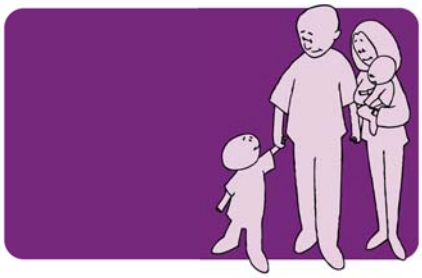
CDC Childhood Injury Report:

Patterns of Unintentional Injuries among 0-19 Year Olds in the United States, 2000-2006



US DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION

Keeping our children safe and helping them live to their full potential

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Summary

Unintentional injuries are the leading cause of morbidity and mortality among children in the United States. This report uses data from the National Vital Statistics System and the National Electronic Injury Surveillance System - All Injury Program to provide an overview of unintentional injuries related to drowning, falls, fires or burns, transportation-related injuries, poisoning, and suffocation, among others during the period 2000 - 2006. Results are presented by age group and sex, as well as the geographic distribution of injury death rates by state.

Some of the key findings from this report include the following:

Injury Deaths

- ***On average, 12,175 children 0 to 19 years of age died each year in the U.S. from an unintentional injury.***
- ***Males had higher injury death rates than females.***
  The death rate for males was almost two times the rate for females, and males had a higher injury death rate compared to females in all childhood age groups.
- ***Injuries due to transportation were the leading cause of death for children.***
  The highest death rates were among occupants of motor vehicles in traffic. There were also a substantial number of pedestrian and pedal cyclist deaths among children. Combining all unintentional injury deaths among those between 0 and 19 years, motor vehicle traffic-related deaths were the leading cause.
- ***The leading causes of injury death differed by age group.***
  For children less than 1 year of age, two-thirds of injury deaths were due to suffocation. Drowning was the leading cause of injury death for those 1 to 4 years of age. For children 5 to 19 years of age, the most injury deaths were due to being an occupant in a motor vehicle traffic crash.
- ***Risk for injury death varied by race.***
  Injury death rates were highest for American Indian and Alaska Natives and were lowest for Asian or Pacific Islanders. Overall death rates for whites and African-Americans were approximately the same.
- ***Injury death rates varied by state depending upon the cause of death.***
  Overall, states with the lowest injury death rates were in the northeast. Fire and burn death rates were highest in some of the southern states. Death rates from transportation-related injuries were highest in some southern states and some states of the upper plains, while lowest rates occurred in states in the northeast region.

- ***For injury causes with an overall low burden, death rates greatly varied by age.***
  The poisoning death rate for those older than 15 years of age was at least five times the rates of the younger age groups, and the suffocation death rate for those less than 1 year was over 16 times the rates for all older age groups.

Nonfatal Injuries

- ***An estimated 9.2 million children annually had an initial emergency department visit for an unintentional injury.***
- ***Males generally had higher nonfatal injury rates than females.***
  For children 1 to 19 years of age, nonfatal injury rates were higher among males than females, while the rates were approximately the same for those less than 1 year.
- ***Injuries due to falls were the leading cause of nonfatal injury.***
  Each year, approximately 2.8 million children had an initial emergency department visit for injuries from a fall. For children less than 1 year of age, falls accounted for over 50% of nonfatal injuries.
- ***The majority of nonfatal injuries were from five causes.***
  Falls was the leading cause of nonfatal injury for all age groups less than 15. For children ages 0 to 9, the next two leading causes were being struck by or against an object and animal bites or insect stings. For children 10 to 14 years of age, the next leading causes were being struck by or against an object and overexertion. For children 15 to 19 years of age, the three leading causes of nonfatal injuries were being struck by or against an object, falls, and motor vehicle occupant injuries.
- ***Nonfatal injury rates varied by age group.***
  Nonfatal suffocation rates were highest for those less than 1 year of age. Rates for injuries from fires or burns and drowning were highest for children 4 years and younger. Children 1 to 4 years of age had the highest rates of nonfatal falls and poisoning. Injury rates related to motor vehicles was highest in children 15 to 19 years of age.

Foreword

Injuries are among the most under-recognized public health problems facing the United States today. About 20 children die every day from a preventable injury – more than die from all diseases combined.(1) Injuries requiring medical attention or resulting in restricted activity affect approximately 20 million children and adolescents and cost $17 billion annually in medical costs.(2)

Today we recognize that these injuries, like the diseases that once killed children, are predictable, preventable and controllable. The U.S. Centers for Disease Control and Prevention works closely with other federal and state agencies, national, state and local organizations and research institutions to reduce deaths and nonfatal injuries, disabilities and costs of childhood injuries in the United States.

The release of this CDC Childhood Injury Report coincides with the launch of the World Report on Child Injury Prevention (2008) developed by the World Health Organization and UNICEF.(3) Our report complements the World Report and highlights the nature of the problem in the United States.

The CDC report can inform the work of practitioners, policy-makers, elected officials, and researchers to better understand the problem and take the necessary steps to reduce the devastating burden childhood injuries place on this nation.

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1: About this Report

Unintentional injuries are a leading cause of morbidity and mortality among children and adolescents in the United States.(4) A thorough understanding of the demographics of the groups most at risk for common injury causes can help direct resources toward research and programs most likely to reduce the burden.

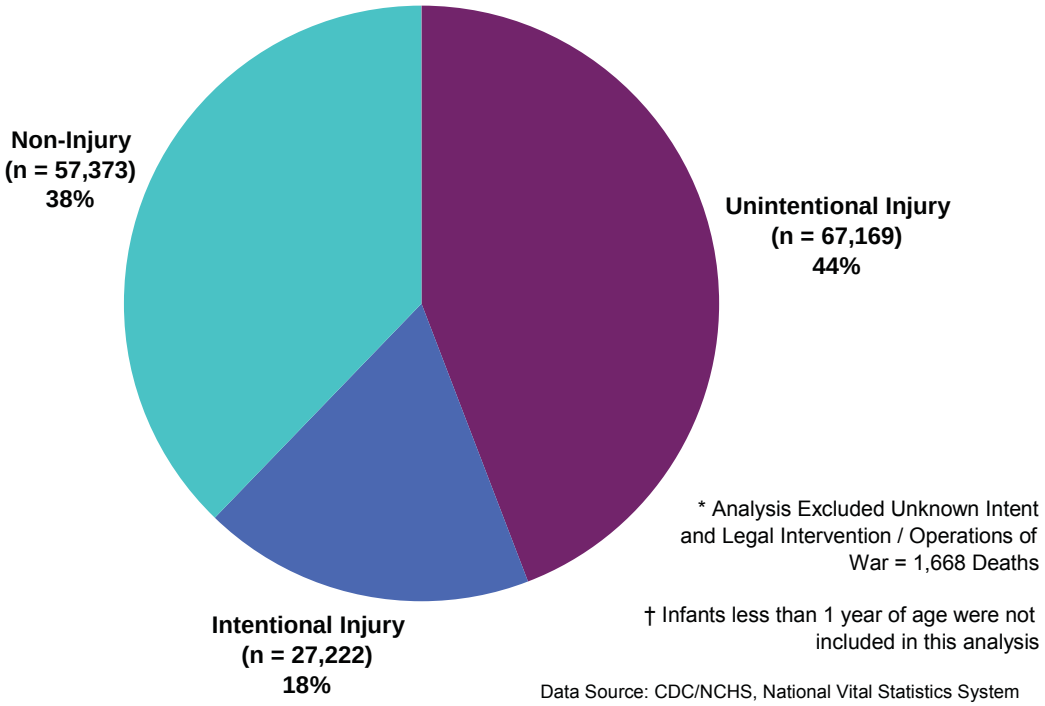
This report was produced in part to coincide with the release of a World Report on Child Injury Prevention (WHO, 2008).(3) This report provides an overview of patterns of childhood unintentional injury in the United States related to drowning, falls, fires or burns, transportation (e.g. motor vehicle crashes), poisoning, and suffocation, among others.

The burden of deaths and nonfatal injuries due to each cause is shown in this report by age group and sex, as well as the geographic distribution of injury death rates by state. Information on injury deaths is from the National Center for Health Statistics, National Vital Statistics System (i.e. death certificate data), and nonfatal injury information is from the National Electronic Injury Surveillance System – All Injury Program, which represents nonfatal injuries treated in U.S. hospital emergency departments. While use of emergency department data does not capture the burden of all injuries (such as those treated at medical care sites other than emergency departments or those that did not seek care), this information combined with deaths can be helpful to state and local health officials and advocates in prioritizing programs targeting their at-risk populations, to researchers tracking trends or evaluating prevention activities, to policy-makers at all levels determining the best use of limited public health resources, as well as the to general public in identifying injury prevention strategies for themselves, their families and their communities.

The Importance of Childhood Injury Prevention

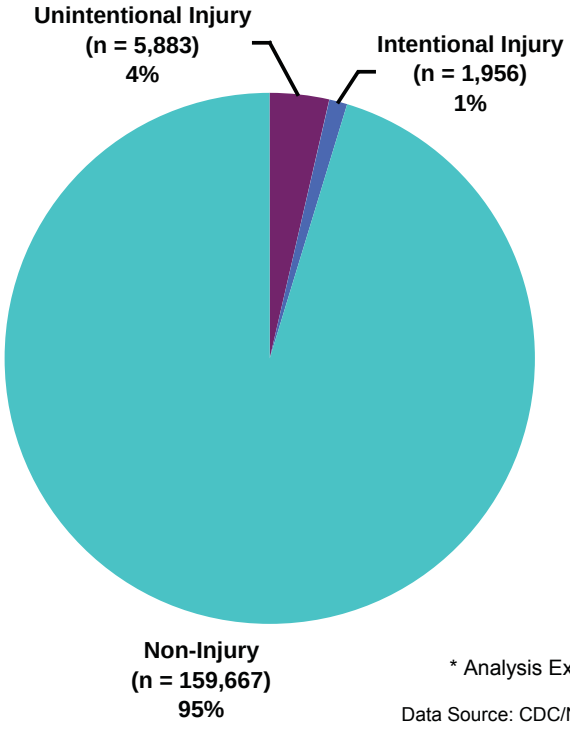
Worldwide, childhood injuries are a growing problem. Every year, approximately 875,000 children are killed and nonfatal injuries affect the lives of between 10 million and 30 million more globally.(5) Moreover, 95% of these deaths and injuries occur in low and middle income countries.(5) Childhood injuries are also a problem in high income countries such as the United States, where approximately 12,000 children die annually from unintentional injury-related causes.(4)

Figure 1: Cause of Death by Injury Status and Intent * among Children 1 to 19 Years, United States, 2000 - 2005 †



In the United States, injuries continue to be the leading cause of death among children.(6,7) Among those 1 to 19 years of age, 44% of all deaths are due to unintentional (i.e., accidental) injuries. (Fig 1) (4) For infants, the proportion of deaths due to injury is much less, with only 4% of infant deaths due to unintentional injuries. (Fig 2) Approximately 9.2 million nonfatal injuries are treated in emergency departments each year among children 0 to 19 years of age, translating to an annual nonfatal injury rate of 11,272 per 100,000 population.(4) The estimated cost of unintentional childhood injuries approached $300 billion annually in the United States.(2)

Figure 2: Cause of Death by Injury Status and Intent * among Children Less than 1 Year, United States, 2000 - 2005



* Analysis Excluded Undetermined = 532 Deaths

Data Source: CDC/NCHS, National Vital Statistics System

2: Methods

Data used in this report were obtained from two sources. Death data from 2000 – 2005 came from the National Center for Health Statistics (NCHS), National Vital Statistics System, annual mortality files (www.cdc.gov/nchs/about/major/dvs/Vitalstatsonline.htm).(8) Nonfatal data from 2001 – 2006 came from the National Electronic Injury Surveillance System - All injury Program (NEISS-AIP).(9) From both data sources, information was analyzed for infants, children and adolescents between the ages of 0 to 19 years. They are reported in five age groups: less than 1 year, 1 to 4 years, 5 to 9 years, 10 to 14 years, and 15 to 19 years, and are all referred to as 'children' throughout the report.

Death Data

Unintentional injury deaths included in this report are those for which the underlying cause of death recorded on death certificates by a physician or coroner was coded as one of the following *International Classification of Diseases, Tenth Revision* (ICD-10) codes: drowning (W65-W74), falls (W00-W19), fires or burns (X00-X19), transport-related injuries (V01 –V99), poisoning (X40-X49) and suffocation (W75-W84).(10) All other causes of injuries (i.e., cut or pierced, unintentional firearm, machinery, natural and environmental, overexertion, struck by or against an object, other specified and unspecified) were combined and reported as "other injury deaths". The first five categories represent frequent causes of injury death worldwide and are addressed in the World Report on Child Injury Prevention (WHO, 2008) (http://www.who.int/violence_injury_prevention/en/)(3); suffocation was also included in this report because it was the leading cause of injury death in the U.S. population for children less than 1 year of age. Causes of death are presented in the report, figures and tables in alphabetical order.

Causes of injury death were categorized first using the External Cause of Injury Mortality Matrix (http:www.cdc.gov/nchs/about/otheract/Ice/matrix10.htm).(11, 12) Then for this report we used a "Modified Matrix" where transportation-related injury deaths were reported as a combined category ("Transportation-related") and in subgroups including Motor Vehicle Traffic (MVT)-Occupant, Pedestrian, Pedal Cyclist, Transportation-other, and MVT-unspecified. Deaths from pedestrian injuries and pedal cyclist injuries included both traffic (on public roadways) and non-traffic (off public roadways) motor vehicle incidents, as well as other types of transportation-related pedestrian and pedal cyclist injuries. Some of these transportation categories appearing here differ from the External Cause of Injury Mortality Matrix categories in order to combine and present all pedestrian and pedal cyclist injuries both on and off public roadways. Injury deaths categorized using both the Modified Matrix approach and the External Cause of Injury Mortality Matrix were compared to understand how this change would affect death rates. A detailed listing of ICD-10 codes for all categories used in this report is presented in Appendix 1. The number of injury deaths categorized by both the External Cause of Injury Mortality Matrix and the Modified Matrix is presented in Appendix 2.

It is important to note that death certificate data undercount deaths to MVT-Occupants. Death certificates include a large number of deaths categorized as "motor vehicle unspecified," which mainly include motor vehicle occupants.(13) The rates and numbers in this report have not been adjusted to account for this; therefore, MVT-Occupant deaths are underrepresented here.

Death data were analyzed by age group, sex, cause, race, and state. ArcGIS was used for geo-mapping of death rates by cause and age group for each state. Figures and text presenting death data by race should be interpreted with caution. Misclassification of race can occur in both death

certificate data and in population estimates leading to inaccurate death rates by race. A discussion of the validity of race in death data has been presented elsewhere.(14)

Nonfatal Data

NEISS-AIP is operated by the U.S. Consumer Product Safety Commission, which collects case data about initial visits for all types and causes of injuries treated in U.S. hospital emergency departments (ED). Data are drawn from a nationally representative subsample of 66 hospitals out of 100 NEISS hospitals that were selected as a stratified probability sample of hospitals in the United States and its territories; the hospitals have a minimum of six beds and a 24-hour ED. Each case was assigned a sample weight on the basis of the inverse probability of selection; these weights were summed to provide national estimates.(9) Due to the data source, the nonfatal injury data in this report represent only those initial injuries treated in U.S. hospital EDs; injuries for which medical care was sought at other sites or not at all are not included. Therefore, these data are an underestimate of all nonfatal injuries in the United States.

Categories of nonfatal injuries examined included injuries from bites or stings, being cut or pierced, drowning, falls, fires or burns, poisoning, being struck by or against an object, suffocation, transportation-related injuries (motor vehicle occupant, pedal cyclist, pedestrian, other), other injuries (i.e., foreign bodies, gunshot wounds, machinery, natural or environmental, overexertion, and other specified), and unknown or unspecified. Transportation-related injuries included both traffic- and nontraffic-related injuries. A definition of each of these categories is available at: http://www.cdc.gov/ncipc/wisqars/nonfatal/definitions.htm#nonfatalcause. Nonfatal data were examined by age group, sex, and cause. Because a large percentage of NEISS-AIP records lacked information on the race of the injured child, information by race is not presented using nonfatal data. Additionally, because NEISS-AIP is a nationally representative sample, no data are available for analysis at the state level.

Rate Calculations and Statistics

Population estimates for rate calculations are from Bridged-Race Postcensal Population Estimates of the United States for April 1, 2000, and July 1 for 2001 through 2006. These estimates were produced by the U.S. Census Bureau under a collaborative arrangement with NCHS (www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm).

Rates presented are annualized rates for the years of data used in the analysis (i.e., 2000-2005 for deaths, 2001-2006 for nonfatal injuries). In this report, death rates were rounded to and presented as a single decimal place, unless the rate was greater than 0.00 but less than 0.05 in which case two decimal places are presented.

If the terms “higher” or “lower” are used, a statistically significant difference between the rates was determined. For nonfatal categories and fatal categories with 100 or more deaths, a nondirectional, 2-tailed z test was used with significance set at the $p<0.05$ level. When there were fewer than 100 deaths, non-overlapping confidence intervals based on the gamma distribution was used to indicate a significant difference between rates.

Some rate estimates may be unreliable (i.e., unstable) due to a small number of events (i.e., deaths or initial emergency department visits) occurring in a category. For death rates, estimates were suppressed in tables and figures or flagged in maps if they were based on fewer than 20 deaths. Appendices 3 and 4 list the number of deaths in each state by age group or cause. For nonfatal rates, estimates were flagged as unreliable if either the estimated number (based on weighted data) of initial emergency department visits was less than 1,200 or the coefficient of variation of the estimate was greater than 30%. Appendix 5 presents the estimated number of nonfatal unintentional injuries and rates by age group and sex.

3: Comparison of External Cause of Injury Mortality Matrix and the Modified Matrix

Table 1 compares the injury death rates and number of deaths by causes for the External Cause of Injury Mortality Matrix and Modified Matrix.(11,12) Injury death rates for transportation causes differed only slightly when comparing the categorization in two matrices.

Table 1: Death Rates and Average Annual Number of Deaths Compared using the External Cause of Injury Mortality Matrix and the Modified Matrix

The External Cause of Injury Mortality Matrix*		The Modified Matrix	
	Rate† (average annual number of deaths)		Rate† (average annual number of deaths)
Drowning	1.4 (1,150)	Drowning	1.4 (1,150)
Falls	0.2 (187)	Falls	0.2 (187)
Fires/Burns	0.7 (592)	Fires/Burns	0.7 (592)
MV Traffic-related‡	9.1 (7,317)	Transportation-related§	9.8 (7,979)
MVT-Occupant	4.6 (3,724)	MVT-Occupant	4.6 (3,724)
MVT-Unspecified	3.1 (2,486)	MVT-Unspecified	3.1 (2,486)
MVT-Pedal Cyclist	0.2 (162)	Pedal Cyclist	0.2 (196)
MVT-Pedestrian	0.9 (724)	Pedestrian	1.2 (953)
MVT-Other	0.3 (221)	Transportation-Other	0.8 (620)
Poisoning	0.7 (606)	Poisoning	0.7 (606)
Suffocation	1.2 (956)	Suffocation	1.2 (956)
Other Injuries‖	1.7 (1,368)	Other Injuries¶	0.9 (704)
All Injuries	15.0 (12,175)	All Injuries	15.0 (12,175)

* Fingerhut L. ICD Framework: External Cause of Injury Mortality Matrix [Online]. Hyattsville, MD: National Center for Health Statistics. Available from: http://www.cdc.gov/nchs/about/otheract/Ice/matrix10.htm

† Rate Per 100,000 Population

‡ MV Traffic-related includes MVT-Occupant; MVT-Unspecified; MVT-Pedal Cyclist; MVT-Pedestrian and MVT injuries (MVT-Motorcyclist; MVT-other)

§ Transportation-related includes MVT-Occupant; MVT-Unspecified; Pedal Cyclist (MVT and Other); Pedestrian (MVT & Other) and Other Transportation-related injuries (MVT-Motorcyclist; MVT-other; Other Land Transportation and Other Transport)

‖ Other injuries Include Cut/Pierce; Other Pedal Cyclist; Other Pedestrian; Other Land Transportation; Other Transport; Firearms, Machinery; Natural/Environmental; Overexertion; Stuck By/Against; Other Specified, Classifiable; Other Specified, Not Elsewhere Classified and Unspecified

¶ Other injuries Include Cut/Pierce; Firearms; Machinery; Natural/Environmental; Overexertion; Stuck By/Against; Other Specified, Classifiable; Other Specified, Not Elsewhere Classified and Unspecified

Data source: CDC/NCHS, National Vital Statistics System, 2000-2005

Table 2 shows the leading causes of unintentional injury deaths by age group using the External Cause of Injury Mortality Matrix. Suffocation was ranked first for children less than 1 year of age, while MVT-related deaths were first for all other age groups. In order to understand how some subcategories of Transportation-related death rates differ with other causes of unintentional injury, the Modified Matrix is used in all subsequent data presented in this report.

Table 3 shows the leading causes of unintentional injury deaths by age group using the Modified Matrix. Suffocations was still ranked first for infants. However, drowning was the leading cause of death for children 1 to 4, and MVT-Occupant ranked first for the older age groups.

Table 2: Leading Causes of Unintentional Injury Death among Children 0 to 19 Years using the External Cause of Injury Mortality Matrix, by Age Group, United States, 2000 – 2005

	Age Group in Years				
Rank	**Less Than 1 (n = 5,883)**	**1 to 4 (n = 10,203)**	**5 to 9 (n = 7,144)**	**10 to 14 (n = 9,088)**	**15 to 19 (n = 40,734)**
1	**Suffocation 66%**	**MVT-related 31%**	**MVT-related 53%**	**MVT-related 58%**	**MVT-related 76%**
2	**MVT-related 14%**	**Drowning 27%**	**Other Injuries 15%**	**Other Injuries 18%**	**Other Injuries 9%**
3	**Drowning 7%**	**Other Injuries 15%**	**Fires or Burns 13%**	**Drowning 10%**	**Poisoning 7%**
4	**Other Injuries 6%**	**Fires or Burns 14%**	**Drowning 13%**	**Fires or Burns 6%**	**Drowning 5%**
5	**Fires or Burns 4%**	**Suffocation 8%**	**Suffocation 4%**	**Suffocation 4%**	**Falls 1%**
6	**Poisoning 2%**	**Falls 2%**	**Falls 1%**	**Poisoning 2%**	**Fires or Burns 1%**
7	**Falls 2%**	**Poisoning 2%**	**Poisoning 1%**	**Falls 2%**	**Suffocation 1%**

Table 3: Leading Causes of Unintentional Injury Death among Children 0 to 19 Years using the Modified Matrix, by Age Group, United States, 2000 – 2005

	Age Group in Years				
Rank	**Less Than 1 (n=5,883)**	**1 to 4 (n=10,203)**	**5 to 9 (n=7,144)**	**10 to 14 (n=9,088)**	**15 to 19 (n=40,734)**
1	**Suffocation** 66%	**Drowning** 27%	**MVT - Occupant** 22%	**MVT - Occupant** 26%	**MVT - Occupant** 41%
2	**MVT - Occupant** 8%	**Pedestrian** 15%	**MVT - Unspecified** 15%	**MVT - Unspecified** 15%	**MVT - Unspecified** 28%
3	**Drowning** 7%	**Fires/Burns** 14%	**Pedestrian** 14%	**Pedestrian** 12%	**Poisoning** 7%
4	**MVT - Unspecified** 5%	**MVT - Occupant** 13%	**Fires/Burns** 13%	**Drowning** 10%	**MVT - Other** 6%
5	**Other Injuries** 5%	**MVT - Unspecified** 9%	**Drowning** 13%	**MVT - Other** 9%	**Pedestrian** 5%
6	**Fires/Burns** 4%	**Suffocation** 8%	**Other Injuries** 7%	**Other Injuries** 8%	**Drowning** 5%
7	**Poisoning** 2%	**Other Injuries** 8%	**MVT - Other** 6%	**Fires/Burns** 6%	**Other Injuries** 5%
8	**Falls** 2%	**Falls** 2%	**Pedal Cyclist** 4%	**Pedal Cyclist** 6%	**Falls** 1%
9	**Pedestrian** 1%	**Poisoning** 2%	**Suffocation** 4%	**Suffocation** 4%	**Fires/Burns** 1%
10	**MVT - Other** 0.5%	**MVT - Other** 2%	**Falls** 1%	**Poisoning** 2%	**Suffocation** 1%
11	**Pedal Cyclist** 0.02%	**Pedal Cyclist** 0.3%	**Poisoning** 1%	**Falls** 2%	**Pedal Cyclist** 1%

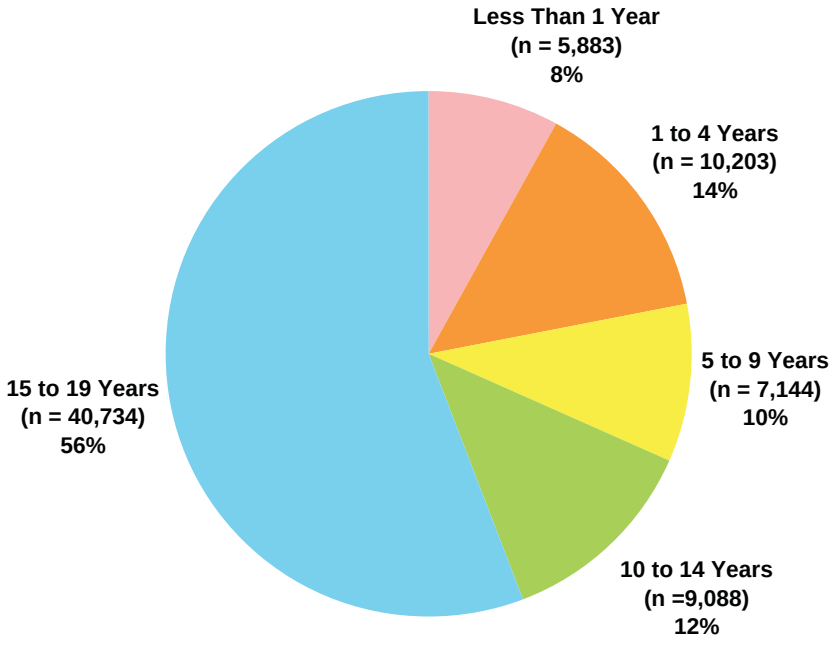
Unintentional Injury Deaths, 2000 – 2005

4: Unintentional Injury Deaths among Children 0 to 19 Years, United States, 2000 – 2005

4.1: Injury Deaths by Age Group

The proportion of unintentional injury deaths represented by each age group varied. Of the 73,052 deaths among children 0 to 19 years of age during 2000-2005, 40,374 deaths (56%) occurred among those 15 to 19 years, followed by 10,203 (14%) among those 1 to 4 years of age. (Fig 3)

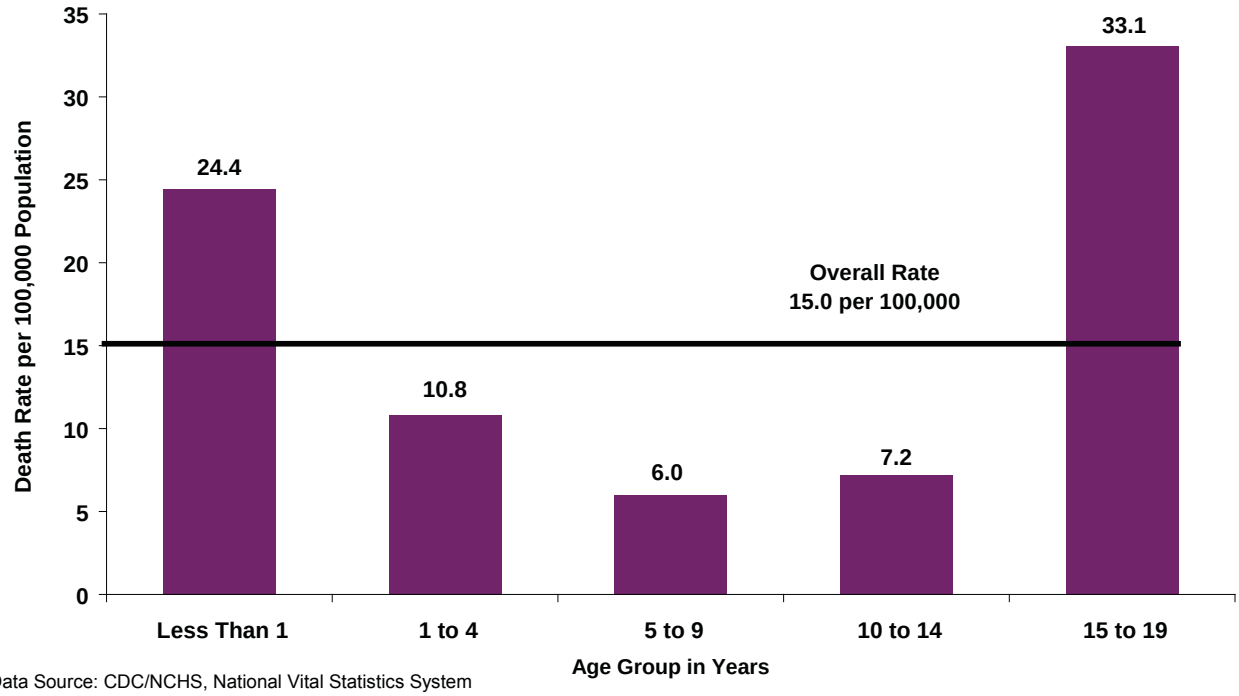
Figure 3: Percent of Unintentional Injury Deaths among Children 0 to 19 Years, by Age Group, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

The death rate for unintentional injury was 15.0 per 100,000 children. The rate was highest among those 15 to 19 years (33.1 per 100,000) followed by those less than 1, 1 to 4, 10 to 14, respectively, and lowest among those 5 to 9 years. (Fig 4)

Figure 4: Unintentional Injury Death Rates among Children 0 to 19 Years, by Age Group, United States, 2000 - 2005

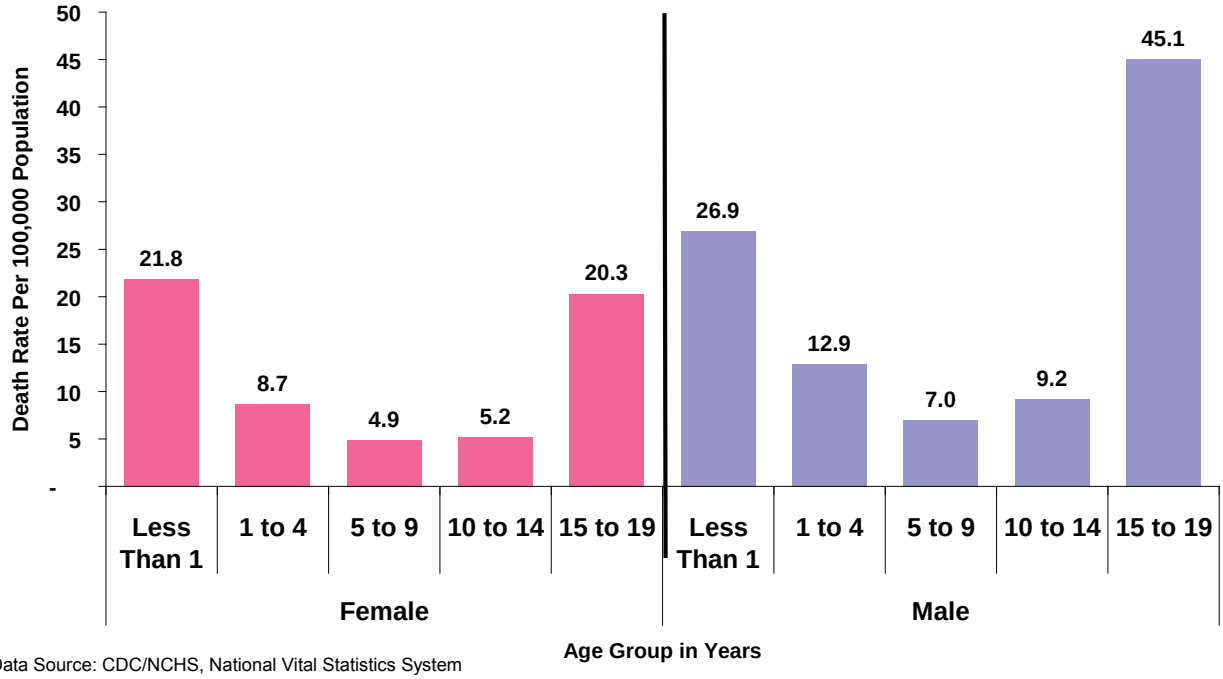


Data Source: CDC/NCHS, National Vital Statistics System

4.2: Injury Deaths by Sex and Age Group

Males had higher death rates compared to females in all age groups. The overall death rate among males 0 to 19 years was 19.3 per 100,000 and among females 10.4 per 100,000. When examining rates by sex and age group, the death rate was highest among males 15 to 19 years (rate 45.1 per 100,000). (Fig 5)

Figure 5: Unintentional Injury Death Rates among Children 0 to 19 Years, by Sex and Age Group, United States, 2000 - 2005

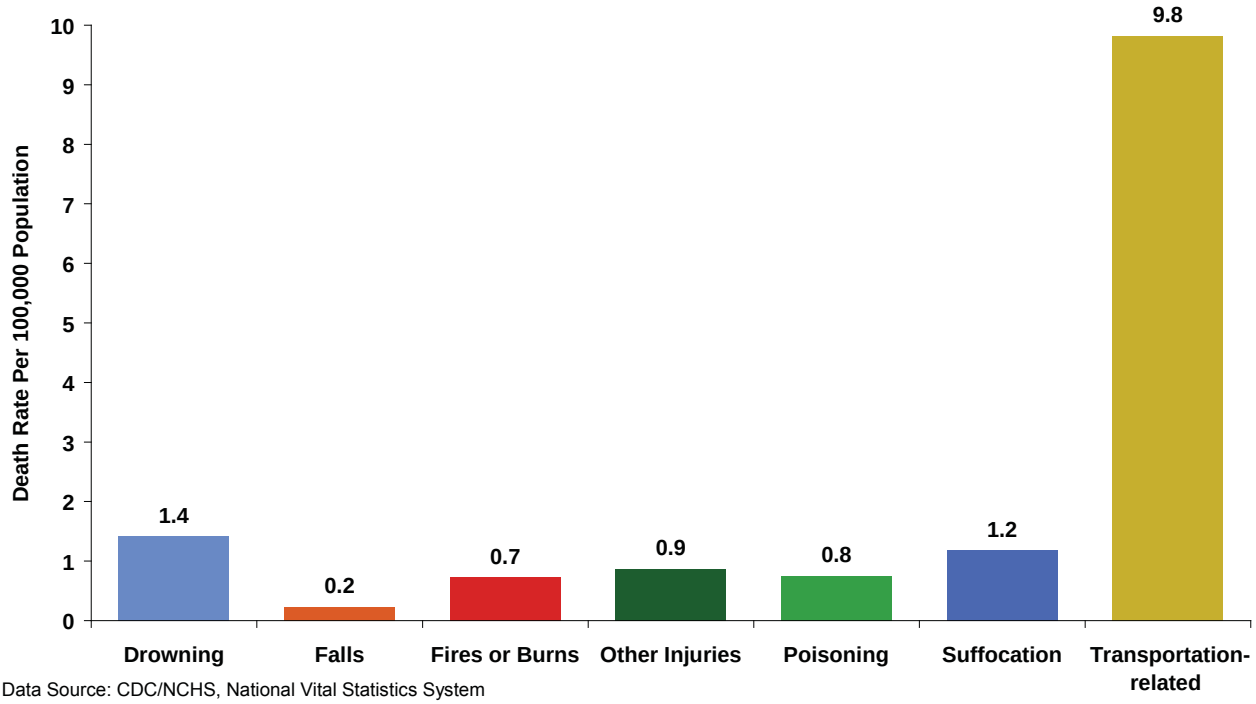


Data Source: CDC/NCHS, National Vital Statistics System

4.3: Injury Deaths by Cause

Death rates differed by cause, with the highest rates related to injuries due to transportation (9.8 per 100,000) and the lowest rates related to falls (0.2 per 100,000). (Fig 6)

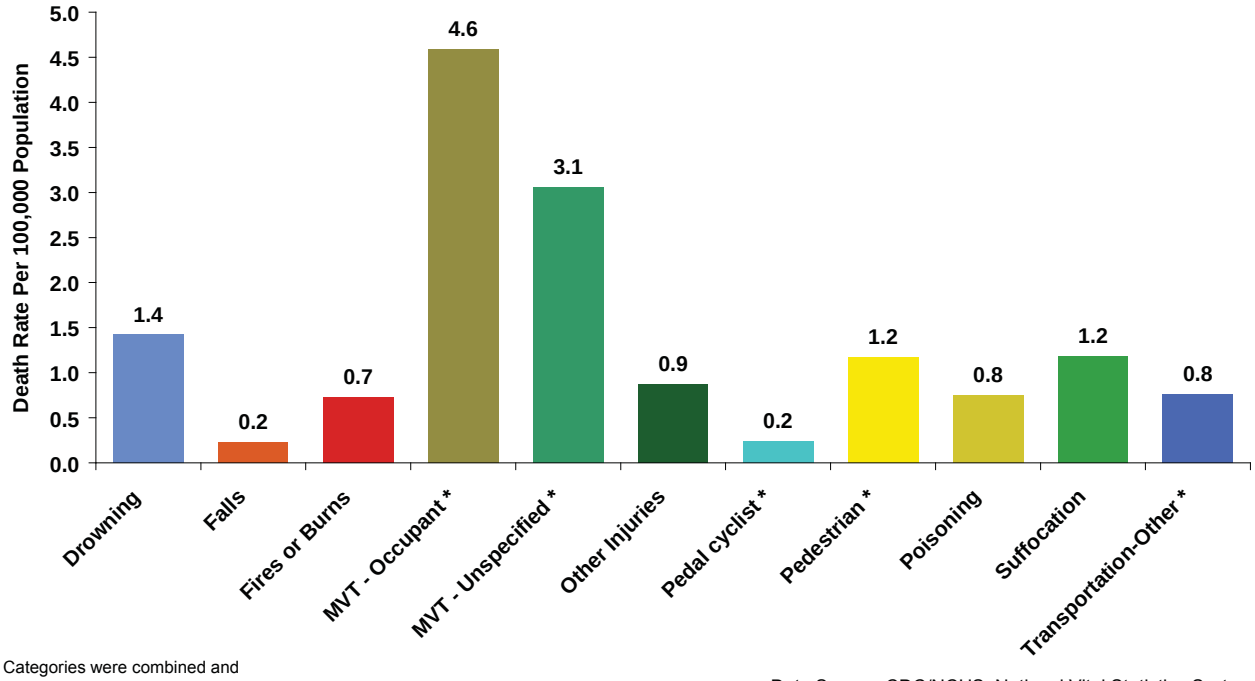
Figure 6: Unintentional Injury Death Rates among Children 0 to 19 Years, by Cause, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

In the figure that follows, transportation-related injuries are divided into several categories based on the road user type: MVT occupants, pedal cyclists, pedestrians, and others. For some deaths the road user type was unknown; these deaths were designated "MVT-unspecified." A large proportion of these deaths are likely MVT occupant deaths.(13) When transportation-related injuries were examined by road user type, occupants of motor vehicles that were in crashes represented the highest death rate (death rate: 4.6 per 100,000). (Fig 7)

Figure 7: Unintentional Injury Death Rates among Children 0 to 19 Years, by Cause, United States, 2000 - 2005



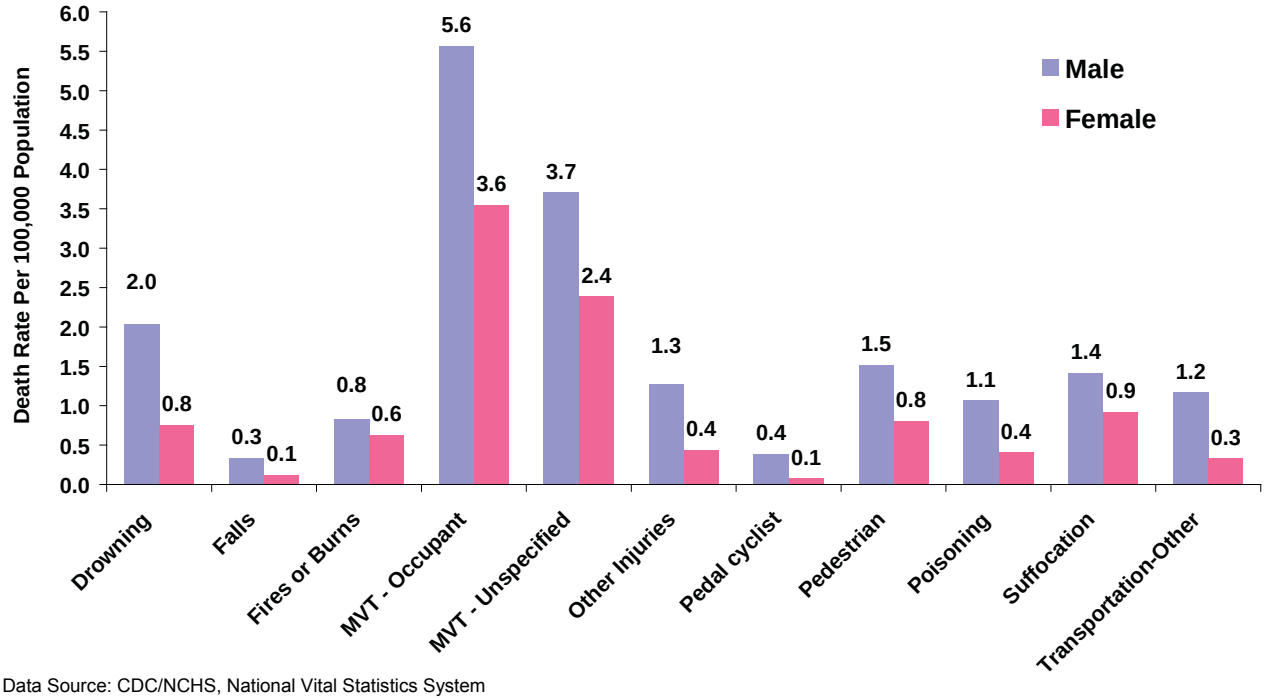
* Categories were combined and defined as 'Transportation-related Injuries' as per the Modified Matrix

Data Source: CDC/NCHS, National Vital Statistics System

4.4: Injury Deaths by Cause and Sex

Males had higher death rates compared with females for each individual cause examined. The highest rate for both males and females was among those with MVT occupant injuries (5.6 and 3.6 per 100,000, respectively). Males had death rates that were three times higher for fall-related injuries and four times higher for pedal cyclists and other motor vehicle injuries than females. (Fig 8)

Figure 8: Unintentional Injury Death Rates among Children 0 to 19 Years, by Sex and Cause, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

The rankings of the leading causes of death also differed for males compared with females. While the leading cause was similar for males and females (suffocation: less than 1 year, drowning: 1 to 4 years, MVT occupants: 5 years and older), the rankings differed beginning at the second ranked cause. Notably among children 1 to 4 years of age, pedestrian injuries were ranked second for males and fourth for females. For children 5 to 9 years of age, drowning ranked second for males and fifth for females. (Tables 4 and 5)

Table 4: Leading Causes of Unintentional Injury Deaths among Males 0 to 19 Years, by Age Group, United States, 2000 - 2005

	Age Group in Years				
Rank	**Less Than 1 (n = 3,316)**	**1 to 4 (n = 6,206)**	**5 to 9 (n = 4,289)**	**10 to 14 (n = 5,904)**	**15 to 19 (n = 28,555)**
1	**Suffocation** 67%	**Drowning** 29%	**MVT - Occupant** 19%	**MVT - Occupant** 22%	**MVT - Occupant** 38%
2	**MVT - Occupant** 8%	**Pedestrian** 16%	**Drowning** 15%	**MVT - Unspecified** 13%	**MVT - Unspecified** 26%
3	**Drowning** 6%	**Fires/Burns** 13%	**Pedestrian** 15%	**Pedestrian** 12%	**Poisoning** 8%
4	**Other Injuries** 5%	**MVT - Occupant** 10%	**Fires/Burns** 13%	**Drowning** 12%	**MVT - Other** 7%
5	**MVT - Unspecified** 5%	**Suffocation** 8%	**MVT - Unspecified** 13%	**MVT - Other** 10%	**Drowning** 6%
6	**Fires/Burns** 3%	**Other Injuries** 8%	**Other Injuries** 8%	**Other Injuries** 10%	**Other Injuries** 6%
7	**Poisoning** 2%	**MVT - Unspecified** 8%	**MVT - Other** 6%	**Pedal Cyclist** 8%	**Pedestrian** 5%
8	**Falls** 2%	**Falls** 3%	**Pedal Cyclist** 5%	**Suffocation** 5%	**Falls** 2%
9	**Pedestrian** 1%	**Poisoning** 2%	**Suffocation** 4%	**Fires/Burns** 5%	**Suffocation** 1%
10	**MVT - Other** 0.4%	**MVT - Other** 2%	**Falls** 2%	**Poisoning** 2%	**Pedal Cyclist** 1%
11	**Pedal Cyclist** 0.03%	**Pedal Cyclist** 0.3%	**Poisoning** 1%	**Falls** 2%	**Fires/Burns**

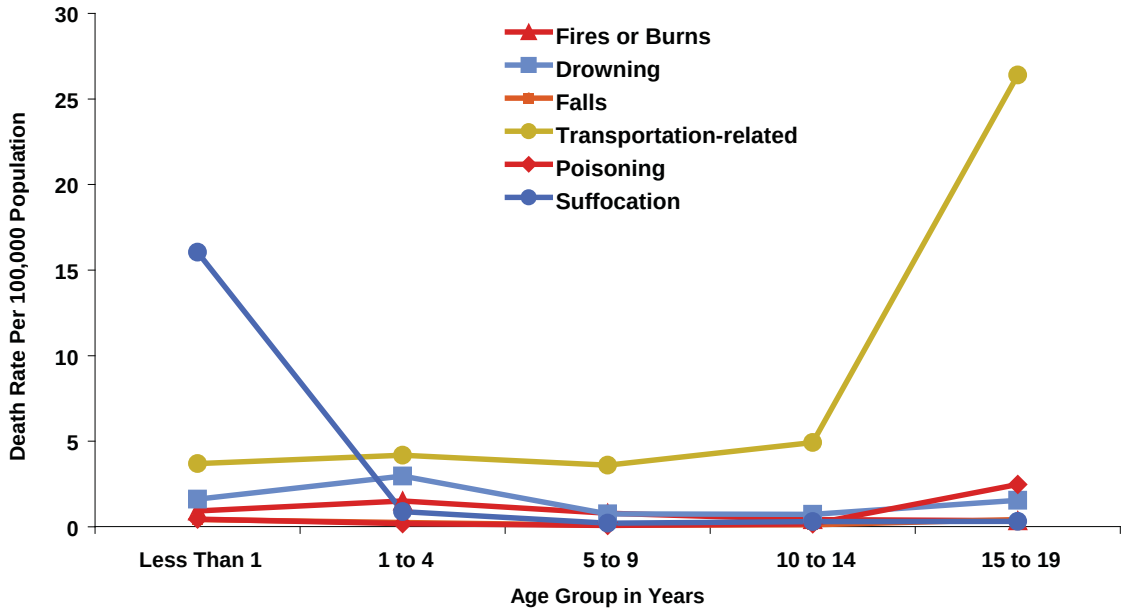
Table 5: Leading Causes of Unintentional Injury Deaths among Females 0 to 19 Years, by Age Group, United States, 2000 - 2005

	Age Group in Years				
Rank	**Less Than 1 (n = 2,567)**	**1 to 4 (n = 3,997)**	**5 to 9 (n = 2,855)**	**10 to 14 (n = 3,184)**	**15 to 19 (n = 12,179)**
1	**Suffocation** 64%	**Drowning** 24%	**MVT - Occupant** 26%	**MVT - Occupant** 33%	**MVT - Occupant** 47%
2	**MVT - Occupant** 9%	**MVT - Occupant** 16%	**MVT - Unspecified** 18%	**MVT - Unspecified** 20%	**MVT - Unspecified** 32%
3	**Drowning** 7%	**Fires/Burns** 15%	**Pedestrian** 14%	**Pedestrian** 12%	**Poisoning** 6%
4	**MVT - Unspecified** 6%	**Pedestrian** 14%	**Fires/Burns** 13%	**Fires/Burns** 8%	**Pedestrian** 5%
5	**Other Injuries** 5%	**MVT - Unspecified** 11%	**Drowning** 9%	**Drowning** 7%	**MVT - Other** 3%
6	**Fires/Burns** 4%	**Suffocation** 8%	**Other Injuries** 6%	**MVT - Other** 7%	**Other Injuries** 2%
7	**Poisoning** 2%	**Other Injuries** 7%	**MVT - Other** 5%	**Other Injuries** 5%	**Fires/Burns** 1%
8	**Falls** 2%	**Poisoning** 2%	**Suffocation** 3%	**Poisoning** 3%	**Drowning** 1%
9	**Pedestrian** 1%	**Falls** 2%	**Pedal Cyclist** 2%	**Suffocation** 2%	**Falls** 1%
10	**MVT - Other** 1%	**MVT - Other** 1%	**Poisoning** 2%	**Pedal Cyclist** 2%	**Suffocation** 1%
11	**Pedal Cyclist** 0.00%	**Pedal Cyclist** 0.3%	**Falls** 1%	**Falls** 1%	**Pedal Cyclist** 0.4%

4.5: Injury Deaths by Age Group and Cause

The death rate for transportation-related injuries was highest among those 15 years and older while the death rate for suffocation was dramatically lower after the first year of life. Injury death rates from fires or burns and drowning both peaked among children 1 to 4 years of age. Unintentional poisoning death rates peaked among the 15 to 19 year olds. Transportation-related injuries among 15 to 19 were more than 5 times the rate of those 10 to 14. (Fig 9 and 10)

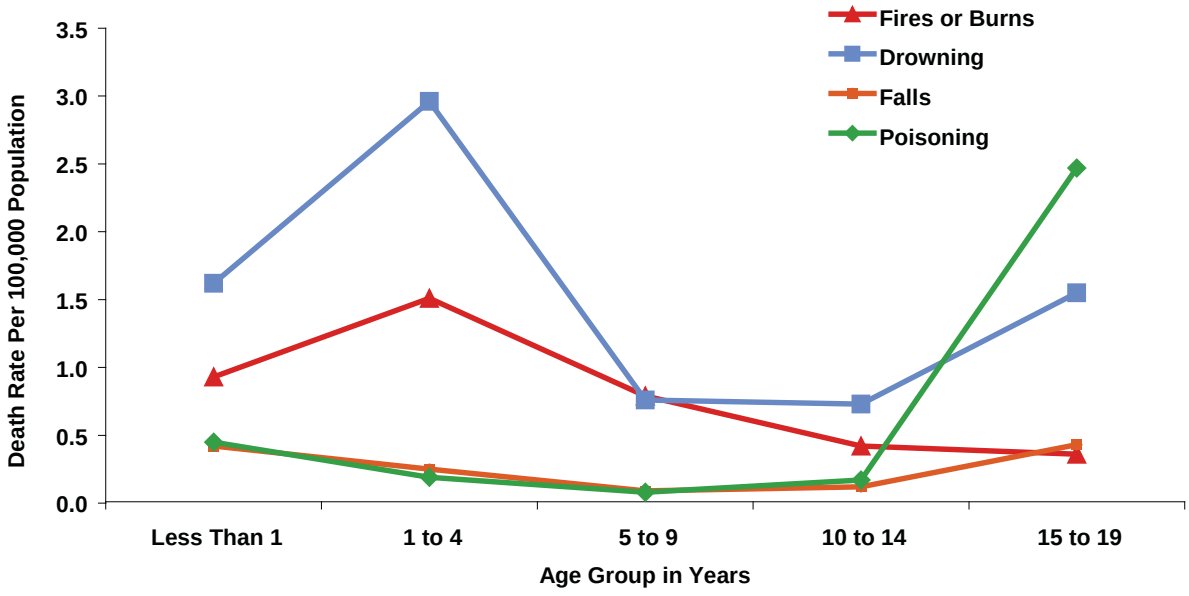
Figure 9: Unintentional Injury Death Rates among Children 0 to 19 Years, by Age Group and Cause, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

In order to more easily see some of these changes by age group, Fig 10 shows the death rates for the four causes with rates less than 3.0 per 100,000: burns, drowning, falls and poisoning.

Figure 10: Unintentional Injury Death Rates among Children 0 to 19 Years, by Age Group and Selected Causes, United States, 2000 - 2005

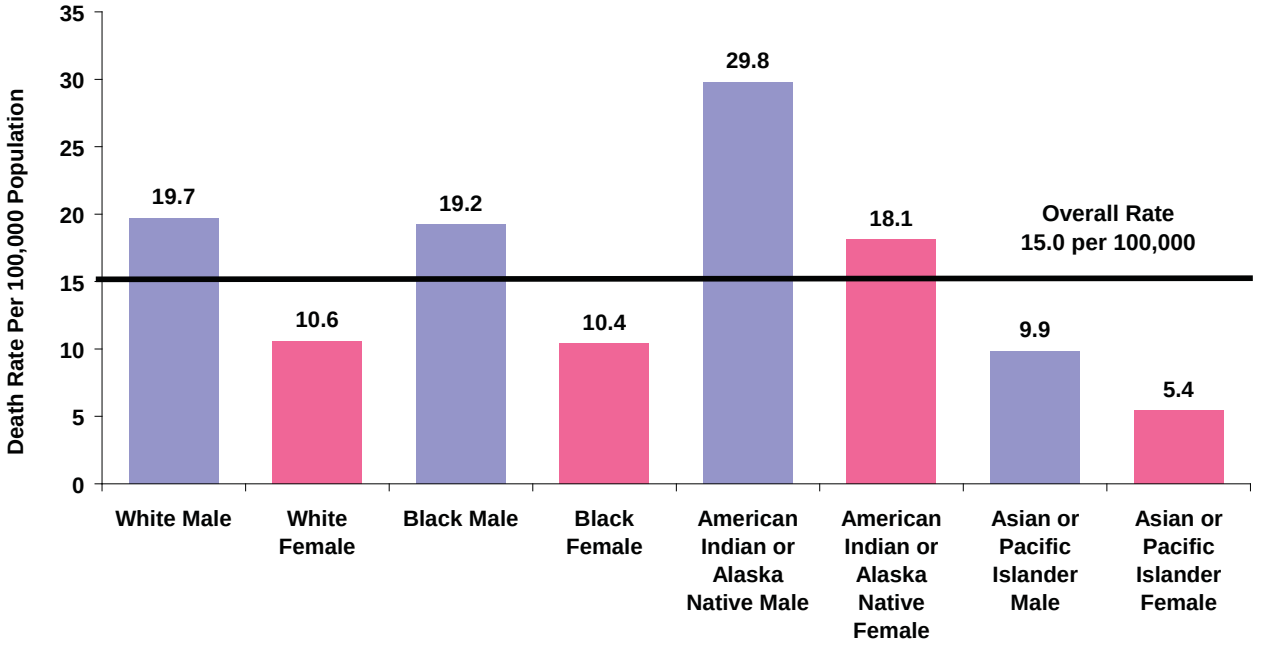


Data Source: CDC/NCHS, National Vital Statistics System

4.6: Injury Deaths by Race and Sex

Among all races, males had higher death rates than females. Among all racial groups, the death rate was highest for American Indian or Alaska Native males (29.8 per 100,000). Among females, only American Indian or Alaska Native females had higher death rates than the national average. The rate was lowest among Asian or Pacific Islander females (5.4 per 100,000). (Fig 11)

Figure 11: Unintentional Injury Death Rates among Children 0 to 19 Years, by Race and Sex, United States, 2000 - 2005

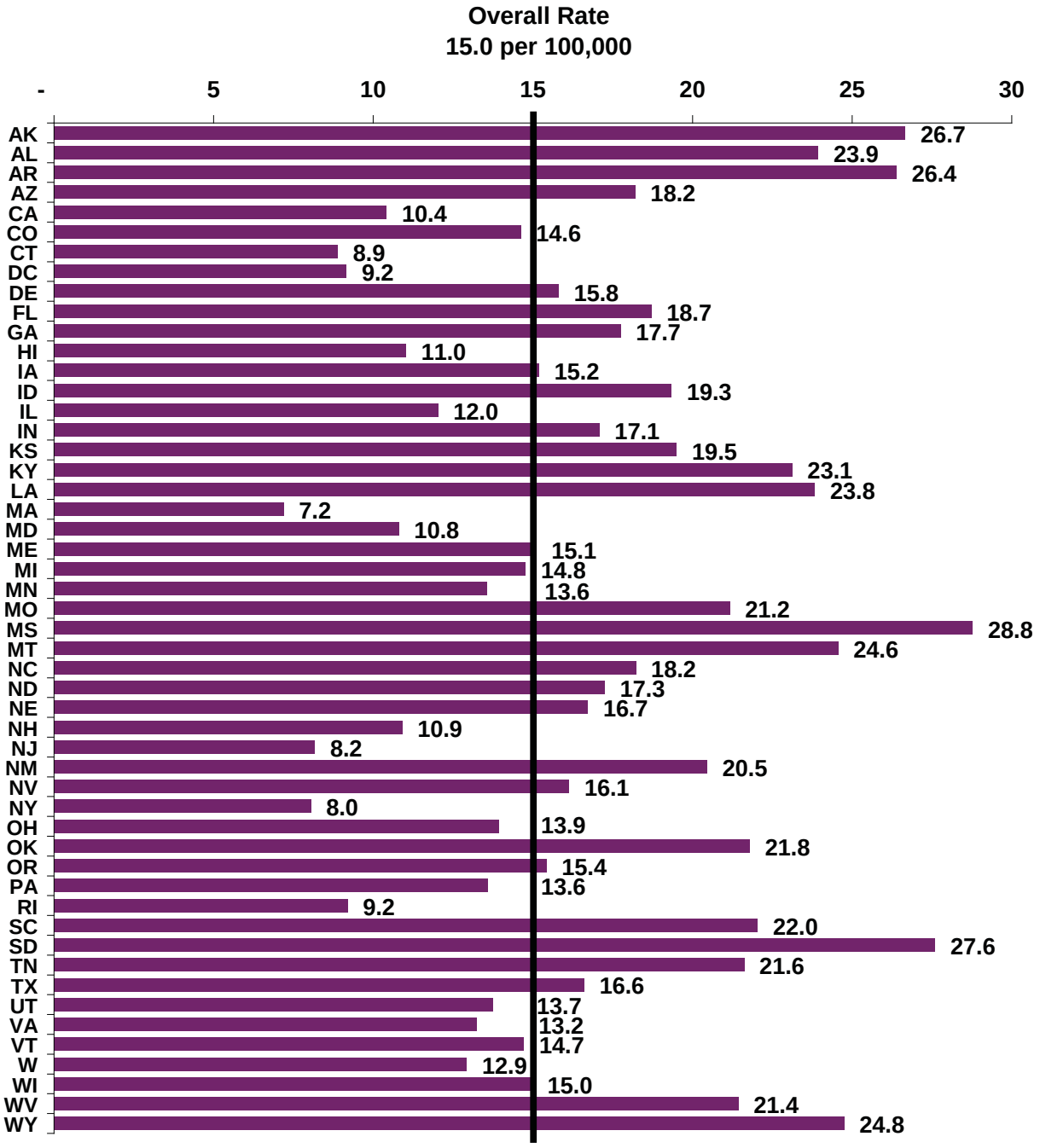


Data Source: CDC/NCHS, National Vital Statistics System

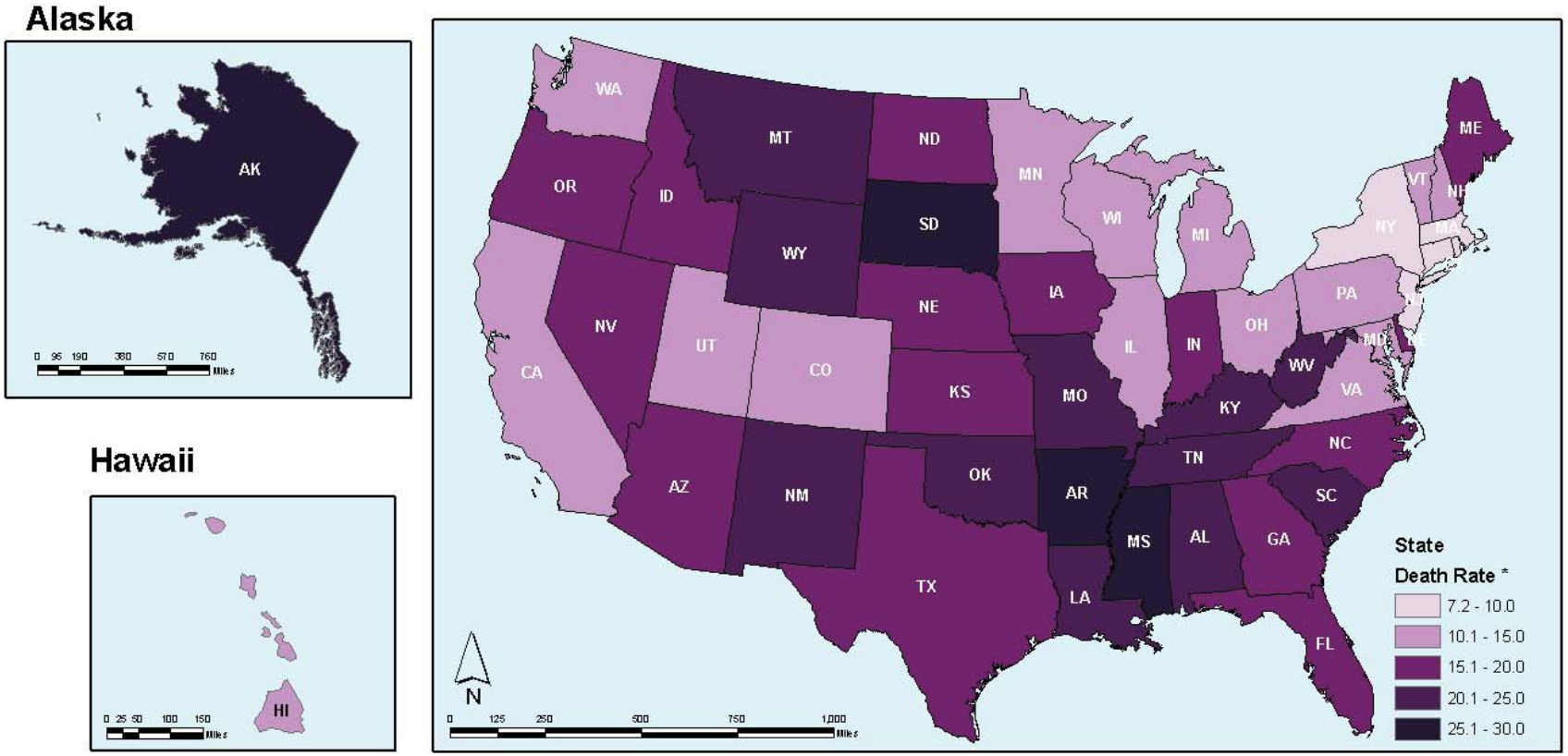
4.7: Injury Deaths by State

The U.S. death rate was 15.0 per 100,000 population. State injury death rates varied from 7.2 per 100,000 to 28.8 per 100,000. (Fig 12 and Map 1) Appendix 3 presents the number of injury deaths by age group and state.

Figure 12: Unintentional Injury Death Rates among Children 0 to 19 Years, by State, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System



Map 1: Unintentional Injury Death Rates among Children 0 to 19 Years, by State, United States, 2000 - 2005

* Death Rate per 100,000 Population

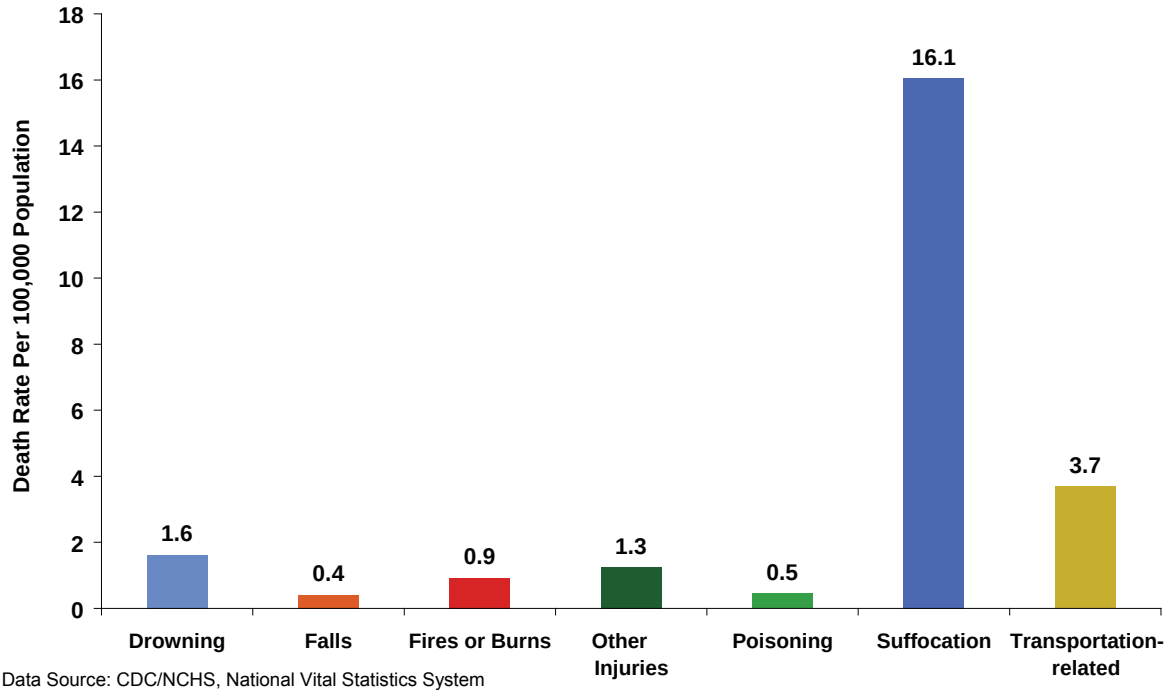
Data Source: CDC/NCHS, National Vital Statistics System

4.8: Analysis by Age Group

4.8.1: Injury Deaths among Children Less Than 1 Year

The U.S. death rate for children less than 1 year of age was 24.4 per 100,000. Males in this age group had a rate of 26.9 per 100,000 and females a rate of 21.8 per 100,000. (Fig 5) The death rate due to suffocation was 16.1 per 100,000. (Fig 13)

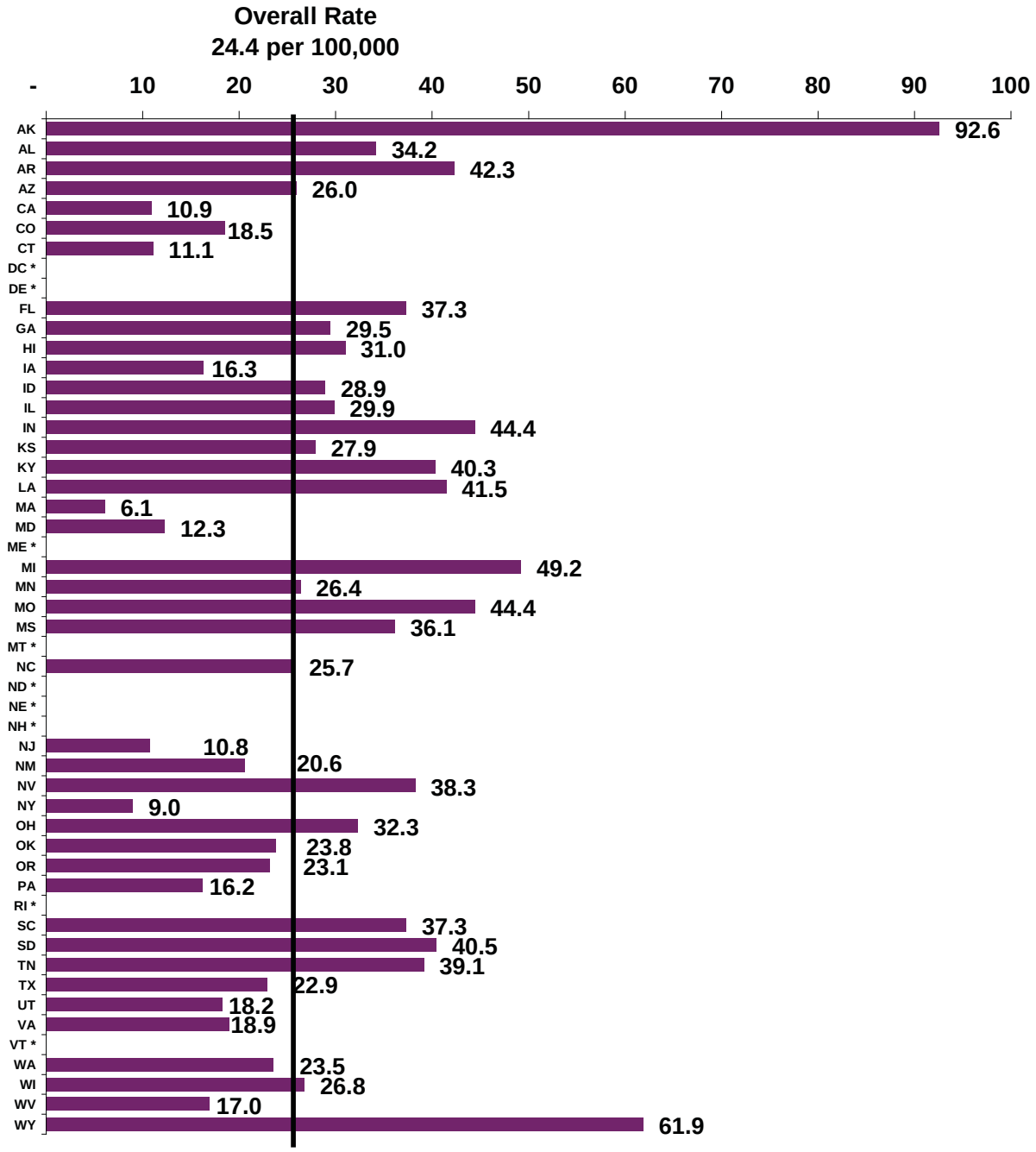
Figure 13: Unintentional Injury Death Rates among Children Less Than 1 Year, by Cause, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

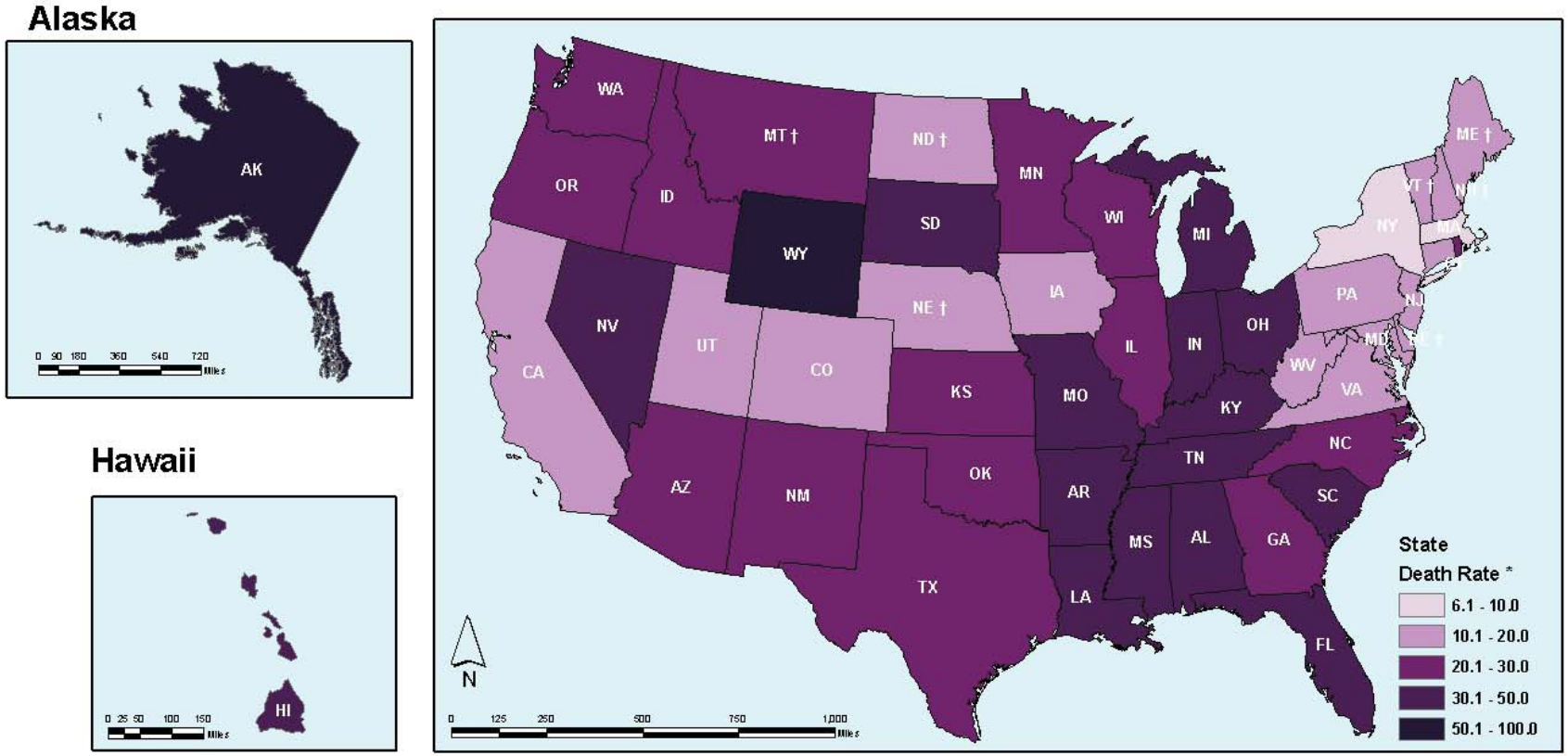
In this age group, the state death rates varied from 6.1 per 100,000 to 92.6 per 100,000. (Fig 14 and Map 2)

Figure 14: Unintentional Injury Death Rates among Children Less Than 1 Year, by State, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

* The injury death rate is suppressed if fewer than 20 deaths were reported



Map 2: Unintentional Injury Death Rates among Children Less Than 1 Year, by State, United States, 2000 - 2005

* Death Rate per 100,000 Population

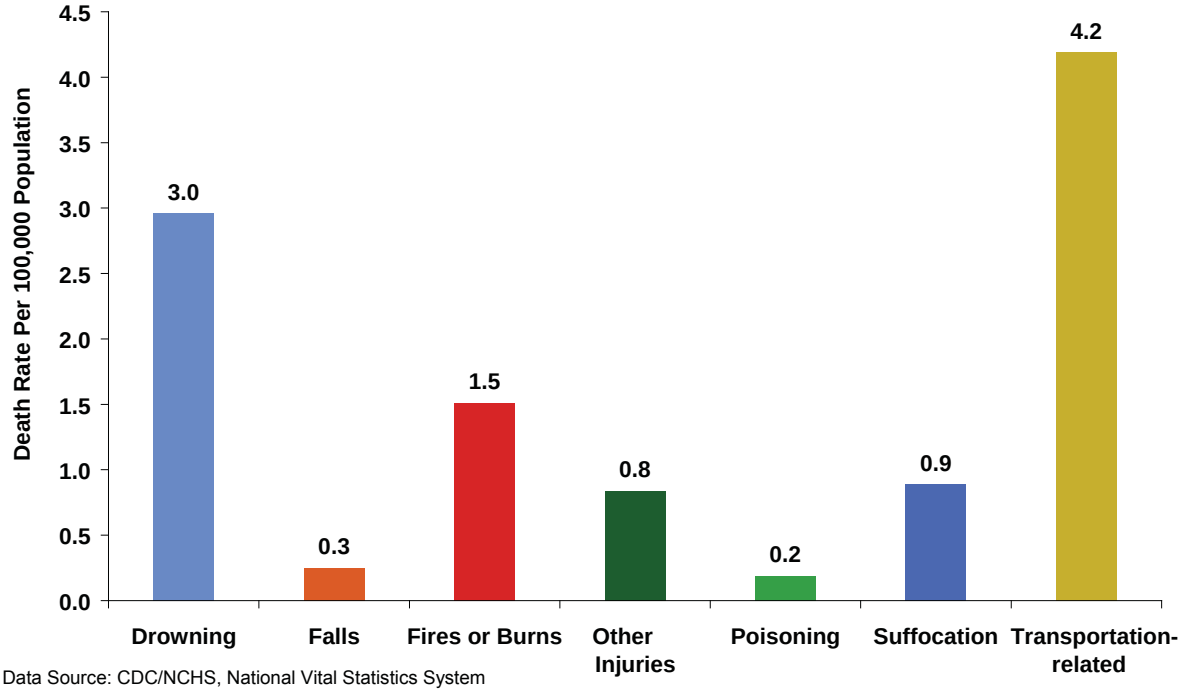
† For the following states the injury death rate is based on fewer than 20 deaths; therefore, they are considered unreliable: DC, DE, ME, MT, ND, NE, NH, RI & VT

Data Source: CDC/NCHS, National Vital Statistics System

4.8.2: Injury Deaths among Children 1 to 4 Years

The U.S. death rate for children 1 to 4 years of age was 10.8 per 100,000. Males in this age group had a rate of 12.9 per 100,000 and females a rate of 8.7 per 100,000. (Fig 5) Transportation-related injuries resulted in the highest death rate (4.2 per 100,000). (Fig 15)

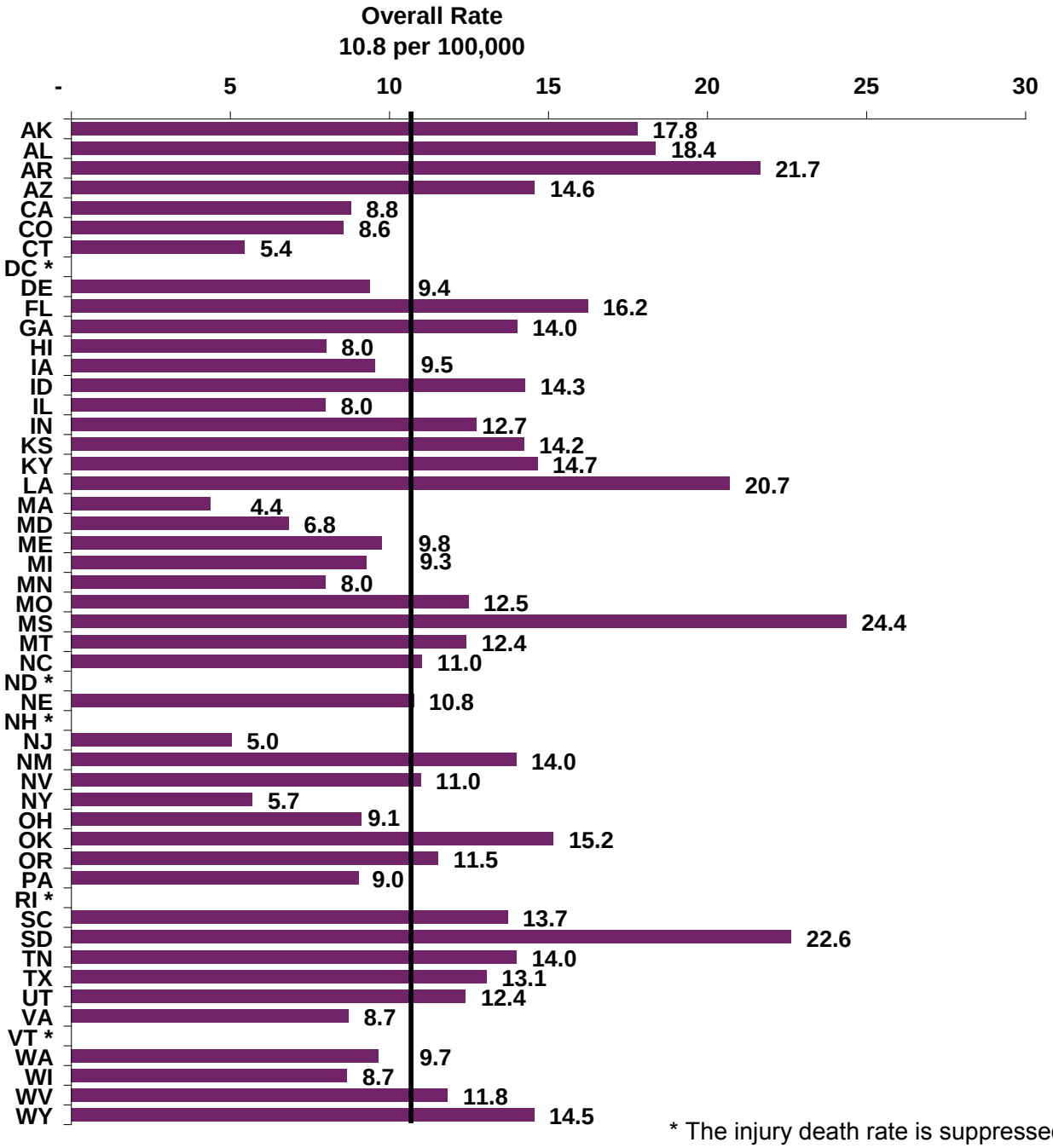
Figure 15: Unintentional Injury Death Rates among Children 1 to 4 Years, by Cause, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

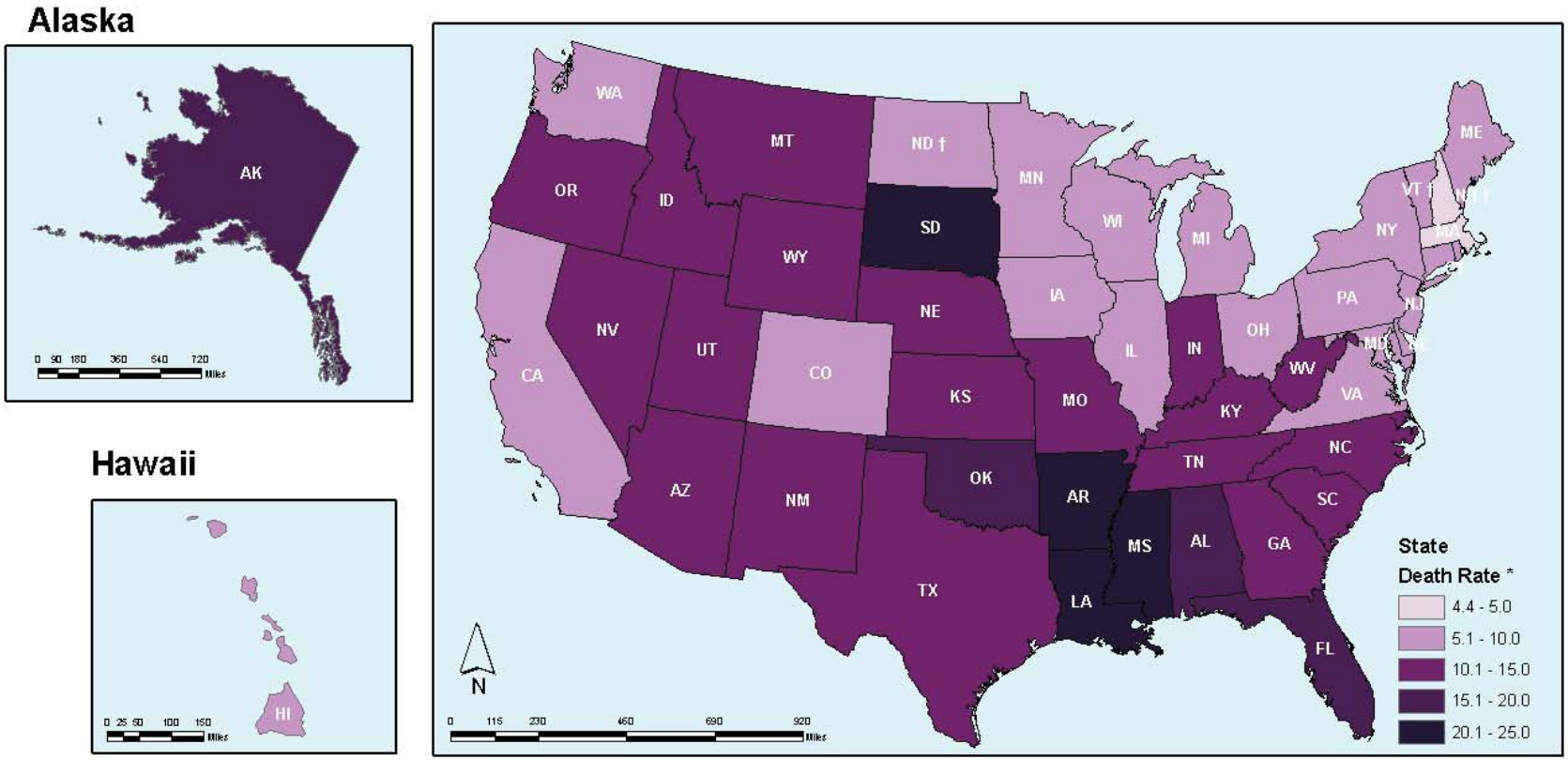
In this age group, the state death rates varied from 4.4 per 100,000 to 24.4 per 100,000. (Fig 16 and Map 3)

Figure 16: Unintentional Injury Death Rates among Children 1 to 4 Years, by State, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

* The injury death rate is suppressed if fewer than 20 deaths were reported



Map 3: Unintentional Injury Death Rates among Children 1 to 4 Years, by State, United States, 2000 - 2005

* Death Rate per 100,000 Population

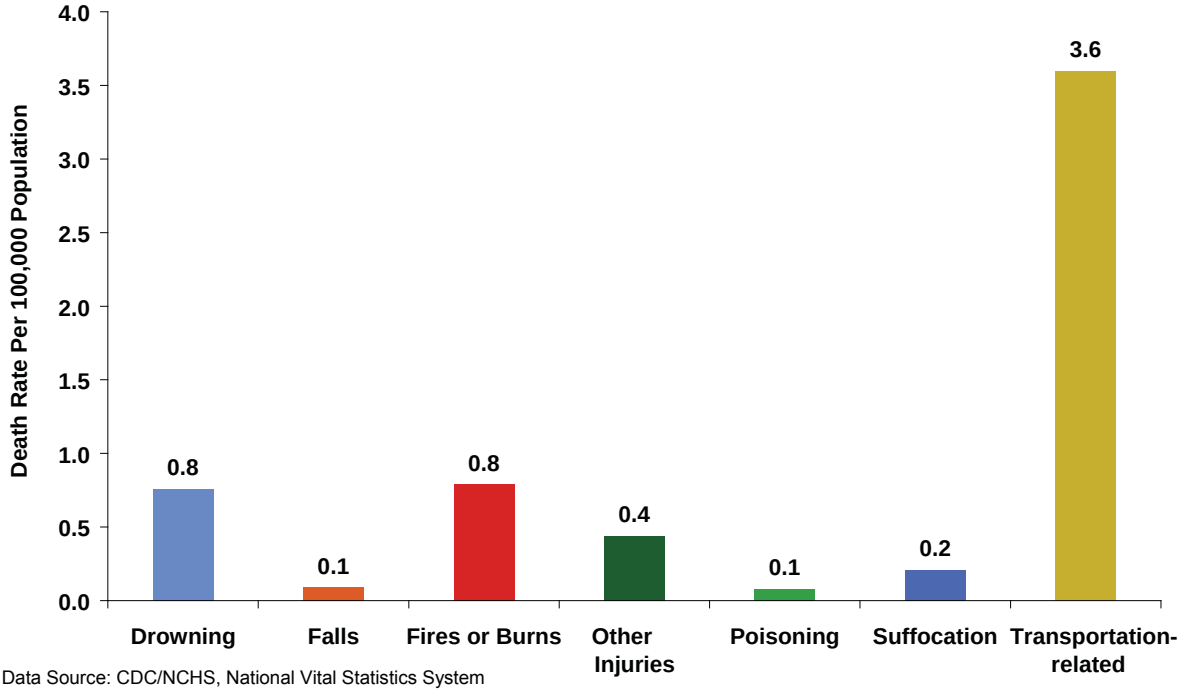
† For the following states the injury death rate is based on fewer than 20 deaths; therefore, they are considered unreliable: DC, ND, NH, RI & VT

Data Source: CDC/NCHS, National Vital Statistics System

4.8.3: Injury Deaths among Children 5 to 9 Years

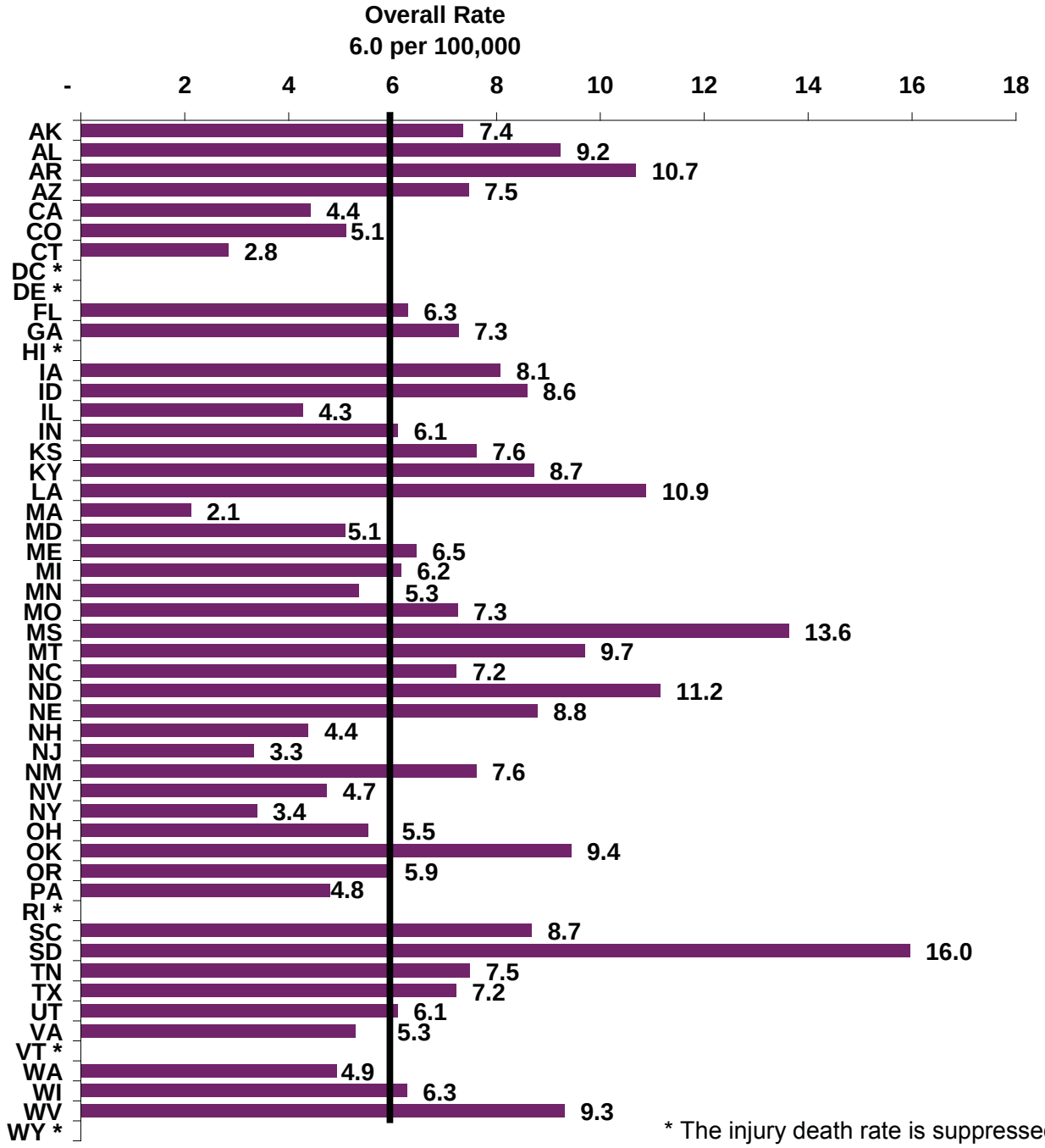
The U.S. death rate for children 5 to 9 years of age was 6.0 per 100,000. This age group had the lowest death rate among all age groups. Males 5 to 9 years of age had a death rate of 7.0 per 100,000 and females a rate of 4.9 per 100,000. (Fig 5) Transportation-related injuries resulted in the highest death rate (3.6 per 100,000). (Fig 17)

Figure 17: Unintentional Injury Death Rates among Children 5 to 9 Years, by Cause, United States, 2000 - 2005



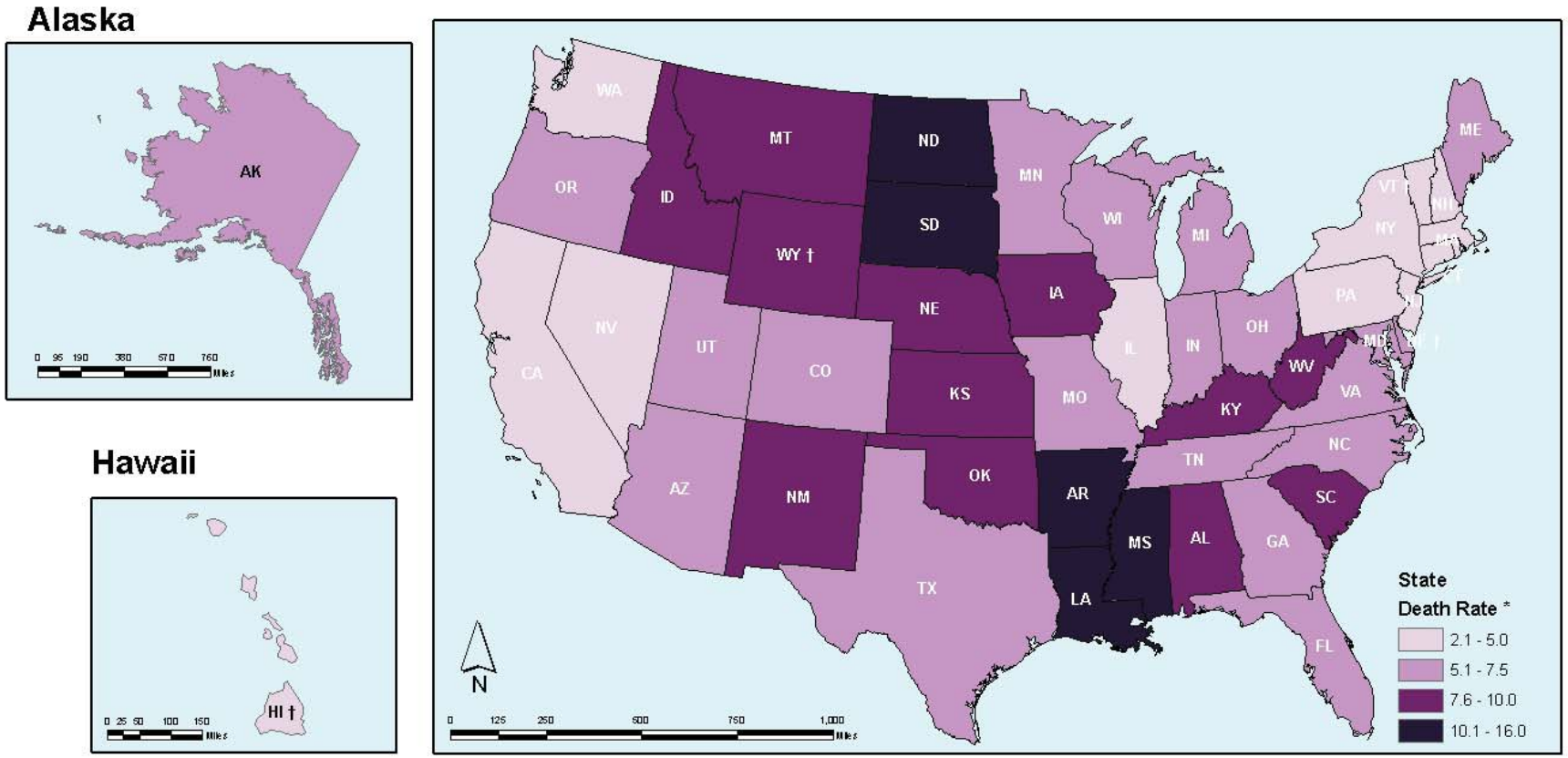
In this age group, the state death rates varied from 2.1 per 100,000 to 16.0 per 100,000. (Fig 18 and Map 4)

Figure 18: Unintentional Injury Death Rates among Children 5 to 9 Years, by State, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

* The injury death rate is suppressed if fewer than 20 deaths were reported



Map 4: Unintentional Injury Death Rates among Children 5 to 9 Years, by State, United States, 2000 - 2005

* Death Rate per 100,000 Population

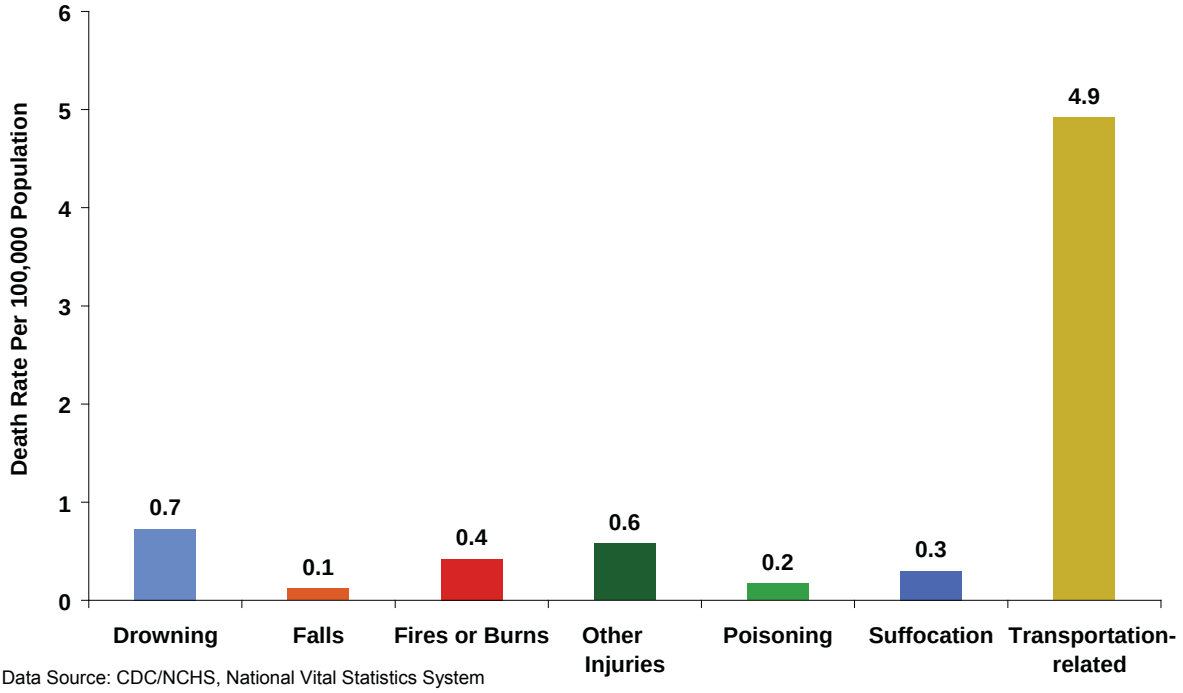
† For the following states the injury death rate is based on fewer than 20 deaths; therefore, they are considered unreliable: DC, DE, HI, RI, VT & WY

Data Source: CDC/NCHS, National Vital Statistics System

4.8.4: Injury Deaths among Children 10 to 14 Years

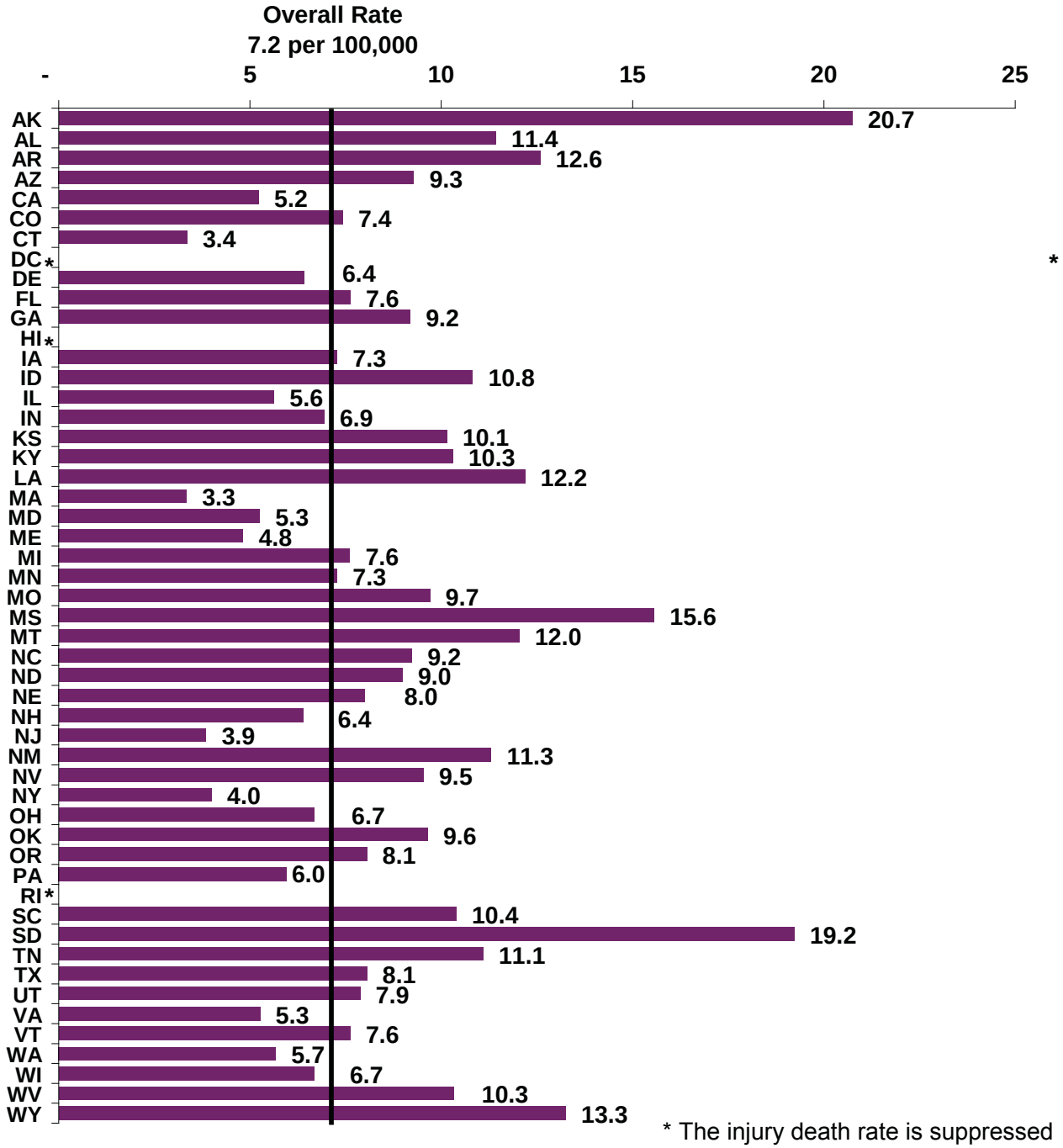
The U.S. death rate for children 10 to 14 years of age was 7.2 per 100,000. Males in this age group had a rate of 9.2 per 100,000 and females 5.2 per 100,000. (Fig 5) Transportation-related injuries resulted in the highest death rate (4.9 per 100,000). (Fig 19)

Figure 19: Unintentional Injury Death Rates among Children 10 to 14 Years, by Cause, United States, 2000 - 2005



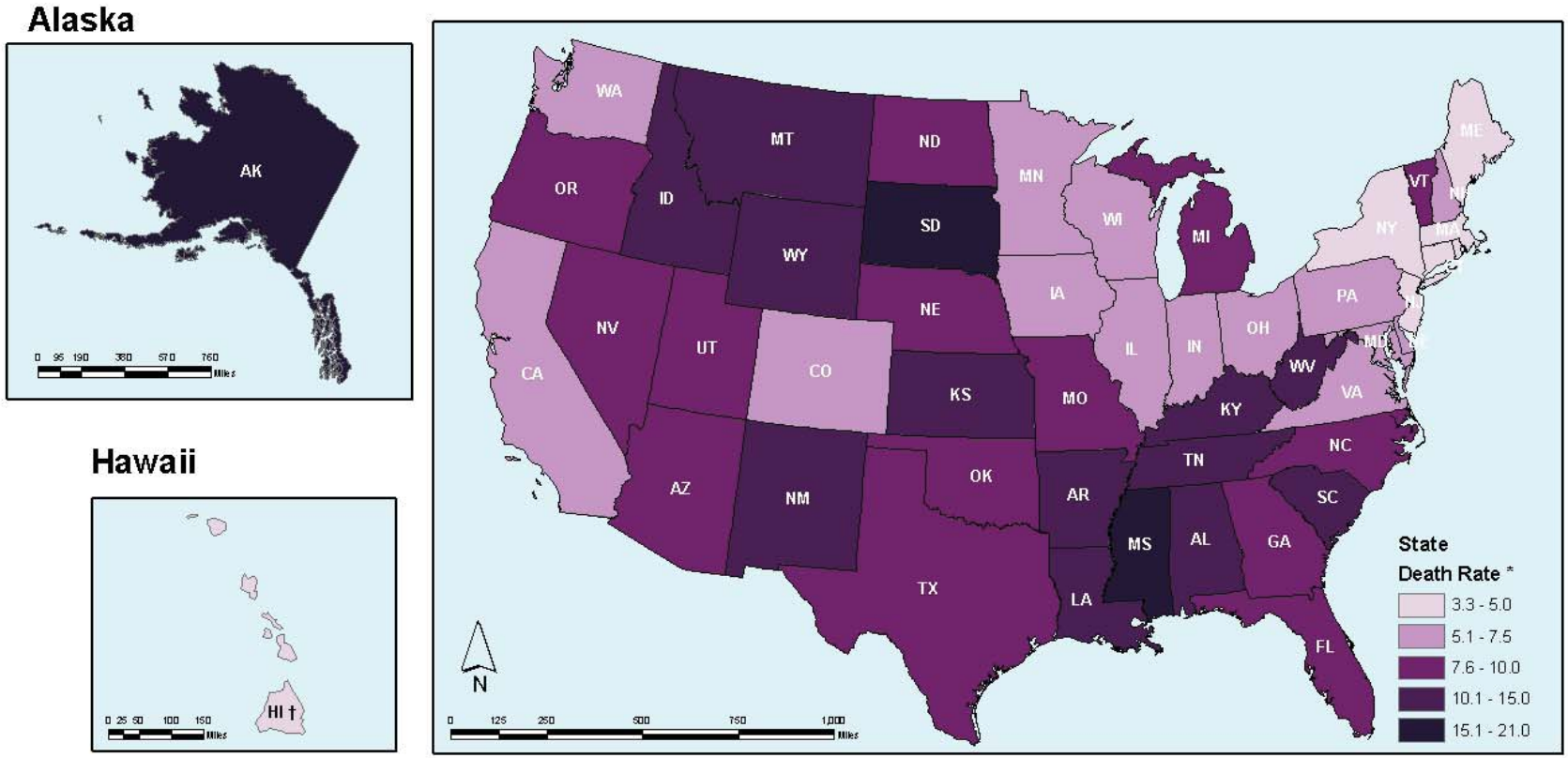
In this age group, the state death rates varied from 3.3 per 100,000 to 20.7 per 100,000. (Fig 20 and Map 5)

Figure 20: Unintentional Injury Death Rates among Children 10 to 14 Years, by State, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

* The injury death rate is suppressed if fewer than 20 deaths were reported



Map 5: Unintentional Injury Death Rates among Children 10 to 14 Years, by State, United States, 2000 - 2005

* Death Rate per 100,000 Population

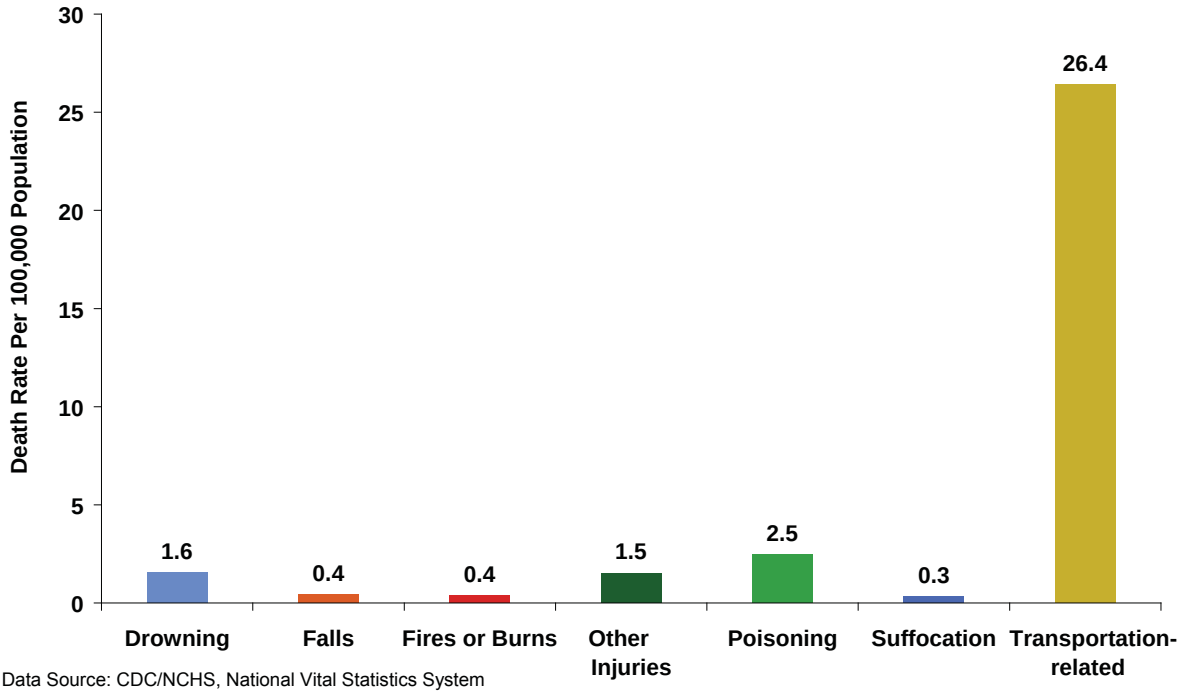
† For the following states the injury death rate is based on fewer than 20 deaths; therefore, they are considered unreliable: DC, HI, RI & VT

Data Source: CDC/NCHS, National Vital Statistics System

4.8.5: Injury Deaths among Children 15 to 19 Years

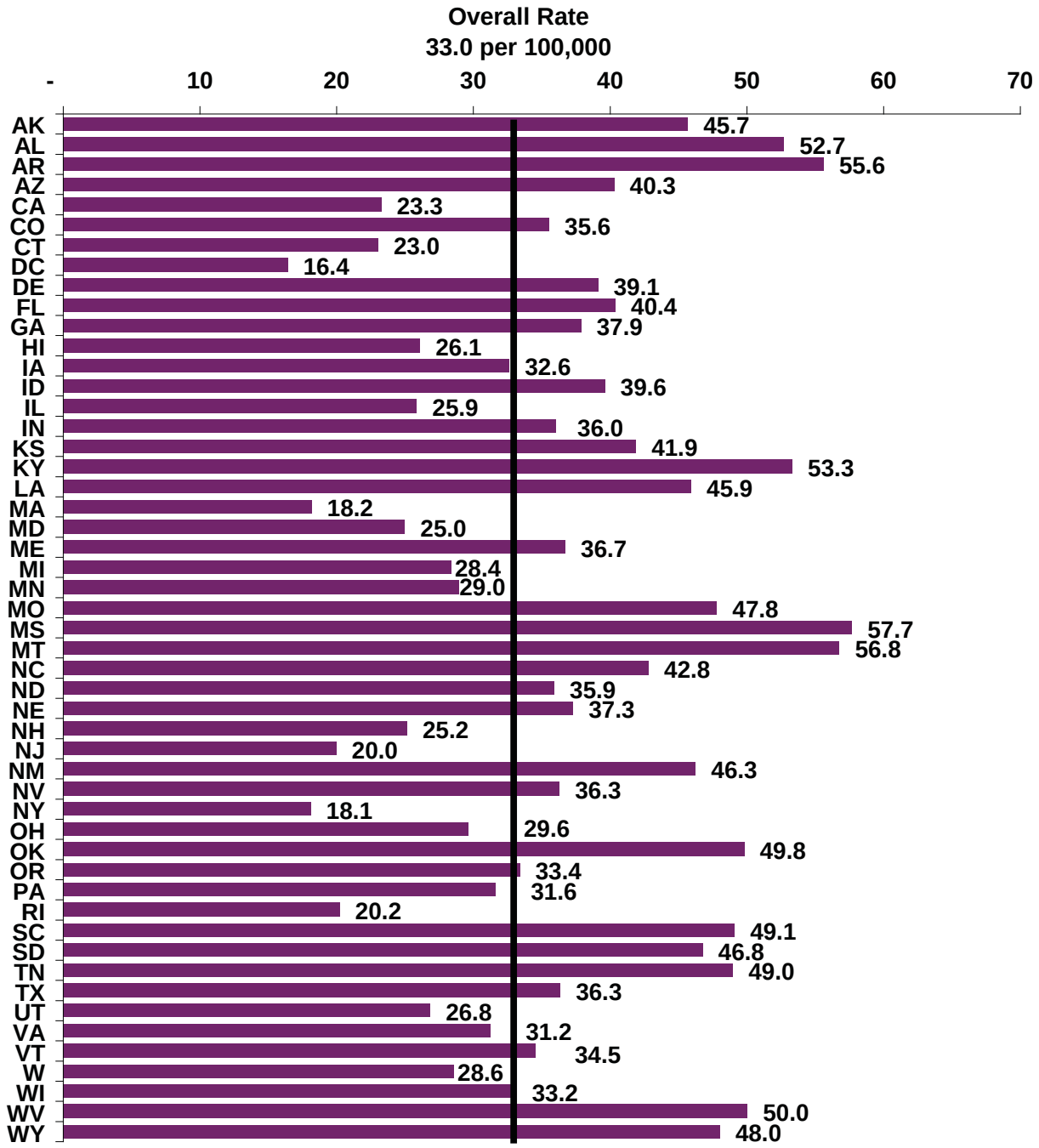
The U.S. death rate for children 15 to 19 years of age was 33.1 per 100,000. This age group had the highest death rate among all age groups. Males in this age group had a death rate of 45.1 per 100,000 and females 20.3 per 100,000. (Fig 5) Transportation-related injuries resulted in the highest death rate (26.4 per 100,000) (Fig 21)

Figure 21: Unintentional Injury Death Rates among Children 15 to 19 Years, by Cause, United States, 2000 - 2005

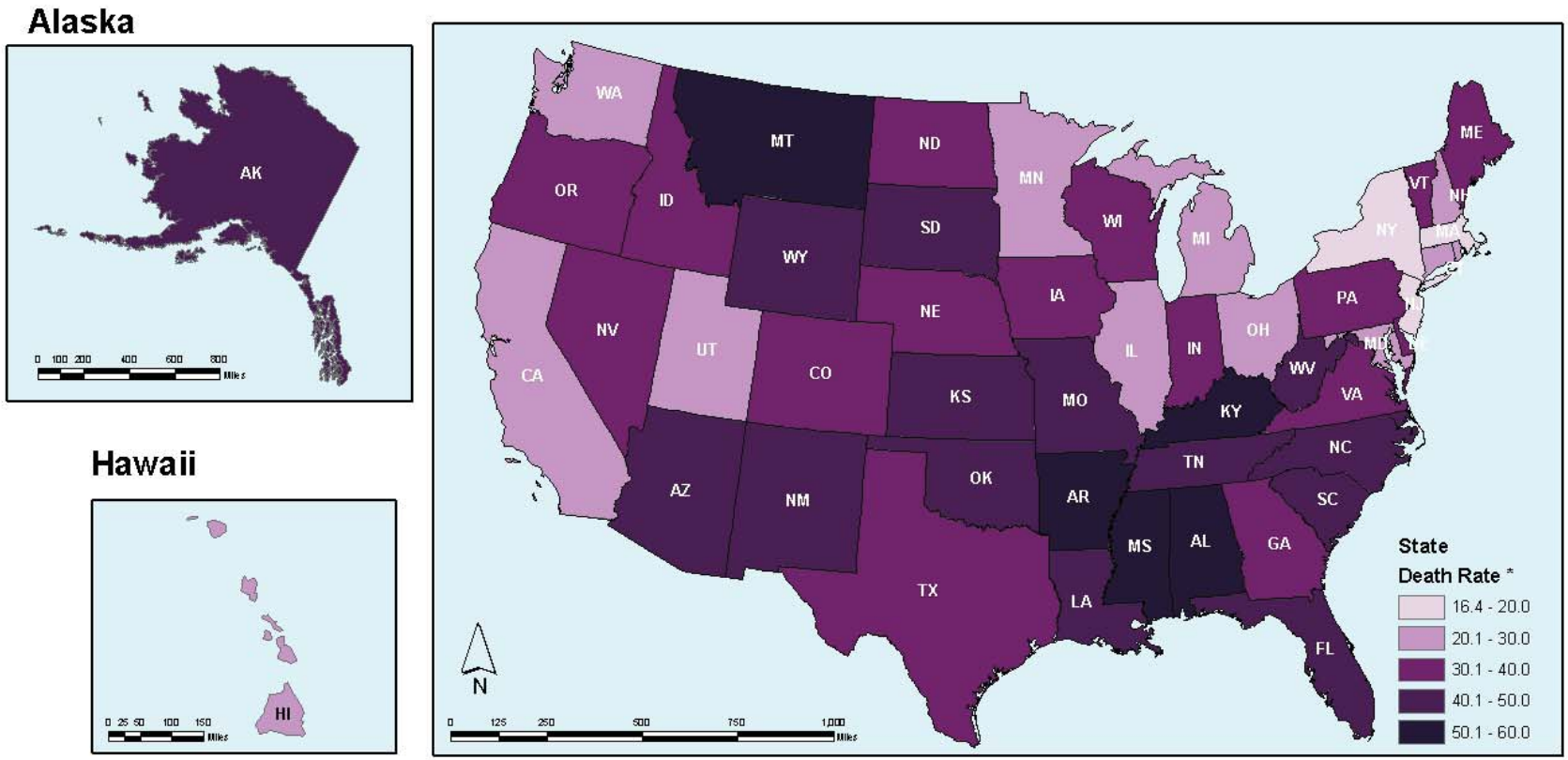


In this age group, the state death rates varied from 16.4 per 100,000 to 57.7 per 100,000. (Fig 22 and Map 6)

Figure 22: Unintentional Injury Death Rates among Children 15 to 19 Years, by State, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System



Map 6: Unintentional Injury Death Rates among Children 15 to 19 Years, by State, United States, 2000 - 2005

* Death Rate per 100,000 Population

Data Source: CDC/NCHS, National Vital Statistics System

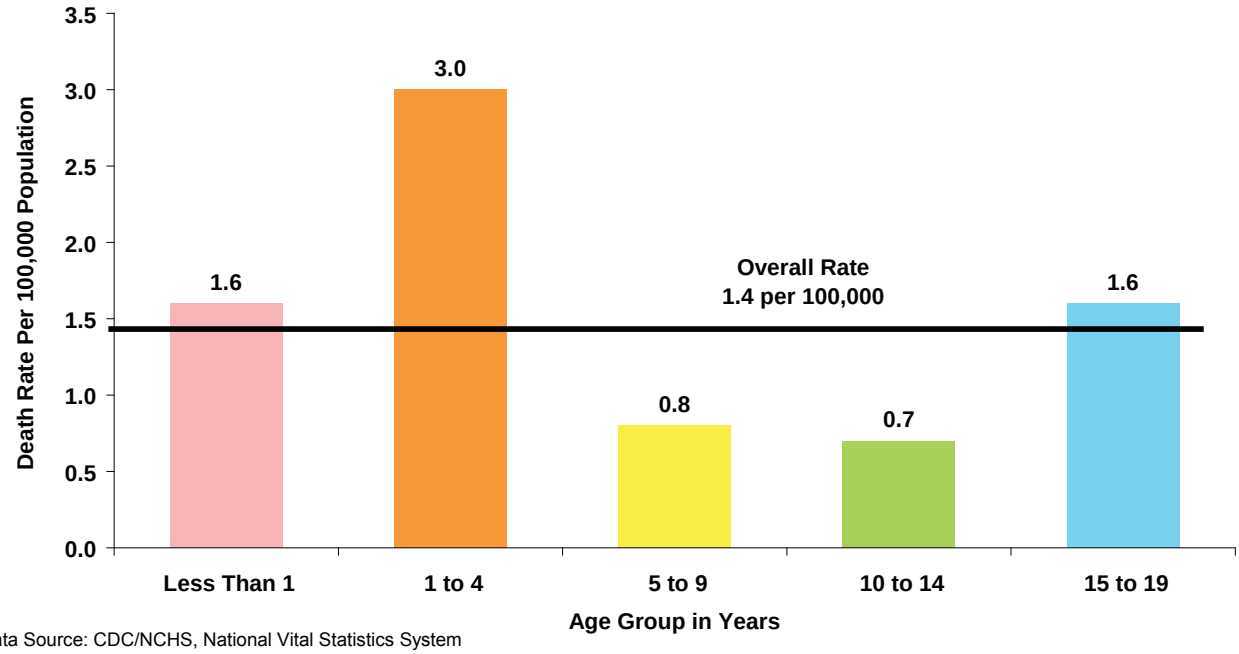
4.9: Analysis by Cause

This section describes childhood injury deaths by selected causes in more detail (Fig 6 and 7).

4.9.1: Injury Deaths due to Drowning

Drowning represented 9% of unintentional injury deaths among children 0 to 19 years of age. The death rate for drowning-related injuries was 1.4 per 100,000. Males had death rates nearly three times higher than females (2.0 vs. 0.8 per 100,000). (Fig 8) The rate was highest among children 1 to 4 years of age (3.0 per 100,000), followed by children less than 1 year and those 15 to 19 years (1.6 per 100,000). (Fig 23)

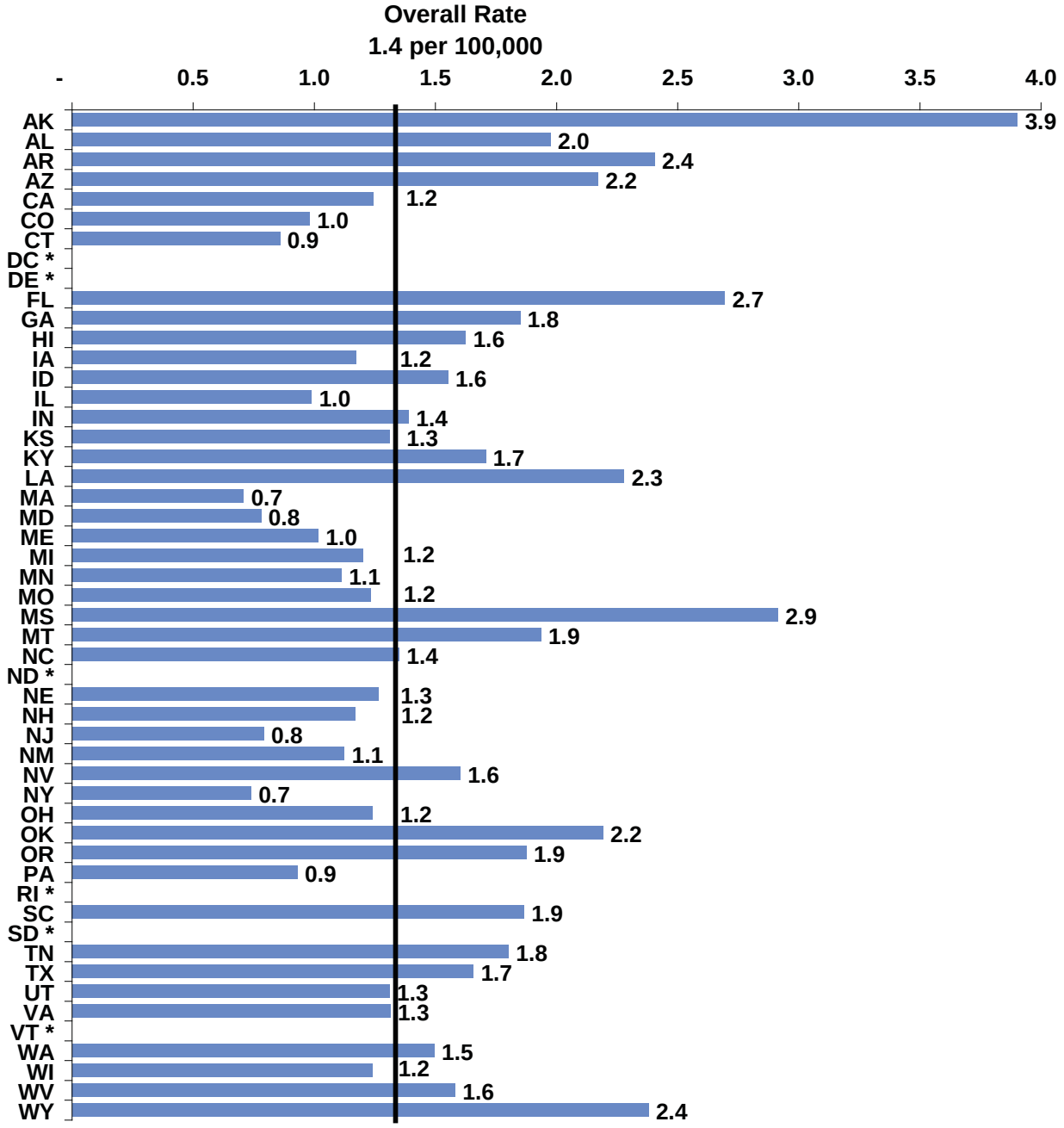
Figure 23: Unintentional Injury Death Rates due to Drowning among Children 0 to 19 Years, by Age Group, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

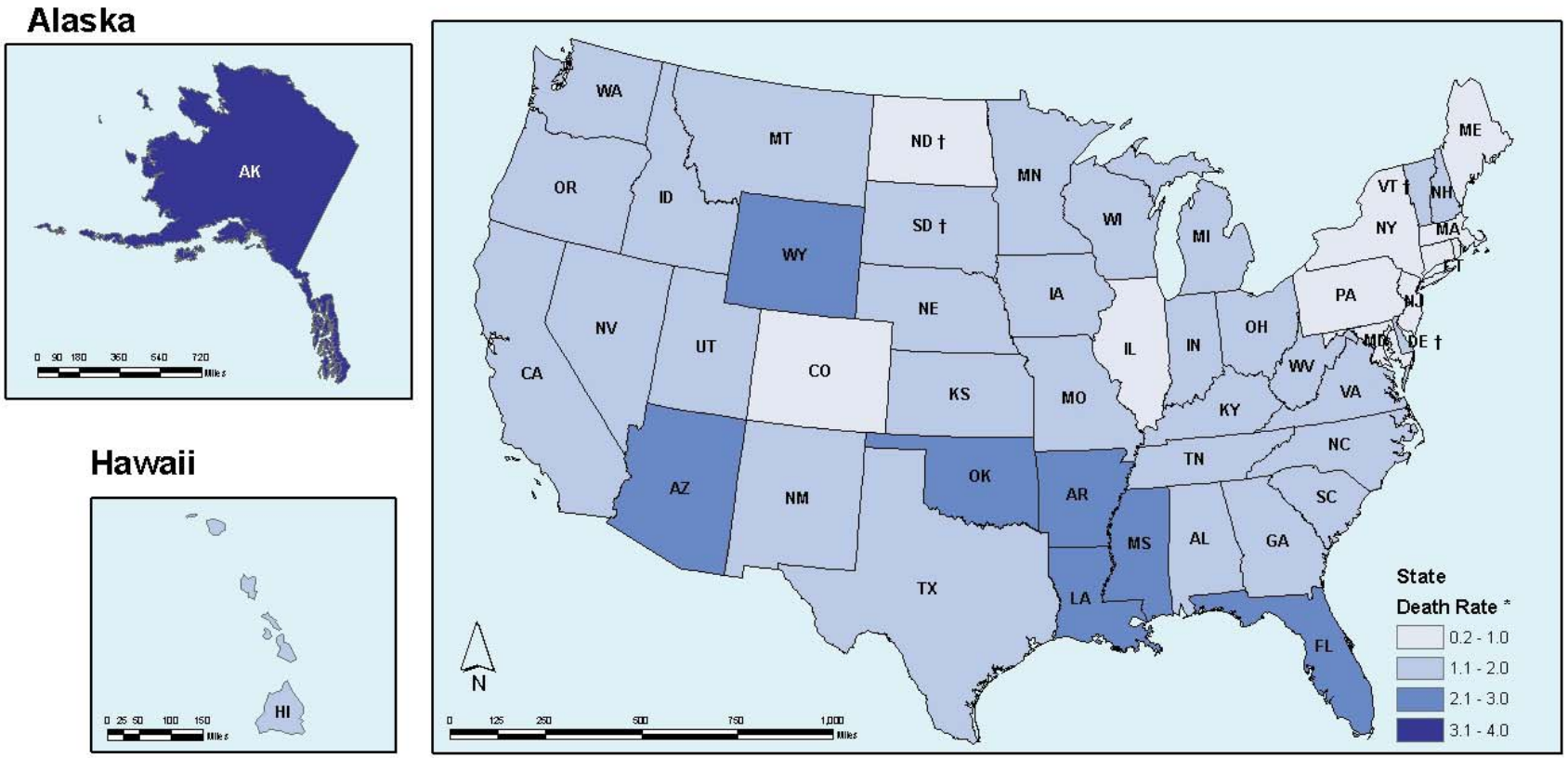
State death rates from drowning varied from 0.7 per 100,000 to 3.9 per 100,000. (Fig 24 and Map 7)

Figure 24: Unintentional Injury Death Rates due to Drowning among Children 0 to 19 Years, by State, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

* The injury death rate is suppressed if fewer than 20 deaths were reported



Map 7: Unintentional Injury Death Rates due to Drowning among Children 0 to 19 Years, by State, United States, 2000 - 2005

* Death Rate per 100,000 Population

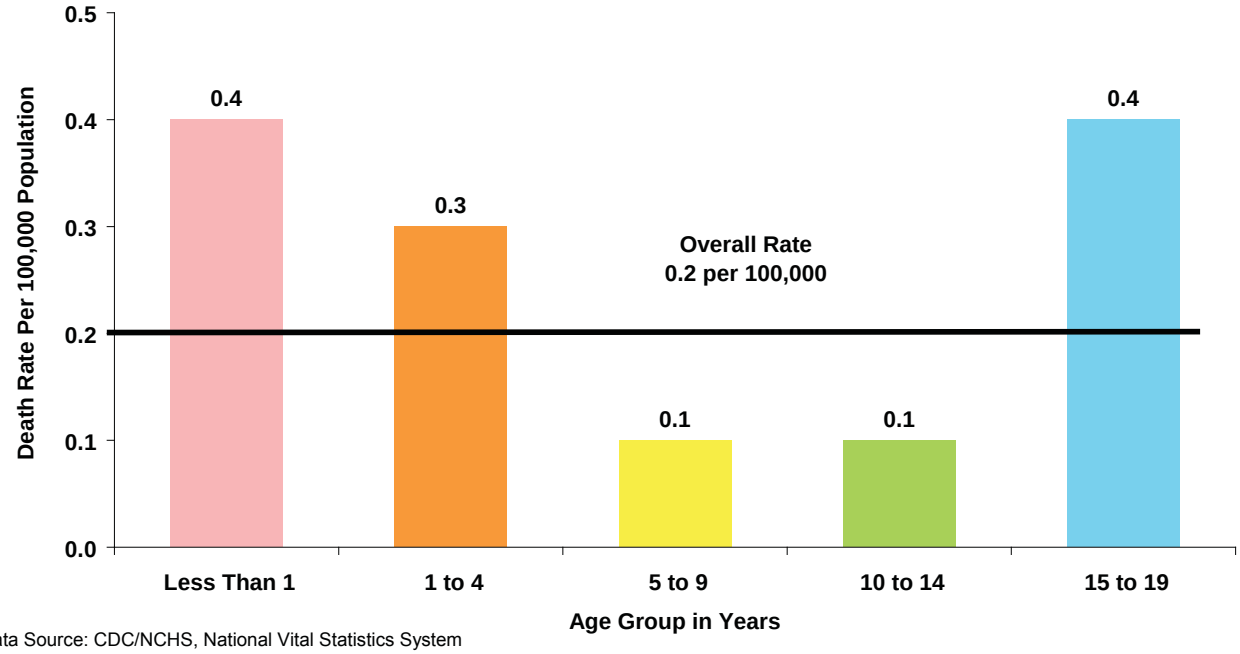
Data Source: CDC/NCHS, National Vital Statistics System

† For the following States the injury death rate is based on fewer than 20 deaths; therefore, they are considered unreliable: DC, DE, ND, RI, SD & VT

4.9.2: Injury Deaths due to Falls

Injuries from falls represented 2% of unintentional injury deaths among children 0 to 19 years of age. The death rate for fall-related injuries was 0.2 per 100,000. Males had death rates nearly three times higher than females (0.3 vs. 0.1 per 100,000). (Fig 8) The rates were highest among children 15 to 19 years of age (0.4 per 100,000) and children less than 1 year (0.4 per 100,000). (Fig 25)

Figure 25: Unintentional Injury Death Rates due to Falls among Children 0 to 19 Years, by Age Group, United States, 2000 - 2005



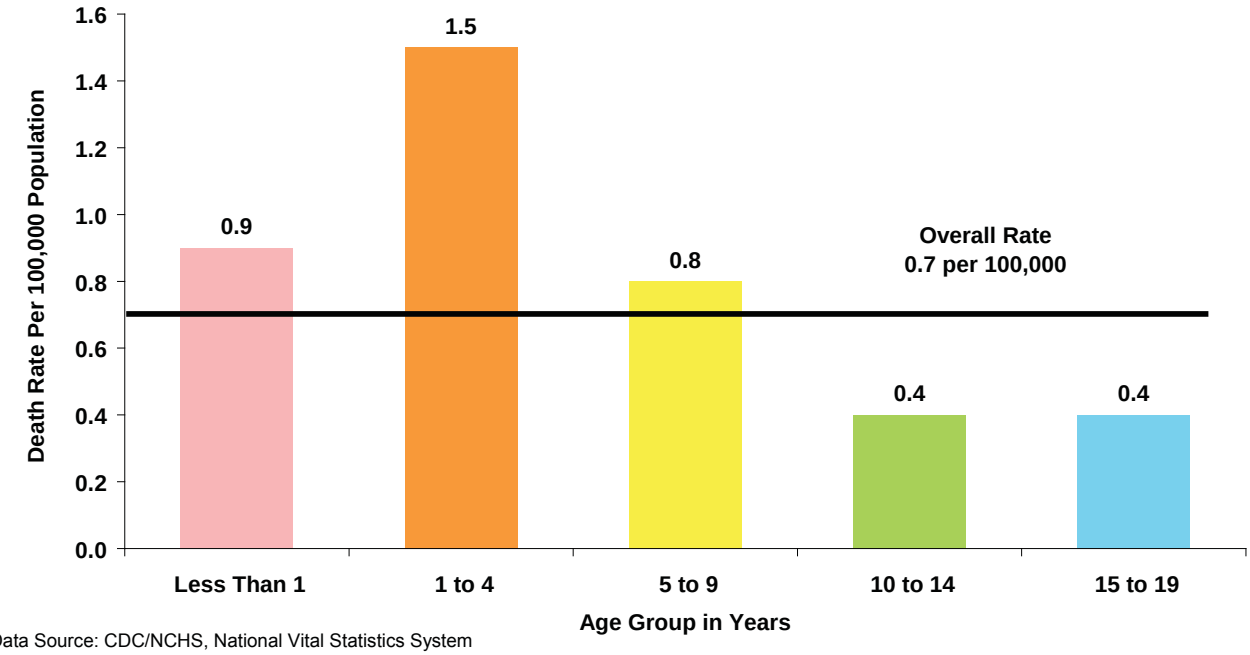
Data Source: CDC/NCHS, National Vital Statistics System

Death rates by state are not presented in a map or figure due to the high percentage of states with unreliable fall-related death rates. There was very little difference among states with reliable fall-related death rates. Appendix 4 presents a listing of the number of deaths per state by cause.

4.9.3: Injury Deaths due to Fires or Burns

Fire or burn-related injuries represented 5% of the unintentional injury deaths among children 0 to 19 years of age. The death rate for fire or burn-related injuries was 0.7 per 100,000. Males had a higher death rate than females (0.8 vs. 0.6 per 100,000). (Fig 8) The rate was highest among children 1 to 4 years (1.5 per 100,000) and lowest among those over age 10 (0.4 per 100,000). (Fig 26)

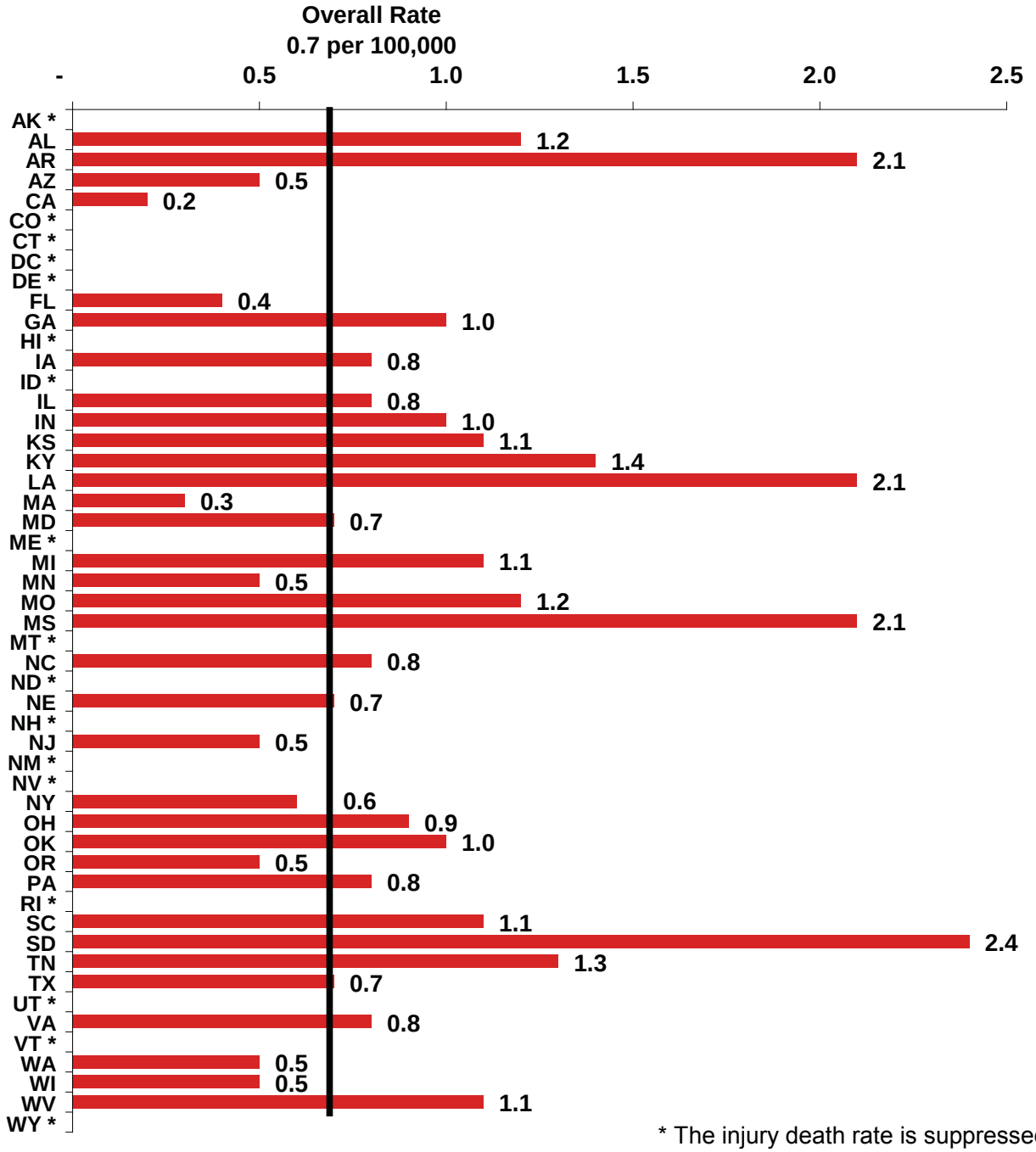
Figure 26: Unintentional Injury Death Rates due to Fires or Burns among Children 0 to 19 Years, by Age Group, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

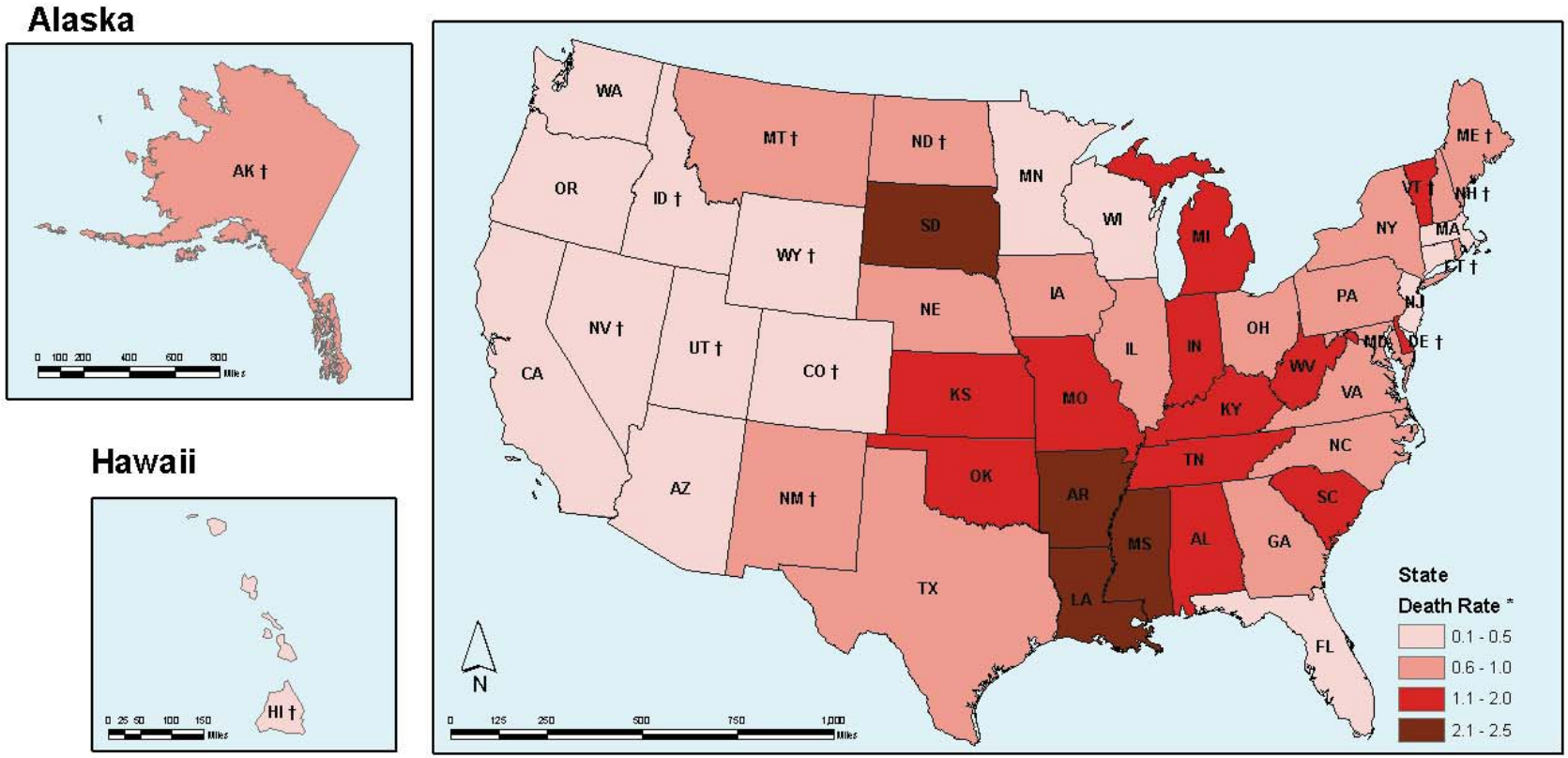
State death rates from fire or burn-related injuries varied from 0.2 per 100,000 to 2.4 per 100,000. (Fig 27 and Map 8)

Figure 27: Unintentional Injury Death Rates due to Fires or Burns among Children 0 to 19 Years, by State, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

* The injury death rate is suppressed if fewer than 20 deaths were reported



Map 8: Unintentional Injury Death Rates due to Fires or Burns among Children 0 to 19 Years, by State, United States, 2000 - 2005

* Death Rate per 100,000 Population

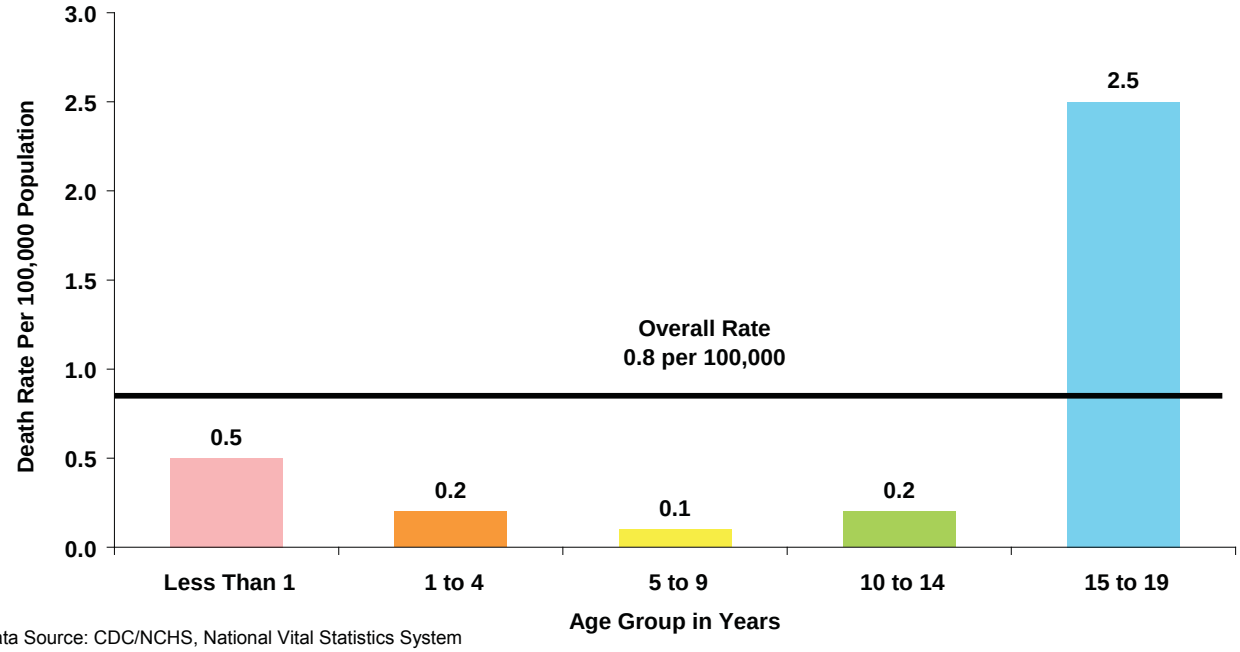
Data Source: CDC/NCHS, National Vital Statistics System

† For the following states the injury death rate is based on fewer than 20 deaths; therefore, they are considered unreliable: AK, CO, CT, DC, DE, HI, ID, ME, MT, ND, NM, NH, NV, RI, UT, VT & WY

4.9.4: Injury Deaths due to Poisoning

Poisoning represented 5% of the unintentional injury deaths among children 0 to 19 years of age. The death rate for poisoning was 0.8 per 100,000. Males had death rates twice as high as females (1.1 vs. 0.4 per 100,000). (Fig 8) The rate was highest among children 15 to 19 years of age (2.5 per 100,000) and lowest among those 5 to 9 years (0.1 per 100,000). (Fig 28)

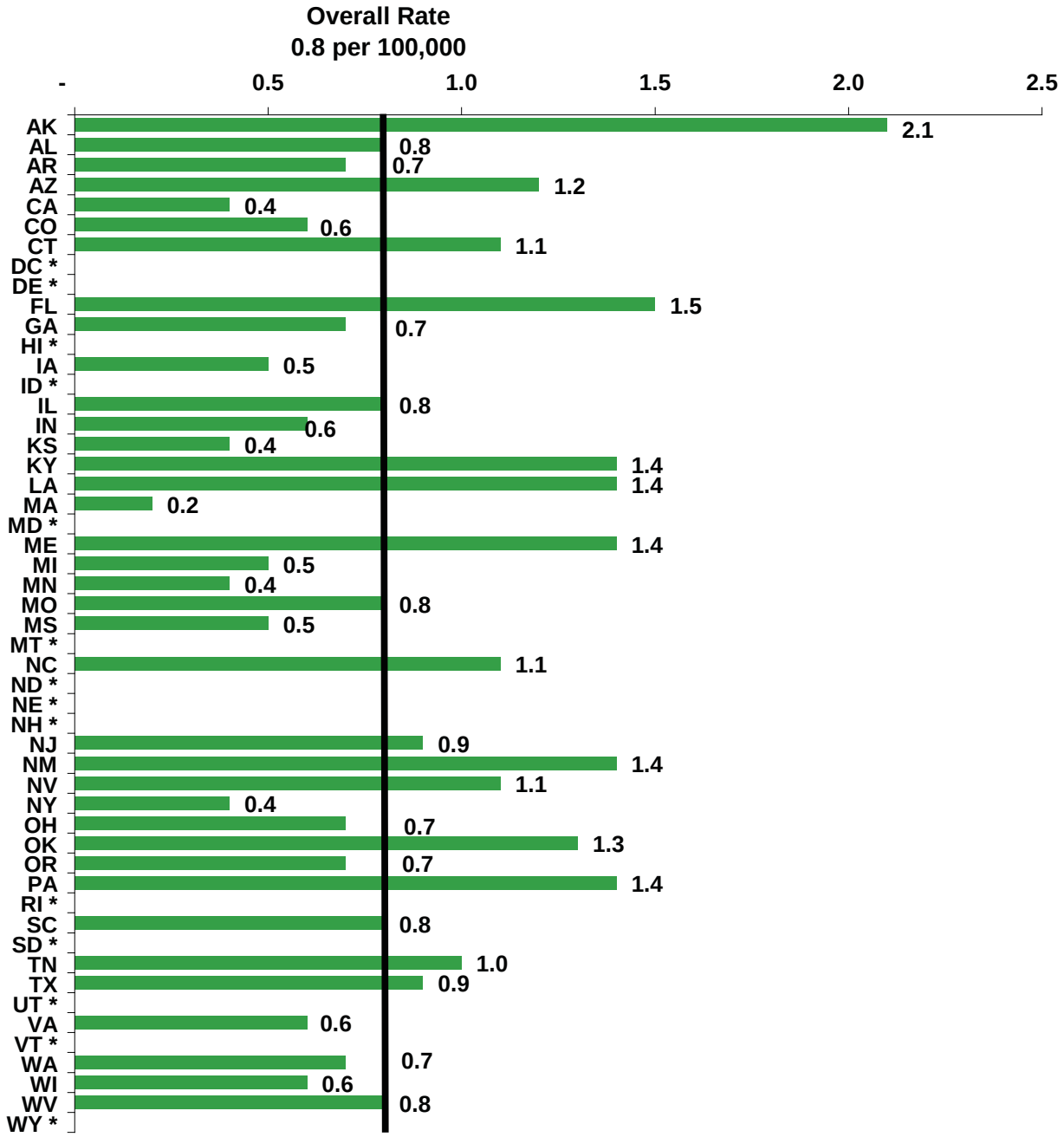
Figure 28: Unintentional Injury Death Rates due to Poisoning among Children 0 to 19 Years, by Age Group, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

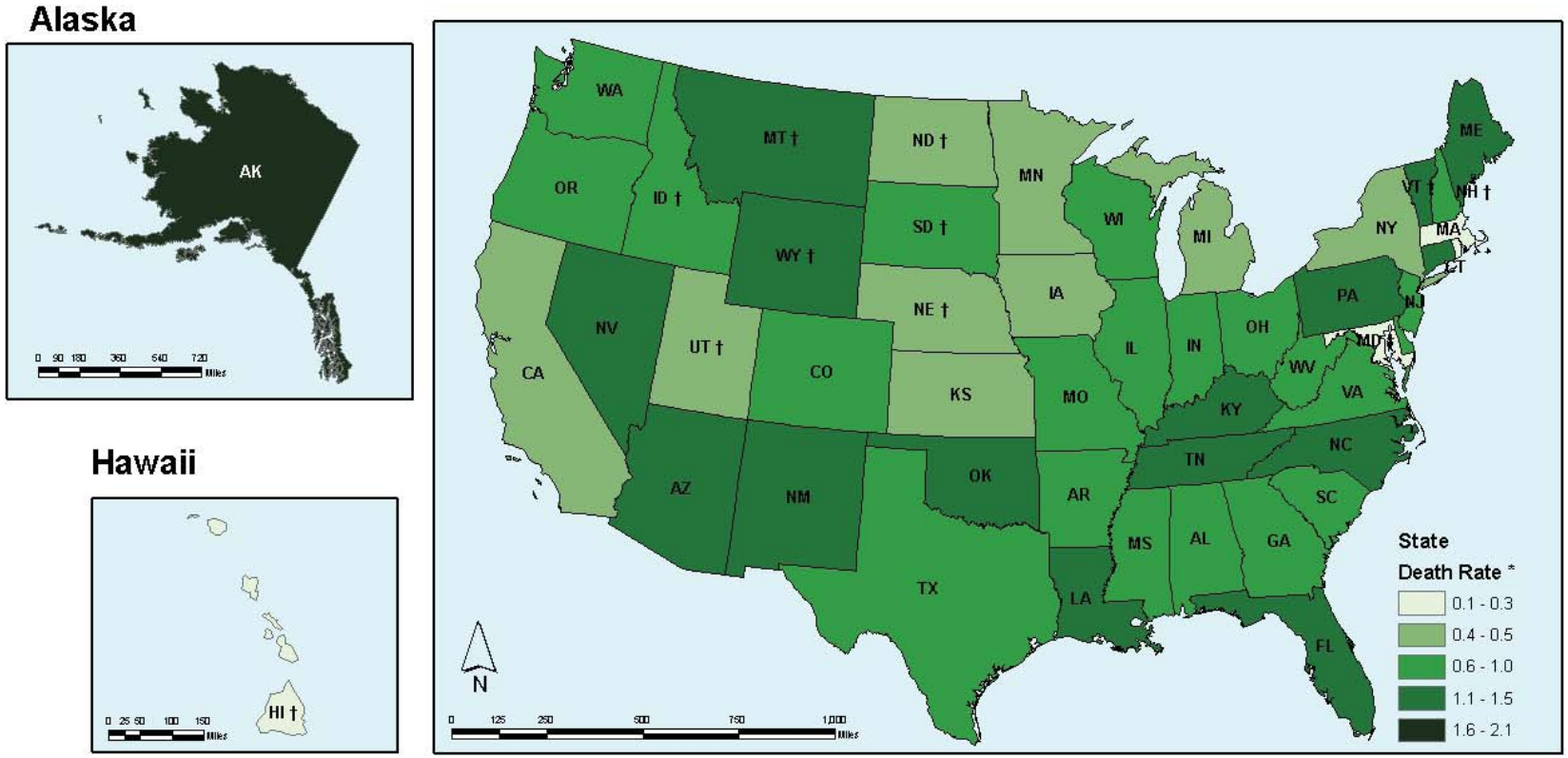
State death rates from poisoning varied from 0.2 per 100,000 to 2.1 per 100,000. (Fig 29 and Map 9)

Figure 29: Unintentional Injury Death Rates due to Poisoning among Children 0 to 19 Years, by State, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

* The injury death rate is suppressed if fewer than 20 deaths were reported



Map 9: Unintentional Injury Death Rates due to Poisoning among Children 0 to 19 Years, by State, United States, 2000 - 2005

* Death Rate per 100,000 Population

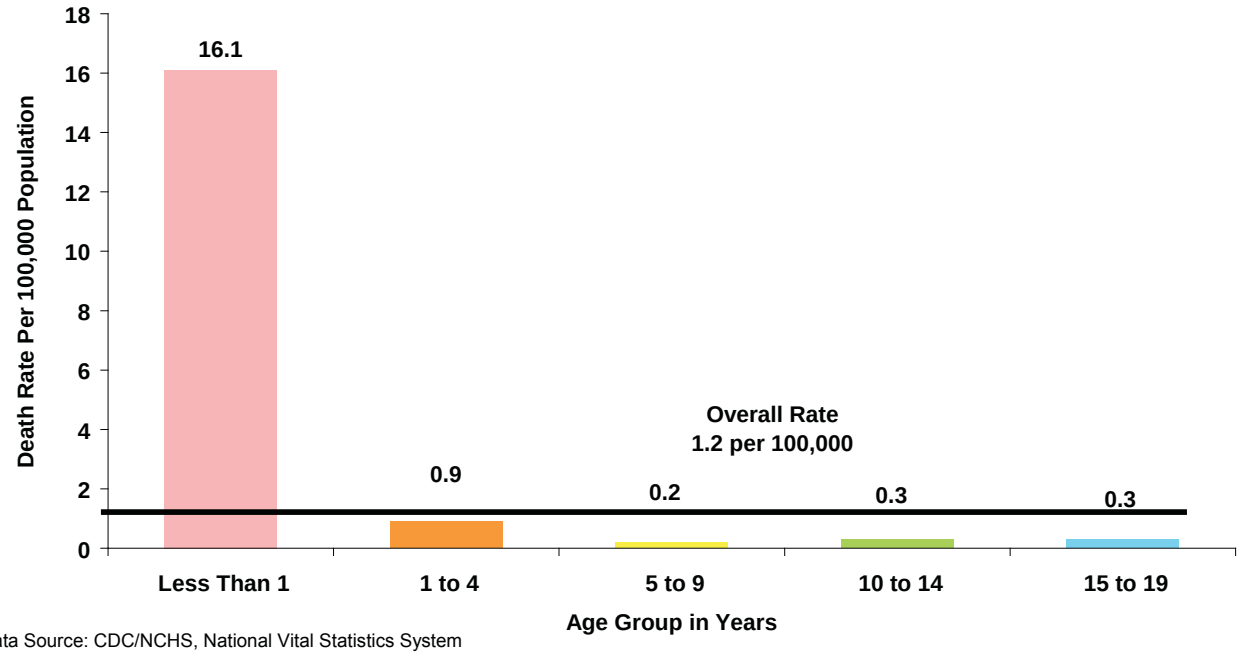
Data Source: CDC/NCHS, National Vital Statistics System

† For the following States the injury death rate is based on fewer than 20 deaths; therefore, they are considered unreliable: DC, DE, HI, ID, MD, MT, ND, NE, NH, RI, SD, UT, VT & WY

4.9.5: Injury Deaths due to Suffocation

Suffocation represented 8% of the unintentional injury deaths among children 0 to 19 years of age. The death rate for suffocation was 1.2 per 100,000. Males had higher death rates than females (1.4 vs. 0.9 per 100,000). (Fig 8) The rate was highest among children less than 1 year of age (16.1 per 100,000). Suffocation was the leading cause of injury death in children less than 1 year of age. (Fig 30)

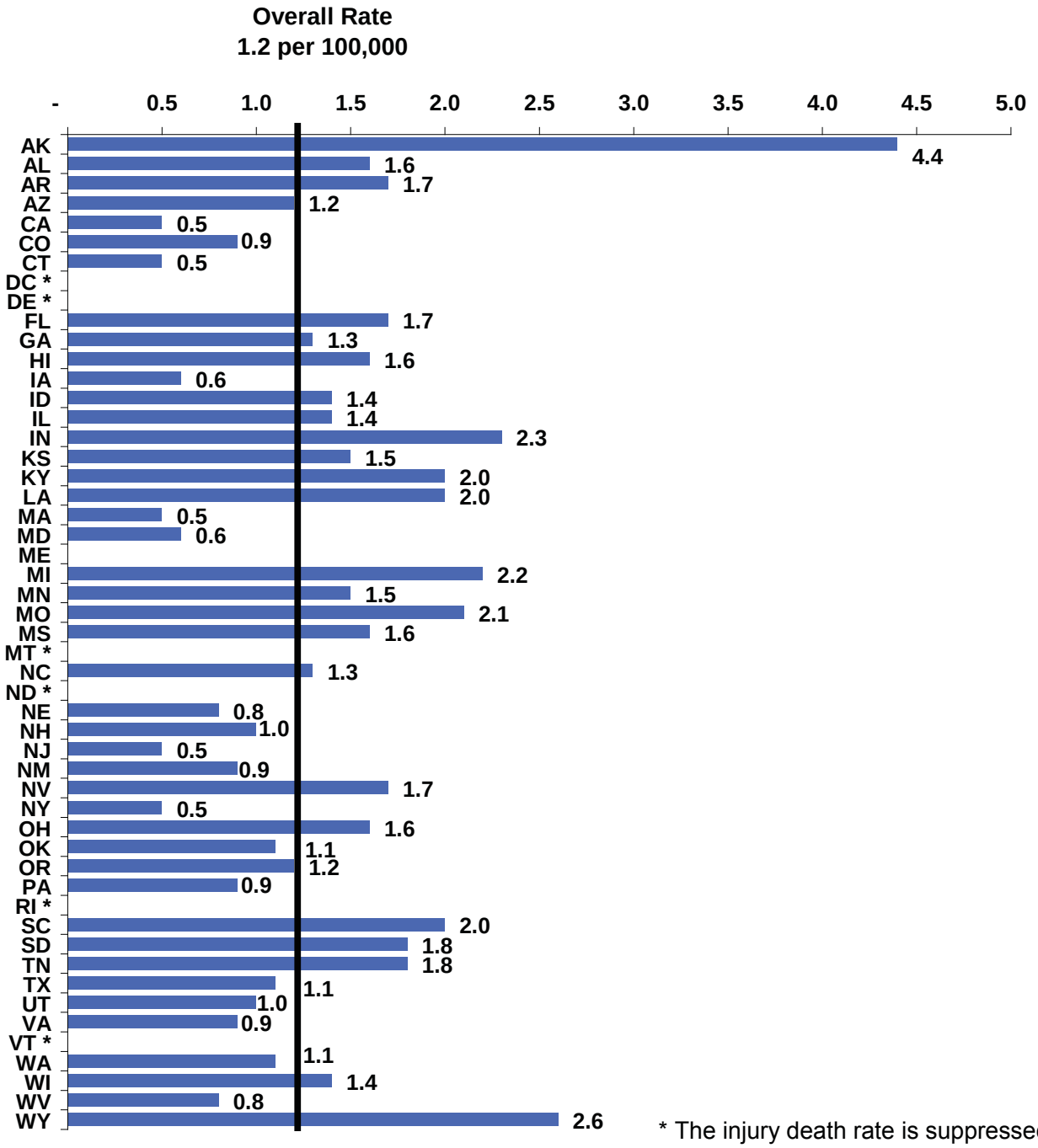
Figure 30: Unintentional Injury Death Rates due to Suffocation among Children 0 to 19 Years, by Age Group, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

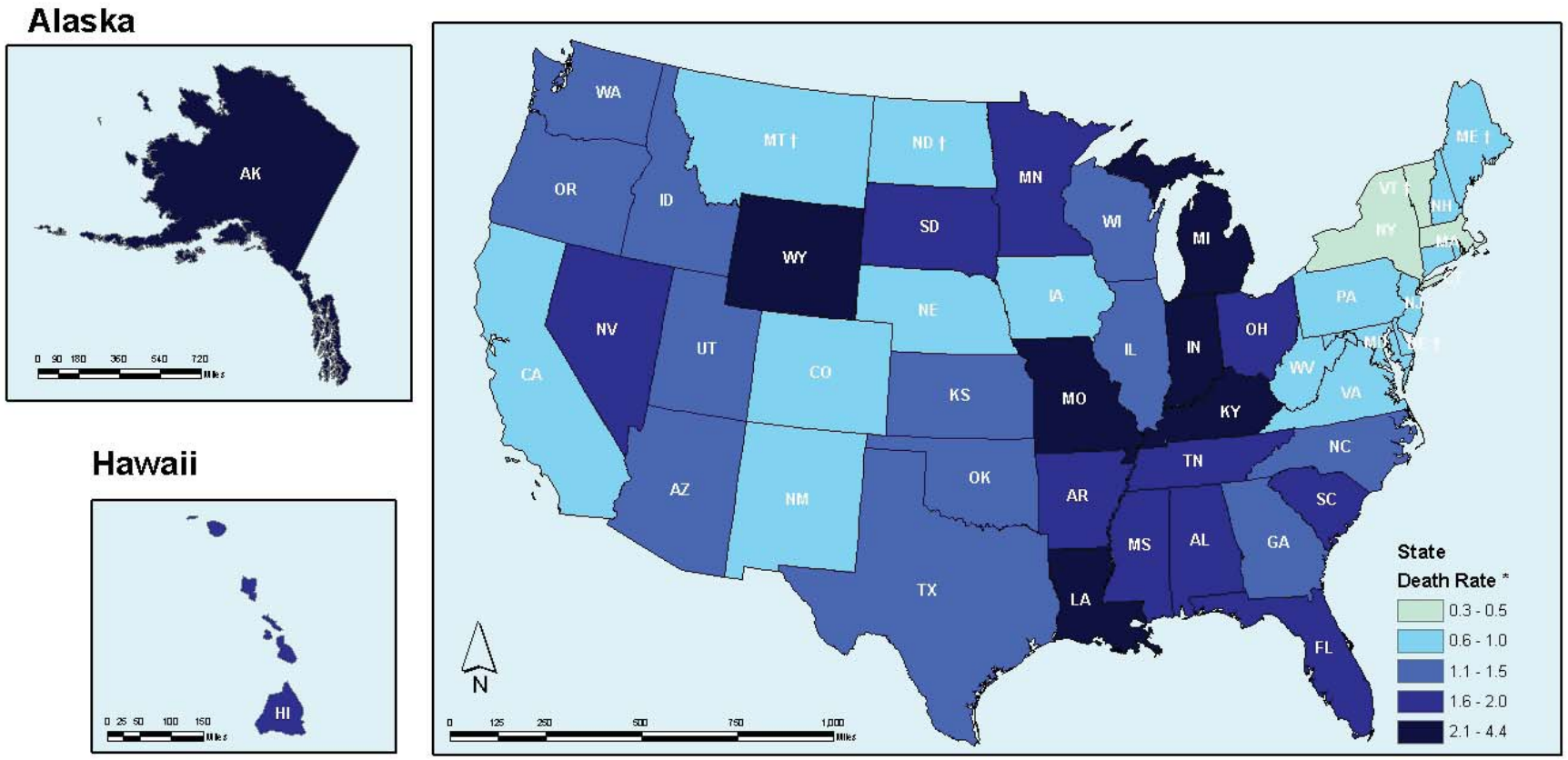
State death rates from suffocation varied from 0.5 per 100,000 to 4.4 per 100,000. (Fig 31 and Map 10)

Figure 31: Unintentional Injury Death Rates due to Suffocation among Children 0 to 19 Years, by State, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

* The injury death rate is suppressed if fewer than 20 deaths were reported



Map 10: Unintentional Injury Death Rates due to Suffocation among Children 0 to 19 Years, by State, United States, 2000 - 2005

* Death Rate per 100,000 Population

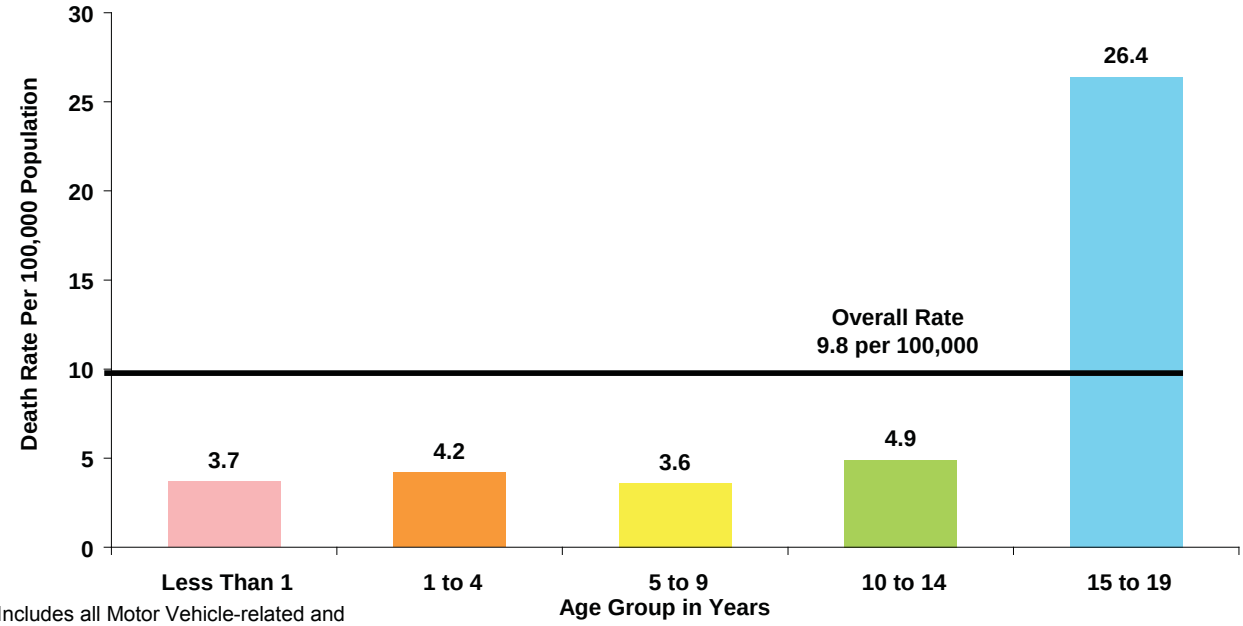
† For the following States the injury death rate is based on fewer than 20 deaths; therefore, they are considered unreliable: DC, DE, ME, MT, ND, RI, SD & VT

Data Source: CDC/NCHS, National Vital Statistics System

4.9.6: Injury Deaths related to Transportation

Transportation-related injuries represented 66% of the unintentional injury deaths among children 0 to 19 years of age. These deaths occur among all road user types (e.g., MVT occupants, pedestrians and pedal cyclists) and all vehicle types. The death rate for transportation-related injuries was 9.8 per 100,000. Males had death rates nearly twice as high than females (12.4 vs. 7.2 per 100,000). The rate was highest among those 15 to 19 years of age (26.4 per 100,000) and lowest among those 5 to 9 years and those less than 1 year (3.6 and 3.7 per 100,000, respectively). (Fig 32)

Figure 32: Unintentional Injury Death Rates due to Transportation-related Injuries* among Children 0 to 19 Years, by Age Group, United States, 2000 - 2005

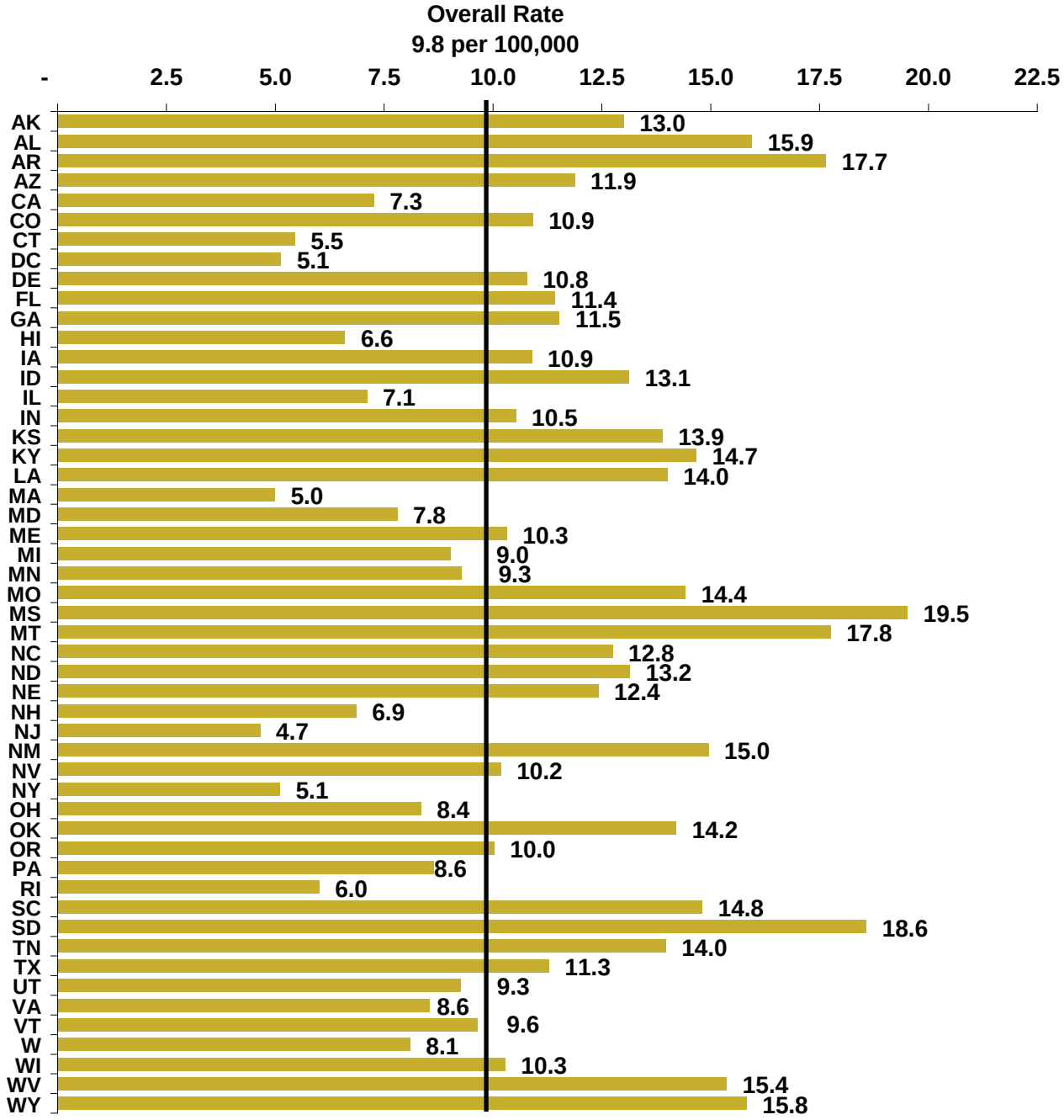


* Includes all Motor Vehicle-related and Other Transportation-related Injuries

Data Source: CDC/NCHS, National Vital Statistics System

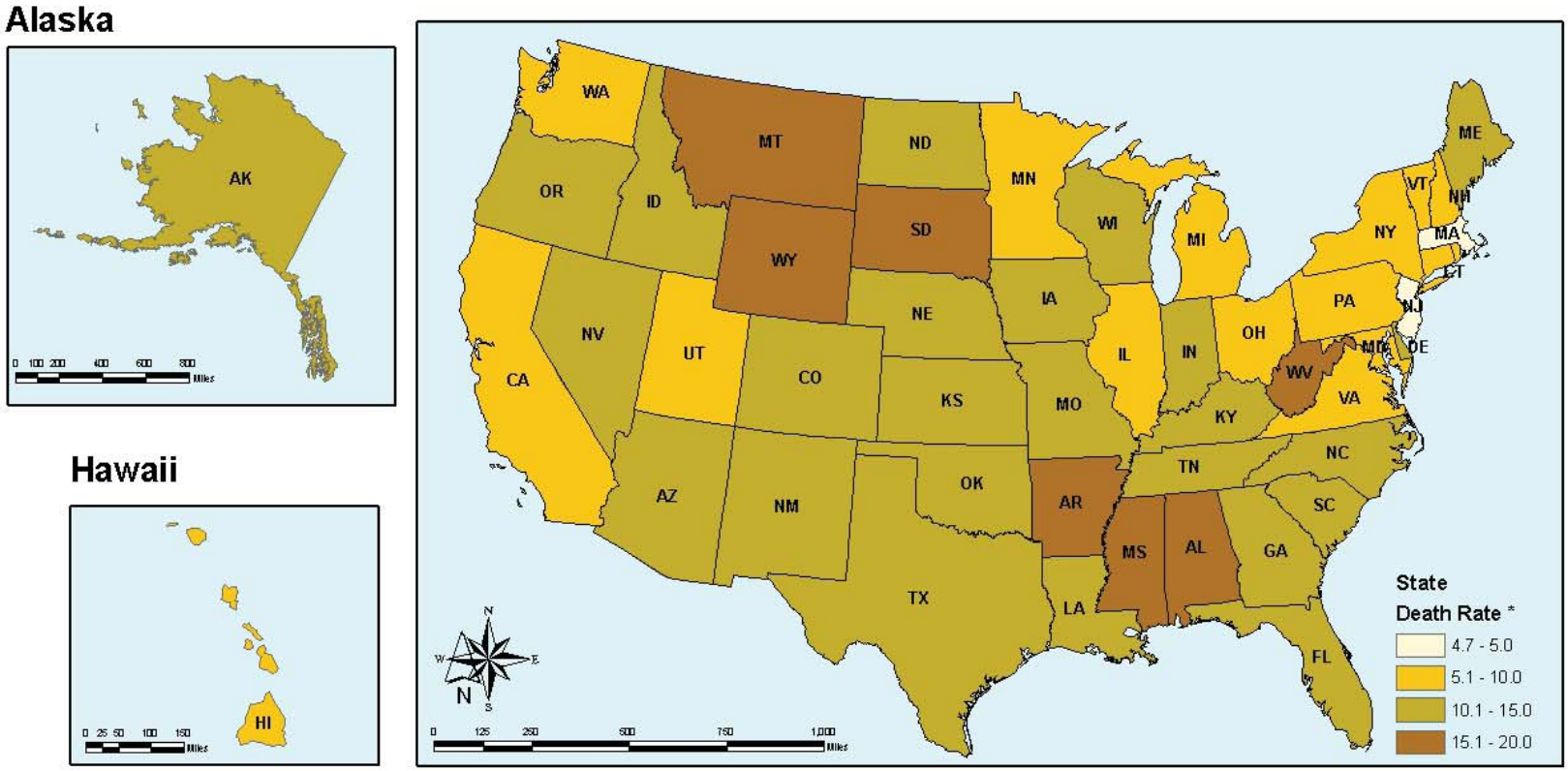
State death rates from transportation-related injuries varied from 4.7 per 100,000 to 19.5 per 100,000. (Fig 33 and Map 11)

Figure 33: Unintentional Injury Death Rates due to Transportation-related Injuries* among Children 0 to 19 Years, by State, United States, 2000 - 2005



* Includes all Motor Vehicle-related and Other Transportation-related Injuries

Data Source: CDC/NCHS, National Vital Statistics System



Map 11: Unintentional Injury Death Rates due to Transportation-related Injuries † among Children 0 to 19 Years, by State, United States, 2000 - 2005

* Death Rate per 100,000 Population

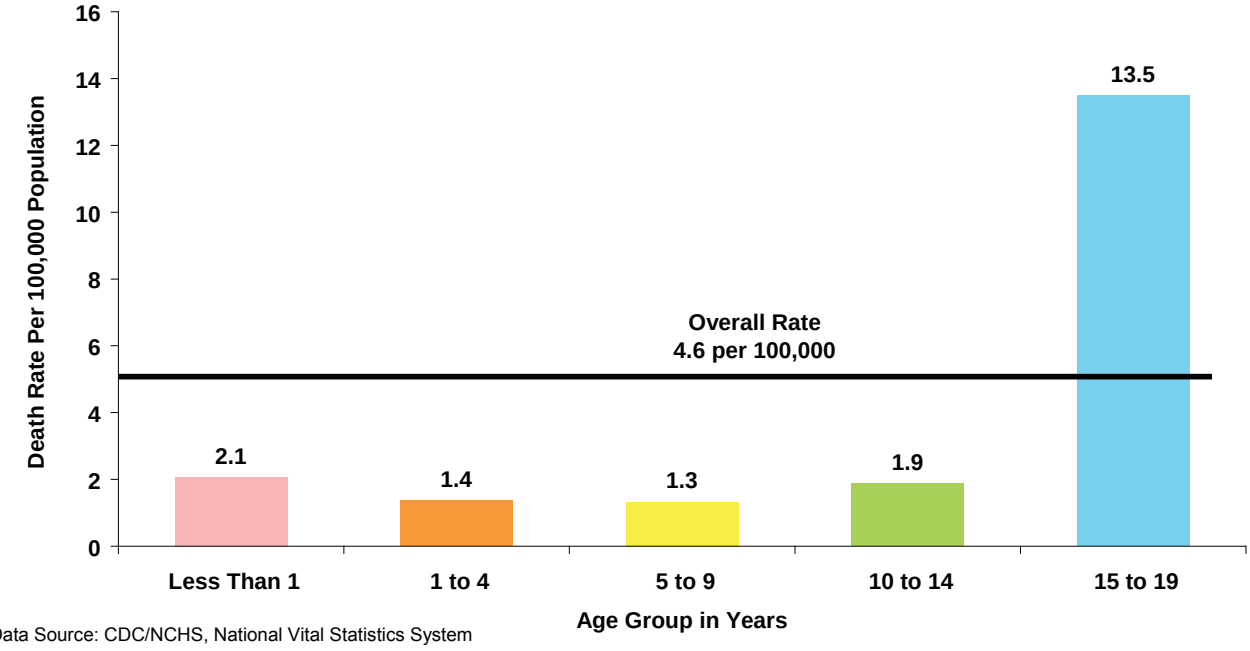
† Includes all MV traffic- and Transportation-related Injuries

Data Source: CDC/NCHS, National Vital Statistics System

Deaths due to MVT Occupant Injuries

MVT occupant injuries represented 31% of the unintentional injury deaths among children 0 to 19 years of age. The death rate for MVT occupant injuries was 4.6 per 100,000. Males had death rates nearly twice as high as females (5.6 vs. 3.6 per 100,000). (Fig 8) The rate was highest among children 15 to 19 years of age (13.5 per 100,000) and lowest among those 5 to 9 years and those 1 to 4 years of age (1.3 and 1.4 per 100,000, respectively). (Fig 34)

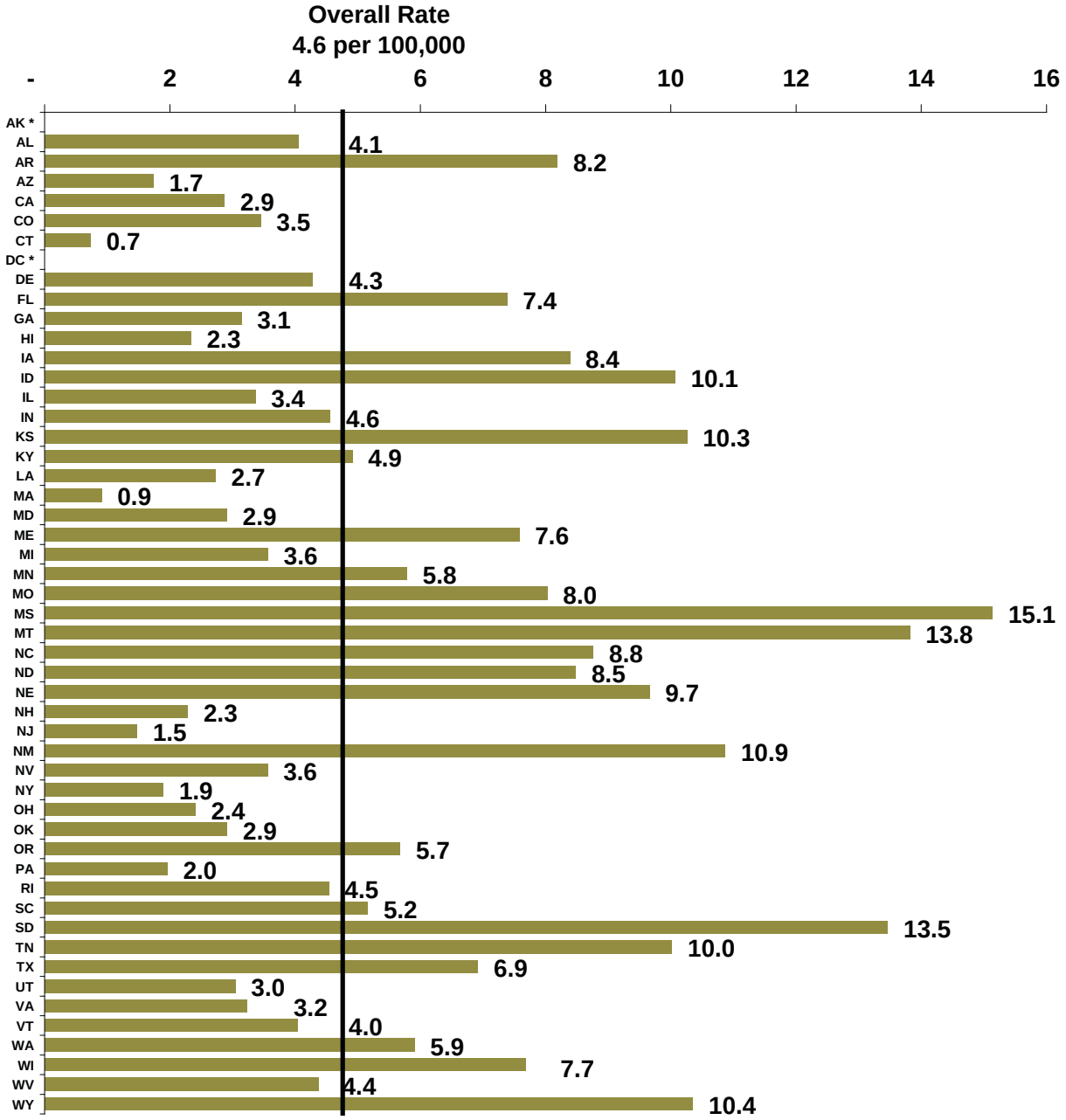
Figure 34: Unintentional Injury Death Rates due to Motor Vehicle Traffic-Occupant Injuries among Children 0 to 19 Years, by Age Group, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

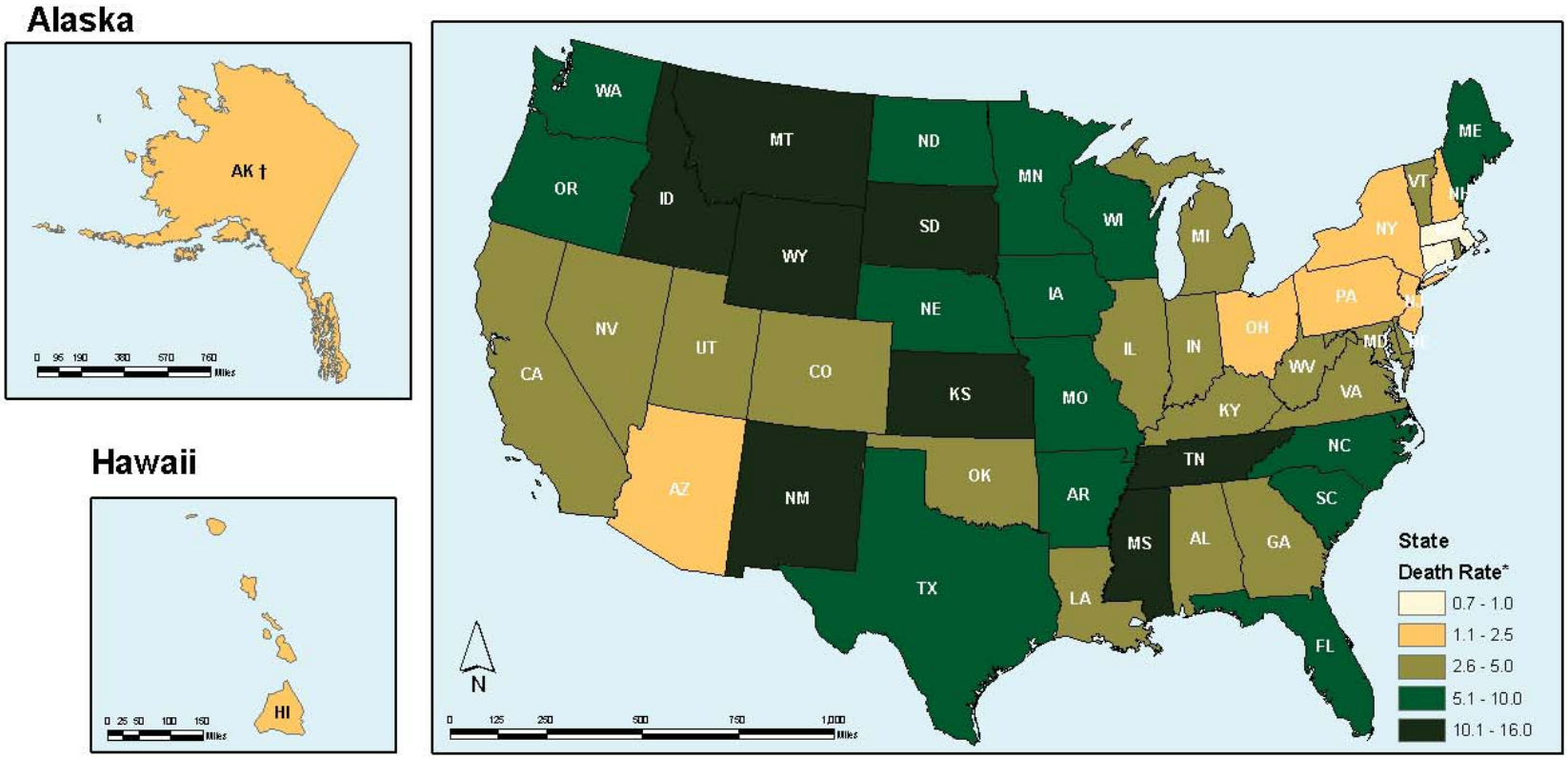
State death rates from MVT occupant injuries varied from 0.7 per 100,000 to 15.1 per 100,000. (Fig 35 and Map 12)

Figure 35: Unintentional Injury Death Rates due to Motor Vehicle Traffic - Occupant Injuries among Children 0 to 19 Years, by State, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

* The injury death rate is suppressed if fewer than 20 deaths were reported



Map 12: Unintentional Injury Death Rates due to Motor Vehicle Traffic - Occupant Injuries among Children 0 to 19 Years, by State, United States, 2000 - 2005

* Death Rate per 100,000 Population

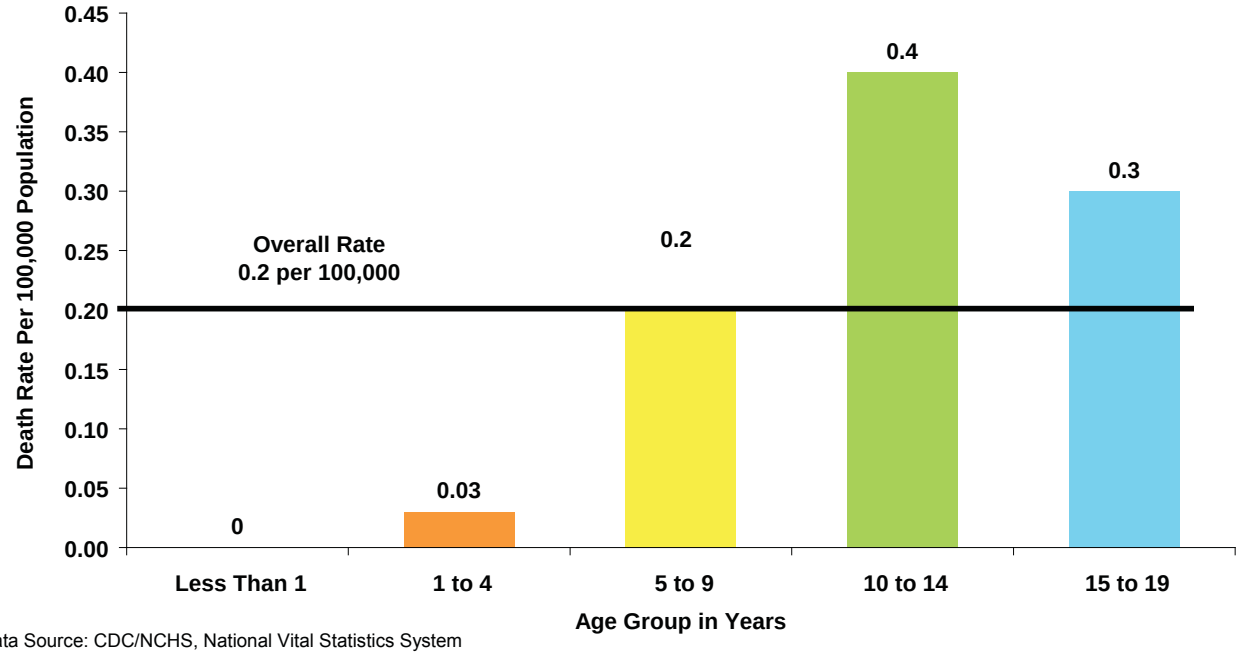
Data Source: CDC/NCHS, National Vital Statistics System

† For the following States the injury death rate is based on fewer than 20 deaths; therefore, they are considered unreliable: AK & DC

Deaths due to Pedal Cyclist Injuries

Pedal cyclist injuries represented 2% of the unintentional injury deaths among children 0 to 19 years of age. The death rate for pedal cyclist injuries was 0.2 per 100,000. Males had death rates nearly four times higher than females (0.4 vs. 0.1 per 100,000). (Fig 8) The rate was highest among children 10 to 14 years of age (0.4 per 100,000). (Fig 36)

Figure 36: Unintentional Injury Death Rates due to Pedal Cyclist Injuries among Children 0 to 19 Years, by Age Group, United States, 2000 - 2005



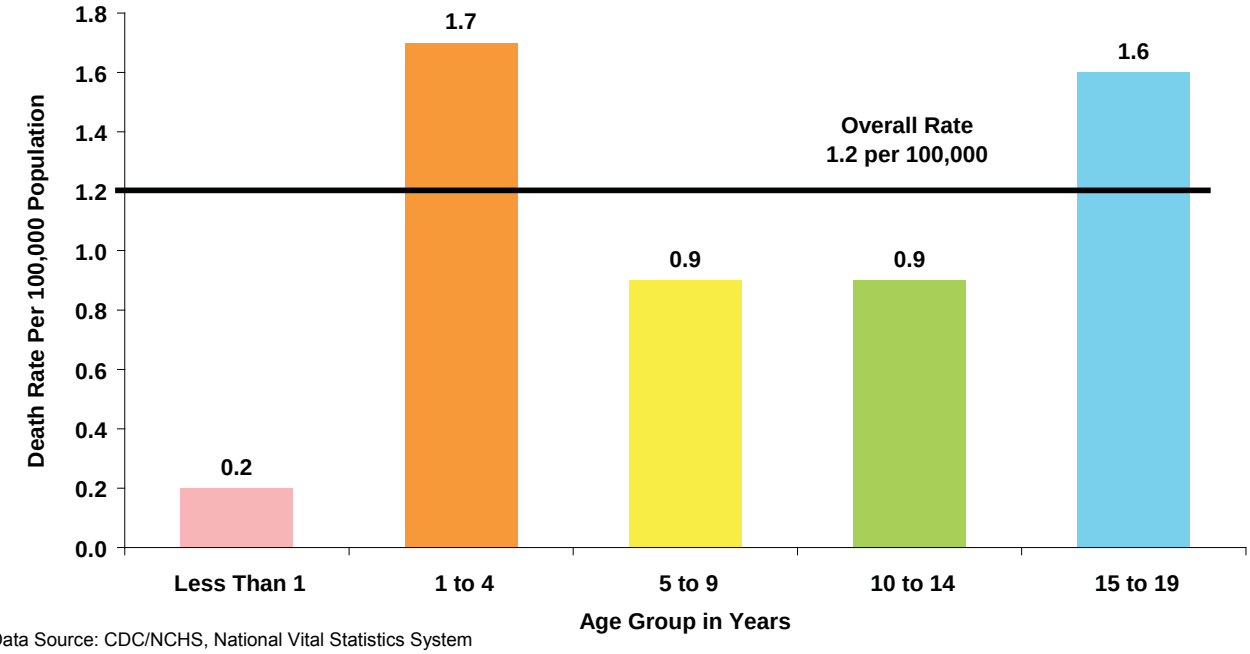
Data Source: CDC/NCHS, National Vital Statistics System

Death rates by state are not presented in a map or figure due to the high percentage of states with unreliable pedal cyclist death rates. There was very little difference among states with reliable death rates. Appendix 4 presents a listing of the number of deaths per state by cause.

Deaths due to Pedestrian Injuries

Pedestrian injuries represented 8% of the unintentional injury deaths among children 0 to 19 years of age. The death rate for pedestrian injury was 1.2 per 100,000. Males had death rates nearly twice as high as females (1.5 vs. 0.8 per 100,000). (Fig 8) The rates were highest among children 1 to 4 years of age (1.7 per 100,000) and those 15 to 19 years of age (1.6 per 100,000). (Fig 37)

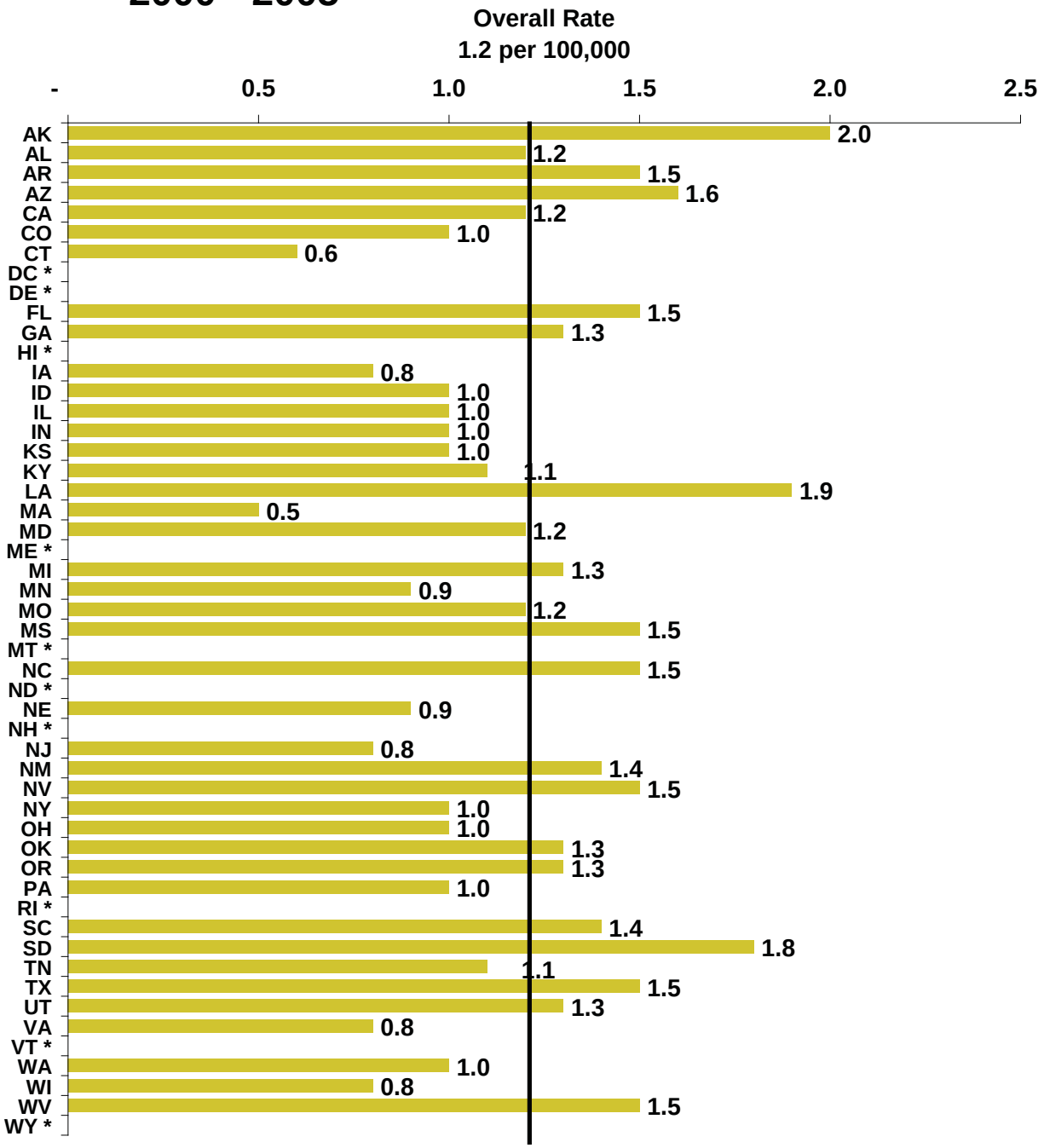
Figure 37: Unintentional Injury Death Rates due to Pedestrian Injuries among Children 0 to 19 Years, by Age Group, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

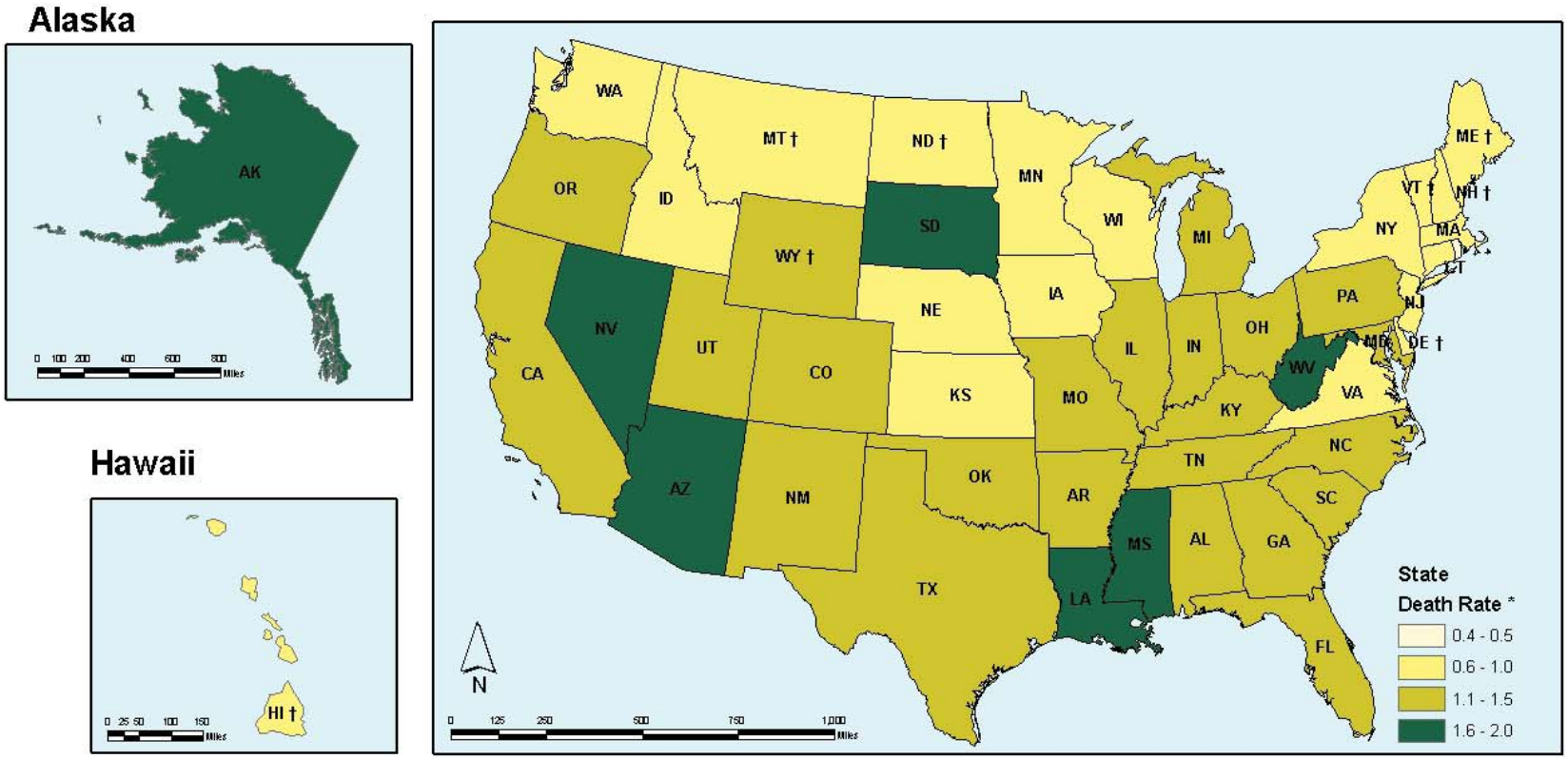
State death rates from pedestrian injuries varied from 0.5 per 100,000 to 2.0 per 100,000. (Fig 38 & Map 13)

Figure 38: Unintentional Injury Death Rates due to Pedestrian Injuries among Children 0 to 19 Years, by State, United States, 2000 - 2005



Data Source: CDC/NCHS, National Vital Statistics System

* The injury death rate is suppressed if fewer than 20 deaths were reported



Map 13: Unintentional Injury Death Rates due to Pedestrian Injuries among Children 0 to 19 Years, by State, United States, 2000 - 2005

* Death Rate per 100,000 Population

† For the following States the injury death rate is based on fewer than 20 deaths; therefore, they are considered unreliable: DC, DE, HI, ME, MT, ND, NH, RI, VT & WY

Data Source: NCHS Mortality Data 2000 - 2005

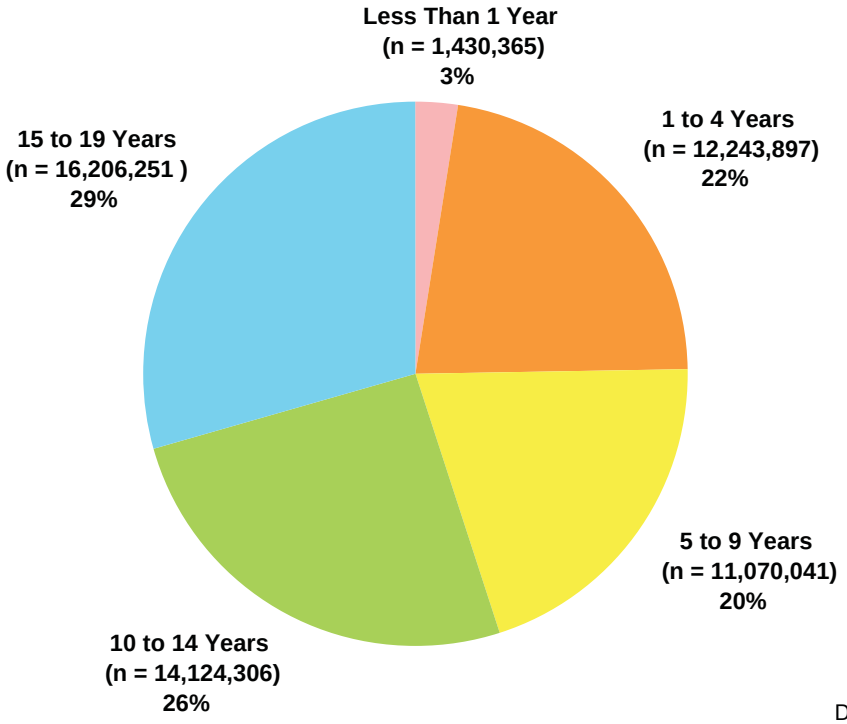
Nonfatal Unintentional Injury, 2001 – 2006

5: Nonfatal Unintentional Injury Estimates among Children 0 to 19 Years, United States, 2001 – 2006

5.1: Nonfatal Injuries by Age Group

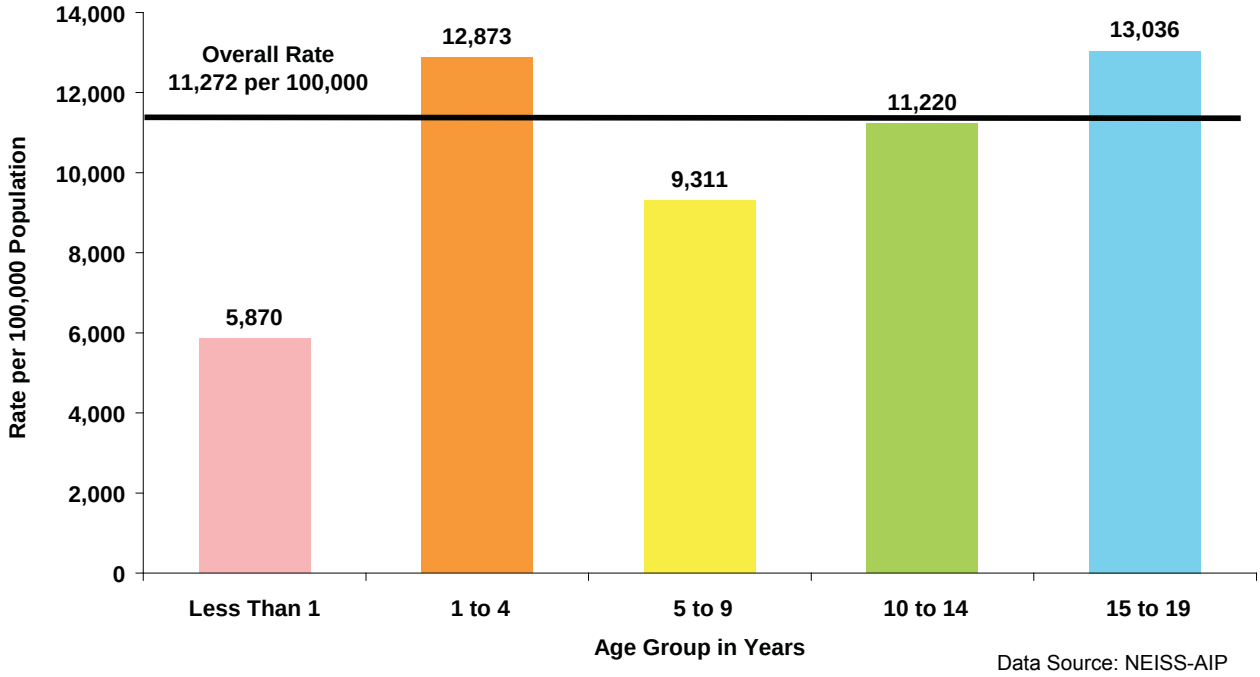
During the entire study period, there were an estimated 55 million nonfatal injuries among children 0 to 19 years of age, or an average of 9.2 million per year. From 2001-2006, an estimated 16.2 million or 29% occurred among those 15 to 19 years of age, for a nonfatal unintentional injury rate of 13,036 per 100,000 population. (Fig 39) The lowest rate (5,870 per 100,000) was found among children less than 1. (Fig 40)

Figure 39: Percent of Nonfatal Unintentional Injuries among Children 0 to 19 Years, by Age Group, United States, 2001 - 2006



Data Source: NEISS-AIP

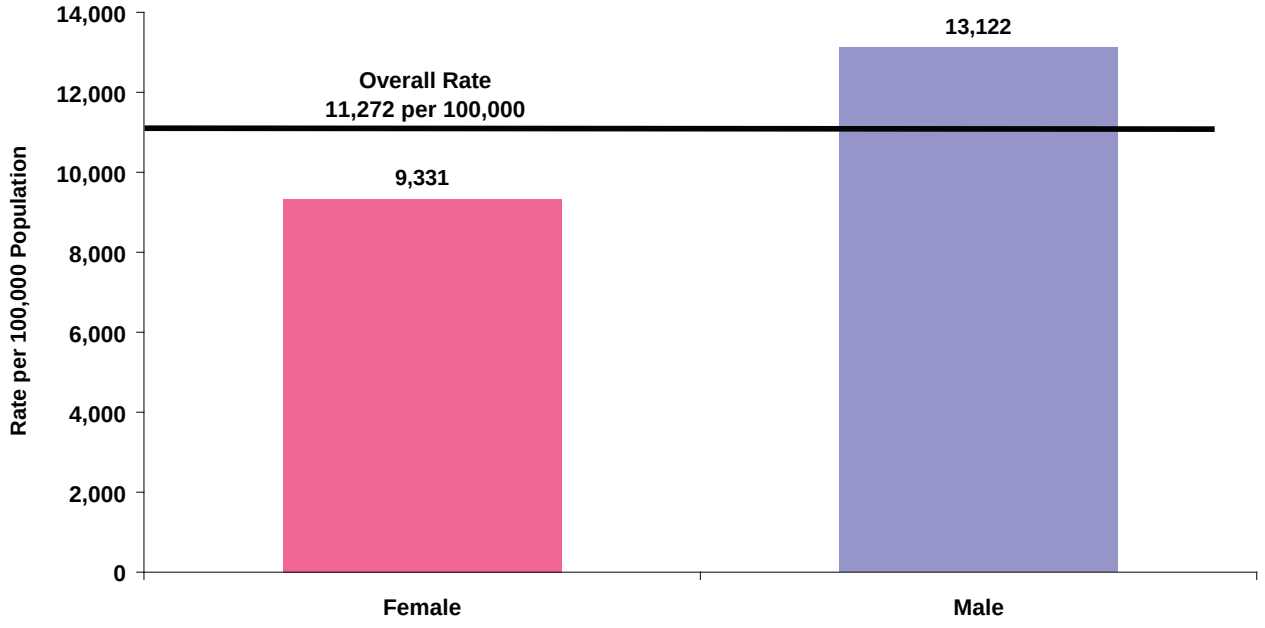
Figure 40: Nonfatal Unintentional Injury Rates among Children 0 to 19 years, by Age Group, United States, 2001 - 2006



5.2: Nonfatal Injuries by Sex and Age Group

Combining all ages, males had higher nonfatal injury rates than females. The nonfatal injury rate among males 0 to 19 years was 13,122 per 100,000 compared with 9,331 per 100,000 among females. (Fig 41) To further examine nonfatal injury rates by sex and cause for each age group, see Appendix 5.

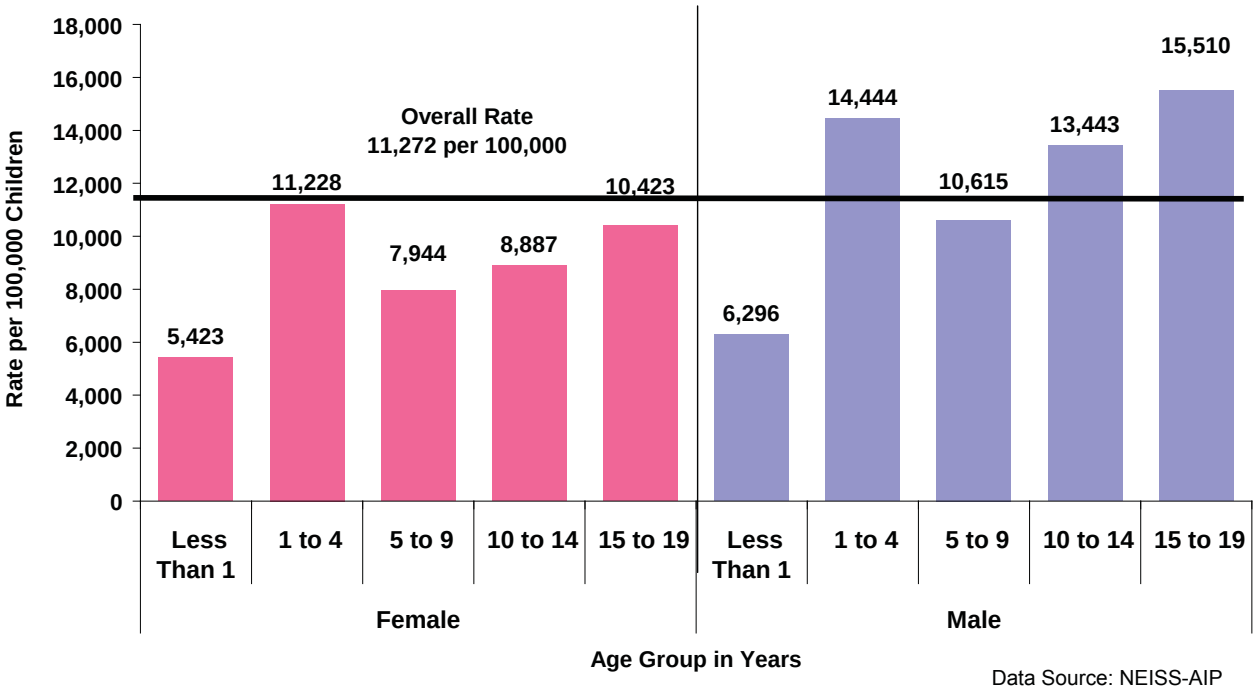
Figure 41: Nonfatal Unintentional Injury Rate among Children 0 to 19 years, by Sex, United States, 2001 - 2006



Data Source: NEISS -AIP

The nonfatal injury rates were higher among males in each age group, except among those less than 1 year where the rates were similar. The rate was 15,510 per 100,000 among males 15 to 19 years of age, about 1.5 times greater than the rate among females in the same age group. The lowest nonfatal injury rates were observed among both males and females less than 1 year of age. (Fig 42)

Figure 42: Nonfatal Unintentional Injury Rates among Children 0 to 19 years, by Age Group and Sex, United States, 2001 - 2006

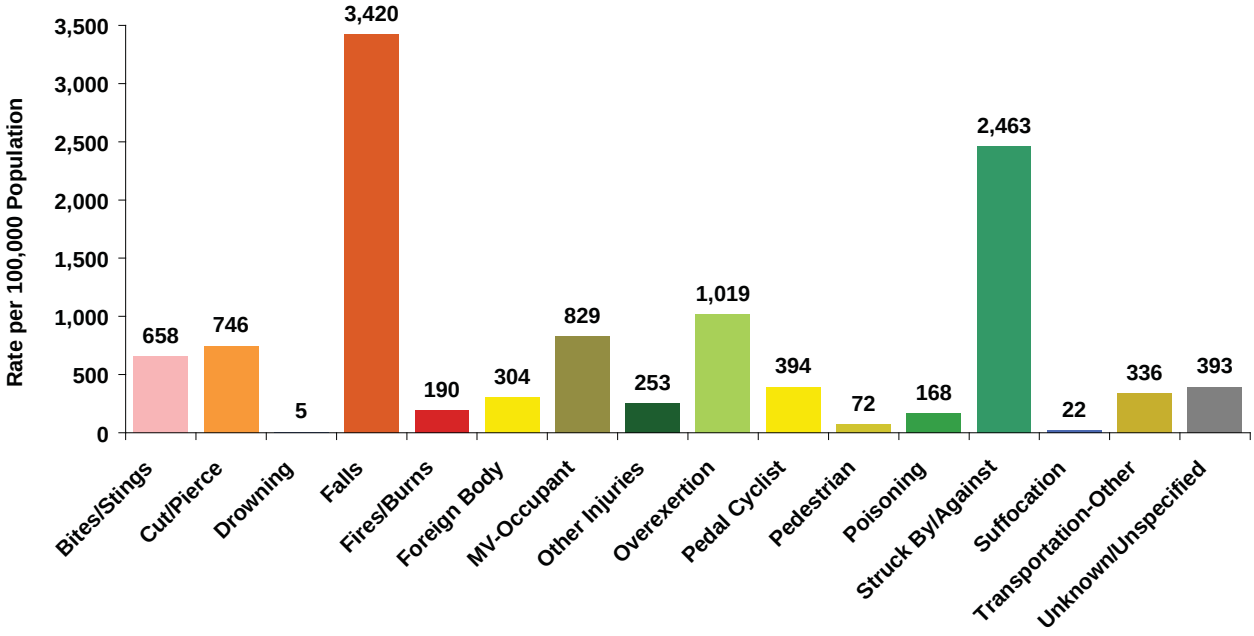


Data Source: NEISS-AIP

5.3: Nonfatal Injuries by Cause

Nonfatal injury rates differed by cause, with the highest rates related to falls (3,420 per 100,000), followed by injuries due to being struck by or against an object. The lowest rate was reported for nonfatal drowning (5 per 100,000). In the graph below, transportation-related injuries are divided into categories based on the road user type: MV-occupants, pedal cyclists, pedestrians, and all others. (Fig 43)

Figure 43: Nonfatal Unintentional Injury Rates among Children 0 to 19 years, by Cause, United States, 2001 - 2006

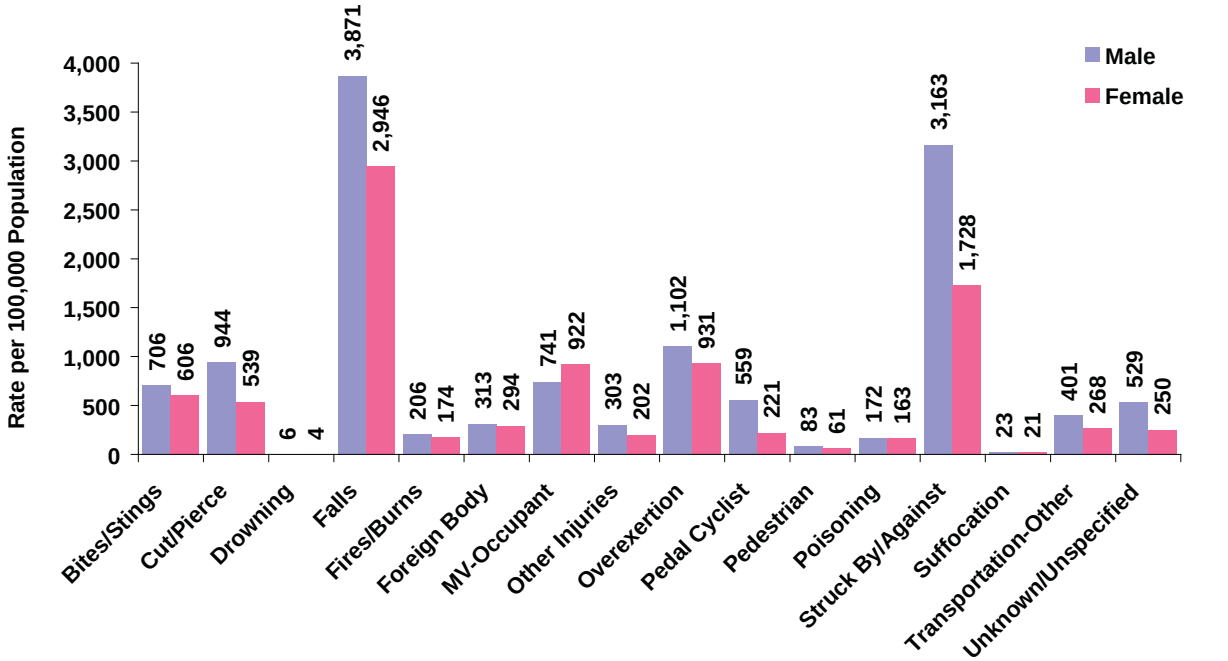


Data Source: NEISS-AIP

5.4: Nonfatal Injuries by Sex and Cause

Nonfatal injury rates for most causes were highest among males (i.e., cut or pierced, falls, transportation-other, pedal cyclist, struck by or against). The nonfatal injury rate among both sexes was highest due to fall-related injuries, followed by being struck by or against an object. (Fig 44)

Figure 44: Nonfatal Unintentional Injury Rates among Children 0 to 19 years, by Sex and Cause, United States, 2001 - 2006



Data Source: NEISS-AIP

5.5: Nonfatal Injuries by Age Group and Cause

The leading causes of nonfatal injury also differed by age group. Fall-related injuries were highest among those less than 1, 1 to 4, 5 to 9 and 10 to 14. For those 15 to 19 years, struck by or against an object was the leading cause of nonfatal injuries, followed by falls, MV occupant, & overexertion, respectively. The nonfatal rate for suffocation was highest among children less than 1 year (150 per 100,000). (Table 6)

Table 6: Nonfatal Unintentional Injury Rates among Children 0 to 19 Years, by Age Group and Cause, United States, 2001 – 2006*

	Age Group in Years				
	Less Than 1	**1 to 4**	**5 to 9**	**10 to 14**	**15 to 19**
Bites/Stings	338	1116	723	495	471
Cut/Pierce	168	558	639	759	1094
Drowning	12	14	3	2	1
Falls	3049	5531	3406	3136	2178
Fire/Burns	282	379	111	96	200
Foreign Body	230	726	287	126	191
Overexertion	156	468	385	1347	1883
Other Injuries	142	254	92	168	516
Poisoning	168	373	45	62	236
Struck By/Against	795	2411	2152	2854	2732
Suffocation	150	48	11	6	4
Transportation					
MV - Occupant	182	279	366	489	2164
MV - Other	43	202	268	401	498
Pedal cyclist	7	175	532	639	258
Pedestrian	5	41	68	88	97
Unknown/Unspecified	142	301	224	552	514

* Data Source: NEISS-AIP

Rates per 100,000 population

5.6: Analysis by Age Group

This section describes nonfatal injury for each age group in more detail. Table 7 displays the leading causes of nonfatal injury among children by age group and rank. For each age group, the total number of nonfatal injuries over the period 2001-2006 is reported, along with the proportion of all nonfatal injuries among each age group that each cause represented.

Among children less than 1 year of age, the majority of nonfatal injuries were due to falls (52%) followed by being struck by or against an object (14%). In those 1 to 4 years of age, the leading cause of nonfatal injury was falls (43%), followed by being struck by or against an object (19%). In those 5 to 9 years of age, the leading cause of nonfatal injury was falls (37%) followed by being struck by or against an object (23%). In those 10 to 14 years of age, the leading causes of nonfatal injury were falls (28%) and being struck by or against an object (25%). In those 15 to 19 years of age, the leading cause of nonfatal injury was being struck by or against an object (21%), followed by falls (17%).

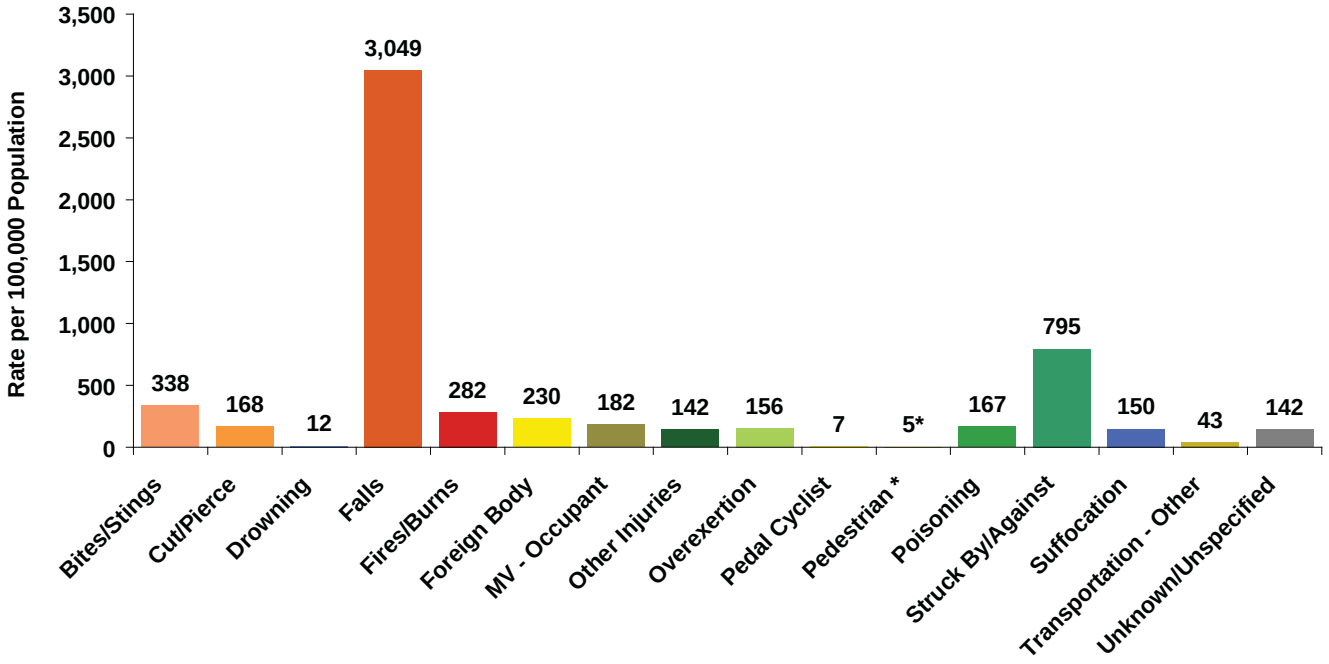
Table 7: Leading Causes of Nonfatal Unintentional Injuries among Children 0 to 19 Years, by Age Group, United States, 2001 – 2006

	Age Group in Years				
Rank	Less Than 1 (n = 1,430,364)	1 to 4 (n= 12,243,896)	5 to 9 (n= 11,070,041)	10 to 14 (n= 14,124,306)	15 to 19 (n= 16,206,250)
1	Falls 52%	Falls 43%	Falls 37%	Falls 28%	Struck By/Ag 21%
2	Struck By/Ag 14%	Struck By/Ag 19%	Struck By/Ag 23%	Struck By/Ag 25%	Falls 17%
3	Bites/Stings 6%	Bites/Stings 9%	Bites/Stings 8%	Overexertion 12%	MV - Occupant 17%
4	Fires/Burns 5%	Foreign Body 6%	Cut/Pierce 7%	Cut/Pierce 7%	Overexertion 14%
5	Foreign Body 4%	Cut/Pierce 4%	Pedal cyclist 6%	Pedal cyclist 6%	Cut/Pierce 8%
6	MV - Occupant 3%	Overexertion 4%	Overexertion 4%	Unknown/ Unspecified 5%	Other Injuries 4%
7	Cut/Pierce 3%	Fires/Burns 3%	MV - Occupant 4%	Bites/Stings 4%	Unknown/ Unspecified 4%
8	Poisoning 3%	Poisoning 3%	Foreign Body 3%	MV - Occupant 4%	MV - Other 4%
9	Overexertion 3%	Unknown/ Unspecified 2%	MV - Other 3%	MV - Other 4%	Bites/S 4%
10	Suffocation 3%	MV - Occupant 2%	Unknown/ Unspecified 2%	Other Injuries 1%	Pedal cyclist 2%
11	Other Injuries 2%	Other Injuries 2%	Fires/Burns 1%	Foreign Body 1%	Poisoning 2%
12	Unknown/ Unspecified 2%	MV - Other 2%	Other Injuries 1%	Fires/Burns 1%	Fires/Burns 2%
13	MV - Other 1%	Pedal cyclist 1%	Pedestrian 1%	Pedestrian 1%	Foreign Body 1%
14	Nonfatal Drowning 0.2%	Suffocation 0.4%	Poisoning 0.5%	Poisoning 1%	Pedestrian 1%
15	Pedal cyclist 0.12%	Pedestrian 0.31%	Suffocation 0.12%	Suffocation 0.05%	Suffocation 0.03%
16	Pedestrian 0.08%	Nonfatal Drowning 0.11%	Nonfatal Drowning 0.03%	Nonfatal Drowning 0.02%	Nonfatal Drowning 0.01%

5.6.1: Nonfatal Injuries among Children Less Than 1 Year

The U.S. nonfatal injury rate among children less than 1 year of age was 5,870 per 100,000. Males in this age group had a nonfatal injury rate of 6,296 per 100,000 and females a rate of 5,423 per 100,000. (Fig 42) Falls resulted in the highest rate of injury (3,049 per 100,000), followed by being struck by or against an object (795 per 100,000). The nonfatal injury rate due to suffocation, which was the leading cause of injury death in this age group, was only 150 per 100,000 children. (Fig 45)

Figure 45: Nonfatal Unintentional Injury Rates among Children Less Than 1 Year, by Cause, United States, 2001 - 2006



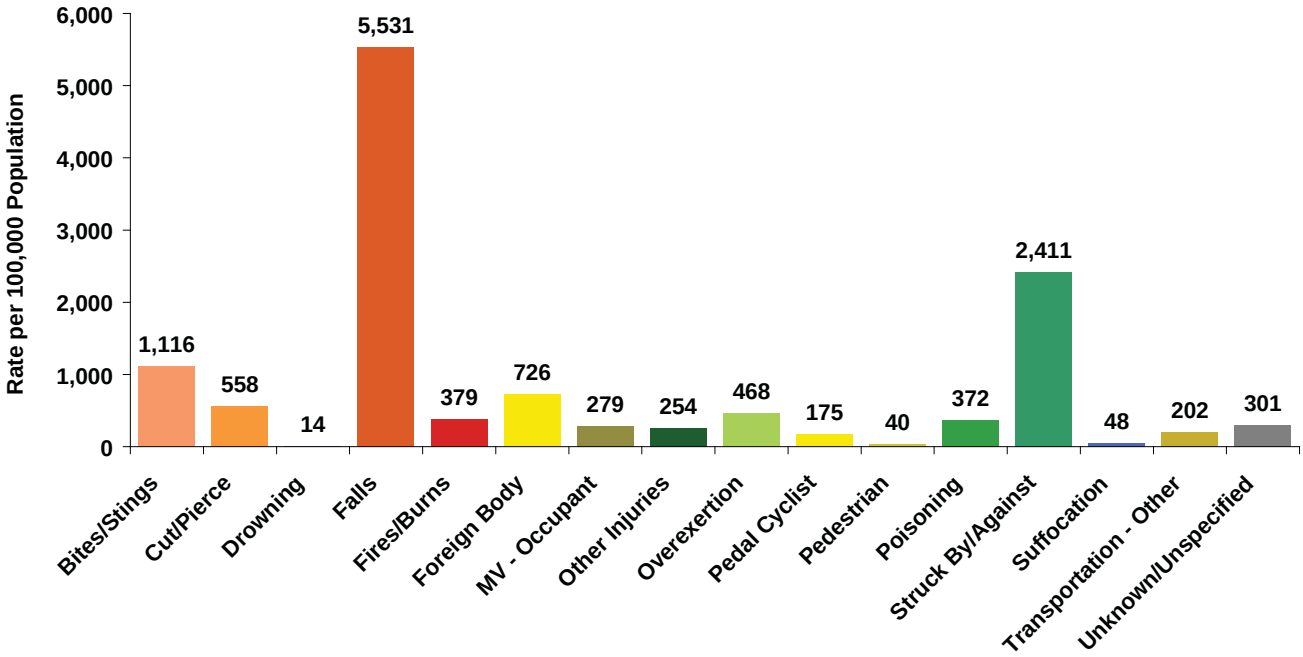
* Rate is unreliable because of small sample size and should be interpreted with caution

Data Source: NEISS-AIP

5.6.2: Nonfatal Injuries among Children 1 to 4 Years

The U.S. nonfatal injury rate among children 1 to 4 years of age was 12,873 per 100,000. Males in this age group had a nonfatal injury rate of 14,444 per 100,000 and females a rate of 11,228 per 100,000. (Fig 42) Falls resulted in the highest rate of injury (5,531 per 100,000), followed by being struck by or against an object (2,411 per 100,000). (Fig 46)

Figure 46: Nonfatal Unintentional Injury Rates among Children 1 to 4 Years, by Cause, United States, 2001 - 2006

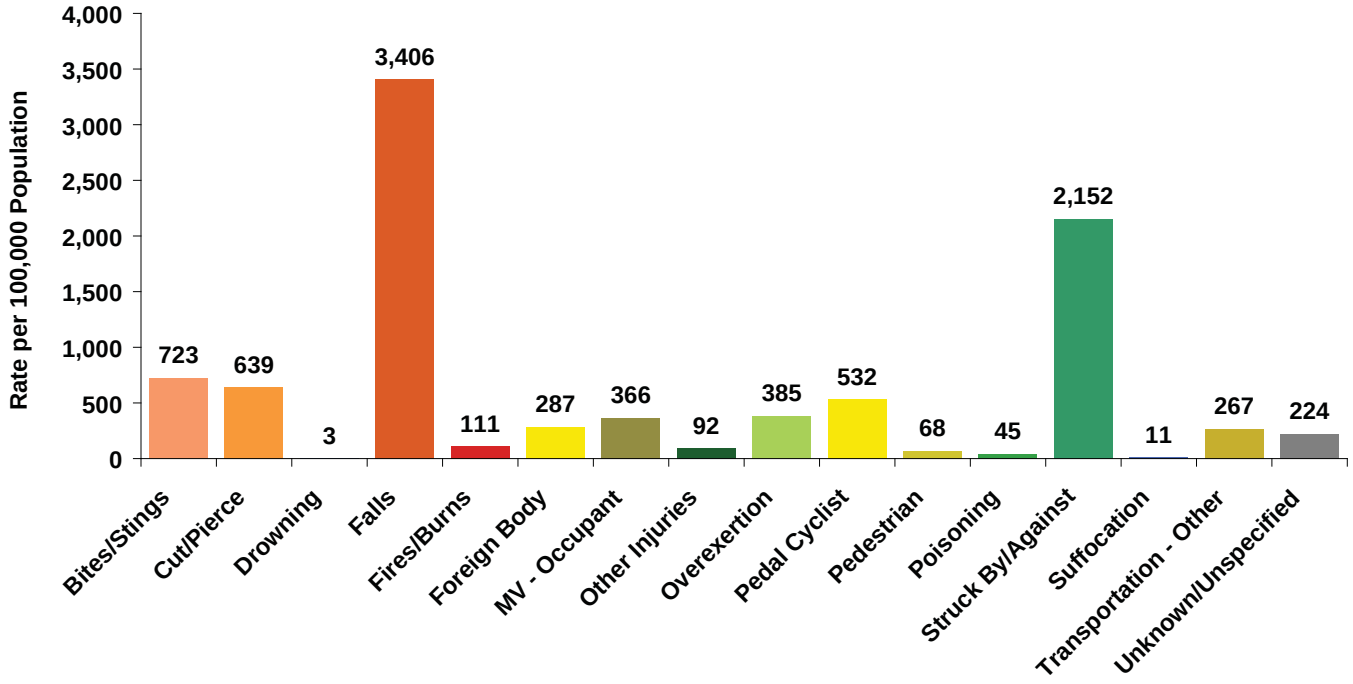


Data Source: NEISS-AIP

5.6.3: Nonfatal Injuries among Children 5 to 9 Years

The U.S. nonfatal injury rate among children 5 to 9 years of age was 9,311 per 100,000. Males 5 to 9 years of age had a nonfatal injury rate of 10,615 per 100,000 and females a rate of 7,944 per 100,000. (Fig 42) Falls resulted in the highest rate of injury (3,406 per 100,000) followed by being struck by or against an object (2,152 per 100,000). (Fig 47)

Figure 47: Nonfatal Unintentional Injury Rates among Children 5 to 9 Years, by Cause, United States, 2001 - 2006

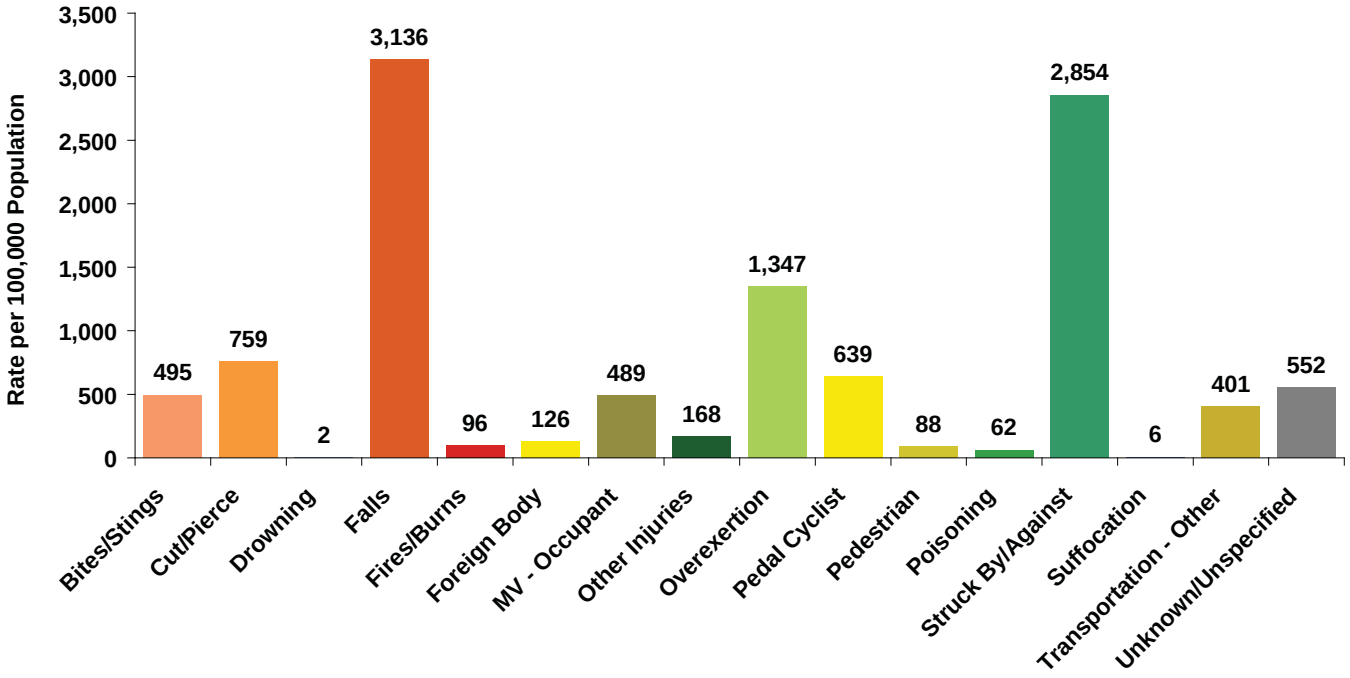


Data Source: NEISS-AIP

5.6.4: Nonfatal Injuries among Children 10 to 14 Years

The U.S. nonfatal injury rate among children 10 to 14 years was 11,220 per 100,000. Males in this age group had a nonfatal injury rate of 13,443 per 100,000 and females a rate of 8,887 per 100,000. (Fig 42) Falls and being struck by or against an object resulted in the highest rates of injury (3,136 and 2,854 per 100,000, respectively). (Fig 48)

Figure 48: Nonfatal Unintentional Injury Rates among Children 10 to 14 Years, by Cause, United States, 2001 - 2006

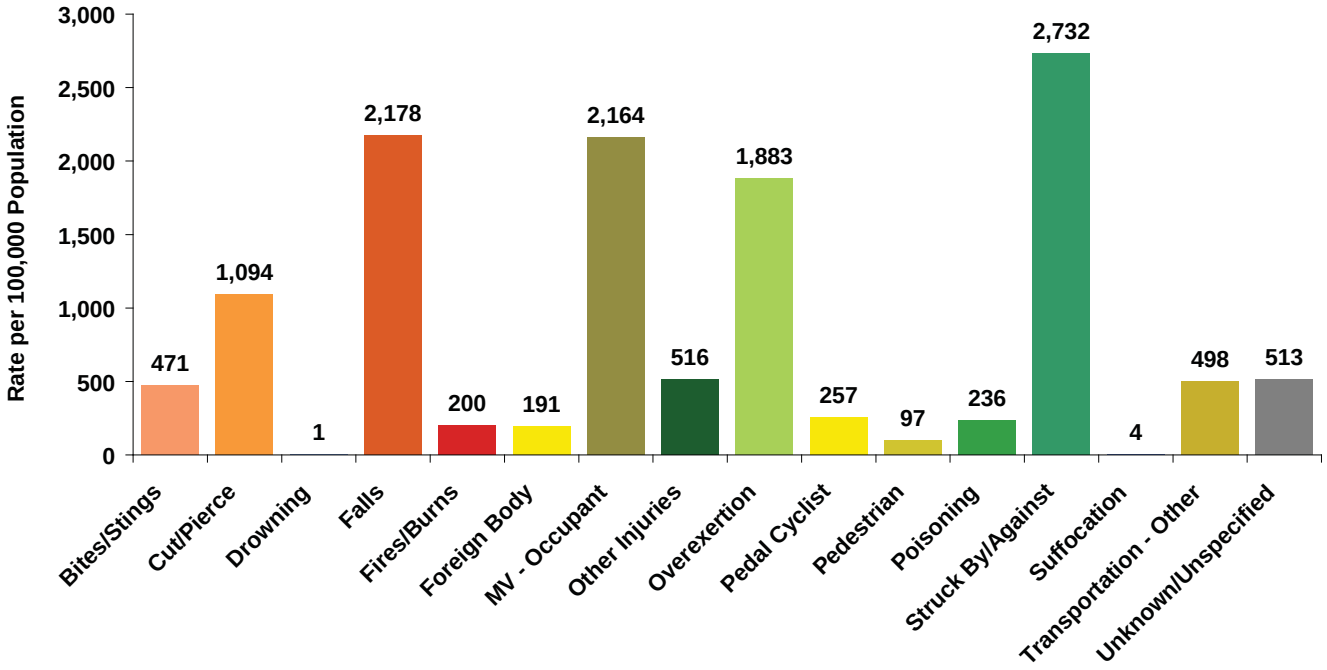


Data Source: NEISS-AIP

5.6.5: Nonfatal Injuries among Children 15 to 19 Years

The U.S. nonfatal injury rate among those 15 to 19 years of age was 13,036 per 100,000. Males 15 to 19 years of age had a rate of 15,510 per 100,000 and females a rate of 10,423 per 100,000. (Fig 42) Injuries due to being struck by or against an object had the highest rate (2,732 per 100,000), followed by falls, motor vehicle occupant injuries and overexertion (2,178, 2,164 and 1,883 per 100,000, respectively). (Fig 49) The nonfatal drowning rate may be unreliable due to variation in number of drowning injuries seen in emergency departments.

Figure 49: Nonfatal Unintentional Injury Rates among Children 15 to 19 Years, by Cause, United States, 2001 - 2006



Data Source: NEISS-AIP

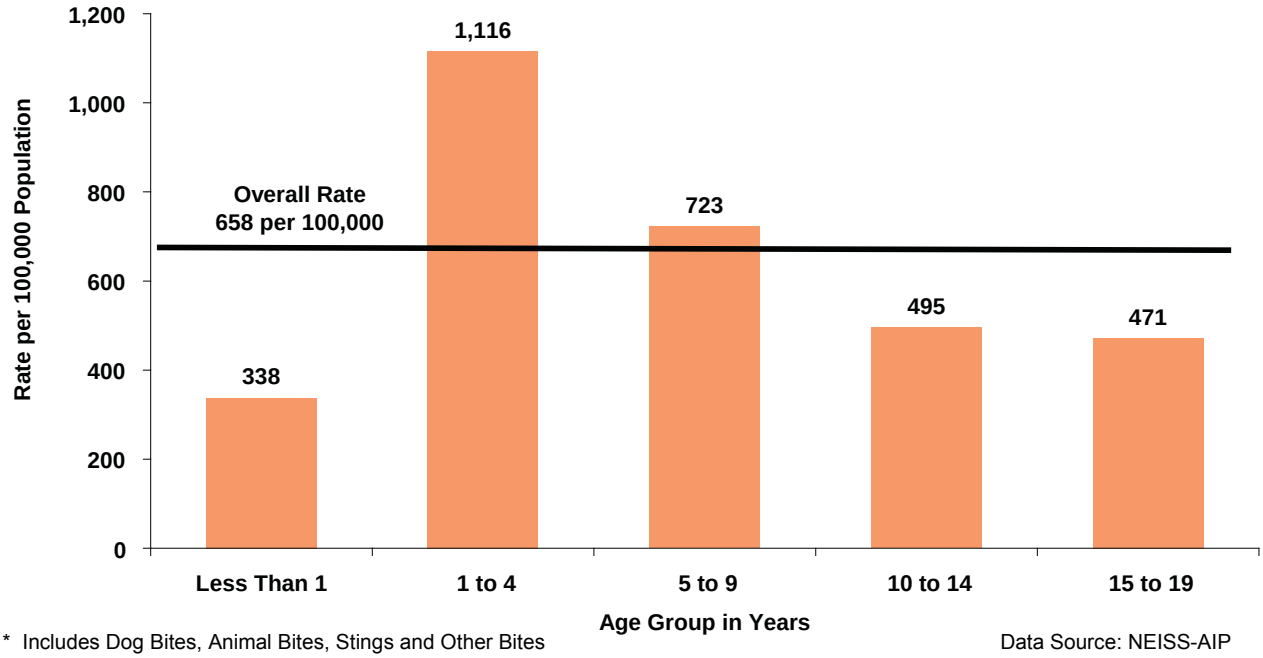
5.7: Analysis by Cause

This section describes nonfatal injuries from selected causes in more detail.

5.7.1: Nonfatal Injuries due to Bites or Stings

Dog bites, insect stings and other animal bites accounted for 6% of the nonfatal injuries among children 0 to 19 years of age. The nonfatal injury rate for bites and stings was 658 per 100,000. The rate among males was 706 per 100,000 and among females was 606 per 100,000. (Fig 44) The rate was highest among children 1 to 4 years of age (1116 per 100,000), followed by those 5 to 9 years (723 per 100,000). (Fig 50)

Figure 50: Nonfatal Unintentional Injury Rates due to Bites and Stings* among Children 0 to 19 Years, by Age Group, United States, 2001 - 2006



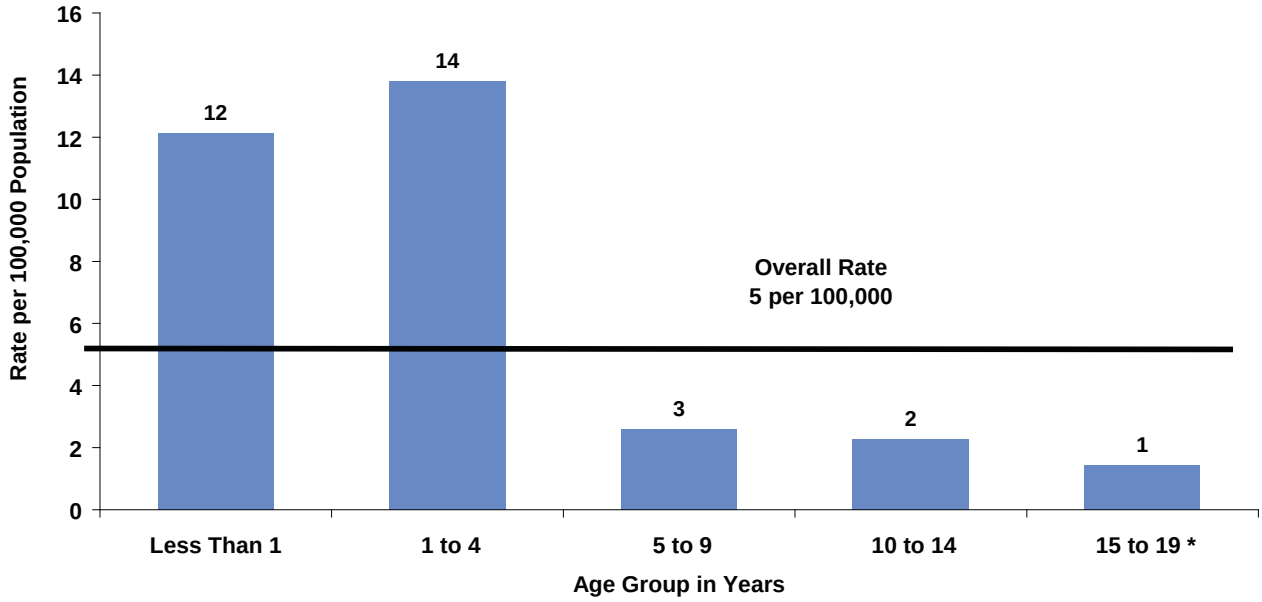
* Includes Dog Bites, Animal Bites, Stings and Other Bites

Data Source: NEISS-AIP

5.7.2: Nonfatal Drowning

Nonfatal drowning accounted for less than 1% of the nonfatal injuries among children 0 to 19 years of age. The nonfatal drowning rate was 5 per 100,000. The rate for males was 6 per 100,000 and the rate for females was 4 per 100,000. (Fig 44) The highest rates were among children 1 to 4 years of age (14 per 100,000) and among children less than 1 year of age (12 per 100,000). (Fig 51) The nonfatal drowning rate may be unreliable due to variation in the number of drowning injuries seen in emergency departments.

Figure 51: Nonfatal Unintentional Injury Rates due to Drowning among Children 0 to 19 Years, by Age Group, United States, 2001 - 2006



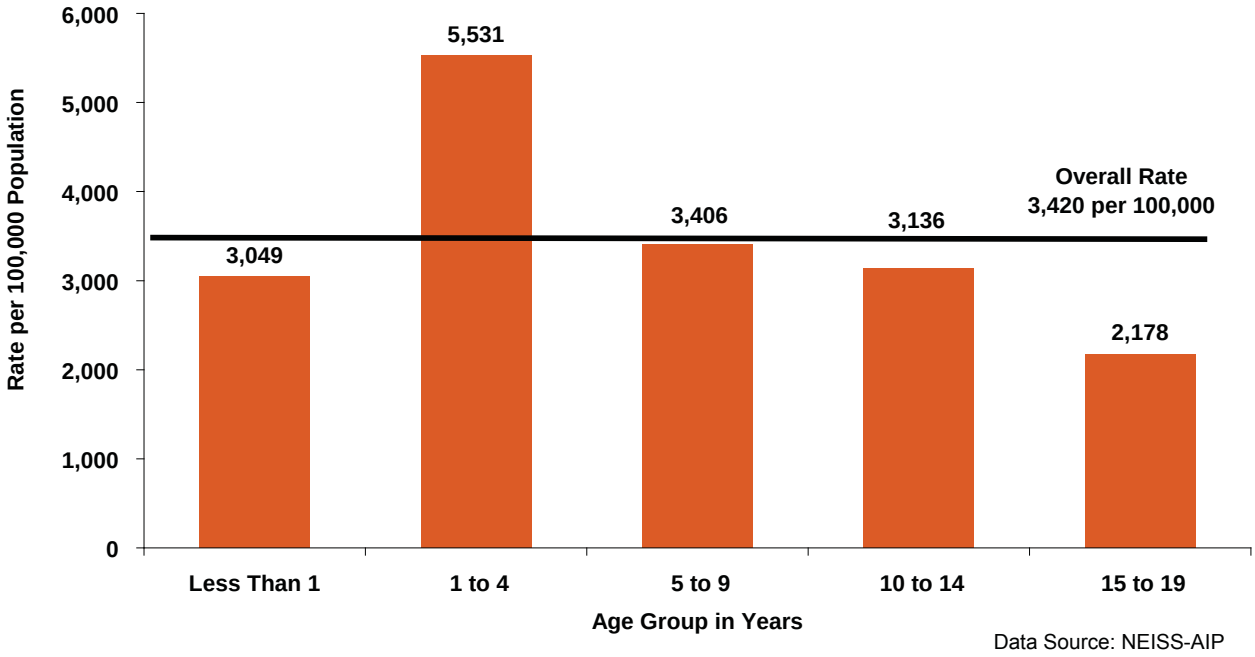
* Rate is unreliable and should be interpreted with caution

Data Source: NEISS-AIP

5.7.3: Nonfatal Injuries due to Falls

Falls accounted for 31% of the nonfatal injuries among children 0 to 19 years of age. Fall-related injuries were the most common reason for injury-related initial ED visits among all age groups except 15 to 19 year olds. (Table 7) The nonfatal injury rate for falls was 3,420 per 100,000. Males had a higher rate than females (3,871 vs. 2,946 per 100,000). (Fig 44) The fall rate was highest among children 1 to 4 years (5,531 per 100,000). (Fig 52)

Figure 52: Nonfatal Unintentional Injury Rates due to Falls among Children 0 to 19 Years, by Age Group, United States, 2001 - 2006

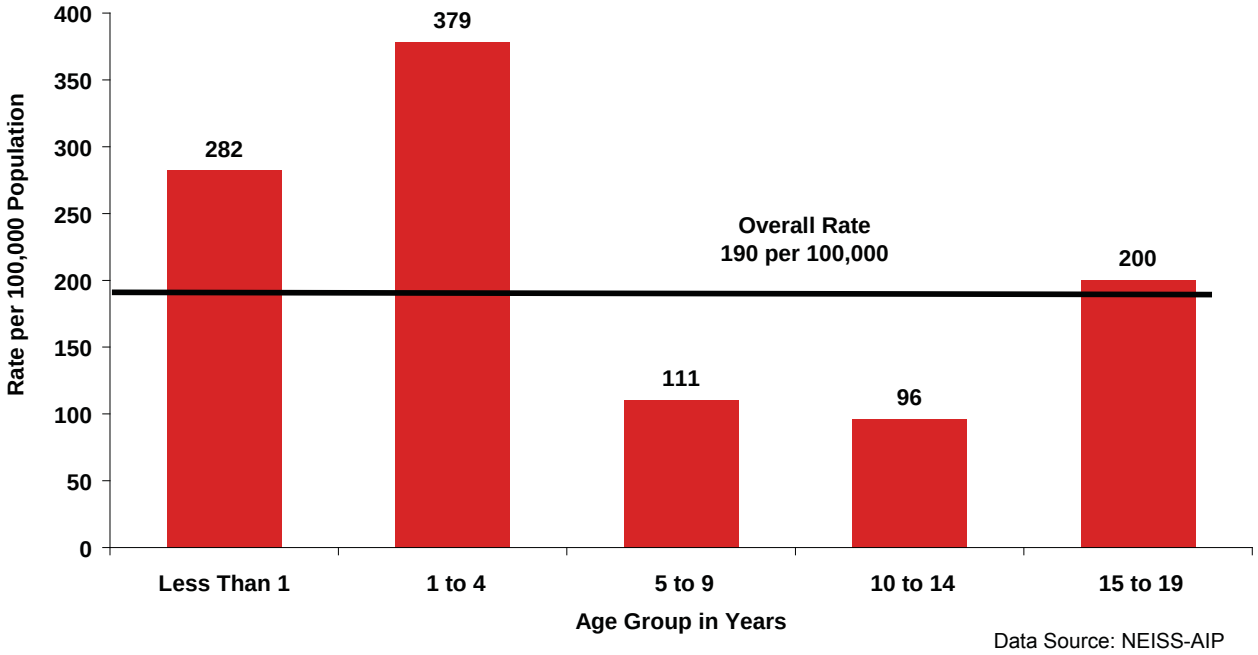


Data Source: NEISS-AIP

5.7.4: Nonfatal Injuries due to Fire or Burns

Injuries from fire or burns accounted for almost 2% of the nonfatal injuries among children 0 to 19 years of age. These injuries were the fourth leading cause of ED visits among children less than 1 year of age. (Table 7) The overall nonfatal injury rate due to fire or burns was 190 per 100,000. The rate for males was 206 per 100,000 and the rate for females was 174 per 100,000. (Fig 44) The rate of nonfatal fire or burn injuries was highest among children 1 to 4 years of age (379 per 100,000) followed by those less than 1 year (282 per 100,000). (Fig 53)

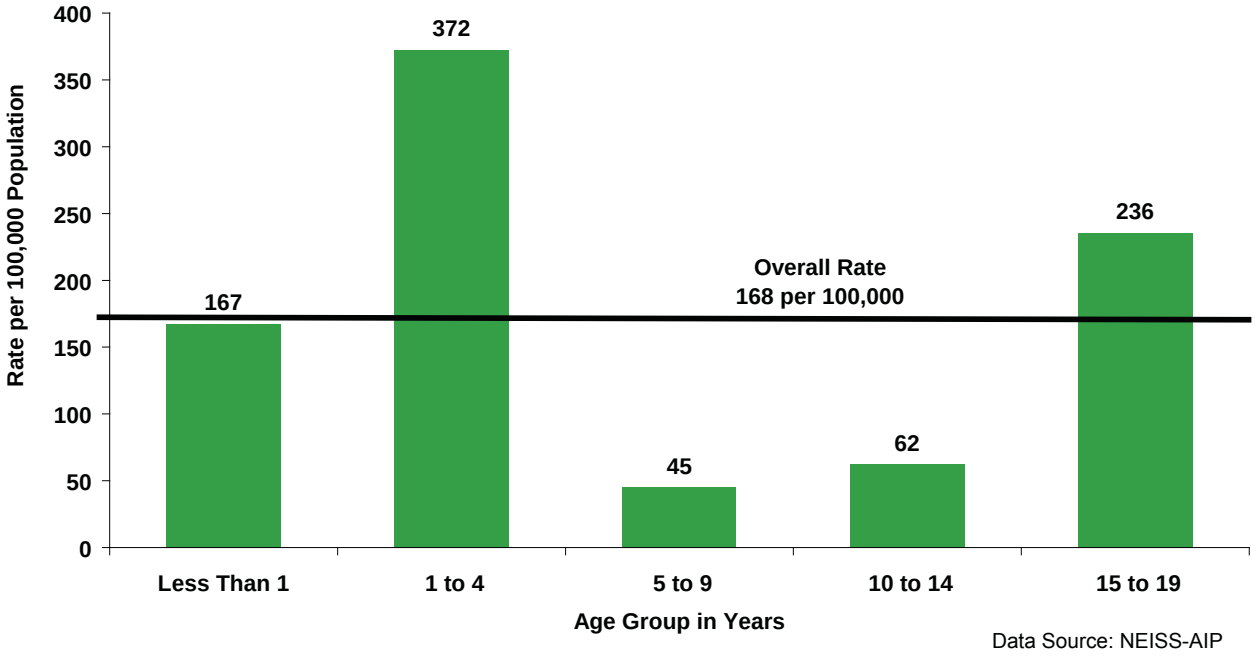
Figure 53: Nonfatal Unintentional Injury Rates due to Fires or Burns among Children 0 to 19 Years, by Age Group, United States, 2001 - 2006



5.7.5: Nonfatal Poisoning

Poisoning accounted for almost 2% of the nonfatal injuries among children 0 to 19 years of age. The nonfatal injury rate for poisoning was 168 per 100,000. The rate among males was 172 per 100,000 and among females was 163 per 100,000. (Fig 44) The rate of poisoning was highest among children 1 to 4 years of age (372 per 100,000), followed by those 15 to 19 years of age (236 per 100,000). (Fig 54)

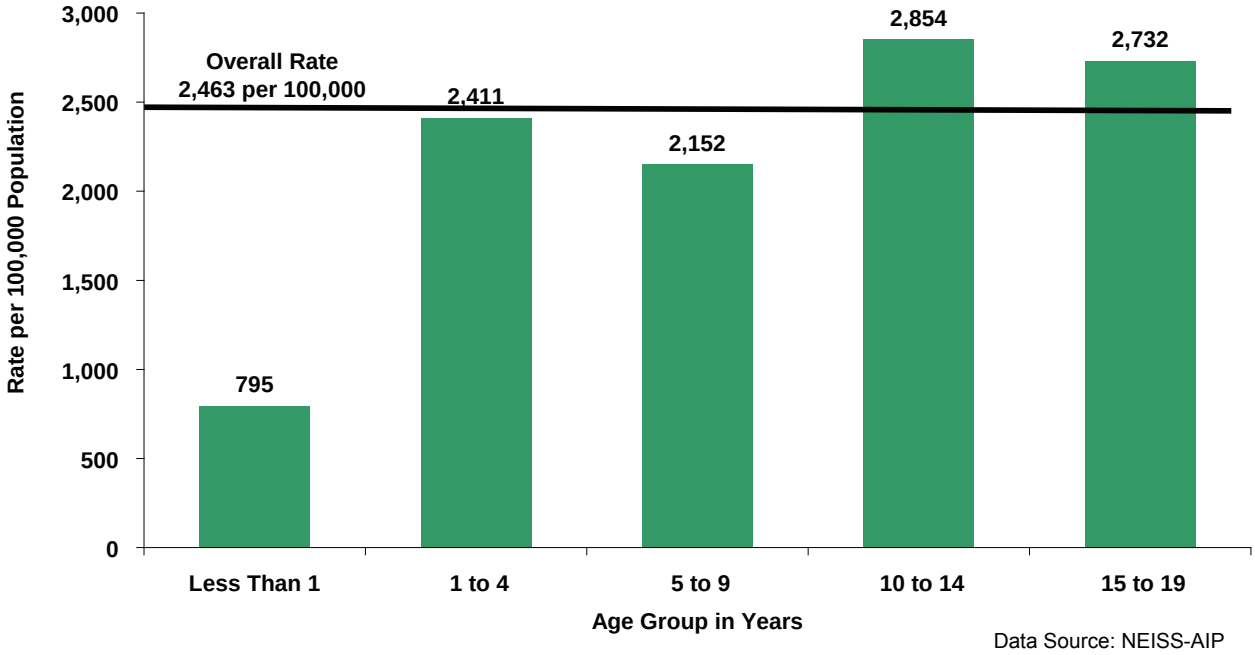
Figure 54: Nonfatal Unintentional Injury Rates due to Poisoning among Children 0 to 19 Years, by Age Group, United States, 2001 - 2006



5.7.6: Nonfatal Injuries due to being Struck by or Against an Object

Being struck by or against an object accounted for 22% of the nonfatal injuries among children 0 to 19 years of age. The nonfatal injury rate due to being struck by or against an object was 2,463 per 100,000. The rate among males was nearly twice that of females (3,163 vs. 1,728 per 100,000). (Fig 44) Rates were similar among all age groups older than 1 year of age. (Fig 55)

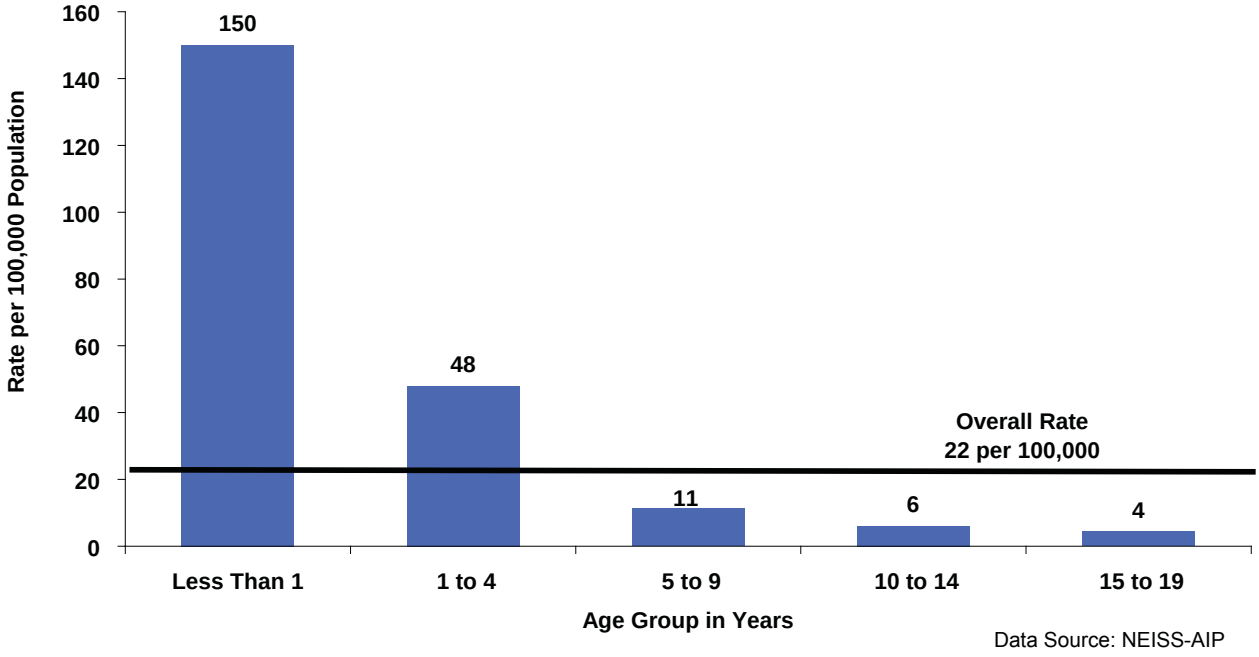
Figure 55: Nonfatal Unintentional Injury Rates due to Struck By or Against an Object among Children 0 to 19 Years, by Age Group, United States, 2001 - 2006



5.7.7: Nonfatal Suffocation

Suffocation accounted for less than 1% of the nonfatal injuries among children 0 to 19 years of age. The nonfatal injury rate for suffocation was 22 per 100,000. The rate was 23 per 100,000 among males and 21 per 100,000 among females. (Fig 44) The rate of nonfatal suffocation was highest among children less than 1 year of age (150 per 100,000) and decreased with age. (Fig 56)

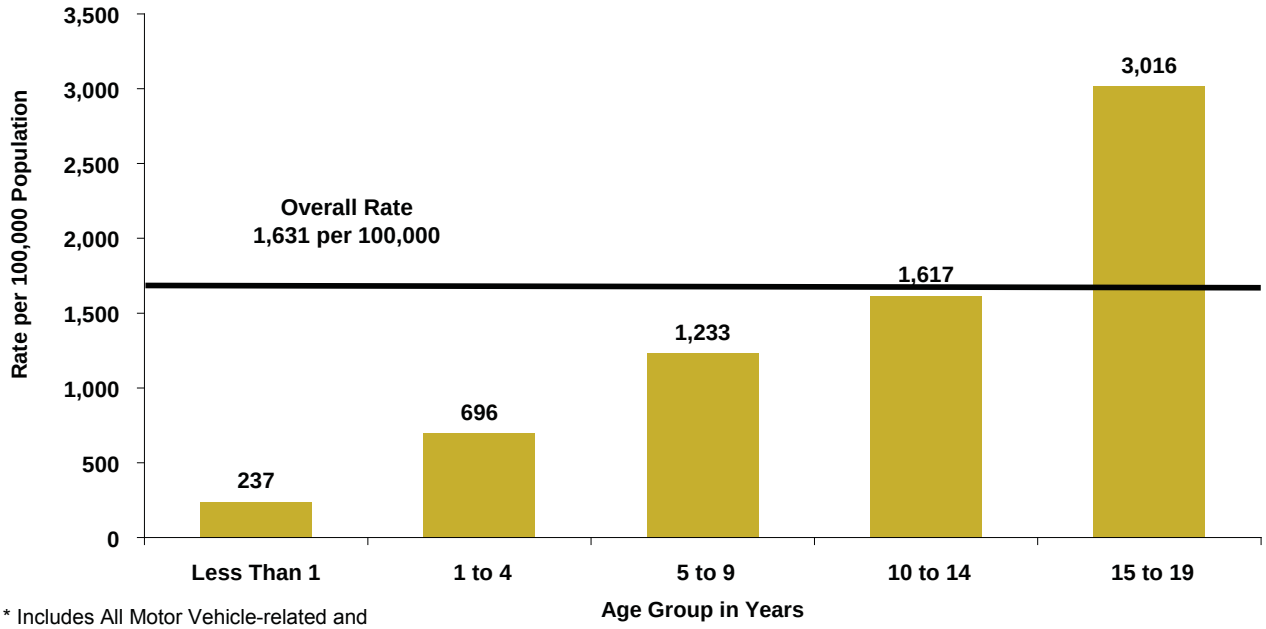
Figure 56: Nonfatal Unintentional Injury Rates due to Suffocations among Children 0 to 19 Years, by Age Group, United States, 2001 - 2006



5.7.8: Nonfatal Injuries related to Transportation

Transportation-related injuries accounted for 15% of the nonfatal injuries among children 0 to 19 years of age. The nonfatal injury rate for this cause was 1,631 per 100,000. Males had a higher rate than females (1,784 vs. 1,472 per 100,000). (Fig 44) The nonfatal injury rate for motor vehicle-related injuries increased with age. The rate was highest among those 15 to 19 years of age (3,016 per 100,000) followed by those 10 to 14 years of age (1,617 per 100,000). (Fig 57)

Figure 57: Nonfatal Unintentional Injury Rates due to Transportation-related Injuries* among Children 0 to 19 Years, by Age Group, United States, 2001 - 2006



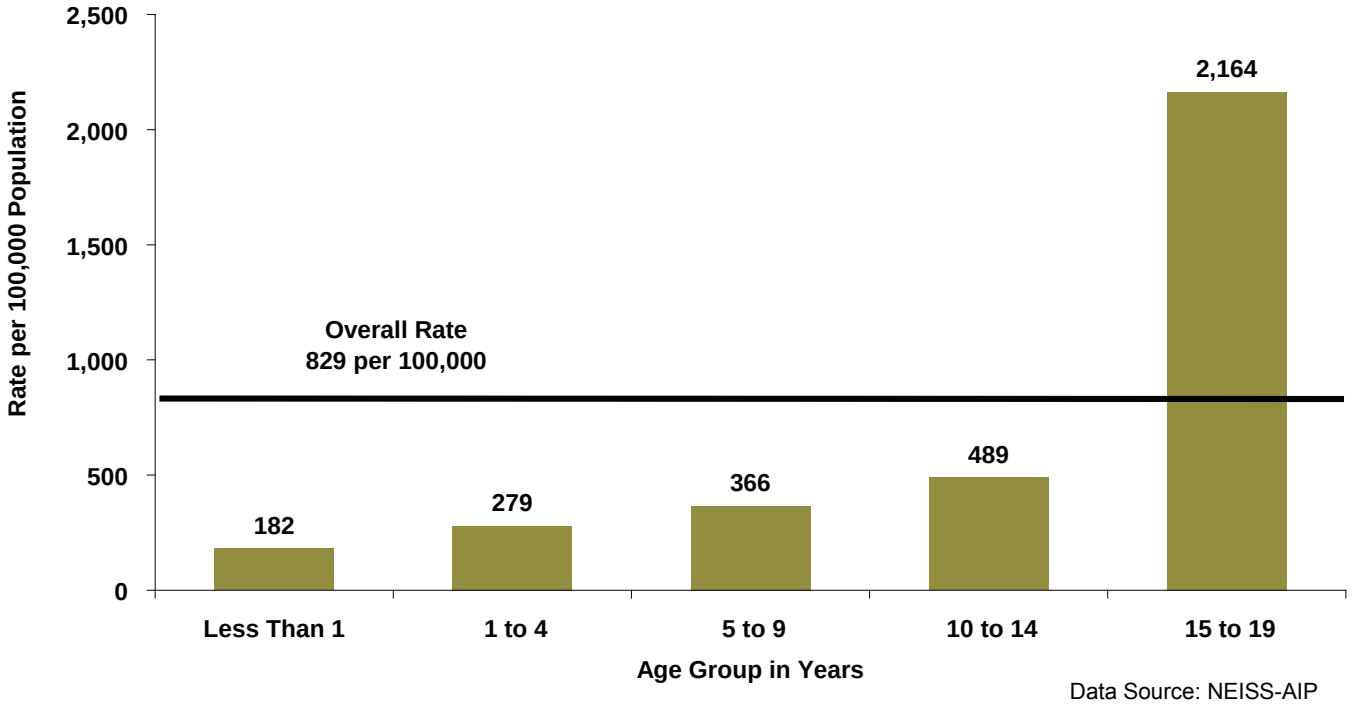
* Includes All Motor Vehicle-related and Other Transportation-related Injuries

Data Source: NEISS-AIP

Nonfatal Injuries among Motor Vehicle Occupants

Motor vehicle occupant injuries accounted for almost 8% of the nonfatal injuries among children 0 to 19 years of age. The nonfatal injury rate for motor vehicle occupants was 829 per 100,000. Males had a rate of 741 per 100,000; females had a rate of 922 per 100,000. (Fig 44) The rate was highest among those 15 to 19 years of age (2,164 per 100,000). (Fig 58)

Figure 58: Nonfatal Unintentional Injury Rates due to Motor Vehicle - Occupant Injuries among Children 0 to 19 Years, by Age Group, United States, 2001 - 2006

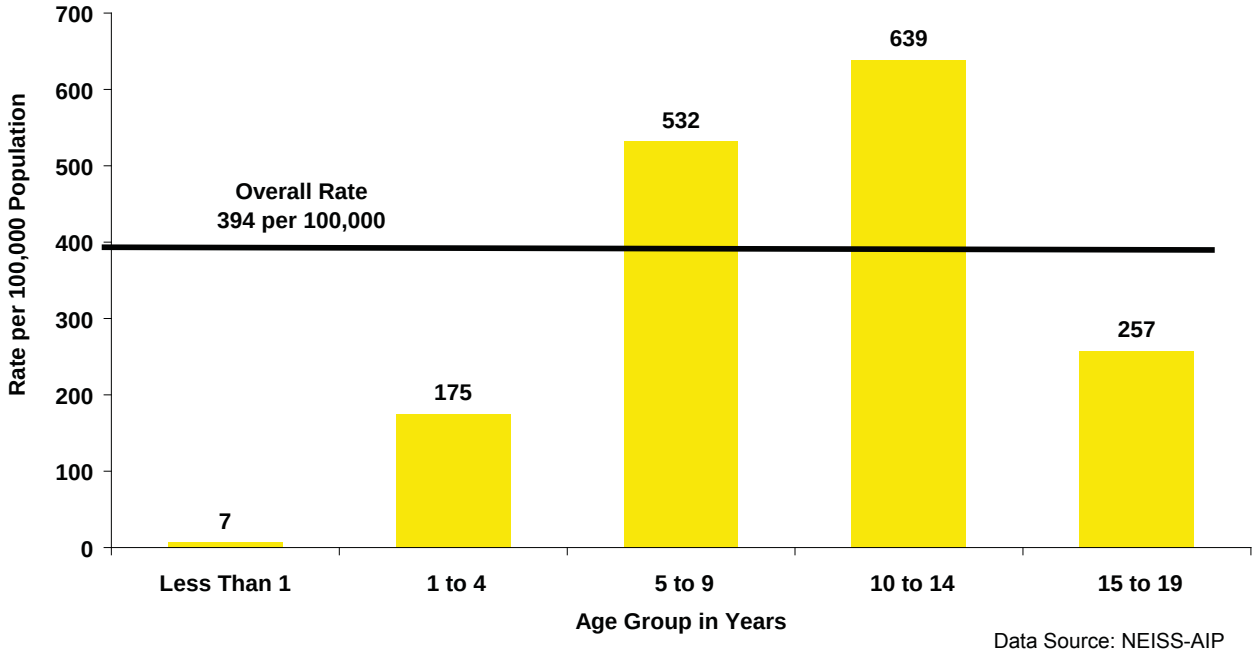


Data Source: NEISS-AIP

Nonfatal Injuries among Pedal Cyclists

Pedal cyclist injuries accounted for 4% of the nonfatal injuries among children 0 to 19 years of age. The nonfatal injury rate for pedal cyclists was 394 per 100,000. The rate among males was twice that of females (559 vs. 221 per 100,000). (Fig 44) The rate increased with age up to 14 years. The rate was highest among children 10 to 14 years of age (639 per 100,000) and among those 5 to 9 years of age (532 per 100,000). (Fig 59)

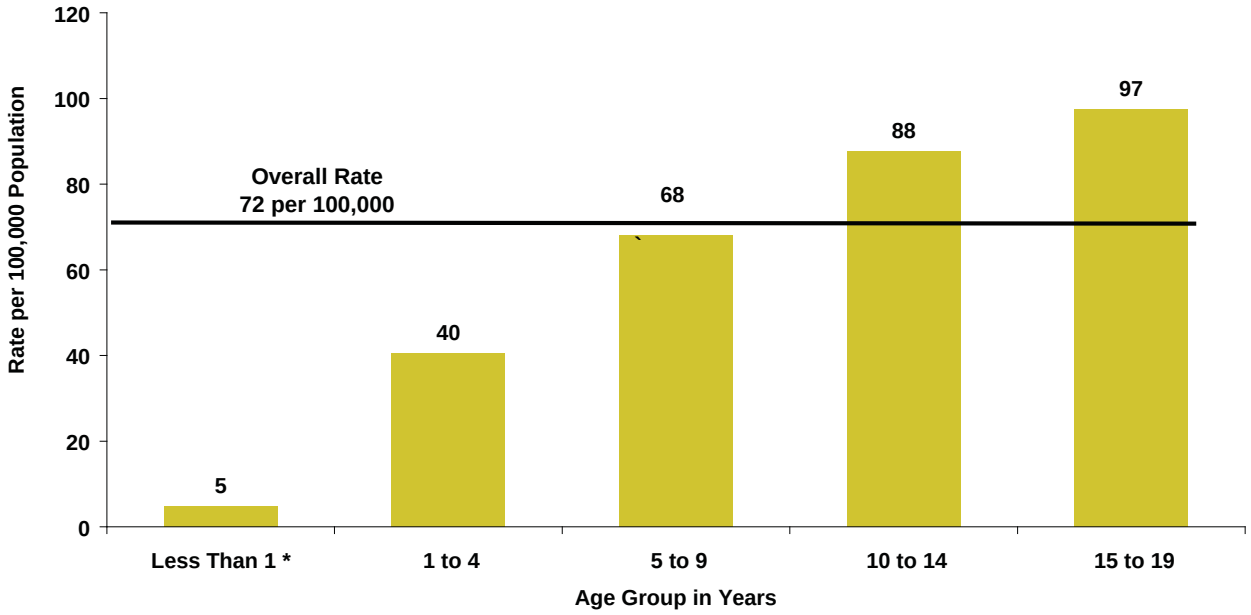
Figure 59: Nonfatal Unintentional Injury Rates due to Pedal Cyclist Injuries among Children 0 to 19 Years, by Age Group, United States, 2001 - 2006



Nonfatal Injuries among Pedestrians

Pedestrian injuries accounted for less than 1% of the nonfatal injuries among children 0 to 19 years of age. The nonfatal injury rate for pedestrians was 72 per 100,000. Males had a rate of 83 per 100,000; females had a rate of 61 per 100,000. (Fig 44) The rate increased with age. The rate was highest among those 15 to 19 years of age and those 10 to 14 years of age (97 and 88 per 100,000, respectively). (Fig 60) The nonfatal injury rate for pedestrians among children less than 1 year of age was based on a small number of events and may be unreliable.

Figure 60: Nonfatal Unintentional Injury Rates due to Pedestrian Injuries among Children 0 to 19 Years, by Age Group, United States, 2001 - 2006



* Rate is unreliable and should be interpreted with caution

Data Source: NEISS-AIP

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Appendix 1. Cause of Unintentional Injury Death Categories based on ICD-10 External Cause-of-Injury Codes*

Cause of Unintentional Injury Death	*ICD-10* Codes
Drowning	W65-W74
Falls	W00-W19
Fire/Burns	X00-X19
Poisoning	X40-X49
Suffocation	W75-W84
Transportation-related	
MV traffic – Occupant	V30-V79 (.4-.9), V83-V86 (.0-.3)
MV traffic – Unspecified	V87 (.0-.8), V89.2
Pedal cyclist	V10-V18, V19(.0-.6,.8,.9)
Pedestrian	V01, V02-V04 (.0,.1,.9), V05, V06, V09 (.0,.1,.2,.3,.9)
Transportation – Other	V20-V29, V30-V79 (.0-.3), V80, V81-V82 (.0,.1,.2-.9), V83-V86 (.4-.9), V87.9, V88 (.0-.9), V89 (.0,.1 .3,.9), V90-V99
Other injuries	W20-W45, W49-W64, W85-W99, X20-X39, X50-X59, Y85, Y86

*ICD-10 is the *International Classification of Diseases*, *Tenth Revision.*

Appendix 2: Categorization of Cause of Death: Numbers of Deaths from Unintentional Injuries among Children 0 to 19 Years, United, States, 2000 – 2005*

Mechanism of Injury from the External Cause of Injury Mortality Matrix†	Causes Defined using the Modified Matrix										
	Drowning	Falls	Fires or Burns	MV Traffic Occupant	Pedestrian	Pedal Cyclist	Transportation Other	MV Traffic Unspecified	Poisoning	Suffocation	Other Injuries
Cut/Pierce	-	-	-	-	-	-	-	-	-	-	49
Drowning	6,900	-	-	-	-	-	-	-	-	-	-
Falls	-	1,123	-	-	-	-	-	-	-	-	-
Fires/Flame	-	-	3,507	-	-	-	-	-	-	-	-
Hot Object/Substance	-	-	47	-	-	-	-	-	-	-	-
Firearm	-	-	-	-	-	-	-	-	-	-	1,009
Machinery	-	-	-	-	-	-	-	-	-	-	239
MV Traffic Occupant	-	-	-	22,345	-	-	-	-	-	-	-
MV Traffic Motorcyclist	-	-	-	-	-	-	1,308	-	-	-	-
MV Traffic Other	-	-	-	-	-	-	17	-	-	-	-
MV Traffic Unspecified	-	-	-	-	-	-	-	14,916	-	-	-
MV Traffic Pedal Cyclist	-	-	-	-	-	969	-	-	-	-	-
Pedal Cyclists, Other	-	-	-	-	-	208	-	-	-	-	-
MV Traffic Pedestrian	-	-	-	-	4341	-	-	-	-	-	-
Other Land Transport	-	-	-	-	-	-	1,684	-	-	-	-
Pedestrians, Other	-	-	-	-	1,379	-	-	-	-	-	-
Other Transport	-	-	-	-	-	-	710	-	-	-	-
Natural/Environmental	-	-	-	-	-	-	-	-	-	-	667
Overexertion	-	-	-	-	-	-	-	-	-	-	2
Poisoning	-	-	-	-	-	-	-	-	3,638	-	-
Struck by or Against	-	-	-	-	-	-	-	-	-	-	560
Suffocation	-	-	-	-	-	-	-	-	-	5,734	-
Other Specified, Classifiable	-	-	-	-	-	-	-	-	-	-	607
Other Specified, NEC‡	-	-	-	-	-	-	-	-	-	-	230
Unspecified	-	-	-	-	-	-	-	-	-	-	863
Total	**6,900**	**1,123**	**3,554**	**22,345**	**5,720**	**1,177**	**3,719**	**14,916**	**3,638**	**5,734**	**4,226**
Death Rate per 100,000§	**1.4**	**0.2**	**0.7**	**4.6**	**1.2**	**0.2**	**0.8**	**3.1**	**0.8**	**1.2**	**0.9**

* CDC/NCHS National Vital Statistics System

† Fingerhut L. ICD Framework: External cause of injury mortality matrix [online]. Hyattsville, MD: National Center for Health Statistics. Available from: http://www.cdc.gov/nchs/about/otheract/ice/matrix10.htm

‡ Not Elsewhere Classified

§ NCHS Population 2000 – 2005 used for calculation of Rates (n = 487,055,735)

Appendix 3: Number of Unintentional Injury Deaths among Children 0 to 19 Years, by State and Age Group, United States, 2000 – 2005*

	Age Group in Years					
	Less Than 1	**1 to 4**	**5 to 9**	**10 to 14**	**15 to 19**	**Total**
AK	55	41	22	69	141	328
AL	122	262	168	220	1010	1782
AR	95	191	118	146	646	1196
AZ	137	292	181	227	932	1769
CA	345	1075	699	849	3571	6539
CO	74	130	94	142	662	1102
CT	28	57	40	50	322	497
DC	**5**	**9**	**17**	**7**	37	75
DE	**12**	24	**18**	22	135	211
FL	468	787	388	506	2587	4736
GA	236	431	272	356	1401	2696
HI	32	31	**10**	**17**	127	217
IA	37	86	94	91	431	739
ID	37	70	52	69	258	486
IL	322	338	230	311	1401	2602
IN	229	260	158	187	960	1794
KS	65	130	87	122	518	922
KY	132	189	142	175	892	1530
LA	161	316	209	249	969	1904
MA	29	83	52	87	470	721
MD	54	118	114	127	571	984
ME	**9**	33	30	26	199	297
MI	386	295	260	345	1236	2522
MN	108	128	110	162	651	1159
MO	202	224	167	240	1173	2006
MS	91	241	170	205	774	1481
MT	**17**	33	34	48	236	368
NC	181	301	242	321	1437	2482
ND	**7**	**12**	27	24	111	181
NE	**19**	62	63	61	297	502
NH	**12**	**18**	22	36	136	224
NJ	73	136	117	141	668	1135
NM	34	90	62	99	406	691
NV	76	84	45	90	299	594
NY	135	335	259	323	1451	2503
OH	289	327	258	331	1432	2637
OK	71	176	135	145	766	1293
OR	63	125	82	118	484	872
PA	140	313	223	307	1648	2631
RI	**17**	**18**	**10**	**16**	95	156
SC	124	179	143	185	881	1512
SD	26	56	50	66	169	367
TN	183	257	173	269	1145	2027
TX	505	1088	724	819	3617	6753
UT	53	133	73	92	330	681
VA	113	201	153	161	943	1571
VT	**5**	**10**	**11**	20	96	142
WA	113	185	122	150	735	1305
WI	111	143	136	159	804	1353
WV	21	58	59	71	360	569
WY	24	22	**19**	29	114	208
Total	**5780**	**10136**	**7059**	**9028**	**40734**	**73052**

* Any rate calculation based on fewer than 20 deaths may be unreliable

Appendix 4: Number of Unintentional Injury Deaths among Children 0 to 19 Years, by State and Cause, United States, 2000 – 2005*

	Drowning	Falls	Burns	Transportation-related †	MVT Occupant	Pedestrian	Pedal Cyclist	Poisoning	Suffocation	Other Injuries ‡	TOTAL
AK	48	**7**	**10**	160	**16**	25	**9**	26	54	23	328
AL	147	**18**	93	1187	302	87	**19**	63	122	152	1782
AR	109	**8**	93	800	371	66	**8**	30	79	77	1196
AZ	211	26	44	1154	169	153	35	112	121	101	1769
CA	780	107	150	4561	1804	770	143	226	324	391	6539
CO	74	26	**13**	823	260	78	**16**	42	69	55	1102
CT	48	**9**	**19**	305	41	36	**10**	60	28	28	497
DC	**2**	**5**	**9**	42	**13**	**11**	**1**	**4**	**5**	**8**	75
DE	**15**	**4**	**16**	144	57	**13**	**2**	**7**	**11**	**14**	211
FL	682	42	102	2893	1869	379	107	378	442	197	4736
GA	281	29	147	1752	477	199	24	104	195	188	2696
HI	32	**8**	**2**	130	46	**18**	**8**	**3**	31	**11**	217
IA	57	**16**	37	530	408	41	**13**	24	29	46	739
ID	39	**13**	**9**	330	253	25	**7**	**14**	34	47	486
IL	214	69	171	1538	728	225	34	168	310	132	2602
IN	146	28	106	1106	479	109	28	62	240	106	1794
KS	62	**10**	50	657	485	46	**11**	20	70	53	922
KY	113	22	92	971	325	73	22	95	133	104	1530
LA	182	**17**	170	1119	218	151	33	115	162	139	1904
MA	71	23	26	500	91	55	**12**	20	48	33	721
MD	71	**14**	68	711	265	113	**17**	**18**	58	44	984
ME	20	**6**	**16**	203	149	**17**	**3**	27	**12**	**13**	297
MI	205	26	193	1540	609	214	57	84	373	101	2522
MN	95	25	39	792	494	74	23	33	129	46	1159
MO	117	21	113	1367	761	116	24	73	199	116	2006
MS	150	**8**	106	1005	779	78	**12**	28	80	104	1481
MT	29	**11**	**9**	266	207	**14**	**9**	**15**	**13**	25	368
NC	184	20	107	1736	1193	200	49	154	171	110	2482
ND	**10**	**3**	**9**	138	89	**10**	**3**	**4**	**6**	**11**	181
NE	38	**10**	22	373	290	26	**10**	**10**	23	26	502
NH	24	**3**	**15**	141	47	**11**	**3**	**13**	20	**8**	224
NJ	110	26	70	647	205	116	24	120	73	89	1135
NM	38	**10**	**19**	505	367	46	**6**	47	30	42	691
NV	59	**16**	**12**	375	131	56	**9**	40	61	31	594
NY	230	80	197	1591	589	311	66	116	153	136	2503
OH	235	41	174	1582	456	194	33	136	308	161	2637
OK	130	**12**	62	843	173	75	**10**	77	65	104	1293
OR	106	**17**	27	567	321	71	**19**	37	69	49	872
PA	180	40	163	1672	379	198	39	262	169	145	2631
RI	**10**	**5**	**13**	102	77	**6**	**3**	**1**	**16**	**9**	156
SC	128	**14**	78	1016	354	97	21	56	134	86	1512
SD	**18**	**6**	32	247	179	24	**6**	**9**	24	31	367
TN	169	26	120	1310	939	106	**17**	97	166	139	2027
TX	674	75	284	4591	2814	596	95	347	430	352	6753
UT	65	27	**12**	459	151	66	**10**	**17**	51	50	681
VA	156	28	97	1015	383	97	**17**	73	109	93	1571
VT	**11**	**3**	**13**	93	39	**6**	**0**	**11**	**3**	**8**	142
WA	151	32	46	818	596	96	20	71	114	73	1305
WI	112	21	47	929	694	76	23	58	124	62	1353
WV	42	**7**	30	408	116	41	**6**	21	22	39	569
WY	20	**3**	**2**	133	87	**9**	**1**	**10**	22	**18**	208
Total	**6900**	**1123**	**3554**	**39431**	**22345**	**5720**	**1177**	**3638**	**5734**	**4226**	**73052**

* Any rate calculation based on fewer than 20 deaths may be unreliable

† Transportation includes MVT Occupants, Pedestrians, Pedal Cyclist, MVT Other, MVT Unspecified and other transportation related injuries

‡ Other Injury includes Cut or pierced, Unintentional Firearm, Machinery, Natural or environmental, Overexertion, Struck by or against an object, Other specified and classifiable, Other specifiable-not classifiable, Unspecified.

Appendix 5: Nonfatal Unintentional Injuries and Rates among Children 0 to 19 Years, by Sex and Cause, United States, 2001 – 2006

Appendix 5A: Nonfatal Unintentional Injury Rates among Children 0 to 19 Years, by Sex and Cause, United States, 2001 – 2006

Cause	Overall Weighted Estimate	Overall Rate per 100,000 population*	Males Rate per 100,000 population*	Females Rate per 100,000 population*
Fall	16,708,081	3,420	3,871	2,946
Struck By/Against	12,034,546	2,463	3,163	1,728
Overexertion	4,976,839	1,019	1,102	931
MV-Occupant	4,050,659	829	741	922
Cut/Pierce	3,646,945	746	944	539
Other Bite/Sting	2,288,653	468	495	441
Pedal Cyclist	1,924,756	394	559	221
Unknown/Unspecified	1,920,436	393	530	250
Foreign Body	1,483,355	304	313	294
Other Transport	1,285,877	263	277	249
Fire/Burn	942,978	191	206	174
Other Specified	930,531	193	206	179
Dog Bite	924,203	189	212	166
Poisoning	819,725	168	173	163
Motorcyclist	358,069	73	124	20
Pedestrian	351,764	72	83	61
Suffocation	143,709	22	23	21
Machinery	108,729	29	46	12
BB/Pellet Gunshot	77,491	16	27	4
Natural/Environment	50,265	10	15	5
Nonfatal Drowning	23,826	5	6	4
Firearm Gunshot	23,421	5	8	1
Total	**55,074,860**	**11,272**	**13,122**	**9,331**

* Population 2001-2006: Overall 488,582,677; Males 250,264,225; Females 238,318,452

Appendix 5B: Nonfatal Unintentional Injuries and Rates among Children Less Than 1 Year, by Sex and Cause, United States, 2001 – 2006

Cause	Overall Weighted Estimate	Overall Rate per 100,000 population*	Male Rate per 100,000 population*	Female Rate per 100,000 population*
Fall	742,930	3,049	3,320	2,765
Struck By/Against	193,789	795	879	707
Other Bite/Sting	72,471	297	331	262
Fire/Burn	68,790	282	319	244
Foreign Body	56,110	230	236	224
MV-Occupant	44,446	182	191	174
Cut/Pierce	41,021	168	166	171
Poisoning	40,816	168	175	160
Overexertion	37,991	156	124	189
Suffocation	36,557	150	141	159
Unknown/Unspecified	34,534	142	151	132
Other Specified	33,511	138	143	132
Other Transport	10,468	43	44	42
Dog Bite	9,859	41	45	36
Nonfatal Drowning	2,953	12	13	11†
Pedal Cyclist	1,701	7	8†	6†
Pedestrian	1,167†	5†	4†	5†
Natural/Environment	780†	3†	5†	1†
Machinery	338†	1†	2†	1†
Motorcyclist	85†	0.3†	0.0†	1†
Firearm Gunshot	23†	0.1†	0.0†	0.2†
Bb/Pellet Gunshot	23†	0.1†	0.2†	0.0†
Total	**1,430,365**	**5,870**	**6,296**	**5,423**

* Population 2001-2006: Overall 24,368,733; Male 12,462,355; Female 11,906,378

† Estimate or rate is unreliable because of small sample size and should be interpreted with caution.

Appendix 5C: Nonfatal Unintentional Injuries and Rates among Children 1 to 4 Years, by Sex and Cause, United States, 2001 – 2006

Cause	Overall Weighted Estimate	Overall Rate per 100,000 population*	Male Rate per 100,000 population*	Female Rate per 100,000 population*
Fall	5,260,470	5,531	6,337	4,687
Struck By/Against	2,293,035	2,411	2,885	1,915
Other Bite/Sting	826,789	869	933	803
Foreign Body	690,437	726	717	736
Cut/Pierce	530,492	558	656	455
Overexertion	445,093	468	396	543
Fire/Burn	360,033	379	429	326
Poisoning	354,272	373	393	351
Unknown/Unspecified	286,165	301	323	278
MV-Occupant	265,538	279	281	277
Dog Bite	234,777	247	261	232
Other Specified	230,104	242	256	227
Other Transport	188,240	198	217	178
Pedal Cyclist	166,431	175	229	118
Suffocation	45,594	48	50	45
Pedestrian	38,499	41	45	36
Nonfatal Drowning	13,136	14	17	11
Machinery	6,354	7	10	4
Motorcyclist	3,613	4	5	2†
Bb/Pellet Gunshot	2,369	3	3	2†
Natural/Environment	2,160	2	2†	2†
Firearm Gunshot	294†	0.3†	0.3†	0.3†
Total	**12,243,896**	**12,873**	**14,444**	**11,228**

* Population 2001-2006: Overall 95,114,828; Male 48,637,811; Female 46,477,017

† Estimate or rate is unreliable because of small sample size and should be interpreted with caution.

Appendix 5D: Nonfatal Unintentional Injuries and Rates among Children 5 to 9 Years, by Sex and Cause, United States, 2001 – 2006

Cause	Overall Weighted Estimate	Overall Rate per 100,000 population*	Male Rate per 100,000 population*	Female Rate per 100,000 population*
Fall	4,050,141	3,406	3,765	3,031
Struck By/Against	2,558,947	2,152	2,679	1,600
Cut/Pierce	759,484	639	750	523
Pedal Cyclist	632,730	532	663	523
Other Bite/Sting	558,954	470	513	425
Overexertion	457,365	385	370	400
MV-Occupant	434,798	366	349	383
Foreign Body	341,098	287	324	248
Dog Bite	300,514	253	286	218
Other Transport	282,819	238	235	241
Unknown/Unspecified	266,292	224	269	177
Fire/Burn	131,481	111	113	108
Other Specified	89,093	75	80	69
Pedestrian	80,792	68	85	50
Poisoning	53,368	45	49	41
Motorcyclist	35,217	30	47	11
Suffocation	13,423	11	12	10
Bb/Pellet Gunshot	10,524	9	14	3
Machinery	6,346	5	8	3
Nonfatal Drowning	3,087	3	3	2†
Natural/Environment	2,922	3	2	3
Firearm Gunshot	646†	0.5†	1†	0.4†
Total	**11,070,041**	**9,311**	**10,615**	**7,644**

* Population 2001-2006: Overall 118,897,067; Male 60,835,200; Female 58,061,867

† Estimate or rate is unreliable because of small sample size and should be interpreted with caution.

Appendix 5E: Nonfatal Unintentional Injuries and Rates among Children 10 to 14 Years, by Sex and Cause, United States, 2001 – 2006

Cause	Overall Weighted Estimate	Overall Rate per 100,000 population*	Male Rate per 100,000 population*	Female Rate per 100,000 population*
Fall	3,947,358	3,136	3,612	2,636
Struck By/Against	3,592,332	2,854	3,720	1,944
Overexertion	1,695,386	1,347	1,383	1,309
Cut/Pierce	955,592	759	952	557
Pedal Cyclist	803,828	639	950	557
Unknown/Unspecified	695,092	552	768	325
Other Bite/Sting	616,105	489	327	282
MV-Occupant	383,993	305	437	545
Other Transport	377,430	300	299	300
Dog Bite	239,484	190	229	150
Foreign Body	158,813	126	131	121
Other Specified	148,809	118	120	116
Motorcyclist	127,388	101	171	28
Fire/Burn	121,287	96	96	97
Pedestrian	110,233	88	102	72
Poisoning	78,433	62	59	65
Bb/Pellet Gunshot	35,652	28	48	8
Machinery	11,838	9	15	4
Natural/Environment	10,400	8	9	7
Suffocation	7,683	6	7	5
Firearm Gunshot	4,303	3	6	1†
Nonfatal Drowning	2,867	2	3	2†
Total	**14,124,306**	**11,220**	**13,443**	**8,887**

*Population 2001-2006: Overall 125,880,215; Male 64,475,429; Female 61,404,786

† Rate is unreliable because of small sample size and should be interpreted with caution.

Appendix 5F: Nonfatal Unintentional Injuries and Rates among Children 15 to 19 Years, by Sex and Cause, United States, 2001 – 2006

Cause	Overall Weighted Estimate	Overall Rate per 100,000 population*	Male Rate per 100,000 population*	Female Rate per 100,000 population*
Struck By/Against	3,396,442	2,732	3,719	1,690
Fall	2,707,182	2,178	2,464	1,875
MV-Occupant	2,689,772	2,164	1,879	2,646
Overexertion	2,341,004	1,883	2,244	1,502
Cut/Pierce	1,360,356	1,094	1,491	675
Unknown/Unspecified	638,354	514	768	244
Other Bite/Sting	446,446	359	345	374
Other Specified	441,460	355	387	322
Other Transport	426,921	343	387	298
Pedal Cyclist	320,066	257	424	81
Poisoning	292,835	236	236	235
Fire/Burn	248,940	200	214	1856
Foreign Body	236,897	191	192	188
Motorcyclist	191,766	154	265	37
Dog Bite	139,568	112	119	105
Pedestrian	121,072	97	104	90
Machinery	118,833	96	152	36
Natural/Environment	34,004	27	45	9
Bb/Pellet Gunshot	28,923	23	41	5
Firearm Gunshot	18,155	15	26	3
Suffocation	5,471	4	6	3
Nonfatal Drowning	1,783†	1†	2†	1†
Total	**16,206,250**	**13,036**	**15,510**	**10,423**

*Population 2001-2006: Overall 124,321,834; Male 63,853,430; Female 60,468,404

† Estimate or rate is unreliable because of small sample size and should be interpreted with caution.