VERMONT
DEPARTMENT OF HEALTH

# Intentional Self-Harm and Death by Suicide

January 2021

Intentional self-harm is anything a person does to purposefully cause injury to themselves, with or without suicide intent. Death by suicide is intentionally taking one's own life. Research suggests that self-injurious behaviors, which include suicide attempts, are risk factors for suicide.[1]

**KEY POINTS**

- Hospital visit rates for intentional self-harm are higher for females* and 15-24-year-olds*.
- Suicide rates are higher for males*.
- The percent of suicide deaths due to hanging or suffocation increased from 2016-2017 to 2018-2019 (from 20% to 26%).
- One fifth of suicide deaths are among Vermonters who served in the U.S. armed forces.

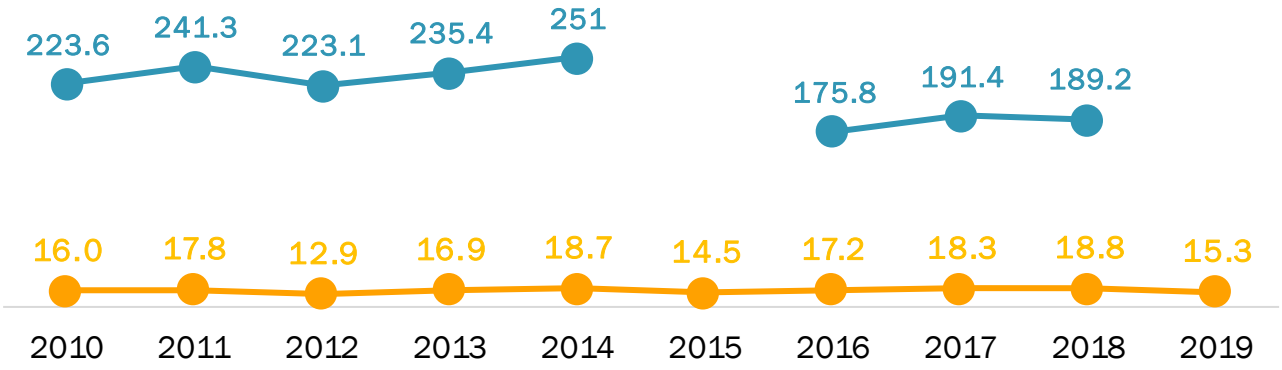
## Trends in Intentional-Self Harm & Death by Suicide

In 2018, Vermont had 1,091 hospital visits for intentional self-harm, with a rate 189.2 per 100,000. The rate of intentional-self harm increased from 2009 to 2014* and decreased 1% from 2017 to 2018. No rate in 2015 is shown due to a change in billing codes, and caution should be taken when comparing 2014 to later data. Compared to the U.S., Vermonters self-harm rate was higher in 2018 (U.S. rate 158.2)*.

In 2019, there were 109 suicide deaths among Vermont residents, with a rate 15.3 per 100,000. Suicide is the 8th leading cause of death in the state. Over the past 10 years, the rate of death by suicide has fluctuated, with the rate lowest in 2012, and highest in 2018. The rate of suicide decreased 19% from 2018 to 2019. Compared to the U.S., Vermont's rate of suicide deaths was higher in 2018 (U.S. rate 14.2)*.[1]

**Over the past decade, intentional self-harm and death by suicide rates have fluctuated.**

Age-adjusted rates per 100,000 Vermonters




## Sex

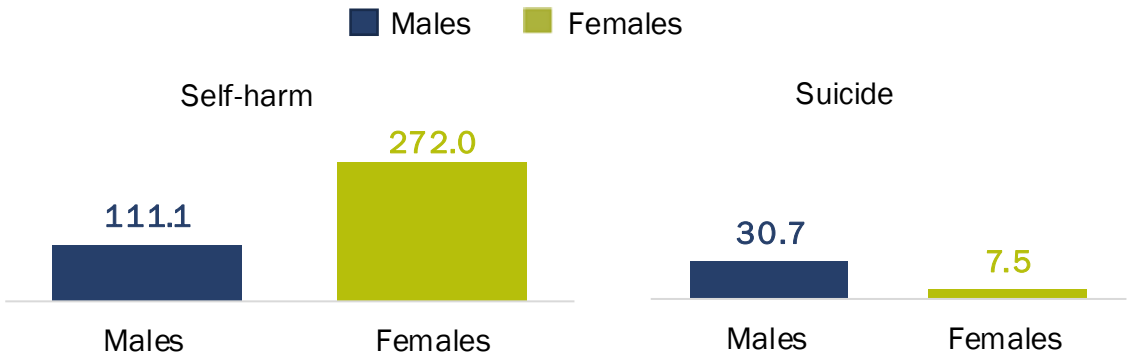
The rate of hospital visits for intentional self-harm is higher among females compared to males (272.0 vs. 111.1 per 100,000 respectively)*. Males have higher rates of suicide deaths compared to females (30.7 vs. 7.5 per 100,000, respectively)*.

[1] At the time of publication, the 2019 U.S. suicide and intentional self-harm rate was not available for comparison.

# Vermont Population at Risk for Intentional Self-Harm and Death by Suicide

**Hospital visit rates for intentional self-harm are significantly higher for females. Suicide deaths are significantly higher for males.**

Rates per 100,000 Vermonters

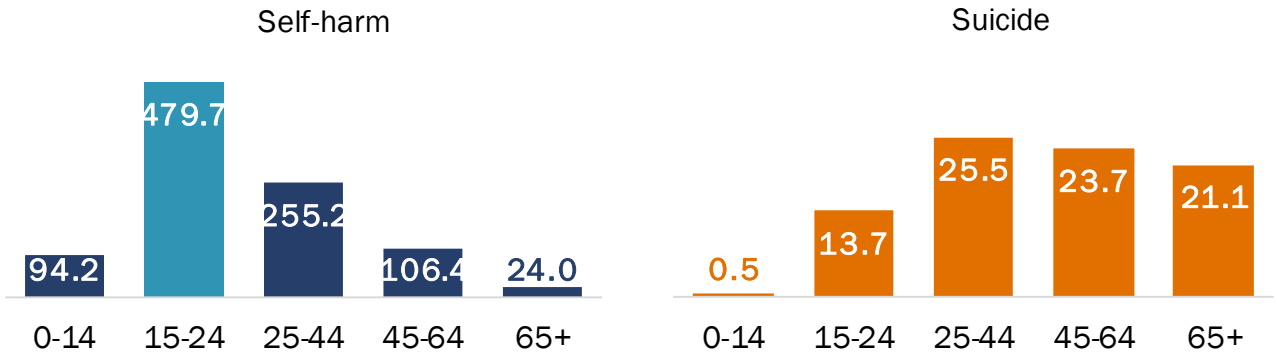



## Age

Younger populations, specifically 15 to 24-year-olds have intentional self-harm rates higher than any other age group*. Suicide rates are highest among 25 to 44-year-olds (25.5), followed by 45 to 64-year-olds (23.7) and then people 65 years and older (21.1 per 100,000).

**Hospital visit rates for intentional self-harm are significantly higher among 15 to 24-year-olds. Suicide rates are similar by age.**

Rates per 100,000 Vermonters



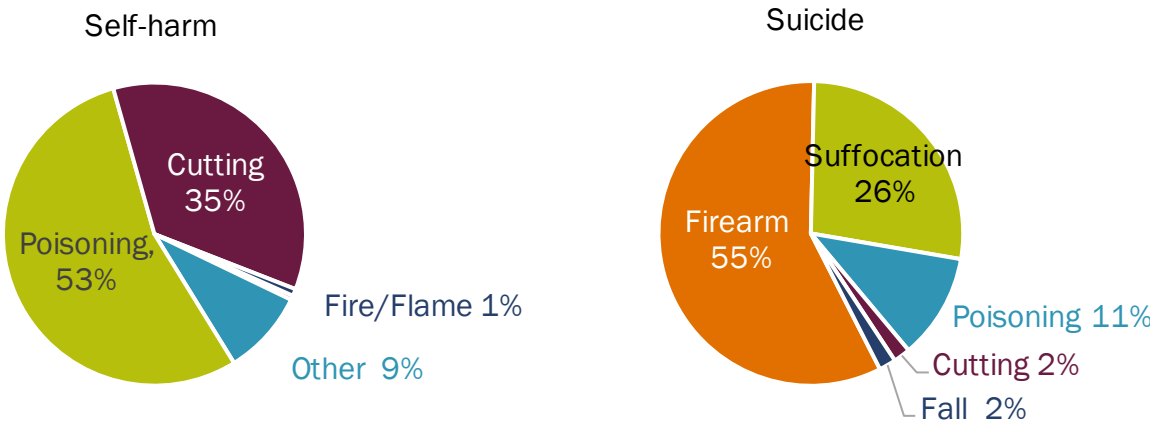

## Cause

Poisonings account for 53% of intentional self-harm hospital visits. Following poisonings, the leading causes are cutting (35%), other (9%), and flame/fire (1%). Females are more likely than males to visit the hospital for intentional self-harm by cutting or poisoning*.

Among suicides, firearms account for 55% of deaths. The proportion of suicides due to hanging or suffocation account for 26% of suicide deaths, an increase from 20% in 2016 and 2017 (the previous brief). Poisonings account for 11%. Cutting and falls account for 4% and 2% of suicide deaths, respectively. Males are more likely than females to die by suicide using a firearm*.

# Vermont Population at Risk for Intentional Self-Harm and Death by Suicide

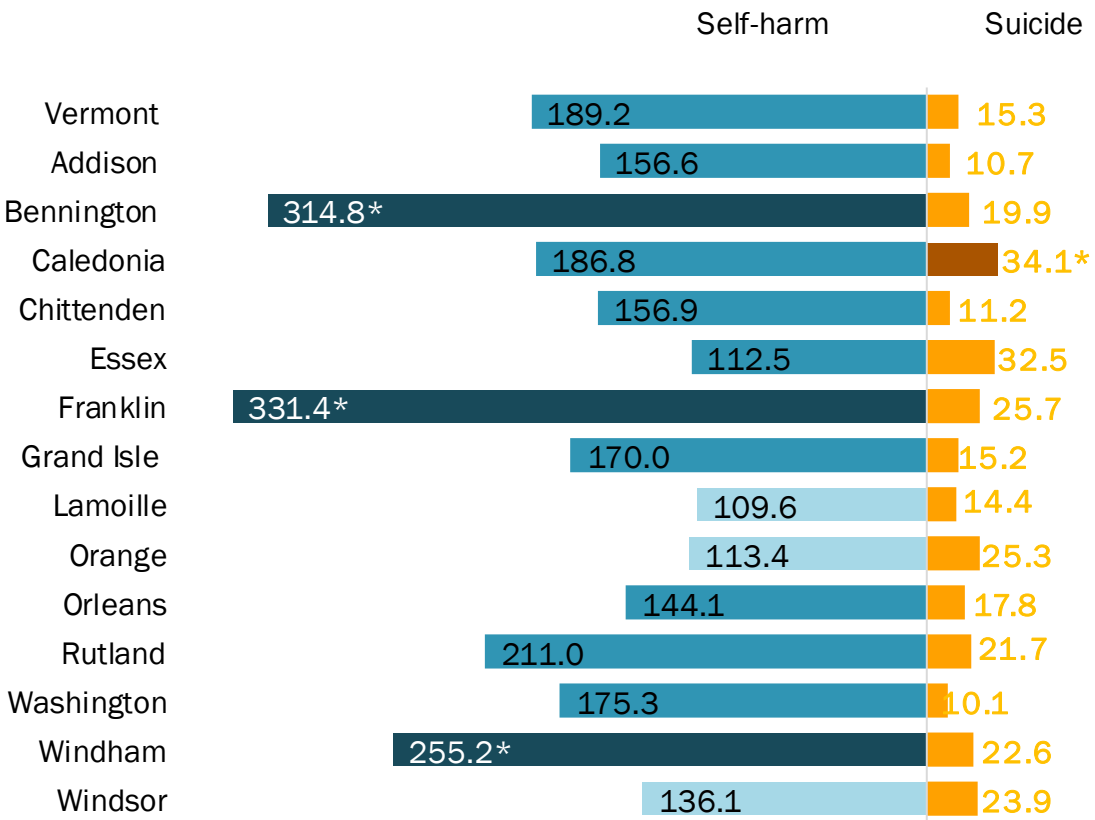
**Most hospital visits for self-harm are poisonings. Most suicide deaths are due to firearms.**




## County of Residence

Compared to the statewide rate of 189.2 per 100,000, intentional self-harm rates are higher in Bennington, Franklin, and Windham counties*. Hospital visit rates are lower in Lamoille, Orange, and Windsor counties. The suicide death rate is higher in Caledonia County* than statewide.

**Rates of intentional self-harm and suicide by county of residence.**

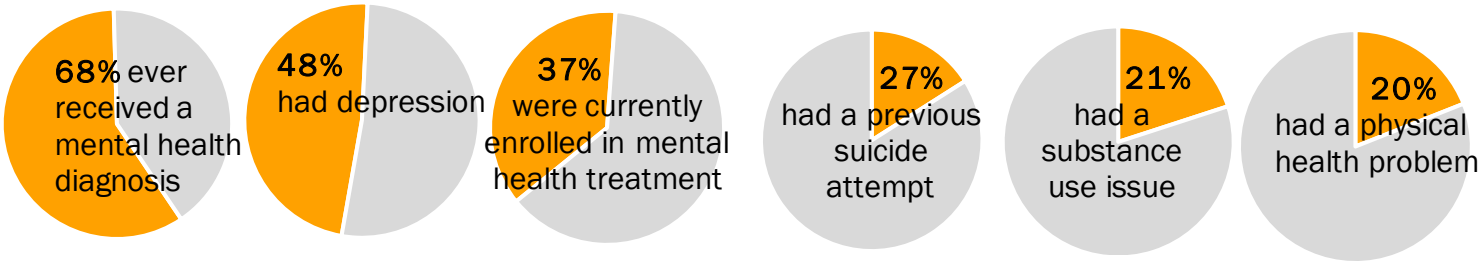


# Vermont Population at Risk for Intentional Self-Harm and Death by Suicide

## Most deaths by suicide had noted risk factors.

Research suggests there are several risk factors for suicide, including: individuals with a family history of suicide, personal history of suicide attempts, a mental health diagnosis, feelings of hopelessness, isolation, history of alcohol and substance use, having experienced maltreatment as a child, easy access to lethal means, and stigma around seeking mental health treatment.[4] The following information is from Vermont's Violent Death Reporting System (VTVDRS), which collects information from death scene investigation reports.

### Risk Factors Reported Among Vermont Deaths by Suicide




Source: Vermont National Violent Death Reporting System (NVDRS), 2017-2018

## Populations at risk for intentional self-harm and suicide.

LGBT students are more likely to feel sad or hopeless, make a suicide plan, or attempt suicide (sad 63% vs. 25%, plan 36% vs. 9, attempt 19% vs. 4%). LGBT adults are significantly more likely to have suicidal thoughts (12% vs. 4%).

Adults with a disability are 5 times as likely to report suicidal thoughts (10% vs. 2%).

Black, Indigenous, and People of Color (BIPOC) students are more likely to feel sad or hopeless, make a suicide plan, or attempt suicide (sad 34% vs. 30%, plan 17% vs. 13%, attempt 10% vs. 6%). BIPOC adults are more likely to have a depressive disorder (30% vs. 21%). BIPOC Vermonters represent 5% of suicide deaths.

Vermonters who served in the U.S. armed forces represent 20% of suicide deaths.

Social isolation is a risk factor for suicide. 9% of adults rarely or never get social and emotional support, with rates highest for those 65 years and older (13%).

## Key Takeaways

Suicide and intentional self-harm are preventable public health problems. They are both are priorities in the Vermont State Health Improvement Plan. Based on the data, there are several populations and counties to work with in expanding suicide and intentional self-harm prevention efforts. For intentional self-harm this includes 15 to 24-year-olds, females, and residents in Bennington, Franklin, and Windham County. For deaths by suicide, working with males and residents in Caledonia County could help reduce the number of suicide deaths in Vermont.

The Vermont Department of Mental Health and the Vermont Department of Health support multiple evidence-based suicide prevention programs to help increase public awareness, train providers, develop treatment networks within schools and communities, and increase prevention outreach. Through continued collaboration with our partners, we can work to reduce the burden of intentional self-harm and suicide within Vermont's communities.

## Resources to get help

If you or someone you know is thinking about or planning to take their own life, there is help 24/7:

- Call the National Suicide Prevention Hotline at 800-273-8255.
  - Veterans crisis line: press 1 when prompted
- Text the Crisis Text Line – text "VT" to 741741 anywhere in the U.S. about any type of crisis
- Trevor Lifeline: LGBTQ Crisis Lifeline: 1-866-488-7368

## References


1. Olfson, M., et al. (2017). Suicide following deliberate self-Harm. American Journal of Psychiatry, 174(8), 765-774.
2. United States rates of intentional self-harm and suicide: https://www.cdc.gov/injury/wisqars/facts.html
3. For more information on the issues of comparing ICD-9 and ICD-10 injury indicators used in this brief, see the CSTE Injury Toolkit: https://resources.cste.org/Injury-Surveillance-Methods-Toolkit
4. Suicide risk factors from CDC: https://www.cdc.gov/violenceprevention/suicide/riskprotectivefactors.html
5. Vijayakumar, L. (2016). Suicide among refugees – A mockery of humanity. *Crisis: The Journal of Crisis Intervention and Suicide Prevention, 37*(1), 1-4.


## Methodology

Intentional self-harm is defined using primary hospital billing (ICD-10) codes from emergency department visits and hospitalizations. Suicide is defined using ICD-10 codes. This data brief shares the latest information we have for all Vermont resident deaths and for intentional self-harm among Vermonters treated at Vermont hospitals. Statistics for age, gender, and sex are two-year averages to ensure stable estimates, for vital statistics the data years used are 2018-2019, hospital visits 2017-2018. Rates by county of residence use a 3-year average given the relatively small number of deaths and hospital visits per year. Significant differences in data comparisons are noted with an asterisk.

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