

Leading Causes of Injury Morbidity Among Vermont Residents at Vermont Hospital

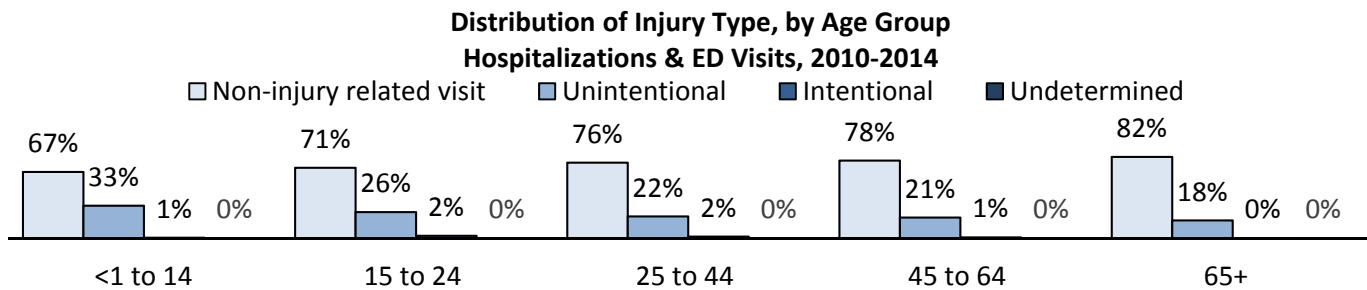
Injury Background

Injury encompasses unintentional (accidental) injury, intentional (self-inflicted and assault) injury and undetermined (intention unclear) injury. Of all hospitalizations and emergency department (ED) visits among Vermont residents at Vermont hospitals from 2010-2014, about a quarter (26%) were due to injury, with most of those resulting from an unintentional injury. Unintentional injuries made up a 25% of hospitalizations and ED visits during this time, while intentional and undetermined injury accounted for 1% percent.

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 all age groups, from 2010-2014, less than half of hospitalizations and ED visits resulted from an injury. As age increases, the likelihood of a visit being injury-related decreases. Among those 14 and younger, one-third were due to an unintentional injury. This decreased to a quarter among those 15 to 24, and about two in ten among those 25-44 (22%), 45 to 64 (21%) and 65 and older (18%). Across all age groups, two percent or less of visits were due to intentional injuries. Less than one percent of all injuries were of undetermined intent.



Cause

One third (33%) of injury hospitalizations and ED visits, regardless of intent was caused by a fall. Thirteen percent were due to being struck by/against, and one in ten were from overexertion (11%) and cut/pierce (10%). Less than one in ten resulted from Motor Vehicle (MV) traffic¹ (7%), bites/stings (5%), poisoning (3%), and MV other² (3%).

Unintentional Injury

Unintentional injuries accounted for nearly all (95%) injury-related hospitalizations/ED visits among Vermont residents at Vermont hospitals in 2010-2014. The remaining hospitalizations/ED visits were intentional (2% self-inflicted and 2% assault) and undetermined (0%). Most individual causes of injury showed a similar distribution by intent. Notable exceptions include: firearms (51% unint., 37% intent., 7% undet.), poisoning (49% unint., 39% intent., 13% undet.), and suffocation (60% unintent., 39% intent., 1% undet.).

Information on intentional injury can be found on the [VDH website](#). The remainder of this data brief describes data and trends of unintentional injury hospitalizations and ED visits among Vermont residents at Vermont hospitals from 2010 through 2014 and highlights differences in age and sex for the leading causes.

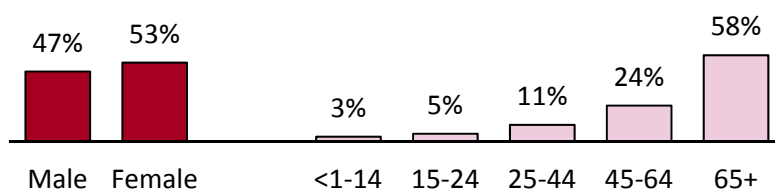
¹ “MV Traffic” is defined as an occupant, pedestrian or cyclist involved in an incident with a motorized vehicle in traffic

² “MV Other” is defined as an occupant, pedestrian or cyclist involved in an incident with a railway, snow mobile, other motorized vehicle, animal-drawn vehicle, cyclist or street car.

Hospitalizations

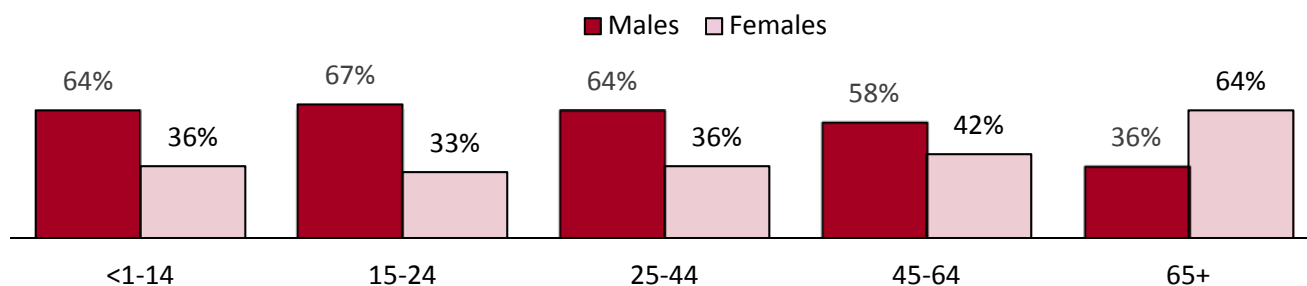
Overall, most unintentional injury hospitalizations from 2010-2014 occurred among females (53%). As age increases so does the risk of hospitalization due to unintentional injury, with nearly six in ten hospitalizations occurring among adults 65 and older (58%).

Unintentional Injury Hospitalizations by Gender, Age, 2010-2014



Males represent the majority of unintentional injury hospitalizations in all age groups with the exception of those 65 and older, where more than six in ten (64%) are among women.

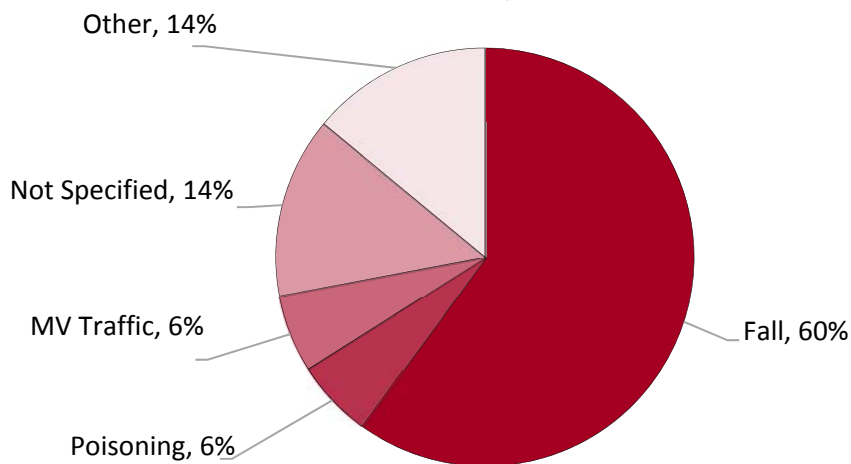
Unintentional Injury Hospitalizations by Age and Gender, 2010-2014



Leading Causes of Unintentional Injury Hospitalization

From 2010-2014, six in ten unintentional injury hospitalizations were caused by falls. Fourteen percent were the result of another 'not specified' injury. This is followed by about one in twenty (6%) due to poisoning and MV traffic. Each of the remaining causes account for three percent or less of unintentional injury hospitalizations. These are aggregated into the "other" category and include: MV other (3%), bites/stings (2%), overexertion (2%), suffocation (1%), natural/environment (1%), cut/pierce (1%), fire/burn (1%) and machinery (1%), drowning (<1%), firearms (<1%), and other (<1%). In the figure below causes resulting in three percent or fewer of all injury hospitalizations are aggregated into 'other'.

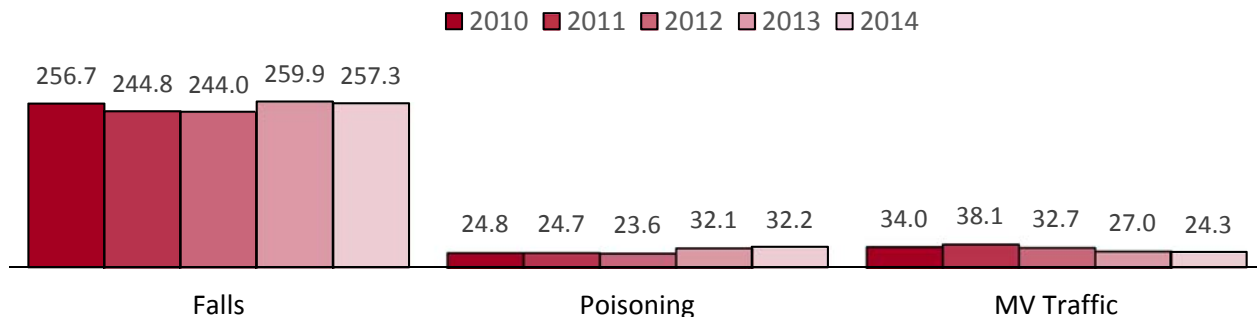
Unintentional Injury Hospitalizations by Cause Vermont Residents, 2010-2014



Leading Causes of Unintentional Injury Hospitalization Rate

Hospitalizations from unintentional injuries remained similar from 2010 to 2014 (455.9 to 454.2 per 100,000 people). Falls are consistently the leading cause of unintentional injury hospitalization among Vermont residents at Vermont hospitals, with 257.3 hospitalizations per 100,000 people in 2014. Poisoning was the second leading cause with 32.2 per 100,000 hospitalizations in 2014, followed by MV Traffic with 24.3 hospitalizations per 100,000 people.

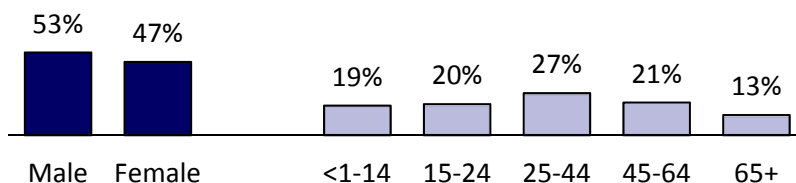
Unintentional Injury Hospitalization Rate (per 100,000) by Cause, Vermont residents, 2010-2014



Emergency Department Visits

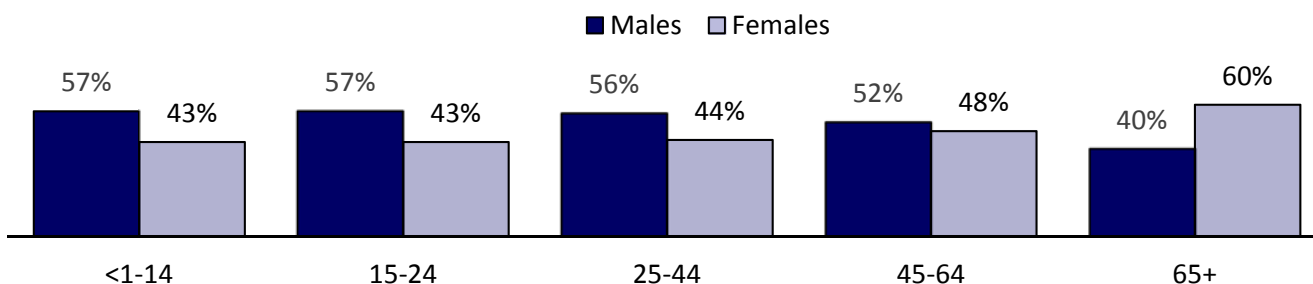
Overall, the majority of unintentional injury ED visits from 2010-2014 occurred among males (53%). ED visits for unintentional injury by age group follows a normal distribution with the highest number of ED visits among those 25-44 years old. Those 65 and older were the least likely (13%) to visit the ED for an unintentional injury.

Unintentional Injury ED Visits by Gender, Age, 2010-2014



Males represent a higher percentage of visits to the ED for unintentional injuries among all age groups except those 65 and older, where six in ten people visiting the ED for unintentional injuries were female.

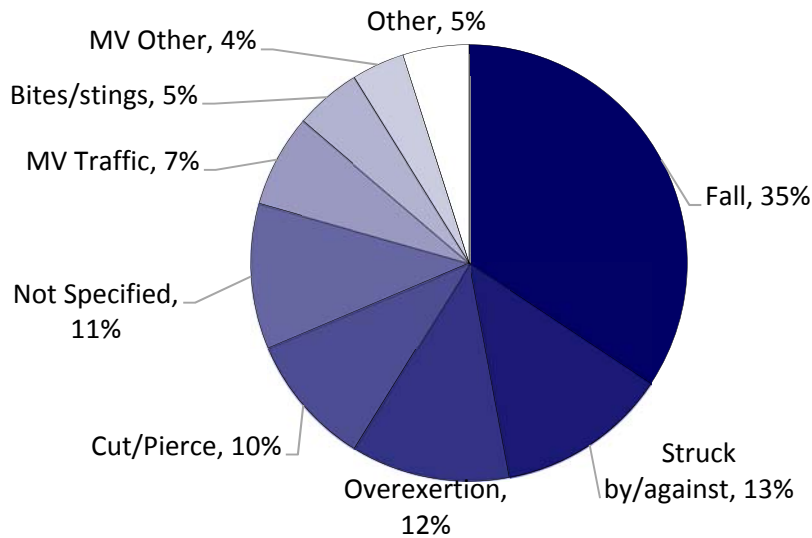
Unintentional Injury ED visits by Age and Gender, 2010-2014



Leading Causes of Unintentional Injury ED Visits

From 2010-2014, one third (35%) of unintentional injury ED visits were due to falls. About one in ten unintentional injury ED visits resulted from being struck by/against (13%), overexertion (12%), cut/pierce (10%), and not specified (11%). Roughly one in twenty were due to MV Traffic¹ (7%), bites/stings (5%), and MV other¹ (4%). Two percent or fewer resulted from fire/burn (2%), poisoning (2%), natural/environment (1%), drowning (<1%), firearms (<1%), machinery (<1%), suffocation (<1%) and other (<1%). In the figure below causes resulting in two percent or fewer of all injury ED visits are aggregated into the “other” category.

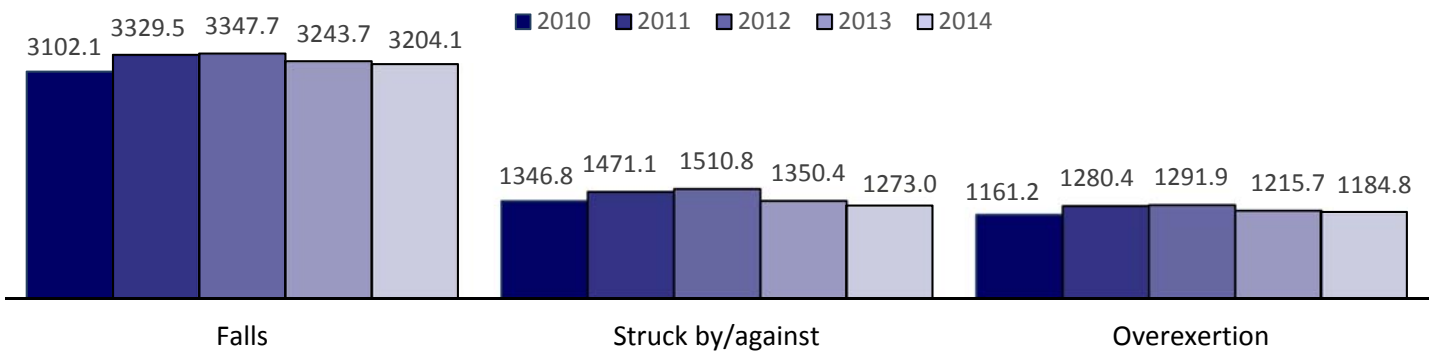
**Unintentional Injury ED Visit by Cause
Vermont Residents, 2010-2014**



Leading Causes of Unintentional Injury ED visit Rate

ED visits from unintentional injuries remained similar from 2010 to 2014 (10,066.2 to 10,150.8 per 100,000 people). Falls are consistently the leading cause of unintentional injury ED visits among Vermont residents at Vermont hospitals, with 3204.1 ED visits per 100,000 people in 2014. Struck by/against was the second leading cause with 1,273.0 per 100,000 ED visits in 2014, followed by overexertion (1,184.8).

**Unintentional Injury ED visit Rate (per 100,000) by Cause,
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).