

Leading Causes of Injury Mortality Among Vermont Residents

Injury Background

Injury encompasses unintentional (accidental) injury, intentional (suicide and homicide) injury and undetermined (intention unclear) injury. Unintentional injury was the 4th leading cause in the United States and Vermont in 2014, while deaths due to suicide also appeared in the 10 leading causes of death for both populations (10th and 8th, respectively)¹. Of all deaths in Vermont from 2010-2014, eight percent were due to injury, with most resulting from an unintentional injury. Unintentional injury made up five percent of Vermont deaths during this time, while intentional injury accounted for two percent, and undetermined injury was responsible for less than one percent of deaths.

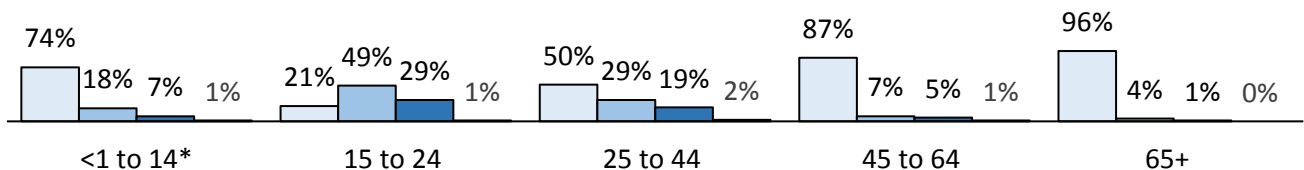
Most injuries, specifically those that are unintentional, can be prevented with public health interventions, irrespective of manner or demographic. Healthy Vermonters 2020 includes reducing various injuries as a public health priority for the state; including, increasing the percent of drivers using car restraints, reducing the number of non-fatal motor vehicle crash related injuries, reducing the number of fall-related ED visits for adults 65 and older, reducing fall-related deaths among adults 65 and older and reducing the number of sudden unexpected infant deaths.

Age

For nearly all age groups from 2010-2014, less than half of deaths were the result of an injury. The exception is Vermont residents 15-24 where, eight in ten deaths resulted from an injury. Among those 15-24, half of deaths resulted from an unintentional injury and three in ten from intentional injury. Half of deaths among Vermonters 25-44 stemmed from injuries, while a quarter or fewer deaths were caused by injuries in all other age groups (26% ages <1-14, 13% 45-64, and 5% 65 and older).

Distribution of injury type, by age group

□ Non-injury related death □ Unintentional □ Intentional □ Undetermined



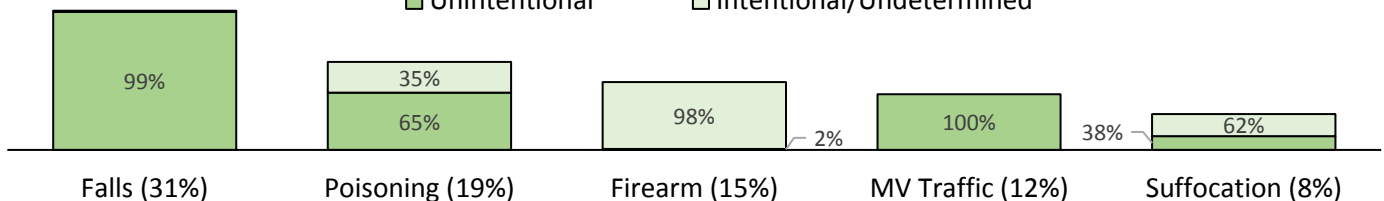
*Please note these include residents who die of congenital anomalies and other conditions occurring in infants/newborns

Cause

From 2010-2014, nearly one third (31%) of all injury deaths, regardless of intent was, caused by a fall. One fifth (19%) were from poisoning, 15% were from a firearm, 12% were from motor vehicle traffic and 8% were from suffocation. Almost all Fall deaths and MV Traffic deaths were unintentional while nearly all firearm deaths were intentional/undetermined.

Leading Causes of Death as a percentage of all injury deaths, by intent

■ Unintentional □ Intentional/Undetermined



¹ CDC/NCHS, National Vital Statistics System, Mortality 2014.

Unintentional Injury

Unintentional injury deaths account for more than two-thirds of injury deaths among Vermont residents (70%). The remaining deaths are intentional (25% suicide and 2% homicide) or of undetermined (3%) intent. Information on intentional injury deaths including suicide and gun violence can be found here: http://healthvermont.gov/family/injury/injury_surv.aspx.

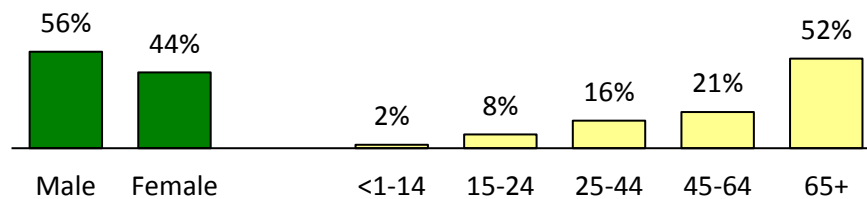
The remainder of this data brief describes data and trends of unintentional injury deaths among Vermont residents from 2010 through 2014 and highlights differences in age and sex for the leading causes of injury death.

Unintentional Injury Deaths in Vermont

In 2014, the age adjusted years of productive life lost due to unintentional injury in Vermont was 713.2 years per 100,000 persons aged 0-74, statistically lower than the U.S. rate of 1,065.1 per 100,000.²

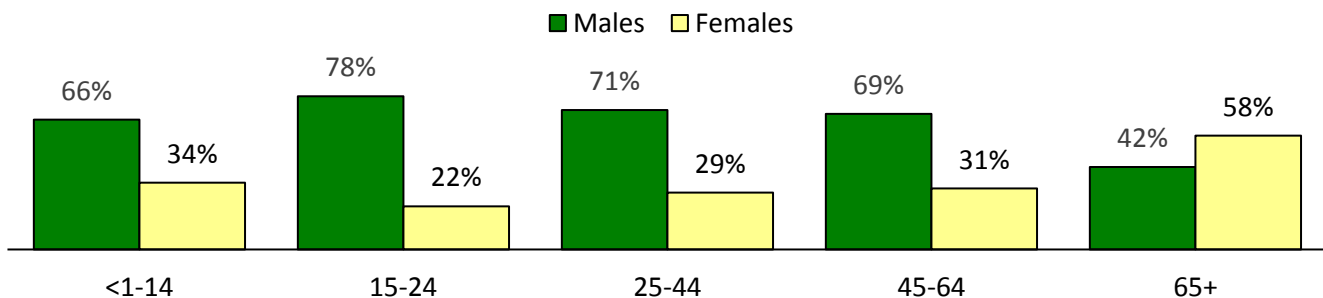
Overall, the majority of unintentional injury deaths from 2010-2014 occurred among males (56%). As age increases so does the risk of death due to unintentional injury, with more than half of deaths occurring among adults 65 and older (52%).

**Unintentional Injury Deaths by Gender, Age
Vermont Residents, 2010-2014**



In all age groups, other than those 65 and older, men represent at least two thirds of unintentional injury deaths. Among Vermonters 15-24, nearly eight in ten (78%) of unintentional injury deaths are men. The only age group where women comprise more than half of unintentional injury deaths is those 65 and older, where 58% of deaths are among women.

**Unintentional Injury Deaths by Age and Gender
Vermont Residents, 2010-2014**



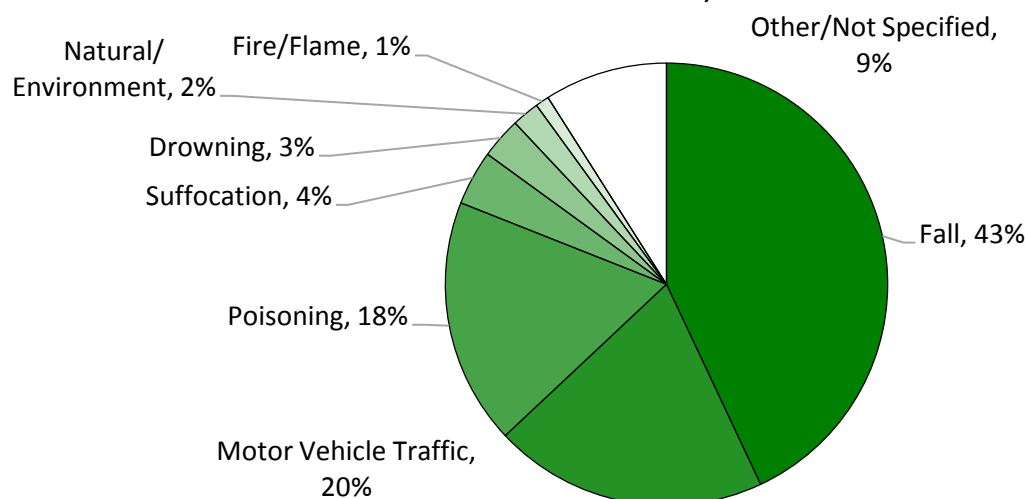
Leading Causes of Unintentional Injury Death

From 2010-2014, more than four in ten (43%) unintentional injury deaths were caused by falls. One in five unintentional injury deaths resulted from motor vehicle crashes or poisoning. Five percent or fewer were due to suffocation (4%), drowning (3%), natural/environment (2%), and fire/flame (1%).

² Years of potential life lost (YPLL) is a standard measure of the extent of premature mortality in a population and is based on the life expectancy in the US.

http://www.healthindicators.gov/Indicators/Years-of-potential-life-lost-before-age-75-per-100000_3/Profile

Unintentional Injury Deaths by Cause Vermont Residents, 2010-2014

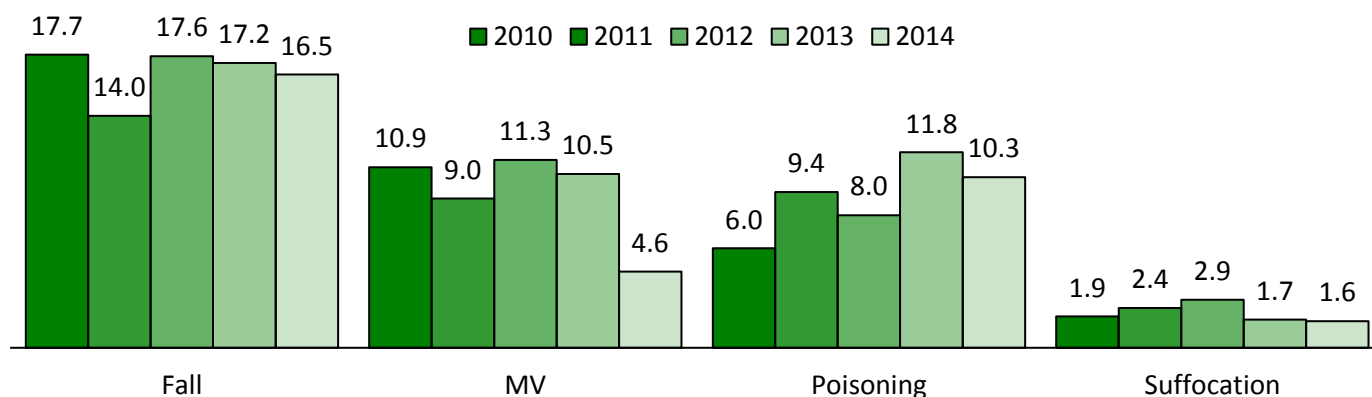


Leading Causes of Unintentional Injury Death Rate

Deaths from unintentional injuries increased slightly from 2010 to 2013 (41.4 to 47.6 per 100,000), before decreasing significantly in 2014 to 36.2 per 100,000 people. Falls are consistently the leading cause of unintentional injury death among Vermont residents, with 16.5 deaths per 100,000 people in 2014. Motor vehicle crashes (MV) and poisoning alternate as the second and third leading causes of death, during the 2010-2014 timeframe.

Poisoning deaths increased from 2012 to 2013 (8.0 to 11.8 per 100,000 people), before decreasing in 2014 to 10.6 per 100,000 people. The rate of motor vehicle crash deaths fell from 2013 to 2014, from 10.5 to 4.6 per 100,000 people, reflecting the decrease in overall unintentional injury deaths.

Unintentional Injury Death Rate (per 100,000) by Cause, Vermont residents, 2010-2014



Leading Causes of Injury Death, by Age, Gender, and Race

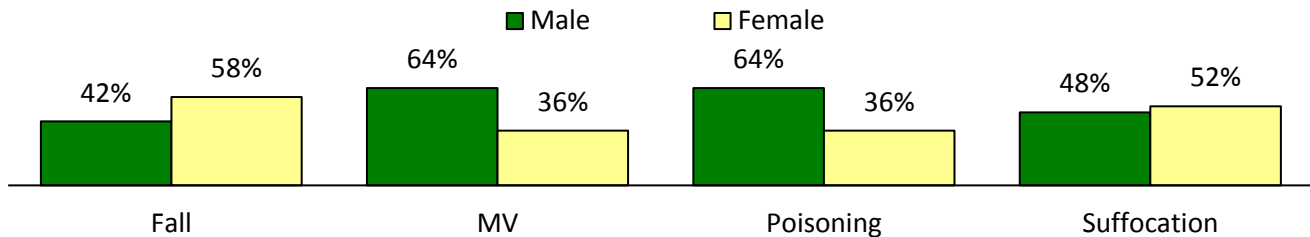
Fall Deaths

From 2010-2014, about six in ten (58%) of Vermont residents who died due to unintentional falls were female; 42% were male. As might be expected, nearly all (90%) of these fall related deaths were among those 65 and older. Very few (1%) of unintentional fall deaths were among racial or ethnic minorities.

Motor Vehicle Traffic Deaths

More than six in ten (64%) unintentional motor vehicle traffic deaths among Vermont residents, from 2010-2014, were male, compared to 36% female. Few motor vehicle traffic deaths occurred in those less than 14 years old (3%). The distribution of motor vehicle traffic deaths is relatively even among those aged 15-24, 25-44, 45-64 and 65+ age groups (23%, 24%, 27% and 22%, respectively). Two percent of motor vehicle crash deaths were among racial or ethnic minorities.

**Unintentional Injury Deaths by Gender
Vermont Residents, 2010-2014**



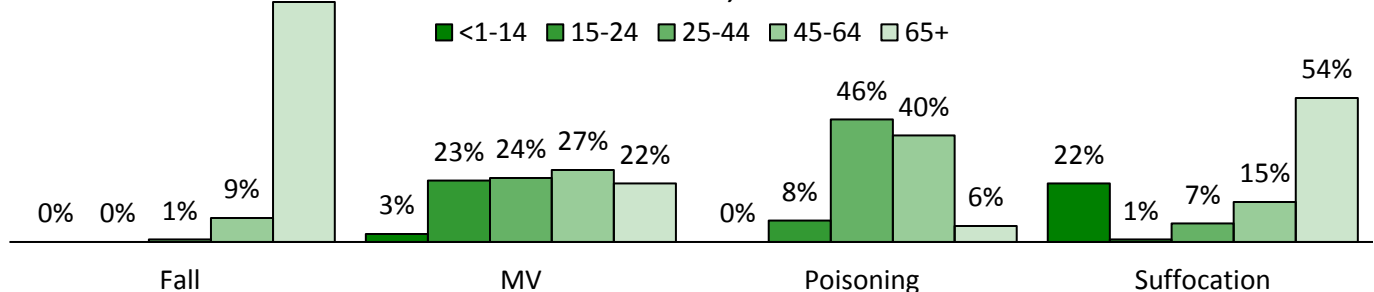
Poisoning Deaths

Unintentional poisoning is a broad category ranging from deaths due to organic solvents to illicit drugs. From 2010-2014, more than half (56%) of poisoning deaths were due to narcotic overdoses including: heroin, opium, morphine and codeine, three in ten (29%) were due to unspecified drugs, and less than ten percent each resulted from alcohol (6%), gasses/vapors including carbon monoxide (2%), and other non-narcotic, prescription and non-prescription drugs (5%). About two-thirds (64%) of accidental poisoning deaths are among males and 36% among females. This is opposite of what is seen with intentional poisoning deaths, where females comprise a larger proportion of the deaths³. Most unintentional poisoning deaths occur in the 25-44 age group (46%). Three percent of poisoning deaths were among racial or ethnic minorities.

Suffocation Deaths⁴

In 2010-2014, seven in ten (69%) of unintentional suffocation deaths were caused by choking from inhalation of gastric contents, inhalation/ingestion of food or other objects causing obstruction of respiratory tract. More than one in ten resulted from bed linens, a person's body or a pillow (12%) and unspecified threats to breathing, such as suffocation by plastic bag (15%). Few unintentional suffocation deaths were due to accidental hanging or strangulation (4%). More than half (52%) of accidental suffocation deaths were among females; 48% were among males. A majority, 54%, of suffocation deaths among Vermont residents occurred those 65 and older. About a quarter (22%) were among those less than 14 years of age. Few (1%) suffocation deaths were among racial or ethnic minorities.

**Unintentional Injury Deaths by Age
Vermont Residents, 2010-2014**



For more information about unintentional injury deaths or injury surveillance in general, please contact Leslie Barnard, MPH (leslie.barnard@vermont.gov)

³ For more information on suicide mortality in Vermont, please refer to the Suicide Mortality Data Brief:

http://healthvermont.gov/family/injury/documents/data_brief_suicide.pdf

⁴ Unintentional suffocation deaths do not include SIDS deaths as these are classified as ill-defined/unknown causes of death