VERMONT
DEPARTMENT OF HEALTH

Suicide Morbidity and Mortality in Males

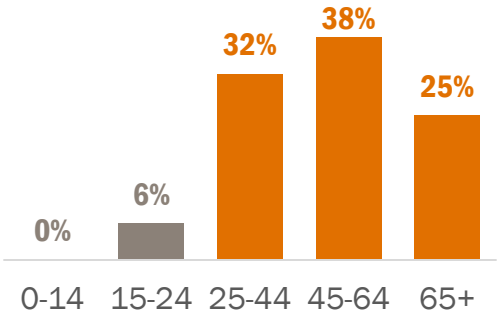
September 2022

Males are at higher risk for suicide in Vermont - representing at least 80% of all suicide deaths on average (98 males per year).[i] Over the past decade, the rate of suicide in males has increased (from 24.6 per 100,000 males in 2012 to 37.0 in 2021). Males who die by suicide are mostly over the age of 25 (94%), white non-Hispanic (98%), have a high school education or less (66%), or are never married or divorced (69%). All males who died by suicide have at least one of these factors. Each of these identified factors also have the highest rates per male population (e.g. the rate of men who die by suicide is similarly high for those over the age of 25, see data table). Males who are Veterans or military service members are also at higher risk for suicide death (25%). These demographics are consistent with scientific literature regarding many of the groups most impacted by suicide death.

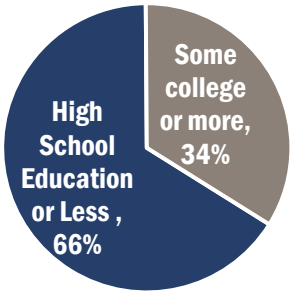
KEY POINTS

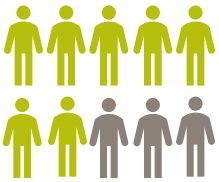
- **Males who think about and die by suicide are mostly:**
  - **Never married or divorced.**
  - **Have poor physical or mental health**
  - **Between 25 and 64 years of age**
  - **Have a high school education or less**
  - **White and non-Hispanic**
- **Factors among men who think about suicide:**
  - **Housing instability**
  - **Delaying a doctor's visit because of cost**
  - **Having a disability**
- **Factors among males who die:**
  - **Serving in the U.S. armed forces**
  - **History of suicidality**
  - **Crisis related to an intimate partner or a criminal legal problem.**
  - **Substance misuse**

Males who die by suicide are either over the age of 25, White non-Hispanic, have a high school education or less, or have never married or are divorced.



98% are White non-Hispanic.





69% have never married or are divorced.

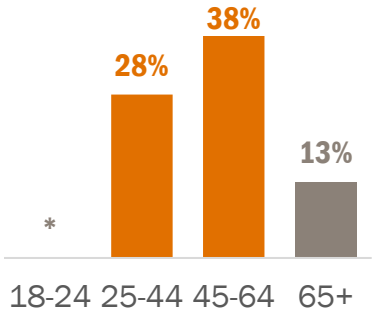
Source: Vermont Vital Statistics, 2021 preliminary

[i] Males in this brief are defined by biological sex and may not refer to an individual's gender identity.

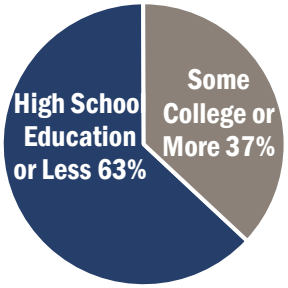
Who is thinking about suicide?

For every Vermont male who dies by suicide, approximately 220 have seriously considered suicide in the past year.[ii] Males comprise almost half of those who seriously thought about suicide (45%). Males who seriously think about suicide are mostly between 25 and 64 years of age (79%), have a high school education or less (63%), are white non-Hispanic, are never married (49%) or divorced (21%) – and all who consider suicide have at least one of these factors. In addition, each of these factors also have the highest rates per male population (see data table).

Males who think about suicide are either between the age of 25 and 64, White non-Hispanic, have a high school education or less, or have never married or divorced.



92% are White non-Hispanic.



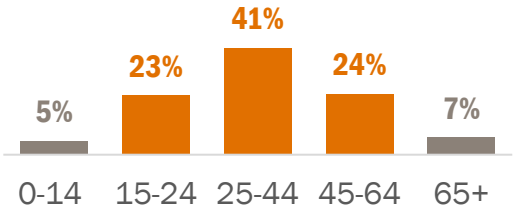
71% have never married or are divorced.

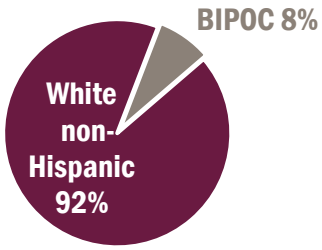
*Suppressed value, either too few individuals, or a standard error value of 30 or greater.
Source: Behavioral Risk Factor Surveillance System (BRFSS), 2018.

Who is visiting the Emergency Department (ED) for suicide?

The rate of males visiting the emergency department (ED) for a reason related to suicide has increased 35% over the past 5 years (from 163.9 per 10,000 in 2017 to 221.7 in 2021). Most males who visit the ED for suicide are between 15 and 64 years of age (88%) or white non-Hispanic (92%). It is also important to note that 8% of visits are among those who are BIPOC. This is higher than the proportion of Vermonters who are BIPOC (6%).

99% of males who visit the ED are either between the age of 15 and 64 or are White non-Hispanic.





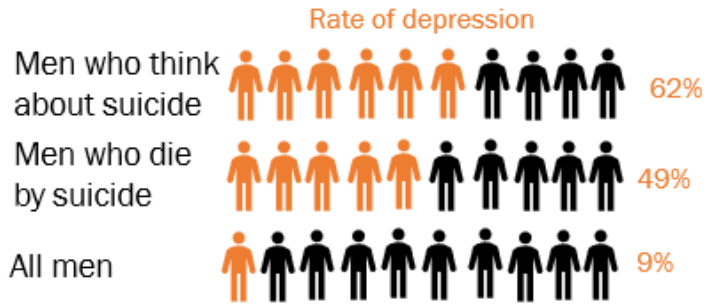
Source: Electronic Surveillance System for the Early Notification of Community-based Epidemics, 2021

[ii] This number is an estimate and is calculated dividing the estimate number of men who seriously considered suicide using 2018 BRFSS data by the average number of males who die by suicide.

Mental Health and Substance Use

Mental health can contribute to thoughts of and death by suicide. Among men who have seriously thought about suicide, 60% report their mental health as poor in the 30 most recent days.[iii] Men who have seriously thought about suicide are also 4 times more likely to be diagnosed with depression compared to males who have not seriously considered suicide (62% vs. 16%). Both men who think about suicide and die by suicide have a disproportionately higher rate of depression compared to the general adult male population. Males who die by suicide are five times more likely to have had a depression diagnosis (49% vs. 9%), while those who seriously consider suicide are nearly seven times more likely (62% vs. 9%). Among males with depression who died by suicide, half were enrolled in mental health treatment at the time of death (52%). Taken together, these findings suggest that those who ever receive a diagnosis of depression may be at risk for suicidality, and males who have depression and are currently seeking mental health treatment may need additional safety measures or support. Substance misuse was noted in 33% of males who died by suicide. The most common substance misused was alcohol, which was noted in 25% of males who died.

Men who think about or die by suicide have higher rates of depression.



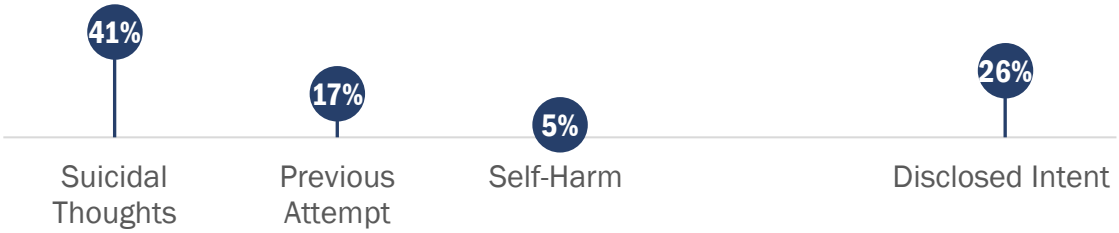
Source: BRFSS, 2018; VTVDRS, 2020

25% of males who die had a problem with alcohol.

History of Suicidal Thoughts, Behaviors, or Attempts

Previous suicidality and self-harm among males can help guide suicide prevention and clinical intervention efforts. Among males who die by suicide, about four in ten had seriously thought about suicide (41%), some previously attempted suicide (17%), and a few had histories of self-harm (5%).[iv] Within the month leading up to death, 26% of males told someone their intentions or plans to take their life. Of those who told someone, half of the time it was a family member.

Some males who die by suicide had a history of prior suicidality.



Source: Vermont Violent Death Reporting System (VTVDRS, 2020)

[iii] Poor mental health, defined as 14 or more days in the last 30 days where mental health was not good.
[iv] Subject to information available in VTVDRS, may be an underestimate. See limitations.

Physical Health and Disability

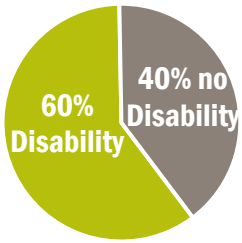
Thirty seven percent of males who have seriously considered suicide report poor physical health[v] – a rate three times higher than the general adult male population (12%). A majority report that they have a disability (60%)[vi] -- three times higher than the general adult male population (24%), and 2.5 times higher than males who have not seriously considered suicide (11%). A majority of men who think about suicide and have a disability are unable to work (58%).

Among males who died, 22% had a physical health problem. Some of the circumstances surrounding their physical health problem included having a traumatic brain injury (TBI), an injury that prevented them from working, a recent cancer diagnosis or change in prognosis, and recent worsening of health or symptoms. (22%).

Men who seriously consider suicide are 3x more likely to have poor physical health.

Source: BRFSS, 2018

Most men who think about suicide have a disability.



Healthcare Access and Cost

Most men who seriously consider suicide have healthcare coverage (81%), and even more have at least one person they think of as a personal doctor (84%). Among men who seriously considered suicide, 70% visited a doctor in the past year for a routine check-up.[vii]

While most men who seriously thought about suicide have healthcare coverage, over one-quarter of males didn't see a doctor in the past 12 months because of cost, and this rate is significantly higher than the general population (29% versus 7% of all males).

Men who think about suicide are 4x more likely to delay seeing a doctor due to cost.

Source: BRFSS, 2018

[v] Poor physical health, defined as 14 or more days in the last 30 days where physical health was not good.
[vi] Disability includes anyone who reports having difficulty walking or climbing stairs, concentrating or making decisions, hearing, seeing, dressing or bathing, or who because of a physical, mental, or emotional condition has difficulty doing errands alone.

[vii] The three statistics referenced in this paragraph are statistically similar to the general population.

Housing Instability

Housing instability, like not being able to pay rent or a home mortgage, may negatively impact health. One third of men who seriously considered suicide experienced housing instability in the past year (32% versus 7% of all males). More than half of men with housing instability and suicide ideation also are renting a home as opposed to owning a home or having another living arrangement (55%).

Men who think about suicide are 4.5 x more likely to experience housing instability.

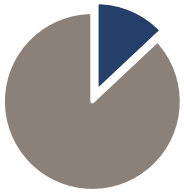
Source: BRFSS, 2018

Crises

Forty one percent of males who die by suicide experienced an acute stressor or crisis within 2 weeks of their death. The most common crisis reported for males was experiencing an intimate partner problem (22%), such as a recent breakup or a partner asking for a divorce, a recent Relief From Abuse Order established against the male who died, physical aggression/ assault against an intimate partner, or a conflict surrounding substance misuse.

The second most common crisis reported for males was experiencing a criminal legal problem, (13%) such as impending jail time, a recent arrest, and recent RFA orders or assault against an intimate partner. Other types of crises reported to less than 10% of the time included experiencing a recent mental health crisis, a crisis related to physical health, crisis related to an eviction from home, and job problems.

22% of males who die experience a crisis with an intimate partner.



13% of males who die experience a crisis with a criminal legal problem.

*The male who died was the perpetrator of violence/abuse
Source: Vermont Violent Death Reporting System (VTVDRS, 2020)

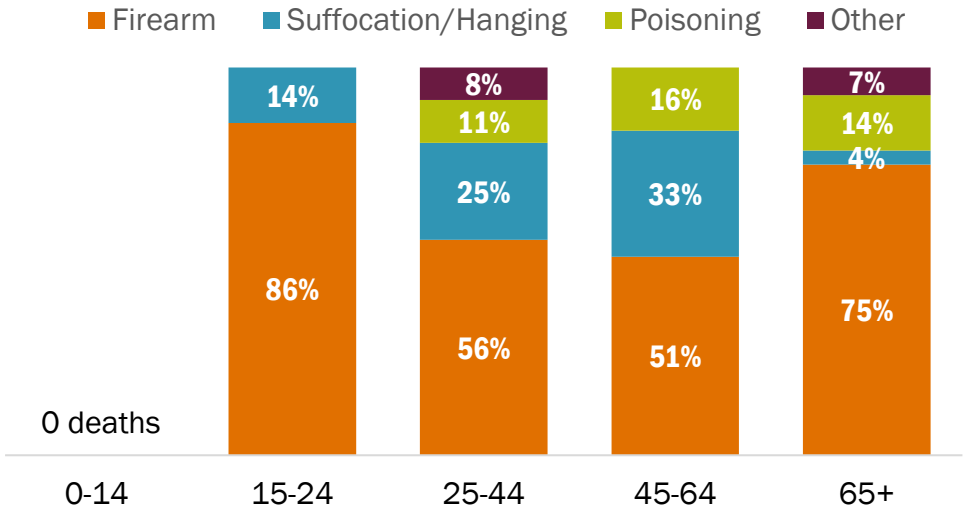
Means

Firearms are used in 61% of male suicide deaths. At least half of the firearms used by decedents belonged to them.[viii] There is some variation in means used in suicide across age groups. Males aged 15-24 and 65 or older are more likely to use firearms, while poisonings are seen most often in males aged 45 to 64. In ED visits for non-fatal suicide reasons, males are most often seen for suicidal ideation (62%), followed by poisonings (6%).[ix]

[viii] In 2020, this information was unknown for 42% of male suicide deaths that used a firearm.
[ix] Visit types are determined using discharge diagnosis. Roughly a third of visits for suicide are captured by the visit chief complaint.

A combined 6% of ED visits are for cutting, hanging/suffocation, or means or causes of self-harm that are not well defined. Suicide-related ED visits for poisonings are most common in the 15 to 24 age group.

Firearms are the most common means used in deaths. Poisonings are more common in those over the age of 25.



Source: Vermont Vital Statistics, 2021 preliminary

There are many factors that may influence the rate of visits and deaths. One factor is the means of injury. In 2021, there were fewer than 6 ED visits related to suicide that used a firearm, but firearms were used in 69 of 114 deaths. This data suggests that most suicides using a firearm are fatal interactions and/or do not present in the ED. Another factor that could influence rates is willingness to seek help or care for suicidality. For example, rates of death are 3rd highest for males over the age of 65, while the rates of ED visits in this age group are the lowest. This may suggest older males are less likely to seek care at an ED for suicidality or engage in suicidal behaviors relative to the higher rate who die by suicide.

Key Takeaways

The data in this brief highlight some of the shared factors across males who think about suicide, visit the ED for suicide, and die by suicide. Some of the evidence-based strategies that may help reduce suicide risk in males include: 1) creating protective environments by reducing access to lethal means (e.g., firearms and medications) among males at risk, 2) community engagement and peer norm programs to promote connectedness, 3) "gatekeeper" training to better identify and support males at risk, and 4) strengthening access to suicide care through the implementation of the *Zero Suicide* treatment framework.

References:

1. Kposowa AJ. Marital status and suicide in the National Longitudinal Mortality Study. J Epidemiol Community Health. 2000 Apr;54(4):254-61. doi: 10.1136/jech.54.4.254. PMID: 10827907; PMCID: PMC1731658

2. Kushel MB, Gupta R, Gee L, Haas JS. Housing instability and food insecurity as barriers to health care among low-income Americans. J Gen Intern Med. 2006;21(1):71-7. doi: 10.1111/j.1525-1497.2005.00278.x.

Limitations

There are a few caveats and limitations of the data shared in this report. The limitations and caveats may impact the representativeness, generalizability, and reliability of the results. The data shared from Vermont Violent Death Reporting System (VTVDRS) is subject to completeness and accuracy of information collected, some data may be underreported or underestimated since not all questions in VTVDRS are asked during death scene investigation. VTVDRS also only collects information on deaths that occur in Vermont, so males who died out of state are not reflected. Syndromic surveillance data (ESSENCE) reflects 13 of 14 the Emergency Departments in Vermont (92%), so visits from people who seek care out of state or the 1 missing hospital are not represented. Additionally visits for suicide are determined using the visit chief complaint and discharge diagnosis and is subject to the quality and completeness of those fields.

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For more information about suicide prevention programming: Nick Nichols, Nick.Nichols@vermont.gov

For more information on resources for suicide prevention: FacingSuicideVT.com