

Emerging Drug Trends in Virginia: Key Issues and How Courts Can Better Address Them

Josh Esrick

Chief of Training and Technical Assistance,
Carnevale Associates

josh@carnevaleassociates.com

August 4, 2025

Acknowledgment

This presentation was prepared for the Central East Addiction Technology Transfer Center (Central East ATTC) Network under a cooperative agreement from the Substance Abuse and Mental Health Services Administration (SAMHSA). All material appearing in this publication, except that taken directly from copyrighted sources, is in the public domain and may be reproduced or copied without permission from SAMHSA or the authors. Citation of the source is appreciated. Do not reproduce or distribute this publication for a fee without specific, written authorization from Central East ATTC. For more information on obtaining copies of this publication, email webinars@danyainstitute.org.

The opinions expressed herein are the view of TTC Network and do not reflect the official position of the Department of Health and Human Services (DHHS), SAMHSA. No official support or endorsement of DHHS, SAMHSA, for the opinions described in this document is intended or should be inferred.

This work is supported by grants 1H79T1087729 from the Department of Health and Human Services, Substance Abuse and Mental Health Services Administration.

Presented 2025





Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Learning Objectives

By the end of the presentation, attendees will be able to:

- Describe emerging drug trends and their impacts across Virginia
- Explain the causes of emerging trends and their potential for continued growth
- Recognize the effects of substance use on court operations
- Identify strategies for improving court system responses to emerging trends

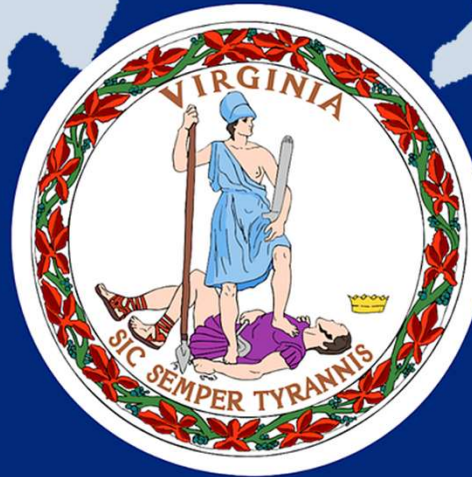


Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Substance Use Trends Across Virginia





Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

The Latest on the Opioid Epidemic

- Opioids have had enormous health and economic tolls on Virginia
- Illicit opioid use, prescription opioid misuse, and overdoses are decreasing!
- But the emergence of novel substances is complicating the epidemic for those still caught up in it





Central East (HHS Region 3)

ATTC

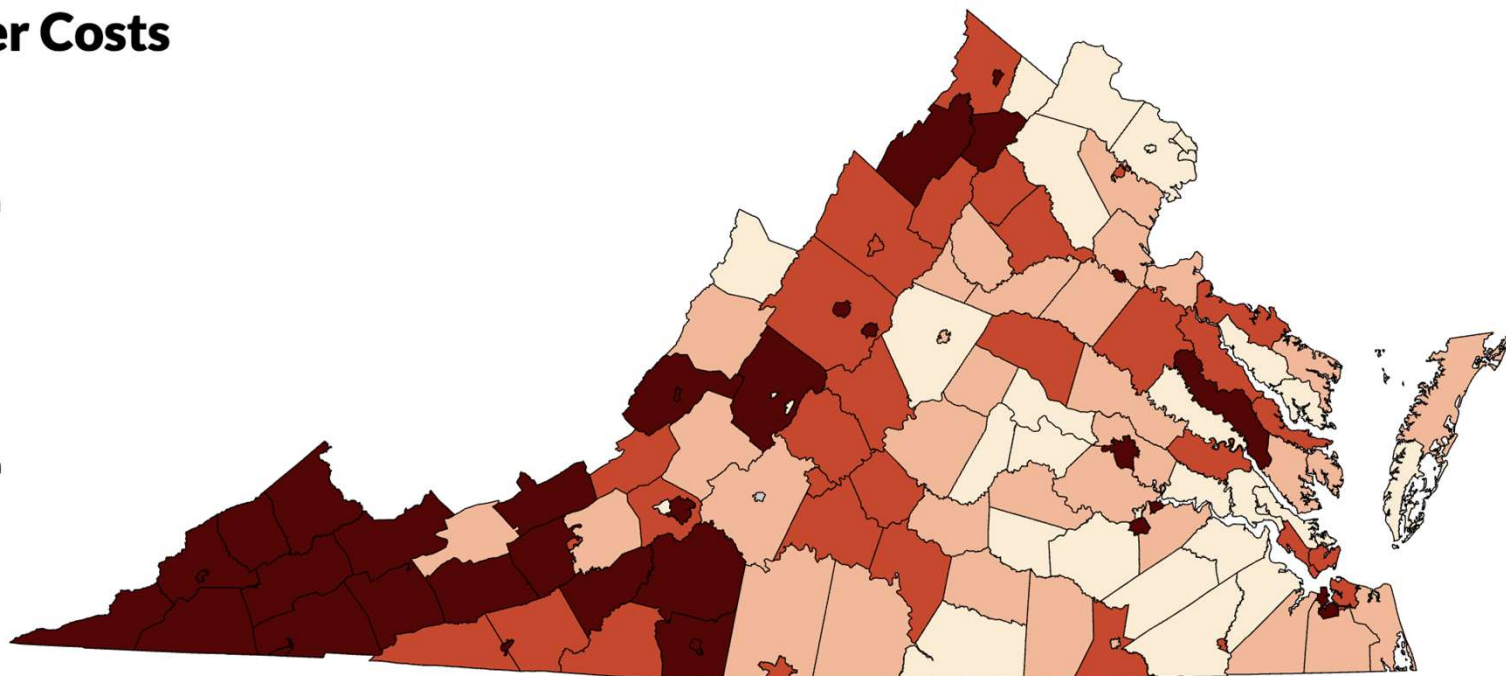
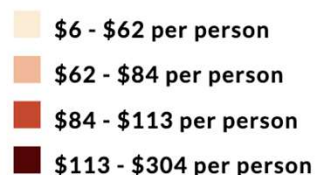
Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Public Service Costs of the Opioid Epidemic in Virginia

Crime / Other Costs in Virginia

\$657 Million

Annual Economic Burden
of Opioids Per Person by
Locality in Virginia, 2021



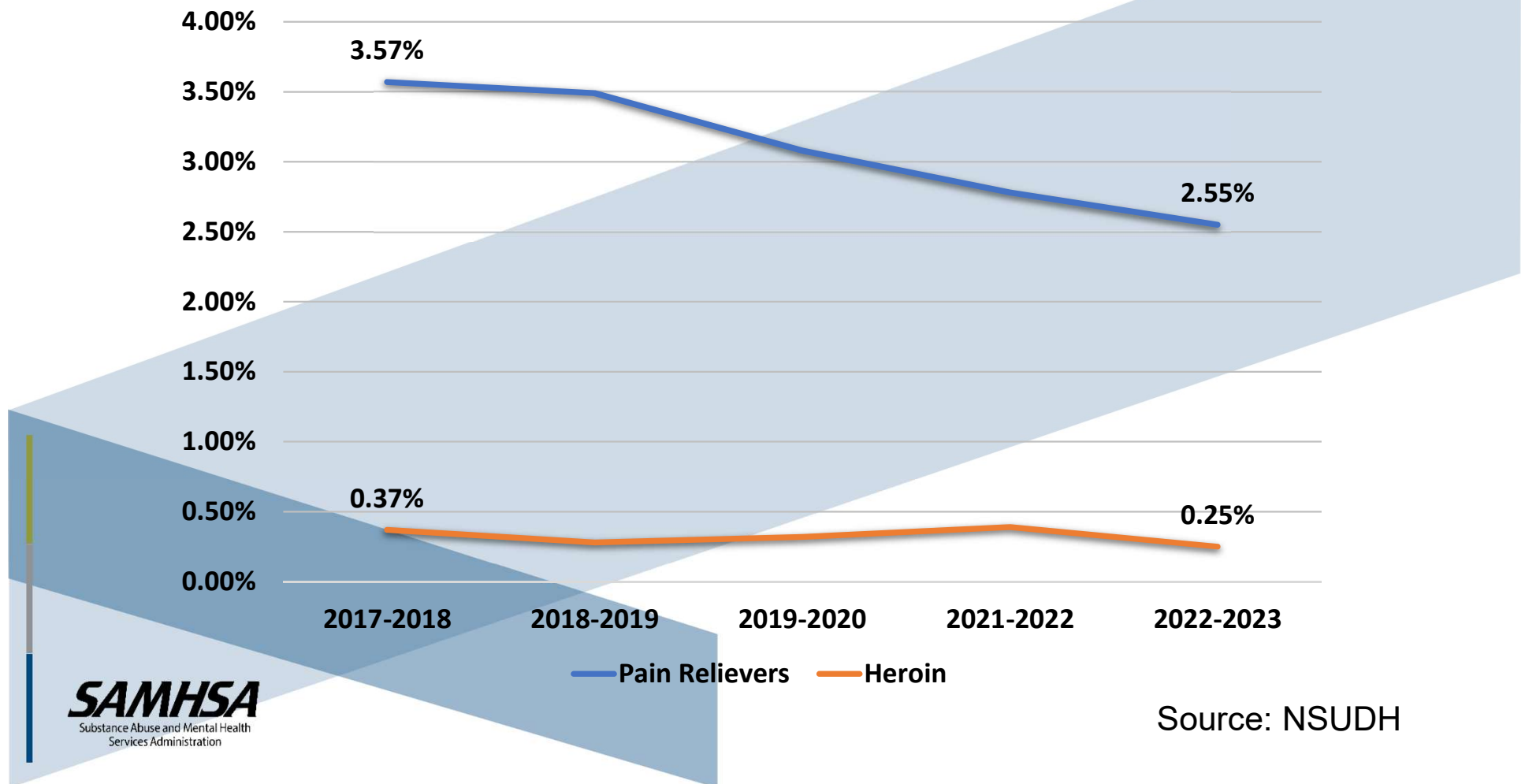


Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Prescription Pain Reliever Misuse and Heroin Use is Declining



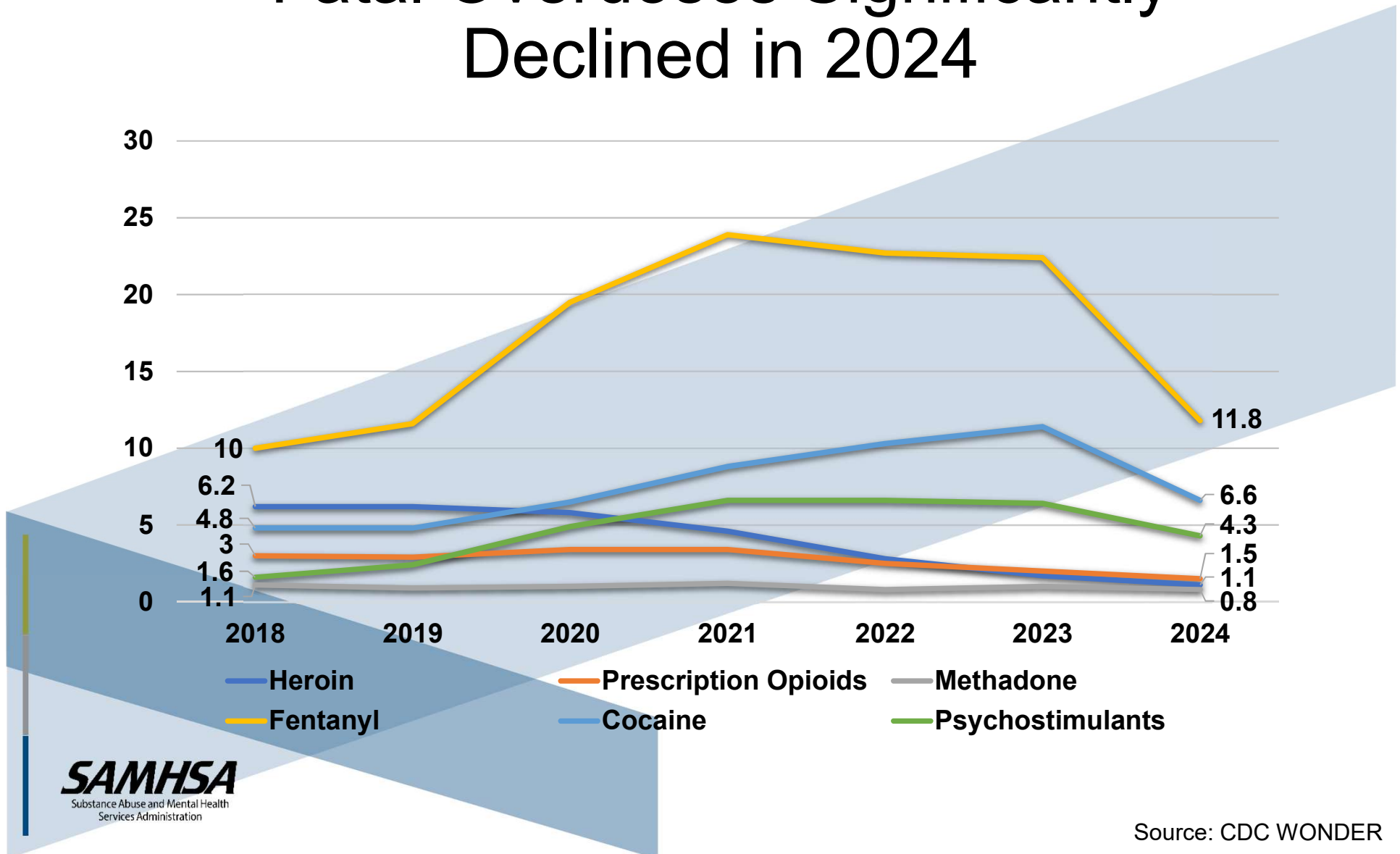


Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Fatal Overdoses Significantly Declined in 2024





Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Novel Substances Impacting the Opioid Epidemic



Xylazine



Nitazenes



Tianeptine



Bromazolam



Tramadol



Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Xylazine

- Veterinary anesthetic not approved for human use
- Non-opioid sedative, but chemically interacts with opioids
- Extends and amplifies the effects of opioids (hence “zombie drug” and “tranq” nicknames)
- Likely responsible for rumors of “Narcan-resistant opioids”
- Not federally controlled; Virginia law:
 - Knowingly producing, selling, giving, or distributing with intent for human consumption is a Class 5 Felony
 - Knowingly possessing for human consumption is a Class 1 Misdemeanor
 - No offense for actions related to legitimate veterinary practice





Central East (HHS Region 3)

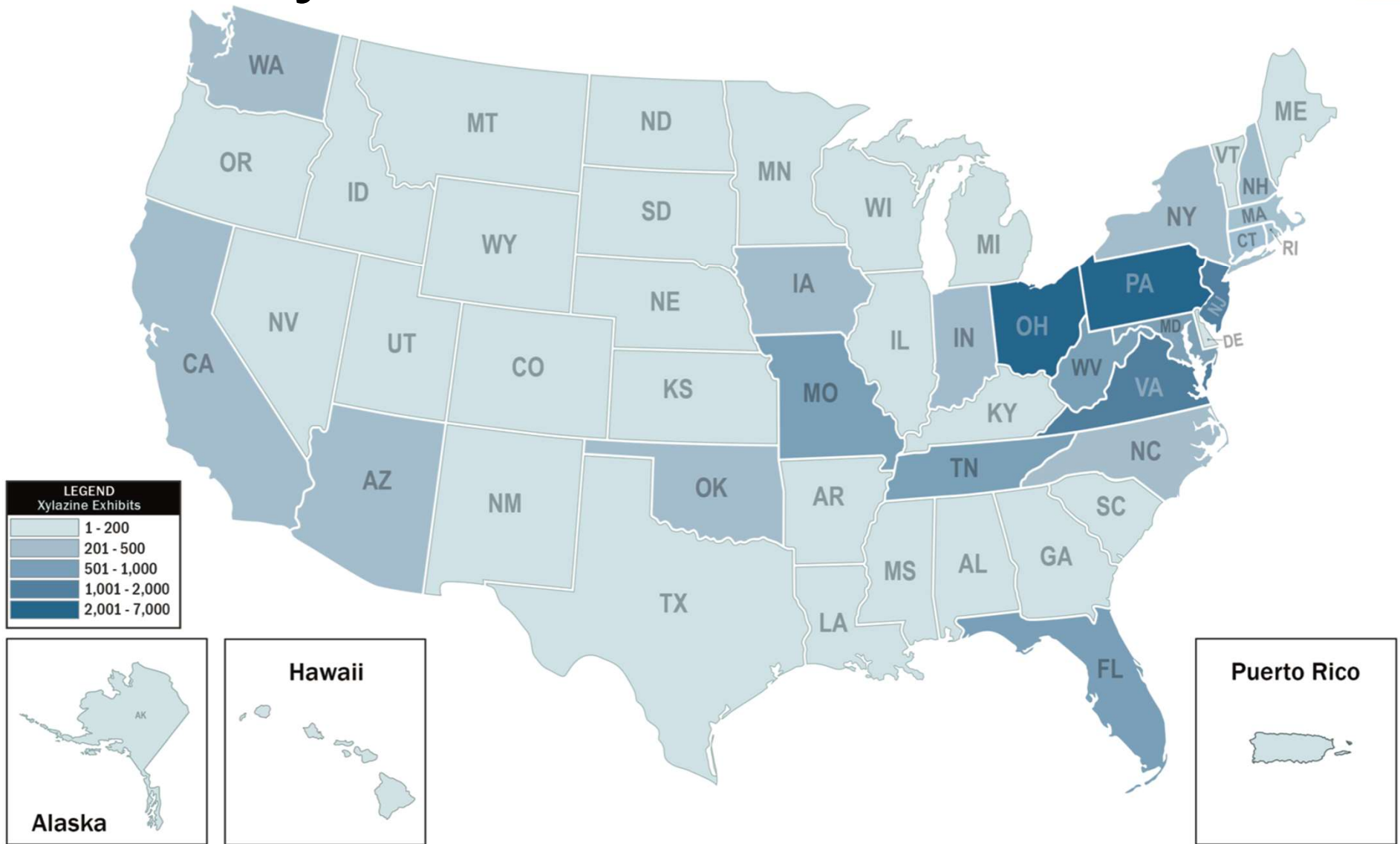
ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Xylazine Consequences

- 3,468+ fatal overdoses nationwide involved xylazine in 2021
 - Virginia OCME added xylazine to testing panels in July 2023
 - In 2022, Virginia had the 4th highest rate of xylazine seizures
- 40% of people in a 2011 study developed severe and painful necrotizing wounds
 - Significant health complications, including amputations
 - People using xylazine may require a higher degree of medical care

Xylazine Seizures, 2024





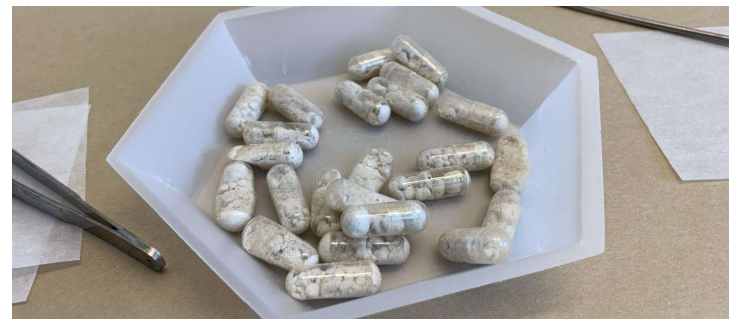
Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Nitazenes

- 13+ types identified, most common is isonitazene (iso)
- Identified nitazenes are Schedule 1 drugs
- Commonly mixed into heroin or fentanyl, or falsely marketed as hydromorphone or oxycodone
- Identified in at least 4,300 law enforcement drug seizures in the U.S. since 2019
- Some are estimated to be up to 43 times more potent than fentanyl
 - The least potent are ~0.5x fentanyl potency



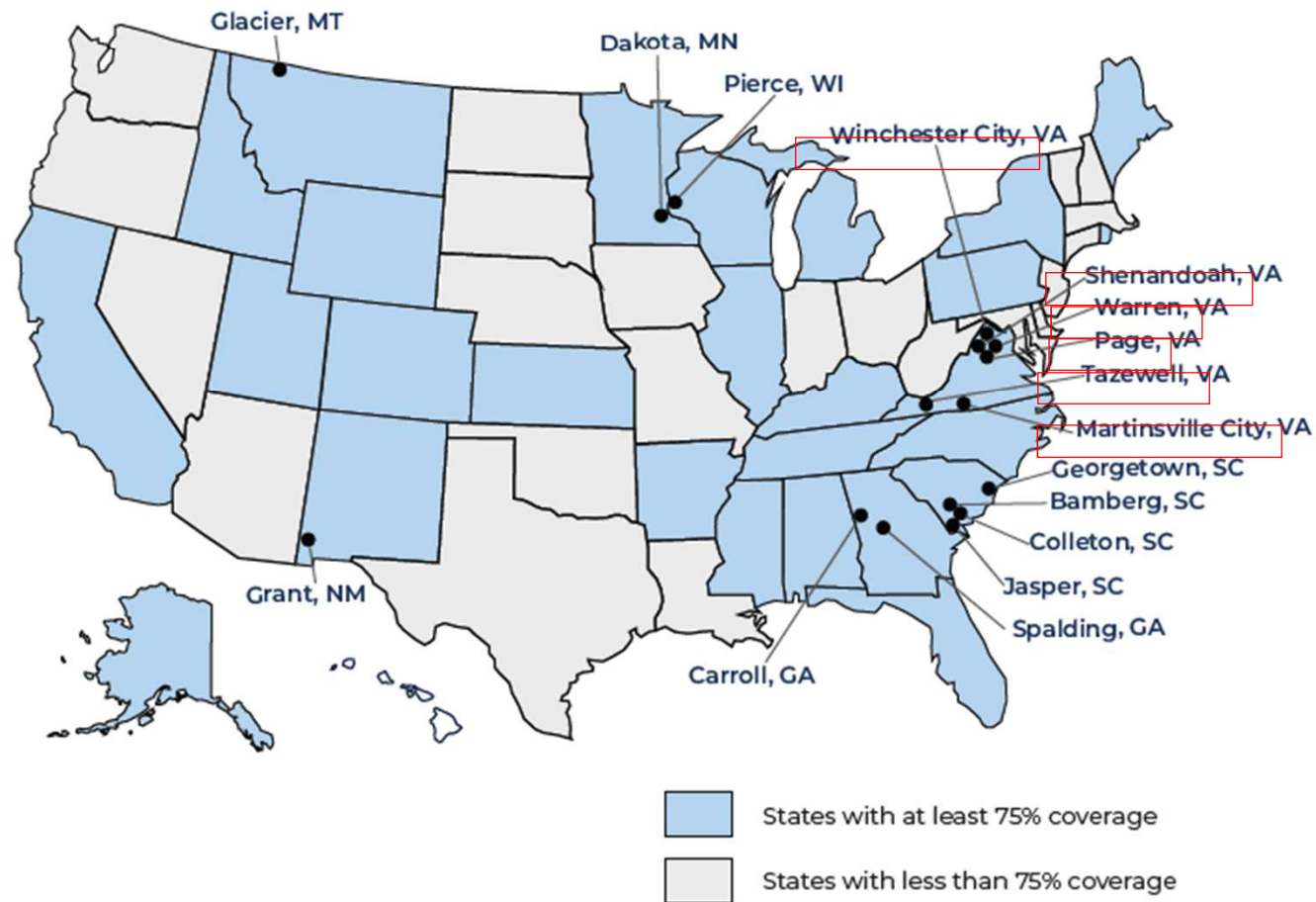


Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

US counties with the highest rate of EMS encounters for nitazene-related overdoses (nonfatal or fatal) per 10,000 population January 1, 2023 - April 30, 2025





Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Tianeptine

- Also known as “Gas Station Heroin”
 - Bonds to opioid receptors in the brain and mimics the effects of heroin in high doses
- Sold under brand names Pegasus, Tianaa, Zaza Red
- Prescribed as an antidepressant in other countries but not approved for any medical use by the FDA
- Banned in at least 11 states as of March 2025
 - Virginia Board of Pharmacy labeled it a Schedule 1 drug– but only effective until July 2025, unless a state law is enacted





Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Bromazepam

- First synthesized in 1976 to treat anxiety but was never approved for therapeutic use
- Acts predominantly as a sedative and can produce amnesia
- Schedule 1 substance in Virginia, uncontrolled federally
- National law enforcement seizures that involved bromazepam increased from:
 - 3 in 2018 to 2,913 in 2023
- 10 fatal overdoses in Virginia in 2022





Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Tramadol

- Synthetic opioid approved by the FDA (Schedule IV)
- Only 0.1x morphine potency, but presents unique risks
- Mixing with illicit fentanyl increased dramatically in recent years
 - 3,514% increase in seizures in Ohio (2018-2020)
- Recent impacts of prescription diversion reduction strategies
 - Decline from 32 million prescriptions filled in 2020 to 27 million in 2024
 - Decline in poison center case mentions from 6,974 in 2020 to 5,915 in 2022





Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Other Emerging Trends in Virginia

- Binge drinking has declined
- Adult cannabis use has risen
- Cocaine use has started declining, while methamphetamine use has started rising
 - Though cocaine is still the much more prevalent of the two in VA





Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Causes of Emerging Trends and Potential for Continued Growth



Why Do New Trends Emerge?

Risk and Protective Factors



Structural Conditions





Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Risk and Protective Factors

- The biological, psychological, interpersonal, or sociocultural characteristics that influence people.
 - **Risk factors** precede and are associated with a *higher likelihood* that people will engage in negative behaviors.
 - **Protective factors** reduce the impacts of risk factors and are associated with a *lower likelihood* that people will engage in negative behaviors.
- Organized by the socio-ecological model





Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Structural Conditions



All are relevant to substance use risk overall, but it's social and community context that are key to emerging trends



Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

What Structural Conditions?

- Legal status of substances
 - Legal substances present a lower risk profile for use
 - Legal = easy access
- Cost of substance manufacturing
 - Illicit drug manufacturers are businesses, and like all businesses they seek to increase their profit margins
 - That can mean raising prices, or decreasing costs
 - E.g., xylazine is cheap; 1kg of powder can be bought for \$6. Adding xylazine = fewer expensive opioids needed
 - People can also be price conscious and seek out less expensive substances cut with cheaper ingredients



Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

What Structural Conditions?

- Availability of harm reduction drug testing
 - Many are unaware of what their substances contain and are unintentionally exposed to more serious substances
- Maturity of the drug epidemic
 - The longer that people continue their substance use, the greater the likelihood they will deliberately seek out more potent substances
- Changes in societal attitudes
 - E.g., Gen Z has much less positive attitudes towards drinking alcohol than Millennials, and that has led to lower rates of problem alcohol use
- Any Many Others!



Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Potential for Continued Growth

- Virginia borders, or is near, states with significantly higher use and availability of certain substances
 - Xylazine: MD and near PA & NJ
 - Cocaine: Every bordering state except MD
 - Methamphetamine: KY, TN, and WV
 - Diverted Prescription Opioids: DE, KY NC, TN, and WV
- Bulk cash seizures (often a sign of criminal drug networks) are also elevated in NC, TN, KY, and MD
- As long as structural conditions remain, any substance has the potential for continued growth

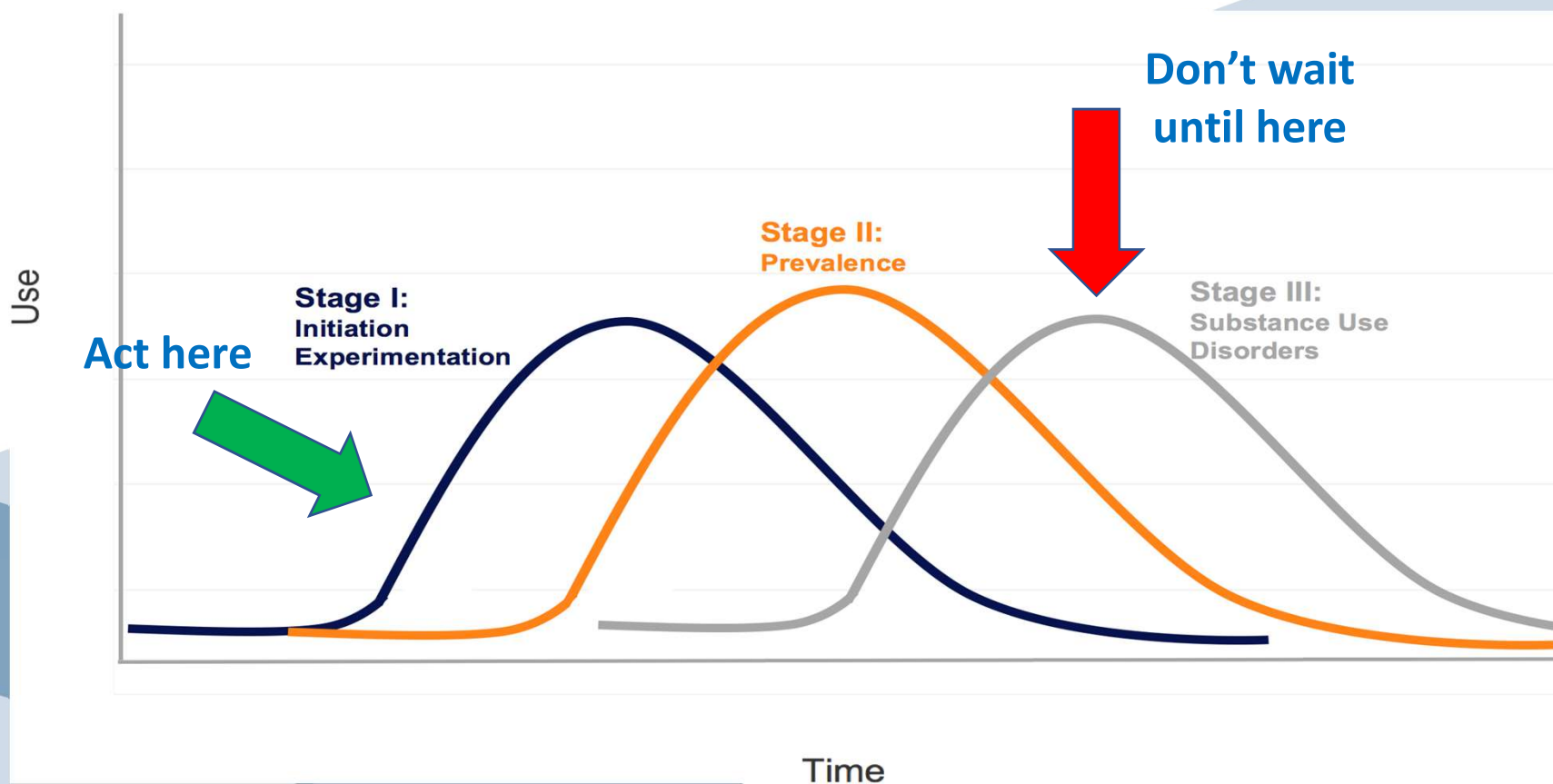


Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Need to Address Trends Before They Grow Too Much





Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

What Does All This Mean For Virginia Court Systems?





Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Potential Emerging Trend Effects on Court Operations

- Need to ensure court processes and tools are prepared for cases involving novel substances
 - Can your current drug screenings test for these substances?
 - **Example:** Many standard drug panels don't include nitazenes
 - Are your treatment providers able to pilot novel approaches?
 - **Example:** There's not yet a standard protocol for managing xylazine detox





Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Potential Emerging Trend Effects on Court Operations

- Potential for people to still be under the influence at court appearances
 - **Example:** Bromazepam can have ongoing effects for up to 12 hours. If someone who just used it is arrested at night and is arraigned the following morning, they could still be impaired.
- Importance of facilitating access to medical care
 - **Example:** Xylazine can cause serious physical ailments that require medical attention to avoid worsening.





Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Potential Emerging Trend Effects on Court Operations

- Importance of courthouses as physical locations for harm reduction efforts
 - Can Narcan vending machines or distribution kiosks be installed in or near courthouses?
 - **Example:** In Oct. 2024, Los Angeles County implemented distribution points in the courtyard outside the criminal courthouse
 - Are any court staff or officers trained in harm reduction?
 - **Example:** No data on courthouse deaths, but in 2019 nationwide there were 184 deaths in local jails due to drug or alcohol intoxication





Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Additional Potential Strategies

- Pursue expanding epidemiological surveillance to learn about emerging trends quicker
- Work with law enforcement partners to facilitate training on emergency responses to novel substances
 - **Example:** Tramadol withdrawal can cause hallucinations and extreme paranoia
- Expand the role of peer support groups and identify peers with experience with more unique substances
 - **Example:** Someone who recovered from xylazine wounds





Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Additional Potential Strategies

- Seek training on developing a trauma-informed court approach
- Consider novel recovery supports, especially for families
 - **Example:** 'Family nights' to build support networks for participants and identify children who may benefit from services
- Work with experts to analyze state treatment outcomes vs national data
 - Identify whether similar gap exists as with non-criminal justice referred treatment episodes
 - If gap exists, discuss with treatment providers strategies for improving outcomes



Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

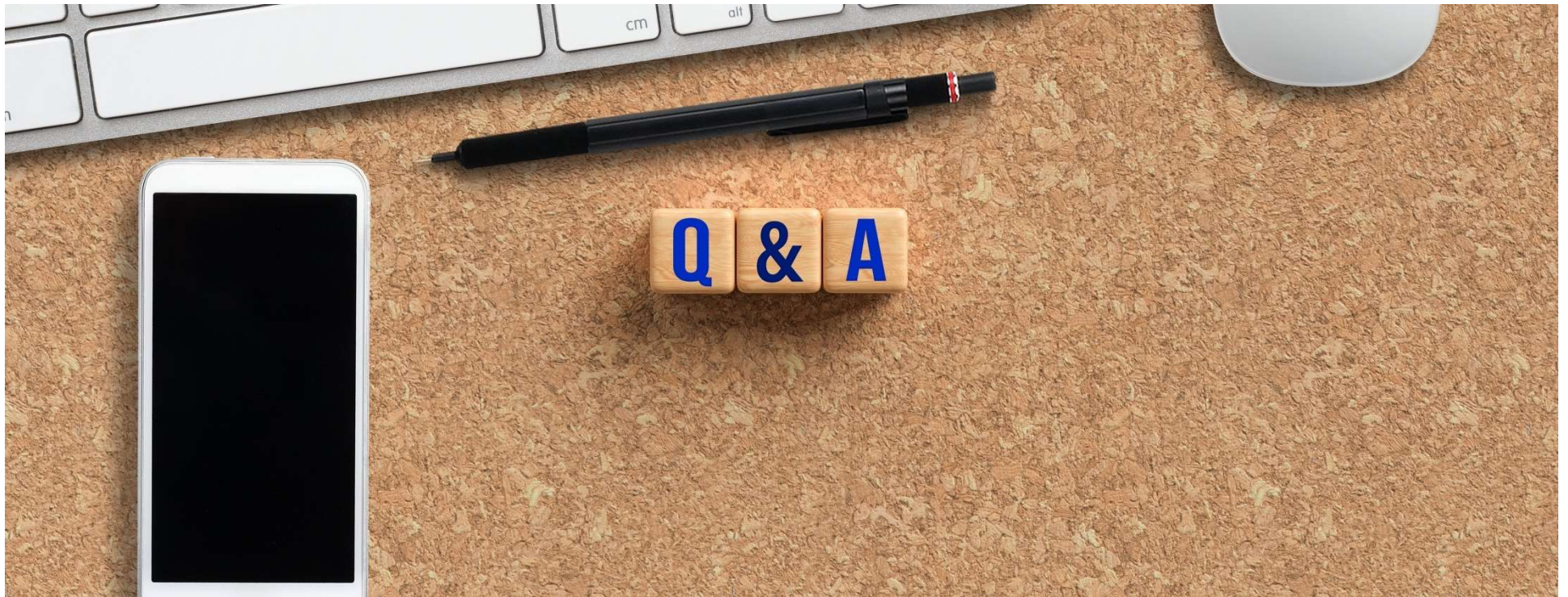
Successful Completion of Treatment (Not Criminal Justice-Referral Specific), 2022

	Virginia	United States
Outpatient	30.7%	47.6%
Intensive Outpatient	19.3%	25.8%
Short-Term Res.	50.3%	53.9%
Long-Term Res.	45.7%	43.4%
Detoxification	36.7%	64.7%



Conclusion

- Positive signs in the trajectory of the opioid epidemic, but novel substances present new challenges
- Important to identify scope of these substances in our catchment areas and prevalence among criminal justice-involved individuals
- New substances can present challenges to established treatment court operations
- All of these challenges can be addressed! Need to know about them so solutions can be implemented!



Josh Esrick

Chief of Training and Technical
Assistance

josh@carnevaleassociates.com

jesrick@danyainstitute.org



ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

The ATTC Network Mission & Vision

- Accelerate the adoption and implementation of evidence-based and promising addiction treatment and recovery-oriented practices and services;
- Heighten the awareness, knowledge, and skills of the workforce that addresses the needs of people with substance use or other behavioral health disorders; and
- Foster regional and national alliances among practitioners, researchers, policy makers, funders, and the recovery community.

CONNECT WITH US



<https://attcnetwork.org/centraleast>



[ATTC Virtual Booth](#)



[ATTC News](#)

SAMHSA
Substance Abuse and Mental Health
Services Administration



Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Data Appendix





Central East (HHS Region 3)

ATTC

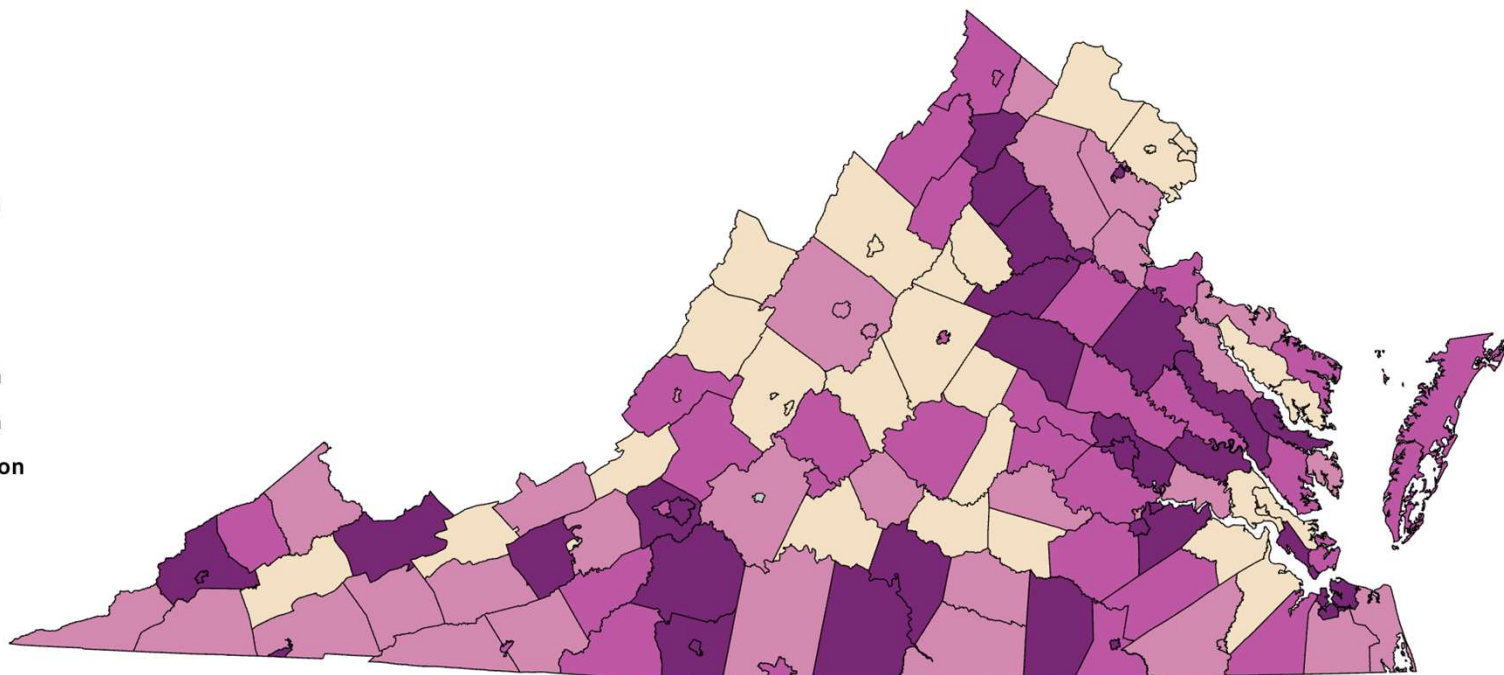
Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Total Costs of the Opioid Epidemic in Virginia

Total Costs in Virginia

\$5.02 Billion

Annual Economic Burden of Opioids Per Person by Locality in Virginia, 2021



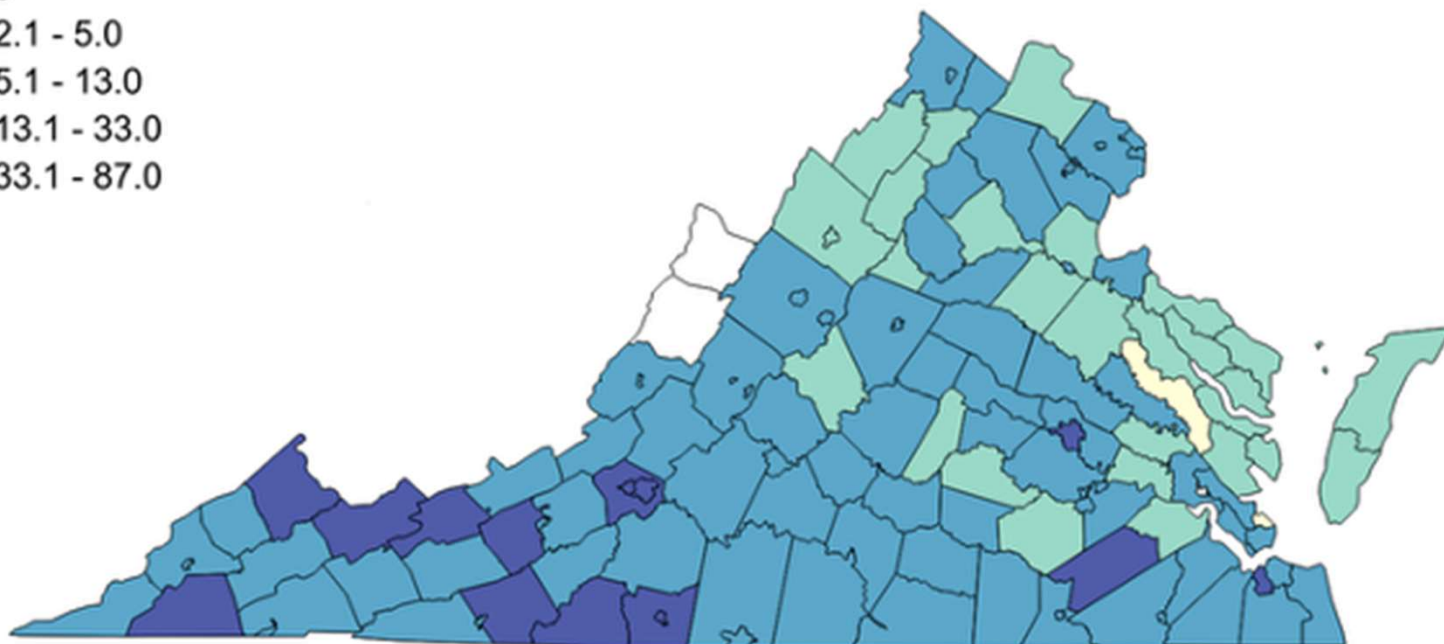
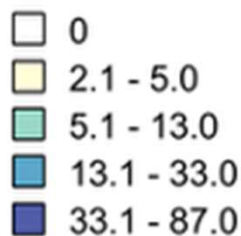


Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Rate of Opioid Overdose Emergency Department Visits (per 10,000 visits) by Locality, 2024





Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Emergency Department Visits Involving Opioids (per 10,000) in Virginia, 2018-2022

	Opioids	Heroin
2018	23.1	4.1
2019	22.1	4.1
2020	34.4	6.6
2021	33.0	5.8
2022	32.2	4.2
2023	30.0	2.8
2024	22.0	1.4

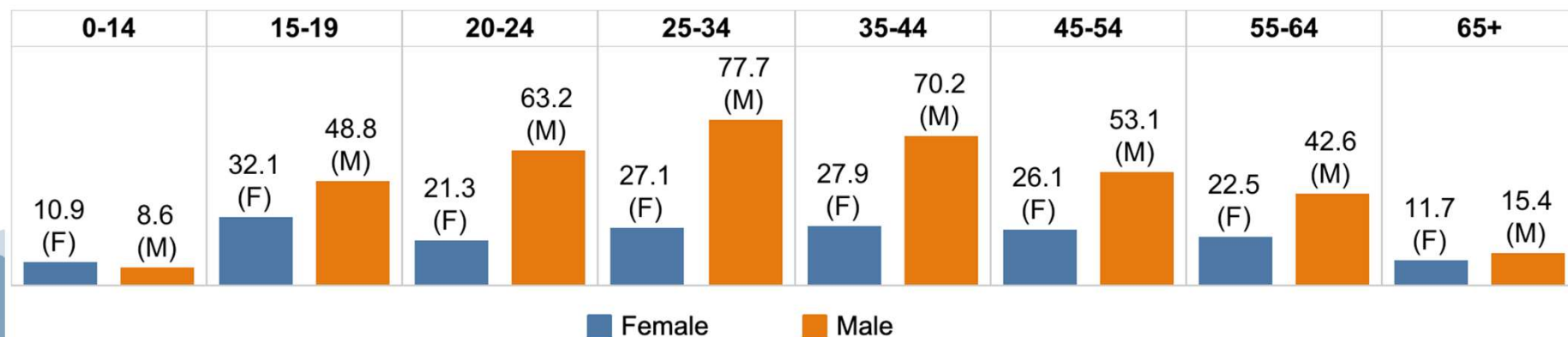


Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Rate of Opioid Overdose Emergency Department Visits (per 10,000 visits) in Virginia by Age Group and Sex, 2020-2024





Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Top 10 Virginia Counties with the Highest Rate of All Drug-Involved Overdose Deaths, 2023

County	Crude Rate (per 100,000)
1. Hopewell City	105.5
2. Petersburg City	102.1
3. Richmond City	91.6
4. Portsmouth City	87.8
5. Roanoke City	73.1
6. Tazewell County	69.0
7. Danville City	59.8
8. Henry County	58.3
9. Norfolk City	47.6
10. Pittsylvania County	43.6
Virginia	26.7
United States	28.9

SAMHSA
Substance Abuse and Mental Health
Services Administration

Source: CDC WONDER



Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Rates of Binge Drinking, Virginia and United States

	Virginia	United States
2017-2018	24.6%	26.5%
2019-2020	25.0%	24.9%
2021	24.2%	23.3%
2022-2023	22.4%	23.5%



Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Rates of Cannabis Use, Virginia and United States

	Virginia	United States
2017-2018	7.3%	9.8%
2019-2020	7.6%	11.7%
2021	12.1%	13.0%
2022-2023	13.3%	15.2%

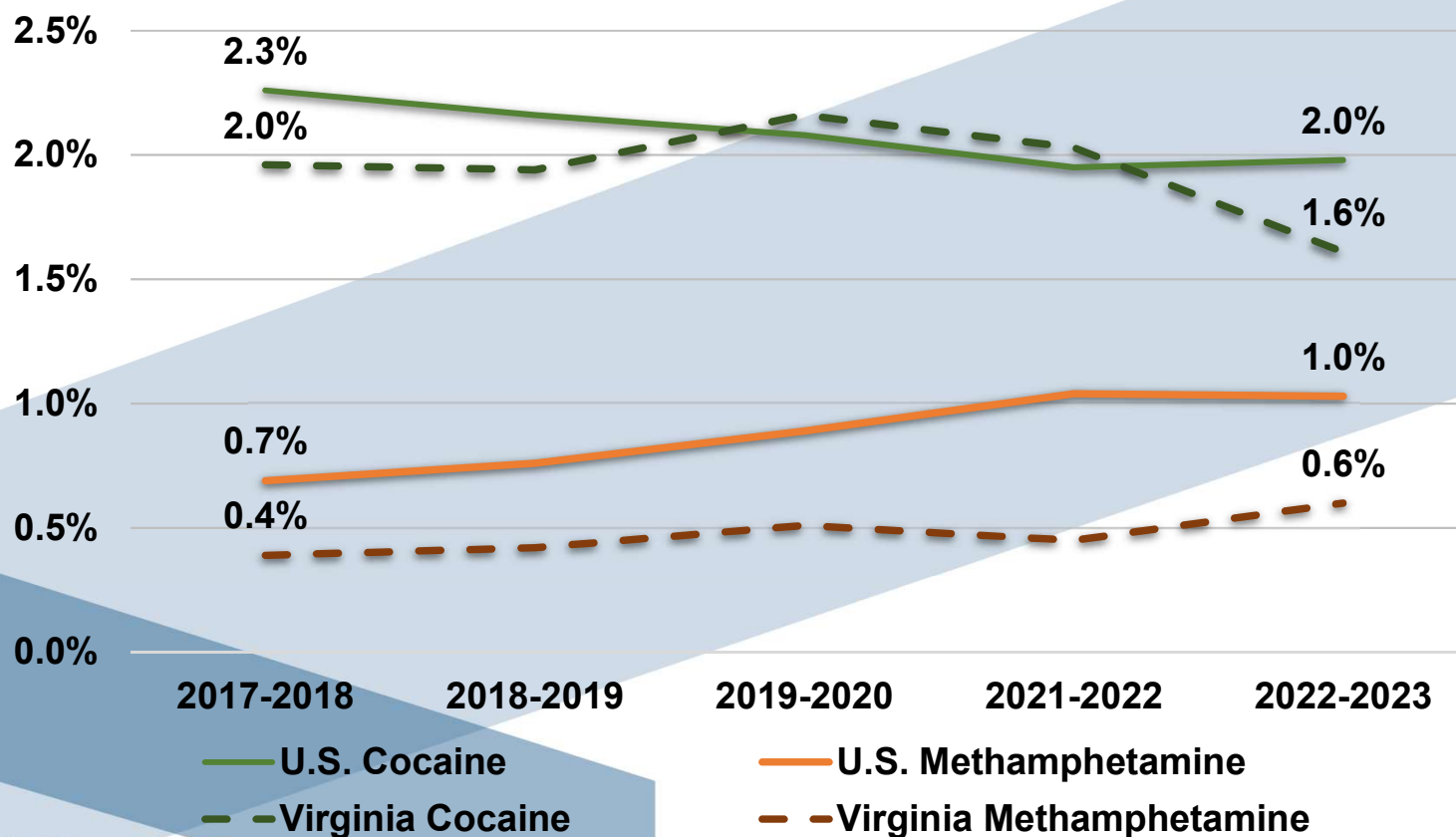


Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Rates of Cocaine and Methamphetamine Use in Virginia and the US



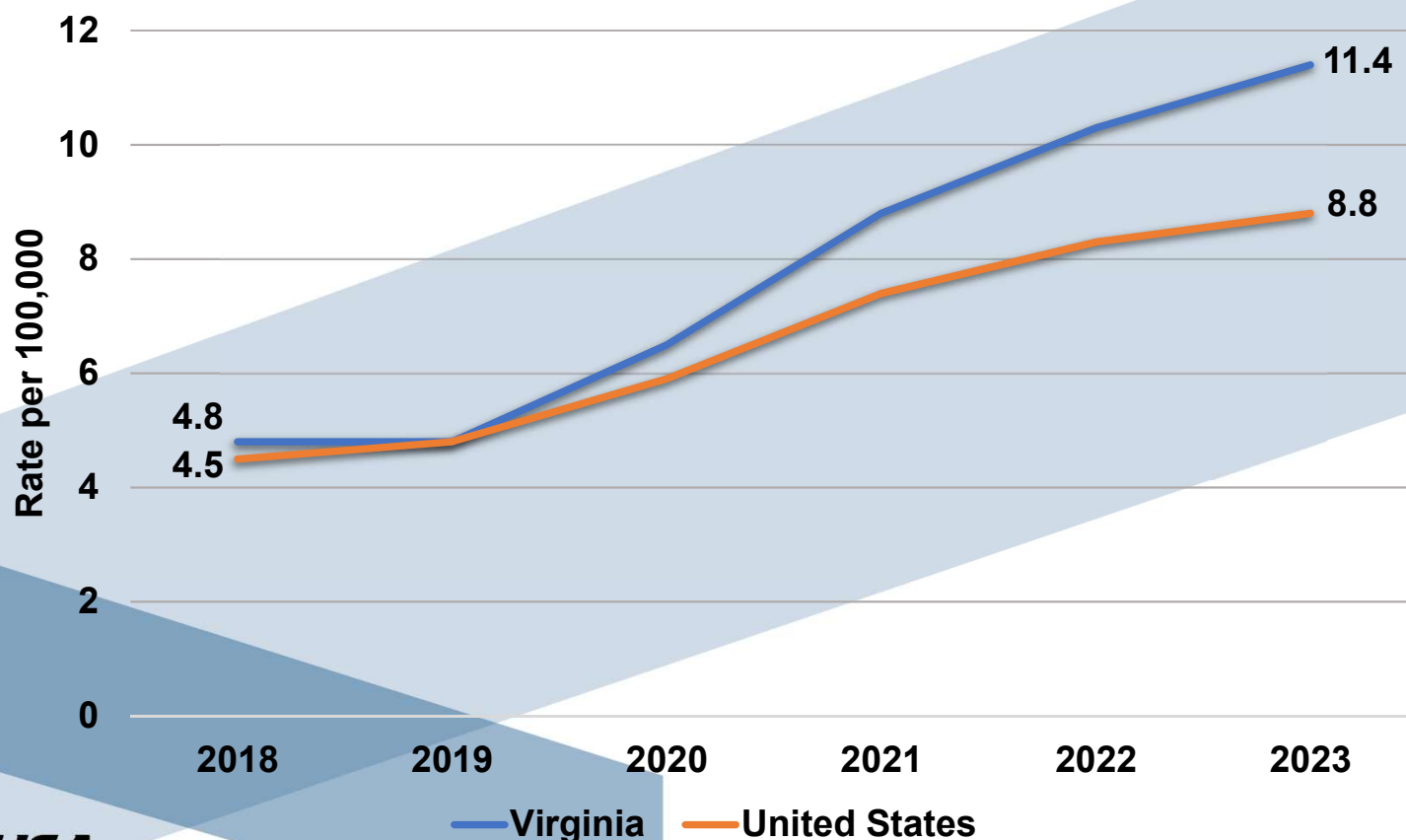


Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Rate of Cocaine-Involved Fatal Overdoses, 2018-2023





Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Top 10 Virginia Counties with the Highest Rate of Cocaine-Involved Overdose Deaths, 2023

County	Crude Rate (per 100,000)
1. Richmond City	59.3
2. Portsmouth City	55.8
3. Roanoke City	29.8
4. Norfolk City	27.7
5. Hampton City	19.0
6. Henrico County	17.9
7. Newport News City	16.4
8. Chesterfield County	15.4
9. Chesapeake City	12.2
10. Virginia Beach City	10.8
Virginia	11.4
United States	8.8

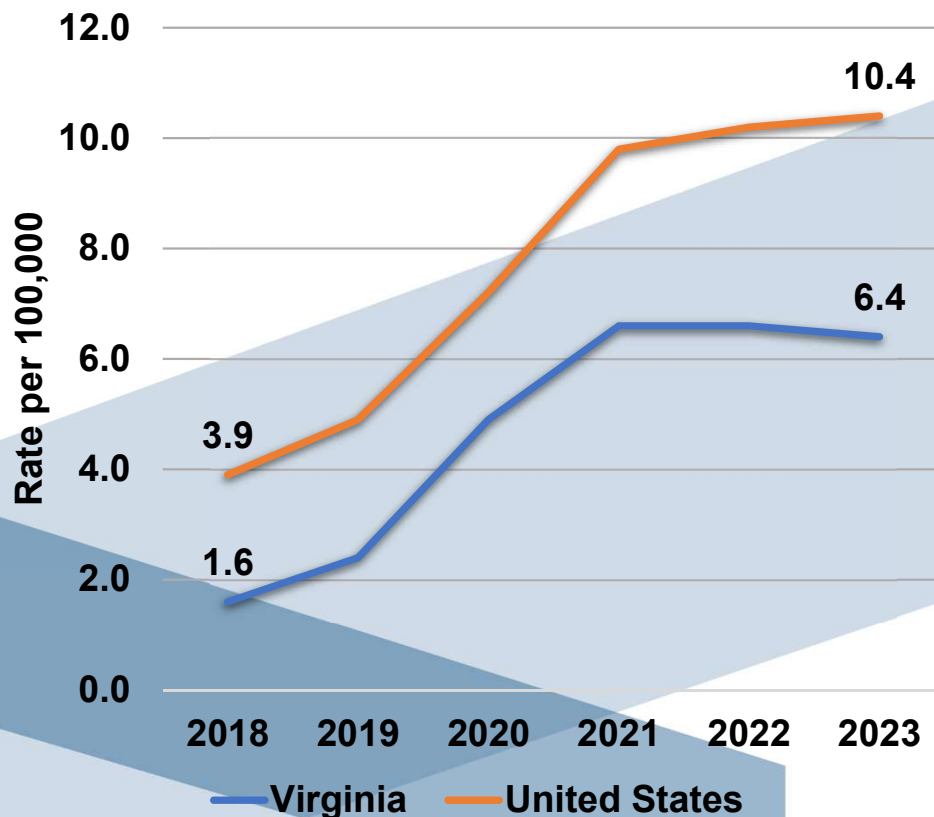


Central East (HHS Region 3)

ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Rate of Methamphetamine-Involved Fatal Overdoses, 2018-2023



SAMHSA
Substance Abuse and Mental Health
Services Administration

- Rate of methamphetamine-involved overdoses are following a **similar trend** in Virginia compared to the rest of the U.S., but **rates are lower**
- Only 3 counties in Virginia had enough data to calculate the rate of methamphetamine-involved overdoses in 2023:
 - Roanoke City (32.9)
 - Virginia Beach City (7.3)
 - Fairfax County (1.8)

Source: CDC WONDER