

# Unintentional Injury

Publicly funded services to address Unintentional Injury in the MCH population are described in CHILD Profile. In addition the DOH Injury and Violence Prevention Program addresses unintentional injury prevention.

# **Key Findings:**

#### Mortality and Hospitalizations

- In 2008, there were 165 deaths due to unintentional injury for Washington state residents ages 0-19. The unintentional injury mortality rate for Washington children ages 0-19 decreased from 19.2 per 100,000 in 1990 to 9.3 in 2008. <sup>1,a</sup>
- There were 3,716 nonfatal unintentional injury hospitalizations for Washington youth ages 0-19 in 2008, for a rate of 210 per 100,000. This represents a 41 percent decrease from the 1990 rate of 355 per 100,000. The rate declined significantly from 1990 to 1997 and has been stable since.<sup>2</sup>
- The highest unintentional injury death and hospitalization rates for Washington children were in infants and youth ages 15-19. Males had significantly higher unintentional injury death and hospitalization rates compared to females.<sup>1,2,c</sup>
- Among Washington children ages 0-19, unintentional injury death rates are highest in American Indian/Alaska Natives. Their rates are over two times the rates for other racial/ethnic groups. Hospitalization data by race are not available <sup>1,c</sup>
- Motor vehicle crashes are the leading cause of unintentional injury deaths in children and accounted for 37 percent of the unintentional injury deaths in children in 2008. Deaths due to motor vehicle crashes declined steadily from 8.2 per 100,000 Washington children ages

#### **Definition:**

Unintentional injury deaths: Deaths due to accidental or unintentional causes. <sup>a</sup> Unintentional injury hospitalizations: Non-fatal hospitalizations due to unintentional injuries. <sup>b</sup>

- 0-19 in 1995 to 3.5 per 100,000 in 2008. (Data not shown)<sup>1</sup>
- While the leading causes of unintentional injury deaths vary by age of the child, the overall leading causes for Washington children are motor vehicle crashes, poisoning, suffocation and drowning. The three most common causes for nonfatal unintentional injury hospitalizations for Washington children were falls/ jumps/ pushes, motor vehicle crashes, and injuries caused by being struck accidentally by an object or person.<sup>1,2</sup>
- The Healthy People 2010 goal is to reduce the unintentional injury mortality rate for those of all ages to no more than 17.5 per 100,000 population and motor vehicle crashes to no more than 9.2 deaths per 100,000 population. Washington has not met these goals. <sup>3</sup>

#### Youth Injury Risk Factors (Data not shown)<sup>e</sup>

- In 2008, 92-96 percent of Washington students in grades 6,8,10, and 12 reported wearing their seatbelts most of the time or always.<sup>4</sup>
- In 2008, 22 percent of 6<sup>th</sup> graders, 19 percent of 8<sup>th</sup> graders and about 23-24 percent of 10<sup>th</sup> and 12<sup>th</sup> graders reported riding in a vehicle in the past 30 days driven by someone who had been drinking alcohol. This is lower than the national rate in 2009 for 10<sup>th</sup> graders of 28 percent.<sup>4,5</sup>
- In 2008, 6 percent of 10<sup>th</sup> graders and 12 percent of 12<sup>th</sup> graders reported driving in the past 30 days after drinking alcohol. This is lower than the national rate of 8 percent for 10<sup>th</sup> graders and 15 percent for 12<sup>th</sup> graders in 2009.<sup>4,5</sup>

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- In 2008, among students who rode bicycles in the past 12 months, 31 percent of 8th graders, 19-20 percent of 10th and 12<sup>th</sup> graders reported they wore a helmet most of the time or always.<sup>4</sup>
- Among youth who had been boating, 52 percent of 8<sup>th</sup> graders, 40 percent of 10<sup>th</sup> graders, and 34 percent of 12<sup>th</sup> graders reported always wearing a life vest when boating.<sup>4</sup>
- In most grades surveyed, females reported wearing seat belts, life vests and bike helmets more than males. They are less likely to report driving after drinking than males. 4
- Related Healthy People 2010 goals are to increase use of safety belts for those of all ages to 92 percent and to reduce the proportion of adolescents who report riding in a car in the past 30 days with a driver who had been drinking alcohol to no more than 30 percent. Washington has met these goals.<sup>3</sup>

Unintentional Injury Mortality Rate Ages 0-19, by Year

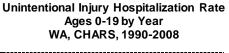
# Mortality Rates: Time Trend <sup>1,6</sup>

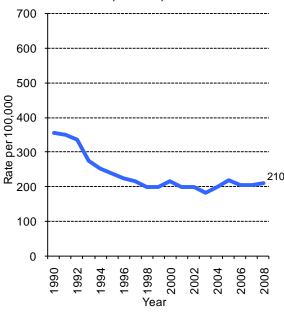


WA

US

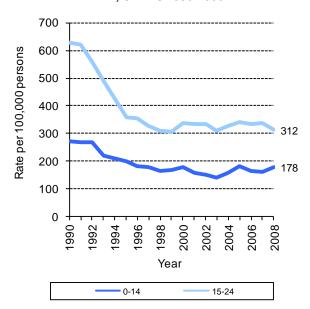
## Nonfatal Hospitalization Rates: Time Trend





Nonfatal Hospitalizations: Block Grant Measure, Unintentional Injury Ages 0 to 24 by Age Group <sup>3</sup>

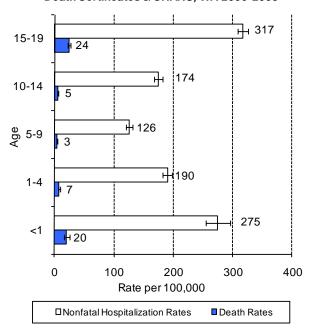
Unintentional Injury Hospitalization Rate Ages 0-24 By Age Group WA, CHARS 1990-2008



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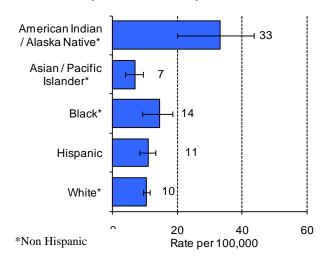
### Mortality and Nonfatal Hospitalizations: Age 1

#### Unintentional Injury Death and Nonfatal Hospitalization Rates Ages 0-19, by Agegroup Death Certificates & CHARS, WA 2006-2008



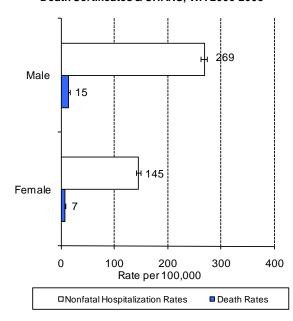
Mortality: Race and Ethnicity 1,c,d

Unintentional Injury Death Rates Ages 0-19, by Race and Ethnicity WA, Death Certificates, 2006-2008



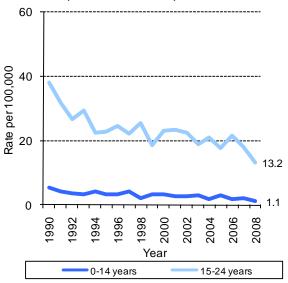
# Mortality and Nonfatal Hospitalizations: Gender <sup>1</sup>

Unintentional Injury Death and Nonfatal Hospitalization Rates Ages 0-19, by Gender Death Certificates & CHARS, WA 2006-2008



Mortality: Block Grant Measure- Motor Vehicle Crashes <sup>1</sup>

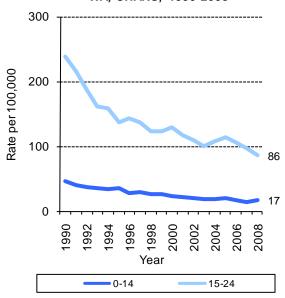
Motor Vehicle Crash Death Rate by Age Groups WA, Death Certificates, 1990-2008



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Nonfatal Hospitalizations: Block Grant Measure: Motor Vehicle Crashes (MVC) <sup>3</sup>

#### Motor Vehicle Crash Hospitalization Rate by Age Group WA, CHARS, 1990-2008

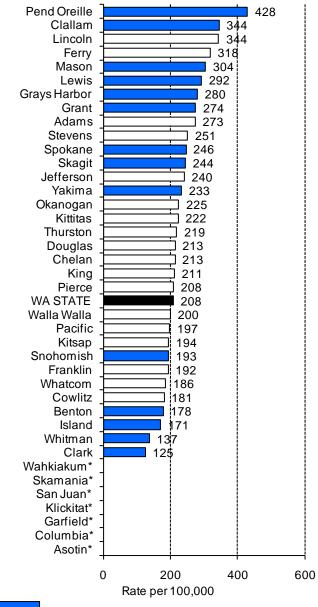


Mortality: Leading Causes of Unintentional Injury Deaths, 2004-2008; WA Children Ages 0-19, by Age Group <sup>1</sup>

Rank	1st	2nd	3rd
<1	Suffocation	Motor vehicle crash	Drowning
1-4	Drowning	Motor vehicle crash	Other Pedstrian
5-9	Drowning	Motor vehicle crash	Fire/Burn
10-14	Motor vehicle crash	Drowning	Poisoning
15-19	Motor vehicle crash	Poisoning	Drowning
0-19	Motor vehicle crash	Poisoning	Drowning

# Nonfatal Hospitalizations: County <sup>3</sup>

#### Unintentional Injury Hospitalization Rate Ages 0-19 by County WA 2006-2008



Significantly different from state rate, p value < 0.05

<sup>\*</sup>Rates not presented if count less than 6 or relative standard error >30 percent.. Excludes hospitalizations of Washington residents in Oregon.

Nonfatal Hospitalizations: Leading Causes of Unintentional Injury Hospitalizations, 2006-2008 WA Children Ages 0-19, by Age Group <sup>3</sup>

Rank	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>
<1	Fall/Jump/Push	Hot Object/	Poisoning
		Substance	
1-4	Fall/Jump/Push	Poisoning	Hot Object/ Substance
5-9	Fall/Jump/Push	Struck by (or against)	Pedal Cyclist, Other
10-14	Fall/Jump/Push	Struck by (or against)	Other Land Transport
15-19	Motor Vehicle, Occupant	Fall/Jump/Push	Struck by or against
0-19	Fall/Jump/Push	Motor Vehicle, Occupant	Struck by or against

#### Data sources

- 1. Washington State Death Certificate Data (1990-2008)[Data file] Race data generated by Community Health Assessment Tool (CHAT). Olympia, WA: Washington State Department of Health, Center for Health Statistics.
- 2. Comprehensive Hospital Abstract Reporting System (CHARS), Washington State Department of Health, Center for Health Statistics. Data provided by the Injury and Violence Prevention Program, Washington State Department of Health.
- 3. U.S. Department of Health and Human Services. (2000). *Healthy People 2010: Understanding and Improving Health*. 2<sup>nd</sup> edition. Washington, DC: U.S. Government Printing Office.
- 4. Washington State Department of Health. (2010). *Healthy Youth Survey 2008 Analytic Report*. Washington State Department of Health, Office of the Superintendent of Public Instruction, Department of Social and Health Services, Department of Commerce, Family Policy Council and Liquor Control Board.
- Centers for Disease Control and Prevention. Youth Risk Behavioral Surveillance-United States, 2009. Surveillance Summaries, June 4, 2010. MMWR 2010;59(No. SS-5). Retrieved June 4, 2010 from: http://www.cdc.gov/mmwr/pdf/ss/ss5905.pdf

#### **Endnotes**

- a. For death certificate data for years 1999 on, the ICD-10 codes for unintentional injury deaths used include V01-X59 and Y85-Y86. The ICD-9 codes used prior to 1999 include E800-E869 and E880-E929. Comparability ratio (used to enable comparison) was 1.025 (SE 0.0055). ICD-9 codes were used for hospitalization data.
- b. ICD-9 codes E800-E869 and E880-E929. They exclude adverse effects, which are injuries related to therapeutic use of drugs and adverse effects of medical and surgical care. Unintentional injury hospitalizations include all diagnoses. The data source is the Washington State Comprehensive Hospital Abstract Reporting System (CHARS). Patients hospitalized more than once with the same diagnosis will be counted as separate incidents. Oregon hospitalizations of Washington residents excluded.
- c. Significance determined based on Z score testing with significance at p < 0.05.
- d. Excludes fire related injuries and includes objects and substances such as hot liquids, steam, caustic substance, corrosive substances, electric heating appliances, and steam pipes.
- e. Significance from the Healthy Youth Survey is based on chi-square testing with significance at p < 0.05.

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