

Suspected Nonfatal Drug Overdoses During COVID-19

Archived Provisional Data Report: March through September 2020

The data report below comes from CDC's DOSE system. The report displays total ED visits, ED visit counts for suspected overdoses, and overdose rates overall and by 42 states, including the District of Columbia, through September 2020. During the first several months of the COVID-19 pandemic, the number of total ED visits across the United States substantially declined; however, nonfatal overdoses did not decline at a similar pace.

There are several important caveats to consider when viewing the figures included in this report. During the COVID-19 pandemic, states onboarded new facilities that began sharing data; also, some facilities stopped sharing data during this period. Thus, the number of facilities was not constant over this time period. In addition, states collaborated with existing facilities to increase the proportion of ED visits that contained diagnosis codes, which facilitates the identification of overdose-related visits. Caution is warranted in interpreting counts, rates, and comparisons to previous years due to these data issues.

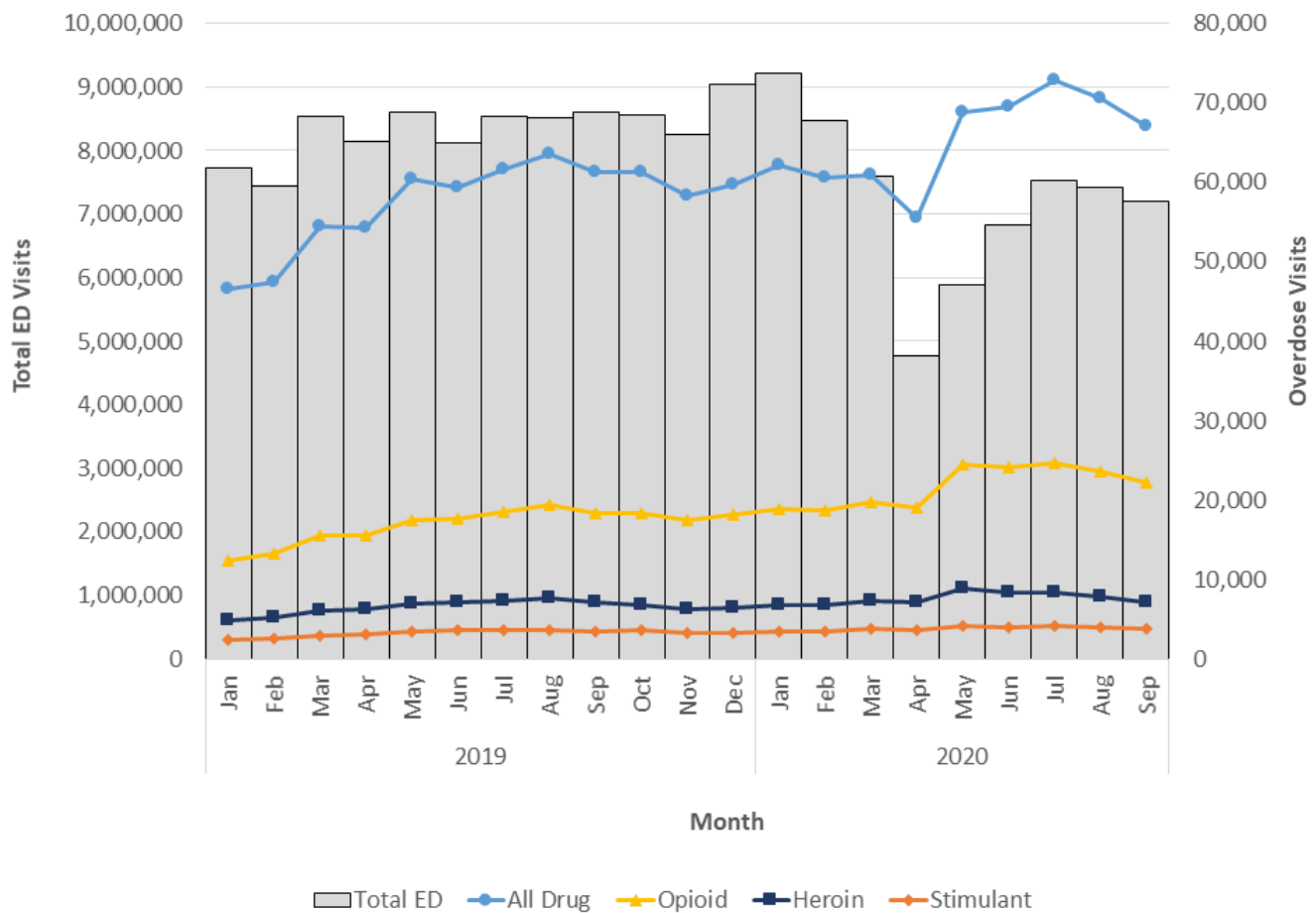
Data on suspected [nonfatal drug overdoses](#) presenting to emergency departments (EDs) from CDC's Drug Overdose Surveillance and Epidemiology (DOSE) system are presented below, with a focus on total ED visits and ED visits for suspected overdoses during March through September 2020. This period was marked by a substantial decline in the number of total ED visits across the United States,¹ at least in part because of delays in seeking care or avoiding care in EDs during the COVID-19 pandemic.² However, nationwide nonfatal overdoses did not decline at a similar pace.³

The figure below includes monthly data from 42 states, including the District of Columbia, sharing syndromic surveillance data with CDC's DOSE system from January 2019 through September 2020. The data show:

- Total ED visits began declining after January 2020, reaching the lowest point in April 2020 (see gray bars). Starting in May 2020, total ED visits began increasing but remained lower than months prior to March 2020.
- During March through September 2020, compared to the previous time period, there were higher numbers of suspected overdose ED visits for all drugs (light blue line), opioids (yellow line), heroin (dark blue line), and stimulants (orange line), with peaks in the number of ED visits varying by substance.
 - Numbers of suspected all drug and opioid-involved overdoses were highest in July 2020 and gradually declined during the following months, with numbers still higher in September 2020 than before March 2020.
 - Numbers of suspected heroin- and stimulant-involved overdoses were highest in May 2020 and gradually declined during the following months, with numbers still higher in August 2020 than before March 2020.



Emergency Department (ED) Visit Totals and Suspected Nonfatal Overdose Numbers* for 42 States Sharing Syndromic Data† with CDC DOSE: January 2019-September 2020



*Overdose visit numbers are not mutually exclusive but rather reflect nesting of drug categories: numbers of suspected opioid-, heroin-, and stimulant-involved overdose visits are included in the numbers of suspected all drug overdose visits; suspected heroin-involved overdose visits are included in the numbers of suspected opioid-involved overdose visits; and some overdose visits involved multiple substances (e.g., a given overdose ED visit could have involved both opioids and stimulants).

†The 42 jurisdictions with data included are the District of Columbia and the following states: Alabama, Alaska, Arizona, Arkansas, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Mississippi, Missouri, Montana, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, Vermont, Virginia, Washington, Wisconsin, and West Virginia. Sums of overdose visits were aggregated from the 42 states prior to the application of data suppression rules, which are presented later in the state-specific graphics. Data from some states were not available in every month, only facilities sharing syndromic data within a state are represented in these data, and coverage varies across the states included.

State-specific Suspected Nonfatal Drug Overdoses During COVID-19

State-specific data from CDC's DOSE system are presented below (from March through September for 2019 and 2020) to indicate how overdoses changed between March 2020 and September 2020 across states and how overdoses during this time period in 2020 were similar or different during the same months in 2019. State-specific data include numbers of total ED visits, numbers of suspected drug overdose ED visits, and rates of suspected drug overdoses per 10,000 ED visits.

It is important to review state-specific numbers and rates with caution. Important caveats to consider when interpreting the data include:

- 1 Some data may be missing.** Data sent from EDs to health departments may be delayed or may stop for a period of time. When EDs begin sharing data again, information about visits during the lapse may never be shared.
- 2 Reporting facilities and the data they report can change.** Several states continue efforts to onboard new facilities that can begin to share data in syndromic surveillance systems, and some facilities experience periodic interruptions or a cessation of syndromic surveillance data feeds. Some of these issues became more pronounced during the earlier phase of the COVID-19 pandemic. Syndromic data also can be updated with new information over time, for example, with additional diagnosis codes. Therefore, numbers and rates reported could change over time as more facilities began sharing data or sharing higher quality data, as well as from facilities that may have stopped sharing data for a period of time. Some states had increases in the number of EDs reporting data during March through September 2020, in part because data from some of these facilities were not submitted and available to be included in any counts or rates in data from March through September 2019. Some EDs also had increases in the proportion of ED visits in syndromic data that contain [diagnosis codes](#), which facilitate the identification of overdose-related visits.
- 3 Data are updated over time.** The chief complaint, or the reason for the ED visit, is available in syndromic surveillance systems within 48 hours for ~70% of ED visits. However, the chief complaint field may be incomplete. ED visit data may be updated over the course of several weeks, and relevant overdose discharge diagnosis codes or revised chief complaint text may be received during this time. Therefore, rates may change over time as the visit records are completed and new drug overdose visits are identified.
- 4 Data should not be interpreted as exact case numbers** because quality of visit information may change over time, and facility data submission may be interrupted or delayed.
- 5 These are suspected overdoses.** Because these data are not determined by toxicological testing, they are considered "suspected overdoses," not confirmed cases.
- 6 Data likely represent an undercount,** given inaccuracies in coding and missing chief complaint information.
- 7 Rates may be difficult to interpret.** Although the calculation of rates per 10,000 ED visits accounts for changes in ED facility participation in DOSE over time, these rates may be influenced by characteristics of the populations served by EDs or changes in total ED visits, which declined substantially and remained low during the early months of the COVID-19 pandemic (March through September 2020).¹ Therefore, changes in rates in some states may not necessarily provide an indication of a substantially worsening overdose crisis in those states. Because of the substantial changes in ED visit volume following the onset of the COVID-19 pandemic, readers must interpret data cautiously, especially if trends in suspected nonfatal drug overdose per 10,000 ED visits differ from trends in numbers of suspected drug overdoses.
- 8 Overdose visit numbers are not mutually exclusive** but rather reflect nesting of drug categories: numbers of suspected opioid-, heroin-, and stimulant-involved overdose visits are included in the numbers of suspected all drug overdose visits; suspected heroin-involved overdose visits are included in the numbers of suspected opioid-involved overdose visits; and some overdose visits involved multiple substances (e.g., a given overdose ED visit could have involved both opioids and stimulants).

Data Suppression

Both counts and rates are suppressed when overdose counts are less than 20. Data for each specific figure are displayed if at least two data points can be presented in 2020. Additionally, 2019 data were included if there were at least two data points in 2019. In addition, data for some states were not available in every month during the time presented. Data presented in the *tables* are suppressed for overdose counts of less than 10, and rates are suppressed when overdose counts are less than 20.

Figure 1. Total ED Visits, Alabama

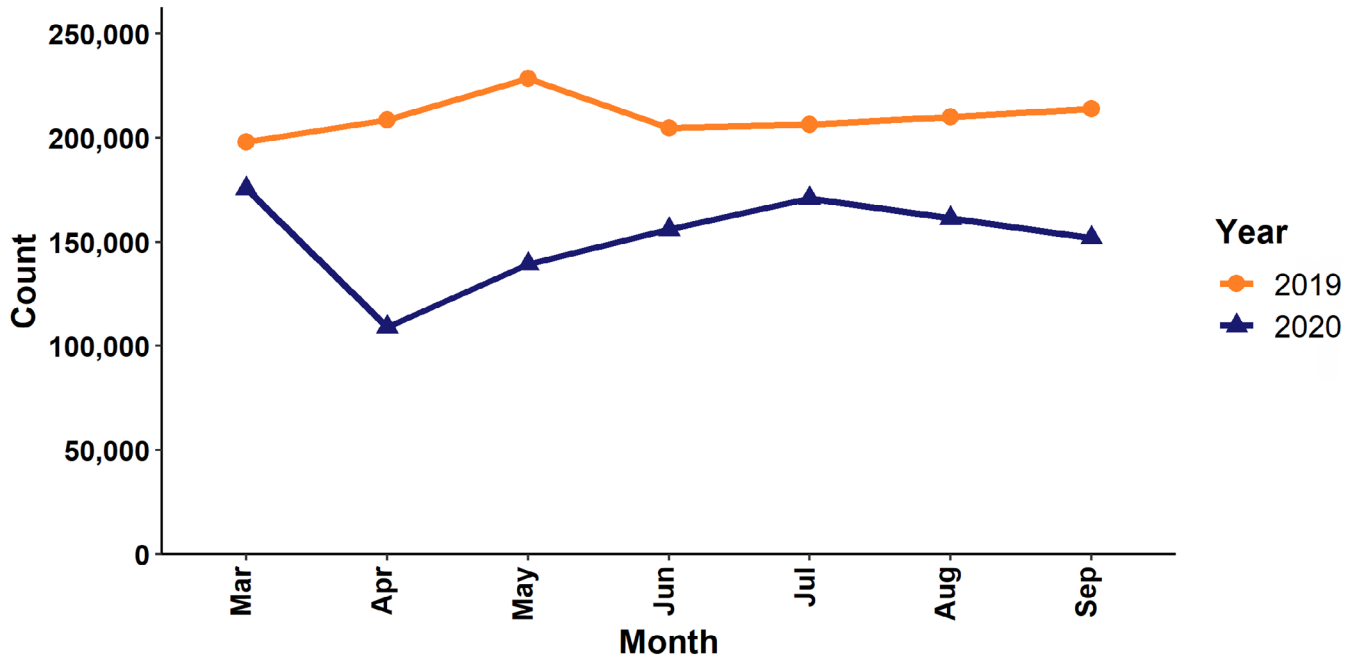


Figure 2. Total ED Visits for Overdoses, by Drug Category, Alabama

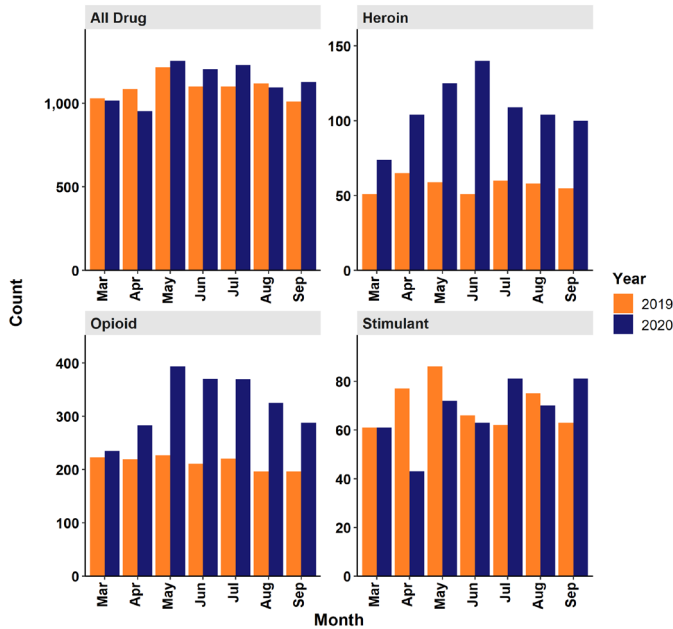


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Alabama

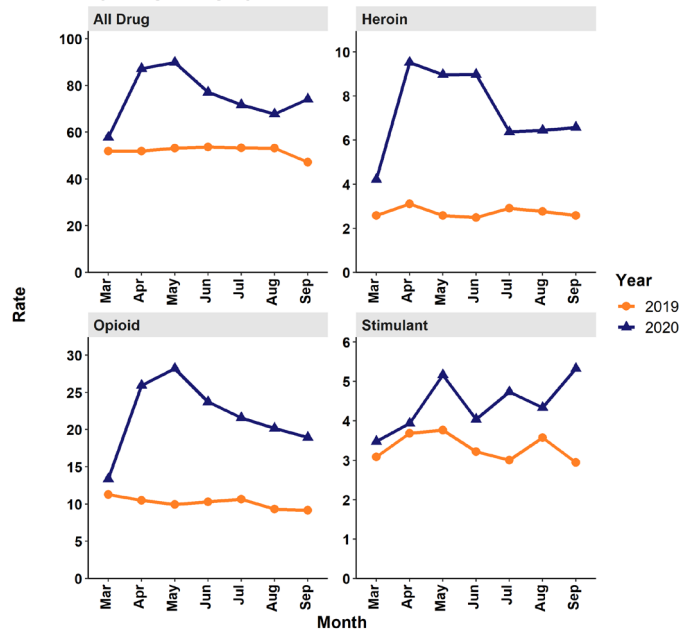


Figure 1. Total ED Visits, Alaska

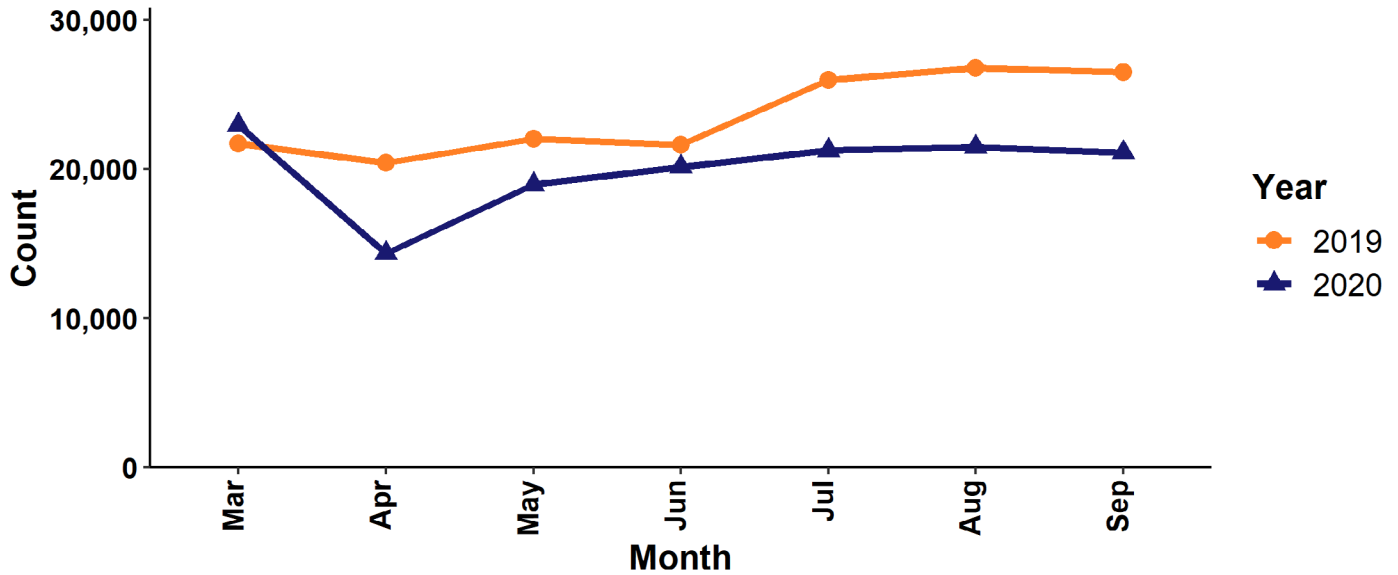


Figure 2. Total ED Visits for Overdoses, by Drug Category, Alaska

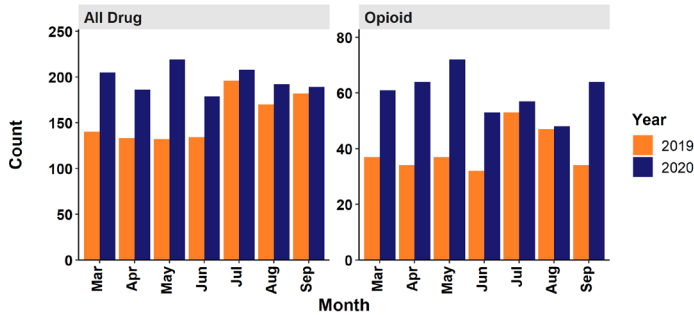


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Alaska

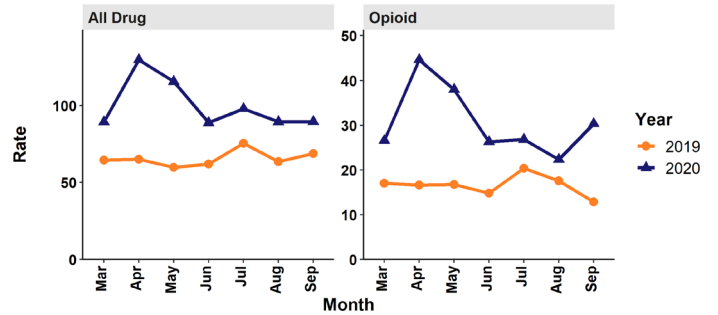


Figure 1. Total ED Visits, Arizona

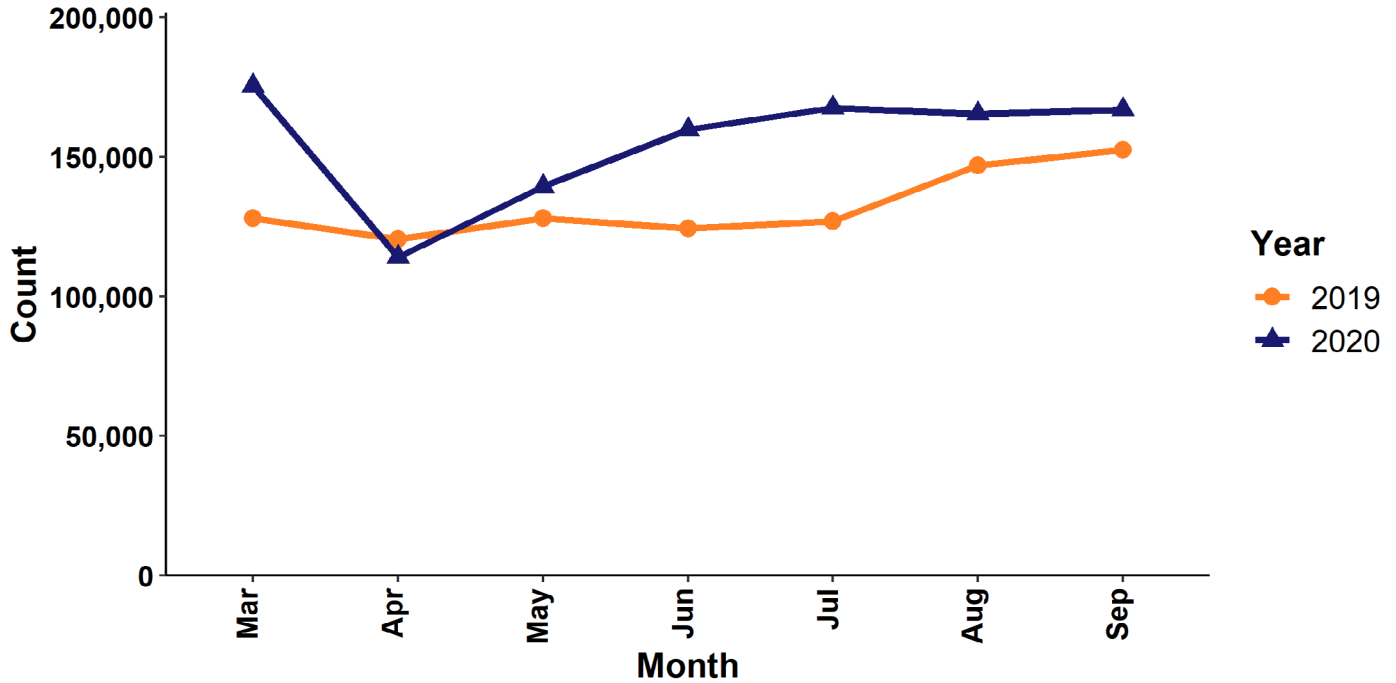


Figure 2. Total ED Visits for Overdoses, by Drug Category, Arizona

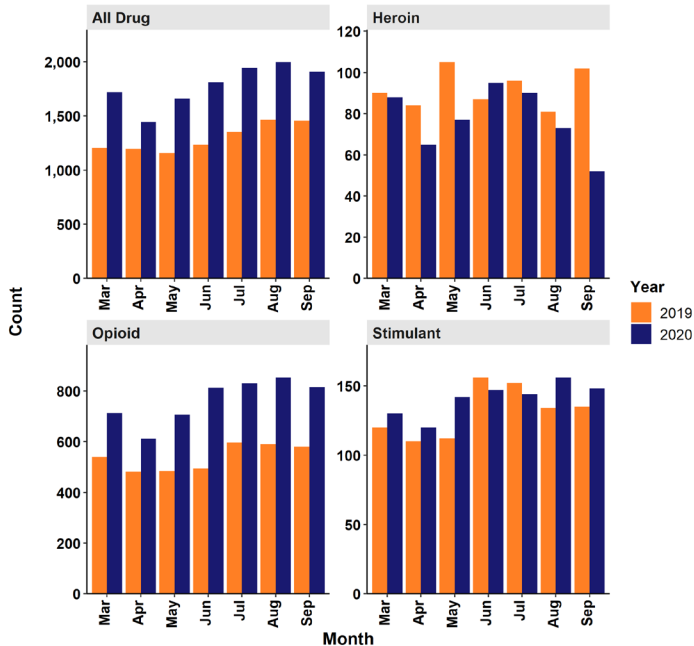


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Arizona

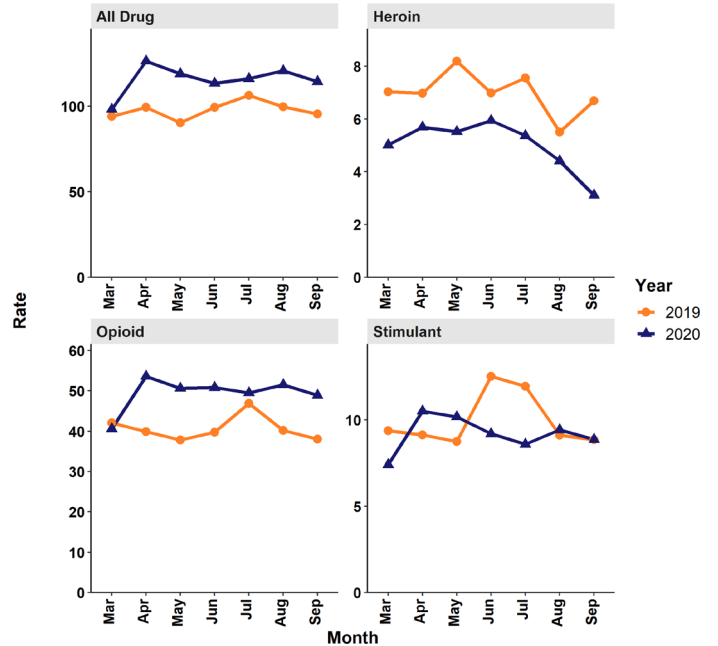


Figure 1. Total ED Visits, Arkansas

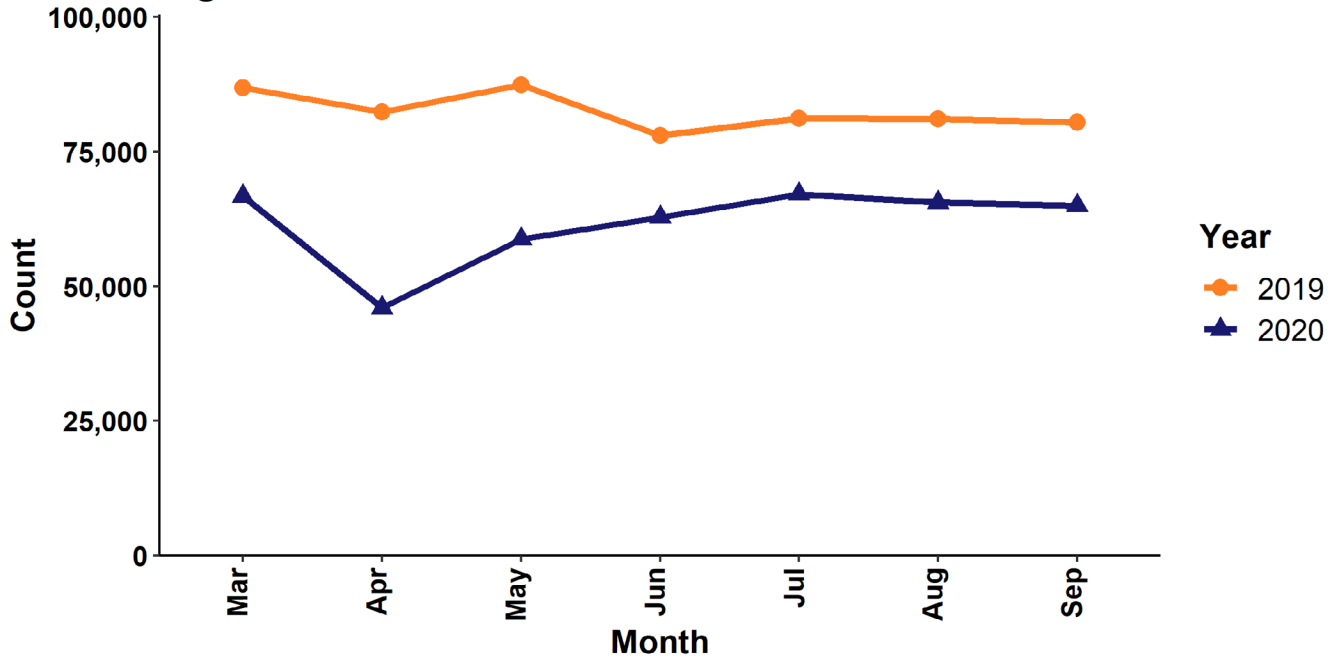


Figure 2. Total ED Visits for Overdoses, by Drug Category, Arkansas

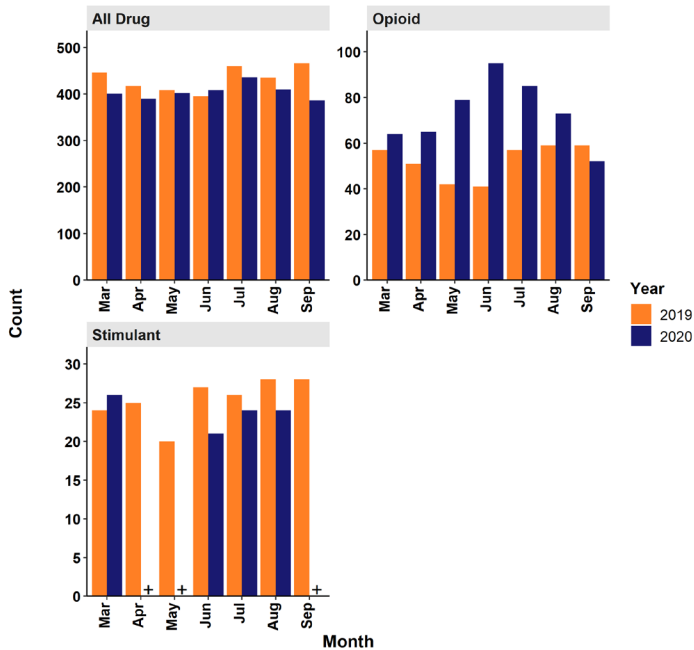


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Arkansas

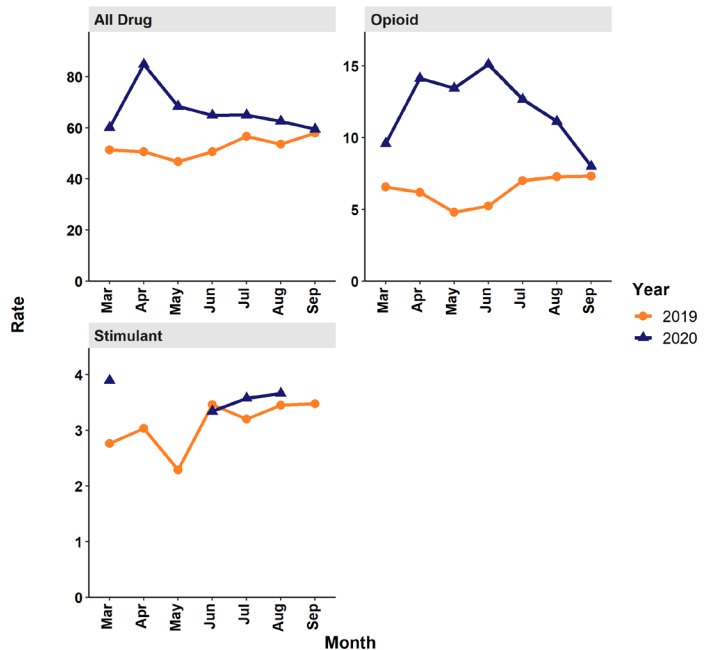


Figure 1. Total ED Visits, Colorado

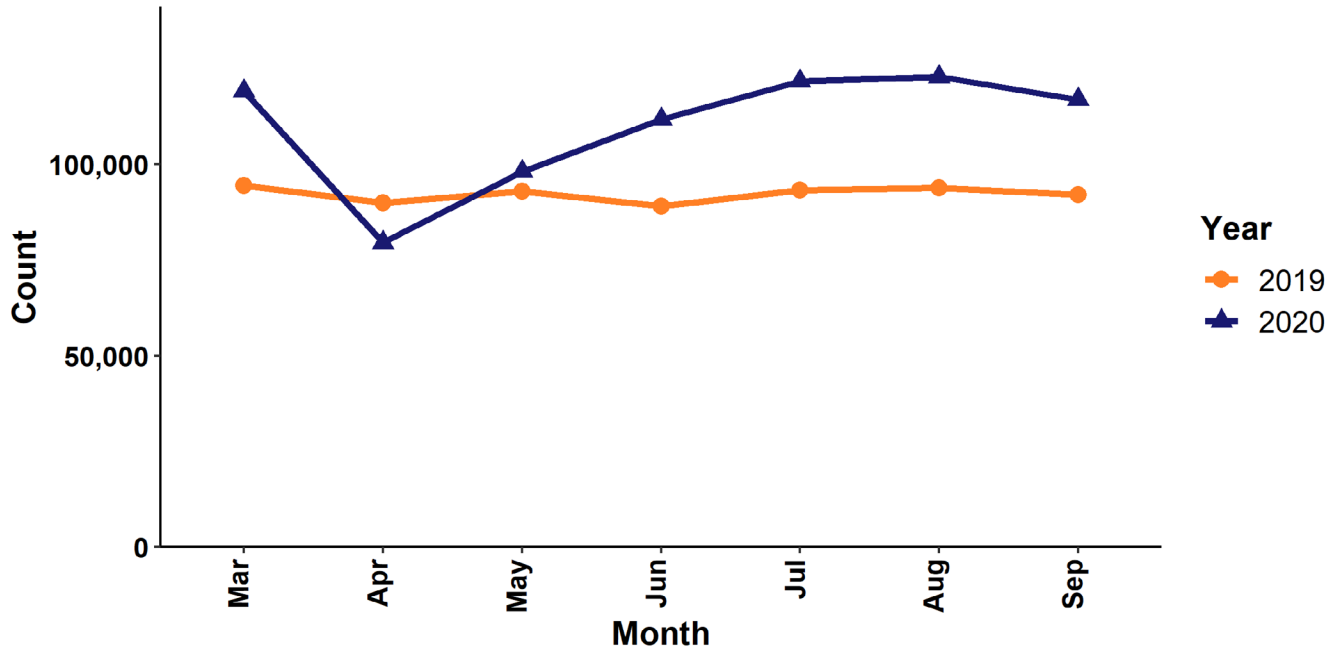


Figure 2. Total ED Visits for Overdoses, by Drug Category, Colorado

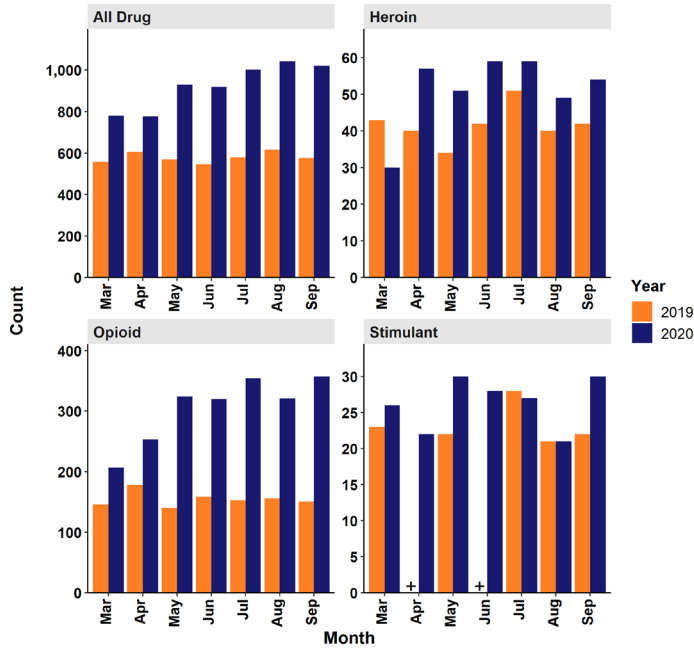


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Colorado

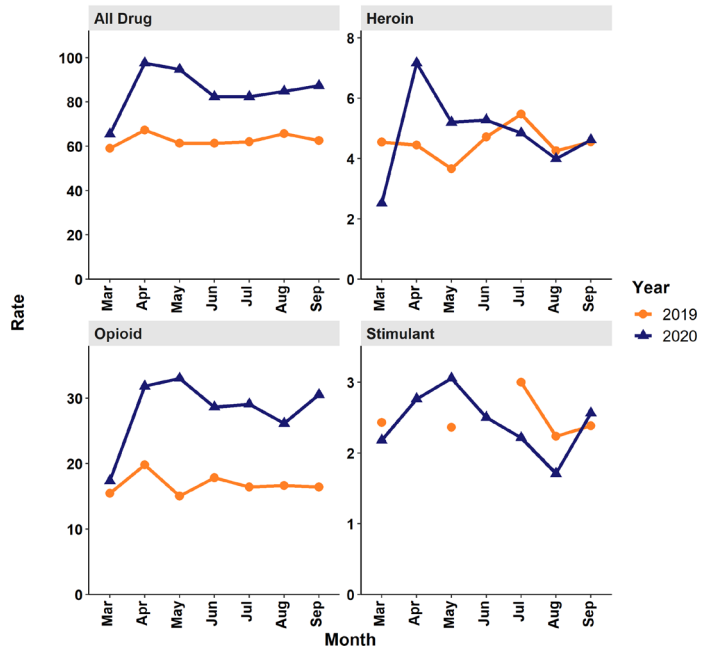


Figure 1. Total ED Visits, Connecticut

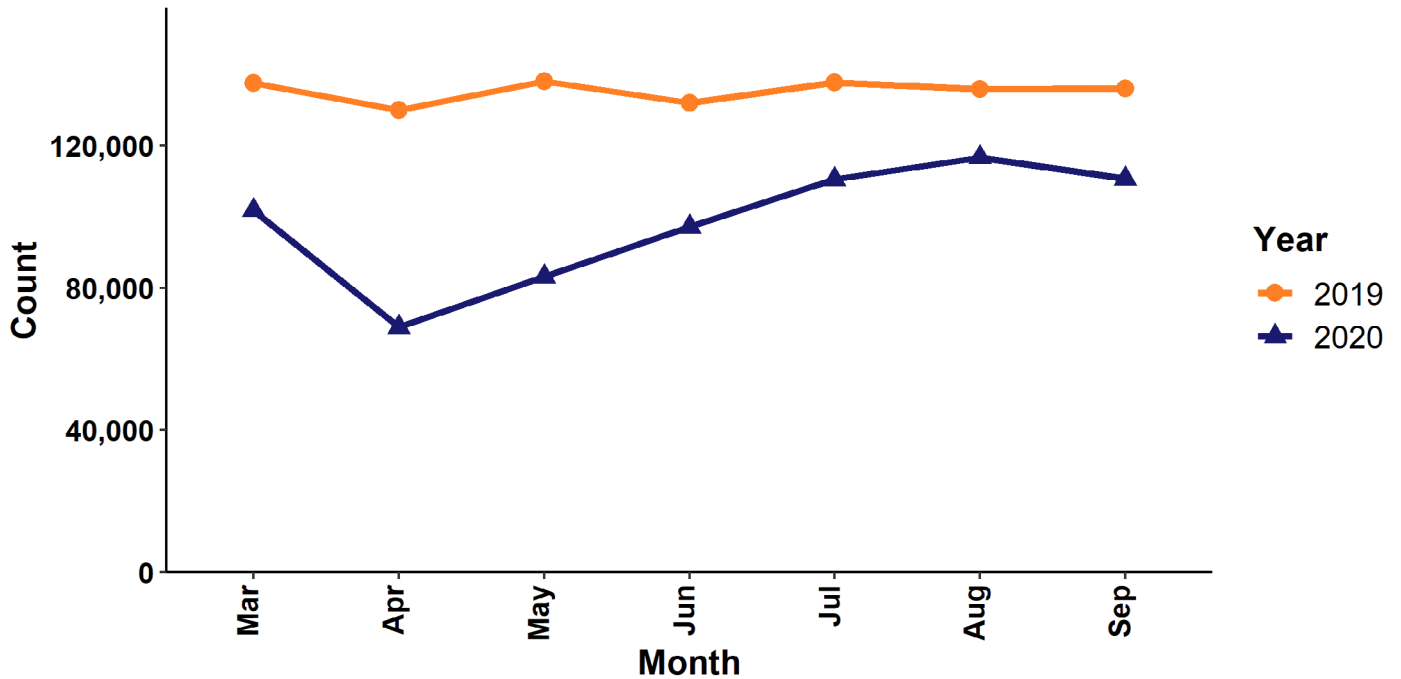


Figure 2. Total ED Visits for Overdoses, by Drug Category, Connecticut

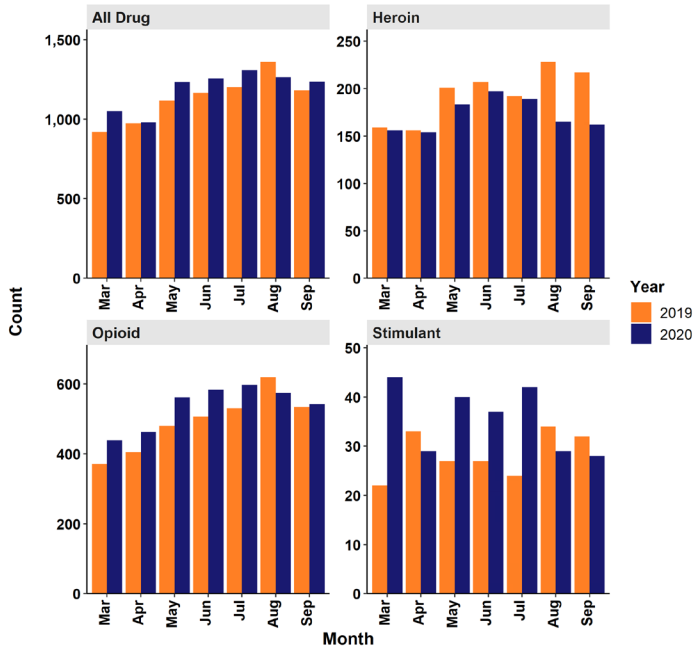


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Connecticut

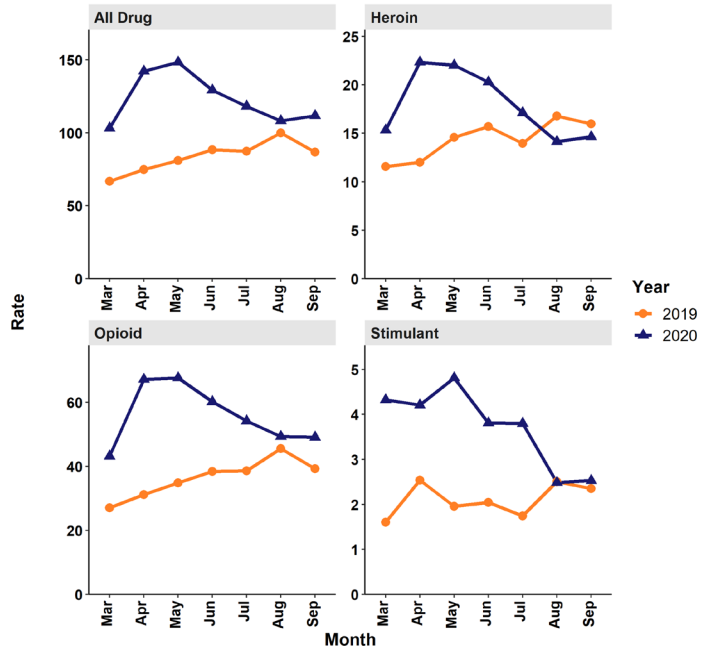


Figure 1. Total ED Visits, Delaware

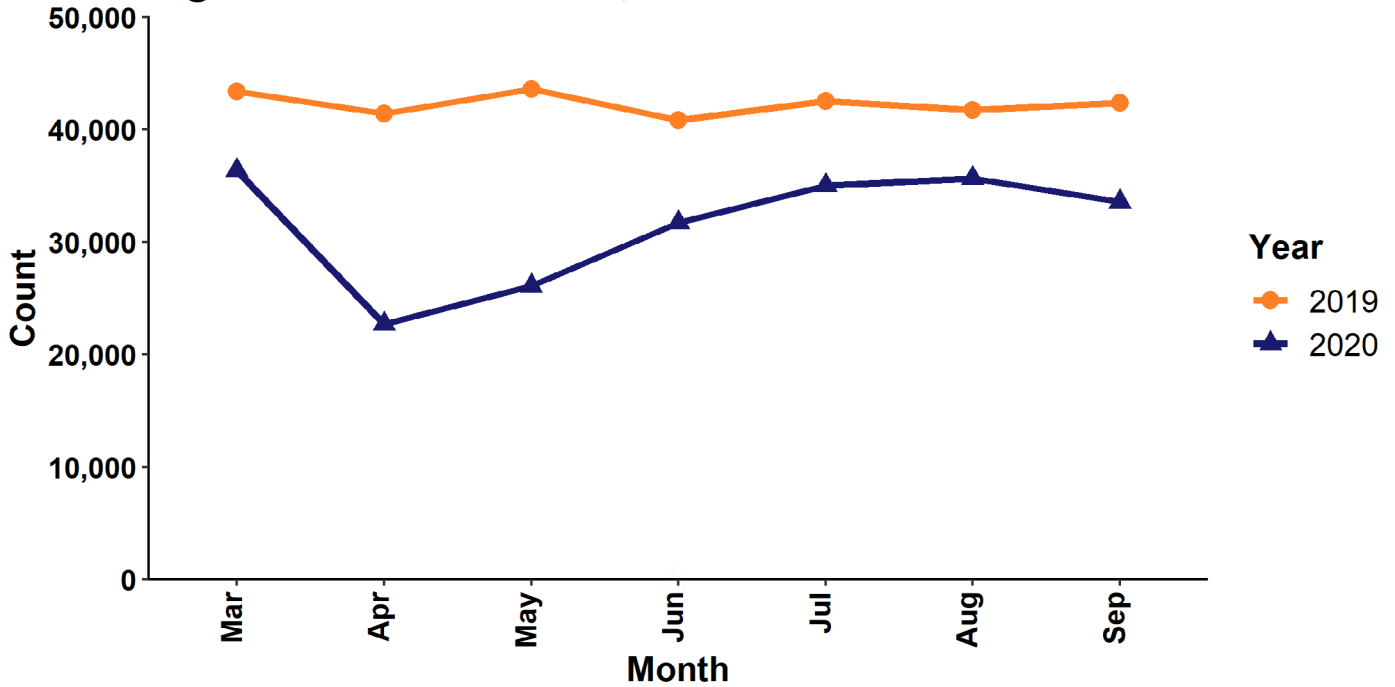


Figure 2. Total ED Visits for Overdoses, by Drug Category, Delaware

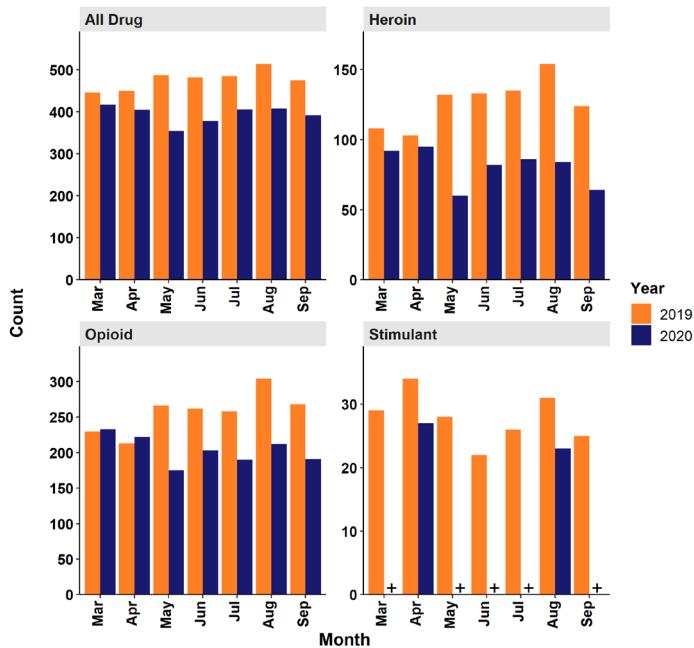


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Delaware

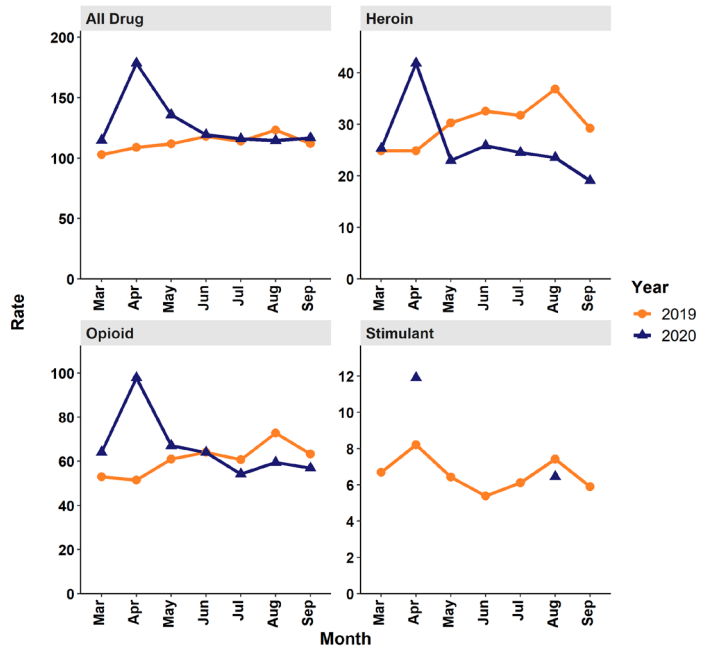


Figure 1. Total ED Visits, Washington, D.C.

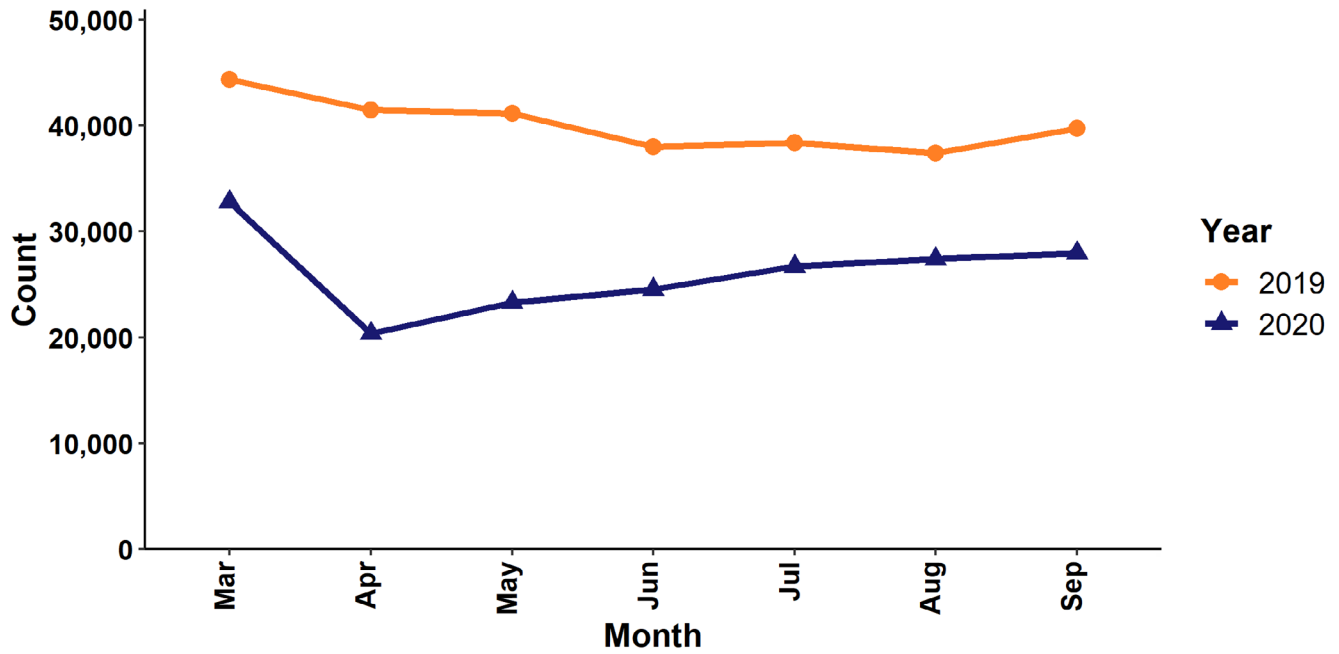


Figure 2. Total ED Visits for Overdoses, by Drug Category, Washington, D.C.

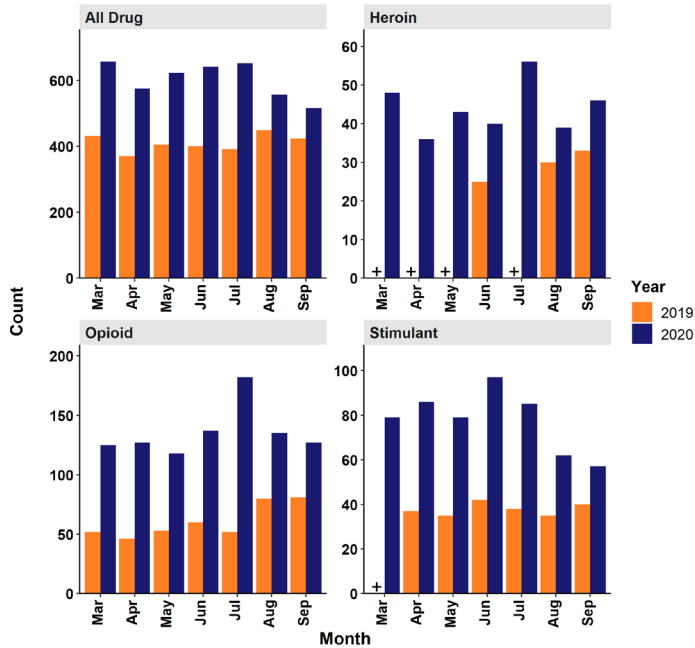


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Washington, D.C.

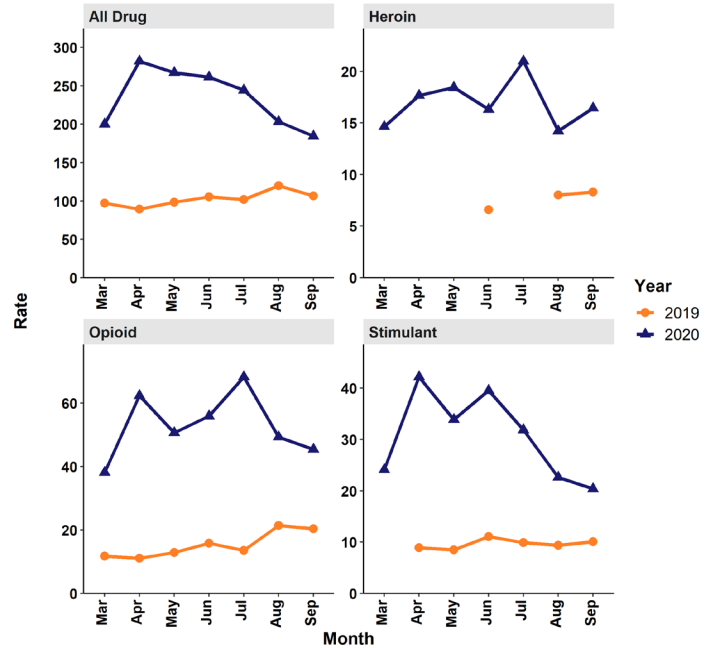


Figure 1. Total ED Visits, Florida

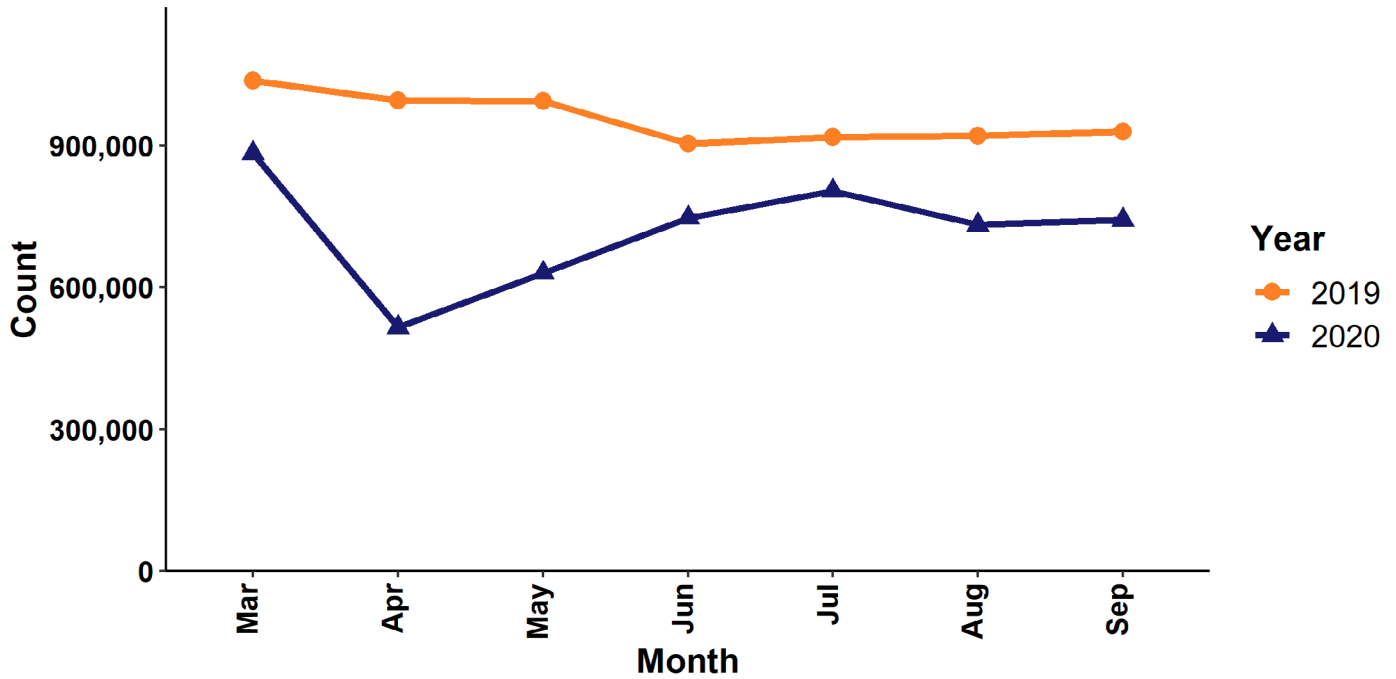


Figure 2. Total ED Visits for Overdoses, by Drug Category, Florida

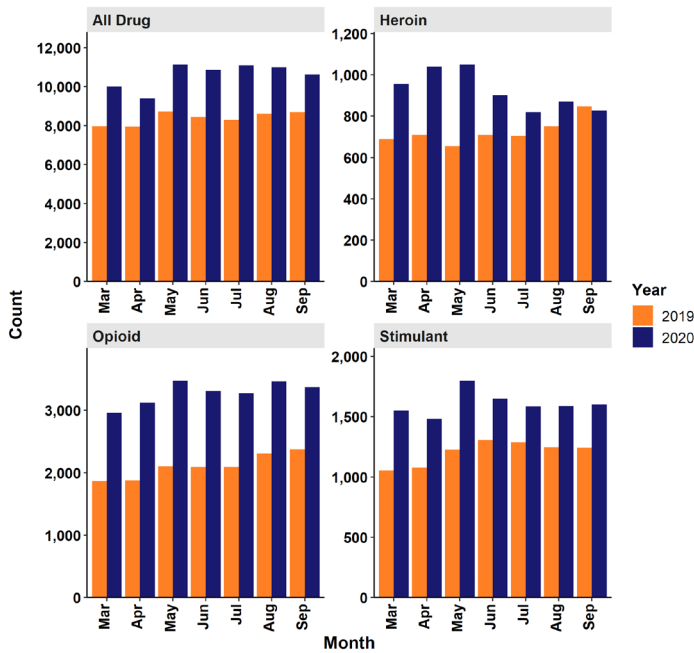


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Florida

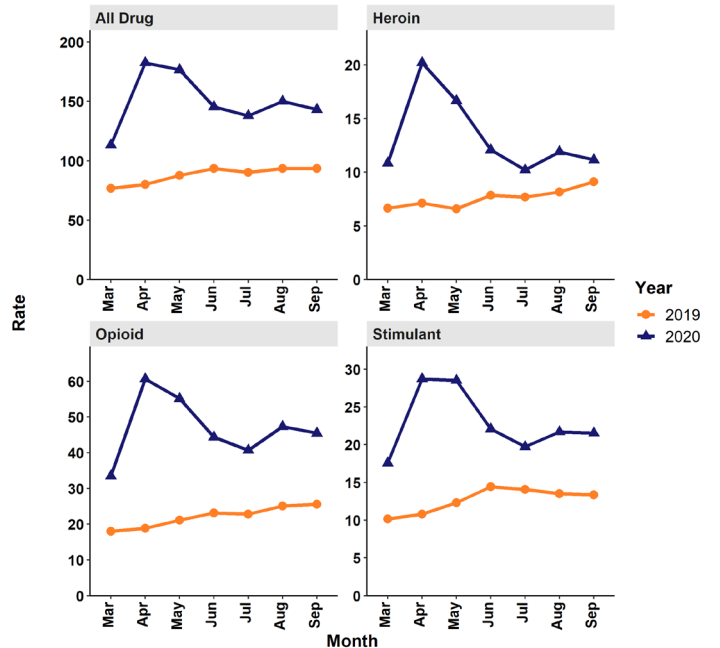


Figure 1. Total ED Visits, Georgia

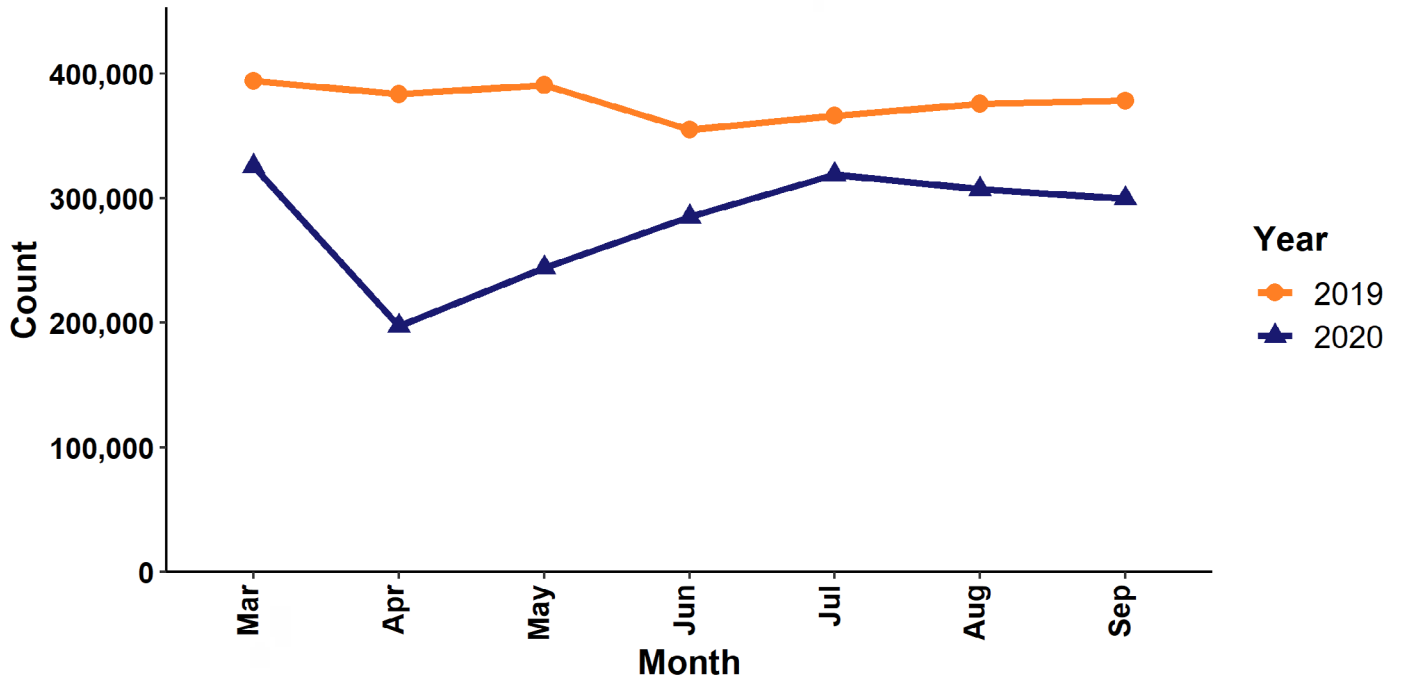


Figure 2. Total ED Visits for Overdoses, by Drug Category, Georgia

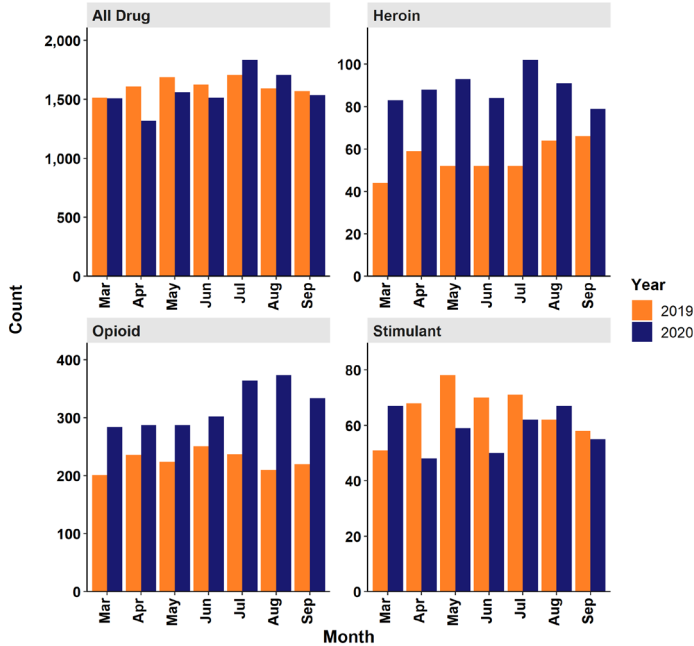


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Georgia

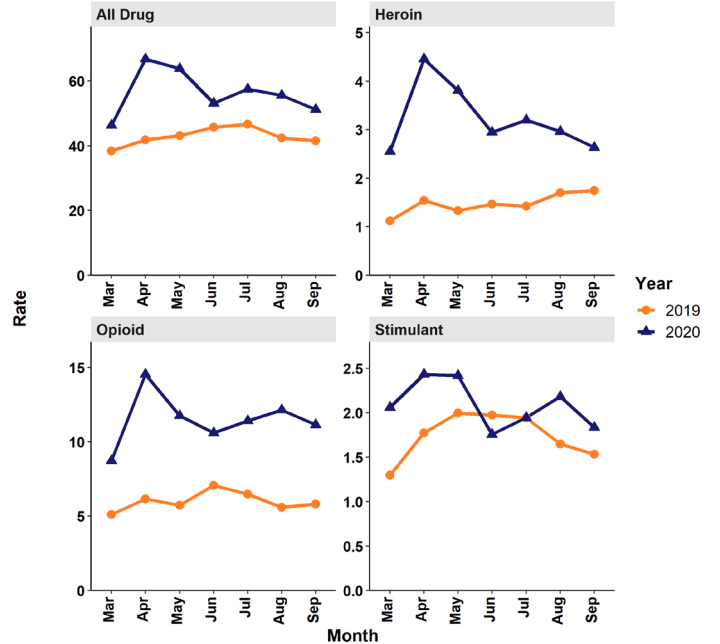


Figure 1. Total ED Visits, Idaho

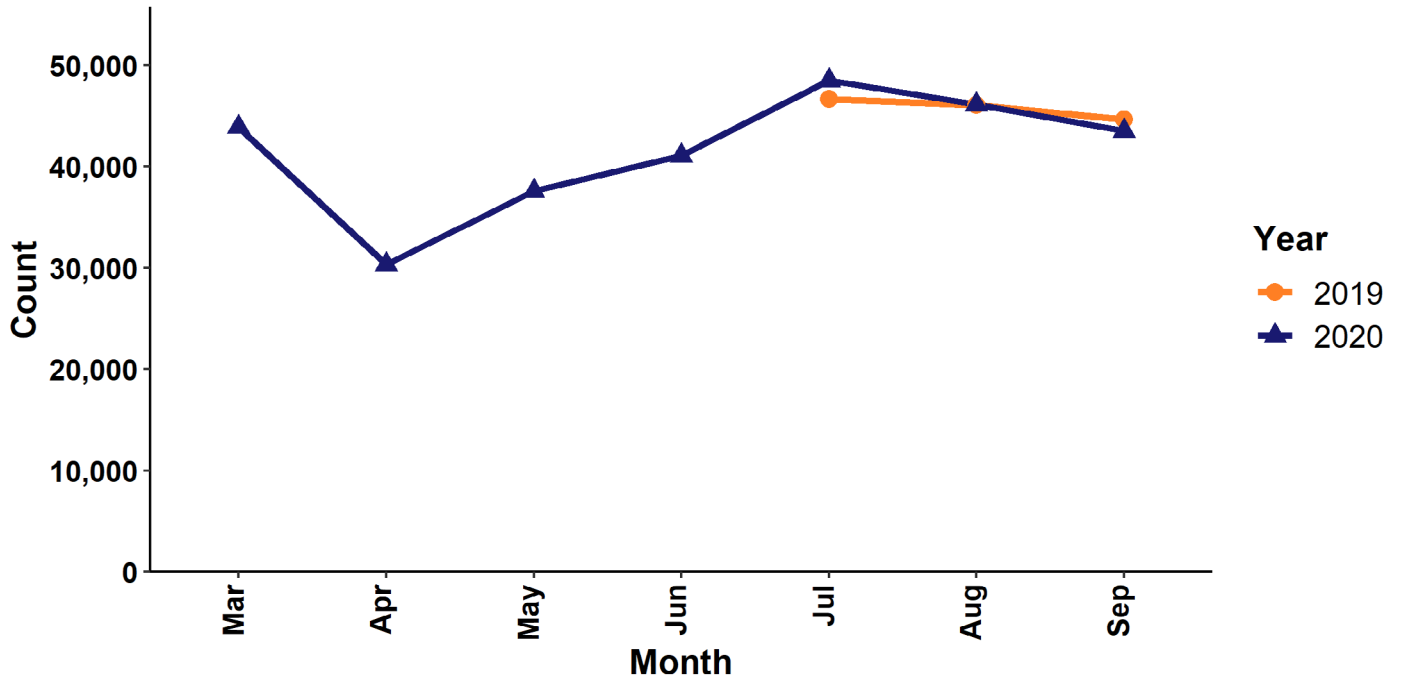


Figure 2. Total ED Visits for Overdoses, by Drug Category, Idaho

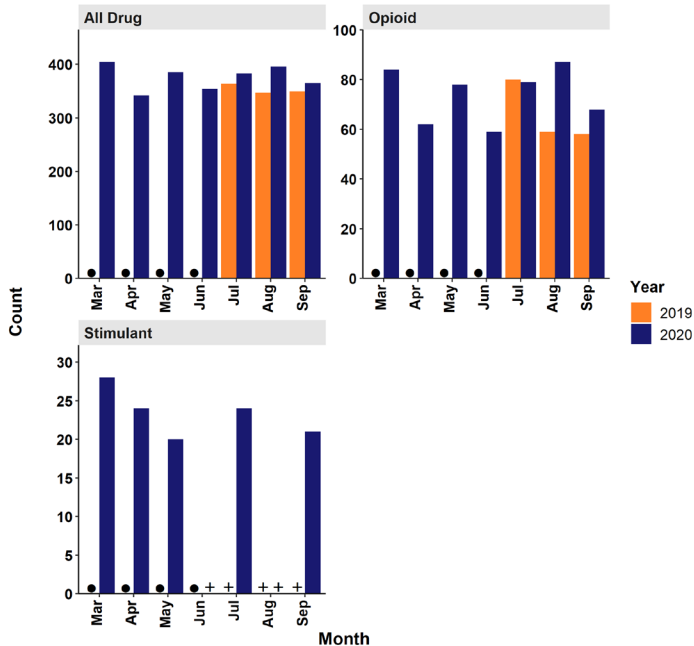


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Idaho

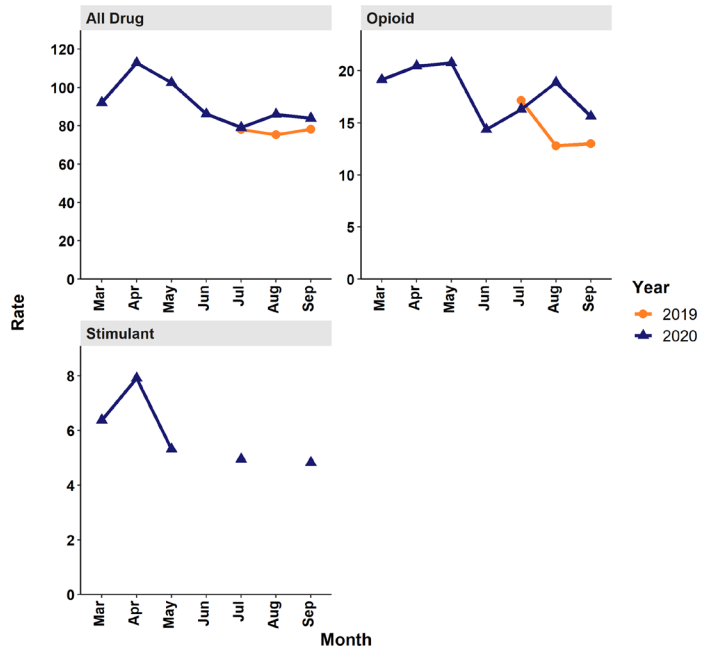


Figure 1. Total ED Visits, Illinois

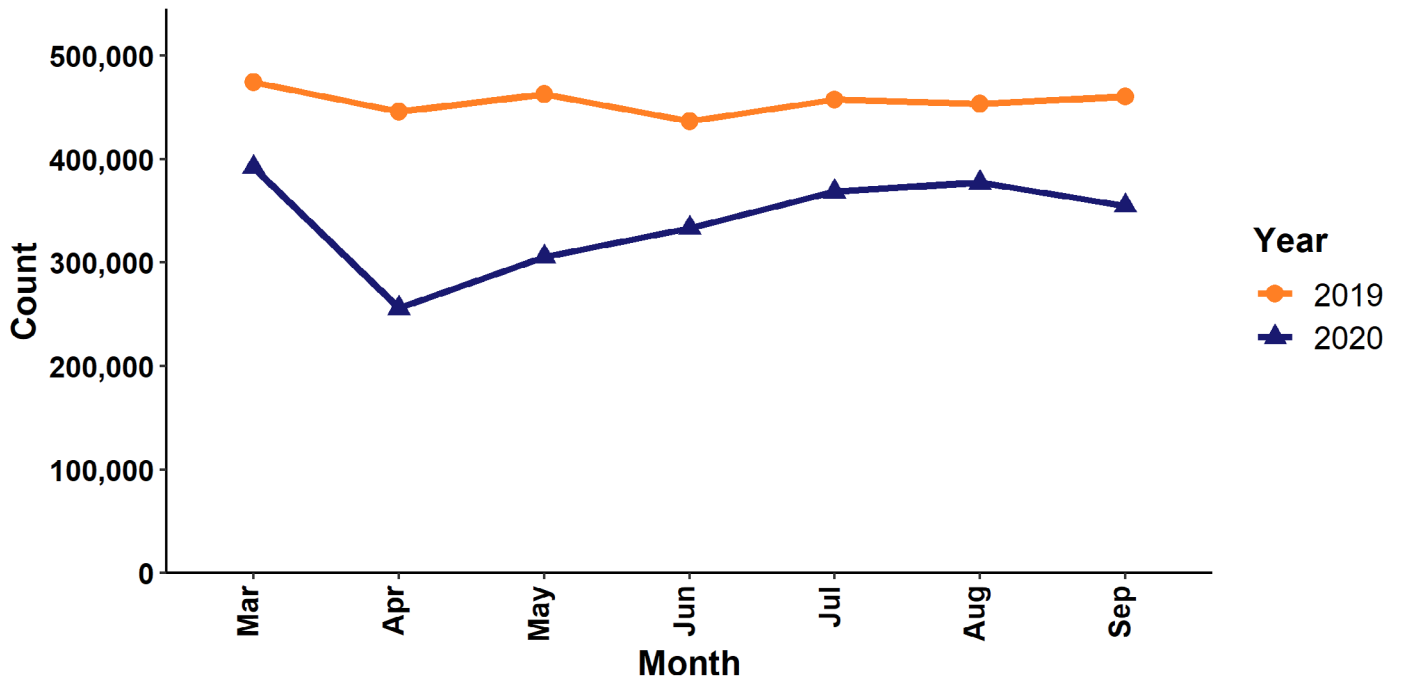


Figure 2. Total ED Visits for Overdoses, by Drug Category, Illinois

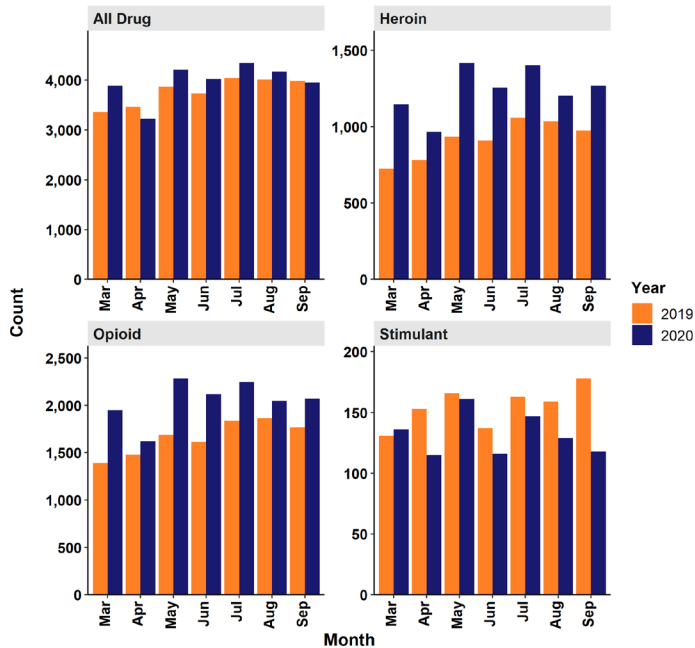


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Illinois

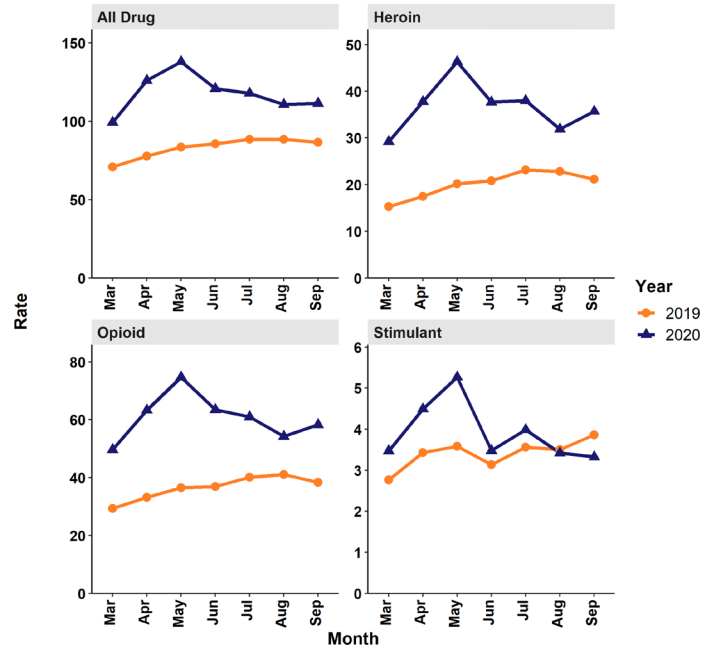


Figure 1. Total ED Visits, Indiana

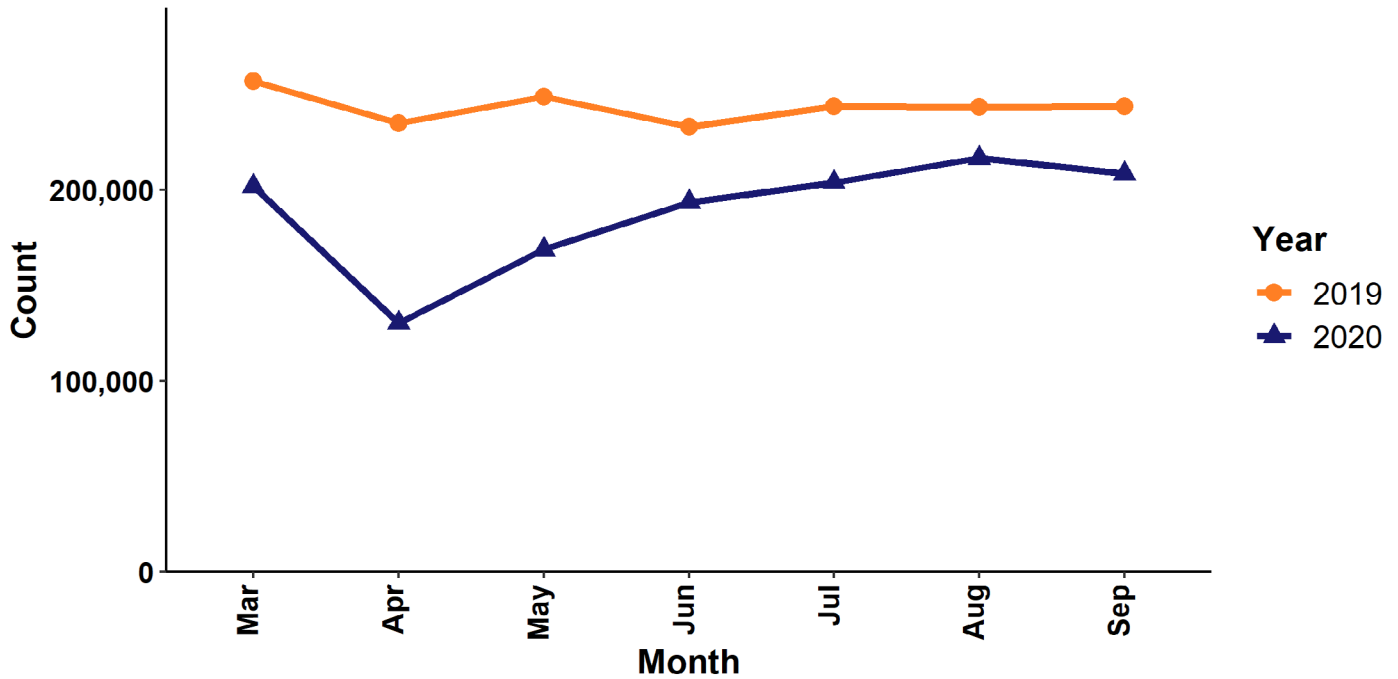


Figure 2. Total ED Visits for Overdoses, by Drug Category, Indiana

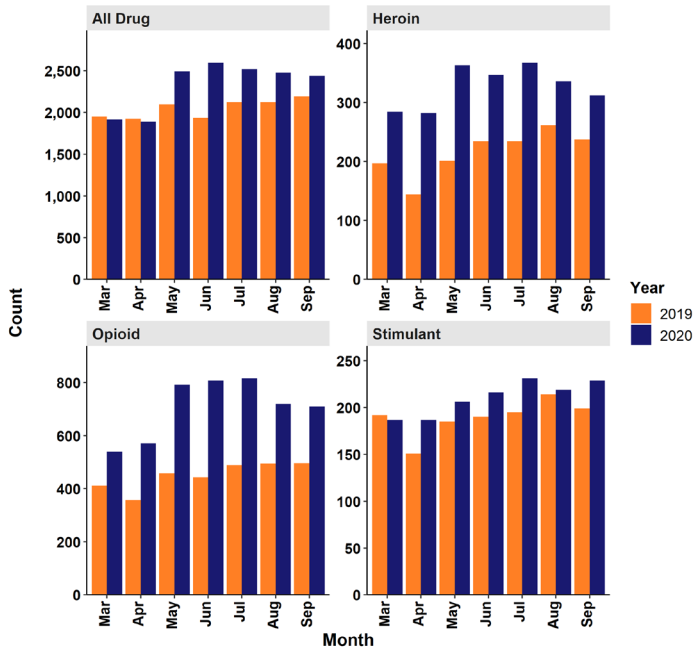


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Indiana

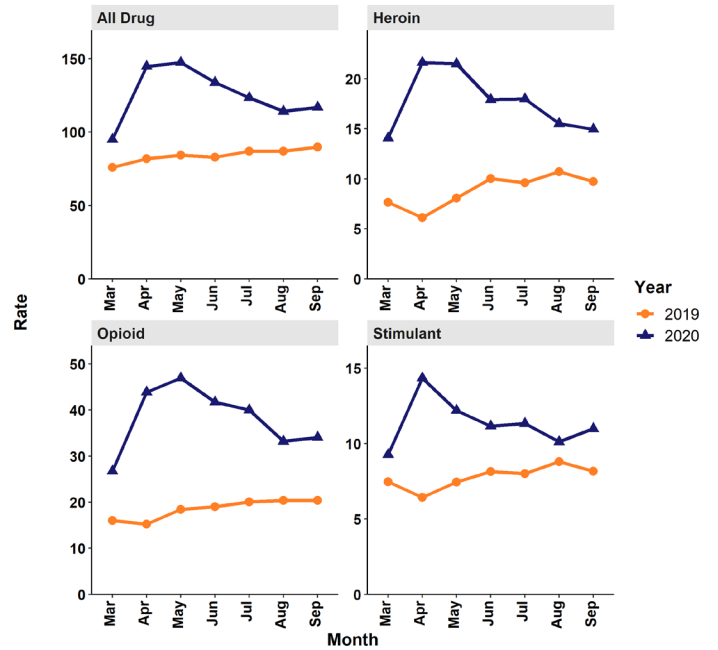


Figure 1. Total ED Visits, Kansas

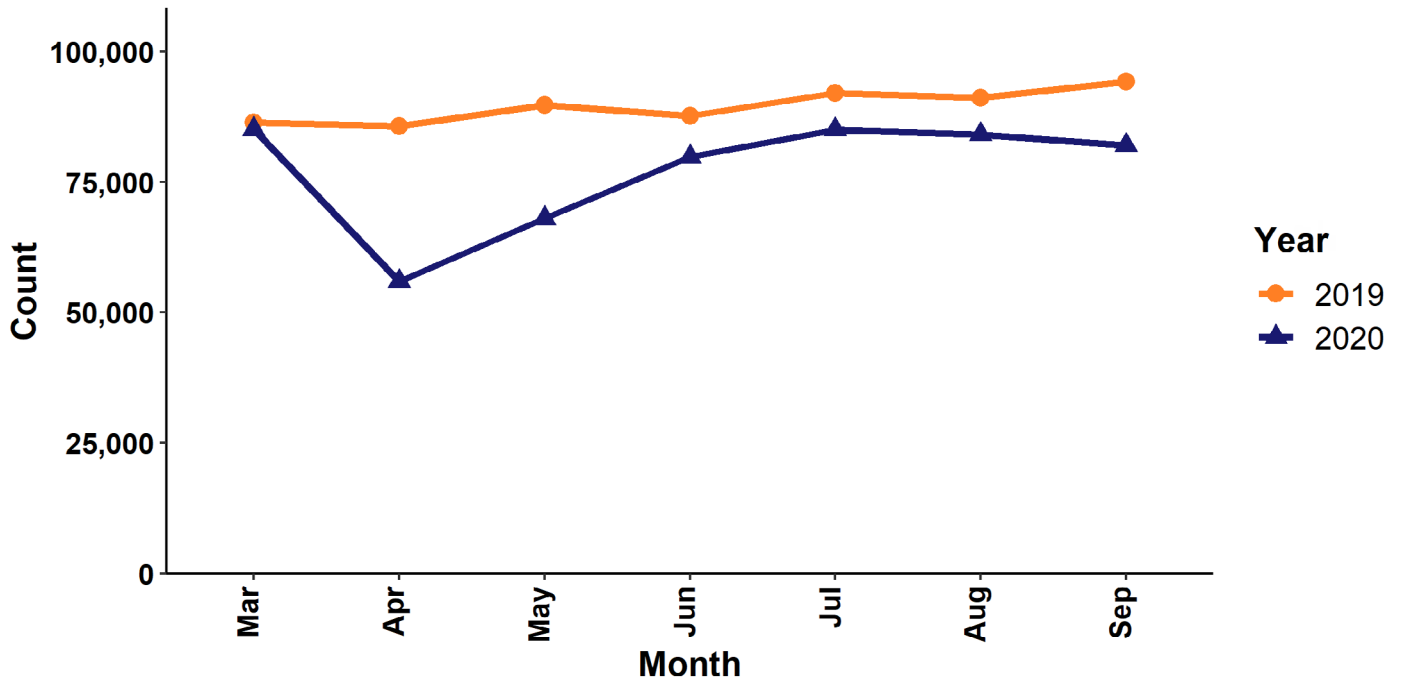


Figure 2. Total ED Visits for Overdoses, by Drug Category, Kansas

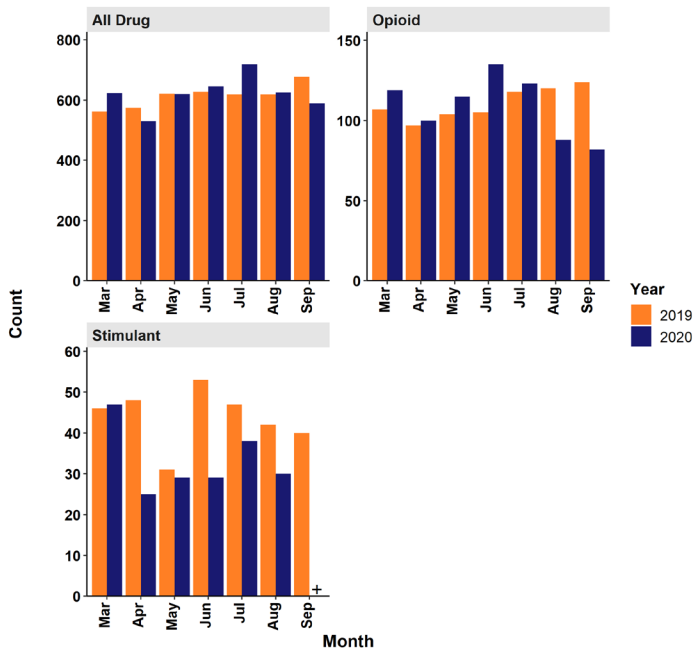


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Kansas

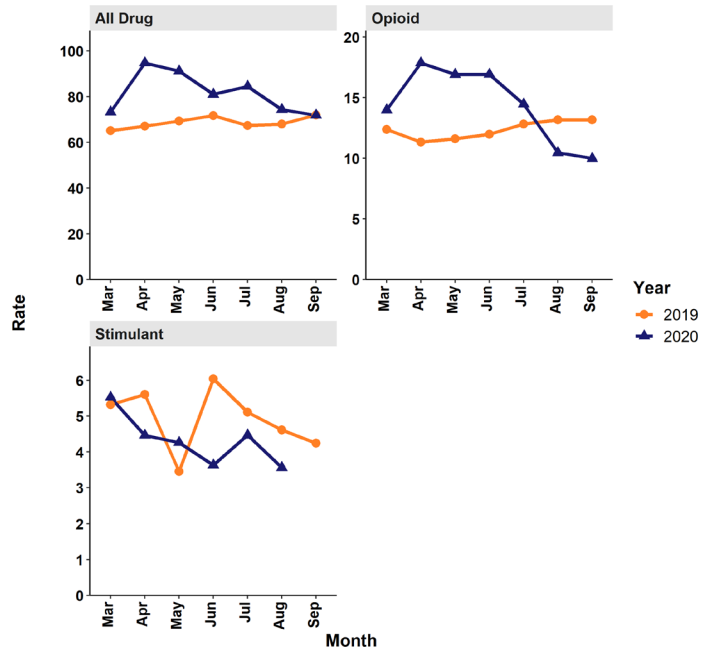


Figure 1. Total ED Visits, Kentucky

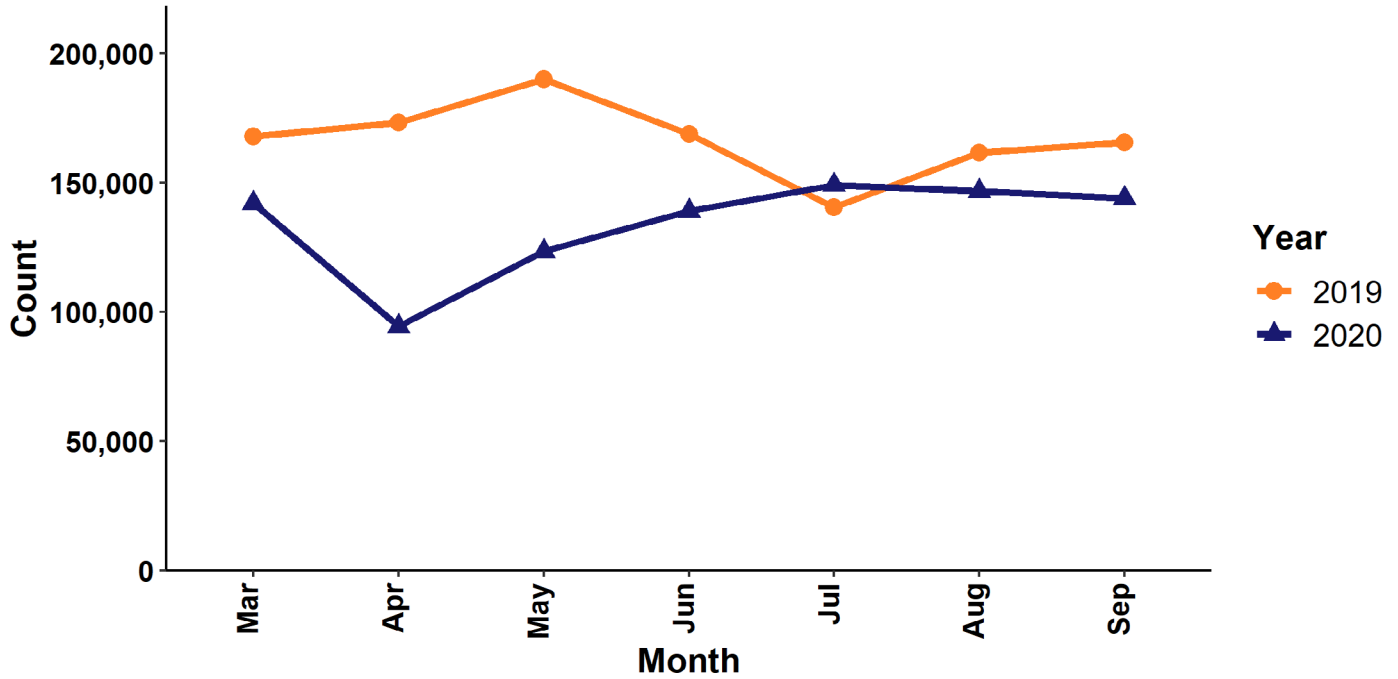


Figure 2. Total ED Visits for Overdoses, by Drug Category, Kentucky

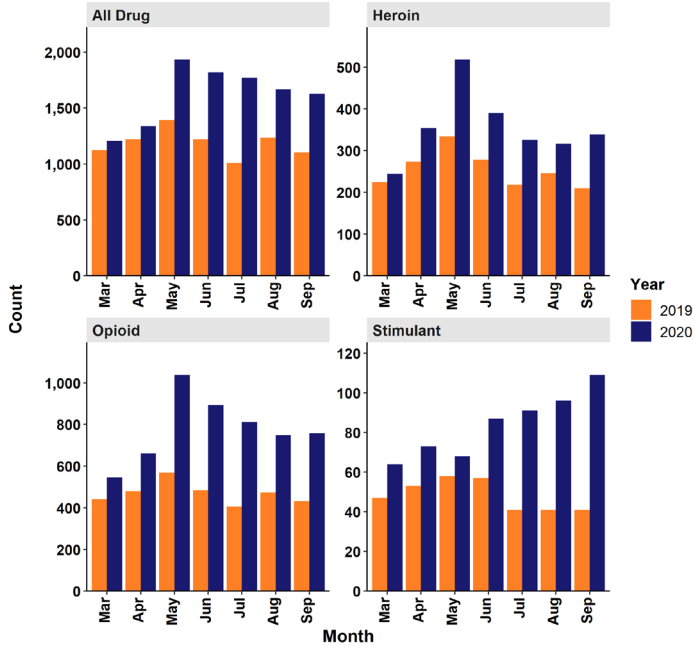


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Kentucky

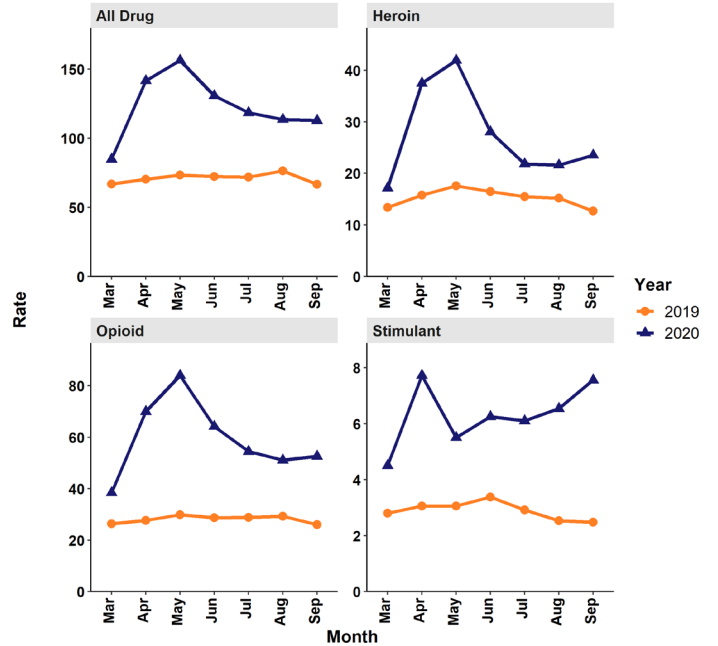


Figure 1. Total ED Visits, Louisiana

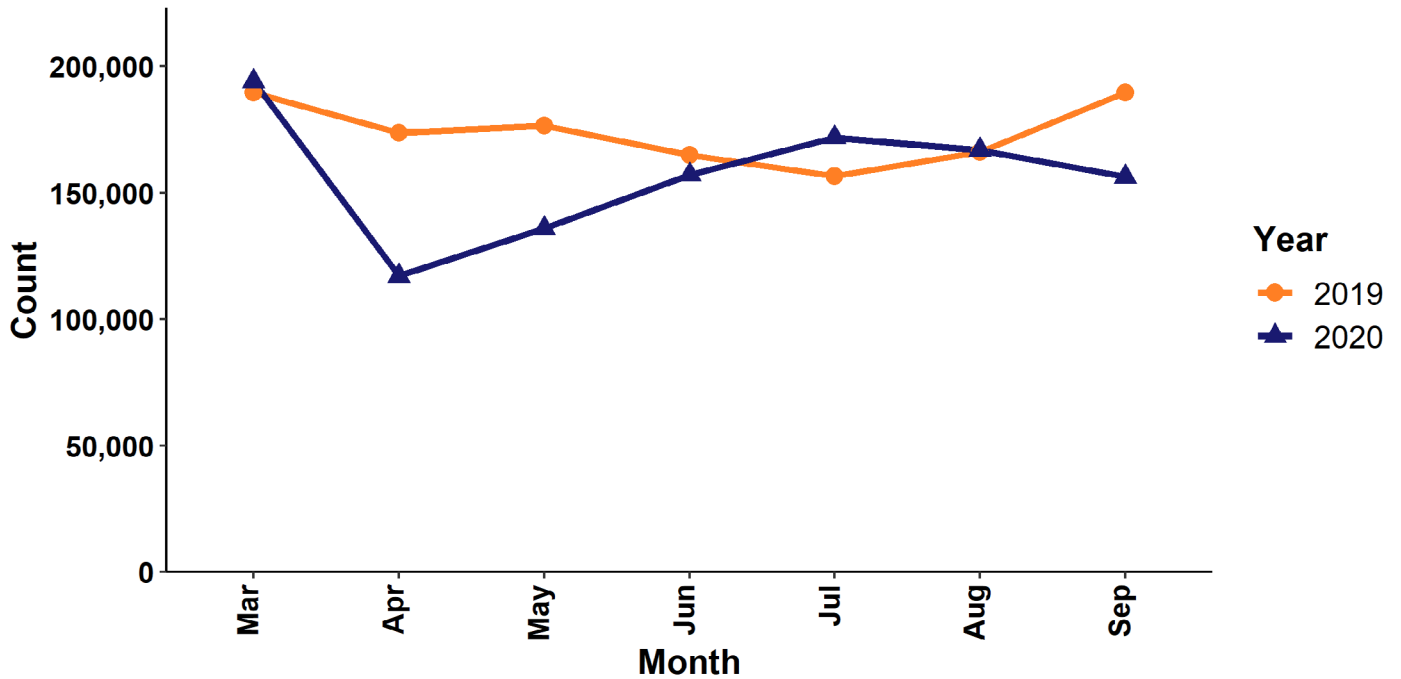


Figure 2. Total ED Visits for Overdoses, by Drug Category, Louisiana

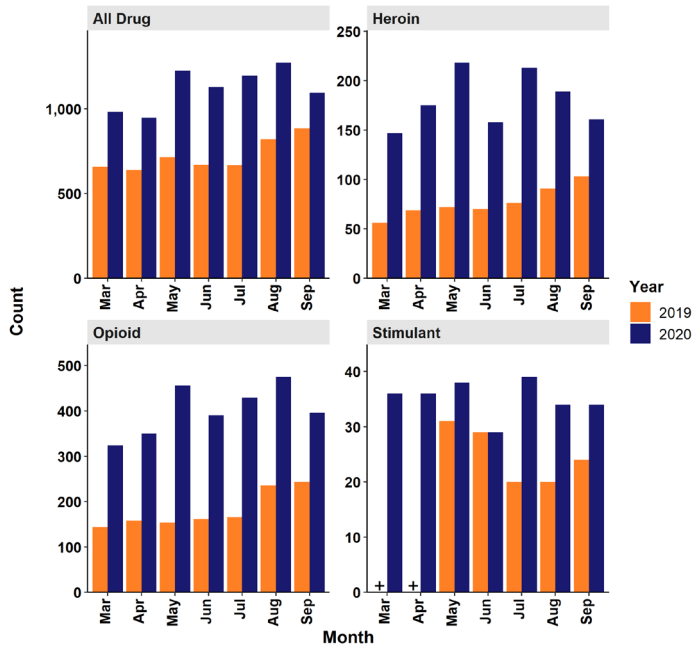


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Louisiana

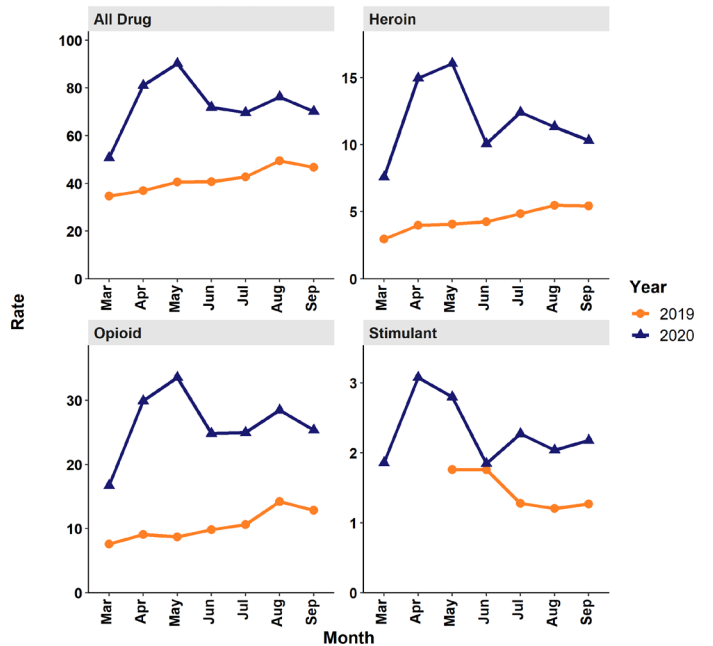


Figure 1. Total ED Visits, Maine

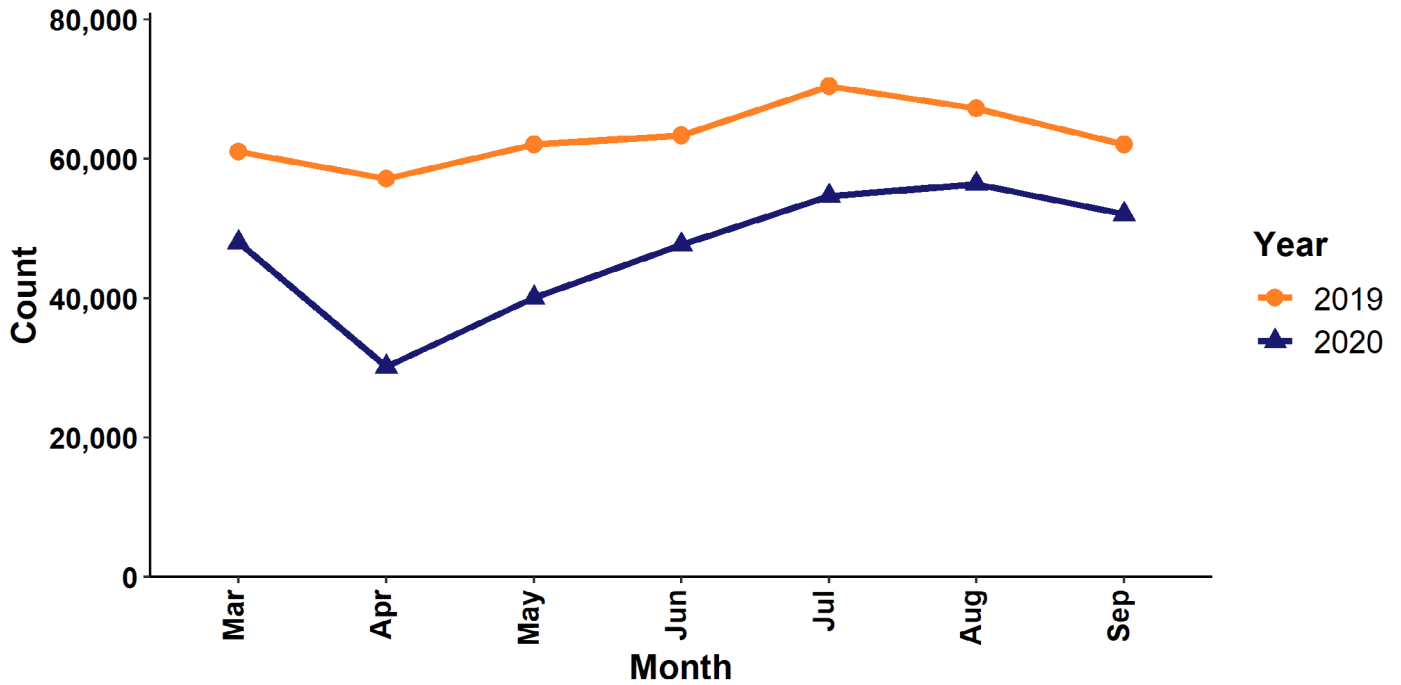


Figure 2. Total ED Visits for Overdoses, by Drug Category, Maine

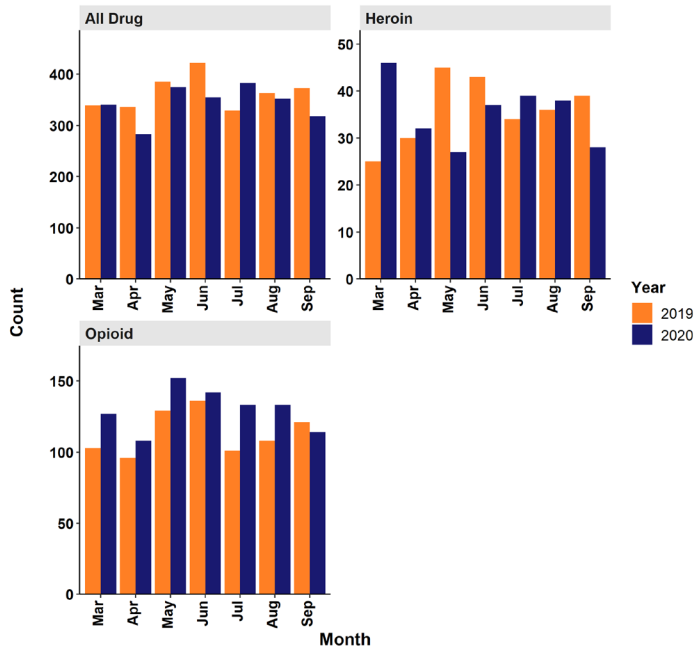


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Maine

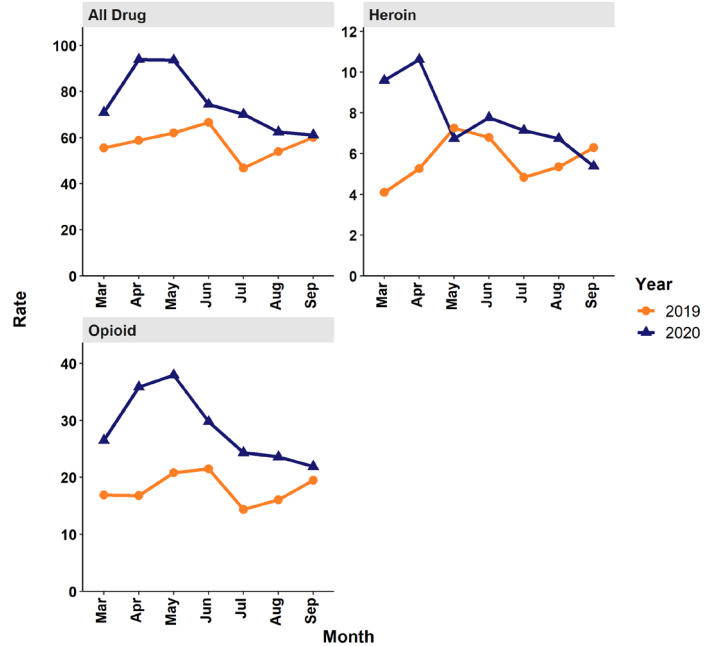


Figure 1. Total ED Visits, Maryland

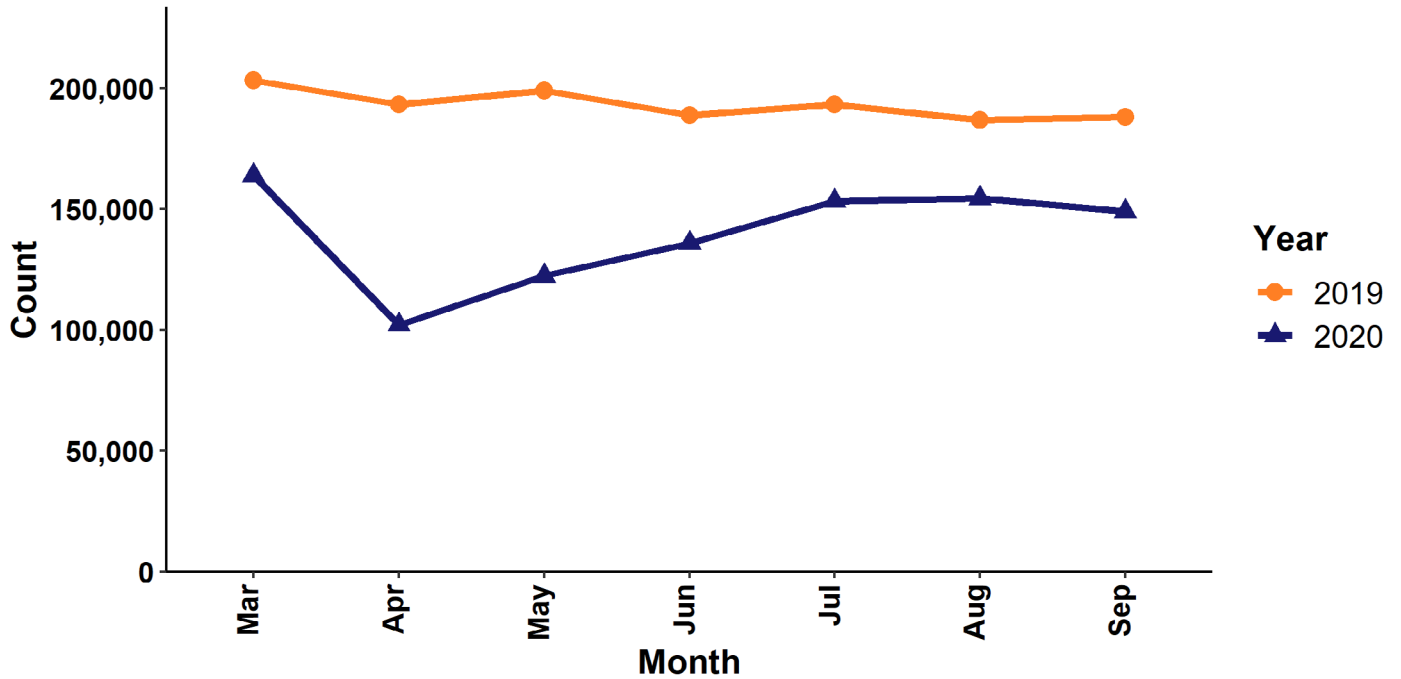


Figure 2. Total ED Visits for Overdoses, by Drug Category, Maryland

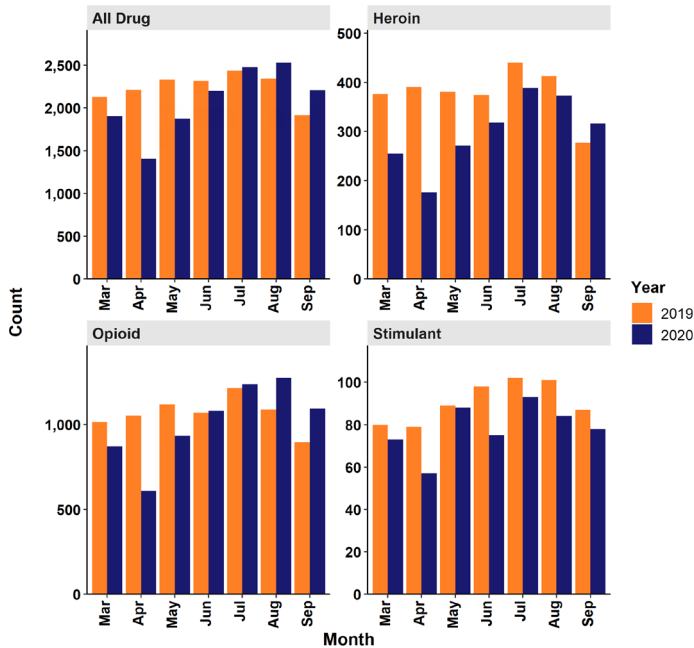


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Maryland

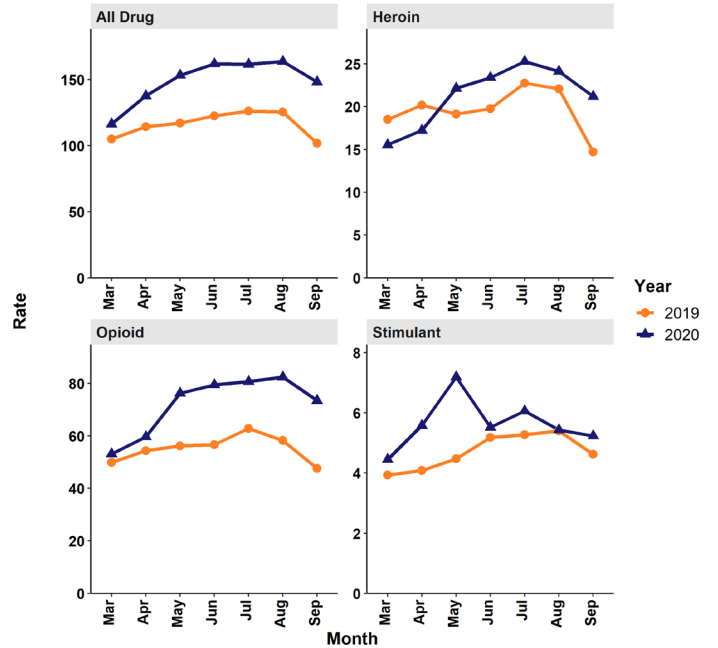


Figure 1. Total ED Visits, Massachusetts

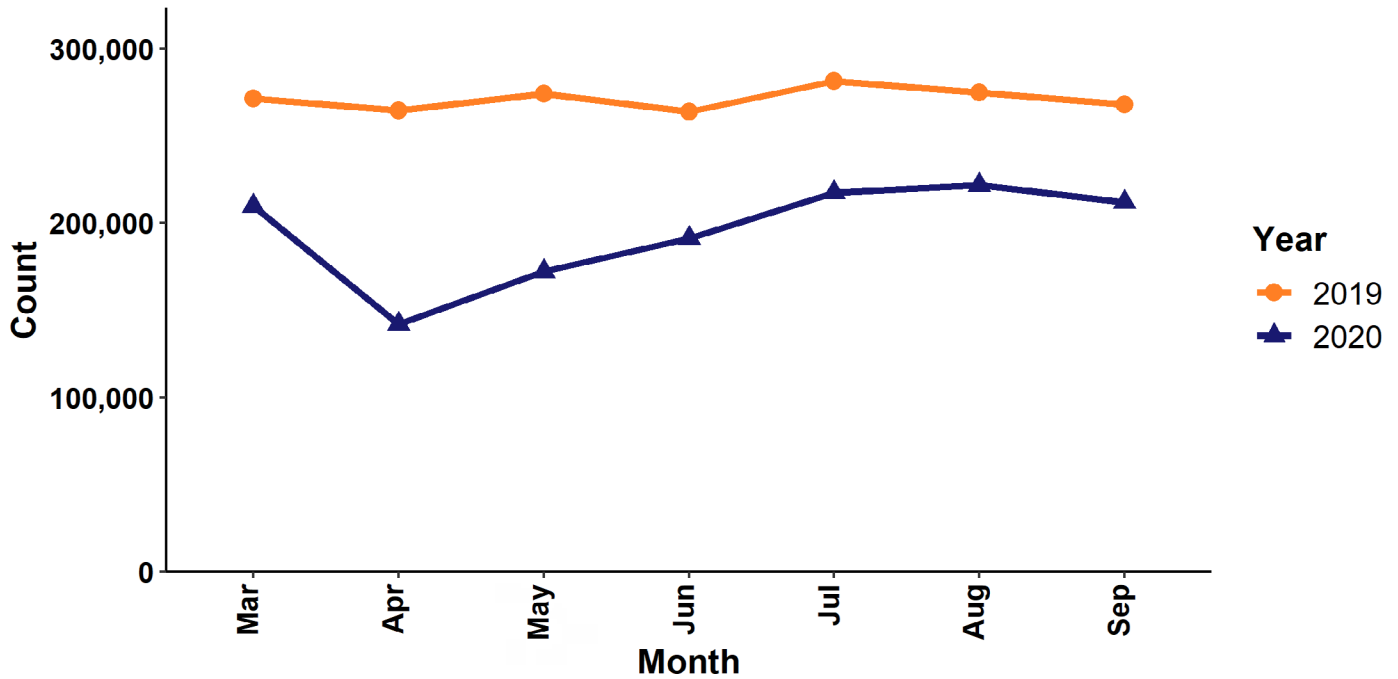


Figure 2. Total ED Visits for Overdoses, by Drug Category, Massachusetts

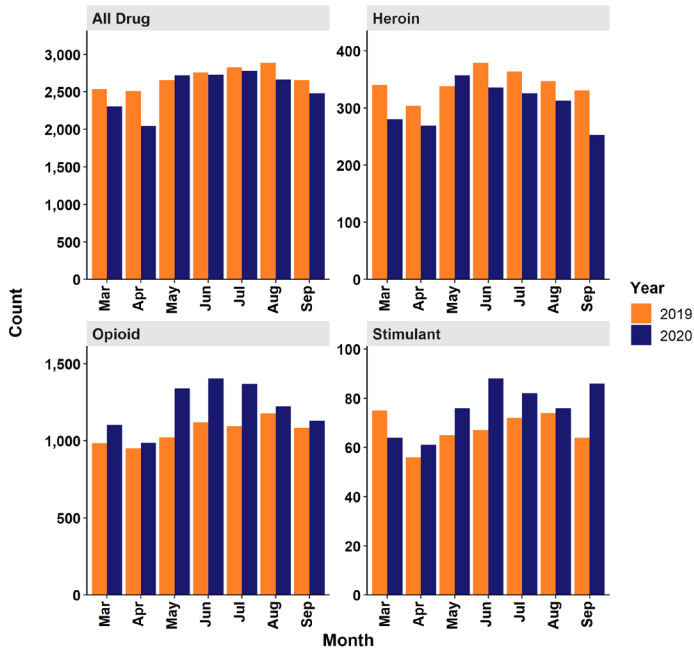


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Massachusetts

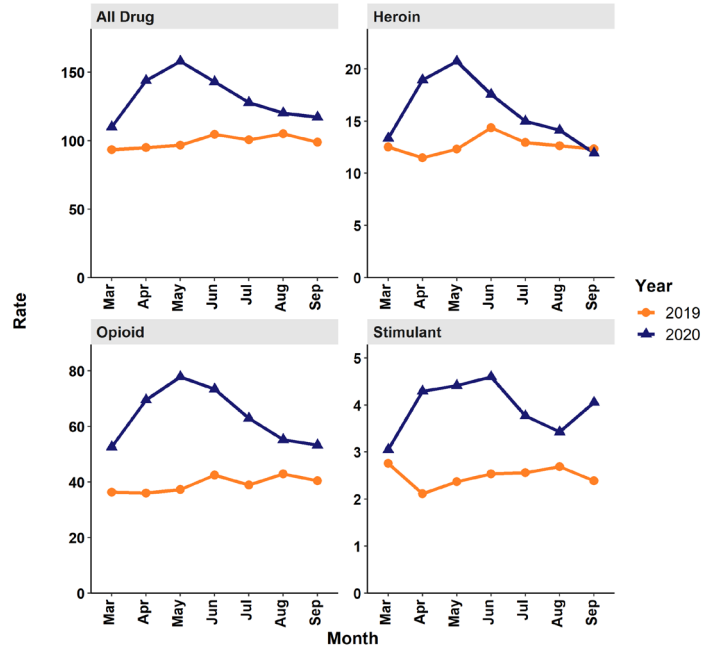


Figure 1. Total ED Visits, Michigan

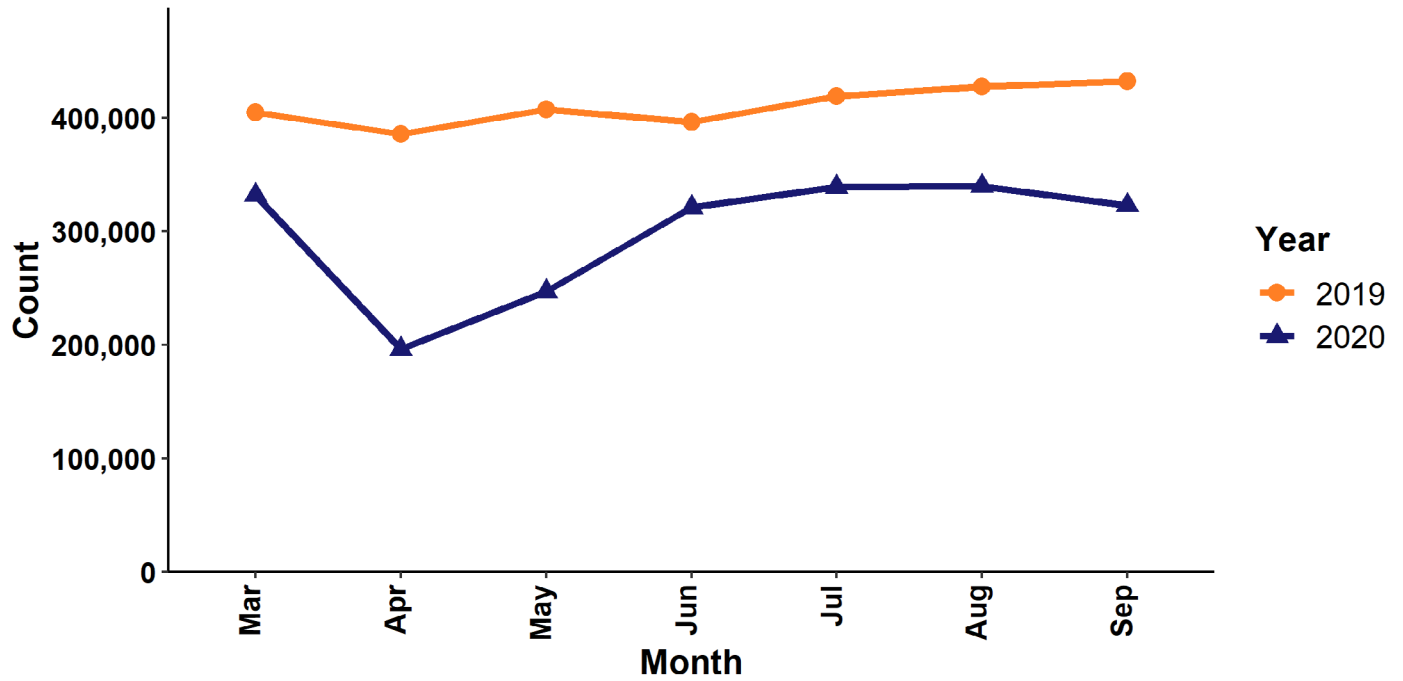


Figure 2. Total ED Visits for Overdoses, by Drug Category, Michigan

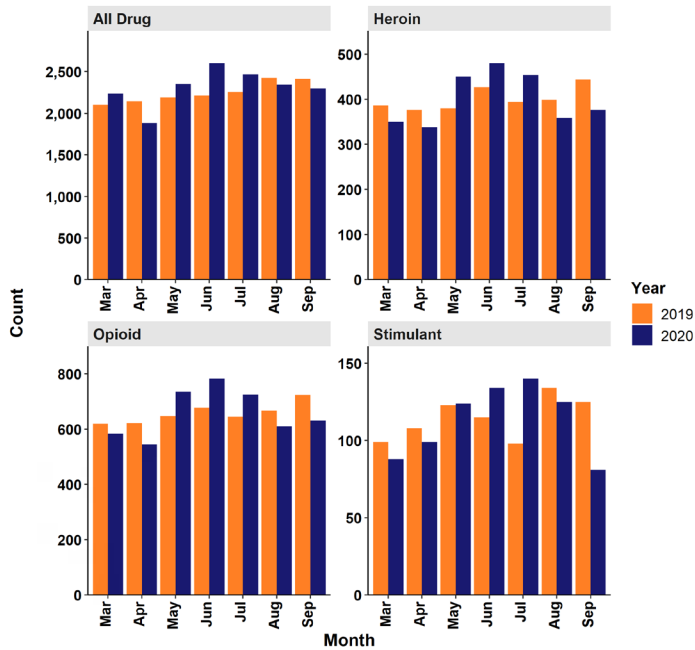


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Michigan

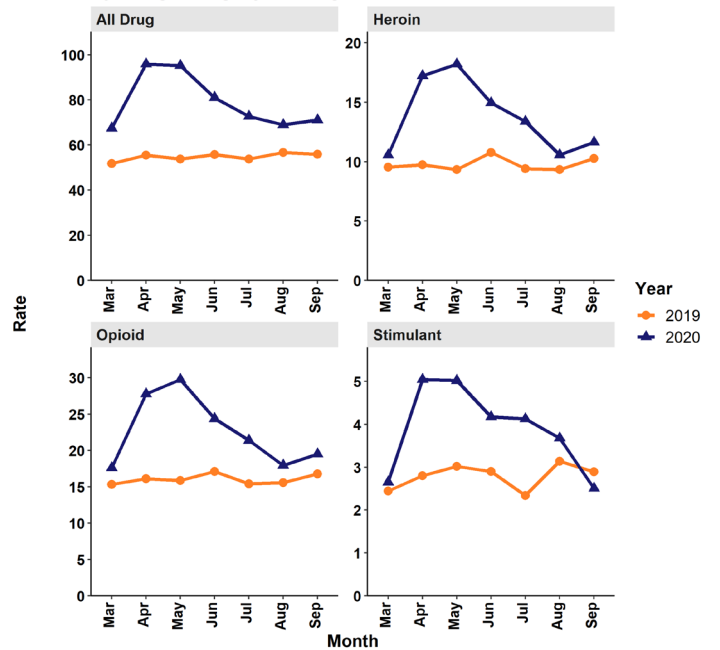


Figure 1. Total ED Visits, Mississippi

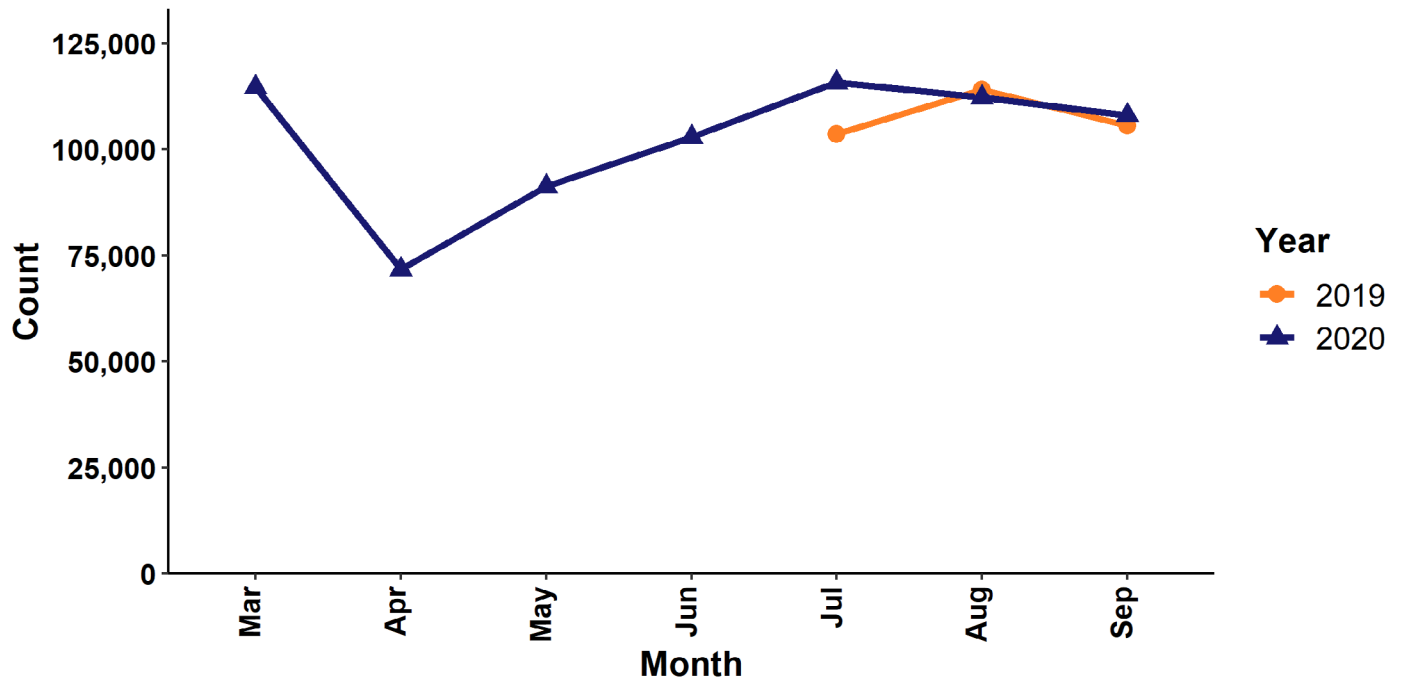


Figure 2. Total ED Visits for Overdoses, by Drug Category, Mississippi

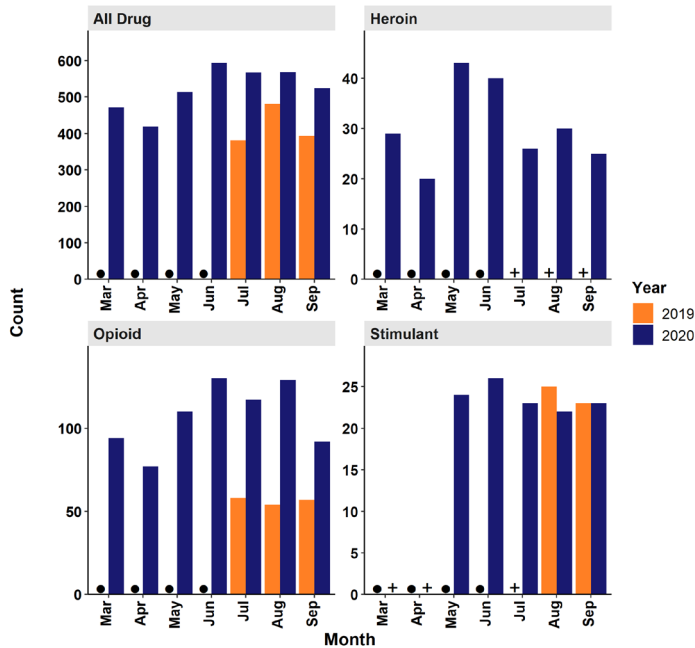


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Mississippi

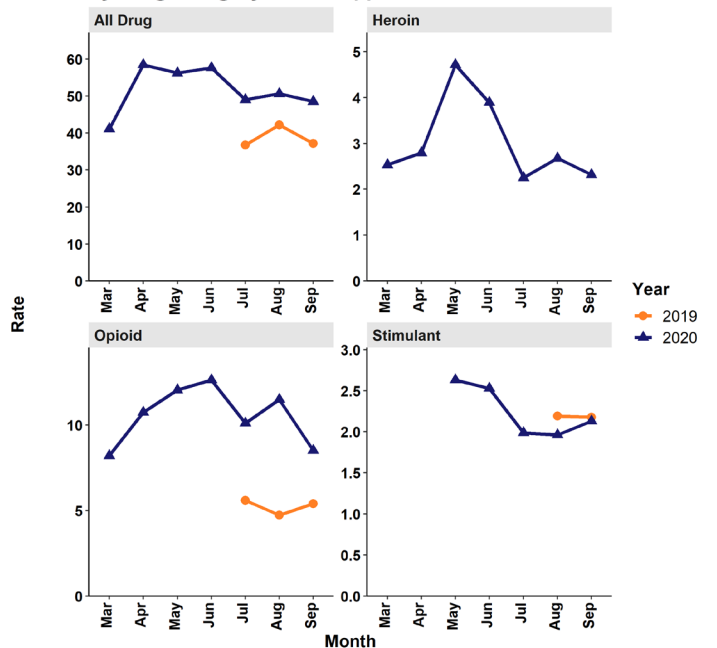


Figure 1. Total ED Visits, Missouri

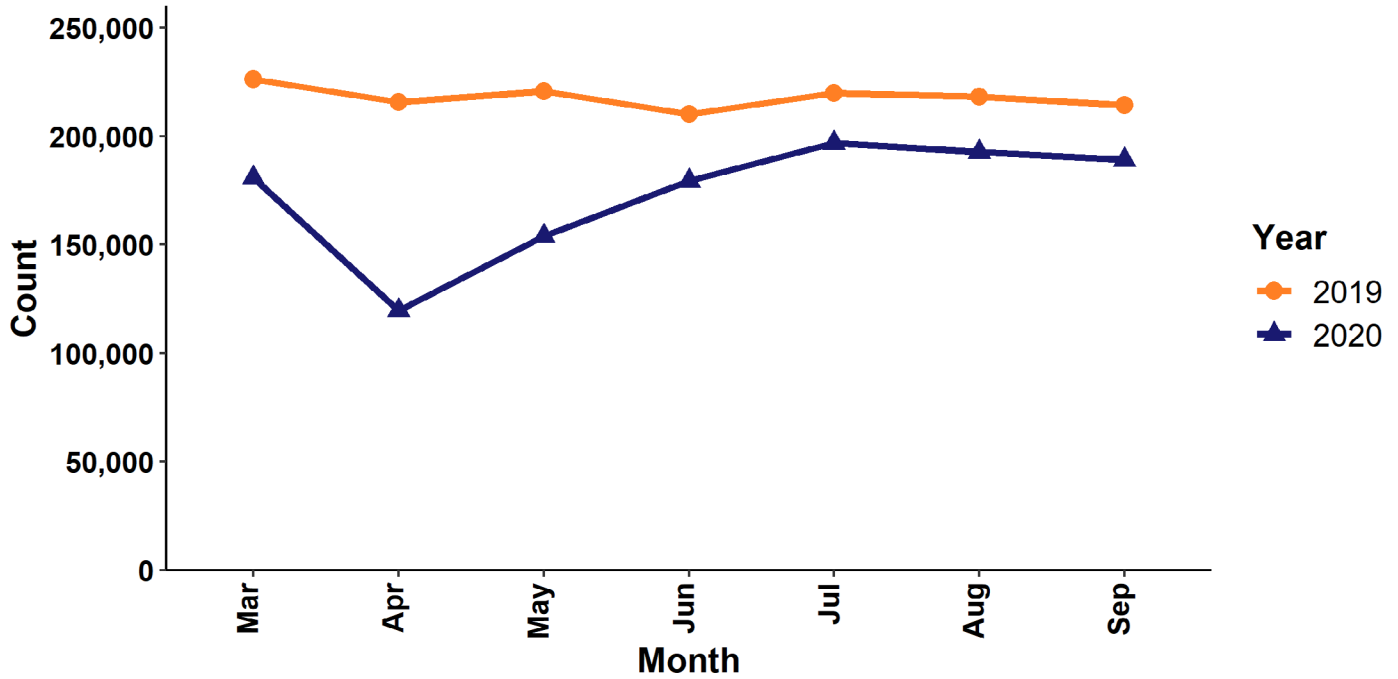


Figure 2. Total ED Visits for Overdoses, by Drug Category, Missouri

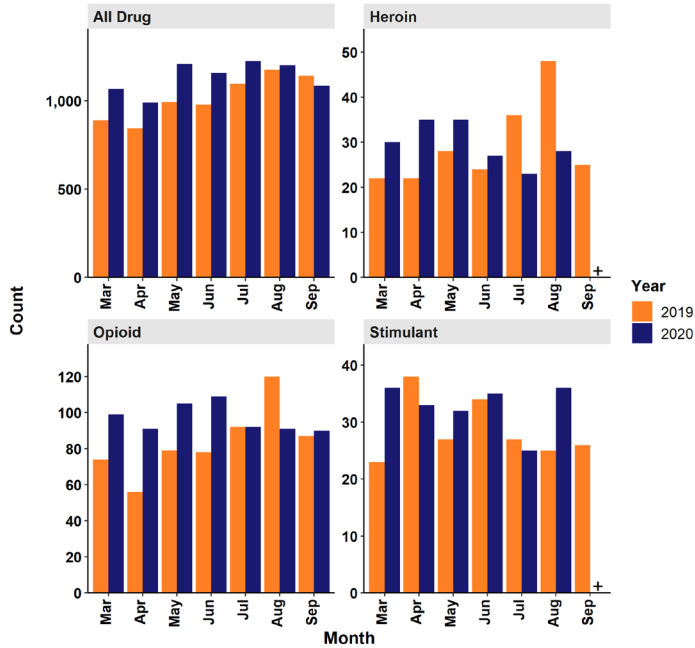


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Missouri

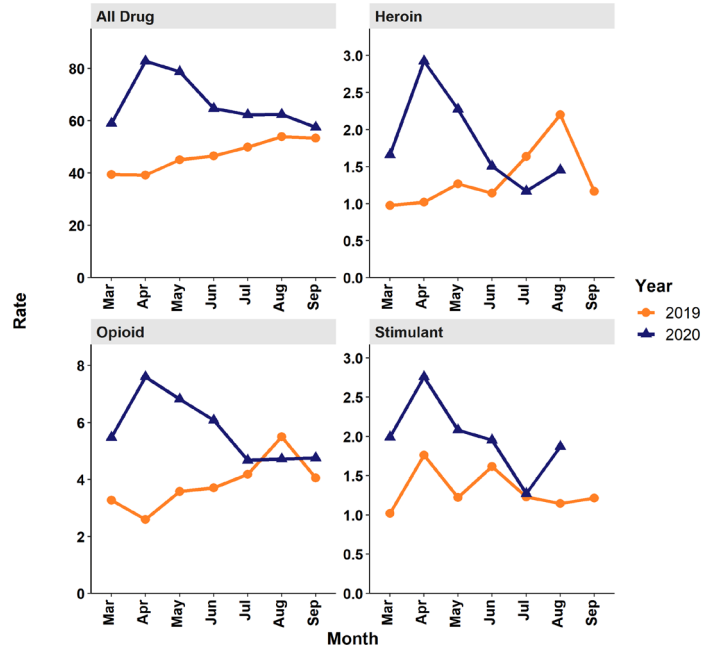


Figure 1. Total ED Visits, Montana

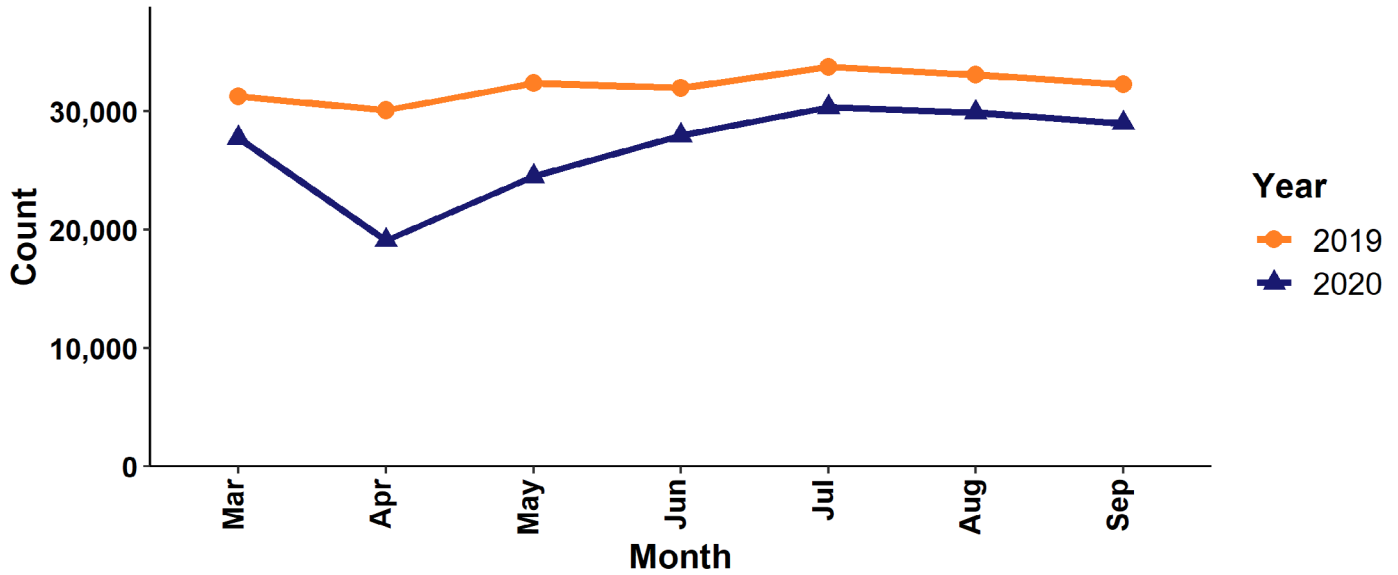


Figure 2. Total ED Visits for Overdoses, by Drug Category, Montana

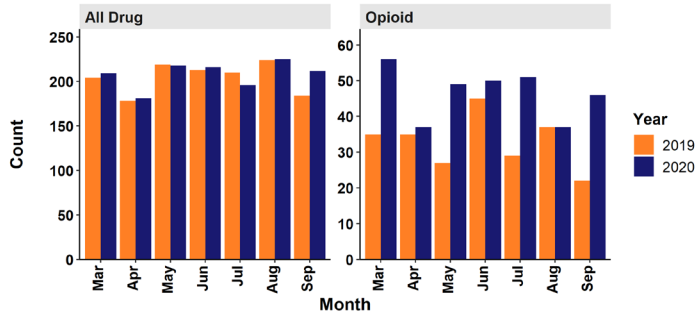


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Montana

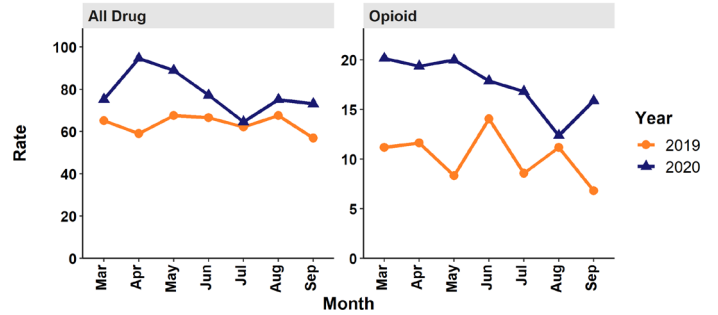


Figure 1. Total ED Visits, Nevada

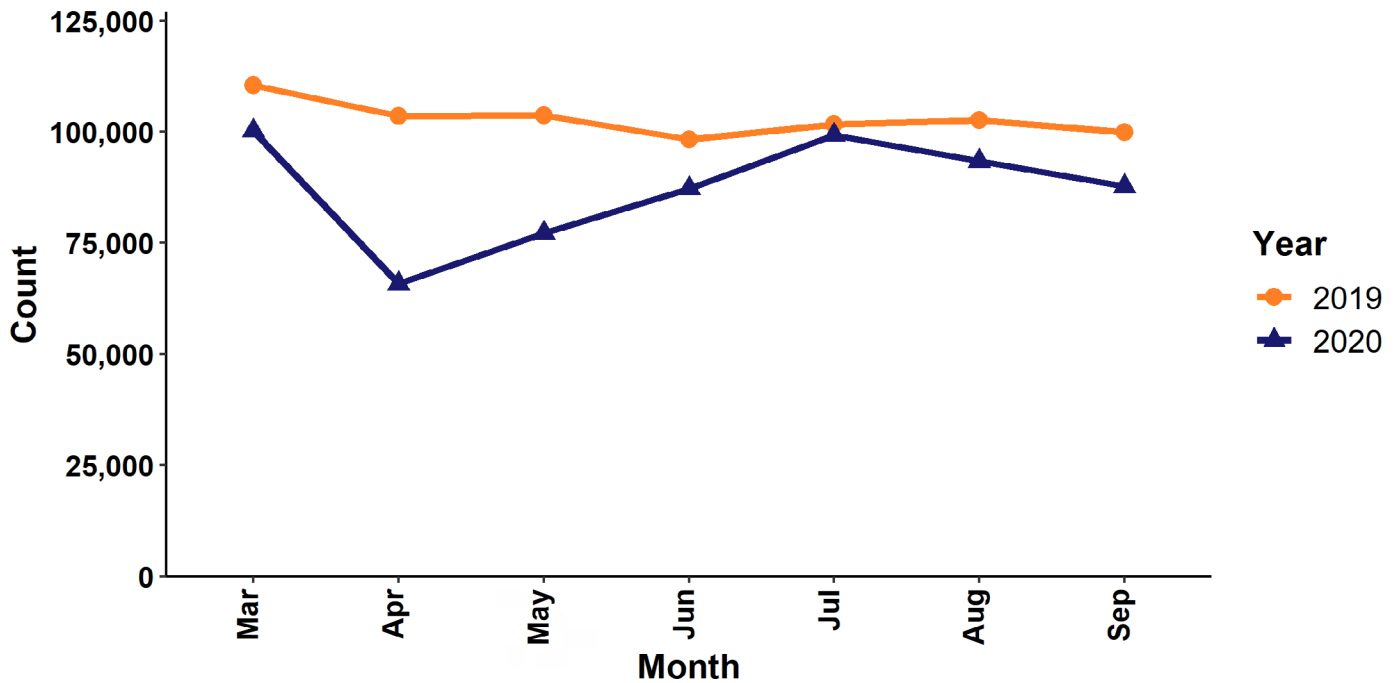


Figure 2. Total ED Visits for Overdoses, by Drug Category, Nevada

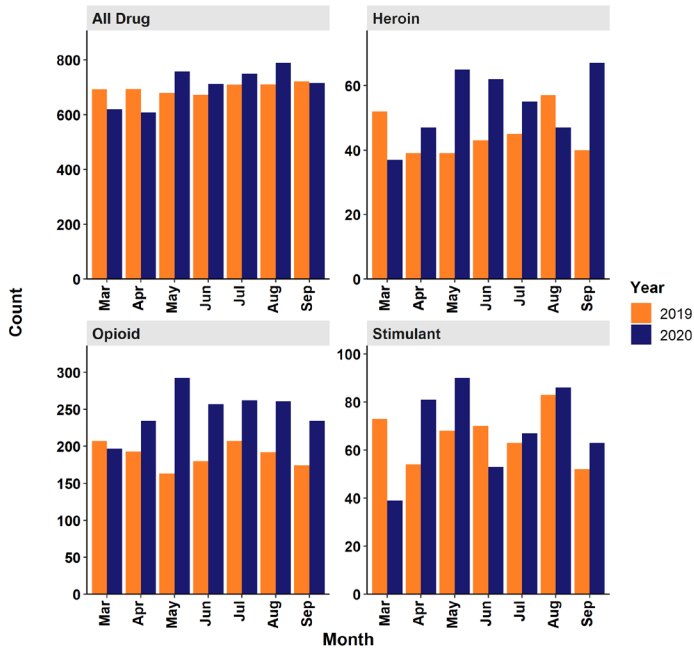


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Nevada

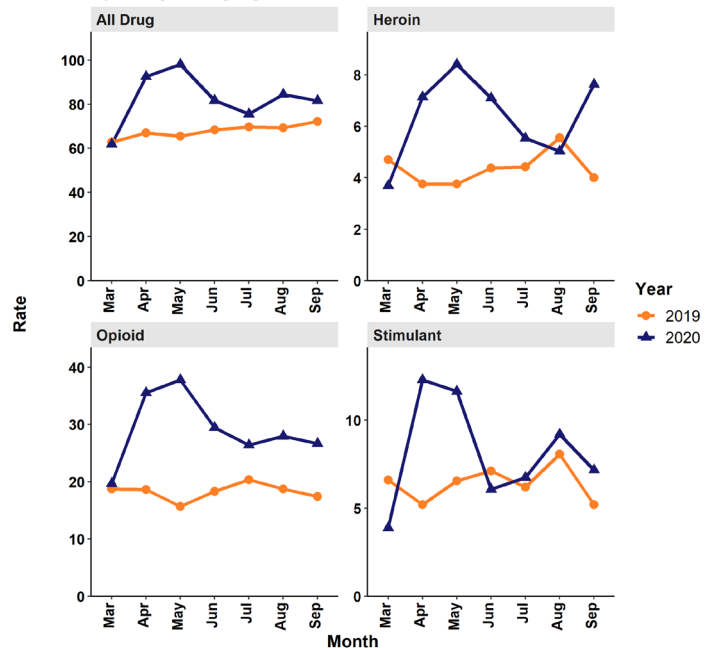


Figure 1. Total ED Visits, New Hampshire

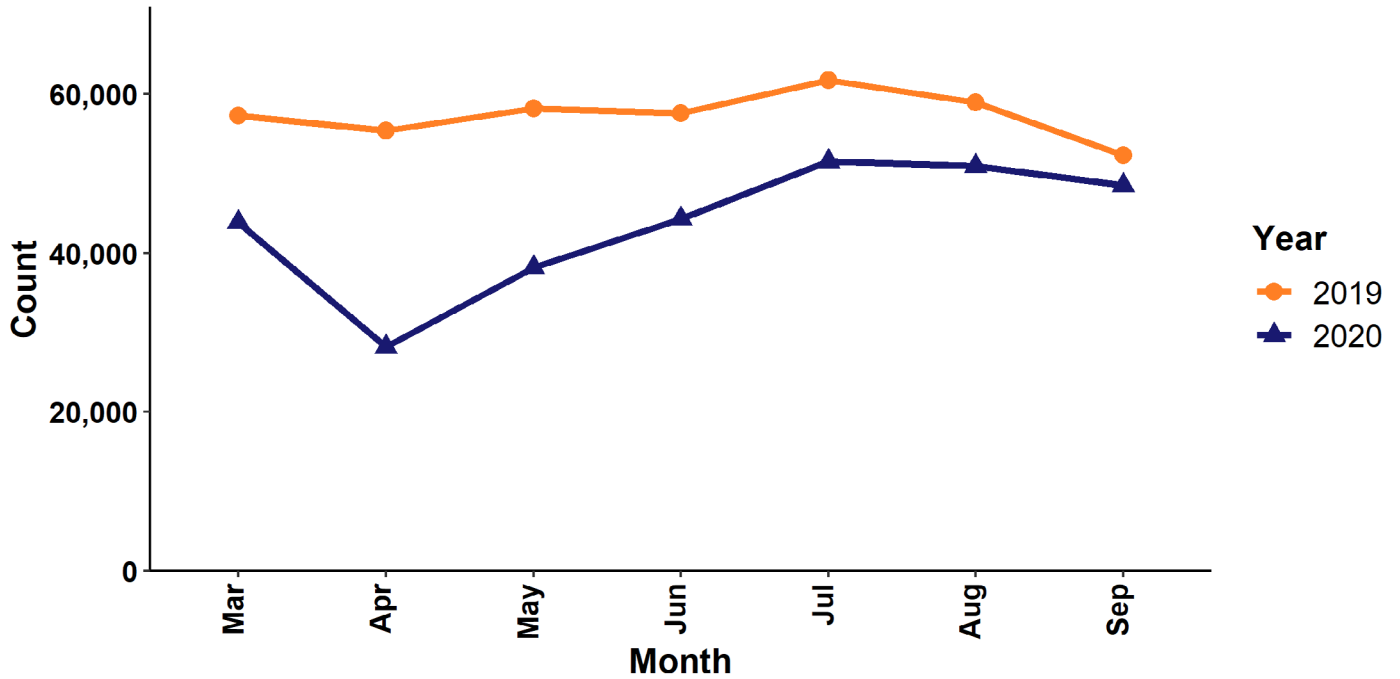


Figure 2. Total ED Visits for Overdoses, by Drug Category, New Hampshire

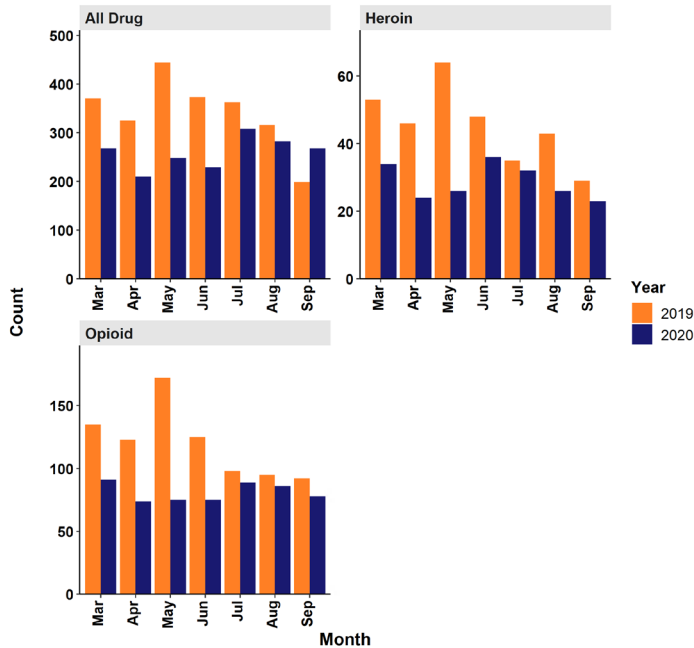


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, New Hampshire

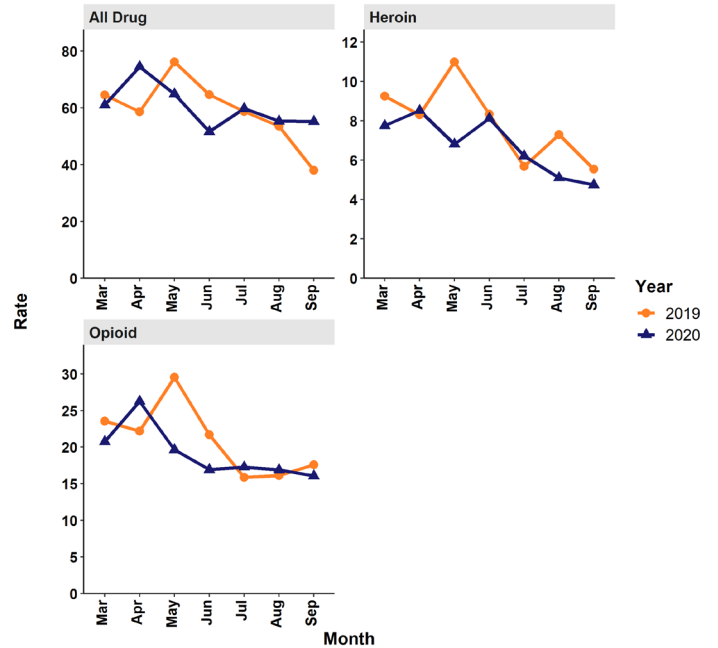


Figure 1. Total ED Visits, New Jersey

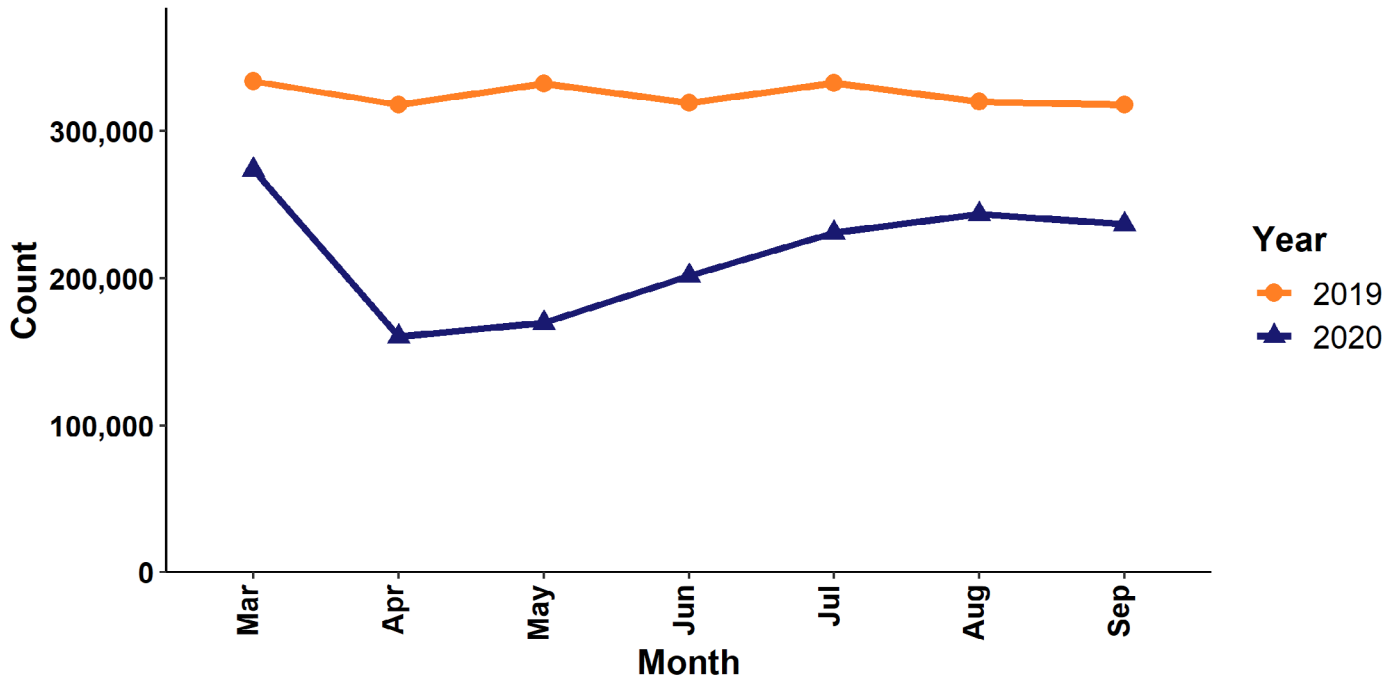


Figure 2. Total ED Visits for Overdoses, by Drug Category, New Jersey

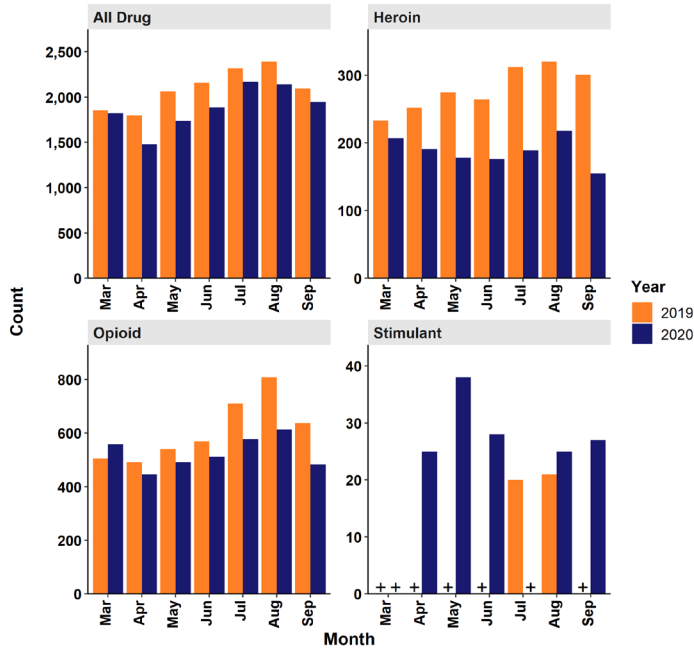


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, New Jersey

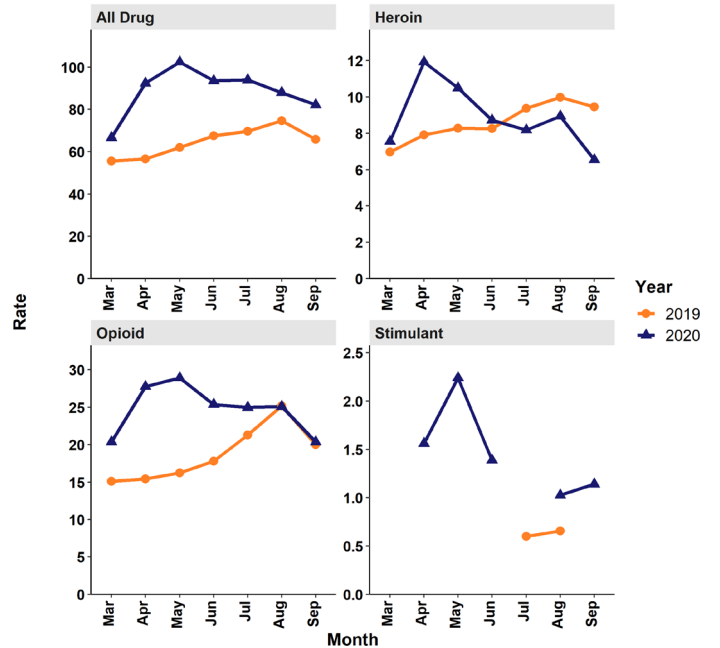


Figure 1. Total ED Visits, New Mexico

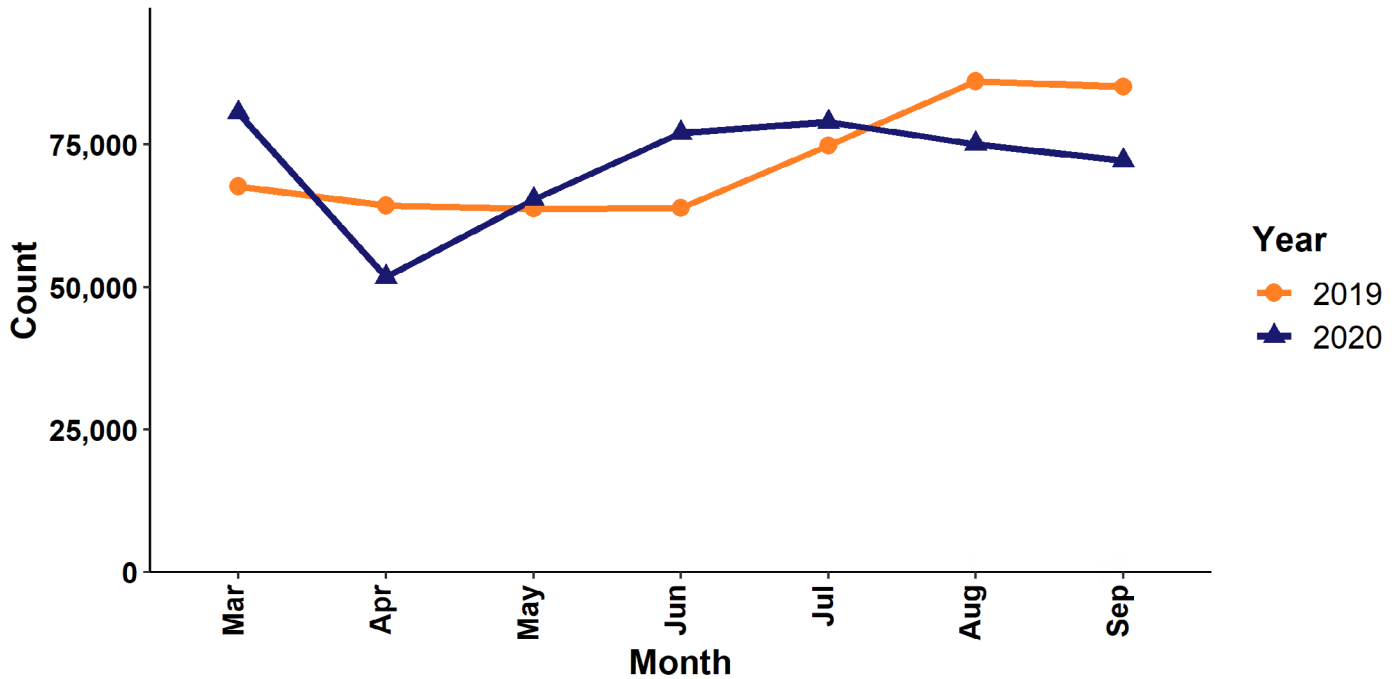


Figure 2. Total ED Visits for Overdoses, by Drug Category, New Mexico

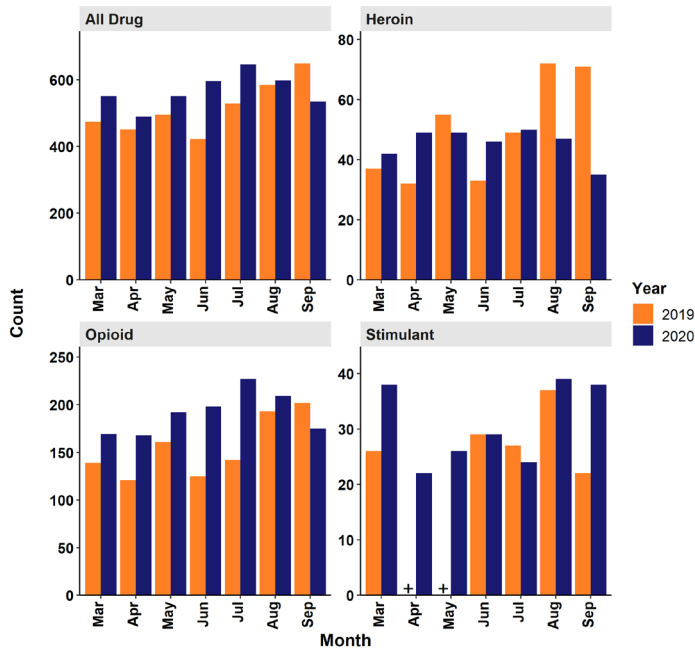


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, New Mexico

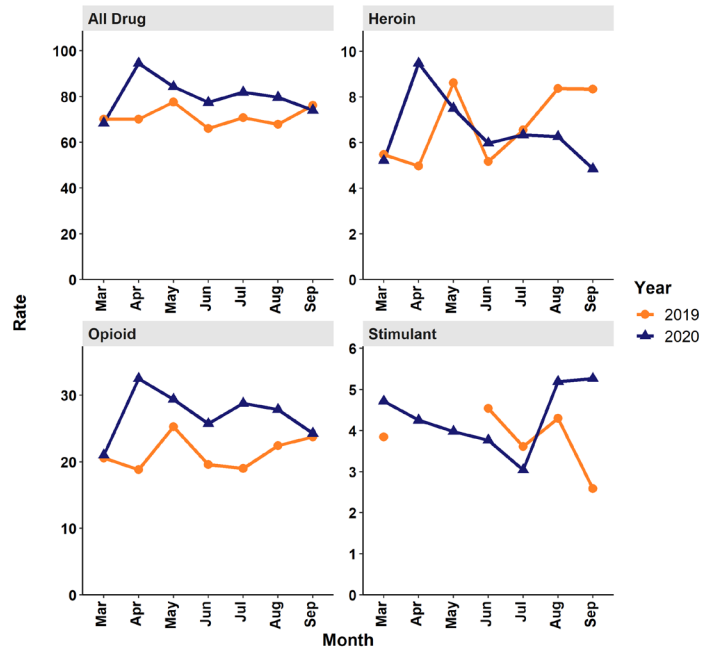


Figure 1. Total ED Visits, New York

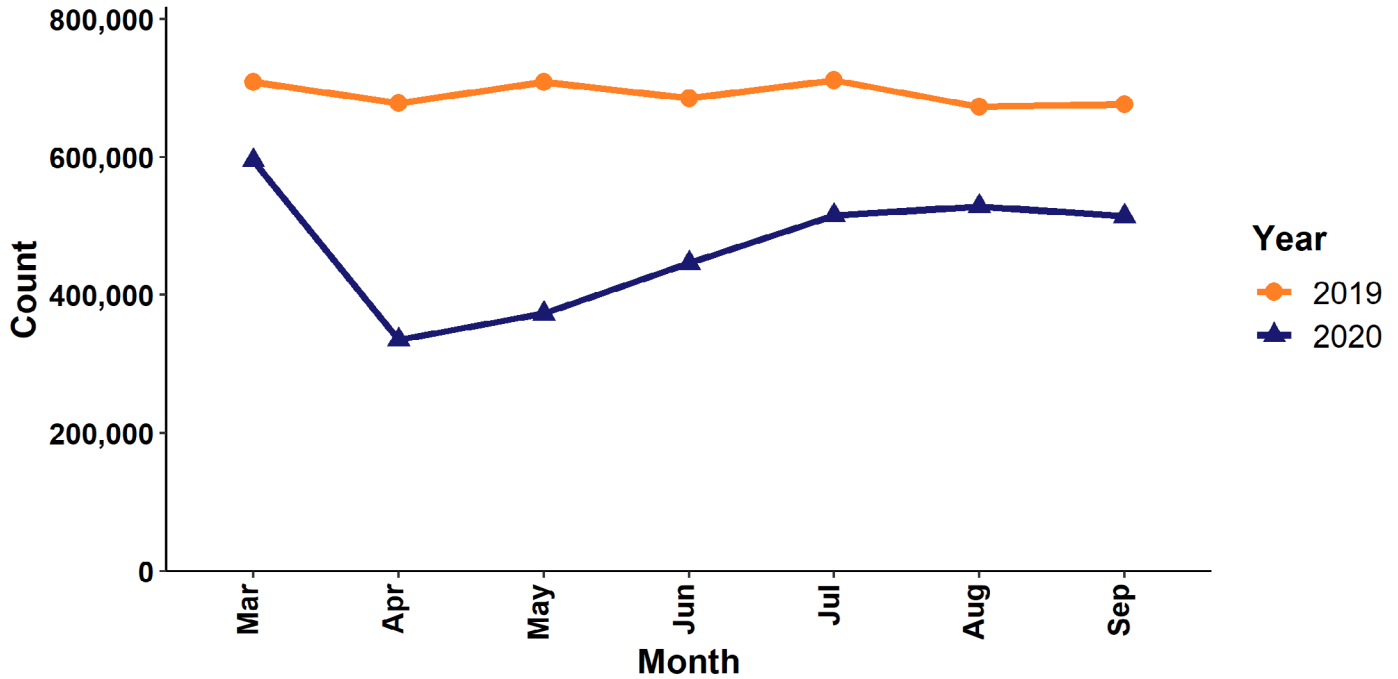


Figure 2. Total ED Visits for Overdoses, by Drug Category, New York

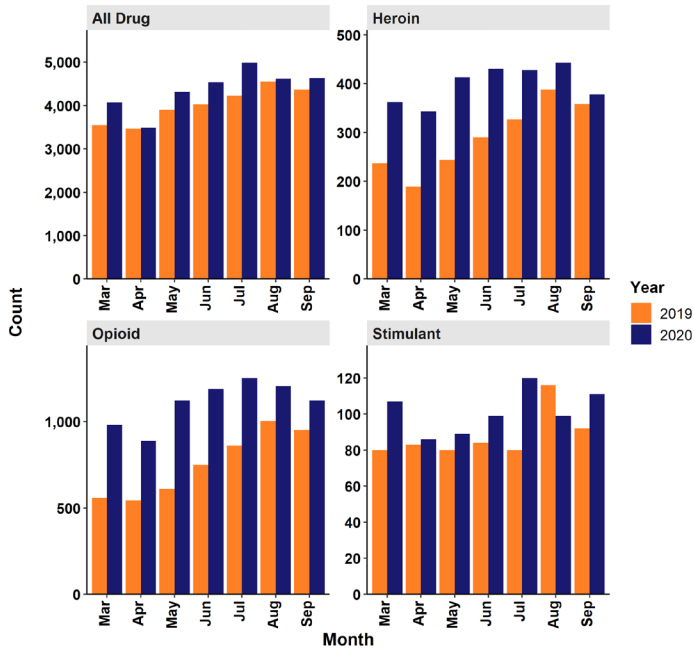


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, New York

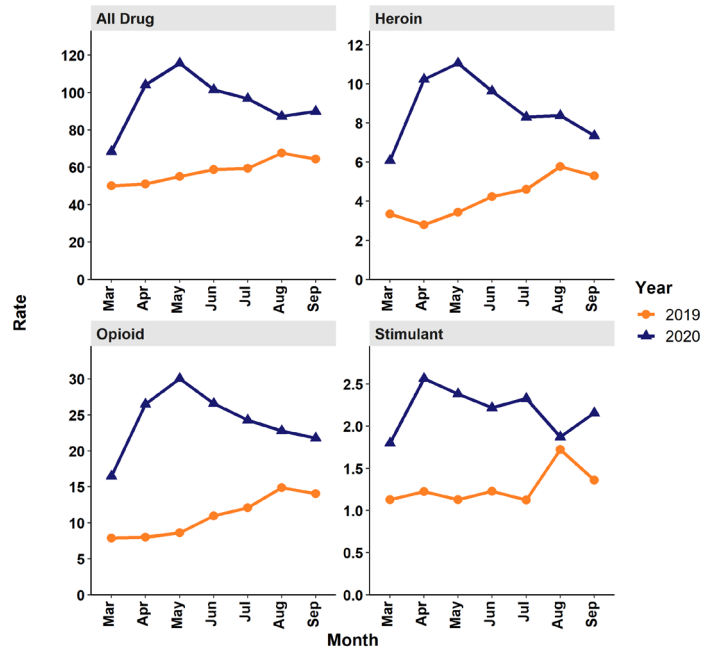


Figure 1. Total ED Visits, North Carolina

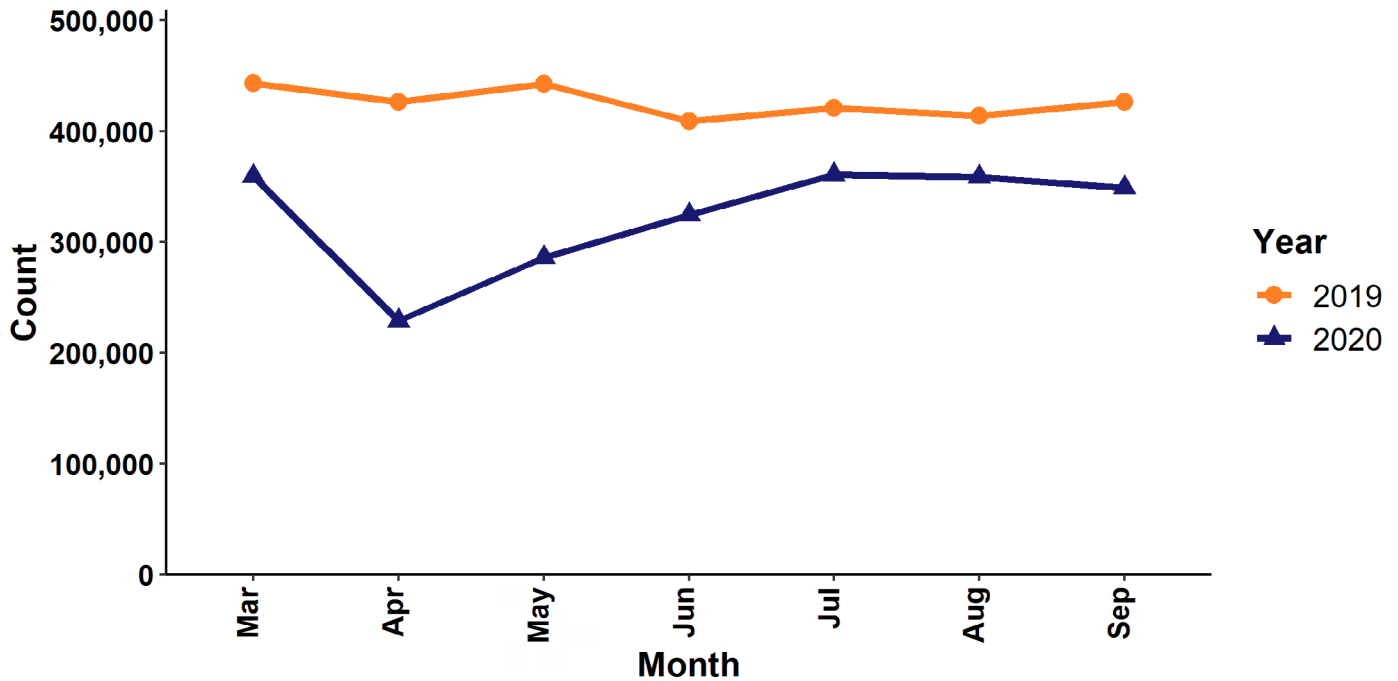


Figure 2. Total ED Visits for Overdoses, by Drug Category, North Carolina

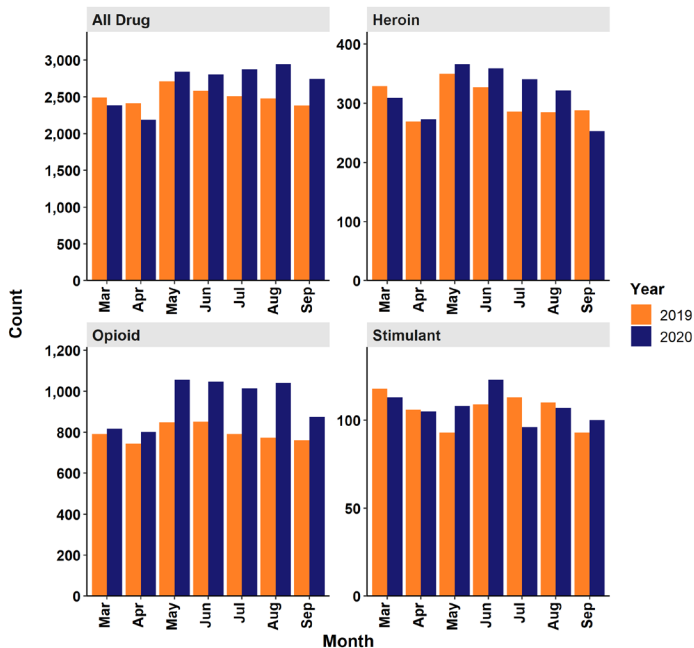


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, North Carolina

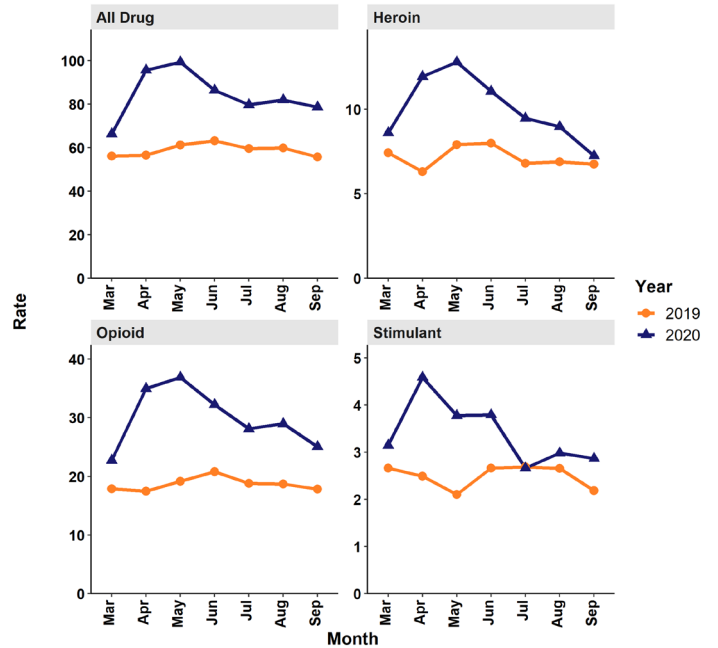


Figure 1. Total ED Visits, Ohio

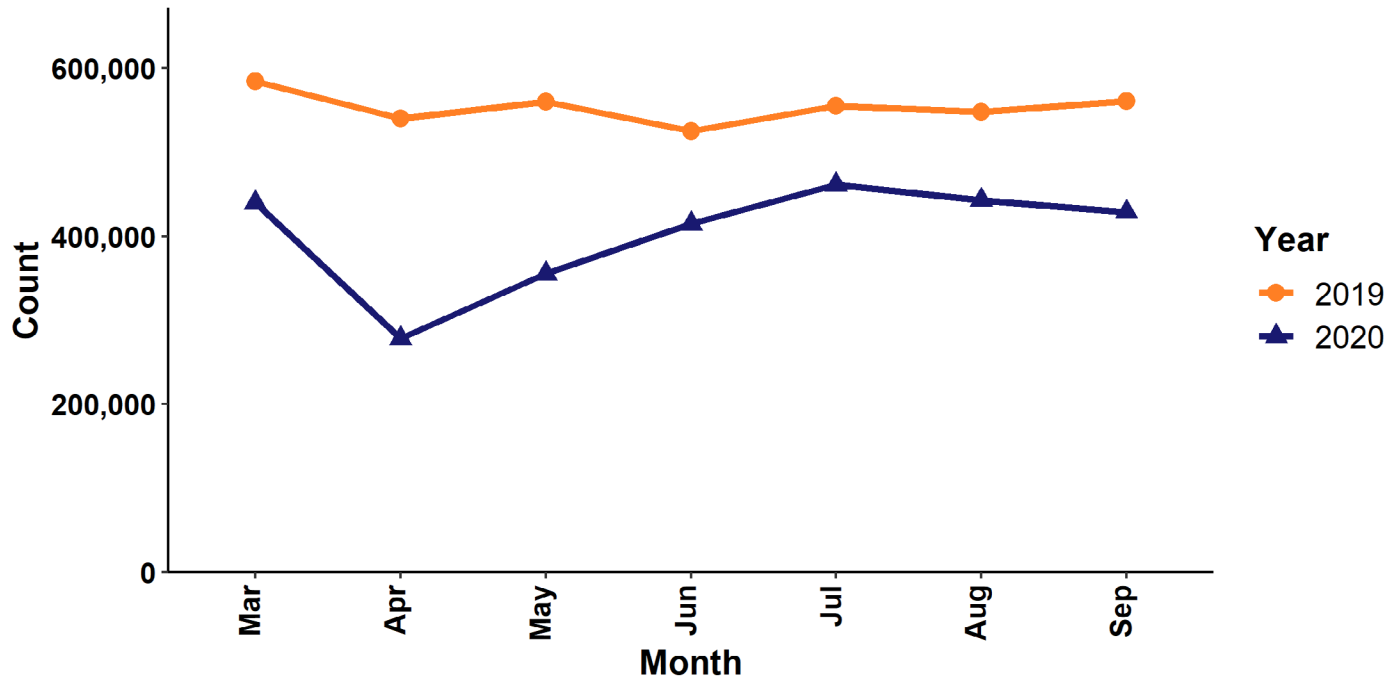


Figure 2. Total ED Visits for Overdoses, by Drug Category, Ohio

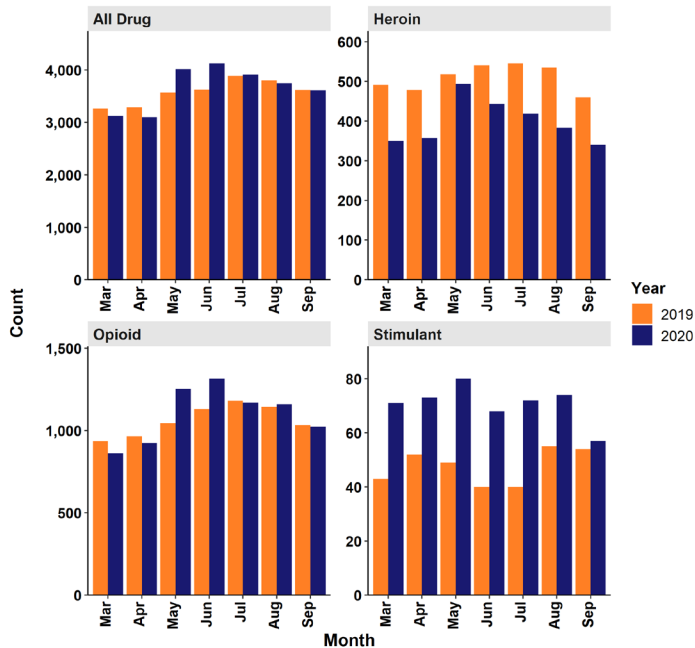


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Ohio

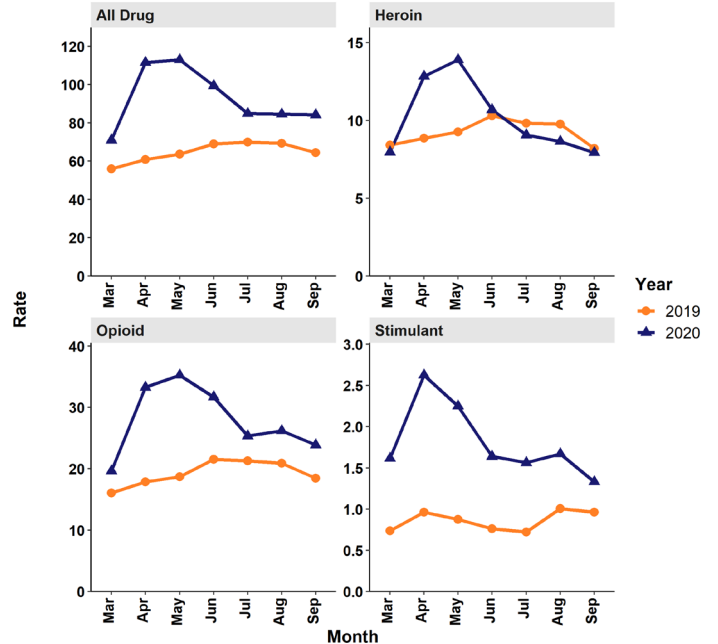


Figure 1. Total ED Visits, Oregon

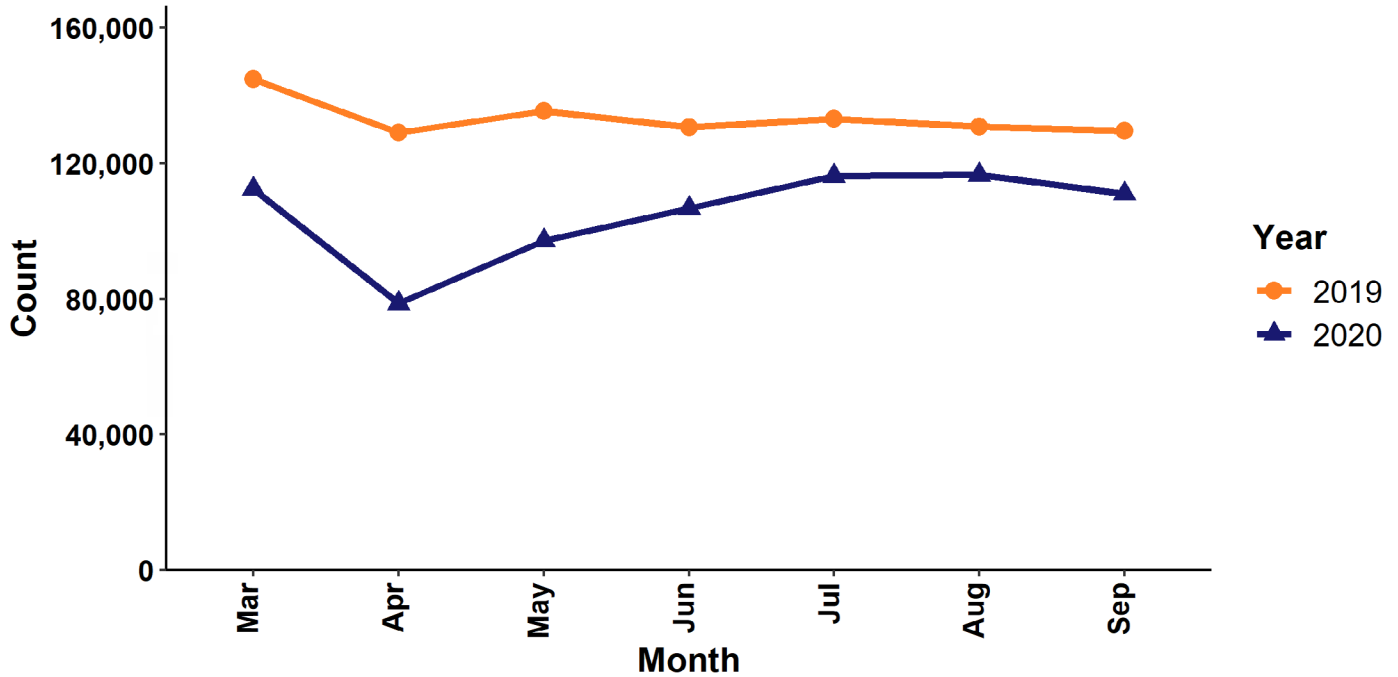


Figure 2. Total ED Visits for Overdoses, by Drug Category, Oregon

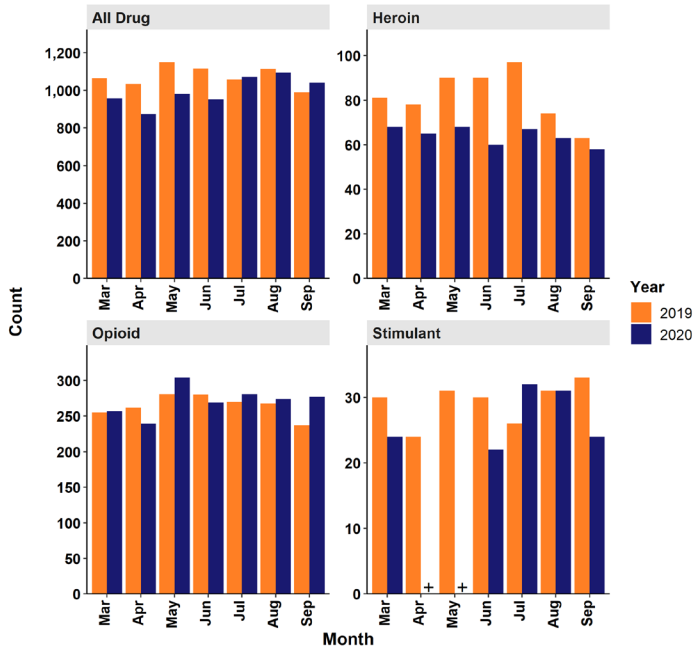


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Oregon

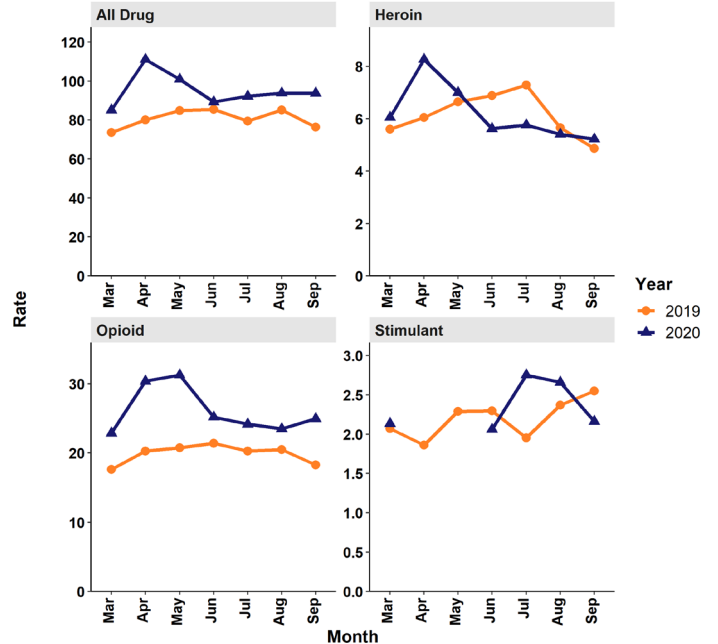


Figure 1. Total ED Visits, Pennsylvania

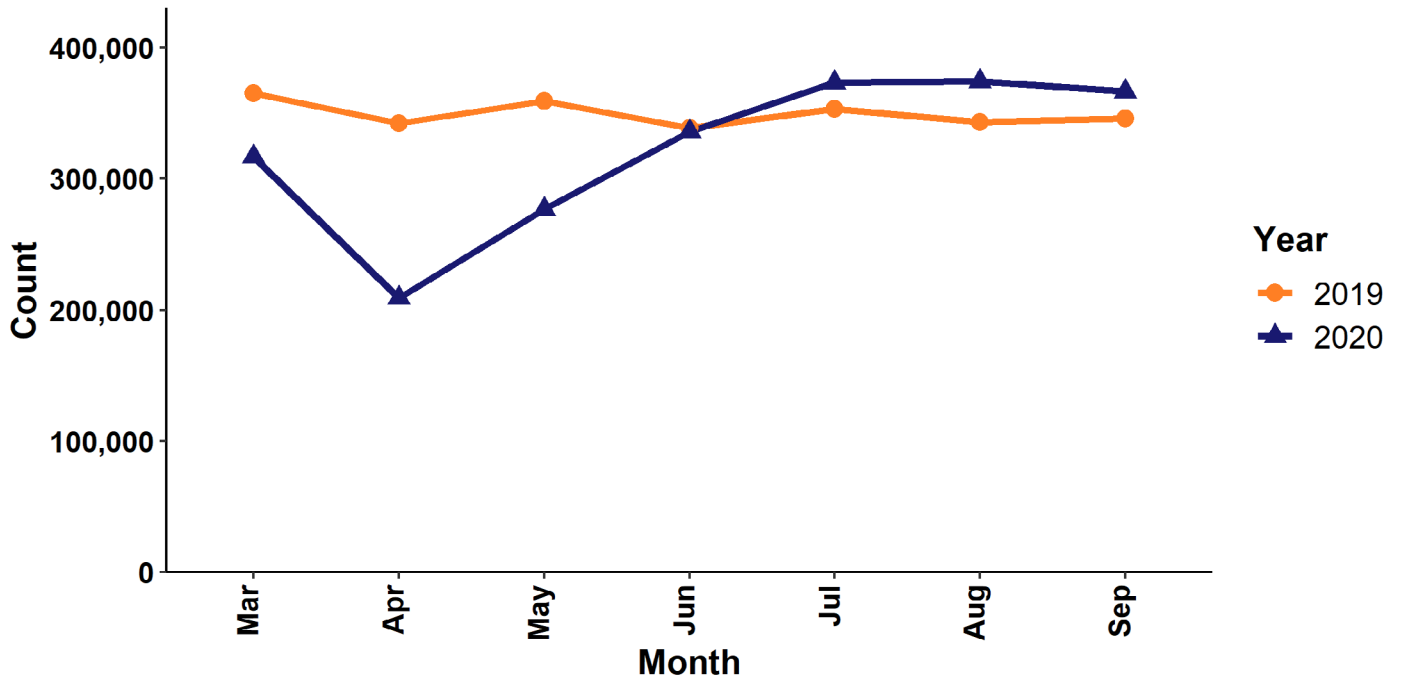


Figure 2. Total ED Visits for Overdoses, by Drug Category, Pennsylvania

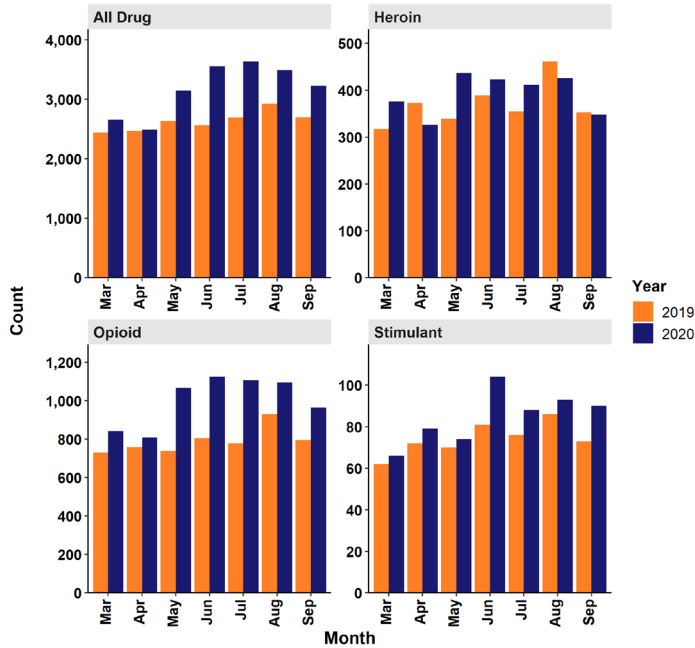


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Pennsylvania

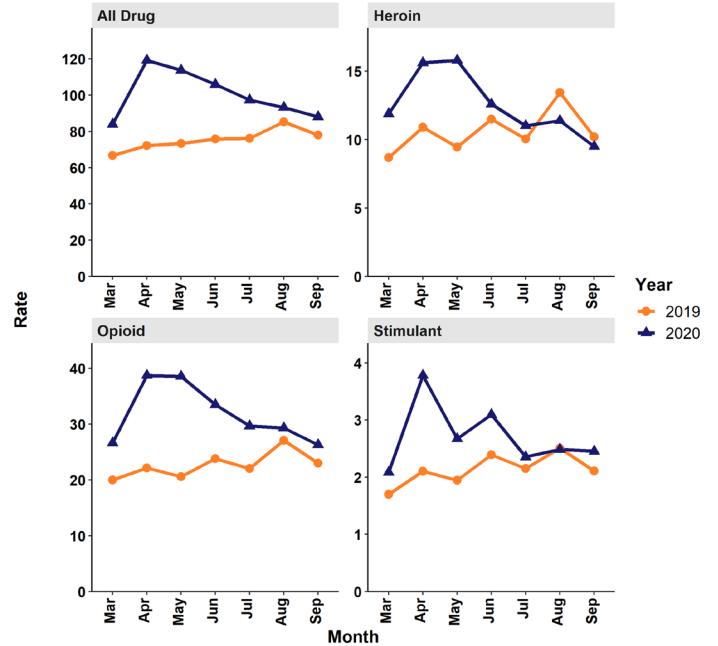


Figure 1. Total ED Visits, Rhode Island

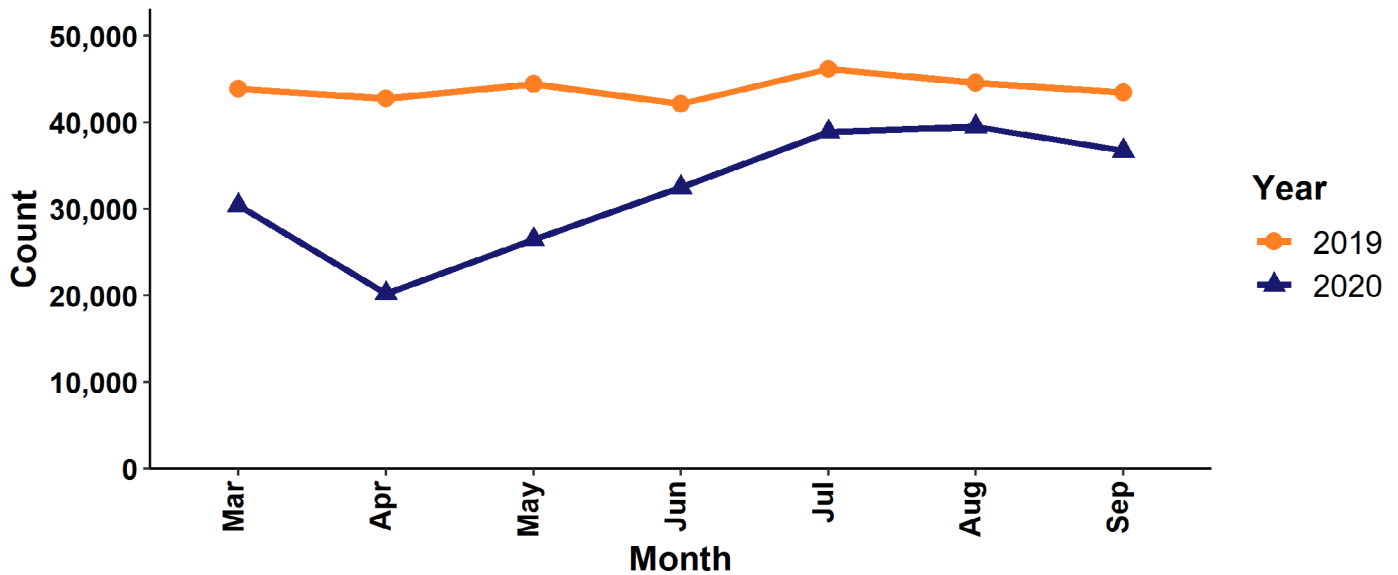


Figure 2. Total ED Visits for Overdoses, by Drug Category, Rhode Island

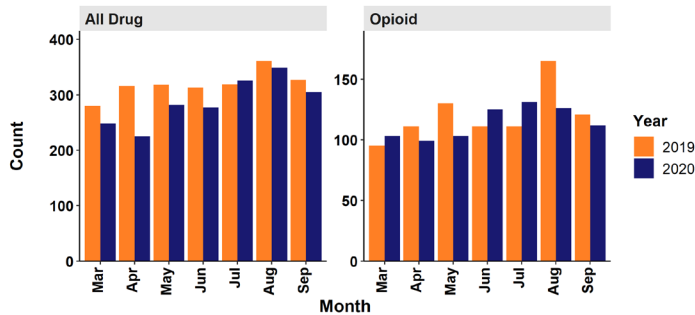


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Rhode Island

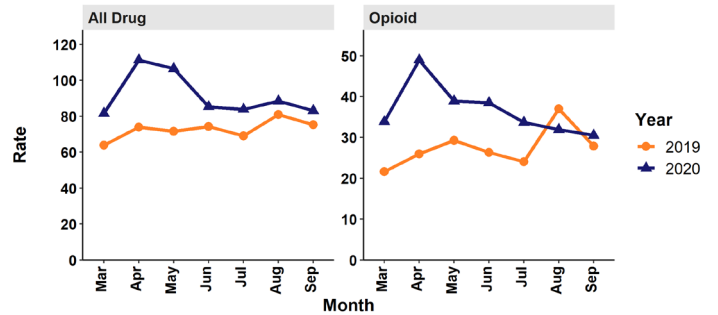


Figure 1. Total ED Visits, South Carolina

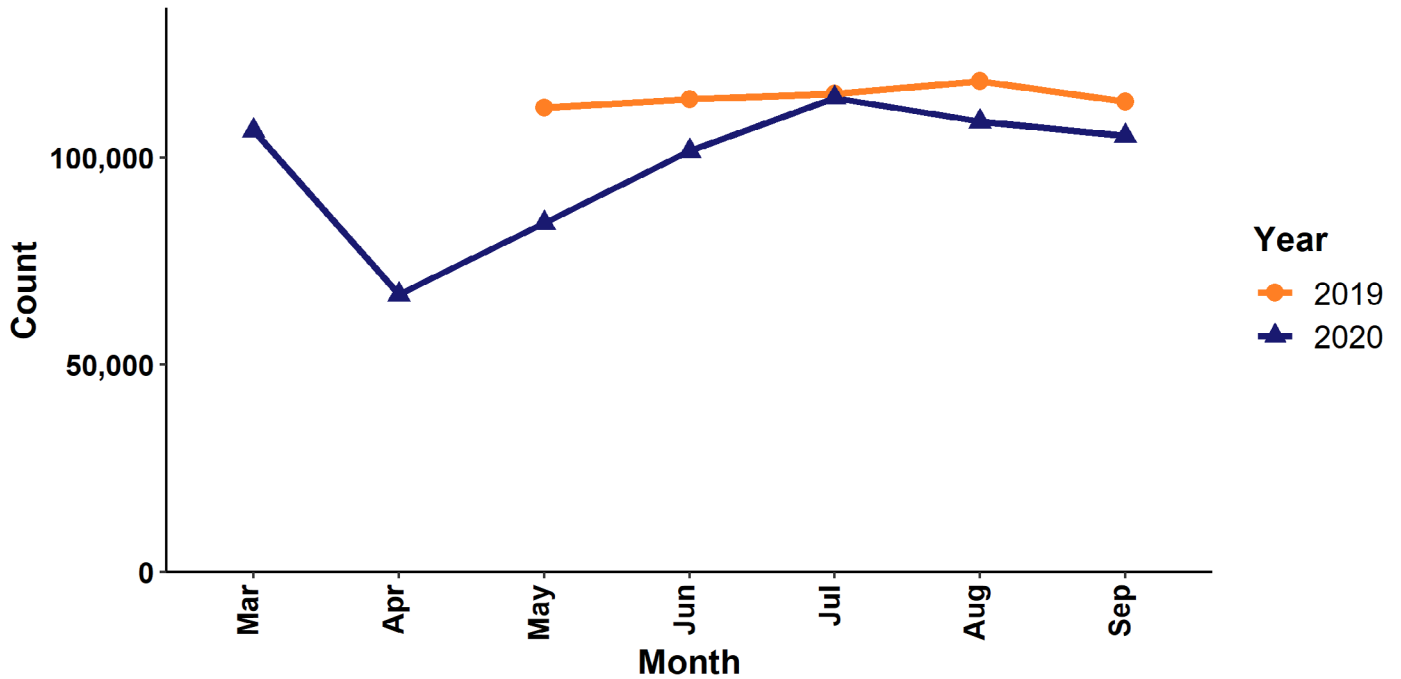


Figure 2. Total ED Visits for Overdoses, by Drug Category, South Carolina

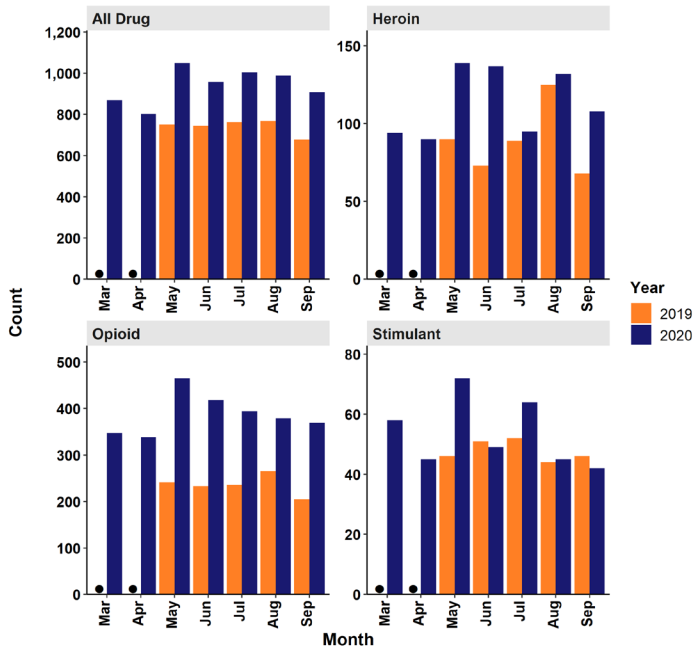


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, South Carolina

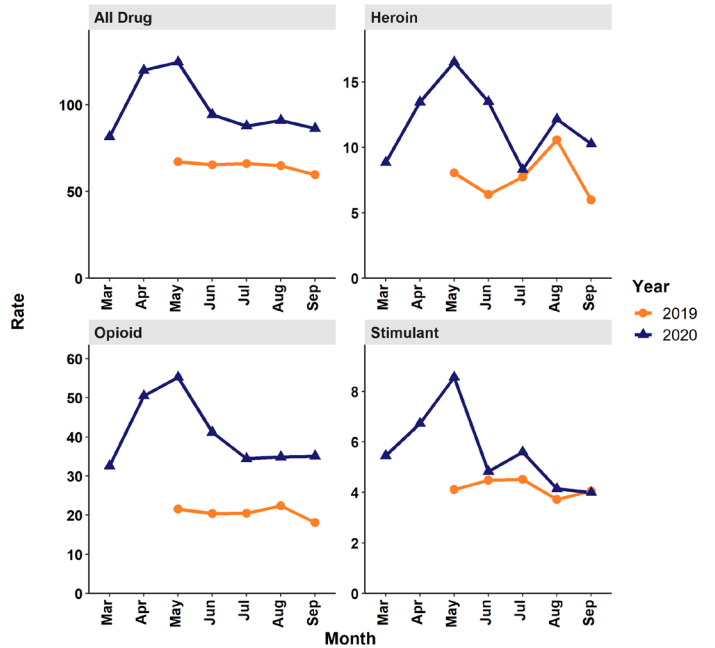


Figure 1. Total ED Visits, Tennessee

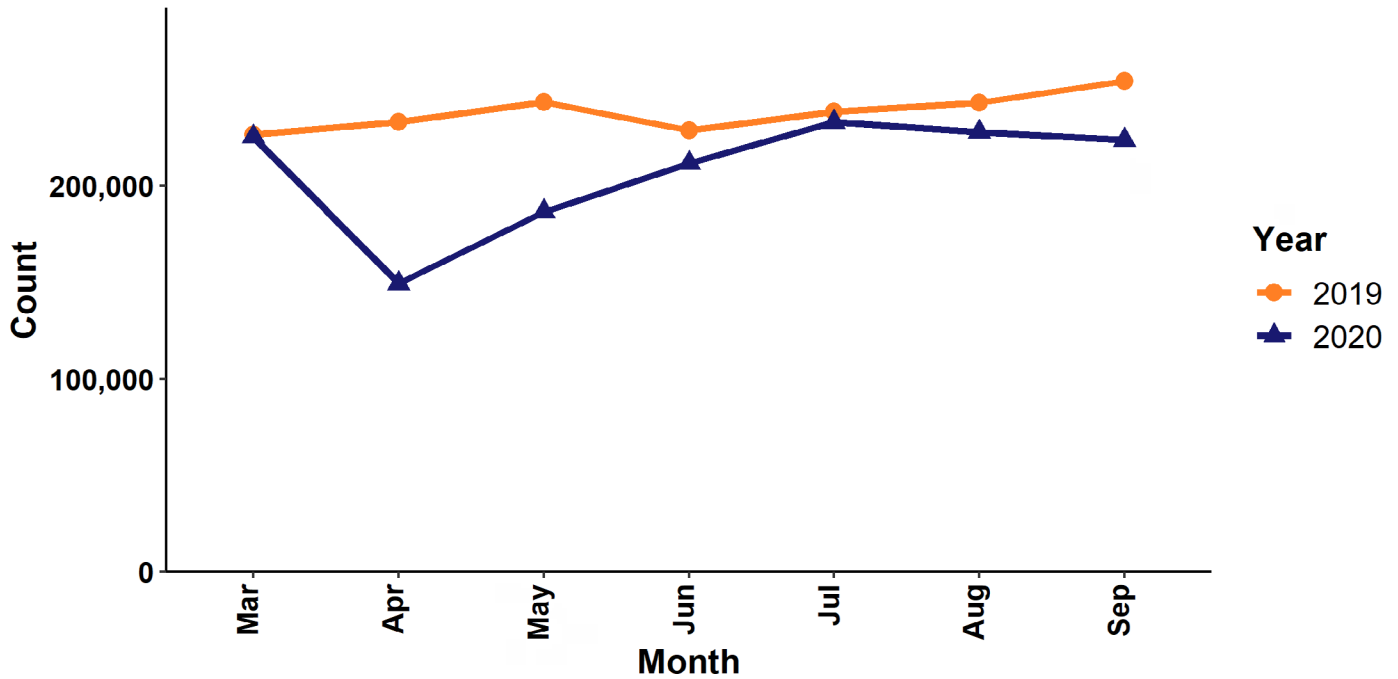


Figure 2. Total ED Visits for Overdoses, by Drug Category, Tennessee

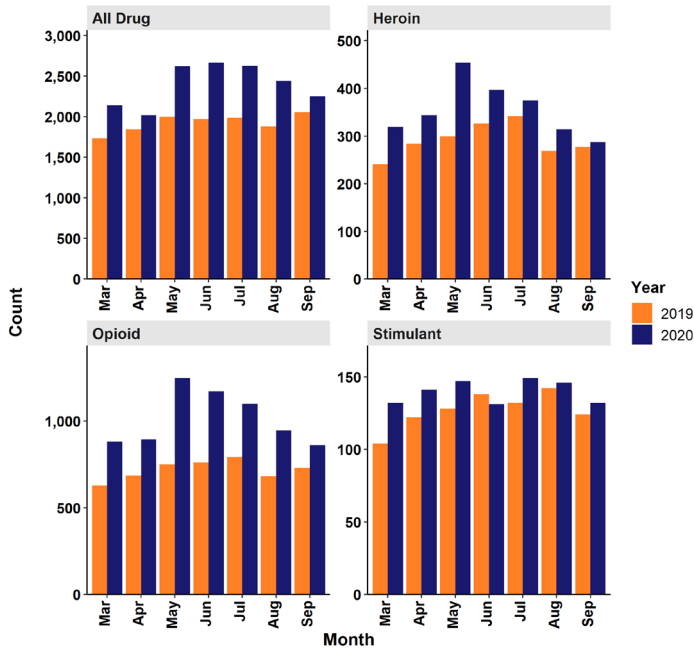


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Tennessee

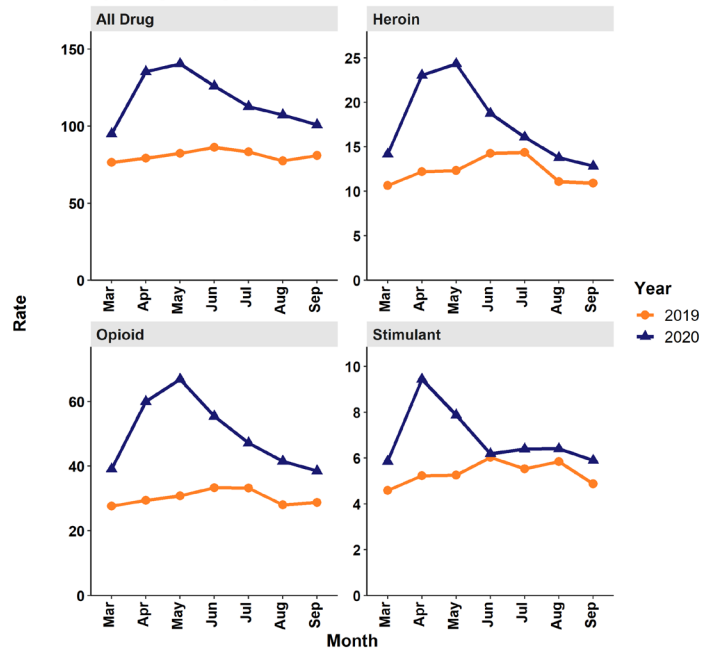


Figure 1. Total ED Visits, Utah

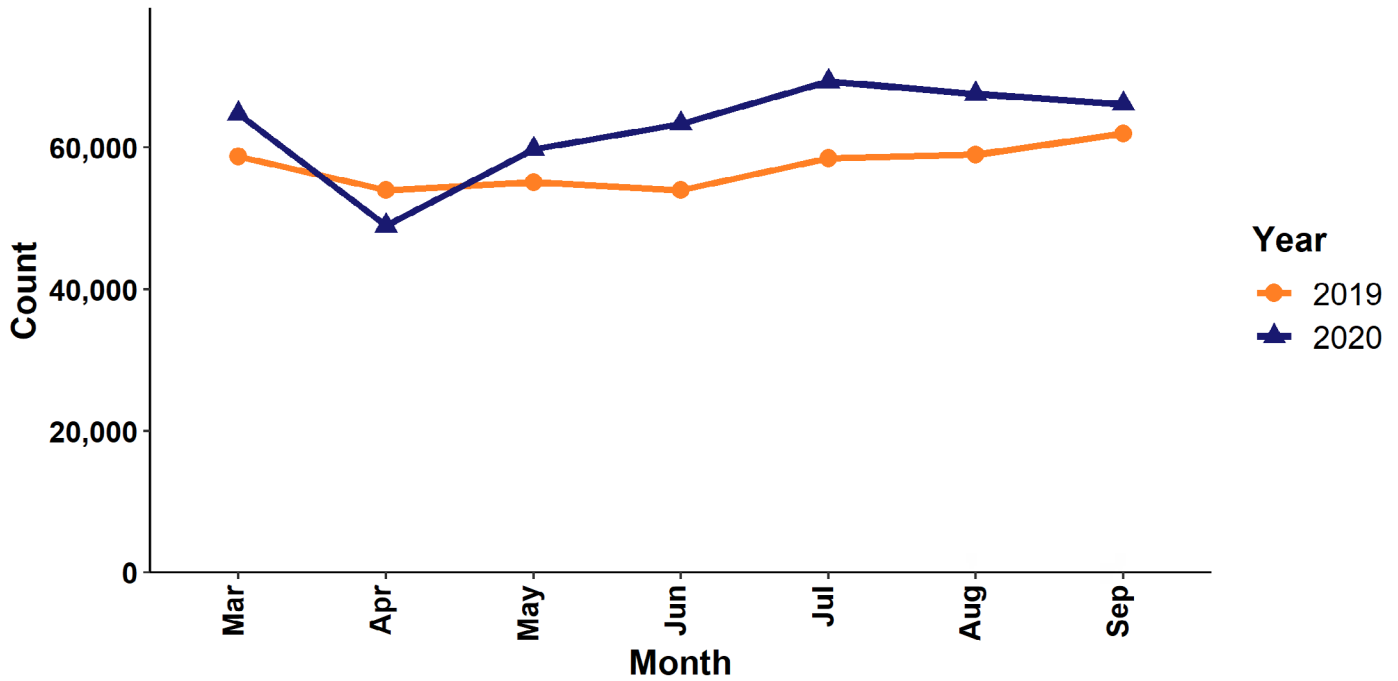


Figure 2. Total ED Visits for Overdoses, by Drug Category, Utah

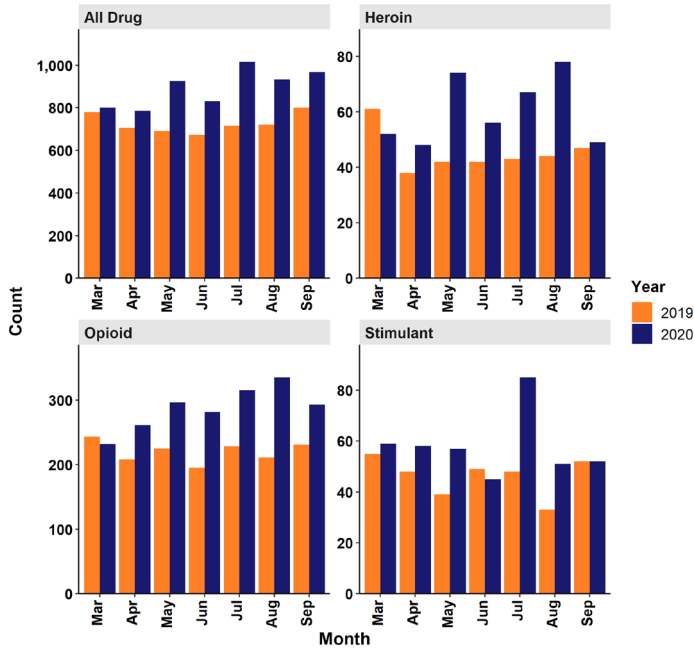


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Utah

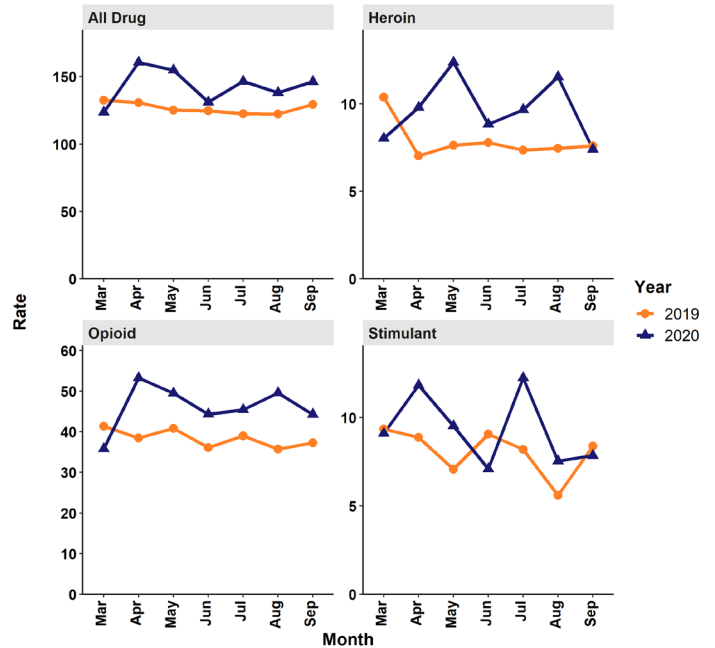


Figure 1. Total ED Visits, Vermont

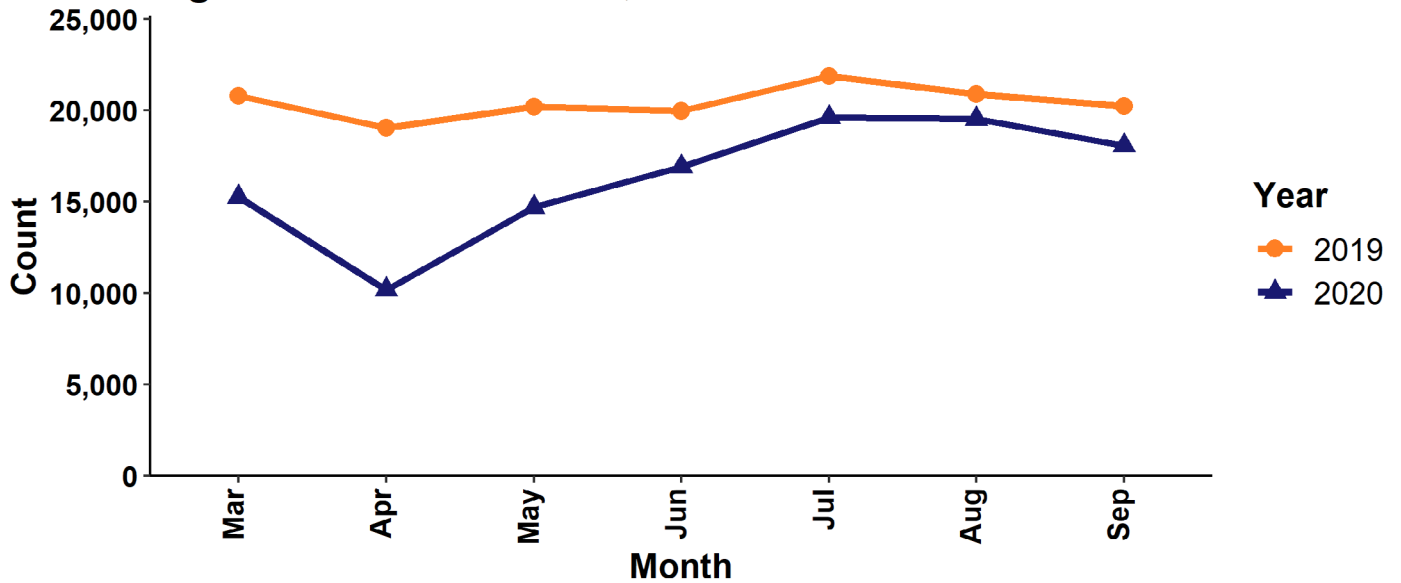


Figure 2. Total ED Visits for Overdoses, by Drug Category, Vermont

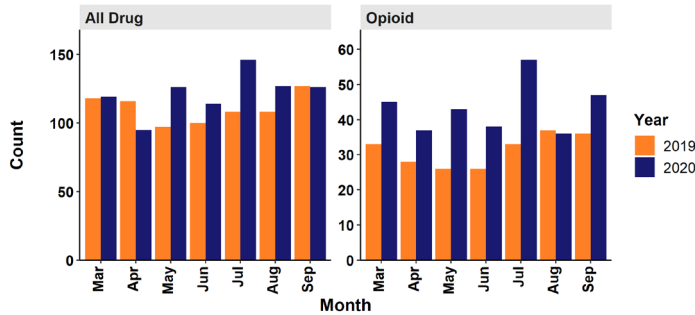


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Vermont

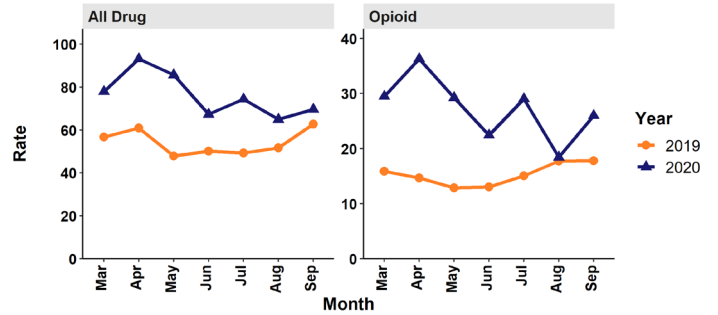


Figure 1. Total ED Visits, Virginia

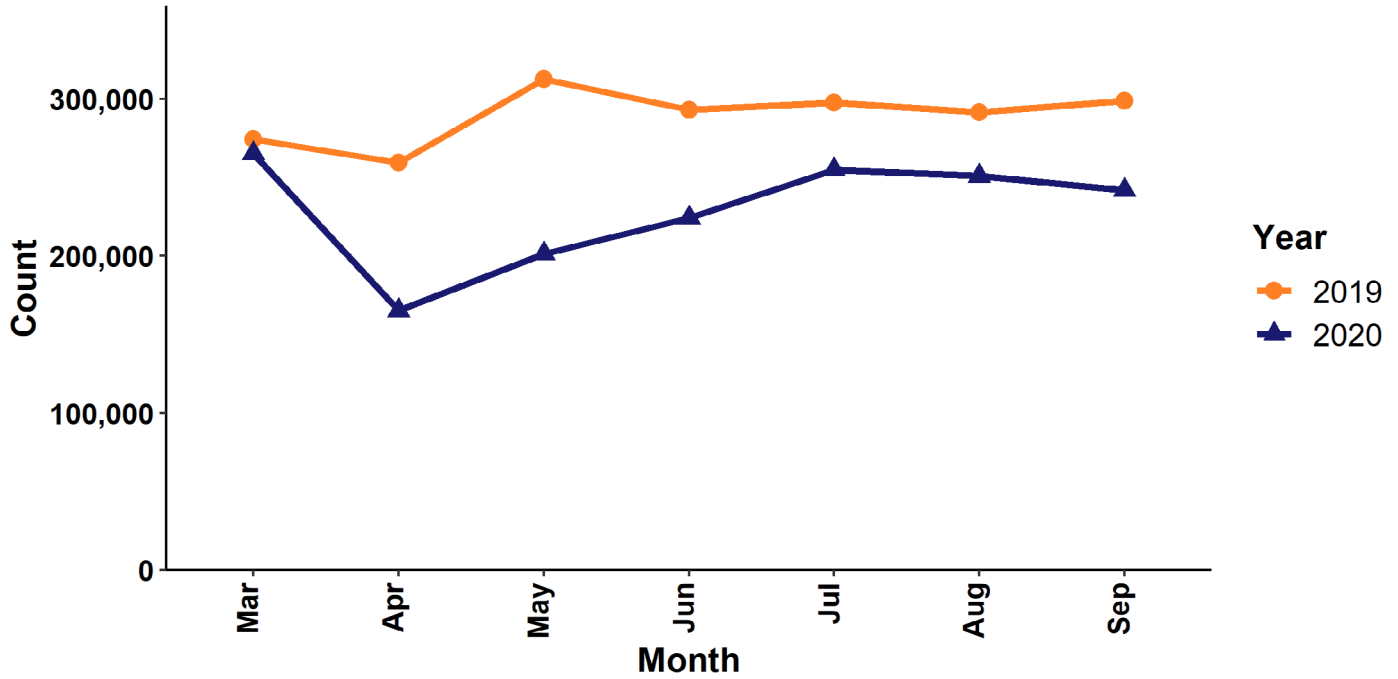


Figure 2. Total ED Visits for Overdoses, by Drug Category, Virginia

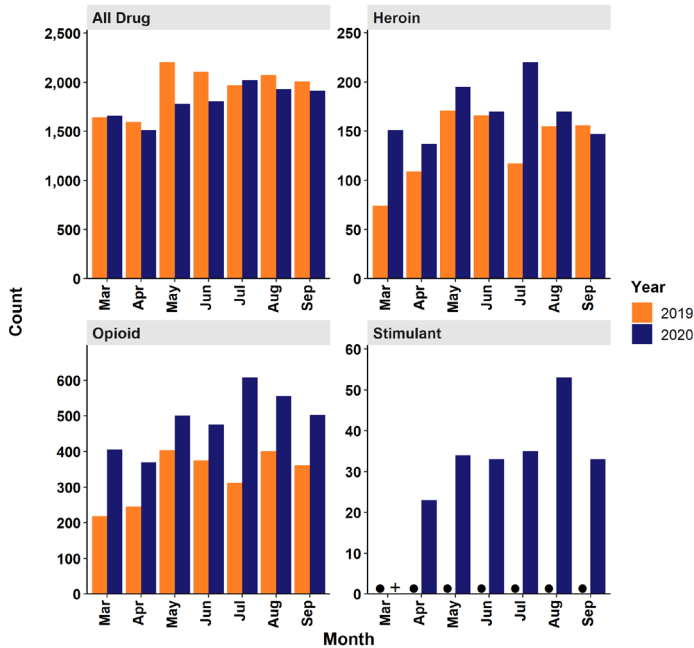


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Virginia

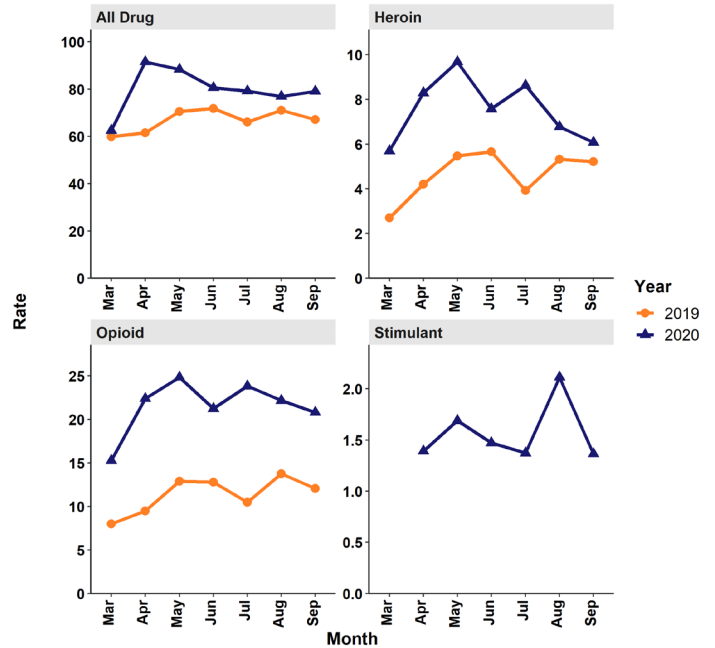


Figure 1. Total ED Visits, Washington

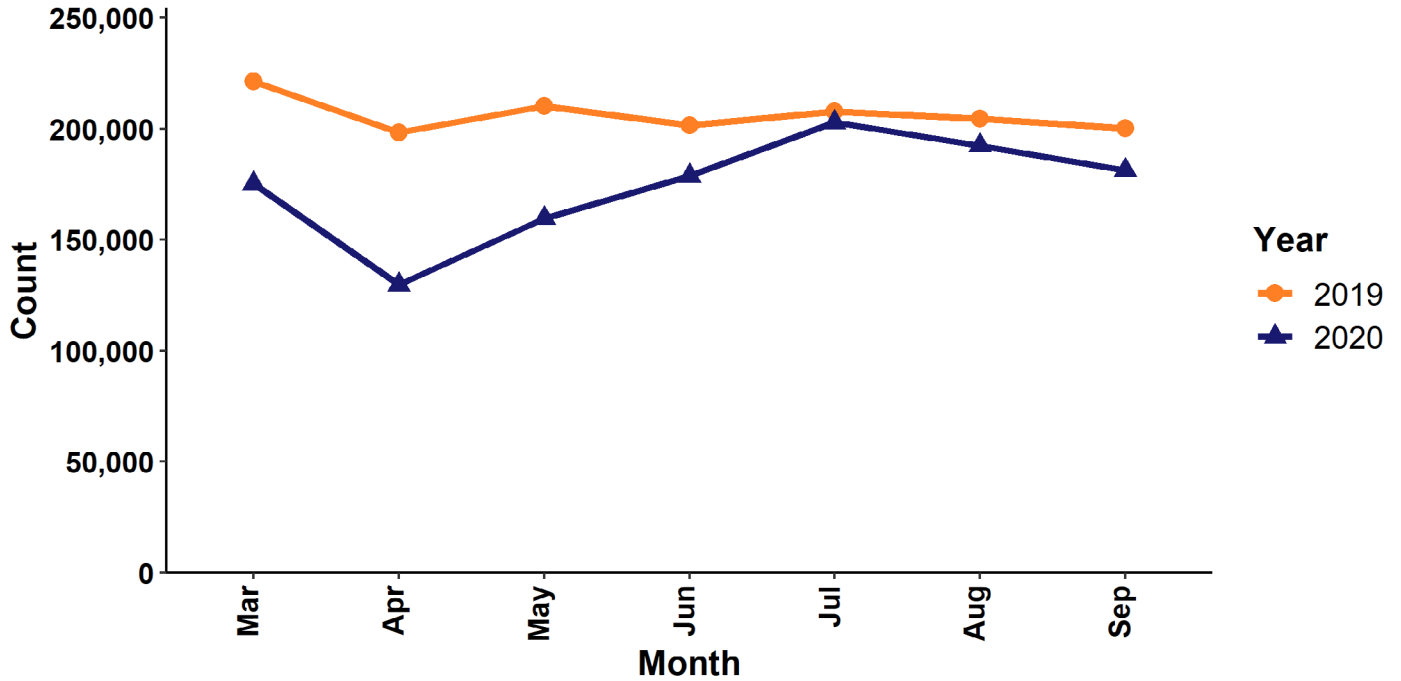


Figure 2. Total ED Visits for Overdoses, by Drug Category, Washington

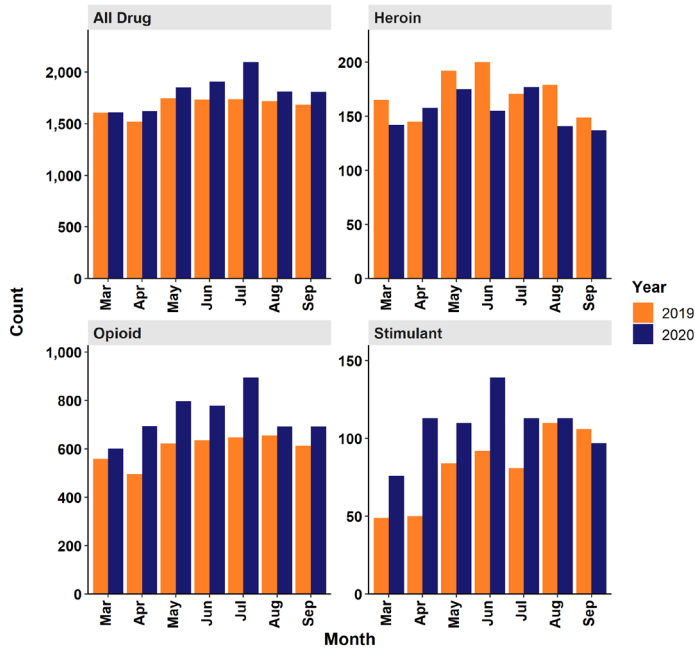


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Washington

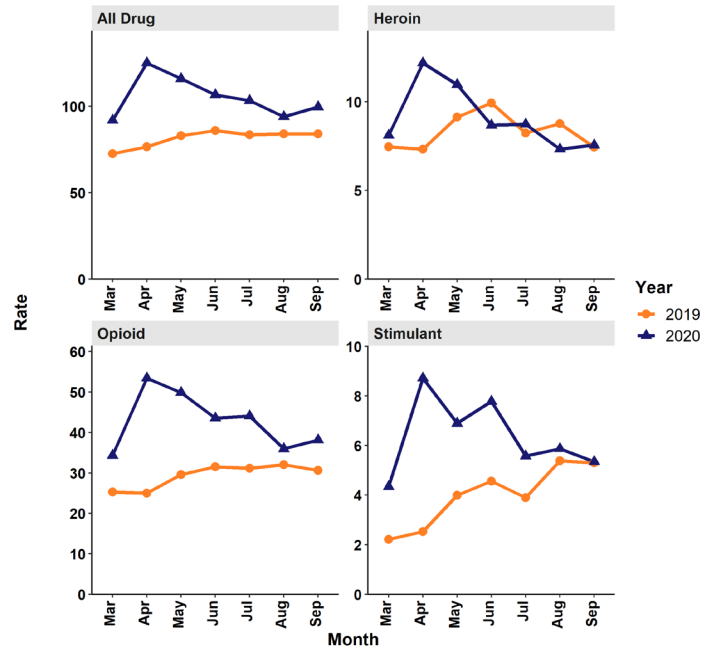


Figure 1. Total ED Visits, West Virginia

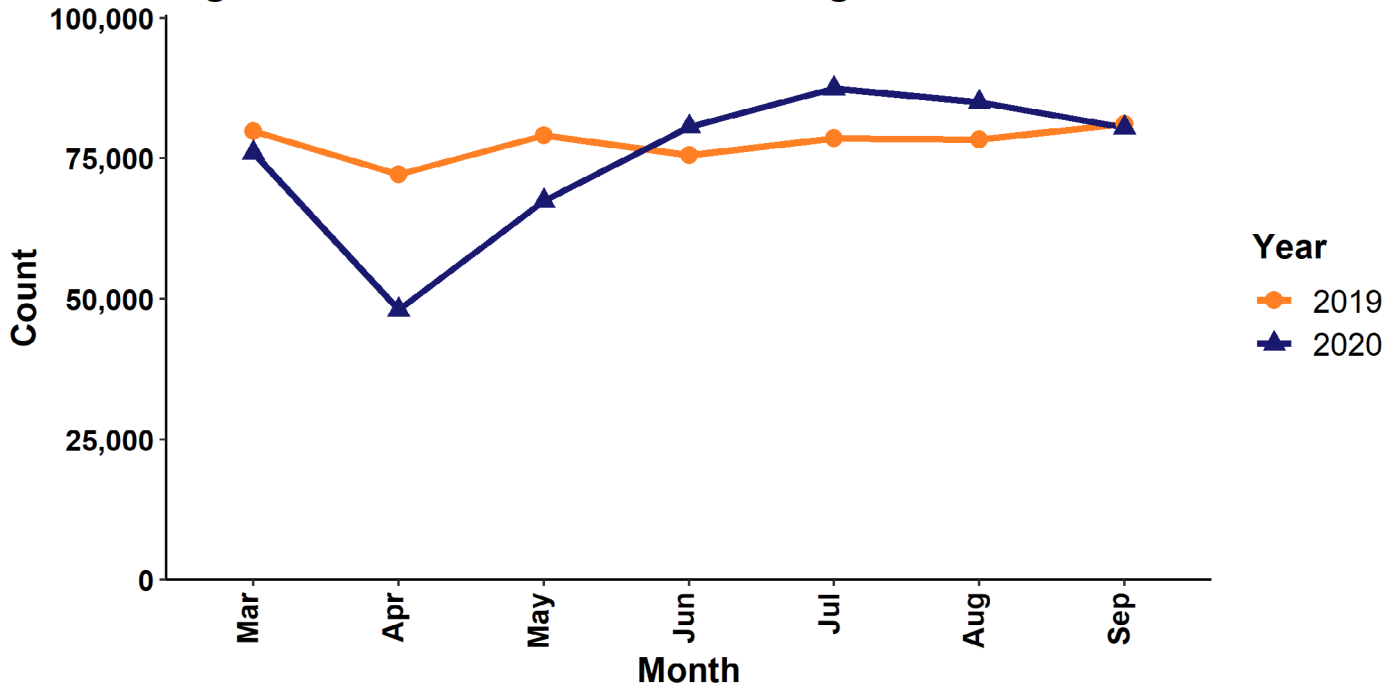


Figure 2. Total ED Visits for Overdoses, by Drug Category, West Virginia

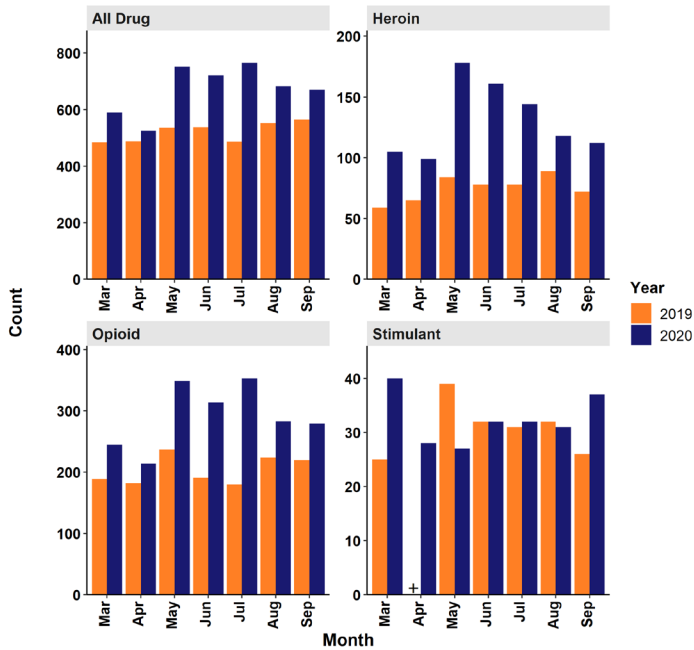


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, West Virginia

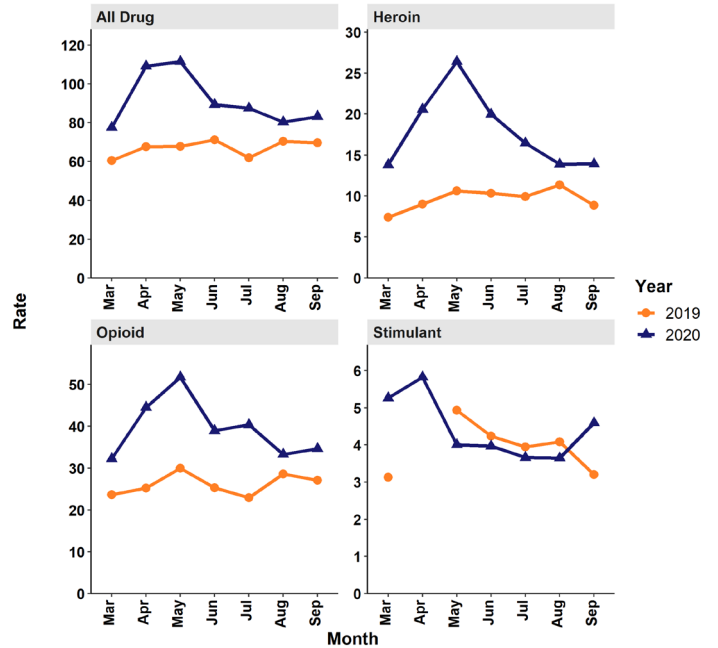


Figure 1. Total ED Visits, Wisconsin

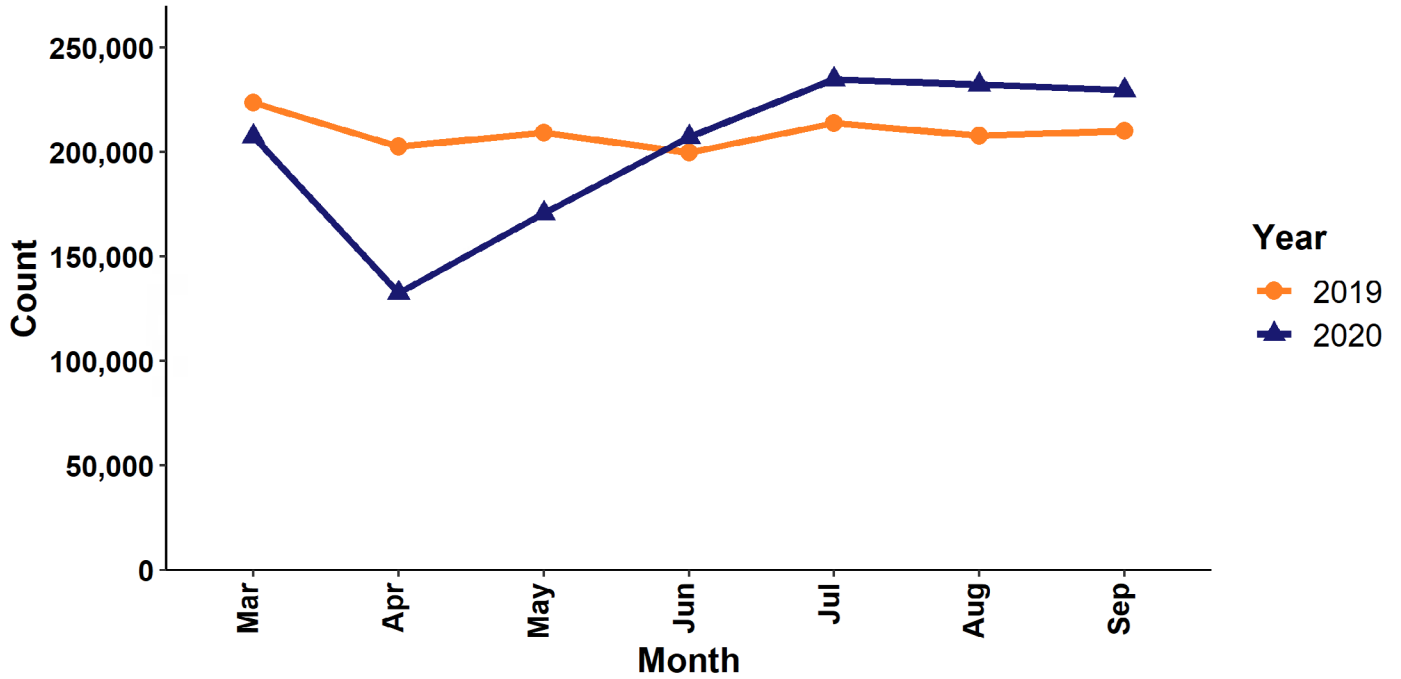


Figure 2. Total ED Visits for Overdoses, by Drug Category, Wisconsin

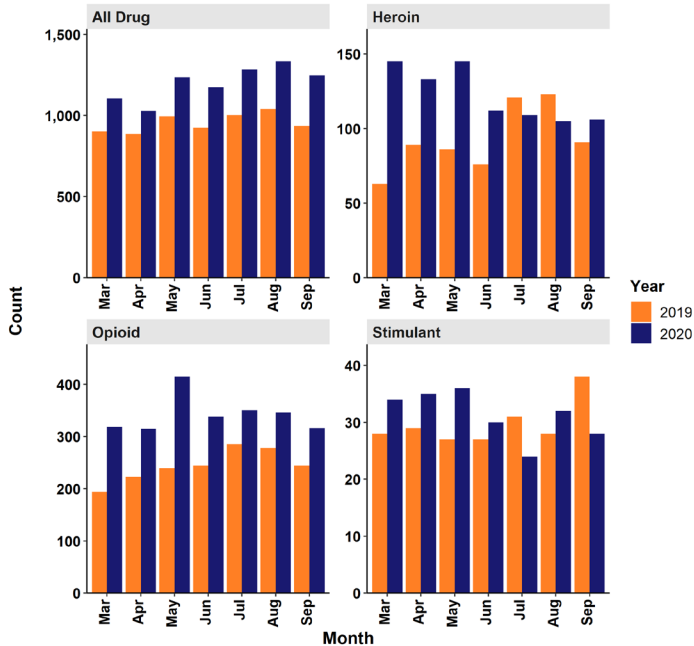
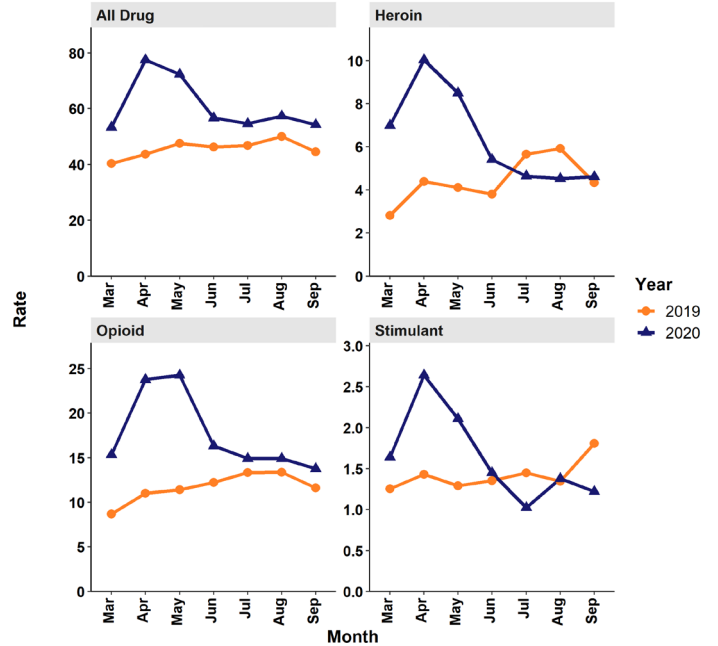


Figure 3. Rate of ED Visits for Overdoses per 10,000 ED Visits, by Drug Category, Wisconsin



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2. Czeisler MÉ, Marynak K, Clarke KEN, et al. [Delay or Avoidance of Medical Care Because of COVID-19–Related Concerns — United States, June 2020](#). *MMWR Morb Mortal Wkly Rep* 2020;69:1250–1257. DOI: 10.15585/mmwr.mm6936a4
3. Holland KM, Jones C, Vivolo-Kantor AM, et al. [Trends in US Emergency Department Visits for Mental Health, Overdose, and Violence Outcomes Before and During the COVID-19 Pandemic](#). *JAMA Psychiatry* 2021;78:372-379. DOI: 10.1001/jamapsychiatry.2020.4402