

## **Intentional Self-Poisonings**

August 2023

An intentional self-poisoning is swallowing, inhaling, touching, or injecting various drugs, chemicals, or gases with the purpose of harming yourself. Fatal intentional self-poisonings are categorized as suicide deaths. Nonfatal intentional self-poisonings are also referred to as intentional self-harm by poisoning, intentional poisoning, or intentional overdose (when a drug is used). Nonfatal intentional self-poisonings may or may not be a suicide attempt. While most self-poisonings are due to drugs in Vermont, self-poisonings can also include gases like carbon monoxide, or chemicals like antifreeze.

Deaths due to intentional self-poisoning are the third most common means of suicide in Vermont, accounting for 16% of suicide deaths on average (17 deaths per year). Emergency Department and inpatient visits due to intentional self-poisoning

#### **KEY POINTS**

- Nonfatal intentional self-poisonings among youth aged 14 and younger have more than doubled since 2017.
- Prescribed medications are involved in 70% of intentional self-poisoning deaths.
- Psychotropic medications, acetaminophen, NSAIDs, and antiepileptic, sedative- hypnotic, and antiparkinsonian drugs are involved in 76% of nonfatal intentional self-poisonings.

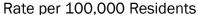
occur more frequently and are the most common means of intentional self-harm in Vermont, accounting for half of hospital visits for intentional self-harm (765 visits per year). Substances identified in this analysis were either listed on the individual's death certificate as part of their cause of death, or in the discharge diagnosis from the hospital.

#### **Trend**

There are many more nonfatal intentional self-poisonings than there are intentional self-poisoning deaths. In 2021 there were 25 intentional self-poisoning deaths (a rate of 3.9 per 100,000 Vermonters) and 754 nonfatal intentional self-poisoning hospital visits (a rate of 116.8 per 100,000 Vermonters).

Overall deaths by intentional self-poisonings have not significantly changed over time and have fluctuated from 2008 to 2021. Hospital visits for intentional self-poisonings have significantly decreased over time among all Vermonters. However, among Vermonters aged 14 and younger, the rate of intentional self-poisoning has significantly increased from 32.5 in 2017 to 71.5 in 2021.

While the overall rate of nonfatal intentional self-poisonings seen at the hospital have decreased, the rate for young Vermonters has more than doubled since 2017.





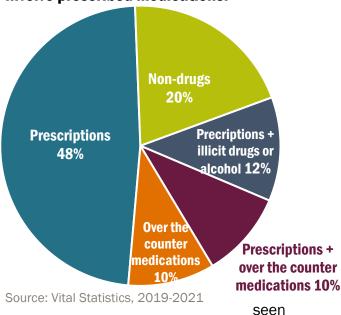
### **Intentional Self-Poisonings**

### **Type of Substances**

The majority of intentional self-poisonings involve one substance (60% deaths, 80% nonfatal).

Nearly half of intentional self-poisoning deaths involve prescribed medications (48%). The types of prescriptions recently seen in deaths include anti-depressants, antiarrhythmics, antipsychotics, opioids, antihistamines, and insulin. "Non-Drugs" account for 20% of intentional self-poisoning deaths. Nearly all non-drug deaths are from carbon monoxide poisoning, and a small number of deaths were from ingesting sodium nitrite, drain cleaner, or antifreeze (1 death from each during 2019-2021). Prescribed medications in combination with illicit drugs or alcohol account for 12% of deaths. Ten percent of self-poisoning deaths involve over the counter medications, or a combination of prescribed and over the counter medications. Over the counter medications recently

70% of intentional self-poisoning deaths involve prescribed medications.

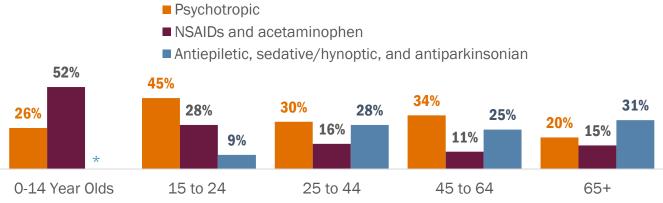


in deaths include diphenhydramine (like Benedryl®) and nonsteroidal anti-inflammatory drugs (or NSAIDs, like Asprin® or Advil®).

Three quarters of nonfatal intentional self-poisonings are in one of three categories (76%). 

Psychotropic medications, which are prescribed to treat mental health conditions, are involved in 34% of self-poisonings. Most of the psychotropic medications involved in self-poisonings are antidepressants, selective serotonin reuptake inhibitors, or antipsychotics and neuroleptics. NSAIDs and acetaminophen are common over the counter medications that reduce pain and fever and are involved in 23% of self-poisonings. Some examples of NSAIDs and medications with acetaminophen include Tylenol®, Aspirin®, and Advil®. Antiepileptic, sedative/hypnotic, and antiparkinsonian medications are involved in 19% of self-poisonings. Most of these medications involved in self-poisonings are benzodiazepines, which are used to treat anxiety and similar mental health conditions, and brain-related conditions like seizures.

#### The types of medications involved in nonfatal intentional self-poisoning can vary by age.



\*= suppressed value, fewer than 6 visits

Source: VUHDDS, 2019-2021

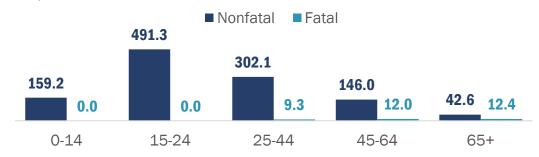
### **Biological Sex and Age Group**

Rates of intentional self-poisoning death are similar by sex (8.9 per 100,000 females vs. 7.2 per 100,000 males). Females are more than two times likely to visit a hospital for self-poisoning compared to males (292.1 per 100,000 females vs. 129.0 per 100,000 males, statistically significant difference).

Intentional self-poisoning death rates are statistically similar for people ages 25 years and older. People aged 15 to 44 have the highest rates of nonfatal intentional self-poisonings.

# Intentional self-poisoning death rates are higher for older adults while nonfatal self-poisonings are higher for young people.

Rate per 100,000 Residents



Source: VUHDDS, 2019-2021; Vital Statistics, 2019-2021

#### **Key Takeaways**

This data shows that many intentional self-poisonings in Vermont involve medications that require a prescription. Intentional self-poisoning accounts for one out of five suicide deaths in Vermont. Across all ages, visits to EDs for intentional self-poisoning have decreased except for children under 15 years old. Safe storage of all medications, including over the counter medicine, helps increase the safety for people who may be at risk for self-poisoning.

For more information on how to recognize warning signs and help prevent suicide: visit <a href="https://FacingSuicideVT.com">https://FacingSuicideVT.com</a>

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