

INDIAN HEALTH FOCUS: INJURIES

2015 EDITION

U.S. Department of Health and Human Services
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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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2015 EDITION**

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PREFACE

During the 60 years that the Indian Health Service (IHS) has collected health and injury statistics, unintentional injuries have posed a significant challenge for American Indian and Alaska Native (AI/AN) communities. Despite improvements in health status over the decades, among American Indians and Alaska Natives between the ages of 1 to 44 years old, injury remains the leading cause of death. Compared to the U.S. All Races population, AI/AN people continue to have disproportionately higher rates of unintentional injury and injury related mortality.

Working in partnership with Tribes and key stakeholders, the reliable and locally generated injury data has been vital to identifying health disparities, patterns of injury, and trends within this population. This in turn, has bolstered our ability to leverage Agency resources and best practices to develop injury prevention and public health interventions that meet specific community needs.

“Indian Health Focus: Injuries” catalogues AI/AN-specific injury data to assess and evaluate program effectiveness. It also furthers the development of health policy and strategies to reduce or minimize the impact of injuries in our communities.

I encourage you to review and widely share this edition of “Indian Health Focus: Injuries” and look forward to working with you to ensure continued improvement in the health and well being of American Indians and Alaska Natives.

Mary Smith

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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 publications, *Trends in Indian Health and Regional Differences 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 from two major IHS publications: *Trends in Indian Health and Regional Differences in Indian Health*.

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 2008, 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 44 percent of the years of potential life lost (YPLL) before age 65 for AI/AN populations. Factors contributing 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, lack of tribal traffic safety legislation, limited law enforcement and a greater number of alcohol related motor vehicle crashes. Tribes can address the injury problem through action planning, such as a Tribal injury prevention or highway safety plan. A comprehensive Injury Prevention action plan can provide a systematic approach to apply multi-factored intervention solutions to the injury problem.

The Indian Health Service (IHS), Injury Prevention Program is the lead IHS program to address the injury disparities on AI/AN communities. The IHS Injury Prevention Program top priorities include motor vehicle and unintentional elder fall prevention. The IHS Injury Prevention Program's approach is based on the same public health principles that have been applied to effectively control infectious diseases. The implementation of evidence-based injury prevention strategies to include policy development through a multidisciplinary approach to identify factors amenable to change are most effective. The IHS Injury Prevention Program supports community-specific solutions to the injury epidemic 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 58 percent of all AI/AN people (alone) residing in the U.S. It is estimated to be approximately 2.1 million in 2014 compared to 3.7 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 third for AI/AN males and third 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 fifth for 55 to 64 years.

The AI/AN age-adjusted unintentional injury death rate for AI/AN has decreased over 58 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 2007-09 the AI/AN rate (94.5) is 141 percent greater than the 2008 U.S. all races rate (39.2) and 128 percent greater than the U.S. white rate (41.4). The Billings and Navajo Areas each have a rate that exceeds 120.0. This rate is over two times higher than the lowest Area rate (Nashville, 53.5), and 3.1 times the U.S. all races rate (39.2). Excluding the elder population (75 years and older), the highest AI/AN male rate (173.6) occurs in the 35 to 44 year age group. The AI/AN female peak is in turn 1.1 times the comparable peak for the U.S. all races female population (84.9 for 75 to 84 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 2007-09 (18.5) is 16 percent greater than that low. It is also 59 percent higher than the 2008 U.S. all races rate (11.6) and 43 percent greater than the 2008 U.S. white rate (12.9). The rate is the highest in Alaska among the IHS Areas. The Alaska rate (37.3) is 37 percent greater than the next highest Area rate (Billings and Great Plains, 27.2) and 5.3 times the lowest Area rate (Nashville, 7.1). The highest AI/AN male suicide death rates (58.7) occur in the 15 to 24 year age group. The peak rate (20.2) 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 (43.4) and 75 to 84 years (33.6). For U.S. all races females, the highest rates occur in the 35 to 54 year age groups (7.5 to 9.1). 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 142 percent since 1972-74. The 2007-09 AI/AN rate (11.0) is 86 percent greater than the 2008 U.S. all races rate (5.9), but 197 percent greater than the 2008 U.S. white rate (3.7). The Tucson (26.7), Billings (17.6), Albuquerque (13.4), Navajo (13.4), and Oklahoma (12.1) Area rates are more than double the U.S. all races rate (5.9). The lowest IHS Area rate occurs in Nashville (6.2). The highest AI/AN male homicide death rate (34.9) occurred in the age group for 25 to 34 years whereas for the U.S. all races males the highest rate (20.6) for ages 15 to 24 years. However, for AI/AN females and U.S. all races females, the highest rate occurs in the under 1 year age group (19.1 and 7.5, 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 120 percent since 1979-81. U.S. all races and white rates have decreased since 1980 (44 and 38 percent, respectively). The 2007-09 AI/AN rate (11.9) is 16 percent greater than the 2008 U.S. all races rate (10.3) and 29 percent greater than the 2008 U.S. white rate (9.2). The AI/AN

age-adjusted firearm injury death rate varies considerably among the IHS Areas. The highest Area rate (Alaska, 25.6) is 4.1 times the lowest Area rate (Nashville with a rate of 6.3); U.S. all races rate (10.3) is 1.6 times the lowest Area rate. The AI/AN male firearm injury death rate is highest for the 15 to 24 year age group (41.1). This is six times the peak for AI/AN females (6.8) which occurs in age group 25 to 34 years. For U.S. all races male, the highest rate (35.5) is for age group 85 and older; it is 2.6 times higher than the AI/AN male rate for the same age group. The highest U.S. all races female rate (4.0) occurs in age group 35 to 44 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. The AI/AN age-adjusted rate 49.6 for years 2007-09 is 6.2 times the U.S. all races rate (8.0) and 5.9 times the U.S. white rate (8.6). Between 1979-81 and 1985-87, the AI/AN rate decreased 49 percent. Since then, alcohol-related death rates have increased 24 percent. The Billings Area age-adjusted alcoholism death rate (75.1) is 9.4 times the U.S. all races rate (8.0). It is 1.9 percent greater than the second highest IHS Area rate (Great Plains, 73.7). The lowest IHS Area rate occurs in Nashville (14.5), but this is still 1.8 times the U.S. all races rate. The highest AI/AN male alcohol-related death rate (147.7) occurs in the 45 to 54 year age group. This is 4.4 times the U.S. all races male peak (33.6 for 55 to 64 years). The AI/AN female high rate (79.9 for 45 to 54 years) is 46 percent less than the AI/AN male peak, but it is 8.2 times the U.S. all races female peak (9.7 for 45 to 54 years). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

In FY 2013, injury and poisoning is the ninth leading cause of ambulatory medical visits for AI/AN male patients (all ages). It is the fifth leading cause of ambulatory medical visits for AI/AN patients 15 to 24 years of age.

Injury and poisoning is the fifth leading cause of hospitalization for AI/AN patients (all ages). It is the fourth leading cause of hospitalization for AI/AN male patients (all ages) and seventh 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 except 65 years and older. It is second leading cause of hospitalization for AI/AN patients, 45 to 54 years, and is third for 5 to 14 years, and 25 to 44 years, fourth for 15 to 24 years, and fifth for 1 to 4 years and 55 to 64 years. However, the number of discharges for injury and poisoning from IHS and Tribal direct and contract hospitals has declined. In FY 2013, the number of such discharges was 17 percent less than in FY 2010.

During FY 2013, under Purchased/Referred Care Medical Expense, the claim count was 453,166 for all types of services of which 286,924 (63.3 percent) were from physicians. \$419.9 million in claims were paid for all types of services. The average cost of a Purchased/Referred Care inpatient case for injuries was \$8,320 and for an outpatient case was \$754. Inpatient claim payments were 11 times higher than outpatient claim payments in this fiscal year.

The number of Purchased/Referred Care Expenses in FY 2013 related to injuries and poisonings claims from physicians was 33,255, 12,788 outpatient claims and 2,479 inpatient claims were processed in that fiscal year. Outpatient claims outnumbered inpatient claims by a ratio of 5.2 to 1. The total amount paid for Purchased/Referred Care inpatient cases of injuries and poisonings was \$31 million and for outpatient cases was \$10 million. The amount paid for inpatient claims exceeded outpatient by nearly three times. The average cost of a Purchased/Referred Care inpatient case for injuries and poisonings was \$12,531 and for an outpatient one was \$816. The cost of an average inpatient injury and poisoning case exceeded an outpatient one by 15.4 times.

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^{1,3,4,5}, 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. NCHS does perform numerous edit checks, applies verification methods, and imputes values for non-responses.^{1,2}

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.³ 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.¹

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 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.³ 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 2009. 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.

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; K85.2, Alcohol induced acute pancreatitis; 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 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 non-autoimmune 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; E24.2, 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, F11.0-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; K85.3, Drug-induced acute pancreatitis; 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; R50.2, Drug-induced fever; 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 other drugs of addictive potential in blood; R78.5, 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. 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 (DPS). This effort began in December 2003 with files that contained initial loads of historical data going back to 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 DPS, 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.

References

- ¹ IHS, Division of Program Statistics. *Adjusting for Miscoding of Indian Race on State Death Certificates*. November 1996.
- ² Mattews TJ, MacDorman MF. *Infant mortality statistics from the 2008 period linked birth/infant death dataset*. National vital statistics reports; vol 60 no 5. Hyattsville, MD: National Center for Health Statistics, 2012.
- ³ Minino AM, Murphy SL, Xu Jq, Kochaek KD. *Deaths: Final data for 2008*. National vital statistics reports; vol 59 no 10. Hyattsville, MD: National Center for Health Statistics, 2011
- ⁴ Martin JA, Hamilton BE, Sutton PD, et al. *Births: Final data for 2008*. National vital statistics reports; vol 59 no 1. Hyattsville, MD: National Center for Health Statistics. 2010.
- ⁵ Anderson RN, Rosenberg, HM. *Age Standardization of Death Rates: Implementation of the Year 2000 Standard*; National Vital Statistics Reports, vol 47 no 3. Hyattsville, Maryland: National Center for Health Statistics. 1998

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

Kirk Greenway, Principal Statistician and Director, Division of Program Statistics
Priscilla Sandoval, Program Analyst
Jennifer Joseph, Staff Assistant

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

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AI/AN infants die from unintentional injuries at a rate that is 2.0 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.

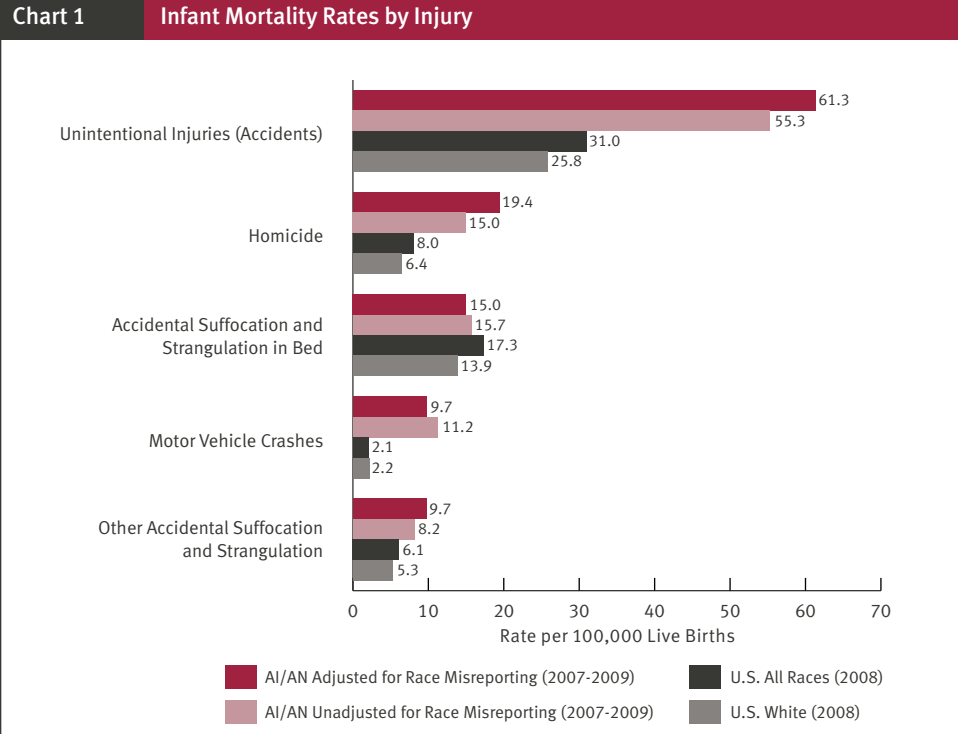


Table 1 Infant Mortality Rates by Injury

American Indians and Alaska Natives, IHS Service Area, 2007-2009, and U.S. All Races and White Populations, 2008 (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	Rate	Rate		
Unintentional Injuries (Accidents)	74	82	55.3	61.3	31.0	25.8	2.0	2.4
Homicide	20	26	15.0	19.4	8.0	6.4	2.4	3.0
Neglect, abandonment and other maltreatment syndromes	*	*	5.2	5.2	2.3	1.7	2.3	3.1
Assault by hanging, strangulation, suffocation	*	*	2.2	2.2	0.8	0.7	2.8	3.1
Assault by discharge of firearms	-	*	0.0	0.7	0.0	0.0	**	**
Assault by other and unspecified means	11	16	8.2	12.0	4.7	3.9	2.6	3.1
Accidental suffocation and strangulation in bed	21 ³	20 ³	15.7 ³	15.0 ³	17.3	13.9	0.9	1.1
Motor vehicle crashes	15 ³	13 ³	11.2 ³	9.7 ³	2.1	2.2	4.6	4.4
Other accidental suffocation and strangulation	11	13	8.2	9.7	6.1	5.3	1.6	1.8
Accidental drowning and submersion	*	*	2.2	3.0	1.0	0.9	3.0	3.3
Complications medical/surgical care	*	*	1.5 ³	2.2 ³	0.6	0.0	3.7	**
Accidental inhalation and ingestion of food or other objects causing obstruction of respiratory tract	*	*	1.5	2.2	1.5	1.2	1.5	1.8
Accidents caused by exposure to smoke, fire, flames	-	-	0.0	0.0	0.5	0.0	0.0	**
Falls	-	-	0.0	0.0	0.0	0.0	**	**
Other external causes and their sequelae	-	-	0.0	0.0	1.6	1.4	0.0	0.0

0.0 Quantity more than zero but less than 0.05.

- Quantity zero.

* Represents number of deaths less than ten deaths.

** Figure does not meet standards of reliability or precision.

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

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

³ The 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 (2007-2009).

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

Unintentional injuries is the fourth leading cause of infant deaths among AI/AN. AI/AN infant die from unintentional injuries two times that of the U.S. all races population. 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)

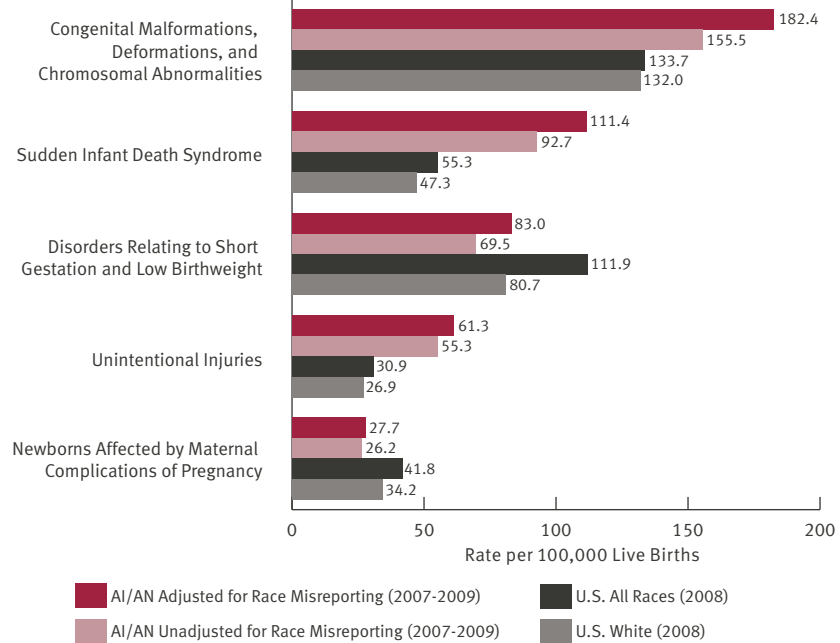


Table 2 Leading Causes of Infant Deaths (Births to Under 1 Year)

American Indians and Alaska Natives, IHS Service Area, 2007-2009, and U.S. All Races and White Populations, 2008 (Rate per 100,000 Live Births)

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	Unadjusted	Adjusted ¹				
Total Infant Deaths								
All Causes	967	1,112	723.0	831.4	600.6	554.8	1.4	1.5
Congenital malformations, deformations, and chromosomal abnormalities	208	244	155.5	182.4	133.7	132.0	1.4	1.4
Sudden infant death syndrome	124	149	92.7	111.4	55.3	47.3	2.0	2.4
Disorders relating to short gestation and low birthweight	93	111	69.5	83.0	111.9	80.7	0.7	1.0
Unintentional injuries	74	82	55.3	61.3	30.9	26.9	2.0	2.3
Newborns affected by maternal complications of pregnancy	35	37	26.2	27.7	41.8	34.2	0.7	0.8
Newborns affected by complications of placenta, cord, and membranes	31	31	23.2	23.2	25.1	21.2	0.9	1.1
Disease of the circulatory system	26	29	19.4	21.7	14.0	11.5	1.6	1.9
Bacteria sepsis of newborn	26	27	19.4	20.2	16.5	13.4	1.2	1.5
Homicide	20	26	14.9	19.4	7.8	6.3	2.5	3.1
Necrotizing enterocolitis of newborn	20	24	14.9	17.9	8.9	9.6	2.0	1.9
Pneumonia and influenza	24	22	17.9	16.4	5.5	4.7	3.0	3.5
Diseases of the digestive system	17	22	12.7	16.4	8.3	5.7	2.0	2.9
All other causes	269	308						

¹ Adjusted – 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: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>

The leading cause of death (2007-2009) for AI/AN children ages 1 to 4 is unintentional injuries. This holds true for U.S. all races and white (2008) populations. Forty-seven (47) percent of all AI/AN deaths for this age-group are caused by unintentional injuries. Homicide is the second leading cause of death for AI/ANs in the Indian Health Service. These AI/AN rate 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

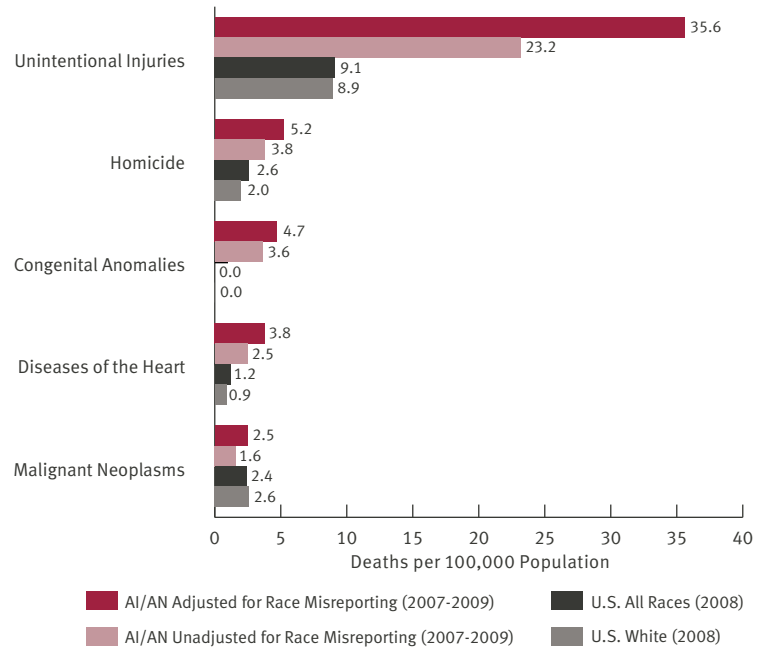


Table 3 Ten Leading Causes of Death for Decedents 1 to 4 Years of Age

American Indians and Alaska Natives, IHS Service Area, 2007-2009, and U.S. All Races and White Populations, 2008 (Rate per 100,000 Population)

Cause of Death	American Indian and Alaska Native				U.S. All Races Rate	U.S. White Rate	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	234	337	52.7	75.9	29.3	27.2	2.6	2.8
Unintentional injuries	103	158	23.2	35.6	9.1	8.9	3.9	4.0
Motor vehicle	49	72	11.0	16.2	2.6	2.5	6.2	6.5
Other unintentional injuries	54	86	12.2	19.4	6.5	6.4	3.0	3.0
Homicide	17	23	3.8	5.2	2.6	2.0	2.0	2.6
Congenital abnormalities	16	21	3.6	4.7	0.0	0.0	*	*
Diseases of the heart	11	17	2.5	3.8	1.2	0.9	3.2	4.2
Malignant neoplasms	7	11	1.6	2.5	2.4	2.6	1.0	1.0
Pneumonia and influenza	6	7	1.4	1.6	0.9	0.7	1.8	2.3
Cerebrovascular	2	3	0.5	0.7	0.4	0.4	1.8	1.8
Meningococcal infections	2	3	0.5	0.7	0.0	0.0	*	*
Conditions originating in prenatal period	2	2	0.5	0.5	0.3	0.3	1.7	1.7
Chronic lower respiratory diseases	2	2	0.5	0.5	0.3	0.3	1.7	1.7
All other causes	66	90						

* Figure does not meet standard of reliability or precision.

0.0 Quantity more than zero but less than 0.05.

¹ Adjusted – 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: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>

The two leading causes of AI/AN deaths (2007-2009) for ages 5 to 14 years were unintentional injuries and suicide. For the U.S. all races and white populations (2008) 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.

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

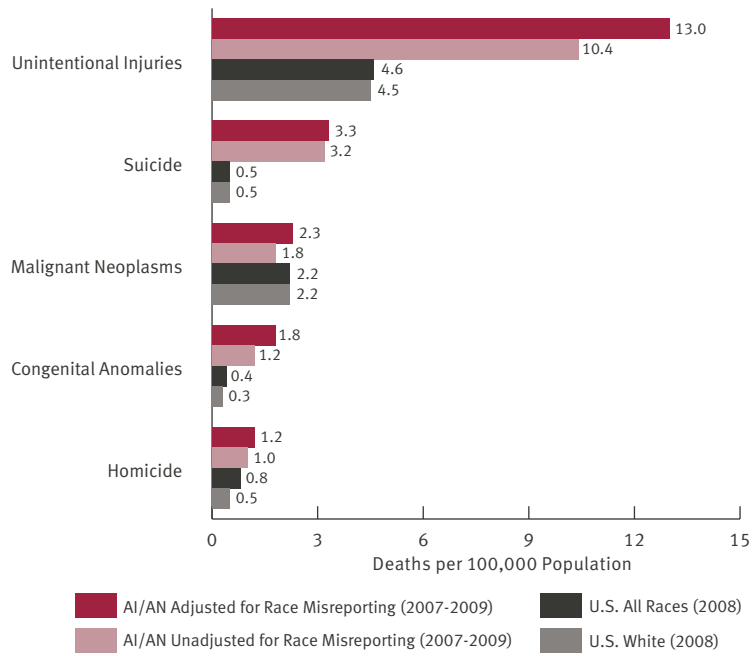


Table 4 Ten Leading Causes of Death for Decedents 5 to 14 Years of Age

American Indians and Alaska Natives, IHS Service Area, 2007-2009, and U.S. All Races and White Populations, 2008 (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		Rate	Rate	U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹				
All Causes	261	324	26.4	32.8	13.9	13.0	2.4	2.5
Unintentional injuries	103	129	10.4	13.0	4.6	4.5	2.8	2.9
Motor vehicle	58	76	5.9	7.7	2.5	2.6	3.1	3.0
Other unintentional injuries	45	53	4.5	5.3	2.1	1.9	2.5	2.8
Suicide	32	33	3.2	3.3	0.5	0.5	6.6	6.6
Malignant neoplasms	18	23	1.8	2.3	2.2	2.2	1.0	1.0
Congenital anomalies	12	18	1.2	1.8	0.4	0.3	4.5	6.0
Homicide	10	12	1.0	1.2	0.8	0.5	1.5	2.4
Septicemia	8	9	0.8	0.9	0.2	0.1	4.5	9.0
Pneumonia and influenza	7	9	0.7	0.9	0.2	0.2	4.5	4.5
Diseases of the heart	6	8	0.6	0.8	0.6	0.5	1.3	1.6
Chronic lower respiratory disease	3	3	0.3	0.3	0.3	0.1	1.0	3.0
Aortic aneurysm and dissection	3	3	0.3	0.3	0.1	0.1	3.0	3.0
All other causes	59	77	5.7	6.6				

¹ Adjusted – 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: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>

The leading cause of death of AI/AN deaths (2007-2009) for 15-24 years of age and for U.S. all races and whites (2008) is unintentional injuries. Over 52 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.

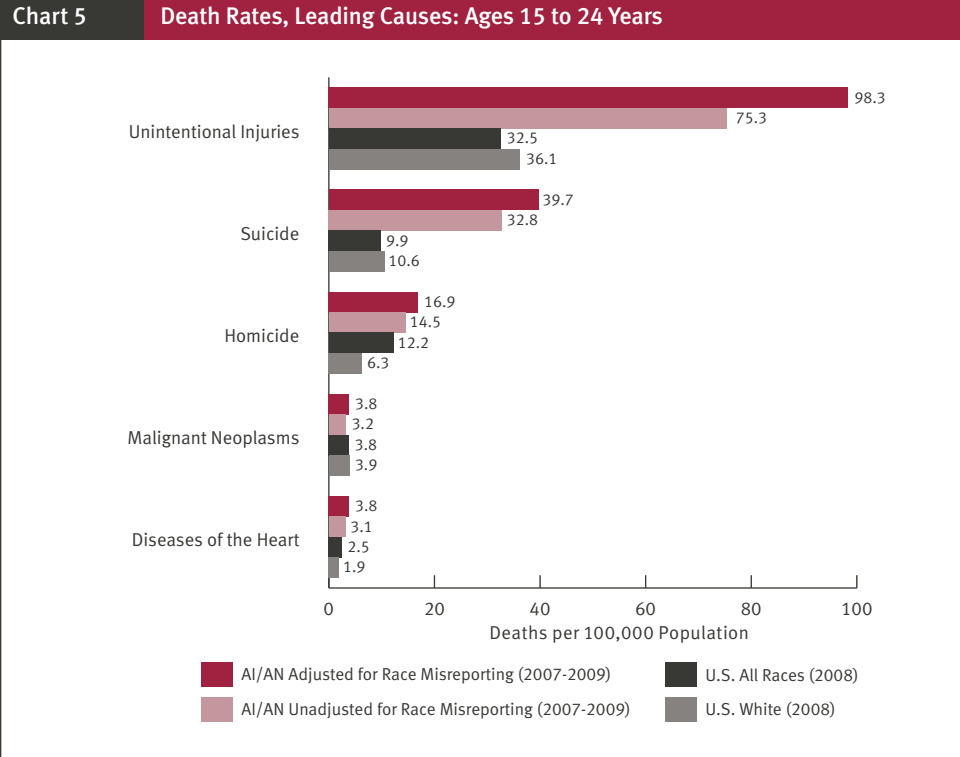


Table 5 Ten Leading Causes of Death for Decedents 15 to 24 Years of Age

American Indians and Alaska Natives, IHS Service Area, 2007-2009, and U.S. All Races and White Populations, 2008 (Rate per 100,000 Population)

Cause of Death	American Indian and Alaska Native				U.S. All Races Rate	U.S. White Rate	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	1,599	2,013	150.0	188.9	74.2	71.0	2.5	2.7
Unintentional injuries	802	1,047	75.3	98.3	32.5	36.1	3.0	2.7
Motor vehicle	538	723	50.5	67.9	20.6	22.4	3.3	3.0
Other unintentional injuries	264	324	24.8	30.4	11.9	13.7	2.6	2.2
Suicide	350	423	32.8	39.7	9.9	10.6	4.0	3.7
Homicide	154	180	14.5	16.9	12.2	6.3	1.4	2.7
Malignant neoplasms	34	41	3.2	3.8	3.8	3.9	1.0	1.0
Diseases of the heart	33	41	3.1	3.8	2.5	1.9	1.5	2.0
Congenital anomalies	20	25	1.9	2.3	0.4	0.3	5.8	7.7
Pneumonia and influenza	11	16	1.0	1.5	0.5	0.5	3.0	3.0
Chronic liver disease and cirrhosis	8	10	0.8	0.9	0.1	0.1	9.0	9.0
Cerebrovascular	5	8	0.5	0.7	0.4	0.4	1.8	1.8
Pregnancy childbirth puerperium	6	6	0.6	0.6	0.4	0.3	1.5	2.0
All other causes	176	215						

¹ Adjusted – 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: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>

Unintentional injuries are the leading cause of death for persons ages 25-44 in the AI/AN population (2007-2009) as well as the U.S. all races and white populations (2008). Approximately one-third of all AI/AN deaths in this age group are caused by unintentional injuries, whereas, suicide and homicide are the fourth 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.

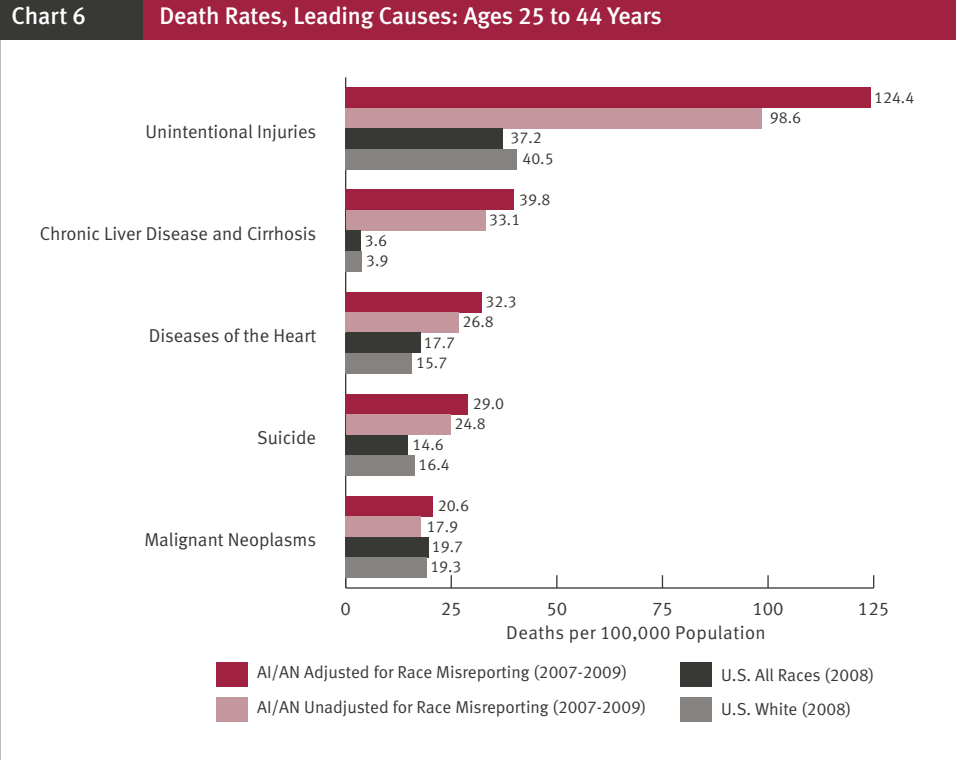


Table 6 Ten Leading Causes of Death for Decedents 25 to 44 Years of Age

American Indians and Alaska Natives, IHS Service Area, 2007-2009, and U.S. All Races and White Populations, 2008 (Rate per 100,000 Population)

Cause of Death	American Indian and Alaska Native				U.S. All Races Rate	U.S. White Rate	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	4,763	5,768	308.0	373.0	144.0	137.7	2.6	2.7
Unintentional injuries	1,525	1,924	98.6	124.4	37.2	40.5	3.3	3.1
Motor vehicle	695	880	44.9	56.9	14.8	15.4	3.8	3.7
Other unintentional injuries	830	1,044	53.7	67.5	22.4	25.1	3.0	2.7
Chronic liver disease and cirrhosis	512	615	33.1	39.8	3.6	3.9	11.1	10.2
Diseases of the heart	415	499	26.8	32.3	17.7	15.7	1.8	2.1
Suicide	384	448	24.8	29.0	14.6	16.4	2.0	1.8
Malignant neoplasms	275	318	17.9	20.6	19.7	19.3	1.0	1.1
Homicide	258	302	16.7	19.5	9.1	5.5	2.1	3.5
Diabetes mellitus	136	173	8.8	11.2	2.9	2.5	3.9	4.5
Pneumonia and influenza	85	97	5.5	6.3	1.5	1.4	4.2	4.5
Septicemia	62	68	4.0	4.4	1.5	1.3	2.9	3.4
HIV	61	68	3.9	4.4	4.6	2.4	1.0	1.8
All other causes	1,050	1,256						

¹ Adjusted – 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: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>

Unintentional injuries are the third leading cause of AI/AN deaths for years 2007-2009 and for the U.S. all races and U.S. white populations for 2008. Unintentional injuries for AI/AN rate (114.0) is 2.5 times that of the U.S. all races rate (45.8). 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.

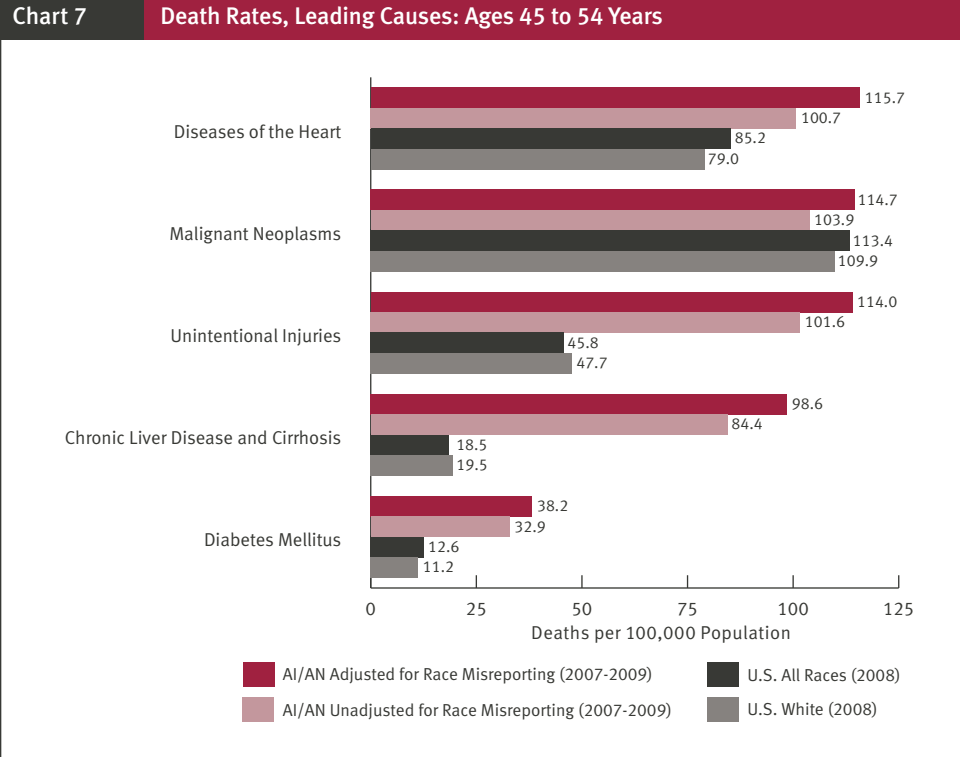


Table 7 Ten Leading Causes of Death for Decedents 45 to 54 Years of Age

American Indians and Alaska Natives, IHS Service Area, 2007-2009, and U.S. All Races and White Populations, 2008 (Rate per 100,000 Population)

Cause of Death	American Indian and Alaska Native				U.S. All Races Rate	U.S. White Rate	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	4,625	5,225	661.6	747.4	419.6	399.8	1.8	1.9
Diseases of the heart	704	809	100.7	115.7	85.2	79.0	1.4	1.5
Malignant neoplasms	726	802	103.9	114.7	113.4	109.9	1.0	1.0
Unintentional injuries	710	797	101.6	114.0	45.8	47.7	2.5	2.4
Motor vehicle	231	258	33.0	36.9	13.7	14.0	2.7	2.6
Other unintentional injuries	479	539	68.6	77.1	32.1	33.7	2.4	2.3
Chronic liver disease and cirrhosis	590	689	84.4	98.6	18.5	19.5	5.3	5.1
Diabetes mellitus	230	267	32.9	38.2	12.6	11.2	3.0	3.4
Cerebrovascular diseases	122	139	17.5	19.9	13.7	10.7	1.5	1.9
Suicide	111	115	15.9	16.5	18.6	21.4	0.9	0.8
Septicemia	98	109	14.0	15.6	5.7	4.8	2.7	3.3
Vital hepatitis	88	106	12.6	15.2	6.1	6.3	2.5	2.4
Pneumonia and influenza	97	105	13.9	15.0	5.1	4.7	2.9	3.2
All other causes	1,149	1,287						

¹ Adjusted – 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: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>

Unintentional injuries are the fifth leading cause of death for persons 55-64 years of age in the AI/AN population. Unintentional injuries for AI/AN rate (77.6) is 2.1 times that of the U.S. all races rate (37.4). Unintentional injuries is the fourth leading cause of death among U.S. all races and the U.S. white populations. The AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

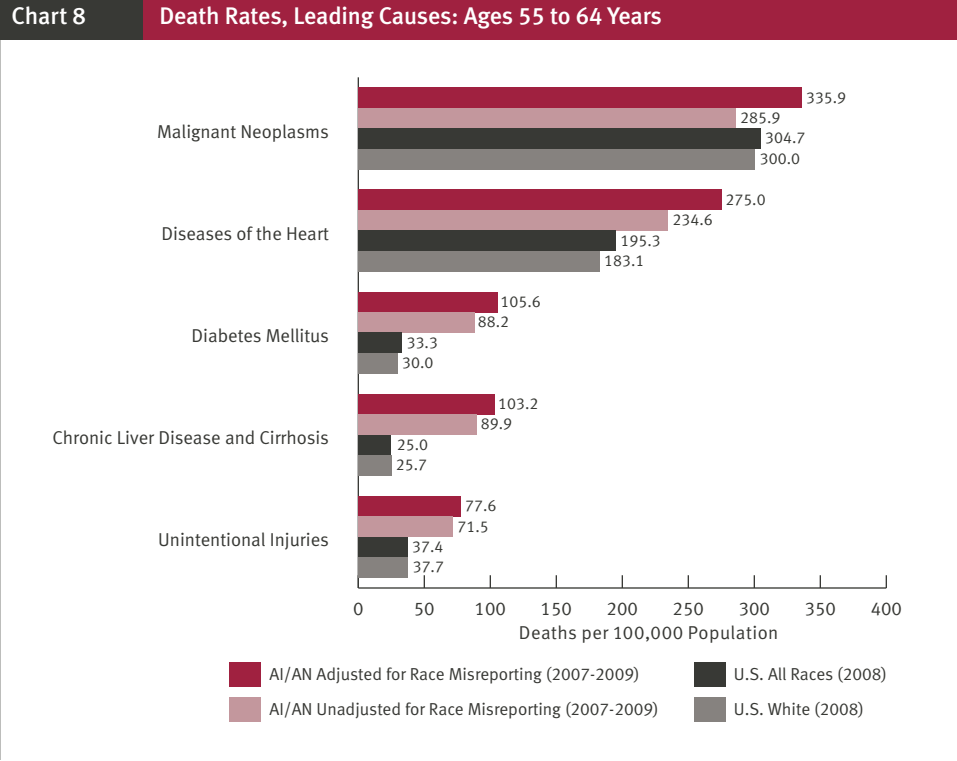


Table 8 Ten Leading Causes of Death for Decedents 55 to 64 Years of Age

American Indians and Alaska Natives, IHS Service Area, 2007-2009, and U.S. All Races and White Populations, 2008 (Rate per 100,000 Population)

Cause of Death	American Indian and Alaska Native				U.S. All Races Rate	U.S. White Rate	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	5,332	6,170	1,158.3	1,340.4	867.1	833.5	1.5	1.6
Malignant neoplasms	1,316	1,546	285.9	335.9	304.7	300.0	1.1	1.1
Diseases of the heart	1,080	1,266	234.6	275.0	195.3	183.1	1.4	1.5
Diabetes mellitus	406	486	88.2	105.6	33.3	30.0	3.2	3.5
Chronic liver disease and cirrhosis	414	475	89.9	103.2	25.0	25.7	4.1	4.0
Unintentional injuries	329	357	71.5	77.6	37.4	37.7	2.1	2.1
Motor vehicle	113	121	24.5	26.3	12.7	13.0	2.1	2.0
Other unintentional injuries	216	236	47.0	51.3	24.7	24.7	2.1	2.1
Chronic lower respiratory diseases	204	241	44.3	52.4	41.1	43.5	1.3	1.2
Cerebrovascular diseases	170	201	36.9	43.7	30.6	25.8	1.4	1.7
Nephritis, nephrotic syndrome, and nephrosis	128	146	27.8	31.7	14.1	10.9	2.2	2.9
Pneumonia and influenza	104	113	22.6	24.5	10.9	10.1	2.2	2.4
Septicemia	91	98	19.8	21.3	13.3	11.7	1.6	1.8
All other causes	1,093	1,241						

¹ Adjusted – 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: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>

Unintentional injuries are the third leading cause of death for all ages for the AI/AN population. The AI/AN unintentional injury death rate (87.4) is 4.6 times higher than the suicide death rate (19.2) for the three year period of 2007-2009. The AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

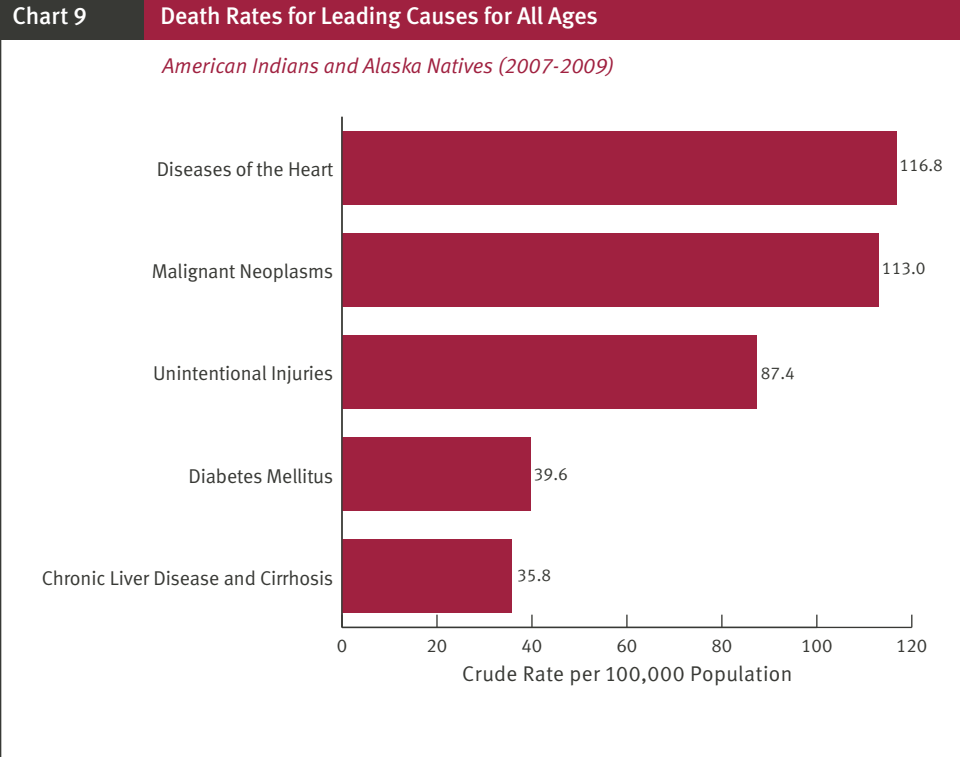


Table 9 Ten Leading Causes of Death for Decedents of All Ages
American Indians and Alaska Natives, IHS Service Area, 2007-2009 (Crude Rate per 100,000 Population)

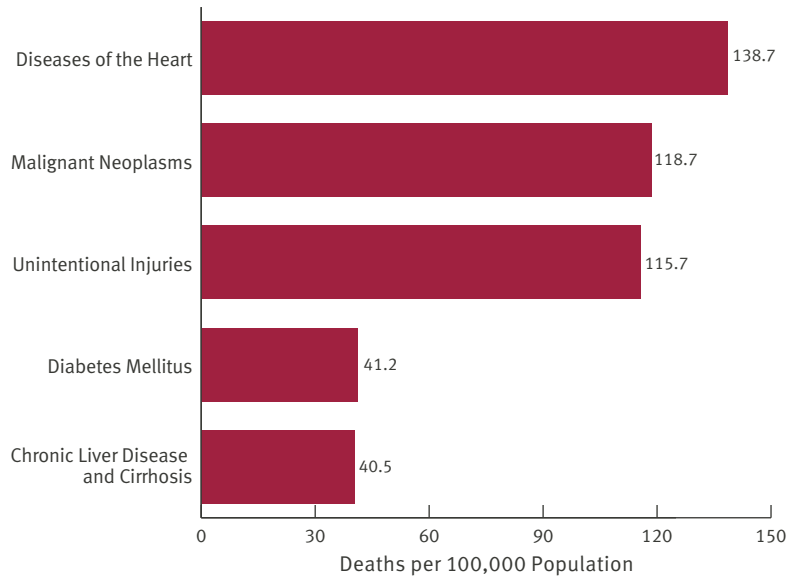
Cause of Death	Number		Rate	
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹
All Causes	32,867	38,170	574.5	667.2
Diseases of the heart	5,729	6,679	100.2	116.8
Malignant neoplasms	5,612	6,464	98.1	113.0
Unintentional injuries	4,128	5,001	72.2	87.4
Motor vehicle	1,809	2,262	31.6	39.5
Other unintentional injuries	2,319	2,739	40.6	47.9
Diabetes mellitus	1,894	2,267	33.1	39.6
Chronic liver disease and cirrhosis	1,764	2,046	30.8	35.8
Chronic lower respiratory diseases	1,250	1,492	22.0	26.1
Cerebrovascular diseases	1,162	1,347	20.3	23.5
Suicide	950	1,096	16.6	19.2
Pneumonia and influenza	805	881	14.1	15.4
Nephritis	700	647	12.4	14.0
All other causes	8,873	10,250		

¹ 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 rate of deaths.

Unintentional injuries are the third leading cause of AI/AN death for males. AI/AN males die from unintentional injuries 3.9 times more than from suicide and 6.5 times more than from deaths caused by homicide. 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 (2007-2009)



Unintentional injuries are the third leading cause of AI/AN female deaths for all ages. Forty-seven 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 (2007-2009)

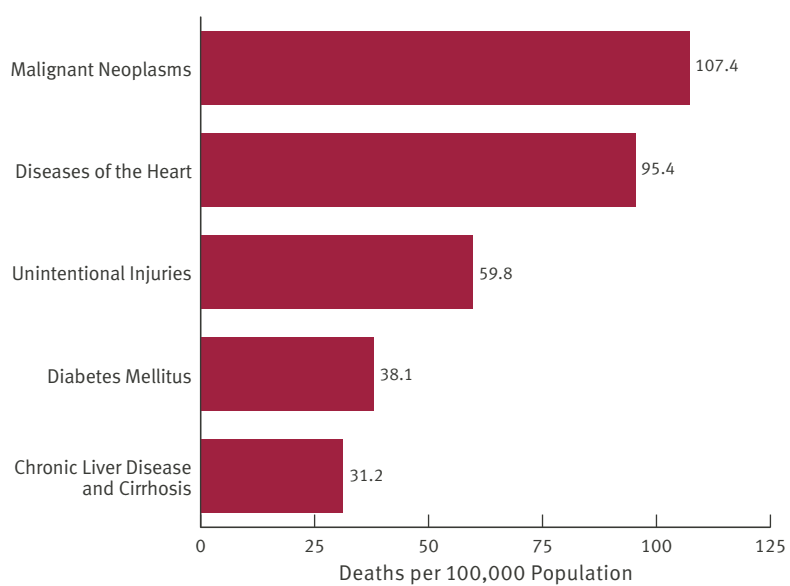


Table 10 **Leading Causes of Death by Sex**

*American Indians and Alaska Natives, IHS Service Area, 2007-2009
(Rate per 100,000 Population)*

Cause of Death	Number		Rate	
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹
MALE				
All Causes	18,084	20,998	640.3	743.5
Diseases of the heart	3,314	3,916	117.3	138.7
Malignant neoplasms	2,898	3,352	102.6	118.7
Unintentional injuries	2,775	3,268	98.3	115.7
Motor vehicle	1,185	1,441	42.0	51.0
Other unintentional injuries	1,590	1,827	56.3	64.7
Diabetes mellitus	969	1,163	34.3	41.2
Chronic liver disease and cirrhosis	988	1,143	35.0	40.5
Suicide	725	829	25.7	29.4
Chronic lower respiratory diseases	615	732	21.8	25.9
Cerebrovascular diseases	531	629	18.8	22.3
Homicide	436	503	15.4	17.8
Pneumonia and influenza	395	438	14.0	15.5
All other causes	4,438	5,025		
FEMALE				
All Causes	14,787	17,173	510.5	592.9
Malignant neoplasms	2,714	3,112	93.7	107.4
Diseases of the heart	2,415	2,763	83.4	95.4
Unintentional injuries	1,353	1,733	46.7	59.8
Motor vehicle	624	821	21.5	28.3
Other unintentional injuries	729	912	26.4	33.1
Diabetes mellitus	925	1,104	31.9	38.1
Chronic liver disease and cirrhosis	776	903	26.8	31.2
Chronic lower respiratory diseases	643	760	22.2	26.2
Cerebrovascular diseases	631	718	21.8	24.8
Nephritis, nephrotic syndrome, and nephrosis	413	466	14.3	16.1
Pneumonia and influenza	410	443	14.2	15.3
Septicemia	317	349	10.9	12.1
All other causes	3,830	4,822		

¹ Adjusted 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 (94.5) is approximately 2.4 times the U.S. all races rate (38.8) and U.S. white rate (40.7). The AI/AN suicide rate (18.5) is over one and half times the U.S. all races rate (11.6) and nearly one and half times the U.S. white rate (12.9). The AI/AN rate (11.0) for homicide is almost two times the U.S. all races rate (5.9) and 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 (2007-2009) to U.S. All Races (2008)

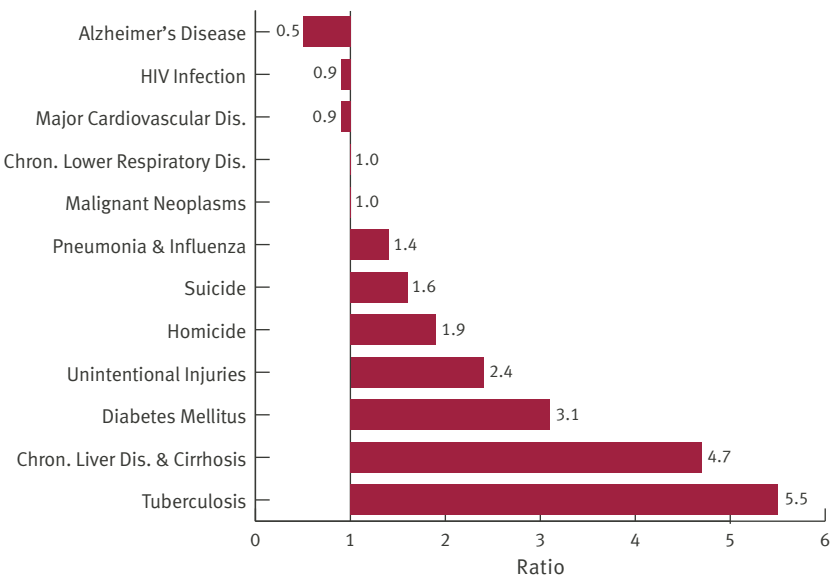


Table 11 Age-Adjusted Death Rates

American Indians and Alaska Natives, IHS Service Area, 2007-2009, and U.S. All Races and White Populations, 2008 (Rate per 100,000 Population)

Cause of Death	American Indian and Alaska Native Rate		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native ¹ to:	
	Unadjusted	Adjusted ¹			U.S. All Races	U.S. White
All Causes	818.0	943.0	774.9	767.2	1.2	1.2
Major cardiovascular diseases	204.1	235.9	250.9	298.9	0.9	0.8
Diseases of the heart	156.9	182.4	192.1	189.3	0.9	1.0
Cerebrovascular diseases	33.8	39.1	42.1	40.4	0.9	1.0
Atherosclerosis	2.0	2.4	2.4	2.5	1.0	1.0
Hypertension	8.1	9.0	10.0	8.6	0.9	1.0
Malignant neoplasms	148.7	170.8	176.4	175.9	1.0	1.0
Unintentional injuries	79.5	94.5	38.8	40.7	2.4	2.3
Motor vehicle	32.0	39.3	12.9	13.3	3.0	3.0
Other unintentional injuries	47.5	55.2	25.9	27.4	2.1	2.0
Diabetes mellitus	51.0	61.0	20.0	20.2	3.1	3.0
Chronic lower respiratory diseases	36.5	43.2	44.7	47.1	1.0	0.9
Chronic liver disease and cirrhosis	37.4	43.1	9.2	9.6	4.7	4.5
Pneumonia and influenza	22.1	24.1	16.9	16.7	1.4	1.4
Suicide	16.2	18.5	11.6	12.9	1.6	1.4
Alzheimer's disease	13.1	11.6	24.4	26.7	0.5	0.4
Homicide	9.6	11.0	5.9	3.7	1.9	3.0
Human immunodeficiency virus (HIV) infection	2.8	3.0	3.3	1.7	0.9	1.8
Tuberculosis, all forms	1.1	1.1	0.2	0.1	5.5	11.0

¹ Adjusted to compensate for misreporting of AI/AN race on state death certificates.
 SOURCE: Rates for U.S. All Races and U.S. White: Centers for Disease Control and Prevention. CDC Wonder. <http://wonder.cdc.gov/>

The AI/AN age-adjusted rate (29.3) due to poisoning for years 2007-2009 is 2.7 times higher than for AI/ANs for years 1972-1974 and is 2.2 times higher for the U.S. all races than for 2008. 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

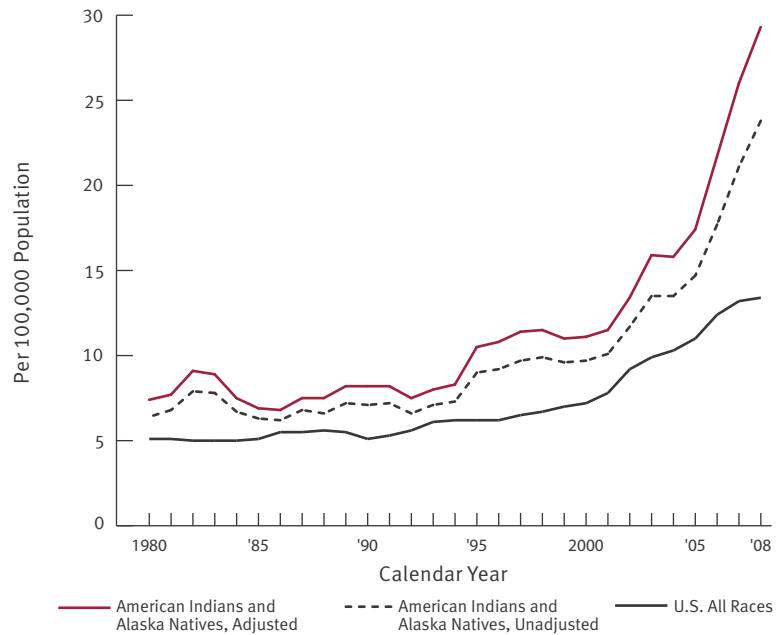


Table 12 Poisoning Deaths and Death Rates

*American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1972-2008
(Age-Adjusted Rate per 100,000 Population)*

Calendar Year(s)	American Indian and Alaska Native				U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native ¹ to:	
	Number		Rate				U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹				
(2009)	466	573						
2007-2009 (2008)	447	550	23.8	29.3	13.4	14.9	2.2	2.0
2006-2008 (2007)	345	436	21.1	26.0	13.2	14.5	2.0	1.8
2005-2007 (2006)	313	384	17.7	21.7	12.4	13.4	1.8	1.6
2004-2006 (2005)	253	309	14.7	17.4	11.0	11.8	1.6	1.5
2003-2005 (2004)	252	304	13.5	15.8	10.3	11.2	1.5	1.4
2002-2004 (2003)	217	252	13.5	15.9	9.9	10.6	1.6	1.5
2001-2003 (2002)	178	210	11.7	13.4	9.2	9.7	1.5	1.4
2000-2002 (2001)	147	166	10.1	11.5	7.8	8.1	1.5	1.4
1999-2001 (2000)	137	154	9.7	11.1	7.2	7.4	1.5	1.5
1998-2000 (1999)	154	185	9.6	11.0	7.0	7.2	1.6	1.5
1997-1999 (1998)	135	154	9.9	11.5	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 (1973)	158	174	9.8	10.9	6.1	6.2	1.8	1.8

¹ Adjusted – 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 (2007-2009) was overall higher than AI/AN females. The AI/AN male rate was higher for all age groups except for males ages under 1 year, 1-4, 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 (2007-2009)

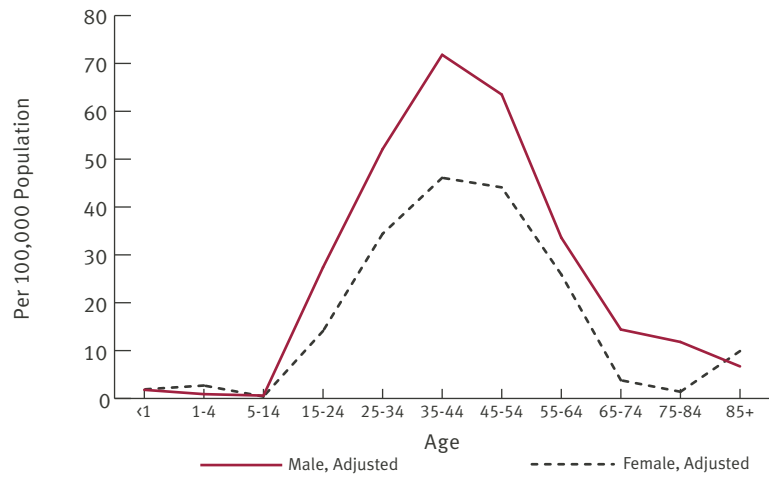


Table 13 Poisoning Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 2007-2009, and U.S. All Races and White Populations, 2008 (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	3.8 ²	1.9 ²	3.7 ²	1.8 ²	3.8 ²	1.9 ²
1-4 years	1.1	1.8	0.4	0.9	1.8	2.7
5-14 years	0.5	0.5	0.6	0.6	0.4	0.4
15-24 years	16.1	20.8	22.8	27.4	9.3	14.1
25-34 years	31.7	43.4	40.4	52.1	22.7	34.4
35-44 years	47.3	58.8	59.1	71.8	35.8	46.1
45-54 years	45.6	53.4	55.4	63.5	36.7	44.1
55-64 years	25.9	29.5	29.9	33.6	22.2	25.9
65-74 years	8.6	8.6	14.4	14.4	3.8	3.8
75-84 years	5.8	5.8	11.8	11.8	1.4	1.4
85 years +	8.9	8.9	6.7	6.7	9.9	9.9

Age Group	U.S. All Races			U.S. White		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Under 1 year	0.0	0.0	0.0	0.0	0.0	0.0
1-4 years	0.2	0.3	0.0	0.2	0.0	0.0
5-14 years	0.2	0.2	0.1	0.1	0.2	0.0
15-24 years	8.1	12.4	3.7	9.8	15.0	4.3
25-34 years	15.7	23.4	8.0	18.5	27.3	9.4
35-44 years	19.0	25.0	13.1	21.3	27.6	14.8
45-54 years	22.7	28.8	16.7	24.1	30.0	18.2
55-64 years	11.4	14.9	8.1	11.2	14.1	8.5
65-74 years	4.2	5.3	3.3	4.1	4.9	3.4
75-84 years	3.4	4.0	2.9	3.4	4.0	3.0
85 years +	4.2	4.3	4.2	4.2	4.3	4.2

0.0 Quantity more than zero but less than 0.05.

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

² The adjusted rate for age less than one year is the **same** or **lower** than the unadjusted rate because the linked birth/infant death file (used to obtain the adjusted counts of infant deaths) had the **same** or **fewer** deaths for this cause than did the unadjusted mortality file (2007-2009 data).

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

The AI/AN age-adjusted death rate due to poisoning varies considerably among the IHS Areas. The highest Area rate (Alaska, 42.1) is 3.1 times the U.S. all races rate (13.4). The Tucson Area rate (13.9) is the lowest among the IHS areas. The IHS rate (29.3) is 2.2 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

Calendar Years 2007-2009

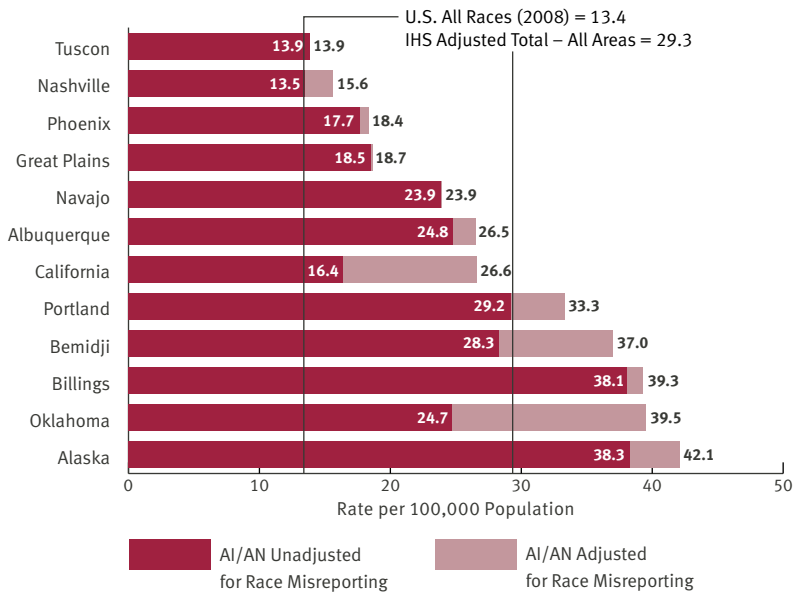


Table 14 Age-Adjusted Poisoning Death¹ Rates by Area

Calendar Years 2007-2009

	Deaths		Rate ²	
	Unadjusted	Adjusted ³	Unadjusted	Adjusted ³
<i>U.S. All Races (2008)</i>	41,079		13.4	
All IHS Areas	1,258	1,559	23.8	29.3
Alaska	132	145	38.3	42.1
Albuquerque	77	82	24.8	26.5
Bemidji	97	129	28.3	37.0
Billings	69	71	38.1	39.3
California	84	140	16.4	26.6
Great Plains	55	56	18.5	18.7
Nashville	51	59	13.5	15.6
Navajo	158	158	23.9	23.9
Oklahoma	249	405	24.7	39.5
Phoenix	100	104	17.7	18.4
Portland	173	197	29.2	33.3
Tucson	13	13	13.9	13.9

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

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

³ Adjusted 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 136 percent greater for years 1972-1974 than for 2007-2009 (94.5). For years 2007-2009 there were 2.4 times more unintentional deaths than for the U.S. all races for 2008. 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

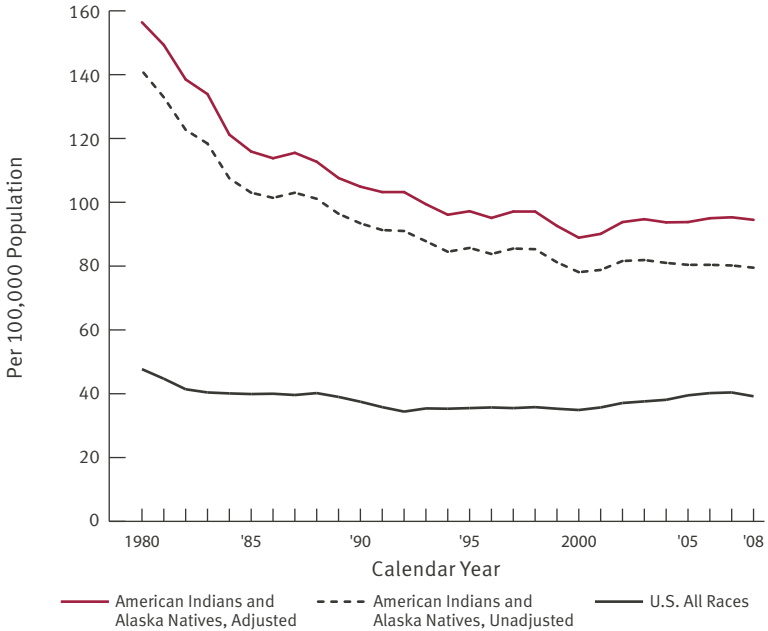


Table 15 Unintentional Injury Deaths and Death Rates

*American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-2008
(Age-Adjusted Rate per 100,000 Population)*

Calendar Year(s)	American Indian and Alaska Native						U.S. All Races Rate		U.S. White Rate	
	Total Death Number		All Unintentional Injuries Rate		Motor Vehicle Rate		All Unintentional Injuries	Motor Vehicle	All Unintentional Injuries	Motor Vehicle
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹				
(2009)	1,398	1,677								
2007-2009 (2008)	1,369	1,661	79.5	94.5	32.0	39.3	39.2	12.8	41.4	13.3
2006-2008 (2007)	1,361	1,663	80.2	95.3	35.1	42.9	40.4	14.3	42.1	14.8
2005-2007 (2006)	1,390	1,671	80.4	95.0	36.8	44.7	40.2	14.9	41.7	15.4
2004-2006 (2005)	1,325	1,577	80.4	93.8	38.6	46.5	39.5	15.1	40.7	15.6
2003-2005 (2004)	1,223	1,442	81.0	93.7	40.0	47.6	38.1	15.1	39.2	15.5
2002-2004 (2003)	1,287	1,516	81.9	94.7	42.4	51.0	37.6	15.2	38.6	15.6
2001-2003 (2002)	1,242	1,468	81.6	93.8	42.2	50.7	37.1	15.6	37.9	16.0
2000-2002 (2001)	1,097	1,280	78.8	90.1	41.9	49.9	35.7	15.2	36.1	15.4
1999-2001 (2000)	1,101	1,274	78.1	88.9	40.5	48.1	34.9	15.2	35.1	15.5
1998-2000 (1999)	1,091	1,287	81.2	92.6	40.3	47.5	35.3	15.1	35.2	15.2
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 (1973)	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

¹ Adjusted – 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 3.2 times the comparable rate (53.9) for the U.S. all races male population and 3.0 times the comparable rate (57.4) for the U.S. male population for ages 35-44 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 (2007-2009)

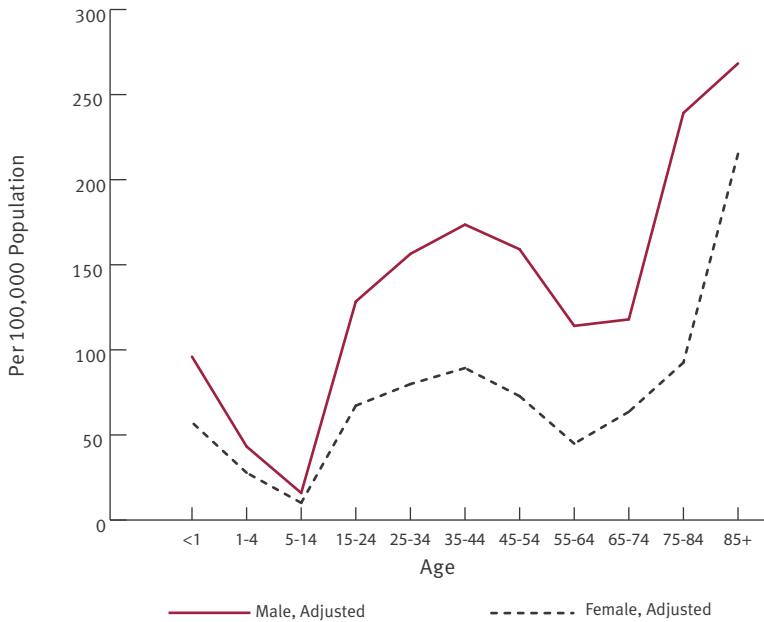


Table 16 Unintentional Injury Death Rates by Age and Sex

*American Indians and Alaska Natives, IHS Service Area, 2007-2009
U.S. All Races and White Populations, 2008 (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	69.5	77.1	88.7	96.0	49.7	57.4
1-4 years	23.2	35.6	28.5	43.2	17.8	27.8
5-14 years	10.4	13.0	12.9	15.9	7.8	10.1
15-24 years	75.3	98.3	104.4	128.4	45.3	67.2
25-34 years	89.5	118.8	124.3	156.4	53.7	79.9
35-44 years	109.5	131.0	148.5	173.6	71.4	89.3
45-54 years	101.6	114.0	144.4	159.1	62.4	72.8
55-64 years	71.5	77.6	106.7	114.1	39.9	44.9
65-74 years	83.9	88.4	111.6	117.9	60.6	63.6
75-84 years	141.8	154.1	213.7	239.2	89.6	92.5
85 years +	230.5	232.8	261.6	268.3	215.2	215.2

Age Group	U.S. All Races			U.S. White		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Under 1 year	31.8	34.6	29.0	27.1	30.3	23.8
1-4 years	9.1	10.9	7.2	8.9	10.7	7.0
5-14 years	4.6	5.7	3.4	4.5	5.6	3.3
15-24 years	32.5	47.8	16.4	36.1	53.0	18.1
25-34 years	36.3	55.6	16.8	39.9	60.6	18.5
35-44 years	38.1	53.9	22.4	41.1	57.4	24.5
45-54 years	45.8	63.5	28.6	47.7	65.2	30.4
55-64 years	37.4	54.0	22.0	37.7	53.5	22.7
65-74 years	43.9	60.1	29.9	44.3	60.1	30.5
75-84 years	105.7	135.1	84.9	110.5	139.4	89.7
85 years +	318.3	394.5	282.4	333.8	411.4	297.0

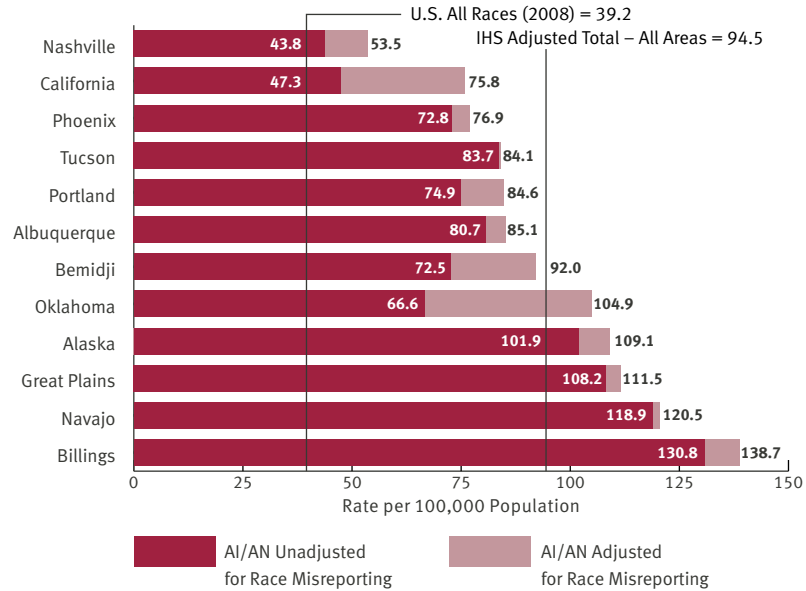
¹ Adjusted to compensate for misreporting of AI/AN race on state death certificates.

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

The Billings Area has the highest age-adjusted unintentional injury death rate (138.7) among the IHS Areas. This rate is 2.6 times higher than the lowest Area rate (Nashville, 53.5), but approximately 3.5 times the U.S. all races rate (39.2). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 17.1 Age-Adjusted Unintentional Injury Death Rates by Area

Calendar Years 2007-2009



The Billings Area has the highest age-adjusted motor vehicle crashes death rate (70.8) among the IHS Areas. This rate is 2.8 times higher the lowest Area rate (Nashville, 25.0), but 5.5 times the U.S. all races rate (12.8). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 17.2 Age-Adjusted Motor Vehicle Crashes Death Rates by Area

Calendar Years 2007-2009

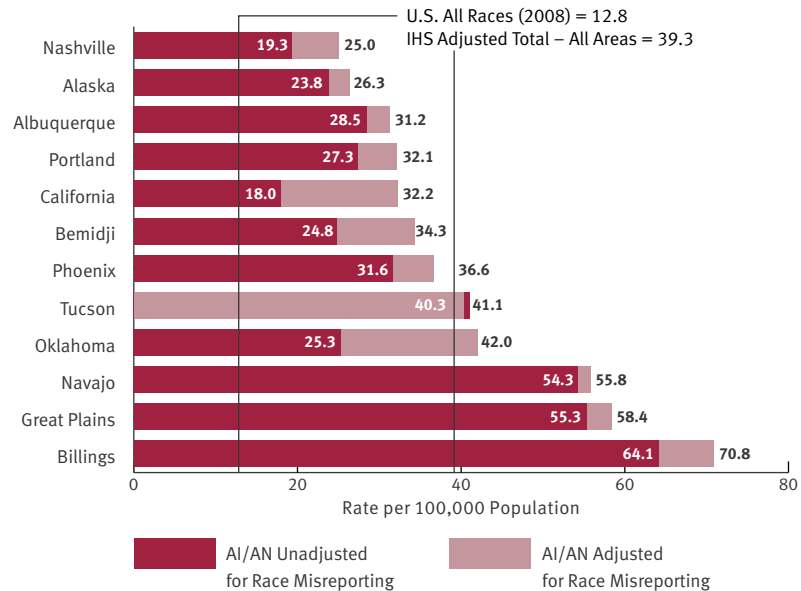


Table 17 Age-Adjusted Unintentional Injury Death Rates by Area

Calendar Years 2007-2009

	All Unintentional Injuries				Motor Vehicle Crashes		
	Deaths		Rate ²		Totals		Percent of Motor Vehicle Crash Deaths Pedestrian-related ¹
	Unadjusted	Adjusted ³	Unadjusted	Adjusted ³	Rate ²		
					Unadjusted	Adjusted ³	
U.S. All Races (2008)	120,070		39.2		12.8		0.9
All IHS Areas	4,128	5,001	79.5	94.5	32.0	39.3	15.0
Alaska	344	371	101.9	109.1	23.8	26.3	21.6
Albuquerque	236	252	80.7	85.1	28.5	31.2	22.4
Bemidji	244	319	72.5	92.0	24.8	34.3	11.6
Billings	243	259	130.8	138.7	64.1	70.8	10.6
California	241	401	47.3	75.8	18.0	32.2	14.5
Great Plains	329	341	108.2	111.5	55.3	58.4	13.1
Nashville	161	200	43.8	53.5	19.3	25.0	10.3
Navajo	769	781	118.9	120.5	54.3	55.8	18.0
Oklahoma	676	1101	66.6	104.9	25.3	42.0	7.8
Phoenix	393	422	72.8	76.9	31.6	36.6	27.5
Portland	415	477	74.9	84.6	27.3	32.1	13.8
Tucson	77	77	83.7	84.1	41.1 ⁴	40.3 ⁴	25.0

¹ Includes 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.

² Age-adjusted rate per 100,000 population.

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

⁴ The adjusted rate for Motor vehicle crashes in Tucson Area is lower than the unadjusted rate.

The age-adjusted motor vehicle death rate for AI/AN males has decreased 71 percent since 1972-1974. For 2007-2009 there were 2.7 times more AI/AN male deaths from motor vehicle accidents than for U.S. all races for 2008. 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 Death Rates for Males

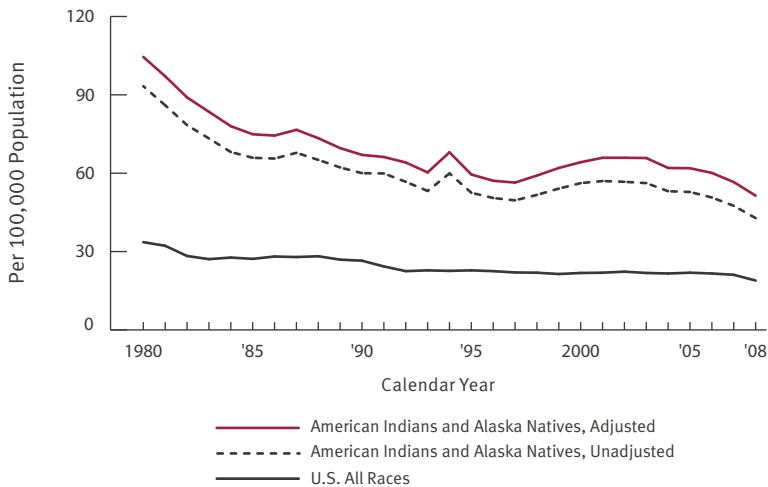


Table 18 Motor Vehicle Deaths and Death Rates for Males

*American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1973-2008
(Age-Adjusted Rate per 100,000 Population)*

Calendar Year(s)	American Indian and Alaska Native				U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native ¹ to:	
	Number		Rate				U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹				
(2009)	379	447						
2007-2009 (2008)	394	420	42.8	51.4	18.9	19.6	2.7	2.6
2006-2008 (2007)	417	346	47.5	56.6	21.1	21.6	2.7	2.6
2005-2007 (2006)	488	357	50.7	60.1	21.6	22.2	2.8	2.7
2004-2006 (2005)	462	311	52.8	61.9	21.9	22.5	2.8	2.8
2003-2005 (2004)	423	301	53.1	62.0	21.6	22.1	2.9	2.8
2002-2004 (2003)	475	237	56.2	65.8	21.8	22.2	3.0	3.0
2001-2003 (2002)	491	184	56.7	65.9	22.3	22.7	3.0	2.9
2000-2002 (2001)	424	147	57.0	65.9	21.9	22.1	3.0	3.0
1999-2001 (2000)	424	115	56.2	64.2	21.8	21.8	2.9	2.9
1998-2000 (1999)	410	140	54.1	62.0	21.4	21.4	2.9	2.9
1997-1999 (1998)	396	124	51.7	59.1	21.9	21.8	2.7	2.7
1996-1998 (1997)	407	126	49.6	56.4	22.0	21.9	2.6	2.6
1995-1997 (1996)	417	141	50.5	57.1	22.5	22.4	2.5	2.5
1994-1996 (1995)	396	80	52.5	59.5	22.8	22.6	2.6	2.6
1993-1995 (1994)	373	85	59.9	68.0	22.6	22.6	3.0	3.0
1992-1994 (1993)	367	62	53.2	60.3	22.8	22.7	2.6	2.7
1991-1993 (1992)	382	67	56.7	64.1	22.5	22.4	2.8	2.9
1990-1992 (1991)	393	59	59.9	66.2	24.3	24.2	2.7	2.7
1989-1991 (1990)	399	55	60.0	67.0	26.5	26.3	2.5	2.5
1988-1990 (1989)	381	52	62.2	69.6	26.9	26.7	2.6	2.6
1987-1989 (1988)	410	43	65.1	73.4	28.2	28.1	2.6	2.6
1986-1988 (1987)	423	52	67.8	76.6	27.9	28.0	2.7	2.7
1985-1987 (1986)	395	46	65.6	74.4	28.1	28.0	2.6	2.7
1984-1986 (1985)	354	38	65.9	74.9	27.2	27.2	2.8	2.8
1983-1985 (1984)	351	31	68.1	78.0	27.7	27.9	2.8	2.8
1982-1984 (1983)	358	49	73.3	83.5	27.1	27.3	3.1	3.1
1981-1983 (1982)	362	32	78.4	89.0	28.3	28.6	3.1	3.1
1980-1982 (1981)	405	33	86.0	97.1	32.2	32.6	3.0	3.0
1979-1981 (1980)	429	26	93.3	104.5	33.6	33.8	3.1	3.1
(1979)	448	32						
1972-1974 (1973)	1,199	1,330	157.7	175.5	39.3	38.4	4.5	4.6

¹ Adjusted – 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 and 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 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 (29.0) for years 2007-2009 has decreased 55 percent since the three year period 1972-1974. AI/AN females died from injuries suffered in motor vehicle accidents four times more than U.S. all races females for 2008. 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 Females

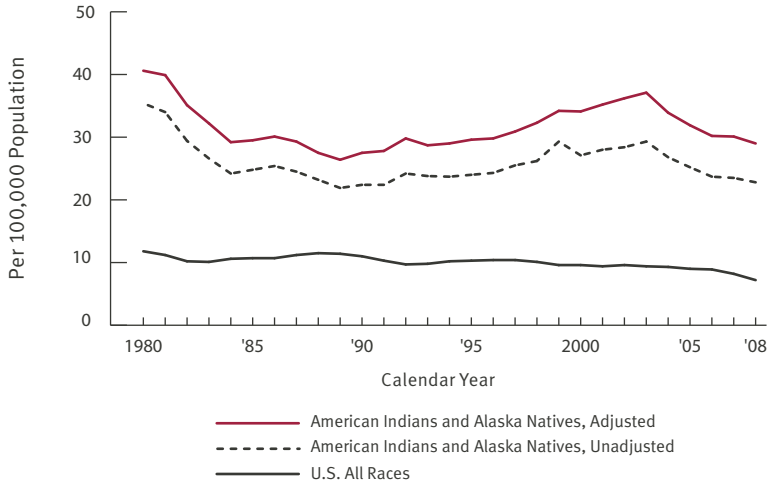


Table 19 Motor Vehicle Deaths and Death Rates for Females

*American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1973-2008
(Age-Adjusted Rate per 100,000 Population)*

Calendar Year(s)	American Indian and Alaska Native				U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native ¹ to:	
	Number		Rate				U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹				
(2009)	198	264						
2007-2009 (2008)	208	278	22.8	29.0	7.2	7.6	4.0	3.8
2006-2008 (2007)	220	282	23.5	30.1	8.2	8.6	3.7	3.5
2005-2007 (2006)	240	318	23.7	30.2	8.9	9.2	3.4	3.3
2004-2006 (2005)	207	271	25.2	31.9	9.0	9.3	3.5	3.4
2003-2005 (2004)	235	299	26.8	33.9	9.3	9.6	3.6	3.5
2002-2004 (2003)	252	330	29.3	37.1	9.4	9.6	3.9	3.9
2001-2003 (2002)	252	327	28.4	36.2	9.6	9.9	3.8	3.7
2000-2002 (2001)	200	261	28.0	35.2	9.4	9.5	3.7	3.7
1999-2001 (2000)	233	294	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

¹ Adjusted – 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 and 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 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 2007-2009, AI/ANs died from suicides at a rate 60 percent higher than the U.S. all races in 2008. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 20 Age-Adjusted Suicide Death Rates

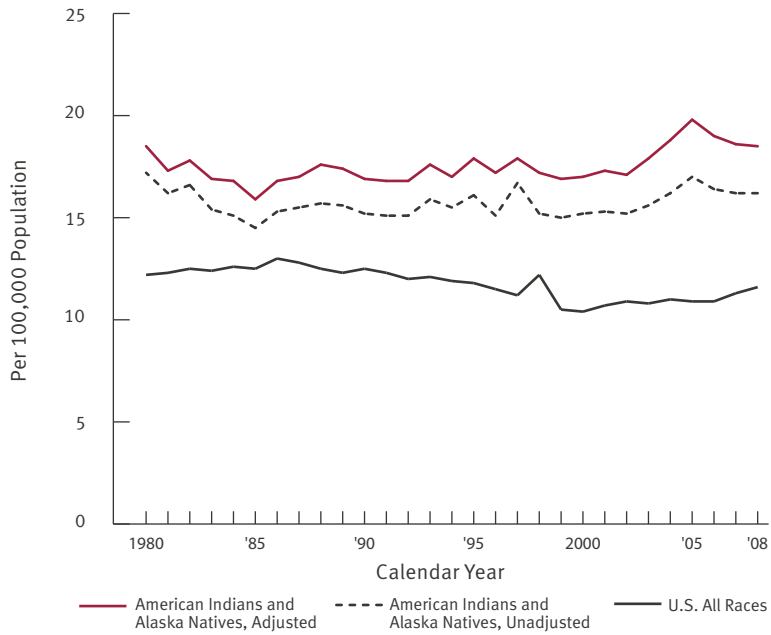


Table 20 Suicide Deaths and Death Rates

*American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-2008
(Age-Adjusted Rate per 100,000 Population)*

Calendar Year(s)	American Indian and Alaska Native				U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native ¹ to:	
	Number		Rate				U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹				
(2009)	336	390						
2007-2009 (2008)	311	368	16.2	18.5	11.6	12.9	1.6	1.4
2006-2008 (2007)	292	338	16.2	18.6	11.3	12.5	1.6	1.5
2005-2007 (2006)	326	376	16.4	19.0	10.9	12.2	1.7	1.6
2004-2006 (2005)	317	374	17.0	19.8	10.9	12.1	1.8	1.6
2003-2005 (2004)	315	369	16.2	18.8	11.0	12.0	1.7	1.6
2002-2004 (2003)	255	289	15.6	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 (1973)	351	374	27.6	29.4	13.2	13.9	2.2	2.1
1954-1956 (1955)	39		11.9		9.9	10.4		

¹ Adjusted – 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 (58.7) occurs in the 15-24 age group. The highest AI/AN female suicide death rate (20.2) also 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 21 Suicide Death Rates by Age and Sex

American Indians and Alaska Natives (2007-2009)

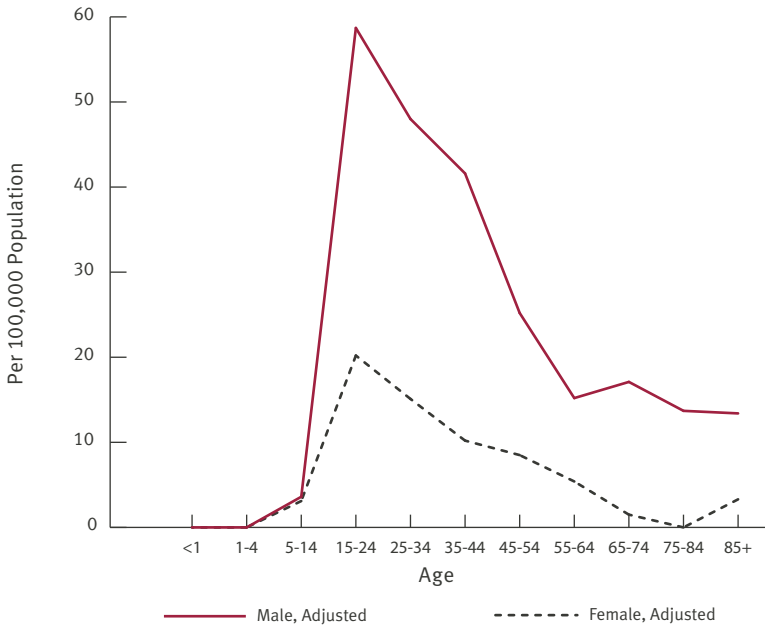


Table 21 Suicide Death Rates by Age and Sex

*American Indians and Alaska Natives, IHS Service Area, 2007-2009
U.S. All Races and White Populations, 2008 (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	3.2	3.3	3.4	3.6	3.1	3.1
15-24 years	32.8	39.7	50.2	58.7	15.0	20.2
25-34 years	26.9	31.8	40.4	48.0	12.9	15.1
35-44 years	22.5	25.7	36.8	41.6	8.5	10.2
45-54 years	15.9	16.5	24.0	25.2	8.5	8.5
55-64 years	9.6	10.0	14.3	15.2	5.4	5.4
65-74 years	7.8	8.6	15.3	17.1	1.5	1.5
75-84 years	5.8	5.8	13.7	13.7	—*	—*
85 years +	6.7	6.7	13.4	13.4	3.3	3.3

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	0.5	0.7	0.3	0.5	0.8	0.3
15-24 years	9.9	16.0	3.5	10.6	17.2	3.6
25-34 years	13.2	21.2	5.2	14.5	23.1	5.6
35-44 years	15.9	24.5	7.5	18.3	27.7	8.7
45-54 years	18.7	28.6	9.1	21.4	32.5	10.5
55-64 years	16.0	25.8	6.9	18.1	28.8	8.0
65-74 years	13.7	24.4	4.4	14.9	26.4	4.8
75-84 years	16.2	33.6	3.8	17.5	36.1	4.0
85 years +	16.6	43.4	4.0	17.7	46.3	4.1

—* Represents zero.

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

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 suicide death rate is the highest in Alaska among the IHS Areas. The Alaska rate (37.3) is 1.4 times higher than the next two highest Areas (Billings and Great Plains, each with rate of 27.2) and 5.3 times the lowest Area rate (Nashville, 7.1). California and Nashville are the only Areas to have a rate below the U.S. all races rate (11.6). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 22 Age-Adjusted Suicide Death Rates by Area

Calendar Years 2007-2009

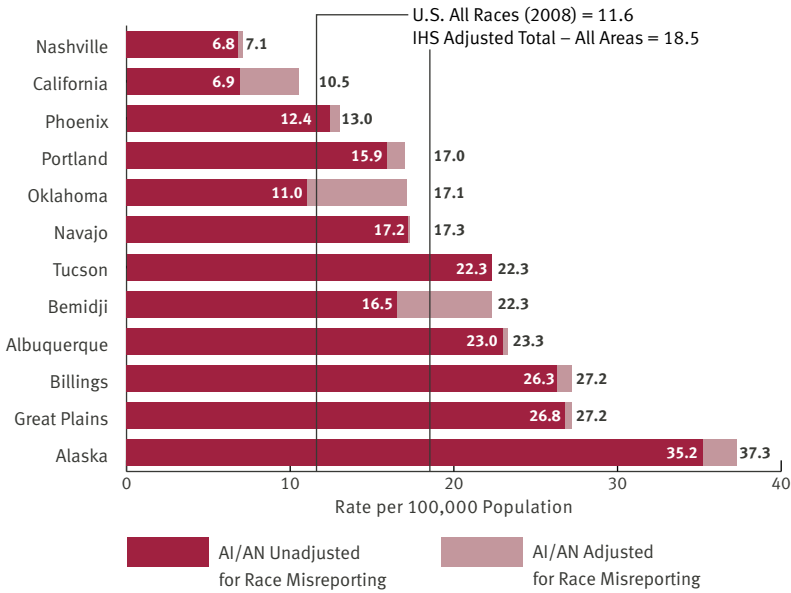


Table 22 Age-Adjusted Suicide Death Rates by Area

Calendar Years 2007-2009

	Deaths		Rate ¹	
	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²
<i>U.S. All Races (2008)</i>	36,035		11.6	
All IHS Areas	950	1,096	16.2	18.5
Alaska	144	154	35.2	37.3
Albuquerque	77	78	23.0	23.3
Bemidji	60	83	16.5	22.3
Billings	54	56	26.3	27.2
California	36	57	6.9	10.5
Great Plains	104	106	26.8	27.2
Nashville	25	26	6.8	7.1
Navajo	132	133	17.2	17.3
Oklahoma	119	193	11.0	17.1
Phoenix	79	83	12.4	13.0
Portland	94	101	15.9	17.0
Tucson	26	26	22.3	22.3

¹ Age-adjusted rate per 100,000 population. Rates based on a small number of deaths should be interpreted with caution.
² Adjusted to compensate for misreporting of American Indian/Alaska Native race on the state death certificate.

Homicides for AI/ANs decreased 142 percent from the three year periods 1972-1974 to 2007-2009. The 2007-2009 rate (11.0) is almost two times higher the U.S. all races rate (5.9) for 2008. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 23 Age-Adjusted Homicide Death Rates

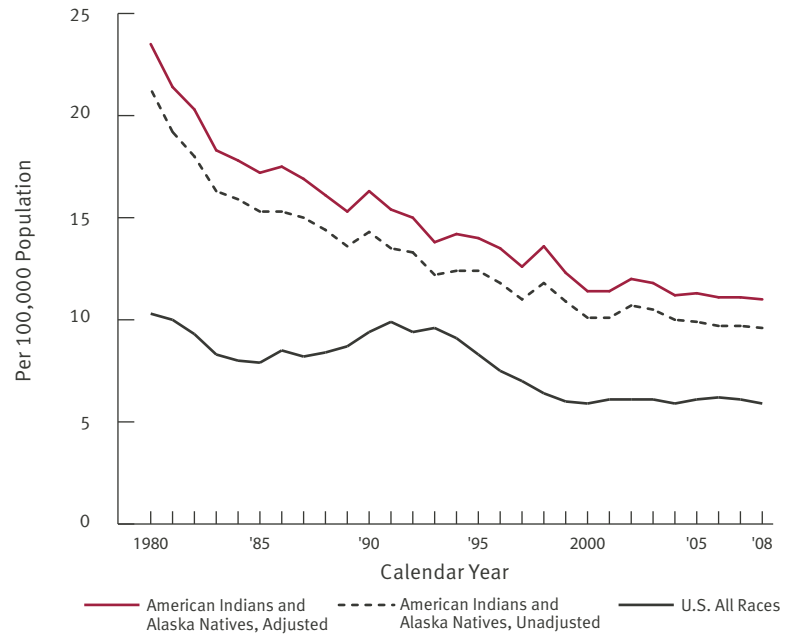


Table 23 Homicide Deaths and Death Rates

*American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-2008
(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				
(2009)	197	234						
2007-2009 (2008)	197	226	9.6	11.0	5.9	3.7	1.9	3.0
2006-2008 (2007)	165	187	9.7	11.1	6.1	3.7	1.8	3.0
2005-2007 (2006)	199	233	9.7	11.1	6.2	3.7	1.8	3.0
2004-2006 (2005)	190	221	9.9	11.3	6.1	3.7	1.9	3.1
2003-2005 (2004)	165	187	10.0	11.2	5.9	3.6	1.9	3.1
2002-2004 (2003)	194	218	10.5	11.8	6.1	3.7	1.9	3.2
2001-2003 (2002)	202	236	10.7	12.0	6.1	3.7	2.0	3.2
2000-2002 (2001)	160	186	10.1	11.4	6.1	3.8	1.9	3.0
1999-2001 (2000)	143	162	10.1	11.4	5.9	3.6	1.9	3.2
1998-2000 (1999)	181	206	10.9	12.3	6.0	3.8	2.1	3.2
1997-1999 (1998)	172	199	11.8	13.6	6.4	3.9	2.1	3.5
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 (1973)	368	398	24.7	26.6	10.3	5.7	2.6	4.7
1954-1956 (1955)	77		23.8		4.8	2.4		

¹ Adjusted – 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 2007-2009. Males in age group 25 to 34 years were 4.6 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 24 Homicide Death Rates by Age and Sex

American Indians and Alaska Natives (2007-2009)

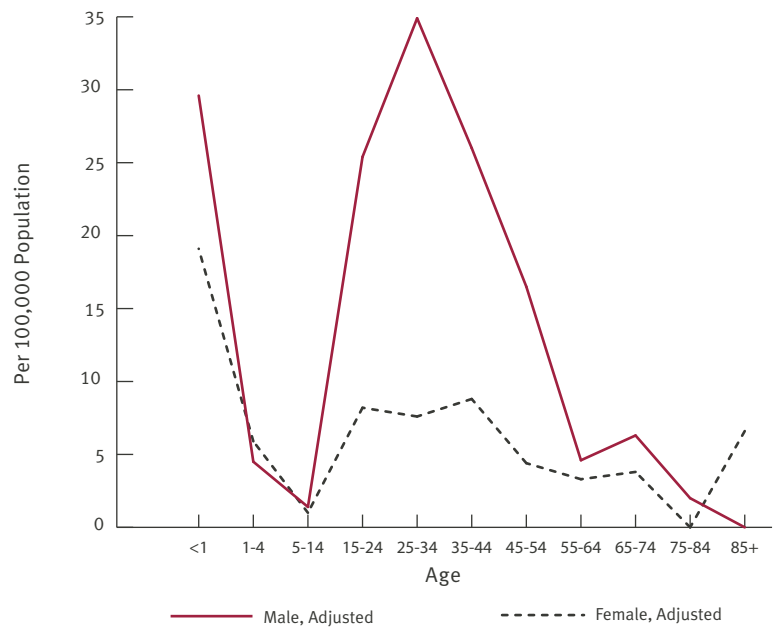


Table 24 Homicide Death Rates by Age and Sex

*American Indians and Alaska Natives, IHS Service Area, 2007-2009
U.S. All Races and White Populations, 2008 (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	18.8	24.4	20.3	29.6	17.2	19.1
1-4 years	3.8	5.2	3.6	4.5	4.1	5.9
5-14 years	1.0	1.2	1.0	1.4	1.0	1.0
15-24 years	14.5	16.9	22.0	25.4	6.7	8.2
25-34 years	17.8	21.4	29.9	34.9	5.4	7.6
35-44 years	15.4	17.3	23.2	26.0	7.7	8.8
45-54 years	9.6	10.2	15.3	16.5	4.4	4.4
55-64 years	3.9	3.9	4.6	4.6	3.3	3.3
65-74 years	4.9	4.9	6.3	6.3	3.8	3.8
75-84 years	0.8	0.8	2.0	2.0	—*	—*
85 years +	4.4	4.4	—*	—*	6.6	6.6

Age Group	U.S. All Races			U.S. White		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Under 1 year	8.4	9.4	7.5	6.9	7.8	6.0
1-4 years	2.6	2.8	2.4	2.0	2.1	1.8
5-14 years	0.8	0.9	0.6	0.5	0.7	0.4
15-24 years	12.2	20.6	3.3	6.3	10.2	2.2
25-34 years	11.5	19.4	3.6	6.5	9.9	2.8
35-44 years	7.0	10.8	3.1	4.8	6.9	2.6
45-54 years	4.9	7.4	2.4	3.6	5.2	2.1
55-64 years	3.0	4.5	1.5	2.4	3.5	1.4
65-74 years	2.4	3.2	1.7	2.0	2.6	1.5
75-84 years	2.0	2.7	1.5	1.8	2.3	1.4
85 years +	2.7	2.7	2.7	2.5	2.3	2.6

—* Represents zero.

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

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

The Tucson Area is the most affected IHS area from homicidal deaths than any other area in IHS. Homicides are 4.3 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 25 Age-Adjusted Homicide Death Rates by Area

Calendar Years 2007-2009

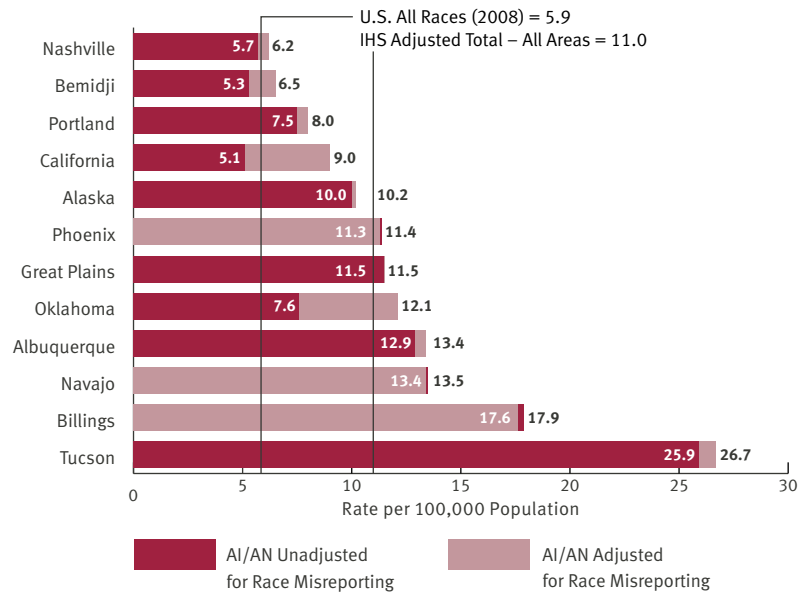


Table 25 Age-Adjusted Homicide Death Rates by Area

Calendar Years 2007-2009

	Deaths		Rate ¹	
	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²
U.S. All Races (2008)	17,826		5.9	
All IHS Areas	559	647	9.6	11.0
Alaska	36	37	10.0	10.2
Albuquerque	43	45	12.9	13.4
Bemidji	20	25	5.3	6.5
Billings	37 ³	36 ³	17.9 ³	17.6 ³
California	31	57	5.1	9.0
Great Plains	42	42	11.5	11.5
Nashville	22	24	5.7	6.2
Navajo	97 ³	96 ³	13.5 ³	13.4 ³
Oklahoma	80	130	7.6	12.1
Phoenix	72 ³	71 ³	11.4 ³	11.3 ³
Portland	48	52	7.5	8.0
Tucson	31	32	25.9	26.7

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

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

³ The adjusted numbers and rates in the (Billings, Navajo and Phoenix 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 (2007-2009 data).

NOTE: Includes death due to homicide and legal intervention.

Firearm injuries for AI/ANs decreased from 26.2 for the three year period 1979-1981 to 11.9 in 2007-2009. The age-adjusted rate (11.9) for years 2007-2009 is 1.2 times greater than for U.S. all races (10.3) for 2008. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on the state death certificates.

Chart 26 Age-Adjusted Firearm Injury Death Rates

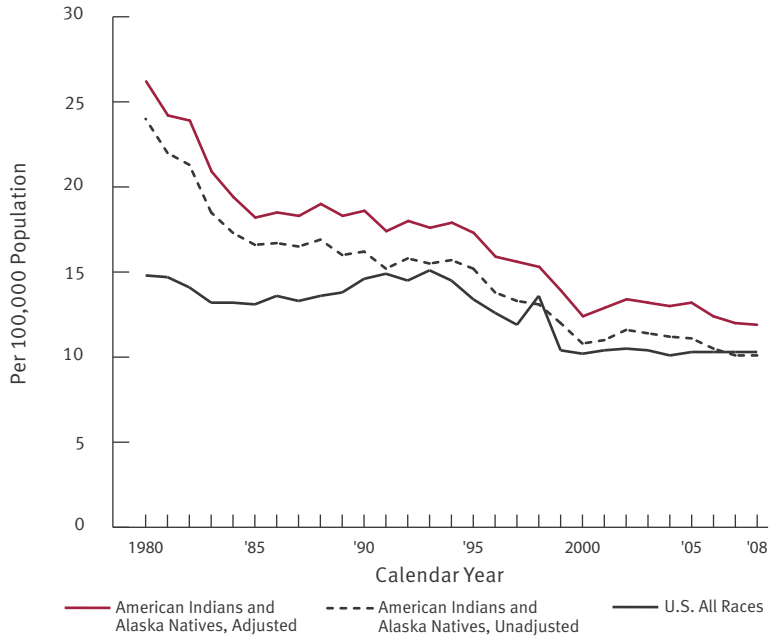


Table 26 Firearm Injury¹ Deaths and Death Rates

*American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1979-2008
(Age-Adjusted Rate per 100,000 Population)*

Calendar Year(s)	American Indian and Alaska Native				U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native ² to:	
	Number		Rate				U.S. All Races	U.S. White
	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²				
(2009)	222	266						
2007-2009 (2008)	210	251	10.1	11.9	10.3	9.2	1.2	1.3
2006-2008 (2007)	175	205	10.1	12.0	10.3	9.0	1.2	1.3
2005-2007 (2006)	222	269	10.5	12.4	10.3	8.9	1.2	1.4
2004-2006 (2005)	233	274	11.1	13.2	10.3	9.0	1.3	1.5
2003-2005 (2004)	198	237	11.2	13.0	10.1	8.9	1.3	1.5
2002-2004 (2003)	214	242	11.4	13.2	10.4	9.1	1.3	1.5
2001-2003 (2002)	224	269	11.6	13.4	10.5	9.2	1.3	1.5
2000-2002 (2001)	191	225	11.0	12.9	10.4	9.3	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	10.4	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						

¹ Includes 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.

² Adjusted - 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: 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 2007-2009 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 15 to 24 years of age. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 27 Firearm Injury Death Rates by Age and Sex

American Indians and Alaska Natives (2007-2009)

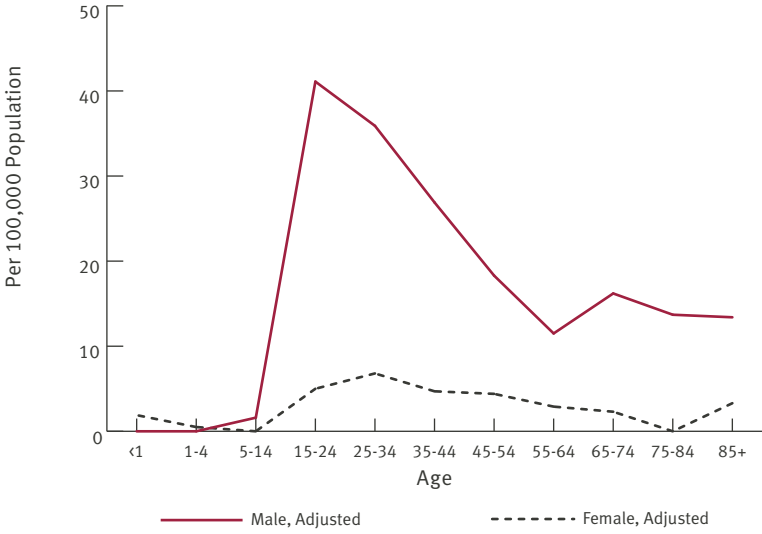


Table 27 Firearm Injury¹ Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 2007-2009, and U.S. All Races and White Populations, 2008 (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	—*	—*	—*	—*	—*	1.9
1-4 years	0.2	0.2	—*	—*	0.5	0.5
5-14 years	0.7	0.8	1.4	1.6	—*	—*
15-24 years	19.1	23.3	34.2	41.1	3.4	5.0
25-34 years	17.1	21.6	28.8	35.9	5.1	6.8
35-44 years	13.3	15.6	22.9	26.9	3.9	4.7
45-54 years	10.3	11.0	16.8	18.3	4.4	4.4
55-64 years	6.5	7.0	10.6	11.5	2.9	2.9
65-74 years	7.8	8.6	14.4	16.2	2.3	2.3
75-84 years	5.8	5.8	13.7	13.7	—*	—*
85 years +	6.7	6.7	13.4	13.4	3.3	3.3

Age Group	U.S. All Races			U.S. White		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Under 1 year	—*	—*	—*	—*	—*	—*
1-4 years	0.5	0.6	0.4	0.4	0.5	0.0
5-14 years	0.7	1.0	0.4	0.5	0.8	0.3
15-24 years	15.4	27.0	3.2	10.2	17.7	2.3
25-34 years	15.4	27.1	3.6	11.3	19.1	3.3
35-44 years	11.8	19.6	4.0	11.3	18.2	4.2
45-54 years	11.5	19.4	3.9	12.3	20.3	4.4
55-64 years	10.8	19.0	3.1	11.8	20.6	3.4
65-74 years	10.7	20.3	2.4	11.6	21.9	2.6
75-84 years	13.2	29.0	2.0	14.3	31.2	2.1
85 years +	12.5	35.5	1.6	13.3	37.9	1.7

0.0 Quantity more than zero but less than 0.05.

—* Represents zero.

¹ Includes 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.

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

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

The AI/AN age-adjusted firearm injury death rate varies considerably among the IHS Areas. The highest Area rate (Alaska, 25.6) is 4.1 times higher than the lowest Area rate (Nashville, 6.3). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 28 Age-Adjusted Firearm Injury Death Rates by Area

Calendar Years 2007-2009

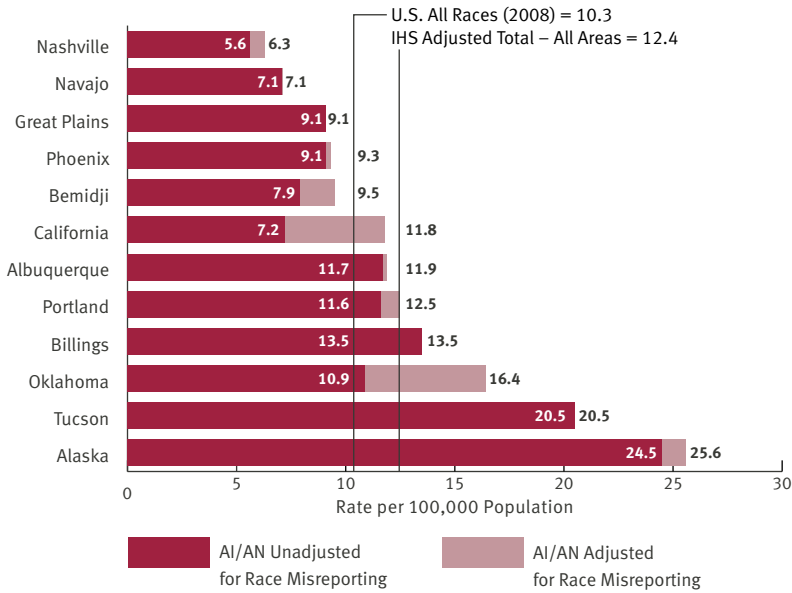


Table 28 Age-Adjusted Firearm Injury¹ Death Rates by Area

Calendar Years 2007-2009

	Deaths		Rate ²	
	Unadjusted	Adjusted ³	Unadjusted	Adjusted ³
<i>U.S. All Races (2008)</i>	31,593		10.3	
All IHS Areas	607	722	10.5	12.4
Alaska	100	105	24.5	25.6
Albuquerque	39	40	11.7	11.9
Bemidji	28	34	7.9	9.5
Billings	27	27	13.5	13.5
California	40	68	7.2	11.8
Great Plains	33	33	9.1	9.1
Nashville	22	25	5.6	6.3
Navajo	50	50	7.1	7.1
Oklahoma	115	179	10.9	16.4
Phoenix	60	62	9.1	9.3
Portland	68	74	11.6	12.5
Tucson	25	25	20.5	20.5

¹ Includes ICD-10 codes: terrorism—U01.4; 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.

² Age-adjusted rate per 100,000 population.

³ Adjusted 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 246 percent greater for 1979-1981 as compared to 2.2 in 2007-2009. The 2007-2009 rate 2.2 is 2.0 times greater than the U.S. all races rate 1.1 for 2008. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 29 Age-Adjusted Fire and Smoke Injury Death Rates

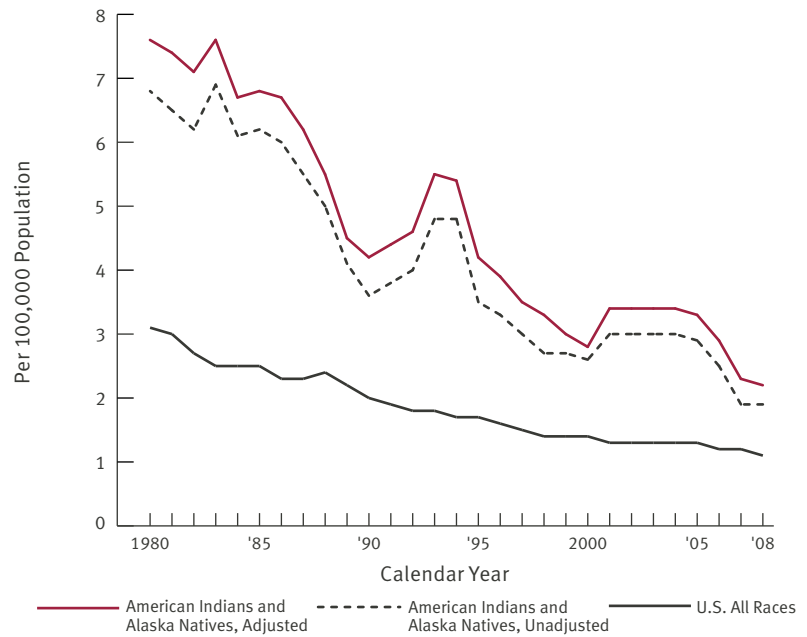


Table 29 Fire and Smoke Injury Deaths and Death Rates

*American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1980-2008
(Age-Adjusted Rate per 100,000 Population)*

Calendar Year(s)	American Indian and Alaska Native				U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native ¹ to:	
	Number		Rate				U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹				
(2009)	37	42						
2007-2009 (2008)	30	35	1.9	2.2	1.1	1.0	2.0	2.2
2006-2008 (2007)	32	40	1.9	2.3	1.2	1.1	1.9	2.1
2005-2007 (2006)	34	40	2.5	2.9	1.2	1.1	2.4	2.6
2004-2006 (2005)	57	65	2.9	3.3	1.3	1.1	2.5	3.0
2003-2005 (2004)	46	52	3.0	3.4	1.3	1.1	2.6	3.1
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

¹ Adjusted – 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 (5.9) for AI/AN males is 4.2 times higher for age 75-84 years in comparison with AI/AN females for the same age group. The AI/AN female rate peaked at 2.7 deaths per 100,000 population for the 1-4 years age group. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 30 Fire and Smoke Injury Death Rates by Age and Sex

American Indians and Alaska Natives (2007-2009)

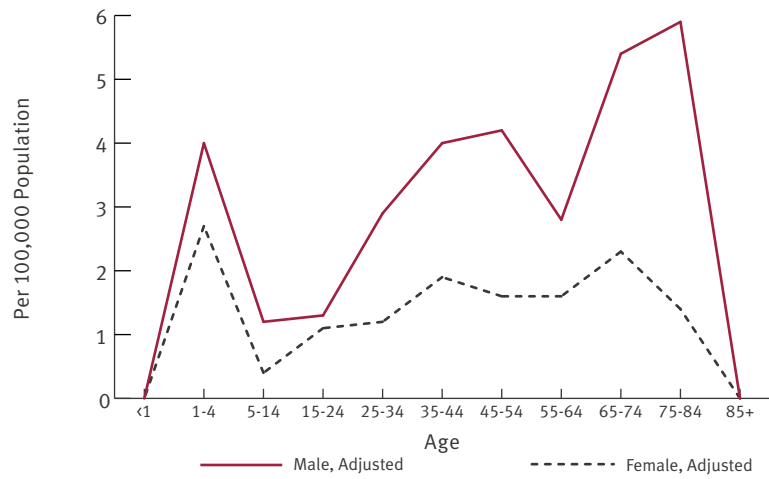


Table 30 Fire and Smoke¹ Injury Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 2007-2009, and U.S. All Races and White Populations, 2008 (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	2.3	2.3	3.1	4.0	1.4	2.7
5-14 years	0.6	0.6	0.8	1.2	0.4	0.4
15-24 years	1.1	1.1	1.3	1.3	1.0	1.1
25-34 years	1.4	1.4	1.9	2.9	1.0	1.2
35-44 years	2.4	2.4	3.4	4.0	1.4	1.9
45-54 years	2.9	2.9	4.2	4.2	1.6	1.6
55-64 years	2.2	2.2	2.8	2.8	1.6	1.6
65-74 years	3.7	3.7	5.4	5.4	2.3	2.3
75-84 years	2.5	2.5	3.9	5.9	1.4	1.4
85 years +	—*	—*	—*	—*	—*	—*

Age Group	U.S. All Races			U.S. White		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Under 1 year	0.6	0.0	0.0	—*	—*	—*
1-4 years	1.2	1.3	1.1	1.0	1.0	1.0
5-14 years	0.4	0.5	0.4	0.4	0.5	0.3
15-24 years	0.4	0.5	0.3	0.4	0.5	0.3
25-34 years	0.5	0.6	0.4	0.4	0.5	0.3
35-44 years	0.8	1.0	0.6	0.7	0.9	0.5
45-54 years	1.3	1.7	0.9	1.2	1.6	0.9
55-64 years	1.6	2.1	1.0	1.5	2.0	1.0
65-74 years	2.3	3.0	1.7	2.1	2.6	1.6
75-84 years	3.3	3.9	2.9	3.0	3.5	2.7
85 years +	5.1	7.0	4.2	4.4	6.0	3.6

—* Represents zero.

0.0 Quantity more than zero but less than 0.05.

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

² Adjusted 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/>.

The AI/AN age-adjusted fire and smoke injury death rates vary among the IHS Areas. The highest area rate (Alaska, 4.9) is 12.3 times the lowest area rate (Albuquerque, 0.4). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on the state death certificates.

Chart 31 Age-Adjusted Fire and Smoke Injury Death Rates by Area

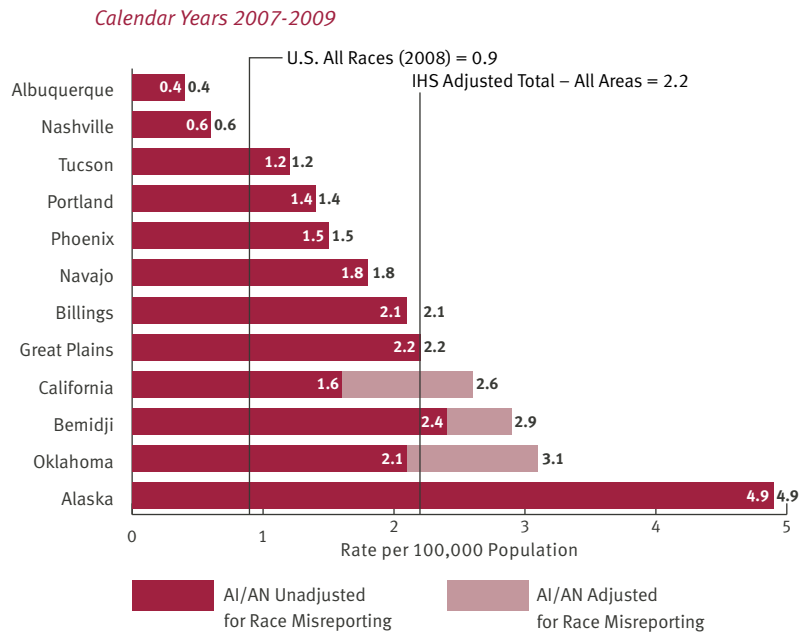


Table 31 Age-Adjusted Fire and Smoke Injury Death Rates by Area

Calendar Years 2007-2009

	Deaths		Rate ¹	
	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²
<i>U.S. All Races (2008)</i>	2,912		0.9	
All IHS Areas	99	117	1.9	2.2
Alaska	18	18	4.9	4.9
Albuquerque	*	*	0.4	0.4
Bemidji	*	11	2.4	2.9
Billings	*	*	2.1	2.1
California	*	*	1.6	2.6
Great Plains	*	*	2.2	2.2
Nashville	*	*	0.6	0.6
Navajo	12	12	1.8	1.8
Oklahoma	21	33	2.1	3.1
Phoenix	*	*	1.5	1.5
Portland	*	*	1.4	1.4
Tucson	*	*	1.2	1.2

*Quantity is greater than 0 or less than or equal to 10.
¹ Age-adjusted rate per 100,000 population.
² Adjusted 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 9.3 in 2007-2009. The 2007-2009 rate 9.3 is 1.2 times greater than the U.S. all races rate 7.5 for 2008. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 32 Age-Adjusted Fall Injury Death Rates

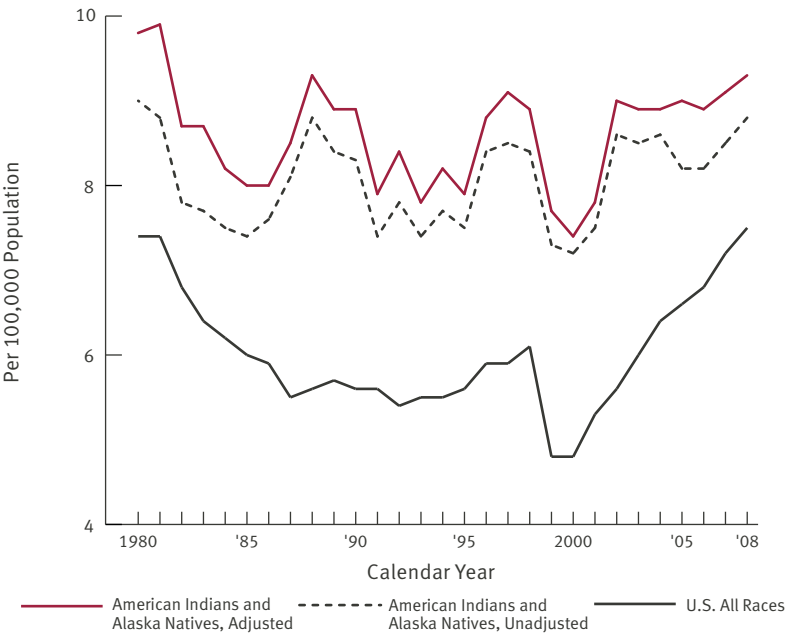


Table 32 Fall Injury Deaths and Death Rates

*American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1980-2008
(Age-Adjusted Rate per 100,000 Population)*

Calendar Year(s)	American Indian and Alaska Native				U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native ¹ to:	
	Number		Rate				U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹				
(2009)	111	116						
2007-2009 (2008)	109	115	8.8	9.3	7.5	8.0	1.2	1.2
2006-2008 (2007)	100	110	8.5	9.1	7.2	7.7	1.3	1.2
2005-2007 (2006)	105	111	8.2	8.9	6.8	7.2	1.3	1.2
2004-2006 (2005)	96	104	8.2	9.0	6.6	6.9	1.4	1.3
2003-2005 (2004)	88	92	8.6	8.9	6.4	6.7	1.4	1.3
2002-2004 (2003)	96	101	8.5	8.9	6.0	6.2	1.5	1.4
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

¹ Adjusted – 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 (13.5) for AI/AN males is 8.4 times higher in comparison with AI/AN females for ages 45-54 years. The AI/AN male and female rates peaked at (147.6, 129.1) 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 33 Fall Injury Death Rates by Age and Sex

American Indians and Alaska Natives (2007-2009)

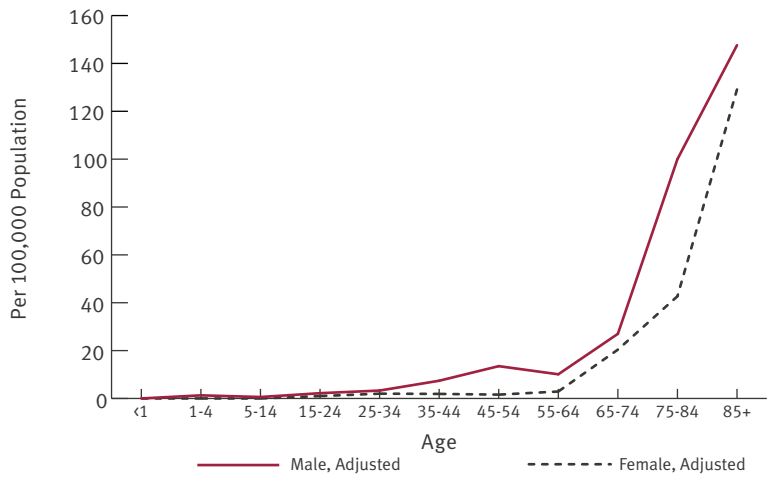


Table 33 Fall¹ Injury Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 2007-2009, and U.S. All Races and White Populations, 2008 (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	0.7	0.9	1.3	—*	—*
5-14 years	0.2	0.3	0.4	0.6	—*	—*
15-24 years	1.5	1.6	2.2	2.2	0.8	1.0
25-34 years	2.2	2.6	2.6	3.3	1.7	2.0
35-44 years	4.3	4.6	7.1	7.4	1.7	1.9
45-54 years	7.0	7.3	12.9	13.5	1.6	1.6
55-64 years	6.3	6.3	10.1	10.1	2.9	2.9
65-74 years	22.2	23.4	25.2	27.0	19.7	20.4
75-84 years	61.8	66.8	90.2	100.0	41.3	42.7
85 years +	133.0	135.2	140.9	147.6	99.3	129.1

Age Group	U.S. All Races			U.S. White		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Under 1 year	0.0	0.0	0.0	0.0	0.0	0.0
1-4 years	0.3	0.4	0.0	0.3	0.3	0.0
5-14 years	0.1	0.1	0.0	0.1	0.1	0.0
15-24 years	0.8	1.3	0.3	0.9	1.4	0.3
25-34 years	1.1	1.9	0.3	1.2	2.0	0.3
35-44 years	1.7	2.7	0.6	1.8	3.0	0.7
45-54 years	3.3	5.1	1.6	3.5	5.2	1.8
55-64 years	5.6	8.1	3.0	5.8	8.3	3.4
65-74 years	13.6	17.6	10.2	14.3	18.3	10.8
75-84 years	53.8	66.1	45.1	57.6	69.9	48.7
85 years +	192.7	235.5	172.6	204.4	247.1	184.1

—* Represents zero.

0.0 Quantity more than zero but less than 0.05.

¹ Fall death rates include ICD-10 codes: W00-W19, X80-X89, Y01-Y09, Y30-Y39.

² Adjusted 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/>.

The AI/AN age-adjusted fall injury death rates vary considerably among the IHS Areas. The highest area rate (Great Plains, 15.0) is 4.2 times the lowest area rate (Nashville, 3.6). The IHS rate (9.3) is 1.2 times higher than the U.S. all races rate (7.5). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on the state death certificates.

Chart 34 Age-Adjusted Fall Injury Death Rates by Area

Calendar Years 2007-2009

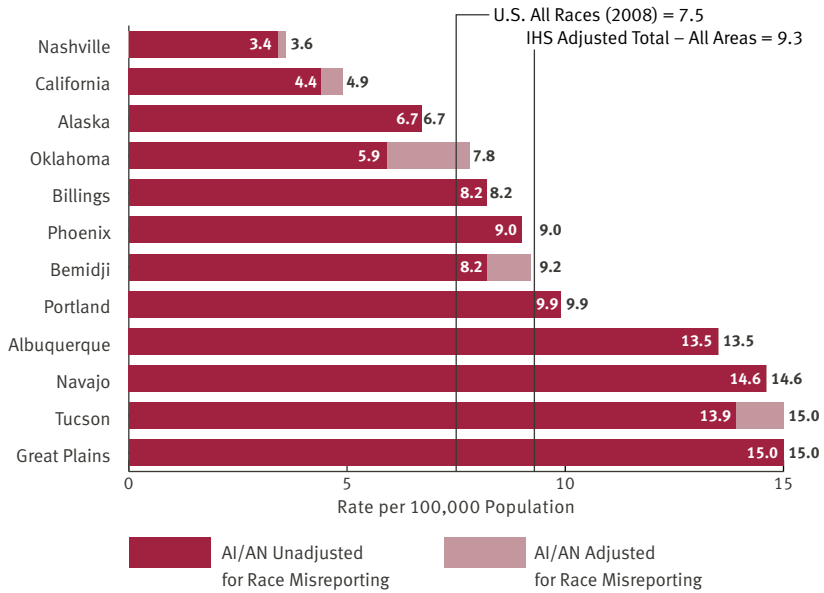


Table 34 Age-Adjusted Fall Injury Death Rates by Area

Calendar Years 2007-2009

	Deaths		Rate ¹	
	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²
<i>U.S. All Races (2008)</i>	24,013		7.5	
All IHS Areas	320	341	8.8	9.3
Alaska	16	16	6.7	6.7
Albuquerque	27	27	13.5	13.5
Bemidji	23	25	8.2	9.2
Billings	11	11	8.2	8.2
California	15	17	4.4	4.9
Great Plains	31	31	15.0	15.0
Nashville	*	*	3.4	3.6
Navajo	74	74	14.6	14.6
Oklahoma	45	60	5.9	7.8
Phoenix	31	31	9.0	9.0
Portland	30	30	9.9	9.9
Tucson	*	*	13.9	15.0

* Quantity is greater than 0 or less than or equal to 10.
¹ Age-adjusted rate per 100,000 population.
² Adjusted 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 2007-2009. The 2007-2009 rate 3.2 is 2.7 times greater than the U.S. all races rate 1.2 for 2008. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN rate on state death certificates.

Chart 35 Age-Adjusted Drowning Injury Death Rates

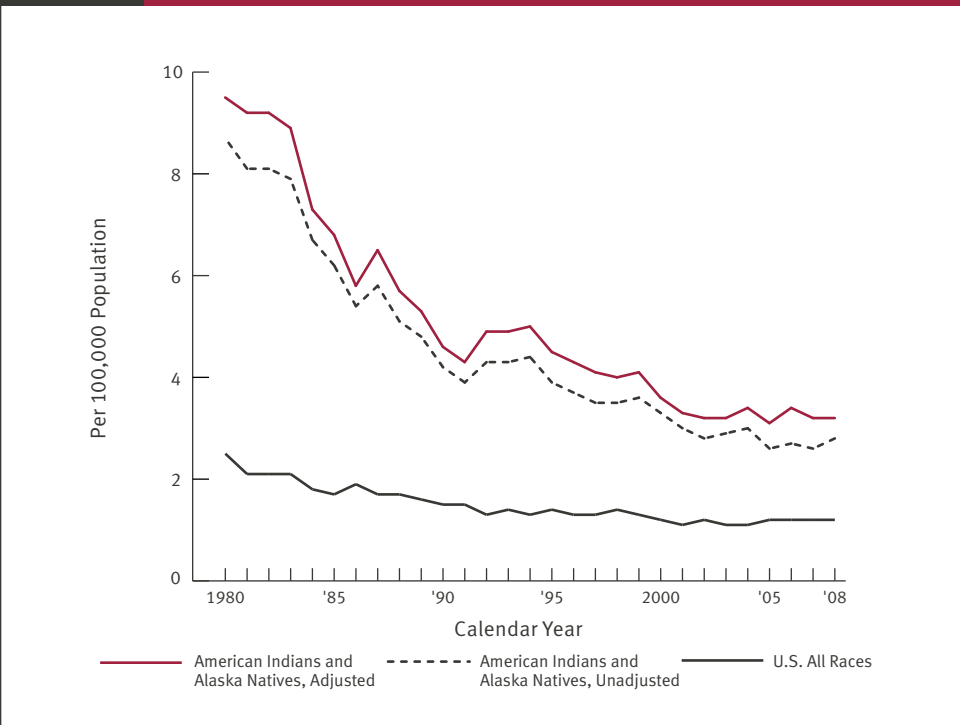


Table 35 Drowning Injury Deaths and Death Rates

*American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1980-2008
(Age-Adjusted Rate per 100,000 Population)*

Calendar Year(s)	American Indian and Alaska Native				U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native ¹ to:	
	Number		Rate				U.S. All Races	U.S. White
	Unadjusted	Adjusted ¹	Unadjusted	Adjusted ¹				
(2009)	48	52						
2007-2009 (2008)	57	65	2.8	3.2	1.2	1.1	2.7	2.9
2006-2008 (2007)	55	74	2.6	3.2	1.2	1.1	2.7	2.9
2005-2007 (2006)	38	48	2.7	3.4	1.2	1.2	2.8	2.8
2004-2006 (2005)	57	71	2.6	3.1	1.2	1.2	2.6	2.6
2003-2005 (2004)	47	50	3.0	3.4	1.1	1.1	3.1	3.1
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

¹ Adjusted – 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 (14.2) is highest for males for ages 1-4 years compared to the highest AI/AN female rate (2.7) for the same age-group. The lowest death rates for males and females were for the same ages, 85 years and older of which no deaths occurred as a result of drowning. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.

Chart 36 Drowning Injury Death Rates by Age and Sex

American Indians and Alaska Natives (2007-2009)

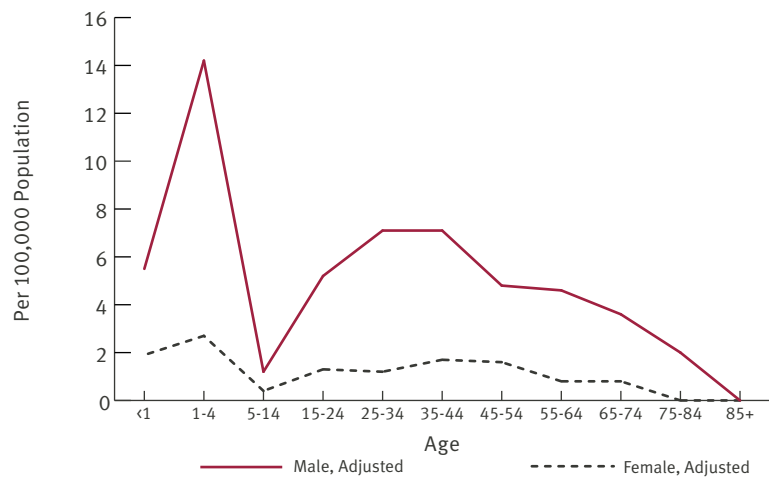


Table 36 Drowning¹ Injury Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 2007-2009, and U.S. All Races and White Populations, 2008 (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	2.8	3.8	3.7	5.5	1.9	1.9
1-4 years	5.0	8.6	8.0	14.2	1.8	2.7
5-14 years	0.8	0.8	1.2	1.2	0.4	0.4
15-24 years	2.7	3.3	4.6	5.2	0.8	1.3
25-34 years	3.5	4.2	6.2	7.1	0.7	1.2
35-44 years	4.2	4.3	6.8	7.1	1.7	1.7
45-54 years	3.0	3.1	4.8	4.8	1.4	1.6
55-64 years	2.6	2.6	4.6	4.6	0.8	0.8
65-74 years	2.1	2.1	3.6	3.6	0.8	0.8
75-84 years	0.8	0.8	2.0	2.0	—*	—*
85 years +	—*	—*	—*	—*	—*	—*

Age Group	U.S. All Races			U.S. White		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Under 1 year	1.0	1.1	0.0	0.9	0.0	0.0
1-4 years	2.7	3.5	1.9	3.0	3.8	2.1
5-14 years	0.6	0.9	0.4	0.5	0.6	0.3
15-24 years	1.3	2.3	0.3	1.2	2.1	0.3
25-34 years	1.1	1.8	0.3	1.0	1.8	0.3
35-44 years	1.0	1.5	0.5	1.0	1.5	0.5
45-54 years	1.1	1.8	0.5	1.2	1.9	0.5
55-64 years	1.0	1.8	0.4	1.0	1.8	0.4
65-74 years	1.0	1.5	0.6	1.0	1.6	0.5
75-84 years	1.7	2.7	0.9	1.7	2.7	0.9
85 years +	2.0	3.5	1.2	2.1	3.7	1.3

—* Represents zero.

0.0 Quantity more than zero but less than 0.05.

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

² Adjusted 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/>.

Alaska's rate (9.3) is 5.8 times higher than the lowest area rate (Great Plains, 1.6) and 7.8 times higher than the U.S. all races rate (1.2). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on the state death certificates.

Chart 37 Age-Adjusted Drowning Injury Death Rates by Area

Calendar Years 2007-2009

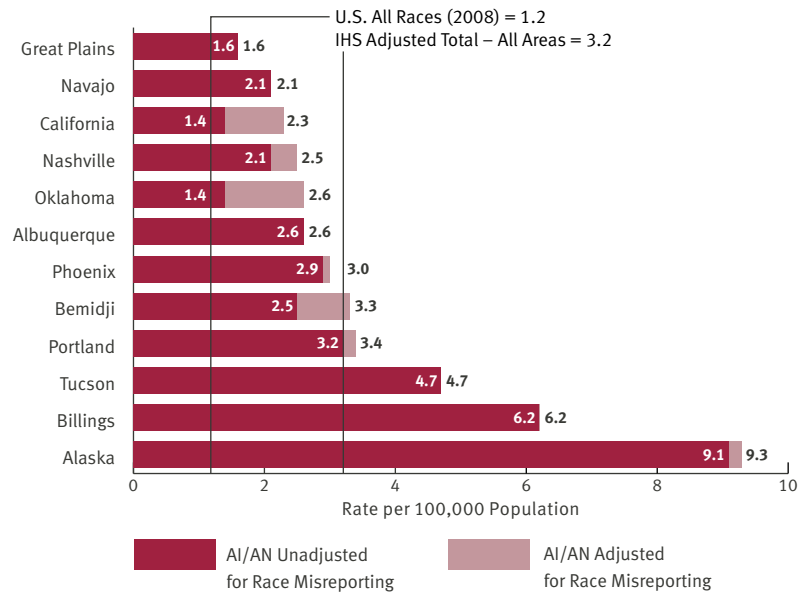


Table 37 Age-Adjusted Drowning Injury Death Rates by Area

Calendar Years 2007-2009

	Deaths		Rate ¹	
	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²
U.S. All Races (2008)	3,548		1.2	
All IHS Areas	160	191	2.8	3.2
Alaska	33	34	9.1	9.3
Albuquerque	*	*	2.6	2.6
Bemidji	*	14	2.5	3.3
Billings	13	13	6.2	6.2
California	*	14	1.4	2.3
Great Plains	*	*	1.6	1.6
Nashville	*	*	2.1	2.5
Navajo	16	16	2.1	2.1
Oklahoma	16	31	1.4	2.6
Phoenix	18	19	2.9	3.0
Portland	20	22	3.2	3.4
Tucson	*	*	4.7	4.7

*Quantity is greater than 0 or less than or equal to 10.

¹ Age-adjusted rate per 100,000 population.

² Adjusted 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 2007-2009 has an age-adjusted alcohol-related death rate (49.6) that is approximately six times the U.S. all races and the U.S. white rate (8.0, 8.6) respectively. Between 1979-1981 and 1985-1987 the AI/AN decreased 49 percent. Since 1985-1987 alcohol-related death rates have increased by 24 percent. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN rate on state death certificates.

Chart 38 Age-Adjusted Alcohol-Related Death Rates

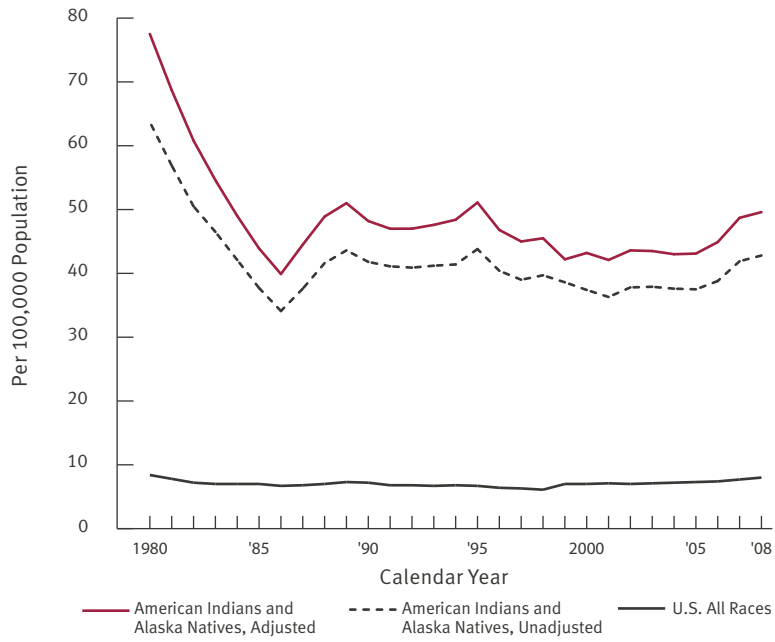


Table 38 Alcohol-Related Deaths and Death Rates

*American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1980-2008
(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		
(2009)	692	794						
2007-2009 (2008)	722	842	42.8	49.6	8.0	8.6	6.2	5.8
2006-2008 (2007)	665	784	41.9	48.7	7.7	8.3	6.3	5.9
2005-2007 (2006)	602	693	38.8	44.9	7.4	7.9	6.1	5.7
2004-2006 (2005)	537	616	37.5	43.1	7.3	7.7	5.9	5.6
2003-2005 (2004)	538	626	37.6	43.0	7.2	7.6	6.0	5.7
2002-2004 (2003)	557	630	37.9	43.5	7.1	7.4	6.1	5.9
2001-2003 (2002)	499	578	37.8	43.6	7.0	7.3	6.2	6.0
2000-2002 (2001)	483	573	36.3	42.1	7.1	7.2	5.9	5.8
1999-2001 (2000)	441	504	37.4	43.2	7.0	7.0	6.2	6.2
1998-2000 (1999)	497	570	38.6	42.2	7.0	6.9	6.0	6.1
1997-1999 (1998)	465	536	39.7	45.5	6.1	6.3	7.5	7.2
1996-1998 (1997)	435	500	39.0	45.0	6.3	6.0	7.1	7.5
1995-1997 (1996)	456	527	40.4	46.8	6.4	6.0	7.3	7.8
1994-1996 (1995)	460	543	43.8	51.1	6.7	6.2	7.6	8.2
1993-1995 (1994)	427	494	41.4	48.4	6.8	6.2	7.1	7.8
1992-1994 (1993)	395	458	41.2	47.6	6.7	6.1	7.1	7.8
1991-1993 (1992)	402	458	40.9	47.0	6.8	6.1	6.9	7.7
1990-1992 (1991)	367	417	41.1	47.0	6.8	6.0	6.9	7.8
1989-1991 (1990)	350	403	41.8	48.2	7.2	6.2	6.7	7.8
1988-1990 (1989)	376	436	43.6	51.0	7.3	6.2	7.0	8.2
1987-1989 (1988)	375	441	41.6	48.9	7.0	5.9	7.0	8.3
1986-1988 (1987)	264	310	37.6	44.5	6.8	5.8	6.5	7.7
1985-1987 (1986)	264	310	34.1	39.9	6.7	5.7	6.0	7.0
1984-1986 (1985)	274	315	37.7	43.9	7.0	5.8	6.3	7.6
1983-1985 (1984)	302	348	42.1	49.0	7.0	5.9	7.0	8.3
1982-1984 (1983)	295	345	46.5	54.6	7.0	6.0	7.8	9.1
1981-1983 (1982)	293	343	50.5	60.8	7.2	6.2	8.4	9.8
1980-1982 (1981)	344	424	56.9	68.7	7.8	6.6	8.8	10.4
1979-1981 (1980)	369	436	63.7	77.5	8.4	6.9	9.2	11.2
(1979)	377	454						

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

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 (2007-2009) 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 exceeded 10.2 for any age group in 2008, whereas the AI/AN female rate for years 2007-2009 ranged from 13.2 to 79.9 for age groups 25 years and over. These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on the state death certificate.

Chart 39 Alcohol-Related Death Rates by Age and Sex

American Indians and Alaska Natives (2007-2009)

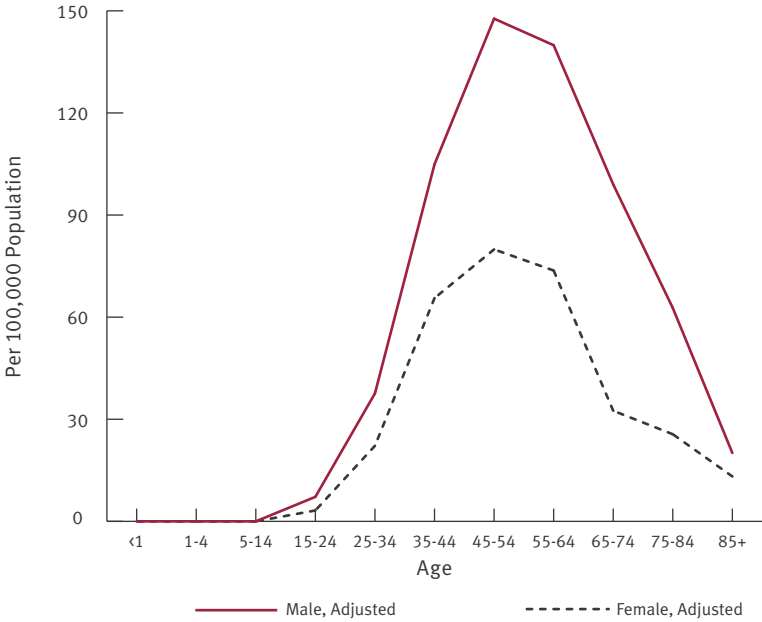


Table 39 Alcohol-Related Death Rates by Age and Sex

*American Indians and Alaska Natives, IHS Service Area, 2007-2009
U.S. All Races and White Populations, 2008 (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	—*	—*	—*	—*	—*	—*
15-24 years	4.8	5.4	6.8	7.2	2.3	3.2
25-34 years	25.4	31.0	32.3	37.6	16.9	22.2
35-44 years	72.9	86.1	89.7	104.9	54.6	65.6
45-54 years	97.8	112.9	128.2	147.7	69.0	79.9
55-64 years	90.6	105.1	119.6	139.9	64.2	73.7
65-74 years	57.1	63.7	85.5	99.0	31.8	32.5
75-84 years	37.9	41.2	54.9	62.7	25.6	25.6
85 years +	15.5	15.5	20.1	20.1	13.2	13.2

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	0.0	0.0	0.0	0.0	0.0	0.0
15-24 years	0.4	0.7	0.2	0.5	0.7	0.2
25-34 years	2.0	3.0	1.0	2.1	3.2	1.0
35-44 years	7.6	10.7	4.5	8.0	11.3	4.7
45-54 years	18.6	27.7	9.7	19.8	29.4	10.2
55-64 years	20.7	33.6	8.7	21.1	34.1	8.8
65-74 years	15.3	25.7	6.4	15.5	25.6	6.6
75-84 years	9.4	17.1	4.0	9.6	17.2	4.1
85 years +	5.2	10.8	2.5	5.3	11.1	2.5

—* Represents zero.

0.0 Quantity more than zero but less than 0.05.

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

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

The Billings Area age-adjusted alcohol-related death rate (75.1) is 9.4 times the U.S. all races rate (8.0) and 5.2 times the lowest IHS area rate (Nashville, 14.5). The IHS AI/AN rate (49.6) is 6.2 times higher than the U.S. all races rate (8.0). These AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on the state death certificates.

Chart 40 Age-Adjusted Alcohol-Related Death Rates by Area

Calendar Years 2007-2009

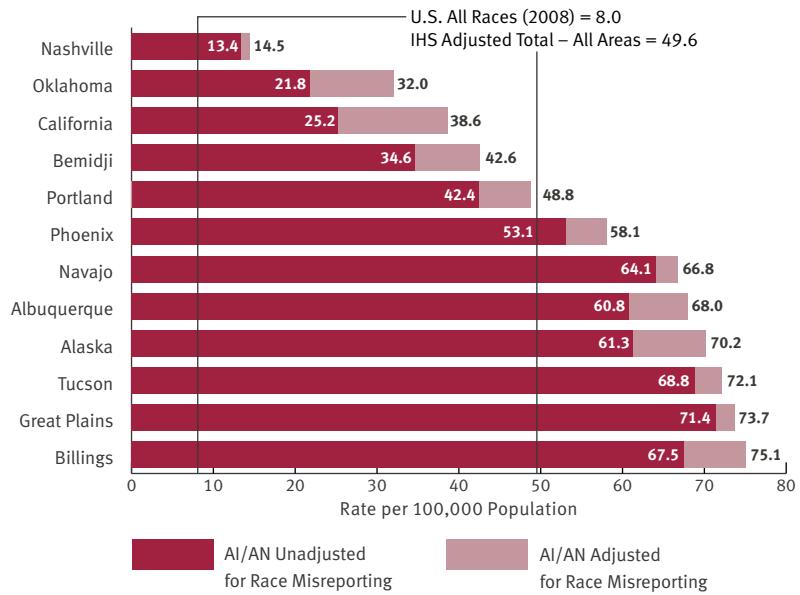


Table 40 Age-Adjusted Alcohol-Related Death Rates by Area

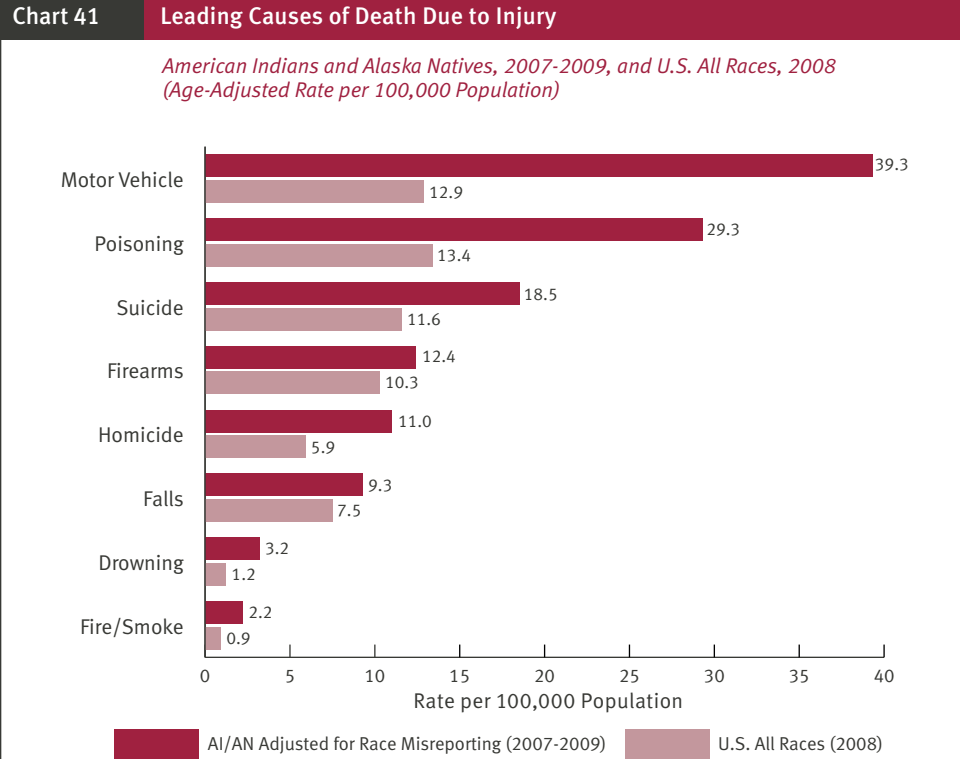
Calendar Years 2007-2009

	Deaths		Rate ¹	
	Unadjusted	Adjusted ²	Unadjusted	Adjusted ²
U.S. All Races (2008)	24,189		8.0	
All IHS Areas	2,079	2,420	42.8	49.6
Alaska	199	228	61.3	70.2
Albuquerque	165	185	60.8	68.0
Bemidji	105	131	34.6	42.6
Billings	116	129	67.5	75.1
California	120	185	25.2	38.6
Great Plains	178	184	71.4	73.7
Nashville	48	52	13.4	14.5
Navajo	392	408	64.1	66.8
Oklahoma	211	310	21.8	32.0
Phoenix	261	286	53.1	58.1
Portland	224	259	42.4	48.8
Tucson	60	63	68.8	72.1

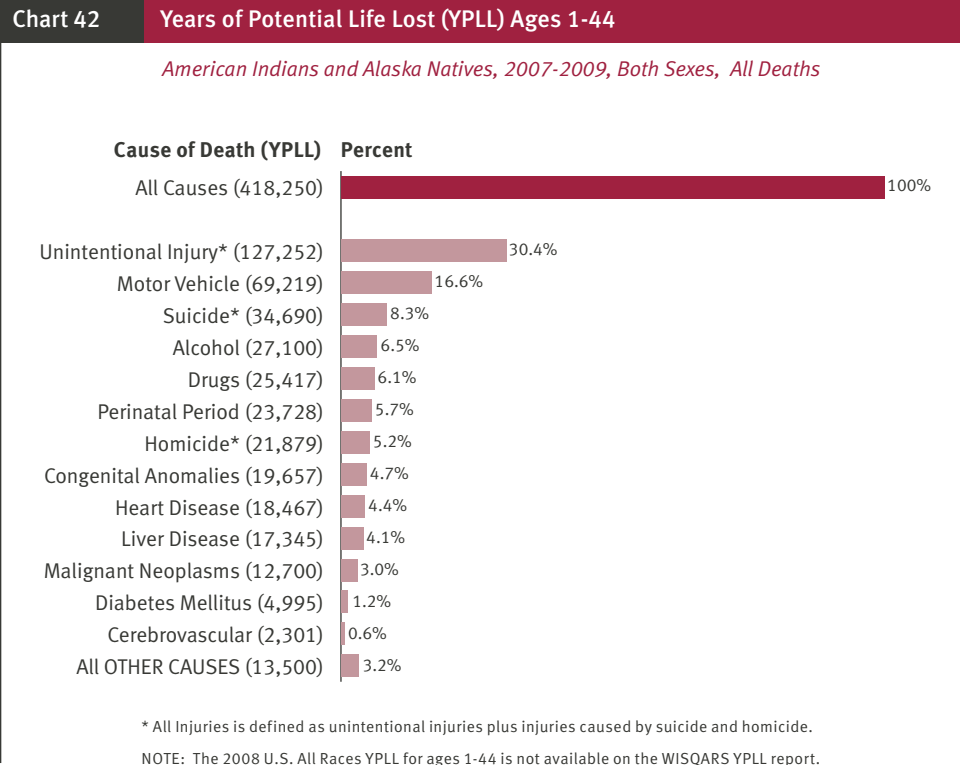
¹ Age-adjusted rate per 100,000 population.

² Adjusted 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 poisoning and suicide. AI/AN deaths due to motor vehicle accidents are 3.0 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.



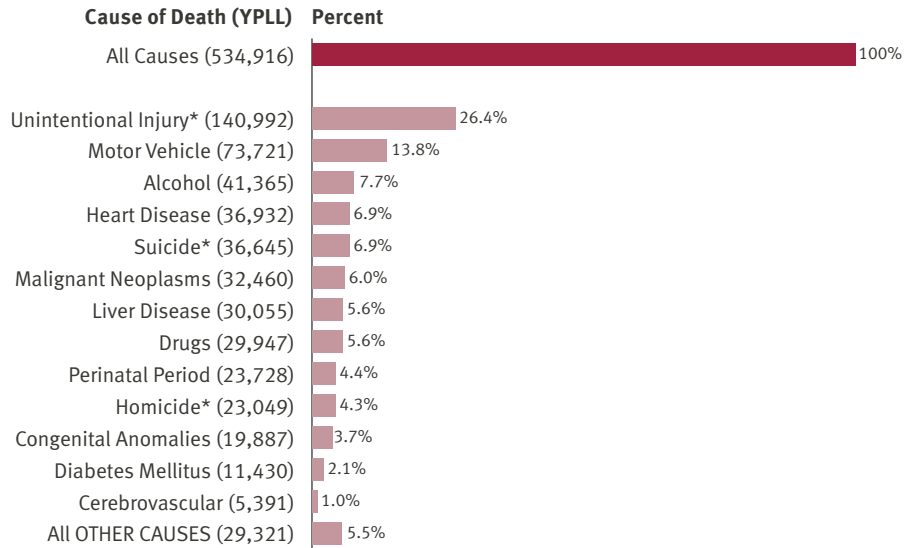
All injuries account for 43.9 percent of the YPLL for AI/AN age 1-44. This is more than the YPLL from all other causes combined.



All injuries account for the greatest part of the YPLL for AI/AN before age 65 (37.6 percent).

Chart 43 Years of Potential Life Lost (YPLL) Before Age 65

American Indians and Alaska Natives, 2007-2009, Both Sexes, All Deaths

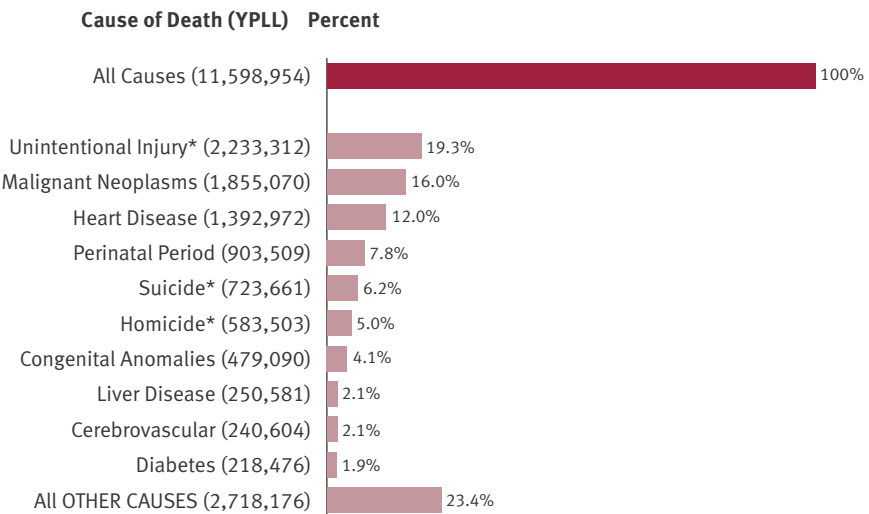


* All Injuries is defined as unintentional injuries plus injuries caused by suicide and homicide.

All injuries account for the greatest part of the YPLL before age 65 for U.S. all races (30.5 percent).

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

U.S. All Races, 2008, Both Sexes, All Deaths



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

Table 45 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

Cause of Death	American Indian and Alaska Native		U.S. All Races	U.S. White	Ratio of American Indian and Alaska Native ¹ to:	
	Unadjusted	Adjusted ¹	Rate	Rate	U.S. All Races	U.S. White
YPLL for All Causes of Death						
2007-2009 (2008)	75.2	89.4	38.1	35.4	2.3	2.5
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)						
2007-2009 (2008)	27.0	37.5	11.6	11.3	3.2	3.3
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)						
2007-2009 (2008)	9.6	11.2	4.3	3.7	2.7	3.0
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						
2007-2009 (2008)	21.1	26.3	7.3	7.7	3.6	3.4
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

¹ Adjusted – 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, 4.4 percent of all discharges pertain to injury and poisoning.

Chart 46 Leading Causes of Hospitalization: Ages 1 to 4 Years

IHS and Tribal Direct and Contract General Hospitals, Fiscal Year 2013

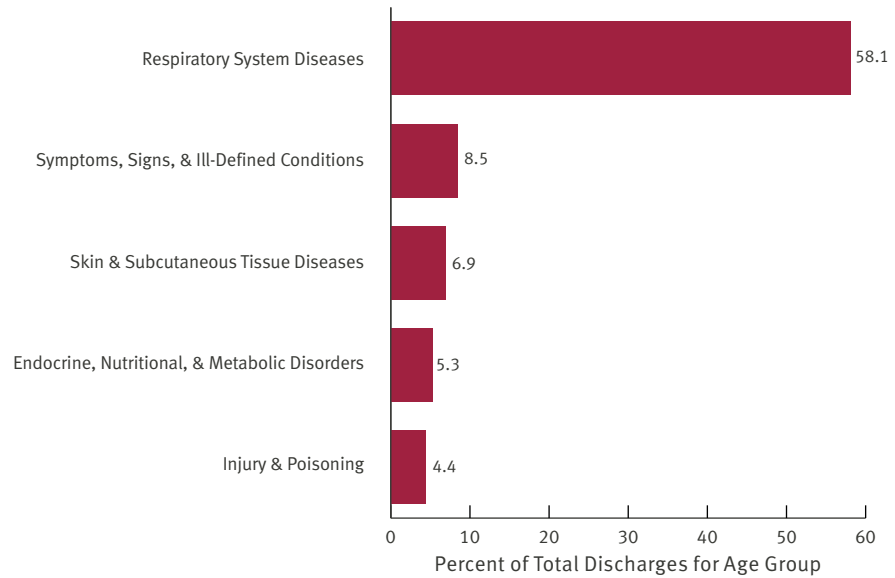


Table 46 Ten Leading Causes of Hospitalization for GM&S* Patients 1 to 4 Years of Age

IHS and Tribal Direct and Contract General Hospitals, Fiscal Year 2013

Diagnostic Category	Number of Discharges			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	1,757	925	832	100.0	52.6	47.4
Respiratory system diseases	1,021	559	462	58.1	60.4	55.5
Symptoms, signs, & ill-defined conditions	149	70	79	8.5	7.6	9.5
Skin & subcutaneous tissue diseases	122	62	60	6.9	6.7	7.2
Endocrine, nutritional, & metabolic disorders	93	41	52	5.3	4.4	6.3
Injury & poisoning	77	45	32	4.4	4.9	3.8
Digestive system diseases	76	45	31	4.3	4.9	3.7
Infectious & parasitic diseases	55	27	28	3.1	2.9	3.4
Genitourinary system diseases	47	7	40	2.7	0.8	4.8
Nervous system & sense organ diseases	41	24	17	2.3	2.6	2.0
Musculoskeletal system & connective tissue diseases	24	11	13	1.4	1.2	1.6
All other	52	34	18	3.0	3.7	2.2

* 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, 13.2 percent of all discharges pertain to injury and poisoning.

Chart 47 Leading Causes of Hospitalization: Ages 5 to 14 Years

IHS and Tribal Direct and Contract General Hospitals, Fiscal Year 2013

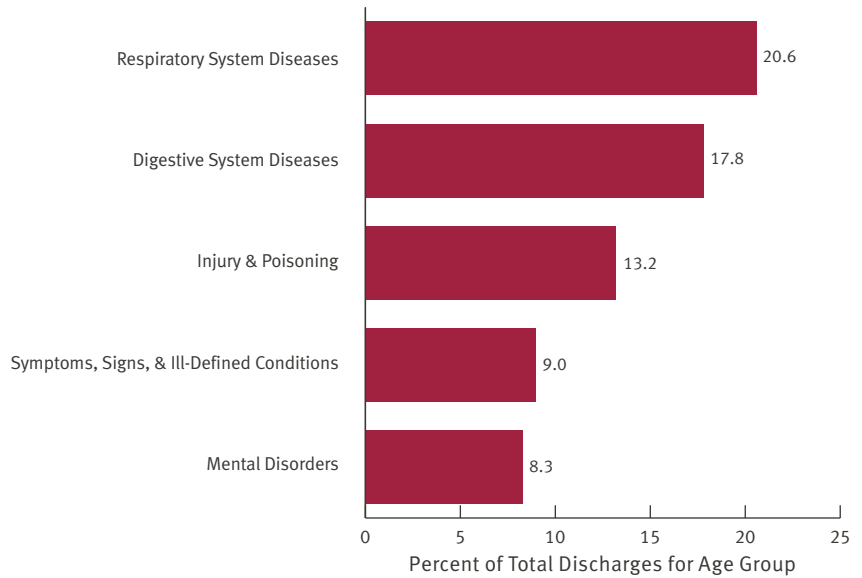


Table 47 Ten Leading Causes of Hospitalization for GM&S* Patients 5 to 14 Years of Age

IHS and Tribal Direct and Contract General Hospitals, Fiscal Year 2013

Diagnostic Category	Number of Discharges			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	1,525	795	730	100.0	52.1	47.9
Respiratory system diseases	314	170	144	20.6	21.4	19.7
Digestive system diseases	271	176	95	17.8	22.1	13.0
Injury & poisoning	201	104	97	13.2	13.1	13.3
Symptoms, signs, & ill-defined conditions	137	67	70	9.0	8.4	9.6
Mental disorders	127	53	74	8.3	6.7	10.1
Skin & subcutaneous tissue diseases	121	76	45	7.9	9.6	6.2
Genitourinary system diseases	69	14	55	4.5	1.8	7.5
Endocrine, nutritional, & metabolic disorders	59	27	32	3.9	3.4	4.4
Nervous system & sense organ diseases	52	26	26	3.4	3.3	3.6
Infectious & parasitic diseases	35	19	16	2.3	2.4	2.2
All other	139	63	76	9.1	7.9	10.4

* General Medical and Surgical
SOURCE: IHS National Data Warehouse

Injury and poisoning is the fourth leading cause of hospitalization for AI/AN patients, 15 to 24 years of age. For this AI/AN age group, 8.4 percent of all discharges pertain to injury and poisoning.

Chart 48 Leading Causes of Hospitalization: Ages 15 to 24 Years

IHS and Tribal Direct and Contract General Hospitals, Fiscal Year 2013

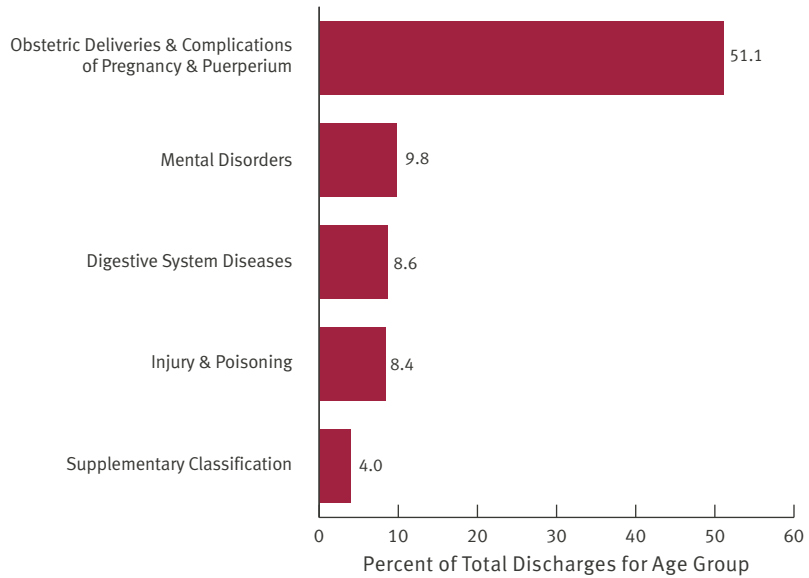


Table 48 Ten Leading Causes of Hospitalization for GM&S* Patients 15 to 24 Years of Age

IHS and Tribal Direct and Contract General Hospitals, Fiscal Year 2013

Diagnostic Category	Number of Discharges			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	8,523	2,014	6,509	100.0	23.6	76.4
Obstetric deliveries & complications of pregnancy & puerperium	4,351	0	4,351	51.1	0.0	66.8
Mental disorders	831	452	379	9.8	22.4	5.8
Digestive system diseases	729	327	402	8.6	16.2	6.2
Injury & poisoning	712	473	239	8.4	23.5	3.7
Supplementary classification	337	69	268	4.0	3.4	4.1
Skin & subcutaneous tissue diseases	256	156	100	3.0	7.7	1.5
Respiratory system diseases	225	140	85	2.6	7.0	1.3
Genitourinary system diseases	220	21	199	2.6	1.0	3.1
Symptoms, signs, & ill-defined conditions	183	70	113	2.1	3.5	1.7
Endocrine, nutritional, & metabolic disorders	178	72	106	2.1	3.6	1.6
All other	501	234	267	5.9	11.6	4.1

* 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, 8.7 percent of all discharges pertain to injury and poisoning.

Chart 49

Leading Causes of Hospitalization: Ages 25 to 44 Years

IHS and Tribal Direct and Contract General Hospitals, Fiscal Year 2013

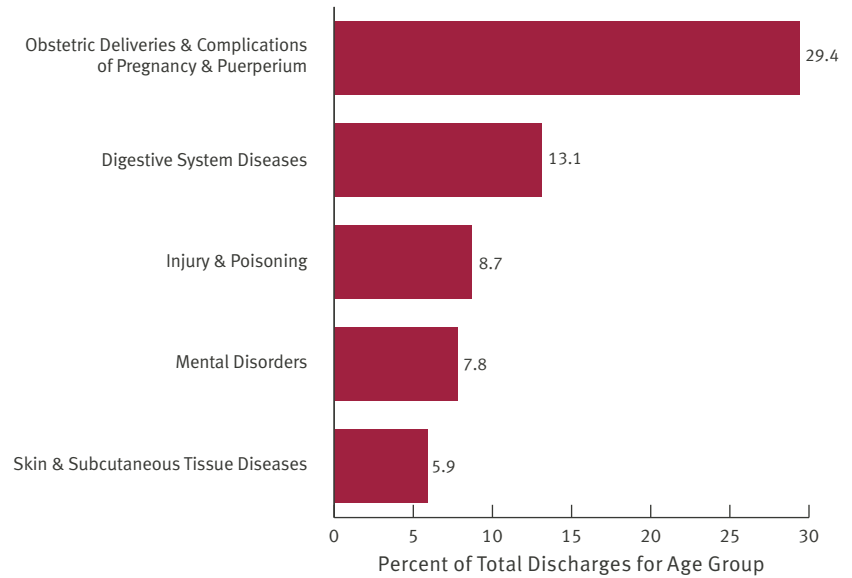


Table 49

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

IHS and Tribal Direct and Contract General Hospitals, Fiscal Year 2013

Diagnostic Category	Number of Discharges			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	18,401	6,645	11,756	100.0	36.1	63.9
Obstetric deliveries & complications of pregnancy & puerperium	5,406	0	5,406	29.4	0.0	46.0
Digestive system diseases	2,411	1,227	1,184	13.1	18.5	10.1
Injury & poisoning	1,606	1,018	588	8.7	15.3	5.0
Mental disorders	1,442	954	488	7.8	14.4	4.2
Skin & subcutaneous tissue diseases	1,094	672	422	5.9	10.1	3.6
Genitourinary system diseases	1,038	207	831	5.6	3.1	7.1
Endocrine, nutritional, & metabolic disorders	916	553	363	5.0	8.3	3.1
Symptoms, signs, & ill-defined conditions	797	324	473	4.3	4.9	4.0
Respiratory system diseases	747	357	390	4.1	5.4	3.3
Supplementary classification	652	205	447	3.5	3.1	3.8
All other	2,292	1,128	1,164	12.5	17.0	9.9

* General Medical and Surgical

SOURCE: IHS National Data Warehouse

Injury and poisoning is the second leading cause of hospitalization for AI/AN patients, 45 to 54 years of age. For this AI/AN age group, 8.8 percent of all discharges pertain to injury and poisoning.

Chart 50 Leading Causes of Hospitalization: Ages 45 to 54 Years

IHS and Tribal Direct and Contract General Hospitals, Fiscal Year 2013

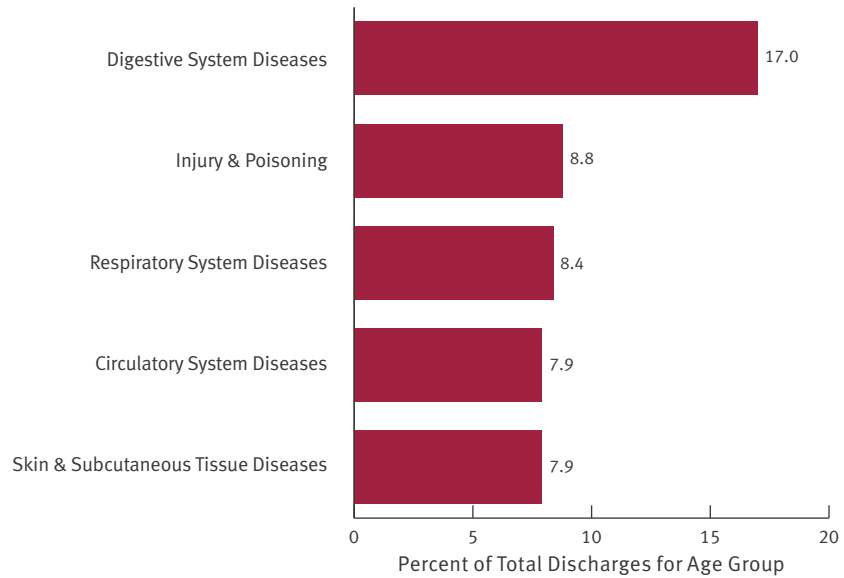


Table 50 Ten Leading Causes of Hospitalization for GM&S* Patients 45 to 54 Years of Age

IHS and Tribal Direct and Contract General Hospitals, Fiscal Year 2013

Diagnostic Category	Number of Discharges			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	9,096	4,693	4,403	100.0	51.6	48.4
Digestive system diseases	1,547	774	773	17.0	16.5	17.6
Injury & poisoning	798	469	329	8.8	10.0	7.5
Respiratory system diseases	761	360	401	8.4	7.7	9.1
Circulatory system diseases	722	447	275	7.9	9.5	6.2
Skin & subcutaneous tissue diseases	718	418	300	7.9	8.9	6.8
Endocrine, nutritional, & metabolic disorders	688	404	284	7.6	8.6	6.5
Symptoms, signs, & ill-defined conditions	685	310	375	7.5	6.6	8.5
Genitourinary system diseases	590	177	413	6.5	3.8	9.4
Musculoskeletal system & connective tissue diseases	573	315	258	6.3	6.7	5.9
Mental disorders	561	384	177	6.2	8.2	4.0
All other	1,453	635	818	16.0	13.5	18.6

* 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, 7.3 percent of all discharges pertain to injury and poisoning.

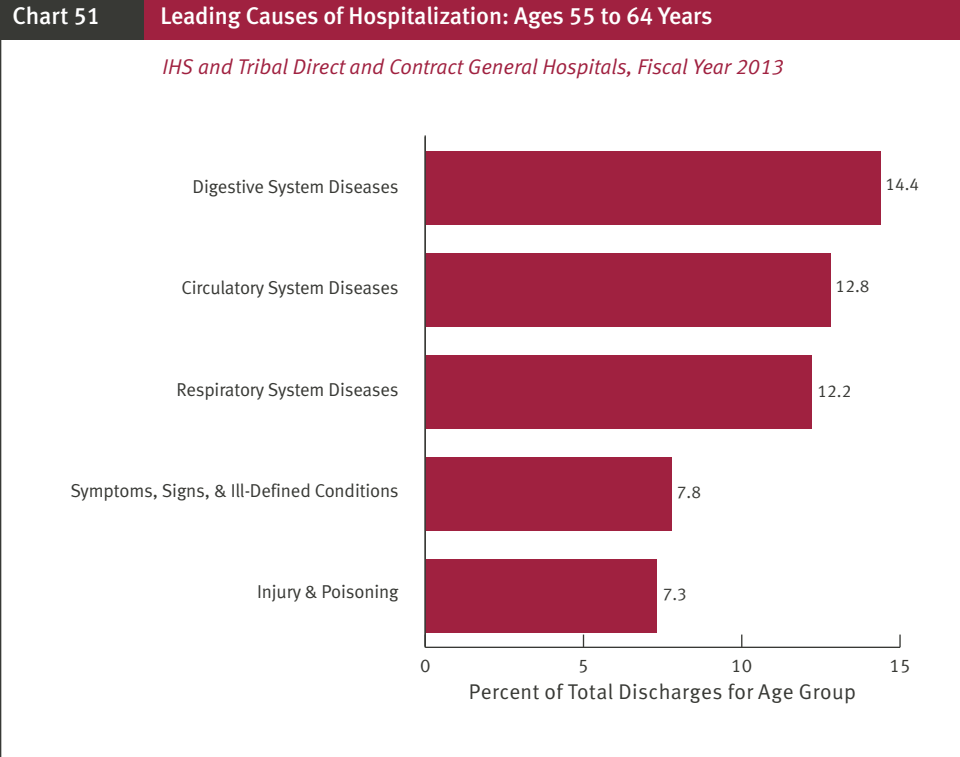


Table 51 **Ten Leading Causes of Hospitalization for GM&S* Patients 55 to 64 Years of Age**

IHS and Tribal Direct and Contract General Hospitals, Fiscal Year 2013

Diagnostic Category	Number of Discharges			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	8,129	4,019	4,110	100.0	49.4	50.6
Digestive system diseases	1,174	526	648	14.4	13.1	15.8
Circulatory system diseases	1,044	624	420	12.8	15.5	10.2
Respiratory system diseases	988	420	568	12.2	10.5	13.8
Symptoms, signs, & ill-defined conditions	633	304	329	7.8	7.6	8.0
Injury & poisoning	591	302	289	7.3	7.5	7.0
Endocrine, nutritional, & metabolic disorders	568	308	260	7.0	7.7	6.3
Genitourinary system diseases	548	206	342	6.7	5.1	8.3
Skin & subcutaneous tissue diseases	524	296	228	6.4	7.4	5.5
Musculoskeletal system & connective tissue diseases	519	253	266	6.4	6.3	6.5
Infectious & parasitic diseases	394	194	200	4.8	4.8	4.9
All other	1,146	586	560	14.1	14.6	13.6

* General Medical and Surgical
 SOURCE: IHS National Data Warehouse

Injury and poisoning is the fifth leading cause of hospitalization for AI/AN patients (all ages). Seven (6.8) percent of all AI/AN discharges pertain to injury and poisoning.

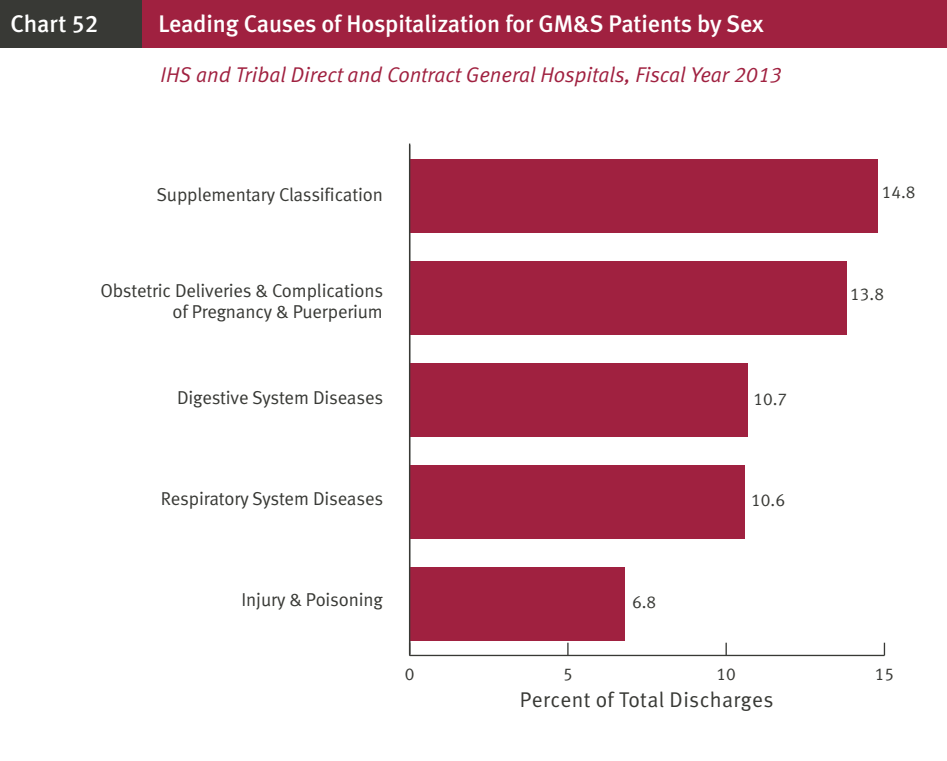


Table 52 **Ten Leading Causes of Hospitalization for GM&S* Patients by Sex**

Indian Health Service and Tribal Direct and Contract General Hospitals, Fiscal Year 2013

Diagnostic Category	Number of Discharges			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	70,713	30,245	40,468	100.0	42.8	57.2
Supplementary classification	10,495	5,128	5,367	14.8	17.0	13.3
Obstetric deliveries & complications of pregnancy & puerperium	9,792	3	9,789	13.8	0.0	24.2
Digestive system diseases	7,585	3,643	3,942	10.7	12.0	9.7
Respiratory system diseases	7,528	3,637	3,891	10.6	12.0	9.6
Injury & poisoning	4,816	2,717	2,099	6.8	9.0	5.2
Circulatory system diseases	4,224	2,336	1,888	6.0	7.7	4.7
Symptoms, signs, & ill-defined conditions	3,946	1,772	2,174	5.6	5.9	5.4
Genitourinary system diseases	3,551	1,004	2,547	5.0	3.3	6.3
Skin & subcutaneous tissue diseases	3,398	1,954	1,444	4.8	6.5	3.6
Endocrine, nutritional, & metabolic disorders	3,375	1,780	1,595	4.8	5.9	3.9
All other	12,003	6,271	5,732	17.0	20.7	14.2

* General Medical and Surgical

SOURCE: IHS National Data Warehouse

Injury and poisoning is the fourth leading cause of hospitalization for AI/AN male patients (all ages). Nine (9.0) percent of all AI/AN male discharges pertain to injury and poisoning.

Chart 53 **Leading Causes of Hospitalization for Males**

IHS and Tribal Direct and Contract General Hospitals, Fiscal Year 2013

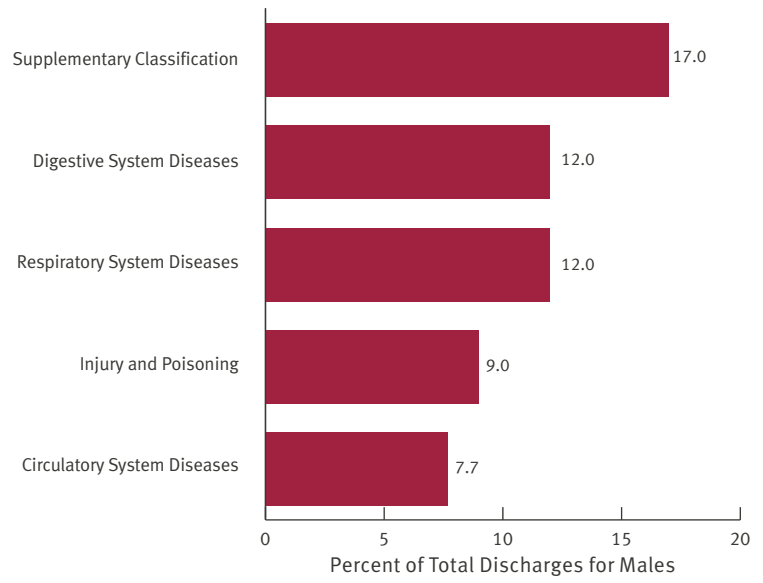


Table 53 Ten Leading Causes of Hospitalization by Sex

Indian Health Service and Tribal Direct and Contract General Hospitals, Fiscal Year 2013

Diagnostic Category	Number of Discharges	Percent of Total
MALE		
All categories	30,245	83.0
Supplementary classification	5,128	17.0
Digestive system diseases	3,643	12.0
Respiratory system diseases	3,637	12.0
Injury & poisoning	2,717	9.0
Circulatory system diseases	2,336	7.7
Mental disorders	2,054	6.8
Skin & subcutaneous tissue diseases	1,954	6.5
Endocrine, nutritional, & metabolic disorders	1,780	5.9
Symptoms, signs, & ill-defined conditions	1,772	5.9
Musculoskeletal system & connective tissue diseases	1,228	4.1
All other	3,996	13.2
FEMALE		
All categories	40,468	100.0
Obstetric deliveries & complications of pregnancy & puerperium	9,789	24.2
Supplementary classification	5,367	13.3
Digestive system diseases	3,942	9.7
Respiratory system diseases	3,891	9.6
Genitourinary system diseases	2,547	6.3
Symptoms, signs, & ill-defined conditions	2,174	5.4
Injury & poisoning	2,099	5.2
Circulatory system diseases	1,888	4.7
Endocrine, nutritional, & metabolic disorders	1,595	3.9
Skin & subcutaneous tissue diseases	1,444	3.6
All other	5,732	14.2

SOURCES: IHS National Data Warehouse

Injury and poisoning is the fifth leading cause of ambulatory medical visits for AI/AN patients, 15 to 24 years of age. For this AI/AN age group, 5.7 percent of all visits pertain to injury and poisoning.

Chart 54 Leading Causes of Ambulatory Medical Clinical Impressions Visits: Ages 15 to 24 Years

IHS and Tribal Direct and Contract Facilities, Fiscal Year 2013

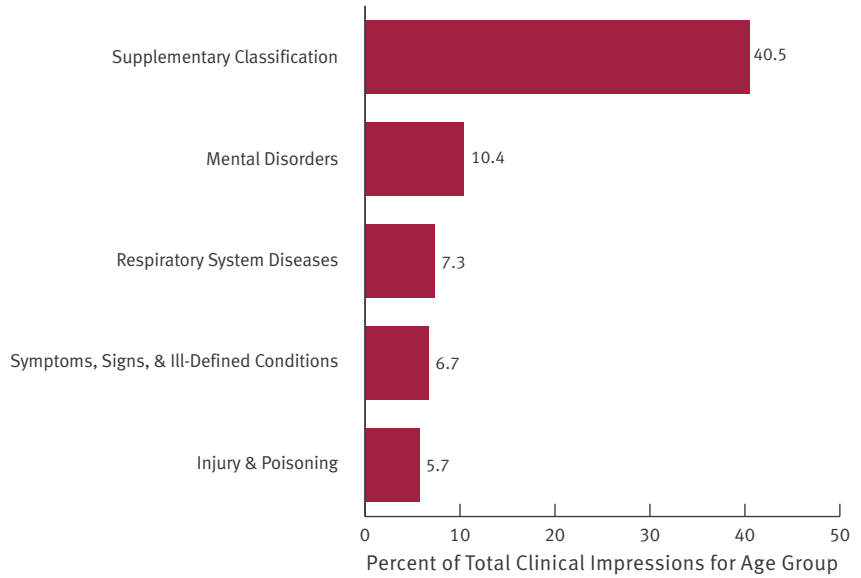


Table 54 Ten Leading Causes of Ambulatory Medical Clinical Impressions for Patients 15 to 24 Years of Age

IHS and Tribal Direct and Contract Facilities, Fiscal Year 2013

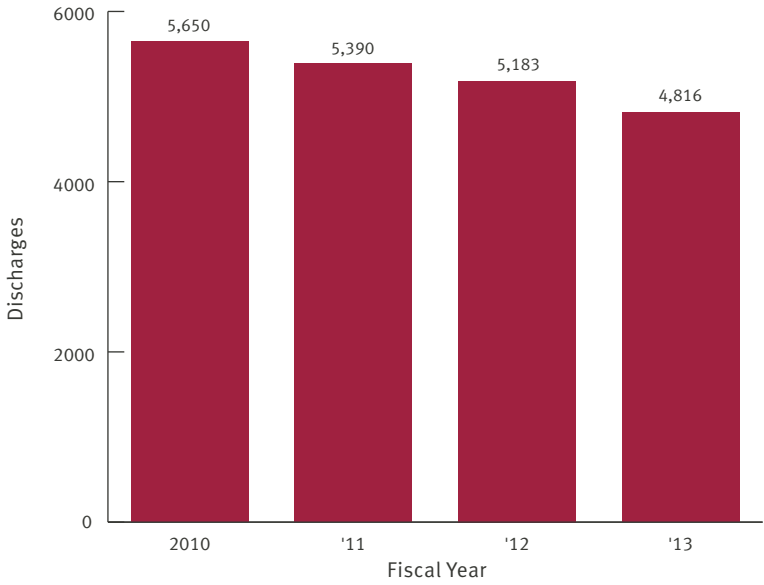
Diagnostic Category	Number of Clinical Impressions			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	1,359,001	454,245	904,756	100.0	33.4	66.6
Supplementary classification	550,352	146,651	403,701	40.5	32.3	44.6
Mental disorders	141,581	67,396	74,185	10.4	14.8	8.2
Respiratory system diseases	99,241	38,291	60,950	7.3	8.4	6.7
Symptoms, signs, & ill-defined conditions	91,657	30,120	61,537	6.7	6.6	6.8
Injury & poisoning	76,925	43,292	33,633	5.7	9.5	3.7
Nervous system & sense organ diseases	75,751	29,378	46,373	5.6	6.5	5.1
Musculoskeletal system & connective tissue diseases	71,234	29,516	41,718	5.2	6.5	4.6
Skin & subcutaneous tissue diseases	48,495	22,729	25,766	3.6	5.0	2.8
Genitourinary system diseases	45,673	3,460	42,213	3.4	0.8	4.7
Obstetric deliveries & complications of pregnancy & puerperium	43,503	0	43,502	3.2	0.0	4.8
All other	114,589	43,411	71,178	8.4	9.6	7.9

SOURCE: IHS National Data Warehouse

Since FY 2010, the number of discharges for injuries and poisonings from IHS and Tribal direct and contract general hospitals has decreased 17 percent. In FY 2013, there were 4,816 discharges.

Chart 55 Hospitalizations for Injuries and Poisonings

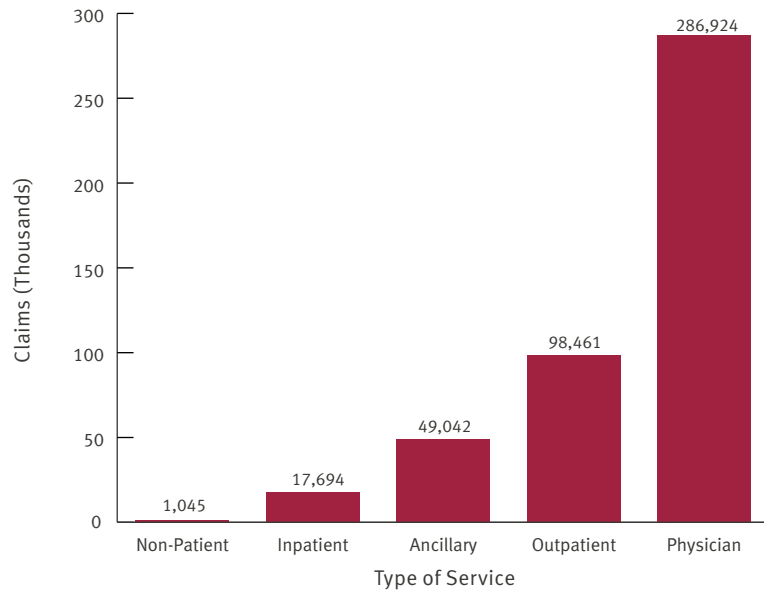
IHS and Tribal Direct and Contract General Hospitals, FY 2010-2013



During FY 2013, the claim count was 453,166 for all types of services of which 286,924 (63.3 percent) were from physicians. Inpatient claims (17,694) comprised 3.9 percent of all claims paid by Purchased/ Referred Care.

Chart 56.1 Purchased/Referred Care All Medical Expenses Claim Count (Excludes Dental)

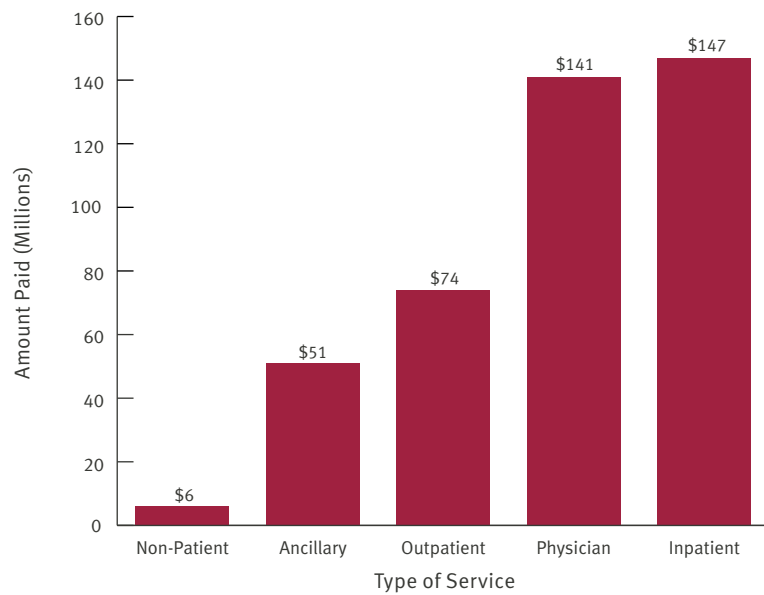
Fiscal Year 2013



During FY 2013, \$419.9 million in claims were paid for all types of services. \$147 million in inpatient claims, and \$141 million in physician claims were paid by IHS Purchased/Referred Care.

Chart 56.2 Purchased/Referred Care All Medical Expenses Paid (Excludes Dental)

Fiscal Year 2013



During FY 2013, the average cost of a Purchased/Referred Care inpatient case for injuries was \$8,320 and for an outpatient case was \$754. Inpatient claim payments were 11 times higher than outpatient claim payments in this fiscal year.

Chart 56.3 Purchased/Referred Care All Medical Expenses Cost Per Case (Excludes Dental)

Fiscal Year 2013

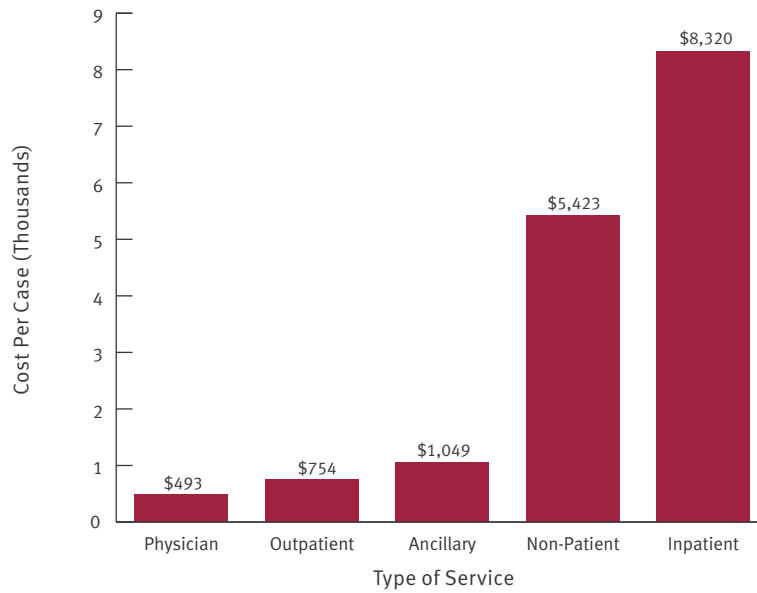


Table 56 Purchased/Referred Care Medical Expense

IHS Administered Purchased/Referred Care, Fiscal Year 2013

Type of Expenses	TYPE OF SERVICE					
	TOTAL	Physician	Inpatient	Outpatient	Ancillary	Non-Patient
All Medical Expense Claim Count	453,166	286,924	17,694	98,461	49,042	1,045
All Medical Expense Paid	\$419,940,170.62	\$141,436,896.63	\$147,209,787.82	\$74,193,584.64	\$51,432,641.78	\$5,667,196.75
All Medical Expense Cost Per Case	\$926.68	\$492.94	\$8,319.76	\$753.53	\$1,048.75	\$5,423.15

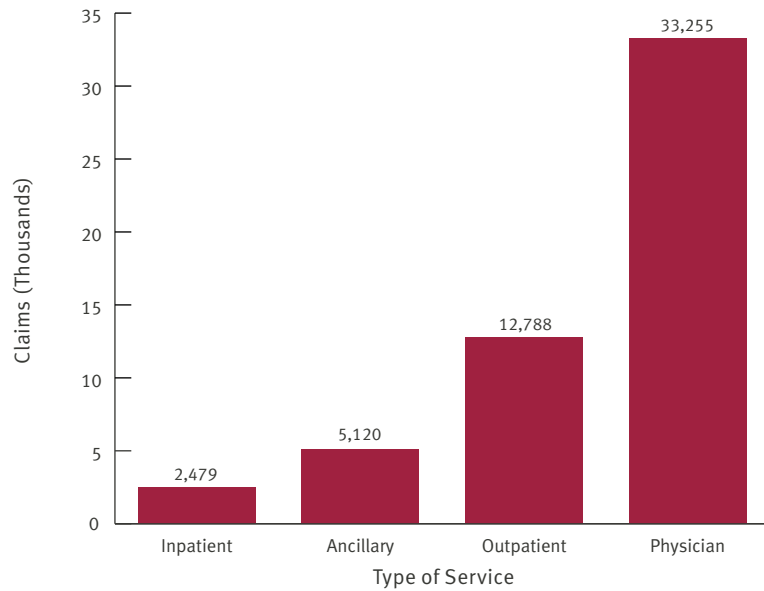
SOURCE: Office of Resource Access and Partnerships. Fiscal Intermediary Claim History Files for Purchase Order, Fiscal Year 2013.

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. Dental is not included.

During FY 2013, the number of Purchased/Referred Care claims from physicians was 33,255, 12,788 outpatient claims and 2,479 inpatient claims were processed in that fiscal year. Outpatient claims outnumbered inpatient claims by a ratio of 5.2 to 1.

Chart 57.1 Purchased/Referred Care Cost Per Injuries and Poisonings Case Claim Count (Excludes Dental)

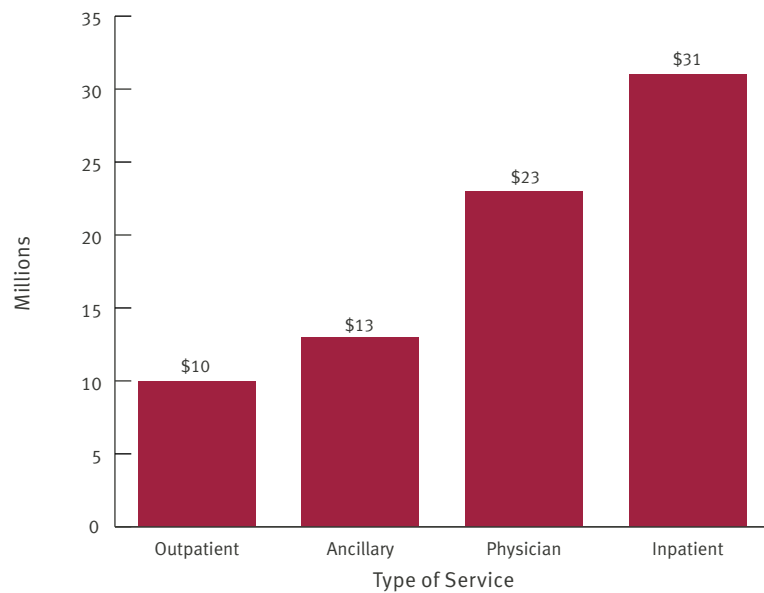
Fiscal Year 2013



During FY 2013, the total amount paid for Purchased/Referred Care inpatient cases of injuries and poisonings was \$31 million and for outpatient cases was \$10 million. The amount paid for inpatient claims exceeded outpatient by nearly three times.

Chart 57.2 Purchased/Referred Care Expenses Related to Injuries and Poisonings Paid (Excludes Dental)

Fiscal Year 2013



During FY 2013, the average cost of a Purchased/Referred Care inpatient case for injuries and poisonings was \$12,531 and for an outpatient one was \$816. The cost of an average inpatient injury and poisoning case exceeded an outpatient one by 15.4 times.

Chart 57.3 Purchased/Referred Care All Medical Expenses Cost Per Case (Excludes Dental)

Fiscal Year 2013

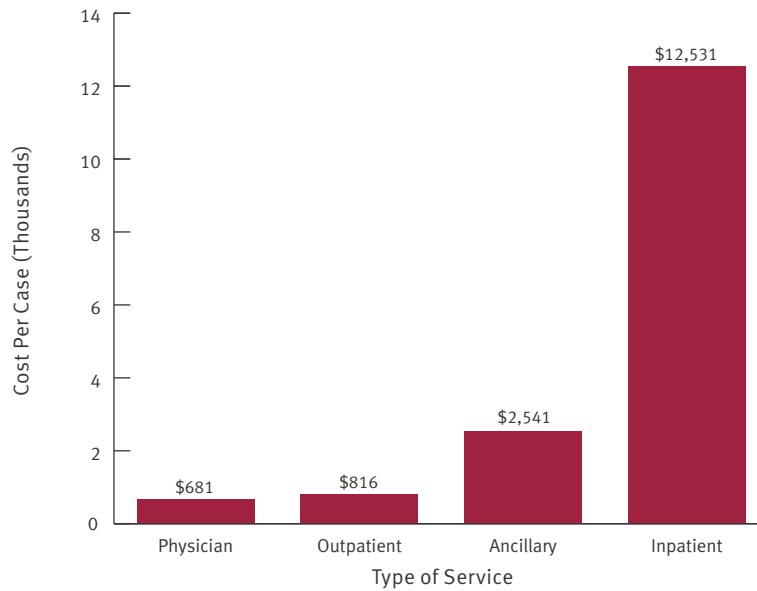


Table 57 Purchased/Referred Care Expenses Related to Injuries and Poisonings

IHS Administered Purchased/Referred Care, Fiscal Year 2013

Type of Expenses	TYPE OF CLAIM				
	TOTAL	Physician	Inpatient	Outpatient	Ancillary
Injury Claim Count	53,642	33,255	2,479	12,788	5,120
Injury Paid	\$77,168,527.13	\$22,654,449.40	\$31,064,070.20	\$10,438,577.65	\$13,011,429.88
Injury Cost Per Case	\$1,438.58	\$681.23	\$12,530.89	\$816.28	\$2,541.29

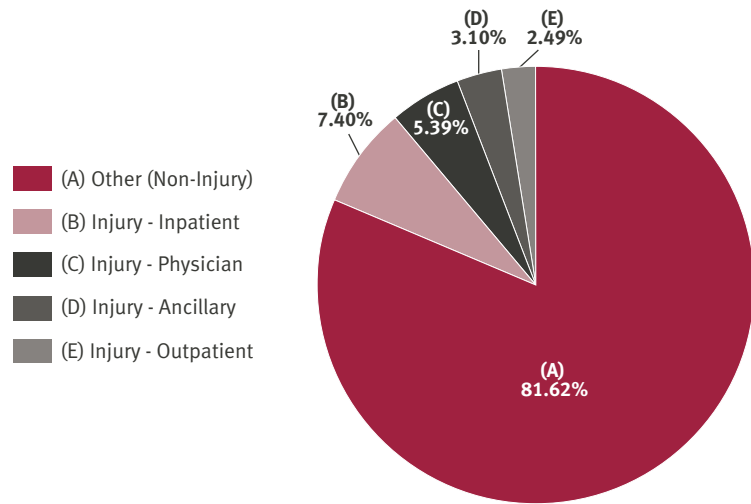
SOURCE: Office of Resource Access and Partnerships. Fiscal Intermediary Claim History Files for Purchase Order, Fiscal Year 2013.

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. Dental is not included. No non-patients received services and are not included from this table.

Eighteen (18) percent of the total medical expenses paid for IHS-administered Purchased/Referred Care during FY 2013 were associated with “injuries and poisonings” claims of which seven percent were inpatient claims and three percent were outpatient claims. Eighty-two (82) percent fall under “other medical” (non-injury) claims expenses.

Chart 58 Percent of Injury and Poisoning “Total” Medical Expense Paid by Type of Service (Excludes Dental)

Fiscal Year 2013



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, I15
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, U04
Acute bronchitis and bronchiolitis	J20-J21
Unspecified acute lower respiratory infection	J22, U04
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
Cholelithiasis 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
<hr/>	
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 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	F10, G31.2, G62.1, I42.6, K29.2, K70, R78.0, X45, X65, Y15
Breast cancer (females)	C50
Cervical cancer	C53
Colon-rectal-cancer	C18-C21
Drug-related deaths	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, X40-X44, X60-X64, X85, Y10-Y14
Enterocolitis due to Clostridium Difficile (C. difficile)	A04.7
Firearm deaths	W32-W34, X72-X74, X93-X95, Y22-Y24, Y35.0, U01.4
Human Immunodeficiency virus (HIV) infection	B24
Lung cancer	C33-C34
Maternal death	A34, O00-O95, O98-O99
Prostate cancer	C61, D29

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	630-679
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-V89

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's lymphoma	C81
Non-Hodgkin's 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 myeloid leukemia	C92.1
Other and unspecified malignant neoplasms of lymphoid, Hematopoietic, and related tissue	C96
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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