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Native Americans and Injury

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- **Mortality Atlas
Summary**

Executive Summary: Atlas of Injury Mortality Among American Indian and Alaska Native Children and Youth, 1989-1998

Injuries, from both unintentional and intentional causes, are third behind heart disease and cancer as the leading cause of death among all American Indians and Alaskan Natives (Native Americans) and are the leading cause of death in the U.S. among those ages one to 44 years.¹ This Atlas presents injury mortality data from 1989 through 1998 for American Indian and Alaskan Native (also referred to as Native American) children and youth ages 0 to 19 years residing in the 12 Areas referred to as Indian Health Service (IHS) Areas. Eight major causes of injury-related death are included as follows: motor vehicle-related, pedestrian-related, firearm-related, suicide, homicide, drowning, fire and burns, and suffocation. For each cause of injury, composite maps of the IHS Area rates as well as individual maps are shown to allow for rate comparisons among Areas and with national all-race rates. In addition, trends in death rates by race, age-sex-specific rates, and subcategories of cause are provided for each of the eight causes of injury.

During 1989-1998, injuries caused the deaths of 3,718 (adjusted for racial misclassification) Native Americans ages 0 through 19 years in the 12 specified IHS Areas. The main findings from the analysis of these injury deaths are:

- Injuries and violence are the leading killers of Native American children and youth, accounting for 75% of all deaths among one to 19 year olds.
- Native American males ages 15 to 19 years had the highest number of deaths for six causes of injury: motor vehicle-related, pedestrian-related, firearm-related, homicide, suicide, and drowning.
- The Alaska Area had the highest rates for four causes of injury death: firearm-related, suicide, drowning, and suffocation.
- Patterns and rates of injury death among Native American children and youth differed significantly among the 12 IHS Areas.
- Motor vehicle-related death rates for nine of the 12 Areas were equal to or greater than the top 5% (95th percentile) of state injury rates in the U.S.

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Additional Findings and Maps

 PDFs require [Adobe Acrobat](#).

Racial Disparity

- Compared to Black and White children and youth, Native American children and youth had the highest injury death rates for motor vehicle crashes, pedestrian-related deaths, and suicide.
- Black children and youth had the highest rates for homicide and firearms.
- Native American and Black children and youth had similar rates for fire-related deaths and drowning.
- Among all injury causes, Native American rates were higher than White rates.

Motor Vehicle-Related Deaths

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- Motor vehicle crashes were the leading cause of death among Native Americans one to 19 years of age. Motor vehicle crashes were also the leading cause of injury death in all IHS Areas except Alaska where firearm use was the leading cause.
- During 1989-1998, there was a 21% decrease in male death rates. Female rates decreased by 12%.
- In the Alaska, Navajo, and Tucson Areas, more than 25% of the children and youth killed in motor vehicle crashes were pedestrians.
- The Navajo, Aberdeen, and Billings Areas had motor vehicle-related death rates at least three times greater than national rates.

Pedestrian-Related Deaths

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- Native American males were over two times more likely than Black males and nearly four times more likely than White males to be killed as a pedestrian. Native American female pedestrian death rates were higher than those for either Black or White males.
- The majority (74%) of Native American pedestrian-related deaths occurred on public roads. However, over half of pedestrian-related deaths observed among one to four year-old children occurred in non-traffic locations, such as private driveways.
- Pedestrian death rates in the Tucson, Albuquerque, and Navajo Areas ranged from five to seven times greater than national rates.
- Over the ten year period, pedestrian-related death rates declined 56%.

Firearm-Related Deaths

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- The majority (78%) of all firearm-related deaths among Native American children involved intentional use of the weapon. Only 18% of firearm-related deaths were recorded as being unintentional.
- Firearm-related injury was the second leading cause of injury death in five Areas: California, Oklahoma, Phoenix, Portland, and Tucson. It was the primary cause of injury death in Alaska.
- Native American male firearm-related death rates increased while female rates dropped during 1989-1998. During the most recent period, 1997-1998, male rates were over eight times greater than female rates.
- Suicides accounted for 46% of the firearm-related deaths.
- Tucson and Alaska Area death rates ranged from two to almost four times greater than national rates.

Suicide

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- Suicide rates were highest among 15 to 19 year-olds. During 1997-1998, Native American males had suicide rates almost five times higher than Native American females. Rates remained unchanged over the ten year period.
- Over half of Native American suicides were committed with a firearm, and more than one third were by hanging.
- The highest rates of youth suicide occurred in the Alaska, Aberdeen, and Tucson Areas. These Areas had rates that were six to eight times greater than national rates.

Homicide

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- Forty percent of Native American homicides among zero to 19 year olds involved a firearm. Firearm use was the leading cause of homicide among 15 to 19 year-olds (52%), while child maltreatment was the leading cause among zero to four year olds (34%).
- During 1989-1998, homicide rates increased for males, but remained unchanged for females. Increases in the rate of firearm-related homicide accounted for the overall increase in the total homicide rate.
- Homicide rates were highest among 15 to 19 year-old males, followed by children under one year of age. After suffocation and choking, homicide was the second leading cause of injury death among infants.
- The highest rates of homicide occurred in the Tucson, Billings, Phoenix, and Aberdeen Areas. The Tucson Area homicide rate was almost three times greater than national rates.

Drowning

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- Drowning rates were similar among males and females ages one to four years, but male rates for 15 to 19 year olds were eleven times greater than female rates.
- Native American male drowning rates declined by approximately 66% during 1989-1998, while female rates doubled.
- During the most recent years, 1997-1998, Native American and Black males had similar drowning rates. Native American male rates were almost two times greater than White rates. Native American female rates were higher than Black and White females.
- The Alaska Area had the highest drowning rate of all the IHS Areas, with a rate seven times greater than the national rate. The Alaska rate was three times that of Phoenix, which had the next highest rate.

Fire-Related Deaths

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- Children ages zero to four years had the highest fire-related death rates.
- Fire-related death rates increased among males during the years, 1989-1994, however, decreased thereafter. Female rates followed a similar pattern.
- House fires accounted for 93% of fire-related deaths among Native American children and youth.
- Fire-related death rates were highest in the Alaska, Aberdeen, and Bemidji Areas, with rates six to seven times greater than national rates.

Suffocation

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- Suffocation, choking, and strangulation were the leading causes of infant injury death. Over two times as many infants died from suffocation/choking as from motor vehicle crashes.
- Approximately 58% of all Native American childhood suffocation/choking deaths occurred among infants.
- The highest rates of suffocation occurred in the Billings, Bemidji, Tucson, Navajo, Aberdeen, and Alaska Areas with rates approximately three to five times greater than national rates.

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References

1. Indian Health Service. Trends in Indian Health, 1997. Rockville MD: US Public Health Service, 1997.