Extreme weather and overdose: Understanding how environmental conditions impact substance use and overdose risk

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Pathway from extreme weather to overdose risk

(Vergunst et al., 2022; WA HCA, 2026)

Changes in temperature and weather patterns

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Loss of safety, stability, community, economic and food insecurity

↓

Destabilization of support systems, worse mental health, increased physical health burden, behavior change, negative emotions

↓

Increased overdose risk



Most overdose deaths in Washington are from synthetic opioids, primarily fentanyl.

Extreme weather in Washington state

(Climate Check, 2026; Fleishman, 2025; UW Climate Impacts Group, 2020)



Extreme heat: Average of 3 extreme heat days per year in WA between 1971-2021; by 2050s **anticipated 17 to 30 extreme heat days per year**

Wildfires: Hotter and drier summers increase risk and severity of wildfires and wildfire smoke production

Precipitation: Intensity of heavy precipitation and flooding projected to increase, with more rain than snow

Extreme temperatures and overdose risk

(Bbosa & Muwonge, 2026; Dennett et al., 2025; Jhang et al., 2025)

Drug use during extreme heat can:

Increase **body temperature**

Reduce body's ability to **thermoregulate**

Worsen dehydration and **cardiovascular strain**



Extreme heat and cold can increase chronic stress that may intensify cravings and use in higher doses

Extreme heat and cold may impact naloxone – though any naloxone is better than no naloxone!

Extreme weather disruptions to stability and care

(Dunn et al., 2025; Stimpson et al., 2025)

Weather disasters can cause infrastructure damage that:

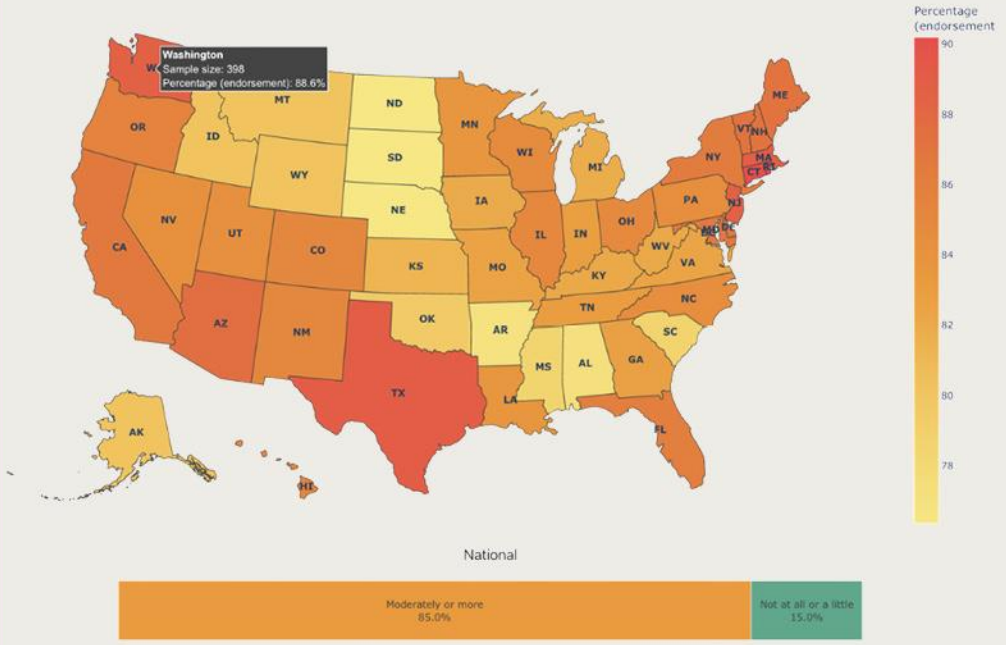
- Disrupt safe housing and transportation
- Limit access to support systems
- Reduce access to life-saving care

Extreme weather events (flooding, wildfires) can also contribute to post-traumatic stress symptoms, increasing overdose risk



Youth vulnerability and concern

(Lewandowski et al., 2024; Maya et al., 2024; Schiff & Fang, 2026; Vergunst et al., 2022)



In Washington, **89% of young people (16-25) are worried about extreme weather** events and their impacts on people and the planet

Youth are more vulnerable to the impacts of extreme weather on substance use behaviors, especially when subject to repeated traumatic exposures

- E.g., exposure to wildfires may increase opioid misuse in young people via increased anxiety

How can we respond? Extreme temperatures

Naloxone awareness!

Extreme heat: Cool showers, baths, air-conditioned spaces – use of fans when temp below 95 degrees

- **Stay hydrated**
- Watch for **signs of heat exhaustion**
- Be aware of medication/drug interactions with heat



Extreme cold: Find designated warming centers

Avoid using alone, peer check-in system

Adjust doses – start low and go slow

How can we respond? Weather disasters

Stock harm reduction supplies – in community spaces and homes!

Medication continuity and safe storage

Connect with local peer support networks

Find local extreme weather resilience hubs (Seattle Emergency Hubs, Spokane Community Resilience Hub), or build a hub (Puget Sound Resilience Hubs)



How can we respond?
Public health interventions



Support built environment and urban design that provide protections against extreme weather impacts

Address knowledge gap: Educate young people about the impacts of extreme weather and environmental conditions on behavioral health and overdose risk – plan communications seasonally!

Information and tools: Take action and share harm reduction resources/education materials with local resilience hubs!

FRIENDS FOR LIFE

Washington's Overdose Prevention Campaign





CAMPAIGN GOALS

To inform people about:

- What illegal fentanyl is
- How it's affecting Washington
- How to help teens avoid opioids like fentanyl
- How to spot and respond to an overdose
- How to get and use naloxone



Everyone deserves to live, and anyone can be a friend for life.

ACTIONABLE INFORMATION TO HELP KEEP EACH OTHER SAFE

Fentanyl: What it is, the risks, and how it's changing the drug supply.

Overdose response: How to spot and respond to an overdose. Good Samaritan Laws.

Naloxone: Why carry it, where to get it, and how to use it.

Youth prevention: How to help teens avoid opioids like fentanyl.

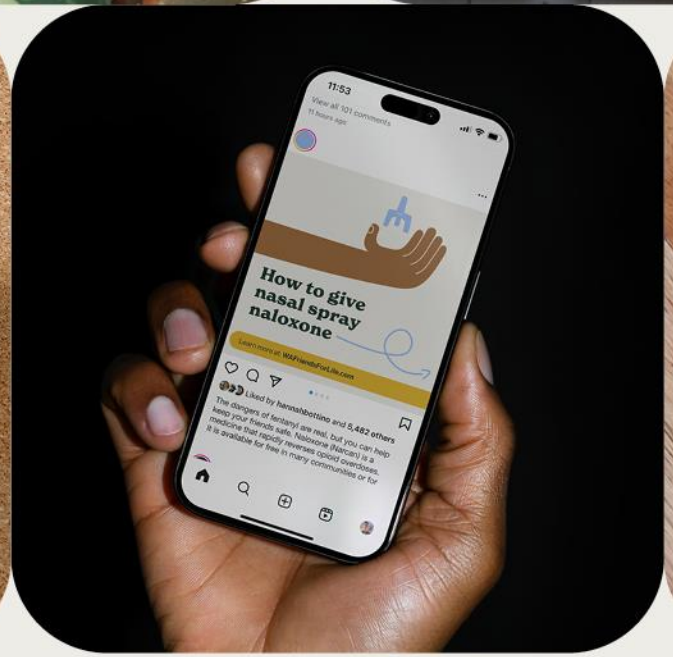
Treatment and recovery: Why and where to find MOUD resources.




FRIENDS FOR LIFE
PREVENT OVERDOSE
EVERYONE DESERVES TO LIVE, AND ANYONE CAN BE A FRIEND FOR LIFE.
Visit: WAFriendsForLife.com

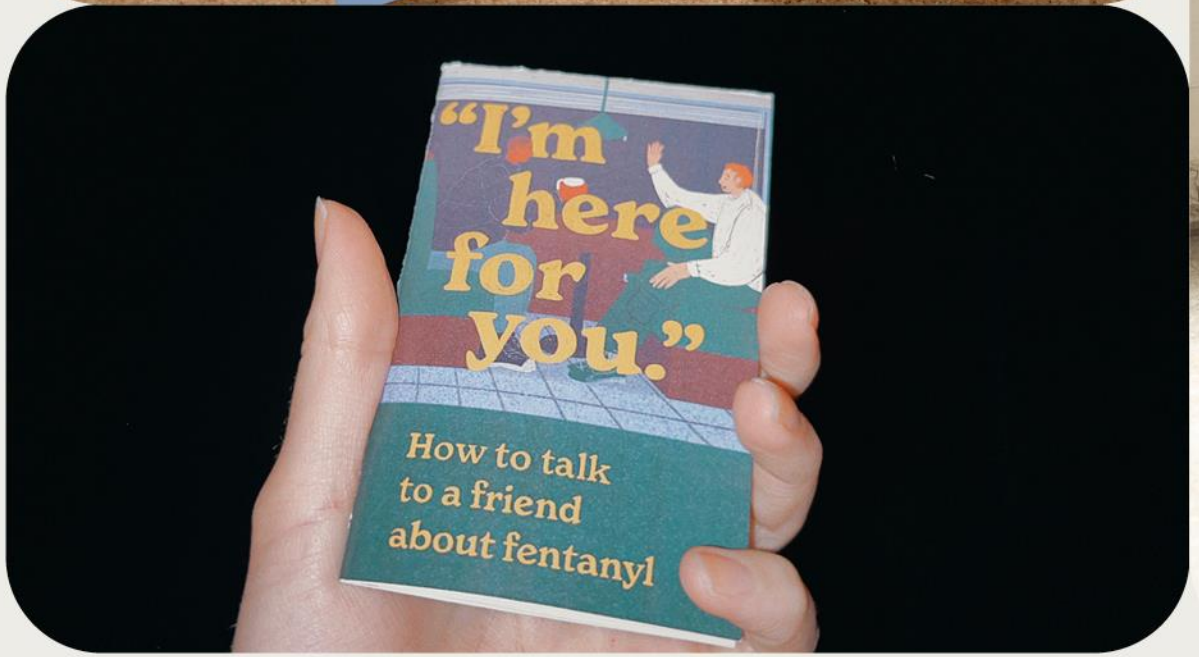

KEEP YOUR FRIENDS SAFE
CARRY NALOXONE (NARCAN)
FACTS ABOUT FENTANYL
It's strong
It's unpredictable
It's widespread
KNOW ABOUT NALOXONE
It's safe
It's simple
It's legal
It's effective
HOW TO GIVE NALOXONE
1. Open the packaging
2. Hold the canister like this
3. Insert the nozzle into either nostril
4. Press the plunger all the way

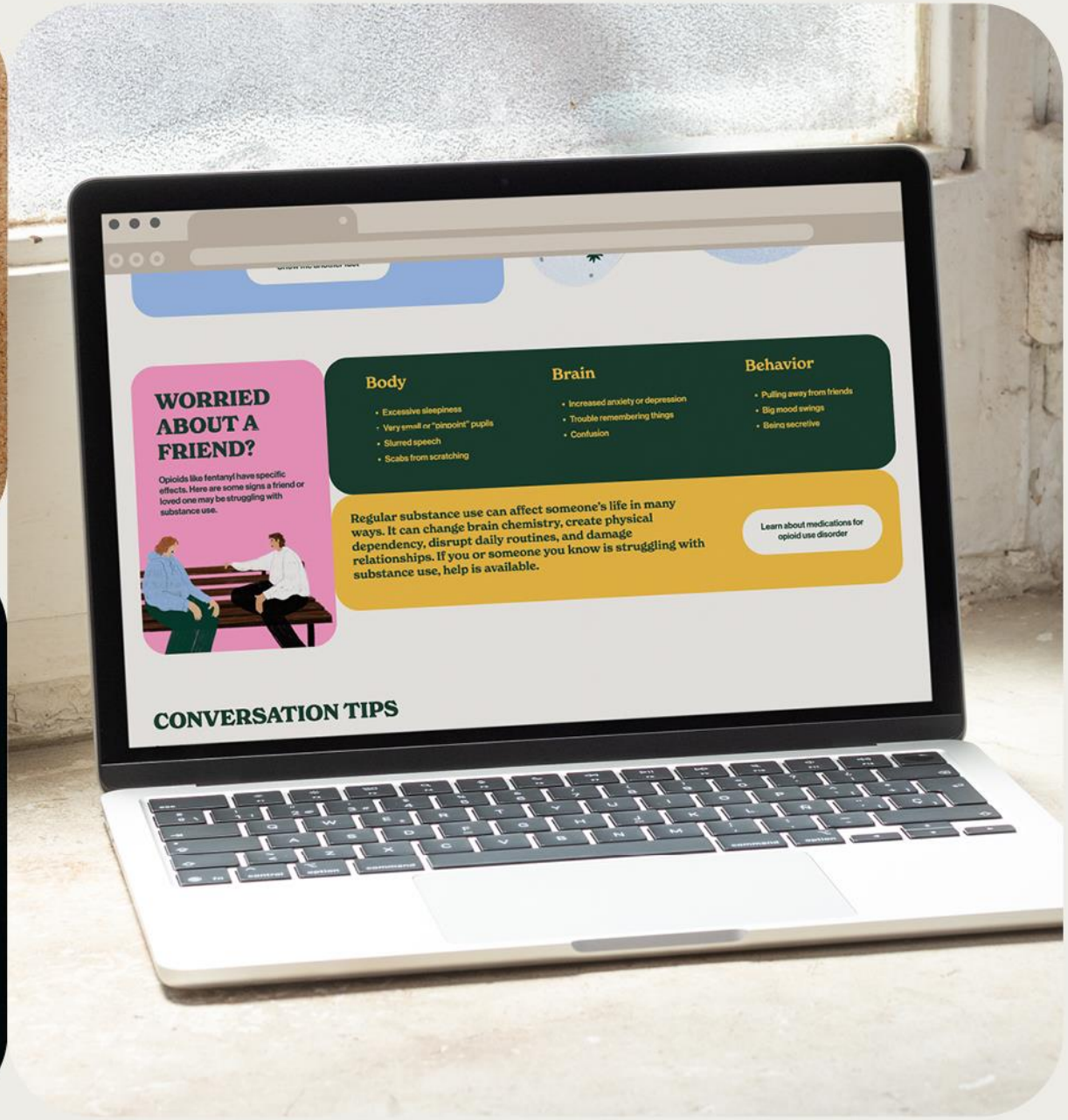

FRIENDS FOR LIFE
PREVENT OVERDOSE
KEEP YOUR FRIENDS SAFE. CARRY NALOXONE (NARCAN).
Learn to recognize an opioid overdose and how you can stop it.
YOUR FRIEND MAY BE OVERDOSING IF THEY:
Can't wake up.
Aren't breathing every 3 - 5 seconds.
Are turning blue, gray or purple, or their skin feels cold.
Washington state has Good Samaritan laws to protect you and your friend from prosecution for drug possession.
KNOW ABOUT NALOXONE
Simply and safely reverse an opioid overdose.
HOW TO USE NASAL SPRAY NALOXONE
1. Open the packaging
2. Hold the canister like this
3. Insert the nozzle into either nostril
4. Press the plunger all the way


How to give nasal spray naloxone
Learn more at WAFriendsForLife.com


How to use naloxone:
Start by laying your friend down.
1. Open the packaging
Don't do a test spray.
The canister only has one dose.
2. Hold the canister like this
3. Insert the nozzle into either nostril
Your fingers should touch their nose.
4. Press the plunger all the way
Next, give your friend rescue breaths.
If they don't wake up within 2-3 minutes, give them naloxone again.
Keep giving rescue breaths and naloxone until they wake up or help arrives.
Learn more at WAFriendsForLife.com
Washington State Health Care Authority
FRIENDS FOR LIFE
PREVENT OVERDOSE
Your friend may be overdosing if they:
Can't wake up.
Aren't breathing every 3 – 5 seconds.
Are turning blue, gray, or purple, or their skin feels cold.
If you think your friend is overdosing, call 911 and give them naloxone (Narcan).


FRIENDS FOR LIFE
PREVENT OVERDOSE
TALK TO TEENS ABOUT FENTANYL
Most teens say they trust their parents or caregivers more than anyone when it comes to information and advice about drugs. Talk to the teens in your life about how experimenting with drugs can hurt them and their future. Because to them, you're the expert.
WHAT TO KNOW
Teens are looking to trusted adults for facts about fentanyl and fake pills. Here are some basics:
WHAT TO DO
WHAT TO SAY
"Have you heard about a drug called fentanyl? What have you heard?"
"I read an article/saw a video/heard a report about fentanyl and wanted to talk with you about it."
"I know pills might seem safe to take from your friend — or even a grown-up — but some can cause overdose or death."
"If you ever have questions about fentanyl — or any drug — talk to me. It's my job to help you stay safe and healthy."


"I'm here for you."
How to talk to a friend about fentanyl


WORRIED ABOUT A FRIEND?
Opioids like fentanyl have specific effects. Here are some signs a friend or loved one may be struggling with substance use.
Body
Excessive sleepiness
Very small or "pinpoint" pupils
Slurred speech
Scabs from scratching
Brain
Increased anxiety or depression
Trouble remembering things
Confusion
Behavior
Pulling away from friends
Big mood swings
Being secretive
Regular substance use can affect someone's life in many ways. It can change brain chemistry, create physical dependency, disrupt daily routines, and damage relationships. If you or someone you know is struggling with substance use, help is available.
Learn about medications for opioid use disorder
CONVERSATION TIPS


KEEP YOUR FRIENDS SAFE. CARRY NALOXONE (NARCAN).
Naloxone reverses opioid overdoses, including from fentanyl.
FACTS ABOUT FENTANYL
It's strong
It's unpredictable
It's widespread
HOW TO GIVE NALOXONE
1. Open the packaging
2. Hold the canister like this
3. Insert the nozzle into either nostril
4. Press the plunger all the way
KNOW ABOUT NALOXONE
It's safe
It's simple
It's legal
It's effective
FREE NALOXONE
HOW TO RECOGNIZE AN OVERDOSE
HOW TO USE NARCAN NASAL SPRAY
Naloxone
KEEP YOUR CIRCLE SAFE
TALK TO TEENS ABOUT FENTANYL


NDC 45802-578-84
Naloxone HCl Nasal Spray
4 mg
Compare to NARCAN®
Emergency Treatment of Opioid Overdose
Original Prescription Strength
Easy to Use
DIRECTIONS
FRIENDS FOR LIFE
PREVENT OVERDOSE
Your friend may be overdosing if they:
If you think your friend is overdosing, call 911 and give them naloxone (Narcan).
CARRY NALOXONE
FriendsForLife.com


Friends help keep one another safe.
Take these steps to help prevent an overdose.


Sea Mar Community Health Centers
SeaMar Community Health
washington healthplanfinder
Solar Robot Kit
DIARIO PARA TU BIENESTAR

PREVENTING OVERDOSE IN EXTREME WEATHER

Seasons of weather events (e.g., spring floods or summer extreme heat and wildfires)

Materials to support June Pride events and International Overdose Awareness Day in August

Campaign resources (coming) to support extreme weather outreach



DISCUSSION & QUESTIONS

How can you use this information in your community?

Do you know where to find resilience hubs during extreme weather?

What changes can you make to prepare for increased seasonal risk? Respond to seasonal changes?



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THANK YOU!

WaFriendsForLife.com