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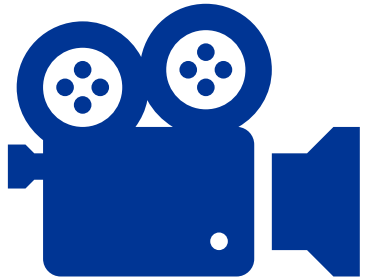


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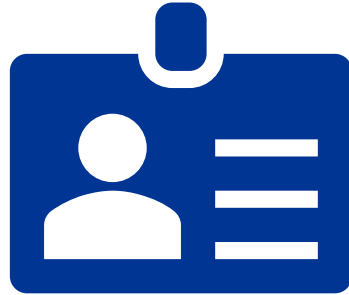
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- Everyone on every Program Evaluation and Research Unit (PERU) webinar is **valued**. Everyone has an expectation of **mutual, positive regard** for everyone else that respects the **diversity** of everyone on the webinar.
- We operate from a **strength-based, empathetic, and supportive** framework – with the people we serve, and with each other on PERU webinars.
- We encourage the use of **affirming language** that is not discriminatory or stigmatizing.
- We treat others as **they** would like to be treated and, therefore, avoid argumentative, disruptive, and/or aggressive language.



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- We strive to: **listen** to each person, avoid interrupting others, and seek to **understand** each other through the Learning Network as we work toward the highest quality services for Centers of Excellence (COE) clients.
- Information presented in Learning Network sessions has been vetted. We recognize that people have different opinions, and those **diverse perspectives** are welcomed and valued. Questions and comments should be framed as **constructive feedback**.
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Program Evaluation and Research Unit

Current Trends in SUD and Treatment



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Learning Objectives

By the end of this training, trainees should be able to do the following:

- Describe the current trends in overdose and treatment utilization through an equity lens.
- Discuss trends in common adulterants including their contribution to injection-related wounds



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Background



Impact of Substance Use Disorder



SUD has **widespread** consequences

Awareness is critical to addressing SUD

A **comprehensive response** is necessary



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Overdose Trends



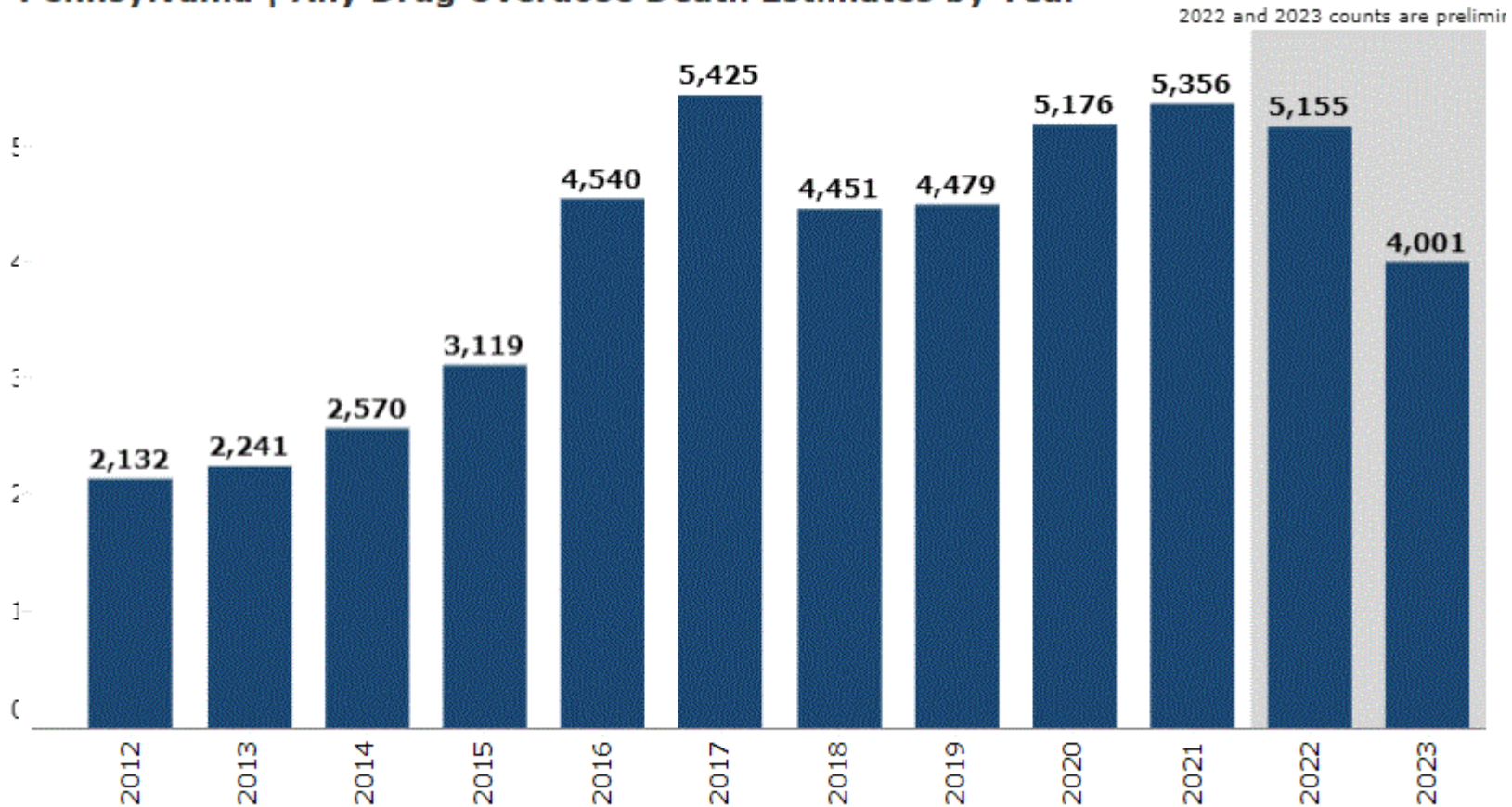
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Pennsylvania Overdose Deaths

Pennsylvania | Any Drug Overdose Death Estimates by Year



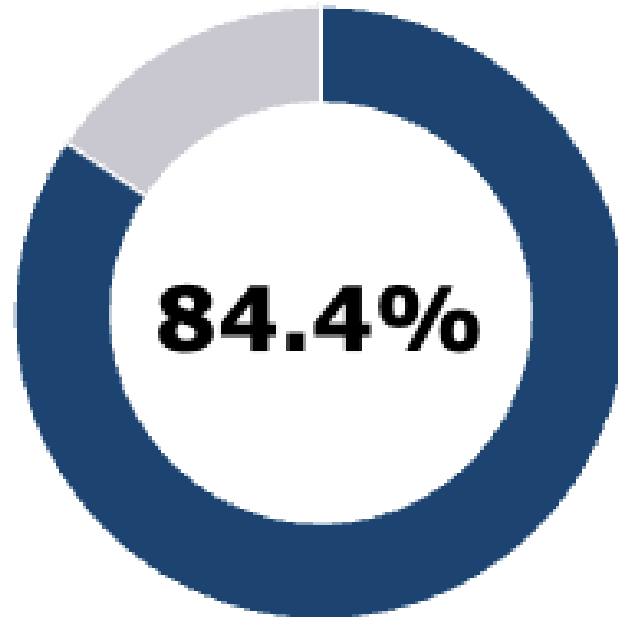
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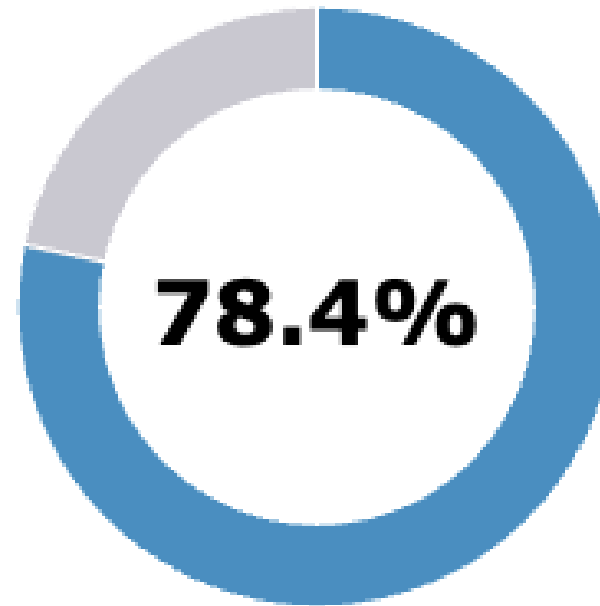
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Opioid Related Overdose

Of the 5,158 overdose deaths in 2022,



were opioid-related



involved fentanyl

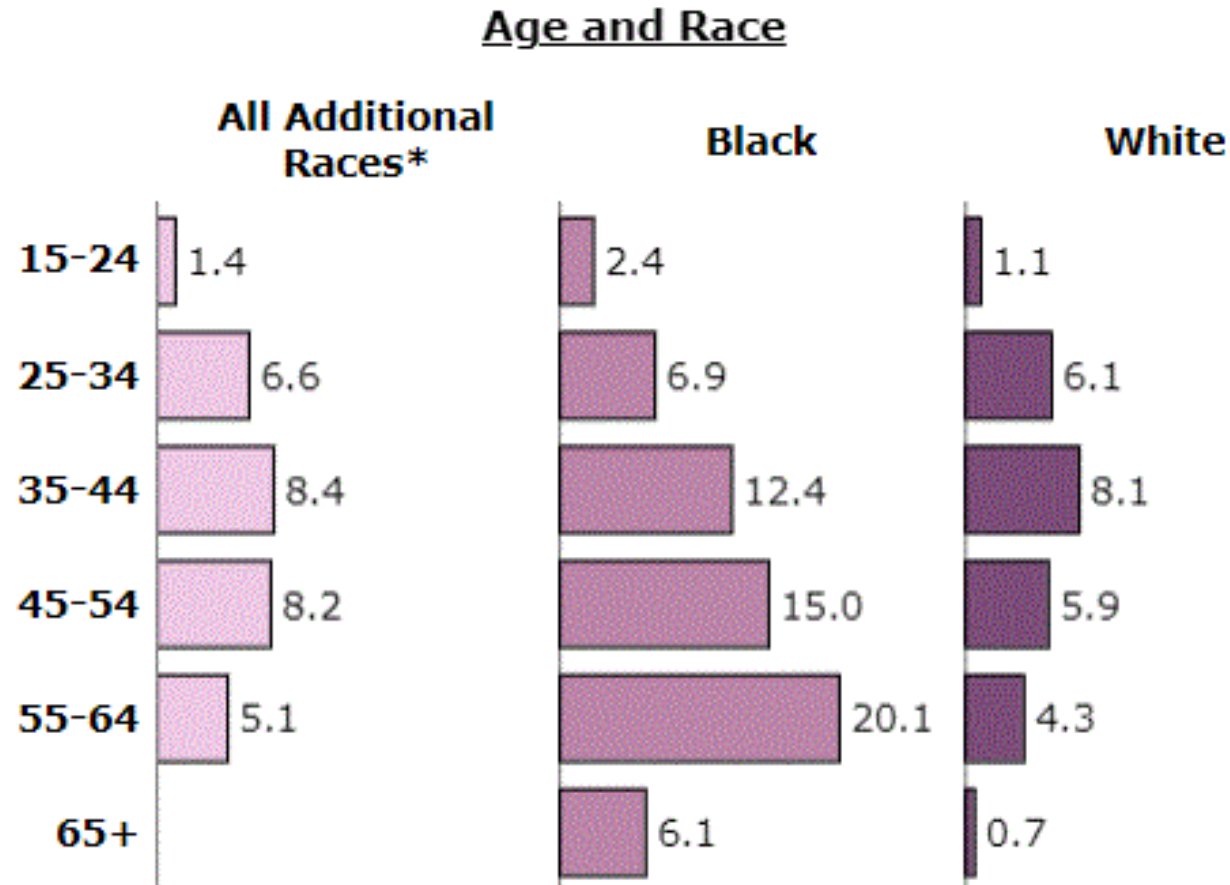


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Disparity in Overdose Deaths

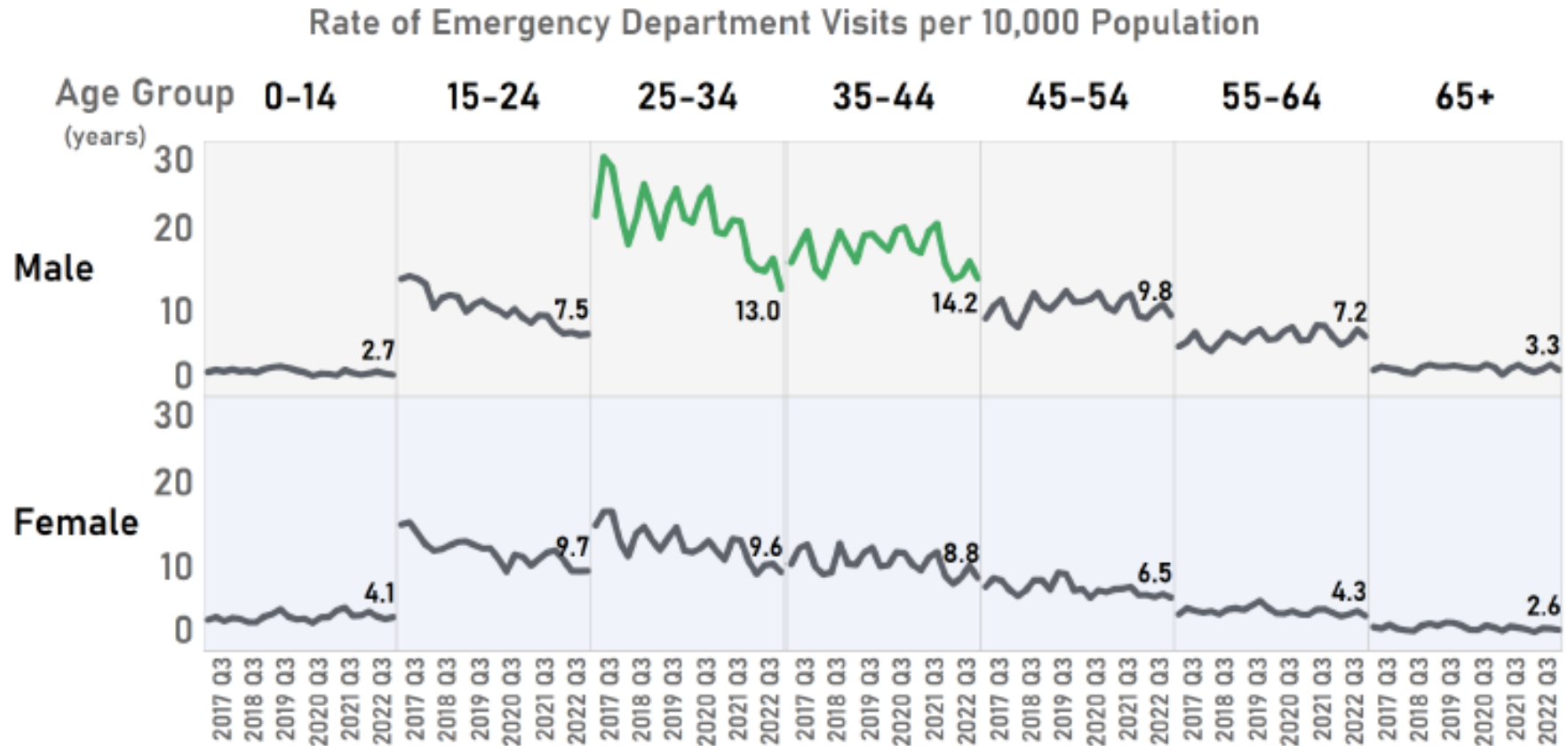


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Non-Fatal Overdoses by Sex and Age

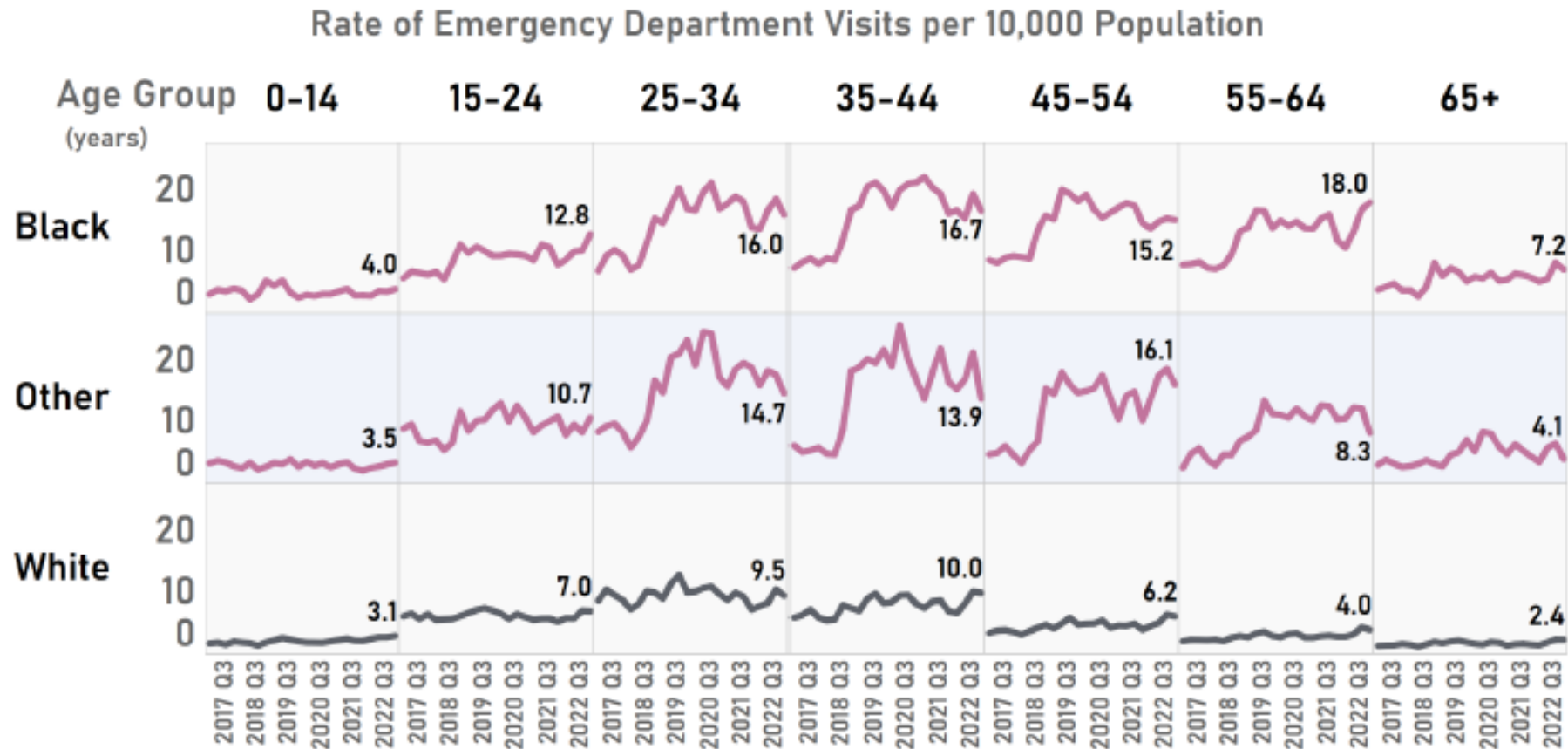


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Disparity in Non-Fatal Overdoses



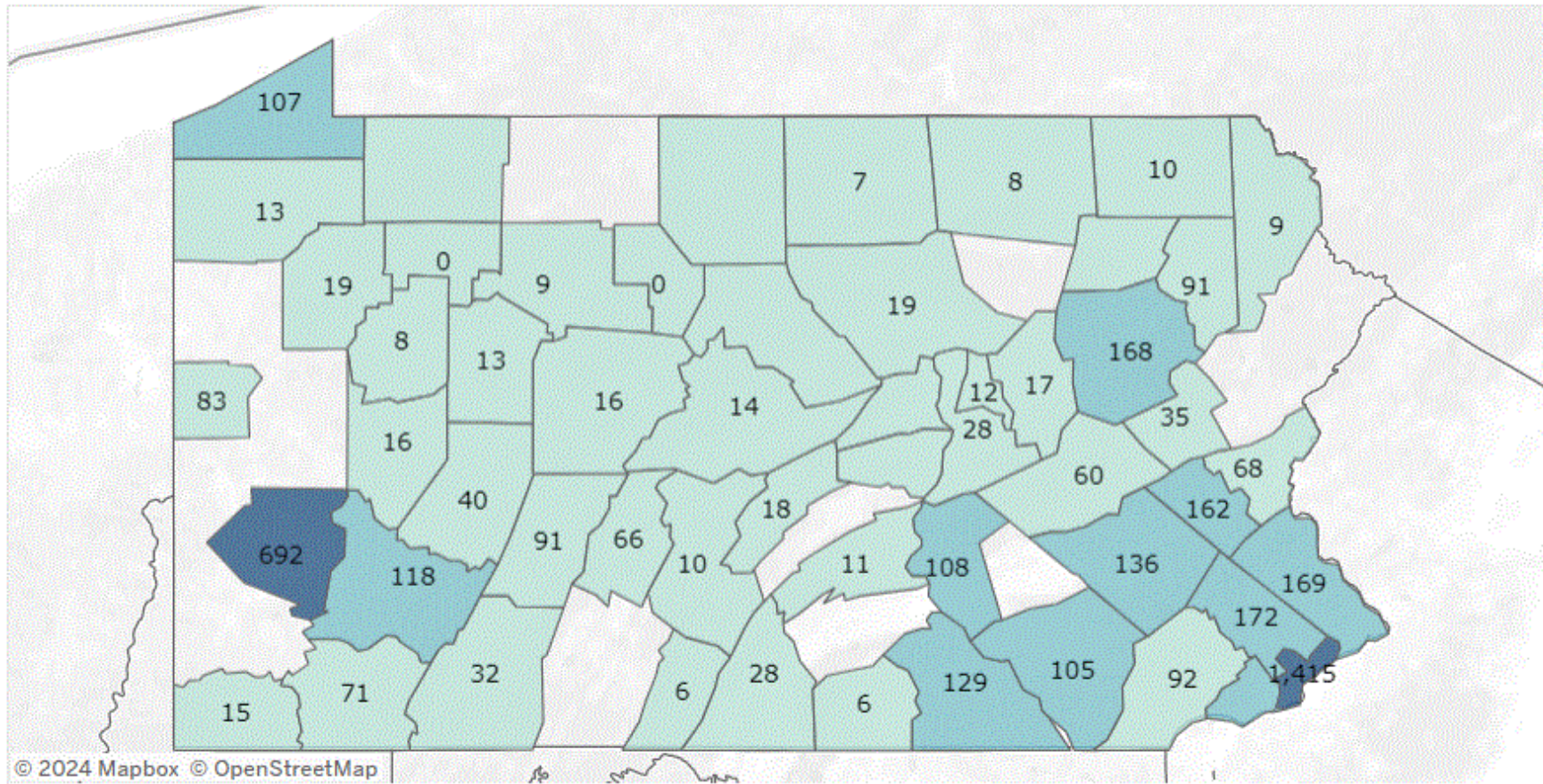
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Regional Overdose Trends

2022 | Any Drug Overdose Deaths by County



© 2024 Mapbox © OpenStreetMap



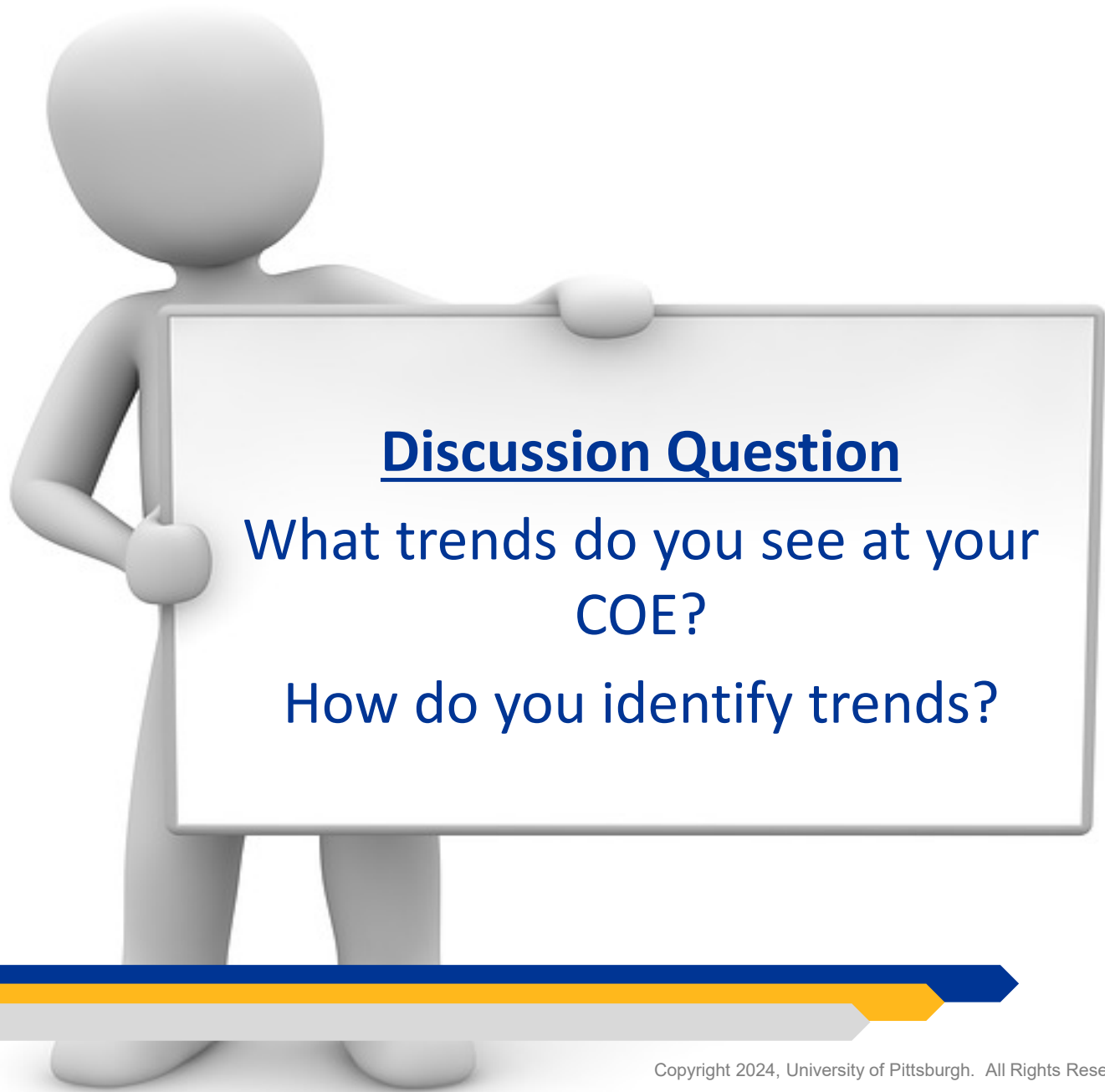
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Substance Use Trends





Resources for Identifying Drug Trends

National Drug Early
Warning System
(NDEWS)

Centers for Disease
Control and
Prevention (CDC)

National Institute
on Drug Abuse
(NIDA)-

Drug Enforcement
Administration
(DEA)

The Center for
Forensic Science
Research &
Education (CFSRE)-

United Nations
Office on Drugs
and Crime
(UNODC)-



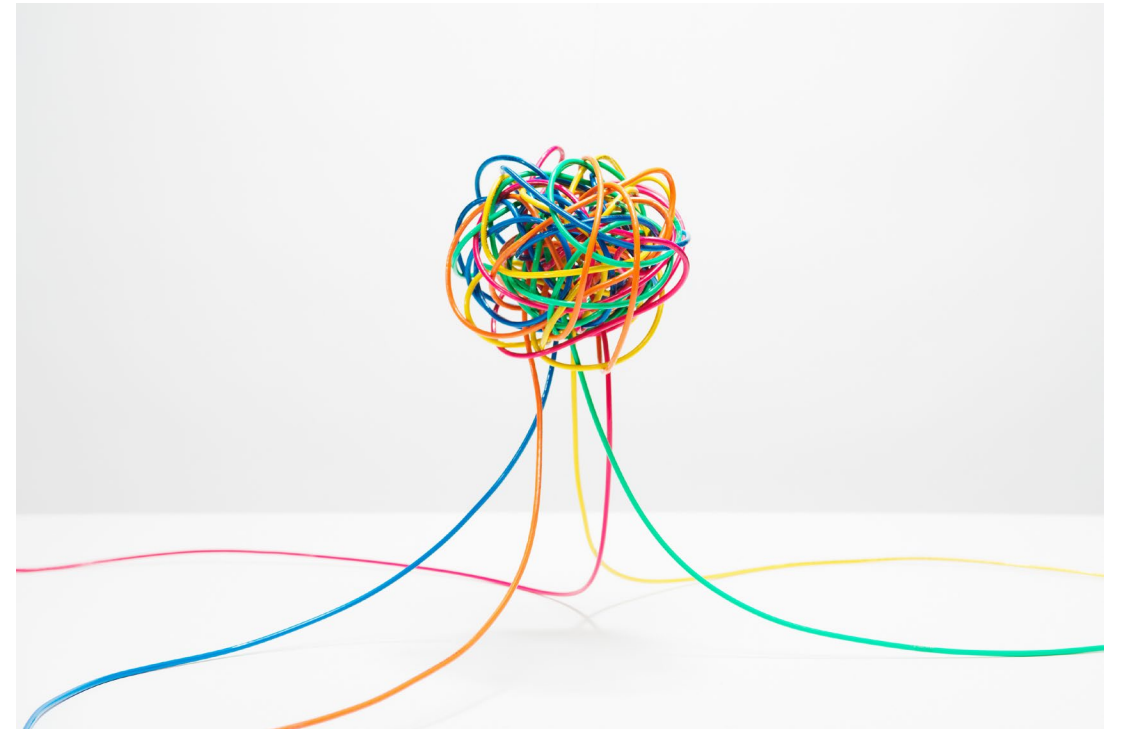
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Polysubstance Use

- **Rising** polysubstance use
- Unpredictable and **deadly overdose** scenarios
- Over half of overdose deaths involve **multiple substances**



Common Street Drugs in 2023

Cannabis

Heroin

Methamphetamine
(Meth)

Cocaine

Fentanyl-Laced
Drugs

Psychedelics

Disassociatives

Counterfeit Pills

Inhalants



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Tobacco Use Trends

- Nicotine use **declined** to 19% from 20.8% across all products including e-cigarettes¹
- Cigarettes were **most common** in 2020 followed by e-cigarettes, cigars, smokeless tobacco¹
- **Disparities** exist¹
- Smoking rates in adults with MH/SUD remain **higher** than their counterparts without MH/SUD issues²



New and Novel Psychoactive Substances (NPS)



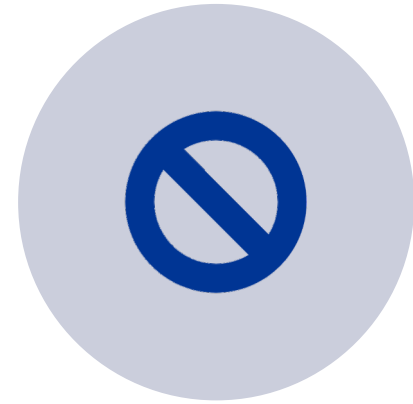
NPS Surveillance



Definition



Surveillance



Barriers



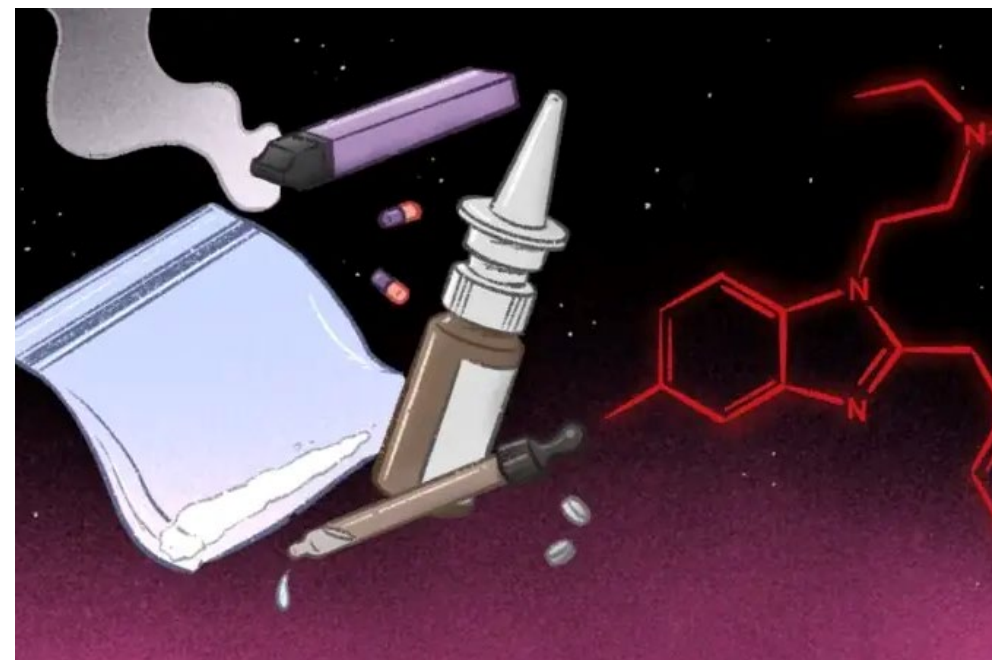
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Nitazenes

- Potent **synthetic opioids**
- **Varying forms:** powders, sprays, pills
- Not **detectable** by fentanyl test strips
- Naloxone is effective but often requires **higher/multiple doses**



(Image: Wilkinson, 2023)

Designer Benzodiazepines

- Mimic approved **benzodiazepines** with minor modifications
- Rising concerns over illegal **availability** and recreational **use**
- **Lower health risk** compared to other designer psychotropic agents despite increasing prevalence



Xylazine

- Non-opioid **sedative** often mixed with opioids like fentanyl¹
- **Severe** health risks¹
- Rising xylazine in **overdoses**²
- Highest in **Philadelphia** (26%)²
- Lack of **routine testing** for xylazine presence in overdoses²



(Image: National Harm Reduction Coalition, 2024)



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Kratom



(Image National Center for Complementary and Integrative Health)

- Legally sold **herbal supplement**
- Found as **leaves, capsules, tablets, powder** and **liquid extract**
- Effects vary from **stimulant** to **opioid-like**
- Ongoing research to understand **health impacts** and **potential therapeutic uses**

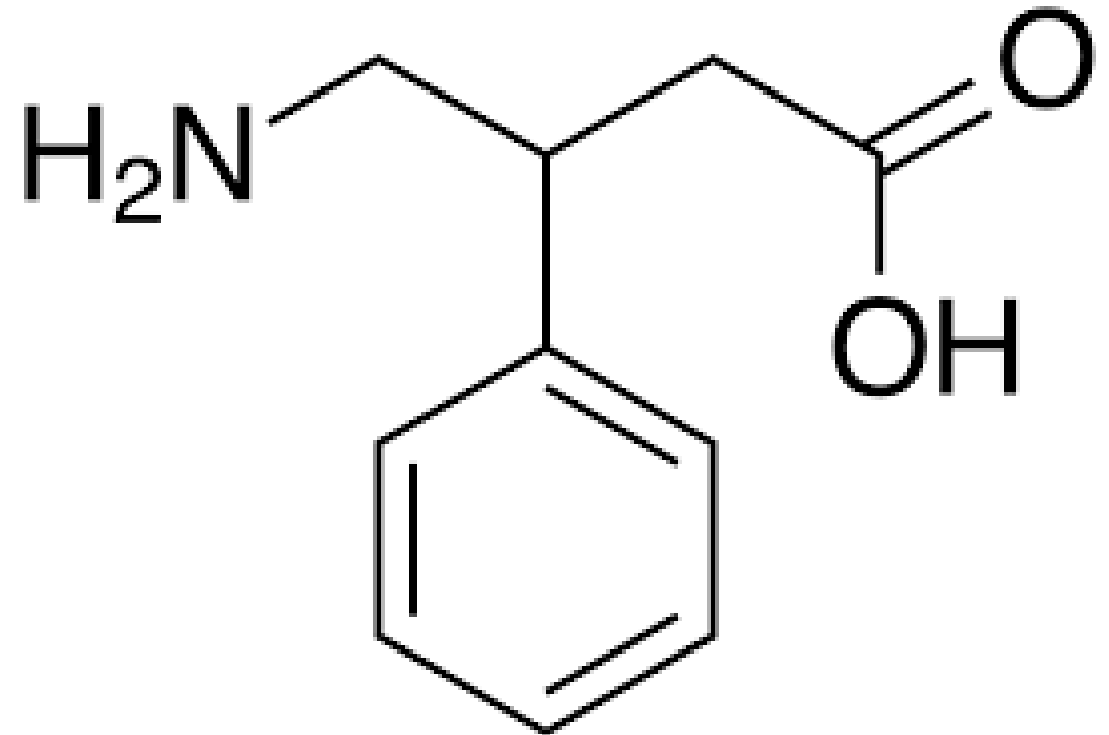
Carfentanyl



- 100x **stronger than fentanyl**, 10,000x more potent than morphine
- Found as **powder, tablet, blotter paper**
- Commonly **mixed** with other drugs

Phenibut

- **Depressant** with effects like benzodiazepines
- Dietary supplement in **tablet, powder, or capsule**
- **Associated risks** preclude prescription use



Flakka

- **Highly addictive** stimulant
- Appears as pale or pinkish **crystal**
- Usage methods include **vaporizing, snorting**



(Image: The Recovery Village, 2022)

Synthetic Cannabinoids (e.g., K2, Spice)

- Potent, **man-made** compounds, more dangerous than natural marijuana
- Available as a **liquid** for vaporizing or **plant-like material** for smoking
- Notably **stronger** effects than natural marijuana



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Tianeptine (Tianna, Tiana Red, Zaza Red)

- Tricyclic antidepressant
- **Not FDA approved** but it is available as dietary supplement in some US states, banned in other states
- Side effects include **agitation, confusion, respiratory depression, risk of death** at high doses
- **Naloxone** is effective



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Trends in Treatment



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Trends in Treatment Access

- Increased telehealth usage¹
- Increased outpatient utilization²
- SUD treatment stagnant²
- Increased SUD treatment in criminal justice²
- Increased proportion of clients receiving Medicaid²



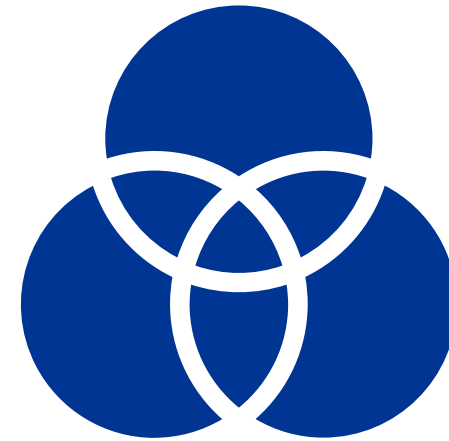
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Disparity in SUD Treatment

- Socioeconomic Disparities¹
- Geographic Disparities¹
- Race and Ethnicity¹
- Age-Related Disparity²



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Fentanyl Vaccine



- **Vaccine** under development to block fentanyl's effects
- Produces **antibodies against fentanyl**, reduces pain-relief and brain impact
- Limits dangerous physical effects, **potential aid** for substance use treatment



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Other Trends in Treatment

- Treatment **tailored** to individuals
- Growing recognition of **dual diagnosis**
- Improved **combined treatment** approaches
- Increased understanding of the role of **trauma**
- Enhanced **prevention** efforts



Approaches to Addressing New Psychoactive Substances

Employ	Employ comprehensive, adaptable approaches
Tailor	Tailor treatment
Educate	Educate providers
Integrate	Integrate medical, psychological, social support



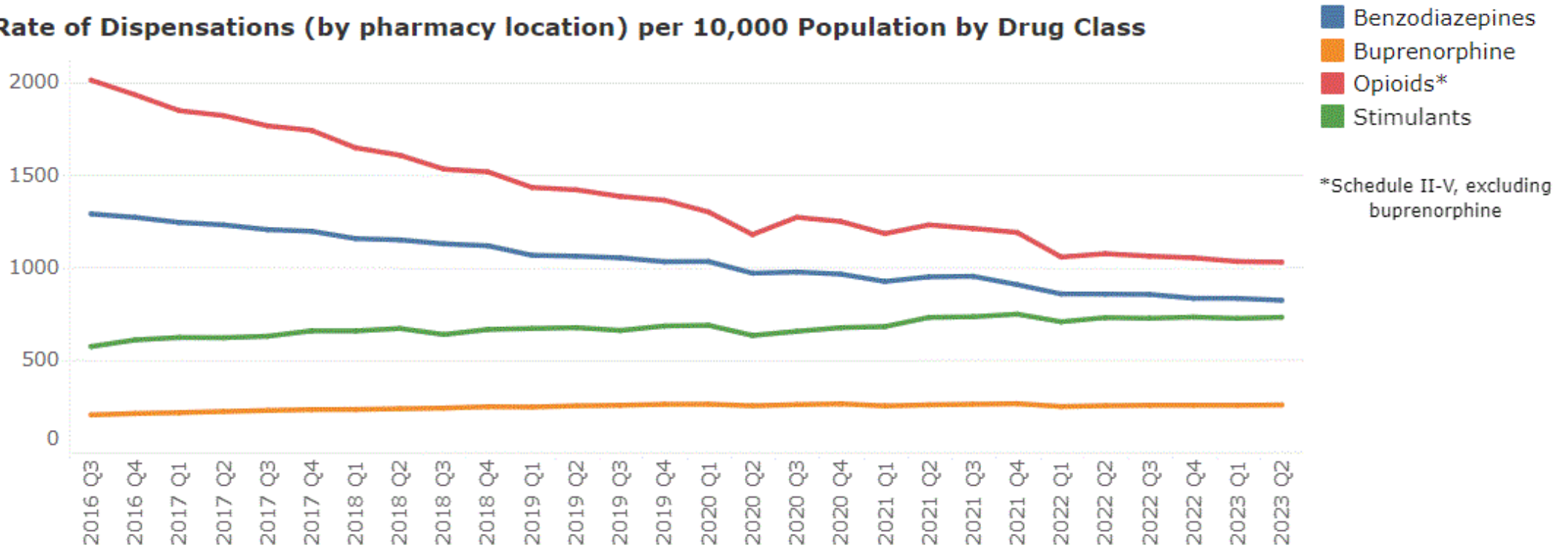
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Prescribing Trends

Rate of Dispensations (by pharmacy location) per 10,000 Population by Drug Class



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Other Trends



Depression

- **Adolescents**
- **Consistent** across demographics
- Low **treatment** utilization
- Shortage of **psychiatrists**
- **Geographic** and **economic** considerations



Suicide

- Increased **suicide deaths** in 2021-2022
- Decreased in specific **demographics**
- Recognized national mental health **crisis**



Solutions for the Current Mental Health Crisis

- **Training** programs for **primary care providers**
- Integrating **behavioral health** into primary care
- Developing scalable **online** mental health services
- Establishing **coordinated** mental health service networks
- Comprehensive **continuum of care** models
- **Community** and **policy** initiatives
- Aligning **stakeholders** and **resources**



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Wounds

- PWID are a **priority population** for COEs¹
- Risk factors include being age **over 30, females**, those who experience **homelessness, cocaine** use, and having 5-10 years drug **history**¹
- Heroin-related soft tissue infections (STI) hospitalizations **doubled** between 2000 and 2010²
- **Racial disparities** in STI rates²
- Significant **increase** in those who reported an abscess in their lifetime³



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