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# Naloxone Education and Simulation

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## Objectives

- Explain recent trends related to the opioid crisis
- Understand what naloxone is and how to use it
- Discuss harm reduction and stigma related to substance use



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# The Opioid Crisis

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## What is an Opioid?

- Attach to opioid receptors in the brain and body
  - Stop the body from sending pain signals to the brain
  - Can also produce euphoria
  - Potential for overdose and death

Buprenorphine	Hydrocodone
Codeine	Oxycodone
Fentanyl	Morphine
Heroin	Methadone

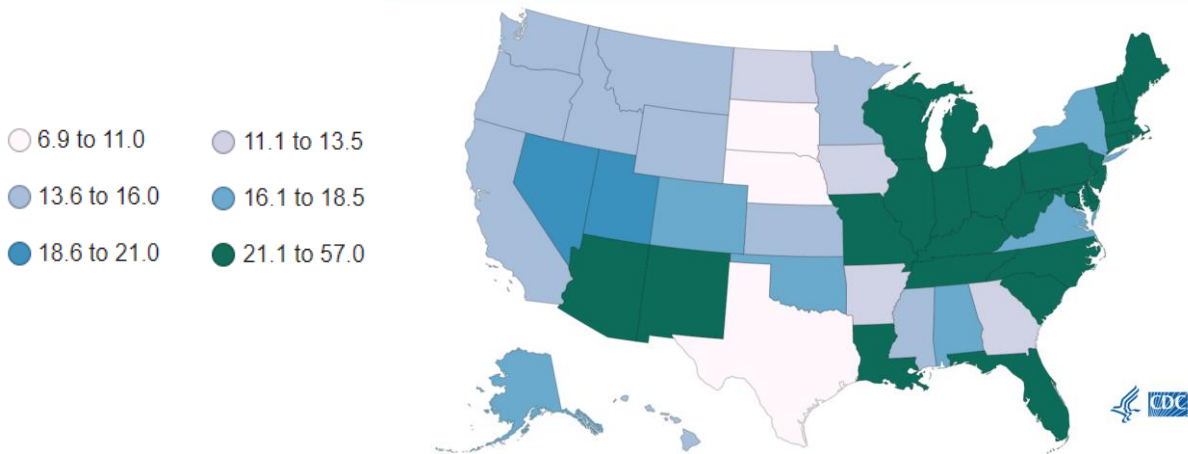
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Pain Physician. 2008 Mar;11(2 Suppl):S133-53.

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# Opioid-Related Overdose Death Rates

Number and age-adjusted rates of drug overdose deaths by state, US 2019

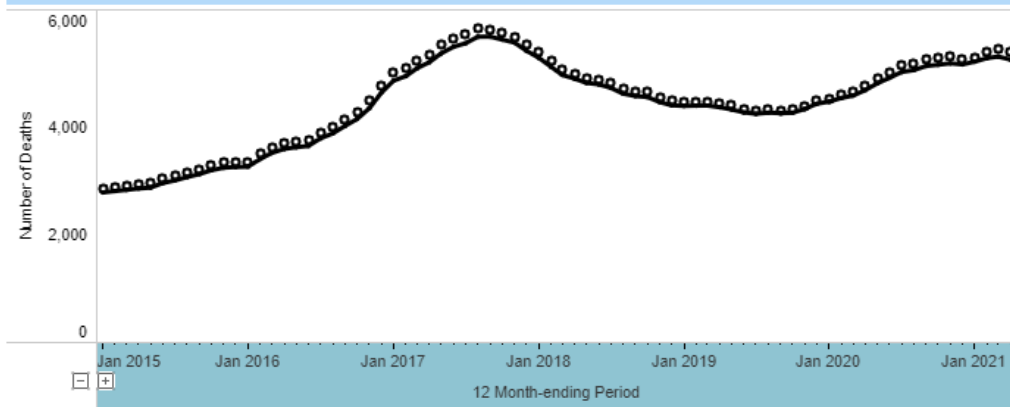


US Department of Health and Human Services, CDC; 2020.

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# Recent Trends in Pennsylvania

Figure 1a. 12 Month-ending Provisional Counts of Drug Overdose Deaths: Pennsylvania

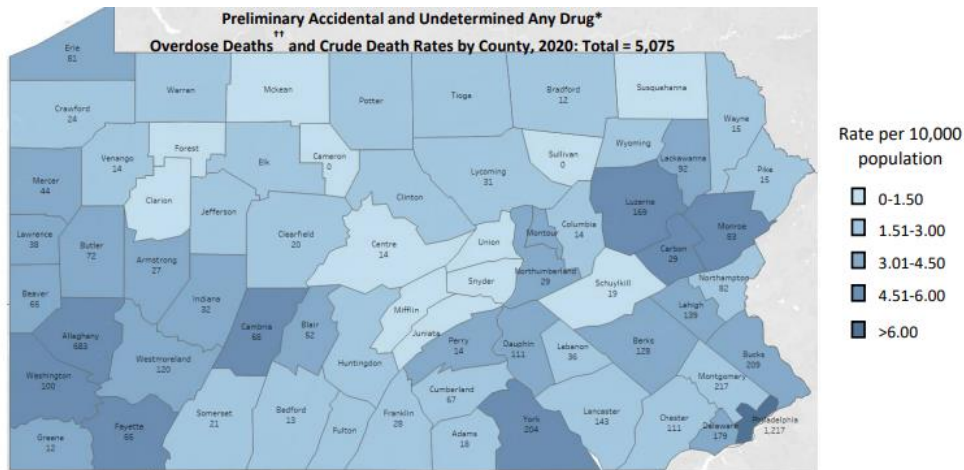


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National Center for Health Statistics, 2021.

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# Recent Trends in Pennsylvania



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Pennsylvania Department of Health.

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## Quick Facts

Pennsylvania is among the 10 states with the highest opioid-related overdose deaths

One person in the US dies every 19 minutes due to unintentional overdose



We are now more likely to die of an accidental overdose than in a car accident

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Overdose Free PA.

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## What has been Done?



Act 139



Good Samaritan Law



Standing Order



Increased funding for treatment



Prescription Drug Monitoring Program



Drug Take-Back Days

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## Opioid Overdose

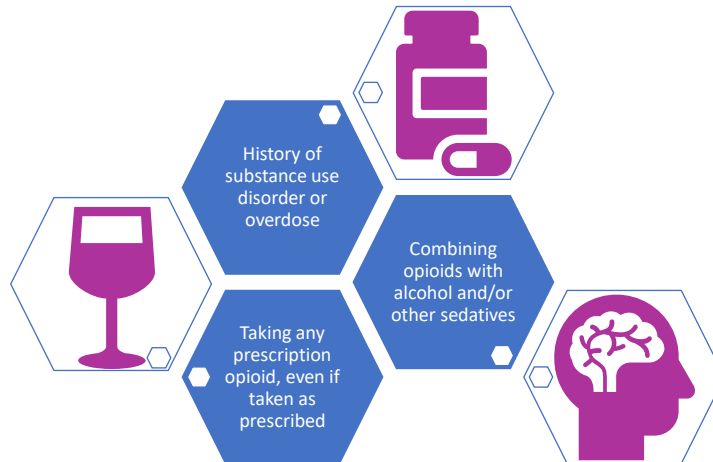
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## Overdose Risk Factors



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J Gen Intern Med. 2020 Feb;35(2):420-427.

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## Recognizing an Overdose

A high	Slurred speech
	Heavy nodding
	Sleepy, but responsive

An overdose	Unconscious
	Unresponsive

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## The Opioid Overdose Triad



Pinpoint pupils



Respiratory depression



Unconsciousness

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## Additional Signs of Overdose

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Blue lips or fingers

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Unresponsive to shaking or sternum rub

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Limp body

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Slowed or no pulse

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Pale and clammy skin

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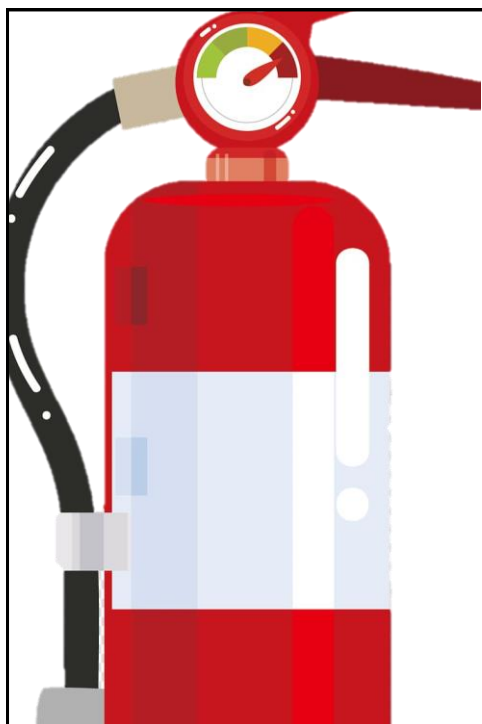
## Naloxone: A Life-Saving Medication

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## What is Naloxone?

- Life-saving medication
- Also known as Narcan
- Quickly reverses an overdose due to opioids
- Administered by injecting into the muscle or spraying into the nostril
- Works within 2-5 minutes

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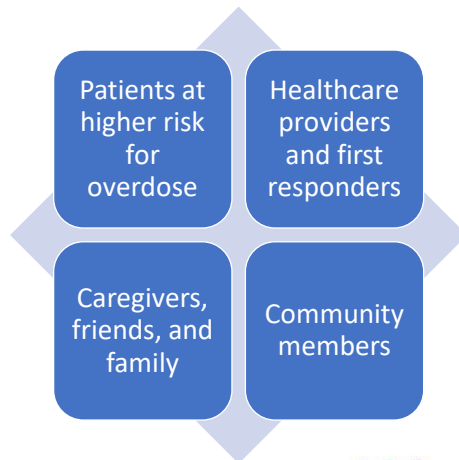
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*Pain Manag.* 2018 May;8(3):231-245.

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## Who Should Carry Naloxone?



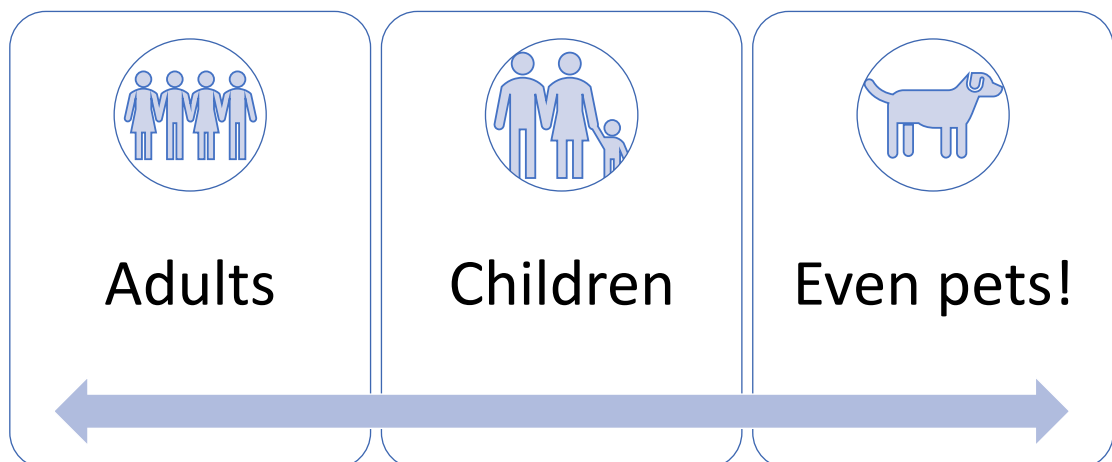
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## Who Can Receive Naloxone?



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*Paediatr Anaesth.* 2021 Jun;31(6):631-636.

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## Where to Find Naloxone

- Community pharmacies
  - Can bill insurance
- NEXTDistro
- Allegheny County Health Department
- Prevention Point Pittsburgh

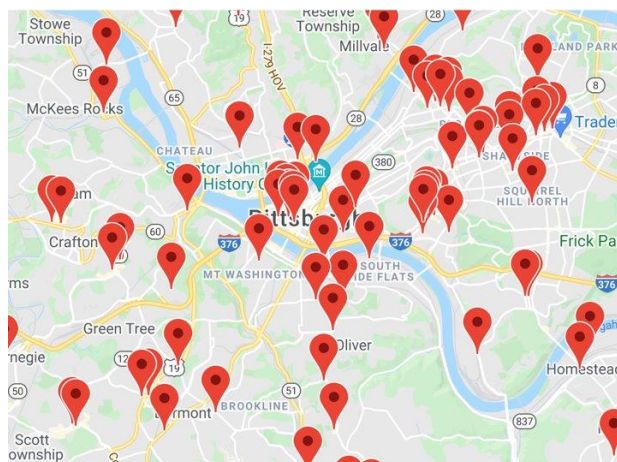
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## Where to Find Naloxone



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Overdose Free PA.

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## Cost

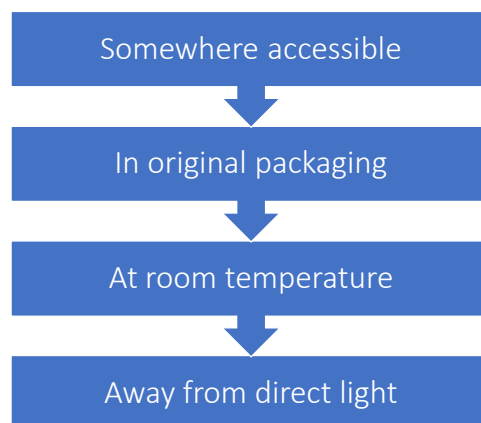
- Self-pay/no insurance
  - Available through UPMC emergency departments
  - Public interest price is \$75/2 doses
- Prescription insurance
  - Copays vary by plan
  - Medicaid copay is \$0
  - UPMC insurance will cover at least 1 kit per year without copay
- Discount coupons (GoodRx)
  - Narcan \$130
  - Injectable kit \$25

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## How to Store Naloxone Kits



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Harm Reduct J. 2019 Feb 27;16(1):17.

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## Shelf Life of Naloxone

- Naloxone (Narcan): 12-18 months
- Nasal spray once loaded into atomizer: *2 weeks*

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## Naloxone Simulation

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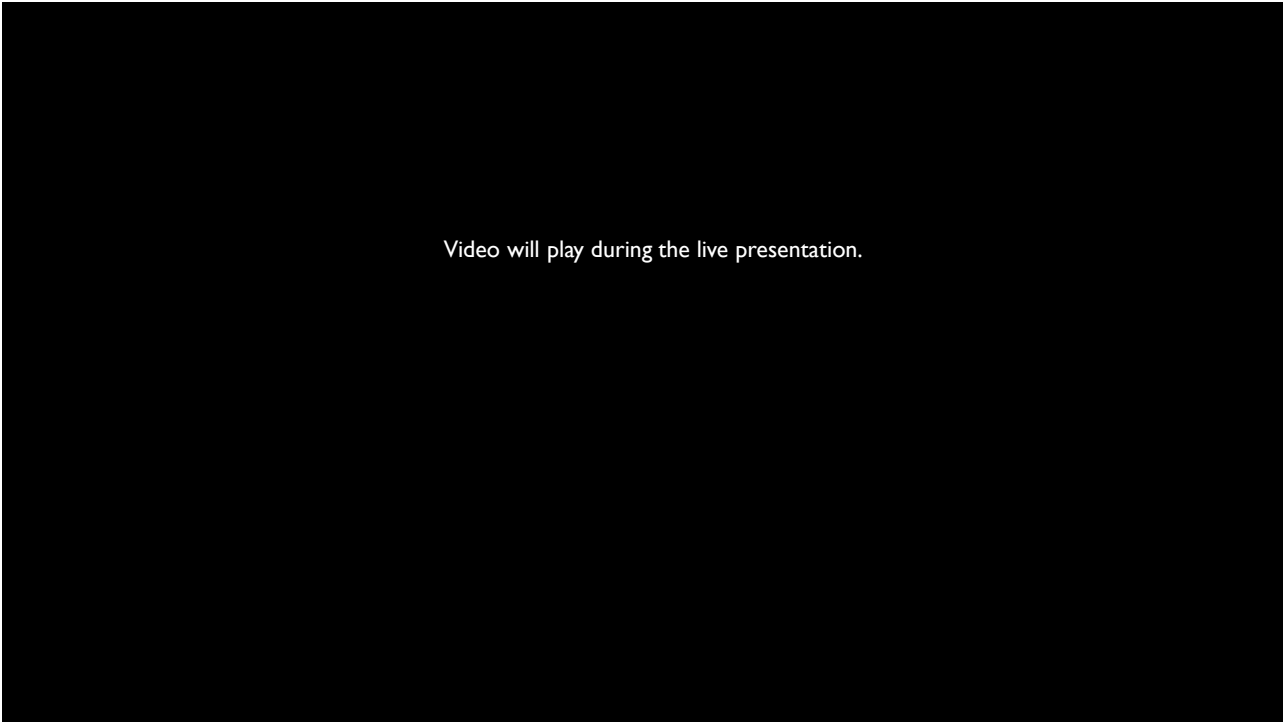
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## Adverse Effects of Naloxone

### Opioid Withdrawal symptoms

- Sweating
- Rapid heart rate
- Nausea/vomiting
- Tremors

"Waking up from a bad dream"

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Expert Opin Drug Saf. 2007 Mar;6(2):125-32.

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## Things to Know about Naloxone

Naloxone will not harm, nor will it help, someone who is overdosing on a non-opioid substance.

Unexpired naloxone is best, but expired naloxone may still have potency and is better than nothing.

Some opioids may stay in the system for a long time. Naloxone can be readministered every 2-3 minutes if there is no response

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Prehosp Emerg Care. 2019 Sep-Oct;23(5):647-653.

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## Barriers to Widespread Use

Stigma

Cost

Administration problems

Fear of arrest

Lack of education

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## Harm Reduction

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## Using Opioids More Safely

### Using alone

Leave the door unlocked

Use in a more public place

### Mixing substances

Use less of each substance

Use opioids prior to other substances

### Changing tolerance

Use less after a period of not using

Use caution when changing method of use

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## Reducing Stigma

Avoid

- Addict
- Abuser
- Junkie
- Clean/dirty for substances

Use

- Patient with a substance use disorder
- Person in active addiction/recovery
- Inappropriate use
- Negative/positive for substances

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## Patient Resources

- Overdose Free PA: [www.overdosefreepa.pitt.edu](http://www.overdosefreepa.pitt.edu)
- Prevention Point Pittsburgh: [www.pppgh.org](http://www.pppgh.org)
- Allegheny County Health Department: [www.alleghenycounty.us](http://www.alleghenycounty.us)
- NextDistro: [www.nextdistro.org](http://www.nextdistro.org)

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## Provider Resources

- Overdose Free PA: [www.overdosefreepa.pitt.edu](http://www.overdosefreepa.pitt.edu)
- NIDA: <https://www.drugabuse.gov/nidamed-medical-health-professionals/health-professions-education/words-matter-terms-to-use-avoid-when-talking-about-addiction>

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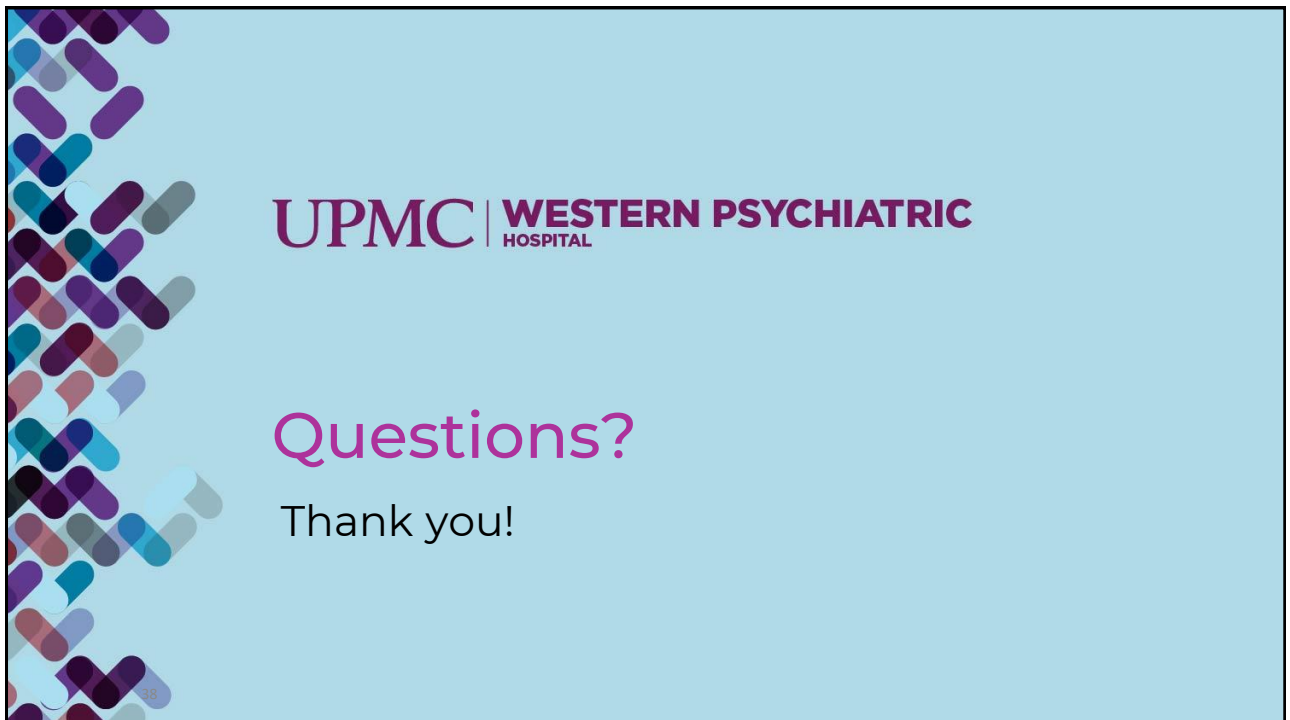
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Questions?

Thank you!

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