

Division of Public Health Department of Health and Social Services

## Unintentional Injury, Suicide, and Homicide Mortality in Delaware

Figure 1. Number of Injury Deaths by Mechanism and Intent, Delaware, 2005-2009

In 2005-2009, total injuries, which include unintentional injuries, self-inflicted injuries (suicides), and assaults (homicides), accounted for 6.7 percent of all resident deaths.

In the graph below, the number of total injury deaths are shown by their mechanism of injury, along with their intent. Motor vehicle traffic injuries accounted for the greatest number of deaths, followed by those due to poisonings, and those due to firearms; together these three mechanisms were responsible for 62 percent of all injury deaths.

In 2005-2009, the majority of deaths due to motor vehicle traffic related injuries, poisonings, and falls were unintentional, while the majority of firearm and suffocation deaths were self-inflicted.

In 2005-2009, 39 percent of the pedestrians killed in transport-related injuries were acutely intoxicated.

Self-inflicted
Undetermined
Assault
Self-inflicted
Unintentional

Firearm

Manner of injury

Fall

Suffocation

Other

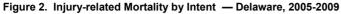
Source: Delaware Health Statistics Center

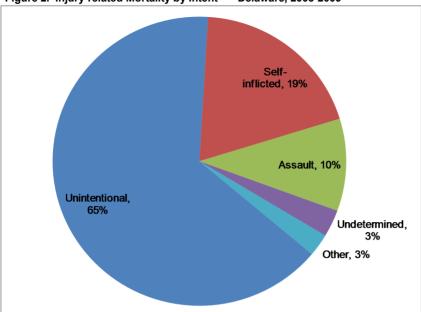
Motor vehicle

traffic

Poisoning

0





Unintentional injury deaths made up the majority of injury deaths; 65 percent of all injury-related deaths in 2005-2009 were unintentional.

Source: Delaware Health Statistics Center

Mortality rates for unintentional injuries exhibited little movement between 1990-1994 and 2005-2009; during the same time period, suicide mortality rates declined 10 percent and homicide rates rose 18 percent. In 2005-2009, the unintentional injury mortality rate was three times higher than the suicide mortality rate, and six times higher than the homicide mortality rate.

Figure 3. Five-year Age-adjusted Injury Mortality Rates by Intent — Delaware, 1990-2009

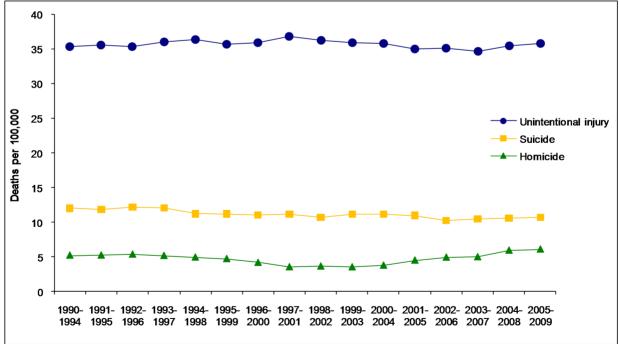
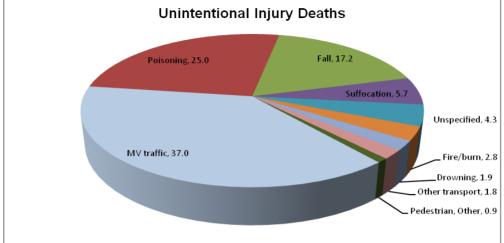
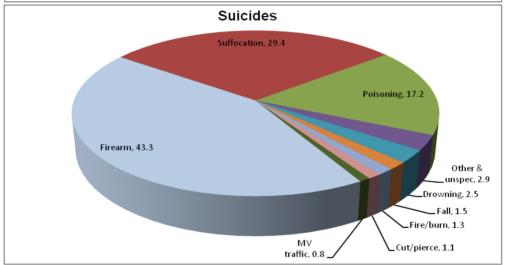


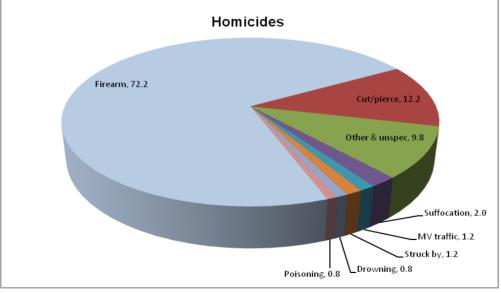
Figure 4. Distribution of Injury Mechanism by Intent, Delaware 2005-2009



In 2005-2009, motor vehicle traffic (mv traffic) injuries caused more unintentional injury deaths than any other cause. Poisonings were responsible for 1 in 4 unintentional injury deaths, followed by falls and suffocation.



Firearms, suffocation, and poisoning were the most commonly used mechanisms of suicide. Together, those three methods accounted for 90 percent of all suicides.



Firearms were the most common mechanism of homicide; they accounted for nearly three-quarters of all homicides in 2005-2009.

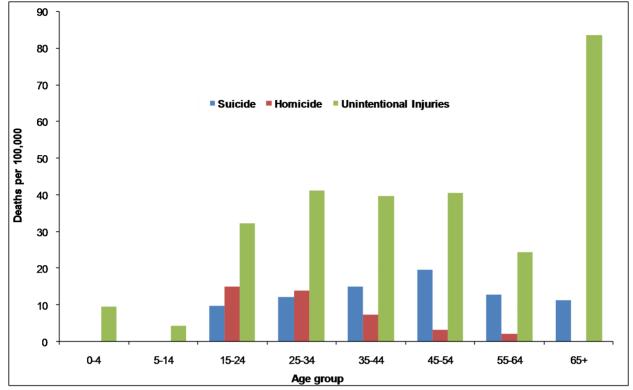


Figure 5. Five-year Age-specific Injury Mortality Rates by Intent — Delaware, 2005-2009

Total injury mortality rates were lowest for children under 15; suicides and homicides were rare, with fewer than 10 incidents in 2005-2009, and their unintentional injury rates were lower than any of the other age groups' rates. In 2005-2009, children ages 5-14 years had the lowest mortality rates due to unintentional injury.

At approximately 40 deaths per 100,000 population, unintentional injury mortality rates for the three age groups between 25 and 54 were just under half of the unintentional injury mortality rate of those 65 and older, who had the highest unintentional injury rate, at 83.6 deaths per 100,000 population.

Relatively few homicides occurred among those under 15 and over 54 years of age; combined, these age groups accounted for only 9 percent of all homicides. Decedents between the ages of 15 and 34 accounted for the majority (65 percent) of homicides; just over a quarter were between the ages of 35 and 54.

In 2005-2009, the highest homicide mortality rate occurred among the 15-24 age group, with 15 deaths per 100,000. Not only did they have the highest rate, but they also demonstrated the greatest growth in rates.

• Between 1990-1994 and 2005-2009, homicide mortality rates for the 15-24 age group rose 71 percent. Mortality rates for the age group with the second highest homicide mortality rates, people ages 25-34 years, rose by 43 percent during the same time interval (see Figure 6).

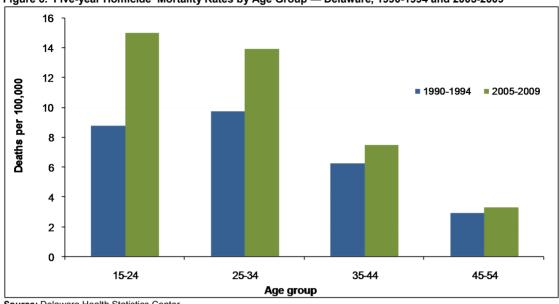


Figure 6. Five-year Homicide Mortality Rates by Age Group — Delaware, 1990-1994 and 2005-2009

Homicide mortality rates varied greatly by gender, race, and age group. Homicide mortality rates were highest for:

- males, whose rates were nearly 5 times that of females,
- those between the ages of 15 and 34, whose rates were more than double the overall rate, and
- blacks, whose rates were more than 5 times that of whites.

The increase in overall homicide mortality rates resulted primarily from increases in black mortality rates for the 15-24, 25-34, and 35-44 age groups; white homicide mortality rates for the 25-34 age group also rose, but in 2005-2009 their rate was one-fifth the black rate in the same age group (7 vs. 37).

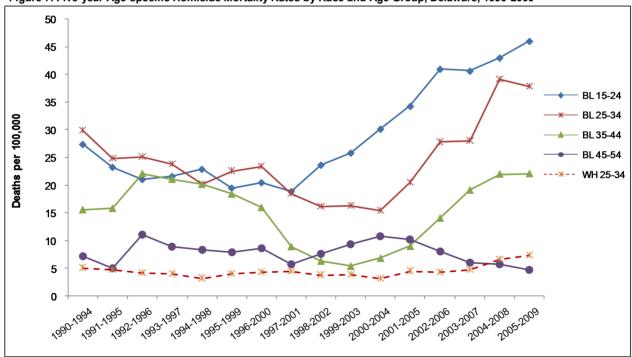


Figure 7. Five-year Age-specific Homicide Mortality Rates by Race and Age Group, Delaware, 1990-2009

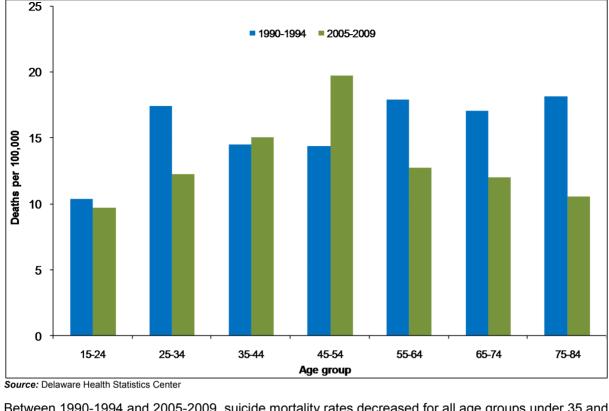


Figure 8. Five-year Suicide Mortality Rates by Age Group — Delaware, 1990-1994 and 2005-2009

Between 1990-1994 and 2005-2009, suicide mortality rates decreased for all age groups under 35 and over 54, remained stable for the 35-44 age group, and rose 37 percent for the 45-54 age group, which resulted in the 45-54 age group having the highest suicide mortality rates in 2005-2009 (19.7 deaths per 100,000 population).

- Most of the increase in the suicide mortality rate for the 45-54 age group was due to an increase in the rate of suicide by suffocation.
- In 2005-2009, 35 percent of suicides within the 45-54 age group were due to firearms; poisoning and suffocation each accounted for another 28 percent of the total suicide deaths in that age group.

Male 18 16 Deaths per 100,000 8 White Sussex Kent **New Castle** Black 6 Female 4 2 Area/Race/Sex

Figure 9. Five-year Age-adjusted Suicide Mortality Rates by Characteristic — Delaware, 2005-2009

Though suicide mortality rates didn't vary significantly by county, they displayed large differences by race and sex. White rates were more than double black rates, and males rates were more than 4 times higher than female rates in 2005-2009.

Unintentional injury mortality rates varied greatly by age, with those in the youngest age groups having the lowest rates and those in the oldest age groups having the highest rates. Between 1990-1994 and 2005-2009, unintentional mortality rates decreased for the age groups under 25 (rates of children in the 0-4 and 5-14 age groups decreased 44 and 46 percent respectively) and over 54; for decedents aged 25 to 54 years, unintentional injury mortality rates rose 4 percent for those 25-34, 20 percent for those 35-44, and 98 percent for those 45-54.

- The increase in unintentional injury mortality rates of people in the 45-54 age group was driven primarily by an increase in unintentional poisonings, though rates of unintentional injury mortality due to motor vehicle traffic and falls also rose.
- In 1990-1994, poisonings were responsible for 13 percent of unintentional injury deaths of people 45
  -54 years of age, by 2005-2009, the percentage of deaths due to unintentional poisonings had
  tripled, to 39 percent of unintentional injury deaths.

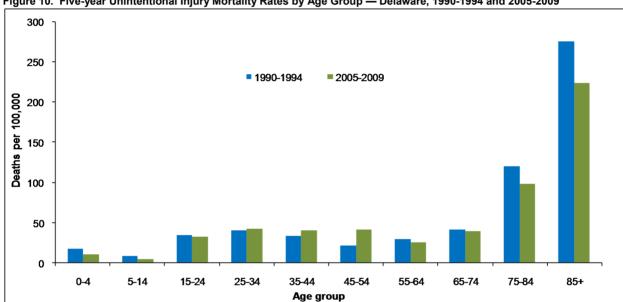


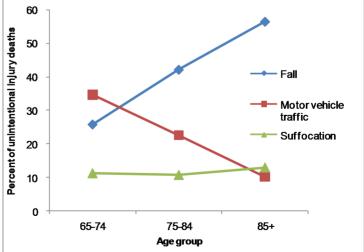
Figure 10. Five-year Unintentional Injury Mortality Rates by Age Group — Delaware, 1990-1994 and 2005-2009

Source: Delaware Health Statistics Center

With each 10 year increase in age, the unintentional injury mortality rates of those 65 and older more than doubled. In 2005-2009, people ages 65-74 had a mortality rate of 40, those 75-84 had a rate of 98, and those 85 and older had a rate of 223 deaths per 100,000 population.

The most common causes of unintentional injury deaths of people 65 and older were falls, motor vehicle traffic accidents, and suffocation. Falls became more common as age increased, while motor vehicle traffic injuries became less common.

Figure 11. Distribution of Unintentional Injury by Mechanism and Age Group over 65 — Delaware, 2005-2009



- Unintentional injury mortality rates were highest for injuries due to motor vehicle traffic, followed by poisonings.
  - ⇒ While mortality rates due to motor vehicle traffic decreased from 16.6 in 1990-1994 to 13.6 in 2005-2009, poisoning mortality rates more than doubled, rising from 3.8 to 9.4 deaths per 100.000.
- Between 1990-1994 and 2005-2009, unintentional death rates due to falls also increased, moving from 3.5 to 5.6 deaths per 100,000.
- Unintentional injury mortality rates due to drowning decreased 58 percent during the same period, and in 2005-2009, mortality rates due to drowning were lower than any other cause of unintentional injury.

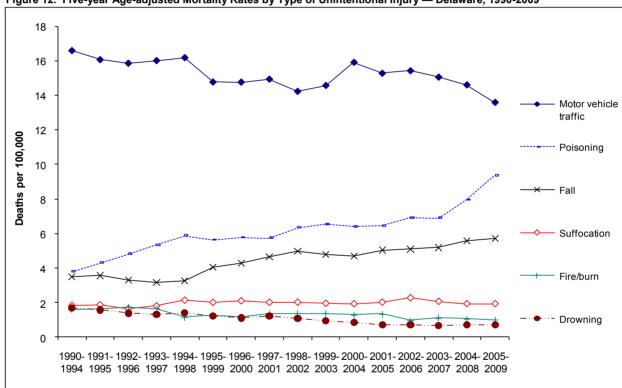


Figure 12. Five-year Age-adjusted Mortality Rates by Type of Unintentional Injury — Delaware, 1990-2009

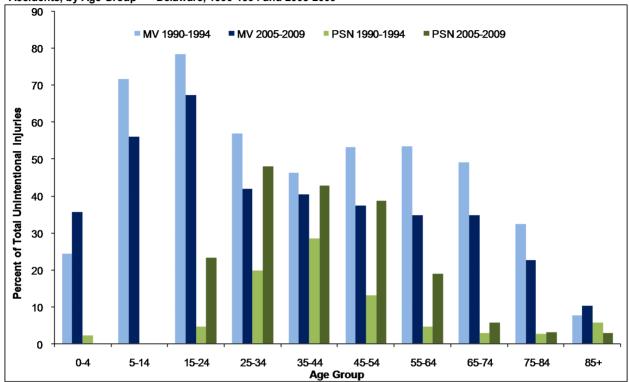


Figure 13. Proportion of Unintentional Injury Deaths Represented by Unintentional Poisonings and Motor Vehicle Accidents, by Age Group — Delaware, 1990-1994 and 2005-2009

Though poisonings were not a significant contributor to unintentional injury deaths of those under 15, for nearly all other age groups the proportion of unintentional injury deaths due to poisonings increased between 1990-1994 and 2005-2009. The largest increases occurred in those ages 15-24, 25-34, 45-54, and 55-64, where the percentages of deaths due to poisonings more than doubled.

The increase in unintentional poisoning deaths for the 25-34, 35-44, and 45-54 year old age groups resulted in unintentional poisonings replacing motor vehicle accidents as the leading cause of unintentional injury death for those age groups.



If you have comments, suggestions, and/or questions, please contact the Delaware Health Statistics Center at (302) 744-4541.

Reported by Barbara Gladders