

# Population Health Vital Statistics Brief:

## Suicide, 2007-2018

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](http://scph.org/assessments-reports)



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## 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 have been rising for at least the past four years. Suicide rates rose from 11.7 per 100,000 population in 2011 to 18.0 per 100,000 by 2015. Between 2011 and 2018, age-adjusted suicide rates rose by 18% (with a large spike in 2015). Suicide rates also rose for the nation as a whole, from 11.7 per 100,000 in 2011 to a projected 13.7 per 100,000 in 2018.<sup>1</sup> However, the projected increase in suicide rates nationally during that period was only 9%.

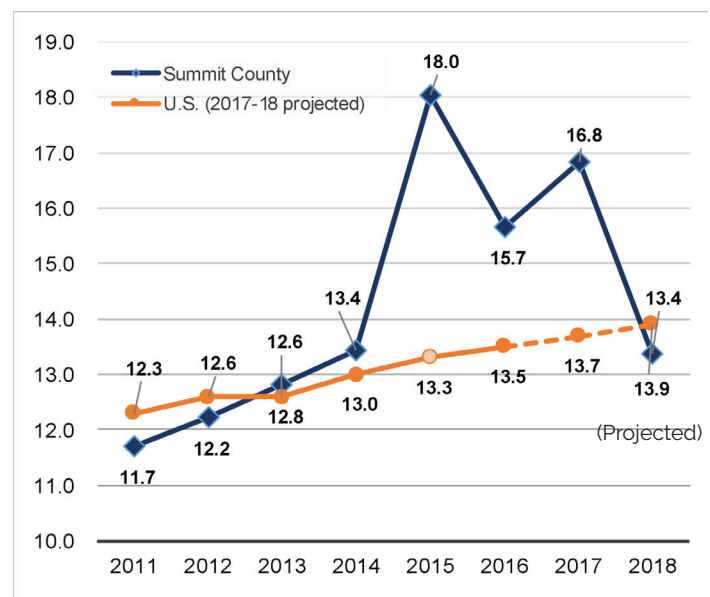


Figure 1: Age-Adjusted Suicide Rates in Summit County and the U.S. Source: Ohio Department of Health (ODH) Death Certificate Data, Centers for Disease Control and Prevention

<sup>1</sup> Data for the nation as a whole came from the Centers for Disease Control and Prevention, National Center for Health Statistics for the period 2011-2017. SCPH projected 2017 figures by applying the average annual growth rates for the 2011-2016 period and applying them to the 2016 data.

**10 Leading Causes of Death by Age Group, All Races in Summit County, 2007-2018**

Rank	Under 5 years	5 - 14 years	15 - 24 years	25 - 34 years	35 - 44 years	45 - 54 years	55 - 64 years	65 - 74 years	75 - 84 years	85 yrs & over
1	Conditions originating in the perinatal period	Accidental	Accidental	Accidental	Accidental	Cancer	Cancer	Cancer	Cancer	Heart Disease
2	Congenital malformations / chromosomal abnormalities	Assault (homicide)	Suicide	Suicide	Heart Disease	Heart Disease	Heart Disease	Heart Disease	Heart Disease	Cancer
3	Accidental	Cancer	Assault (homicide)	Assault (homicide)	Cancer	Accidental	Chronic lower respiratory diseases	Chronic lower respiratory diseases	Chronic lower respiratory diseases	Alzheimer's disease
4	Heart Disease	Heart Disease	Cancer	Heart Disease	Suicide	Suicide	Accidental	Cerebrovascular diseases	Cerebrovascular diseases	Cerebrovascular diseases
5	Assault (homicide)	Suicide	Heart Disease	Cancer	Assault (homicide)	Chronic liver disease / cirrhosis	Diabetes	Diabetes	Alzheimer's disease	Chronic lower respiratory diseases
6	Septicemia	Congenital malformations / chromosomal abnormalities	Congenital malformations / chromosomal abnormalities	Diabetes	Chronic liver disease / cirrhosis	Diabetes	Cerebrovascular diseases	Accidental	Diabetes	Influenza and pneumonia
7	Cerebrovascular diseases	Cerebrovascular diseases	Cerebrovascular diseases	Cerebrovascular diseases	Diabetes	Cerebrovascular diseases	Chronic liver disease / cirrhosis	Kidney diseases	Influenza and pneumonia	Diabetes
8	Kidney diseases	Chronic lower respiratory diseases	Pregnancy, childbirth and the puerperium	Congenital malformations / chromosomal abnormalities	Cerebrovascular diseases	Chronic lower respiratory diseases	Suicide	Septicemia	Kidney diseases	Accidental
9	Influenza and pneumonia	Septicemia	Chronic lower respiratory diseases	Chronic liver disease / cirrhosis	Human immunodeficiency virus (HIV) disease	Septicemia	Kidney diseases	Influenza and pneumonia	Accidental	Essential (primary) hypertension and hypertensive renal disease
10	Chronic lower respiratory diseases	Influenza and pneumonia	Diabetes	Chronic lower respiratory diseases	Influenza and pneumonia	Influenza and pneumonia	Septicemia	Chronic liver disease / cirrhosis	Septicemia	Kidney diseases

**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- and third-leading causes of death in earlier years (ages 5-34), then drops to 9th place for those age 55-64, and out of the top 10 causes altogether for older adults.

**Trends in attempted suicides\*** -- About 6.1 Summit County residents visit an emergency room (ER) per day to be treated for a suicide-related visit between 2017 and 2018. ER visits for suicide-related reasons began rising from 4.5 per day in June 2017 and hitting a peak of 9.5 per day in August 2018. Since then, visits per day have declined, falling to about 6.9 per day by December 2018. Rates began rising again by the end of the year, but are still well below the May 2017 peak. Most visits to the ER for suicide attempts are by males (53% vs. 47% by males). The average age is just under 38 years.

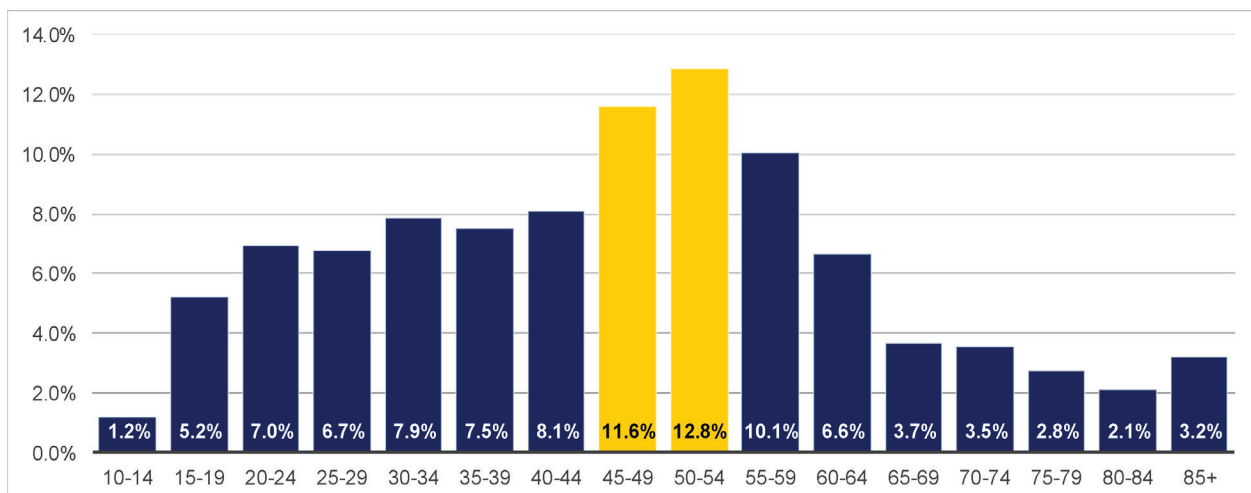


\* Note: It is not possible to learn the ultimate outcome of those who visit the ER because of a suicide attempt. The only data available from individual (de-identified) cases are the initial case notes taken upon entry to the ER. However, based on data analyzed by the *American Association of Suicidology*, 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.

**Figure 3: 30-Day Moving Average of Visits to the ER for Any Suicide-Related Reason, Summit Co. 2016-2018** Source: EpiCenter

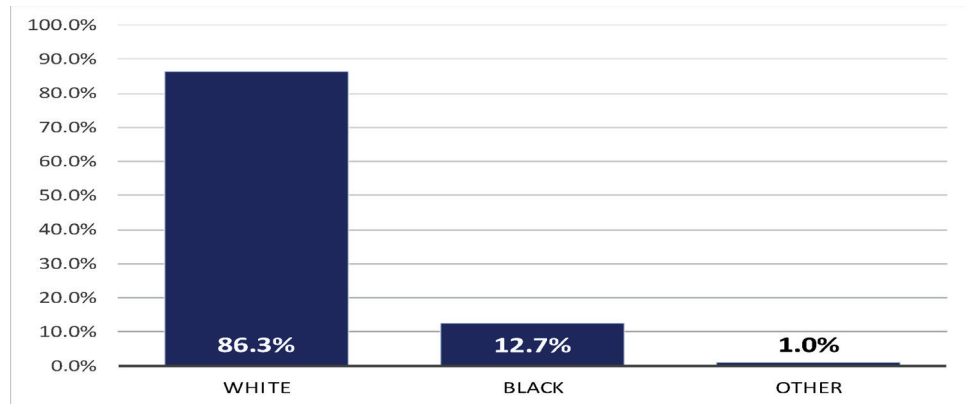
## Demographic Differences In Suicide Rates

**Age** -- More than two-thirds of all suicides occur before age 55 (68%). Suicides are rare in the under age 15 population, accounting for 1.2% of all suicide deaths between 2000 and 2017. Suicides average 5% to 8% between the ages of 15 and 44, then peak at about 13% of the total between the ages of 45 and 54. Beginning with ages 55-64, the percentage of suicides declines until age 85. For the entire 65 and older age group, the suicide rate averages 3.1%.



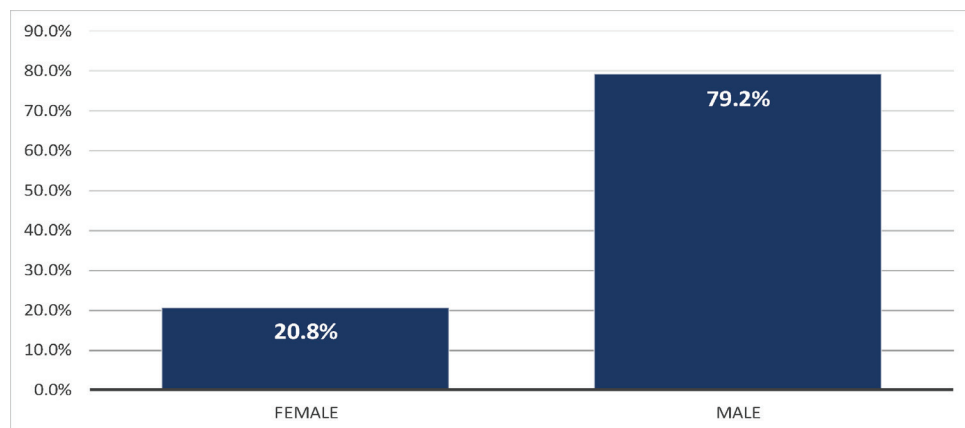
**Figure 3: Percent of Suicides By Age Group, Summit Co. 2007-2018** Source: Ohio Department of Health (ODH) Death Certificate Data

**Race** -- The vast majority of people who committed suicide between 2007 and 2018 were white (86%), while 13% of suicides were African-American and 1% 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.



**Figure 4: Percent of Suicides By Race, Summit County, 2007-2018**  
 Source: Ohio Department of Health (ODH) Death Certificate Data

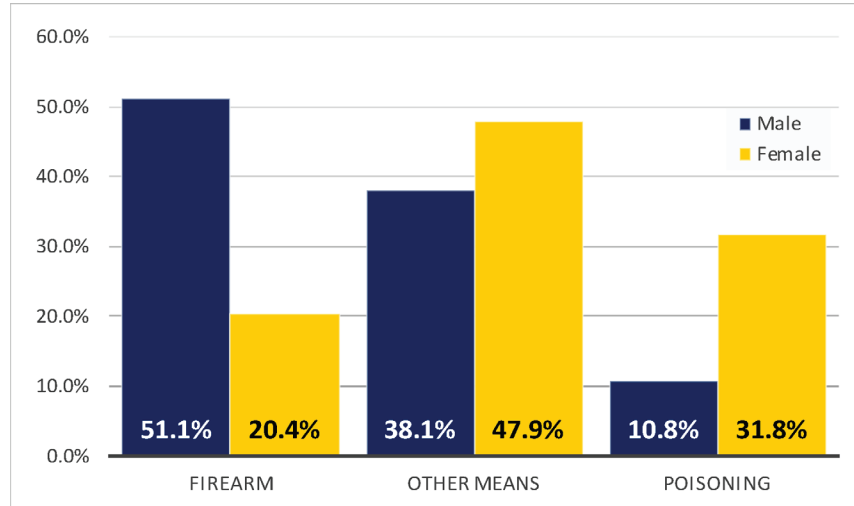
**Gender** -- Males are far more likely to commit suicide than females, 79% to 21%. This is also true nationally, and has been consistent since at least 2007 in Summit County.



**Figure 5: Percent of Suicides By Sex, Summit County, 2007-2018**  
 Source: Ohio Department of Health (ODH) Death Certificate Data, Centers for Disease Control and Prevention

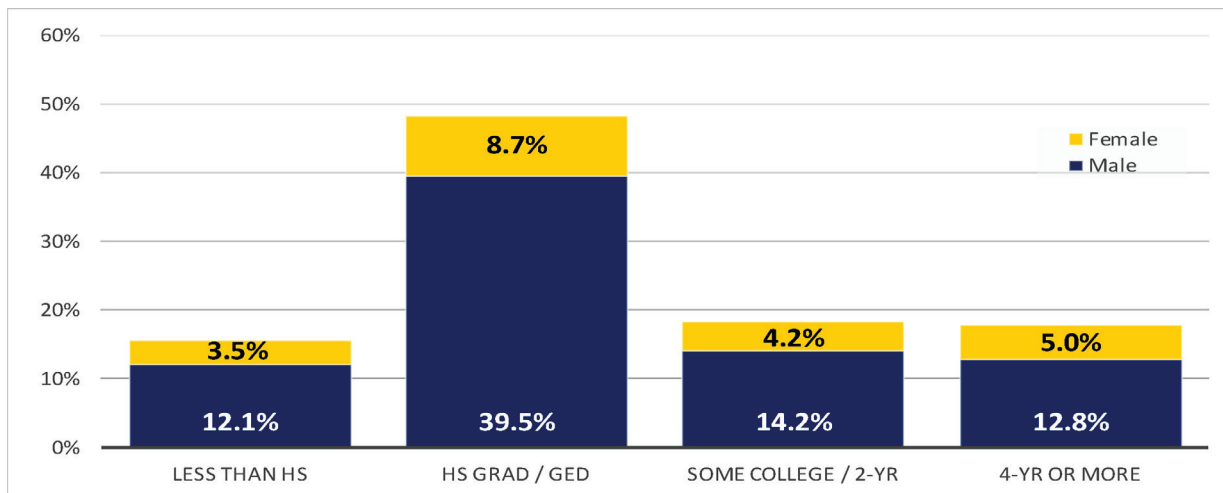
**Gender and Means** -- According to the Centers for Disease Control and Prevention, females are more likely than males to have suicidal thoughts and to attempt suicide. However, as shown above, males are four times more likely to successfully take their own lives than females.<sup>2</sup> One reason 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.<sup>3</sup>

Data presented in Figure 6 show that males are 2.5 times more likely than females to use a firearm in their suicide attempt, while females were 2.9 times more likely to resort to intentional poisoning (the vast majority of which were drug overdoses) than males. Females were more likely to use a means other than firearms or drug overdoses.



**Figure 6: Suicide by Gender and Means of Suicide in Summit County, 2007-2018** Source: ODH death records and SCPH calculations

**Educational Attainment** -- Nearly two-thirds of all suicides are committed by 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 (48.2%), 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 82% of all suicides. Males made up the vast majority of suicides across all educational categories.

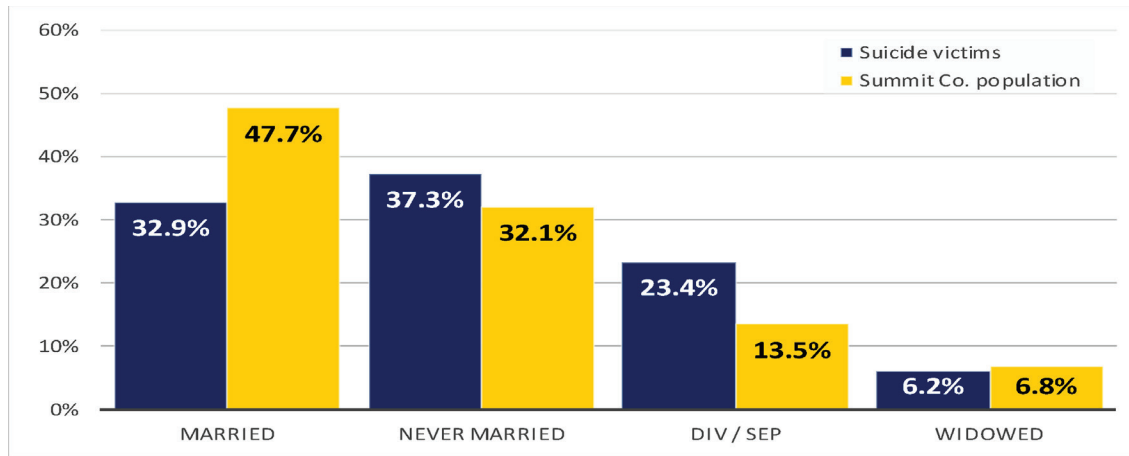


**Figure 7: Percent of Suicides By Educational Attainment and Sex, Summit County, 2007-2018** (total for all categories = 100%) Source: Ohio Department of Health (ODH) Death Certificate Data, Centers for Disease Control and Prevention

<sup>2</sup> 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>.

<sup>2</sup> 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).

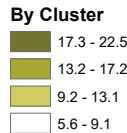
**Marital Status** -- The marital status of suicide victims is very different from the population as a whole. Those who commit suicide are significantly more likely to be divorced or separated, more likely to be single (never married), and significantly less likely to be married, than Summit County residents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



**Figure 8: Suicides By Marital Status, Summit County, 2007-2018**  
 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, 17.5, and 15.6 per 100,000, respectively. The county's lowest suicide rates can be found in the Hudson and Richfield / Boston clusters.

**Suicide Rates Per 100,000 Population, Summit County 2007-2018**



**Figure 9: Suicide Rates Per 100,000 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

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.

- 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

### Protective Factors

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.

- 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 10: 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>

## Five Signs of Suffering



**Their personality changes**  
Sudden or gradual changes in the way someone typically behaves



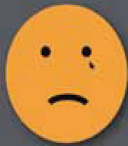
**Uncharacteristic anger, anxiety, or agitation**  
Frequent problems controlling his or her temper and the inability to calm down



**Withdrawn and isolated**  
Pulls away from family and friends and no longer enjoys usual activities



**Personal hygiene neglect**  
Changes personal care habits or begins participating in risky behaviors



**Prolonged hopelessness**  
Loses optimism and expresses hopelessness about most life situations

Nearly one in every five people, or 42.5 million American adults, has a diagnosable mental health condition. Half of all lifetime cases of mental disorders begin by age 14. Often our friends, neighbors, co-workers, and even family members are suffering emotionally and don't recognize the symptoms or won't ask for help.

### IF YOU RECOGNIZE THAT SOMEONE IN YOUR LIFE IS SUFFERING, NOW WHAT?

You connect, you reach out, you inspire hope, and you offer help. Show compassion and caring and a willingness to find a solution when the person may not have the will or drive to help themselves. There are many resources in our communities. It may take more than one offer, and you may need to reach out to others who share your concern about the person who is suffering.

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

**24/7 Support Hotline, 330-434-9144**

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