

ALASKA NATIVE MORTALITY UPDATE: 2004-2008

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Appendices

- Appendix A** - Leading Causes of Death – ICD-9 and ICD-10 Codes
- Appendix B** - 1980-2008 Alaska Native Regional Population Tables
- Appendix C** - Service Regions, Tribal Health Organizations, and Communities
- Appendix D** - Numbers of Alaska Native Deaths For Leading Causes

HIGHLIGHTS

All-Cause Mortality

- The Alaska Native all-cause mortality rate, both genders combined, during the period 2004-2008, was 33% higher than the U.S. White rate (2004-2006).
- Alaska Native people had significantly higher rates than U.S. Whites for nine of the ten leading causes of death (i.e., cancer, unintentional injuries, suicide, alcohol abuse, chronic obstructive pulmonary disease, cerebrovascular disease, chronic liver disease, pneumonia and influenza, and homicide). The heart disease mortality rate for Alaska Native people was significantly lower than U.S. Whites.
- Compared to U.S. Whites, Alaska Native people had significantly higher rates of all-cause mortality for all age groups 0-74 years. This was true for both genders combined and each gender separately.
- The greatest disparity for all-cause mortality between Alaska Natives and U.S. Whites occurred for both genders combined and for males in the 5-14 age groups. This disparity was due to high rates of unintentional injury (RR=5.9) and suicide (RR=13.5) among Alaska Natives. Among women, the greatest disparity between Alaska Natives and U.S. Whites for all-cause mortality occurred in the 25-44 year age group. This disparity was due to high rates of alcohol abuse (RR=64.0), chronic liver disease (RR=11.0), suicide (RR=5.3), homicide (RR=4.8), cerebrovascular disease (RR= 3.8), unintentional injury (RR= 3.0), heart disease (RR=2.3), and cancer (RR=1.6).
- Alaska Native all-cause mortality rates were significantly higher than the rest of the state for the Arctic Slope and the Yukon-Kuskokwim service regions. All-cause mortality rates were significantly lower in the Southeast service region as compared to the rest of the state.
- Alaska Native all-cause mortality rates declined 16% between the 1980-1983 period and the most recent five year period, 2004-2008. This decline was similar to the U.S. White all-cause mortality decline of 21% between 1980 and 2006. A decline in all-cause mortality has occurred in every 5 year period studied. The greatest decline (7%) occurred between 1999-2003 and 2004-2008.

Excess Mortality

- The three leading causes of excess mortality among Alaska Native people, both genders combined, were unintentional injury (23.9%), suicide (15.2%), and alcohol abuse (14.1%).
- Among Alaska Native men, unintentional injury (32%), suicide (19.8%), and alcohol abuse (12.8%) were the leading causes of excess mortality.
- Among Alaska Native women, cancer (17.0%), alcohol abuse (15.8%), and unintentional injury (13.4%) were the leading causes of excess mortality.

Years of Potential Life Lost

- Alaska Native people experienced an average of 28.7 years of potential life lost from all-causes during the 2004-2008 time period.
- Unintentional injury deaths caused the greatest number of years of potential life lost among Alaska Native people, both genders combined.

First Leading Cause of Death - Cancer

- Cancer was the leading cause of death among Alaska Native people, both genders combined, as well as among both Alaska Native men and women separately.
- The Alaska Native cancer mortality rate, both genders combined, was 24% higher than the U.S. White rate.
- Among Alaska Native people, cancer was the leading cause of death for all age groups 45 to 74 years.
- Alaska Native cancer mortality rates were significantly higher in the Arctic Slope and Yukon-Kuskokwim service regions as compared to the rest of the state. The Anchorage/Mat-Su Region had a significantly lower rate.
- Alaska Native cancer mortality rates did not change significantly during the period 1980-1983 to 2004-2008. U.S. White rates significantly declined by 11% between 1980-1983 and 2004-2006.

Second Leading Cause of Death - Heart Disease

- Alaska Native heart disease mortality rates, for both genders combined, and for both Alaska Native men and women separately, were significantly lower than U.S. White rates.
- The Alaska Native heart disease mortality rate was significantly lower in the Interior service region as compared to the rest of the state. Rates were significantly higher than the remainder of the state in the Arctic Slope and Kenai service regions.
- Alaska Native heart disease mortality rates declined 38% between 1980-1983 and 2004-2008. U.S. White rates declined 48% between 1980-1983 and 2004-2006.
- Coronary heart disease mortality among Alaska Native people, both genders combined, was 101.5 per 100,000 for the period 2004-2008. The Healthy People 2010 goal for coronary heart disease mortality was 100.8 per 100,000.

Third Leading Cause of Death - Unintentional Injury

- Unintentional injury was the third leading cause of death among Alaska Native people, both genders combined. It ranked second among men and third among women.
- The Alaska Native unintentional injury mortality rate, both genders combined, was 2.5 times higher than the U.S. White rate.
- Unintentional injury deaths resulted in an average of 41.9 years of potential life lost.
- Alaska Native unintentional injury mortality rates were significantly higher in the Bristol Bay, Norton Sound, and Northwest Arctic service regions as compared to the rest of the state. Rates in the Anchorage/MatSu service regions were significantly lower as compared to the rest of the state.
- Alaska Native unintentional injury mortality rates declined 47% between 1980-1983 and 2004-2008. U.S. White rates declined 6% between 1980-1983 and 2004-2006.

Fourth Leading Cause of Death - Suicide

- The Alaska Native suicide rate, both genders combined, was 3.5 times higher than the U.S. White rate.
- Alaska Native suicide rates were significantly higher in the Northwest Arctic, Norton Sound, and Yukon-Kuskokwim service regions as compared to the rest of the state. Rates were significantly lower for the Southeast and Anchorage/MatSu service regions.
- Alaska Native suicide rates did not change significantly between 1980-1983 and 2004-2008. U.S. White rates declined 8% between 1980-1983 and 2004-2006.

Fifth Leading Cause of Death – Alcohol Abuse

- The Alaska Native alcohol abuse mortality rate, both genders combined, was 16.1 times higher than the U.S. White rate.
- Alaska Native alcohol abuse mortality rates rose 34% between 1980-1983 and 2004-2008. U.S. White rates increased 20% between 1980-1983 and 2004-2006.

Sixth Leading Cause of Death - Chronic Obstructive Pulmonary Disease

- The Alaska Native chronic obstructive pulmonary disease mortality rate, both genders combined, was 31% higher than the U.S. White rate.
- Alaska Native chronic obstructive pulmonary disease mortality rates were significantly higher in the Arctic Slope service region compared to the rest of the state.
- Alaska Native chronic obstructive pulmonary disease mortality rates rose 119% between 1980-1983 and 2004-2008. U.S. White rates increased 43% between 1980-1983 and 2004-2006.

Seventh Leading Cause of Death - Cerebrovascular Disease

- The Alaska Native cerebrovascular disease mortality rate, both genders combined, was 27% higher than the U.S. White rate.
- Cerebrovascular mortality rates in the ASU-Combined Rural service region were significantly higher than the rest of the state combined.
- Alaska Native cerebrovascular disease mortality rates did not change significantly between 1980-1983 and 2004-2008. U.S. White rates declined 48% between 1980-1983 and 2004-2006.

Eighth Leading Cause of Death - Chronic Liver Disease and Cirrhosis

- The chronic liver disease and cirrhosis mortality rate for Alaska Native people, both genders combined, was 2.0 times higher than the U.S. White rate. The rate for Alaska Native men was not significantly different from U.S. White men. The rate for Alaska Native women, however, was 3.8 times higher than that for U.S. White women.
- The Alaska Native chronic liver disease and cirrhosis mortality rate was higher in the Anchorage/MatSu service region as compared to the rest of the state.
- Alaska Native chronic liver disease and cirrhosis mortality rates declined 36% between 1980-1983 and 2004-2008. U.S. White rates declined 29% between 1980-1983 and 2004-2006.

Ninth Leading Cause of Death - Pneumonia and Influenza

- The Alaska Native pneumonia and influenza mortality rate, both genders combined, was 34% higher than the U.S. White rate.
- Alaska Native pneumonia and influenza mortality rates were significantly higher in the Yukon-Kuskokwim service region and significantly lower in the Southeast service region compared to the rest of the state.
- Alaska Native pneumonia and influenza mortality rates declined 51% between 1980-1983 and 2004-2008. U.S. White rates declined 35% between 1980-1983 and 2004-2006.

Tenth Leading Cause of Death - Homicide

- The Alaska Native homicide rate, both genders combined, was 3.0 times higher than the U.S. White rate. The rate for Alaska Native men was 2.6 times higher than for U.S. White men. The rate for Alaska Native women was 4.0 times higher than that for U.S. White women.
- Alaska Native homicide rates were significantly higher in the Yukon-Kuskokwim service region as compared to the rest of the state.
- Alaska Native homicide rates declined 70% between 1980-1983 and 2004-2008. U.S. White rates declined 39% between 1980-1983 and 2004-2006.

INTRODUCTION

Reliable information on cause of death is essential to the development of policies and programs for prevention and control of disease and injury. This report provides information about the leading causes of Alaska Native mortality in the following sections: rank order of leading causes; age-specific mortality rates; excess death calculations; estimates of years of potential life lost; mortality rates by service regions; trends over time for Alaska Natives statewide; regional trends over time; and a section focusing on each of the ten age-adjusted leading causes of death.

Produced by the Alaska Native Epidemiology Center, this report provides information for health care planners, providers and other professionals throughout Alaska and elsewhere.

METHODOLOGY

Population

Alaska Native people are those inhabitants whose ancestors occupied the state of Alaska. The U.S. Bureau of the Census estimates that in the year 2000 there were 119,499 Alaska Native

people residing in Alaska, 97,012 of whom checked only the American Indian/Alaska Native category for race among multiple options. For this report, bridged population estimates were used. The bridged estimate for the year 2000 Alaska Native population was 107,219, an intermediate value between the single race and multiple race estimates reported by the census.^a Population tables for 1980 to 2008 are presented in Appendix B.

Mortality Data

Mortality data for Alaska Native people who were resident to Alaska and died there were provided by the State of Alaska Bureau of Vital Statistics. Cases from this database listed race as Alaska Native (80%), Eskimo (11%), Indian (4%), Canadian Eskimo and Indian

^a Population bridging is a method used to make multiple-race and single-race data comparable enough for analysis. In population bridging, all single race respondents are counted in the race category (in this case, all 97,012 AN). Persons who reported multiple races (in this case, an additional 22,487 individuals) are assigned to a single race category based upon fairly complex mathematical models.

(3%), Aleut (2%), and Native Mixed (0.1%).

For current estimates we calculated average annual mortality rates for Alaska Native people using only the primary cause of death. Because of small numbers, cases were aggregated for the five year time period, 2004-2008, and the Alaska Native population for this period was used as the denominator.^b We only reported and calculated rates for those causes that had at least five deaths during the interval studied.

^b Population estimates for Alaska Natives for the years 1990-2008 are based on the NCHS postcensal series by year, census area, age, sex, bridged race, and Hispanic origin. Census areas were combined to form Service Regions as outlined in Appendix C.

Population counts for communities that received health services from regions other than those to which their census areas belonged were added or subtracted from the appropriate service region. Counts for Alaska Natives in these villages came from 2000 Census data. Changes in annual community estimates were calculated based on annual changes for the census area of the community. Data for 1990-1999 is available on the Internet at:

<http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm>. April 24, 2004. Data for 2000-2008 is available from:

<http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm> as of September 2, 2009.

Population estimates for Alaska Natives for the years 1980-1999 are based on NCI SEER bridged estimates. Age-gender estimates were calculated by applying the 1980 Census age-gender distribution for Alaska Natives to the years 1980-1984. An average of the 1980 and 1990 Census age-gender distributions was applied to 1985-1989 estimates.

Race is assigned at time of death by either next of kin, or the coroner. There is often concern about under-reporting of minority groups on death certificate data, however, a 1996 study estimated that under-reporting of Alaska Native people on death certificates is low (5%).¹

Alaska Native rates for 2004-2008 were compared to mortality rates for U.S. Whites for the time period, 2004-2006. U.S. Whites were chosen as a comparison group since they are frequently used as a standard population. These large numbers provide accurate estimates by age and gender with which to compare. U.S. White data for both numerators and denominators came from the National Cancer Institute's Surveillance Epidemiology and End Results (SEER) Program.² Data for U.S. Whites are available for the years 1969-2006.

All mortality rates were age-adjusted to the 2000 standard population by the direct method. Rate ratios were created to compare Alaska Native to U.S. White rates and confidence intervals calculated around these ratios.³ Alaska Native rates were considered significantly different if

the 95% confidence interval did not contain one.

Rank Order

In order for the data in this report to be comparable to other studies, mortality rates for the 10 leading causes of death for Alaska Native people statewide were calculated from among a list of 50 leading causes of death as defined by the National Center for Health Statistics (NCHS). A list of ICD-9 and ICD-10 code groupings used is included in the Appendix A. Deaths due to Mental and Behavioral Disorders Due To Alcohol Abuse does not appear on the NCHS list of leading causes because of its low rate of occurrence nationwide. It ranks in the top 10 leading causes of death among Alaska Natives, however, and was included in the study.

Throughout this document, certain conditions originating in the perinatal period are listed as *perinatal conditions*; chronic liver disease and cirrhosis are referred to as *chronic liver disease*; chronic obstructive pulmonary disease is listed as *COPD*; congenital malformations, deformations and chromosomal abnormalities are listed as

congenital abnormalities; diseases of heart are listed as *heart disease*; essential (primary) hypertension and hypertensive renal disease are listed as *hypertension*; homicide and legal intervention is listed as *homicide*; nephritis, nephrotic syndrome and nephrosis are listed as *nephritis*, and mental and behavioral disorders due to alcohol abuse are listed as *alcohol abuse*.

Age-Specific Rates

This section examines causes of death for each age group. For the most recent time period, 2004-2008, age-specific rates for Alaska Native people were compared with age-specific U.S. White rates. Age groups comprising more than five years were age-adjusted to the U.S. 2000 Standard population. For example, the 25-44 year age group is age-adjusted to the four 5-year age groups that it comprises. Numbers and rates are not reported for fewer than five deaths.

Excess Deaths

This section examines the ten leading causes of excess deaths among Alaska Native people. Alaska Native deaths are considered excess if the numbers for a

particular cause were greater than what would have occurred in a similarly sized U.S. White population.

Excess deaths were calculated by multiplying the age-specific and cause-specific death rates for U.S. Whites by the Alaska Native population for each age group to determine the expected number of deaths. The difference between the expected and the observed number of Alaska Native deaths was considered excess.⁴

Years of Potential Life Lost (YPLL)

YPLL is an estimate of the average years a person would have lived if he or she had not died prematurely. It is an alternative to death rates that gives more weight to deaths that occur among younger people. This section lists the ten leading causes of years of potential life lost among Alaska Natives.

If the average life span for the population is 75 years, the number of years of potential life lost is calculated by subtracting the age at death for each individual from 75. Only those people who died before 75 years of age are included in the calculation.

Service Regions

Alaska has been divided into twelve service regions for the purpose of reporting health data. The twelve service regions are:

- 1) Aleutians & Pribilofs
- 2) Anchorage/MatSu
- 3) Arctic Slope
- 4) Bristol Bay
- 5) Copper River/Prince William Sound
- 6) Interior
- 7) Kenai Peninsula
- 8) Kodiak Area
- 9) Northwest Arctic
- 10) Norton Sound
- 11) Southeast
- 12) Yukon-Kuskokwim

In addition, the rural regions of Aleutians & Pribilofs, Copper River/Prince William Sound (Copper River/PWS), Kenai Peninsula and Kodiak Area are aggregated under the title Anchorage Service Unit-Combined Rural service region (ASU-Combined Rural service region).

Deaths were assigned to the service region in which the person was resident, regardless of place of occurrence in

Alaska. This report does not include deaths of residents who died outside of Alaska.

This section examines the ten leading causes of death for each region. More than ten causes were included if candidates for the tenth position had the same number of cases. Fewer than ten causes were reported if causes had fewer than five cases. Causes of death with fewer than 5 cases were recorded as <5.

Appendix C contains the service regions and their corresponding service units, tribal health organizations and communities.

Trends Over Time

Changes in mortality rates over the period, 1980 to 2008, were analyzed for the ten leading causes of death among Alaska Native people statewide.

Mantel-Haenszel Chi-square tests for trend stratified by age group were used to test for a significant trend over time for each age-adjusted time period.⁵

Percentage change over time was calculated by subtracting the rate for the first time period from the rate for the

most recent time period and dividing by the rate for the first time period.

Appendix D contains the numbers of death for Alaska Natives from each leading cause for the years 1980-2008 by time period.

Regional Trends Over Time

This section examines the current leading causes of death for each service region and the five preceding time periods, 1980-2008.

¹ Indian Health Service. Adjusting for Miscoding of Indian Race on State Death Certificates. Washington DC: Department of Health and Human Services, Indian Health Services;1996.

² Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Mortality - All COD, Public-Use With State, Total U.S. for Expanded Races (1990-2002), National Cancer Institute, DCCPS, Surveillance Research Program, Cancer Statistics Branch, released April 2005. Underlying mortality data provided by NCHS (www.cdc.gov/nchs).

³ Armitage P, Berry G, Matthews. JNS. Statistical Methods in Medical Research (4th edition). Oxford: Blackwell Science 2002.

⁴ Berry G. The Analysis of Mortality by the Subject-Years Method. Biometrics. 1983;39(1): 173-184.

⁵ Schlesselman. "Case-Control Studies", New York, Oxford Univ. Press, 1982, pp.203-206.

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RANK ORDER OF LEADING CAUSES OF DEATH

Highlights

- Alaska Native people had significantly higher rates than U.S. Whites for nine of the ten leading causes of death i.e., cancer, unintentional injury, suicide, alcohol abuse, chronic obstructive pulmonary disease, cerebrovascular disease, chronic liver disease, pneumonia and influenza, and homicide. The heart disease mortality rate for Alaska Native people was significantly lower than that for U.S. Whites.
- Cancer was the leading cause of death among Alaska Native people, both genders combined, as well as among both Alaska Native men and women separately.
- Alaska Native heart disease mortality rates, for both genders combined, and for both Alaska Native men and women separately, were significantly lower than U.S. White rates.
- Unintentional injury was the third leading cause of death among Alaska Natives, both genders combined. It ranked second among men and third among women.
- The Alaska Native suicide rate, both genders combined, was 3.5 times higher than the U.S. White rate.
- The Alaska Native alcohol abuse mortality rate, both genders combined, was 16.1 times higher than the U.S. White rate.
- The Alaska Native chronic obstructive pulmonary disease mortality rate, both genders combined, was 31% higher than the U.S. White rate.
- The Alaska Native cerebrovascular disease mortality rate, both genders combined, was 27% higher than the U.S. White rate.
- Chronic liver disease and cirrhosis mortality rates for Alaska Natives, both genders combined, was 2.0 times higher than the U.S. White rate. Rates for Alaska Native men were not significantly different from U.S. White men. Rates for Alaska Native women, however, were 3.8 times higher than those for U.S. White women.
- The Alaska Native pneumonia and influenza mortality rate, both

genders combined, was 34% higher than the U.S. White rate.

- The Alaska Native homicide rate, both genders combined was 3.0 times higher than the U.S. White rate. The rate for Alaska Native men was 2.6 times higher than for U.S. White men. The rate for Alaska Native women was 4.0 times higher than that for U.S. White women.

Overview

Age-adjusted mortality rates control for the effects of differences in population age distributions. Direct age-adjustment is the same as calculating a weighted average. It weights the age-specific rates observed in a population by the proportion of each age group in a standard population. In this case, the U.S. 2000 standard population is used.

This section contains Tables 1a-c listing the ten leading causes of death among Alaska Native people for the five year period, 2004-2008. Separate tables are presented for Alaska Natives both genders combined, males and females.

The tables provide information about rank order for causes of death among

Alaska Native people. Numbers of deaths for each cause and age-adjusted rates are listed for both Alaska Native people and U.S. Whites. Rate ratios with 95% confidence intervals are used to compare the two populations. Rates are considered statistically different if the confidence intervals do not contain one.

This section also contains Figures 1a-c comparing rates for Alaska Native people and U.S. Whites for each of the leading causes of death in rank order. Figures 2a-c depict rate ratios ranked by disparity between Alaska Native people and U.S. Whites. Data for these figures comes from Tables 1a-c.

TABLE 1a.

Data Source: State of Alaska Bureau of Vital Statistics (AN), National Cancer Institute's Surveillance, Epidemiology, and End Results Program.(USW)

Leading Causes of Death

Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Ranked by Percentage of Mortality for Alaska Natives
Both Genders

	Alaska Natives			U.S. Whites			Rate Ratio	95%CI
	#	%	Rate per 100,000 ^b	#	%	Rate per 100,000 ^b		
1 Cancer^a	772	20.4%	226.3	1,442,824	23.2%	182.4	1.2 *	1.15-1.33
2 Heart Disease	540	14.3%	169.0	1,676,390	26.9%	205.1	0.8 *	0.75-0.90
3 Unintentional Injury	493	13.0%	97.7	299,968	4.8%	39.9	2.5 *	2.23-2.69
4 Suicide	252	6.7%	42.3	88,895	1.4%	12.0	3.5 *	3.1-4.00
5 Alcohol Abuse	180	4.8%	38.7	18,536	0.3%	2.4	16.1 *	13.83-18.68
6 COPD	172	4.5%	57.3	348,784	5.6%	43.7	1.3 *	1.12-1.53
7 Cerebrovascular Diseases	164	4.3%	56.7	365,596	5.9%	44.5	1.3 *	1.09-1.49
8 Chronic Liver Disease	82	2.2%	18.0	71,749	1.2%	9.2	2.0 *	1.57-2.44
9 Pneumonia & Influenza	77	2.0%	25.5	157,366	2.5%	19.0	1.3 *	1.06-1.70
10 Homicide	59	1.6%	11.2	27,053	0.4%	3.8	3.0 *	2.27-3.88
All Others	998	26.3%	290.6	1,577,968	25.3%	214.6	1.4 *	1.53-1.65
All Causes	3,789	100.0%	1033.3	6,231,636	100.0%	776.6	1.3 *	1.29-1.38

*95% CI does not contain 1.

^a There is no gender listed for 1 cancer death

^b Rates are age-adjusted to the U.S. 2000 Standard population

TABLE 1b.

Data Source: State of Alaska Bureau of Vital Statistics (AN), National Cancer Institute's Surveillance, Epidemiology, and End Results Program.(USW)

Leading Causes of Death**Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)****Ranked by Percentage of Mortality for Alaska Natives****Males**

	Alaska Natives			U.S. Whites			Rate Ratio	95%CI
	#	%	Rate per 100,000 ^b	#	%	Rate per 100,000 ^b		
1 Cancer	392	18.9%	258.3	748,239	24.5%	222.4	1.2 *	1.04-1.29
2 Unintentional Injury	359	17.3%	143.7	192,553	6.3%	55.0	2.6 *	2.33-2.93
3 Heart Disease	311	15.0%	219.0	830,291	27.2%	256.5	0.9 *	0.76-0.97
4 Suicide	189	9.1%	62.8	70,306	2.3%	19.6	3.2 *	2.76-3.72
5 Alcohol Abuse	93	4.5%	42.4	14,469	0.5%	3.9	10.9 *	8.80-13.55
6 COPD	80	3.9%	59.5	164,571	5.4%	51.3	1.2	0.92-1.47
7 Cerebrovascular Diseases	72	3.5%	58.9	141,685	4.6%	44.9	1.3 *	1.02-1.69
8 Homicide	38	1.8%	14.5	20,035	0.7%	5.5	2.6 *	1.87-3.65
9 Pneumonia & Influenza	37	1.8%	33.1	70,079	2.3%	22.6	1.5 *	1.02-2.08
10 Chronic Liver Disease	29	1.4%	13.2	46,747	1.5%	12.7	1.0	0.72-1.51
All Others	471	22.7%	306.9	685,398	22.4%	234.1	1.3 *	1.61-1.77
All Causes	2,071	100.0%	1212.3	3,057,220	100.0%	928.5	1.3 *	1.24-1.37

*95% CI does not contain 1.

^b Rates are age-adjusted to the U.S. 2000 Standard population

TABLE 1c.

Data Source: State of
Alaska Bureau of Vital
Statistics (AN), National
Cancer Institute's
Surveillance,
Epidemiology, and End
Results Program.(USW)

Leading Causes of Death**Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)****Ranked by Percentage of Mortality for Alaska Natives
Females**

	Alaska Natives			U.S. Whites			Rate Ratio	95%CI
	#	%	Rate per 100,000 ^b	#	%	Rate per 100,000 ^b		
1 Cancer	379	22.1%	203.7	694,585	21.9%	155.0	1.3 *	1.19-1.46
2 Heart Disease	229	13.3%	129.6	846,099	26.7%	164.9	0.8 *	0.69-0.90
3 Unintentional Injury	134	7.8%	53.0	107,415	3.4%	25.8	2.1 *	1.75-2.46
4 Cerebrovascular Diseases	92	5.4%	54.9	223,911	7.1%	43.6	1.3 *	1.02-1.55
5 COPD	92	5.4%	55.5	184,213	5.8%	39.0	1.4 *	1.15-1.75
6 Alcohol Abuse	87	5.1%	36.1	4,067	0.1%	1.0	35.1 *	28.35-43.56
7 Suicide	63	3.7%	21.4	18,589	0.6%	5.0	4.3 *	3.33-5.55
8 Chronic Liver Disease	53	3.1%	22.6	25,002	0.8%	6.0	3.8 *	2.87-4.96
9 Pneumonia & Influenza	40	2.3%	22.0	87,287	2.7%	16.7	1.3	0.95-1.82
10 Alzheimer's Disease	30	1.7%	19.8	138,117	4.4%	25.1	0.8	0.55-1.13
All Others	518	30.2%	207.1	892,570	28.1%	173.9	1.2 *	1.63-1.75
All Causes	1,717	100.0%	886.2	3,174,416	100.0%	656.0	1.4 *	1.29-1.42

*95% CI does not contain 1.

^b Rates are age-adjusted to the U.S. 2000 Standard population

FIGURE 1a.
Data Source: Table 1a.

Age-Adjusted Mortality Rates
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

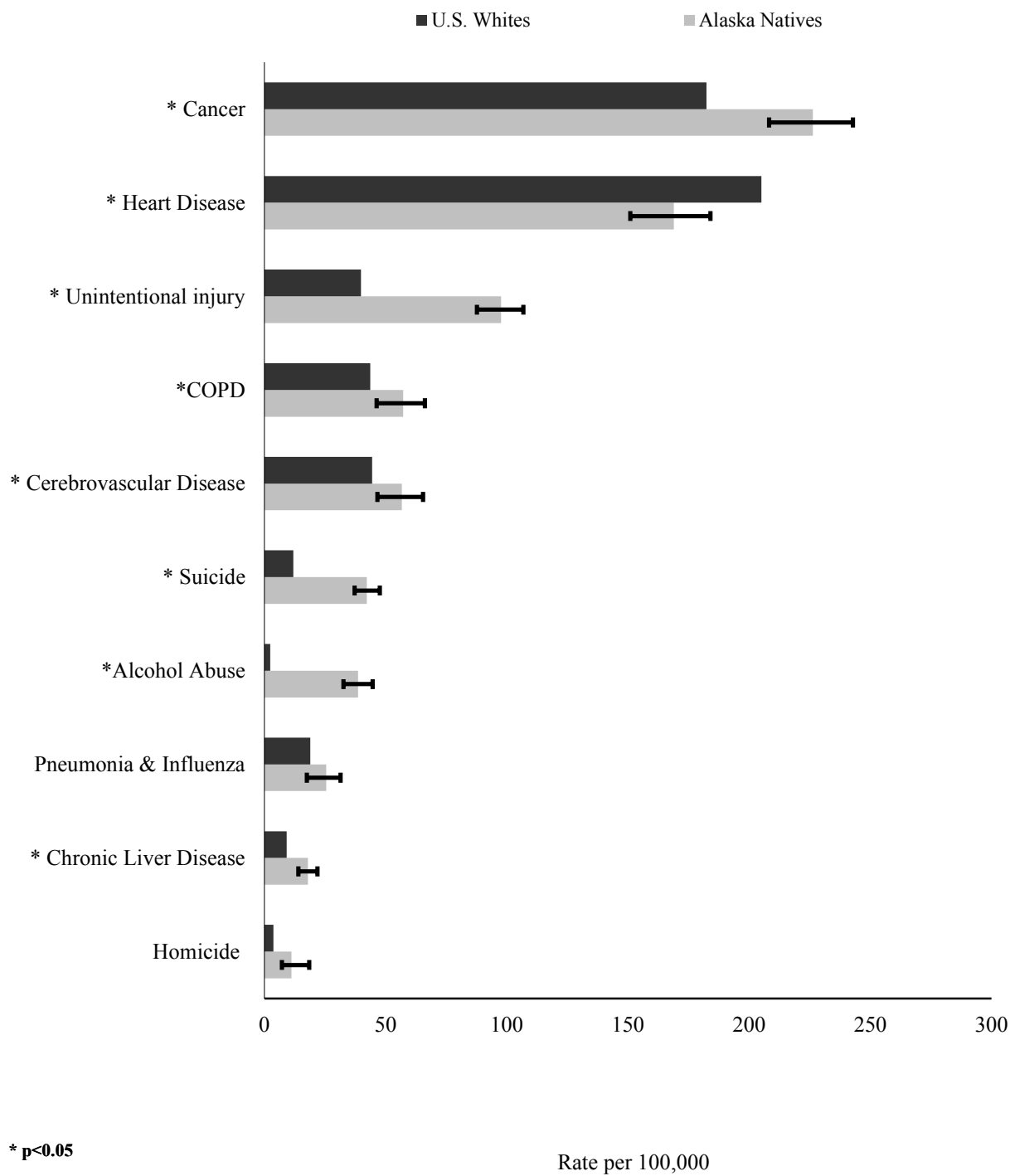


FIGURE 1b.

Data Source: Table 1b.

Age-Adjusted Mortality Rates Alaska Natives (2004-2008) vs U.S. Whites (2004-2006) Males

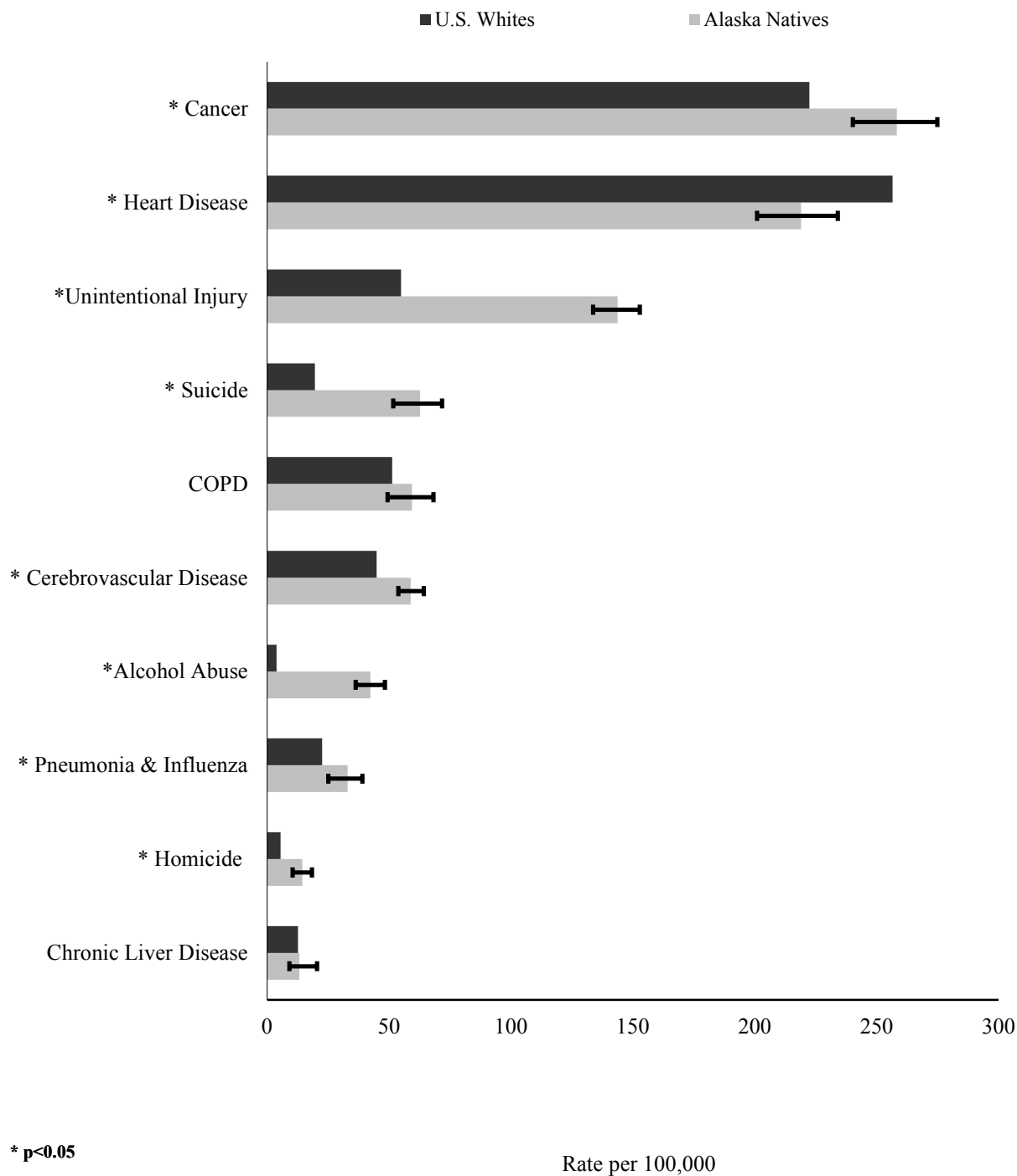


FIGURE 1c.

Data Source: Table 1c.

Age-Adjusted Mortality Rates Alaska Natives (2004-2008) vs U.S. Whites (2004-2006) Females

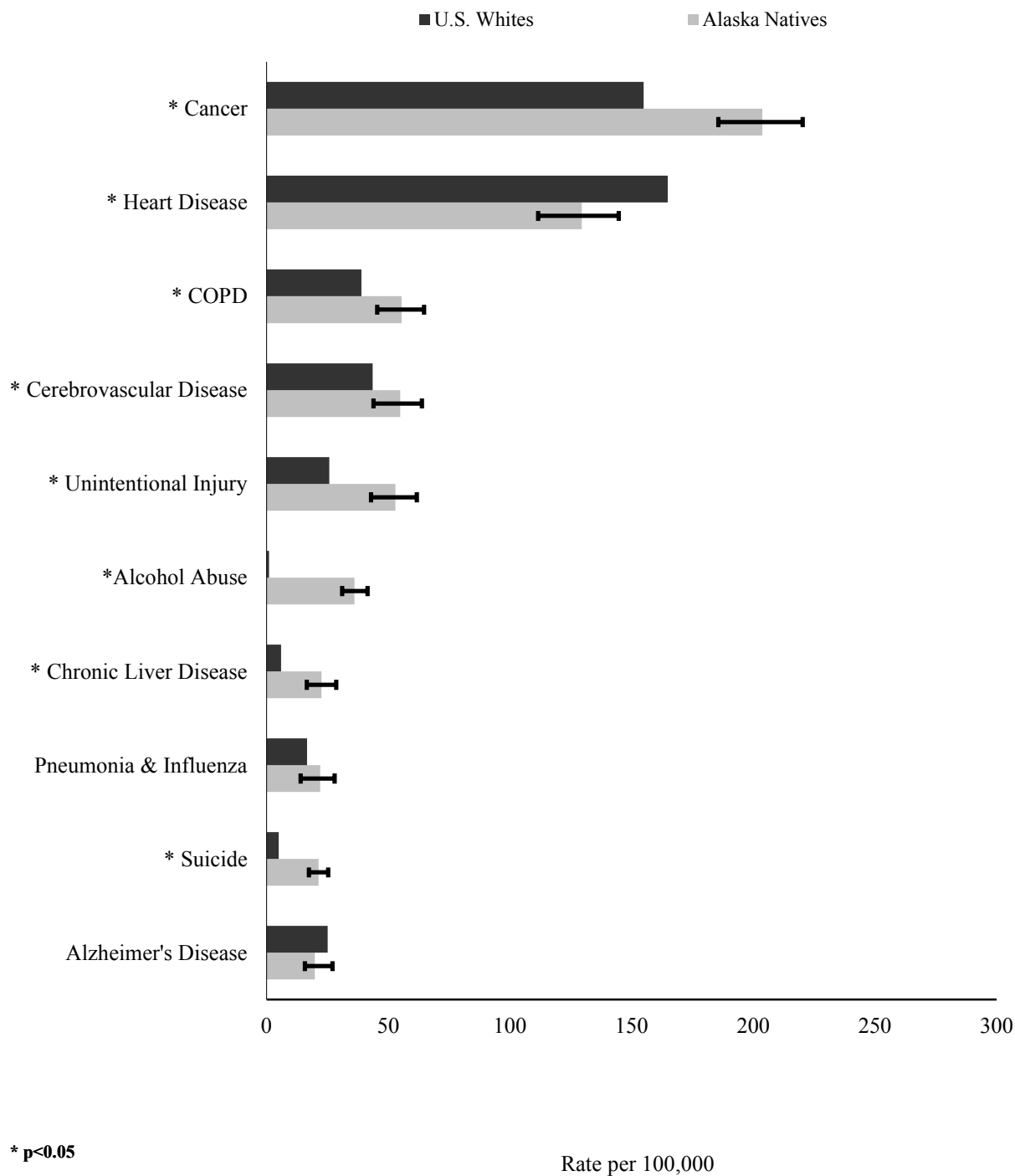


FIGURE 2a.

Data Source: Table 1a.

Rate Ratios of Mortality from Leading Causes Alaska Natives (2004-2008) vs U.S. Whites (2004-2006) Both Genders

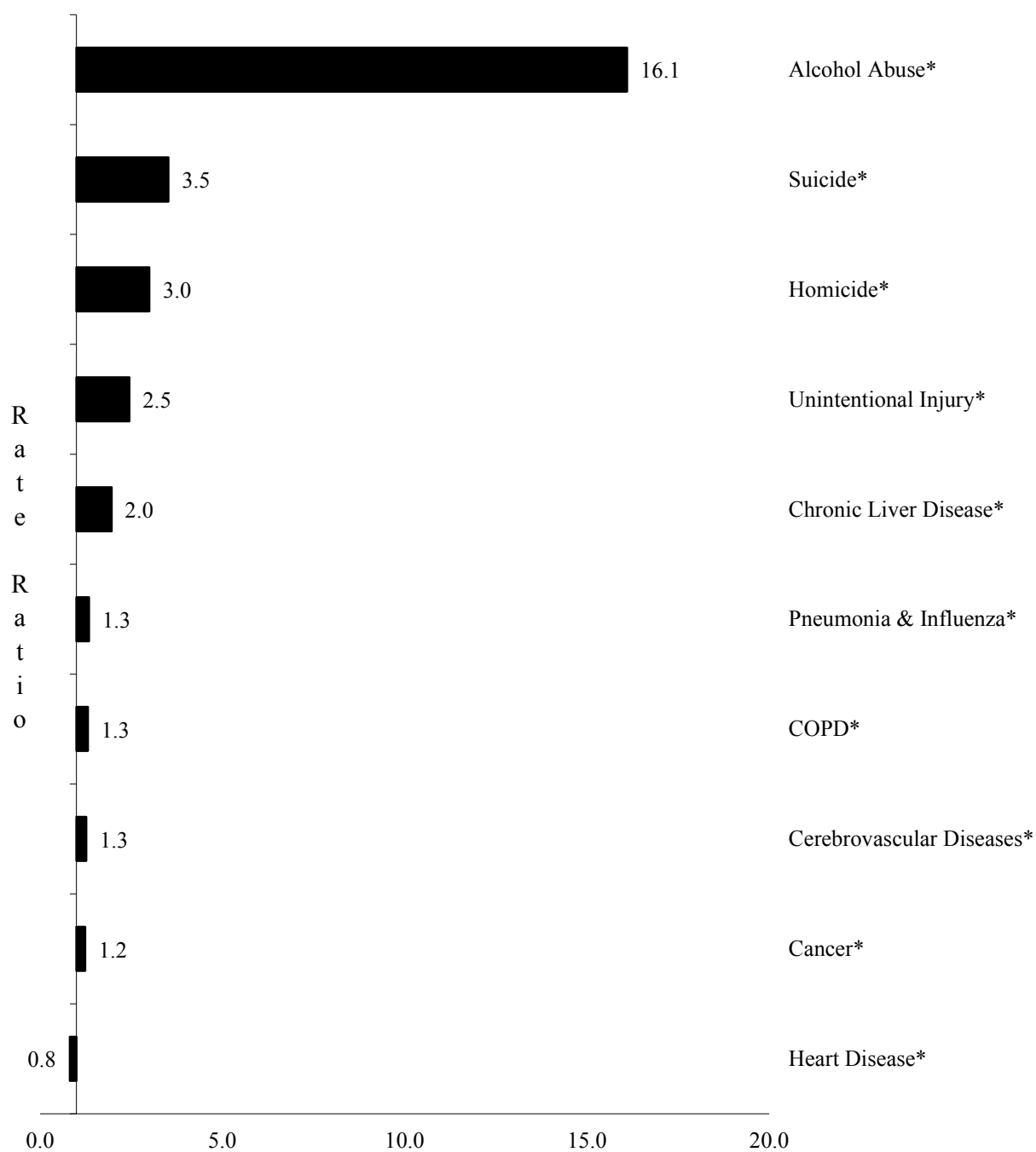
* $p < 0.05$

FIGURE 2b.

Data Source: Table 1b.

Rate Ratios of Mortality from Leading Causes Alaska Natives (2004-2008) vs U.S. Whites (2004-2006) Males

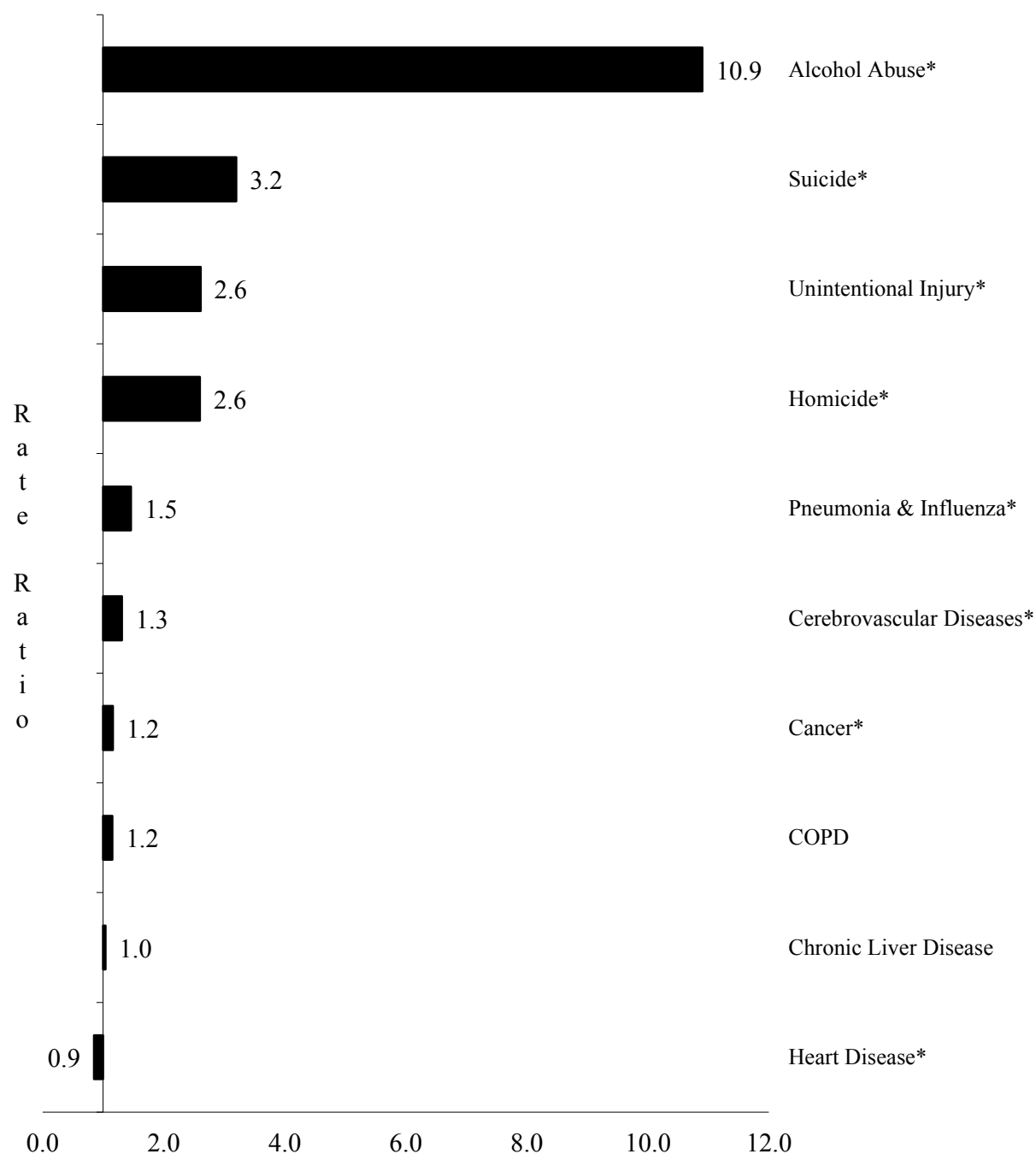
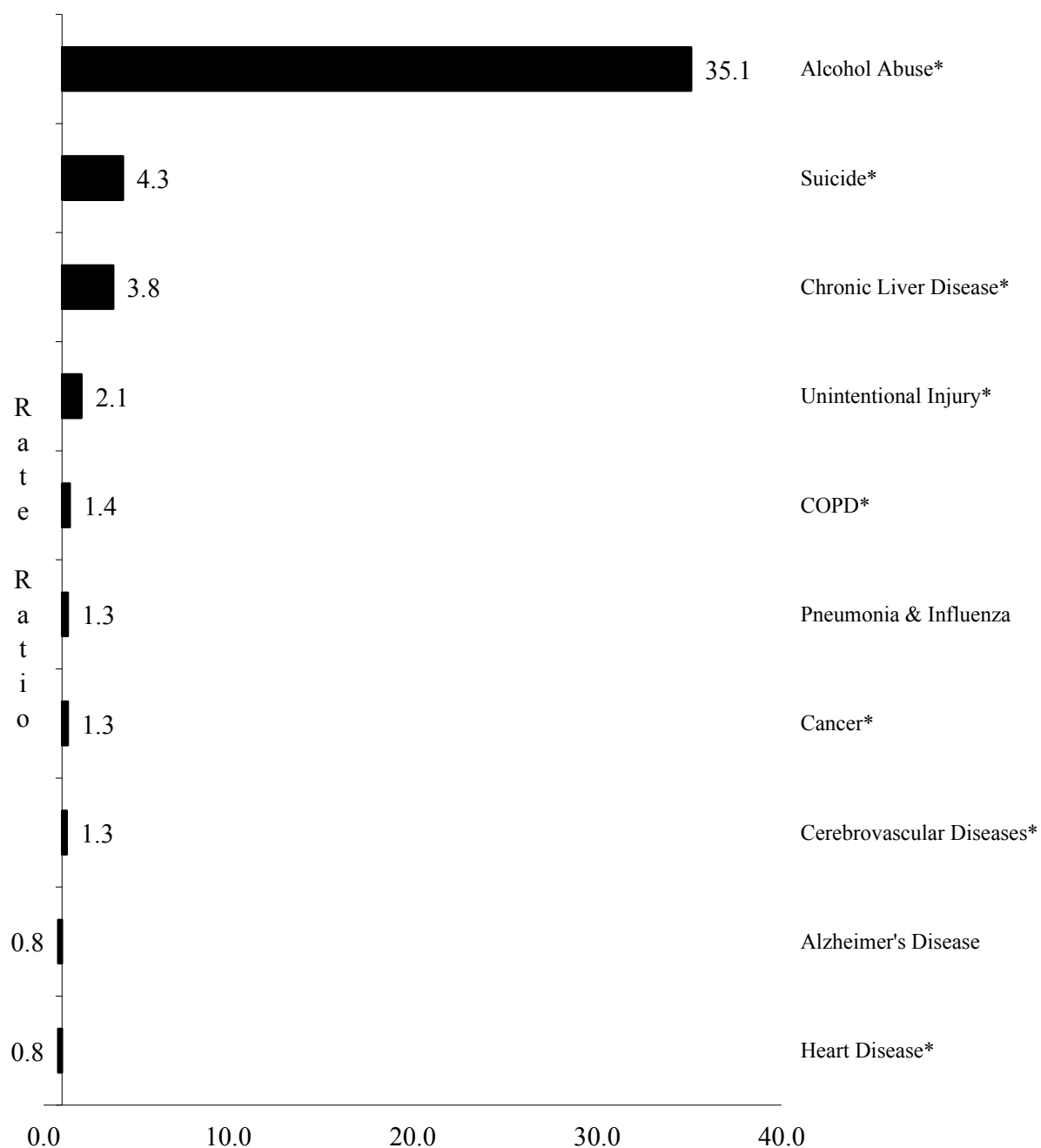
* $p < 0.05$

FIGURE 2c.

Data Source: Table 1c.

Rate Ratios of Mortality from Leading Causes Alaska Natives (2004-2008) vs U.S. Whites (2004-2006) Females



* p<0.05

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AGE-SPECIFIC MORTALITY RATES

Highlights

- Among Alaska Native people both genders combined, injury (unintentional or intentional) was the leading cause of death for all age groups, 0 to 44 years.
- Cancer was the leading cause of death for all age groups 45 to 74.
- Compared to U.S. Whites, Alaska Native people had significantly higher rates of all-cause mortality for all age groups 0-74 years. This was true for both genders combined, and each gender separately.
- The greatest disparity for all-cause mortality between Alaska Native people and U.S. Whites occurred in the 5-14 age group for both genders combined and for males. This disparity was due to high rates of unintentional injury (RR=5.9) and suicide (RR=13.5). Among women, the greatest disparity between Alaska Native people and U.S. Whites for all-cause mortality occurred in the 25-44 year age group. This disparity was due to high rates of alcohol abuse (RR= 64.0), chronic liver

disease (RR=11.0), suicide (RR=5.3), homicide (RR=4.8), cerebrovascular disease (RR= 3.8), unintentional injury (RR= 3.0), heart disease (RR=2.3), and cancer (RR=1.6).

Overview

Age-specific mortality rates are the total number of deaths per year per 100,000 people of a given age. Age-specific rates allow an examination of health risks for each age group of the population. This section examines causes of death for each age group. Causes with fewer than five cases were not included.

Tables 2a-c report the leading causes of death among Alaska Native people by age group. Separate tables are presented for Alaska Natives both genders combined, males, and females.

The tables provide the numbers of deaths for each cause and deaths from all causes for each age group. Age-specific rates for both Alaska Native people and U.S. Whites are compared using rate ratios and 95% confidence intervals. Rates are considered statistically different if the confidence intervals do

not contain one. Rates are age-adjusted within age-specific groups that contain more than one five year age grouping. For example, the 25-44 year age group is age-adjusted to the four 5-year age groups that it comprises. Numbers and rates are not reported for fewer than five deaths.

Table 3 in this section compares age-specific numbers and rates for Alaska Native males to those for Alaska Native females.

Figures 3-21a in this section are bar graphs comparing rates for Alaska Native people and U.S. Whites by age group for both genders combined. Figures 3-22b depict this information for males, and Figures 3-22c for females. Data for these figures comes from Tables 2a-c.

Figures 23-42 are bar graphs of rates by age group for Alaska Native males compared to Alaska Native females. Data for these figures comes from Table 3.

TABLE 2a.

Data Source: State of Alaska
Bureau of Vital Statistics (AN),
National Cancer Institute's
Surveillance Epidemiology and
End Results Program.(USW)

**Age-Specific Rates for Leading Causes of Death
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders**

	Alaska Native # Deaths	Alaska Native Rate ^{a,b}	U.S. White # Deaths	U.S. White Rate ^b	Rate Ratio	95% CI
0-4 Years						
Unintentional Injury	35	62.8	5,844	12.3	5.1 *	3.53-7.06
Perinatal Conditions	33	59.2	26,212	55.5	1.1	0.73-1.50
Congenital Abnormalities	28	50.2	14,002	29.6	1.7 *	1.13-2.45
Pneumonia & Influenza	6	10.8	716	1.5	7.1 *	2.60-15.53
All Causes	173	310.2	65,152	136.6	2.3 *	1.93-2.61
Population	55,763		47,240,064			
	Alaska Native # Deaths	Alaska Native Rate ^{a,b}	U.S. White # Deaths	U.S. White Rate ^b	Rate Ratio	95% CI
5-14 Years						
Unintentional Injury	35	34.0	5,406	5.7	5.9 *	4.26-8.29
Suicide	9	8.3	594	0.6	13.5 *	7.00-26.00
All Causes	56	53.9	14,070	14.9	3.6 *	2.78-4.71
Population	102,482		94,180,171			
	Alaska Native # Deaths	Alaska Native Rate ^{a,b}	U.S. White # Deaths	U.S. White Rate ^b	Rate Ratio	95% CI
15-24 Years						
Suicide	106	99.4	10,627	10.7	9.3 *	7.69-11.27
Unintentional Injury	83	78.2	40,323	40.6	1.9 *	1.55-2.39
Homicide	13	11.8	6,677	6.7	1.8 *	1.02-3.03
Alcohol Abuse	5	4.6	224	0.2	20.8 *	8.57-50.62
All Causes	244	229.2	76,294	76.8	3.0 *	2.63-3.39
Population	107,252		98,561,372			

*p<0.05.

^a Alaska Native numbers and rates are not reported for fewer than 5 deaths.

^b Rates are age-adjusted within age-specific groups

25-44 Years	Alaska Native # Deaths	Alaska Native Rate^{a,b}	U.S. White # Deaths	U.S. White Rate^b	Rate Ratio	95% CI
Unintentional Injury	172	115.5	77,548	38.7	3.0 *	2.57-3.47
Suicide	102	66.1	30,669	15.4	4.3 *	3.53-5.23
Alcohol Abuse	68	47.1	3,701	1.9	25.0 *	19.66-31.80
Cancer	47	32.9	41,769	21.1	1.6 *	1.17-2.08
Heart Disease	40	27.2	33,598	17.0	1.6 *	1.17-2.19
Homicide	27	18.3	11,093	5.5	3.3 *	2.28-4.87
Chronic Liver Disease	25	17.6	7,479	3.8	4.7 *	3.14-6.91
HIV	10	7.3	3,676	3.7	2.0 *	1.05-3.66
Cerebrovascular Diseases	9	6.3	5,470	2.8	2.3 *	1.18-4.37
Pneumonia & Influenza	6	4.2	2,674	1.3	3.1 *	1.41-7.00
Diabetes Mellitus	5	7.1	7,187	2.8	2.6 *	1.38-4.76
All Causes	595	404.6	280,189	140.8	2.9 *	2.65-3.12
Population	150,012		199,984,530			
45-54 Years	Alaska Native # Deaths	Alaska Native Rate^{a,b}	U.S. White # Deaths	U.S. White Rate^b	Rate Ratio	95% CI
Cancer	106	155.5	118,540	112.2	1.4 *	1.15-1.68
Unintentional Injury	84	122.2	45,410	43.2	2.8 *	2.28-3.50
Heart Disease	72	106.0	84,805	80.3	1.3 *	1.05-1.66
Alcohol Abuse	56	81.6	6,381	6.1	13.4 *	10.15-17.49
Suicide	26	37.9	19,849	18.9	2.0 *	1.37-2.94
Chronic Liver Disease	24	34.8	19,300	18.3	1.9 *	1.27-2.84
Cerebrovascular Diseases	13	19.2	12,161	11.5	1.7 *	0.97-2.87
COPD	12	17.8	9,274	8.8	2.0 *	1.15-3.58
Diabetes Mellitus	10	13.1	12,131	11.5	1.1 *	0.59-2.19
Septicemia	8	11.7	4,523	4.3	2.7 *	1.36-5.46
HIV	7	10.3	5,721	5.5	1.9 *	0.90-3.98
Homicide	6	8.6	2,488	3.6	2.4 *	1.07-5.33
All Causes	507	742.2	417,912	396.2	1.9 *	1.72-2.04
Population	68,642		105,131,536			

*p<0.05.

^a Alaska Native numbers and rates are not reported for fewer than 5 deaths.^b Rates are age-adjusted within age-specific groups

55-64 Years	Alaska Native # Deaths	Alaska Native Rate^{a,b}	U.S. White # Deaths	U.S. White Rate^b	Rate Ratio	95% CI
Cancer	164	411.9	247,933	322.8	1.3 *	1.09-1.49
Heart Disease	77	192.1	153,571	199.8	1.0	0.77-1.20
Alcohol Abuse	36	89.3	4,734	6.1	14.6 *	10.22-20.25
Unintentional Injury	29	71.6	26,624	34.4	2.1 *	1.44-3.00
COPD	26	67.5	32,855	43.0	1.6 *	1.07-2.31
Chronic Liver Disease	25	62.0	18,042	23.3	2.7 *	1.79-3.94
Cerebrovascular Diseases	17	43.4	21,660	28.2	1.5	0.96-2.48
Diabetes Mellitus	11	29.8	24,970	32.5	0.9	0.52-1.62
Pneumonia & Influenza	10	26.8	7,767	10.1	2.7 *	1.42-4.93
Septicemia	9	22.1	8,533	11.1	2.0 *	1.03-3.83
Nephritis	6	15.9	8,090	10.5	1.5	0.68-3.37
Suicide	5	13.2	16,844	15.6	0.9	0.35-2.04
All Causes	503	1265.9	663,497	863.1	1.5 *	1.34-1.60
Population	40,307		77,352,245			
65-74 Years	Alaska Native # Deaths	Alaska Native Rate^{a,b}	U.S. White # Deaths	U.S. White Rate^b	Rate Ratio	95% CI
Cancer	234	1069.6	357,727	746.8	1.4 *	1.26-1.63
Heart Disease	126	577.4	239,791	502.1	1.2	0.97-1.37
COPD	57	262.7	79,845	167.5	1.6 *	1.21-2.03
Cerebrovascular Diseases	29	134.3	44,858	94.2	1.4	0.99-2.05
Unintentional Injury	20	90.8	21,696	45.2	2.0 *	1.29-2.12
Diabetes Mellitus	13	58.1	36,847	77.0	0.8	0.44-1.30
Pneumonia & Influenza	9	40.6	15,881	33.4	1.2	0.63-2.34
Alcohol Abuse	8	36.1	2,101	4.4	8.3 *	3.57-16.36
Nephritis	8	35.7	15,954	33.5	1.1	0.53-2.14
Septicemia	6	27.8	14,068	29.4	0.9	0.42-2.11
Alzheimer's Disease	5	23.6	13,642	21.4	1.1	0.46-2.65
Chronic Liver Disease	5	21.8	13,618	28.3	0.8	0.32-1.85
All Causes	616	2815.9	1,003,202	2098.9	1.3 *	1.24-1.45
Population	22,175		48,271,948			

*p<0.05.

^a Alaska Native numbers and rates are not reported for fewer than 5 deaths.^b Rates are age-adjusted within age-specific groups

75+ Years	Alaska Native # Deaths	Alaska Native Rate^{a,b}	U.S. White # Deaths	U.S. White Rate^b	Rate Ratio	95% CI
Heart Disease	219	1506.6	1,160,949	2288.3	0.7 *	0.58-0.75
Cancer ^c	217	1465.9	669,492	1366.0	1.1	0.94-1.23
Cerebrovascular Diseases	94	651.1	280,452	552.2	1.2	0.96-1.44
COPD	76	521.1	223,984	452.7	1.2	0.92-1.44
Pneumonia & Influenza	42	293.9	125,213	244.8	1.2	0.89-1.63
Alzheimer's Disease	35	245.1	182,309	354.1	0.7 *	0.50-0.96
Unintentional Injury	35	238.9	77,117	153.0	1.6 *	1.12-2.18
Diabetes Mellitus	17	79.5	95,221	191.9	0.4 *	0.23-0.73
Hypertension	15	105.1	42,433	83.1	1.3	0.76-2.10
Nephritis	15	103.4	74,221	147.2	0.7	0.42-1.17
Parkinson's Disease	15	102.3	20,161	93.2	1.1	0.66-1.82
Septicemia	15	105.4	50,756	101.3	1.0	0.63-1.73
Alcohol Abuse	7	46.8	1,390	2.9	16.2 *	7.70-34.04
All Causes	1095	7540.5	3,711,320	7374.7	1.0	0.96-1.09
Population	14,810		48,422,952			

*p<0.05.

^a Alaska Native numbers and rates are not reported for fewer than 5 deaths.

^b Rates are age-adjusted within age-specific groups

^c There is no gender listed for 1 cancer death

TABLE 2b.

Data Source: State of Alaska
Bureau of Vital Statistics (AN),
National Cancer Institute's
Surveillance Epidemiology and
End Results Program.(USW)

**Age-Specific Rates for Leading Causes of Death
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males**

	Alaska Native # Deaths	Alaska Native Rate ^{a,b}	U.S. White # Deaths	U.S. White Rate ^b	Rate Ratio	95% CI
0-4 Years						
Unintentional Injury	23	80.6	3,425	14.1	5.7 *	3.60-8.55
Perinatal Conditions	20	70.1	14,892	61.6	1.1	0.69-1.76
Congenital Abnormalities	12	42.0	7,361	30.4	1.2	0.62-2.11
All Causes	98	343.3	36,736	151.9	2.3 *	1.83-2.76
Population	28,549		24,186,850			
	Alaska Native # Deaths	Alaska Native Rate ^{a,b}	U.S. White # Deaths	U.S. White Rate ^b	Rate Ratio	95% CI
5-14 Years						
Unintentional Injury	26	48.4	3,341	6.9	7.0 *	4.77-10.33
All Causes	35	64.8	8,293	17.1	3.8 *	2.72-5.28
Population	53,284		48,306,983			
	Alaska Native # Deaths	Alaska Native Rate ^{a,b}	U.S. White # Deaths	U.S. White Rate ^b	Rate Ratio	95% CI
15-24 Years						
Suicide	80	145.3	8,900	17.3	8.4 *	6.74-10.48
Unintentional Injury	67	122.7	30,228	58.8	2.1 *	1.64-2.65
Homicide	9	15.9	5,513	10.7	1.5	0.77-2.86
All Causes	181	329.8	56,273	109.5	3.0 *	2.60-3.49
Population	55,309		50,862,251			

*p<0.05.

^a Alaska Native numbers and rates are not reported for fewer than 5 deaths.

^b Rates are age-adjusted within age-specific groups

	Alaska Native # Deaths	Alaska Native Rate ^{a,b}	U.S. White # Deaths	U.S. White Rate ^b	Rate Ratio	95% CI
25-44 Years						
Unintentional Injury	126	166.8	56,974	55.8	3.0 *	2.50-3.57
Suicide	76	96.2	24,140	23.8	4.0 *	3.22-5.08
Alcohol Abuse	29	40.1	2,882	2.9	13.9 *	9.62-20.04
Heart Disease	24	32.9	24,314	24.3	1.4	0.91-2.03
Cancer	21	29.4	19,041	18.9	1.6 *	1.01-2.39
Homicide	17	23.7	8,464	8.2	2.9 *	1.79-4.65
Chronic Liver Disease	6	8.5	5,085	5.1	1.7	0.75-3.73
Diabetes Mellitus	5	6.9	3,389	3.4	2.0	0.85-4.90
HIV	5	7.0	5,846	8.9	1.2	0.49-2.88
All Causes	351	469.1	185,708	183.4	2.6 *	2.30-2.84
Population	75,752		101,885,628			
	Alaska Native # Deaths	Alaska Native Rate ^{a,b}	U.S. White # Deaths	U.S. White Rate ^b	Rate Ratio	95% CI
45-54 Years						
Cancer	61	184.4	60,465	115.2	1.6 *	1.25-2.06
Unintentional Injury	57	171.4	32,027	61.3	2.8 *	2.16-3.62
Heart Disease	46	139.8	63,242	120.6	1.2	0.87-1.55
Alcohol Abuse	28	84.0	4,954	9.5	8.9 *	5.89-12.84
Suicide	22	66.0	14,814	28.3	2.3 *	1.53-3.54
Chronic Liver Disease	7	21.0	14,009	26.7	0.8	0.37-1.65
COPD	7	21.3	4,707	9.0	2.4 *	1.13-4.98
Cerebrovascular Diseases	5	15.4	6,713	12.8	1.2	0.50-2.89
HIV	5	15.1	4,764	9.1	1.7	0.69-3.98
All Causes	292	881.1	264,829	505.3	1.7 *	1.55-1.96
Population	33,320		52,268,766			

*p<0.05.

^a Alaska Native numbers and rates are not reported for fewer than 5 deaths.^b Rates are age-adjusted within age-specific groups

55-64 Years	Alaska Native # Deaths	Alaska Native Rate^{a,b}	U.S. White # Deaths	U.S. White Rate^b	Rate Ratio	95% CI
Cancer	75	391.4	134,905	361.8	1.1	0.86-1.36
Heart Disease	52	267.8	108,154	289.6	0.9	0.70-1.21
Unintentional Injury	23	116.2	18,106	48.1	2.4 *	1.60-3.64
Alcohol Abuse	22	113.0	3,801	10.1	11.2 *	7.01-16.98
COPD	14	77.2	16,700	45.1	1.7 *	1.01-2.89
Chronic Liver Disease	13	67.4	12,821	34.1	2.0 *	1.15-3.41
Cerebrovascular Diseases	11	58.6	12,002	32.2	1.8 *	1.01-3.29
Pneumonia & Influenza	5	27.3	4,521	12.1	2.3	0.94-5.42
All Causes	278	1444.4	400,008	1070.8	1.4 *	1.20-1.52
Population	19,475		37,652,471			

65-74 Years	Alaska Native # Deaths	Alaska Native Rate^{a,b}	U.S. White # Deaths	U.S. White Rate^b	Rate Ratio	95% CI
Cancer	127	1251.8	196,939	893.0	1.4 *	1.18-1.67
Heart Disease	79	782.1	149,571	680.0	1.2	0.92-1.44
COPD	29	290.9	40,251	183.8	1.6 *	1.10-2.28
Cerebrovascular Diseases	15	148.7	23,106	105.5	1.4	0.85-2.34
Unintentional Injury	15	146.5	13,415	60.6	2.4 *	1.45-4.03
Diabetes Mellitus	7	68.9	20,177	91.5	0.8	0.36-1.59
Nephritis	5	47.4	8,577	39.2	1.2	0.50-2.92
Pneumonia & Influenza	5	49.6	8,809	40.4	1.3	0.51-2.97
Alcohol Abuse	5	47.7	1,647	7.4	6.5 *	2.09-15.10
All Causes	351	3460.1	564,598	2566.2	1.4 *	1.21-1.50
Population	10,490		22,316,607			

*p<0.05.

^a Alaska Native numbers and rates are not reported for fewer than 5 deaths.^b Rates are age-adjusted within age-specific groups

75+ Years	Alaska Native # Deaths	Alaska Native Rate^{a,b}	U.S. White # Deaths	U.S. White Rate^b	Rate Ratio	95% CI
Heart Disease	108	1903.2	482,695	2687.3	0.7 *	0.58-0.86
Cancer ^c	106	1779.4	332,581	1813.9	1.0	0.81-1.19
Cerebrovascular Diseases	38	676.7	96,380	536.1	1.3	0.91-1.75
COPD	29	502.2	101,476	556.8	0.9	0.62-1.31
Unintentional Injury	22	354.0	35,037	194.4	1.8 *	1.19-2.79
Pneumonia & Influenza	21	416.1	51,797	291.2	1.4	0.92-2.22
Parkinson's disease	10	177.3	26,109	144.7	1.2	0.65-2.32
Hypertension	8	165.8	13,483	75.4	2.2 *	1.08-4.49
Alzheimer's Disease	7	144.6	50,933	286.6	0.5	0.24-1.08
Diabetes Mellitus	7	125.1	41,012	224.7	0.6	0.26-1.19
Nephritis	5	93.4	34,399	191.5	0.5	0.20-1.21
Septicemia	5	86.3	20,667	114.1	0.8	0.31-1.86
Alcohol Abuse	5	83.6	992	5.3	15.7 *	6.36-38.72
All Causes	485	8619.4	1,540,775	8529.7	1.0	0.92-1.11
Population	6,083		18,462,763			

*p<0.05.

^a Alaska Native numbers and rates are not reported for fewer than 5 deaths.

^b Rates are age-adjusted within age-specific groups

^c There is no gender listed for 1 cancer death

TABLE 2c.

Data Source: State of Alaska
Bureau of Vital Statistics (AN),
National Cancer Institute's
Surveillance Epidemiology and
End Results Program.(USW)

**Age-Specific Rates for Leading Causes of Death
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females**

	Alaska Native # Deaths	Alaska Native Rate ^{a,b}	U.S. White # Deaths	U.S. White Rate ^b	Rate Ratio	95% CI
0-4 Years						
Congenital Abnormalities	16	58.8	6,641	28.8	2.0 *	1.17-3.32
Perinatal Conditions	13	47.8	11,320	49.1	1.0	0.52-1.66
Unintentional Injury	12	44.1	2,419	10.5	4.2 *	2.17-7.35
Pneumonia & Influenza	5	18.4	306	1.3	13.8 *	4.46-32.66
All Causes	75	275.6	28,416	123.3	2.2 *	1.76-2.80
Population	27,214		23,053,214			
	Alaska Native # Deaths	Alaska Native Rate ^{a,b}	U.S. White # Deaths	U.S. White Rate ^b	Rate Ratio	95% CI
5-14 Years						
Unintentional Injury	9	18.5	2,065	4.5	4.1 *	2.14-7.95
Suicide	5	9.5	174	0.4	25.6 *	10.53-62.34
All Causes	21	42.2	5,777	12.6	3.4 *	2.18-5.16
Population	49,198		45,873,188			
	Alaska Native # Deaths	Alaska Native Rate ^{a,b}	U.S. White # Deaths	U.S. White Rate ^b	Rate Ratio	95% CI
15-24 Years						
Suicide	26	50.2	1,727	3.6	13.9 *	9.44-20.51
Unintentional Injury	16	29.9	10,095	21.2	1.4	0.86-2.31
All Causes	63	121.0	20,021	41.8	2.9 *	2.26-3.71
Population	51,943		47,699,121			

*p<0.05.

^a Alaska Native numbers and rates are not reported for fewer than 5 deaths.

^b Rates are age-adjusted within age-specific groups

25-44 Years	Alaska Native # Deaths	Alaska Native Rate^{a,b}	U.S. White # Deaths	U.S. White Rate^b	Rate Ratio	95% CI
Unintentional Injury	46	63.2	20,574	21.0	3.0 *	2.25-4.03
Alcohol Abuse	39	54.2	819	0.9	64.0 *	46.39-88.34
Cancer	26	36.5	22,728	23.3	1.6 *	1.07-2.31
Suicide	26	35.3	6,529	6.7	5.3 *	3.58-7.78
Chronic Liver Disease	19	26.9	2,394	2.4	11.0 *	6.98-17.25
Heart Disease	16	21.4	9,284	9.5	2.3 *	1.38-3.69
Homicide	10	13.0	2,629	2.7	4.8 *	2.59-9.07
Cerebrovascular Diseases	7	9.9	2,535	2.6	3.8 *	1.80-7.98
HIV	5	7.5	1,440	1.5	5.1 *	2.10-12.20
All Causes	244	338.7	94,481	96.6	3.5 *	3.09-3.98
Population	74,260		98,098,902			
45-54 Years	Alaska Native # Deaths	Alaska Native Rate^{a,b}	U.S. White # Deaths	U.S. White Rate^b	Rate Ratio	95% CI
Cancer	45	128.0	58,075	109.3	1.2	0.87-1.57
Alcohol Abuse	28	79.3	1,427	2.7	29.4 *	19.45-42.65
Unintentional Injury	27	75.7	13,383	25.4	3.0 *	2.05-4.36
Heart Disease	26	74.0	21,563	40.6	1.8 *	1.24-2.68
Chronic Liver Disease	17	47.8	5,291	10.0	4.8 *	2.97-7.91
Cerebrovascular Diseases	8	22.7	5,448	10.3	2.2 *	1.11-4.23
Diabetes Mellitus	6	17.0	4,485	8.4	2.0	0.91-4.50
COPD	5	14.5	4,567	8.6	1.7	0.70-4.05
Septicemia	5	14.3	1,302	2.5	5.8 *	2.42-14.05
All Causes	215	610.8	153,083	288.4	2.1 *	1.85-2.42
Population	35,322		52,862,770			

*p<0.05.

^a Alaska Native numbers and rates are not reported for fewer than 5 deaths.^b Rates are age-adjusted within age-specific groups

55-64 Years	Alaska Native # Deaths	Alaska Native Rate^{a,b}	U.S. White # Deaths	U.S. White Rate^b	Rate Ratio	95% CI
Cancer	89	431.0	113,028	286.0	1.5 *	1.22-1.86
Heart Disease	25	121.4	45,417	115.0	1.1	0.71-1.56
Alcohol Abuse	14	67.2	933	2.3	28.6 *	15.58-48.26
Chronic Liver Disease	12	56.9	5,221	13.2	4.3 *	2.45-7.63
COPD	12	58.5	16,155	41.0	1.4	0.81-2.52
Diabetes Mellitus	7	33.7	10,103	25.6	1.3	0.63-2.77
Cerebrovascular Diseases	6	29.2	9,658	24.4	1.2	0.54-2.67
Unintentional Injury	6	30.0	8,518	21.5	1.4	0.63-3.11
Nephritis	5	25.5	3,475	8.8	2.9 *	1.20-6.98
Pneumonia & Influenza	5	26.3	3,246	8.2	3.2 *	1.33-7.69
Septicemia	5	23.2	3,020	7.7	3.0 *	1.26-7.31
All Causes	225	1099.1	263,489	666.7	1.7 *	1.45-1.88
Population	20,832		39,699,774			
65-74 Years	Alaska Native # Deaths	Alaska Native Rate^{a,b}	U.S. White # Deaths	U.S. White Rate^b	Rate Ratio	95% CI
Cancer	107	918.1	160,788	622.3	1.5 *	1.22-1.78
Heart Disease	47	403.5	90,220	350.3	1.2	0.87-1.53
COPD	28	240.8	39,594	153.7	1.6 *	1.08-2.27
Cerebrovascular Diseases	14	121.2	21,752	84.6	1.4	0.85-2.42
Diabetes Mellitus	6	51.8	16,670	64.6	0.8	0.036-1.79
Unintentional Injury	5	42.6	8,281	32.1	1.3	0.55-3.20
All Causes	265	2273.5	438,604	1700.6	1.3 *	1.19-1.51
Population	11,685		25,955,341			

*p<0.05.

^a Alaska Native numbers and rates are not reported for fewer than 5 deaths.^b Rates are age-adjusted within age-specific groups

75+ Years	Alaska Native # Deaths	Alaska Native Rate^{a,b}	U.S. White # Deaths	U.S. White Rate^b	Rate Ratio	95% CI
Heart Disease	111	1240.6	678,254	2039.1	0.6 *	0.50-0.73
Cancer ^c	110	1272.3	336,911	1099.4	1.2	0.96-1.40
Cerebrovascular Diseases	56	631.4	184,072	556.1	1.1	0.87-1.48
COPD	47	538.6	122,508	392.8	1.4 *	1.03-1.83
Alzheimer's Disease	28	311.0	131,376	387.5	0.8	0.55-1.16
Pneumonia & Influenza	21	235.3	73,416	218.3	1.1	0.70-1.66
Unintentional Injury	13	143.4	42,080	128.7	1.1	0.65-1.92
Diabetes Mellitus	10	116.0	54,209	171.7	0.7	0.36-1.26
Nephritis	10	113.7	39,822	122.6	0.9	0.50-1.73
Septicemia	10	116.1	18,421	58.2	2.0 *	1.07-3.72
Hypertension	7	75.7	28,950	86.6	0.9	0.42-1.84
Parkinson's Disease	5	56.4	20,161	63.9	0.9	0.37-2.12
All Causes	609	6873.8	2,170,545	6656.5	1.0	0.95-1.11
Population	8,727		29,960,189			

*p<0.05.

^a Alaska Native numbers and rates are not reported for fewer than 5 deaths.

^b Rates are age-adjusted within age-specific groups

^c There is no gender listed for 1 cancer death

FIGURE 3a. Age-Specific Mortality Rates from All Causes
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

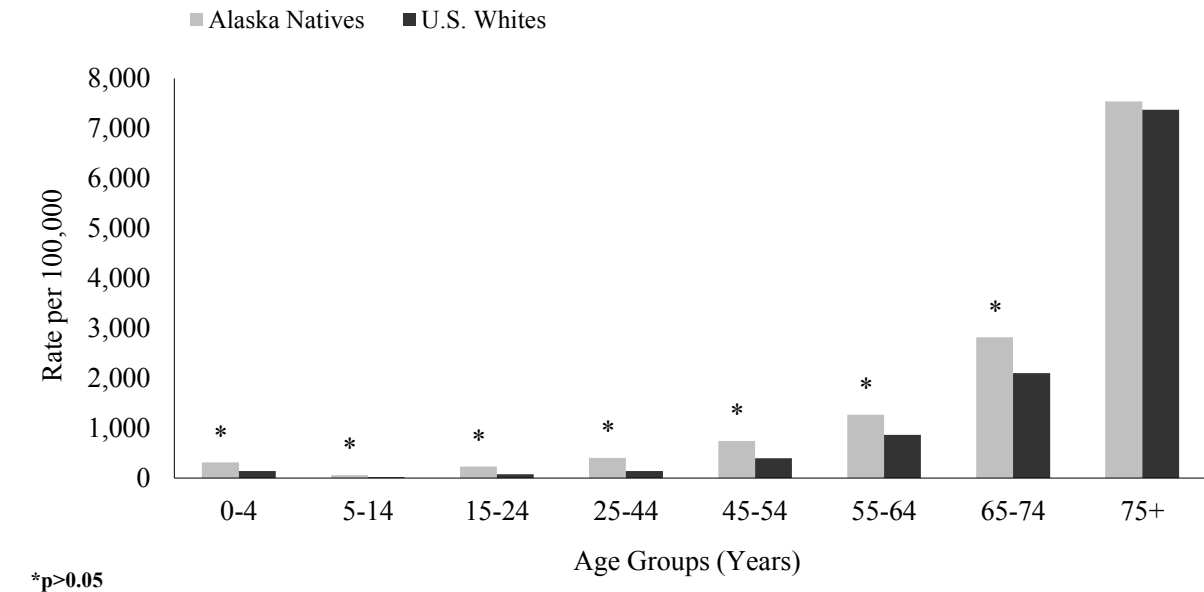


FIGURE 4a. Age-Specific Mortality Rates from Alcohol Abuse
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

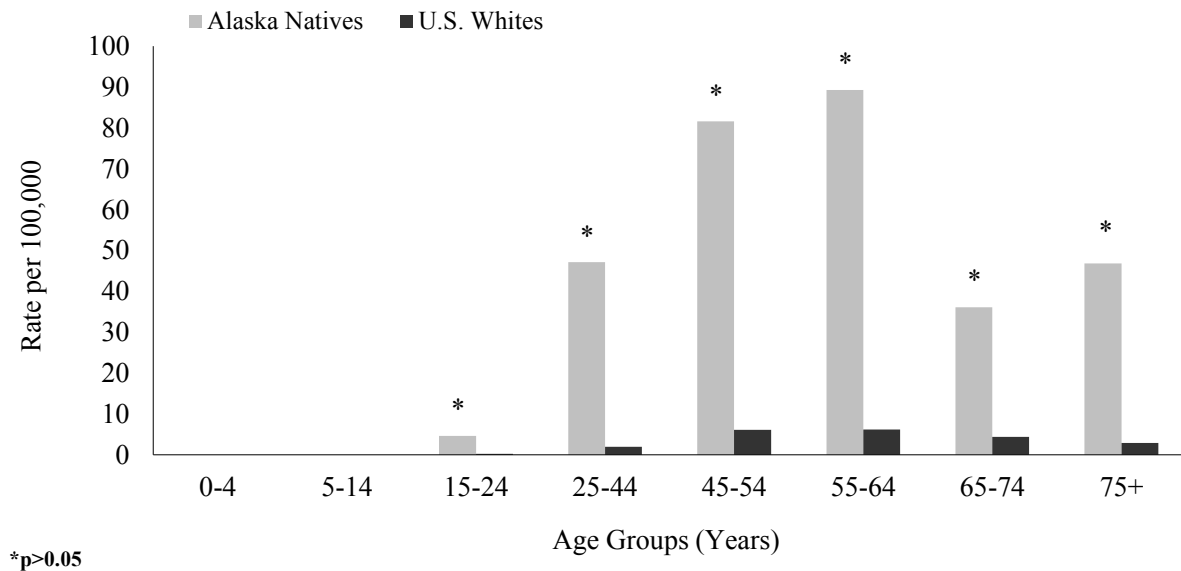


FIGURE 5a. Age-Specific Mortality Rates from Alzheimer's Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

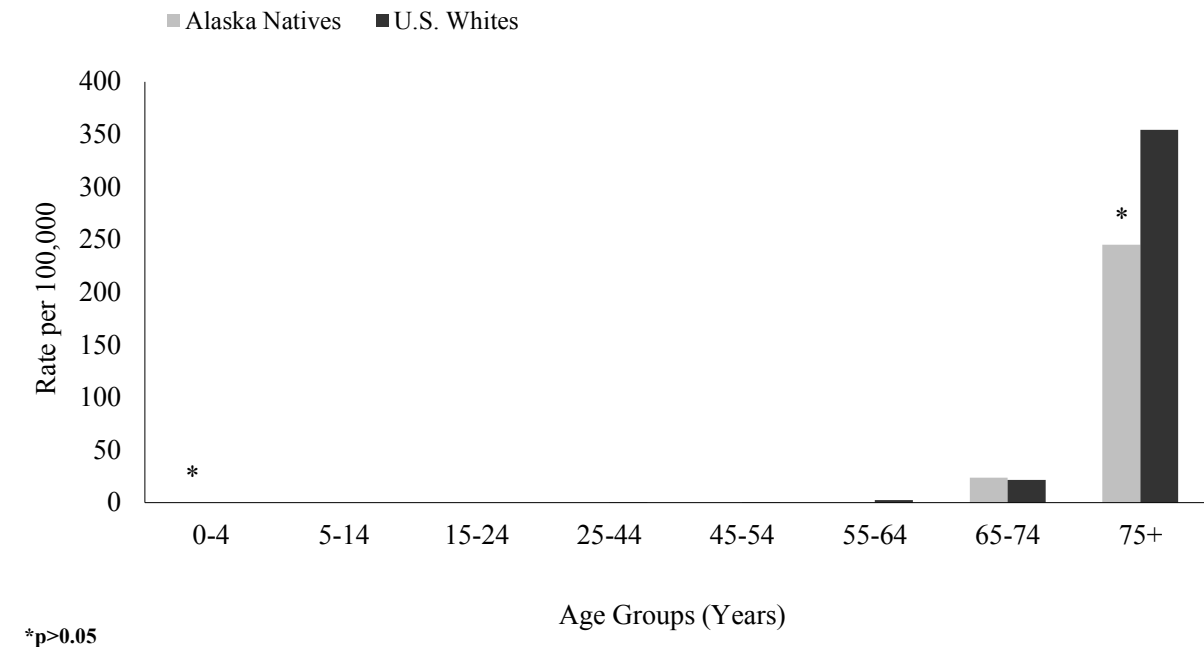


FIGURE 6a. Age-Specific Mortality Rates from Cancer
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

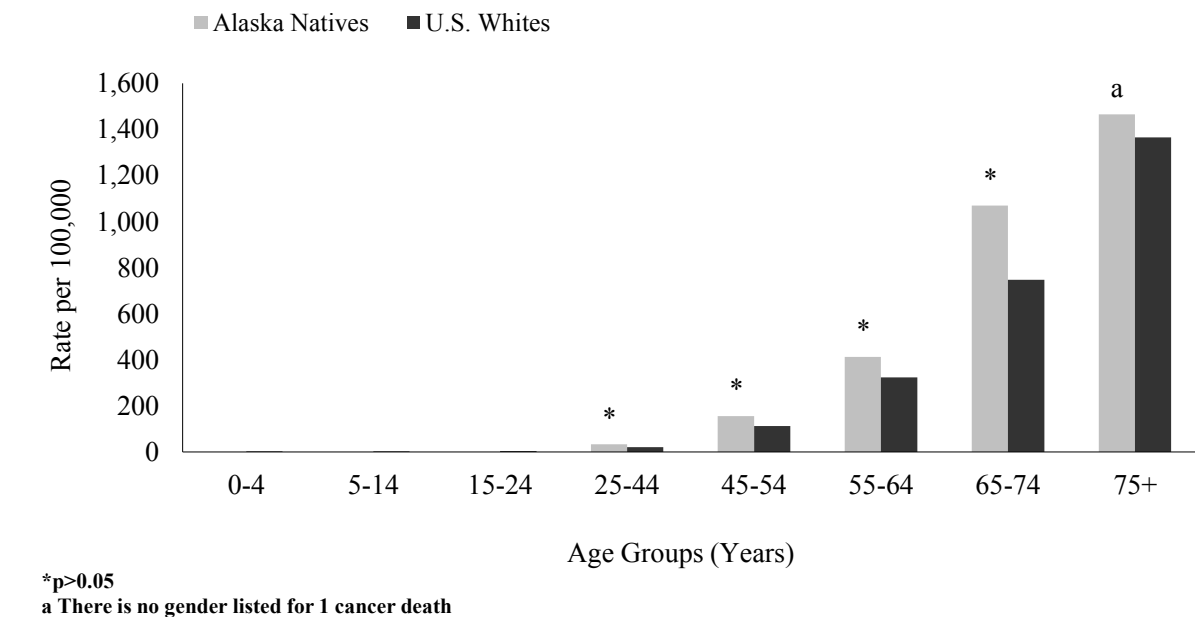


FIGURE 7a. Age-Specific Mortality Rates from Cerebrovascular Disease
 Data Source: Table 2a.
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

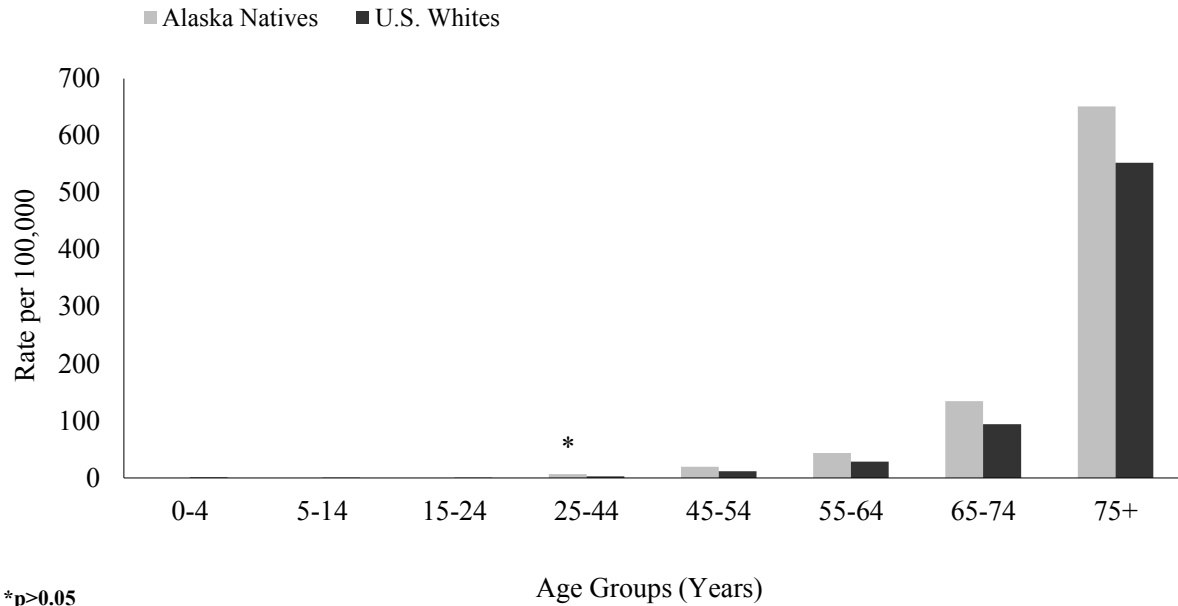


FIGURE 8a. Age-Specific Mortality Rates from Chronic Liver Disease
 Data Source: Table 2a.
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

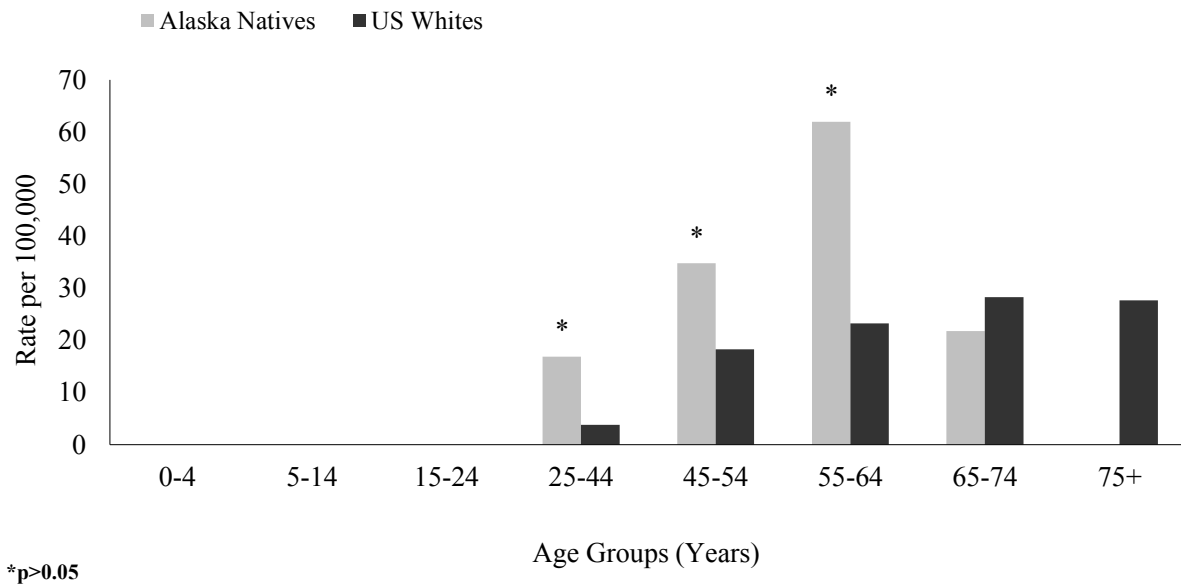


FIGURE 9a.
Data Source: Table 2a.

Age-Specific Mortality Rates from Congenital Abnormalities
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

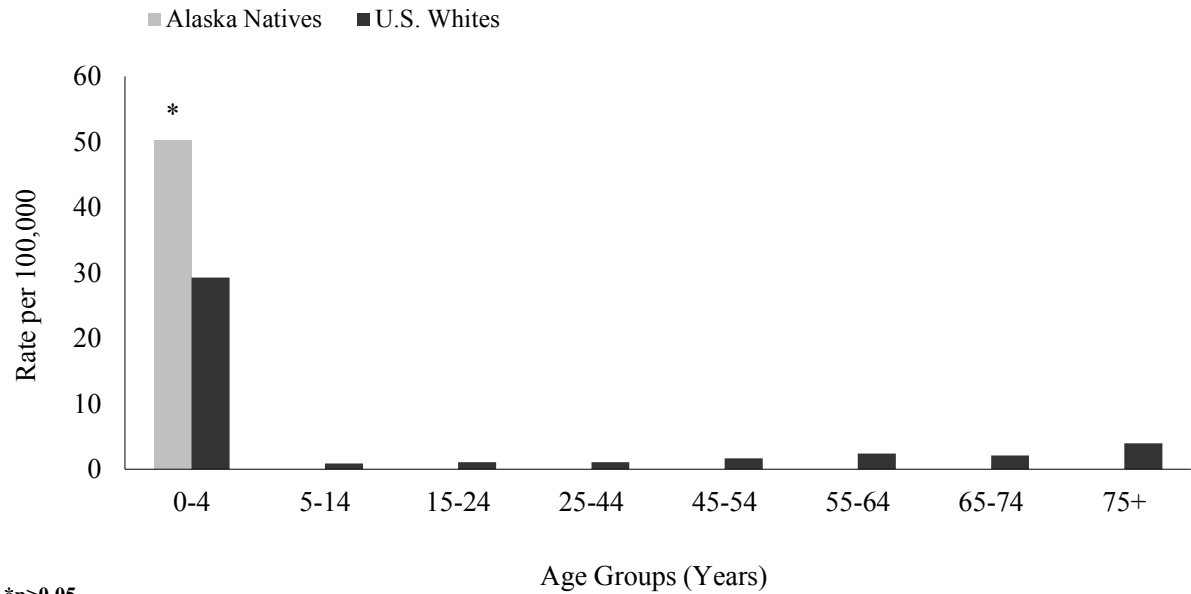


FIGURE 10a.
Data Source: Table 2a.

Age-Specific Mortality Rates from COPD
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

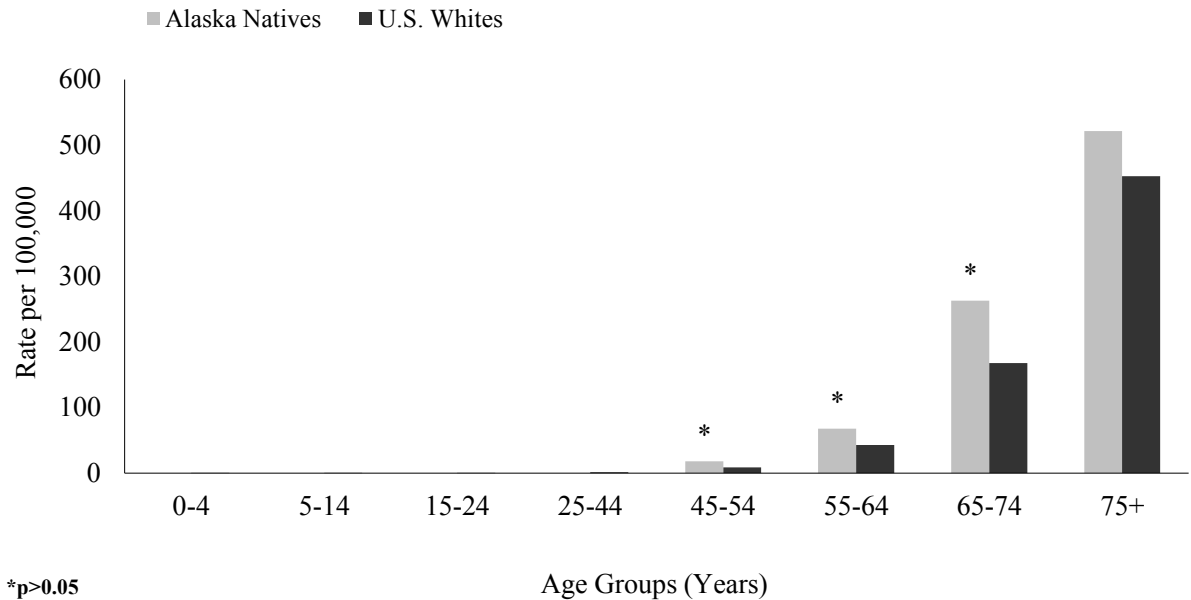


FIGURE 11a. Age-Specific Mortality Rates from Diabetes Mellitus
 Data Source: Table 2a.
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

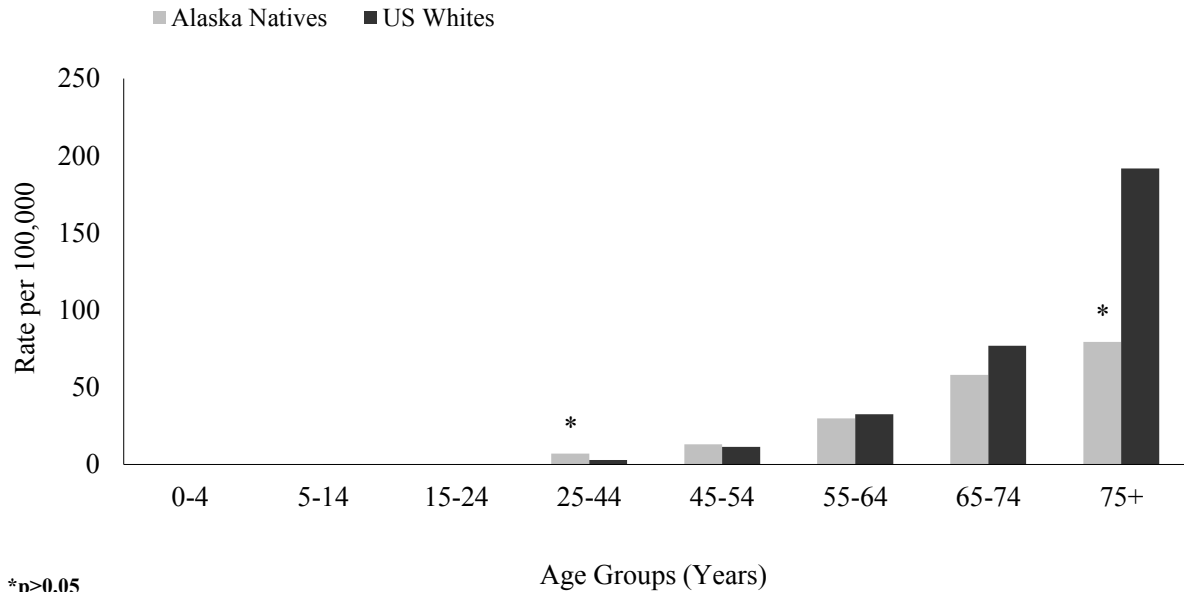


FIGURE 12a. Age-Specific Mortality Rates from Heart Disease
 Data Source: Table 2a.
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

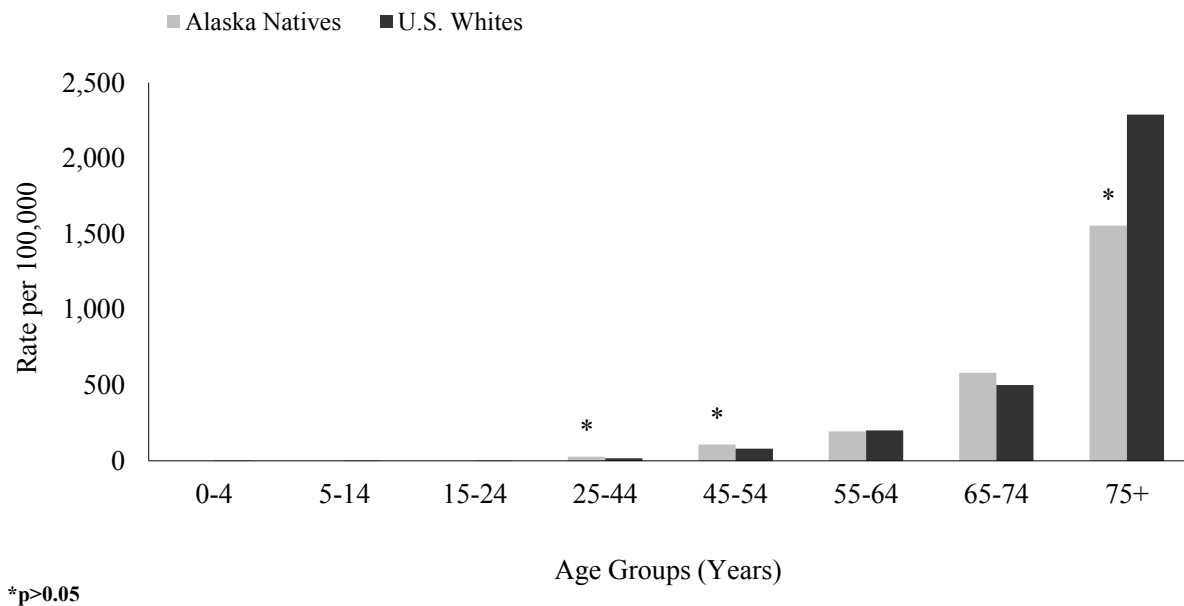


FIGURE 13a.
Data Source: Table 2a.

Age-Specific Mortality Rates from HIV
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

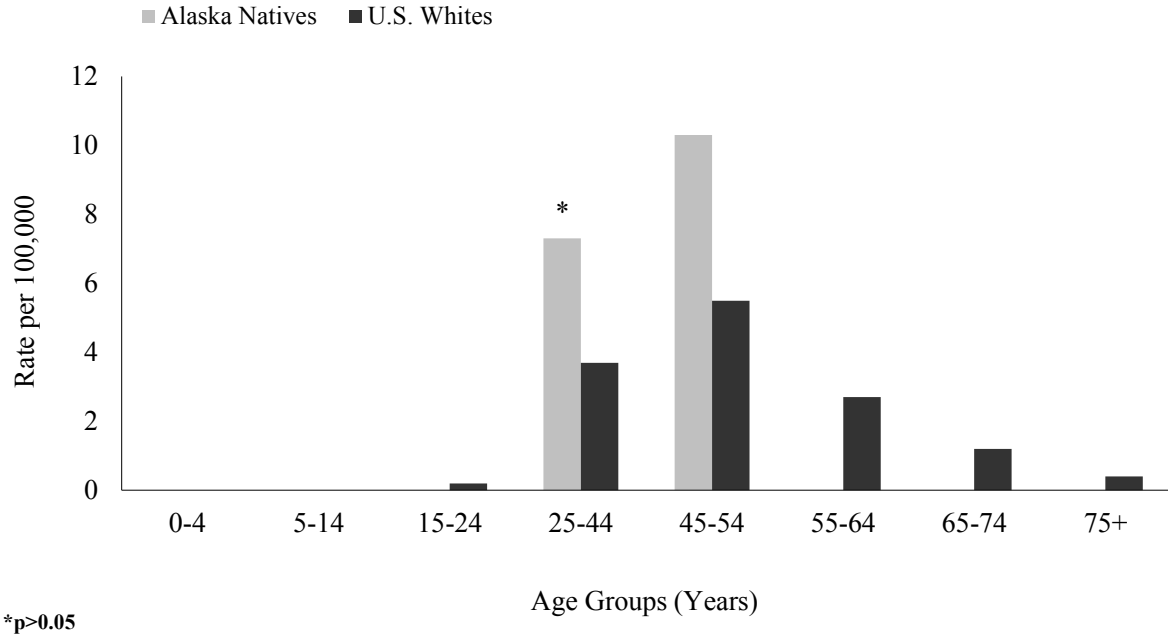


FIGURE 14a.
Data Source: Table 2a.

Age-Specific Mortality Rates from Homicide
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

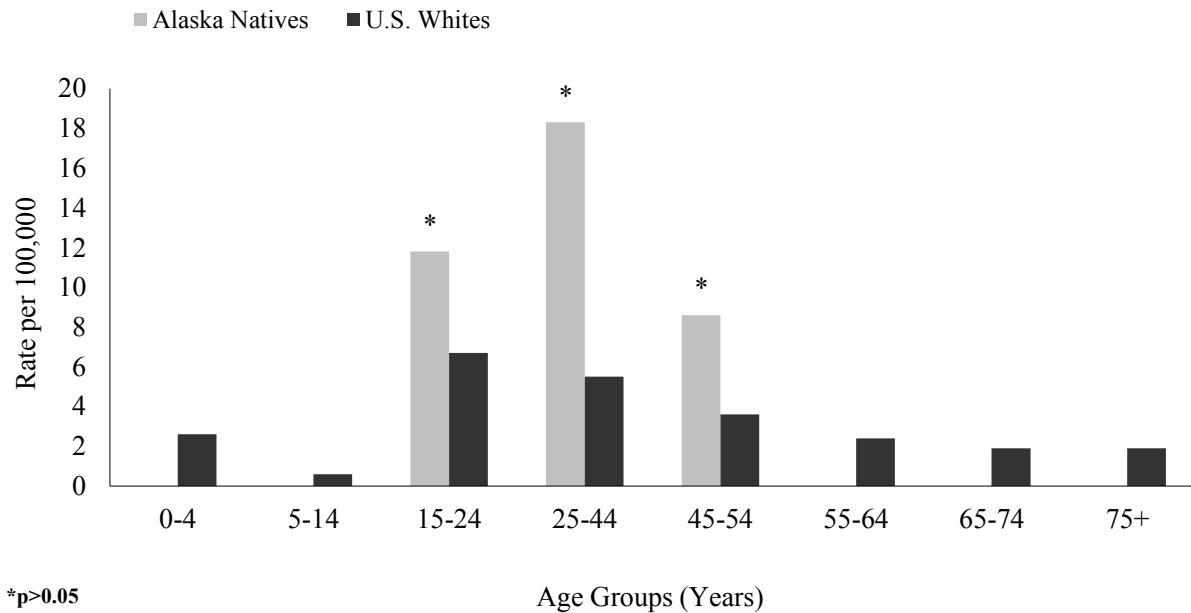


FIGURE 15a. Age-Specific Mortality Rates from Hypertension
 Data Source: Table 2a.
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

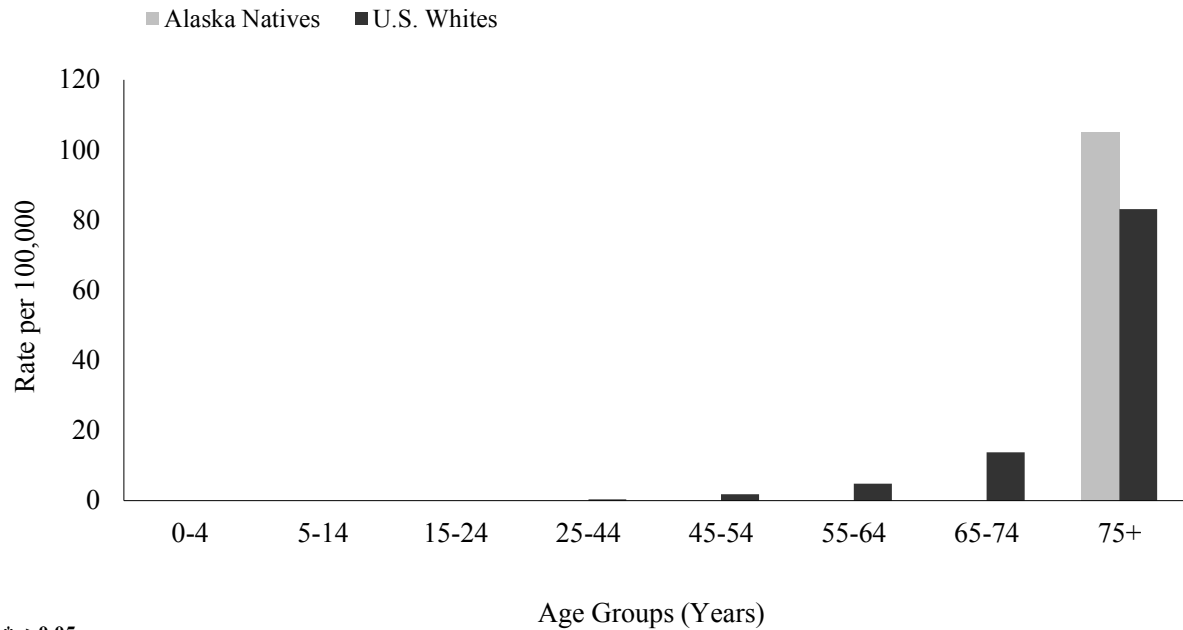


FIGURE 16a. Age-Specific Mortality Rates from Nephritis
 Data Source: Table 2a.
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

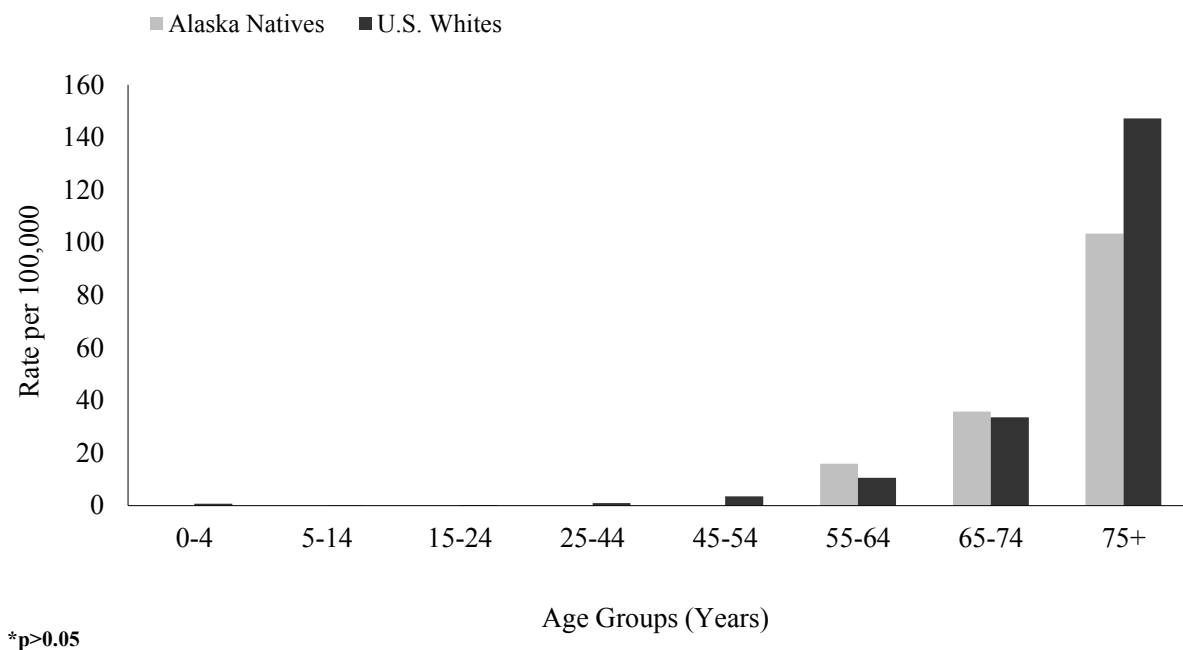


FIGURE 17a. Age-Specific Mortality Rates from Parkinson's Disease
 Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
 Both Genders

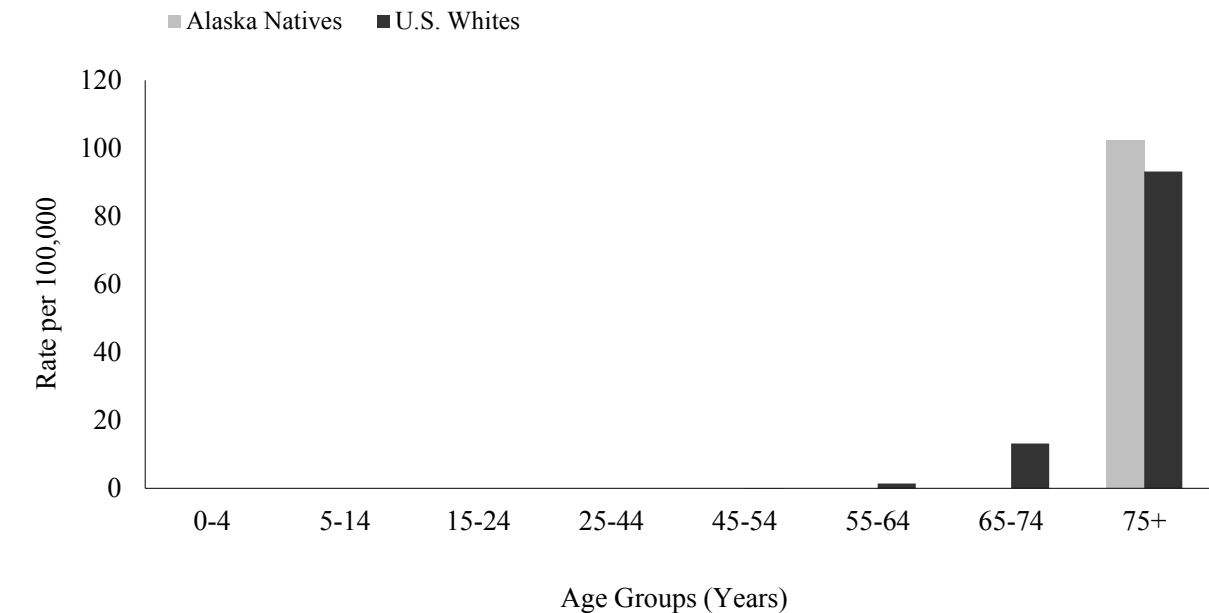


FIGURE 18a. Age-Specific Mortality Rates from Perinatal Conditions
 Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
 Both Genders

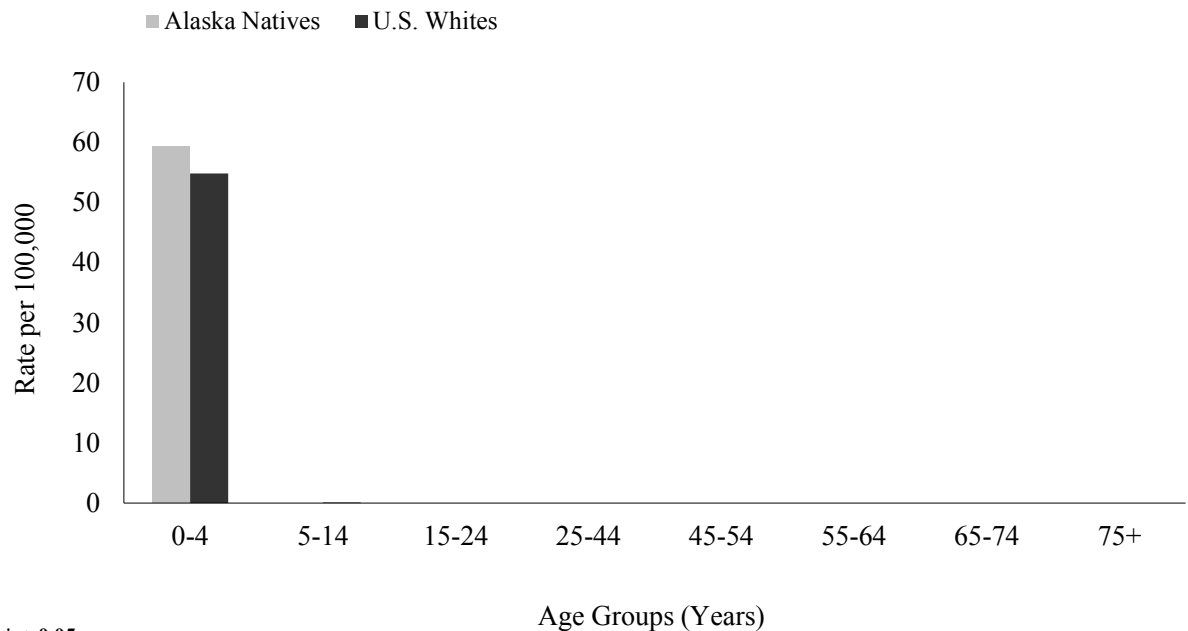


FIGURE 19a. Age-Specific Mortality Rates from Pneumonia & Influenza
 Data Source: Table 2a.
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

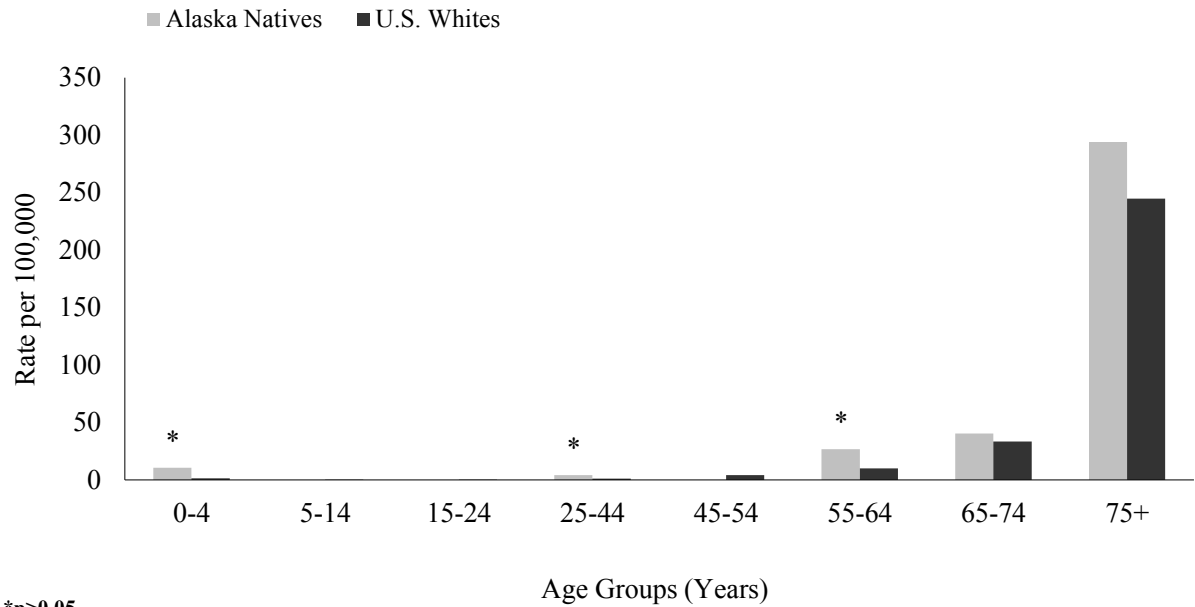


FIGURE 20a. Age-Specific Mortality Rates from Septicemia
 Data Source: Table 2a.
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

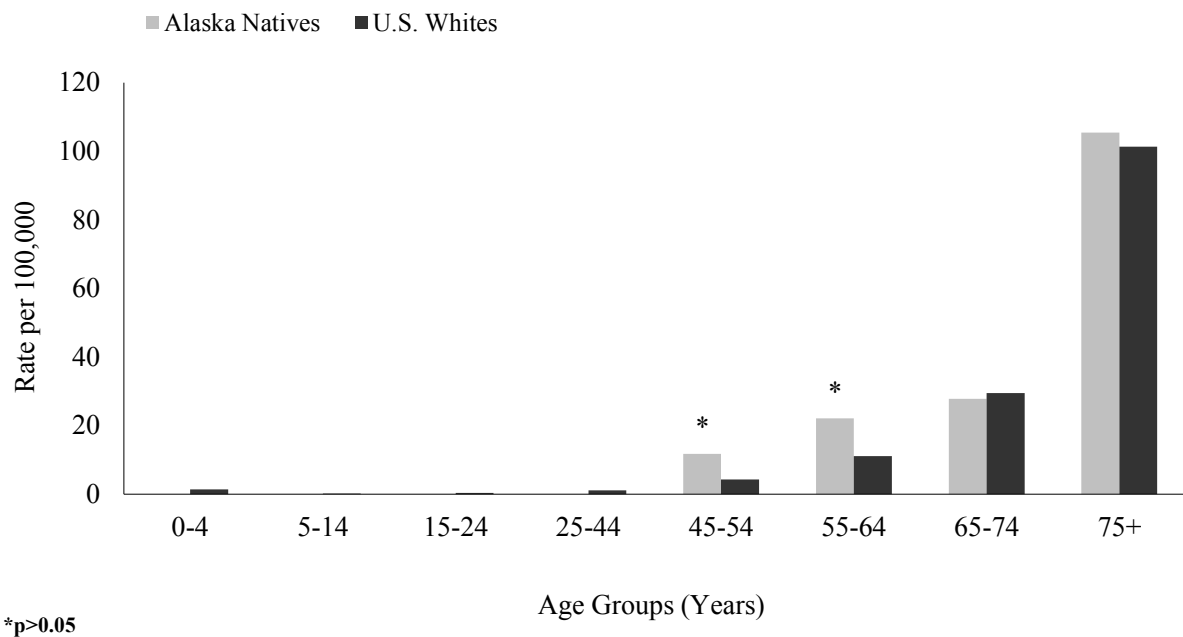


FIGURE 21a.
Data Source: Table 2a.

Age-Specific Mortality Rates from Suicide
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

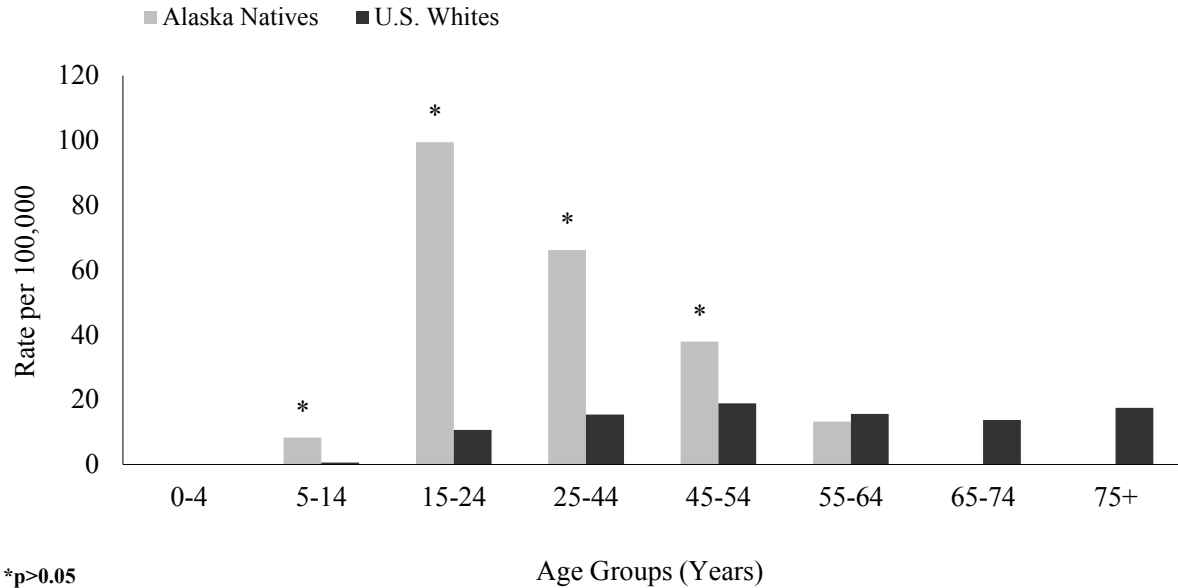


FIGURE 22a.
Data Source: Table 2a.

Age-Specific Mortality Rates from Unintentional Injury
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

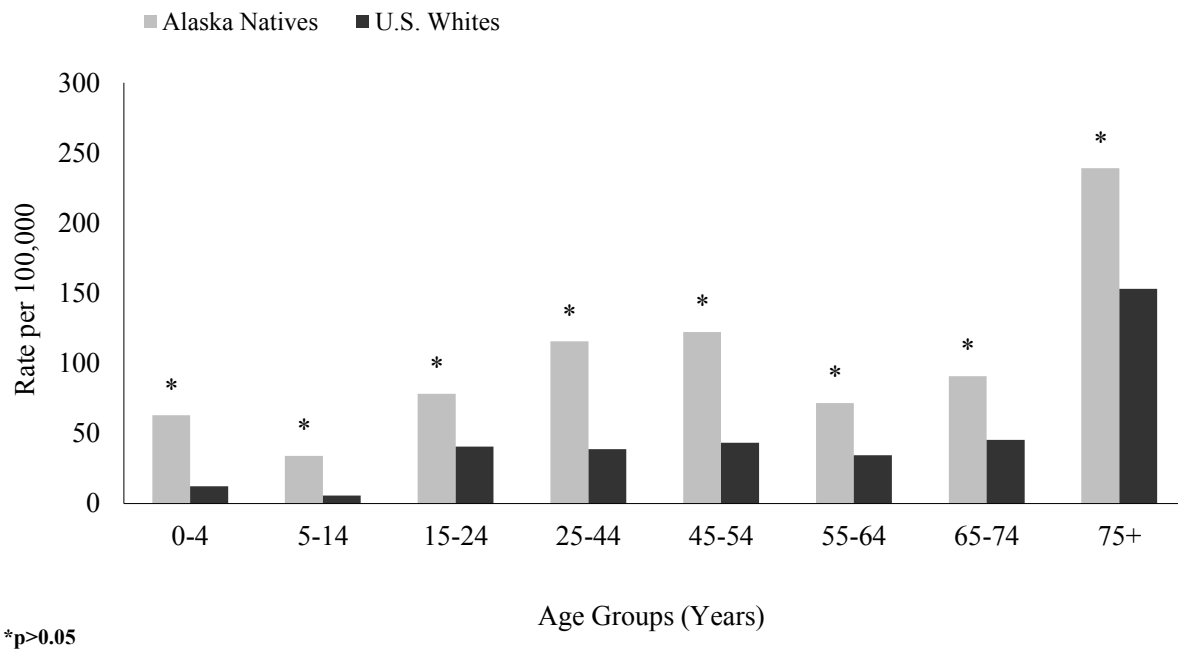
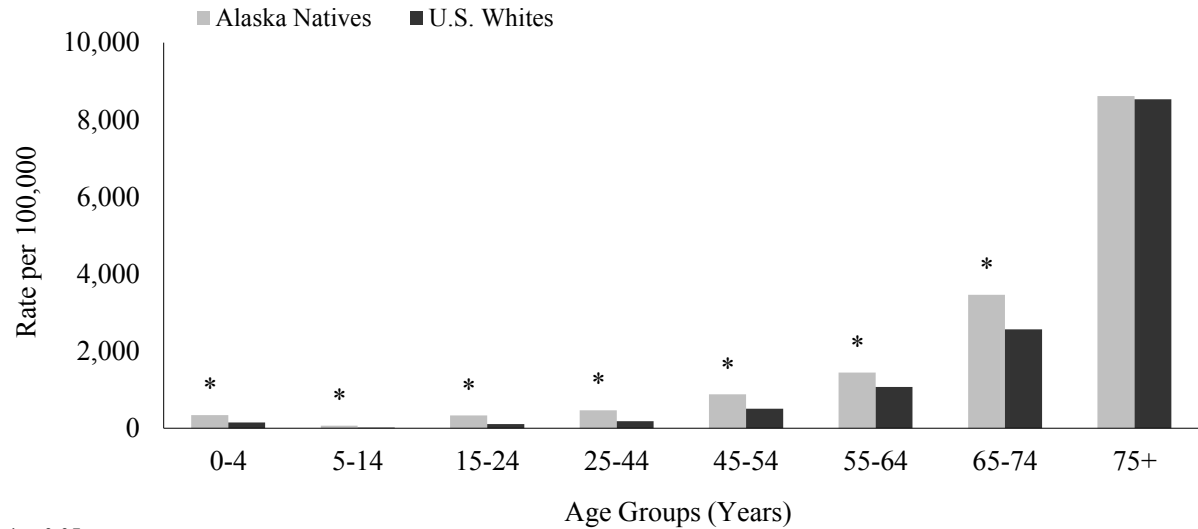


Figure 3b.

Data Source: Table 2b.

Age-Specific Mortality Rates from All Causes Alaska Natives (2004-2008) vs U.S. Whites (2004-2006) Males

**Figure 4b.**

Data Source: Table 2b.

Age-Specific Mortality Rates from Alcohol Abuse Alaska Natives (2004-2008) vs U.S. Whites (2004-2006) Males

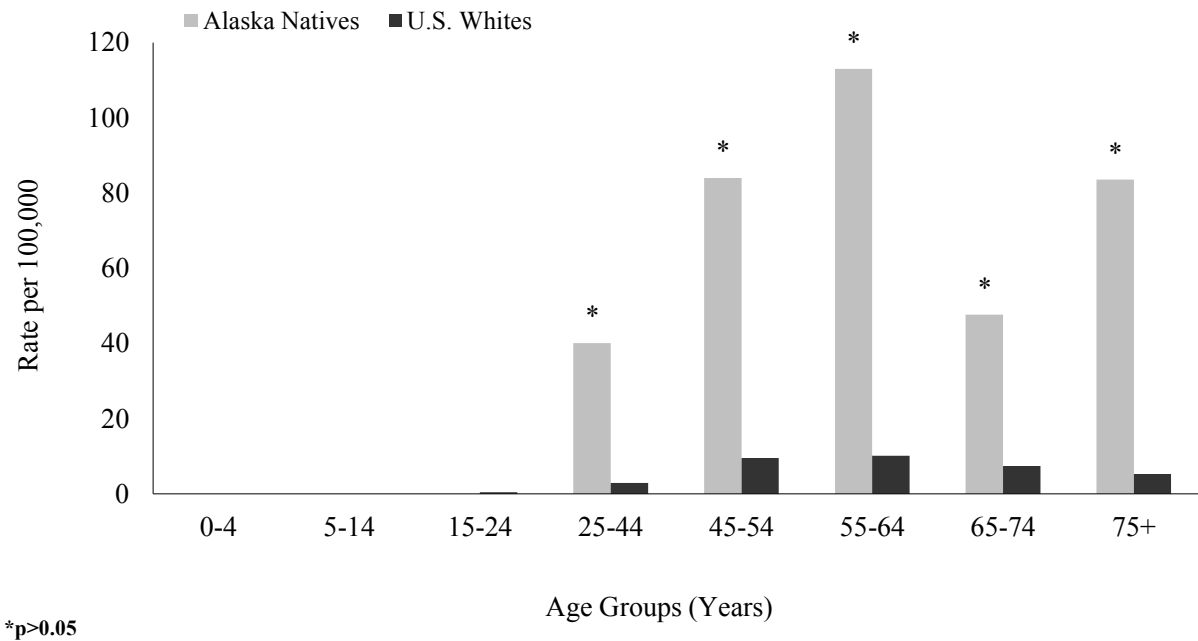
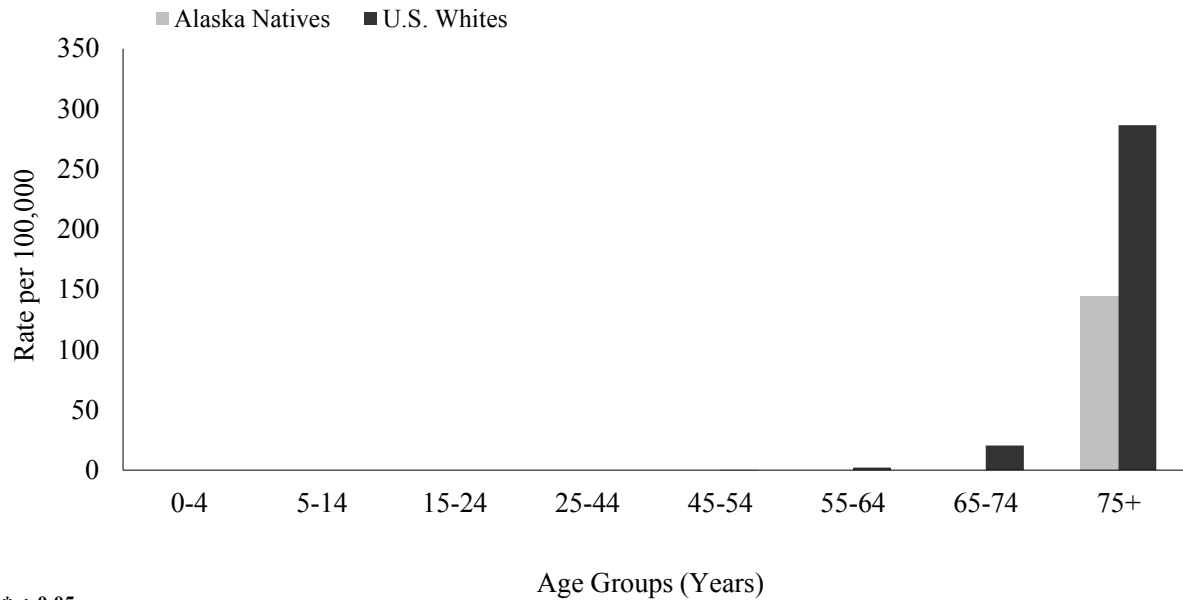


FIGURE 5b.

Data Source: Table 2b.

Age-Specific Mortality Rates from Alzheimer's Disease Alaska Natives (2004-2008) vs U.S. Whites (2004-2006) Males

**FIGURE 6b.**

Data Source: Table 2b.

Age-Specific Mortality Rates from Cancer Alaska Natives (2004-2008) vs U.S. Whites (2004-2006) Males

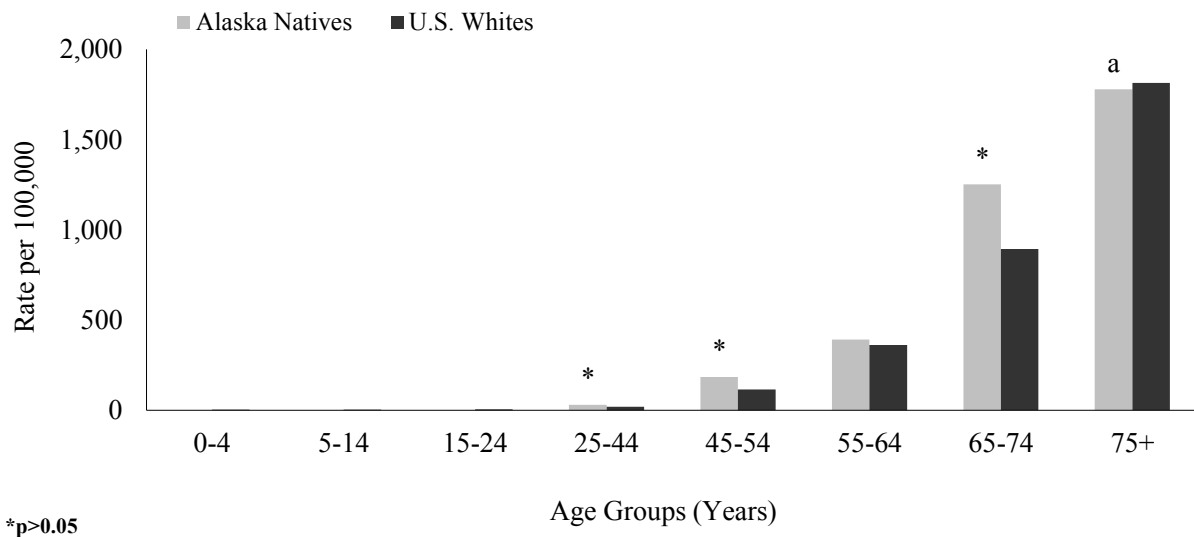


FIGURE 7b.
Data Source: Table 2b.

**Age-Specific Mortality Rates from Cerebrovascular Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males**

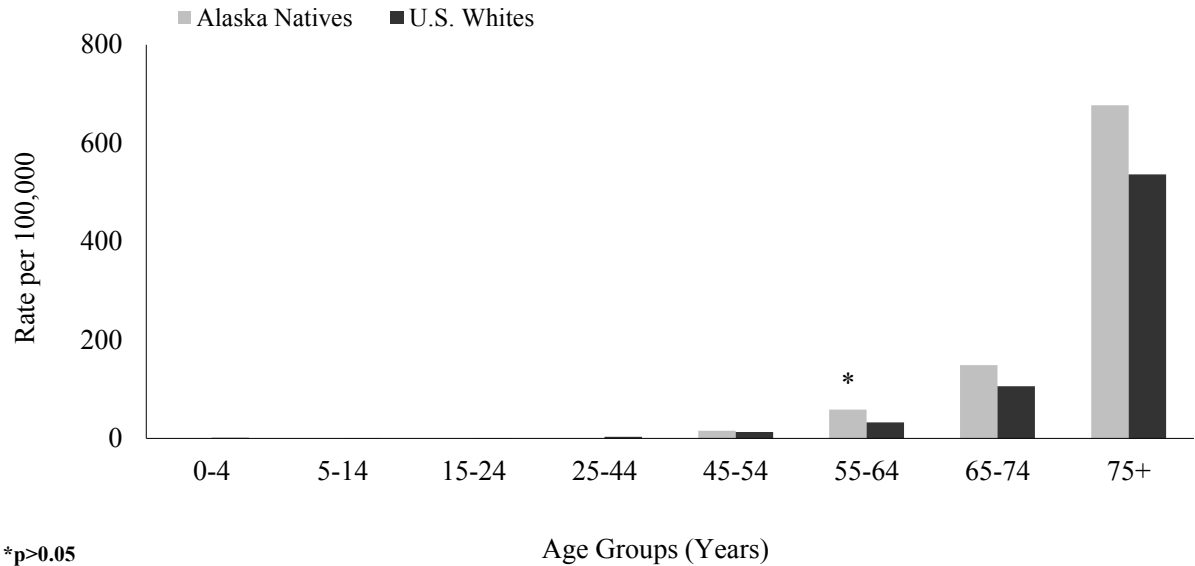


FIGURE 8b.
Data Source: Table 2b.

**Age-Specific Mortality Rates from Chronic Liver Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males**

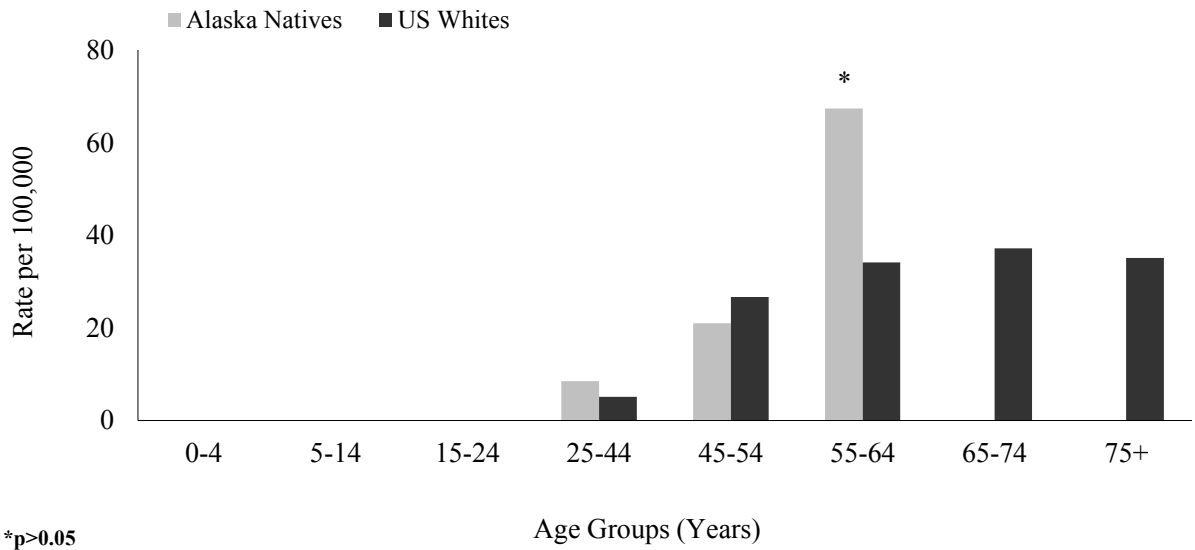


FIGURE 9b.
Data Source: Table 2b.

Age-Specific Mortality Rates from Congenital Abnormalities
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

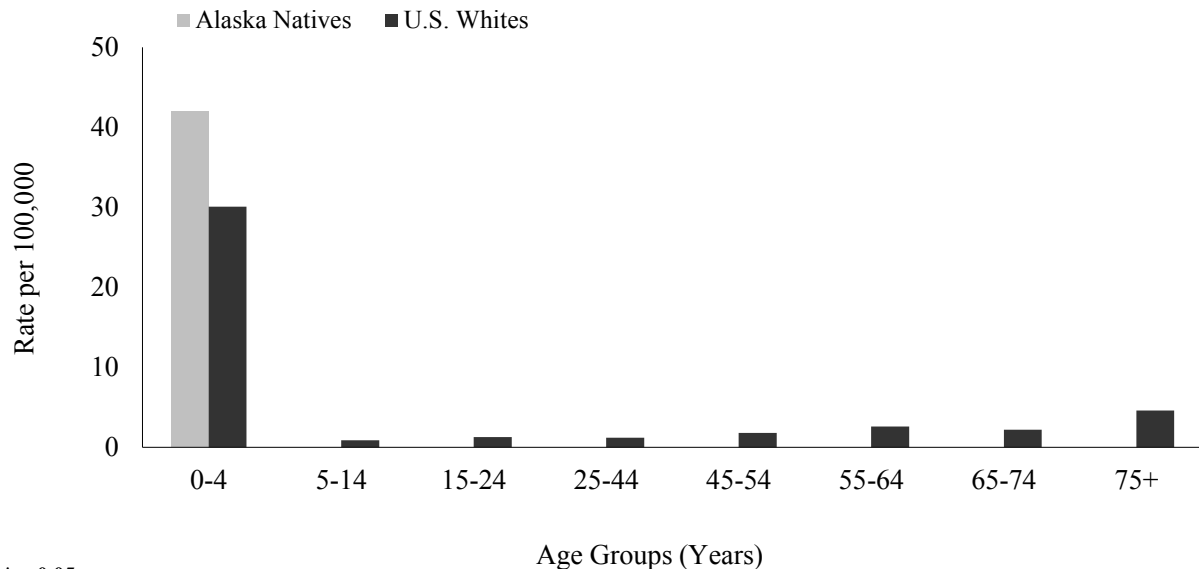


FIGURE 10b.
Data Source: Table 2b.

Age-Specific Mortality Rates from COPD
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

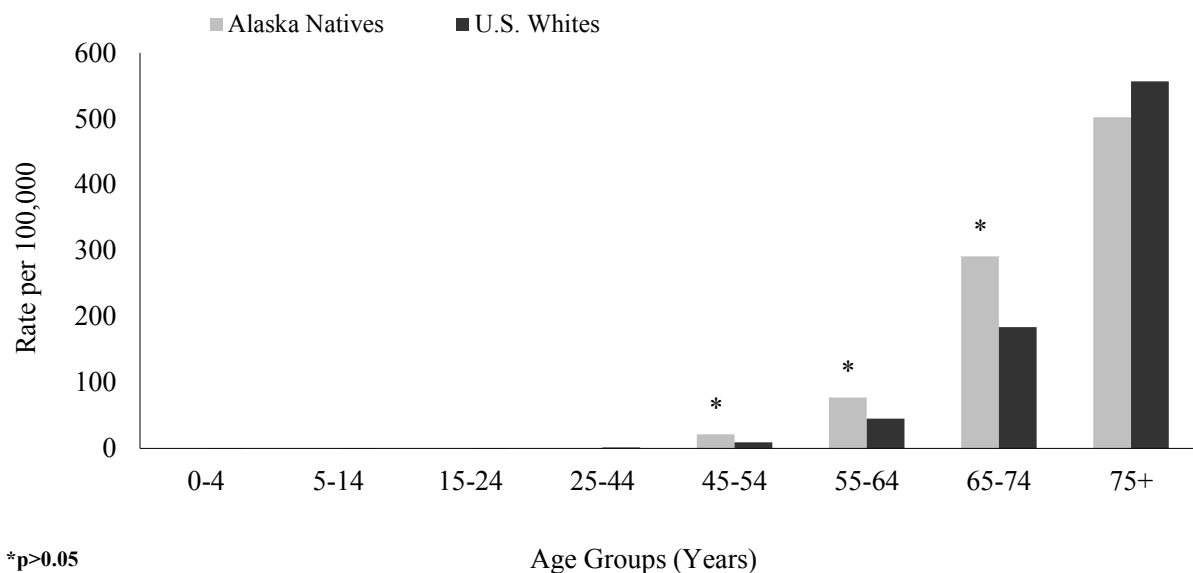


FIGURE 11b. Age-Specific Mortality Rates from Diabetes Mellitus
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

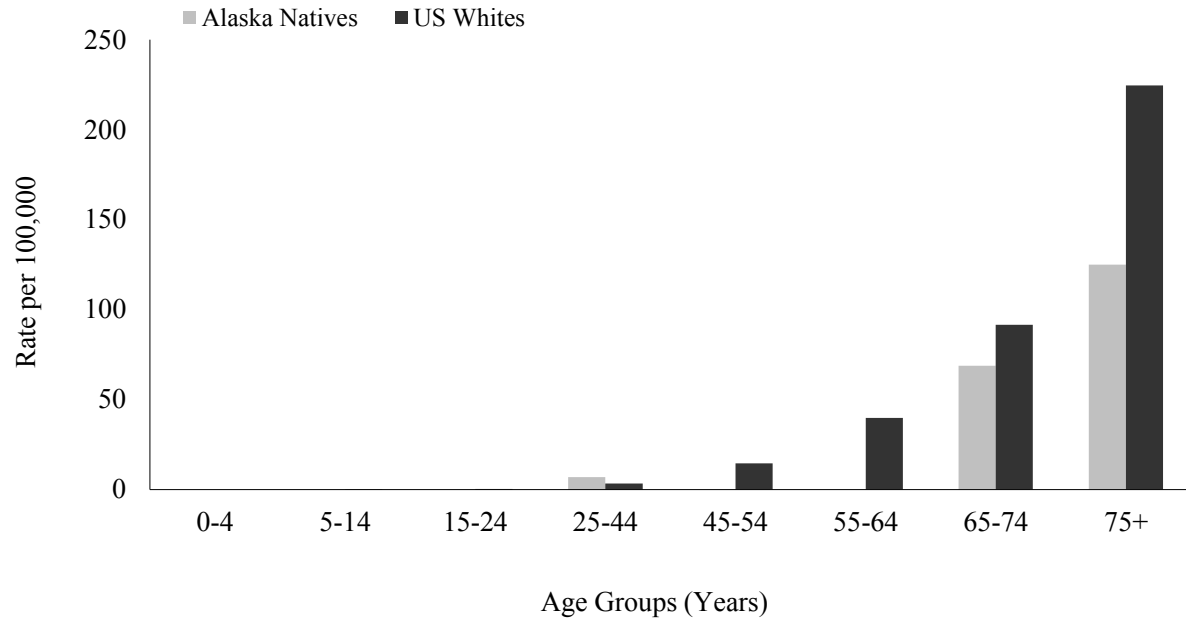


FIGURE 12b. Age-Specific Mortality Rates from Heart Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

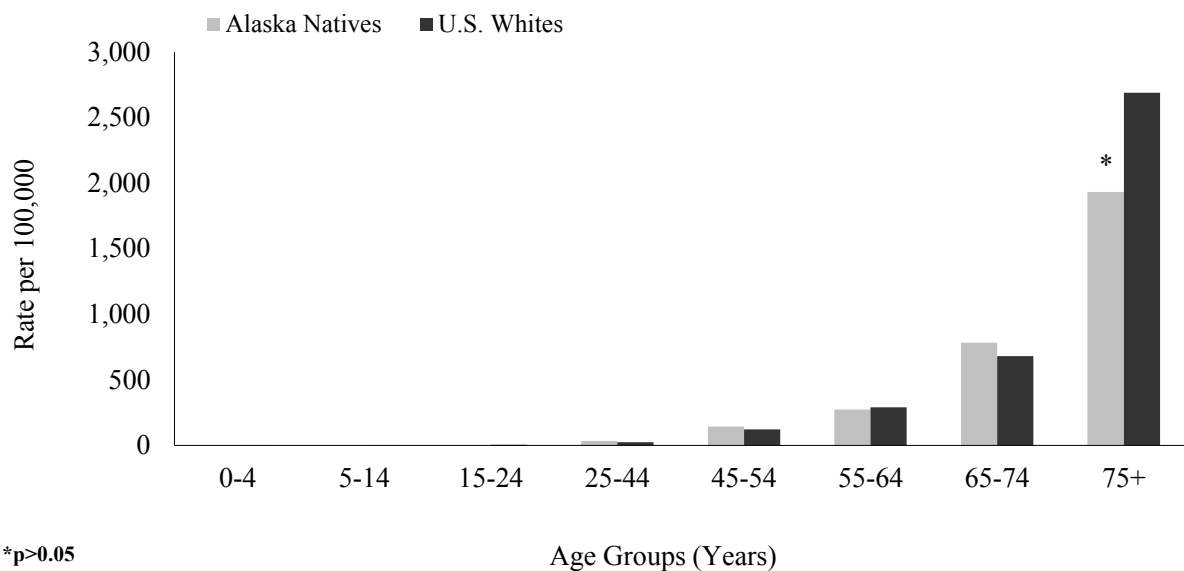


FIGURE 13b.
Data Source: Table 2b.

Age-Specific Mortality Rates from HIV
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

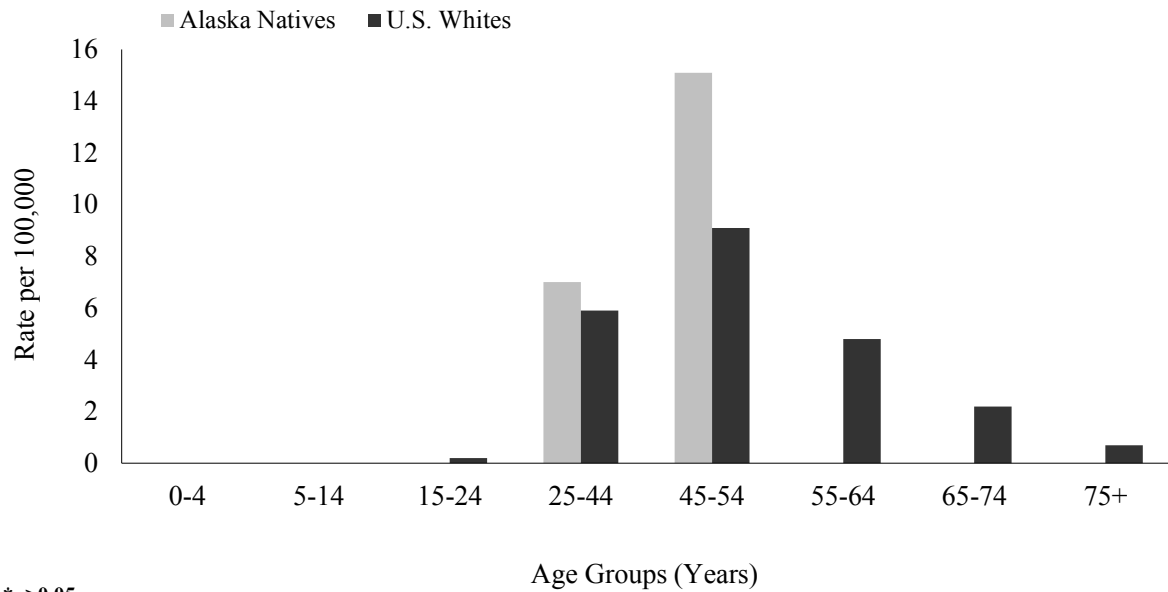


FIGURE 14b.
Data Source: Table 2b.

Age-Specific Mortality Rates from Homicide
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

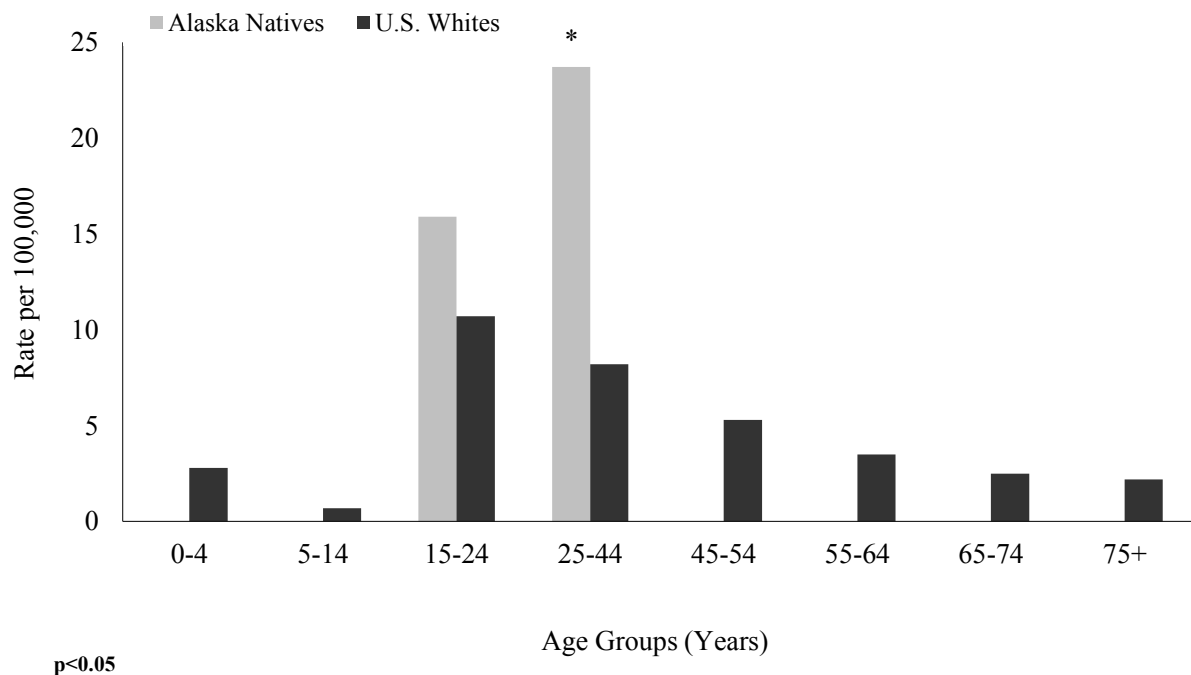


FIGURE 15b. Age-Specific Mortality Rates from Hypertension
 Data Source: Table 2b.
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

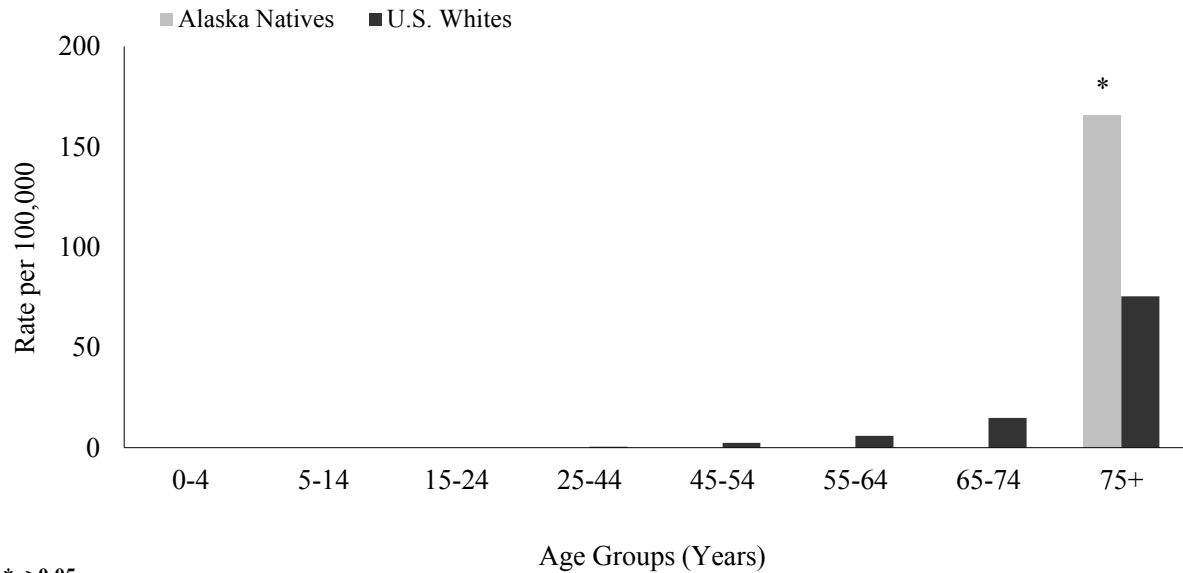


FIGURE 16b. Age-Specific Mortality Rates from Nephritis
 Data Source: Table 2b.
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

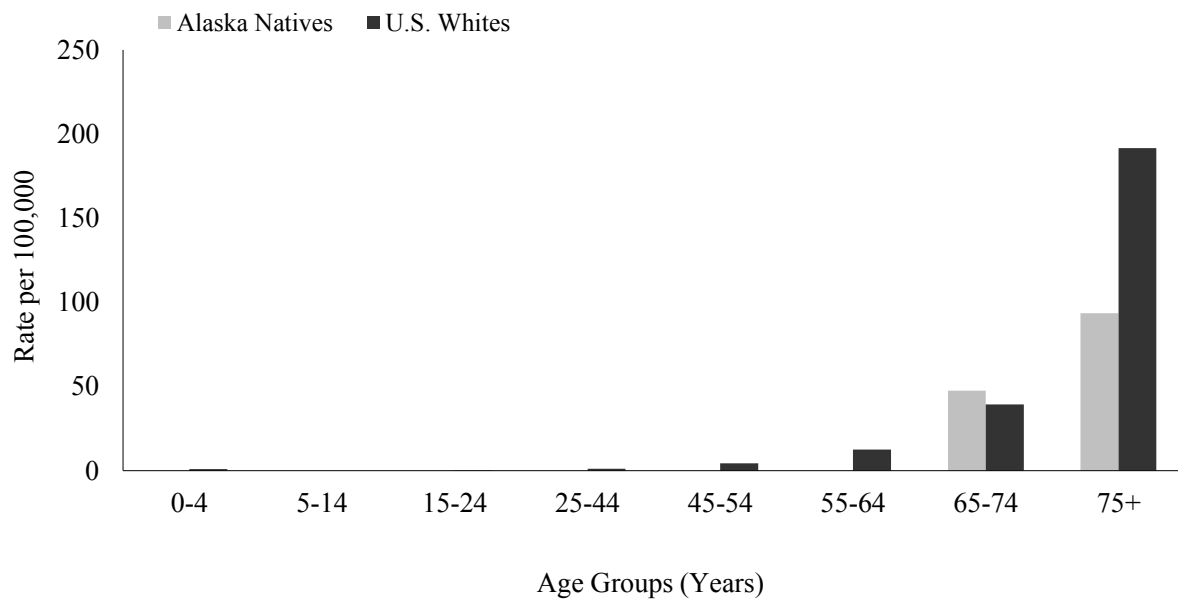


FIGURE 17b. Age-Specific Mortality Rates from Parkinson's Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

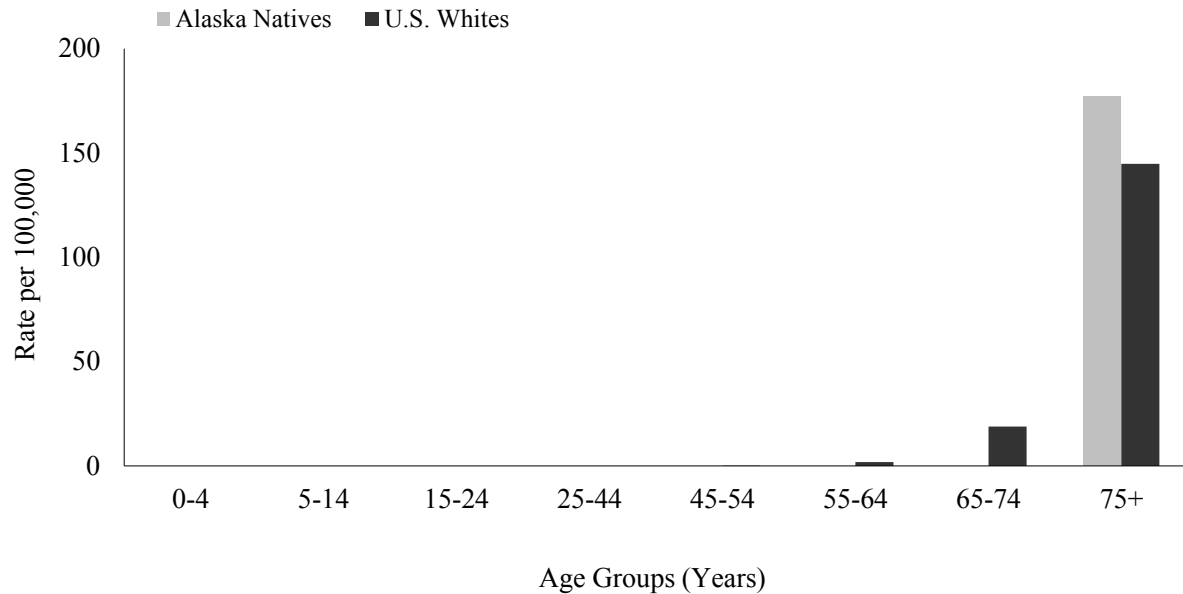


FIGURE 18b. Age-Specific Mortality Rates from Perinatal Conditions
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

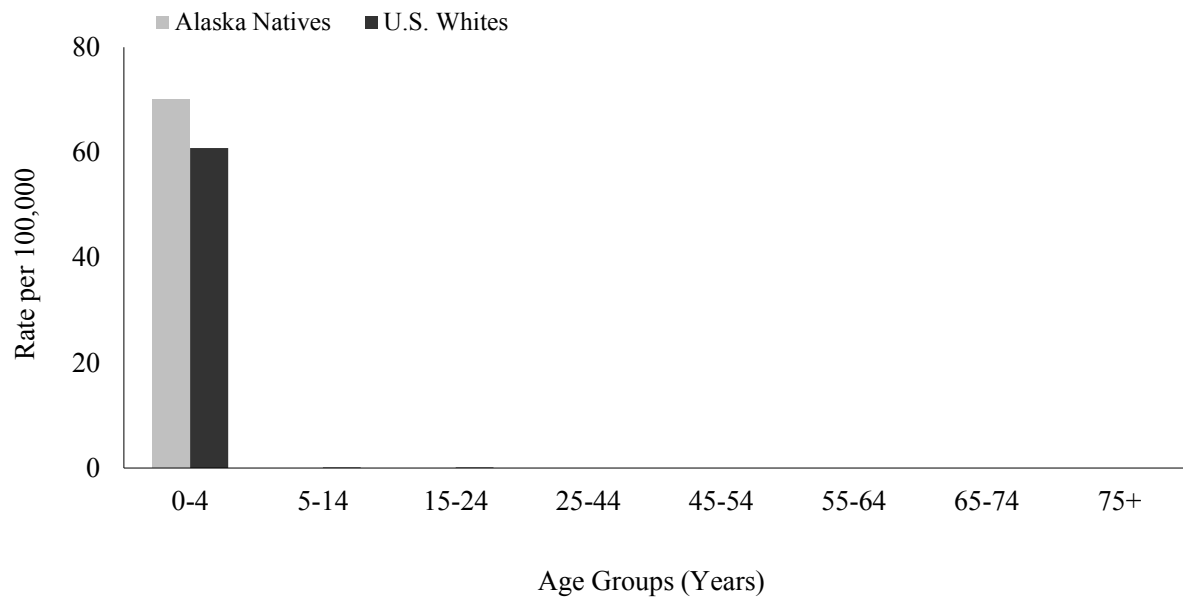


FIGURE 19b. Age-Specific Mortality Rates from Pneumonia & Influenza
 Data Source: Table 2b.
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

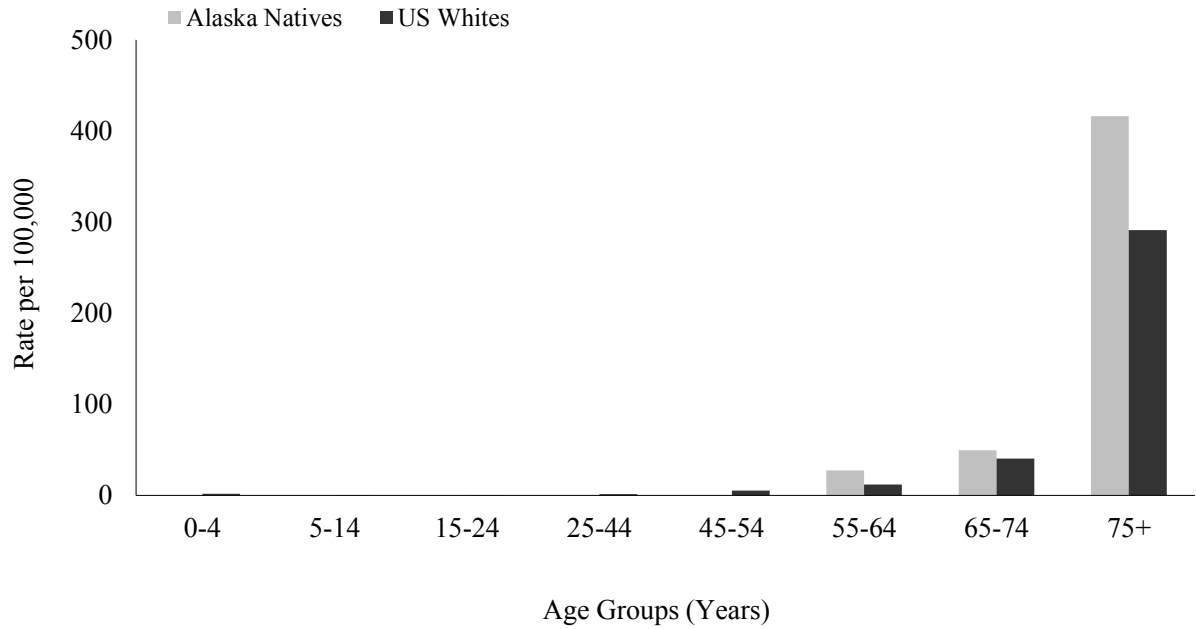
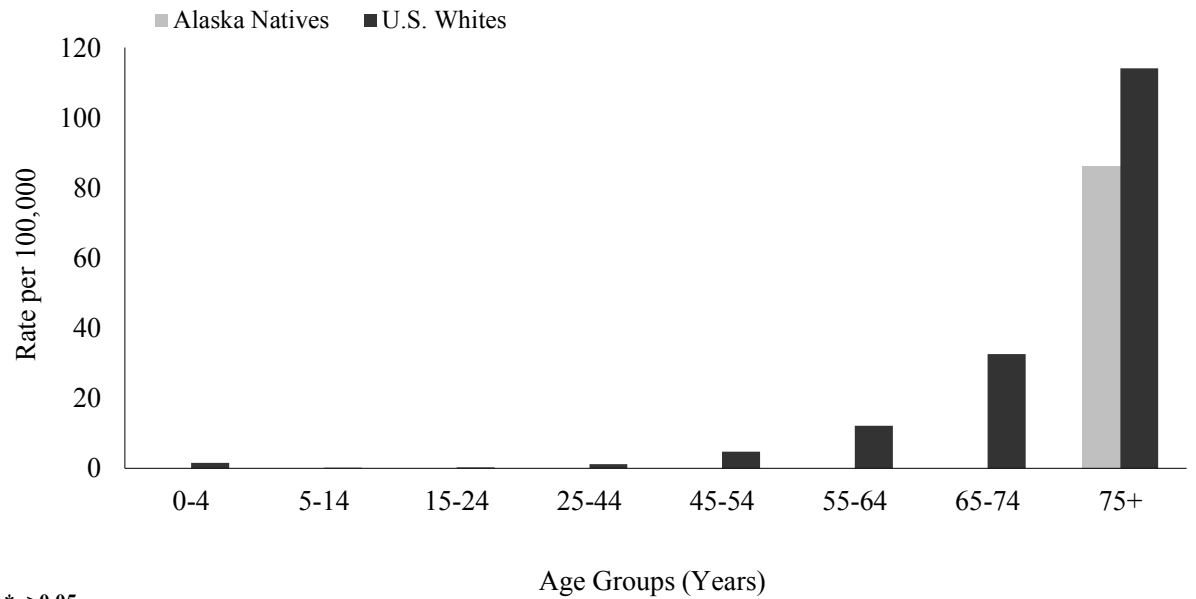


FIGURE 20b. Age-Specific Mortality Rates from Septicemia
 Data Source: Table 2b.
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males



*p>0.05

FIGURE 21b. Age-Specific Mortality Rates from Suicide
 Data Source: Table 2b.
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

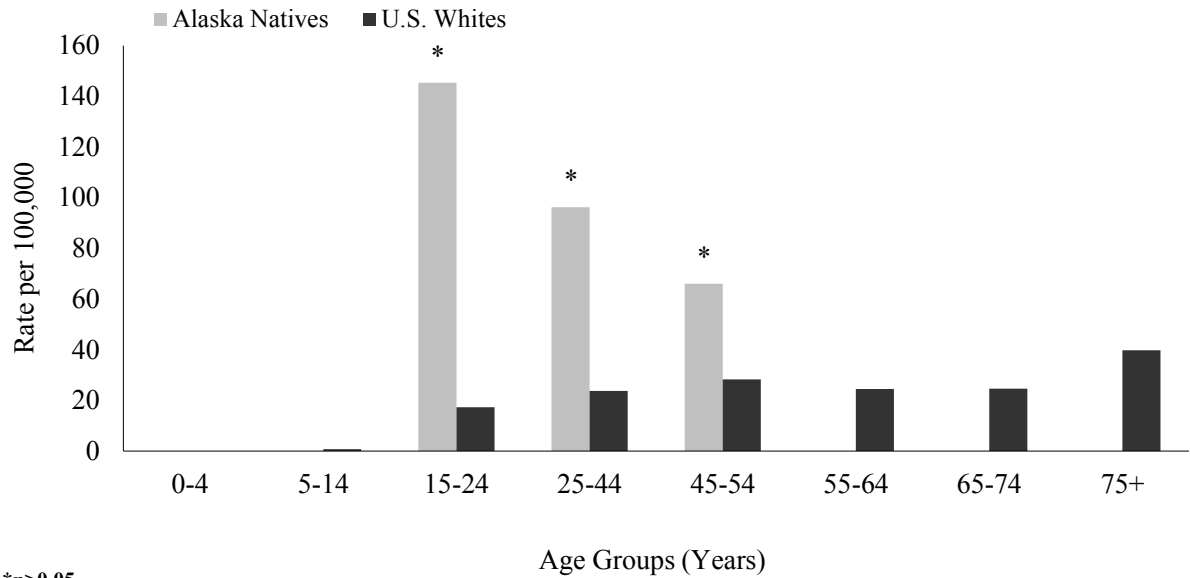


FIGURE 22b. Age-Specific Mortality Rates from Unintentional Injury
 Data Source: Table 2b.
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

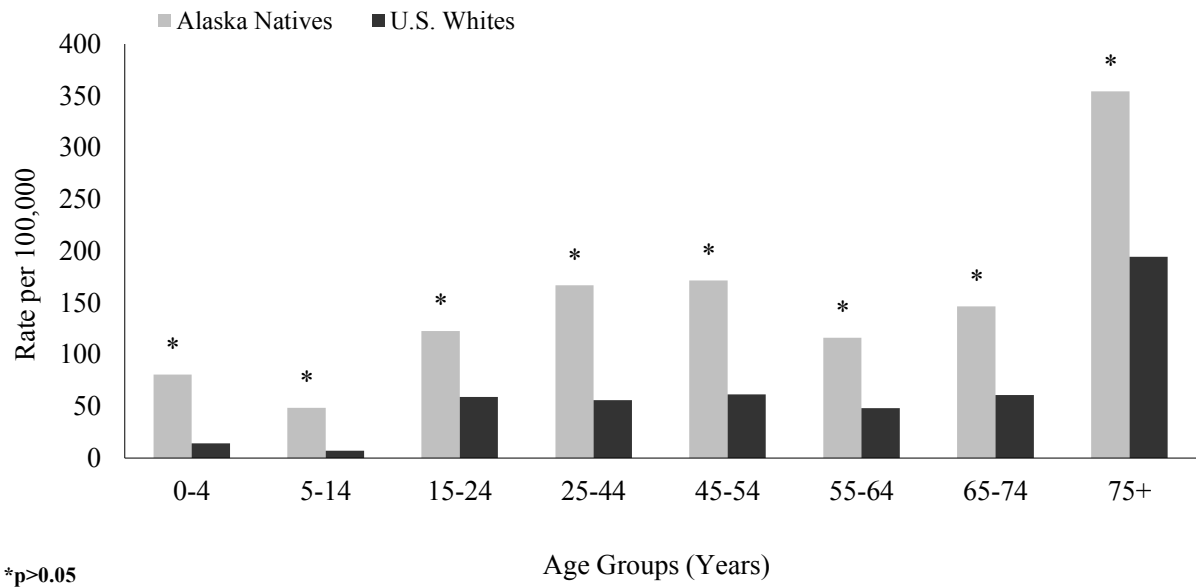
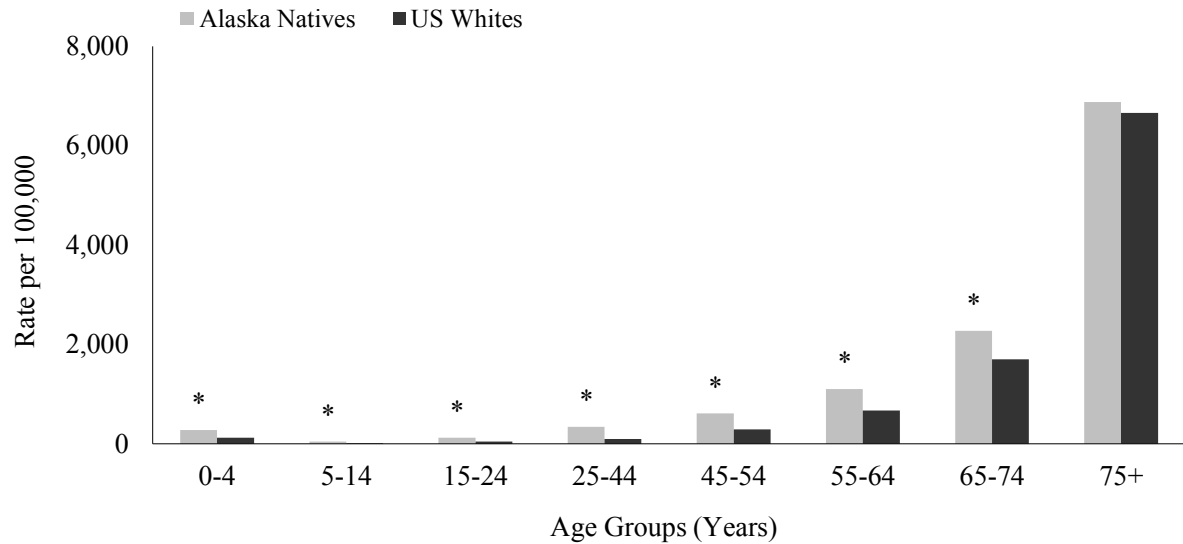


FIGURE 3c.

Data Source: Table 2c.

Age-Specific Mortality Rates from All Causes Alaska Natives (2004-2008) vs U.S. Whites (2004-2006) Females

**FIGURE 4c.**

Data Source: Table 2c.

Age-Specific Mortality Rates from Alcohol Abuse Alaska Natives (2004-2008) vs U.S. Whites (2004-2006) Females

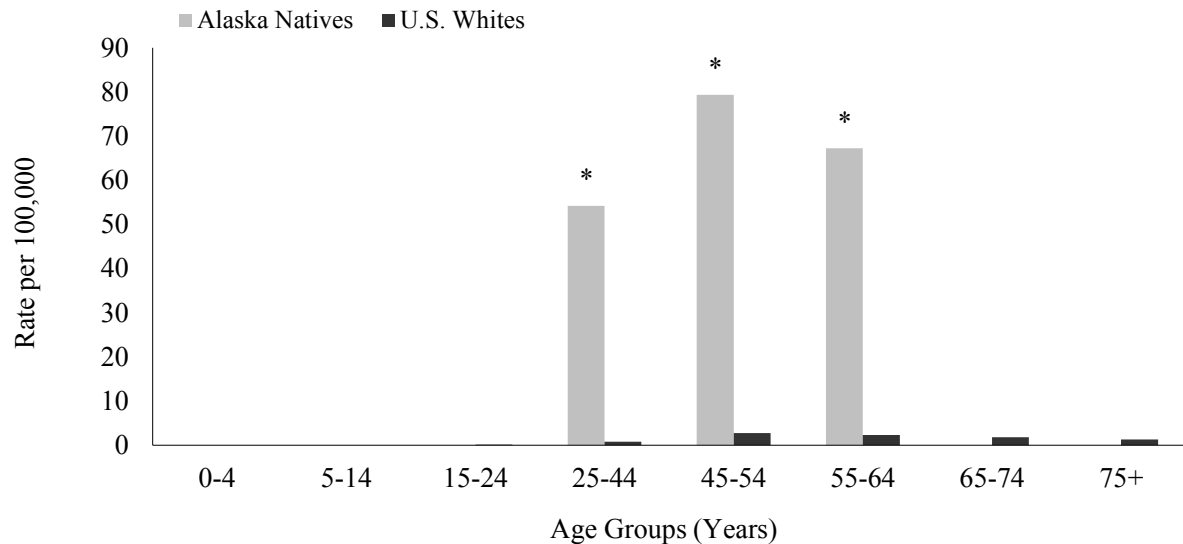


FIGURE 5c. Age-Specific Mortality Rates from Alzheimer's Disease
 Data Source: Table 2c.
 Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
 Females

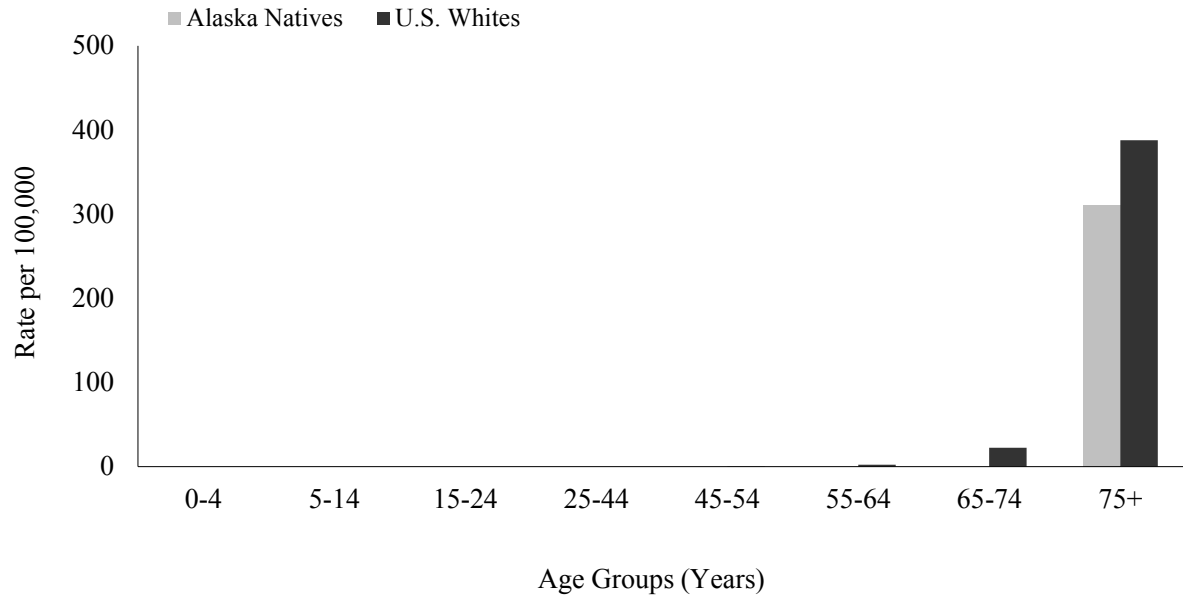
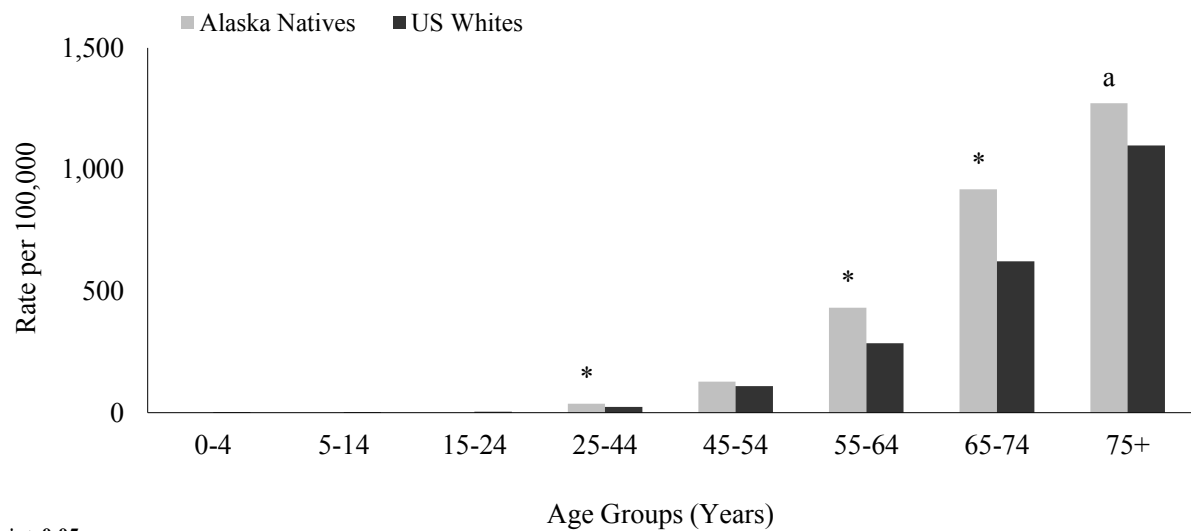


FIGURE 6c. Age-Specific Mortality Rates from Cancer
 Data Source: Table 2c.
 Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
 Females



*p>0.05

a There is no gender listed for 1 cancer death

FIGURE 7c. Age-Specific Mortality Rates from Cerebrovascular Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

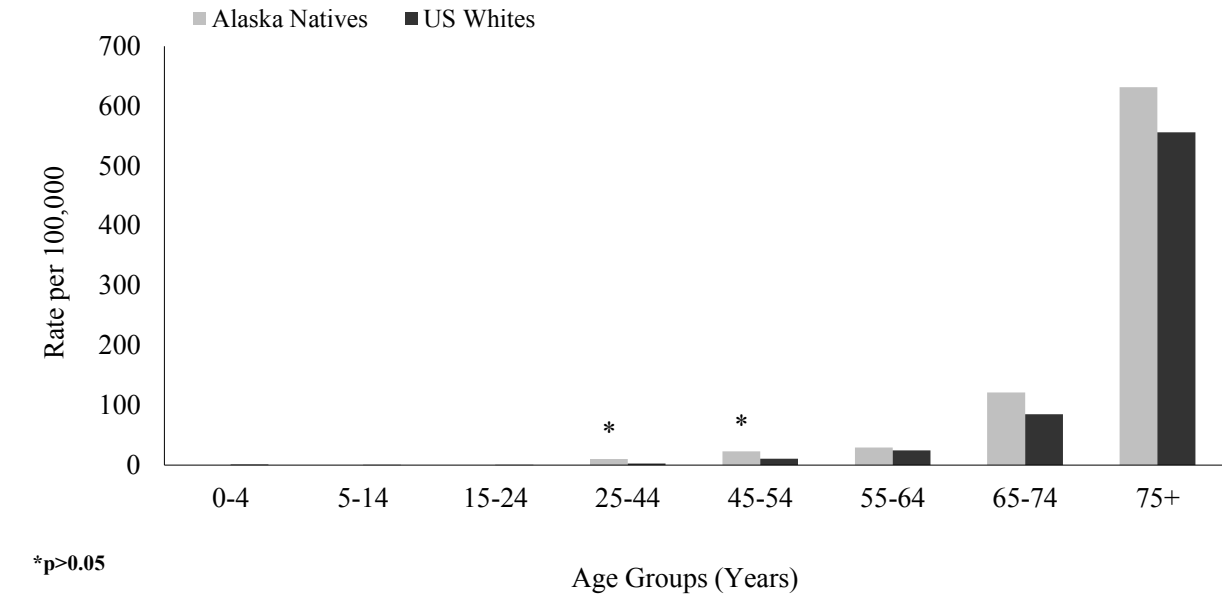


FIGURE 8c. Age-Specific Mortality Rates from Chronic Liver Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

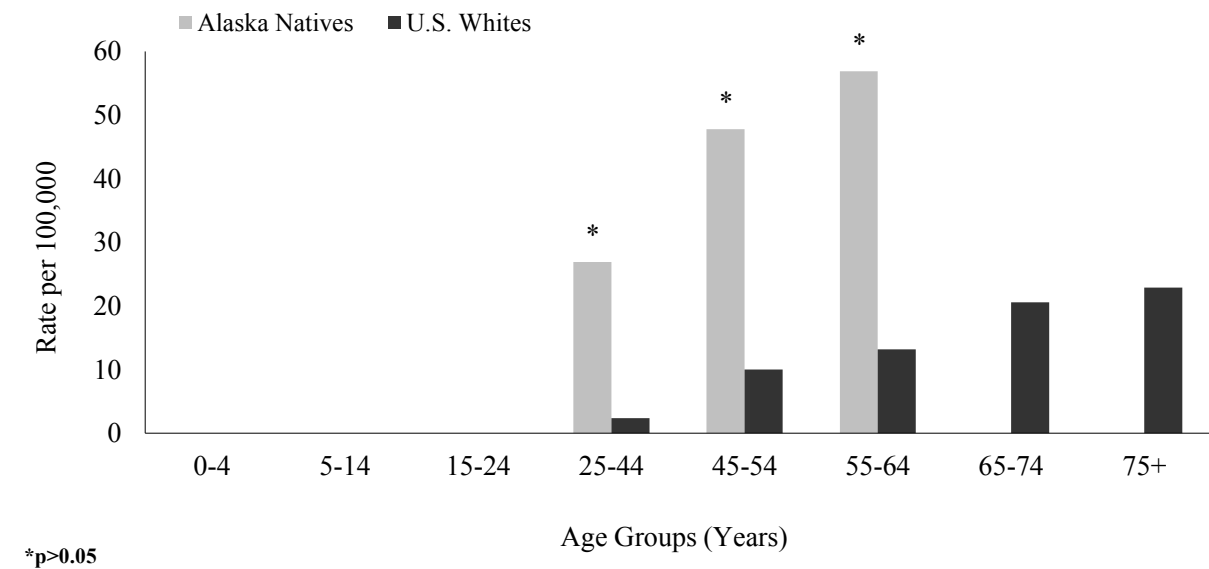


FIGURE 9c.
Data Source: Table 2c.

Age-Specific Mortality Rates from Congenital Abnormalities
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

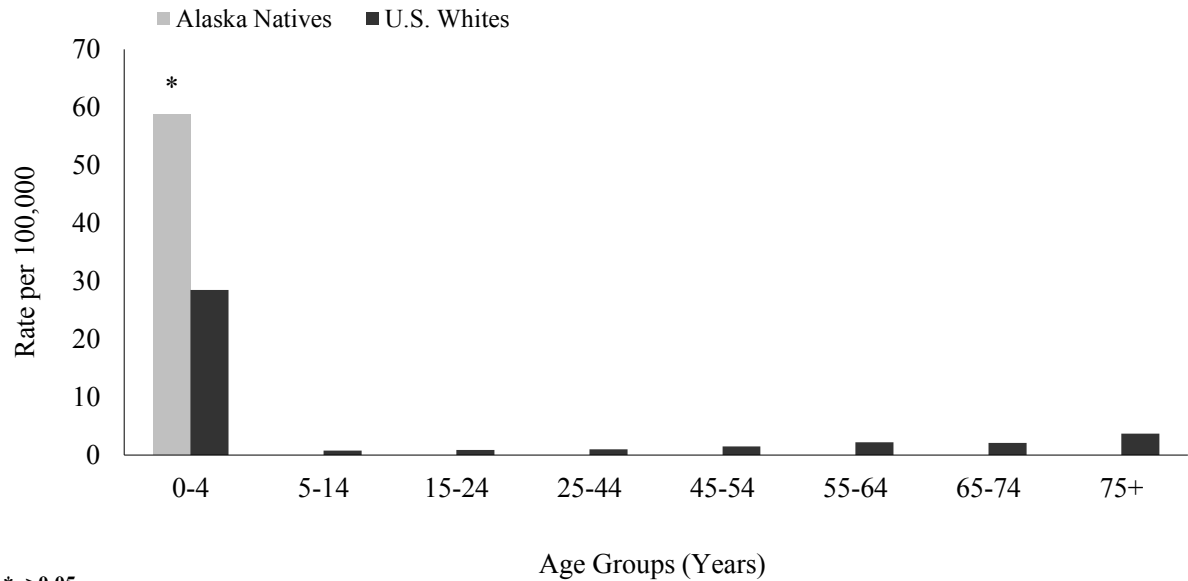


FIGURE 10c.
Data Source: Table 2c.

Age-Specific Mortality Rates from COPD
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

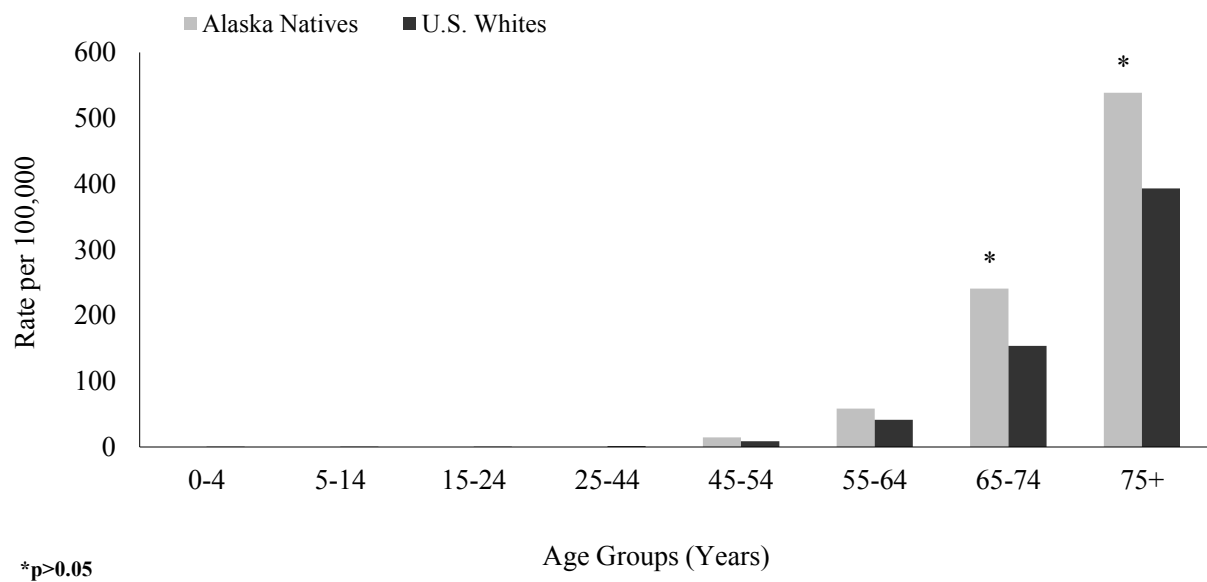


FIGURE 11c. Age-Specific Mortality Rates from Diabetes Mellitus
 Data Source: Table 2c.
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

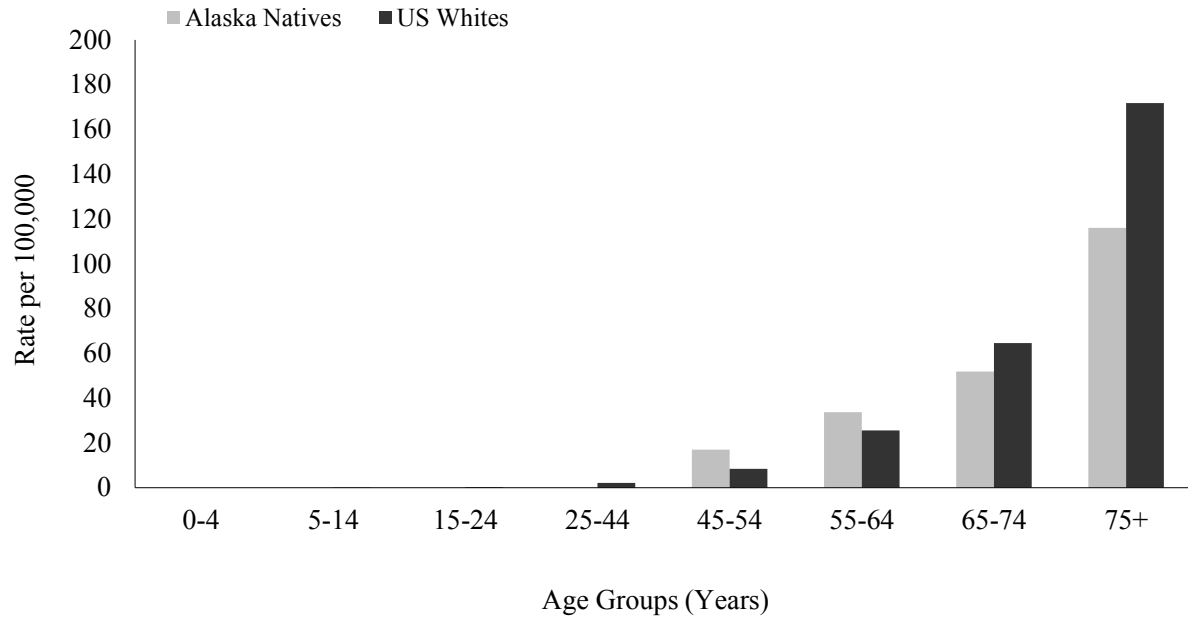


FIGURE 12c. Age-Specific Mortality Rates from Heart Disease
 Data Source: Table 2c.
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

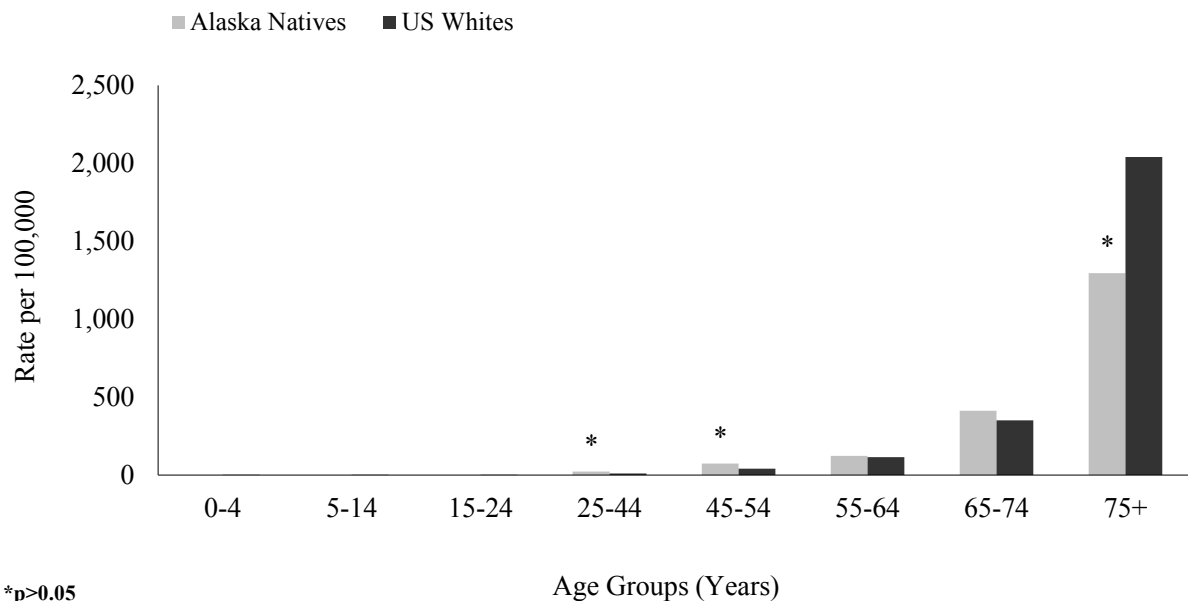


FIGURE 13c.
Data Source: Table 2c.

Age-Specific Mortality Rates from HIV
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

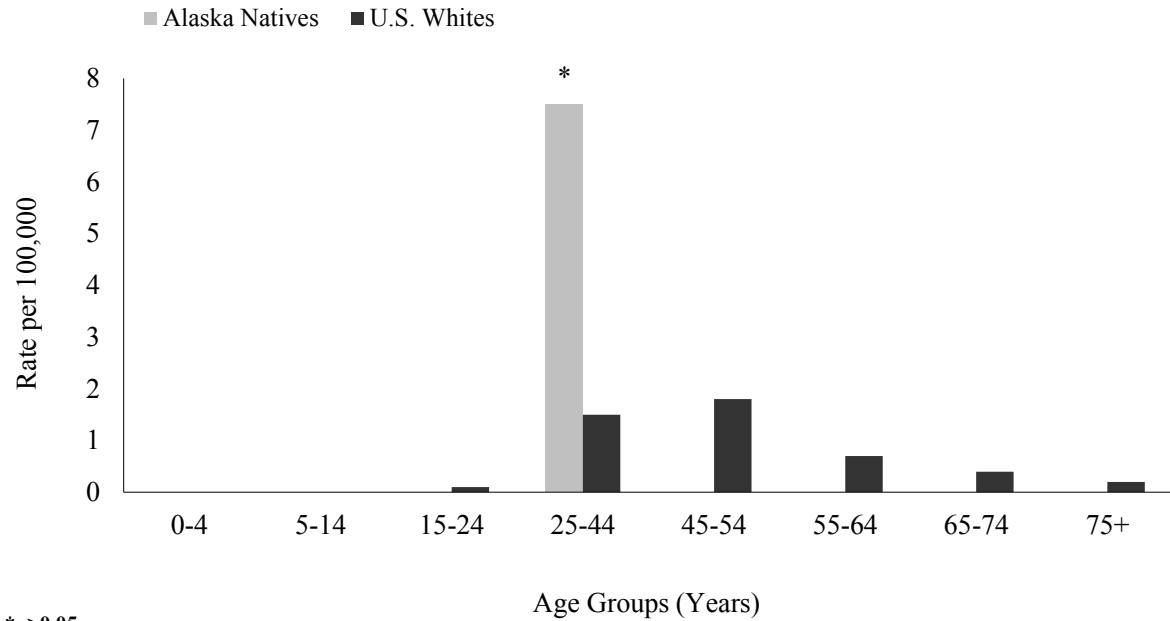


FIGURE 14c.
Data Source: Table 2c.

Age-Specific Mortality Rates from Homicide
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

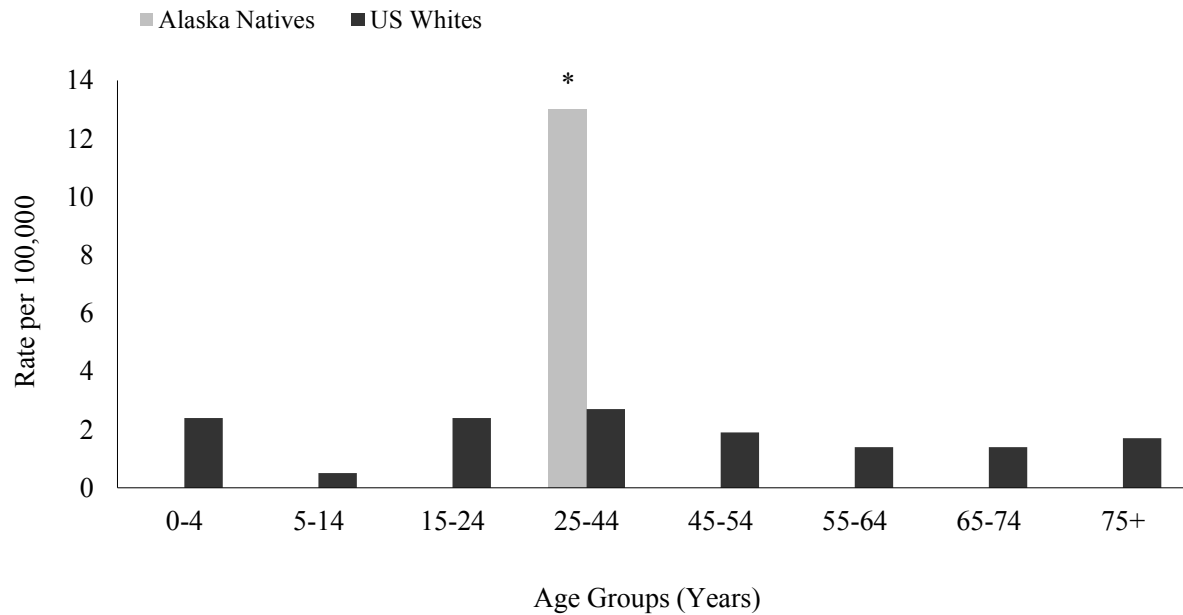


FIGURE 15c. Age-Specific Mortality Rates from Hypertension
 Data Source: Table 2c.
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

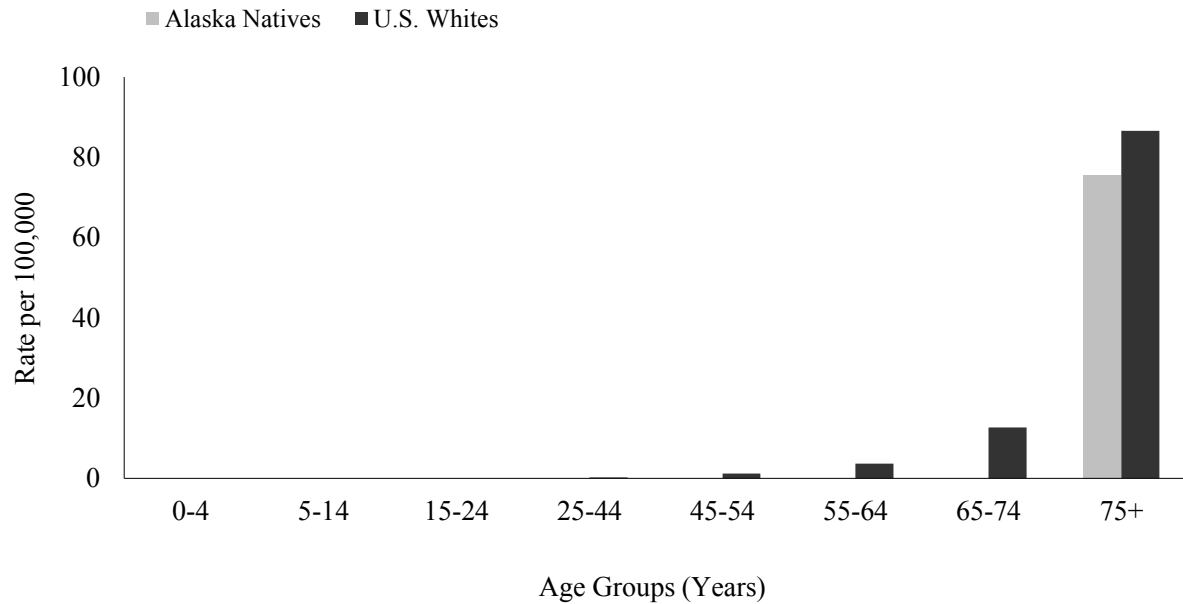


FIGURE 16c. Age-Specific Mortality Rates from Nephritis
 Data Source: Table 2c.
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

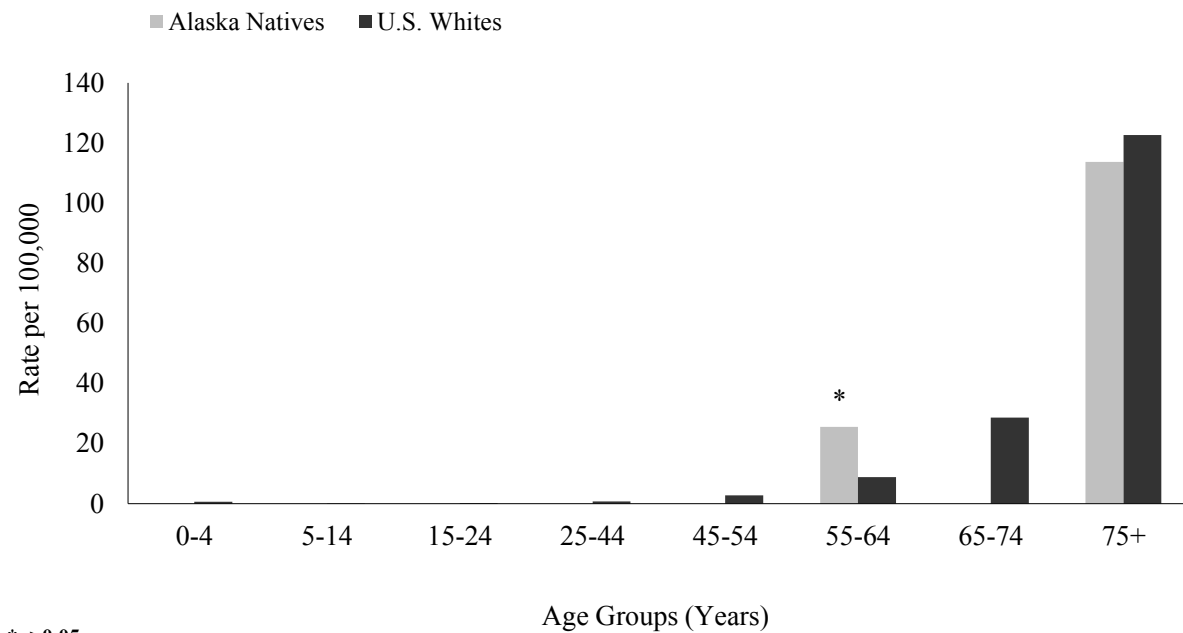


FIGURE 17c.
Data Source: Table 2c.

Age-Specific Mortality Rates from Parkinson's Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

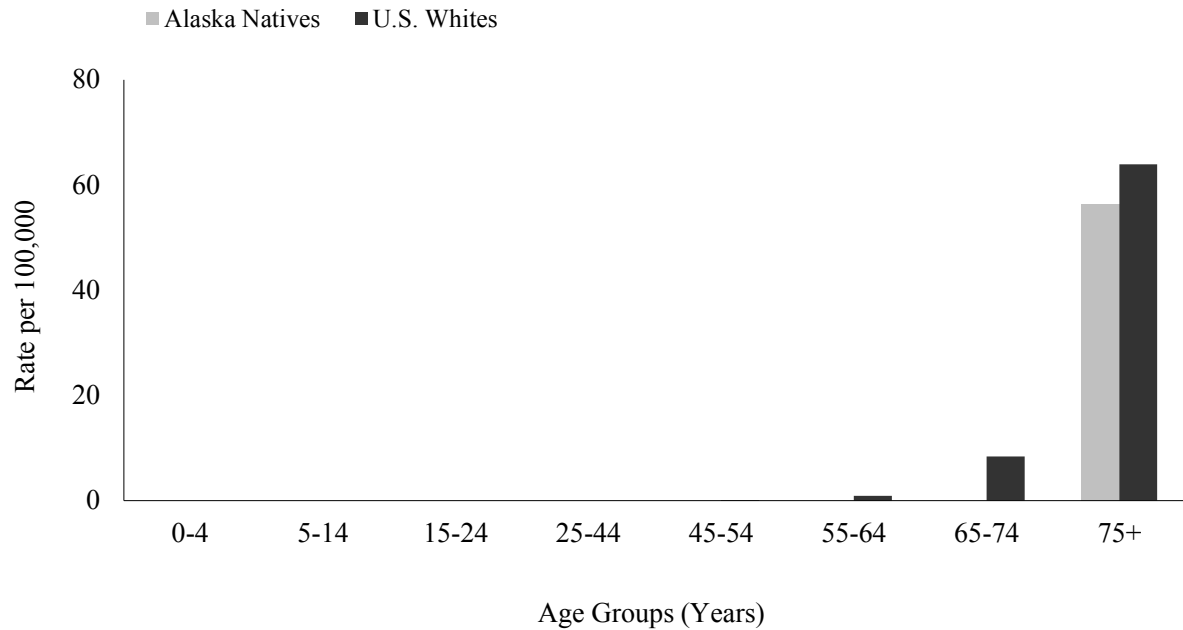


FIGURE 18c.
Data Source: Table 2c.

Age-Specific Mortality Rates from Perinatal Conditions
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

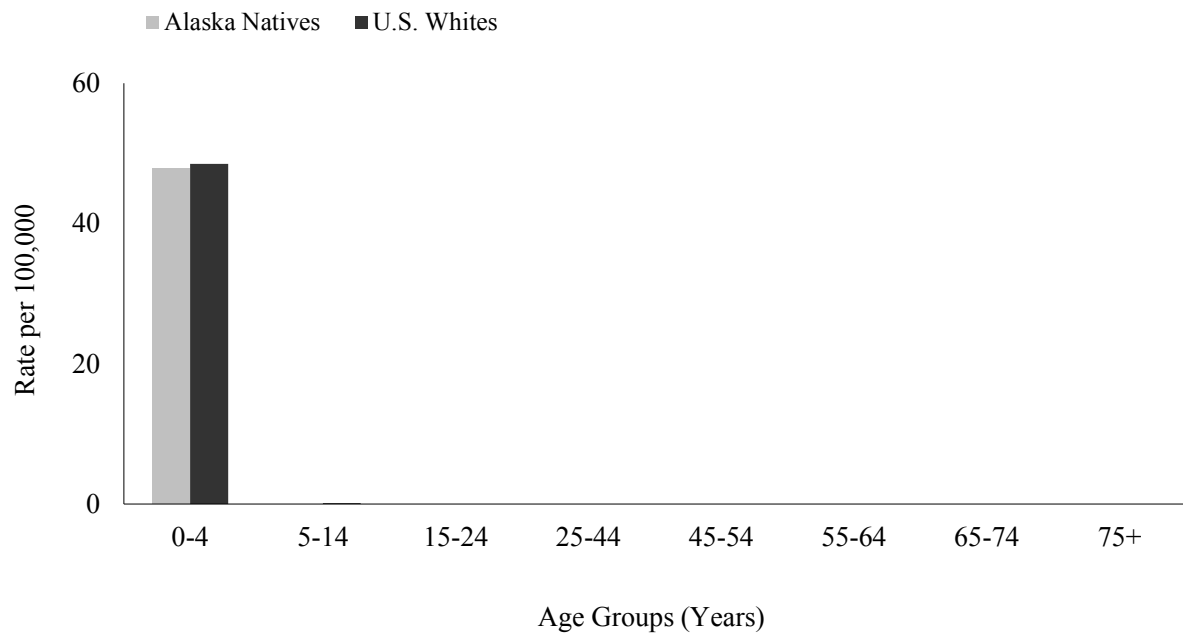


FIGURE 19c.
Data Source: Table 2c.

Age-Specific Mortality Rates from Pneumonia & Influenza
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

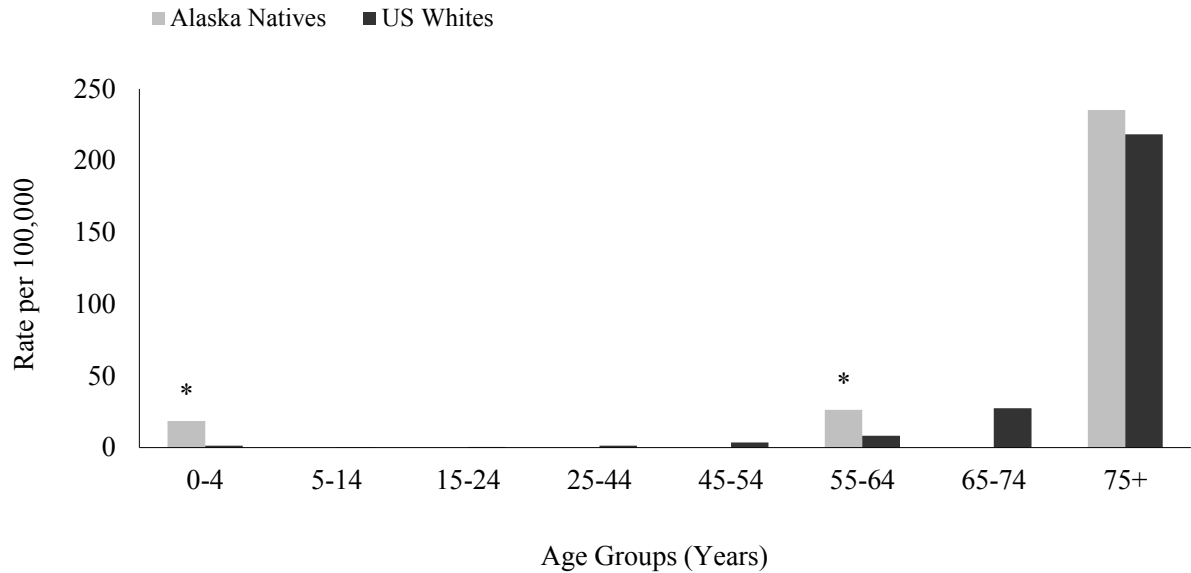


FIGURE 20c.
Data Source: Table 2c.

Age-Specific Mortality Rates from Septicemia
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

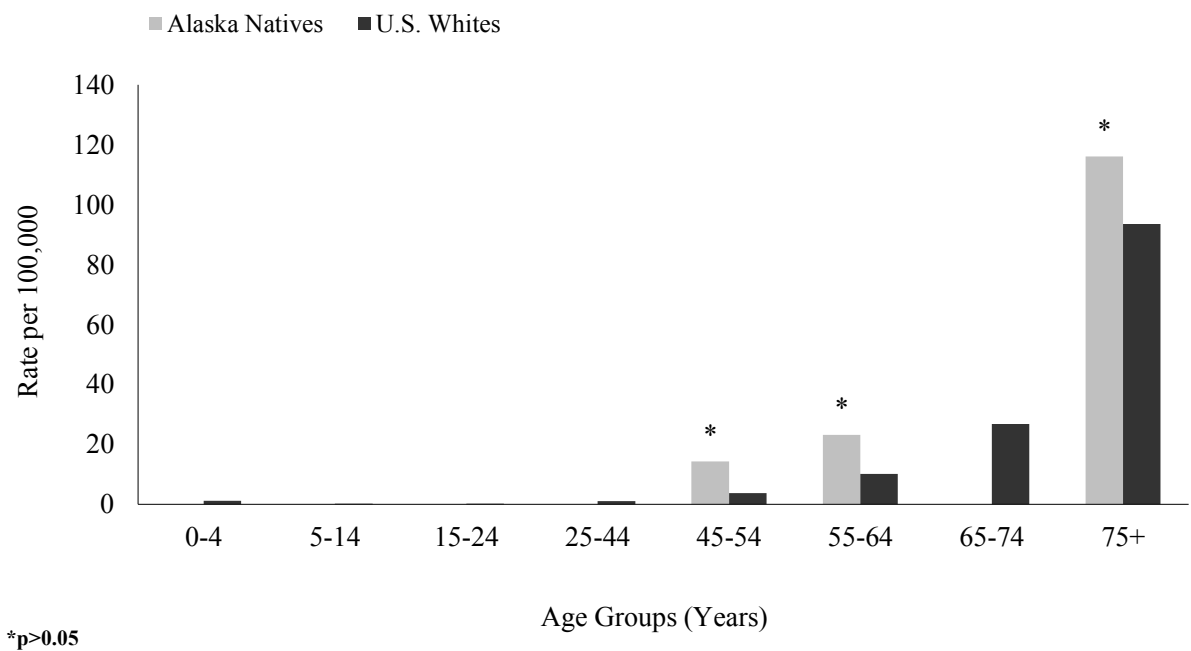


FIGURE 21c.
Data Source: Table 2c.

Age-Specific Mortality Rates from Suicide
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

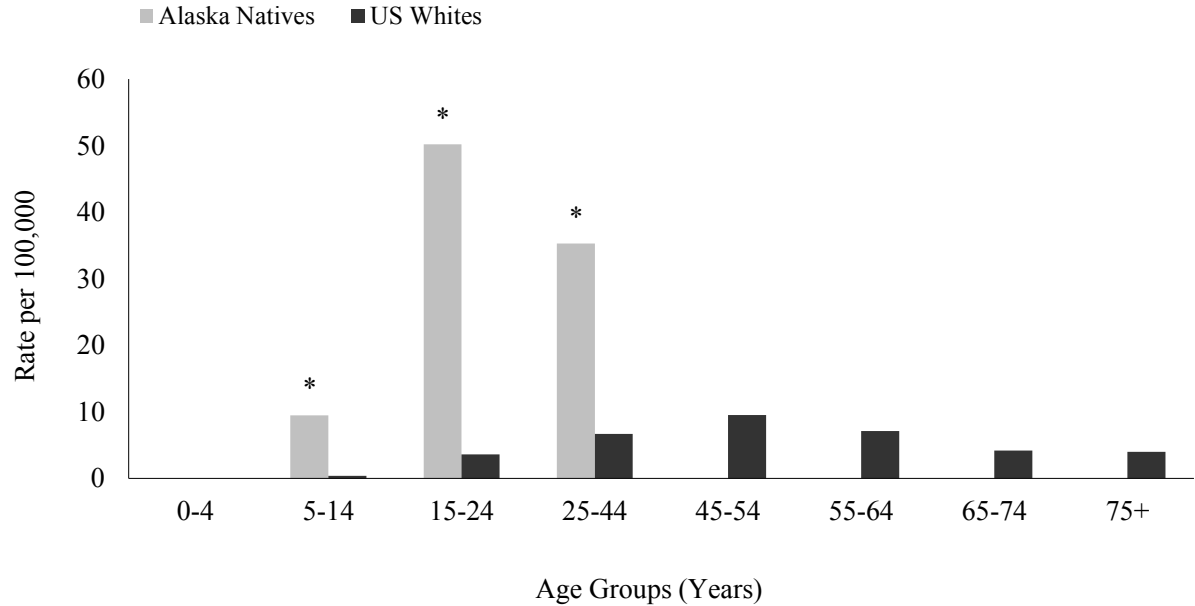


FIGURE 22c.
Data Source: Table 2c.

Age-Specific Mortality Rates from Unintentional Injury
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

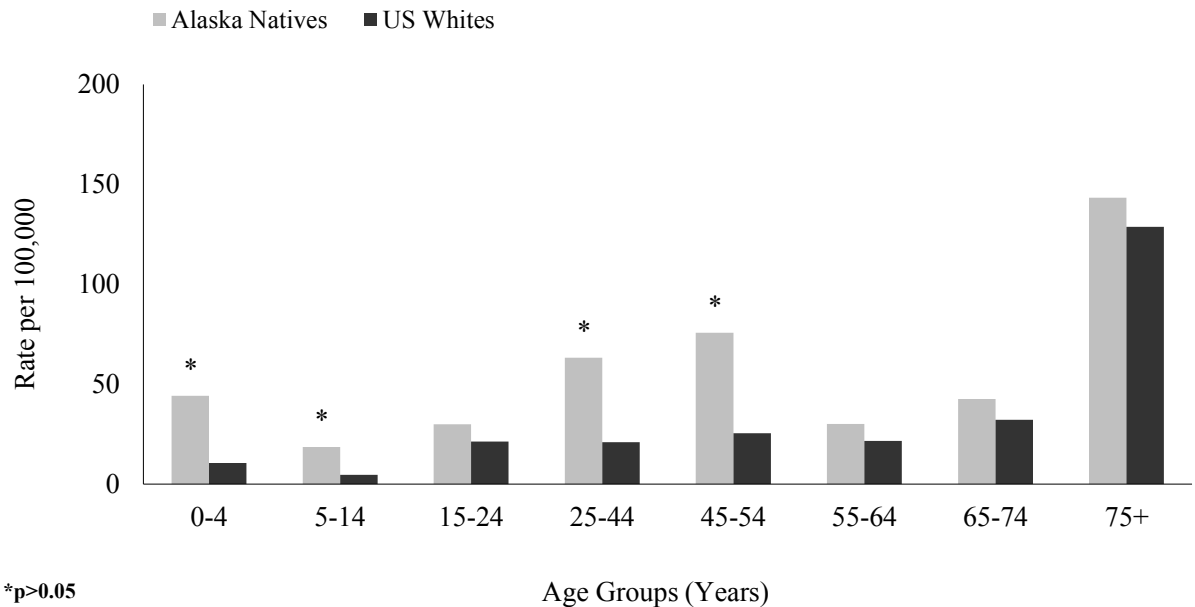


TABLE 3.Data Source: State of Alaska
Bureau of Vital Statistics.**Age-Specific Rates for Leading Causes of Death
Alaska Natives (2004-2008)
Males versus Females**

	# Male Deaths	Male Rate ^{a, b}	# Female Deaths	Female Rate ^{a, b}	Rate Ratio	Lower 95%	Upper 95%
0-4 Years							
Unintentional Injury	23	80.6	12	44.1	1.8 *	1.21	5.29
Perinatal Conditions	20	70.1	13	47.8	1.5	0.69	3.21
Congenital Abnormalities	12	42.0	16	58.8	0.7	0.31	1.61
Pneumonia & Influenza	-	-	5	18.4	-	-	-
All Causes	98	343.3	75	275.6	1.2 *	1.27	2.37
Population	28,549		27,214				
	# Male Deaths	Male Rate ^{a, b}	# Female Deaths	Female Rate ^{a, b}	Rate Ratio	Lower 95%	Upper 95%
5-14 Years							
Unintentional Injury	26	48.4	9	18.5	2.6 *	1.72	7.88
Suicide	-	-	5	9.5	-	-	-
All Causes	35	64.8	21	42.2	1.5 *	1.26	3.72
Population	53,284		49,198				
	# Male Deaths	Male Rate ^{a, b}	# Female Deaths	Female Rate ^{a, b}	Rate Ratio	Lower 95%	Upper 95%
15-24 Years							
Suicide	80	145.3	26	50.2	2.9 *	2.59	6.29
Unintentional Injury	67	122.7	16	29.9	4.1 *	3.29	9.81
Homicide	9	15.9	-	-	-	-	-
All Causes	181	329.8	63	121.0	2.7 *	2.85	5.06
Population	55,309		51,943				

*p<0.05

^a Alaska Native numbers and rates are not reported for fewer than 5 deaths.^b Rates are age-adjusted within age-specific groups

	# Male Deaths	Male Rate ^{a, b}	# Female Deaths	Female Rate ^{a, b}	Rate Ratio	Lower 95%	Upper 95%
25-44 Years							
Unintentional Injury	126	166.8	46	63.2	2.6 *	2.93	5.78
Suicide	76	96.2	26	35.3	2.7 *	2.69	6.62
Alcohol Abuse	29	40.1	39	54.2	0.7	0.46	1.20
Cancer	21	29.4	26	36.5	0.8	0.70	2.23
Heart Disease	24	32.9	16	21.4	1.5 *	1.26	4.51
Homicide	17	23.7	10	13.0	1.8	0.83	4.01
Chronic Liver Disease	6	8.5	19	26.9	0.3 *	0.13	0.80
HIV	5	6.9	5	7.5	0.9	0.37	3.22
Diabetes Mellitus	5	6.9	-	-	-	-	-
Cerebrovascular Diseases	-	-	7	9.9	-	-	-
All Causes	351	469.1	244	338.7	1.4 *	1.83	2.54
Population	75,752		74,260				
	# Male Deaths	Male Rate ^{a, b}	# Female Deaths	Female Rate ^{a, b}	Rate Ratio	Lower 95%	Upper 95%
45-54 Years							
Cancer	61	184.4	45	128.0	1.4 *	1.30	2.82
Unintentional Injury	57	171.4	27	75.7	2.3 *	1.91	4.78
Heart Disease	46	139.8	26	74.0	1.9 *	1.59	4.15
Alcohol Abuse	28	84.0	28	79.3	1.1	0.61	1.86
Chronic Liver Disease	7	21.0	17	47.8	0.4	0.24	1.41
Cerebrovascular Diseases	5	15.4	8	22.7	0.7	0.29	2.75
COPD	7	21.3	5	14.5	1.5	0.62	6.16
Suicide	22	66.0	-	-	-	-	-
HIV	5	15.1	-	-	-	-	-
Diabetes Mellitus	-	-	6	17.0	-	-	-
Septicemia	-	-	5	14.3	-	-	-
All Causes	292	881.1	215	610.8	1.4 *	1.61	2.29
Population	33,320		35,322				

*p<0.05

^a Alaska Native numbers and rates are not reported for fewer than 5 deaths.^b Rates are age-adjusted within age-specific groups

55-64 Years	# Male Deaths	Male Rate^{a, b}	# Female Deaths	Female Rate^{a, b}	Rate Ratio	Lower 95%	Upper 95%
Cancer	75	391.4	89	431.0	0.9	0.88	1.64
Heart Disease	52	267.8	25	121.4	2.2 *	1.85	4.81
Unintentional Injury	23	116.2	6	30.0	3.9 *	2.09	12.65
Alcohol Abuse	22	113.0	14	67.2	1.7	0.82	3.55
COPD	14	77.2	12	58.5	1.3	0.80	3.78
Chronic Liver Disease	13	67.4	12	56.9	1.2	0.72	3.45
Cerebrovascular Diseases	11	58.6	6	29.2	2.0	0.98	7.19
Pneumonia & Influenza	5	27.3	5	26.3	1.0	0.39	4.72
Diabetes Mellitus	-	-	7	33.7	-	-	-
Nephritis	-	-	5	25.5	-	-	-
Septicemia	-	-	5	23.2	-	-	-
All Causes	278	1444.4	225	1099.1	1.3 *	1.46	2.08
Population	19,475		20,832				
65-74 Years	# Male Deaths	Male Rate^{a, b}	# Female Deaths	Female Rate^{a, b}	Rate Ratio	Lower 95%	Upper 95%
Cancer	127	1251.8	107	918.1	1.4 *	1.32	2.22
Heart Disease	79	782.1	47	403.5	1.9 *	1.66	3.41
COPD	29	290.9	28	240.8	1.2	0.89	2.53
Cerebrovascular Diseases	15	148.7	14	121.2	1.2	0.73	3.15
Unintentional Injury	15	146.5	5	42.6	3.4 *	1.59	12.06
Diabetes Mellitus	7	68.9	6	51.8	1.3	0.56	4.94
Nephritis	5	47.4	-	-	-	-	-
Pneumonia & Influenza	5	49.6	-	-	-	-	-
All Causes	351	3460.1	265	2273.5	1.5 *	1.63	2.25
Population	10,490		11,685				

*p<0.05

^a Alaska Native numbers and rates are not reported for fewer than 5 deaths.^b Rates are age-adjusted within age-specific groups

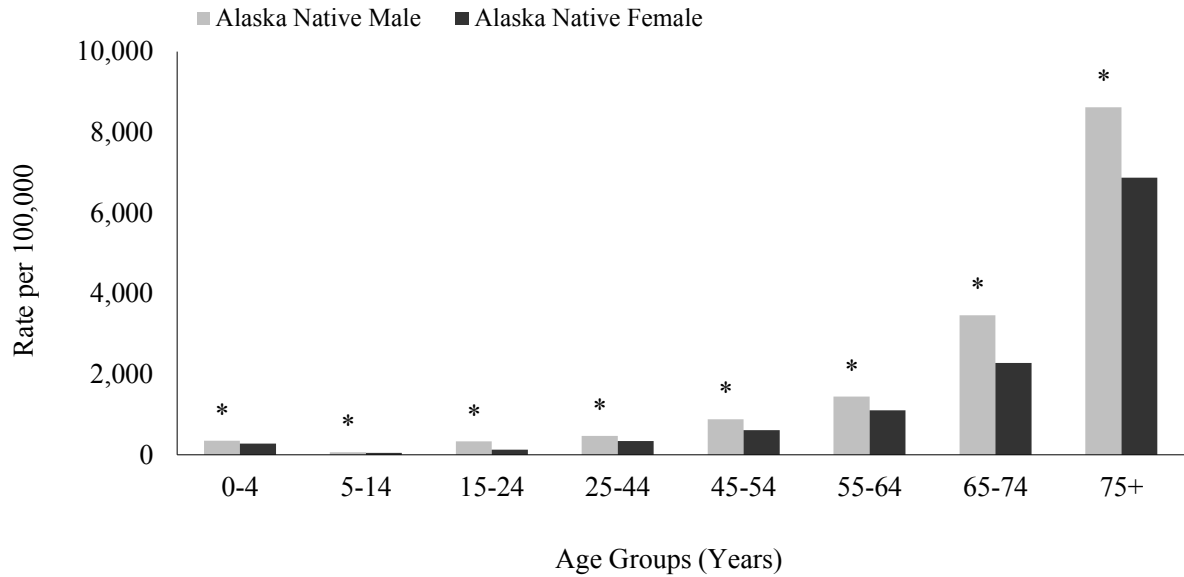
75+ Years	# Male Deaths	Male Rate^{a, b}	# Female Deaths	Female Rate^{a, b}	Rate Ratio	Lower 95%	Upper 95%
Heart Disease	108	1903.2	111	1240.6	1.5 *	1.14	1.95
Cancer	106	1779.4	110	1272.3	1.4 *	1.07	1.83
Cerebrovascular Diseases	38	676.7	56	631.4	1.1	0.70	1.63
COPD	29	502.2	47	538.6	0.9	0.58	1.49
Unintentional Injury	22	354.0	13	143.4	2.5 *	1.23	4.94
Pneumonia & Influenza	21	416.1	21	235.3	1.8	0.96	3.27
Parkinson's Disease	10	177.3	5	56.4	3.1 *	1.06	9.33
Hypertension	8	165.8	7	75.7	2.2	0.78	6.14
Alzheimer's Disease	7	144.6	28	311.0	0.5	0.20	1.08
Diabetes Mellitus	7	125.1	10	116.0	1.1	0.40	2.89
Nephritis	5	93.4	10	113.7	0.8	0.27	2.47
Septicemia	5	86.3	10	116.1	0.7	0.25	2.22
All Causes	485	8619.4	609	6873.8	1.3 *	1.11	1.42
Population	6,083		8,727				

*p<0.05

^a Alaska Native numbers and rates are not reported for fewer than 5 deaths.^b Rates are age-adjusted within age-specific groups

FIGURE 23.
Data Source: Table 3.

**Age-Specific Mortality Rates from All Causes
Alaska Natives (2004-2008)
Males vs Females**



*p<0.05

FIGURE 24.
Data Source: Table 3.

**Age-Specific Mortality Rates from Alcohol Abuse
Alaska Natives (2004-2008)
Males vs Females**

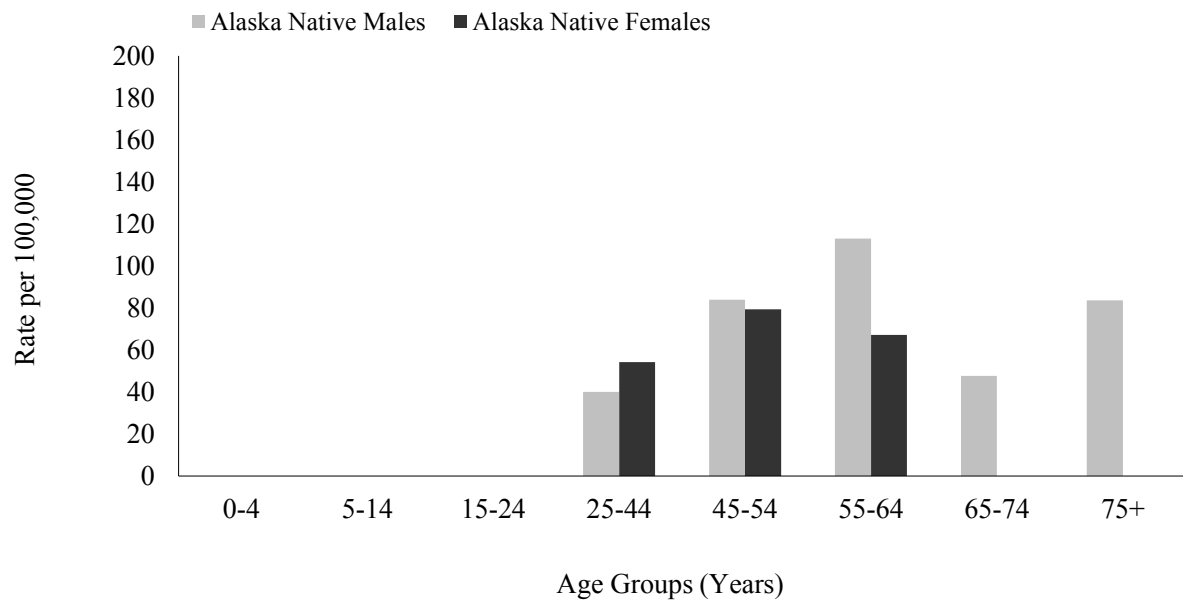


FIGURE 25. Age-Specific Mortality Rates from Alzheimer's Disease
Data Source: Table 3.
Alaska Natives (2004-2008)
Males vs Females

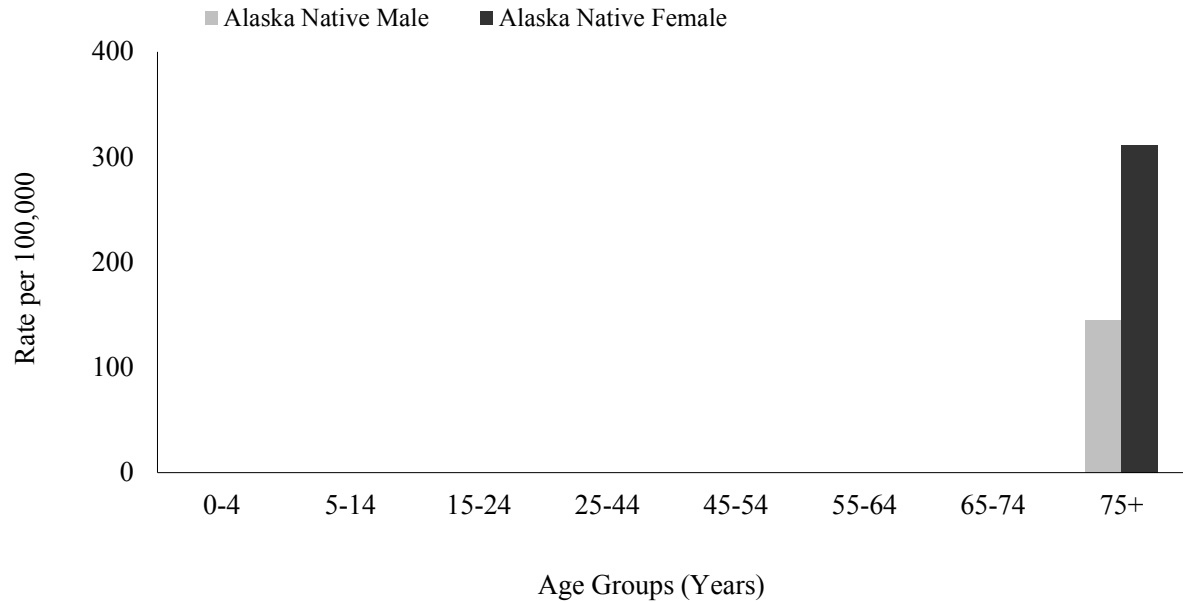
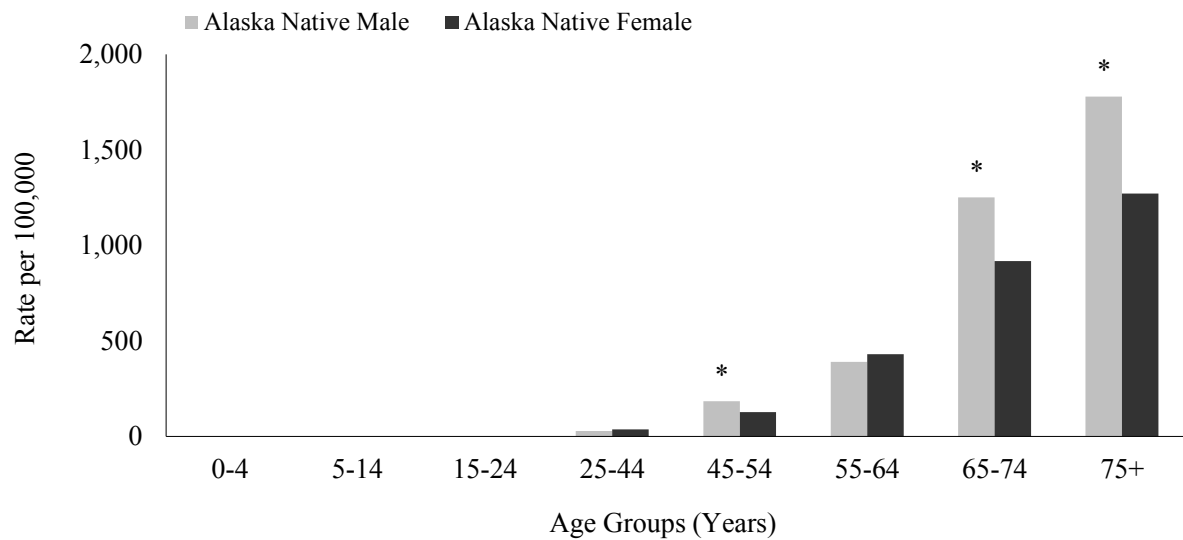


FIGURE 26. Age-Specific Mortality Rates from Cancer
Data Source: Table 3.
Alaska Natives (2004-2008)
Males vs Females

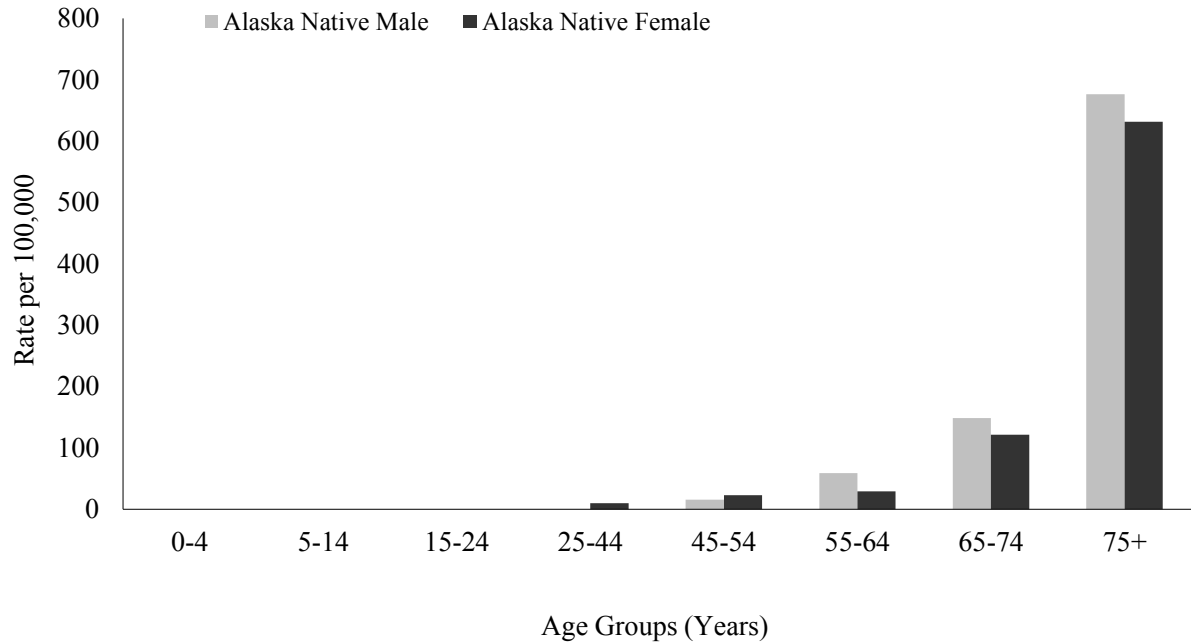


*p<0.05

FIGURE 27.

Data Source: Table 3.

Age-Specific Mortality Rates from Cerebrovascular Disease Alaska Natives (2004-2008) Males vs Females

**FIGURE 28.**

Data Source: Table 3.

Age-Specific Mortality Rates from Chronic Liver Disease Alaska Natives (2004-2008) Males vs Females

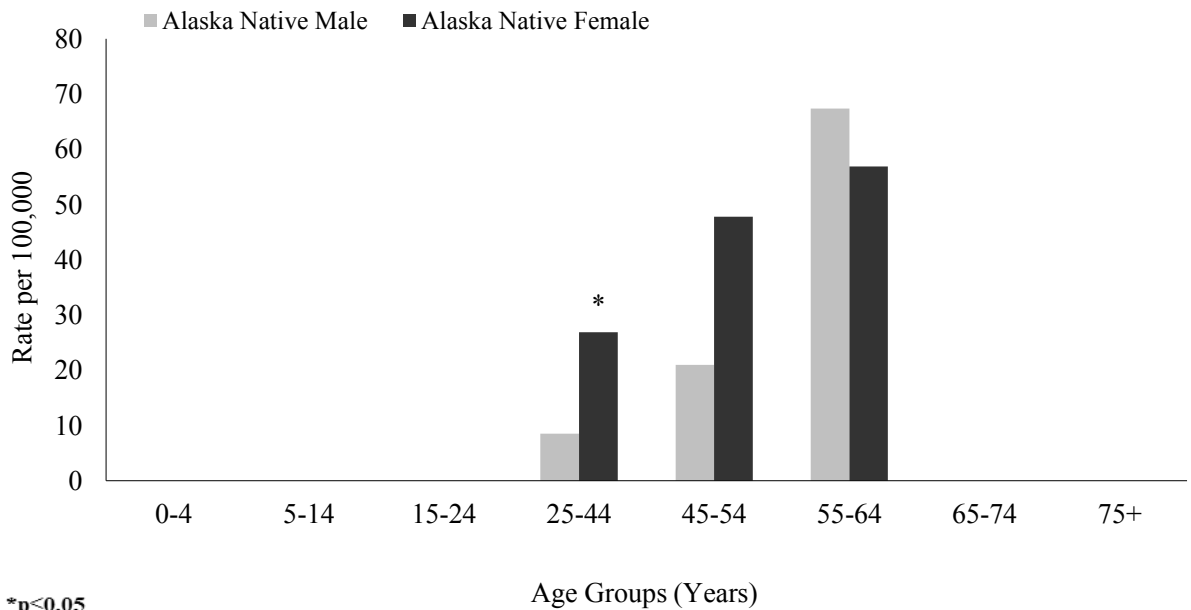
* $p < 0.05$

FIGURE 29.
Data Source: Table 3.

Age-Specific Mortality Rates from Congenital Abnormalities
Alaska Natives (2004-2008)
Males vs Females

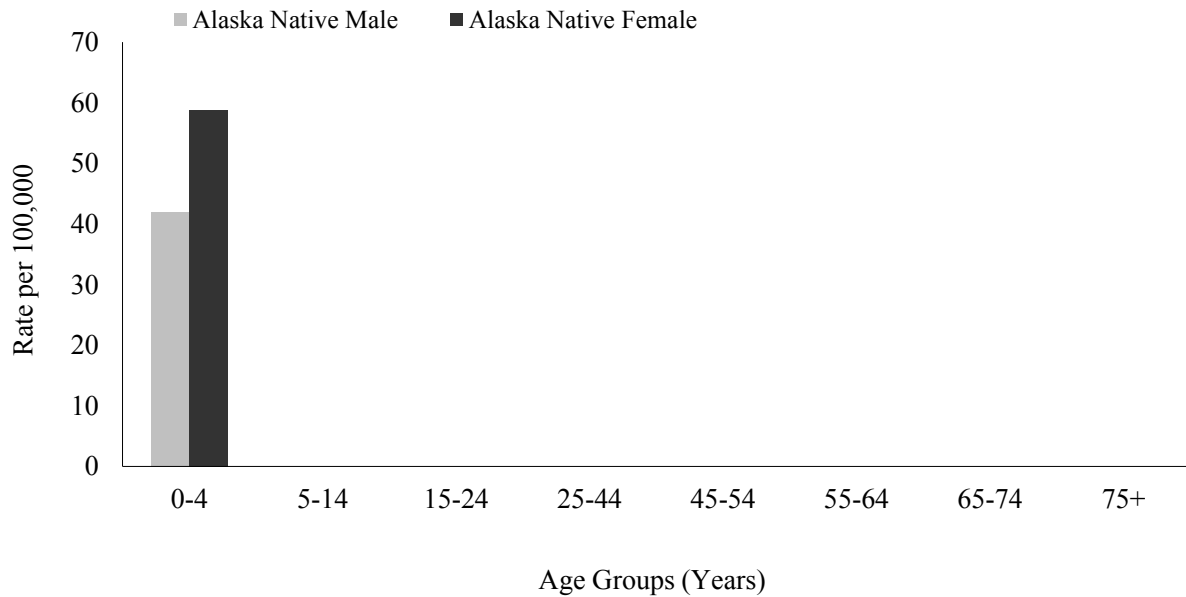


FIGURE 30.
Data Source: Table 3.

Age-Specific Mortality Rates from COPD
Alaska Natives (2004-2008)
Males vs Females

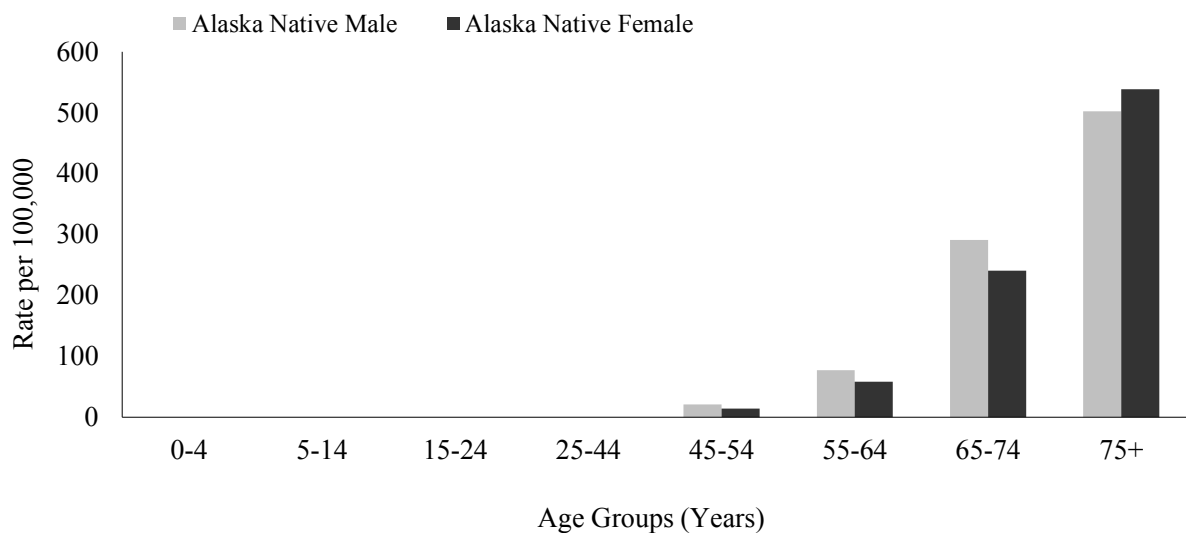
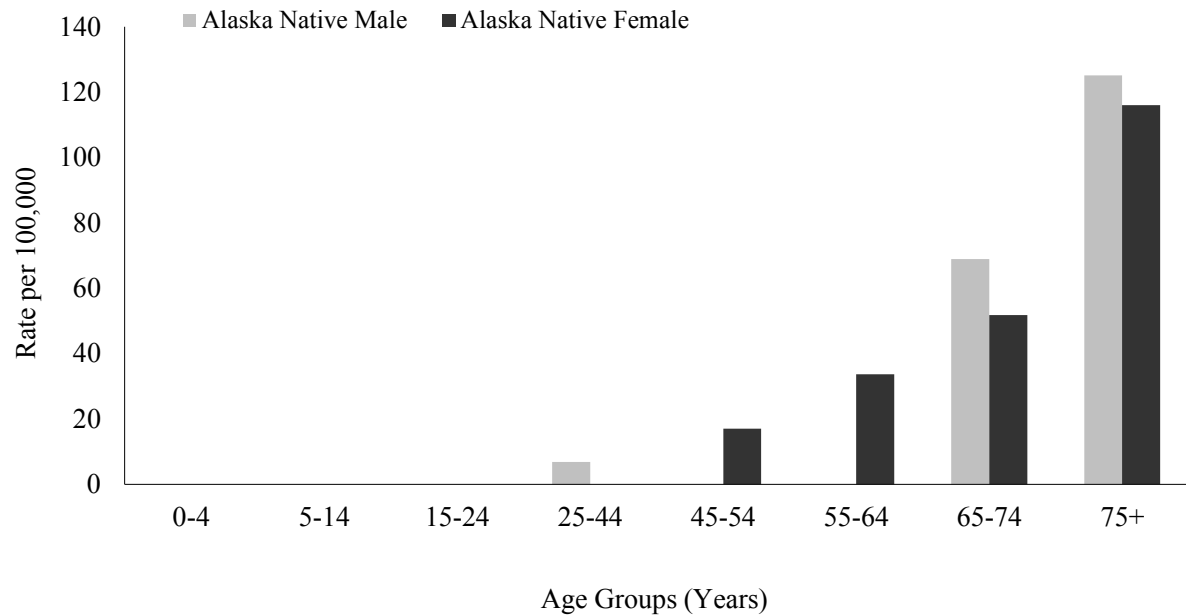


FIGURE 31.

Data Source: Table 3.

Age-Specific Mortality Rates from Diabetes Mellitus Alaska Natives (2004-2008) Males vs Females

**FIGURE 32.**

Data Source: Table 3.

Age-Specific Mortality Rates from Heart Disease Alaska Natives (2004-2008) Males vs Females

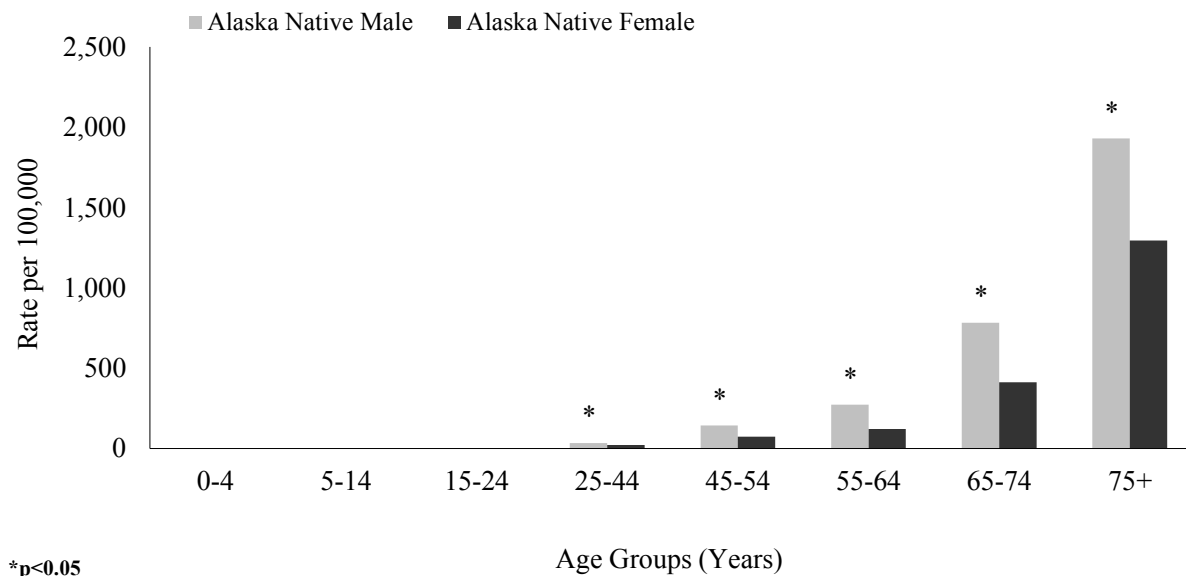


FIGURE 33.
Data Source: Table 3.

Age-Specific Mortality Rates from HIV
Alaska Natives (2004-2008)
Males vs Females

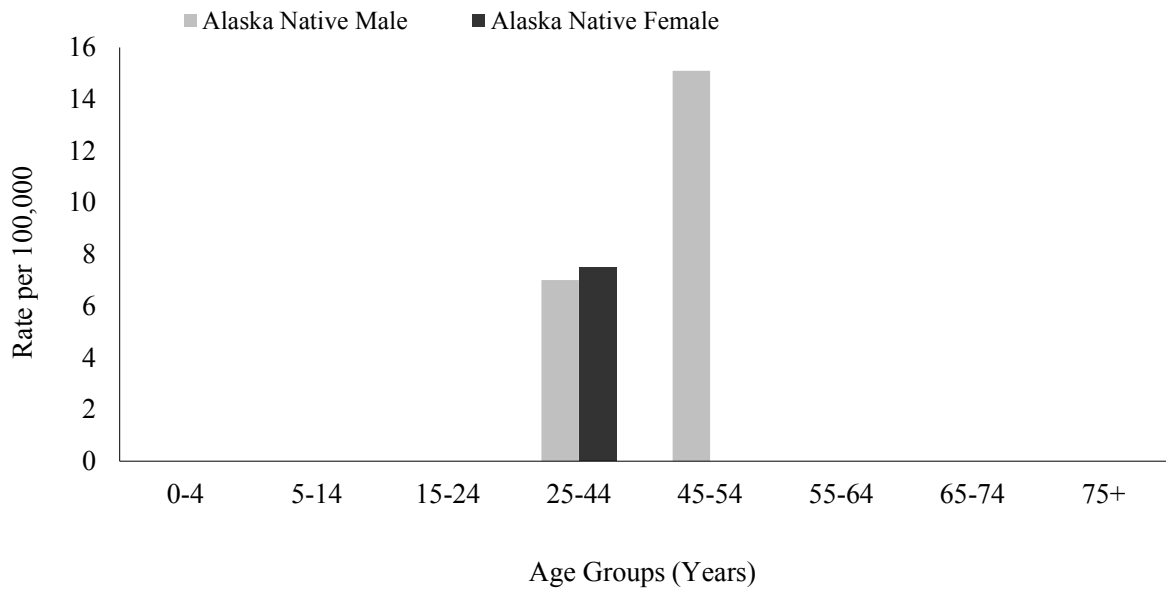


FIGURE 34.
Data Source: Table 3.

Age-Specific Mortality Rates from Homicide
Alaska Natives (2004-2008)
Males vs Females

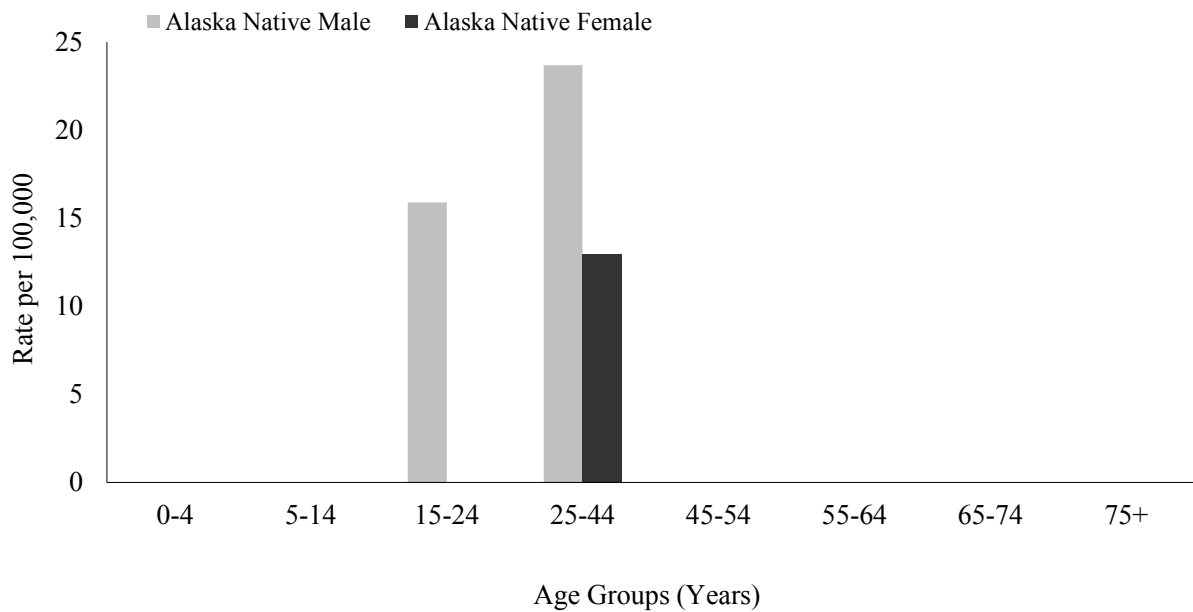


FIGURE 35.
Data Source: Table 3.

**Age-Specific Mortality Rates from Hypertension
Alaska Natives (2004-2008)
Males vs Females**

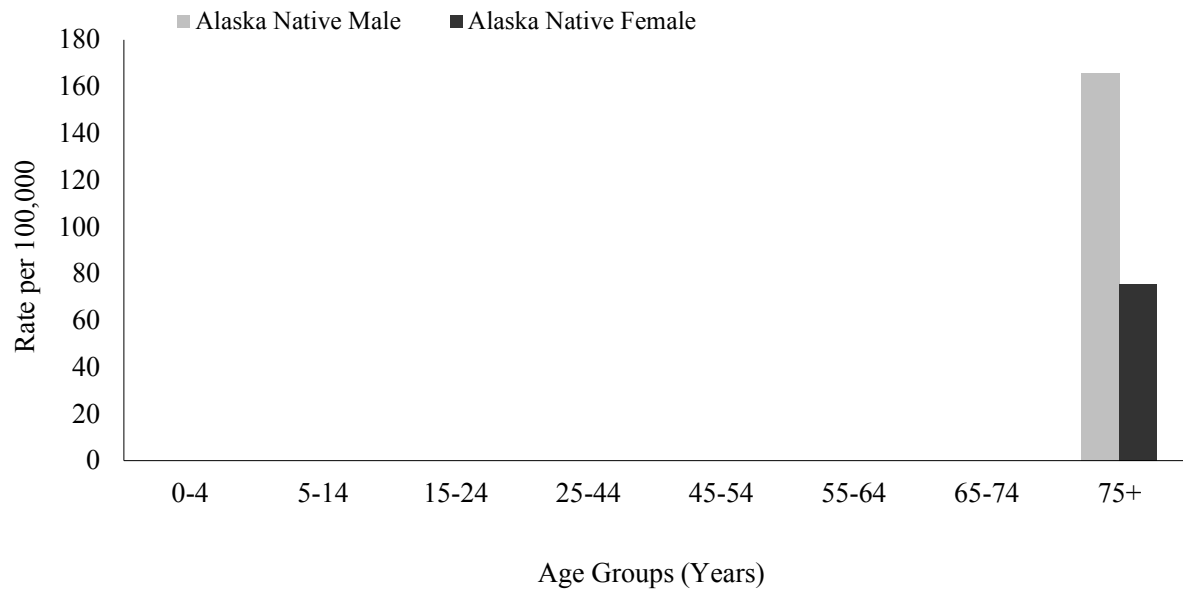


FIGURE 36.
Data Source: Table 3.

**Age-Specific Mortality Rates from Nephritis
Alaska Natives (2004-2008)
Males vs Females**

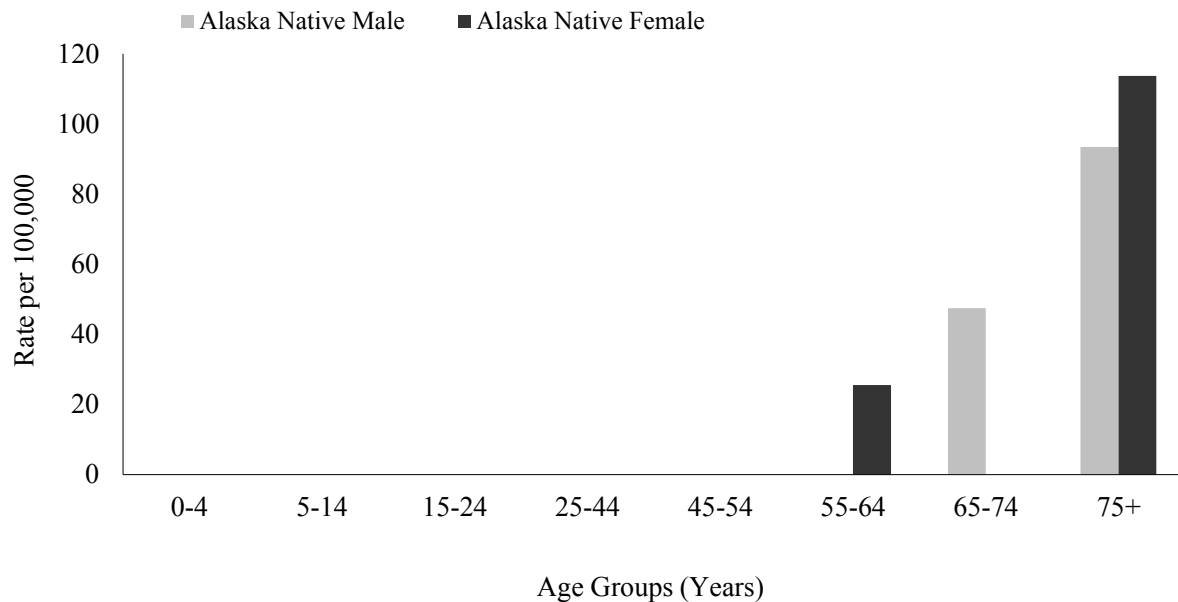


FIGURE 37. Age-Specific Mortality Rates from Parkinson's Disease
Data Source: Table 3.
Alaska Natives (2004-2008)
Males vs Females

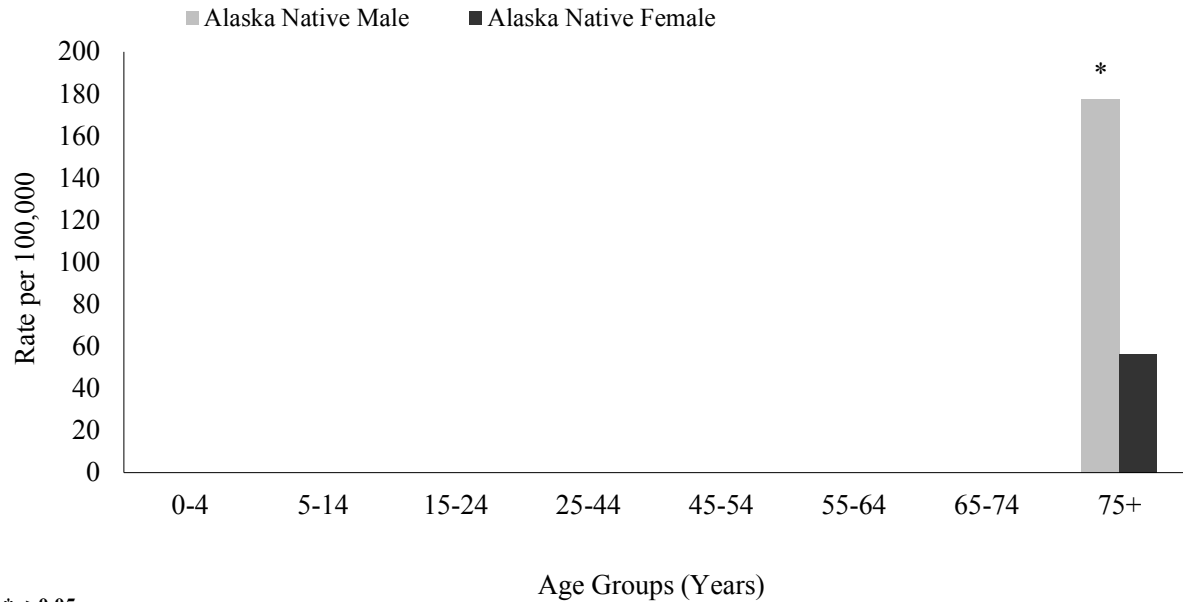


FIGURE 38. Age-Specific Mortality Rates from Perinatal Conditions
Data Source: Table 3.
Alaska Natives (2004-2008)
Males vs Females

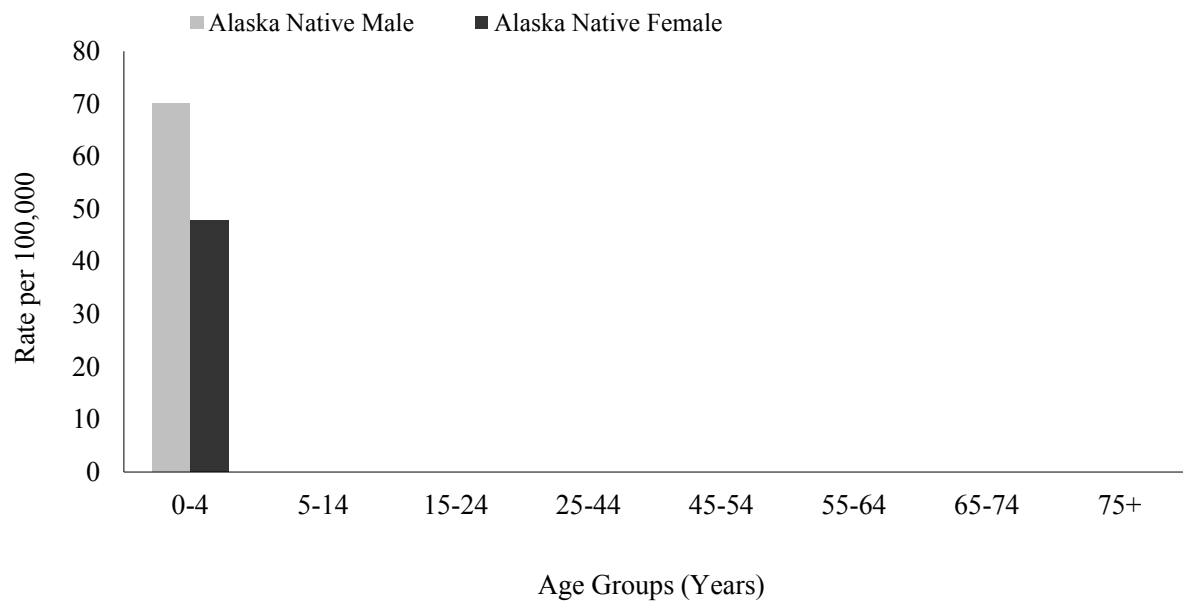


FIGURE 39. Age-Specific Mortality Rates from Pneumonia & Influenza
Data Source: Table 3.
Alaska Natives (2004-2008)
Males vs Females

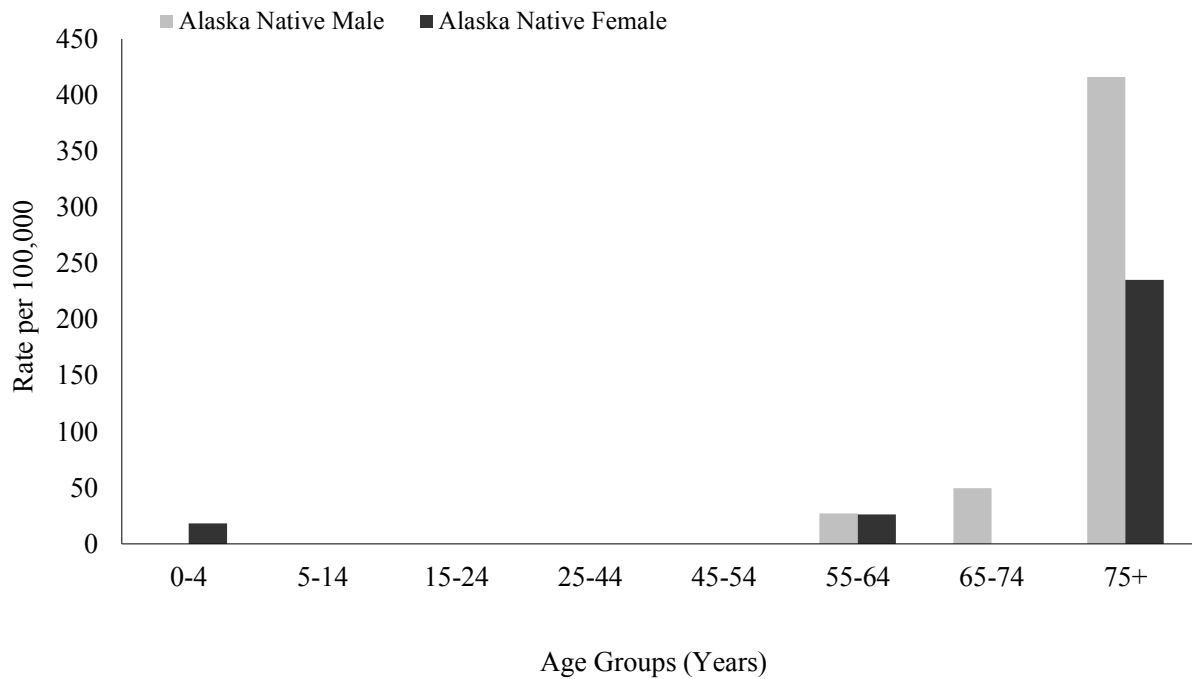


FIGURE 40. Age-Specific Mortality Rates from Septicemia
Data Source: Table 3.
Alaska Natives (2004-2008)
Males vs Females

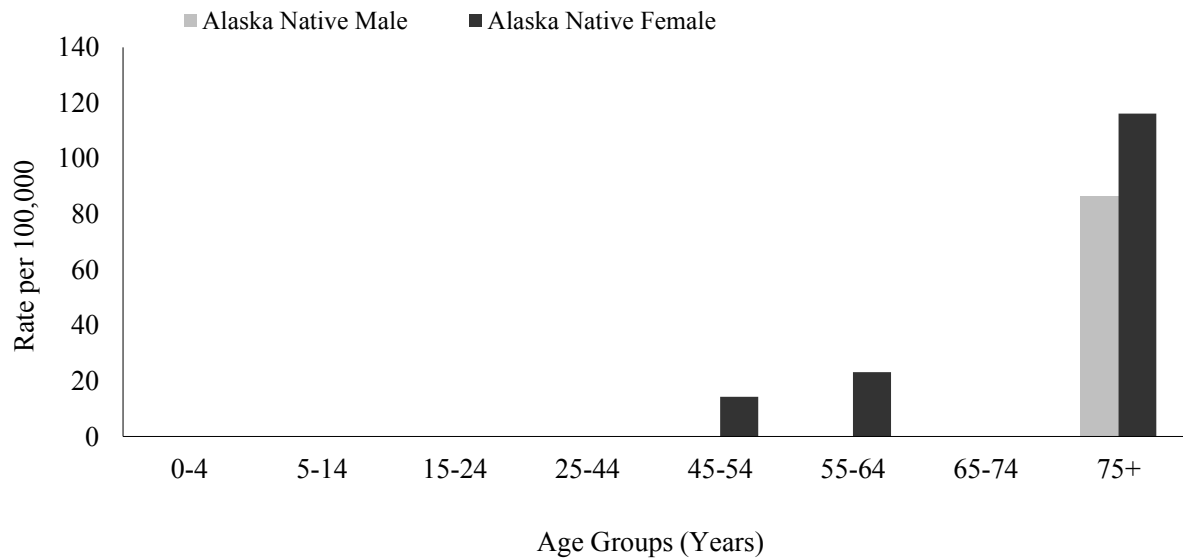


FIGURE 41.
Data Source: Table 3.

**Age-Specific Mortality Rates from Suicide
Alaska Natives (2004-2008)
Males vs Females**

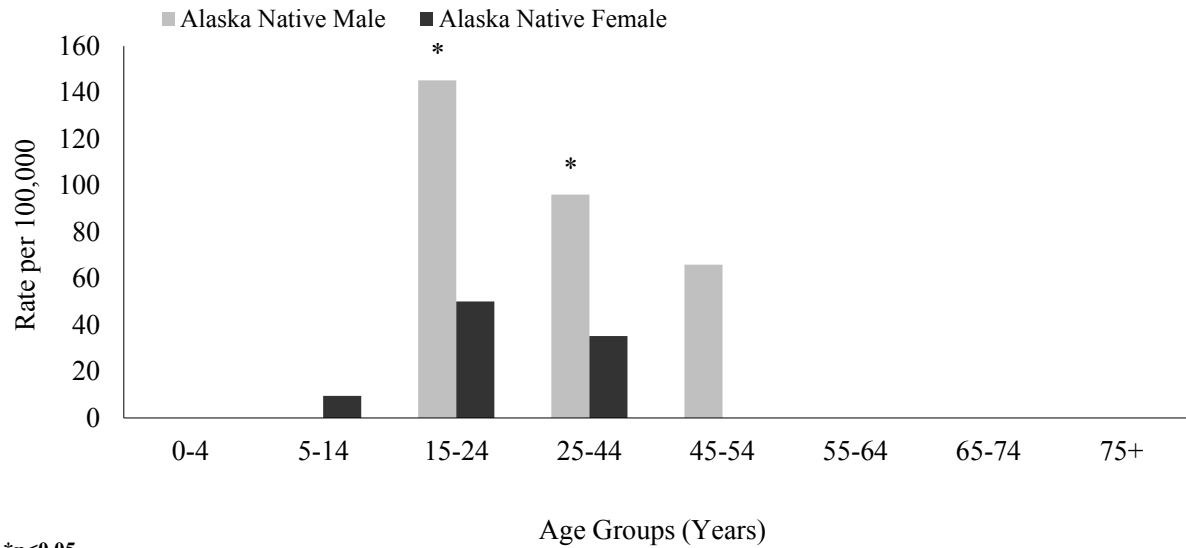
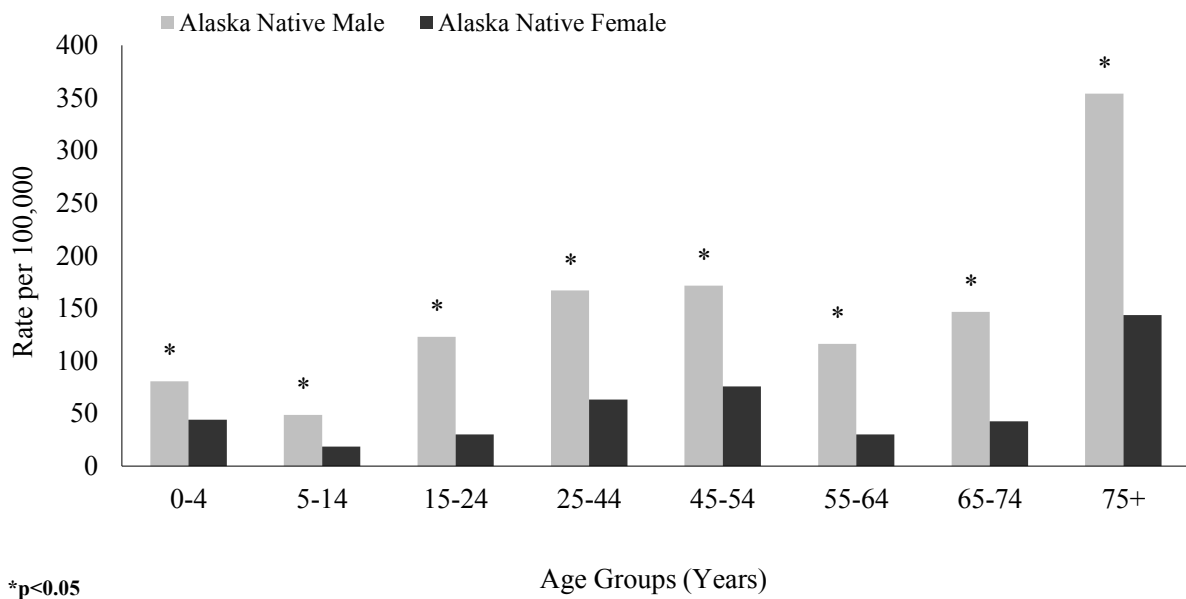


FIGURE 42.
Data Source: Table 3.

**Age-Specific Mortality Rates from Unintentional Injury
Alaska Natives (2004-2008)
Males vs Females**



EXCESS DEATHS

Highlights

- The three leading causes of excess mortality among Alaska Native people, both genders combined, were unintentional injury (23.9%), suicide (15.2%), and alcohol abuse (14.1%).
- Among Alaska Native men, unintentional injury (32%), suicide (19.8%), and alcohol abuse (12.8%) were the leading causes of excess mortality.
- Among Alaska Native women, cancer (17.0%), alcohol abuse (15.8%), and unintentional injury (13.4%) were the leading causes of excess mortality.

Overview

Tables 4a-c in this section list the ten leading causes of excess deaths among Alaska Native people for the five year period, 2004-2008. Separate tables are presented for Alaska Natives both genders combined, males, and females.

Excess deaths for Alaska Native people are determined in relation to U.S. White rates. Thus excess deaths are calculated by multiplying the U.S. White age-

specific death rate for each cause of death by the Alaska Native population for each age group. This determines the expected number of deaths. The difference between the expected and the observed number of Alaska Native deaths is considered excess.

This section also contains Figures 41a-c which are bar graphs of the numbers of excess deaths among Alaska Natives in rank order. Data for these figures comes from Tables 4a-c.

TABLE 4a.

Data Source: State of Alaska
Bureau of Vital Statistics (AN),
National Cancer Institute's
Surveillance Epidemiology and
End Results Program.(USW)

Excess Deaths Among Alaska Natives (2004-2008)
Based on U.S. White Rates (2004-2006)
Both Genders

Both Genders	Alaska Native Deaths	Expected Deaths^a	Excess Deaths^b	Percentage of Total Excess Deaths
Unintentional Injury	493	189	304	23.9%
Suicide	252	60	192	15.2%
Alcohol Abuse	180	1	179	14.1%
Cancer	772 ^c	609	163	12.8%
COPD	172	128	44	3.5%
Chronic Liver Disease	82	38	44	3.5%
Cerebrovascular Disease	164	124	41	3.2%
Septicemia	44	5	39	3.1%
Homicide	59	22	37	2.9%
Pneumonia & Influenza	77	53	24	1.9%
Other	2265	1290	202	15.9%
All-Cause	3,788	2,518	1,270	100.0%

^a Expected Deaths = (age and cause-specific death rates for USW) x (AN population for each age group)

^b Excess Deaths = (Alaska Native deaths - Expected deaths)

^c Total number of cancer deaths is greater than the sum of males and females due to missing gender information

TABLE 4b.

Data Source: State of Alaska
Bureau of Vital Statistics (AN),
National Cancer Institute's
Surveillance Epidemiology and
End Results Program.(USW)

**Excess Deaths Among Alaska Natives (2004-2008)
Based on U.S. White Rates (2004-2006)
Males**

Males	Alaska Native Deaths	Expected Deaths^a	Excess Deaths^b	Percentage of Total Excess Deaths
Unintentional Injury	359	129	230	32.0%
Suicide	189	47	142	19.8%
Alcohol Abuse	93	1	92	12.8%
Cancer	392	323	69	9.5%
Homicide	38	16	22	3.0%
Cerebrovascular Disease	72	52	20	2.7%
Septicemia	21	3	18	2.5%
COPD	80	63	17	2.4%
Pneumonia & Influenza	37	25	12	1.7%
Hypertension	13	1	12	1.7%
Other	777	691	86	12.0%
All-Cause	2,071	1,352	719	100.0%

^a Expected Deaths = (age and cause-specific death rates for USW) x (AN population for each age group)

^b Excess Deaths = (Alaska Native deaths - Expected deaths)

TABLE 4c.

Data Source: State of Alaska
Bureau of Vital Statistics (AN),
National Cancer Institute's
Surveillance Epidemiology and
End Results Program.(USW)

**Excess Deaths Among Alaska Natives (2004-2008)
Based on U.S. White Rates (2004-2006)
Females**

Females	Alaska Native Deaths	Expected Deaths^a	Excess Deaths^b	Percentage of Total Excess Deaths
Cancer	379	286	93	17.0%
Alcohol Abuse	87	0	87	15.8%
Unintentional Injury	134	60	74	13.4%
Suicide	63	13	50	9.1%
Chronic Liver Disease	53	12	41	7.4%
COPD	92	65	27	4.9%
Cerebrovascular Disease	92	71	21	3.8%
Septicemia	23	2	21	3.8%
Homicide	21	5	16	2.8%
Pneumonia & Influenza	40	28	12	2.3%
Other	733	624	109	19.8%
All-Cause	1,717	1,166	551	100.0%

^a Expected Deaths = (age and cause-specific death rates for USW) x (AN population for each age group)

^b Excess Deaths = (Alaska Native deaths - Expected deaths)

FIGURE 43a.

Data Source: Table 4a.

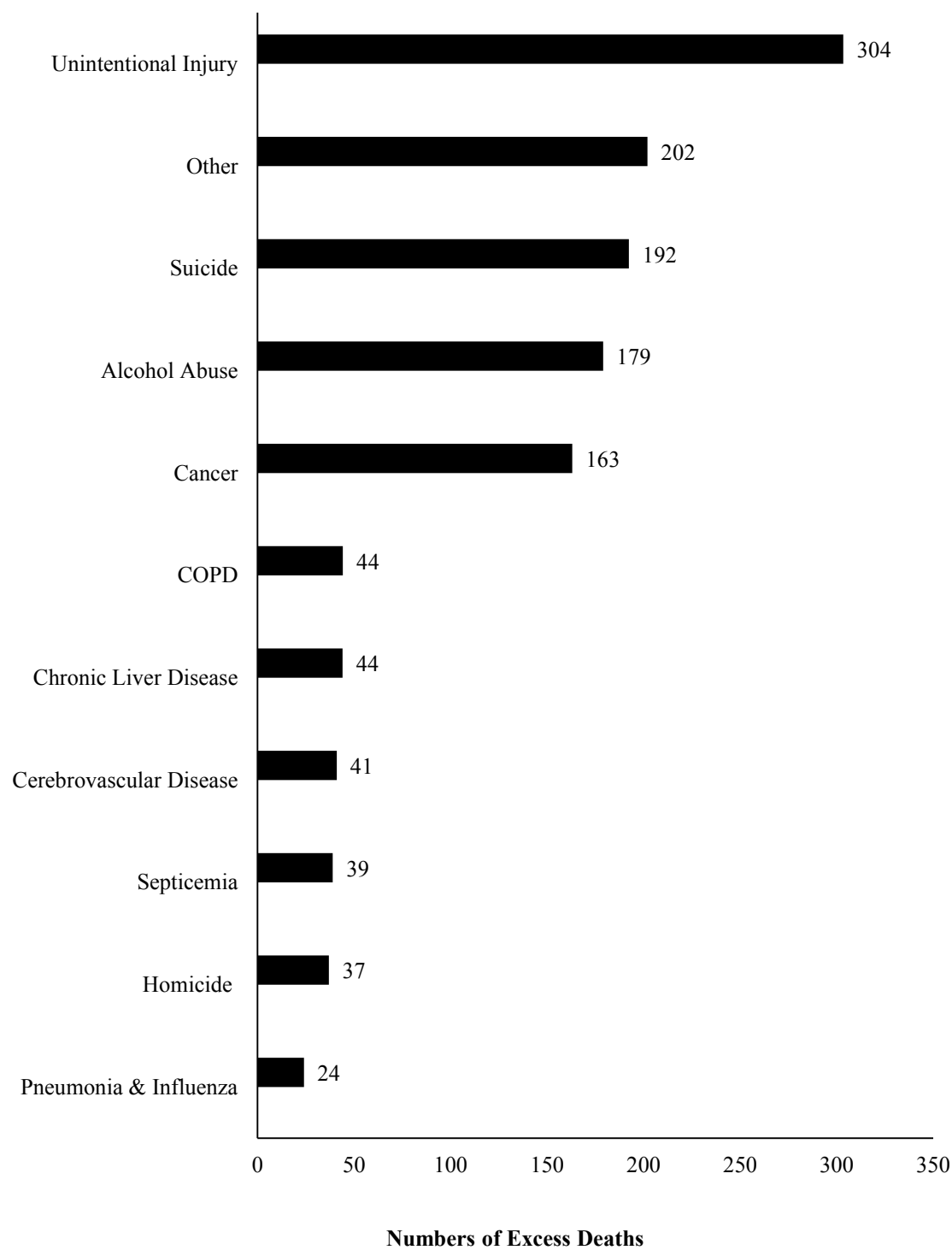
**Excess Deaths for Alaska Natives (2004-2008)
Based on U.S. White Rates (2004-2006)
Both Genders**

FIGURE 43b.

Data Source: Table 4b.

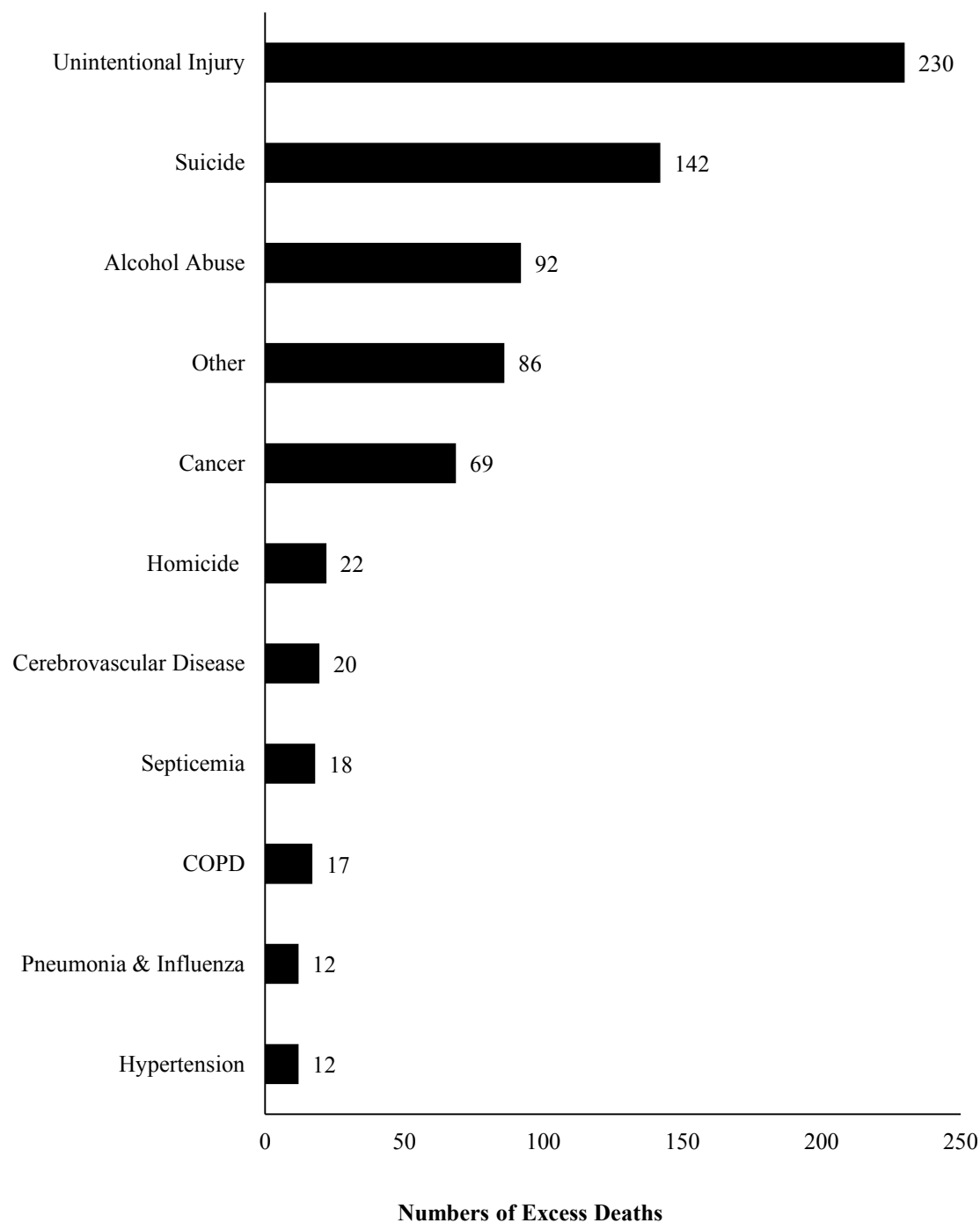
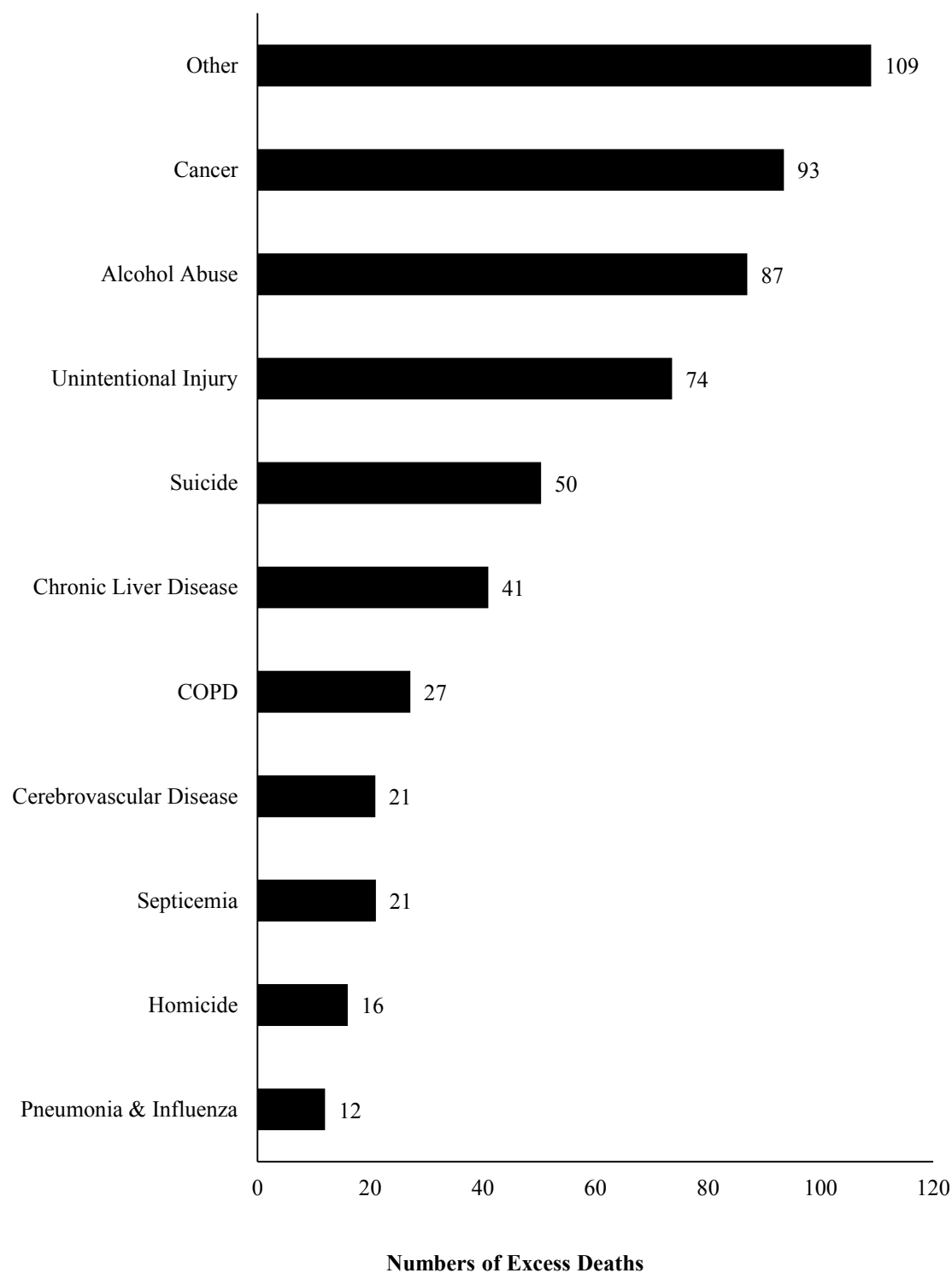
**Excess Deaths for Alaska Natives (2004-2008)
Based on U.S. White Rates (2004-2006)
Males**

FIGURE 43c.

Data Source: Table 4c.

**Excess Deaths for Alaska Natives (2004-2008)
Based on U.S. White Rates (2004-2006)
Females**

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YEARS OF POTENTIAL LIFE LOST (YPLL)

Highlights

- Alaska Native people experienced an average of 28.7 years of potential life lost from all-causes during the 2004-2008 time period.
- Unintentional injury (YPLL=19,183) caused the greatest number of years of potential life lost among Alaska Natives, both genders combined, and among men (YPLL=14,066) and women (YPLL=5,117), separately.
- Suicide (YPLL=11,471) was the second leading cause of years of potential life lost among Alaska Natives, both genders combined, and among men (YPLL= 8,506).
- Among Alaska Native women, cancer (YPLL=4,108) was the second leading cause of years of potential life lost. Among Alaska Native men, cancer (YPLL=4,212) ranked third in years of potential life lost.

Overview

Years of potential life lost (YPLL) is an estimate of the average years a person would have lived if he or she had not

died prematurely. It is an alternative to death rates that gives more weight to deaths that occur among younger people.

If the average life span for the population is 75 years, the number of years of potential life lost is calculated by subtracting the age at death for each individual from 75. Only those people who died before 75 years of age are included in the calculation.

Tables 5a-c in this section report YPLL for the period 2004-2008. Separate tables are presented for Alaska Natives both genders combined, males, and females.

This section also contains Figures 5a-c which are bar graphs of the average number of years of potential life lost by cause of death. Data for these figures comes from Tables 5a-c.

TABLE 5a. Years of Potential Life Lost
Data Source: State of
Alaska Bureau of Vital
Statistics
Alaska Natives (2004-2008)
Both Genders

	Both Genders	Total YPLL	# Deaths	Mean YPLL
1	Unintentional Injury	19,183	458	41.9
2	Suicide	11,471	250	45.9
3	Cancer	8,320	555	15.0
4	Heart Disease	5,578	321	17.4
5	Alcohol Abuse	4,924	173	28.5
6	Congenital Abnormalities	2,562	38	67.4
7	Perinatal Conditions	2,475	33	75.0
8	Homicide	2,408	57	42.2
9	Chronic Liver Disease	1,983	79	25.1
10	Cerebrovascular Diseases	1,167	70	16.7
	All Causes	77,233	2,694	28.7

TABLE 5b. Years of Potential Life Lost
Data Source: State of Alaska Bureau of Vital Statistics
Alaska Natives (2004-2008)
Males

	Males	Total YPLL	# Deaths	Mean YPLL
1	Unintentional Injury	14,066	337	41.7
2	Suicide	8,506	187	45.5
3	Cancer	4,212	286	14.7
4	Heart Disease	3,412	203	16.8
5	Alcohol Abuse	2,434	88	27.7
6	Homicide	1,551	37	41.9
7	Perinatal Conditions	1,500	20	75.0
8	Congenital Abnormalities	1,254	18	69.7
9	Chronic Liver Disease	617	28	22.0
10	COPD	513	51	10.1
	All Causes	46,980	1,586	29.6

TABLE 5c.
Data Source: State of
Alaska Bureau of Vital
Statistics

Years of Potential Life Lost
Alaska Natives (2004-2008)
Females

	Females	Total YPLL	# Deaths	Mean YPLL
1	Unintentional Injury	5,117	121	42.3
2	Cancer	4,108	269	15.3
3	Suicide	2,965	63	47.1
4	Alcohol Abuse	2,490	85	29.3
5	Heart Disease	2,166	118	18.4
6	Chronic Liver Disease	1,366	51	26.8
7	Congenital Abnormalities	1308	20	65.4
8	Perinatal Conditions	975	13	75.0
9	Homicide	857	20	42.9
10	Cerebrovascular Disease	676	36	18.8
	All Causes	30,253	1,108	27.3

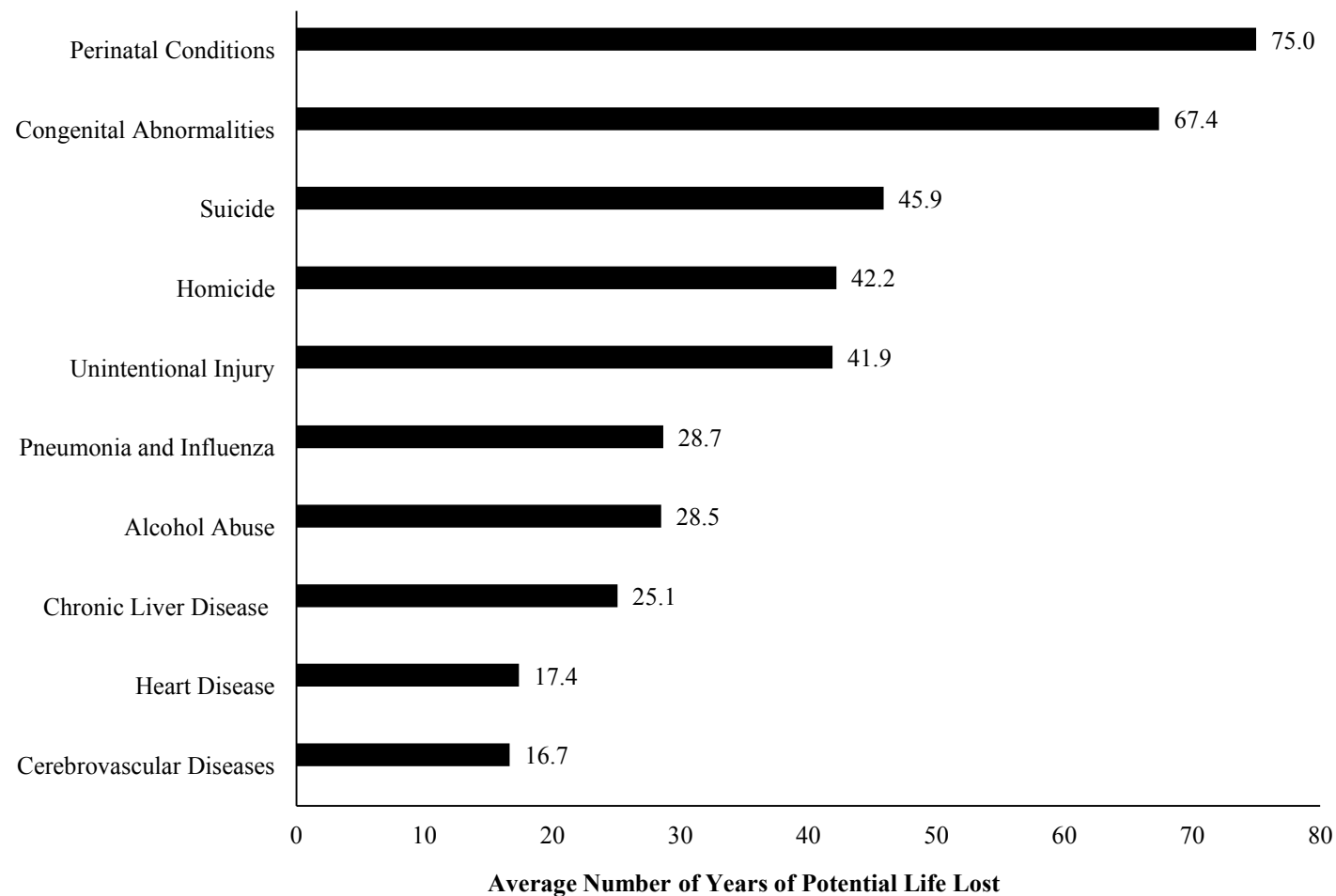
FIGURE 44a. Years of Potential Life Lost for Alaska NativesData Source: State of Alaska
Bureau of Vital Statistics**2004-2008****Both Genders**

FIGURE 44b. Years of Potential Life Lost for Alaska Natives

Data Source: State of Alaska
Bureau of Vital Statistics

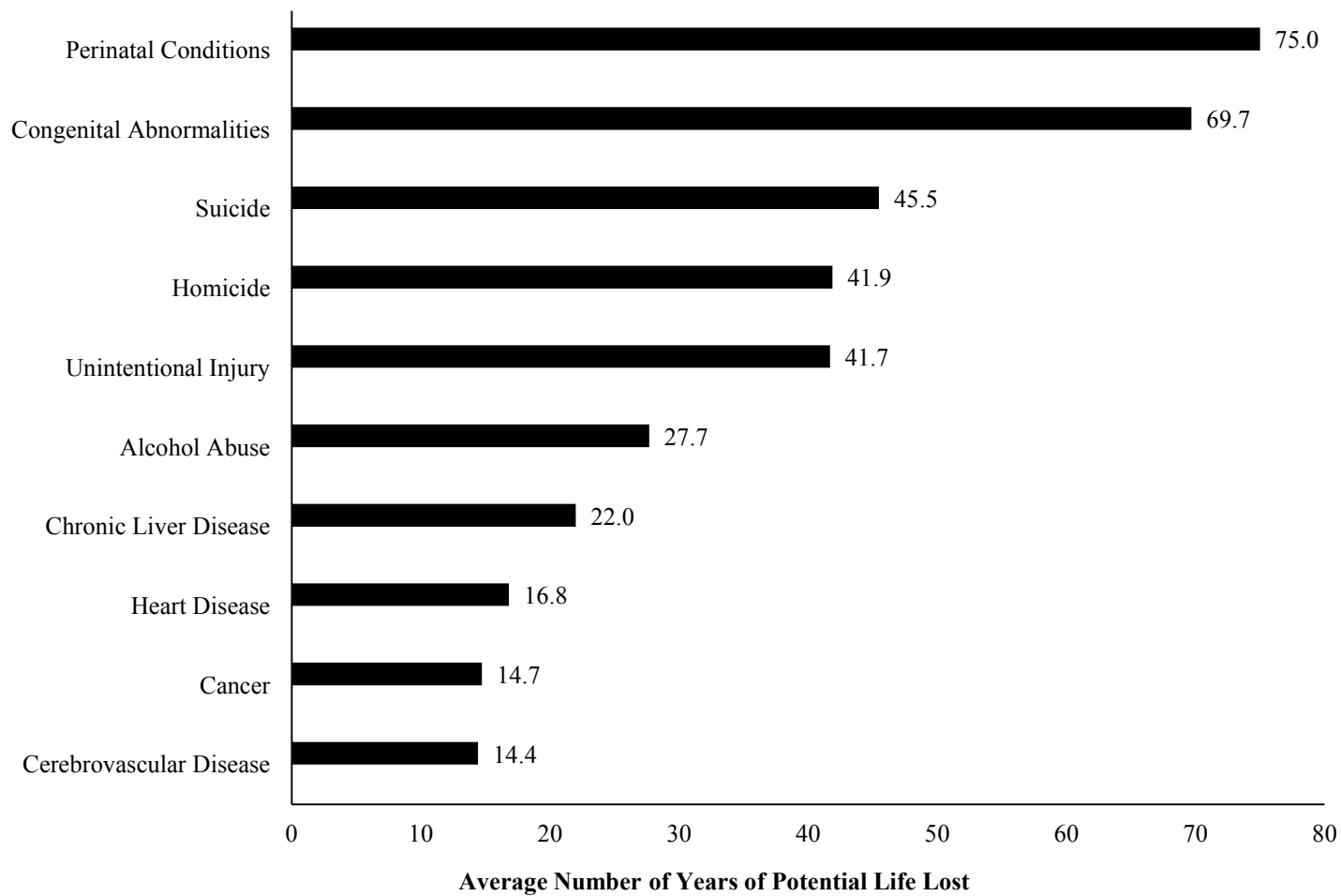
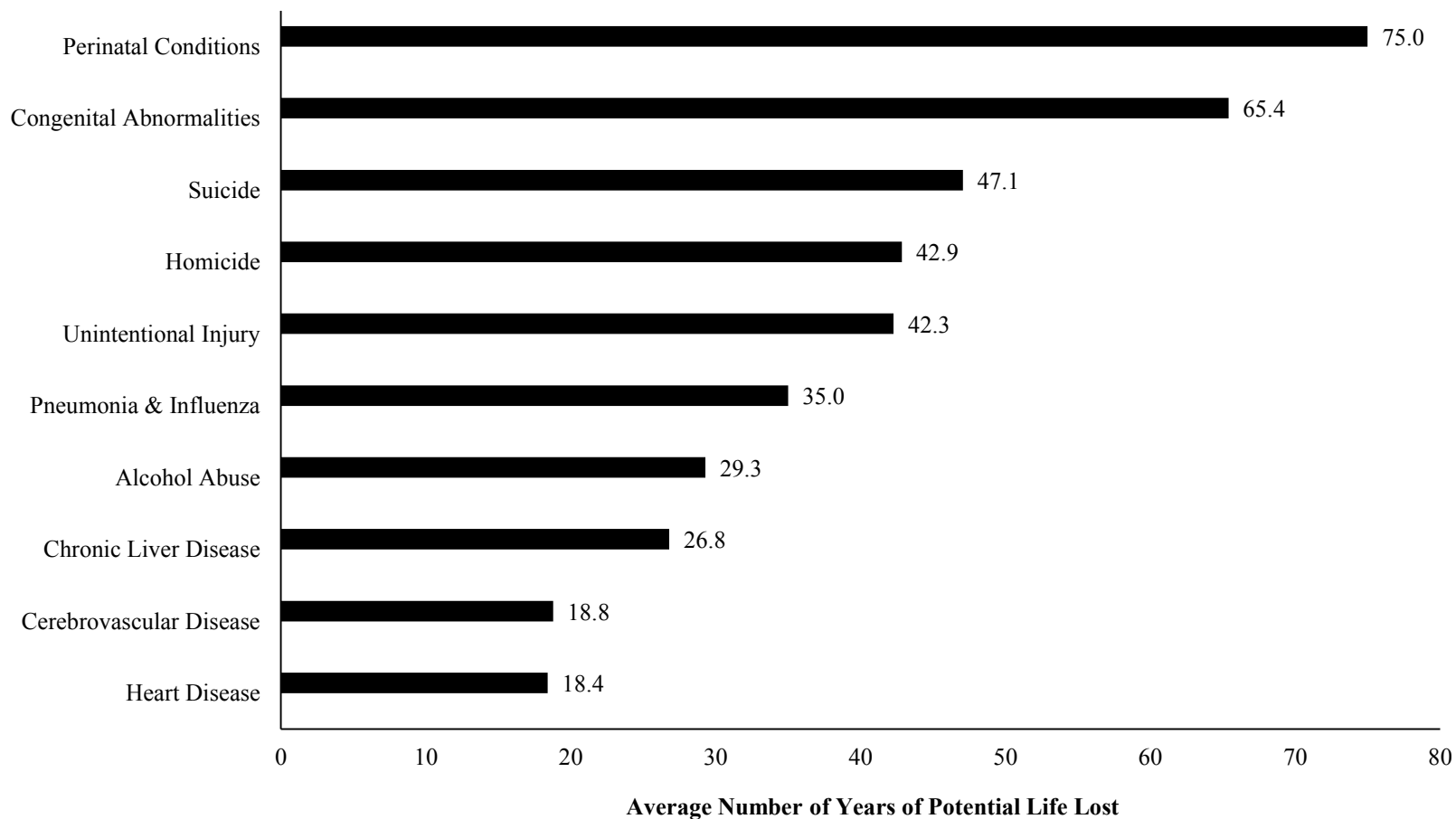
2004-2008**Males**

FIGURE 44c. Years of Potential Life Lost for Alaska NativesData Source: State of Alaska
Bureau of Vital Statistics**2004-2008****Females**

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SERVICE REGIONS

Highlights

- Mortality rates for the Aleutians & Pribilofs service region were not significantly different from the rest of the state for any cause of death.
- The Anchorage/Mat-Su service region had significantly lower mortality rates for cancer, suicide, and unintentional injury as compared to the rest of the state. The mortality rate for chronic liver disease was significantly higher than the rest of the state.
- The ASU-Combined Rural service region had a significantly higher mortality rate for cerebrovascular diseases as compared to the rest of the state.
- The Arctic Slope service region had significantly higher mortality rates than the rest of the state for all-causes, cancer, COPD, and heart disease.
- The Bristol Bay service region had significantly higher mortality rates than the rest of the state for unintentional injury.
- Mortality rates for the Copper River/Prince William Sound service region were not significantly different from the rest of the state for any cause of death.
- The Interior service region had a significantly lower mortality rate for heart disease and a significantly higher mortality rate from alcohol abuse as compared to the rest of the state.
- The Kenai Peninsula service region had a significantly higher mortality rate from heart disease than the rest of the state.
- Mortality rates for the Kodiak Area service region were not significantly different from the rest of the state for any cause of death.
- The Northwest Arctic service region had significantly higher mortality rates from suicide and unintentional injury than the rest of the state.
- The Norton Sound service region had significantly higher mortality rates from suicide and unintentional injury than the rest of the state.
- The Southeast service region had significantly lower rates of mortality from pneumonia & influenza, suicide, and all-causes as compared to the rest of the state. Diabetes mortality was significantly higher.

- The Yukon-Kuskokwim service region had significantly higher rates of mortality from cancer, homicide, pneumonia & influenza, suicide, and all-causes, as compared to the rest of the state.

Overview

Alaska has been divided into twelve service regions for the purpose of reporting health data. The service regions in general, match the larger Tribal Health Organization (THO) regions. Smaller regions required aggregation into larger service regions.

There are twelve service regions:

- 1) Aleutians & Pribilofs
- 2.) Anchorage/MatSu
- 3) Arctic Slope
- 4) Bristol Bay
- 5) Copper River/Prince William Sound
- 6) Interior
- 7) Kenai Peninsula
- 8) Kodiak Area
- 9) Northwest Arctic
- 10) Norton Sound
- 11) Southeast
- 12) Yukon-Kuskokwim.

In addition, the rural regions of Aleutians & Pribilofs, Copper River/Prince William Sound (Copper River/PWS), Kenai Peninsula and Kodiak Area are aggregated under the title Anchorage Service Unit - Combined Rural (ASU-Combined Rural) service region.

Deaths were assigned to the service region in which the person was resident, regardless of place of occurrence in Alaska. This report does not include deaths of residents who died outside of Alaska.

Table 6 in this section lists the ten leading causes of death for each region in rank order. More than ten causes were included if candidates for the tenth position had the same number of cases. Fewer than ten causes were reported if causes had fewer than five cases. The table also reports the percentage of total deaths from each cause.

Tables 7a-c report counts for leading causes of death for each service region for both genders combined, males, and females. Causes of death with fewer than 5 cases were recorded as <5.

Tables 8a-c report age-adjusted rates for the causes of death by service region. There are separate tables for rates for both genders combined, males, and females. Rates were not reported for those causes with fewer than 5 cases.

Rate ratios were used to compare each region to all regions combined minus the region of interest. Confidence intervals were calculated around the ratios. Mortality rates for a region were considered to be significantly different from the rest of the state if the confidence interval did not contain one. Up and down arrows on the table indicate if a rate is significantly higher or lower than the rate for the other regions combined.

Figures 45-60 in this section are bar graphs for both genders combined comparing rate ratios for each region to all regions combined minus the region of interest. Error bars indicate the 95% confidence interval for the rate ratio. An asterisk indicates that the confidence interval does not contain one and the rate for that region is significantly different from the rest of the state combined. Data for the figures comes from Tables 8a-c.

**TABLE 6. Ranking of Leading Causes of Death
Alaska Natives by Service Region (2004-2008)
Both Genders**

Alaska Natives Statewide		Aleutians & Pribilofs Service Region	
Cause of Death	% Deaths	Cause of Death	% Deaths
1 Cancer	20.4%	1 Cancer	22.7%
2 Heart Disease	14.3%	2 Heart Disease	18.7%
3 Unintentional Injury	13.0%	3 Unintentional Injury	13.3%
4 Suicide	6.7%		
5 Alcohol Abuse	4.8%		
6 COPD	4.5%		
7 Cerebrovascular Disease	4.3%		
8 Chronic Liver Disease	2.1%		
9 Pneumonia & Influenza	2.0%		
10 Homicide	1.5%		
All Others	26.3%	All Others	45.3%
Total - All Causes	100.0%	Total - All Causes	100.0%

Anchorage/MatSu Service Region		ASU-Combined Rural Service Region	
Cause of Death	% Deaths	Cause of Death	% Deaths
1 Cancer	17.1%	1 Cancer	22.4%
2 Heart Disease	15.5%	2 Heart Disease	16.9%
3 Unintentional Injury	11.8%	3 Unintentional Injury	9.3%
4 Alcohol Abuse	5.6%	4 Cerebrovascular Disease	6.5%
5 Suicide	4.6%	5 COPD	5.0%
6 COPD	4.2%	6 Suicide	3.8%
7 Chronic Liver Disease	4.1%	7 Alcohol Abuse	3.8%
8 Cerebrovascular Disease	3.8%	8 Chronic Liver Disease	3.3%
9 Diabetes Mellitus	1.8%	9 Pneumonia & Influenza	2.8%
10 Pneumonia & Influenza/ Homicide	1.5%	10 Hypertension	1.8%
All Others	28.5%	All Others	24.4%
Total - All Causes	100.0%	Total - All Causes	100.0%

Arctic Slope Service Region		Bristol Bay Service Region	
Cause of Death	% Deaths	Cause of Death	% Deaths
1 Cancer	25.8%	1 Cancer	22.0%
2 Heart Disease	17.2%	2 Unintentional Injury	21.5%
3 Unintentional Injury	9.8%	3 Heart Disease	15.2%
4 Suicide	8.6%	4 COPD	5.2%
5 COPD	7.4%	5 Alcohol Abuse	5.2%
6 Cerebrovascular Disease	4.3%	6 Cerebrovascular Disease	3.7%
7 Alcohol Abuse	4.3%	7 Suicide	3.1%
All Others	22.7%	All Others	24.1%
Total - All Causes	100.0%	Total - All Causes	100.0%

Copper River/Prince William Sound Service Region		Interior Service Region	
Cause of Death	% Deaths	Cause of Death	% Deaths
1 Cancer	22.1%	1 Cancer	20.9%
2 Heart Disease	14.7%	2 Unintentional Injury	14.1%
3 Unintentional Injury	8.8%	3 Heart Disease	10.5%
4 COPD	7.4%	4 Alcohol Abuse	9.0%
		5 Suicide	6.1%
		6 Cerebrovascular Disease	3.8%
		7 COPD	3.4%
		8 Pneumonia & Influenza	2.2%
		9 Alzheimer's Disease	2.0%
		10 Homicide/Chronic Liver	2.0%
All Others	47.1%	All Others	24.0%
Total - All Causes	100.0%	Total - All Causes	100.0%

Kenai Peninsula Service Region		Kodiak Area Service Region	
Cause of Death	% Deaths	Cause of Death	% Deaths
1 Cancer	22.1%	1 Cancer	23.2%
2 Heart Disease	20.3%	2 Cerebrovascular Disease	9.8%
3 Unintentional Injury	8.7%	3 Heart Disease	9.8%
4 Cerebrovascular Disease	6.4%	4 Unintentional Injury	7.3%
5 COPD	5.2%	5 Alcohol Abuse	7.3%
6 Suicide	3.5%		
7 Alcohol Abuse	2.9%		
All Others	30.8%	All Others	42.7%
Total - All Causes	100.0%	Total - All Causes	100.0%

Northwest Arctic Service Region		Norton Sound Service Region	
Cause of Death	% Deaths	Cause of Death	% Deaths
1 Cancer	23.3%	1 Cancer	18.5%
2 Unintentional Injury	19.6%	2 Unintentional Injury	16.5%
3 Heart Disease	14.6%	3 Heart Disease	12.7%
4 Suicide	13.7%	4 Suicide	11.2%
5 COPD	4.6%	5 COPD	4.2%
6 Cerebrovascular Disease	2.7%	6 Alcohol Abuse	4.2%
7 Alcohol Abuse	2.3%	7 Cerebrovascular Disease	3.5%
		8 Homicide	1.9%
		9 Pneumonia & Influenza	1.9%
All Others	19.2%	All Others	25.4%
Total - All Causes	100.0%	Total - All Causes	100.0%

Southeast Service Region		Yukon-Kuskokwim Service Region	
Cause of Death	% Deaths	Cause of Death	% Deaths
1 Cancer	21.5%	1 Cancer	20.7%
2 Heart Disease	15.7%	2 Unintentional Injury	13.9%
3 Unintentional Injury	8.7%	3 Heart Disease	11.8%
4 COPD	5.4%	4 Suicide	10.9%
5 Cerebrovascular Disease	5.2%	5 Cerebrovascular Disease	4.6%
6 Alcohol Abuse	4.0%	6 COPD	4.1%
7 Diabetes Mellitus	3.0%	7 Pneumonia & Influenza	3.3%
8 Suicide	2.8%	8 Alcohol Abuse	3.0%
9 Chronic Liver Disease	2.2%	9 Homicide	2.1%
10 Septicemia	2.2%	10 Perinatal Conditions	1.6%
All Others	29.4%	All Others	24.0%
Total - All Causes	100.0%	Total - All Causes	100.0%

TABLE 7a. **Numbers of Leading Causes of Death**
Data Source: State of Alaska
Bureau of Vital Statistics
Alaska Natives By Service Region (2004-2008)
Both Genders

Cause of Death	Aleutians & Pribilofs	Anchorage/ MatSu	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/ PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Statewide^b
Alcohol Abuse	<5	52	15	7	10	<5	40	5	6	5	11	20	20	180
Alzheimer's Disease	<5	7	6	<5	<5	<5	9	<5	<5	<5	<5	7	<5	40
Cancer ^c	17	159	89	42	42	15	93	38	19	51	48	108	140	772
Cerebrovascular Disease	<5	35	26	7	7	<5	17	11	8	6	9	26	31	164
Chronic Liver Disease	<5	38	13	<5	<5	<5	9	<5	<5	<5	<5	11	<5	82
COPD	<5	39	20	12	10	5	15	9	<5	10	11	27	28	172
Diabetes	<5	17	5	<5	<5	<5	8	<5	<5	<5	<5	15	5	56
Heart Disease	14	144	67	28	29	10	47	35	8	32	33	79	80	540
Homicide	<5	14	<5	<5	<5	<5	9	<5	<5	<5	5	7	15	59
Hypertension	<5	5	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	22
Perinatal Conditions	<5	6	<5	<5	<5	<5	<5	<5	<5	<5	<5	5	11	33

^a 3789 AN died between 2004-2008. Three cases were missing village of residence.

^b ASU-Combined Rural numbers are not counted in the total column since this region is a combination of Aleutians & Pribilofs, Copper River/Prince William Sound, Kenai Peninsula, and Kodiak Area.

^c There is no gender listed for 1 cancer death in the Yukon-Kuskokwim service region.

TABLE 7a. Both Genders, continued

Cause of Death	Aleutians & Pribilofs	Anchorage/ MatSu	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/ PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Statewide^b
Pneumonia & Influenza	<5	14	11	<5	<5	<5	10	<5	<5	<5	5	5	22	77
Septicemia	<5	13	5	<5	<5	<5	5	<5	<5	<5	<5	11	5	44
Suicide	<5	43	15	14	6	<5	27	6	<5	30	29	14	74	252
Unintentional Injury	10	110	37	16	41	6	63	15	6	43	43	44	94	493
Total - All Causes^a	75	931	397	163	191	68	446	172	82	219	260	503	676	3789

^a 3789 AN died between 2004-2008. Three cases were missing village of residence.

^b ASU-Combined Rural numbers are not counted in the total column since this region is a combination of Aleutians & Pribilofs, Copper River/Prince William Sound, Kenai Peninsula, and Kodiak Area.

TABLE 7b. **Numbers of Leading Causes of Death**
Data Source: State of Alaska
Bureau of Vital Statistics
Alaska Natives By Service Region (2004-2008)
Males

Cause of Death	Aleutians & Pribilofs	Anchorage/ MatSu	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/ PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Statewide^b
Alcohol Abuse	<5	29	9	<5	6	<5	17	<5	5	<5	<5	12	10	93
Alzheimer's Disease	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	10
Cancer	7	72	44	31	22	11	41	18	8	24	24	59	75	392
Cerebrovascular Disease	<5	18	14	<5	<5	<5	5	7	5	<5	6	11	10	72
Chronic Liver Disease	<5	10	5	<5	<5	<5	<5	<5	<5	<5	<5	6	19	29
COPD	<5	10	8	<5	5	<5	8	<5	<5	7	6	14	<5	80
Diabetes	<5	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	8	<5	27
Heart Disease	7	84	35	12	17	<5	28	19	6	25	18	40	51	311
Homicide	<5	10	<5	<5	<5	<5	7	<5	<5	<5	5	<5	7	38
Hypertension	<5	<5	6	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	13
Perinatal Conditions	<5	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	5	20

^a 3789 AN died between 2004-2008. Three cases were missing village of residence.

^b ASU-Combined Rural numbers are not counted in the total column since this region is a combination of Aleutians & Pribilofs, Copper River/Prince William Sound, Kenai Peninsula, and Kodiak Area.

TABLE 7b. Males, continued

Cause of Death	Aleutians & Pribilofs	Anchorage/ MatSu	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/ PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Statewide ^b
Pneumonia & Influenza	<5	6	7	<5	<5	<5	6	<5	<5	<5	<5	<5	12	37
Septicemia	<5	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	21
Suicide	<5	22	12	11	<5	<5	22	5	<5	26	25	7	60	189
Unintentional Injury	8	72	30	14	34	5	43	11	6	35	31	28	70	359
Total - All Causes^a	43	464	220	92	116	36	232	92	49	145	151	256	392	2071

^a 3789 AN died between 2004-2008. Three cases were missing village of residence.

^b ASU-Combined Rural numbers are not counted in the total column since this region is a combination of Aleutians & Pribilofs, Copper River/Prince William Sound, Kenai Peninsula, and Kodiak Area.

TABLE 7c. Numbers of Leading Causes of Death
Data Source: State of Alaska
Bureau of Vital Statistics
Alaska Natives By Service Region (2004-2008)
Females

Cause of Death	Aleutians & Pribilofs	Anchorage/ MatSu	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/ PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Statewide^b
Alcohol Abuse	<5	23	6	<5	<5	<5	23	<5	<5	<5	7	8	10	87
Alzheimer's Disease	<5	5	<5	<5	<5	<5	7	<5	<5	<5	<5	6	<5	30
Cancer	10	87	45	11	20	<5	52	20	11	27	24	49	64	379
Cerebrovascular Disease	<5	17	12	6	<5	<5	12	<5	<5	<5	<5	15	21	92
Chronic Liver Disease	<5	28	8	<5	<5	<5	5	<5	<5	<5	<5	5	<5	53
COPD	<5	29	12	9	5	<5	7	5	<5	<5	5	13	9	92
Diabetes	<5	10	<5	<5	<5	<5	5	<5	<5	<5	<5	7	<5	29
Heart Disease	7	60	32	16	12	7	19	16	<5	<5	15	39	29	229
Homicide	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	8	21
Hypertension	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	9
Perinatal Conditions	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	6	13

^a 3789 AN died between 2004-2008. Three cases were missing village of residence.

^b ASU-Combined Rural numbers are not counted in the total column since this region is a combination of Aleutians & Pribilofs, Copper River/Prince William Sound, Kenai Peninsula, and Kodiak Area.

TABLE 7c. Females, continued

Cause of Death	Aleutians & Pribilofs	Anchorage/ MatSu	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/ PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Statewide^b
Pneumonia & Influenza	<5	8	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	10	40
Septicemia	<5	6	<5	<5	<5	<5	<5	<5	<5	<5	<5	7	<5	23
Suicide	<5	21	<5	<5	<5	<5	5	<5	<5	<5	<5	7	14	63
Unintentional Injury	<5	38	7	<5	7	<5	20	<5	<5	8	12	16	24	134
Total - All Causes^a	32	467	177	71	75	32	214	80	33	74	109	247	283	1717

^a 3789 AN died between 2004-2008. Three cases were missing village of residence.

^b ASU-Combined Rural numbers are not counted in the total column since this region is a combination of Aleutians & Pribilofs, Copper River/Prince William Sound, Kenai Peninsula, and Kodiak Area.

TABLE 8a. **Age-Adjusted Rates for Leading Causes of Death**
Data Source: State of Alaska
Bureau of Vital Statistics
Alaska Natives By Service Region (2004-2008)
Both Genders

Cause of Death	Aleutians & Pribilofs	Anchorage/ MatSu	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/ PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Statewide
Alcohol Abuse	-	44.7	32.4	41.4	36.3	-	↑ 74.1	27.6	64.8	17.7	36.9	31.6	25.7	38.7
Alzheimer's Disease	-	14.2	22.7	-	-	-	28.1	-	-	-	-	15.2	-	16.5
Cancer	230.7	↓ 176.2	250.4	↑ 422.3	241.1	251.2	228.7	260.4	251.2	282.0	234.6	191.1	↑ 273.1	226.3
Cerebrovascular Disease	-	46.9	↑ 83.4	77.4	49.9	-	48.1	87.6	102.6	39.6	47.3	51.1	77.7	56.7
Chronic Liver Disease	-	↑ 33.1	26.1	-	-	-	16.8	-	-	-	-	15.3	-	18.0
COPD	-	48.2	61.7	↑ 163.3	65.6	89.2	44.3	74.9	-	70.0	58.3	47.4	63.5	57.3
Diabetes	-	16.3	12.1	-	-	-	20.7	-	-	-	-	↑ 26.8	12.6	15.1
Heart Disease	231.0	169.9	198.8	↑ 321.1	173.9	160.9	↓ 124.9	↑ 262.8	112.8	207.5	149.9	147.1	175.4	169.0
Homicide	-	9.0	-	-	-	-	12.9	-	-	-	14.2	10.5	↑ 18.8	11.2
Hypertension	-	7.9	18.8	-	-	-	-	-	-	-	-	-	-	9.1
Perinatal Conditions	-	2.8	-	-	-	-	-	-	-	-	-	6.7	5.6	4.2

↑↓ Rate is significantly higher or lower than the rate for the rest of AN regions combined.

TABLE 8a. Both Genders, continued

Cause of Death	Aleutians & Pribilofs	Anchorage/ MatSu	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/ PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Statewide
Pneumonia & Influenza	-	18.3	29.0	-	-	-	30.9	-	-	-	19.7	↓9.6	↑47.0	25.5
Septicemia	-	15.2	12.9	-	-	-	10.4	-	-	-	-	19.3	10.3	12.8
Suicide	-	↓27.7	28.3	69.1	22.3	-	41.1	24.6	-	↑79.6	↑75.8	↓17.9	↑64.3	42.3
Unintentional Injury	102.2	↓82.3	75.0	109.1	↑171.6	89.5	110.7	83.5	54.0	↑151.3	↑136.1	74.0	96.0	97.7
Total - All Causes	1057.3	998.9	1060.4	↑1591.2	1063.9	1055.5	1000.1	1150.4	991.9	1076.8	1047.5	↓881.0	↑1153.8	1033.3

↑↓ Rate is significantly higher or lower than the rate for the rest of AN regions combined.

TABLE 8b. **Age-Adjusted Rates for Leading Causes of Death**
Data Source: State of Alaska
Bureau of Vital Statistics
Alaska Natives By Service Region (2004-2008)
Males

Cause of Death	Aleutians & Pribilofs	Anchorage/ MatSu	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/ PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Statewide
Alcohol Abuse	-	↑ 63.5	40.7	-	43.0	-	65.2	-	↑ 112.0	-	-	39.2	26.6	42.4
Alzheimer's Disease	-	-	-	-	-	-	-	-	-	-	-	-	-	10.9
Cancer	174.9	270.8	264.6	↑ 699.0	244.8	427.5	229.0	244.0	218.5	264.8	253.8	231.7	294.6	258.3
Cerebrovascular Disease	-	86.2	87.3	-	-	-	27.0	↑ 139.3	131.8	-	65.3	51.8	↓ 49.5	58.9
Chronic Liver Disease	-	22.1	20.0	-	-	-	-	-	-	-	-	16.8	-	13.2
COPD	-	↓ 27.8	53.1	-	51.6	-	52.9	-	-	124.9	60.2	56.4	86.4	59.5
Diabetes	-	12.8	-	-	-	-	-	-	-	-	-	30.7	-	17.8
Heart Disease	210.5	253.5	209.9	284.6	192.0	-	191.7	309.1	182.7	↑ 351.4	165.4	↓ 156.3	234.0	219.0
Homicide	-	14.7	-	-	-	-	19.5	-	-	-	26.1	-	17.3	14.5
Hypertension	-	↑ 36.5	-	-	-	-	-	-	-	-	-	-	-	9.2
Perinatal Conditions	-	4.4	-	-	-	-	-	-	-	-	-	-	5.0	4.8

↑↓ Rate is significantly higher or lower than the rate for the rest of AN regions combined.

TABLE 8b. Males, continued

Cause of Death	Aleutians & Pribilofs	Anchorage/ MatSu	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/ PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Statewide
Pneumonia & Influenza	-	23.4	41.9	-	-	-	52.9	-	-	-	-	-	51.7	33.1
Septicemia	-	22.2	-	-	-	-	-	-	-	-	-	-	-	12.6
Suicide	-	↓29.1	39.6	105.6	-	-	70.3	35.1	-	↑127.8	↑120.1	↓17.7	↑106.7	62.8
Unintentional Injury	151.9	115.9	113.7	198.9	↑280.9	151.9	150.2	87.7	102.8	↑246.7	188.5	↓91.0	141.6	143.7
Total - All Causes	1138.5	1251.2	1188.8	↑1843.7	1281.8	1203.2	1140.7	1324.9	1202.6	↑1519.4	157.5	↓969.9	1267.5	1212.3

↑↓ Rate is significantly higher or lower than the rate for the rest of AN regions combined.

TABLE 8c. **Age-Adjusted Rates for Leading Causes of Death**
Data Source: State of Alaska
Bureau of Vital Statistics
Alaska Natives By Service Region (2004-2008)
Females

Cause of Death	Aleutians & Pribilofs	Anchorage/ MatSu	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/ PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Statewide
Alcohol Abuse	-	33.8	24.8	-	-	-	↑ 82.0	-	-	-	50.6	24.3	24.5	36.1
Alzheimer's Disease	-	14.4	-	-	-	-	37.3	-	-	-	-	19.8	-	19.8
Cancer	285.1	↓ 159.4	249.2	183.5	227.4	-	232.2	263.8	307.1	↑ 297.7	218.4	161.6	247.4	203.7
Cerebrovascular Disease	-	↓ 34.7	72.7	110.1	-	-	59.5	-	-	-	-	52.5	↑ 103.2	54.9
Chronic Liver Disease	-	↑ 40.6	32.5	-	-	-	19.0	-	-	-	-	14.3	-	22.2
COPD	-	59.4	70.1	↑ 196.2	72.1	-	36.3	69.2	-	-	52.0	42.5	42.5	55.5
Diabetes	-	17.7	-	-	-	-	22.2	-	-	-	-	21.8	-	15.7
Heart Disease	257.4	121.0	184.5	↑ 335.8	150.1	213.3	↓ 81.8	↑ 223.4	-	90.6	132.5	128.1	121.8	129.6
Homicide	-	-	-	-	-	-	-	-	-	-	-	-	↑ 20.4	7.8
Hypertension	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5
Perinatal Conditions	-	-	-	-	-	-	-	-	-	-	-	-	6.2	3.3

↑↓ Rate is significantly higher or lower than the rate for the rest of AN regions combined.

TABLE 8c. Females, continued

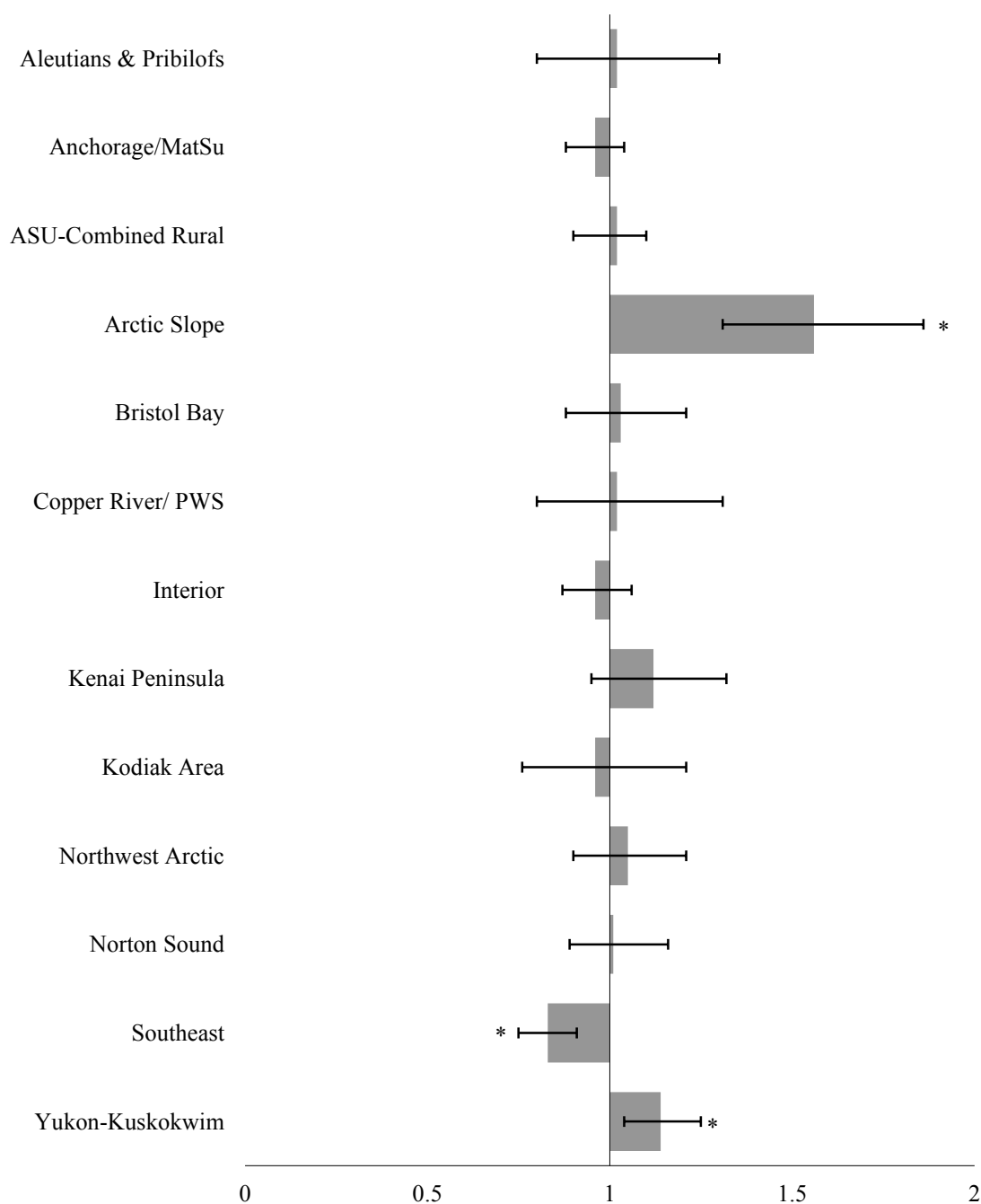
Cause of Death	Aleutians & Pribilofs	Anchorage/ MatSu	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/ PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Statewide
Pneumonia & Influenza	-	15.8	-	-	-	-	-	-	-	-	-	-	↑42.7	22.0
Septicemia	-	10.6	-	-	-	-	-	-	-	-	-	21.2	-	12.5
Suicide	-	26.6	-	-	-	-	13.2	-	-	-	-	17.9	20.0	21.4
Unintentional Injury	-	53.3	31.2	-	64.8	-	71.2	-	-	55.2	63.9	50.2	47.4	53.0
Total - All Causes	965.9	862.1	941.0	↑1294.1	863.5	987.4	893.2	1009.2	759.2	↓762	849.2	794.2	↑1031.2	886.2

↑↓ Rate is significantly higher or lower than the rate for the rest of AN regions combined.

FIGURE 45.

Data Source: Table 8a.

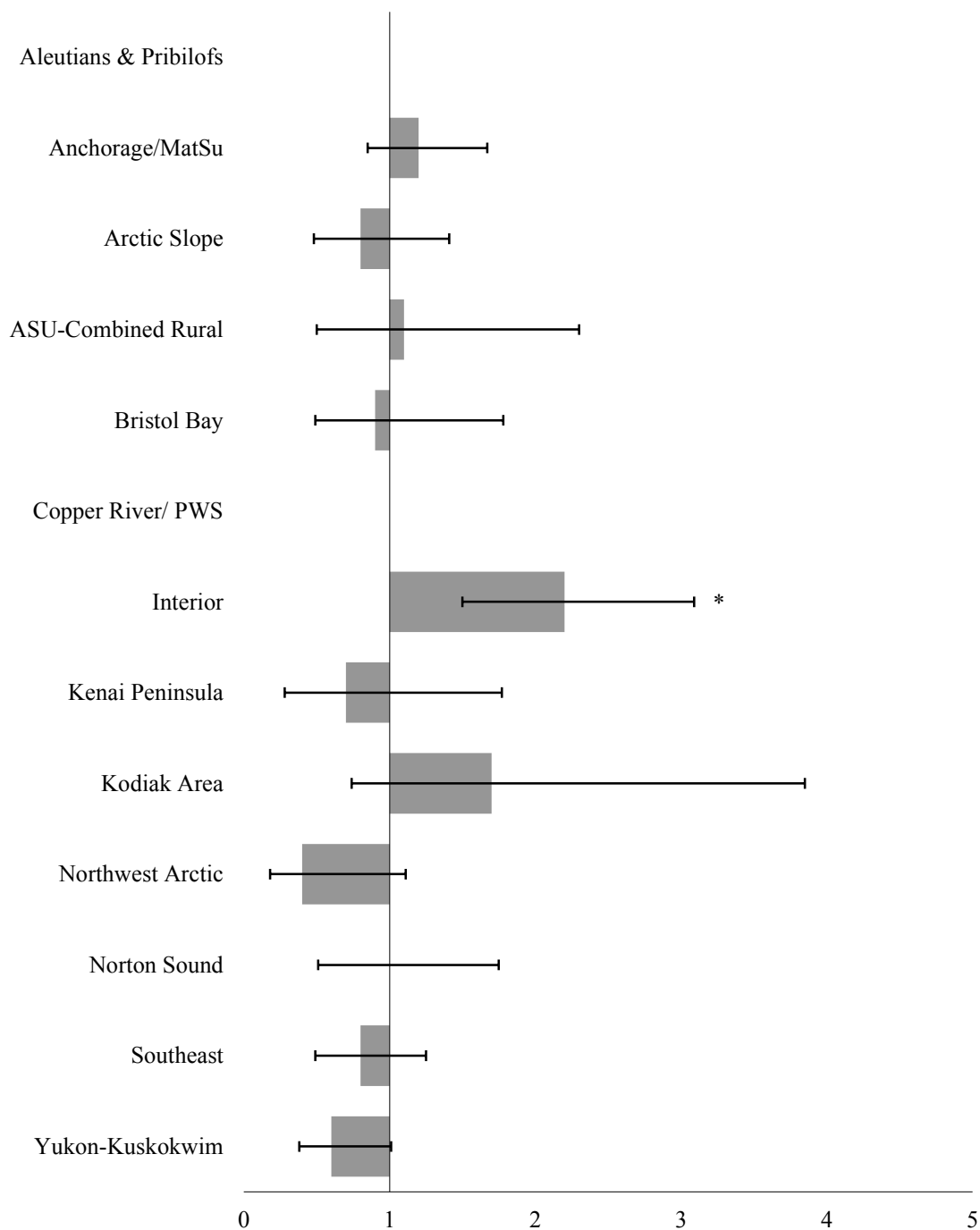
Rate Ratios of All-Cause Mortality
Each Service Region vs All Other Regions Combined
Alaska Natives (2004-2008)
Both Genders



* 95% CI does not include 1.

FIGURE 46.
Data Source: Table 8a.

**Rate Ratios of Alcohol Abuse Mortality
Each Service Region vs All Other Regions Combined
Alaska Natives (2004-2008)
Both Genders**



* 95% CI does not include 1.

FIGURE 47.
Data Source: Table 8a.

**Rate Ratios of Alzheimer's Disease Mortality
Each Service Region vs All Other Regions Combined
Alaska Natives (2004-2008)**

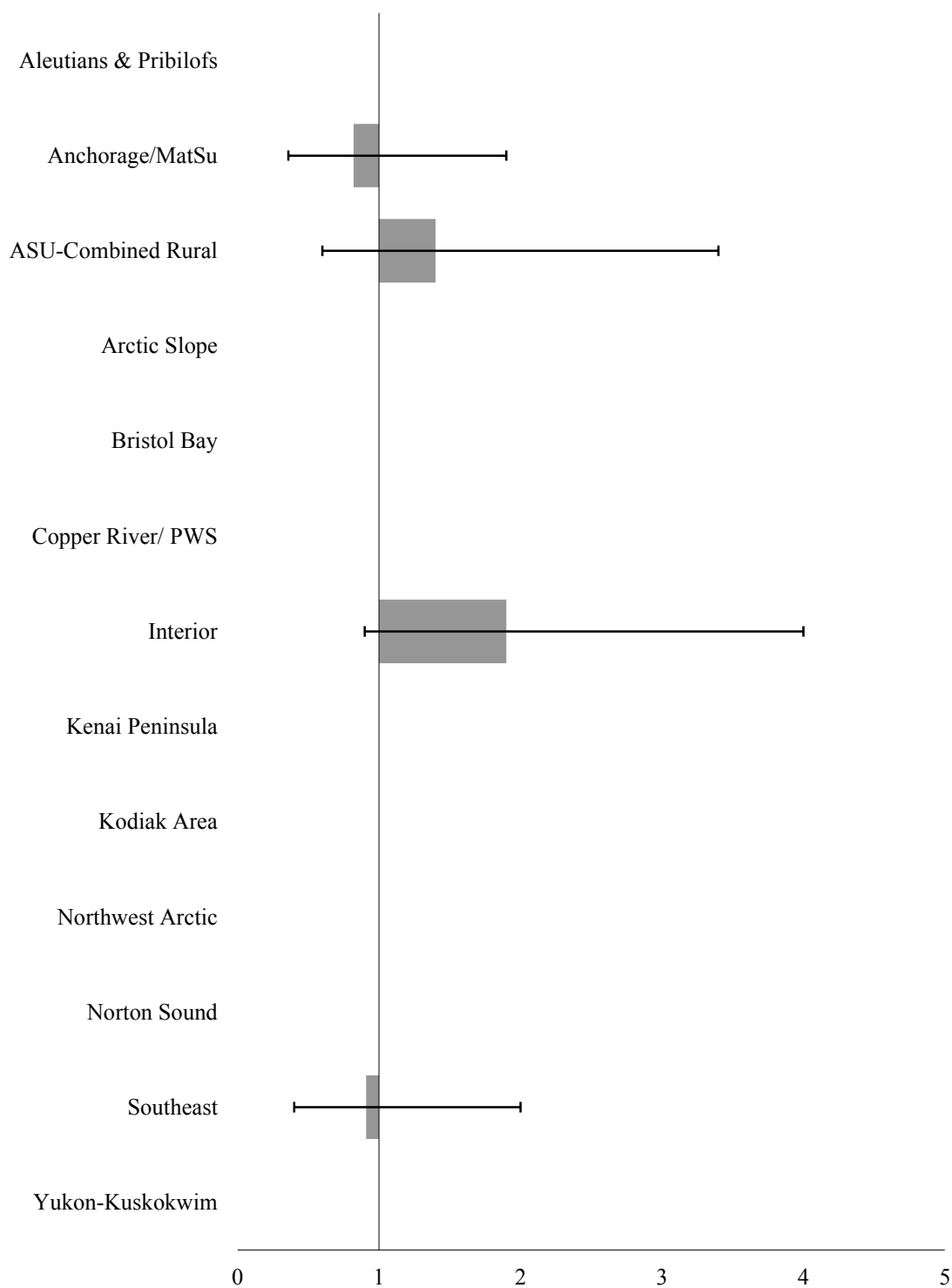
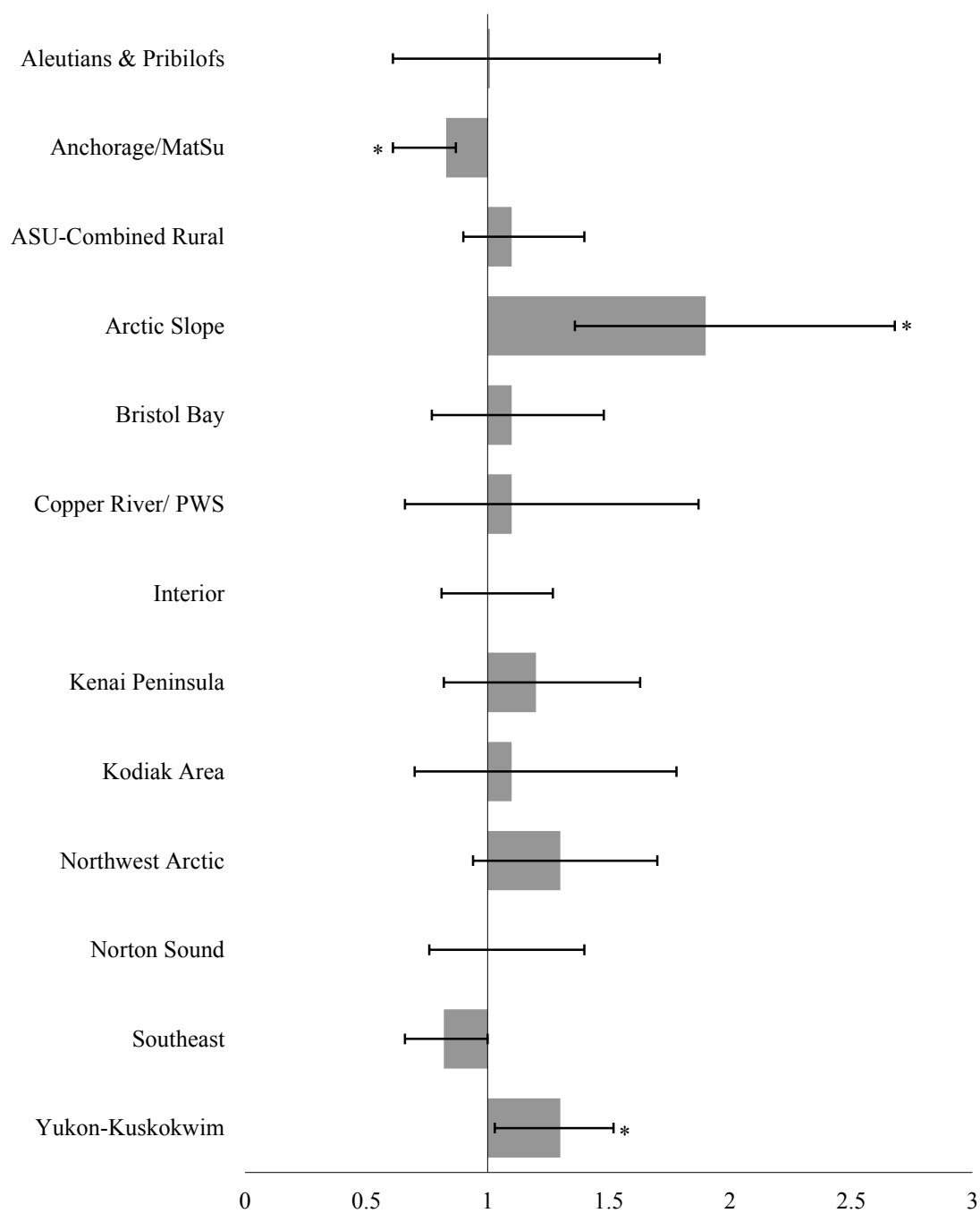


FIGURE 48.

Data Source: Table 8a.

Rate Ratios of Cancer Mortality
Each Service Region vs All Other Regions Combined
Alaska Natives (2004-2008)
Both Genders

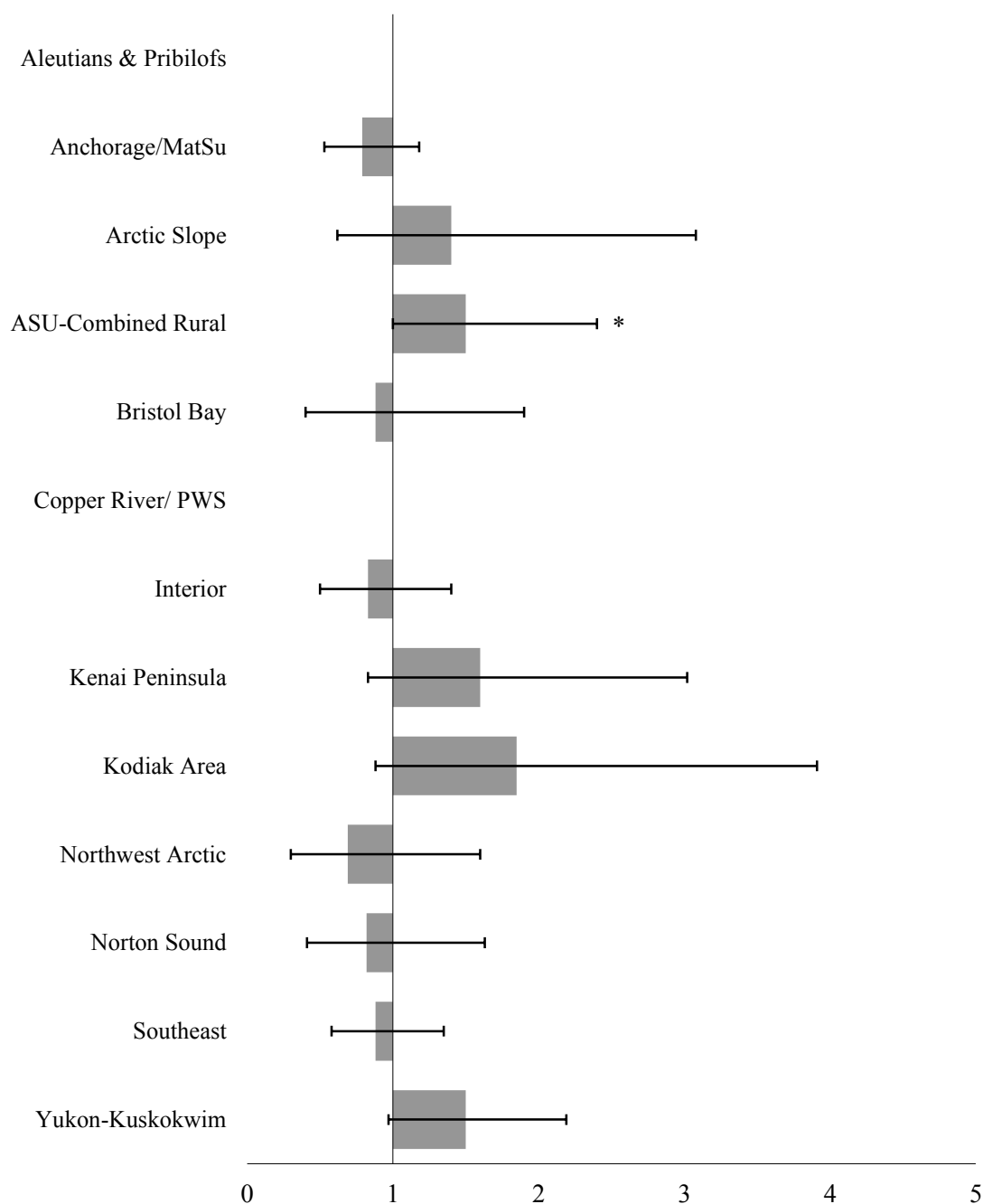


* 95% CI does not include 1.

FIGURE 49.

Data Source: Table 8a.

Rate Ratios of Cerebrovascular Disease Mortality
Each Service Region vs All Other Regions Combined
Alaska Natives (2004-2008)
Both Genders

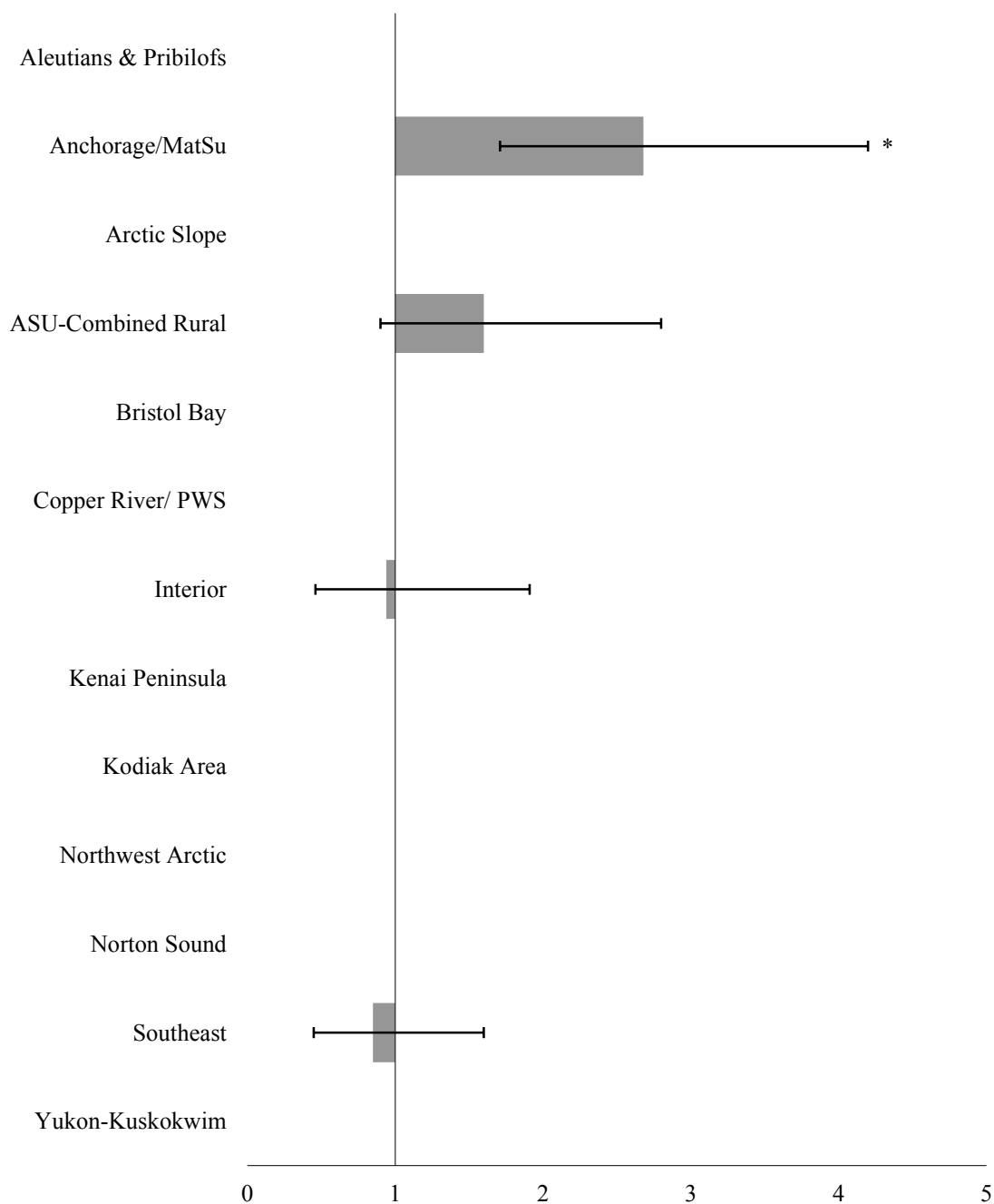


* 95% CI does not include 1.

FIGURE 50.

Data Source: Table 8a.

Rate Ratios of Chronic Liver Disease Mortality
Each Service Region vs All Other Regions Combined
Alaska Natives (2004-2008)
Both Genders

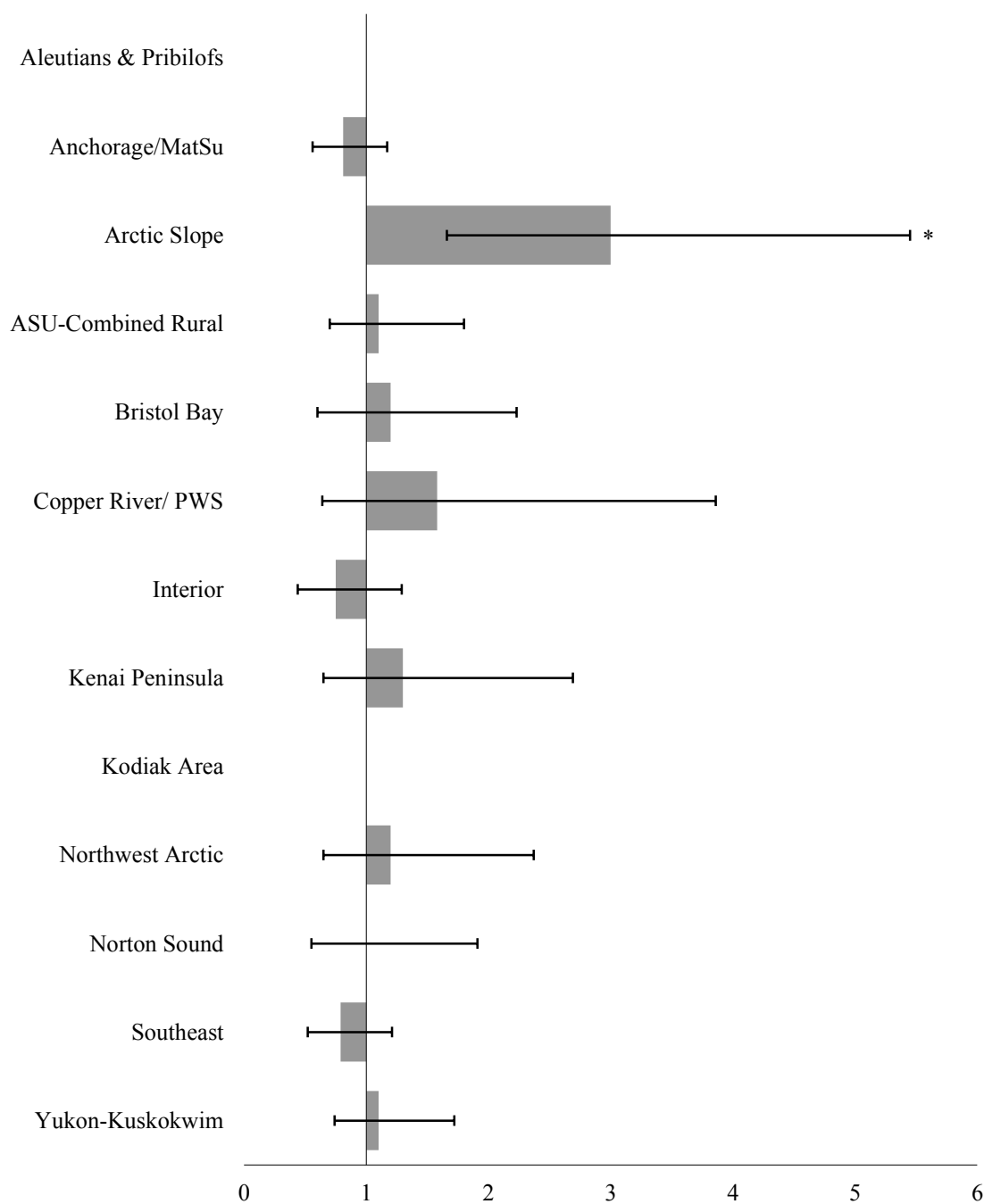


* 95% CI does not include 1.

FIGURE 51.

Data Source: Table 8a.

Rate Ratios of COPD Mortality
Each Service Region vs All Other Regions Combined
Alaska Natives (2004-2008)
Both Genders

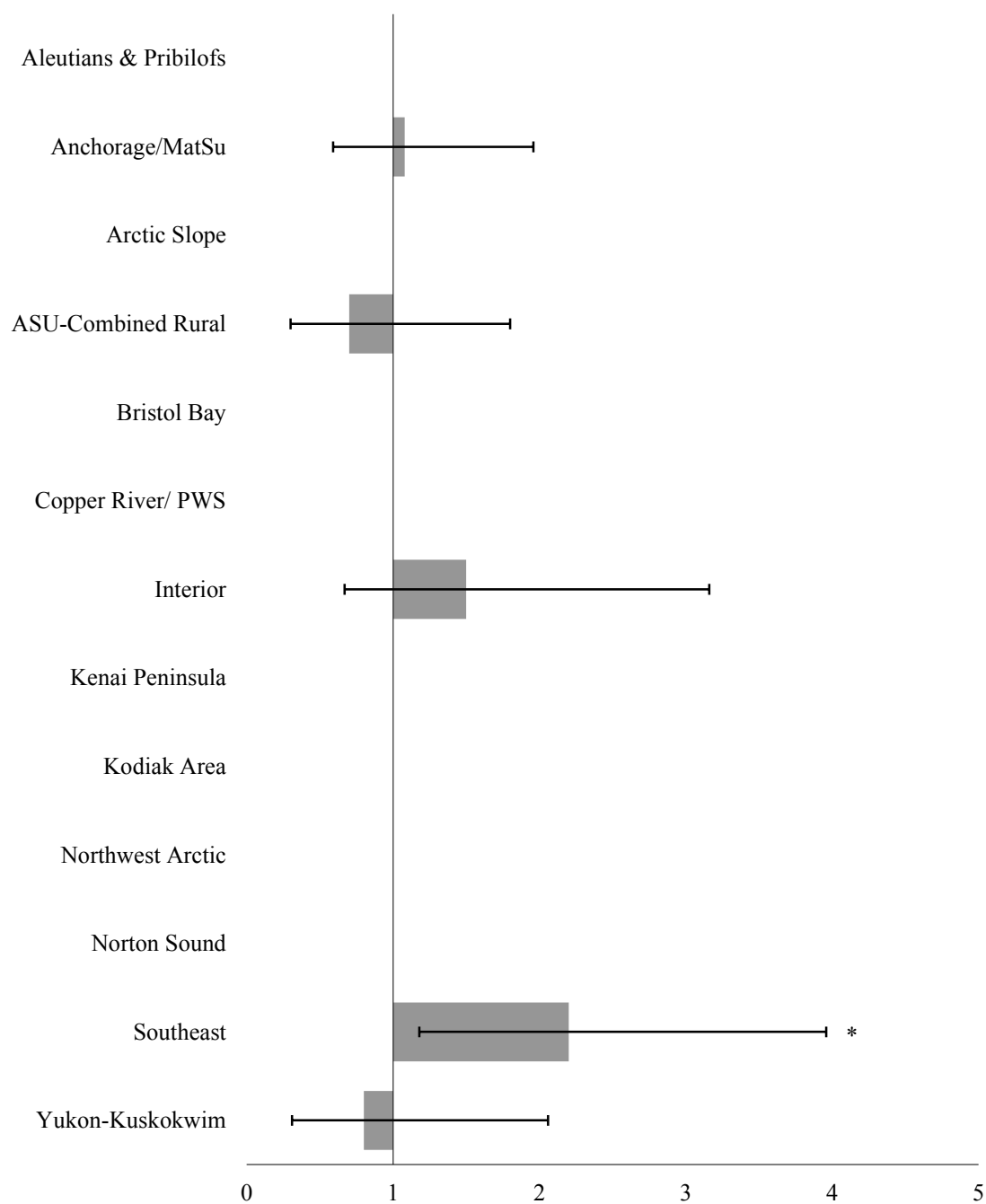


* 95% CI does not include 1.

FIGURE 52.

Data Source: Table 8a.

Rate Ratios of Diabetes Mellitus Mortality
Each Service Region vs All Other Regions Combined
Alaska Natives (2004-2008)
Both Genders

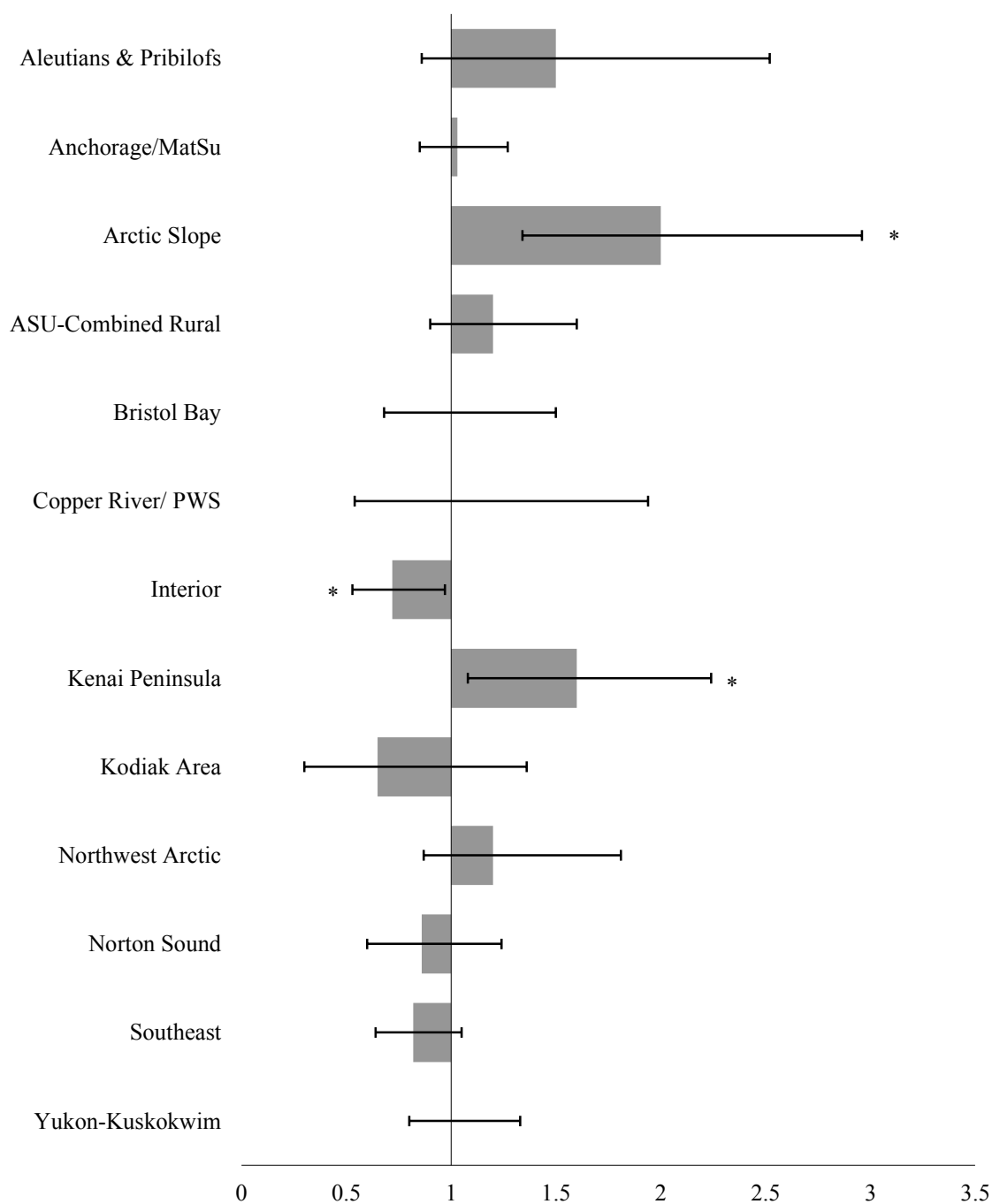


* 95% CI does not include 1.

FIGURE 53.

Data Source: Table 8a.

Rate Ratios of Heart Disease Mortality
Each Service Region vs All Other Regions Combined
Alaska Natives (2004-2008)
Both Genders

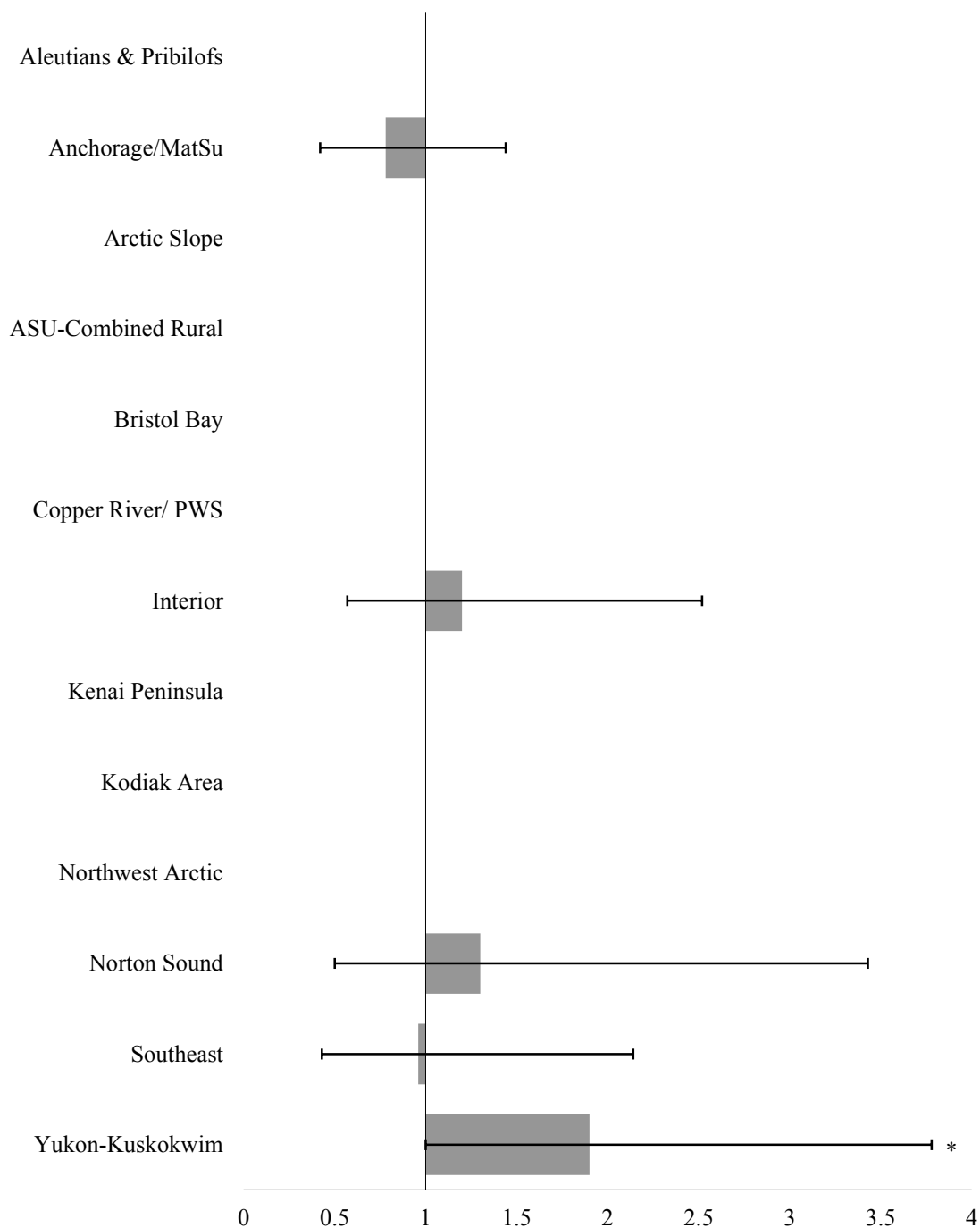


* 95% CI does not include 1.

FIGURE 54.

Data Source: Table 8a.

Rate Ratios of Homicide Mortality
Each Service Region vs All Other Regions Combined
Alaska Natives (2004-2008)
Both Genders



* 95% CI does not include 1.

FIGURE 55.

Data Source: Table 8a.

Rate Ratios of Hypertension Mortality
Each Service Region vs All Other Regions Combined
Alaska Natives (2004-2008)
Both Genders

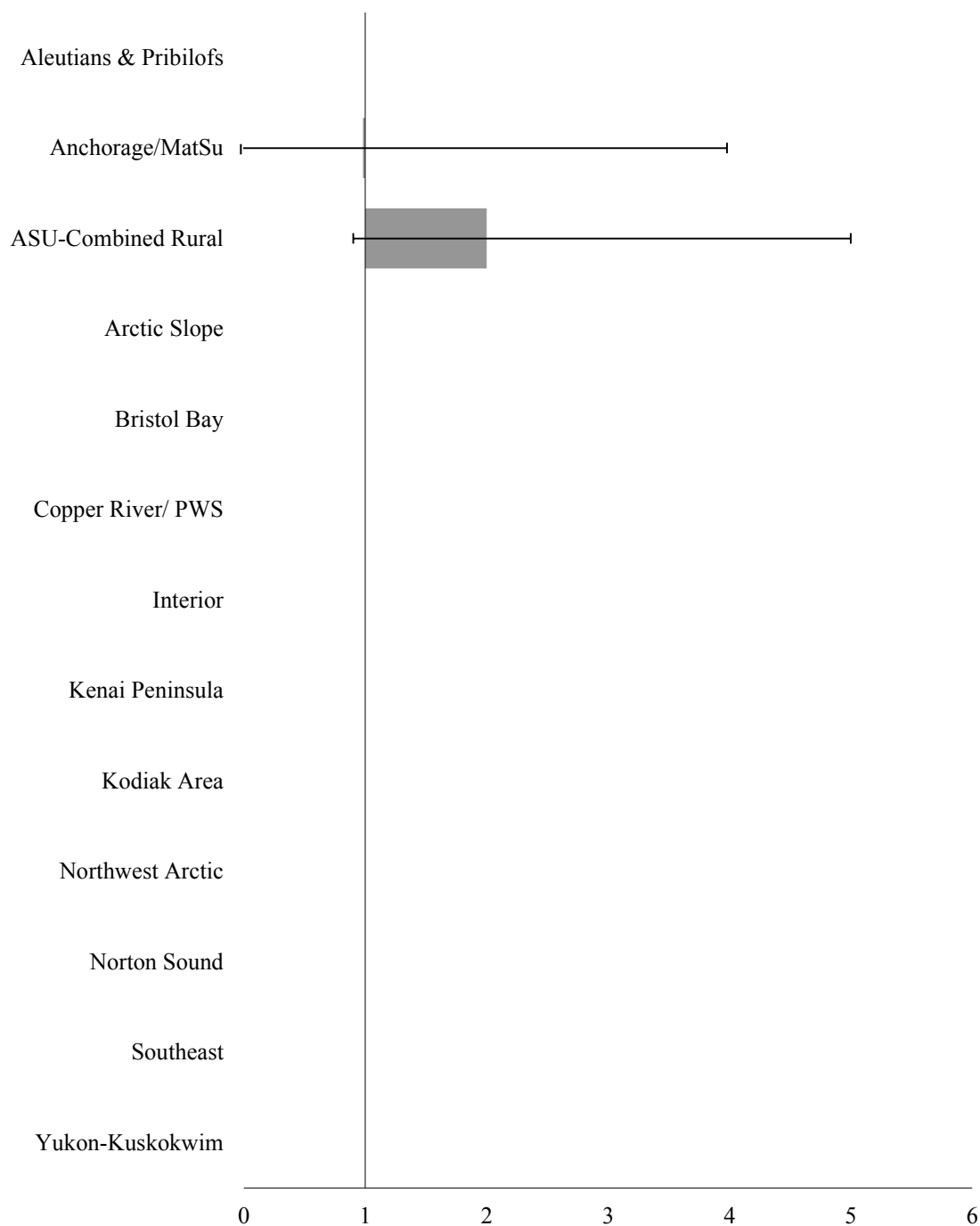


FIGURE 56.
Data Source: Table 8a.

**Rate Ratios of Perinatal Conditions Mortality
Each Service Region vs All Other Regions Combined
Alaska Natives (2004-2008)
Both Genders**

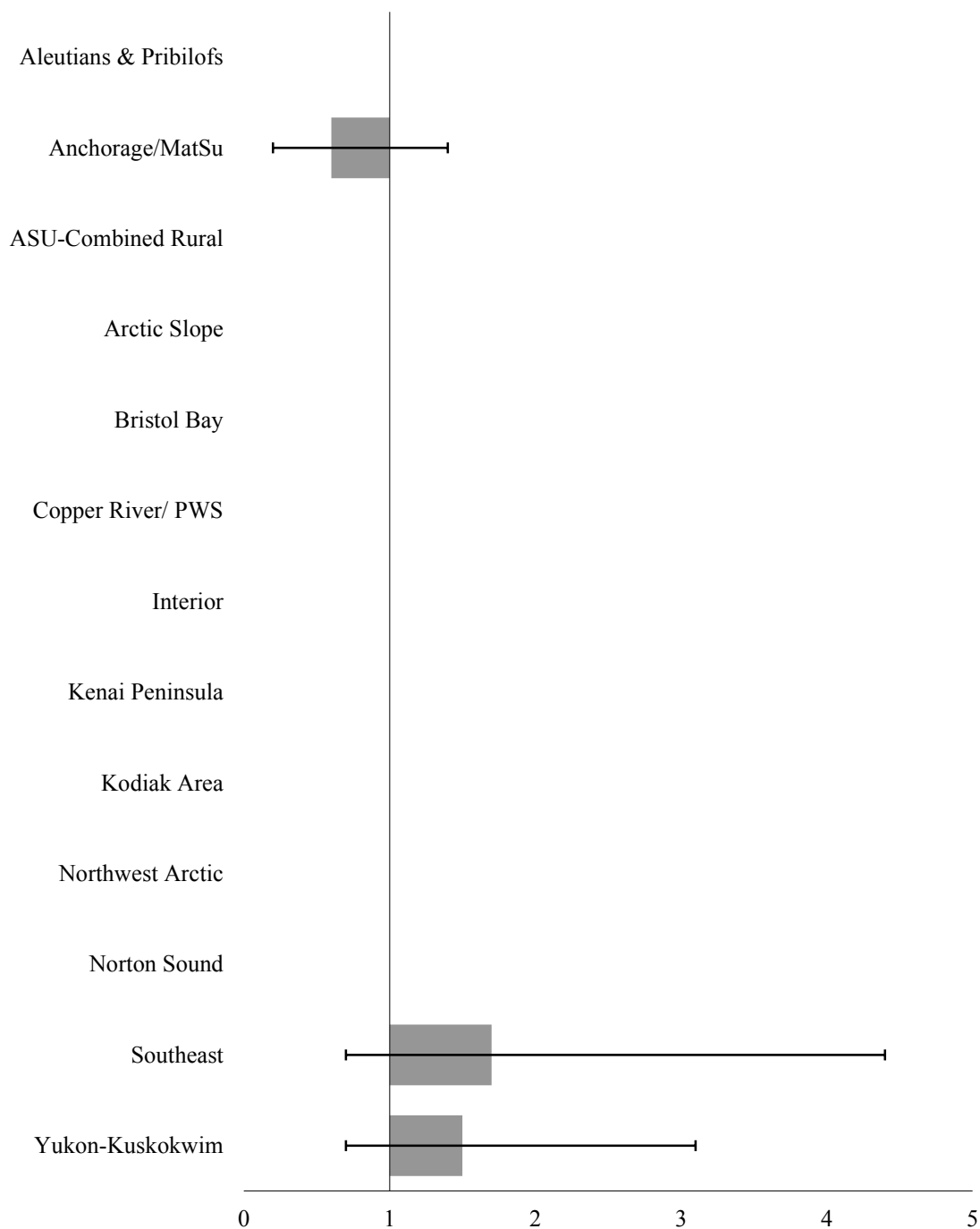
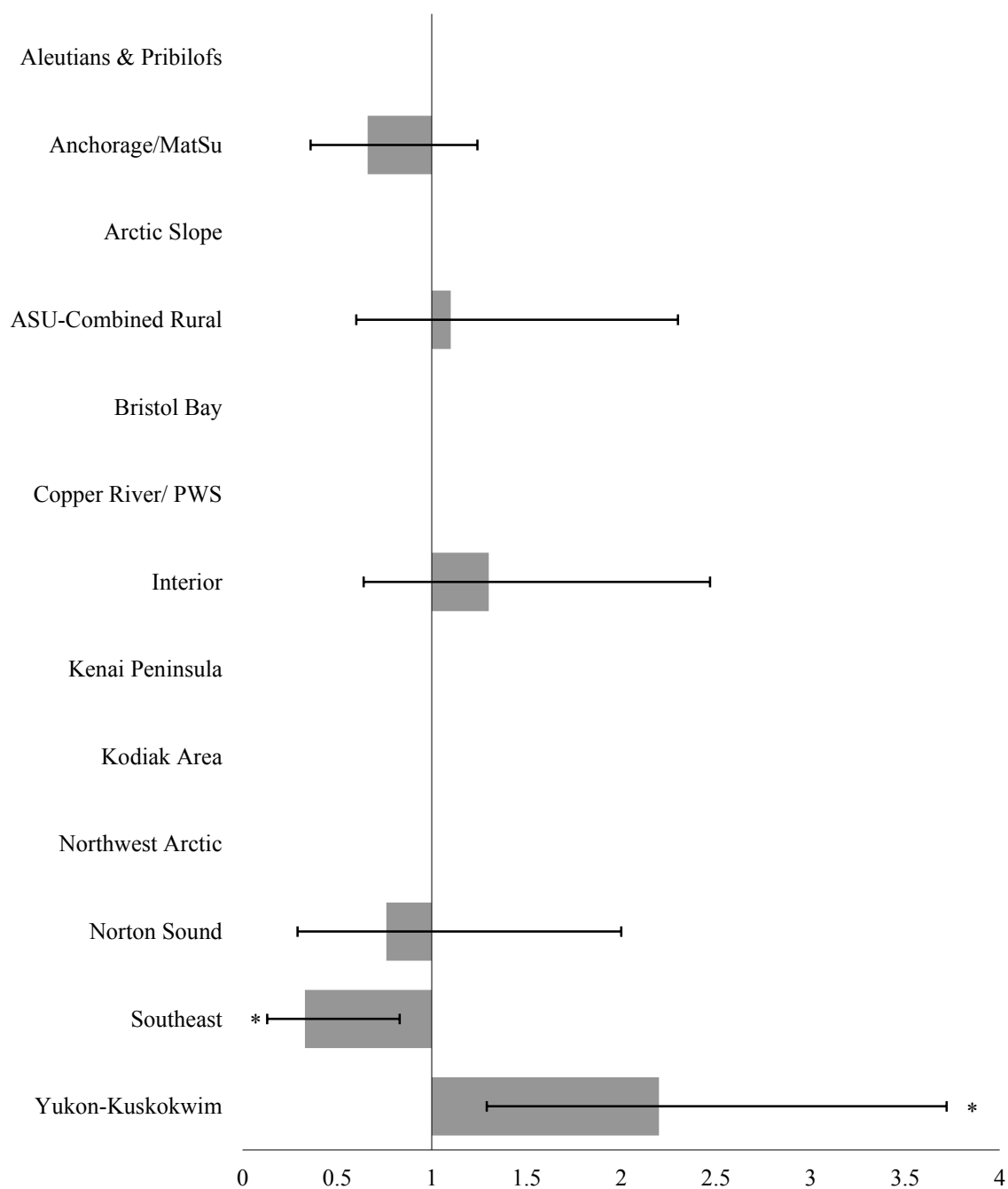


FIGURE 57.

Data Source: Table 8a.

Rate Ratios of Pneumonia & Influenza Mortality
Each Service Region vs All Other Regions Combined
Alaska Natives (2004-2008)
Both Genders



* 95% CI does not include 1.

FIGURE 58.

Data Source: Table 8a.

Rate Ratios of Septicemia Mortality
Each Service Region vs All Other Regions Combined
Alaska Natives (2004-2008)
Both Genders

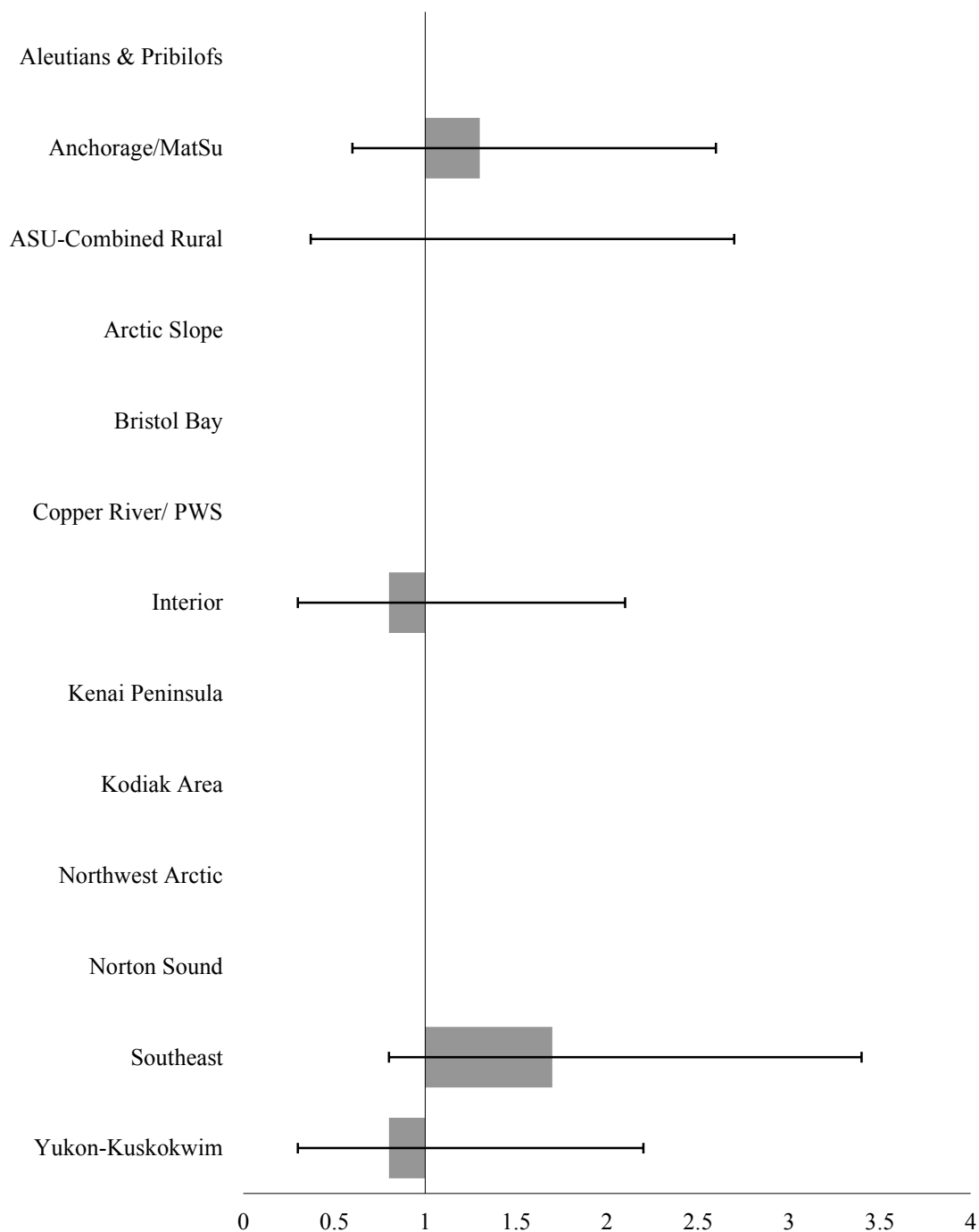
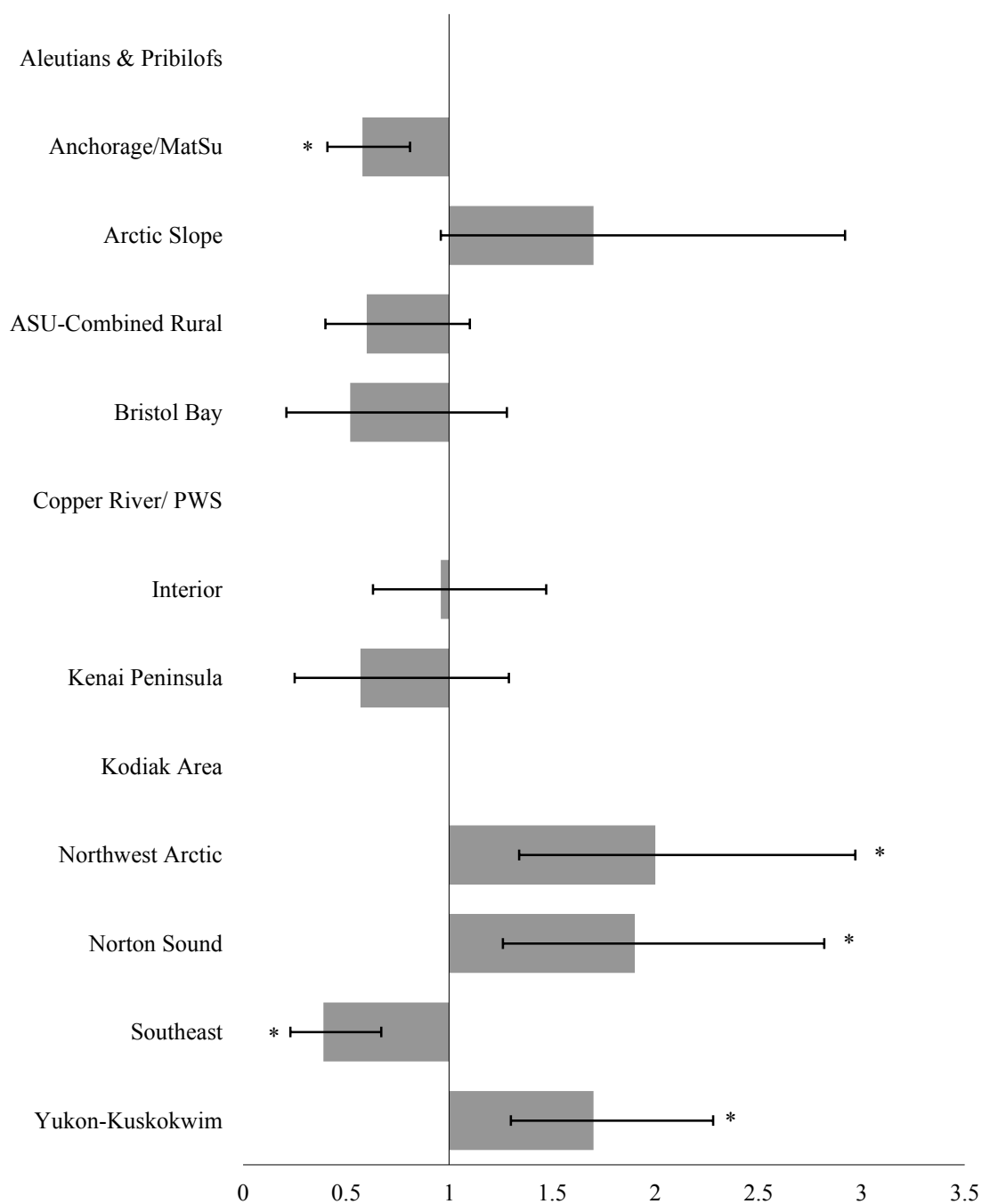


FIGURE 59.

Data Source: Table 8a.

Rate Ratios of Suicide Mortality
Each Service Region vs All Other Regions Combined
Alaska Natives (2004-2008)
Both Genders

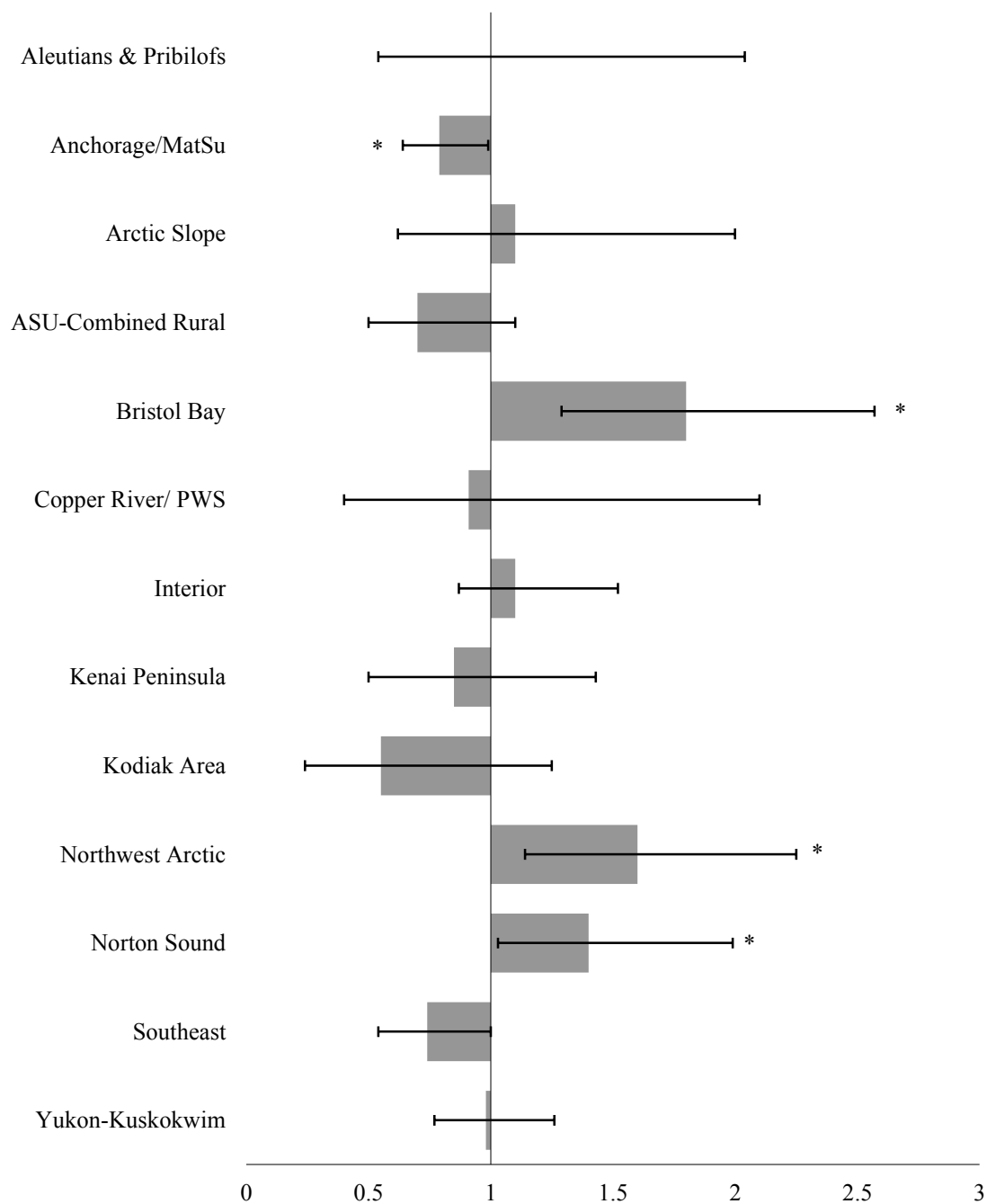


* 95% CI does not include 1.

FIGURE 60.

Data Source: Table 8a.

**Rate Ratios of Unintentional Injury Mortality
Each Service Region vs All Other Regions Combined
Alaska Natives (2004-2008)
Both Genders**



* 95% CI does not include 1.

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TRENDS OVER TIME

Highlights

- Alaska Native all-cause mortality rates declined 16% between the 1980-1983 time period and the most recent five year period, 2004-2008. A decline in all-cause mortality has occurred in every 5 year period. The greatest decline occurred between 1999-2003 and 2004-2008. U.S. White all-cause mortality declined 21% between 1980-1983 and 2004-2006.
- Alaska Native cancer mortality rates did not change significantly between the 1980-1983 time period and the most recent five year period, 2004-2008. U.S. White rates significantly declined by 11% between 1980-1983 and 2004-2006.
- Alaska Native heart disease mortality rates declined 38% between the 1980-1983 time period and the most recent five year period, 2004-2008. U.S. White rates declined 48% between 1980-1983 and 2004-2006.
- Alaska Native unintentional injury mortality rates declined 47% between the 1980-1983 time period and the most recent five year period, 2004-2008. U.S. White rates declined 6%.
- Alaska Native suicide rates did not change significantly between the 1980-1983 time period and the most recent five year period, 2004-2008. U.S. White rates declined 8% between 1980-1983 and 2004-2006.
- Alaska Native alcohol abuse mortality rates increased 34% between the 1980-1983 time period and the most recent five year period. U.S. White rates increased 20% between 1980-1983 and 2004-2006.
- Alaska Native chronic obstructive pulmonary disease mortality rates rose 119% between the 1980-1983 time period and the most recent five year period, 2004-2008. U.S. White rates increased 43% between 1980-1983 and 2004-2006.
- Alaska Native cerebrovascular disease mortality rates did not change significantly between the 1980-1983 time period and the most recent five year period, 2004-2008. U.S. White rates declined 48% between 1980-1983 and 2004-2006.
- Alaska Native chronic liver disease and cirrhosis mortality rates declined 36% between the 1980-1983 time

period and the most recent five year period, 2004-2008. U.S. White rates declined 29% between 1980-1983 and 2004-2006.

- Alaska Native pneumonia and influenza mortality rates declined 51% between the 1980-1983 time period and the most recent five year period, 2004-2008. U.S. White rates declined 35% between 1980-1983 and 2004-2006.
- Alaska Native homicide rates declined 70% between the 1980-1983 time period and the most recent five year period, 2004-2008. U.S. White rates declined 39% between 1980-1983 and 2004-2006.

period from the rate for the most recent time period and dividing by the rate for the first time period. Rates over time were reported for both Alaska Native people and U. S. Whites.

Figures 60-70 show line graphs of the rates of death for leading causes by five year time periods for both Alaska Native people and U. S. Whites. Data for these figures comes from Table 9.

Overview

Table 9 in this section reports changes in mortality rates over the twenty-nine year period, 1980 to 2008. Mantel-Haenszel Chi-square tests for trend stratified by age group were used to test for a significant trend over time.

Percentage change between the 1980 to 1983 time period and the 2004 to 2008 time period was calculated by subtracting the rate for the first time

TABLE 9.

Age-Adjusted^b Mortality Rates for Leading Causes of Death
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006) for 5-Year Intervals

	Time Period	Cancer	Heart Disease	Unintentional Injury	Suicide	Alcohol Abuse	COPD	Cerebrovascular Disease	Chronic Liver Disease	Pneumonia & Influenza	Homicide	All Causes
Alaska Natives	1980-1983 ^a	224.3	270.9	184.1	41.8	28.8	26.2	64.5	28.1	52.2	36.8	1234.0
	1984-1988	243.3	288.1	174.0	49.5	23.2	44.5	65.1	20.4	60.5	23.0	1226.5
	1989-1993	245.4	271.9	133.1	46.8	20.6	58.4	67.5	26.8	56.2	19.3	1202.1
	1994-1998	248.9	252.0	111.7	42.8	31.7	68.3	84.1	18.3	39.6	16.1	1151.6
	1999-2003	239.5	211.6	107.4	34.7	40.9	63.0	66.5	19.4	35.8	17.3	1111.6
	2004-2008	226.3	169.0	97.7	42.3	38.7	57.3	56.7	18.0	25.5	11.2	1033.3
	% Change ^d	NS ^c	-38%	-47%	NS ^c	34%	119%	NS ^c	-36%	-51%	-70%	-16%
US Whites	1980-1983 ^a	203.9	395.1	42.6	13.1	2.0	30.5	85.4	12.9	29.2	6.2	982.7
	1984-1988	207.6	362.5	39.1	13.5	1.9	35.8	72.0	11.3	34.2	5.3	955.8
	1989-1993	209.9	310.2	35.5	13.0	2.2	39.2	61.5	10.3	34.6	5.6	898.6
	1994-1998	202.9	280.2	35.1	12.4	2.3	42.2	59.6	9.6	33.2	4.7	867.5
	1999-2003	193.5	243.6	36.4	11.6	2.2	45.8	55.6	9.6	22.5	4.0	834.6
	2004-2006 ^e	182.4	205.1	39.9	12.0	2.4	43.7	44.5	9.2	19.0	3.8	776.6
	% Change ^d	-11%	-48%	-6%	-8%	20%	43%	-48%	-29%	-35%	-39%	-21%

% Change = (Rate of 2004-2008 - Rate of 1980-1983)/Rate of 1980-1983

^a 1980-1983 time period contains only four years

^b Age-adjusted to the US 2000 Standard population

^c NS means that there was no significant difference at p<0.05

^d A value for % change is given only when a Chi-square test for trend had significance at p<0.05.

^e 2004-2006 time period contains only 3 years

FIGURE 61.
Data Source: Table 9.

**Age-Adjusted Mortality Rates for All Causes
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
by Time Intervals**

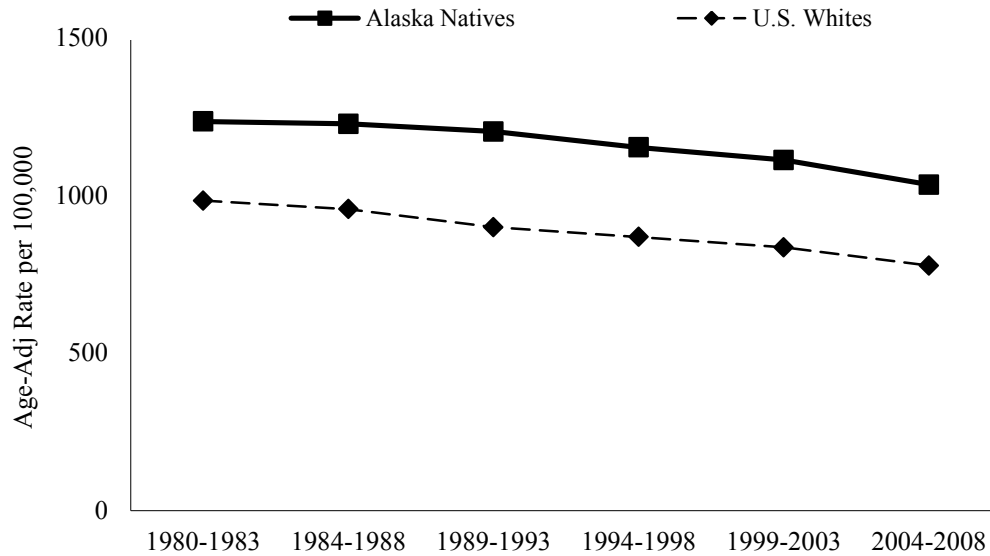


FIGURE 62.
Data Source: Table 9.

**Age-Adjusted Mortality Rates for Alcohol Abuse
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
by Time Intervals**

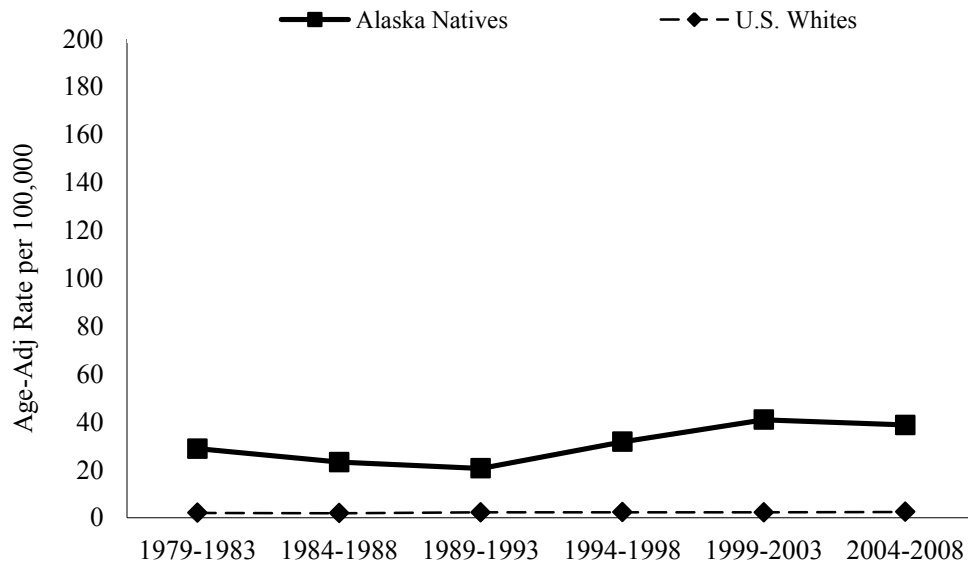


FIGURE 63.
Data Source: Table 9.

Age-Adjusted Mortality Rates for Cancer
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
by Time Intervals

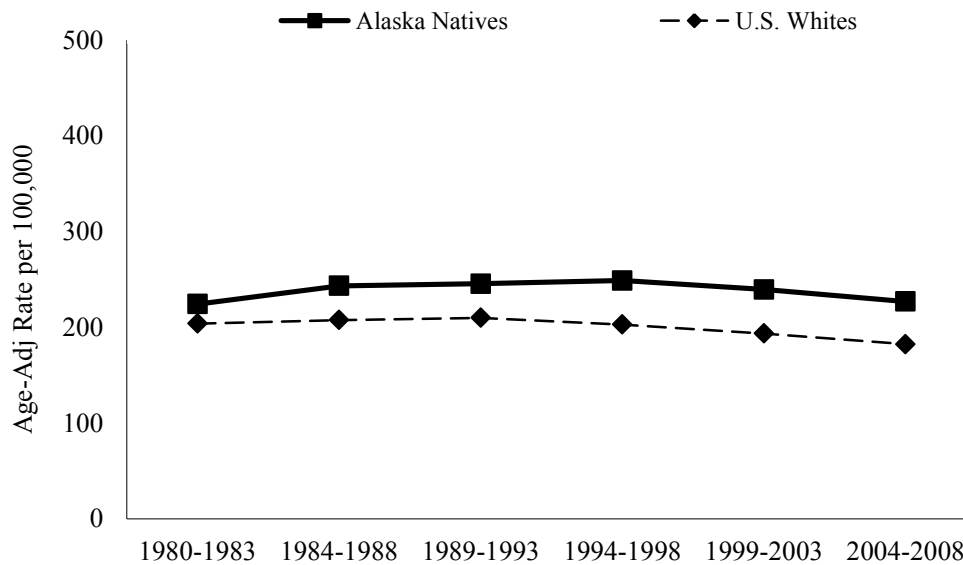


FIGURE 64.
Data Source: Table 9.

Age-Adjusted Mortality Rates for Cerebrovascular Disease
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
by Time Intervals

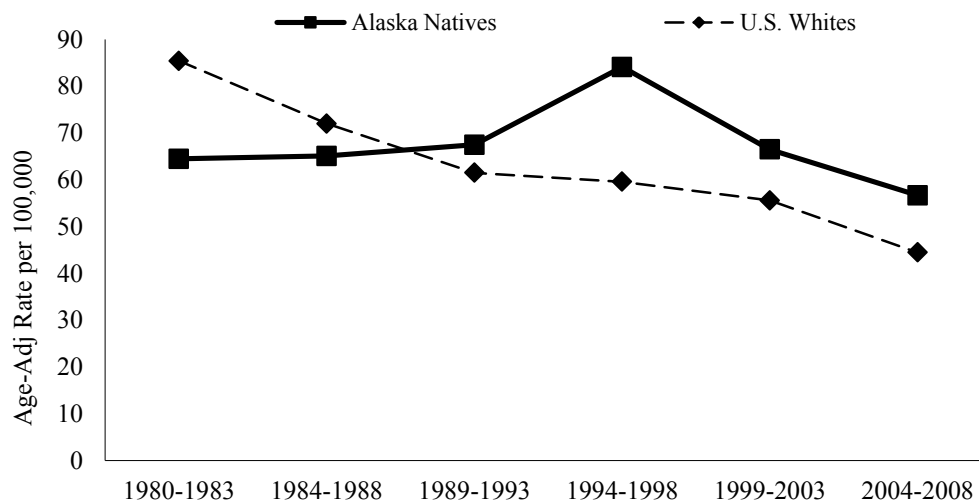


FIGURE 65.
Data Source: Table 9.

**Age-Adjusted Mortality Rates for
Chronic Liver Disease**
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
by Time Intervals

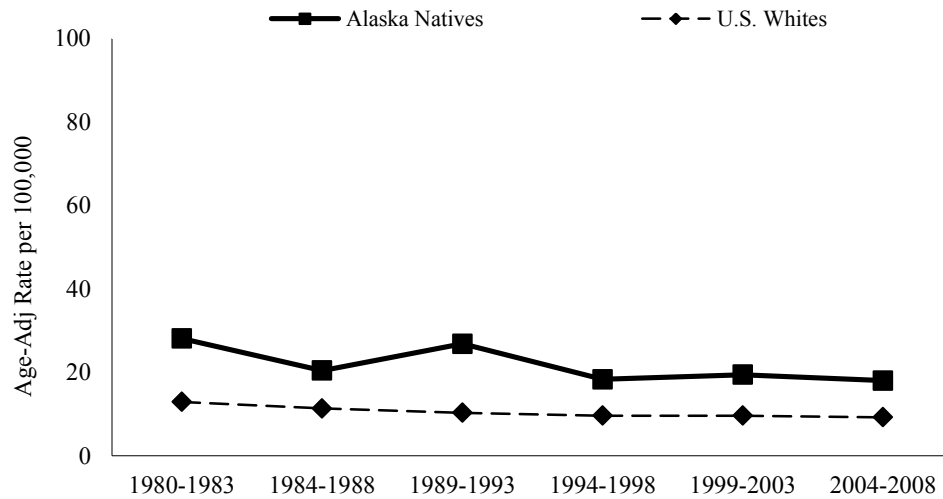


FIGURE 66.
Data Source: Table 9.

Age-Adjusted Mortality Rates for COPD
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
by Time Intervals

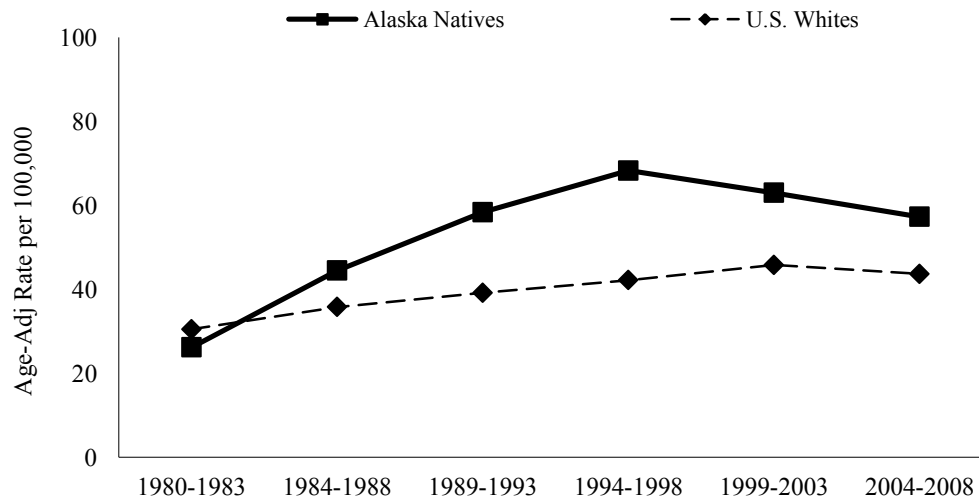


FIGURE 67. Age-Adjusted Mortality Rates for Heart Disease
 Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
 by Five Year Intervals

Data Source: Table 9.

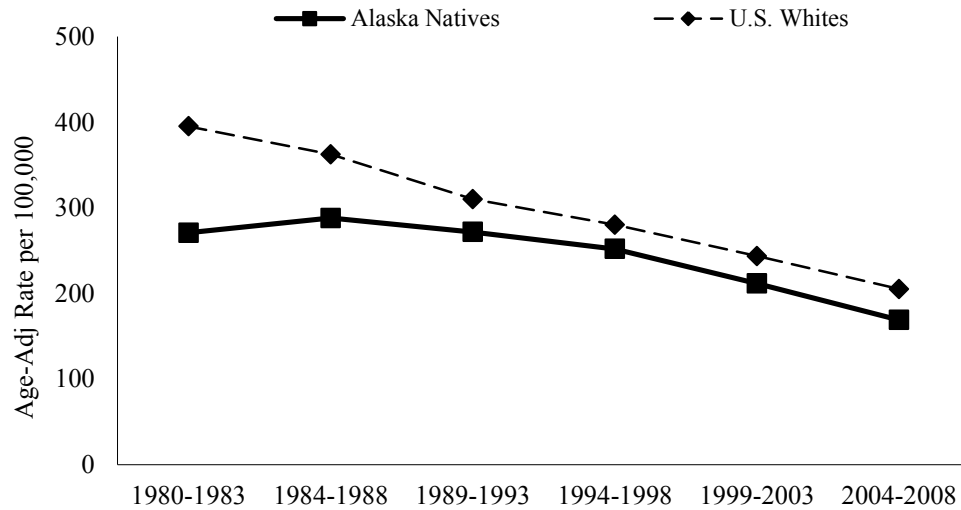


FIGURE 68. Age-Adjusted Mortality Rates for Homicide
 Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
 by Five Year Intervals

Data Source: Table 9.

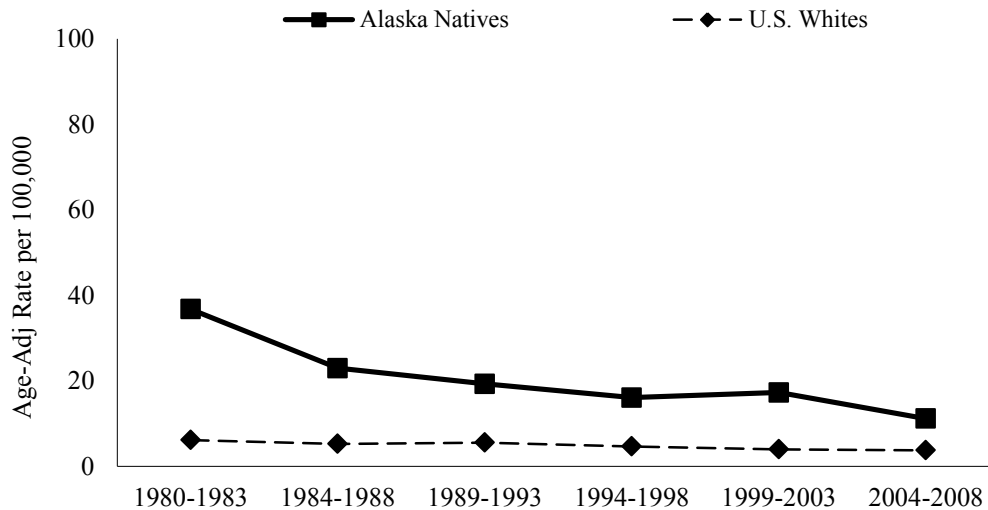


FIGURE 69.
Data Source: Table 9.

**Age-Adjusted Mortality Rates for
Pneumonia & Influenza**
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
by Time Intervals

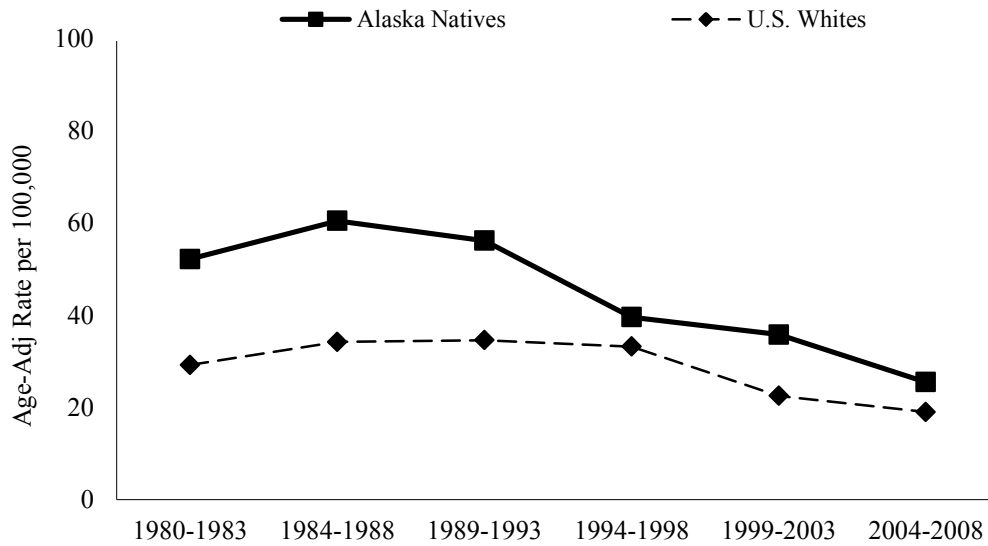


FIGURE 70.
Data Source: Table 9.

Age-Adjusted Mortality Rates for Suicide
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
by Time Intervals

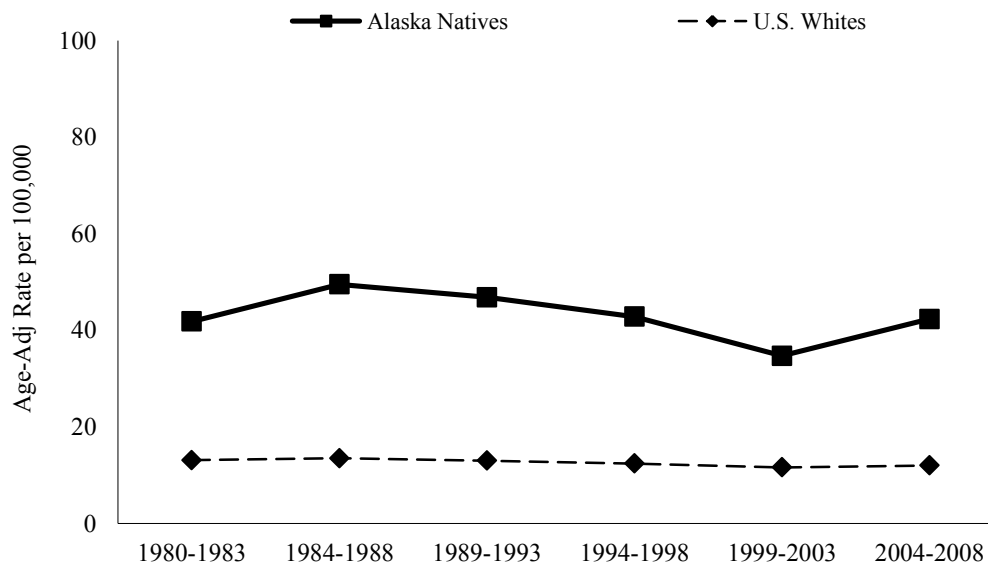
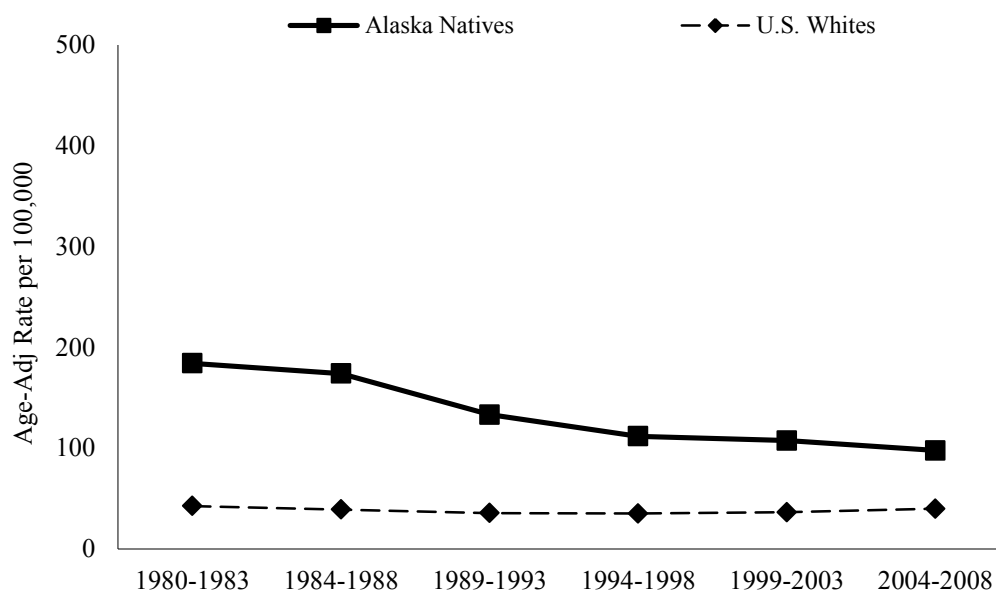


FIGURE 71.
Data Source: Table 9.

**Age-Adjusted Mortality Rates for
Unintentional Injury
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
by Time Intervals**



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REGIONAL TRENDS OVER TIME

Highlights

- Alaska Native people in the Aleutians & Pribilofs service region experienced a decline in unintentional injury (74%), heart disease (72%), and all-cause (51%) mortality rates between 1980-1983 and 2004-2008.
- Alaska Native people in the Anchorage/MatSu service region had consistently higher rates of chronic liver disease mortality than rates for the state as a whole over the period, 1980-1983 to 2004-2008. Rates were consistently lower for suicide and unintentional injury mortality. Rates for pneumonia & influenza (90%) and homicide (75%) mortality declined between 1980-1983 and 2004-2008.
- Alaska Native people in the ASU-Combined Rural service region had consistently higher mortality rates for cancer, chronic liver disease, and heart disease than rates for the state as a whole over the period, 1980-1983 to 2004-2008. Mortality rates for unintentional injury (71%), chronic liver disease (54%), and heart disease (53%) declined between 1980-1983 and 2004-2008.
- Alaska Native people in the Arctic Slope service region had consistently higher rates of cancer mortality than rates for the state as a whole over the period, 1980-1983 to 2004-2008, and consistently higher COPD mortality rates from 1989-1993 to 2004-2008. The Arctic Slope service region experienced an increase in suicide (112%) mortality rates between 1984-1988 and 2004-2008.
- Alaska Native people in the Bristol Bay service region had consistently higher rates of unintentional injury mortality than rates for the state as a whole over the period, 1980-1983 to 2004-2008. COPD mortality rates have been consistently higher since 1989-1993. Suicide mortality rates declined 57% during this period.
- Alaska Native people in the Copper River/Prince William Sound service region experienced a 79% decline in unintentional injury mortality rates between 1980-1983 and 2004-2008.
- Alaska Native people in the Interior service region had consistently higher mortality rates from alcohol

abuse than rates for the state as a whole over the period, 1980-1983 to 2004-2008. Mortality rates for homicide (61%), unintentional injury (54%), and heart disease (53%) declined between 1980-1983 and 2004-2008.

- Alaska Native people in the Kenai Peninsula service region had consistently lower rates of unintentional injury mortality than rates for the state as a whole over the period, 1980-1983 to 2004-2008.
- Alaska Native people in the Kodiak Area service region experienced a decline in heart disease (75%) and unintentional injury (74%) and an increase in cancer (170%) mortality rates between 1980-1983 and 2004-2008.
- Alaska Native people in the Northwest service region had consistently higher rates of suicide than rates for the state as a whole, as well as significantly higher rates than the rest of the regions combined for every time point in the period, 1980-1983 to 2004-2008. Mortality rates for alcohol abuse declined 79% between 1980-1983 and 2004-2008.
- Alaska Native people in the Norton Sound service region had consistently higher rates of suicide than rates for the state as a whole, as well as significantly higher rates than the rest of the regions combined for every time point in the period, 1980-1983 to 2004-2008. Rates for homicide (80%), pneumonia & influenza (55%), and heart disease (50%) mortality declined between 1980-1983 and 2004-2008.
- Alaska Native people in the Southeast service region had consistently lower rates of alcohol abuse, cancer, unintentional injuries, and suicide, over the period, 1980-1983 to 2004-2008, and consistently lower rates of COPD mortality over the period 1984-1988 to 2004-2008, than rates for the state as a whole. The COPD rate is not available for 1980-1983. Mortality rates have been consistently higher than the rest of the state for diabetes mellitus over the period 1989-1993 to 2004-2008. Rates for heart disease (64%), homicide (54%), suicide (52%), and cerebrovascular disease (51%) mortality declined between 1980-1983 and 2004-2008.

- Alaska Native people in the Yukon-Kuskokwim service region experienced a decline in unintentional injury (56%) and an increase in suicide (182%) mortality rates between 1980-1983 and 2004-2008.

Overview

This section examines mortality rates over the period 1980 to 2008 for the current leading causes of death in each service region. Rates were not calculated for a cause that had fewer than five cases.

The highlights above list those service regions that had consistently and/or significantly different rates for particular causes of death for every time point in the period, 1980-1983 to 2004-2008. Percentage decreases between 1980-1983 and 2004-2008 of 50% or more, or percentage increases of 100% or more, are also noted.

Tables 10-22b report rates for leading causes of death by service region for the six time periods between 1980 and 2008. Rate ratios were used to compare each

region to all regions combined minus the region of interest. Confidence intervals were calculated around the ratios. Mortality rates for a region were considered to be significantly different from the rest of the state if the confidence interval did not contain one. Significance was denoted in the tables by an up or down arrow indicating a higher or lower rate.

The highlights also note those service regions that had consistently higher or lower rates than the state as a whole for a particular cause of death for every time point in the period, 1980-1983 to 2004-2008. This information is depicted in Figures 72-170 which are line graphs of rates for service regions compared to rates for Alaska Natives statewide, and for U.S. Whites. Graphs were only presented when it was possible to calculate rates for at least three consecutive time periods.

Finally, the highlights note when the rate for a particular cause of death for a service region had a percentage decrease of 50% or more or a percentage increase of 100% or more between 1980-1983 and 2004-2008. Percentage change

between the 1980 to 1983 time period and the 2004 to 2008 time period was calculated by subtracting the rate for the first time period from the rate for the most recent time period and dividing by the rate for the first time period.

This section also contains Tables 10-22a which report counts for leading causes of death over the period 1980 to 2008 by service region. Counts and rates are not reported for fewer than 5 cases, and rates are not calculated.

TABLE 10a. **Counts for Leading Causes of Death Among Alaska Natives**
Aleutians & Pribilofs Service Region
Both Genders

Aleutians & Pribilofs	Cancer	Heart Disease	Unintentional Injury	All Causes
1980-1983 ^a	14	17	32	100
1984-1988	13	18	21	82
1989-1993	12	21	9	81
1994-1998	25	15	13	79
1999-2003	20	6	9	68
2004-2008	17	14	10	75

^a 1980-1983 contains only 4 years

(>5) counts are not reported for fewer than 5 deaths

TABLE 10b. **Age-Adjusted Rates^b for Leading Causes of Death Among Alaska Natives**
Aleutians & Pribilofs Service Region
Both Genders

Aleutians & Pribilofs	Cancer	Heart Disease	Unintentional Injury	All Causes
1980-1983 ^a	310.2	751.9	↑387.5	↑2159.0
1984-1988	197.3	↑581.2	227.9	1425.7
1989-1993	189.6	↑707.4	↓64.0	↑2420.5
1994-1998	530.3	203.8	301.3	1492.5
1999-2003	↑396.0	144.1	84.9	1088.3
2004-2008	230.7	231.0	102.2	1057.3

(-) rates are not reported for fewer than 5 deaths

↑↓ Rate is significantly higher or lower than the rate for the rest of AN regions combined

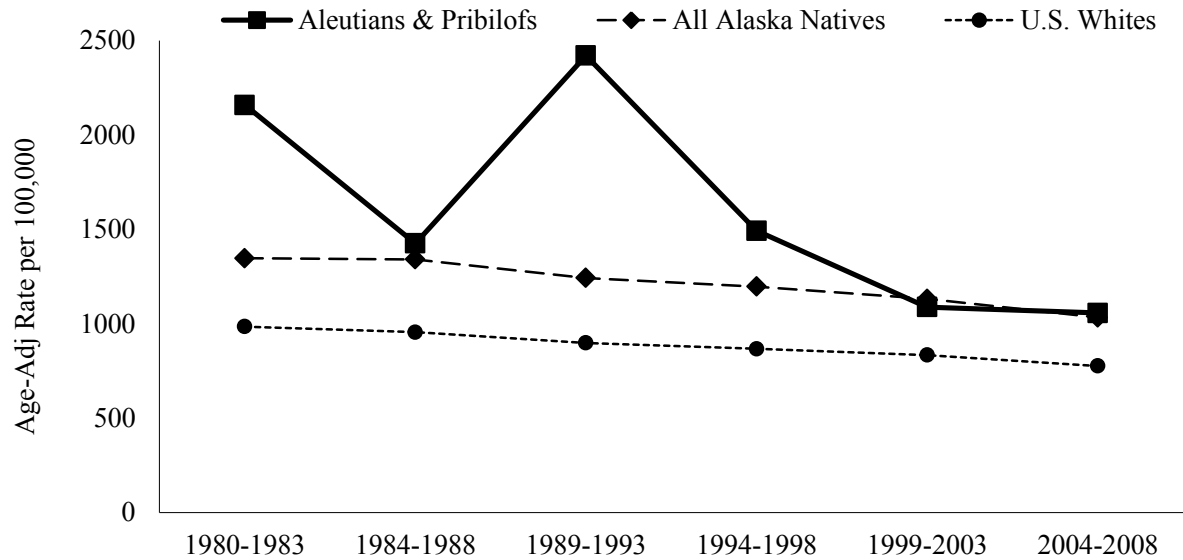
^a 1980-1983 contains only 4 years

^b Rates per 100,000 population

FIGURE 70.

Data Source: Table 10b.

Age-Adjusted Mortality Rates for All-Causes Aleutians & Pribilofs vs All Alaska Natives vs U.S. Whites by Five Year Intervals (1980-2008)

**FIGURE 71.**

Data Source: Table 10b.

Age-Adjusted Mortality Rates for Cancer Aleutians & Pribilofs vs All Alaska Natives vs U.S. Whites by Five Year Intervals (1980-2008)

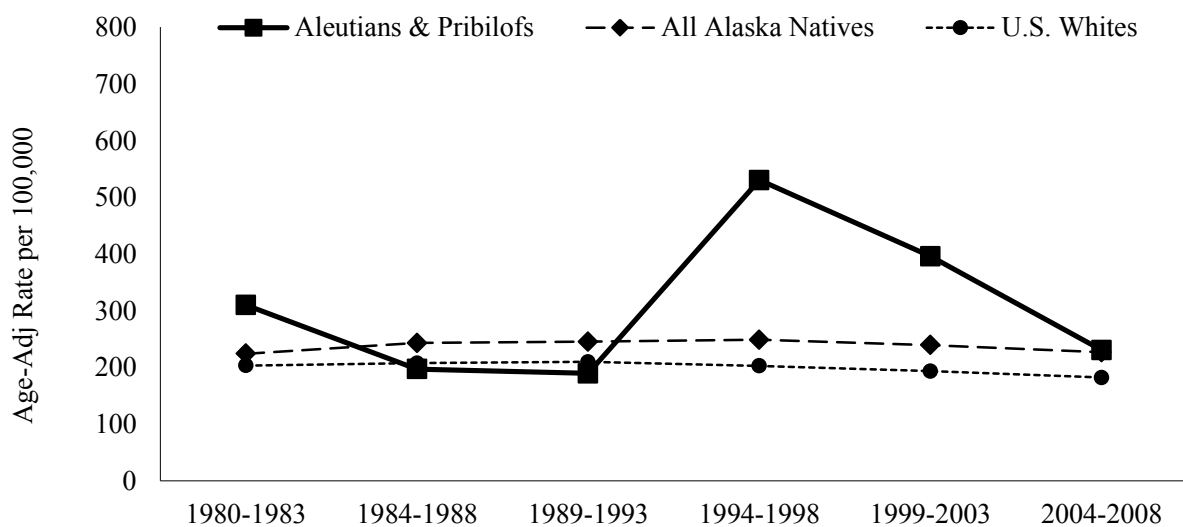
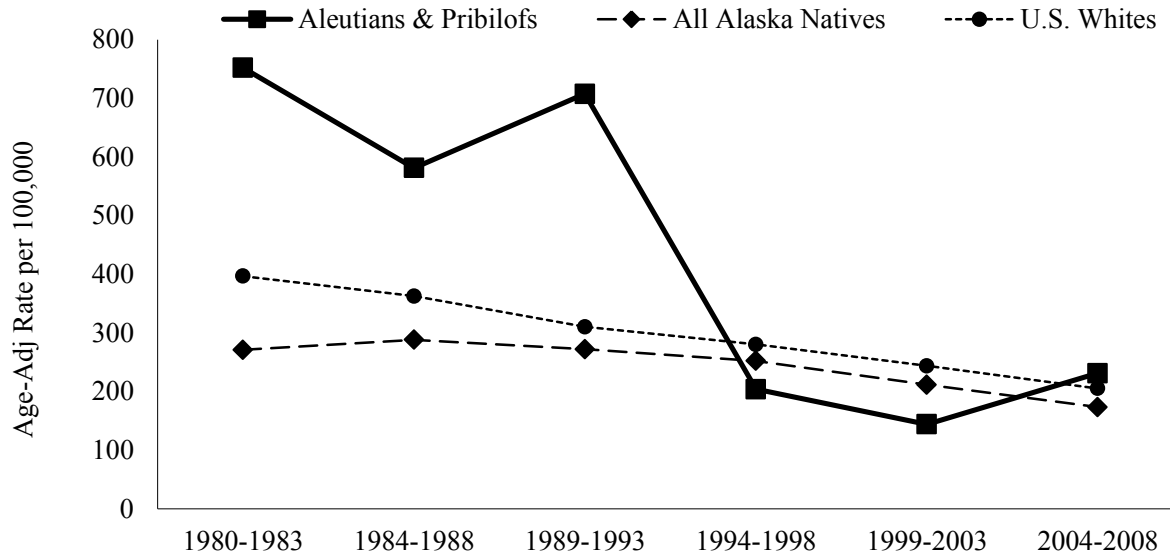


FIGURE 72.

Data Source: Table 10b.

Age-Adjusted Mortality Rates for Heart Disease Aleutians & Pribilofs vs All Alaska Natives vs U.S. Whites by Five Year Intervals (1980-2008)

**FIGURE 73.**

Data Source: Table 10b.

Age-Adjusted Mortality Rates for Unintentional Injury Aleutians & Pribilofs vs All Alaska Natives vs U.S. Whites by Five Year Intervals (1980-2008)

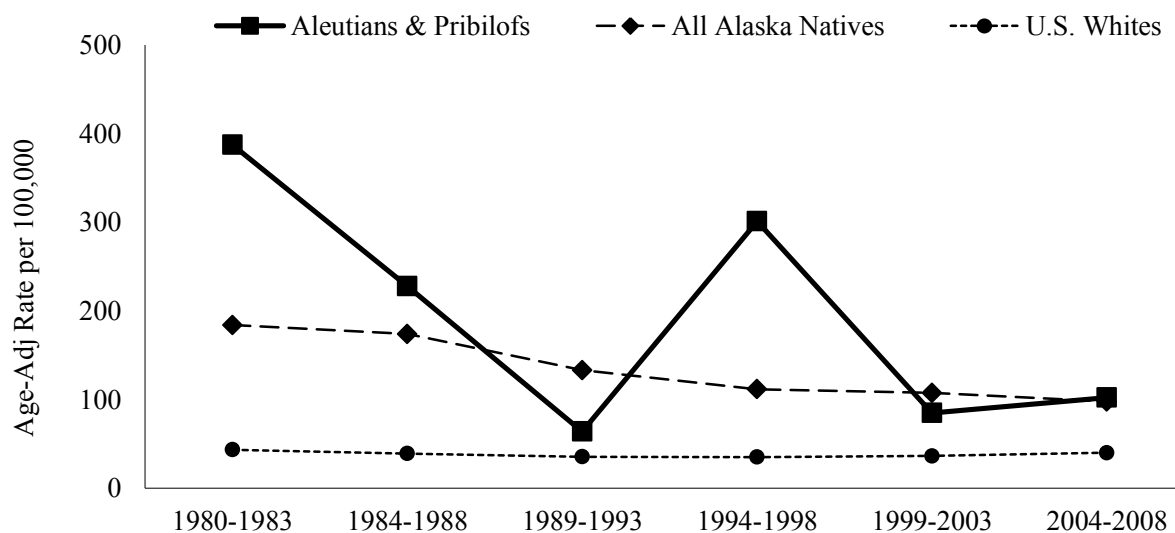


TABLE 11a. **Counts for Leading Causes of Death Among Alaska Natives**
Anchorage/ MatSu Service Region
Both Genders

Anchorage/ MatSu	Alcohol Abuse	Cancer	Cerebrovascular Disease	Chronic Liver Disease	COPD	Diabetes	Heart Disease	Homicide	Pneumonia & Influenza	Suicide	Unintentional Injury	All Causes
1980-1983 ^a	11	34	8	15	<5	<5	36	19	18	12	41	261
1984-1988	12	54	15	18	12	5	53	13	22	21	64	384
1989-1993	19	84	21	30	19	<5	83	20	14	32	85	522
1994-1998	21	118	43	19	29	11	76	29	5	22	87	592
1999-2003	55	147	38	27	36	11	123	23	14	26	108	802
2004-2008	52	159	35	38	39	17	144	14	14	43	110	931

^a 1980-1983 contains only 4 years

(>5) counts are not reported for fewer than 5 deaths

TABLE 11b. **Age-Adjusted Rates^b for Leading Causes of Death Among Alaska Natives**
Anchorage/ MatSu Service Region
Both Genders

Anchorage/ MatSu	Alcohol Abuse	Cancer	Cerebrovascular Disease	Chronic Liver Disease	COPD	Diabetes	Heart Disease	Homicide	Pneumonia & Influenza	Suicide	Unintentional Injury	All Causes
1980-1983 ^a	37.1	231.7	61.4	↑ 48.3	-	-	278.4	35.3	↑ 181.5	20.5	99.7	1318.1
1984-1988	25.7	237.3	113.6	↑ 36.9	↑ 85.9	19.5	322.5	18.7	↑ 116.8	↓ 26.4	↓ 114.4	1363.3
1989-1993	25.9	240.1	102.8	↑ 51.7	73.8	-	301.5	18.5	39.2	↓ 33.2	↓ 100.8	1334.2
1994-1998	26.0	247.8	↑ 120.4	22.7	78.1	34.5	206.9	25.9	20.0	↓ 20.1	↓ 87.7	↑ 1271.3
1999-2003	45.3	231.3	76.6	↑ 27.9	66.3	22.4	226.2	16.7	20.1	↓ 17.3	96.3	1121.3
2004-2008	44.7	↓ 176.2	46.9	↑ 33.1	48.2	16.3	169.9	9.0	18.3	↓ 27.7	↓ 82.3	998.9

(-) rates are not reported for fewer than 5 deaths

↑↓ Rate is significantly higher or lower than the rate for the rest of AN regions combined

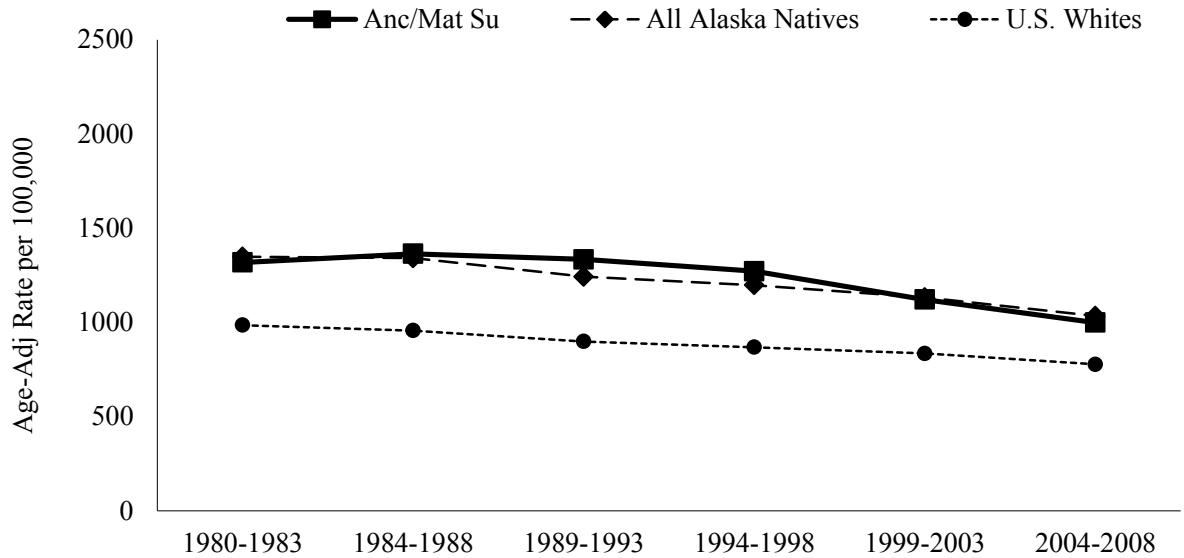
^a 1980-1983 contains only 4 years

^b Rates per 100,000 population

FIGURE 76.

Data Source: Table 11b.

**Age-Adjusted Mortality Rates for All-Causes
Anchorage/ MatSu vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)**

**FIGURE 77.**

Data Source: Table 11b.

**Age-Adjusted Mortality Rates for Alcohol Abuse
Anchorage/ MatSu vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)**

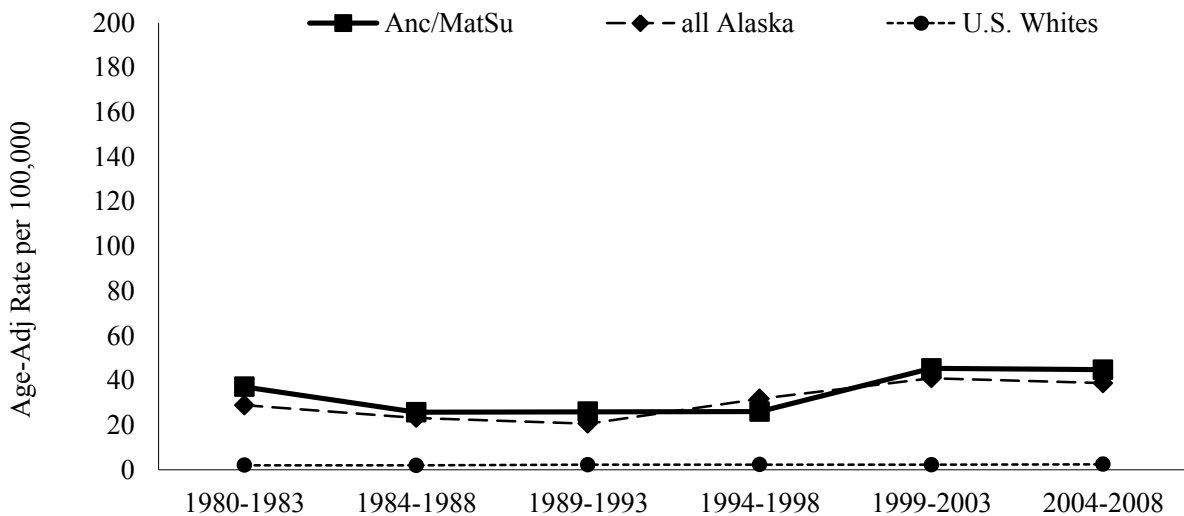
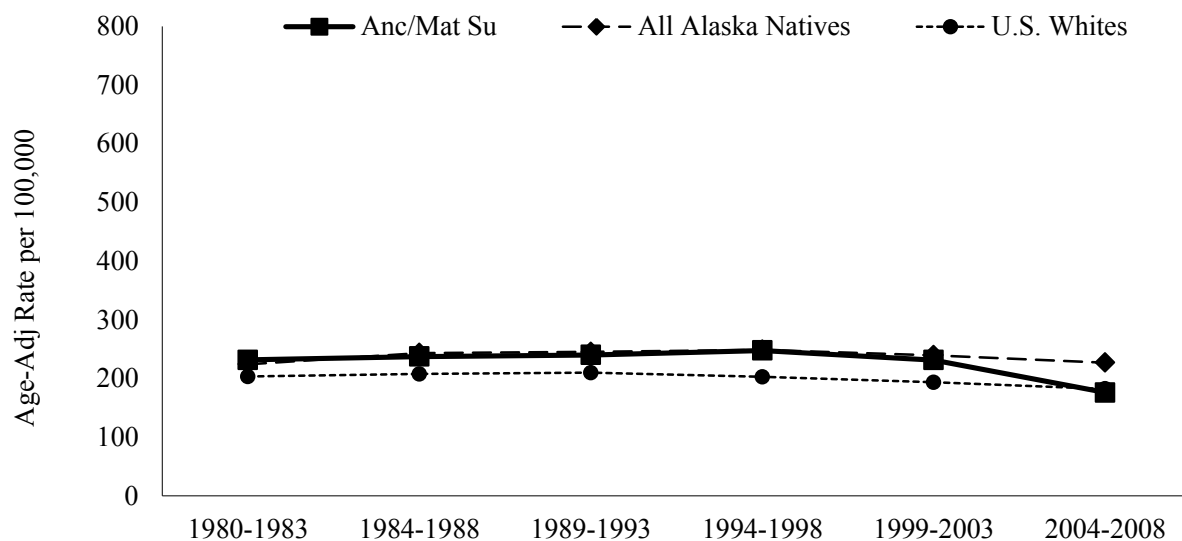


FIGURE 78.

Data Source: Table 11b.

Age-Adjusted Mortality Rates for Cancer
Anchorage/ MatSu vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)

**FIGURE 79.**

Data Source: Table 11b.

Age-Adjusted Mortality Rates for Cerebrovascular Disease
Anchorage/ MatSu vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)

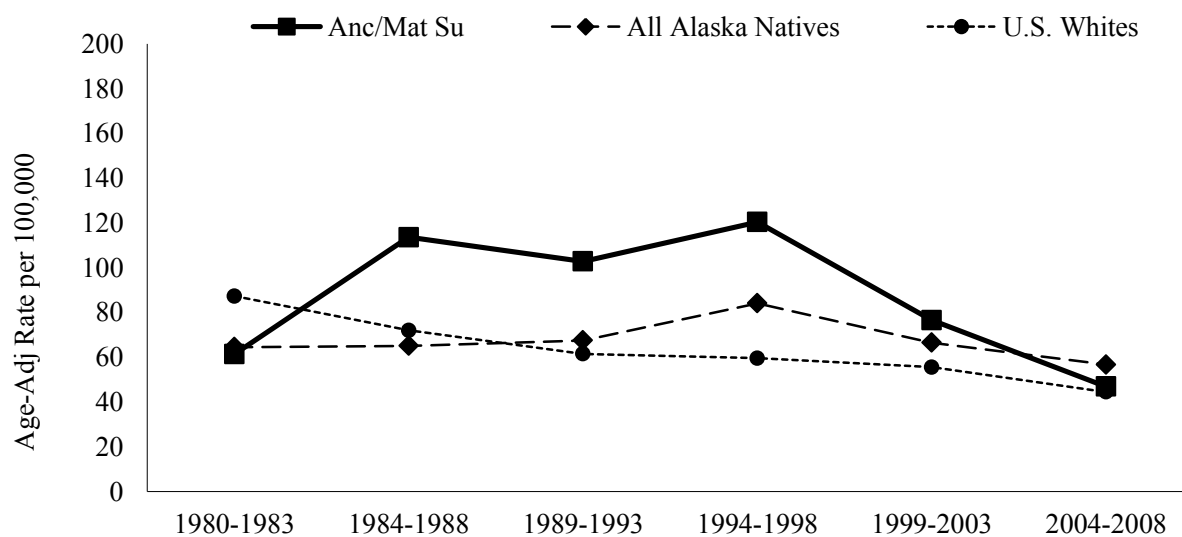
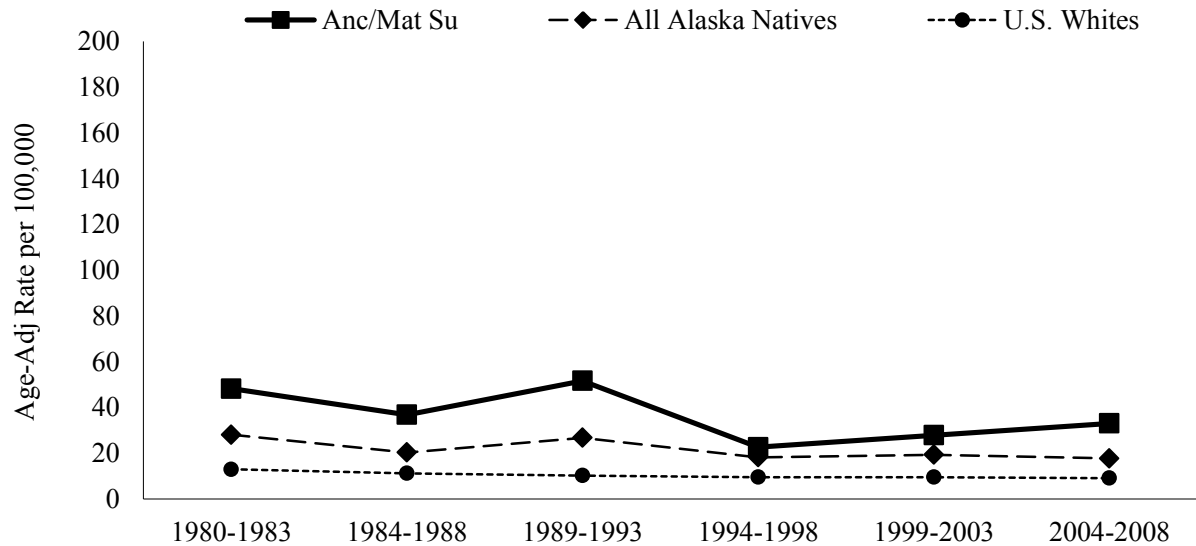


FIGURE 80.

Data Source: Table 11b.

**Age-Adjusted Mortality Rates for Chronic Liver Disease
Anchorage/ MatSu vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)**

**FIGURE 81.**

Data Source: Table 11b.

**Age-Adjusted Mortality Rates for COPD
Anchorage/ MatSu vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)**

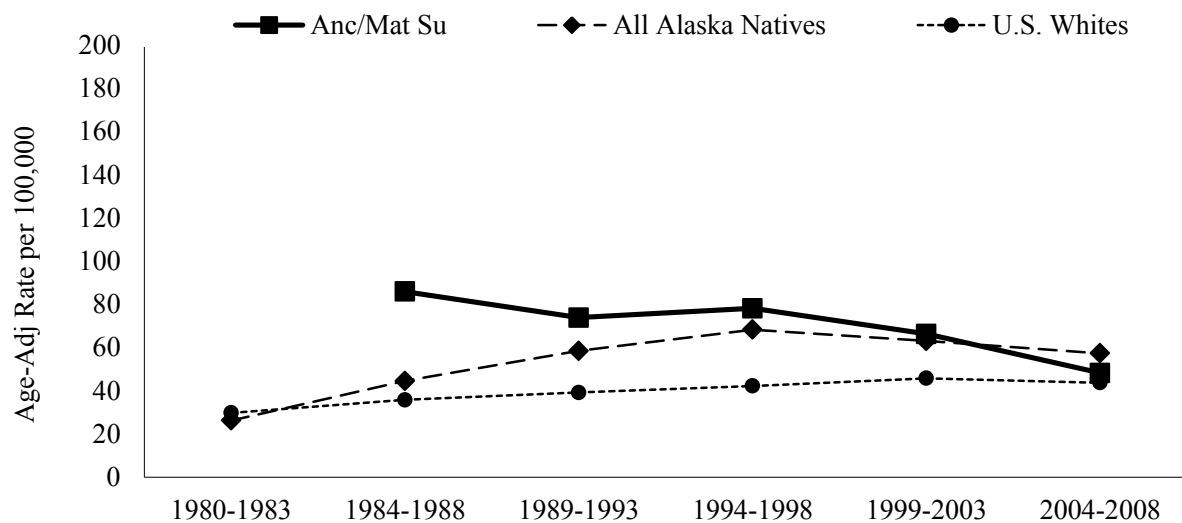
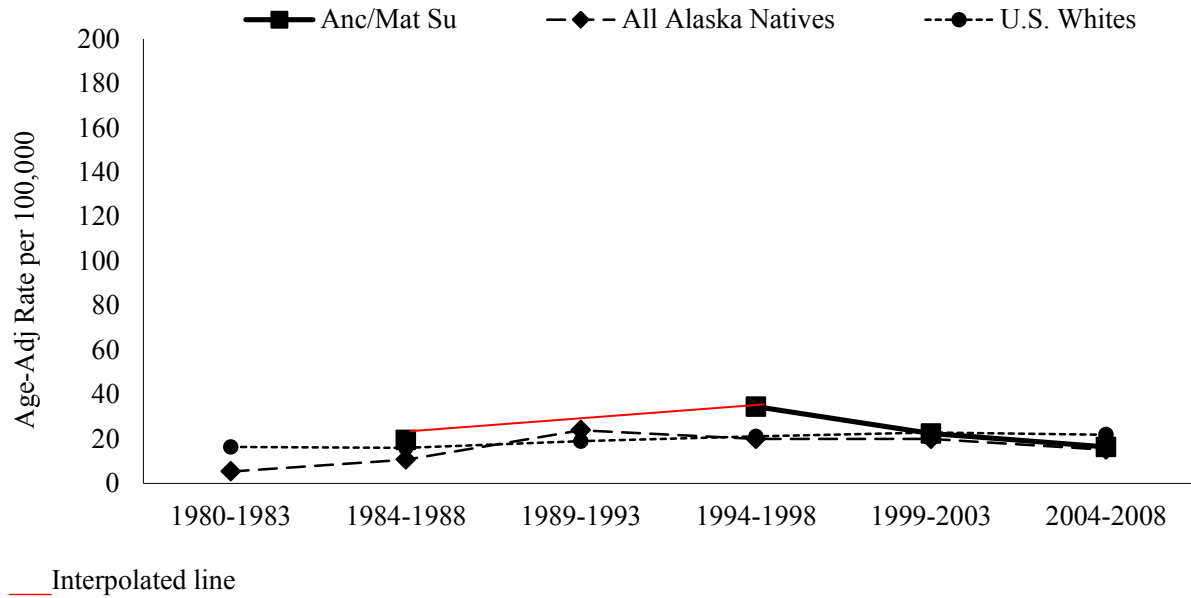


FIGURE 82.

Data Source: Table 11b.

**Age-Adjusted Mortality Rates for Diabetes Mellitus
Anchorage/ MatSu vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)**

**FIGURE 83.**

Data Source: Table 11b.

**Age-Adjusted Mortality Rates for Heart Disease
Anchorage/ MatSu vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)**

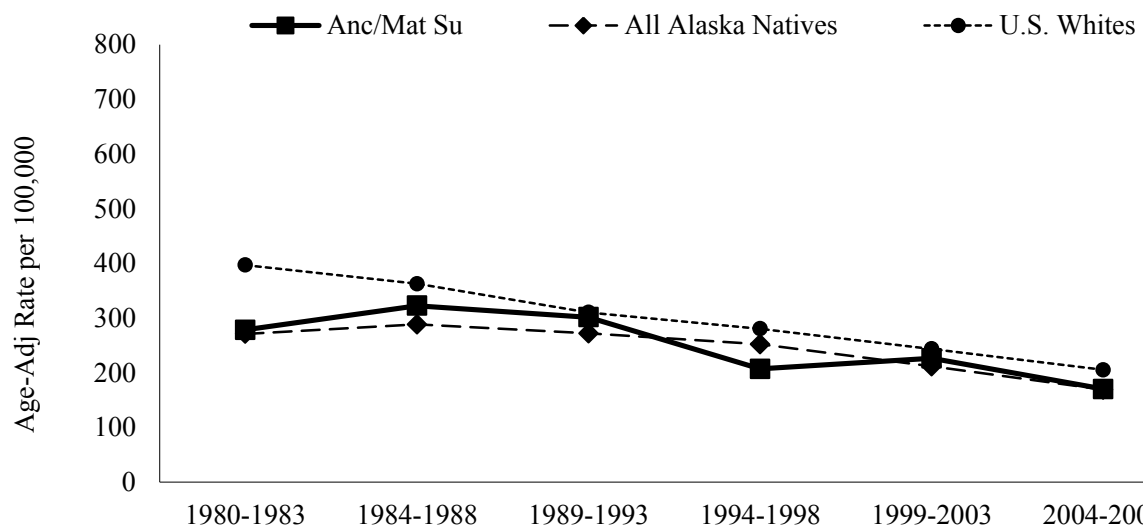
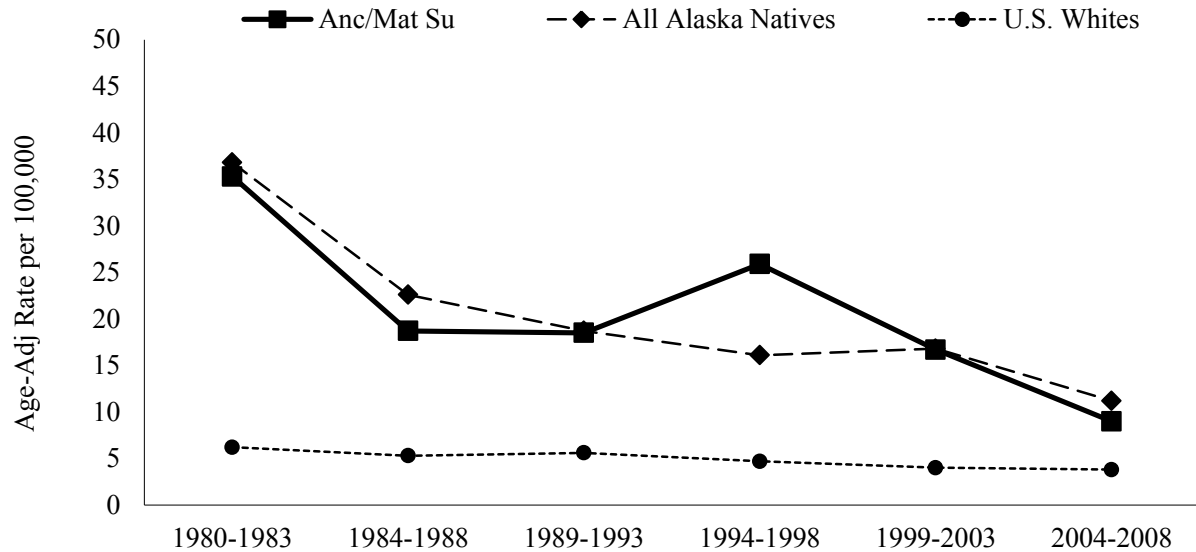


FIGURE 84.

Data Source: Table 11b.

**Age-Adjusted Mortality Rates for Homicide
Anchorage/ MatSu vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)**

**FIGURE 85.**

Data Source: Table 11b.

**Age-Adjusted Mortality Rates for Pneumonia & Influenza
Anchorage/ MatSu vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)**

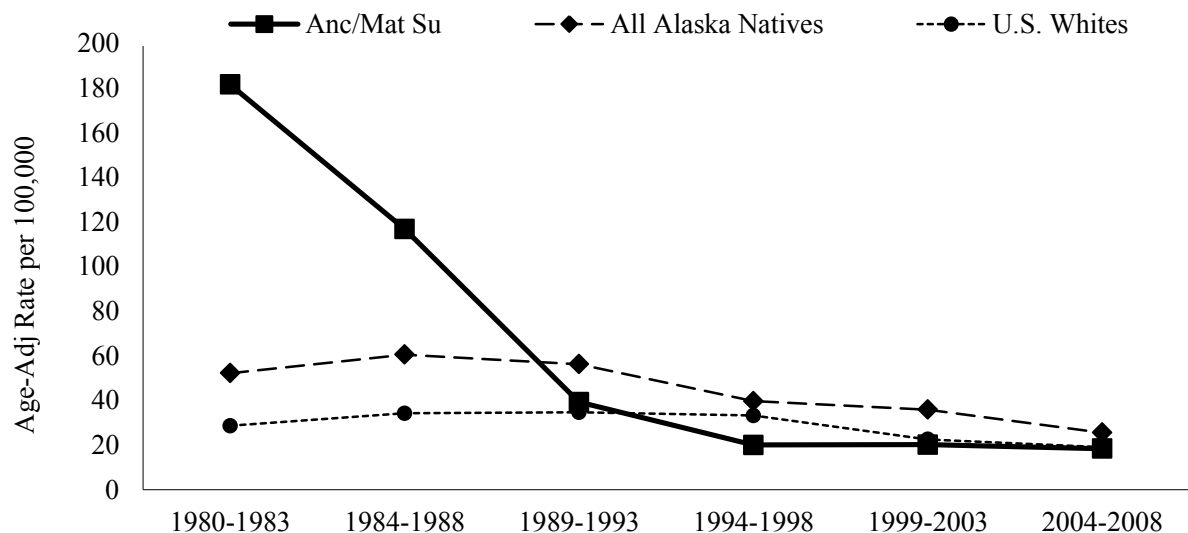
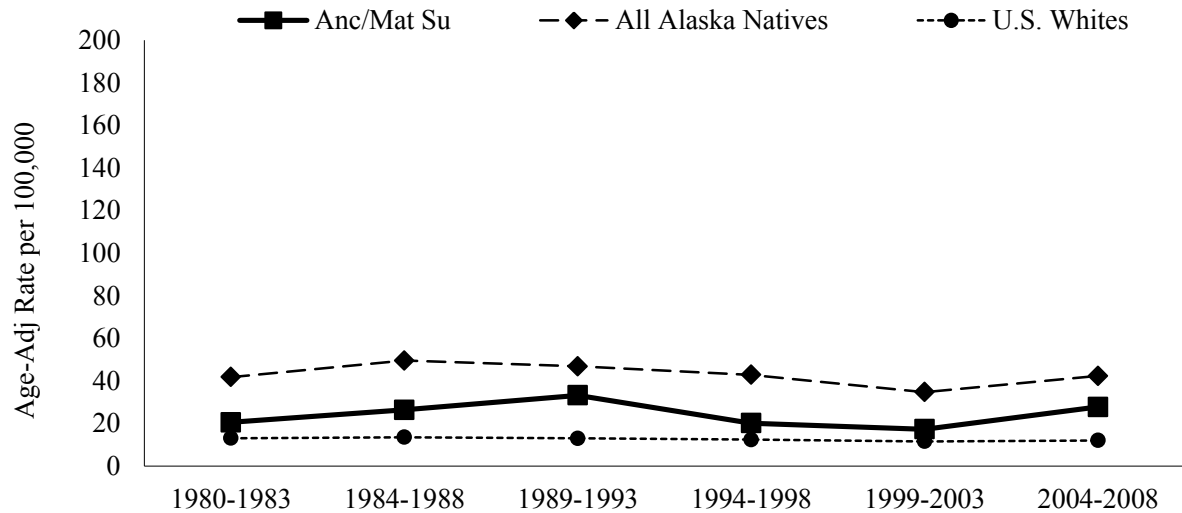


FIGURE 86.

Data Source: Table 11b.

**Age-Adjusted Mortality Rates for Suicide
Anchorage/ MatSu vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)**

**FIGURE 87.**

Data Source: Table 11b.

**Age-Adjusted Mortality Rates for Unintentional Injury
Anchorage/ MatSu vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)**

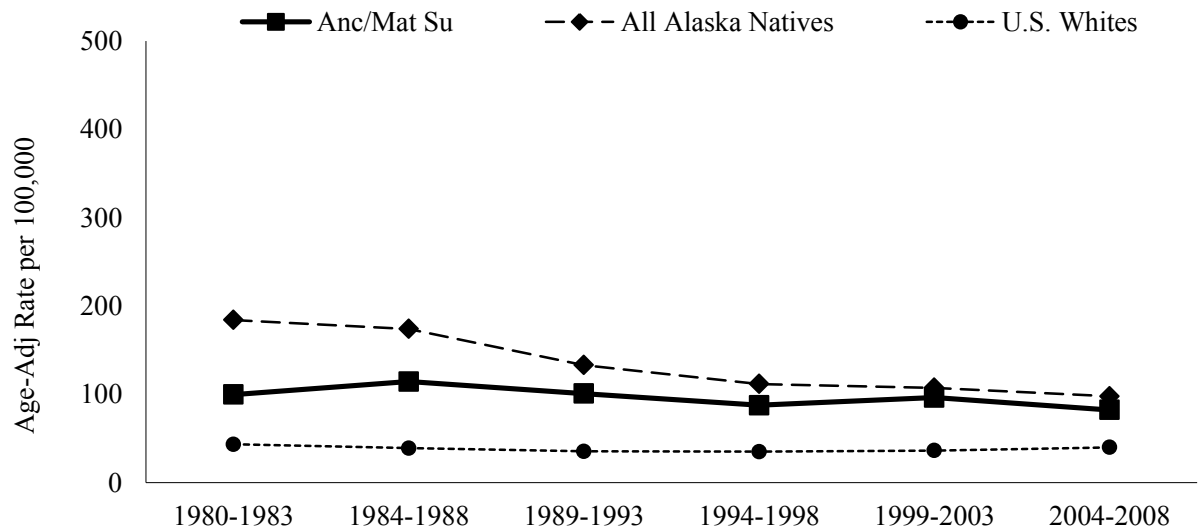


TABLE 12a. **Counts for Leading Causes of Death Among Alaska Natives**
ASU-Combined Rural Service Region
Both Genders

	Alcohol Abuse	Cancer	Cerebrovascular Disease	Chronic Liver Disease	COPD	Heart Disease	Hypertension	Pneumonia & Influenza	Suicide	Unintentional Injury	All Causes
ASU-Combined Rural											
1980-1983 ^a	7	35	11	11	<5	52	<5	5	12	66	259
1984-1988	5	66	14	39	8	66	<5	5	27	57	300
1989-1993	5	60	11	12	5	61	<5	10	14	45	290
1994-1998	12	75	11	9	10	74	<5	<5	9	47	318
1999-2003	13	78	17	12	17	57	<5	8	10	37	330
2004-2008	15	89	26	13	20	67	7	11	15	37	397

^a 1980-1983 contains only 4 years

(>5) counts are not reported for fewer than 5 deaths

TABLE 12b. **Age-Adjusted Rates^b for Leading Causes of Death Among Alaska Natives**
ASU-Combined Rural Service Region
Both Genders

	Alcohol Abuse	Cancer	Cerebrovascular Disease	Chronic Liver Disease	COPD	Heart Disease	Hypertension	Pneumonia & Influenza	Suicide	Unintentional Injury	All Causes
ASU-Combined Rural											
1980-1983 ^a	33.0	233.7	88.4	↑ 57.2	-	↑ 418.5	-	37.2	43.0	↑ 260.7	↑ 1519.7
1984-1988	14.4	↑ 337.5	75.2	↑ 36.9	39.9	357.3	-	39.2	68.9	174.1	1332.8
1989-1993	15.5	269.5	67.0	37.6	25.5	327.9	-	65.9	↓ 27.1	101.0	1234.2
1994-1998	35.1	↑ 320.8	48.6	22.9	45.5	289.8	-	-	↓ 17.8	118.7	1199.8
1999-2003	31.8	251.4	64.3	28.3	66.1	212.9	-	31.8	19.6	↓ 74.5	1070.7
2004-2008	32.4	250.4	↑ 83.4	26.1	61.7	198.8	18.8	29.0	28.3	75.0	1060.4

(-) rates are not reported for fewer than 5 deaths

↑↓ Rate is significantly higher or lower than the rate for the rest of AN regions combined

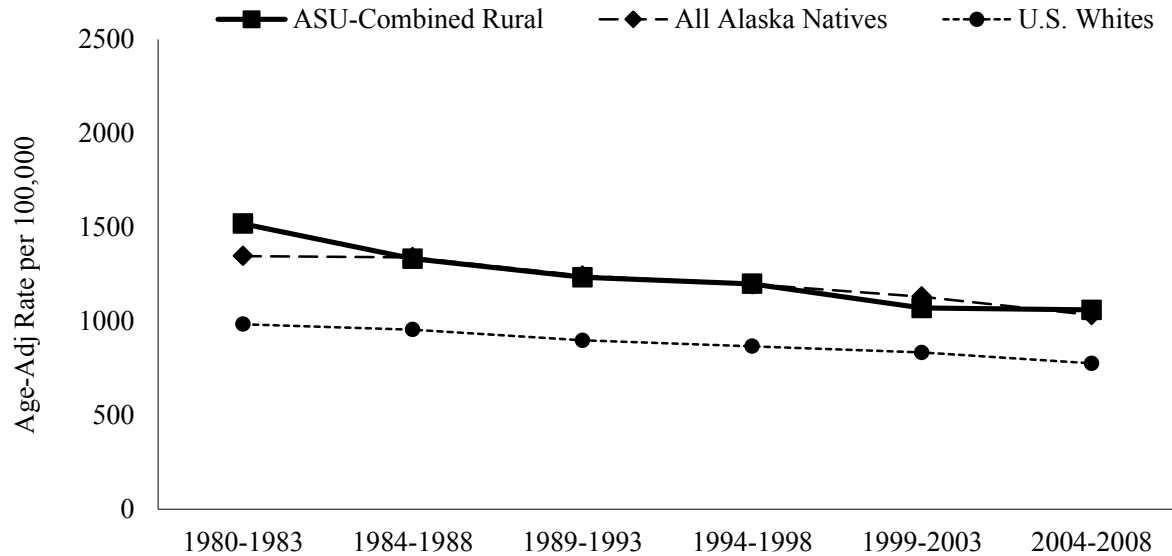
^a 1980-1983 contains only 4 years

^b Rates per 100,000 population

FIGURE 88.

Data Source: Table 12b.

Age-Adjusted Mortality Rates for All-Causes ASU-Combined Rural vs All Alaska Natives vs U.S. Whites by Time Intervals (1980-2008)

**FIGURE 89.**

Data Source: Table 12b.

Age-Adjusted Mortality Rates for Alcohol Abuse ASU-Combined Rural vs All Alaska Natives vs U.S. Whites by Time Intervals (1980-2008)

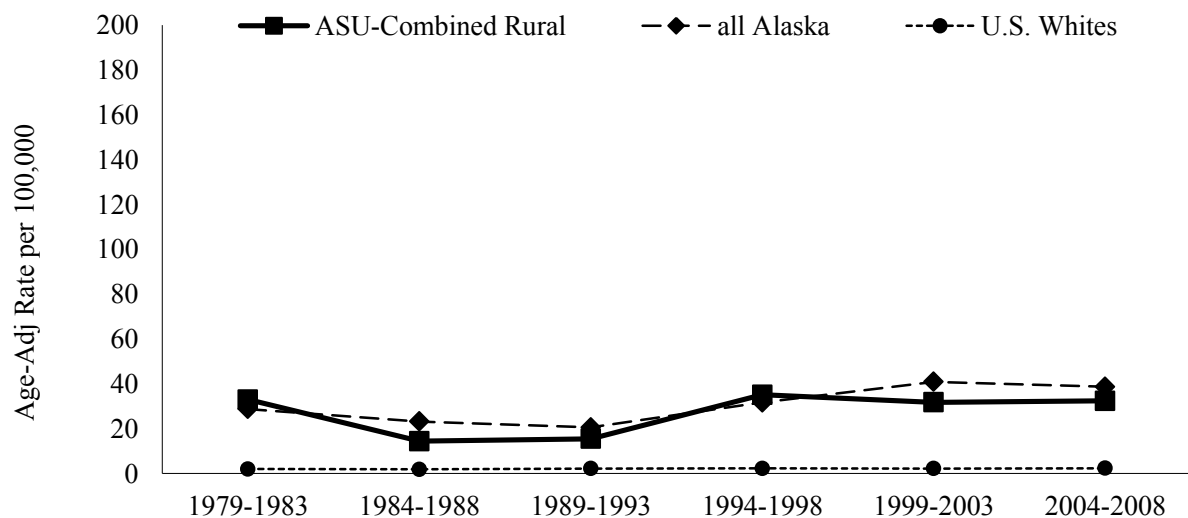
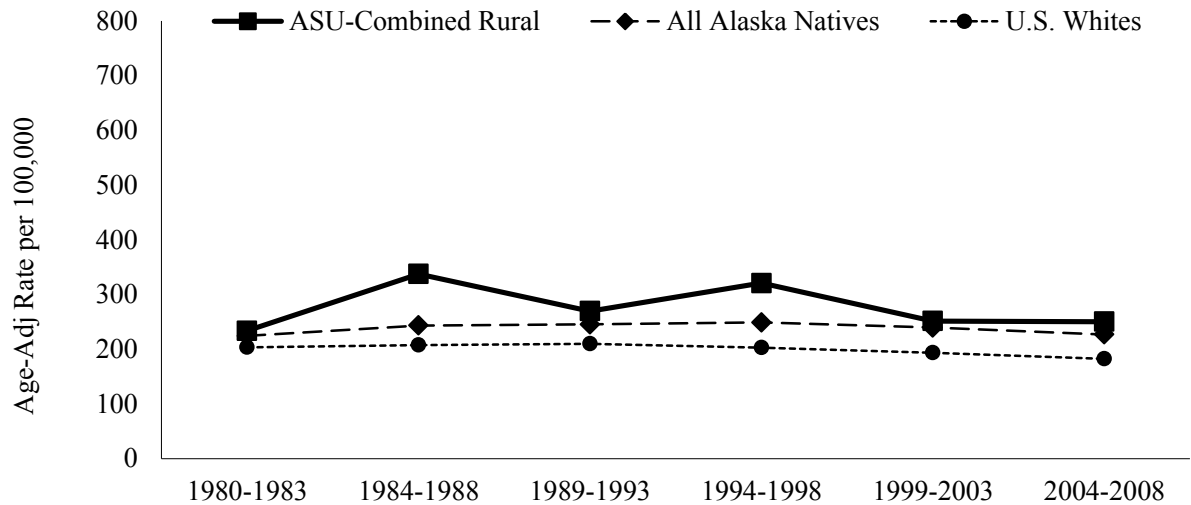


FIGURE 90.

Data Source: Table 12b.

Age-Adjusted Mortality Rates for Cancer ASU-Combined Rural vs All Alaska Natives vs U.S. Whites by Time Intervals (1980-2008)

**FIGURE 91.**

Data Source: Table 12b.

Age-Adjusted Mortality Rates for Cerebrovascular Disease ASU-Combined Rural vs All Alaska Natives vs U.S. Whites by Time Intervals (1980-2008)

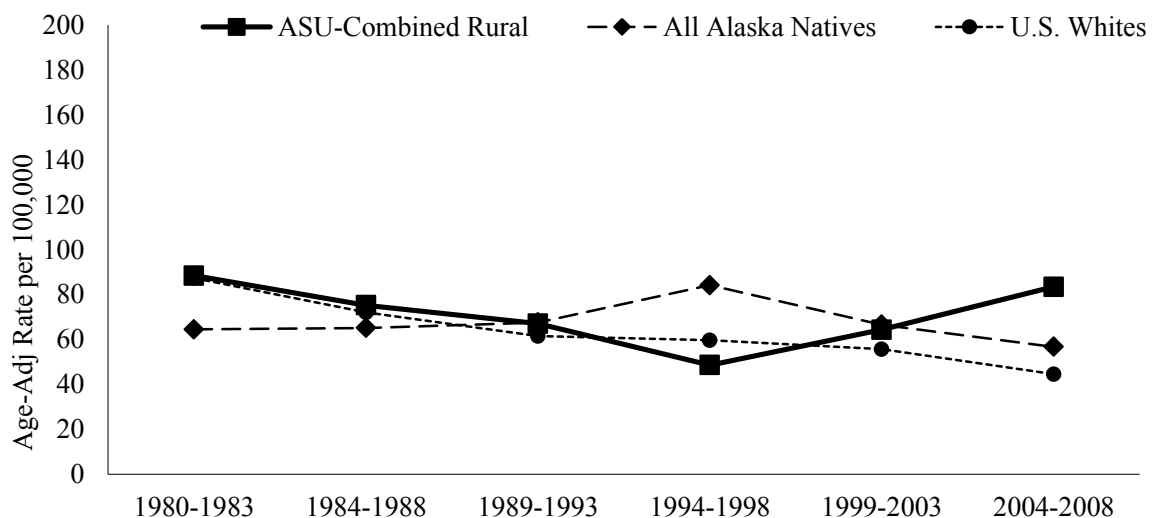


FIGURE 92. Age-Adjusted Mortality Rates for Chronic Liver Disease
 ASU-Combined Rural vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

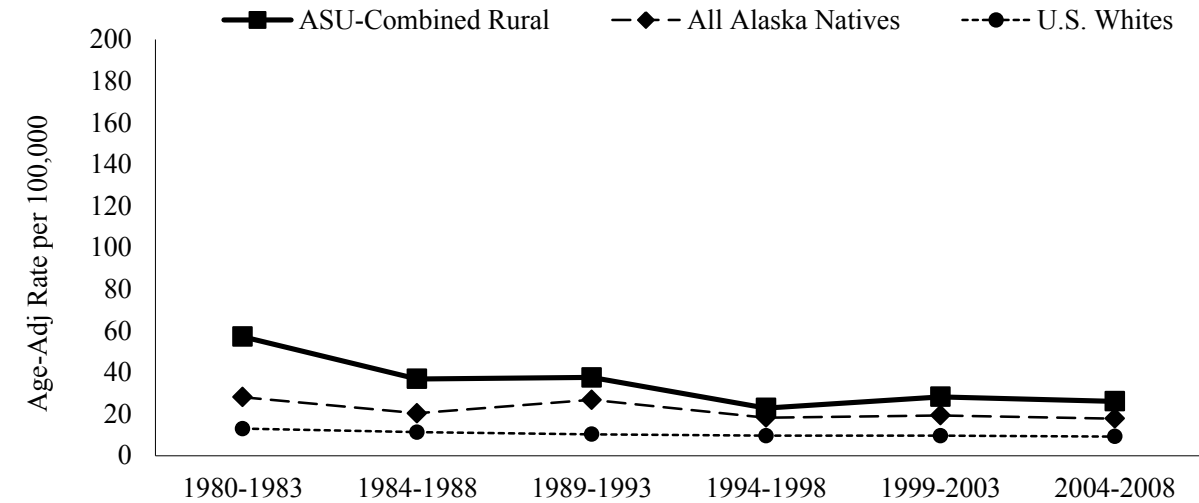


FIGURE 93. Age-Adjusted Mortality Rates for COPD
 ASU-Combined Rural vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

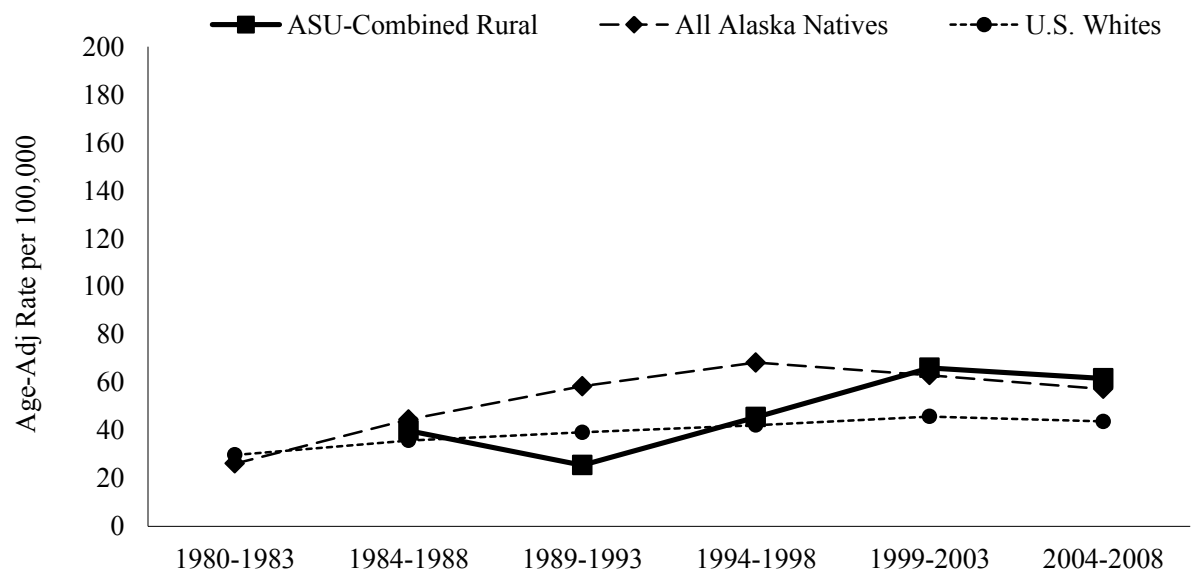
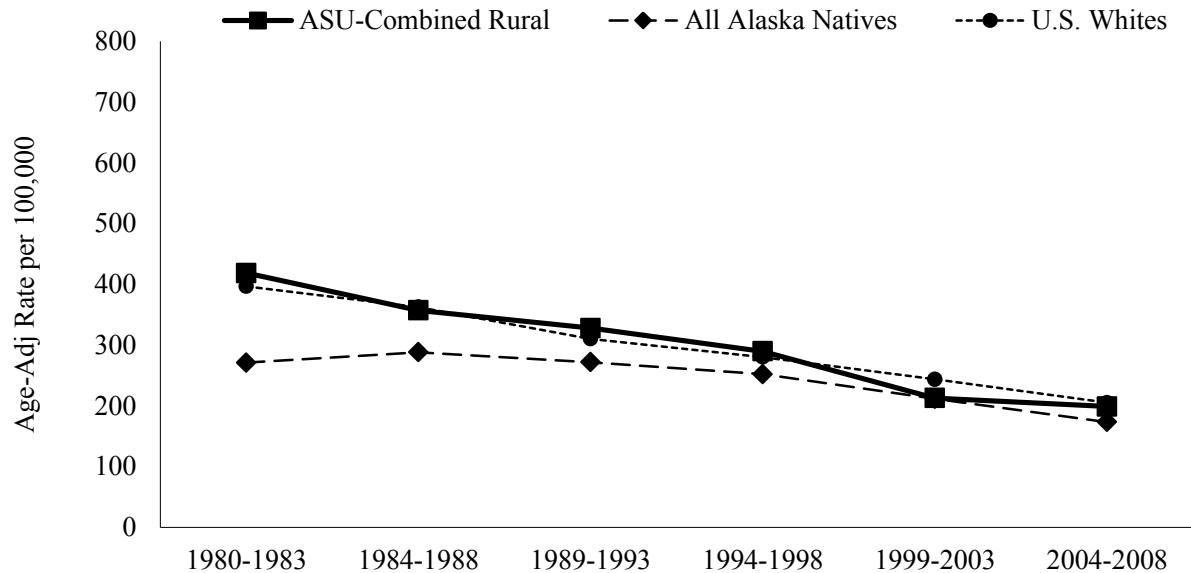


FIGURE 94.

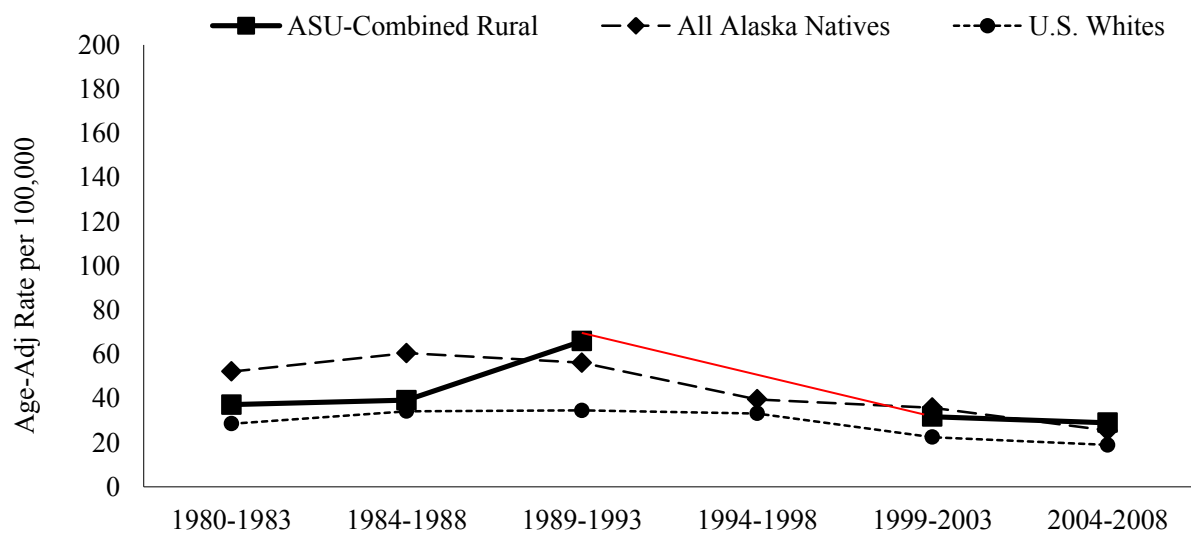
Data Source: Table 12b.

Age-Adjusted Mortality Rates for Heart Disease ASU-Combined Rural vs All Alaska Natives vs U.S. Whites by Time Intervals (1980-2008)

**FIGURE 95.**

Data Source: Table 12b.

Age-Adjusted Mortality Rates for Pneumonia & Influenza ASU-Combined Rural vs All Alaska Natives vs U.S. Whites by Time Intervals (1980-2008)

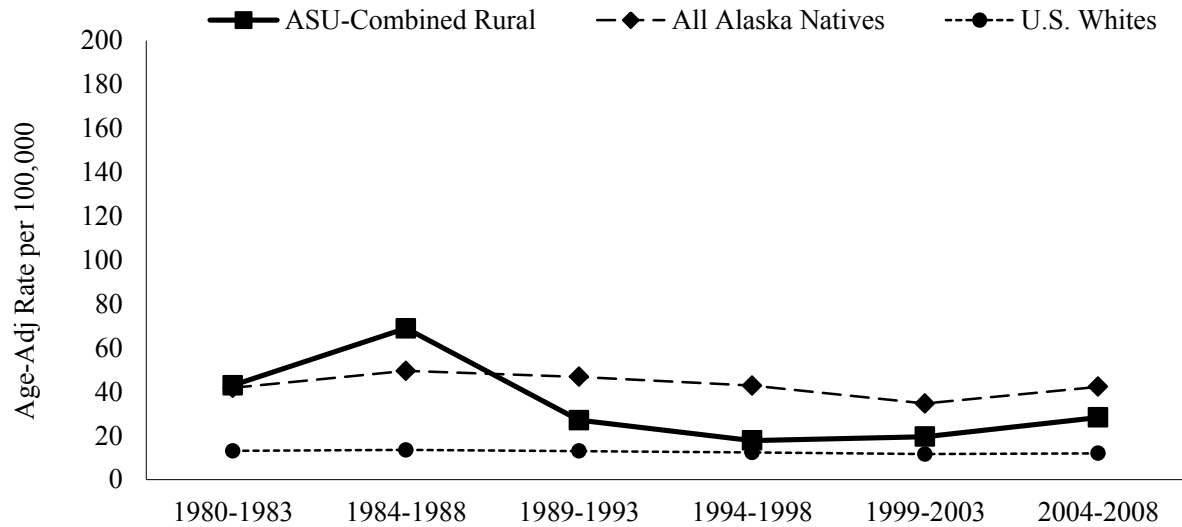


— Interpolated line

FIGURE 96.

Data Source: Table 12b.

Age-Adjusted Mortality Rates for Suicide ASU-Combined Rural vs All Alaska Natives vs U.S. Whites by Time Intervals (1980-2008)

**FIGURE 97.**

Data Source: Table 12b.

Age-Adjusted Mortality Rates for Unintentional Injury ASU-Combined Rural vs All Alaska Natives vs U.S. Whites by Time Intervals (1980-2008)

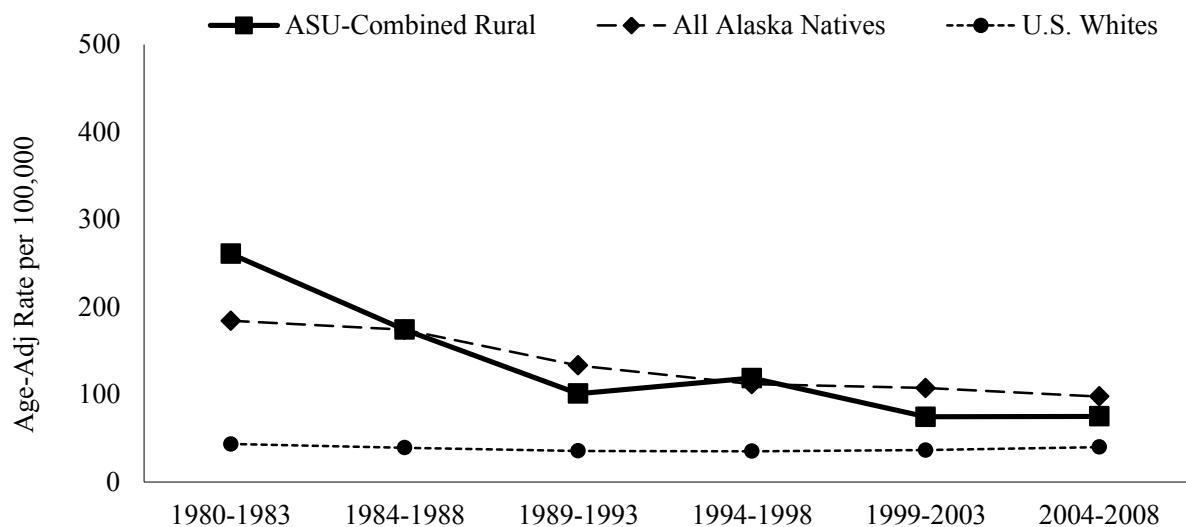


TABLE 13a. Counts for Leading Causes of Death Among Alaska Natives
Arctic Slope Service Region
Both Genders

	Alcohol Abuse	Cancer	Cerebrovascular Disease	COPD	Heart Disease	Suicide	Unintentional Injury	All Causes
Arctic Slope								
1980-1983 ^a	-	10	<5	<5	13	<5	15	77
1984-1988	7	26	6	<5	10	6	27	117
1989-1993	-	20	<5	7	20	10	22	113
1994-1998	-	30	<5	7	25	11	23	130
1999-2003	8	28	6	8	17	7	16	120
2004-2008	7	42	7	12	28	14	16	163

^a 1980-1983 contains only 4 years

(>5) counts are not reported for fewer than 5 deaths

TABLE 13b. Age-Adjusted Rates^b for Leading Causes of Death Among Alaska Natives
Arctic Slope Service Region
Both Genders

	Alcohol Abuse	Cancer	Cerebrovascular Disease	COPD	Heart Disease	Suicide	Unintentional Injury	All Causes
Arctic Slope								
1980-1983 ^a	-	230.3	-	-	519.1	-	147.8	1249.7
1984-1988	43.1	↑418.8	113.5	-	198.1	32.5	188.2	1436.5
1989-1993	-	250.2	-	131.7	↑493.8	50.4	116.8	1349.5
1994-1998	-	334.0	-	127.2	284.9	52.5	113.7	1339.8
1999-2003	52.4	261.0	54.0	111.1	218.4	30.4	99.1	1096.1
2004-2008	41.4	↑422.3	77.4	163.3	↑321.1	69.1	109.1	↑1591.2

(-) rates are not reported for fewer than 5 deaths

↑↓ Rate is significantly higher or lower than the rate for the rest of AN regions combined

^a 1980-1983 contains only 4 years

^b Rates per 100,000 population

FIGURE 98. Age-Adjusted Mortality Rates for All-Causes
 Arctic Slope vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)
 Data Source: Table 13b.

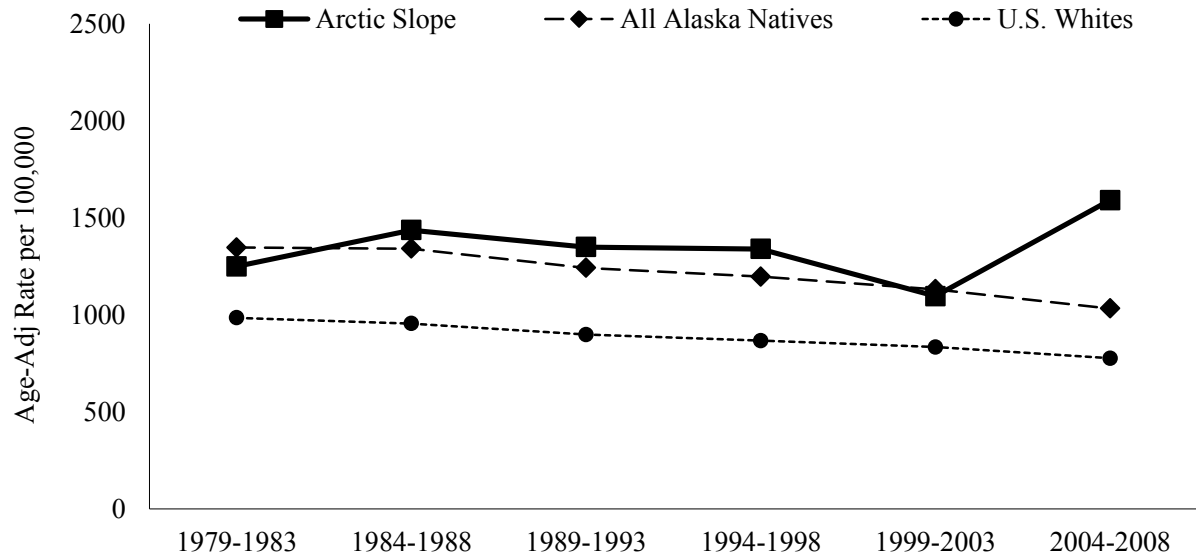


FIGURE 99. Age-Adjusted Mortality Rates for Cancer
 Arctic Slope vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)
 Data Source: Table 13b.

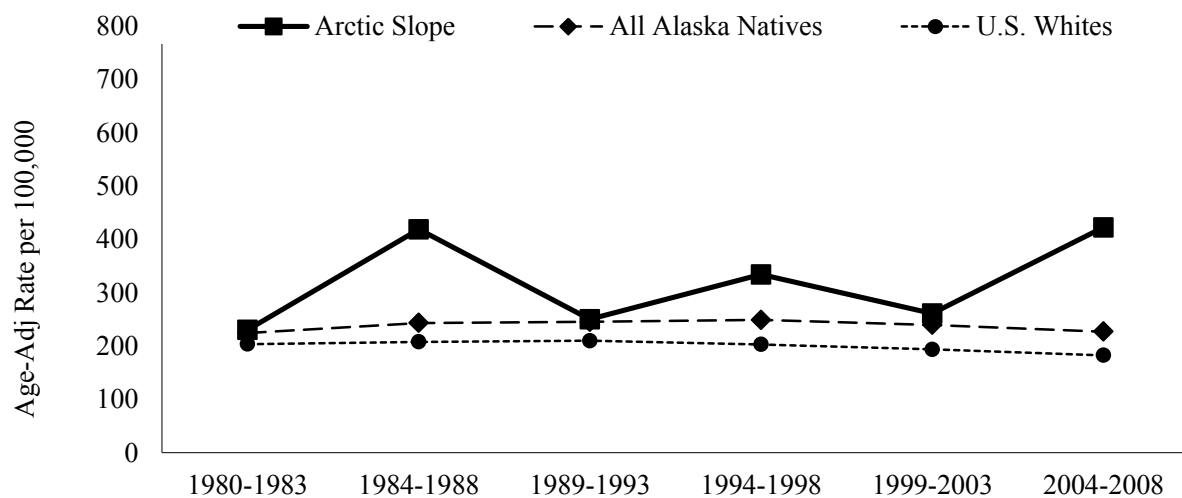
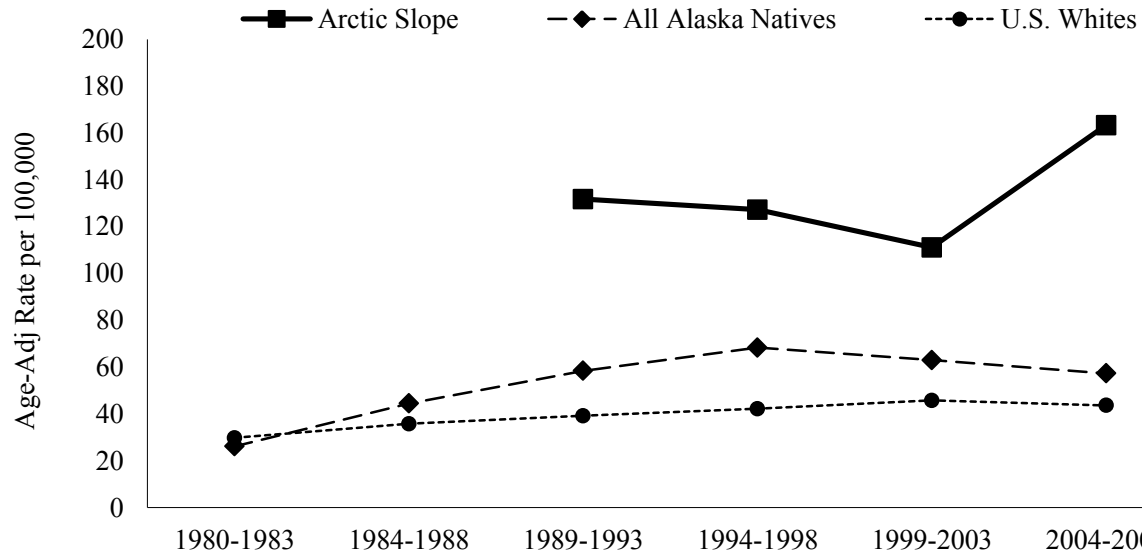


FIGURE 100.

Data Source: Table 13b.

Age-Adjusted Mortality Rates for COPD Arctic Slope vs All Alaska Natives vs U.S. Whites by Time Intervals (1980-2008)

**FIGURE 101.**

Data Source: Table 13b.

Age-Adjusted Mortality Rates for Heart Disease Arctic Slope vs All Alaska Natives vs U.S. Whites by Time Intervals (1980-2008)

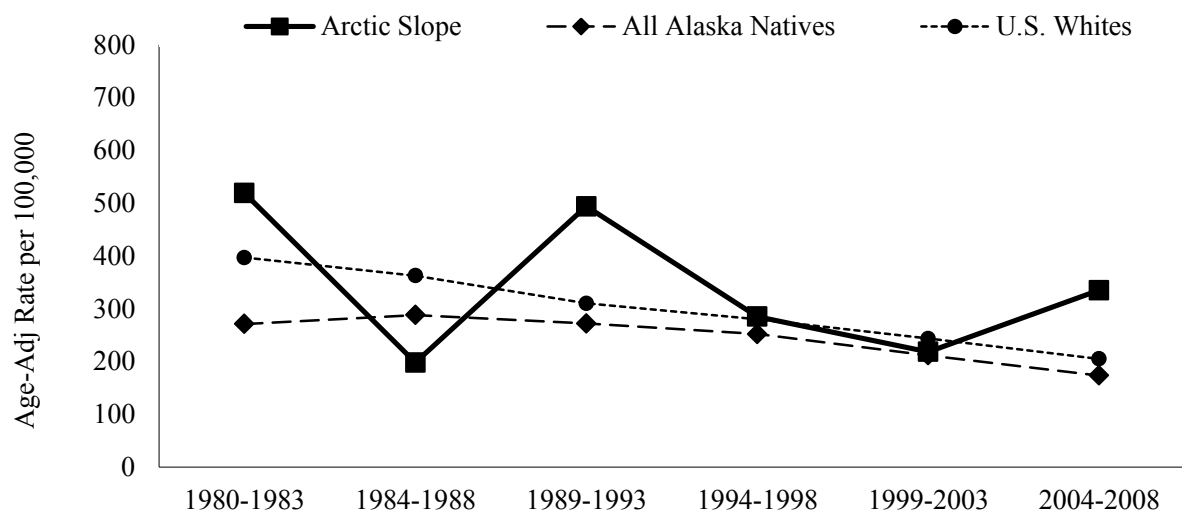


FIGURE 102. Age-Adjusted Mortality Rates for Suicide
Arctic Slope vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)

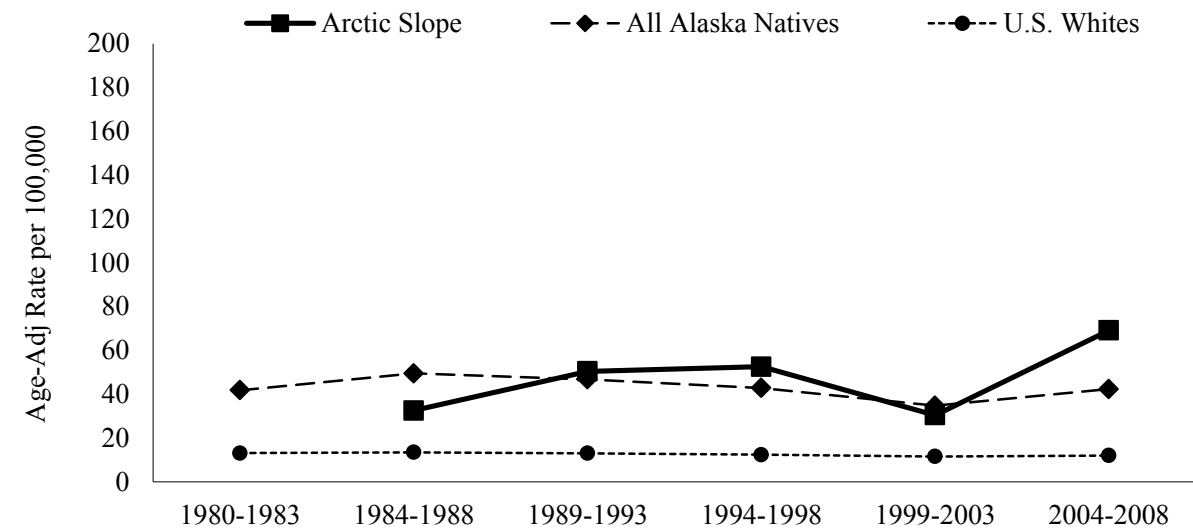
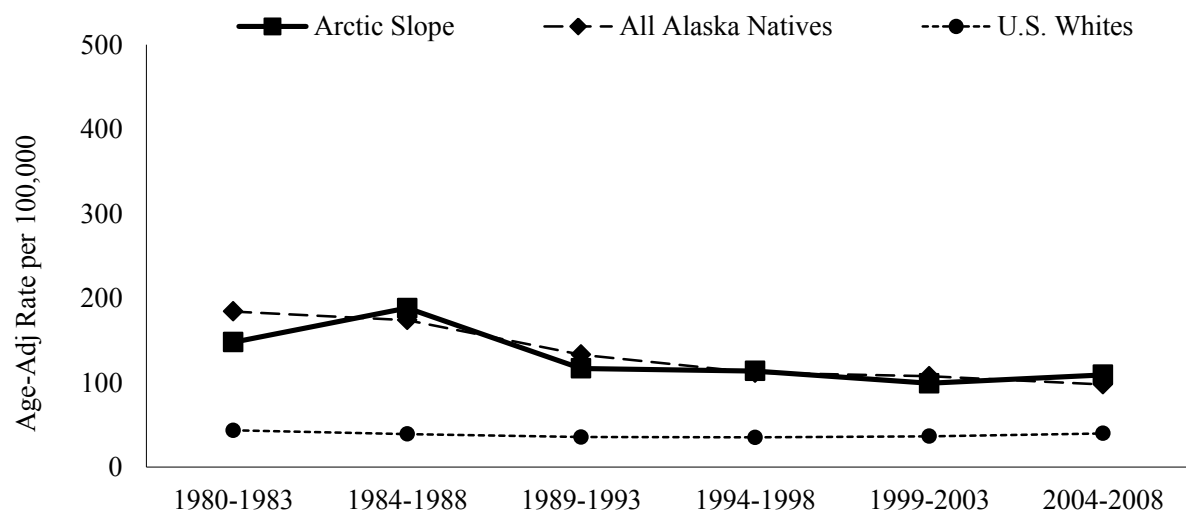


FIGURE 103. Age-Adjusted Mortality Rates for Unintentional Injury
Arctic Slope vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)



**TABLE 14a. Counts for Leading Causes of Death Among Alaska Natives
Bristol Bay Service Region
Both Genders**

	Alcohol Abuse	Cancer	Cerebrovascular Disease	COPD	Heart Disease	Suicide	Unintentional Injury	All Causes
Bristol Bay								
1980-1983 ^a	-	12	<5	<5	9	<5	45	116
1984-1988	-	26	<5	<5	30	8	53	160
1989-1993	-	30	6	13	28	12	42	180
1994-1998	9	31	13	12	23	10	31	169
1999-2003	9	40	11	11	26	6	48	209
2004-2008	10	42	7	10	29	6	41	191

^a 1980-1983 contains only 4 years

(>5) counts are not reported for fewer than 5 deaths

**TABLE 14b. Age-Adjusted Rates^b for Leading Causes of Death Among Alaska Natives
Bristol Bay Service Region
Both Genders**

	Alcohol Abuse	Cancer	Cerebrovascular Disease	COPD	Heart Disease	Suicide	Unintentional Injury	All Causes
Bristol Bay								
1980-1983 ^a	-	177.3	-	-	↓118.1	↑51.9	↑318.2	↓983.1
1984-1988	-	233.5	-	-	335.3	29.4	↑278.4	1108.1
1989-1993	-	263.2	55.7	↑117.4	271.1	46.5	168.6	1218.6
1994-1998	35.8	205.8	143.0	93.7	172.1	37.6	132.6	1088.5
1999-2003	41.3	251.6	95.5	74.8	207.0	24.2	↑179.9	1216.6
2004-2008	36.3	241.1	49.9	65.6	173.9	22.3	↑171.6	1063.9

(-) rates are not reported for fewer than 5 deaths

↑↓ Rate is significantly higher or lower than the rate for the rest of AN regions combined

^a 1980-1983 contains only 4 years

^b Rates per 100,000 population

FIGURE 104. Age-Adjusted Mortality Rates for All-Causes
 Bristol Bay vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

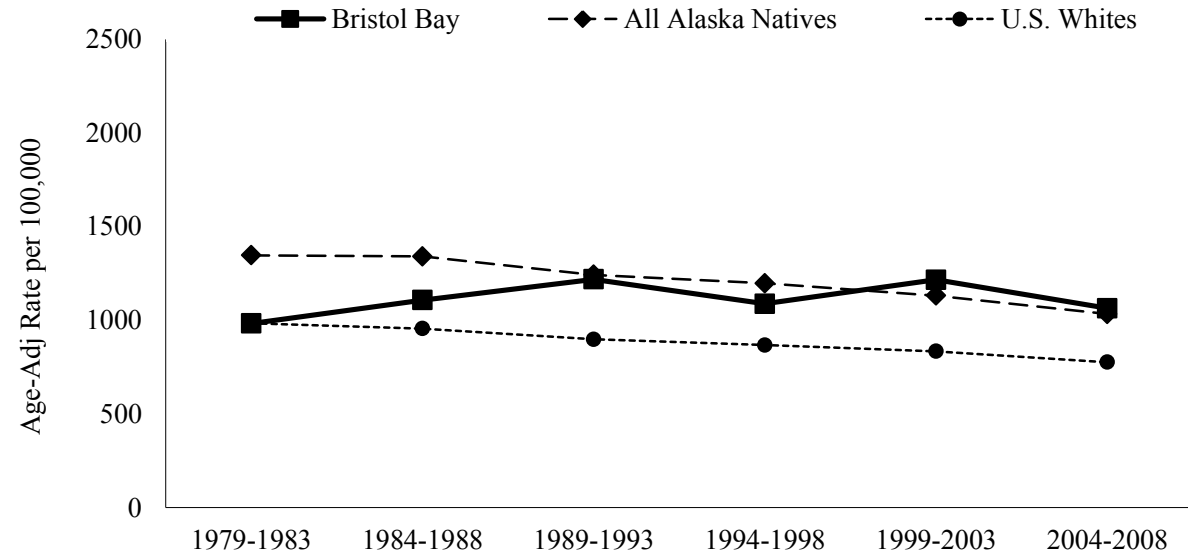


FIGURE 105. Age-Adjusted Mortality Rates for Alcohol Abuse
 Bristol Bay vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

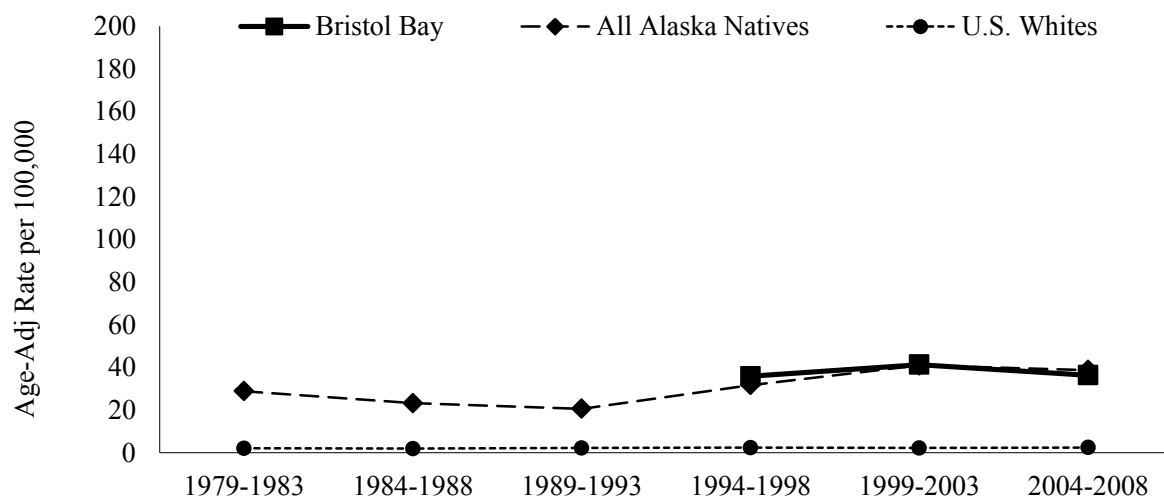


FIGURE 106. Age-Adjusted Mortality Rates for Cancer
Bristol Bay vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)

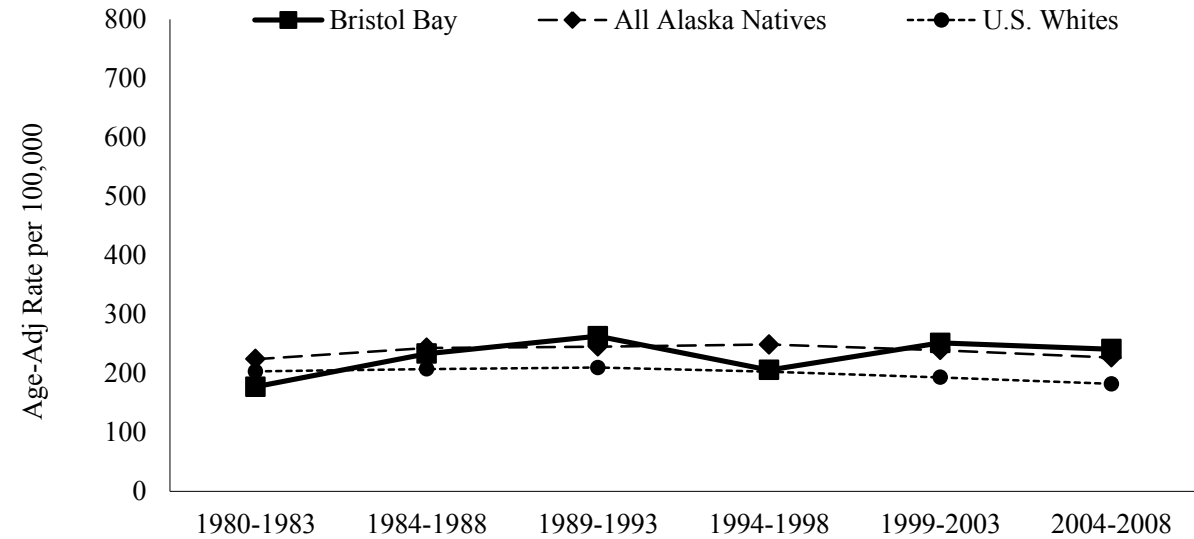


FIGURE 107. Age-Adjusted Mortality Rates for Cerebrovascular Disease
Bristol Bay vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)

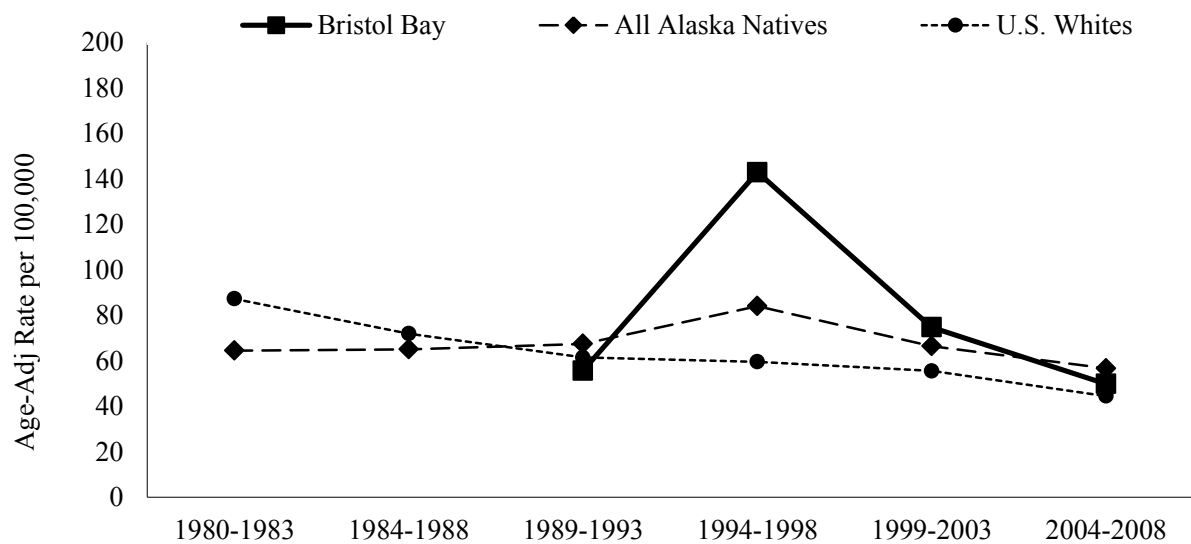
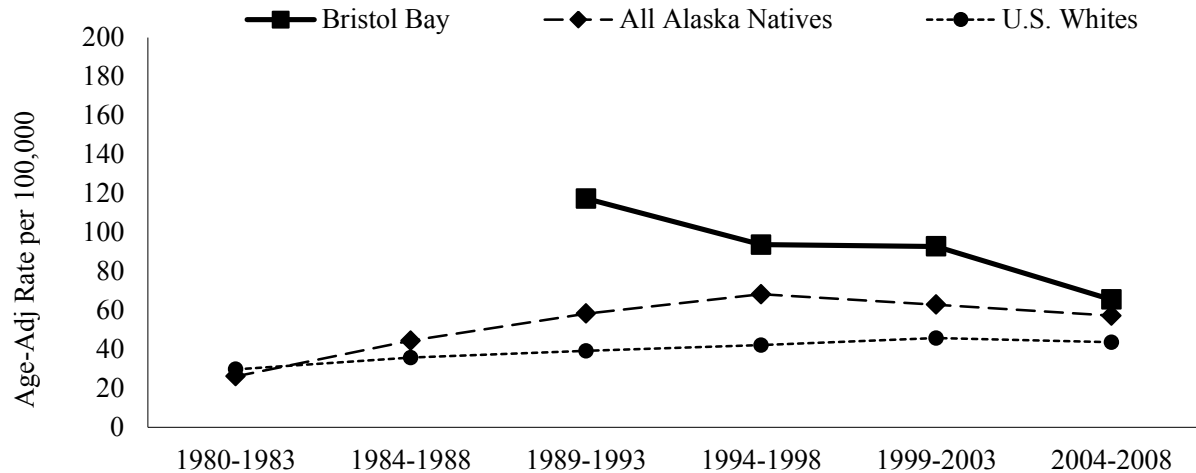


FIGURE 108.

Data Source: Table 14b.

Age-Adjusted Mortality Rates for COPD Bristol Bay vs All Alaska Natives vs U.S. Whites by Time Intervals (1980-2008)

**FIGURE 109.**

Data Source: Table 14b.

Age-Adjusted Mortality Rates for Heart Disease Bristol Bay vs All Alaska Natives vs U.S. Whites by Time Intervals (1980-2008)

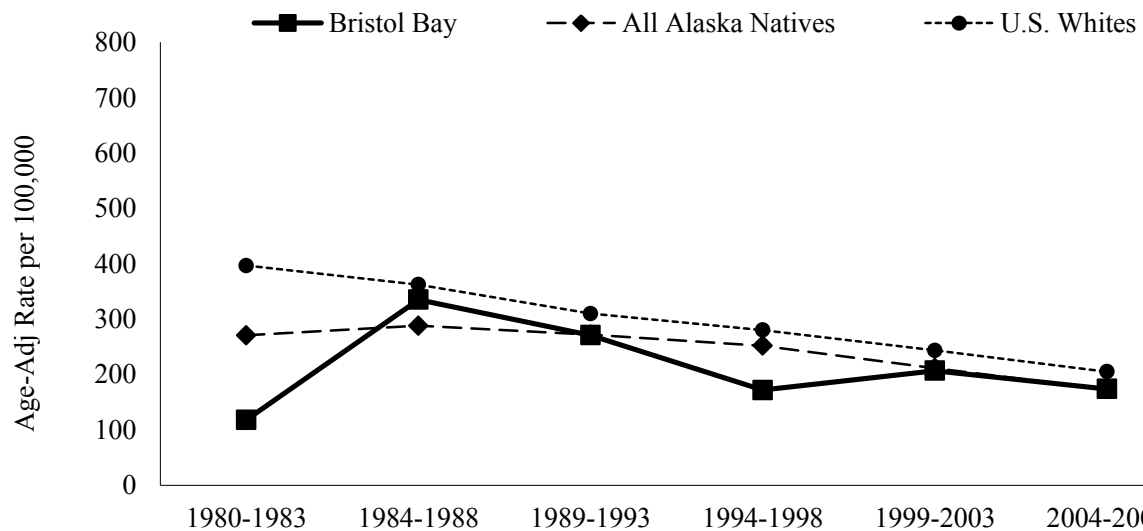


FIGURE 110. Age-Adjusted Mortality Rates for Suicide
Bristol Bay vs All Alaska Natives
by Time Intervals (1980-2008)

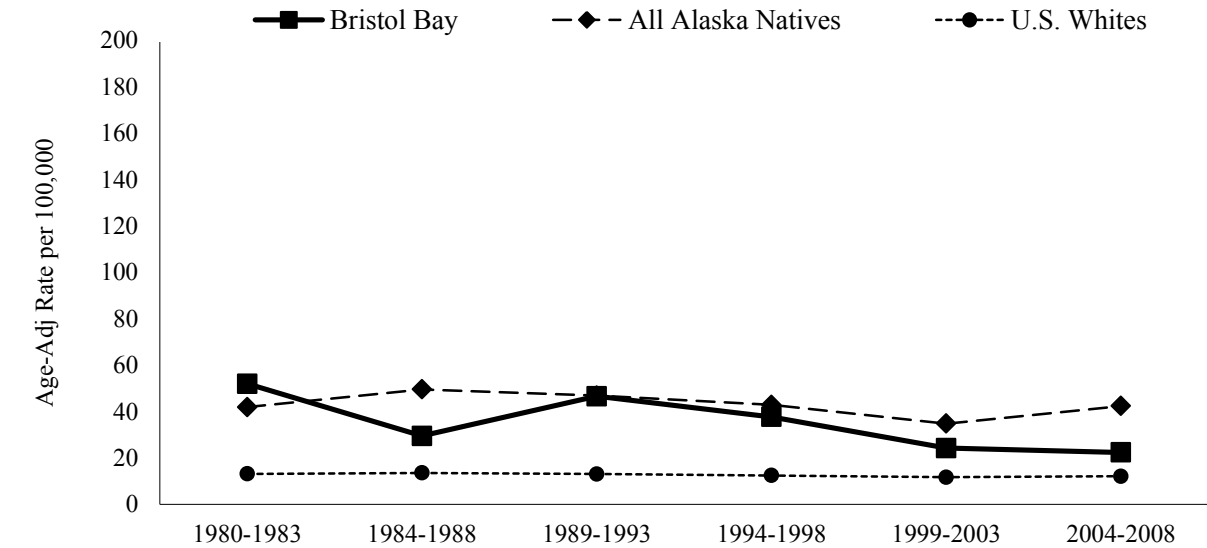


FIGURE 111. Age-Adjusted Mortality Rates for Unintentional Injury
Bristol Bay vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)

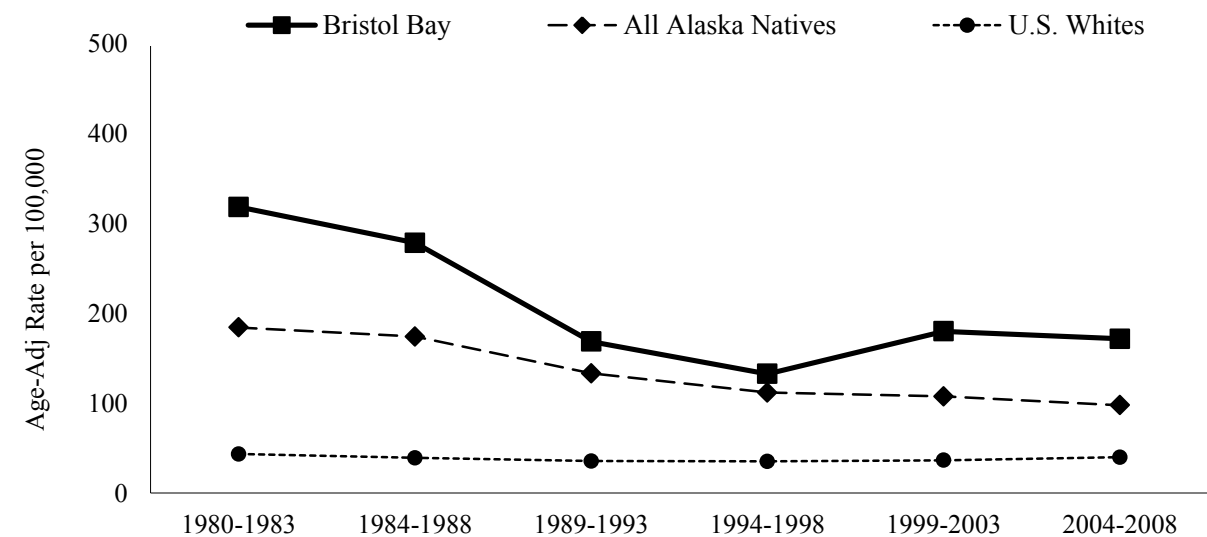


TABLE 15a. **Counts for Leading Causes of Death Among Alaska Natives**
Copper River/ Prince William Sound Service Region
Both Genders

Copper River/ Prince William Sound	Cancer	COPD	Heart Disease	Unintentional Injury	All Causes
1980-1983 ^a	5	<5	7	15	50
1984-1988	11	<5	10	9	53
1989-1993	11	<5	8	10	49
1994-1998	6	<5	9	12	54
1999-2003	19	<5	8	9	67
2004-2008	15	5	10	6	68

^a 1980-1983 contains only 4 years

(>5) counts are not reported for fewer than 5 deaths

TABLE 15b. **Age-Adjusted Rates^b for Leading Causes of Death Among Alaska Natives**
Copper River/ Prince William Sound Service Region
Both Genders

Copper River/ Prince William Sound	Cancer	COPD	Heart Disease	Unintentional Injury	All Causes
1980-1983 ^a	171.6	-	287.0	↑427.1	1621.4
1984-1988	296.0	-	257.4	183.7	1203.9
1989-1993	268.7	-	225.5	145.9	1069.5
1994-1998	122.1	-	180.5	↑222.3	1024.9
1999-2003	337.1	-	170.3	119.7	1208.6
2004-2008	251.2	89.2	160.9	89.5	1055.5

(-) rates are not reported for fewer than 5 deaths

↑↓ Rate is significantly higher or lower than the rate for the rest of AN regions combined

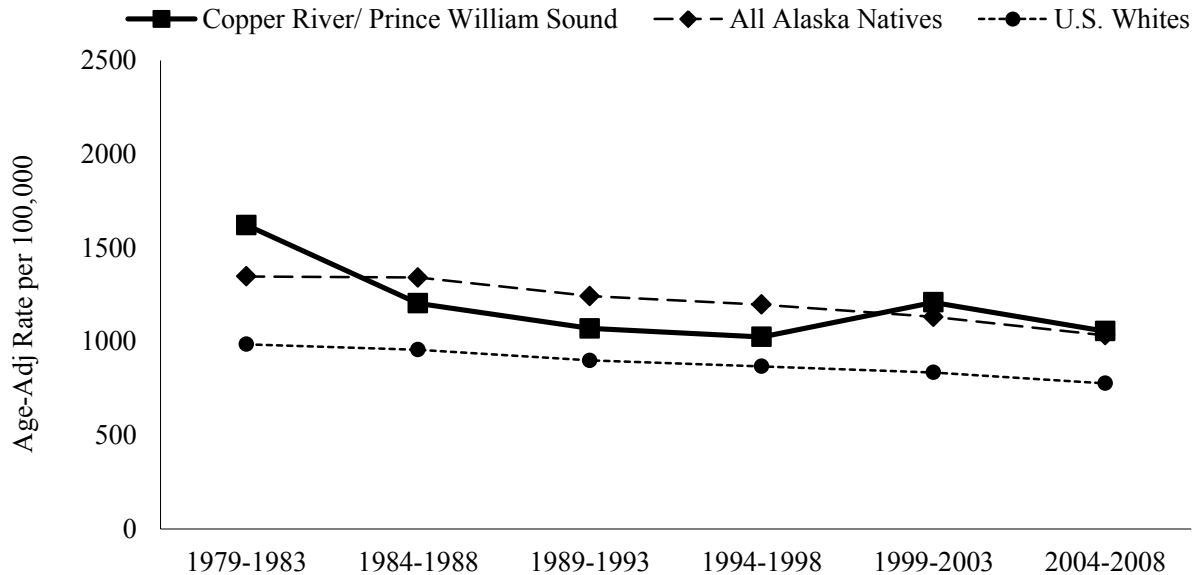
^a 1980-1983 contains only 4 years

^b Rates per 100,000 population

FIGURE 112.

Data Source: Table 15b.

Age-Adjusted Mortality Rates for All-Causes
Copper River/ PWS vs All Alaska Natives vs U.S. Whites
by Five Year Intervals (1980-2008)

**FIGURE 113.**

Data Source: Table 15b.

Age-Adjusted Mortality Rates for Cancer
Copper River/ PWS vs All Alaska Natives vs U.S. Whites
by Five Year Intervals (1980-2008)

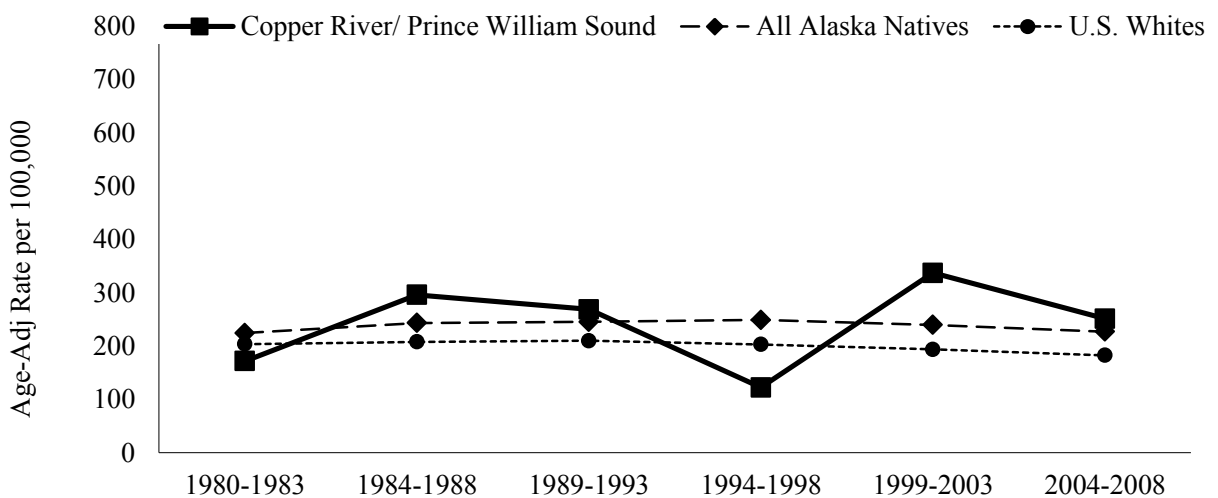
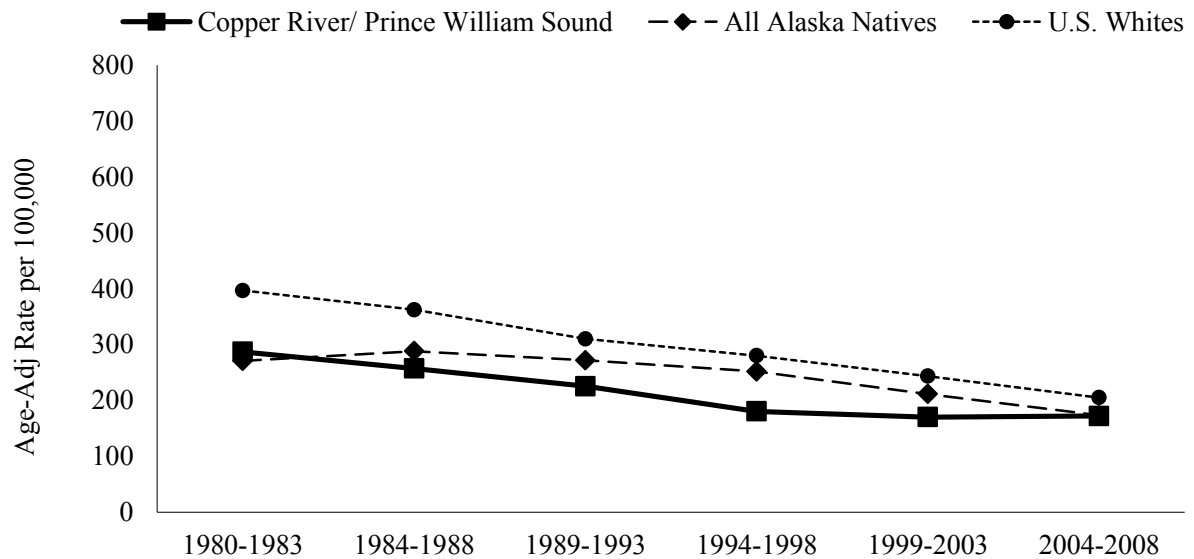


FIGURE 114.

Data Source: Table 15b.

Age-Adjusted Mortality Rates for Heart Disease Copper River/ PWS vs All Alaska Natives vs U.S. Whites by Five Year Intervals (1980-2008)

**FIGURE 115.**

Data Source: Table 15b.

Age-Adjusted Mortality Rates for Unintentional Injury Copper River/ PWS vs All Alaska Natives vs U.S. Whites by Five Year Intervals (1980-2008)

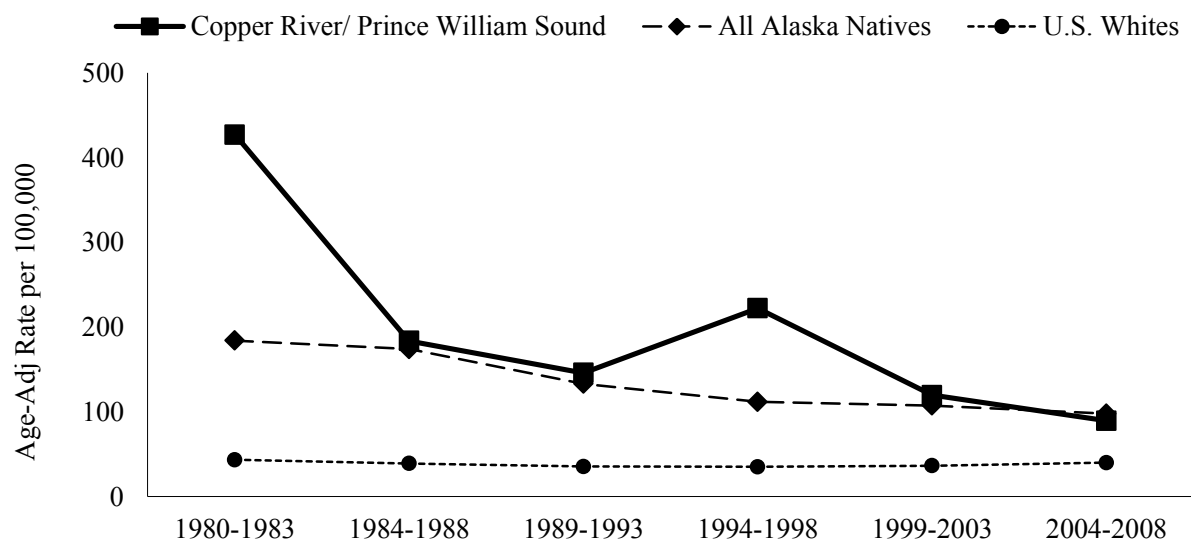


TABLE 16a. **Counts for Leading Causes of Death Among Alaska Natives**
Interior Service Region
Both Genders

	Alcohol Abuse	Alzheimer's Disease	Cancer	Cerebrovascular Disease	Chronic Liver Disease	COPD	Heart Disease	Homicide	Pneumonia & Influenza	Suicide	Unintentional Injury	All Causes
Interior												
1980-1983 ^a	9	<5	28	7	5	8	30	12	12	16	58	258
1984-1988	11	<5	49	18	<5	8	68	13	15	24	85	361
1989-1993	9	<5	64	13	8	5	61	19	16	38	62	375
1994-1998	17	<5	66	16	10	12	65	15	5	33	66	373
1999-2003	33	<5	66	18	12	17	52	13	7	31	66	386
2004-2008	40	9	93	17	9	15	47	9	10	27	63	446

^a 1980-1983 contains only 4 years

(>5) counts are not reported for fewer than 5 deaths

TABLE 16b. **Age-Adjusted Rates^b for Leading Causes of Death Among Alaska Natives**
Interior Service Region
Both Genders

	Alcohol Abuse	Alzheimer's Disease	Cancer	Cerebrovascular Disease	Chronic Liver Disease	COPD	Heart Disease	Homicide	Pneumonia & Influenza	Suicide	Unintentional Injury	All Causes
Interior												
1980-1983 ^a	48.7	-	237.4	68.5	24.5	↑ 69.8	264.1	33.3	72.2	↑ 59.8	↑ 242.9	↑ 1511.9
1984-1988	33.6	-	225.1	96.3	-	56.8	351.1	25.8	94.2	51.2	↑ 248.2	↑ 1465.7
1989-1993	23.4	-	250.1	48.2	22.4	↓ 20.6	272.0	↑ 35.0	52.7	↑ 73.4	132.7	1192.7
1994-1998	42.7	-	233.6	78.3	24.8	48.8	258.8	↑ 32.9	34.3	55.3	127.4	1153.5
1999-2003	↑ 72.8	-	205.2	55.9	25.0	65.4	170.4	22.7	22.2	↑ 49.5	118.9	1021.8
2004-2008	↑ 74.1	28.1	228.7	48.1	16.8	44.3	↓ 124.9	12.9	30.9	41.1	110.7	1000.1

(-) rates are not reported for fewer than 5 deaths

↑↓ Rate is significantly higher or lower than the rate for the rest of AN regions combined

^a 1980-1983 contains only 4 years

^b Rates per 100,000 population

FIGURE 116. Age-Adjusted Mortality Rates for All-Causes
 Interior vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

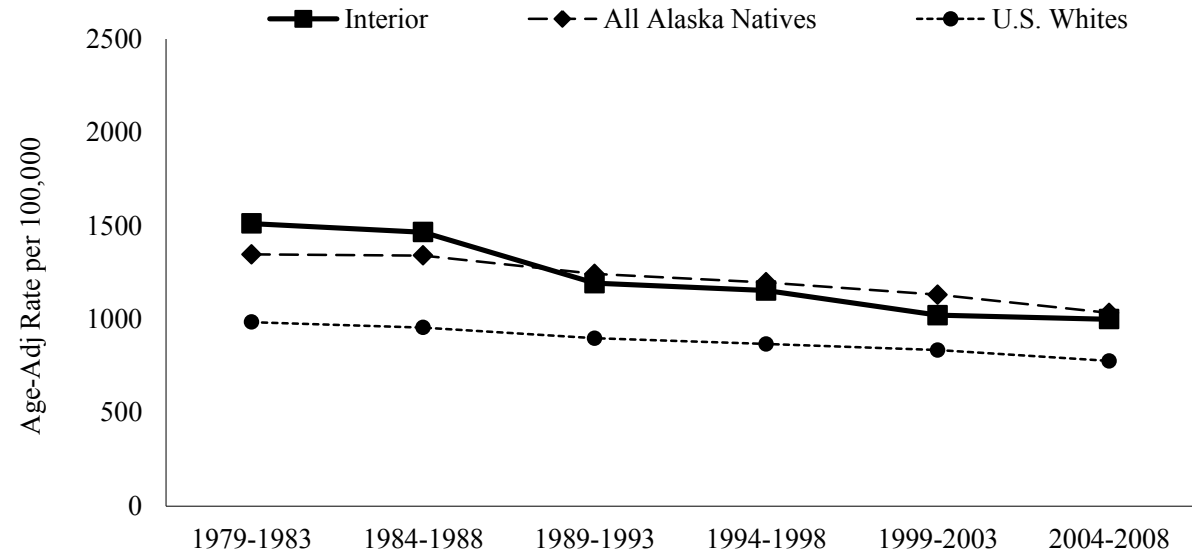


FIGURE 117. Age-Adjusted Mortality Rates for Alcohol Abuse
 Interior vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

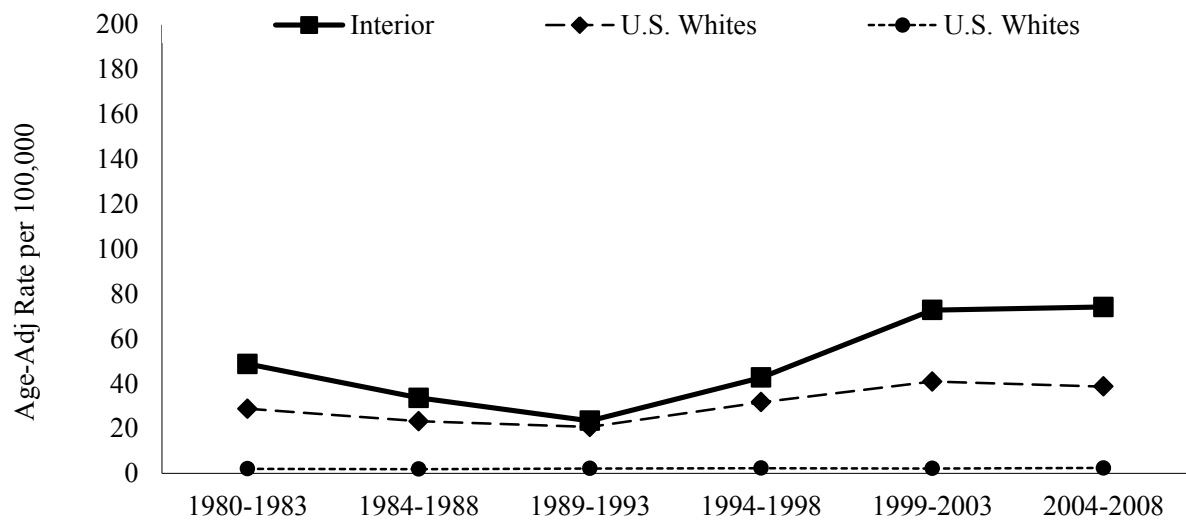


FIGURE 118. Age-Adjusted Mortality Rates for Cancer
 Interior vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

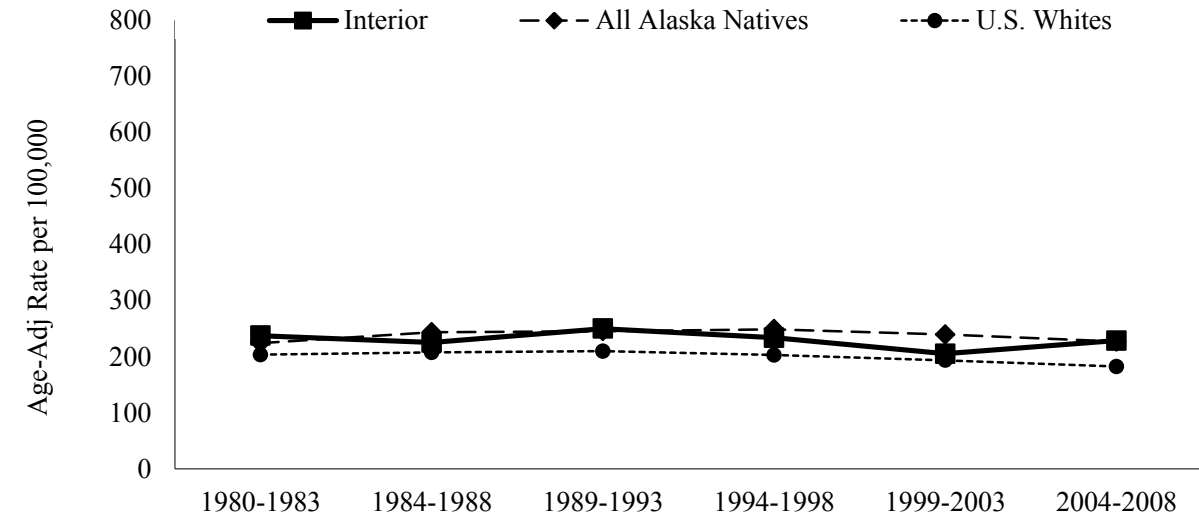


FIGURE 119. Age-Adjusted Mortality Rates for Cerebrovascular Disease
 Interior vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

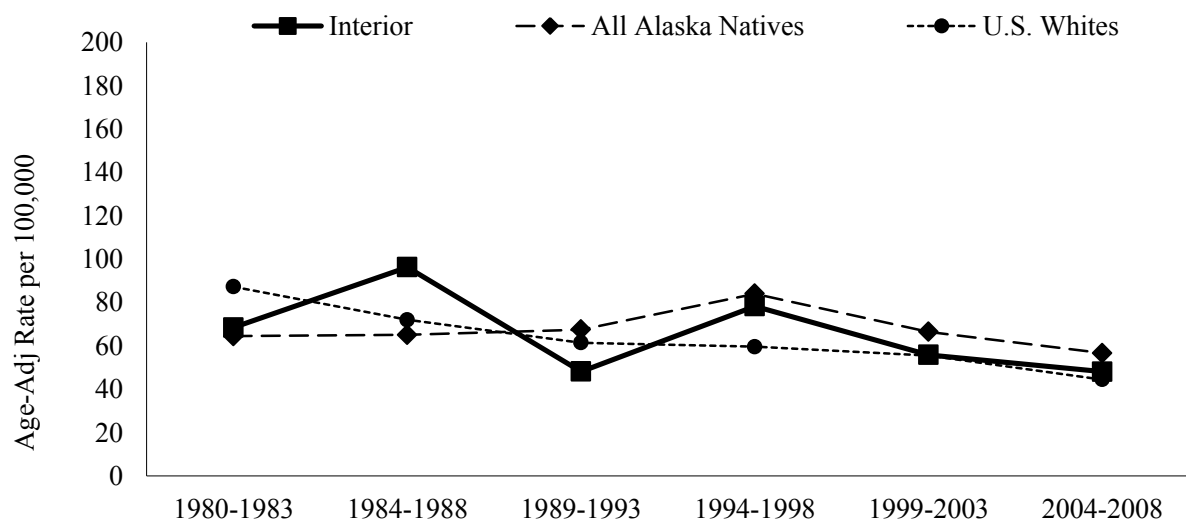


FIGURE 120. Age-Adjusted Mortality Rates for Chronic Liver Disease
 Interior vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

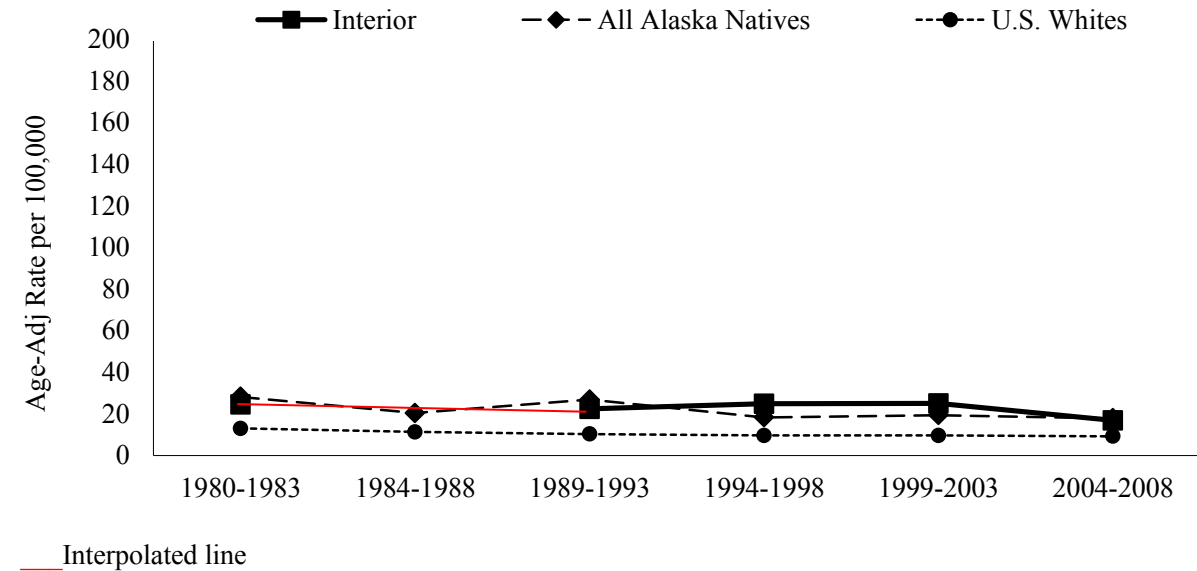


FIGURE 121. Age-Adjusted Mortality Rates for COPD
 Interior vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

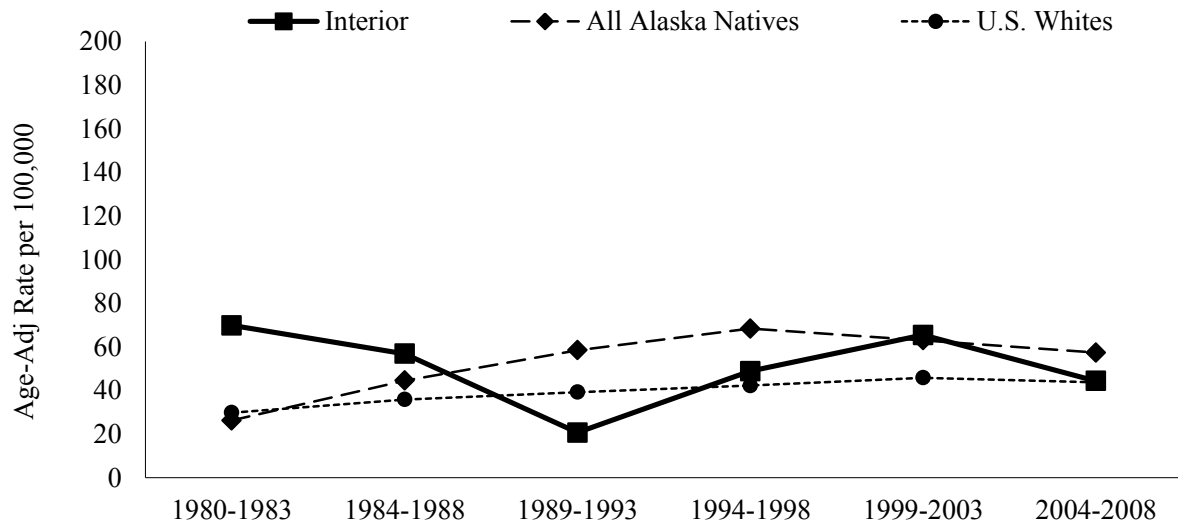
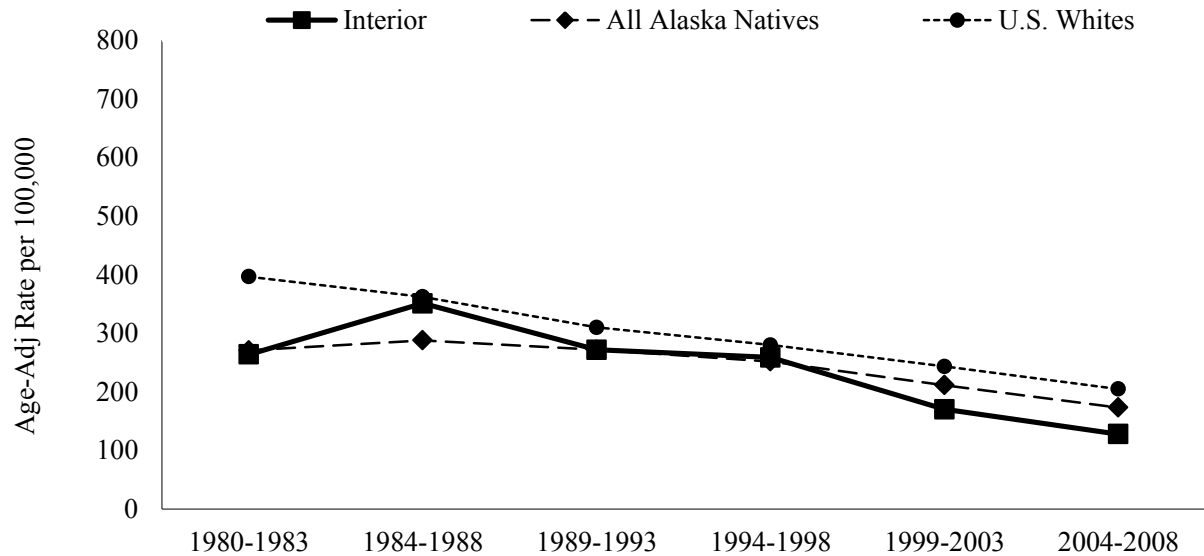


FIGURE 122.

Data Source: Table 16b.

Age-Adjusted Mortality Rates for Heart Disease Interior vs All Alaska Natives vs U.S. Whites by Time Intervals (1980-2008)

**FIGURE 123.**

Data Source: Table 16b.

Age-Adjusted Mortality Rates for Homicide Interior vs All Alaska Natives vs U.S. Whites by Time Intervals (1980-2008)

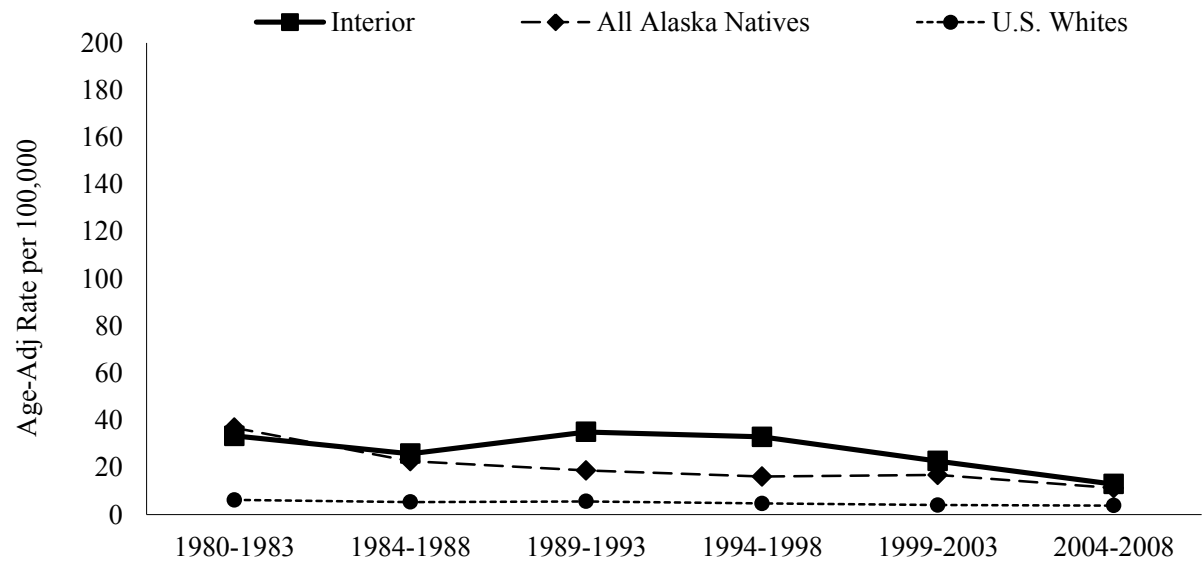


FIGURE 124. Age-Adjusted Mortality Rates for Suicide
 Interior vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

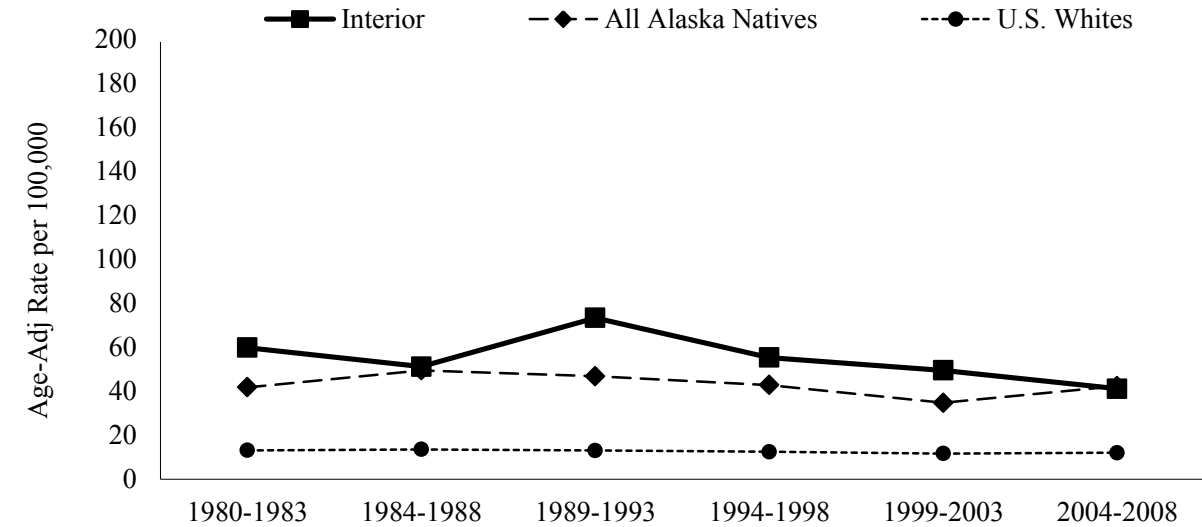


FIGURE 125. Age-Adjusted Mortality Rates for Unintentional Injury
 Interior vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

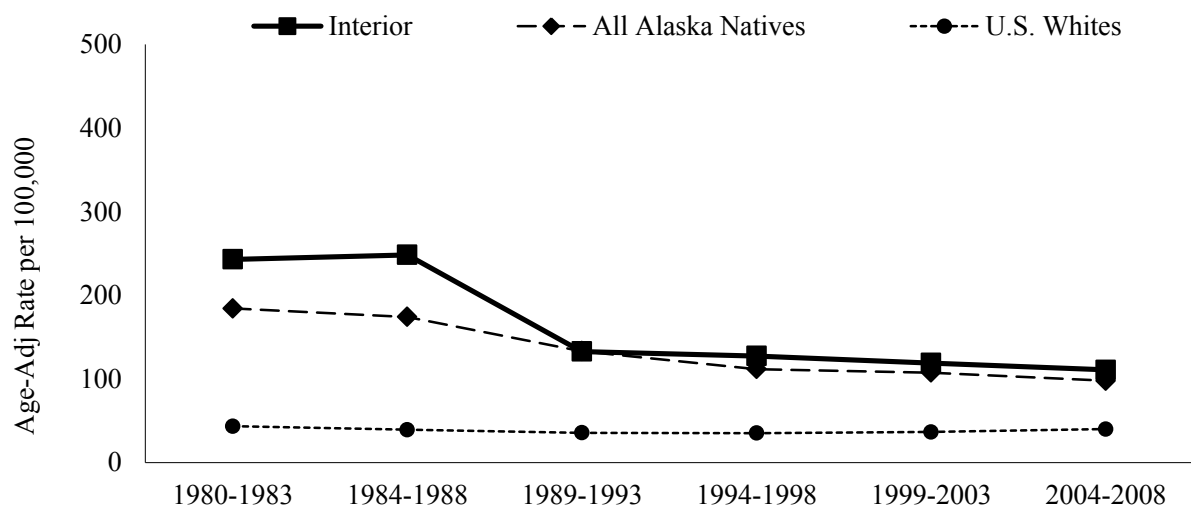


TABLE 17a. **Counts for Leading Causes of Death Among Alaska Natives**
Kenai Peninsula Service Region
Both Genders

	Alcohol Abuse	Cancer	Cerebrovascular Disease	COPD	Heart Disease	Suicide	Unintentional Injury	All Causes
Kenai Peninsula								
1980-1983 ^a	-	11	<5	<5	13	<5	5	49
1984-1988	-	23	<5	<5	17	8	10	78
1989-1993	-	19	<5	<5	11	<5	16	75
1994-1998	-	27	<5	<5	27	<5	13	101
1999-2003	5	22	5	6	26	<5	15	124
2004-2008	5	38	11	9	35	6	15	172

^a 1980-1983 contains only 4 years

(>5) counts are not reported for fewer than 5 deaths

TABLE 17b. **Age-Adjusted Rates^b for Leading Causes of Death Among Alaska Natives**
Kenai Peninsula Service Region
Both Genders

	Alcohol Abuse	Cancer	Cerebrovascular Disease	COPD	Heart Disease	Suicide	Unintentional Injury	All Causes
Kenai Peninsula								
1980-1983 ^a	-	340.8	-	-	475.5	-	73.8	1440.4
1984-1988	-	↑459.9	-	-	340.9	74.7	112.4	1359.0
1989-1993	-	287.9	-	-	198.4	-	122.6	1057.8
1994-1998	-	↑372.1	-	-	292.1	-	68.2	1149.9
1999-2003	32.0	171.7	44.8	61.7	245.2	-	70.9	1075.3
2004-2008	27.6	260.4	87.6	74.9	↑262.8	24.6	83.5	1150.4

(-) rates are not reported for fewer than 5 deaths

↑↓ Rate is significantly higher or lower than the rate for the rest of AN regions combined

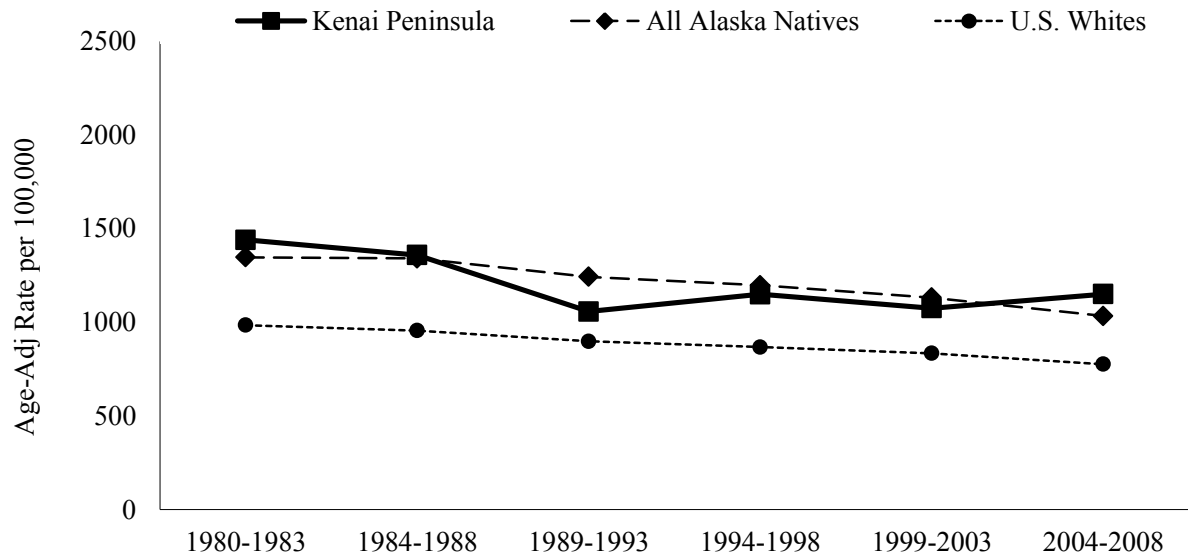
^a 1980-1983 contains only 4 years

^b Rates per 100,000 population

FIGURE 126.

Data Source: Table 17b.

Age-Adjusted Mortality Rates for All-Causes Kenai Peninsula vs All Alaska Natives vs U.S. Whites by Time Intervals (1980-2008)

**FIGURE 127.**

Data Source: Table 17b.

Age-Adjusted Mortality Rates for Cancer Kenai Peninsula vs All Alaska Natives vs U.S. Whites by Time Intervals (1980-2008)

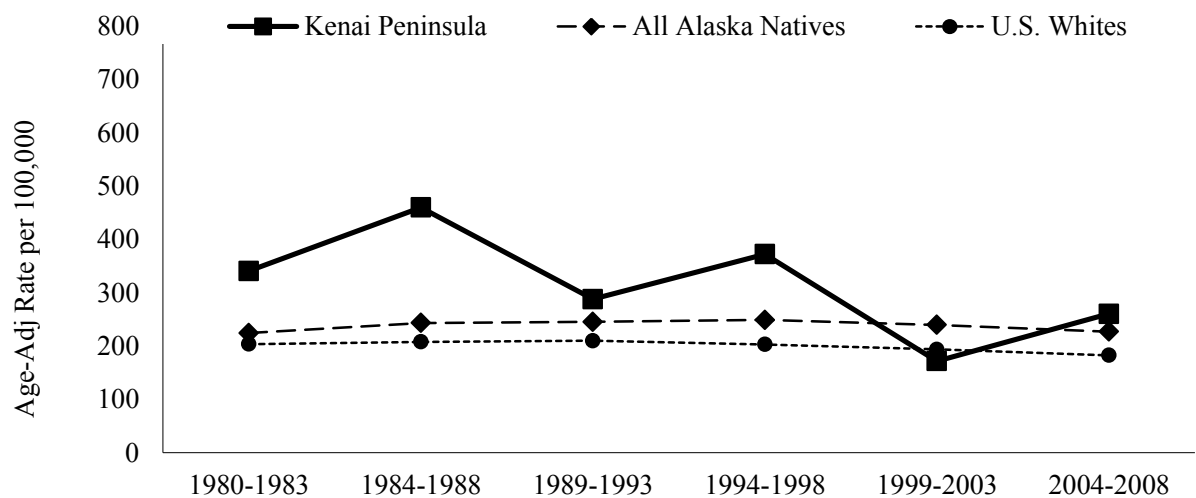


FIGURE 128. Age-Adjusted Mortality Rates for Heart Disease
Kenai Peninsula vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)

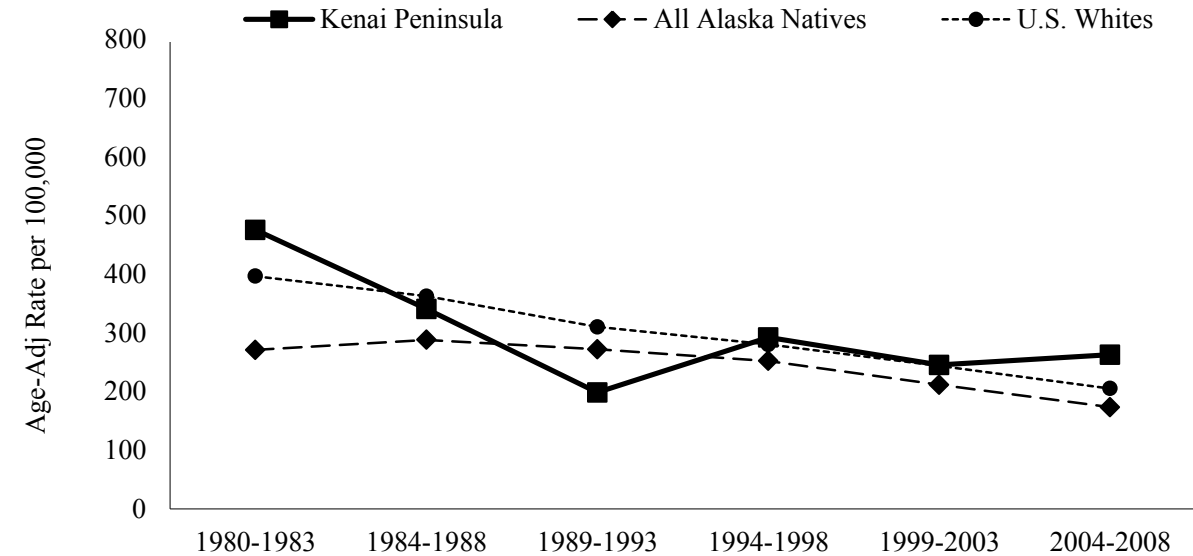


FIGURE 129. Age-Adjusted Mortality Rates for Unintentional Injury
Kenai Peninsula vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)

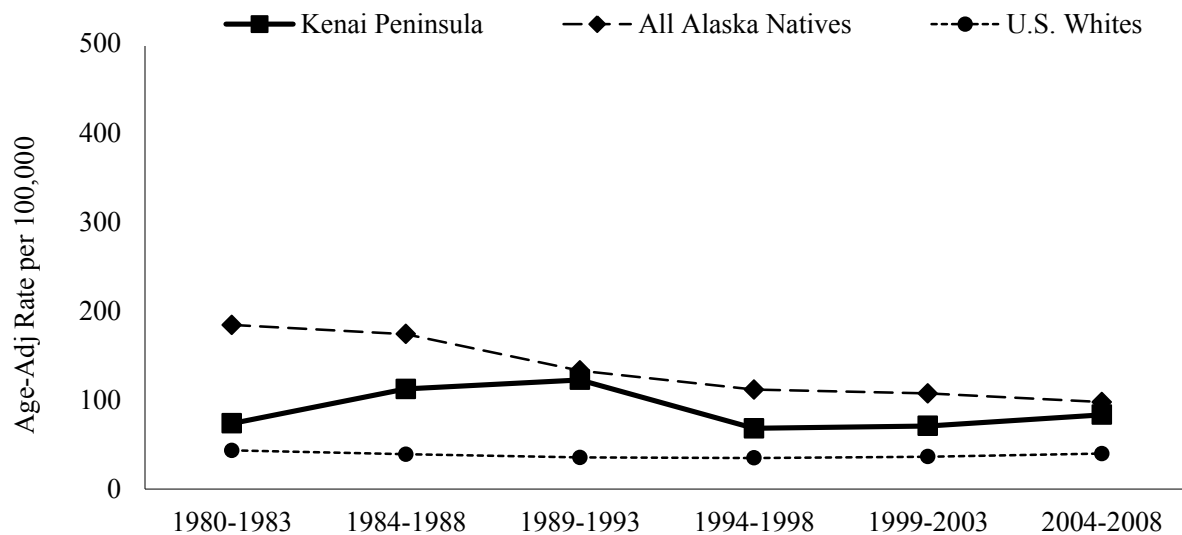


TABLE 18a. **Counts for Leading Causes of Death Among Alaska Natives**
Kodiak Area Service Region
Both Genders

	Alcohol Abuse	Cancer	Cerebrovascular Disease	Heart Disease	Unintentional Injury	All Causes
Kodiak Area						
1980-1983 ^a	-	5	<5	15	14	60
1984-1988	-	19	<5	21	17	87
1989-1993	-	18	<5	21	10	85
1994-1998	-	17	7	23	9	84
1999-2003	-	17	<5	17	<5	71
2004-2008	6	19	8	8	6	82

^a 1980-1983 contains only 4 years

(>5) counts are not reported for fewer than 5 deaths

TABLE 18b. **Age-Adjusted Rates^b for Leading Causes of Death Among Alaska Natives**
Kodiak Area Service Region
Both Genders

	Alcohol Abuse	Cancer	Cerebrovascular Disease	Heart Disease	Unintentional Injury	All Causes
Kodiak Area						
1980-1983 ^a	-	92.6	-	444.0	↑208.8	1307.0
1984-1988	-	382.7	-	407.9	182.1	1447.6
1989-1993	-	331.9	-	395.4	94.4	1413.8
1994-1998	-	323.6	144.1	↑423.1	87.9	1368.1
1999-2003	-	240.8	-	295.4	-	1037.8
2004-2008	64.8	251.2	102.6	112.8	54.0	991.9

(-) rates are not reported for fewer than 5 deaths

↑↓ Rate is significantly higher or lower than the rate for the rest of AN regions combined

^a 1980-1983 contains only 4 years

^b Rates per 100,000 population

FIGURE 130. Age-Adjusted Mortality Rates for All-Causes
 Kodiak Area vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)
 Data Source: Table 18b.

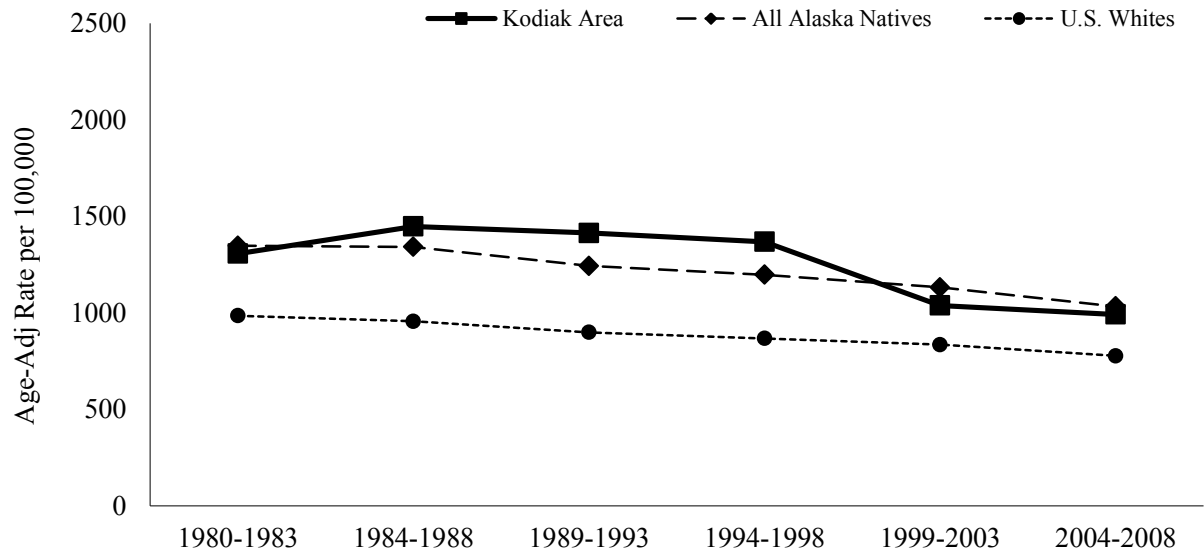


FIGURE 131. Age-Adjusted Mortality Rates for Cancer
 Kodiak Area vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)
 Data Source: Table 18b.

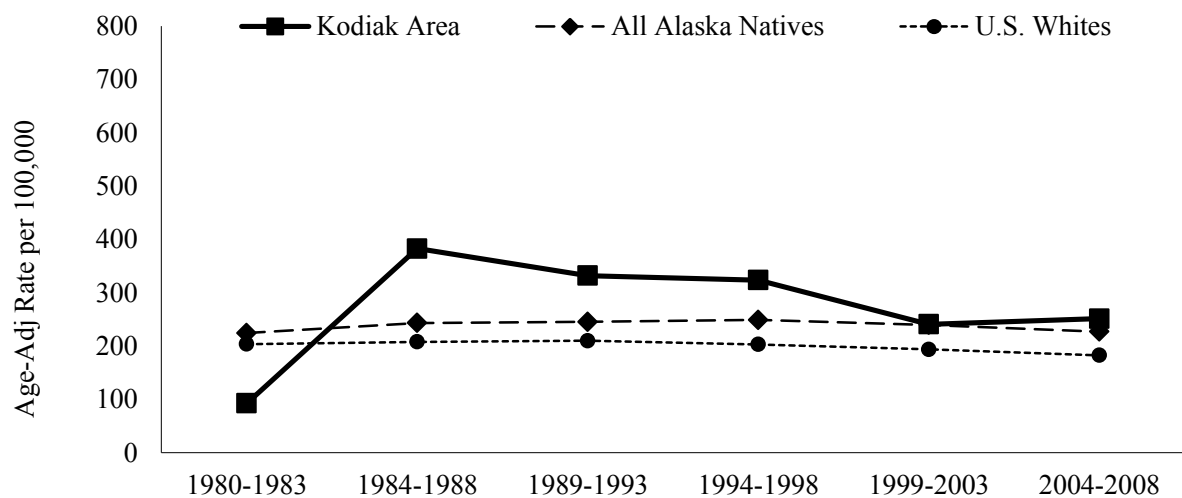


FIGURE 132. Age-Adjusted Mortality Rates for Heart Disease
Kodiak Area vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)

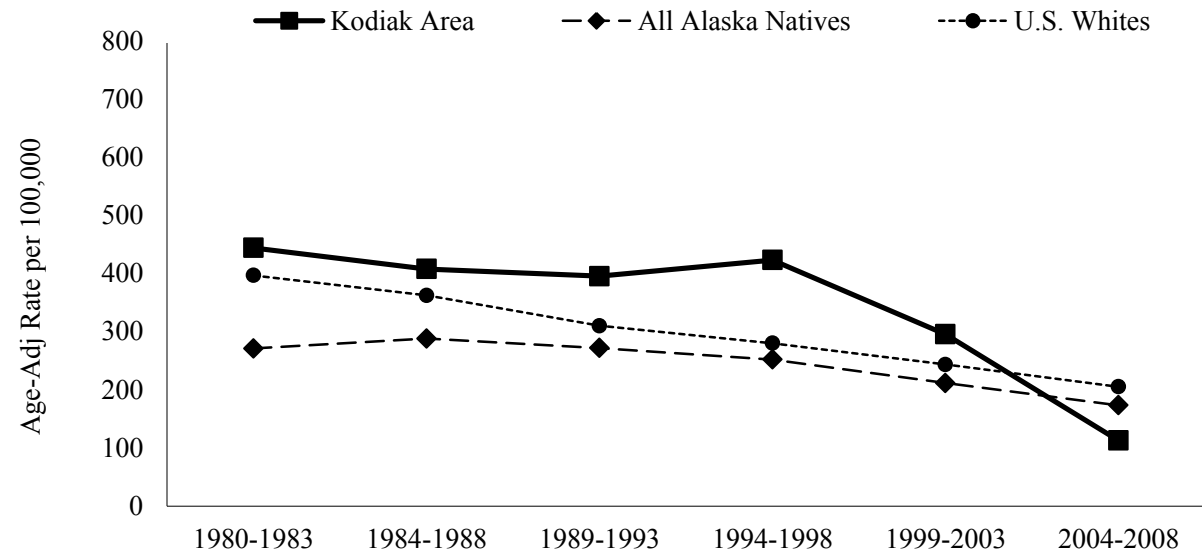
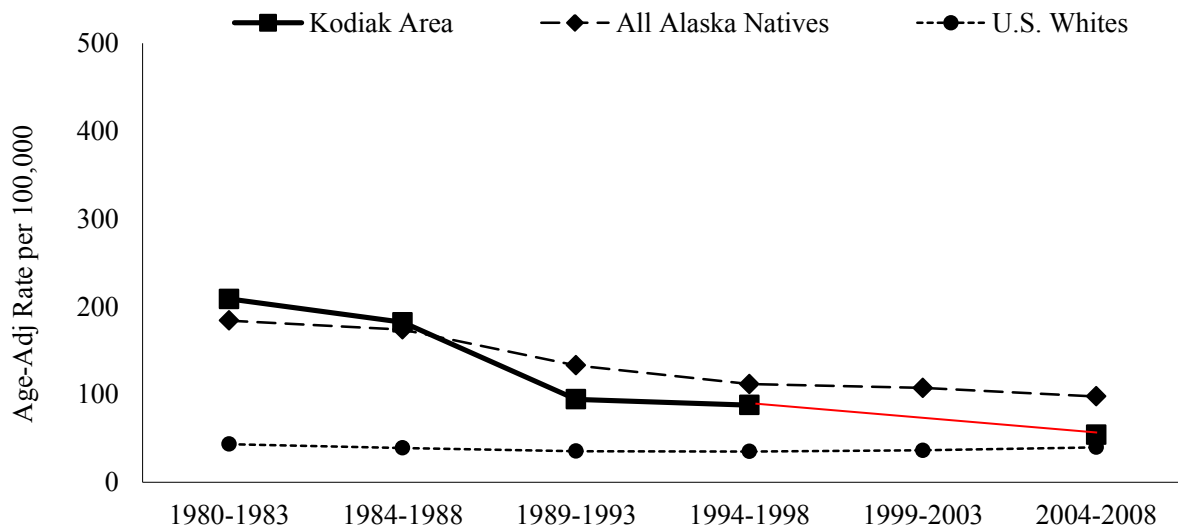


FIGURE 133. Age-Adjusted Mortality Rates for Unintentional Injury
Kodiak Area vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)



Interpolated line

TABLE 19a. **Counts for Leading Causes of Death Among Alaska Natives**
Northwest Arctic Service Region
Both Genders

	Alcohol Abuse	Cancer	Cerebrovascular Disease	COPD	Heart Disease	Suicide	Unintentional Injury	All Causes
Northwest Arctic								
1980-1983 ^a	9	16	6	<5	23	19	33	147
1984-1988	5	37	<5	8	27	22	41	212
1989-1993	-	30	9	7	33	24	57	214
1994-1998	6	38	8	8	34	25	28	195
1999-2003	9	38	12	8	28	30	38	222
2004-2008	5	51	6	10	32	30	43	219

^a 1980-1983 contains only 4 years

(>5) counts are not reported for fewer than 5 deaths

TABLE 19b. **Age-Adjusted Rates^b for Leading Causes of Death Among Alaska Natives**
Northwest Arctic Service Region
Both Genders

	Alcohol Abuse	Cancer	Cerebrovascular Disease	COPD	Heart Disease	Suicide	Unintentional Injury	All Causes
Northwest Arctic								
1980-1983 ^a	↑86.2	181.9	68.7	-	243.8	↑92.0	↑197.3	1158.3
1984-1988	30.6	307.0	-	65.3	250.3	↑78.3	174.1	1361.8
1989-1993	-	214.5	74.6	63.2	265.5	↑70.7	↑227.6	1238.5
1994-1998	21.4	262.8	77.5	61.9	273.5	↑75.8	87.8	1174.8
1999-2003	31.6	260.9	101.2	55.6	219.7	↑83.8	132.0	1260.8
2004-2008	17.7	282.0	39.6	70.0	207.3	↑79.6	↑151.3	1076.8

(-) rates are not reported for fewer than 5 deaths

↑↓ Rate is significantly higher or lower than the rate for the rest of AN regions combined

^a 1980-1983 contains only 4 years

^b Rates per 100,000 population

FIGURE 134. Age-Adjusted Mortality Rates for All-Causes
Northwest Arctic vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

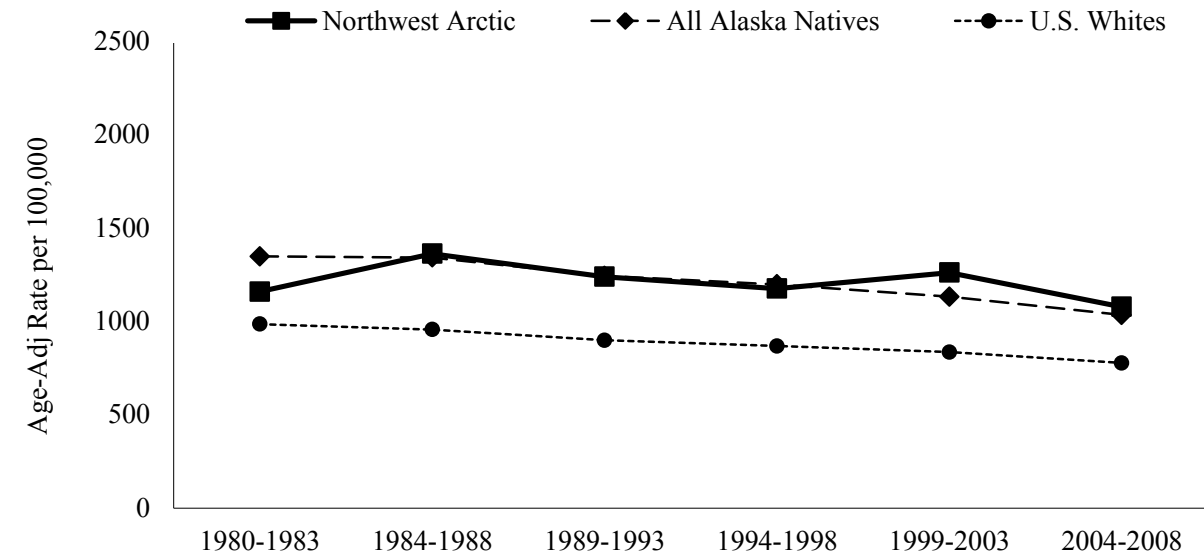


FIGURE 135. Age-Adjusted Mortality Rates for Alcohol Abuse
Northwest Arctic vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

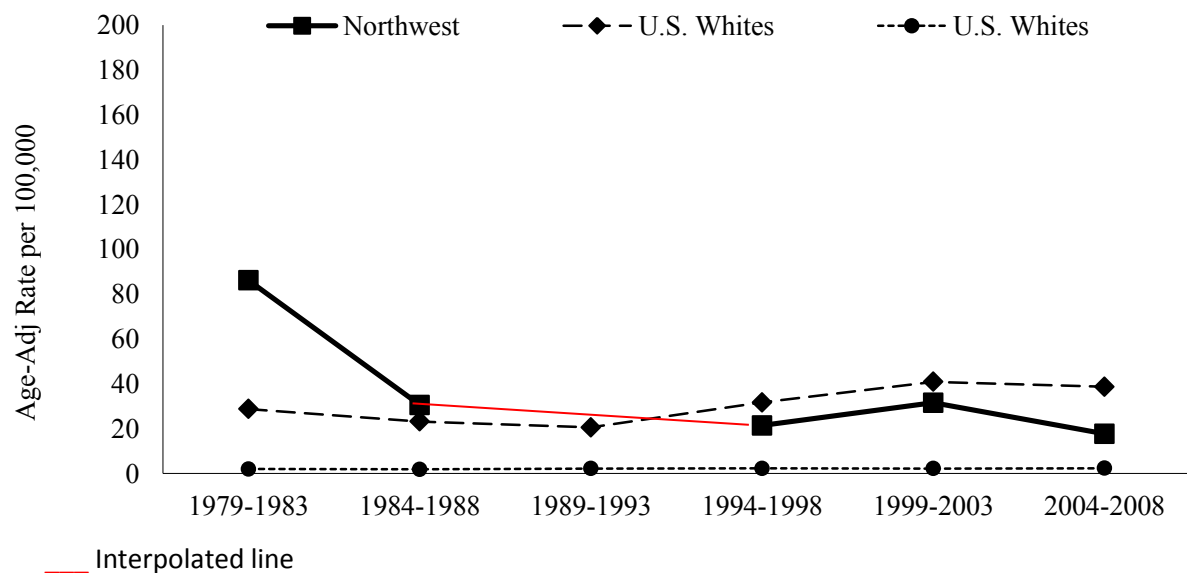


FIGURE 136. Age-Adjusted Mortality Rates for Cancer
Northwest Arctic vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)

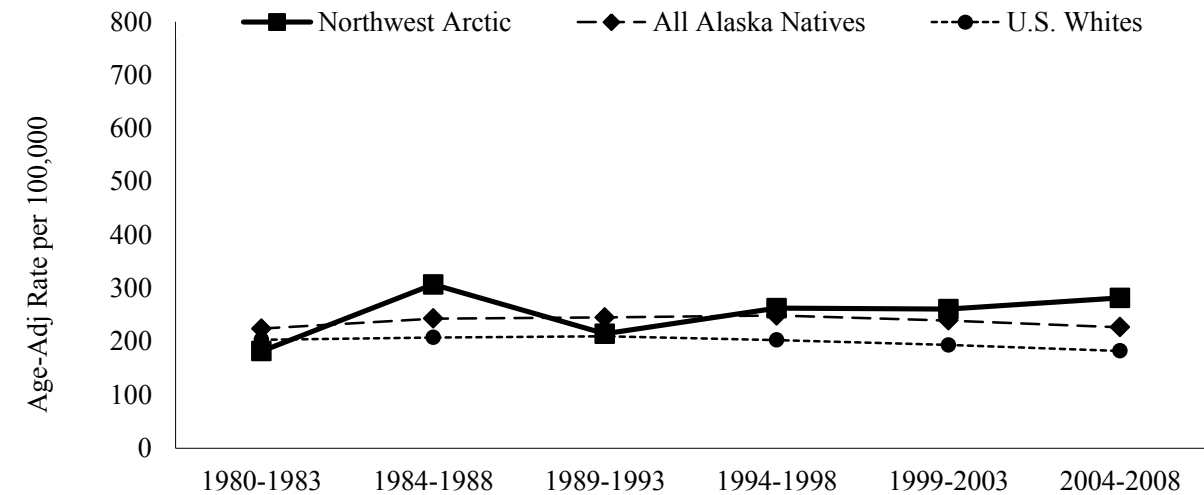
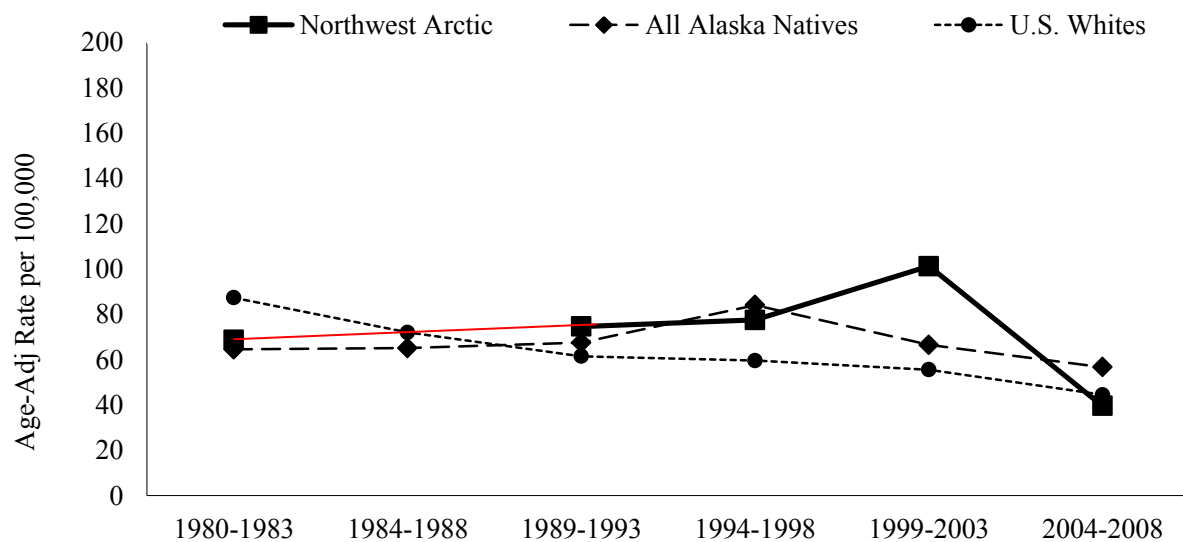


FIGURE 137. Age-Adjusted Mortality Rates for Cerebrovascular Disease
Northwest Arctic vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)



Interpolated line

FIGURE 138. Age-Adjusted Mortality Rates for COPD
 Northwest Arctic vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

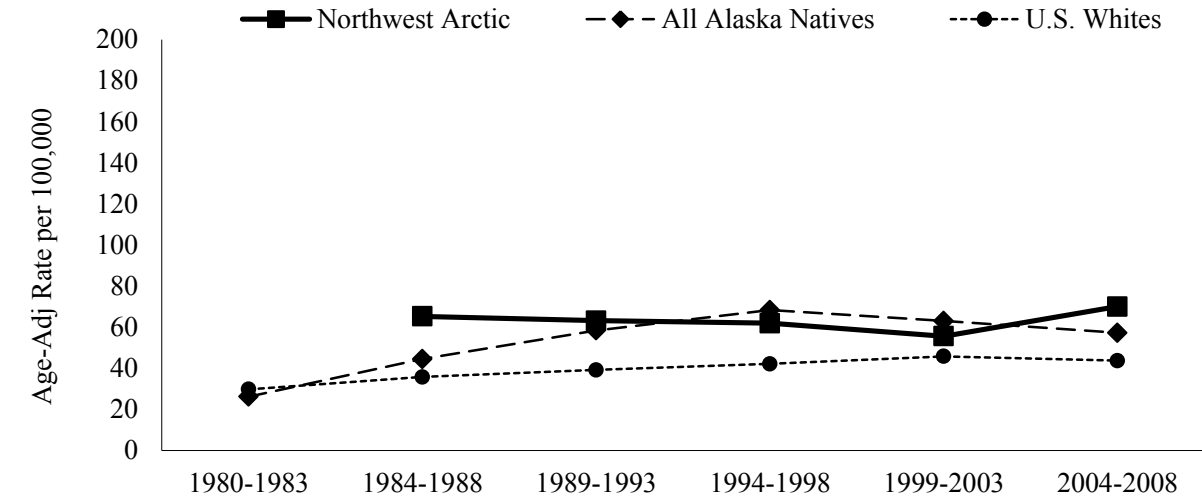


FIGURE 139. Age-Adjusted Mortality Rates for Heart Disease
 Northwest Arctic vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

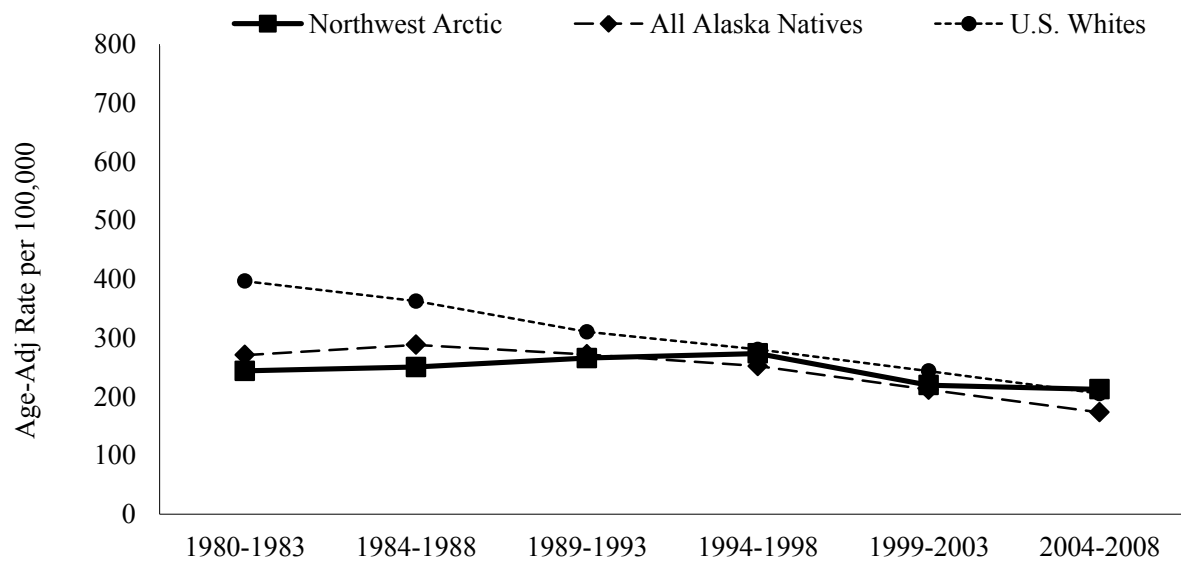


FIGURE 140. Age-Adjusted Mortality Rates for Suicide
Northwest Arctic vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)

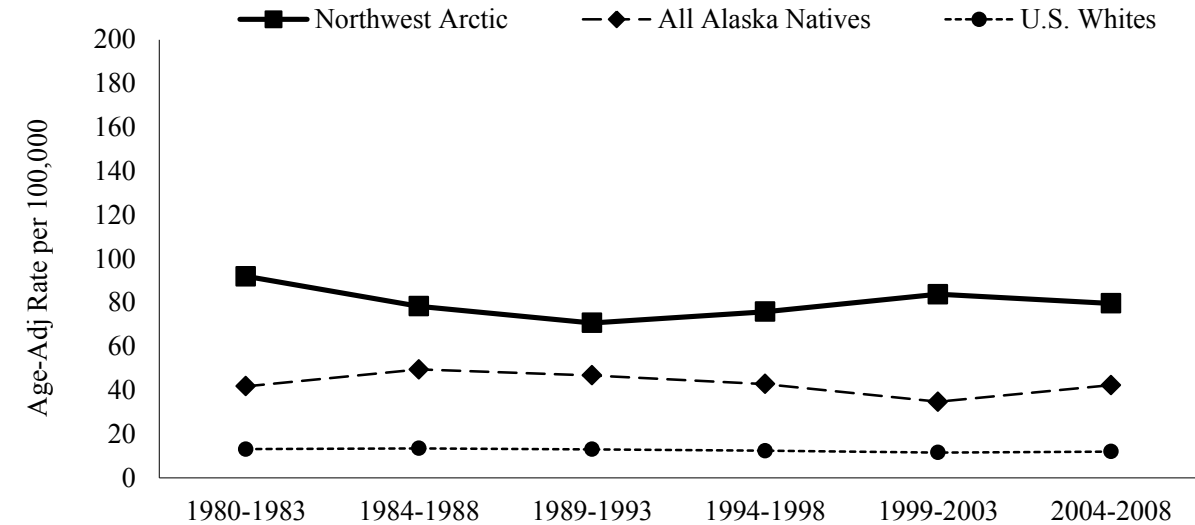


FIGURE 141. Age-Adjusted Mortality Rates for Unintentional Injury
Northwest Arctic vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)

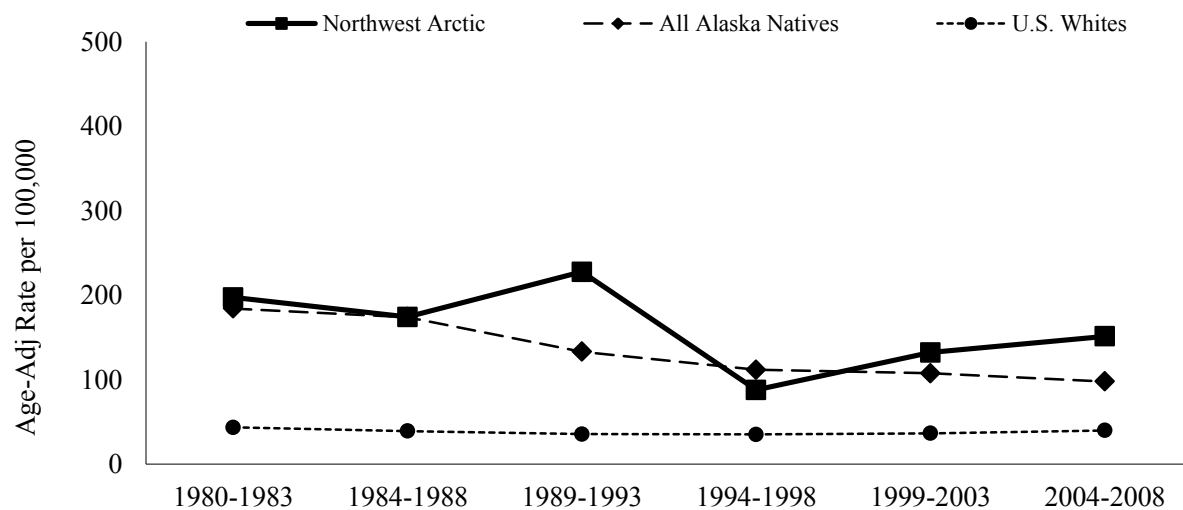


TABLE 20a. **Counts for Leading Causes of Death Among Alaska Natives**
Norton Sound Service Region
Both Genders

	Alcohol Abuse	Cancer	Cerebrovascular Disease	COPD	Heart Disease	Homicide	Pneumonia & Influenza	Suicide	Unintentional Injury	All Causes
Norton Sound										
1980-1983 ^a	-	38	6	<5	30	16	7	19	31	195
1984-1988	-	40	7	7	44	9	<5	26	39	213
1989-1993	10	41	11	10	44	<5	5	27	39	259
1994-1998	9	51	14	17	43	6	<5	26	51	272
1999-2003	13	56	12	13	36	<5	<5	34	41	291
2004-2008	11	48	9	11	33	5	5	29	43	260

^a 1980-1983 contains only 4 years

(>5) counts are not reported for fewer than 5 deaths

TABLE 20b. **Age-Adjusted Rates^b for Leading Causes of Death Among Alaska Natives**
Norton Sound Service Region
Both Genders

	Alcohol Abuse	Cancer	Cerebrovascular Disease	COPD	Heart Disease	Homicide	Pneumonia & Influenza	Suicide	Unintentional Injury	All Causes
Norton Sound										
1980-1983 ^a	-	315.2	62.1	-	301.6	73.1	44.2	↑90.3	↓141.4	1372.7
1984-1988	-	259.8	46.6	46.1	324.0	40.1	-	↑93.5	156.0	1137.6
1989-1993	↑44.2	257.1	78.9	62.1	303.1	-	36.1	↑79.5	122.6	1360.7
1994-1998	28.6	278.0	79.9	107.7	252.1	20.6	-	↑72.9	↑175.8	1296.6
1999-2003	51.2	282.7	60.0	71.4	179.0	-	-	↑87.8	143.0	1243.0
2004-2008	36.9	234.6	47.3	58.3	149.9	14.2	19.7	↑75.8	↑136.1	1047.5

(-) rates are not reported for fewer than 5 deaths

↑↓ Rate is significantly higher or lower than the rate for the rest of AN regions combined

^a 1980-1983 contains only 4 years

^b Rates per 100,000 population

FIGURE 142. Age-Adjusted Mortality Rates for All-Causes
Norton Sound vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)

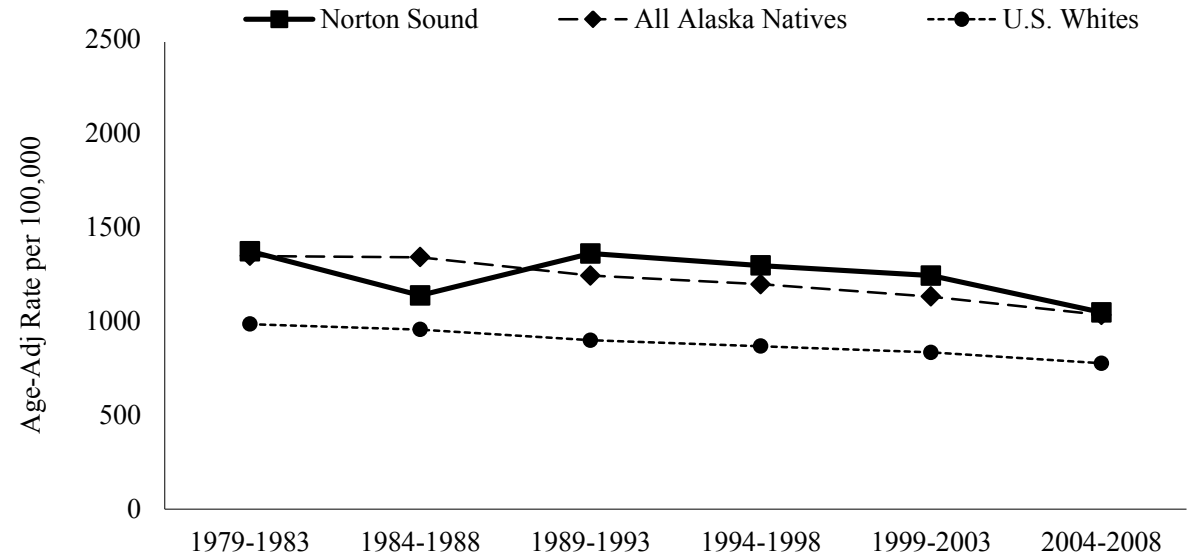


FIGURE 143. Age-Adjusted Mortality Rates for Alcohol Abuse
Norton Sound vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)

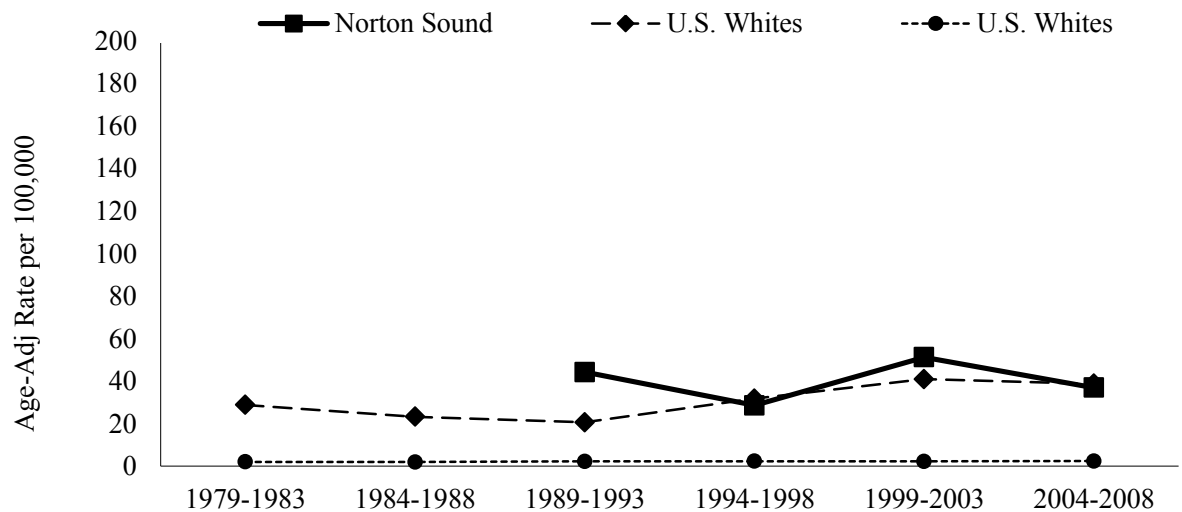
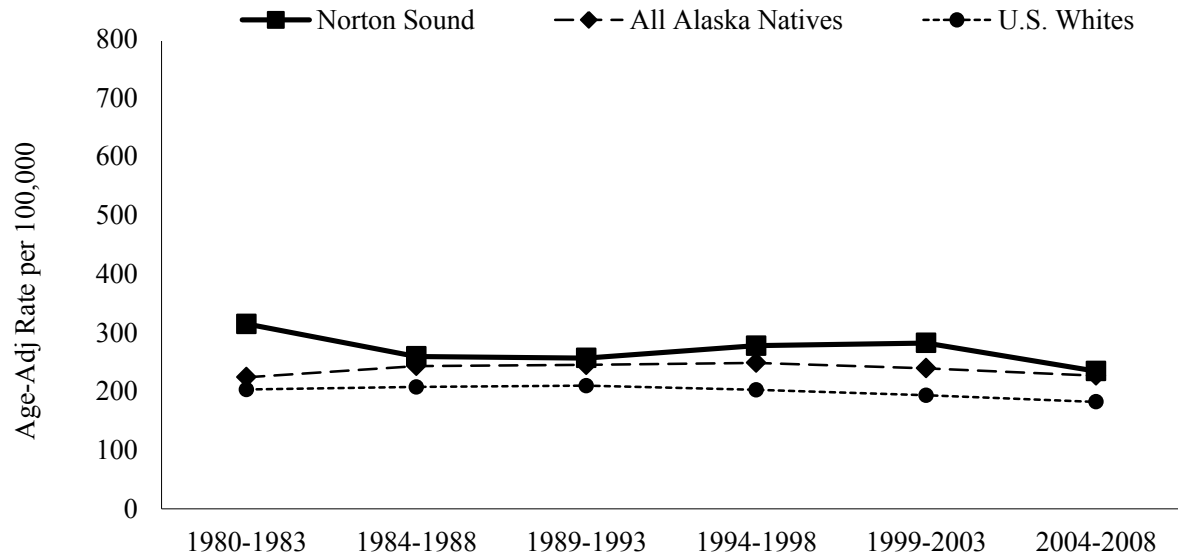


FIGURE 144.

Data Source: Table 20b.

Age-Adjusted Mortality Rates for Cancer Norton Sound vs All Alaska Natives vs U.S. Whites by Time Intervals (1980-2008)

**FIGURE 145.**

Data Source: Table 20b.

Age-Adjusted Mortality Rates for Cerebrovascular Disease Norton Sound vs All Alaska Natives vs U.S. Whites by Time Intervals (1980-2008)

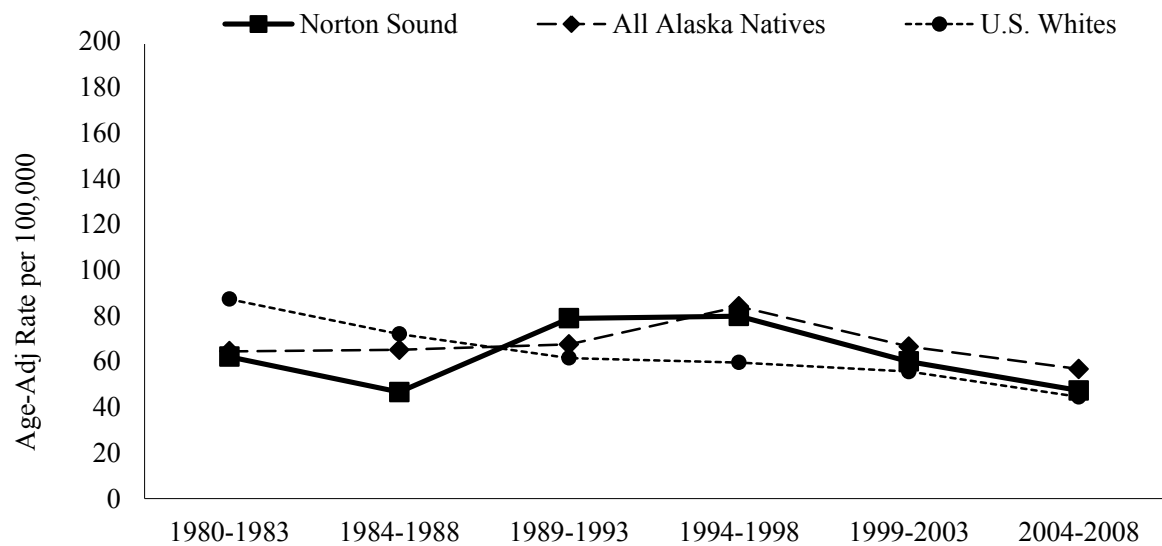


FIGURE 146. Age-Adjusted Mortality Rates for COPD
 Norton Sound vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

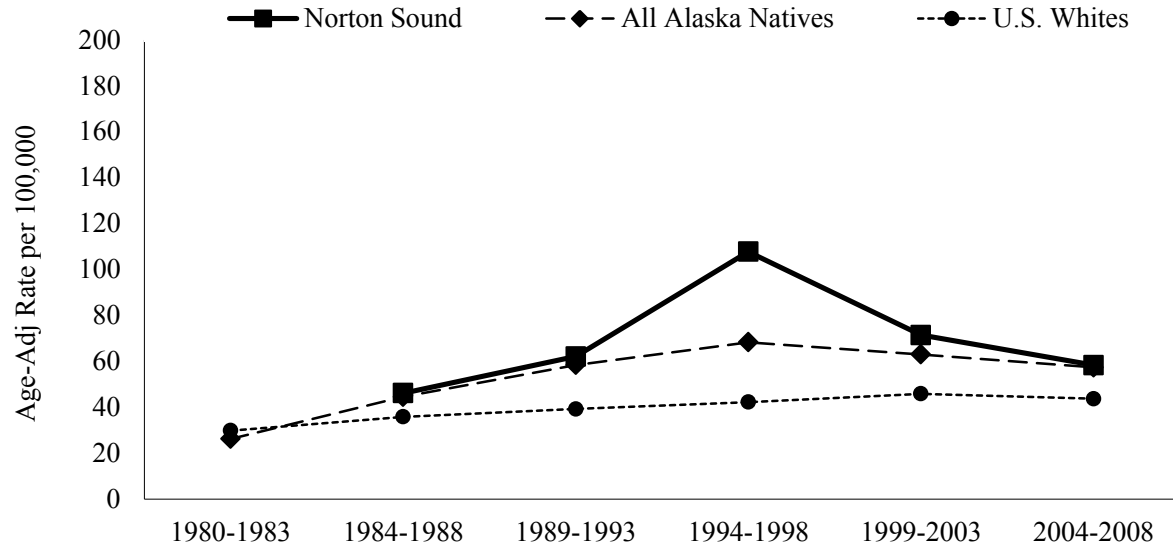


FIGURE 147. Age-Adjusted Mortality Rates for Heart Disease
 Norton Sound vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

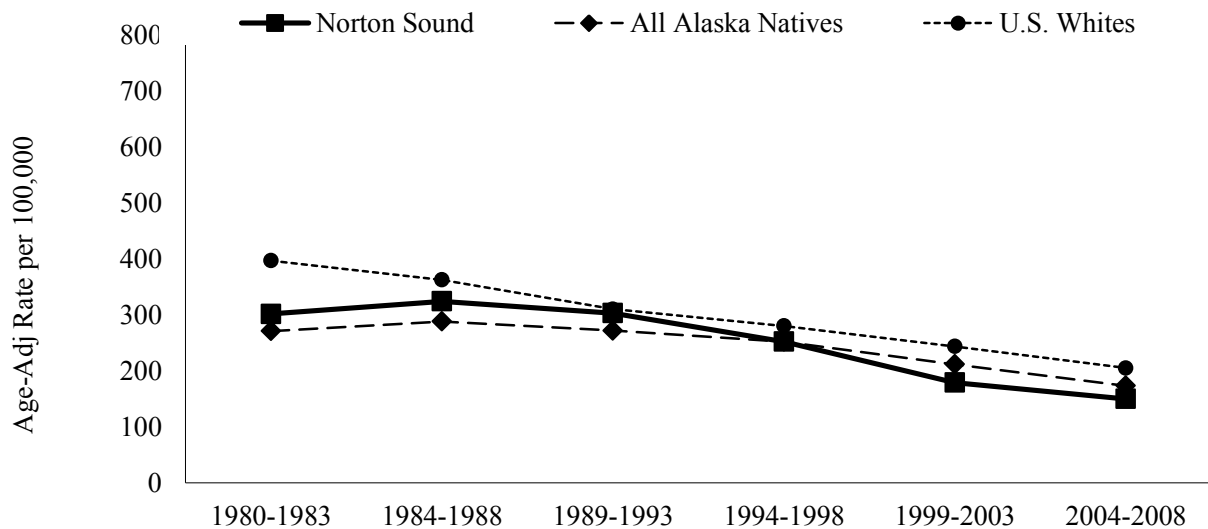


FIGURE 148. Age-Adjusted Mortality Rates for Suicide
 Norton Sound vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

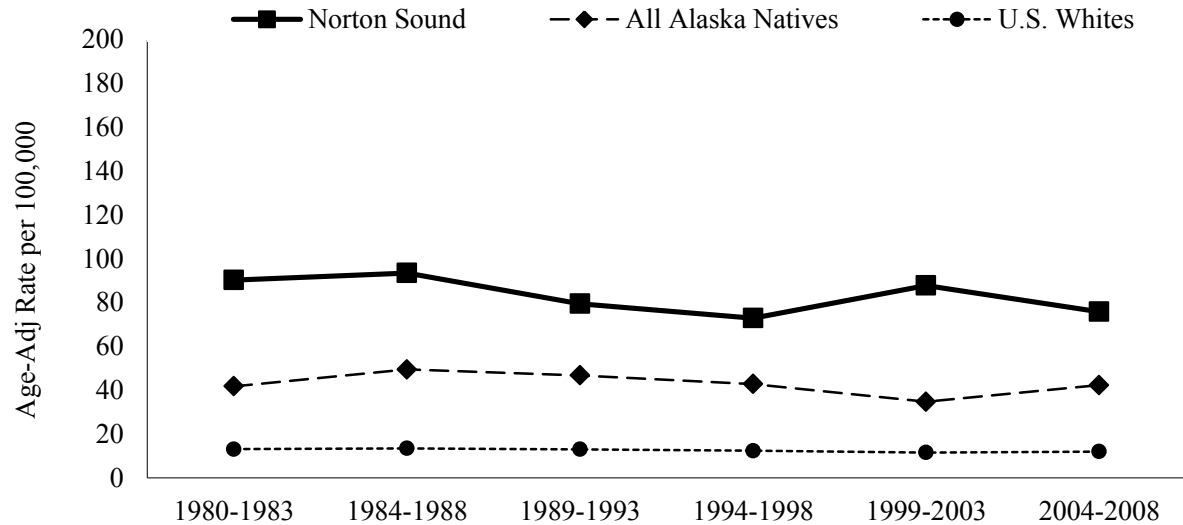


FIGURE 149. Age-Adjusted Mortality Rates for Unintentional Injury
 Norton Sound vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

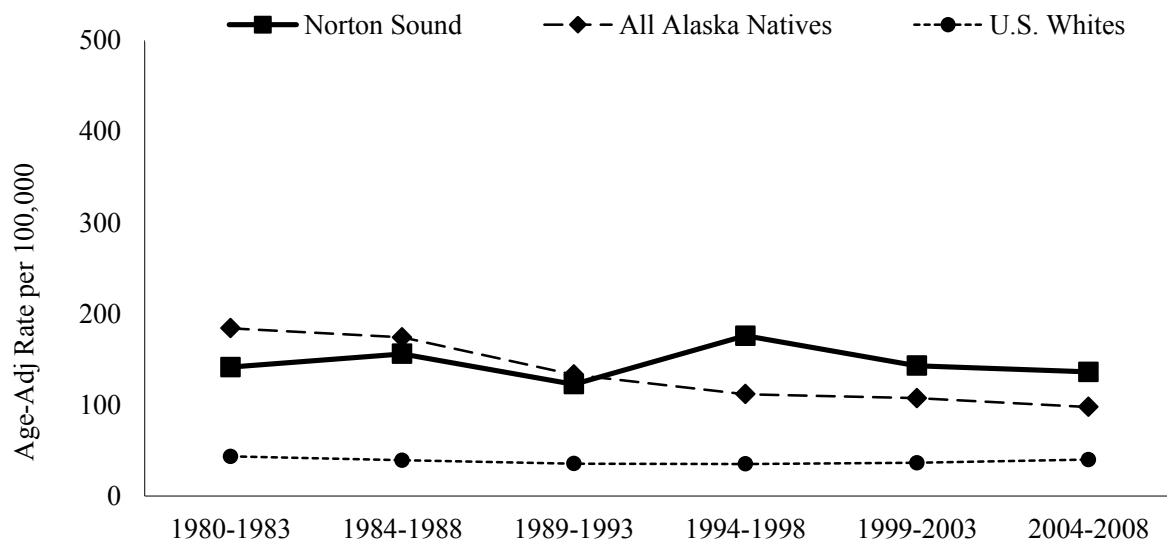


TABLE 21a. **Counts for Leading Causes of Death Among Alaska Natives**
Southeast Service Region
Both Genders

	Alcohol Abuse	Cancer	Cerebrovascular Disease	Chronic Liver Disease	COPD	Diabetes	Heart Disease	Septicemia	Suicide	Unintentional Injury	All Causes
Southeast											
1980-1983 ^a	-	38	19	6	<5	<5	70	<5	18	52	321
1984-1988	9	37	18	6	7	<5	71	<5	18	59	334
1989-1993	5	57	18	14	12	9	82	<5	19	53	365
1994-1998	13	67	17	12	14	9	99	<5	18	49	373
1999-2003	15	88	22	10	15	12	91	5	7	34	412
2004-2008	20	108	26	11	27	15	79	11	14	44	503

^a 1980-1983 contains only 4 years

(>5) counts are not reported for fewer than 5 deaths

TABLE 21b. **Age-Adjusted Rates^b for Leading Causes of Death Among Alaska Natives**
Southeast Service Region
Both Genders

	Alcohol Abuse	Cancer	Cerebrovascular Disease	Chronic Liver Disease	COPD	Diabetes	Heart Disease	Septicemia	Suicide	Unintentional Injury	All Causes
Southeast											
1980-1983 ^a	-	195.5	104.2	17.7	-	-	404.9	-	37.8	125.0	1391.1
1984-1988	17.5	↓135.2	73.7	14.8	25.0	-	280.0	-	32.1	↓110.1	↓1042.3
1989-1993	10.6	203.8	65.8	28.8	45.7	25.7	270.8	-	↓28.8	↓100.1	↓1062.0
1994-1998	29.6	↓177.4	↓51.4	19.8	↓40.9	29.4	296.4	-	↓26.5	↓81.2	↓968.9
1999-2003	↓23.6	↓189.9	55.5	17.7	↓33.7	26.6	210.6	12.4	↓9.2	↓51.2	↓874.8
2004-2008	31.6	191.1	51.1	15.3	47.4	↑26.8	147.1	19.3	↓17.9	74.0	↓881.0

(-) rates are not reported for fewer than 5 deaths

↑↓ Rate is significantly higher or lower than the rate for the rest of AN regions combined

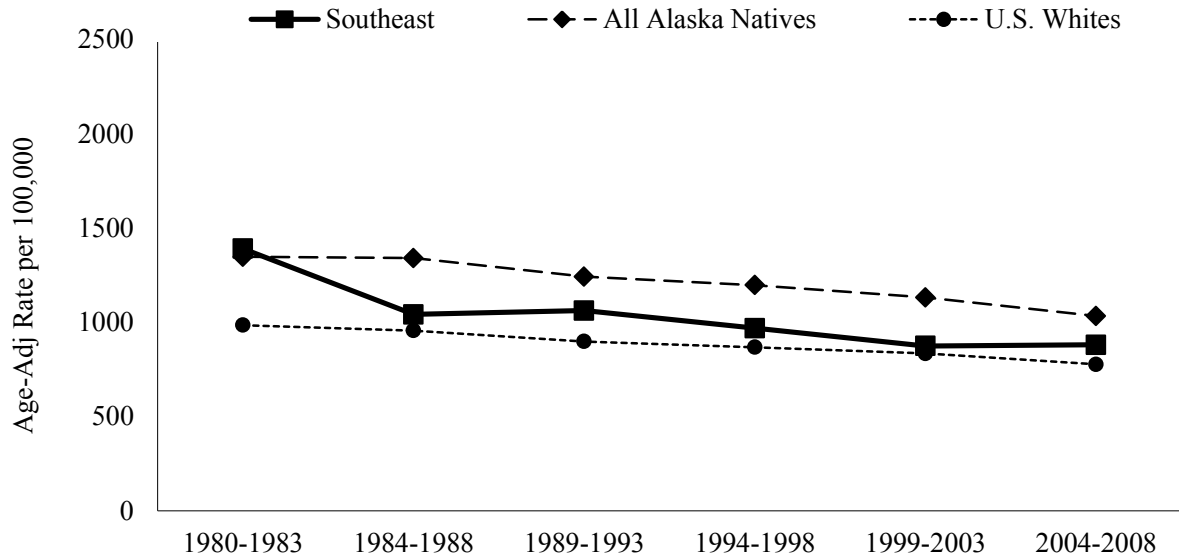
^a 1980-1983 contains only 4 years

^b Rates per 100,000 population

FIGURE 150.

Data Source: Table 21b.

Age-Adjusted Mortality Rates for All-Causes Southeast vs All Alaska Natives vs U.S. Whites by Time Intervals (1980-2008)

**FIGURE 151.**

Data Source: Table 21b.

Age-Adjusted Mortality Rates for Alcohol Abuse Southeast vs All Alaska Natives vs U.S. Whites by Time Intervals (1980-2008)

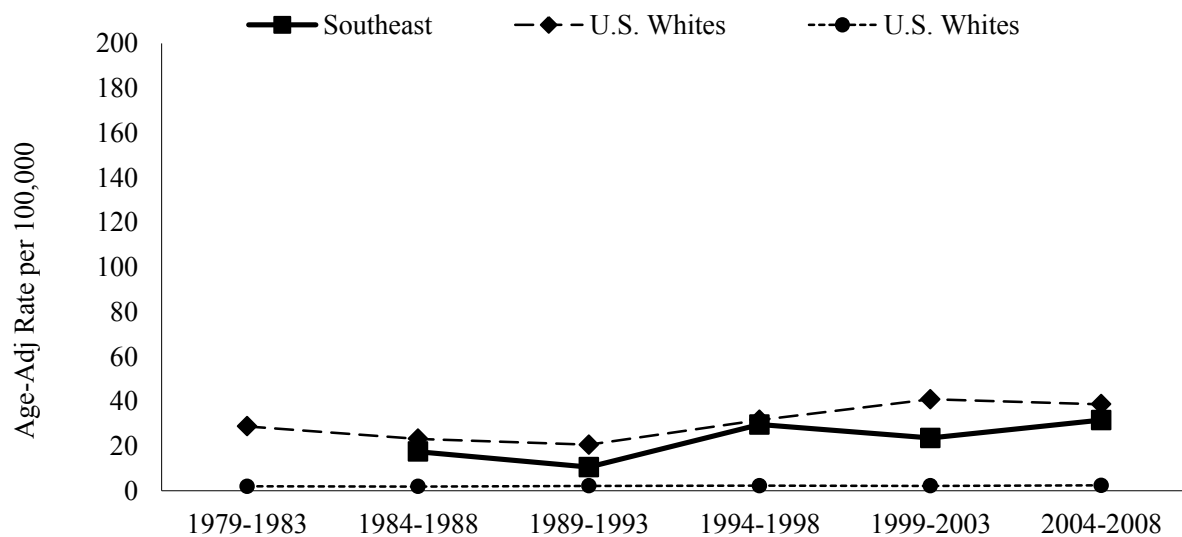


FIGURE 152. Age-Adjusted Mortality Rates for Cancer
 Southeast vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

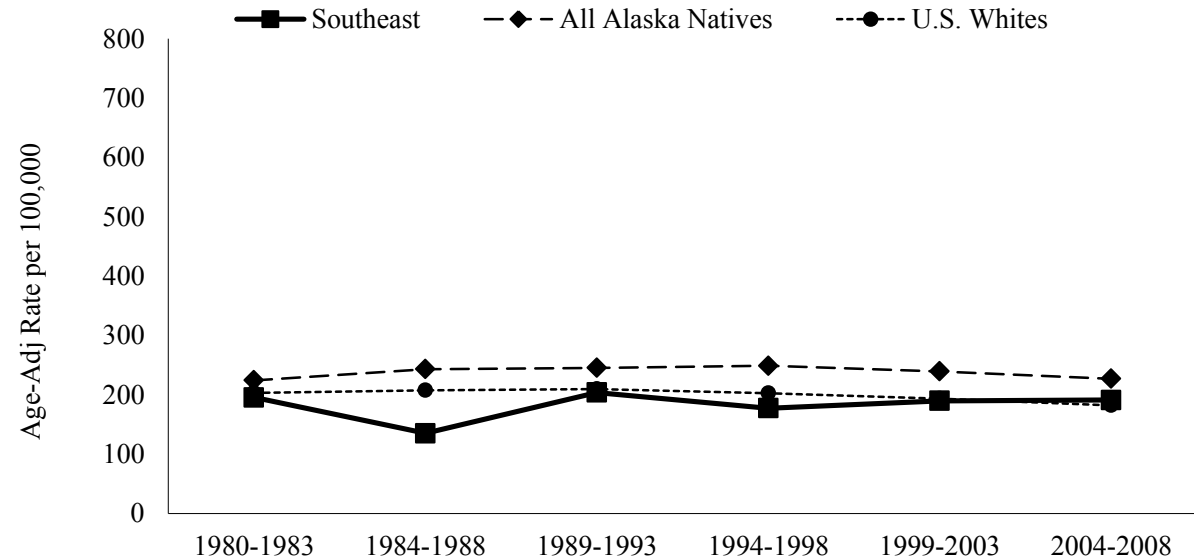


FIGURE 153. Age-Adjusted Mortality Rates for Cerebrovascular Disease
 Southeast vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

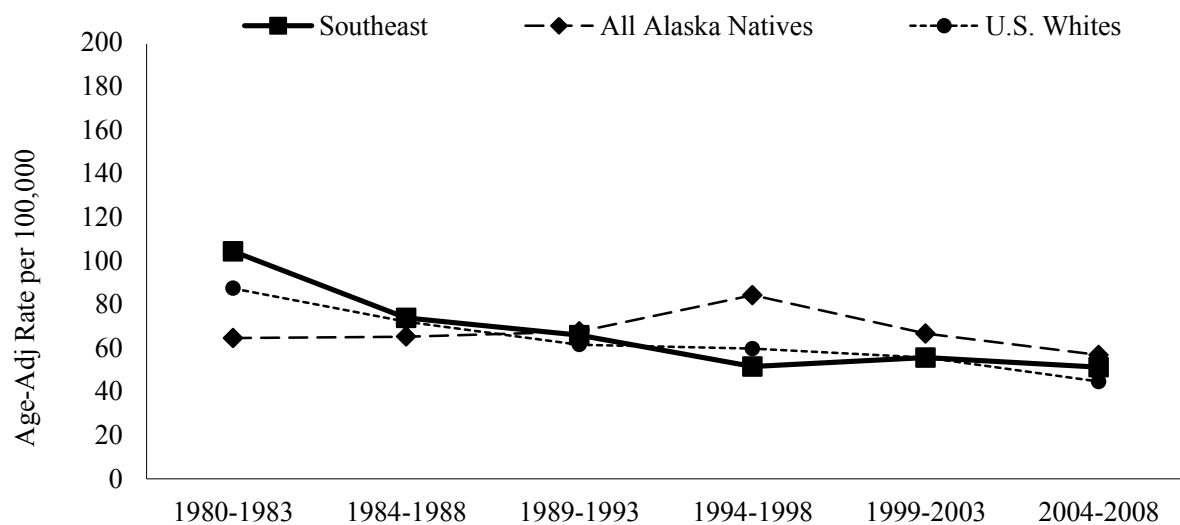


FIGURE 154. Age-Adjusted Mortality Rates for Chronic Liver Disease
 Southeast vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

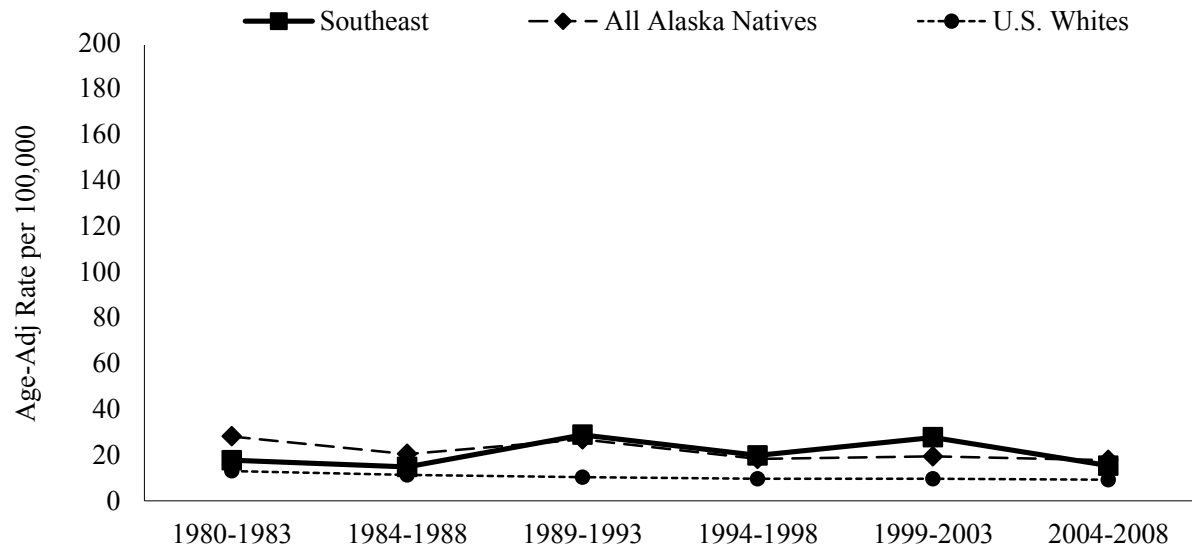


FIGURE 155. Age-Adjusted Mortality Rates for COPD
 Southeast vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

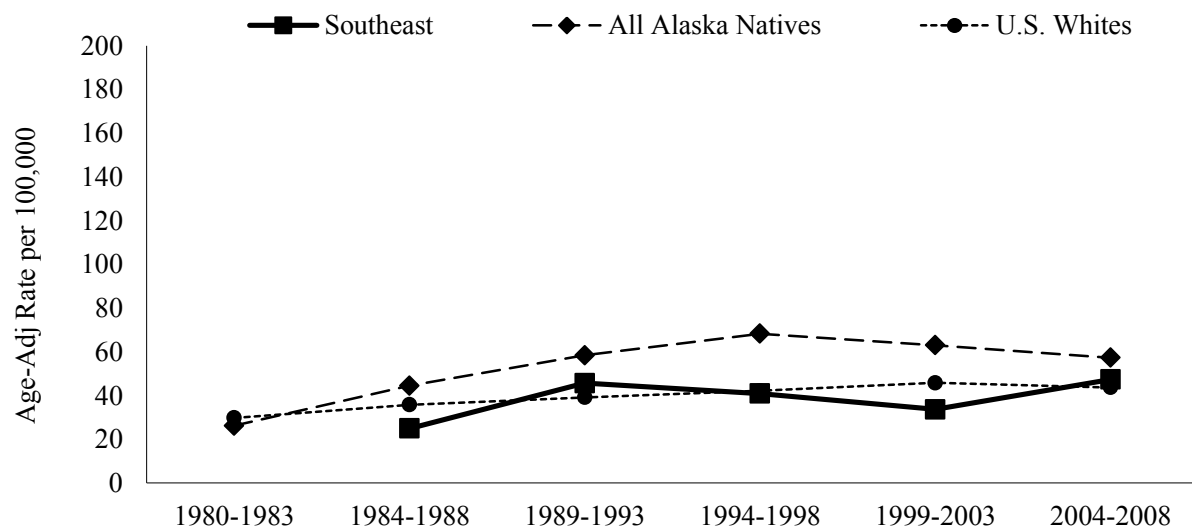


FIGURE 156. Age-Adjusted Mortality Rates for Diabetes Mellitus
 Southeast vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

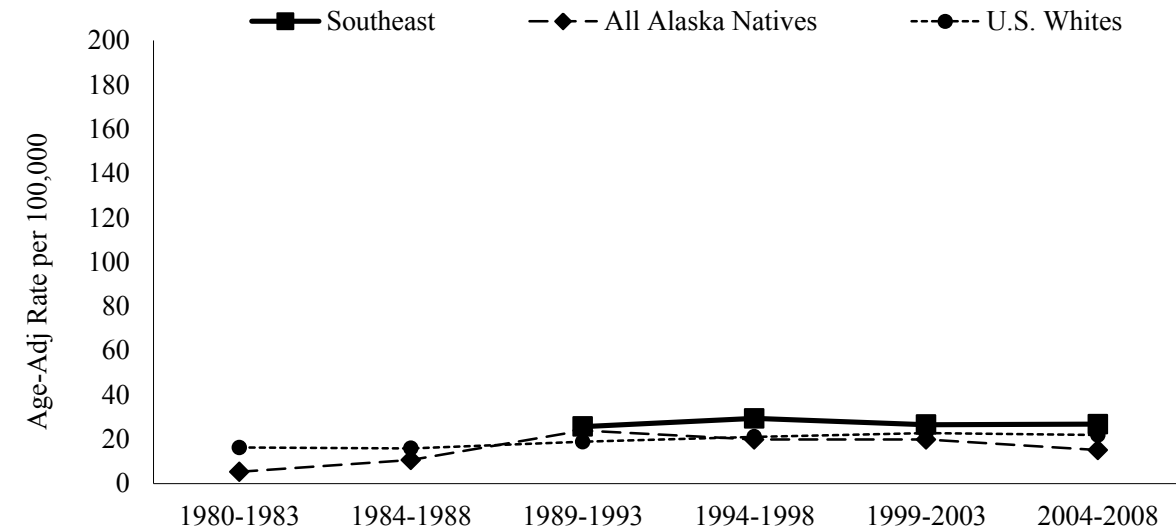


FIGURE 157. Age-Adjusted Mortality Rates for Heart Disease
 Southeast vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

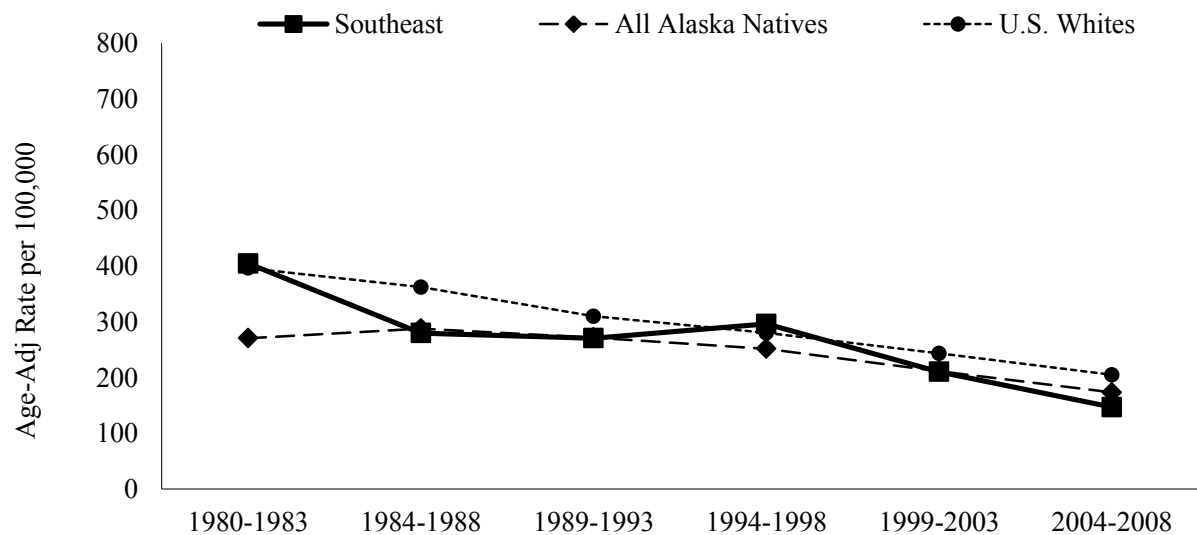


FIGURE 158. Age-Adjusted Mortality Rates for Suicide
 Southeast vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

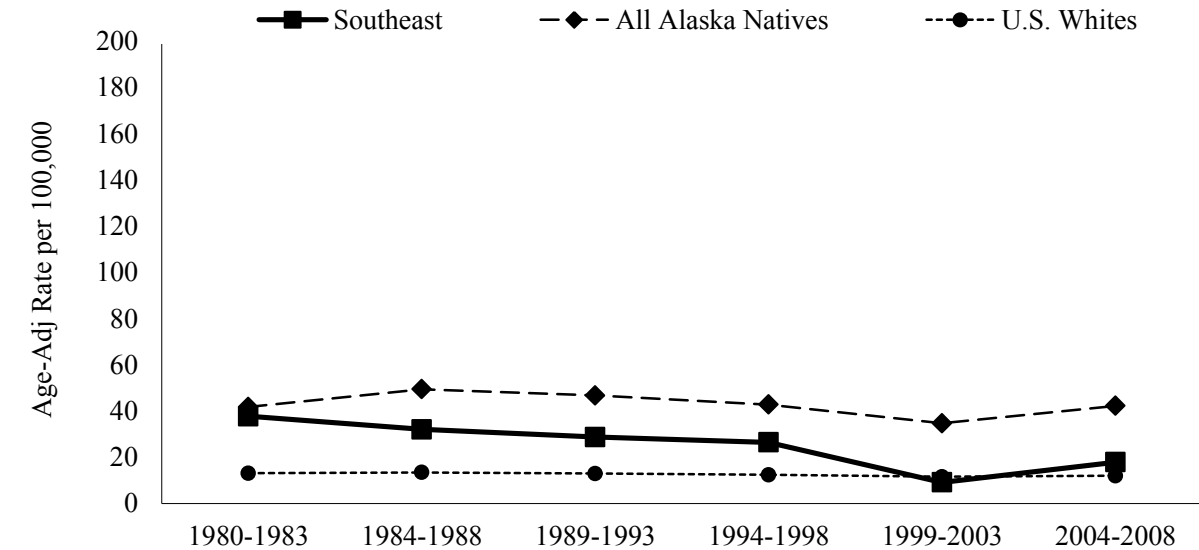


FIGURE 159. Age-Adjusted Mortality Rates for Unintentional Injury
 Southeast vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

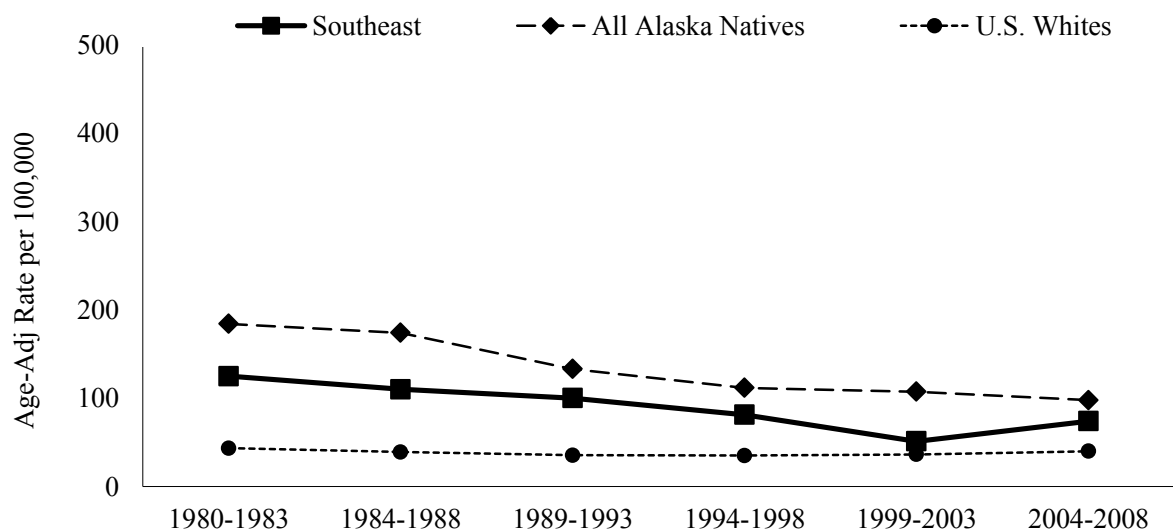


TABLE 22a. **Counts for Leading Causes of Death Among Alaska Natives**
Yukon-Kuskokwim Service Region
Both Genders

Yukon-Kuskokwim	Alcohol Abuse	Cancer	Cerebrovascular Disease	COPD	Heart Disease	Homicide	Perinatal Conditions	Pneumonia & Influenza	Suicide	Unintentional Injury	All Causes
1980-1983 ^a	9	62	8	7	28	16	8	10	14	122	344
1984-1988	12	98	16	13	67	19	16	15	49	148	559
1989-1993	13	94	22	22	63	17	15	30	49	136	560
1994-1998	18	110	24	24	79	7	7	15	65	102	554
1999-2003	21	119	22	26	87	20	9	25	47	111	619
2004-2008	20	140	31	28	80	15	11	22	74	94	676

^a 1980-1983 contains only 4 years

(>5) counts are not reported for fewer than 5 deaths

TABLE 22b. **Age-Adjusted Rates^b for Leading Causes of Death Among Alaska Natives**
Yukon-Kuskokwim Service Region
Both Genders

Yukon-Kuskokwim	Alcohol Abuse	Cancer	Cerebrovascular Disease	COPD	Heart Disease	Homicide	Perinatal Conditions	Pneumonia & Influenza	Suicide	Unintentional Injury	All Causes
1980-1983 ^a	18.8	217.4	39.3	34.1	111.3	28.2	5.6	33.8	22.8	218.4	↓898.3
1984-1988	24.4	256.6	46.1	37.3	↓212.8	22.6	8.4	41.8	55.6	203.9	1159.6
1989-1993	22.1	250.5	69.3	66.8	↓187.6	24.3	7.5	↑85.2	47.6	↑166.2	1148.6
1994-1998	24.6	260.6	62.7	70.3	226.7	↓6.6	4.7	40.4	↑64.4	125.0	1115.3
1999-2003	25.6	249.0	56.6	63.1	209.2	20.7	5.4	↑59.9	43.7	↑130.7	1130.0
2004-2008	25.7	↑273.1	77.7	63.5	175.4	↑18.8	5.6	↑47.0	↑64.3	96.0	↑1153.8

(-) rates are not reported for fewer than 5 deaths

↑↓ Rate is significantly higher or lower than the rate for the rest of AN regions combined

^a 1980-1983 contains only 4 years

^b Rates per 100,000 population

FIGURE 160. Age-Adjusted Mortality Rates for All-Causes
Yukon-Kuskokwim vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

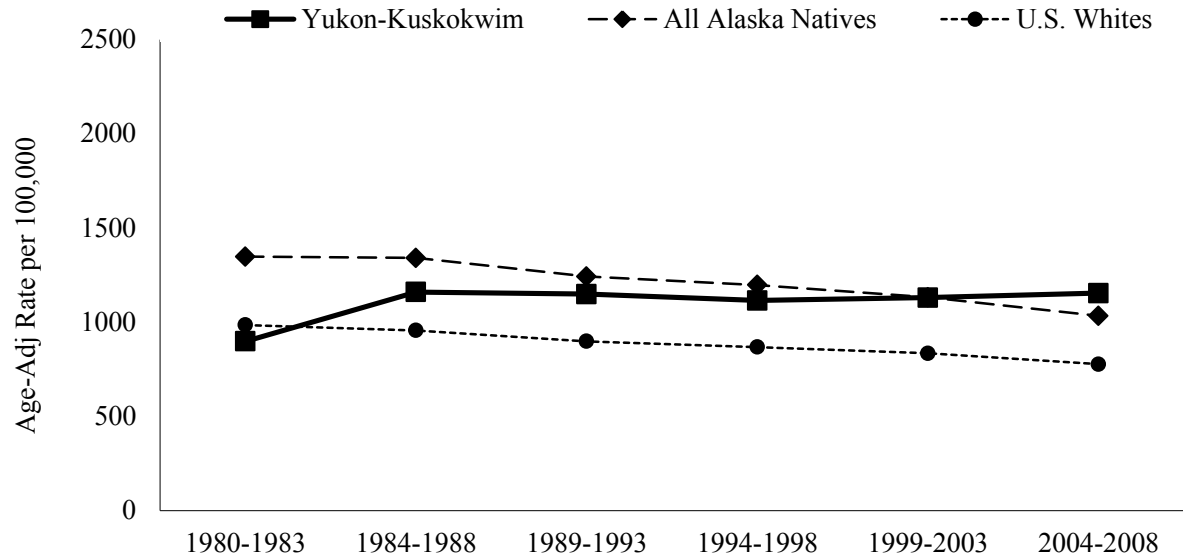


FIGURE 161. Age-Adjusted Mortality Rates for Alcohol Abuse
Yukon-Kuskokwim vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

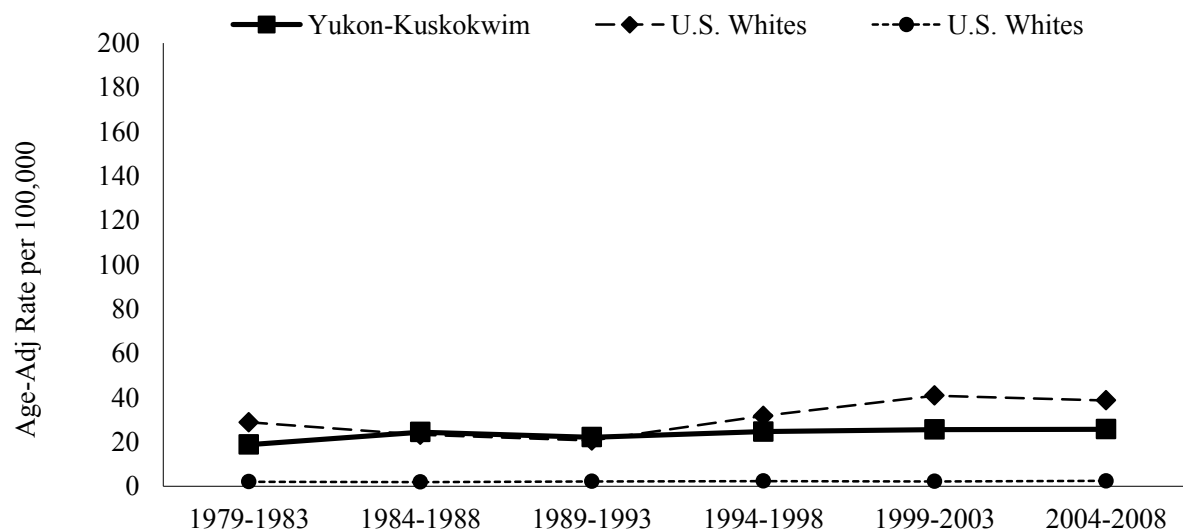


FIGURE 162. Age-Adjusted Mortality Rates for Cancer
 Yukon-Kuskokwim vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

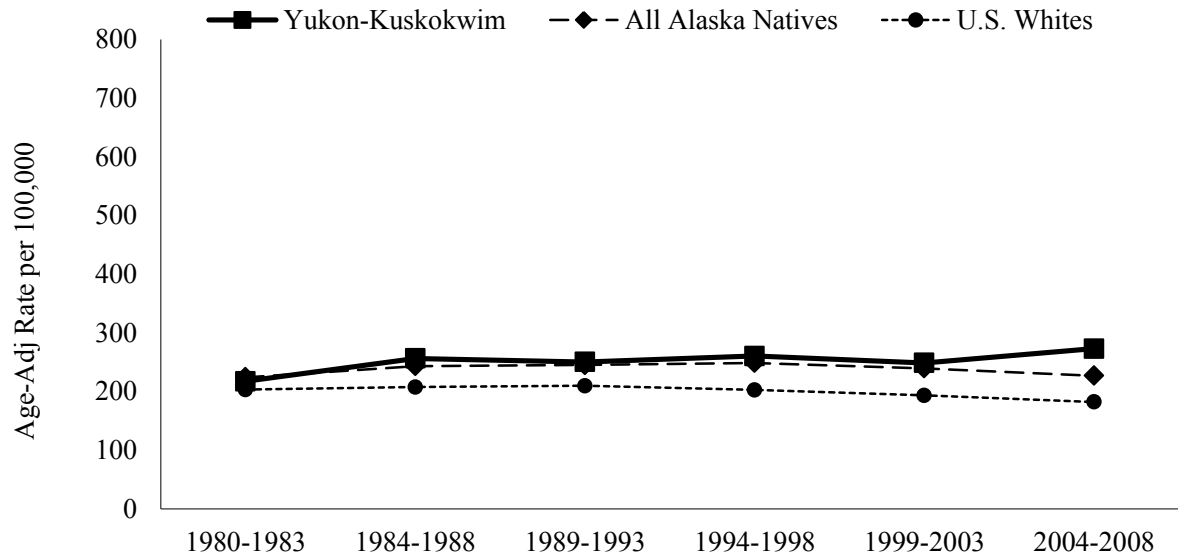


FIGURE 163. Age-Adjusted Mortality Rates for Cerebrovascular Disease
 Yukon-Kuskokwim vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

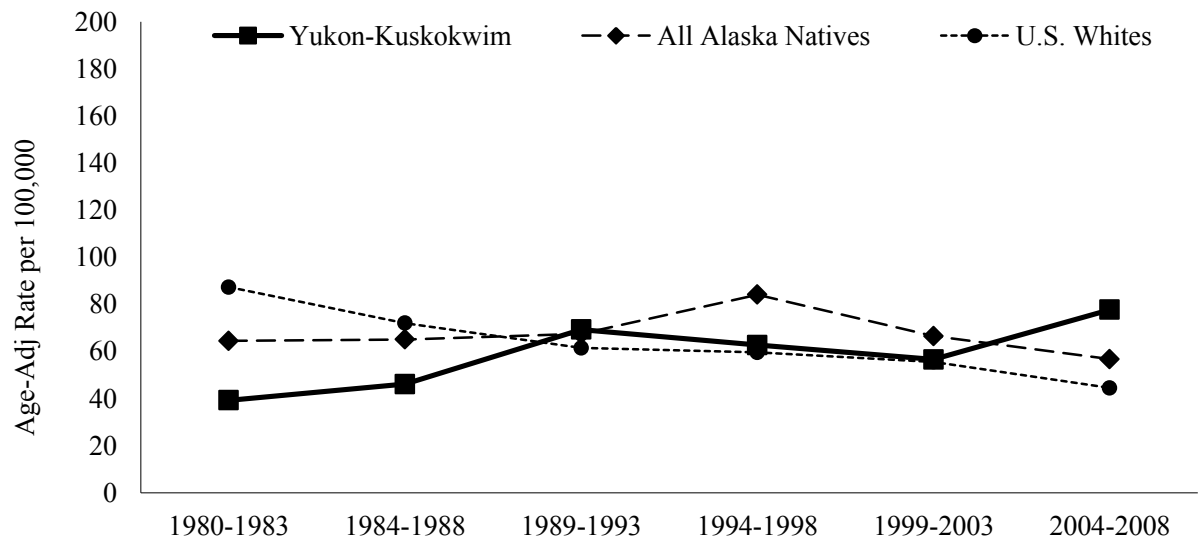


FIGURE 164. Age-Adjusted Mortality Rates for COPD
 Data Source: Table 21b.
Yukon-Kuskokwim vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)

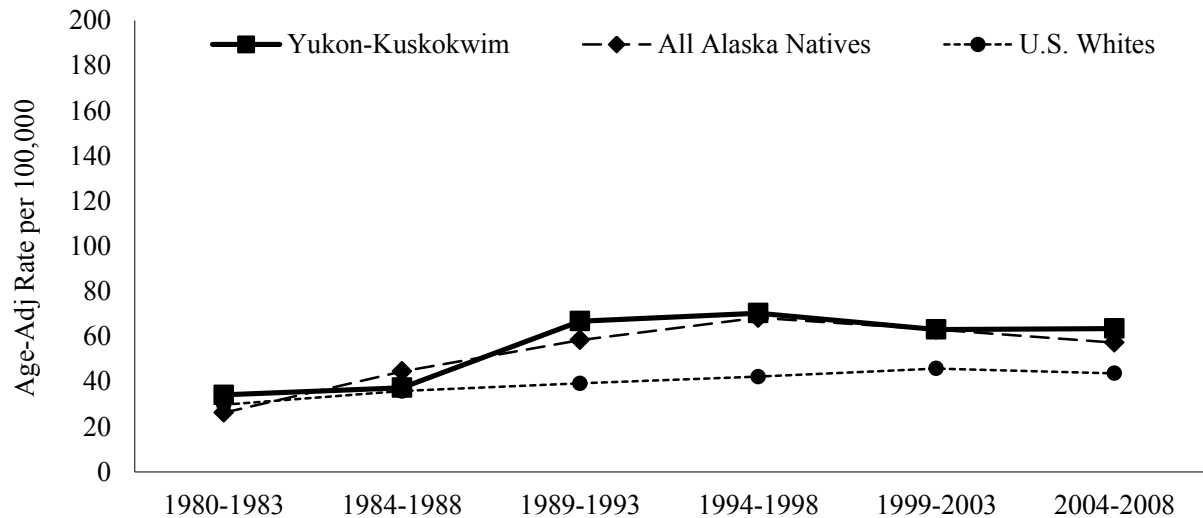


FIGURE 165. Age-Adjusted Mortality Rates for Heart Disease
 Data Source: Table 21b.
Yukon-Kuskokwim vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)

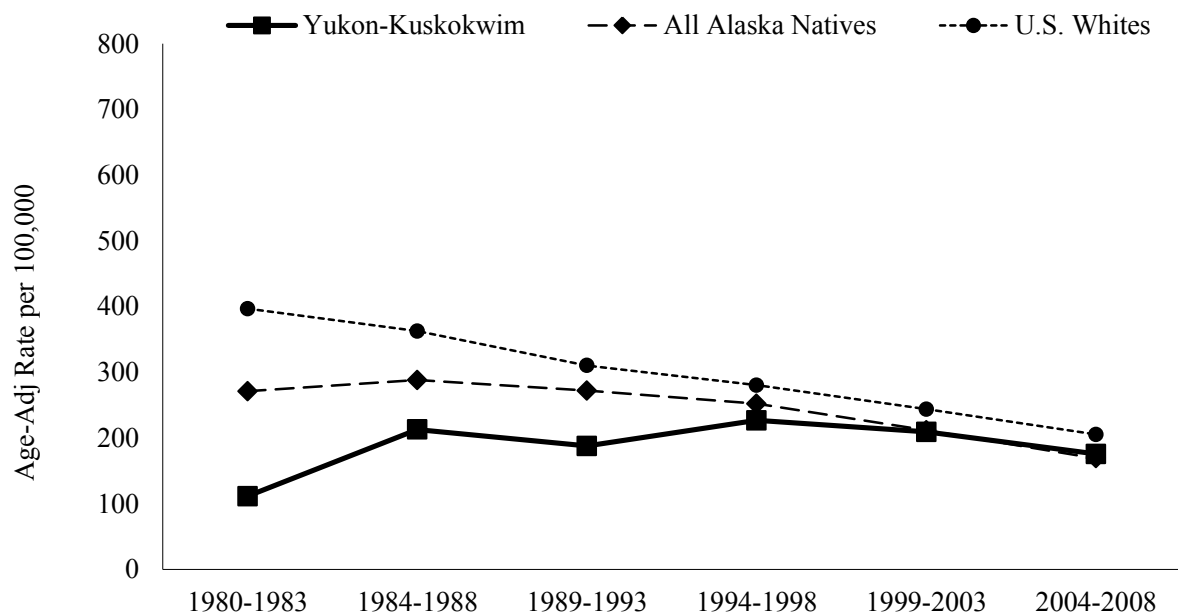


FIGURE 166. Age-Adjusted Mortality Rates for Homicide
 Data Source: Table 21b.
Yukon-Kuskokwim vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)

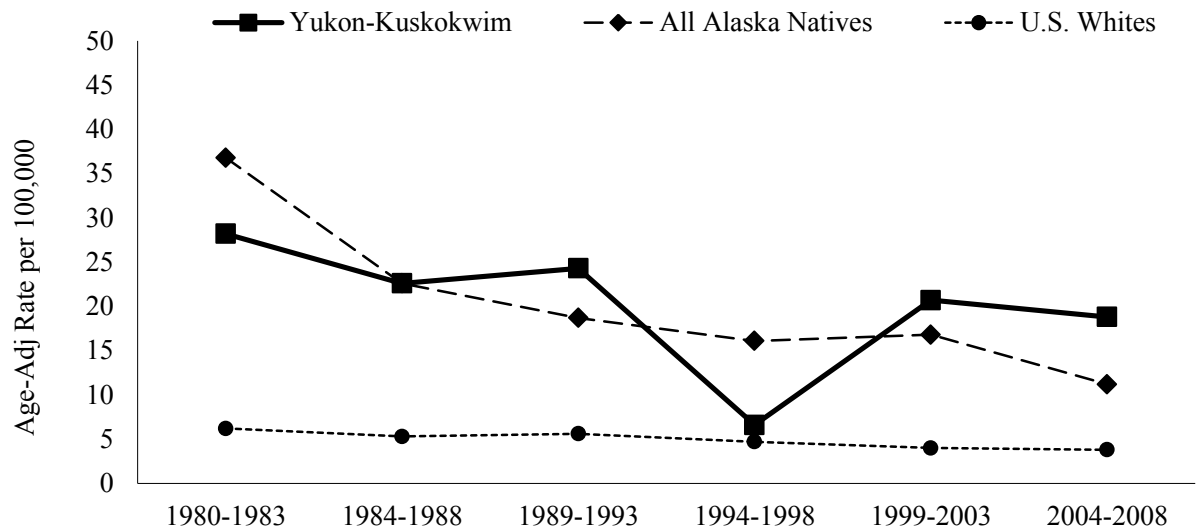


FIGURE 167. Age-Adjusted Mortality Rates for Perinatal Conditions
 Data Source: Table 21b.
Yukon-Kuskokwim vs All Alaska Natives vs U.S. Whites
by Time Intervals (1980-2008)

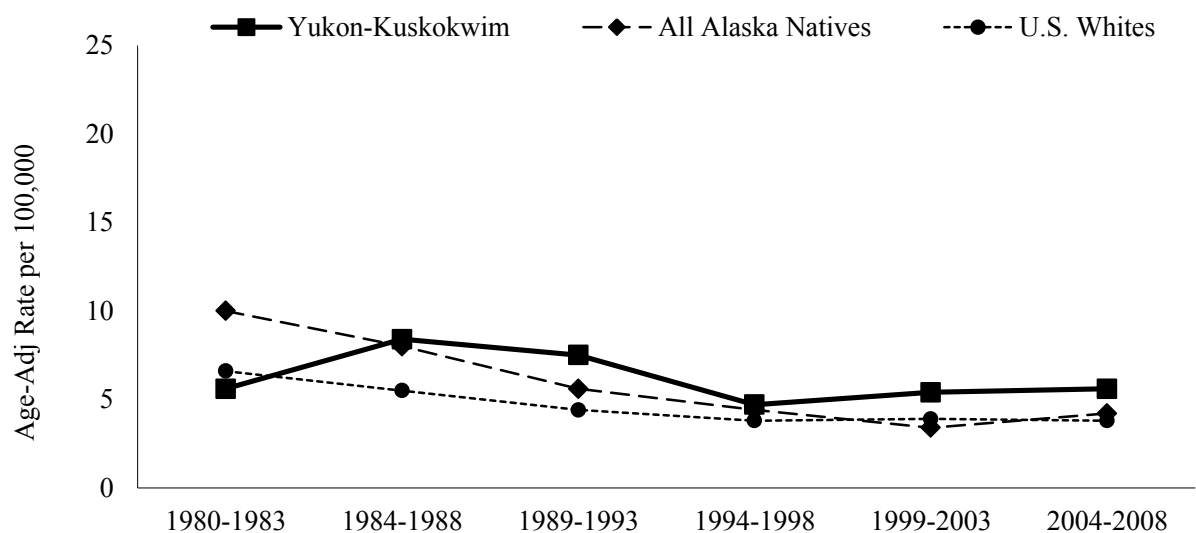


FIGURE 168. Age-Adjusted Mortality Rates for Pneumonia & Influenza
 Yukon-Kuskokwim vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

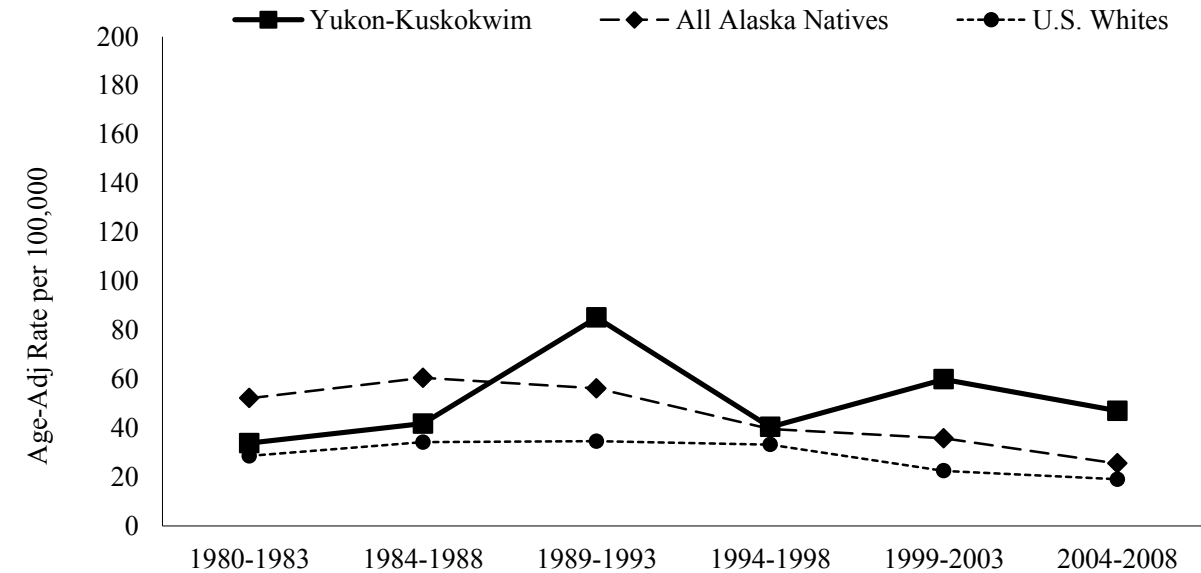


FIGURE 169. Age-Adjusted Mortality Rates for Suicide
 Yukon-Kuskokwim vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)

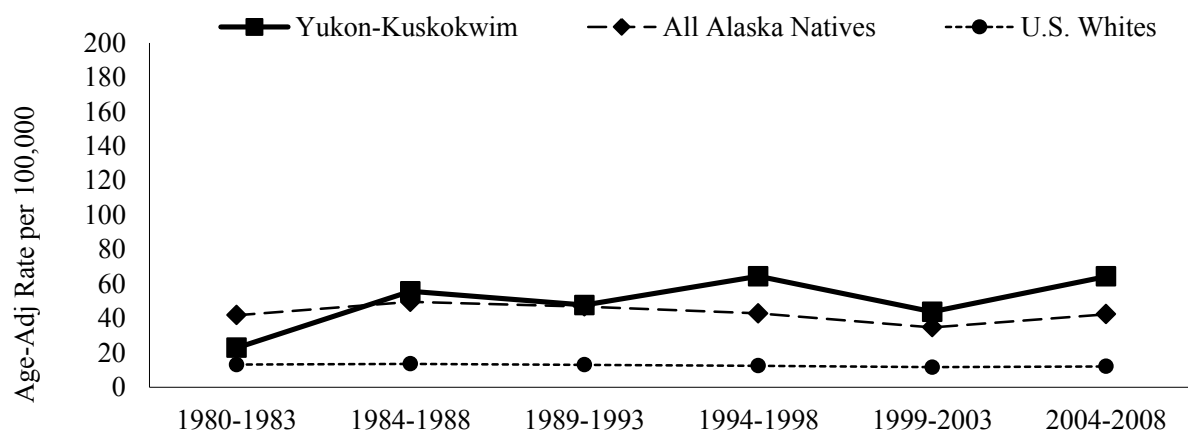
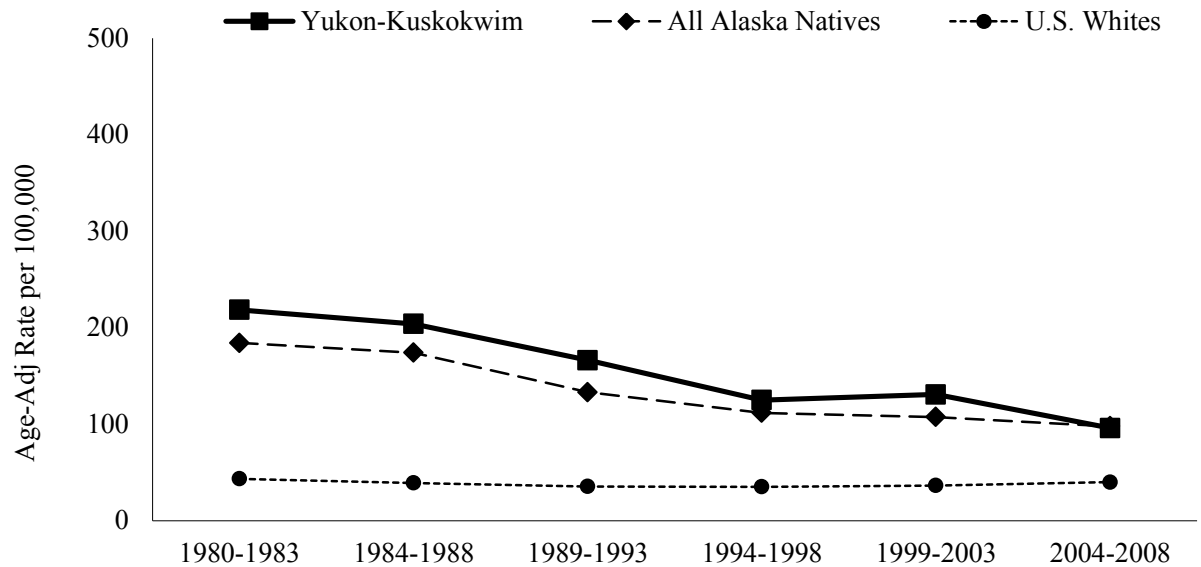


FIGURE 170. Age-Adjusted Mortality Rates for Unintentional Injury
Yukon-Kuskokwim vs All Alaska Natives vs U.S. Whites
 by Time Intervals (1980-2008)
 Data Source: Table 21b.



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ALL-CAUSE MORTALITY

During the period, 2004-2008, a total of 3,789 Alaska Native deaths were reported. The average annual age-adjusted mortality from all causes for Alaska Native people, both genders combined, was 1033.3 compared to 776.6 per 100,000 population for U.S. Whites; a statistically significant rate ratio (RR) of 1.3. The rates for Alaska Native men and women were both significantly higher than U.S. Whites (RR = 1.3 and 1.4 respectively) as shown in Table 23.

The three leading causes of death for Alaska Native people, cancer, heart disease, and unintentional injury, were responsible for 1,805 deaths, nearly half (48%) of the total 3,789 deaths. The Alaska Native and U.S. White populations shared eight of the ten leading causes of death, although in different rank order. Mortality rates for Alaska Native people for both genders combined were significantly higher than U.S. Whites for nine of the leading causes of death (cancer, unintentional injury, suicide, alcohol abuse, cerebrovascular disease, chronic pulmonary disease, homicide,

pneumonia/influenza, and chronic liver disease). Rate ratios of Alaska Native people compared to U.S. Whites were highest for alcohol abuse (16.1), suicide (3.5), homicide (3.0), and unintentional injury (2.5). Compared to U.S. Whites, the rate ratio for heart disease (0.8) mortality was significantly lower.

Compared to U.S. Whites, rates were significantly higher among both Alaska Native men and women for six of the ten leading causes of death: cancer, unintentional injury, suicide, alcohol abuse, homicide, and cerebrovascular disease. Alaska Native men also had significantly higher rates than U.S. White men for pneumonia and influenza. Alaska Native women's rates were higher than U.S. White women, but not significantly for this cause. Alaska Native women had significantly higher rates than U.S. White women for COPD and chronic liver disease. Alaska Native men had higher rates than U.S. White men, but not significantly. Alaska Native men and women had significantly lower rates for heart disease than U.S. Whites. Alaska Native men had higher rates than Alaska Native women for all of the leading causes except chronic liver

disease (13.2 vs. 22.2 per 100,000). For four of the leading causes the rate ratios for Alaska Native women compared to U.S. White women were higher than for Alaska Native men compared to U.S. White men, e.g. alcohol abuse (35.1 vs. 10.9), homicide (4.0 vs. 2.6), chronic liver disease (3.8 vs. 1.0) and COPD (1.4 vs. 1.2).

Age-specific mortality rates for all causes combined showed significantly higher mortality rates among Alaska Native people than among U.S. Whites for all age categories except those 75 years and older. Disparities between the two populations were highest under 45 years of age, and appeared to decline progressively in both genders in age groups 45 and over. The decrease in rate ratios with increasing age occurred in both men and women separately. Age specific rates were significantly higher among men than women for all ages.

All-cause mortality rates were significantly higher for the Arctic Slope (RR=1.6) and Yukon-Kuskokwim (RR=1.1) service regions as compared to all other service regions combined. All-cause rates were significantly lower for

the Southeast service region (RR=0.8) than all other service regions combined.

The all-cause mortality rate for Alaska Native people declined significantly (16%) between 1980-1983 and 2004-2008; similar to the significant 21% decline among U.S. Whites between 1980-1983 and 2004-2006.

Cause of Death Among Alaska Natives, 2004-2008
All-Cause

TABLE 23. Age-Adjusted All-Cause Mortality Rates
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)

	Alaska Natives			U.S. Whites					
	#	%	Rate per 100,000	#	%	Rate per 100,000	Rate Ratio	Lower 95%	Upper 95%
Both	3,789	100.0%	1033.3	6,231,636	100.0%	776.6	*1.3	1.29	1.38
Male	2,071	100.0%	1212.3	3,057,220	100.0%	928.5	*1.3	1.24	1.37
Female	1,717	100.0%	886.2	3,174,416	100.0%	656.0	*1.4	1.29	1.42

* 95% CI does not include 1.

† Age-adjusted to the US 2000 Standard population.

FIGURE 171. Age-Adjusted All-Cause Mortality Rates
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)

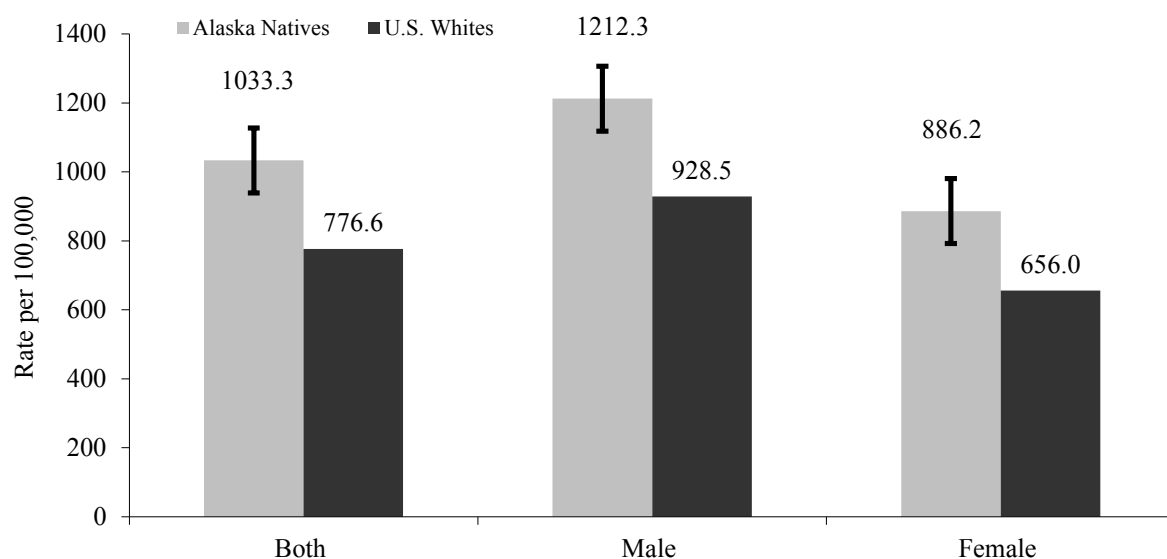


TABLE 24a. Age-Specific Mortality Rates for All-Cause
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	310.2	53.9	229.2	404.6	742.2	1265.9	2815.9	7540.5
U.S. Whites	136.6	14.9	76.8	140.8	396.2	863.1	2098.9	7374.7
Rate Ratio	2.3	3.6	3.0	2.9	1.9	1.5	1.3	1.0

FIGURE 172a. Age-Specific Mortality Rates for All-Cause
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

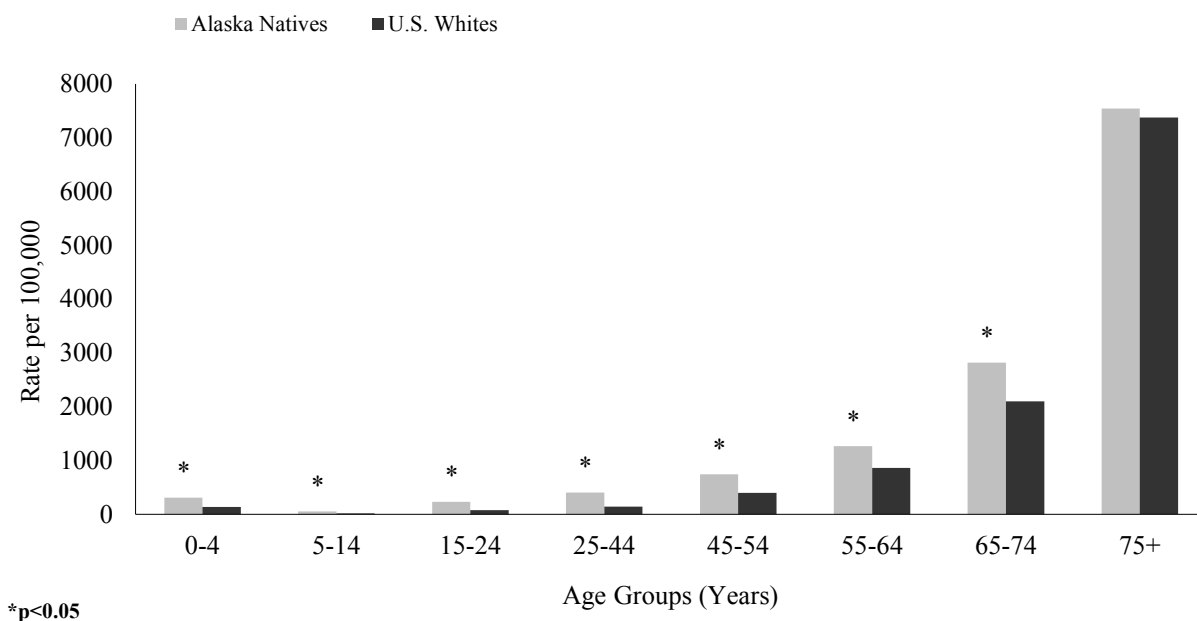
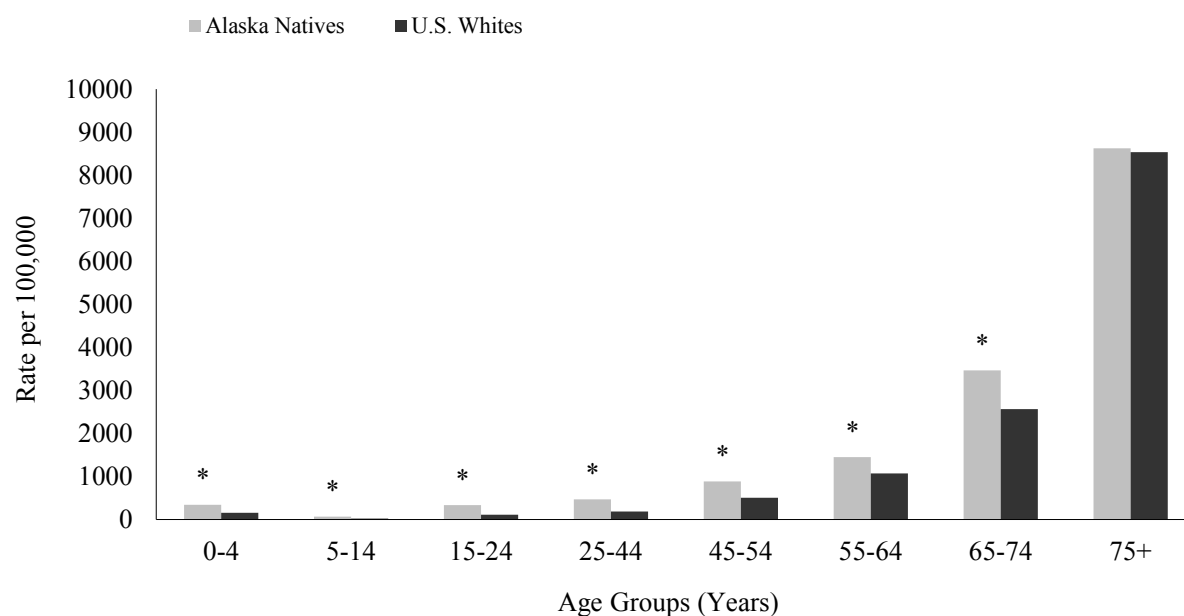


TABLE 24b. Age-Specific Mortality Rates for All-Cause
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	343.3	64.8	329.8	469.1	881.1	1444.4	3460.1	8619.4
U.S. Whites	151.9	17.1	109.5	183.4	505.3	1070.8	2566.2	8529.7
Rate Ratio ^a	2.3	3.8	3.0	2.6	1.7	1.4	1.4	1.0

^a The ratio of Alaska Native to US White rates may appear slightly different than stated because the rates have been rounded to one decimal point.

FIGURE 172b. Age-Specific Mortality Rates for All-Cause
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

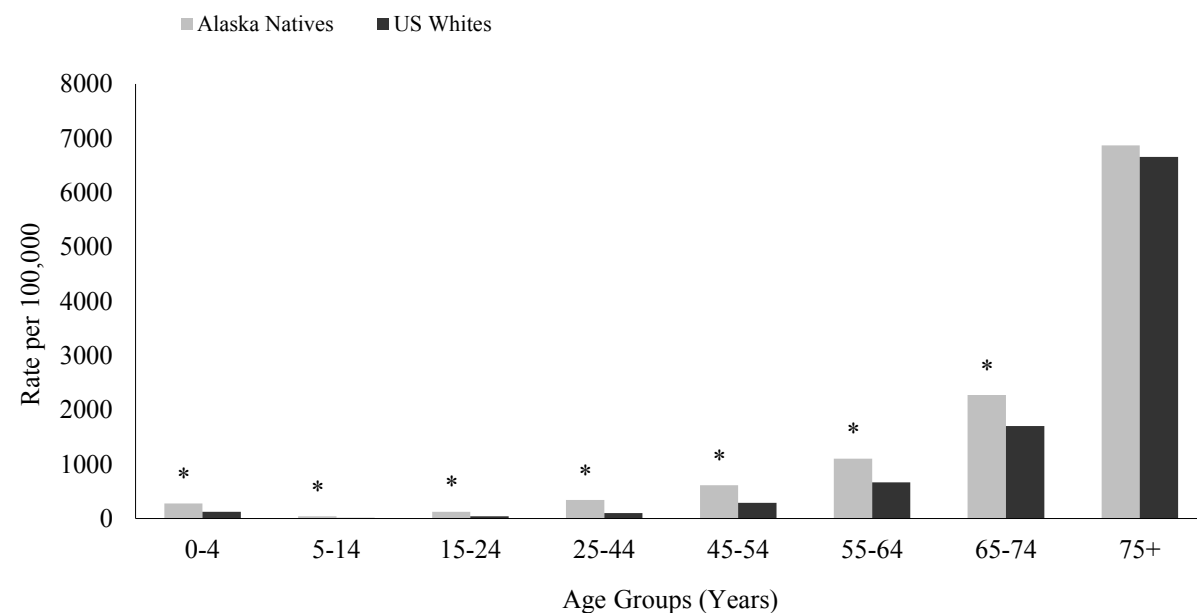


**TABLE 24c. Age-Specific Mortality Rates for All-Cause
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females**

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	275.6	42.2	121.0	338.7	610.8	1099.1	2273.5	6873.8
US Whites	123.3	12.6	41.8	96.6	288.4	666.7	1700.6	6656.5
Rate Ratio ^a	2.2	3.4	2.9	3.5	2.1	1.7	1.3	1.0

a The ratio of Alaska Native to US White rates may appear slightly different than stated because the rates have been rounded to one decimal point.

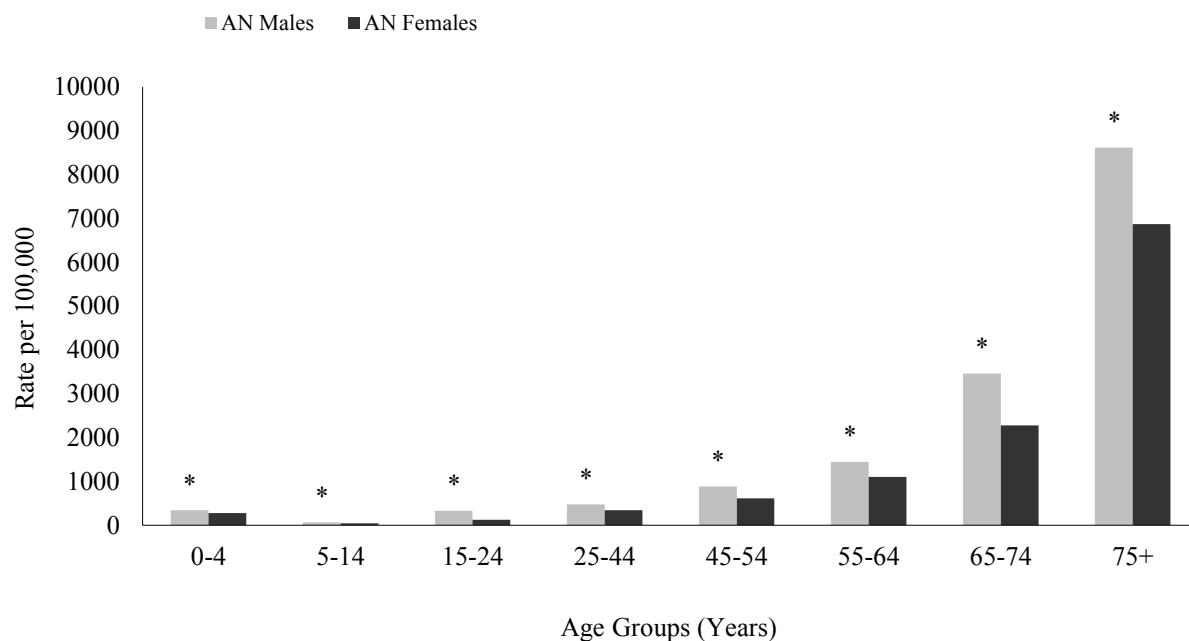
**FIGURE 172c. Age-Specific Mortality Rates for All-Cause
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females**



**TABLE 25. Age-Specific Mortality Rates for All-Cause
Alaska Natives (2004-2008)
Males versus Females**

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
AN Males	343.3	64.8	329.8	469.1	881.1	1444.4	3460.1	8619.4
AN Females	275.6	42.2	121.0	338.7	610.8	1099.1	2273.5	6873.8
Rate Ratio	1.2	1.5	2.7	1.4	1.4	1.3	1.5	1.3

**FIGURE 173. Age-Specific Mortality Rates for All-Cause
Alaska Natives (2004-2008)
Males versus Females**

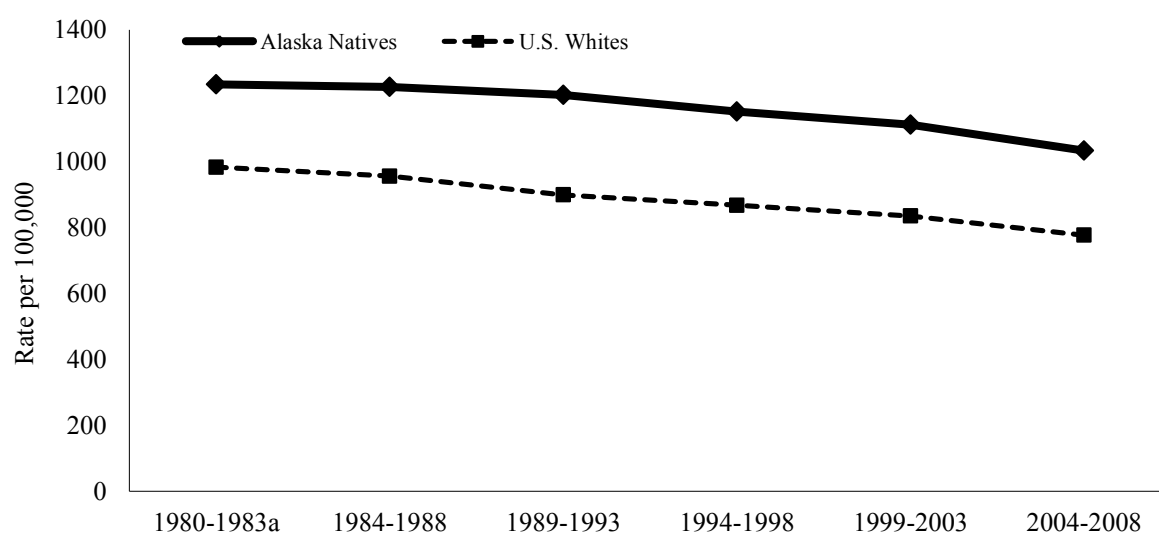


**TABLE 26. Age-Adjusted Mortality Rates for All-Cause
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders**

	1980-1983 ^a	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008	% Change
Alaska Natives	1234.0	1226.5	1202.1	1151.6	1111.6	1033.3	-16%
U.S. Whites	982.7	955.8	898.6	867.5	834.6	776.6	-21%
Rate Ratio	1.3	1.3	1.3	1.3	1.3	1.3	

^a 1980-1983 time period contains only four years

**FIGURE 174. Age-Adjusted Mortality Rates for All-Cause
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders**

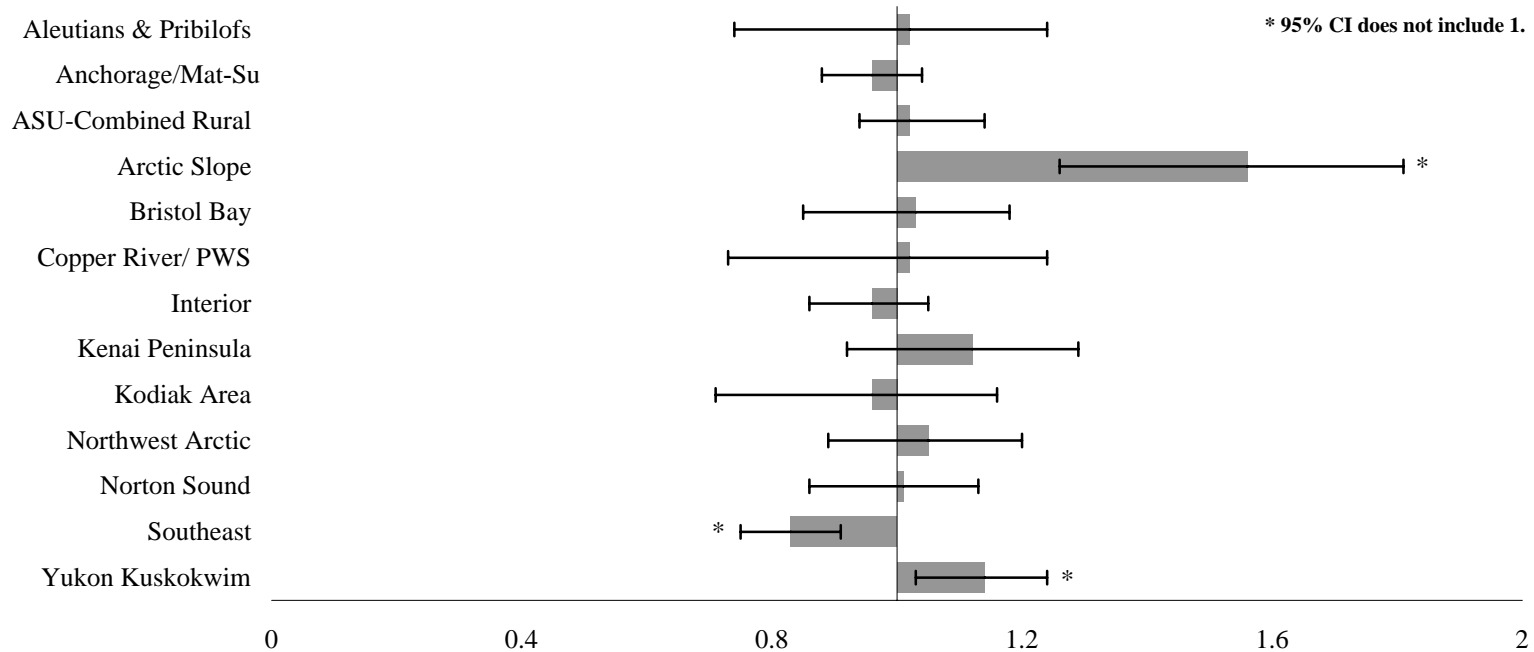


^a 1980-1983 time period contains only four years

**TABLE 27. Age-Adjusted Mortality Rates for All-Cause
Alaska Natives By Service Region (2004-2008), Both Genders**

	Aleutians & Pribilofs	Anchorage/Mat-Su	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Natives Statewide
Rate	1057.3	998.9	1060.4	*1591.2	1063.9	1055.5	1000.1	1150.4	991.9	1076.8	1047.5	*881.0	*1153.8	1033.3
RR	1.0	1.0	1.0	1.6	1.0	1.0	1.0	1.1	1.0	1.1	1.0	0.8	1.1	

**FIGURE 175. All-Cause Mortality Rate Ratios
Each Service Region vs All Other Regions Combined, Alaska Natives (2004-2008), Both Genders**



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FIRST LEADING CAUSE OF DEATH **CANCER**

Cancer was the leading cause of death among Alaska Native people, for men, women, and both genders combined, for the time period 2004-2008. Cancer accounted for 20.4% (n=772) of all deaths. The cancer mortality rate for Alaska Natives, both genders combined, was significantly higher than for U.S. Whites (RR=1.2). Rates were significantly higher for both Alaska Native men and Alaska Native women compared to U.S. White men and women (RR=1.2 and RR=1.3, respectively).

Among Alaska Native people, both genders combined, three cancers comprised half (50%) of all cancer deaths; cancer of the lung and bronchus 31%; colon and rectum 12%; and pancreas 7%. Among Alaska Native men, the leading cancer deaths were lung and bronchus (33%), colon and rectum (12%), and stomach (6%). Among Alaska Native women, the leading cancer deaths were lung and bronchus (29%), breast (14%), and colon and rectum (12%).

There were 163 excess deaths from cancer among Alaska Natives, both genders combined, during this five year period, comprising 12.8% of all excess deaths. Among Alaska Native men (n=69) cancer accounted for 9.5% of excess deaths, the fourth largest cause of excess deaths. Among Alaska Native women (n=93), cancer accounted for 17.0% of all excess deaths, the largest cause of excess death.

Age-specific cancer mortality rate ratios for Alaska Natives, both genders combined, compared to U.S. Whites, ranged from 1.1 to 1.6, and were highest in the 25-44 year age group. Rates were significantly higher for Alaska Natives compared to U.S. Whites for all age groups between 25 and 74 years for both genders combined.

Alaska Native men were significantly more likely to die from cancer in the 45-54 age group and all age groups over 65 years than Alaska Native women.

Examining cancer mortality rates by service region, showed that the Yukon-Kuskokwim (RR=1.3) and Arctic Slope (RR=1.9) regions had significantly

higher rates than the rest of the state.
The Anchorage/MatSu (RR=0.7) region
had a significantly lower rate than the
rest of the state.

There was little change in Alaska Native
cancer mortality rates between 1980-
1983 and 2004-2008 (224.3 vs. 227.0).
U.S. White rates declined significantly
(11%) during the period 1980-1983 and
2004-2006.

First Leading Cause of Death Among Alaska Natives, 2004-2008 Cancer

**TABLE 28. Age-Adjusted Cancer Mortality Rates
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)**

	Alaska Natives			U.S. Whites			Rate Ratio	Lower 95%	Upper 95%
	#	%	Rate per 100,000	#	%	Rate per 100,000			
Both^a	772	20.4%	226.3	1,442,824	23.2%	182.4	*1.2	1.15	1.33
Male	392	18.9%	258.3	748,239	24.5%	222.4	*1.2	1.04	1.29
Female	379	22.1%	203.7	694,585	21.9%	155.0	*1.3	1.19	1.46

* 95% CI does not include 1.

† Age-adjusted to the US 2000 Standard population.

^a There is no gender listed for 1 cancer death

**FIGURE 176. Age-Adjusted Cancer Mortality Rates
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)**

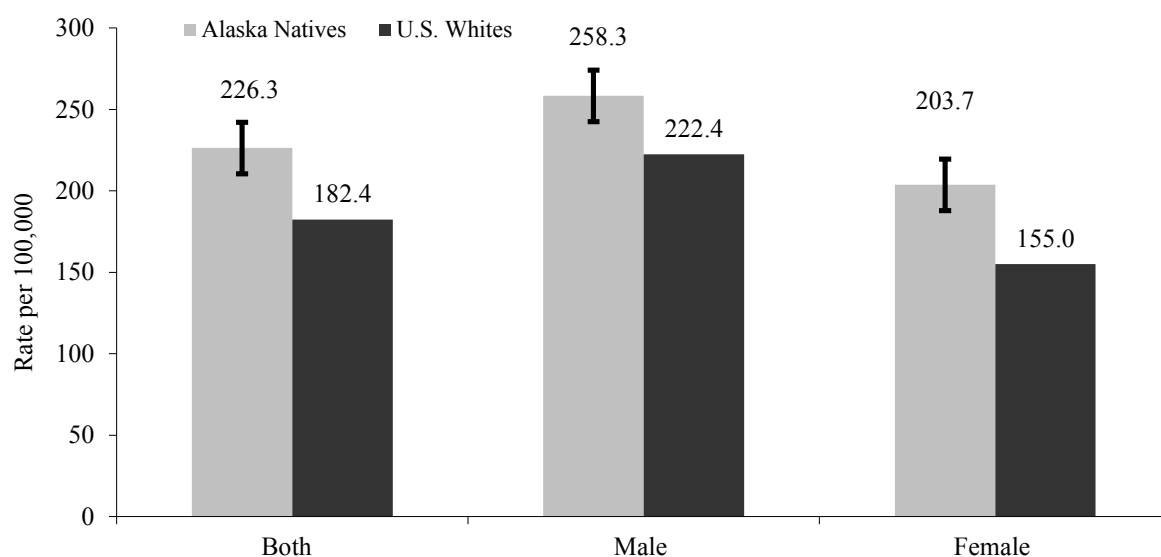


TABLE 29a. Age-Specific Mortality Rates for Cancer
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	-	32.9	155.5	411.9	1069.6	1465.9
U.S. Whites	2.3	2.4	4.0	21.1	112.2	322.8	746.8	1366.0
Rate Ratio	-	-	-	1.6	1.4	1.3	1.4	1.1

(-) Rate not calculated for fewer than 5 deaths.

FIGURE 177a. Age-Specific Mortality Rates for Cancer
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

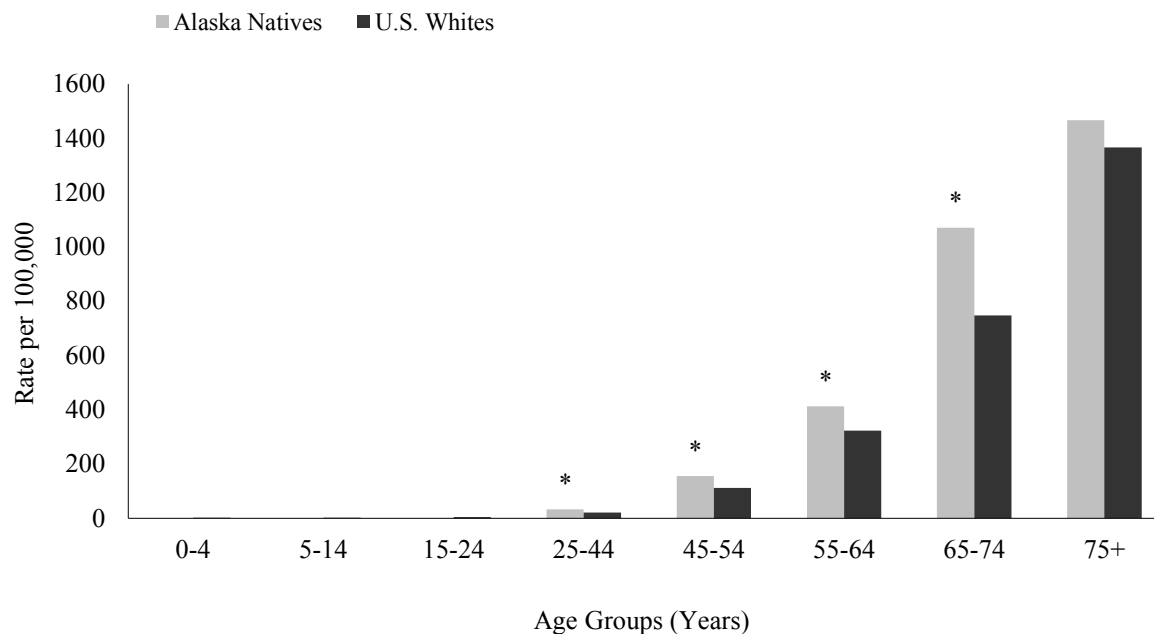


TABLE 29b. Age-Specific Mortality Rates for Cancer
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	-	29.4	184.4	391.4	1251.8	1779.4
U.S. Whites	2.5	2.7	4.7	18.9	115.2	361.8	893.0	1813.9
Rate Ratio	-	-	-	1.6	1.6	1.1	1.4	1.0

(-) Rate not calculated for fewer than 5 deaths.

FIGURE 177b. Age-Specific Mortality Rates for Cancer
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

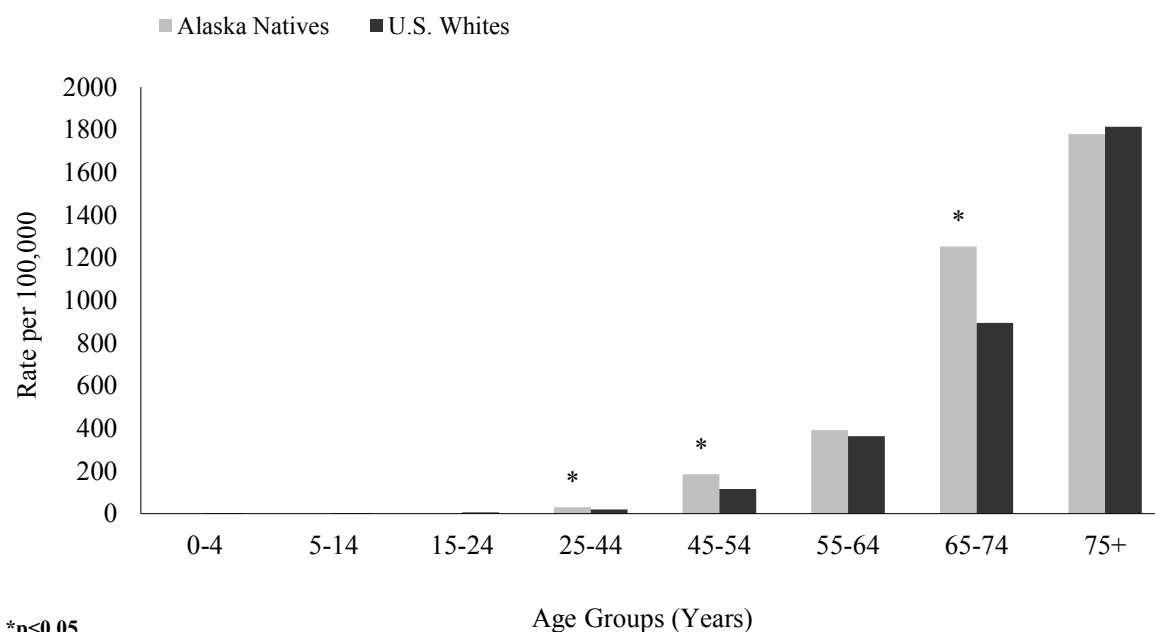


TABLE 29c. Age-Specific Mortality Rates for Cancer
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	-	36.5	128.0	431.0	918.1	1272.3
US Whites	2.1	2.2	3.2	23.3	109.3	286.0	622.3	1099.4
Rate Ratio	-	-	-	1.6	1.2	1.5	1.5	1.2

(-) Rate not calculated for fewer than 5 deaths.

FIGURE 177c. Age-Specific Mortality Rates for Cancer
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

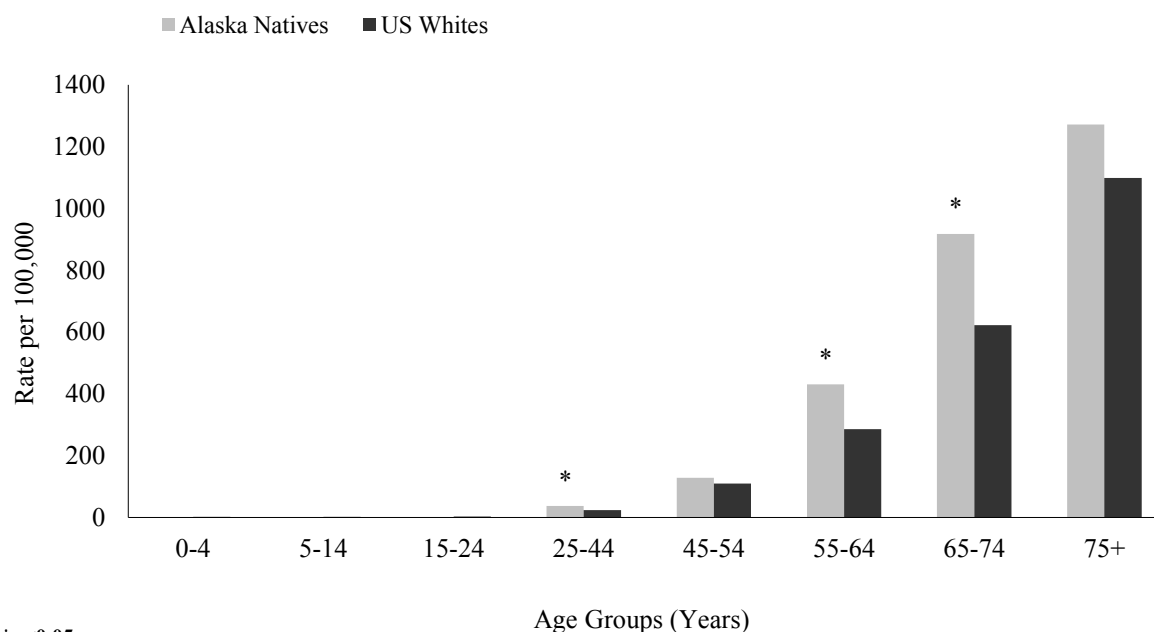
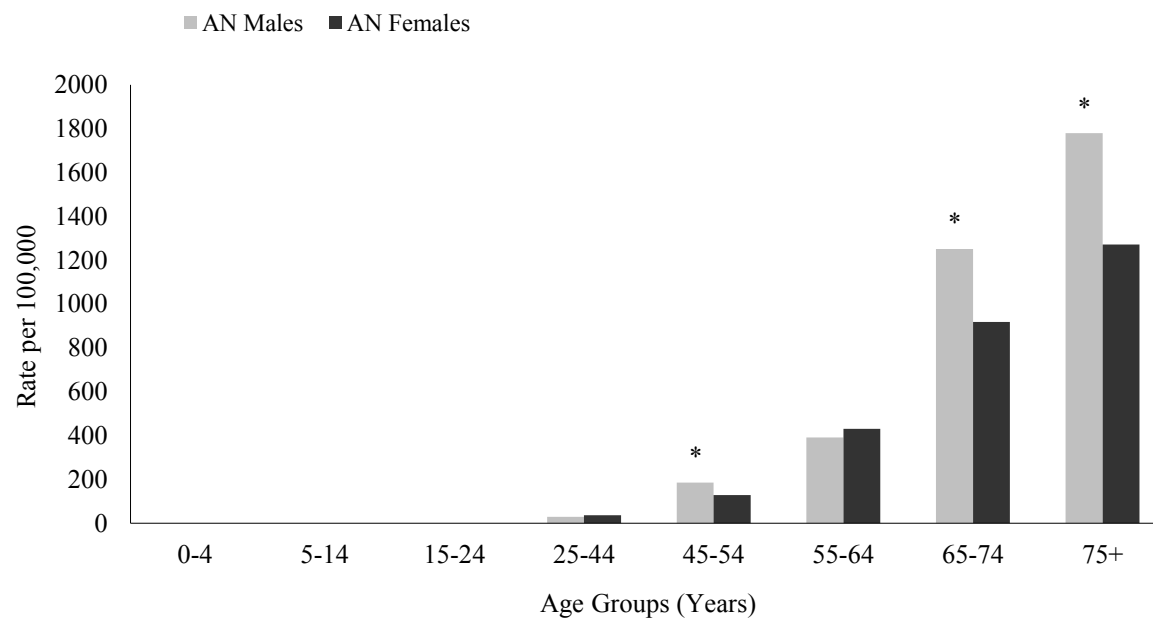


TABLE 30. Age-Specific Mortality Rates for Cancer
Alaska Natives (2004-2008)
Males versus Females

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
AN Males	-	-	-	29.4	184.4	391.4	1251.8	1779.4
AN Females	-	-	-	36.5	128.0	431.0	918.1	1272.3
Rate Ratio	-	-	-	0.8	1.4	0.9	1.4	1.4

(-) Rate not calculated for fewer than 5 deaths.

FIGURE 178. Age-Specific Mortality Rates for Cancer
Alaska Natives (2004-2008)
Males versus Females



*p<0.05

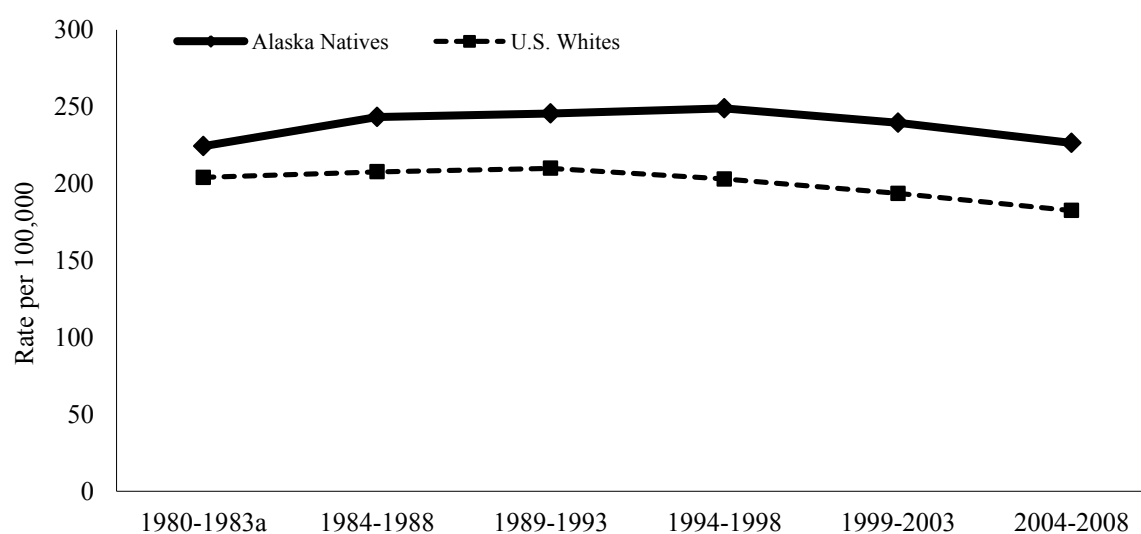
TABLE 31. Age-Adjusted Mortality Rates for Cancer
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders

	1980-1983 ^a	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008	% Change
Alaska Natives	224.3	243.3	245.4	248.9	239.5	226.3	NS*
U.S. Whites	203.9	207.6	209.9	202.9	193.5	182.4	-11%
Rate Ratio	1.1	1.2	1.2	1.2	1.2	1.2	

* NS means that there was no significant difference at $p < 0.05$

^a 1980-1983 time period contains only four years

FIGURE 179. Age-Adjusted Mortality Rates for Cancer
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders

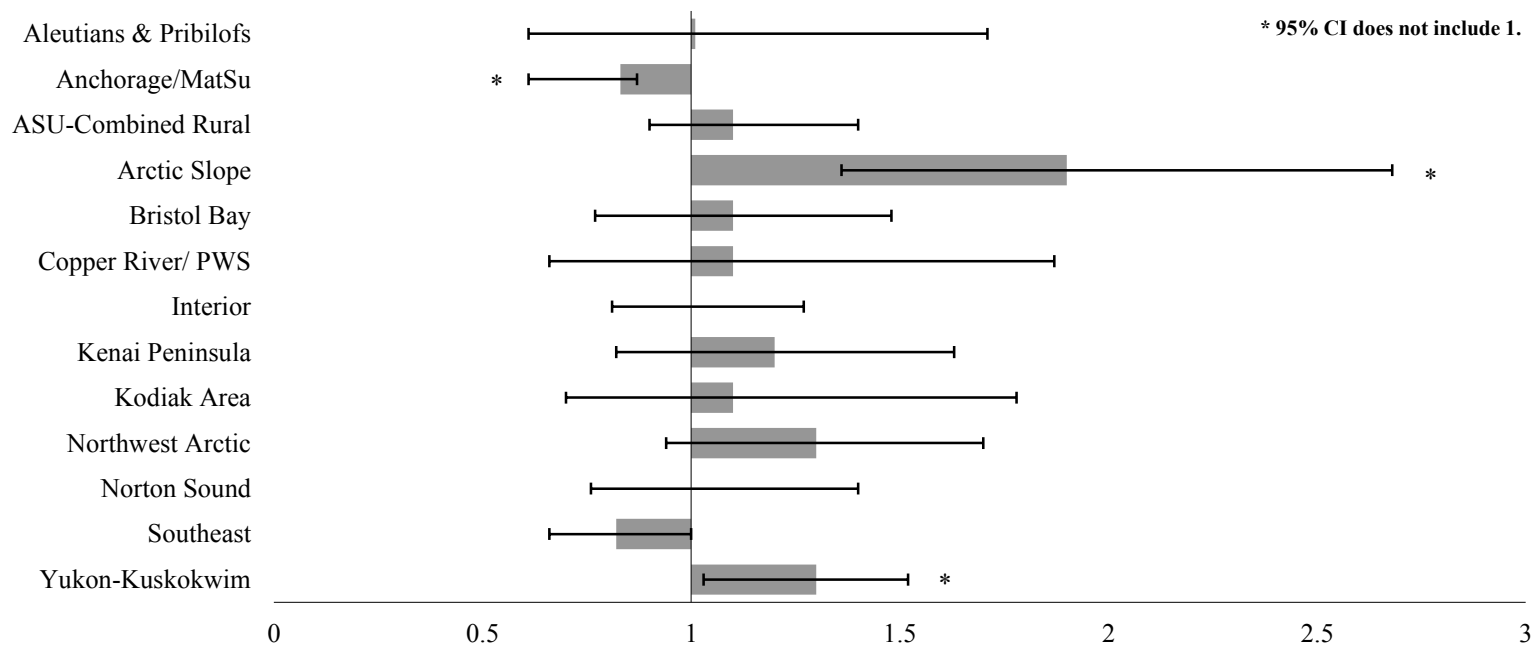


^a 1980-1983 time period contains only four years

TABLE 32. Age-Adjusted Mortality Rates for Cancer
Alaska Natives By Service Region (2004-2008), Both Genders

	Aleutians & Pribilofs	Anchorage/MatSu	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Natives Statewide
Rate	230.7	*176.2	250.4	*422.3	241.1	251.2	228.7	260.4	251.2	282.0	234.6	191.1	*273.1	226.3
RR	1.0	0.7	1.1	1.9	1.1	1.1	1.0	1.2	1.1	1.3	1.0	0.8	1.3	

FIGURE 180. Cancer Mortality Rate Ratios
Each Service Region vs All Other Regions Combined, Alaska Natives (2004-2008), Both Genders



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SECOND LEADING CAUSE OF DEATH

HEART DISEASE

Heart disease was the second leading cause of death among Alaska Native people, both genders combined. It ranked third among Alaska Native men, but second among Alaska Native women. Heart disease accounted for 14.3% (n=540) of all deaths among Alaska Natives. Heart disease mortality rates for Alaska Natives, both genders combined, were significantly lower than U.S. White rates as were rates for both Alaska Native men and women separately.

The sub-category, coronary heart disease, is of special interest to many health care providers. Healthy People 2010 set a goal of coronary heart disease mortality of 100.8 per 100,000. Coronary heart disease mortality among Alaska Native people, both genders combined, was 101.5 per 100,000 for the period 2004-2008. This rate was a significant 0.68 times the U.S. White mortality rate (150.3 per 100,000). Coronary heart disease declined 37% among Alaska Native people between

the periods 1980-1983 and 2004-2008. Coronary heart disease declined 56% among U.S. Whites between 1980-1983 and 2004-2006.

Because of the relatively low mortality rate from heart disease among Alaska Native people, 51 fewer deaths occurred among this population for both genders combined than would have been expected. Examining genders separately, Alaska Native men had 14 fewer deaths, and Alaska Native women had 37 fewer deaths than would have been expected from U.S. White rates.

Compared to U.S. Whites, age-specific rates of heart disease mortality for Alaska Natives both genders combined ranged from 0.7 to 1.6. Rate ratios were significantly higher for Alaska Natives compared to U.S. Whites for the 25 to 54 year age groups. Rates were similar for the two populations for the 55 to 74 year age groups. Alaska Native people had a significantly lower rate (RR=0.7) among those 75 years and older. These trends were similar for women. Alaska Native men had significantly different rates from U.S. White men only for the 75 and older age group.

Examining heart disease mortality rates by service region showed that the Arctic Slope (RR=1.9) and Kenai service region (RR=1.6) had significantly higher rate ratios and Interior (RR=0.7) had a significantly lower rate ratio than the remainder of the state.

Heart disease mortality rates for Alaska Native people declined 38% between 1980-1983 and 2004-2008. Heart disease mortality for U.S. Whites declined 48% between 1980-1983 and 2004-2006.

Second Leading Cause of Death Among Alaska Natives, 2004-2008 Heart Disease

**TABLE 33. Age-Adjusted Heart Disease Mortality Rates
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)**

	Alaska Natives			U.S. Whites			Rate Ratio	Lower 95%	Upper 95%
	#	%	Rate per 100,000	#	%	Rate per 100,000			
Both	540	14.3%	169.0	1,676,390	26.9%	205.1	*0.8	0.75	0.90
Male	311	15.0%	219.0	830,291	27.2%	256.5	*0.9	0.76	0.97
Female	229	13.3%	129.6	846,099	26.7%	164.9	*0.8	0.69	0.90

* 95% CI does not include 1.

† Age-adjusted to the US 2000 Standard population.

**FIGURE 181. Age-Adjusted Heart Disease Mortality Rates
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)**

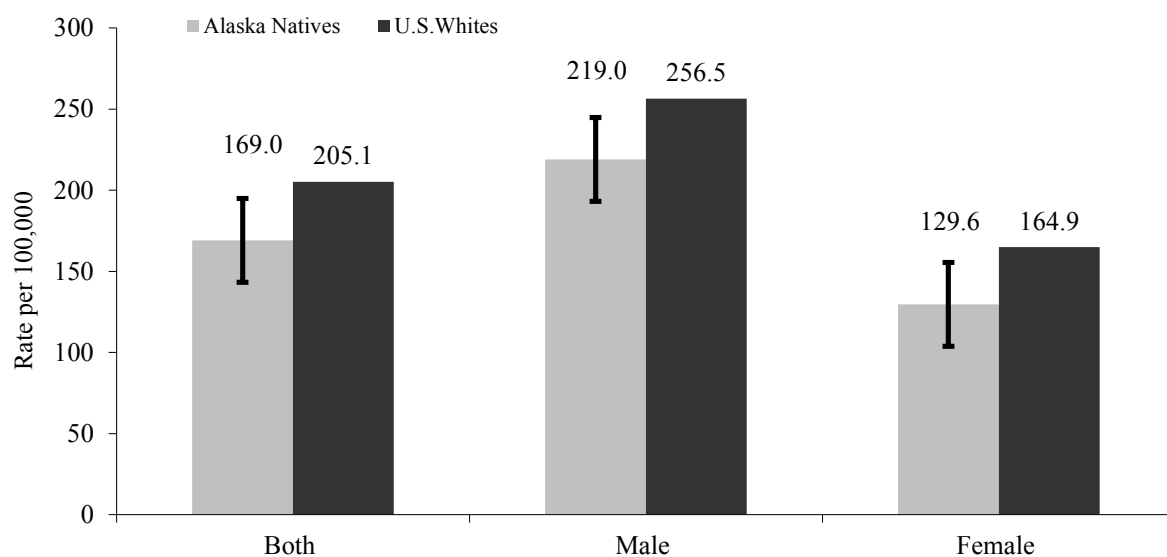


TABLE 34a. Age-Specific Mortality Rates for Heart Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	-	27.2	106.0	192.1	577.4	1506.6
U.S. Whites	2.2	0.5	2.1	17.0	80.3	199.8	502.1	2288.3
Rate Ratio	-	-	-	1.6	1.3	1.0	1.1	0.7

(-) Rate not calculated for fewer than 5 deaths.

FIGURE 182a. Age-Specific Mortality Rates for Heart Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

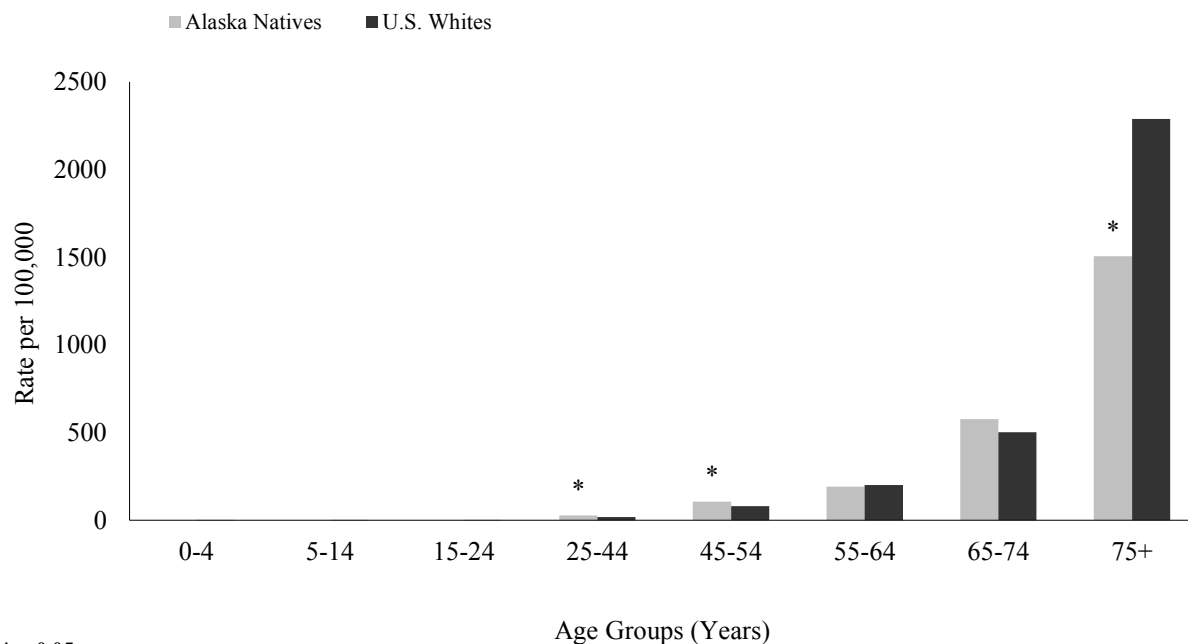


TABLE 34b. Age-Specific Mortality Rates for Heart Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	-	32.9	139.8	267.8	782.1	1903.4
U.S. Whites	2.3	0.6	2.9	24.3	120.6	289.6	680.0	2687.3
Rate Ratio	-	-	-	1.4	1.2	0.9	1.2	0.7

(-) Rate not calculated for fewer than 5 deaths.

FIGURE 182b. Age-Specific Mortality Rates for Heart Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

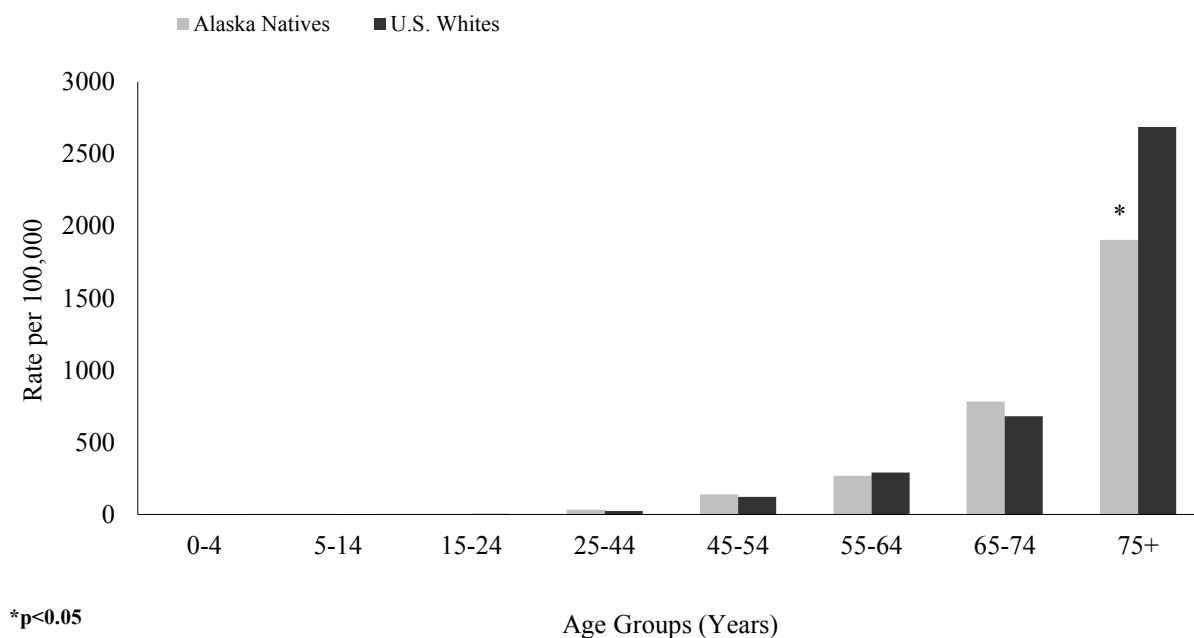
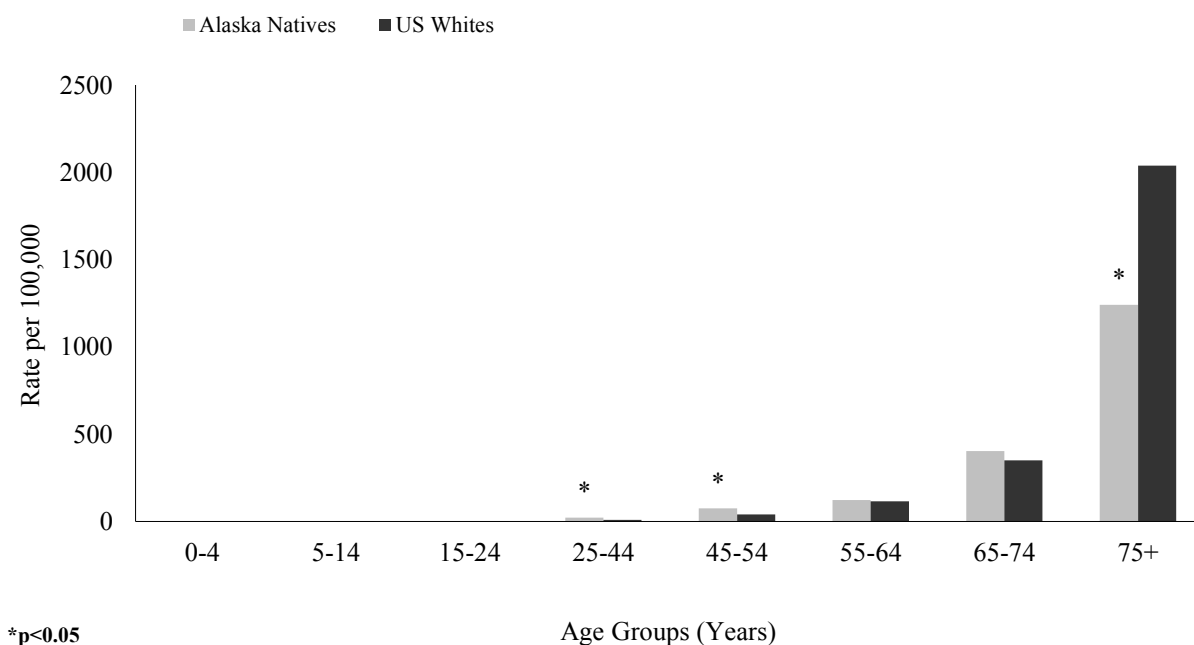


TABLE 34c. Age-Specific Mortality Rates for Heart Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	-	21.4	74.0	121.4	403.5	1240.6
US Whites	2.0	0.5	1.4	9.5	40.6	115.0	350.3	2039.1
Rate Ratio	-	-	-	2.3	1.8	1.1	1.2	0.6

(-) Rate not calculated for fewer than 5 deaths.

FIGURE 182c. Age-Specific Mortality Rates for Heart Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females



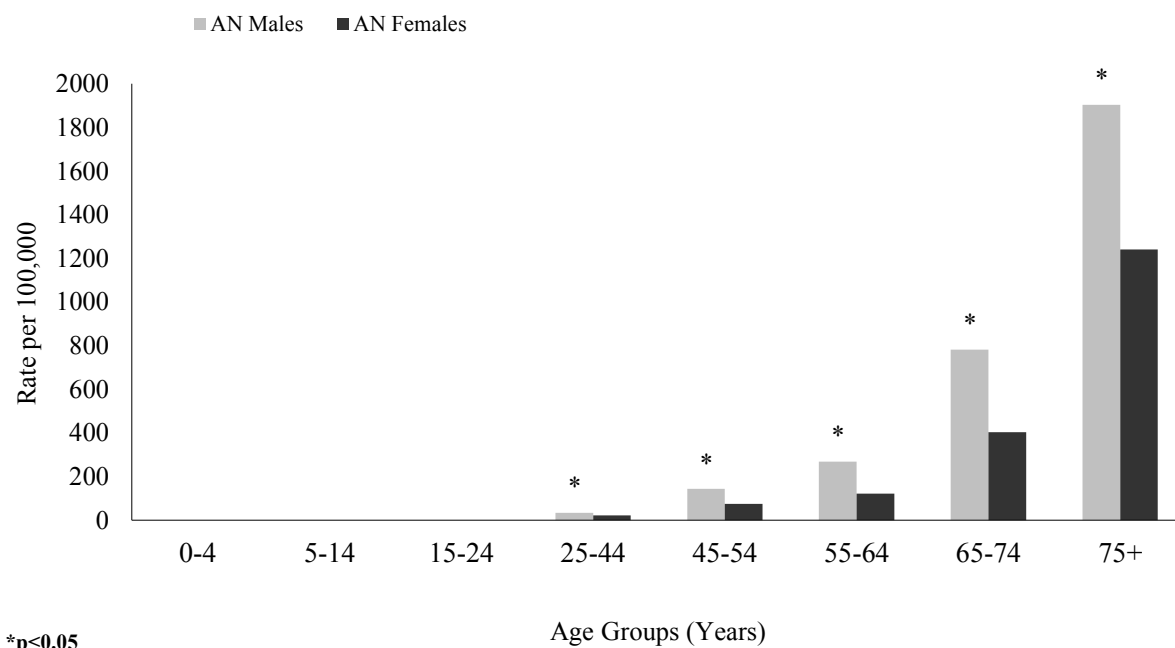
**TABLE 35. Age-Specific Mortality Rates for Heart Disease
Alaska Natives (2004-2008)
Males versus Females**

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
AN Males	-	-	-	32.9	142.8	267.8	782.1	1903.2
AN Females	-	-	-	21.4	74.0	121.4	403.5	1240.6
Rate Ratio ^a	-	-	-	1.5	1.9	2.2	1.9	1.5

(-) Rate not calculated for fewer than 5 deaths.

a The ratio of Alaska Native to US White rates may appear slightly different than stated because the rates have been rounded to one decimal point.

**FIGURE 183. Age-Specific Mortality Rates for Heart Disease
Alaska Natives (2004-2008)
Males versus Females**

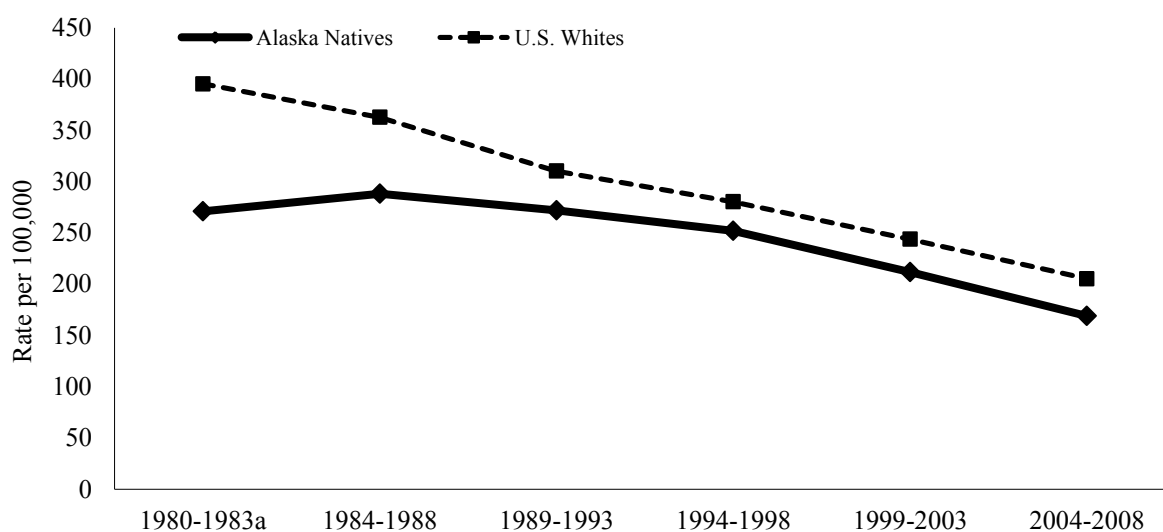


**TABLE 36. Age-Adjusted Mortality Rates for Heart Disease
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders**

	1980-1983 ^a	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008	% Change
Alaska Natives	270.9	288.1	271.9	252.0	211.6	169.0	-38%
U.S. Whites	395.1	362.5	310.2	280.2	243.6	205.1	-48%
Rate Ratio	0.7	0.8	0.9	0.9	0.9	0.8	

^a 1980-1983 time period contains only four years

**FIGURE 184. Age-Adjusted Mortality Rates for Heart Disease
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders**

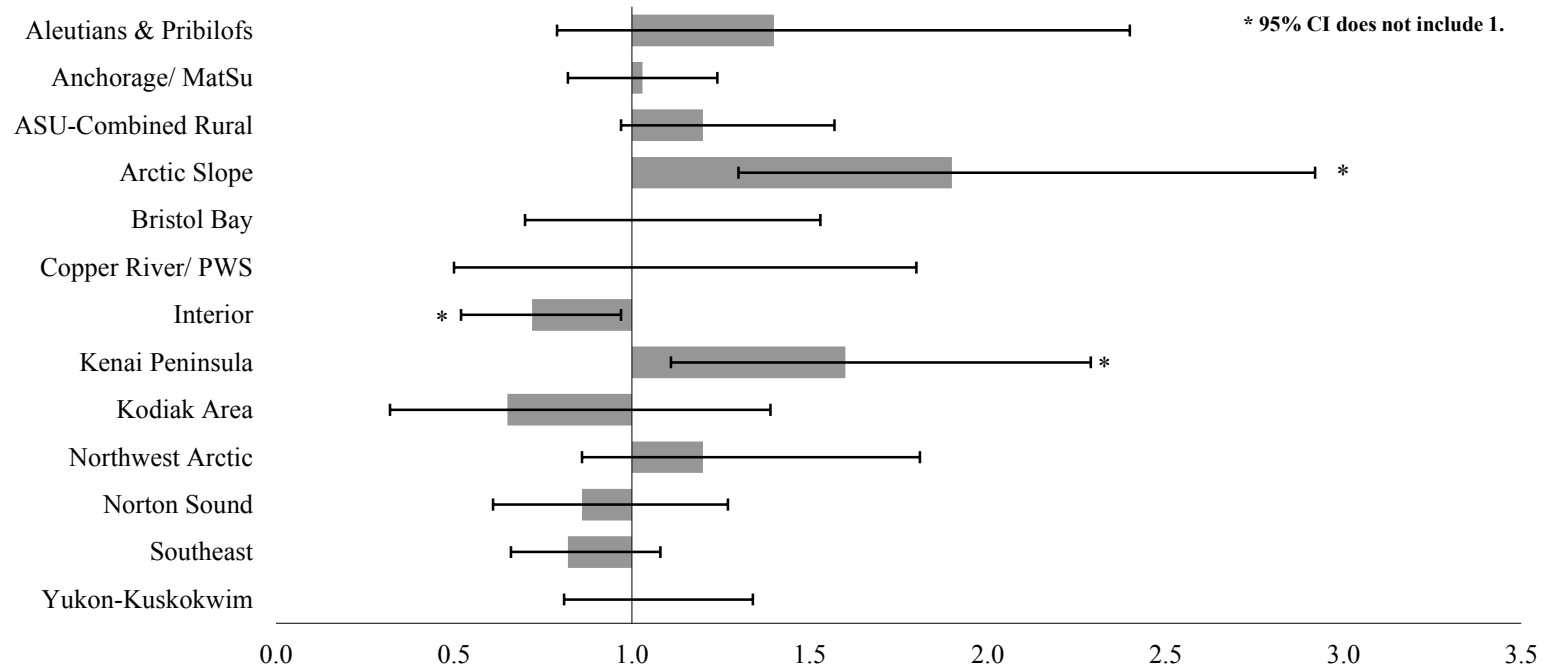


^a 1980-1983 time period contains only four years

**TABLE 37. Age-Adjusted Mortality Rates for Heart Disease
Alaska Natives By Service Region (2004-2008), Both Genders**

	Aleutians & Pribilofs	Anchorage/ MatSu	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/ PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Natives Statewide
Rate	231.0	169.9	198.8	*321.1	173.9	160.7	*124.9	*262.8	112.8	207.5	149.9	147.1	175.4	169.0
RR	1.4	1.0	1.2	1.9	1.0	1.0	0.7	1.6	0.7	1.2	0.9	0.8	1.0	

**FIGURE 185. Heart Disease Mortality Rate Ratios
Each Service Region vs All Other Regions Combined, Alaska Natives (2004-2008), Both Genders**



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THIRD LEADING CAUSE OF DEATH **UNINTENTIONAL INJURY**

Unintentional injury was the third leading cause of death for Alaska Native people, both genders combined. It ranked second among causes of death for Alaska Native males, and third among Alaska Native females. Unintentional injury comprised 13.0% (n= 493) of all Alaska Native deaths. For Alaska Natives, both genders combined, unintentional injury mortality rates were 2.5 times higher than U.S. White rates. Rates for Alaska Native males were 2.6 times higher than U.S. White rates for males. Rates for Alaska Native females were 2.1 times higher than those for U.S. White females.

The top five causes of unintentional injury deaths among Alaska Natives, both genders combined, accounted for 76% of all unintentional injury deaths. The leading causes were: poisoning (23%) - over half of which were overdoses of alcohol or drugs, drowning and watercraft injuries (22%), motor vehicle traffic injuries (11%), exposure to the elements (11%), and ATV injuries

(10%). Firearm injuries comprised about 1% of all unintentional injury mortality.

Unintentional injury was the number one cause of excess deaths among Alaska Native people, accounting for 23.9% (n=304) among both genders combined. However, there were large gender differences. Unintentional injury comprised 32.0% of all excess deaths among Alaska Native males (n=230), but only 13.4% of excess deaths among Alaska Native females (n=74).

Unintentional injuries were the leading cause of years of potential life lost. This cause accounted for 25% (19,183 years) of all years of life lost before 75 for Alaska Natives, both genders, 30% (14,066 years) for Alaska Native males, and 17% (5,117 years) for Alaska Native females.

Unintentional injury mortality rates were significantly higher for every age group among Alaska Natives, both genders combined, as compared to U.S. Whites. Rate ratios ranged from 1.6 among those 75 years of age and older to 6.0 times higher among 5 to 14 year olds. Unintentional injury mortality rates were

significantly higher for all age groups among Alaska Native males as compared to U.S. White males, and for age groups 0 to 14 and 25 to 54 years for Alaska Native females as compared U.S. White females. Comparing Alaska Native males to females, Alaska Native males experienced unintentional injury mortality rates that were 1.8 to 4.1 times higher than Alaska Native females for all age groups.

Examining unintentional injury mortality rates by service region, showed that Norton Sound (RR=1.4), Northwest Arctic (RR=1.6), and Bristol Bay (RR=1.8) had significantly higher rates than the rest of the state. The Anchorage/Mat-Su service region had significantly lower rates (RR=0.8).

Unintentional injury mortality rates declined 47% for Alaska Natives, both genders combined, between 1980-1983 and 2004-2008. U.S. Whites experienced a 6% decline from 1980-1983 to 2004-2006.

Third Leading Cause of Death Among Alaska Natives, 2004-2008 Unintentional Injury

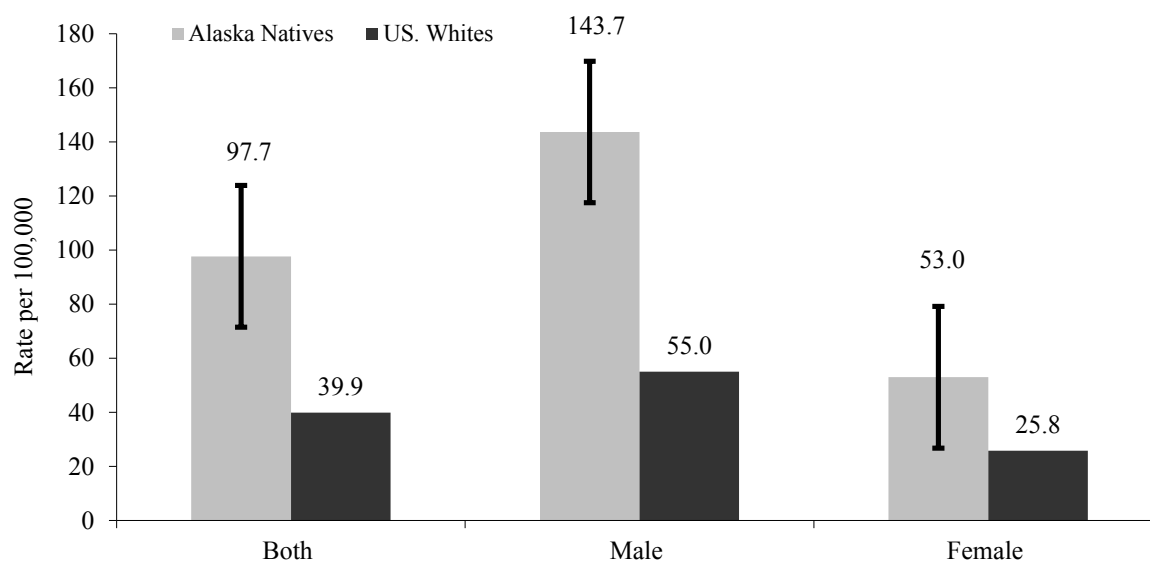
TABLE 38. **Age-Adjusted Unintentional Injury Mortality Rates**
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)

	Alaska Natives		Rate per 100,000	U.S. Whites		Rate per 100,000	Rate Ratio	Lower 95%	Upper 95%
	#	%		#	%				
Both	493	13.0%	97.7	299,968	4.8%	39.9	*2.5	2.23	2.69
Male	359	17.3%	143.7	192,553	6.3%	55.0	*2.6	2.33	2.93
Female	134	7.8%	53.0	107,415	3.4%	25.8	*2.1	1.75	2.46

* 95% CI does not include 1.

† Age-adjusted to the US 2000 Standard population.

FIGURE 186. **Age-Adjusted Unintentional Injury Mortality Rates**
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)



**TABLE 39a. Age-Specific Mortality Rates for Unintentional Injury
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders**

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	62.8	34.0	78.2	115.5	122.2	71.6	90.8	238.9
U.S. Whites	12.3	5.7	40.6	38.7	43.2	34.4	45.2	153.0
Rate Ratio ^a	5.1	5.9	1.9	3.0	2.8	2.1	2.0	1.6

a The ratio of Alaska Native to US White rates may appear slightly different than stated because the rates have been rounded to one decimal point.

**FIGURE 187a. Age-Specific Mortality Rates for Unintentional Injury
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders**

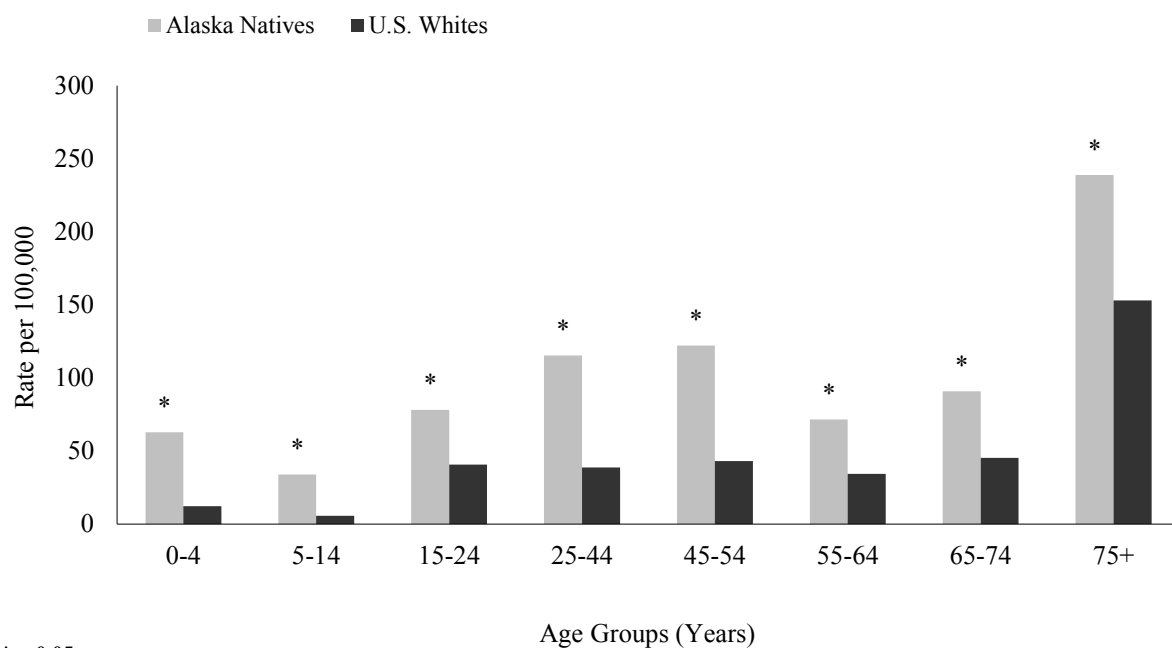


TABLE 39b. Age-Specific Mortality Rates for Unintentional Injury
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	80.6	48.4	122.7	166.8	171.4	116.2	146.5	354.0
U.S. Whites	14.1	6.9	58.8	55.8	61.3	48.1	60.6	194.4
Rate Ratio	5.7	7.0	2.1	3.0	2.8	2.4	2.4	1.8

FIGURE 187b. Age-Specific Mortality Rates for Unintentional Injury
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

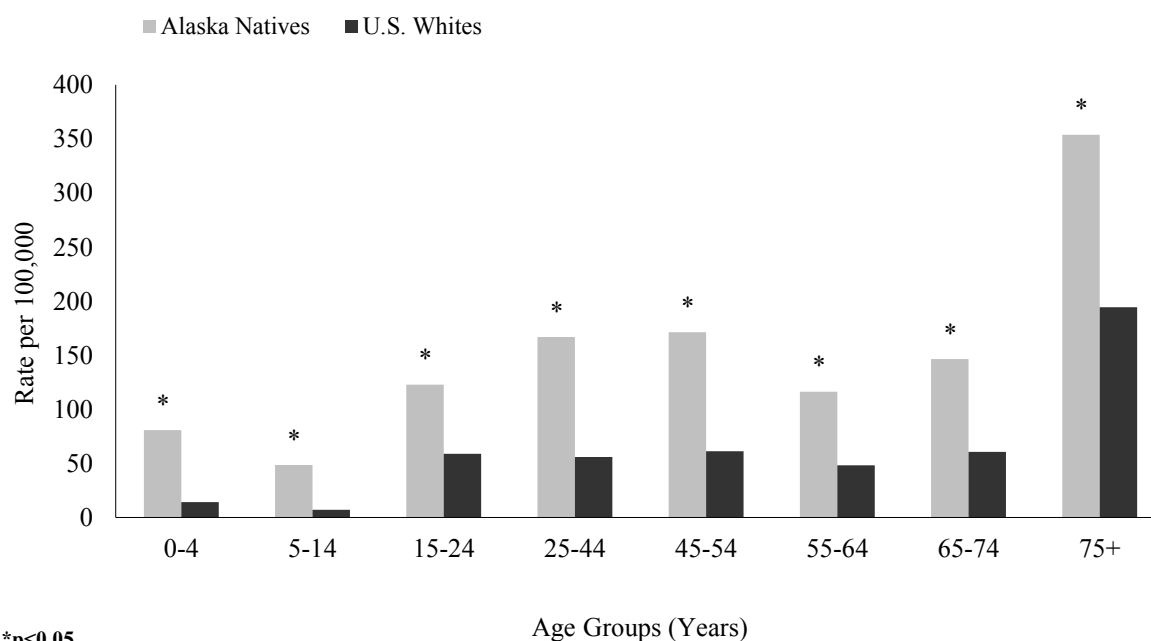
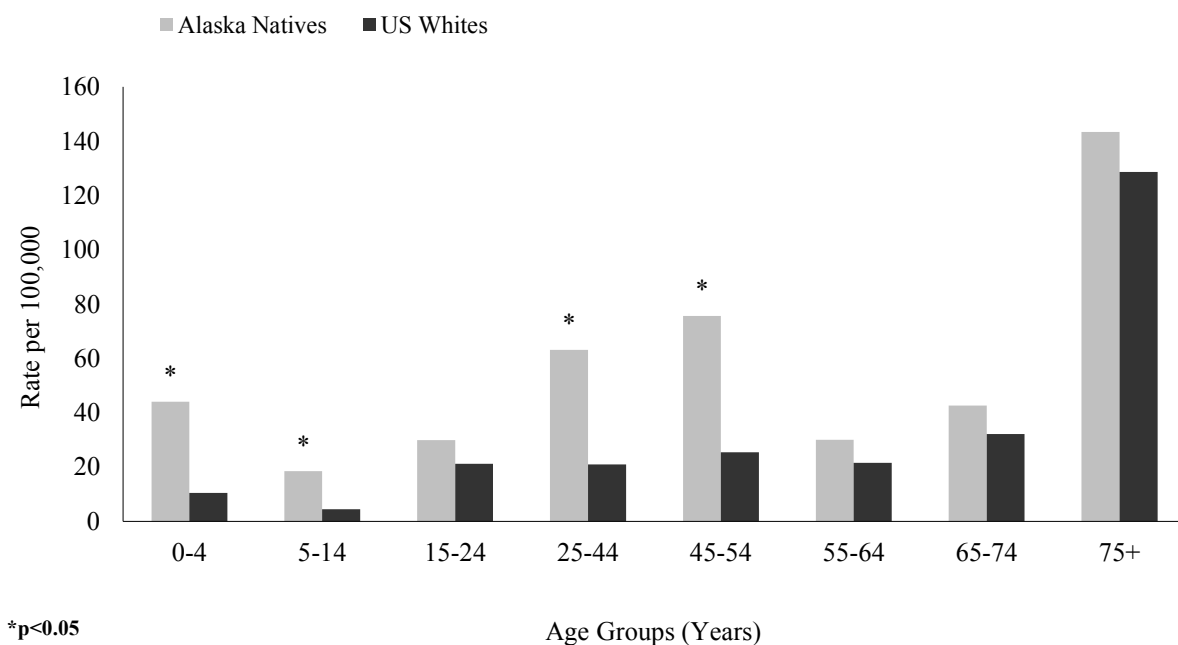


TABLE 39c. Age-Specific Mortality Rates for Unintentional Injury
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	44.1	18.5	29.9	63.2	75.7	30.0	42.6	143.4
US Whites	10.5	4.5	21.2	21.0	25.4	21.5	32.1	128.7
Rate Ratio	4.2	4.1	1.4	3.0	3.0	1.4	1.3	1.1

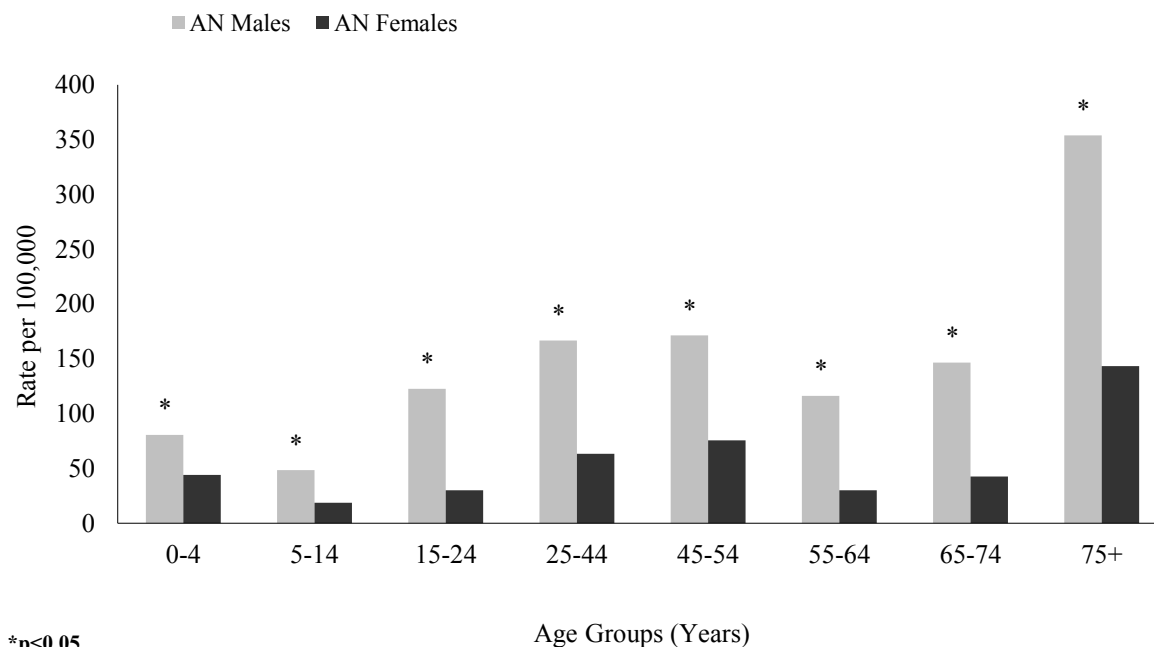
FIGURE 187c. Age-Specific Mortality Rates for Unintentional Injury
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females



**TABLE 40. Age-Specific Mortality Rates for Unintentional Injury
Alaska Natives (2004-2008)
Males versus Females**

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
AN Males	80.6	48.4	122.7	166.8	171.4	116.2	146.5	354.0
AN Females	44.1	18.5	29.9	63.2	75.7	30.0	42.6	143.4
Rate Ratio	1.8	2.6	4.1	2.6	2.3	3.9	3.4	2.5

**FIGURE 188. Age-Specific Mortality Rates for Unintentional Injury
Alaska Natives (2004-2008)
Males versus Females**

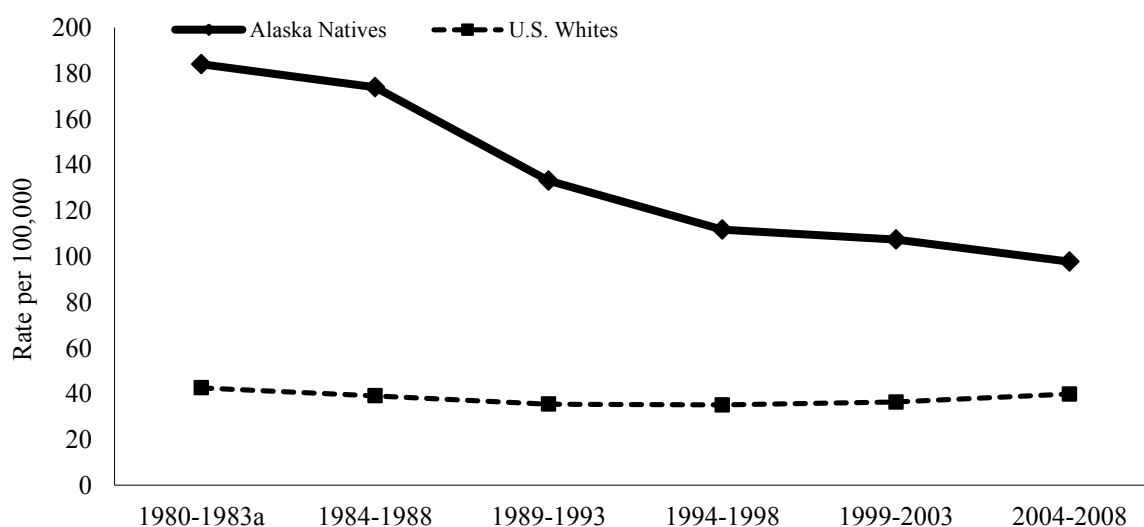


**TABLE 41. Age-Adjusted Mortality Rates for Unintentional Injury
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders**

	1980-1983 ^a	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008	% Change
Alaska Natives	184.1	174.0	133.1	111.7	107.4	97.7	-47%
U.S. Whites	42.6	39.1	35.5	35.1	36.4	39.9	-6%
Rate Ratio	4.3	4.5	3.7	3.2	3.0	2.4	

^a 1980-1983 time period contains only four years

**FIGURE 189. Age-Adjusted Mortality Rates for Unintentional Injury
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders**

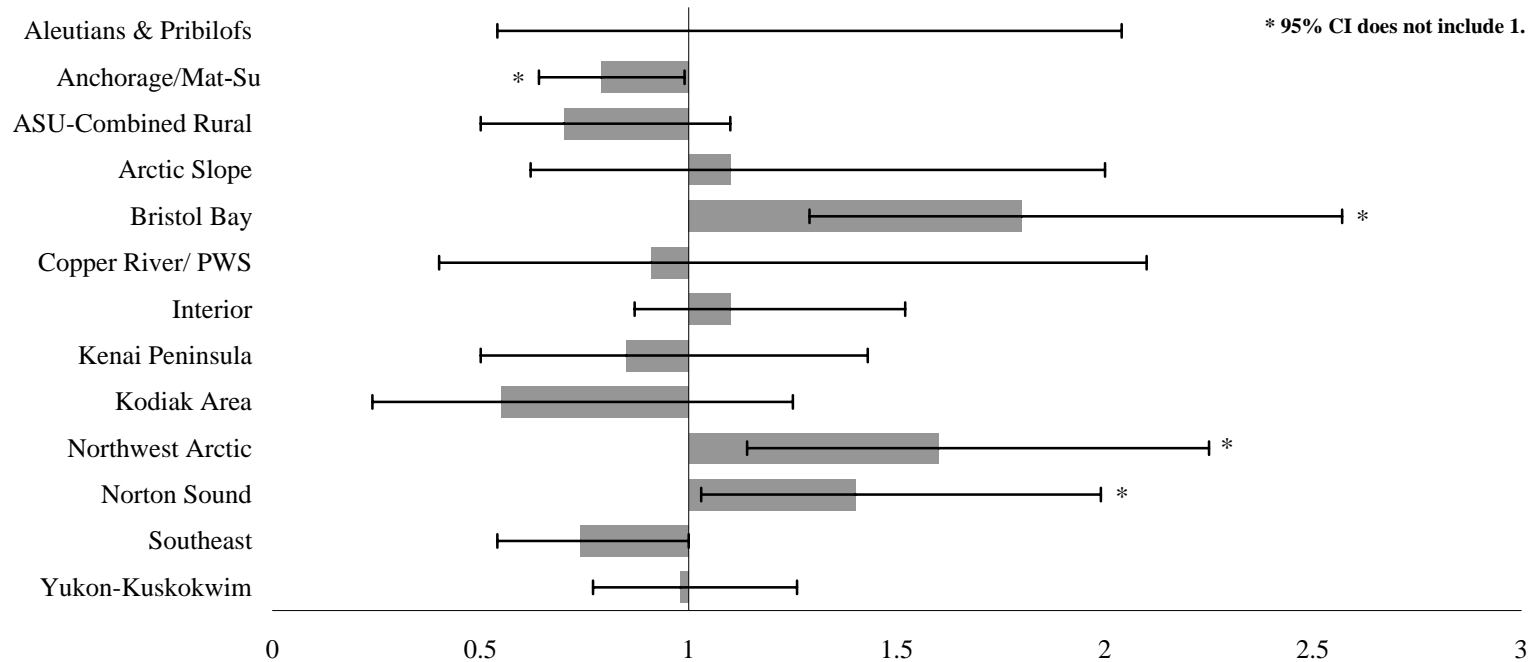


^a 1980-1983 time period contains only four years

**TABLE 42. Age-Adjusted Mortality Rates for Unintentional Injury
Alaska Natives By Service Region (2004-2008), Both Genders**

	Aleutians & Pribilofs	Anchorage/Mat-Su	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Natives Statewide
Rate	102.2	*82.3	75.0	109.1	*171.6	89.5	110.7	83.5	54.0	*151.3	*136.1	74.0	96.0	97.7
RR	1.0	0.8	0.7	1.1	1.8	0.9	1.1	0.9	0.6	1.6	1.4	0.7	1.0	

FIGURE 190. Unintentional Injury Mortality Rate Ratios
Each Service Region vs All Other Regions Combined, Alaska Natives (2004-2008), Both Genders



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FOURTH LEADING CAUSE OF DEATH
SUICIDE

Suicide was the fourth leading cause of death among Alaska Native people, both genders combined. It ranked fourth among Alaska Native males and seventh among Alaska Native females. Among Alaska Native people, both genders combined, 6.7% (n=252) of all deaths were suicides. The suicide rate for Alaska Native people, both genders combined, was 3.5 times higher than among U.S. Whites. The rate ratios were 3.2 and 4.3 for Alaska Native males and females, respectively, compared to U.S. Whites.

The majority of suicides (61%) among Alaska Native people, both genders combined, involved firearms. In addition to firearm deaths, 31% of suicides among Alaska Native males involved hanging. For Alaska Native females, in addition to firearm deaths, 54% were due to hanging, and 14% of suicides were due to poisoning.

Suicide accounted for 15.2% of all excess deaths among Alaska Native

people, both genders combined (n=192). Among Alaska Native males (n=142), suicide accounted for 19.8% of excess deaths, the second largest cause of excess death among Alaska Native males. Suicide accounted for 9.1% of excess deaths among Alaska Native females (n=50).

Suicide was the second leading cause of years of potential life lost. This cause accounted for 15% (11,471 years) of all years of life lost before 75 for Alaska Native people, both genders, 18% (8,506 years) for Alaska Native males, and 10% (2,965 years) for Alaska Native females.

Alaska Native people, both genders combined, experienced 0.9 to 13.5 times the suicide rates of U.S. Whites across various age groups. Alaska Native males experienced suicide rates 2.3 to 8.4 times higher than U.S. White males for age groups 15 to 54 years. Alaska Native females had significant rate ratios 5.3 to 25.6 times higher than U.S. White females for age groups 5 to 44 years. Comparing Alaska Native males to females, suicide was a significant 2.7 to 2.9 times more common among males

than females for age groups 15 to 44 years.

Examining suicide rates by service region, showed that Northwest Arctic (RR=2.0), Norton Sound (RR=1.9), and Yukon Kuskokwim (RR=1.7) service regions had significantly higher rates than the rest of the state. The Anchorage/Mat-Su (RR=0.6) and Southeast (RR=0.4) service regions had significantly lower rates.

There has been no significant change in Alaska Native suicide rates between 1980-1983 and 2004-2008. U.S. Whites experienced a significant 8% decline between 1980-1983 and 2004-2006.

Fourth Leading Cause of Death Among Alaska Natives, 2004-2008 Suicide

TABLE 43. Age-Adjusted Suicide Mortality Rates
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)

	Alaska Natives		Rate per 100,000	U.S. Whites		Rate per 100,000	Rate Ratio	Lower 95%	Upper 95%
	#	%		#	%				
Both	252	6.7%	42.3	88,895	1.4%	12.0	*3.5	3.10	4.00
Male	189	9.1%	62.8	70,306	2.3%	19.6	*3.2	2.76	3.72
Female	63	3.7%	21.4	18,589	0.6%	5.0	*4.3	3.33	5.55

* 95% CI does not include 1.

† Age-adjusted to the US 2000 Standard population.

FIGURE 191. Age-Adjusted Suicide Mortality Rates
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)

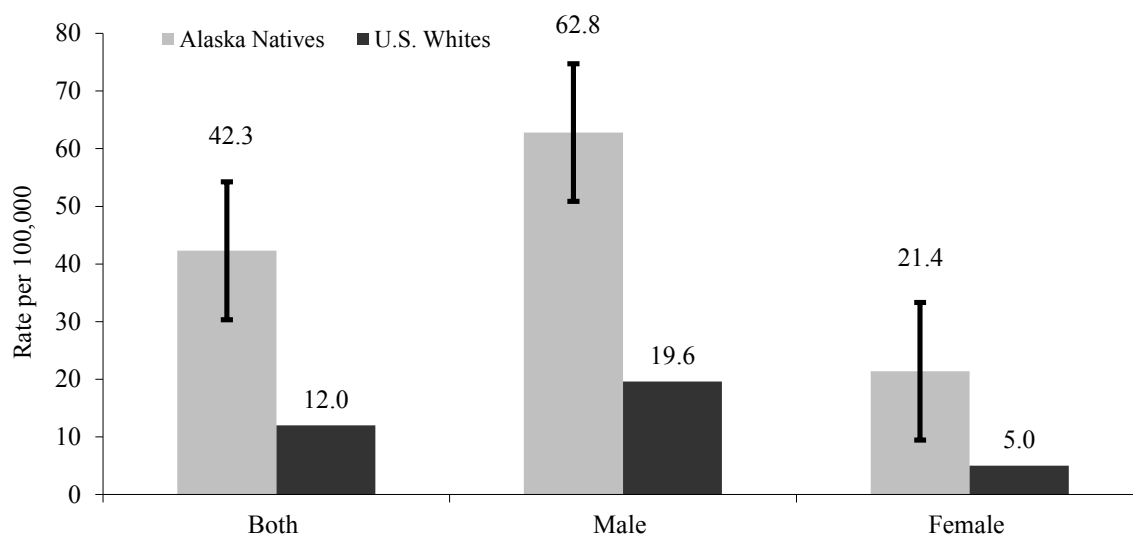


TABLE 44a. Age-Specific Mortality Rates for Suicide
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	8.3	99.4	66.1	37.9	13.2	-	-
U.S. Whites	-	0.6	10.7	15.4	18.9	15.6	13.7	17.5
Rate Ratio ^a	-	13.5	9.3	4.3	2.0	0.9	-	-

(-) Rate not calculated for fewer than 5 deaths.

a The ratio of Alaska Native to US White rates may appear slightly different than stated because the rates have been rounded to one decimal point.

FIGURE 192a. Age-Specific Mortality Rates for Suicide
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

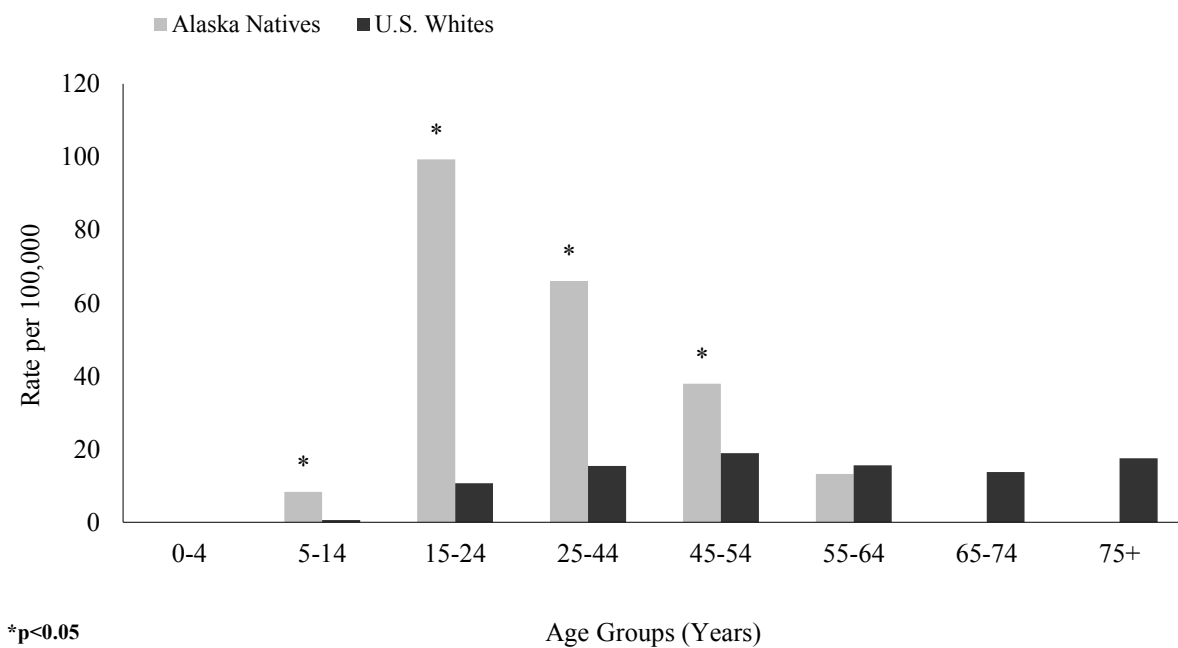


TABLE 44b. Age-Specific Mortality Rates for Suicide
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	145.3	96.2	66.0	-	-	-
U.S. Whites	-	0.8	17.3	23.8	28.3	24.5	24.7	39.8
Rate Ratio	-	-	8.4	4.0	2.3	-	-	-

(-) Rate not calculated for fewer than 5 deaths.

FIGURE 192b. Age-Specific Mortality Rates for Suicide
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

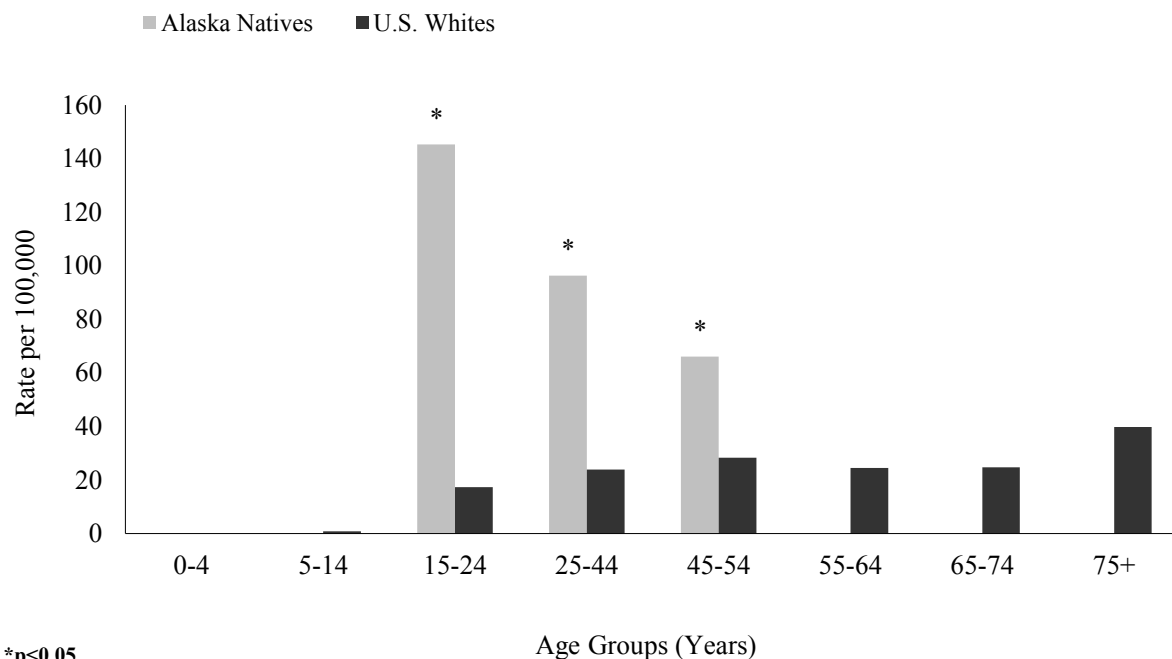


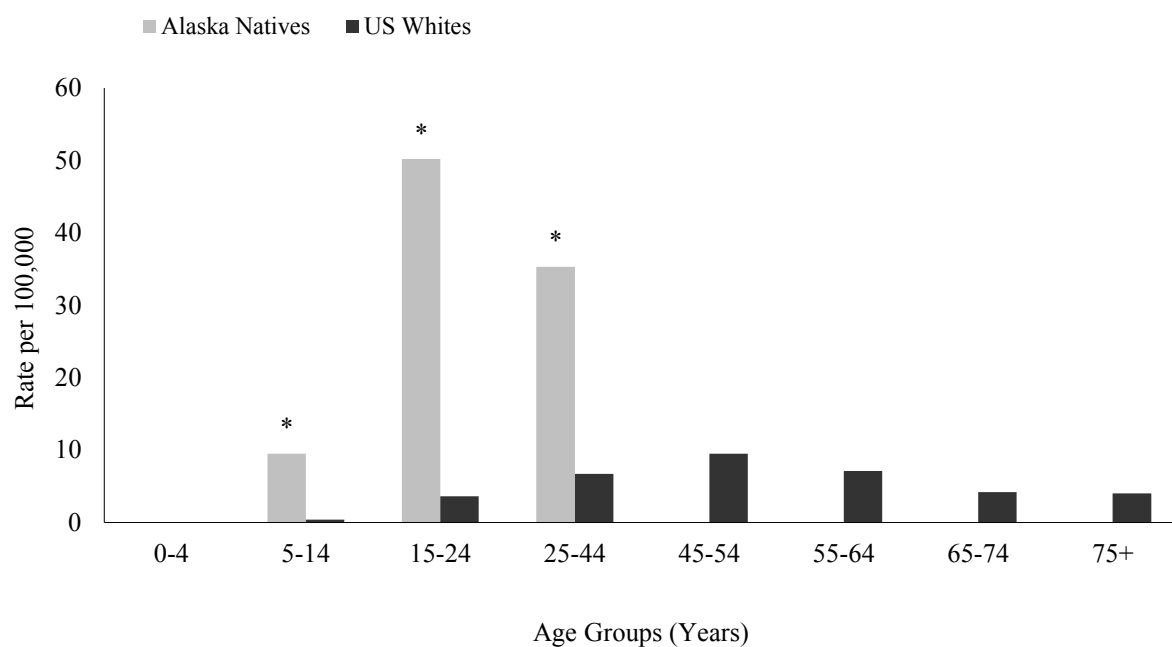
TABLE 44c. Age-Specific Mortality Rates for Suicide
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	9.5	50.2	35.3	-	-	-	-
US Whites	-	0.4	3.6	6.7	9.5	7.1	4.2	4.0
Rate Ratio ^a	-	25.6	13.9	5.3	-	-	-	-

(-) Rate not calculated for fewer than 5 deaths.

a The ratio of Alaska Native to US White rates may appear slightly different than stated because the rates have been rounded to one decimal point.

FIGURE 192c. Age-Specific Mortality Rates for Suicide
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females



**TABLE 45. Age-Specific Mortality Rates for Suicide
Alaska Natives (2004-2008)
Males versus Females**

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
AN Males	-	-	145.3	96.2	66.0	-	-	-
AN Females	-	9.5	50.2	35.3	-	-	-	-
Rate Ratio ^a	-	-	2.9	2.7	-	-	-	-

(-) Rate not calculated for fewer than 5 deaths.

a The ratio of Alaska Native to US White rates may appear slightly different than stated because the rates have been rounded to one decimal point.

**FIGURE 193. Age-Specific Mortality Rates for Suicide
Alaska Natives (2004-2008)
Males versus Females**

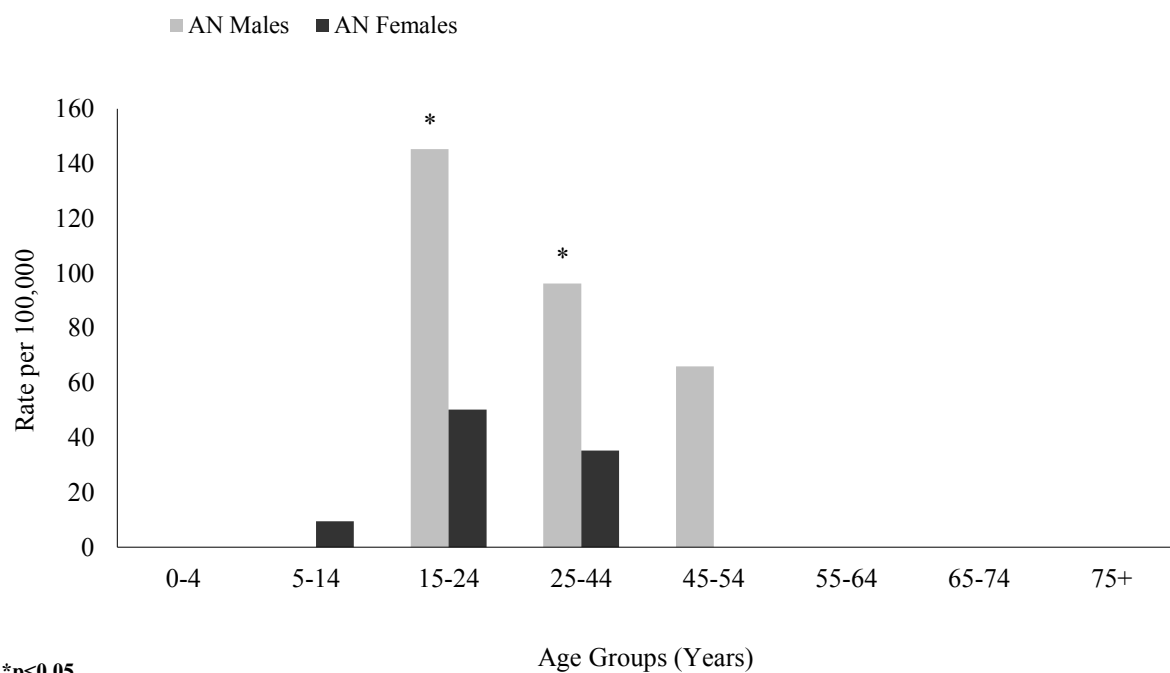


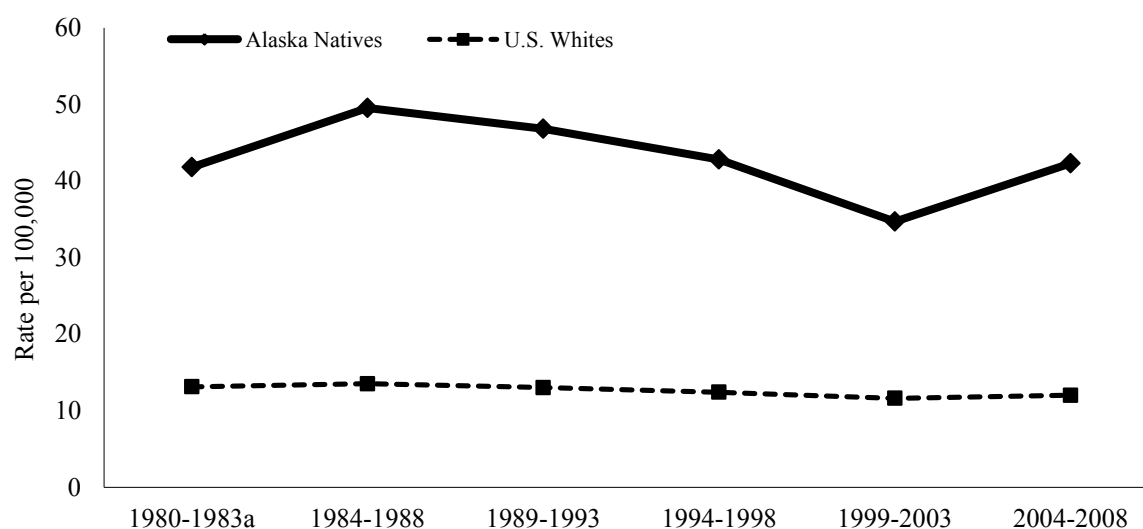
TABLE 46. Age-Adjusted Mortality Rates for Suicide
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders

	1980-1983 ^a	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008	% Change
Alaska Natives	41.8	49.5	46.8	42.8	34.7	42.3	NS*
U.S. Whites	13.1	13.5	13.0	12.4	11.6	12.0	-8%
Rate Ratio	3.2	3.7	3.6	3.5	3.0	3.5	

* NS means that there was no significant difference at $p < 0.05$

^a 1980-1983 time period contains only four years

FIGURE 194. Age-Adjusted Mortality Rates for Suicide
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders

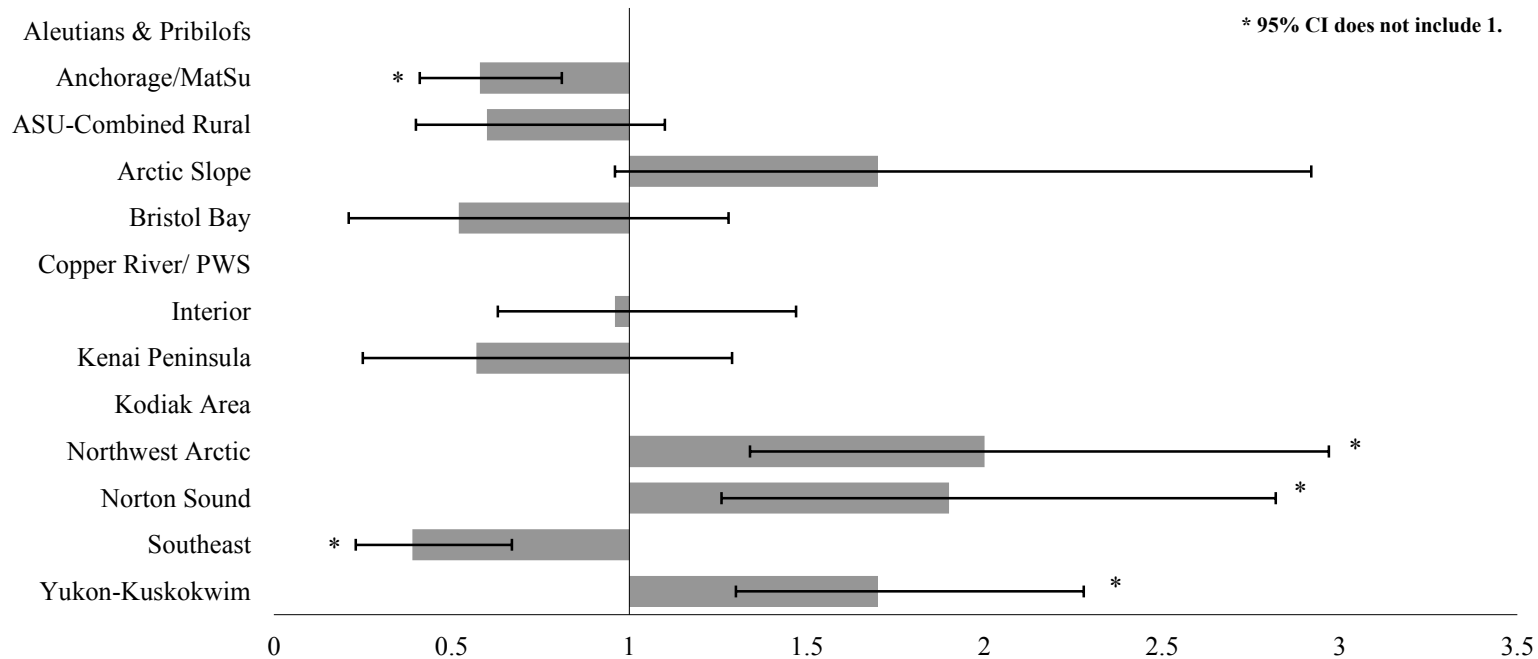


^a 1980-1983 time period contains only four years

TABLE 47. Age-Adjusted Mortality Rates for Suicide
Alaska Natives By Service Region (2004-2008), Both Genders

	Aleutians & Pribilofs	Anchorage/MatSu	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Natives Statewide
Rate	-	*27.7	28.3	69.1	22.3	-	41.1	24.6	-	*79.6	*75.8	*17.9	*64.3	42.3
RR	-	0.6	0.6	1.7	0.5	-	1.0	0.6	-	2.0	1.9	0.4	1.7	

FIGURE 195. Suicide Mortality Rate Ratios
Each Service Region vs All Other Regions Combined, Alaska Natives (2004-2008), Both Genders



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FIFTH LEADING CAUSE OF DEATH
**MENTAL AND BEHAVIORAL
 DISORDERS DUE TO ALCOHOL
 ABUSE**

Alcohol abuse was the fifth leading cause of death among Alaska Native people, both genders combined, and for Alaska Native men. It ranked sixth for Alaska Native women. Alaska Natives, both genders combined, experienced an alcohol abuse mortality rate 16.1 times higher than U.S. Whites. The mortality rate for Alaska Native men was 10.9 times higher than U.S. White men. The mortality rate for Alaska Native women was 35.1 times higher than U.S. White women.

Alcohol abuse accounted for 14.1% of excess deaths among Alaska Natives, both genders combined (n=179). Among Alaska Native men (n=92), alcohol abuse accounted for 12.8% of excess deaths, whereas among Alaska Native women (n=87), alcohol abuse accounted for 15.8% of excess deaths.

Alcohol abuse was the fifth leading cause of years of potential life lost (4,924 years) for Alaska Natives both

genders combined and for men. It was the fourth leading cause for Alaska Native women.

Age-specific alcohol abuse mortality rates were a significant 8.3 to 25.0 times higher for Alaska Natives, both genders combined, compared to U.S. Whites, among age groups 15 years and older. Rates were 6.5 to 15.7 times higher for Alaska Native men, 25 years and older. Alaska Native women had alcohol abuse mortality rates 28.6 to 64.0 times higher as compared to U.S. White women for the age groups 25 to 64 years. Comparing Alaska Native men to women, there were no significant differences in rates by age group.

Examining alcohol abuse mortality rates by service region, showed that the Interior (RR=2.2) had significantly higher rates than the rest of the state.

Alaska Native alcohol abuse mortality rates rose 34% between 1980-1983 and 2004-2008. Alcohol abuse mortality rates increased 20% among U.S. Whites between 1980-1983 and 2004-2006.

Fifth Leading Cause of Death Among Alaska Natives, 2004-2008
ALCOHOL ABUSE

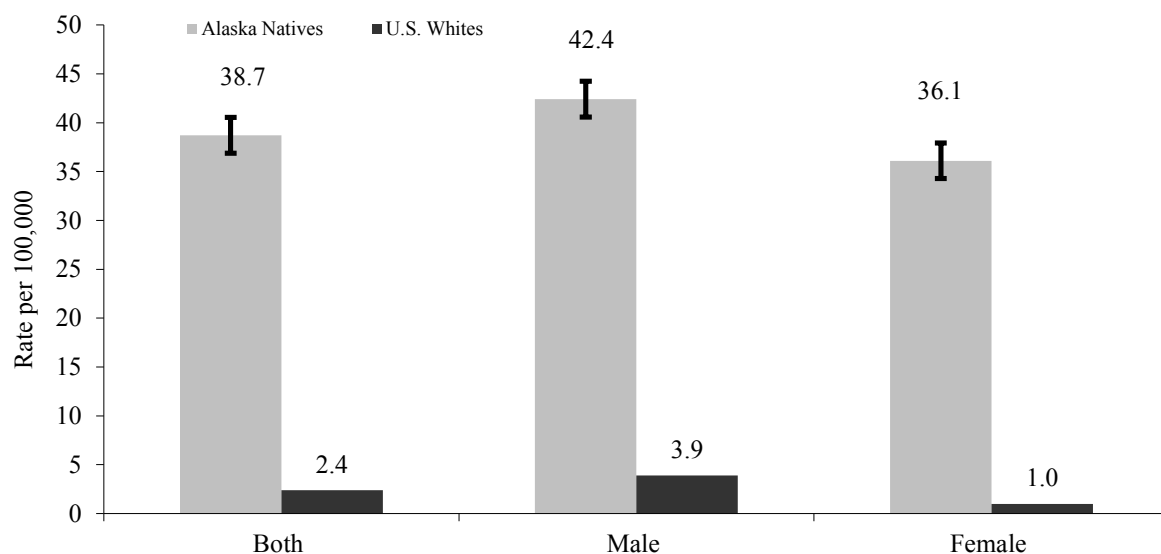
TABLE 48. Age-Adjusted Alcohol Abuse Mortality Rates
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)

	Alaska Natives			U.S. Whites			Rate Ratio	Lower 95%	Upper 95%
	#	%	Rate per 100,000	#	%	Rate per 100,000			
Both	180	4.8%	38.7	18,536	0.3%	2.4	16.1	13.83	18.68
Male	93	4.5%	42.4	14,469	0.5%	3.9	10.9	8.80	13.55
Female	87	5.1%	36.1	4,067	0.1%	1.0	35.1	28.35	43.56

* 95% CI does not include 1.

† Age-adjusted to the US 2000 Standard population.

FIGURE 196. Age-Adjusted Alcohol Abuse Mortality Rates
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)



**TABLE 49a. Age-Specific Mortality Rates for Alcohol Abuse
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders**

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	4.6	47.1	81.6	89.3	36.1	46.8
US Whites	-	-	0.2	1.9	6.1	6.1	4.4	2.9
Rate Ratio ^a	-	-	20.8	25.0	13.4	14.6	8.3	16.2

(-) Rate not calculated for fewer than 5 deaths.

a The ratio of Alaska Native to US White rates may appear slightly different than stated because the rates have been rounded to one decimal point.

**FIGURE 197a. Age-Specific Mortality Rates for Alcohol Abuse
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders**

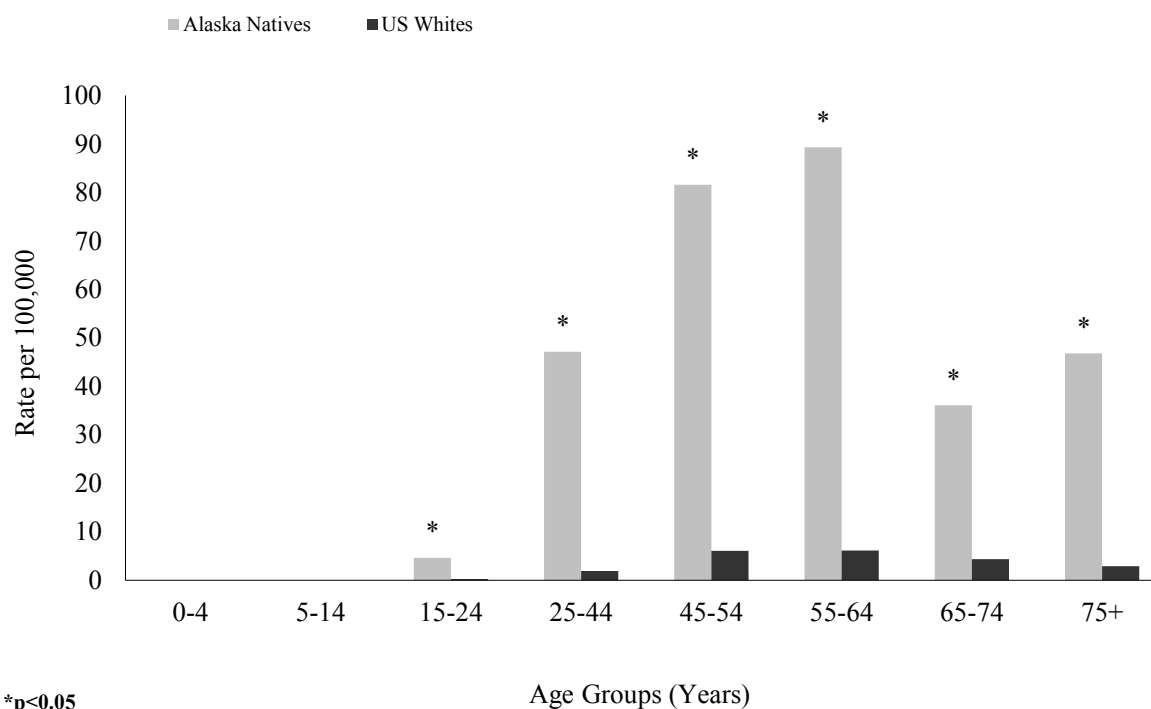


TABLE 49b. Age-Specific Mortality Rates for Alcohol Abuse
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	-	40.1	84.0	113.0	47.7	83.6
US Whites	-	-	0.4	2.9	9.5	10.1	7.4	5.3
Rate Ratio	-	-	-	13.9	8.9	11.2	6.5	15.7

(-) Rate not calculated for fewer than 5 deaths.

FIGURE 197b. Age-Specific Mortality Rates for Alcohol Abuse
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

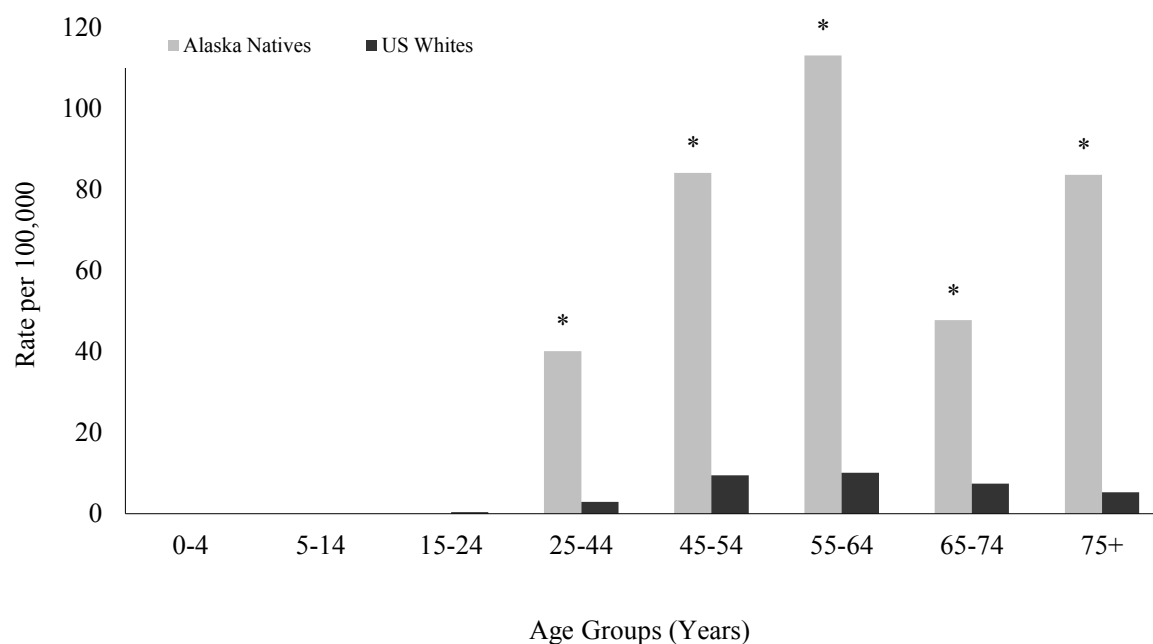
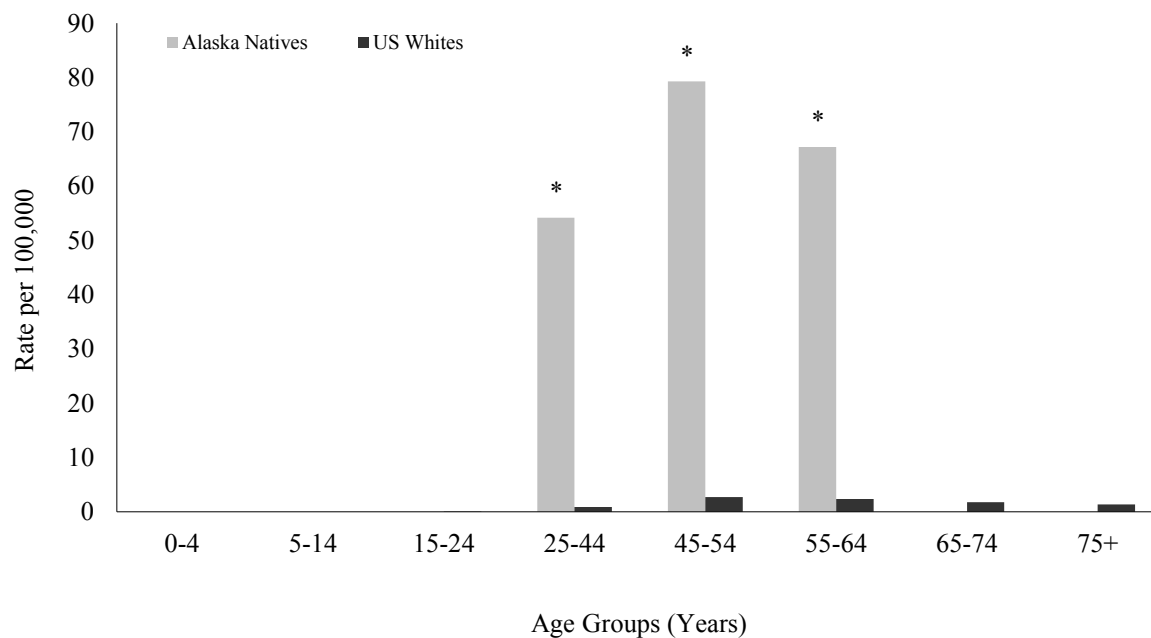


TABLE 49c. Age-Specific Mortality Rates for Alcohol Abuse
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-		54.2	79.3	67.2	-	-
US Whites	-	-	0.1	0.9	2.7	2.3	1.7	1.3
Rate Ratio	-	-	-	64.0	29.4	28.6	-	-

(-) Rate not calculated for fewer than 5 deaths.

FIGURE 197c. Age-Specific Mortality Rates for Alcohol Abuse
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

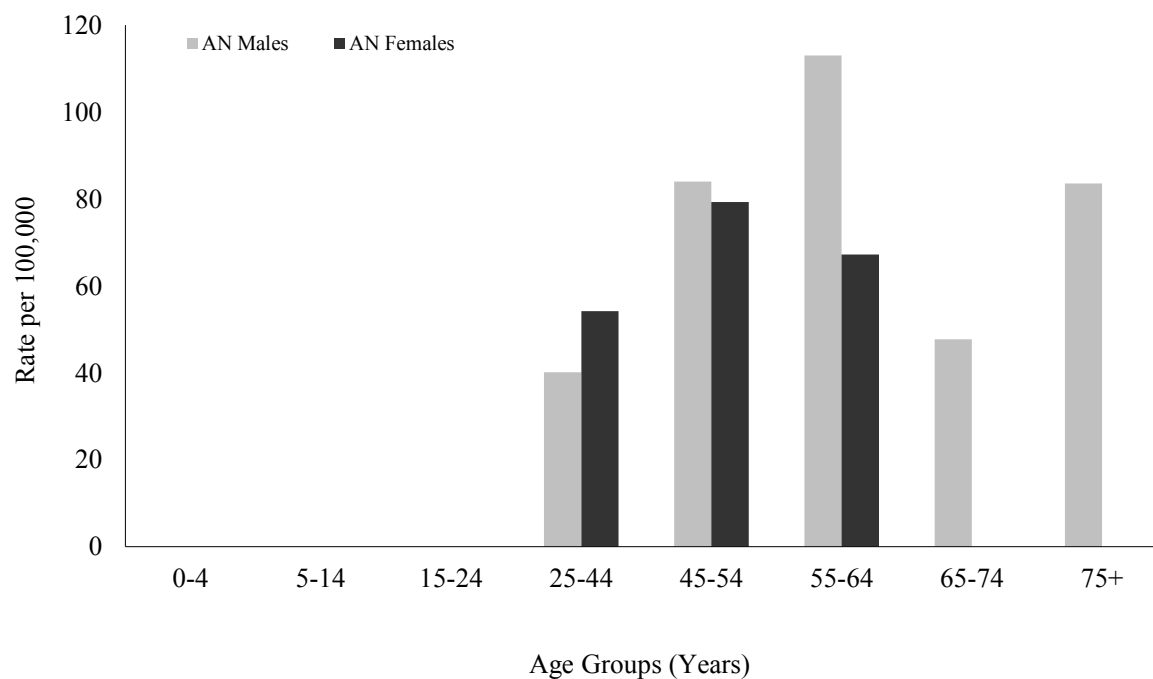


**TABLE 50. Age-Specific Mortality Rates for Alcohol Abuse
Alaska Natives (2004-2008)
Males vs. Females**

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
AN Males	-	-	-	40.1	84.0	113.0	47.7	83.6
AN Females	-	-		54.2	79.3	67.2	-	-
Rate Ratio	-	-	-	0.7	1.1	1.7	-	-

(-) Rate not calculated for fewer than 5 deaths.

**FIGURE 198. Age-Specific Mortality Rates for Alcohol Abuse
Alaska Natives (2004-2008)
Males vs. Females**

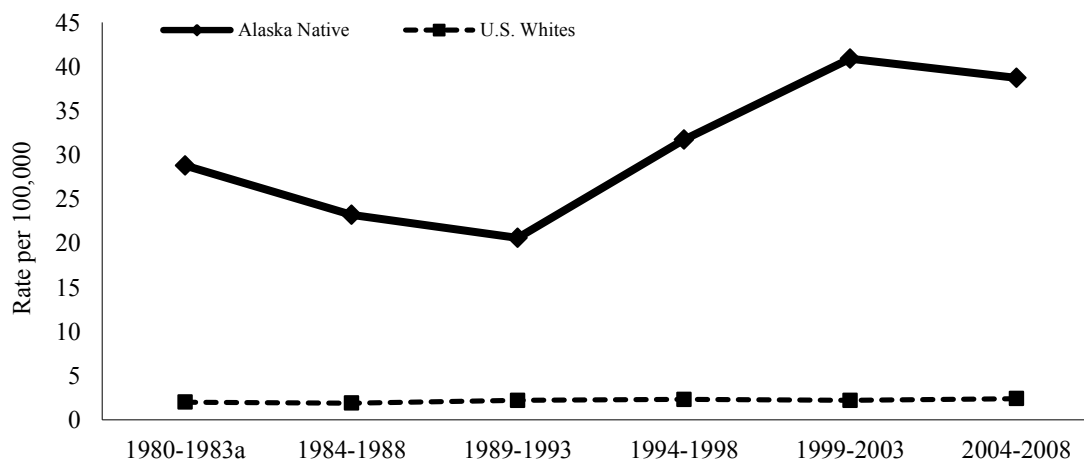


**TABLE 51. Age-Adjusted Mortality Rates for Alcohol Abuse
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders**

	1980-1983 ^a	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008	% Change
Alaska Native	28.8	23.2	20.6	31.7	40.9	38.7	34%
U.S. Whites	2.0	1.9	2.2	2.3	2.2	2.4	20%
Rate Ratio	14.4	12.2	9.4	13.8	18.6	18.6	

^a 1980-1983 time period contains only four years

**FIGURE 199. Age-Adjusted Mortality Rates for Alcohol Abuse
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders**

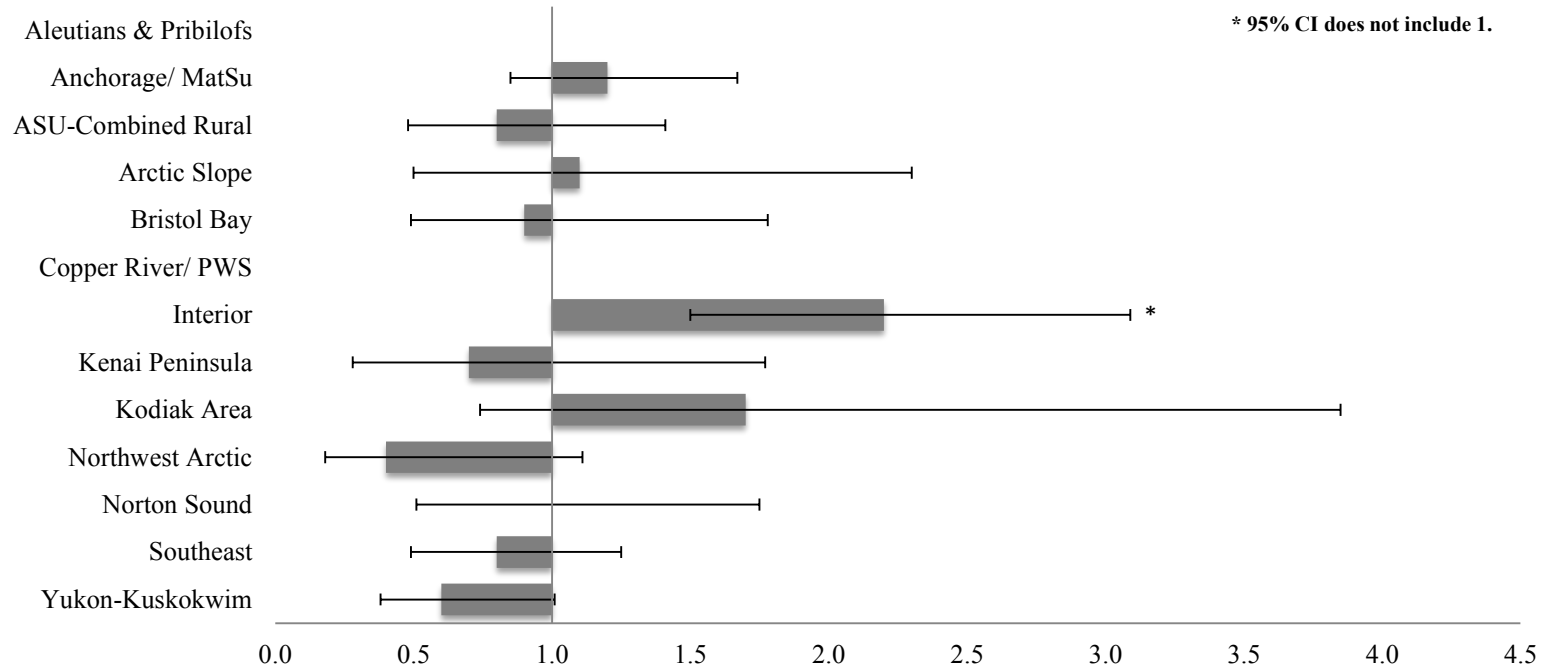


^a 1980-1983 time period contains only four years

**TABLE 52. Age-Adjusted Mortality Rates for Alcohol Abuse
Alaska Natives By Service Region (2004-2008), Both Genders**

	Aleutians & Pribilofs	Anchorage/ MatSu	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/ PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Natives Statewide
Rate	-	44.7	32.4	41.4	36.3	-	*74.1	27.6	64.8	17.7	36.9	31.6	25.7	38.7
RR	-	1.2	0.8	1.1	0.9	-	2.2	0.7	1.7	0.4	1.0	0.8	0.6	

**FIGURE 200. Alcohol Abuse Mortality Rate Ratios
Each Service Region vs All Other Regions Combined, Alaska Natives (2004-2008), Both Genders**



SIXTH LEADING CAUSE OF DEATH
**CHRONIC OBSTRUCTIVE
 PULMONARY DISEASES (COPD)**

COPD was the sixth leading cause of death among Alaska Native peoples, both genders combined, and for Alaska Native men. It ranked fifth among Alaska Native women. Alaska Natives, both genders combined, experienced a COPD mortality rate 1.3 times higher than U.S. Whites. The mortality rate for Alaska Native men was not significantly higher than U.S. White men. The mortality rate for Alaska Native women was a significant 1.4 times higher than U.S. White women.

COPD accounted for 3.5% of excess deaths among Alaska Natives, both genders combined (n=44). Among Alaska Native men (n=17), COPD accounted for 2.4% of excess deaths, whereas among Alaska Native women (n=27), COPD accounted for 4.9% of excess deaths.

Age-specific COPD mortality rates were significantly higher for Alaska Natives, both genders combined, compared to U.S. Whites among those 45 to 74 years

of age. This was also true for Alaska Native men, 45-74 years of age. Alaska Native women had significantly higher COPD mortality rates as compared to U.S. White women for the age groups 65 years and older. Comparing Alaska Native men to women, there were no significant differences in rate by age group.

Examining COPD mortality rates by service region, showed that the Arctic Slope (RR=2.8) had significantly higher rates than the rest of the state.

Alaska Native COPD mortality rates rose 119% between the 1980-1983 and 2004-2008. Rates increased significantly by 161% between the 1980-1983 and 1994-1998. There has been no significant change since 1994-1998. COPD mortality rates increased 43% among U.S. Whites between 1980-1983 and 2004-2006.

Sixth Leading Cause of Death Among Alaska Natives, 2004-2008
Chronic Obstructive Pulmonary Diseases (COPD)

TABLE 53. Age-Adjusted COPD Mortality Rates
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)

	Alaska Natives		Rate per 100,000	U.S. Whites		Rate per 100,000	Rate Ratio	Lower 95%	Upper 95%
	#	%		#	%				
Both	172	4.5%	57.3	348,784	5.6%	43.7	*1.3	1.12	1.53
Male	80	3.9%	59.5	164,571	5.4%	51.3	1.2	0.92	1.47
Female	92	5.4%	55.5	184,213	5.8%	39.0	*1.4	1.15	1.75

* 95% CI does not include 1.

† Age-adjusted to the US 2000 Standard population.

FIGURE 201. Age-Adjusted COPD Mortality Rates
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)

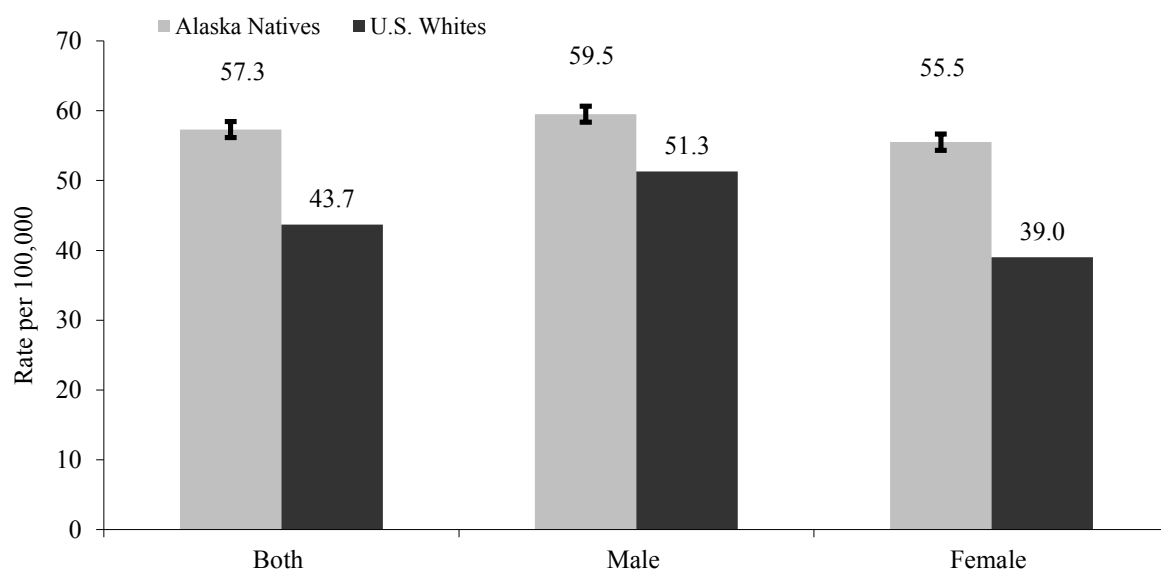


TABLE 54a. Age-Specific Mortality Rates for COPD
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	-	-	17.8	67.5	262.7	521.1
U.S. Whites	0.3	0.1	0.2	1.2	8.8	43.0	167.5	452.7
Rate Ratio	-	-	-	-	2.0	1.6	1.6	1.2

(-) Rate not calculated for fewer than 5 deaths.

FIGURE 202a. Age-Specific Mortality Rates for COPD
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

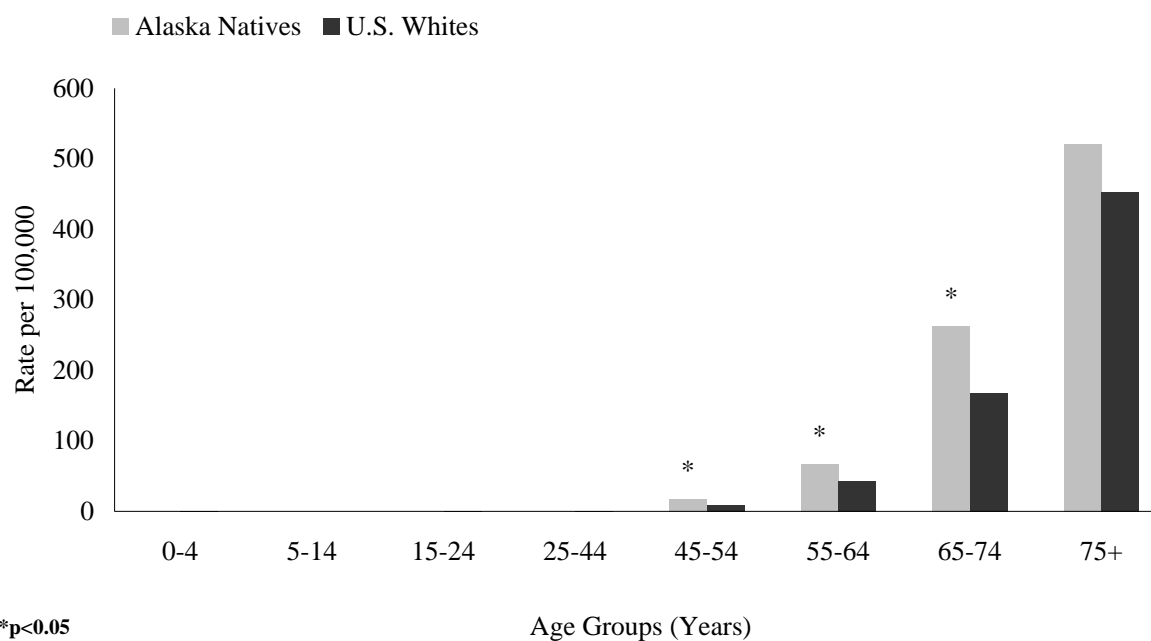


TABLE 54b. Age-Specific Mortality Rates for COPD
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	-	-	21.3	77.2	290.9	502.2
U.S. Whites	0.3	0.2	0.3	1.1	9.0	45.1	183.8	556.8
Rate Ratio	-	-	-	-	2.4	1.7	1.6	0.9

(-) Rate not calculated for fewer than 5 deaths.

FIGURE 202b. Age-Specific Mortality Rates for COPD
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

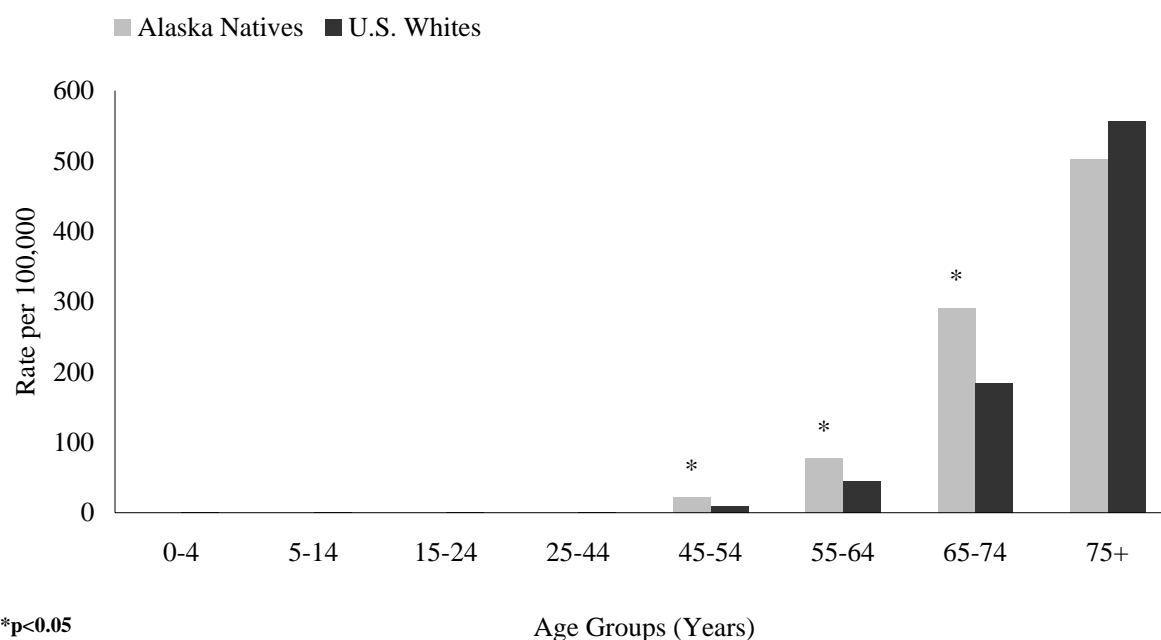


TABLE 54c. Age-Specific Mortality Rates for COPD
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	-	-	14.5	58.5	240.8	538.6
US Whites	0.2	0.1	0.2	1.2	8.6	41.0	153.7	392.8
Rate Ratio	-	-	-	-	1.7	1.4	1.6	1.4

(-) Rate not calculated for fewer than 5 deaths.

FIGURE 202c. Age-Specific Mortality Rates for COPD
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

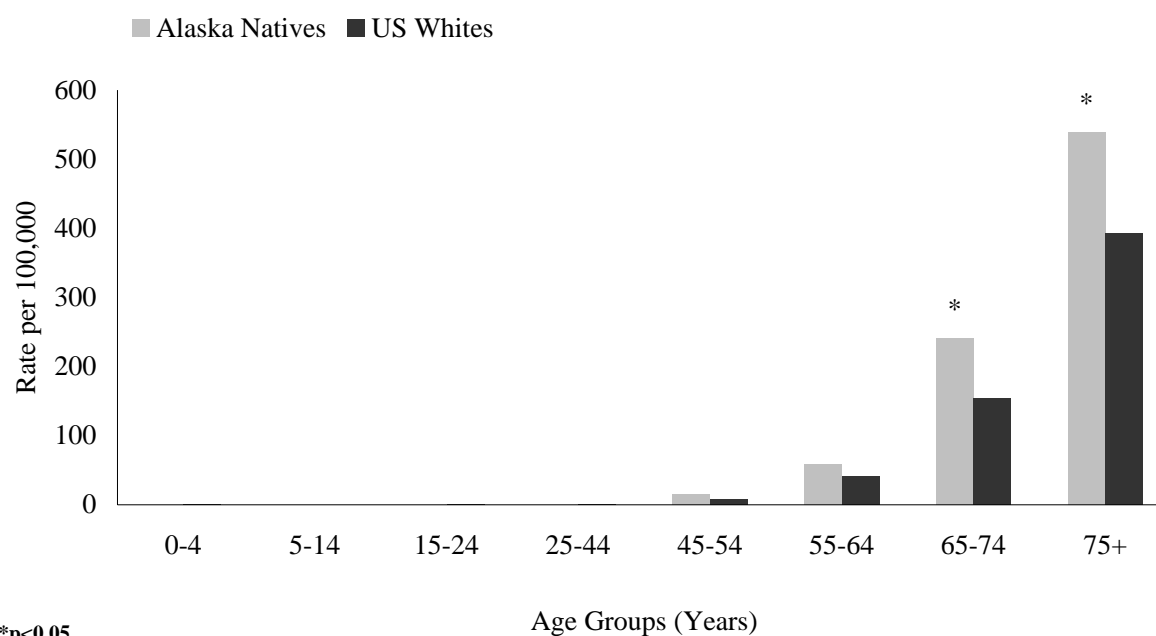


TABLE 55. Age-Specific Mortality Rates for COPD
Alaska Natives (2004-2008)
Males versus Females

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
AN Males	-	-	-	-	21.3	77.2	290.9	502.2
AN Females	-	-	-	-	14.5	58.5	240.8	538.6
Rate Ratio	-	-	-	-	1.5	1.3	1.2	0.9

(-) Rate not calculated for fewer than 5 deaths.

FIGURE 203. Age-Specific Mortality Rates for COPD
Alaska Natives (2004-2008)
Males versus Females

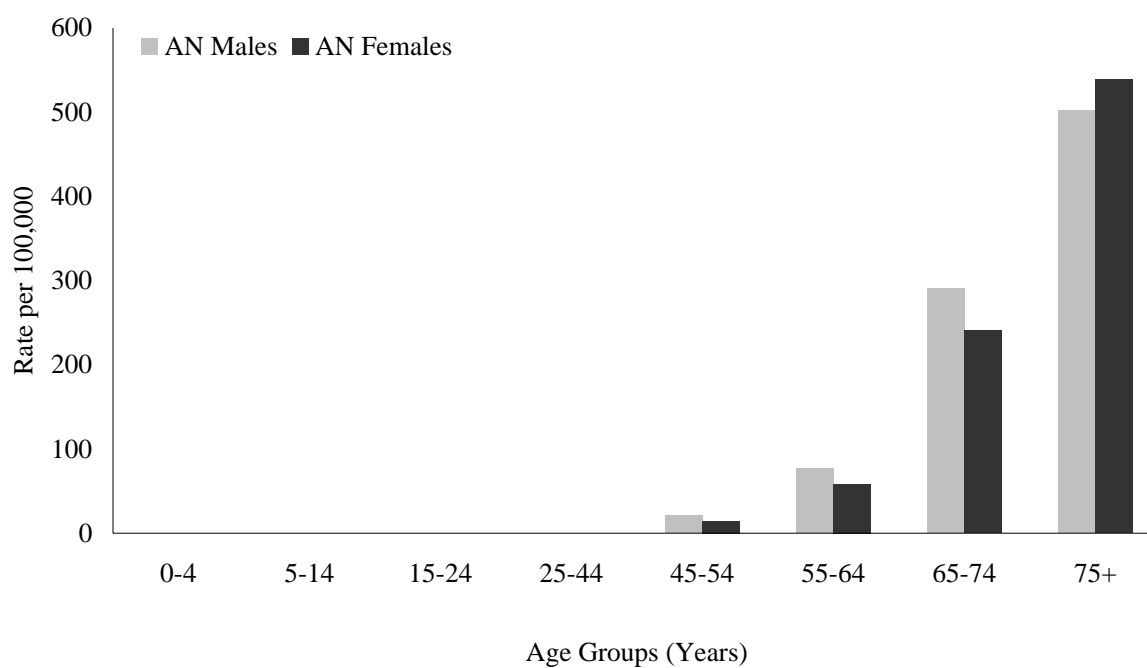
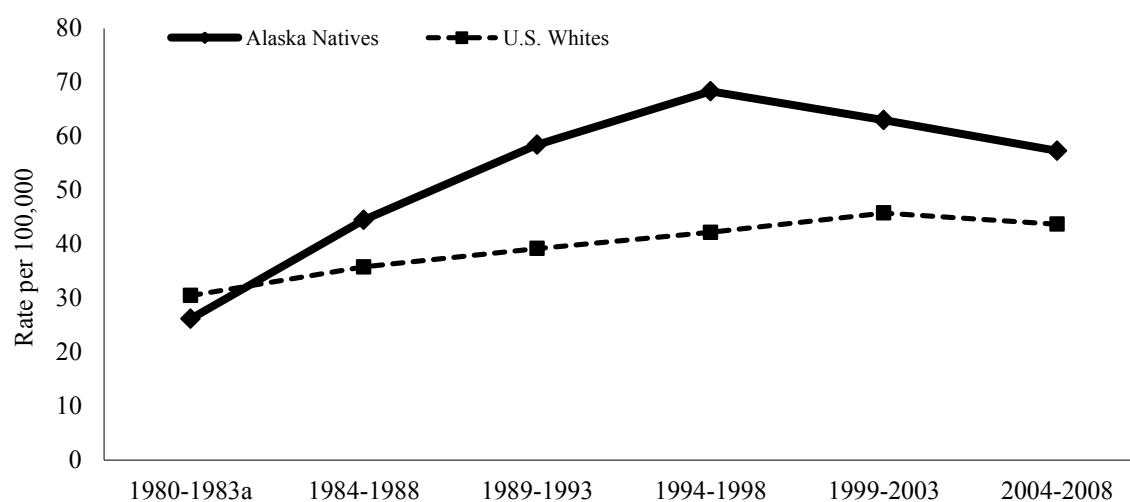


TABLE 56. Age-Adjusted Mortality Rates for COPD
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders

	1980-1983 ^a	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008	% Change
Alaska Natives	26.2	44.5	58.4	68.3	63.0	57.3	119%
U.S. Whites	30.5	35.8	39.2	42.2	45.8	43.7	43%
Rate Ratio	0.9	1.2	1.5	1.6	1.4	1.3	

^a 1980-1983 time period contains only four years

FIGURE 204. Age-Adjusted Mortality Rates for COPD
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders

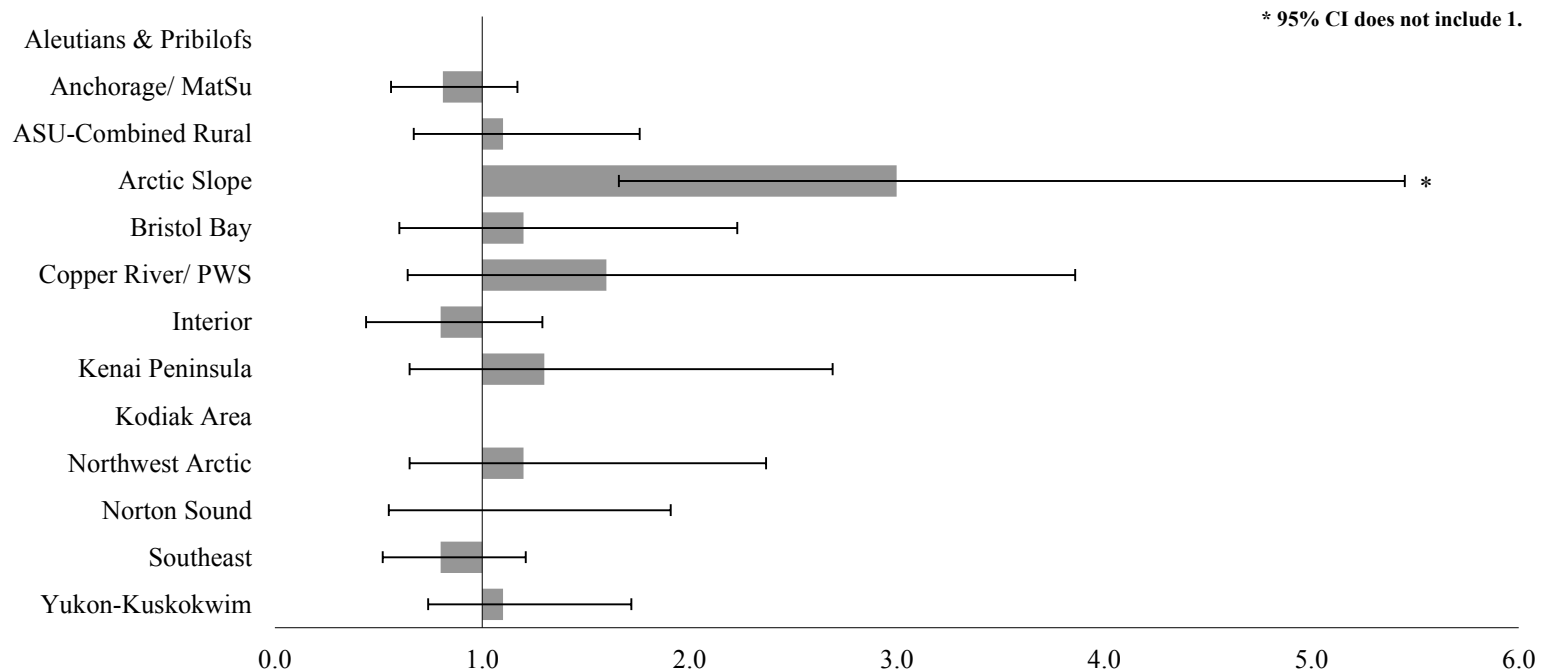


^a 1980-1983 time period contains only four years

TABLE 57. Age-Adjusted Mortality Rates for COPD
Alaska Natives By Service Region (2004-2008), Both Genders

	Aleutians & Pribilofs	Anchorage/ MatSu	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/ PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Natives Statewide
Rate	-	48.2	61.7	*163.3	65.6	89.2	44.3	74.9	-	70.0	58.3	47.4	63.5	57.3
RR	-	0.8	1.1	3.0	1.2	1.6	0.8	1.3	-	1.2	1.0	0.8	1.1	

FIGURE 205. COPD Mortality Rate Ratios
Each Service Region vs All Other Regions Combined, Alaska Natives (2004-2008), Both Genders



SEVENTH LEADING CAUSE OF DEATH

CEREBROVASCULAR DISEASE

Cerebrovascular disease was the seventh leading cause of death among Alaska Native people, both genders combined. It ranked seventh among Alaska Native men and fourth among Alaska Native women. Cerebrovascular disease accounted for 4.3% of all deaths among AN (n=164) during 2004-2008. The cerebrovascular disease mortality rate for Alaska Natives, both genders combined, was a significant 27% higher than the U.S. White rate. Rates for Alaska Native men were a significant 31% higher than U.S. White men, and Alaska Native women were a significant 26% higher than U.S. White women.

Cerebrovascular disease accounted for 3.2% of excess deaths among Alaska Natives, both genders combined (n=41). Among Alaska Native men 2.7% of all excess deaths (n=20) and 3.8% among Alaska Native women (n=21) were from cerebrovascular disease.

Among Alaska Natives, both genders combined, rates were significantly

higher than U.S. White rates only for the 25 to 44 year age group. Rate ratios between the two populations declined with increasing age, becoming non-significant for age groups over 45 years. Alaska Native men had significantly higher rates only for the 55 to 64 age group. Alaska Native women had significantly higher rates for age groups between 25 to 54 years. Comparing Alaska Native men to women, showed no significant differences in rates.

Examining cerebrovascular disease mortality rates by service region showed that the ASU-Combined Rural service region (RR=1.5) had a significantly higher rate ratio than the remainder of the state.

Cerebrovascular disease mortality rates for Alaska Natives did not change significantly between 1980-1983 and 2004-2008 although rates declined 48% among U.S. Whites between 1980-1983 and 2004-2006.

Seventh Leading Cause of Death Among Alaska Natives, 2004-2008
Cerebrovascular Disease

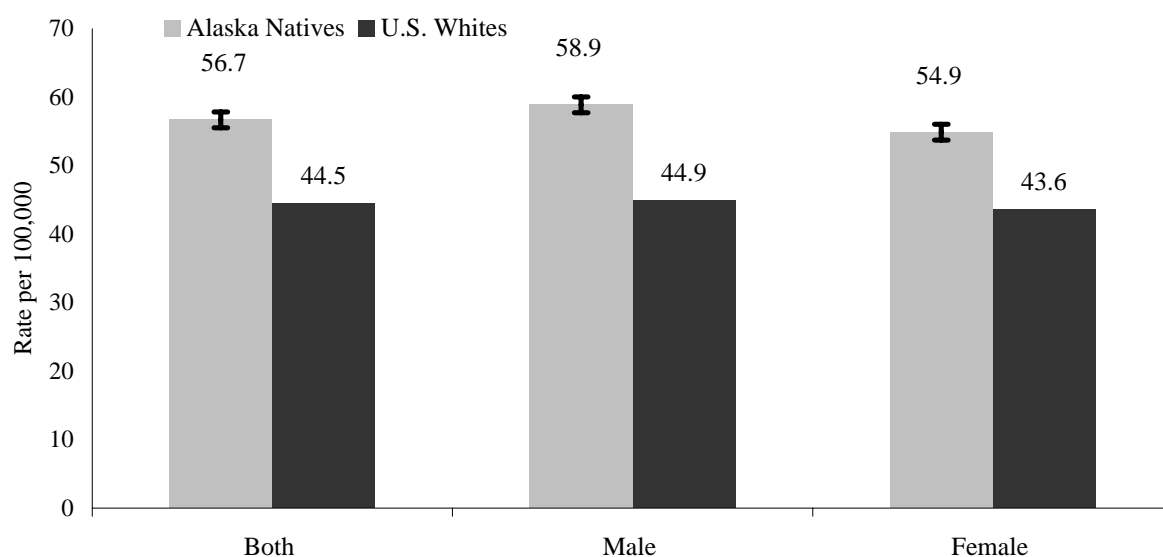
TABLE 58. Age-Adjusted Cerebrovascular Mortality Disease Rates
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)

	Alaska Natives			U.S. Whites					
	#	%	Rate per 100,000	#	%	Rate per 100,000	Rate Ratio	Lower 95%	Upper 95%
Both	164	4.3%	56.7	365,596	5.9%	44.5	*1.3	1.09	1.49
Male	72	3.5%	58.9	141,685	4.6%	44.9	*1.3	1.02	1.69
Female	92	5.4%	54.9	223,911	7.1%	43.6	*1.3	1.02	1.55

* 95% CI does not include 1.

† Age-adjusted to the US 2000 Standard population.

FIGURE 206. Age-Adjusted Cerebrovascular Mortality Disease Rates
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)

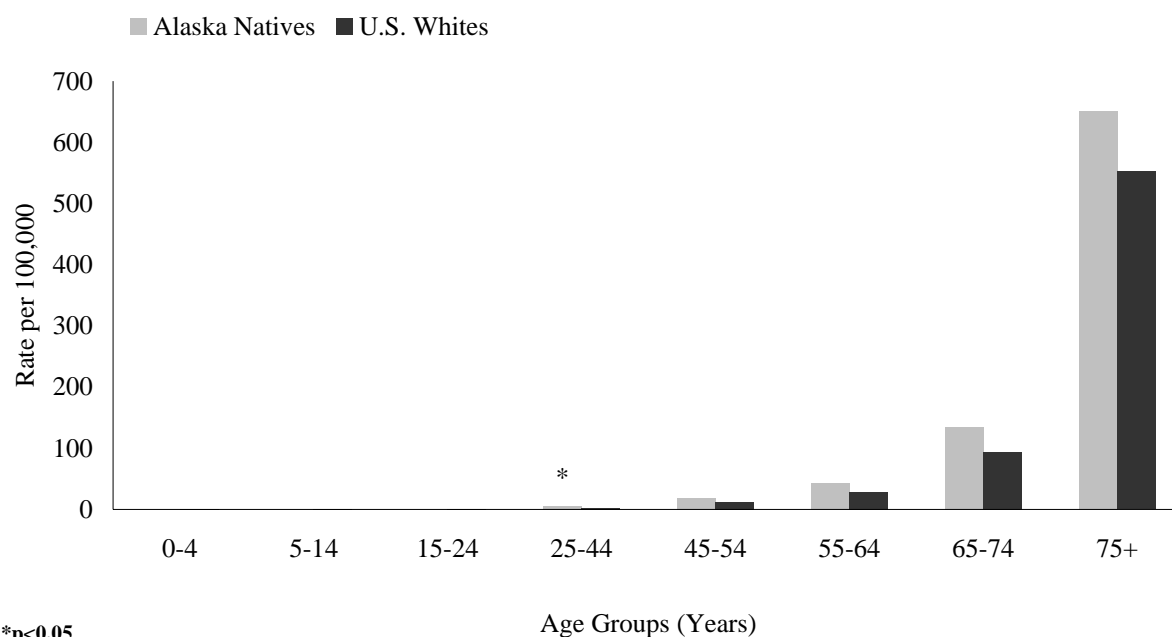


**TABLE 59a. Age-Specific Mortality Rates for Cerebrovascular Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders**

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	-	6.3	19.2	43.4	134.3	651.1
U.S. Whites	0.8	0.2	0.4	2.8	11.5	28.2	94.2	552.2
Rate Ratio	-	-	-	2.3	1.7	1.5	1.4	1.2

(-) Rate not calculated for fewer than 5 deaths.

**FIGURE 207a. Age-Specific Mortality Rates for Cerebrovascular Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders**

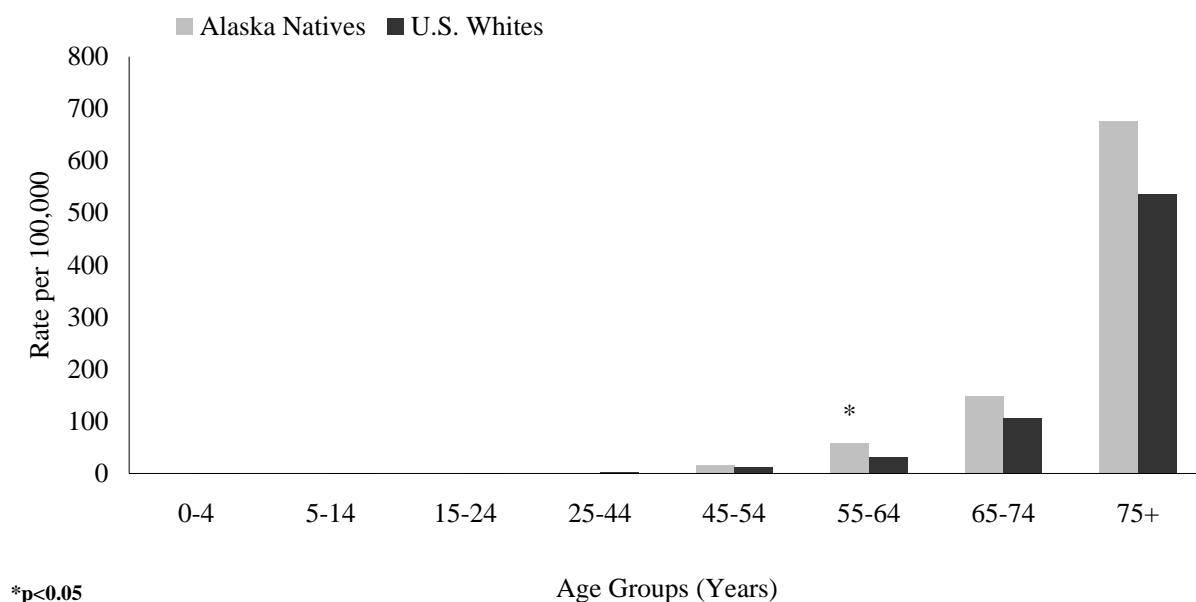


**TABLE 59b. Age-Specific Mortality Rates for Cerebrovascular Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males**

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	-	-	15.4	58.6	148.7	676.7
U.S. Whites	0.8	0.2	0.5	2.9	12.8	32.2	105.5	536.1
Rate Ratio	-	-	-	-	1.2	1.8	1.4	1.3

(-) Rate not calculated for fewer than 5 deaths.

**FIGURE 207b. Age-Specific Mortality Rates for Cerebrovascular Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males**

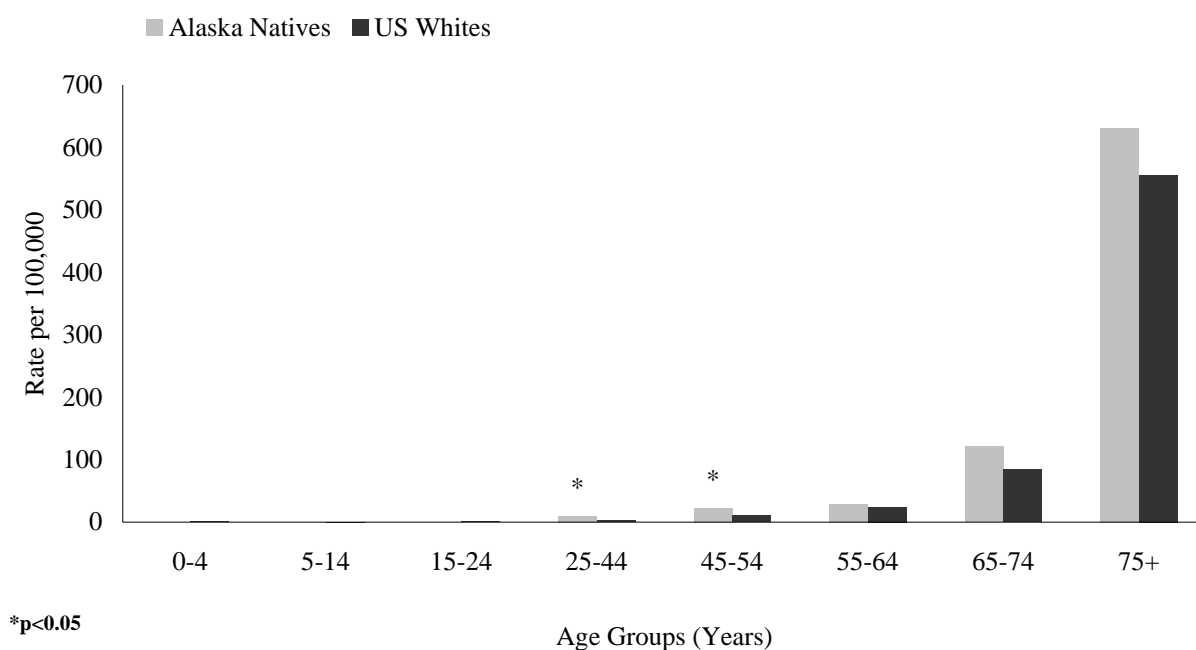


**TABLE 59c. Age-Specific Mortality Rates for Cerebrovascular Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females**

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	-	9.9	22.7	29.2	121.2	631.4
US Whites	0.7	0.2	0.4	2.6	10.3	24.4	84.6	556.1
Rate Ratio	-	-	-	3.8	2.2	1.2	1.4	1.1

(-) Rate not calculated for fewer than 5 deaths.

**FIGURE 207c. Age-Specific Mortality Rates for Cerebrovascular Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females**



**TABLE 60. Age-Specific Mortality Rates for Cerebrovascular Disease
Alaska Natives (2004-2008)
Males versus Females**

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
AN Males	-	-	-	-	15.4	58.6	148.7	676.7
AN Females	-	-	-	9.9	22.7	29.2	121.2	631.4
Rate Ratio	-	-	-	-	0.7	2.0	1.2	1.1

(-) Rate not calculated for fewer than 5 deaths.

**FIGURE 208. Age-Specific Mortality Rates for Cerebrovascular Disease
Alaska Natives (2004-2008)
Males versus Females**

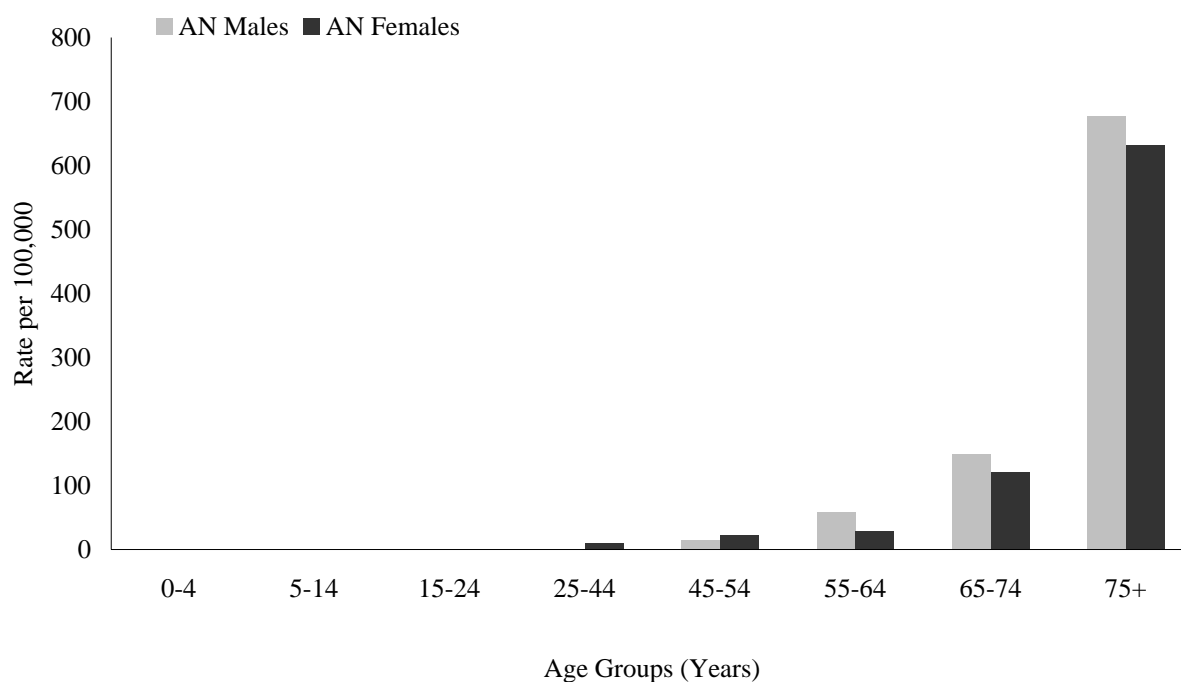


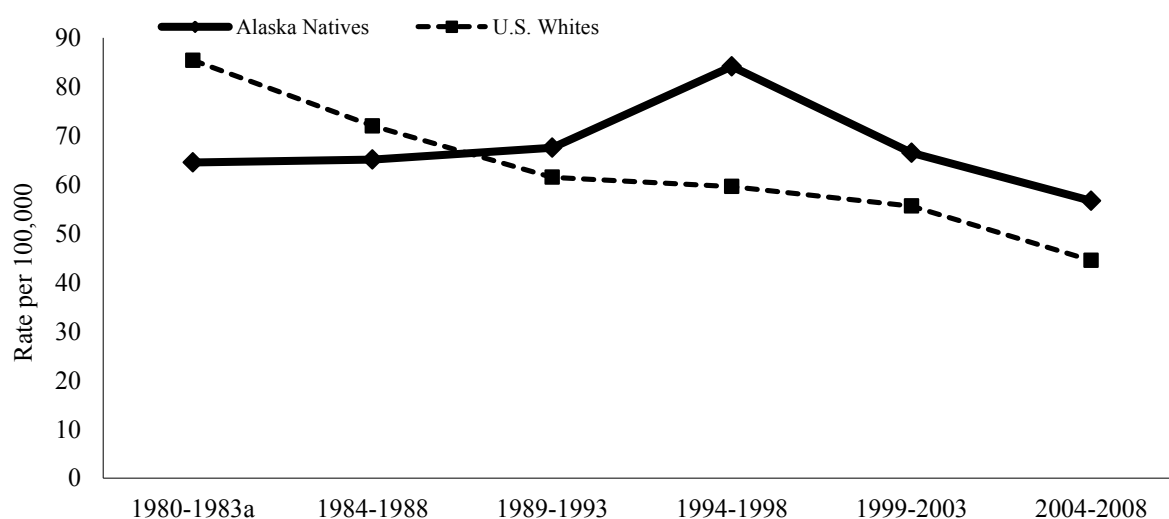
TABLE 61. Age-Adjusted Mortality Rates for Cerebrovascular Disease
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders

	1980-1983 ^a	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008	% Change
Alaska Natives	64.5	65.1	67.5	84.1	66.5	56.7	NS*
U.S. Whites	85.4	72.0	61.5	59.6	55.6	44.5	-48%
Rate Ratio	0.8	0.9	1.1	1.4	1.2	1.3	

* NS means that there was no significant difference at $p < 0.05$

^a 1980-1983 time period contains only four years

FIGURE 209. Age-Adjusted Mortality Rates for Cerebrovascular Disease
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders

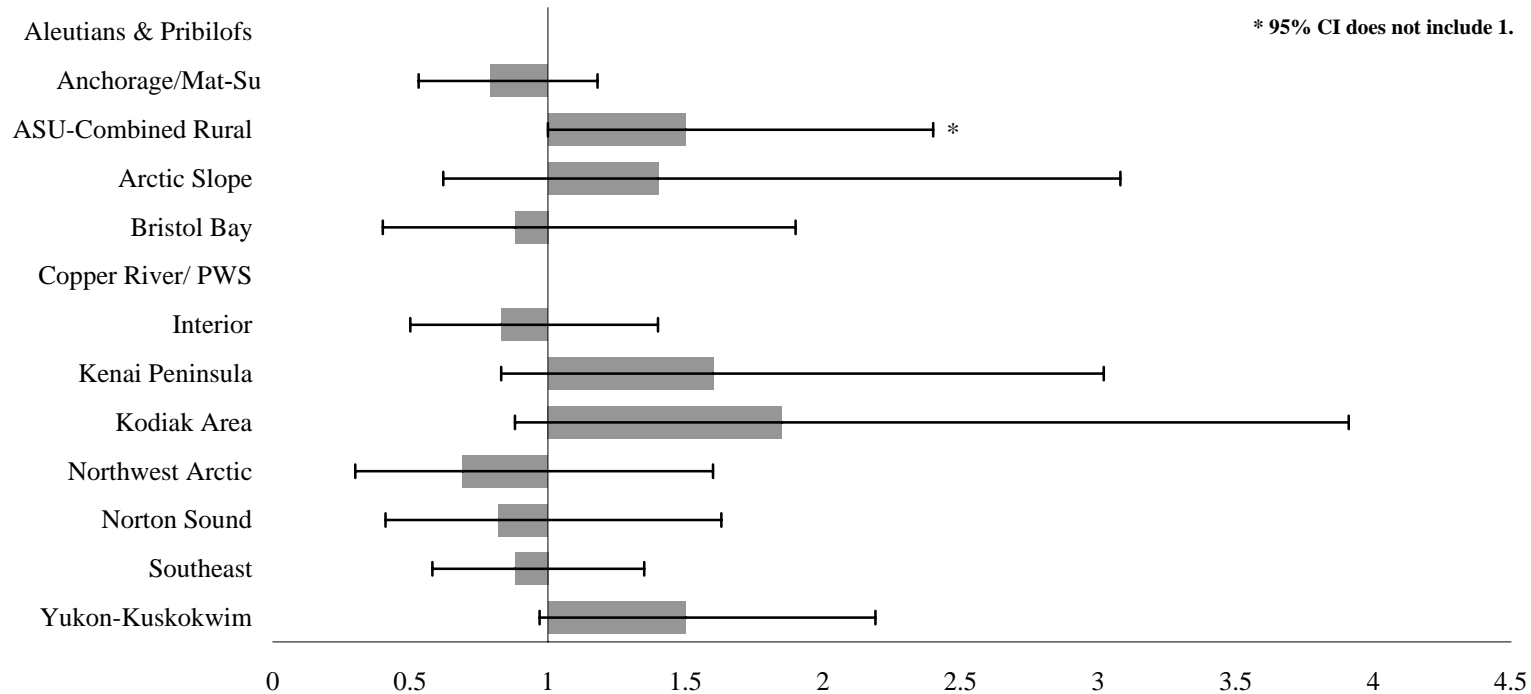


^a 1980-1983 time period contains only four years

**TABLE 62. Age-Adjusted Mortality Rates for Cerebrovascular Disease
Alaska Natives By Service Region (2004-2008), Both Genders**

	Aleutians & Pribilofs	Anchorage/Mat-Su	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Natives Statewide
Rate	-	46.9	*83.4	77.4	49.9	-	48.1	87.6	102.6	39.6	47.3	51.1	77.7	56.7
RR	-	0.8	1.5	1.4	0.9	-	0.8	0.0	1.9	0.7	0.8	0.9	1.5	

**FIGURE 210. Cerebrovascular Disease Mortality Rate Ratios
Each Service Region vs All Other Regions Combined, Alaska Natives (2004-2008), Both Genders**



*EIGHTH LEADING CAUSE OF DEATH***CHRONIC LIVER DISEASE AND CIRRHOSIS**

Chronic liver disease and cirrhosis was the eighth leading cause of death among Alaska Native people, both genders combined. It ranked tenth among Alaska Native men and eighth among Alaska Native women. Chronic liver disease (n=82) accounted for 2.2% of all deaths. Mortality rates for Alaska Natives, both genders combined, were 2.0 times higher than among U.S. Whites. Rates for Alaska Native men were not significantly different from those for U.S. White men. Rates for Alaska Native women, however, were 3.8 times higher than those for U.S. White women.

More than two-thirds (70%) of chronic liver disease deaths for Alaska Native people during 2004-2008 were alcohol-related. This proportion is significantly lower than during the 1989 to 1998 time period (84% alcohol-related, $p<0.05$).

Chronic liver disease accounted for 3.5% of all excess deaths among Alaska Natives both genders combined (n=44).

Among Alaska Native men, chronic liver disease accounted for four more deaths than would have been expected if Alaska Native men had the same chronic liver disease mortality rate as U.S. White men. Among Alaska Native women (n=41), chronic liver disease accounted for 7.4% of all excess deaths, the fifth leading cause of excess death.

Examining age-specific chronic liver disease mortality rates for Alaska Natives, both genders combined, rates were a significant 1.9 to 4.7 times higher for age groups 25 through 64 years as compared to U.S. Whites. Rates were lower, but not significantly so for age groups 65 to 74. No rate was available for the 75+ age group. Among Alaska Native men, there were significant differences in chronic liver disease mortality rates only for the 55 to 64 year age group. Among Alaska Native women, chronic liver disease mortality rates were 4.3 to 11.0 times higher than rates for U.S. White women for age groups 25 to 64 years. Comparing Alaska Native men to women, the mortality rate for women 25-44 was a significant 3.2 times that of men in this age group. There were no significant

differences between chronic liver disease mortality rates for any other age groups.

Examining chronic liver disease and cirrhosis mortality rates by service region, showed that only the Anchorage/Mat-Su (RR=2.7), service region had significantly higher rate than the rest of the state.

There was a 36% decline in chronic liver disease mortality rates for Alaska Native peoples, both genders combined, between 1980-1983 and 2004-2008. U.S. Whites experienced a significant 29% decline between 1980-1983 and 2004-2006.

Eighth Leading Cause of Death Among Alaska Natives, 2004-2008
Chronic Liver Disease and Cirrhosis

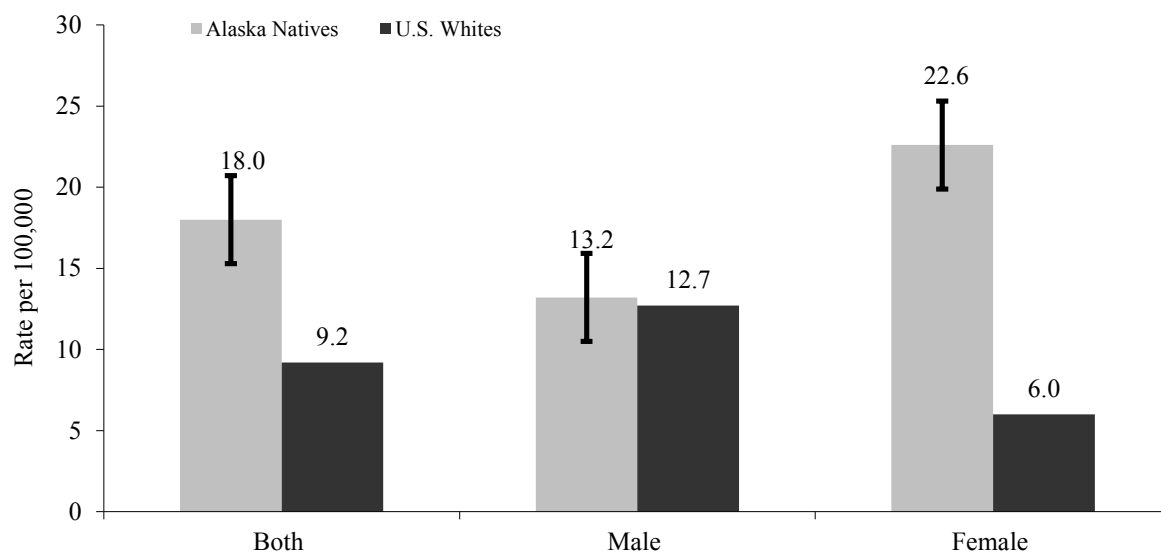
TABLE 63. Age-Adjusted Chronic Liver Disease Mortality Rates
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)

	Alaska Natives			U.S. Whites					
	#	%	Rate per 100,000	#	%	Rate per 100,000	Rate Ratio	Lower 95%	Upper 95%
Both	82	2.2%	18.0	71,749	1.2%	9.2	*2.0	1.57	2.44
Male	29	1.4%	13.2	46,747	1.5%	12.7	1.0	0.72	1.51
Female	53	3.1%	22.6	25,002	0.8%	6.0	*3.8	2.87	4.96

* 95% CI does not include 1.

† Age-adjusted to the US 2000 Standard population.

FIGURE 211. Age-Adjusted Chronic Liver Disease Mortality Rates
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)



**TABLE 64a. Age-Specific Mortality Rates for Chronic Liver Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders**

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	-	17.6	34.8	62.0	21.8	-
US Whites	-	-	-	3.8	18.3	23.3	28.3	27.7
Rate Ratio ^a	-	-	-	4.7	1.9	2.7	0.8	-

(-) Rate not calculated for fewer than 5 deaths.

a The ratio of Alaska Native to US White rates may appear slightly different than stated because the rates have been rounded to one decimal point.

**FIGURE 212a. Age-Specific Mortality Rates for Chronic Liver Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders**

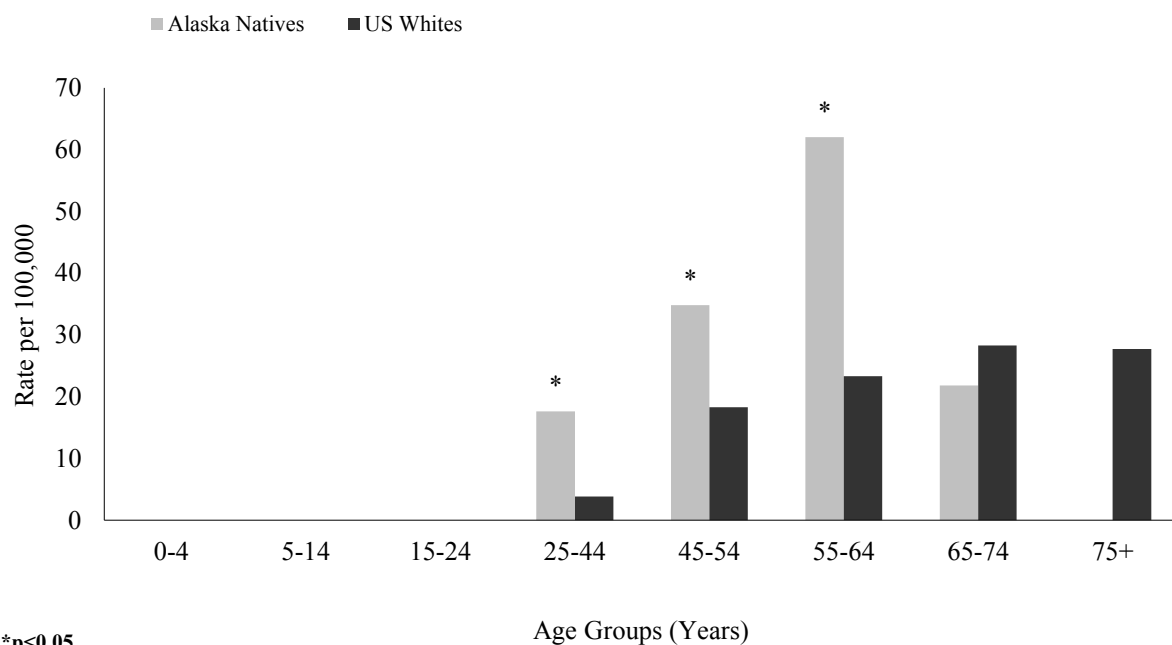
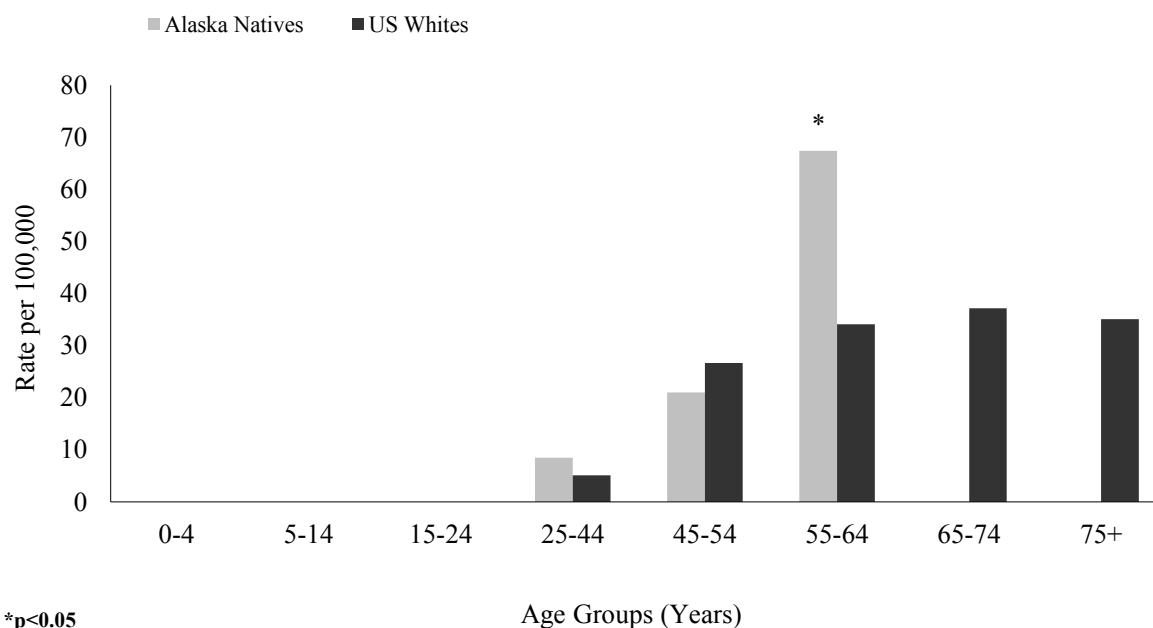


TABLE 64b. Age-Specific Mortality Rates for Chronic Liver Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	-	8.5	21.0	67.4	-	-
US Whites	-	-	-	5.1	26.7	34.1	37.2	35.1
Rate Ratio	-	-	-	1.7	0.8	2.0	-	-

(-) Rate not calculated for fewer than 5 deaths.

FIGURE 212b. Age-Specific Mortality Rates for Chronic Liver Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males



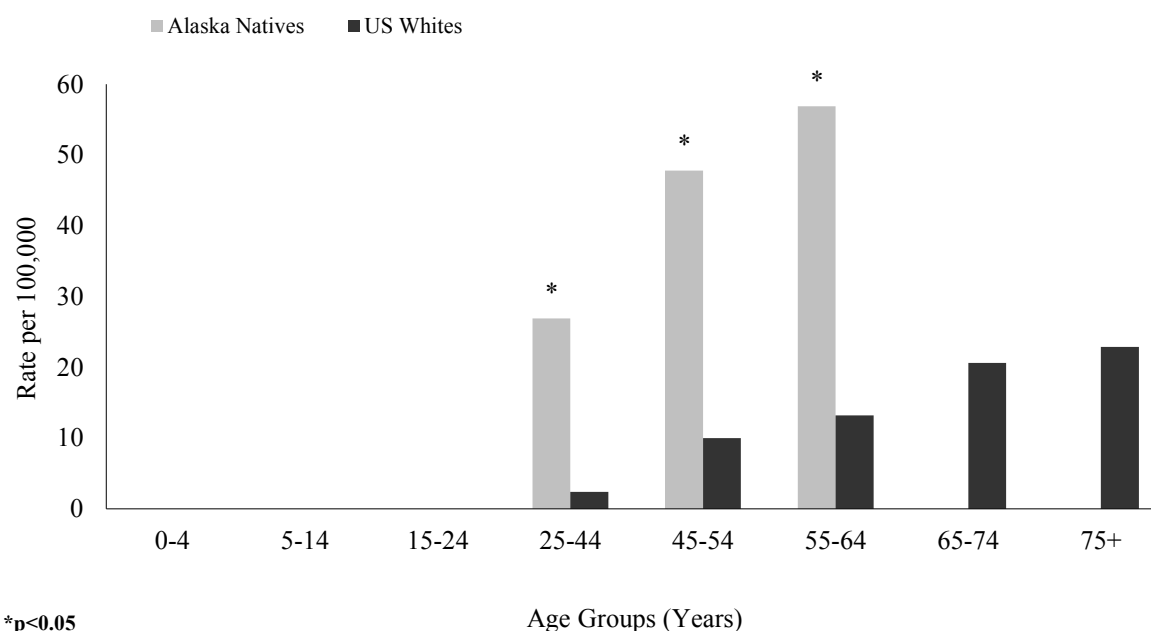
**TABLE 64c. Age-Specific Mortality Rates for Chronic Liver Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females**

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	-	26.9	47.8	56.9	-	-
US Whites	-	-	-	2.4	10.0	13.2	20.6	22.9
Rate Ratio ^a	-	-	-	11.0	4.8	4.3	-	-

(-) Rate not calculated for fewer than 5 deaths.

a The ratio of Alaska Native to US White rates may appear slightly different than stated because the rates have been rounded to one decimal point.

**FIGURE 212c. Age-Specific Mortality Rates for Chronic Liver Disease
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females**



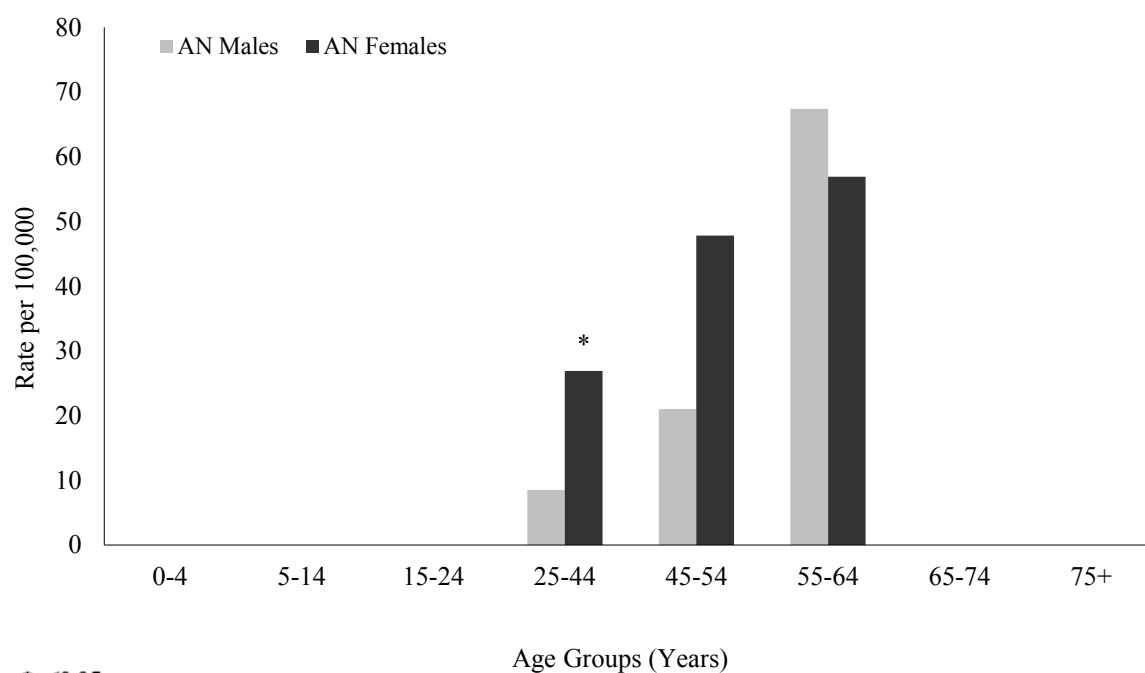
**TABLE 65. Age-Specific Mortality Rates for Chronic Liver Disease
Alaska Natives (2004-2008)
Males versus Females**

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
AN Males	-	-	-	8.5	21.0	67.4	-	-
AN Females	-	-	-	26.9	47.8	56.9	-	-
Rate Ratio ^a	-	-	-	0.3	0.4	1.2	-	-

(-) Rate not calculated for fewer than 5 deaths.

a The ratio of Alaska Native to US White rates may appear slightly different than stated because the rates have been rounded to one decimal point.

**FIGURE 213. Age-Specific Mortality Rates for Chronic Liver Disease
Alaska Natives (2004-2008)
Males versus Females**

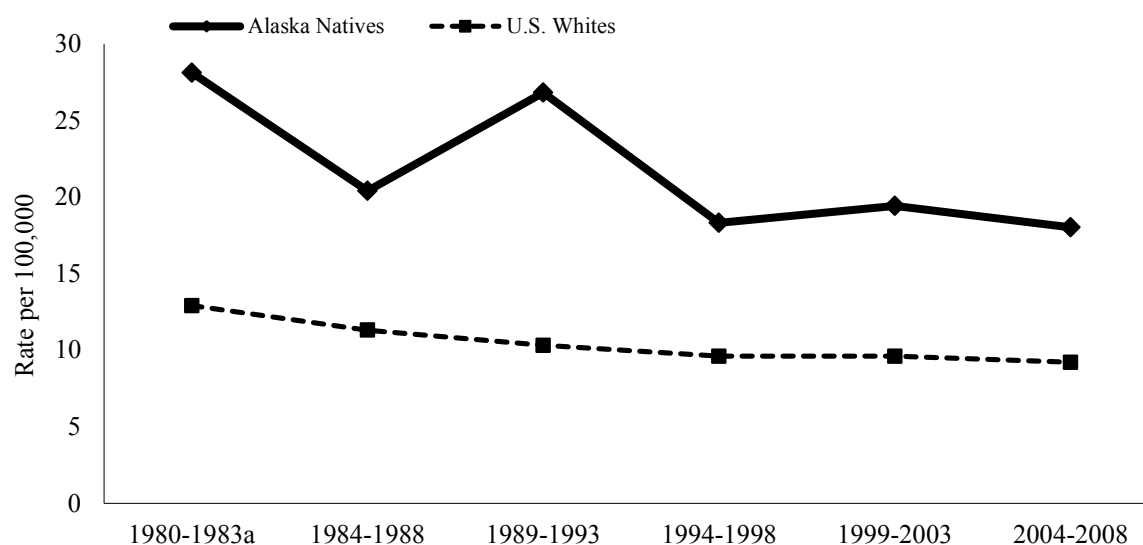


**TABLE 66. Age-Adjusted Mortality Rates for Chronic Liver Disease
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders**

	1980-1983 ^a	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008	% Change
Alaska Natives	28.1	20.4	26.8	18.3	19.4	18.0	-36%
U.S. Whites	12.9	11.3	10.3	9.6	9.6	9.2	-29%
Rate Ratio	2.2	1.8	2.6	1.9	2.0	2.0	

^a 1980-1983 time period contains only four years

**FIGURE 214. Age-Adjusted Mortality Rates for Chronic Liver Disease
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders**

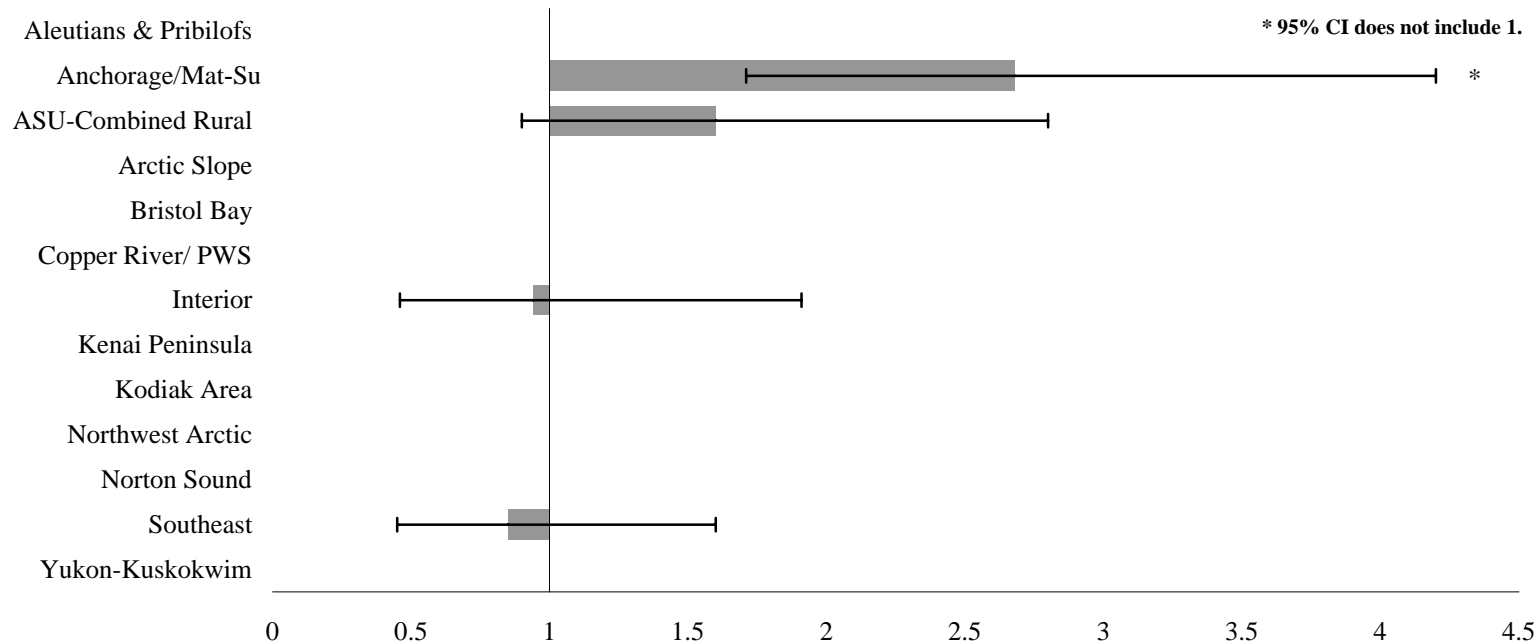


^a 1980-1983 time period contains only four years

**TABLE 67. Age-Adjusted Mortality Rates for Chronic Liver Disease
Alaska Natives By Service Region (2004-2008), Both Genders**

	Aleutians & Pribilofs	Anchorage/Mat-Su	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Natives Statewide
Rate	-	*33.1	26.1	-	-	-	16.8	-	-	-	-	15.3	-	18.0
RR	-	2.7	1.6	-	-	-	0.9	-	-	-	-	0.9	-	

**FIGURE 215. Chronic Liver Disease Mortality Rate Ratios
Each Service Region vs All Other Regions Combined, Alaska Natives (2004-2008), Both Genders**



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PPVH LEADING CAUSE OF DEATH **PNEUMONIA AND INFLUENZA**

Pneumonia and influenza was the ninth leading cause of death among Alaska Native people, both genders combined. It ranked ninth for both Alaska Native males and females separately. It accounted for 2.0% (n=77) of all deaths. Pneumonia and influenza mortality rates among Alaska Natives, both genders combined, were 1.3 times higher than those among U.S. Whites. Alaska Native males compared to U.S. White males had 1.5 times higher mortality rates, and Alaska Native females compared to U.S. White females had 1.3 times higher rates.

Pneumonia and influenza accounted for 1.9% of all excess deaths among Alaska Natives, both genders combined (n=24). Among Alaska Native males (n=12), pneumonia and influenza accounted for 1.7% of excess deaths. Among Alaska Native females (n=12), pneumonia and influenza accounted for 2.3% of excess deaths.

Examining pneumonia and influenza rates by age group showed that rates

were significantly different between Alaska Natives, both genders combined, and U.S. Whites only among the 0-4 (RR=7.1), the 25 to 44 year (RR=3.1) and 55 to 64 year age groups (RR=2.7). Age-specific rate ratios for Alaska Native males compared to U.S. White males were not statistically significant for any age group. Rate ratios between Alaska Native females and U.S. White females were significantly higher for the 0-4 age group (RR=13.8) and the 55 to 64 age groups (RR=3.2). There were no significant differences between Alaska Native males and females.

Examining pneumonia and influenza mortality rates by service region showed that the Yukon-Kuskokwim service region (RR=2.2) had a significantly higher rate than the rest of the state, and the Southeast service region (RR=0.3) had a significantly lower rate.

Alaska Native people experienced a 51% decline in pneumonia and influenza mortality rates between 1980-1983 and 2004-2008. Among U.S. Whites there was a significant 35% decline between 1980-1983 and 2004-2006.

Ninth Leading Cause of Death Among Alaska Natives, 2004-2008
Pneumonia and Influenza

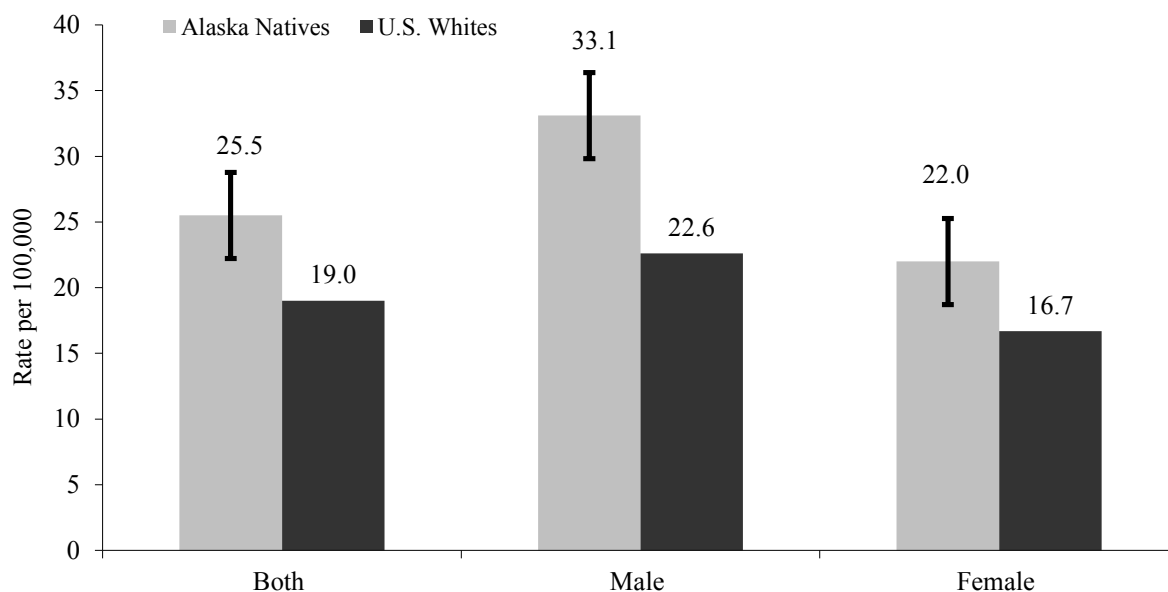
TABLE 68. Age-Adjusted Pneumonia & Influenza Mortality Rates
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)

	Alaska Natives			U.S. Whites			Rate Ratio	Lower 95%	Upper 95%
	#	%	Rate per 100,000	#	%	Rate per 100,000			
Both	77	2.0%	25.5	157,366	2.5%	19.0	*1.3	1.06	1.70
Male	37	1.8%	33.1	70,079	2.3%	22.6	*1.5	1.02	2.08
Female	40	2.3%	22.0	87,287	2.7%	16.7	1.3	0.95	1.82

c

† Age-adjusted to the US 2000 Standard population.

FIGURE 216. Age-Adjusted Pneumonia & Influenza Mortality Rates
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)



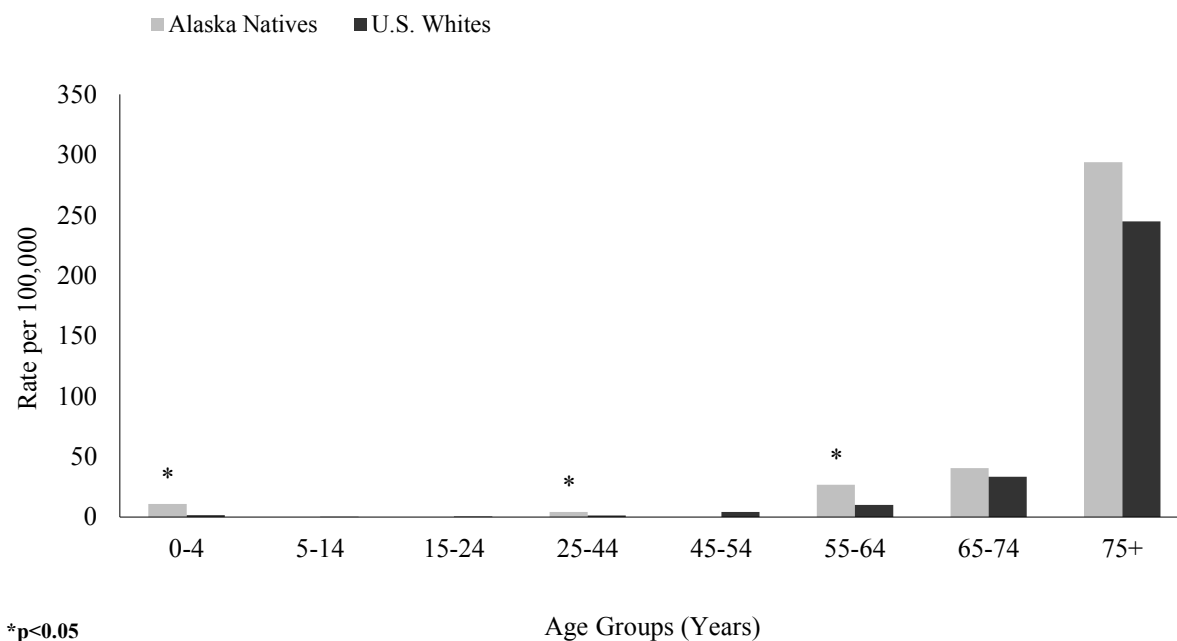
**TABLE 69a. Age-Specific Mortality Rates for Pneumonia & Influenza
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders**

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	10.8	-	-	4.2	-	26.8	40.6	293.9
U.S. Whites	1.5	0.2	0.4	1.3	4.3	10.1	33.4	244.8
Rate Ratio ^a	7.1	-	-	3.1	-	2.7	1.2	1.2

(-) Rate not calculated for fewer than 5 deaths.

a The ratio of Alaska Native to US White rates may appear slightly different than stated because the rates have been rounded to one decimal point.

**FIGURE 217a. Age-Specific Mortality Rates for Pneumonia & Influenza
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders**



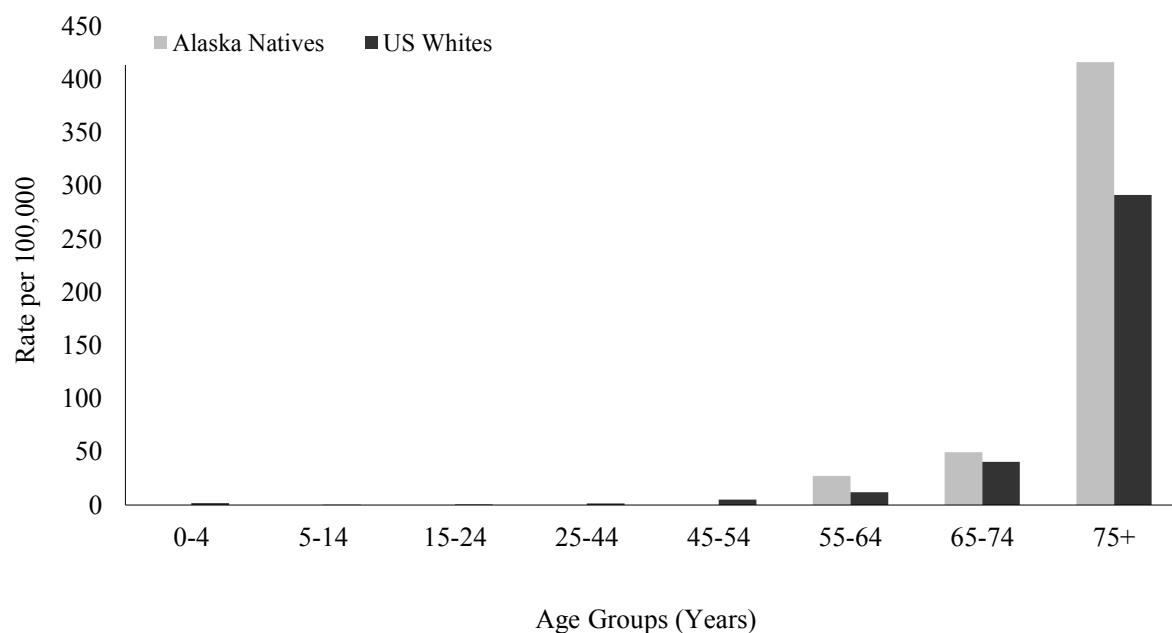
**TABLE 69b. Age-Specific Mortality Rates for Pneumonia & Influenza
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males**

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	-	-	-	27.3	49.6	416.1
US Whites	1.7	0.2	0.5	1.5	5.1	12.1	40.4	291.2
Rate Ratio ^a	-	-	-	-	-	2.3	1.3	1.4

(-) Rate not calculated for fewer than 5 deaths.

a The ratio of Alaska Native to US White rates may appear slightly different than stated because the rates have been rounded to one decimal point.

**FIGURE 217b. Age-Specific Mortality Rates for Pneumonia & Influenza
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males**



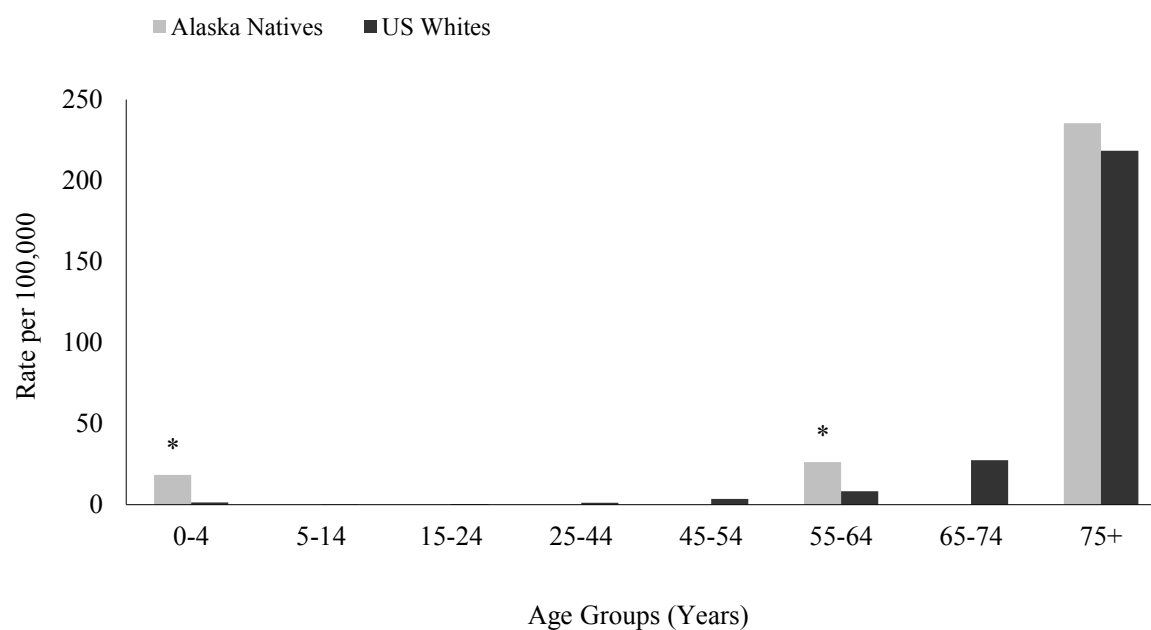
**TABLE 69c. Age-Specific Mortality Rates for Pneumonia & Influenza
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females**

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	18.4	-	-	-	-	26.3	-	235.3
US Whites	1.3	0.2	0.3	1.2	3.5	8.2	27.5	218.3
Rate Ratio ^a	13.8	-	-	-	-	3.2	-	1.1

(-) Rate not calculated for fewer than 5 deaths.

a The ratio of Alaska Native to US White rates may appear slightly different than stated because the rates have been rounded to one decimal point.

**FIGURE 217c. Age-Specific Mortality Rates for Pneumonia & Influenza
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females**



**TABLE 70. Age-Specific Mortality Rates for Pneumonia & Influenza
Alaska Natives (2004-2008)
Males versus Females**

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
AN Males	-	-	-	-	-	27.3	49.6	416.1
AN Females	18.4	-	-	-	-	26.3	-	235.3
Rate Ratio	-	-	-	-	-	1.0	-	1.8

(-) Rate not calculated for fewer than 5 deaths.

**FIGURE 218. Age-Specific Mortality Rates for Pneumonia & Influenza
Alaska Natives (2004-2008)
Males versus Females**

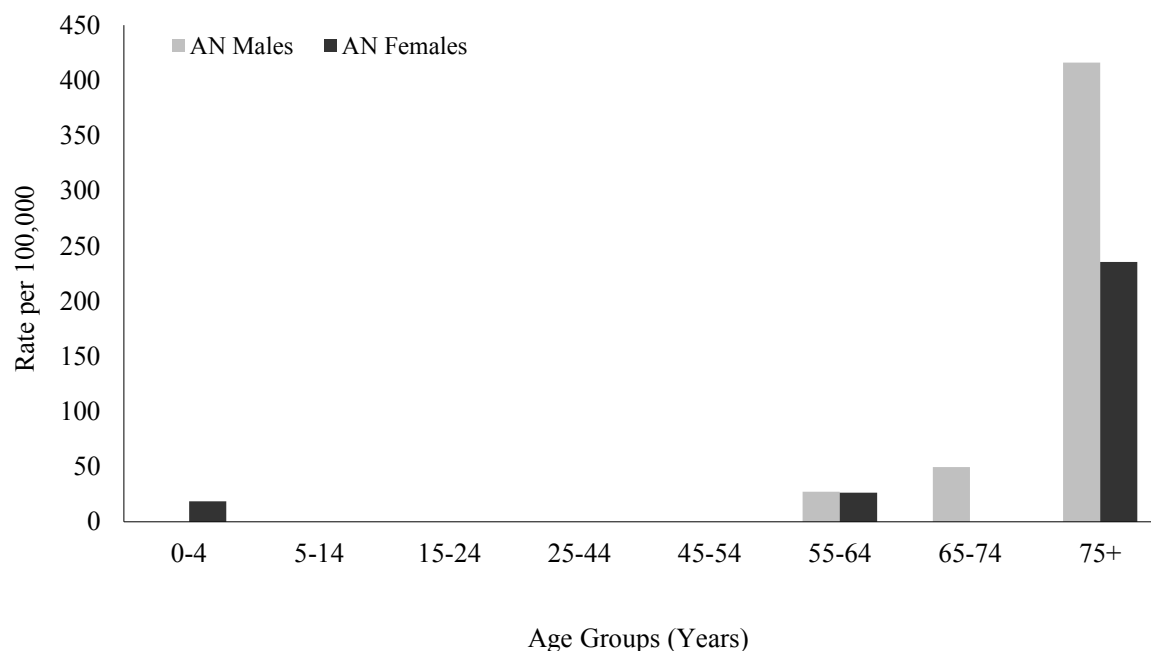
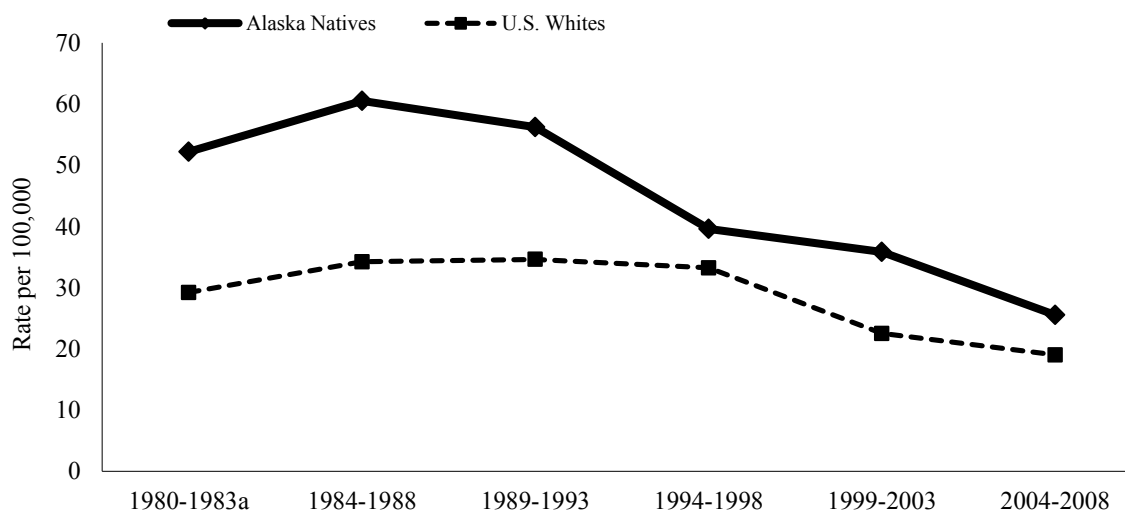


TABLE 71. Age-Adjusted Mortality Rates for Pneumonia & Influenza
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders

	1980-1983 ^a	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008	% Change
Alaska Natives	52.2	60.5	56.2	39.6	35.8	25.5	-51%
U.S. Whites	29.2	34.2	34.6	33.2	22.5	19.0	-35%
Rate Ratio	1.8	1.8	1.6	1.2	1.6	1.3	

^a 1980-1983 time period contains only four years

FIGURE 219. Age-Adjusted Mortality Rates for Pneumonia & Influenza
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders

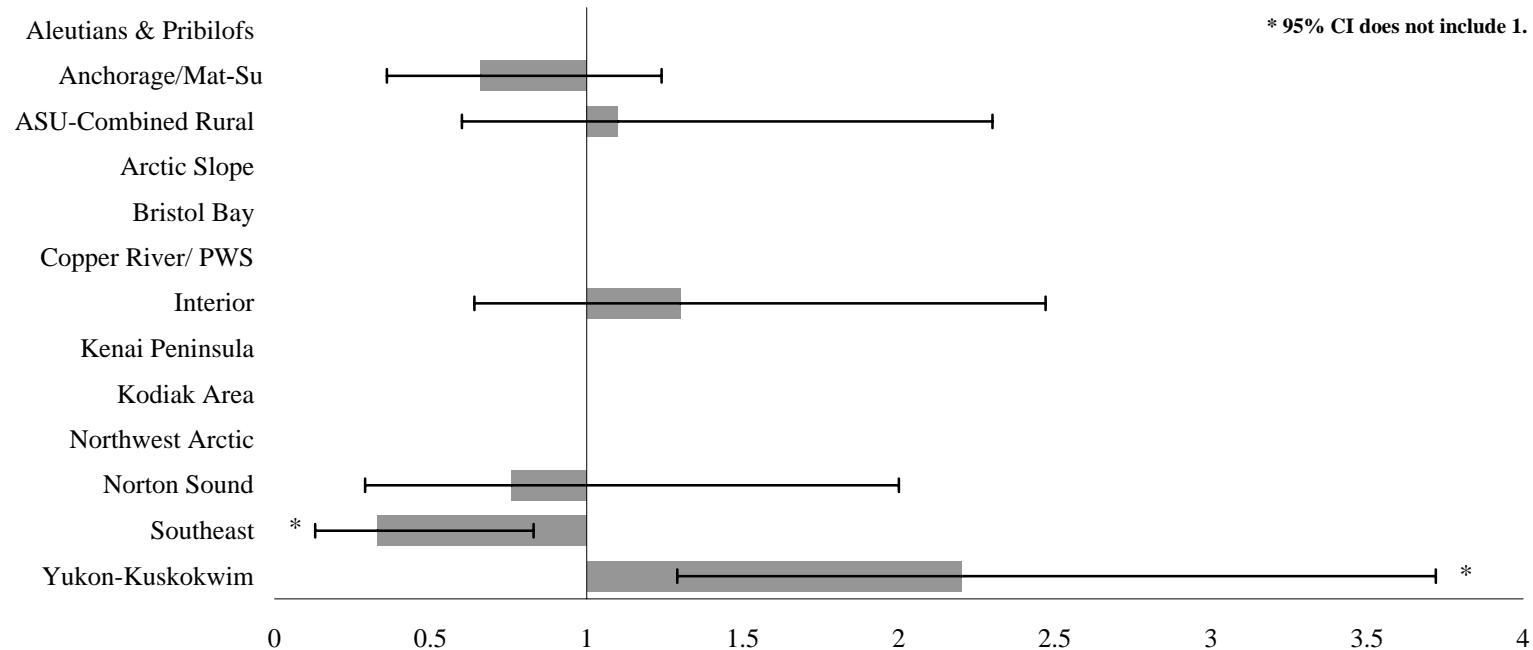


^a 1980-1983 time period contains only four years

**TABLE 72. Age-Adjusted Mortality Rates for Pneumonia & Influenza
Alaska Natives By Service Region (2004-2008), Both Genders**

	Aleutians & Pribilofs	Anchorage/Mat-Su	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Natives Statewide
Rate	-	18.3	29.0	-	-	-	30.9	-	-	-	19.7	*9.6	*47.0	25.5
RR	-	0.7	1.1	-	-	-	1.3	-	-	-	0.8	0.3	2.2	

FIGURE 220. Pneumonia & Influenza Mortality Rate Ratios
Each Service Region vs All Other Regions Combined, Alaska Natives (2004-2008), Both Genders



TENTH LEADING CAUSE OF DEATH
HOMICIDE AND LEGAL
INTERVENTION

The category homicide and legal intervention (*homicide*) includes both deaths from homicide which are injuries inflicted by another person with intent to injure or kill, by any means, and deaths from legal intervention which are injuries inflicted by the police or other law-enforcing agents, including military on duty, in the course of arresting or attempting to arrest lawbreakers, suppressing disturbances, maintaining order, and other legal actions. In the period, 2004-2008, 98% of deaths (n=58) in this category were due to homicide and the remainder were due to legal intervention.

Homicide was the tenth leading cause of death among Alaska Natives, both genders combined. It ranked eighth among Alaska Native men and twelfth among Alaska Native women. Homicide accounted for 1.6% of all Alaska Natives (n=59) deaths. Homicide rates for Alaska Natives, both genders combined, were 3.0 times higher than U.S. Whites. Alaska Native men had rates 2.6 times

higher than U.S. White men. Rates for Alaska Native women were 4.0 times higher than those for U.S. White women.

Thirty-eight percent of Alaska Native homicide deaths involved firearms – 43% for men and 29% for women. Fourteen percent of HLI among Alaska Native women involved stabbing, as did 16% among Alaska Native men.

Homicide accounted for 2.9% of all excess deaths among Alaska Natives, both genders combined (n=37). Among Alaska Native men (n=22), homicide accounted for 3.0% of excess deaths. Among Alaska Native women (n=16), homicide accounted for 2.8% of all excess deaths.

There were only enough cases to calculate age-specific rates between Alaska Native and U.S. Whites both genders combined for age groups between 15 and 54 years. Age-specific homicide rates were a significant 1.8 to 3.3 times higher among Alaska Natives. Rates for Alaska Native men were a significant 2.9 times higher than rates for U.S. White men for the 25 to 44 year age group. Alaska Native women had a

significant 4.8 times greater mortality among the 25 to 44 year age group. There were no significant differences between Alaska Native men and women in homicide rates for any age group.

Homicide rates were significantly higher for the Yukon-Kuskokwim service region as compared to the remainder of the state. Alaska Native homicide rates declined 70% between 1980-1983 and 2004-2008. U.S. Whites experienced a 39% decline between 1980-1983 and 2004-2006.

Tenth leading Cause of Death Among Alaska Natives, 2004-2008
Homicide and Legal Intervention

TABLE 73. Age-Adjusted Homicide Mortality Rates
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)

	Alaska Natives			U.S. Whites			Rate Ratio	Lower 95%	Upper 95%
	#	%	Rate per 100,000	#	%	Rate per 100,000			
Both	59	1.6%	11.2	27,053	0.4%	3.8	*3.0	2.27	3.88
Male	38	1.8%	14.5	20,035	0.7%	5.5	*2.6	1.87	3.65
Female	21	1.2%	7.8	7,018	0.2%	1.9	*4.0	2.57	6.25

* 95% CI does not include 1.

† Age-adjusted to the US 2000 Standard population.

FIGURE 221. Age-Adjusted Homicide Mortality Rates
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)

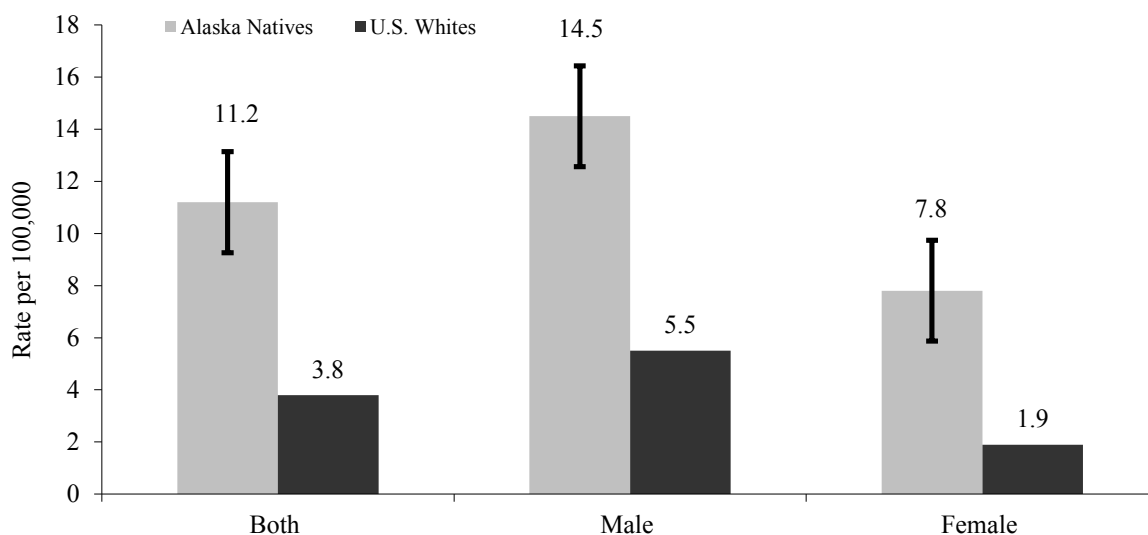


TABLE 74a. Age-Specific Mortality Rates for Homicide
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	11.8	18.3	8.6	-	-	-
U.S. Whites	2.6	0.6	6.7	5.5	3.6	2.4	1.9	1.9
Rate Ratio	-	-	1.8	3.3	2.4	-	-	-

(-) Rate not calculated for fewer than 5 deaths.

FIGURE 222a. Age-Specific Mortality Rates for Homicide
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Both Genders

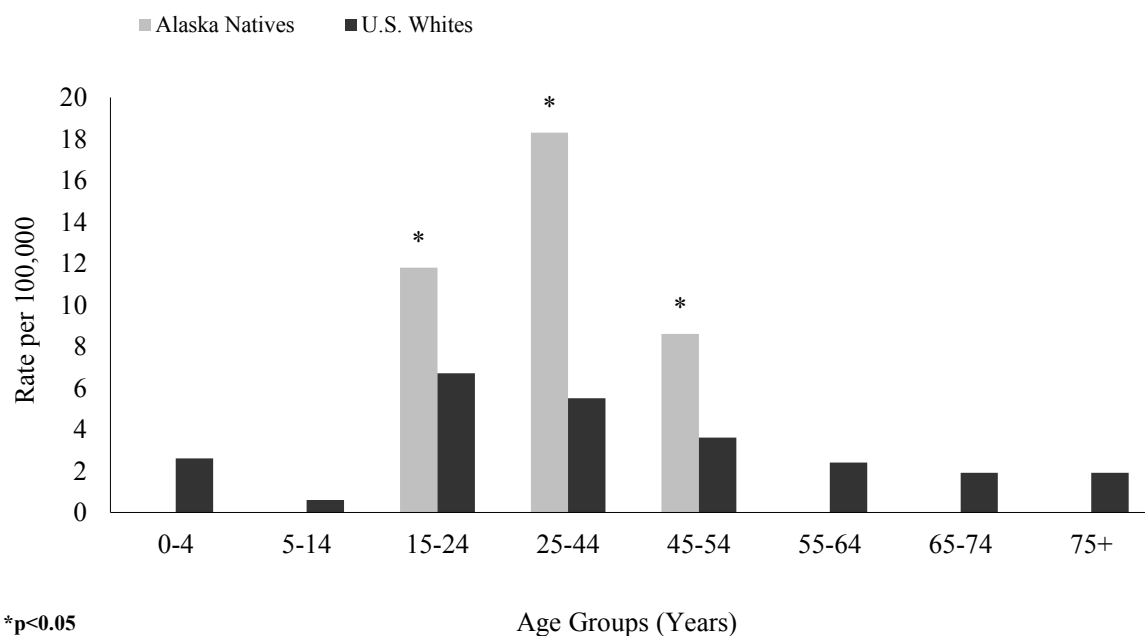


TABLE 74b. Age-Specific Mortality Rates for Homicide
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	15.9	23.7	-	-	-	-
US Whites	2.8	0.7	10.7	8.2	5.3	3.5	2.5	2.2
Rate Ratio	-	-	1.5	2.9	-	-	-	-

(-) Rate not calculated for fewer than 5 deaths.

FIGURE 222b. Age-Specific Mortality Rates for Homicide
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Males

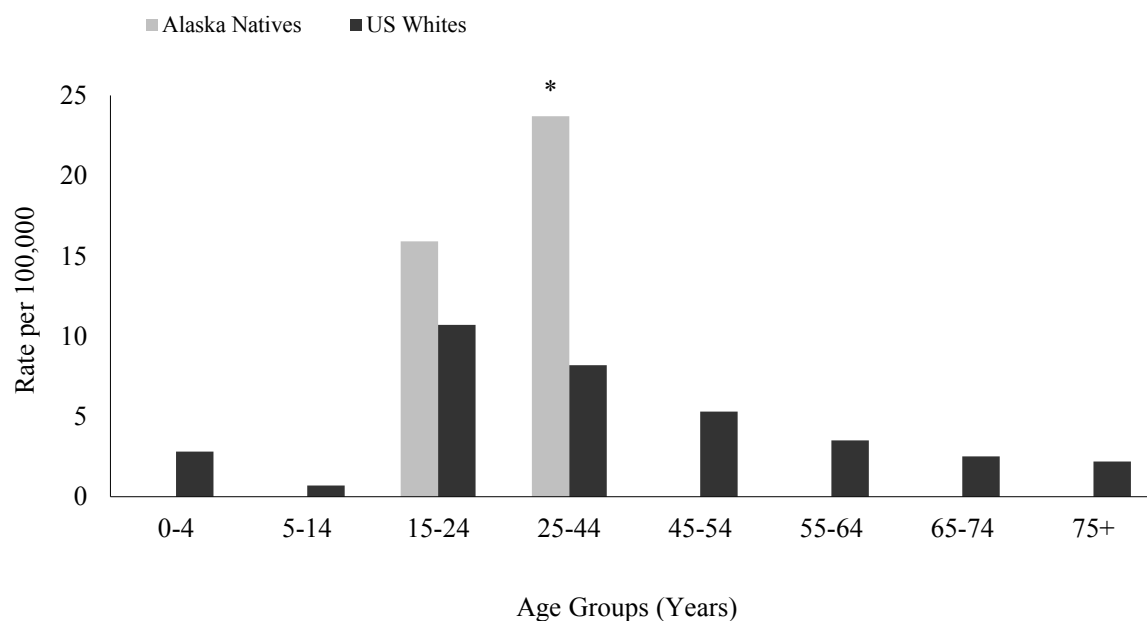
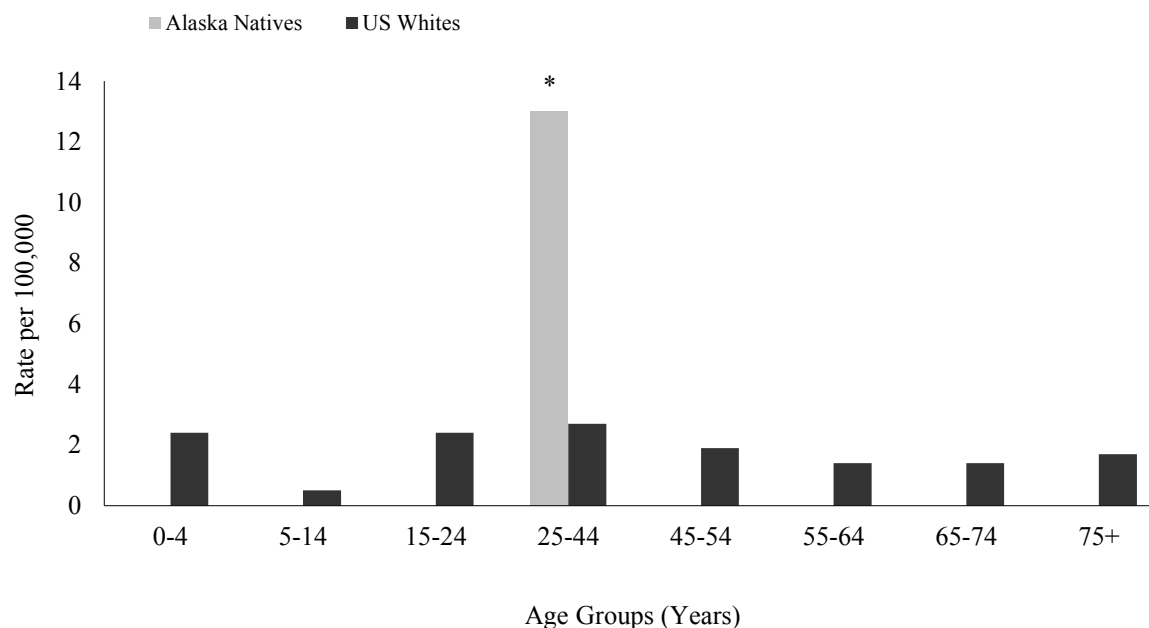


TABLE 74c. Age-Specific Mortality Rates for Homicide
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
Alaska Natives	-	-	-	13.0	-	-	-	-
US Whites	2.4	0.5	2.4	2.7	1.9	1.4	1.4	1.7
Rate Ratio	-	-	-	4.8	-	-	-	-

(-) Rate not calculated for fewer than 5 deaths.

FIGURE 222c. Age-Specific Mortality Rates for Homicide
Alaska Natives (2004-2008) vs U.S. Whites (2004-2006)
Females



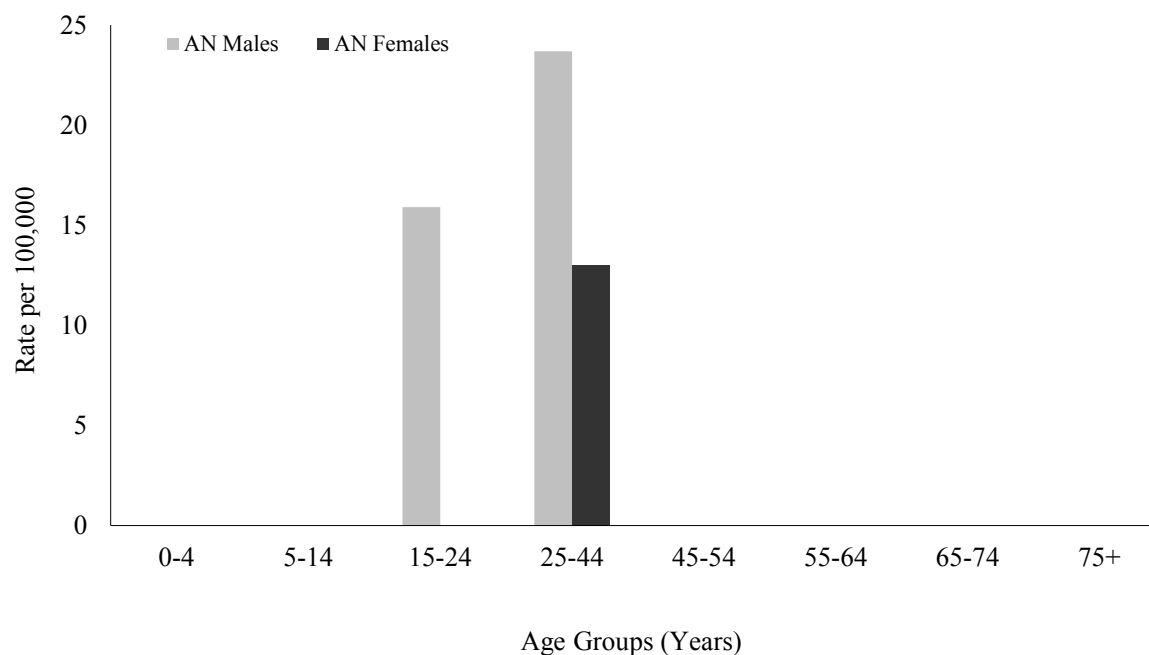
*p<0.05

**TABLE 75. Age-Specific Mortality Rates for Homicide
Alaska Natives (2004-2008)
Males versus Females**

Age Groups	0-4	5-14	15-24	25-44	45-54	55-64	65-74	75+
AN Males	-	-	15.9	23.7	-	-	-	-
AN Females	-	-	-	13.0	-	-	-	-
Rate Ratio	-	-	-	1.8	-	-	-	-

(-) Rate not calculated for fewer than 5 deaths.

**FIGURE 223. Age-Specific Mortality Rates for Homicide
Alaska Natives (2004-2008)
Males versus Females**

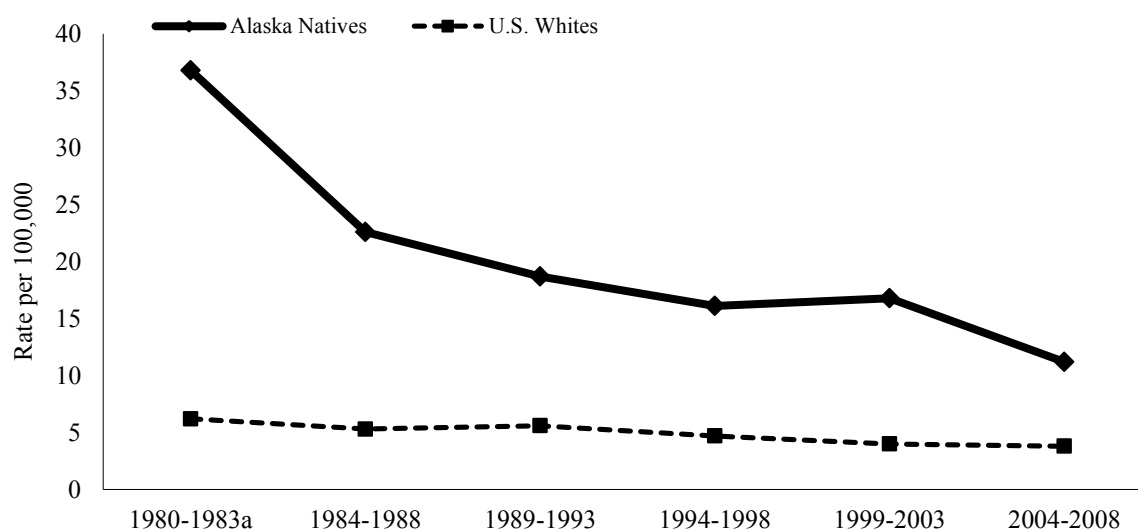


**TABLE 76. Age-Adjusted Mortality Rates for Homicide
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders**

	1980-1983 ^a	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008	% Change
Alaska Natives	36.8	22.6	18.7	16.1	16.8	11.2	-70%
U.S. Whites	6.2	5.3	5.6	4.7	4.0	3.8	-39%
Rate Ratio	5.9	4.3	3.3	3.4	4.2	3.0	

^a 1980-1983 time period contains only four years

**FIGURE 224. Age-Adjusted Mortality Rates for Homicide
Alaska Natives (1980-2008) vs U.S. Whites (1980-2006)
By 5-Year Intervals
Both Genders**

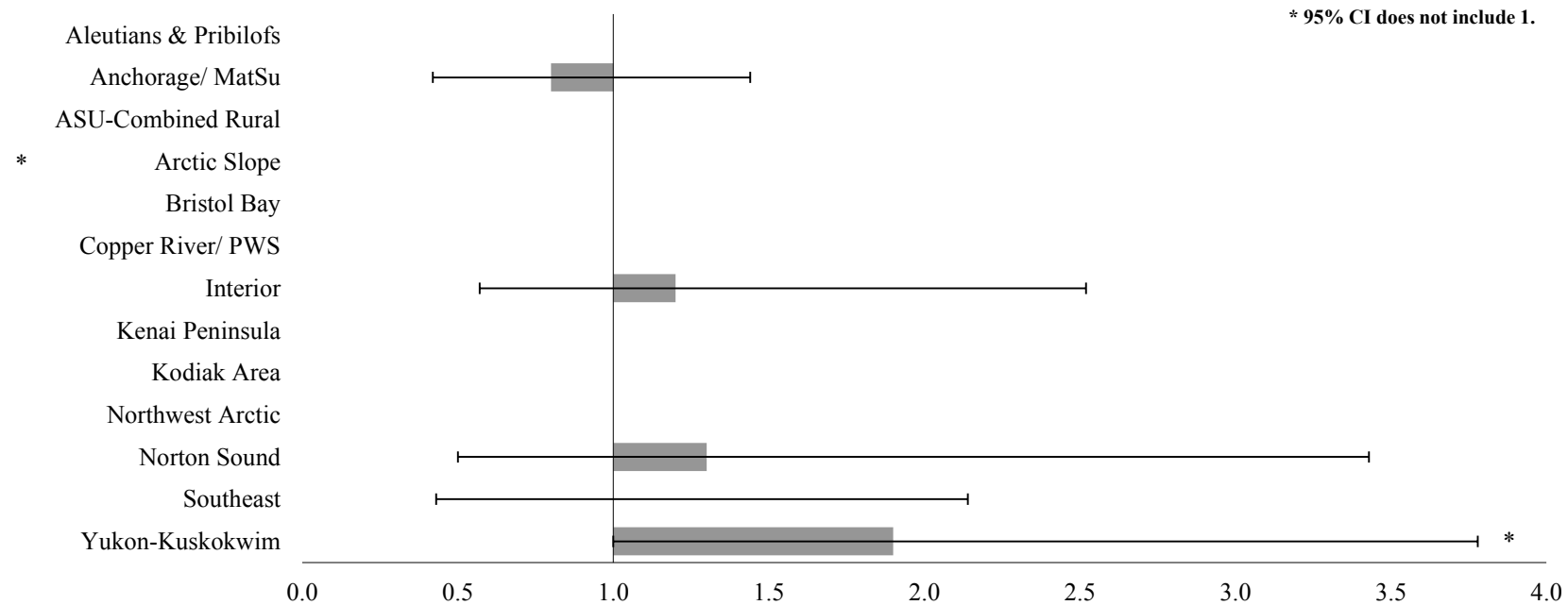


^a 1980-1983 time period contains only four years

**TABLE 77. Age-Adjusted Mortality Rates for Homicide
Alaska Natives By Service Region (2004-2008), Both Genders**

	Aleutians & Pribilofs	Anchorage/ MatSu	ASU-Combined Rural	Arctic Slope	Bristol Bay	Copper River/ PWS	Interior	Kenai Peninsula	Kodiak Area	Northwest Arctic	Norton Sound	Southeast	Yukon-Kuskokwim	Alaska Natives Statewide
Rate	-	9.0	-	-	-	-	12.9	-	-	-	14.2	10.5	18.8	11.0
RR	-	0.8	-	-	-	-	1.2	-	-	-	1.3	1.0	1.8	

**FIGURE 225. Homicide Mortality Rate Ratios
Each Service Region vs All Other Regions Combined, Alaska Natives (2004-2008), Both Genders**



APPENDICES

Appendix A - Leading Causes of Death – ICD-9 and ICD-10 Codes

Appendix B - 1980-2008 Alaska Native Regional Population Tables

Appendix C - Service Regions, Tribal Health Organizations, and Communities

**Appendix D - Numbers of Alaska Native Deaths For Leading Causes by
Time Periods, 1980-2008**

APPENDIX A

LEADING CAUSES OF DEATH – ICD-9 AND ICD-10 CODES

	Cause of Death	ICD-9 Codes	ICD-10 Codes
1	Salmonella infections	002-003	A01-A02
2	Shigellosis and amebiasis	004, 006	A03, A06
3	Tuberculosis	010-018	A16-A19
4	Whooping cough	33	A37
5	Scarlet fever and erysipelas	034.1 - 035	A38, A46
6	Meningococcal infection	36	A39
7	Septicemia	38	A40-A41
8	Syphilis	090-097	A50-A53
9	Acute poliomyelitis	45	A80
10	Arthropod-borne viral encephalitis	062-064	A83-A84, A85.2
11	Measles	55	B05
12	Viral hepatitis	70	B15-B19
13	Human immunodeficiency virus (HIV) disease	042-044	B20-B24
14	Malaria	84	B50-B54
15	Malignant neoplasms	140-208	C00-C97
16	In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior	210-239	D00-D48
17	Anemias	280-285	D50-D64

	Cause of Death	ICD-9 Codes	ICD-10 Codes
18	Diabetes mellitus	250	E10-E14
19	Nutritional deficiencies	260-269	E40-E64
	*Alcohol Abuse	291, 303, 305.0	F10
20	Meningitis	320-322	G00, G03
21	Parkinson's disease	332	G20-G21
22	Alzheimer's disease	331	G30
23	Diseases of heart	390-398, 402, 404, 410-429	I00-I09, I11, I13, I20-I51
	*Coronary Heart Disease	402, 410-414, 429.2	I11, I20-I25
24	Essential (primary) hypertension and hypertensive renal disease	401, 403	I10, I12
25	Cerebrovascular diseases	430-434, 436-438	I60-I69
26	Atherosclerosis	440	I70
27	Aortic aneurysm and dissection	441	I71
28	Influenza and pneumonia	480-487	J10-J18
29	Acute bronchitis and bronchiolitis	466	J20-J21
30	Chronic lower respiratory diseases	490-494, 496	J40-J47
31	Pneumoconioses and chemical effects	500-506	J60-J66, J68
32	Pneumonitis due to solids and liquids	507	J69
33	Peptic ulcer	531-534	K25-K28

	Cause of Death	ICD-9 Codes	ICD-10 Codes
34	Diseases of appendix	540-543	K35-K38
35	Hernia	550-553	K40-K46
36	Chronic liver disease and cirrhosis	571	K70, K73-K74
37	Cholelithiasis and other disorders of gallbladder	574-575	K80-K82
38	Nephritis, nephrotic syndrome and nephrosis	580-589	N00-N07, N17-N19, N25-N27
39	Infections of kidney	590	N10-N12, N13.6, N15.1
40	Hyperplasia of prostate	600	N40
41	Inflammatory diseases of female pelvic organs	614-616	N70-N76
42	Pregnancy, childbirth and the puerperium	630-676	O00-O99
43	Certain conditions originating in the perinatal period	760-771.2, 771.4-779	P00-P96
44	Congenital malformations, deformations and chromosomal abnormalities	740-759	Q00-Q99
45	Unintentional injuries	E800-E869, E880-E929	V01-X59, Y85-Y86
46	Intentional self-harm (suicide)	E950-E959	X60-X84, Y87.0, *U03
47	Assault (homicide)	E960-E969, E979, E999	X85-Y09, Y87.1, *U01-*U02
48	Legal intervention	E970-E978	Y35, Y89.0
49	Operations of war and their sequelae	E990-E998	Y36, Y89.1
50	Complications of medical and surgical care	E870-E879, E930-E949	Y40-Y84, Y88

* These groupings are not on the NCHS list of 50 Leading Causes of Death

APPENDIX B

1980-2008 ALASKA NATIVE REGIONAL POPULATION TABLES

Data Source: See Methods Footnote 2

Aleutians & Pribilofs		Both Genders					
Age	1980-1983	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008	
0-4 years	982	1,276	1,471	1,033	630	495	
5-9 years	1,001	1,300	1,465	1,111	748	491	
10-14 years	714	928	1,125	1,101	890	633	
15-19 years	562	730	881	967	1,025	679	
20-24 years	625	812	811	666	698	820	
25-29 years	870	1,131	1,243	786	663	621	
30-34 years	792	1,029	1,228	1,189	771	626	
35-39 years	595	773	965	1,049	917	768	
40-44 years	551	715	914	921	920	826	
45-49 years	335	435	520	597	706	815	
50-54 years	342	445	545	603	725	661	
55-59 years	312	406	486	432	500	665	
60-64 years	201	261	328	338	319	417	
65-69 years	179	232	248	332	252	232	
70-74 years	104	135	154	242	174	161	
75-79 years	74	97	92	81	126	122	
80-84 years	19	24	27	45	72	89	
85+ years	4	5	5	8	45	73	
TOTAL	8,262	10,732	12,510	11,501	10,181	9,194	
Anchorage/MatSu		Both Genders					
Age	1980-1983	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008	
0-4 years	5,517	9,046	11,386	11,978	12,500	15,074	
5-9 years	4,726	7,750	9,921	12,400	13,033	12,077	
10-14 years	3,795	6,222	8,041	10,819	14,148	13,645	
15-19 years	3,790	6,214	7,605	9,203	12,682	14,318	
20-24 years	3,775	6,189	6,924	7,558	10,994	13,502	
25-29 years	4,507	7,390	9,129	8,193	10,107	11,836	
30-34 years	4,105	6,730	8,791	10,742	10,073	10,586	
35-39 years	3,505	5,747	7,543	9,875	11,091	10,697	
40-44 years	2,647	4,339	5,912	8,220	10,297	11,164	
45-49 years	2,012	3,299	4,278	6,015	8,650	10,072	
50-54 years	1,430	2,345	3,085	4,300	6,500	7,743	
55-59 years	1,148	1,883	2,446	3,140	4,698	5,995	
60-64 years	743	1,218	1,620	2,315	3,124	3,673	
65-69 years	534	875	1,137	1,660	2,582	3,044	
70-74 years	325	533	702	1,129	1,946	2,692	
75-79 years	219	359	432	530	1,041	1,734	
80-84 years	116	190	248	354	572	895	
85+ years	73	120	167	254	457	713	
TOTAL	42,967	70,448	89,368	108,685	134,495	149,460	

Arctic Slope

Age	Both Genders					
	1980-1983	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008
0-4 years	1,885	2,699	3,001	2,671	2,278	2,584
5-9 years	1,613	2,310	2,612	2,795	2,317	1,975
10-14 years	1,111	1,591	1,919	2,565	2,839	1,976
15-19 years	808	1,157	1,373	1,955	2,513	2,298
20-24 years	823	1,179	1,193	1,244	1,541	1,790
25-29 years	1,046	1,498	1,643	1,225	1,157	1,309
30-34 years	986	1,413	1,671	1,867	1,257	914
35-39 years	761	1,090	1,311	1,644	1,616	1,023
40-44 years	544	779	997	1,442	1,523	1,461
45-49 years	450	645	761	1,034	1,278	1,384
50-54 years	368	526	616	760	906	1,142
55-59 years	357	512	579	608	640	769
60-64 years	251	360	436	509	507	595
65-69 years	179	256	293	313	411	364
70-74 years	114	163	190	252	303	222
75-79 years	104	148	162	158	214	163
80-84 years	44	63	76	89	124	132
85+ years	18	26	34	51	73	112
TOTAL	11,461	16,414	18,867	21,184	21,497	20,212

Bristol Bay

Age	Both Genders					
	1980-1983	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008
0-4 years	2,613	3,538	3,822	3,294	2,555	2,443
5-9 years	2,211	2,994	3,289	3,674	3,340	2,378
10-14 years	1,590	2,153	2,504	3,355	3,873	3,059
15-19 years	1,142	1,546	1,732	2,256	2,972	3,223
20-24 years	1,211	1,639	1,562	1,496	1,803	2,279
25-29 years	1,568	2,124	2,198	1,443	1,303	1,548
30-34 years	1,536	2,079	2,331	2,455	1,600	1,258
35-39 years	1,272	1,722	1,966	2,377	2,205	1,513
40-44 years	683	925	1,172	1,782	2,165	2,025
45-49 years	726	983	1,129	1,549	1,948	2,212
50-54 years	607	822	921	1,037	1,282	1,719
55-59 years	481	651	759	922	1,047	1,201
60-64 years	473	641	739	833	853	1,008
65-69 years	408	553	590	611	639	632
70-74 years	213	289	331	468	538	478
75-79 years	163	220	234	252	348	429
80-84 years	119	161	178	185	172	232
85+ years	69	93	100	118	139	157
TOTAL	17,085	23,133	25,556	28,106	28,785	27,790

Copper River/PWS**Both Genders**

Age	1980-1983	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008
0-4 years	485	713	790	711	629	649
5-9 years	416	612	717	796	771	610
10-14 years	363	534	655	906	1,032	716
15-19 years	278	409	481	618	878	892
20-24 years	241	354	350	318	479	720
25-29 years	344	506	554	375	384	439
30-34 years	341	502	585	644	552	398
35-39 years	319	469	541	565	597	549
40-44 years	247	363	456	558	628	596
45-49 years	159	235	287	418	561	605
50-54 years	184	271	328	409	501	537
55-59 years	150	221	269	281	328	448
60-64 years	128	189	220	229	229	308
65-69 years	100	147	164	168	210	235
70-74 years	69	101	117	149	147	186
75-79 years	59	87	104	122	142	128
80-84 years	38	55	61	50	62	114
85+ years	34	51	53	54	59	85
TOTAL	3,954	5,820	6,732	7,372	8,189	8,215

Interior**Both Genders**

Age	1980-1983	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008
0-4 years	3,790	5,860	6,782	5,938	5,081	5,255
5-9 years	3,601	5,567	6,504	6,610	5,712	4,712
10-14 years	3,025	4,677	5,608	6,577	7,098	5,617
15-19 years	2,515	3,889	4,633	5,456	6,500	7,130
20-24 years	2,214	3,423	3,762	3,915	5,000	5,808
25-29 years	2,723	4,211	4,836	3,703	4,161	5,336
30-34 years	2,417	3,736	4,486	4,657	3,641	3,956
35-39 years	2,374	3,670	4,389	4,797	4,505	3,550
40-44 years	1,534	2,371	3,055	3,927	4,310	4,321
45-49 years	1,139	1,761	2,185	3,104	4,163	4,429
50-54 years	950	1,468	1,798	2,268	3,147	4,039
55-59 years	851	1,316	1,591	1,751	2,126	3,143
60-64 years	664	1,027	1,260	1,394	1,527	2,039
65-69 years	504	779	1,004	1,083	1,220	1,487
70-74 years	347	536	755	979	1,034	1,097
75-79 years	333	515	613	540	632	878
80-84 years	160	247	340	350	375	502
85+ years	115	177	232	295	361	487
TOTAL	29,255	45,231	53,834	57,345	60,594	63,787

Kenai Peninsula**Both Genders**

Age	1980-1983	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008
0-4 years	713	1,244	1,614	1,756	1,652	1,543
5-9 years	797	1,392	1,787	2,131	2,054	1,698
10-14 years	631	1,101	1,433	1,888	2,342	2,149
15-19 years	553	965	1,226	1,555	2,130	2,375
20-24 years	514	897	1,033	1,138	1,527	2,029
25-29 years	603	1,053	1,301	1,199	1,399	1,770
30-34 years	692	1,208	1,561	1,821	1,617	1,447
35-39 years	615	1,073	1,390	1,680	1,713	1,756
40-44 years	457	798	1,111	1,568	1,910	1,773
45-49 years	318	554	741	1,113	1,570	1,720
50-54 years	265	463	610	839	1,254	1,437
55-59 years	219	383	488	577	793	1,103
60-64 years	167	291	379	494	587	673
65-69 years	137	239	307	358	463	557
70-74 years	87	152	202	293	363	420
75-79 years	34	60	80	136	221	311
80-84 years	41	72	89	88	100	155
85+ years	18	32	39	64	89	144
TOTAL	6,862	11,975	15,391	18,698	21,784	23,060

Kodiak Area**Both Genders**

Age	1980-1983	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008
0-4 years	928	1,291	1,437	1,398	1,081	743
5-9 years	743	1,034	1,154	1,231	1,100	961
10-14 years	693	965	1,081	1,241	1,294	1,039
15-19 years	624	868	924	924	1,052	1,116
20-24 years	528	735	705	643	675	699
25-29 years	581	809	869	677	609	570
30-34 years	641	891	1,010	1,069	816	575
35-39 years	568	790	884	899	704	755
40-44 years	386	538	638	750	754	704
45-49 years	347	482	545	666	784	707
50-54 years	287	400	454	510	612	787
55-59 years	248	345	389	405	466	551
60-64 years	191	266	307	342	355	433
65-69 years	158	221	237	259	273	316
70-74 years	102	142	159	191	243	253
75-79 years	56	78	83	84	116	211
80-84 years	43	60	65	54	58	81
85+ years	33	46	51	65	107	105
TOTAL	7,158	9,960	10,992	11,408	11,099	10,606

Northwest Arctic**Both Genders**

Age	1980-1983	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008
0-4 years	3,309	4,632	5,052	4,359	3,801	4,017
5-9 years	2,631	3,683	4,083	4,417	3,978	3,617
10-14 years	1,961	2,744	3,168	4,083	4,710	3,688
15-19 years	1,649	2,308	2,560	3,064	3,752	4,029
20-24 years	1,464	2,049	2,016	2,069	2,752	3,051
25-29 years	1,751	2,450	2,660	2,067	2,134	2,729
30-34 years	1,439	2,014	2,343	2,755	2,177	2,036
35-39 years	1,066	1,491	1,749	2,189	2,297	1,867
40-44 years	823	1,152	1,410	1,865	2,083	2,146
45-49 years	551	771	901	1,268	1,741	1,973
50-54 years	478	670	777	989	1,269	1,547
55-59 years	540	756	829	791	870	1,229
60-64 years	475	665	742	748	642	774
65-69 years	315	441	498	571	643	576
70-74 years	214	299	349	484	543	567
75-79 years	188	264	274	258	343	419
80-84 years	116	162	183	166	144	222
85+ years	116	162	173	160	132	151
TOTAL	19,085	26,714	29,766	32,302	34,013	34,639

Norton Sound**Both Genders**

Age	1980-1983	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008
0-4 years	3,182	4,273	4,501	3,905	3,656	4,223
5-9 years	2,589	3,477	3,788	4,406	3,779	3,301
10-14 years	2,291	3,076	3,395	4,086	4,407	3,724
15-19 years	1,856	2,492	2,675	3,148	3,723	3,962
20-24 years	1,614	2,167	2,088	2,205	2,762	2,963
25-29 years	1,789	2,403	2,557	2,104	2,292	2,616
30-34 years	1,859	2,497	2,759	3,002	2,155	2,230
35-39 years	1,438	1,931	2,165	2,574	2,474	2,069
40-44 years	1,189	1,597	1,838	2,251	2,363	2,400
45-49 years	860	1,154	1,260	1,599	1,945	2,173
50-54 years	723	970	1,080	1,303	1,663	1,828
55-59 years	646	867	955	1,091	1,189	1,467
60-64 years	516	692	775	891	950	1,086
65-69 years	414	556	582	615	726	715
70-74 years	295	396	431	565	556	470
75-79 years	330	443	436	368	480	395
80-84 years	151	203	222	241	247	335
85+ years	88	118	135	208	294	319
TOTAL	21,829	29,311	31,643	34,562	35,661	36,276

Southeast

Age	Both Genders					
	1980-1983	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008
0-4 years	5,462	7,660	8,244	7,083	5,798	5,185
5-9 years	4,838	6,784	7,446	7,768	6,580	5,083
10-14 years	4,288	6,014	6,648	7,410	7,539	6,313
15-19 years	3,511	4,924	5,337	5,933	6,826	6,768
20-24 years	3,261	4,573	4,435	4,121	4,896	5,811
25-29 years	3,667	5,143	5,534	4,214	4,200	4,514
30-34 years	3,547	4,974	5,657	6,123	4,673	4,185
35-39 years	3,023	4,240	4,842	5,601	5,428	4,510
40-44 years	2,542	3,565	4,253	5,358	5,506	5,465
45-49 years	1,795	2,517	2,904	3,853	4,947	5,353
50-54 years	1,684	2,362	2,677	3,176	4,024	4,623
55-59 years	1,362	1,910	2,164	2,407	2,828	3,702
60-64 years	1,021	1,432	1,692	2,155	2,390	2,591
65-69 years	839	1,176	1,389	1,618	2,045	2,193
70-74 years	530	743	873	1,204	1,516	1,795
75-79 years	419	588	666	735	1,014	1,238
80-84 years	250	351	410	458	592	777
85+ years	179	251	296	355	509	726
TOTAL	42,218	59,207	65,467	69,572	71,311	70,832

Yukon-Kuskokwim

Age	Both Genders					
	1980-1983	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008
0-4 years	9,508	12,792	13,635	12,156	11,188	13,590
5-9 years	7,550	10,158	11,232	13,146	12,762	11,161
10-14 years	6,052	8,142	9,187	11,934	13,864	12,080
15-19 years	5,208	7,007	7,541	8,879	11,004	12,158
20-24 years	5,122	6,892	6,549	6,402	7,633	8,879
25-29 years	5,507	7,409	7,778	6,024	6,290	7,386
30-34 years	4,585	6,168	7,037	8,435	6,783	5,956
35-39 years	3,709	4,990	5,660	7,022	7,360	6,414
40-44 years	2,691	3,621	4,282	5,691	6,412	6,910
45-49 years	2,378	3,199	3,472	4,252	5,096	6,165
50-54 years	1,637	2,203	2,452	3,059	3,936	4,894
55-59 years	1,737	2,337	2,555	2,778	3,053	3,659
60-64 years	1,349	1,815	2,006	2,180	2,182	2,742
65-69 years	1,203	1,619	1,709	1,695	2,059	1,877
70-74 years	808	1,087	1,156	1,337	1,479	1,630
75-79 years	630	848	859	823	1,088	1,076
80-84 years	274	369	437	549	640	658
85+ years	199	268	298	364	439	454
TOTAL	60,148	80,923	87,844	96,726	103,269	107,689

All Alaska Natives		Both Genders					
Age	1980-1983	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008	
0-4 years	38,373	55,023	61,736	56,282	50,937	55,763	
5-9 years	32,716	47,060	53,999	60,484	56,923	47,971	
10-14 years	26,512	38,145	44,765	55,965	63,958	54,511	
15-19 years	22,495	32,509	36,969	43,958	54,569	58,899	
20-24 years	21,392	30,909	31,428	31,775	40,010	48,353	
25-29 years	24,957	36,125	40,301	32,010	34,434	40,661	
30-34 years	22,939	33,242	39,458	44,758	36,390	34,119	
35-39 years	19,245	27,989	33,406	40,272	41,176	35,421	
40-44 years	14,293	20,762	26,039	34,333	38,662	39,811	
45-49 years	11,069	16,036	18,983	25,468	32,938	37,636	
50-54 years	8,956	12,945	15,342	19,252	25,263	31,006	
55-59 years	8,051	11,585	13,509	15,183	18,163	23,953	
60-64 years	6,179	8,856	10,506	12,427	13,481	16,354	
65-69 years	4,970	7,095	8,159	9,284	11,423	12,230	
70-74 years	3,207	4,576	5,420	7,295	8,613	9,945	
75-79 years	2,611	3,708	4,035	4,087	5,632	7,081	
80-84 years	1,371	1,957	2,336	2,629	3,077	4,196	
85+ years	946	1,348	1,581	1,997	2,616	3,533	
TOTAL	270,283	389,869	447,970	497,461	538,265	561,443	

APPENDIX C

SERVICE REGIONS, TRIBAL HEALTH ORGANIZATIONS, AND COMMUNITIES

Service Region	Service Unit	Title I and V THOs in Region	Community List Data Source: Alaska Department of Labor and Workforce Development Research and Analysis and U.S. Census Bureau
Aleutians and Pribilofs	sub-region of Anchorage Service Unit	Aleutian Pribilof Islands Association, Eastern Aleutian Tribes Inc., St. George Traditional Council	Adak, Akutan, Atka, Amchitka, Attu Station, Belkofski, Cold Bay, Dutch Harbor, False Pass, King Cove, Nelson Lagoon, Nikolski, St. George, St. Paul, Sand Point, Shemya, Umnak, Unalaska
Anchorage/Mat-Su	sub-region of Anchorage Service Unit	Southcentral Foundation, Chickaloon Village, Native Village of Eklutna, Knik Tribal Council	Municipality of Anchorage, Big Lake, Birchwood, Bird, Buffalo Soapstone, Butte, Chase, Chickaloon, Chugiak, Eagle River, Elmendorf AFB, Eska, Farm Loop, Fishhook, Ft. Richardson, Girdwood, Gold Creek, Gateway, Glacier View, Houston, Indian, Knik River, Knik-Fairview, Lakes, Lake Louise, Lazy Mountain, Meadow Lakes, Medfra, Palmer, Peters Creek, Petersville, Point MacKenzie, Portage, Skwentna, Susitna, Sutton-Alpine, Talkeetna, Tanaina, Trapper Creek, Wasilla, Willow
ASU-Combined Rural	sub-region of Anchorage Service Unit	Aleutian Pribilof Islands Association, Eastern Aleutian Tribes Inc., St. George Traditional Council, Chugachmiut Inc, Chitina Traditional Council, Copper River Native Association, Mt. Sanford Tribal Consortium, Valdez Native Tribe, Chugachmiut (part)*, Kenaitze Indian Tribe IRA, Ninilchik Traditional Council, Seldovia Village Tribe, Kodiak Area Native Association, Native Village of Karluk	Adak, Afognak, Akhiok, Akutan, Aleneva, Atka, Amchitka, Anchor Point, Attu Station, Bear Creek, Belkofski, Beluga, Cantwell, Chenega, Chiniak, Chisana, Chistochina, Chitina, Clam Gulch, Cohoe, Cold Bay, Cooper Landing, Copper Center, Copper Valley, Copperville, Cordova, Crown Point, Diamond Ridge, Dutch Harbor, False Pass, Fox River, Fritz Creek, Funny River, Gakona, Glennallen, Gulkana, Halibut Cove, Happy Valley, Homer, Hope, Kasilof, Kachemak, Kaguyak, Kalifornsky, Karluk, Kenai, Kenny Lake, King Cove, Kodiak, Kodiak Station, Larsen Bay, Lowell Point, McCarthy, Mendeltna, Mentasta Lake, Miller Landing, Moose Pass, Nabesna, Nanwalek, Nelchina, Nelson Lagoon, Nikiski, Nikolaevsk, Nikolski, Ninilchik, Old Harbor, Ouzinkie, Paxson, Port Graham, Port Lions, Ridgeway, St. George, St. Paul, Salamatof, Sand Point, Seldovia, Seldovia Village, Seward, Shemya, Silver Springs, Slana, Soldotna, Sterling, Sunrise, Tatitlek, Tazlina, Tolsona, Tonsina, Tyonek, Umnak, Unalaska, Valdez, Whittier, Wildwood, Willow Creek, Women's Bay, Zacher's Bay
Arctic Slope	Barrow	Arctic Slope Native Association, Ukeagvik Inupiat Corporation	Alaktak, Alpine, Atkasuk, Barrow, Barter Island, Cape Halkett, Cape Lisburne, Coleville, Kaktovik, Mead River, Nuiqsut, Point Lay, Prudhoe Bay, Wainwright

Service Region	Service Unit	Title I and V THOs in Region	Community List Data Source: Alaska Department of Labor and Workforce Development Research and Analysis and U.S. Census Bureau
Bristol Bay	Bristol Bay	Bristol Bay Area Health Corporation	Aleknagik, Chignik, Chignik Lagoon, Chignik Lake, Clark's Point, Dillingham, Egegik, Ekuk, Ekwo, Goodnews Bay, Igiugig, Igushik, Iliamna, Ivanof Bay, King Salmon, Kokhanok, Koliganek, Koggiung, Kulukak, Kvichak, Levelok, Manokotak, Naknek, New Stuyahok, Newhalen, Nondalton, Nushagak, Nuyakak River, Pedro Bay, Perryville, Pilot Point, Portage Creek, Platinum, Pope-Vannoy Landing, Port Alsworth, Port Heiden, South Naknek, Togiak, Twin Hills, Ugashik
Copper River/Prince William Sound	sub-region of Anchorage Service Unit	Chugachmiut Inc.(part)*, Chitina Traditional Council, Copper River Native Association, Mt. Sanford Tribal Consortium, Valdez Native Tribe	Cantwell, Chenega, Chisana, Chistochina, Chitina, Copper Center, Copper Valley, Copperville, Cordova, Gakona, Glennallen, Gulkana, Kenny Lake, McCarthy, Mendeltna, Mentasta Lake, Nabesna, Nelchina, Paxson, Silver Springs, Slana, Tatitlek, Tazlina, Tolsona, Tonsina, Valdez, Whittier, Willow Creek
Interior	Interior	Tanana Chiefs Conference, Council of Athabascan Tribal Governments, Fairbanks Native Assoc., Tanana IRA Native Council	Allakaket, Alatna, Alcan Border, Anaktuvak Pass, Anderson, Arctic Village, Beaver, Bettles, Big Delta, Birch Creek, Birch Lake, Canyon Village, Central, Chalkyitsik, Chatanika, Chicken, Christian, Circle, Circle Hot Springs, Clear, Coldfoot, College, Delta Junction, Deltana, Dot Lake, Dot Lake Village, Dry Creek, Eagle, Eagle Village, Eielson AFB, Ester, Evansville, Fairbanks, Ferry, Flat, Fort Greely, Fort Yukon, Fort Wainwright, Four Mile Road, Fox, Galena, Harding Lake, Harding-Birch, Healy, Healy Lake, Hughes, Huslia, Indian River, Kaltag, Kokrines, Koyukuk, Lake Minchumina, Livengood, Manly Hot Springs, McGrath, McKinley Park, Minto, Moose Creek, Nikolai, Nenana, New Allakaket, North Pole, Northway, Northway Village, Northway Junction, Nulato, Pleasant Valley, Rampart, Richardson, Ruby, Salcha, Stevens Village, Takotna, Tanacross, Tanana, Telida, Tetlin, Tok, Toklat, Tolovana, Two Rivers, Venetie, Wiseman, Wood River
Kenai Peninsula	sub-region of Anchorage Service Unit	Chugachmiut (part)*, Kenaitze Indian Tribe IRA, Ninilchik Traditional Council, Seldovia Village Tribe	Anchor Point, Bear Creek, Beluga, Clam Gulch, Cohoe, Cooper Landing, Crown Point, Diamond Ridge, Fox River, Fritz Creek, Funny River, Halibut Cove, Happy Valley, Homer, Hope, Kasilof, Kachemak, Kalifornsky, Kenai, Lowell Point, Miller Landing, Moose Pass, Nanwalek, Nikiski, Nikolaevsk, Ninilchik, Port Graham, Ridgeway, Salamatof, Seldovia, Seldovia Village, Seward, Soldotna, Sterling, Sunrise, Tyonek, Wildwood

Service Region	Service Unit	Title I and V THOs in Region	Community List Data Source: Alaska Department of Labor and Workforce Development Research and Analysis and U.S. Census Bureau
Kodiak Area	sub-region of Anchorage Service Unit	Kodiak Area Native Association, Native Village of Karluk	Afognak, Akhiok, Aleneva, Chiniak, Kaguyak, Karluk, Kodiak, Kodiak Station, Larsen Bay, Old Harbor, Ouzinkie, Port Lions, Women's Bay, Zacher's Bay
Northwest Arctic	Kotzebue	Maniilaq Association.	Ambler, Bornite, Buckland, Candle, Deering, Elephant Point, Kiana, Kivalina, Kobuk, Kotzebue, Noatak, Noorvik, Point Hope, Red Dog Mine, Selawik, Shungnak
Norton Sound	Norton Sound	Norton Sound Health Corporation, Native Village of Diomedes	Big Hurrah, Brevig Mission, Council, Diomedes, Elim, Gambell, Golovin, Kingeggan, Kougarok, Koyuk, Moses Point, Nome, St. Michael, Port Clarence, Saint Lawrence, Savoonga, Shaktoolik, Shishmaref, Solomon, Stebbins, Teller, Unalakleet, Wales, White Mountain
Southeast	Mount Edgecumbe, Annette Island	Southeast Area Regional Health Corporation, Hoonah Indian Association, Ketchikan Indian Corporation, Metlakatla Indian Community, Yakutat Tlingit Tribe	Angoon, Auke Bay, Coffman Cove, Craig, Cube Cove, Covenant Life, Douglas, Dora Bay, Edna Bay, Elfin Cove, Excursion Inlet, False Island, Freshwater Bay, Funter Bay, Game Creek, Gildersleeve Log, Gustavus, Haines, Hobart Bay, Hollis, Hoonah, Hydaburg, Hyder, Juneau, Juneau Valley, Kake, Kasaan, Ketchikan, Ketchikan Suburbs, Klawock, Klukwan, Kupreanof, Lutak, Metlakatla, Meyers Chuck, Mosquito Lake, Mount Edgecumbe, Mud Bay, Naukati Bay, Pelican, Petersburg, Point Baker, Port Alice, Port Alexander, Port Higgins, Port Protection, Rowan Bay, Saxman, Sitka, Skagway, Smith Cove, Tenakee Springs, Thomas Basin, Thoms Place, Thorne Bay, Ward Cove, Waterfall, Whale Pass, Whitestone Logging Camp, Wrangell, Yakutat

Service Region	Service Unit	Title I and V THOs in Region	Community List Data Source: Alaska Department of Labor and Workforce Development Research and Analysis and U.S. Census Bureau
Yukon-Kuskokwim	Yukon-Kuskokwim	Akiachak Native Community, Native Village of Quinhagak, Yukon-Kuskokwim Health Corporation	Anderafski, Aniak, Akiak, Akiachak, Alakanuk, Anvik, Atmautluak, Bethel, Bill Moore's Slough, Chefnak, Chevak, Chickloonawick, Chuathbaluk, Crooked Creek, Eek, Emmonak, Fortuna Ledge, Georgetown, Grayling, Hamilton, Holitna River, Holy Cross, Hooper Bay, Kasigluk, Kinak, Kipnuk, Kongiganak, Kotlik, Kwethluk, Kwigillingok, Lower Kalskag, Lime Village, Marshall, Mekoryuk, Mt. Village, Napakiak, Napaimute, Napaskiak, Newtok, Nightmute, Nunapitchuk, Nunivak Isle, Ohogamute, Oscarville, Pilot Station, Pitka's Point, Quinhagak, Red Devil, Russian Mission, St Marys, Scammon Bay, Shageluk, Sheldon Point (Nunam Iqua), Sleetmute, Stony River, Stuyahok, Toksook Bay, Tuluksak, Tuntutuliak, Tununak, Umkumuit, Upper Kalskag

* Chugachmiut is separated into 2 regions: Chenega Bay, Tatitlek, Valdez and Cordova are included in Copper River/Prince William Sound; Port Graham, Nanwalek, Seward are included in Kenai Peninsula

APPENDIX D

NUMBERS OF ALASKA NATIVE DEATHS FOR LEADING CAUSES BY TIME PERIODS, 1980-2008

Data Source: State of Alaska Bureau of Vital Statistics, Rec. April 21, 2010

	1980-1983	1984-1988	1989-1993	1994-1998	1999-2003	2004-2008
Alcohol Abuse	55	67	68	109	176	180
Alzheimer's Disease	5	8	7	10	22	40
Cancer	275	433	480	586	662	772
Cerebrovascular Disease	69	100	114	150	158	164
Chronic Liver Disease	42	49	78	63	74	82
Congenital Abnormalities	26	39	39	34	37	38
COPD	29	67	100	133	151	172
Diabetes Mellitus	6	16	42	42	50	56
Heart Disease	291	436	477	515	517	540
Hypertension	1	2	2	3	5	22
Homicide	101	88	91	71	89	59
Nephritis	22	21	16	21	36	32
Parkinson's Disease	4	3	8	11	18	20
Perinatal Conditions	58	67	52	33	25	33
Pneumonia & Influenza	70	92	103	77	88	77
Septicemia	7	11	14	21	40	44
Suicide	118	201	225	219	198	252
Unintentional Injury	461	573	537	481	499	493
All-Cause	1,978	2,640	2,878	2,975	3,391	3,789

