Mississippi-Advancing Violence Epidemiology in Real-Time (MS-AVERT)



FIREARM INJURY EMERGENCY DEPARTMENT VISITS IN MISSISSIPPI, 2019-2022

Through the CDC's Advancing Violence Epidemiology (AVERT) grant, near real-time firearm injury data from the Early Notification of Community-based Epidemics (ESSENCE) at the BioSense electronic surveillance system are available. This document summarizes the statewide emergency department (ED) visits for a firearm-related injury from 2019 through 2022 in Mississippi. The aim is to provide the information describes the impact of firearm injury, including the trend of injury by year/month, and the frequency of injury by age, sex, race, ethnicity, and geographic locations. It is designed to support the dedicated efforts of those striving to prevent firearm injuries and to assist individuals and communities in recovering from the profound effects of these preventable tragedies.

Firearm Injury ED visits by month, 2019-2022



- There were 2059 visits in 2019, 3306 visits in 2020 (a 60.6% increase from 2019), 3598 visits in 2021, and 3328 visits in 2022.
- The number of firearm injury ED visits during the first 4 months (January-April) of each year was lower compared to the remainder of the year.
- On average, there were 10 firearm injury ED visits per day in 2021, marking the peak during the years 2019-2022.
- There was a sharp surge in the firearm injury ED visits after April 2021, and the number of visits peaked in May of 2021.

Proportion of Firearm Injury ED visits classified by Intents, 2019-2022

- According to the classification by injury intent in ESSENCE, during the years 2019-2022, 7692 visits (62.58%) were categorized as unintentional, 1568 visits (12.76%) were categorized as assault, and 168 visits (1.37%) were categorized as intentional SD.
- There were 2863 visits (23.29%) categorized as others due to insufficient narrative information in ESSENCE.
- From 2019 through 2022, unintentional firearm injury ED visits consistently represented the largest proportion each year, while intentional firearm injury ED visits accounted for the smallest proportion.

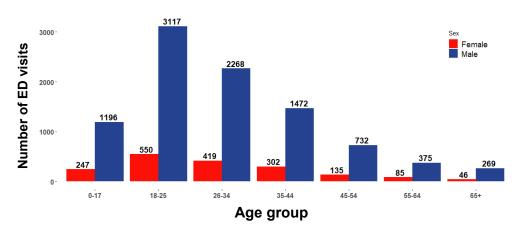
Others Unintentional 23.29% 62.58% **Assault** 12.76% IntentionalSD* 1.37% Firearm Injury Intent 2019 2020 2021 2022 Total Intentional SD* 34 42 45 47 168 (1.37%) 185 457 469 1568 (12.76%) 457 Total 12291

^{*}Abbreviations: SD, self-directed.

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Firearm Injury ED visits by age group and sex, 2019-2022

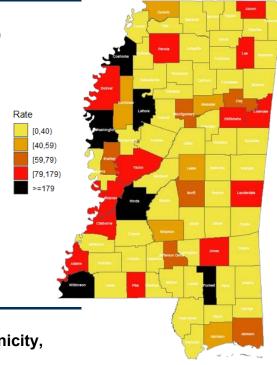


- During the years 2019-2022, males in Mississippi experienced
 5 times as many firearm injury
 ED visits as females.
- Among both males and females, the 18-25 age group had the highest number of firearm injury ED visits, accounting for 32.7% of the total, nearly one-third of all visits.

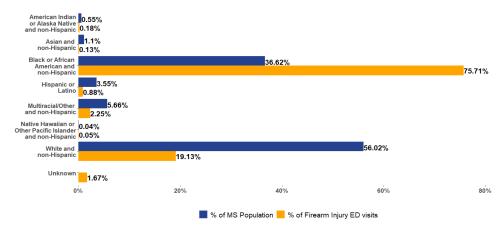
Population-based rates (per 100,000) of Firearm Injury ED visits by county, 2019-2022 *

- The 4-year rates (visits per 100,000 population) for each county take into account each county's firearm injury ED visits and the total population living in that county.
- From 2019 through 2022, Hinds (594), Leflore (334), Wahington (265), Forrest (261), and Coahoma (219) are the top 5 counties with the highest rates of firearm injury ED visits.

Source: * population data are from MSTAHRS



Proportion of MS Firearm Injury ED visits by race and ethnicity, compared to MS population proportion 2019-2022 **



- During the years 2019-2022, Mississippi residents identified as Black or African American comprised 36.62% of the population of Mississippi but experienced 75.71% of the firearm injury ED visits.
- Patients race and ethnicity was classified as unknown for 1.67% of the firearm injury ED visits but there was no comparable census category.

Source: ** MS population proportions are from 2020 US Census