

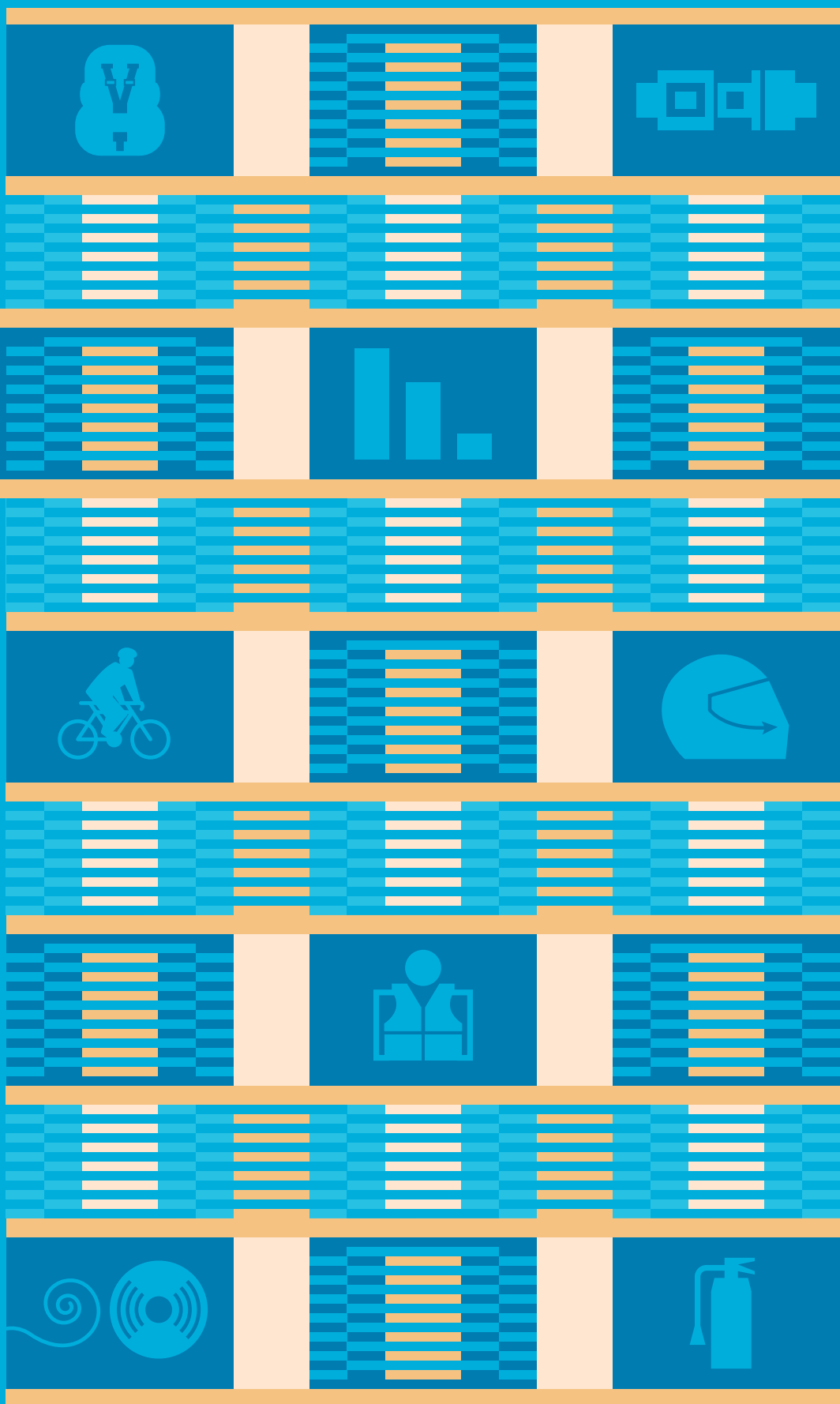
INDIAN HEALTH FOCUS

Injuries

2002–2003 EDITION



U.S. Department of Health
and Human Services
Indian Health Service
Office of Public Health Support
Division of Program Statistics
and
Office of Environmental
Health and Engineering
Division of Environmental Health Services
Injury Prevention Program



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Indian Health Service
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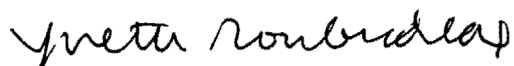


PREFACE

Since the early 1970's the Indian Health Service (IHS) has made great strides in preventing unintentional injuries in American Indian and Alaska Native (AI/AN) communities. The injury mortality rate has decreased 58 percent during this time. However, injuries remain the leading cause of death for 1-44 year olds, leading to the tragic loss of productive lives. Although we have made significant progress, we know there is much more that can be accomplished to avoid unnecessary pain and financial burden due to injuries.

This edition of “Indian Health Focus: Injuries” provides data about AI/AN people—narratives, tables and charts—useful for researching and evaluating injury prevention interventions. Research leads our efforts as we improve injury prevention protocols and the quality of our medical services.

I encourage you to use this injury data to further advance injury prevention efforts. Working together, we can seek ways to prevent injuries for a healthier future for our communities.



Yvette Roubideaux, M.D., M.P.H.
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INTRODUCTION

The Indian Health Service (IHS) is an agency of the Department of Health and Human Services (HHS) and its goal is to assure that comprehensive, culturally-acceptable personal and public health services are available and accessible to American Indian and Alaska Native (AI/AN) people. The mission of the IHS, in partnership with AI/AN people is to raise their physical, mental, social, and spiritual health to the highest level.

The IHS has carried out its responsibilities through developing and operating a health services delivery system designed to provide a broad-spectrum program of preventive, curative, rehabilitative, and environmental services. This system integrates health services delivered directly through IHS facilities, purchased by IHS through contractual arrangements with providers in the private sector, and delivered through Tribally-operated programs and Urban Indian health programs. The IHS service area consists of counties on and near federal Indian reservations.

The IHS is concerned with the health of AI/AN of all ages. The IHS presents an overview of the health status of AI/AN in its publication, *Trends in Indian Health*. However, IHS recognizes that there are age and gender differences for those who are most at risk for injuries and require special attention including: children, youth, males, and the elderly. The IHS Injury report will be of importance to the IHS, tribes, other federal and state government agencies including key stakeholders interested in learning more about injuries as a public health problem. This publication examines the major category of injuries and its subgroups – unintentional injuries, suicides, homicides, firearm injuries, falls, fire and smoke, among other injuries. This publication refers to “injury events” as “unintentional injuries” to be consistent with the terminology used by the IHS Injury Prevention Program and the Centers for Disease Control and Prevention (CDC). It is based on data published in two major IHS publications: *Trends in Indian Health, 2002-2003* and *Regional Differences in Indian Health, 2002-2003*.

Injuries are the leading cause of death among AI/ANs between the ages of 1 and 44 years. The progress in reducing the burden of injuries among AI/AN populations has been significant over the past three decades. Between 1973 and 2003, unintentional injury deaths for AI/AN decreased by 58 percent, however, since 2000, deaths due to injuries have begun to increase. The AI/AN injury problem continues to be a public health burden, costing IHS, Tribes, and contract health services approximately \$350 million per year in the treatment of injuries and accounts for 43 percent of the years of potential life lost (YPLL) before age 65 for AI/AN populations. Key risk factors that contribute to the disproportionately higher injury rates among American Indians and Alaska Natives include a greater proportion of young adults as compared to other Americans, rural environments with a lack of traffic safety legislation, and a greater number of alcohol related incidents. The Indian Health Service (IHS), Injury Prevention Program is the lead IHS program tasked with reducing the devastating toll injuries take on AI/AN communities. The IHS Injury Prevention Program’s approach is based on the same public health principles that have been used to effectively control infectious diseases. Collaborative efforts in describing the factors amenable to change have led to implementation of successful community-specific solutions to the injury epidemic and to increasing the understanding that injuries are not “accidents” but predictable and preventable events.

The population of interest for this publication is all AI/AN residing in the IHS service area. The IHS service area consists of counties on and near federal Indian reservations. The AI/AN people residing in the service area comprise about 57 percent of all AI/AN people residing in the U.S. It is estimated to be approximately 1.9 million in 2010 compared to 3.4 million in the entire U.S.

SUMMARY OF DATA

Injuries are a major problem in Indian country. This is apparent from analyzing the major category of injury and its subgroups: unintentional injury, suicide, homicide, firearm injury, falls, fire and smoke, and drowning.

Unintentional injuries are the third leading cause of death for the AI/AN population in general and for AI/AN females. It is second for AI/AN males and fourth for U.S. all-races and white males. Unintentional injuries appear high on the list of leading causes of death for specific AI/AN age group. It is fourth leading cause of death for AI/AN infants, the first for age groups 1 through 44, third for 45 to 54 years, and fourth for 55 to 64 years.

The AI/AN age-adjusted unintentional injury death rate for AI/AN has decreased over 57 percent since 1972-74. In 1972-74, the AI/AN rate (223.2) was 3.8 times the 1973 U.S. all-races rate (59.5) and 3.9 times the 1973 U.S. white rate (57.5). For 2002-04 the AI/AN rate (94.8) is 153 percent greater than the 2003 U.S. all-races rate (37.3) and 148 percent greater than the U.S. white rate (38.2). The Aberdeen, Billings, Navajo, and Tucson Areas each have a rate that exceeds 120.0. This rate is over two times higher the lowest Area rate (Nashville, 59.0), and 3.2 times the U.S. all-races rate (37.5). Excluding the elder population (75 years and older), the highest AI/AN male rate (162.3) occurs in the 35 to 44 year age group. The AI/AN female peak is in turn 2.7 times the comparable peak for the U.S. all-races female population (31.6 for 65 to 74 years). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Since 1972-74, the AI/AN age-adjusted suicide death rate dropped to a low in 1984-86 (15.9). The AI/AN rate in 2002-04 (17.9) is 13 percent greater than that low. It is also 66 percent higher than the 2003 U.S. all-races rate (10.8) and 52 percent greater than the 2003 U.S. white rate (11.8). The rate is the highest in Alaska among the IHS Areas. The Alaska rate (43.5) is 67 percent greater than the next highest Area rate (Billings, 26.0) and 10.6 times the lowest Area rate (Nashville, 4.1). The highest AI/AN male suicide death rates (61.0) occur in the 25 to 34 year age groups. The peak rate (16.1) for AI/AN females occurred in the 15 to 24 year age group. The U.S. all-races male suicide death rates are highest for 85 years and older (47.8) and 75 to 84 years (35.1). For U.S. all-races females, the highest rates occur in the 35 to 54 year age groups (6.6 to 7.7). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

The AI/AN age-adjusted homicide death rate have decreased 56 percent since 1972-74. The 2002-04 AI/AN rate (11.8) is 97 percent greater than the 2003 U.S. all-races rate (6.0), but 228 percent greater than the 2003 U.S. white rate (3.6). The Tucson (22.6), Albuquerque (17.2), Billings (16.2), Navajo (15.6), Phoenix and Aberdeen (13.7) Area rates are more than double the U.S. all-races rate (6.0). The lowest IHS Area rate occurs in Nashville (3.4). This is the only Area rate that is below the U.S. all-races rate. The highest AI/AN male homicide death rates occur in the age groups from 15 to 34 years (28.9 to 33.5). This is also true for U.S. all-races males (18.3 to 21.7). However, for AI/AN females and U.S. all-races females, the highest rate occurs in the under 1 year age group (23.8 and 6.9, respectively). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

The AI/AN age-adjusted firearm injury death rate have decreased 50 percent since 1979-81. U.S. all-races and white rates have decreased since 1980 (30 and 29 percent, respectively). The 2002-04 AI/AN rate (13.2) is 28 percent greater than the 2003 U.S. all-races rate (10.3) and 47 percent greater than the 2003 U.S. white rate (9.0). The AI/AN age-adjusted firearm injury death rate varies considerably among the IHS Areas. The highest Area rate (Tucson, 25.0) is 6.3 times the lowest Area rate (Alaska with a rate of 4.0); U.S. all-races rate (10.3) is 2.6 times the lowest Area rate. The AI/AN male age-adjusted firearm injury death rate is highest for the 25 to 34 year age group (47.0). This is 4 times the peak for AI/AN females (10.9) which occurs in age group 15 to 24 years. For U.S. all-races male, the highest rate (37.8) is for age group 85 and older; it is

3.6 times higher than the AI/AN male rate for the same age group. The highest U.S. all-races female rate (10.9) also occurs in age group 15 to 24 years. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Problem drinking is associated with injuries. NOTE: Alcohol-related ICD-10 codes were expanded in the year 2003. There is a dramatic increase in age-adjusted rates between 2002 and 2003 for U.S. all-races and white. This dramatic increase is not evident in the AI/AN age-adjusted rate as IHS uses three year periods of data; therefore, decreasing the sharp increase. Thus the analysis between the AI/AN population for years 2002-04 compared to U.S. all-races (2003) and U.S. white (2003) age-adjusted rates for alcohol-related deaths should be viewed with caution. The AI/AN age-adjusted rate (43.7) is 6.2 times the U.S. all-races rate and US white rates (7.0). Between 1979-81 and 1985-87, the AI/AN rate decreased 49 percent. Since then, alcohol-related death rates have increased 10 percent. The Aberdeen Area age-adjusted alcoholism death rate (81.2) is 11.6 times the U.S. all-races rate (7.0). It is 10 percent greater than the second highest IHS Area rate (Alaska, 74.0). The lowest IHS Area rate occurs in Nashville (18.1), but this is still 2.6 times the U.S. all-races rate. The highest AI/AN male alcohol-related death rate (140.1) occurs in the 55 to 64 year age group. This is 4.7 times the U.S. all-races male peak (29.8 for 55 to 64 years). The AI/AN female high rate (65.4 for 45 to 54 years) is 53 percent less than the AI/AN male peak, but it is 8.1 times the U.S. all-races female peak (8.1 for 55 to 64 years). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

In FY 2006, Injury and poisoning is the ninth leading cause of ambulatory medical visits for AI/AN male patients (all ages). It is the fourth leading cause of ambulatory medical visits for AI/AN patients, 15 to 24 years of age and fifth for 5 to 14 years.

Injury and poisoning is the fourth leading cause of hospitalization for AI/AN patients (all ages). It is the third leading cause of hospitalization for AI/AN male patients (all ages) and fifth for AI/AN female patients (all ages). Injury and poisoning is also a major leading cause of hospitalization for specific AI/AN patient age groups. It is second leading cause of hospitalization for AI/AN patients, 15 to 24 years, and is third for 5 to 14 years, 25 to 44 years, and 45 to 54 years, and fifth for 1 to 4 years. However, the number of discharges for injury and poisoning from IHS and Tribal direct and contract hospitals has declined. In FY 2006, the number of such discharges was 49 percent less than in FY 1987.

Eleven (11) percent of the expenses for IHS-administered contract health services (CHS) during 2004-2008 were associated with “injuries and poisonings” claims. During this period, the average cost of a CHS inpatient case for injuries and poisonings was \$7,980 and for outpatient case was \$737.

SOURCES AND LIMITATIONS OF DATA

Population Statistics

The IHS service population consists of AI/AN identified to be eligible for IHS services. IHS service population estimates are based on official U.S. Census Bureau county data. The Census Bureau enumerates those individuals who identify themselves as being American Indians or Alaska Natives. The IHS service population is estimated by counting those American Indians or Alaska Natives (as identified during the Census) who reside in the geographic areas in which IHS has responsibilities (“on or near” reservations, i.e., contract health service delivery areas [CHSDAs]). These people may or may not use IHS services.

IHS user population estimates are based on data from the IHS Patient Registration System. Patients who receive direct or contract health services from IHS or Tribally-operated programs are registered in the Patient Registration System. Those registered AI/AN patients that had at least one direct or

contract inpatient stay, ambulatory medical visit, or dental visit during the last three years are defined as users. IHS user population figures are used for calculating IHS patient care rates. In contrast, IHS service population figures are used in calculating AI/AN vital event rates since state birth and death certificates do not provide information on use of IHS services.

IHS service populations between census years (e.g., 1990-2000) are estimated by a smoothing technique in order to show a gradual transition between census years. IHS service populations beyond the latest census year (2000) are projected through linear regression techniques, using the most current ten years of AI/AN birth and death data provided by the National Center for Health Statistics (NCHS). The natural change (estimated number of births minus estimated number of deaths) is applied to the latest census enumeration.

The social and economic data contained in this publication are from the 2000 census. They reflect the characteristics of persons that self-identified as American Indian or Alaska Native.

Vital Event Statistics

AI/AN vital event statistics are derived from data provided annually to the IHS by NCHS. Vital event statistics for the U.S. population were derived from data reported in various NCHS publications, CDC Wonder, as well as from some unpublished data from NCHS. NCHS obtains birth and death records for all U.S. residents from the state health departments, based on information reported on official state birth and death certificates. The records NCHS provides IHS contain the same basic demographic items as the vital event records maintained by NCHS for all U.S. residents, but with names, addresses, and record identification numbers deleted. It should be noted that Tribal identity is not recorded on these records. Tabulations of vital events for this publication are by place of residence.

The natality and mortality data are only as accurate as the reporting by the states to NCHS.¹ NCHS does perform numerous edit checks, applies verification methods, and imputes values for non-responses.

Misreporting of Race on State Death Certificates

Misreporting of AI/AN race on state death certificates occurs, especially in areas distant from traditional AI/AN reservations.² In order to determine the degree and scope of the misreporting, IHS conducted a study utilizing the National Death Index (NDI) maintained by the NCHS. The study involved matching IHS patient records of those patients who could have died during 1986 through 1988 with all death records of U.S. residents for 1986 through 1988 as contained on the NDI. The study revealed that on 10.9 percent of the matched IHS-NDI records, the race reported for the decedent was other than AI/AN. The percentage of records with inconsistent classification of race ranged from 1.2 percent in the Navajo Area to 28.0 and 30.4 percent in the Oklahoma and California Areas, respectively.

The results of the NDI study provide sufficient numbers to calculate adjustments for each IHS Area, IHS overall, and selected age groups. In addition to these adjustments based on the study findings, IHS assumed the following; a) the results from 1986-88 apply to other years, b) IHS age-group adjustments applied also to each Area, and c) the Area adjustments applied to the causes of death used in this publication (i.e. if an Area's total deaths needed to be increased by ten percent, than the deaths for

¹ Hovert DL, Heron MP, Murphy SL, Kung H. Deaths: Final Data for 2003. National Vital Statistics report; vol 54 no 13. Hyattsville, MD: National Center for Health Statistics. 2006.

² IHS, Division of Program Statistics. Adjusting for Miscoding of Indian Race on State Death Certificates. November 1996.

each cause of death would also increase by this same rate). These assumptions cannot be statistically supported by the results of the study. However, IHS felt that it was necessary to adjust all of the death rates in this publication to provide a meaningful and comprehensive look at health status. IHS also believes that they are reasonable adjustments.

These NDI adjustments were used for the first time in the 1997 edition of this publication. Both unadjusted and adjusted information are shown, as applicable. The adjustments were applied to the results obtained from using an unadjusted death file.

IHS has more specific adjustment factors for the age group less than 1 year. These are derived from the linked birth/infant death data sets produced by the NCHS. In this edition (as was done for the first time in the 1997 edition with 1992-94 data), unadjusted and adjusted infant mortality rates will be shown for data years 1972 through 2004. It is reasonably assumed that data years for which linked data sets were not produced (NCHS did not produce linked data sets prior to data year 1983 and for data years 1992-94) may be adjusted based on the results from other linked data sets. These adjustments based on the linked data sets take precedent over the NDI adjustments for the under 1 year age group, described above.

The AI/AN vital event statistics in this publication pertain to only AI/AN people residing in the IHS service area. Editions of this publication before 1992 showed vital event statistics calculated on a reservation state basis. Therefore, data were included for AI/AN residing outside the geographic areas for which IHS has responsibility. This was done in order to show trends starting in FY 1955 and to correspond with the inception of the IHS program. Prior to 1972, only total Reservation State data are available.

Now that there are sufficient vital event data available for the IHS service area to show meaningful trends, this publication shows vital event statistics for the IHS service population, starting with data for calendar year 1972. IHS service area data are more indicative of the health status of the AI/AN IHS serves. Reservation State vital event rates tend to be lower in value (i.e., lower birth rates, lower death rates) than IHS service area rates. However, the vital event tables in this publication will still include the 1955 Reservation State figure as an historical bench mark.

The AI/AN population is considerably younger than the U.S. all races population. Therefore, the death rates presented in this publication have been age adjusted, where applicable, so that appropriate comparisons can be made between these population groups. Two exceptions are the information presented for leading causes of death and leading cancer sites. In order to determine the leading causes of death or cancer sites for a population group, it is necessary to rank without any adjustment for age. However, it should be kept in mind that the ranking of causes of death or cancer sites for a population group is affected by its age composition.

Beginning with the 1996 edition, the leading causes of death are shown for more detailed age groups in support of the IHS Director's initiatives on youth and elder care. In particular, the 1 to 14 year age group has been split into 1 to 4 and 5 to 14, and the 45 to 64 year age group has been split into 45 to 54 and 55 to 64.

Age-Adjustment

The age adjusted death rates presented in this publication were computed by the direct method, that is, by applying the age specific death rate for a given cause of death to the standard population distributed by age. The total population as enumerated in 2000 was selected as the standard since this is the standard used by NCHS. The rates for the total population and for each race-sex group were adjusted separately by using the same standard population. The age adjusted rates were based on ten year age groups. It is important not to compare age-adjusted death rates with crude rates.

ICD-10 Codes

The list of codes included in alcohol-induced causes was expanded in the 2003 data year to be more comprehensive. Alcoholism deaths are defined through the use of ICD-10 cause of death code groups; E24.4, Alcohol-induced pseudo-Cushing's syndrome; F10, Mental and behavioral disorders due to alcohol use; G31.2, Degeneration of nervous system due to alcohol; G62.1, Alcoholic polyneuropathy; G72.1, Alcoholic myopathy; I42.6, Alcoholic cardiomyopathy; K29.2, Alcoholic gastritis; K70, Alcoholic liver disease; K86.0, Alcohol-induced chronic pancreatitis; R78.0, Finding of alcohol in blood; X45, Accidental poisoning by and exposure to alcohol; X65, intentional self-poisoning by and exposure to alcohol; and Y15, Poisoning by and exposure to alcohol, undetermined intent. Alcohol-induced causes exclude accidents, homicides, and other causes indirectly related to alcohol use. This category also excludes newborn deaths associated with maternal alcohol use. To be consistent with NCHS, these additional codes are now used by IHS starting with the 2002-2003 edition. The NCHS definition includes all of the code groups previously used by IHS plus these new codes. The NCHS definition of alcoholism deaths is now used in all IHS publications, including *Regional Differences in Indian Health* and *Trends in Indian Health*.

NCHS is also now publishing drug-induced deaths with a definition that includes codes expanded in the 2003 data year to be more comprehensive. The complete list of causes of death attributable to drug-induced mortality now includes ICD-10 codes D52.1, Drug-induced folate deficiency anemia; D59.0, Drug-induced hemolytic anemia; D59.2, Drug-induced nonautoimmune hemolytic anemia; D61.1, Drug-induced aplastic anemia; D64.2, Secondary sideroblastic anemia due to drugs and toxins; E06.4., drug-induced thyroiditis; E16.0, Drug-induced hypoglycemia without coma; E23.1, Drug-induced hypopituitarism; E42.2, Drug-induced Cushing's syndrome; E27.3, Drug-induced adrenocortical insufficiency; E66.1, Drug-induced obesity; selected codes from the ICD-10 title Mental and behavioral disorders due to psychoactive substance use, specifically, F11.9-F11.5, F11.7-F11.9, F12.0-F12.5, F12.7-F12.9, F13.0-F13.5, F13.7-F13.9, F14.0-F14.5, F14.7-F14.9, F15.0-F15.5, F15.7-F15.9, F16.0-F16.5, F16.7-F16.9, F17.0, F17.3-F17.5, F17.7-F17.9, F18.0-F18.5, F18.7-F18.9, F19.0-F19.5, F19.7-F19.9; G21.1, Other drug-induced secondary parkinsonism; G24.0, Drug-induced dystonia; G25.1, Drug-induced tremor, G24.5, Drug-induced chorea; G25.6, Drug-induced tics and other tics of organic origin; G44.4 Drug-induced headache, not elsewhere classified; G62.0; Drug-induced polyneuropathy; G72.0, Drug-induced myopathy; I95.2, Hypotension due to drugs; J70.2, Acute drug-induced interstitial lung disorders; J70.3, Chronic drug-induced interstitial lung disorders; J70.4, Drug-induced interstitial lung disorder, unspecified; L10.5, Drug-induced pemphigus; L27.0, Generalized skin eruption due to drugs and medicaments; L27.1, Localized skin eruption due to drugs and medicaments; M10.2, Drug-induced gout; M32.0, Drug-induced systemic lupus erythematosus; M80.4 Drug-induced osteoporosis with pathological fracture; M81.4, Drug-induced osteoporosis; M83.5, Other drug-induced osteomalacia in adults; M87.1, Osteonecrosis due to drugs; R78.1, Finding of opiate drug in blood; R78.2, Finding of cocaine in blood; R78.3, Finding of hallucinogen in blood; R78.4, Finding of psychotropic drug in blood; X40-X44, Accidental poisoning by and exposure to drugs, medicaments, and biological substances; X60-X64, Intentional self-poisoning (suicide) by and exposure to drugs, medicaments, and biological substances; X85, Assault (homicide) by drugs, medicaments, and biological substances; and Y10-Y14, Poisoning by and exposure to drugs, medicaments and biological substances, undetermined intent. Drug-induced causes exclude accidents, homicides, and other causes indirectly related to drug use. Also excluded are newborn deaths associated with mother's drug use. This NCHS definition of drug related deaths is now used in all IHS publications, including *Regional Differences in Indian Health* and *Trends in Indian Health*.

Patient Care Statistics

Patient care statistics are derived from several IHS reporting systems. Almost all patient care data used in this report for IHS and Tribal facilities originated from the National Data Warehouse (NDW), the central data repository which is managed by the National Patient Information Reporting System (NPIRS) team in collaboration with the IHS Division of Program Statistics. This effort began in December 2003 with files that contained initial loads of historical data as early as 2001 from the sites. Initial loads were completed in November 2005. In January 2006, incremental files started to be exported from all reporting sites. As of this writing, almost all reporting sites (99 percent) transmit exports to the NDW in incremental files monthly in one of two standard formats, Health Level 7 (HL7) or simplified format. Reporting sites do not need to run the Resource Patient Management System (RPMS) software locally in order to send files successfully to the NDW. Data received by the NDW is subject to errors in entering, transmitting, and formatting. Data quality issues with registration and encounter data might occur. The NPIRS team works with the Division of Program Statistics, Area Statistical staff, and Facility statistical staff to resolve such issues and continuously analyze, maintain, and improve the timeliness and accuracy of the data.

The NDW contains only IHS federal and Tribal direct and contract facility inpatient and outpatient data pertaining to various patient characteristics (age, sex, principal diagnoses, other diagnoses, community of residence, etc.). The data are collected by the local medical records system at each facility (RPMS or other), one record per inpatient discharge or outpatient visit, and then transmitted electronically to the NDW.

SOURCES OF COPIES AND ADDITIONAL INFORMATION

Additional AI/AN health status information can be obtained from the IHS Division of Program Statistics. Specific responsibilities are as follows:

General Information

Edna L. Paisano, Principal Statistician and Director, Division of Program Statistics
Priscilla Sandoval, Program Analyst

Demographic Statistics

Jo Ann Glakas Pappalardo, Team Leader
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Patient Care Statistics

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Additional AI/AN Injury Prevention information can be obtained from the IHS Injury Prevention Program.

Nancy M. Bill, Program Manager

Free hard copies of this report, please send your name, job title, mailing address, phone number, and e-mail address to:

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CHARTS AND TABLES

AI/AN infants die from unintentional injuries at a rate that is 13.6 times the U.S. all-races rate. Leading causes of AI/AN infant deaths include homicide, suffocation and strangulation in bed followed by motor vehicle crashes.

Chart 1

Infant Mortality Rates by Injury

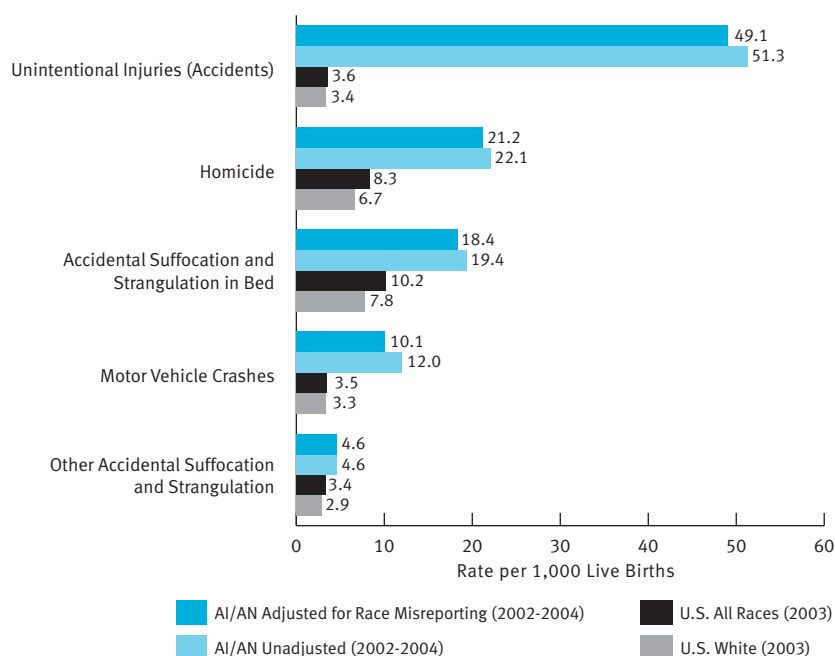


Table 1

Infant Mortality by Injury

American Indians and Alaska Natives, IHS Service Area, 2002-2004, and U.S. All-Races and White Populations, 2003 (Rate per 100,000 live births)

Cause of Infant Death	AMERICAN INDIAN AND ALASKA NATIVE				U.S. ALL RACES	U.S. WHITE	RATIO OF AMERICAN INDIAN AND ALASKA NATIVE ¹ ADJUSTED RATE TO:	
	Number		Rate ¹				U.S. All Races	U.S. White
	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²				
<i>Unintentional Injuries (Accidents)</i>	<i>48³</i>	<i>46³</i>	<i>51.3³</i>	<i>49.1³</i>	<i>3.6</i>	<i>3.4</i>	<i>13.6</i>	<i>14.4</i>
Homicide	24 ³	23 ³	22.1 ³	21.2 ³	8.3	6.7	2.6	3.2
Neglect, abandonment and other maltreatment syndromes	7	7	6.5	6.5	2.4	2.0	2.7	3.2
Assault by hanging, strangulation, suffocation	*	*	0.9	0.9	1.0	0.8	0.9	1.2
Assault by discharge of firearms	*	*	0.9	0.9	*	*	*	*
Assault by other and unspecified means	15	15	13.8	13.8	1.8	1.6	7.7	8.6
Accidental suffocation and strangulation in bed	21 ³	20 ³	19.4 ³	18.4 ³	10.2	7.8	1.8	2.4
Motor Vehicle	13 ³	11 ³	12.0 ³	10.1 ³	3.5	3.3	2.9	3.1
Other accidental suffocation and strangulation	5	5	4.6	4.6	3.4	2.9	1.4	1.6
Falls	2	2	1.8	1.8	*	*	*	*
Accidental drowning and submersion	2	2	1.8	1.8	1.4	1.4	1.3	1.3
Complications medical/surgical care	3 ³	2 ³	2.8 ³	1.8 ³	*	*	*	*
Accidental inhalation and ingestion of food or other objects causing obstruction of respiratory tract	*	*	*	0.9	1.5	1.3	0.6	0.7
Accidents caused by exposure to smoke, fire, flames	*	*	0.9	0.9	0.7	0.7	1.3	1.3
Other external causes and their sequelae	7	11	6.5	10.1	1.8	1.6	5.6	6.3

*Represents number of deaths less than two deaths.

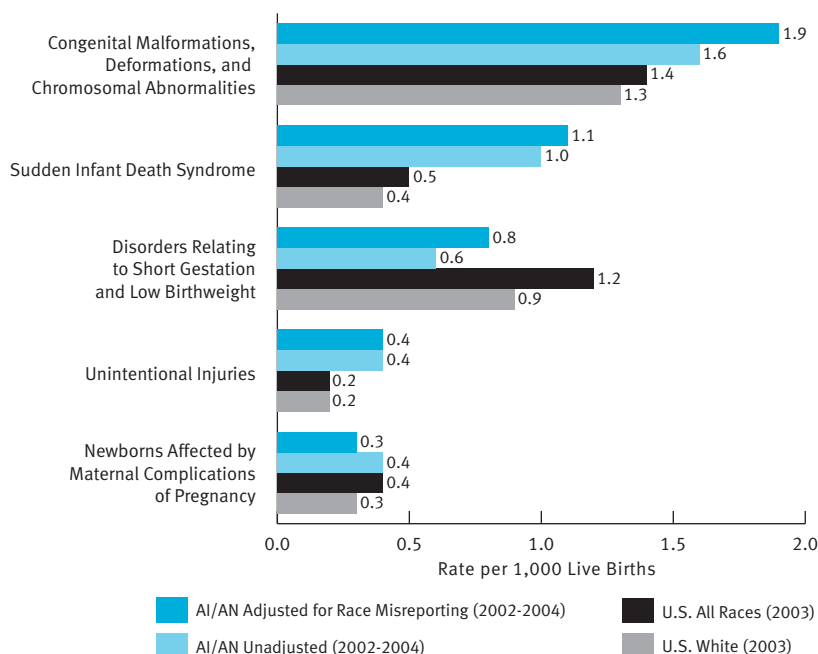
¹Rates based on a small number of deaths should be interpreted with caution.

²Adjusted to compensate for misreporting of American Indian/Alaska Native race on state death certificates.

³The adjusted number and rate for age less than one year (infants) is lower than the unadjusted number and rate because the linked birth/infant death file (used to obtain the adjusted counts of infant deaths) had fewer deaths for these causes than did the unadjusted mortality file (2002-2004).

SOURCE: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>. April 1995.

Unintentional injuries is the fourth leading cause of infant deaths among AI/AN. For every 100 AI/AN infant death, approximately 4 deaths are attributable to unintentional injuries. Unintentional injuries are not among the top five leading causes of infant deaths for either the U.S. all-races or white populations. These AI/AN counts have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 2 Leading Causes of Infant Deaths (Births to Under 1 Year)

Table 2 Leading Causes of Infant Deaths (Births to Under 1 Year)

American Indians and Alaska Natives, IHS Service Area, 2002-2004, and U.S. All-Races and White Populations, 2003 (Rate per 1,000 live births)

Cause of Infant Death	AMERICAN INDIAN AND ALASKA NATIVE				U.S. ALL RACES	U.S. WHITE	RATIO OF AMERICAN INDIAN AND ALASKA NATIVE ¹ TO:	
	Number		Rate				U.S. All Races	U.S. White
	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²	Rate	Rate		
<i>All Causes</i>	<i>802</i>	<i>902</i>	<i>7.3</i>	<i>8.3</i>	<i>6.9</i>	<i>5.7</i>	<i>1.2</i>	<i>1.5</i>
Congenital malformations, deformations, and chromosomal abnormalities	178	207	1.6	1.9	1.4	1.3	1.4	1.5
Sudden infant death syndrome	112	122	1.0	1.1	0.5	0.4	2.2	2.8
Disorders relating to short gestation and low birthweight	70	87	0.6	0.8	1.2	0.9	0.7	0.9
Unintentional injuries	48 ²	46 ²	0.4	0.4	0.2	0.2	2.0	2.0
Newborns affected by maternal complications of pregnancy	40 ²	35 ²	0.4	0.3	0.4	0.3	0.8	1.0
Pneumonia and influenza	27 ²	25 ²	0.3	0.2	0.1	0.1	2.0	2.0
Newborns affected by complications of placenta, cord, and membranes	17	24	0.2	0.2	0.3	0.2	0.7	1.0
Homicide	24 ²	23 ²	0.2	0.2	0.1	0.1	2.0	2.0
Disease of the circulatory system	24 ²	23 ²	0.2	0.2	0.1	0.1	2.0	2.0
Intrauterine hypoxia and birth asphyxia	16	18	0.2	0.2	0.1	0.1	2.0	2.0
<i>All other causes</i>	<i>246</i>	<i>292</i>						

¹Adjusted - specifies a number, rate, or ratio of rates adjusted to compensate for misreporting of AI/AN race on state death certificates.

²The adjusted number or rate for age less than one year (infants) is lower than the unadjusted rate because the linked birth/infant death file (used to obtain the adjusted counts of infant deaths) had fewer deaths for these causes than did the unadjusted mortality file (2002-2004).

NOTE: Causes of death listed are based on the order of adjusted number of deaths.

SOURCE: Rates for U.S. All Races and U.S. White: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>.

The leading cause of death (2002-2004) for AI/AN children ages 1 to 4 is unintentional injuries. This holds true for U.S. all-races and white (2003) populations. Forty percent of all AI/AN deaths for this age-group are caused by unintentional injuries. Homicide is the third leading cause of death for AI/ANs in the Indian Health Service. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 3 Death Rates, Leading Causes: Ages 1 to 4 Years

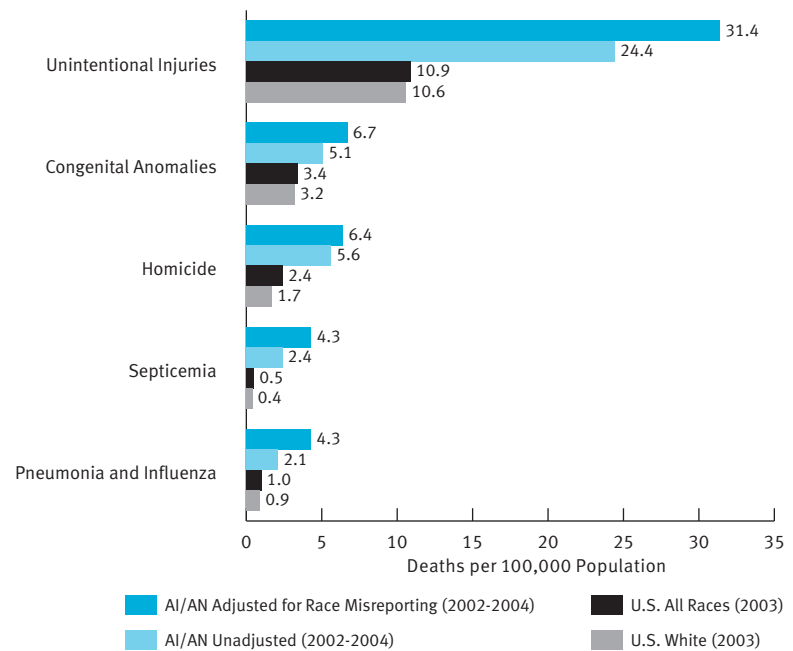


Table 3 Ten Leading Causes of Death for Decedents 1 to 4 Years of Age

*American Indians and Alaska Natives, IHS Service Area, 2002-2004, and U.S. All-Races and White Populations, 2003
(Rate per 100,000 Population)*

Cause of Death	AMERICAN INDIAN AND ALASKA NATIVE				U.S. ALL RACES	U.S. WHITE	RATIO OF AMERICAN INDIAN AND ALASKA NATIVE ¹ TO:	
	Number		Rate				U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹				
All Causes	225	303	60.3	81.2	31.5	28.5	2.6	2.8
Unintentional injuries	91	117	24.4	31.4	10.9	10.6	2.9	3.0
Motor vehicle	45	58	12.1	15.5	3.9	3.8	4.0	4.1
Other unintentional injuries	46	59	12.3	15.9	7.0	6.8	2.3	2.3
Congenital anomalies	19	25	5.1	6.7	3.4	3.2	2.0	2.1
Homicide	21	24	5.6	6.4	2.4	1.7	2.7	3.8
Septicemia	9	16	2.4	4.3	0.5	0.4	8.6	10.8
Pneumonia and influenza	8	16	2.1	4.3	1.0	0.9	4.3	4.8
Malignant neoplasms	9	13	2.4	3.5	2.5	2.6	1.4	1.3
Diseases of the heart	8	11	2.1	2.9	1.2	1.0	2.4	2.9
Acute bronchitis and acute bronchiolitis	2	4	0.5	1.1	0.2	0.1	5.5	11.0
Benign neoplasms ²	3	3	0.8	0.8	0.3	0.3	2.7	2.7
Meningococcal infections	1	3	0.3	0.8	0.1	0.1	8.0	8.0
All other causes	48	63						

¹Adjusted – specifies a number, rate, or ratio of rates adjusted to compensate for misreporting of AI/AN race on state death certificates.

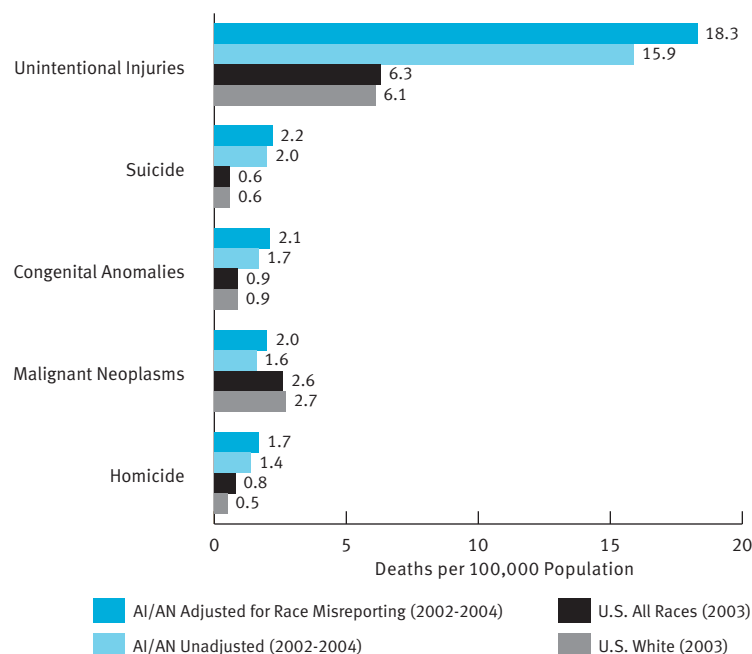
²Benign neoplasms describes: in situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior.

NOTE: Causes of death listed are based on the order of adjusted number of deaths.

SOURCE: Rates for U.S. All Races and U.S. White: Heron MP, Smith BL, Deaths: Leading Causes for 2003, National Vital Statistics Reports; vol 55 no 10. Hyattsville, MD: National Center for Health Statistics. 2007.

Chart 4 Death Rates, Leading Causes: Ages 5 to 14 Years

The two leading causes of AI/AN deaths (2002-2004) for ages 5 to 14 years were unintentional injuries and suicide. For the U.S. all-races and white populations (2003) the two leading causes of death were unintentional injuries and malignant neoplasms. These AI/AN counts have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

**Table 4** Ten Leading Causes of Death for Decedents 5 to 14 Years of Age

*American Indians and Alaska Natives, IHS Service Area, 2002-2004, and U.S. All-Races and White Populations, 2003
(Rate per 100,000 Population)*

Cause of Death	AMERICAN INDIAN AND ALASKA NATIVE				U.S. ALL RACES	U.S. WHITE	RATIO OF AMERICAN INDIAN AND ALASKA NATIVE ¹ TO:	
	Number		Rate				U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹				
All Causes	318	368	30.6	35.5	17.0	15.8	2.1	2.2
Unintentional injuries	165	190	15.9	18.3	6.3	6.1	2.9	3.0
Motor vehicle	102	116	9.8	11.2	4.0	4.1	2.8	2.7
Other unintentional injuries	63	74	6.1	7.1	2.3	2.0	3.1	3.6
Suicide	21	23	2.0	2.2	0.6	0.6	3.7	3.7
Congenital anomalies	18	22	1.7	2.1	0.9	0.9	2.3	2.3
Malignant neoplasms	17	21	1.6	2.0	2.6	2.7	0.8	0.7
Homicide	15	18	1.4	1.7	0.8	0.5	2.1	3.4
Diseases of the heart	8	10	0.8	1.0	0.6	0.5	1.7	2.0
Septicemia	8	8	0.8	0.8	1.9	1.7	0.4	0.5
Pneumonia and influenza	2	3	0.2	0.3	0.4	0.3	0.8	1.0
Benign neoplasms	3	3	0.3	0.3	0.2	0.2	1.5	1.5
Chronic lower respiratory	2	2	0.2	0.2	0.3	0.2	2.7	4.0
All other causes	59	68	5.7	6.6				

¹Adjusted – specifies a number, rate, or ratio of rates adjusted to compensate for misreporting of AI/AN race on state death certificates.

NOTE: Causes of death listed are based on the order of adjusted number of deaths.

SOURCE: Rates for U.S. All Races and U.S. White: Heron MP, Smith BL, Deaths: Leading Causes for 2003, National Vital Statistics Reports; vol 55 no 10. Hyattsville, MD: National Center for Health Statistics. 2007.

The leading cause of death of AI/AN deaths (2002-2004) for 15-24 years of age and for U.S. all-races and whites (2003) is unintentional injuries. Over 50 percent of all AI/AN deaths are caused by unintentional injuries for this age-group; whereas, suicide and homicide are the second and third leading causes of death. This order is reversed for the U.S. all-races population. The AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on the state death certificate.

Chart 5 Death Rates, Leading Causes: Ages 15 to 24 Years

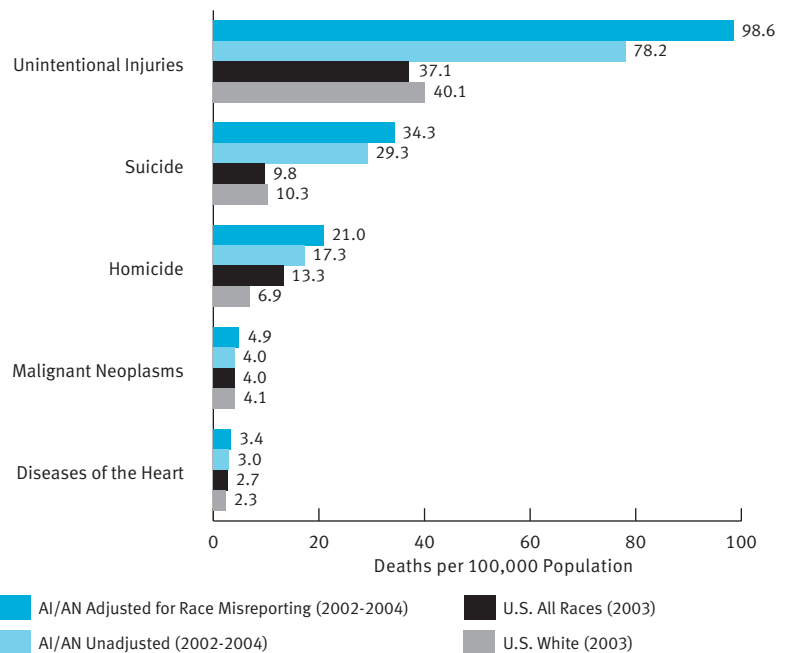


Table 5 Ten Leading Causes of Death for Decedents 15 to 24 Years of Age

*American Indians and Alaska Natives, IHS Service Area, 2002-2004, and U.S. All-Races and White Populations, 2003
(Rate per 100,000 Population)*

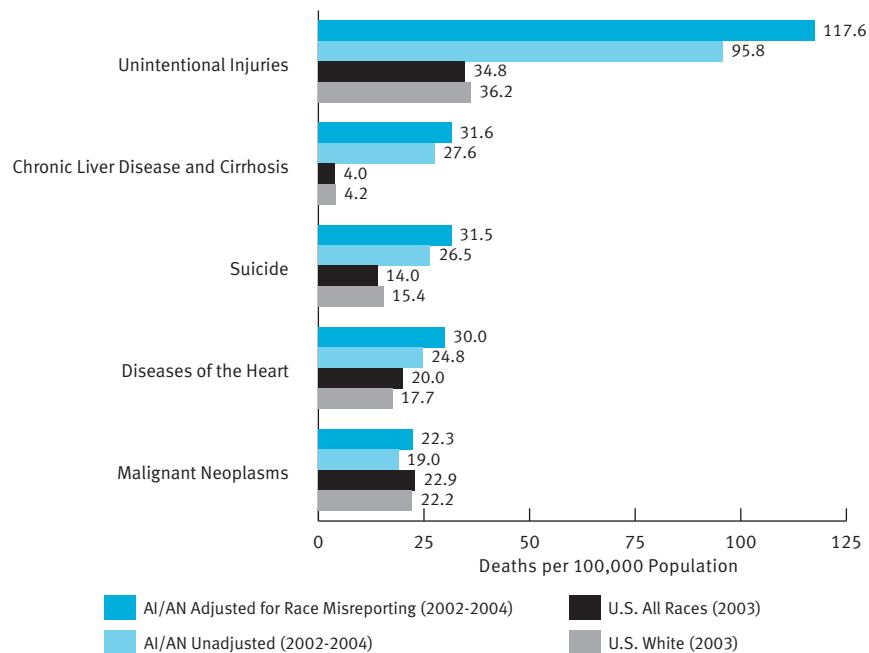
Cause of Death	AMERICAN INDIAN AND ALASKA NATIVE				U.S. ALL RACES	U.S. WHITE	RATIO OF AMERICAN INDIAN AND ALASKA NATIVE ¹ TO:	
	Number		Rate				U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹				
<i>All Causes</i>	<i>1,491</i>	<i>1,831</i>	<i>150.8</i>	<i>185.2</i>	<i>81.5</i>	<i>75.8</i>	<i>2.3</i>	<i>2.4</i>
Unintentional injuries	773	975	78.2	98.6	37.1	40.1	2.7	2.5
Motor vehicle	614	785	62.1	79.4	26.7	28.6	3.0	2.8
Other unintentional injuries	159	190	16.1	19.2	10.4	11.5	1.8	1.7
Suicide	290	339	29.3	34.3	9.8	10.3	3.5	3.3
Homicide	171	208	17.3	21.0	13.3	6.9	1.6	3.0
Malignant neoplasms	40	48	4.0	4.9	4.0	4.1	1.2	1.2
Diseases of the heart	30	34	3.0	3.4	2.7	2.3	1.3	1.5
Chronic lower respiratory diseases	6	11	0.6	1.1	0.5	0.3	2.2	3.7
Chronic liver disease and cirrhosis	7	9	0.7	0.9	0.4	0.3	2.3	3.0
Congenital anomalies	9	9	0.9	0.9	1.1	1.1	0.8	0.8
Nephritis, nephrotic syndrome and nephrosis	7	9	0.7	0.9	0.2	0.2	4.5	4.5
Pneumonia and influenza	6	7	0.6	0.7	0.5	0.5	1.4	1.4
<i>All other causes</i>	<i>152</i>	<i>182</i>						

¹Adjusted – specifies a number, rate, or ratio of rates adjusted to compensate for misreporting of AI/AN race on state death certificates.

NOTE: Causes of death listed are based on the order of adjusted number of deaths.

SOURCE: Rates for U.S. All Races and U.S. White: Heron MP, Smith BL, Deaths: Leading Causes for 2003, National Vital Statistics Reports; vol 55 no 10. Hyattsville, MD: National Center for Health Statistics. 2007.

Unintentional injuries are the leading cause of death for persons ages 25-44 in the AI/AN population (2002-2004) as well as the U.S. all-races and white populations (2003). Approximately, one-third of all AI/AN deaths in this age group are caused by unintentional injuries, whereas, suicide and homicide are the third and sixth leading causes of death. Suicide is the fourth leading cause of death for U.S. all-races and homicide is the fifth leading cause of death for U.S. whites. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on the state death certificates.

Chart 6 Death Rates, Leading Causes: Ages 25 to 44 Years

Table 6 Ten Leading Causes of Death for Decedents 25 to 44 Years of Age

*American Indians and Alaska Natives, IHS Service Area, 2002-2004, and U.S. All-Races and White Populations, 2003
(Rate per 100,000 Population)*

Cause of Death	AMERICAN INDIAN AND ALASKA NATIVE				U.S. ALL RACES	U.S. WHITE	RATIO OF AMERICAN INDIAN AND ALASKA NATIVE ¹ TO:	
	Number		Rate				U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹	Rate	Rate		
All Causes	4,345	5,180	298.7	356.1	155.2	143.1	2.3	2.5
Unintentional injuries	1,393	1,711	95.8	117.6	34.8	36.2	3.4	3.2
Motor vehicle	796	1,008	54.7	69.2	16.4	16.7	4.2	4.1
Other unintentional injuries	597	703	41.1	48.4	18.4	19.5	2.6	2.5
Chronic liver disease and cirrhosis	402	459	27.6	31.6	4.0	4.2	7.9	7.5
Suicide	385	458	26.5	31.5	14.0	15.4	2.3	2.0
Diseases of the heart	361	437	24.8	30.0	20.0	17.7	1.5	1.7
Malignant neoplasms	277	325	19.0	22.3	22.9	22.2	1.0	1.0
Homicide	247	284	17.0	19.5	9.4	5.5	2.1	3.5
Diabetes mellitus	108	125	7.4	8.6	3.2	2.8	2.7	3.1
Human immunodeficiency virus (HIV) infection	86	98	5.9	6.7	8.2	4.5	0.8	1.5
Cerebrovascular diseases	73	86	5.0	5.9	3.6	2.8	1.6	2.1
Septicemia	65	73	4.5	5.0	1.4	1.2	3.6	4.2
All other causes	948	1,135						

¹Adjusted – specifies a number, rate, or ratio of rates adjusted to compensate for misreporting of AI/AN race on state death certificates.

NOTE: Causes of death listed are based on the order of adjusted number of deaths.

SOURCE: Rates for U.S. All Races and U.S. White: Heron MP, Smith BL, Deaths: Leading Causes for 2003, National Vital Statistics Reports; vol 55 no 10. Hyattsville, MD: National Center for Health Statistics. 2007.

Unintentional injuries are the third leading cause of AI/AN deaths for years 2002-2004 and for the U.S. all-races and U.S. white populations for 2003. For every 100 AI/AN in this age group, fourteen deaths are attributable to unintentional injuries. Suicide and homicide are **not** among the top 5 leading causes of death for the AI/AN population. The AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on the state death certificates.

Chart 7 Death Rates, Leading Causes: Ages 45 to 54 Years

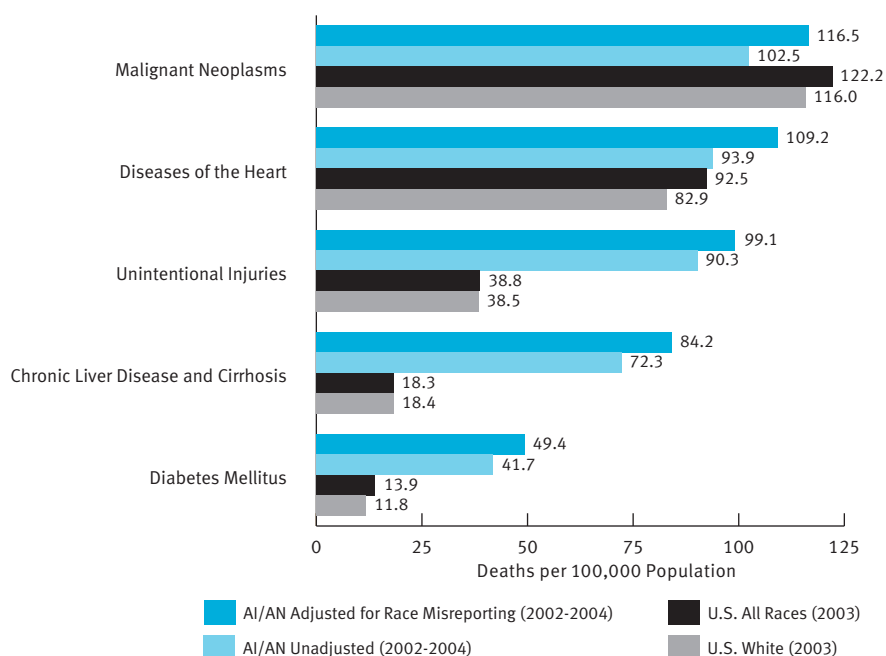


Table 7 Ten Leading Causes of Death for Decedents 45 to 54 Years of Age

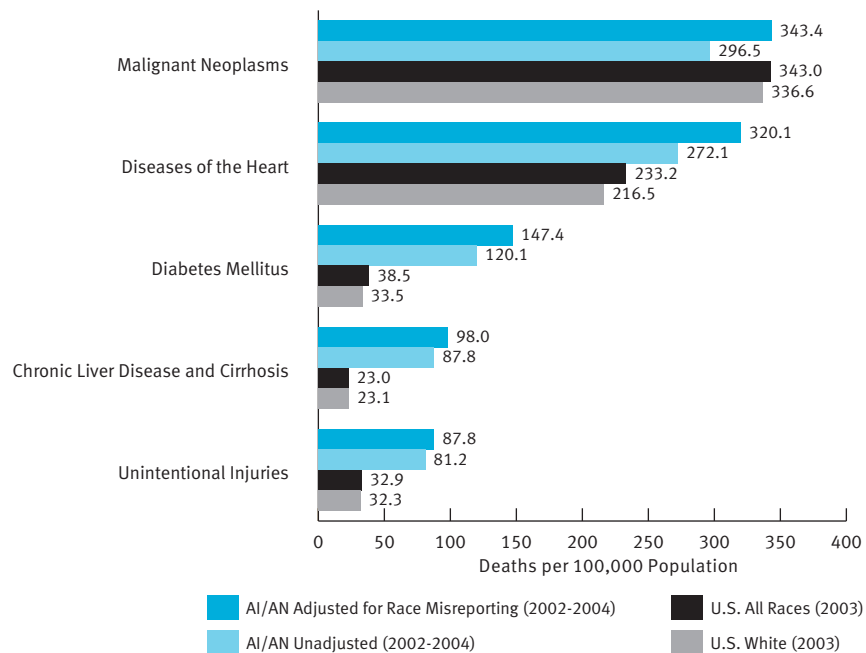
*American Indians and Alaska Natives, IHS Service Area, 2002-2004, and U.S. All-Races and White Populations, 2003
(Rate per 100,000 Population)*

Cause of Death	AMERICAN INDIAN AND ALASKA NATIVE				U.S. ALL RACES	U.S. WHITE	RATIO OF AMERICAN INDIAN AND ALASKA NATIVE ¹ TO:	
	Number		Rate				U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹	Rate	Rate		
<i>All Causes</i>	<i>3,798</i>	<i>4,295</i>	<i>636.0</i>	<i>719.2</i>	<i>433.2</i>	<i>397.5</i>	<i>1.7</i>	<i>1.8</i>
Malignant neoplasms	612	696	102.5	116.5	122.2	116.0	1.0	1.0
Diseases of the heart	561	652	93.9	109.2	92.5	82.9	1.2	1.3
Unintentional injuries	539	592	90.3	99.1	38.8	38.5	2.6	2.6
Motor vehicle	265	296	44.4	49.6	14.9	14.9	3.3	3.3
Other unintentional injuries	274	296	45.9	49.5	23.9	23.6	2.1	2.1
Chronic liver disease and cirrhosis	432	503	72.3	84.2	18.3	18.4	4.6	4.6
Diabetes mellitus	249	295	41.7	49.4	13.9	11.8	3.6	4.2
Cerebrovascular diseases	112	126	18.8	21.1	15.0	11.4	1.4	1.9
Suicide	91	97	15.2	16.2	15.9	18.4	1.0	0.9
Nephritis, nephrotic syndrome, and nephrosis	72	76	12.1	12.7	5.1	3.5	2.5	3.6
Homicide	70	72	11.7	12.1	4.9	3.5	2.5	3.5
Pneumonia and influenza	65	68	10.9	11.4	5.2	4.7	2.2	2.4
<i>All other causes</i>	<i>995</i>	<i>1,118</i>						

¹Adjusted – specifies a number, rate, or ratio of rates adjusted to compensate for misreporting of AI/AN race on state death certificates.

NOTE: Causes of death listed are based on the order of adjusted number of deaths.
SOURCE: Rates for U.S. All Races and U.S. White: Heron MP, Smith BL, Deaths: Leading Causes for 2003, National Vital Statistics Reports; vol 55 no 10. Hyattsville, MD: National Center for Health Statistics. 2007.

Unintentional injuries are the fifth leading cause of death for persons 55-64 years of age in the AI/AN population. For every 100 AI/AN deaths in this age group six deaths are attributable to unintentional injuries. Unintentional injuries is the sixth leading cause of death among U.S. all-races and is the fifth leading cause of death among the U.S. white populations. The AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 8 Death Rates, Leading Causes: Ages 55 to 64 Years

Table 8 Ten Leading Causes of Death for Decedents 55 to 64 Years of Age

*American Indians and Alaska Natives, IHS Service Area, 2002-2004, and U.S. All-Races and White Populations, 2003
(Rate per 100,000 Population)*

Cause of Death	AMERICAN INDIAN AND ALASKA NATIVE				U.S. ALL RACES	U.S. WHITE	RATIO OF AMERICAN INDIAN AND ALASKA NATIVE ¹ TO:	
	Number		Rate				U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹	Rate	Rate		
All Causes	4,389	5,083	1,246.6	1,443.8	940.9	892.2	1.5	1.6
Malignant neoplasms	1,044	1,209	296.5	343.4	343.0	336.6	1.0	1.0
Diseases of the heart	958	1,127	272.1	320.1	233.2	216.5	1.4	1.5
Diabetes mellitus	423	519	120.1	147.4	38.5	33.5	3.8	4.4
Chronic liver disease and cirrhosis	309	345	87.8	98.0	23.0	23.1	4.3	4.2
Unintentional injuries	286	309	81.2	87.8	32.9	32.3	2.7	2.7
Motor vehicle	140	155	39.8	44.1	14.3	14.0	3.1	3.2
Other unintentional injuries	146	154	41.4	43.7	18.6	18.3	2.3	2.4
Chronic lower respiratory diseases	158	191	44.9	54.3	43.3	45.2	1.3	1.2
Cerebrovascular diseases	135	161	38.3	45.7	35.6	29.4	1.3	1.6
Nephritis, nephrotic syndrome, and nephrosis	97	113	27.6	32.1	13.6	10.6	2.4	3.0
Septicemia	85	93	24.1	26.4	13.1	11.2	2.0	2.4
Pneumonia and influenza	81	89	23.0	25.3	11.2	10.3	2.3	2.5
All other causes	813	927						

¹Adjusted – specifies a number, rate, or ratio of rates adjusted to compensate for misreporting of AI/AN race on state death certificates.

NOTE: Causes of death listed are based on the order of adjusted number of deaths.

SOURCE: Rates for U.S. All Races and U.S. White: Heron MP, Smith BL, Deaths: Leading Causes for 2003, National Vital Statistics Reports; vol 55 no 10. Hyattsville, MD: National Center for Health Statistics. 2007.

Unintentional injuries are the third leading cause of death for all ages for the AI/AN population. For every 100 AI/AN deaths thirteen deaths are attributable to unintentional injuries. The AI/AN unintentional injury death rate (84.7) is 4.6 times higher than the suicide death rate (18.4) for the three year period of 2002-2004. The AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates

Chart 9 Death Rates for Leading Causes for All Ages

American Indians and Alaska Natives (2002-2004)

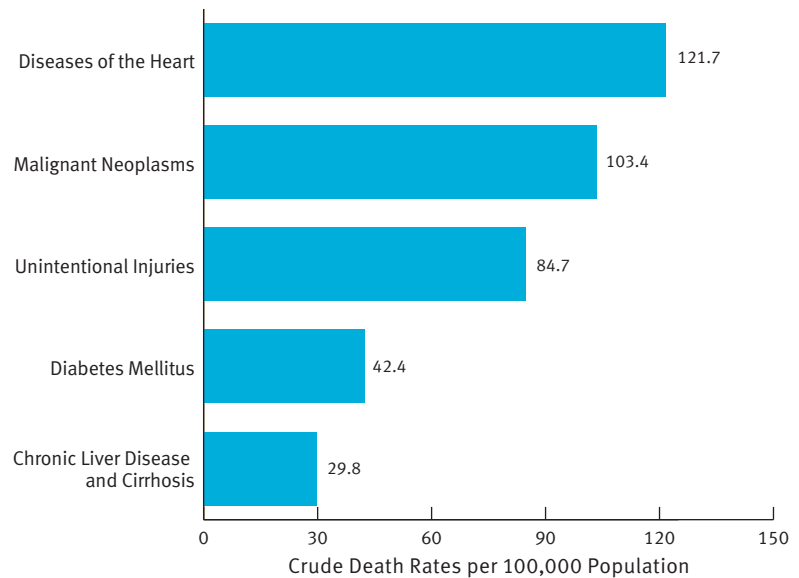


Table 9 Ten Leading Causes of Death for Decendents of All Ages

*American Indians and Alaska Natives, IHS Service Area, 2002-2004
(Crude Rate per 100,000 Population)*

Cause of Death	Number		Rate	
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹
<i>All Causes</i>	<i>28,625</i>	<i>33,088</i>	<i>548.7</i>	<i>632.6</i>
Diseases of the heart	5,447	6,347	104.4	121.7
Malignant neoplasms	4,714	5,392	90.4	103.4
Unintentional injuries	3,746	4,417	71.8	84.7
Motor vehicle	2,126	2,594	40.8	49.7
Other unintentional injuries	1,620	1,823	31.0	35.0
Diabetes mellitus	1,836	2,211	35.2	42.4
Chronic liver disease and cirrhosis	1,371	1,556	26.3	29.8
Cerebrovascular diseases	1,143	1,333	21.9	25.6
Chronic lower respiratory diseases	945	1,104	18.1	21.2
Suicide	831	961	15.9	18.4
Pneumonia and influenza	767	832	14.7	15.9
Homicide	561	639	10.8	12.2
<i>All other causes</i>	<i>7,264</i>	<i>8,296</i>		

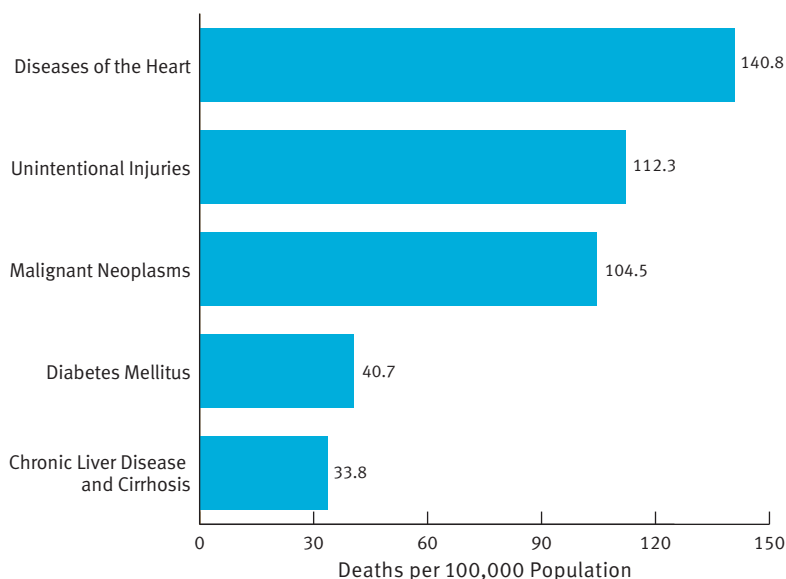
¹Adjusted to compensate for misreporting of AI/AN race on state death certificates.

NOTE: Causes of death listed are based on the order of adjusted rate of deaths.

Unintentional injuries are the second leading cause of AI/AN death for males. For every 100 AI/AN male deaths 17 deaths are attributable to unintentional injuries. Suicide is the sixth leading cause for AI/AN males. The AI/AN rates have been adjusted to compensate for misreporting of AI/AN rate on state death certificates.

Chart 10.1 Death Rates, Leading Causes: Males

American Indians and Alaska Natives (2002-2004)



Unintentional injuries are the third leading cause of AI/AN female deaths for all ages. For every 100 AI/AN female deaths 10 deaths are attributable to unintentional injuries. Sixty-two percent of AI/AN female unintentional injury deaths are caused by motor vehicle accidents. The AI/AN rates have been adjusted to compensate for misreporting of AI/AN rate on state death certificates.

Chart 10.2 Death Rates, Leading Causes: Females

American Indians and Alaska Natives (2002-2004)

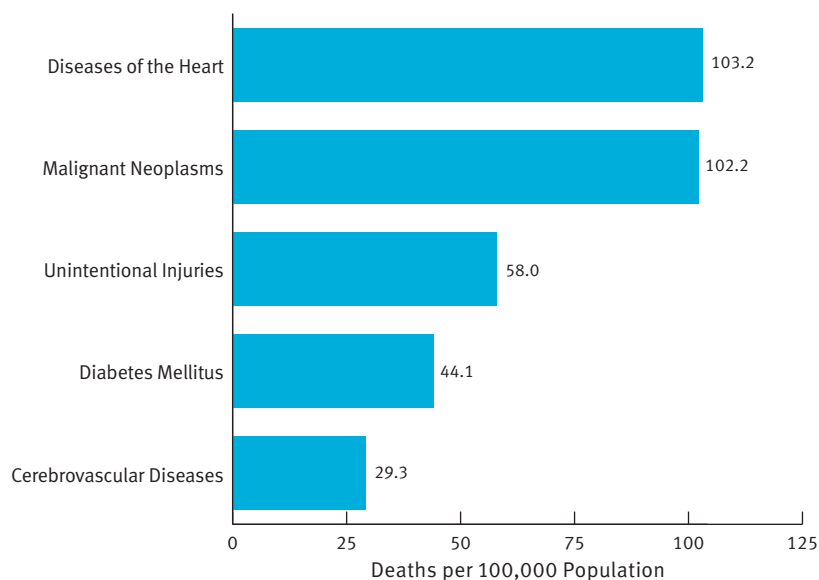


Table 10 **Leading Causes of Death by Sex**

*American Indians and Alaska Natives, IHS Service Area, 2002-2004
(Rate per 100,000 Population)*

Cause of Death	Number		Rate	
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹
MALE				
<i>All Causes</i>	<i>15,669</i>	<i>18,014</i>	<i>608.6</i>	<i>699.7</i>
Diseases of the heart	3,072	3,624	119.3	140.8
Unintentional injuries	2,522	2,890	98.0	112.3
Motor vehicle	1,389	1,640	54.0	63.7
Other unintentional injuries	1,133	1,250	44.0	48.6
Malignant neoplasms	2,341	2,691	90.9	104.5
Diabetes mellitus	867	1,047	33.7	40.7
Chronic liver disease and cirrhosis	779	871	30.3	33.8
Suicide	659	758	25.6	29.4
Cerebrovascular diseases	481	560	18.7	21.8
Chronic lower respiratory diseases	480	568	18.6	22.1
Homicide	434	481	16.9	18.7
Pneumonia and influenza	372	408	14.4	15.8
<i>All other causes</i>	<i>3,662</i>	<i>4,116</i>		
FEMALE				
<i>All Causes</i>	<i>12,976</i>	<i>15,005</i>	<i>491.2</i>	<i>568.0</i>
Diseases of the heart	2,378	2,726	90.0	103.2
Malignant neoplasms	2,373	2,701	89.8	102.2
Unintentional injuries	1,230	1,533	46.6	58.0
Motor vehicle	740	957	28.0	36.2
Other unintentional injuries	490	576	18.5	21.8
Diabetes mellitus	969	1,164	36.7	44.1
Cerebrovascular diseases	662	773	25.1	29.3
Chronic liver disease and cirrhosis	592	685	22.4	25.9
Chronic lower respiratory diseases	465	536	17.6	20.3
Pneumonia and influenza	395	424	15.0	16.0
Nephritis, nephrotic syndrome, and nephrosis	288	318	10.9	12.0
Septicemia	260	283	9.8	10.7
<i>All other causes</i>	<i>3,364</i>	<i>3,862</i>		

¹Adjusted to compensate for misreporting of AI/AN race on state death certificates.

The AI/AN population has considerably higher age-adjusted death rates for unintentional injuries, suicide, and homicide than the U.S. all-races and white populations. The AI/AN age-adjusted unintentional injury death rate (94.8) is approximately 2.5 times the U.S. all-races rate (37.3) and U.S. white rate (38.2). The AI/AN suicide rate (17.9) is over one and half times the U.S. all-races rate (10.8) and one and half times the U.S. white rate (11.8). The AI/AN rate (12.2) for homicide is two times the U.S. all-races rate (6.0) and over three times the U.S. white rate (3.7). The AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 11 Selected Age-Adjusted Death Rates, Ratio of American Indians and Alaska Natives (2002-2004) to U.S. All Races (2003)

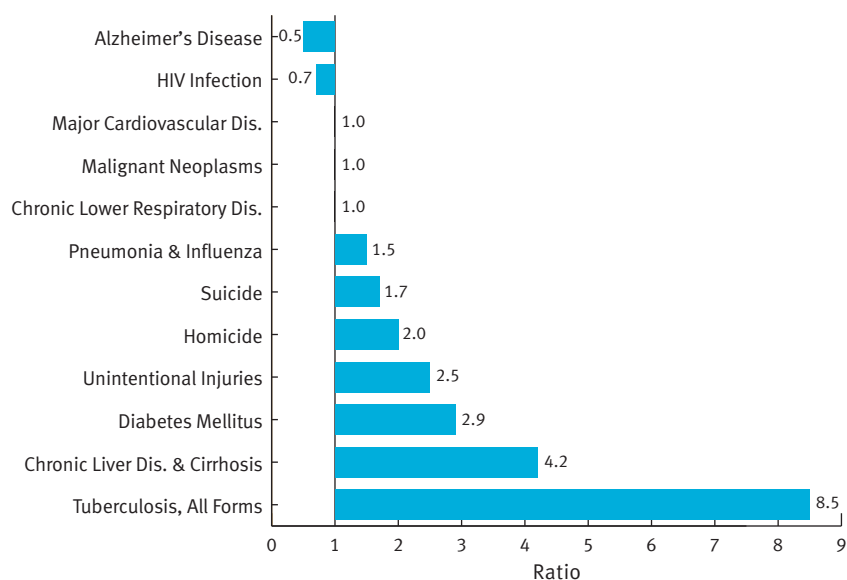


Table 11 **Age-Adjusted Death Rates**

*American Indians and Alaska Natives, IHS Service Area, 2002-2004, and U.S. All-Races and White Populations, 2003
(Rate per 100,000 Population)*

Cause of Death	AMERICAN INDIAN AND ALASKA NATIVE		U.S. ALL RACES	U.S. WHITE	RATIO OF AMERICAN INDIAN AND ALASKA NATIVE ¹ TO:	
	Rate		Rate	Rate	U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹				
<i>All Causes</i>	<i>900.2</i>	<i>1,027.1</i>	<i>832.7</i>	<i>817.0</i>	<i>1.2</i>	<i>1.3</i>
Major cardiovascular diseases	261.2	301.0	306.1	298.9	1.0	1.0
Diseases of the heart	199.7	231.1	232.3	228.2	1.0	1.0
Cerebrovascular diseases	43.9	50.9	53.5	51.4	1.0	1.0
Atherosclerosis	3.5	3.9	4.4	4.5	0.9	0.9
Hypertension	6.5	6.9	9.6	8.0	0.7	0.9
Malignant neoplasms	159.2	180.7	190.1	188.5	1.0	1.0
Unintentional injuries	82.1	94.8	37.3	38.2	2.5	2.5
Motor vehicle	42.6	51.2	15.3	15.7	3.3	3.3
Other unintentional injuries	39.5	43.6	22.0	22.5	2.0	1.9
Diabetes mellitus	61.9	74.2	25.3	23.0	2.9	3.2
Chronic lower respiratory diseases	36.0	41.8	43.3	45.4	1.0	0.9
Chronic liver disease and cirrhosis	34.6	39.1	9.3	9.5	4.2	4.1
Pneumonia and influenza	29.9	32.3	22.0	21.9	1.5	1.5
Suicide	15.7	17.9	10.8	11.8	1.7	1.5
Homicide	10.9	12.2	6.0	3.7	2.0	3.3
Alzheimer's disease	10.8	11.6	21.4	22.2	0.5	0.5
Human immunodeficiency virus (HIV) infection	2.1	3.1	4.7	2.5	0.7	1.2
Tuberculosis, all forms	1.7	1.7	0.2	0.2	8.5	8.5

¹Adjusted to compensate for misreporting of AI/AN race on state death certificates.

NOTE: Causes of death listed are based on the order of adjusted number of deaths.

SOURCE: Rates for U.S. All Races and U.S. White: Heron MP, Smith BL, Deaths: Leading Causes for 2003, National Vital Statistics Reports; vol 55 no 10. Hyattsville, MD: National Center for Health Statistics. 2007.

The AI/AN age-adjusted rate (15.9) due to poisoning for years 2002-2004 is one and a half times higher than for AI/ANs for years 1972-1974 and is 1.6 times higher for the U.S. all-races than for 2003. The AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on the state death certificates.

Chart 12 Age-Adjusted Poisoning Death Rates

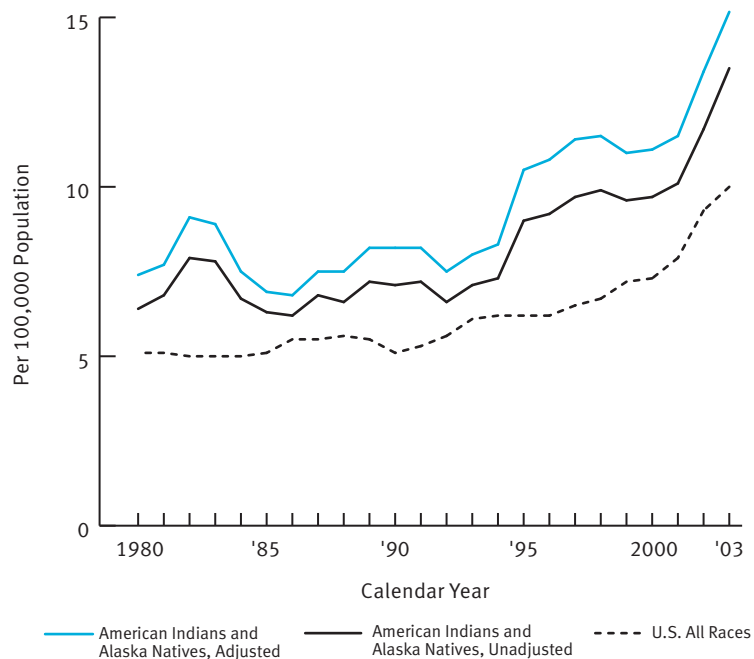


Table 12 **Poisoning Deaths and Death Rates**

*American Indians and Alaska Natives, IHS Service Area, and U.S. All-Races and White Populations, 1972-2003
(Age-Adjusted Rate per 100,000 Population)*

Calendar Year(s)	AMERICAN INDIAN AND ALASKA NATIVE				U.S. ALL RACES	U.S. WHITE	RATIO OF AMERICAN INDIAN AND ALASKA NATIVE ¹ TO:	
	Number		Rate				U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹				
2003-2005 (2004)	252	304						
2002-2004 (2003)	217	252	13.5	15.9	10.0	10.7	1.6	1.5
2001-2003 (2002)	178	210	11.7	13.4	9.3	9.9	1.4	1.4
2000-2002 (2001)	147	166	10.1	11.5	7.9	8.3	1.5	1.4
1999-2001 (2000)	137	154	9.7	11.1	7.3	7.6	1.5	1.5
1998-2000 (1999)	154	185	9.6	11.0	7.2	7.4	1.5	1.5
1997-1999 (1998)	135	154	9.9	10.5	6.7	6.8	1.7	1.7
1996-1998 (1997)	130	153	9.7	11.4	6.5	6.5	1.8	1.8
1995-1997 (1996)	129	162	9.2	10.8	6.2	6.2	1.7	1.7
1994-1996 (1995)	97	109	9.0	10.5	6.2	6.1	1.7	1.7
1993-1995 (1994)	96	109	7.3	8.3	6.2	6.1	1.3	1.4
1992-1994 (1993)	74	86	7.1	8.0	6.1	6.0	1.3	1.3
1991-1993 (1992)	81	94	6.6	7.5	5.6	5.6	1.3	1.3
1990-1992 (1991)	72	83	7.2	8.2	5.3	5.2	1.5	1.6
1989-1991 (1990)	83	95	7.1	8.2	5.1	5.1	1.6	1.6
1988-1990 (1989)	73	85	7.2	8.2	5.5	5.4	1.5	1.5
1987-1989 (1988)	69	79	6.6	7.5	5.6	5.5	1.3	1.4
1986-1988 (1987)	62	71	6.8	7.5	5.5	5.5	1.4	1.4
1985-1987 (1986)	72	77	6.2	6.8	5.5	5.7	1.2	1.2
1984-1986 (1985)	50	54	6.3	6.9	5.1	5.3	1.4	1.3
1983-1985 (1984)	57	66	6.7	7.5	5.0	5.1	1.5	1.5
1982-1984 (1983)	65	75	7.8	8.9	5.0	5.2	1.8	1.7
1981-1983 (1982)	61	67	7.9	9.1	5.0	5.1	1.8	1.8
1980-1982 (1981)	47	57	6.8	7.7	5.1	5.2	1.5	1.5
1979-1981 (1980)	44	47	6.4	7.4	5.1	5.2	1.5	1.4
1972-1974 (72-74)	158	174	9.8	10.9	6.1	6.2	1.8	1.8

¹Adjusted – specifies a number, rate, or ratio of rates adjusted to compensate for misreporting of AI/AN race on state death certificates.

NOTE: Reservation State data for 1955, the year IHS was established, are presented above. Data from 1972 forward are drawn from specific counties in the IHS service area. Reservation State data and county data are not directly comparable. The AI/AN death rate columns present data for the three-year period specified and are age-adjusted to the 2000 standard population; the U.S. all races and U.S. white columns present data for a one-year period. The number columns indicate total AI/AN deaths for the one-year period specified.

SOURCE: Rates for U.S. All Races and U.S. White: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>.

The age-specific death rate due to poisoning for AI/AN males (2002-2004) was overall higher than AI/AN females. The AI/AN male rate was higher for all age groups except for males ages 1-4, 5-14, and 85 years and older. The AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on the state death certificates.

Chart 13 Poisoning Death Rates by Age and Sex

American Indians and Alaska Natives (2002-2004)

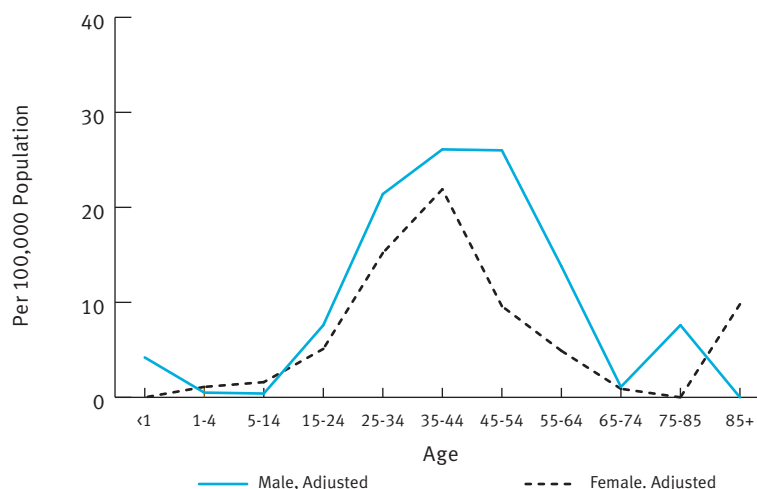


Table 13 Poisoning Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 2002-2004, and U.S. All-Races and White Populations, 2003 (Rate per 100,000 Population)

Age Group	AMERICAN INDIAN AND ALASKA NATIVE					
	Both Sexes		Male		Female	
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹
Under 1 year	2.1	2.1	4.2	4.2	—*	—*
1-4 years	0.8	0.8	0.5	0.5	1.1	1.1
5-14 years	0.8	1.0	0.4	0.4	1.2	1.6
15-24 years	5.5	6.4	6.8	7.6	4.1	5.1
25-34 years	14.8	18.4	19.0	21.4	10.5	15.2
35-44 years	20.9	23.9	23.8	26.1	18.1	21.9
45-54 years	16.1	17.4	23.9	26.0	9.0	9.6
55-64 years	8.8	9.1	13.2	13.8	4.9	4.9
65-74 years	1.0	1.0	1.1	1.1	0.9	0.9
75-84 years	3.2	3.2	7.6	7.6	—*	—*
85 years +	6.7	6.7	—*	—*	9.8	9.8

Age Group	U.S. ALL RACES			U.S. WHITE		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Under 1 year	0.8	0.9	0.8	0.8	0.9	0.5
1-4 years	0.4	0.4	0.4	0.3	0.3	0.3
5-14 years	0.2	0.2	0.2	0.2	0.2	0.2
15-24 years	6.6	9.6	3.4	7.8	11.4	4.0
25-34 years	12.6	17.7	7.4	13.8	19.6	8.2
35-44 years	20.8	27.2	14.3	22.0	28.9	15.4
45-54 years	19.7	25.4	14.3	20.1	25.5	15.0
55-64 years	8.4	10.1	6.8	8.5	9.8	7.3
65-74 years	4.0	4.6	3.4	3.9	4.2	3.6
75-84 years	3.9	4.7	3.4	4.2	4.9	3.7
85 years +	5.4	7.5	4.5	5.8	7.4	4.7

—* Represents zero.

¹Adjusted to compensate for misreporting of AI/AN race on state death certificates.

The AI/AN age-adjusted death rate due to poisoning varies considerably among the IHS Areas. The highest Area rate (Tucson, 37.7) is 3.8 times the U.S. all-races rate (10.0). The Navajo Area rate (5.5) is the lowest among the IHS areas. The IHS rate (15.9) is 1.6 times the U.S. all-races rate. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 14 Age-Adjusted Poisoning Death Rates by Area, CY 2002–2004

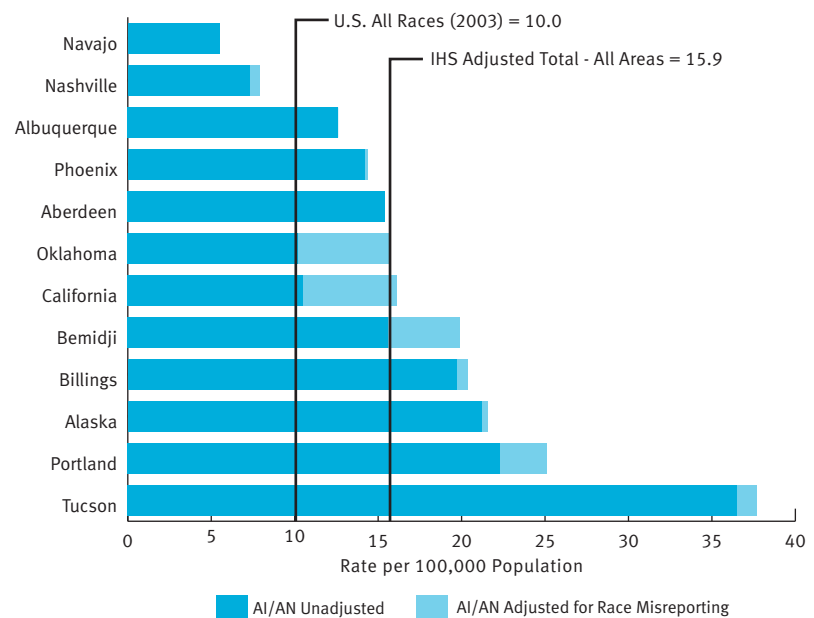


Table 14 Age-Adjusted Poisoning Death¹ Rates by Area, CY 2002–2004

	Deaths		Rate ²	
	Unadjusted	Adjusted ³	Unadjusted	Adjusted ¹
<i>U.S. All Races (2003)</i>	28,700		10.0	
<i>All IHS Areas</i>	647	766	13.5	15.9
Aberdeen	40	40	15.4	15.4
Alaska	62	63	21.2	21.6
Albuquerque	35	35	12.6	12.6
Bemidji	51	66	15.6	19.9
Billings	33	34	19.7	20.4
California	51	80	10.5	16.1
Nashville	24	26	7.3	7.9
Navajo	34	34	5.5	5.5
Oklahoma	94	148	10.2	15.6
Phoenix	75	76	14.2	14.4
Portland	114	129	22.3	25.1
Tucson	34	35	36.5	37.7

¹Includes the following ICD-10 cause of death groups combined: U01(.6-.7), X40-X49, X60-X69, X85-X90, Y10-Y19, and Y35.2.

²Age-adjusted rate per 100,000 population. Rates based on a small number of deaths should be interpreted with caution.

³Adjusted to compensate for misreporting of American Indian/Alaska Native race on the state death certificate.

The AI/AN age-adjusted injury death rate (223.2) is 135 percent greater for years 1972-1974 than for 2002-2004 (94.8). For years 2002-2004 there were 2.5 times more unintentional deaths than for the U.S. All-races for 2003. These AI/AN rates has been adjusted to compensate for misreporting of AI/AN race on the state death certificates.

Chart 15 Age-Adjusted Unintentional Injury Death Rates

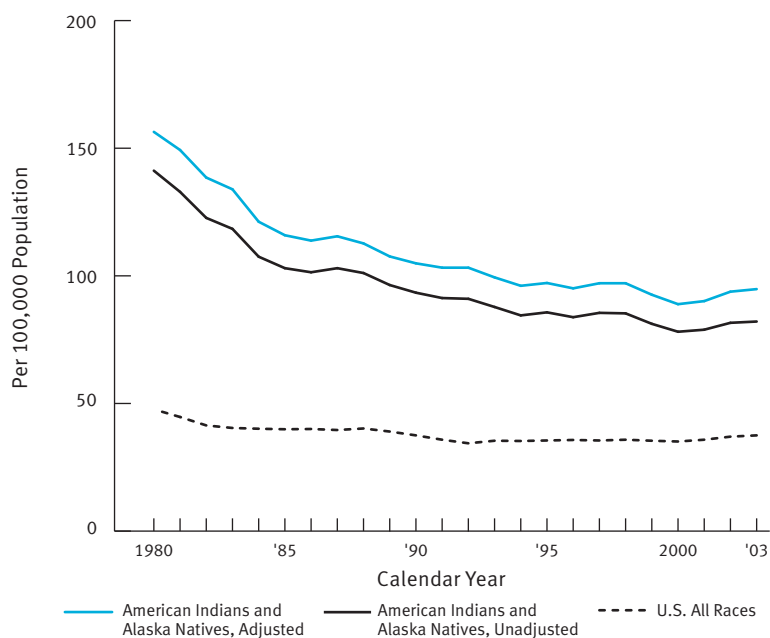


Table 15 Unintentional Injury Deaths and Death Rates

*American Indians and Alaska Natives, IHS Service Area, and U.S. All-Races and White Populations, 1955-2003
(Age-Adjusted Rate per 100,000 Population)*

Calendar Year(s)	AMERICAN INDIAN AND ALASKA NATIVE						U.S. ALL RACES		U.S. WHITE	
	Total Deaths		All Unintentional Injuries		Motor Vehicle		Rate		Rate	
	Number		Rate		Rate		All Unintentional Injuries	Motor Vehicle	All Unintentional Injuries	Motor Vehicle
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹				
2003-2005 (2004)	1,223	1,440								
2002-2004 (2003)	1,287	1,515	82.1	94.8	42.4	51.0	37.5	15.4	38.3	15.7
2001-2003 (2002)	1,242	1,468	81.6	93.8	42.2	50.7	37.0	15.7	37.7	16.1
2000-2002 (2001)	1,097	1,280	78.9	90.1	41.9	49.9	35.8	15.4	36.1	15.7
1999-2001 (2000)	1,101	1,274	78.1	88.9	40.5	48.1	35.1	15.4	35.2	15.6
1998-2000 (1999)	1,091	1,287	81.2	92.6	40.3	47.5	35.4	15.2	35.3	15.4
1997-1999 (1998)	1,087	1,272	85.3	97.1	38.4	45.1	35.8	15.8	35.6	15.8
1996-1998 (1997)	1,103	1,277	85.5	97.1	37.2	43.2	35.5	15.9	35.0	16.0
1995-1997 (1996)	1,055	1,212	83.8	95.1	37.0	43.0	35.7	16.2	35.3	16.3
1994-1996 (1995)	1,016	1,180	85.7	97.2	37.8	44.0	35.5	16.3	34.9	16.3
1993-1995 (1994)	1,022	1,173	84.5	96.1	36.9	42.9	35.3	16.1	34.5	16.2
1992-1994 (1993)	1,007	1,168	87.8	99.4	37.9	43.8	35.4	16.0	34.6	16.1
1991-1993 (1992)	977	1,126	91.0	103.2	39.7	46.2	34.4	15.8	33.6	15.9
1990-1992 (1991)	988	1,154	91.3	103.2	39.9	46.3	35.8	17.0	35.0	17.1
1989-1991 (1990)	970	1,101	93.4	104.9	40.4	46.5	37.5	18.4	36.7	18.5
1988-1990 (1989)	969	1,097	96.4	107.6	41.2	47.1	39.0	18.8	37.9	19.0
1987-1989 (1988)	1,012	1,148	101.1	112.7	43.3	49.5	40.2	19.5	39.1	19.7
1986-1988 (1987)	1,000	1,135	103.0	115.5	45.3	52.0	39.6	19.2	38.7	19.5
1985-1987 (1986)	983	1,120	101.4	113.8	44.8	51.5	40.0	19.1	39.1	19.3
1984-1986 (1985)	913	1,034	103.0	115.9	44.5	51.2	39.9	18.6	39.0	18.8
1983-1985 (1984)	921	1,049	107.5	121.2	45.2	52.5	40.1	18.8	39.4	19.2
1982-1984 (1983)	907	1,038	118.4	133.9	48.9	56.7	40.4	18.2	39.5	18.5
1981-1983 (1982)	999	1,136	122.7	138.5	52.7	60.9	41.4	18.9	40.7	19.2
1980-1982 (1981)	975	1,101	132.9	149.3	58.9	67.4	44.7	21.3	44.0	21.8
1979-1981 (1980)	1,058	1,195	141.2	156.4	63.4	71.5	47.7	22.3	46.5	22.6
1972-1974 (72-74)	3,001	3,292	204.1	223.2	90.6	100.4	59.5	26.7	57.5	26.2
1954-1956 (1955)	714		184.0		97.6		54.3	24.6	52.2	24.3

¹Adjusted – specifies a number, rate, or ratio of rates adjusted to compensate for misreporting of AI/AN race on state death certificates.

NOTE: Reservation State data for 1955, the year IHS was established, are presented above. Data from 1972 forward are drawn from specific counties in the IHS service area. Reservation State data and county data are not directly comparable. The AI/AN death rate columns present data for the three-year period specified and are age-adjusted to the 2000 standard population; the U.S. all races and U.S. white columns present data for a one-year period. The number columns indicate total AI/AN deaths for the one-year period specified.

SOURCE: Rates for U.S. All Races and U.S. White: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>.

The highest unintentional injury deaths occur in the elder population (75 years and older). Excluding the elder population more AI/AN males die from unintentional injuries for ages 35 to 44 years than any other age group. This is 2.8 times the comparable peak rate (58.9) for the U.S. all-races male population ages 65 to 74 and 1.9 times the comparable peak rate (86.4) for the AI/AN females for ages 65 to 74 years. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN on state death certificates.

Chart 16 Unintentional Injury Death Rates by Age and Sex

American Indians and Alaska Natives (2002-2004)

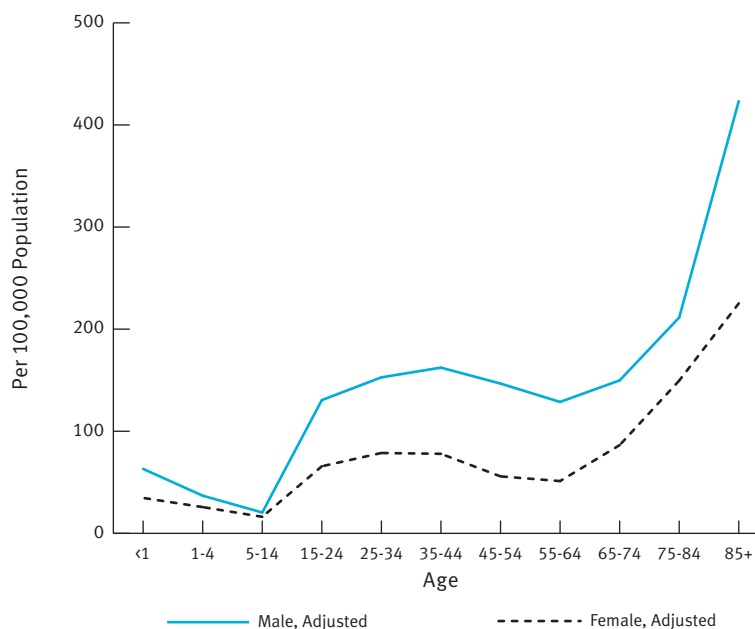


Table 16 Unintentional Injury Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 2002-2004, and U.S. All-Races and White Populations, 2003 (Rate per 100,000 Population)

Age Group	AMERICAN INDIAN AND ALASKA NATIVE					
	Both Sexes		Male		Female	
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹
Under 1 year	51.3 ²	49.1 ²	63.1 ²	63.1 ²	39.0 ²	34.7 ²
1-4 years	24.4	31.4	28.4	36.9	20.2	25.7
5-14 years	15.9	18.3	18.5	20.4	13.3	16.2
15-24 years	78.2	98.7	109.2	130.5	46.1	65.7
25-34 years	88.7	115.9	123.4	152.8	53.8	78.7
35-44 years	102.5	119.0	143.8	162.3	63.2	77.9
45-54 years	90.3	99.2	134.0	146.7	50.3	55.8
55-64 years	81.3	87.9	120.3	128.7	46.4	51.2
65-74 years	108.0	115.2	144.2	149.8	77.9	86.4
75-84 years	162.5	175.2	193.5	211.4	140.6	149.6
85 years +	287.9	287.9	423.3	423.3	225.2	225.2

Age Group	U.S. ALL RACES			U.S. WHITE		
	Both Sexes	Male	Female	Both Sexes	Male	Female
	Unadjusted	Adjusted ¹	Adjusted ¹	Unadjusted	Adjusted ¹	Adjusted ¹
Under 1 year	23.6	26.4	20.7	20.0	22.5	17.4
1-4 years	10.9	13.0	8.7	10.6	12.8	8.3
5-14 years	6.4	7.9	4.8	6.1	7.6	4.7
15-24 years	37.1	53.3	19.9	40.1	57.4	21.7
25-34 years	31.5	47.1	15.3	33.0	49.3	15.9
35-44 years	37.8	54.2	21.4	39.0	55.6	22.1
45-54 years	38.8	55.9	22.4	38.5	54.9	22.3
55-64 years	32.9	47.1	19.7	32.3	45.8	19.5
65-74 years	44.1	58.9	31.6	43.8	58.3	31.4
75-84 years	101.9	132.9	81.1	104.0	134.4	83.6
85 years +	278.9	352.5	246.4	291.1	365.7	258.0

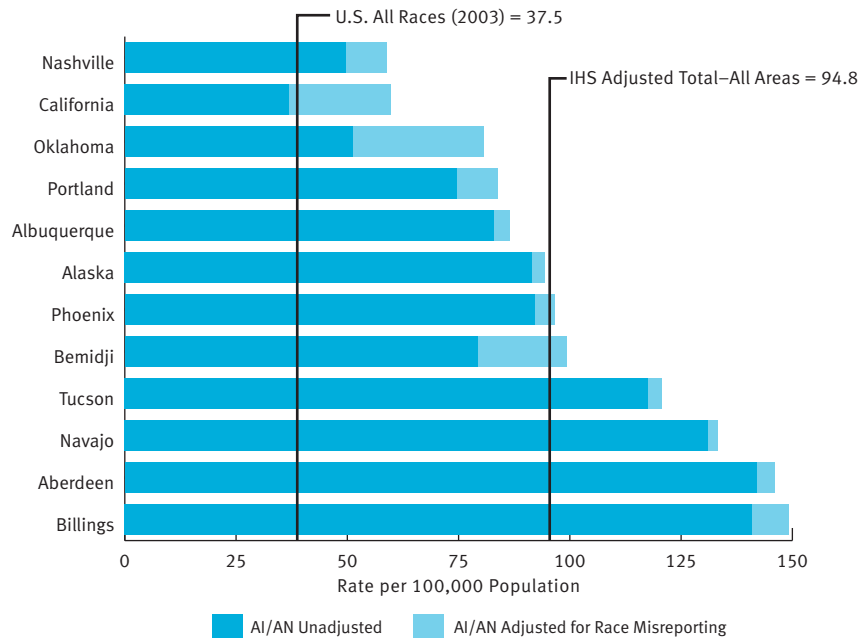
¹Adjusted to compensate for misreporting of AI/AN race on state death certificates.

²The adjusted rate for age less than one year is lower than the unadjusted rate because the linked birth/infant death file (used to obtain the adjusted counts of infant deaths) had fewer deaths for this cause than did the unadjusted mortality file (2002-2004 data).

Source: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>. April 1995.

The Billings Area has the highest age-adjusted unintentional injury death rate (149.1) among the IHS Areas. This rate is 2.5 times higher than the lowest Area rate (Nashville, 59.0), but approximately 6 times the U.S. all-races rate (37.5). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 17 Age-Adjusted Unintentional Injury Death Rates by Area, CY 2002–2004



The Billings Area has the highest age-adjusted motor vehicle crashes death rate (92.1) among the IHS Areas. This rate is 3.1 times higher the lowest Area rate (Alaska, 29.7), but approximately 6 times the U.S. all-races rate (15.4). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 18 Age-Adjusted Motor Vehicle Crashes Death Rates by Area, CY 2002–2004

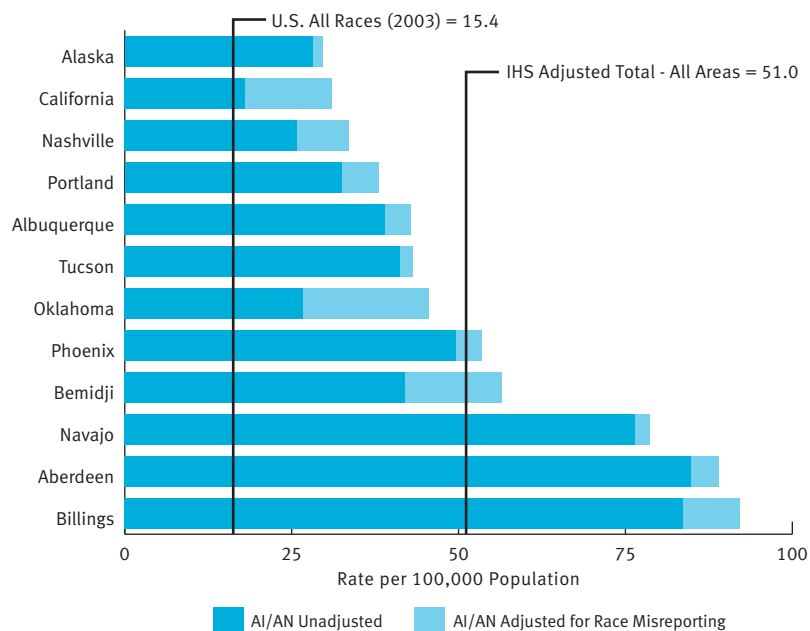


Table 17 **Age-Adjusted Unintentional Injury Death Rates by Area, Calendar Years 2002-2004**

Cause of Infant Death	ALL UNINTENTIONAL INJURIES				MOTOR VEHICLE CRASHES		
	Death		Rate ²		Totals		Percent of Motor Vehicle Crash Deaths Pedestrian-related ¹
	Unadjusted	Adjusted ³	Unadjusted	Adjusted ³	Unadjusted	Adjusted ³	
<i>U.S. All Races (2003)</i>	109,277		37.5		15.4		
All IHS Areas	3,752	4,423	82.1	94.8	42.4	51.0	15.1
Aberdeen	383	397	141.9	146.0	84.8	88.9	8.5
Alaska	261	268	91.5	94.3	28.1	29.7	25.6
Albuquerque	212	225	82.8	86.6	39.0	42.8	22.4
Bemidji	233	301	79.3	99.2	42.0	56.5	10.1
Billings	242	257	140.9	149.1	83.6	92.1	4.8
California	175	295	36.9	59.6	18.0	31.0	12.9
Nashville	150	184	49.6	59.0	25.8	33.5	9.9
Navajo	740	754	131.0	133.2	76.4	78.7	21.0
Oklahoma	456	756	51.1	80.6	26.7	45.5	11.0
Phoenix	437	465	92.0	96.5	49.6	53.5	22.6
Portland	366	421	74.5	83.8	32.5	38.0	16.6
Tucson	97	100	117.6	120.7	41.2	43.2	14.1

¹Includes Motor vehicle crashes having ICD-10 codes V02-V04 indicates a pedestrian was the subject decedent as a result of the motor vehicle crash. Percentages rare based on adjusted numbers of deaths.

²Age-adjusted rate per 100,000 population.

³Adjusted to compensate for misreporting of American Indian/Alaska Native race on the state death certificate.

The age-adjusted motor vehicle death rate for AI/AN males has decreased 62 percent since 1972-1974. For 2002-2004 there were 3.1 times more AI/AN male deaths from motor vehicle accidents than for U.S. all-races for 2003. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 19 Age-Adjusted Motor Vehicle Death Rates for Males

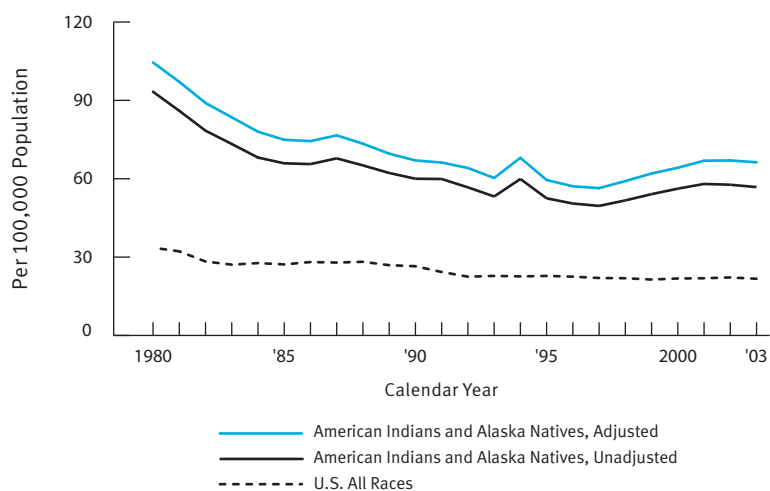


Table 19 Motor Vehicle Deaths and Death Rates for Males

American Indians and Alaska Natives, IHS Service Area, and U.S. All-Races and White Populations, 1955-2003
(Age-Adjusted Rate per 100,000 Population)

Calendar Year(s)	AMERICAN INDIAN AND ALASKA NATIVE				U.S. ALL RACES	U.S. WHITE	RATIO OF AMERICAN INDIAN AND ALASKA NATIVE ¹ TO:	
	Number		Rate		Rate	Rate	U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹				
2002-2004 (2003)	475	556	56.8	66.3	21.7	22.0	3.1	3.0
2001-2003 (2002)	491	581	57.7	67.0	22.2	22.5	3.0	3.0
2000-2002 (2001)	424	496	58.0	66.9	21.9	22.1	3.1	3.0
1999-2001 (2000)	424	490	56.2	64.2	21.8	21.8	2.9	2.9
1998-2000 (1999)	410	479	54.1	62.0	21.4	21.4	2.9	2.9
1997-1999 (1998)	396	466	51.7	59.1	21.9	21.8	2.7	2.7
1996-1998 (1997)	407	462	49.6	56.4	22.0	21.9	2.6	2.6
1995-1997 (1996)	417	481	50.5	57.1	22.5	22.4	2.5	2.5
1994-1996 (1995)	396	456	52.5	59.5	22.8	22.6	2.6	2.6
1993-1995 (1994)	373	424	59.9	68.0	22.6	22.6	3.0	3.0
1992-1994 (1993)	367	423	53.2	60.3	22.8	22.7	2.6	2.7
1991-1993 (1992)	382	443	56.7	64.1	22.5	22.4	2.8	2.9
1990-1992 (1991)	393	449	59.9	66.2	24.3	24.2	2.7	2.7
1989-1991 (1990)	399	451	60.0	67.0	26.5	26.3	2.5	2.5
1988-1990 (1989)	381	432	62.2	69.6	26.9	26.7	2.6	2.6
1987-1989 (1988)	410	467	65.1	73.4	28.2	28.1	2.6	2.6
1986-1988 (1987)	423	481	67.8	76.6	27.9	28.0	2.7	2.7
1985-1987 (1986)	395	447	65.6	74.4	28.1	28.0	2.6	2.7
1984-1986 (1985)	354	403	65.9	74.9	27.2	27.2	2.8	2.8
1983-1985 (1984)	351	404	68.1	78.0	27.7	27.9	2.8	2.8
1982-1984 (1983)	358	413	73.3	83.5	27.1	27.3	3.1	3.1
1981-1983 (1982)	362	408	78.4	89.0	28.3	28.6	3.1	3.1
1980-1982 (1981)	405	462	86.0	97.1	32.2	32.6	3.0	3.0
1979-1981 (1980)	429	488	93.3	104.5	33.6	33.8	3.1	3.1
(1979)	448	488						
1972-1974 (1973)	1,199	1,330	157.7	175.5	39.3	38.4	4.5	4.6
1954-1956 (1955)	–		–		38.4	37.8		

– Data not available.

¹Adjusted – specifies a number, rate, or ratio of rates adjusted to compensate for misreporting of AI/AN race on state death certificates.

NOTE: Data from 1972 forward are drawn from specific counties in the IHS service area. The AI/AN death rate columns present data for the three-year period specified and are age-adjusted to the 2000 standard population; the U.S. All-Races and U.S. White columns present data for a one-year period. The number columns indicate total AI/AN deaths for the one-year period specified.

SOURCE: Rates for U.S. All Races and U.S. White: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>.

The age-adjusted AI/AN female motor vehicle death rate (37.1) for years 2002-2004 has decreased 42 percent since the three year period 1972-1974. AI/AN females died from injuries suffered in motor vehicle accidents 3.9 times more than U.S. all-races females for 2003. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 20 Age-Adjusted Motor Vehicle Death Rates for Females

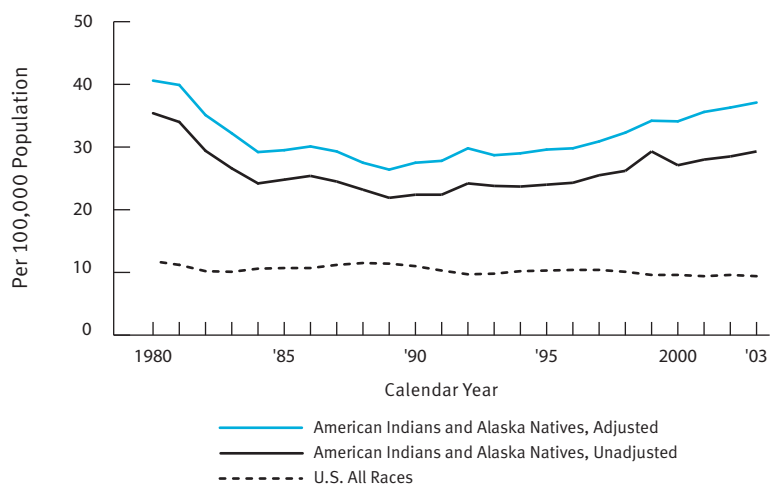


Table 20 Motor Vehicle Deaths and Death Rates for Females

*American Indians and Alaska Natives, IHS Service Area, and U.S. All-Races and White Populations, 1955-2003
(Age-Adjusted Rate per 100,000 Population)*

Calendar Year(s)	AMERICAN INDIAN AND ALASKA NATIVE				U.S. ALL RACES	U.S. WHITE	RATIO OF AMERICAN INDIAN AND ALASKA NATIVE ¹ TO:	
	Number		Rate		Rate	Rate	U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹				
2002-2004 (2003)	253	331	29.3	37.1	9.4	9.6	3.9	3.9
2001-2003 (2002)	252	327	28.5	36.3	9.6	9.9	3.8	3.7
2000-2002 (2001)	200	261	28.0	35.6	9.4	9.5	3.8	3.7
1999-2001 (2000)	233	295	27.1	34.1	9.6	9.8	3.6	3.5
1998-2000 (1999)	206	273	29.3	34.2	9.6	9.7	3.6	3.5
1997-1999 (1998)	223	278	26.2	32.3	10.1	10.3	3.2	3.1
1996-1998 (1997)	204	253	25.5	30.9	10.4	10.5	3.0	2.9
1995-1997 (1996)	208	257	24.3	29.8	10.4	10.6	2.9	2.8
1994-1996 (1995)	194	247	24.0	29.6	10.3	10.4	2.9	2.8
1993-1995 (1994)	179	218	23.7	29.0	10.2	10.2	2.8	2.8
1992-1994 (1993)	201	249	23.8	28.7	9.8	10.0	2.9	2.9
1991-1993 (1992)	156	197	24.2	29.8	9.7	9.8	3.1	3.0
1990-1992 (1991)	165	218	22.4	27.8	10.3	10.5	2.7	2.6
1989-1991 (1990)	149	186	22.4	27.5	11.0	11.2	2.5	2.5
1988-1990 (1989)	155	186	21.9	26.4	11.4	11.7	2.3	2.3
1987-1989 (1988)	155	188	23.2	27.5	11.5	11.7	2.4	2.4
1986-1988 (1987)	151	185	24.5	29.3	11.2	11.5	2.6	2.5
1985-1987 (1986)	171	202	25.4	30.1	10.7	11.0	2.8	2.7
1984-1986 (1985)	154	184	24.8	29.5	10.7	11.0	2.8	2.7
1983-1985 (1984)	134	166	24.2	29.2	10.6	11.0	2.8	2.7
1982-1984 (1983)	140	175	26.6	32.2	10.1	10.4	3.2	3.1
1981-1983 (1982)	168	204	29.4	35.1	10.2	10.5	3.4	3.3
1980-1982 (1981)	165	193	34.0	39.9	11.2	11.7	3.6	3.4
1979-1981 (1980)	193	230	35.4	40.6	11.8	12.2	3.4	3.3
(1979)	168	192						
1972-1974 (1973)	480	533	58.5	64.1	14.5	14.5	4.4	4.4
1954-1956 (1955)	–		–		38.4	37.8		

– Data not available.

¹Adjusted – specifies a number, rate, or ratio of rates adjusted to compensate for misreporting of AI/AN race on state death certificates.

NOTE: Data from 1972 forward are drawn from specific counties in the IHS service area. The AI/AN death rate columns present data for the three-year period specified and are age-adjusted to the 2000 standard population; the U.S. all-races and U.S. white columns present data for a one-year period. The number columns indicate total AI/AN deaths for the one-year period specified.

SOURCE: Rates for U.S. All Races and U.S. White: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>.

AI/AN suicides were at a peak for years 1972-1974 (29.4) but then at a low for years 1984-1986 (15.9). For 2002-2004, AI/ANs died from suicides at a rate 66 percent higher than the for U.S. all-races in 2003. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 21 Age-Adjusted Suicide Death Rates

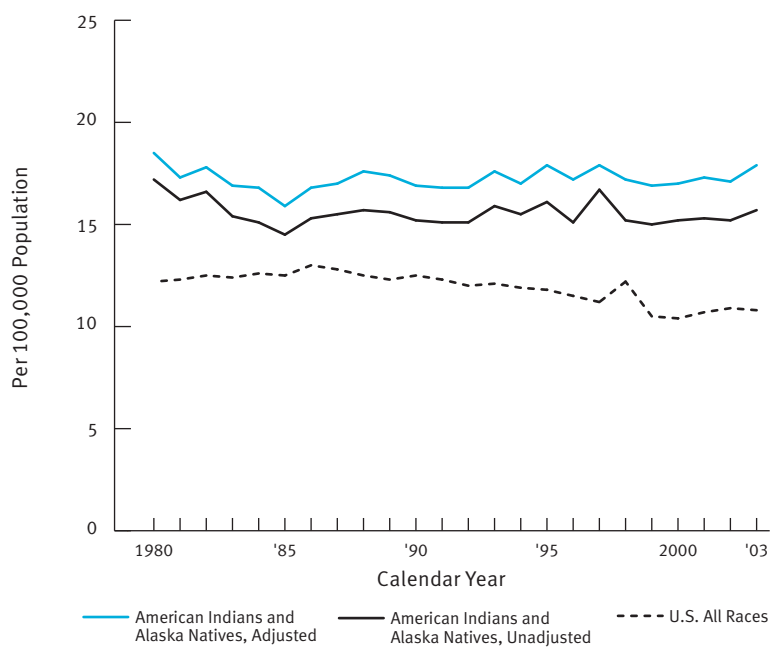


Table 21 Suicide Deaths and Death Rates

*American Indians and Alaska Natives, IHS Service Area, and U.S. All-Races and White Populations, 1955-2003
(Age-Adjusted Rate per 100,000 Population)*

Calendar Year(s)	AMERICAN INDIAN AND ALASKA NATIVE				U.S. ALL RACES	U.S. WHITE	RATIO OF AMERICAN INDIAN AND ALASKA NATIVE ¹ TO:	
	Number		Rate		Rate	Rate	U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹				
2003-2005 (2004)	314	368						
2002-2004 (2003)	255	289	15.7	17.9	10.8	11.8	1.7	1.5
2001-2003 (2002)	261	303	15.2	17.1	10.9	12.0	1.6	1.4
2000-2002 (2001)	258	286	15.3	17.3	10.7	11.7	1.6	1.5
1999-2001 (2000)	238	273	15.2	17.0	10.4	11.3	1.6	1.5
1998-2000 (1999)	235	265	15.0	16.9	10.5	11.3	1.6	1.5
1997-1999 (1998)	252	283	15.2	17.2	12.2	11.1	1.4	1.5
1996-1998 (1997)	234	273	16.7	17.9	11.2	12.1	1.6	1.5
1995-1997 (1996)	225	262	15.1	17.2	11.5	12.4	1.5	1.4
1994-1996 (1995)	205	228	16.1	17.9	11.8	12.7	1.5	1.4
1993-1995 (1994)	242	263	15.5	17.0	11.9	12.7	1.4	1.3
1992-1994 (1993)	204	226	15.9	17.6	12.1	12.9	1.5	1.4
1991-1993 (1992)	193	219	15.1	16.8	12.0	12.8	1.4	1.3
1990-1992 (1991)	184	200	15.1	16.8	12.3	13.2	1.4	1.3
1989-1991 (1990)	195	218	15.2	16.9	12.5	13.3	1.4	1.3
1988-1990 (1989)	192	217	15.6	17.4	12.3	13.1	1.4	1.3
1987-1989 (1988)	185	206	15.7	17.6	12.5	13.3	1.4	1.3
1986-1988 (1987)	187	206	15.5	17.0	12.8	13.7	1.3	1.2
1985-1987 (1986)	158	168	15.3	16.8	13.0	13.9	1.3	1.2
1984-1986 (1985)	172	193	14.5	15.9	12.5	13.4	1.3	1.2
1983-1985 (1984)	148	165	15.1	16.8	12.6	13.5	1.3	1.2
1982-1984 (1983)	161	177	15.4	16.9	12.4	13.2	1.4	1.3
1981-1983 (1982)	154	164	16.6	17.8	12.5	13.3	1.4	1.3
1980-1982 (1981)	157	166	16.2	17.3	12.3	13.1	1.4	1.3
1979-1981 (1980)	146	156	17.2	18.5	12.2	13.0	1.5	1.4
1972-1974 (72-74)	351	374	27.6	29.4	13.2	13.9	2.2	2.1
1954-1956 (1955)	39		11.9		9.9	10.4		

¹Adjusted – specifies a number, rate, or ratio of rates adjusted to compensate for misreporting of AI/AN race on state death certificates.

NOTE: Reservation State data for 1955, the year IHS was established, are presented above. Data from 1972 forward are drawn from specific counties in the IHS service area. Reservation State data and county data are not directly comparable. The AI/AN death rate columns present data for the three-year period specified and are age-adjusted to the 2000 standard population; the U.S. all races and U.S. white columns present data for a one-year period. The number columns indicate total AI/AN deaths for the one-year period specified.

SOURCE: Rates for U.S. All Races and U.S. White: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>.

The highest male AI/AN suicide death rate (61.0) occurs in the 25-34 age group whereas, the highest AI/AN female suicide death rate (16.1) occurs for ages 15-24 years. U.S. all-races males committed suicide mostly at age 85 years and older, whereas, the most U.S. all-races females committed suicide between the ages of 45 and 54. The AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 22

Suicide Death Rates by Age and Sex

American Indians and Alaska Natives (2002-2004)

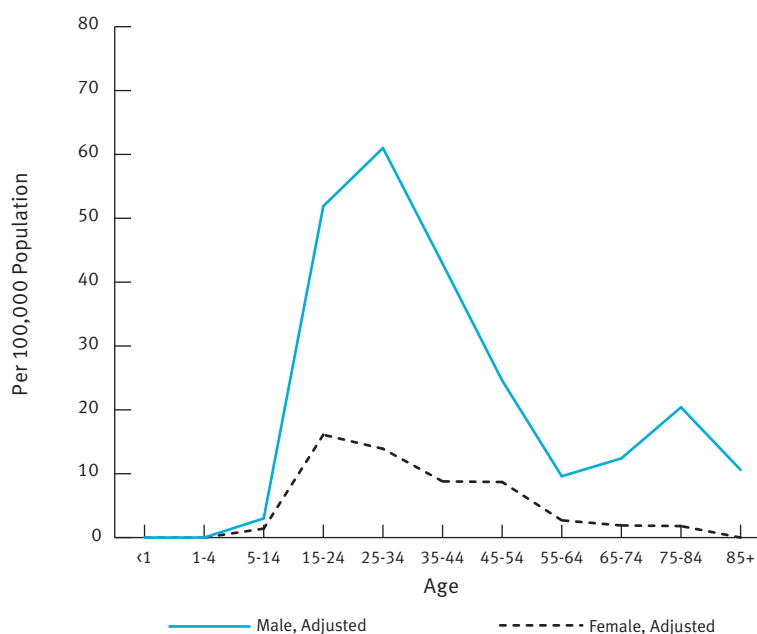


Table 22 Suicide Death Rates by Age and Sex

*American Indians and Alaska Natives, IHS Service Area, 2002-2004, and
U.S. All-Races and White Populations, 2003 (Rate per 100,000 Population)*

Age Group	AMERICAN INDIAN AND ALASKA NATIVE					
	Both Sexes		Male		Female	
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹
Under 1 year	—*	—*	—*	—*	—*	—*
1-4 years	—*	—*	—*	—*	—*	—*
5-14 years	2.0	2.2	2.7	3.0	1.4	1.4
15-24 years	29.2	34.2	44.8	51.9	13.4	16.1
25-34 years	30.1	37.5	49.7	61.0	10.3	13.9
35-44 years	22.8	25.4	38.4	42.9	8.0	8.8
45-54 years	15.2	16.2	23.2	24.6	8.0	8.7
55-64 years	6.0	7.7	9.6	9.6	2.7	2.7
65-74 years	6.7	6.7	12.4	12.4	1.9	1.9
75-84 years	9.5	9.5	20.4	20.4	1.8	1.8
85 years +	3.3	3.3	10.6	10.6	—*	—*

Age Group	U.S. ALL RACES			U.S. WHITE		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Under 1 year	—*	—*	—*	—*	—*	—*
1-4 years	—*	—*	—*	—*	—*	—*
5-14 years	0.6	0.9	0.3	0.6	0.9	0.3
15-24 years	9.7	16.0	3.0	10.2	17.0	3.1
25-34 years	12.7	20.6	4.6	13.7	21.8	5.1
35-44 years	14.9	13.2	6.6	16.6	25.7	7.5
45-54 years	15.9	24.4	7.7	17.9	27.3	8.7
55-64 years	13.8	22.3	5.9	15.2	24.3	6.5
65-74 years	12.7	23.4	3.8	13.8	25.2	4.1
75-84 years	16.4	35.1	4.0	17.6	37.5	4.2
85 years +	16.9	47.8	3.3	18.1	51.4	3.3

—*Represents zero.

¹Adjusted to compensate for misreporting of AI/AN race on state death certificates.

Source: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>. April 1995.

The age-adjusted suicide death rate is the highest in Alaska among the IHS Areas. The Alaska rate (43.5) is 1.7 times higher than the next highest Area rate (Billings, 26.0) and 10.6 times the lowest Area rate (Nashville, 4.1). Nashville is the only Area to have a rate below the U.S. all-races rate (10.8). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 23 Age-Adjusted Suicide Death Rates by Area, CY 2002–2004

Calendar Years 2002-2004

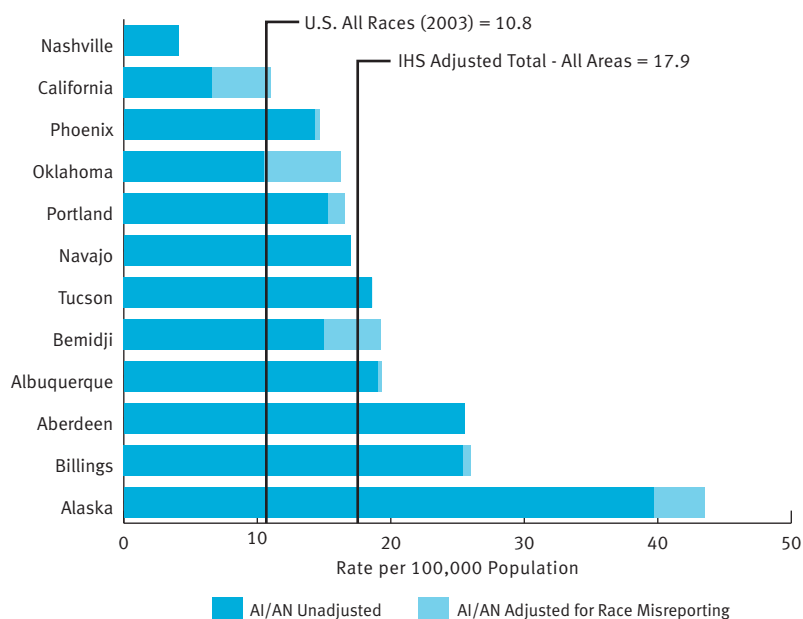


Table 23 **Age-Adjusted Suicide Death Rates by Area, CY 2002–2004**

	Deaths		Rate ¹	
	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²
<i>U.S. All Races (2003)</i>	31,484		10.8	
<i>All IHS Areas</i>	831	961	15.7	17.9
Aberdeen	84	84	25.5	25.5
Alaska	143	157	39.7	43.5
Albuquerque	55	56	19.0	19.3
Bemidji	52	68	15.0	19.2
Billings	42	43	25.4	26.0
California	35	61	6.6	11.0
Nashville	14	14	4.1	4.1
Navajo	117	117	17.0	17.0
Oklahoma	102	163	10.5	16.2
Phoenix	88	91	14.3	14.7
Portland	78	86	15.3	16.5
Tucson	21	21	18.6	18.6

¹Age-adjusted rate per 100,000 population. Rates based on a small number of deaths should be interpreted with caution.

²Adjusted to compensate for misreporting of American Indian/Alaska Native race on the state death certificate.

Homicides for AI/ANs decreased 125 percent from the three year periods 1972-1974 to 2002-2004. The 2002-2004 rate (11.8) is almost two times higher the U.S. all-races rate (6.0) for 2003. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 24 Age-Adjusted Homicide Death Rates

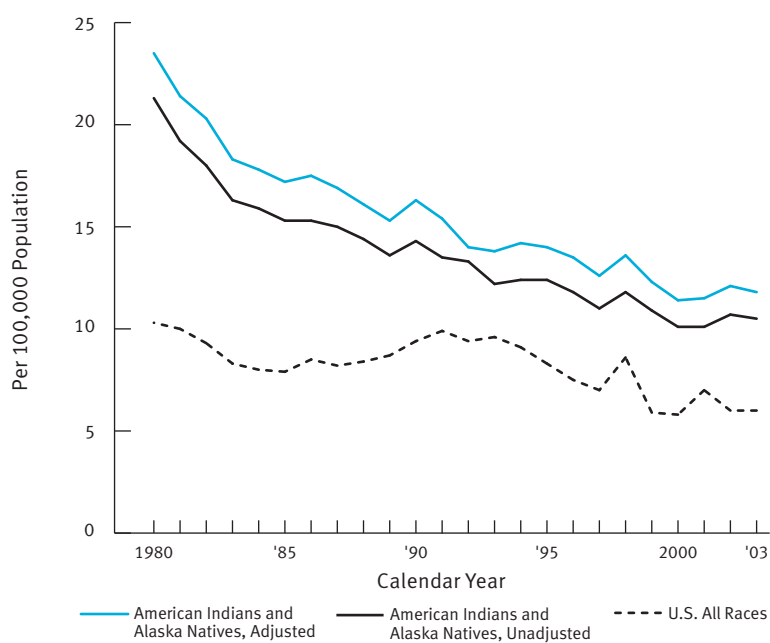


Table 24 Homicide Deaths and Death Rates

*American Indians and Alaska Natives, IHS Service Area, and U.S. All-Races and White Populations, 1955-2003
(Age-Adjusted Rate per 100,000 Population)*

Calendar Year(s)	AMERICAN INDIAN AND ALASKA NATIVE				U.S. ALL RACES	U.S. WHITE	RATIO OF AMERICAN INDIAN AND ALASKA NATIVE ¹ TO:	
	Number		Rate		Rate	Rate	U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹				
2003-2005 (2004)	165	185						
2002-2004 (2003)	194	218	10.5	11.8	6.0	3.6	2.0	3.3
2001-2003 (2002)	202	236	10.7	12.1	6.0	3.7	2.0	3.3
2000-2002 (2001)	160	186	10.1	11.5	7.0	4.8	1.6	2.4
1999-2001 (2000)	143	162	10.1	11.4	5.8	3.6	2.0	3.2
1998-2000 (1999)	181	206	10.9	12.3	5.9	3.7	2.1	3.3
1997-1999 (1998)	172	199	11.8	13.6	8.6	6.4	1.6	2.1
1996-1998 (1997)	181	217	11.0	12.6	7.0	4.3	1.8	2.9
1995-1997 (1996)	161	178	11.8	13.5	7.5	4.5	1.8	3.0
1994-1996 (1995)	198	231	12.4	14.0	8.3	5.0	1.7	2.8
1993-1995 (1994)	176	201	12.4	14.2	9.1	5.3	1.6	2.7
1992-1994 (1993)	168	190	12.2	13.8	9.6	5.5	1.4	2.5
1991-1993 (1992)	168	185	13.3	15.0	9.4	5.6	1.6	2.7
1990-1992 (1991)	199	229	13.5	15.4	9.9	5.8	1.6	2.7
1989-1991 (1990)	153	180	14.3	16.3	9.4	5.5	1.7	3.0
1988-1990 (1989)	177	205	13.6	15.3	8.7	5.2	1.8	2.9
1987-1989 (1988)	160	178	14.4	16.1	8.4	5.1	1.9	3.2
1986-1988 (1987)	162	185	15.0	16.9	8.2	5.1	2.1	3.3
1985-1987 (1986)	184	213	15.3	17.5	8.5	5.4	2.1	3.2
1984-1986 (1985)	151	174	15.3	17.2	7.9	5.3	2.2	3.2
1983-1985 (1984)	146	156	15.9	17.8	8.0	5.3	2.2	3.4
1982-1984 (1983)	172	198	16.3	18.3	8.3	5.4	2.2	3.4
1981-1983 (1982)	146	166	18.0	20.3	9.3	6.1	2.2	3.3
1980-1982 (1981)	166	178	19.2	21.4	10.0	6.5	2.1	3.3
1979-1981 (1980)	174	198	21.3	23.5	10.3	6.7	2.3	3.5
1972-1974 (72-74)	368	398	24.7	26.6	10.3	5.7	2.6	4.7
1954-1956 (1955)	77		23.8		4.8	2.4		

¹Adjusted – specifies a number, rate, or ratio of rates adjusted to compensate for misreporting of AI/AN race on state death certificates.

NOTE: Reservation State data for 1955, the year IHS was established, are presented above. Data from 1972 forward are drawn from specific counties in the IHS service area. Reservation State data and county data are not directly comparable. The AI/AN death rate columns present data for the three-year period specified and are age-adjusted to the 2000 standard population; the U.S. all races and U.S. white columns present data for a one-year period. The number columns indicate total AI/AN deaths for the one-year period specified.

SOURCE: Rates for U.S. All Races and U.S. White: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>.

The age-specific homicide death rate for AI/AN males was generally higher for most age groups for years 2002-2004. Males in age group 65 to 74 years were 5.9 times more likely to die from homicide than females in the same age group. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 25 Homicide Death Rates by Age and Sex

American Indians and Alaska Natives (2002-2004)

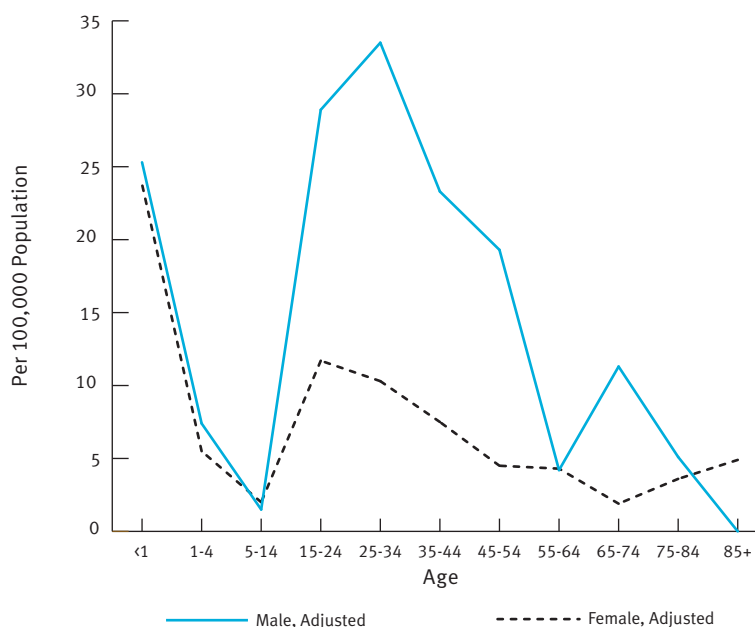


Table 25 Homicide Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 2002-2004, and U.S. All-Races and White Populations, 2003 (Rate per 100,000 Population)

Age Group	AMERICAN INDIAN AND ALASKA NATIVE					
	Both Sexes		Male		Female	
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹
Under 1 year	25.6 ²	24.6 ²	29.5 ²	25.3 ²	21.7	23.8
1-4 years	5.6	6.4	5.8	7.4	5.5	5.5
5-14 years	1.4	1.7	1.3	1.5	1.6	2.0
15-24 years	17.3	21.0	25.3	28.9	7.8	11.7
25-34 years	18.8	23.0	28.0	33.5	8.0	10.3
35-44 years	15.2	16.0	22.4	23.3	6.7	7.5
45-54 years	11.7	12.1	18.9	19.3	4.2	4.5
55-64 years	4.3	4.3	4.2	4.2	4.3	4.3
65-74 years	6.1	6.1	11.3	11.3	1.9	1.9
75-84 years	4.2	4.2	5.1	5.1	3.6	3.6
85 years +	3.3	3.3	—*	—*	4.9	4.9

Age Group	U.S. ALL RACES			U.S. WHITE		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Under 1 year	8.5	10.0	6.9	6.9	8.1	5.7
1-4 years	2.3	2.5	2.2	1.6	1.5	1.8
5-14 years	0.8	1.0	0.5	0.5	0.6	0.3
15-24 years	13.0	21.7	3.7	6.7	10.6	2.5
25-34 years	11.2	18.3	3.9	6.0	9.1	2.8
35-44 years	6.9	10.2	3.6	4.5	6.2	2.8
45-54 years	4.9	7.3	2.5	3.5	4.9	2.1
55-64 years	2.7	4.1	1.5	2.2	3.0	1.3
65-74 years	2.3	3.3	1.5	1.9	2.5	1.3
75-84 years	2.4	3.2	1.9	2.1	2.7	1.7
85 years +	2.2	3.2	1.7	2.0	3.0	1.6

—*Represents zero.

¹Adjusted to compensate for misreporting of AI/AN race on state death certificates.

²The adjusted rate for age less than one year is lower than the unadjusted rate because the linked birth/infant death file (used to obtain the adjusted counts of infant deaths) had fewer deaths for this cause than did the unadjusted mortality file (2002-2004 data).

Source: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>. April 1995.

The Tucson Area is the most affected IHS area from homicidal deaths than any other area in IHS. Homicides are 6.6 more likely to occur in Tucson than in the Nashville area (the lowest incidence of homicides). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 26 Age-Adjusted Homicide Death Rates by Area, CY 2002-2004

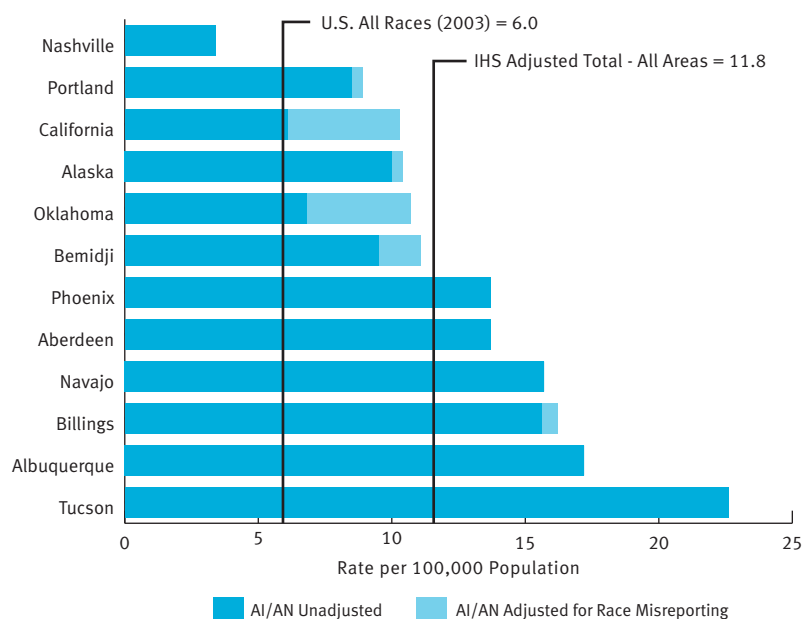


Table 26 Age-Adjusted Homicide Death Rates by Area, CY 2002-2004

	Deaths		Rate ¹	
	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²
<i>U.S. All Races (2003)</i>	18,155		6.0	
<i>All IHS Areas</i>	561	639	10.5	11.8
Aberdeen	44	44	13.7	13.7
Alaska	34	35	10.0	10.4
Albuquerque	55 ³	54 ³	17.4 ³	17.2 ³
Bemidji	33	39	9.5	11.1
Billings	30	31	15.6	16.2
California	33	58	6.1	10.3
Nashville	10	10	3.4	3.4
Navajo	105 ³	104 ³	15.7 ³	15.6 ³
Oklahoma	69	113	6.8	10.7
Phoenix	79	79	13.7	13.7
Portland	46	49	8.5	8.9
Tucson	23	23	22.6	22.6

¹Age-adjusted rate per 100,000 population. Rates based on a small number of deaths should be interpreted with caution.

²Adjusted to compensate for misreporting of American Indian/Alaska Native race on the state death certificate.

³The adjusted numbers and rates in the (Albuquerque and Navajo Areas) are lower than the unadjusted numbers and rates because the linked birth/infant death file (used to obtain the adjusted counts of infant deaths) had one less death for this cause than did the unadjusted mortality file for each IHS Area (2002-2004 data).

NOTE: Includes deaths due to homicide and legal intervention.

Firearm injuries for AI/ANs decreased from 26.2 for the three year period 1979-1981 to 13.2 in 2002-2004. The age-adjusted rate (13.2) for years 2002-2004 is 1.3 times greater than for U.S. all-races (10.3) for 2003. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on the state death certificates.

Chart 27 Age-Adjusted Firearm Injury Death Rates

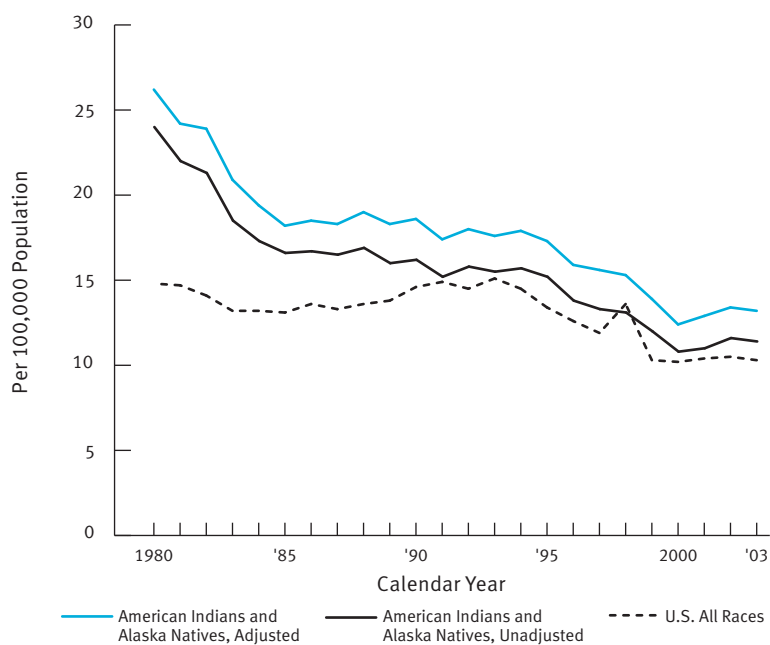


Table 27 **Firearm Injury¹ Deaths and Death Rates**

*American Indians and Alaska Natives, IHS Service Area, and U.S. All-Races and White Populations, 1979-2003
(Age-Adjusted Rate per 100,000 Population)*

Calendar Year(s)	AMERICAN INDIAN AND ALASKA NATIVE				U.S. ALL RACES	U.S. WHITE	RATIO OF AMERICAN INDIAN AND ALASKA NATIVE ² TO:	
	Number		Rate				U.S. All Races	U.S. White
	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²				
2003-2005 (2004)	192	231						
2002-2004 (2003)	207	235	11.4	13.2	10.3	9.0	1.3	1.5
2001-2003 (2002)	221	266	11.6	13.4	10.5	9.2	1.3	1.5
2000-2002 (2001)	188	222	11.0	12.9	10.4	9.2	1.2	1.4
1999-2001 (2000)	167	199	10.8	12.4	10.2	9.0	1.2	1.4
1998-2000 (1999)	192	220	12.0	13.9	10.3	9.1	1.3	1.5
1997-1999 (1998)	213	251	13.1	15.3	13.6	11.1	1.1	1.4
1996-1998 (1997)	202	244	13.3	15.6	11.9	12.3	1.3	1.3
1995-1997 (1996)	188	214	13.8	15.9	12.6	10.8	1.3	1.5
1994-1996 (1995)	227	261	15.2	17.3	13.4	11.4	1.3	1.5
1993-1995 (1994)	230	264	15.7	17.9	14.5	12.0	1.2	1.5
1992-1994 (1993)	204	232	15.5	17.6	15.1	12.3	1.2	1.4
1991-1993 (1992)	181	204	15.8	18.0	14.5	12.1	1.2	1.5
1990-1992 (1991)	221	253	15.2	17.4	14.9	12.3	1.2	1.4
1989-1991 (1990)	172	200	16.2	18.6	14.6	12.4	1.3	1.5
1988-1990 (1989)	215	252	16.0	18.3	13.8	11.8	1.3	1.6
1987-1989 (1988)	205	227	16.9	19.0	13.6	11.8	1.4	1.6
1986-1988 (1987)	182	203	16.5	18.3	13.3	11.9	1.4	1.5
1985-1987 (1986)	186	206	16.7	18.5	13.6	12.2	1.4	1.5
1984-1986 (1985)	186	208	16.6	18.2	13.1	12.0	1.4	1.5
1983-1985 (1984)	169	183	17.3	19.4	13.2	12.0	1.5	1.6
1982-1984 (1983)	185	216	18.5	20.9	13.2	11.9	1.6	1.8
1981-1983 (1982)	210	232	21.3	23.9	14.1	12.6	1.7	1.9
1980-1982 (1981)	210	226	22.0	24.2	14.7	12.7	1.6	1.9
1979-1981 (1980)	195	211	24.0	26.2	14.8	12.7	1.5	2.1
(1979)	229	250						

¹Includes deaths with ICD-10 codes: U01.4, terrorism involving firearms (homicide); W32-W34, accidental discharge of firearms; X72-X74, intentional self-harm (suicide) by discharge of firearms; X93-X95, assault (homicide) by discharge of firearms; Y22-Y24, discharge of firearms, undetermined intent; and Y35.0, legal intervention involving firearm discharge.

²Adjusted – specifies a number, rate, or ratio of rates adjusted to compensate for misreporting of AI/AN race on state death certificates.

NOTE: Firearm death data are introduced in 1978 for the IHS service area. The AI/AN death rate columns present data for the three-year period specified and are age-adjusted to the 2000 standard population; the U.S. All-Races and U.S. White columns present data for a one-year period. The number columns indicate total AI/AN deaths for the one-year period specified.

SOURCE: Hoyert DL, Heron MP, Murphy SL, Kung H. Deaths: Final Data for 2003. National vital statistics reports; vol 54 no 13. Hyattsville, MD: National Center for Health Statistics, 2006. Rates for U.S. All-Races and U.S. White: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>.

The age-specific AI/AN male firearm injury death rate for years 2002-2004 are higher for all ages except under 5 years in comparison with AI/AN females. AI/AN males who died from firearms injuries were mostly 25 to 34 years of age. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 28

Firearm Injury Death Rates by Age and Sex

American Indians and Alaska Natives (2002-2004)

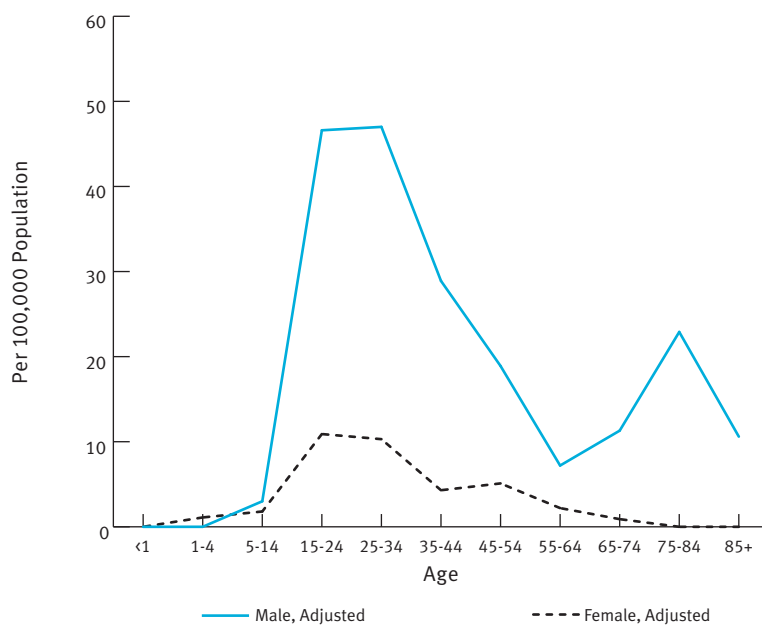


Table 28 Firearm Injury¹ Death Rates by Age and Sex

*American Indians and Alaska Natives, IHS Service Area, 2002-2004, and
U.S. All-Races and White Populations, 2003 (Rate per 100,000 Population)*

Age Group	AMERICAN INDIAN AND ALASKA NATIVE					
	Both Sexes		Male		Female	
	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²
Under 1 year	—*	—*	—*	—*	—*	—*
1-4 years	0.5	0.5	—*	—*	1.1	1.1
5-14 years	2.0	2.3	2.7	3.0	1.6	1.8
15-24 years	23.4	28.6	39.4	46.6	7.6	10.9
25-34 years	21.5	27.7	37.4	47.0	7.5	10.3
35-44 years	14.6	15.9	26.9	28.9	3.7	4.3
45-54 years	11.2	11.7	18.6	18.9	4.5	5.1
55-64 years	4.3	4.3	7.2	7.2	2.2	2.2
65-74 years	5.6	5.6	11.3	11.3	0.9	0.9
75-84 years	9.5	9.5	22.9	22.9	—*	—*
85 years +	3.3	3.3	10.6	10.6	—*	—*

Age Group	U.S. ALL RACES			U.S. WHITE		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Under 1 year	0.2	0.3	0.1	0.1	0.1	0.1
1-4 years	0.3	0.3	0.3	0.2	0.2	0.2
5-14 years	0.8	1.2	0.3	0.6	1.0	0.2
15-24 years	16.6	29.2	3.3	11.1	19.2	2.5
25-34 years	15.6	27.2	3.6	11.2	18.9	3.1
35-44 years	11.6	19.2	4.0	10.9	17.6	4.0
45-54 years	11.2	18.8	3.8	11.6	19.2	4.0
55-64 years	10.1	17.8	2.9	10.8	18.9	3.2
65-74 years	10.4	20.3	2.2	11.3	21.9	2.3
75-84 years	13.5	30.2	2.2	14.4	32.3	2.3
85 years +	12.5	37.8	1.3	13.5	41.0	1.3

—* Represents zero.

¹Includes deaths with ICD-10 codes: U01.4, terrorism involving firearms (homicide); W32-W34, accidental discharge of firearms; X72-X74, intentional self-harm (suicide) by discharge of firearms; X93-X95, assault (homicide) by discharge of firearms; Y22-Y24, discharge of firearms, undetermined intent; and Y35.0, legal intervention involving firearm discharge.

²Adjusted to compensate for misreporting of AI/AN race on state death certificates.

SOURCE: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>. April 1995.

The AI/AN age-adjusted firearm injury death rate varies considerably among the IHS Areas. The highest Area rate (Tucson, 25.0) is 6.3 times higher than the lowest Area rate (Alaska, 4.0). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 29 Age-Adjusted Firearm Injury Death Rates by Area, CY 2002–2004

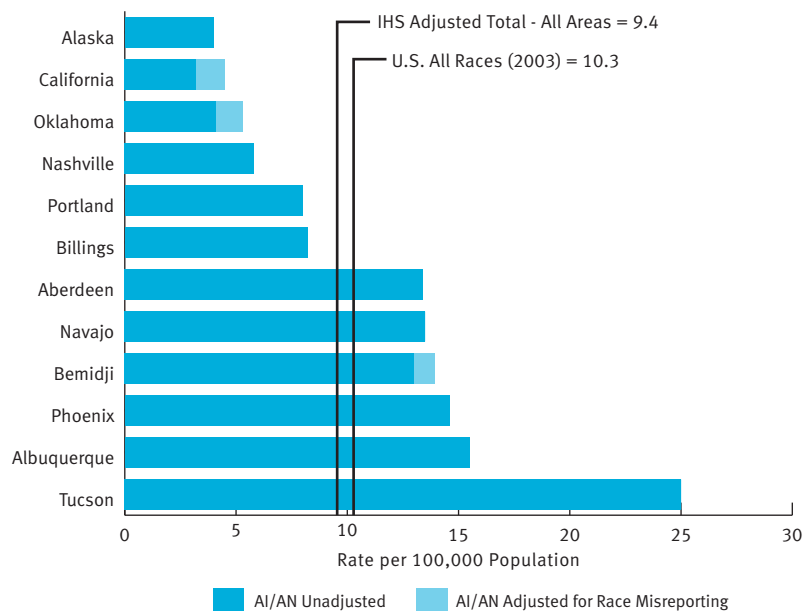


Table 29 Age-Adjusted Firearm Injury¹ Death Rates by Area, CY 2002–2004

	Deaths		Rate ²	
	Unadjusted	Adjusted ³	Unadjusted	Adjusted ³
<i>U.S. All Races (2003)</i>	<i>30,136</i>		<i>10.3</i>	
<i>All IHS Areas</i>	<i>282</i>	<i>298</i>	<i>8.9</i>	<i>9.4</i>
Aberdeen	20	20	13.4	13.4
Alaska	10	10	4.0	4.0
Albuquerque	27	27	15.5	15.5
Bemidji	25	26	13.0	13.9
Billings	9	9	8.2	8.2
California	13	19	3.2	4.5
Nashville	14	14	5.8	5.8
Navajo	54	54	13.5	13.5
Oklahoma	29	38	4.1	5.3
Phoenix	46	46	14.6	14.6
Portland	24	24	8.0	8.0
Tucson	11	11	25.0	25.0

¹Includes deaths with ICD-10 codes: accident caused by firearm missile—W32-W34; suicide and self-inflicted injury by firearms—X72-X74; assault by firearms and legal intervention—X93-X95,Y35.0; and injury by firearms, undetermined whether accidentally or purposely inflicted—Y22-Y24. Injury by firearm causes exclude explosive and other causes indirectly related to firearms.

²Age-adjusted rate per 100,000 population.

³Adjusted to compensate for misreporting of American Indian/Alaska Native race on the state death certificate.

The AI/AN age-adjusted fire and smoke injury death rate 7.6 was 124 percent greater for 1979-1981 as compared to 3.4 in 2002-2004. The 2002-2004 rate 3.4 is 2.6 times greater than the U.S. all-races rate 1.3 for 2003. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 30 Age-Adjusted Fire and Smoke Injury Death Rates

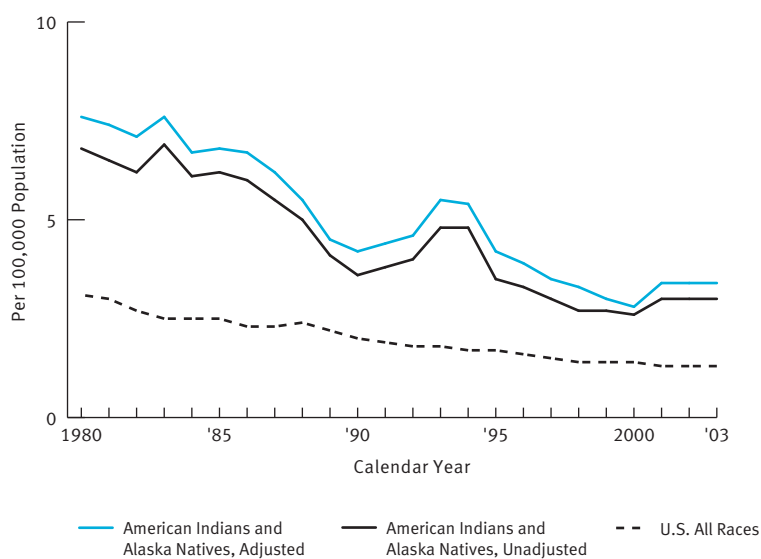


Table 30 Fire and Smoke Injury Deaths and Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All-Races and White Populations, 1980-2003
(Age-Adjusted Rate per 100,000 Population)

Calendar Year(s)	AMERICAN INDIAN AND ALASKA NATIVE				U.S. ALL RACES	U.S. WHITE	RATIO OF AMERICAN INDIAN AND ALASKA NATIVE ¹ TO:	
	Number		Rate				U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹				
2003-2005 (2004)	46	52						
2002-2004 (2003)	34	40	3.0	3.4	1.3	1.2	2.6	2.8
2001-2003 (2002)	55	65	3.0	3.4	1.3	1.1	2.6	3.1
2000-2002 (2001)	42	47	3.0	3.4	1.3	1.1	2.6	3.1
1999-2001 (2000)	36	41	2.6	2.8	1.4	1.2	2.0	2.3
1998-2000 (1999)	31	34	2.7	3.0	1.4	1.2	2.1	2.5
1997-1999 (1998)	42	51	2.7	3.3	1.4	1.2	2.4	2.8
1996-1998 (1997)	32	49	3.0	3.5	1.5	1.2	2.3	2.9
1995-1997 (1996)	42	45	3.3	3.9	1.6	1.3	2.4	3.0
1994-1996 (1995)	56	70	3.5	4.2	1.7	1.3	2.5	3.2
1993-1995 (1994)	67	81	4.8	5.4	1.7	1.4	3.2	3.9
1992-1994 (1993)	51	60	4.8	5.5	1.8	1.4	3.1	3.9
1991-1993 (1992)	51	57	4.0	4.6	1.8	1.4	2.6	3.3
1990-1992 (1991)	42	54	3.8	4.4	1.9	1.5	2.3	2.9
1989-1991 (1990)	39	46	3.6	4.2	2.0	1.6	2.1	2.6
1988-1990 (1989)	46	51	4.1	4.5	2.2	1.7	2.0	2.6
1987-1989 (1988)	45	49	5.0	5.5	2.4	1.8	2.3	3.1
1986-1988 (1987)	66	79	5.5	6.2	2.3	1.8	2.7	3.4
1985-1987 (1986)	56	66	6.0	6.7	2.3	1.8	2.9	3.7
1984-1986 (1985)	50	57	6.2	6.8	2.5	2.0	2.7	3.4
1983-1985 (1984)	74	80	6.1	6.7	2.5	2.0	2.7	3.4
1982-1984 (1983)	37	42	6.9	7.6	2.5	2.0	3.0	3.8
1981-1983 (1982)	56	64	6.2	7.1	2.7	2.1	2.6	3.4
1980-1982 (1981)	49	57	6.5	7.4	3.0	2.4	2.5	3.1
1979-1981 (1980)	42	45	6.8	7.6	3.1	2.5	2.5	3.0

¹Adjusted - specifies a number, rate, or ratio of rates adjusted to compensate for misreporting of AI/AN race on state death certificates.

NOTE: The AI/AN death rate columns present data for the three-year period specified and are age-adjusted to the 2000 standard population; the U.S. all-races and U.S. white columns present data for a one-year period. The number columns indicate total AI/AN deaths for the one-year period specified.

SOURCE: Rates for U.S. All Races and U.S. White: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>.

The age-specific fire and smoke injury death rate (13.5) for AI/AN males is 1.8 times higher for age 65-74 years in comparison with AI/AN females for the same age group. The AI/AN female rate peaked at 14.7 deaths per 100,000 population for the 85 years and older age group. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 31 Fire and Smoke Injury Death Rates by Age and Sex

American Indians and Alaska Natives (2002-2004)

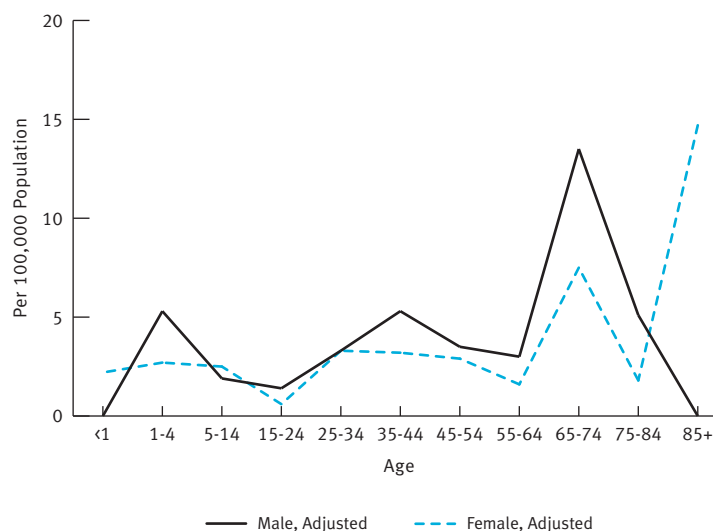


Table 31 Fire and Smoke¹ Injury Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 2002-2004, and U.S. All-Races and White Populations, 2003 (Rate per 100,000 Population)

Age Group	AMERICAN INDIAN AND ALASKA NATIVE					
	BOTH SEXES		MALE		FEMALE	
	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²
Under 1 year	1.1	1.1	—*	—*	2.2	2.2
1-4 years	3.2	4.0	4.2	5.3	2.2	2.7
5-14 years	1.6	2.2	1.7	1.9	1.6	2.5
15-24 years	1.0	1.0	1.4	1.4	0.6	0.6
25-34 years	2.5	3.3	2.7	3.3	2.2	3.3
35-44 years	3.6	4.2	5.0	5.3	2.1	3.2
45-54 years	3.0	3.2	3.2	3.5	2.9	2.9
55-64 years	2.3	2.3	3.0	3.0	1.6	1.6
65-74 years	9.7	10.2	12.4	13.5	7.5	7.5
75-84 years	3.2	3.2	5.1	5.1	1.8	1.8
85 years +	10.0	10.0	—*	—*	14.7	14.7

Age Group	U.S. ALL RACES			U.S. WHITE		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Under 1 year	1.0	0.6	1.4	0.9	0.6	1.2
1-4 years	1.6	1.9	1.3	1.3	1.6	1.1
5-14 years	0.6	0.6	0.6	0.4	0.4	0.4
15-24 years	0.6	0.7	0.5	0.6	0.7	0.5
25-34 years	0.7	0.9	0.6	0.7	0.9	0.6
35-44 years	1.1	1.4	0.8	1.1	1.5	0.7
45-54 years	1.5	1.9	1.1	1.4	1.8	1.0
55-64 years	1.6	2.2	1.1	1.5	1.9	1.0
65-74 years	2.4	3.1	1.9	2.2	2.8	1.6
75-84 years	3.9	4.9	3.2	3.3	3.9	2.9
85 years +	6.0	8.1	5.0	5.2	7.2	4.4

—*Represents zero.

¹Fire and Smoke death rates include ICD-10 codes: X00-X19, X76-X77, X97-X98, Y26-Y27, and Y36.3.

²Adjusted to compensate for misreporting of AI/AN race on state death certificates.

SOURCE: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>. April 1995.

The AI/AN age-adjusted fire and smoke injury death rates vary among the IHS Areas. The highest area rate (Aberdeen, 7.5) is 7.5 times the lowest area rate (Phoenix, 1.0). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on the state death certificates.

Chart 32 Age-Adjusted Fire and Smoke Injury Death Rates by Area, CY 2002–2004

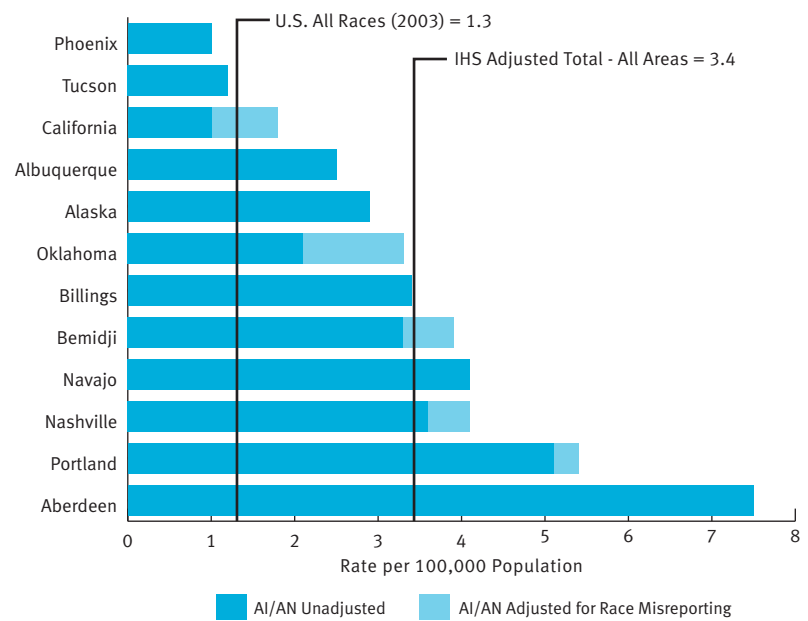


Table 32 Age-Adjusted Fire and Smoke Injury Death Rates by Area, CY 2002–2004

	Deaths		Rate ¹	
	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²
<i>U.S. All Races (2003)</i>	3,369		1.3	
<i>All IHS Areas</i>	135	157	3.0	3.4
Aberdeen	23	23	7.5	7.5
Alaska	6	6	2.9	2.9
Albuquerque	5	5	2.5	2.5
Bemidji	9	11	3.3	3.9
Billings	7	7	3.4	3.4
California	5	9	1.0	1.8
Nashville	10	12	3.6	4.1
Navajo	23	23	4.1	4.1
Oklahoma	19	31	2.1	3.3
Phoenix	6	6	1.0	1.0
Portland	21	23	5.1	5.4
Tucson	1	1	1.2	1.2

¹Age-adjusted rate per 100,000 population.

²Adjusted to compensate for misreporting of American Indian/Alaska Native race on the state death certificate.

The AI/AN age-adjusted fall injury death rate 9.8 was slightly over one times greater for 1979-1981 as compared to 8.9 in 2002-2004. The 2002-2004 rate 8.9 is 1.5 times greater than the U.S. all-races rate 5.8 for 2003. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 33 Age-Adjusted Fall Injury Death Rates

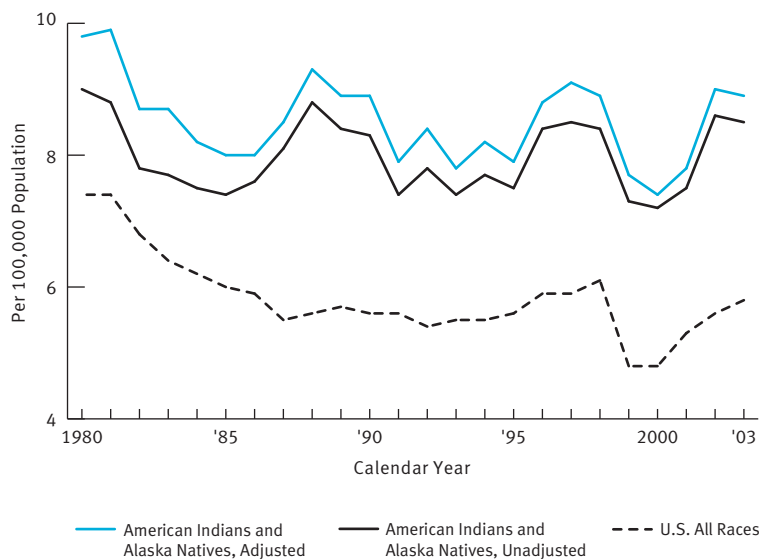


Table 33 Fall Injury Deaths and Death Rates

*American Indians and Alaska Natives, IHS Service Area, and U.S. All-Races and White Populations, 1980-2003
(Age-Adjusted Rate per 100,000 Population)*

Calendar Year(s)	AMERICAN INDIAN AND ALASKA NATIVE				U.S. ALL RACES	U.S. WHITE	RATIO OF AMERICAN INDIAN AND ALASKA NATIVE ¹ TO:	
	Number		Rate				U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹	Rate	Rate		
2003-2005 (2004)	88	92						
2002-2004 (2003)	96	101	8.5	8.9	5.8	6.1	1.5	1.5
2001-2003 (2002)	78	83	8.6	9.0	5.6	5.9	1.6	1.5
2000-2002 (2001)	72	75	7.5	7.8	5.3	5.5	1.5	1.4
1999-2001 (2000)	59	62	7.2	7.4	4.8	5.0	1.5	1.5
1998-2000 (1999)	60	61	7.3	7.7	4.8	5.0	1.6	1.5
1997-1999 (1998)	74	84	8.4	8.9	6.1	6.3	1.5	1.4
1996-1998 (1997)	75	80	8.5	9.1	5.9	6.1	1.5	1.5
1995-1997 (1996)	56	58	8.4	8.8	5.9	6.1	1.5	1.4
1994-1996 (1995)	69	73	7.5	7.9	5.6	5.8	1.4	1.4
1993-1995 (1994)	54	57	7.7	8.2	5.5	5.7	1.5	1.4
1992-1994 (1993)	62	68	7.4	7.8	5.5	5.6	1.4	1.4
1991-1993 (1992)	48	51	7.8	8.4	5.4	5.6	1.6	1.5
1990-1992 (1991)	50	55	7.4	7.9	5.6	5.7	1.4	1.4
1989-1991 (1990)	45	46	8.3	8.9	5.6	5.6	1.6	1.6
1988-1990 (1989)	61	67	8.4	8.9	5.7	5.6	1.6	1.6
1987-1989 (1988)	50	53	8.8	9.3	5.6	5.7	1.7	1.6
1986-1988 (1987)	51	54	8.1	8.5	5.5	5.6	1.5	1.5
1985-1987 (1986)	46	49	7.6	8.0	5.9	5.6	1.4	1.4
1984-1986 (1985)	34	38	7.4	8.0	6.0	6.0	1.3	1.3
1983-1985 (1984)	42	47	7.5	8.2	6.2	6.1	1.3	1.3
1982-1984 (1983)	41	46	7.7	8.7	6.4	6.3	1.4	1.4
1981-1983 (1982)	35	41	7.8	8.7	6.8	6.4	1.3	1.4
1980-1982 (1981)	49	53	8.8	9.9	7.4	6.9	1.3	1.4
1979-1981 (1980)	55	64	9.0	9.8	7.4	7.4	1.3	1.3

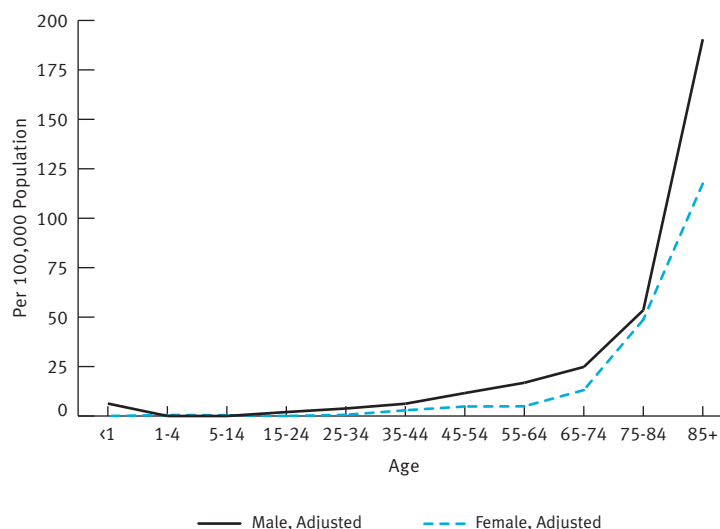
¹Adjusted - specifies a number, rate, or ratio of rates adjusted to compensate for misreporting of AI/AN race on state death certificates.

NOTE: The AI/AN death rate columns present data for the three-year period specified and are age-adjusted to the 2000 standard population; the U.S. all-races and U.S. white columns present data for a one-year period. The number columns indicate total AI/AN deaths for the one-year period specified.

SOURCE: Rates for U.S. All Races and U.S. White: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>.

The age-specific fall injury death rate (6.3) for AI/AN infant males is 6.3 times higher in comparison with AI/AN infant females. The AI/AN male and female rates peaked at (190.5, 117.5) deaths per 100,000 population respectively, for 85 years and older. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 34 Fall Injury Death Rates by Age and Sex

American Indians and Alaska Natives (2002-2004)

Table 34 Fall¹ Injury Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 2002-2004, and U.S. All-Races and White Populations, 2003 (Rate per 100,000 Population)

Age Group	AMERICAN INDIAN AND ALASKA NATIVE					
	BOTH SEXES		MALE		FEMALE	
	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²
Under 1 year	3.2	3.2	6.3	6.3	—*	—*
1-4 years	0.3	0.3	—*	—*	0.5	0.5
5-14 years	0.2	0.2	—*	—*	0.4	0.4
15-24 years	0.9	1.0	1.8	2.0	—*	—*
25-34 years	2.1	2.2	3.6	3.8	0.6	0.6
35-44 years	4.0	4.5	5.9	6.2	2.1	2.9
45-54 years	7.9	8.0	11.2	11.6	4.8	4.8
55-64 years	10.2	10.5	16.2	16.8	4.9	4.9
65-74 years	16.9	18.4	23.7	24.8	11.3	13.1
75-84 years	47.4	50.5	50.9	53.5	45.1	48.7
85 years +	140.3	140.3	190.5	190.5	117.5	117.5

Age Group	U.S. ALL RACES			U.S. WHITE		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Under 1 year	0.3	0.4	0.3	0.3	0.4	0.3
1-4 years	0.3	0.5	0.2	0.3	0.5	0.2
5-14 years	0.1	0.1	0.1	0.1	0.2	0.1
15-24 years	0.6	0.9	0.2	0.6	1.0	0.2
25-34 years	0.7	1.2	0.2	0.8	1.3	0.3
35-44 years	1.4	2.5	0.5	1.5	2.4	0.5
45-54 years	2.6	4.0	1.2	2.5	3.9	1.1
55-64 years	4.4	6.2	2.7	4.4	6.2	2.8
65-74 years	11.2	14.5	8.4	11.5	14.7	8.8
75-84 years	40.8	51.6	33.5	42.8	53.8	35.4
85 years +	135.9	165.1	122.9	144.4	175.1	130.8

—*Represents zero.

¹Fall death rates include ICD-10 codes: W00-W19.

²Adjusted to compensate for misreporting of AI/AN race on state death certificates.

SOURCE: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>. April 1995.

The AI/AN age-adjusted fall injury death rates vary considerably among the IHS Areas. The highest area rate (Tucson, 25.0) is 7.6 times the lowest area rate (Alaska, 3.3). The IHS rate (8.9) is 1.5 times higher than the U.S. all-races rate (5.9). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on the state death certificates.

Chart 35 Age-Adjusted Fall Injury Death Rates by Area, CY 2002–2004

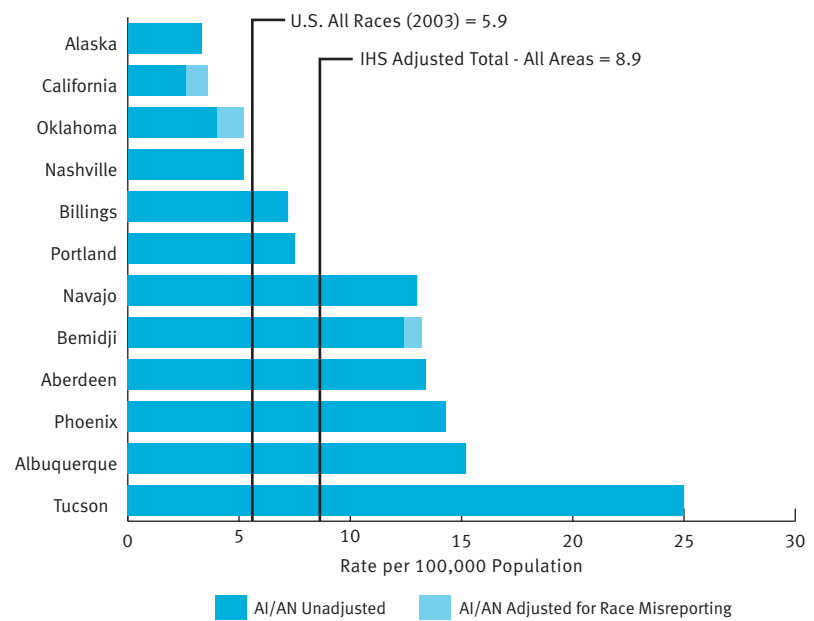


Table 35 Age-Adjusted Fall Injury Death Rates by Area, CY 2002–2004

	Deaths		Rate ¹	
	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²
<i>U.S. All Races (2003)</i>	17,229		5.9	
<i>All IHS Areas</i>	262	276	8.5	8.9
Aberdeen	20	20	13.4	13.4
Alaska	8	8	3.3	3.3
Albuquerque	26	26	15.2	15.2
Bemidji	23	24	12.4	13.2
Billings	8	8	7.2	7.2
California	10	14	2.6	3.6
Nashville	12	12	5.2	5.2
Navajo	50	50	13.0	13.0
Oklahoma	28	37	4.0	5.2
Phoenix	44	44	14.3	14.3
Portland	22	22	7.5	7.5
Tucson	11	11	25.0	25.0

¹Age-adjusted rate per 100,000 population.

²Adjusted to compensate for misreporting of American Indian/Alaska Native race on the state death certificate.

The AI/AN age-adjusted drowning injury death rate 9.5 was 197 percent greater for 1979-1981 as compared to 3.2 in 2002-2004. The 2002-2004 rate 3.2 is 2.9 times greater than the U.S. all-races rate 1.1 for 2003. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN rate on state death certificates.

Chart 36

Age-Adjusted Drowning Injury Death Rates

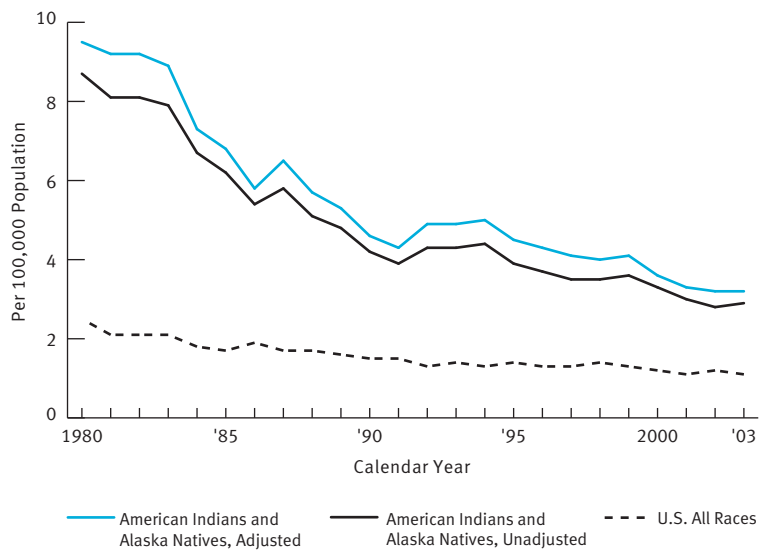


Table 36 Drowning Injury Deaths and Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All-Races and White Populations, 1980-2003
(Age-Adjusted Rate per 100,000 Population)

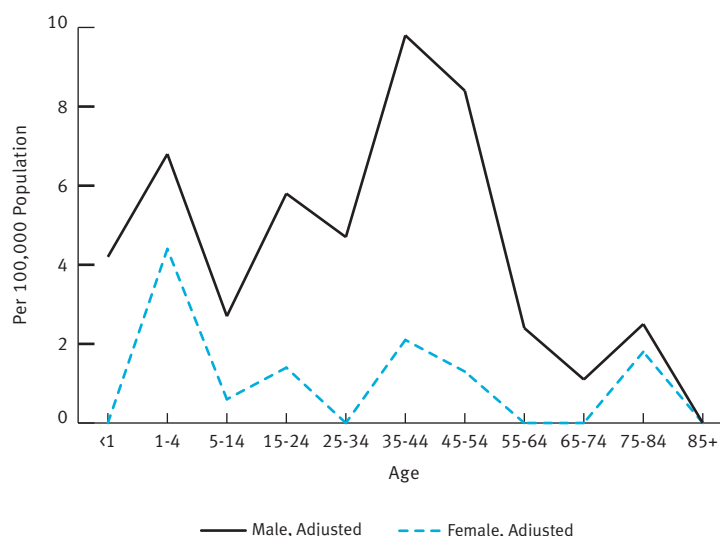
Calendar Year(s)	AMERICAN INDIAN AND ALASKA NATIVE				U.S. ALL RACES	U.S. WHITE	RATIO OF AMERICAN INDIAN AND ALASKA NATIVE ¹ TO:	
	Number		Rate				U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹				
2003-2005 (2004)	47	50						
2002-2004 (2003)	52	63	2.9	3.2	1.1	1.1	2.9	2.9
2001-2003 (2002)	51	58	2.8	3.2	1.2	1.1	2.7	2.9
2000-2002 (2001)	40	44	3.0	3.3	1.1	1.1	3.0	3.0
1999-2001 (2000)	65	74	3.3	3.6	1.2	1.2	3.0	3.0
1998-2000 (1999)	57	66	3.6	4.1	1.3	1.2	3.2	3.4
1997-1999 (1998)	48	56	3.5	4.0	1.4	1.3	2.9	3.1
1996-1998 (1997)	61	75	3.5	4.1	1.3	1.2	3.2	3.4
1995-1997 (1996)	54	61	3.7	4.3	1.3	1.2	3.3	3.6
1994-1996 (1995)	64	74	3.9	4.5	1.4	1.3	3.2	3.5
1993-1995 (1994)	61	69	4.4	5.0	1.3	1.1	3.8	4.5
1992-1994 (1993)	72	83	4.3	4.9	1.4	1.3	3.5	3.8
1991-1993 (1992)	51	57	4.3	4.9	1.3	1.2	3.8	4.1
1990-1992 (1991)	46	54	3.9	4.3	1.5	1.3	2.9	3.3
1989-1991 (1990)	50	51	4.2	4.6	1.5	1.4	3.1	3.3
1988-1990 (1989)	55	61	4.8	5.3	1.6	1.4	3.3	3.8
1987-1989 (1988)	70	82	5.1	5.7	1.7	1.5	3.4	3.8
1986-1988 (1987)	55	61	5.8	6.5	1.7	1.5	3.8	4.3
1985-1987 (1986)	75	86	5.4	5.8	1.9	1.7	3.1	3.4
1984-1986 (1985)	52	54	6.2	6.8	1.7	1.6	4.0	4.3
1983-1985 (1984)	66	73	6.7	7.3	1.8	1.6	4.1	4.6
1982-1984 (1983)	75	81	7.9	8.9	2.1	1.9	4.2	4.7
1981-1983 (1982)	82	96	8.1	9.2	2.1	1.9	4.4	4.8
1980-1982 (1981)	76	85	8.1	9.2	2.1	1.9	4.4	4.8
1979-1981 (1980)	76	83	8.7	9.5	2.5	2.2	3.8	4.3

¹Adjusted - specifies a number, rate, or ratio of rates adjusted to compensate for misreporting of AI/AN race on state death certificates.

NOTE: The AI/AN death rate columns present data for the three-year period specified and are age-adjusted to the 2000 standard population; the U.S. all-races and U.S. white columns present data for a one-year period. The number columns indicate total AI/AN deaths for the one-year period specified.

SOURCE: Rates for U.S. All Races and U.S. White: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>.

The age-specific drowning injury death rate (9.8) is highest for males for ages 35-44 years as compared to the highest AI/AN female rate (4.4) for ages 1-4 years. The lowest death rates (1.1, 0.0), respectively for males and females were for the same ages, 65-74 years. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 37 Drowning Injury Death Rates by Age and Sex
American Indians and Alaska Natives (2002-2004)

Table 37 Drowning¹ Injury Death Rates by Age and Sex
American Indians and Alaska Natives, IHS Service Area, 2002-2004, and U.S. All-Races and White Populations, 2003 (Rate per 100,000 Population)

Age Group	AMERICAN INDIAN AND ALASKA NATIVE					
	BOTH SEXES		MALE		FEMALE	
	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²
Under 1 year	2.1	2.1	4.2	4.2	—*	—*
1-4 years	4.0	5.6	4.7	6.8	3.3	4.4
5-14 years	1.6	1.6	2.7	2.7	0.6	0.6
15-24 years	2.8	3.6	4.8	5.8	0.8	1.4
25-34 years	2.2	2.4	4.4	4.7	—*	—*
35-44 years	5.5	5.9	9.5	9.8	1.6	2.1
45-54 years	4.2	4.7	7.4	8.4	1.3	1.3
55-64 years	1.1	1.1	2.4	2.4	—*	—*
65-74 years	0.5	0.5	1.1	1.1	—*	—*
75-84 years	2.1	2.1	2.5	2.5	1.8	1.8
85 years +	—*	—*	—*	—*	—*	—*

Age Group	U.S. ALL RACES			U.S. WHITE		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Under 1 year	1.4	1.7	1.2	1.4	1.5	1.3
1-4 years	2.9	3.7	2.0	3.1	4.0	2.2
5-14 years	0.7	0.9	0.3	0.5	0.7	0.3
15-24 years	1.4	2.5	0.2	1.3	2.3	0.2
25-34 years	0.9	1.6	0.2	0.9	1.5	0.2
35-44 years	1.0	1.8	0.3	1.0	1.7	0.3
45-54 years	1.0	1.6	0.4	1.0	1.5	0.4
55-64 years	0.9	1.6	0.4	0.9	1.5	0.4
65-74 years	1.1	1.7	0.6	1.1	1.8	0.6
75-84 years	1.3	2.0	0.8	1.3	2.1	0.7
85 years +	1.8	3.3	1.1	1.6	3.3	0.9

—*Represents zero.

¹Drowning death rates include ICD-10 codes: W65-W74.

²Adjusted to compensate for misreporting of AI/AN race on state death certificates.

SOURCE: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>. April 1995.

Alaska's rate (9.6) is 14 times higher than the lowest area rate (Tucson, 0.7) and 8.7 times higher than the U.S. all-races rate (1.1). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on the state death certificates.

Chart 38 Age-Adjusted Drowning Injury Death Rates by Area, CY 2002–2004

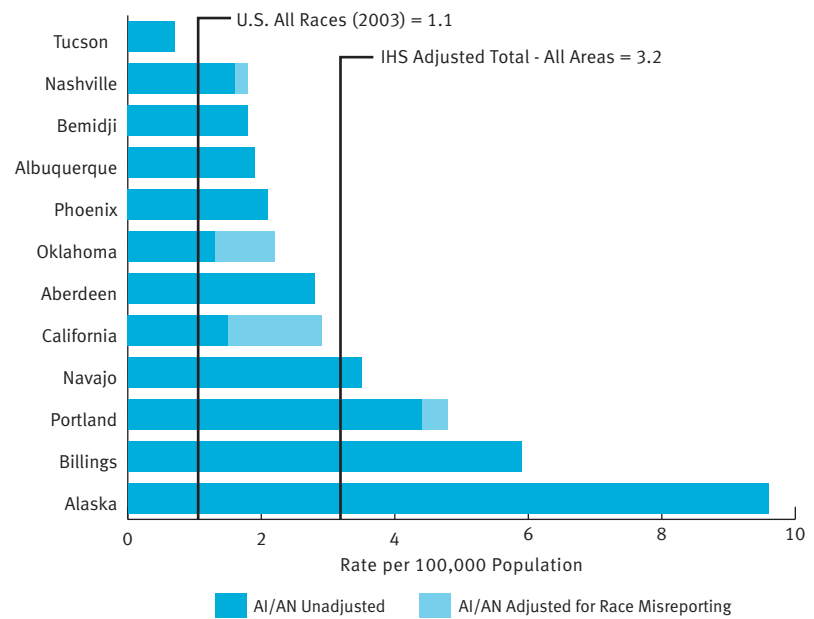


Table 38 Age-Adjusted Drowning Injury Death Rates by Area, CY 2002–2004

	Deaths		Rate ¹	
	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²
<i>U.S. All Races (2003)</i>	3,306		1.1	
<i>All IHS Areas</i>	150	171	2.9	3.2
Aberdeen	10	10	2.8	2.8
Alaska	36	36	9.6	9.6
Albuquerque	4	4	1.9	1.9
Bemidji	6	6	1.8	1.8
Billings	11	11	5.9	5.9
California	7	14	1.5	2.9
Nashville	4	5	1.6	1.8
Navajo	23	23	3.5	3.5
Oklahoma	13	24	1.3	2.2
Phoenix	11	11	2.1	2.1
Portland	24	26	4.4	4.8
Tucson	1	1	0.7	0.7

¹Age-adjusted rate per 100,000 population.

²Adjusted to compensate for misreporting of American Indian/Alaska Native race on the state death certificate.

Problem drinking is associated with injuries. The AI/AN population for years 2002-2004 has an age-adjusted alcohol-related death rate (43.7) that is six times the U.S. all-races and the U.S. white rate (7.0). Between 1979-1981 and 1985-1987 the AI/AN decreased 49 percent. Since 1985-1987 alcohol-related death rates have increased by 9.5 percent. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN rate on state death certificates.

Chart 39 Age-Adjusted Alcohol-Related Death Rates

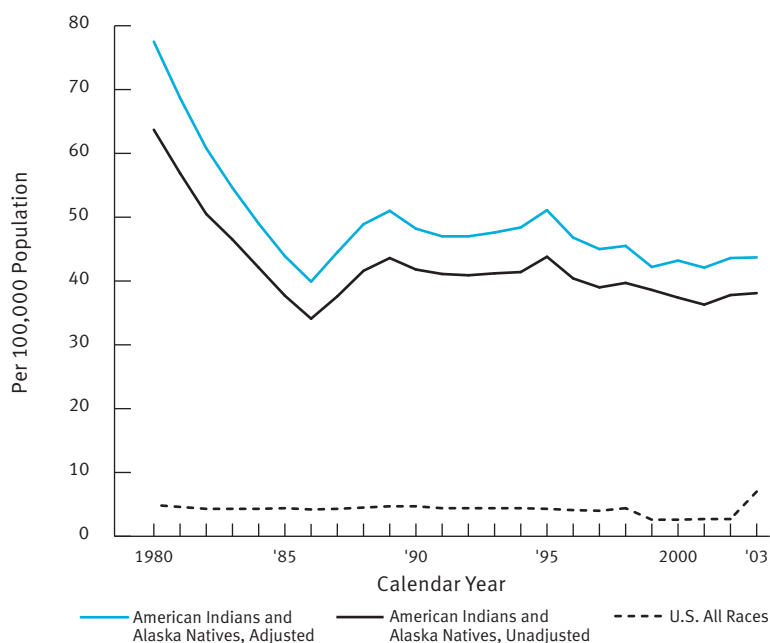


Table 39

Alcohol-Related Deaths and Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All-Races and White Populations, 1980-2003
(Age-Adjusted Rate per 100,000 Population)

Calendar Year(s)	AMERICAN INDIAN AND ALASKA NATIVE				U.S. ALL RACES	U.S. WHITE	RATIO OF AMERICAN INDIAN AND ALASKA NATIVE ¹ TO:	
	Number		Rate		Rate	Rate	U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹				
2002-2004 (2003)	557	630	38.1	43.7	7.0 ²	7.0 ²	6.2	6.2
2001-2003 (2002)	499	578	37.8	43.6	2.7	2.6	16.1	16.8
2000-2002 (2001)	483	573	36.3	42.1	2.7	2.5	15.6	16.8
1999-2001 (2000)	441	504	37.4	43.2	2.6	2.4	16.6	18.0
1998-2000 (1999)	497	570	38.6	42.2	2.6	2.4	16.2	17.6
1997-1999 (1998)	465	536	39.7	45.5	4.4	3.9	10.3	11.7
1996-1998 (1997)	435	500	39.0	45.0	4.0	3.6	11.3	12.5
1995-1997 (1996)	456	527	40.4	46.8	4.1	3.7	11.4	12.6
1994-1996 (1995)	460	543	43.8	51.1	4.3	3.8	11.9	13.4
1993-1995 (1994)	427	494	41.4	48.4	4.4	3.8	11.0	12.7
1992-1994 (1993)	395	458	41.2	47.6	4.4	3.8	10.8	12.5
1991-1993 (1992)	402	458	40.9	47.0	4.4	3.7	10.7	12.7
1990-1992 (1991)	367	417	41.1	47.0	4.4	3.7	10.7	12.7
1989-1991 (1990)	350	403	41.8	48.2	4.7	3.8	10.3	12.7
1988-1990 (1989)	376	436	43.6	51.0	4.7	3.7	10.9	13.8
1987-1989 (1988)	375	441	41.6	48.9	4.5	3.5	10.9	14.0
1986-1988 (1987)	264	310	37.6	44.5	4.3	3.3	10.3	13.5
1985-1987 (1986)	264	310	34.1	39.9	4.2	3.3	9.5	12.1
1984-1986 (1985)	274	315	37.7	43.9	4.4	3.4	10.0	12.9
1983-1985 (1984)	302	348	42.1	49.0	4.3	3.4	11.4	14.4
1982-1984 (1983)	295	345	46.5	54.6	4.3	3.4	12.7	16.1
1981-1983 (1982)	293	343	50.5	60.8	4.3	3.4	14.1	17.9
1980-1982 (1981)	344	424	56.9	68.7	4.6	3.5	14.9	19.6
1979-1981 (1980)	369	436	63.7	77.5	4.9	3.7	15.8	20.9
(1979)	377	454						

¹Adjusted – specifies a number, rate, or ratio of rates adjusted to compensate for misreporting of AI/AN race on state death certificates.

²Alcohol-related ICD-10 codes were expanded in 2003 which accounts for the dramatic increase between 2002 and 2003.

NOTE: For all years 1979-1998 the causes of death (ICD-9 codes) that define alcohol-related deaths were expanded to include alcoholic polyneuropathy and the entire code group for unintentional poisoning by alcohol, as defined by the National Center for Health Statistics, Centers for Disease Control and Prevention. Years 1999-2004 used ICD-10 codes—these codes were expanded in 2003. The AI/AN death rate columns present data for the three-year period specified and are age-adjusted to the 2000 standard population; the U.S. all races and the U.S. white columns present data for a one-year period. The number columns indicate total AI/AN deaths for the one-year period specified.

SOURCE: Rates for U.S. All Races and U.S. White: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>.

Drinking has taken a great toll on AI/AN males compared to AI/AN females as evidenced by alcohol-related death rates. The age-specific alcohol-related death rate (2002-2004) for AI/AN males was higher for all age groups in comparison with AI/AN females. However, the AI/AN female rate is much higher than the rate of females in the U.S. all-races and white populations. The U.S. female rate never reached 9.0 for any age group in 2003, whereas the AI/AN female rate for years 2002-2004 ranged from 15.2 to 65.4 for age groups 25 through 74 years. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on the state death certificate.

Chart 40

Alcohol-Related Death Rates by Age and Sex

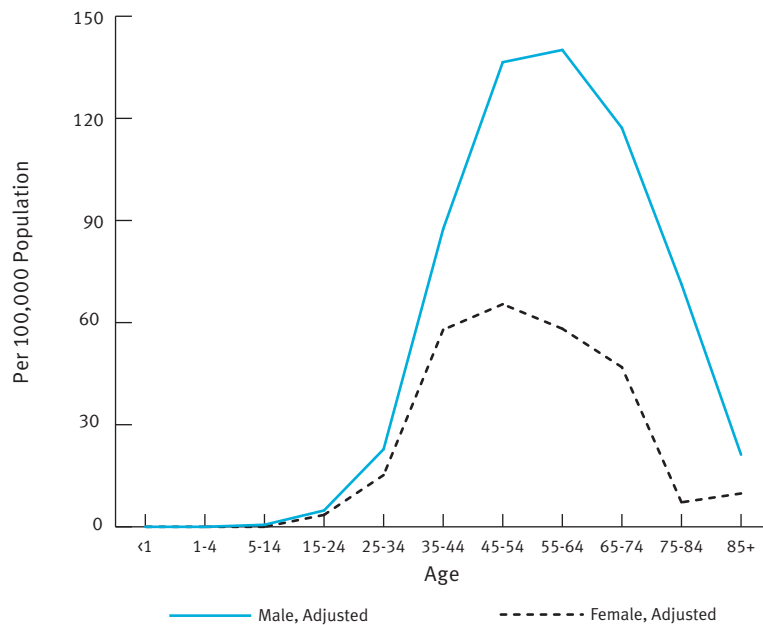
American Indians and Alaska Natives (2002-2004)

Table 40 Alcohol-Related Death Rates by Age and Sex

*American Indians and Alaska Natives, IHS Service Area, 2002-2004, and
U.S. All-Races and White Populations, 2003 (Rate per 100,000 Population)*

Age Group	AMERICAN INDIAN AND ALASKA NATIVE					
	Both Sexes		Male		Female	
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹
Under 1 year	—*	—*	—*	—*	—*	—*
1-4 years	—*	—*	—*	—*	—*	—*
5-14 years	0.3	0.3	0.6	0.6	—*	—*
15-24 years	3.7	4.0	4.6	4.8	3.1	3.5
25-34 years	16.7	18.8	21.4	22.8	12.5	15.2
35-44 years	61.6	71.9	75.4	87.5	49.1	57.9
45-54 years	84.6	99.2	117.6	136.5	54.8	65.4
55-64 years	84.2	96.7	123.9	140.1	49.1	58.2
65-74 years	71.7	78.9	107.0	117.2	42.2	46.9
75-84 years	32.7	33.8	68.8	71.3	7.2	7.2
85 years +	13.4	13.4	21.2	21.2	9.8	9.8

Age Group	U.S. ALL RACES			U.S. WHITE		
	Both Sexes	Male	Female	Both Sexes	Male	Female
	Unadjusted	Adjusted ¹	Adjusted ¹	Unadjusted	Adjusted ¹	Adjusted ¹
Under 1 year	—*	—*	—*	—*	—*	—*
1-4 years	—*	—*	—*	—*	—*	—*
5-14 years	0.0	0.0	0.0	0.0	0.0	0.0
15-24 years	0.3	0.5	0.1	0.3	0.5	0.1
25-34 years	1.5	2.3	0.6	1.5	2.4	0.7
35-44 years	8.1	11.4	4.7	8.2	11.8	4.7
45-54 years	17.3	27.0	7.9	17.4	26.8	8.0
55-64 years	18.5	29.8	8.1	18.2	29.0	8.0
65-74 years	15.1	25.4	6.5	15.2	25.4	6.5
75-84 years	9.2	16.8	4.1	9.3	16.8	4.3
85 years +	4.1	7.8	2.5	4.2	7.8	2.5

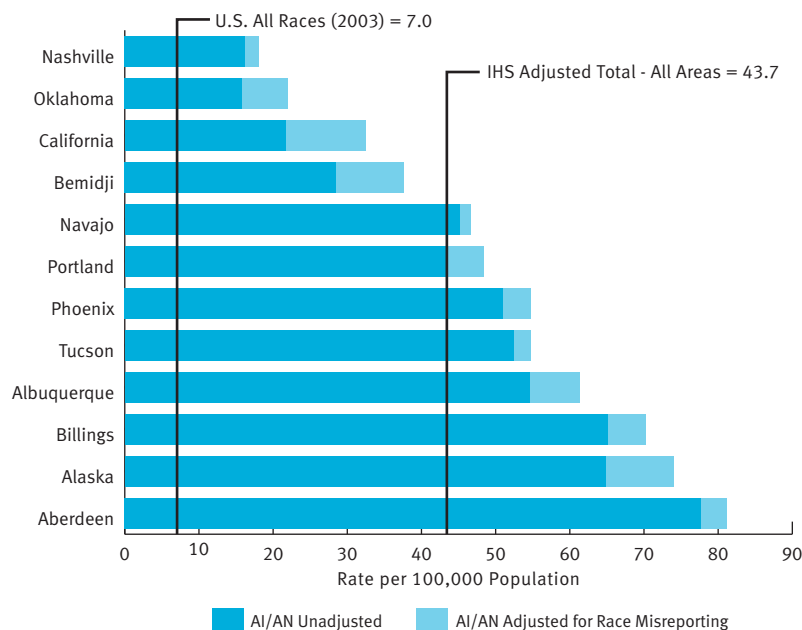
—*Represents zero.

0.0 Quantity more than zero but less than 0.05.

¹Adjusted to compensate for misreporting of AI/AN race on state death certificates.

Source: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>. April 1995.

The Aberdeen Area age-adjusted alcohol-related death rate (81.2) is 11.6 times the U.S. all-races rate (7.0) and 4.5 times the lowest IHS area rate (Nashville, 18.1). The IHS AI/AN rate (43.7) is 6.2 times higher than the U.S. all-races rate (7.0). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on the state death certificates.

Chart 41 Age-Adjusted Alcohol-Related Death Rates by Area, CY 2002–2004

Table 41 Age-Adjusted Alcohol-Related Death Rates by Area, CY 2002–2004

	Deaths		Rate ¹	
	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²
<i>U.S. All Races (2003)</i>	20,693		7.0	
<i>All IHS Areas</i>	1,595	1,835	38.1	43.7
Aberdeen	159	167	77.7	81.2
Alaska	174	198	64.8	74.0
Albuquerque	136	153	54.6	61.3
Bemidji	76	101	28.5	37.6
Billings	97	105	65.1	70.3
California	94	143	21.7	32.5
Nashville	47	53	16.2	18.1
Navajo	240	248	45.1	46.6
Oklahoma	130	183	15.8	22.0
Phoenix	211	227	51.0	54.7
Portland	188	212	43.4	48.4
Tucson	43	45	52.4	54.8

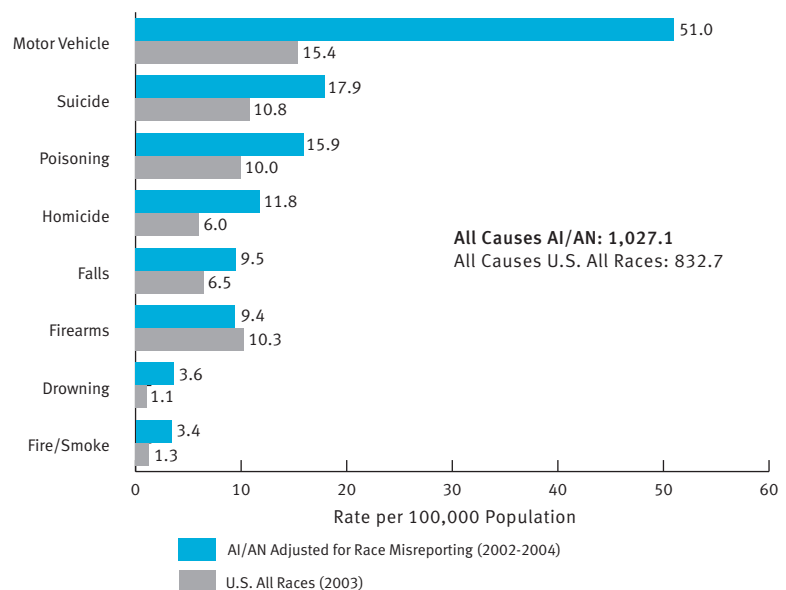
¹Age-adjusted rate per 100,000 population.

²Adjusted to compensate for misreporting of American Indian/Alaska Native race on the state death certificate.

The AI/AN age-adjusted leading cause of death due to injury is motor vehicle accidents followed by suicide and poisoning. AI/AN deaths due to motor vehicle accidents are 3.3 times higher than the U.S. all-races. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on the state death certificates.

Chart 42 Leading Causes of Death Due to Injury

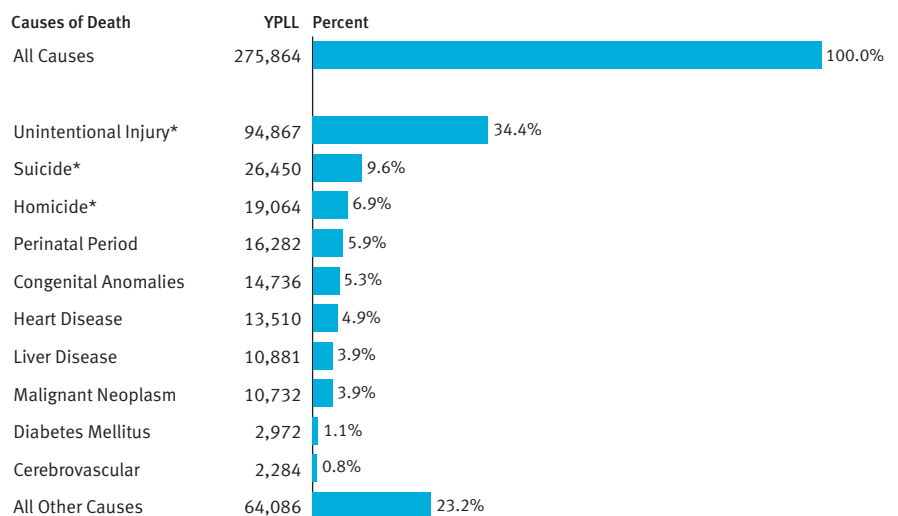
*American Indians and Alaska Natives, 2002-2004, and U.S. All Races, 2003
(Age-Adjusted Rate per 100,000 Population)*



All injuries account for 50.9 percent of the YPLL for AI/AN age 1-44. This is more than the YPLL for all other causes combined.

Chart 43 Years of Potential Life Lost (YPLL) Ages 1-44

American Indians and Alaska Natives, 2002-2004, Both Sexes, All Deaths



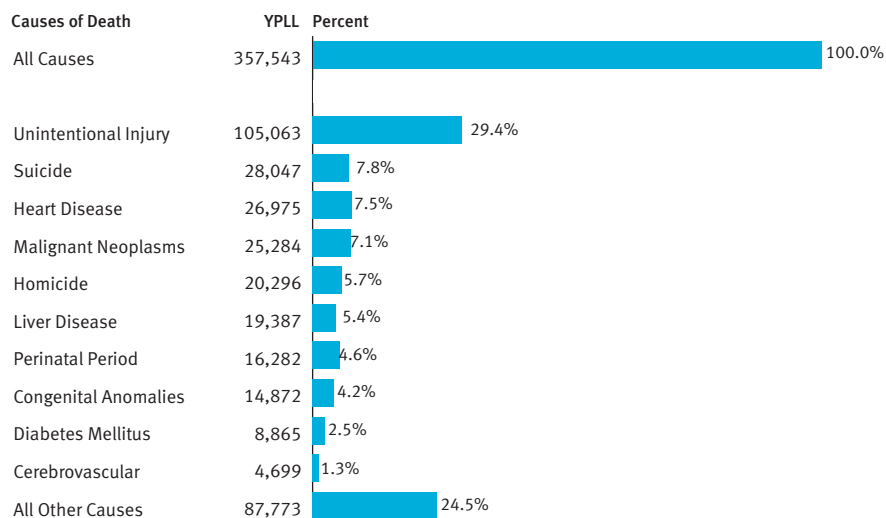
*All Injuries is defined as unintentional injuries plus injuries caused by suicide and homicide.

NOTE: The 2003 U.S. All Races YPLL for ages 1-44 is not available on the WISQARS YPLL report.

All injuries account for the greatest part of the YPLL for AI/AN before age 65 (42.9 percent).

Chart 44 Years of Potential Life Lost (YPLL) Before Age 65

American Indians and Alaska Natives, 2002-2004, Both Sexes, All Deaths

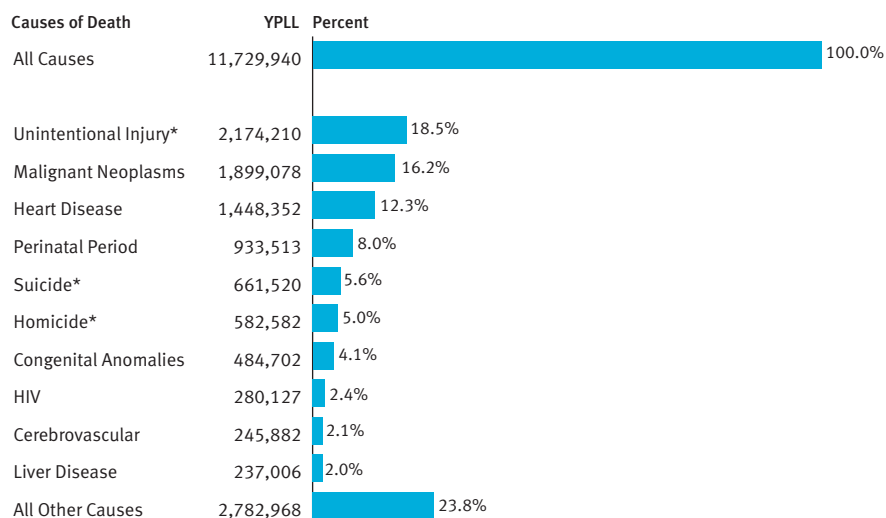


**All Injuries is defined as unintentional injuries plus injuries caused by suicide and homicide.*

All injuries account for the greatest part of the YPLL before age 65 for U.S. all-races (29.1 percent).

Chart 45 Years of Potential Life Lost (YPLL) Before Age 65

U.S. All Races, 2003, Both Sexes, All Deaths



**All Injuries is defined as unintentional injuries plus injuries caused by suicide and homicide.*

Table 46

Years of Potential Life Lost (YPLL) Before Age 65 Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All-Races and White Populations, 2000-2003

Cause of Death	AMERICAN INDIAN AND ALASKA NATIVE		U.S. ALL RACES	U.S. WHITE	RATIO OF AMERICAN INDIAN AND ALASKA NATIVE ¹ TO:	
	Rate		Rate	Rate	U.S.	
	Unadjusted	Adjusted ¹			All Races	White
YPLL for All Causes of Death						
2002-2004 (2003)	73.0	85.6	45.8	41.8	1.9	2.0
2001-2003 (2002)	72.6	85.2	46.0	41.8	1.9	2.0
2000-2002 (2001)	70.4	82.9	46.0	41.7	1.8	2.0
1999-2001 (2000)	69.4	81.8	45.9	41.3	1.8	2.0
YPLL for All Injuries (Includes Unintentional and Intentional)						
2002-2004 (2003)	31.3	37.1	14.0	13.6	2.6	2.7
2001-2003 (2002)	31.0	36.6	14.0	13.5	2.6	2.7
2000-2002 (2001)	30.3	35.7	13.9	13.3	2.6	2.7
1999-2001 (2000)	29.6	34.8	13.4	12.7	2.6	2.7
YPLL for Intentional Injuries (Homicides and Suicides)						
2002-2004 (2003)	9.9	11.3	4.9	4.2	2.3	2.7
2001-2003 (2002)	9.5	10.9	5.0	4.2	2.2	2.6
2000-2002 (2001)	9.1	10.4	5.2	4.5	2.0	2.3
1999-2001 (2000)	8.8	10.0	4.8	4.1	2.1	2.4
YPLL for Unintentional Injuries						
2002-2004 (2003)	21.5	25.8	8.6	8.9	3.0	2.9
2001-2003 (2002)	21.5	25.7	8.6	8.8	3.0	2.9
2000-2002 (2001)	21.2	25.2	8.2	8.3	3.1	3.0
1999-2001 (2000)	20.8	24.8	8.2	8.2	3.0	3.0

¹Adjusted - specifies a number, rate, or ratio of rates adjusted to compensate for misreporting of AI/AN race on state death certificates.

Years of Potential Life Lost (YPLL) is defined by the Centers for Disease Control and Prevention (CDC) as the number of years of potential life lost by each death occurring before a predetermined end point, set at age 75 (Health, United States, 2008: see Table 29). Age 75 is approximate to the current average life expectancy for the United States. IHS and some older and current CDC reports use age 65 as the end point age for YPLL calculation in order to maintain comparison over time.

Injury and poisoning is the fifth leading cause of hospitalization for AI/AN patients, 1 to 4 years of age. For this AI/AN age group, 4.2 percent of all discharges pertain to injury and poisoning.

Chart 47 Leading Causes of Hospitalization: Ages 1 to 4 Years

IHS and Tribal Direct and Contract General Hospitals, FY 2006

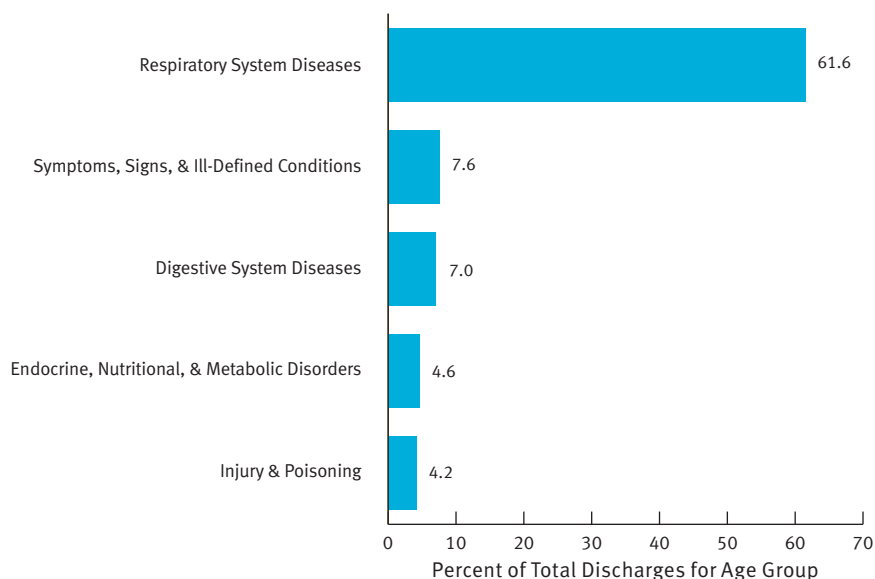


Table 47 Ten Leading Causes of Hospitalization for GM&S* Patients 1 to 4 Years of Age

IHS and Tribal Direct and Contract General Hospitals, FY 2006

Diagnostic Category	NUMBER OF DISCHARGES			PERCENT DISTRIBUTION		
	Combined	Male	Female	Combined	Male	Female
<i>All categories</i>	<i>4,083</i>	<i>2,284</i>	<i>1,799</i>	<i>100.0</i>	<i>55.9</i>	<i>44.1</i>
Respiratory system diseases	2,517	1,427	1,090	61.6	62.5	60.6
Symptoms, signs, & ill-defined conditions	311	174	137	7.6	7.6	7.6
Digestive system diseases	284	167	117	7.0	7.3	6.5
Endocrine, nutritional, & metabolic disorders	188	103	85	4.6	4.5	4.7
Injury & poisoning	173	104	69	4.2	4.6	3.8
Skin & subcutaneous tissue diseases	170	82	88	4.2	3.6	4.9
Infectious & parasitic diseases	151	94	57	3.7	4.1	3.2
Genitourinary system diseases	81	17	64	2.0	0.7	3.6
Nervous system & sense organ diseases	71	50	21	1.7	2.2	1.2
Congenital anomalies	32	18	14	0.8	0.8	0.8
<i>All other</i>	<i>105</i>	<i>48</i>	<i>57</i>	<i>2.6</i>	<i>2.1</i>	<i>3.2</i>

*General Medical and Surgical

SOURCE: IHS National Data Warehouse

Injury and poisoning is the third leading cause of hospitalization for AI/AN patients, 5 to 14 years of age. For this AI/AN age group, 15.2 percent of all discharges pertain to injury and poisoning.

Chart 48 Leading Causes of Hospitalization: Ages 5 to 14 Years

IHS and Tribal Direct and Contract General Hospitals, FY 2006

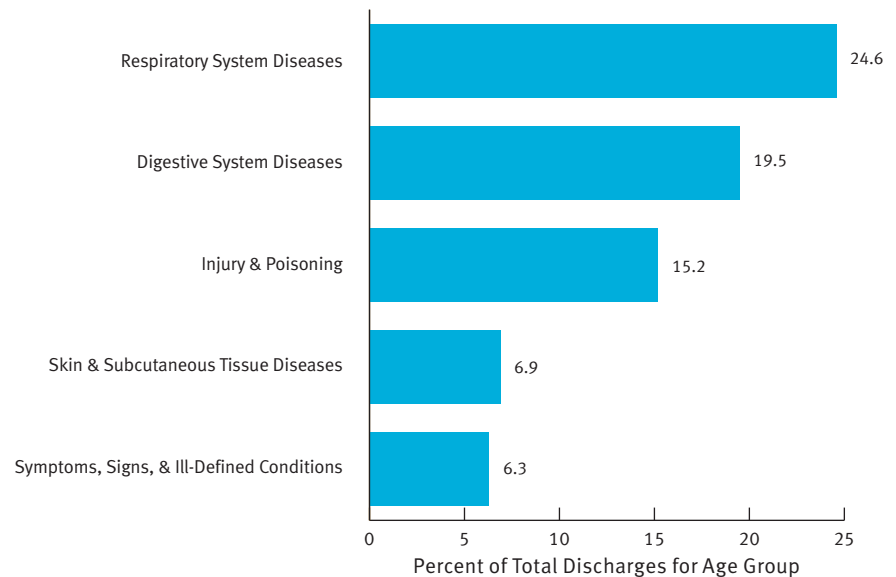


Table 48 Ten Leading Causes of Hospitalization for GM&S* Patients 5 to 14 Years of Age

IHS and Tribal Direct and Contract General Hospitals, FY 2006

Diagnostic Category	NUMBER OF DISCHARGES			PERCENT DISTRIBUTION		
	Combined	Male	Female	Combined	Male	Female
<i>All categories</i>	<i>2,588</i>	<i>1,419</i>	<i>1,169</i>	<i>100.0</i>	<i>54.8</i>	<i>45.2</i>
Respiratory system diseases	636	342	294	24.6	24.1	25.1
Digestive system diseases	504	282	222	19.5	19.9	19.0
Injury & poisoning	394	254	140	15.2	17.9	12.0
Skin & subcutaneous tissue diseases	178	107	71	6.9	7.5	6.1
Symptoms, signs, & ill-defined conditions	162	89	73	6.3	6.3	6.2
Mental disorders	127	80	47	4.9	5.6	4.0
Infectious & parasitic diseases	123	64	59	4.8	4.5	5.0
Endocrine, nutritional, & metabolic disorders	107	46	61	4.1	3.2	5.2
Genitourinary system diseases	87	13	74	3.4	0.9	6.3
Musculoskeletal system & connective tissue diseases	68	41	27	2.6	2.9	2.3
<i>All other</i>	<i>202</i>	<i>101</i>	<i>101</i>	<i>7.8</i>	<i>7.1</i>	<i>8.6</i>

*General Medical and Surgical

SOURCE: IHS National Data Warehouse

Injury and poisoning is the second leading cause of hospitalization for AI/AN patients, 15 to 24 years of age. For this AI/AN age group, 11.3 percent of all discharges pertain to injury and poisoning.

Chart 49 Leading Causes of Hospitalization: Ages 15 to 24 Years

IHS and Tribal Direct and Contract General Hospitals, FY 2006

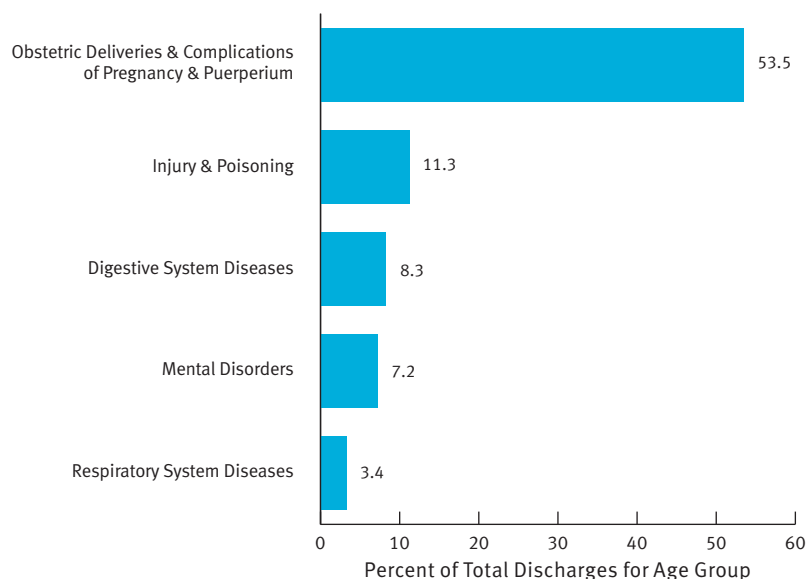


Table 49 Ten Leading Causes of Hospitalization for GM&S* Patients 15 to 24 Years of Age

IHS and Tribal Direct and Contract General Hospitals, FY 2006

Diagnostic Category	NUMBER OF DISCHARGES			PERCENT DISTRIBUTION		
	Combined	Male	Female	Combined	Male	Female
<i>All categories</i>	<i>11,421</i>	<i>2,607</i>	<i>8,814</i>	<i>100.0</i>	<i>22.8</i>	<i>77.2</i>
Obstetric deliveries & complications of pregnancy & puerperium	6,113	0	6,113	53.5	0.0	69.4
Injury & poisoning	1,294	829	465	11.3	31.8	5.3
Digestive system diseases	951	363	588	8.3	13.9	6.7
Mental disorders	819	463	356	7.2	17.8	4.0
Respiratory system diseases	391	166	225	3.4	6.4	2.6
Genitourinary system diseases	371	43	328	3.2	1.6	3.7
Skin & subcutaneous tissue diseases	326	203	123	2.9	7.8	1.4
Symptoms, signs, & ill-defined conditions	248	112	136	2.2	4.3	1.5
Endocrine, nutritional, & metabolic disorders	224	111	113	2.0	4.3	1.3
Supplementary classification	171	77	94	1.5	3.0	1.1
<i>All other</i>	<i>513</i>	<i>240</i>	<i>273</i>	<i>4.5</i>	<i>9.2</i>	<i>3.1</i>

*General Medical and Surgical

SOURCE: IHS National Data Warehouse

Injury and poisoning is the third leading cause of hospitalization for AI/AN patients, 25 to 44 years of age. For this AI/AN age group, 9.7 percent of all discharges pertain to injury and poisoning.

Chart 50 **Leading Causes of Hospitalization: Ages 25 to 44 Years**

IHS and Tribal Direct and Contract General Hospitals, FY 2006

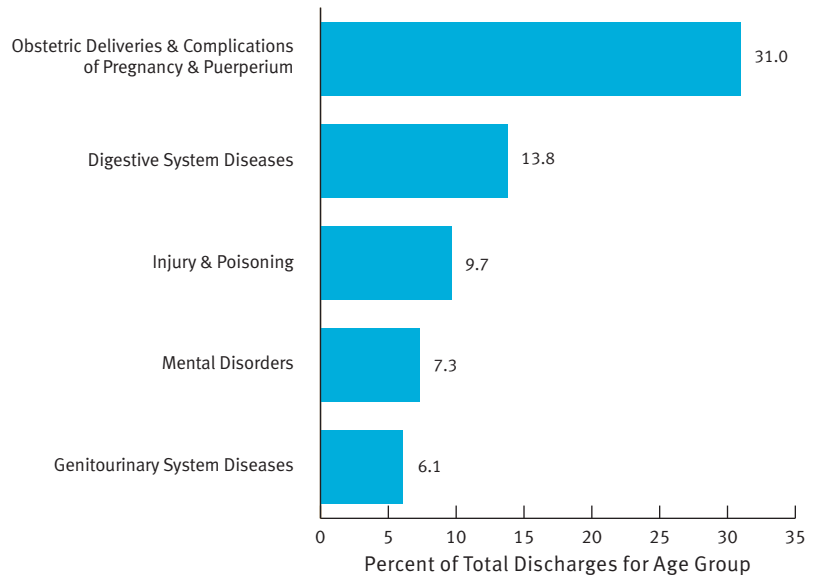


Table 50 **Ten Leading Causes of Hospitalization for GM&S* Patients 25 to 44 Years of Age**

IHS and Tribal Direct and Contract General Hospitals, FY 2006

Diagnostic Category	NUMBER OF DISCHARGES			PERCENT DISTRIBUTION		
	Combined	Male	Female	Combined	Male	Female
<i>All categories</i>	<i>22,110</i>	<i>7,712</i>	<i>14,398</i>	<i>100.0</i>	<i>34.9</i>	<i>65.1</i>
Obstetric deliveries & complications of pregnancy & puerperium	6,849	0	6,849	31.0	0.0	47.6
Digestive system diseases	3,053	1,405	1,648	13.8	18.2	11.4
Injury & poisoning	2,152	1,337	815	9.7	17.3	5.7
Mental disorders	1,615	989	626	7.3	12.8	4.3
Genitourinary system diseases	1,344	208	1,136	6.1	2.7	7.9
Skin & subcutaneous tissue diseases	1,197	767	430	5.4	9.9	3.0
Symptoms, signs, & ill-defined conditions	1,163	571	592	5.3	7.4	4.1
Respiratory system diseases	1,012	481	531	4.6	6.2	3.7
Endocrine, nutritional, & metabolic disorders	917	550	367	4.1	7.1	2.5
Circulatory system diseases	686	447	239	3.1	5.8	1.7
<i>All other</i>	<i>2,122</i>	<i>957</i>	<i>1,165</i>	<i>9.6</i>	<i>12.4</i>	<i>8.1</i>

*General Medical and Surgical

SOURCE: IHS National Data Warehouse

Injury and poisoning is the third leading cause of hospitalization for AI/AN patients, 45 to 54 years of age. For this AI/AN age group, 9.7 percent of all discharges pertain to injury and poisoning.

Chart 51 Leading Causes of Hospitalization: Ages 45 to 54 Years

IHS and Tribal Direct and Contract General Hospitals, FY 2006

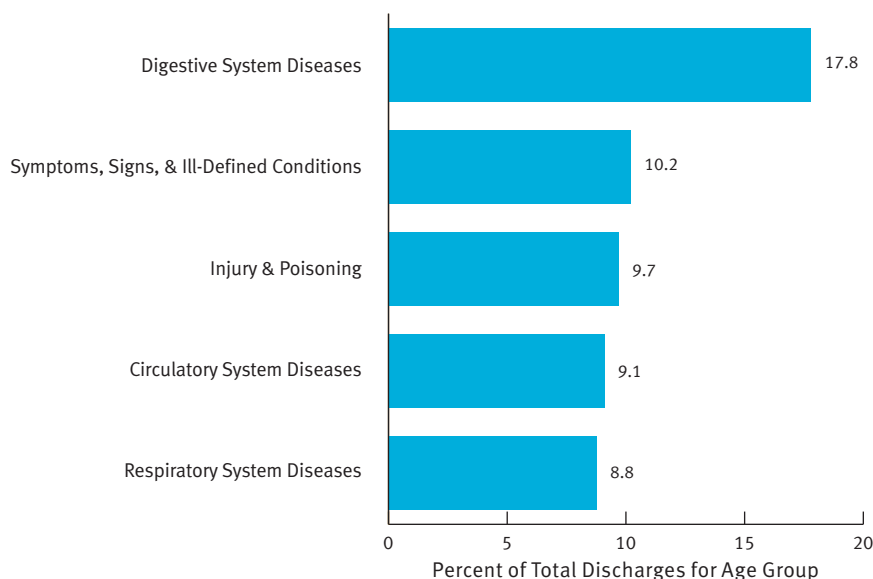


Table 51 Ten Leading Causes of Hospitalization for GM&S* Patients 45 to 54 Years of Age

IHS and Tribal Direct and Contract General Hospitals, FY 2006

Diagnostic Category	NUMBER OF DISCHARGES			PERCENT DISTRIBUTION		
	Combined	Male	Female	Combined	Male	Female
<i>All categories</i>	<i>10,574</i>	<i>5,128</i>	<i>5,446</i>	<i>100.0</i>	<i>48.5</i>	<i>51.5</i>
Digestive system diseases	1,877	922	955	17.8	18.0	17.5
Symptoms, signs, & ill-defined conditions	1,080	479	601	10.2	9.3	11.0
Injury & poisoning	1,026	599	427	9.7	11.7	7.8
Circulatory system diseases	961	592	369	9.1	11.5	6.8
Respiratory system diseases	935	421	514	8.8	8.2	9.4
Genitourinary system diseases	829	174	655	7.8	3.4	12.0
Skin & subcutaneous tissue diseases	794	447	347	7.5	8.7	6.4
Endocrine, nutritional, & metabolic disorders	750	405	345	7.1	7.9	6.3
Mental disorders	601	378	223	5.7	7.4	4.1
Musculoskeletal system & connective tissue diseases	535	286	249	5.1	5.6	4.6
<i>All other</i>	<i>1,186</i>	<i>425</i>	<i>761</i>	<i>11.2</i>	<i>8.3</i>	<i>14.0</i>

*General Medical and Surgical

SOURCE: IHS National Data Warehouse

Injury and poisoning is the fifth leading cause of hospitalization for AI/AN patients, 55 to 64 years of age. For this AI/AN age group, 7.4 percent of all discharges pertain to injury and poisoning.

Chart 52 **Leading Causes of Hospitalization: Ages 55 to 64 Years**

IHS and Tribal Direct and Contract General Hospitals, FY 2006

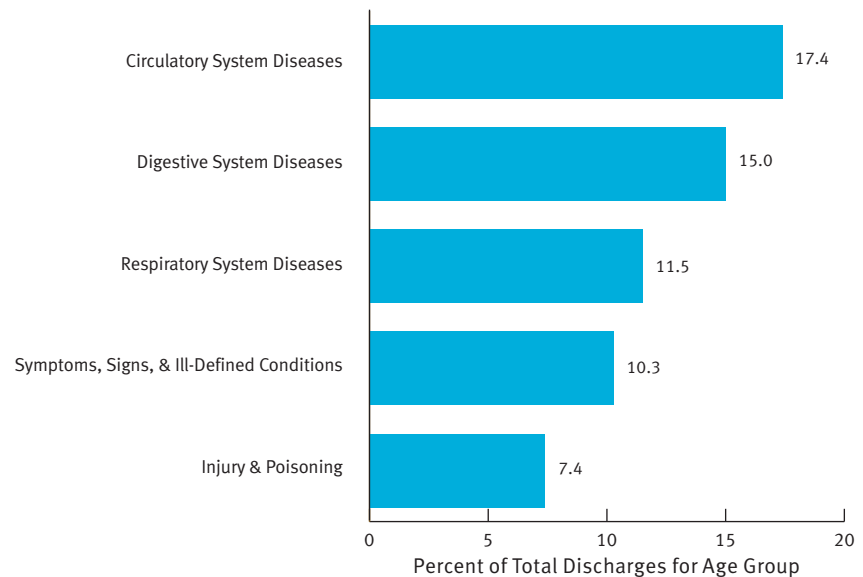


Table 52 **Ten Leading Causes of Hospitalization for GM&S* Patients 55 to 64 Years of Age**

IHS and Tribal Direct and Contract General Hospitals, FY 2006

Diagnostic Category	NUMBER OF DISCHARGES			PERCENT DISTRIBUTION		
	Combined	Male	Female	Combined	Male	Female
<i>All categories</i>	<i>8,875</i>	<i>4,156</i>	<i>4,719</i>	<i>100.0</i>	<i>46.8</i>	<i>53.2</i>
Circulatory system diseases	1,545	886	659	17.4	21.3	14.0
Digestive system diseases	1,334	621	713	15.0	14.9	15.1
Respiratory system diseases	1,021	427	594	11.5	10.3	12.6
Symptoms, signs, & ill-defined conditions	912	377	535	10.3	9.1	11.3
Injury & poisoning	655	300	355	7.4	7.2	7.5
Endocrine, nutritional, & metabolic disorders	635	326	309	7.2	7.8	6.5
Genitourinary system diseases	559	153	406	6.3	3.7	8.6
Skin & subcutaneous tissue diseases	485	240	245	5.5	5.8	5.2
Musculoskeletal system & connective tissue diseases	428	211	217	4.8	5.1	4.6
Neoplasms	426	181	245	4.8	4.4	5.2
<i>All other</i>	<i>875</i>	<i>434</i>	<i>441</i>	<i>9.9</i>	<i>10.4</i>	<i>9.3</i>

*General Medical and Surgical

SOURCE: IHS National Data Warehouse

Injury and poisoning is the fourth leading cause of hospitalization for AI/AN patients (all ages). Ten (9.6) percent of all AI/AN discharges pertain to injury and poisoning.

Chart 53 Leading Causes of Hospitalization for GM&S Patients by Sex

IHS and Tribal Direct and Contract General Hospitals, FY 2006

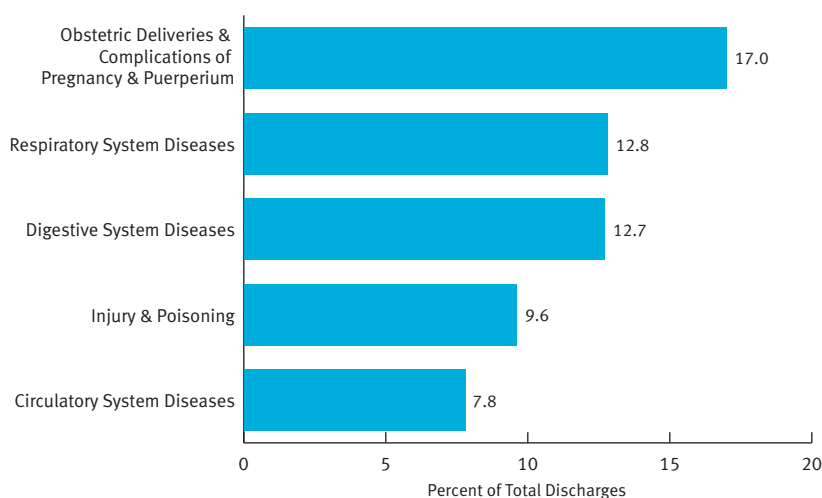


Table 53 Ten Leading Causes of Hospitalization for GM&S* Patients by Sex

Indian Health Service and Tribal Direct and Contract General Hospitals, FY 2006

Diagnostic Category	Number of Discharges			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	76,242	30,658	45,584	100.0	40.2	59.8
Obstetric deliveries & complications of pregnancy & puerperium	12,993	0	12,993	17.0	0.0	28.5
Respiratory system diseases	9,761	4,767	4,994	12.8	15.5	11.0
Digestive system diseases	9,716	4,421	5,295	12.7	14.4	11.6
Injury & poisoning	7,310	4,164	3,146	9.6	13.6	6.9
Circulatory system diseases	5,930	3,279	2,651	7.8	10.7	5.8
Symptoms, signs, & ill-defined conditions	5,296	2,446	2,850	6.9	8.0	6.3
Genitourinary system diseases	4,356	984	3,372	5.7	3.2	7.4
Endocrine, nutritional, & metabolic disorders	3,932	1,973	1,959	5.2	6.4	4.3
Skin & subcutaneous tissue diseases	3,740	2,101	1,639	4.9	6.9	3.6
Mental disorders	3,570	2,148	1,422	4.7	7.0	3.1
All other	9,638	4,375	5,263	12.6	14.3	11.5

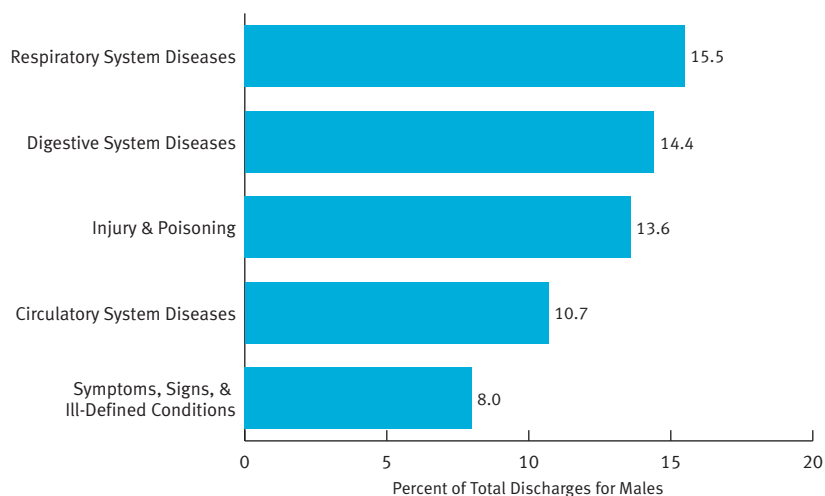
* General Medical and Surgical

SOURCES: IHS National Data Warehouse

Injury and poisoning is the third leading cause of hospitalization for AI/AN male patients (all ages). Fourteen (13.6) percent of all AI/AN male discharges pertain to injury and poisoning.

Chart 54.1 Leading Causes of Hospitalization for Males

IHS and Tribal Direct and Contract General Hospitals, FY 2006



Injury and poisoning is the fifth leading cause of hospitalization for AI/AN female patients (all ages). Seven (6.9) percent of all AI/AN female discharges pertain to injury and poisoning.

Chart 54.2 Leading Causes of Hospitalization for Females

IHS and Tribal Direct and Contract General Hospitals, FY 2006

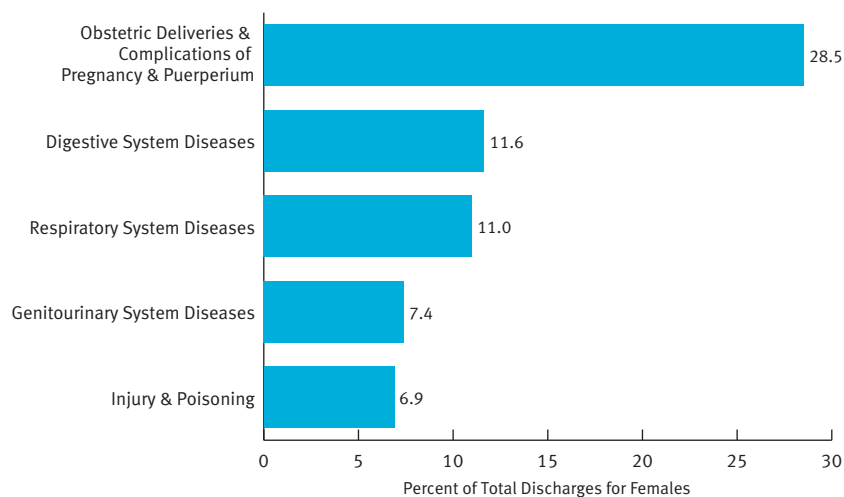


Table 54 Ten Leading Causes of Hospitalization by Sex*Indian Health Service and Tribal Direct and Contract General Hospitals, FY 2006*

MALE			FEMALE		
Diagnostic Category	Number of Discharges	Percent of Total	Diagnostic Category	Number of Discharges	Percent of Total
All categories	30,658	100.0	All categories	45,584	100.0
Respiratory system diseases	4,767	15.5	Obstetric deliveries & complications of pregnancy & puerperium	12,993	28.5
Digestive system diseases	4,421	14.4	Digestive system diseases	5,295	11.6
Injury & poisoning	4,164	13.6	Respiratory system diseases	4,994	11.0
Poisoning	416	1.4	Genitourinary system diseases	3,372	7.4
Injury	3,748	12.2	Injury & poisoning	3,146	6.9
Circulatory system diseases	3,279	10.7	Poisoning	597	1.3
Symptoms, signs, & ill-defined conditions	2,446	8.0	Injury	2,549	5.6
Mental disorders	2,148	7.0	Symptoms, signs, & ill-defined conditions	2,850	6.3
Skin & subcutaneous tissue diseases	2,101	6.9	Circulatory system diseases	2,651	5.8
Endocrine, nutritional, & metabolic disorders	1,973	6.4	Endocrine, nutritional, & metabolic disorders	1,959	4.3
Musculoskeletal system & connective tissue diseases	1,193	3.9	Skin & subcutaneous tissue diseases	1,639	3.6
Genitourinary system diseases	984	3.2	Mental disorders	1,422	3.1
All other	3,182	10.4	All other	5,263	11.5

SOURCE: IHS National Data Warehouse

Injury and poisoning is the fifth leading cause of ambulatory medical visits for AI/AN patients, 5 to 14 years of age. For this AI/AN age group, 8.2 percent of all visits pertain to injury and poisoning.

Chart 55 **Leading Causes of Ambulatory Medical Clinical Impressions Visits: Ages 5 to 14 Years**

IHS and Tribal Direct and Contract Facilities, FY 2006

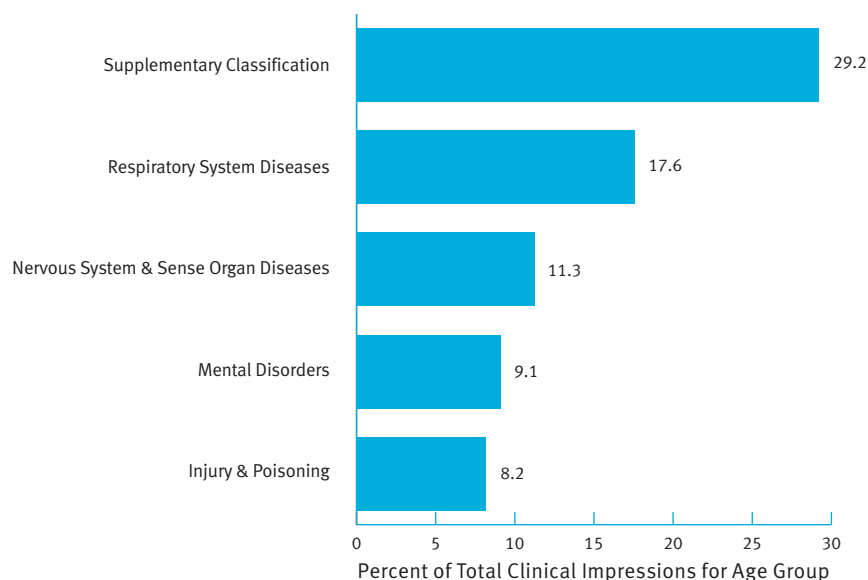


Table 55 **Ten Leading Causes of Ambulatory Medical Clinical Impressions for Patients 5 to 14 Years of Age**

IHS and Tribal Direct and Contract Facilities, FY 2006

Diagnostic Category	NUMBER OF CLINICAL IMPRESSIONS			PERCENT DISTRIBUTION		
	Combined	Male	Female	Combined	Male	Female
<i>All categories</i>	<i>879,464</i>	<i>447,211</i>	<i>432,253</i>	<i>100.0</i>	<i>50.9</i>	<i>49.1</i>
Supplementary classification	256,663	132,779	123,884	29.2	29.7	28.7
Respiratory system diseases	154,440	76,028	78,412	17.6	17.0	18.1
Nervous system & sense organ diseases	99,248	46,695	52,553	11.3	10.4	12.2
Mental disorders	79,740	50,665	29,075	9.1	11.3	6.7
Injury & poisoning	72,124	40,429	31,695	8.2	9.0	7.3
Infectious & parasitic diseases	53,649	23,580	30,069	6.1	5.3	7.0
Symptoms, signs, & ill-defined conditions	53,433	26,076	27,357	6.1	5.8	6.3
Skin & subcutaneous tissue diseases	43,781	21,685	22,096	5.0	4.8	5.1
Digestive system diseases	21,285	10,370	10,915	2.4	2.3	2.5
Musculoskeletal system & connective tissue diseases	19,104	9,190	9,914	2.2	2.1	2.3
<i>All other</i>	<i>25,997</i>	<i>9,714</i>	<i>16,283</i>	<i>3.0</i>	<i>2.2</i>	<i>3.8</i>

SOURCE: IHS National Data Warehouse

Injury and poisoning is the fourth leading cause of ambulatory medical visits for AI/AN patients, 15 to 24 years of age. For this AI/AN age group, 7.2 percent of all visits pertain to injury and poisoning.

Chart 56 Leading Causes of Ambulatory Medical Clinical Impressions Visits: Ages 15 to 24 Years

IHS and Tribal Direct and Contract Facilities, FY 2006

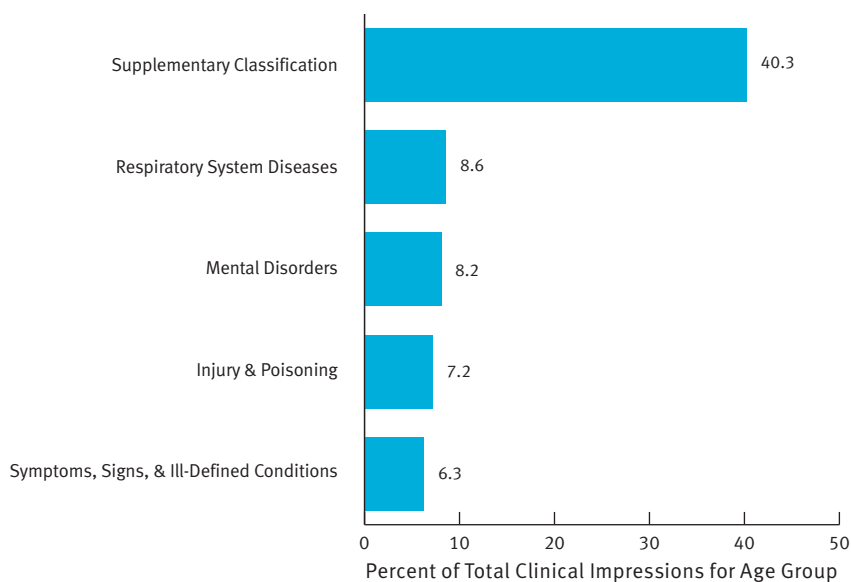


Table 56 Ten Leading Causes of Ambulatory Medical Clinical Impressions for Patients 15 to 24 Years of Age

IHS and Tribal Direct and Contract Facilities, FY 2006

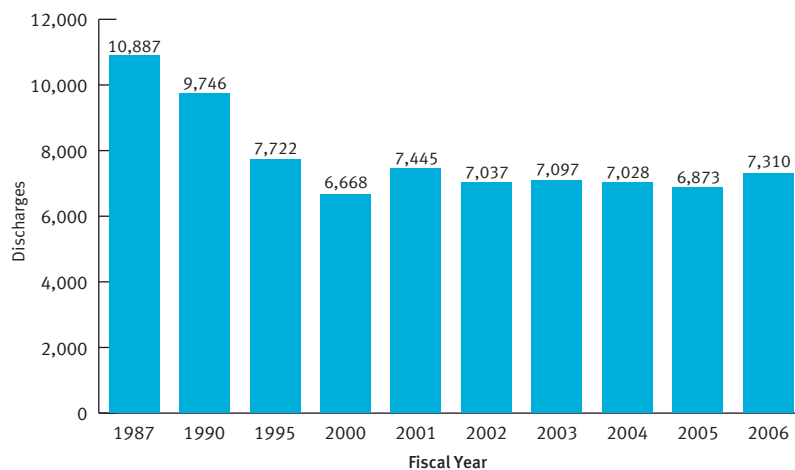
Diagnostic Category	NUMBER OF CLINICAL IMPRESSIONS			PERCENT DISTRIBUTION		
	Combined	Male	Female	Combined	Male	Female
<i>All categories</i>	<i>1,308,725</i>	<i>421,502</i>	<i>887,223</i>	<i>100.0</i>	<i>32.2</i>	<i>67.8</i>
Supplementary classification	527,184	125,041	402,143	40.3	29.7	45.3
Respiratory system diseases	113,123	42,509	70,614	8.6	10.1	8.0
Mental disorders	107,900	52,553	55,347	8.2	12.5	6.2
Injury & poisoning	94,347	56,023	38,324	7.2	13.3	4.3
Symptoms, signs, & ill-defined conditions	81,879	26,501	55,378	6.3	6.3	6.2
Nervous system & sense organ diseases	70,738	26,872	43,866	5.4	6.4	4.9
Musculoskeletal system & connective tissue diseases	57,012	24,427	32,585	4.4	5.8	3.7
Obstetric deliveries & complications of pregnancy & puerperium	52,854	0	52,854	4.0	0.0	6.0
Skin & subcutaneous tissue diseases	50,822	24,479	26,343	3.9	5.8	3.0
Genitourinary system diseases	45,725	3,432	42,293	3.5	0.8	4.8
<i>All other</i>	<i>107,141</i>	<i>39,665</i>	<i>67,476</i>	<i>8.2</i>	<i>9.4</i>	<i>7.6</i>

SOURCE: IHS National Data Warehouse

Since FY 1987, the number of discharges for injuries and poisonings from IHS and Tribal direct and contract general hospitals has decreased 49 percent. In FY 2006, there were 7,310 discharges.

Chart 57 Hospitalizations for Injuries and Poisonings

IHS and Tribal Direct and Contract General Hospitals, FY 1987-2006



Source: National Data Warehouse

Eleven (11) percent of the expenses for IHS-administered contract health services (CHS) during 2004-2008 were associated with “injuries and poisonings” claims of which seven percent were inpatient claims and four percent were outpatient claims. Eighty-nine (89) percent fall under “other medical” claims expenses.

Chart 58 Contract Health Services (CHS) Expenses

Related to Injuries and Poisonings, Fiscal Years 2004-2008

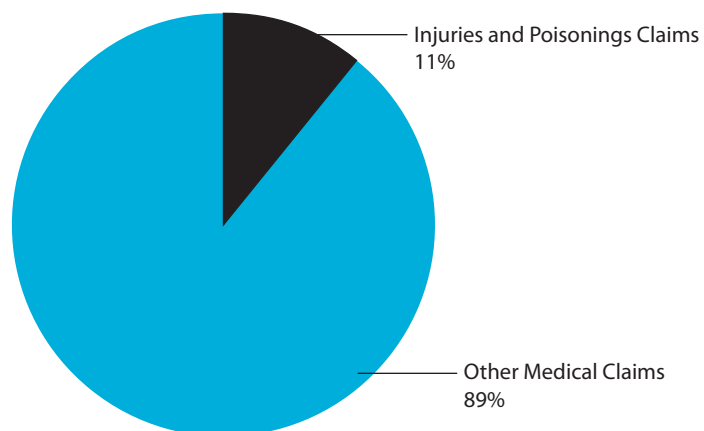


Table 58 Contract Health Services (CHS) Expenses Related to Injuries and Poisoning*IHS Administered CHS, Fiscal Years 2004-2008*

Type of Claim	PERCENT OF EXPENSES		
	Total	Inpatient	Outpatient
Injuries and Poisonings	11	7	4
Other Medical	89	93	96

SOURCE: Fiscal Intermediary Claim History Files for Purchase Order Fiscal Years 2004-2008.

NOTE: Injuries were identified by claims with a Primary Diagnosis as indicated by an ICD-9 Code between 800-999. External cause of Injury Codes (E Codes) were not considered.

During 2004-2008, the average cost of a CHS inpatient case for injuries and poisonings was \$7,980 and for outpatient case was \$737. Outpatient claims outnumbered inpatient claims by a ratio of 5.7 to 1.

Chart 59 Contract Health Services (CHS) Cost

Per Injuries and Poisonings Case, Fiscal Years 2004-2008

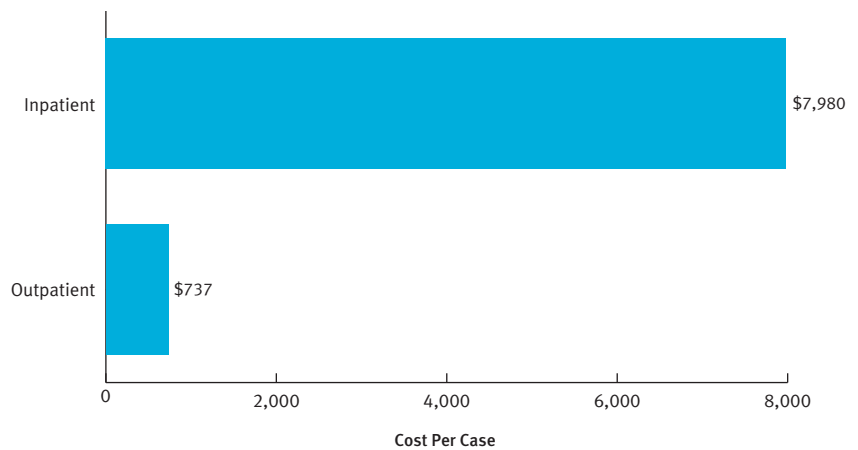


Table 59 Contract Health Services (CHS) Per Injuries and Poisoning Case

IHS Administered CHS, Fiscal Years 2004-2008

Type of Service	Number of Cases	Total Cost	Cost Per Case
Inpatient	10,262	\$81,893,611	\$7,980
Outpatient	58,040	\$42,776,169	\$737

SOURCE: Fiscal Intermediary Claim History Files for Purchase Order Fiscal Years 2004-2008.

NOTE: Injuries were identified by claims with a Primary Diagnosis as indicated by an ICD-9 Code between 800-999. External cause of Injury Codes (E Codes) were not considered.

GLOSSARY OF ICD-10 CODES

LIST OF 113 CAUSES OF DEATH (1999-PRESENT)

Cause of Death	ICD-10 Codes
Salmonella infections	A01-A02
Shigellosis and amebiasis	A03, A06
Certain other intestinal infections	A04, A07-A09
Tuberculosis	A16-A19
Respiratory Tuberculosis	A16
Other Tuberculosis	A17-A19
Whooping cough	A37
Scarlet fever and erysipelas	A38, A46
Meningococcal infection	A39
Septicemia	A40-A41
Syphilis	A50-A53
Acute poliomyelitis	A80
Arthropod-borne viral encephalitis	A83-A84, A85.2
Measles	B05
Viral Hepatitis	B15-B19
Human immunodeficiency virus (HIV) disease	B20-B24
Malaria	B50-B54
Other and unspecified infections and parasitic diseases and their sequelae	A00, A05, A20-A36, A42-A44, A48-A49, A54-A79, A81-A82, A85.0-A85.1, A85.8, A86-B04, B06-B09, B25-B49, B55-B99
Malignant neoplasm	C00-C97
Malignant neoplasm of lip, oral cavity and pharynx	C00-C14
Malignant neoplasm of esophagus	C15
Malignant neoplasm of stomach	C16
Malignant neoplasm of colon, rectum, anus	C18-C21
Malignant neoplasm of liver and intrahepatic bile ducts	C22
Malignant neoplasm of pancreas	C25
Malignant neoplasm of larynx	C32
Malignant neoplasm of trachea, bronchus and lung	C33-C34
Malignant melanoma of skin	C43
Malignant neoplasm of breast	C50
Malignant neoplasm of cervix uteri	C53
Malignant neoplasm of corpus uteri and uterus, part unspecified	C54-C55
Malignant neoplasm of ovary	C56
Malignant neoplasm of prostate	C61
Malignant neoplasm of kidney and renal pelvis	C64-C65

Cause of Death	ICD-10 Codes
Malignant neoplasm of bladder	C67
Malignant neoplasm of meninges, brain, and other parts of central nervous system	C70-C72
Malignant neoplasm of lymphoid, hematopoietic and related tissue	C81-C96
Hodgkin's disease	C81
Non-Hodgkin's lymphoma	C82-C85
Leukemia	C91-C95
Multiple myeloma and immunoproliferative neoplasm	C88, C90
Other and unspecified malignant neoplasm of lymphoid, hematopoietic and related tissue	C96
All other unspecified malignant neoplasm	C17, C23-C24, C26-C31, C37-C41, C44-C49, C51-C52, C57-C60, C62-C63, C66, C68-C69, C73-C80, C97
In situ neoplasm, benign neoplasm and neoplasm of uncertain or unknown behavior	D00-D48
Anemia	D50-D64
Diabetes mellitus	E10-E14
Nutritional deficiencies	E40-E64
Malnutrition	E40-E46
Other nutritional deficiencies	E50-E64
Meningitis	G00, G03
Parkinson's disease	G20-G21
Alzheimer's disease	G30
Major cardiovascular diseases	I00-I78
Diseases of heart	I00-I09, I11, I13, I20-I51
Acute rheumatic fever and chronic rheumatic heart diseases	I00-I09
Hypertensive heart disease	I11
Hypertensive and renal disease	I13
Ischemic heart disease	I20-I25
Acute myocardial infraction	I21-I22
Other acute ischemic heart diseases	I24
Other forms of chronic ischemic heart disease	I20-I25
Atherosclerotic cardiovascular disease, so described	I25.0
All other forms of chronic ischemic heart disease	I20, I25.1-I25.9
Other heart diseases	I26-I51
Acute and subacute endocarditis	I33
Diseases of pericardium and acute myocarditis	I30-I31, I40
Heart failure	I50
All other forms of heart disease	I26-I28, I34-I38, I42-I49, I51
Essential (primary) hypertension and hypertensive renal disease	I10, I12
Cerebrovascular disease	I60-I69

Cause of Death	ICD-10 Codes
Atherosclerosis	I70
Other diseases of circulatory system	I71-I78
Aortic aneurysm and dissection	I71
Other diseases of arteries, arterioles and capillaries	I72-I78
Other disorders of circulatory system	I80-I99
Influenza and pneumonia	J10-J18
Influenza	J10-J11
Pneumonia	J12-J18
Other acute lower respiratory infections	J20-J22
Acute bronchitis and bronchiolitis	J20-J21
Unspecified acute lower respiratory infection	J22
Chronic lower respiratory diseases	J40-J47
Bronchitis chronic and unspecified	J44, J47
Emphysema	J43
Asthma	J45-J46
Other chronic lower respiratory diseases	J44, J47
Pneumoconioses and chemical effects	J60-J66, J68
Pneumonitis due to solids and liquids	J69
Other diseases of respiratory system	J00-J06, J30-J39, J67, J70-J98
Peptic ulcer	K25-K28
Diseases of appendix	K35-K38
Hernia	K40-K46
Chronic liver disease and cirrhosis	K70, K73-K74
Alcoholic liver disease	K70
Other chronic liver disease and cirrhosis	K73-K74
Cholelithias and other disorders of gall bladder	K80-K82
Nephritis, nephritic syndrome and nephrosis	N00-N07, N17-N19, N25-N27
Acute and rapidly progressive nephritic and nephritic syndrome	N00-N01, N04
Chronic glomerulonephritis, nephritis and nephropathy not specified as acute or chronic, and renal sclerosis unspecified	N02-N03, N05-N07, N26
Renal failure	N17-N19
Other disorders of kidney	N25, N27
Infections of kidney	N10-N12, N13.6, N15.1
Hyperplasia of prostate	N40
Inflammatory diseases of female pelvic organs	N70-N76
Pregnancy, childbirth and the puerperium	O00-O99
Pregnancy with abortive outcome	O00-O07

Cause of Death	ICD-10 Codes
Other complications of pregnancy, childbirth and the puerperium	O10-O99
Certain conditions originating in the perinatal period	P00-P96
Congenital malformations, deformations and chromosomal abnormalities	Q00-Q99
Symptoms, signs, and abnormal clinical and laboratory findings not elsewhere classified	R00-R99
All other diseases	Residual
Accidents (unintentional injuries)	V01-X59, Y85-Y86
Transport accidents	V01-V99, Y85
Motor vehicle accidents	V02-V04, V09.0-V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2
Other land transport accidents	V01, V05-V06, V09.1, V09.3-V09.9, V10-V11, V15-V18, V19.3, V19.8-V19.9, V80.0-V80.2, V80.6-V80.9, V81.2-V81.9, V82.2-V82.9, V87.9, V88.9, V89.1, V89.3, V89.9
Water, air and space and other and unspecified transport accidents and their sequelae	V90-V99, Y85
Nontransport accidents	W00-X59, Y86
Falls	W00-W19
Accidental discharge of firearms	W32-W34
Accidental drowning and submersion	W65-W74
Accidental exposure to smoke, fire and flames	X00-X09
Accidental poisoning and exposure to noxious substances	X40-X49
Other and unspecified nontransport accidents and their sequelae	W20-W31, W35-W64, W75-W99, X10-X39, X50-X59, Y86
Intentional self-harm (suicide)	U03, X60-X84, Y87.0
Intentional self-harm (suicide) by discharge of firearms	X72-X74
Intentional self-harm (suicide) by other and unspecified means and their sequelae	U03, X60-X71, X75-X84, Y87.0
Assault (homicide)	U01-U02, X85-Y09, Y87.1
Assault (homicide) by discharge of firearms	U01.4, X93-X95
Assault (homicide) by other and unspecified means and their sequelae	U01.0-U01.3, U01.5-U01.9, U02, X85-X92, X96-Y09, Y87.1
Legal intervention	Y35, Y89.0
Events of undetermined intent	Y10-Y34, Y87.2, Y89.9
Discharge of firearms, undetermined intent	Y22-Y24
Other and unspecified events of undetermined intent and their sequelae	Y10-Y21, Y25-Y34, Y87.2, Y89.9
Operations of war and their sequelae	Y36, Y89.1
Complications of medical and surgical care	Y40-Y84, Y88

LIST OF 130 CAUSES OF INFANT DEATH (1999-PRESENT)

Cause of Death	ICD-10 Codes
Certain infections and parasitic diseases	A00-B99
Certain intestinal infectious diseases	A00-A08
Diarrhea and gastroenteritis of infectious origin	A09
Tuberculosis	A16-A19
Tetanus	A33, A35
Diphtheria	A36
Whooping cough	A37
Meningococcal infection	A39
Septicemia	A40-A41
Congenital syphilis	A50
Gonococcal infection	A54
Viral diseases	A80-B34
Acute poliomyelitis	A80
Varicella (chickenpox)	B01
Measles	B05
Human immunodeficiency virus (HIV) disease	B20-B24
Mumps	B26
Other and unspecified viral diseases	A81-B00, B02-B04, B06-B19, B25, B27-B34
Candidiasis	B37
Malaria	B50-B54
Pneumocystosis	B59
All other and unspecified infectious and parasitic diseases	A20-A32, A38, A42-A49, A51-A53, A55-A79, B35-B36, B38-B49, B55-B58, B60-B99
Neoplasm	C00-D48
Malignant neoplasm	C00-C97
Hodgkin's disease and non-Hodgkin's lymphomas	C81-C85
Leukemia	C91-C95
Other and unspecified malignant neoplasm	C00-C80, C88-C90, C96-C97
In situ neoplasm, benign, neoplasm and neoplasm of uncertain or unknown behavior	D00-D48
Diseases of the blood and blood forming organs and certain disorders involving the immune mechanism	D50-D89
Anemias	D50-D64
Other diseases of blood and blood forming organs	D65-D76
Certain disorders involving the immune mechanism	D80-D89
Endocrine, nutritional and metabolic diseases	E00-E88
Short stature, not elsewhere classified	E34.3

Cause of Death	ICD-10 Codes
Malnutrition and other nutritional deficiencies	E40-E64
Cystic fibrosis	E84
Volume depletion, disorders of fluid, electrolyte and acid-base balance	E86-E87
All other endocrine, nutritional and metabolic diseases	E00-E32, E34.0-E34.2, E34.4-E34.9, E65-E83, E85, E88
Diseases of the nervous system	G00-G98
Meningitis	G00, G03
Infantile spinal muscular atrophy, type I (Werdnig-Hoffman)	G12.0
Infantile cerebral palsy	G80
Anoxic brain damage, not elsewhere classified	G93.1
Other diseases of nervous system	G04, G06-G11, G12.1-G12.9, G20-G72, G81-G92, G93.0, G93.2-G93.9, G95-G98
Diseases of the ear and mastoid process	H60-H93
Diseases of the circulatory system	I00-I99
Pulmonary heart disease and diseases of pulmonary circulation	I26-I28
Pericarditis, endocarditis and myocarditis	I30, I33, I40
Cardiomyopathy	I42
Cardiac arrest	I46
Cerebrovascular disease	I60-I69
All other diseases of the circulatory system	I00-I25, I31, I34-I38, I44-I45, I47-I51, I70-I99
Diseases of the respiratory system	J00-J98
Acute upper respiratory infections	J00-J06
Influenza and pneumonia	J10-J18
Influenza	J10-J11
Pneumonia	J12-J18
Acute bronchitis and acute bronchiolitis	J20-J21
Bronchitis, chronic and unspecified	J40-J42
Asthma	J45-J46
Pneumonitis due to solids and liquids	J69
Other and unspecified diseases of the respiratory system	J22, J30-J39, J43-J44, J47-J68, J70-J98
Diseases of the digestive system	K00-K92
Gastritis, duodenitis, and noninfective enteritis and colitis	K29, K50-K55
Hernia of abdominal cavity and intestinal obstruction without hernia	K40-K46, K56
All other and unspecified diseases of the digestive system	K00-K28, K30-K38, K57-K92
Diseases of the genitourinary system	N00-N95
Renal failure and other diseases of the kidney	N17-N19, N25, N27
Other and unspecified diseases of the genitourinary system	N00-N15, N20-N23, N26, N28-N95

Cause of Death	ICD-10 Codes
Certain conditions originating in the prenatal period	P00-P96
Newborn affected by maternal factors and by complications of pregnancy, labor and delivery	P00-P04
Newborn affected by maternal hypertensive disorders	P00.0
Newborn affected by other maternal conditions which may be unrelated to present pregnancy	P00.1- P00.9
Newborn affected by maternal complications of pregnancy	P01
Newborn affected by incompetent cervix	P01.0
Newborn affected by premature rupture of membranes	P01.1
Newborn affected by multiple pregnancy	P01.5
Newborn affected by other maternal complications of pregnancy	P01.2-P01.4, P01.6-P01.9
Newborn affected by complications of placenta, cord, and membranes	P02
Newborn affected by complications involving placenta	P02.0-P02.3
Newborn affected by complications involving cord	P02.4-P02.6
Newborn affected by chorioamnionitis	P02.7
Newborn affected by other and unspecified abnormalities of membranes	P02.8-P02.9
Newborn affected by other complications of labor and delivery	P03
Newborn affected by noxious influences transmitted via placenta or breast milk	P04
Disorders related to length of gestation and fetal malnutrition	P05-P08
Slow fetal growth and fetal malnutrition	P05
Disorders related to short gestation and low birth weight not elsewhere classified	P07
Extremely low birth weight or extreme immaturity	P07.0-P07.2
Other low birth weight or preterm	P07.1, P07.3
Disorders related to long gestation and high birth weight	P08
Birth trauma	P10-P15
Intrauterine hypoxia and birth asphyxia	P20-P21
Intrauterine hypoxia	P20
Birth asphyxia	P21
Respiratory distress of newborn	P22
Other respiratory conditions originating in the perinatal period.	P23-P28
Congenital pneumonia	P23
Neonatal aspiration syndromes	P24
Interstitial emphysema and related conditions originating in the perinatal period	P25
Pulmonary hemorrhage originating in the perinatal period	P26
Chronic respiratory disease originating in the perinatal period	P27
Atelectasis	P28.0-P28.1
All other respiratory conditions originating in the perinatal period	P28.2-P28.9

Cause of Death	ICD-10 Codes
Infections specific to the perinatal period	P35-P39
Bacterial sepsis of newborn	P36
Omphalitis of newborn with or without mild hemorrhage	P38
All other infections specific to the perinatal period	P35, P37, P39
Hemorrhagic and hematological disorders of newborn	P50-P61
Neonatal hemorrhage	P50-P52, P54
Hemorrhagic disease of newborn	P53
Hemolytic disease of newborn due to isoimmunization and other perinatal jaundice	P55-P59
Hematological disorders	P60-P61
Syndrome of infant of a diabetic mother and neonatal diabetes mellitus	P70.0-P70.2
Necrotizing enterocolitis of newborn	P77
Hydrops fetalis not due to hemolytic disease	P83.2
Other perinatal conditions	P29, P70.3-P76, P78-P81, P83.0-P83.1, P83.3-P83.9, P90-P96
Congenital malformations, deformations and chromosomal abnormalities	Q00-Q99
Anencephaly and similar malformations.	Q00
Congenital hydrocephalus	Q03
Spina bifida	Q05
Other congenital malformations of the nervous system	Q01-Q02, Q04, Q06-Q07
Congenital malformations of heart	Q20-Q24
Other congenital malformations of circulatory system	Q25-Q28
Congenital malformations of respiratory system	Q30-Q34
Congenital malformations of digestive system	Q35-Q45
Congenital malformations genitourinary system	Q50-Q64
Congenital malformations and deformations of musculoskeletal system, limbs and integument	Q65-Q85
Down's syndrome	Q90
Edwards syndrome	Q91.0-Q91.3
Patau's syndrome	Q91.4-Q91.7
Other congenital malformations and deformations	Q10-Q18, Q86-Q89
Other chromosomal abnormalities, not elsewhere classified	Q92-Q99
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	R00-R99
Sudden infant death syndrome	R95
Other symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	R00-R53, R55-R59.4, R96-R99
All other diseases	F01-F99, H00-H57, L00-M99

Cause of Death	ICD-10 Codes
External causes of mortality	U01, V01-Y84
Accidents (unintentional injuries)	V01-X59
Transport accident	V01-V99
Motor vehicle accidents	V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3, V80.2, V80.6-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2
Other unspecified transport accidents	V01, V05-V06, V09.1, V09.3-V09.9, V10-V11, V15-V18, V19.3, V19.8, V19.9, V80.0-V80.2, V80.6-V80.9, V81.2-V81.9, V82.2-V82.9, V87.9, V88.9, V89.1, V89.3, V89.9, V90-V99
Falls	W00-W19
Accidental discharge of firearms	W32-W34
Accidental drowning and submersion	W65-W74
Accidental suffocation and strangulation in bed	W75
Other accidental suffocation and strangulation	W76-W77, W81-W84
Accidental inhalation and ingestion of food or other objects causing obstruction of respiratory tract	W78-W80
Accidents caused by exposure to smoke, fire and flames	X00-X09
Accidental poisoning and exposure to noxious substances	X40-X49
Other and unspecified accidents	W20-W31, W35-W64, W85-W99, X10-X39, X50-X59
Assault (homicide)	X85-Y09
Assault (homicide) by hanging, strangulation and suffocation	X91
Assault (homicide) by discharge of firearms	X93-X95
Neglect, abandonment and other maltreatment syndromes	Y06-Y07
Assault (homicide) by other and unspecified means	U01.0-U01.3 X85-X90, X92, X96-X99, Y00-Y05, Y08-Y09
Complications of medical and surgical care	Y40-Y84
Other external causes	X60-X84, Y10-Y36

ADDITIONAL CAUSES OF DEATH AND THEIR CORRESPONDING ICD-10 CODES (1999-PRESENT)

(These categories are not included as part of the 113 cause of death or 130 causes of infant death lists. They are independent of these two lists but are valid cause of death codes to use for the causes indicated.)

Cause of Death	ICD-10 Codes
Alcohol-related deaths	E24.4, F10, G31.2, G62.1, G72.1, I42.6, K29.2, K70, K86.0, R78.0, X45, X65, Y15
Breast cancer (females)	C50
Cervical cancer	C53
Colon-rectal-cancer	C18-C21
Drug-related deaths	D52.1, D59.0, D59.2, D61.1, D64.2, E06.4, E16.0, E23.1, E24.2, E27.3, E66.1, F11-F11.5, F11.7-F11.9, F12-F12.5, F12.7-F12.9, F13-F13.5, F13.7-F13.9, F14-F14.5, F14.7-F14.9, F15-F15.5, F15.7-F15.9, F16-F16.5, F16.7-F16.9, F17.0, F17.3-F17.5, F17.7-F17.9, F18-F18.5, F18.7-F18.9, F19-F19.5, F19.7-F19.9, G21.1, G24.0, G25.1, G25.4, G25.6, G44.4, G62.0, G72.0, I95.2, J70.2-J70.4, L10.5, L27.0-L27.1, M10.2, M32.0, M80.4, M81.4, M83.5, M87.1, R78.1-R78.5, X40-X44, X60-X64, X85, Y10-Y14
Gastrointestinal disease deaths	A03-A03.3, A03.8-A03.9, A04, A06.1-A06.2, A06.4-A06.9, A07.0-A07.3, A07.8-A07.9, A08-A08.3, A08.5, A09, K29-K29.1, K50.0-K50.1, K50.8-K50.9, K51.0-K51.4, K51.8-K51.9, K52.0-K52.1, K52.8, K57.1
Human Immunodeficiency Virus (HIV) infection	B20-B24
Firearm deaths	W32-W34, X72-X74, X93-X95, Y22-Y24, Y35.0, U01.4
Poisoning	U01.6-U01.7, X40-X49, X60-X69, X85-X90, Y10-Y19, Y35.2
Other injuries	Y10-Y21, Y25-Y34, Y36, Y87.2, Y89.1, Y89.9
Lung cancer	C33-C34
Maternal death	A34, O00-O95, O98-O99
Prostate cancer	C61

LIST OF ICD-9-CM CODES USED IN PATIENT CARE CHARTS AND TABLES

Condition	ICD-9-CM Codes
Infectious and parasitic diseases	001-139
Neoplasms	140-239
Endocrine, nutritional, and metabolic diseases and immunity disorders	240-279
Diseases of the blood and blood-forming organs	280-289
Mental disorders	290-319
Diseases of the nervous system and sense organs	320-389
Diseases of the circulatory system	390-459
Diseases of the respiratory system	460-519
Diseases of the digestive system	520-579
Diseases of the genitourinary system	580-629
Complications of pregnancy, childbirth, and the puerperium	630-677
Diseases of the skin and subcutaneous tissue	680-709
Diseases of the musculoskeletal system and connective tissue	710-739
Congenital anomalies	740-759
Certain conditions originating in the perinatal period	760-779
Symptoms, signs, and ill-defined conditions	780-799
Injury and poisoning	800-999
Supplementary classification (classification of factors influencing health status and contact with health service)	V01-V85

METHODS USED TO RANK LEADING SITES OF CANCER DEATHS

Site of Cancer Death	ICD-10 Codes
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues	C00-C97
Malignant neoplasms of lip, oral cavity, and pharynx	C00-C14
Malignant neoplasms of esophagus	C15
Malignant neoplasms of stomach	C16
Malignant neoplasms of colon, rectum and anus	C18-C21
Malignant neoplasms of liver /intrahepatic bile ducts	C22.0, C22.2-C22.4, C22.7, C22.9
Malignant neoplasms of gallbladder	C23
Malignant neoplasms of pancreas	C25
Malignant neoplasms of larynx	C32
Malignant neoplasms of lung and bronchus	C33-C34
Malignant neoplasms of bones and joints	C40-C41
Malignant neoplasms of skin	C43
Malignant mesothelioma**	C45
Malignant kaposi sarcoma**	C46
Malignant neoplasms of soft tissue including heart**	C47, C49, C38.0, C45.2
Malignant neoplasms of breast	C50
Malignant neoplasms of vulva	C51
Malignant neoplasms of cervix uteri	C53
Malignant neoplasms of corpus uteri and uterus, part unspecified	C54, C55
Malignant neoplasms of ovary	C56
Malignant neoplasms of prostate	C61
Malignant neoplasms of testis	C62
Malignant neoplasms of kidney and renal pelvis	C64-C65
Malignant neoplasms of urinary bladder	C67
Malignant neoplasms eye and orbit	C69
Malignant neoplasms of meninges, brain and other parts of central nervous system	C70-C72
Malignant neoplasms of thyroid	C73

Site of Cancer Death	ICD-10 Codes
Malignant neoplasms of lymphoid, hematopoietic, and related tissue	C81-C96
Hodgkin lymphoma	C81
Non-Hodgkin lymphoma	C82-C85, C96.3
Multiple myeloma	C90.0, C90.2
Leukemia	C90.1, C91-C95
Lymphocytic leukemia	C91
Acute lymphocytic leukemia	C91.0
Chronic lymphocytic leukemia	C91.1
Myeloid and monocytic leukemia	C92-C93
Acute myeloid leukemia	C92.0, C92.4-C92.5, C94.0, C94.2
Acute monocytic leukemia	C93.0
Chronic myeloic leukemia	C92.1
All other and unspecified malignant neoplasms	C17, C24, C26-C31, C36-C39, C44, C48, C52, C57-C60, C63, C66, C68, C74-C80, C97

**These variables can be created with or without Mesothelioma (C45) and Kaposi Sarcoma (C46) as separated groupings. The list above documents both possibilities. Note that this is only possible with ICD10.



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