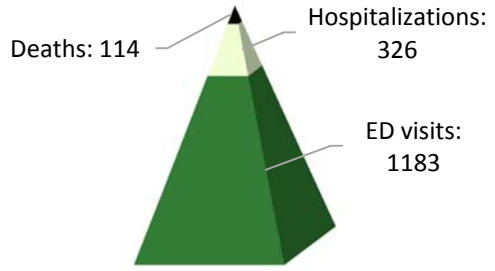
Suicide Attempt Morbidity – Data Brief
Vermont Injury Prevention Program

Background
Suicidal ideation is defined as suicidal thinking. It can range from a vague wish to die to actively making a suicide plan. A suicide attempt is an action taken by a person with the intent that the action will result in his or her death. The risk factors for suicidal ideation and suicide attempts are similar to those for suicide. These include depression and other mental health diagnoses, a substance abuse disorder, often in combination with a mental disorder, prior suicide attempt, firearms in the home, or a family history of suicide, mental disorders, substance abuse and family violence.[1] Healthy Vermonters 2020 lists various public health priorities for the state; including, reducing emergency department visits for self-harm injuries[2].

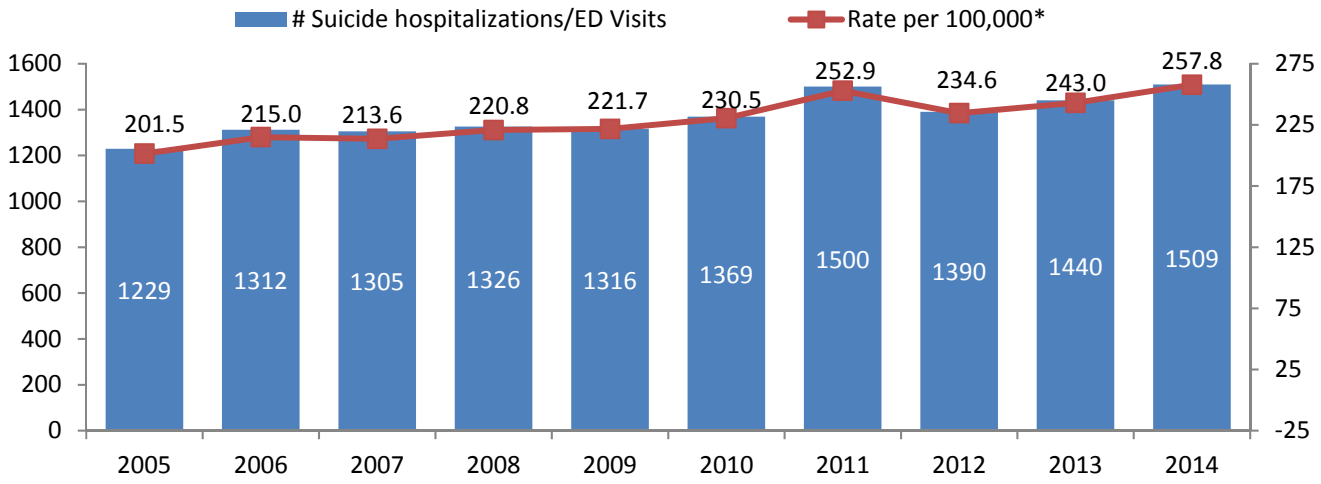
Annual Suicide Injuries
In 2014, there were 114 suicide deaths among Vermont residents, 326 hospitalizations and 1183 Emergency Department (ED) visits for suicide attempts among Vermont residents in Vermont hospitals. This does not include less severe cases who may be treated in a physician's office, outpatient facility or by an EMT. Also not captured are people who have suicidal thoughts, make a suicide plan, or have depressive disorders whom do not seek care or interact with the health care system.

Number of Suicides, Hospitalizations and Emergency Department Visits for suicide attempt in 2014



Hospitalizations and ED Visits for Suicide Attempt
In 2014, there were a total of 1,509 hospitalizations or ED visits among Vermont residents at Vermont hospitals for suicide attempts. Over the past 10-year period (2005 to 2014), the combined hospitalization and ED visit rate of Vermont residents at Vermont hospitals due to a suicide attempt has increased slightly from 201.5 in 2005 to 257.8 per 100,000 in 2014; however, this increase is not statistically significant. This increase likely reflects both a slight increase in suicide attempts and increased physician awareness of self-harm injuries and/or decreased stigma towards mental health issues.

Number of Suicide Hospitalizations and ED Visits and Rate Per 100,000 Vermont Residents at Vermont Hospitals, 2005-2014



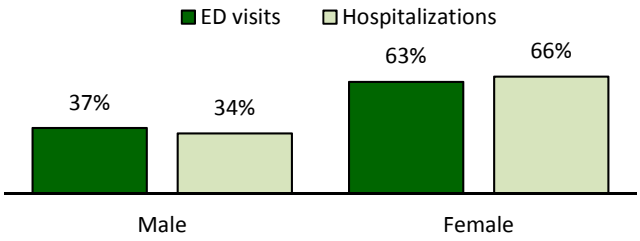
*Suicide ED and hospitalization rates are age adjusted to the U.S. 2000 population

[1] Mann, J.J. (2002). *A Current Perspective of Suicide and Attempted Suicide.* Annals of Internal Medicine 136: 302-311.
[2] http://healthvermont.gov/hv2020/documents/hv2020_report_full_book.pdf

Gender

Of those hospitalized, 66% were female, and of those visiting the ED, 63% were female. This is in contrast to suicide deaths, where more males die as a result of suicide than females[3].

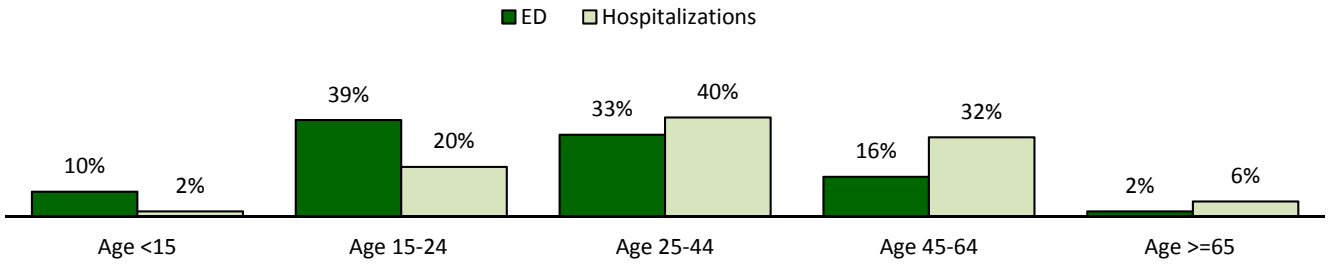
ED visits/Hospitalizations in 2013 & 2014, by gender and type of visit



Age

In 2013 and 2014, the majority of hospitalizations and ED visits for suicide attempts were among those aged 15-24 (35%) and 25-44 (34%). Those aged 45-64 made up one fifth of hospitalizations and ED visits, while those less than 15 years old and 65 and older represented less than ten percent, 8% and 3% respectively.

ED visits/Hospitalizations for suicide attempt in 2013 & 2014, by age & type of visit

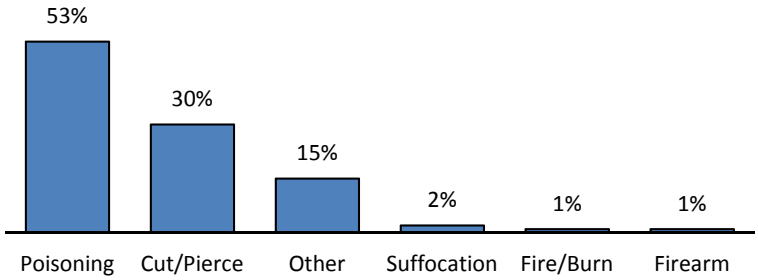


In 2013 and 2014, Vermonters aged 15-24 represented the largest proportion of the Emergency Department visits (39%) for suicide attempts, while those 25-44 comprised the largest percentage of suicide attempt hospitalizations (40%). The reason why younger people visit the ER at a higher rate than older adults for suicide attempts is unclear. It could be that self-inflicted injuries are more serious among the older age groups, but may also be because parents bring and advocate for their children to visit the ED after a suicide attempt more so than older Vermonters do for themselves. Additionally, part of the reason fewer Vermonters over 65 years old visit the ED or are hospitalized may be because suicide deaths are higher among this group[3].

Cause

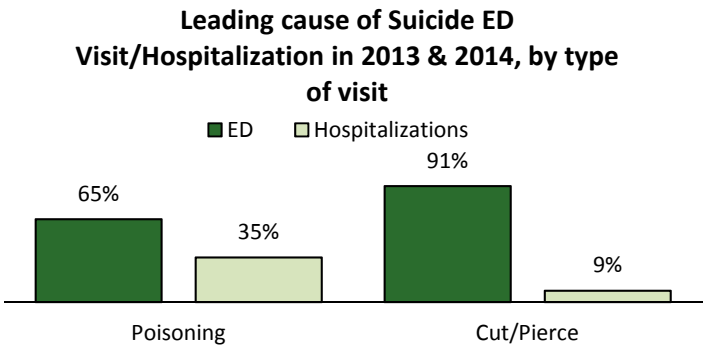
In 2013 and 2014, poisoning accounted for 53% of visits and cut/pierce accounted for 31%. The next leading cause was "Other", which includes unspecified and not classifiable causes of suicide attempts. Two percent of suicide attempt ED visits and hospitalizations were due to suffocation, while one percent were due to fire/burn and firearms, and less than one percent each were due to drowning/submersion, falls and motor vehicle crashes. While firearm deaths only accounted for 1% of suicide morbidity, the majority of suicide deaths are caused by a gunshot wound[4].

ED Visits/Hospitalizations in 2013 & 2014, by cause



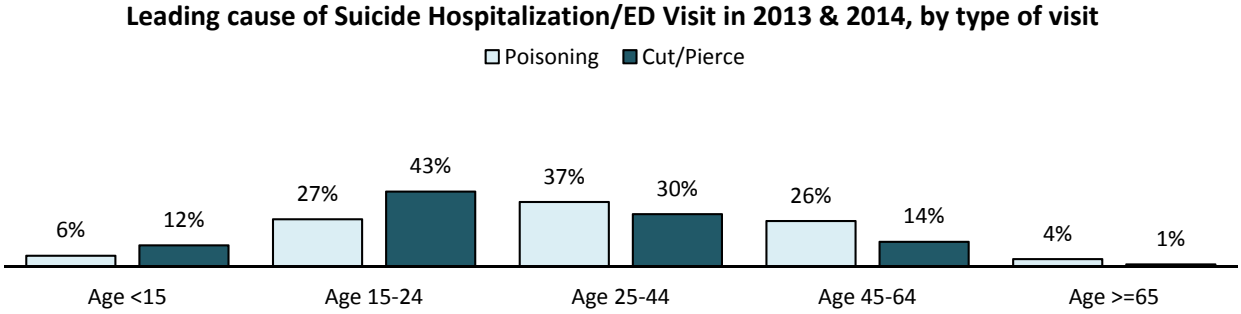
[3] For more information on suicide mortality in Vermont, please refer to the Suicide Mortality Data Brief: http://healthvermont.gov/family/injury/documents/data_brief_suicide.pdf

[4] For more information on Gunshot wound deaths, please refer to the Gunshot Wound Death Data Brief: http://healthvermont.gov/family/injury/documents/data_brief_gunshot_deaths.pdf



Of suicide attempts for cut/pierce and poisoning, most were ED visits, however, a larger proportion of poisoning cases were hospitalized (35%) compared to cut/pierce (9%). Females made up almost 70% of those who were hospitalized or visited the ED due to self-inflicted cut/pierce and poisoning.

Among those less than 24 years old, most of the ED visits and hospitalizations were due to self-inflicted cut/pierce. Poisoning ED visits and hospitalizations were more common among those aged 25 and older.



Cost of Suicide

Quantifying the burden of suicide is difficult. One way to attempt to measure the cost burden of suicide morbidity is to examine cost of a hospitalization/ER visit due to a suicide attempt. It is important to remember that hospital billing reflects only charges for treatment among those who visit the ED/Hospital for a suicide attempt and does not capture costs associated with other types of medical treatment. Additionally, it does not capture the mental health impact on those making an attempt on their lives, their family, and their community. In 2014, the median charge for a Vermont resident admitted to a Vermont hospital (326 people) was $11,626 and the median charge for a Vermont resident visiting a Vermont ER (1,509 people) was $1,983.

In addition to costs associated with suicide morbidity, there is also a burden associated with suicide mortality. One way to attempt to measure this burden is by calculating the Years of Potential Life Lost (YPLL). YPLL is defined as the sum of the years of life lost by persons who suffered early deaths, for those whose death occurred before 75[5]. In 2014, the age adjusted YPLL due to suicide in Vermont was 599 years per 100,000 persons aged 0-74, statistically higher than the U.S. rate of 413 per 100,000. Suicide accounted for over 12% of total YPLL among Vermont residents in 2014.

Suicide prevention resources:

Suicide is preventable when appropriate public health interventions are implemented. This includes insuring mental health services are provided to those who attempt suicide, but also include addressing familial, community and societal issues that contribute to suicidal ideation.

- National Suicide Prevention Lifeline: 800-273-TALK (8255); VT Suicide Prevention Lifeline: (802) 273-8255
- Dial 211 for a counselor if you are in VT
- Confidential online chat: www.suicidepreventionlifeline.org
- For more information about resources in Vermont, please visit: http://vtspc.org/

For more information on Injury Surveillance Data or Suicide Data, please contact Leslie Barnard, MPH at: leslie.barnard@vermont.gov.

[5] 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