

SUMMIT COUNTY PUBLIC HEALTH

Population Health Vital Statistics Brief: VOLUME 5: SUICIDE



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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 more than 17.5 per 100,000 by 2015. Between 2011 and 2017, age-adjusted suicide rates rose by 20% (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 2017.¹ However, the increase in suicide rates nationally during that period was only 11%.

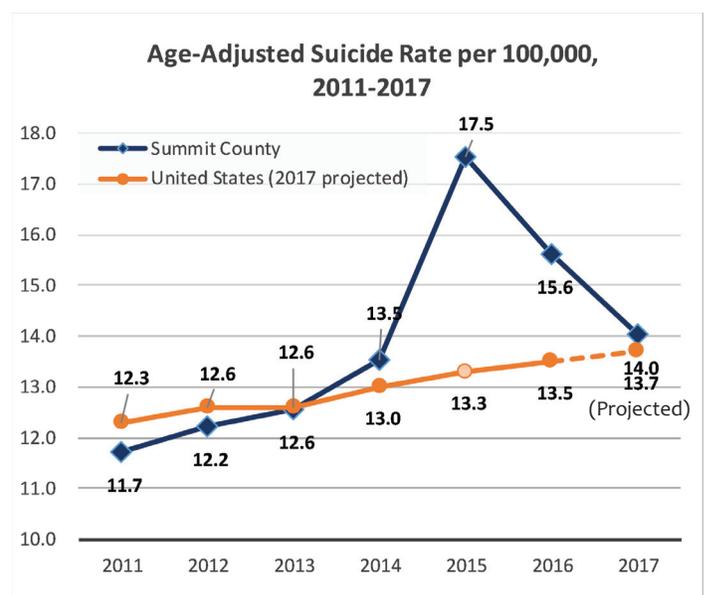


Figure 1: Age-Adjusted Suicide Rates in Summit County and the U.S.
Source: Ohio Department of Health (ODH) Death Certificate Data, Centers for Disease Control and Prevention

¹ 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.

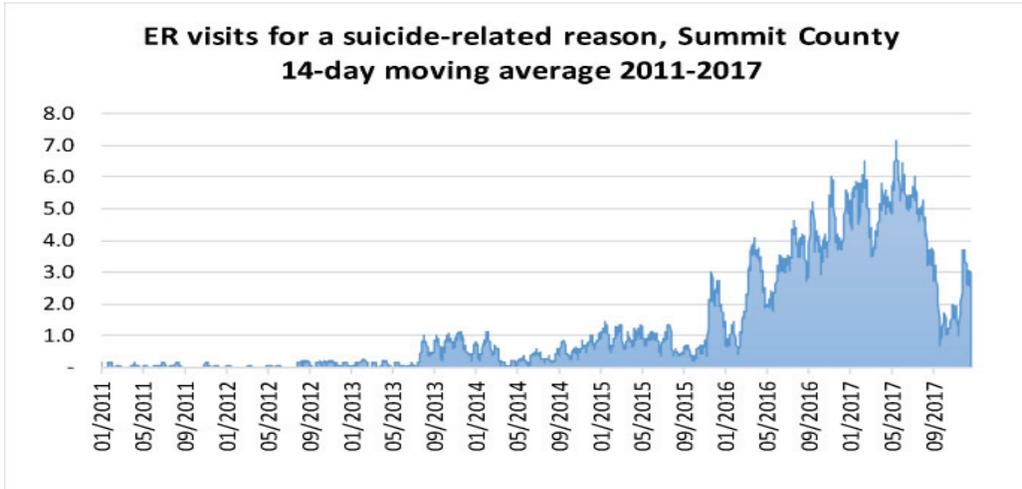
10 Leading Causes of Death by Age Group, Summit County, 2000-2017

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	Condition originating in the perinatal period	Unintentional Injury	Unintentional Injury	Unintentional Injury	Unintentional Injury	Cancer	Cancer	Cancer	Heart disease	Heart disease
2	Congenital Anomalies	Homicide	Suicide	Suicide	Heart disease	Heart disease	Heart disease	Heart disease	Cancer	Cancer
3	Unintentional Injury	Cancer	Homicide	Homicide	Cancer	Unintentional Injury	Chronic Lower Respiratory Disease	Chronic Lower Respiratory Disease	Chronic Lower Respiratory Disease	Cerebrovascular diseases
4	Homicide	Heart disease	Cancer	Cancer	Suicide	Suicide	Unintentional Injury	Cerebrovascular diseases	Cerebrovascular diseases	Alzheimer's Disease
5	Influenza or Pneumonia	Suicide	Heart disease	Heart disease	Homicide	Chronic liver disease / cirrhosis	Diabetes	Diabetes	Alzheimer's Disease	Chronic Lower Respiratory Disease
6	Heart disease	Condition originating in the perinatal period	Congenital Anomalies	Diabetes	Diabetes	Diabetes	Cerebrovascular diseases	Kidney Diseases	Diabetes	Influenza or Pneumonia
7	Kidney diseases	Congenital Anomalies	In situ neoplasms	Cerebrovascular diseases	Diabetes	Cerebrovascular diseases	Chronic liver disease / cirrhosis	Unintentional Injury	Influenza or Pneumonia	Diabetes
8	Septicemia	Cerebrovascular diseases	Pregnancy complications	HIV	Cerebrovascular diseases	Chronic Lower Respiratory Disease	Kidney Diseases	Influenza or Pneumonia	Kidney Diseases	Unintentional Injury
9	Cerebrovascular diseases	Septicemia	Chronic Lower Respiratory Disease	Congenital Anomalies	HIV	Septicemia	Suicide	Septicemia	Unintentional Injury	Kidney Diseases
10	Chronic Lower Respiratory Disease	Chronic Lower Respiratory Disease	Cerebrovascular diseases	Influenza or Pneumonia	Influenza or Pneumonia	Influenza or Pneumonia	Influenza or Pneumonia	Chronic liver disease / cirrhosis	Septicemia	Lung Inflammation

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 3 Summit County residents visit an emergency room (ER) per day to be treated for intentionally poisoning themselves with drugs. ER visits for intentional drug poisoning began rising sharply in late 2015 and hitting a peak in May 2017. Since then, visits per day have declined significantly, falling to about 1 per day by September 2017. Rates began rising again by the end of the year, but are still well below the 2017 peak. Most visits to the ER for intentional drug poisoning are by females (60% vs. 40% by males). The average age of visitors is just under 50 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: 14-Day Moving Average of Visits to the ER for Intentional Drug Poisoning, Summit Co. 2011-2017
Source: EpiCenter

Demographic Differences In Suicide Rates

Age -- Nearly three-quarters of all suicides occur before age 55 (71%). Suicides are rare in the under age 15 population, accounting for 1.2% of all suicide deaths between 2000 and 2017. Suicides average about 5% between the ages of 15 and 44, then peak at about 12% of the total between the ages of 45 and 54. Beginning with ages 55-64, the percentage of suicides declines, finally levelling off at an average of about 2.5% of all suicides for each of the age groups over age 65.

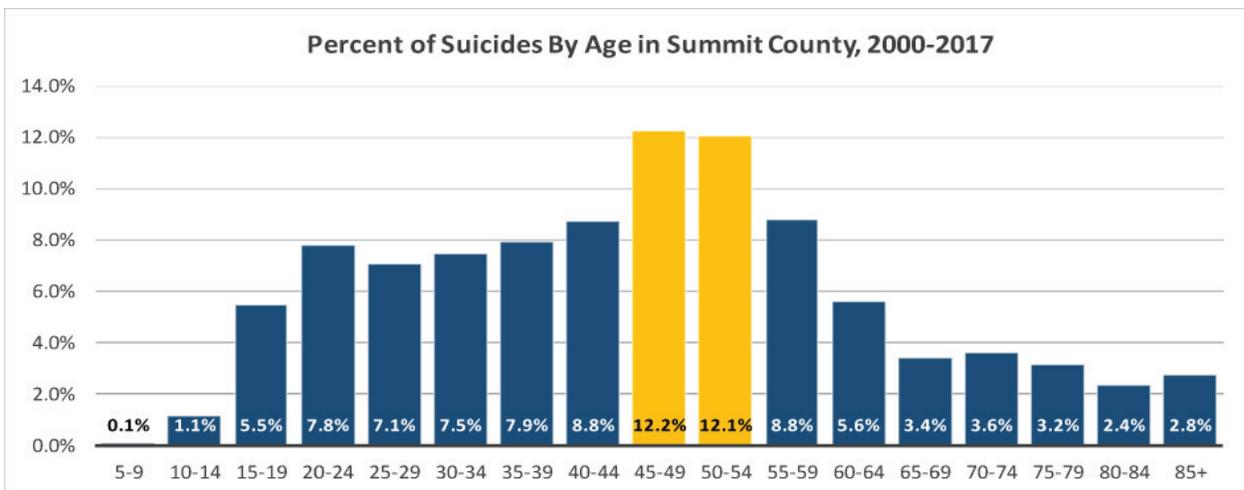


Figure 3: Percent of Suicides By Age Group, Summit Co. 2000-2017
Source: Ohio Department of Health (ODH) Death Certificate Data

Race -- The vast majority of people who committed suicide between 2000 and 2017 were white (91%), while 7% of suicides were African-American and 2% 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.

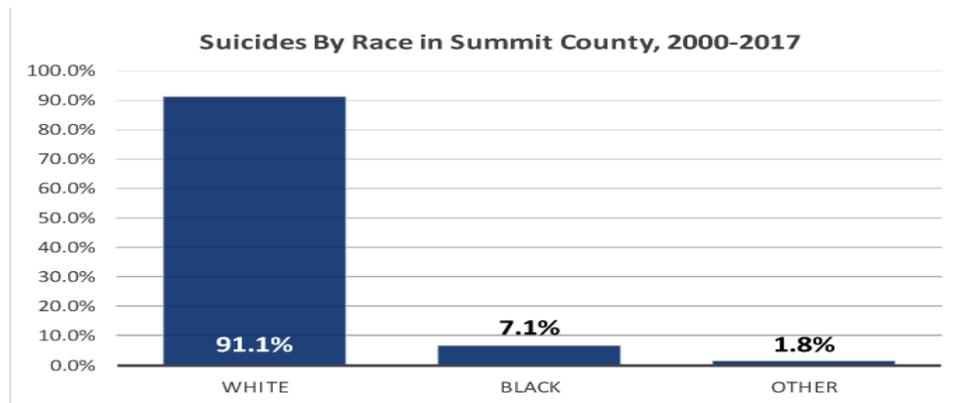


Figure 4: Percent of Suicides By Race, Summit County, 2000-2017
 Source: Ohio Department of Health (ODH) Death Certificate Data

Gender -- Males are far more likely to commit suicide than females, 78% to 22%. This is also true nationally, and has been consistent since at least 2000 in Summit County.

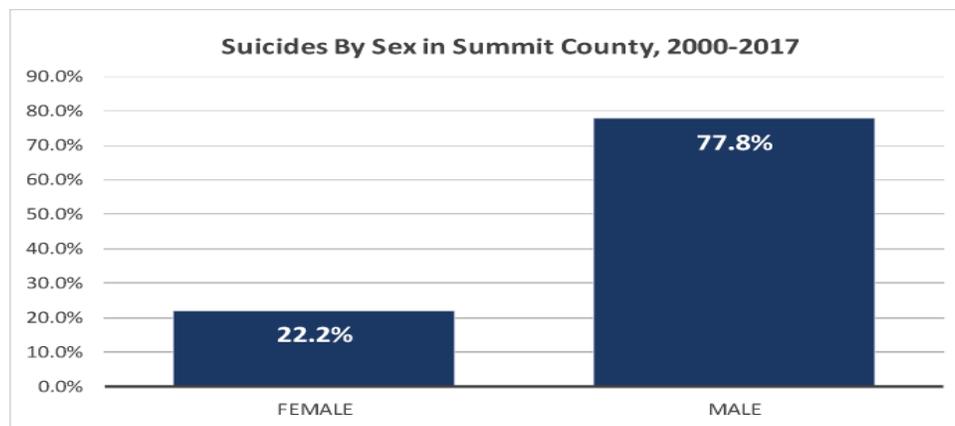


Figure 5: Percent of Suicides By Sex, Summit County, 2000-2017
 Source: Ohio Department of Health (ODH) Death Certificate Data, Centers for Disease Control and Prevention

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.² The reason is the preferred means of suicide for each gender. Males are more likely to use a firearm than females, while females are more likely to deliberately 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.³

Data presented in Figure 6 show that males are 1.6 times more likely than females to use a firearm in their suicide attempt, while females were 2.5 times more likely to resort to intentional poisoning (the vast majority of which were drug overdoses) than males. Males and females were about equally likely to use a means other than firearms or drug overdoses.

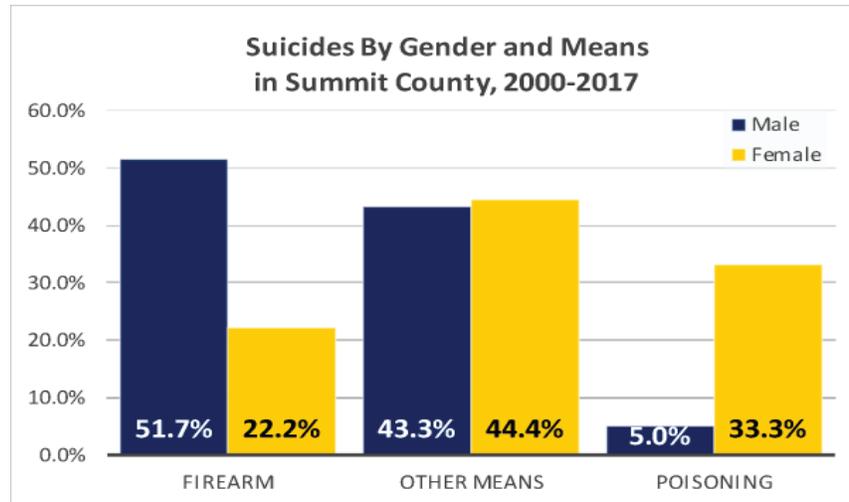


Figure 6: Suicide by Gender and Means of Suicide in Summit County, 2000-2017

Source: ODH death records and SCPH calculations

Educational Attainment -- Nearly three-quarters 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 (49.2%), 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.

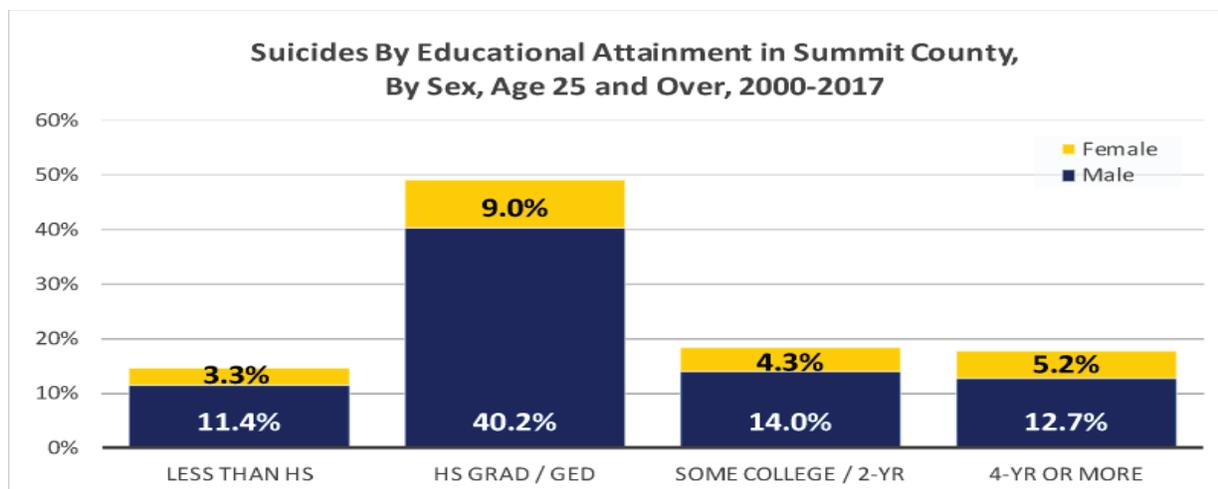


Figure 7: Percent of Suicides By Educational Attainment and Sex, Summit County, 2000-2017

Source: Ohio Department of Health (ODH) Death Certificate Data, Centers for Disease Control and Prevention

² 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>.

² 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.

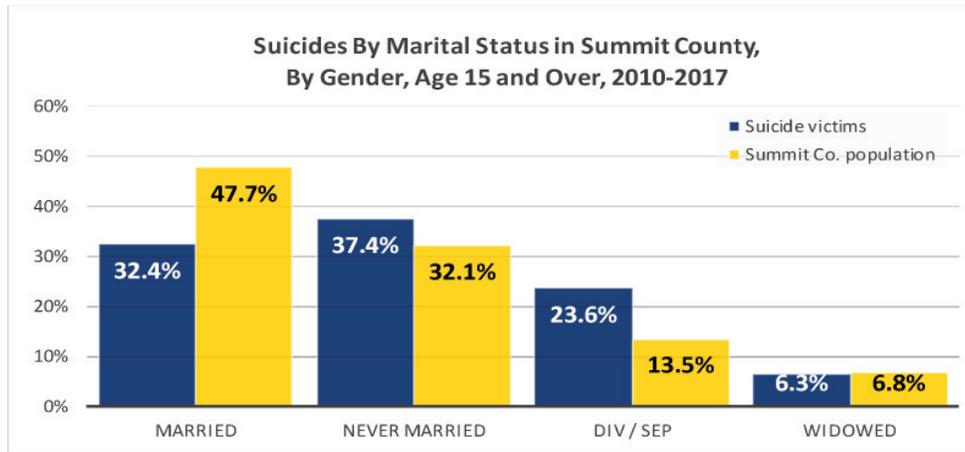


Figure 8: Suicides By Marital Status, Summit County, 2000-2017
 Source: Ohio Department of Health (ODH) Death Certificate Data, , SCPH calculations, American Community Survey

Geography -- Suicide rates per 100,000 people are highest in the Akron North, Barberton, and Akron South clusters, 22.5, and 19.4 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 2000-2017

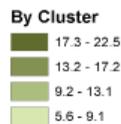


Figure 9: Suicide Rates Per 100,000 by Summit County Cluster
 Source: ODH death records, SCPH calculations

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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