

## EMERGENCY DEPARTMENT VISITS FOR UNINTENTIONAL DRUG OVERDOSE AMONG VIRGINIA RESIDENTS

Quarter 3 (July - September) 2022

### Table of Contents

Background	2
Methodology	2
Summary	3
Emergency Department Visits for All Drug Overdose among Virginia Residents	4
<b>Figure 1A.</b> Quarterly Percent Change for All Drug Overdose.....	4
<b>Figure 1B.</b> Rate per 10,000 ED Visits by Calendar Quarter.....	4
<b>Figure 1C.</b> Rate per 10,000 ED Visits by Calendar Quarter and Health Region.....	5
<b>Figure 1D.</b> Rate per 10,000 ED Visits by Calendar Quarter and Sex.....	5
<b>Figure 1E.</b> Rate per 10,000 ED Visits by Calendar Quarter and Age Group (Years).....	6
Emergency Department Visits for Opioid or Unspecified Substance Overdose (Excluding Heroin) among Virginia Residents	7
<b>Figure 2A.</b> Quarterly Percent Change for Opioid or Unspecified Substance Overdose (Excluding Heroin).....	7
<b>Figure 2B.</b> Rate per 10,000 ED Visits by Calendar Quarter.....	7
<b>Figure 2C.</b> Rate per 10,000 ED Visits by Calendar Quarter and Health Region.....	8
<b>Figure 2D.</b> Rate per 10,000 ED Visits by Calendar Quarter and Sex.....	8
<b>Figure 2E.</b> Rate per 10,000 ED Visits by Calendar Quarter and Age Group (Years).....	9
Emergency Department Visits for Heroin Overdose among Virginia Residents	10
<b>Figure 3A.</b> Quarterly Percent Change for Heroin Overdose.....	10
<b>Figure 3B.</b> Rate per 10,000 ED Visits by Calendar Quarter.....	10
<b>Figure 3C.</b> Rate per 10,000 ED Visits by Calendar Quarter and Health Region.....	11
<b>Figure 3D.</b> Rate per 10,000 ED Visits by Calendar Quarter and Sex.....	11
<b>Figure 3E.</b> Rate per 10,000 ED Visits by Calendar Quarter and Age Group (Years).....	12
Emergency Department Visits for Stimulant Overdose among Virginia Residents	13
<b>Figure 4A.</b> Quarterly Percent Change for Stimulant Overdose.....	13
<b>Figure 4B.</b> Rate per 10,000 ED Visits by Calendar Quarter.....	13
<b>Figure 4C.</b> Rate per 10,000 ED Visits by Calendar Quarter and Health Region.....	14
<b>Figure 4D.</b> Rate per 10,000 ED Visits by Calendar Quarter and Sex.....	14
<b>Figure 4E.</b> Rate per 10,000 ED Visits by Calendar Quarter and Age Group (Years).....	15

The Coronavirus Disease 2019 (COVID-19) pandemic has affected healthcare seeking behavior across Virginia. Emergency department use decreased substantially in Quarter 2 2020 and remained below pre-pandemic levels through Quarter 1 2021. Visit volume was considered below pre-pandemic levels when quarterly ED visits were less than 90% of visits that occurred during the same quarter in 2018-2019. This period was denoted with light blue shading on the graphs below. VDH urges caution when comparing ED visit rates from this period to time periods prior to Quarter 2 2020 and after Quarter 1 2021. Please note this report format differs from drug overdose reports published by VDH prior to 2021.

## Background

The Virginia Department of Health (VDH) Office of Epidemiology collects and analyzes health data from emergency departments (EDs) to conduct public health surveillance. This report summarizes ED visit trends for unintentional drug overdose among Virginia residents for all drugs, opioids, heroin, and stimulants. Visits from **84** acute care hospital EDs and **23** free-standing EDs in Virginia are analyzed in this report.

VDH analyzes chief complaints and discharge diagnoses of ED visits to identify and monitor issues of public health concern. The chief complaint is a free-text field that captures the patient's primary reason for seeking medical care as interpreted by the ED registration staff. The discharge diagnosis is a coded field using standardized values defined by the International Classification of Diseases (ICD) 9<sup>th</sup> and 10<sup>th</sup> Revision or SNOMED Clinical Terms (CT) code sets.

## Methodology

ED visits are categorized into the following four unintentional drug overdose case definitions: 1) **all drug overdose**, 2) **opioid or unspecified substance overdose (excluding heroin)**, 3) **heroin overdose**, and 4) **stimulant overdose**. VDH revises these case definitions based on guidance from the Centers for Disease Control and Prevention (CDC) and findings from ongoing data quality evaluations. Information on the current case definitions and case definition revisions, including historic definitions, can be found on the VDH website.

<http://www.vdh.virginia.gov/surveillance-and-investigation/syndromic-surveillance/drug-overdose-surveillance/>

Overdose rates are presented as a rate per 10,000 ED visits in this report. This metric provides a consistent rate calculation across time when data reporting by EDs changes (increases or decreases) as compared to the rate per 100,000 population. Geography-specific ED visit counts and rates per 100,000 population are located within the *Monthly and Annual Statistics Excel* file on the [VDH website](#).

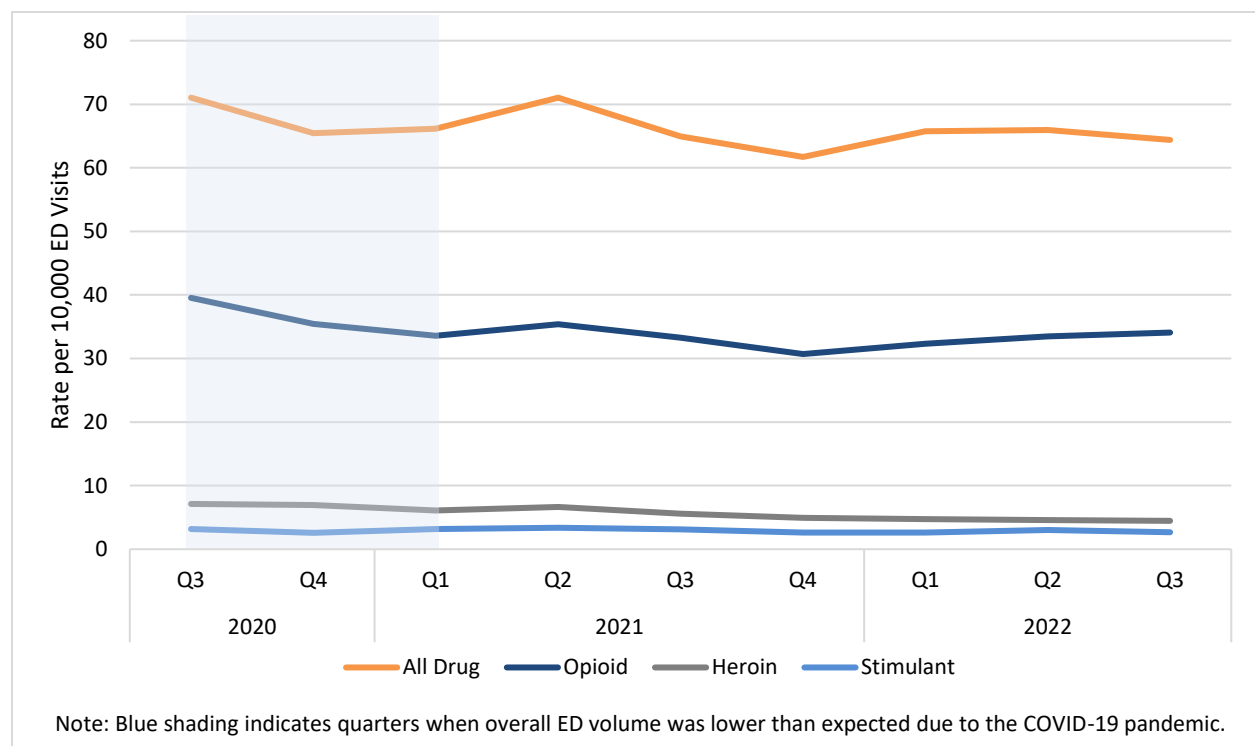
This report provides regional and statewide data. Data for Virginia cities and counties are not presented in this report. Geography information for the VDH Health Regions can be found here - <https://www.vdh.virginia.gov/data/vdh-geography-locator-tool/>.

Please direct questions or comments to the Division of Surveillance and Investigation,  
Enhanced Surveillance Team: [syndromic@vdh.virginia.gov](mailto:syndromic@vdh.virginia.gov)

## Summary

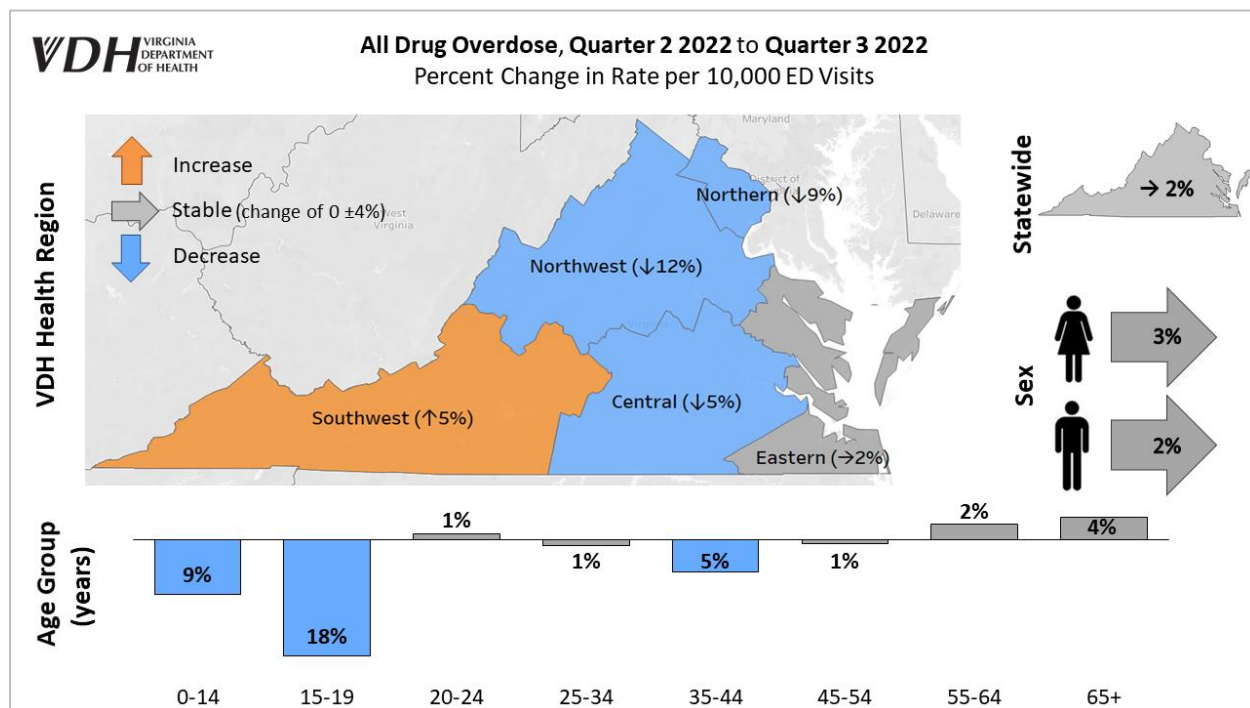
- Statewide rates per 10,000 ED visits for all drug, opioid or unspecified, and heroin overdose remained **stable**, while the stimulant overdose rate **decreased** (↓12%) in Q3 2022 compared to Q2 2022.
- Compared to Q3 2021, statewide overdose rates for all drug, opioid, heroin, and stimulant **decreased or remained stable** in Q3 2022.
- Rates remained **stable or decreased** for all overdose types among males and females in Q3 compared to Q2 2022. Males experienced a **decrease** in the stimulant (↓12%) overdose rate in Q3 2022. Females experienced **decreases** in heroin (↓13%) and stimulant (↓11%) overdose rates.
- The Southwest region experienced **increases** in all drug (↑5%), opioid (↑9%), and heroin (↑43%) overdose rates in Q3.
- Rates remained **stable or decreased** for all overdose types in Northern and Central regions.
- Northwest region experienced **decreases** in all drug (↓12%), opioid (↓14%), and heroin (↓33%) overdose rates, but the region had a **63% increase** in the stimulant overdose rate.
- Eastern region had **increases** in opioid (↑15%), and stimulant (↑12%) overdose rates in Q3, while the heroin overdose rate **decreased** (↓17%).

**Summary Figure.** Rate per 10,000 ED Visits among Virginia Residents by Calendar Quarter and Overdose Type, Most Recent 9 Quarters.

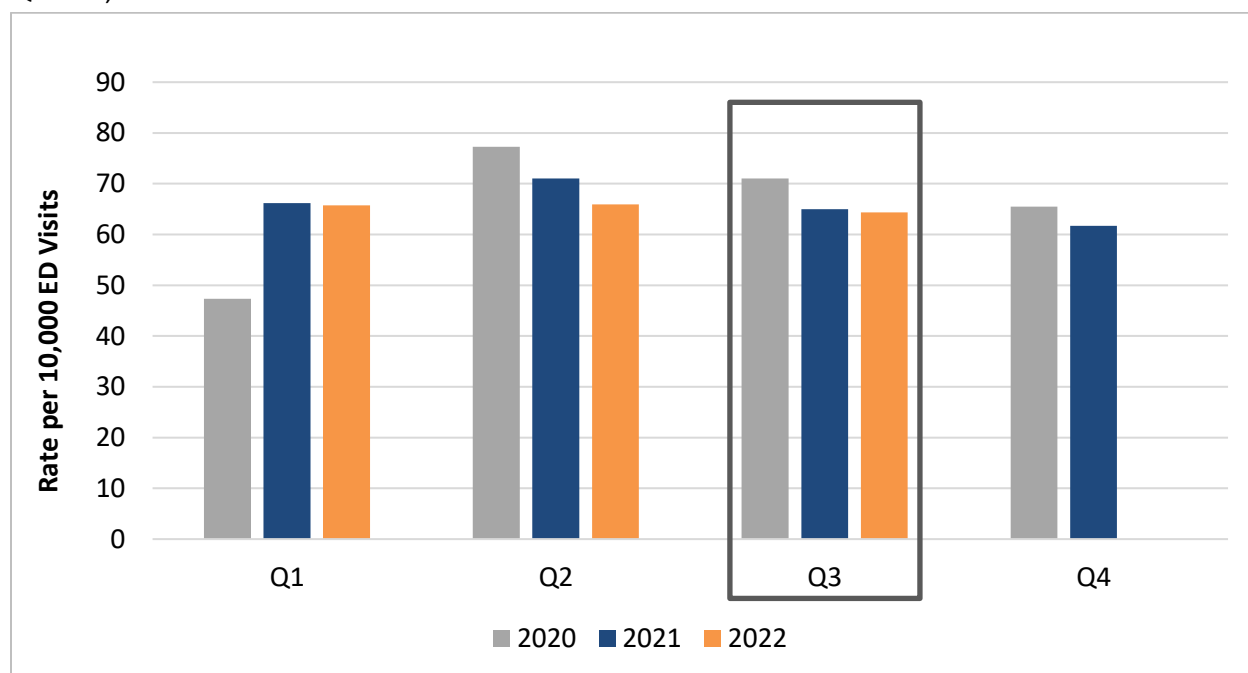


## Emergency Department Visits for All Drug Overdose among Virginia Residents

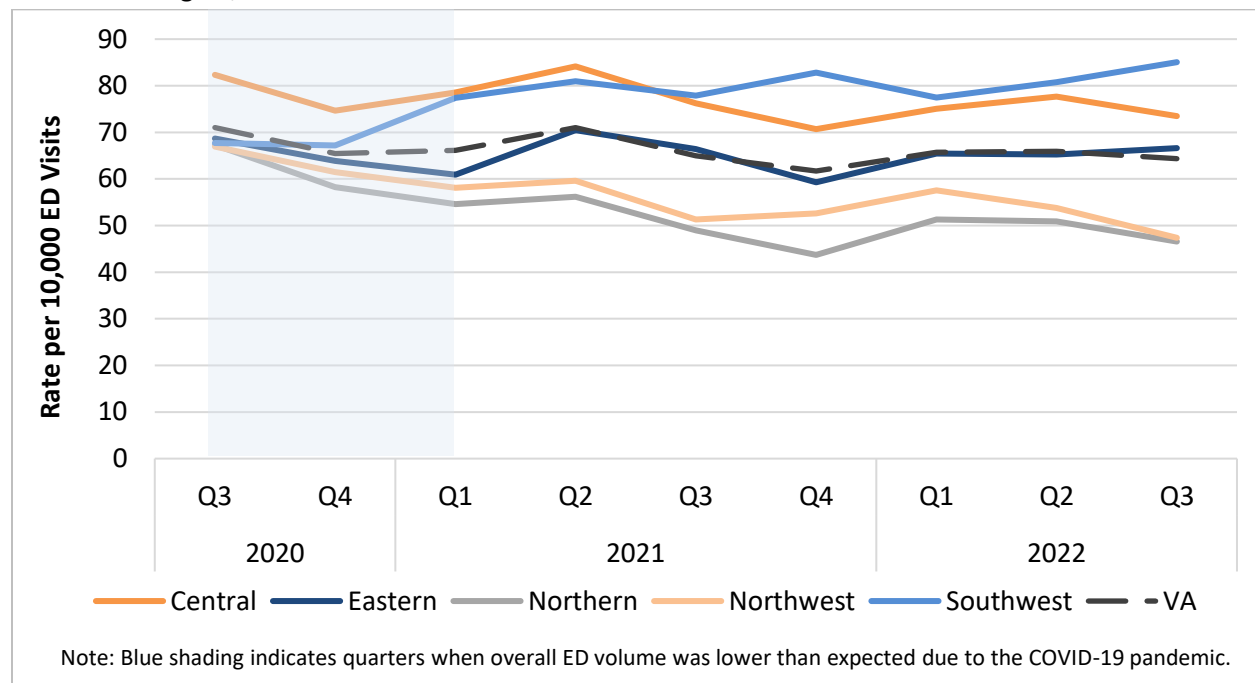
**Figure 1A.** Quarterly Percent Change for All Drug Overdose.



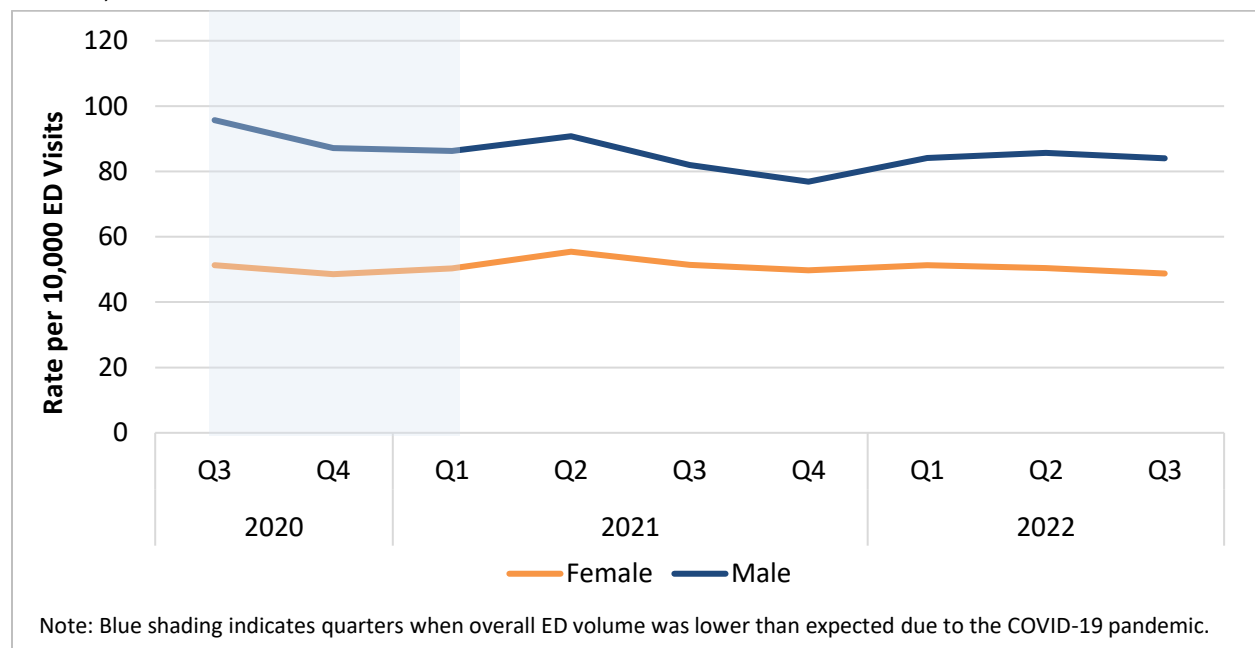
**Figure 1B.** Rate per 10,000 ED Visits for All Drug Overdose among Virginia Residents by Calendar Quarter, 2020 - 2022.



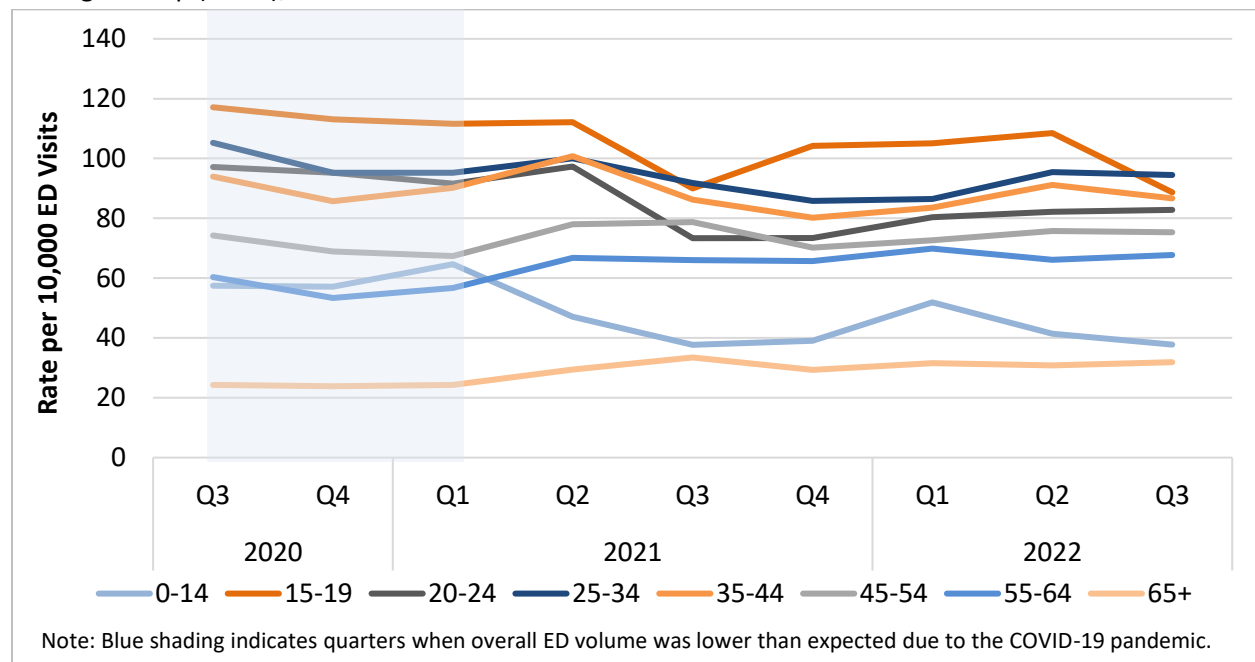
**Figure 1C.** Rate per 10,000 ED Visits for All Drug Overdose among Virginia Residents by Calendar Quarter and Health Region, Most Recent 9 Quarters.



**Figure 1D.** Rate per 10,000 ED Visits for All Drug Overdose among Virginia Residents by Calendar Quarter and Sex, Most Recent 9 Quarters.

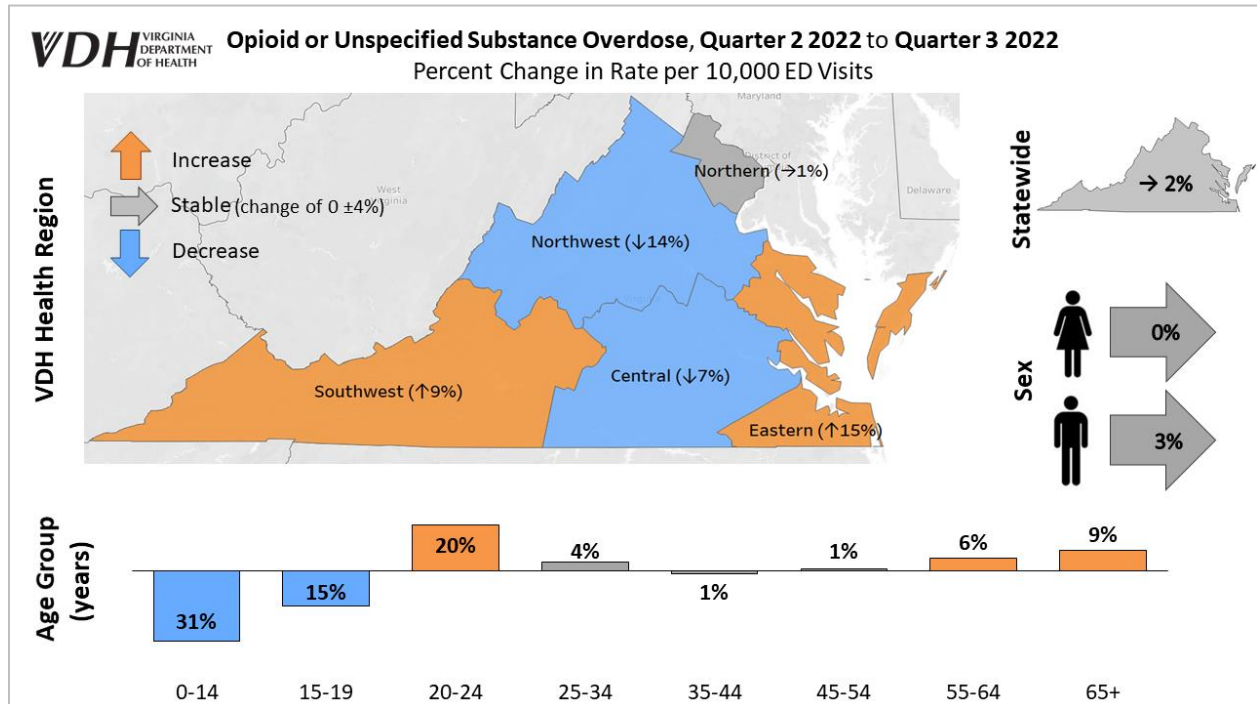


**Figure 1E.** Rate per 10,000 ED Visits for All Drug Overdose among Virginia Residents by Calendar Quarter and Age Group (Years), Most Recent 9 Quarters.

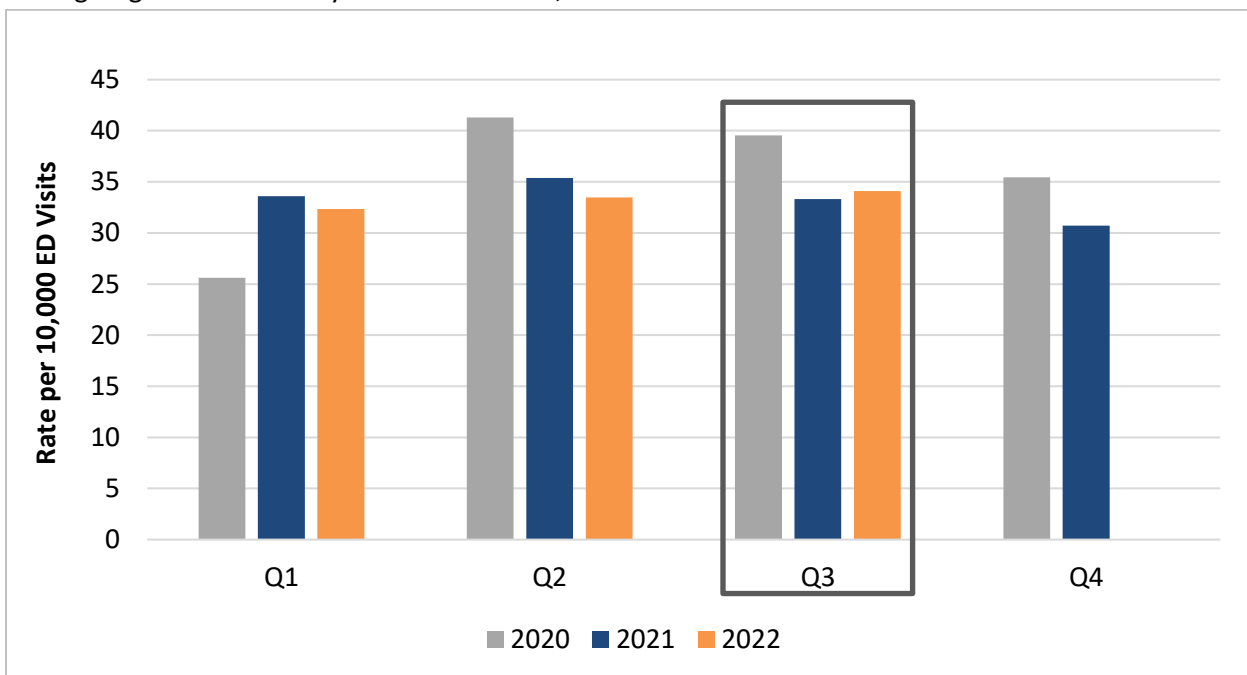


## Emergency Department Visits for Opioid or Unspecified Substance Overdose (Excluding Heroin) among Virginia Residents

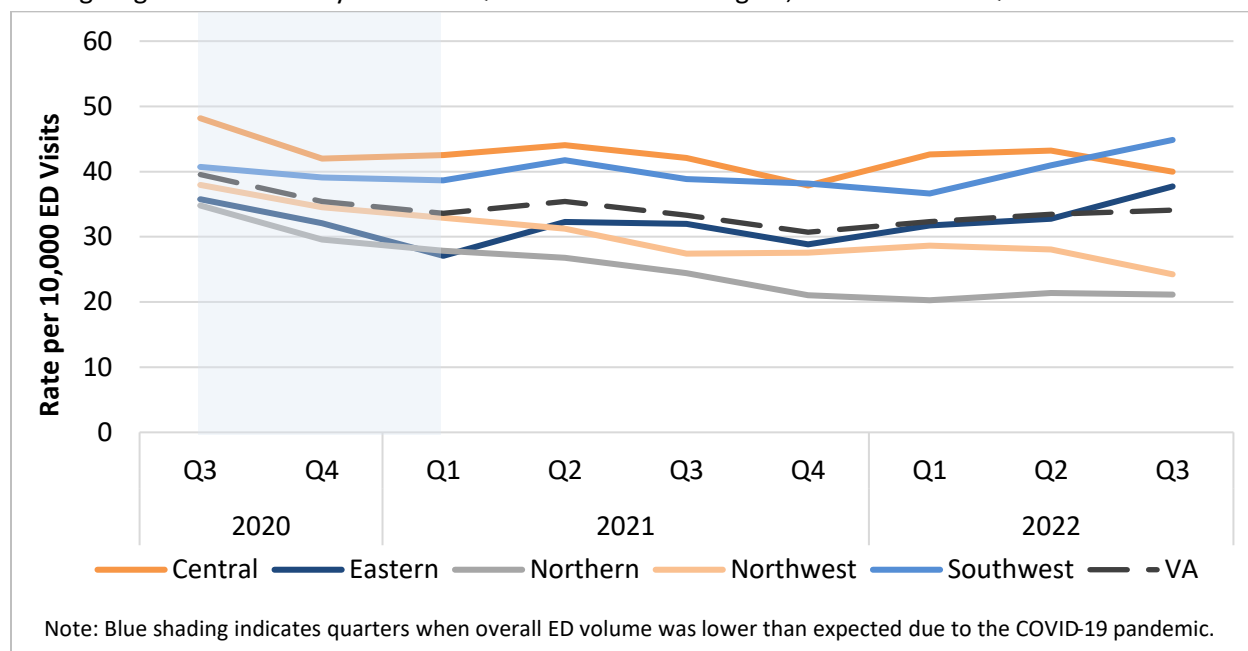
**Figure 2A.** Quarterly Percent Change for Opioid or Unspecified Substance Overdose (Excluding Heroin).



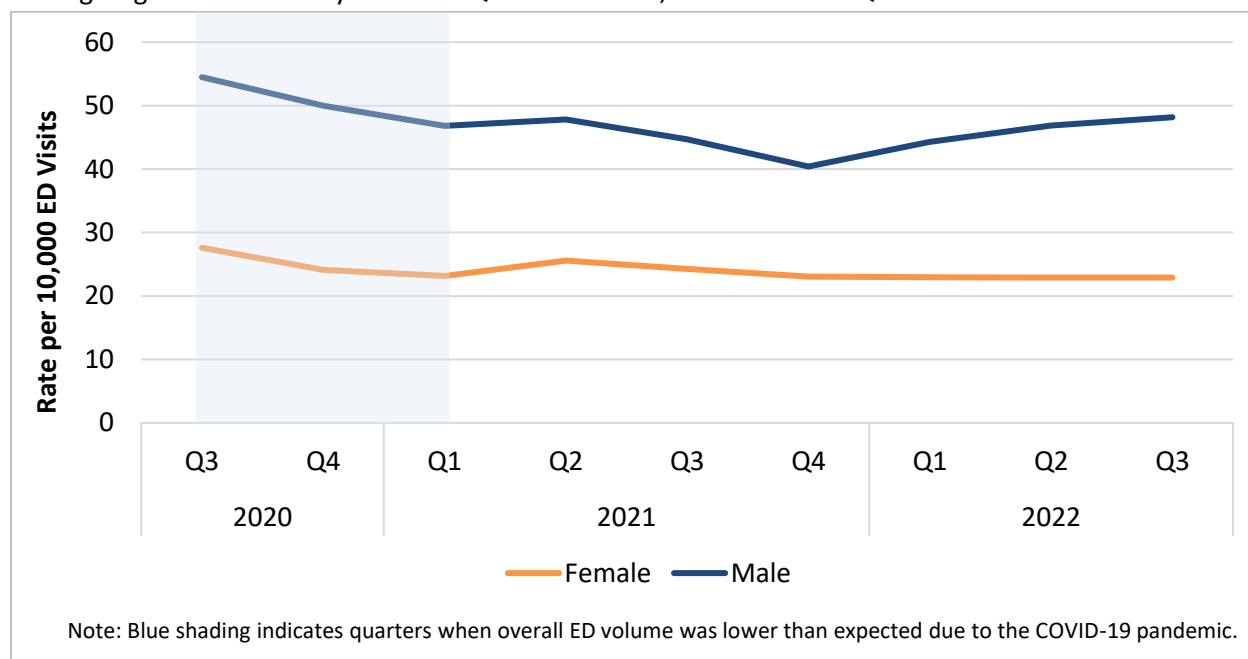
**Figure 2B.** Rate per 10,000 ED Visits for Opioid or Unspecified Substance Overdose (Excluding Heroin) among Virginia Residents by Calendar Quarter, 2020 - 2022.



**Figure 2C.** Rate per 10,000 ED Visits for Opioid or Unspecified Substance Overdose (Excluding Heroin) among Virginia Residents by Calendar Quarter and Health Region, Most Recent 9 Quarters.

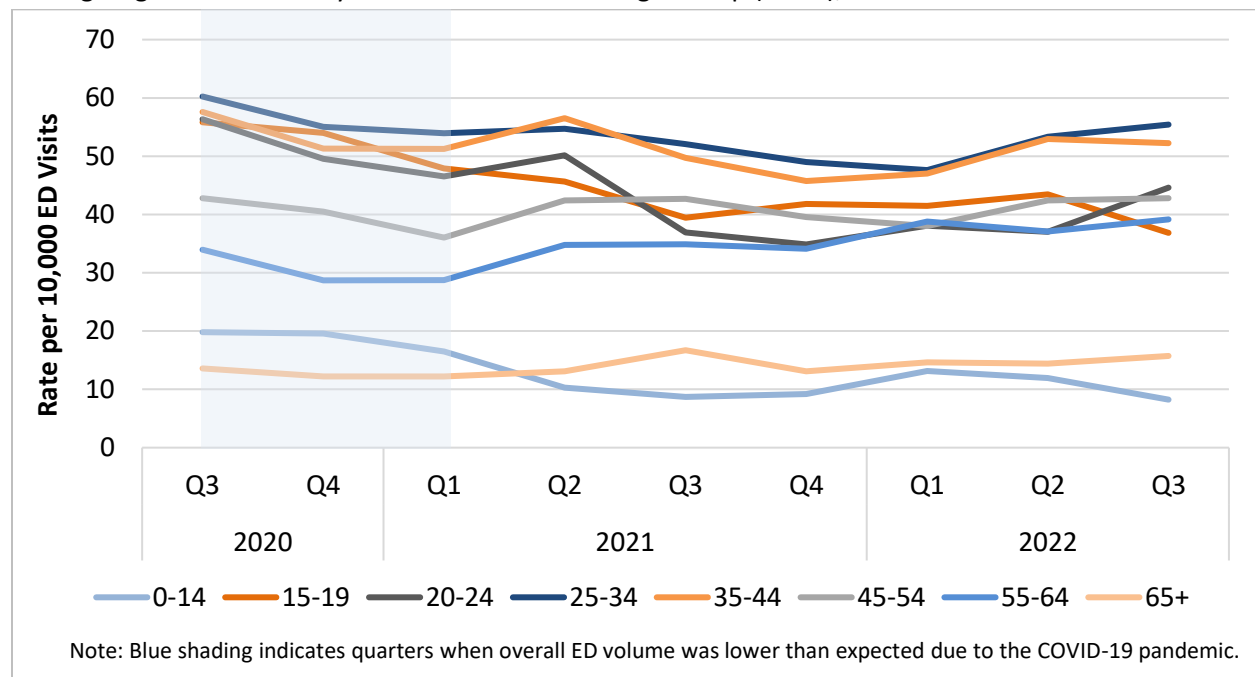


**Figure 2D.** Rate per 10,000 ED Visits Opioid or Unspecified Substance Overdose (Excluding Heroin) among Virginia Residents by Calendar Quarter and Sex, Most Recent 9 Quarters.



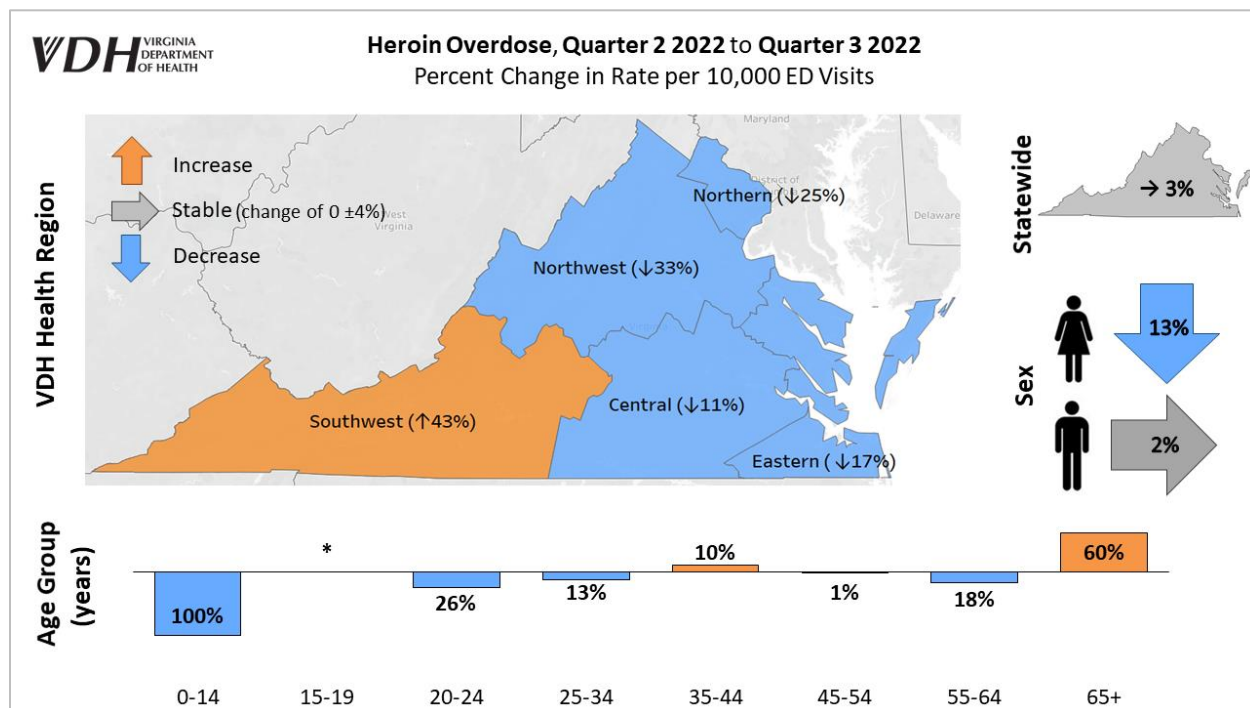


**Figure 2E.** Rate per 10,000 ED Visits for Opioid or Unspecified Substance Overdose (Excluding Heroin) among Virginia Residents by Calendar Quarter and Age Group (Years), Most Recent 9 Quarters.



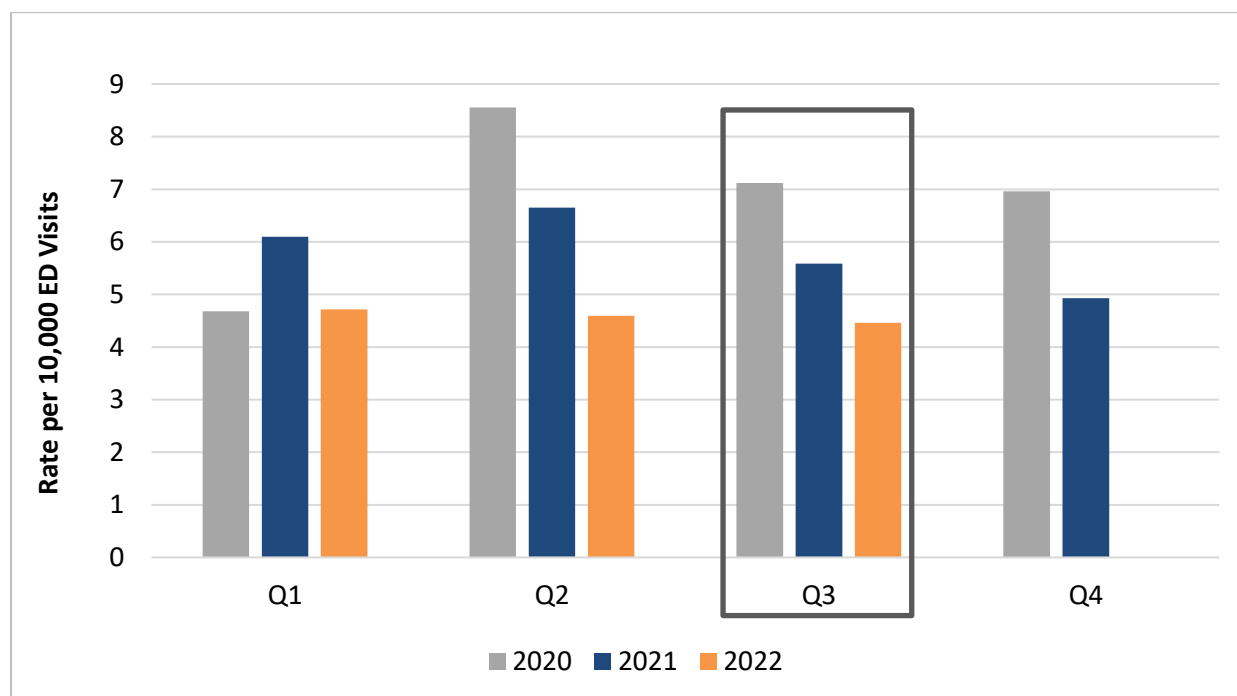
## Emergency Department Visits for Heroin Overdose among Virginia Residents

**Figure 3A.** Quarterly Percent Change for Heroin Overdose.

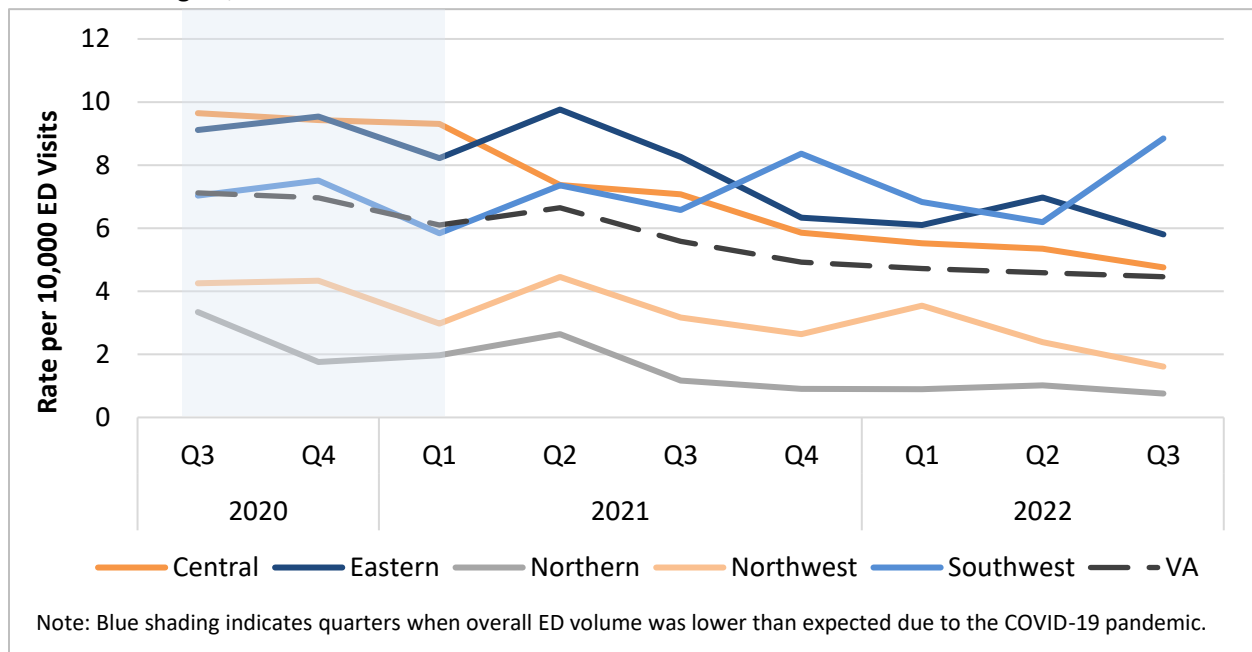


\*Could not be calculated due to a denominator value of zero.

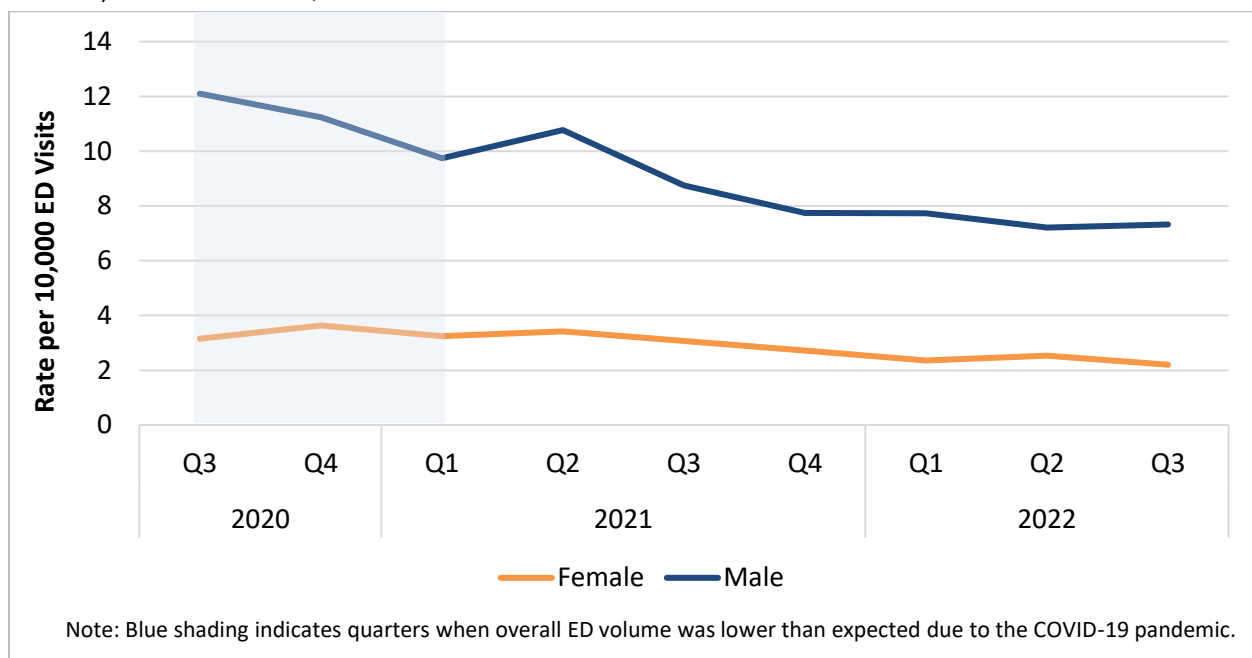
**Figure 3B.** Rate per 10,000 ED Visits for Heroin Overdose among Virginia Residents by Calendar Quarter, 2020 – 2022.



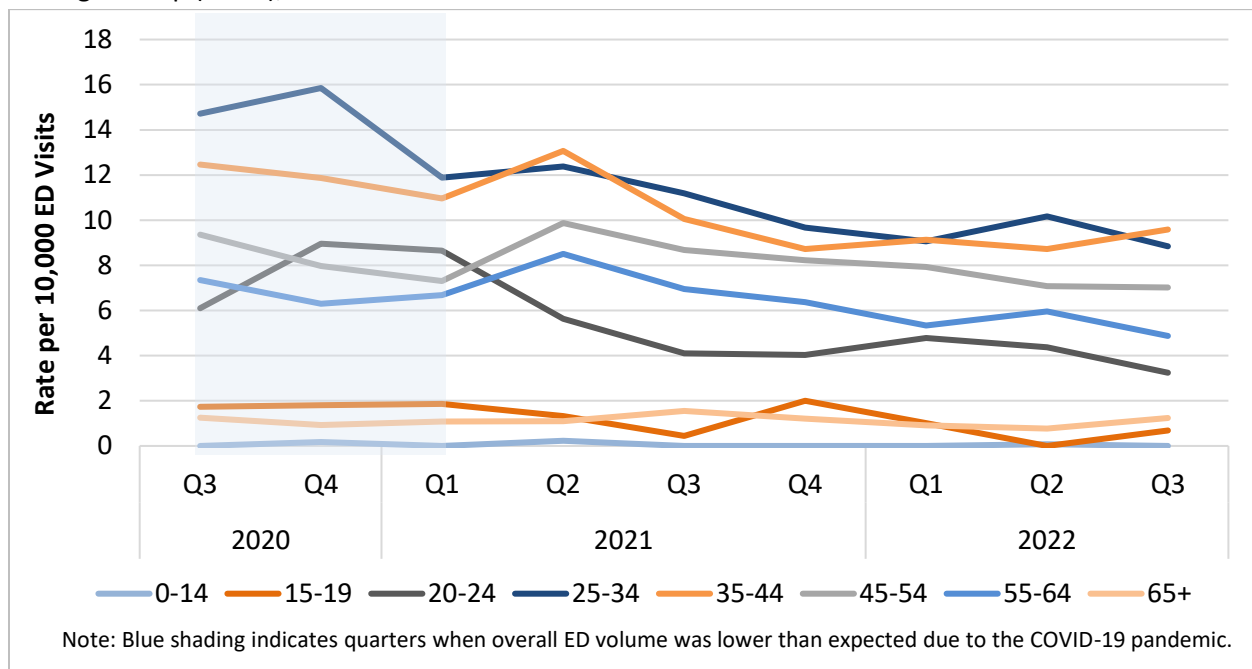
**Figure 3C.** Rate per 10,000 ED Visits for Heroin Overdose among Virginia Residents by Calendar Quarter and Health Region, Most Recent 9 Quarters.



**Figure 3D.** Rate per 10,000 ED Visits for Heroin Overdose among Virginia Residents by Calendar Quarter and Sex, Most Recent 9 Quarters.

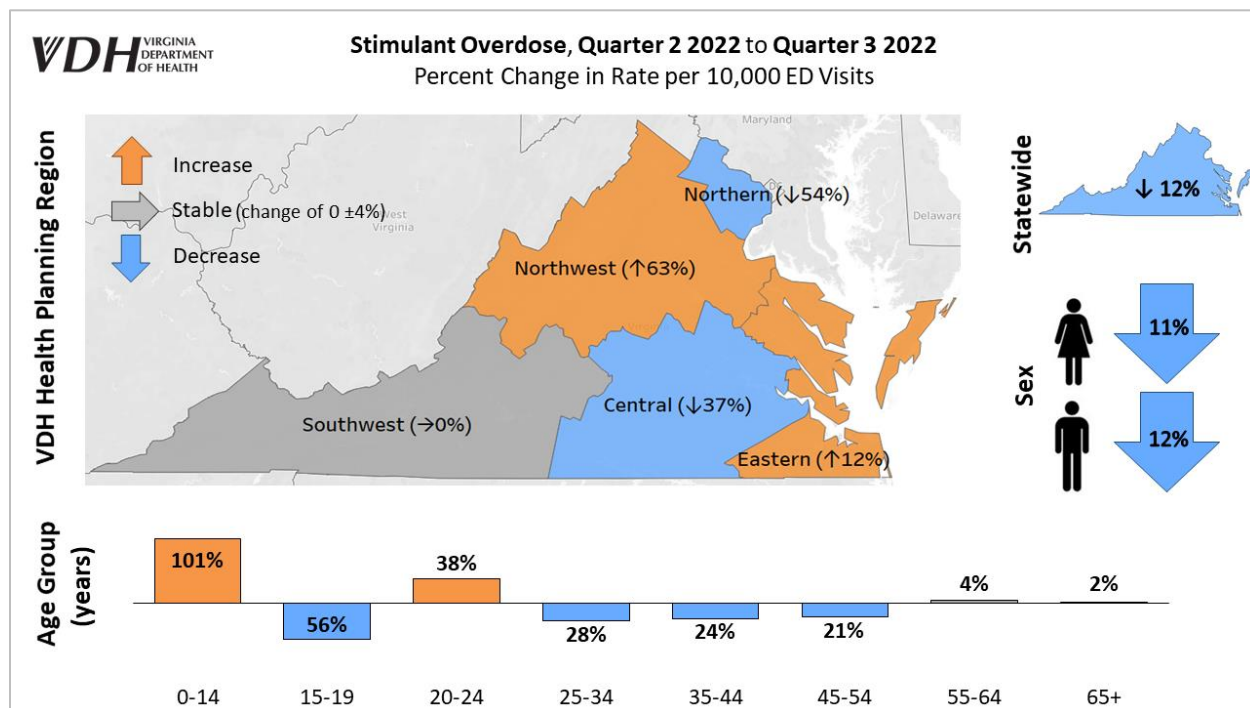


**Figure 3E.** Rate per 10,000 ED Visits for Heroin Overdose among Virginia Residents by Calendar Quarter and Age Group (Years), Most Recent 9 Quarters.

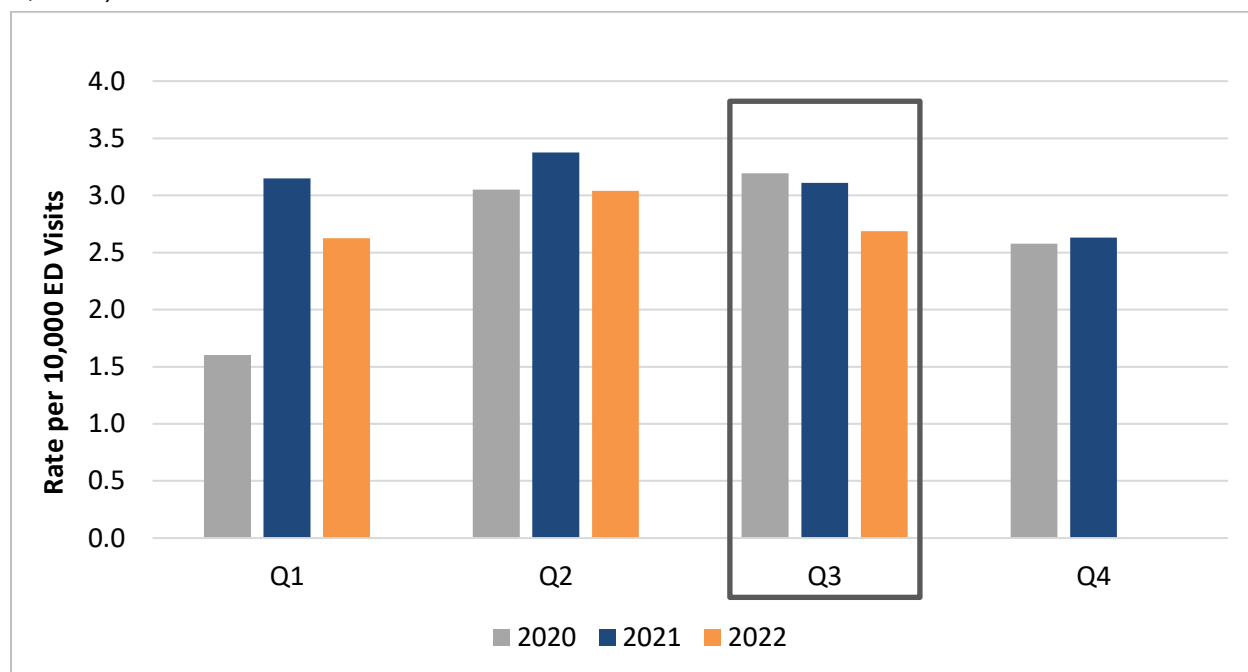


## Emergency Department Visits for Stimulant Overdose among Virginia Residents

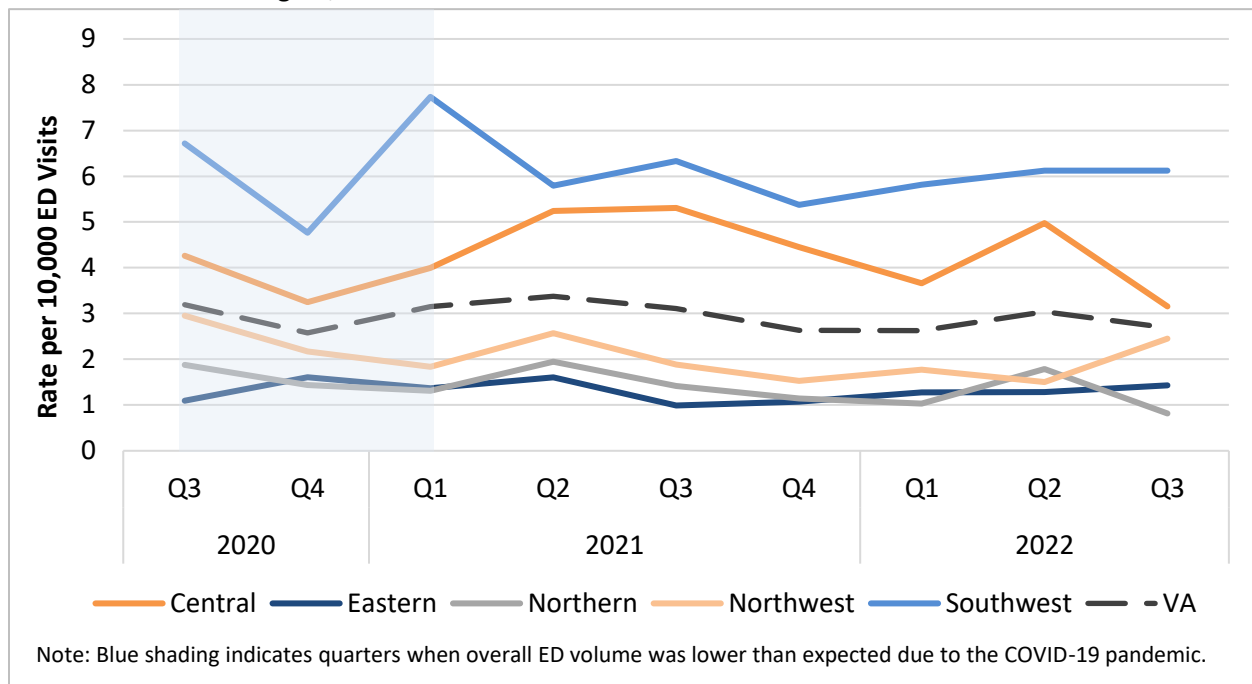
**Figure 4A.** Quarterly Percent Change for Stimulant Overdose.



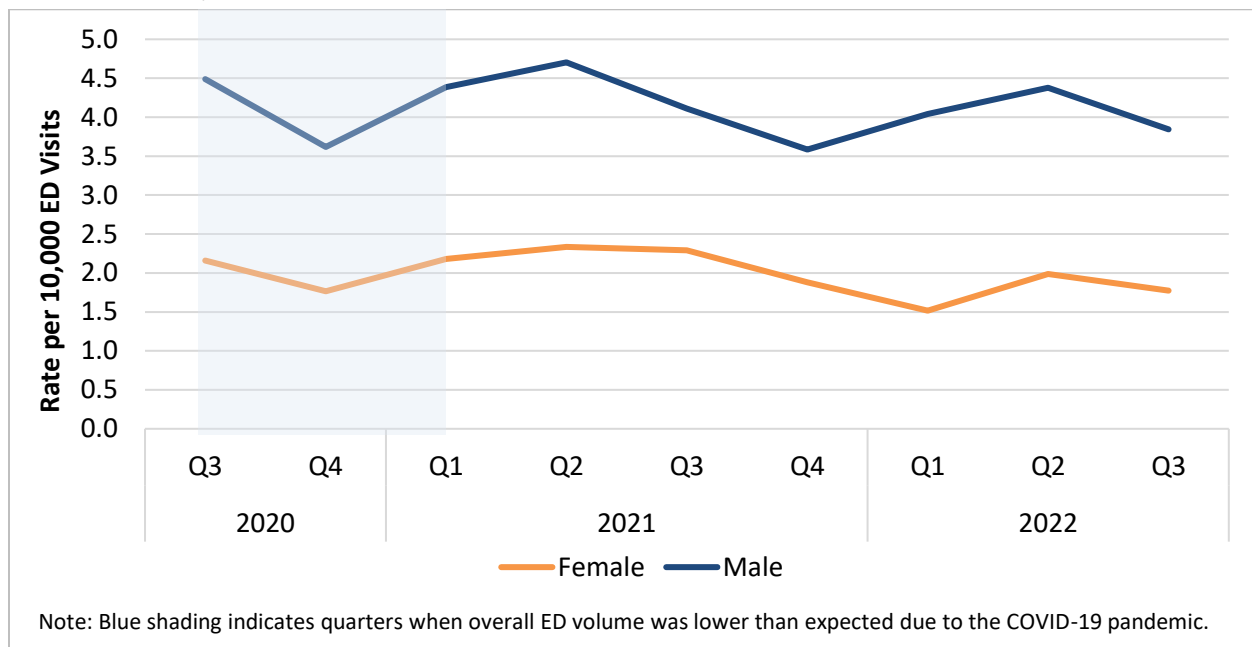
**Figure 4B.** Rate per 10,000 ED Visits for Stimulant Overdose among Virginia Residents by Calendar Quarter, 2020 – 2022.



**Figure 4C.** Rate per 10,000 ED Visits for Stimulant Overdose among Virginia Residents by Calendar Quarter and Health Region, Most Recent 9 Quarters.



**Figure 4D.** Rate per 10,000 ED Visits for Stimulant Overdose among Virginia Residents by Calendar Quarter and Sex, Most Recent 9 Quarters.



**Figure 4E.** Rate per 10,000 ED Visits for Stimulant Overdose among Virginia Residents by Calendar Quarter and Age Group (Years), Most Recent 9 Quarters.

