

Population Health Vital Statistics Brief:

Suicide, 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



Summit County Public Health • Population Health Division
1867 W. Market St., Akron, Ohio 44313 • (330) 923-4891
www.scphoh.org

Introduction

This is the fifth of several 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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Age-Adjusted Suicide Rates in Summit County

Age-adjusted suicide rates in Summit County was just above the national average, 14.4 per 100,000 in 2020 (the last year that comparable data was available). Suicide rates rose steadily between 2010 and 2015, then began trending downward from its 2015 peak of 17.6 per 100,000. Suicide rates also rose for the nation as a whole, peaking at 14.8 per 100,000 in 2018.¹ Despite the recent declines, age-adjusted suicide rates were 47% higher in 2020 than they were in 2007. The national rate only rose by 19% between those same years.

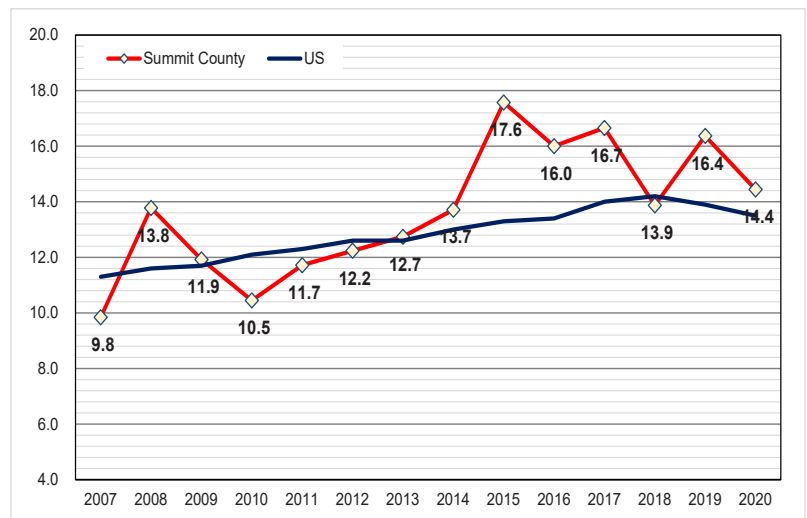


Figure 1: Age-Adjusted Suicide Rates in Summit County and the U.S.
Source: Ohio Department of Health (ODH) Death Certificate Data, Centers for Disease Control and Prevention

¹ Source: Centers for Disease Control and Prevention, CDC Wonder Underlying Cause of Death Statistics.

10 Leading Causes of Death by Age Group, Summit County, 2007-2021

Rank	Under 5	5 - 14	15 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	75 - 84	85 & over
1	Unintentional injury	Unintentional injury	Unintentional injury	Unintentional injury	Unintentional injury	Cancer	Cancer	Cancer	Heart disease	Heart disease
2	Perinatal condit.	Cancer	Assault (homicide)	Assault (homicide)	Cancer	Heart disease	Heart disease	Heart disease	Cancer	Alzheimer's disease
3	Congen / chromo abnorm	Assault (homicide)	Suicide	Suicide	Heart disease	Unintentional injury	COVID-19	COVID-19	COVID-19	COVID-19
4	Heart disease	Other cancers	Diabetes	Heart disease	Suicide	COVID-19	Unintentional injury	Chronic lower respiratory	Alzheimer's disease	Cancer
5	Cancer	Suicide	Cancer	Cancer	COVID-19	Chronic liver disease	Chronic lower respiratory	Diabetes	Chronic lower respiratory	Stroke
6	Assault (homicide)	--	Congen / chromo abnorm	COVID-19	Assault (homicide)	Stroke	Diabetes	Stroke	Stroke	Chronic lower respiratory
7	--	--	COVID-19	Septicemia	Diabetes	Diabetes	Stroke	Unintentional injury	Diabetes	Unintentional injury
8	--	--	Heart disease	Chronic lower respiratory	Chronic liver disease	Suicide	Chronic liver disease	Chronic liver disease	Unintentional injury	Hypertension
9	--	--	Diseases of appendix	Influenza and pneumonia	Stroke	Chronic lower respiratory	Septicemia	Kidney disease	Parkinson's disease	Diabetes
10	--	--	Septicemia	Congen / chromo abnorm	Kidney disease	Septicemia	Suicide	Septicemia	Kidney disease	Kidney disease
Suicide Rank	--	5	3	3	4	8	9	--	--	--

Figure 2: Ten Leading Causes of Death Ranked For 10 Different Age Groups Source: ODH Death Certificate Data, Centers for Disease Control and Prevention

The table above, originally published in the *Death and Life Expectancy* data brief, is based on a format originally designed by the CDC. It shows the top 10 leading causes of death for each of 10 age groups for people in Summit County. Some of the more common causes of death are color-coded so that readers can follow the progression of that disease throughout the age spectrum. Suicide rates are the second, third, and fourth-leading causes of death in earlier years (ages 15-44), then drops to 10th place for those age 55-64, and out of the top 10 causes altogether for older adults.

Trends in attempted suicides² -- About 7.2 Summit County residents visit an emergency room (ER) per day to be treated for a suicide-related visit between 2017 and 2022 to date. ER visits for suicide-related reasons peaked at 9.7 per day in mid-May 2018, and currently stand at 7.2 per 100,000.³ Most visits to the ER for suicide attempts are by Whites (87%), males (53%) and those age 18-64. The average age for all suicide-related ER visits is 37.1 years.

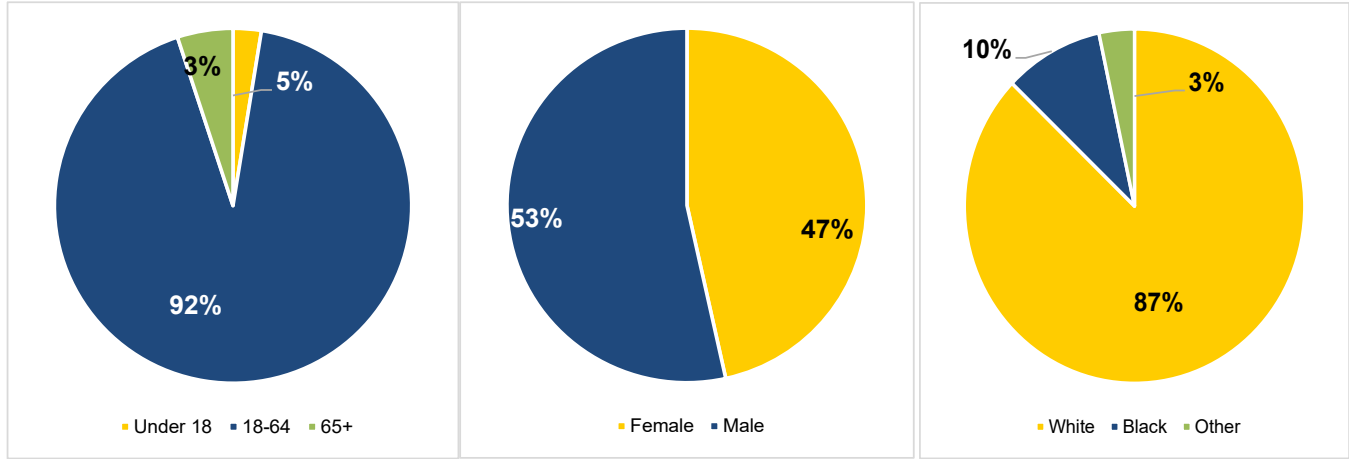


Figure 3a (age), 3b (sex), 3c (race): Suicide-related visits to an ER, 2017-2022, Source: EpiCenter

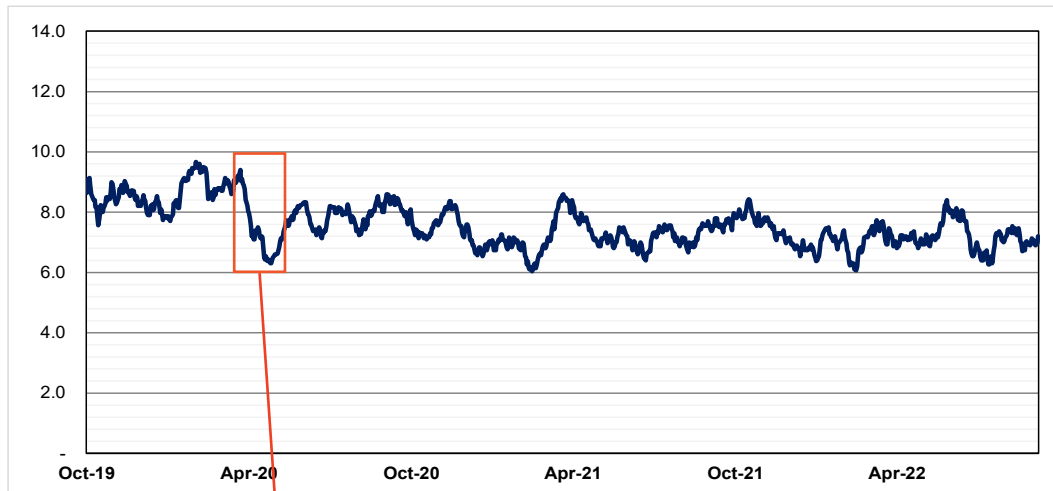


Figure 4: 30-Day Moving Average of Visits to the ER for Any Suicide-Related Reason, Summit Co. 2017-22 YTD Source: EpiCenter

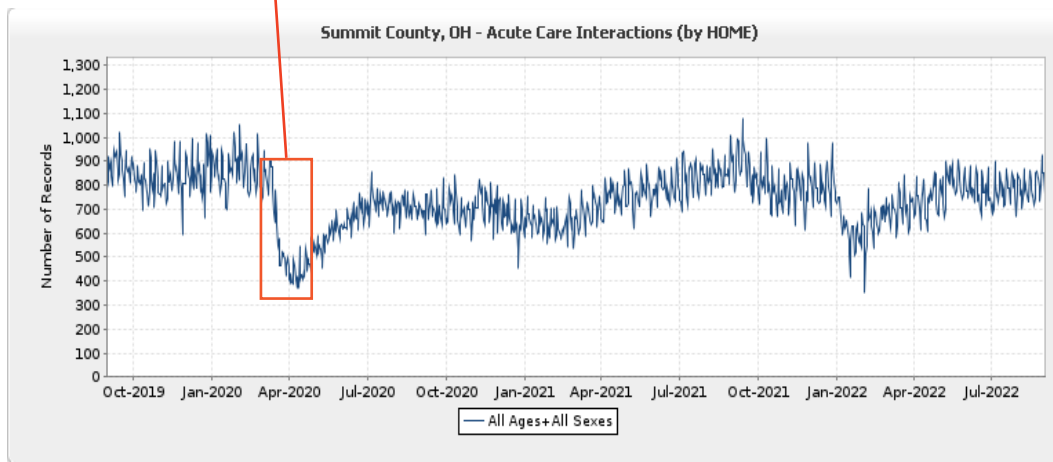


Figure 5: Total ER visits, Summit Co. 2017-22 YTD, Source: EpiCenter

³ Total visits ER visits dropped by 21% in Spring 2020 due to COVID-19. Suicide-related visits dropped at the same time and have remained lower since then. Therefore, this data should be viewed with caution, as there is no way to know for sure how suicide-related visits may have been impacted by COVID-19.

² There is no way to determine the ultimate outcome of those who visit the ER because of a suicide attempt based on available ER data. However, based on data analyzed by the *American Association of Suicidology*, only about one out of every 25 suicide attempts is successful. If this estimate is accurate, it's possible that many of those who end up in the ER because of a suicide attempt may have survived it.

Demographic Differences In Suicide Rates

Age -- More than two-thirds of all suicides occur before age 55 (68%). Suicides are rare in the under age 18 population, accounting for 4% of all suicide deaths between 2000 and 2021. Suicides increase by age group until peaking in the 45-54 age group, which alone accounts for more than 22% of all suicide deaths. About 32% of all suicide deaths take place among those ages 55 and higher.

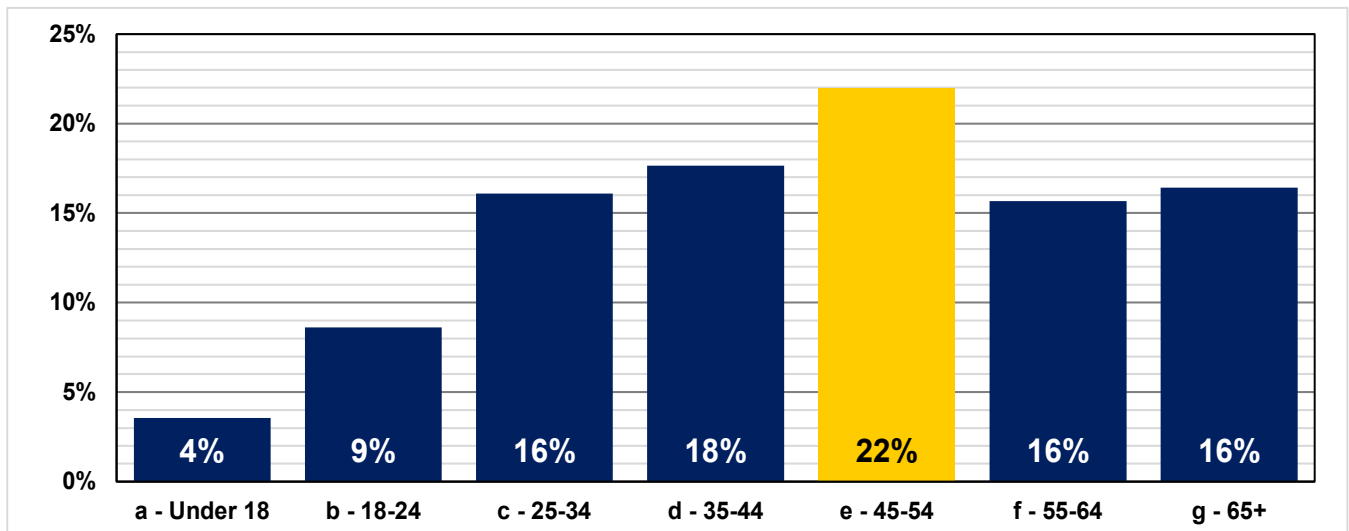


Figure 5: Percent of Suicides By Age Group, Summit Co. 2007-2021
 Source: Ohio Department of Health (ODH) Death Certificate Data

Race / Ethnicity-- The vast majority of people who committed suicide between 2007 and 2021 were white (89%), while 8% of suicides were African-American and 3% were members of another race. Comparisons to the nation as a whole show that Summit County is more or less in line with national trends. Less than 1% of suicide deaths were identified as Hispanic.

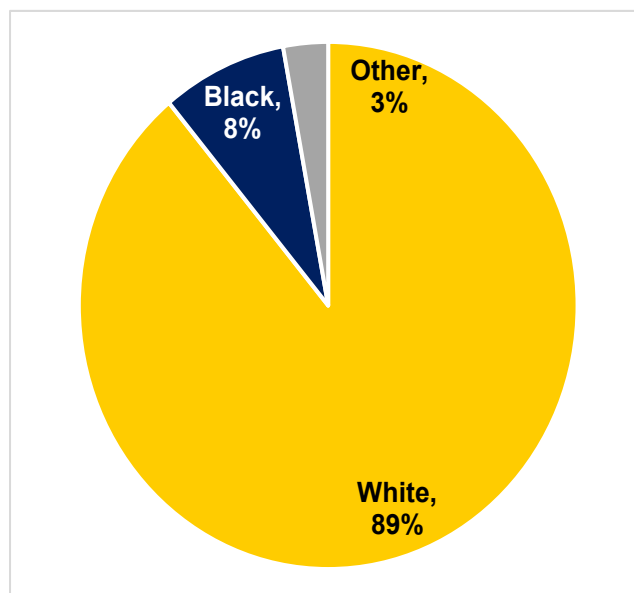


Figure 6: Percent of Suicides By Race, Summit County, 2007-2021

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

Gender -- Males make up an overwhelming majority of suicide deaths, 79% vs. 21% for females. This is also true nationally, and has been consistent since at least 2007 in Summit County.

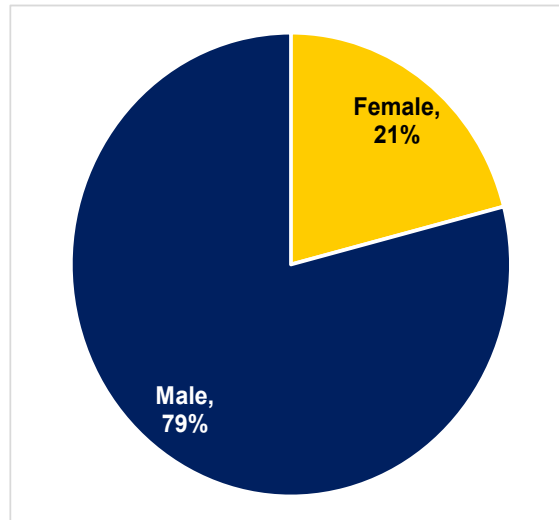


Figure 7: Percent of Suicides By Sex, Summit County, 2007-2021
 Source: Ohio Department of Health (ODH) Death Certificate Data, Centers for Disease Control and Prevention

Gender and Means -- According to the Centers for Disease Control and Prevention, females are more likely than males to have suicidal thoughts and to attempt suicide. However, as shown above, males are four times more likely to successfully take their own lives than females.⁴ One reason is the preferred means of suicide for each gender (see Figure 6). Males are more likely to use a firearm than females, while females are more likely to intentionally overdose on drugs than males. The fact that firearms are both far more lethal and kill more quickly than drug overdoses is a major contributing factor to the higher death rate among males.⁵ Data presented in Figure 6 show that males are twice as likely as females to use a firearm in their suicide attempt, while females were 6 times more likely to resort to intentional poisoning (most often drug poisoning) than males. Males and females were about equally likely to use a means other than firearms or drug overdoses.

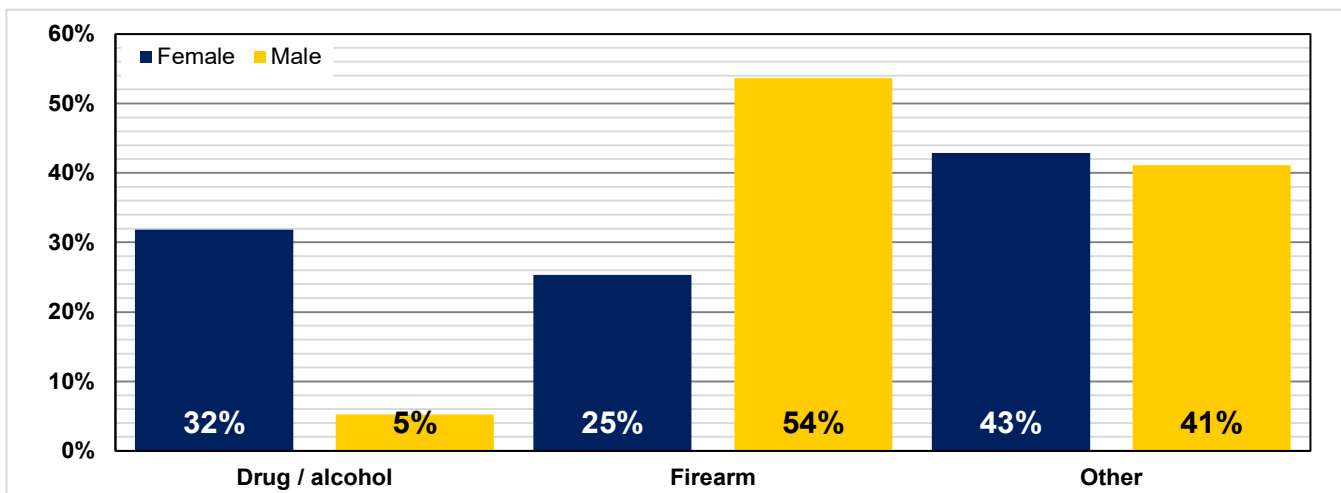


Figure 8: Suicide by Gender and Means of Suicide in Summit County, 2007-2021 Source: ODH death records and SCPH calculations

⁴ Centers for Disease Control and Prevention (CDC). Web-based Injury Statistics Query and Reporting System (WISQARS) [Online]. (2013, 2011) National Center for Injury Prevention and Control, CDC (producer). Available from <http://www.cdc.gov/injury/wisqars/index.html>.

⁵ Spicer, R.S. and Miller, T.R. Suicide acts in 8 states: incidence and case fatality rates by demographics and method. American Journal of Public Health. 2000;90(12):1885).

Educational Attainment -- Nearly two-thirds of all suicide deaths are among people with less than a 4-year degree. Of that group, those with only a high school diploma or GED were the most likely to commit suicide (49%), 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 83% of all suicides. Males made up the vast majority of suicides across all educational categories.

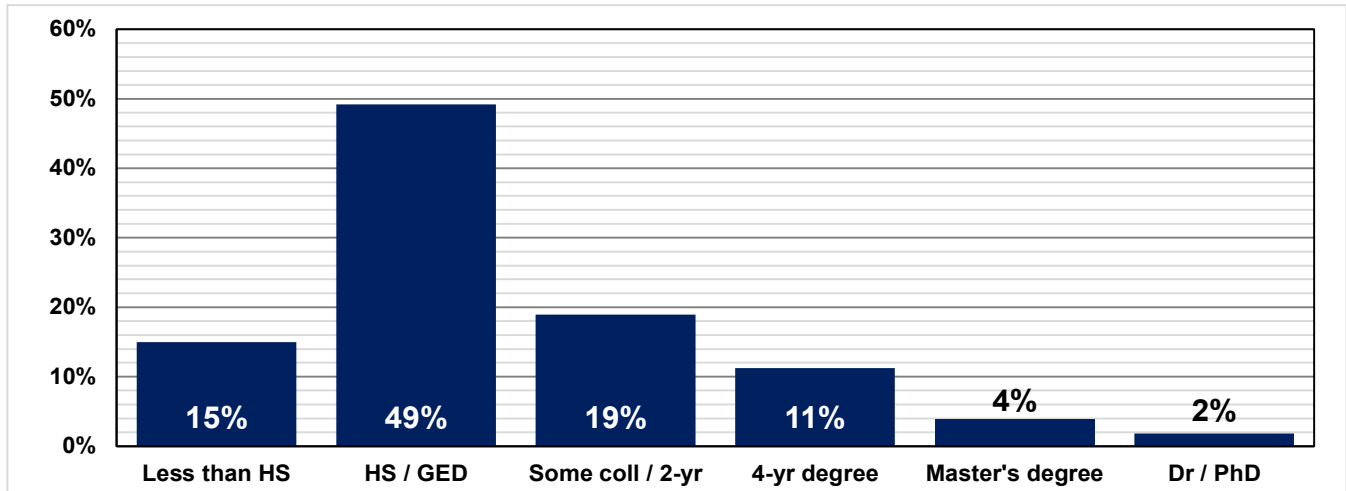


Figure 9: Percent of Suicides By Educational Attainment and Sex, Summit County, 2007-2021 (total for all categories = 100%) Source: Ohio Department of Health (ODH) Death Certificate Data, Centers for Disease Control and Prevention

Marital Status -- The marital status of suicide victims is very different from the population as a whole. Those who commit suicide are significantly more likely to be divorced, more likely to be single (never married), and significantly less likely to be married, than Summit County residents age 15 and over.

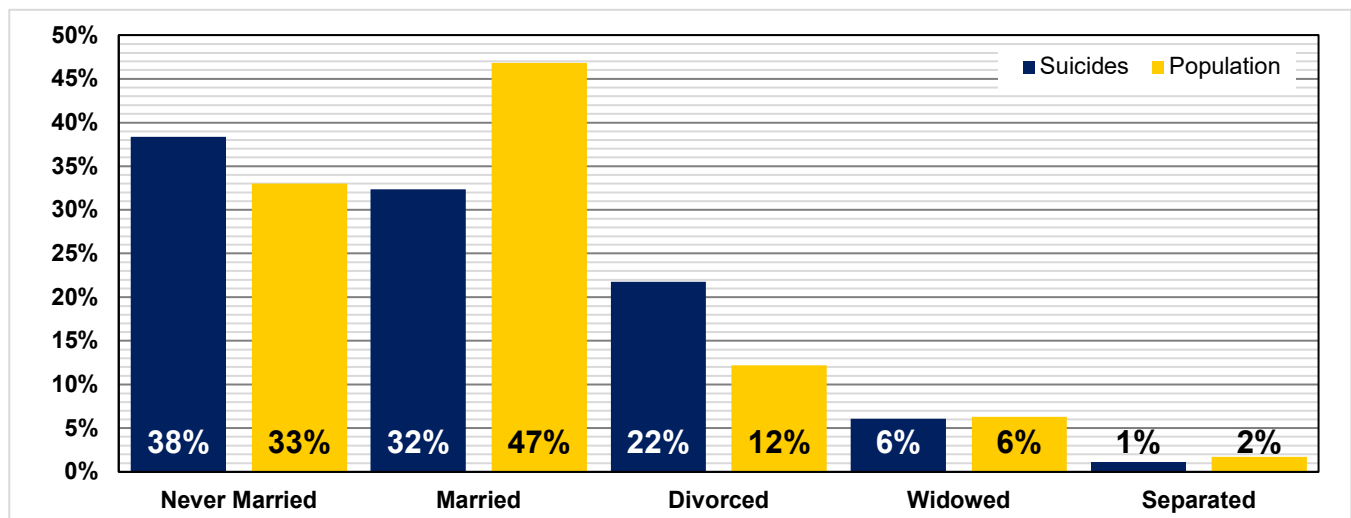


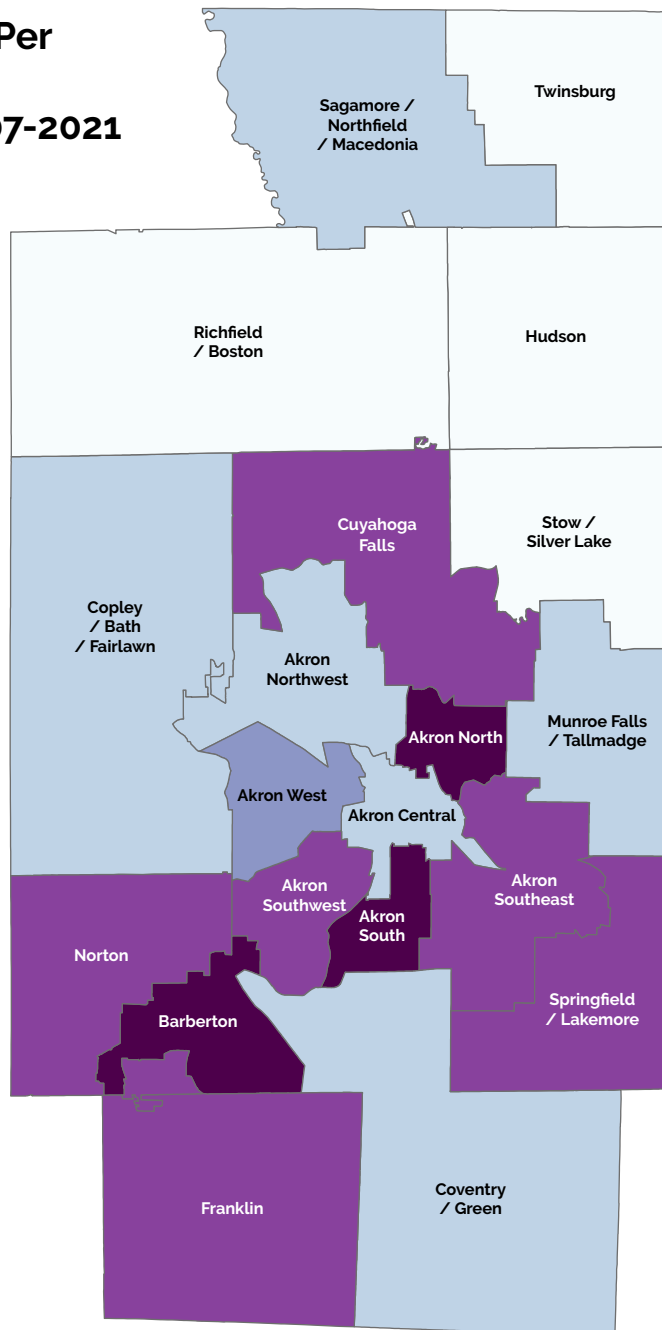
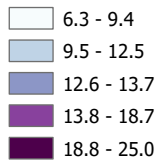
Figure 10: Suicides By Marital Status, Summit County, 2007-2021 Source: Ohio Department of Health (ODH) Death Certificate Data, , SCPH calculations, American Community Survey

Geography -- Suicide rates per 100,000 people are highest in the Akron North, Barberton, and Akron South clusters. The county's lowest suicide rates can be found in the Hudson and Richfield / Boston, Twinsburg, and Stow / Silver Lake clusters.

Suicide Death Rate Per 100,000 Population, Summit County, 2007-2021

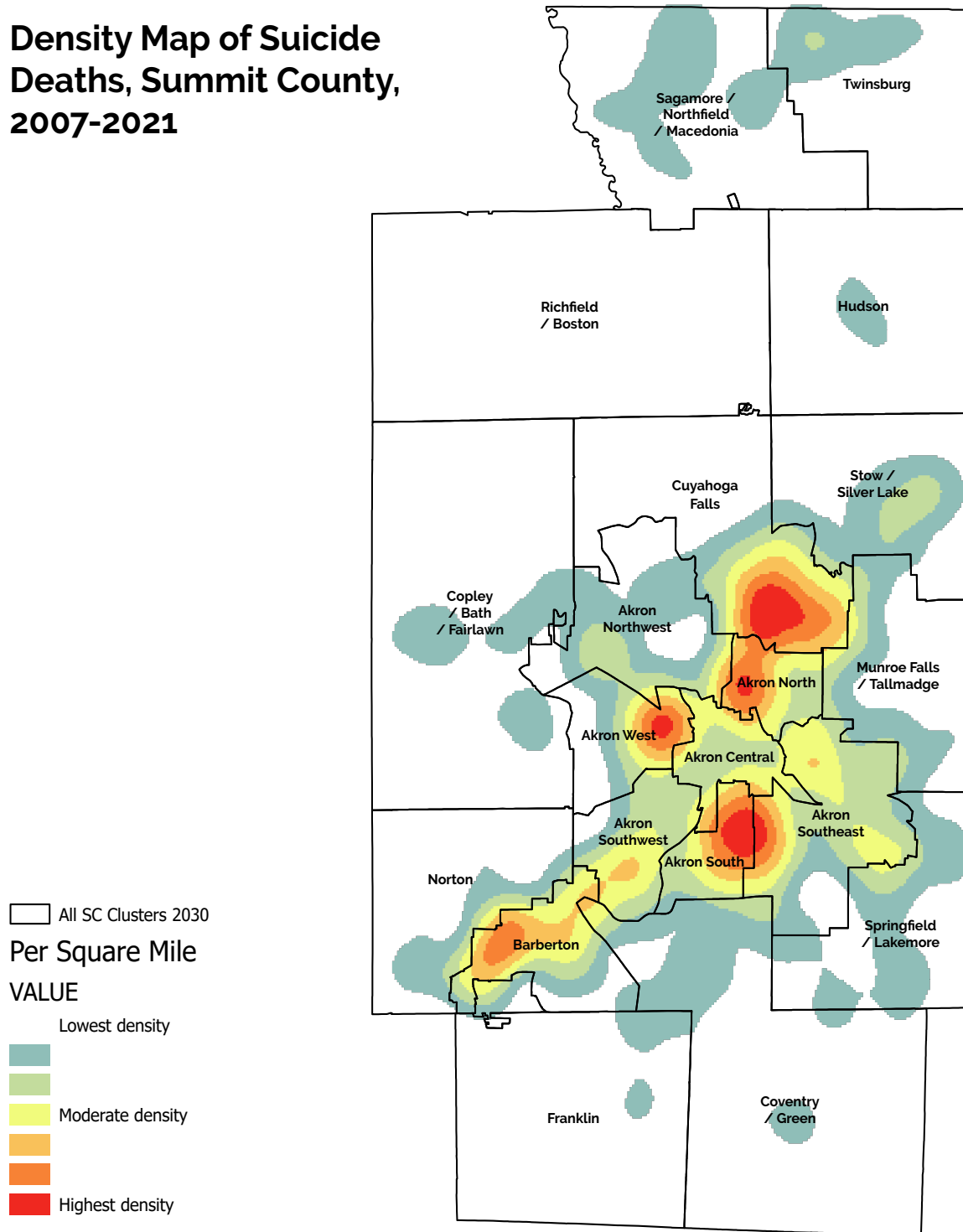
All SC Clusters 2030

Rate per 100,000



Map 1: Suicide Rates Per 100,000 by Summit County Cluster
 Source: ODH death records, SCPH calculations

Density Map of Suicide Deaths, Summit County, 2007-2021



Map 2: Density Map of Suicide Deaths by Summit County Cluster
Source: ODH death records, SCPH calculations

Risk and Protective Factors for Suicide

The Centers for Disease Control and Prevention (CDC) have identified several risk and protective factors that help identify situations in people's lives that make suicide more likely (risk factors) or less likely (protective factors). These factors, taken from the CDC's Violence Prevention website, are listed below:

Risk Factors	Protective Factors
<p>A combination of individual, relationship, community, and societal factors contribute to the risk of suicide. Risk factors are those characteristics associated with suicide—they might not be direct causes.</p> <ul style="list-style-type: none"> • Family history of suicide • Family history of child maltreatment • Previous suicide attempt(s) • History of mental disorders, particularly clinical depression • History of alcohol and substance abuse • Feelings of hopelessness • Impulsive or aggressive tendencies • Cultural and religious beliefs (e.g., belief that suicide is noble resolution of a personal dilemma) • Local epidemics of suicide • Isolation, a feeling of being cut off from other people • Barriers to accessing mental health treatment • Loss (relational, social, work, or financial) • Physical illness • Easy access to lethal methods • Unwillingness to seek help because of the stigma attached to mental health and substance abuse disorders or to suicidal thoughts 	<p>Protective factors buffer individuals from suicidal thoughts and behavior. To date, protective factors have not been studied as extensively or rigorously as risk factors. Identifying and understanding protective factors are, however, equally as important as researching risk factors.</p> <ul style="list-style-type: none"> • Effective clinical care for mental, physical, and substance abuse disorders • Easy access to a variety of clinical interventions and support for help seeking • Family and community support (connectedness) • Support from ongoing medical and mental health care relationships • Skills in problem solving, conflict resolution, and nonviolent ways of handling disputes • Cultural and religious beliefs that discourage suicide and support instincts for self-preservation



Figure 11: Risk and Protective Factors for Suicide

Source: Centers for Disease Control and Prevention, Injury Prevention and Control.

Retrieved from <http://www.cdc.gov/ViolencePrevention/suicide/riskprotectivefactors.html>



The Campaign to Change Direction is a collection of concerned citizens, nonprofit leaders, as well as leaders from the private and public sectors who have come together to change the culture about mental health, mental illness, and wellness.



Make a Pledge
to share the signs.



Join the Conversation
#ChangeMentalHealth



Need Help?
Reach out
and get the help
you need



Attend an event
and learn more about
mental health.

changedirection.org

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**Connect. Reach Out. Inspire Hope.
Offer Help.**

Show compassion and caring and a willingness to find a solution when the person may not have the will or drive to do it alone. There are many resources in our communities.

If everyone is more open and honest about our emotional health and well-being, we can prevent pain and suffering, and those in need will get the help they deserve.

