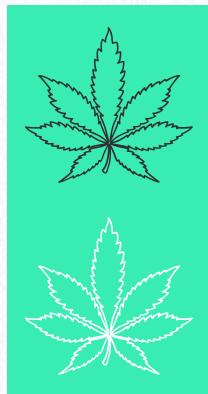


CONCLUSIONS

1) While opioid painkillers can be helpful drugs when used correctly, they are a leading cause of death in the United States.

2) Opioid painkiller overdose is a medical emergency. Know the signs.

3) Administer Narcan with 5-step method.



QUESTIONS?

Thank you for your time and attention!

aneesha.achar@stonybrookmedicine.edu
(518)860-9023

CREDITS: This presentation template was created by **Slidesgo**,
including icons by **Flaticon**, and infographics & images by **Freepik**
Please keep this slide for attribution

SOURCES

<https://www.nyc.gov/site/doh/health/health-topics/alcohol-and-drug-use-prevent-overdose.page>

<https://publichealth.jhu.edu/2024/how-to-save-a-life-using-naloxone>

<https://canaphem.ca/>