# **Injuries** • All Causes

### • Injuries are Not Simply Accidents

Injuries are not simply random acts of fate or the result of individual carelessness, but events to understand and prevent.

Most injuries are unintentional. Whether unintentional, or resulting from intentional or violent acts, most injuries can be prevented with public health interventions.

#### • ED Visits & Hospitalizations

Each year, between 50,000 and 60,000 Vermonters go to the emergency department or are hospitalized as a result of injuries – a trend that has been increasing over time.

Falls are overwhelmingly the top cause of injuryrelated visits, followed by poisoning and motor vehicle crashes.

Although many injuries are of minor severity, causing no more than a few days of restricted activity, a great number result in brain trauma, serious fractures, major burns or other long lasting and significant disability.

## • The Death Toll of Injuries Across All Ages

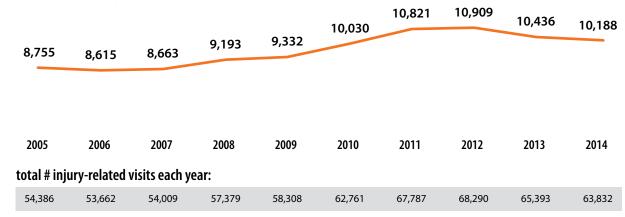
Death rates from injury have been rising over time. On average, more than 400 Vermonters lose their lives to injuries each year. Injuries are the leading killer of our children, teens and young adults.

Injuries rank among the top 10 causes of death for every age group.

## Injury-Related Hospital/ Emergency Department Visits

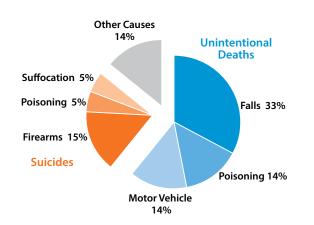
Vermont Uniform Hospital Discharge Data Set • 2005–2014

# of visits, per 100,000 people



## Causes of All Injury Deaths

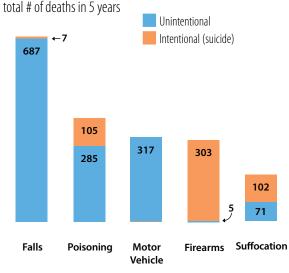
Vermont Vital Statistics • 2010–2014



**14% Other Causes** = Unintentional: Suffocation 3% • Drowning 2% Fire/Flame 1% • Natural/Environment 1% • Other Causes 4% Intentional: Homicide by Firearm 1%; Intent Unknown: Poisoning 2%

## Top 5 Causes of Injury Death

Vermont Vital Statistics • 2010–2014

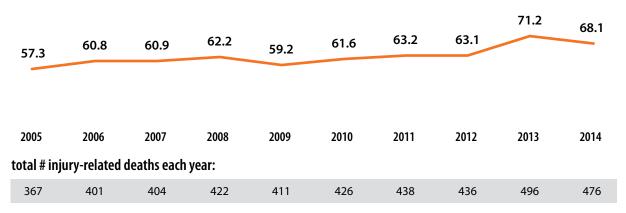




## **Injury-Related Deaths**

Vermont Vital Statistics • 2005–2014

# of deaths, per 100,000 people



## Top 5 Causes of Injury Death, by Age

Vermont Vital Statistics • 2010–2014

	Age 0–14	Age 15–24	Age 25–44	Age 45–64	Age 65+
1	Suffocation	<b>Motor Vehicles</b>	Poisoning	Suicide Firearms	Falls
2	Motor Vehicles	Suicide Firearms	Motor Vehicles	Poisoning	Suicide Firearms
3	Drowning	Suicide Suffocation	Suicide Firearms	Motor Vehicles	Motor Vehicles
4		Poisoning	Suicide Suffocation	Falls	Suffocation
5		Drowning	Suicide Poisoning	Suicide Poisoning	Poisoning

## second cause: two

nearly all are unintentional. Poisoning is the second cause; two-thirds are unintentional drug overdoses, and one-third are suicides. Firearms are the third cause; nearly all of these deaths are suicides. Motor vehicle crashes, all unintentional, are the fourth cause. Suffocation is the fifth cause of injury death, either intentional as suicide (hanging), or unintentional (choking).

• Falls, Poisoning, Firearms, Crashes

Falls are the cause of most injury deaths, and

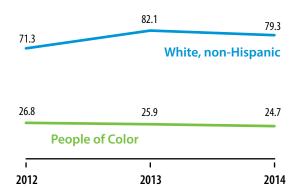
## Injury Death Disparities

White Vermonters are more likely to die due to an injury compared to Vermonters of color, and this is consistent with the U.S. trend. Overall, injury deaths are higher for males than for females.

## Injury Deaths, by Race/Ethnicity

Vermont Vital Statistics • 2012–2014

# of deaths, per 100,000 people



NOTE: Any cause of death not labeled as suicide is unintentional. For ages 0–14, various other causes are tied for the #4 and #5 cause of death.

# **Injuries** • Unintentional

#### Most Injuries are Unintentional

Unintentional injuries make up the largest portion of injury-related deaths. Of these, the majority are caused by falls, followed by motor vehicle crashes and poisoning. Less common causes of unintentional injury are suffocation, drowning, natural or environmental factors (such as hypothermia or heat stroke), and fire.

## Falls and Older Adults

Most visits to the hospital or emergency department for injuries from a fall are made by older adults. Among the younger age groups, males are most likely to go to the emergency department or to be hospitalized. For those age 25+, the reverse is true – females are most likely.

Deaths resulting from falls are almost always among people age 65+. In 2014, the rate of females dying from falls was nearly twice as high as males. As Vermont's population continues to age, this already significant problem will keep growing.

#### • Falls are Preventable

In 2016, more than one-third (35%) of adults age 65+ said they fell at least once in the past year; 8% said they fell two or three times. Injuries from falls among the elderly can have a profound impact on their quality of life, mobility, independent living, and can put them at higher risk for hospitalization and premature death. Unintentional falls are preventable with specific and practical interventions.

**Causes of Unintentional Injury Deaths** 

Vermont Vital Statistics • 2010–2014

Falls

43%

Other / unspecified 9%

#### Vermont Vital Statistics • 2010–2014 # of deaths, per 100,000 people Motor Vehicle Female 32.1 20% 25.5 24.9 23.0 20.2 Poisoning 18% 22.6

18.5

2010

16.2

T

2011

Unintentional Fall-Related Deaths

18.8

1

2012

Male

1

2013

## Fall-Related Hospital/Emergency Department Visits

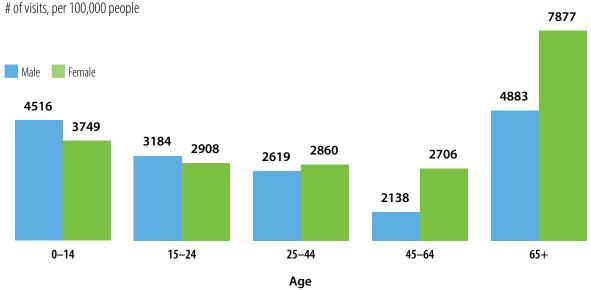
Fire / Flame 1%

Suffocation 4%

Natural / Environment 2%

Drowning 3%

Vermont Uniform Hospital Discharge Data Set • 2010–2014





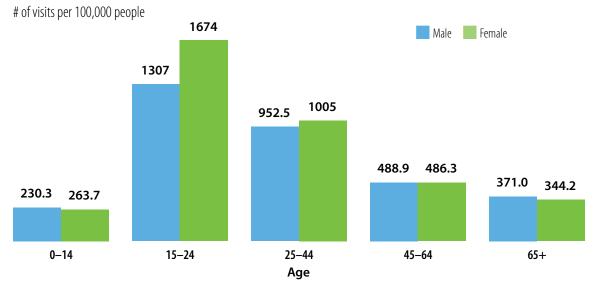
17.2

1

2014

## Motor Vehicle Hospital/Emergency Department Visits

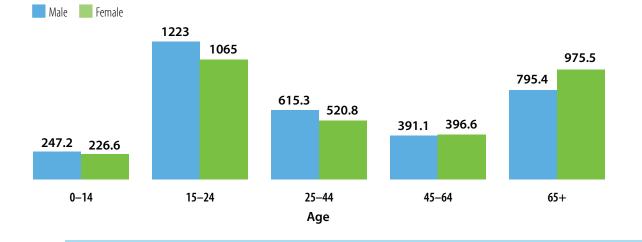
Vermont Uniform Hospital Discharge Data Set • 2010–2014



## Traumatic Brain Injury Hospital/Emergency Department Visits

Vermont Uniform Hospital Discharge Data Set & Vermont Vital Statistics • 2010–2014

# of visits, per 100,000 people



### Motor Vehicle Crashes

Injuries from motor vehicle crashes are a major cause of injury-related hospital and emergency department visits, especially for teens and young adults. Underlying causes are many and complex: young or inexperienced drivers, driving under the influence, speeding and distracted driving, often in combination with snow and ice.

For the years 2010-2014, females had higher rates of hospital and emergency department visits compared to males for motor vehicle crash-related injuries.

## • Traumatic Brain Injury (TBI)

Traumatic brain injury results from a bump, blow, jolt or penetrating head injury that disrupts the normal functioning of the brain. TBI has multiple causes, including firearms, motor vehicle crashes, falls, etc.

Males up to age 44 have a slightly higher rate of TBI-related hospitalizations and emergency department visits compared to females, while females have slightly higher rates at age 45+. For both, the highest rates are among teens and young adults, followed closely by those age 65+.

At all ages, TBI-related deaths are far higher among males compared to females. The death rate for males is highest at age 65+. Females follow the same pattern. In general, the rate of TBI-related deaths increases with age.

Death from traumatic brain injury can also be intentional, as a result of suicide or homicide by firearm.

# **Injuries** • Intentional

#### Suicide

Suicide is an intentional act, and has been the eighth leading cause of death in Vermont for many years. Since 2010, more than 100 people have died by suicide every year except 2012.

Firearms are the means used in more than half of all suicides in Vermont (52%), mostly among males. An equal number of suicides are the result of poisoning and suffocation (hanging). Females are most likely to die from suicide by poisoning, followed by firearms and suffocation.

### • Who is at risk for suicide?

Research suggests that 90% of people who die by suicide have depression or other mental health diagnosis, often in combination with a substance use disorder. Other risks for suicide are a prior attempt, firearms in the home, family history or exposure to suicide behavior, and family violence.

In Vermont, males are much more likely than females to take their own lives, no matter their age. In general, death by suicide increases with age, except among females age 65+.

## • Veterans at Higher Risk

Veterans are known to be at a higher risk for suicide and, in Vermont, the overall rate of suicide among veterans is higher than for non-veterans. The highest rates for veterans are among those age 18 to 34, and 65+. Overwhelmingly, firearms are the means used by both male and female veterans for suicide.

## Suicide Deaths

Vermont Vital Statistics • 2005–2015

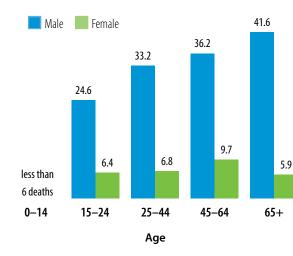
# of deaths, per 100,000 people



## Suicide Deaths, by Age

Vermont Vital Statistics • 2010–2014

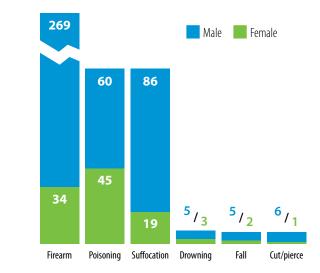
# of deaths, per 100,000 people



## Suicide Deaths, by Means

Vermont Vital Statistics • 2010-2014

total # of deaths in 5 years

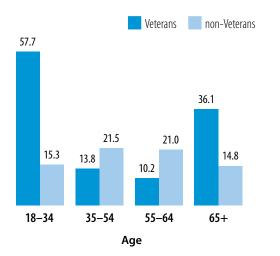




#### Suicide Rate, by Veteran Status

Vermont Vital Statistics • 2014–2015

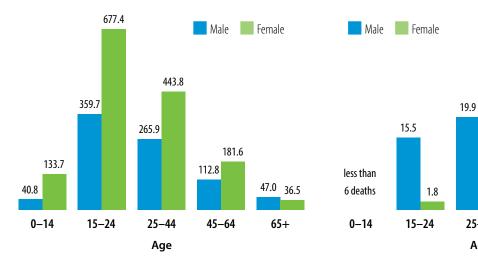
#### # of deaths, per 100,000 people



## Self-Harm Hospital/ED Visits

Vermont Uniform Hospital Discharge Data Set • 2010–2014

# of visits, per 100,000 people



## Firearm Deaths & Hospital/ED Visits

Vermont Vital Statistics • 2010–2014 Vermont Uniform Hospital Discharge Data Set • 2010–2014

# hospital/Emergency Department visits and # of deaths per 100,000 people



## Firearm Deaths

Vermont Vital Statistics • 2010–2014 # of deaths, per 100,000 people



Self-harm or self-injury is not necessarily suicidal behavior. In contrast to suicide deaths, self-harm is higher among younger females. For males and females, the rate of self-harm seen in the hospital or emergency department decreases after age 24.

Males are more likely to die from self-harm than females, and this is influenced by the more lethal means used by males (firearms) compared to females (poisoning).

## • Firearms

32.5

3.0

65+

23.0

3.1

45-64

4.1

25 - 44

Age

There has been little change in the pattern of firearm injuries and deaths over time. Nearly nine in 10 deaths from firearms are suicides, but half of all hospitalizations and emergency department visits for firearm injuries are unintentional.

Males are more likely than females to die from firearms, and the rate increases with age. Males are also more likely than females to go to hospital or the emergency department for injuries from firearms, and this is especially true for younger males.

#### • Intimate Partner Violence

Despite a small increase from 1.9 in 2010 to 2.7 deaths per 100,000 people in 2014, the rate of intimate partner violence-related deaths has stayed about the same. Nearly half of all homicides in Vermont are related to domestic violence. Hospitalizations for these injuries are likely to be under-reported at hospitals and emergency departments. Under-reporting may be due to stigma or fear on the part of survivors, in addition to a lack of specific hospital coding for injuries resulting from intimate partner violence.