

# *Cancer in Alaska Natives 1969-2003*

## **35-Year Report**



*Office of Alaska Native Health Research and  
Alaska Native Epidemiology Center  
Alaska Native Tribal Health Consortium  
January 2006*

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Anne P. Lanier, MD, MPH  
Janet J. Kelly, MS, MPH  
Jeannine Maxwell, BS, CTR  
Terrie McEvoy, BSN, MBA, CTR  
Chriss Homan, BS



*Office of Alaska Native Health Research and  
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*For additional information concerning cancer among Alaska Natives, request additional copies, or for questions about this report, please contact:*

Anne P. Lanier, MD, MPH, Director  
Office of Alaska Native Health Research  
Mailstop C-DCHS  
Alaska Native Tribal Health Consortium  
4000 Ambassador Drive  
Anchorage, Alaska 99508

(907) 729-3663  
[aplanier@anthc.org](mailto:aplanier@anthc.org)

Janet J. Kelly, MS, MPH  
Alaska Native Epidemiology Center  
Mailstop C-DCHS  
Alaska Native Tribal Health Consortium  
4000 Ambassador Drive  
Anchorage, Alaska 99508

(907) 729-3949  
[jjkelly@anthc.org](mailto:jjkelly@anthc.org)

## Contents

Summary.....	1
<b>Five-Year Cancer Incidence 1999-2003</b>	
Leading Cancers 1969-1973 vs. 1999-2003.....	9
Cancer Incidence Rates in Alaska Natives and US Whites .....	10
Number of Cancers by Age .....	15
Age-Specific Cancer Incidence Rates.....	19
<b>Fifteen-Year Incidence 1989-2003</b>	
Number of Cancers by Year .....	23
Cancer Incidence Rates in Alaska Natives and US Whites .....	27
Rank by Age.....	31
Number of Cancers by Age .....	35
Age-Specific Cancer Incidence Rates .....	39
Age-Specific Cancer Rates in Alaska Natives and US Whites .....	42
<b>Fifteen-Year Incidence 1989-2003 by Service Unit</b>	
Ten Leading Cancers by Service Unit .....	91
Number of Cancers by Service Unit .....	94
Cancer Incidence Rates by Service Unit .....	98
<b>Thirty-Five-Year Trends 1969-2003</b>	
Number of Cancers by Five-Year Time Periods .....	103
Cancer Incidence Rates by Five-Year Time Periods.....	106
Alaska Native vs. US Trends.....	111
<b>Cancer Stage at Diagnosis 1993-2002</b>	
Percent Distribution of Stage in Alaska Natives and US Whites ...	137
<b>Survival 1992-2002</b>	
Five-Year Relative Survival in Alaska Natives and US Whites .....	155
<b>Mortality 1998-2002</b>	
Leading Causes of Death .....	163
Cancer Mortality Rates in Alaska Natives and US Races .....	164
Cancer Mortality Rank Order.....	165
Cancer Mortality Rates in Alaska Natives and US Whites.....	166
<b>Appendix</b>	
Alaska Native Census Population .....	169
Cancer Site ICD-O-3 Codes.....	171
Glossary .....	174
Publications.....	177



# Summary

## Cancer in Alaska Native People

### 1969-2003

#### ***Introduction***

Data on cancer incidence (new cases) among the Alaska Native (AN) population statewide are available since 1969 <sup>(1)</sup>. These data provide current incidence rates, trends over time, and allow comparisons of cancer patterns in the Alaska Native population with other populations. The first detailed cancer incidence data for Alaska Native people were reported in 1976 <sup>(2)</sup>. At that time, overall cancer incidence among Alaska Natives was lower than that of US Whites, however, incidence rates for several cancer sites exceeded the US rates (nasopharynx, stomach, liver, gallbladder, cervix and kidney). On the other hand, cancer incidence rates for other sites were significantly lower than US rates (prostate, breast, uterus, brain, urinary bladder, leukemia and lymphoma). Since that time, marked changes in cancer incidence have been identified among Alaska Natives.

Cancer is now the leading cause of death among Alaska Natives. This is a dramatic shift from the 1950s when deaths were primarily caused by infectious diseases. Cancer mortality rates among Alaska Native men and women are significantly higher than US White rates <sup>(3)</sup>.

This report provides numbers and age-adjusted cancer incidence rates among all Alaska Natives for several time periods including the most recent five years for which data are complete (1999-2003); for the 15 year period (1989-2003) by Indian

Health Service delivery areas (Service Units); and trends over time for the entire 35 year period (1969-2003)<sup>‡</sup>. Alaska Native data are compared with data for other populations from the National Cancer Institute Surveillance, Epidemiology, and End Results (SEER) Program. Cancer mortality rates are also included.

### ***Source of Data***

Data for Alaska Natives were collected by the Alaska Native Tumor Registry (ANTR), a state-wide population-based registry of all cancers diagnosed among Alaska Natives during the 35-year time period 1969-2003. Alaska Native Tumor Registry includes Alaska Native patients living in Alaska at the time of diagnosis who met eligibility requirements for Indian Health Service benefits. ANTR case-finding includes: hospital and clinic discharge diagnoses for all tribal hospitals in the state; pathology reports of the Alaska Native Medical Center; other in-state hospital tumor registry, pathology, and autopsy reports; the Seattle Area SEER Cancer Surveillance System; and death certificates. Prior to 1984, data collected focused on patient demographics, primary cancer site, histology and basis of confirmation of the diagnosis. Since 1984, extensive information on cancer staging, treatment and follow-up has been included. Procedures for data collection and coding follow standards of the SEER program of the National Cancer Institute <sup>(4)</sup>.

Yearly population statistics were interpolated directly from 1970, 1980, and 1990 US Census data. “Bridged” population counts were used for years 1991 to 2000,

<sup>‡</sup> Prior reports show small differences in rates from those shown here due to changes in rate calculation methodology. In previous reports, rates were age-adjusted to the 1970 US standard population, whereas this report presents rates adjusted to the 2000 US standard population. In addition, population estimates for Alaska Native people were made to account for changes in new multiple race categories of the Census 2000.

from estimates for Alaska Natives provided to SEER by the National Center for Health Statistics<sup>(5)</sup>. Bridged estimates were necessary because of the option in the Census 2000 to denote multiple, rather than single race designation. Rate calculations for Service Units were based on the direct Census 2000 counts for American Indians/Alaska Natives living in Alaska who chose one or more race categories including American Indian or Alaska Native. All rates are age-adjusted to the US 2000 standard population (all races).

Cancer incidence rates for other US populations for the years 1973-2002 are from SEER Stat, a public-use data source created by the Surveillance, Epidemiology, and End Results program of the National Cancer Institute <sup>(6)</sup>. Comparisons of rates were performed using odds ratios (OR) with corresponding 95% confidence intervals (CI). Rates for which the OR did not contain one were considered significantly different. A Chi-square test for linear trend was used to determine temporal changes in rates over the thirty-five year time period. Cancer mortality data were also obtained from SEER for the years 1998-2002 <sup>(7)</sup>.

Stage of disease at diagnosis utilized summary stage (local, regional, distant, unknown) of major cancer sites and all sites combined from SEER Stat (historical stage-A). Staging is available for Alaska Native cancer patients only since 1984.

Five-year relative survival (actuarial method) as well as cancer mortality rates were calculated from SEER public-use data files using SEER Stat. For relative survival statistics, second and later primary cases and cases identified through death certificates only were excluded.



## **Results**

### **Incidence**

In the 35 years from 1969 to 2003, more than 6,000 Alaska Native men and women were diagnosed with invasive cancer. Nearly half (45%) of the cases were diagnosed during the last ten-year period, 1994-2003. During the most recent five-year period, 1999-2003, approximately 300 Alaska Native patients were diagnosed with invasive cancer each year. The most frequently diagnosed cancers in Alaska Natives for the years 1999-2003 were: colon/rectum, lung, breast, and prostate. These four cancers accounted for over half (57%) of all cancers diagnosed. The leading cancers in men were lung, colon/rectum and prostate, while in women the most frequently diagnosed were breast, colon/rectum and lung. In the recent five year period, more women than men were diagnosed with cancer.

Age-adjusted cancer incidence rates for the period 1999-2003 increased 23% among Alaska Native men and 30% among women from the earliest period, 1969-1973. Rate increases occurred especially in cancers of the colon/rectum, lung, breast, prostate and uterus. Over the 35 year period, decreases occurred only in cancers of the cervix and gallbladder in women. Rapid increases in cancer incidence among Alaska Natives during the 35-year period have outpaced the US White population. Although cancer incidence rates among Alaska Natives were once lower than those of the US White population, rates are now as high. For select cancer sites rates are even higher among Alaska Natives than US Whites, including: oral cavity and pharynx (notably na-

sopharynx), esophagus, stomach, colon/rectum, liver, gallbladder, pancreas, lung and kidney. For other cancer sites, rates among Alaska Natives remain lower than US White rates. These include: melanoma, uterus, ovary, prostate, urinary bladder, brain and nervous system, Hodgkin and non-Hodgkin lymphoma, and leukemia.

### **Stage at Diagnosis**

The percent distribution of cancer by stage (local, regional, distant, unknown) at diagnosis among Alaska Natives is reported and compared with US Whites. Cancers that are diagnosed when they are still localized are more likely to be cured. In general, the distribution by stage is similar. Statistical comparisons of stage at diagnosis between these groups is difficult because stage may be reported as 'unknown'. For all cancers 1993-2002, 24% and 42% of Alaska Native men and women, respectively, were diagnosed while the cancer was still localized. Among Alaska Natives, liver cancer is more likely to be diagnosed at a local stage than among US Whites.

### **Relative Five-Year Survival**

Survival from cancer is largely dependent on the primary organ in which the cancer arises, the stage at diagnosis, as well as treatment. Relative five-year survival rates for cancers diagnosed in the years 1992-2002 were calculated and compared to US Whites. Relative five-year survival for all invasive cancers combined was significantly lower than US Whites for both Alaska Na-

tive men (40% vs. 67%), and women (57% vs. 66%). Relative survival was lower among Alaska Natives than US Whites for many sites. However, survival rates were higher for Alaska Natives for liver cancer (men and women), and similar to US Whites among women for cancer of the oral cavity/pharynx, stomach, cervix, uterus, ovary, kidney, non-Hodgkin lymphoma and leukemia. Among Alaska Native men, relative survival rates were similar to US Whites for cancer of the esophagus, stomach, kidney, non-Hodgkin lymphoma and leukemia.

### **Cancer Mortality**

During 1998-2002, cancer was the leading cause of death among Alaska Natives and accounted for 669 (20%) of all deaths. Lung cancer was the leading cause of cancer death among Alaska Native men and women. Compared to US Whites, cancer mortality rates for all cancer sites combined were higher among both Alaska Native men (314 per 100,000 vs. 253) and women (212 per 100,000 vs. 165). Primary cancer sites for which mortality rates among Alaska Native men and women combined exceeded those of US Whites include cancers of oral cavity/pharynx, esophagus, stomach, colon/rectum and kidney. Mortality was significantly lower among Alaska Natives than US Whites for melanoma and cancer of the brain and nervous system.

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**Comparison of Leading Cancers among Alaska Natives  
For Two Time Periods 1999-2003 vs. 1969-1973**

**Men and Women**

<u>1999-2003</u>				<u>1969-1973</u>			
Rank	Site	#	% of total (N = 1498)	Rank	Site	#	% of total (N = 209)
1	Colon/Rectum	283	18.9	1	Colon/Rectum	73	17.2
2	Lung	243	16.2	2	Lung	43	16.3
3	Breast	237	15.8	3	Breast	27	7.7
4	Prostate	90	6.0	4	Oral Cavity/ Pharynx	27	6.7
5	Stomach	70	4.7	5	Stomach	18	5.7
			61.6				53.6

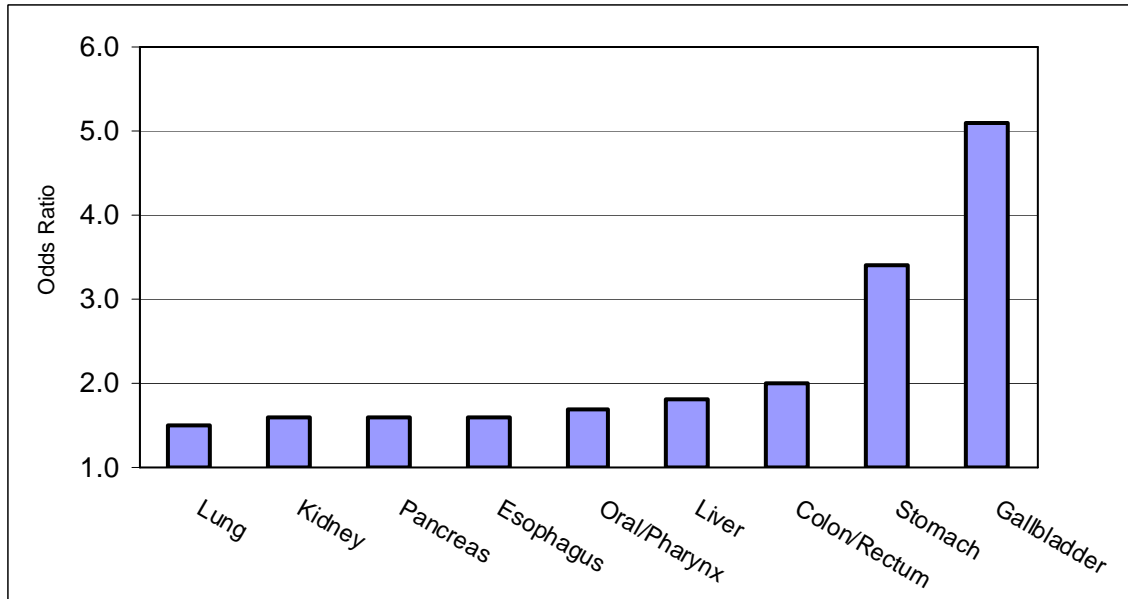
**Men**

<u>1999-2003</u>				<u>1969-1973</u>			
Rank	Site	#	% of total (N = 692)	Rank	Site	#	% of total (N = 209)
1	Lung	138	19.9	1	Colon/Rectum	36	17.2
2	Colon/Rectum	131	18.9	2	Lung	34	16.3
3	Prostate	90	13	3	Prostate	16	7.7
4	Kidney	40	5.8	4	Oral Cavity/ Pharynx	14	6.7
5	Oral Cavity/ Pharynx	38	5.5	5	Stomach	12	5.7
			63.2				53.6

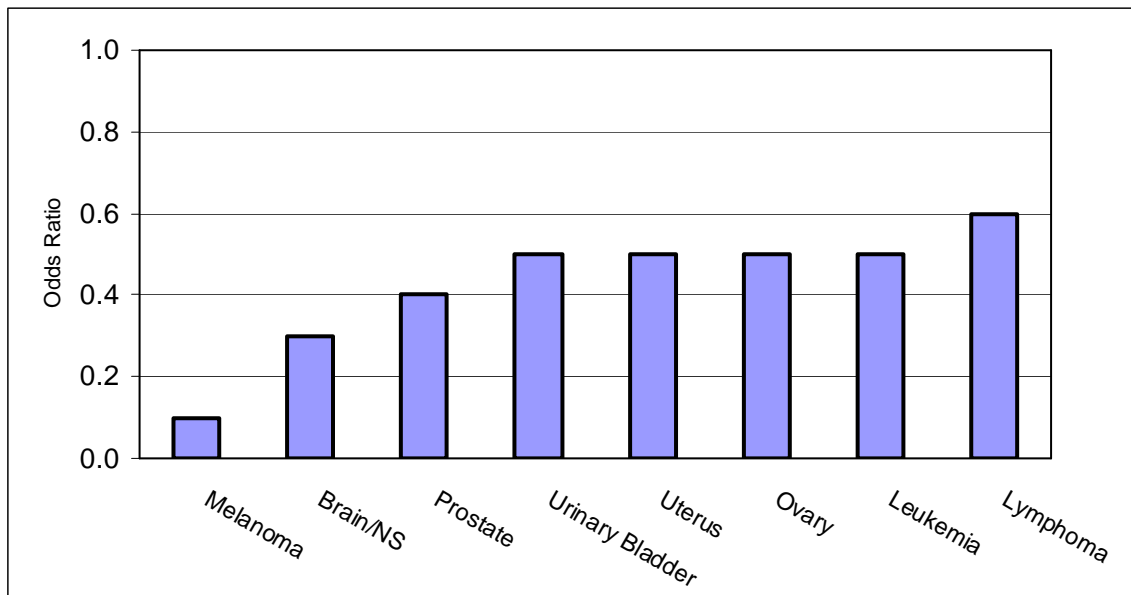
**Women**

<u>1999-2003</u>				<u>1969-1973</u>			
Rank	Site	#	% of total (N= 806)	Rank	Site	#	% of total (N=187)
1	Breast	235	29.2	1	Colon/Rectum	37	19.8
2	Colon/Rectum	152	18.9	2	Breast	27	14.4
3	Lung	105	13	3	Oral Cavity/ Pharynx	13	7
4	Stomach	32	4	4	Cervix	12	6.4
5	Thyroid	30	3.7	5	Thyroid	10	5.3
			68.7				52.9

**Cancer Sites Which Have Higher Incidence Rates among  
Alaska Natives than among US Whites, 1999-2003  
Men and Women Combined**



**Cancer Sites Which Have Lower Incidence Rates among  
Alaska Natives than among US Whites, 1999-2003  
Men and Women Combined**



**Average Annual Age-Adjusted Cancer Incidence Rates per 100,000  
Alaska Native and US White,<sup>1</sup> 1999-2003  
Men and Women Combined**

Site	Alaska Native		US White	US:AKN	Lower C.I.	Upper C.I.
	No.	Rate	Rate	Odds Ratio		
All Sites	1498	497.7	478.0	1.0	1.0	1.1
Oral Cavity and Pharynx	56	18.1	10.5	1.7*	1.3	2.2
Salivary Gland	5	1.4	1.2	1.2	0.5	3.0
Nasopharynx	23	7.7	0.4	16.5*	10.8	25.0
Gum and Other Mouth	4	n/a	1.7			
Digestive	497	179.7	87.1	2.1*	1.9	2.3
Esophagus	21	8.2	4.5	1.6*	1.1	2.5
Stomach	70	25.7	7.4	3.4*	2.7	4.3
Colon and Rectum	283	102.9	51.7	2.0*	1.8	2.3
Colon	198	74.2	37.4	2.0*	1.7	2.3
Rectosigmoid Junction	18	5.9	4.1	1.5	1.0	2.4
Rectum	67	22.9	10.2	2.2*	1.8	2.8
Liver	24	7.8	4.3	1.8*	1.2	2.8
Gallbladder	16	6.3	1.2	5.1*	3.1	8.3
Other Biliary	12	4.7	1.5	2.9*	1.7	5.1
Pancreas	48	16.2	10.8	1.6*	1.2	2.2
Respiratory	257	96.4	66.5	1.4*	1.3	1.6
Lung and Bronchus	243	91.6	61.0	1.5*	1.3	1.7
Larynx	10	3.3	3.6	0.9	0.5	1.7
Bones and Joints	4	n/a	0.9			
Soft Tissue	9	1.8	3.0	0.8	0.4	1.5
Melanoma	4	n/a	21.0			
Other Non-Epithelial Skin	3	n/a	2.5			
Breast	237	65.5	75.7	1.0	0.8	1.1
Female Genital	58	16.2	28.3	0.6*	0.5	0.8
Cervix	18	4.7	4.4	1.0	0.6	1.6
Corpus uteri/Uterus, NOS	22	6.4	13.7	0.5*	0.3	0.8
Ovary	13	3.7	8.0	0.5*	0.3	0.9
Male Genital	107	34.3	79.1	0.5*	0.4	0.6
Prostate	90	31.0	75.4	0.4*	0.3	0.5
Testis	16	3.1	3.2	1.0	0.6	1.6
Urinary	95	33.5	35.3	1.0	0.8	1.2
Urinary Bladder	31	11.7	22.4	0.5*	0.4	0.7
Kidney and Renal Pelvis	61	20.6	21.1	1.6*	1.3	2.1
Eye and Orbit	1	n/a	0.9			
Brain and Nervous System	9	2.2	7.1	0.3*	0.2	0.6
Endocrine	36	7.8	8.8	0.9	0.7	1.3
Thyroid	35	7.6	8.2	1.0	0.7	1.4
Lymphoma	45	12.1	23.1	0.6*	0.4	0.8
Hodgkin	3	n/a	2.9			
Non-Hodgkin	42	11.4	20.2	0.7*	0.5	0.9
Multiple Myeloma	15	4.6	5.2	1.0	0.6	1.7
Leukemia	24	5.1	12.8	0.5*	0.4	0.8
Ill Defined and Unspecified	41	16.3	10.4	1.5*	1.1	2.0

n/a: rate not shown for categories with fewer than 5 cases; rates are age-adjusted to US 2000 standard population for all races.

<sup>1</sup> US rates for years 1999-2002

\* Significant odds ratio at p < 0.05



**Average Annual Age-Adjusted Cancer Incidence Rates per 100,000  
Alaska Native and US White,<sup>1</sup> 1999-2003  
Men**

Site	Alaska Native		US White	US:AKN	Lower C.I.	Upper C.I.
	No. of cases	Rate	Rate	Odds Ratio		
All Sites	692	522.2	555.2	0.9	0.9	1.0
Oral Cavity and Pharynx	38	25.8	15.3	1.6*	1.2	2.2
Salivary Gland	1	n/a	1.7			
Nasopharynx	16	10.9	0.5	17.0*	10.3	28.1
Gum and Other Mouth	4	n/a	1.9			
Digestive	247	196.2	106.3	1.8*	1.6	2.1
Esophagus	16	14.2	7.8	1.5	0.9	2.5
Stomach	38	32.3	10.6	2.9*	2.1	3.9
Colon and Rectum	131	102.0	60.8	1.7*	1.5	2.0
Colon	82	66.4	42.5	1.6*	1.3	2.0
Rectosigmoid Junction	14	10.0	5.1	2.0*	1.2	3.5
Rectum	35	25.7	13.2	1.9*	1.4	2.7
Liver	15	10.7	6.5	1.6*	1.0	2.6
Gallbladder	5	4.6	0.7	6.0*	2.5	14.6
Other Biliary	7	5.1	1.9	3.1*	1.5	6.5
Pancreas	27	21.0	12.5	1.7*	1.2	2.5
Respiratory	148	122.5	84.8	1.4*	1.2	1.6
Lung and Bronchus	138	114.9	75.5	1.5*	1.3	1.8
Larynx	8	5.8	6.3	0.9	0.4	1.8
Bones and Joints	3	n/a	1.0			
Soft Tissue	4	n/a	3.7			
Melanoma	1	n/a	26.2			
Other Non-Epithelial Skin	2	n/a	3.8			
Breast	2	n/a	1.2			
Male Genital	107	73.3	178.0	0.5*	0.4	0.5
Prostate	90	66.7	170.6	0.4*	0.3	0.5
Testis	16	6.2	6.2	1.0	0.6	1.6
Urinary	65	49.5	57.6	0.9	0.7	1.1
Urinary Bladder	23	18.8	39.6	0.5*	0.3	0.7
Kidney and Renal Pelvis	40	29.5	16.8	1.6*	1.2	2.2
Eye and Orbit	1	n/a	1.0			
Brain and Nervous System	6	4.0	8.5	0.4*	0.2	0.8
Endocrine	6	2.6	5.1	0.6	0.3	1.3
Thyroid	5	2.2	4.4	0.6	0.2	1.4
Lymphoma	26	14.0	27.7	0.6*	0.4	0.9
Hodgkin	2	n/a	3.2			
Non-Hodgkin	24	12.9	24.5	0.7	0.4	1.0
Multiple Myeloma	3	n/a	6.7			
Leukemia	14	6.2	16.7	0.5*	0.3	0.9
Ill Defined and Unspecified	19	18.4	11.5	1.3	0.8	2.1

<sup>12</sup> n/a: rate not shown for categories with fewer than 5 cases; rates age-adjusted to US 2000 standard population for all races.

<sup>1</sup> US rates for years 1999-2002

\* Significant odds ratio at  $p < 0.05$

**Average Annual Age-Adjusted Cancer Incidence Rates per 100,000  
Alaska Native and US White,<sup>1</sup> 1999-2003  
Women**

Site	Alaska Native		US White	US:AKN	Lower C.I.	Upper C.I.
	No. of cases	Rate	Rate	Odds Ratio		
All Sites	806	484.7	426.8	1.1	1.0	1.2
Oral Cavity and Pharynx	18	11.3	6.3	1.7*	1.1	2.7
Salivary Gland	4	n/a	1.0			
Nasopharynx	7	4.8	0.2	15.4*	7.2	32.9
Gum and Other Mouth		0.0	1.4			
Digestive	250	166.8	71.9	2.4*	2.1	2.7
Esophagus	5	3.3	1.9	1.8	0.7	4.3
Stomach	32	20.7	5.0	4.2*	3.0	6.0
Colon and Rectum	152	103.6	44.6	2.3*	2.0	2.7
Colon	116	80.9	33.5	2.4*	2.0	2.9
Rectosigmoid Junction	4	n/a	3.3			
Rectum	32	20.5	7.8	2.6*	1.8	3.7
Liver	9	5.5	2.4	2.5*	1.3	4.7
Gallbladder	11	7.8	1.6	4.8*	2.6	8.7
Other Biliary	5	4.1	1.3	2.7*	1.1	6.5
Pancreas	21	12.5	9.4	1.6*	1.0	2.4
Respiratory	109	75.2	53.0	1.4*	1.2	1.7
Lung and Bronchus	105	72.8	50.6	1.4*	1.2	1.7
Larynx	2	n/a	1.4			
Bones and Joints	1	n/a	0.8			
Soft Tissue	5	2.4	2.4	1.0	0.4	2.3
Melanoma	3	n/a	17.4			
Other Non-Epithelial Skin	1	n/a	1.5			
Breast	235	124.9	140.2	1.0	0.8	1.1
Female Genital	58	30.9	52.8	0.6*	0.5	0.8
Cervix	18	9.0	8.6	1.0	0.6	1.5
Corpus uteri/Uterus, NOS	22	12.3	25.5	0.5*	0.3	0.8
Ovary	13	7.1	14.8	0.5*	0.3	0.9
Urinary	30	19.9	18.7	1.0	0.7	1.5
Urinary Bladder	8	5.8	9.9	0.6	0.3	1.1
Kidney and Renal Pelvis	21	13.2	8.3	1.5	1.0	2.3
Eye and Orbit		0.0	0.7			
Brain and Nervous System	3	n/a	5.9			
Endocrine	30	12.8	12.6	1.1	0.7	1.5
Thyroid	30	12.8	12.0	1.1	0.8	1.6
Lymphoma	19	10.4	19.3	0.6*	0.4	0.9
Hodgkin	1	n/a	2.6			
Non-Hodgkin	18	10.0	16.7	0.7	0.4	1.0
Multiple Myeloma	12	6.9	4.1	2.0*	1.1	3.5
Leukemia	10	4.2	9.8	0.5	0.3	1.0
Ill Defined and Unspecified	22	14.9	9.4	1.6	1.0	2.4

n/a: rate not shown for categories with fewer than 5 cases; rates age-adjusted to US 2000 standard population for all races.

<sup>1</sup> US rates for years 1999-2002

\* Significant odds ratio at  $p < 0.05$



**Number of Invasive Cancers by Age  
Alaska Natives 1999-2003  
Men and Women Combined**

Site	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+	Total
All Sites	16	16	35	78	183	315	386	469	1498
Oral Cavity and Pharynx			2	3	5	18	13	15	56
Salivary Gland			1		1	2		1	5
Nasopharynx				2	2	6	6	7	23
Gum and Other Mouth				1		2		1	4
Digestive	1		3	13	50	85	147	198	497
Esophagus					1	2	8	10	21
Stomach			1	5	8	7	18	31	70
Colon and Rectum				5	26	53	86	113	283
Colon				4	14	28	66	86	198
Rectosigmoid Junction					2	4	8	4	18
Rectum				1	10	21	12	23	67
Liver	1		2	1	4	3	5	8	24
Gallbladder						3	5	8	16
Other Biliary						3	3	6	12
Pancreas				1	8	11	13	15	48
Respiratory				1	14	53	77	112	257
Lung and Bronchus					14	50	71	108	243
Larynx						3	5	2	10
Bones and Joints		1			1			2	4
Soft Tissue	2	3	1	1			1	1	9
Melanoma			2				1	1	4
Other Non-Epithelial Skin			1					2	3
Breast			5	24	59	72	49	28	237
Female Genital		2	4	4	14	13	12	9	58
Cervix			2	3	7	3		3	18
Corpus uteri/Uterus, NOS		1		4	7	7	7	3	22
Ovary		1		1	2	3	4	2	13
Male Genital			6	8	6	21	41	25	107
Prostate					3	21	41	25	90
Testis			6	8	2				16
Urinary	1			4	8	21	26	35	95
Urinary Bladder				1	3	6	6	15	31
Kidney and Renal Pelvis	1			3	5	15	18	19	61
Eye and Orbit							1		1
Brain and Nervous System	2		2	1			2	2	9
Endocrine		2	6	10	10	4	3	1	36
Thyroid		2	5	10	10	4	3	1	35
Lymphoma		3	2	5	9	16	3	7	45
Hodgkin			1			2			3
Non-Hodgkin		3	1	5	9	14	3	7	42
Multiple Myeloma			1		2	5	4	3	15
Leukemia	7	4		4	2	4		3	24
Ill Defined and Unspecified	3	1			3	3	6	25	41

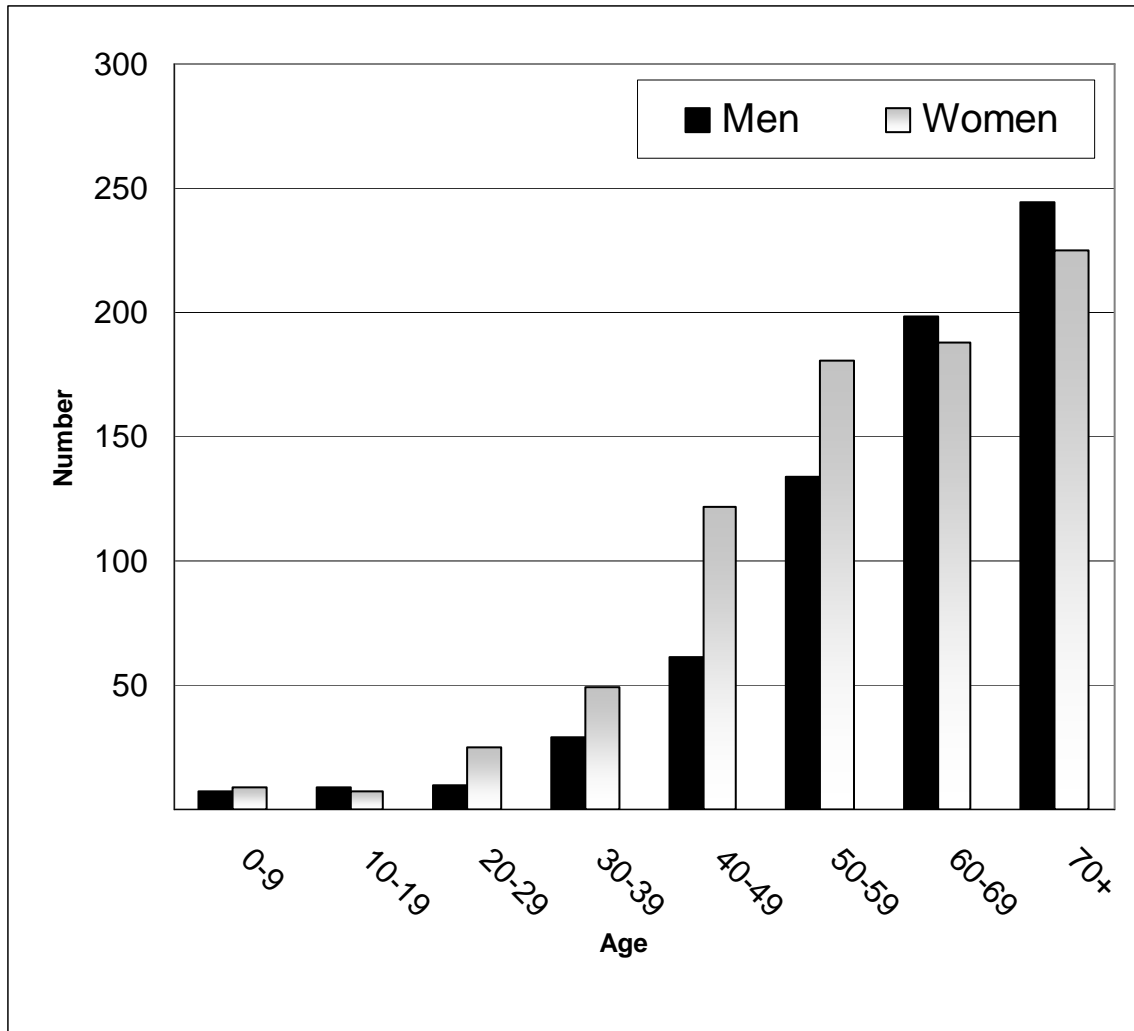
Number of Invasive Cancers by Age  
Alaska Natives 1999-2003  
Men

Site	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+	Total
All Sites	7	9	10	29	61	134	198	244	692
Oral Cavity and Pharynx				3	4	12	10	9	38
Salivary Gland								1	1
Nasopharynx				2	2	4	4	4	16
Gum and Other Mouth				1		2		1	4
Digestive			1	7	23	43	75	98	247
Esophagus						1	7	8	16
Stomach				2	5	3	9	19	38
Colon and Rectum				4	10	26	43	48	131
Colon				4	6	10	28	34	82
Rectosigmoid Junction						3	8	3	14
Rectum					4	13	7	11	35
Liver		1	1		3	3	2	5	15
Gallbladder						1	1	3	5
Other Biliary						3	2	2	7
Pancreas					4	5	8	10	27
Respiratory					7	34	42	65	148
Lung and Bronchus					7	32	37	62	138
Larynx						2	4	2	8
Bones and Joints		1						2	3
Soft Tissue		3		1					4
Melanoma of the Skin							1		1
Other Non-Epithelial Skin			1					1	2
Breast					1		1		2
Male Genital			6	8	6	21	41	25	107
Prostate					3	21	41	25	90
Testis			6	8	2				16
Urinary	1			2	7	12	20	23	65
Urinary Bladder					3	4	6	10	23
Kidney and Renal Pelvis	1			2	4	8	12	13	40
Eye and Orbit							1		1
Brain and Nervous System	1		1	1			1	2	6
Endocrine		1	1	1	1	1	1		6
Thyroid		1		1	1	1	1		5
Lymphoma		2		4	7	8	2	3	26
Hodgkin						2			2
Non-Hodgkin		2		4	7	6	2	3	24
Multiple Myeloma					1	1		1	3
Leukemia	5	2		2	2	1		2	14
Ill Defined and Unspecified					2	1	3	13	19

**Number of Invasive Cancers by Age  
Alaska Natives 1999-2003  
Women**

Site	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+	Total
All Sites	9	7	25	49	122	181	188	225	806
Oral Cavity and Pharynx			2		1	6	3	6	18
Salivary Gland			1		1	2			4
Nasopharynx						2	2	3	7
Gum and Other Mouth									
Digestive	1		2	6	27	42	72	100	250
Esophagus					1	1	1	2	5
Stomach			1	3	3	4	9	12	32
Colon and Rectum				1	16	27	43	65	152
Colon					8	18	38	52	116
Rectosigmoid Junction					2	1		1	4
Rectum				1	6	8	5	12	32
Liver	1		1		1		3	3	9
Gallbladder						2	4	5	11
Other Biliary							1	4	5
Pancreas				1	4	6	5	5	21
Respiratory				1	7	19	35	47	109
Lung and Bronchus					7	18	34	46	105
Larynx						1	1		2
Bones and Joints					1				1
Soft Tissue	2		1				1	1	5
Melanoma of the Skin			2					1	3
Other Non-Epithelial Skin								1	1
Breast			5	24	58	72	48	28	235
Female Genital		2	4	4	14	13	12	9	58
Cervix			2	3	7	3		3	18
Corpus uteri/Uterus, NOS		1			4	7	7	3	22
Ovary		1		1	2	3	4	2	13
Urinary				2	1	9	6	12	30
Urinary Bladder				1		2		5	8
Kidney and Renal Pelvis				1	1	7	6	6	21
Eye and Orbit									
Brain and Nervous System	1		1				1		3
Endocrine		1	5	9	9	3	2	1	30
Thyroid		1	5	9	9	3	2	1	30
Lymphoma		1	2	1	2	8	1	4	19
Hodgkin			1						1
Non-Hodgkin		1	1	1	2	8	1	4	18
Multiple Myeloma			1		1	4	4	2	12
Leukemia	2	2		2		3		1	10
Ill Defined and Unspecified	3	1			1	2	3	12	22

Number of Invasive Cancers by Age  
Alaska Natives 1999-2003  
All Sites



**Age-Specific Cancer Incidence Rates per 100,000  
Alaska Natives 1999-2003  
Men and Women Combined**

Site	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+
All Sites	14.7	13.0	47.5	100.3	253.1	725.8	1598.7	2560.7
Oral Cavity and Pharynx			2.7	3.9	6.9	41.5	53.8	81.9
Salivary Gland			1.4		1.4	4.6		5.5
Nasopharynx				2.6	2.8	13.8	24.8	38.2
Gum and Other Mouth				1.3		4.6		5.5
Digestive	0.9		4.1	16.7	69.1	195.9	608.8	1081.1
Esophagus					1.4	4.6	33.1	54.6
Stomach			1.4	6.4	11.1	16.1	74.5	169.3
Colon and Rectum				6.4	36.0	122.1	356.2	617.0
Colon				5.1	19.4	64.5	273.3	469.6
Rectosigmoid Junction					2.8	9.2	33.1	21.8
Rectum				1.3	13.8	48.4	49.7	125.6
Liver	0.9		2.7	1.3	5.5	6.9	20.7	43.7
Gallbladder						6.9	20.7	43.7
Other Biliary						6.9	12.4	32.8
Pancreas				1.3	11.1	25.3	53.8	81.9
Respiratory				1.3	19.4	122.1	318.9	611.5
Lung and Bronchus					19.4	115.2	294.1	589.7
Larynx						6.9	20.7	10.9
Bones and Joints		0.8			1.4			10.9
Soft Tissue	1.8	2.4	1.4	1.3			4.1	5.5
Melanoma			2.7				4.1	5.5
Other Non-Epithelial Skin			1.4					10.9
Breast			6.8	30.9	81.6	165.9	202.9	152.9
Female Genital		1.6	5.4	5.1	19.4	30.0	49.7	49.1
Cervix			2.7	3.9	9.7	6.9		16.4
Corpus uteri/Uterus, NOS		0.8			5.5	16.1	29.0	16.4
Ovary		0.8		1.3	2.8	6.9	16.6	10.9
Male Genital			8.2	10.3	8.3	48.4	169.8	136.5
Prostate					4.1	48.4	169.8	136.5
Testis			8.2	10.3	2.8			
Urinary	0.9			5.1	11.1	48.4	107.7	191.1
Urinary Bladder				1.3	4.1	13.8	24.8	81.9
Kidney and Renal Pelvis	0.9			3.9	6.9	34.6	74.5	103.7
Eye and Orbit							4.1	
Brain and Nervous System	1.8		2.7	1.3			8.3	10.9
Endocrine		1.6	8.2	12.9	13.8	9.2	12.4	5.5
Thyroid		1.6	6.8	12.9	13.8	9.2	12.4	5.5
Lymphoma		2.4	2.7	6.4	12.4	36.9	12.4	38.2
Hodgkin			1.4			4.6		
Non-Hodgkin		2.4	1.4	6.4	12.4	32.3	12.4	38.2
Multiple Myeloma			1.4		2.8	11.5	16.6	16.4
Leukemia	6.4	3.3		5.1	2.8	9.2		16.4
Ill Defined and Unspecified	2.8	0.8			4.1	6.9	24.8	136.5



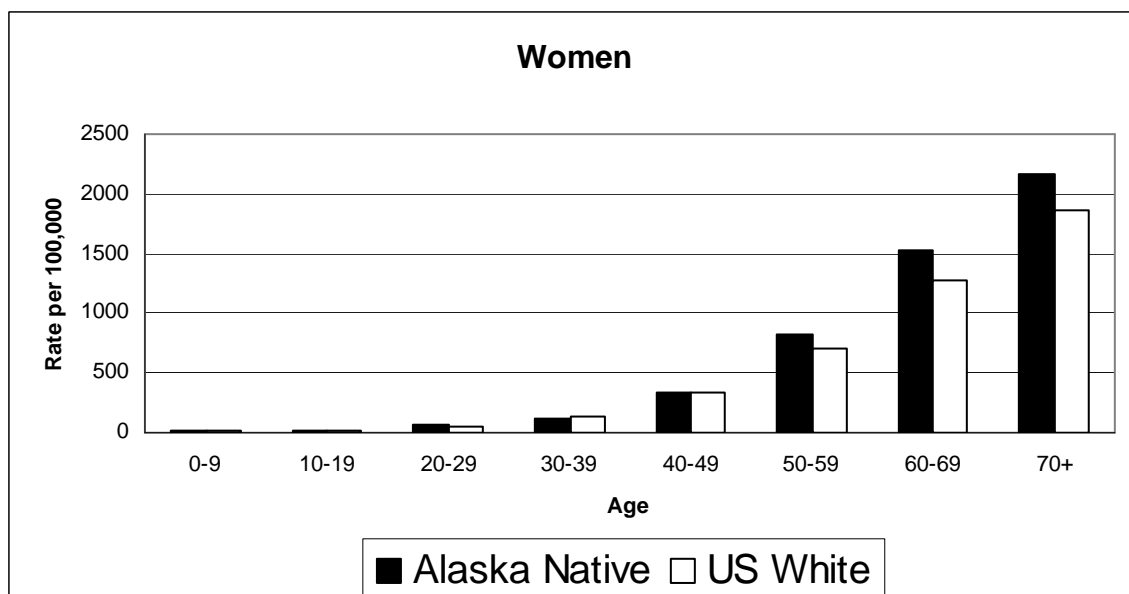
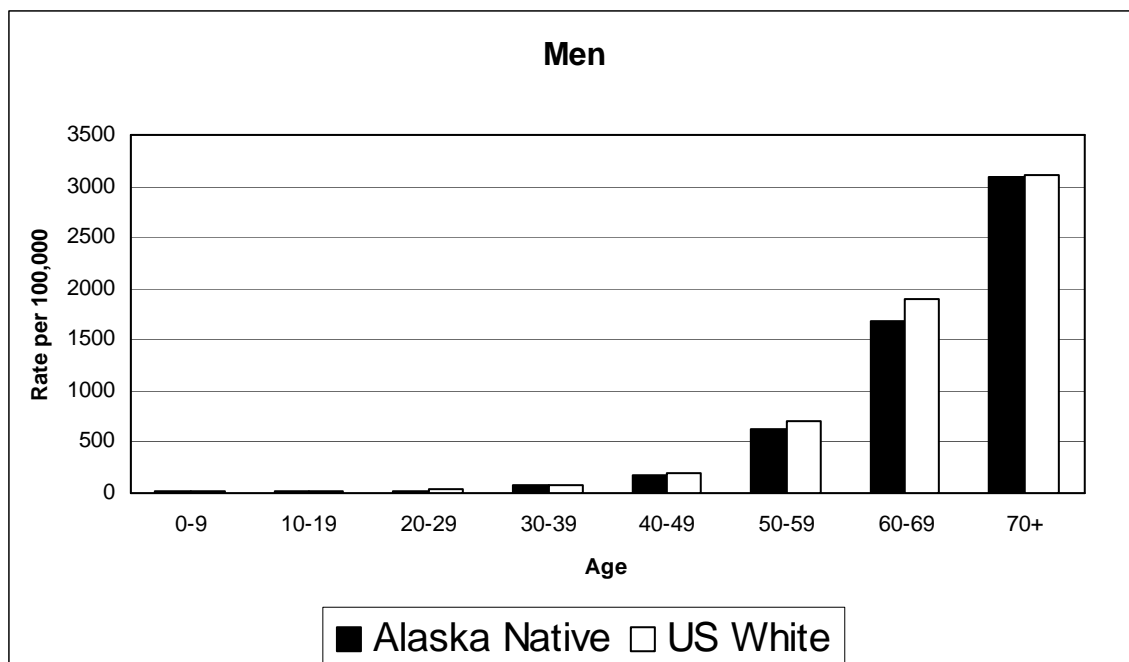
**Age-Specific Cancer Incidence Rates per 100,000  
Alaska Natives 1999-2003  
Men**

Site	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+
All Sites	12.3	14.3	27.0	75.5	172.5	624.9	1675.8	3092.5
Oral Cavity and Pharynx				7.8	11.3	56.0	84.6	114.1
Salivary Gland								12.7
Nasopharynx				5.2	5.7	18.7	33.9	50.7
Gum and Other Mouth				2.6		9.3		12.7
Digestive			2.7	18.2	65.0	200.5	634.8	1242.1
Esophagus						4.7	59.2	101.4
Stomach				5.2	14.1	14.0	76.2	240.8
Colon and Rectum				10.4	28.3	121.2	363.9	608.4
Colon				10.4	17.0	46.6	237.0	430.9
Rectosigmoid Junction						14.0	67.7	38.0
Rectum					11.3	60.6	59.2	139.4
Liver			2.7	2.6	8.5	14.0	16.9	63.4
Gallbladder						4.7	8.5	38.0
Other Biliary						14.0	16.9	25.3
Pancreas					11.3	23.3	67.7	126.7
Respiratory					19.8	158.5	355.5	823.8
Lung and Bronchus					19.8	149.2	313.2	785.8
Larynx						9.3	33.9	25.3
Bones and Joints		1.6						25.3
Soft Tissue		4.8		2.6				
Melanoma							8.5	
Other Non-Epithelial Skin			2.7					12.7
Breast					2.8		8.5	
Male Genital			16.2	20.8	17.0	97.9	347.0	316.9
Prostate					8.5	97.9	347.0	316.9
Testis			16.2	20.8	5.7			
Urinary	1.8			5.2	19.8	56.0	169.3	291.5
Urinary Bladder					8.5	18.7	50.8	126.7
Kidney and Renal Pelvis	1.8			5.2	11.3	37.3	101.6	164.8
Eye and Orbit							8.5	
Brain and Nervous System	1.8		2.7	2.6			8.5	25.3
Endocrine		1.6	2.7	2.6	2.8	4.7	8.5	
Thyroid		1.6		2.6	2.8	4.7	8.5	
Lymphoma		3.2		10.4	19.8	37.3	16.9	38.0
Hodgkin						9.3		
Non-Hodgkin		3.2		10.4	19.8	28.0	16.9	38.0
Multiple Myeloma					2.8	4.7		12.7
Leukemia	8.8	3.2		5.2	5.7	4.7		25.3
Ill Defined and Unspecified					5.7	4.7	25.4	164.8

**Age-Specific Cancer Incidence Rates per 100,000  
Alaska Natives 1999-2003  
Women**

Site	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+
All Sites	17.2	11.7	68.3	124.6	330.2	824.4	1524.7	2158.3
Oral Cavity and Pharynx			5.5		2.7	27.3	24.3	57.6
Salivary Gland			2.7		2.7	9.1		
Nasopharynx						9.1	16.2	28.8
Gum and Other Mouth								
Digestive	1.9		5.5	15.3	73.1	191.3	583.9	959.2
Esophagus					2.7	4.6	8.1	19.2
Stomach			2.7	7.6	8.1	18.2	73.0	115.1
Colon and Rectum				2.5	43.3	123.0	348.7	623.5
Colon					21.7	82.0	308.2	498.8
Rectosigmoid Junction					5.4	4.6		9.6
Rectum				2.5	16.2	36.4	40.6	115.1
Liver	1.9		2.7		2.7		24.3	28.8
Gallbladder						9.1	32.4	48.0
Other Biliary							8.1	38.4
Pancreas				2.5	10.8	27.3	40.6	48.0
Respiratory				2.5	18.9	86.5	283.9	450.8
Lung and Bronchus					18.9	82.0	275.8	441.2
Larynx						4.6	8.1	
Bones and Joints					2.7			
Soft Tissue	3.8		2.7				8.1	9.6
Melanoma			5.5					9.6
Other Non-Epithelial Skin								9.6
Breast			13.7	61.0	157.0	327.9	389.3	268.6
Female Genital		3.3	10.9	10.2	37.9	59.2	97.3	86.3
Cervix			5.5	7.6	18.9	13.7		28.8
Corpus uteri/Uterus, NOS		1.7			10.8	31.9	56.8	28.8
Ovary		1.7		2.5	5.4	13.7	32.4	19.2
Urinary				5.1	2.7	41.0	48.7	115.1
Urinary Bladder				2.5		9.1		48.0
Kidney and Renal Pelvis				2.5	2.7	31.9	48.7	57.6
Eye and Orbit								
Brain and Nervous System	1.9		2.7				8.1	
Endocrine		1.7	13.7	22.9	24.4	13.7	16.2	9.6
Thyroid		1.7	13.7	22.9	24.4	13.7	16.2	9.6
Lymphoma		1.7	5.5	2.5	5.4	36.4	8.1	38.4
Hodgkin			2.7					
Non-Hodgkin		1.7	2.7	2.5	5.4	36.4	8.1	38.4
Multiple Myeloma			2.7		2.7	18.2	32.4	19.2
Leukemia	3.8	3.3		5.1		13.7		9.6
Ill Defined and Unspecified	5.7	1.7			2.7	9.1	24.3	115.1

Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites, 1999-2003\*  
All Cancer Sites Combined



\*US Rates for 1999-2002.

**Annual Number of Invasive Cancers  
Alaska Natives 1989-2003  
Men and Women Combined**

Site	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
All Sites	168	191	219	204	234	236	237	244	277	278	306	278	304	299	311	3786
Oral Cavity and Pharynx	7	9	15	7	8	17	8	8	8	13	17	9	10	6	14	156
Salivary Gland	1		2	1		2	1		1	2		1	3		1	15
Nasopharynx	2	6	8	4	4	8	3	2	4	4	7	2	3	4	7	68
Gum and Other Mouth	2		1			2	1	1		2		1		2	1	13
Digestive	46	55	67	64	66	69	71	59	106	95	110	88	106	98	95	1195
Esophagus	3	3	4	1	3	4	4	3	7	5	2	3	7	6	3	58
Stomach	5	8	14	10	12	10	8	11	14	15	17	14	9	22	8	177
Colon and Rectum	31	35	35	38	38	40	45	38	61	54	73	47	62	48	53	698
Colon	25	27	30	28	32	24	36	27	38	41	54	31	40	30	43	506
Rectosigmoid Junction		2	1	4	2	2	4	2	6	3	6	2	4	4	2	44
Rectum	6	6	4	6	4	14	5	9	17	10	13	14	18	14	8	148
Liver	2	1	4	4	3	5	7	5	3	3	5	5	8	3	2	60
Gallbladder	1	1	3	2	1	1			3	3	5	2	3	2	4	31
Other Biliary			2	3	3	3		1		3	1	3	2	2	4	27
Pancreas	4	7	4	4	4	6	5	5	12	8	7	15	7	8	11	107
Respiratory	37	35	28	32	50	50	53	51	53	51	43	51	54	53	56	697
Lung and Bronchus	33	34	27	31	49	50	53	45	48	47	39	48	53	49	54	660
Larynx	3	1	1		1			3	1	2	3	1		4	2	22
Bones and Joints	2	1			2	1		2				1	1	2		12
Soft Tissue		2	1				2	1	2	2	2	2	1	3	1	19
Melanoma		1			3	2	2		1		1		2		1	13
Other Skin		2		2	1		1	1	2	1			1	1	1	13
Breast	23	26	28	27	31	35	48	47	35	47	32	55	45	45	60	584
Female Genital	14	17	15	18	12	9	12	14	10	12	17	8	13	9	11	191
Cervix	8	6	5	7	3	2	3	4		3	7	2	3	1	5	59
Corpus uteri/Uterus, NOS		4	4	3	4	1	2	3	3	6	6	3	6	3	4	52
Ovary	4	7	3	7	4	5	5	7	7	2	3	3	3	3	1	64
Male Genital	9	13	23	15	31	15	11	23	15	17	17	14	26	26	24	279
Prostate	7	11	18	12	29	11	9	20	14	15	16	12	22	21	19	236
Testis	2	2	3	3	1	3	2	3	1		1	2	4	4	5	36
Urinary	13	11	14	10	9	16	10	11	15	14	27	16	15	16	21	218
Urinary Bladder	4	3	5			3	2	4	3	2	11	6	7	3	4	57
Kidney and Renal Pelvis	8	8	9	10	8	13	8	6	12	12	15	10	8	12	16	155
Eye and Orbit		1	1	2		1										5
Brain and NS		1		3	2	2	1	2	1	6	4		1	4		27
Endocrine	2	3	2	6	2	2	4	4	5	3	10	7	6	7	6	69
Thyroid	2	3	2	6	2	2	4	4	4	3	10	7	5	7	6	67
Lymphoma	4	6	5	4	5	3	2	7	12	6	11	9	10	7	8	99
Hodgkin	1		1	1	2	1	1	1	1			1	1		1	12
Non-Hodgkin	3	5	4	4	3	2	1	6	11	6	11	8	9	7	7	87
Multiple Myeloma	2		2	2	3	1	2	1		2	1	6	1	4	3	30
Leukemia	2	4	6	5	5	6	3	8	7	4	8	2	5	8	1	74
Ill Defined/Unspecified	7	5	12	8	4	7	7	5	5	4	6	9	7	10	9	105

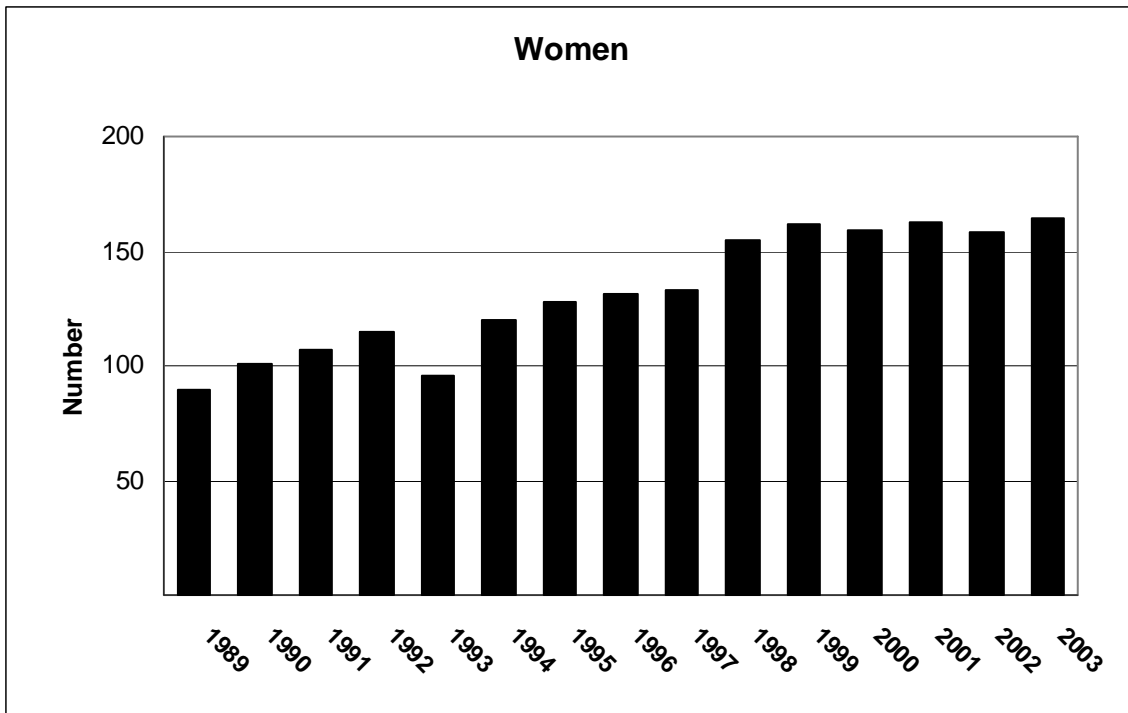
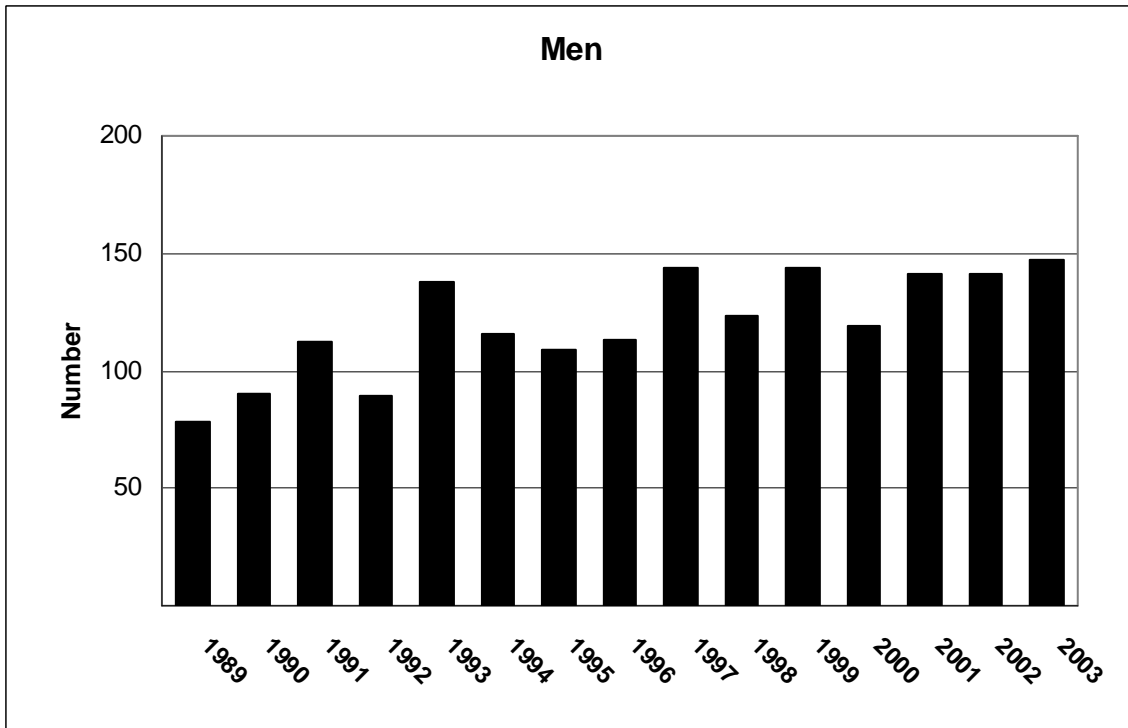
Number of Invasive Cancers by Year  
Alaska Natives 1989-2003  
Men

Site	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
All Sites	78	90	112	89	138	116	109	113	144	123	144	119	141	141	147	1804
Oral Cavity and Pharynx	4	6	9	7	7	8	6	5	6	11	14	7	2	5	10	107
Salivary Gland			1	1						2					1	5
Nasopharynx	2	5	5	4	4	5	3	2	3	3	6	1	1	3	5	52
Gum and Other Mouth	1					2				2		1		2	1	9
Digestive	25	27	39	33	42	38	44	31	58	41	55	40	52	49	51	625
Esophagus	3	2	2	1	3	4	4	1	4	1	2	2	6	5	1	41
Stomach	5	6	11	7	8	6	7	8	9	9	7	8	6	12	5	114
Colon and Rectum	15	18	18	17	22	23	26	19	34	20	36	21	27	18	29	343
Colon	12	15	15	13	20	11	21	14	22	15	26	13	12	11	20	240
Rectosigmoid Junction			1	3		2	2	1	3	1	4	1	3	4	2	27
Rectum	3	3	2	1	2	10	3	4	9	4	6	7	12	3	7	76
Liver	1		3	3	3	1	5	4	2	1	2	5	5	2		37
Gallbladder			2		1				2	2	1		2	1	1	12
Other Biliary			1	3	1	2					1	1		2	3	14
Pancreas	1	1	1	1	3	2	2	3	3	5	6	5	4	6	6	49
Respiratory	23	23	18	15	37	35	31	34	36	32	25	28	32	29	34	432
Lung and Bronchus	19	22	17	15	36	35	31	29	32	30	23	26	31	26	32	404
Larynx	3	1	1		1			2		2	2	1		3	2	18
Bones and Joints	2	1			1	1						1		2		8
Soft Tissue		1	1				2	1	2	1		2	1		1	12
Melanoma					1	2									1	4
Other Skin		2		2				1	2	1			1		1	10
Breast													1		1	2
Male Genital	9	13	23	15	31	15	11	23	15	17	17	14	26	26	24	279
Prostate	7	11	18	12	29	11	9	20	14	15	16	12	22	21	19	236
Testis	2	2	3	3	1	3	2	3	1		1	2	4	4	5	36
Urinary	7	7	9	4	6	7	5	6	9	10	15	13	12	11	14	135
Urinary Bladder	3	2	4			3	2	2	2	2	7	5	6	1	4	43
Kidney and Renal Pelvis	3	5	5	4	5	4	3	3	7	8	7	8	6	10	9	87
Eye and Orbit		1		1												2
Brain and Nervous System				3	1		1	2	1	2	2			4		16
Endocrine			1			1		1	1		3		1	1	1	10
Thyroid			1			1		1			3			1	1	8
Lymphoma		5	3	2	2	1	1	2	6	3	6	6	7	4	3	51
Hodgkin			1	1					1				1		1	5
Non-Hodgkin		4	2	2	2	1	1	2	5	3	6	6	6	4	2	46
Multiple Myeloma	2			2	2		1	1				2		1		11
Leukemia	1	3	1	3	4	2	2	6	5	1	4		3	6	1	42
Ill Defined/Unspecified	5	2	8	3	4	6	5		3	3	3	5	3	3	5	58

Number of Invasive Cancers  
Alaska Natives 1989-2003  
Women

Site	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
All Sites	90	101	107	115	96	120	128	131	133	155	162	159	163	158	164	1982
Oral Cavity and Pharynx	3	3	6		1	9	2	3	2	2	3	2	8	1	4	49
Salivary Gland	1		1			2	1		1			1	3			10
Nasopharynx		1	3			3			1	1	1	1	2	1	2	16
Gum and Other Mouth	1		1				1	1								4
Digestive	21	28	28	31	24	31	27	28	48	54	55	48	54	49	44	570
Esophagus		1	2					2	3	4		1	1	1	2	17
Stomach		2	3	3	4	4	1	3	5	6	10	6	3	10	3	63
Colon/Rectum	16	17	17	21	16	17	19	19	27	34	37	26	35	30	24	355
Colon	13	12	15	15	12	13	15	13	16	26	28	18	28	19	23	266
Rectosigmoid Junction		2		1	2		2	1	3	2	2	1	1			17
Rectum	3	3	2	5	2	4	2	5	8	6	7	7	6	11	1	72
Liver	1	1	1	1		4	2	1	1	2	3		3	1	2	23
Gallbladder	1	1	1	2		1			1	1	4	2	1	1	3	19
Other Biliary			1		2	1		1		3		2	2		1	13
Pancreas	3	6	3	3	1	4	3	2	9	3	1	10	3	2	5	58
Respiratory	14	12	10	17	13	15	22	17	17	19	18	23	22	24	22	265
Lung/Bronchus	14	12	10	16	13	15	22	16	16	17	16	22	22	23	22	256
Larynx								1	1		1			1		4
Bones and Joints					1			2					1			4
Soft Tissue		1								1	2			3		7
Melanoma		1			2		2		1		1		2			9
Other Skin					1		1							1		3
Breast	23	26	28	27	31	35	48	47	35	47	32	55	44	45	59	582
Female Genital	14	17	15	18	12	9	12	14	10	12	17	8	13	9	11	191
Cervix	8	6	5	7	3	2	3	4		3	7	2	3	1	5	59
Corpus uteri/Uterus, NOS		4	4	3	4	1	2	3	3	6	6	3	6	3	4	52
Ovary	4	7	3	7	4	5	5	7	7	2	3	3	3	3	1	64
Urinary	6	4	5	6	3	9	5	5	6	4	12	3	3	5	7	83
Urinary Bladder	1	1	1					2	1		4	1	1	2		14
Kidney and Renal Pelvis	5	3	4	6	3	9	5	3	5	4	8	2	2	2	7	68
Eye and Orbit			1	1		1										3
Brain and Nervous System		1			1	2				4	2		1			11
Endocrine	2	3	1	6	2	1	4	3	4	3	7	7	5	6	5	59
Thyroid	2	3	1	6	2	1	4	3	4	3	7	7	5	6	5	59
Lymphoma	4	1	2	2	3	2	1	5	6	3	5	3	3	3	5	48
Hodgkin	1				2	1	1	1				1				7
Non-Hodgkin	3	1	2	2	1	1		4	6	3	5	2	3	3	5	41
Multiple Myeloma			2		1	1	1			2	1	4	1	3	3	19
Leukemia	1	1	5	2	1	4	1	2	2	3	4	2	2	2		32
Ill Defined/Unspecified	2	3	4	5		1	2	5	2	1	3	4	4	7	4	47

Number of Invasive Cancers by Year  
Alaska Natives 1989-2003



**Average Annual Age-Adjusted Cancer Incidence Rates per 100,000  
Alaska Native and US White,<sup>1</sup> 1989-2003  
Men and Women Combined**

Site	Alaska Native		US White	US:AKN	Lower C.I.	Upper C.I.
	No. of cases	Rate	Rate	Odds Ratio		
All Sites	3786	478.0	490.5	1.0	0.9	1.0
Oral Cavity and Pharynx	156	19.0	11.6	1.6*	1.4	1.9
Salivary Gland	13	1.4	1.2		0.7	2.1
Nasopharynx	68	8.4	0.4	16.6*	13.0	21.2
Gum and Other Mouth	9	1.3	2.0	0.5	0.3	1.0
Digestive	1195	163.5	89.5	1.9*	1.8	2.0
Esophagus	58	8.3	4.4	1.8*	1.4	2.3
Stomach	177	22.0	7.4	3.3*	2.9	3.8
Colon and Rectum	698	98.2	55.9	1.8*	1.6	1.9
Colon	506	73.4	40.5	1.8*	1.7	2.0
Rectosigmoid Junction	44	5.7	4.9	1.2	0.9	1.6
Rectum	148	19.1	10.4	1.9*	1.6	2.2
Liver	60	6.8	3.2	2.4*	1.9	3.1
Gallbladder	31	4.6	1.2	3.9*	2.7	5.6
Other Biliary	27	3.8	1.4	2.8*	1.9	4.1
Pancreas	107	14.8	10.9	1.4*	1.2	1.7
Respiratory	697	97.2	73.0	1.3*	1.2	1.4
Lung and Bronchus	660	92.5	66.7	1.4*	1.3	1.5
Larynx	22	2.8	4.3	0.5*	0.3	0.7
Bones and Joints	12	1.2	0.9	0.9	0.5	1.7
Soft Tissue	19	1.4	2.8	0.7	0.4	1.0
Melanoma	13	1.3	19.5	0.1*	0.0	0.1
Other Non-Epithelial Skin	13	1.9	4.0	0.3*	0.2	0.5
Breast	584	63.9	75.8	0.9	0.8	1.0
Female Genital	191	20.1	29.3	0.8*	0.7	0.9
Cervix	59	5.3	4.4	1.2*	0.9	1.5
Corpus uteri/Uterus, NOS	52	5.8	14.3	0.5*	0.3	0.6
Ovary	64	7.1	8.4	0.9	0.7	1.1
Male Genital	279	37.5	79.9	0.5*	0.4	0.5
Prostate	236	34.2	76.2	0.4*	0.4	0.5
Testis	36	2.4	3.1	0.8	0.6	1.1
Urinary	218	29.0	35.3	0.8*	0.7	0.9
Urinary Bladder	57	8.0	22.9	0.4*	0.3	0.5
Kidney and Renal Pelvis	155	20.1	11.5	1.7*	1.4	1.9
Eye and Orbit	5	0.3	0.9	0.5	0.2	1.3
Brain and Nervous System	27	2.0	7.3	0.3*	0.2	0.5
Endocrine	69	5.7	7.5	0.8	0.6	1.0
Thyroid	67	5.6	6.8	0.9	0.7	1.1
Lymphoma	99	10.3	23.2	0.5*	0.4	0.6
Hodgkin	14	1.3	3.1	0.3*	0.2	0.6
Non-Hodgkin	87	9.4	20.1	0.5*	0.4	0.6
Multiple Myeloma	30	3.7	5.3	0.8	0.6	1.1
Leukemia	74	5.6	13.4	0.6*	0.5	0.8
Ill Defined and Unspecified	105	14.4	11.4	1.3*	1.1	1.6

n/a: rate not shown for categories with fewer than 5 case; rates are age-adjusted to the US 2000 standard population for all races.

<sup>1</sup> US rates for 1989-2002; US data from National Cancer Institute SEER Program.

\* Significant odds ratio at p < 0.05



**Average Annual Age-Adjusted Cancer Incidence Rates per 100,000  
Alaska Native and US White,<sup>1</sup> 1989-2003  
Men**

Site	Alaska Native		US White	US:AKN	Lower C.I.	Upper C.I.
	No. of cases	Rate	Rate	Odds Ratio		
All Sites	1804	506.8	587.3	0.9*	0.8	0.9
Oral Cavity and Pharynx	107	27.4	17.3	1.6*	1.3	1.9
Salivary Gland	3	n/a	1.6			
Nasopharynx	52	13.4	0.6	18.4*	13.9	24.4
Gum and Other Mouth	5	1.2	2.5	0.5	0.2	1.1
Digestive	625	181.1	110.9	1.7*	1.6	1.8
Esophagus	41	12.9	7.5	1.6*	1.2	2.2
Stomach	114	30.8	11.1	3.1*	2.6	3.8
Colon and Rectum	343	101.0	66.8	1.6*	1.4	1.8
Colon	240	73.7	46.8	1.6*	1.4	1.8
Rectosigmoid Junction	27	7.1	6.3	1.2	0.8	1.8
Rectum	76	20.2	13.7	1.6*	1.3	2.0
Liver	37	9.0	5.1	2.0*	1.5	2.8
Gallbladder	12	4.3	0.8	5.1*	2.9	8.9
Other Biliary	14	4.2	1.8	2.5*	1.5	4.3
Pancreas	49	14.5	12.6	1.2	0.9	1.6
Respiratory	432	128.8	98.6	1.3*	1.2	1.4
Lung and Bronchus	404	121.5	87.7	1.4*	1.2	1.5
Larynx	18	4.7	7.6	0.5	0.3	0.8
Bones and Joints	8	1.7	1.1	1.1	0.5	2.2
Soft Tissue	12	1.7	3.4	0.7	0.4	1.3
Melanoma	4	n/a	23.9			
Other Non-Epithelial Skin	10	3.0	6.6	0.3*	0.1	0.5
Breast	2	n/a	1.1			
Male Genital	279	80.6	185.9	0.4*	0.4	0.5
Prostate	236	73.9	178.5	0.4*	0.4	0.5
Testis	36	4.8	6.2	0.8	0.6	1.1
Urinary	135	39.2	58.2	0.7*	0.6	0.8
Urinary Bladder	43	12.8	40.7	0.3*	0.2	0.4
Kidney and Renal Pelvis	87	24.8	16.0	1.4*	1.2	1.8
Eye and Orbit	2	n/a	1.1			
Brain and Nervous System	16	2.8	8.8	0.3*	0.2	0.6
Endocrine	10	1.6	4.5	0.4*	0.2	0.8
Thyroid	8	1.4	3.8	0.4*	0.2	0.8
Lymphoma	51	11.0	28.1	0.4*	0.3	0.5
Hodgkin	5	0.8	3.5	0.2*	0.1	0.5
Non-Hodgkin	46	10.2	24.7	0.4*	0.3	0.6
Multiple Myeloma	11	2.8	6.8	0.5*	0.3	0.9
Leukemia	42	6.4	17.6	0.6*	0.4	0.8
Ill Defined and Unspecified	58	17.5	13	1.4	1.0	1.8

28

n/a: rate not shown for categories with fewer than 5 case; rates are age-adjusted to the US 2000 standard population for all races.

<sup>1</sup> US rates for 1989-2002; US data from National Cancer Institute SEER Program.

\* Significant odds ratio at p < 0.05

**Average Annual Age-Adjusted Cancer Incidence Rates per 100,000  
Alaska Native and US White,<sup>1</sup> 1989-2003  
Women**

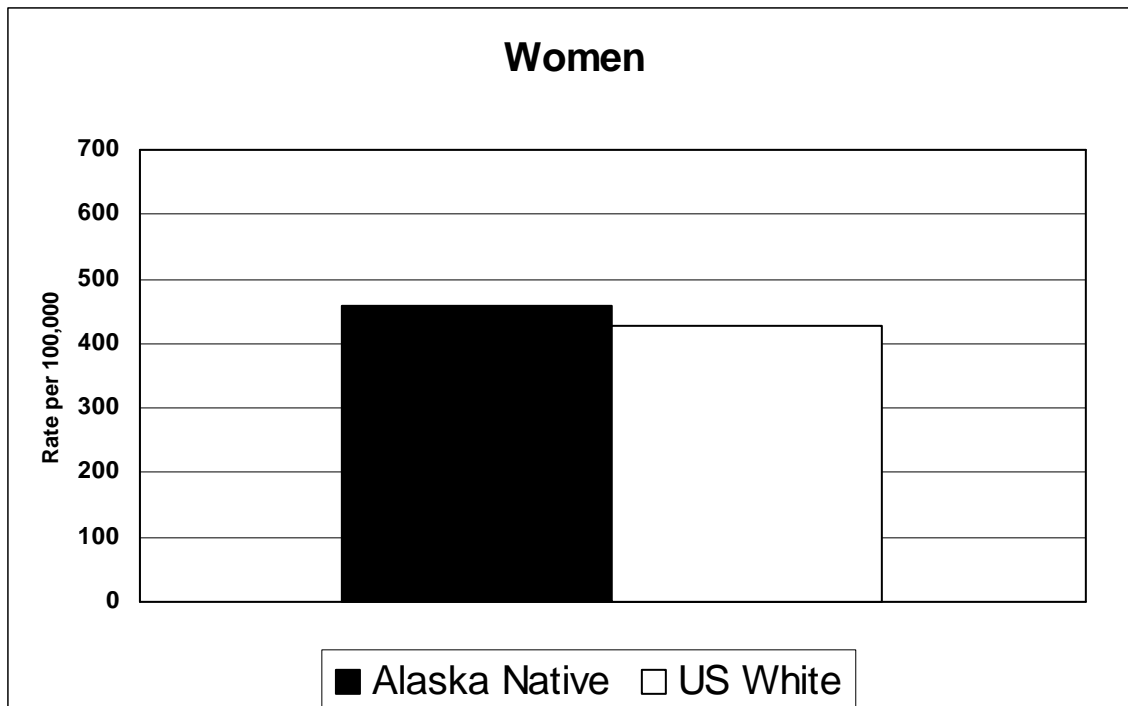
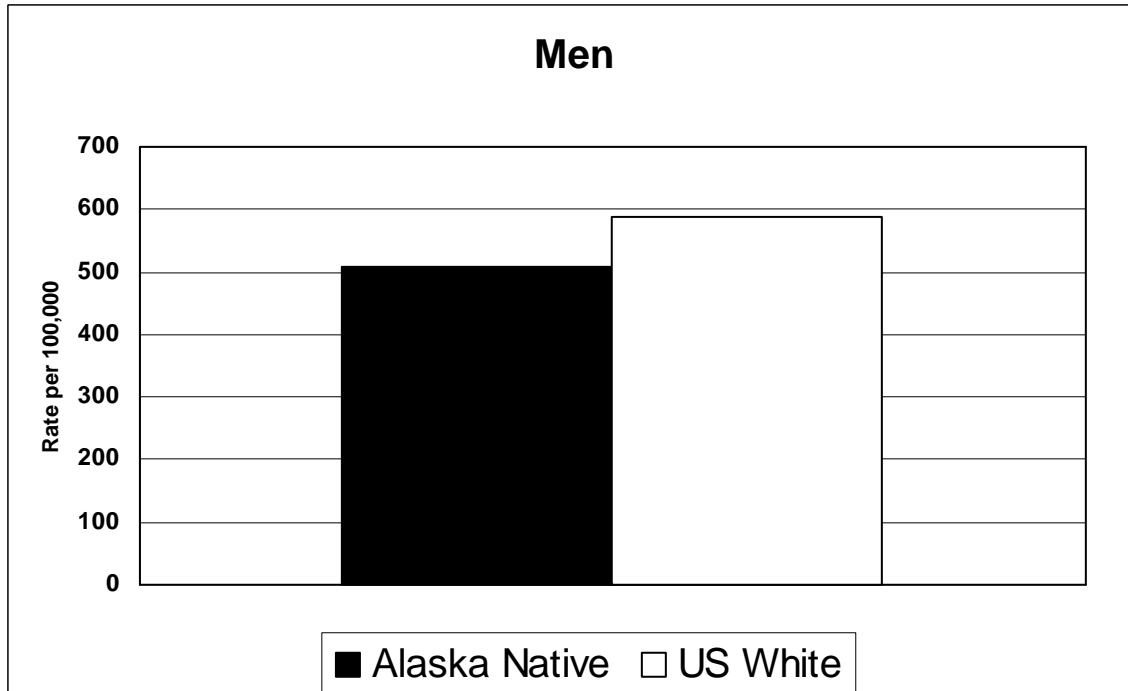
Site	Alaska Native		US White	US:AKN	Lower C.I.	Upper C.I.
	No. of cases	Rate	Rate	Odds Ratio		
All Sites	1982	458.3	428.7	1.1	1.0	1.1
Oral Cavity and Pharynx	49	11.6	6.9	1.6*	1.2	2.2
Salivary Gland	10	2.0	1.0	2.1*	1.1	3.9
Nasopharynx	16	4.0	0.3	12.4*	7.5	20.5
Gum and Other Mouth	4	n/a	1.6			
Digestive	570	148.2	73.4	2.1*	1.9	2.2
Esophagus	17	4.4	2.0	2.3*	1.4	3.7
Stomach	63	14.4	4.7	3.5*	2.7	4.5
Colon and Rectum	355	95.5	47.7	2.0*	1.8	2.2
Colon	266	73.2	35.9	2.0*	1.8	2.3
Rectosigmoid Junction	17	4.3	3.9	1.1	0.7	1.8
Rectum	72	18.0	7.9	2.3*	1.8	2.9
Liver	23	4.9	1.7	3.3*	2.2	5.0
Gallbladder	19	5.0	1.5	3.5*	2.2	5.5
Other Biliary	13	3.5	1.2	3.1*	1.8	5.3
Pancreas	58	15.1	9.6	1.7*	1.3	2.1
Respiratory	265	69.8	54.6	1.2*	1.1	1.4
Lung and Bronchus	256	67.5	51.9	1.3*	1.1	1.4
Larynx	4	n/a	1.6			
Bones and Joints	4	n/a	0.8			
Soft Tissue	7	1.1	2.3	0.5	0.3	1.1
Melanoma	9	1.8	16.4	0.1*	0.1	0.2
Other Non-Epithelial Skin	3	n/a	1.4			
Breast	582	122.7	139.0	0.9	0.9	1.0
Female Genital	191	38.9	54.0	0.8*	0.7	0.9
Cervix	59	10.4	8.5	1.2	0.9	1.5
Corpus uteri/Uterus, NOS	52	11.2	26.3	0.5*	0.4	0.6
Ovary	64	13.7	15.4	0.9	0.7	1.2
Urinary	83	20.3	18.7	1.1	0.9	1.4
Urinary Bladder	14	3.8	10.3	0.4*	0.2	0.6
Kidney and Renal Pelvis	68	16.2	7.9	2.0*	1.6	2.5
Eye and Orbit	3	n/a	0.8			
Brain and Nervous System	11	1.4	6.1	0.3*	0.2	0.6
Endocrine	59	9.7	10.4	0.9	0.7	1.2
Thyroid	59	9.7	9.9	1.0	0.8	1.3
Lymphoma	48	9.8	19.0	0.5*	0.4	0.7
Hodgkin	9	1.7	2.8	0.5*	0.2	0.9
Non-Hodgkin	41	8.8	16.3	0.6*	0.4	0.8
Multiple Myeloma	19	4.6	4.3	1.2	0.8	1.9
Leukemia	32	4.8	10.3	0.6*	0.5	0.9
Ill Defined and Unspecified	47	11.8	10.2	1.2	0.9	1.6

n/a: rate not shown for categories with fewer than 5 case; rates are age-adjusted to the US 2000 standard population for all races.

<sup>1</sup> US rates for 1989-2002; US data from National Cancer Institute SEER Program.

\* Significant odds ratio at p < 0.05

### Average Annual Age-Adjusted Cancer Incidence Rates Among Alaska Natives 1989-2003



**Rank Order of Five Leading Invasive Cancers  
Alaska Natives 1989-2003, by Age**

**Men and Women Combined**

0-9 Years			10-19 Years			20-29 Years		
Rank (N=58)	No.	% of Total	Rank (N=39)	No.	% of Total	Rank (N=102)	No.	% of Total
Leukemia	26	44.8	Leukemia	9	23.1	Testis	14	13.7
Brain/NS	6	10.3	Lymphoma	6	15.4	Thyroid	13	12.7
Liver	4	6.9	Liver	5	12.8	Breast	10	9.8
Eye	4	6.9	Brain/NS	4	10.3	Cervix	10	9.8
Kidney	4	6.9	Ovary	2	5.1	Lymphoma	6	5.9
	44	75.9		26	66.7		53	52.0

30-39 Years			40-49 Years			50-59 Years		
Rank (N=224)	No.	% of Total	Rank (N=452)	No.	% of Total	Rank (N=789)	No.	% of Total
Breast	63	28.1	Breast	144	31.9	Breast	166	21.0
Stomach	19	8.5	Lung	54	11.9	Colon/Rectum	154	19.5
Colon/Rectum	18	8.0	Colon/Rectum	52	11.5	Lung	123	15.6
Thyroid	16	7.1	Stomach	20	4.4	Oral	43	5.4
Testis	15	6.7	Lymphoma	20	4.4	Prostate	42	5.3
	131	58.5		290	64.2		528	66.9

60-69 Years			70+ Years			All Ages		
Rank (N=964)	No.	% of Total	Rank (N=1158)	No.	% of Total	Rank (N=3786)	No.	% of Total
Lung	222	23.0	Colon/Rectum	289	25.0	Colon/Rectum	698	18.4
Colon/Rectum	184	19.1	Lung	259	22.4	Lung	660	17.4
Breast	115	11.9	Prostate	102	8.8	Breast	584	15.4
Prostate	85	8.8	Breast	86	7.4	Prostate	236	6.2
Stomach	48	5.0	Stomach	51	4.4	Stomach	177	4.7
	654	67.8		787	68.0		2355	62.2

**Rank Order of Five Leading Invasive Cancers  
Alaska Natives 1989-2003, by Age**

**Men**

0-9 Years			10-19 Years			20-29 Years		
Rank (N=31)	No.	% of Total	Rank (N=24)	No.	% of Total	Rank (N=33)	No.	% of Total
Leukemia	17	54.8	Leukemia	5	20.8	Testis	14	42.4
Brain/NS	3	9.7	Lymphoma	5	20.8	Brain/NS	3	9.1
Liver	3	9.7	Liver	3	12.5	Leukemia	3	9.1
Soft Tissue	2	6.5	Brain/NS	3	12.5	Liver	2	6.1
Kidney	1	3.2	Soft Tissue	3	12.5	Soft Tissue	2	6.1
	26	83.9		19	79.2		24	72.7

30-39 Years			40-49 Years			50-59 Years		
Rank (N=76)	No.	% of Total	Rank (N=156)	No.	% of Total	Rank (N=335)	No.	% of Total
Testis	15	19.7	Lung	33	21.2	Colon/Rectum	81	24.2
Colon/Rectum	11	14.5	Colon/Rectum	20	12.8	Lung	74	22.1
Stomach	10	13.2	Oral	17	10.9	Prostate	42	12.5
Oral	8	10.5	Stomach	14	9.0	Oral	27	8.1
Lymphoma	8	10.5	Lymphoma	11	7.1	Stomach	22	6.6
	52	68.4		95	60.9		246	73.4

60-69 Years			70+ Years			All Ages		
Rank (N=529)	No.	% of Total	Rank (N=620)	No.	% of Total	Rank (N=1804)	No.	% of Total
Lung	138	26.1	Lung	157	25.3	Lung	404	22.4
Colon/Rectum	102	19.3	Colon/Rectum	128	20.6	Colon/Rectum	343	19.0
Prostate	85	16.1	Prostate	102	16.5	Prostate	236	13.1
Stomach	33	6.2	Stomach	34	5.5	Stomach	114	6.3
Oral	29	5.5	Kidney	30	4.8	Oral	107	5.9
	387	73.2		451	72.7		1204	66.7

**Rank Order of Five Leading Invasive Cancers  
Alaska Natives 1989-2003, by Age**

**Women**

0-9 Years			10-19 Years			20-29 Years		
Rank (N=27)	No.	% of Total	Rank (N=15)	No.	% of Total	Rank (N=69)	No.	% of Total
Leukemia	9	33.3	Leukemia	4	26.7	Thyroid	12	17.4
Brain/NS	3	11.1	Ovary	2	13.3	Cervix	10	14.5
Kidney	3	11.1	Liver	2	13.3	Breast	10	14.5
Eye	3	11.1	Brain/NS	1	6.7	Lymphoma	6	8.7
Soft Tissue	2	7.4	Lymphoma	1	6.7	Ovary	5	7.2
	20	74.1		10	66.7		43	62.3

30-39 Years			40-49 Years			50-59 Years		
Rank (N=148)	No.	% of Total	Rank (N=296)	No.	% of Total	Rank (N=454)	No.	% of Total
Breast	63	42.6	Breast	143	48.3	Breast	166	36.6
Thyroid	15	10.1	Colon/Rectum	32	10.8	Colon/Rectum	73	16.1
Cervix	14	9.5	Lung	21	7.1	Lung	49	10.8
Stomach	9	6.1	Thyroid	17	5.7	Ovary	19	4.2
Colon/Rectum	7	4.7	Cervix	16	5.4	Kidney	19	4.2
	108	73.0		229	77.4		326	71.8

60-69 Years			70+ Years			All Ages		
Rank (N=435)	No.	% of Total	Rank (N=538)	No.	% of Total	Rank (N=1982)	No.	% of Total
Breast	114	26.2	Colon/Rectum	161	29.9	Breast	582	29.3
Lung	84	19.3	Lung	102	19.0	Colon/Rectum	355	17.9
Colon/Rectum	82	18.9	Breast	86	16.0	Lung	256	12.9
Kidney	17	3.9	Pancreas	24	4.5	kidney	68	3.4
Stomach	15	3.4	Stomach	17	3.2	Ovary	64	3.2
	312	71.7		390	72.5		1325	66.8



**Number of Invasive Cancers by Age  
Alaska Natives 1989-2003  
Men and Women Combined**

Site	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+	Total
All Sites	58	39	102	224	452	789	964	1158	3786
Oral Cavity and Pharynx	1		4	10	19	43	41	38	156
Salivary Gland			2	2	2	3	2	2	13
Nasopharynx				7	6	17	20	18	68
Gum and Other Mouth				1		2	2	4	9
Digestive	4	6	11	47	98	242	324	463	1195
Esophagus					2	10	22	24	58
Stomach			4	19	20	35	48	51	177
Colon and Rectum			1	18	52	154	184	289	698
Colon			1	12	31	94	134	234	506
Rectosigmoid Junction					4	11	18	11	44
Rectum				6	17	49	32	44	148
Liver	4	5	6	3	6	5	15	16	60
Gallbladder				1	1	6	7	16	31
Other Biliary				1		7	8	11	27
Pancreas				3	13	20	28	43	107
Respiratory			1	4	55	132	237	268	697
Lung and Bronchus				2	54	123	222	259	660
Larynx						7	10	5	22
Bones and Joints	1	2	1	1	1	3	1	2	12
Soft Tissue	4	3	4	2	2		3	1	19
Melanoma			4	2	3		2	2	13
Other Non-Epithelial Skin			1		1		5	6	13
Breast			10	63	144	166	115	86	584
Female Genital		4	18	22	37	49	34	27	191
Cervix		1	10	14	16	10	3	5	59
Corpus uteri/Uterus, NOS		1	1	3	8	19	13	7	52
Ovary		2	5	5	9	19	13	11	64
Male Genital	1		14	15	13	44	88	104	279
Prostate					7	42	85	102	236
Testis	1		14	15	5	1			36
Urinary	4	1	2	9	19	46	59	78	218
Urinary Bladder			1	3	5	13	10	25	57
Kidney and Renal Pelvis	4	1	1	6	14	33	46	50	155
Eye and Orbit	4						1		5
Brain and Nervous System	6	4	5	4	1	2	3	2	27
Endocrine	1	2	14	16	18	8	8	2	69
Thyroid		2	13	16	18	8	8	2	67
Lymphoma	1	6	6	13	20	24	13	16	99
Hodgkin		1	4	3	1	2	1	2	14
Non-Hodgkin	1	5	2	10	19	22	12	16	87
Multiple Myeloma			1	1	6	7	7	8	30
Leukemia	26	9	5	12	2	9	3	8	74
Ill Defined and Unspecified	5	2	1	3	13	14	20	47	105



Number of Invasive Cancers by Age  
Alaska Natives 1989-2003  
Men

Site	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+	Total
All Sites	31	24	33	76	156	335	529	620	1804
Oral Cavity and Pharynx			1	8	17	27	29	25	107
Salivary Gland				1	1			1	3
Nasopharynx				6	6	12	15	13	52
Gum and Other Mouth				1		2	1	1	5
Digestive	3	4	4	24	47	128	187	228	625
Esophagus					1	7	15	18	41
Stomach			1	10	14	22	33	34	114
Colon and Rectum			1	11	20	81	102	128	343
Colon			1	8	13	44	70	104	240
Rectosigmoid Junction					1	7	14	5	27
Rectum				3	6	30	18	19	76
Liver	3	3	2	2	4	4	9	10	37
Gallbladder						1	3	8	12
Other Biliary						3	6	5	14
Pancreas				1	6	9	14	19	49
Respiratory			1	3	34	81	150	163	432
Lung and Bronchus				2	33	74	138	157	404
Larynx						6	9	3	18
Bones and Joints	1	2		1		1	1	2	8
Soft Tissue	2	3	2	1	2		2		12
Melanoma			1	1	1		1		4
Other Non-Epithelial Skin			1		1		4	4	10
Breast					1		1		2
Male Genital	1		14	15	13	44	88	104	279
Prostate					7	42	85	102	236
Testis	1		14	15	5	1			36
Urinary	1	1	1	5	12	24	41	50	135
Urinary Bladder			1	2	3	10	9	18	43
Kidney and Renal Pelvis	1	1		3	9	14	29	30	87
Eye and Orbit	1						1		2
Brain and Nervous System	3	3	3	1	1	1	2	2	16
Endocrine	1	1	2	1	1	2	2		10
Thyroid		1	1	1	1	2	2		8
Lymphoma		5		8	11	12	7	8	51
Hodgkin		1		1	1	2			5
Non-Hodgkin		4		7	10	10	7	8	46
Multiple Myeloma				1	4	2	1	3	11
Leukemia	17	5	3	5	2	3	2	5	42
Ill Defined and Unspecified	1			2	9	10	10	26	58

**Number of Invasive Cancers by Age  
Alaska Natives 1989-2003  
Women**

Site	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+	Total
All Sites	27	15	69	148	296	454	435	538	1982
Oral Cavity and Pharynx	1		3	2	2	16	12	13	49
Salivary Gland			2	1	1	3	2	1	10
Nasopharynx				1		5	5	5	16
Gum and Other Mouth							1	3	4
Digestive	1	2	7	23	51	114	137	235	570
Esophagus					1	3	7	6	17
Stomach			3	9	6	13	15	17	63
Colon and Rectum				7	32	73	82	161	355
Colon				4	18	50	64	130	266
Rectosigmoid Junction					3	4	4	6	17
Rectum				3	11	19	14	25	72
Liver	1	2	4	1	2	1	6	6	23
Gallbladder				1	1	5	4	8	19
Other Biliary				1		4	2	6	13
Pancreas				2	7	11	14	24	58
Respiratory				1	21	51	87	105	265
Lung and Bronchus					21	49	84	102	256
Larynx						1	1	2	4
Bones and Joints			1		1	2			4
Soft Tissue	2		2	1			1	1	7
Melanoma			3	1	2		1	2	9
Other Non-Epithelial Skin							1	2	3
Breast			10	63	143	166	114	86	582
Female Genital		4	18	22	37	49	34	27	191
Cervix		1	10	14	16	10	3	5	59
Corpus uteri/Uterus, NOS		1	1	3	8	19	13	7	52
Ovary		2	5	5	9	19	13	11	64
Urinary	3		1	4	7	22	18	28	83
Urinary Bladder				1	2	3	1	7	14
Kidney and Renal Pelvis	3		1	3	5	19	17	20	68
Eye and Orbit	3								3
Brain and Nervous System	3	1	2	3		1	1		11
Endocrine		1	12	15	17	6	6	2	59
Thyroid		1	12	15	17	6	6	2	59
Lymphoma	1	1	6	5	9	12	6	8	48
Hodgkin			4	2			1	2	9
Non-Hodgkin	1	1	2	3	9	12	5	8	41
Multiple Myeloma			1		2	5	6	5	19
Leukemia	9	4	2	7		6	1	3	32
Ill Defined and Unspecified	4	2	1	1	4	4	10	21	47



**Age-Specific Cancer Incidence Rates per 100,000  
Alaska Natives 1989-2003  
Men and Women Combined**

Site	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+	Total*
All Sites	16.7	13.1	53.7	86.0	252.1	758.3	1480.8	2414.0	253.9
Oral Cavity and Pharynx	0.3		2.1	3.8	10.6	41.3	63.0	79.2	10.5
Salivary Gland			1.1	0.8	1.1	2.9	3.1	4.2	0.9
Nasopharynx				2.7	3.3	16.3	30.7	37.5	4.6
Gum and Other Mouth				0.4		1.9	3.1	8.3	0.6
Digestive	1.2	2.0	5.8	18.0	54.6	232.6	497.7	965.2	80.2
Esophagus					1.1	9.6	33.8	50.0	3.9
Stomach			2.1	7.3	11.2	33.6	73.7	106.3	11.9
Colon and Rectum			0.5	6.9	29.0	148.0	282.6	602.5	46.8
Colon			0.5	4.6	17.3	90.3	205.8	487.8	33.9
Rectosigmoid Junction					2.2	10.6	27.6	22.9	3.0
Rectum				2.3	9.5	47.1	49.2	91.7	9.9
Liver	1.2	1.7	3.2	1.2	3.3	4.8	23.0	33.4	4.0
Gallbladder				0.4	0.6	5.8	10.8	33.4	2.1
Other Biliary				0.4		6.7	12.3	22.9	1.8
Pancreas				1.2	7.2	19.2	43.0	89.6	7.2
Respiratory			0.5	1.5	30.7	126.9	364.1	558.7	46.8
Lung and Bronchus				0.8	30.1	118.2	341.0	539.9	44.3
Larynx						6.7	15.4	10.4	1.5
Bones and Joints	0.3	0.7	0.5	0.4	0.6	2.9	1.5	4.2	0.8
Soft Tissue	1.2	1.0	2.1	0.8	1.1		4.6	2.1	1.3
Melanoma			2.1	0.8	1.7		3.1	4.2	0.9
Other Non-Epithelial Skin			0.5		0.6		7.7	12.5	0.9
Breast			5.3	24.2	80.3	159.5	176.7	179.3	39.2
Female Genital		1.3	9.5	8.4	20.6	47.1	52.2	56.3	12.8
Cervix		0.3	5.3	5.4	8.9	9.6	4.6	10.4	4.0
Corpus uteri/Uterus, NOS		0.3	0.5	1.2	4.5	18.3	20.0	14.6	3.5
Ovary		0.7	2.6	1.9	5.0	18.3	20.0	22.9	4.3
Male Genital	0.3		7.4	5.8	7.2	42.3	135.2	216.8	18.7
Prostate					3.9	40.4	130.6	212.6	15.8
Testis	0.3		7.4	5.8	2.8	1.0			2.4
Urinary	1.2	0.3	1.1	3.5	10.6	44.2	90.6	162.6	14.6
Urinary Bladder			0.5	1.2	2.8	12.5	15.4	52.1	3.8
Kidney and Renal Pelvis	1.2	0.3	0.5	2.3	7.8	31.7	70.7	104.2	10.4
Eye and Orbit	1.2						1.5		0.3
Brain and Nervous System	1.7	1.3	2.6	1.5	0.6	1.9	4.6	4.2	1.8
Endocrine	0.3	0.7	7.4	6.1	10.0	7.7	12.3	4.2	4.6
Thyroid		0.7	6.8	6.1	10.0	7.7	12.3	4.2	4.5
Lymphoma	0.3	2.0	3.2	5.0	11.2	23.1	20.0	33.4	6.6
Hodgkin		0.3	2.1	1.2	0.6	1.9	1.5	4.2	0.9
Non-Hodgkin	0.3	1.7	1.1	3.8	10.6	21.1	18.4	33.4	5.8
Multiple Myeloma			0.5	0.4	3.3	6.7	10.8	16.7	2.0
Leukemia	7.5	3.0	2.6	4.6	1.1	8.6	4.6	16.7	5.0
Ill Defined and Unspecified	1.4	0.7	0.5	1.2	7.2	13.5	30.7	98.0	7.0

\* All rates are unadjusted.

**Age-Specific Cancer Incidence Rates per 100,000  
Alaska Natives 1989-2003  
Men**

Site	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+	Total*
All Sites	17.4	15.8	33.7	59.1	175.3	648.1	1713.6	2870.4	240.8
Oral Cavity and Pharynx			1.0	6.2	19.1	52.2	93.9	115.7	14.3
Salivary Gland				0.8	1.1			4.6	0.4
Nasopharynx				4.7	6.7	23.2	48.6	60.2	6.9
Gum and Other Mouth				0.8		3.9	3.2	4.6	0.7
Digestive	1.7	2.6	4.1	18.7	52.8	247.6	605.8	1055.6	83.4
Esophagus					1.1	13.5	48.6	83.3	5.5
Stomach			1.0	7.8	15.7	42.6	106.9	157.4	15.2
Colon and Rectum			1.0	8.6	22.5	156.7	330.4	592.6	45.8
Colon			1.0	6.2	14.6	85.1	226.8	481.5	32.0
Rectosigmoid Junction					1.1	13.5	45.4	23.1	3.6
Rectum				2.3	6.7	58.0	58.3	88.0	10.1
Liver	1.7	2.0	2.0	1.6	4.5	7.7	29.2	46.3	4.9
Gallbladder						1.9	9.7	37.0	1.6
Other Biliary						5.8	19.4	23.1	1.9
Pancreas				0.8	6.7	17.4	45.4	88.0	6.5
Respiratory			1.0	2.3	38.2	156.7	485.9	754.6	57.7
Lung and Bronchus				1.6	37.1	143.2	447.0	726.9	53.9
Larynx						11.6	29.2	13.9	2.4
Bones and Joints	0.6	1.3		0.8		1.9	3.2	9.3	1.1
Soft Tissue	1.1	2.0	2.0	0.8	2.2		6.5		1.6
Melanoma			1.0	0.8	1.1		3.2		0.5
Other Non-Epithelial Skin			1.0		1.1		13.0	18.5	1.3
Breast					1.1		3.2		0.3
Male Genital	0.6		14.3	11.7	14.6	85.1	285.1	481.5	37.2
Prostate					7.9	81.3	275.3	472.2	31.5
Testis	0.6		14.3	11.7	5.6	1.9			4.8
Urinary	0.6	0.7	1.0	3.9	13.5	46.4	132.8	231.5	18.0
Urinary Bladder			1.0	1.6	3.4	19.3	29.2	83.3	5.7
Kidney and Renal Pelvis	0.6	0.7		2.3	10.1	27.1	93.9	138.9	11.6
Eye and Orbit	0.6						3.2		0.3
Brain and Nervous System	1.7	2.0	3.1	0.8	1.1	1.9	6.5	9.3	2.1
Endocrine	0.6	0.7	2.0	0.8	1.1	3.9	6.5		1.3
Thyroid		0.7	1.0	0.8	1.1	3.9	6.5		1.1
Lymphoma		3.3		6.2	12.4	23.2	22.7	37.0	6.8
Hodgkin		0.7		0.8	1.1	3.9			0.7
Non-Hodgkin		2.6		5.4	11.2	19.3	22.7	37.0	6.1
Multiple Myeloma				0.8	4.5	3.9	3.2	13.9	1.5
Leukemia	9.5	3.3	3.1	3.9	2.2	5.8	6.5	23.1	5.6
Ill Defined and Unspecified	0.6			1.6	10.1	19.3	32.4	120.4	7.7

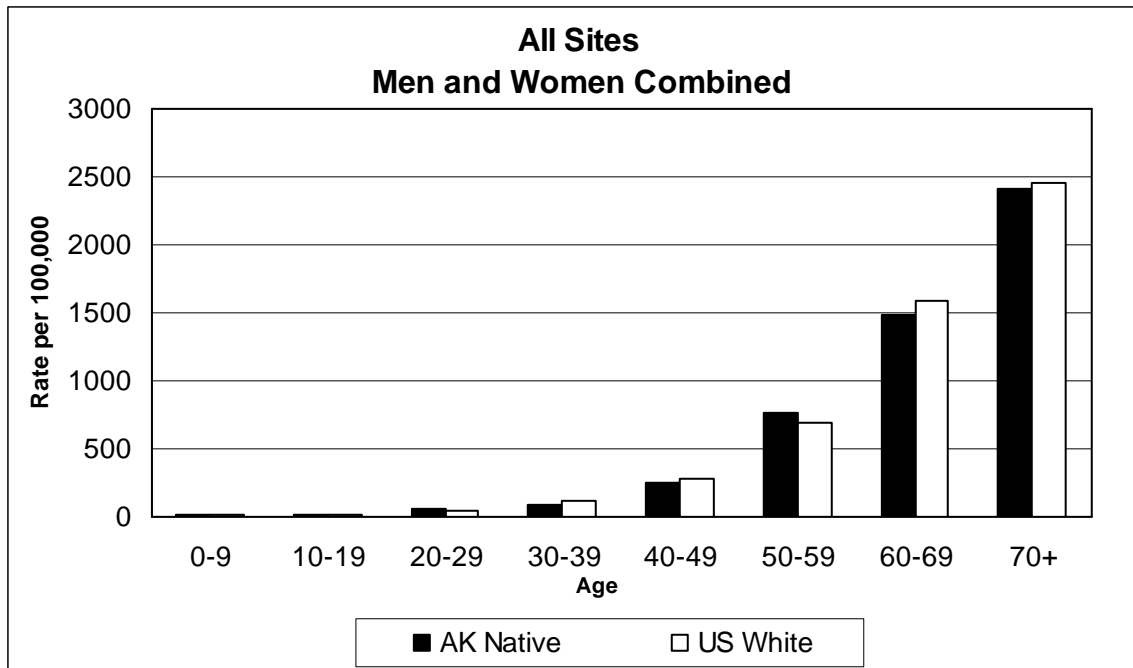
40 \* All rates are unadjusted.

**Age-Specific Cancer Incidence Rates per 100,000  
Alaska Natives 1989-2003  
Women**

Site	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+	Total*
All Sites	15.9	10.3	75.0	112.6	327.6	867.0	1270.8	2040.2	267.2
Oral Cavity and Pharynx	0.6		3.3	1.5	2.2	30.6	35.1	49.3	6.6
Salivary Gland			2.2	0.8	1.1	5.7	5.8	3.8	1.3
Nasopharynx				0.8		9.5	14.6	19.0	2.2
Gum and Other Mouth							2.9	11.4	0.5
Digestive	0.6	1.4	7.6	17.5	56.5	217.7	400.2	891.2	76.9
Esophagus					1.1	5.7	20.4	22.8	2.3
Stomach			3.3	6.8	6.6	24.8	43.8	64.5	8.5
Colon and Rectum				5.3	35.4	139.4	239.6	610.5	47.9
Colon				3.0	19.9	95.5	187.0	493.0	35.9
Rectosigmoid Junction					3.3	7.6	11.7	22.8	2.3
Rectum				2.3	12.2	36.3	40.9	94.8	9.7
Liver	0.6	1.4	4.3	0.8	2.2	1.9	17.5	22.8	3.1
Gallbladder				0.8	1.1	9.5	11.7	30.3	2.6
Other Biliary				0.8		7.6	5.8	22.8	1.8
Pancreas				1.5	7.7	21.0	40.9	91.0	7.8
Respiratory				0.8	23.2	97.4	254.2	398.2	35.7
Lung and Bronchus					23.2	93.6	245.4	386.8	34.5
Larynx						1.9	2.9	7.6	0.5
Bones and Joints			1.1		1.1	3.8			0.5
Soft Tissue	1.2		2.2	0.8			2.9	3.8	0.9
Melanoma			3.3	0.8	2.2		2.9	7.6	1.2
Other Non-Epithelial Skin							2.9	7.6	0.4
Breast			10.9	47.9	158.3	317.0	333.0	326.1	78.5
Female Genital		2.8	19.6	16.7	41.0	93.6	99.3	102.4	25.8
Cervix		0.7	10.9	10.7	17.7	19.1	8.8	19.0	8.0
Corpus uteri/Uterus, NOS		0.7	1.1	2.3	8.9	36.3	38.0	26.5	7.0
Ovary		1.4	5.4	3.8	10.0	36.3	38.0	41.7	8.6
Urinary	1.8		1.1	3.0	7.7	42.0	52.6	106.2	11.2
Urinary Bladder				0.8	2.2	5.7	2.9	26.5	1.9
Kidney and Renal Pelvis	1.8		1.1	2.3	5.5	36.3	49.7	75.8	9.2
Eye and Orbit	1.8								0.4
Brain and Nervous System	1.8	0.7	2.2	2.3		1.9	2.9		1.5
Endocrine		0.7	13.0	11.4	18.8	11.5	17.5	7.6	8.0
Thyroid		0.7	13.0	11.4	18.8	11.5	17.5	7.6	8.0
Lymphoma	0.6	0.7	6.5	3.8	10.0	22.9	17.5	30.3	6.5
Hodgkin			4.3	1.5			2.9	7.6	1.2
Non-Hodgkin	0.6	0.7	2.2	2.3	10.0	22.9	14.6	30.3	5.5
Multiple Myeloma			1.1		2.2	9.5	17.5	19.0	2.6
Leukemia	5.3	2.8	2.2	5.3		11.5	2.9	11.4	4.3
Ill Defined and Unspecified	2.4	1.4	1.1	0.8	4.4	7.6	29.2	79.6	6.3

\* All rates are unadjusted.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



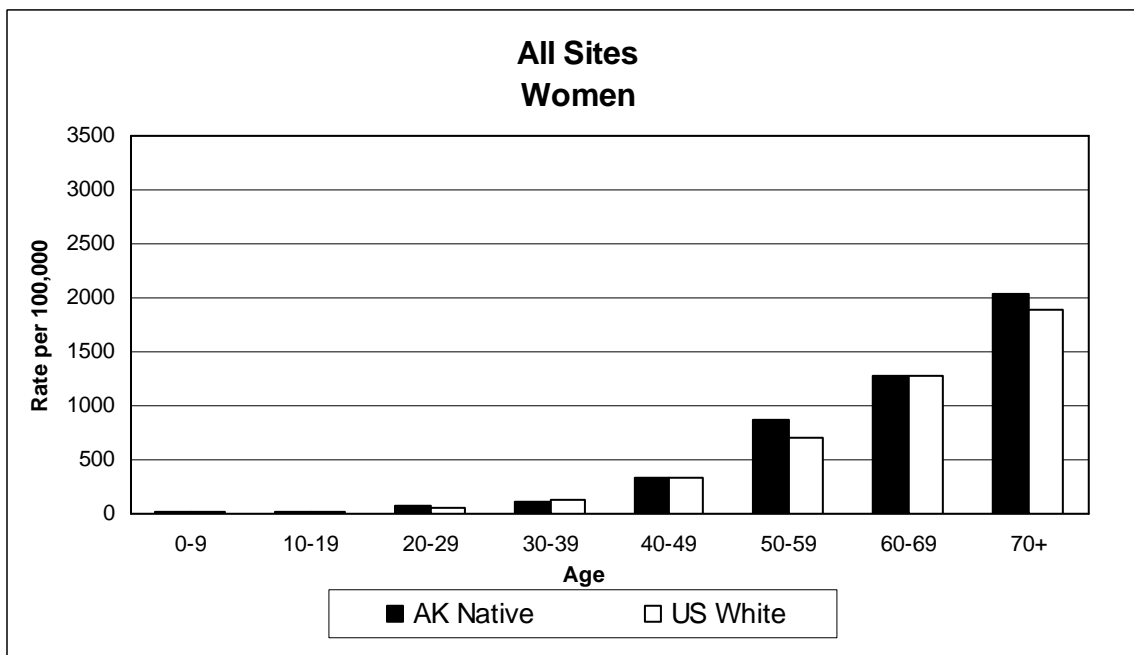
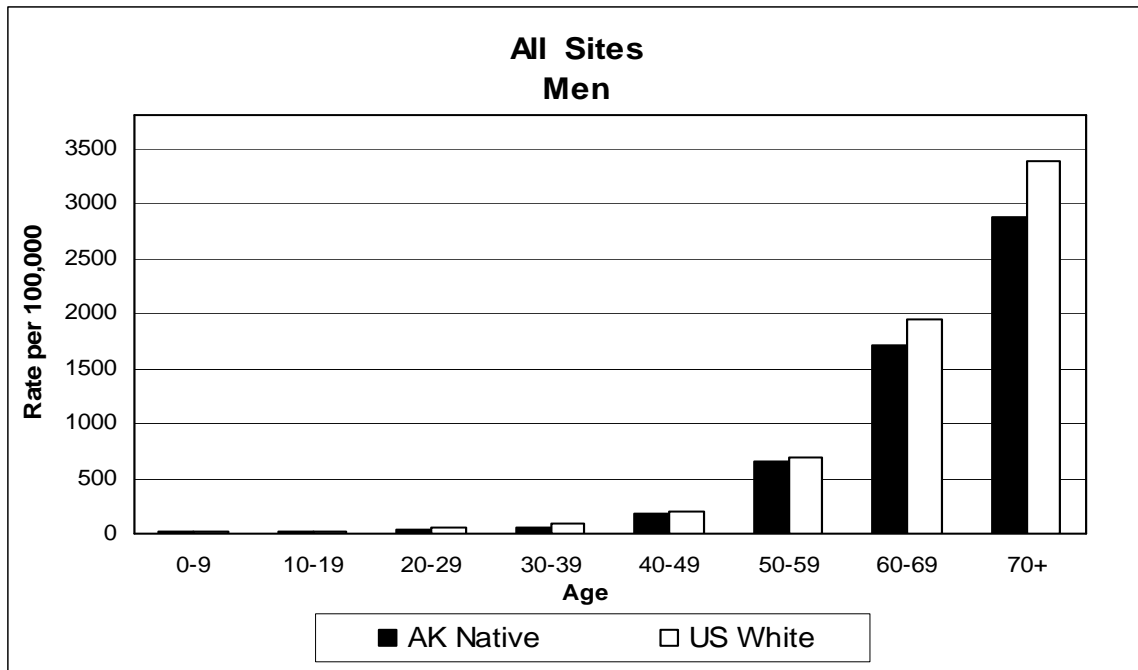
**Age-Specific Cancer Incidence Numbers and Rates in  
Alaska Natives and US Whites<sup>1</sup>  
All Sites, 1989-2003**

Age	Men			Women		
	AK Native No.	AK Native Rate	US White Rate	AK Native No.	AK Native Rate	US White Rate
0-9	31	17.4	17.7	27	15.9	15.4
10-19	24	15.8	18.2	15	10.3	16.9
20-29	33	33.7	47.0	69	75.0	51.4
30-39	76	59.1	96.4	148	112.6	133.2
40-49	156	175.3	208.3	296	327.6	338.7
50-59	335	648.1	689.0	454	867.0	705.7
60-69	529	1713.6	1937.0	435	1270.8	1269.9
70+	620	2870.4	3374.1	538	2040.2	1885.8
Total*	1804	506.8	587.3	1982	458.3	428.7

<sup>1</sup>US Data for years 1989-2002.

\*Rates for total counts are age-adjusted to US Census 2000 standard population.

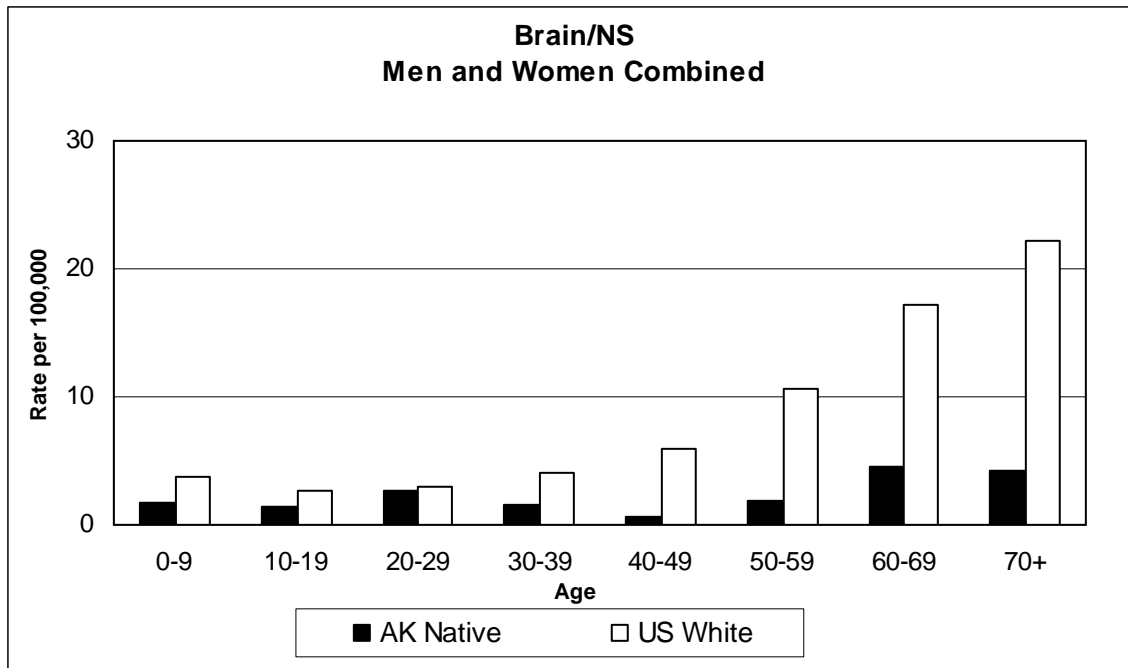
**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



<sup>1</sup>US Data for years 1989-2002.



**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



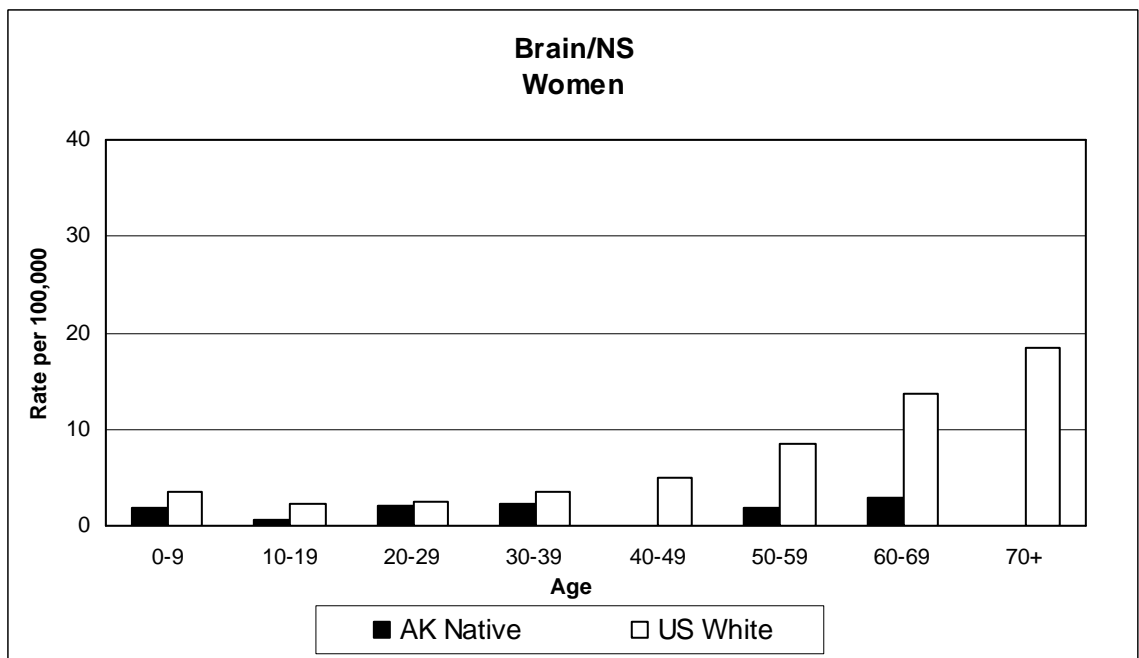
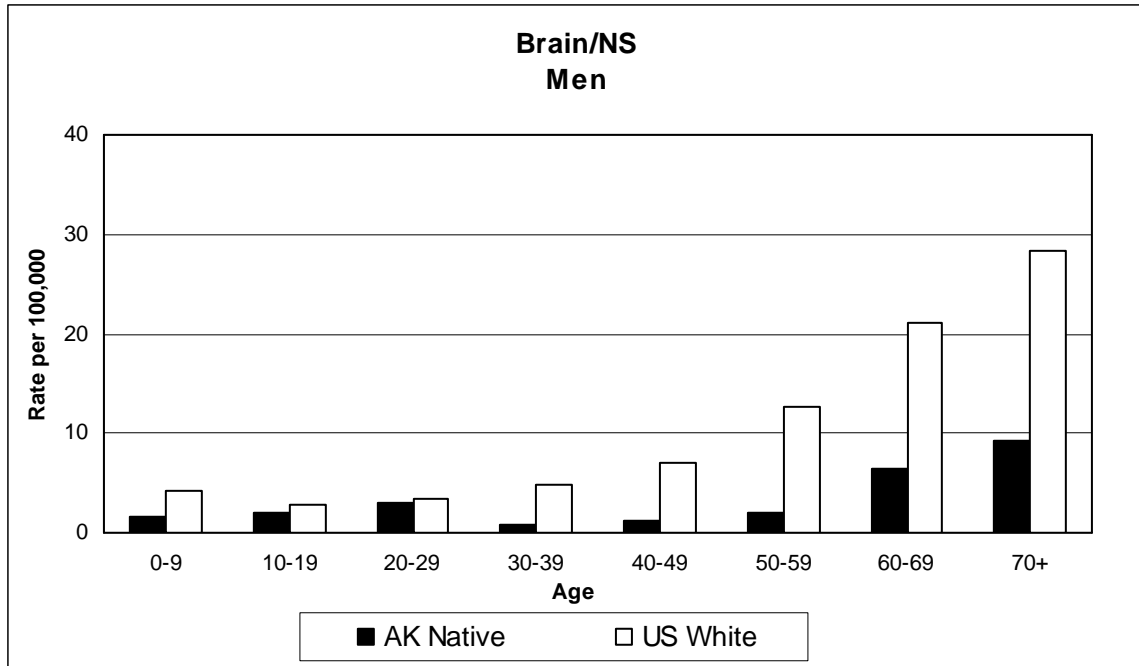
**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>**

Brain/NS, 1989-2003						
Age	Men			Women		
	AK Native No.	AK Native Rate	US White Rate	AK Native No.	AK Native Rate	US White Rate
0-9	3	1.7	4.2	3	1.8	3.5
10-19	3	2.0	2.9	1	0.7	2.3
20-29	3	3.1	3.4	2	2.2	2.5
30-39	1	0.8	4.8	3	2.3	3.5
40-49	1	1.1	7.1	0		4.9
50-59	1	1.9	12.7	1	1.9	8.5
60-69	2	6.5	21.1	1	2.9	13.6
70+	2	9.3	28.3	0		18.7
Total*	16	2.8	8.8	11	1.4	6.1

<sup>1</sup>US Data for years 1989-2002.

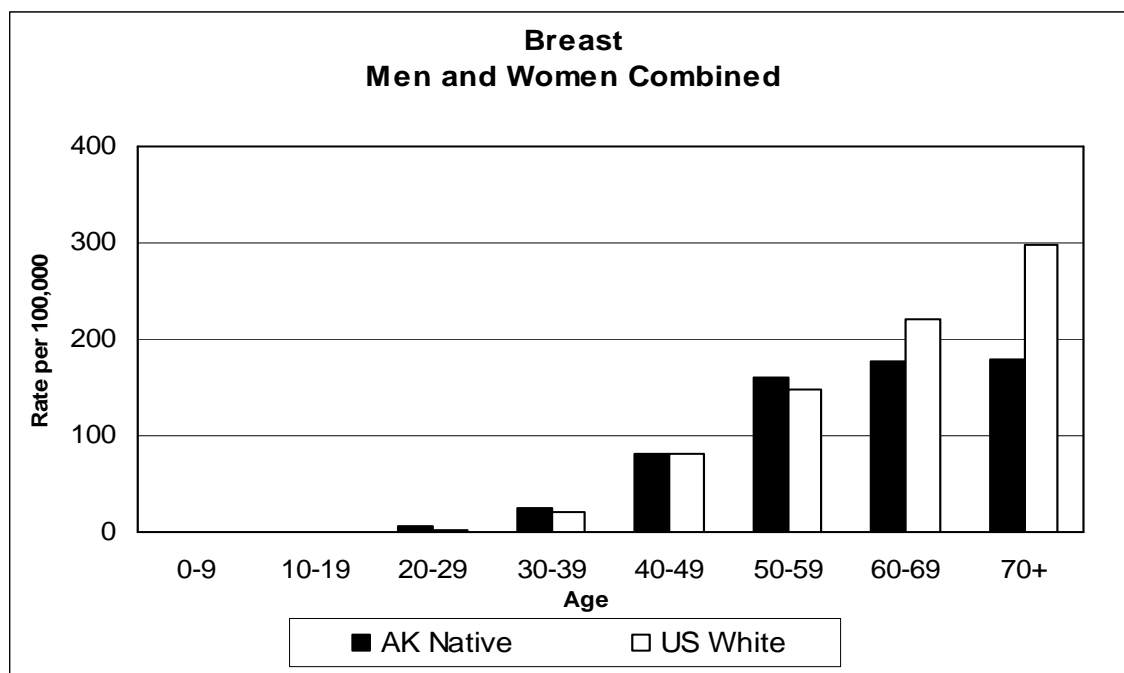
\*Rates for total counts are age-adjusted to US Census 2000 standard population.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



<sup>1</sup>US Data for years 1989-2002.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



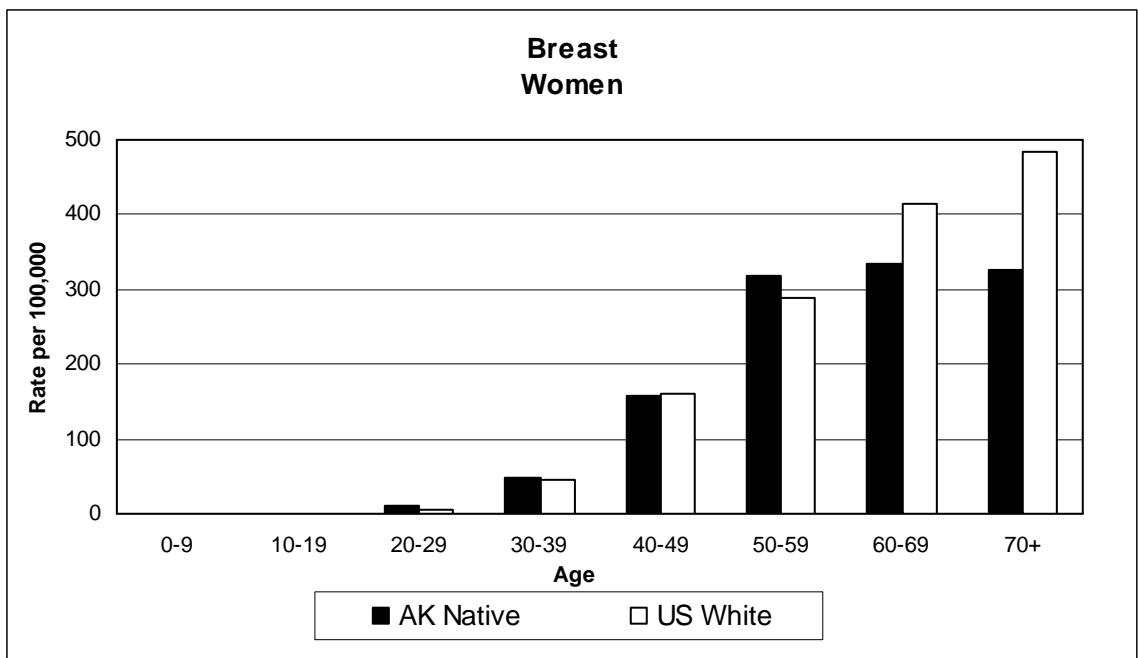
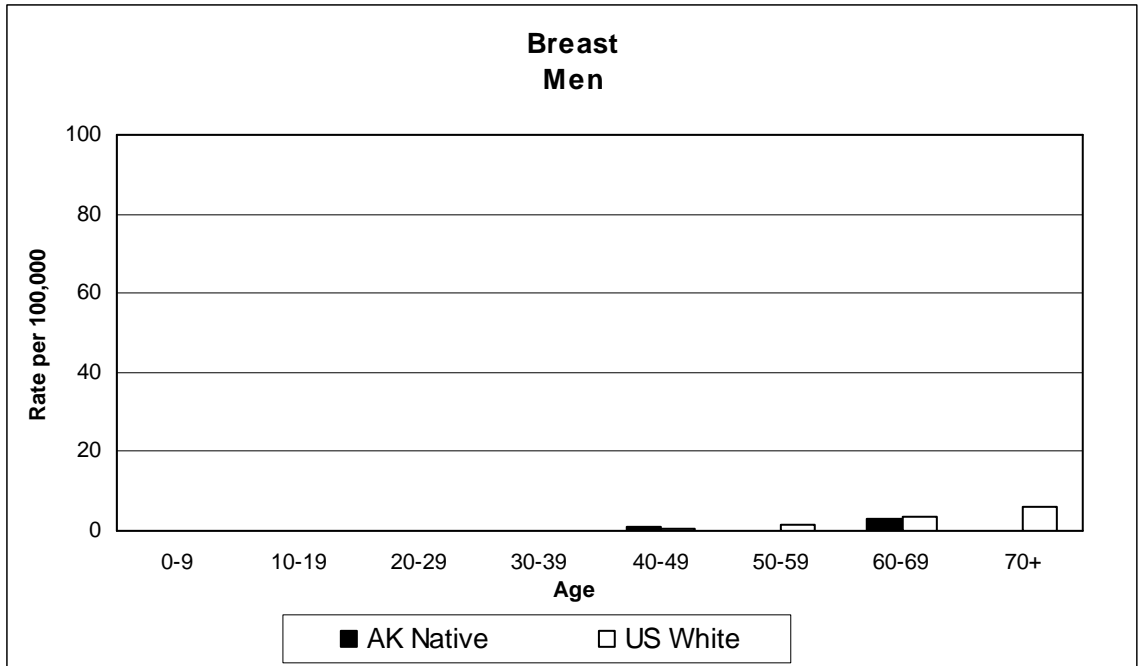
**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>  
Breast, 1989-2003**

Age	Men			Women		
	AK Native No.	AK Native Rate	US White Rate	AK Native No.	AK Native Rate	US White Rate
0-9	0	0	0	0	0.0	0
10-19	0	0	0	0	0.0	0.1
20-29	0	0	0	10	10.9	4.2
30-39	0	0	0.1	63	47.9	44.2
40-49	1	1.1	0.5	143	158.3	160.2
50-59	0	0	1.7	166	317.0	288.7
60-69	1	3.2	3.7	114	333.0	414.2
70+	0	0	6.2	86	326.1	484.9
Total*	2	0.4	1.1	582	122.7	139

<sup>1</sup>US Data for years 1989-2002.

\*Rates for total counts are age-adjusted to US Census 2000 standard population.

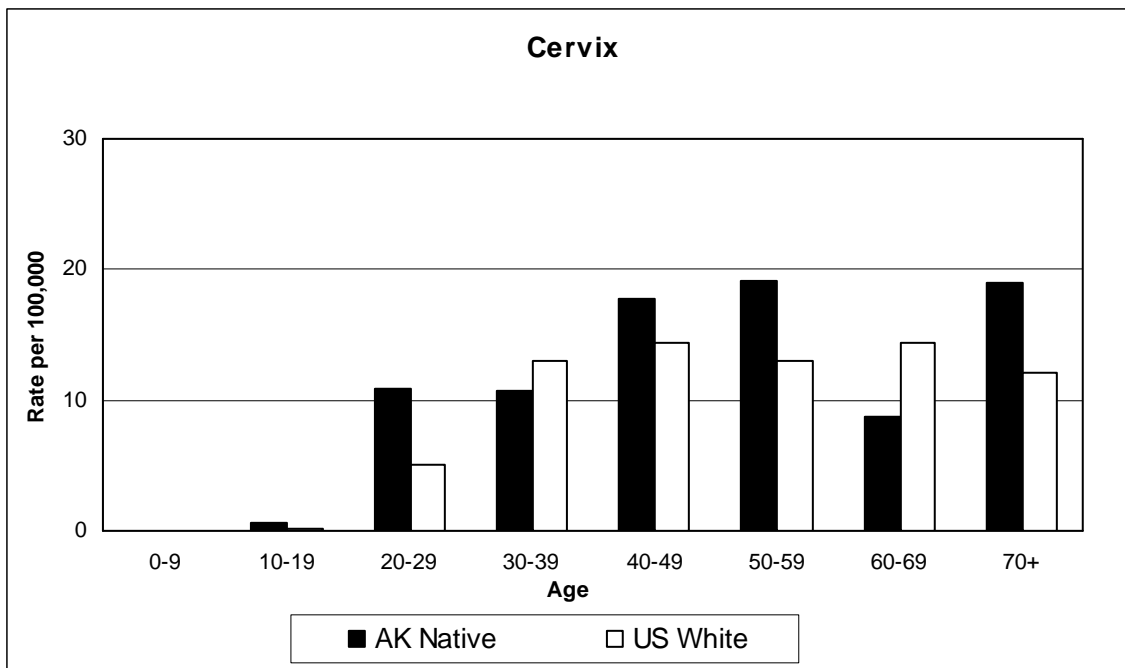
Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003



<sup>1</sup>US Data for years 1989-2002.



**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



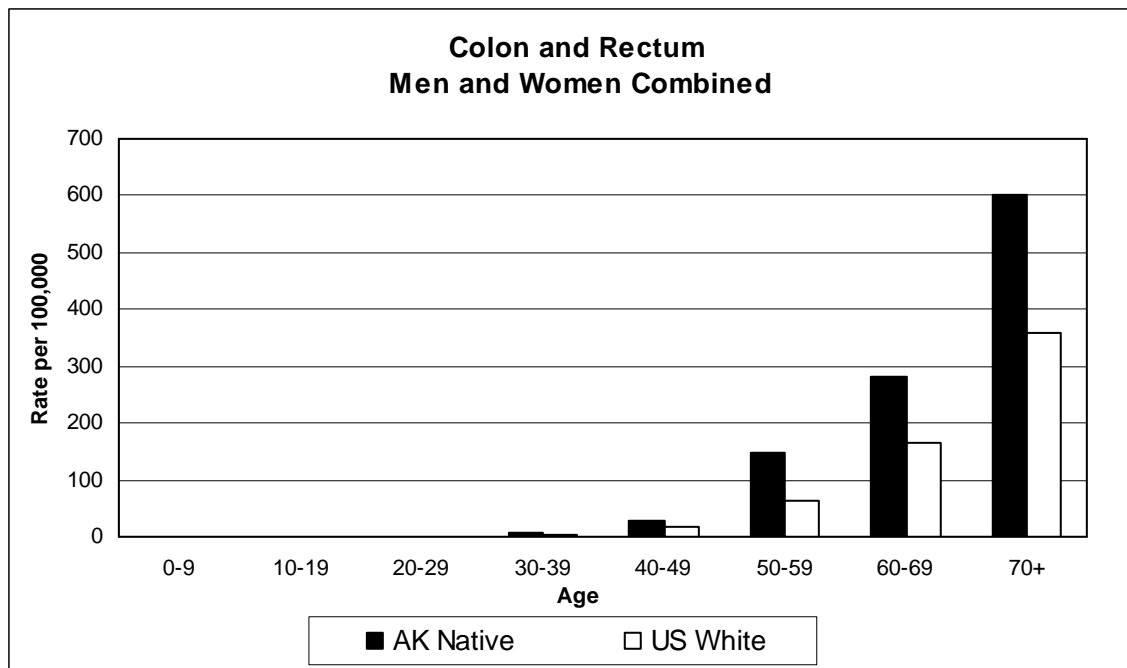
**Age-Specific Cancer Incidence Numbers and Rates in  
Alaska Natives and US Whites<sup>1</sup>  
Cervix, 1989-2003**

Age	AK Native		US White
	No.	Rate	Rate
0-9	0	0	0.0
10-19	1	0.7	0.1
20-29	10	10.9	5.0
30-39	14	10.7	13.0
40-49	16	17.7	14.4
50-59	10	19.1	13.0
60-69	3	8.8	14.4
70+	5	19.0	12.1
Total*	59	10.4	8.5

<sup>1</sup>US Data for years 1989-2002.

\*Rates for total counts are age-adjusted to US Census 2000 standard population.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



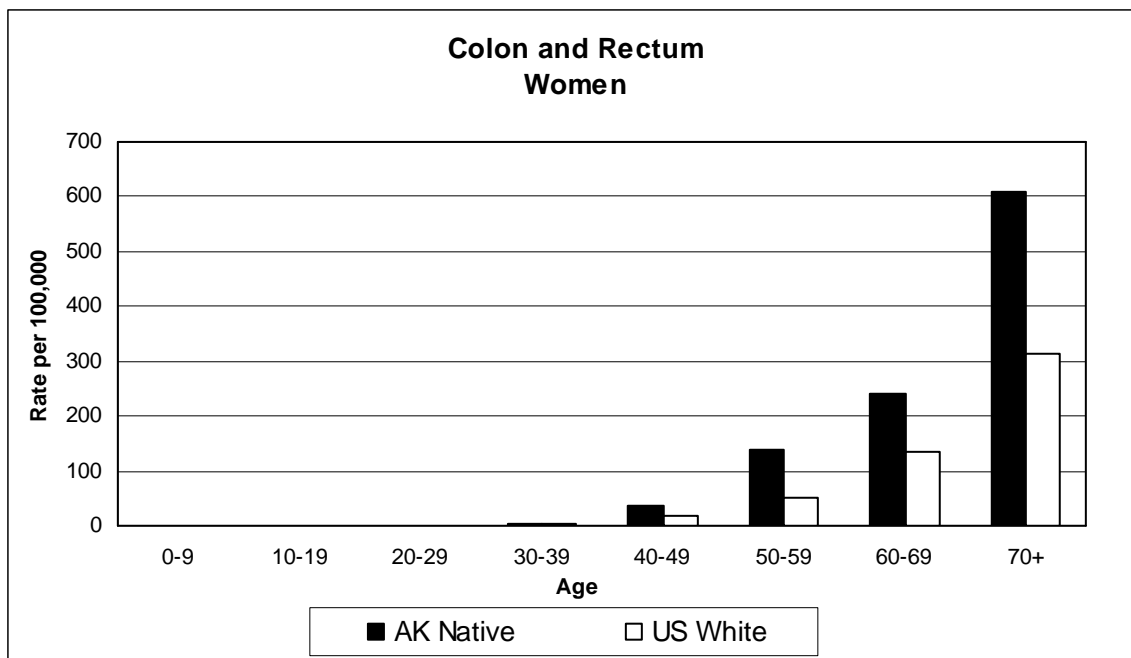
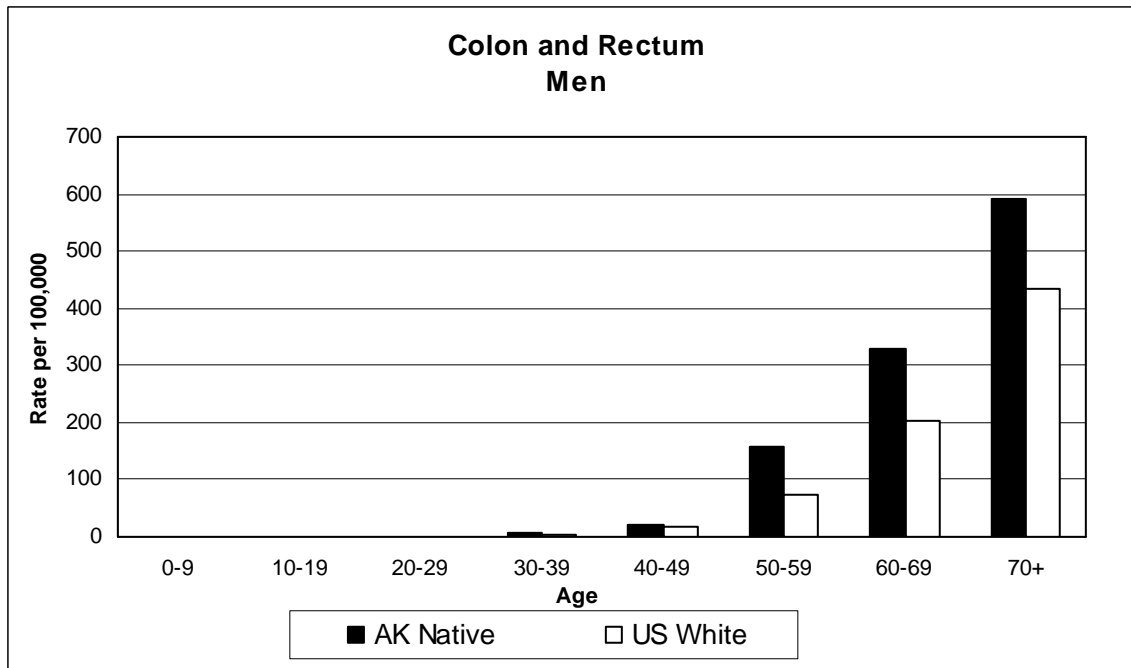
**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>  
Colon and Rectum, 1989-2003**

Age	Men			Women		
	AK Native No.	AK Native Rate	US White Rate	AK Native No.	AK Native Rate	US White Rate
0-9	0	0	0	0	0	0
10-19	0	0	0.1	0	0	0.1
20-29	1	1.0	1.1	0	0	1.0
30-39	11	8.6	5.2	7	5.3	4.5
40-49	20	22.5	19.1	32	35.4	16.5
50-59	81	156.7	73.8	73	139.4	50.9
60-69	102	330.4	202.6	82	239.6	133.9
70+	128	592.6	433.3	161	610.5	314.2
Total*	343	101.0	66.8	355	95.5	47.7

<sup>1</sup>US Data for years 1989-2002.

\*Rates for total counts are age-adjusted to US Census 2000 standard population.

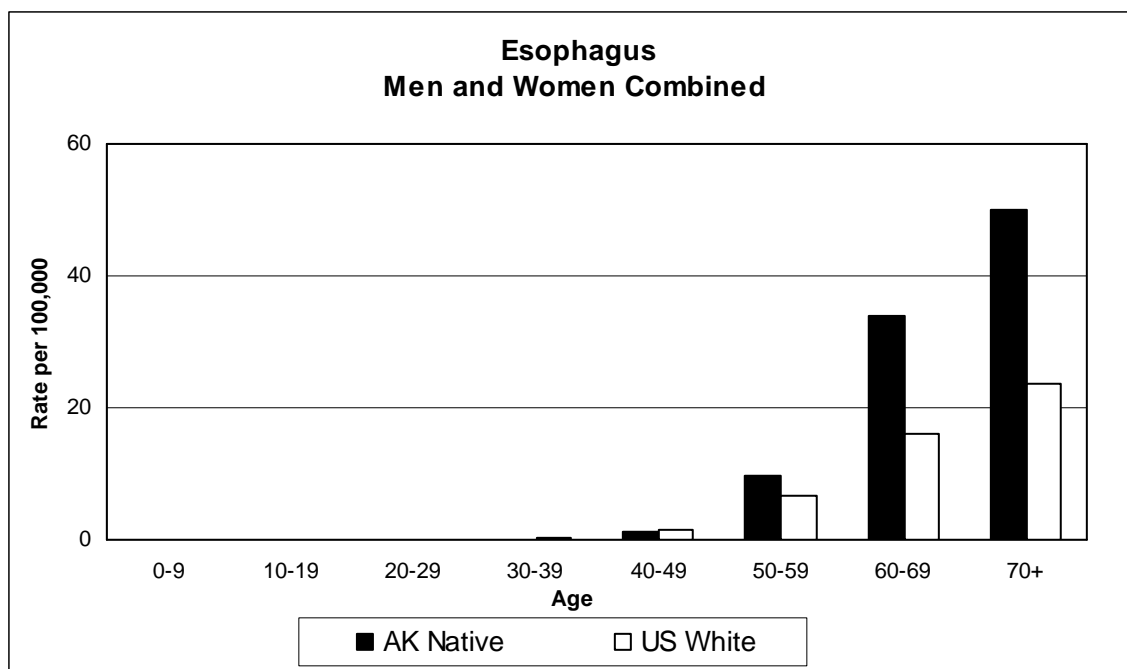
Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003



<sup>1</sup>US Data for years 1989-2002.



**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



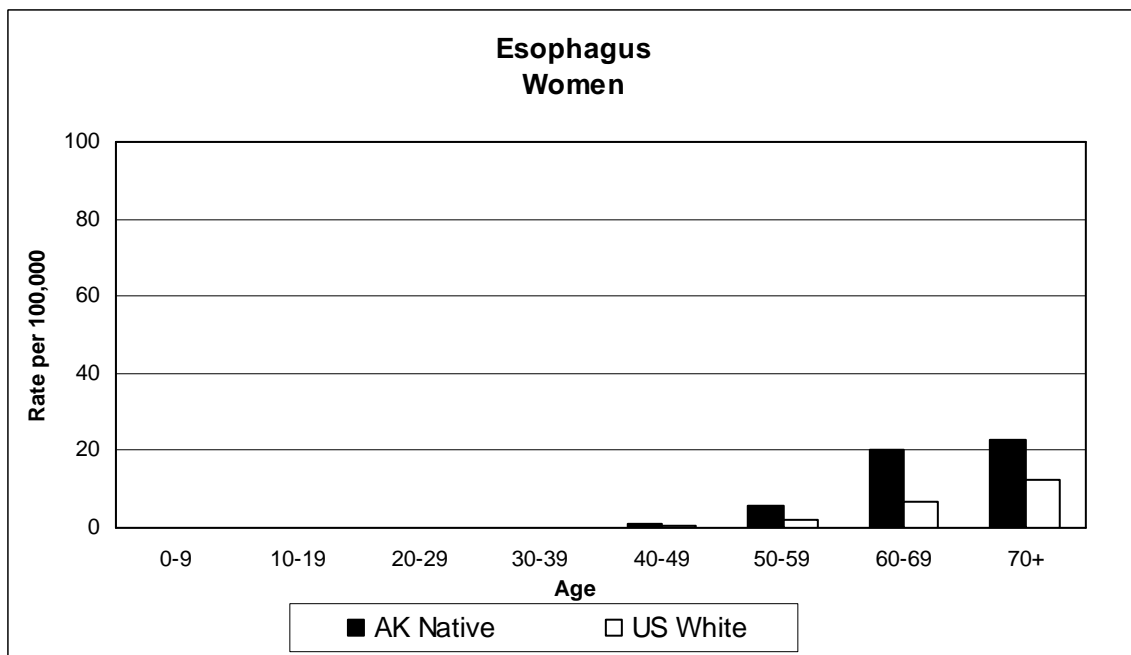
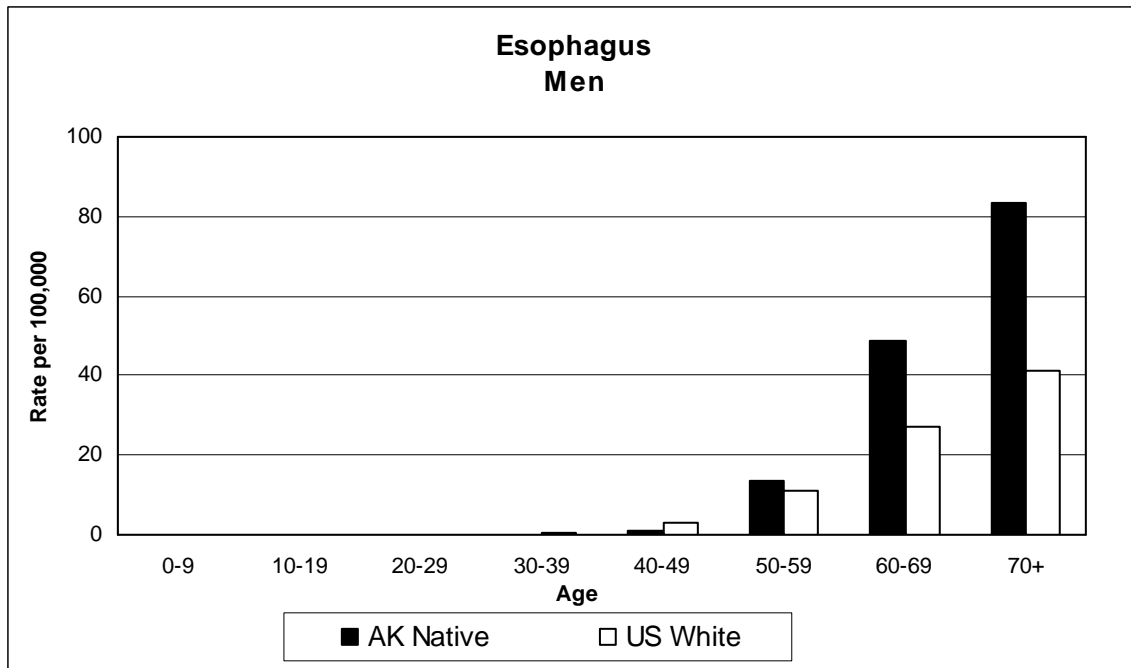
**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>  
Esophagus, 1989-2003**

Age	Men			Women		
	No.	AK Native Rate	US White Rate	No.	AK Native Rate	US White Rate
0-9	0	0	0	0	0	0
10-19	0	0	0	0	0	0
20-29	0	0	0	0	0	0
30-39	0	0	0.4	0	0	0.1
40-49	1	1.1	2.8	1	1.1	0.5
50-59	7	13.5	11.1	3	5.7	2.2
60-69	15	48.6	26.9	7	20.4	6.7
70+	18	83.3	41.1	6	22.8	12.5
Total*	41	12.9	7.5	17	4.4	2.0

<sup>1</sup>US Data for years 1989-2002.

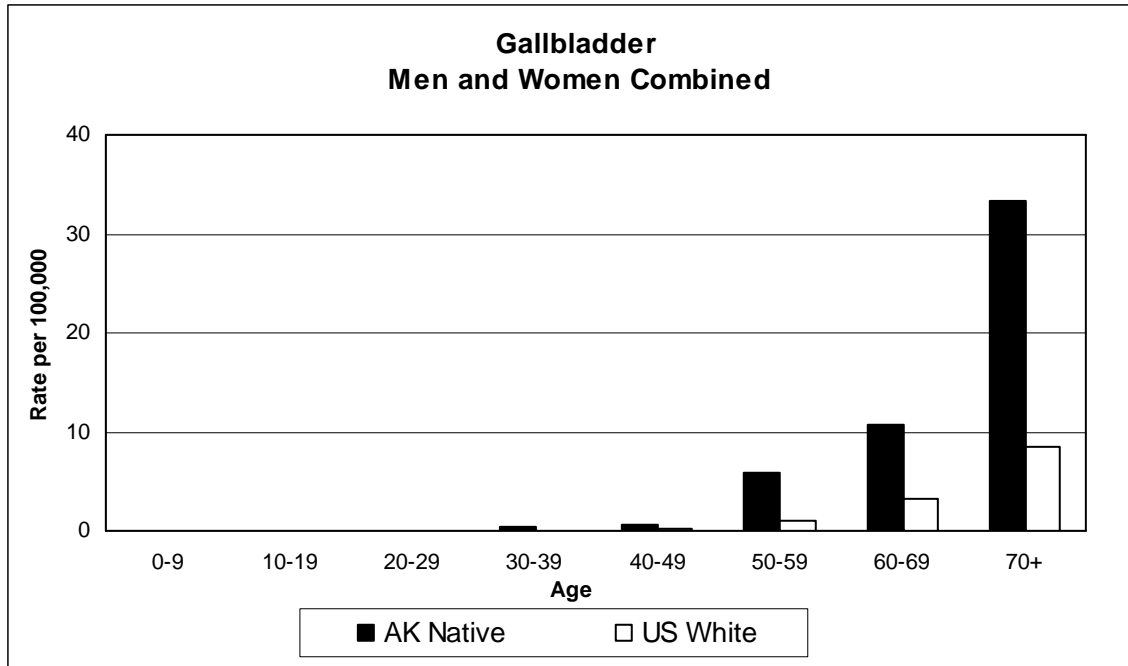
\* Rates for total counts are age-adjusted to US Census 2000 standard population for comparison.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



<sup>1</sup>US Data for years 1989-2002.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



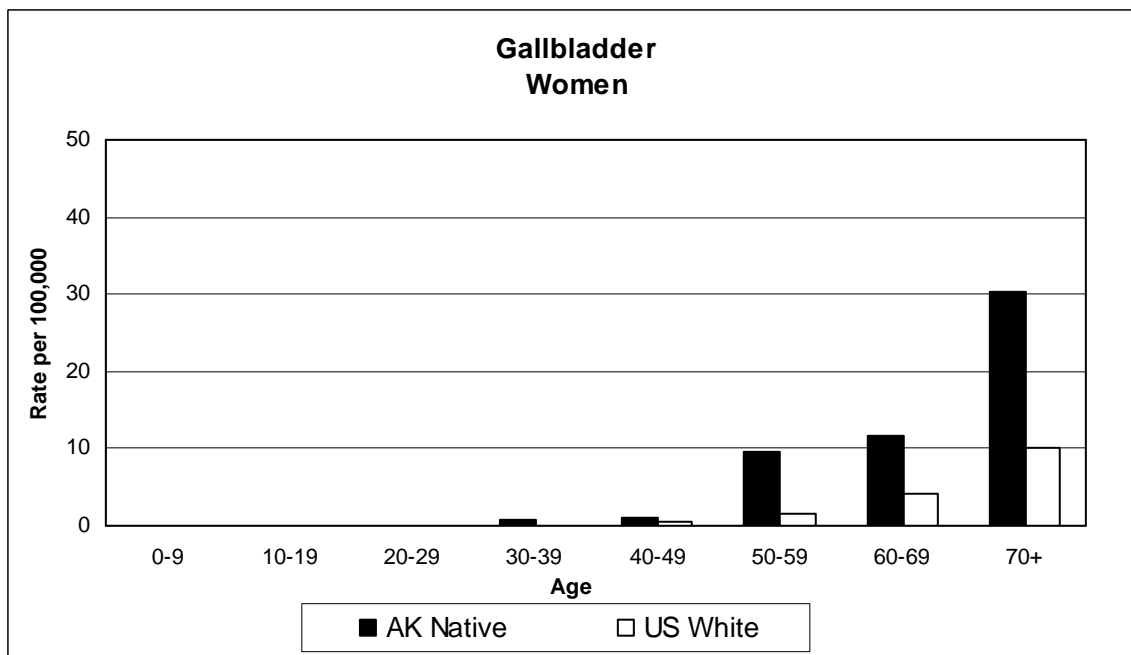
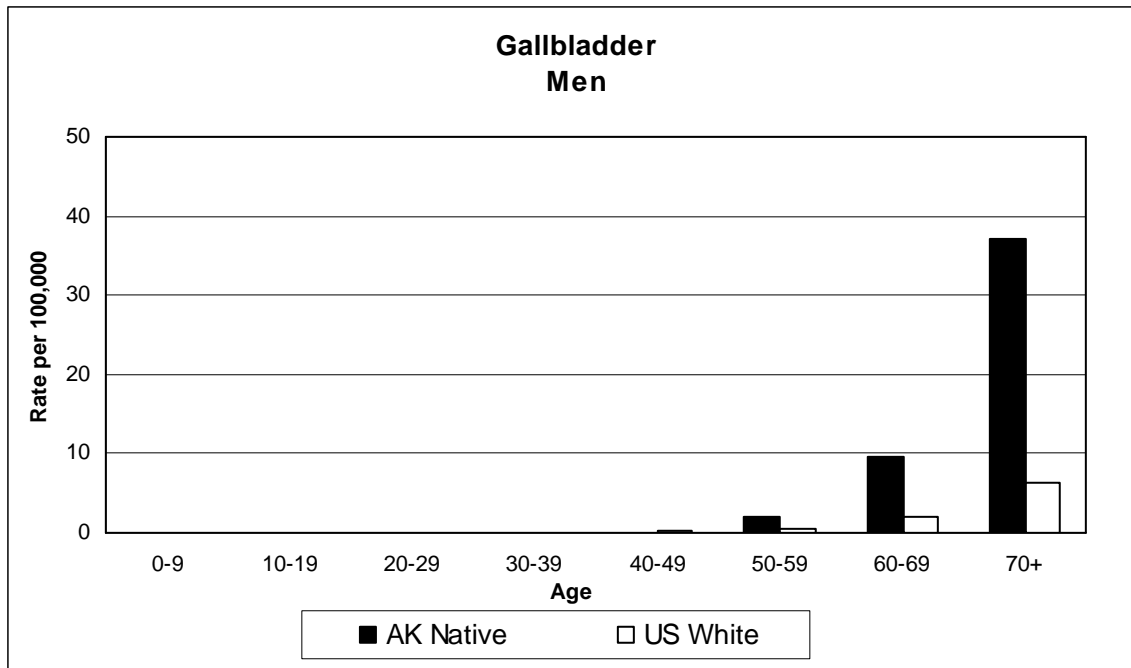
**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>  
Gallbladder, 1989-2003**

Age	Men			Women		
	AK Native No.	AK Native Rate	US White Rate	AK Native No.	AK Native Rate	US White Rate
0-9	0	0	0	0	0	0
10-19	0	0	0	0	0	0
20-29	0	0	0	0	0	0
30-39	0	0	0	1	0.8	0.1
40-49	0	0	0.2	1	1.1	0.4
50-59	1	1.9	0.6	5	9.5	1.5
60-69	3	9.7	2.0	4	11.7	4.2
70+	8	37.0	6.2	8	30.3	10
Total	12	4.3	0.8	19	5.0	1.5

<sup>1</sup>US Data for years 1989-2002.

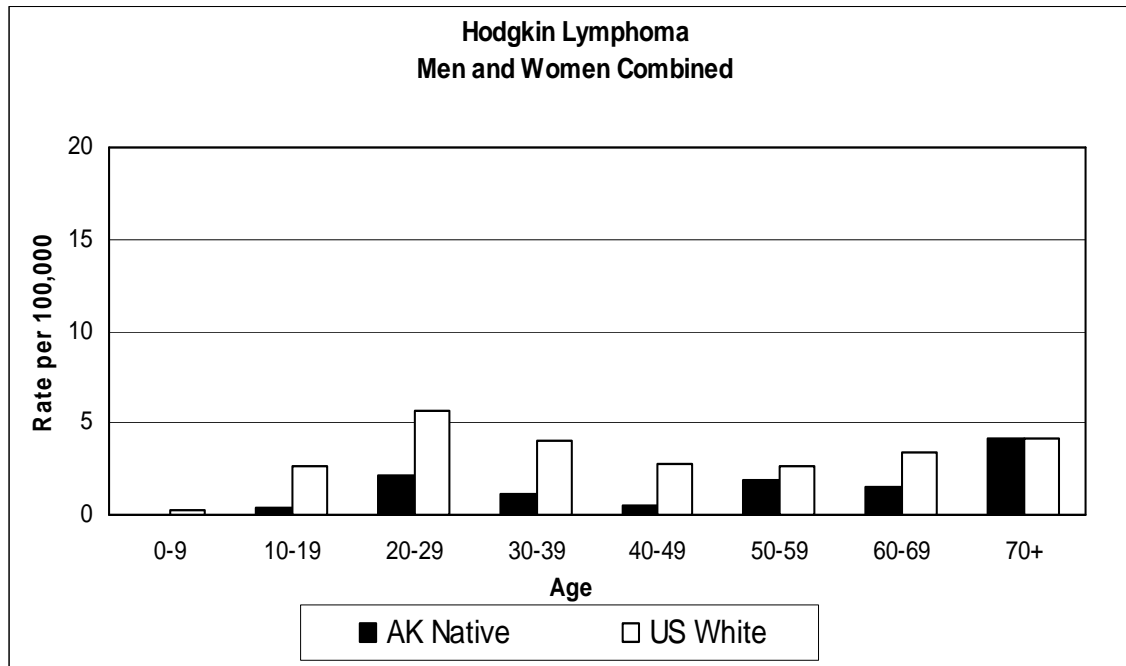
\* Rates for total counts are age-adjusted to US Census 2000 standard population for comparison.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



<sup>1</sup>US Data for years 1989-2002.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



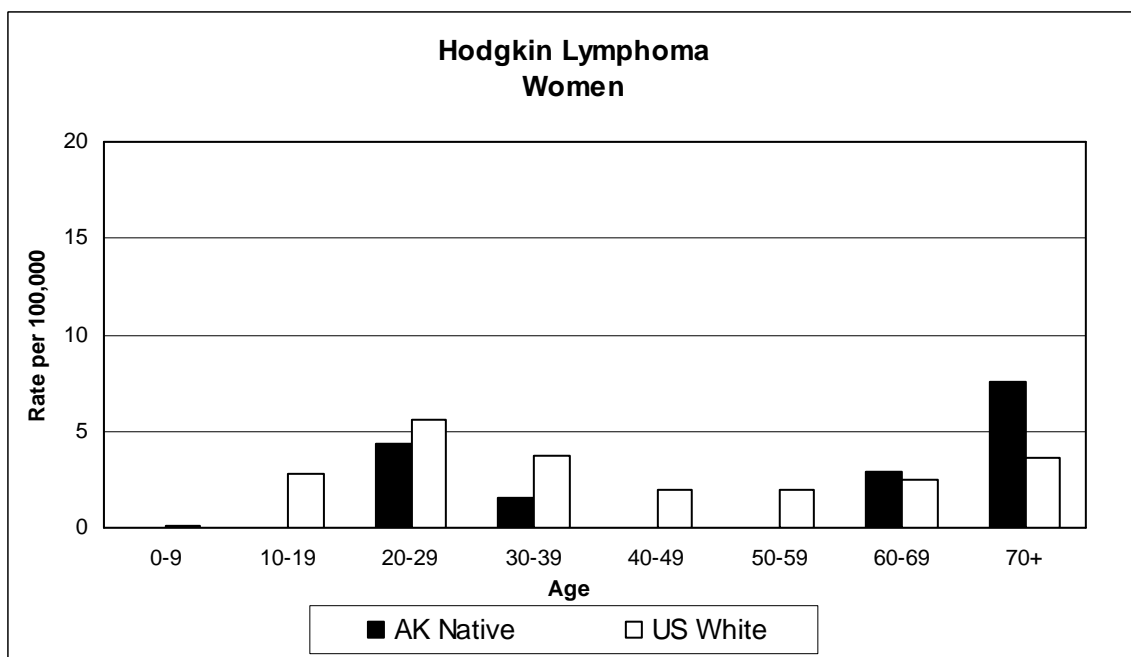
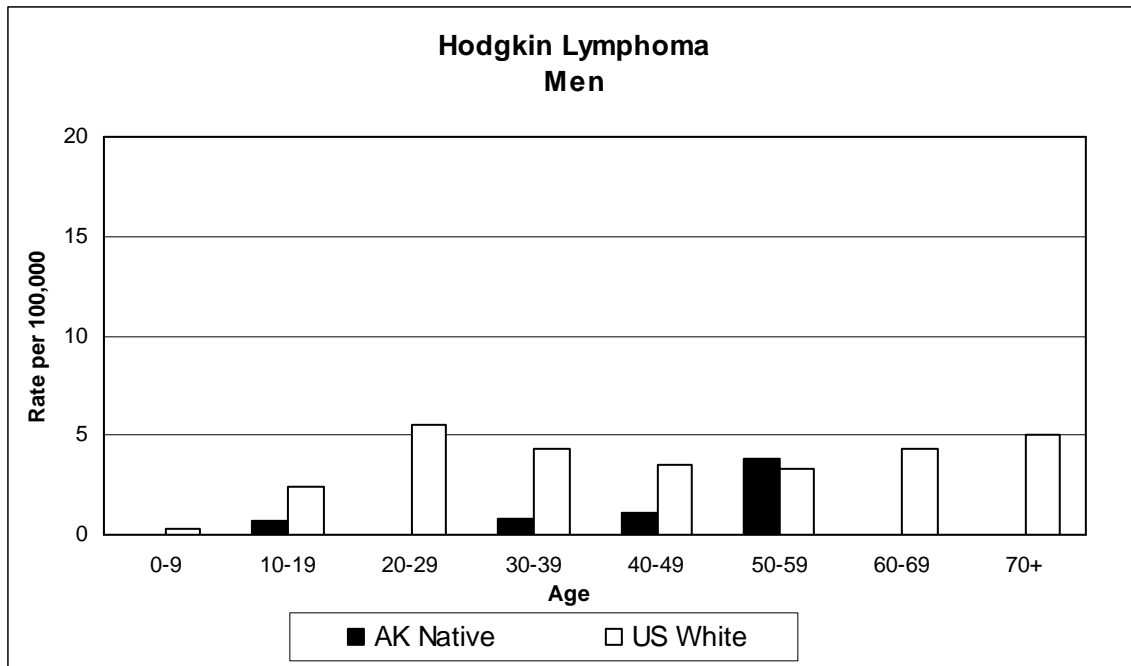
**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>  
Hodgkin Lymphoma, 1989-2003**

Age	Men			Women		
	AK Native No.	AK Native Rate	US White Rate	AK Native No.	AK Native Rate	US White Rate
0-9	0	0	0.3	0	0	0.1
10-19	1	0.7	2.4	0	0	2.8
20-29	0	0	5.5	4	4.3	5.6
30-39	1	0.8	4.3	2	1.5	3.7
40-49	1	1.1	3.5	0	0	2.0
50-59	2	3.9	3.3	0	0	2.0
60-69	0	0	4.3	1	2.9	2.5
70+	0	0	5.0	2	7.6	3.6
Total*	5	0.8	3.5	9	1.7	2.8

<sup>1</sup>US Data for years 1989-2002.

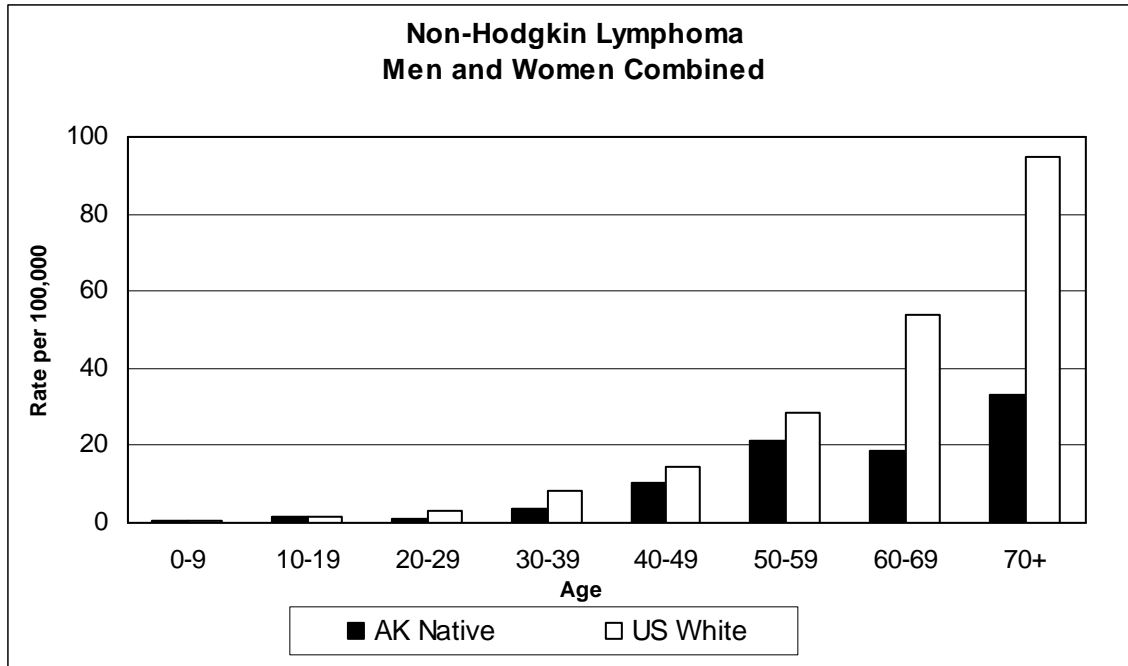
\* Rates for total counts are age-adjusted to US Census 2000 standard population for comparison.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



<sup>1</sup>US Data for years 1989-2002.

Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003



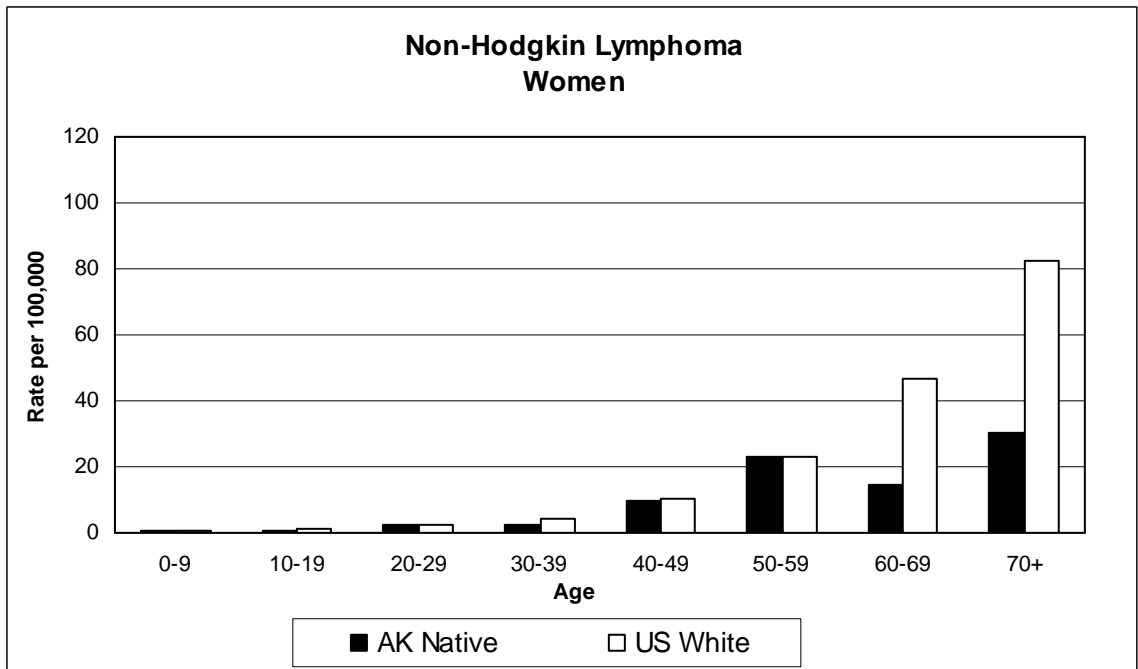
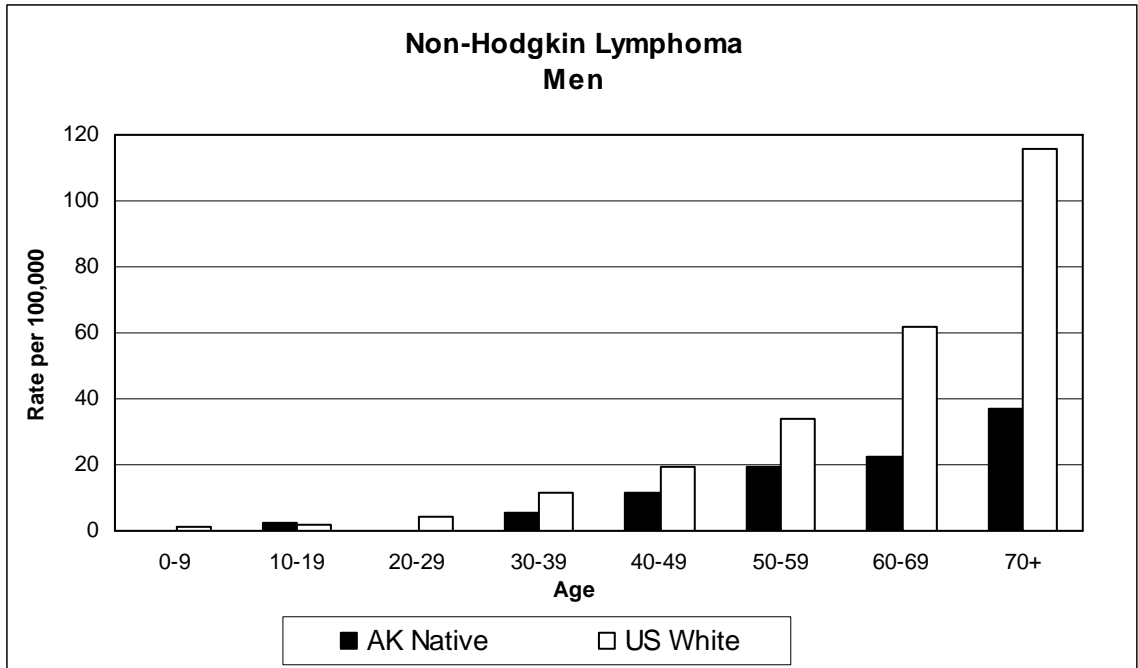
**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>  
Non-Hodgkin Lymphoma, 1989-2003**

Age	Men			Women		
	AK Native No.	AK Native Rate	US White Rate	AK Native No.	AK Native Rate	US White Rate
0-9	0	0	1.0	1	0.6	0.5
10-19	4	2.6	2.0	1	0.7	1.0
20-29	0	0	4.3	2	2.2	2.2
30-39	7	5.4	11.7	3	2.3	4.4
40-49	10	11.2	19.3	9	10.0	10.1
50-59	10	19.3	33.7	12	22.9	23.1
60-69	7	22.7	62.0	5	14.6	46.4
70+	8	37.0	115.7	8	30.3	82.3
Total*	46	10.2	24.7	41	8.8	16.3

<sup>1</sup>US Data for years 1989-2002.

\* Rates for total counts are age-adjusted to US Census 2000 standard population for comparison.

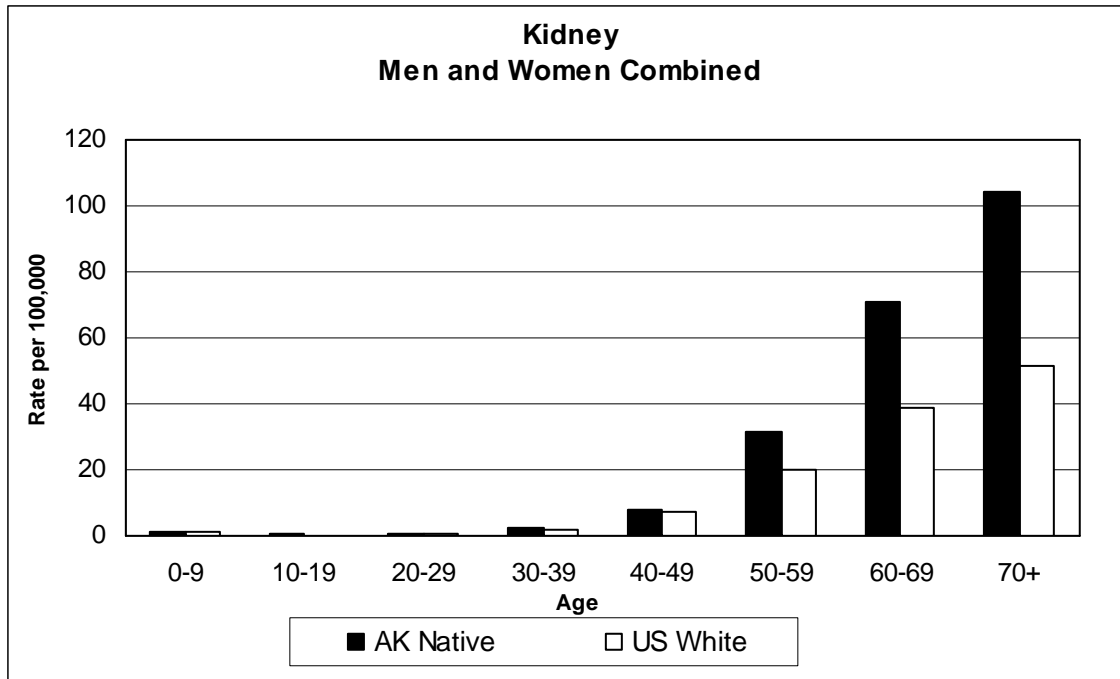
**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



<sup>1</sup>US Data for years 1989-2002.



**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



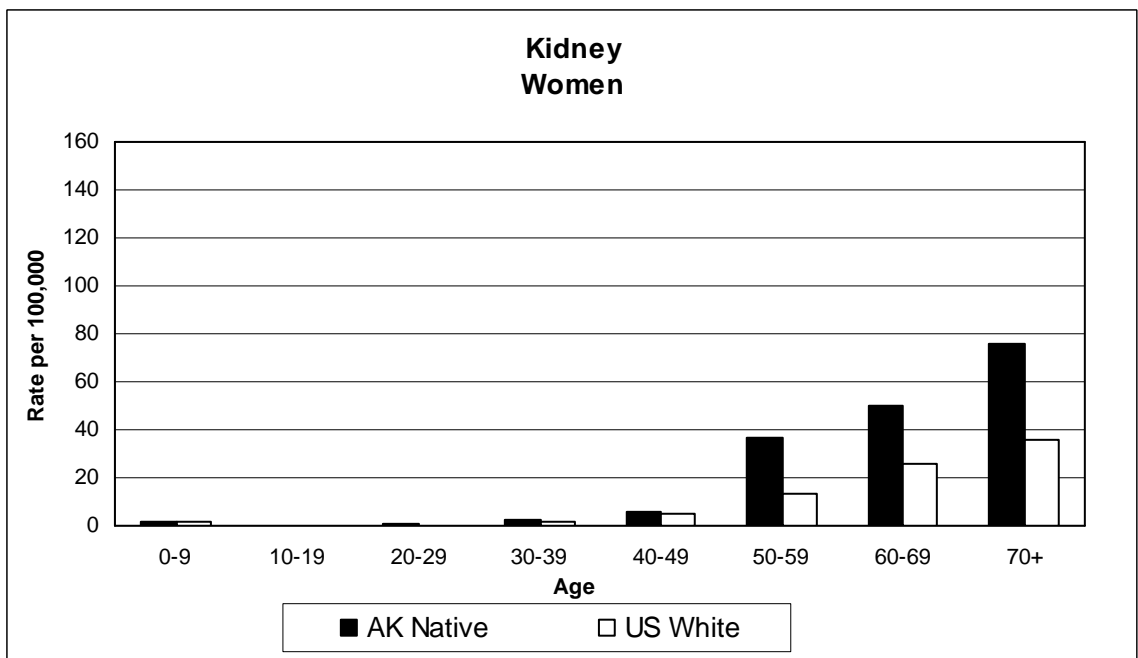
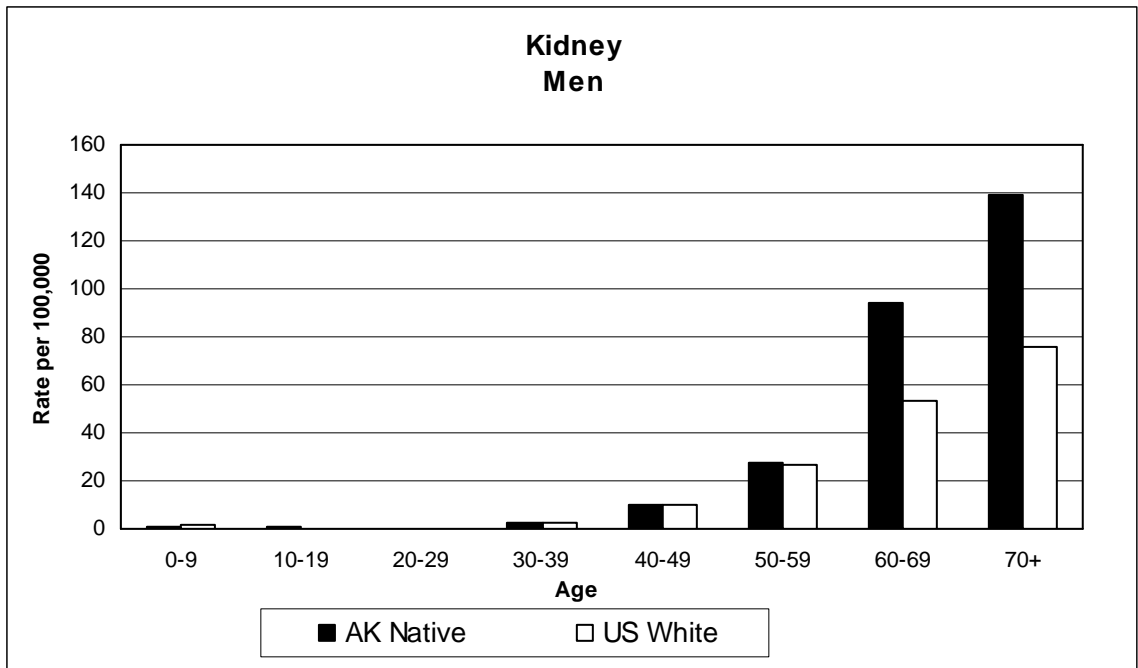
**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>  
Kidney, 1989-2003**

Age	Men			Women		
	AK Native No.	AK Native Rate	US White Rate	AK Native No.	AK Native Rate	US White Rate
0-9	1	0.6	1.4	3	1.8	1.4
10-19	1	0.7	0.1	0		0.1
20-29	0		0.3	1	1.1	0.4
30-39	3	2.3	2.1	3	2.3	1.4
40-49	9	10.1	9.9	5	5.5	4.9
50-59	14	27.1	26.8	19	36.3	13.3
60-69	29	93.9	53.7	17	49.7	25.9
70+	30	138.9	75.9	20	75.8	36.0
Total	87	24.8	16.0	68	16.2	7.9

<sup>1</sup>US Data for years 1989-2002.

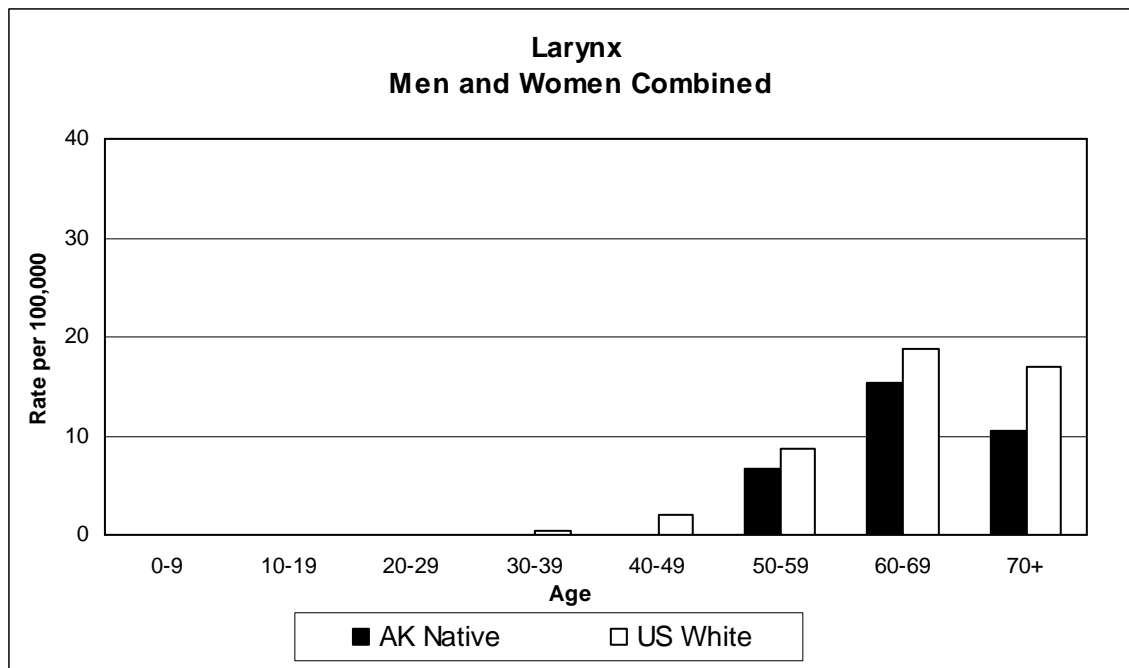
\* Rates for total counts are age-adjusted to US Census 2000 standard population for comparison.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



<sup>1</sup>US Data for years 1989-2002.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



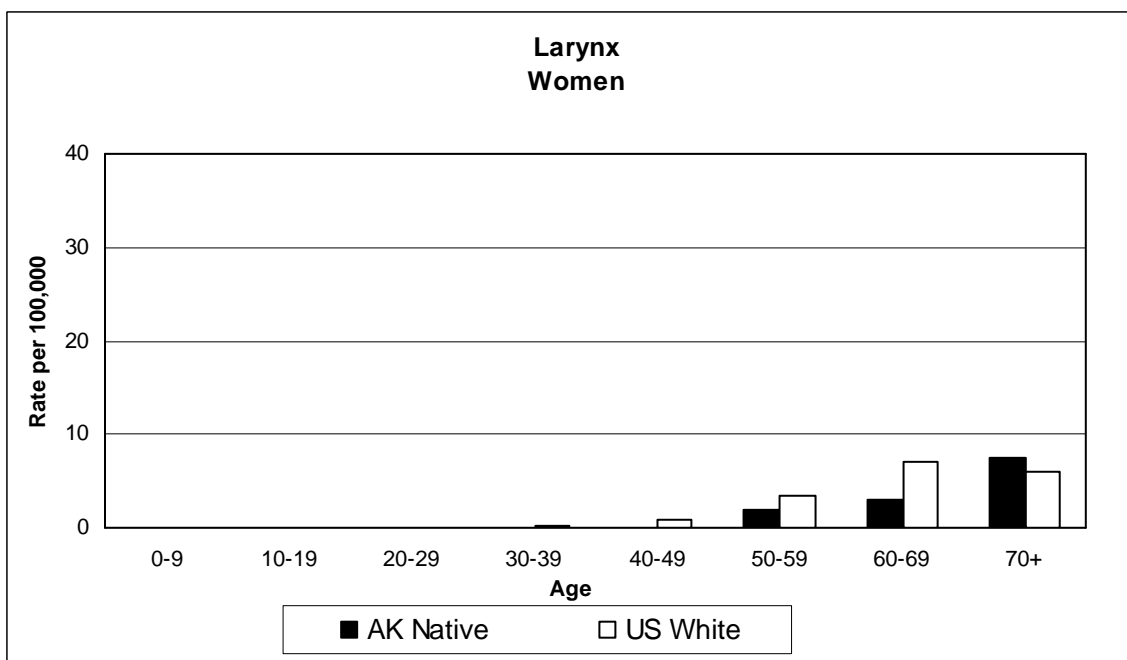
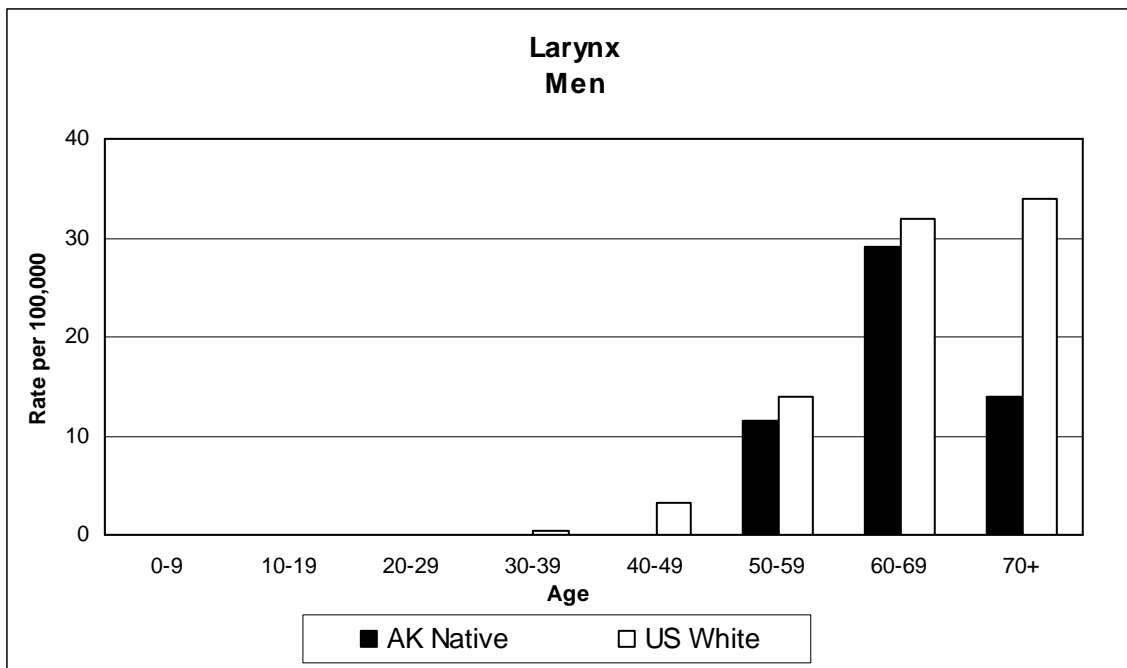
**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>  
Larynx, 1989-2003**

Age	Men			Women		
	AK Native No.	AK Native Rate	US White Rate	AK Native No.	AK Native Rate	US White Rate
0-9	0	0	0	0	0	0
10-19	0	0	0	0	0	0
20-29	0	0	0.1	0	0	0.1
30-39	0	0	0.5	0	0	0.2
40-49	0	0	3.3	0	0	0.9
50-59	6	11.6	14.0	1	1.9	3.4
60-69	9	29.2	31.9	1	2.9	7.1
70+	3	13.9	34.0	2	7.6	5.9
Total	18	4.7	7.6	4	1.1	1.6

<sup>1</sup>US Data for years 1989-2002.

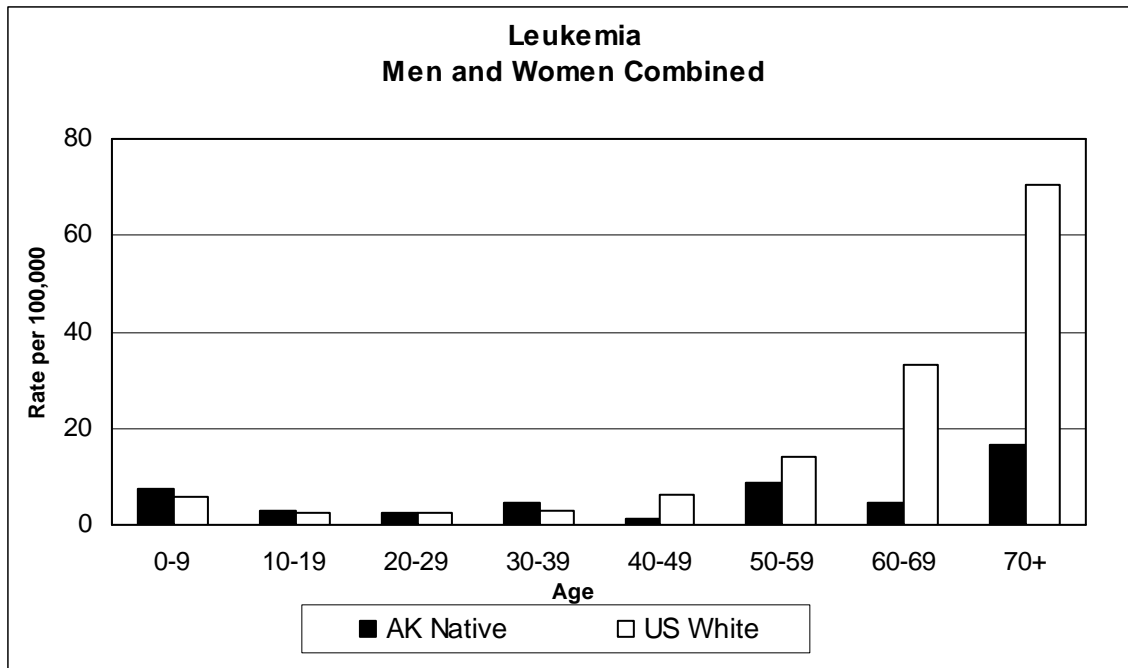
\* Rates for total counts are age-adjusted to US Census 2000 standard population for comparison.

Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003



<sup>1</sup>US Data for years 1989-2002.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



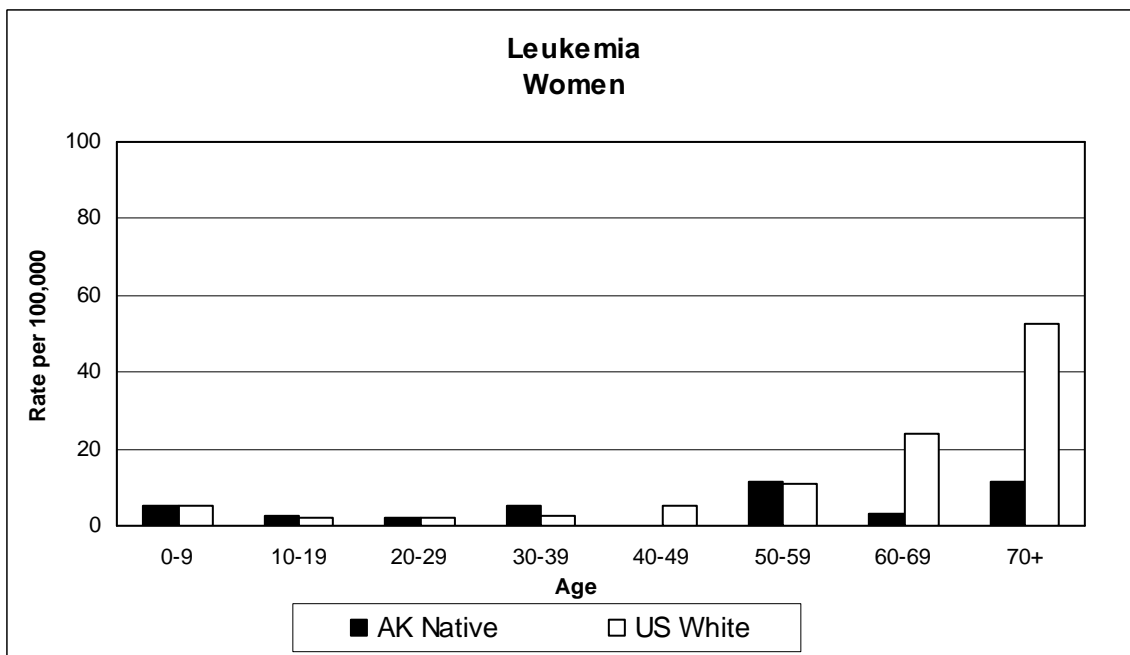
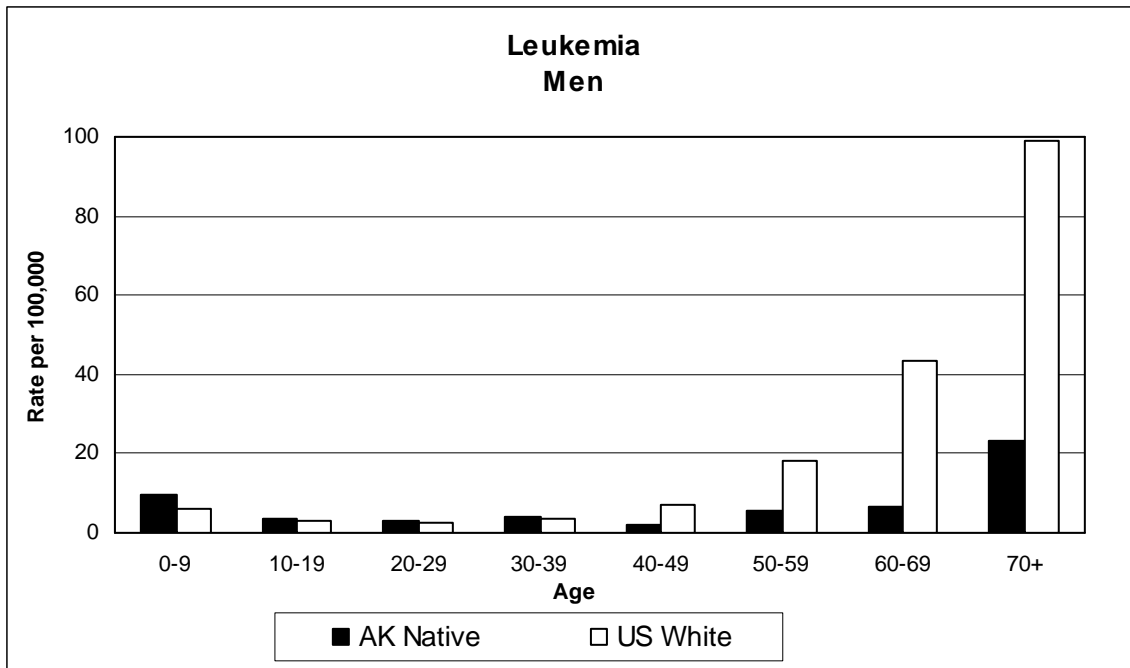
**Age-Specific Cancer Incidence Numbers and Rates in  
Alaska Natives and US Whites<sup>1</sup>  
Leukemia, 1989-2003**

Age	Men			Women		
	AK Native No.	AK Native Rate	US White Rate	AK Native No.	AK Native Rate	US White Rate
0-9	17	9.5	6.2	9	5.3	5.3
10-19	5	3.3	2.9	4	2.8	2.2
20-29	3	3.1	2.7	2	2.2	2.0
30-39	5	3.9	3.7	7	5.3	2.5
40-49	2	2.2	7.1	0	0	5.0
50-59	3	5.8	18.0	6	11.5	10.7
60-69	2	6.5	43.4	1	2.9	23.9
70+	5	23.1	99.1	3	11.4	52.8
Total	42	6.4	17.6	32	4.8	10.3

<sup>1</sup>US Data for years 1989-2002.

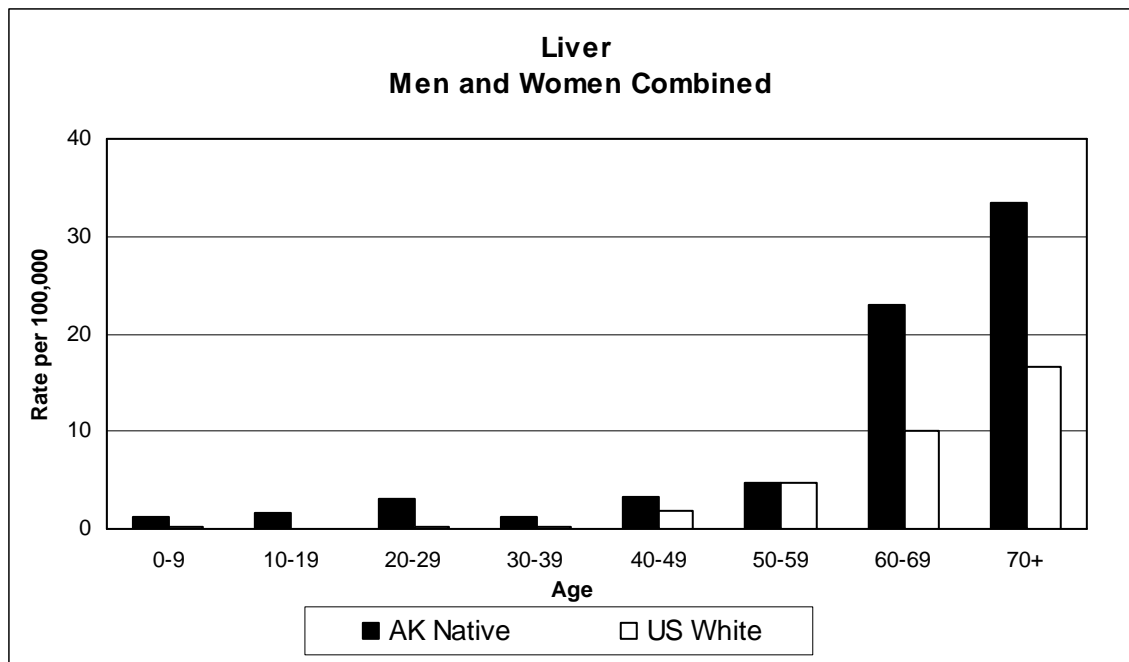
\* Rates for total counts are age-adjusted to US Census 2000 standard population for comparison.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



<sup>1</sup>US Data for years 1989-2002.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



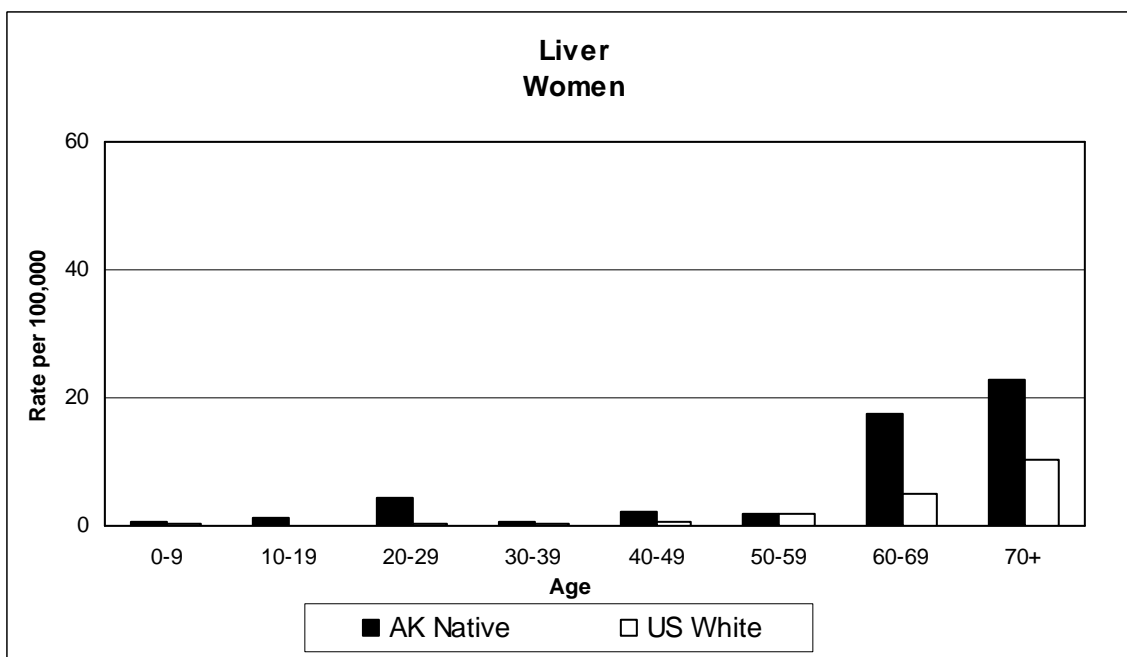
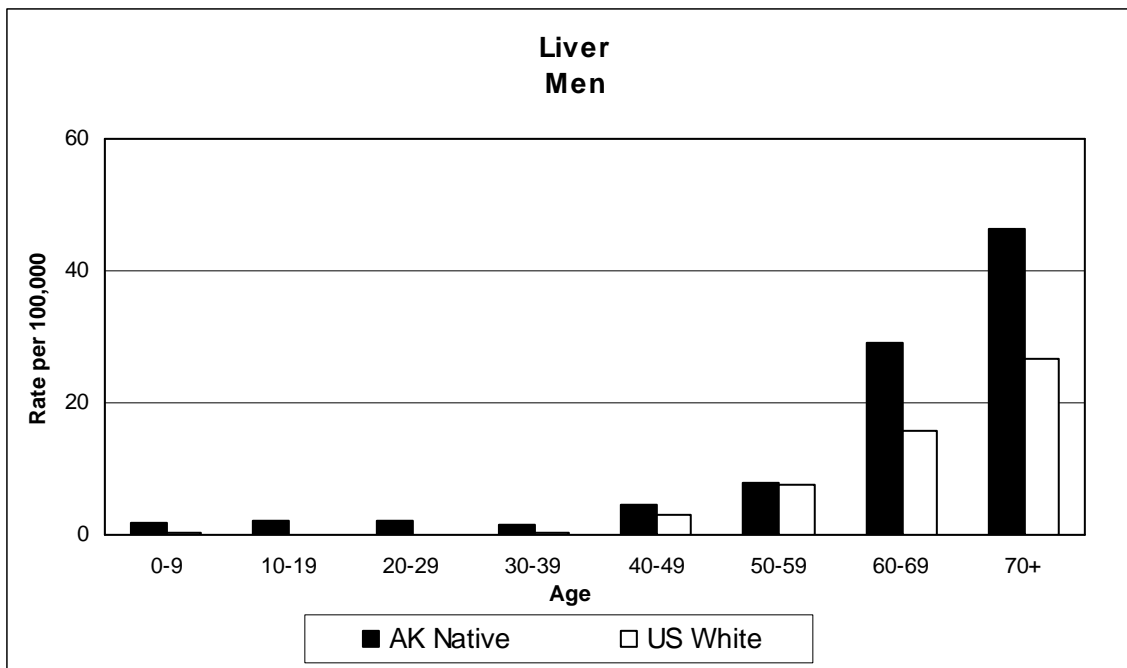
**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>  
Liver, 1989-2003**

Age	Men			Women		
	AK Native No.	AK Native Rate	US White Rate	AK Native No.	AK Native Rate	US White Rate
0-9	3	1.7	0.3	1	0.6	0.3
10-19	3	2.0	0.1	2	1.4	0.1
20-29	2	2.0	0.1	4	4.3	0.2
30-39	2	1.6	0.4	1	0.8	0.2
40-49	4	4.5	3.1	2	2.2	0.7
50-59	4	7.7	7.7	1	1.9	1.9
60-69	9	29.2	15.9	6	17.5	5.0
70+	10	46.3	26.8	6	22.8	10.3
Total*	37	9.0	5.1	23	4.9	1.7

<sup>1</sup>US Data for years 1989-2002.

\* Rates for total counts are age-adjusted to US Census 2000 standard population for comparison.

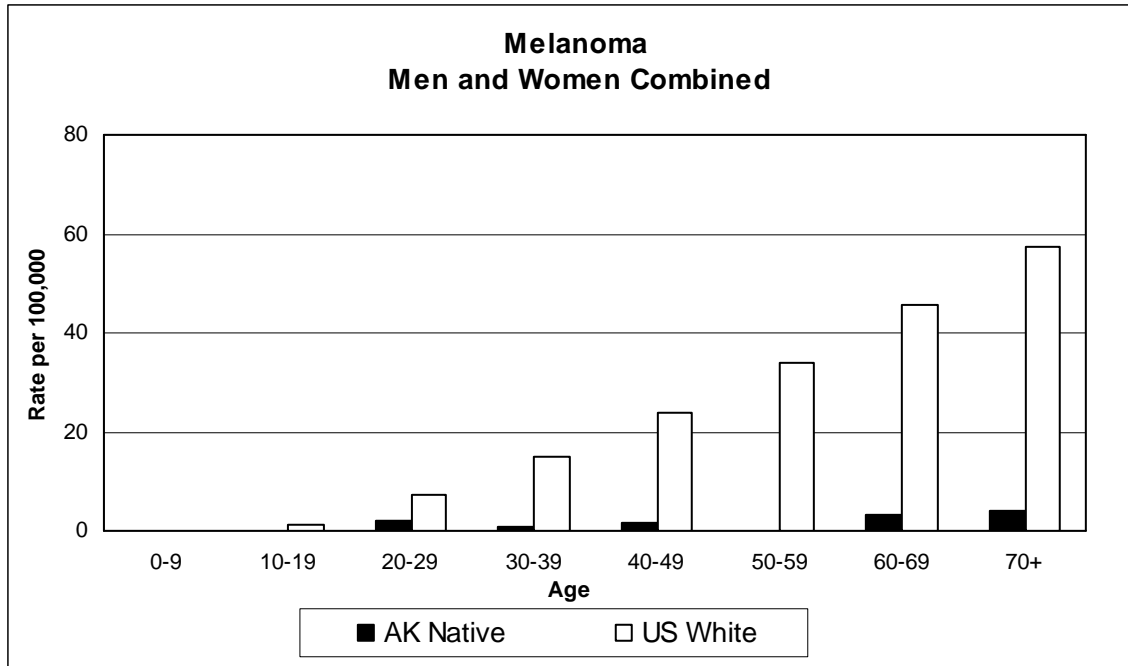
Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003



<sup>1</sup>US Data for years 1989-2002.



**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



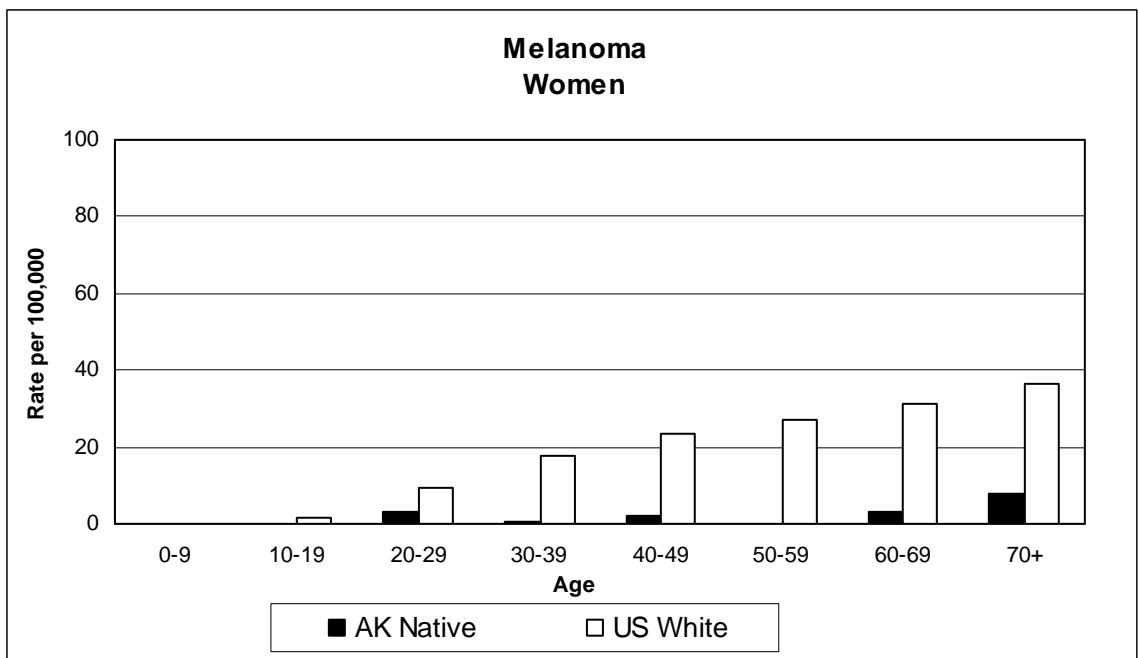
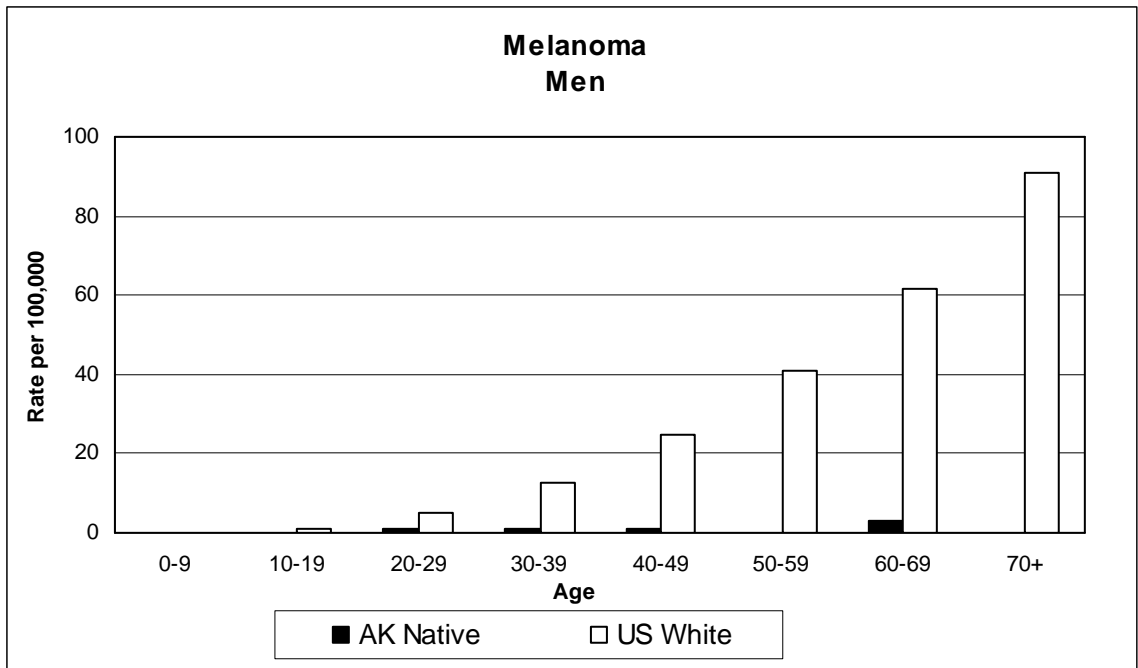
**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>  
Melanoma, 1989-2003**

Age	Men			Women		
	AK Native No.	AK Native Rate	US White Rate	AK Native No.	AK Native Rate	US White Rate
0-9	0	0	0.1	0	0	0.1
10-19	0	0	0.9	0	0	1.5
20-29	1	1.0	5.0	3	3.3	9.5
30-39	1	0.8	12.5	1	0.8	17.7
40-49	1	1.1	24.5	2	2.2	23.6
50-59	0	0	40.8	0	0	26.9
60-69	1	3.2	61.7	1	2.9	31.2
70+	0	0	91.1	2	7.6	36.5
Total*	4	0.7	23.9	9	1.8	16.4

<sup>1</sup>US Data for years 1989-2002.

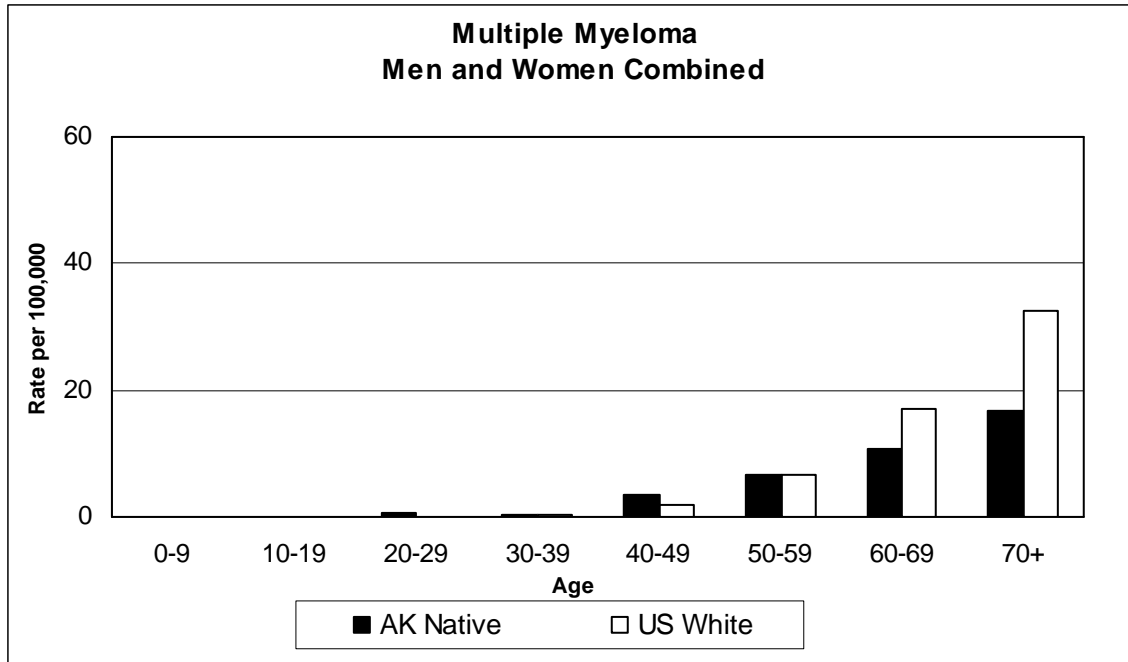
\* Rates for total counts are age-adjusted to US Census 2000 standard population for comparison.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



<sup>1</sup>US Data for years 1989-2002.

Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003



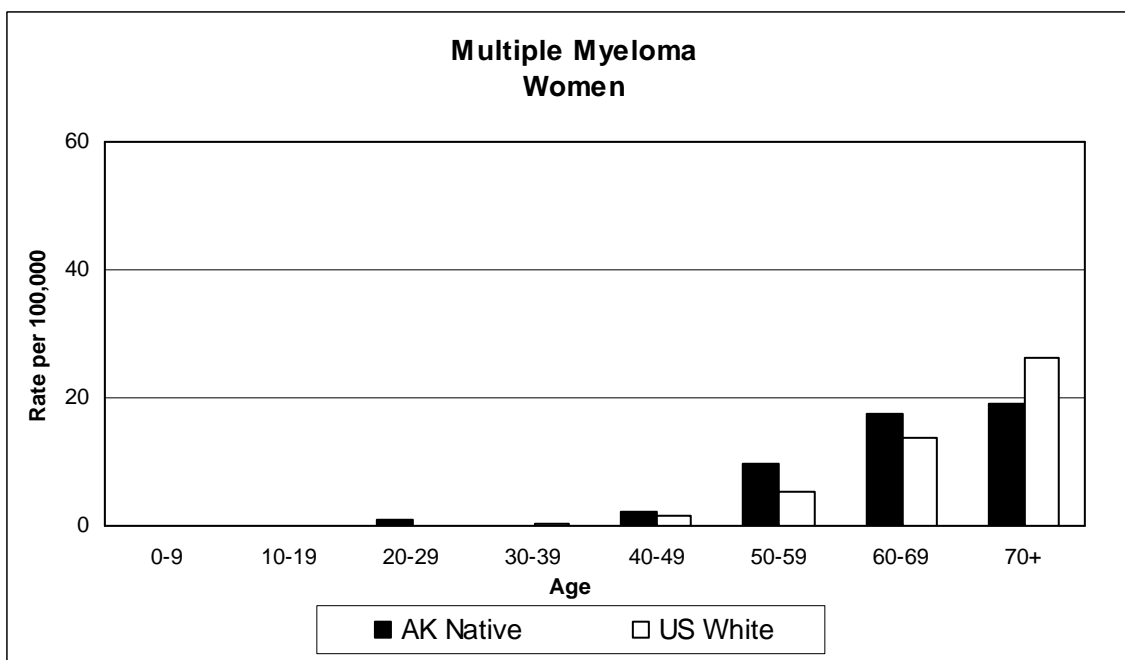
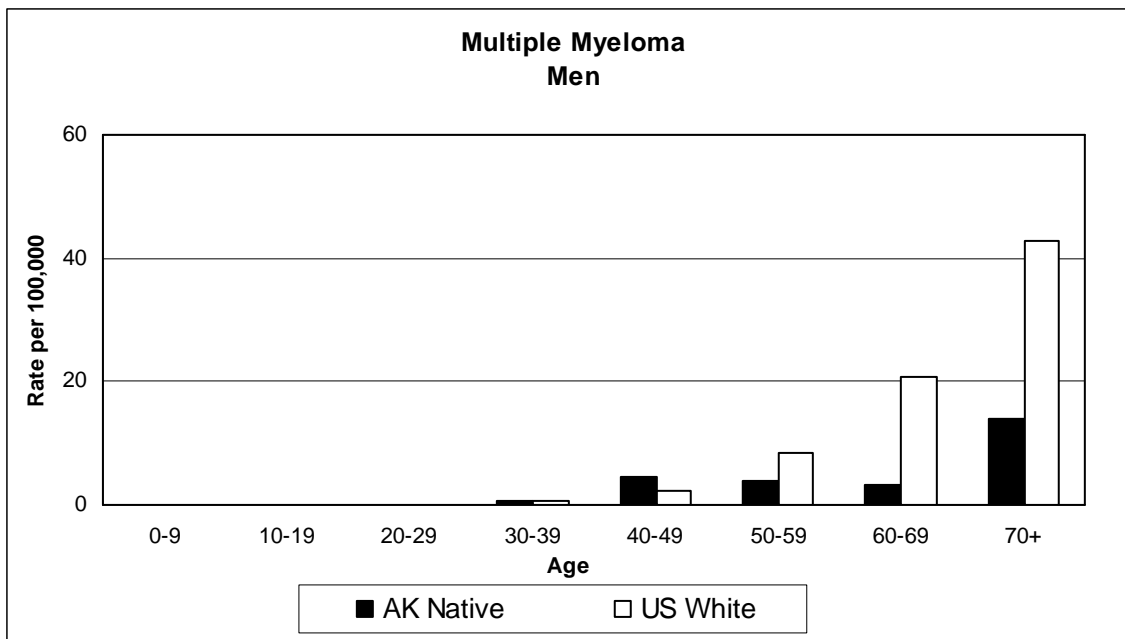
**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>  
Multiple Myeloma, 1989-2003**

Age	Men			Women		
	AK Native No.	AK Native Rate	US White Rate	AK Native No.	AK Native Rate	US White Rate
0-9	0	0	0	0	0	0
10-19	0	0	0	0	0	0
20-29	0	0	0.1	1	1.1	0
30-39	1	0.8	0.5	0	0	0.2
40-49	4	4.5	2.2	2	2.2	1.5
50-59	2	3.9	8.3	5	9.5	5.2
60-69	1	3.2	20.8	6	17.5	13.6
70+	3	13.9	42.8	5	19.0	26.2
Total*	11	2.8	6.8	19	4.6	4.3

<sup>1</sup>US Data for years 1989-2002

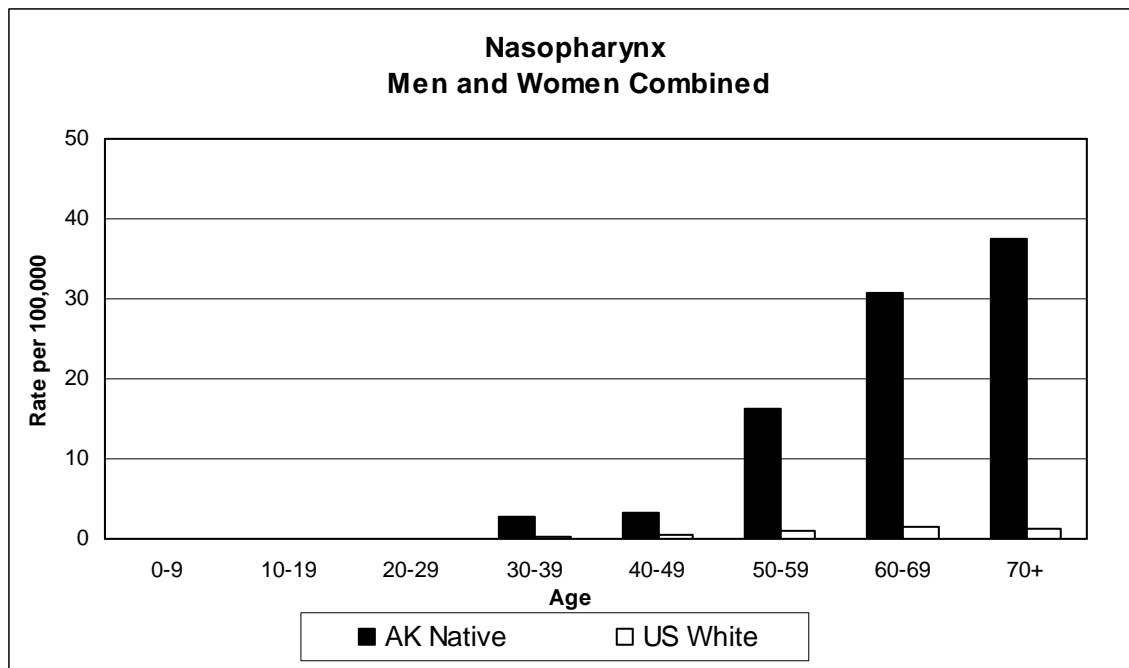
\* Rates for total counts are age-adjusted to US Census 2000 standard population for comparison.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



<sup>1</sup>US Data for years 1989-2002.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



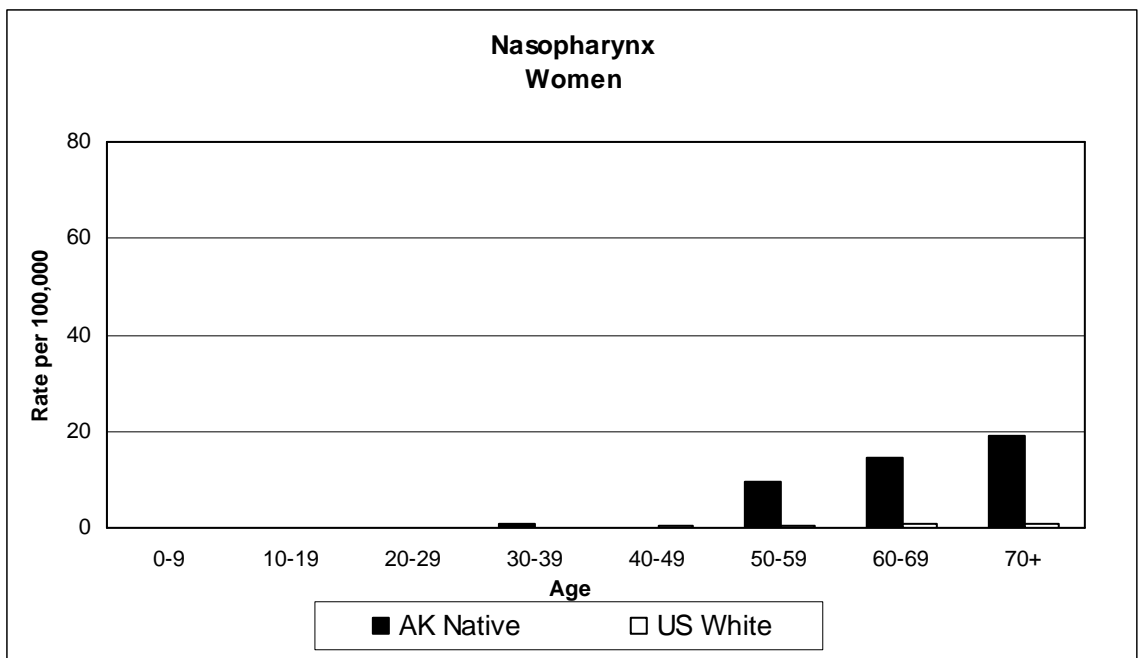
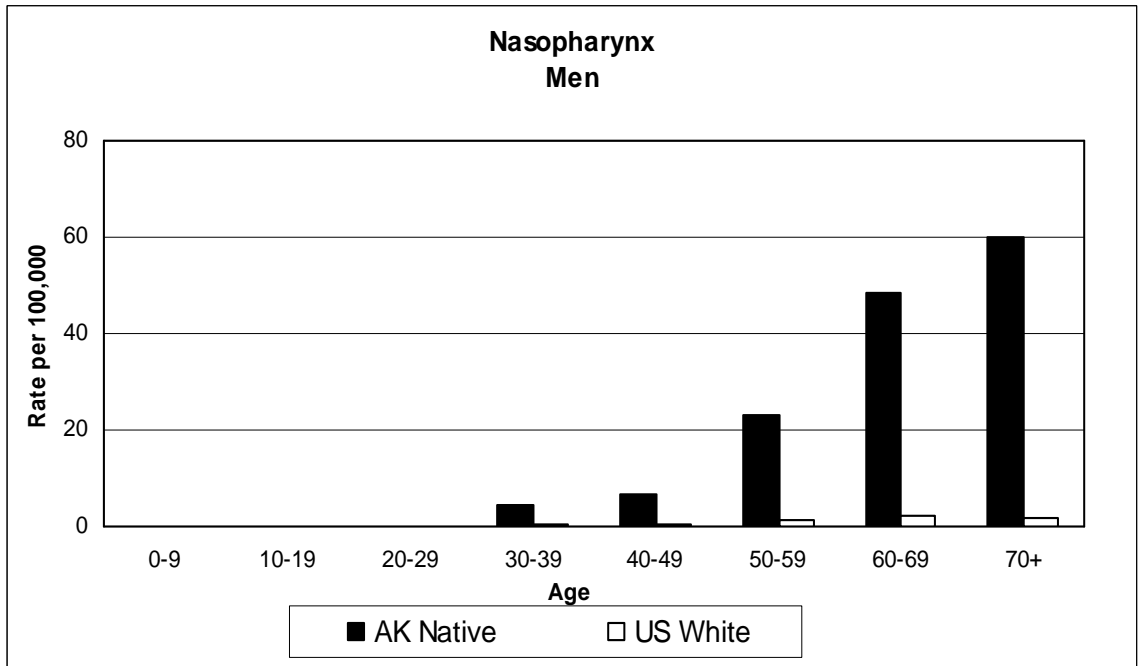
**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>  
Nasopharynx, 1989-2003**

Age	Men			Women		
	AK Native No.	AK Native Rate	US White Rate	AK Native No.	AK Native Rate	US White Rate
0-9	0	0	0	0	0	0
10-19	0	0	0.1	0	0	0.1
20-29	0	0	0.1	0	0	0.1
30-39	6	4.7	0.3	1	0.8	0.1
40-49	6	6.7	0.5	0	0	0.3
50-59	12	23.2	1.4	5	9.5	0.4
60-69	15	48.6	2.1	5	14.6	0.9
70+	13	60.2	1.7	5	19.0	0.9
Total*	52	13.4	0.6	16	4.0	0.3

<sup>1</sup>US Data for years 1989-2002

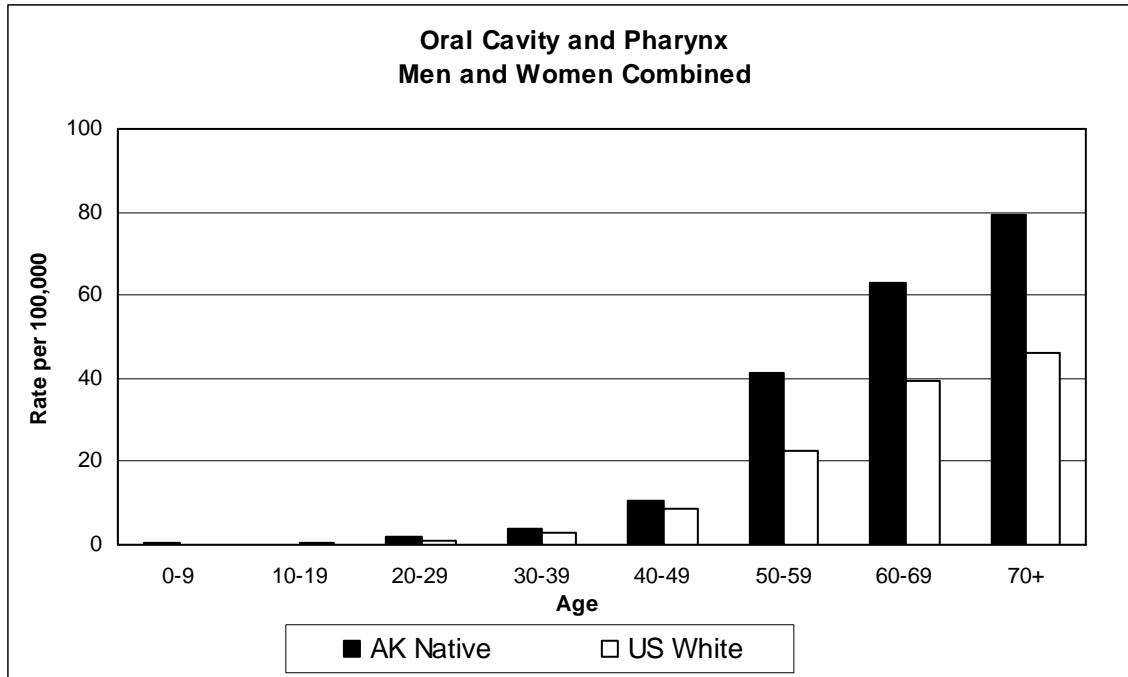
\* Rates for total counts are age-adjusted to US Census 2000 standard population for comparison.

Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003



<sup>1</sup>US Data for years 1989-2002.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites  
1989-2003**



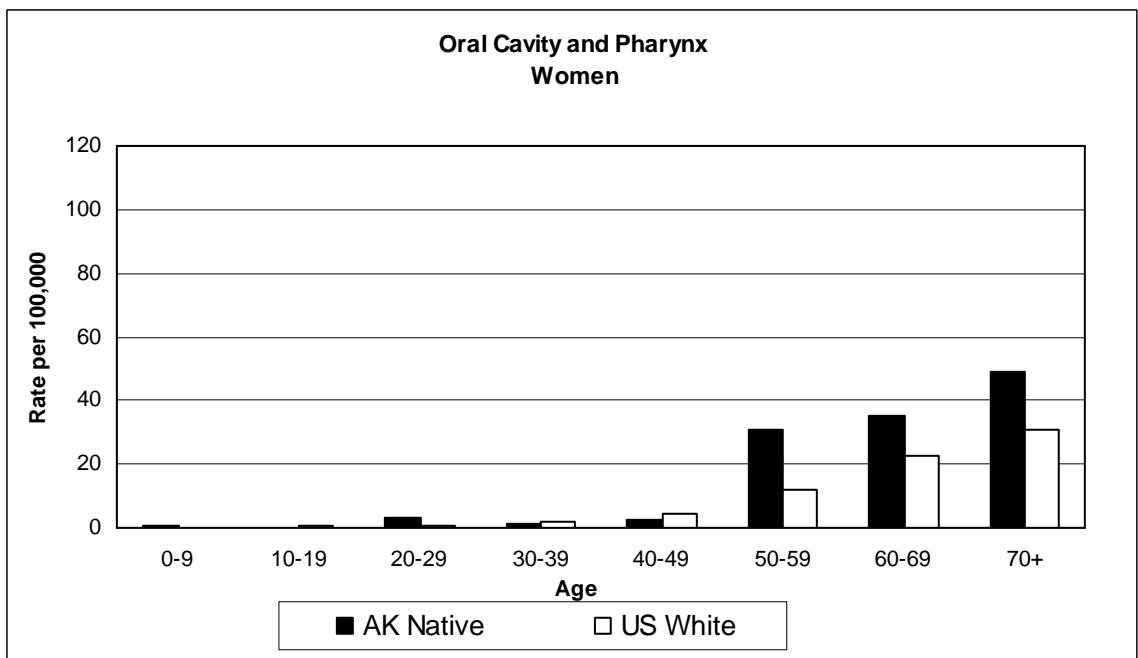
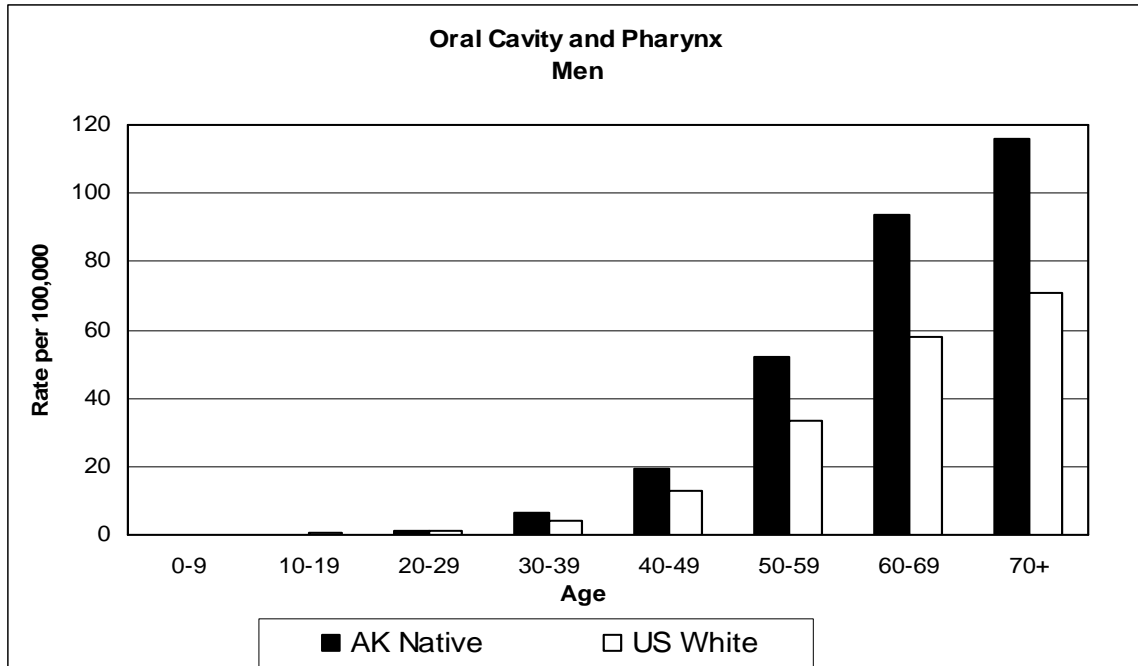
**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>  
Oral Cavity and Pharynx, 1989-2003**

Age	Men			Women		
	No.	AK Native Rate	US White Rate	No.	AK Native Rate	US White Rate
0-9	0	0	0.1	1	0.6	0.1
10-19	0	0	0.3	0	0	0.4
20-29	1	1.0	1.0	3	3.3	0.9
30-39	8	6.2	3.9	2	1.5	1.6
40-49	17	19.1	12.8	2	2.2	4.4
50-59	27	52.2	33.2	16	30.6	11.9
60-69	29	93.9	58.2	12	35.1	22.8
70+	25	115.7	71.1	13	49.3	30.5
Total*	107	27.4	17.3	49	11.6	6.9

<sup>1</sup>US Data for years 1989-2002

\* Rates for total counts are age-adjusted to US Census 2000 standard population for comparison.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**

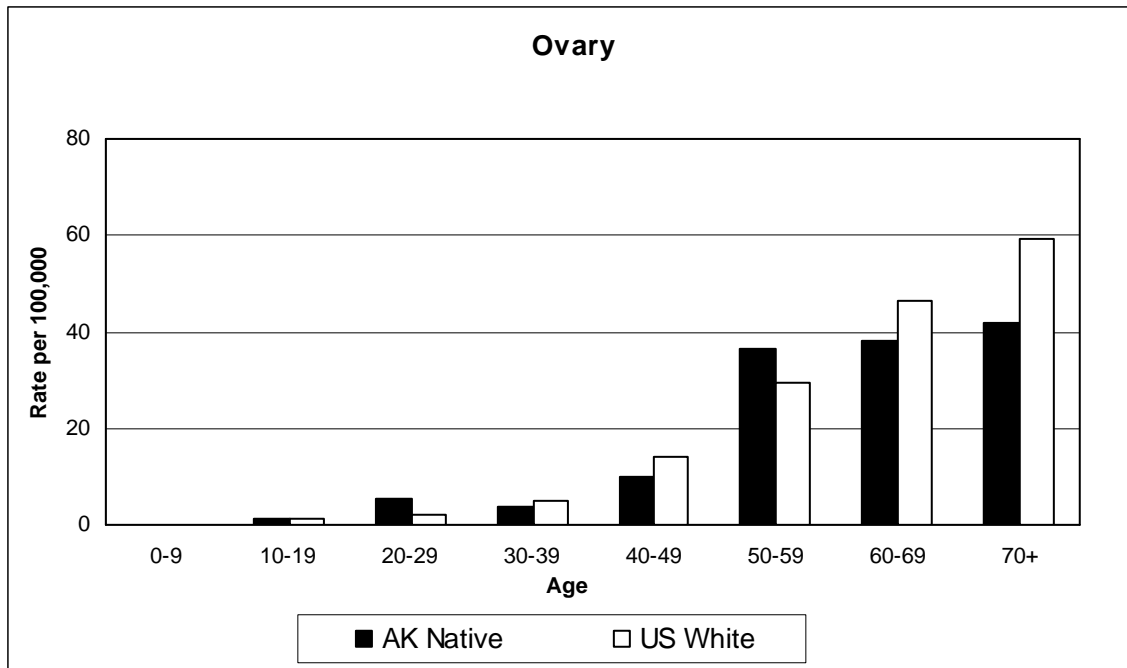


<sup>1</sup>US Data for years 1989-2002.





**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



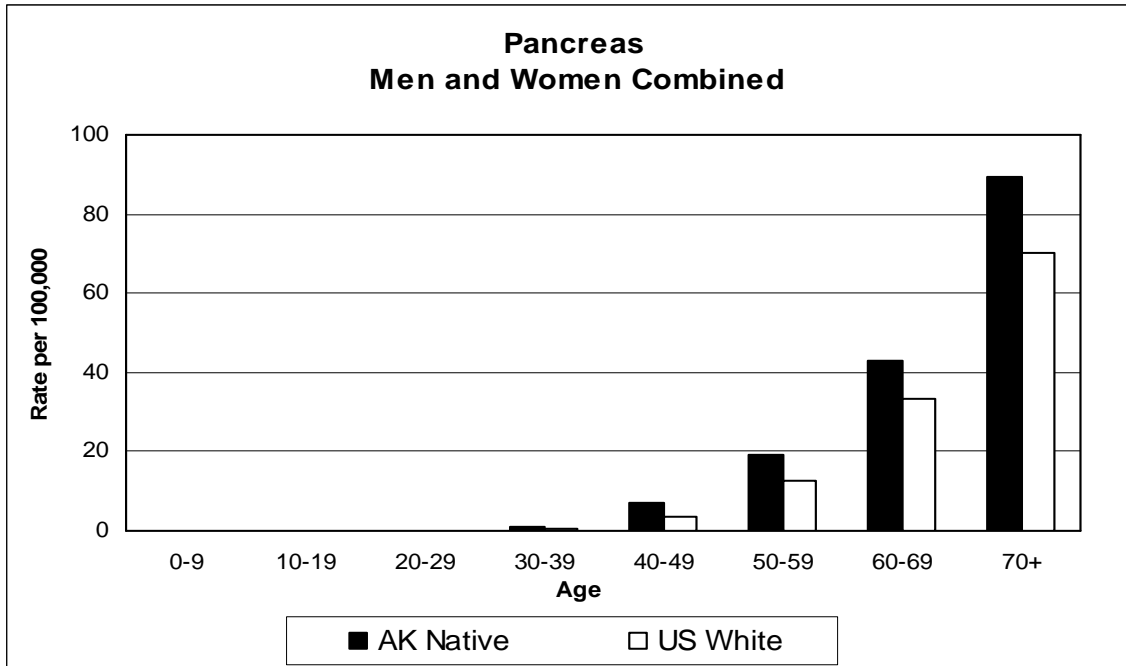
**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>  
Ovary, 1989-2003**

Age	AK Native		US White
	No.	Rate	Rate
0-9	0	0	0.1
10-19	2	1.4	1.1
20-29	5	5.4	1.9
30-39	5	3.8	4.8
40-49	9	10.0	13.9
50-59	19	36.3	29.5
60-69	13	38.0	46.4
70+	11	41.7	59.4
Total*	64	13.7	15.4

<sup>1</sup>US Data for years 1989-2002

\* Rates for total counts are age-adjusted to US Census 2000 standard population for comparison.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



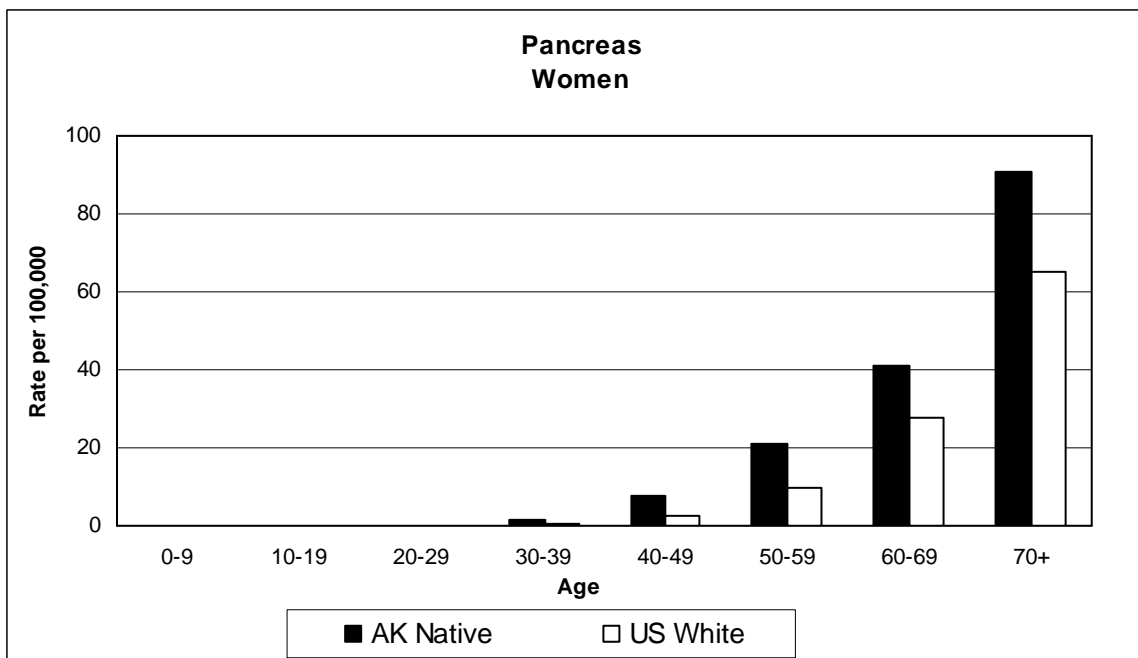
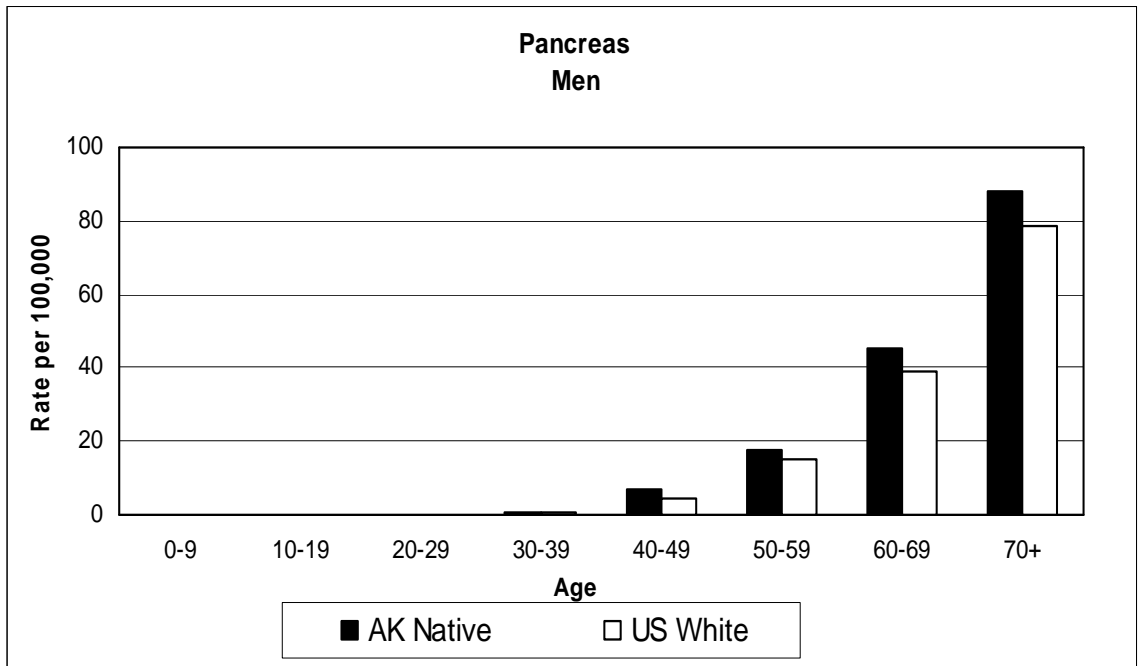
**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>  
Pancreas, 1989-2003**

Age	Men			Women		
	AK Native No.	AK Native Rate	US White Rate	AK Native No.	AK Native Rate	US White Rate
0-9	0	0	0	0	0	0
10-19	0	0	0	0	0	0
20-29	0	0	0.1	0	0	0.2
30-39	1	0.8	0.8	2	1.5	0.5
40-49	6	6.7	4.1	7	7.7	2.5
50-59	9	17.4	15.4	11	21.0	9.9
60-69	14	45.4	39.3	14	40.9	27.7
70+	19	88.0	78.4	24	91.0	65.2
Total*	49	14.5	12.6	58	15.1	9.6

<sup>1</sup>US Data for years 1989-2002

\* Rates for total counts are age-adjusted to US Census 2000 standard population for comparison.

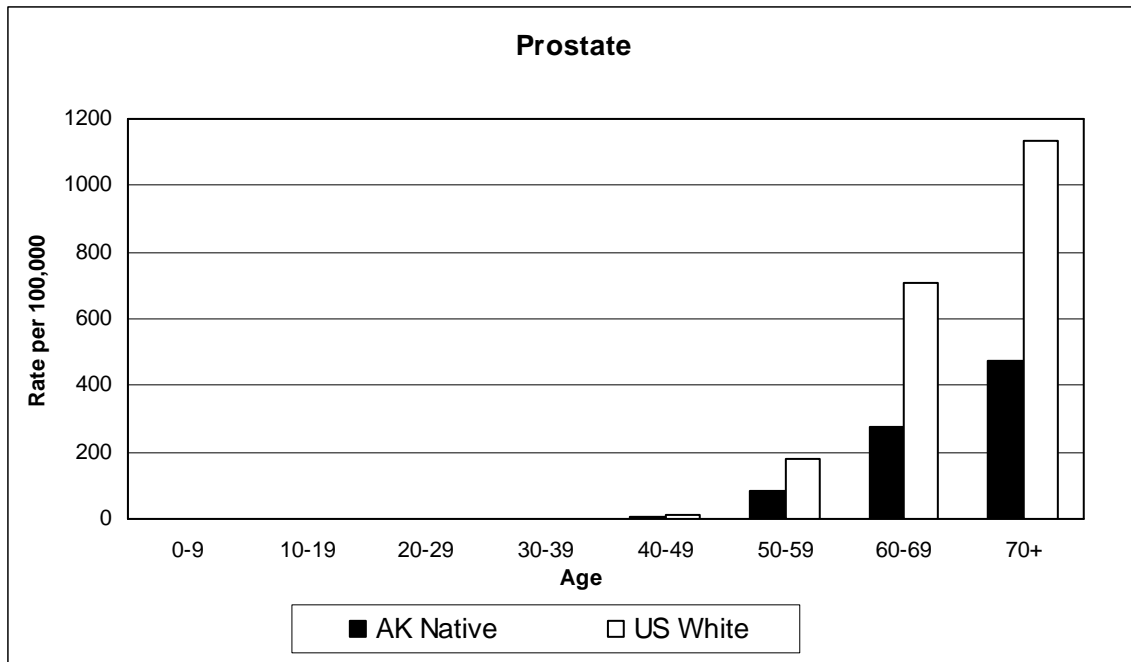
**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



<sup>1</sup>US Data for years 1989-2002.



**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



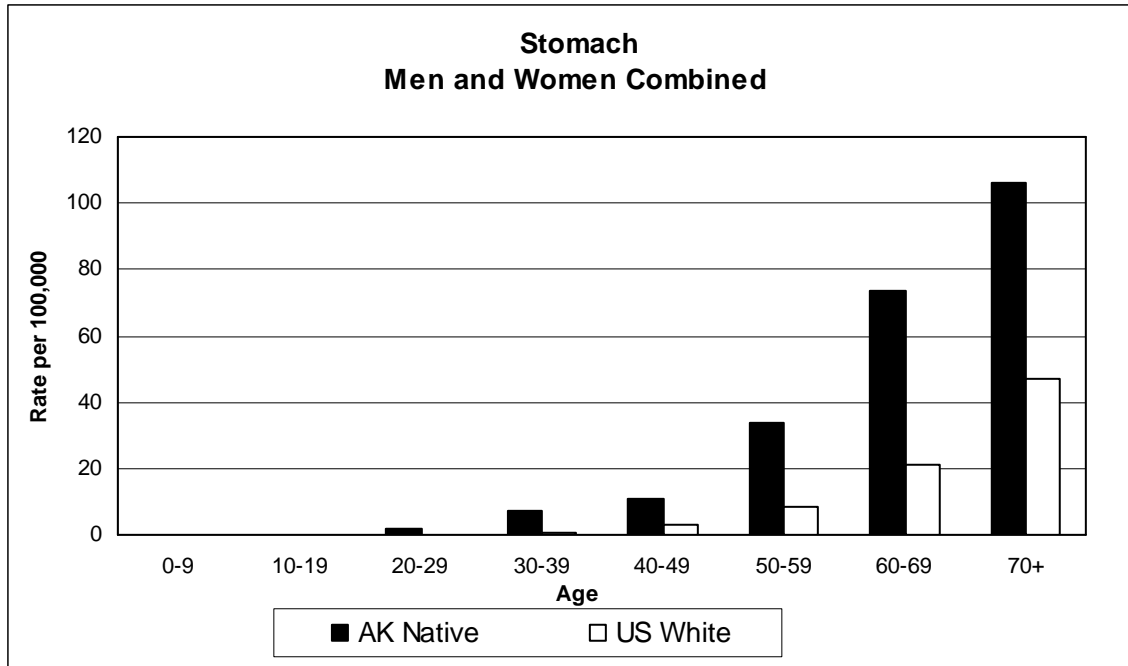
**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>  
Prostate 1989-2003**

Age	AK Native		US White
	No.	Rate	Rate
0-9	0	0	0
10-19	0	0	0
20-29	0	0	0
30-39	0	0	0.3
40-49	7	7.9	14.2
50-59	42	81.3	181.9
60-69	85	275.3	707.3
70+	102	472.2	1132.8
Total*	236	73.9	178.5

<sup>1</sup>US Data for years 1989-2002

\* Rates for total counts are age-adjusted to US Census 2000 standard population for comparison.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



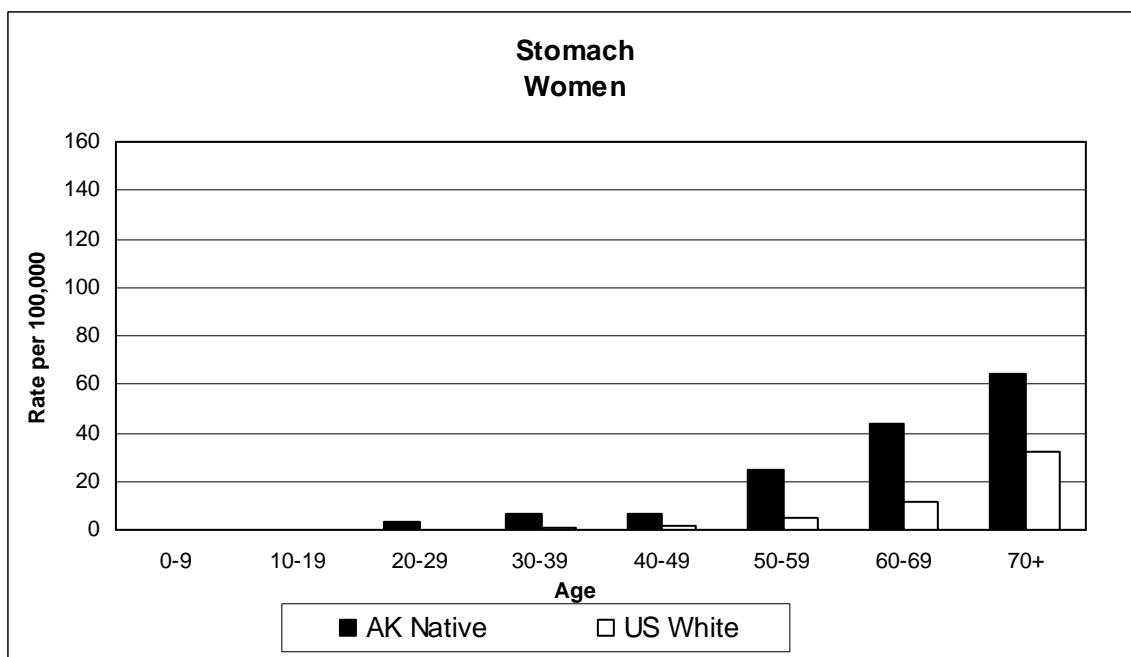
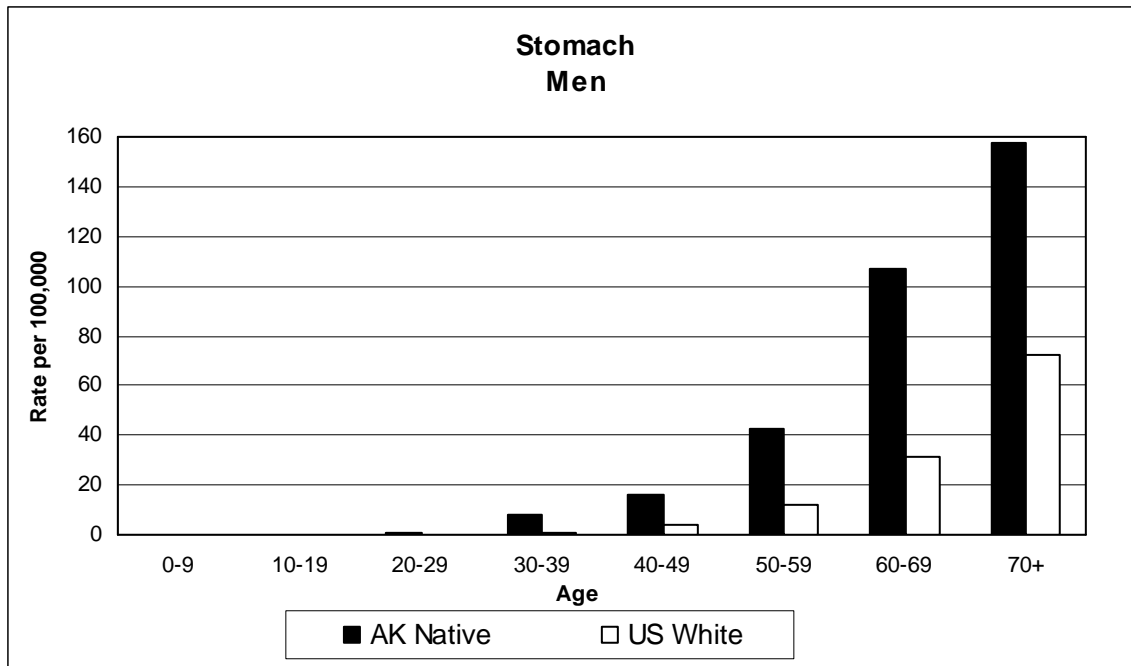
**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>  
Stomach, 1989-2003**

Age	Men			Women		
	AK Native No.	AK Native Rate	US White Rate	AK Native No.	AK Native Rate	US White Rate
0-9	0	0	0	0	0	0
10-19	0	0	0	0	0	0.1
20-29	1	1.0	0.2	3	3.3	0.2
30-39	10	7.8	1.0	9	6.8	0.6
40-49	14	15.7	3.9	6	6.6	1.9
50-59	22	42.6	12.3	13	24.8	4.7
60-69	33	106.9	31.6	15	43.8	11.8
70+	34	157.4	72.1	17	64.5	32
Total*	114	30.8	11.1	63	14.4	4.7

<sup>1</sup>US Data for years 1989-2002

\* Rates for total counts are age-adjusted to US Census 2000 standard population for comparison.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**

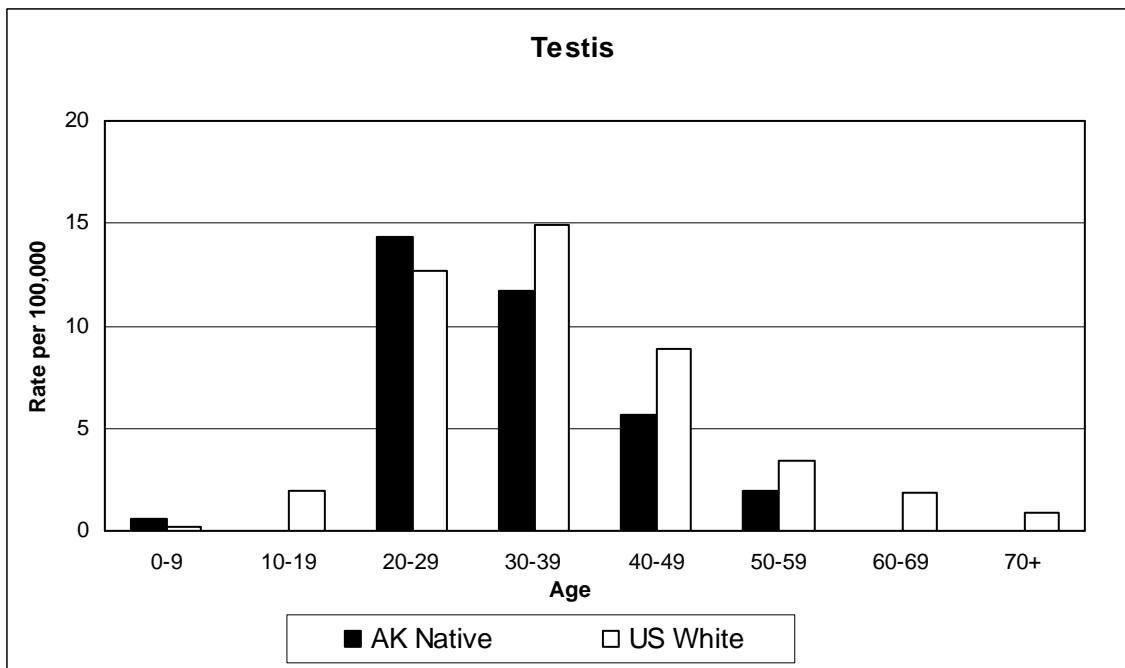


<sup>1</sup>US Data for years 1989-2002.





**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



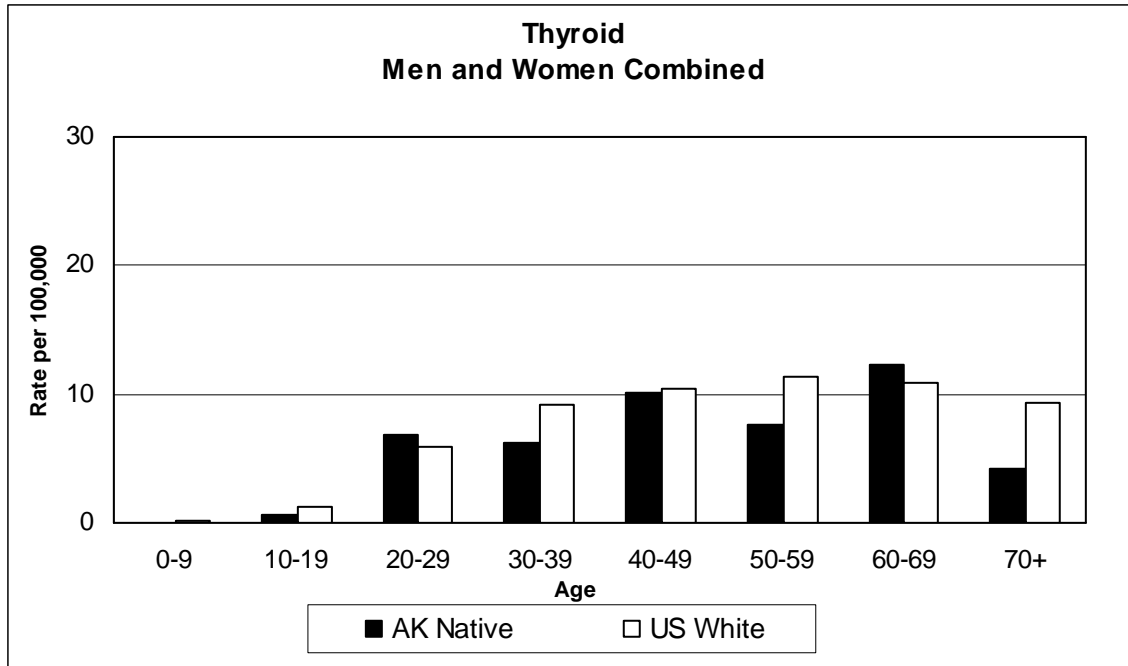
**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>  
Testis 1989-2003**

Age	AK Native		US White
	No.	Rate	Rate
0-9	1	0.6	0.2
10-19	0	0	2.0
20-29	14	14.3	12.7
30-39	15	11.7	14.9
40-49	5	5.6	8.9
50-59	1	1.9	3.4
60-69	0	0	1.9
70+	0	0	0.9
Total	36	4.8	6.2

<sup>1</sup>US Data for years 1989-2002

\* Rates for total counts are age-adjusted to US Census 2000 standard population for comparison.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



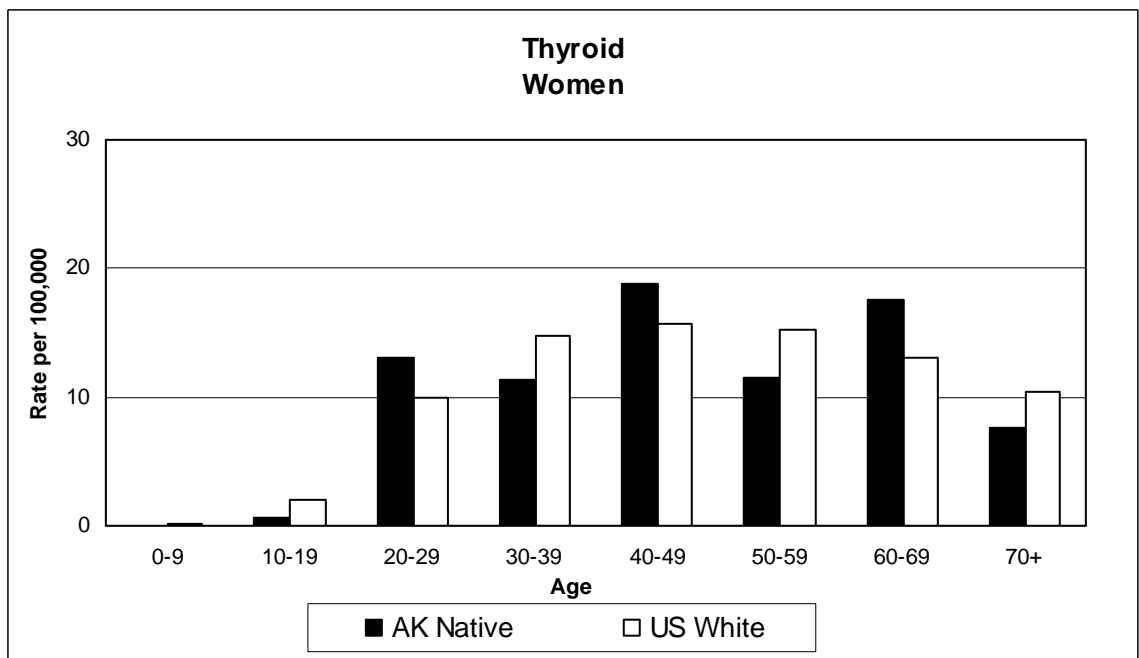
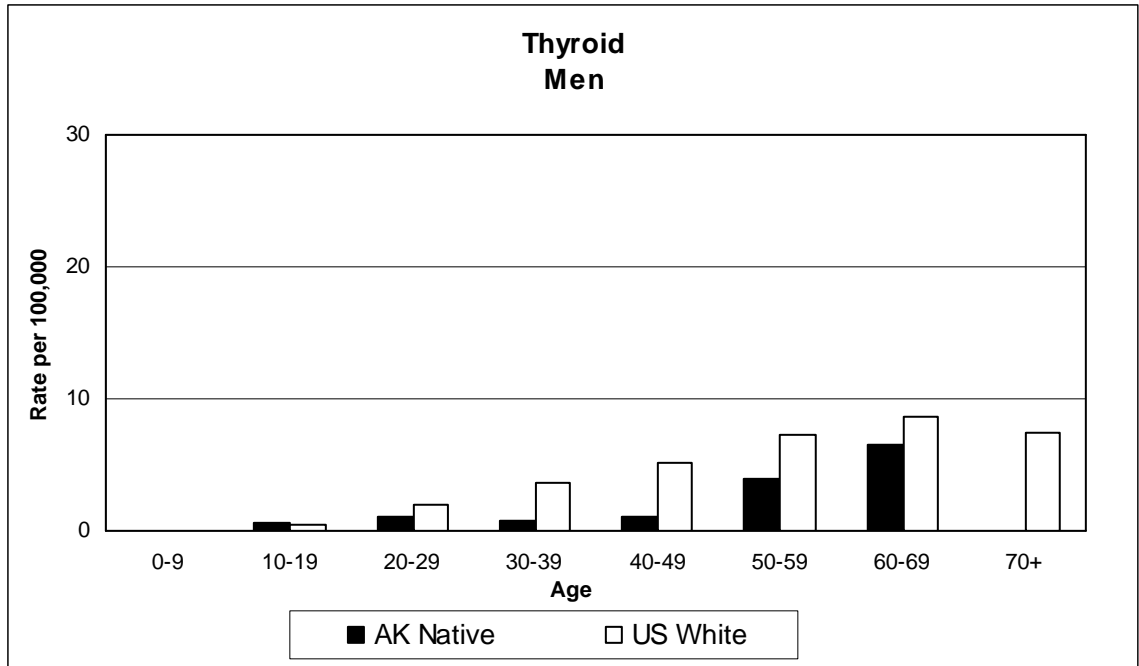
**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>  
Thyroid, 1989-2003**

Age	Men			Women		
	AK Native No.	AK Native Rate	US White Rate	AK Native No.	AK Native Rate	US White Rate
0-9	0	0	0	0	0.0	0.1
10-19	1	0.7	0.4	1	0.7	2.0
20-29	1	1.0	2.0	12	13.0	9.9
30-39	1	0.8	3.7	15	11.4	14.7
40-49	1	1.1	5.2	17	18.8	15.7
50-59	2	3.9	7.2	6	11.5	15.2
60-69	2	6.5	8.7	6	17.5	13.0
70+	0	0	7.5	2	7.6	10.4
Total*	8	1.4	3.8	59	9.7	9.9

<sup>1</sup>US Data for years 1989-2002

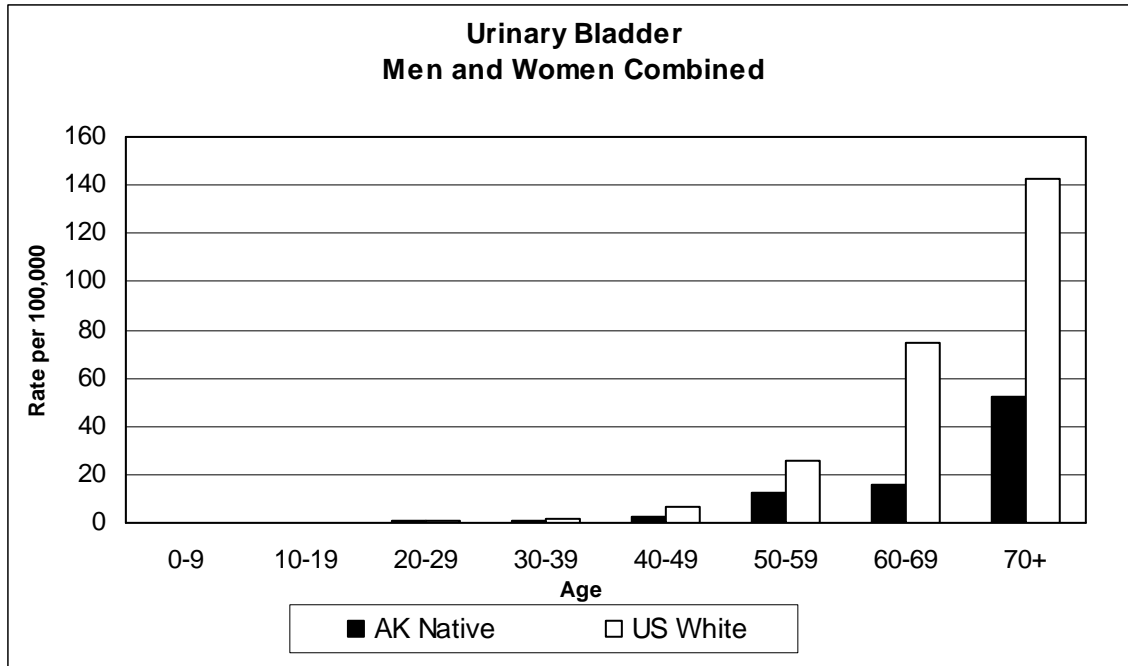
\* Rates for total counts are age-adjusted to US Census 2000 standard population for comparison.

Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003



<sup>1</sup>US Data for years 1989-2002.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



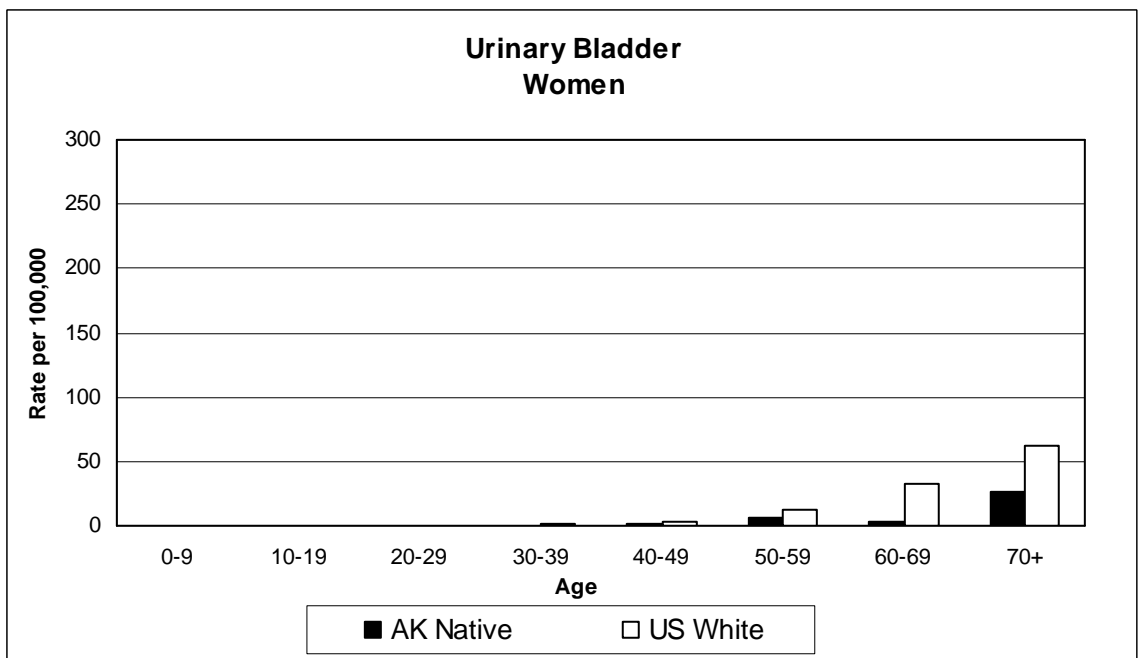
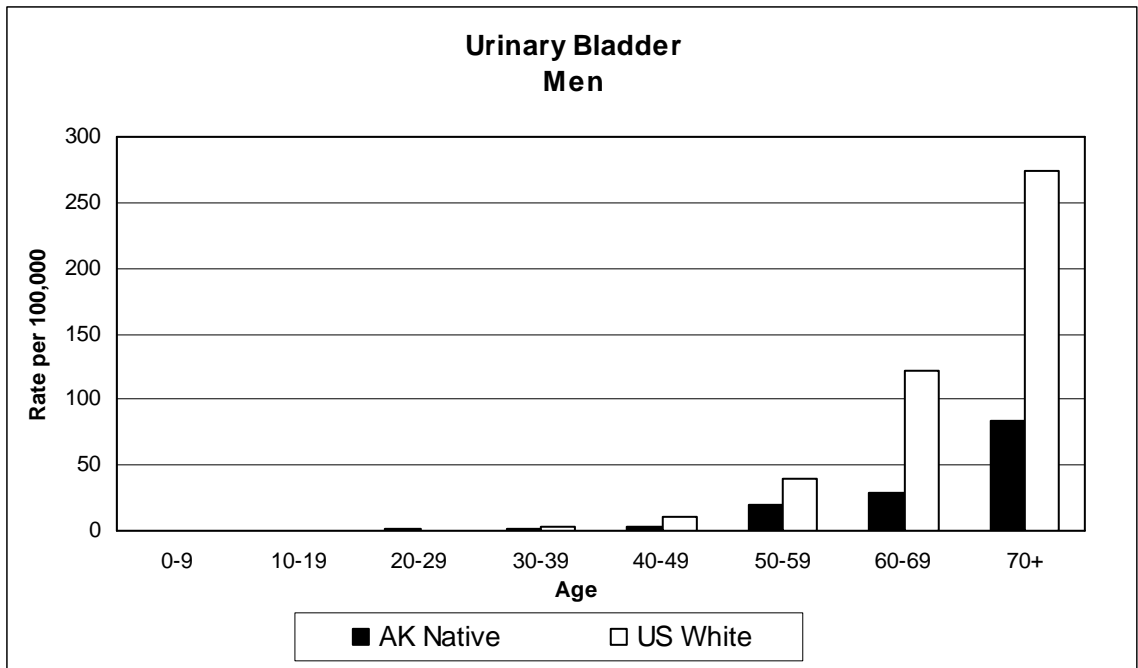
**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>  
Urinary Bladder, 1989-2003**

Age	Men			Women		
	AK Native No.	AK Native Rate	US White Rate	AK Native No.	AK Native Rate	US White Rate
0-9	0	0	0	0	0	0
10-19	0	0	0.1	0	0	0
20-29	1	1.0	0.6	0	0	0.4
30-39	2	1.6	2.5	1	0.8	1.0
40-49	3	3.4	10.6	2	2.2	3.4
50-59	10	19.3	40.2	3	5.7	12.4
60-69	9	29.2	122.2	1	2.9	32.2
70+	18	83.3	273.6	7	26.5	62.9
Total*	43	12.8	40.7	14	3.8	10.3

<sup>1</sup>US Data for years 1989-2002.

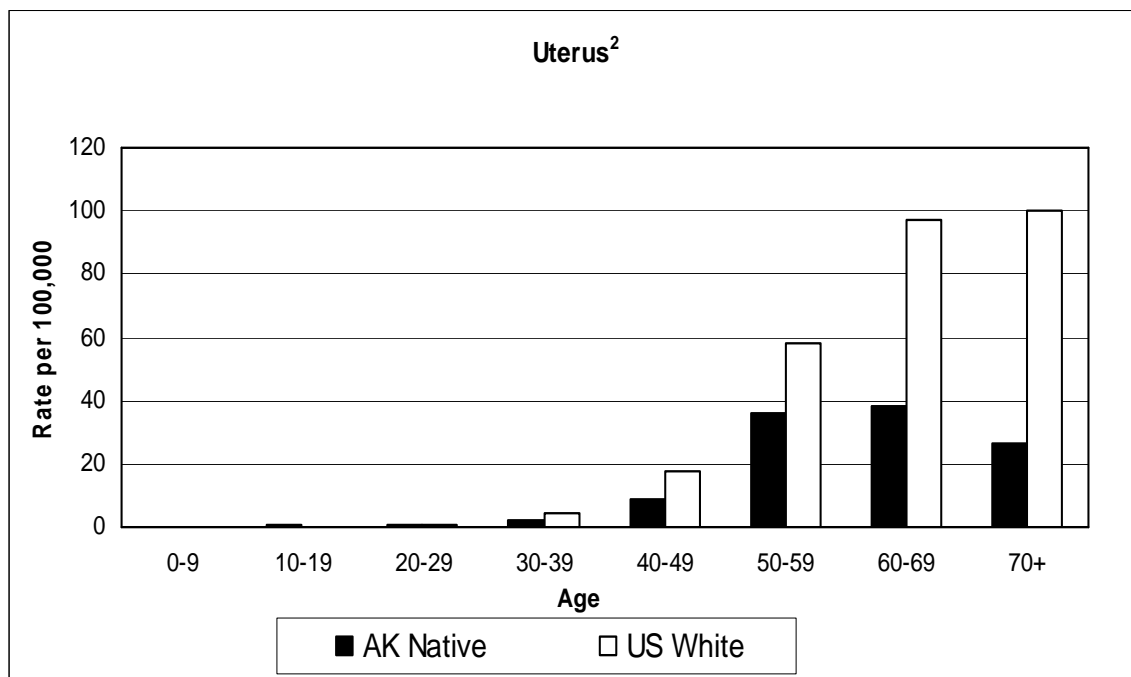
\* Rates for total counts are age-adjusted to US Census 2000 standard population for comparison.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



<sup>1</sup>US Data for years 1989-2002.

**Age-Specific Cancer Incidence Rates  
Alaska Natives and US Whites<sup>1</sup>  
1989-2003**



**Age-Specific Cancer Incidence Numbers and Rates  
Alaska Natives and US Whites<sup>1</sup>  
Uterus<sup>2</sup>, 1989-2003**

Age	AK Native		US White
	No.	Rate	Rate
0-9	0	0	0
10-19	1	0.7	0
20-29	1	1.1	0.6
30-39	3	2.3	4.2
40-49	8	8.9	18.0
50-59	19	36.3	57.8
60-69	13	38.0	97.1
70+	7	26.5	100.4
Total*	52	11.2	26.3

<sup>1</sup>US Data for years 1989-2002.  
<sup>2</sup> Uterus includes Corpus uteri and Uterus, NOS.  
\* Rates for total counts are age-adjusted to US Census 2000 standard population for comparison.

**Leading Cancers among Alaska Native Men and Women Combined  
by Service Unit, 1989-2003**

<b>Anchorage</b>				<b>Barrow</b>				<b>Bristol Bay</b>			
Rank (N=1349)	Site	No.	% of Total	Rank (N=156)	Site	No.	% of Total	Rank (N=182)	Site	No.	% of Total
1	Breast	250	18.5	1	Lung	41	26.3	1	Colon/Rectum	45	24.7
2	Lung	245	18.2	2	Colon/Rectum	32	20.5	2	Lung	35	19.2
3	Colon/Rectum	215	15.9	3	Breast	15	9.6	3	Breast	19	10.4
4	Prostate	73	5.4	4	Stomach	10	6.4	4	Prostate	11	6.0
5	Oral/Pharynx	70	5.2	5	Prostate	7	4.5	5	Stomach	10	5.5
6	Stomach	61	4.5	6	Kidney	7	4.5	6	Oral/ Pharynx	8	4.4
7	Kidney	42	3.1	7	Pancreas	7	4.5	7	Kidney	6	3.3
8	Non-Hodgkin	32	2.4	8	Oral/Pharynx	4	2.6	8	Pancreas	6	3.3
9	Thyroid	31	2.3	9	Non-Hodgkin	3	1.9	9	Non-Hodgkin	4	2.2
10	Pancreas	30	2.2	10	Thyroid	3	1.9	10	Thyroid	4	2.2
Total		1049	77.8	Total		129	82.7	Total		148	81.3
<b>Interior</b>				<b>Kotzebue</b>				<b>Mount Edgecumbe</b>			
Rank (N=463)	Site	No.	% of Total	Rank (N=193)	Site	No.	% of Total	Rank (N=616)	Site	No.	% of Total
1	Breast	93	20.1	1	Colon/Rectum	39	20.2	1	Breast	109	17.7
2	Lung	74	16.0	2	Lung	34	17.6	2	Colon/Rectum	95	15.4
3	Colon/Rectum	72	15.6	3	Breast	28	14.5	3	Prostate	86	14.0
4	Prostate	37	8.0	4	Kidney	13	6.7	4	Lung	64	10.4
5	Kidney	28	6.0	5	Stomach	13	6.7	5	Kidney	19	3.1
6	Oral/Pharynx	20	4.3	6	Cervix	9	4.7	6	Non-Hodgkin	19	3.1
7	Stomach	15	3.2	7	Testis	7	3.6	7	Oral/Pharynx	19	3.1
8	Pancreas	15	3.2	8	Prostate	6	3.1	8	Pancreas	17	2.8
9	Thyroid	10	2.2	9	Liver	6	3.1	9	Leukemia	15	2.4
10	Esophagus	10	2.2	10	Pancreas	5	2.6	10	Stomach	14	2.3
Total		374	80.8	Total		160	82.9	Total		457	74.2
<b>Norton Sound</b>				<b>Yukon-Kuskokwim</b>				<b>All Service Units</b>			
Rank (N=271)	Site	No.	% of Total	Rank (N=555)	Site	No.	% of Total	Rank (N=3785)	Site	No.	% of Total
1	Colon/Rectum	68	25.1	1	Colon/Rectum	132	23.8	1	Colon/Rectum	698	18.4
2	Lung	52	19.2	2	Lung	115	20.7	2	Lung	660	17.4
3	Breast	26	9.6	3	Breast	43	7.7	3	Breast	583	15.4
4	Stomach	25	9.2	4	Kidney	33	5.9	4	Prostate	238	6.3
5	Oral/Pharynx	14	5.2	5	Stomach	29	5.2	5	Stomach	177	4.7
6	Liver	8	3.0	6	Pancreas	20	3.6	6	Oral/Pharynx	156	4.1
7	Kidney	7	2.6	7	Oral/Pharynx	19	3.4	7	Kidney	155	4.1
8	Pancreas	7	2.6	8	Non-Hodgkin	13	2.3	8	Pancreas	107	2.8
9	Prostate	6	2.2	9	Liver	12	2.2	9	Non-Hodgkin	87	2.3
10	Non-Hodgkin	6	2.2	10	Prostate	12	2.2	10	Leukemia	74	2.0
Total		219	80.8	Total		428	77.1	Total		2935	77.5



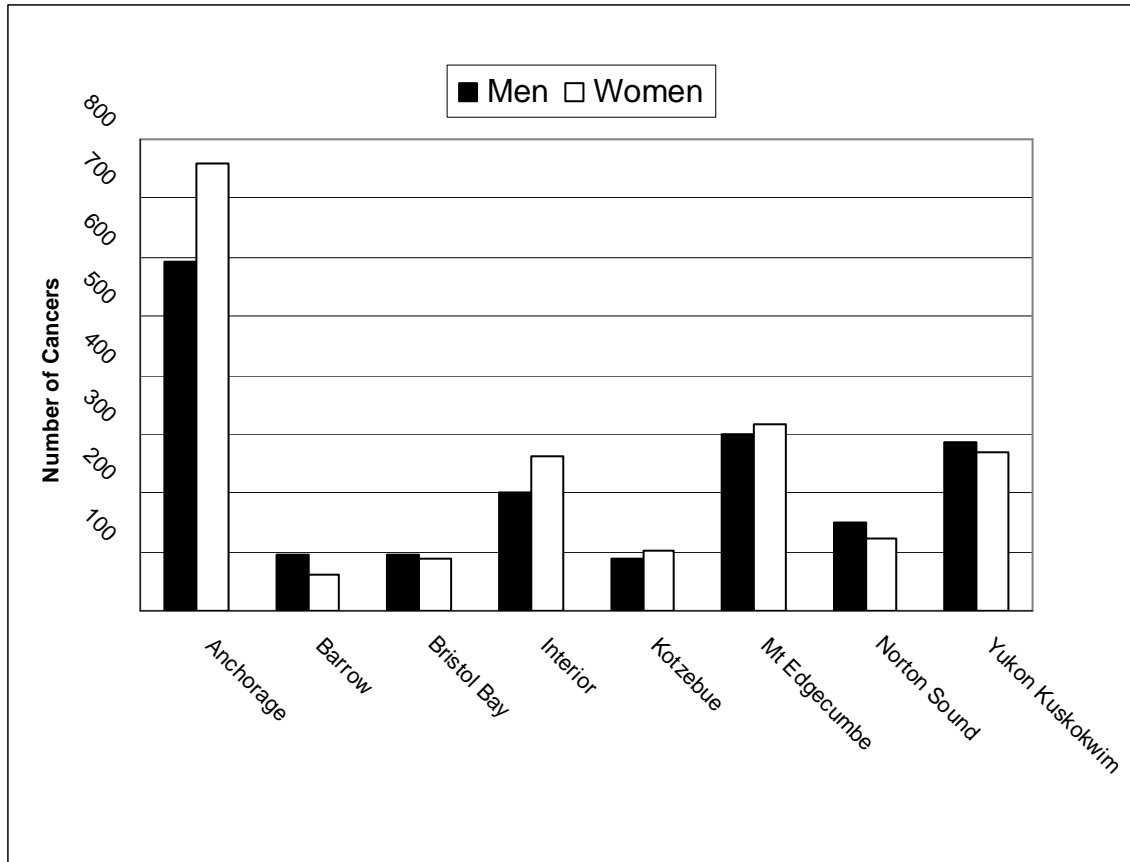
**Leading Cancers among Alaska Native Men  
by Service Unit, 1989-2003**

<b>Anchorage</b>				<b>Barrow</b>				<b>Bristol Bay</b>			
Rank (N=591)	Site	No.	% of Total	Rank (N=94)	Site	No.	% of Total	Rank (N=94)	Site	No.	% of Total
1	Lung	126	21.3	1	Lung	34	36.2	1	Colon/Rectum	23	24.5
2	Colon/Rectum	98	16.6	2	Colon/Rectum	15	16.0	2	Lung	18	19.1
3	Prostate	73	12.4	3	Prostate	7	7.4	3	Prostate	11	11.7
4	Oral/Pharynx	45	7.6	4	Stomach	7	7.4	4	Oral/Pharynx	7	7.4
5	Stomach	36	6.1	5	Kidney	5	5.3	5	Stomach	6	6.4
6	Kidney	27	4.6	6	Pancreas	5	5.3	6	Kidney	4	4.3
7	Leukemia	19	3.2	7	Oral/Pharynx	2	2.1	7	Pancreas	3	3.2
8	Esophagus	17	2.9	8	Urinary Bladder	2	2.1	8	Non-Hodgkin	2	2.1
9	Testis	17	2.9	9	Non-Hodgkin	2	2.1	9	Leukemia	2	2.1
10	Urinary Bladder	17	2.9	10	Esophagus	1	1.1	10	Liver	2	2.1
Total		475	80.4	Total		80	85.1	Total		78	83.0
<b>Interior</b>				<b>Kotzebue</b>				<b>Mount Edgecumbe</b>			
Rank (N=200)	Site	No.	% of Total	Rank (N=90)	Site	No.	% of Total	Rank (N=301)	Site	No.	% of Total
1	Lung	41	20.5	1	Lung	23	25.6	1	Prostate	86	28.6
2	Colon/Rectum	37	18.5	2	Colon/Rectum	20	22.2	2	Colon/Rectum	58	19.3
3	Prostate	37	18.5	3	Stomach	7	7.8	3	Lung	35	11.6
4	Kidney	15	7.5	4	Kidney	6	6.7	4	Oral/Pharynx	15	5.0
5	Oral/Pharynx	10	5.0	5	Liver	5	5.6	5	Non-Hodgkin	12	4.0
6	Stomach	8	4.0	6	Prostate	4	4.4	6	Kidney	11	3.7
7	Urinary Bladder	7	3.5	7	Urinary Bladder	3	3.3	7	Stomach	7	2.3
8	Esophagus	7	3.5	8	Pancreas	3	3.3	8	Urinary Bladder	7	2.3
9	Testis	7	3.5	9	Oral/Pharynx	2	2.2	9	Pancreas	7	2.3
10	Pancreas	6	3.0	10	Gallbladder	2	2.2	10	Testis	6	2.0
Total		175	87.5	Total		75	83.3	Total		244	81.1
<b>Norton Sound</b>				<b>Yukon-Kuskokwim</b>				<b>All Men</b>			
Rank (N=149)	Site	No.	% of Total	Rank (N=285)	Site	No.	% of Total	Rank (N=1804)	Site	No.	% of Total
1	Lung	38	25.5	1	Lung	89	31.2	1	Lung	404	22.4
2	Colon/Rectum	36	24.2	2	Colon/Rectum	56	19.6	2	Colon/Rectum	343	19.0
3	Stomach	20	13.4	3	Stomach	23	8.1	3	Prostate	236	13.1
4	Oral/Pharynx	11	7.4	4	Kidney	17	6.0	4	Stomach	114	6.3
5	Prostate	6	4.0	5	Oral/Pharynx	15	5.3	5	Oral/Pharynx	107	5.9
6	Liver	6	4.0	6	Prostate	12	4.2	6	Kidney	87	4.8
7	Leukemia	6	4.0	7	Pancreas	9	3.2	7	Pancreas	49	2.7
8	Pancreas	3	2.0	8	Liver	6	2.1	8	Non-Hodgkin	46	2.5
9	Esophagus	3	2.0	9	Esophagus	6	2.1	9	Urinary Bladder	43	2.4
10	Larynx	2	1.3	10	Non-Hodgkin	6	2.1	10	Leukemia	42	2.3
Total		131	87.9	Total		239	83.9	Total		1471	81.5

**Leading Cancers among Alaska Native Women  
by Service Unit, 1989-2003**

<b>Anchorage</b>				<b>Barrow</b>				<b>Bristol Bay</b>			
Rank (N=758)	Site	No.	% of Total	Rank (N=62)	Site	No.	% of Total	Rank (N=88)	Site	No.	% of Total
1	Breast	250	33.0	1	Colon/Rectum	17	27.4	1	Colon/Rectum	22	25.0
2	Lung	119	15.7	2	Breast	14	22.6	2	Breast	19	21.6
3	Colon/Rectum	117	15.4	3	Lung	7	11.3	3	Lung	17	19.3
4	Thyroid	28	3.7	4	Stomach	3	4.8	4	Stomach	4	4.5
5	Oral/Pharynx	25	3.3	5	Thyroid	2	3.2	5	Thyroid	3	3.4
6	Stomach	25	3.3	6	Oral/Pharynx	2	3.2	6	Pancreas	3	3.4
7	Ovary	24	3.2	7	Ovary	2	3.2	7	Ovary	2	2.3
8	Cervix	21	2.8	8	Urinary	2	3.2	8	Cervix	2	2.3
9	Urinary	19	2.5	9	Uterus	2	3.2	9	Kidney	2	2.3
10	Non-Hodgkin	17	2.2	10	Pancreas	2	3.2	10	Non-Hodgkin	2	2.3
Total		645	85.1	Total		53	85.5	Total		76	80.9
<b>Interior</b>				<b>Kotzebue</b>				<b>Mount Edgecumbe</b>			
Rank (N=263)	Site	No.	% of Total	Rank (N=103)	Site	No.	% of Total	Rank (N=315)	Site	No.	% of Total
1	Breast	93	35.4	1	Breast	28	27.2	1	Breast	108	34.3
2	Colon/Rectum	35	13.3	2	Colon/Rectum	19	18.4	2	Colon/Rectum	37	11.7
3	Lung	33	12.5	3	Lung	11	10.7	3	Lung	29	9.2
4	Kidney	13	4.9	4	Kidney	7	6.8	4	Ovary	15	4.8
5	Thyroid	10	3.8	5	Stomach	6	5.8	5	Cervix	14	4.4
6	Oral/Pharynx	10	3.8	6	Cervix	5	4.9	6	Pancreas	10	3.2
7	Pancreas	9	3.4	7	Endocrine	3	2.9	7	Leukemia	10	3.2
8	Cervix	9	3.4	8	Thyroid	3	2.9	8	Kidney	10	3.2
9	Stomach	7	2.7	9	Uterus	3	2.9	9	Stomach	8	2.5
10	Uterus	6	2.3	10	Ovary	3	2.9	10	Thyroid	7	2.2
Total		225	85.6	Total		88	85.4	Total		248	78.7
<b>Norton Sound</b>				<b>Yukon-Kuskokwim</b>				<b>All Women</b>			
Rank (N=122)	Site	No.	% of Total	Rank (N=270)	Site	No.	% of Total	Rank (N=1982)	Site	No.	% of Total
1	Colon/Rectum	32	26.2	1	Colon/Rectum	76	28.1	1	Breast	582	29.4
2	Breast	26	21.3	2	Breast	43	15.9	2	Colon/Rectum	355	17.9
3	Lung	14	11.5	3	Lung	26	9.6	3	Lung	256	12.9
4	Ovary	6	4.9	4	Kidney	16	5.9	4	Kidney	68	3.4
5	Kidney	5	4.1	5	Pancreas	11	4.1	5	Ovary	64	3.2
6	Stomach	5	4.1	6	Ovary	8	3.0	6	Stomach	63	3.2
7	Pancreas	4	3.3	7	Cervix	8	3.0	7	Cervix	59	3.0
8	Non-Hodgkin	4	3.3	8	Uterus	8	3.0	8	Thyroid	59	3.0
9	Cervix	3	2.5	9	Non-Hodgkin	7	2.6	9	Pancreas	58	2.9
10	Oral/Pharynx	3	2.5	10	Stomach	6	2.2	10	Uterus	52	2.6
Total		102	83.6	Total		209	77.4	Total		1616	81.5

**Number of Invasive Cancers  
Among Alaska Natives 1989-2003  
by Service Unit**



**Number of Invasive Cancers  
Among Alaska Natives 1989-2003, by Service Unit  
Men and Women Combined**

Site	Anchorage	Barrow	Bristol Bay	Interior	Kotzebue	Mount Edgecumbe	Norton Sound	Yukon Kuskokwim	Total
All Sites	1349	156	182	463	193	616	271	555	3785
Oral Cavity and Pharynx	70	4	8	20	2	19	14	19	156
Salivary Gland	6		1	4		1	1	2	15
Nasopharynx	27	4	4	6	2	1	10	14	68
Gum and Other Mouth	6		1	3		2	1		13
Digestive	376	52	71	123	74	157	122	220	1195
Esophagus	22	1	2	10	1	8	5	9	58
Stomach	61	10	10	15	13	14	25	29	177
Colon and Rectum	215	32	45	72	39	95	68	132	698
Colon	148	20	32	44	31	70	53	108	506
Rectosigmoid Junction	20	2		5		8	8	1	44
Rectum	47	10	13	23	8	17	7	23	148
Liver	17		2	7	6	8	8	12	60
Gallbladder	7		3	1	4	9	3	4	31
Other Biliary	5	1	1	1	5	4	3	7	27
Pancreas	30	7	6	15	5	17	7	20	107
Respiratory	262	42	38	75	36	72	54	118	697
Lung and Bronchus	245	41	35	74	34	64	52	115	660
Larynx	12	1	1	1	1	4	2		22
Bones and Joints	3	1		2		2		4	12
Soft Tissue	10	1	1		1	3	1	2	19
Melanoma	4			3		3		3	13
Other Non-Epithelial Skin	4	1		3		4		1	13
Breast	250	15	19	93	28	109	26	43	583
Female Genital	68	5	5	23	16			26	143
Cervix	21	1	2	9	9			8	50
Corpus uteri/Uterus, NOS	18	2		6	4			8	38
Ovary	24	2	2	5	3			8	44
Male Genital	92	7	13	44	10	95	6	17	284
Prostate	73	7	11	37	6	86	6	12	238
Testis	17			7	7	6		5	42
Urinary	64	9	8	36	16	34	13	38	218
Urinary Bladder	20	2	2	8	3	13	5	4	57
Kidney and Renal Pelvis	42	7	6	28	13	19	7	33	155
Eye and Orbit				1		1		3	5
Brain and Nervous System	12			2	2	6	1	4	27
Endocrine	31	3	4	10	3	11	2	5	69
Thyroid	31	3	4	10	3	10	2	4	67
Lymphoma	37	4	4	8	3	22	6	15	99
Hodgkin	5	1		1		3		2	12
Non-Hodgkin	32	3	4	7	3	19	6	13	87
Multiple Myeloma	9	1	1	4	1	8	4	2	30
Leukemia	27	2	3	7	4	15	6	10	74
Ill Defined and Unspecified	30	9	7	9	7	12	6	25	105

**Number of Invasive Cancers  
Among Alaska Natives 1989-2003, by Service Unit  
Men**

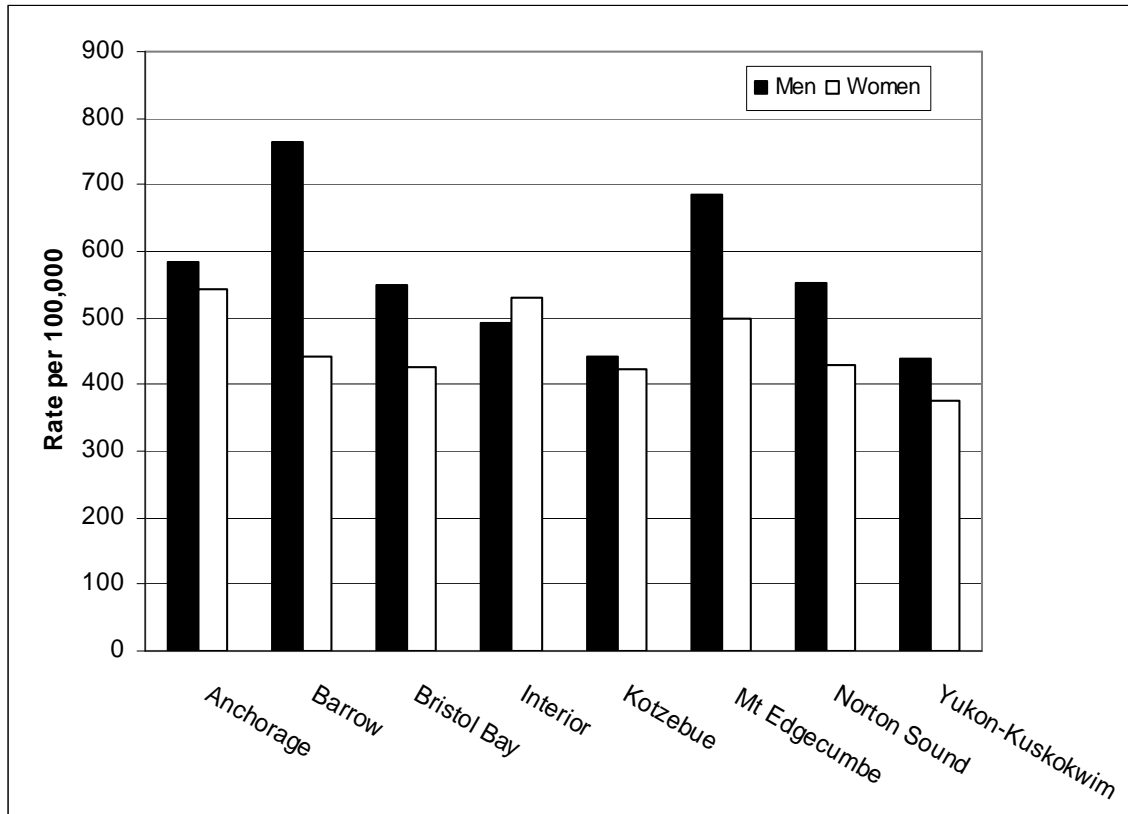
Site	Anchorage	Barrow	Bristol Bay	Interior	Kotzebue	Mount Edgecumbe	Norton Sound	Yukon Kuskokwim	Total
All Sites	591	94	94	200	90	301	149	285	1804
Oral Cavity and Pharynx	45	2	7	10	2	15	11	15	107
Salivary Gland	2		1					2	5
Nasopharynx	18	2	4	3	2	1	10	12	52
Gum and Other Mouth	4		1	2		2			9
Digestive	190	29	37	63	41	88	70	107	625
Esophagus	17	1	1	7	1	5	3	6	41
Stomach	36	7	6	8	7	7	20	23	114
Colon and Rectum	98	15	23	37	20	58	36	56	343
Colon	62	10	17	21	15	41	29	45	240
Rectosigmoid Junction	11	2		4		5	5		27
Rectum	25	3	6	12	5	12	2	11	76
Liver	9		2	4	5	5	6	6	37
Gallbladder	5		1		2	3		1	12
Other Biliary	2	1		1	3	2	2	3	14
Pancreas	13	5	3	6	3	7	3	9	49
Respiratory	139	35	21	42	24	40	40	91	432
Lung and Bronchus	126	34	18	41	23	35	38	89	404
Larynx	9	1	1	1	1	3	2		18
Bones and Joints	1	1		1		2		3	8
Soft Tissue	8	1				1	1	1	12
Melanoma	3					1			4
Other Non-Epithelial Skin	3	1		1		4		1	10
Breast		1				1			2
Male Genital	92	7	13	44	5	95	6	17	279
Prostate	73	7	11	37	4	86	6	12	236
Testis	17			7	1	6		5	36
Urinary	45	7	5	22	9	20	5	22	135
Urinary Bladder	17	2	1	7	3	7	2	4	43
Kidney and Renal Pelvis	27	5	4	15	6	11	2	17	87
Eye and Orbit				1		1			2
Brain and Nervous System	10			2	1	2	1		16
Endocrine	3	1	1			4		1	10
Thyroid	3	1	1			3			8
Lymphoma	17	2	2	6	2	14	2	6	51
Hodgkin	2			1		2			5
Non-Hodgkin	15	2	2	5	2	12	2	6	46
Multiple Myeloma	3		1	1		3	2	1	11
Leukemia	19	1	2	2	2	5	6	5	42
Ill Defined and Unspecified	13	6	5	5	3	6	5	15	58

**Number of Invasive Cancers  
Among Alaska Natives 1989-2003, by Service Unit  
Women**

Site	Anchorage	Barrow	Bristol Bay	Interior	Kotzebue	Mount Edgecumbe	Norton Sound	Yukon Kuskokwim	Total
All Sites	758	62	88	263	103	315	122	270	1981
Oral Cavity and Pharynx	25	2	1	10		4	3	4	49
Salivary Gland	4			4		1	1		10
Nasopharynx	9	2		3				2	16
Gum and Other Mouth	2			1			1		4
Digestive	186	23	34	60	33	69	52	113	570
Esophagus	5		1	3		3	2	3	17
Stomach	25	3	4	7	6	7	5	6	63
Colon and Rectum	117	17	22	35	19	37	32	76	355
Colon	86	10	15	23	16	29	24	63	266
Rectosigmoid Junction	9			1		3	3	1	17
Rectum	22	7	7	11	3	5	5	12	72
Liver	8			3	1	3	2	6	23
Gallbladder	2		2	1	2	6	3	3	19
Other Biliary	3		1		2	2	1	4	13
Pancreas	17	2	3	9	2	10	4	11	58
Respiratory	123	7	17	33	12	32	14	27	265
Lung and Bronchus	119	7	17	33	11	29	14	26	256
Larynx	3					1			4
Bones and Joints	2			1				1	4
Soft Tissue	2		1			3		1	7
Melanoma	1			3		2		3	9
Other Non-Epithelial Skin	1			2					3
Breast	250	14	19	93	28	108	26	43	581
Female Genital	68	5	5	23	11	43	10	26	191
Cervix	21	1	2	9	5	10	3	8	59
Corpus uteri/Uterus, NOS	18	2		6	3	15		8	52
Ovary	24	2	2	5	3	14	6	8	64
Urinary	19	2	3	14	7	14	8	16	83
Urinary Bladder	3		1	1		6	3		14
Kidney and Renal Pelvis	15	2	2	13	7	8	5	16	68
Eye and Orbit								3	3
Brain and Nervous System	2				1	4		4	11
Endocrine	28	2	3	10	3	7	2	4	59
Thyroid	28	2	3	10	3	7	2	4	59
Lymphoma	20	2	2	2	1	8	4	9	48
Hodgkin	3	1				1		2	7
Non-Hodgkin	17	1	2	2	1	7	4	7	41
Multiple Myeloma	6	1		3	1	5	2	1	19
Leukemia	8	1	1	5	2	10		5	32
Ill Defined and Unspecified	17	3	2	4	4	6	1	10	47

Average Annual Age-Adjusted Cancer Incidence Rates  
Among Alaska Natives 1989-2003, by Service Unit

All Cancer Sites Combined



**Average Annual Age-Adjusted Cancer Incidence Rates<sup>1</sup> per 100,000  
Among Alaska Natives 1989-2003, by Service Unit  
Men and Women Combined**

Site	Anchorage	Barrow	Bristol Bay	Interior	Kotzebue	Mount Edgecumbe	Norton Sound	Yukon Kuskokwim
All Sites	554.2	579.5	479.1	516.6	425.5	566.8	479.8	407.6
Oral Cavity and Pharynx	26.8		18.8	20.9		18.5	25.8	12.7
Salivary Gland	2.1							
Nasopharynx	10.1			6.7			17.8	9.8
Gum and Other Mouth	2.3							
Digestive	177.7	203.7	189.3	147.7	166.1	158.7	222.5	173.1
Esophagus	10.9			11.9		8.5	8.8	8.3
Stomach	28.0	36.2	22.2	15.6	24.9	12.7	43.5	21.2
Colon and Rectum	104.0	125.1	126.0	87.7	90.8	96.5	129.6	107.3
Colon	75.5	81.5	88.8	54.4	74.4	73.4	101.6	89.1
Rectosigmoid Junction	8.2			6.3		6.8	15.2	
Rectum	20.2	37.4	37.2	27.0	16.4	16.3	12.8	17.2
Liver	6.4			8.9	10.6	8.4	8.8	6.3
Gallbladder	4.1					8.3		
Other Biliary	2.0				12.8			6.0
Pancreas	14.0	30.1	13.3	18.3	13.1	17.9	13.5	16.1
Respiratory	125.6	165.3	111.5	93.5	86.8	69.7	102.5	92.5
Lung and Bronchus	118.2	162.2	103.7	91.9	82.7	62.4	99.3	91.3
Larynx	5.3							
Bones and Joints								
Soft Tissue	2.6							
Melanoma								
Other Non-Epithelial Skin								
Breast	83.9		46.1	95.7	60.5	93.1	43.0	26.8
Female Genital	20.9		9.8	24.6	18.5		15.8	15.7
Cervix	6.0			7.5	6.8		4.3	4.1
Corpus uteri/Uterus, NOS	6.6			6.7				4.8
Ovary	6.5			6.9			9.9	5.5
Male Genital	41.9	30.5	36.8	49.6	13.0	90.4	11.8	12.8
Prostate	38.7	30.5	31.3	45.5	11.8	84.8	11.8	10.8
Testis	2.6			4.1	1.2	2.7		2.1
Urinary	26.2	36.3	20.7	40.8	37.2	34.0	24.6	29.8
Urinary Bladder	9.3			8.6		13.7	9.6	
Kidney and Renal Pelvis	15.7	27.1	16.0	32.2	29.2	18.2	13.4	25.2
Eye and Orbit								
Brain and Nervous System	2.8					3.1		
Endocrine	7.1			6.0		7.7		2.1
Thyroid	7.1			6.0		7.4		
Lymphoma	10.4			8.9		18.6	7.0	9.4
Hodgkin	0.8							
Non-Hodgkin	9.6			7.8		17.0	7.0	8.7
Multiple Myeloma	3.1					7.5		
Leukemia	6.7			3.4		9.5	4.1	4.7
Ill Defined and Unspecified	14.3	34.9	18.0	11.0	16.9	12.8	10.0	18.6

<sup>1</sup> Rates are age-adjusted to the US 2000 standard population for all races.  
Rates not shown for categories with fewer than 5 cases.



**Average Annual Age-Adjusted Cancer Incidence Rates<sup>1</sup> per 100,000  
Among Alaska Natives 1989-2003, by Service Unit  
Men**

Site	Anchorage	Barrow	Bristol Bay	Interior	Kotzebue	Mount Edgecumbe	Norton Sound	Yukon Kuskokwim
All Sites	584.6	765.8	550.2	492.3	440.8	686.5	553.2	439.1
Oral Cavity and Pharynx	38.9		35.5	21.6		34.3	42.3	19.4
Salivary Gland								
Nasopharynx	15.2						39.0	15.6
Gum and Other Mouth								
Digestive	214.0	234.6	210.0	153.3	195.6	211.9	256.7	167.3
Esophagus	21.4			18.1		12.3		10.5
Stomach	36.4	66.4	29.6	19.0	27.1	15.3	69.9	35.5
Colon and Rectum	111.1	119.1	140.4	88.8	96.8	139.7	142.6	88.2
Colon	79.6	91.7	103.2	47.3	79.3	102.8	112.5	72.4
Rectosigmoid Junction	8.7					8.8	21.1	
Rectum	22.7		37.3	29.8	17.5	28.1		15.8
Liver	8.7				18.8	13.0	11.2	7.5
Gallbladder	7.2							
Other Biliary								
Pancreas	15.2	37.0		15.0		14.9		14.8
Respiratory	143.4	294.9	140.3	118.2	122.1	91.2	165.7	143.5
Lung and Bronchus	132.0	288.8	123.8	114.6	115.2	81.2	159.0	142.3
Larynx	7.5							
Bones and Joints								
Soft Tissue	3.4							
Melanoma								
Other Non-Epithelial Skin								
Breast								
Male Genital	96.6	69.6	82.1	108.4	29.8	211.8	26.4	25.3
Prostate	90.0	69.6	69.8	99.8		199.7	26.4	21.4
Testis	5.3			8.6		5.4		4.0
Urinary	41.1	69.6	27.2	49.1	46.8	53.6	16.7	38.2
Urinary Bladder	17.1			16.6		20.1		
Kidney and Renal Pelvis	23.2	48.2		32.5	29.0	28.3		28.8
Eye and Orbit								
Brain and Nervous System	5.3							
Endocrine								
Thyroid								
Lymphoma	9.2			12.0		26.4		8.5
Hodgkin								
Non-Hodgkin	8.4			9.9		24.0		8.5
Multiple Myeloma								
Leukemia	10.9					8.2	8.2	5.2
Ill Defined and Unspecified	13.6	51.1	27.2	15.2		16.4	21.0	24.1

<sup>1</sup> Rates are age-adjusted to the US 2000 standard population for all races.  
Rates not shown for categories with fewer than 5 cases.

**Average Annual Age-Adjusted Cancer Incidence Rates<sup>1</sup> per 100,000  
Among Alaska Natives 1989-2003, by Service Unit  
Women**

Site	Anchorage	Barrow	Bristol Bay	Interior	Kotzebue	Mount Edgecumbe	Norton Sound	Yukon Kuskokwim
All Sites	543.9	442.1	427.4	529.5	423.7	498.2	429.3	377.0
Oral Cavity and Pharynx	17.0			19.5				
Salivary Gland								
Nasopharynx	6.0							
Gum and Other Mouth								
Digestive	152.8	175.0	173.3	137.1	144.8	121.7	189.5	179.8
Esophagus	3.3							
Stomach	21.4			12.4	23.3	11.2	18.3	7.1
Colon and Rectum	99.8	129.2	115.2	82.6	86.3	65.8	118.4	126.8
Colon	74.2	76.4	77.6	57.0	72.4	52.7	88.9	106.3
Rectosigmoid Junction	7.5							
Rectum	18.1	52.8	37.6	23.7		8.0	18.3	18.5
Liver	4.9							5.2
Gallbladder						9.1		
Other Biliary								
Pancreas	13.6			20.7		19.5		17.8
Respiratory	111.4	56.0	88.1	72.8	55.2	55.1	51.1	40.9
Lung and Bronchus	107.5	56.0	88.1	72.8	52.9	50.0	51.1	39.7
Larynx								
Bones and Joints								
Soft Tissue								
Melanoma								
Other Non-Epithelial Skin								
Breast	157.7	87.6	89.7	177.9	116.2	170.0	89.2	54.4
Female Genital	39.6		18.5	45.0	36.0	62.8	32.7	31.9
Cervix	11.2			14.0	13.7	11.7		8.6
Corpus uteri/Uterus, NOS	12.4			12.6		22.3		9.6
Ovary	12.6			11.9		22.4	19.6	11.2
Urinary	14.1			31.9	29.3	21.1	29.5	21.4
Urinary Bladder						9.8		
Kidney and Renal Pelvis	9.6			30.0	29.3	11.3	17.9	21.4
Eye and Orbit								
Brain and Nervous System								
Endocrine	12.5			11.5		10.0		
Thyroid	12.5			11.5		10.0		
Lymphoma	11.1					12.8		10.2
Hodgkin								
Non-Hodgkin	10.3					12.0		8.9
Multiple Myeloma	3.7					7.3		
Leukemia	3.4			5.2		11.2		3.9
Ill Defined and Unspecified	15					10.1		13.0

<sup>1</sup> Rates are age-adjusted to the US 2000 standard population for all races.  
Rates not shown for categories with fewer than 5 cases.

## Odds Ratio Comparisons of Service Unit Cancer Incidence Rates

### Alaska Native Men and US Whites<sup>1</sup>, 1989-2003

Service Unit	Number	Rate	Odds Ratio		Odds Ratio		Lower CI	Upper CI
			vs. AKN	Lower CI	Upper CI	vs. USW <sup>2</sup>		
All AKN Men	1804	506.8						
Anchorage	591	584.6	1.1	1.0	1.2	0.9	0.9	1.0
Barrow	94	765.8	1.4 *	1.2	1.8	1.3	1.0	1.6
Bristol Bay	94	550.2	1.0	0.8	1.2	0.9	0.7	1.1
Interior	200	492.3	1.0	0.9	1.1	0.9	0.8	1.0
Kotzebue	90	440.8	0.8	0.7	1.0	0.7 *	0.6	0.9
Mount Edgecumbe	301	686.5	1.1	1.0	1.3	1.0	0.9	1.1
Norton Sound	149	553.2	1.1	1.0	1.3	1.0	0.9	1.2
Yukon-Kuskokwim	285	439.1	0.8 *	0.7	0.9	0.7 *	0.6	0.8

### Alaska Native Women and US Whites<sup>1</sup>, 1989-2003

Service Unit	Number	Rate	Odds Ratio		Odds Ratio		Lower CI	Upper CI
			vs. AKN	Lower CI	Upper CI	vs. USW <sup>2</sup>		
All AKN Women	1981	458.3						
Anchorage	758	543.9	1.1	1.0	1.2	1.2 *	1.1	1.3
Barrow	62	442.1	0.9	0.7	1.2	1.0	0.8	1.3
Bristol Bay	88	427.4	0.9	0.7	1.1	0.9	0.8	1.2
Interior	263	529.5	1.1	1.0	1.3	1.2 *	1.1	1.4
Kotzebue	103	423.7	0.9	0.7	1.1	1.0	0.8	1.2
Mount Edgecumbe	315	498.2	1.0	0.9	1.1	1.1	1.0	1.2
Norton Sound	122	429.3	0.9	0.7	1.1	1.0	0.8	1.1
Yukon-Kuskokwim	270	377.0	0.8 *	0.7	0.9	0.9	0.8	1.0

\* Significant odds ratio at p<0.05 probability level.

<sup>1</sup> US rates for 1989-2002 from the National Cancer Institute SEER Program.

<sup>2</sup> US White cancer incidence rates for all sites combined used in comparisons: 587.3 per 100,000 for men; 428.7 per 100,000 for women.

**Number of Invasive Cancers  
Among Alaska Natives 1969-2003  
By Five Year Time Periods  
Men and Women Combined**

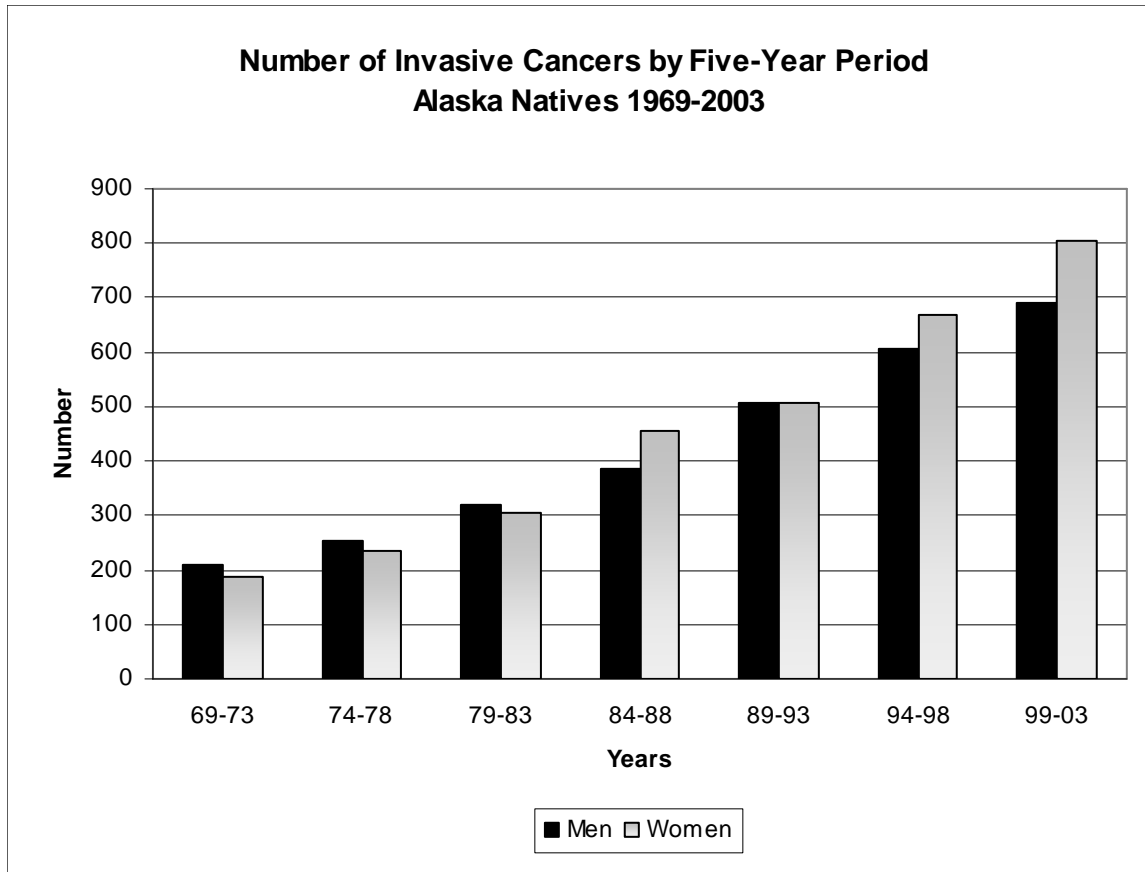
Site	1969-1973	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	Total
All Sites	396	489	624	842	1016	1272	1498	6137
Oral Cavity and Pharynx	27	34	24	37	46	54	56	278
Salivary Gland	8	3	2	4	2	6	5	30
Nasopharynx	12	24	12	18	24	21	23	134
Gum /Other Oral Cavity	2	2	6	4	3	2	4	23
Digestive	144	155	206	266	298	400	497	1966
Esophagus	7	8	12	12	14	23	21	97
Stomach	18	21	32	39	49	58	70	287
Colon and Rectum	73	84	105	151	177	238	283	1111
Colon	47	61	82	116	142	166	198	812
Rectosigmoid Junction	6	8	9	10	9	17	18	77
Rectum	20	15	14	25	26	55	67	222
Liver	10	13	15	16	14	22	24	114
Gallbladder	11	12	12	9	8	7	16	75
Other Biliary	5	1		8	8	7	12	41
Pancreas	13	14	18	25	23	36	48	177
Respiratory	45	72	103	181	182	258	257	1098
Lung and Bronchus	43	69	95	173	174	243	243	1040
Larynx		1	6	5	6	6	10	34
Bones and Joints	4	3	2	7	5	3	4	28
Soft Tissue	4	5	2	4	3	7	9	34
Melanoma	1	2	2	2	4	5	4	20
Other Non-Epithelial Skin				2	5	5	3	15
Breast	27	43	54	95	135	212	237	803
Female Genital	24	40	59	52	76	57	58	366
Cervix	12	27	41	29	29	12	18	168
Corpus uteri/Uterus, nos	3	3	5	6	15	15	22	69
Ovary	8	9	10	14	25	26	13	105
Male Genital	23	24	42	40	91	81	107	408
Prostate	16	15	35	30	77	69	90	332
Testis	4	8	6	8	11	9	16	62
Urinary	26	29	29	63	57	66	95	365
Urinary Bladder	9	8	11	19	12	14	31	104
Kidney and Renal Pelvis	17	20	17	44	43	51	61	253
Eye and Orbit	1	0	4	1	2	2	1	11
Brain and Nervous System	7	7	5	9	6	12	9	55
Endocrine	10	12	13	15	15	18	36	119
Thyroid	10	11	11	13	15	17	35	112
Lymphoma	8	8	23	19	24	30	45	157
Hodgkins Disease		1	4	3	5	6	3	22
Non-Hodgkins	8	7	19	16	19	26	42	137
Multiple Myeloma	6	4	6	6	9	6	15	52
Leukemia	10	8	8	14	22	28	24	114
Ill Defined and Unspecified	29	43	42	29	36	28	41	248

**Number of Invasive Cancers  
Among Alaska Natives 1969-2003  
By Five Year Time Periods  
Men**

Site	1969-1973	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	Total
All Sites	209	254	319	387	507	605	692	2973
Oral Cavity and Pharynx	14	22	9	23	33	36	38	175
Salivary Gland	3		1	1		2	1	8
Nasopharynx	9	17	6	12	20	16	16	96
Gum and Other Mouth		2	2	3	1		4	12
Digestive	77	88	116	135	166	212	247	1041
Esophagus	6	5	9	8	11	14	16	69
Stomach	12	17	25	26	37	39	38	194
Colon and Rectum	36	45	49	67	90	122	131	540
Colon	22	29	39	48	75	83	82	378
Rectosigmoid Junction	3	6	3	5	4	9	14	44
Rectum	11	10	7	14	11	30	35	118
Liver	9	10	13	11	10	12	15	80
Gallbladder	2	2	5	2	3	4	5	23
Other Biliary	2	1		7	5	2	7	24
Pancreas	8	7	9	12	7	15	27	85
Respiratory	36	58	75	103	116	168	148	704
Lung and Bronchus	34	55	67	99	109	157	138	659
Larynx		1	6	1	6	4	8	26
Bones and Joints	4			4	4	1	3	16
Soft Tissue	4	4		2	2	6	4	22
Melanoma		1	1		1	2	1	6
Other Non-Epithelial Skin				2	4	4	2	12
Breast			1				2	3
Male Genital	23	24	42	40	91	81	107	408
Prostate	16	15	35	30	77	69	90	332
Testis	4	8	6	8	11	9	16	62
Urinary	15	17	17	35	33	37	65	219
Urinary Bladder	7	6	8	14	9	11	23	78
Kidney and Renal Pelvis	8	10	9	21	22	25	40	135
Eye and Orbit			3			1	1	5
Brain and Nervous System	3	5	3	5	4	6	6	32
Endocrine		5	5	4	1	3	6	24
Thyroid		4	3	2	1	2	5	17
Lymphoma	6	4	18	10	12	13	26	89
Hodgkin		1	2	1	2	1	2	9
Non-Hodgkin	6	3	16	9	10	12	24	80
Multiple Myeloma	4	4	4	2	6	2	3	25
Leukemia	8	5	5	8	12	16	14	68
Ill Defined and Unspecified	15	17	20	14	22	17	19	124

**Number of Invasive Cancers  
Among Alaska Natives 1969-2003  
By Five Year Time Periods  
Women**

Site	1969-1973	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	Total
All Sites	187	235	305	455	509	667	806	3164
Oral Cavity and Pharynx	13	12	15	14	13	18	18	103
Salivary Gland	5	3	1	3	2	4	4	22
Nasopharynx	3	7	6	6	4	5	7	38
Gum and Other Oral	2		4	1	2	2		11
Digestive	67	67	90	131	132	188	250	925
Esophagus	1	3	3	4	3	9	5	28
Stomach	6	4	7	13	12	19	32	93
Colon and Rectum	37	39	56	84	87	116	152	571
Colon	25	32	43	68	67	83	116	434
Rectosigmoid Junction	3	2	6	5	5	8	4	33
Rectum	9	5	7	11	15	25	32	104
Liver	1	3	2	5	4	10	9	34
Gallbladder	9	10	7	7	5	3	11	52
Other Biliary	3		1	3	5	5	17	
Pancreas	5	7	9	13	16	21	21	92
Respiratory	9	14	28	78	66	90	109	394
Lung and Bronchus	9	14	28	74	65	86	105	381
Larynx				4		2	2	8
Bones and Joints		3	2	3	1	2	1	12
Soft Tissue		1	2	2	1	1	5	12
Melanoma	1	1	1	2	3	3	3	14
Other Non-Epithelial Skin					1	1	1	3
Breast	27	43	53	95	135	212	235	800
Female Genital	24	40	59	52	76	57	58	366
Cervix	12	27	41	29	29	12	18	168
Corpus uteri/Uterus, nos	3	3	5	6	15	15	22	69
Ovary	8	9	10	14	25	26	13	105
Urinary	11	12	12	28	24	29	30	146
Urinary Bladder	2	2	3	5	3	3	8	26
Kidney and Renal Pelvis	9	10	8	23	21	26	21	118
Eye and Orbit	1		1	1	2	1		6
Brain and Nervous System	4	2	2	4	2	6	3	23
Endocrine	10	7	8	11	14	15	30	95
Thyroid	10	7	8	11	14	15	30	95
Lymphoma	2	4	5	9	12	17	19	68
Hodgkins			2	2	3	5	1	13
Non-Hodgkins	2	4	3	7	9	14	18	57
Multiple Myeloma	2		2	4	3	4	12	27
Leukemia	2	3	3	6	10	12	10	46
Ill Defined and Unspecified	14	26	22	15	14	11	22	124



**Five Year Average Age-Adjusted Cancer Incidence Rates<sup>1</sup> per 100,000  
Among Alaska Natives 1969-2003  
Men and Women Combined**

Site	1969-1973	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003
All Sites	370.7	373.0	410.4	453.8	472.9	473.4	497.7*
Oral Cavity and Pharynx	18.9	20.9	14.4	18.9	21.1	18.9	18.1
Salivary Gland	4.6					1.7	1.4
Nasopharynx	9.2	14.8	6.6	8.6	10.3	8.0	7.7
Gum and Other Mouth			4.1				
Digestive	161.9	132.2	144.5	155.3	151.7	159.7	179.7*
Esophagus	9.4	7.1	9.0	8.1	7.1	9.8	8.2
Stomach	20.2	14.7	22.0	20.6	21.1	19.6	25.7
Colon and Rectum	83.3	77.9	76.8	92.3	95.1	98.1	102.9*
Colon	56.1	55.9	59.0	71.9	78.0	71.5	74.2*
Rectosigmoid Junction	7.5	6.5	6.2	6.1	5.1	6.0	5.9
Rectum	19.7	15.6	11.6	14.2	12.0	20.7	22.9
Liver	7.1	7.3	6.8	7.3	5.0	7.2	7.8
Gallbladder	16.4	11.8	9.5	6.1	4.1	3.4	6.3*
Other Biliary	4.7	0.6	0.0	4.6	4.1	2.6	4.7
Pancreas	12.6	10.8	11.8	12.8	12.7	15.3	16.2
Respiratory	38.6	58.5	67.1	103.0	95.2	102.5	96.4*
Lung and Bronchus	37.2	56.6	62.9	98.8	91.7	96.9	91.6*
Larynx			3.2	2.1	2.7	2.5	3.3
Bones and Joints				2.9	1.4		
Soft Tissue		2.8				1.6	1.8
Melanoma						1.2	
Other Non-Epithelial Skin					2.6	2.1	
Breast	19.4	26.7	31.8	45.4	55.0	71.8	65.5*
Female Genital	15.8	26.2	30.0	20.1	29.1	17.6	16.2
Cervix	7.1	18.5	19.2	9.5	9.1	2.9	4.7
Corpus uteri/Uterus, nos			2.5	3.2	6.1	5.0	6.4
Ovary	5.3	5.1	7.1	6.3	10.3	8.5	3.7
Male Genital	23.4	21.4	30.9	22.5	45.3	36.0	34.3
Prostate	19.0	17.7	28.7	19.6	41.5	32.8	31.0*
Testis		3.0	2.0	2.0	2.2	1.9	3.1
Urinary	22.3	21.4	22.5	37.3	27.1	26.2	33.5
Urinary Bladder	8.2	7.4	9.5	10.3	6.4	5.1	11.7
Kidney and Renal Pelvis	14.0	12.6	12.4	27.0	19.6	20.5	20.6
Eye and Orbit							
Brain and Nervous System	2.0	2.9	2.0	2.3	1.5	2.2	2.2
Endocrine	4.6	7.2	6.6	6.3	4.3	4.7	7.8
Thyroid	4.6	6.6	5.6	5.6	4.3	4.6	7.6
Lymphoma	6.7	5.1	15.6	9.0	9.0	9.2	12.1
Hodgkin					1.0	2.1	
Non-Hodgkin	6.7	4.9	13.5	8.2	8.0	8.2	11.4
Multiple Myeloma	4.3		4.3	3.2	4.2	2.3	4.6
Leukemia	8.4	3.5	3.2	5.1	4.9	6.7	5.1
Ill Defined and Unspecified	35.1	37.2	33.5	17.8	17.9	9.9	16.3

<sup>1</sup>Rates are age-adjusted to the US 2000 standard population; rates not shown for fewer than 5 cases.

\* Chi Square Test for Trend significant at p< 0.05.



**Five Year Average Age-Adjusted Cancer Incidence Rates<sup>1</sup> per 100,000**  
**Among Alaska Natives 1969-2003**  
**Men**

Site	1969-1973	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003
All Sites	404.0	384.0	437.4	452.6	521.5	498.2	522.2*
Oral Cavity and Pharynx	20.0	26.1	9.4	23.3	31.0	26.9	25.8
Salivary Gland							
Nasopharynx	14.0	20.2	6.6	12.0	17.8	13.1	10.9
Gum and Other Mouth							
Digestive	172.0	137.0	158.8	169.0	173.7	178.1	196.2*
Esophagus	17.6	9.1	12.8	12.8	12.6	12.5	14.2
Stomach	29.5	22.5	34.0	29.0	33.0	28.7	32.3
Colon and Rectum	84.2	74.7	72.2	88.6	100.1	105.3	102.0*
Colon	55.7	45.0	58.5	66.0	86.2	75.9	66.4*
Rectosigmoid Junction		8.8		4.6		6.6	10.0
Rectum	19.6	20.9	10.8	18.0	9.9	22.8	25.7
Liver	10.2	11.4	12.9	9.5	7.4	8.5	10.7
Gallbladder			8.6				4.6
Other Biliary				9.3	5.6		5.1
Pancreas	15.4	11.5	10.8	13.4	7.1	13.8	21.0
Respiratory	60.4	94.5	99.0	123.3	130.5	140.1	122.5*
Lung and Bronchus	57.6	90.9	90.8	117.9	124.1	132.2	114.9*
Larynx			6.4		5.5		5.8
Bones and Joints							
Soft Tissue						3.0	
Melanoma							
Other Non-Epithelial Skin							
Breast							
Male Genital	47.2	43.1	62.6	47.7	97.0	78.2	73.3*
Prostate	38.2	35.8	58.2	41.9	89.3	71.6	66.7*
Testis		6.0	4.0	4.0	4.5	3.8	6.2
Urinary	27.1	25.1	27.7	41.2	35.6	31.8	49.5
Urinary Bladder	13.9	9.6	13.8	14.1	10.6	8.6	18.8
Kidney and Renal Pelvis	13.1	12.8	13.8	27.1	22.6	21.9	29.5*
Eye and Orbit							
Brain and Nervous System		5.0		2.7		2.5	4.0
Endocrine		6.8	7.5				2.6
Thyroid							2.2
Lymphoma	8.2		24.7	11.5	9.4	9.1	14.0
Hodgkin							
Non-Hodgkin	8.2		23.0	11.1	8.7	8.5	12.9
Multiple Myeloma					5.0		
Leukemia	12.7	4.8	3.6	5.0	5.0	8.1	6.2
Ill Defined and Unspecified	32.2	25.0	31.8	15.7	23.9	12.5	18.4

<sup>1</sup>108 Rates are age-adjusted to the US 2000 standard population; rates not shown for fewer than 5 cases.

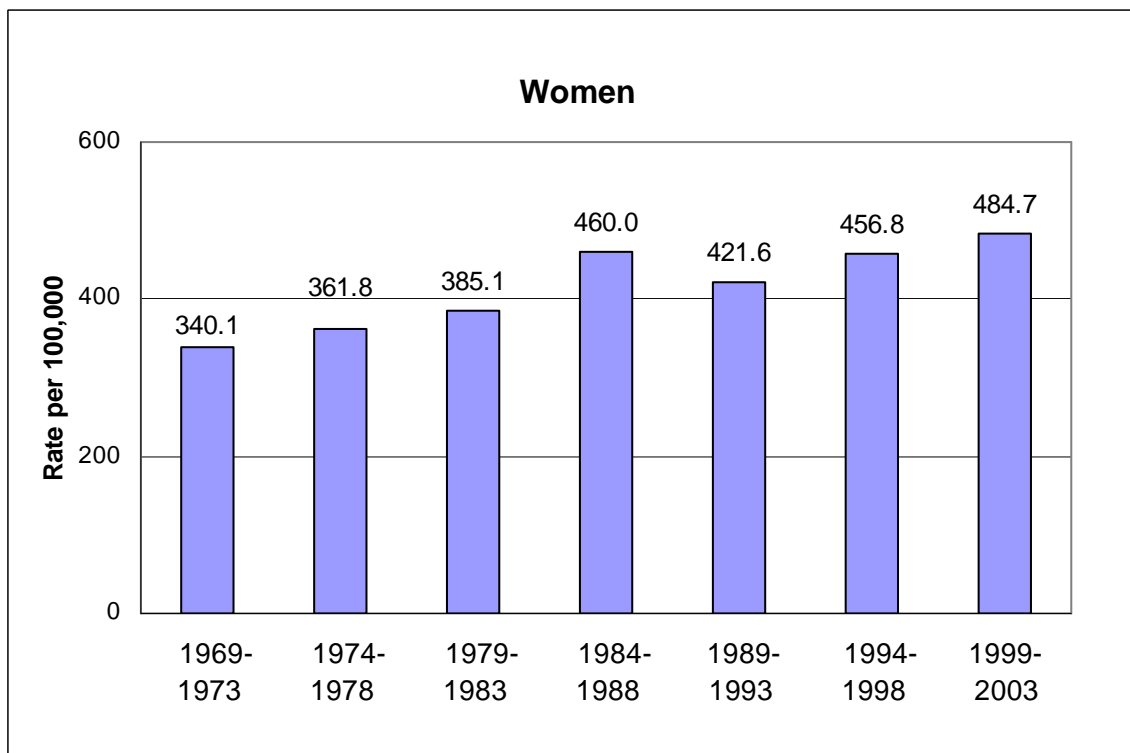
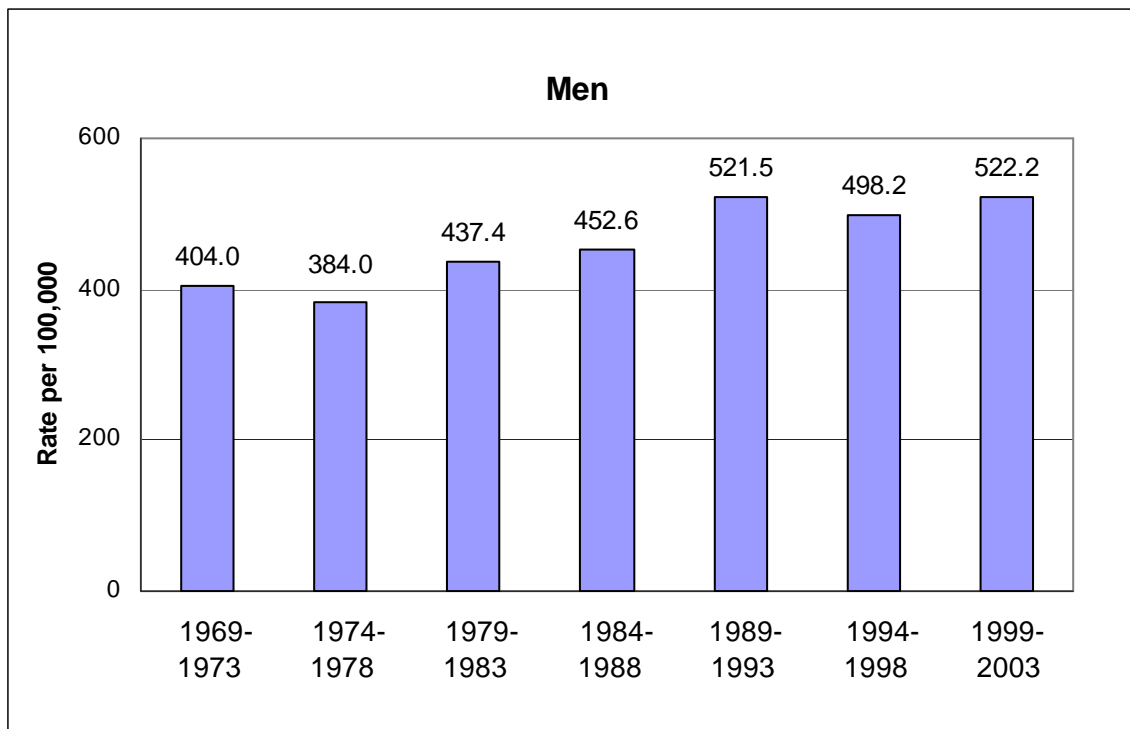
\* Chi Square Test for Trend significant at p< 0.05.

**Five Year Average Age-Adjusted Cancer Incidence Rates<sup>1</sup> per 100,000  
Among Alaska Natives 1969-2003  
Women**

	1969-1973	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003
All Sites	340.1	361.8	385.1	460.0	421.6	456.8	484.7*
Oral Cavity and Pharynx	17.8	15.5	19.3	14.4	11.5	11.7	11.3
Salivary Gland	5.7						
Nasopharynx		9.1	6.5	5.5		3.6	4.8
Gum and Other Mouth							
Digestive	153.2	126.1	130.1	144.3	127.5	143.1	166.8
Esophagus						7.4	3.3
Stomach	11.8		10.1	13.0	9.5	11.5	20.7*
Colon and Rectum	83.7	80.4	81.4	96.1	87.7	91.6	103.6*
Colon	58.0	66.1	59.5	78.0	68.7	67.6	80.9*
Rectosigmoid Junction			9.4	7.1	5.7	5.4	
Rectum	19.0	10.3	12.4	11.1	13.3	18.6	20.5
Liver				5.3		6.2	5.5
Gallbladder	25.3	18.4	10.5	8.9	4.2		7.8*
Other Biliary						3.3	4.1
Pancreas	9.7	10.2	12.7	12.5	16.8	16.7	12.5
Respiratory	15.8	21.7	35.7	84.9	62.8	69.3	75.2*
Lung and Bronchus	15.8	21.7	35.7	81.6	62.0	65.9	72.8*
Larynx							
Bones and Joints							
Soft Tissue							2.4
Melanoma							1.6
Other Non-Epithelial Skin							0.9
Breast	40.7	54.9	62.6	88.9	103.2	137.8	124.9*
Female Genital	32.8	53.2	60.2	39.7	54.8	34.3	30.9
Cervix	14.6	37.6	38.5	18.9	17.4	5.8	9.0
Corpus uteri/Uterus, nos			5.1	6.1	11.5	9.7	12.3*
Ovary	11.3	10.3	14.1	12.4	19.2	16.5	7.1
Urinary	17.5	17.6	17.2	33.4	19.2	21.5	19.9
Urinary Bladder				6.4			5.8
Kidney and Renal Pelvis	14.9	12.4	10.9	27.0	16.5	19.4	13.2
Eye and Orbit							
Brain and Nervous System						1.9	
Endocrine	9.2	7.8	6.0	9.2	8.0	7.7	12.8
Thyroid	9.2	7.8	6.0	9.2	8.0	7.7	12.8
Lymphoma			6.7	7.2	8.5	9.4	10.4*
Hodgkin						3.5	
Non-Hodgkin				5.9	7.4	8.0	10.0*
Multiple Myeloma							6.9
Leukemia				5.2	4.7	5.4	4.2
Ill Defined and Unspecified	36.7	49.1	35.2	19.3	12.6	7.4	14.9

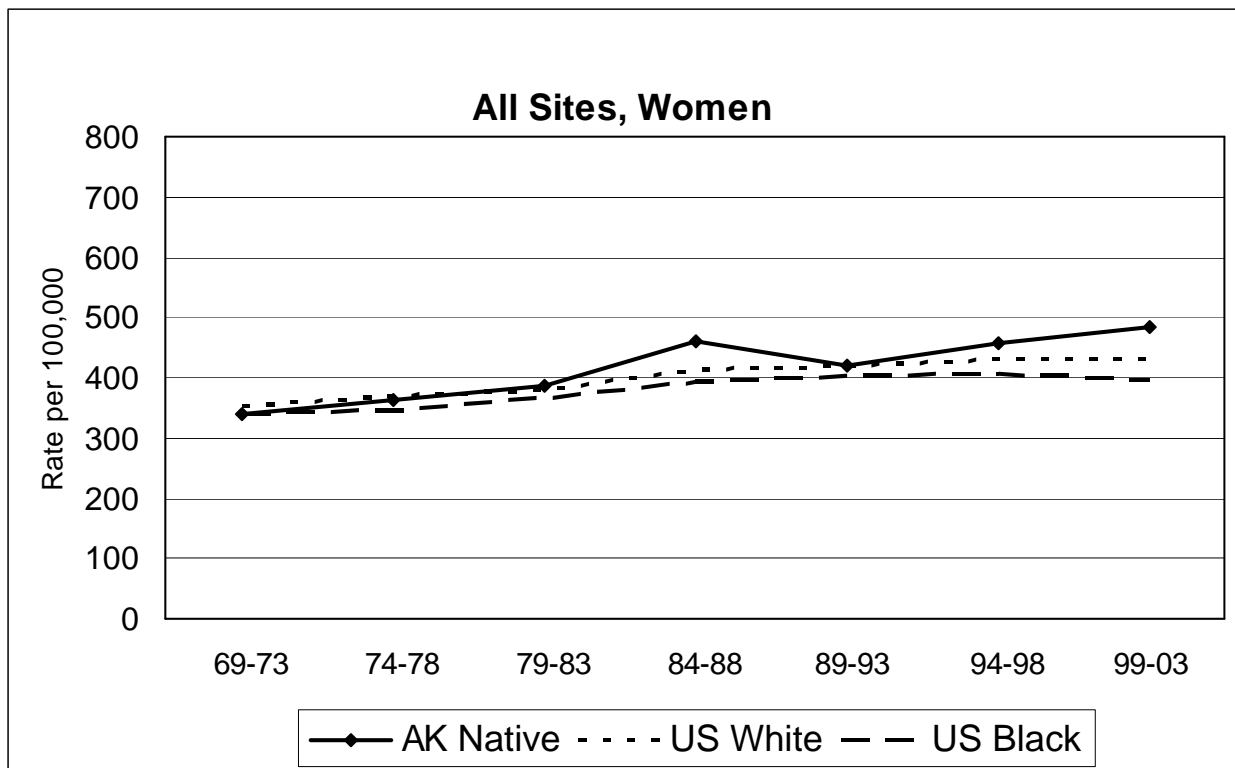
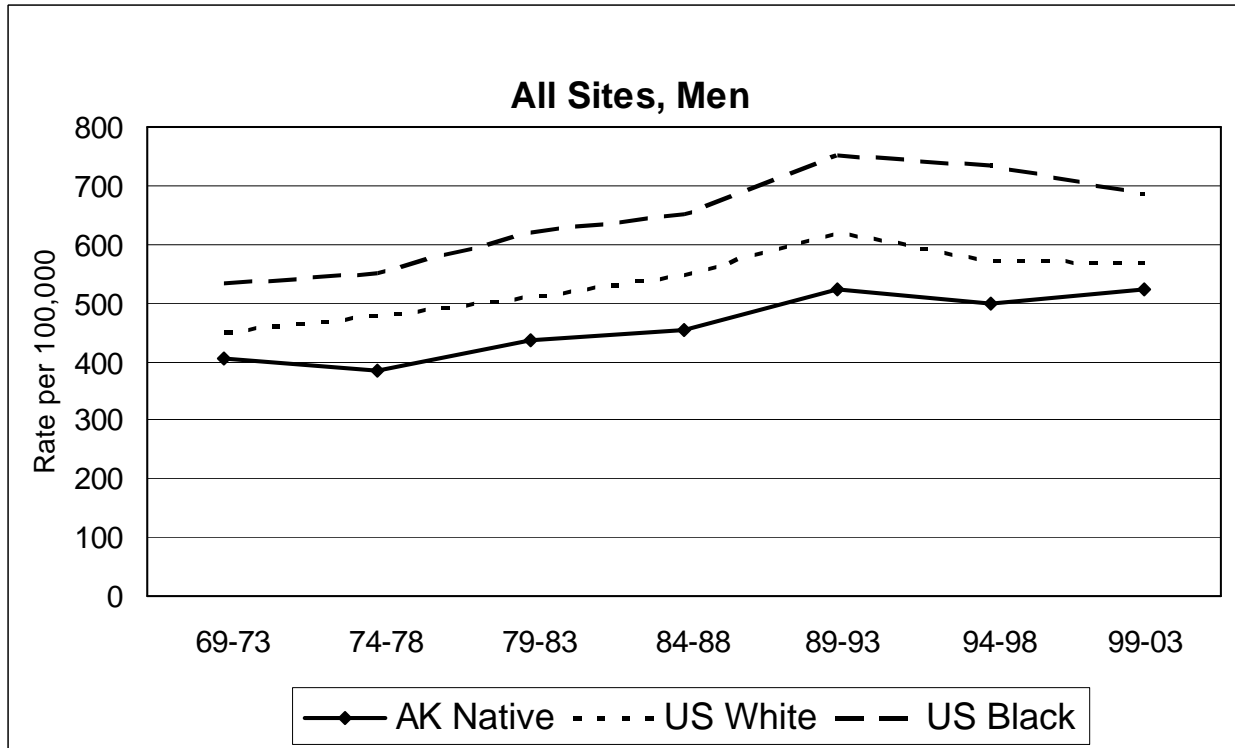
<sup>1</sup>Rates are age-adjusted to the US 2000 standard population; rates not shown for fewer than 5 cases.  
\* Chi Square Test for Trend significant at p< 0.05.

**Five-Year Average Annual Age-Adjusted<sup>1</sup> Cancer Incidence Rates  
Among Alaska Natives 1969-2003  
All Cancer Sites Combined**

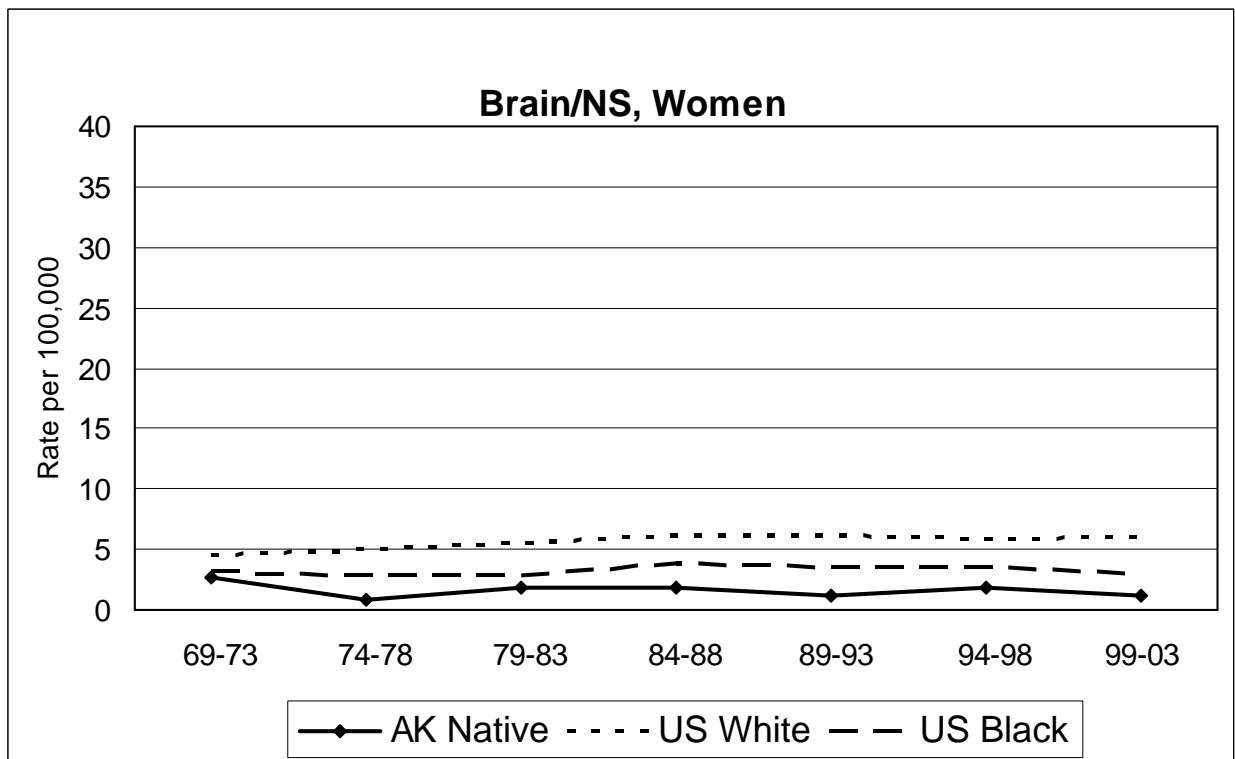
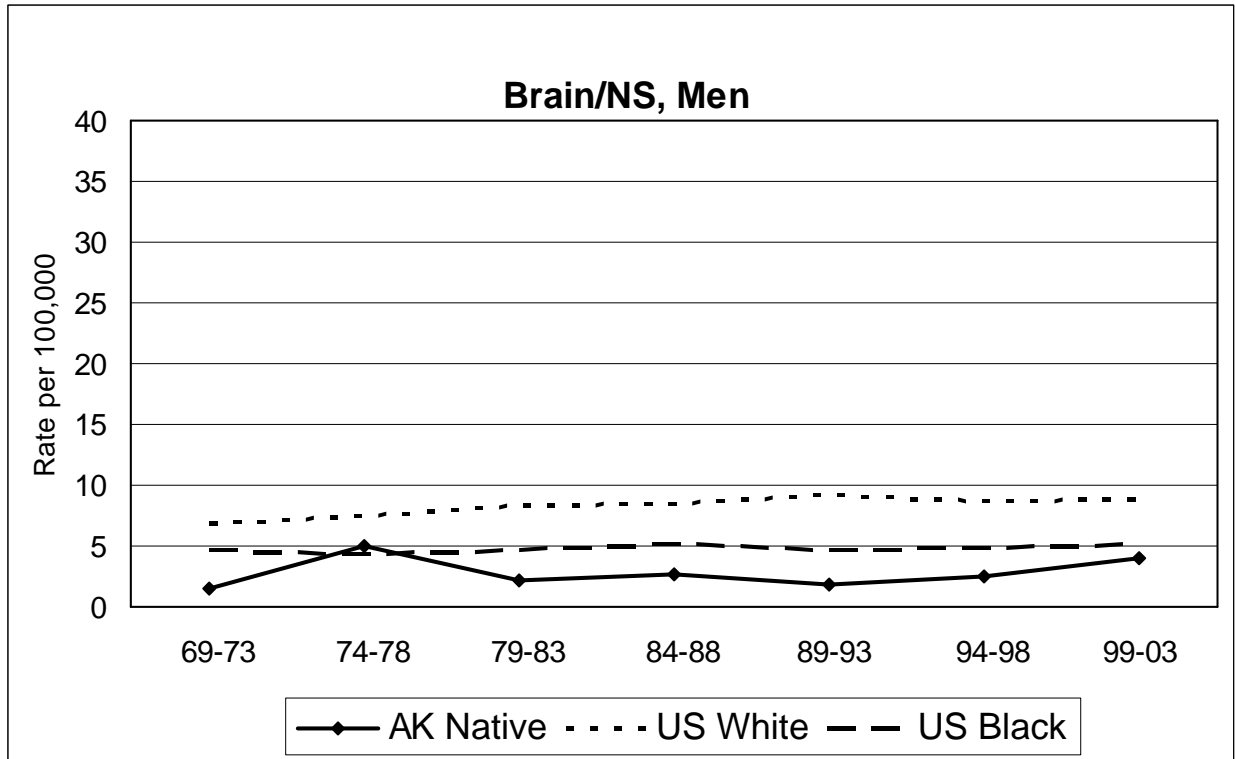


<sup>1</sup>Rates are age-adjusted to the US 2000 standard population.

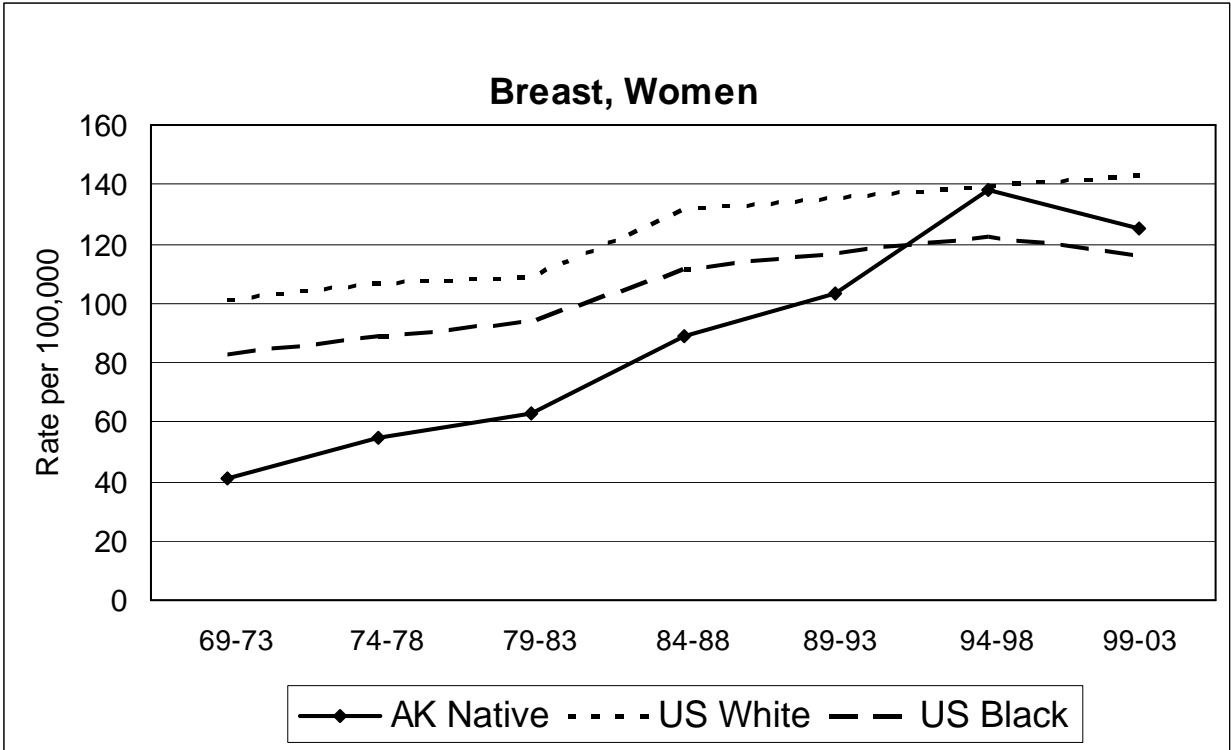
**Five-Year Average Annual Age-Adjusted Cancer Incidence Rates  
Alaska Natives 1969-2003, US Whites and Blacks 1973-2002**



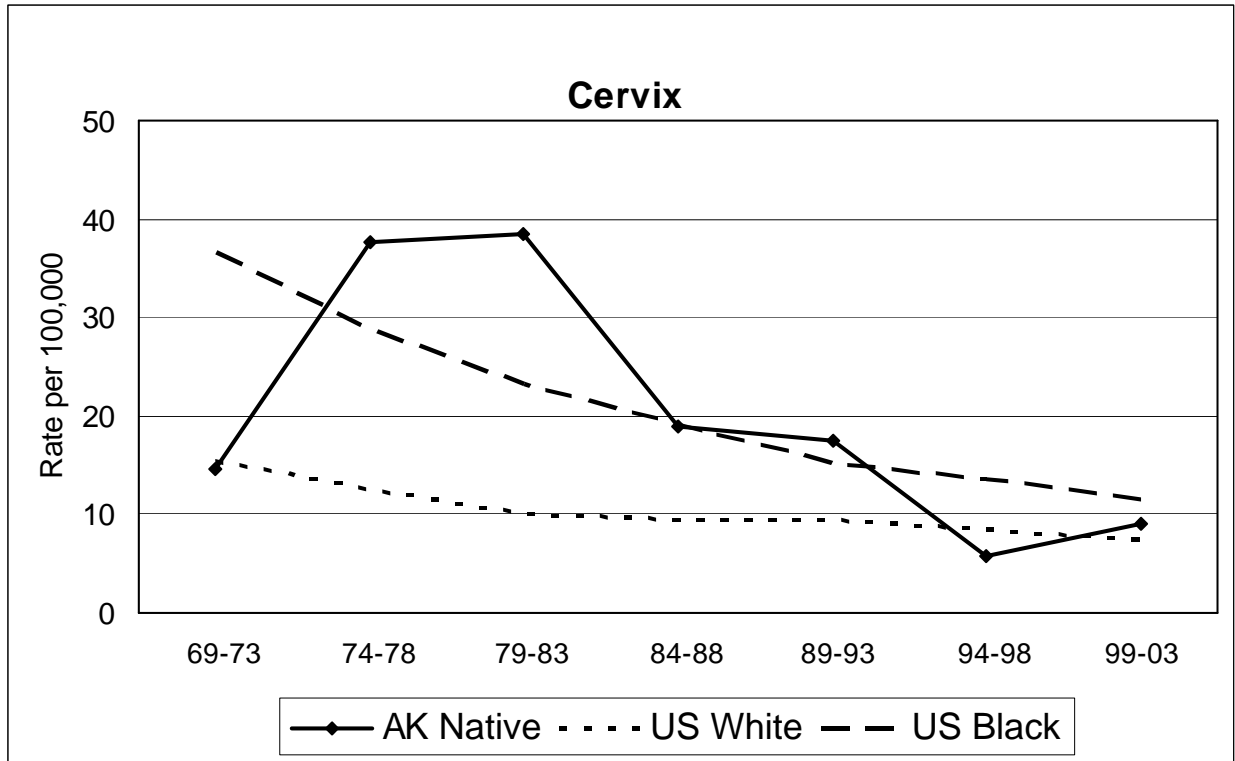
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Alaska Natives 1969-2003, US Whites and Blacks 1973-2002**



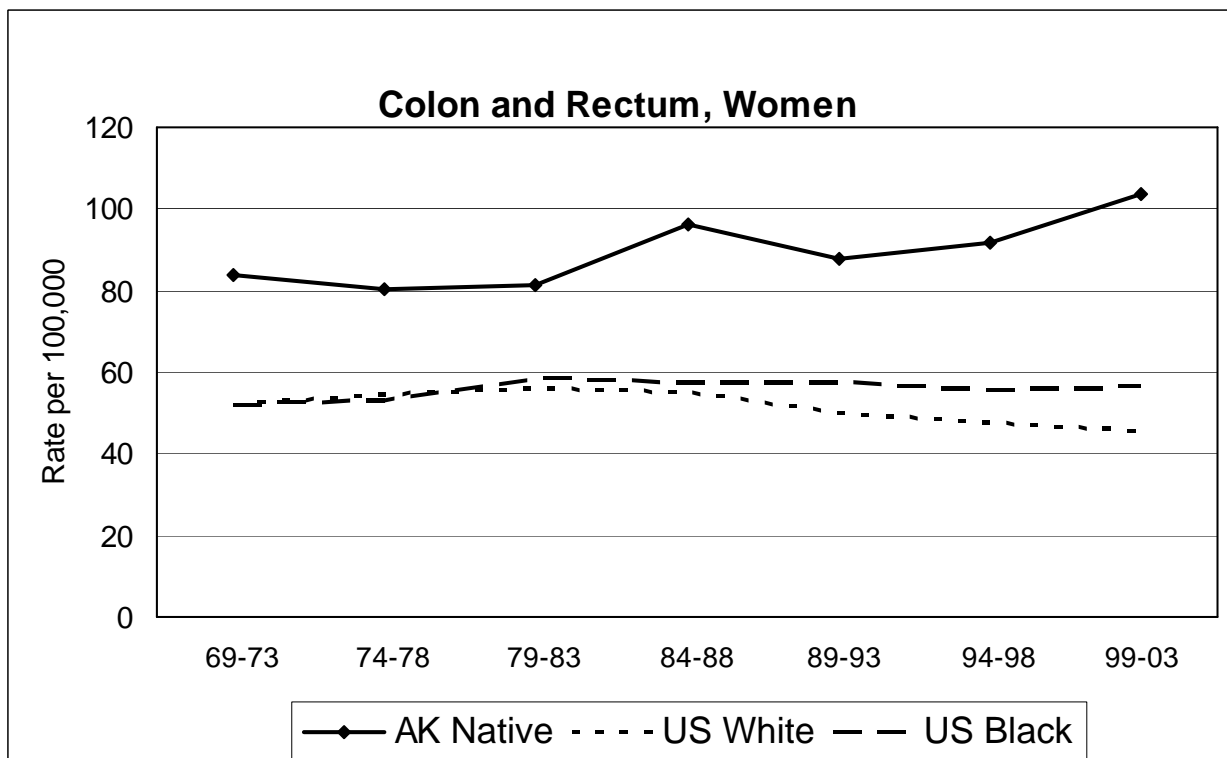
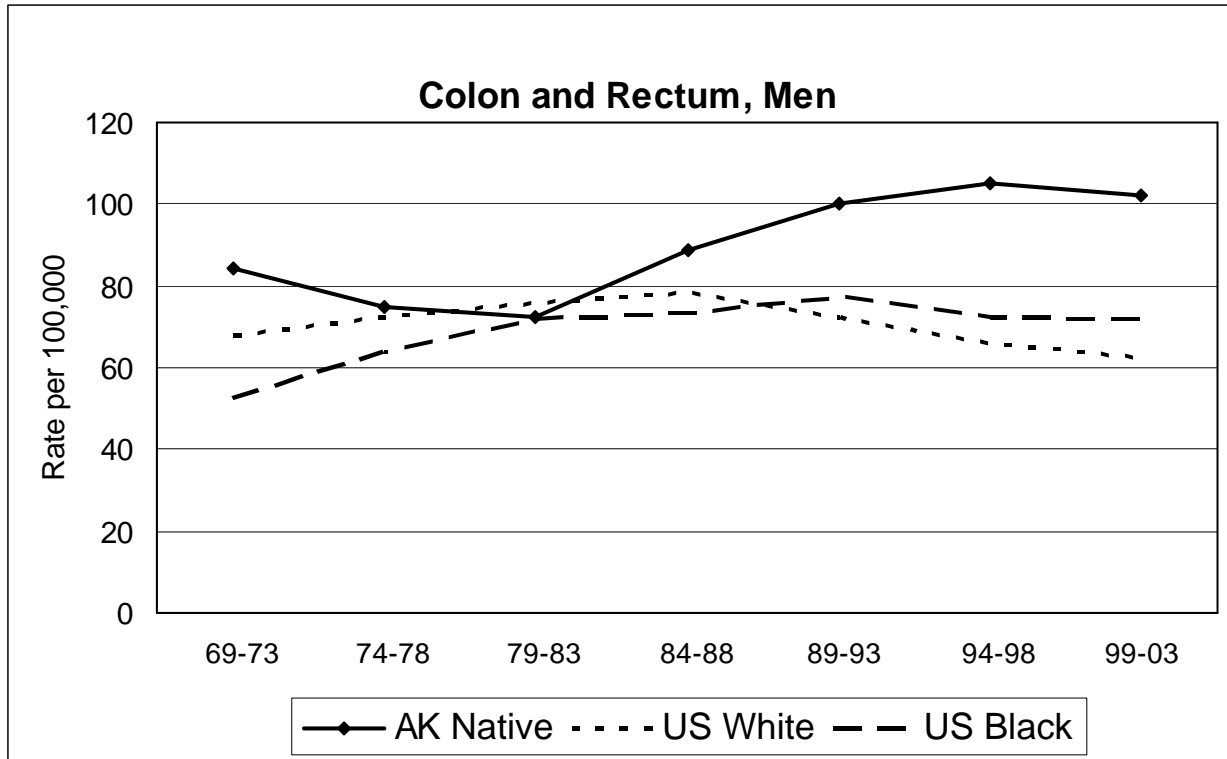
**Five-Year Average Annual Age-Adjusted Cancer Incidence Rates**  
**Alaska Natives 1969-2003, US Whites and Blacks 1973-2002**



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**Alaska Natives 1969-2003, US Whites and Blacks 1973-2002**

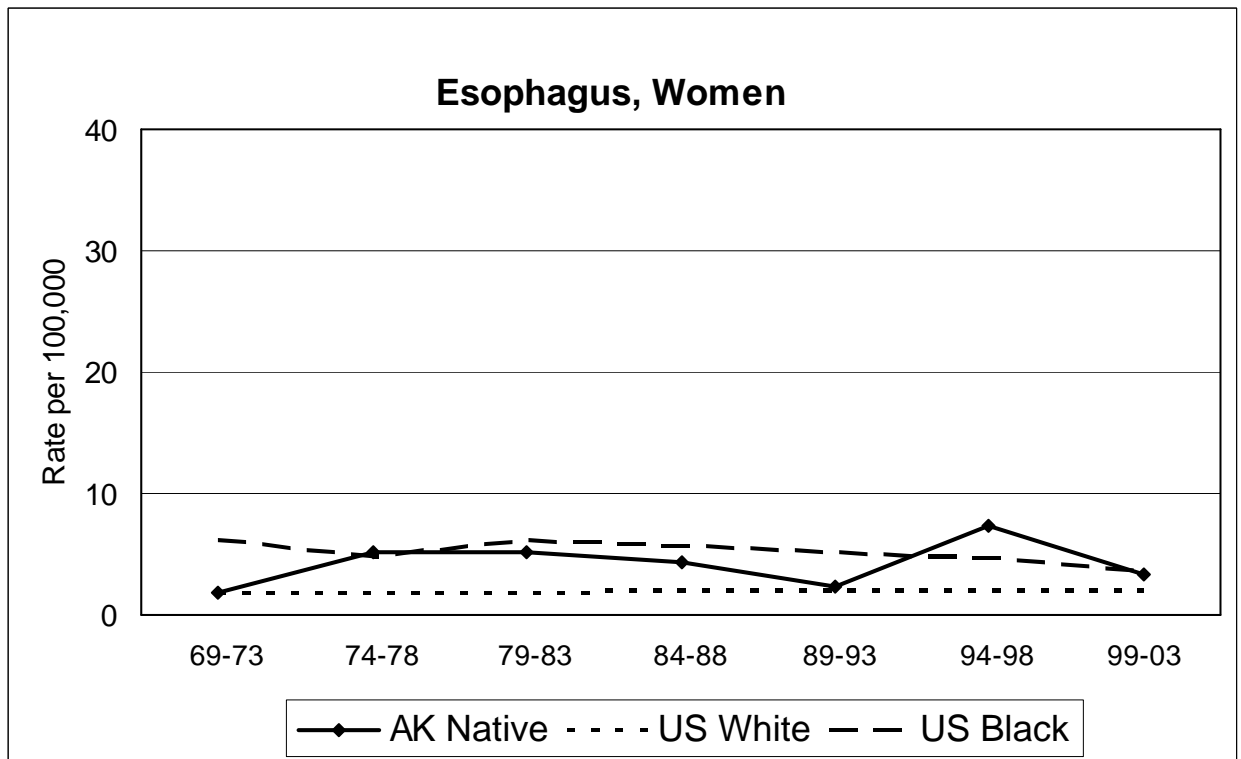
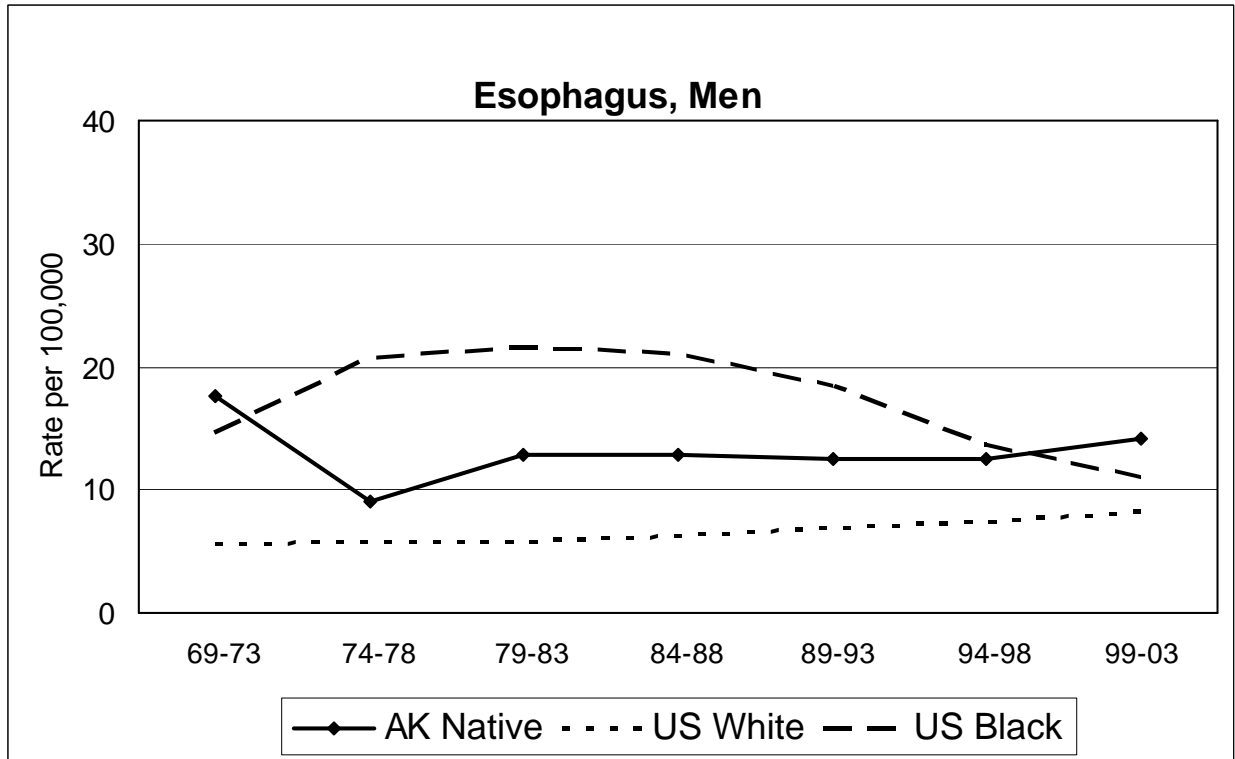


**Five-Year Average Annual Age-Adjusted Cancer Incidence Rates**  
**Alaska Natives 1969-2003, US Whites and Blacks 1973-2002**

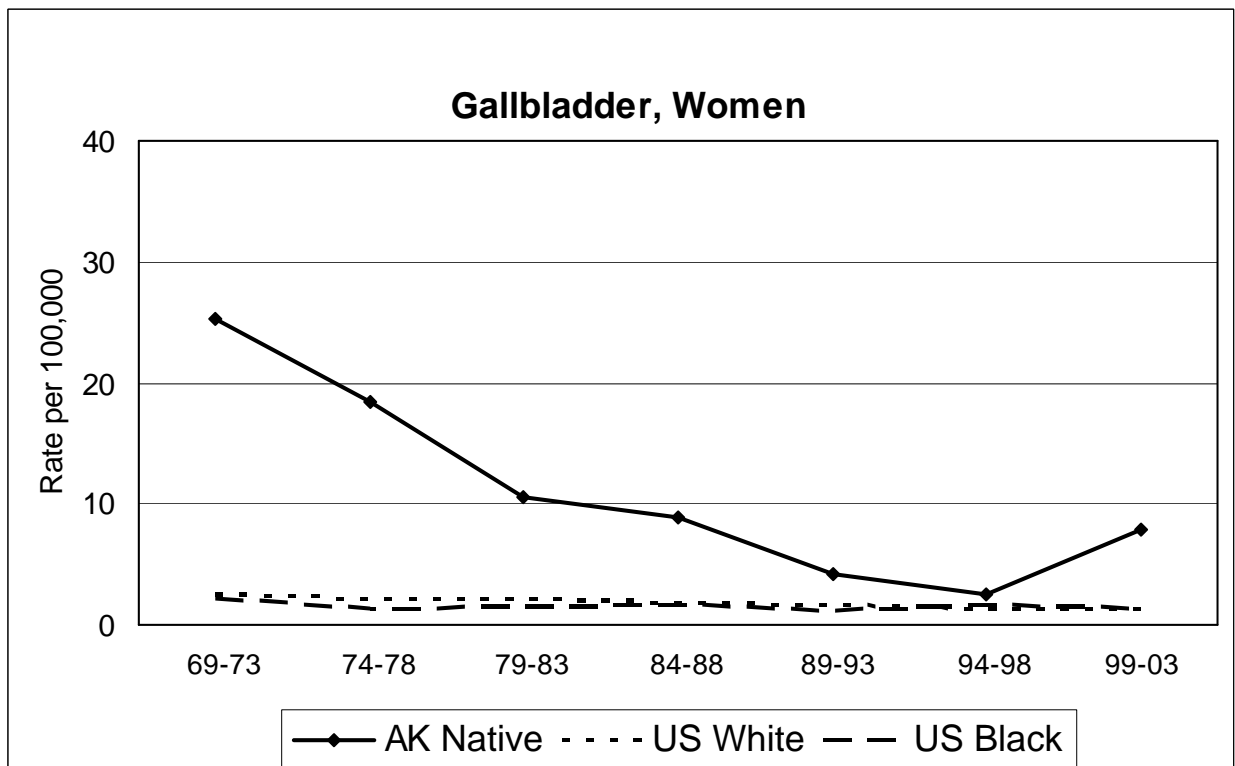
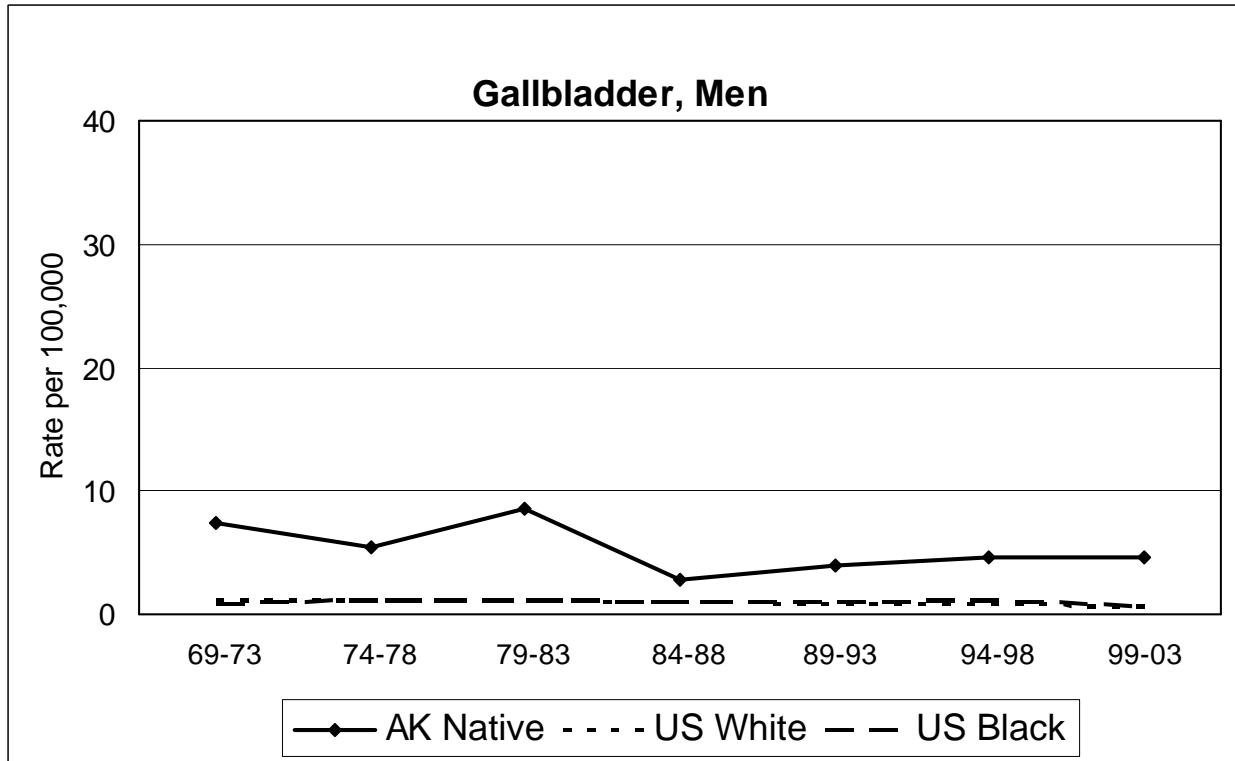




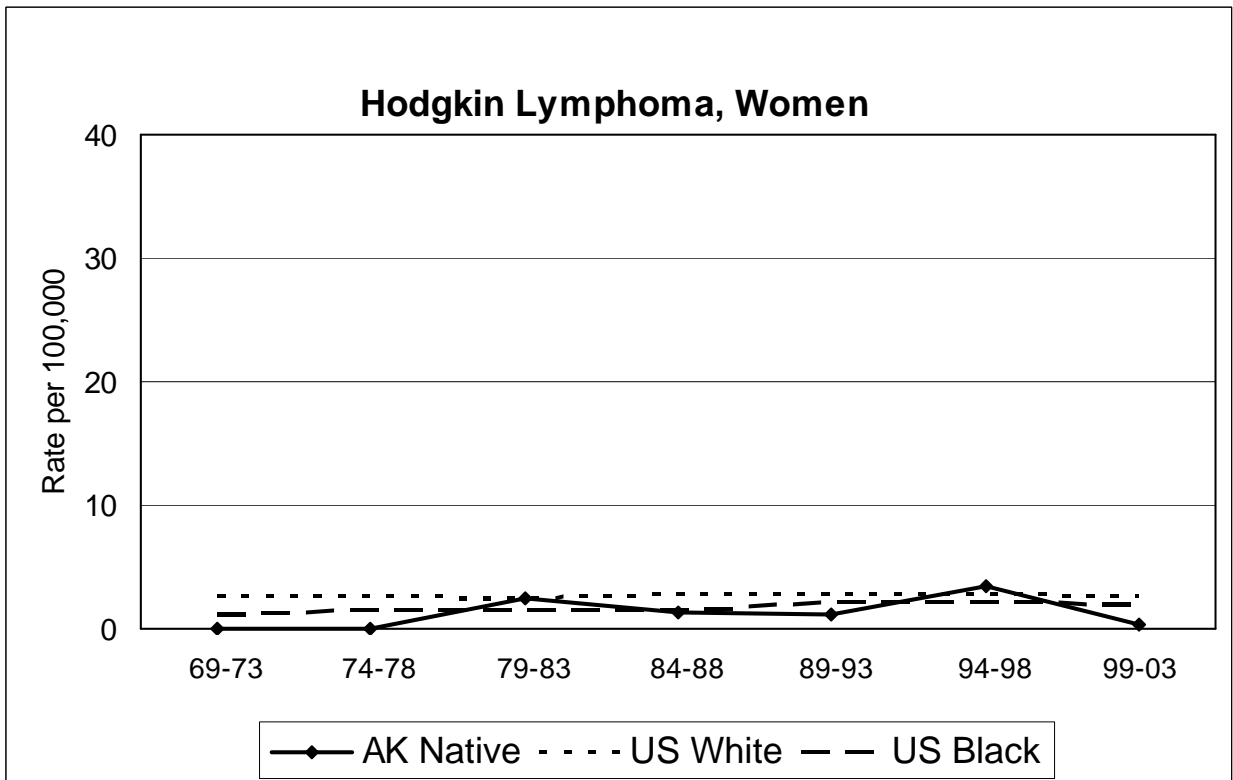
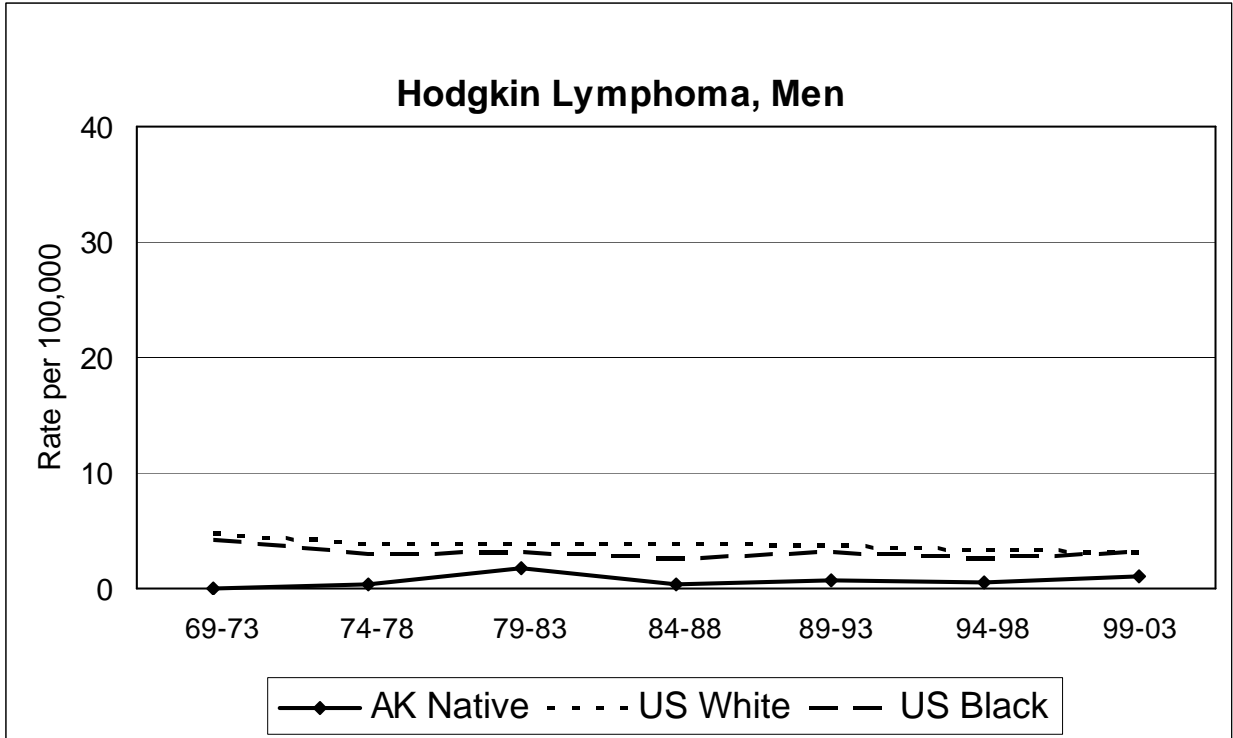
**Five-Year Average Annual Age-Adjusted Cancer Incidence Rates**  
**Alaska Natives 1969-2003, US Whites and Blacks 1973-2002**



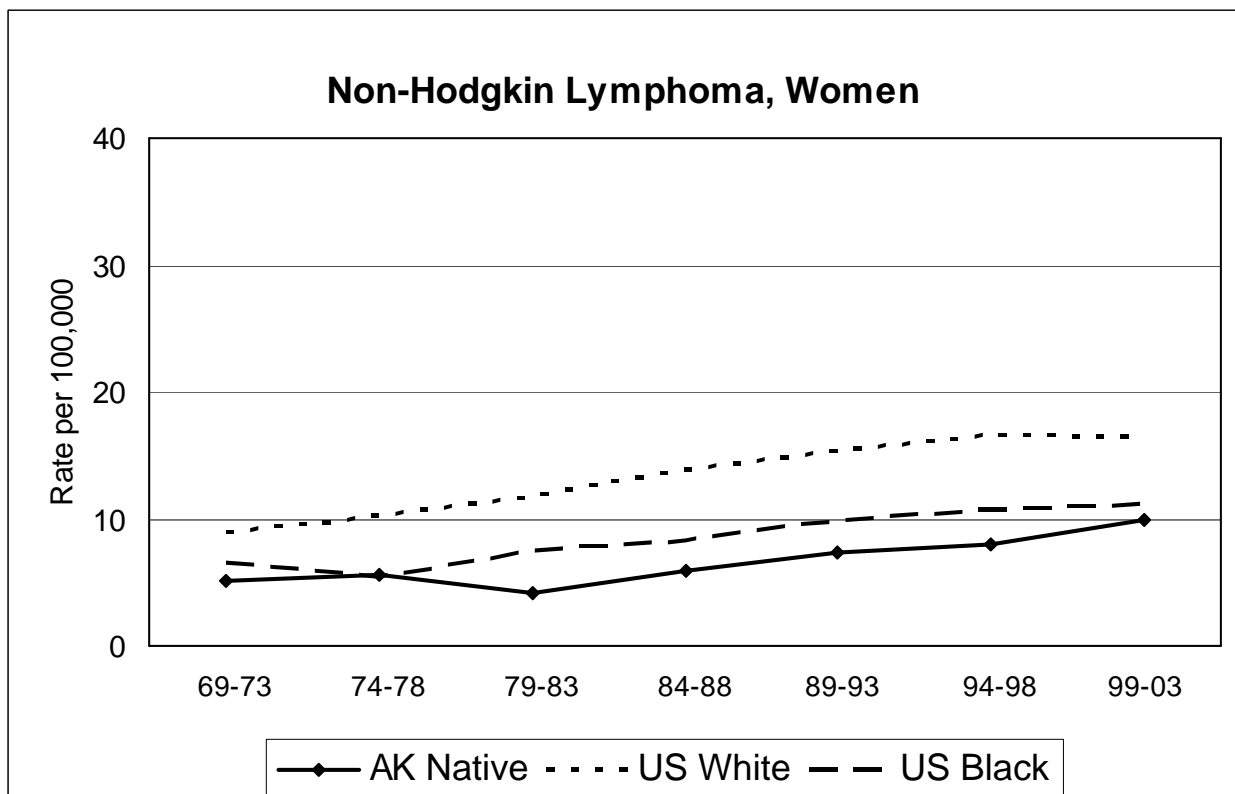
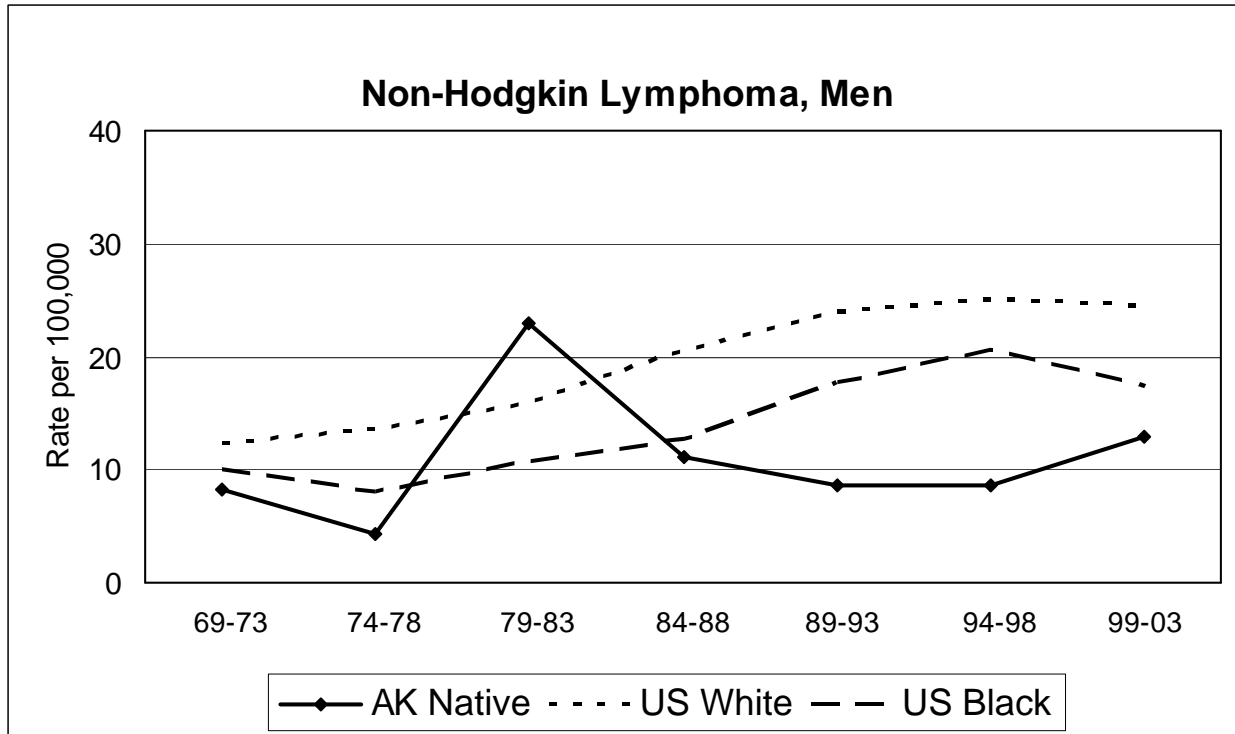
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**Alaska Natives 1969-2003, US Whites and Blacks 1973-2002**



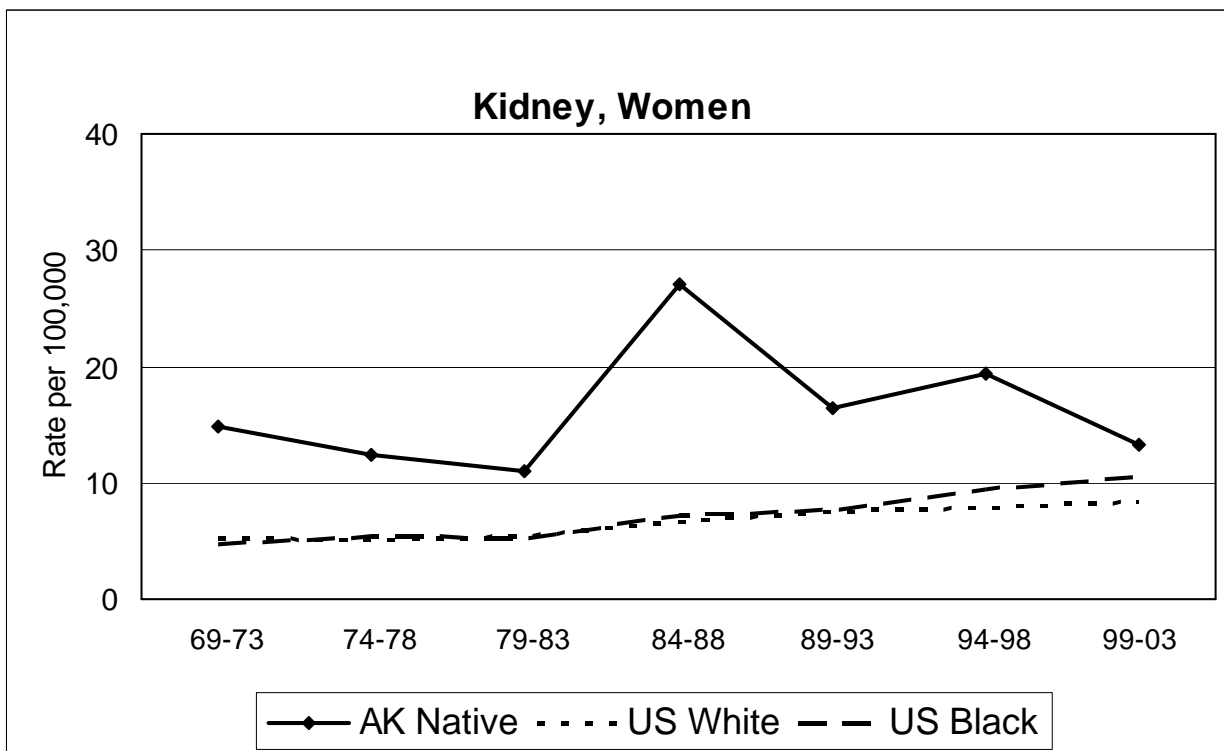
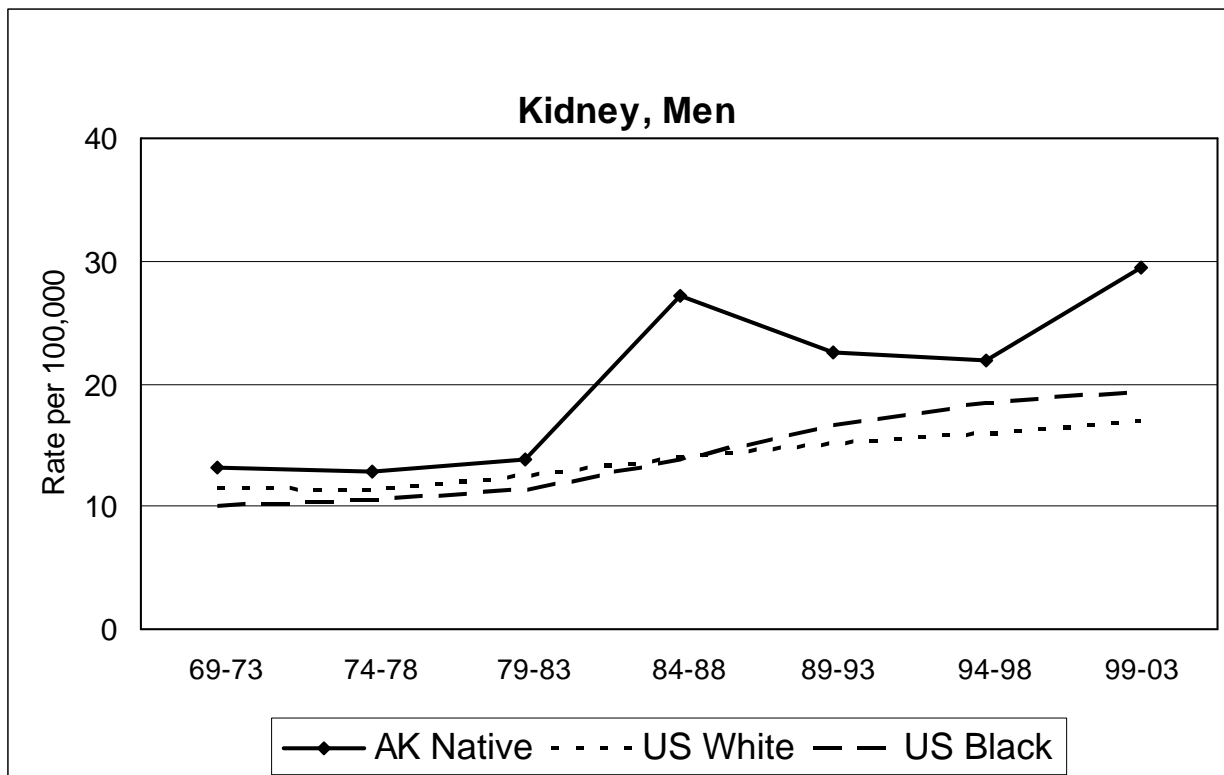
Five-Year Average Annual Age-Adjusted Cancer Incidence Rates  
Alaska Natives 1969-2003, US Whites and Blacks 1973-2002



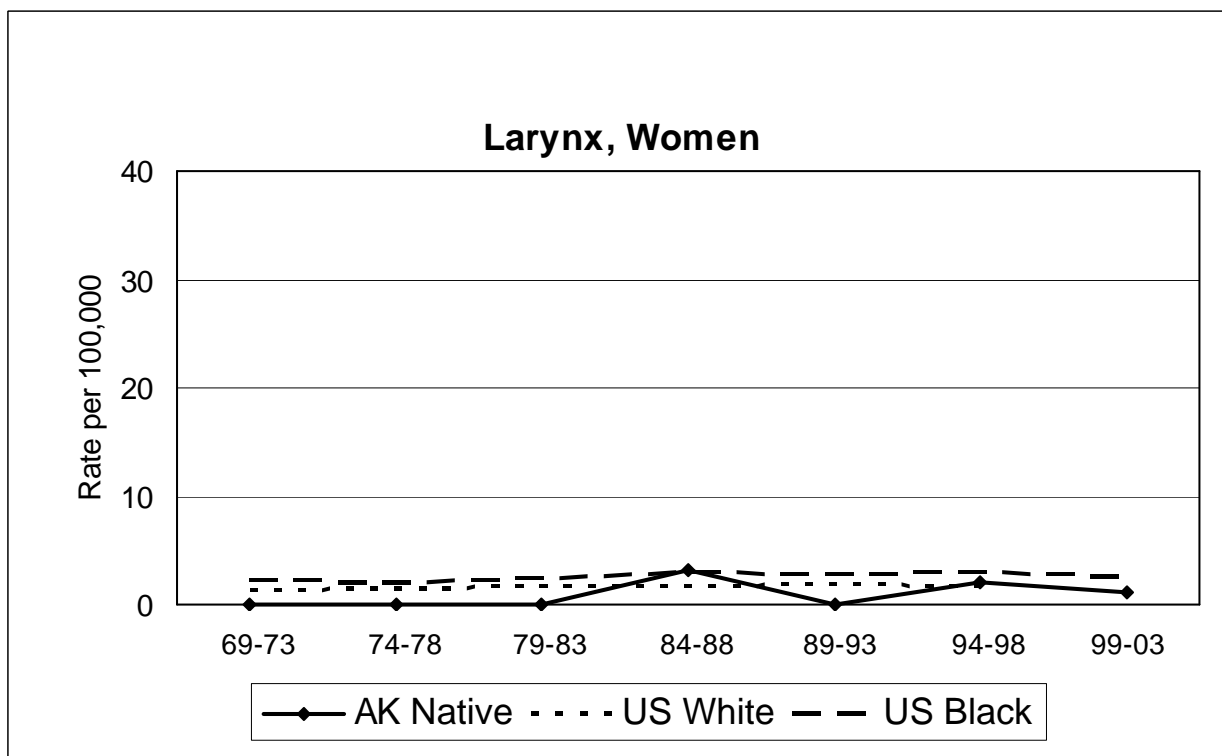
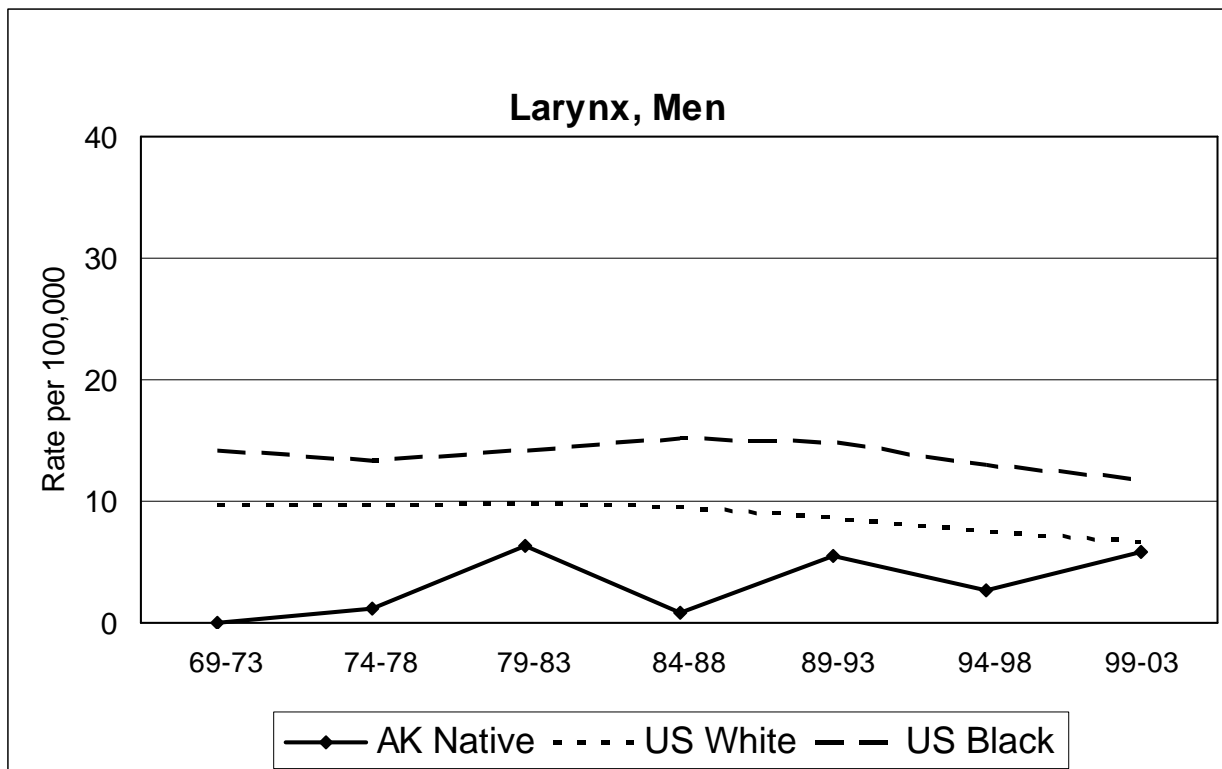
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Alaska Natives 1969-2003, US Whites and Blacks 1973-2002**



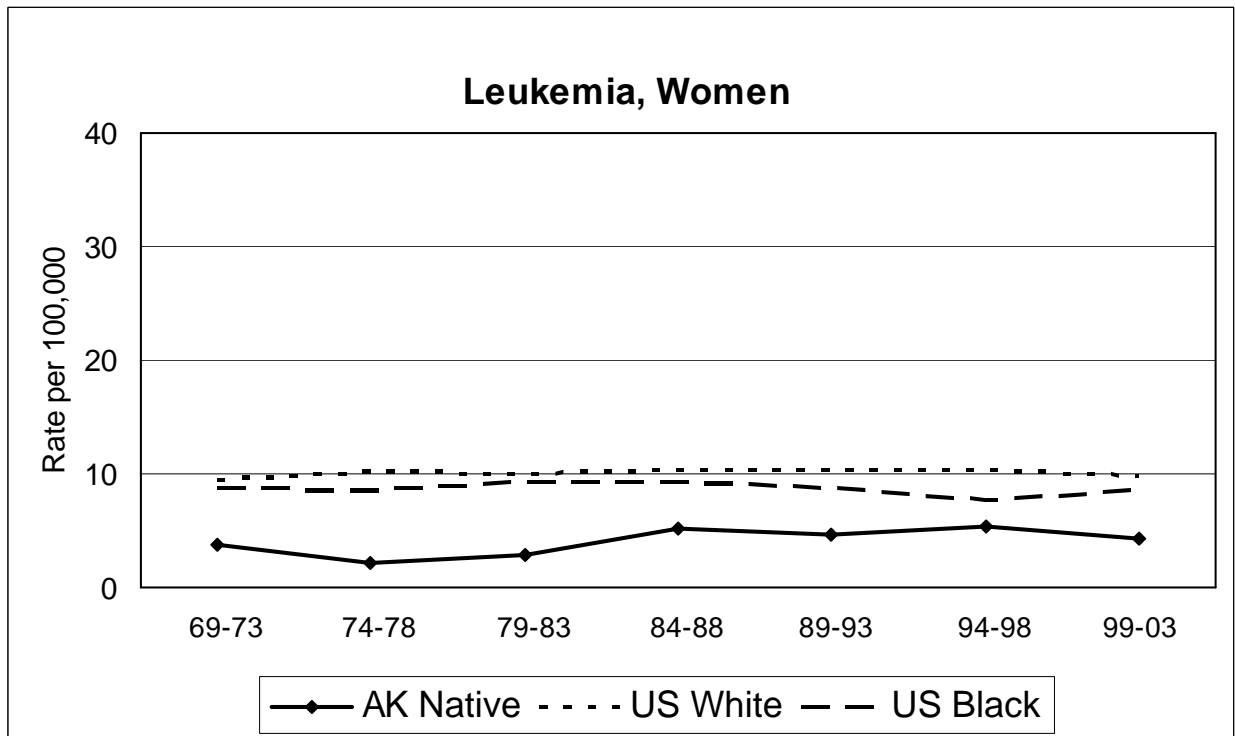
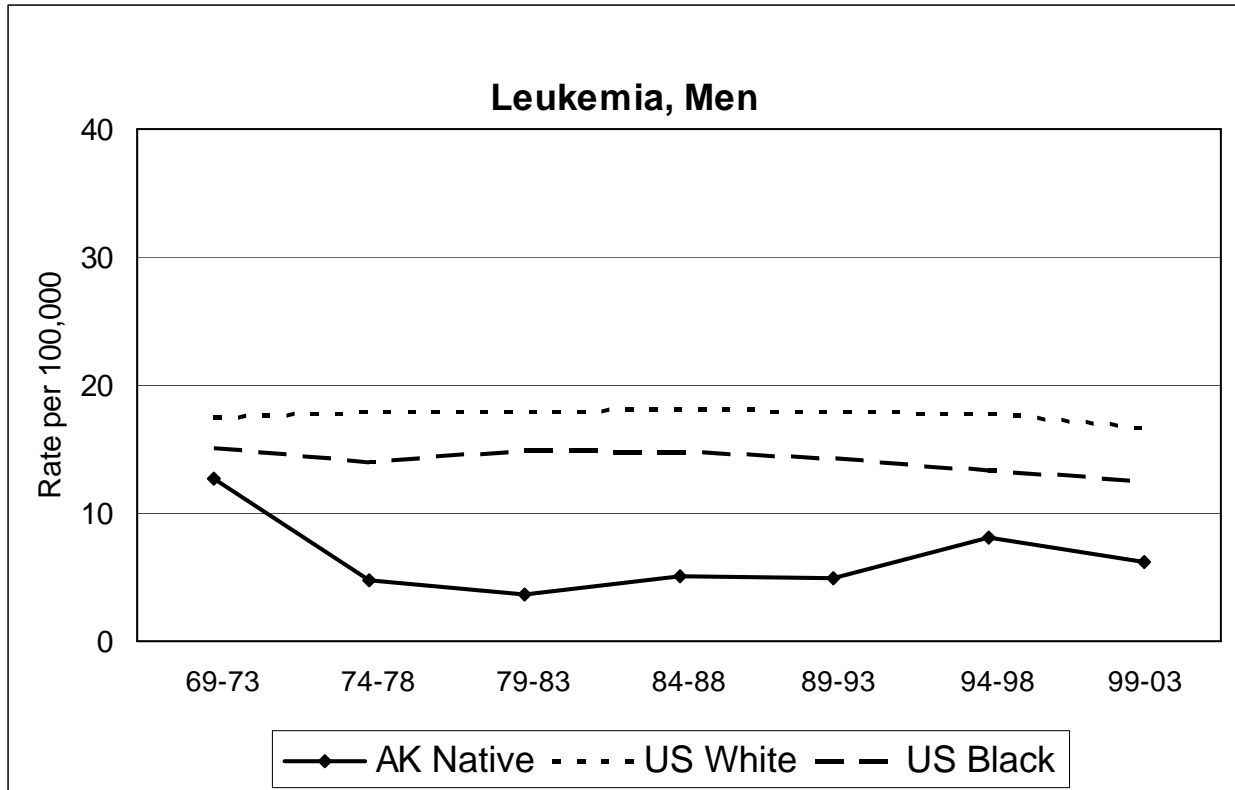
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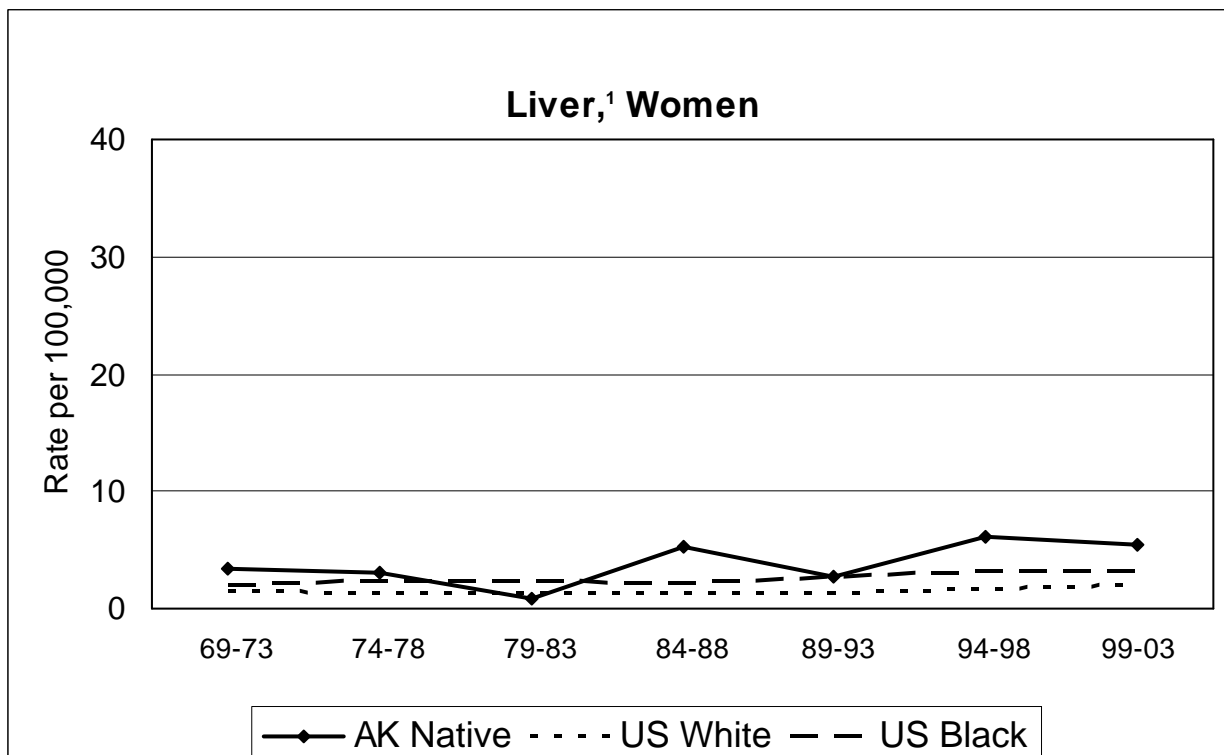
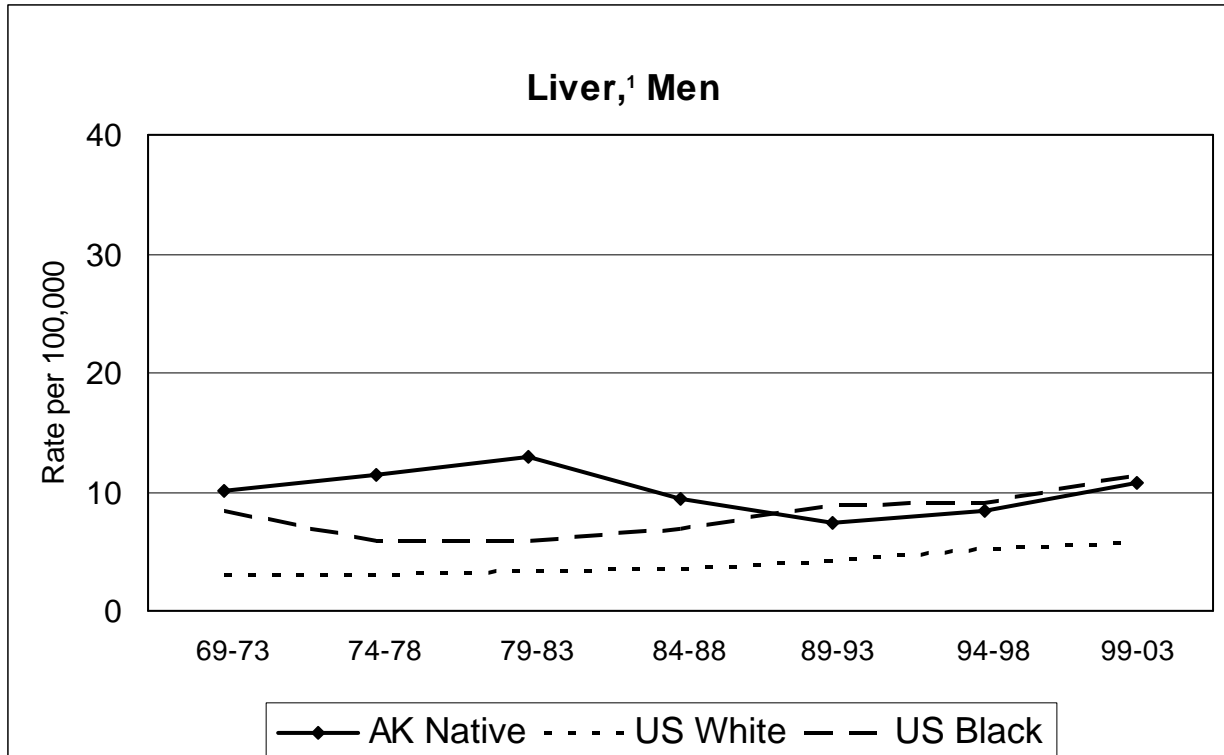
**Five-Year Average Annual Age-Adjusted Cancer Incidence Rates**  
**Alaska Natives 1969-2003, US Whites and Blacks 1973-2002**



Five-Year Average Annual Age-Adjusted Cancer Incidence Rates  
Alaska Natives 1969-2003, US Whites and Blacks 1973-2002



**Five-Year Average Annual Age-Adjusted Cancer Incidence Rates**  
**Alaska Natives 1969-2003, US Whites and Blacks 1973-2002**

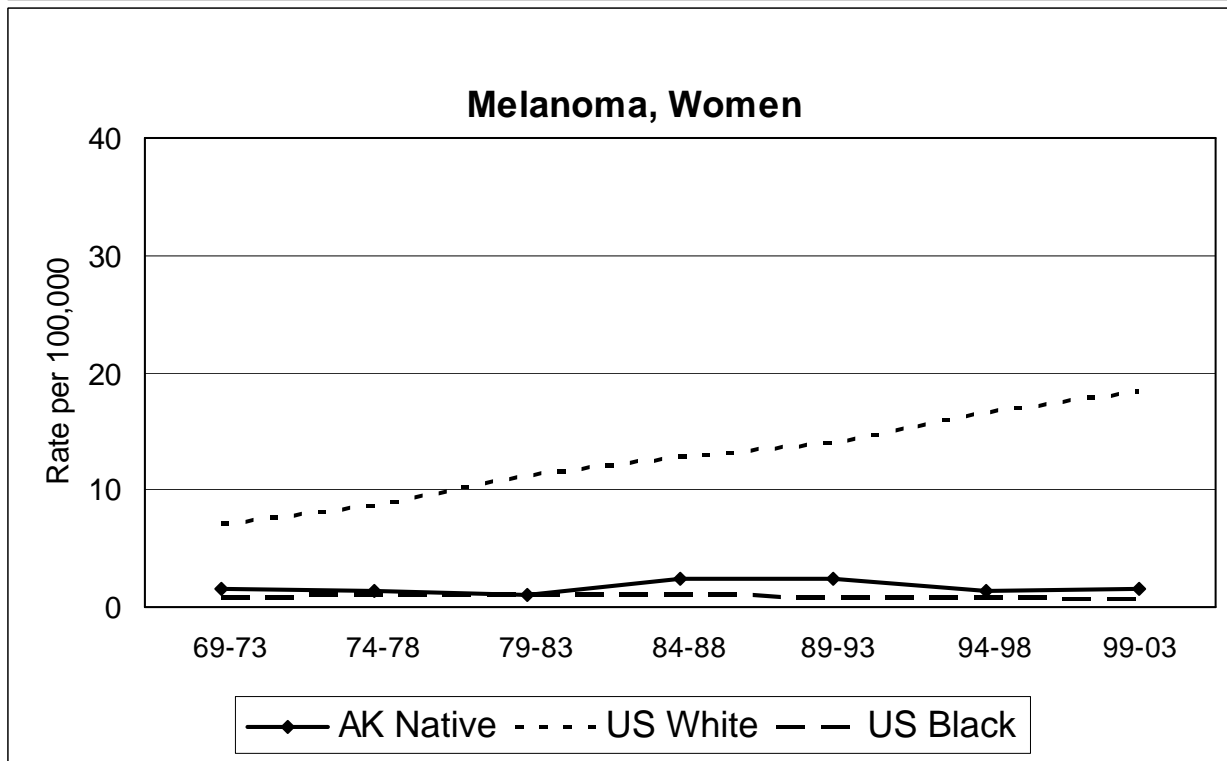
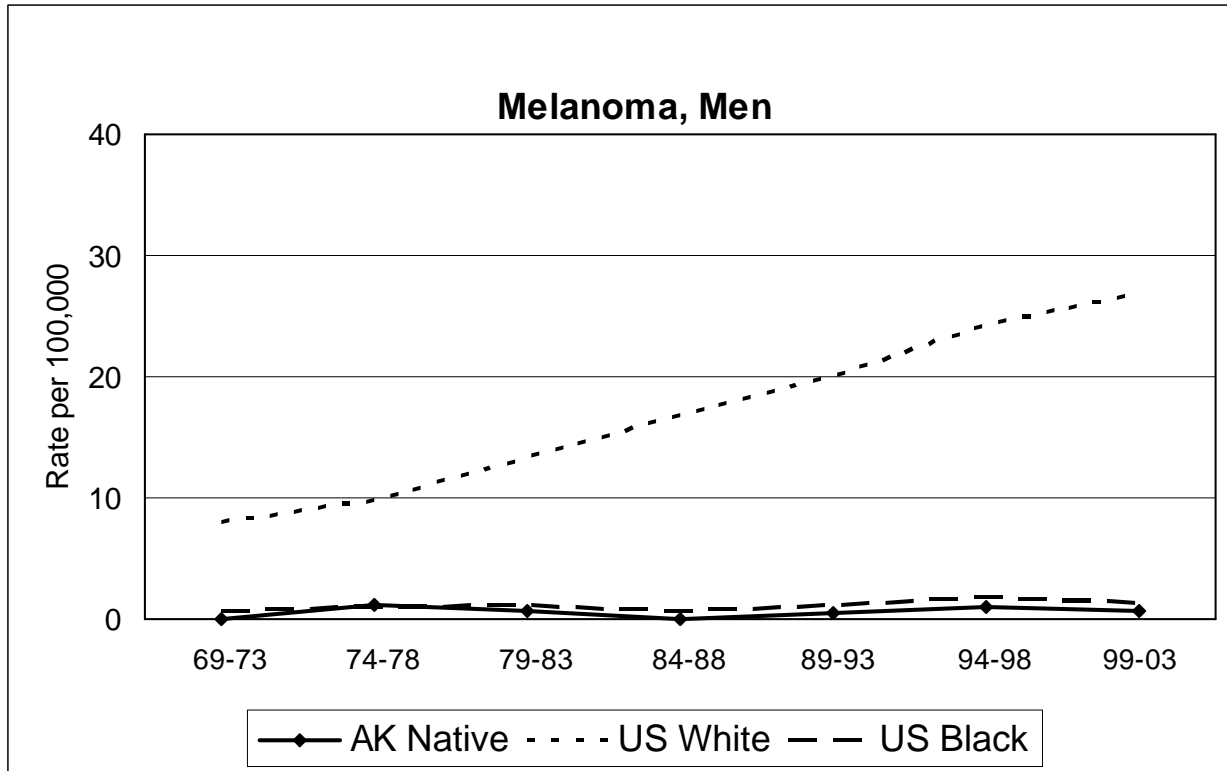


<sup>1</sup>Liver only; does not include intra-hepatic bile duct.

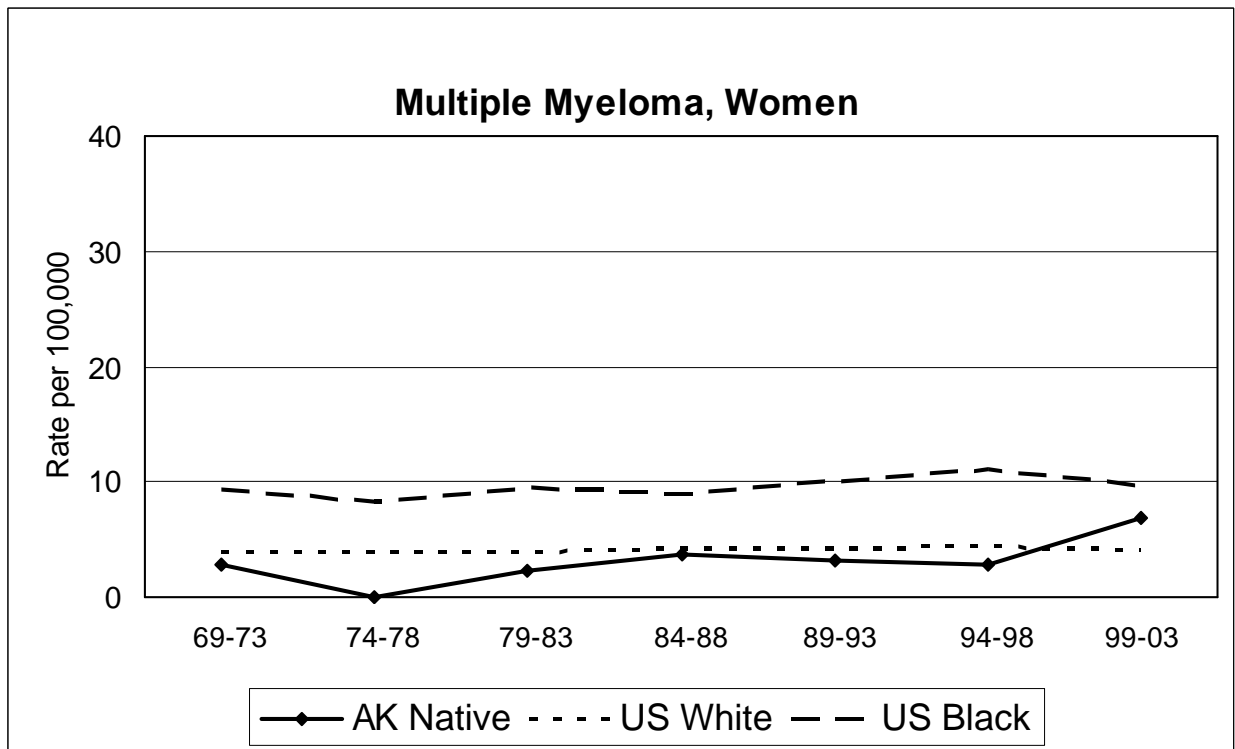
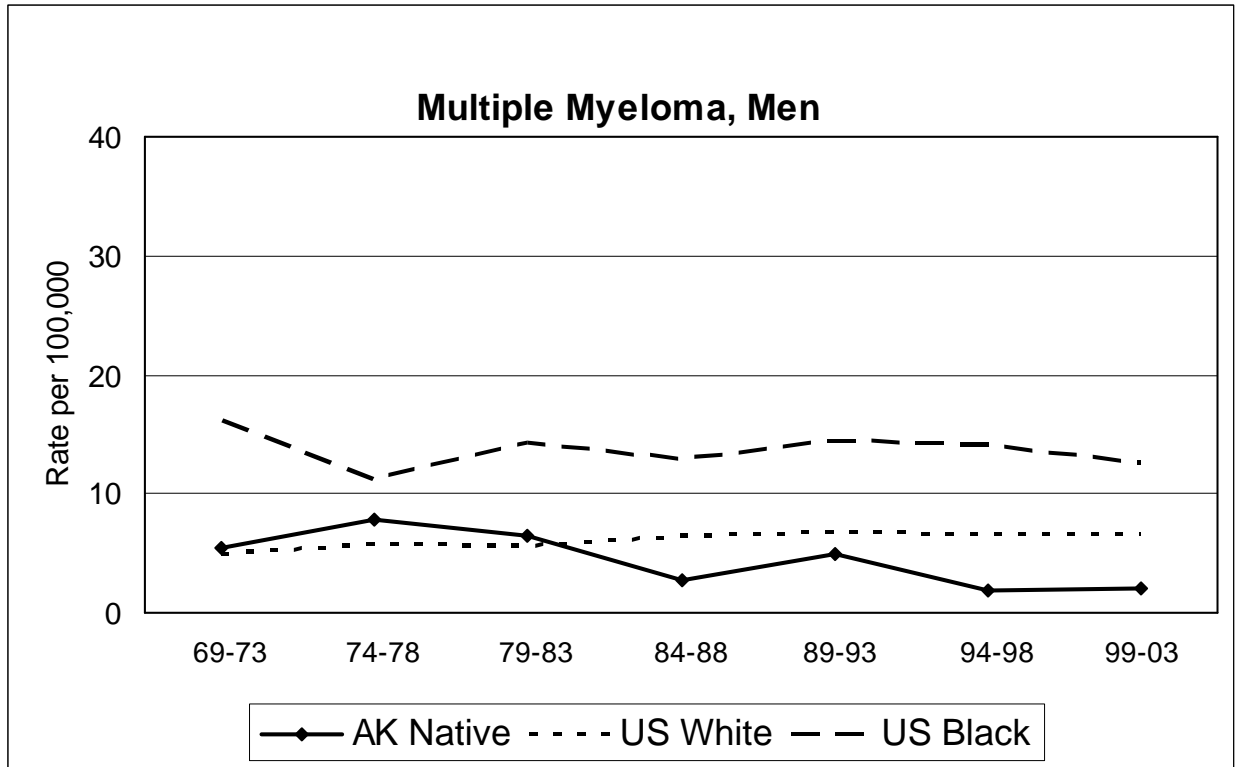




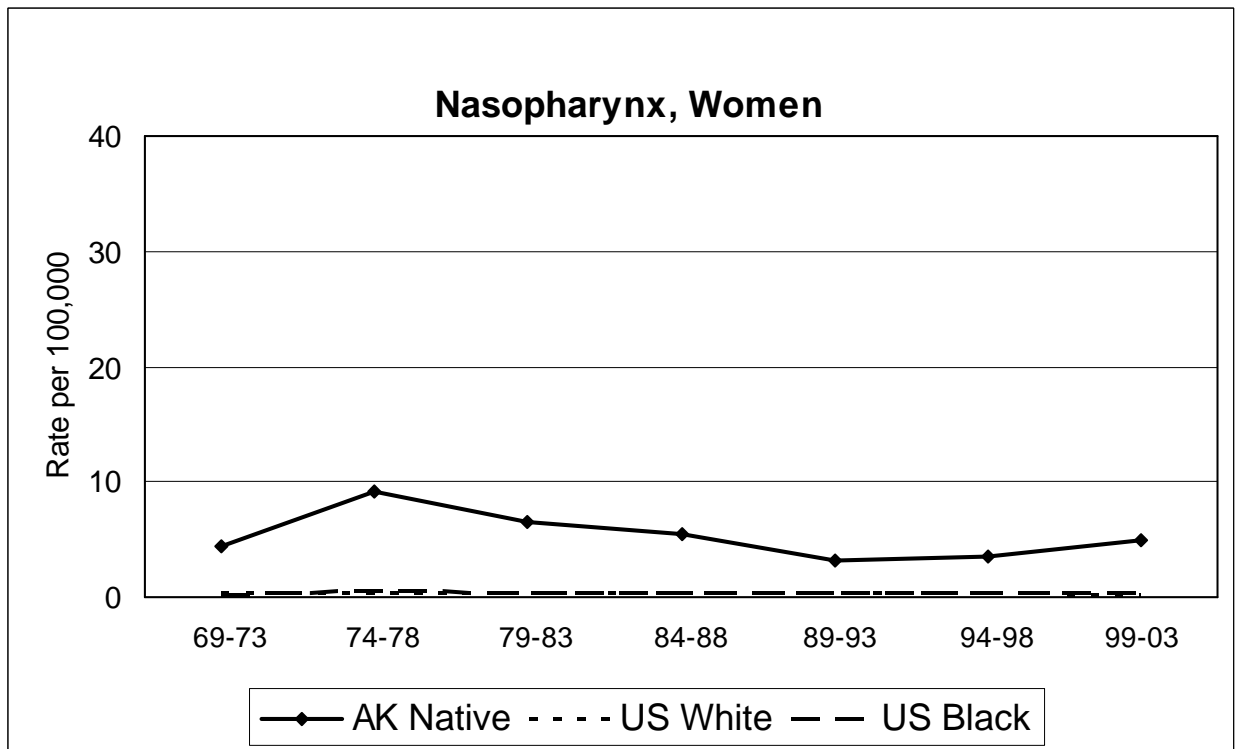
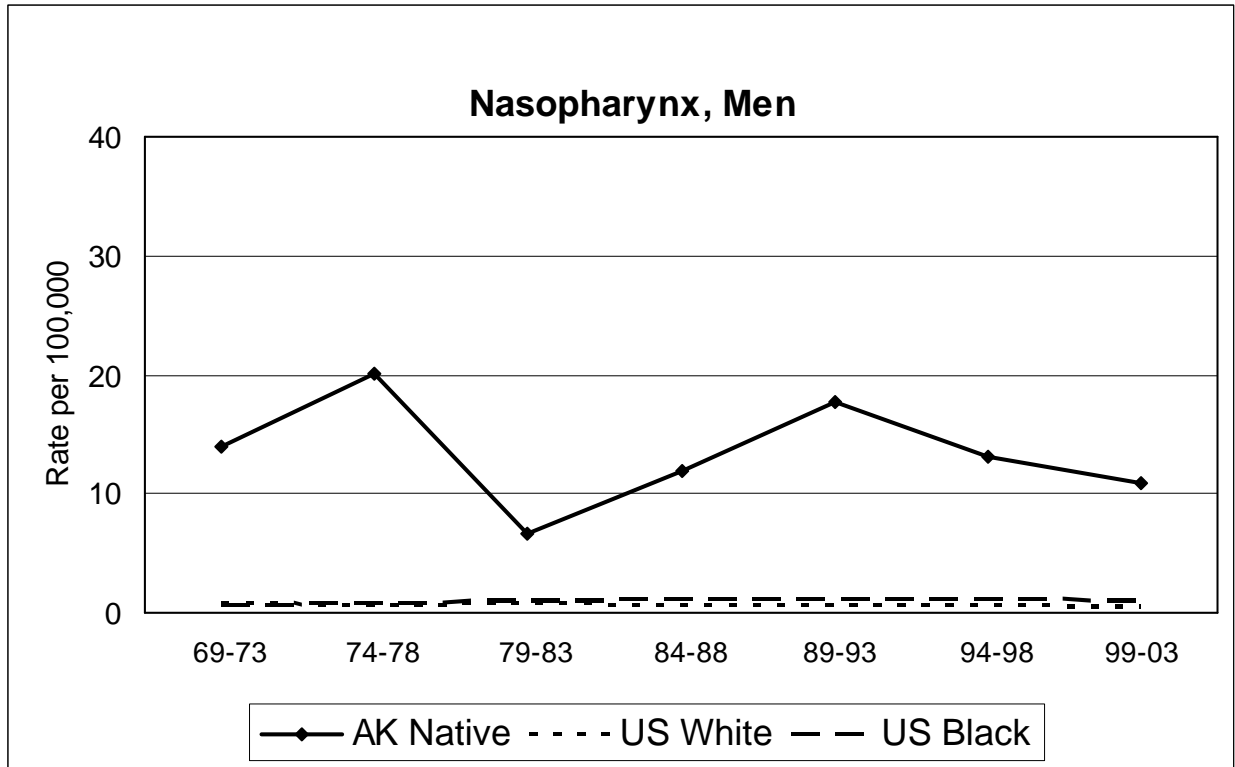
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Alaska Natives 1969-2003, US Whites and Blacks 1973-2002**



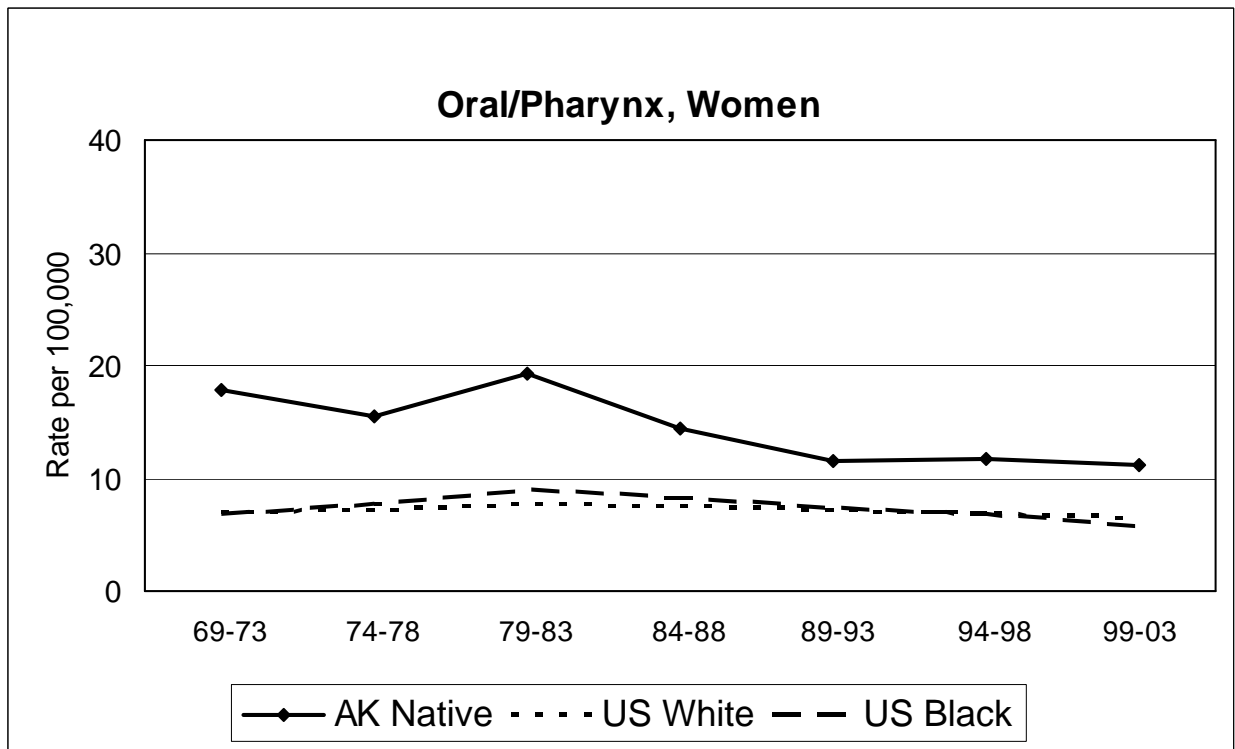
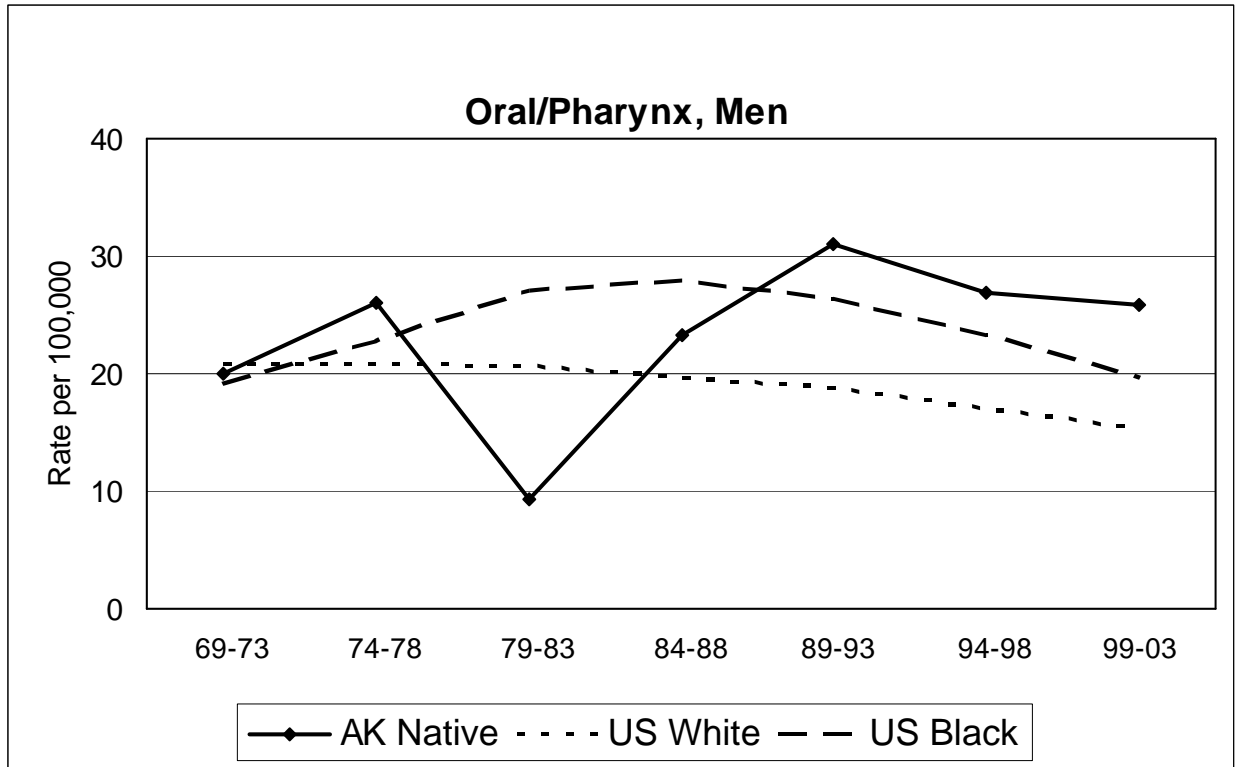
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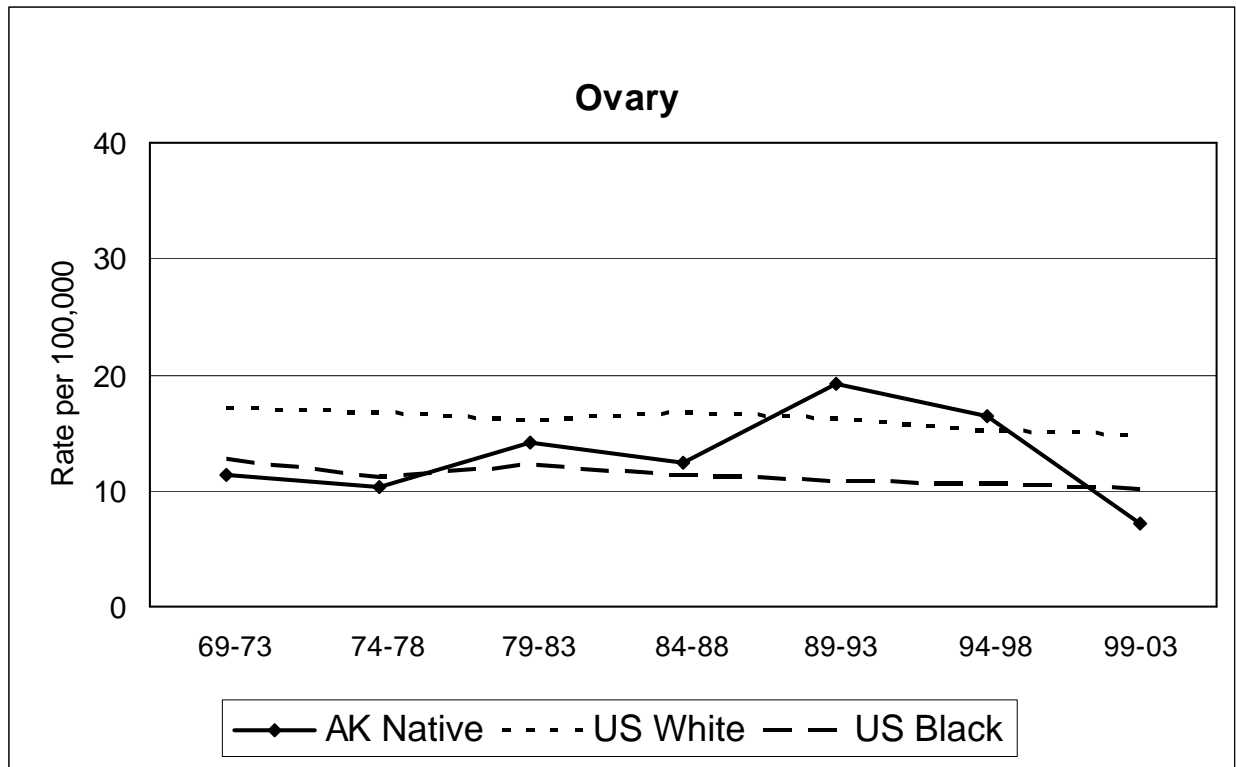
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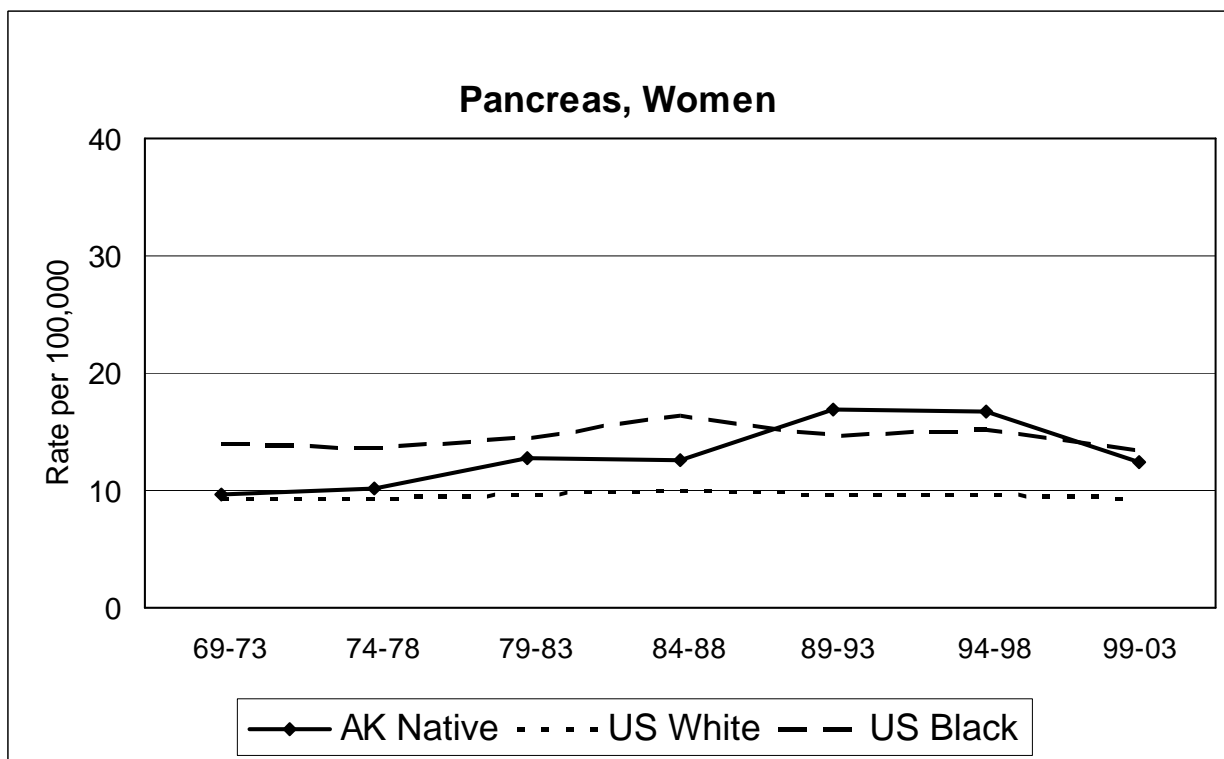
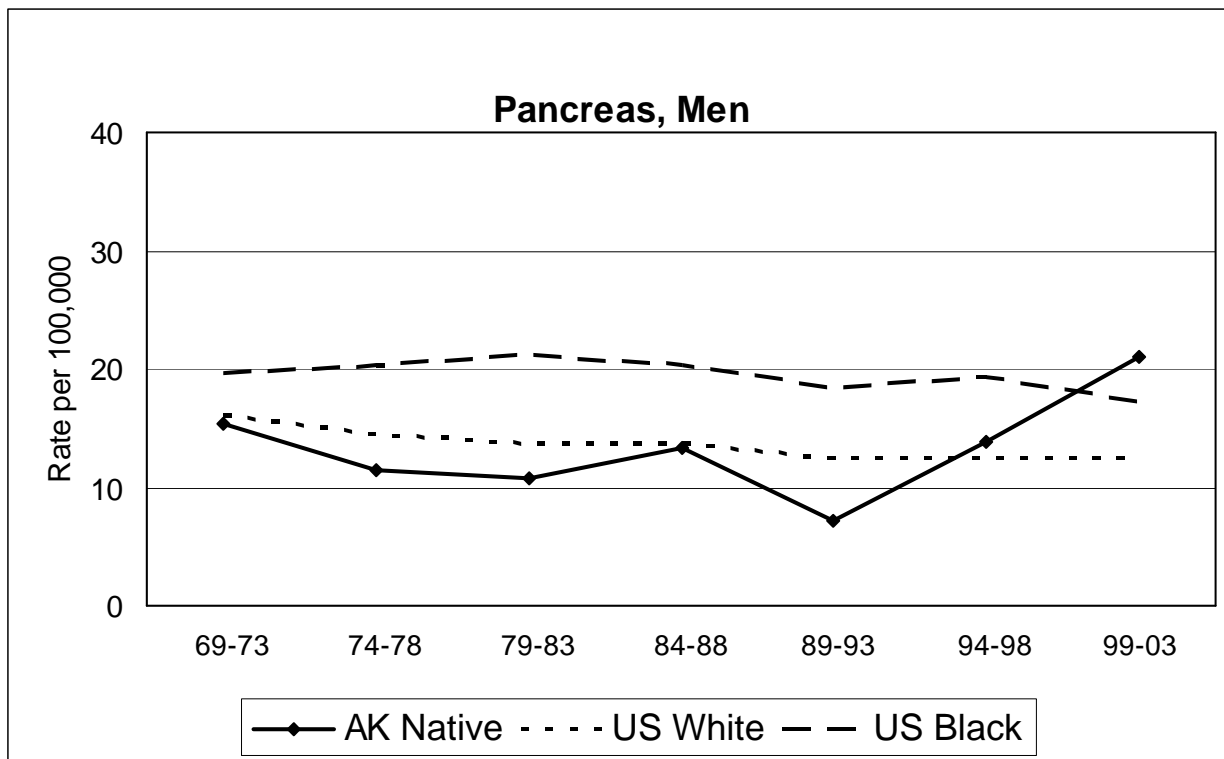
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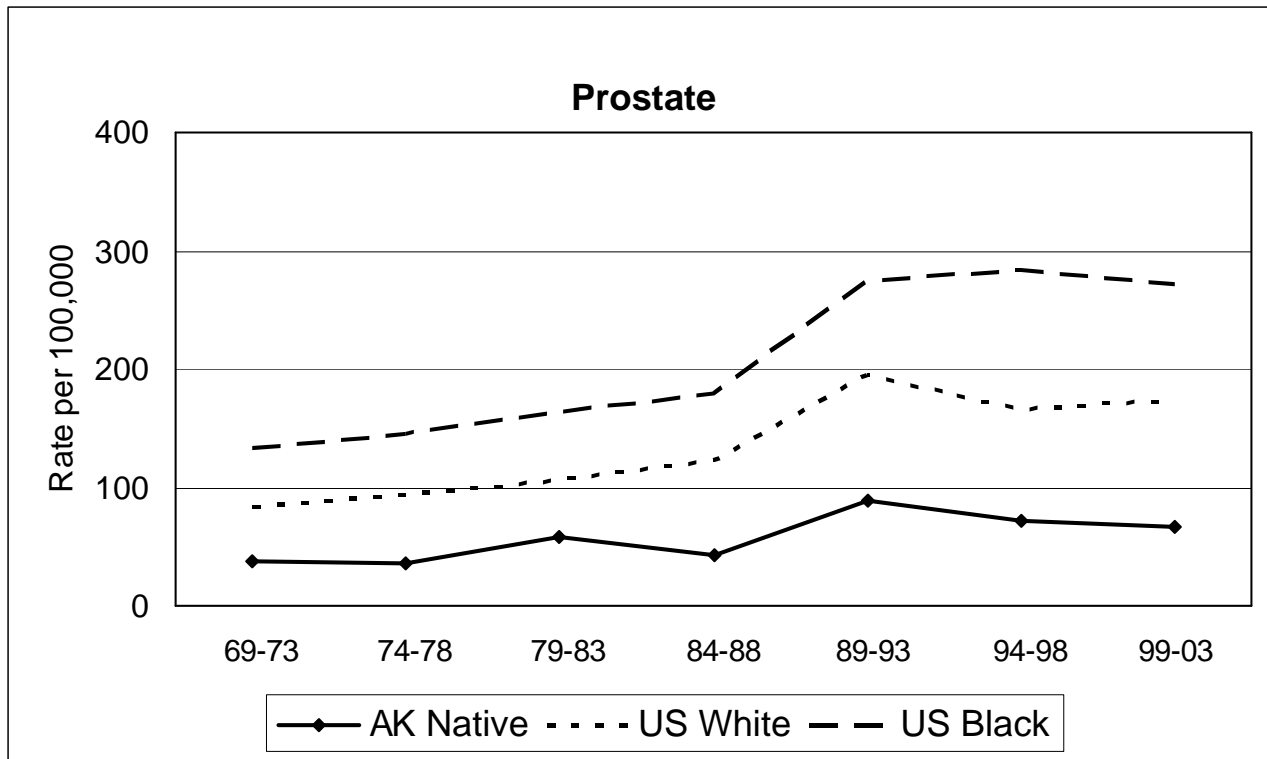
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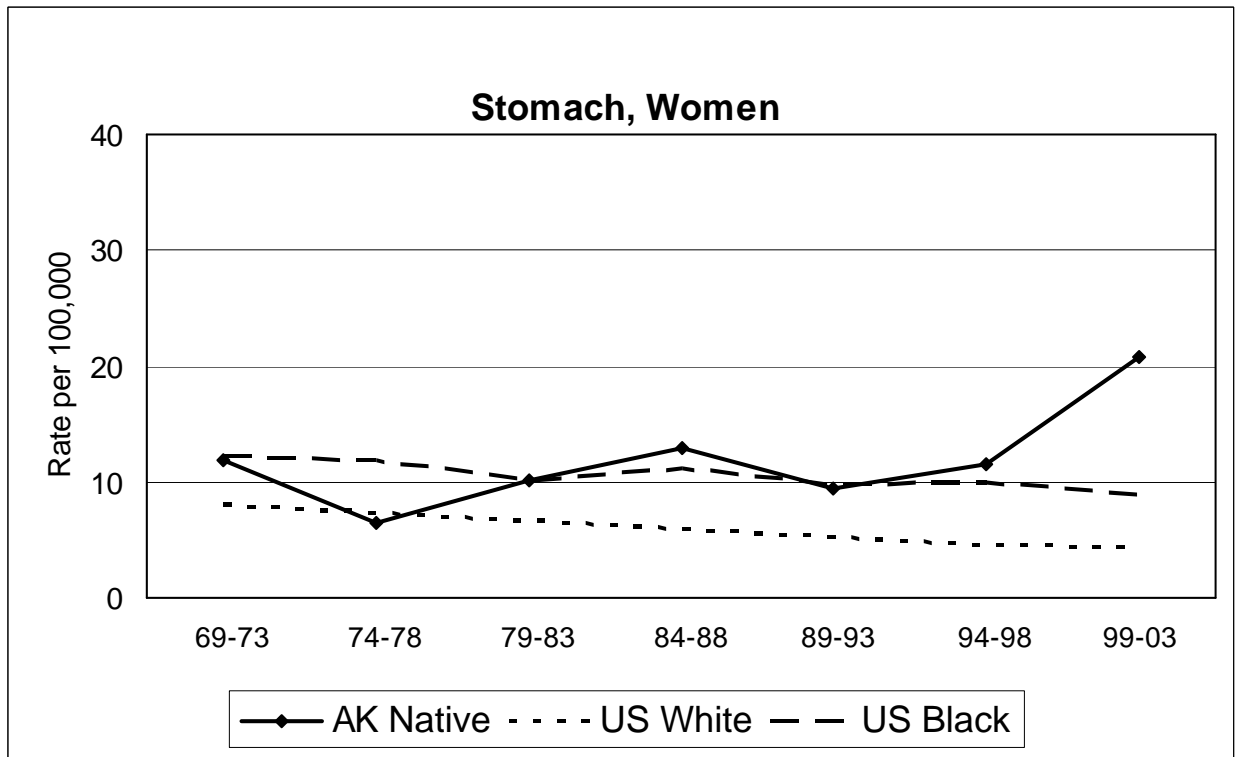
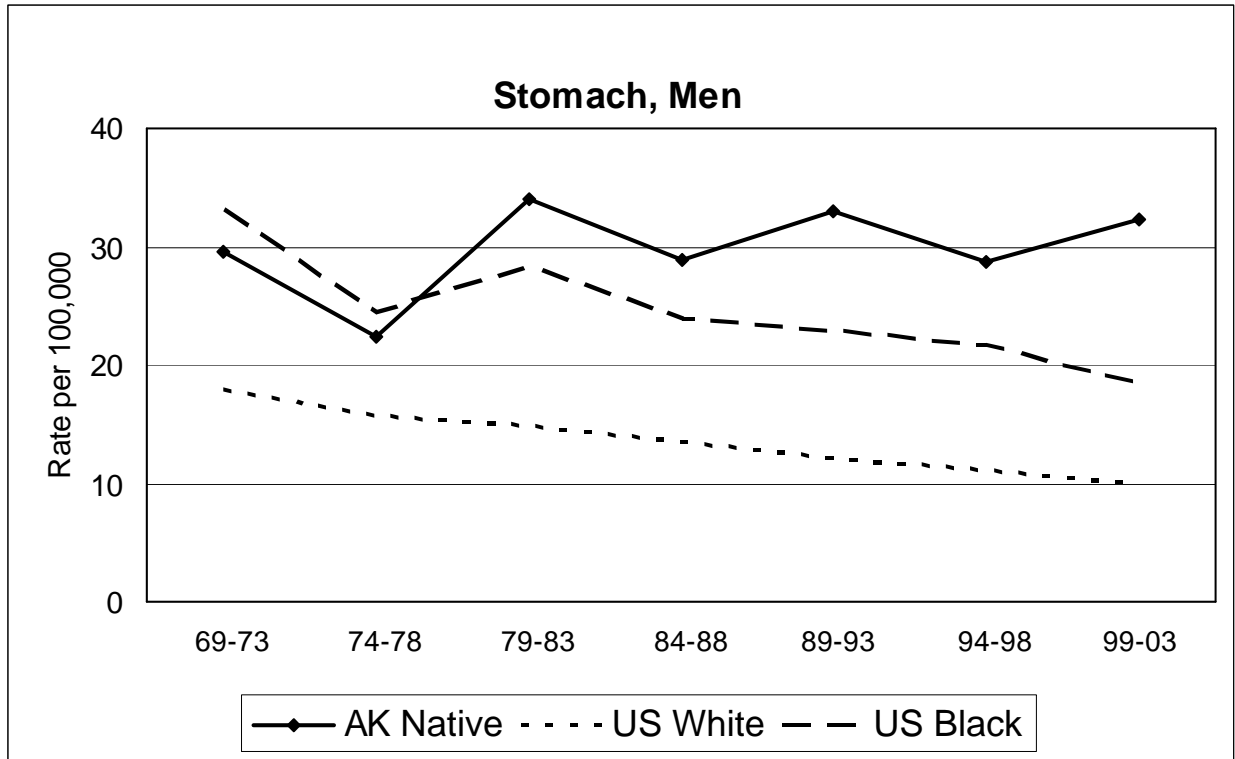


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**Alaska Natives 1969-2003, US Whites and Blacks 1973-2002**

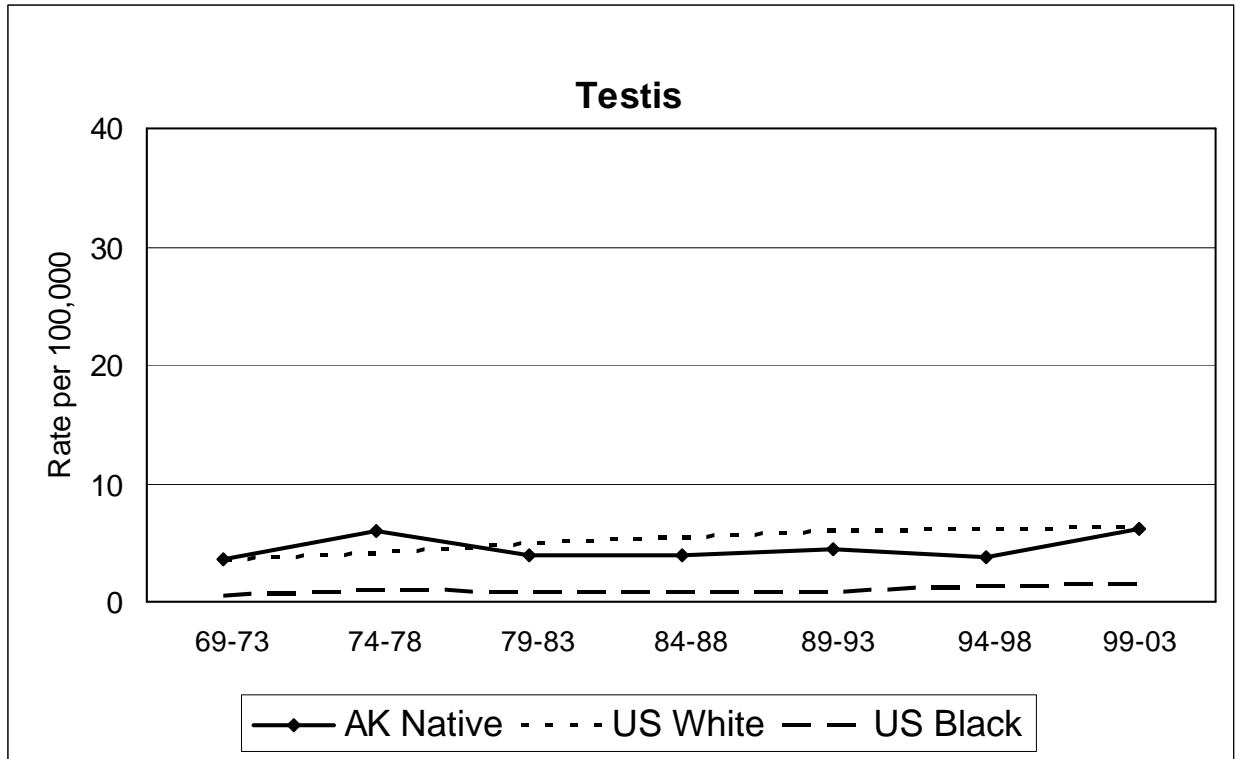




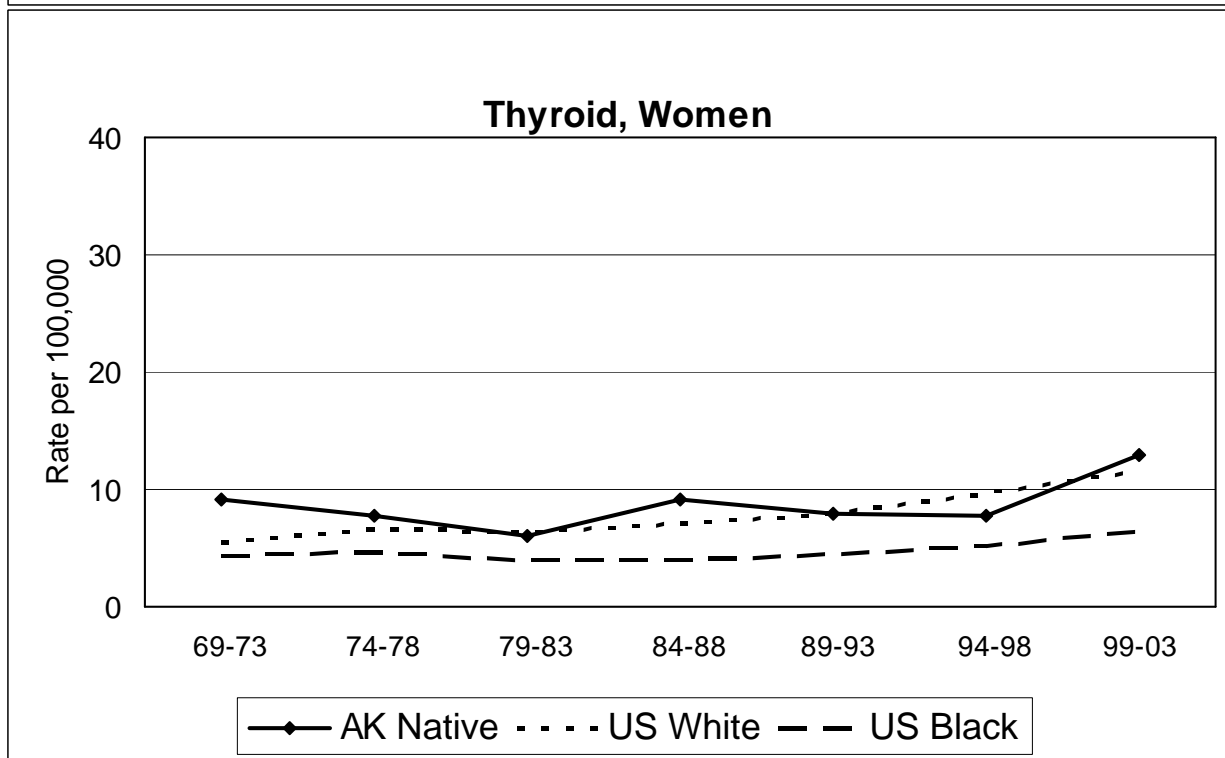
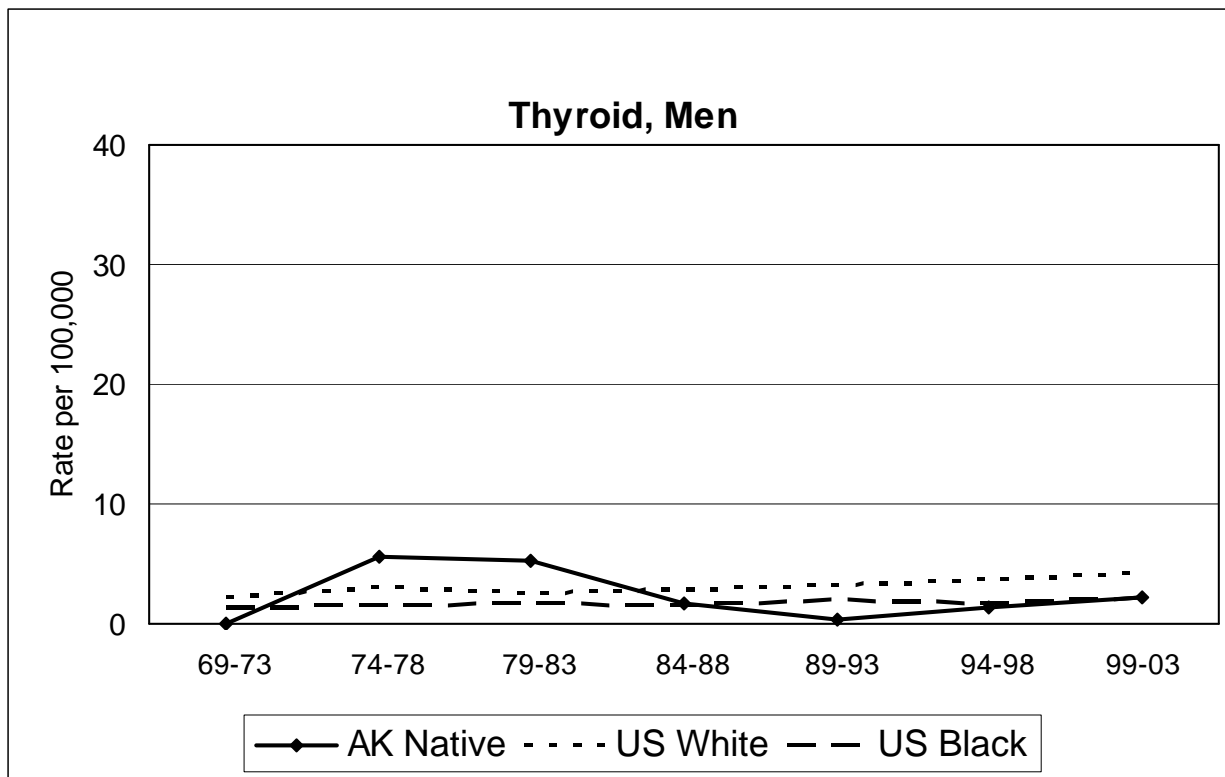
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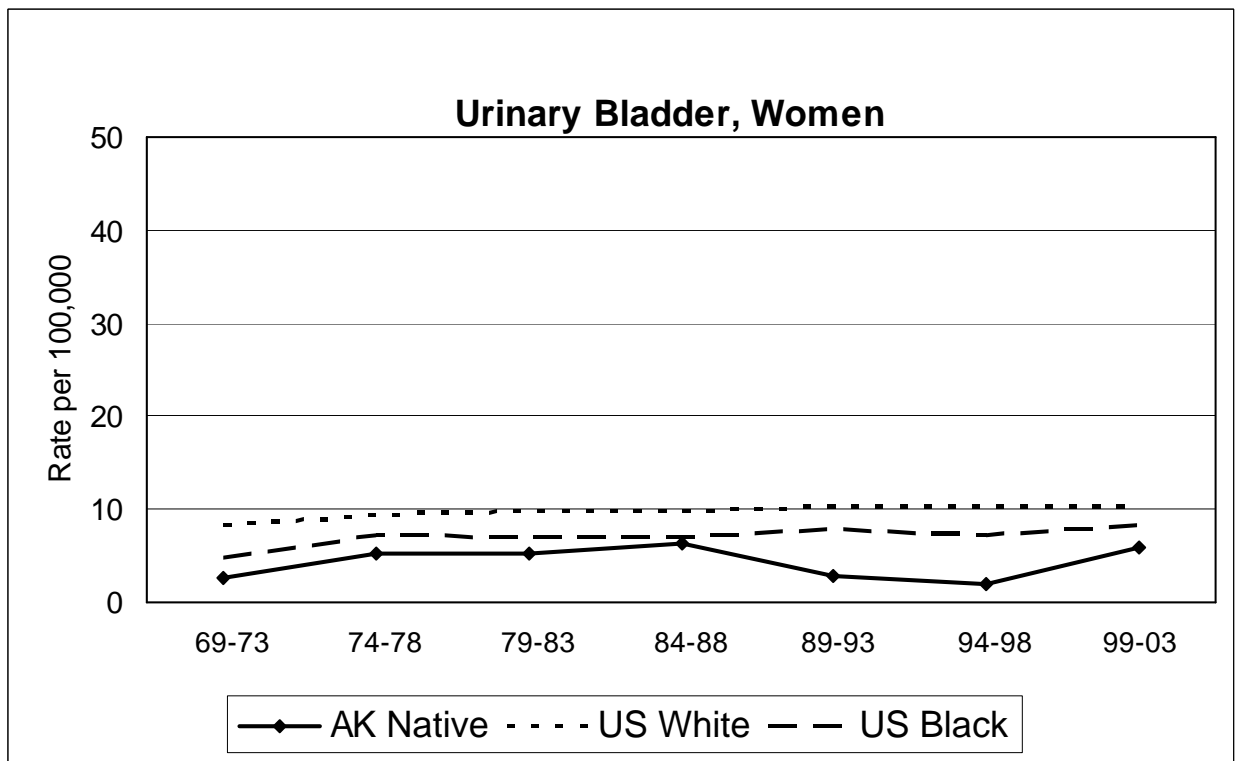
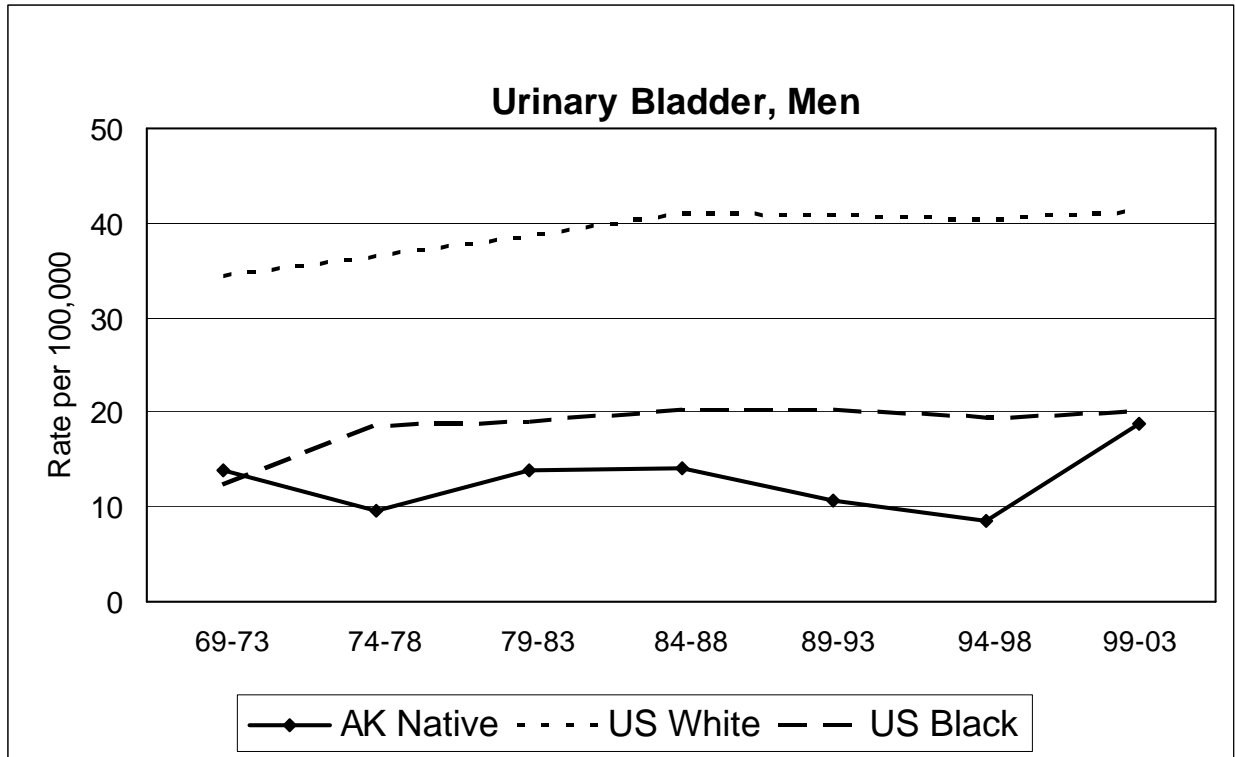
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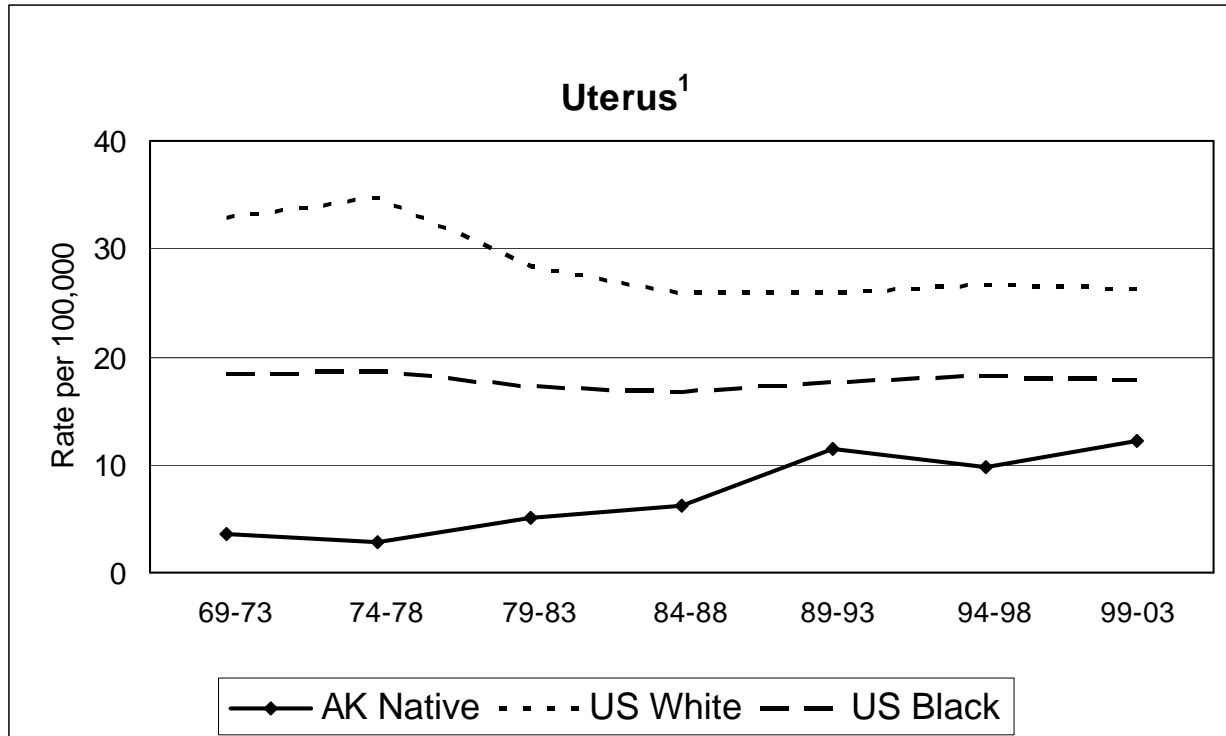
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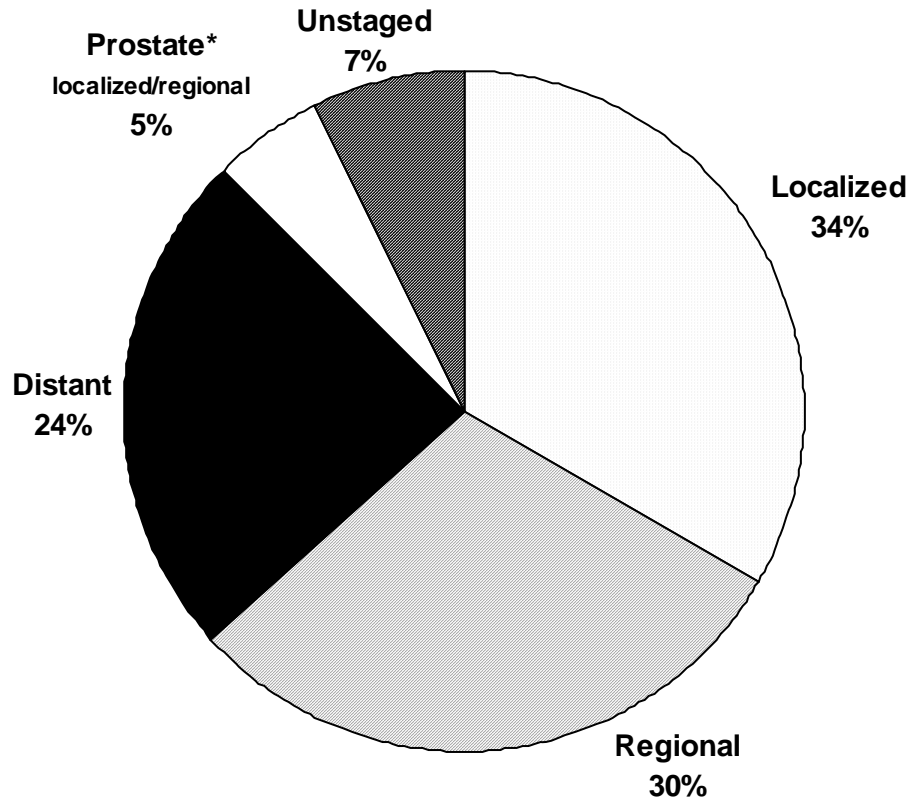


**Five-Year Average Annual Age-Adjusted Cancer Incidence Rates  
Alaska Natives 1969-2003, US Whites and Blacks 1973-2002**



<sup>1</sup>Uterus includes Corpus uteri and Uterus, NOS.

**Stage at Diagnosis, 1993-2002  
Alaska Native Men and Women Combined  
All Cancer Sites**



\* Prostate stages localized and regional are reported in a single combined group as localized/regional.

**Cancer Stage at Diagnosis**  
**Alaska Natives and US Whites<sup>1</sup>, 1993-2002**

	Men and Women			Men			Women		
	Alaska Native		US White	Alaska Native		US White	Alaska Native		US White
	No.	%	%	No.	%	%	No.	%	%
<b>All Sites</b>									
Localized	891	33.3	34.6	312	24.3	24.5	579	41.6	45.2
Regional	805	30.1	21.5	377	29.3	17.8	428	30.8	25.3
Distant	644	24.1	19.8	340	26.5	20.0	304	21.9	19.6
Unstaged	192	7.2	10.8	112	8.7	11.6	80	5.8	10.0
Localized/ Regional*	144	5.4	13.4	144	11.2	26.2			
<b>Oral/Pharynx</b>									
Localized	26	25.0	37.4	13	18.3	35.0	13	39.4	42.1
Regional	53	51.0	46.8	38	53.5	48.8	15	45.5	42.9
Distant	22	21.2	8.2	17	23.9	8.5	5	15.2	7.7
Unstaged	3	2.9	7.6	3	4.2	7.7	0		7.4
<b>Esophagus</b>									
Localized	11	25.0	25.9	9	28.1	25.6	2	16.7	26.7
Regional	21	47.7	28.3	15	46.9	28.9	6	50.0	26.7
Distant	12	27.3	26.0	8	25.0	28.0	4	33.3	20.5
Unstaged	0		19.8	0		17.6	0		26.1
<b>Stomach</b>									
Localized	28	21.2	23.0	14	17.5	22.0	14	26.9	24.6
Regional	48	36.4	29.6	32	40.0	31.1	16	30.8	27.2
Distant	48	36.4	32.4	28	35.0	33.8	20	38.5	30.1
Unstaged	8	6.1	15.0	6	7.5	13.1	2	3.9	18.2
<b>Colon/Rectum</b>									
Localized	203	40.2	39.4	101	41.1	40.3	102	39.4	38.6
Regional	178	35.3	36.5	85	34.6	35.8	93	35.9	37.2
Distant	106	21.0	18.2	51	20.7	18.5	55	21.2	17.8
Unstaged	18	3.6	5.9	9	3.7	5.4	9	3.5	6.4
<b>Liver</b>									
Localized	23	52.3	31.3	15	53.6	31.3	8	50.0	31.1
Regional	7	15.9	23.1	4	14.3	24.2	3	18.7	20.8
Distant	7	15.9	19.5	5	17.9	19.9	2	12.5	18.5
Unstaged	7	15.9	26.2	4	14.3	24.6	3	18.8	29.6
<b>Pancreas</b>									
Localized	3	3.9	7.4	2	5.1	6.9	1	2.6	7.6
Regional	23	29.9	24.4	8	20.5	24.7	15	39.5	24.1
Distant	44	57.1	49.3	25	64.1	52.2	19	50.0	46.6
Unstaged	7	9.1	18.9	4	10.3	16.2	3	7.9	21.5
<b>Lung</b>									
Localized	90	18.8	17.6	48	16.1	16.1	42	23.3	19.5
Regional	205	42.8	36.1	136	45.5	36.8	69	38.3	35.3
Distant	160	33.4	36.0	102	34.1	37.2	58	32.2	34.6
Unstaged	24	5.0	10.3	13	4.4	9.9	11	6.1	10.7

<sup>1</sup>Alaska Native and US staging data from SEER Stat, Nov 2004 sub., National Cancer Institute.

\*Prostate stages localized and regional are analyzed as a combined staging group.

## Cancer Stage at Diagnosis Alaska Natives and US Whites<sup>1</sup>, 1993-2002

	Men and Women			Men			Women		
	Alaska Native		US White	Alaska Native		US White	Alaska Native		US White
	No.	%	%	No.	%	%	No.	%	%
<b>Breast</b>									
Localized	255	60.9	63.8				255	61.0	63.8
Regional	134	32.0	28.1				133	31.8	28.1
Distant	21	5.0	5.4				21	5.0	5.4
Unstaged	9	2.2	2.7				9	2.2	2.7
<b>Cervix</b>									
Localized	14	50.0	54.0				14	50.0	54.0
Regional	11	39.3	31.4				11	39.3	31.4
Distant	2	7.1	8.7				2	7.1	8.7
Unstaged	1	3.6	5.9				1	3.6	5.9
<b>Uterus</b>									
Localized	30	81.1	72.0				30	81.1	72.0
Regional	6	16.2	15.3				6	16.2	15.3
Distant	1	2.7	8.1				1	2.7	8.1
Unstaged	0		4.5				0		4.5
<b>Prostate</b>									
Localized/Regional*	144	85.7	88.0	144	85.7	88.0			
Distant	13	7.7	4.9	13	7.7	4.9			
Unstaged	11	6.6	7.1	11	6.6	7.1			
<b>Urinary Bladder</b>									
Localized	27	65.9	74.4	20	66.7	75.6	7	63.6	70.9
Regional	11	26.8	18.5	8	26.7	18.0	3	27.3	19.6
Distant	1	2.4	3.3	1	3.3	2.8	0		4.6
Unstaged	2	4.9	4.0	1	3.3	3.4	1	9.1	4.8
<b>Kidney</b>									
Localized	61	58.7	52.8	35	57.4	52.3	26	60.5	53.5
Regional	13	12.5	20.9	9	14.8	21.7	4	9.3	19.6
Distant	26	25.0	19.9	14	23.0	20.2	12	27.9	19.3
Unstaged	4	3.9	6.5	3	4.9	5.8	1	2.3	7.6
<b>Non-Hodgkin Lymphoma</b>									
Localized	21	32.8	30.8	12	33.3	29.9	9	32.1	31.9
Regional	9	14.1	13.6	6	16.7	13.0	3	10.7	14.3
Distant	29	45.3	45.4	15	41.6	47.1	14	50.0	43.3
Unstaged	5	7.8	10.2	3	8.3	10.0	2	7.1	10.5

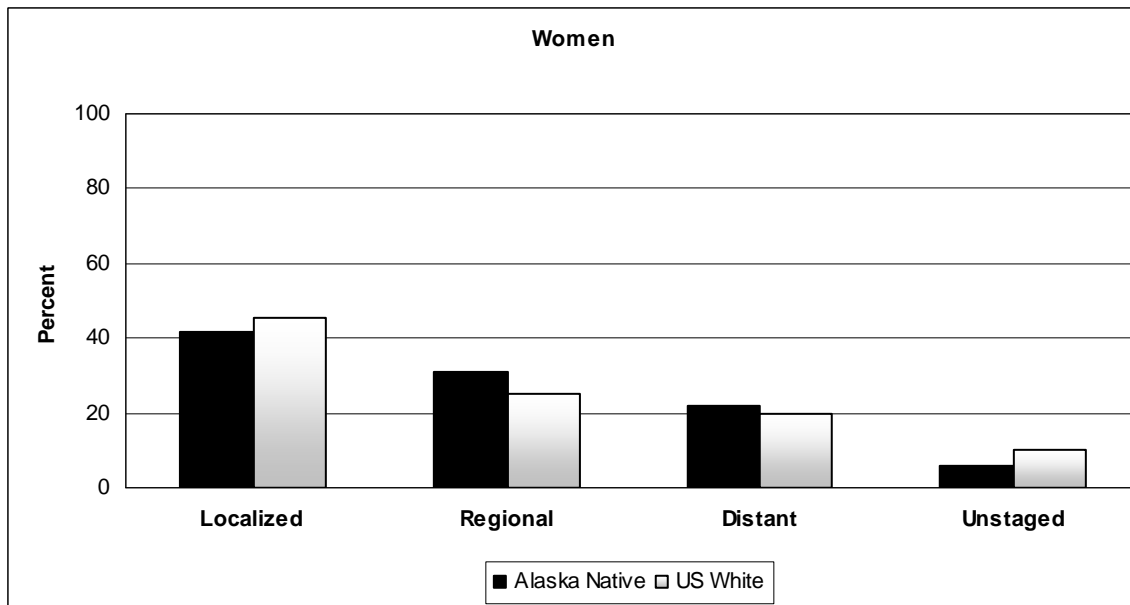
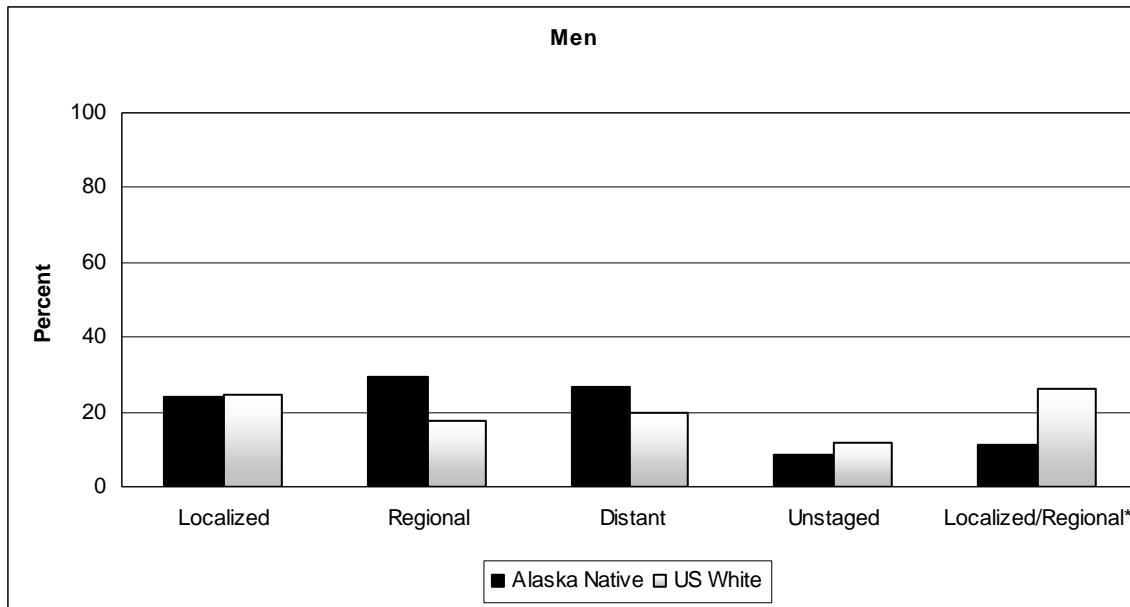
<sup>1</sup>Alaska Native and US staging data from SEER Stat, Nov 2004 sub., National Cancer Institute.

\*Prostate stages localized and regional are analyzed as a combined staging group.



**Cancer Stage at Diagnosis  
Alaska Natives and US Whites, 1993-2002  
All Cancer Sites Combined**

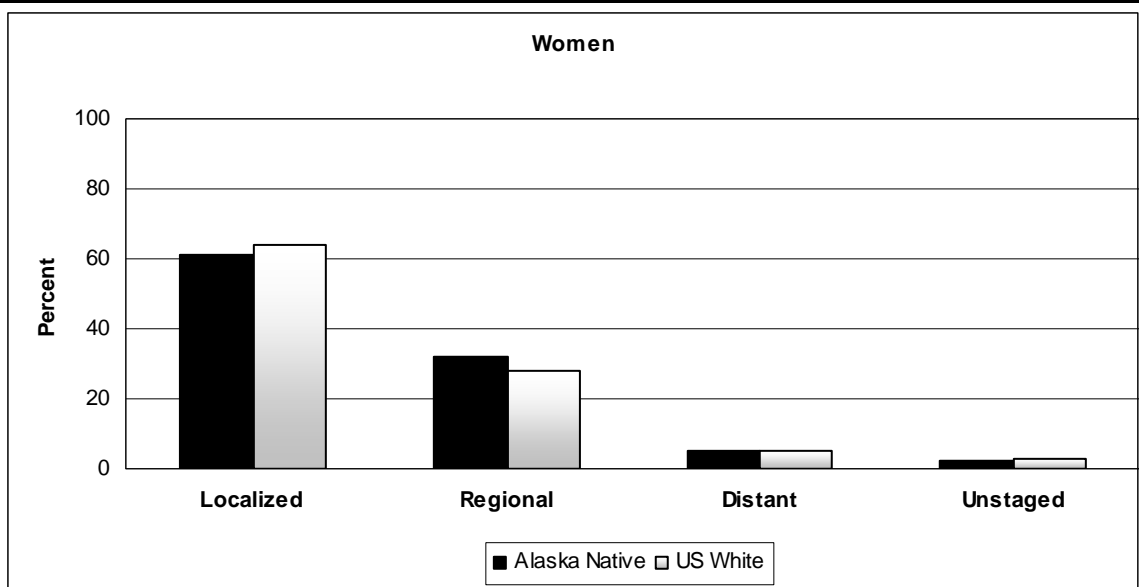
	Men			Women		
	No.	AK Native %	US White %	No.	AK Native %	US White %
Localized	319	24.3	24.5	579	41.6	45.2
Regional	377	29.3	17.8	428	30.8	25.3
Distant	340	26.5	20.0	304	21.9	19.6
Unstaged	112	8.7	11.6	80	5.8	10.0
Localized/Regional*	144	11.2	26.2			



140 \*Prostate stages localized and regional are analyzed as a combined staging group.

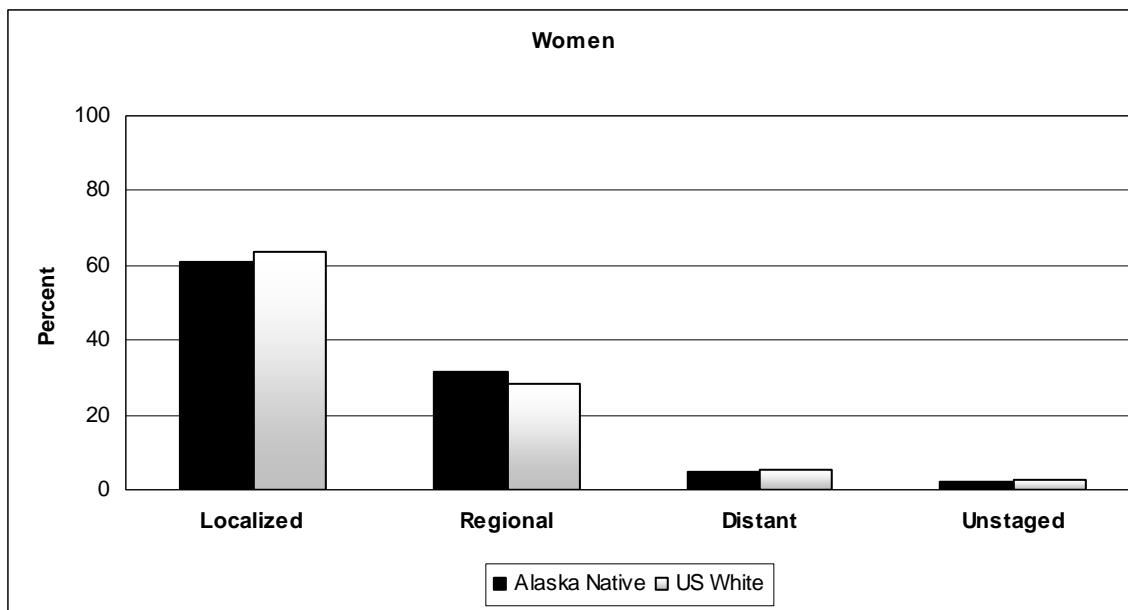
**Cancer Stage at Diagnosis  
Alaska Natives and US Whites, 1993-2002  
Breast**

	Women AK Native		US White
	No.	%	%
Localized	255	61.0	63.8
Regional	133	31.8	28.1
Distant	21	5.0	5.4
Unstaged	9	2.2	2.7



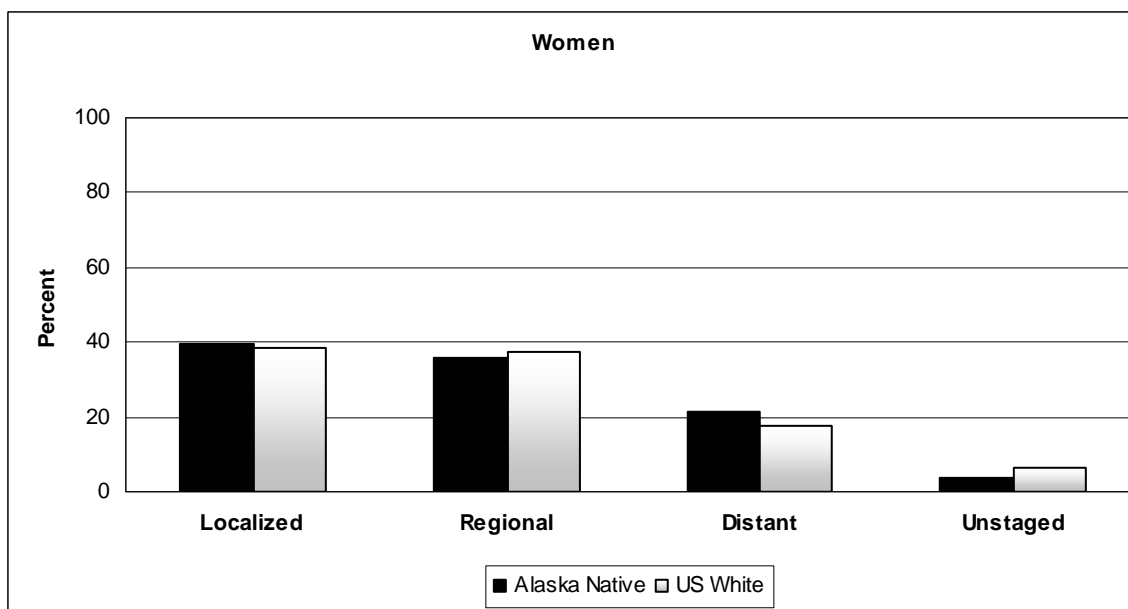
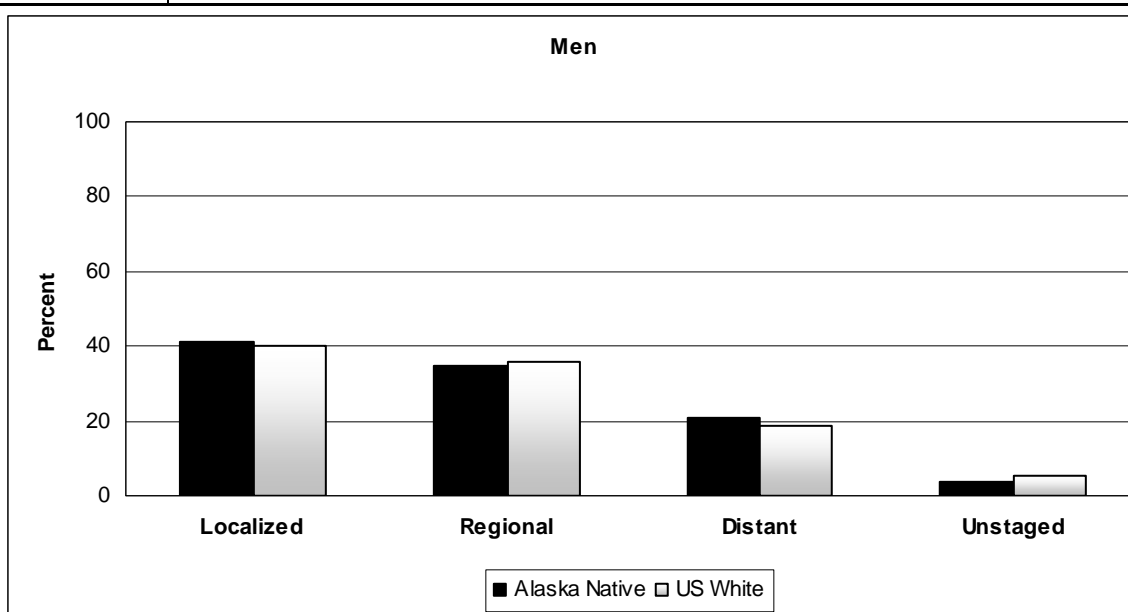
**Cancer Stage at Diagnosis**  
**Alaska Natives and US Whites, 1993-2002**  
**Cervix**

	AK Native		US White
	No.	%	%
Localized	255	61.0	63.8
Regional	133	31.8	28.1
Distant	21	5.0	5.4
Unstaged	9	2.2	2.7



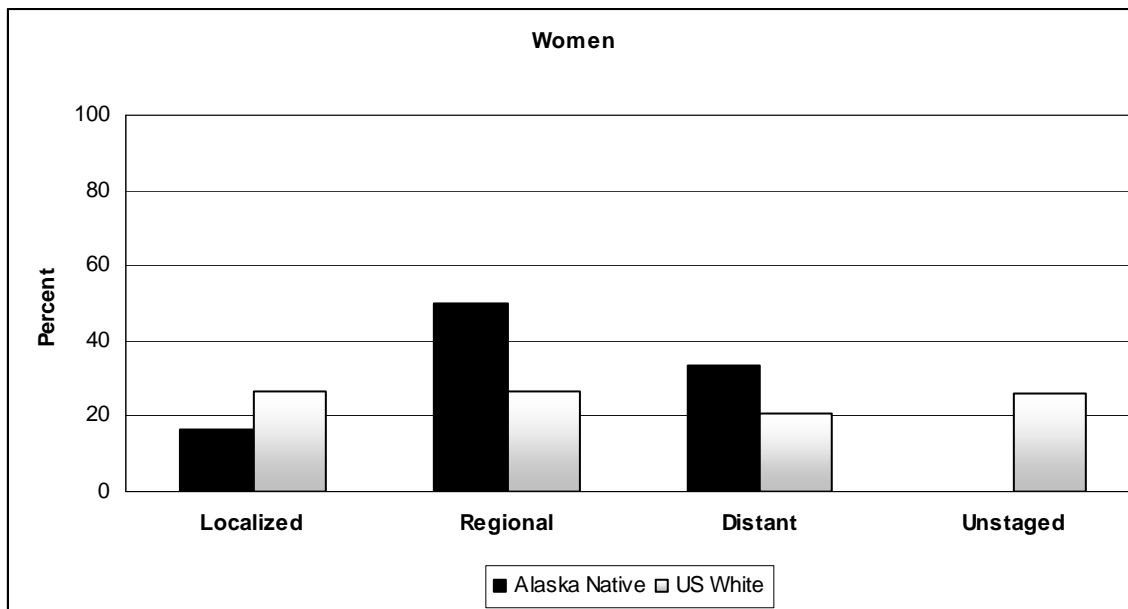
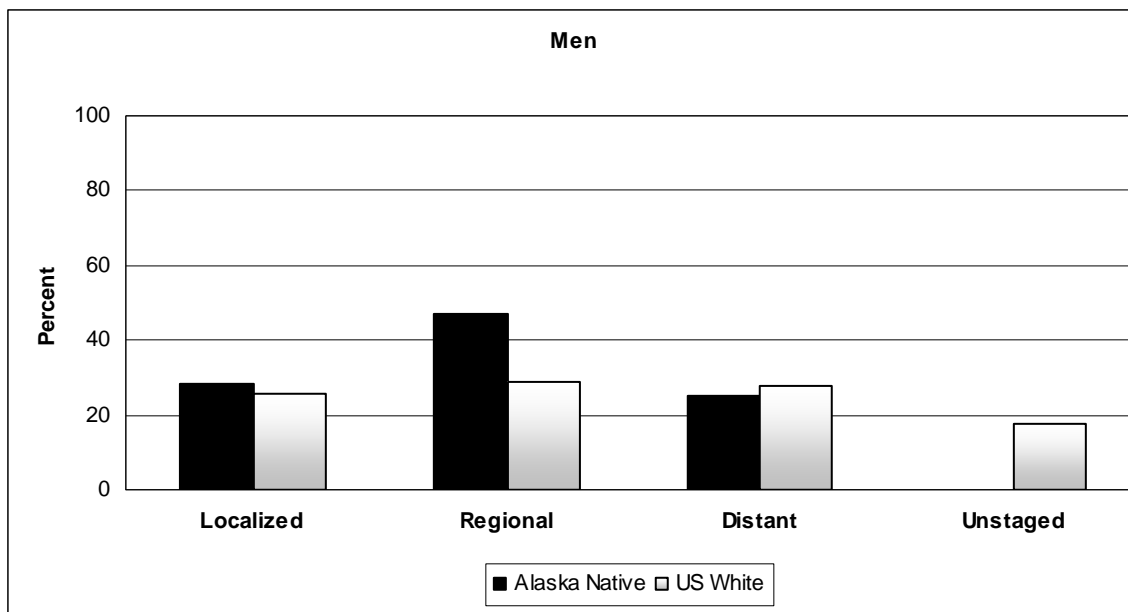
**Cancer Stage at Diagnosis  
Alaska Natives and US Whites, 1993-2002  
Colon/Rectum**

	Men			Women		
	No.	AK Native %	US White %	No.	AK Native %	US White %
Localized	101	41.1	40.3	102	39.4	38.6
Regional	85	34.6	35.8	93	35.9	37.2
Distant	51	20.7	18.5	55	21.2	17.8
Unstaged	9	3.7	5.4	9	3.5	6.4



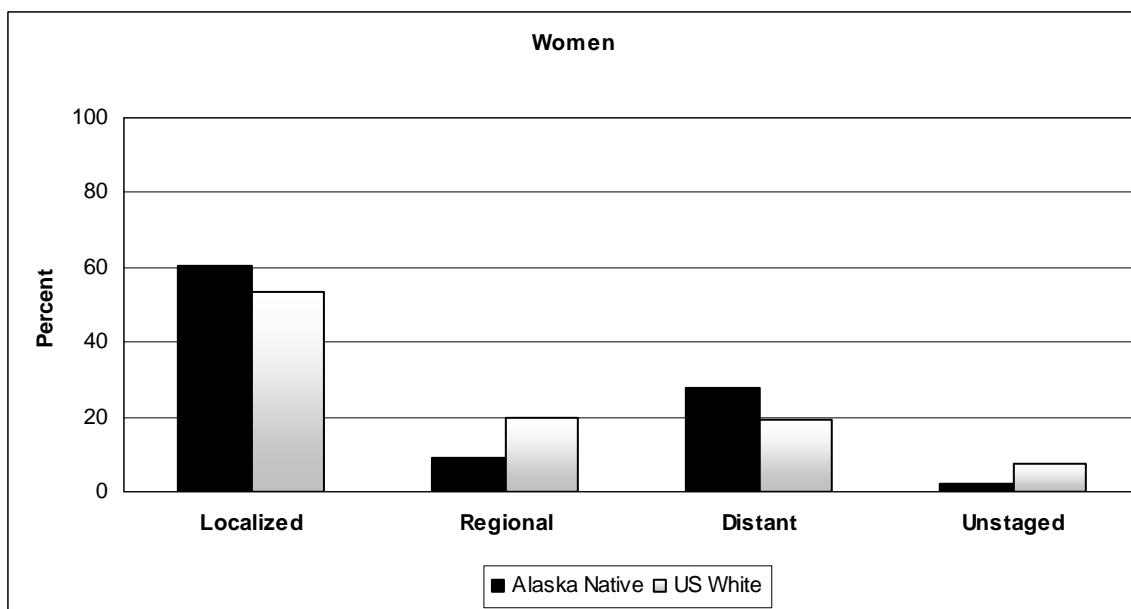
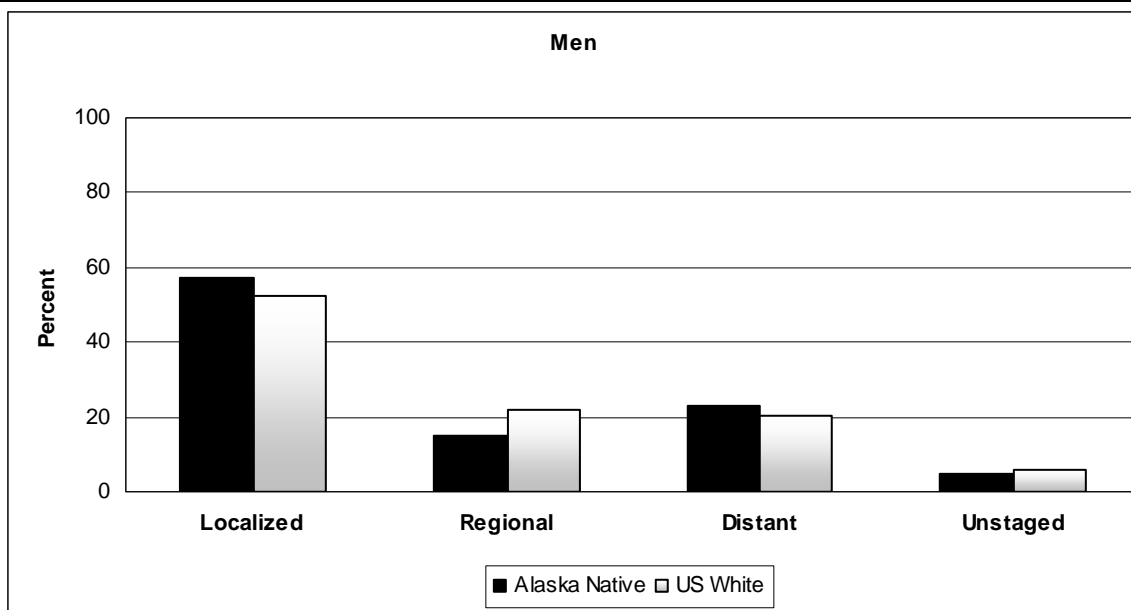
**Cancer Stage at Diagnosis**  
**Alaska Natives and US Whites, 1993-2002**  
**Esophagus**

	<b>Men</b>			<b>Women</b>		
	AK Native No.	AK Native %	US White %	AK Native No.	AK Native %	US White %
Localized	9	28.1	25.6	2	16.7	26.7
Regional	15	46.9	28.9	6	50.0	26.7
Distant	8	25.0	28.0	4	33.3	20.5
Unstaged	0		17.6	0		26.1



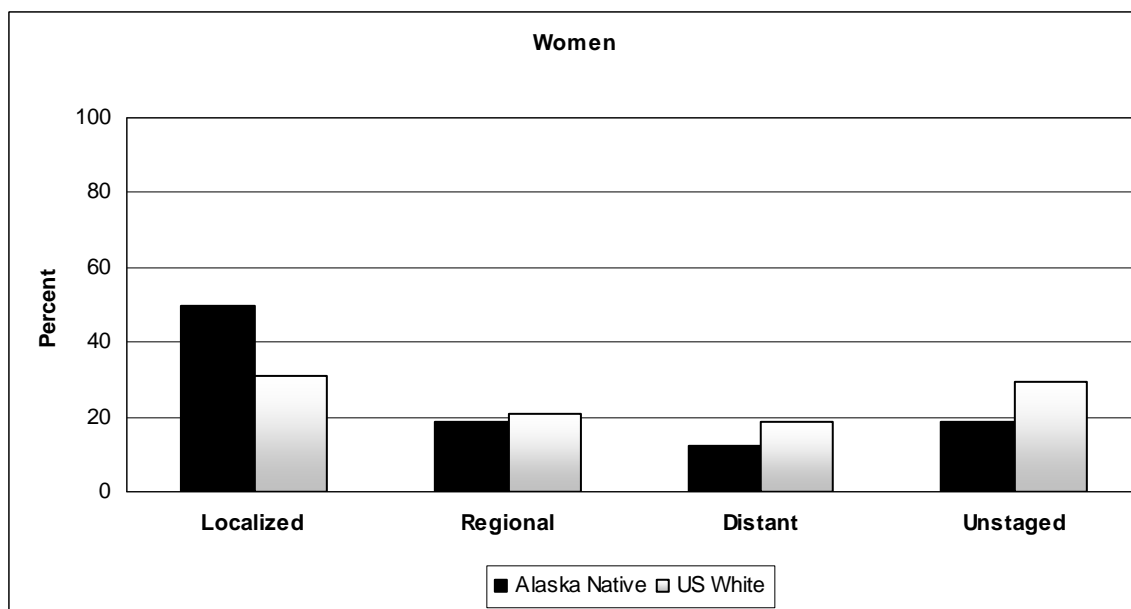
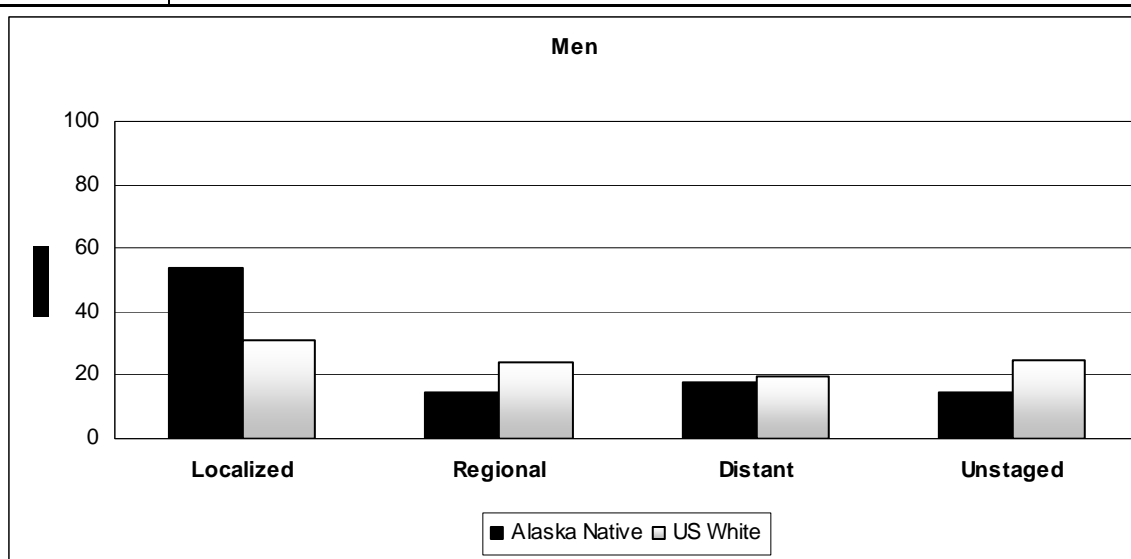
**Cancer Stage at Diagnosis  
Alaska Natives and US Whites, 1993-2002  
Kidney**

	<b>Men</b>				<b>Women</b>		
	AK Native		US White		AK Native		US White
	No.	%	No.	%	No.	%	%
Localized	35	57.4	52.3	26	60.5	53.5	
Regional	9	14.8	21.7	4	9.3	19.6	
Distant	14	23.0	20.2	12	27.9	19.3	
Unstaged	3	4.9	5.8	1	2.3	7.6	



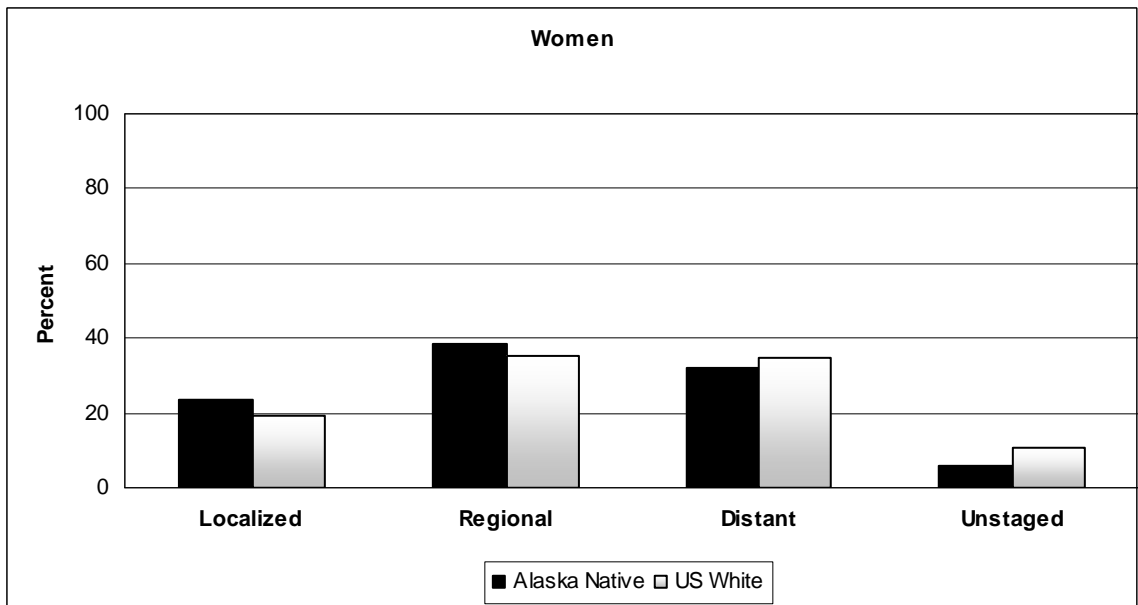
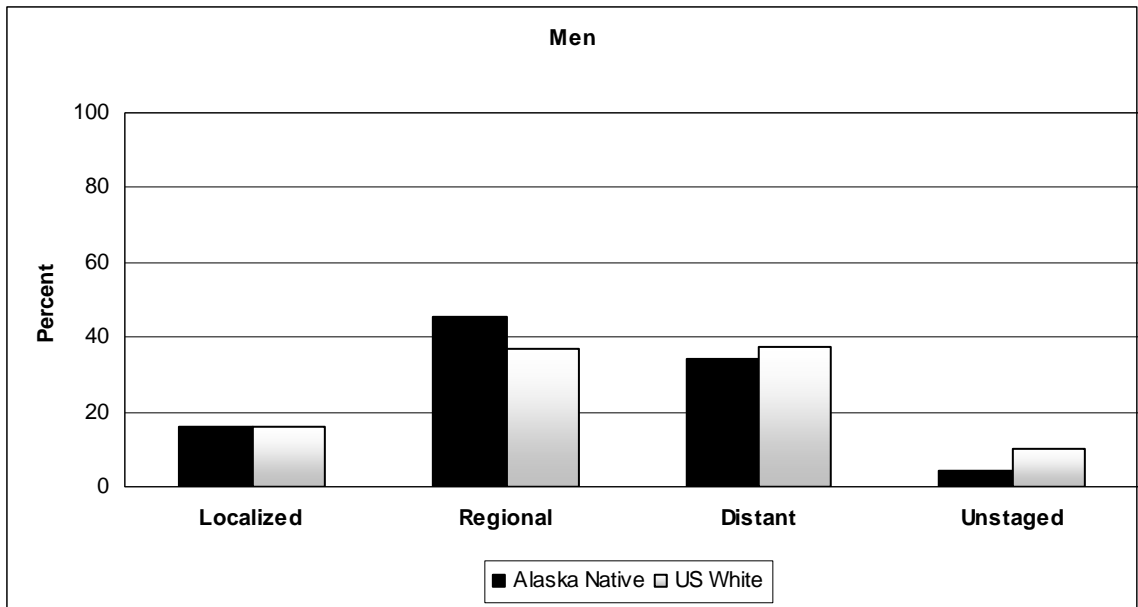
**Cancer Stage at Diagnosis**  
**Alaska Natives and US Whites, 1993-2002**  
**Liver**

	Men			Women		
	AK Native		US White	AK Native		US White
	No.	%	%	No.	%	%
Localized	15	53.6	31.3	8	50.0	31.1
Regional	4	14.3	24.2	3	18.7	20.8
Distant	5	17.9	19.9	2	12.5	18.5
Unstaged	4	14.3	24.6	3	18.8	29.6



**Cancer Stage at Diagnosis  
Alaska Natives and US Whites, 1993-2002  
Lung**

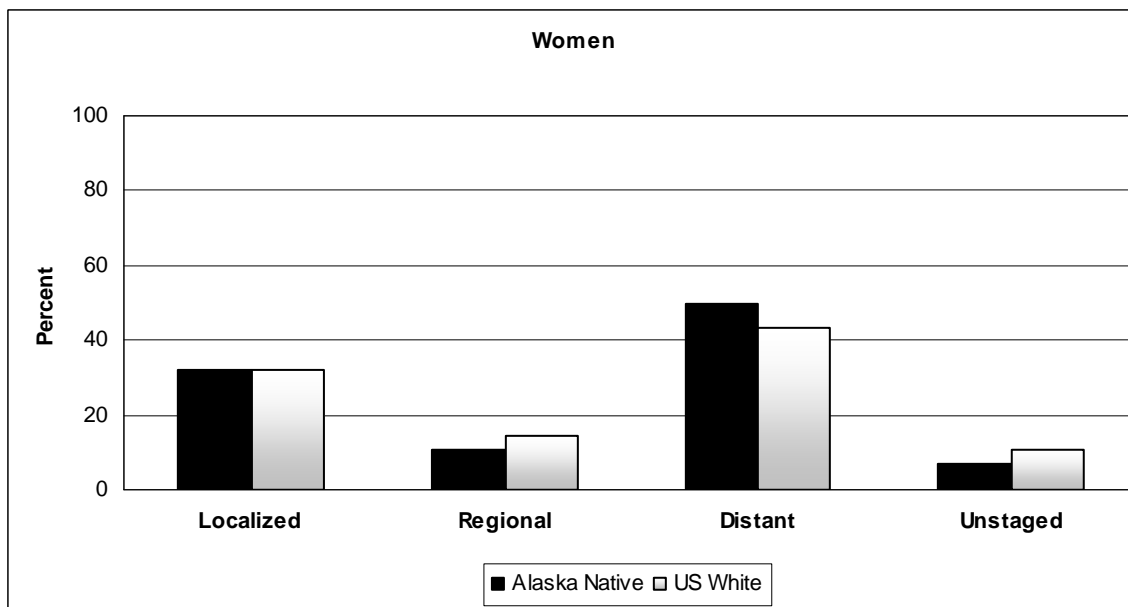
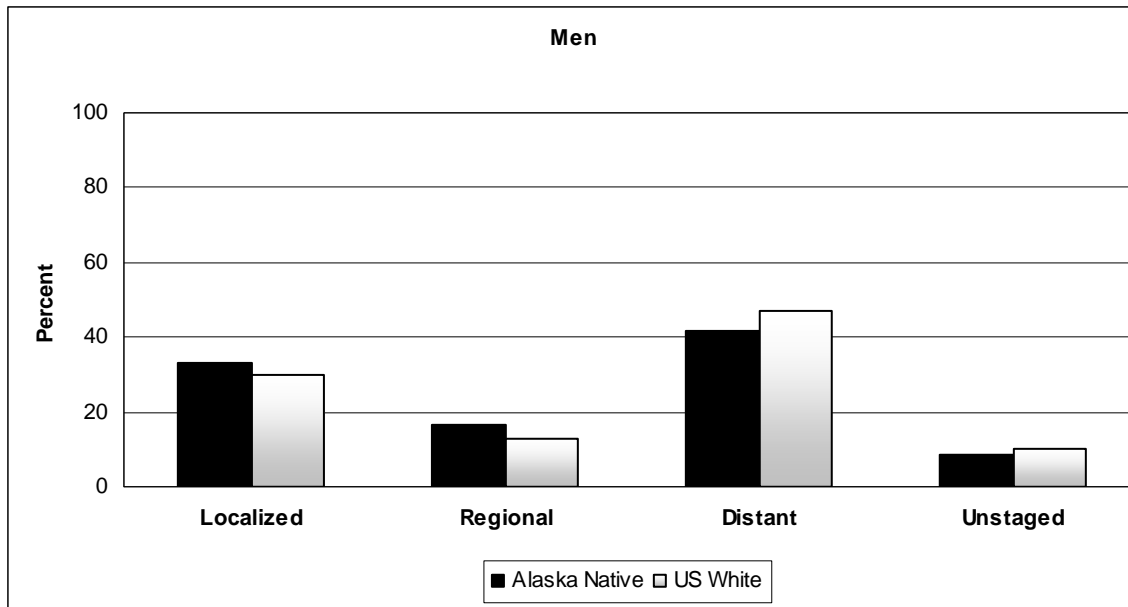
	Men			Women		
	AK Native		US White	AK Native		US White
	No.	%	%	No.	%	%
Localized	48	16.1	16.1	42	23.3	19.5
Regional	136	45.5	36.8	69	38.3	35.3
Distant	102	34.1	37.2	58	32.2	34.6
Unstaged	13	4.4	9.9	11	6.1	10.7





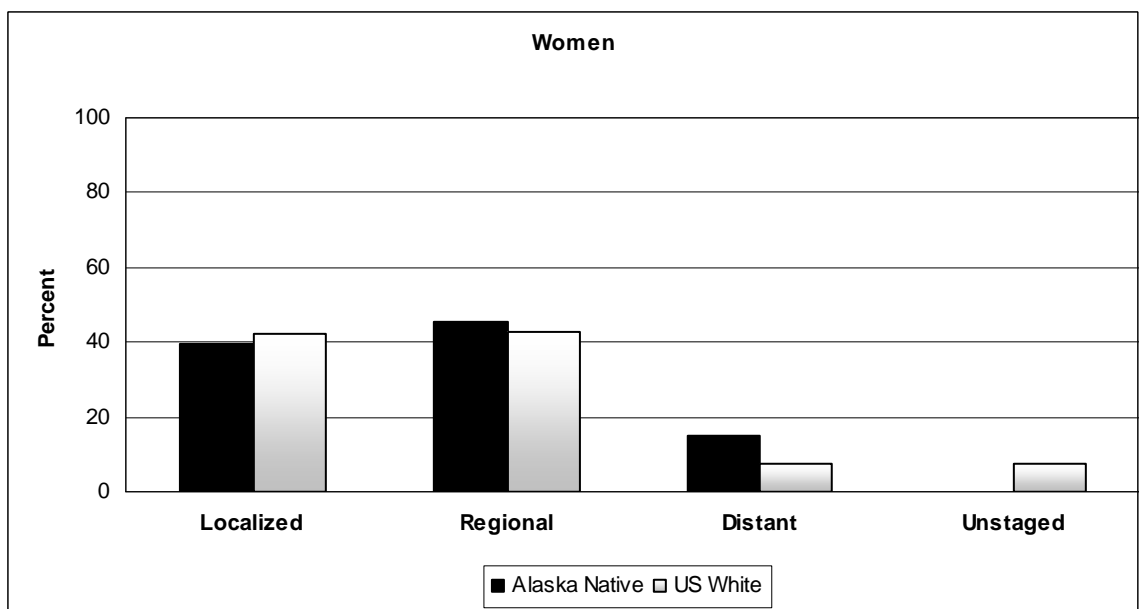
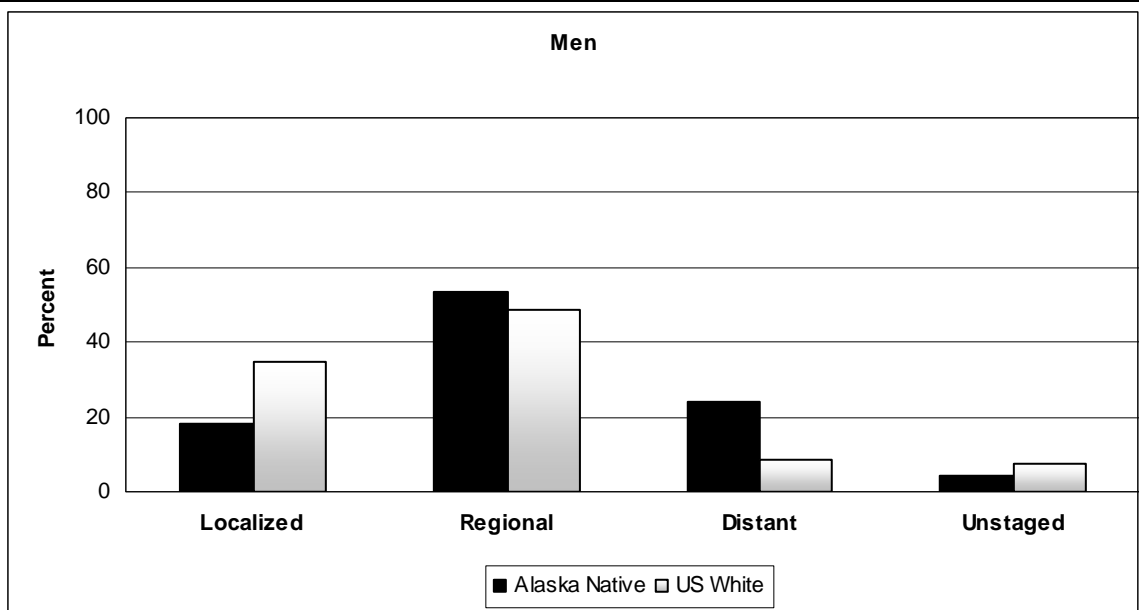
**Cancer Stage at Diagnosis**  
**Alaska Natives and US Whites, 1993-2002**  
**Non-Hodgkin Lymphoma**

	<b>Men</b>				<b>Women</b>		
	AK Native		US White		AK Native		US White
	No.	%	No.	%	No.	%	%
Localized	12	33.3	29.9	9	32.1	31.9	
Regional	6	16.7	13.0	3	10.7	14.3	
Distant	15	41.6	47.1	14	50.0	43.3	
Unstaged	3	8.3	10.0	2.0	7.1	10.5	



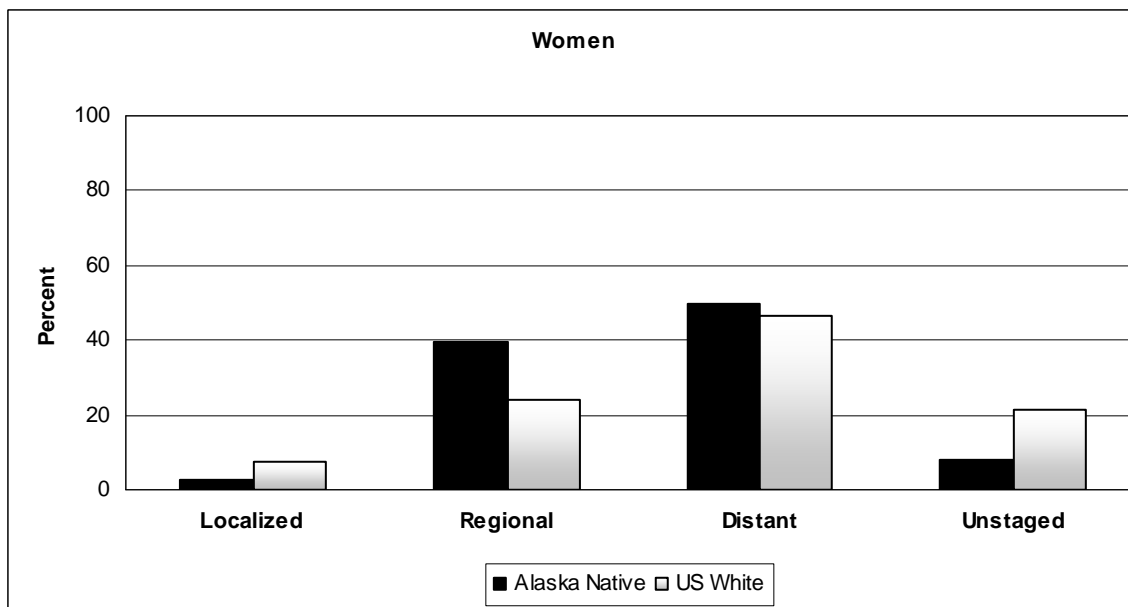
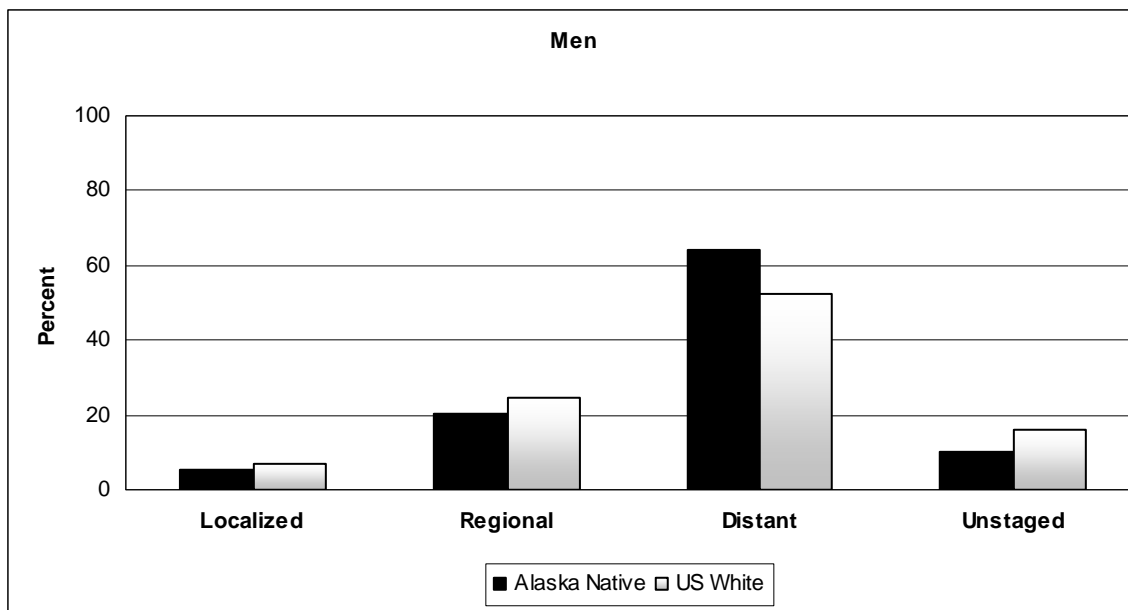
**Cancer Stage at Diagnosis  
Alaska Natives and US Whites, 1993-2002  
Oral Cavity and Pharynx**

	<b>Men</b>			<b>Women</b>		
	No.	AK Native %	US White %	No.	AK Native %	US White %
Localized	13	18.3	35.0	13	39.4	42.1
Regional	38	53.5	48.8	15	45.5	42.9
Distant	17	23.9	8.5	5	15.2	7.7
Unstaged	3	4.2	7.7	0		7.4



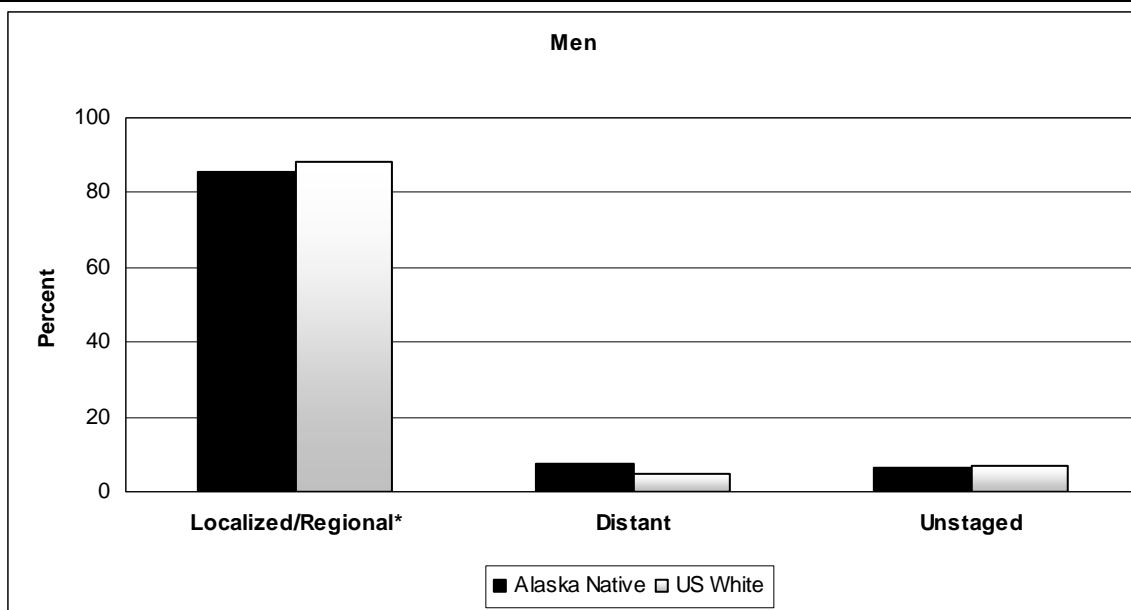
**Cancer Stage at Diagnosis  
Alaska Natives and US Whites, 1993-2002  
Pancreas**

	Men			Women		
	AK Native		US White	AK Native		US White
	No.	%	%	No.	%	%
Localized	2	5.1	6.9	1	2.6	7.6
Regional	8	20.5	24.7	15	39.5	24.1
Distant	25	64.1	52.2	19	50.0	46.6
Unstaged	4	10.3	16.2	3	7.9	21.5



**Cancer Stage at Diagnosis  
Alaska Natives and US Whites, 1993-2002  
Prostate<sup>1</sup>**

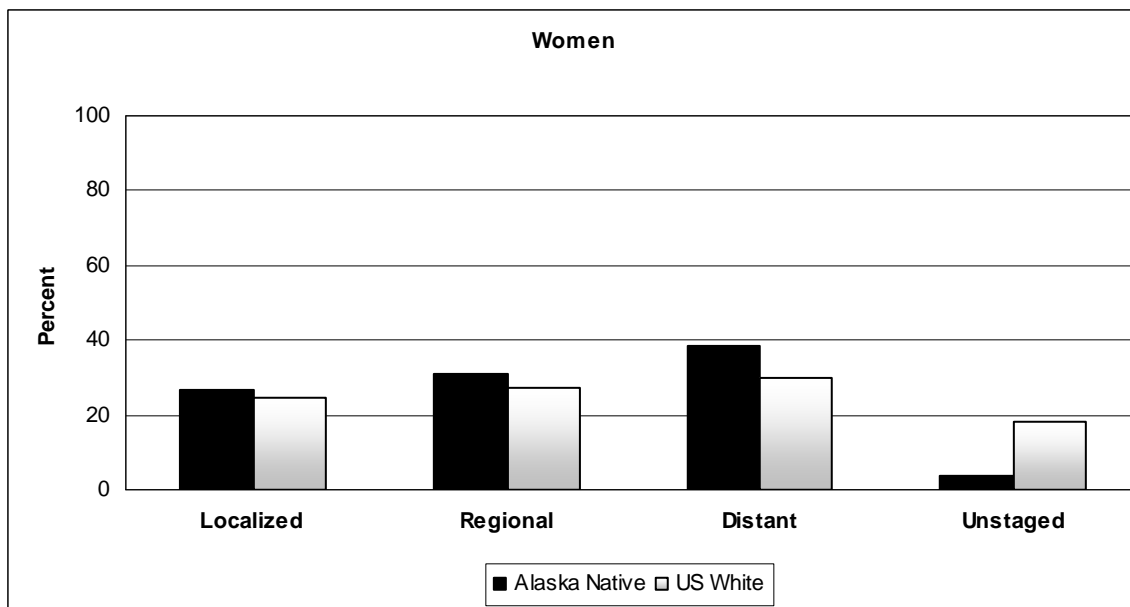
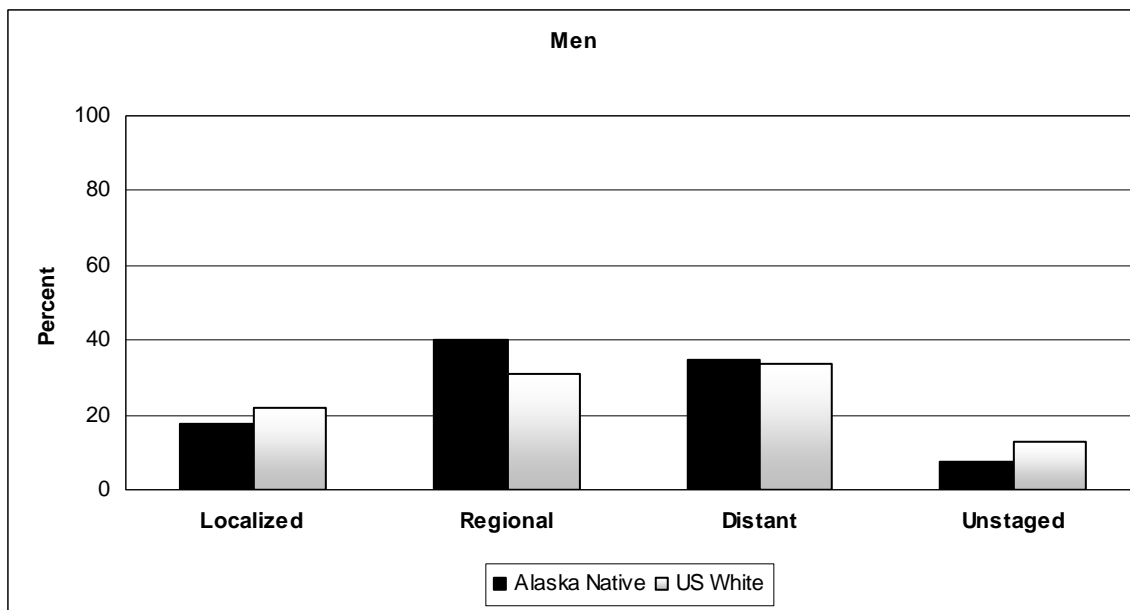
	Men AK Native		US White
	No.	%	%
Localized/Regional*	144	85.7	88.0
Distant	13	7.7	4.9
Unstaged	11	6.6	7.1



<sup>1</sup>Prostate stages localized and regional are analyzed as a combined staging group.

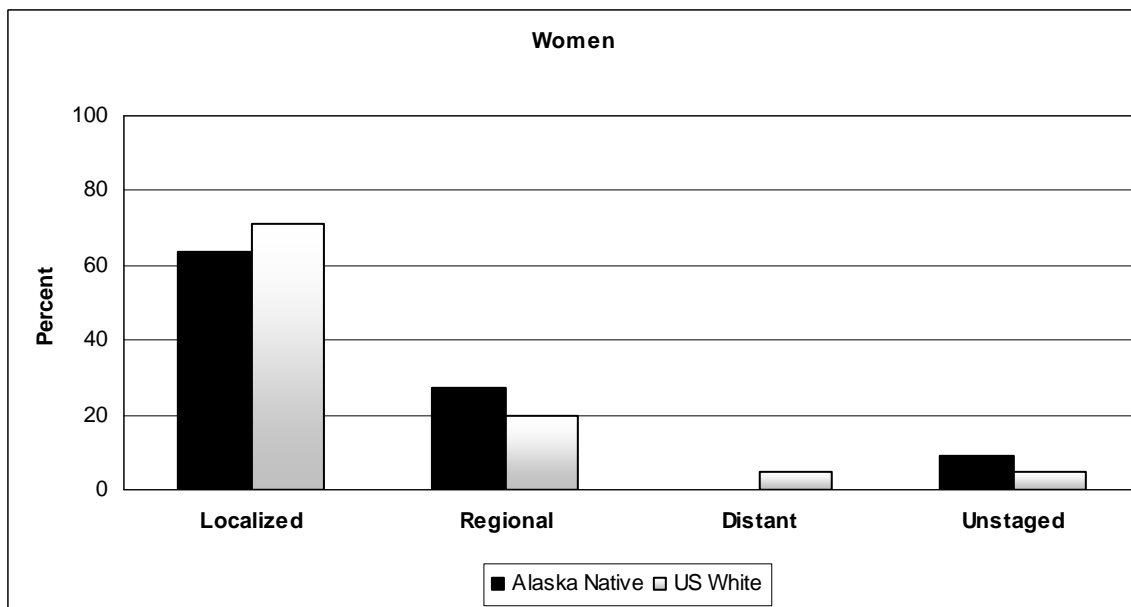
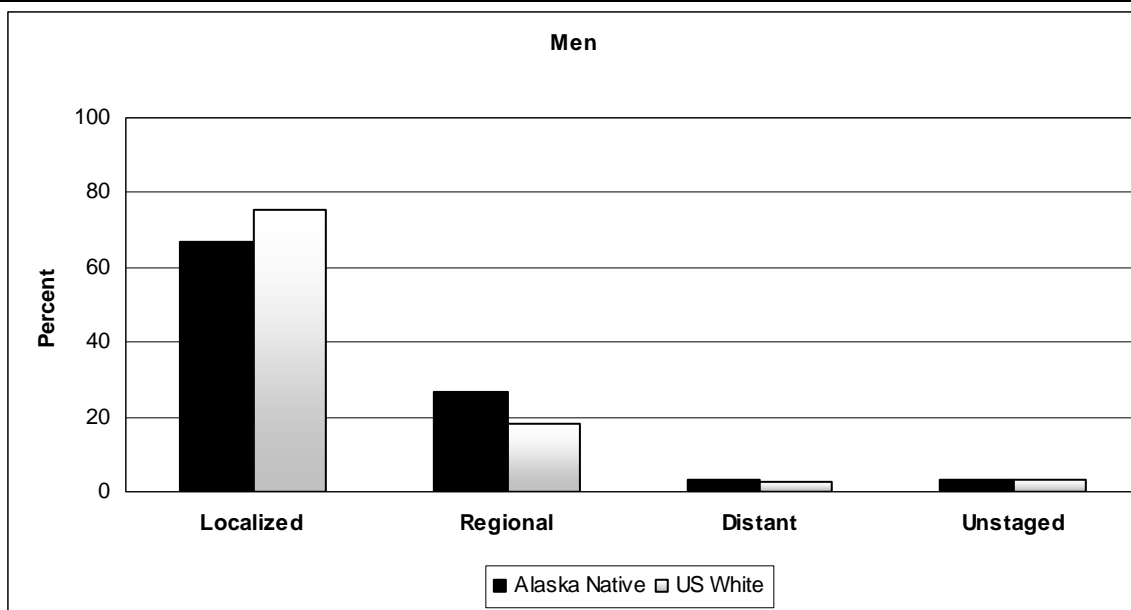
**Cancer Stage at Diagnosis  
Alaska Natives and US Whites, 1993-2002  
Stomach**

	Men			Women		
		AK Native	US White		AK Native	US White
	No.	%	%	No.	%	%
Localized	14	17.5	22.0	14	26.9	24.6
Regional	32	40.0	31.1	16	30.8	27.2
Distant	28	35.0	33.8	20	38.5	30.1
Unstaged	6	7.5	13.1	2	3.9	18.2



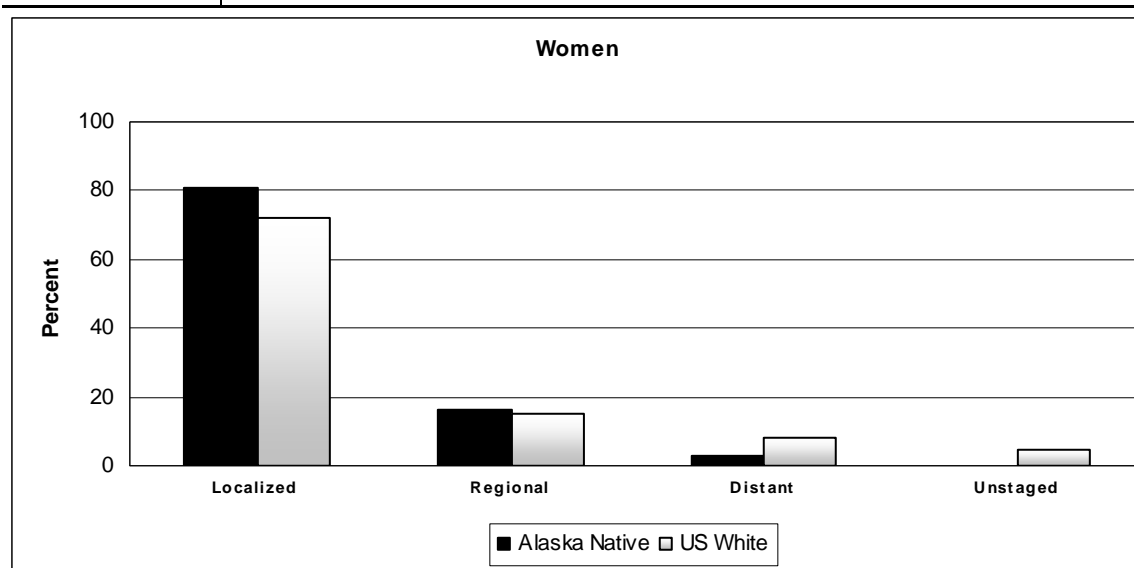
**Cancer Stage at Diagnosis  
Alaska Natives and US Whites, 1993-2002  
Urinary Bladder**

	Men				Women	
	AK Native No.	%	US White %		AK Native No.	US White %
Localized	20	66.7	75.6		7	63.6
Regional	8	26.7	18.0		3	27.3
Distant	1	3.3	2.8		0	4.6
Unstaged	1	3.3	3.4		1	9.1



**Cancer Stage at Diagnosis**  
**Alaska Natives and US Whites, 1993-2002**  
**Uterus<sup>1</sup>**

	AK Native		US White
	No.	%	%
Localized	30	81.1	72.0
Regional	6	16.2	15.3
Distant	1	2.7	8.1
Unstaged	0		4.5



<sup>1</sup> Uterus includes Corpus uteri and Uterus, NOS.

### Five Year Relative Survival Alaska Natives and US Whites, 1992-2002

Site	Men and Women			Men			Women		
	AK Native	US White		AK Native	US White		AK Native	US White	
	No.	Relative %	Relative %	No.	Relative %	Relative %	No.	Relative %	Relative %
All Sites	2518	49.1*	66.1	1201	40.1*	66.5	1317	57.1*	65.7
Oral Cavity and Pharynx	98	36.9*	60.6	67	26.2*	59.7	31	60.3	62.5
Nasopharynx	41	25.8*	53.5	32	18.1*	54.0	9 <sup>§</sup>		52.3
Esophagus	41	13.9	15.7	30	16.0	15.6	11 <sup>§</sup>		15.7
Stomach	127	18.5	21.9	76	17.7	20.6	51	19.5	24.0
Colon and Rectum	459	53.7*	65.1	219	57.8*	65.7	240	49.1*	64.5
Liver	43	35.7*	9.4	28	34.0*	8.3	15	37.3*	11.8
Pancreas	69	2.1*	4.8	34	3.3	4.9	35	‡	4.6
Lung and Bronchus	453	10.8*	15.5	282	10.1*	13.8	171	12.1*	17.5
Breast	394	85.5*	89.1	1 <sup>§</sup>		88.4	393	85.5*	89.1
Cervix							34	68.3	72.2
Corpus uteri/Uterus, NOS							34	91.5	86.2
Ovary							33	55.8	44.5
Prostate				162	79.8*	99.9			
Testis				23	85.8*	95.8			
Urinary Bladder	32	66.0*	84.5	24	63.5*	86.9	8 <sup>§</sup>		78.0
Kidney and Renal Pelvis	93	58.6	64.6	53	61.4*	65.0	40	54.2	64.0
Thyroid	52	100.0*	96.7	6 <sup>§</sup>		94.7	46	100.0*	97.3
Non-Hodgkin Lymphoma	55	54.8	59.2	32	39.6*	55.9	23	73.1	63.2
Leukemia	54	48.0	49.7	30	48.6	50.7	24	47.5	48.4

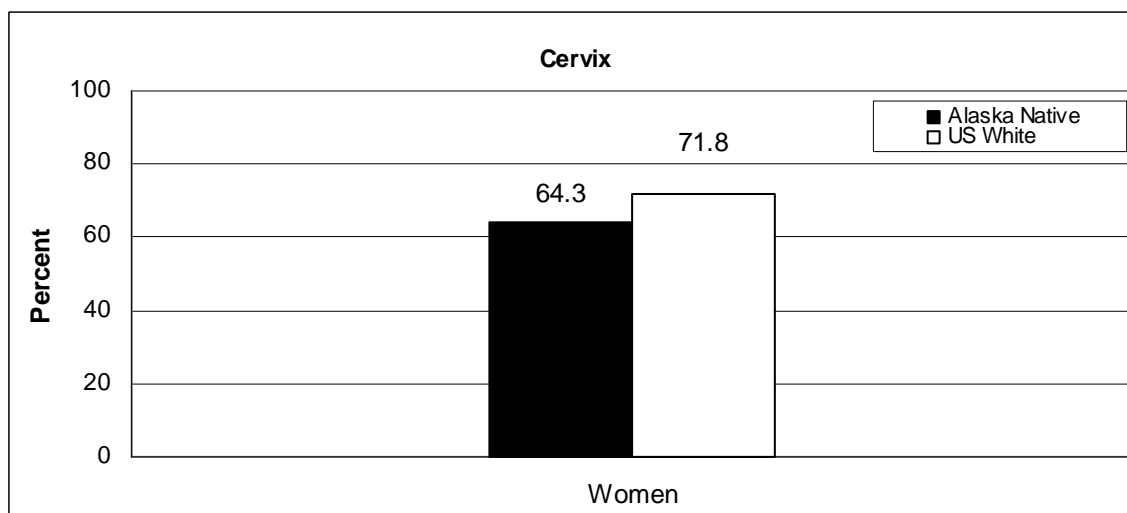
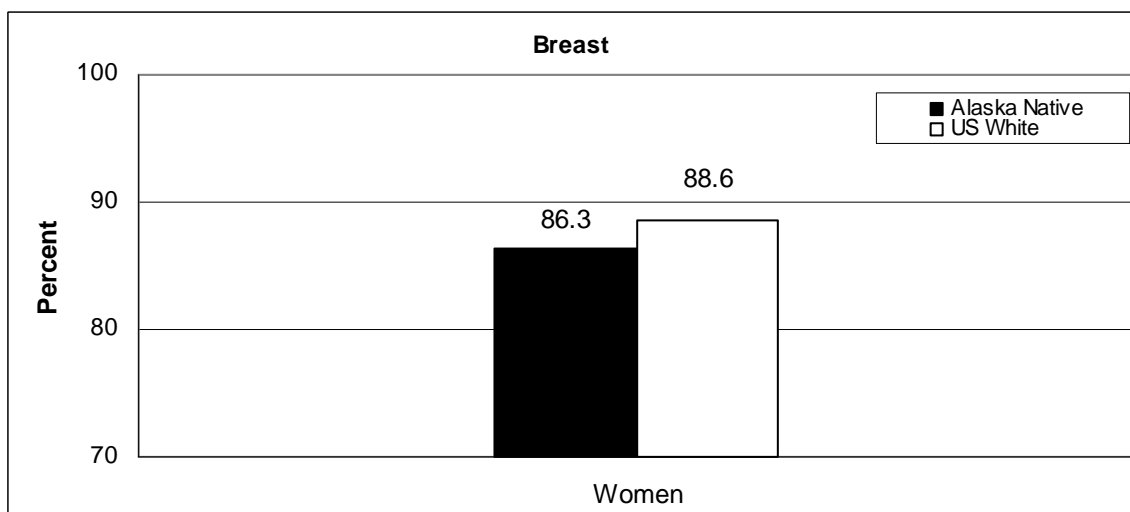
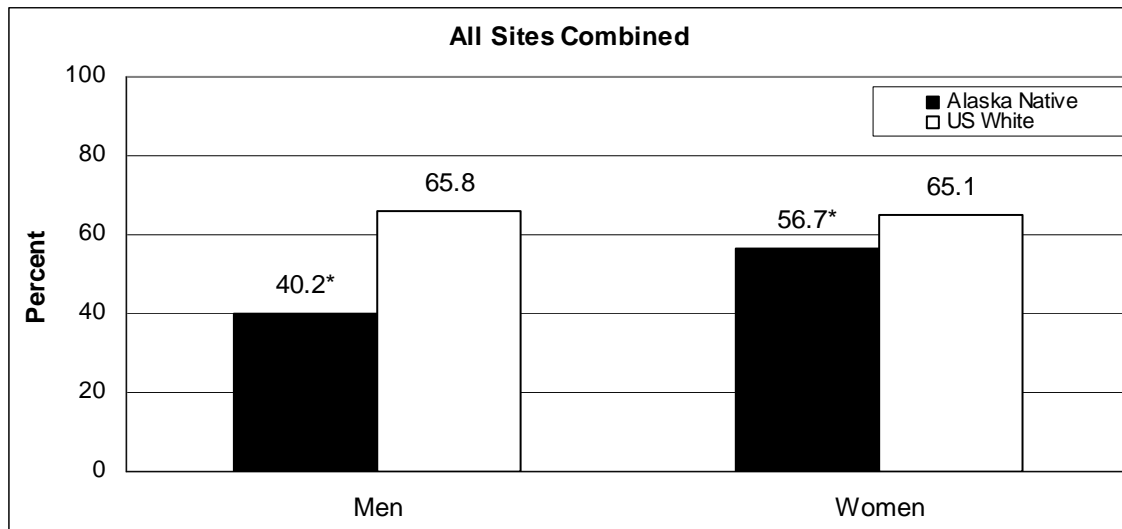
§ Fewer than 15 persons diagnosed at beginning of 5-year interval.

\* Statistically different from US relative survival at p < 0.05 probability level.

‡ No survivors at end of 5-year interval.

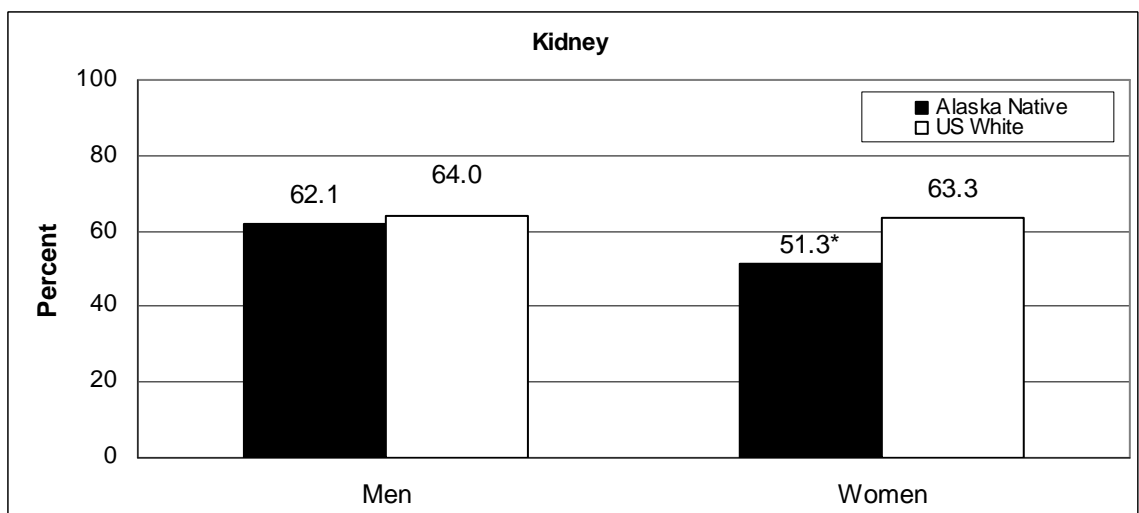
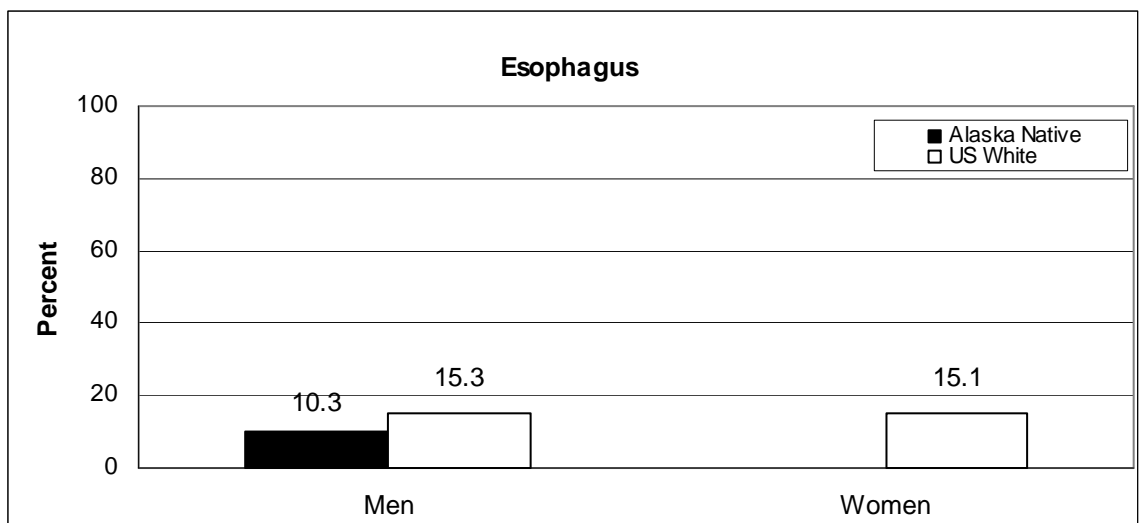
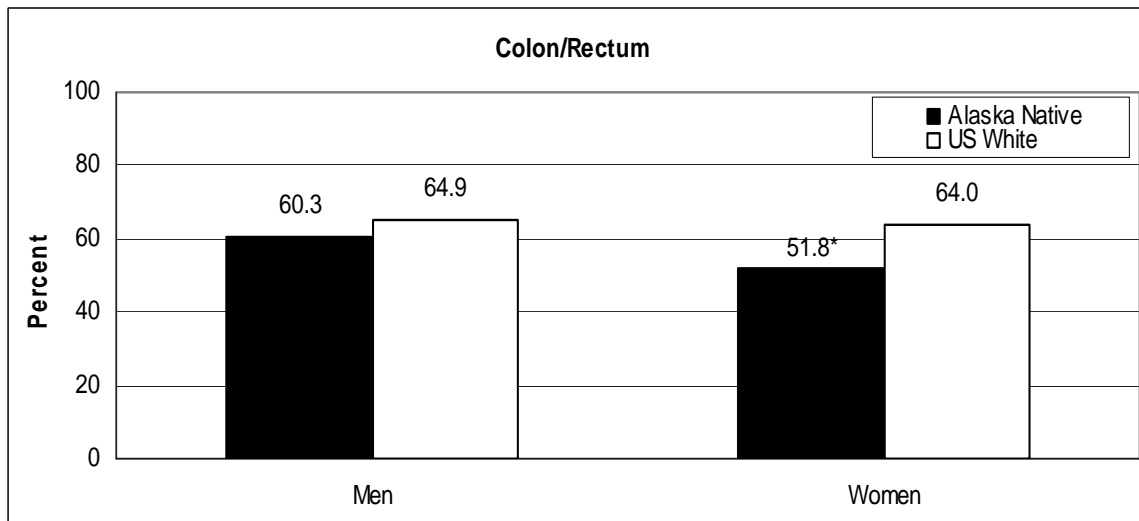


Five Year Relative Survival  
Alaska Natives and US Whites, 1992-2001



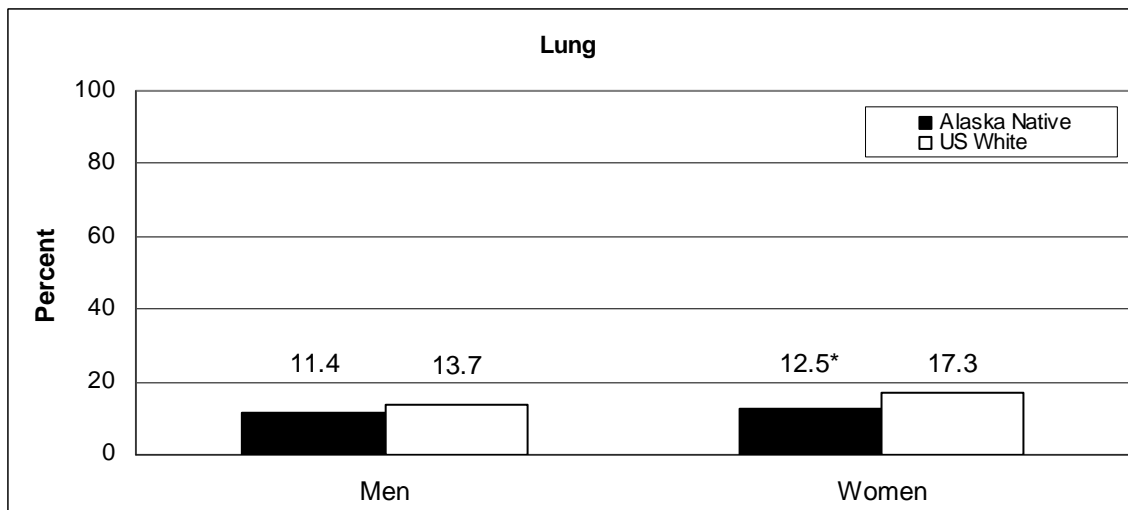
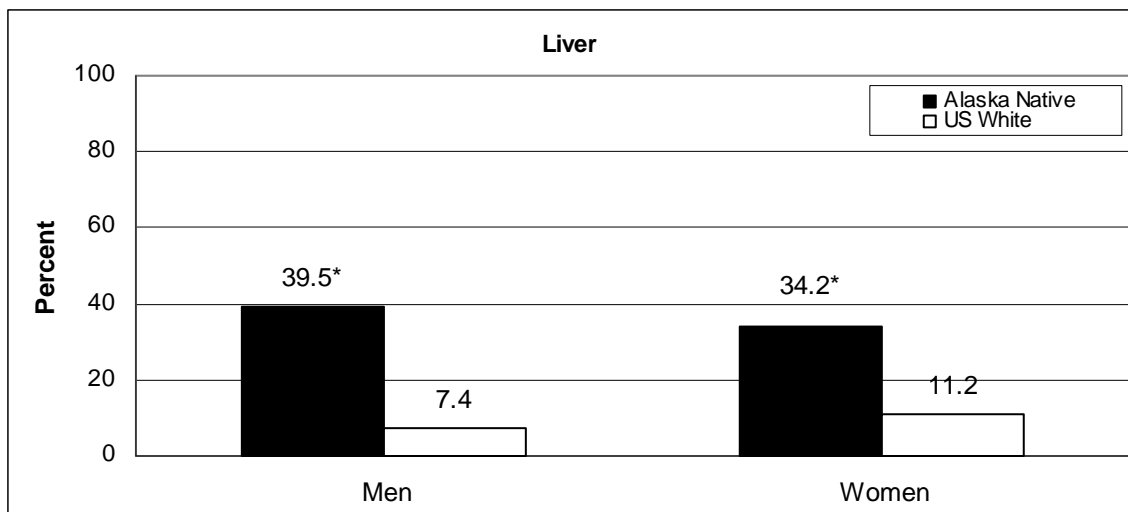
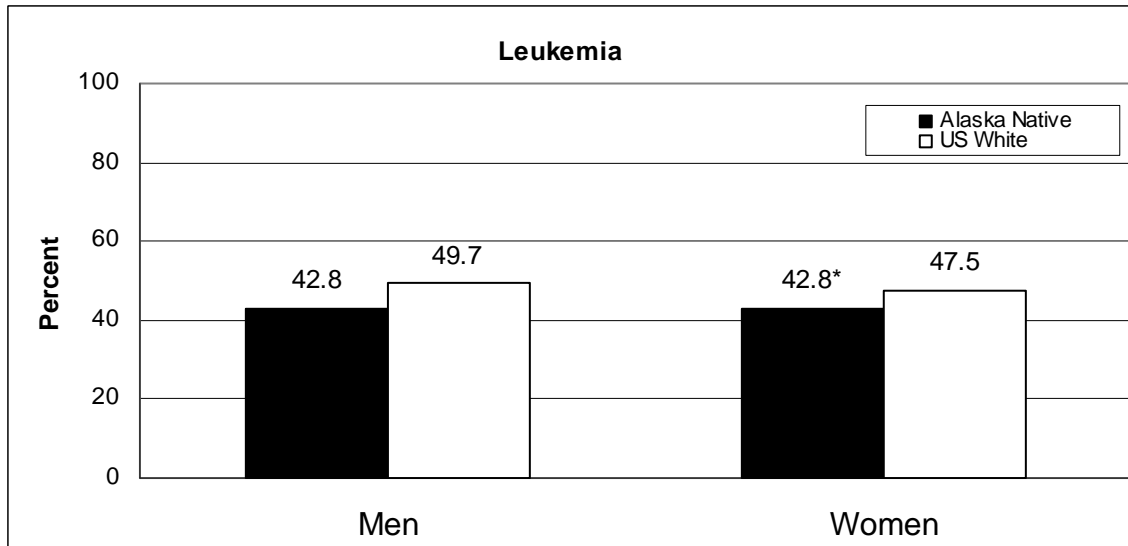
\* Statistically significant difference at the  $p < 0.05$  probability level between Alaska Natives and US Whites .

Five Year Relative Survival  
Alaska Natives and US Whites, 1992-2001

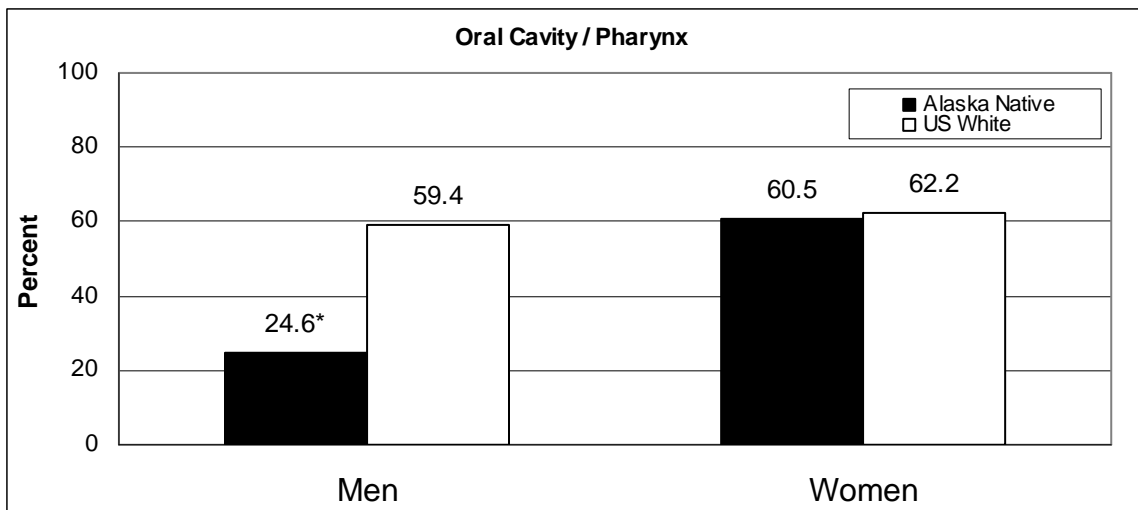
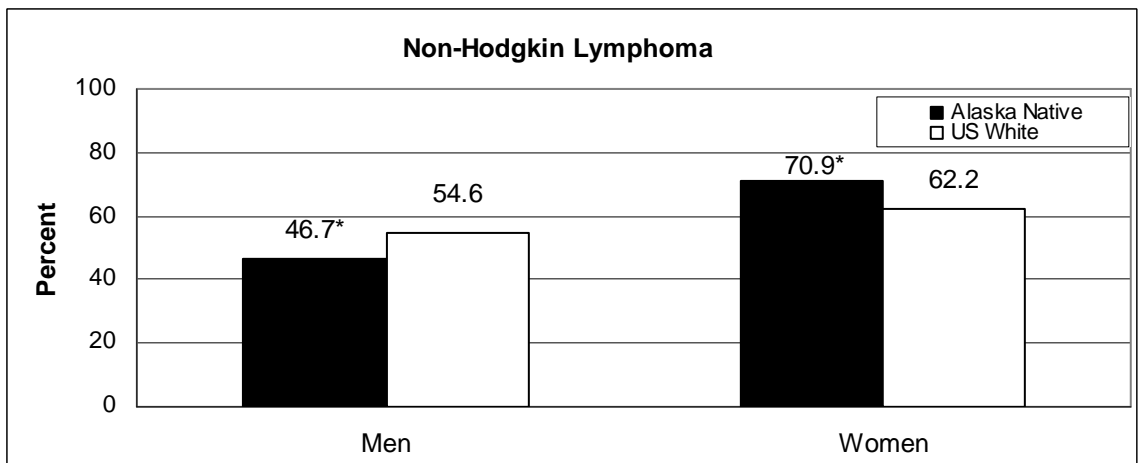
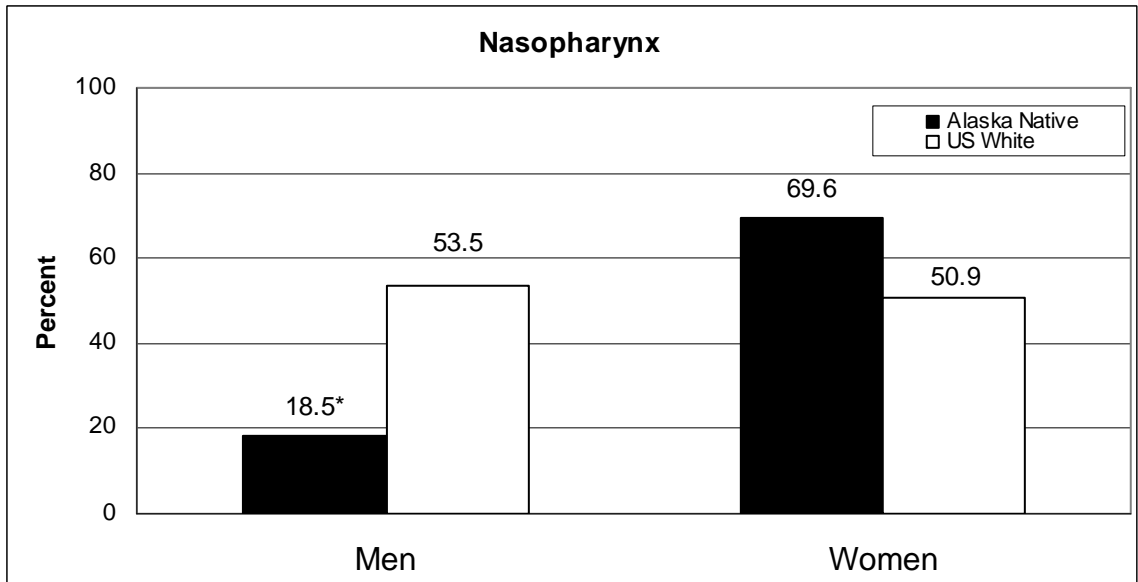


\* Statistically significant difference at the p< 0.05 probability level between Alaska Natives and US Whites .

Five Year Relative Survival  
Alaska Natives and US Whites, 1992-2001

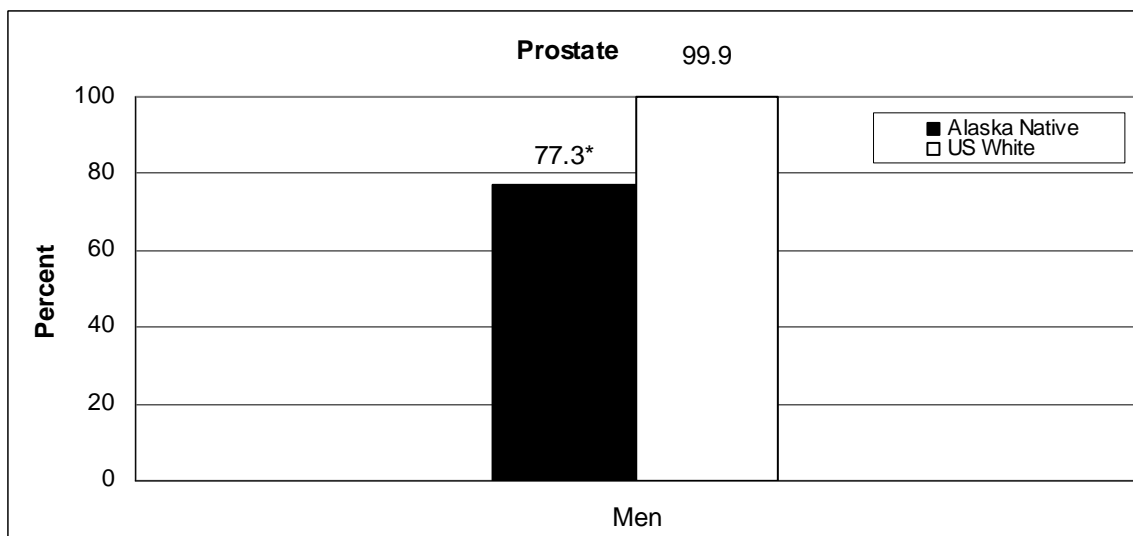
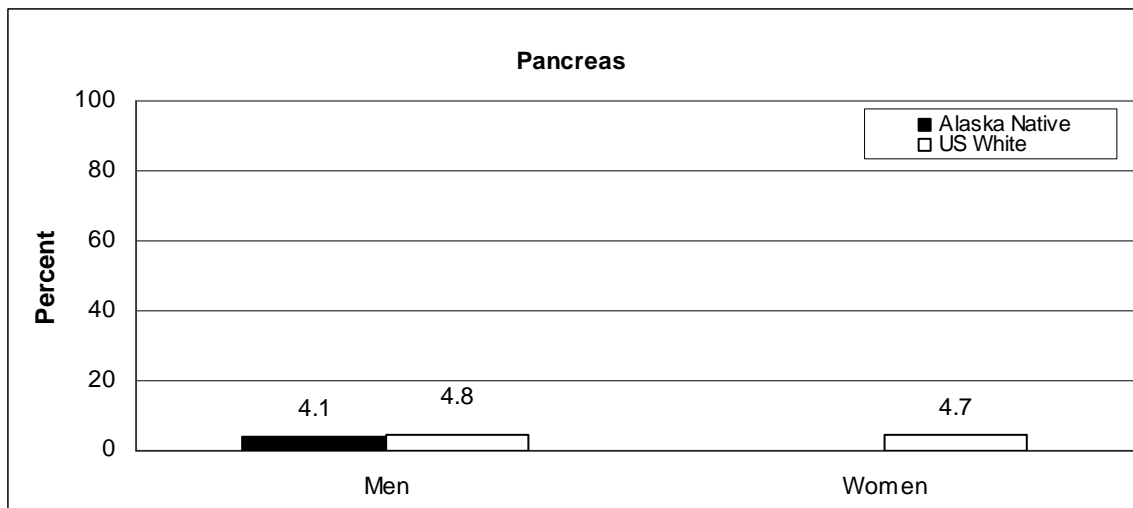
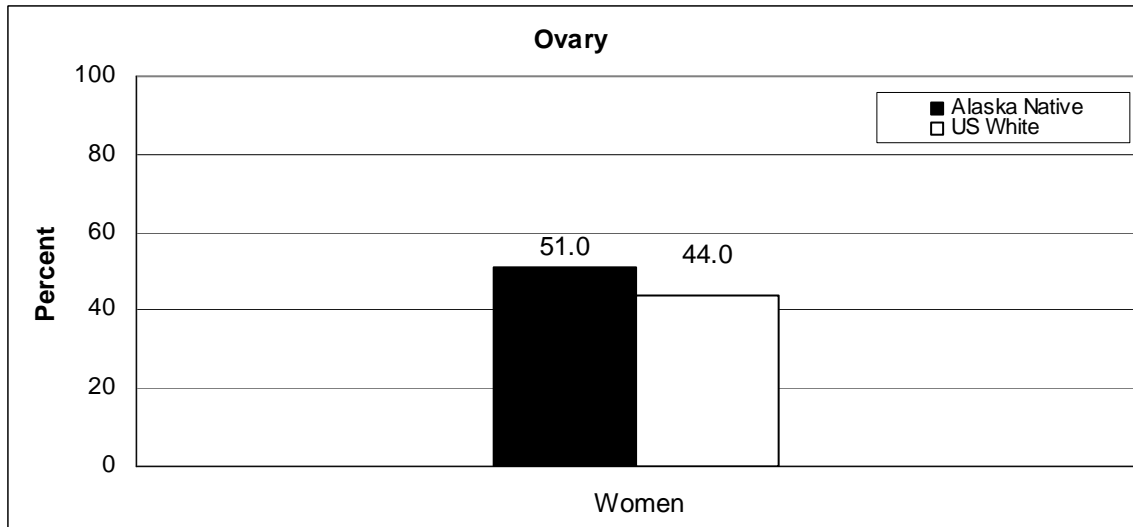


Five Year Relative Survival  
Alaska Natives and US Whites, 1992-2001

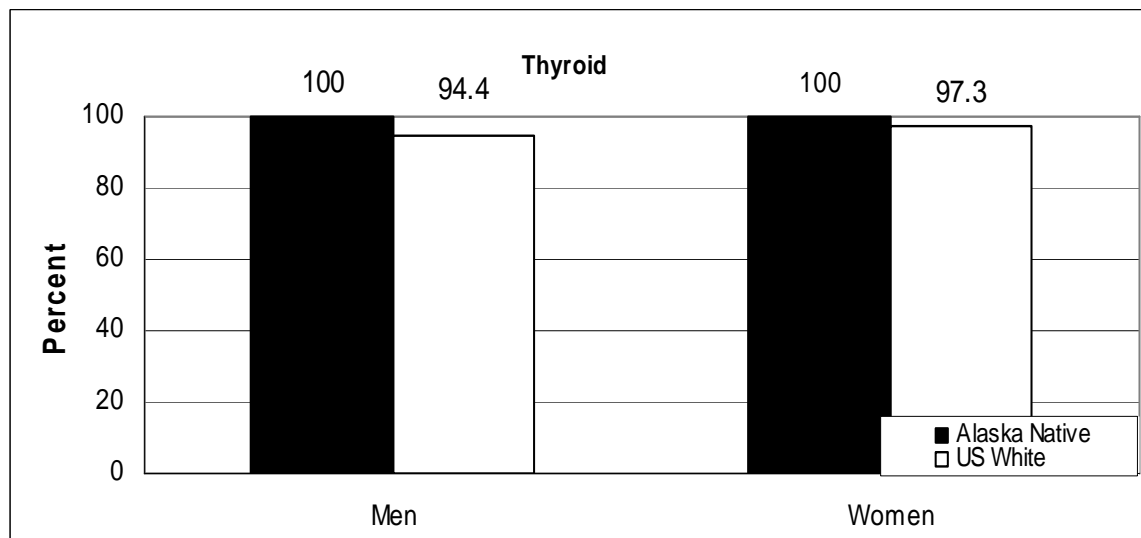
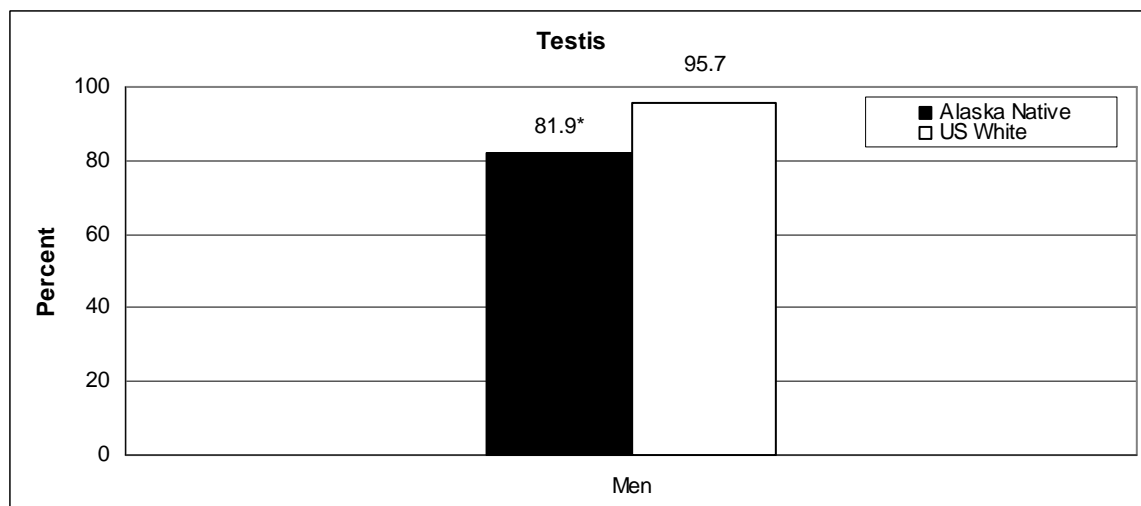
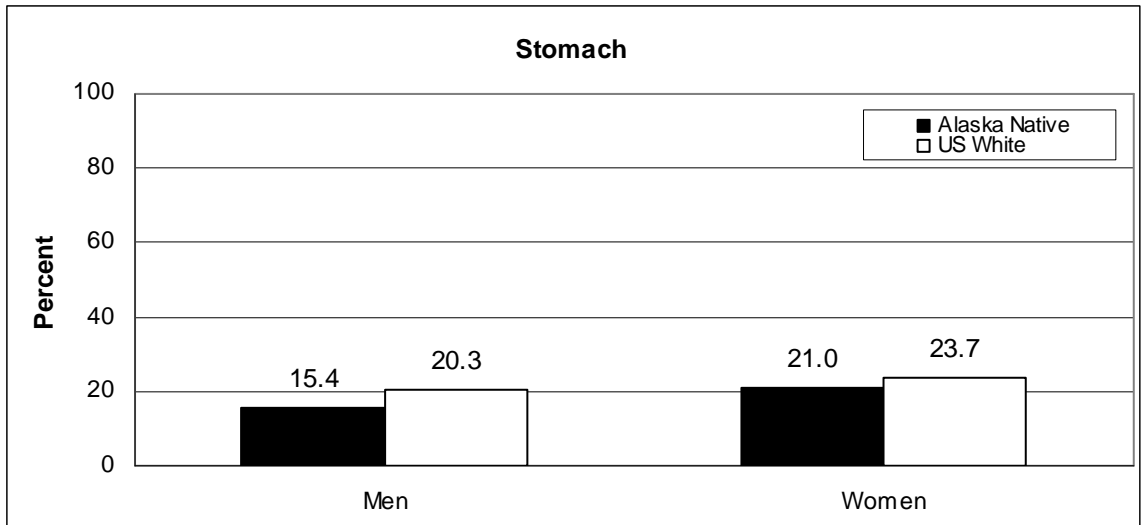


\* Statistically significant difference at the  $p < 0.05$  probability level between Alaska Natives and US Whites .

Five Year Relative Survival  
Alaska Natives and US Whites, 1992-2001

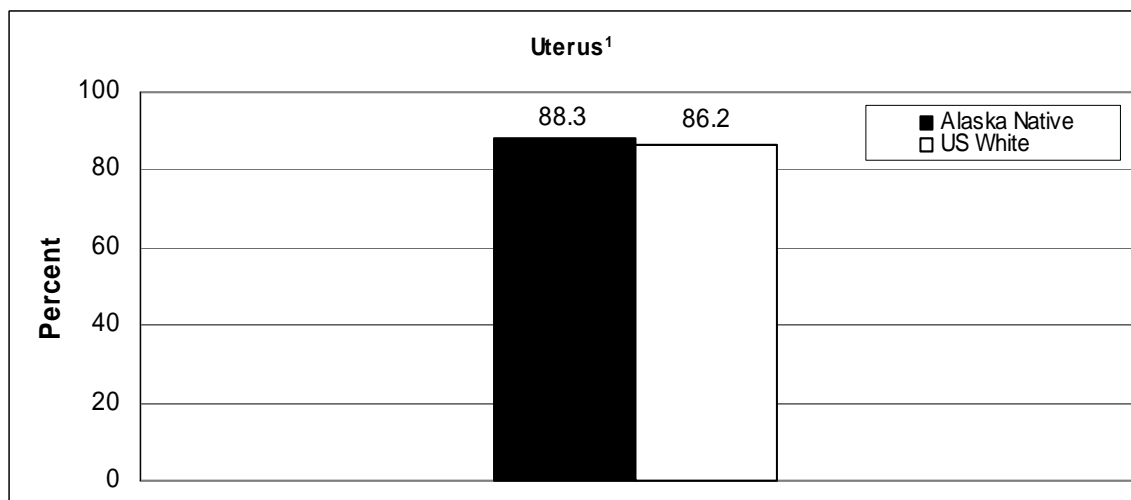
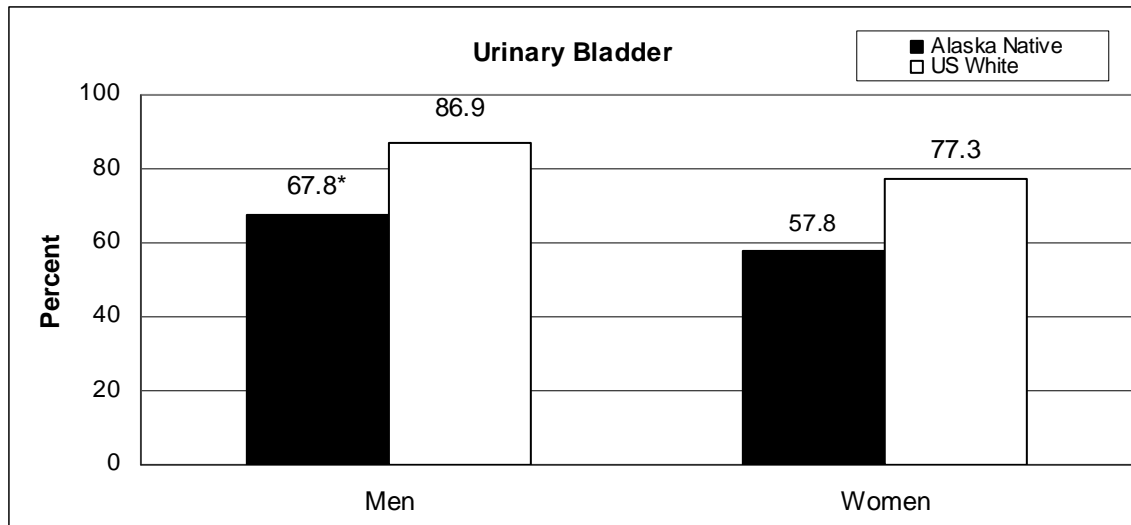


Five Year Relative Survival  
Alaska Natives and US Whites, 1992-2001



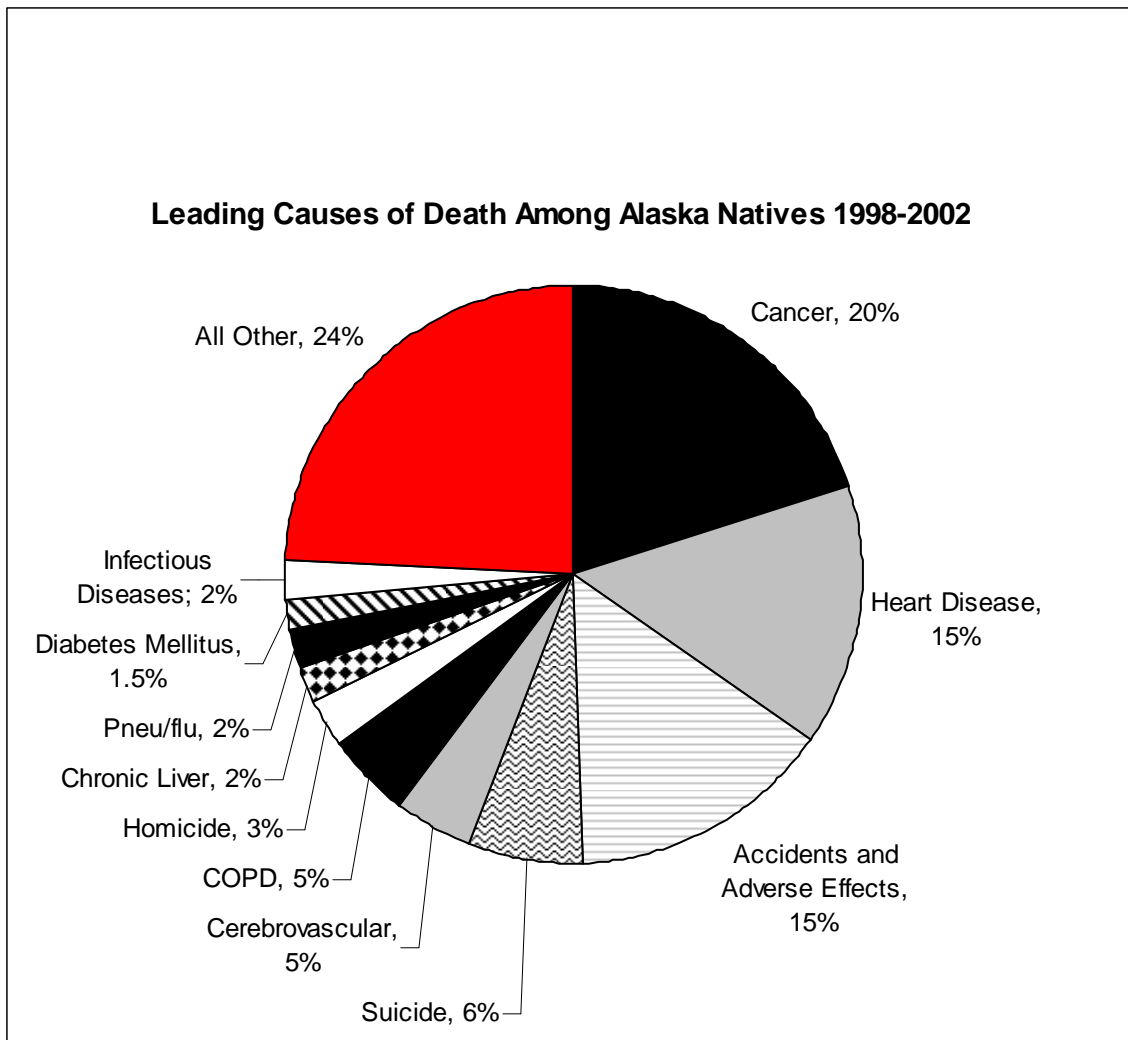
\* Statistically significant difference at the  $p < 0.05$  probability level between Alaska Natives and US Whites .

Five Year Relative Survival  
Alaska Natives and US Whites, 1992-2001



\*Statistically significant difference between Alaska Natives and US Whites at a p< 0.05 probability level .

¹ Uterus includes Corpus uteri and Uterus, NOS.



### Leading Causes of Death Among Alaska Natives 1998-2002

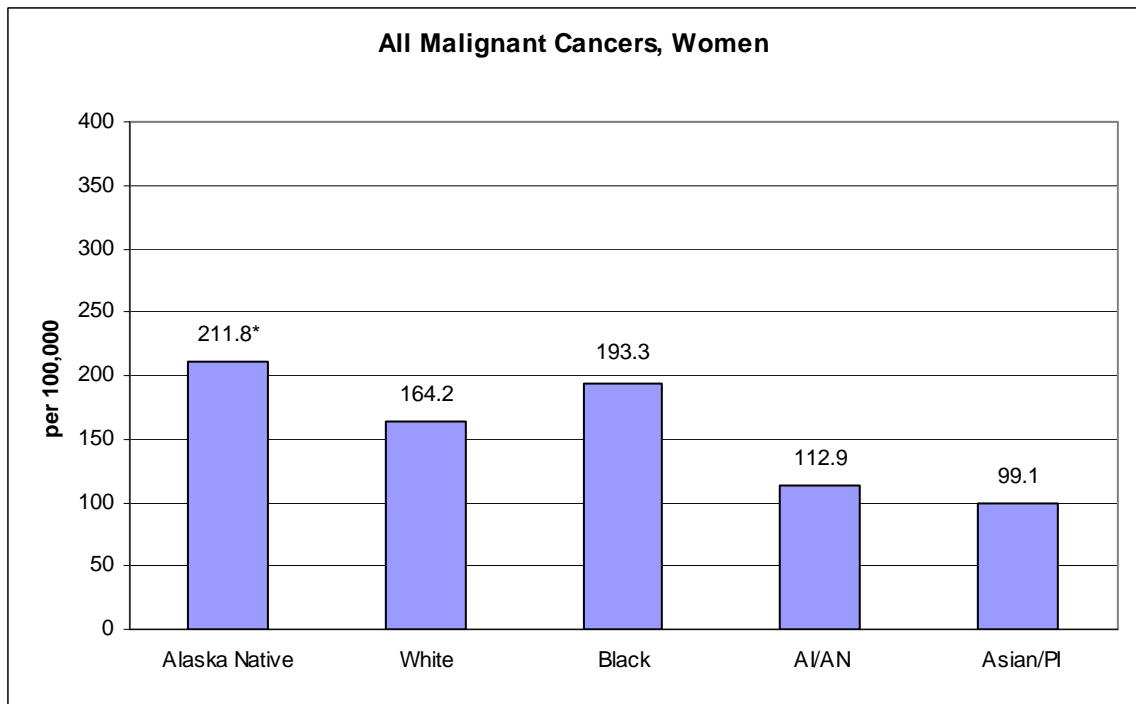
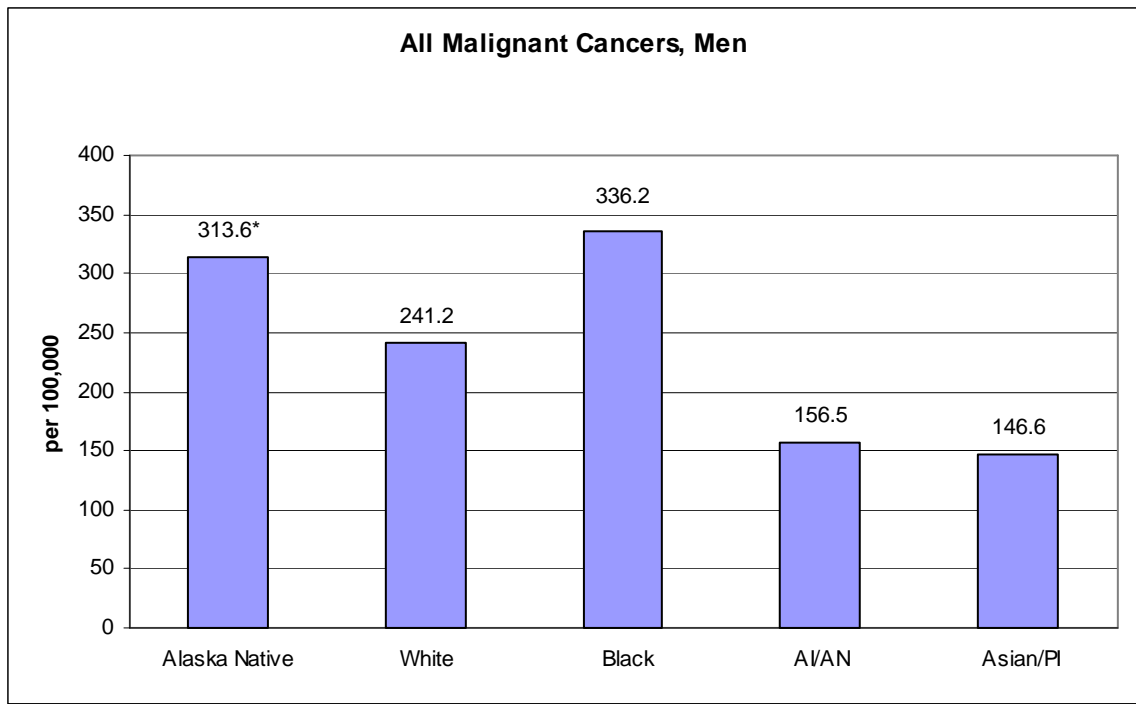
	Men and Women			Men			Women		
	#	%	Rate <sup>1</sup>	#	%	Rate	#	%	Rate
All Causes	3275	100	1127.8	1873	100	1387	1402	100	924
<b>Cancer</b>	<b>669</b>	<b>20.4</b>	<b>253.6</b>	<b>360</b>	<b>19.2</b>	<b>313.6</b>	<b>309</b>	<b>22.0</b>	<b>211.8</b>
Heart Disease	483	14.7	209.5	272	14.5	261.4	211	15.0	168.6
Accidents/Adverse Effects	489	14.9	110.8	350	18.7	159.8	139	9.9	62.9
Suicide	212	6.5	38.2	166	8.9	60.2	46	3.3	16.1
Cerebrovascular	149	4.5	66.3	60	3.2	65.7	89	6.3	67.9
COPD	156	4.8	69.2	78	4.2	84.9	78	5.6	60.5
Homicide	90	2.7	18.1	61	3.3	25.5	29	2.1	2.1
Chronic Liver	69	2.1	18.1	23	1.2	12.4	46	3.3	23.4
Pneunemonia/flu	78	2.4	36.1	38	2.0	41.0	40	2.9	32.7
Infectious Diseases <sup>2</sup>	78	2.4	29.5	42	2.2	36.2	36	2.6	24.1
Diabetes	48	1.5	20.5	21	1.1	19.8	27	1.9	21.6
All Other Causes	754	23.0	257.9	402	21.5	306.8	352	25.1	223.6

<sup>1</sup>Rates are per 100,000 and age-adjusted to the 2000 US standard population.

<sup>2</sup>Includes tuberculosis, HIV, septicemia and other infectious and parasitic diseases.  
Mortality data from NCHS (WWW.cdc.gov/nchs)



### Cancer Mortality Rates<sup>1</sup> Alaska Natives 1998-2002 and US Races 1999-2002



<sup>1</sup>Rates are per 100,000 and age-adjusted to the 2000 US standard population.

\*Statistically different from US Whites at the  $p < 0.05$  probability level.

Mortality data from NCHS ([WWW>cdc.gov/nchs](http://www.cdc.gov/nchs)).

## Rank Order of Leading Cancer Deaths Alaska Natives and US Whites, 1998-2002

### Men and Women Combined

Alaska Native			US White		
Rank	Site	No.	Rank	Site	No.
1	Lung	167	1	Lung	167
2	Colon/Rectum	95	2	Colon/Rectum	95
3	Stomach	54	3	Breast	54
4	Pancreas	44	4	Prostate	44
5	Breast	38	5	Pancreas	38
6	Liver*	24	6	Non-Hodgkin	24
7	Esophagus	23	7	Leukemia	23
8	Oral Cavity	22	8	Ovary	22
9	Kidney	22	9	Brain/NS	22
10	Non-Hodgkin	18	10	Urinary Bladder	18

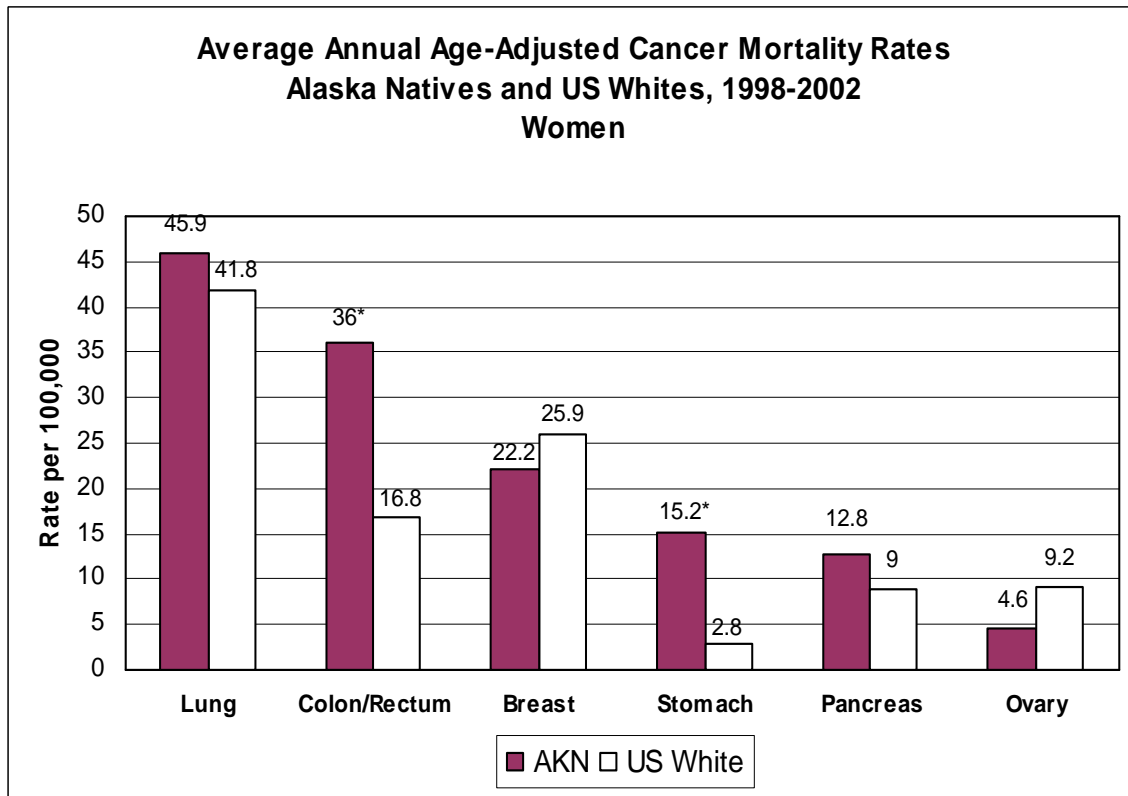
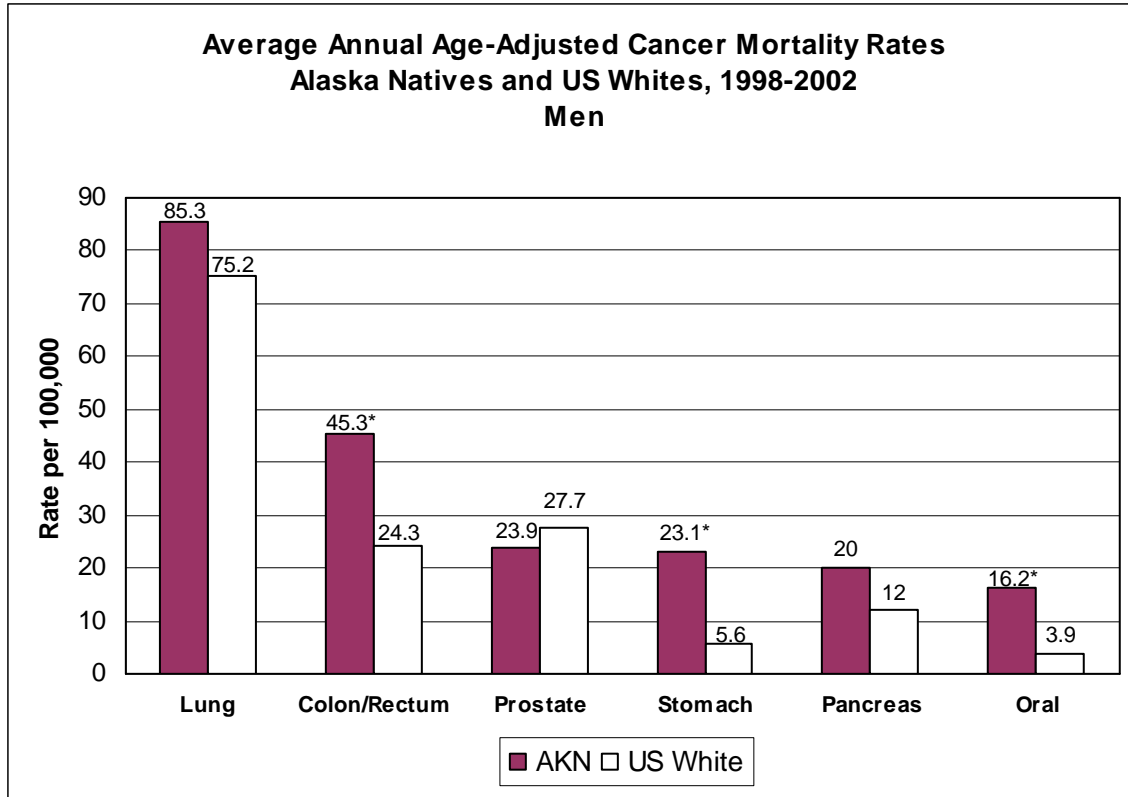
### Men

Alaska Native			US White		
Rank	Site	No.	Rank	Site	No.
1	Lung	104	1	Lung	104
2	Colon/Rectum	47	2	Prostate	47
3	Stomach	29	3	Colon/Rectum	29
4	Pancreas	23	4	Pancreas	23
5	Oral Cavity	18	5	Non-Hodgkin	18
6	Kidney	17	6	Leukemia	17
7	Prostate	15	7	Esophagus	15
8	Esophagus	15	8	Urinary Bladder	15
9	Non-Hodgkin	13	9	Liver*	13
10	Leukemia	10	10	Brain/NS	10

### Women

Alaska Native			US White		
Rank	Site	No.	Rank	Site	No.
1	Lung	63	1	Lung	63
2	Colon/Rectum	48	2	Breast	48
3	Breast	38	3	Colon/Rectum	38
4	Stomach	25	4	Pancreas	25
5	Pancreas	21	5	Ovary	21
6	Liver*	14	6	Non-Hodgkin	14
7	Ovary	9	7	Leukemia	9
8	Esophagus	8	8	Uterus	8
9	Myeloma	8	9	Brain/NS	8
10	Urinary Bladder	5	10	Myeloma	5

\* Including intrahepatic bile duct



### Age-Adjusted Cancer Mortality Rates Among Alaska Natives and US Whites, 1998-2002

Site	Men and Women			Men			Women		
	AKN		US White	AKN		US White	AKN		US White
	#	Rate	Rate	#	Rate	Rate	#	Rate	Rate
All Sites	669	253.6*	195.3	360	313.6*	242.5	309	211.8*	164.5
Oral Cavity and Pharynx	22	8.8*	2.6	18	16.2*	3.9	4	2.9	1.6
Salivary Gland	0		0.3	0		0.4	0		0.2
Nasopharynx	14	5.2*	0.2	11	9.4*	0.3	3	1.9	0.1
Gum and Other Mouth	2	1.0	0.4	2	2.5	0.5	0		0.3
Digestive	251	95.7*	45.2	129	113.4*	58.0	122	84.9*	35.4
Esophagus	23	9.5*	4.2	15	13.6	7.5	8	6.0*	1.7
Stomach	54	18.0*	4.0	29	23.1*	5.6	25	15.2*	2.8
Colon and Rectum	95	39.4*	20.0	47	45.3*	24.3	48	36.0*	16.8
Colon	76	31.8*	17.0	35	33.8*	20.4	41	31.0*	14.5
Rectum/Rectosigmoid Junction	19	7.6*	3.0	12	11.6*	3.9	7	5.0	2.3
Liver	16	5.7	3.3	7	5.9	5.1	9	6.7*	1.9
Gallbladder	3	1.2	0.7	1	0.8	0.5	2	1.5	0.8
Other Biliary	3	1.3	0.6	1	1.1	0.7	2	1.5	0.5
Pancreas	44	15.2	10.3	23	20.0	12.0	21	12.8	9.0
Respiratory	171	65.1	57.4	108	87.9	78.1	63	45.9	42.6
Lung and Bronchus	167	63.9	55.8	104	85.3	75.2	63	45.9	41.8
Larynx	4	1.2	1.3	4	2.5	2.3	0		0.5
Bones and Joints	0		0.4	0		0.6	0		0.4
Soft Tissue	3	1.1	1.3	1	0.3	1.5	2	1.7	1.2
Melanoma	1	0.2*	3	1	0.4	4.3	0		2.0
Other Non-Epithelial Skin	1	0.6	0.9	0		1.5	1	1.1	0.5
Breast	38	12.0	14.7	0		0.3	38	22.2	25.9
Female Genital	17	5.3	9.3				17	9.8	16.5
Cervix	2	0.4	1.3				2	0.8	2.5
Corpus uteri/Uterus, NOS	3	0.8	2.2				3	1.6	3.9
Ovary	9	2.4	5.2				9	4.6	9.2
Male Genital	17	8.9	10.5	17	25.1	28.2			
Prostate	15	8.4	10.3	15	23.9	27.7			
Testis	1	0.2	0.1	1	0.5	0.3			
Urinary	31	12.6	9.0	21	18.7	14.4	10	7.7	5.2
Urinary Bladder	9	4.3	4.5	4	3.7	7.9	5	4.6	2.3
Kidney and Renal Pelvis	22	8.3*	4.3	17	15.0*	6.2	5	3.1	2.8
Eye and Orbit	0		0.1			0.1	0		0.1
Brain and Nervous System	5	1.3*	4.9	3	1.8	5.9	2	1.0	4.0
Endocrine	1	0.4	0.8	0		0.8	1	0.7	0.7
Thyroid	1	0.4	0.5	0		0.5	1	0.7	0.5
Lymphoma	18	5.7	9.0	13	9.2	11.2	5	2.9	7.3
Hodgkin	0		0.5	0		0.6	0		0.4
Non-Hodgkin	18	5.7	8.5	13	9.2	10.6	5	2.9	6.9
Multiple Myeloma	8	2.6	3.5	0		4.4	8	5.1	2.9
Leukemia	14	4.4	7.8	9	5.9	10.4	5	2.9	6.0
Ill Defined and Unspecified	71	28.8*	15.0	40	34.9*	18.9	31	23.1*	12.3

<sup>1</sup> Rates are per 100,000 and age-adjusted to the 2000 US standard population.

\* Statically different from US Whites at the  $p < 0.05$  probability level.  
Mortality data from NCHS ([WWW.cdc.gov/nchs](http://WWW.cdc.gov/nchs))



## Alaska Native Census Population

Age	Alaska Native Men				Alaska Native Women			
	1970	1980	1990	2000 <sup>1</sup>	1970	1980	1990	2000 <sup>1</sup>
0-9	7819	7257	11176	11384	7088	6930	10903	10588
10-19	6544	8112	7853	12068	6653	7729	7467	11506
20-29	3515	6295	7563	7380	3608	6243	7397	7349
30-39	2729	3933	6797	8039	2690	3898	6863	8082
40-49	2280	2827	4127	7076	1973	2710	4065	7276
50-59	1571	2049	2703	4176	1527	1932	2698	4253
60-69	1071	1227	1716	2327	785	1278	1823	2393
70+	457	842	1108	1519	509	841	1439	1974
<b>Total</b>	<b>25,986</b>	<b>32,542</b>	<b>43,043</b>	<b>53,969</b>	<b>24,833</b>	<b>31,561</b>	<b>42,655</b>	<b>53,421</b>

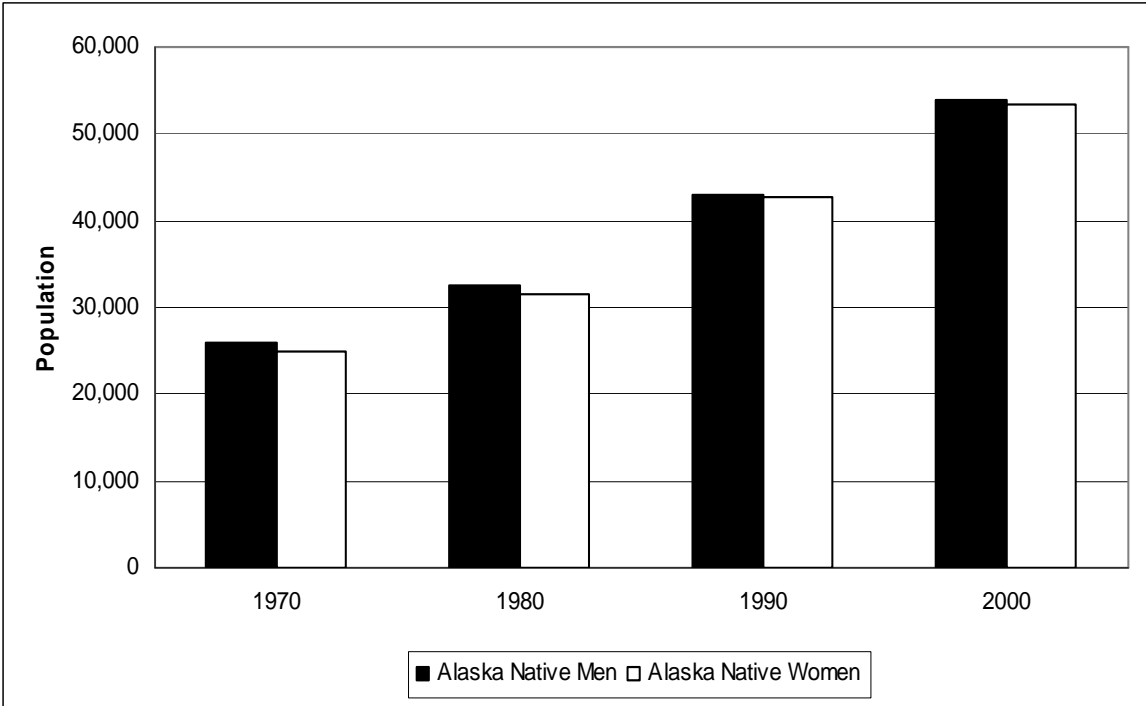
**1980, 1990, 2000 US Census Counts  
Alaska Natives by Service Unit**

	Men and Women Combined		
	1980	1990	2000 <sup>2</sup>
<b>Anchorage</b>	17544	25889	44688
<b>Barrow</b>	2600	3529	4518
<b>Bristol Bay</b>	3688	4380	5409
<b>Interior</b>	6759	9968	13421
<b>Kotzebue</b>	4547	5796	6867
<b>Mt. Edgecumbe</b>	9782	12831	16360
<b>Norton Sound</b>	5174	6148	7274
<b>Yukon-Kuskokwim</b>	13953	17157	20714
<b>Total</b>	<b>64,047</b>	<b>85,698</b>	<b>119,241</b>

<sup>1</sup> NCHS bridged estimate for 2000 based on counts for single race category American Indian/Alaska Native and on counts for American Indian/Alaska Native in combination with one or more other race categories.

<sup>2</sup> 2000 Census counts (unbridged) for individuals living in Alaska who identified themselves as American Indian/Alaska Native in one or more race categories.

### Alaska Native Census Population



**Groups of Topography Codes**  
**International Classification of Diseases for Oncology, Third Edition**  
**World Health Organization, 2000**

Site Group	ICD-O-3 Site	ICD-O-3 Histology (Type)
<b>Oral Cavity and Pharynx</b>		
Lip	C000-C009	
Tongue	C019-C029	
Salivary Gland	C079-C089	
Floor of Mouth	C040-C049	
Gum and Other Mouth	C030-C039, C050-C059, C060-C069	
Nasopharynx	C110-C119	
Tonsil	C090-C099	
Oropharynx	C100-C109	
Hypopharynx	C129, C130-C139	
Other Oral Cavity and Pharynx	C140, C142-C148	<a href="#">excluding 9590-9989</a>
<b>Digestive System</b>		
Esophagus	C150-C159	
Stomach	C160-C169	
Small Intestine	C170-C179	<a href="#">excluding 9590-9989</a>
Colon and Rectum		
Colon excluding Rectum		
Cecum	C180	
Appendix	C181	
Ascending Colon	C182	
Hepatic Flexure	C183	
Transverse Colon	C184	
Splenic Flexure	C185	
Descending Colon	C186	
Sigmoid Colon	C187	
Large Intestine, NOS	C188-C189, C260	<a href="#">excluding 9590-9989</a>
Rectum and Rectosigmoid Junction		
Rectosigmoid Junction	C199	
Rectum	C209	
Anus, Anal Canal and Anorectum	C210-C212, C218	<a href="#">excluding 9590-9989, and sometimes 9050-9055, 9140+</a>
Liver and Intrahepatic Bile Duct		
Liver	C220	
Intrahepatic Bile Duct	C221	
Gallbladder	C239	
Other Biliary	C240-C249	
Pancreas	C250-C259	
Retroperitoneum	C480	
Peritoneum, Omentum and Mesentery	C481-C482	
Other Digestive Organs	C268-C269, C488	<a href="#">excluding 9590-9989</a>
<b>Respiratory System</b>		
Nose, Nasal Cavity and Middle Ear	C300-C301, C310-C319	
Larynx	C320-C329	
Lung and Bronchus	C340-C349	
Pleura	C384	
Trachea, Mediastinum and Other Respiratory Organs	C339, C381-C383, C388, C390, C398, C399	<a href="#">excluding 9590-9989</a>



ICD-O-3 Codes

<b>Bones and Joints</b>	C400-C419	<a href="#">excluding 9590-9989</a>
<b>Soft Tissue including Heart</b>	C380, C470-C479, C490-C499	<a href="#">excluding 9590-9989</a>
<b>Skin excluding Basal and Squamous</b>		
Melanoma of the Skin	C440-C449	8720-8790
Other Non-Epithelial Skin	C440-C449	<a href="#">excluding 8000-8005, 8010-8045, 8050-8084, 8090-8110, 8720-8790, 9590-9989</a>
<b>Breast</b>	C500-C509	<a href="#">excluding 9590-9989</a>
<b>Female Genital System</b>		
Cervix Uteri	C530-C539	<a href="#">excluding 9590-9989</a>
Corpus and Uterus, NOS		
Corpus Uteri	C540-C549	
Uterus, NOS	C559	
Ovary	C569	
Vagina	C529	
Vulva	C510-C519	
Other Female Genital Organs	C570-C589	<a href="#">excluding 9590-9989</a>
<b>Male Genital System</b>		
Prostate	C619	
Testis	C620-C629	
Penis	C600-C609	
Other Male Genital Organs	C630-C639	<a href="#">excluding 9590-9989</a>
<b>Urinary System</b>		
Urinary Bladder	C670-C679	
Kidney and Renal Pelvis	C649, C659	
Ureter	C669	
Other Urinary Organs	C680-C689	<a href="#">excluding 9590-9989</a>
<b>Eye and Orbit</b>	C690-C699	<a href="#">excluding 9590-9989</a>
<b>Brain and Other Nervous System</b>		
Brain	C710-C719	<a href="#">excluding 9530-9539, 9590-9989</a>
Cranial Nerves Other Nervous System	C710-C719	9530-9539
	C700-C709, C720-C729	<a href="#">excluding 9590-9989</a>
<b>Endocrine System</b>		
Thyroid	C739	
Other Endocrine including Thy-mus	C379, C740-C749, C750-C759	<a href="#">excluding 9590-9989</a>
<b>Lymphoma</b>		
Hodgkin Lymphoma		
Hodgkin - Nodal	C024, C098-C099, C111, C142, C379, C422, C770-C779	
Hodgkin - Extranodal	All other sites	9650-9667

Non-Hodgkin Lymphoma		
NHL - Nodal	C024, C098,C099, C111,C142, C379,C422, C770-C779	9590-9596, 9670-9671, 9673, 9675, 9678-9680, 9684, 9687, 9689-9691, 9695, 9698-9702, 9705, 9708-9709, 9714-9719, 9727-9729, 9823, 9827
NHL - Extranodal	All sites except C024, C098-C099, C111, C142, C379, C422, C770-C779	9590-9596, 9670-9671, 9673, 9675, 9678-9680, 9684, 9687, 9689-9691, 9695, 9698-9702, 9705, 9708-9709, 9714-9719, 9727-9729
	All sites except C024, C098-C099, C111, C142, C379, C420-C422, C424, C770-C779	9823, 9827
<b>Myeloma</b>		9731-9732, 9734
<b>Leukemia</b>		
Lymphocytic Leukemia		
Acute Lymphocytic Leukemia		9826,9835-9837
Chronic Lymphocytic Leukemia	C420, C421, C424	9823
Other Lymphocytic Leukemia		9820, 9832-9834, 9940
Myeloid and Monocytic Leukemia		
Acute Myeloid Leukemia		9840, 9861, 9866, 9867, 9871-9874, 9895-9897, 9910, 9920
Acute Monocytic Leukemia		9891
Chronic Myeloid Leukemia		9863, 9875, 9876, 9945, 9946
Other Myeloid/Monocytic Leukemia		9860, 9930
Other Leukemia		
Other Acute Leukemia		9801, 9805, 9931
Aleukemic, subleukemic and NOS		9733, 9742, 9800, 9831, 9870, 9948, 9963, 9964
	C420, C421, C424	9827
<a href="#">Mesothelioma</a>		9050-9055
<a href="#">Kaposi Sarcoma</a>		9140
<b>Miscellaneous</b>		9740-9741, 9750-9758, 9760-9769, 9950, 9960-9962, 9970, 9975, 9980, 9982-9987, 9989
	C760-C768, C809	excluding 9590-9989
	C420-C424 C770-C779	
<b>Invalid</b>	Site or histology code not within valid range or site code not found in this table.	

## **GLOSSARY OF CANCER TERMS**

**AGE-ADJUSTED RATES:** Rates have been mathematically weighted to allow comparisons of populations with different age distributions. Adjustment is usually made to a standard population: in this report to the 2000 U.S. population.

**AGE-SPECIFIC RATES:** Rates are classical using the number of cases occurring in a specified age group, divided by the population for just that age group.

**AVERAGE ANNUAL RATE:** Cases for a given number of years are added together and divided by the numbers of years to give an average annual number. This number of cases is then divided by the population to determine the rate.

**BENIGN:** A growth which is not life threatening.

**BIOPSY:** The removal of a sample of tissue to be examined under a microscope to look for cancer cells.

**CANCER:** A harmful growth of cells that if allowed to keep growing will interfere with body function and eventually cause death. A malignant neoplasm or malignant tumor.

**CARCINOGEN:** A cancer causing substance.

**CHEMOTHERAPY:** Treatment with cancer fighting drugs to kill cancerous cells.

**COLONOSCOPY:** A procedure that allows the medical provider to look inside the rectum and the colon through a lighted tube.

**CORPUS UTERI:** Body of the uterus, in contrast to the cervix. The womb.

**DEFICIT:** When compared to another population, the population under study has fewer cancer cases than the comparison population.

**DYSPLASIA:** Abnormal development of cells which may precede the development of cancer.

**ENDOSCOPY:** A diagnostic procedure using a flexible instrument with a lighted tube and optical system (endoscope) to examine the inside of parts of the body.

**EXCESS:** When compared to another population, the population under study has more cancer cases than the comparison population.

**GENETIC:** Inherited; having to do with cell information passed from parents to children through DNA.

**HORMONE THERAPY:** Treatment that prevents certain cancer cells from getting the hormones they need to grow.

**HYPERPLASIA:** Abnormal growth of cells resulting in the increase in size of a tissue or organ. Hyperplasia may become cancerous.

**IMMUNOTHERAPY:** Treatment to stimulate or restore the ability of the immune system to fight infection and disease including cancer.

**INCIDENCE:** New cases of a specific disease occurring in a specified time period, usually expressed as new cases per 100,000 populations per year.

**IN SITU:** The growth, tumor, cancer has not extended beyond the level of tissue in which it began.

**INTRAEPITHELIAL NEOPLASM:** See "in situ".

**INVASIVE:** The growth extends beyond where it started, into other tissues and organs in the body.

**LEUKEMIAS:** Cancers of the organs that make the blood, bone marrow and lymph.

**LOCALIZED:** Cancer only found in the organ where the cancer started.

**MALIGNANT:** A tumor that is cancerous and has the ability to spread to other parts of the body.

**METASTASIS:** The spread of cancer from one part of the body to another part of the body.

**MORBIDITY:** Illness or disease.

**MORTALITY:** Numbers of deaths occurring in a certain time period usually expressed as number of deaths per 100,000 populations. Mortality data are based on death certificates.

**MRI:** A procedure using a magnet linked to a computer to make pictures of areas inside the body.

**NEOPLASM:** Any growth, benign or malignant. A tumor.

**ONCOLOGIST:** A doctor who specializes in cancer treatment.

**PAP TEST:** Removal of a small amount of tissue from the cervix so that cells may be examined for changes which could lead to cancer.

**POLYP:** A small, noncancerous growth in the mucous membrane, most commonly found in the colon.

**PRIMARY CANCER:** The organ of the body in which the cancer is thought to have started.

**PSA:** Prostate Specific Antigen test to detect prostate disease.

**RADIATION THERAPY:** Treatment with high energy rays to kill or damage cancer cells.

**RATE:** The number of occurrences of a disease in a population in a given time period.

**RATE RATIO:** Comparison of one rate with another to show how many times larger or smaller one is compared to the other. Generally the rate in the population of interest is compared with that of a standard population (for which data are available and published).

**RISK:** An individual's chance of developing cancer.

**RISK FACTORS:** Factors which increase an individual's chance of getting cancer. These may be genetic, environmental, cultural or behavioral.

**SCREENING:** Tests or examinations done to detect cancer very early, before the person is aware of the cancer and has symptoms.

## *Cancer Terms*

**SEER (STATISTICS, EPIDEMIOLOGY AND END RESULTS):** A program sponsored by the National Cancer Institute designed to collect very detailed information on cancer occurrence, treatment and outcome in select states and regions in the U.S.

**SIGMOIDOSCOPY:** A procedure that allows a health care provider to look inside the rectum and lower part of the colon through a lighted tube.

**SITE:** In cancer information, site refers to body organ.

**SITE-SPECIFIC RATE:** Rate or risk of developing cancer in a specific site (body organ).

**STAGE OF DISEASE:** The disease (cancer) is categorized how far the disease has spread. Generally, the terms local, regional, distant are used. More detailed staging systems are also available specific to the cancer site.

**SURVIVAL RATE:** The proportion of patients alive following diagnosis of cancer. Often percent of patients alive after five years (five year survival rate) is given.

**TRENDS:** Changes over time.

**TUMOR:** A general term used for a growth, malignant or benign.

**TUMOR REGISTRAR:** The person who collects and reports tumor registry information. Those who have had special training and an examination become Certified Tumor Registrars (CTR).

**TUMOR REGISTRY:** A standard system of collecting information on patients with cancer, benign tumors are usually not entered into the registry.

**ULTRASOUND:** A method used to locate and measure solid tumors in the body by using high frequency sound waves.

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