Population Health Vital Statistics Brief:
Assault-Related Deaths and ER Visits, 2007-2021

The Population Health Vital Statistics Data Brief series was created to provide regular updates to the Community Health Assessment and to provide the community with additional important information about population health. For more information on the Community Health Assessment and to access other reports in the Vital Statistics Data Brief series, please visit scph.org/assessments-reports

Introduction

This is one of a series of several reports produced by the Summit County Public Health Population Health Division’s Vital Statistics Brief report series. These reports provide the citizens of Summit County with regular updates on several key topics related to health and health outcomes. Additional volumes in the series will also be released from time to time, updating the community on other topics of interest.

For those interested in obtaining detailed data and statistics, please visit our website, https://www.scph.org/assessments-reports. There, visitors can access our interactive Data Dashboards, which allows users to design customized graphics and tables for their own use.

Assault-Related Deaths (Homicides) in Summit County, 2007-2021

In 2021, there were a total of 47 assault-related deaths in Summit County that were ruled as an assault (homicide) death. Of those, 44 were caused by a firearm. Since 2007, there have been 536 confirmed assault-related deaths.

Assault-related deaths in Summit County have been trending upward since 2003, driven primarily by assault with firearms. Firearm-related deaths rose from 2.0 per 100,000 people in 2007 to a peak of 9.2 per 100,000 in 2020. Firearm-related deaths dropped to 8.1 per 100,000 in 2021.

Note: Data for assault-related deaths is from 2007-2021, while data for assault-related ER visits is from 2017-2022 (current as of August 2022).

Figure 1: Assault-Related Death Rates in Summit County, 2007-2021
Source: SCPH / Ohio Department of Health (ODH) Death Certificate Data
Figure 2 shows that firearm-related deaths as a percent of deaths from all causes has been growing since 2013. Since 2013, firearm deaths as a percent of all assault deaths have trended upward from 2013’s total of nearly 60% to 94% in 2021 (44 of the 47 assault deaths).

Age-Adjusted Assault-Related Death Rates by Type

Figures 3 and 4 present age-adjusted death rates. Age-adjusted death rates remove bias caused by the fact that older age groups in a population die at greater rates than younger ones. Age-adjusting controls for these differences and provides a more reliable way of comparing different groups, or comparing the same groups over time.

Figure 3 shows the age-adjusted death rates for deaths due to assault involving a firearm since 2007. These rates rose from 3.7 per 100,000 between 2007-2013 to 6.5 per 100,000 between 2014-2021; a 77% increase.

Figure 4 shows that age-adjusted death rates for assault deaths not involving a firearm are significantly lower, and have only risen by 3% between the 2007-2013 and 2014-2021 periods.
Demographic Differences In Assault-Related Deaths

Age -- Over two-thirds (69%) of all assault-related deaths were between the ages of 15 and 44. Just under 6% of assault-related deaths are under age 15, while just under 7% occur among people age 65 or older.

![Figure 5: Percent of Assault-Related Deaths By Age Group, Summit Co. 2007-2021](Source: SCPH / Ohio Department of Health (ODH) Death Certificate Data)

Race -- Black individuals made up nearly two-thirds (64%) of all assault-related deaths between 2007 and 2021 (Figure 6a). Black individuals are three times more likely to be involved in a firearm-related assault death then White individuals. For Black individuals, three-quarters of all assault-related deaths are by firearm, vs. one-quarter of all assault-related deaths for White individuals (Figure 6b).

![Figure 6a and 6b: Percent of Assault-Related Deaths By Race, Summit Co. 2007-2021 (6a), Percent of Firearm and Other Means of Assault Deaths, 2007-2021 (6b)](Source: SCPH / Ohio Department of Health (ODH) Death Certificate Data)
Sex -- Males make up the vast majority of assault-related deaths (76%).

Sex and Race -- Over half of all assault-related deaths are Black males (54%), while White males make up one-fifth of all assault-related deaths (20%). White females make up the next largest percentage at just over 13%, while Black women make up 10% of all assault-related deaths. Males and females in the other / unknown race categories make up about 2.4% of all assault-related deaths combined.
Educational Attainment -- The vast majority of assault-related deaths are among people with a high school diploma or lower education level (81%). Of that group, those with only a high school diploma or GED were the most likely to be the victim of an assault-related death (44%), closely followed by those with a 9th grade-12th grade education (without a diploma or GED) and those with some college. Together, these three categories accounted for 91% of all assault-related deaths. For those with any college degree, the percentage of people with an assault-related death declines as educational attainment rises, dropping from just under 5% for those with a 2-year degree to just 2% for those with a 4-year or professional degree.

Marital Status -- Three-quarters of all assault-related deaths were among those who were single and never married (75%), while 12% were divorced or separated, and a further 13% of victims were married. The average age of single victims was just over 28; for married, divorced / separated, and widowed victims, the average ages ran between 48 and 52. Those who were single were much more likely to have died by firearm than those who were married (82% and 61%, respectively).
Racial Disparities In Assault-Related Death Rates

The age-adjusted assault-related death rate per 100,000 people is significantly higher for Black individuals than for White individuals (see Figure 11). Not only is the rate higher for Black individuals, the gap has grown over the past several years. Rates for White individuals rose from 2.7 to 2.9 per 100,000 between the 2007-2013 and the 2014-2021 periods; an increase of 7.4%. During those same periods, the rate for Black individuals rose from 21.4 to 37.5; an increase of 75%. The rate for Black individuals was nearly 8 times higher than the rate for White individuals from 2007-2013. By the 2014-2021 period, the rate for Black individuals was nearly 13 times higher than the rate for White individuals.

Figure 11: Age-Adjusted Assault-Related Deaths Per 100,000 By Race, 2007-2013 and 2014-2021
Source: SCPH / Ohio Department of Health (ODH) Death Certificate Data
Geographic Distribution of Assault-Related Death Rates, 2007-2021

The heaviest concentration of assault-related deaths occur in the Akron West, Akron Southwest, Akron Southeast, and Akron North clusters. For non-firearm-related assault deaths, the Akron Southeast and Akron Southwest clusters have the heaviest concentrations. Because they are a significant portion of total assault deaths, the pattern of firearm-related deaths closely resembles the overall density pattern.
Emergency Room Visits for Gun Shot Wounds (GSW) and Accidental Discharge (AD)

Between 2016 and the end of 2021, nearly 1,000 Summit County residents were treated in emergency rooms for a firearm-inflicted wound. Trends in emergency room (ER) visits for GSW mirror those for firearm-related fatalities. As Figure 15 shows, the 60-day average number of GSW visits rose from 0.2 per day (about one visit every five days) in 2016 to 0.4 per day (about one visit every 2.5 days) by the end of 2021.

GSW by Age - Nearly 70% of all victims were ages 18-34. The average GSW-related visitor to an ER was 31 years old.

GSW by Gender - The vast majority of GSW-related visits to the ER were male (See Figure 17).

GSW by Race - More than a quarter of GSW-related ER visits were by Black individuals, while 55% were White individuals (See Figure 18). The White individual rate was lower than the percentage of the White population (55% of GSW visits, 78% of Summit County’s population, while the Black individual rate was higher (26% of GSW visits, 14% of Summit County’s population).

GSW by Zip Code - More than half of all GSW visits (54%), and just over half of all AD-related visits (51%), came from the zip codes of 44306, 44320, 44311, 44310, 44305.
Acidental Discharge - There have been 585 ER visits caused by an accidental firearm discharge (about one visit every 4.2 days) since 2016. In 15% of these visits, the injured was someone under age 18 (61 visits). The average age of a minor visiting an ER for an accidental firearm discharge is just under 14. The average age of an adult visiting an ER for an accidental discharge was just under 29. Most of these visits (85%) were male.

Violence at a Glance

VIOLENCE-RELATED ER STATISTICS, 2017-2022

<table>
<thead>
<tr>
<th>Violence Type</th>
<th>Average Visit Interval</th>
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<tbody>
<tr>
<td>Sexual Violence</td>
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<tr>
<td>Senior Assault</td>
<td>7.8 days</td>
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<tr>
<td>Child Assault</td>
<td>4.5 days</td>
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<tr>
<td>Assault by Firearm</td>
<td>5.4 days</td>
</tr>
<tr>
<td>Accidental Firearm Discharge</td>
<td>4.2 days</td>
</tr>
</tbody>
</table>

Figure 22 a-c: Accidental-Discharge Related ER Visits by - Age (22a), Sex (22b), Race (22c), 2016-2022  Source: EpiCenter, SCPH
Between 2016 and 2022, over 10,000 Summit County residents were treated in emergency rooms for a violence-related reason (not related to gunshots), averaging 4.2 visits per day (Figure 20). A total of 676 of violence-related visits involved a child (63 per 1,000 assault-related ER visits), with another 324 involving seniors (31 per 1,000 assault-related ER visits). Other violence demographics include:

Violence by Age - More than half (53%) of violence-related visits to the ER were under age 35.

Violence by Gender - Fifty-seven percent of all violence-related ER visits were female.

Violence by race - White individuals make up about 62% of violence-related visits.

Rape / Sexual Assault - Since 2016, there were about 1,000 ER visits related to rape or sexual assault. The majority of rape and sexual assault cases visiting an ER (84%) are adult women age 18-54. About 7% of rape and sexual assault visits were among children, with another 10% among those age 55 and older (see Figures 22a - 22c).