

Population Health Vital Statistics Brief:

Assault-Related Deaths and ER Visits, 2014-2018

The *Population Health Vital Statistics Data Brief* series was created to provide regular updates to the 2016 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



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Introduction

This is the sixth in a series of reports to be released by the Summit County Public Health Population Health Division's Vital Statistics Brief report series. These reports will 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.

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Assault-Related Deaths (Homicides) in Summit County, 2007-2018

Assault-related deaths in Summit County have been trending upward since 2003. However, spikes in the number of assault-related deaths have occurred in several years (2006, 2011, 2015, and 2017). From 2000-2007, the number of assault-related deaths by firearm and by any other means made up roughly equal proportions of total assault-related deaths, with firearm-related assault-related deaths outnumbering others in some years and other means outnumbering firearm-related assault-related deaths in others. However, beginning in 2008, firearm-related assault-related deaths have outnumbered those by

Assault Deaths - Total and by Type, Summit County 2007-2018

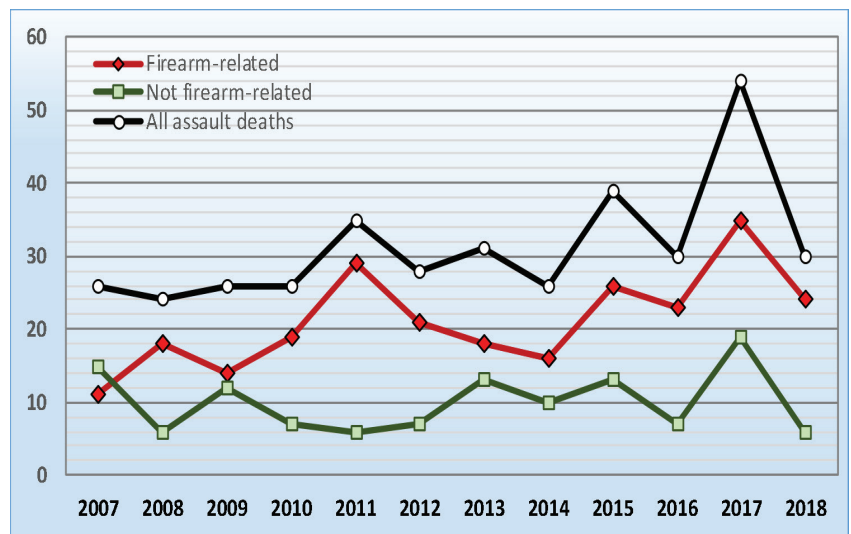


Figure 1: Assault-Related Death Rates in Summit County, 2007-2018
Source: SCPH / Ohio Department of Health (ODH) Death Certificate Data

Note: Data for 2018 shown in all figures is preliminary and not yet complete.

other means every year, and are trending upward as a percentage of total assault-related deaths (see Figure 1 on the previous page and Figure 4, below).

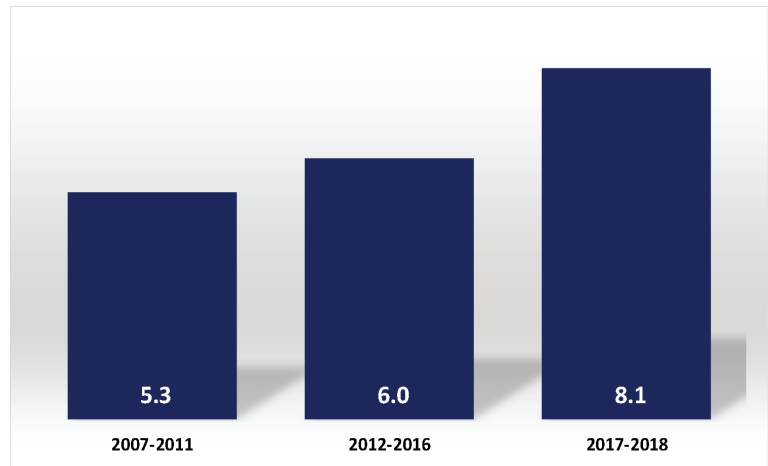


Figure 2: Age-Adjusted Death Rate - All Assault-Related Deaths, Summit Co. 2007-2018 Source: SCPH / Ohio Department of Health (ODH) Death Certificate Data

Age-Adjusted Assault-Related Death Rates by Type

Age-adjusted assault-related deaths not involving a firearm rose 40% from the 2007-2011 and 2017-2018 periods, from 1.7 per 100,000 people to 2.4 per 100,000. Assault deaths involving a firearm rose from 3.6 per 100,000 to 5.7 during the same period (see Figure 3 at right).

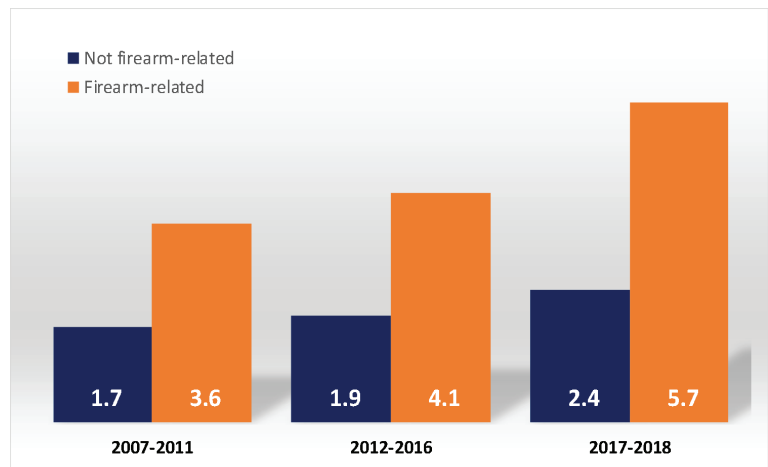


Figure 3: Age-Adjusted Death Rate - Assault-Related Deaths, Not Firearm-Related and Firearm-Related, Summit Co. 2003-2017 Source: Ohio Department of Health Death Certificate files

Figure 4 shows that the trend in firearm-related assault deaths as a percent of total deaths has been growing since 2000. In 2007, firearm-related assault deaths amounted to just over 42% of all assault deaths. After several years of peaks and valleys, firearm-related assault deaths amounted to 80% of all assault deaths by 2018.

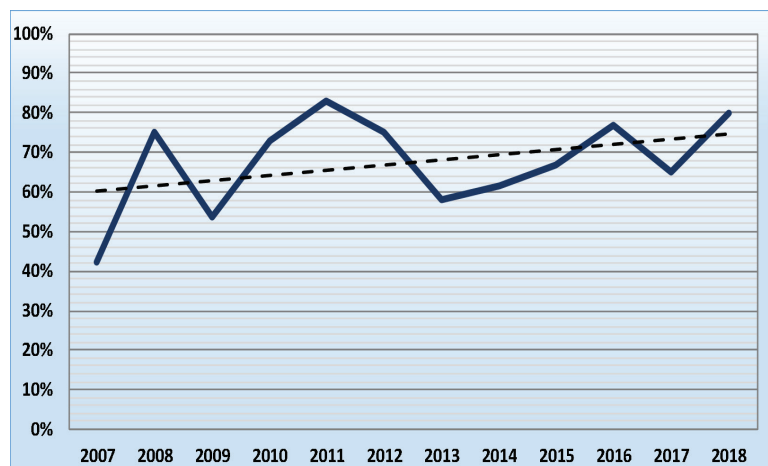


Figure 4: Firearm-Related Assault Deaths As A Percent of Total, Summit Co. 2007-2018 Source: SCPH / Ohio Department of Health (ODH) Death Certificate Data

Demographic Differences In Assault-Related Deaths

Age -- Two-thirds (67%) of all assault-related deaths were between the ages of 15 and 44. Just over 7% of assault-related deaths are under age 15, while just under 6% occur among people age 65 or older. The 25-34 age group is the single largest category at just under 27% of all assault-related deaths, though the 15-24 year old category is almost as large.

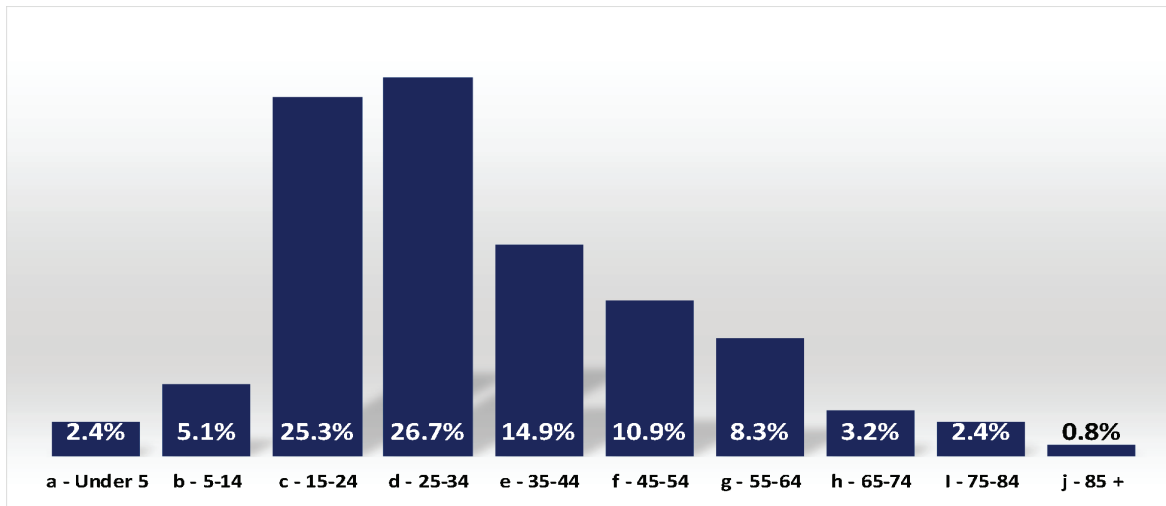


Figure 5: Percent of Assault-Related Deaths By Age Group, Summit Co. 2007-2018

Source: SCPH / Ohio Department of Health (ODH) Death Certificate Data

Race -- African-Americans account for 61% of all assault-related deaths between 2007 and 2018. This percentage is significantly higher than the percentage of African-Americans in the general population (14% of all Summit County citizens). Whites, who account for 81% of the population, account for just 37% of all assault-related deaths.

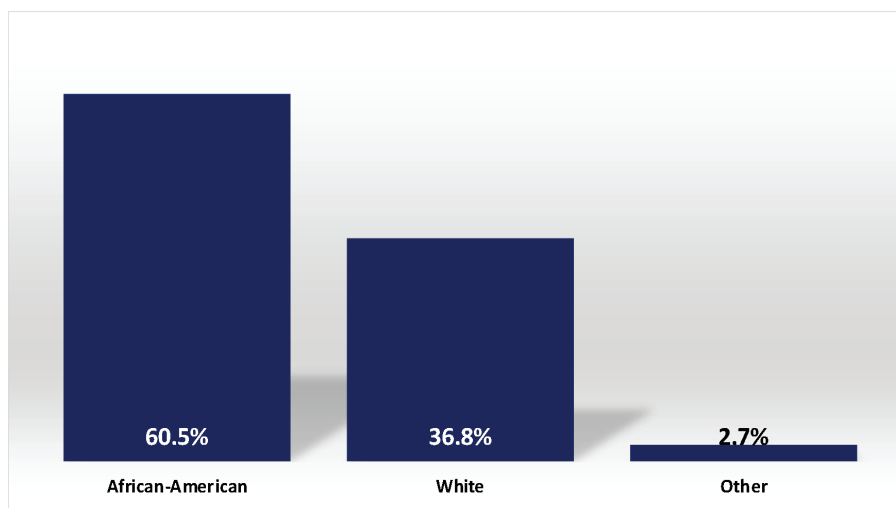


Figure 6: Percent of Assault-Related Deaths By Race, Summit Co. 2007-2018

Source: SCPH / Ohio Department of Health (ODH) Death Certificate Data

Sex -- Males make up the vast majority of assault-related deaths; nearly three-quarters (74%).

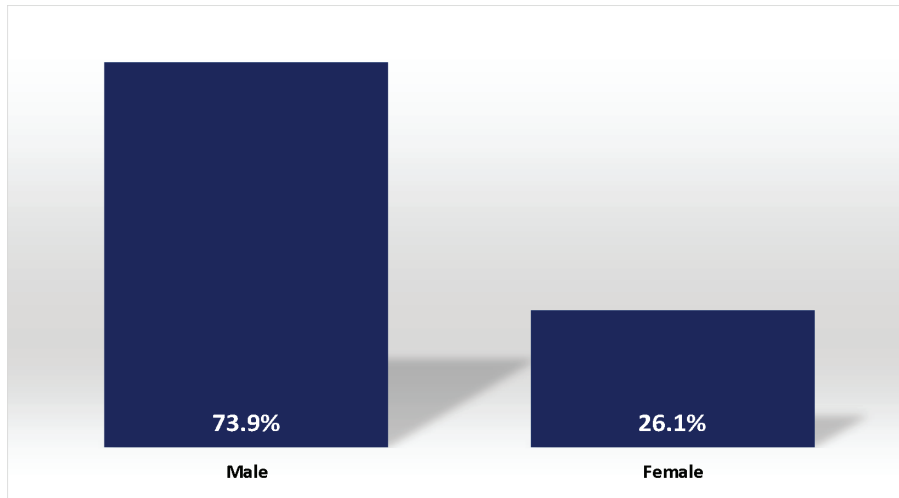


Figure 7 Percent of Assault-Related Deaths By Sex, Summit Co. 2007-2018
 Source: SCPH / Ohio Department of Health (ODH) Death Certificate Data

Sex and Race -- Half of all assault-related deaths are African-American males (50%), while white males make up nearly another quarter of all assault-related deaths (22%). White females make up the next largest percentage at just over 14%, while African-American women make up nearly 11% of all assault-related deaths. Males and females in the other / unknown race categories make up about 2% of all assault-related deaths combined.

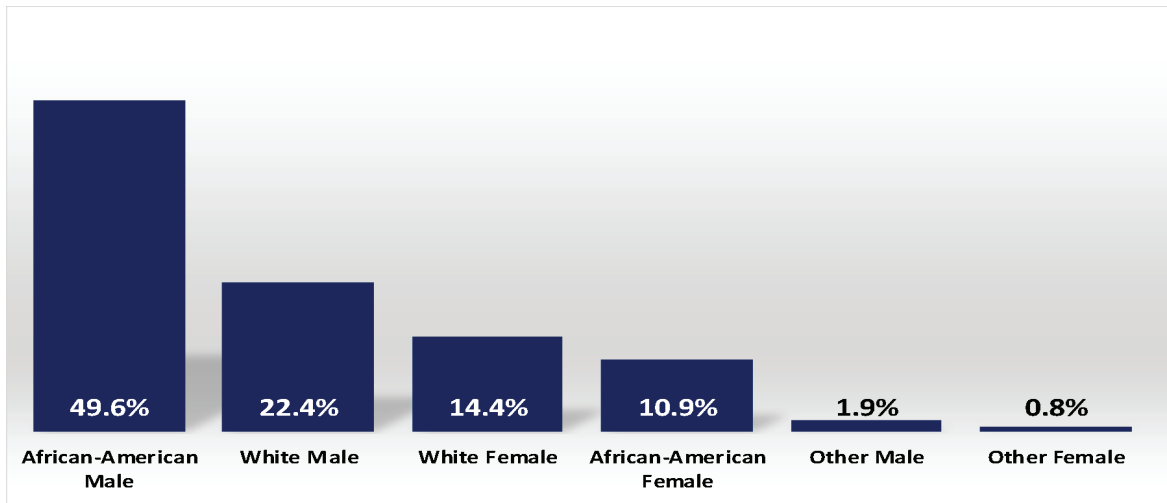


Figure 8: Percent of Assault-Related Deaths By Sex and Race, Summit Co. 2007-2018
 Source: SCPH / Ohio Department of Health (ODH) Death Certificate Data

Educational Attainment -- Nearly all assault-related deaths are among people with less than a 4-year degree (94%). 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 (47%), closely followed by those with a 9th grade-12th grade education (without a diploma or GED) and those with some college. Together, these four categories accounted for 83% 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 over 3% for those with a 2-year degree to just 0.8% for those with a PhD or professional degree.

The impact of assault-related deaths on people in lower education levels can be seen even more clearly when looking at those age 25 and older (see Figure 9). People age 25 and older with a 9-12 grade education or a high school diploma or GED make up 38% of Summit County's 25 and older population, but 69% of assault-related deaths. People with a 4-year degree or higher make up 31% of the 25 and older population but only 6% of assault-related deaths.

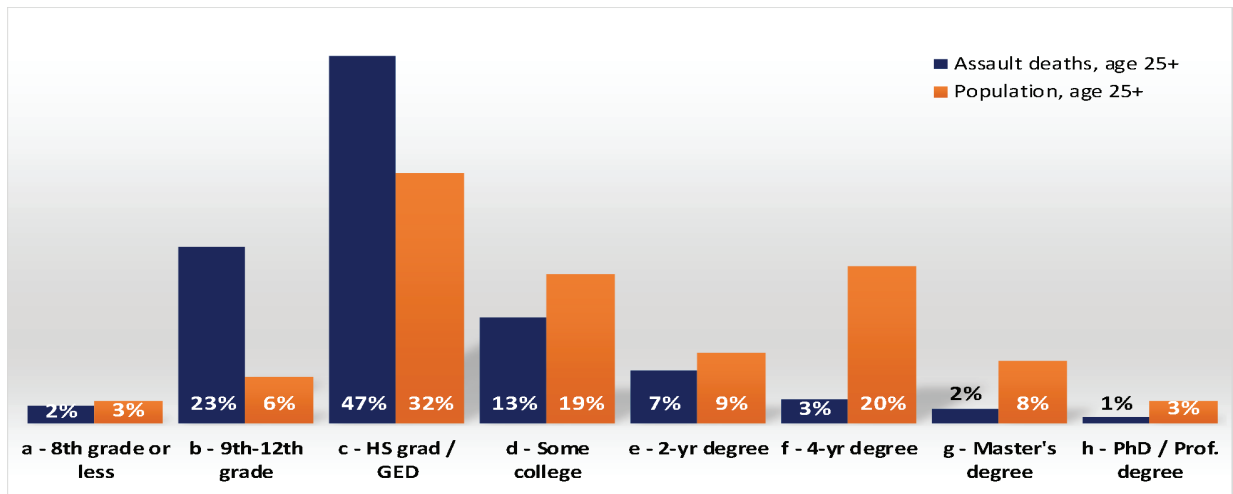


Figure 9: Percent of Assault-Related Deaths By Educational Attainment, Age 25 and Older, Summit Co. 2007-2018
 Source: SCPH / Ohio Department of Health (ODH) Death Certificate Data

Marital Status -- Two-thirds of all assault-related deaths are to those who are single and never married (70%), while 11% are divorced or separated, and a further 16% of victims are married.

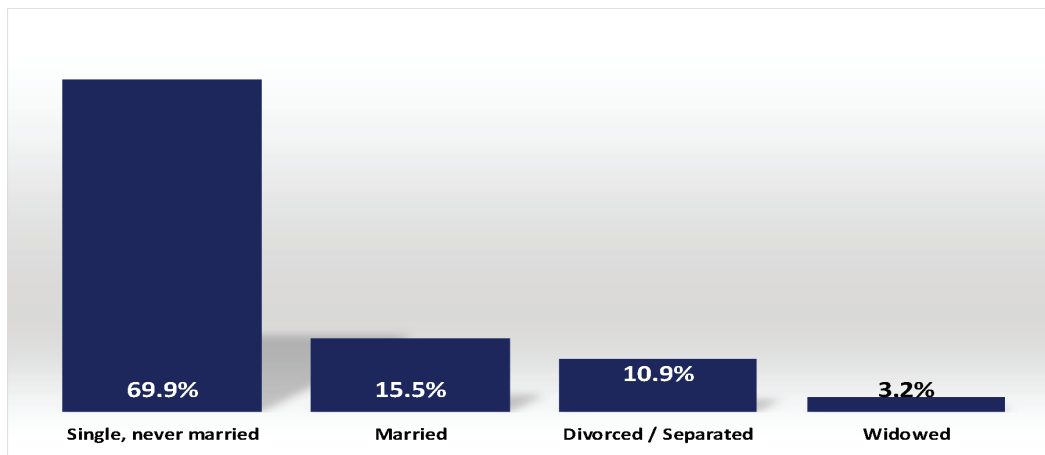


Figure 10: Percent of Assault-Related Deaths By Marital Status, Summit Co. 2007-2018
 Source: SCPH / Ohio Department of Health (ODH) Death Certificate Data

Racial Disparities In Assault-Related Death Rates

The age-adjusted assault-related death rate per 100,000 people is significantly higher for African-Americans than for whites. Not only is the African-American rate higher, the gap has grown over the past nine years (see Figure 11a). From 2007-2012, the ratio of African-American-to-white assault related deaths was about 8:1. That ratio increased to nearly 10:1 between 2013 and 2018. While the white rate rose 11% during these two time periods, the rate for African-Americans rose by nearly 29%.

The disparities are even greater when considering firearm-related deaths only (see Figure 11b). From 2007-2012, the ratio of African-American-to-white firearm-related assault deaths was nearly 11:1. That ratio increased to nearly 16:1 between 2013 and 2018. The white rate of firearm-related assault deaths declined by 6% during these two time periods, while the rate for African-Americans rose by 37%.

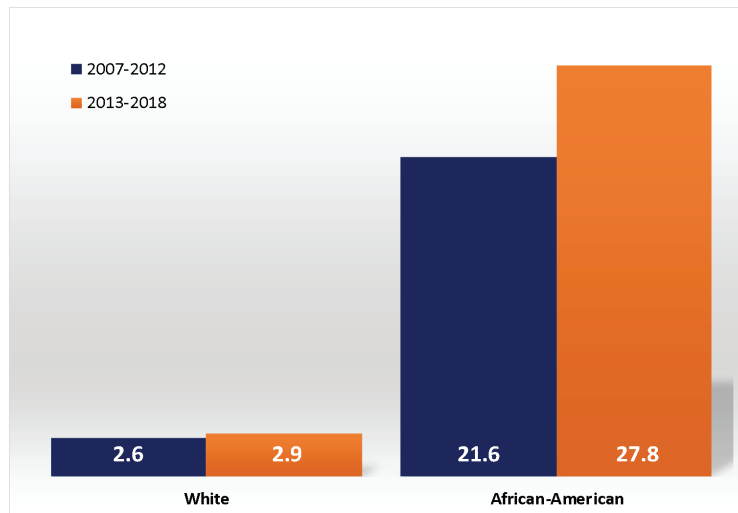


Figure 11a: Age-Adjusted Assault-Related Deaths Per 100,000 by Race, Summit Co. 2007-2012 and 2013-2018 Source: SCPH / Ohio Department of Health (ODH) Death Certificate Data

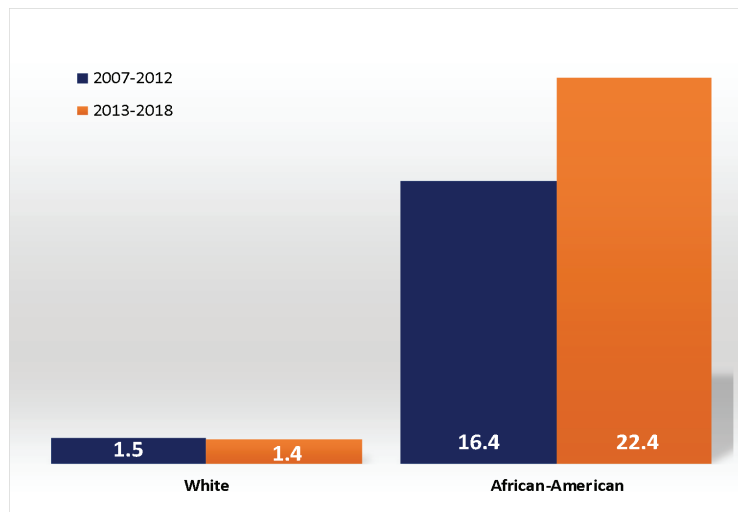


Figure 11b: Age-Adjusted Assault-Related Deaths Per 100,000 by Race, Firearm-Related Only, Summit Co. 2007-2012 and 2013-2018 Source: SCPH / Ohio Department of Health (ODH) Death Certificate Data

Geographic Distribution of Assault-Related Death Rates, 2007-2018

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.

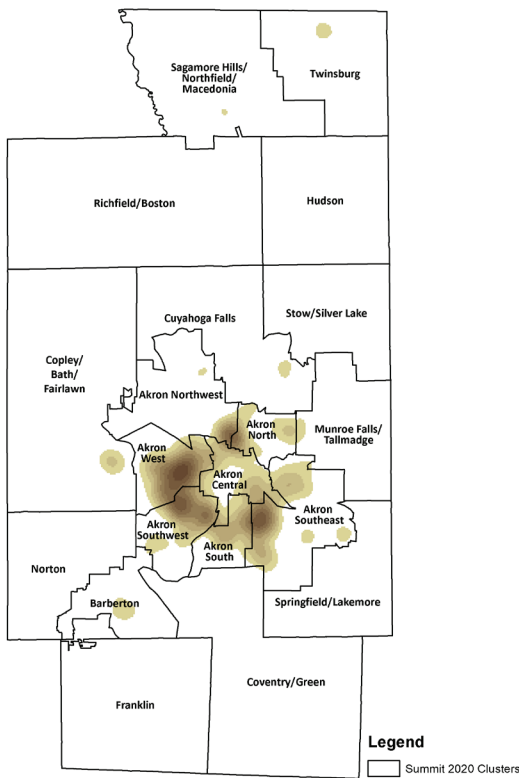


Figure 12: Density Map of All Assault-Related Deaths by Summit County Cluster Source: SCPH / Ohio Department of Health (ODH) Death Certificate Data, SCPH calculations

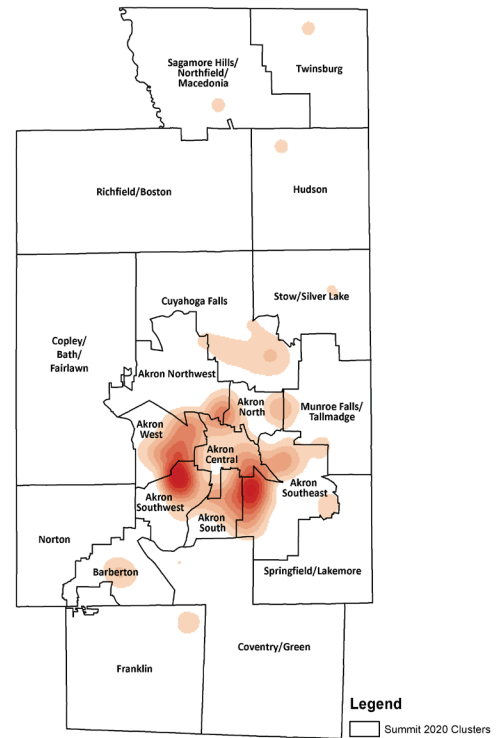


Figure 13: Density Map of All Non-Firearm-Related Assault Deaths by Summit County Cluster Source: SCPH / Ohio Department of Health (ODH) Death Certificate Data SCPH calculations

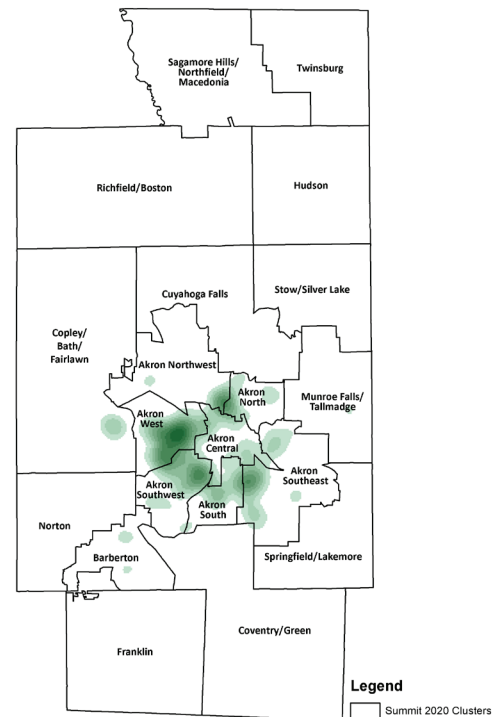


Figure 14: Density Map of All Firearm-Related Assault Deaths by Summit County Cluster Source: SCPH / Ohio Department of Health (ODH) Death Certificate Data, SCPH calculations

Emergency Room Visits for Gun Shot Wounds (GSW)

Between 2013 and November 2018, nearly 500 Summit County residents were treated in emergency rooms for a gun shot wound (GSW). Trends in emergency room (ER) visits for GSW mirror those for firearm-related fatalities. In early 2013, GSW visits to an ER were averaging 0.1 per day (or about one visit every 10 days). At its 5-year peak in fall 2018, GSW visits were averaging just under one per day.

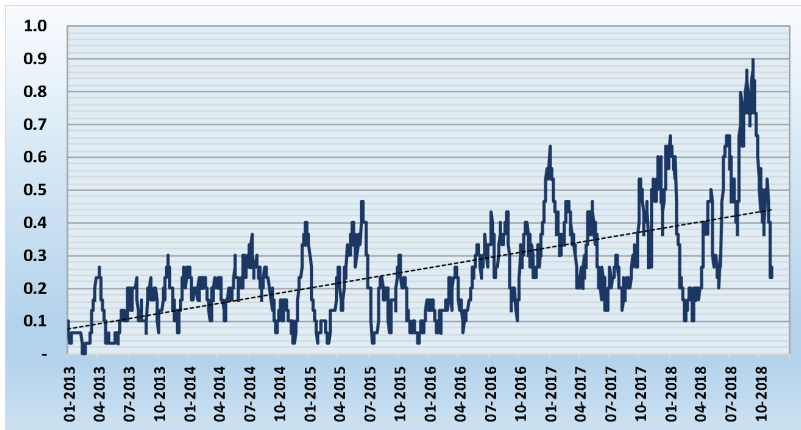


Figure 15: 30-Day Moving Average Emergency Room Visits for GSW, 2013-2018
Source: EpiCenter, SCPH calculations

GSW by Age - As with firearm-related fatalities, the vast majority of GSW-related visits to the ER were young, with nearly 81% of all victims being under age 40. The average age of GSW-related visitors to an ER was just over 29 (see Figure 16).

GSW by Gender - Also like firearm-related fatalities, the vast majority of GSW-related visits to the ER were male (See Figure 17).

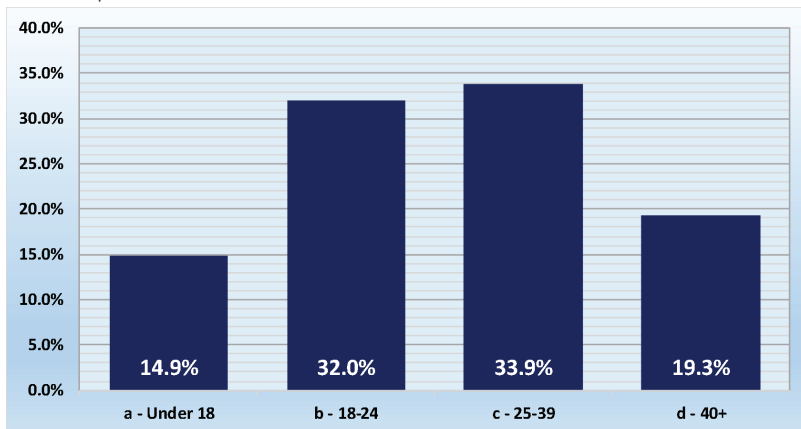


Figure 16: Emergency Room Visits for GSW by Age Group, 2013-2018 Source: EpiCenter, SCPH calculations

GSW by Zip Code - About a third of all GSW-related visits to the ER between 2013 and 2018 came from the 44320 and 44306 zip codes (18% and 14%, respectively). Combined, 15 Summit County Zip Codes had 10 or more GSW-related ER visits during the past 5 years (Figure 18).

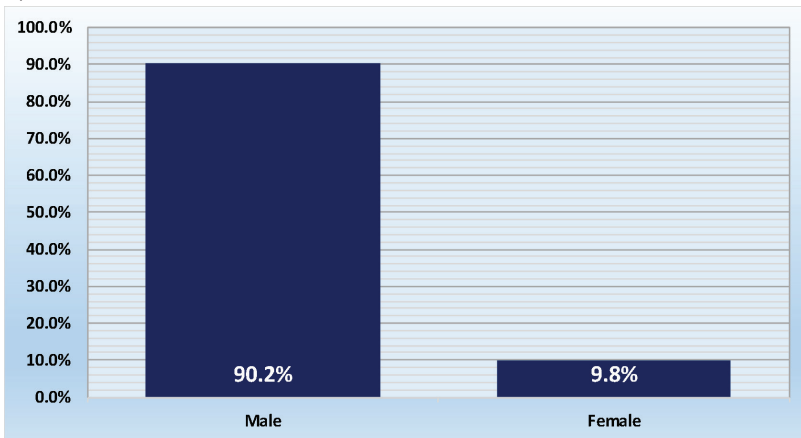


Figure 17: Emergency Room Visits for GSW by Gender, 2013-2018 Source: EpiCenter, SCPH calculations

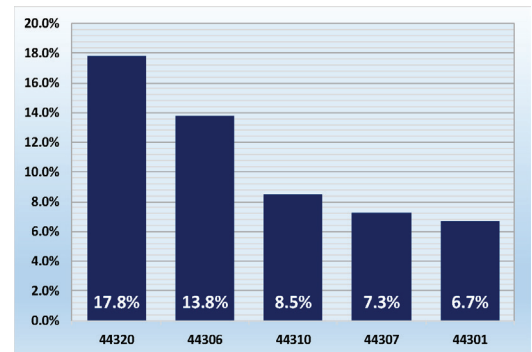


Figure 18: Top 5 Zip Codes for Emergency Room Visits for GSW As A Percent of All GSW Visits by Summit County residents, 2013-2018 Source: EpiCenter, SCPH calculations

Other Violence-Related Emergency Room Visits (not GSW)

Between 2014 and 2018, nearly 7,400 Summit County residents were treated in emergency rooms for a violence-related reason (not related to gunshots). Between 2014 and 2018, violence-related ER visits totalled approximately 4 per day. A total of 466 visits were related to assault victims under age 18 (147.5 per 100,000 total child visits). However, 78% of those visits were to victims age 13-17. Assaults on seniors

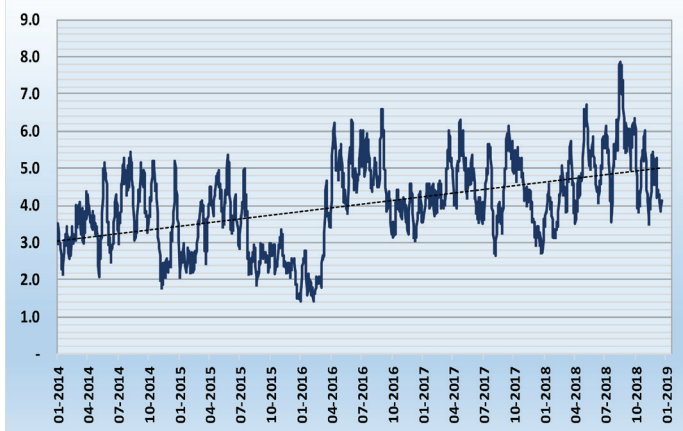


Figure 19: 30-Day Moving Average Emergency Room Visits for Violence / Assault, 2014-2018 Source: EpiCenter, SCPH calculations

were the next most frequent, at 164 visits (59 per 100,000 visits), followed by any rape or sexual assault, at 499 visits (32.7 per 100,000 visits). See Figure 20 for other assault-related rates.

Violence by Age - As with firearm-related fatalities, the vast majority of violence-related visits to the ER were young, with nearly 64% of all victims being under age 35. Three-quarters of sexual assault victims were under age 35.

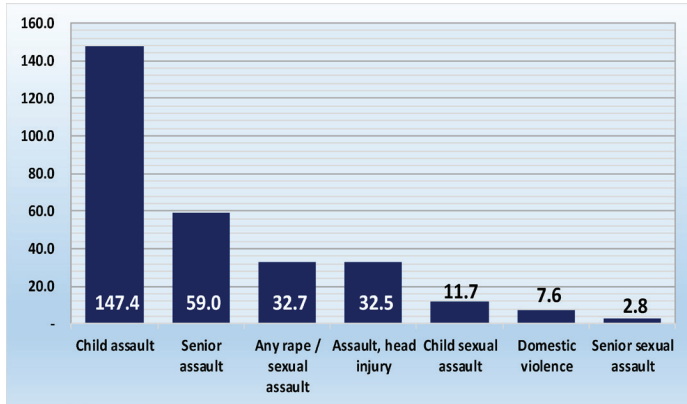


Figure 20: Other Assault-Related ER Visits Per 100,000 Total Visits, 2014-2018 Source: EpiCenter, SCPH calculations

Violence by Gender - Nearly half (44%) of all violence-related ER visits were female, while 56% were male. However, females made up 92% of all rape / sexual assault-related visits, and 84% of rape / sexual assault-related visits involving a child.

Violence by Zip Code - About 12% of visits to ERs by visitors in zip code 44306 were violence-related, the highest percentage of any Summit County zip code. Just over 9% of visits to ERs by visitors in zip code 44306 were sexual-assault-related.

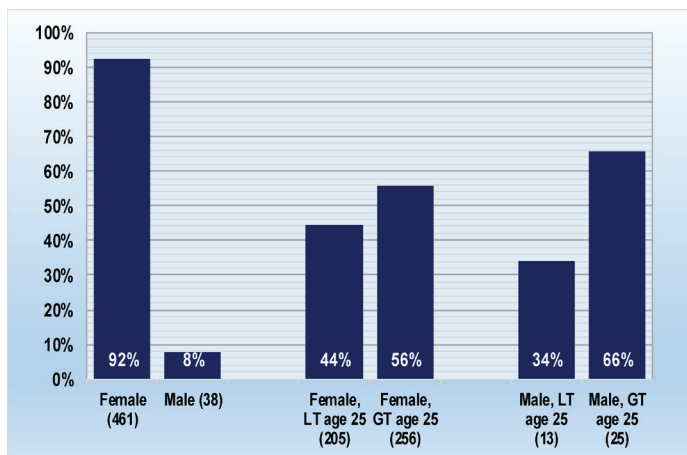


Figure 21: Sexual Assault ER Visits by Gender, 2014-2018 (Number of visits in parentheses) Source: EpiCenter, SCPH calculations

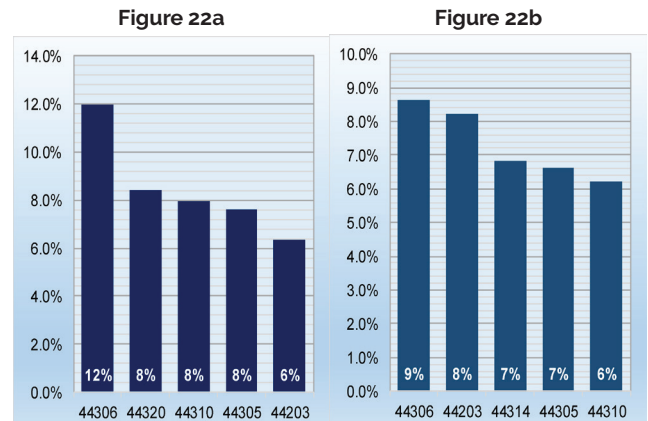


Figure 22a and 22b: Top 5 Zip Codes for Emergency Room Visits for Violence / Assault and Sexual Assault As A Percent of Total Visits of Each Type, 2014-2018 Source: EpiCenter, SCPH calculations