EMERGENCY DEPARTMENT VISITS FOR UNINTENTIONAL DRUG OVERDOSE AMONG VIRGINIA RESIDENTS

January to December 2019 - 2020

Table of Contents

Background .................................................. 2
Methodology .................................................. 2
Total Emergency Department Visits among Virginia Residents ............................................. 3
  Figure 1A. Counts by Month .................................................. 3
Emergency Department Visits for All Drug Overdose among Virginia Residents ..................... 4
  Figure 2A. Annual Percent Change for All Drug Overdose .................................................. 4
  Figure 2B. Count by Month .................................................. 4
  Figure 2C. Rate per 100,000 Population by Month .................................................. 5
Emergency Department Visits for Opioid or Unspecified Substance Overdose among Virginia Residents .................................................. 5
  Figure 3A. Annual Percent Change for Opioid or Unspecified Substance Overdose ................. 5
  Figure 3B. Count by Month .................................................. 6
  Figure 3C. Rate per 100,000 Population by Month .................................................. 6
Emergency Department Visits for Heroin Overdose among Virginia Residents ......................... 7
  Figure 4A. Annual Percent Change for Heroin Overdose .................................................. 7
  Figure 4B. Count by Month .................................................. 7
  Figure 4C. Rate per 100,000 Population by Month .................................................. 8
The Coronavirus Disease 2019 (COVID-19) pandemic has affected healthcare seeking behavior across Virginia. Emergency department use decreased substantially in March 2020 and remained below pre-pandemic levels through the rest of the year. This special supplemental annual report presents drug overdose trends during the COVID-19 pandemic. Please note this report format differs from previous drug overdose reports published by VDH.

**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, and heroin. Visits from 84 acute care hospital EDs and 21 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) 9th and 10th Revision or SNOMED Clinical Terms (CT) code sets.

**Methodology**

ED visits are categorized into the following three unintentional drug overdose case definitions: 1) all drug overdose, 2) opioid or unspecified substance overdose, and 3) heroin 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.


Overdose rates are presented as a rate per 100,000 population in this report. The 2017 and 2018 census estimates for Virginia residents are used as the denominator to calculate this rate for 2019 and 2020, respectively. This metric provides a consistent rate calculation across the state as compared to the rate per 10,000 ED visits because of the decrease in ED utilization during the COVID-19 pandemic. Geography-specific ED visit counts and rates per 10,000 ED visits are located within the *Monthly and Annual Statistics Excel* file on the VDH website.

This report provides statewide counts and rates per 100,000 population. Individual Virginia city and county populations are not presented in this report. Geography information for the VDH Health Planning Regions can be found here - [https://www.vdh.virginia.gov/data/vdh-geography-locator-tool/](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

Page 2 of 8
Report Generated: January 19, 2021
Total Emergency Department Visits among Virginia Residents

Virginia experienced a decline in overall ED visits in 2020 during the COVID-19 pandemic compared to the previous year (Figure 1A). Total ED visit volume began to decline in March 2020 and reached its lowest monthly volume in April. ED visits increased from May to July then stabilized through December, but remained below the volume observed in 2019.

Figure 1A. Emergency Department Visits among Virginia Residents by Month, 2019 - 2020.
Emergency Department Visits for All Drug Overdose among Virginia Residents

Figure 2A. Annual Percent Change for All Drug Overdose.

Figure 2B. Count of ED Visits for All Drug Overdose among Virginia Residents by Month, 2019 - 2020.
**Figure 2C.** Rate per 100,000 Population for All Drug Overdose among Virginia Residents by Month, 2019 - 2020.

![Graph showing rate per 100,000 population by month.]

**Emergency Department Visits for Opioid or Unspecified Substance Overdose among Virginia Residents**

**Figure 3A.** Annual Percent Change for Opioid or Unspecified Substance Overdose.

![Map showing annual percent change for opioid or unspecified substance overdose.]

**VDH**

**Opioid or Unspecified Substance Overdose, 2019 to 2020**

Percent Change in Rate per 100,000 Population
Figure 3B. Count of ED Visits for Opioid or Unspecified Substance Overdose among Virginia Residents by Month, 2019 - 2020.

Figure 3C. Rate per 100,000 Population for Opioid or Unspecified Substance Overdose among Virginia Residents by Month, 2019 - 2020.
Emergency Department Visits for Heroin Overdose among Virginia Residents

Figure 4A. Annual Percent Change for Heroin Overdose.

Figure 4B. Count of ED Visits for Heroin Overdose among Virginia Residents by Month, 2019 - 2020.
Figure 4C. Rate per 100,000 population for Heroin Overdose among Virginia Residents by Month, 2019 - 2020.