

## CHAPTER TWO: AN OVERVIEW OF INJURY IN COLORADO

### Highlights

- Injuries are the leading cause of death for Coloradans ages 1-44.
- Since 1990, the injury death rate has remained relatively stable at 62 deaths per 100,000 population. Most of the injury deaths in Colorado are due to transportation and suicide (an average of 803 and 720 deaths each year, respectively).
- Most individuals who die from injury do not survive long enough to receive hospital medical care. Only 19 percent of injury deaths occur after a person has been admitted to a hospital.
- Most of the injury hospitalizations in Colorado are due to falls (45 percent of all injury hospitalizations). Injuries resulting from transportation and suicide attempts account for an additional 30 percent.
- For most major causes of injury, males are more likely to die or be hospitalized for injuries than females.
- Traumatic brain injury is a factor in 33 percent of all injury deaths and 14 percent of all injury hospitalizations.

Injuries are a major public health problem in Colorado resulting in significant numbers of hospitalizations and deaths. Tragically, injuries are the leading cause of death for Coloradans ages 1-44. Additionally, more than 28,000 Coloradans are hospitalized for injuries each year.

Typically, injuries are categorized as either intentional or unintentional. Intentional injuries such as homicide and suicide involve acts in which there is intent to harm. Unintentional injuries are frequently labeled as “accidental,” however, with appropriate interventions, most unintentional injuries can be prevented. For some hospitalizations and deaths, intentionality has not been determined. In the discussions throughout this report, the hospitalizations and deaths listed as “undetermined intent” are included in total counts, but they are not included in the discussions of intentional or unintentional mechanisms.



**Figure 2: Five leading causes of death by age, United States, 2002**

Rank	Age < 1	Age 1-4	Age 5-9	Age 10-14	Age 15-24	Age 25-34	Age 35-44	Age 45-54	Age 55-64	Age 65+	Total
1	Congenital anomalies N=5,623	Unintentional injuries N=1,641	Unintentional injuries N=1,176	Unintentional injuries N=1,542	Unintentional injuries N=15,412	Unintentional injuries N=12,569	Unintentional injuries N=16,710	Malignant neoplasms N=49,637	Malignant neoplasms N=93,391	Heart disease N=576,301	Heart disease N=696,947
2	Short gestation N=4,637	Congenital anomalies N=530	Malignant neoplasms N=537	Malignant neoplasms N=535	Homicide N=5,219	Suicide N=5,046	Malignant neoplasms N=16,085	Heart disease N=37,570	Heart disease N=64,234	Malignant neoplasms N=391,001	Malignant neoplasms N=557,271
3	SIDS N=2,295	Homicide N=423	Congenital anomalies N=199	Suicide N=260	Suicide N=4,010	Homicide N=4,489	Heart disease N=13,688	Unintentional injuries N=14,675	Chronic lower respiratory disease N=11,280	Cerebrovascular disease N=143,293	Cerebrovascular disease N=162,672
4	Maternal pregnancy complications N=1,708	Malignant neoplasms N=402	Homicide N=140	Congenital anomalies N=218	Malignant neoplasms N=1,730	Malignant neoplasms N=3,872	Suicide N=6,851	Liver disease N=7,216	Diabetes mellitus N=10,022	Chronic lower respiratory disease N=108,313	Chronic lower respiratory disease N=124,816
5	Placenta cord membranes N=1,028	Heart disease N=165	Heart disease N=92	Homicide N=216	Heart disease N=1,022	Heart disease N=3,165	HIV infection N=5,707	Suicide N=6,308	Cerebrovascular disease N=9,897	Influenza and pneumonia N=58,826	Unintentional injuries N=106,742

Data source: National Center for Health Statistics (NCHS) Vital Statistics System.

**Figure 3: Five leading causes of death by age, Colorado residents, 2001-2003 total deaths**

Rank	Age < 1	Age 1-4	Age 5-9	Age 10-14	Age 15-24	Age 25-34	Age 35-44	Age 45-54	Age 55-64	Age 65+	Total
1	Congenital anomalies N=243	Unintentional injuries N=72	Unintentional injuries N=50	Unintentional injuries N=80	Unintentional injuries N=744	Unintentional injuries N=663	Unintentional injuries N=896	Malignant neoplasms N=1,865	Malignant neoplasms N=3,091	Heart disease N=15,578	Heart disease N=19,157
2	Short gestation N=217	Homicide N=22	Malignant neoplasms N=21	Suicide N=27	Suicide N=278	Suicide N=359	Malignant neoplasms N=627	Heart disease N=1,122	Heart disease N=1,840	Malignant neoplasms N=13,031	Malignant neoplasms N=18,906
3	SIDS N=131	Congenital anomalies N=22	Homicide N=8	Malignant neoplasms N=24	Homicide N=166	Malignant neoplasms N=163	Suicide N=490	Unintentional injuries N=793	Chronic lower respiratory disease N=573	Cerebrovascular disease N=4,920	Chronic lower respiratory disease N=5,601
4	Maternal pregnancy complications N=83	Influenza and pneumonia N=21	Heart disease N=7	Homicide N=10	Malignant neoplasms N=67	Homicide N=126	Heart disease N=422	Suicide N=468	Unintentional injuries N=423	Chronic lower respiratory disease N=4,822	Cerebrovascular disease N=5,534
5	Placenta cord membranes N=67	Malignant neoplasms N=11	Congenital anomalies N=3	Congenital anomalies N=10	Heart disease N=42	Heart disease N=107	Liver disease N=216	Liver disease N=357	Cerebrovascular disease N=326	Alzheimer's disease N=2,681	Unintentional injuries N=5,288

The homicide category also includes legal intervention.

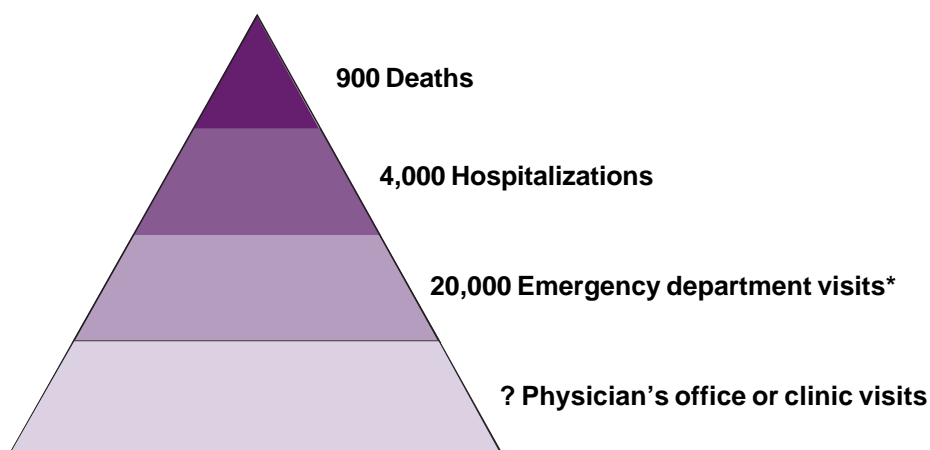
## Leading causes of death in the United States and Colorado

As shown in the tables on page 20, unintentional injury ranks overall as the fifth leading cause of death in both the U.S. and Colorado. When both unintentional and intentional injuries are considered, injuries are the third leading cause of death in Colorado.

Differences become apparent when causes of death are ranked by age group. Unintentional injuries rank first for ages 1-44 both in the U.S. and in Colorado. After age 45, deaths from cancer, heart disease, and other chronic conditions become more prominent than deaths due to unintentional injury.

The ranking of intentional injury deaths also differs across age groups. In Colorado, homicide is the second leading cause of death for children ages 1-4, the third leading cause of death for children ages 5-9 and the fourth leading cause of death for children ages 10-14. These rankings are higher in Colorado than nationally. Homicide remains in the top five leading causes of death for individuals ages 15-34, but ranks lower in Colorado than in the U.S. Suicide is the second leading cause of death for young Coloradans ages 10-34 and is one of the top five causes from age 10 through age 54.

**Figure 4: The Colorado Traumatic Brain Injury Pyramid  
Annual Average, 2001-2003**



\*Based on national estimates for emergency department visits

"Traumatic brain injuries" include concussions, skull fractures, and intracranial injuries from an external impact or forces of acceleration/deceleration.

## Injury deaths as percent of all deaths

Nearly 10 percent of all deaths in Colorado are the result of injuries. The death toll from injury is most apparent for younger age groups. Injury is responsible for more than two-thirds of deaths (68 percent) among Coloradans ages 1-34. The age groups with the highest percent of deaths due to injury are ages 15-19 and ages 20-24. Approximately 80 percent of the deaths in these two age groups are due to injury.

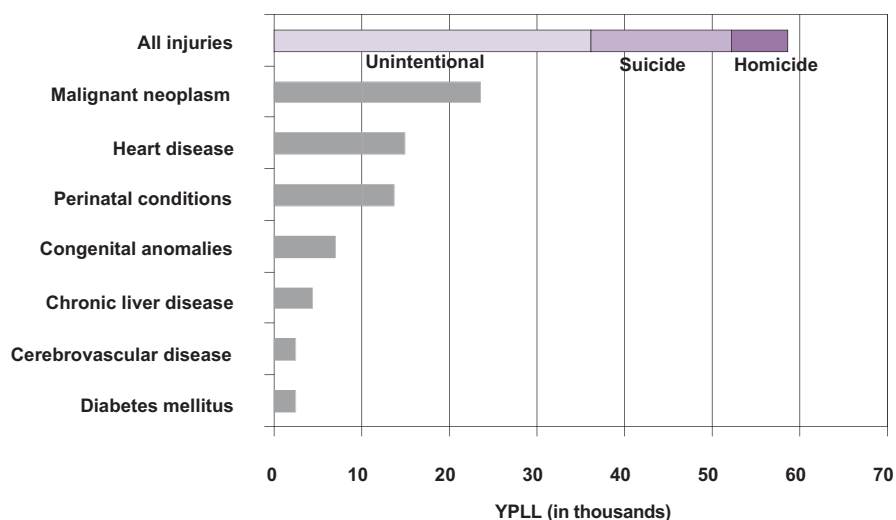
**Figure 5: Injury deaths as a percent of all deaths by age group**  
Colorado residents, 2001-2003 total

Age Group	Injury Deaths	All Deaths	Percent
All Ages	8,327	86,810	9.6
< 1	56	1,219	4.6
1-4	97	227	42.7
5-9	58	121	47.9
10-14	120	210	57.1
15-19	538	664	81.0
20-24	679	862	78.8
25-29	608	856	71.0
30-34	594	1,045	56.8
35-39	724	1,545	46.9
40-44	859	2,430	35.3
45-49	793	3,137	25.3
50-54	609	3,773	16.1
55-59	422	4,056	10.4
60-64	280	4,728	5.9
65-74	492	14,084	3.5
75-84	681	23,856	2.9
85+	717	23,997	3.0

## Years of potential life lost due to injury

The Years of Potential Life Lost (YPLL) is a statistic that measures the number of productive years that have been lost due to death from different causes. One method for calculating this statistic totals the number of years from the age of death to age 65. Based on this method, more years of potential life are lost due to injury than to any other cause of death in Colorado (Table D23).<sup>1,2</sup>

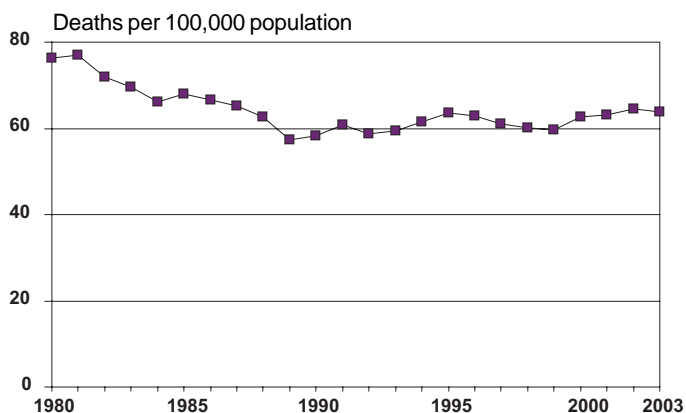
**Figure 6: Years of potential life lost (YPLL) before age 65 by leading cause of death**  
Colorado residents, 2001-2003 annual average



## Injury death rates over time

From 1980 to 1989, the injury death rate in Colorado declined significantly. However, since 1990, the rate has remained relatively stable at approximately 62 deaths per 100,000 population (Table D4).

**Figure 7: Age-adjusted injury death rates**  
Colorado residents, 1980-2003

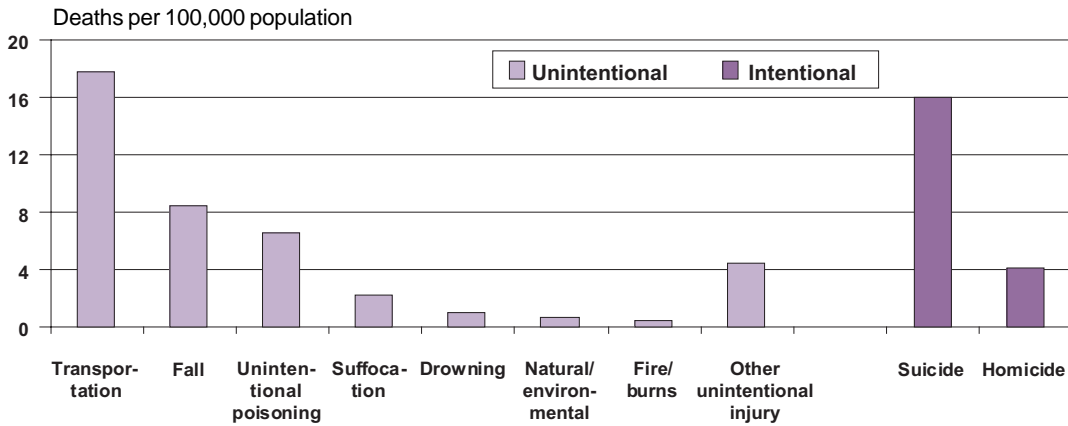


1. Death tables are found in Appendix A. Hospitalization tables are found in Appendix B. Traumatic brain injury tables are found in Appendix C.  
2. For more information on calculation of Years of Potential Life Lost, see Appendix D: Technical Notes.

## Leading causes of injury death

Approximately 63 percent of injury deaths in Colorado are from unintentional causes and 33 percent from intentional causes. For four percent of injury deaths, the intent is undetermined. Half of the unintentional injury deaths are due to transportation. Most of the intentional deaths (79 percent) are due to suicide. Homicide and falls also contribute significantly to the total number of injury deaths (Table D3).

**Figure 8: Age-adjusted injury death rates by cause  
Colorado residents, 2001-2003**



"Transportation" includes incidents that involve any type of transportation device such as motor vehicles, motorcycles, bicycles, airplanes, boats or other watercraft, trains, snowmobiles, off-road vehicles, animals being ridden, animal-drawn vehicles, or pedestrians.

"Natural/environmental" includes lightning, excessive cold, and bites, stings or other injuries due to animals or insects except animals being ridden.

"Other unintentional injury" includes machinery, unintentional firearm injuries, electric current, striking against or by objects or persons, and other mechanisms not previously mentioned.

"Homicide" also includes legal intervention.

## Traumatic Brain Injury Facts

On average, 914 Coloradans die from a traumatic brain injury each year (Table T1). This represents a seven percent decrease in 2001-2003 compared to 1996-1998.

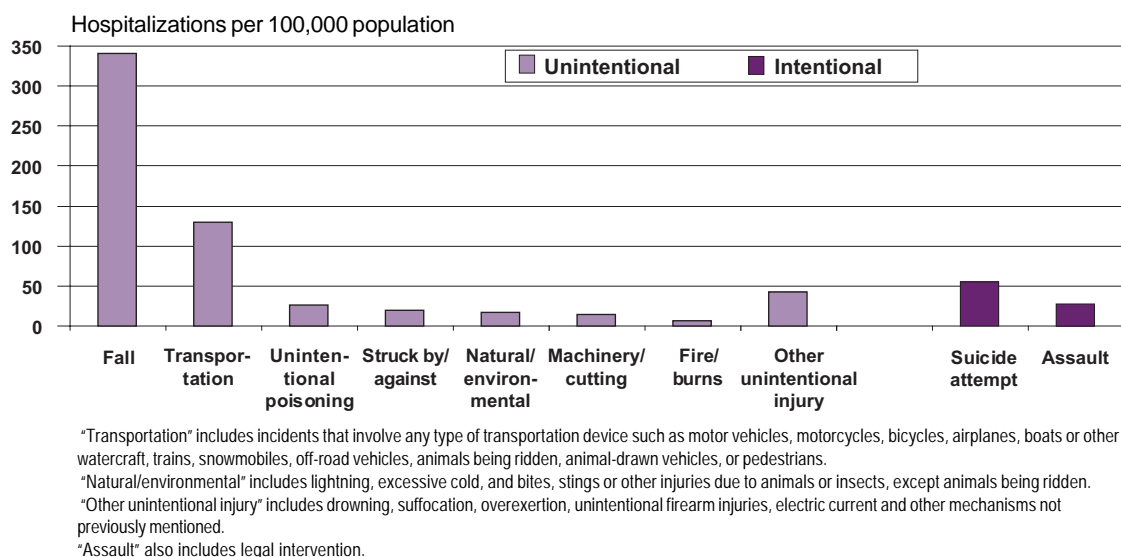
- Based on this average, one-third of injury deaths in Colorado result from traumatic brain injury.
- The average age-adjusted death rate for traumatic brain injury is 21.0 deaths per 100,000 population (Table T1). The rate of death from traumatic brain injury is three times higher for males (32.5 per 100,000) than for females (10.7 per 100,000) (Table T2).
- The leading causes of traumatic brain injury deaths are motor vehicle traffic, suicide, falls and homicide (Table T3).

"Traumatic brain injuries" include concussions, skull fractures, and intracranial injuries from an external impact or forces of acceleration/deceleration. Traumatic brain injury tables are found in Appendix C.

## Leading causes of injury hospitalization

While the majority of injury deaths in Colorado are due to suicide or transportation (55 percent of all injury deaths) (Table D3), these causes are responsible for less than 30 percent of injury hospitalizations. The leading cause of injury hospitalizations is falls (Table H3).

**Figure 9: Age-adjusted injury hospitalization rates by cause  
Colorado residents, 2001-2003**



## Traumatic Brain Injury Facts

On average, 4,201 Coloradans are hospitalized with a traumatic brain injury each year (Table T5). This represents a 20 percent increase in 2001-2003 compared to 1997-1999.

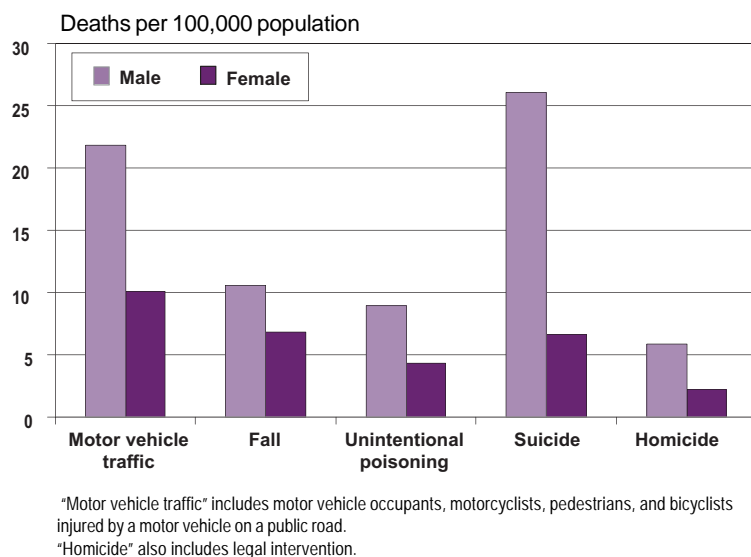
- Based on this average, 14 percent of the Coloradans hospitalized for injury have a traumatic brain injury.
- The average age-adjusted hospitalization rate for traumatic brain injury is 97.0 hospitalizations per 100,000 population (Table T5). The rate of hospitalization for traumatic brain injury is almost twice as high for males (124.9 per 100,000) than for females (69.0 per 100,000)(Table T6).
- The leading causes of traumatic brain injury hospitalizations are motor vehicle traffic, falls, other transportation and assaults (Table T7).

"Traumatic brain injuries" include concussions, skull fractures, and intracranial injuries from an external impact or forces of acceleration/deceleration. Traumatic brain injury tables are found in Appendix C.

## Injury death and hospitalization rates by sex

Injury death and hospitalization rates differ between males and females. For all major causes of injury, more males than females die from injury, especially from suicide, homicide and motor vehicle traffic crashes (Table D5).

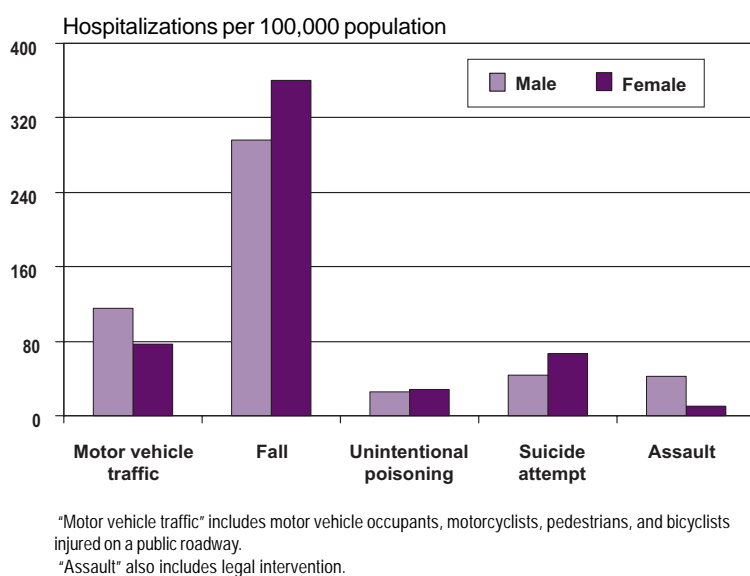
**Figure 10: Age-adjusted injury death rates by sex  
Colorado residents, 2001-2003**



Men also are more likely to be hospitalized for injuries than women. This disparity holds true for males up to age 64 and is greatest for males ages 15-34 (Tables H5, H8, H9).

After age 65, women sustain more injuries requiring hospitalization than men. These injuries most often are due to falls. This disparity is particularly evident in the 85 and older age group, in which women are 1.5 times as likely as men to be hospitalized for injuries due to a fall (Tables H8, H9). Although the hospitalization rate for injuries due to falls is significantly higher for females than for males, the death rate for injuries due to falls is significantly higher for males than females (Tables H5, D5).

**Figure 11: Age-adjusted injury hospitalization rates by sex  
Colorado residents, 2001-2003**



The rate of hospitalization for a suicide attempt is 1.5 times higher for women than for men, but the suicide rate for men is four times higher than for women (Tables H5, D5). Males attempting suicide are more likely to use a more lethal method (Table D22).

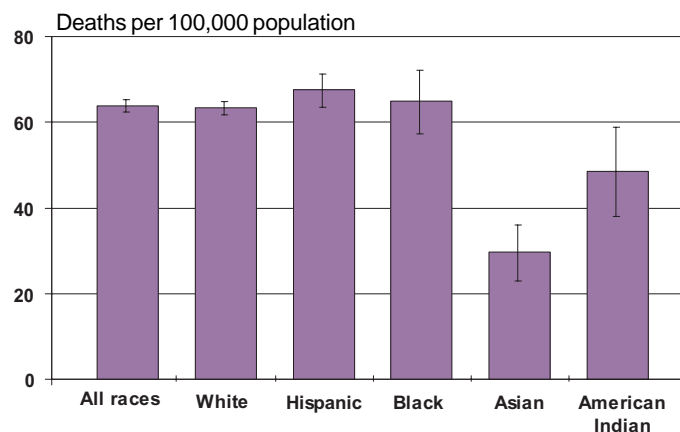
## Injury death and hospitalization rates by race/ethnicity

When considering all types of injuries combined, injury death rates for different racial/ethnic groups show no statistically significant difference for whites, Hispanics, Blacks and American Indians. The injury death rate for Asians, however, is significantly lower than for the other racial/ethnic groups.

When specific mechanisms of injury are considered, additional disparities in injury death rates become apparent (Table D6). For example, the age-adjusted rate for deaths due to motor vehicle traffic is significantly higher for Hispanics than for other groups. Whites have a higher age-adjusted rate for deaths due to falls. The age-adjusted rates for deaths due to unintentional poisoning are higher for Hispanics and Blacks. With regard to intentional injury, the age-adjusted suicide rates are highest for whites, while homicide rates are higher for Hispanics and Blacks.

Differences in injury hospitalization rates for different racial/ethnic groups cannot be determined due to incomplete information in the hospital discharge data. Information on race/ethnicity is missing for more than 25 percent of the injury-related hospital discharge records.

**Figure 12: Age-adjusted injury death rates by race/ethnicity, with 95 percent confidence intervals  
Colorado residents, 2001-2003**



The lines on the bars indicate the possible error in the estimate of the rate. The longer the line, the more variation there may be in the rate. For more information on confidence intervals, please see Appendix D: Technical Notes.

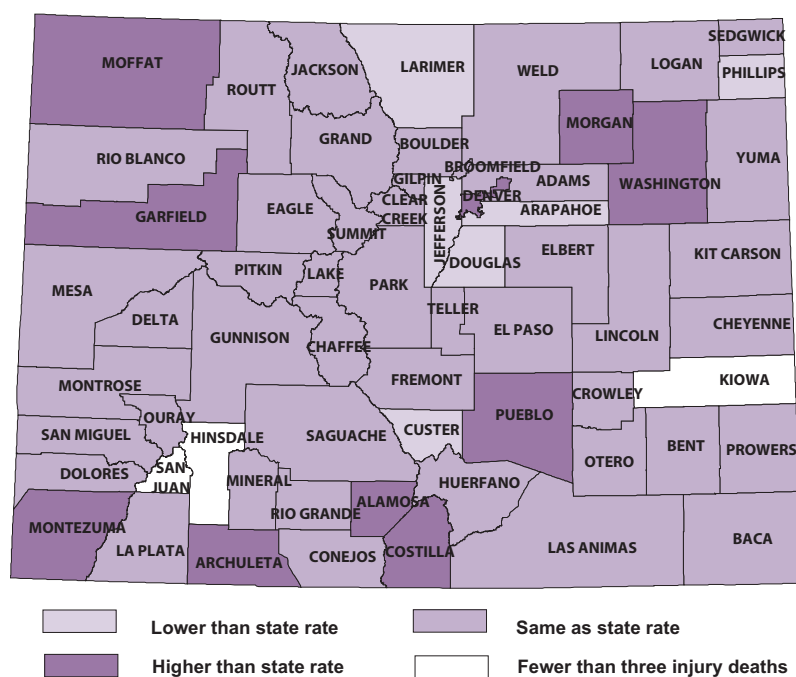
## Injury death rates by county of residence

Several counties with largely urban/suburban populations (Arapahoe, Douglas, Jefferson, and Larimer counties) have injury death rates that are significantly lower than the state rate. Ten counties in southwest, northwest and northeast Colorado have injury death rates that are significantly higher than the state rate (Alamosa, Archuleta, Costilla, Denver, Garfield, Moffat, Montezuma, Morgan, Pueblo, and Washington) (Table D25).

## Place of death

Most individuals who die from injury do not survive long enough to receive hospital medical care. Based on death certificate information, 62 percent of injury deaths occur at the scene (31 percent at home and 31 percent at some other location), 5 percent occur in a nursing home, and 14 percent are dead on arrival or die in the emergency department before being admitted to the hospital (Table D20). Only 19 percent of injury deaths occur after a person has been admitted as a hospital inpatient.

**Figure 13: Age-adjusted injury death rates by county of residence, 2001-2003**



Data for Broomfield County are for 2002-2003 only.

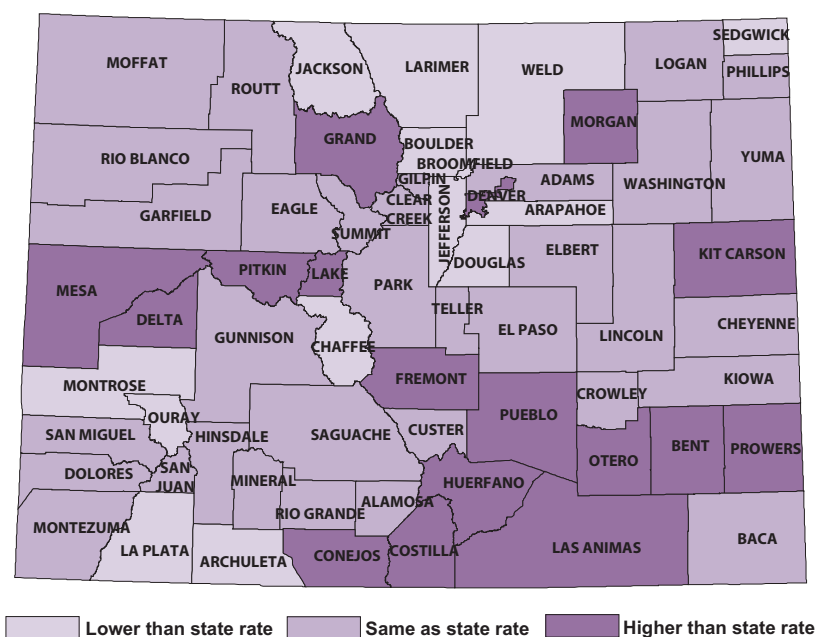
## Injury hospitalization rates by county of residence

Some of the same counties with statistically higher injury death rates also have statistically higher injury hospitalization rates. Costilla, Denver, Morgan, and Pueblo counties have both high death and hospitalization rates (Table H18). Clusters of high injury hospitalization rates are seen among counties in the southeast corner and the central western portion of the state.

## Place of injury

Only 69 percent of the injury hospitalization records include information about the place of injury. Of those with information, 44 percent of the events occur at home, 22 percent occur in a street or a public building, 10 percent occur in a sports or recreational setting, and 11 percent occur in a residential institution (such as a nursing home). The vast majority of injuries known to occur in residential institutions are due to falls (72 percent) (Table H14).

**Figure 14: Age-adjusted injury hospitalization rates by county of residence, 2001-2003**



Data for Broomfield County are for 2003 only.

## Injury death and hospitalization rates by age

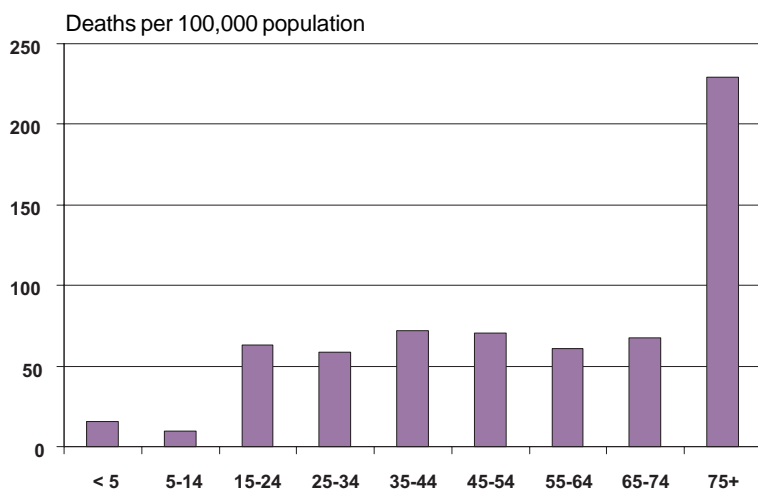
Injury death and hospitalization rates reflect similar trends across age groups. The youngest groups have the lowest rates of hospitalization and death and

the oldest groups have the highest rates (Tables D8, H7). Both death and hospitalization rates increase rapidly during the teen years as youth gain more independence and participate in more risk-taking behavior. Rates remain relatively constant until age 75 when they increase again.

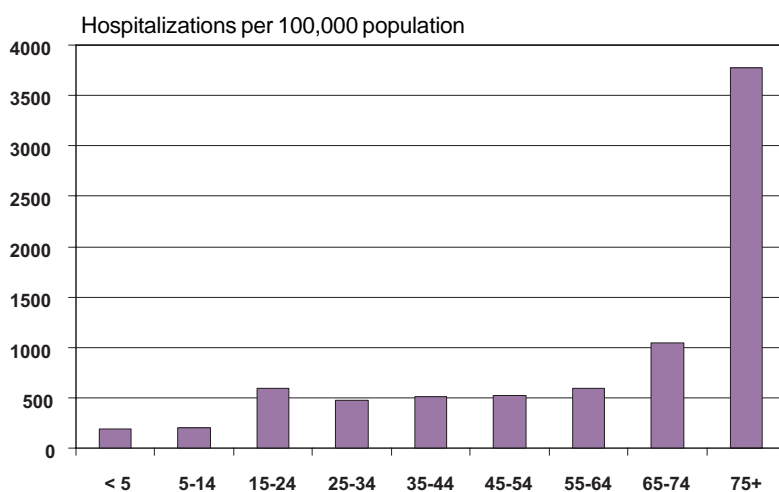
Coloradans ages 75 and older are the group most likely to be hospitalized or to die from injury. This may reflect the fact that many older people have other underlying health conditions that may contribute to the likelihood of injury as well as reduce the ability of the person to recover once injury has occurred.

The next section provides more detail about the cause-specific rates for each age group.

**Figure 15: Injury death rates by age**  
Colorado residents, 2001-2003



**Figure 16: Injury hospitalization rates by age**  
Colorado residents, 2001-2003



## Injury death and hospitalization rates for children under age one

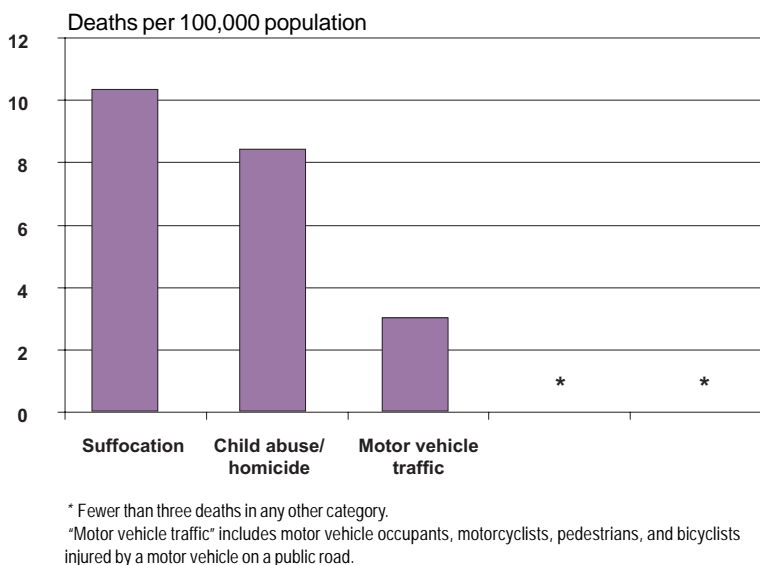
Although less than 5 percent of all deaths among infants younger than a year old are due to injury, the vulnerability and fragility of this population warrant a description of the causes of injury death and hospitalization in this age group.

The leading causes of injury death among infants less than a year old are unintentional suffocation and child abuse (homicide). From 2001 to 2003, an average of seven infants died each year from unintentional suffocation, typically from unintentional strangulation or suffocation from bed linens, pillows or someone's body. An average of six infants died each year from child abuse, including Shaken Baby Syndrome and other maltreatment. Nearly one-third of all injury deaths involving infants in Colorado are the result of child abuse (Table D18).

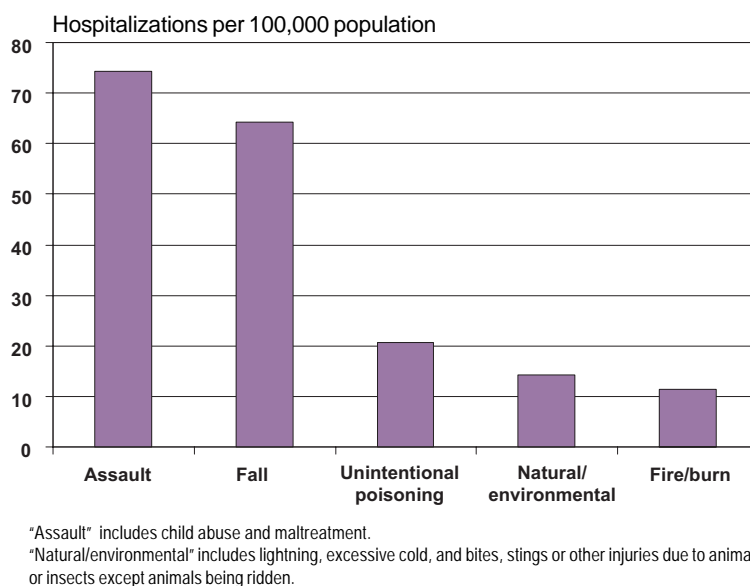
Sadly, child abuse/assaults are also the most common causes of injury hospitalizations in this age group (Table H11). The appearance of homicide/assault among the leading causes of both injury death and hospitalization in this age group is particularly disturbing.

Falls are the second most common cause of injury hospitalization for children less than a year old (Table H11). The most common injury-related falls in infants are from beds or other furniture or falls on stairs.

**Figure 17: Injury death rates for children under age 1  
Colorado residents, 2001-2003**



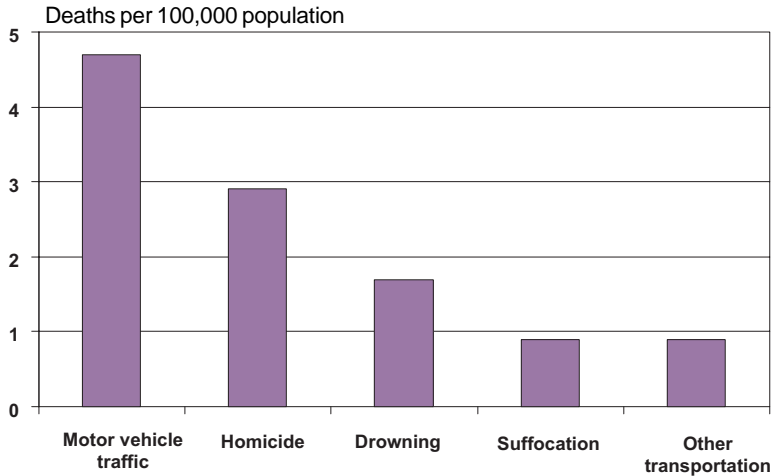
**Figure 18: Injury hospitalization rates for children under age 1  
Colorado residents, 2001-2003**



## Injury death and hospitalization rates for children ages 1-4

Causes of death and hospitalization among young children reflect the developmentally appropriate curiosity and increased mobility of this age group. Children may fall while playing, get bitten by a dog, drown in a home or outdoor setting, or swallow harmful drugs or household products. Adult supervision of young children continues to be critical.

**Figure 19: Injury death rates ages 1-4  
Colorado residents, 2001-2003**

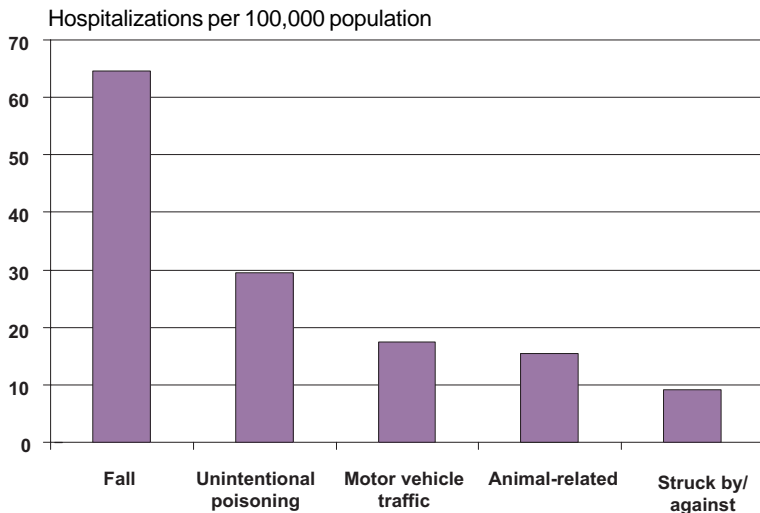


"Motor vehicle traffic" includes motor vehicle occupants, motorcyclists, pedestrians and bicyclists injured by a motor vehicle on a public road.  
 "Homicide" includes child abuse.  
 "Other transportation" includes injuries resulting from motor vehicle crashes not on a public road, snowmobiles, off-road motor vehicles, animals being ridden, railway, water transport, and air transport.

Motor vehicle traffic is the leading cause of injury death beginning with this age group and it continues as the leading cause of injury death through age 34 (Table D18). For children in this age group, 36 percent of motor vehicle traffic deaths occur as a motor vehicle occupant, while 22 percent of these deaths occur as a pedestrian and 42 percent are unspecified.

The hospitalization rate for child abuse for children ages 1-4 shows a marked decrease from the rate for children under one year of age; however, death due to child abuse remains the second leading cause of injury death for children ages 1-4.

**Figure 20: Injury hospitalization rates ages 1-4  
Colorado residents, 2001-2003**



"Motor vehicle traffic" includes motor vehicle occupants, motorcyclists, pedestrians, and bicyclists injured by a motor vehicle on a public road.

The leading cause of injury hospitalization for children ages 1-4 is falls, frequently from beds or other furniture or from playground equipment.

Unintentional poisonings, motor vehicle traffic (both as a motor vehicle occupant and as a pedestrian) and animal-related injuries (such as dog bites and cat bites) are also important causes of injury hospitalizations for this age group.

## Injury death and hospitalization rates for children ages 5-9

Children ages 5-9 experience the lowest injury death and hospitalization rates of any age group. Motor vehicle traffic remains the leading cause of injury death. While children ages 5-9 continue to be at risk for drowning, death rates are lower for this age group than for younger children (Table D18).

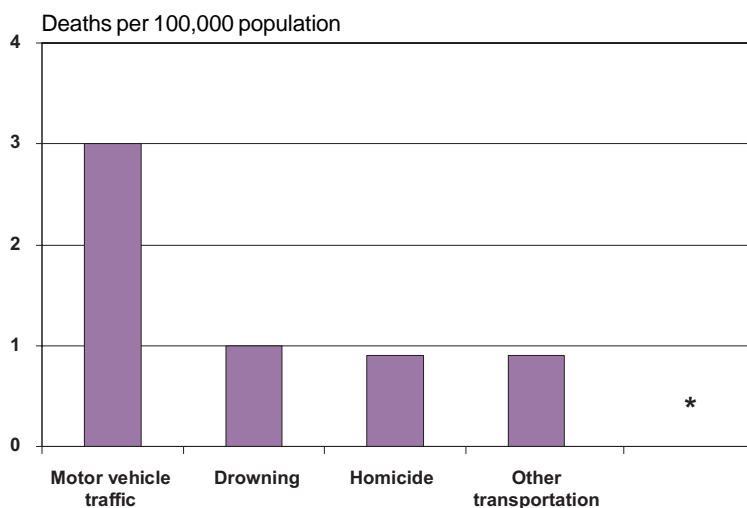
Falls continue to be the leading cause of injury hospitalization for this age group. The most common cause of fall-related hospitalizations in this age group is falls from playground equipment (an average of nearly 70 children hospitalized each year) (Table H17). This mechanism accounts for 34 percent of all hospitalizations for injuries due to falls among children ages 5-9.

Bicycles are important for play and transportation among 5-9 year olds. On average, 45 children ages 5-9 are hospitalized each year for injuries due to bicycle crashes.<sup>3</sup>

An average of 30 children are hospitalized each year for pedestrian-related incidents (Table H12).

Other significant causes of injury hospitalization in this age group include dog bites and striking against an object or person (including sports).

**Figure 21: Injury death rates ages 5-9  
Colorado residents, 2001-2003**



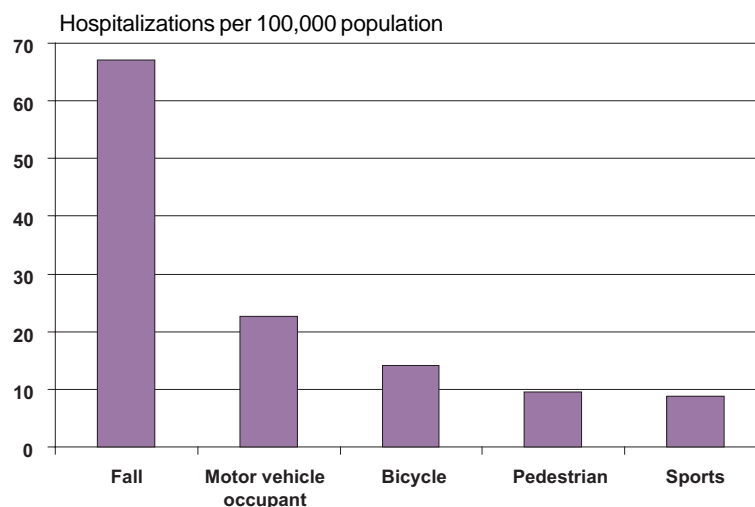
\*Fewer than three deaths in any other category.

"Motor vehicle traffic" includes motor vehicle occupants, motorcyclists, pedestrians and bicyclists injured by a motor vehicle on a public road.

"Homicide" includes child abuse.

"Other transportation" includes injuries resulting from motor vehicle crashes not on a public road, snowmobiles, off-road motor vehicles, animals being ridden, railway, water transport, and air transport.

**Figure 22: Injury hospitalization rates ages 5-9  
Colorado residents, 2001-2003**



3. Injuries to bicyclists are included in the categories of "motor vehicle traffic", "motor vehicle non-traffic", and "other road vehicle." For detailed information on bicycle injuries, see Chapter Four: Other Transportation.

## Injury death and hospitalization rates for children ages 10-14

Pre- and early adolescents experience relatively low injury death and hospitalization rates compared to older adolescents. The highest rate of injury

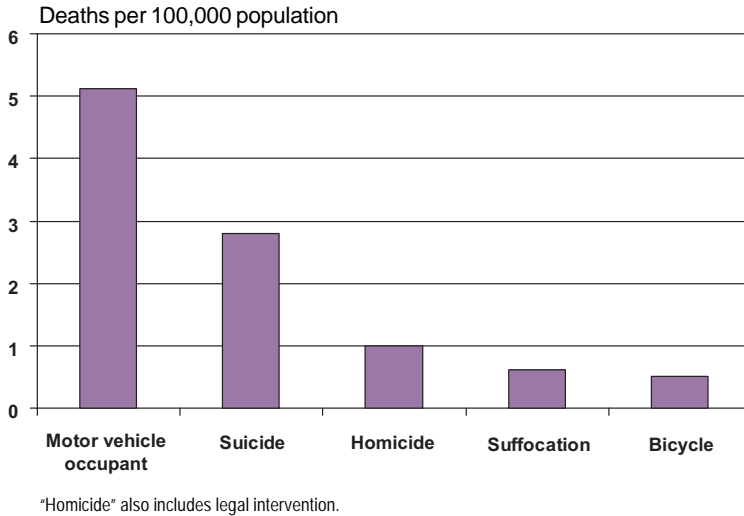
death in this age group is in the category of motor vehicle occupant. Interestingly, while these youth are not yet legally allowed to drive, an average of 58 adolescents in this age group are hospitalized each year for injuries sustained as a driver of a car or motorcycle.

Bicycle and pedestrian injuries continue to be an issue for this age group with an average of 71 bicycle-related hospitalizations and 22 pedestrian-related hospitalizations each year (Table H12).

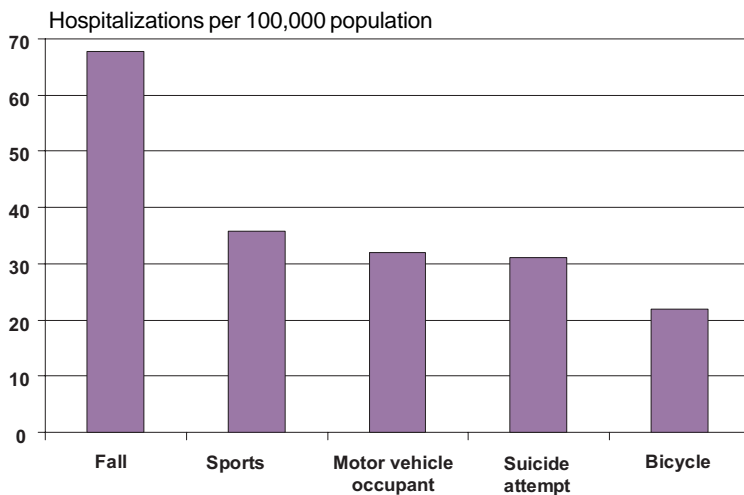
The rate of self-inflicted injuries begins to increase during early adolescence. This change is reflected in both hospitalizations and deaths. The methods most frequently seen in deaths due to suicide are different from those in suicide attempts. Of the 27 suicide deaths among Colorado youth ages 10-14 from 2001-2003, 17 resulted from hanging or suffocation and nine were completed by firearms (Tables D18, D19). Of the 300 hospitalizations for suicide attempts from 2001-2003, 223 (74 percent) resulted from a drug overdose (Table H17).

The leading cause of injury hospitalizations for youth ages 10-14 is falls, most frequently a result of falling on the same level by slipping, tripping, or stumbling (Table H17). Another significant contributor to injury hospitalizations for this age group is injury sustained while playing sports.

**Figure 23: Injury death rates ages 10-14**  
Colorado residents, 2001-2003



**Figure 24: Injury hospitalization rates ages 10-14**  
Colorado residents, 2001-2003



## Injury death and hospitalization rates for adolescents ages 15-19

Teens ages 15-19 are increasingly independent and most have begun to drive. This age group generally is known for experimentation and fearlessness.

They may use alcohol and/or drugs or become involved in other illegal activities. In addition, they may experience significant stress or depression. These and other factors combine to create a huge increase in injury deaths and hospitalizations compared to younger age groups. Of all deaths in this age group, 81 percent are due to injury.

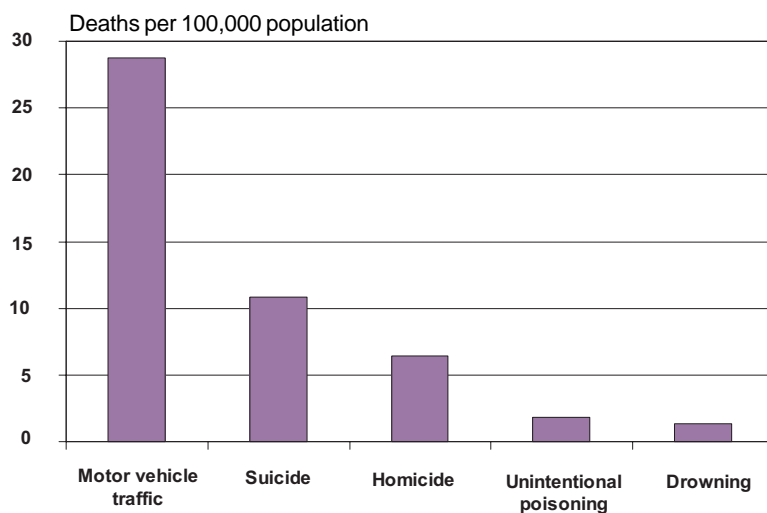
Compared to children ages 10-14, teens ages 15-19 are 5.4 times more likely to die and 4.4 times more likely to be hospitalized for injuries sustained in a motor vehicle crash. With the exception of Coloradans ages 20-24, teens ages 15-19 have the highest hospitalization rate for injuries due to motor vehicle crashes (Table H17).

Teens ages 15-19 have the highest hospitalization rate for suicide attempts of any age group. Hospitalizations for suicide attempts most often are the result of drug overdoses (80 percent) or cutting (16 percent) (Table H17). Most deaths from suicide in this age group involve firearms (53 percent) or hanging/suffocation (36 percent) (Table D19).

Teens ages 15-19 are 6.5 times more likely than children ages 10-14 to be involved in an assault requiring hospitalization (Table H17). This age group has the second highest hospitalization rate for injuries due to assault.

Falls and sports-related injuries are also significant contributors to injury hospitalizations.

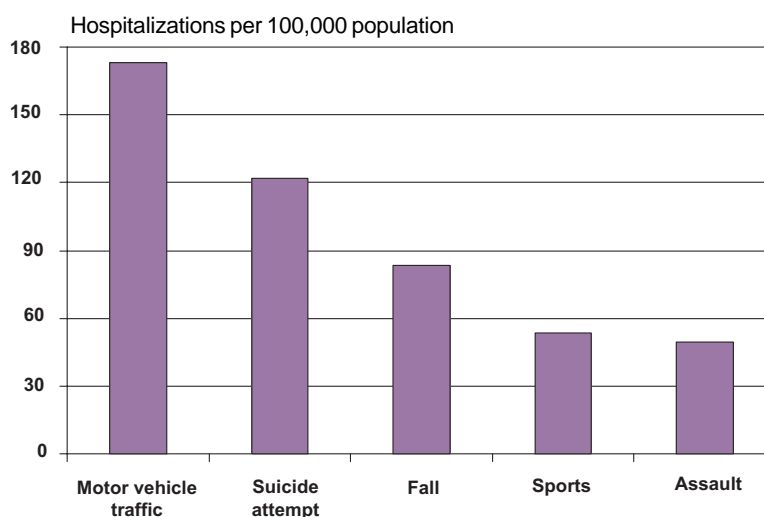
**Figure 25: Injury death rates ages 15-19  
Colorado residents, 2001-2003**



"Motor vehicle traffic" includes motor vehicle occupants, motorcyclists, pedestrians or bicyclists injured by a motor vehicle on a public road.

"Homicide" also includes legal intervention.

**Figure 26: Injury hospitalization rates ages 15-19  
Colorado residents, 2001-2003**



"Motor vehicle traffic" includes motor vehicle occupants, motorcyclists, pedestrians or bicyclists injured by a motor vehicle on a public road.

"Assault" also includes legal intervention.

## Injury death and hospitalization rates for adults ages 20-24

Injury death and hospitalization rates remain high for this young adult population. Coloradans ages 20-24 have the highest rate of hospitalization

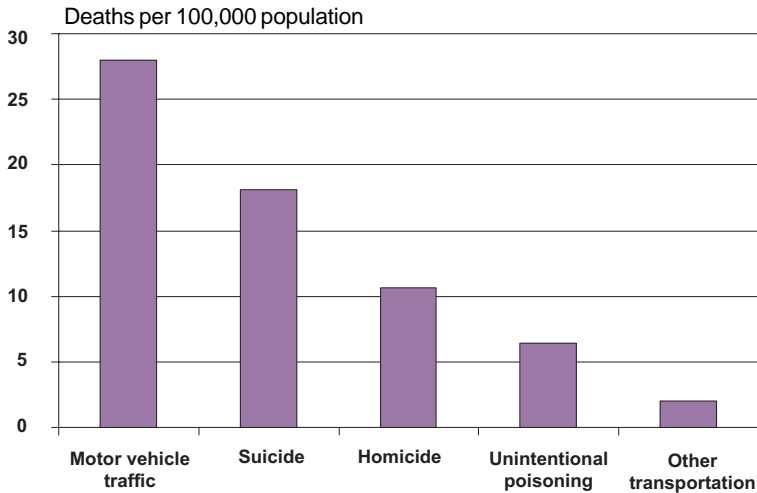
for injuries due to motor vehicle crashes and the third highest rate of death for this mechanism (Tables H17, D18). The highest rates of hospitalization for injuries due to motorcycle crashes are seen among men ages 20-24.

Suicide is also a significant cause of death in this age group. As with teens ages 15-19, most suicide deaths result from the use of firearms (48 percent) and hanging/suffocation (33 percent), while hospitalizations for suicide attempts most often involve drug overdoses (78 percent) or cutting (18 percent) (Tables D18, D19, H17)

This young adult population has the highest rate of death due to homicide and the second highest rate of hospitalization due to assault (second only to infants less than one year old) (Tables D18, H17).

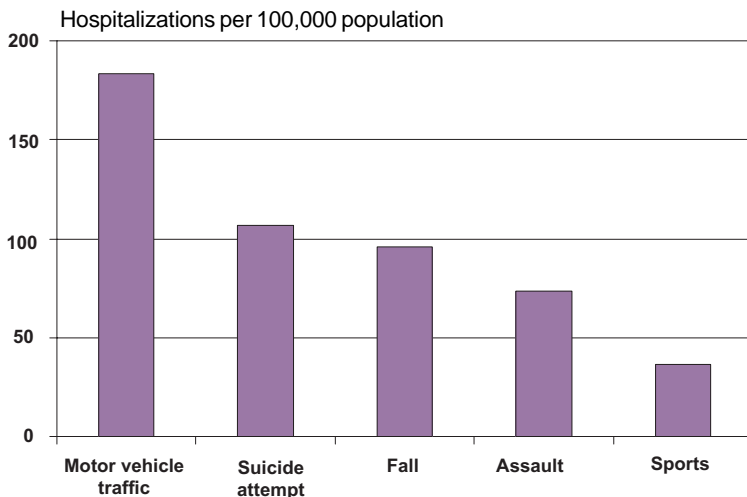
Unintentional poisoning deaths in this age group frequently result from drug overdose.

**Figure 27: Injury death rates ages 20-24  
Colorado residents, 2001-2003**



"Motor vehicle traffic" includes motor vehicle occupants, motorcyclists, pedestrians or bicyclists injured by a motor vehicle on a public road.  
"Homicide" also includes legal intervention.  
"Other transportation" includes injuries resulting from motor vehicle crashes not on a public road, snowmobiles, off-road motor vehicles, animals being ridden, railway, water transport, and air transport.

**Figure 28: Injury hospitalization rates ages 20-24  
Colorado residents, 2001-2003**



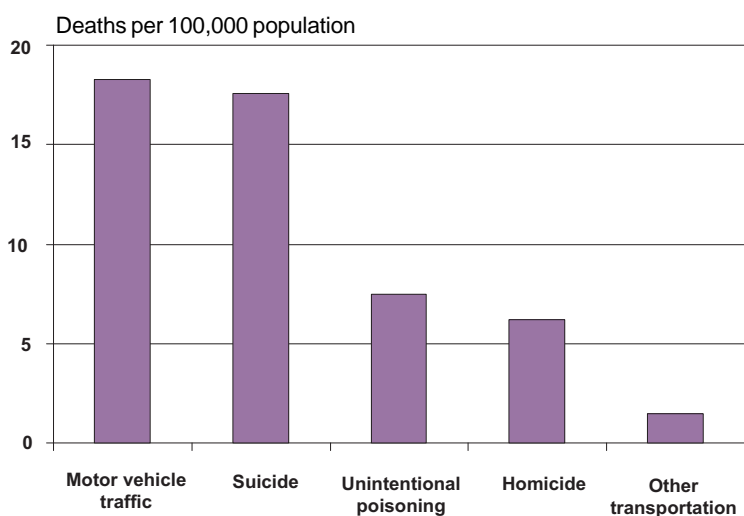
"Motor vehicle traffic" includes motor vehicle occupants, motorcyclists, pedestrians or bicyclists injured by a motor vehicle on a public road.  
"Assault" also includes legal intervention.

## Injury death and hospitalization rates for adults ages 25-34

Although still high, death and hospitalization rates for injuries due to motor vehicle crashes begin to decrease in the 25-34 age group. While suicides remain a significant cause of injury deaths, homicide rates begin to decline in this age group and continue to decline with age. Unintentional poisoning deaths continue to be due largely to drug overdose (Tables D8, H7).

As in most other age groups, falls are a major cause of hospitalization for Coloradans ages 25-34. More than 35 percent of falls in this age group are the result of slipping or tripping on the same level. An additional 10 percent of falls involve stairs and 17 percent are from ladders or structures (Table H17).

**Figure 29: Injury death rates ages 25-34**  
Colorado residents, 2001-2003

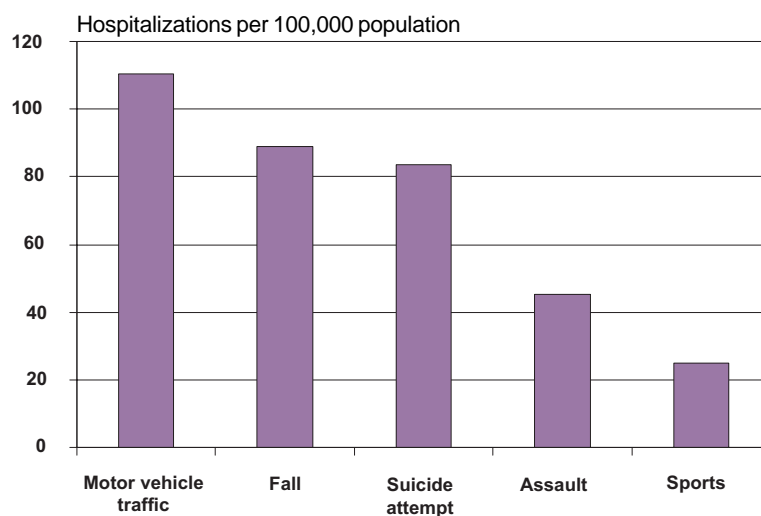


"Motor vehicle traffic" includes motor vehicle occupants, motorcyclists, pedestrians or bicyclists injured by a motor vehicle on a public road.

"Homicide" also includes legal intervention.

"Other transportation" includes injuries resulting from motor vehicle crashes not on a public road, snowmobiles, off-road motor vehicles, animals being ridden, railway, water transport, and air transport.

**Figure 30: Injury hospitalization rates ages 25-34**  
Colorado residents, 2001-2003



"Motor vehicle traffic" includes motor vehicle occupants, motorcyclists, pedestrians or bicyclists injured by a motor vehicle on a public road.

"Assault" also includes legal intervention.

## Injury death and hospitalization rates for adults ages 35-44

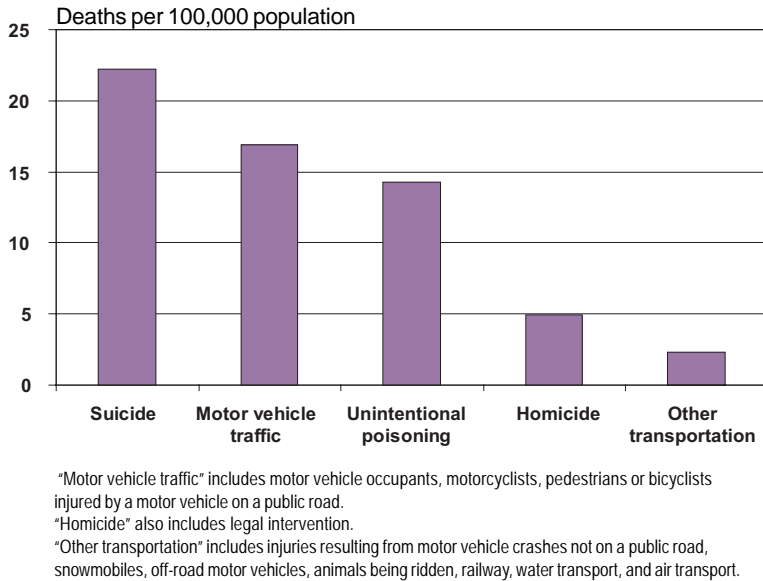
Death and hospitalization rates for motor vehicle crashes and homicides continue to decline in this age group. The rate of death due to suicide continues

to remain high although the rate of hospitalization for suicide attempts begins to decrease, a trend that continues with age (Tables D8, H7).

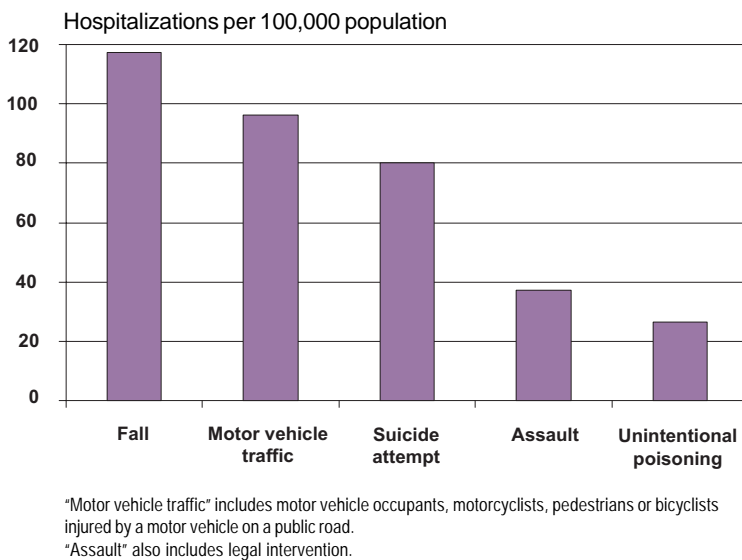
This group has the highest rate of death due to unintentional poisoning of all age groups (Table D8). Unintentional poisoning continues to be largely due to drug overdose.

Falls replace motor vehicle traffic as the leading cause of injury hospitalizations for this age group. More than 30 percent of these falls are the result of slipping, tripping or stumbling on the same level, 15 percent involve falls from ladders or structures, and 12 percent involve falls on stairs (Table H17).

**Figure 31: Injury death rates ages 35-44  
Colorado residents, 2001-2003**



**Figure 32: Injury hospitalization rates ages 35-44  
Colorado residents, 2001-2003**



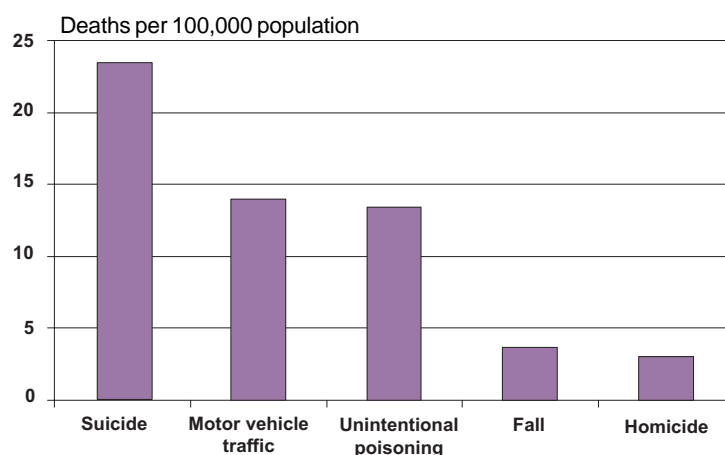
## Injury death and hospitalization rates for adults ages 45-54

Suicide and motor vehicle traffic remain the leading causes of injury deaths in this age group. Unintentional poisoning deaths most frequently result from drug overdose (Table D8).

The hospitalization rate for suicide attempts declines considerably in this age group, while the hospitalization rate for falls begins to increase, a trend that continues with age (Table H17). Falls resulting in hospitalization often result from slipping, tripping, or stumbling on the same level (33 percent), falling from ladders or structures (13 percent), and falling down stairs (13 percent). A decrease in the percent of hospitalizations due to falls from ladders or structures begins with this age group and continues with age.

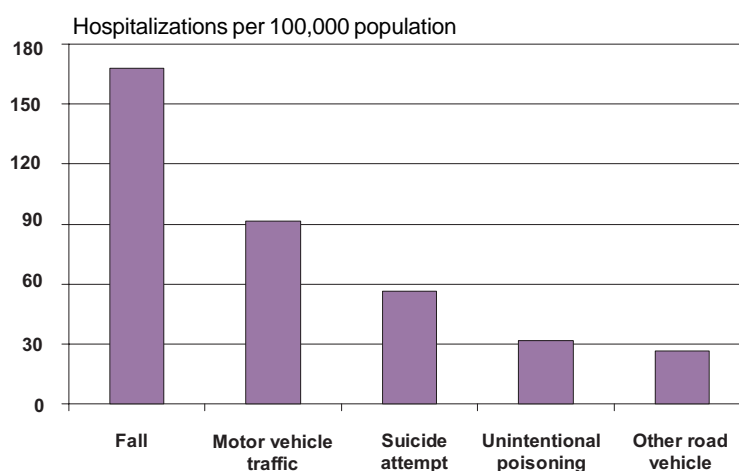
Hospitalizations resulting from other road vehicle crashes primarily involve bicycles (44 percent) or an animal being ridden (54 percent).

**Figure 33: Injury death rates ages 45-54  
Colorado residents, 2001-2003**



"Motor vehicle traffic" includes motor vehicle occupants, motorcyclists, pedestrians or bicyclists injured by a motor vehicle on a public road.  
 "Homicide" also includes legal intervention.

**Figure 34: Injury hospitalization rates ages 45-54  
Colorado residents, 2001-2003**

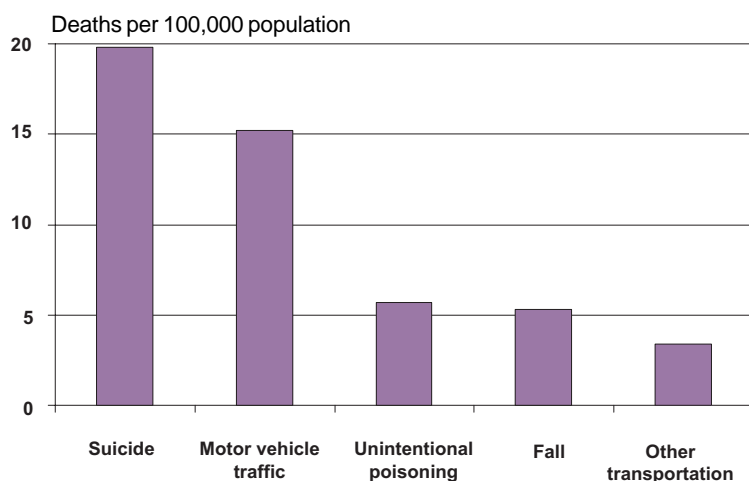


"Motor vehicle traffic" includes motor vehicle occupants, motorcyclists, pedestrians or bicyclists injured by a motor vehicle on a public road.  
 "Other road vehicle" includes bicycles, animal-drawn vehicles and animals being ridden.

## Injury death and hospitalization rates for adults ages 55-64

Suicide remains the leading cause of injury death while the rate of hospitalization for suicide attempts continues to decline. Motor vehicle traffic crashes also continue to be a major cause of death and hospitalization (Tables D8, H7).

**Figure 35: Injury death rates ages 55-64  
Colorado residents, 2001-2003**



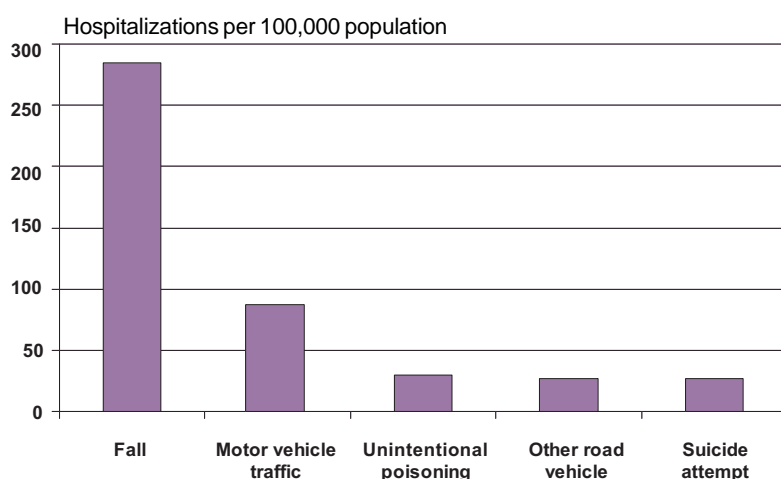
\*Motor vehicle traffic\* includes motor vehicle occupants, motorcyclists, pedestrians or bicyclists injured by a motor vehicle on a public road.

\*Other transportation\* includes injuries resulting from motor vehicle crashes not on a public road, snowmobiles, off-road motor vehicles, animals being ridden, railway, water transport, and air transport.

Falls are the fourth leading cause of death in this age group. The rate of hospitalization for injuries due to falls in this age group is 70 percent higher than the rate for adults ages 45-54. The increase in hospitalization rates for injuries due to falls continues in older age groups. More than 35 percent of falls resulting in hospitalization result from slipping, tripping, or stumbling on the same level, while 12 percent are falls down stairs and 9 percent are falls from ladders or structures (Table H17).

Hospitalizations resulting from other road vehicle crashes primarily involve bicycles (43 percent) or an animal being ridden (54 percent).

**Figure 36: Injury hospitalization rates ages 55-64  
Colorado residents, 2001-2003**



\*Motor vehicle traffic\* includes motor vehicle occupants, motorcyclists, pedestrians or bicyclists injured by a motor vehicle on a public road.

\*Other road vehicle\* includes bicycles, animal-drawn vehicles, and animals being ridden.

## Injury death and hospitalization rates for adults ages 65-74

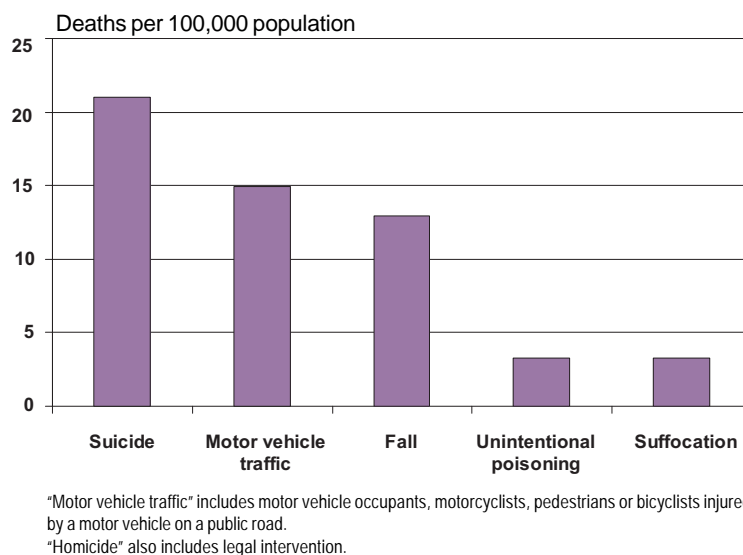
Suicide remains the leading cause of injury death for this age group; however, suicide attempts are no longer one of the top five causes of injury hospitalization (Tables D18, H11).

Hospitalizations for injuries due to motor vehicle traffic begin to increase in this age group and continue to be high in older populations.

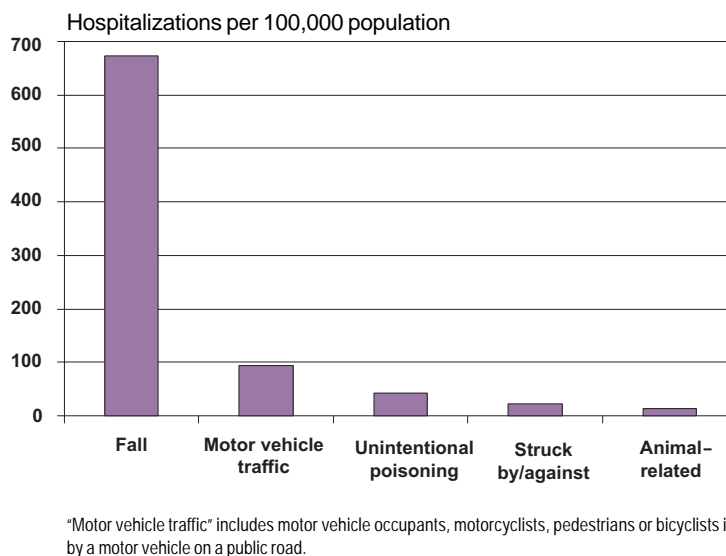
The rate of death due to falls increases with age. The rates of death and hospitalization due to falls for adults ages 65-74 are twice those of the 55-64 age group.

The rate of hospitalization for unintentional poisoning increases in this age group and continues to be high among older age groups. This increase may reflect the greater use of prescription drugs as people age.

**Figure 37: Injury death rates ages 65-74**  
Colorado residents, 2001-2003



**Figure 38: Injury hospitalization rates ages 65-74**  
Colorado residents, 2001-2003



## Injury death and hospitalization rates for adults ages 75-84

Injury death and hospitalization rates in the 75-84 age group increase dramatically, primarily due to injuries from falls. The rate of fall-related deaths for

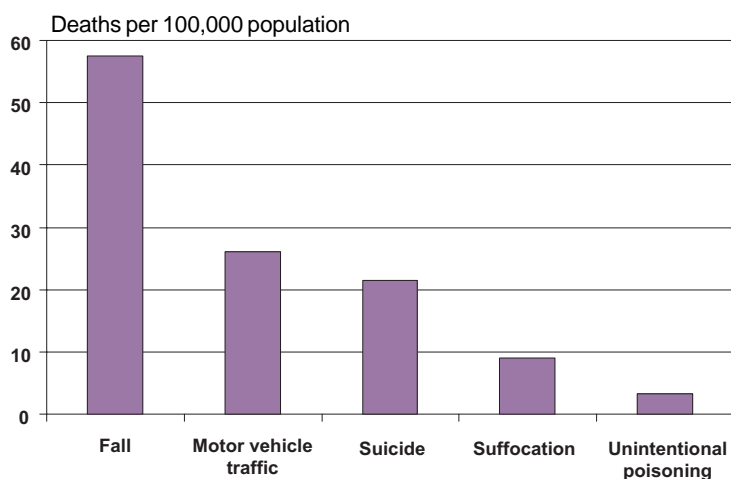
this age group is 4.5 times the rate for adults ages 65-74; the rate of fall-related hospitalizations for this age group is 3.2 times the rate for adults ages 65-74.

Motor vehicle crashes remain the second leading cause of injury death and hospitalizations (Tables D18, H11).

The majority of deaths due to suicide in this age group involve the use of a firearm (69 percent).

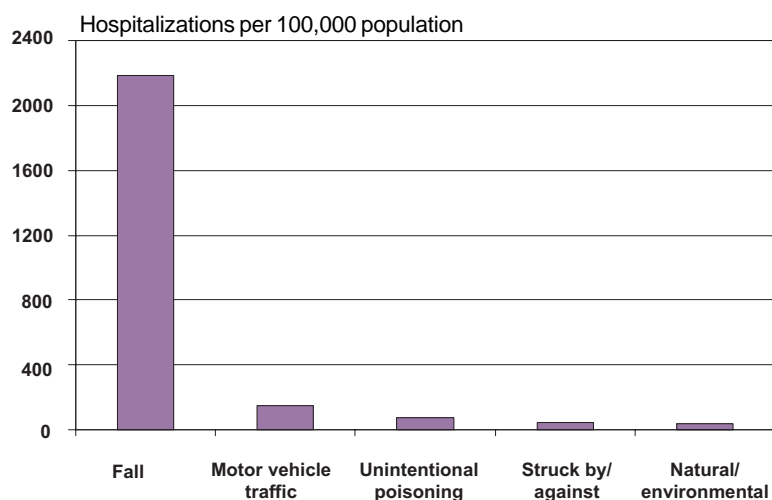
Adults ages 75-84 have the highest rate of hospitalization for unintentional poisoning (74.4 per 100,000).

**Figure 39: Injury death rates ages 75-84  
Colorado residents, 2001-2003**



\*"Motor vehicle traffic" includes motor vehicle occupants, motorcyclists, pedestrians or bicyclists injured by a motor vehicle on a public road.

**Figure 40: Injury hospitalization rates ages 75-84  
Colorado residents, 2001-2003**



\*"Motor vehicle traffic" includes motor vehicle occupants, motorcyclists, pedestrians or bicyclists injured by a motor vehicle on a public road.

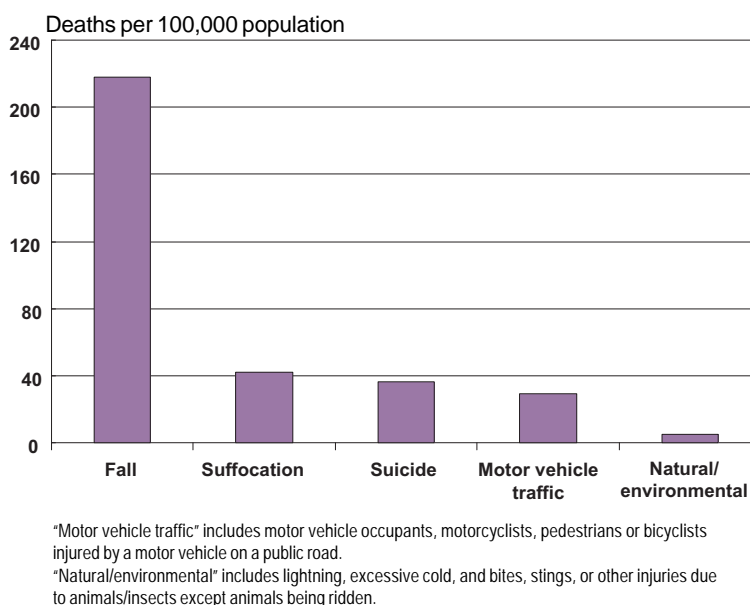
\*"Natural/environmental" includes lightning, excessive cold, and bites, stings, or other injuries due to animals/insects except animals being ridden.

## Injury death and hospitalization rates for adults ages 85 and older

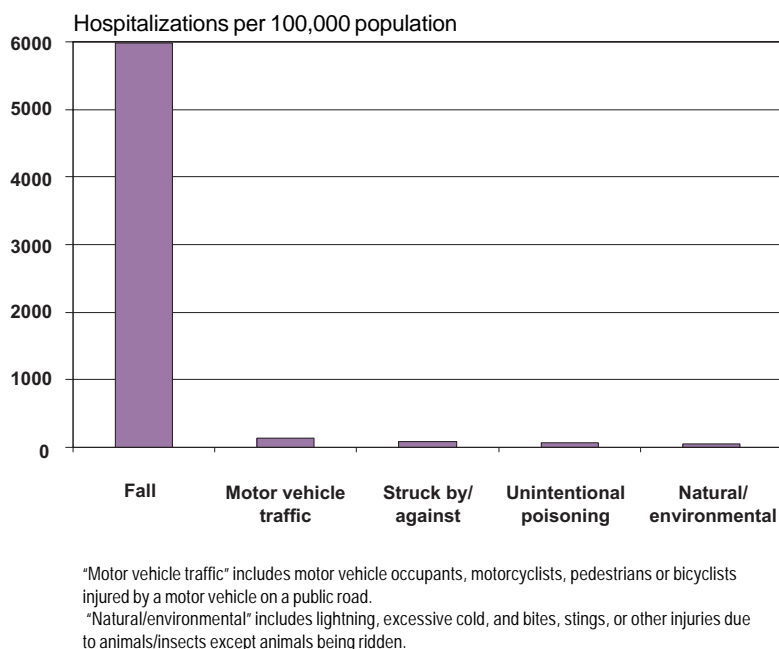
The 85 and older age group has the highest overall injury death rate and the highest suicide death rate of any age group (Table D8). Deaths due to suicide in this age group most frequently involve fire-arms (75 percent) and hanging/suffocation (11 percent).

Falls continue to be the leading cause of injury deaths and hospitalizations. Nearly half (47 percent) of the injury deaths and 90 percent of the injury hospitalizations for this age group are due to falls. The death rate for fall-related injuries for this age group is 32 times higher than the rate for all ages combined; the hospitalization rate is 21 times higher than the rate for all ages combined (Tables D8, H7).

**Figure 41: Injury death rates ages 85+ Colorado residents, 2001-2003**



**Figure 42: Injury hospitalization rates ages 85+ Colorado residents, 2001-2003**



**For more information on injury prevention**

- Injury and Suicide Prevention Program at the Colorado Department of Public Health and Environment at [www.cdphe.state.co.us/pp/injuryprevention/](http://www.cdphe.state.co.us/pp/injuryprevention/)
- *Injury Prevention Strategic Plan 2003-2008* from the Injury, Suicide and Violence Prevention Section at the Colorado Department of Public Health and Environment at [http://www.cdphe.state.co.us/em/SEMTAC/ipac/IP\\_03-08finalstrategicplan.pdf](http://www.cdphe.state.co.us/em/SEMTAC/ipac/IP_03-08finalstrategicplan.pdf)
- Centers for Disease Control and Prevention, National Center for Injury Prevention and Control at [www.cdc.gov/ncipc](http://www.cdc.gov/ncipc)
- Colorado Injury Control Research Center at [psy.psych.colostate.edu/CICRC/](http://psy.psych.colostate.edu/CICRC/)
- National SAFE KIDS Campaign at [www.safekids.org](http://www.safekids.org)
- National Highway Traffic Safety Administration at [www.nhtsa.dot.gov/](http://www.nhtsa.dot.gov/) (click on “Traffic Safety”)
- Consumer Product Safety Commission at [www.cpsc.gov](http://www.cpsc.gov)
- National Children’s Center for Rural and Agricultural Health and Safety at [research.marshfieldclinic.org/children](http://research.marshfieldclinic.org/children)
- American Academy of Pediatrics at [www.aap.org](http://www.aap.org)
- Home Safety Council at [www.homesafetycouncil.org](http://www.homesafetycouncil.org)
- Brain Injury Association of America at [www.biausa.org](http://www.biausa.org)
- Brain Injury Association of Colorado at [www.biacolorado.org/](http://www.biacolorado.org/)