

# EMERGENCY DEPARTMENT VISITS FOR UNINTENTIONAL DRUG OVERDOSE AMONG VIRGINIA RESIDENTS

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**Quarter 4 (October - December) 2022**

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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 **24** 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](#).

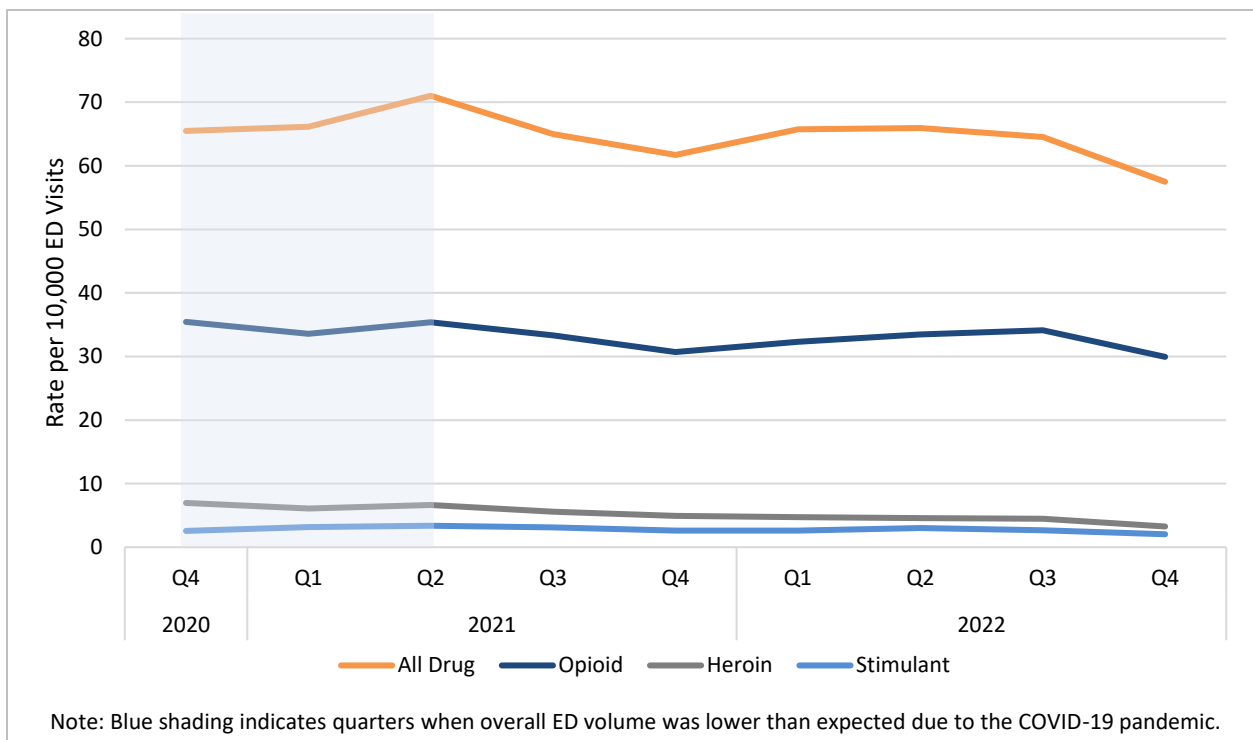
This report provides regional and statewide data. Data for Virginia cities and counties are not presented in this report. Geography information for the VDH Health Regions can be found here - <https://www.vdh.virginia.gov/data/vdh-geography-locator-tool/>.

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 overdose types **decreased** in Q4 2022 compared to Q3 2022. Rates for each overdose type in Q4 2022 were lower than rates for any quarter since Q1 2020.
- Compared to Q4 2021, statewide overdose rates for all drug, opioid, heroin, and stimulant **decreased or remained stable** in Q4 2022.
- Rates **decreased** for all overdose types among males and females in Q4 compared to Q3 2022.
- The Northern region experienced a **20% increase** in stimulant overdose rates in Q4.
- Rates remained **stable or decreased** for all overdose types in Northwest, Central, Eastern and Southwest regions.

**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.

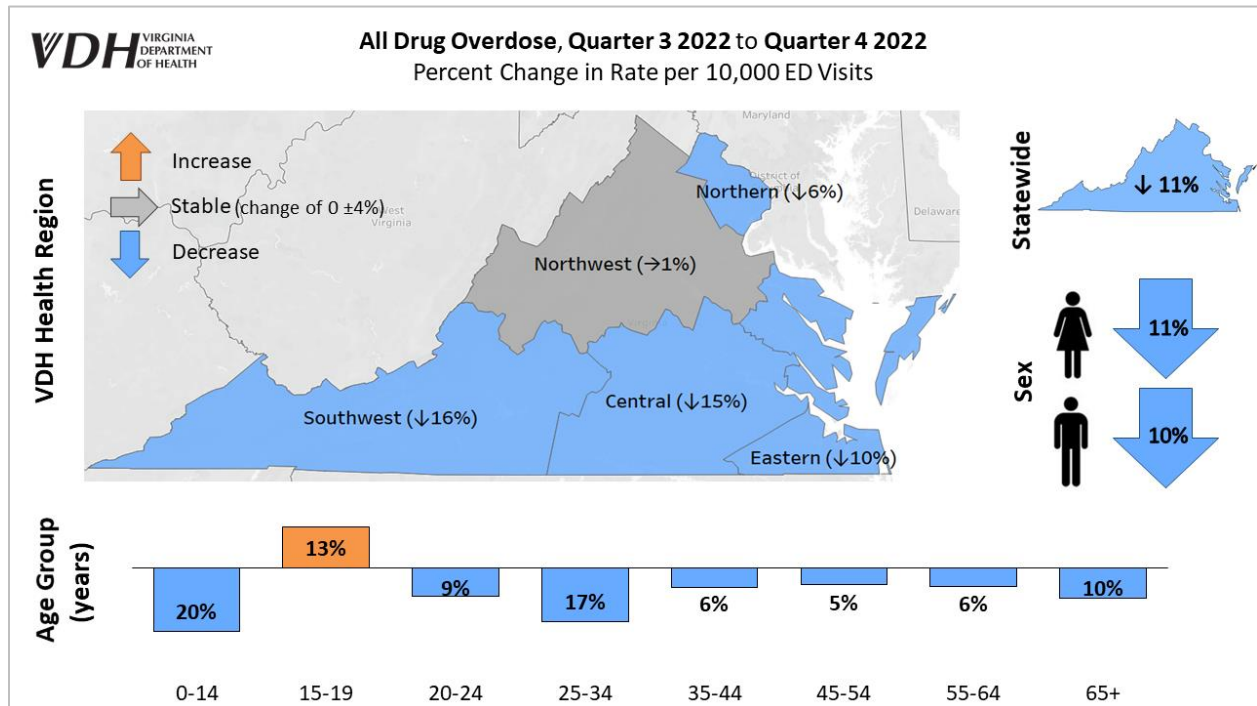
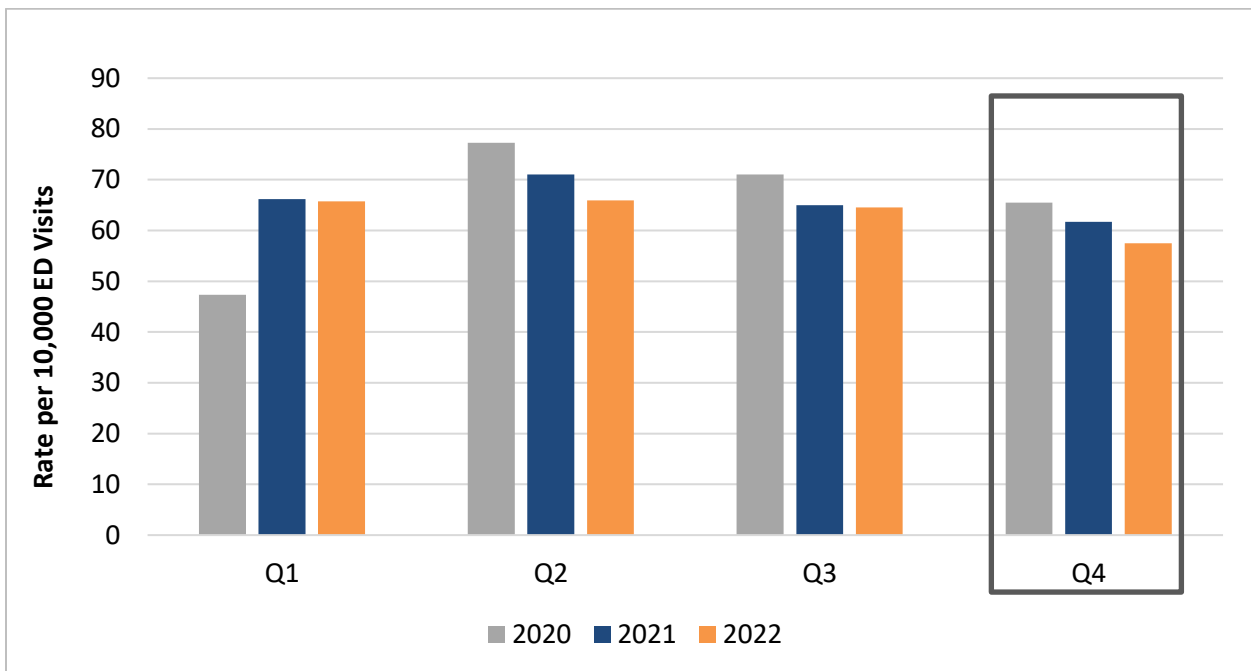
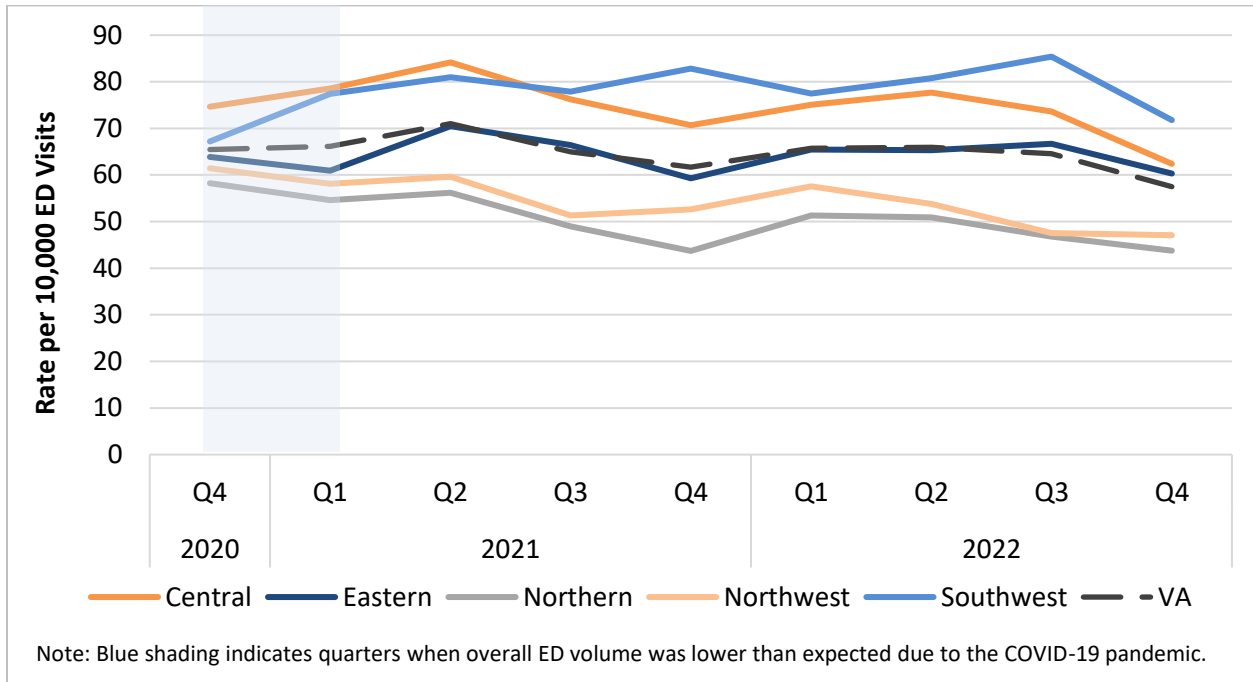


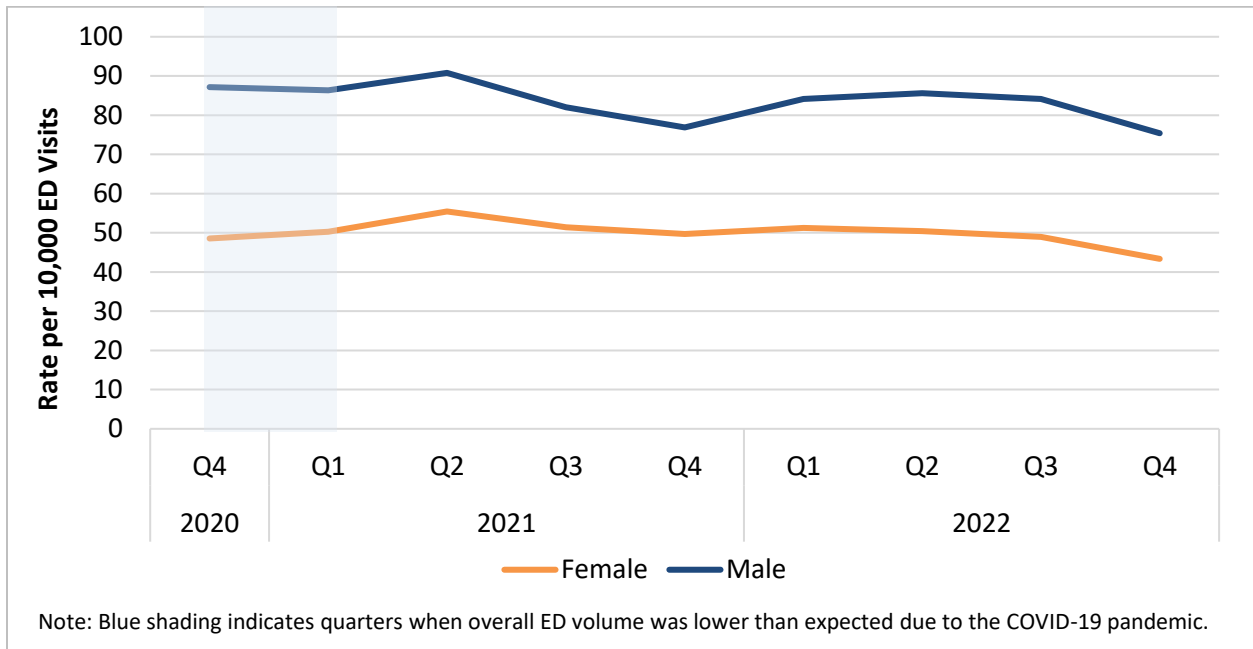
Figure 1B. Rate per 10,000 ED Visits for All Drug Overdose among Virginia Residents by Calendar Quarter, 2020 - 2022.



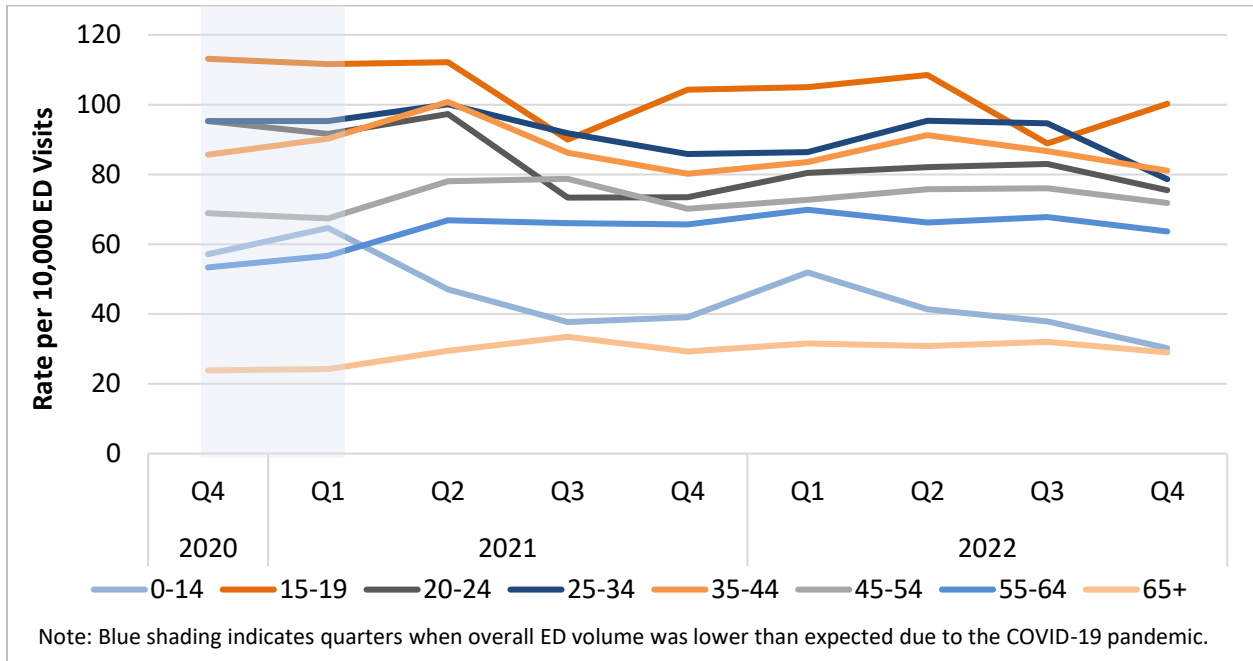
**Figure 1C.** Rate per 10,000 ED Visits for All Drug Overdose among Virginia Residents by Calendar Quarter and Health Region, Most Recent 9 Quarters.



**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).

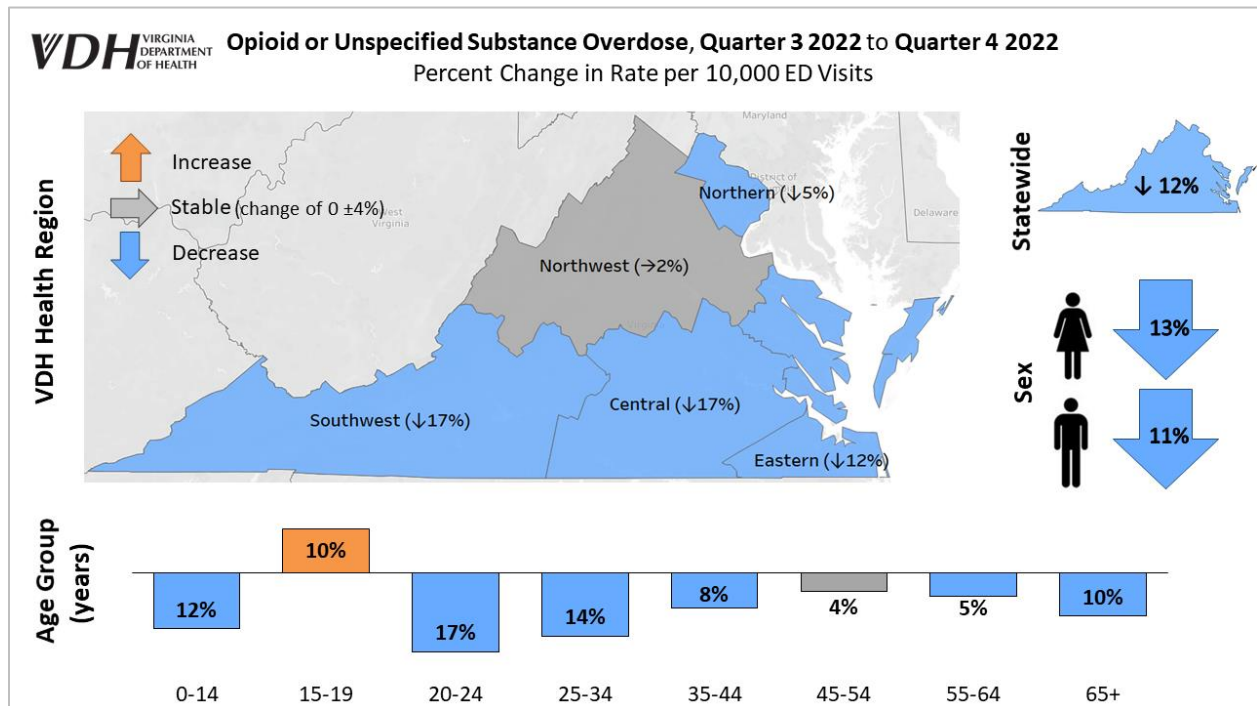
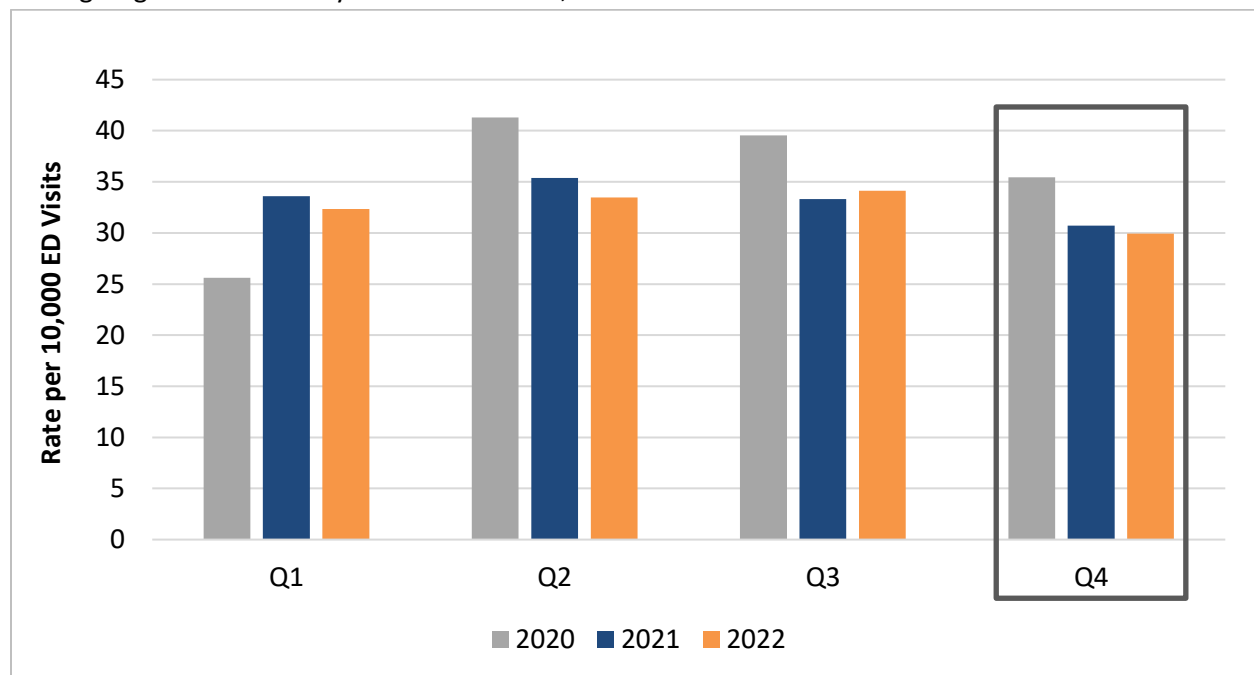
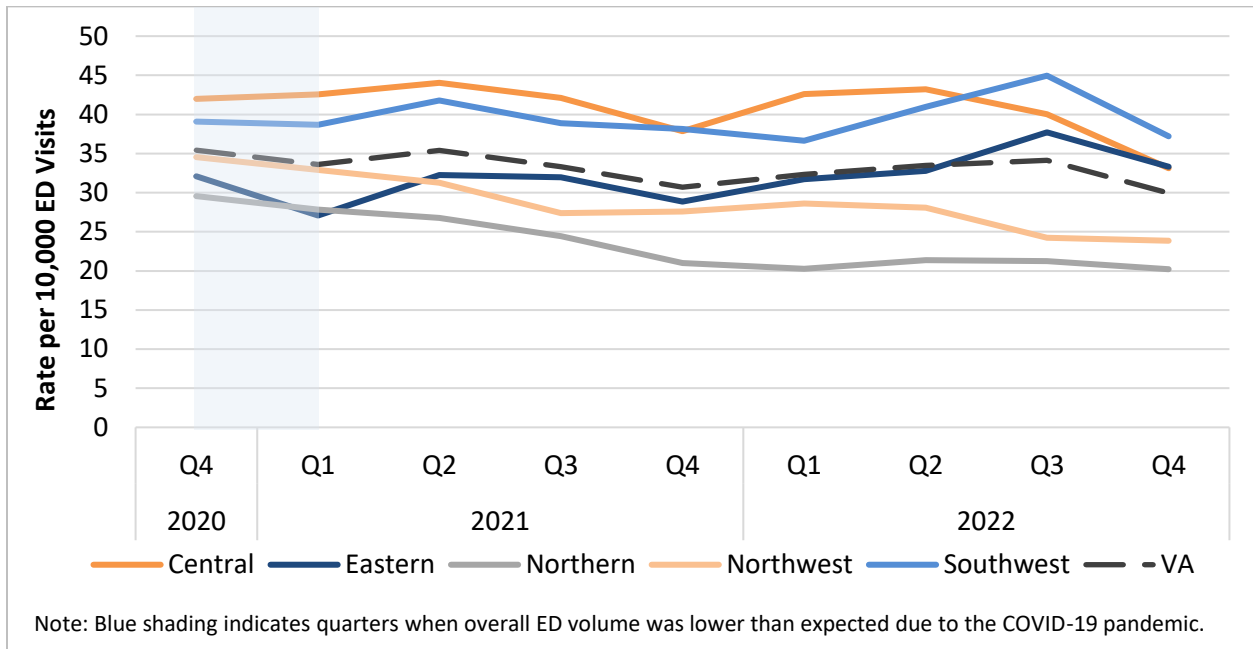


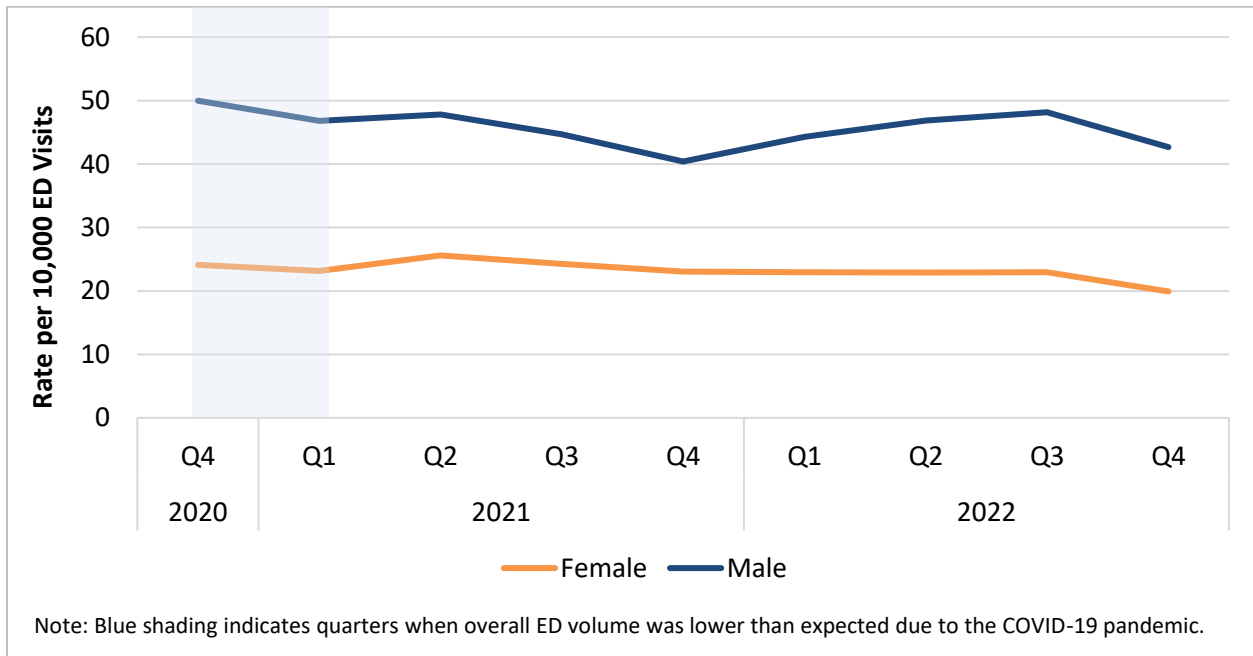
Figure 2B. Rate per 10,000 ED Visits for Opioid or Unspecified Substance Overdose (Excluding Heroin) among Virginia Residents by Calendar Quarter, 2020 - 2022.



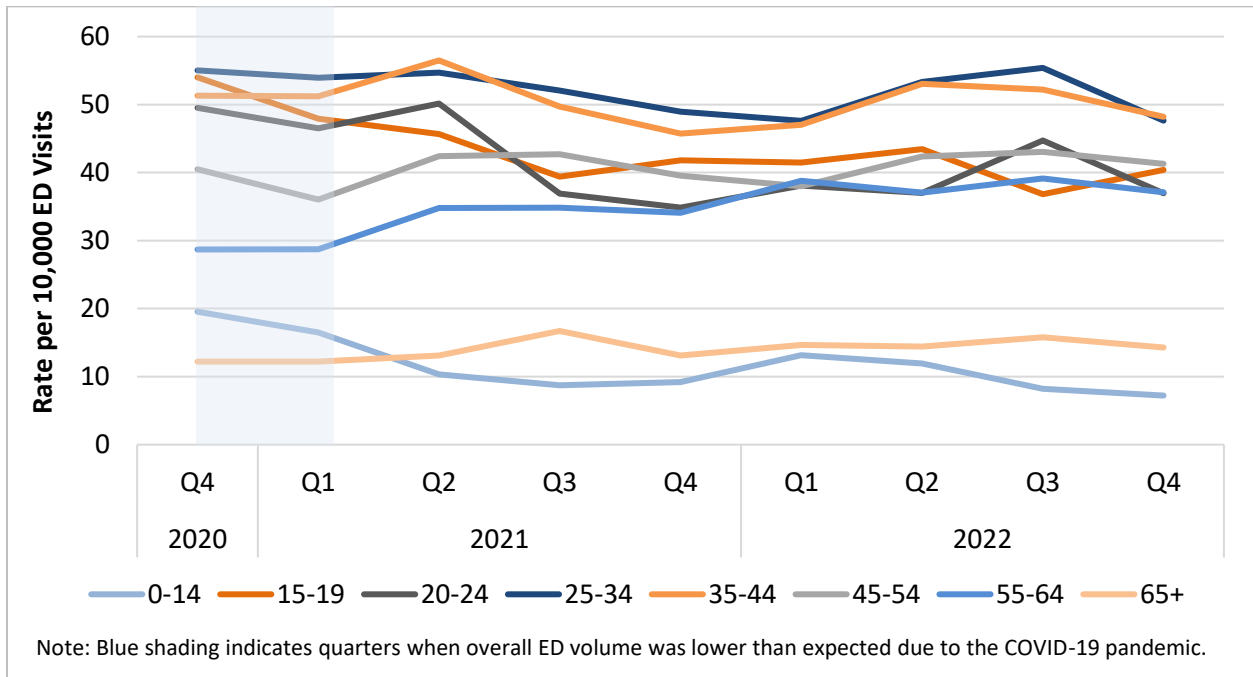
**Figure 2C.** Rate per 10,000 ED Visits for Opioid or Unspecified Substance Overdose (Excluding Heroin) among Virginia Residents by Calendar Quarter and Health Region, Most Recent 9 Quarters.



**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.

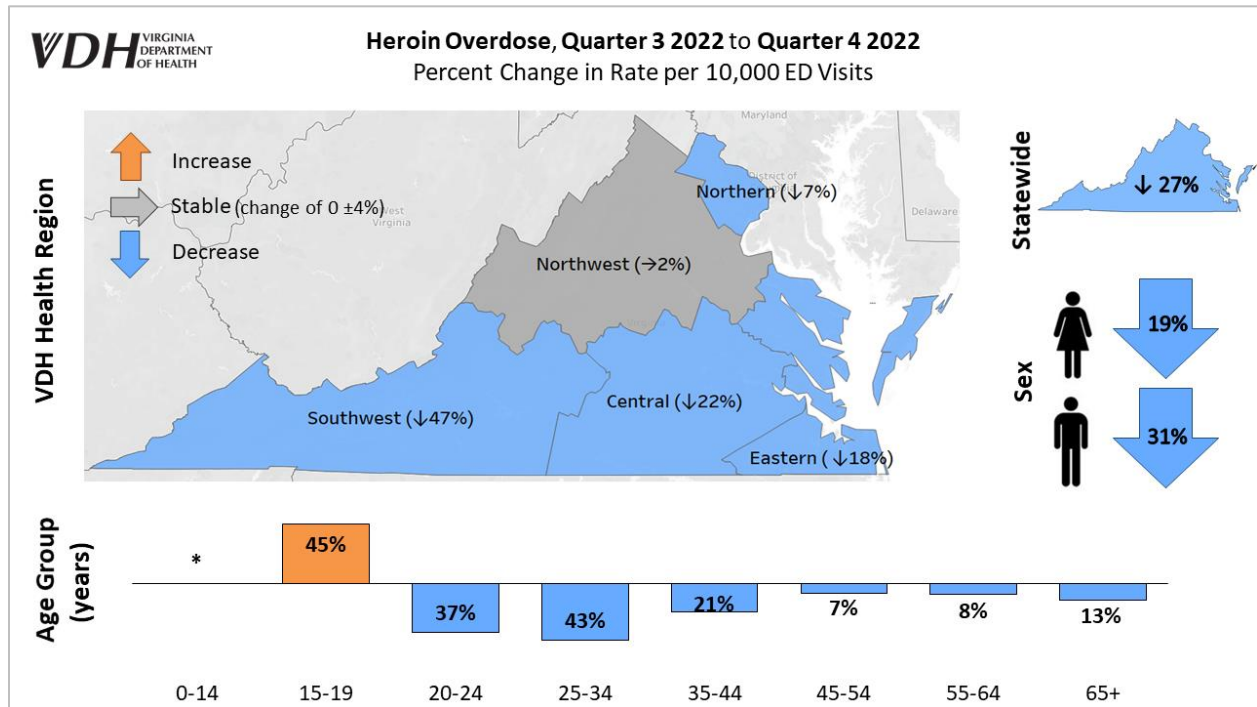


**Figure 2E.** Rate per 10,000 ED Visits for Opioid or Unspecified Substance Overdose (Excluding Heroin) among Virginia Residents by Calendar Quarter and Age Group (Years), Most Recent 9 Quarters.



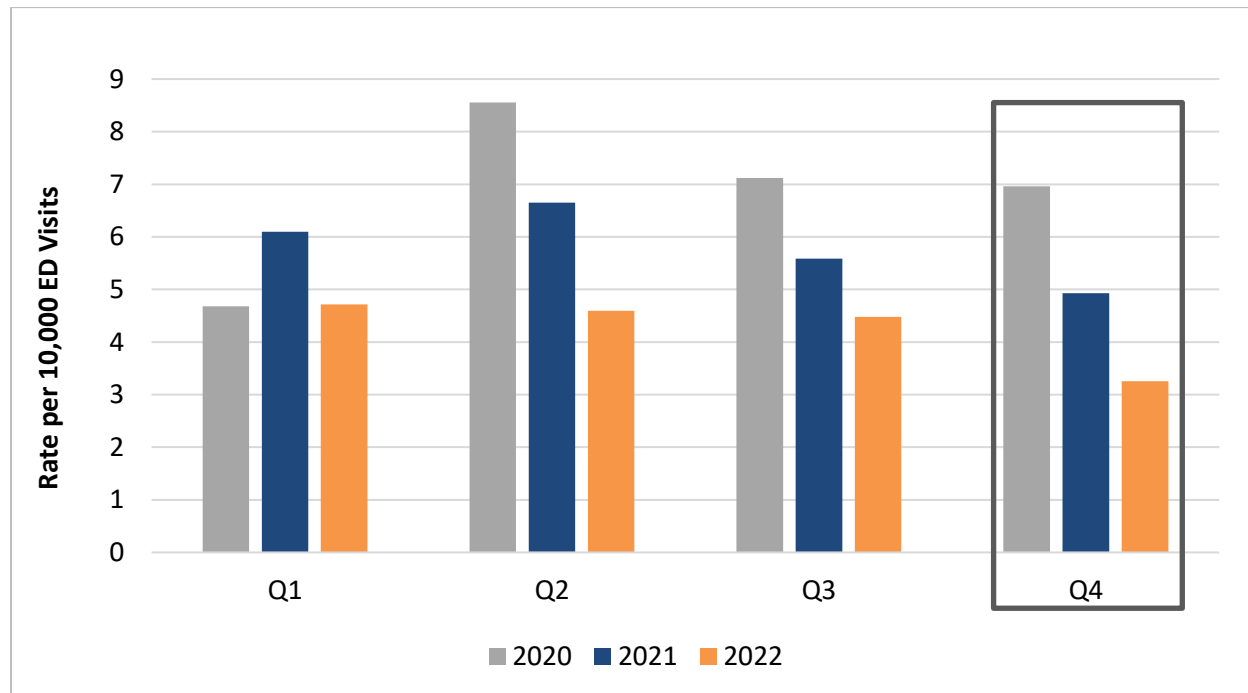
## Emergency Department Visits for Heroin Overdose among Virginia Residents

Figure 3A. Quarterly Percent Change for Heroin Overdose.

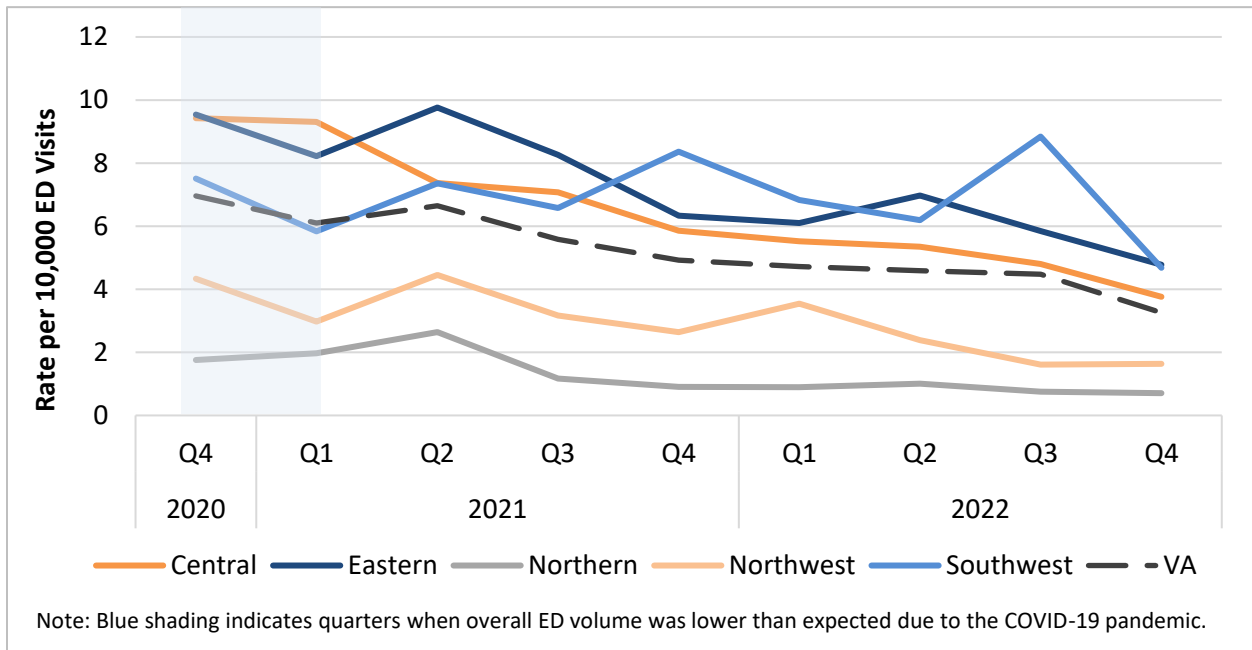


\*Could not be calculated due to a denominator value of zero.

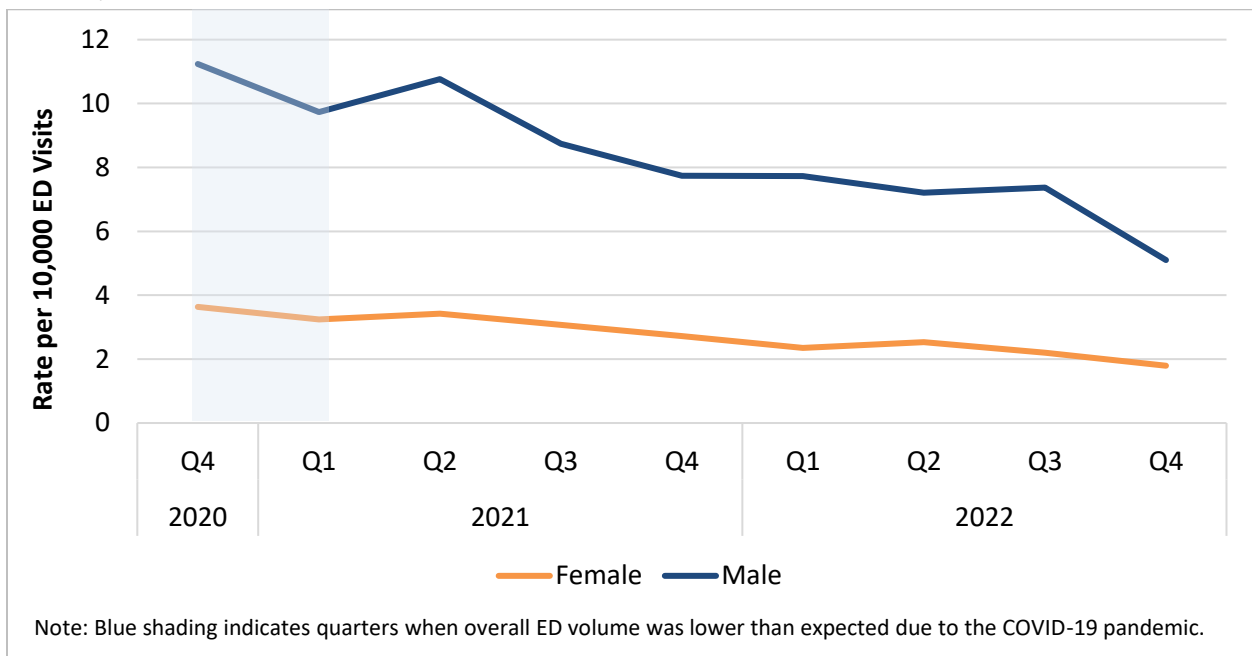
Figure 3B. Rate per 10,000 ED Visits for Heroin Overdose among Virginia Residents by Calendar Quarter, 2020 – 2022.



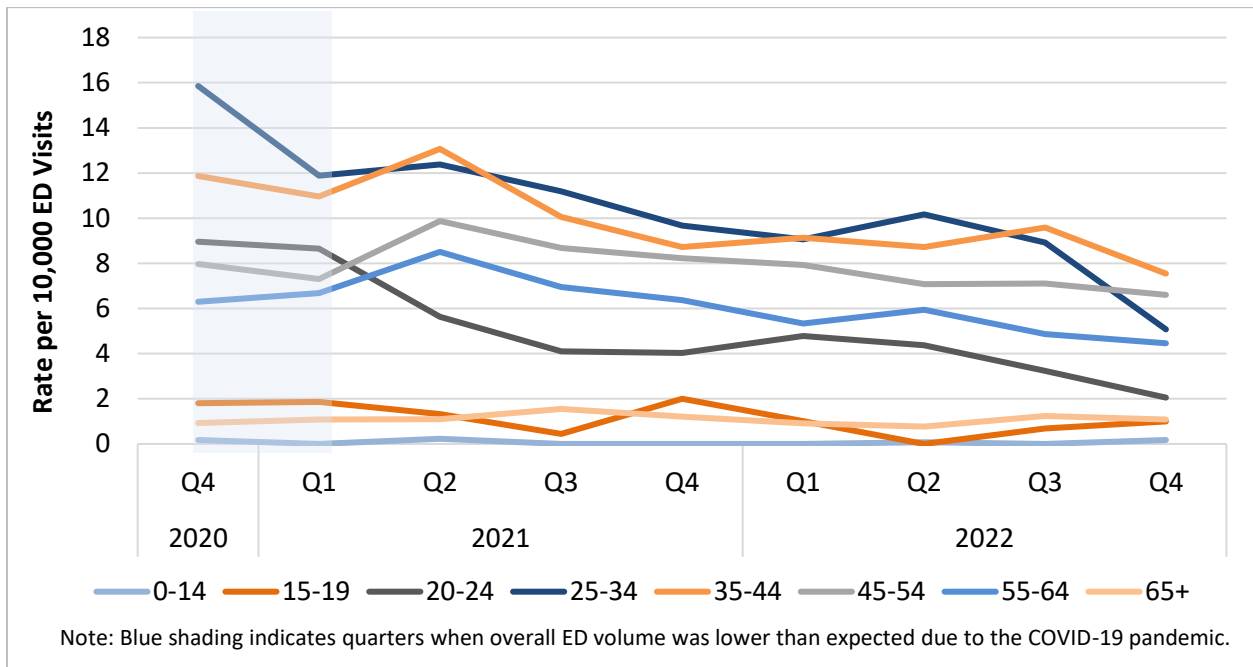
**Figure 3C.** Rate per 10,000 ED Visits for Heroin Overdose among Virginia Residents by Calendar Quarter and Health Region, Most Recent 9 Quarters.



**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.

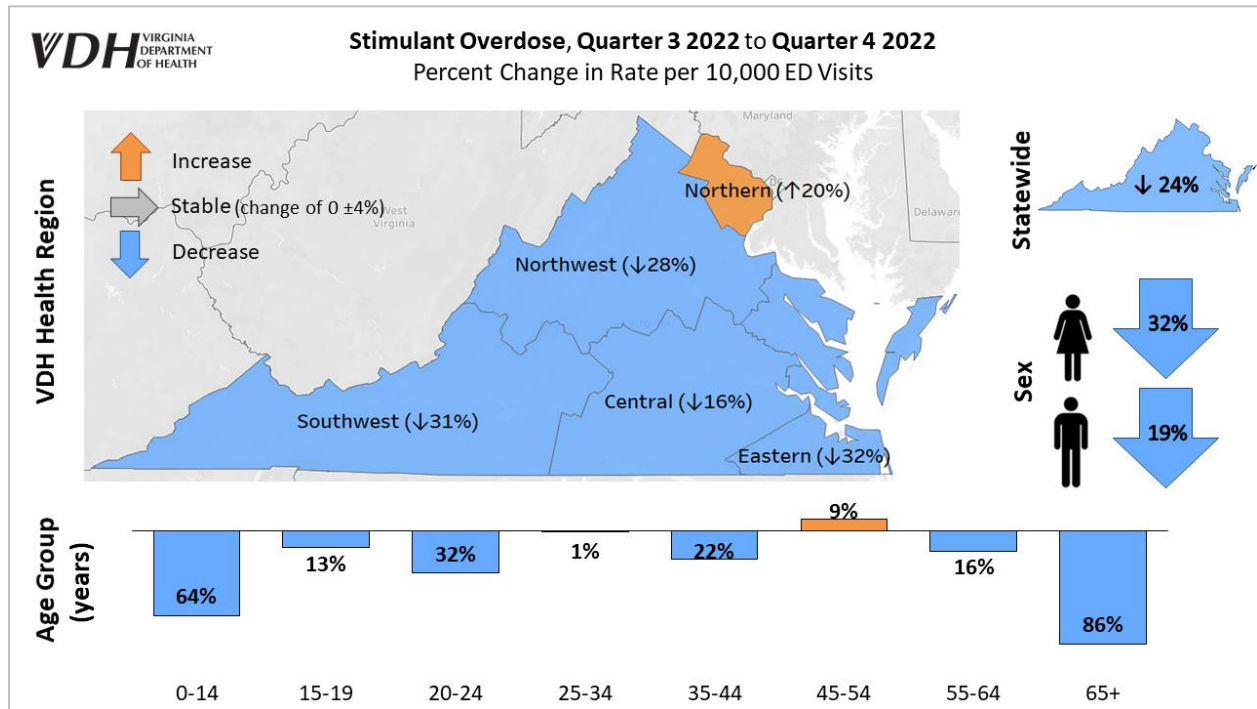
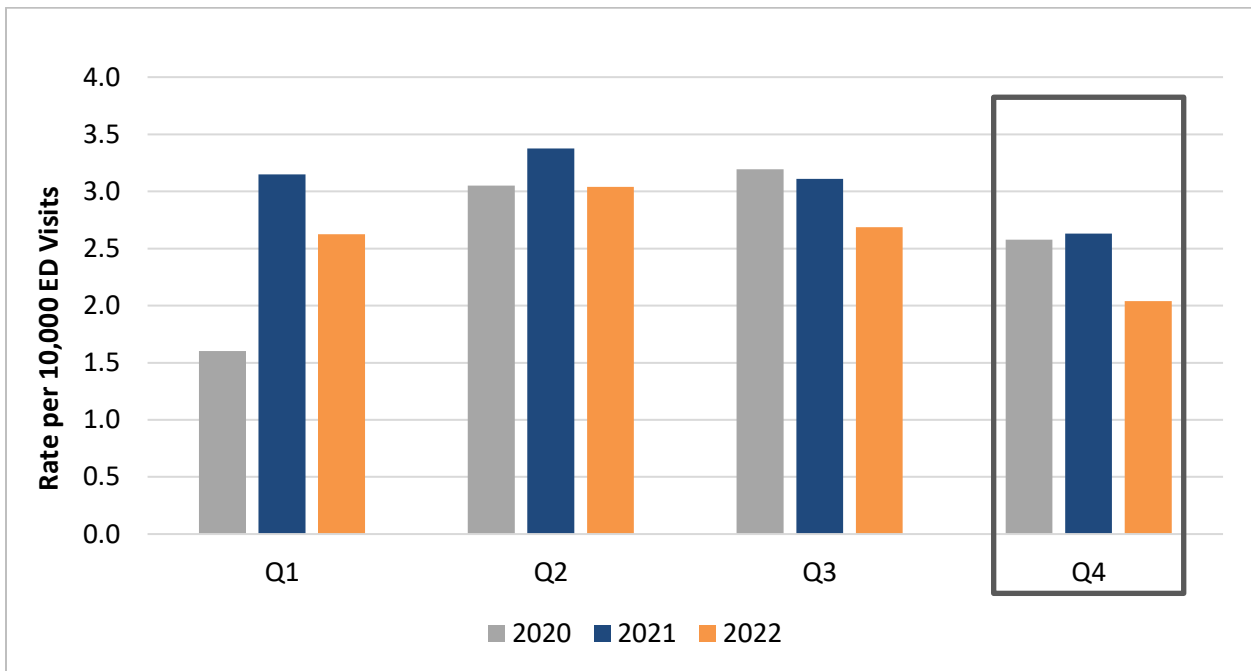
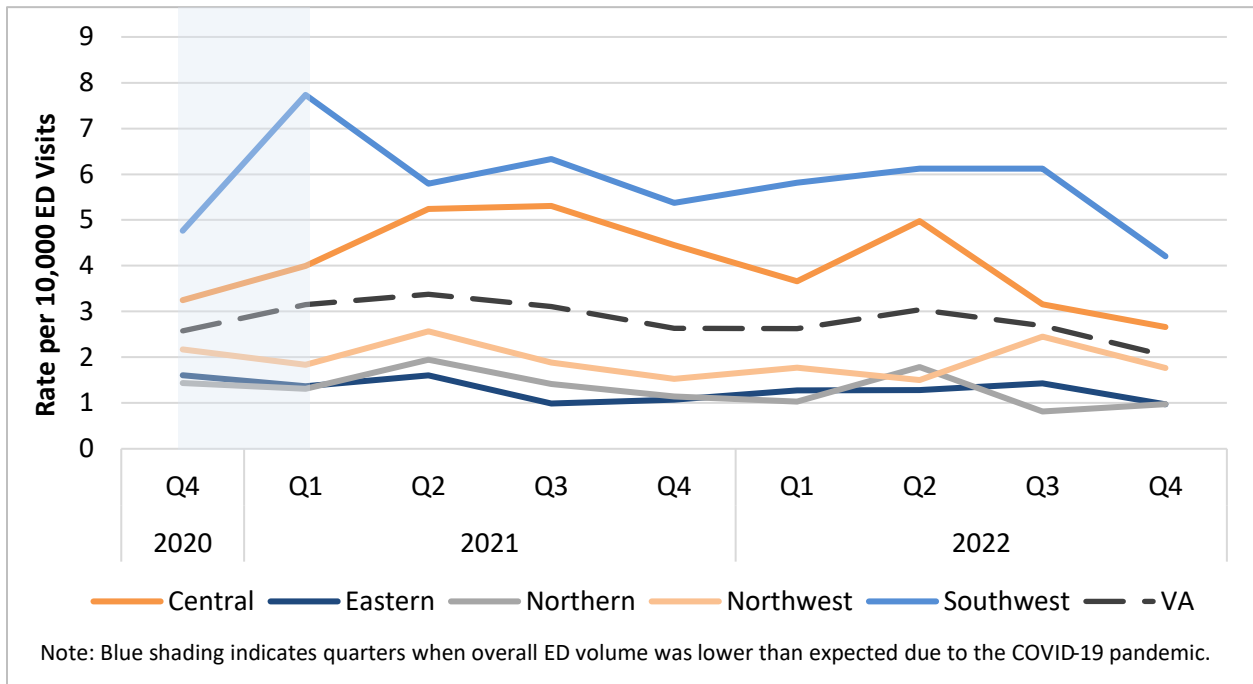


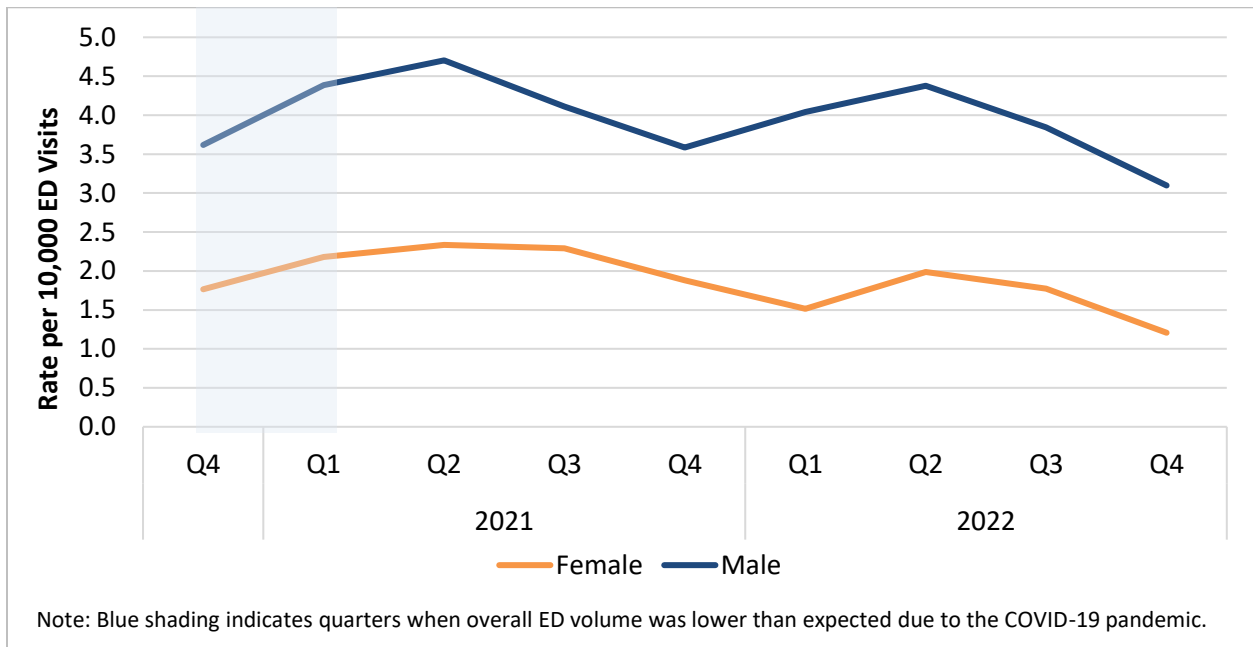
Figure 4B. Rate per 10,000 ED Visits for Stimulant Overdose among Virginia Residents by Calendar Quarter, 2020 – 2022.



**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.

