

Homicide and Suicide

Among Native Americans
1979-1992

Violence Surveillance Summary, Series No. 2



U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
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National Center for Injury Prevention and Control



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Executive Summary

From 1979–1992, 4,718 American Indians and Alaskan Natives (Native Americans) who resided on or near reservations died from violence—2,324 from homicides and 2,394 from suicide. During this 14-year period, overall homicide rates for Native Americans were about 2.0 times higher, and suicide rates were about 1.5 times higher, than U.S. national rates. Native Americans residing in the southwestern United States, northern Rocky Mountain and Plains states, and Alaska had the highest rates of homicide and suicide.

Both homicides and suicides occurred disproportionately among young Native Americans, particularly males. From 1990–1992, homicide and suicide alternated between second and third rankings as leading causes of death for Native American males 10–34 years of age. For Native American females aged 15–34 years, homicide was the third leading cause of death. Almost two-thirds (63%) of male victims and three-quarters (75%) of female victims were killed by family members or acquaintances.

Firearms were the predominant method used in both homicides and suicides. From 1979–1992, just over one-third of Native American homicide victims were killed with a firearm, with the firearm-related homicide rate among Native Americans increasing 36% from 1985–1992. Firearms were used in nearly 60% of Native American suicides.

Several distinctive characteristics of violent death among Native Americans emerged from this study:

- The age distribution of suicide rates for Native Americans is quite unlike that for the general population, because of high rates among young adults and lower rates among the elderly.

- Although firearms are the predominate method for both homicides and suicides, Native Americans have a lower proportion of firearm-related homicides and suicides than is found in the U.S. population.
- The proportion of homicides in which the victim and perpetrator were family members or acquaintances is somewhat greater for Native Americans than for the U.S. population at large.
- Patterns and rates of homicide and suicide among Native Americans differ greatly from region to region.

There are many promising interventions to prevent violence, but because each Native American community is unique, prevention strategies should be planned with careful attention to local injury patterns and local practices and cultures. Given community differences and the multiple and complex causes of homicide and suicide, a simple and uniform approach is inappropriate. Success will come only through a variety of interventions, tailored to the specific local settings and problems. Also essential is continued surveillance and evaluation of the effectiveness of the prevention programs that are put into place.

The information in this report should be useful to public health practitioners, researchers, and policy makers in addressing the problem of homicide and suicide among Native Americans.

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Introduction

Violence is a leading cause of death and disability for all Americans, but it is a particular threat to American Indians and Alaskan Natives (Native Americans).^{*} Previous reports have shown that from 1979–1987, the age-adjusted homicide and suicide rates for Native Americans living on or near reservations were at or above the 90th percentile rates for all Americans.¹ From 1990–1992, homicide and suicide combined ranked as the fourth leading cause of death for Native Americans, exceeded only by heart disease, cancer, and unintentional injuries. For more than half of the 14-year study period (1979–1992), the annual number of suicides among Native Americans exceeded homicides, with most of the excess occurring since 1984.

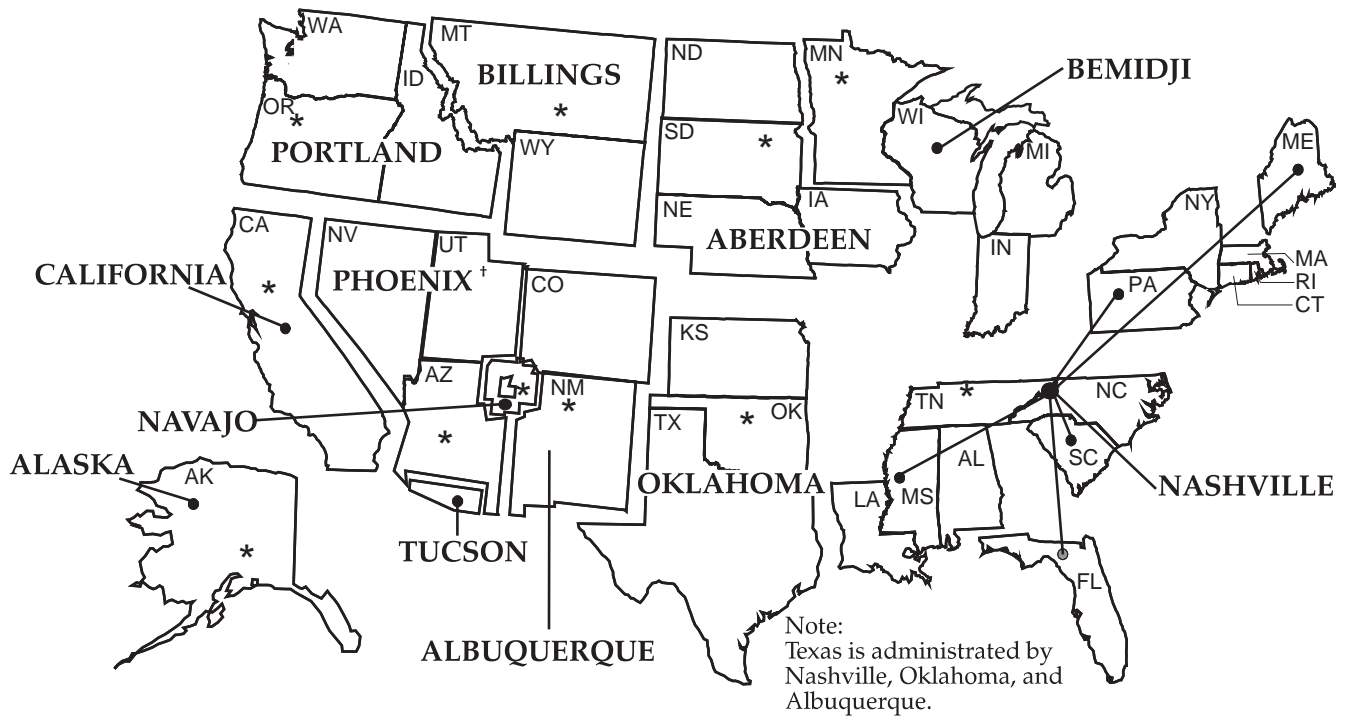
The Native American population for 1995 is projected at approximately 2.27 million.² Nearly half (1.37 million³) live in the geographic areas in which the Indian Health Service (IHS) has responsibilities (i.e., “on or near” federally recognized reservations) and are thus eligible for IHS services. For administrative purposes, IHS has grouped these areas, which comprise 571 counties in 34 states, into 12 regions, or area offices:⁴ Aberdeen Area, Alaska Area, Albuquerque Area, Bemidji Area, Billings Area, California Area, Nashville Area, Navajo Area, Oklahoma Area, Phoenix Area, Portland Area, and Tucson Area (Figure 1). Each of these areas represents a unique combination of traditions and culture. There are also vast differences in government structure, economic level, population size, rurality, and the degree of acculturation.

Violence is a leading cause of death for all Americans, but it is a particular threat to Native Americans.

^{*}Throughout this report, the term “Native Americans” is used to indicate American Indians and Alaskan Natives together. “American Indians” is used to refer only to residents of the contiguous United States, and “Alaskan Natives,” to refer only to those residing in Alaska.

This surveillance summary looks at the problem of homicide and suicide among Native Americans in the IHS regions from 1979–1992. It is the first CDC surveillance report to focus on Native Americans. Its purpose is to provide background information for public health practitioners and policy makers to aid them in addressing violence in this vulnerable population.

Figure 1. Indian Health Service Areas



* Area Office
 † The Phoenix area includes NV and parts of UT and AZ as well as the Hopi Reservation, the small section inside the Navajo area.
 Source: IHS.

Data Sources

The data on homicide and suicide were drawn from three sources:

- detailed mortality tapes prepared by CDC’s National Center for Health Statistics (NCHS) and based on data from state death certificates
- these same NCHS mortality data, which IHS has categorized by area offices
- data (homicide only) compiled from the Federal Bureau of Investigation’s Supplementary Homicide Report (FBI-SHR)

The data derived from these sources are as follows:

| <u>Source</u> | <u>Type of Data</u> | <u>Population and Year Encompassed</u> |
|---------------|--|--|
| IHS | Mortality rates—all Native Americans | IHS service areas 1979–1992 |
| NCHS | Mortality data—all other races | Entire United States 1979–1992 |
| NCHS | YPLL-65*; 10 leading causes of death | All Native Americans 1990–1992 |
| FBI-SHR | Homicide—type of firearm, relationship of victim and perpetrator | All Native Americans 1988–1991 |

Data for this study are from the Centers for Disease Control and Prevention, the Indian Health Service, and the Federal Bureau of Investigation.

*Years of potential life lost before age 65 (see page 7 for description).

NCHS Mortality Data

Information on NCHS mortality tapes is provided by the 50 states and the District of Columbia and includes all persons reported as Native Americans. The data include age, race, sex, geographic information, and cause of death, coded according to the *International Classification of Diseases, Ninth Revision, Clinical Modification*.⁵ Homicides were identified using cause-of-death codes E960–E978,* and suicides, using codes E950–E959.

IHS Mortality Data

Each year, NCHS provides IHS with a multiple-cause-of-death mortality tape of all U.S. decedents. IHS categorizes these data by IHS area offices to create its own mortality data set. The IHS mortality data include those Native Americans who resided within an IHS area at the time of death and who were eligible for IHS services.⁴

IHS mortality data represent the largely rural, reservation-based Native American population more closely than do NCHS data, which include all Native Americans residing in the United States. The IHS mortality data for 1979–1992 contained 74% of the homicides and 80% of the suicides reflected in the NCHS data for Native Americans. In this report, all homicide and suicide rates for Native Americans are from IHS mortality data.

FBI-SHR Homicide Data

The FBI-SHR compiles homicide data that have been submitted voluntarily by county, city, and state agencies; the Bureau of Indian Affairs; and Native American tribal law enforcement agencies throughout the United States. In 1988, approximately 98% of the U.S. population was covered by this reporting system.⁶ In this data set, homicide is defined as murder and nonnegligent manslaughter (the willful killing of one human being by another), including justifiable homicides by private citizens (killing of someone who is in the act of committing a felony) and killing of a suspected felon by a law enforcement officer in the line of duty.⁶

*Specific codes are “homicide and injury purposely inflicted by other persons” (E960–E969) and “legal interventions” (E970–E978), which include legal executions and death from injury inflicted by law enforcement agents in the course of duty. Death resulting from legal interventions accounted for 2.1% of homicides involving Native Americans.

The FBI-SHR data are important because they include demographic information on the victim and assailant, the relationship between victim and assailant, and detailed information on the type of weapon used. The data are based solely on the reports of the investigating law enforcement officials.⁷

We used FBI-SHR data for Native American homicide victims who died during 1988–1991. NCHS’s U.S. Vital Statistics data routinely report about 10% more homicides nationally per year than do FBI-SHR data.⁷ For 1988–1991, however, NCHS reported about 44% more homicides among Native Americans than did the FBI-SHR. This difference is thought to be largely due to the voluntary nature of the FBI-SHR reporting system and to misclassification of race. Also, four states did not report to the FBI-SHR: Florida, for 1988–1991; Maine, for 1991; Iowa, for 1991; and Kentucky, for 1988. Nonetheless, the data should be representative of homicides of Native Americans on reservations because the FBI is routinely involved in those investigations (personal communication: Bennie Jeannotte, Assistant Chief, Law Enforcement Division, Bureau of Indian Affairs).

Despite the apparent underreporting, we used FBI-SHR data because information about relationships between victims and offenders is available only from the FBI-SHR and because the type of firearm used is reported more completely in FBI-SHR data than in NCHS data. FBI-SHR data are used for all information about offenders and type of firearm used.

Population Data

We calculated rates using estimates of the IHS service population for 1979–1992, based on the 1980 and revised 1990 census, as denominators. All rates specific to IHS areas, race, and sex were age-adjusted by the direct method using the 1940 U.S. population as the standard.

The 1990 census indicates that the Native American population residing in IHS service areas is younger than the U.S. population as a whole. Thirty-four percent of Native Americans are under 15 years of age, and the median age is 24.2 years. Only 22% of the total U.S. population is under 15, and the median age is 32.9 years.⁴

Results: Homicide

Overall Homicide Rates and Premature Mortality

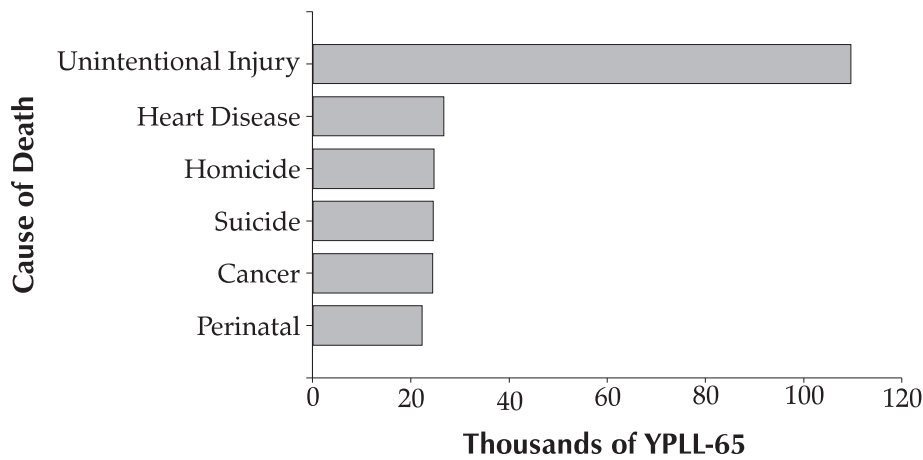
From 1979–1992, 2,324 Native Americans residing in the 12 IHS areas died from homicide. During this period, the total number of Native American homicides was essentially unchanged, with 164 in 1979 and 168 in 1992. The rate of homicide for Native Americans, however, had a general downward trend, from a high of 23.7 per 100,000 in 1979 to a low of 13.2 per 100,000 in 1990 (Table 1).^{*} During the first half of the period, homicide rates for the United States as a whole also declined. However, during the last half of the period, when the rates for Native Americans were relatively stable, overall U.S. rates increased. During 1990–1992, homicide was the ninth leading cause of death for all Native Americans (Table 2). Despite these trends, the rates for Native Americans were approximately twice the U.S. rates throughout the first half of the period and continued to exceed the U.S. rates during the later years.

Although homicide rates for Native Americans declined from 1979–1990, they remained higher than U.S. rates.

Years of potential life lost before the age of 65 (YPLL-65), which measures premature mortality, is another way of defining the scope of a public health problem.⁸ By calculating the years between the age at death and age 65, this technique weighs more heavily those conditions that kill children, teenagers, and young adults. For 1990–1992, homicide was the third leading cause of years of life lost before age 65 (Figure 2, Table 5). It accounted for 7% of YPLL-65 among Native Americans and was exceeded only by unintentional injury and heart disease. YPLL-65 attributable to homicide increased by 13% for Native Americans from 1979–1981 to 1990–1992.

^{*}Tables are in a separate section at the back of the book.

Figure 2. Leading Causes of Years of Potential Life Lost before Age 65 (YPLL-65)—Native Americans,* 1990-1992



Homicide is the third leading cause of years of potential life lost before age 65 for Native Americans.

*Residing in the United States.
Source: NCHS underlying-cause-of-death files.

Race- and Sex-Specific Homicide Rates

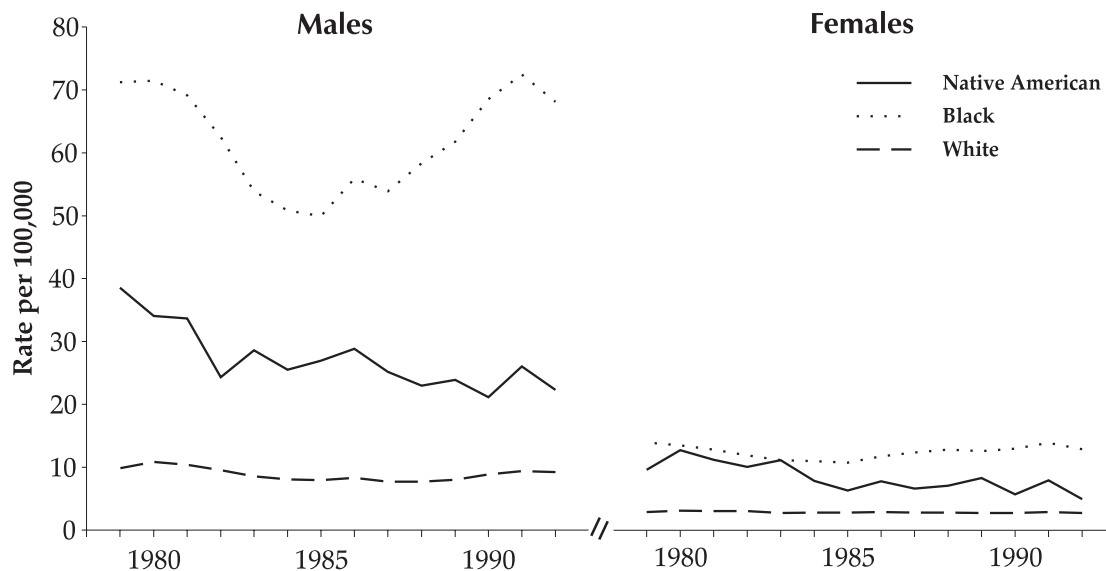
During the study period, 1,759 Native American males and 565 females were victims of homicide (Table 1). Throughout this period, homicide rates in the United States were highest for black males, followed by Native American males and then black females (Figure 3). Homicide rates for white males and Native American females were comparable and were higher than rates for white females. Homicide rates for Native Americans declined for both males and females during the earlier years of the study period, then remained stable for males and relatively stable for females. Homicide rates for Native Americans from 1979–1992 were three times the rates for whites, but only half the rates for blacks. During the last half of the period, when the rates for Native Americans had stabilized, those for blacks increased.

Native American males had the second highest homicide rates during the study period.

Age- and Sex-Specific Homicide Rates

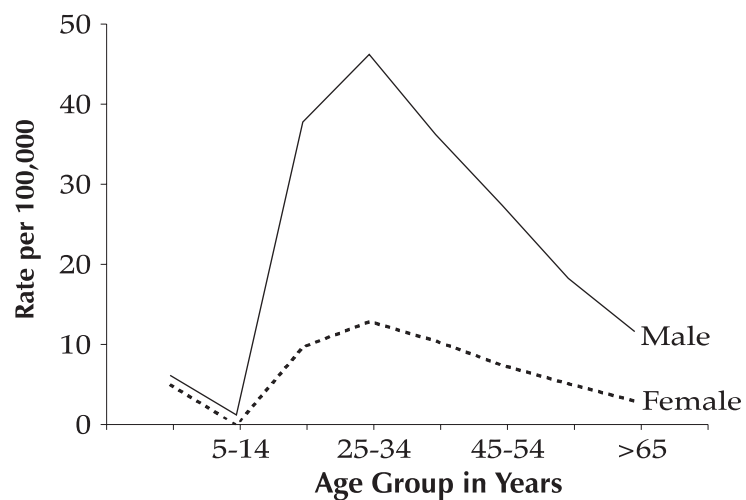
For Native Americans, homicide is most common among young adults (Figure 4). During 1979–1992, the median age of Native American homicide victims was 28 years. Males aged 15–44 accounted for 60% of all homicides of Native Americans. The

Figure 3. Homicide Rates, by Race and Sex—Native Americans,* Blacks, Whites, 1979-1992



*Residing in IHS service areas.
Source: IHS mortality tapes.

Figure 4. Homicide Rates, by Age Group and Sex—Native Americans,* 1979-1992



Young adults had the highest homicide rates among Native Americans.

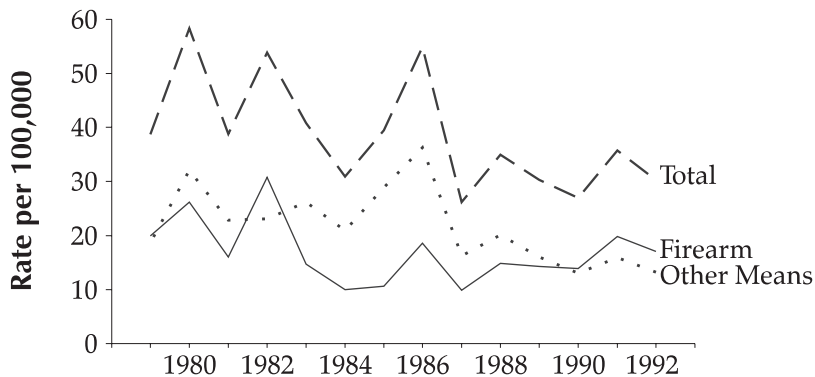
*Residing in IHS service areas.
Source: IHS mortality tapes.

group at highest risk was males aged 25–34 years (47.0 per 100,000). From 1990–1992, homicide ranked sixth in overall leading causes of death among Native American males in the United States, but second among males aged 25–34 and third among males 1–4 and 10–24 years (Table 3).

The pattern for Native American males aged 15–24 years, for both firearm-related homicides and homicides not involving a firearm, reflects the overall decline in homicide in this group from 1979–1992 (Figure 5). In contrast, among black males aged 15–24 years, the total homicide rate mirrors a rise in rates of firearm-related homicide.⁷

For Native American females, the 25- to 34-year age group was also at highest risk (13.8 per 100,000) (Figure 4). Although homicide was not one of the 10 leading causes of death overall for Native American females during 1990–1992, it was the second leading cause for girls aged 1–4 years and the third for females aged 15–34 (Table 4).

Figure 5. Homicide Rates, by Firearm Use—Native American Males* Aged 15-24 Years, 1979-1992



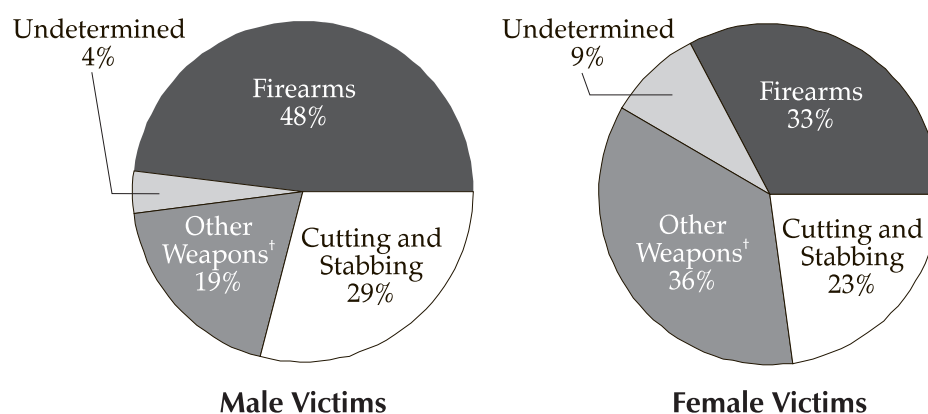
Despite high rates, homicides among young Native American males declined over the study period, reflecting a decrease in the use of both firearms and other means.

*Residing in IHS service areas.
Source: IHS mortality tapes.

Methods of Homicide

According to the FBI-SHR for 1988–1991, 44% of homicides of Native Americans involved firearms, with 64% of these involving a handgun (Table 6). Male victims were most likely to be killed by a firearm (48%), and female victims, by other methods (36%), such as blunt objects, bodily force, or strangulation (Figure 6). Cutting and stabbing accounted for a substantial number of deaths among both males (29%) and females (23%).

Figure 6. Percentage of Homicides, by Weapon Used and Sex of Victim—Native Americans,* 1988-1991



Male victims were most likely to be killed by a firearm, and female victims, by other methods, such as blunt objects, bodily force, or strangulation.

*Residing in the United States.

†Includes bodily force.

Source: FBI-SHR.

Although firearms are the predominant weapon used in Native American homicides, they are less likely to be used in this group (38%) than in the U.S. population as a whole (63%). From 1979–1992, firearms were used in about 63% of homicides in the United States, but in 38% of homicides of Native Americans residing in IHS areas.

The prevalence of firearm use varied across IHS areas, from 28% of homicides in the Aberdeen Area to 53% in the California Area (Table 7). Firearm use was also high in the Alaska Area (47%), the Nashville Area (48%), and the Oklahoma Area (50%). Despite the predominance of firearm use, cutting and stabbing was the leading method of homicide in three areas: Aberdeen, Albuquerque, and Navajo.

Relationship of Victims to Assailants

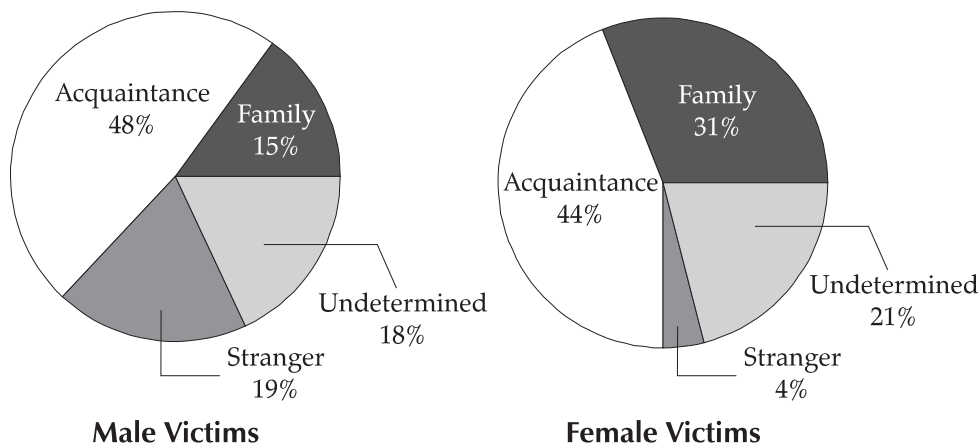
From 1988–1991, two-thirds (66%) of Native American homicide victims were killed by persons they knew: 19% by family members and 47% by acquaintances. This proportion is larger than the proportion for the United States as a whole.

Females were particularly at risk of being killed by someone they knew (75%), with almost one-third of female victims being killed by family members (Figure 7). Nationwide, about 65% of female victims were killed by someone they knew.⁷ During the study period, 63% of Native American male victims were killed by family members or acquaintances, in contrast with 50% nationwide. Two-thirds of all Native American homicide victims were males who were killed by males (Figure 8).

Two-thirds of Native American homicide victims were killed by someone they knew.

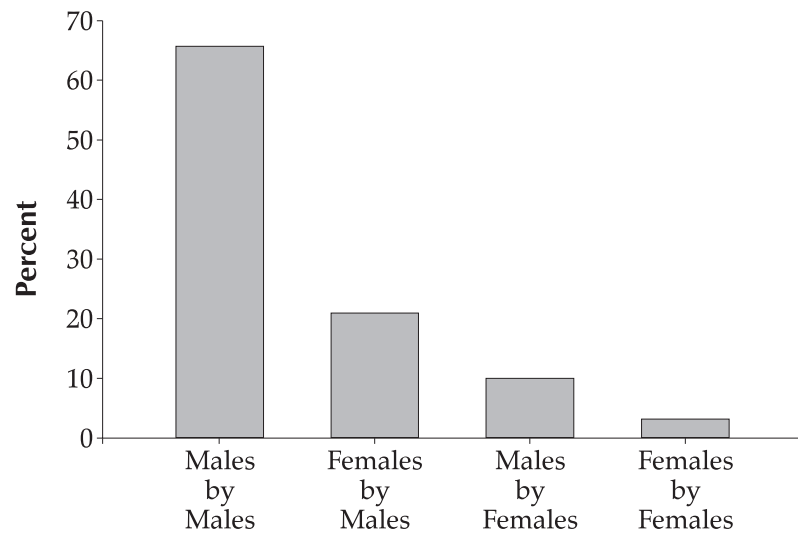
Most Native Americans were killed by other Native Americans (51%) or by whites (39%) (Figure 9). Females were most likely (59%) to be killed by other Native Americans.

Figure 7. Percentage of Homicides, by Relationship between Victim and Assailant, and by Sex—Native Americans,* 1988-1991



*Residing in the United States.
Source: FBI-SHR.

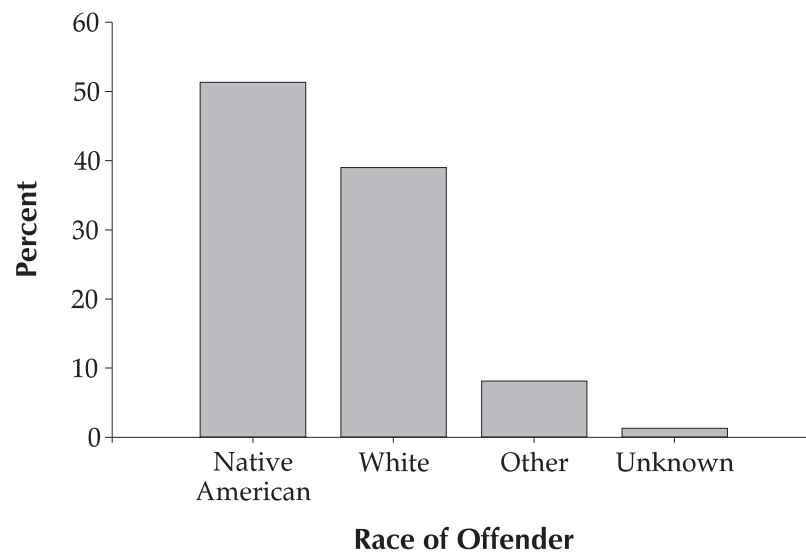
Figure 8. Percentage of Homicides, by Sex of Victim and Offender—Native Americans,* 1988-1991



The majority of these homicides involved males killing males.

*Residing in the United States.
Source: FBI-SHR.

Figure 9. Percentage of Homicides, by Race of Offender—Native Americans,* 1988-1991



Most Native American homicide victims were killed by other Native Americans.

*Residing in the United States.
Source: FBI-SHR.

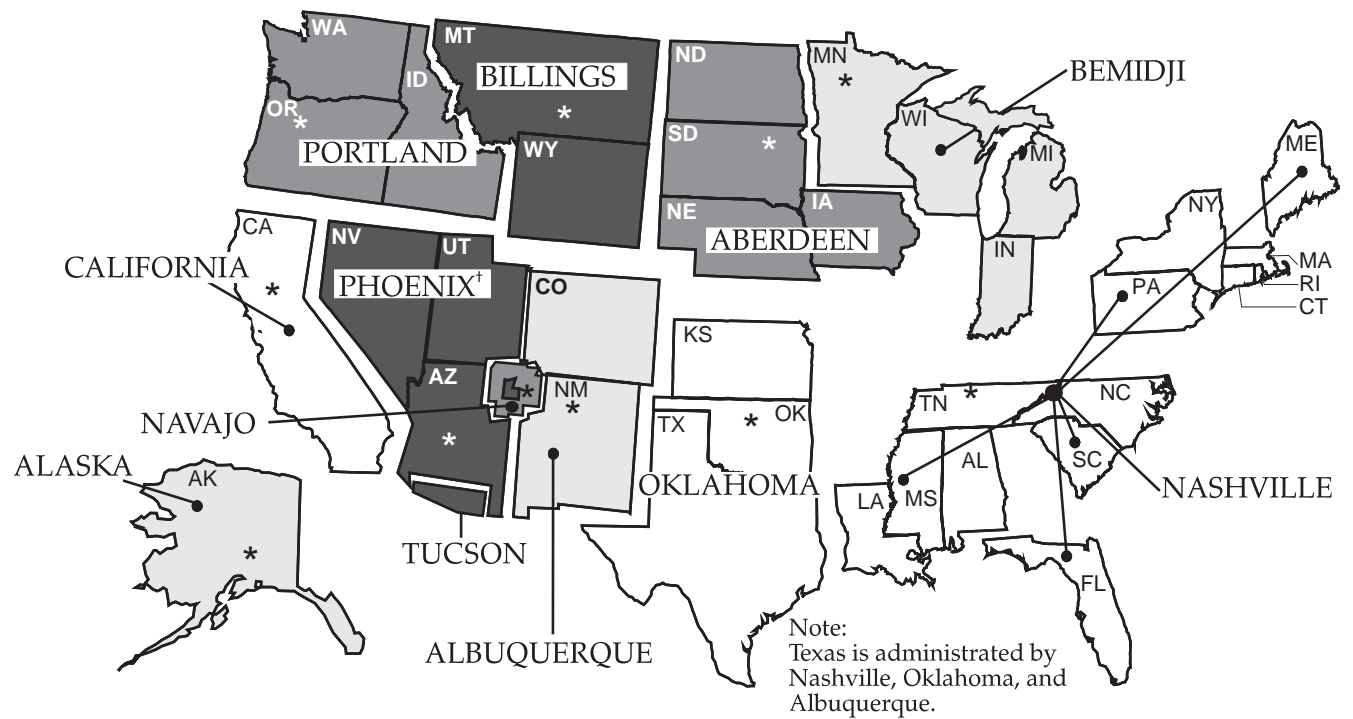
Geographic Patterns of Homicide

During 1979–1992, homicide rates varied widely across the 12 IHS areas, from a low of 10.6 per 100,000 in the Oklahoma Area to 27.8 per 100,000 in the Aberdeen Area (Table 8). The homicide rate in the Aberdeen Area was approximately six times greater than the rate for all South Dakota residents. Rates for all IHS areas were higher than the average U.S. rate (9.5 per 100,000) during the study period. The IHS areas with the highest overall homicide rates and the highest rates for males were in the northern midwest (Aberdeen Area), the northern Rocky Mountain states (Billings Area), and the desert southwest (Tucson Area and Phoenix Area). For Native American females, homicide rates were highest in the northern-midwest (Aberdeen Area) and the desert southwest (Tucson Area and Phoenix Area) (Table 8).

Although the Aberdeen Area had consistently high rates, it did not have the highest rate after 1982. Instead, the highest rate usually occurred in the Tucson, Phoenix, or Billings areas. During 1991–1992, Tucson (24.9) had the highest rate, followed by Billings (23.9) and Phoenix (23.0) (Figure 10, Table 7).

Native American homicide rates were highest in the northern midwest, the northern Rocky Mountain states, and the desert southwest.

Figure 10. Variations in Age-Adjusted Homicide Rates, by IHS Service Area—United States, 1991-1992



Homicides per 100,000, in Quartiles



* Area Office

† The Phoenix area includes NV and parts of UT and AZ as well as the Hopi Reservation, the small section inside the Navajo area.

Source: IHS.

Results: Suicide

Overall Suicide Rates and Premature Mortality

From 1979–1992, 2,394 Native Americans residing in IHS service areas died from suicide. During this period, the number of suicides increased by 19%, from 162 in 1979 to 193 in 1992 (Table 9). The suicide rate declined 26% during the first six years of the study period, from a high of 21.1 per 100,000 in 1979 to a low of 15.6 per 100,000 in 1984. From 1984–1985, there was an 11% increase in suicide rates for Native Americans, after which the rates tended to stabilize. From 1990–1992, suicide was the eighth leading cause of death overall for Native Americans (Table 2) and the fourth leading cause of YPLL-65 (Figure 2 [page 8], Table 5). YPLL-65 attributable to suicide among Native Americans increased by 18% from 1979–1981 to 1990–1992.

In 1992, the suicide rate for Native Americans (16.2 per 100,000) was 1.5 times greater than the rate for all Americans (11.1 per 100,000). It was 1.4 times higher than the rate for whites and 2.4 times higher than the rate for blacks.

Race- and Sex-Specific Suicide Rates

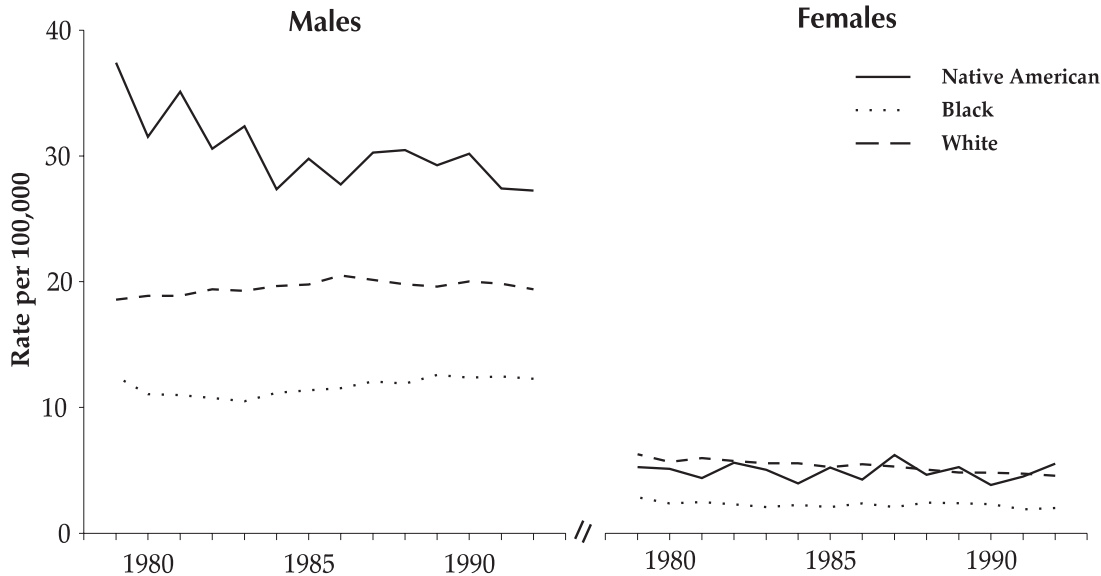
Native American males had the highest suicide rates in the country during the study period, followed by white males and then black males (Figure 11). Black females had the lowest suicide rates, and Native American females, the next lowest rates. The rates for white females were only slightly higher than those for Native American females.

Suicide rates for Native Americans declined overall during the study period, but they remained higher than U.S. rates.

From 1979–1984, the suicide rate for Native American males declined 27%, but from 1984 to 1990 the rate increased 10%. The rate then declined in 1991 and remained virtually unchanged in 1992 (Table 9). The rate for Native American females fluctuated throughout 1979–1992, with no overall decrease (Figure 11).

Native American males had the highest suicide rates in the country.

Figure 11. Suicide Rates, by Race and Sex—Native Americans,* Blacks, Whites, 1979-1992



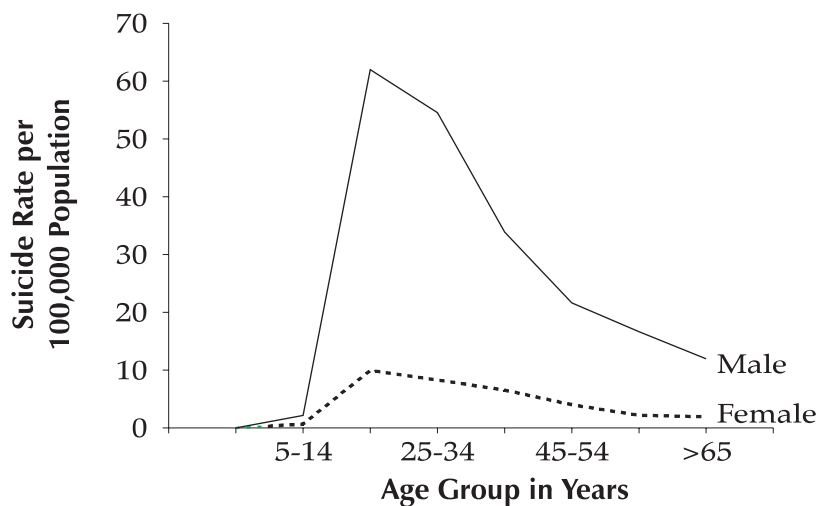
* Residing in IHS service areas.
Source: IHS and NCHS mortality tapes.

Age- and Sex-Specific Suicide Rates

Suicide among Native Americans, like homicide, is most common among young adults, particularly young males (Figure 12). During 1979–1992, the median age of a Native American suicide victim was 26 years. Males aged 15–34 years accounted for 64% of all suicides by Native Americans. Males and females aged 15–24 years were at highest risk, with suicide rates of 62.0 per 100,000 and 10.0 per 100,000, respectively.

Males 15–34 years old accounted for 64% of Native American suicides.

Figure 12. Suicide Rates, by Age Group and Sex—Native Americans,* 1979-1992



Of all Native Americans, young people were at highest risk for suicide.

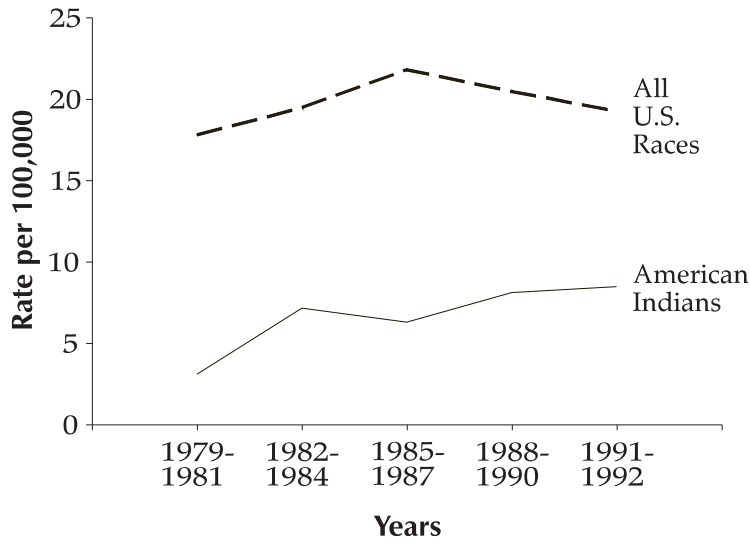
*Residing in IHS service areas.
Source: IHS mortality tapes.

In keeping with past trends, suicide rates were lowest for Native Americans over 65 years of age. This pattern is changing, however: rates for older Native Americans increased almost 200% from 1979–1981 to 1991–1992 (Figure 13). In contrast, although suicide rates in the United States overall are highest for persons over 65, the rates for this group increased only 15% during the same period. A large majority of older Native Americans who committed suicide were male (83%), and firearms were by far the leading method (74%).

From 1990–1992, suicide was the fifth leading cause of death among Native American males in the United States and the second among males aged 10–24 years (Table 3). Suicide is not among the 10 leading causes of death overall for Native American females (Table 4). It is, however, the second leading cause for those aged 15–24 and the fifth for those aged 25–34.

The decline from 1979–1984 in suicide rates for Native American males aged 15–24 years mirrors the decline in firearm-related suicides during that time (Figure 14). Since 1983, however, other means, such as hanging and poisoning, combined have been used almost as often as firearms in suicides by young Native American males.

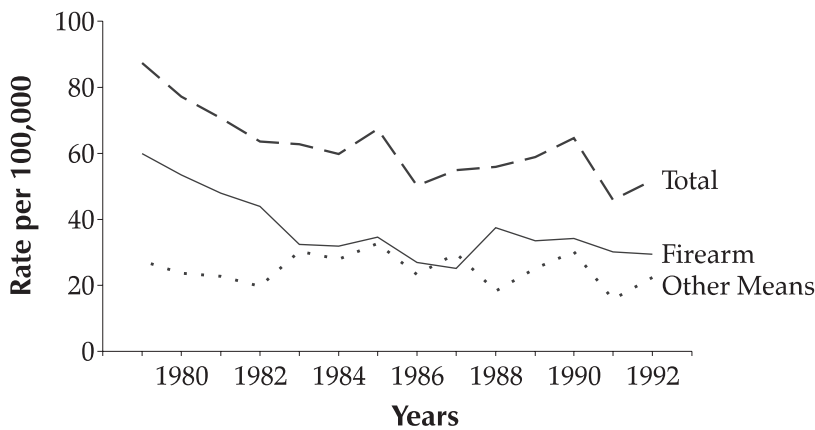
Figure 13. Suicide Rates for Persons Aged 65 Years and Older—Native Americans* and All U.S. Races, 1979-1992



Although suicide rates for older Native Americans are low, they are on the rise.

*Residing in IHS service areas.
Source: IHS and NCHS mortality tapes.

Figure 14. Suicide Rates, by Firearm Use—Native American Males* Aged 15-24 Years, 1979-1992



Since 1983, other means, such as hanging and poisoning, have been used in suicides almost as often as firearms.

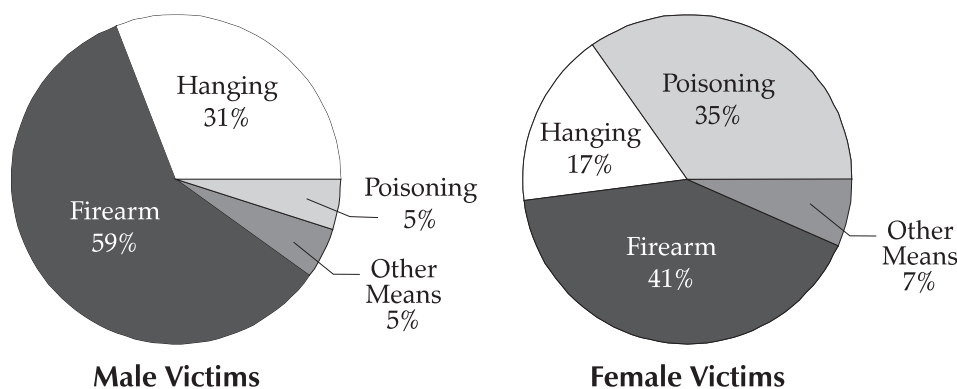
*Residing in IHS service areas.
Source: IHS mortality tapes.

Methods of Suicide

Firearms were used in the majority (57%) of suicides by Native Americans. The next most common methods were strangulation by hanging (29%) and poisoning (9%) (Table 10). Males were most likely to choose firearms (59%) and hanging (31%) (Figure 15). Females were most likely to use firearms (41%) and poisoning (35%). Native Americans were twice as likely as all U.S. residents to choose hanging as a method of suicide, but only half as likely to use poisoning.⁹

Methods of suicide varied across IHS areas. Firearm use ranged from 45% (Aberdeen Area) to 76% (Nashville Area). Hanging was the leading method of suicide in the Aberdeen Area from 1985–1992. Poisoning was the second leading method in the Bemidji Area.

Figure 15. Percentage of Suicides, by Method and Sex of Victim—Native Americans,* 1979-1992



Firearms were the predominant method of suicide for both males and females.

*Residing in IHS service areas.
Source: IHS mortality tapes.

Geographic Patterns of Suicide

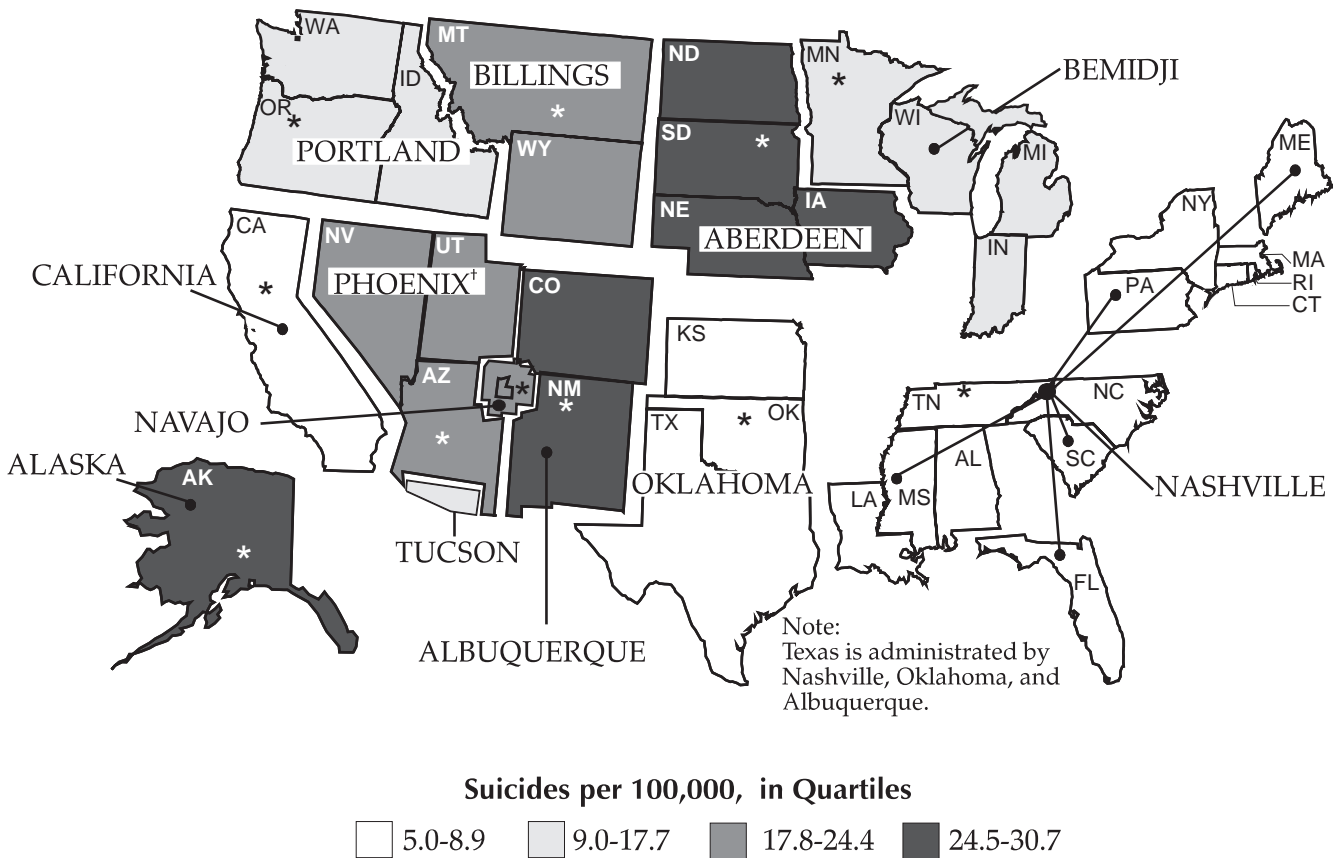
As with homicide rates, suicide rates among Native Americans during 1979–1992 varied geographically, from a low of 7.5 per 100,000 in the Oklahoma Area to a high of 29.6 per 100,000 in the Billings Area (Table 11). However, for the second half of the study period (1985–1992), suicide rates and firearm suicide rates were highest in Alaska (Table 12). The Alaska Area also had the greatest

number of firearm suicides during the study period. During 1991–1992, the highest suicide rates were in the Alaska Area (30.7), the Albuquerque Area (25.8), and the Aberdeen Area (24.9) (Figure 16).

Three areas had male-to-female suicide ratios that were considerably higher than the national ratio of 4.0. The suicide rate for males in the Albuquerque Area (54.0 per 100,000) was 17 times greater than that for females (3.2 per 100,000) (Table 11). The male-to-female suicide ratio was 9.8 in the Navajo Area and 8.5 in the Billings Area.

Suicide rates were highest in Alaska, the Rocky Mountain states, and parts of the midwest.

Figure 16. Variations in Age-Adjusted Suicide Rates, by IHS Service Area—United States, 1991-1992



* Area Office
 † The Phoenix area includes NV and parts of UT and AZ as well as the Hopi Reservation, the small section inside the Navajo area.
 Source: IHS.

Discussion

Study Limitations

Underreporting of Native American race on state death certificates is thought to be common in many regions of the United States.⁴ Undoubtedly, underreporting influences the numbers and rates of events in this report. IHS has long recognized this problem in the California, Oklahoma, and Portland areas.^{4,10} Consequently, rates presented for these three areas and for all areas combined should be considered conservative estimates. For Native Americans living outside of IHS service areas, misclassification of race on death certificates is likely to be an even greater problem, especially among those with Anglo- or Hispanic-sounding names. IHS estimates that misclassification of race leads to underestimates of death rates for American Indians in some regions of as much as 25%–35% (written communication: Aaron Handler, Chief, Demographic Statistics Branch, IHS). Despite the probability that the rates in this study are underestimated, the results support previous work showing that homicide and suicide are more common among Native Americans than in the overall U.S. population.^{1,11}

A second limitation concerns the number of suicides and homicides among Alaskan Natives. During the study period, data from the Alaska Bureau of Vital Statistics consistently show about 70% more suicides and 40% more homicides than are included in the NCHS and IHS data tapes (written communication: Stephanie Walden, Alaska Department of Health and Social Services, Bureau of Vital Statistics). This discrepancy occurs, in part, because data are due each year at NCHS before the investigations of many suicides and homicides have been completed. When investigations are finalized, the deaths are recorded at the state level, but not at the federal level.

The data in this report support previous work showing that homicide and suicide are more common among Native Americans than in the United States overall.

This situation applies to all deaths in Alaska, not just those for Alaskan Natives. NCHS and the Alaska Bureau of Vital Statistics are aware of the problem,¹² and it is now thought to be corrected (personal communication: Harry Rosenberg, Chief, Mortality Statistics Branch, NCHS; Al Zangri, Chief, Bureau of Vital Statistics, Alaska Department of Health and Social Services).

Characteristics of Violence among Native Americans

In addition to overall high rates, several distinctive characteristics of violent deaths among Native Americans emerged from the study:

- an age distribution of suicide rates quite unlike that for the general population
- a lower proportion of firearm-related homicides and suicides than in the general U.S. population
- a somewhat greater proportion of homicides in which the victim and perpetrator were known to be family members or acquaintances
- marked variation in patterns and rates among the IHS areas

These observations, which are discussed below, have implications for the design and focus of preventive activities.

Age distribution of Native American suicide rates. For the United States as a whole, suicide rates increase during the teenage years, are relatively similar for all age groups from the early twenties through the late sixties, and then increase with age. In contrast, suicide rates among Native Americans aged 15–34 years were about five times greater during the study period than the rates for those 65 years and older and were over two times greater than national U.S. rates for the same age group. Therefore, while suicide among adolescents and young adults is a national concern affecting all Americans, young Native Americans, especially males, are at unusually high risk. It is noteworthy that the rates were highest for young adults beyond school age, an age group that tends to be neglected in many suicide prevention programs.¹³

Young Native American males are at unusually high risk for suicide.

Firearm-related homicides and suicides. Firearms were the predominant weapon used by Native Americans in both suicides and homicides. They are less likely to be used by this group, however, than by the overall U.S. population. From 1979–1992,

57% of suicides by Native Americans involved a firearm, compared with about 59% for the United States as a whole. Despite this lower percentage overall, three IHS areas were well above the national percentage: Nashville Area (76%), Alaska Area (72%), and California Area (69%).

Increases in homicides involving a firearm account for a large proportion (68%) of the increase in the total U.S. homicide rate since 1985. Nationally, firearm use in homicides increased 49% from 1985–1992, with the greatest increase occurring among blacks (63%).¹⁴ Homicides among Native Americans have generally involved other means, such as knives and blunt trauma, but this may be changing. From 1985–1992, the firearm-related homicide rate among Native Americans increased 36%. It is important to continue to monitor firearm use in this group, because if it continues to increase, homicide rates can be expected to increase as well.

Homicides involving family members or acquaintances. The large proportion of homicides not involving firearms and the high incidence of perpetration by family and acquaintances may indicate high rates of alcohol-related violence among Native Americans. Studies have shown that, for many Native American communities, alcohol plays a substantial role in premature mortality, including deaths due to violence.^{15–17} Researchers have estimated that in New Mexico and other reservation states, 75% of American Indian suicides and 80% of homicides are alcohol-related.^{15,17,18} These proportions are much higher than those for all New Mexico residents: 42% of suicides and 54% of homicides.¹⁵ Objective surveillance of alcohol-related injury, alcohol screening of injury patients, and referral to appropriate sources of help for persons with substance abuse problems are necessary components in reducing this risk. Although alcohol appears to be an important risk factor for violent death among Native Americans, a substantial proportion of the population, especially older adults, do not drink.¹⁷ It should also be noted that just as tribal cultures differ, so do experiences with alcohol and alcohol policies. Consequently, some tribes have serious substance abuse problems, while others do not.¹⁹

Variations in patterns and rates of homicide and suicide.

In general, IHS areas with high homicide rates also had high suicide rates. Homicide and suicide rates in the Aberdeen, Alaska, Billings, Phoenix, and Tucson areas were more than twice the U.S. national rate. These same areas also had the highest firearm-related death rates, with Alaska ranking first.¹

Although firearms are the predominant weapon in Native American homicides and suicides, they are used less often than in the U.S. population overall.

The high incidence of homicide perpetrated by family and acquaintances may indicate high rates of alcohol-related violence, at least in some IHS areas.

The rate of gun ownership in these areas, especially in Alaska, could play a role in these high rates. Information on firearm ownership, storage methods, and attitudes about firearms would be valuable for planning interventions.

Prevention

Given the multiple and complex causes of homicide and suicide and the variations in tribal culture, simple and uniform prevention recommendations are inappropriate. Interventions tailored to specific local settings and problems will be necessary. Nevertheless, some common approaches to preventing suicide and homicide can be suggested.

First, educational programs can encourage changes in behavior that may help reduce homicide. Examples are mentoring programs, training in parenting skills for young parents, and campaigns to raise awareness about the adverse effects of alcohol misuse, the risks and benefits of firearm possession, and the safe use and storage of firearms. To be successful, however, these programs must be designed with the culture of each tribe in mind. Second, legislative measures, such as regulating the use of, and access to, alcohol in a community and enforcing laws that restrict access to firearms by groups that should not have them, like felons and children, are of value. Third, providing or improving services such as special recreational programs for youth, home visitation programs for high-risk young mothers, and shelters for battered women and their children could help reduce violence.^{20,21}

Suicide prevention activities should be linked with professional mental health resources in the community. Programs could include several of the following promising strategies:¹³

- training school gatekeepers, such as teachers, counselors, and coaches
- training community gatekeepers, such as clergy, elders, police, medical staff, merchants, and recreation staff
- educating the community
- screening for suicide in schools and clinics
- developing peer support projects
- establishing crisis centers and hotlines
- restricting access to lethal means
- providing special services to friends and families of suicide victims

In general, IHS areas with high homicide rates also had high suicide rates. These same areas had the highest firearm-related death rates.

Educational programs may help reduce homicide, but they must be tailored to local settings and problems.

Restricting access to lethal means for those considered at risk may be the most effective, yet underused, strategy for preventing suicide. Friends and relatives of persons at risk for suicide, and the public at large, should be made aware of findings indicating that having a firearm in the home is associated with approximately a five-fold increase in the risk of suicide among household residents.²² Restricting access to lethal means, promoting locked storage of firearms and ammunition, and raising public awareness of the risk of having a firearm in the home could be especially important to Native Americans in the Alaska, Albuquerque, Billings, and Phoenix areas, since easy access to firearms may contribute to their high rates of firearm suicide.

Restricting access to lethal means for those considered at risk may be the most effective, yet underused, strategy for preventing suicide.

Since 1986, a team in IHS's Mental Health Programs Branch has been responding to the widespread concern of both Native American communities and the IHS regarding violence. This group, the Family Violence Prevention Team,* offers crisis consultation, community assessment, program planning, and program development to help prevent violence among Native Americans.²³ The team is available to consult with communities, tribal organizations, and IHS staff on crisis intervention and prevention strategies. They have worked with several community-based violence prevention programs, including those in New Mexico, Arizona, Wyoming, and Minnesota.

Many promising interventions to prevent violence have been developed. Because each Native American community is unique, however, careful assessments of local patterns of violence and considerations of local practices and cultures need to be addressed for interventions to be successful. Continued surveillance of violence in Native American communities and evaluation of the effectiveness of prevention programs are greatly needed. In addressing the problem of violence in their communities, local public health practitioners should examine the causes of violence and work to develop, implement, and evaluate multifaceted intervention programs to reduce the burden of injury and death caused by violence.

The need to consider the uniqueness of each Native American community when planning interventions cannot be overemphasized.

*For more information about the Family Violence Prevention Team or to request assistance, contact the Family Violence Prevention Team, IHS Mental Health/Social Services Programs Branch, 5300 Homestead Road, NE, Albuquerque, NM 87110.

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