

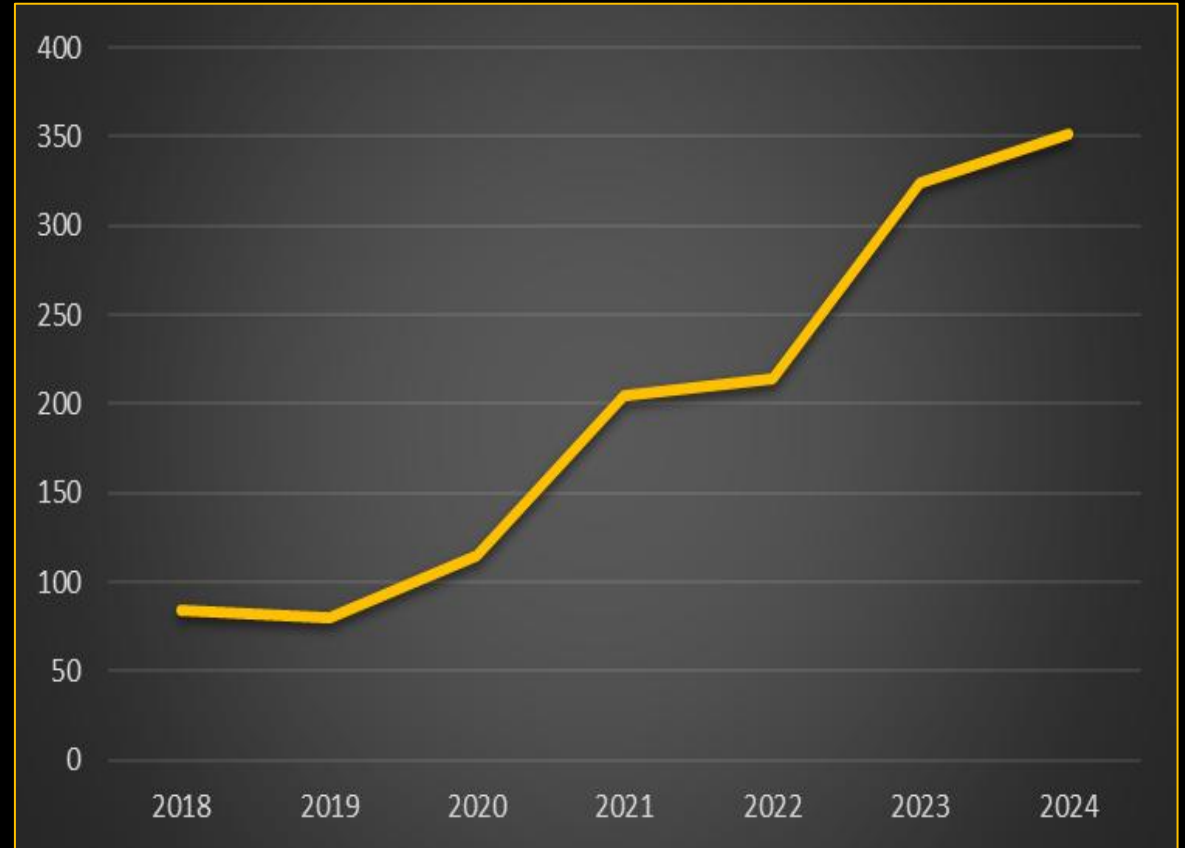


Fatal Overdoses in Spokane County

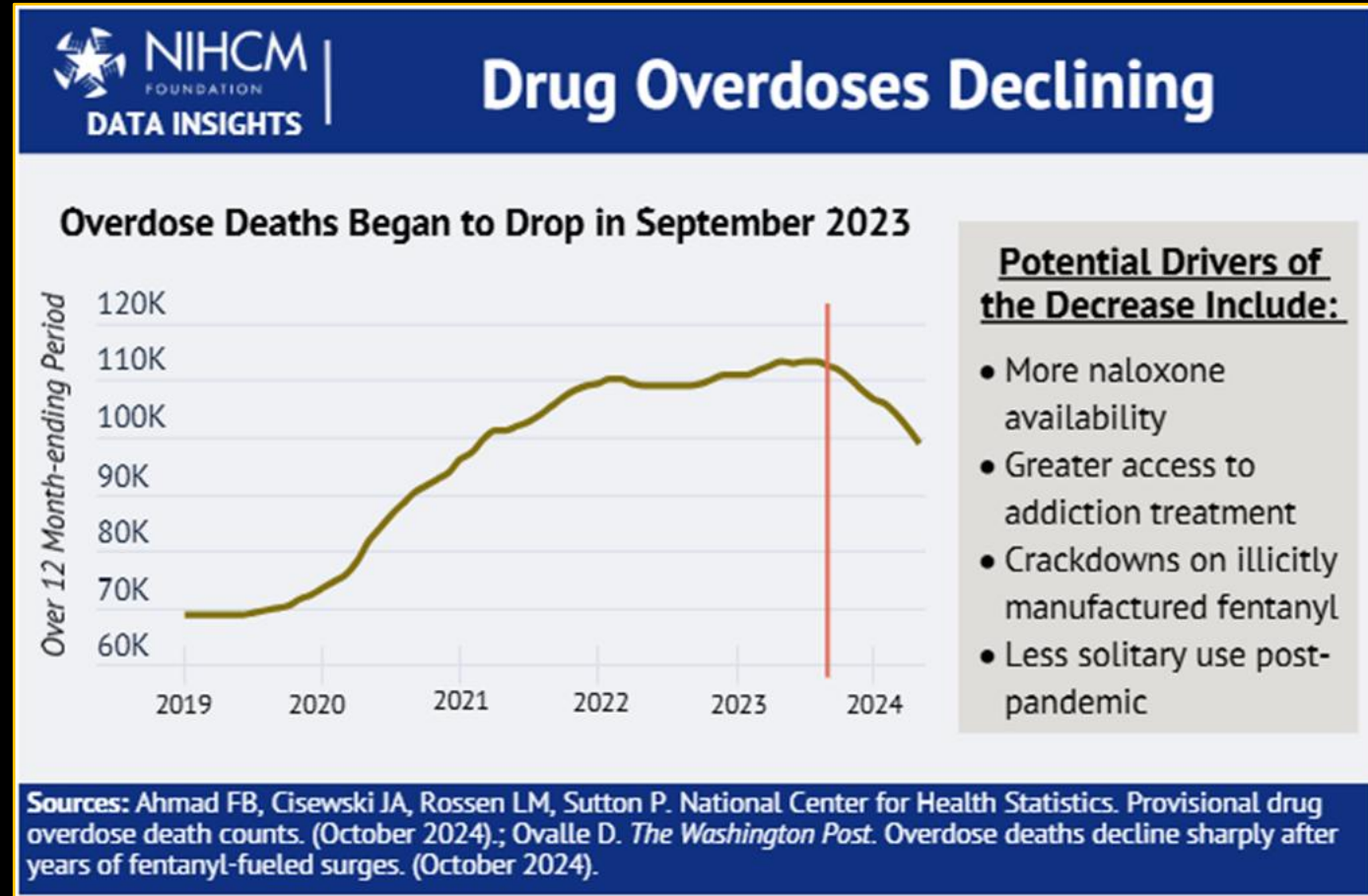
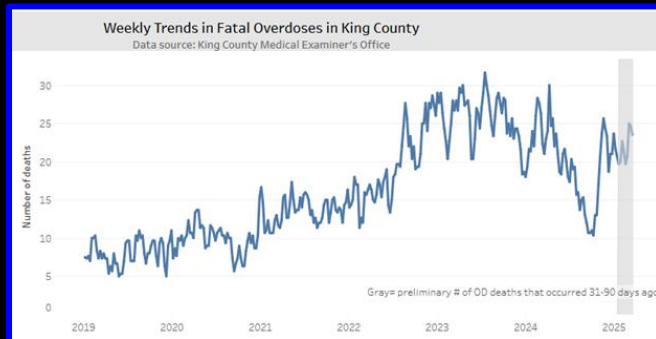
Veena Singh, MD, MPH
Spokane County Medical Examiner's Office

Overdose deaths

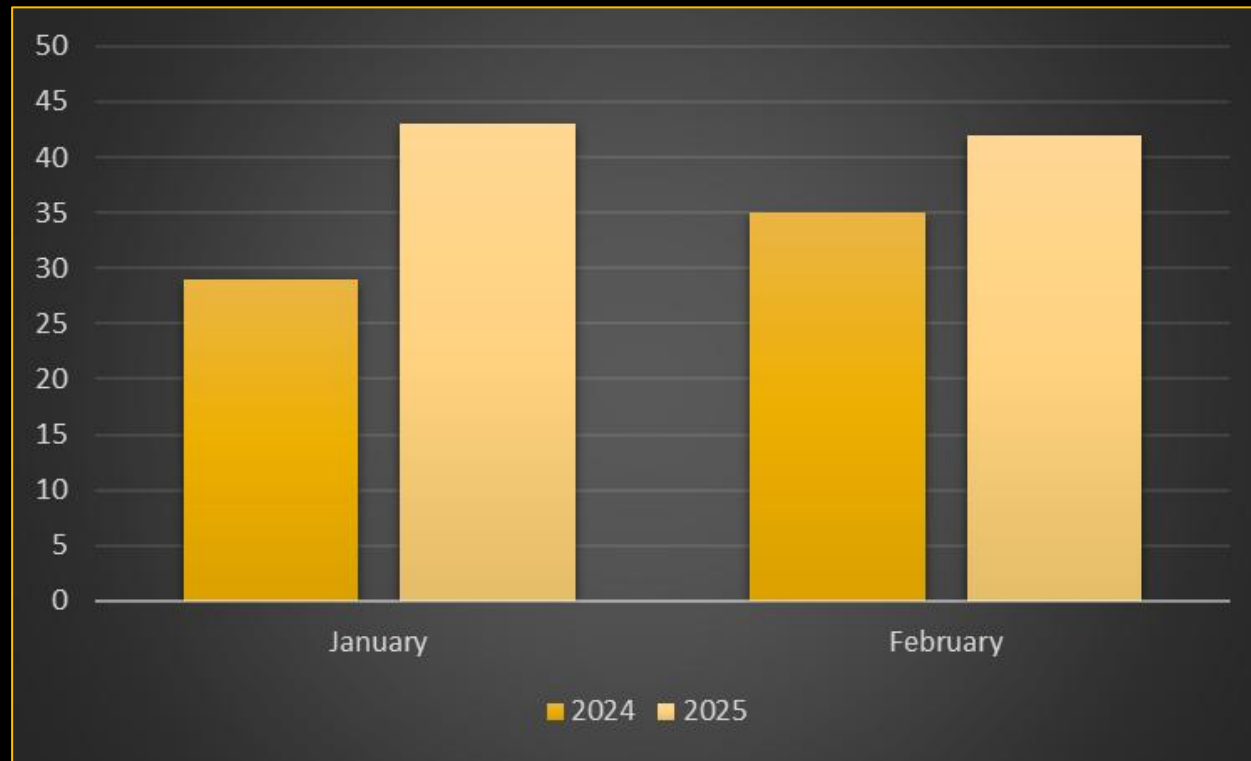
- >300% percent increase in overdose deaths since 2018
- In 2024: 352 deaths in which drugs caused or contributed to death
 - Roughly 5% of all deaths in Spokane County
 - Approximately 5x as many drug-related deaths as motor vehicle fatalities, 4x as many drug-related deaths as gunshot wound deaths



Contrary to national decline in overdose deaths in 2023-2024

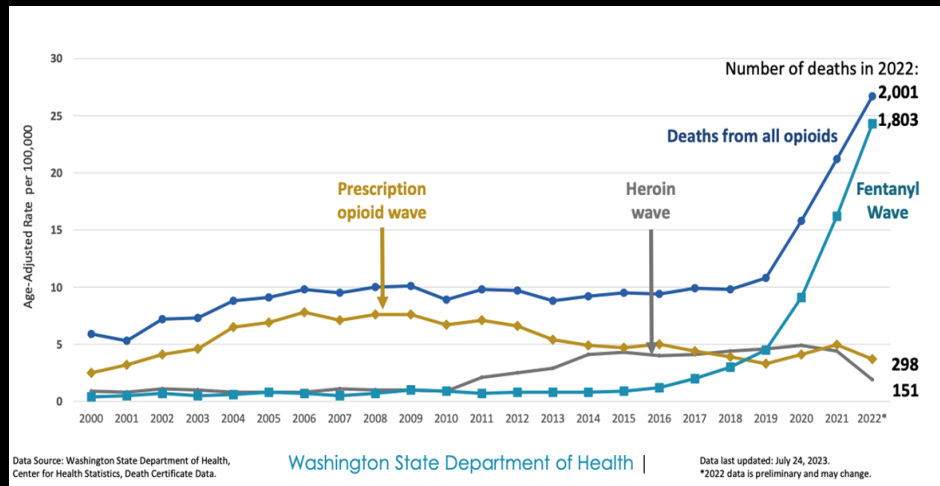


PRELIMINARY data suggests continued upward trend in 2025

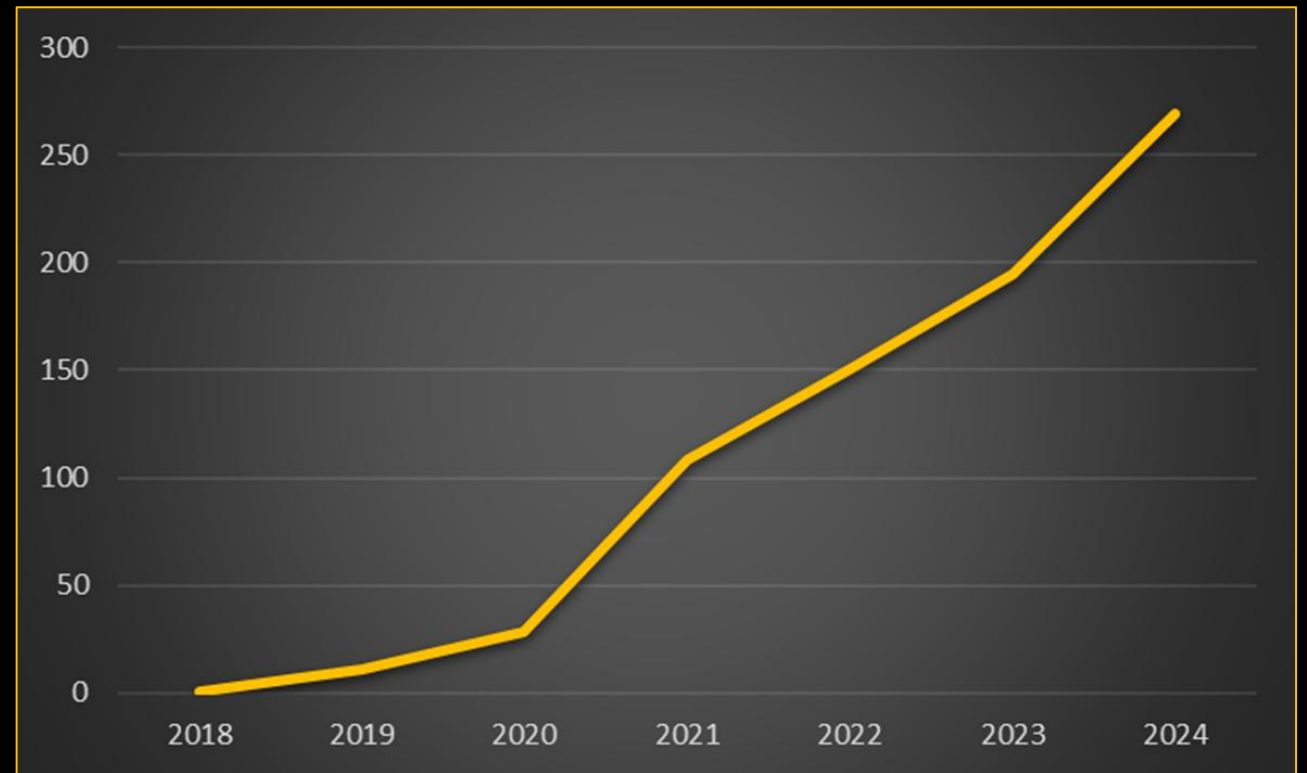


Increase driven in large part by overdoses involving fentanyl

Fentanyl was detected in approximately 80% of accidental overdoses in Spokane County in 2024.

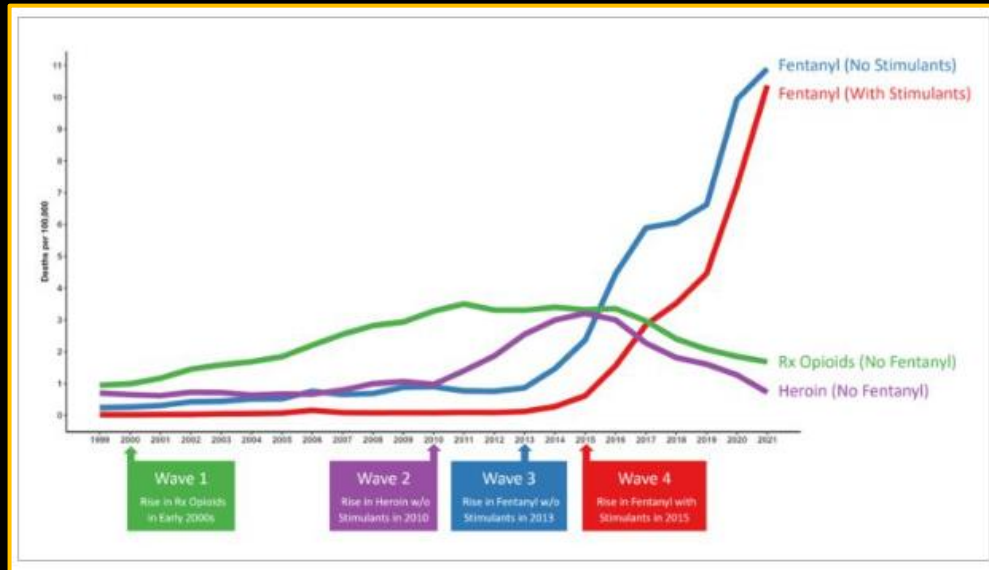


<https://washingtonstatestandard.com/2024/01/25/was-opioid-epidemic-and-the-states-effort-to-fight-it-by-the-numbers/>

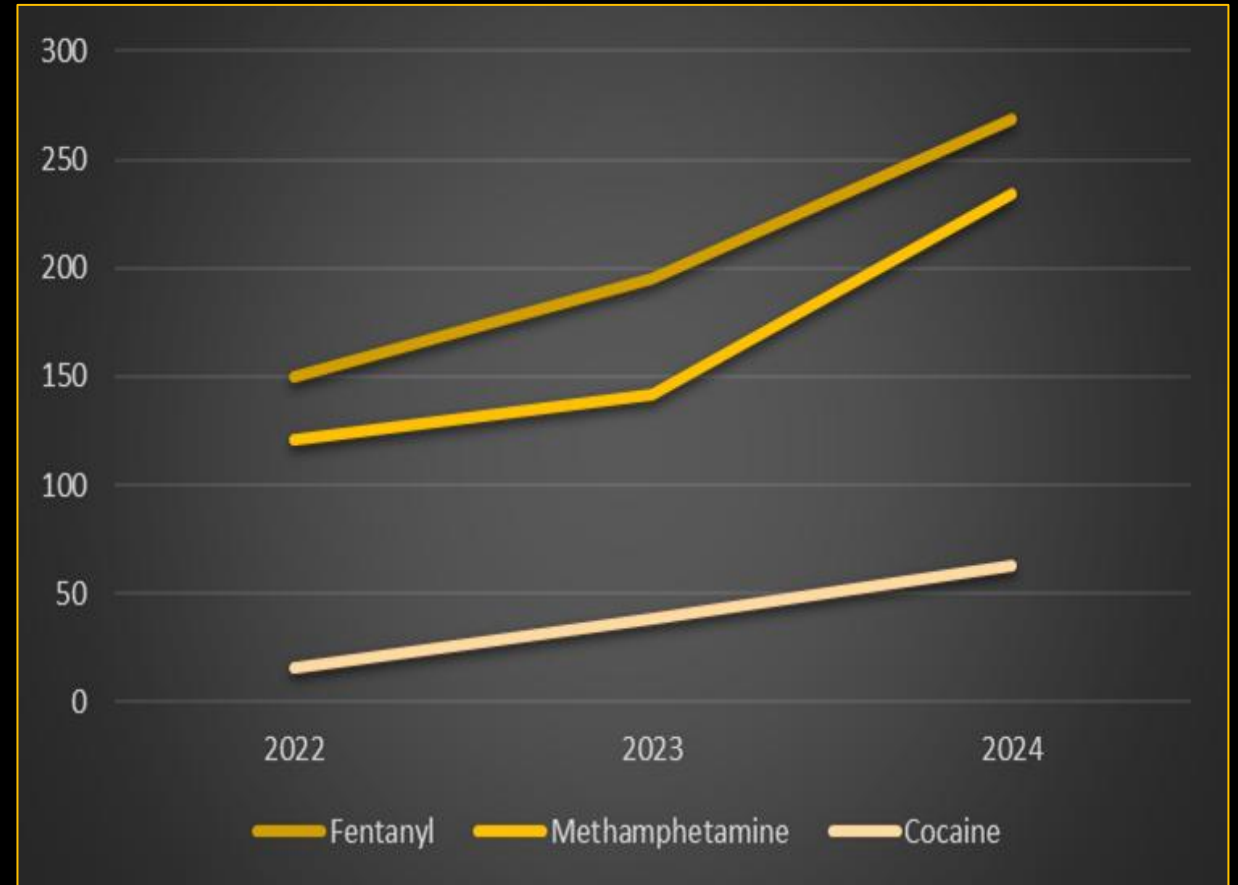


Fentanyl is not the only problem

Methamphetamine is the most commonly detected drug after fentanyl - detected in approximately 70% of accidental overdoses in Spokane County in 2024.



Friedman and Shover, 2023, doi: 10.1111/add.16318 (Data from CDC WONDER)



We don't really know the entirety of the problem

- FDA-approved medications must specify the dose of active ingredient in a drug product
- Illicitly produced products do not have standards for product quality and consistency
 - Product adulteration, enhancement, or contamination
 - Substances may be deliberately added to bulk up or dilute drug, enhance effects of drug, facilitate administration of drug
 - Substances may be accidentally added during formulation, packaging, or storage
 - Product may also be contaminated with microbes, pesticides, heavy metals
- Non-standard drugs, adulterants, contaminants are not detectable on regular toxicology testing

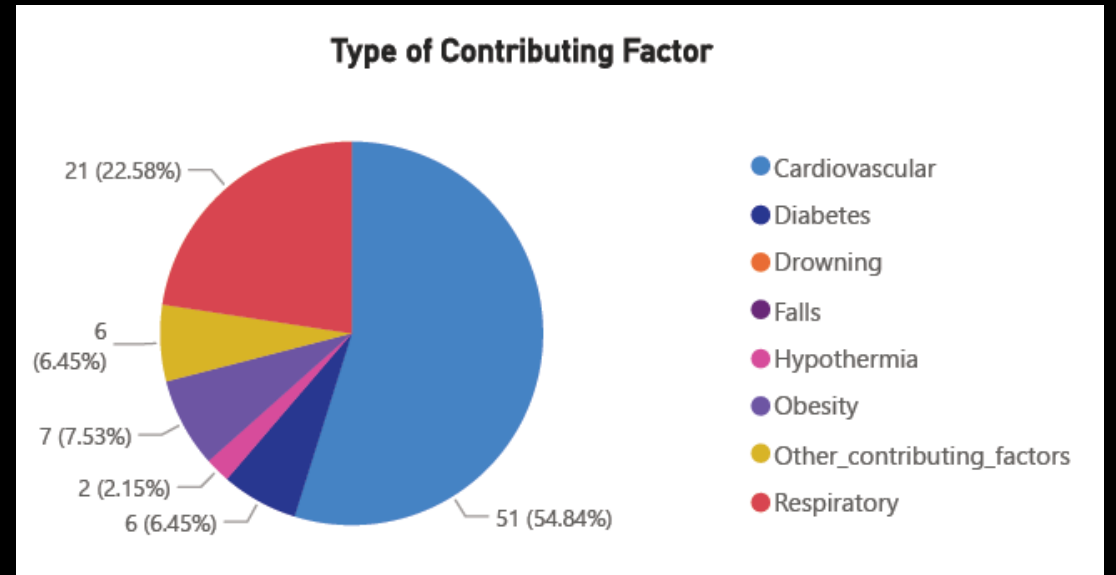
	Soft, malleable metal	Methamphetamine Sometimes used in methamphetamine manufacture. Poor manufacturing can result in lead residue in drug product.	poisoning can have mild effects. Injecting of illicit drugs adulterated with lead causes severe adverse health effects.	- Anaemia - Dizziness - Nausea/vomiting - Muscle weakness - Seizures - Coma - Renal injury - CNS damage
	Psychoactive stimulant drug	Caffeine is legal, cheap and more readily available than illicit drugs. Heroin Vaporizes heroin at lower temperature when smoked - slightly increases efficiency. Cocaine/Amphetamine/Methamphetamine/Ecstasy Stimulant properties of caffeine can create similar, although usually milder, effects to the primary drug.	In small doses there are few serious health repercussions. Moderate to large doses can cause considerable harms.	- Mood disturbances - Induce anxiety - Addictive - Sleep disturbance - Increases risk of a range of health problems
Procaine	Local anaesthetic	Heroin Facilitates smoking of heroin and may relieve the pain of intravenous injection due to anaesthetic properties. Cocaine Similar anaesthetic and subjective effects as cocaine.	Risk of toxicity at high doses.	- CNS problems - Nausea - Vomiting - Dizziness - Tremors - Convulsions - Anxiety
Paracetamol/Acetaminophen*	Over-the-counter pain relief medication	Easily available, relatively cheap. Heroin Analgesic effects and bitter taste of paracetamol may disguise poor quality heroin. May be used because it has similar melting point to heroin.	Low dosages should have minimal impact. Risk of toxicity at high doses.	- Liver damage - Gastro-intestinal effects - Adverse effects when mixed with alcohol
	Pesticide	A fine motor stimulant. Low doses act as a muscle stimulant. Heroin Enhances retention of heroin when volatilized. Has only been found at non-life threatening quantities.	Whilst it has only been reported in non life threatening quantities, small increases could potentially be fatal.	- Muscle spasm - Opisthotonos (holding of body in awkward rigid position)

Many of those who use substances have chronic medical issues, even at a relatively young age

- Damage to heart muscle or valves
- Accelerated coronary artery disease
- Hypertensive changes to heart
- Damage to lungs from smoking or snorting drugs
- Damage to liver from inflammation, toxic metabolites
- Damage to kidneys from diminished blood supply, toxic metabolites
- Damage to bowel from diminished blood supply

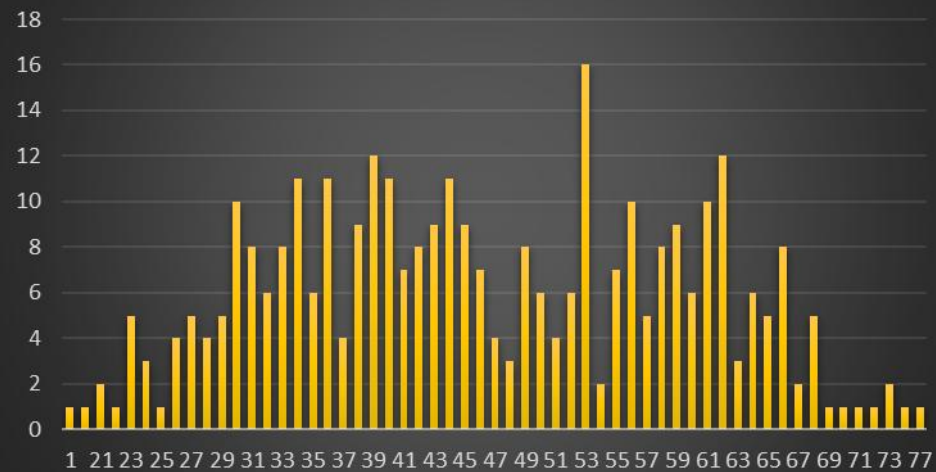
*increases risk of succumbing to toxic effects of drugs

*may offer a potential opportunity for intervention (if engaged in health care system)

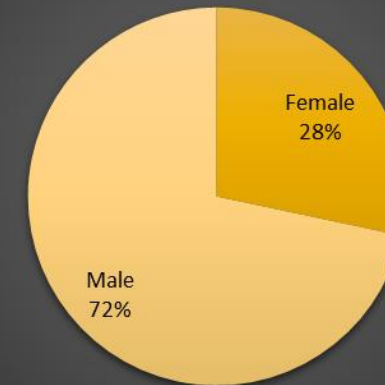


Demographics

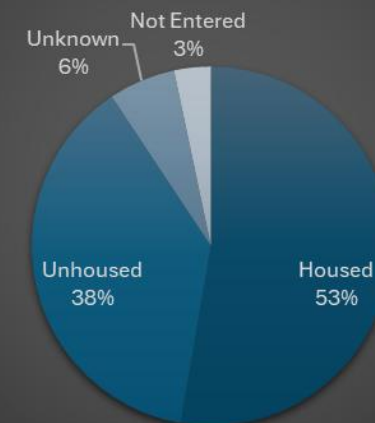
Age Distribution



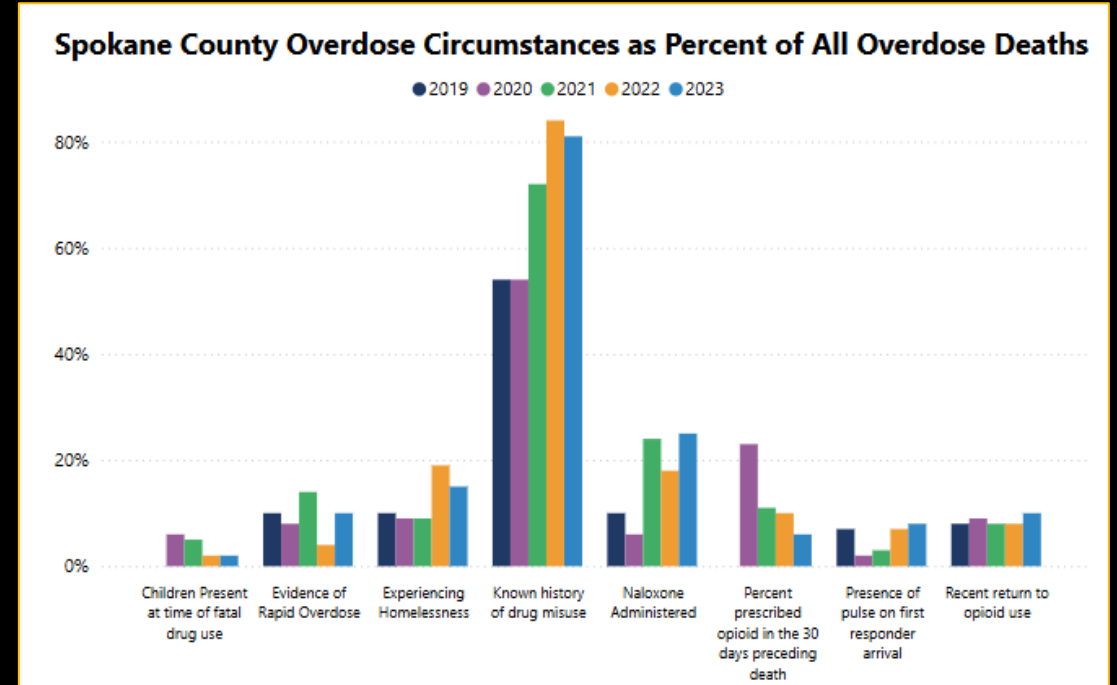
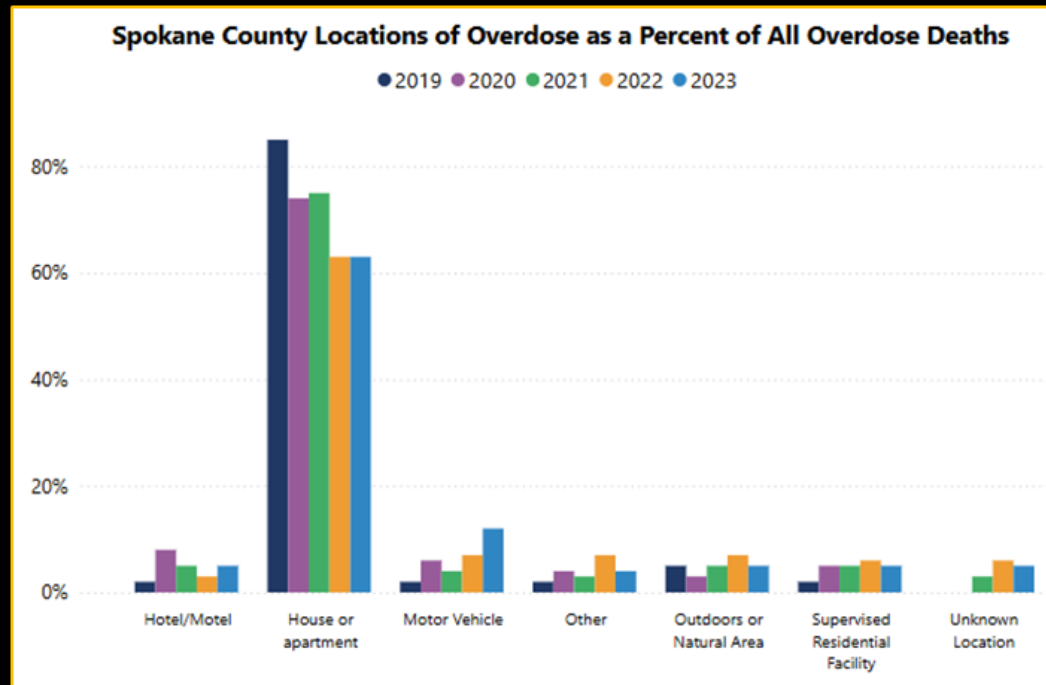
Gender Distribution



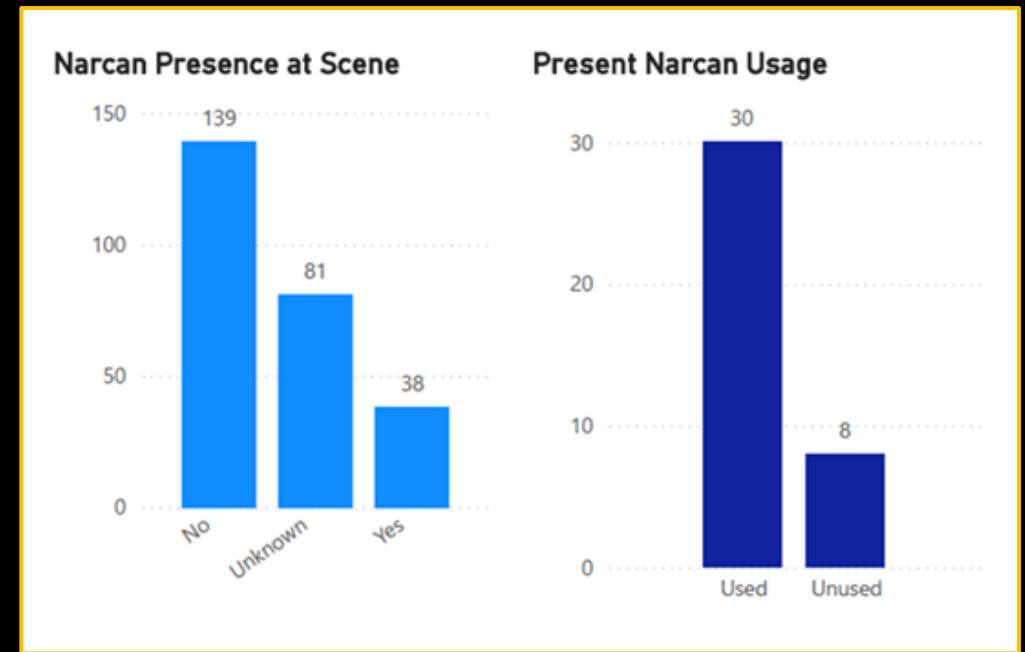
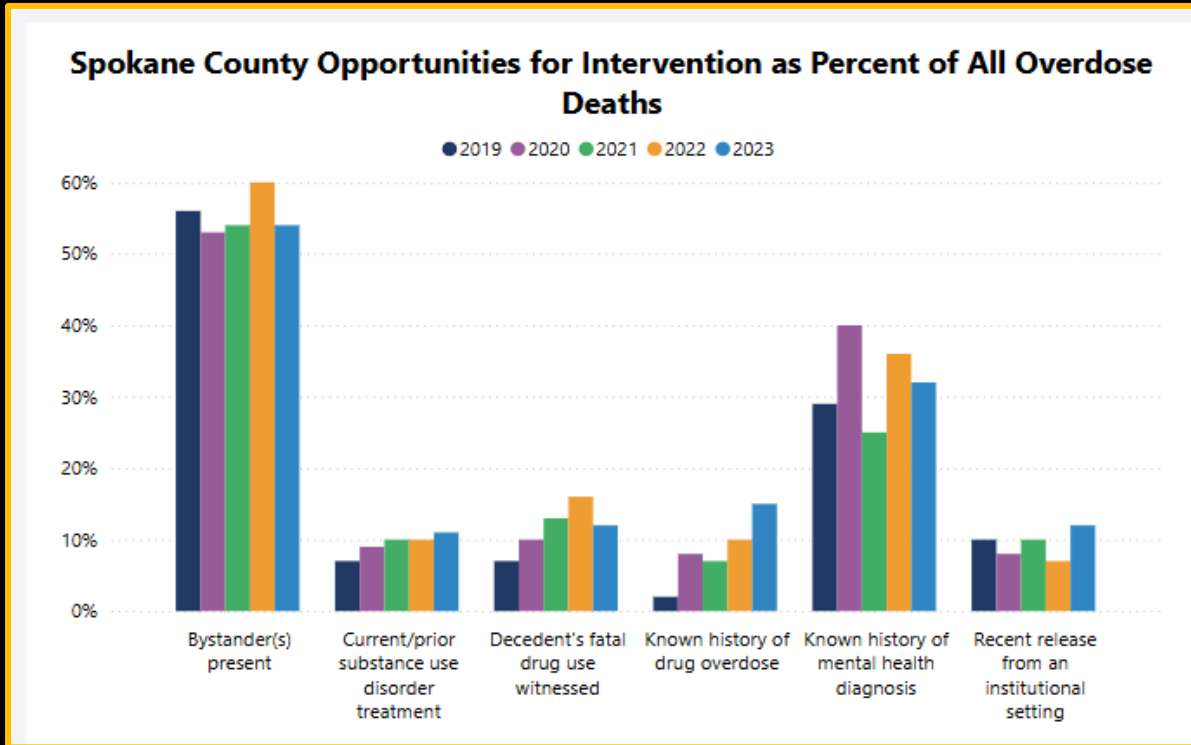
Housing Status



Place and circumstances



Additional circumstances



Geographic location

