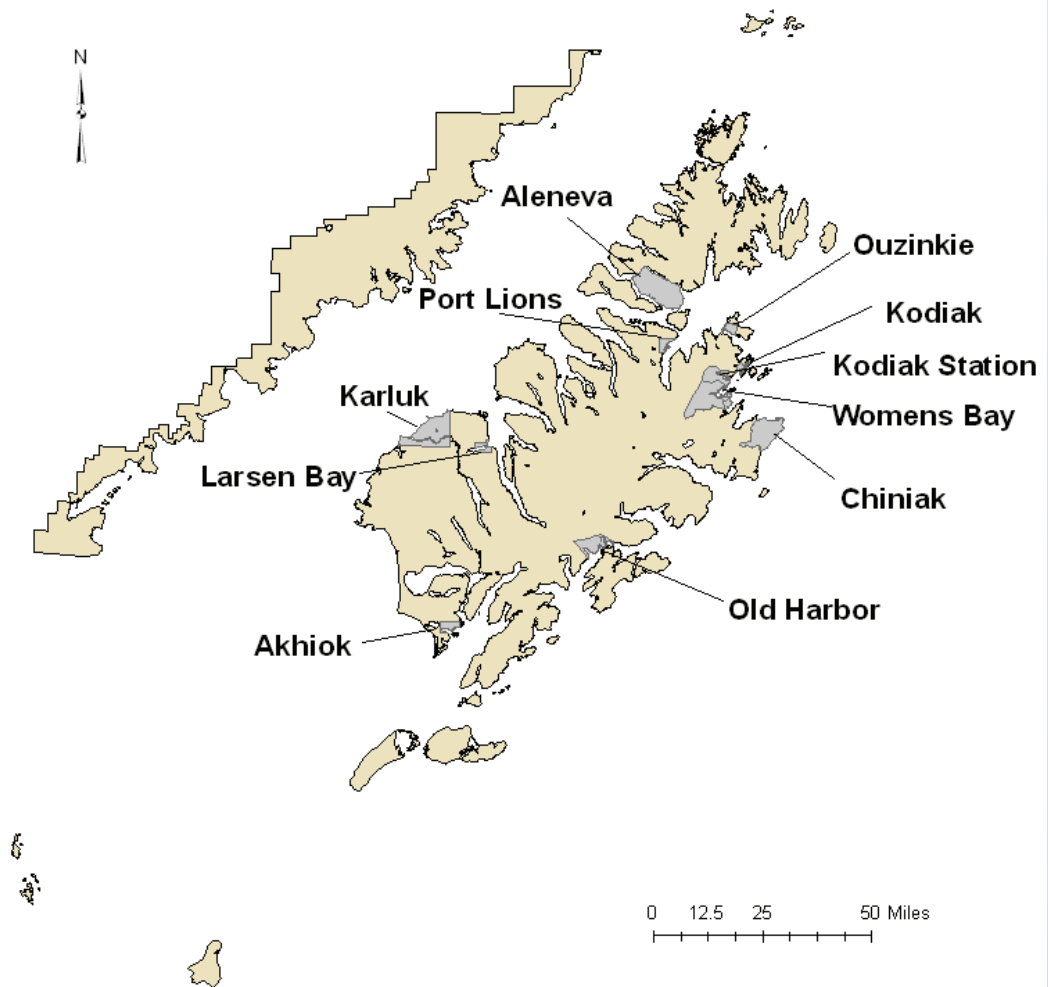


## Regional Health Profile

### Kodiak Area Native Association



Data Source: New Urban Research and US Census Bureau, 2000 Tigerline Files





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## Acknowledgements

This regional health profile was prepared utilizing data requested and made available by multiple state and tribal entities. We would like to thank all of these partners for providing data for this regional profile. The profile gives an overview of the health status of the Alaska Native population in a tribal health region. Without this collaboration, this endeavor would not be possible.

Specifically, we would like to thank the following:

### State of Alaska

- Alaska Behavioral Risk Factor Surveillance System (BRFSS) for providing BRFSS data;
- The Alaska Bureau of Vital Statistics, State of Alaska for providing birth and death data;
- Youth Risk Behavior Survey (YRBS) for providing Alaska Native specific results.

### Alaska Native Tribal Health Consortium

- ANTHC Immunization Program, for providing region-specific immunization rates;
- ANTHC Injury Prevention Program, for providing region-specific injury rates among Alaska Natives;
- ANTHC Alaska Native Tumor Registry, for providing regional cancer data;
- ANTHC Alaska Area Diabetes Program Diabetes Registry, for providing region-specific diabetes prevalence rates;
- ANTHC-Division of Environmental Health and Engineering, for providing region-specific water and sewer service rates;
- ANTHC Health Statistics, for providing GPRA data.

### Indian Health Service

- Bonnie Boedeker, Alaska Area Indian Health Service, for providing village level Alaska Native population estimates, I.H.S. user population estimates, and National Patient Information Reporting System (NPIRS) data.

### Kodiak Area Native Association

- KANA Contract Health Service, for providing contract health data.

## Introduction

The Alaska Native Epidemiology Center (AN EpiCenter) is developing this regional health profile in order to monitor the health status of Alaska Native people from a specific region. This information may be useful as a baseline for program planning, evaluation as well as for grant writing.

This regional health profile presents health status data in the following five sections:

- Demographics
- Mortality and Morbidity
- Health Promotion
- Health Protection
- Preventive Services and Access to Health Care

We provided the most up-to-date data available on each topic at the time of the development of the profile. Periodic updates to this profile are planned.

## Technical Notes

### Data Sources

Multiple data sources were utilized to develop this regional health profile. A general description of the major data sources is included in Appendix C. Listed below are the data sources used to access regional level data for the profile:

- 1) National Patient Information Reporting System (NPIRS)
- 2) State of Alaska Department of Labor (AK DOL)
- 3) 1990 and 2000 U.S. Census
- 4) Alaska Bureau of Vital Statistics (ABVS)
- 5) Government Performance and Results Act (GPRA)
- 6) Youth Risk Behavior Survey (YRBS)
- 7) Alaska Trauma Registry (ATR)
- 8) ANTHC Immunization Registry
- 9) Alaska Area Diabetes Program
- 10) ANTHC Department of Environmental Health and Engineering (ANTHC DEHE)
- 11) Alaska Native Tumor Registry

The data sources used for each of the indicators is identified in **Table 1**.

### Analyses

Much of the information presented in this document was previously analyzed and has been reproduced for this report. **Table 1** shows by whom data was analyzed for each indicator. Previously analyzed data is identified in **Table 1** as being analyzed by the 'data source'.

---

## Technical Notes

### Geographical Definition

In this profile, Kodiak Area Native Association service area has been geographically defined as one of the following, depending on the data source:

- Kodiak Island Borough: This definition fits the KANA Service Area.
- KANA Service Area
- Anchorage Service Unit: KANA service area is a part of this Indian Health Service designation. See **Appendix D**.
- Gulf Coast: KANA service area is a part of this region in the BRFSS data.

### Race Classification

Where possible, data was presented for Alaska Native people.

The way that Alaska Native people are classified varies by data source.

- **BRFSS**: Alaska Natives were those respondents who identified themselves as American Indian, Alaska Native, alone or in combination with any other race.
- **Alaska Bureau of Vital Statistics**: For mortality rates, Alaska Natives are those who were identified as American Indian or Alaska Native on their death certificate. Infant death certificates are matched with the birth certificate to ensure race is classified the same as on the birth certificate. For birth statistics, the birth certificate is used to determine race status. The child's race is determined by the mother's race.
- **YRBS**: Alaska Natives were those respondents who identified themselves as American Indian, Alaska Native, alone or in combination with any other race.
- **GPRA**: Alaska Natives are those who were identified as enrolled tribal members of a federally recognized tribe.

### Mortality Rates

Data for US Whites (1980-2004) and Alaska Natives (1990-2004) were available through the National Cancer Institute's Surveillance Epidemiology and End Results (SEER) Program. The on-line SEERStat software was used to calculate mortality rates.

Mortality data for the years 1980-1989 for Kodiak Area Native Association Alaska Natives and Alaska Natives statewide included in this report were analyzed by the AN EpiCenter. Rates were age-adjusted to the 2000 US standard population. Rates were calculated for those causes that had at least five deaths during the interval studied. We created rate ratios to compare Kodiak Area Alaska Natives (KANA AN) to US Whites.

### Injury Hospitalization Rates

"Bridged" population estimates from the State of Alaska Department of Labor were used by the ANTHC Injury Prevention program staff to calculate injury hospitalization rates.

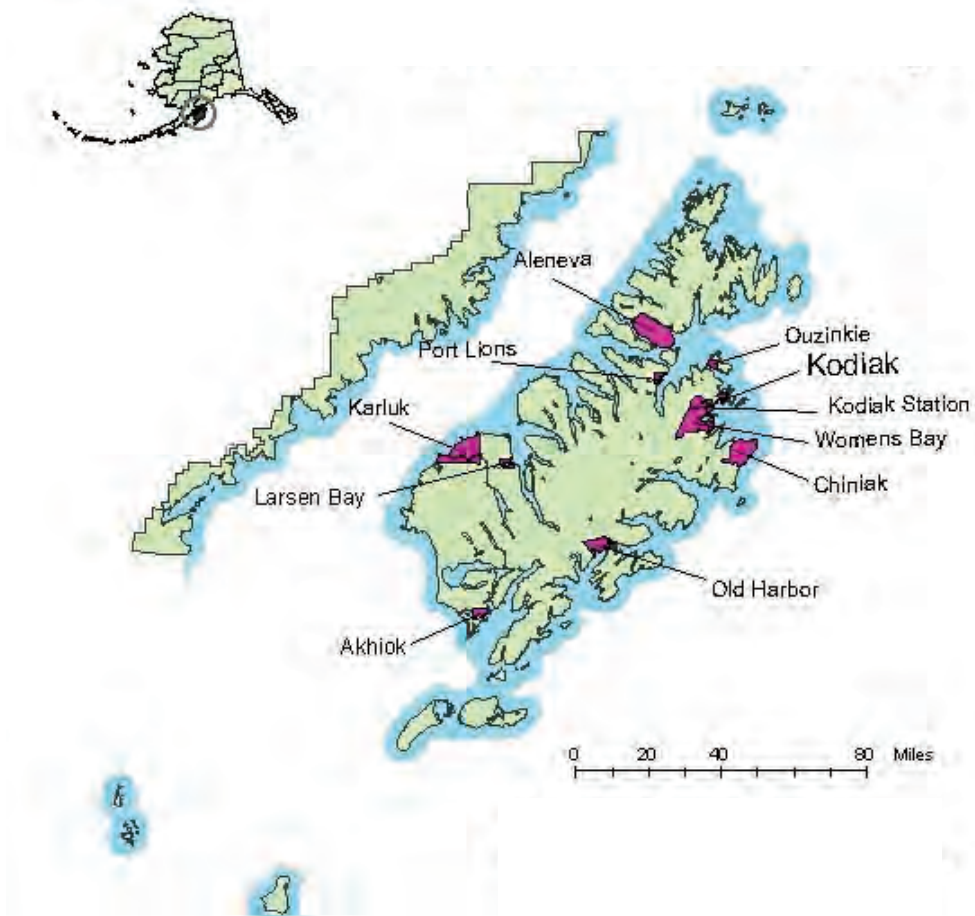


Table 1. Technical Notes by Indicator

Indicator	Data Source	Analyses Conducted by:	Geographical Definition	Population	Years Presented
<b>Demographics</b>					
I.H.S. User Population	NPIRS <sup>1</sup>	Data Source	KANA Service Area	Alaska Natives	FY 2005
Census Counts by Community	I.H.S., AK Area	Data Source	Kodiak Island Borough	Alaska Natives	2000
Population Estimates	AK DOL <sup>2</sup>	Data Source	Kodiak Island Borough	Alaska Natives	2005
Educational Attainment	2000 U.S. Census	Data Source	Kodiak Island Borough	Alaska Natives	2000
Employment Status	AK DOL <sup>2</sup>	Data Source	Kodiak Island Borough	All Races	Sep-07
Poverty Status and Household Income	2000 U.S. Census	SAIPE <sup>8</sup>	Kodiak Island Borough	All Races	2004
<b>Mortality and Morbidity</b>					
Mortality	ABVS <sup>3</sup>	AN Epidemiology Center	Kodiak Island Borough	Alaska Natives	2000-2004
Hospital Discharges, Inpatient Days	Data Mall	ANTHC Health Statistics	KANA Service Area	Alaska Natives	FY 2007
<b>Health Promotion</b>					
Adult Behavior Data– Tobacco Use, Obesity	GPRA <sup>4</sup>	Data Source	KANA Service Area	Alaska Natives	GPRA Year 2007
Adult Behavior Data–Physical Activity, Substance Abuse	BRFSS <sup>5</sup>	Data Source	Gulf Coast Region	All Races	2006
Adolescent Behavior Data–Overweight, Tobacco Use, Substance Abuse, Vigorous Physical Activity	YRBS <sup>6</sup>	Data Source	State of Alaska	Alaska Natives	1995, 2003
<b>Health Protection</b>					
Injury Hospitalizations	AK Trauma Registry	ANTHC Injury Prevention	KANA Service Area	Alaska Natives	2003-2005
<b>Preventive Services and Access to Health Care</b>					
Cancer Screenings– Colorectal Cancer, Cervical Cancer, Breast Cancer	GPRA <sup>4</sup>	Data Source	KANA Service Area	Alaska Natives	GPRA Year 2007
Immunizations	ANTHC Immunization Registry	Data Source	KANA Service Area	I.H.S. User Population	2007
Diabetes	Alaska Area Diabetes Program	Data Source	Anchorage Service Unit	Alaska Natives	2005
Maternal, Infant and Child Health and Family Planning	ABVS <sup>3</sup>	Data Source	Kodiak Island Borough	Alaska Natives	2003-2005
Environmental Health	ANTHC DEHE <sup>7</sup>	Data Source	KANA Service Area	N/A	2006

1. NPIRS: National Patient Information Reporting System  
 2. AK DOL: Alaska Department of Labor  
 3. ABVS: Alaska Bureau of Vital Statistics  
 4. GPRA: Government Performance and Results Act  
 5. BRFSS: Behavioral Risk Factor Surveillance System  
 6. YRBS: Youth Risk Behavior Survey  
 7. ANTHC DEHE: Alaska Native Tribal Health Consortium, Division of Environmental Health and Engineering  
 8. SAIPE: Small Area Income and Poverty Estimates Program

Figure 1. Kodiak Island Borough



Data Source: Alaska Department of Labor and Workforce Development, Research and Analysis and US Census Bureau, 2000 Tigerline Files

## Glossary of Terms

**Age-adjusted**– Rates have been mathematically weighted to allow comparisons of populations with different age distributions. Adjustment is usually made to a standard population. This report standardized to the 2000 US standard population.

**Birth weight**– Weight of fetus or infant at time of delivery (recorded in pounds and ounces, or grams)

**Body Mass Index**– Anthropometric measure, defined as weight in kilograms divided by the square of height in meters. This measure correlates closely with body density and skin fold thickness.

Underweight	BMI <18.5 kg/m <sup>2</sup>
Normal Weight	18.5 ≤ BMI < 25 kg/m <sup>2</sup>
Overweight	25 ≤ BMI < 30 kg/m <sup>2</sup>
Obese	BMI ≥ 30 kg/m <sup>2</sup>

**HP Objective**– Healthy People 2010 national objectives that are targeted to be achieved by the year 2010. Healthy People 2010 provides a framework for prevention for the nation.

**Infant Mortality Rate**– A rate calculated by dividing the number of infant deaths during a calendar year by the number of live births reported in the same year. It is expressed as the number of infant deaths per 1,000 live births. Infant is defined as age from birth up to one year.

**International Classification of Diseases (ICD Code)**– A system designed for the classification of morbidity and mortality information for statistical purposes, for indexing of hospital records, and for data storage and retrieval. The ICD is developed collaboratively between the World Health Organization (WHO) and ten international centers.

**Mortality Rate**– An estimate of the proportion of a population that dies during a specified period. It is calculated by dividing the number of deaths by the appropriate population multiplied by 100,000 (or other appropriate multiplier). This is also referred to as death rate.

**Prevalence**– The number of cases of illness in a group or population at a point in time divided by the total number of persons in that group or population.

**Rate (crude)**– An estimate of the proportion of a population that experiences the event of interest (e.g. injury hospitalization rate) during a specified period. It is calculated by dividing the number of observations by the appropriate population multiplied by 100,000 (or other appropriate multiplier). When interpreting crude rates, bear in mind that rates may be affected by differences in the age distribution between the comparison populations. For example, if high numbers of older people were living in an area, this alone would result in higher crude death rates for many causes.

**Service Unit**– The local administrative unit of the Indian Health Service.

**Weighted percent**– Percent resulting after responses of persons in various subgroups (e.g. region, age, sex) are adjusted to compensate for the over-representation or under-representation of these persons in a sample. For example, in the BRFSS data set, factors that are weighted include: the number of telephones per household, the number of adults in a household, the geographic distribution of the sample, and the demographic distribution of the sample.

## Regional Health Profile Overview

Objective	Data Source***	Healthy Alaskans Objective	ALASKA				U.S.
			KANA AN	All AK Native	AK Non-Native	AK, All Races	U.S. White
<b>Mortality</b>							
Reduce the overall cancer death rate (deaths/year per 100,000 pop., age-adjusted)	SEER Stat <sup>15</sup> (2000-2004)	159.9	282.1	240.6	AK White: 188.1	192.9	190.7
Reduce deaths due to disease of the heart (deaths/year per 100,000 pop., age-adjusted)	SEER Stat <sup>15</sup> (2000-2004)	120.0	242.6	202.0	AK White: 180.9	181.5	233.6
Reduce cerebrovascular disease death rate (deaths/year per 100,000 pop., age-adjusted)	SEER Stat <sup>15</sup> (2000-2004)	48.0	98.5	64.8	AK White: 56.2	58.5	53.2
Reduce the chronic obstructive pulmonary disease death rate (deaths/year per 100,000 pop., age-adjusted)	SEER Stat <sup>15</sup> (2000-2004)	60.0	72.6	60.7	AK White: 46.0	46.4	45.0
<b>Health Promotion</b>							
<b>Tobacco Use</b>							
Reduce the percentage of adults who smoke	GPRA <sup>4</sup> (2007)	14.0%	63.3% (All Tobacco)	38.1%	19.0% <sup>2</sup> (2006)	24.0% <sup>2</sup> (2006)	20.4% <sup>2</sup> (2006)
Reduce the percentage of adults who use smokeless tobacco	GPRA <sup>4</sup> (2007)	3.0%	3.7%	10.3%	3.0% <sup>2</sup> (2006)	4.0% <sup>2</sup> (2006)	Not available
Reduce cigarette smoking by adolescents (high school students grades 9-12)	YRBS <sup>3</sup> (2003)	17.0%	Not available	44.2%	12.3%	19.3%	25.9% (2005)
<b>Physical Activity</b>							
Reduce the proportion of adults who are physically inactive to 20%.	BRFSS <sup>2</sup> (2006)	20.0%	Not available	26.0%	21.0%	21.0%	23.0%
Increase the proportion of adolescents (high school students grades 9-12) who engage in vigorous physical activity	YRBS <sup>3</sup> (2003)	85.0%	Not available	56.0%	71.3%	67.8%	65.5% (2005)
<b>Overweight and Obesity</b>							
Reduce the proportion of adults who are obese (BMI greater than or equal to 30)	GPRA <sup>4</sup> (2007)	18.0%	41.4% (2-74 Years)	36.4% (2-74 Years)	26.0% <sup>2</sup> (2006)	26.0% <sup>2</sup> (2006)	25.0% <sup>2</sup> (2006)
Reduce the proportion of adolescents who are overweight (BMI greater than or equal to 95th percentile)	YRBS <sup>3</sup> (2003)	5.0%	Not available	13.7%	10.2%	11.0%	11.8% (2005)
<b>Substance Abuse</b>							
Reduce binge drinking among adults (consumed 5 or more drinks on one occasion in the last 30 days)	BRFSS <sup>2</sup> (2006)	13.0%	Gulf Coast <sup>†</sup> : 16.0%	15.0%	17.0%	17.0%	15.0%
Increase the proportion of adolescents (high school students grades 9-12) NOT using the following during the past 30 days:							
Alcohol	YRBS <sup>3</sup> (2003)	60.0%	Not available	37.6%	39.1%	38.8%	46.4% (2005)
Marijuana	YRBS <sup>3</sup> (2003)	60.0%	Not available	35.7%	20.6%	23.9%	20.3% (2005)
Cocaine	YRBS <sup>3</sup> (2003)	60.0%	Not available	2.7%	2.6%	2.6%	3.2% (2005)

\*\*\* Data source unless otherwise indicated

† All races

1. ABVS— Alaska Bureau of Vital Statistics
2. BRFSS— Behavioral Risk Factor Surveillance System
3. YRBS— Youth Risk Behavior Survey
4. GPRA— Government Performance and Results Act

Regional Health Profile Overview

Objective	Data Source***	Healthy Alaskans Objective	ALASKA				U.S.
			KANA AN	All AK Native	AK Non-Native	AK, All Races	U.S. White
<b>Health Promotion</b>							
<b>Injury Prevention</b>							
Reduce hospitalizations due to non-fatal unintentional injuries per 100,000	ANTHC/IP <sup>10</sup> (1991-2003)	570	810	998	Not Available	635 <sup>11</sup> (1998)	All Races: 410.7 <sup>12</sup> (2004)
<b>Environmental Quality</b>							
Increase number of communities with access to safe water and proper sewage disposal	ANTHC/DEHE <sup>5</sup> (2006)	98.0%	100.0%	Not Available	Not Available	88% <sup>13</sup> (2000)	Not Available
<b>Preventive Services and Access to Care</b>							
<b>Maternal and Child Health</b>							
Reduce infant death rate (infant deaths within 1 year of birth per 1,000 live births)	SEER Stat <sup>15</sup> (2000-2004)	4.5	Kodiak Island Borough†: *5.5	10.4	AK White: 5.5	6.9	5.8
Increase the proportion of pregnant women receiving adequate prenatal care (APNCU**)	ABVS <sup>1</sup> (2003-2005)	90.0%	51.1%	45.8%	72.3%	64.4%	80% <sup>12</sup> (2003)
<b>Immunizations</b>							
Increase the proportion of young children who have received all vaccines recommended for universal administration (% children 19 to 35 months who have received 4:3:1:3:3 series)	ANTHC Immunization Program <sup>6</sup> (9/2007)	90.0%	65.0%	86.0%	AK White: 72% <sup>14</sup> (2004)	75.3% <sup>14</sup> (2004)	83% <sup>14</sup> (2004)
Increase the proportion of adults aged 65 years and older who are vaccinated annually against influenza	ANTHC Immunization Program <sup>6</sup> (9/2007)	90.0%	47.0%	52.0%	AK White: 62.5% <sup>2</sup> (2006)	62.5% <sup>2</sup> (2006)	71.3% <sup>2</sup> (2006)
Increase the proportion of adults aged 65 years and older who have ever been vaccinated against pneumococcal disease	ANTHC Immunization Program <sup>6</sup> (9/2007)	90.0%	79.0%	88.0%	AK White: 63.1% <sup>2</sup> (2006)	59.9% <sup>2</sup> (2006)	69.0% <sup>2</sup> (2006)
<b>Substance Abuse</b>							
Increase the proportion of adults who receive colorectal screening examination	GPRA <sup>4</sup> (2007)	64%	31%	47%	55% <sup>2</sup> (2006)	55% <sup>2</sup> (2006)	57% <sup>2</sup> (2006)
Increase the proportion of women aged 40 years and older who have received a mammogram within the preceding 2 years	GPRA <sup>4</sup> (2007)	76%	47%	62%	72% <sup>2</sup> (2006)	73% <sup>2</sup> (2006)	77% <sup>2</sup> (2006)
Increase the proportion of women aged 18 years and older who have received a Pap test within the preceding 3 years	GPRA <sup>4</sup> (2007)	95%	70%	75%	87% <sup>2</sup> (2006)	87% <sup>2</sup> (2006)	84% <sup>2</sup> (2006)
Reduce the overall cancer incidence rate per 100,000	OANHR <sup>8</sup> (1989-2003)	N/A	Anchorage Service Unit: 554.2	509.1 (1996-2003)	488.3 <sup>15</sup> (1996-2003)	488.1 <sup>15</sup> (1996-2003)	478.4 <sup>15</sup> (2000-2003)
<b>Sexually Transmitted Diseases</b>							
Increase the proportion of sexually active high school students who use condoms	YRBS <sup>3</sup> (2003)	75.0%	Not available	68.0%	60.0%	62.0%	62.5% (2005)

\* Infant Mortality Rate calculated with fewer than 20 deaths, should be interpreted with caution

\*\* APNCU: Adequacy of Prenatal Care Utilization Index, also called the Kotelchuk Index

† All races

5. ANTHC/DEHE– Alaska Native Tribal Health Consortium, Division of Environmental Health and Engineering

6. ANTHC Immunization Program

8. OANHR– Office of Alaska Native Health Research

9. National Cancer Institute, State Cancer Profiles

10. Alaska Native Tribal Health Consortium, Injury Prevention Program

11. Alaska Trauma Registry

12. National Center for Health Statistics

13. Alaska Department of Environmental Conservation

14. National Center for Health Statistics, National Immunization Survey

15. National Cancer Institute, Surveillance and End Results Program

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# Demographic Information

## 2005 Population Estimates

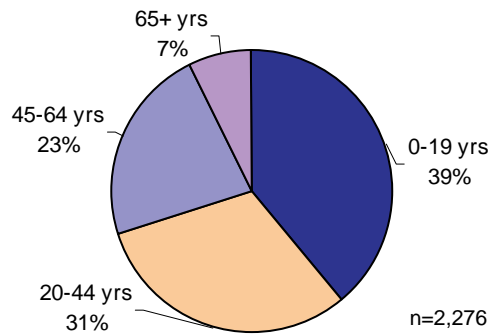
The State of Alaska Department of Labor uses the Census, vital records and other data to provide estimates of the population between census years. An explanation of the "bridged" estimates used in these figures can be found at <http://146.63.75.50/research/pop/estimates/Alaska1990Race.htm>

**Summary:**

- The AK Department of Labor estimates that there are 2,276 Alaska Natives living in the KANA Service Area.
- The KANA service area population estimates are slightly higher than the KANA user population (refer to Table and Figure 3).
- The age distribution for population estimates and the KANA user population is similar.

**Geographical Definition:** KANA Service Area is defined as the Kodiak Island Borough.

Figure 2. Population Estimate Distribution by Age Group, Alaska Natives  
KANA Service Area, 2005



Data source: Alaska Department of Labor and Workforce Development <sup>2</sup>

Table 2. Population Estimates by Age Group  
Alaska Natives, KANA Service Area, 2005

Age (years)	Males		Females		Total	
	Number	%	Number	%	Number	%
0-4	127	5.6%	107	4.7%	234	10.3%
5-9	120	5.3%	83	3.6%	203	8.9%
10-14	130	5.7%	108	4.7%	238	10.5%
15-19	132	5.8%	79	3.5%	211	9.3%
20-24	70	3.1%	74	3.3%	144	6.3%
25-29	56	2.5%	70	3.1%	126	5.5%
30-34	67	2.9%	65	2.9%	132	5.8%
35-39	66	2.9%	72	3.2%	138	6.1%
40-44	91	4.0%	75	3.3%	166	7.3%
45-49	83	3.6%	89	3.9%	172	7.6%
50-54	66	2.9%	71	3.1%	137	6.0%
55-59	65	2.9%	62	2.7%	127	5.6%
60-64	46	2.0%	36	1.6%	82	3.6%
65+	66	2.9%	100	4.4%	166	7.3%
<b>Total</b>	<b>1,185</b>	<b>52.1%</b>	<b>1,091</b>	<b>47.9%</b>	<b>2,276</b>	<b>100.0%</b>

Data source: Alaska Department of Labor and Workforce Development <sup>2</sup>



## 2005 User Population

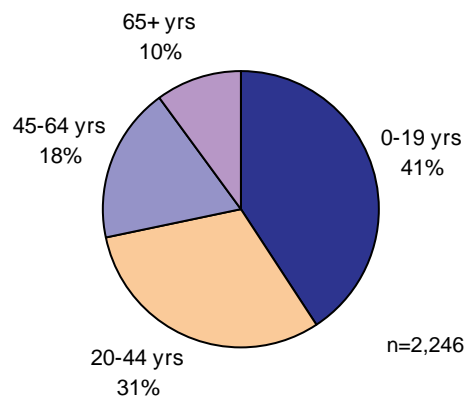
**Definition:** An I.H.S. user is defined by the Indian Health Service (I.H.S.) as an eligible American Indian/Alaska Native (AI/AN) who used a tribal health facility at least once in the previous three year period. The facility must be one that reports to the national I.H.S. data system. I.H.S. user population data are provided by federal fiscal year (FY). FY2005 is from October 1, 2004 through September 30, 2005 of the following year.

### Summary:

- In FY2005, 41% of the KANA user population was under the age of 20.
- Ten percent of the user population is 65 years of age or older.

**Geographical Definition:** KANA AN includes all patients residing in communities served by KANA.

Figure 3. User Population by Age Group, Alaska Natives  
KANA Service Area, 2005



Data Source: Indian Health Service National Patient Information and Reporting System (NPIRS) <sup>1</sup> FY 2005  
Note: Age is determined from the end date of FY 2005.

Table 3 . User Population, Alaska Natives, by Sex and Age,  
KANA Service Area, FY2005

Age (years)	Males		Females		Total	
	Number	%	Number	%	Number	%
Less than 1	25	1.1%	18	0.8%	43	1.9%
1 to 4	96	4.3%	75	3.3%	171	7.6%
5 to 9	129	5.7%	135	6.0%	264	11.8%
10 to 14	107	4.8%	86	3.8%	193	8.6%
15 to 19	143	6.4%	105	4.7%	248	11.0%
20 to 24	79	3.5%	86	3.8%	165	7.3%
25 to 34	124	5.5%	155	6.9%	279	12.4%
35 to 44	120	5.3%	128	5.7%	248	11.0%
45 to 54	136	6.1%	117	5.2%	253	11.3%
55 to 64	77	3.4%	79	3.5%	156	6.9%
65 +	122	5.4%	104	4.6%	226	10.1%
Unknown	0	0.0%	0	0.0%	0	0.0%
<b>Total</b>	<b>1,158</b>	<b>52%</b>	<b>1,088</b>	<b>48%</b>	<b>2,246</b>	<b>100%</b>

Data Source: Indian Health Service National Patient Information and Reporting System (NPIRS) <sup>1</sup> FY 2005  
Note: Age is determined from the end date of FY 2005.

## Population Pyramid

**Summary:**

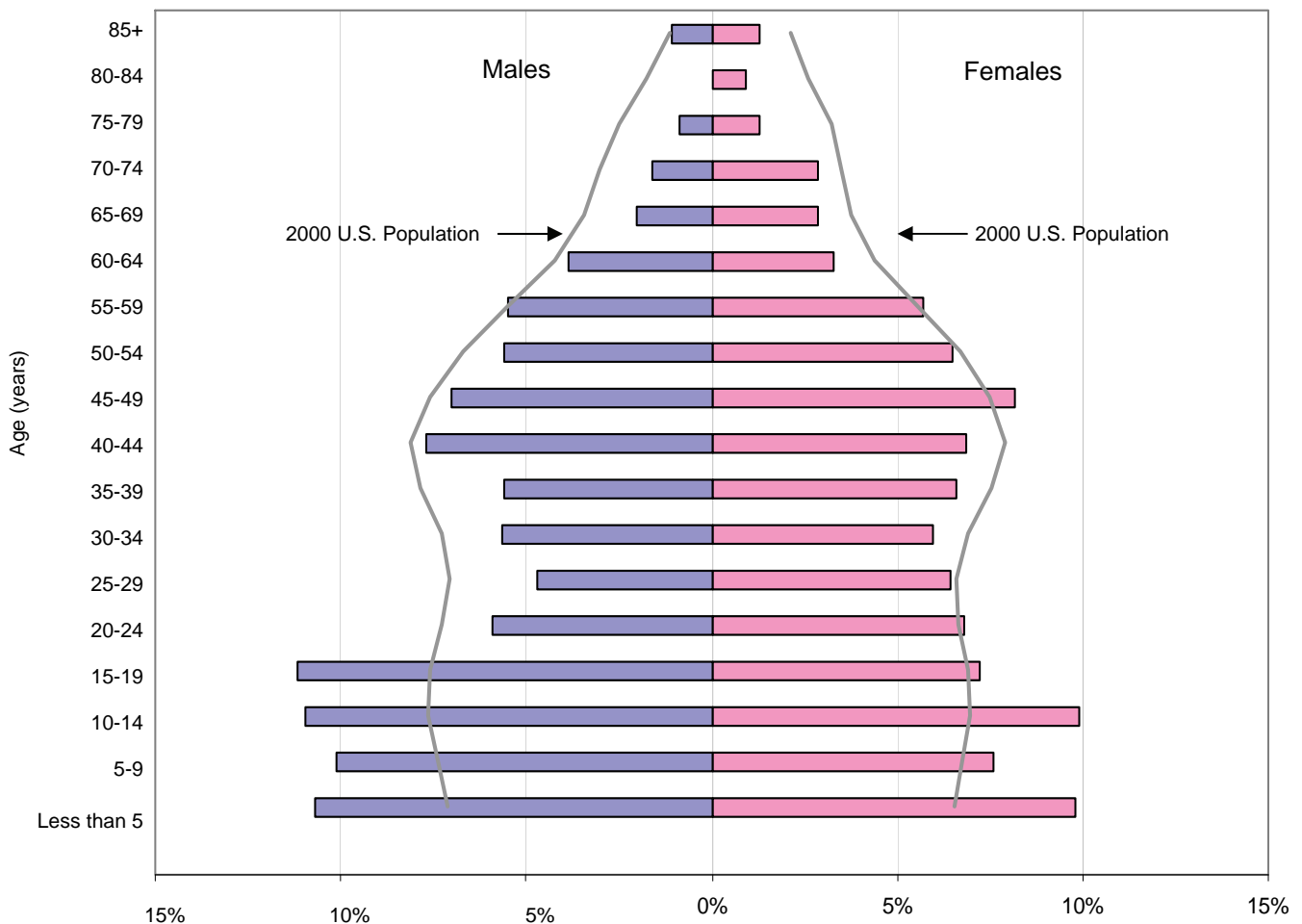
- As shown in Figure 4, a much larger proportion of the KANA Alaska Native population is under the age of 20 as compared to the U.S. population.
- In 2005, males accounted for 52.1% of the population in the KANA Service Area. Females accounted for 47.9% of the population.

**Data Availability:** Population estimates are available by state, race, borough or census area, place, and with modified age race (MARS) estimates, 1945-2005.

**For more information:** For population estimates, go to the State of Alaska Department of Labor at <http://almis.labor.state.ak.us/>

**Geographical Definition:** KANA service area is defined as the Kodiak Island Borough.

Figure 4. Population Pyramid, Alaska Natives, KANA Service Area, 2005



Data source: Alaska Department of Labor and Workforce Development <sup>2</sup>

Table 4. Census Counts by KANA Community, 1990 and 2000,  
Alaska Natives and Total Population

Community	Alaska Native Population, 2000 Census	% AK Native, 2000 Census	Total Population, 2000 Census	Alaska Native Population 1990 Census	Total Population 1990 Census	% Change, AK Native Pop. 1990-2000
Akhiok	75	94%	80	72	77	4%
Aleneva	1	1%	68	0	0	N/A
Chiniak	11	8%	145	4	69	175%
Karluk	26	96%	27	65	71	-60%
Kodiak	1,528	15%	10,016	811	6,365	88%
Kodiak Naval Station	54	3%	1,840	34	2,025	59%
Larsen Bay	91	79%	115	124	147	-27%
Old Harbor	203	86%	237	252	284	-19%
Ouzinkie	197	88%	225	178	209	11%
Port Lions	163	64%	256	150	222	9%
Women's Bay	82	12%	690	65	620	26%
Unspecified	0	0%	279	371	3,220	-100%

Data Source: Alaska Area Office, Indian Health Service <sup>3</sup>

## Educational Attainment

**Summary:**

- Among Alaska Natives living in the KANA Service Area in 2000, 11% had received an associate's degree or higher as compared to 31% of the U.S. White population.
- In 2000, 48% of Alaska Natives in the KANA service area reported having earned at least a high school diploma or GED.

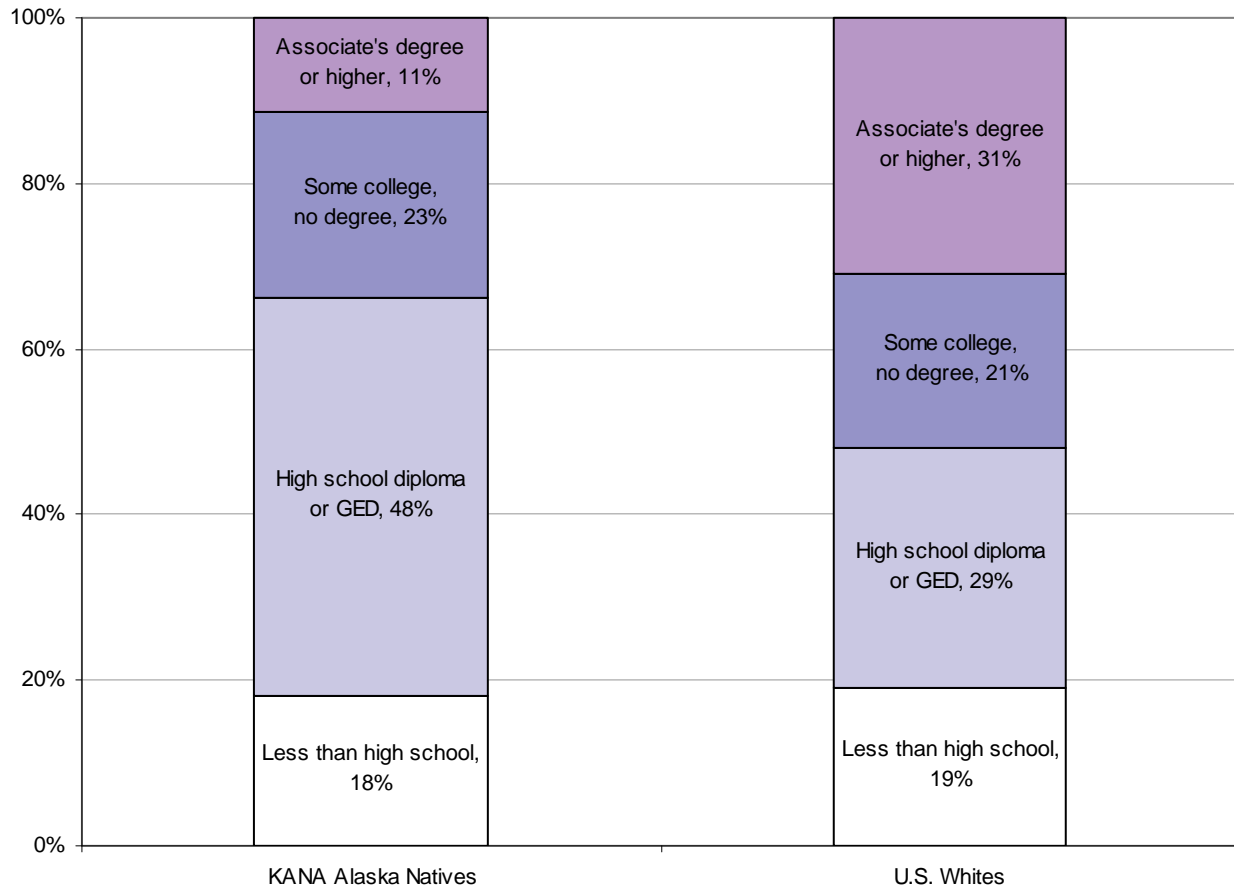
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**Data availability:** Data on the state level and census area/borough is available for census years (once every ten years). National level data is available through 2004 from the Current Population Survey.

**Geographical Definition:** KANA Service Area is defined as the Kodiak Island Borough.

**For more information:** Go to American Factfinder at <http://factfinder.census.gov/>

Figure 5. Highest Educational Attainment, 25 Years and Older, 2000



Data Source: 2000 US Census <sup>4, 19</sup>

## Employment Status

**Definition:** Unemployment includes anyone who has made an active attempt to find work in the four-week period up to and including the week that includes the 12th of the referenced month. Due to the scarcity of employment opportunities in rural Alaska, many individuals do not meet the official definition of unemployed because they are not conducting active job searches.

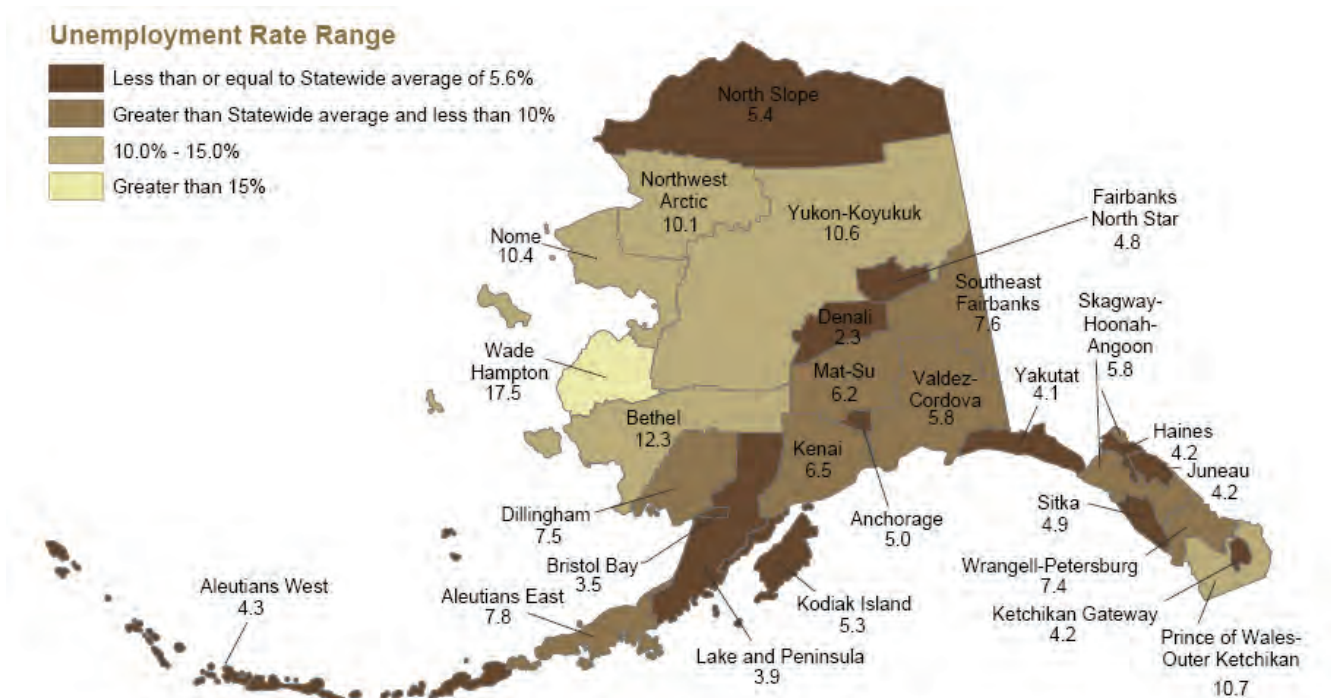
**Summary:**

- In September of 2007, the unemployment rate for Kodiak Island Borough was 5.3%, similar to the statewide unemployment rate of 5.6%.
- The unemployment rate for Kodiak Island Borough was among the areas with the lowest unemployment rates in the state.

**Data availability:** Monthly data for each borough/census area is available within 2 to 3 months.

**For more information:** Current employment statistics for boroughs and census areas in Alaska can be found at the Department of Labor and Workforce Development website at <http://almis.labor.state.ak.us/>

Figure 6. Unemployment Rate by Census Area, All Races, September 2007



Map provided by Alaska, Department of Labor and Workforce Development <sup>5</sup>

## Poverty Status

**Definition:** The U.S. Census defines poverty in a complex way that does not take into account the higher cost of living in Alaska. The Department of Health and Human Services (DHHS) adjusts poverty guidelines for entitlement programs such as Women, Infants and Children (WIC), and Temporary Assistance for Needy Families (TANF) for local factors. For a single person, the 2004 DHHS poverty level for Alaska for one person was \$11,630 and for a four-person household it was \$23,570 (Federal Register, 1999).

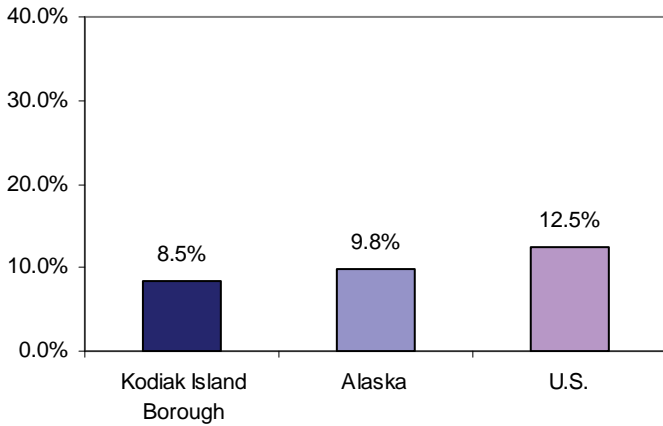
**Summary:**

- The percent of residents living below the federal poverty level in the Kodiak Island Borough, was eight percent (8.5%). This is lower than the Alaskan rate as well as the U.S. rate.
- Ten percent (10.6%) of children living in the Kodiak Island Borough were living below the poverty level in 2004. This also is lower than the Alaskan and U.S. rate.

**Data availability:** Available by borough/census area and statewide through 2004.

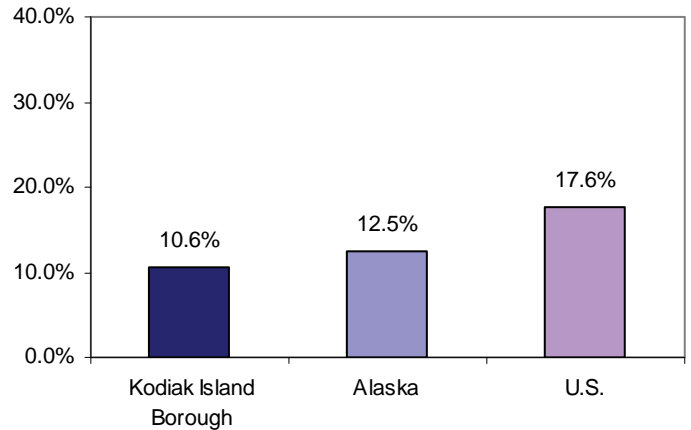
**For more information:** A source for the most current estimates of income and poverty is the U.S. Census' Small Area Income and Poverty Estimates program at <http://www.census.gov/hhes/www/saipe/>

Figure 7. Estimated percent of residents below Poverty Level, All Races and Ages 2004



Data source: Small Area Income and Poverty Estimates Program <sup>6</sup>

Figure 8. Estimated percent of residents below Poverty Level, Under 18, All Races 2004



Data source: Small Area Income and Poverty Estimates Program <sup>6</sup>

## Household Income

**Definition:** The person who was designated as head of household completed the 2000 census form and reported household income. Income includes all monetary sources of income including wages, the Permanent Fund Dividend, corporation dividends and public assistance (Census 2000 Summary, File 4, Technical Documentation, 2003). Income does not include subsistence resources.

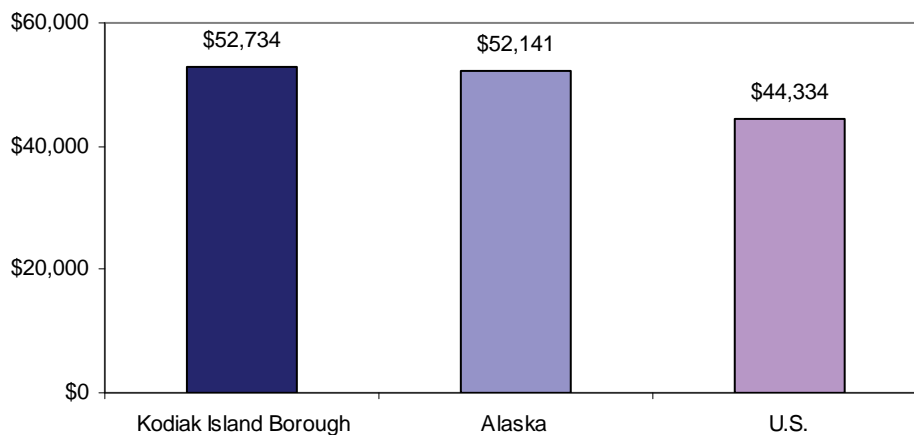
**Summary:**

- For 2004, the estimated median household income in the Kodiak Island Borough was nearly the same as that of Alaskans statewide and the U.S. (\$52,734 vs. \$52,141 and \$44,334 respectively).

**Data availability:** Available by Borough/Census Area and Statewide through 2004.

**For more information:** A source for the most current estimates of income and poverty is the U.S. Census' Small Area Income and Poverty Estimates program at <http://www.census.gov/hhes/www/saipe/>

**Figure 9. Estimated Median Household Income**  
All races, Age 18 and older, 2004



Data source: Small Area Income and Poverty Estimates Program <sup>6</sup>

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# Morbidity and Mortality

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## Mortality

**Summary:**

- The top three leading causes of death among Alaska Natives in the KANA service area during 2000-2004 were cancer, heart disease, and cerebrovascular disease.
- Cancer accounted for one-quarter (24.7%) of all deaths in the KANA service area during 2000-2004.
- During 2000-2004, 18 Alaska Natives in the KANA service area died from cancer.
- During 2000-2004, 14 Alaska Natives in the KANA service area died from heart disease.
- Six Alaska Natives in the KANA service area died as a result of a cerebrovascular disease during 2000-2004.

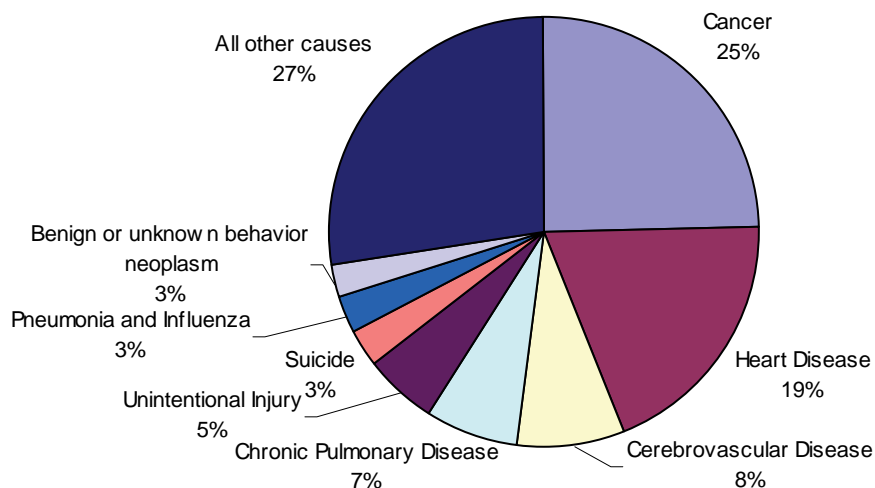
**Data availability:** Mortality data is available by borough or census area, race, and statewide through 2004 from the Surveillance, Epidemiology, and End Results (SEER) Program. Periodic Reports on Alaska Native Mortality are published by the Alaska Native Epidemiology Center <http://www.anthc.org/cs/chs/epi/>

**Geographical Definition:** KANA service area is defined as the Kodiak Island Borough.

**For more information:** Visit <http://seer.cancer.gov/> or the Alaska Bureau of Vital Statistics at <http://www.hss.state.ak.us/dph/bvs/>

## Mortality

Figure 10. Leading Causes of Death, Alaska Natives, KANA Service Area, 2000-2004



Data Source: Alaska Bureau of Vital Statistics <sup>7</sup>

Table 5. Leading Causes of Death by Rank, 2000-2004

Alaska Natives (AN) KANA service area		Number	% Deaths	U.S. Whites Rank	AN Statewide Rank
1	Cancer	18	24.7%	2	1
2	Heart Disease	14	19.2%	1	2
3	Cerebrovascular Disease	6	8.2%	3	5
4	Chronic Pulmonary Disease	5	6.8%	4	6
5	Unintentional Injury	4	5.5%	5	3
6	Suicide	2	2.7%	8	4
6	Pneumonia and Influenza	2	2.7%	6	8
6	Benign or unknown behavior neoplasm	2	2.7%	10	7
	All other causes	20	27.4%		
	Total	73	100%		

U.S. and Alaska Data Source: Surveillance, Epidemiology, and End Results (SEER) Program <sup>20</sup>

## Mortality

### Summary:

- The age-adjusted cancer mortality rate for KANA service area is 50% higher than for U.S. Whites (**Table 6**).
- KANA Alaska Natives are equally as likely to die of heart disease as U.S. Whites (242.6 vs. 233.6/100,000).
- KANA Alaska Natives are nearly twice as likely to die of cerebrovascular disease as U.S. Whites (98.5 vs. 53.2/100,000).
- KANA Alaska Natives are 60% more likely to die of chronic obstructive pulmonary disease as U.S. Whites (72.6 vs. 45.0/100,000).
- The cancer death rate in the KANA service area decreased 14% between 1980-1989 (328.8 per 100,000) and 2000-2004 (282.1 per 100,000). During this same time period, the US White rate decreased by 7% (**Figure 11**).
- The KANA AN heart disease death rate declined from 1980 to 2004 by 47% ( $p < .05$ ). During this same time period, the US White rate decreased by 37% (**Figure 12**).
- The KANA AN cerebrovascular disease death rate increased by 13% between 1980-1989 (87.2) and 2000-2004 (98.5). During this same time period, the US White rate decreased by 30% (**Figure 13**).

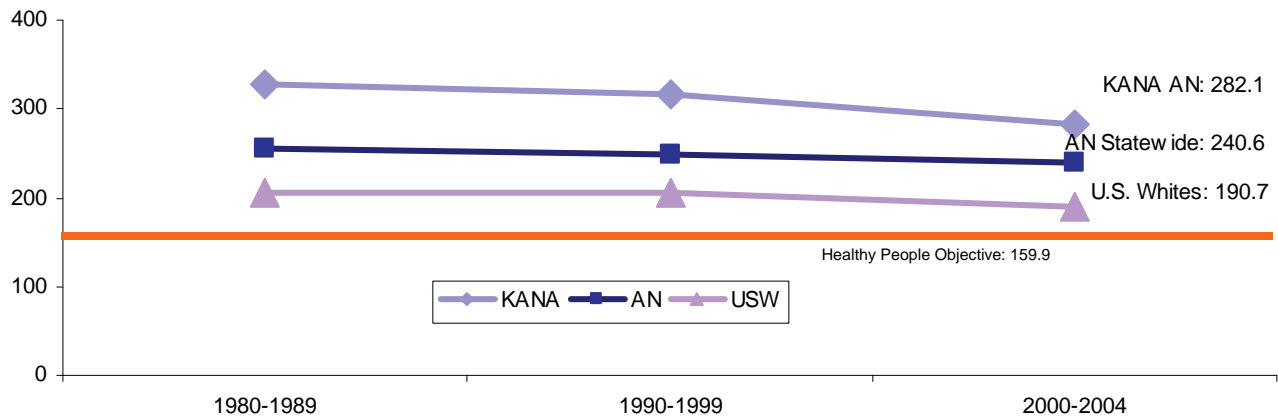
Table 6. Leading Causes of Death Age-Adjusted Mortality Rates per 100,000, 2000-2004

Cause of Death	KANA AN	AN Statewide	US White	Healthy People Objective	Rate Ratio (KANA vs. US White)
Cancer	282.1	240.6	190.7	159.9	1.5
Heart Disease	242.6	202.0	233.6	166	1.0
Cerebrovascular Diseases	98.5	64.8	53.2	48.0	1.9
Chronic Obstructive Pulmonary Disease	72.6	60.7	45.0	60.0	1.6

U.S. and Alaska Data Source: Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute

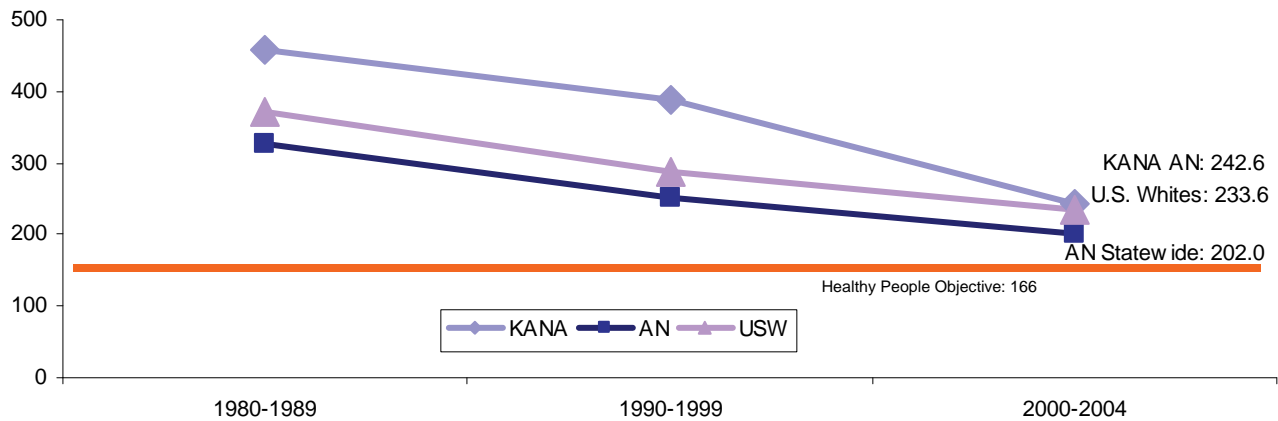
### Mortality– Trends, 1980-2004

Figure 11. Age-Adjusted Cancer Death Rates per 100,000, 1980-2004



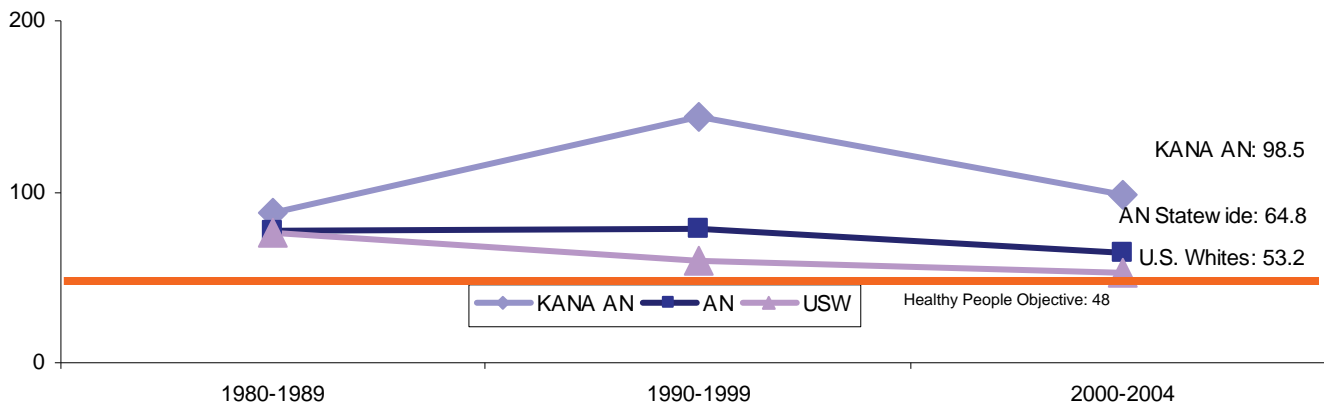
Data Source: Surveillance, Epidemiology, and End Results (SEER) Program<sup>20</sup>

Figure 12. Age-Adjusted Heart Disease Death Rates per 100,000, 1980-2004



Data Source: Surveillance, Epidemiology, and End Results (SEER) Program<sup>20</sup>

Figure 13. Age-Adjusted Cerebrovascular Disease Death Rates per 100,000, 1980-2004



Data Source: Surveillance, Epidemiology, and End Results (SEER) Program<sup>20</sup>

## Hospitalizations– Leading Causes of Hospital Discharges

Table 8. Top 15 Hospital Discharges by ICD Recode\*  
KANA Patients, All Ages, Fiscal Year 2007

Contract Health			
Rank	Cause	Number	% Total
1	Alcohol Abuse	27	20.1%
2	Bronchitis, Emphysema	21	15.7%
3	Deliveries (Child Birth)	20	14.9%
4	Heart Disease	20	14.9%
5	Pneumonia	10	7.5%
6	Disease of the Appendix	10	7.5%
7	Kidney Infections	4	3.0%
8	Benign Neoplasms	4	3.0%
9	Clolelith w/ Cholerys	4	3.0%
10	Colostomy and Enterostomy Comp.	3	2.2%
11	Other Trachestomy Comp	3	2.2%
12	Cereb. Art.	2	1.5%
13	Other Convulsions	2	1.5%
14	Rectal & Anal Disorder	2	1.5%
15	Pancreatic Disorder	2	1.5%
	Total Discharges	134	

Data Source: KANA Contract Health Services

\* ICD Recode combines similar primary diagnoses into categories

Table 8. Top 8 Hospital Discharges by Service Type  
KANA Residents\*, All Ages, Fiscal Year 2007

ANMC			
Rank	Service	Number	% Total
1	Orthopedic	21	30.4%
2	Surgery	21	30.4%
3	Gynecology	4	5.8%
4	Medicine (Adult)	4	5.8%
5	Newborn	4	5.8%
6	Otolaryngology	4	5.8%
7	Obstetrics	3	4.3%
8	Urology	2	2.9%
	Other	6	8.7%
	Total Discharges	69	

Data Source: Data Mall (Analyzed by ANTHC Health Statistics)

\* ANMC patient registration address was in KANA service area.

## Hospitalizations– Leading Causes of Outpatient Visits

Table 10. Top 15 Outpatient Visits by ICD Recode\*  
All Ages, Fiscal Year 2005

KANA Clinic			
Rank	Cause	Number	% Total
1	Hypertension	1,324	12.4%
2	Diabetes Mellitus	760	7.1%
3	Pregnancy, childbirth & puerperium	662	6.2%
4	Neuroses & Non-Psychotic Disorders	606	5.7%
5	Respiratory Allergies	553	5.2%
6	Bone & Joint Disorders	476	4.4%
7	Accidents & Injuries	467	4.4%
8	Assessment of Symptoms	439	4.1%
9	Upper Respiratory Problems	432	4.0%
10	Heart Disease	411	3.8%
11	Arthritis	409	3.8%
12	Other Nutritional & Metabolic Disorders	360	3.4%
13	Gastrointestinal Disease	354	3.3%
14	Diseases of the Mouth	303	2.8%
15	Musculoskeletal Disorder	242	2.3%
	Total Outpatient Visits	10,720	

Data Source: I.H.S. NPIRS<sup>8</sup>

\* ICD Recode combines similar primary diagnoses into categories

Table 9. Top 15 Outpatient Visits by ICD Recode\*  
All Ages, Fiscal Year 2005

Alaska Tribal Health System Totals			
Rank	Cause	Number	% Total
1	Upper Respiratory Problems	43,401	7.6%
2	Accidents & Injuries	37,981	6.6%
3	Pregnancy, childbirth & puerperium	34,770	6.1%
4	Hospital Med/Surgical Follow-up	33,154	5.8%
5	Bone & Joint Disorders	30,234	5.3%
6	Assessment of Symptoms	29,347	5.1%
7	Neuroses & Non-Psychotic Disorders	28,803	5.0%
8	Tests Only (Lab, X-Ray, Screening)	25,997	4.5%
9	Musculoskeletal Disorder	22,724	4.0%
10	Hypertension	22,418	3.9%
11	Otitis Media	16,098	2.8%
12	Refractive Error	15,940	2.8%
13	Diabetes Mellitus	14,593	2.6%
14	Physical Examinations	13,715	2.4%
15	Gynecologic Problems & Breast	13,321	2.3%
	Total Outpatient Visits	571,455	

Data Source: I.H.S. NPIRS<sup>8</sup>

\* ICD Recode combines similar primary diagnoses into categories

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# Health Promotion

## Tobacco Use

**Definition:**

**Tobacco Screening Rates:** Active clinical patients ages 5 and older who were screened for tobacco use (smoking and/or smokeless tobacco) during GPRA Year 2007.

**Note:** Excludes those patients who had less than 2 visits to a medical clinic within the past 3 years.

**Healthy People 2010, Objective 27.1a:** Reduce tobacco use by adults to 12%.

**Healthy Alaskans 2010, Objective 3.8:** Reduce the percentage of adults who smoke cigarettes to 14%.

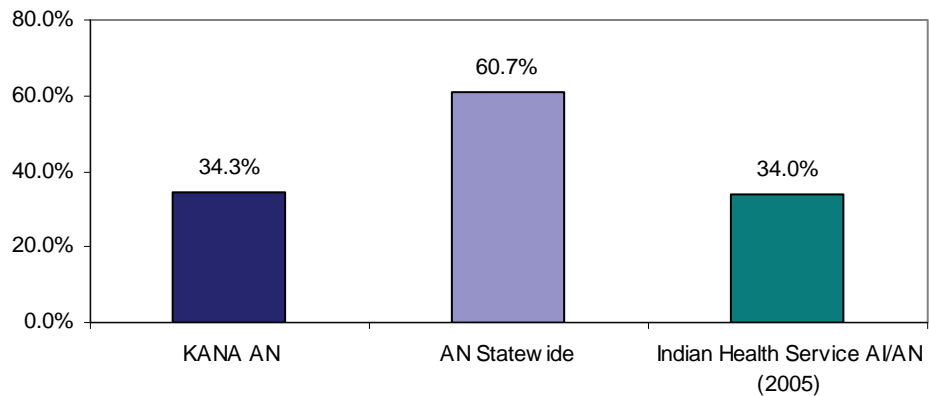
**Summary:**

- About one-third (34.3%) of KANA patients were screened for tobacco use during GPRA year 2007. This is lower than the screening rate for Alaska Natives statewide (60.7%).
- Close to two-thirds (63.3%) of KANA patients who were screened were smokers and 3.7% were smokeless tobacco users.
- The percent of tobacco users who received a tobacco cessation intervention within the past year was higher for KANA than for AN Statewide and about the same as for I.H.S.

**Data availability:** GPRA data is available statewide and by tribal health region up to FY2007.

**Geographical Definition:** KANA AN includes all patients residing in communities served by KANA.

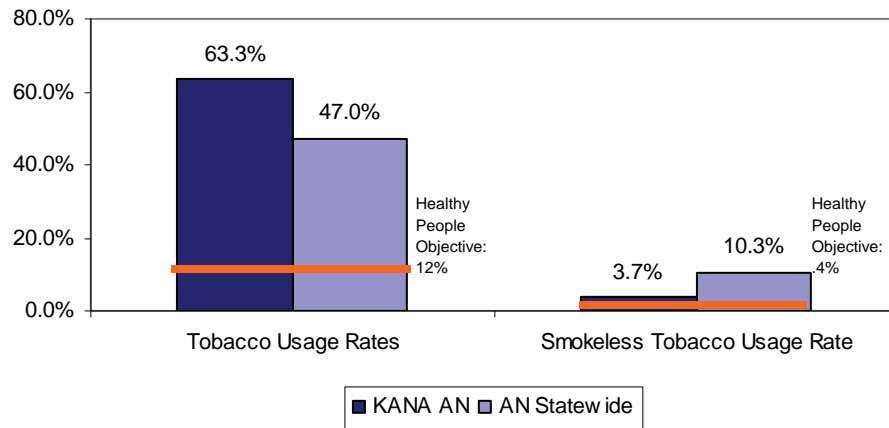
Figure 14. Percent of Patients Screened for Tobacco Use 5 years and older, GPRA Year 2007



Data Source: GPRA Report Year 2007<sup>26</sup>

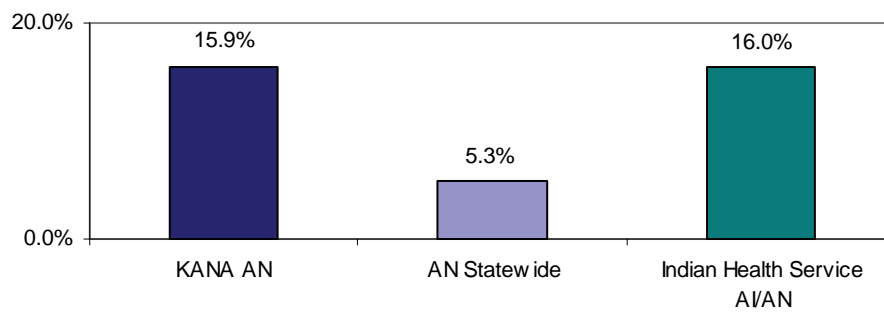
## Tobacco Use

**Figure 15. Tobacco and Smokeless Tobacco Usage Rates  
5 years and older, 2007**



Data Source: GPRA Report Year 2007<sup>26</sup>

**Figure 16. Tobacco-using patients who have received tobacco cessation intervention  
within the past year, GPRA Year 2007**



Data Source: GPRA Report Year 2007<sup>26</sup>

## Substance Abuse– Binge Drinking

**Definition:** Binge drinking is defined as having 5 or more drinks on one or more occasion in the past 30 days.

**Healthy People 2010, Objective 26.11c:** Reduce the percentage of adults who engage in binge drinking during past month to 6%.

**Healthy Alaskans 2010, Objective 4.4:** Reduce binge drinking among adults to 13%.

**Summary:**

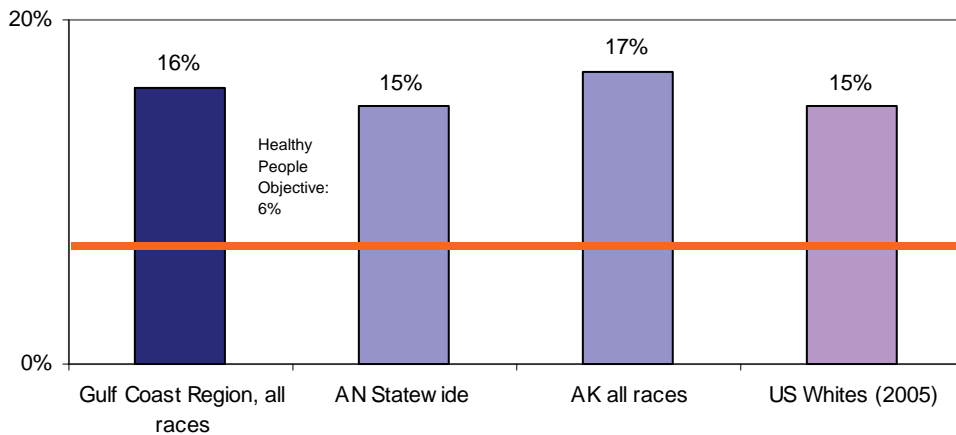
- The self-reported rates of binge drinking are about the same for the Gulf Coast region (16%) as for Alaska Natives statewide (15%) and U.S. Whites (15%).

**Data availability:** BRFSS Data is available by race, gender, 5 BRFSS regions, and statewide, 2001-2006.

**Geographical Definition:** Sample size is not large enough to be broken down to KANA level. Gulf Coast Region includes Kenai, Kodiak, Valdez, Cordova and vicinity.

**For more information:** For Alaska, go to <http://www.hss.state.ak.us/dph/chronic/hsl/brfss/default.htm>. For nationwide data, go to <http://www.cdc.gov/brfss/>

Figure 17. Binge Drinking, 18 years and older, 2006



Data Source: Alaska Behavioral Risk Factor Surveillance System<sup>9</sup>  
 U.S. Data Source: Behavioral Risk Factor Surveillance System<sup>21</sup>

## Physical Activity

**Definition:** Adults who participated in no physical activities or exercises such as running, calisthenics or walking in the past 30 days other than their regular job.

**Healthy People 2010, Objective 22.1:** Reduce the proportion of adults who are physically inactive to 20%.

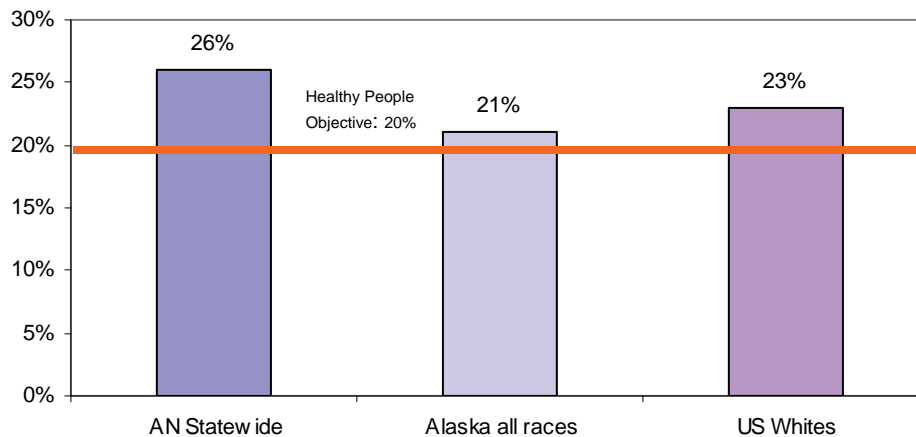
**Healthy Alaskans 2010, Objective 1.1:** Reduce the proportion of adults who are physically inactive to 15%.

**Summary:**

- 26% percent of Alaska Natives statewide participate in no leisure time physical activity as compared to 21% of all Alaskans and 23% of U.S. Whites.

**Note:** For a description of CDC recommendations for physical activity, visit <http://www.cdc.gov/nccdphp/dnpa/physical/recommendations/adults.htm>

Figure 18. No Leisure Time Physical Activity, 2006



Data Source: Alaska Behavioral Risk Factor Surveillance System<sup>9</sup>  
 U.S. Data Source: Behavioral Risk Factor Surveillance System<sup>21</sup>

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## Obesity (adult) and Overweight (children)

### *Definition:*

**Obese (adults 19 –74 years):** Persons who have a current Body Mass Index (BMI) assessment with a BMI of 30 or greater. Current BMI assessment requires that height and weight has been collected within the last five years or if over age 50, within the last two years.

**Healthy People 2010, Objective 19.1 and 19.2:** Increase proportion of adults who are at a healthy weight (BMI between 18.5 and 25) to 60%. Reduce the proportion of adults who are obese to 15%.

**Healthy Alaskans 2010, Objective 4.4:** Reduce the proportion of adults who meet criteria for overweight to 30%, and reduce obesity to 18%

**Overweight (children 18 and younger):** Persons who have a current Body Mass Index (BMI) assessment with a BMI greater than or equal to the 95th percentile using age-specific growth charts. Current BMI assessment requires that height and weight has been collected within the last year.

**Healthy People 2010, Objective 19-3c:** Reduce the proportion of children and adolescents who are overweight to 5%.

**Healthy Alaskans 2010, Objective 1.5:** Reduce the proportion of adolescents who are overweight to 5%.

**Note:** Excludes those patients who had less than 2 visits to a medical clinic within the past 3 years.

### **Summary:**

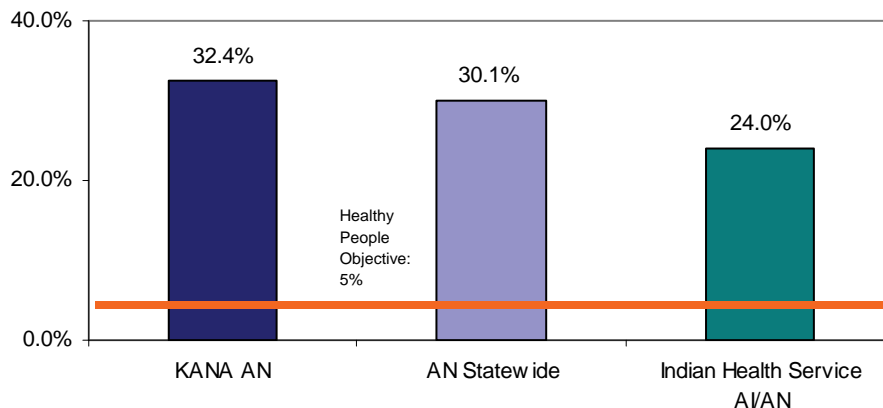
- In the KANA service area, one out of three (32.4%) Alaska Native children, 2-5 years, meet the definition of overweight.
- Eight out of ten KANA patients have a current BMI assessment on record with KANA. 41% meet the definition of obese (>18 years ) or overweight (≤18 years) as compared to 36% of Alaska Natives statewide.

**Data availability:** GPRA data is available statewide and by tribal health region up to FY2007.

**Geographical Definition:** KANA AN includes all patients residing in communities served by KANA.

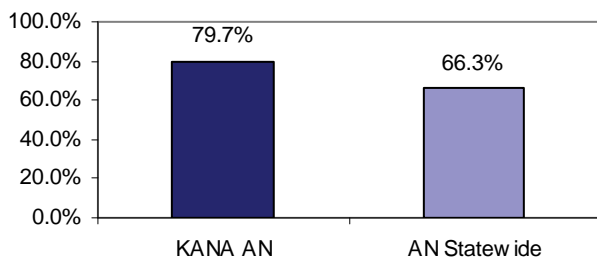
## Obesity (adult) and Overweight (children)

**Figure 19. Percent of Children who are Overweight  
2-5 years, GPRA Year 2007**



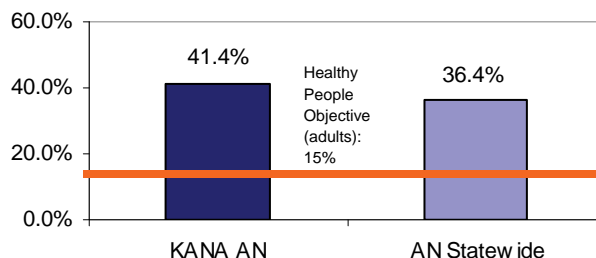
Data Source: GPRA Report Year 2007<sup>26</sup>

**Figure 20. Proportion of Patients with  
Current BMI Assessment, 2-74 years,  
GPRA Year 2007**



Data Source: GPRA Report Year 2007<sup>26</sup>

**Figure 21. Obese (>18 years)  
or Overweight (≤18 years), 2-74 Years,  
GPRA Year 2007**



Data Source: GPRA Report Year 2007<sup>26</sup>

## Overweight– Adolescents

**Definition:** In children and adolescents, overweight is defined as having a body mass index (BMI) greater than or equal to the 95th percentile (based on CDC growth charts).

**Healthy People 2010, Objective 19-3c:** Reduce the proportion of children and adolescents who are overweight to 5%.

**Healthy Alaskans 2010, Objective 1.5:** Reduce the proportion of adolescents who are overweight to 5%.

**Summary:**

- According to data from the 2003 Youth Risk Behavior Survey, 14% of Alaska Native high school students are overweight. This is slightly higher than the rate for Alaska non-Natives and U.S. Whites.

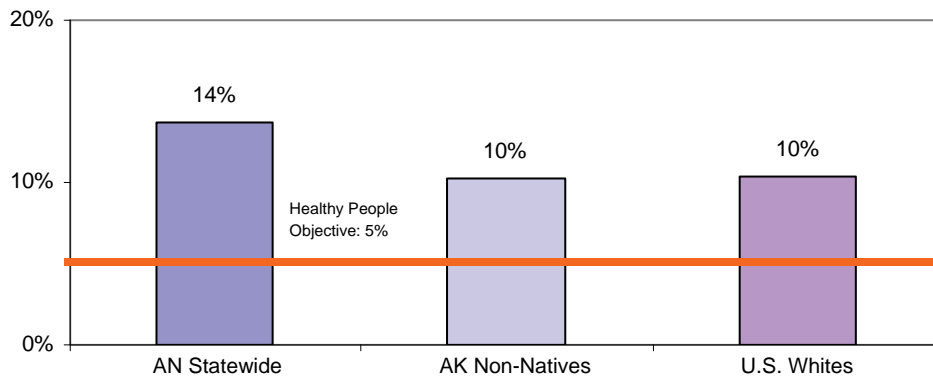
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**Data availability:** Alaska data is available for 1995, 1999 and 2003. Sample size is not large enough to be broken down to the regional level. Due to a small sample size from 2005, no data was able to be analyzed.

**For more information:** For Alaska Youth Risk Behavior Survey Reports (YRBS), go to <http://www.hss.state.ak.us/dph/chronic/school/YRBS.htm>

For state and national level data, visit CDC Youth Risk Behavior Surveillance System website at <http://apps.nccd.cdc.gov/yrbss/>

**Figure 22. Percent of high school students who are overweight**  
**2003**



Data Source: Alaska Youth Risk Behavior Survey <sup>10</sup>  
US Data Source: Youth Risk Behavior Survey <sup>22</sup>



## Vigorous Physical Activity– Adolescents

**Definition:** Vigorous physical activity for adolescents is defined as exercising or participating in sports activities for at least 20 minutes that cause sweating and heavy breathing on 3 or more of the past 7 days.

**Healthy People 2010, Objective 22-7:** Increase the proportion of adolescents who engage in vigorous physical activity to 85%.

**Healthy Alaskans 2010, Objective 1.5:** Increase the proportion of adolescents who engage in vigorous physical activity to 85%.

**Summary:**

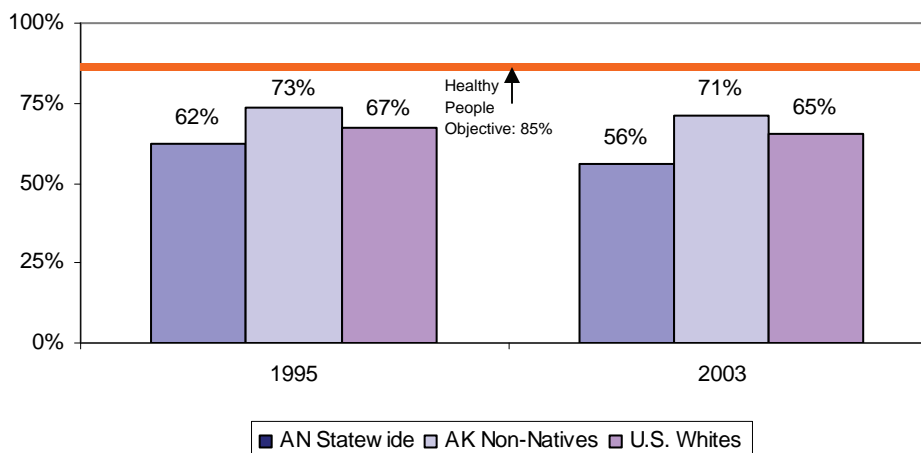
- 56% of Alaska Native high school students engaged in vigorous physical activity. This was 15% less than Alaska non-Native students and 9% lower than U.S. Whites.
- The rates of vigorous physical activity among adolescents appear to have decreased between 1995 and 2003 among AK Natives, AK non-Natives and U.S. Whites.

**Data availability:** available by race, statewide. Sample size is not large enough to be broken down to the regional level. Due to a small sample size from 2005, no data was able to be analyzed.

**For more information:** For Alaska Youth Risk Behavior Survey Reports (YRBS), go to <http://www.hss.state.ak.us/dph/chronic/school/YRBS.htm>

For state and national level data, visit CDC Youth Risk Behavior Surveillance System website at <http://apps.nccd.cdc.gov/yrbss/>

**Figure 23. Percent of high school students who engage in vigorous physical activity 1995 and 2003**



Data Source: Alaska Youth Risk Behavior Survey <sup>10</sup>  
 US Data Source: Youth Risk Behavior Survey <sup>22</sup>

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## Tobacco Use– Adolescents

**Definition:** Percent of high school students grade 9-12 who have smoked cigarettes on one or more of the past 30 days.

**Healthy People 2010, Objective 27.2b:** Reduce cigarette smoking by adolescents to 17%.

**Healthy Alaskans 2010, Objective 3.1:** Reduce cigarette smoking by adolescents to 16%.

### Summary:

- In 2003, 44% of Alaska Native high school students smoked cigarettes on one or more of the past 30 days. This was an 18% decrease from 1995 and nearly twice the rate of U.S. White adolescents.
- The percent of Alaska Native high school students who used chewing tobacco or snuff during the past 30 days did not decrease between 1995 and 2003 (23% and 24%) as compared to the percent of non-Native high school students which decreased by half over the 8-year period (15% to 7%).

**Data availability:** Alaska data is available for 1995, 1999 and 2003. Sample size is not large enough to be broken down to the regional level. Due to a small sample size from 2005, no data was able to be analyzed.

**For more information:** For Alaska Youth Risk Behavior Survey Reports (YRBS), go to <http://www.hss.state.ak.us/dph/chronic/school/YRBS.htm>

For state and national level data, visit CDC Youth Risk Behavior Surveillance System website at <http://apps.nccd.cdc.gov/yrbss/>

### Tobacco Use– Adolescents

Figure 24. Percent of high school students who smoked cigarettes on one or more of the past 30 days, 1995 and 2003

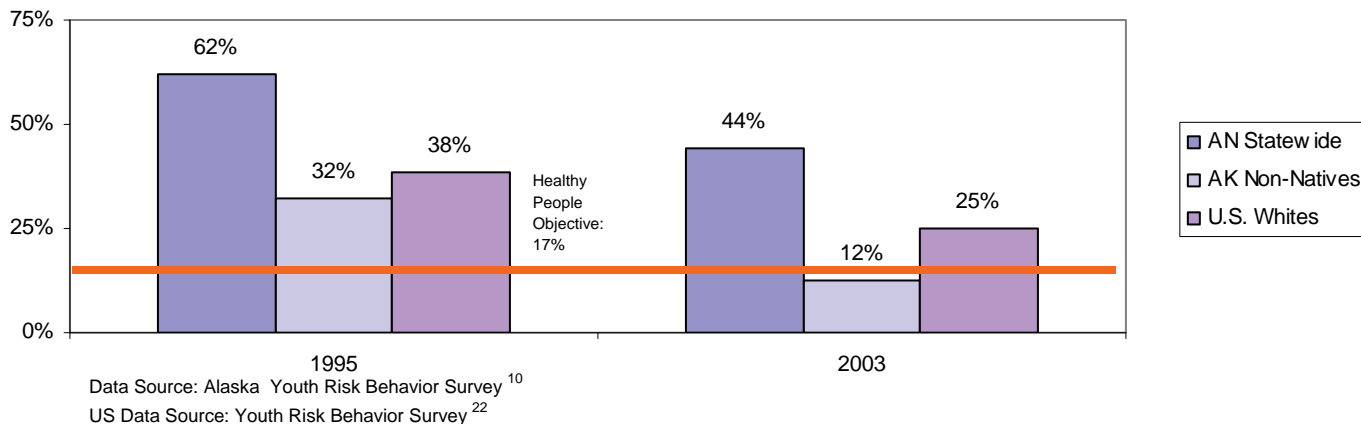


Figure 25. Percent of high school students who used chewing tobacco or snuff on one or more of the past 30 days, 1995 and 2003

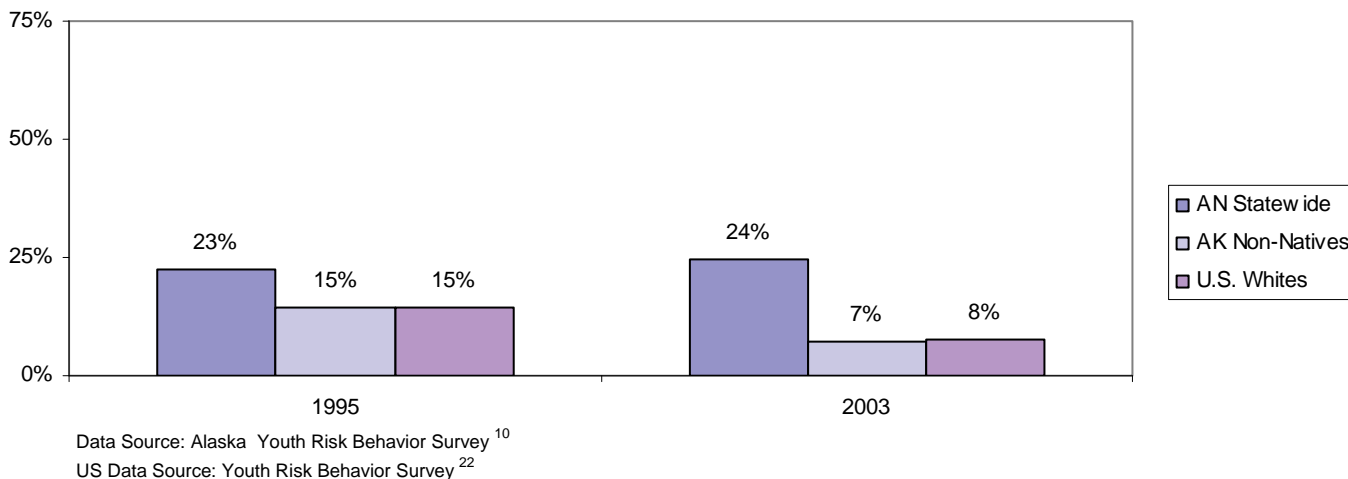
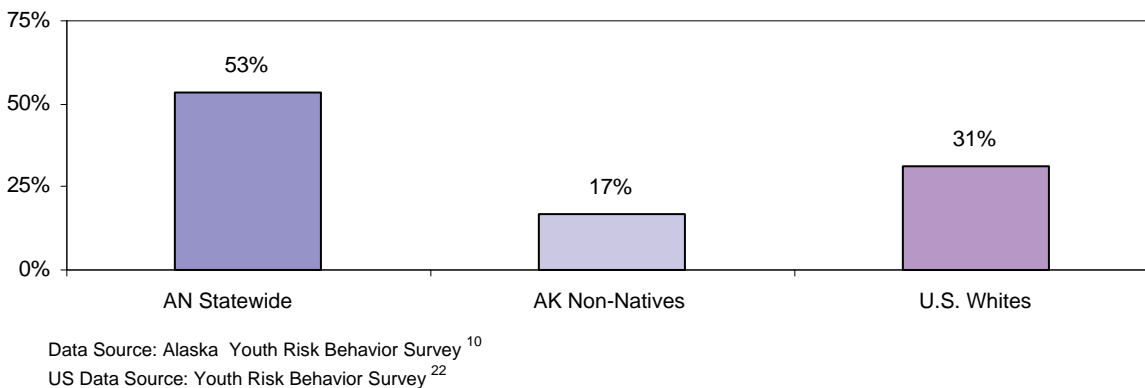


Figure 26. Percent of high school students who used any tobacco on one or more of the past 30 days, 2003



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## Substance Abuse– Adolescents

**Definition:** Substance Abuse is defined as having used alcohol, marijuana or cocaine in the past 30 days.

**Healthy People 2010, Objective 26.10a:** Increase the proportion of adolescents not using alcohol or any illicit drugs during the past 30 days to 89%.

**Healthy Alaskans 2010, Objective 4.7:** Increase the proportion of adolescents not using alcohol or any illicit drugs during the past 30 days to 60%.

### Summary:

- The percent of Alaska Native high school students who report having at least one drink of alcohol on one or more of the past 30 days was less than for U.S. Whites (38% vs. 47%).
- A little over one-third (36%) of AK Native high school students report using marijuana during one or more of the past 30 days compared to 22% of U.S. Whites.
- The percent of AK Native high school students who used any form of cocaine in the last month was similar to that for U.S. Whites (3% vs. 4%).

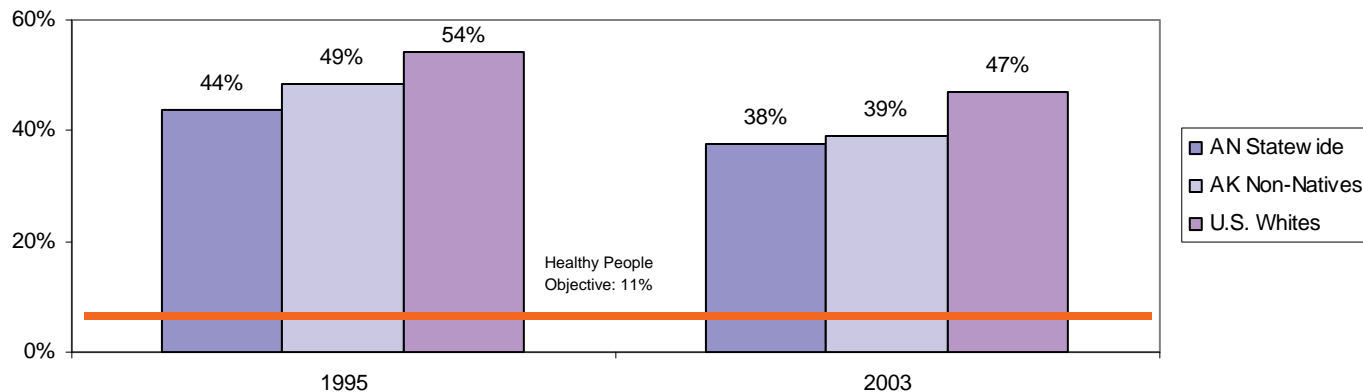
**Data availability:** Alaska data is available for 1995, 1999 and 2003. Sample size is not large enough to be broken down to the regional level. Due to a small sample size from 2005, no data was able to be analyzed.

**For more information:** For Alaska Youth Risk Behavior Survey Reports (YRBS), go to <http://www.hss.state.ak.us/dph/chronic/school/YRBS.htm>

For state and national level data, visit CDC Youth Risk Behavior Surveillance System website at <http://apps.nccd.cdc.gov/yrbss/>

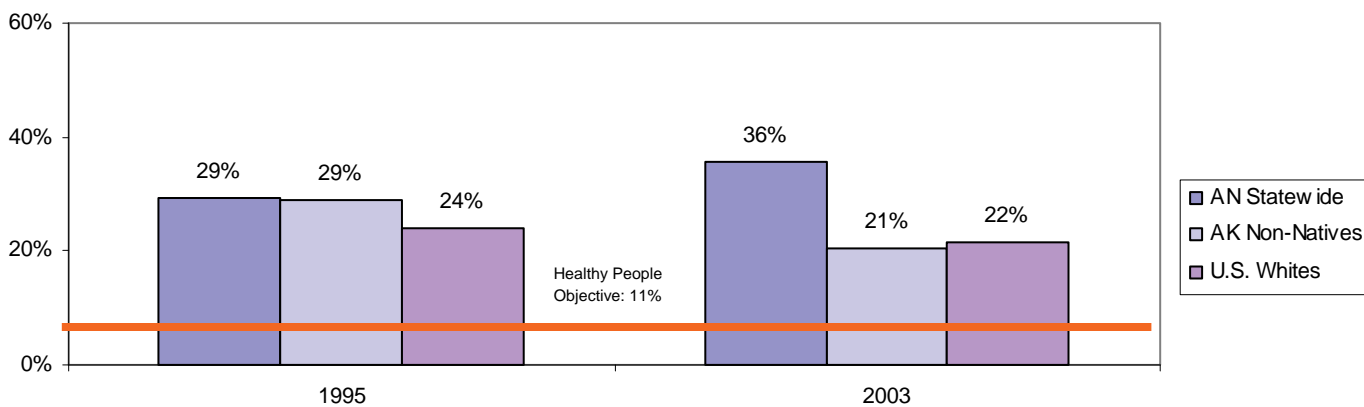
## Substance Abuse– Adolescents

**Figure 27. Percent of high school students who had at least one drink of alcohol on one or more of the past 30 days, 1995 and 2003**



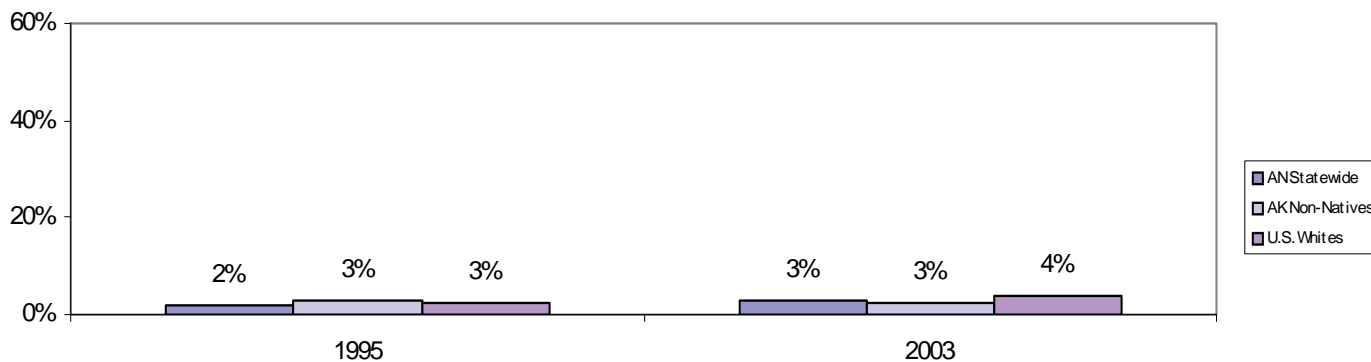
Data Source: Alaska Youth Risk Behavior Survey <sup>10</sup>  
 US Data Source: Youth Risk Behavior Survey <sup>22</sup>

**Figure 28. Percent of high school students who used marijuana on one or more of the past 30 days, 1995 and 2003**



Data Source: Alaska Youth Risk Behavior Survey <sup>10</sup>  
 US Data Source: Youth Risk Behavior Survey <sup>22</sup>

**Figure 29. Percent of high school students who used any form of cocaine, including powder, crack or freebase on one or more of the past 30 days, 1995 and 2003**



Data Source: Alaska Youth Risk Behavior Survey <sup>10</sup>  
 US Data Source: Youth Risk Behavior Survey <sup>22</sup>

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# Health Protection

## Environmental Health– Water and Sewer Service Rates

**Definition:** Water and sewer service is defined as a housing unit with water/sewer pipes or closed haul services.

**Note:** Housing units which have received funding for pipes or closed haul services but have not yet been connected are not included in the percent of housing units with served water and sewer.

**Healthy People 2010:** N/A

**Healthy Alaskans 2010, Objective 11.7:** Increase the number of communities with access to safe water and proper sewage disposal to 98%.

### Summary:

- As of 2006, 100% of the communities in the Kodiak Island region had water and sewer service.

**Data availability:** Available by Tribal Health Region, Statewide from ANTHC DEHE.

**Geographical Definition:** Kodiak Island is defined as the Kodiak Island Borough.

**For more information:** Visit ANTHC's Division of Environmental Health and Engineering at <http://www.anthc.org/cs/dehe/envhlth/index.cfm> or Alaska Department of Environmental Conservation: at <http://www.dec.state.ak.us/>

Table 11. Water and Sewer Service Rates by Region, Alaska, 2006

Region	Total Number of Housing Units	% of Housing Units with Served Water and Sewer
Arctic Slope	1668	91%
Bristol Bay	1863	88%
Kodiak Area	602	100%
Northwest Arctic	1504	82%
Norton Sound	1565	70%
Southeast	2098	98%
Interior	877	49%
Yukon-Kuskokwim	4235	66%

Data Source: ANTHC DEHE <sup>13</sup>



## Injury Hospitalizations

**Definition:** An injury hospitalization is defined as having sustained an injury that results in either inpatient admission or transfer to an acute care facility.

**Healthy People 2010, Objective 15.14:** Reduce non-fatal unintentional injuries (developmental).

**Healthy Alaskans 2010, Objective 8.2:** Reduce hospitalizations due to non-fatal unintentional injuries to 57 per 10,000 population.

### Summary:

- Falls were the leading cause of injury hospitalization from the KANA service area between 1996-2005, comprising more than one out of every 4 injury hospitalizations.
- Suicide attempts resulted in 93 hospitalizations from the KANA service area during 1996-2005.

**Data availability:** The Alaska Trauma Registry tracks all injury hospitalizations.

**Geographical Definition:** KANA service area is defined as the Kodiak Island Borough.

**For more information:** For injury data on Alaska Natives, contact ANTHC's Injury Prevention Program at 907-729-3513 or visit their website at <http://www.anthc.org/cs/dehe/envhlth/injprev/> or visit the Alaska Trauma Registry at the [http://www.hss.state.ak.us/dph/chems/injury\\_prevention/trauma.htm](http://www.hss.state.ak.us/dph/chems/injury_prevention/trauma.htm)

Table 12. Leading Causes of Injury Hospitalization,  
KANA service area, 1996-2005

Cause	No. of Hospitalizations	% Total
1. Falls	244	27.9%
2. Suicide Attempt	93	10.7%
3. Motor Vehicle	69	7.9%
4. Water Transport	68	7.8%
5. ATV	59	6.8%
6. Assault	54	6.2%
7. Struck by Person/Object (unintentional)	35	4.0%
8. Machinery	30	3.4%
9. Cut	29	3.3%
10. Sports Related	25	2.9%

Data Source: Alaska Trauma Registry

## Injury Hospitalizations– Unintentional Injuries and Falls

Figure 30. Unintentional Injury Hospitalization Rate by Region by Tribal Health Organization, Alaska, 1991-2003

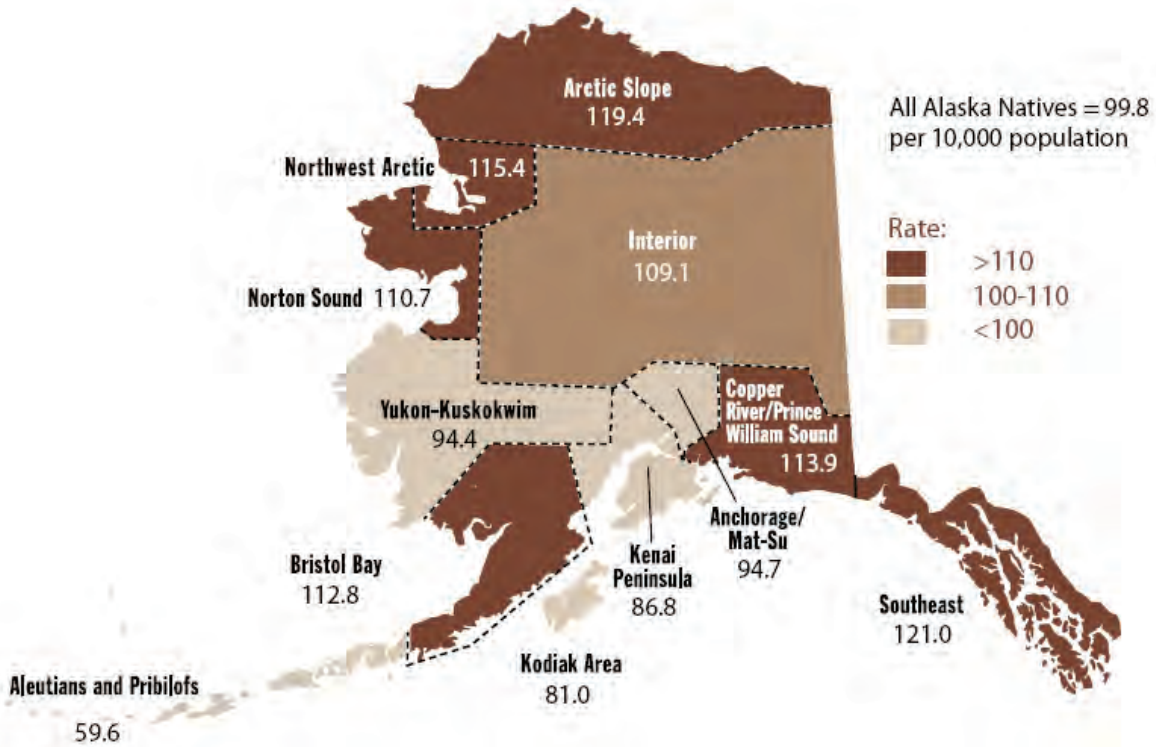
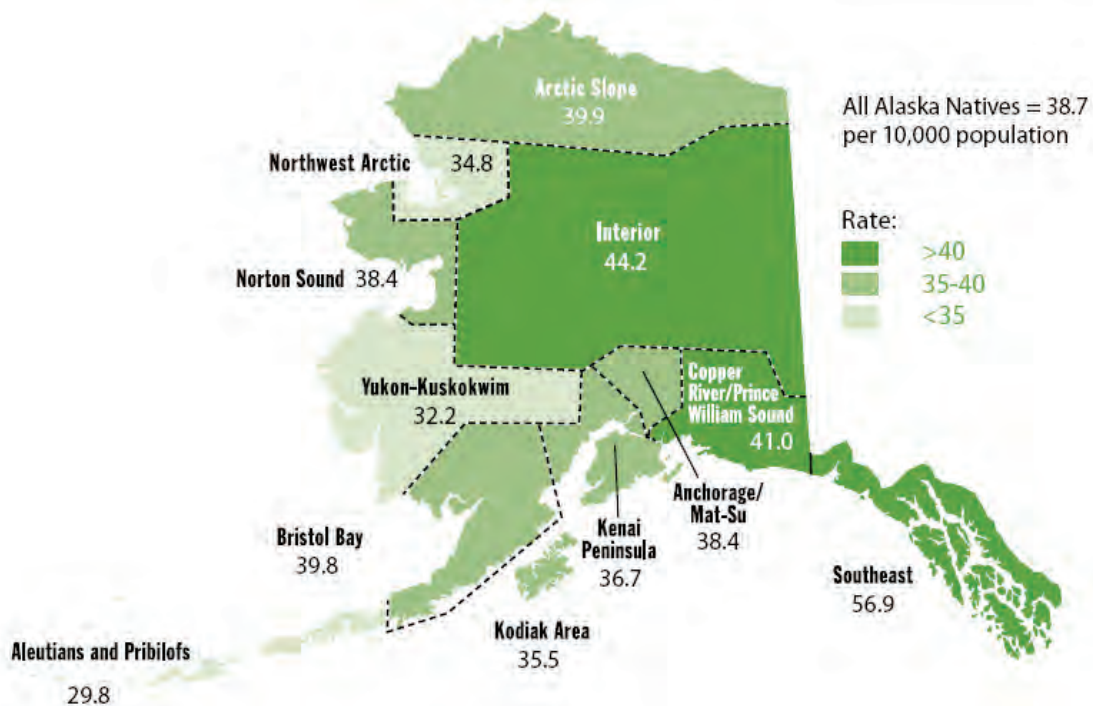


Figure 31. Fall Hospitalization Rate by Region by Tribal Health Organization, Alaska, 1991-2003



## Injury Hospitalizations– Suicide Attempts and Assaults

Figure 32. Hospitalization Rate for Suicide Attempts by Region, Alaska, 1991-2003

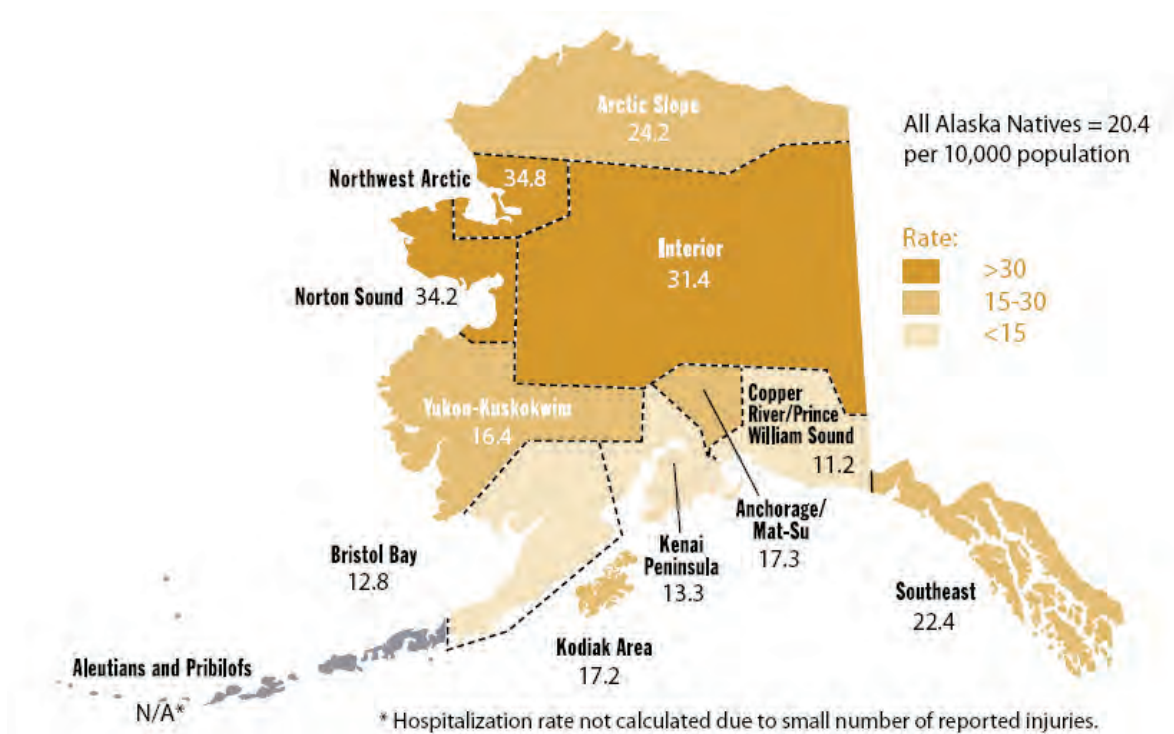
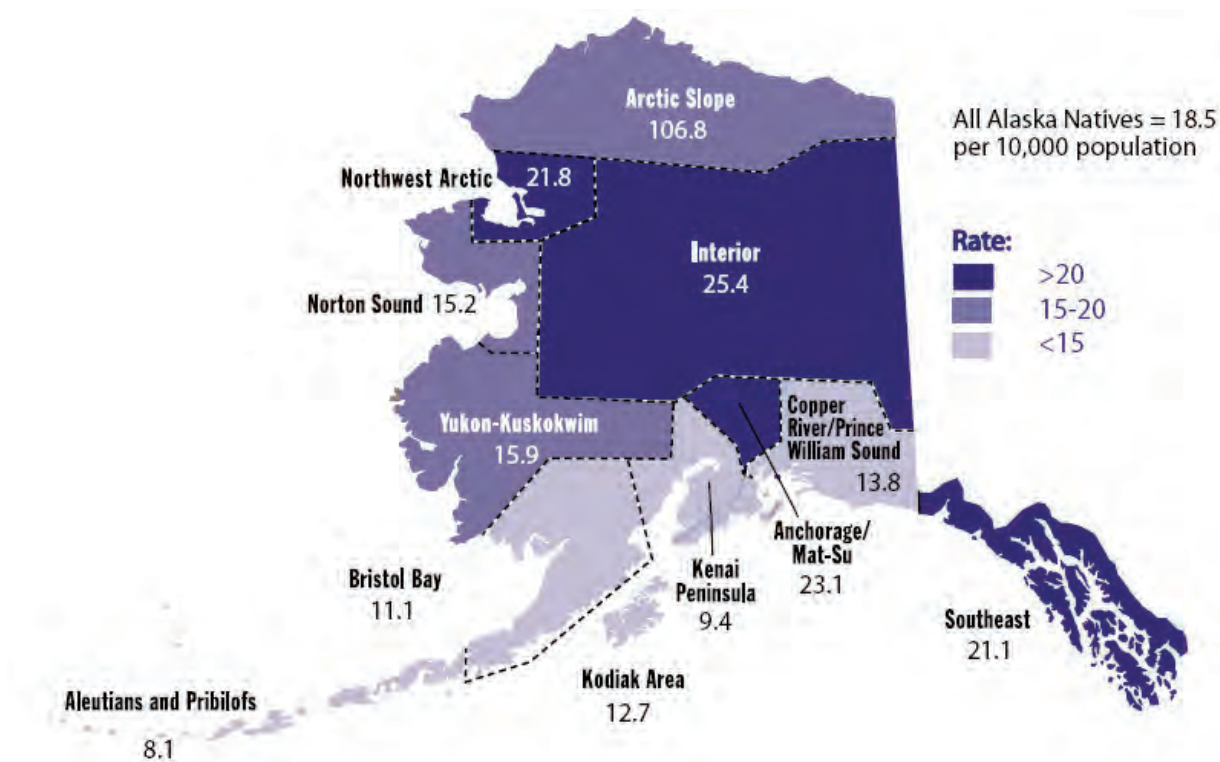


Figure 33. Hospitalization Rate for Assault Injuries by Region, Alaska, 1991-2003



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# **Preventive Services and Access to Health Care**

## Cancer– Leading Cancers

**Summary:**

- The most frequently diagnosed cancers for KANA Alaska Natives during 1989-2003 were Colon/Rectum (21 cases), Lung (21 cases) and Breast (14 cases). These three cancers accounted for over half (53.3%) of all cancers diagnosed.
- The cancers most frequently diagnosed for KANA Alaska Natives were similar to the cancers most frequently diagnosed for all Alaska Natives statewide.

**Geographical Definition:** KANA AN includes all patients residing in communities served by KANA.

Table 13. Leading Cancers  
KANA Alaska Natives  
1989-2003

	Site	No.	% of Total
1-tie	Colon/Rectum	21	20.0%
1-tie	Lung	21	20.0%
3	Breast	14	13.3%
4	Prostate	6	5.7%
5	Esophagus	6	5.7%
6	Stomach	6	5.7%
7	Oral/Pharynx	5	4.8%
8	Leukemia	3	2.9%
9-tie	Corpus Uteri/Uterus	2	1.9%
9-tie	Kidney	2	1.9%
9-tie	Larynx	2	1.9%
	Total	105	82.9%

Data Source: ANTHC Alaska Native Tumor Registry

Table 14. Leading Cancers  
All Alaska Natives  
1989-2003

	Site	No.	% of Total
1	Colon/Rectum	698	18.4%
2	Lung	660	17.4%
3	Breast	583	15.4%
4	Prostate	238	6.3%
5	Stomach	177	4.7%
6	Oral/Pharynx	156	4.1%
7	Kidney	155	4.1%
8	Pancreas	107	2.8%
9	Non-Hodgkin	87	2.3%
10	Leukemia	74	2.0%
	Total	2,935	77.5%

Data Source: ANTHC Alaska Native Tumor Registry

## Cervical Cancer Screening

**Definition:** Female patients aged 21 through 64 that have a documented Pap smear during the preceding 3 years.

**Note:** Excludes those with a documented hysterectomy OR a refusal to receive the test within the past year OR had less than 2 visits to a medical clinic within the past 3 years.

**Healthy People 2010, Objective 3.13:** Increase the proportion of women aged 18 years and older who received a Pap test within preceding 3 years to 90%.

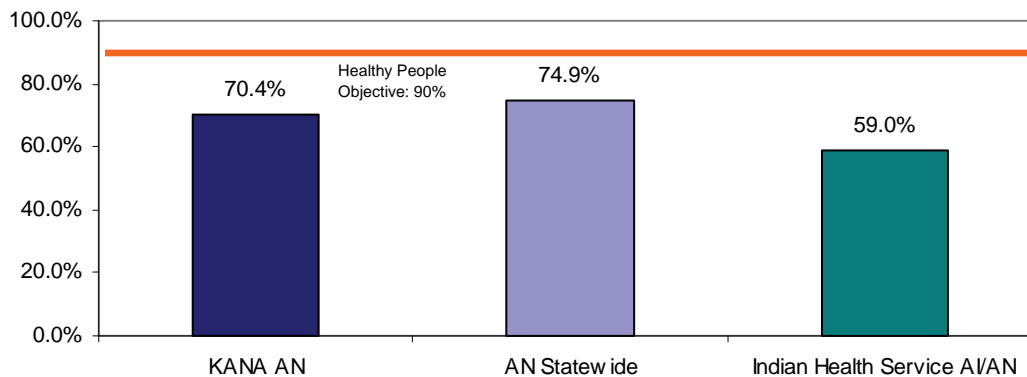
**Healthy Alaskans 2010, Objective 22.11:** Increase the proportion of women aged 18 years and older who received a Pap test within the preceding 3 years to 95%.

### Summary:

- Seven out of ten KANA AK Native women had received a cervical cancer screening within three years of the end of GPRA year 2007. This is slightly lower than that for Alaska Natives statewide.

**Geographical Definition:** KANA AN includes all patients residing in communities served by KANA.

Figure 34. Cervical Cancer Screening Rates, Women, 21-64 years, GPRA Year 2007



Data Source: GPRA Report Year 2007<sup>26</sup>

## Breast Cancer Screening

**Definition:** Female patients aged 52 through 64 that have a documented mammogram during the two-year period 2005-2006.

**Note:** Excludes those with a documented bilateral mastectomy OR two separate unilateral mastectomies OR a refusal to receive the exam within the past year OR had less than 2 visits to a medical clinic within the past 3 years.

**Healthy People 2010, Objective 3-13:** Increase the proportion of women aged 40 years and older who have received a mammogram within the preceding 2 years to 70%.

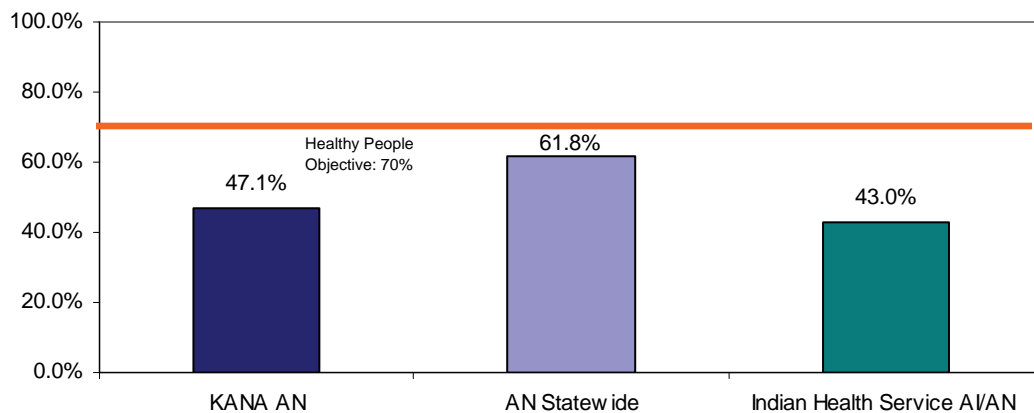
**Healthy Alaskans 2010, Objective 22.11:** Increase the proportion of women aged 40 years and older who have received a mammogram within the preceding 2 years to 76%.

### Summary:

- Forty-seven percent (47.1%) of Alaska Native women in the KANA service area aged 52 to 64 years received a mammogram within two years of the end of GPRA Year 2007. This is 4% higher than for I.H.S. AI/AN women nationwide, but 15% lower than Alaska Natives statewide.

**Geographical Definition:** KANA AN includes all patients residing in communities served by KANA.

Figure 35. Breast Cancer Screening Rates, Women, 52-64 Years  
GPRA Year 2007



Data Source: GPRA Report Year 2007<sup>26</sup>



## Colorectal Cancer Screening

**Definition:** Adults aged 51 to 80 who have had any CRC screening, defined as one of the following: 1) Fecal Occult Blood Test during the report period 2) Flexible sigmoidoscopy or double contrast barium enema in the past 5 years; or 3) colonoscopy in the past 10 years; or 4) a documented refusal in the past year.

**Note:** Excludes those with a documented history of colorectal cancer or a total colectomy OR had less than 2 visits to a medical clinic within the past 3 years.

**Healthy People 2010, Objective 3.12b:** Increase the proportion of adults aged 50 years and older who have received a colorectal cancer screening examination to 50%.

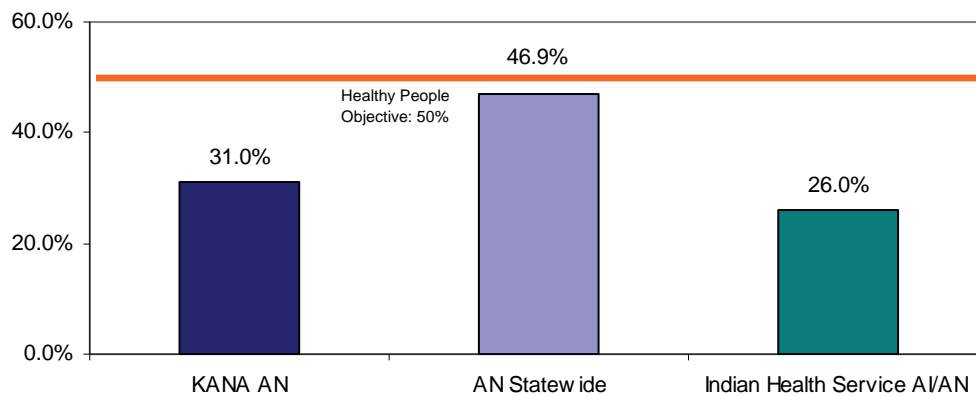
**Healthy Alaskans 2010, Objective 22.10:** Increase the proportion of adults aged 50 years and older who have received a colorectal cancer screening examinations to 64%.

### Summary:

- About one out of three (31%) KANA Alaska Natives age 51-80 years have had colorectal cancer screening, 14% lower than Alaska Natives statewide.

**Geographical Definition:** KANA AN includes all patients residing in communities served by KANA.

Figure 36. Colorectal Cancer Screening Rates, 51-80 Years  
GPRA Year 2007



Data Source: GPRA Report Year 2007<sup>26</sup>

## Immunizations– 4:3:1:3:3

**Definition:** By two years of age, it is recommended that all children should have received 4 doses of diphtheria-tetanus-pertussis (DTP), 3 doses of polio, 1 dose of measles-mumps-rubella (MMR), 3 doses of Hepatitis B, and 3 doses of Haemophilus Influenza, type B (Hib) vaccines. This recommendation is referred to in shorthand as "4:3:1:3:3."

**Healthy People 2010, Objective 14.24a:** Increase the proportion of young children aged 19-35 months who have received the 4:3:1:3:3 series to 80%.

**Healthy Alaskans 2010, Objective 18.10:** Increase proportion of young children aged 19-35 months who have received the 4:3:1:3:3 series to 90%.

### Summary:

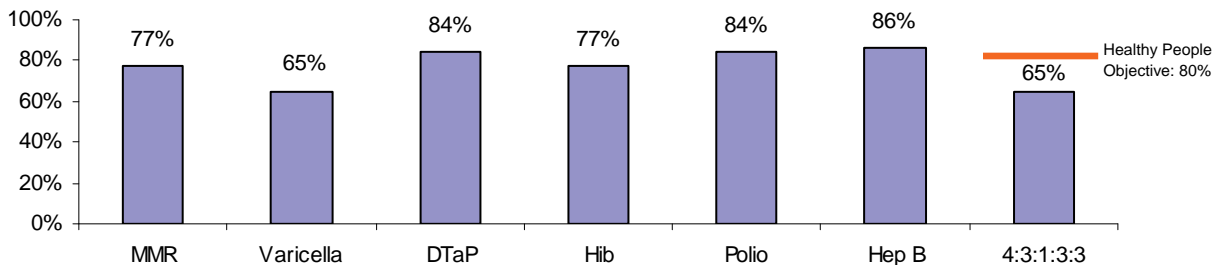
- As of June 2006, with 65% coverage, the KANA Service Area had not yet attained the Healthy People objective of 80% 4:3:1:3:3 coverage.

**Data Availability:** Available by region (Tribal Health Organizations), statewide for AK Natives and nationwide for the Indian Health System. Data on immunization coverage for non-natives is less comprehensive.

**Geographical Definition:** KANA AN includes all respondents residing in communities served by KANA.

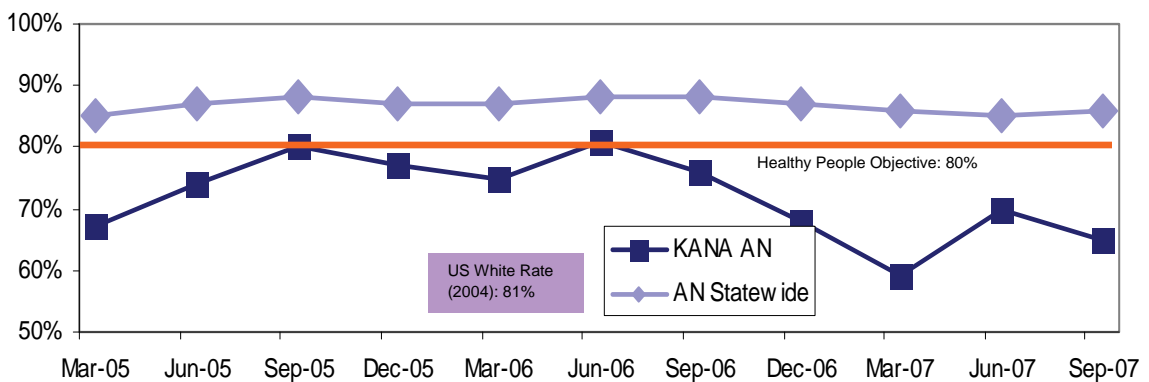
**For more information:** Go to the ANTHC Immunization Program at <http://www.anthc.org/cs/chs/immunization/>

Figure 37. Two-year old vaccination coverage, KANA  
As of September 2007



Data Source: ANTHC Immunization Program <sup>15</sup>

Figure 38. Two-Year Old Rates of 4:3:1:3:3 vaccination coverage  
March 2005-September 2007



Data Source: ANTHC Immunization Program <sup>15</sup>  
US Data Source: National Immunization Survey Data<sup>23</sup>

## Immunizations– Influenza and Pneumococcal Vaccine ages 65 and older

**Definition:** 1) Adults aged 65 years and older who have received an influenza vaccine in the past year; 2) Adults who have ever received a pneumococcal vaccine.

**Healthy People 2010, Objective 14.29:** Increase the proportion of elderly adults (65 years and older) immunized against influenza and pneumococcal disease to 90%.

**Healthy Alaskans 2010, Objective 18.14:** same definition and objective as above.

**Summary:**

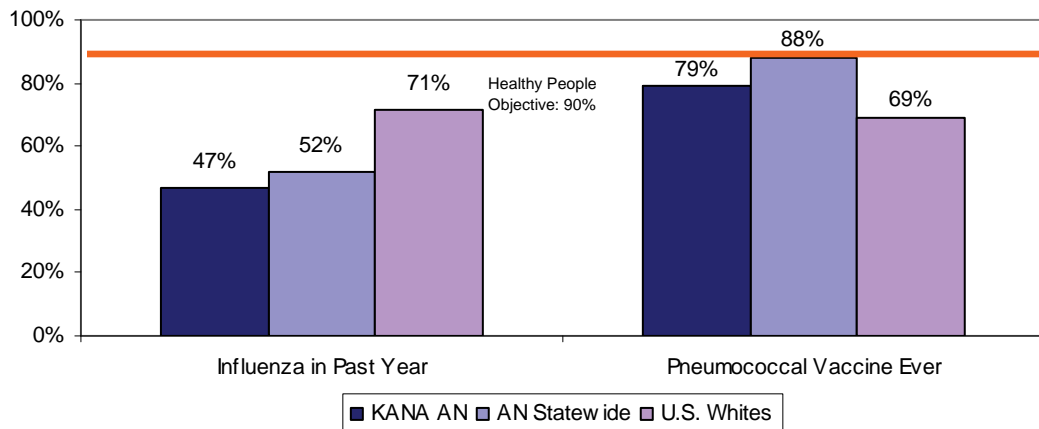
- As of June 2007, 47% of KANA users 65 years and older were vaccinated against influenza in the past year as compared to 71% of U.S. Whites.
- As of June 2007, 79% of KANA users 65 years and older had received a pneumococcal vaccine ever as compared to 69% of U.S. Whites.

**Data Availability:** Available by region (Tribal Health Organizations), statewide for AK Natives and nationwide for the Indian Health System. Data on immunization coverage for non-natives is less comprehensive.

**Geographical Definition:** KANA AN includes all respondents residing in communities served by KANA.

**For more information:** Go to the ANTHC Immunization Program at <http://www.anthc.org/cs/chs/immunization/>

**Figure 39. Influenza and Pneumococcal Vaccination Rates  
Adults 65 years and older, June 2007**



Data Source: ANTHC Immunization Program <sup>15</sup>  
U.S. Data Source: Behavioral Risk Factor Surveillance System <sup>21</sup>

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## Diabetes

**Definition:** Diabetes mellitus, commonly referred to as diabetes, is a metabolic disease characterized by high blood sugar levels, which result from defects in insulin secretion, insulin action, or both.

**Healthy People 2010, Objective 5.3:** Reduce the overall rate of diabetes that is clinically diagnosed to 25 per 1,000 population.

**Healthy Alaskans 2010, Objective 23.4:** Prevent diabetes: Reduce new cases per year to 2.5 per 1,000 population.

### Summary:

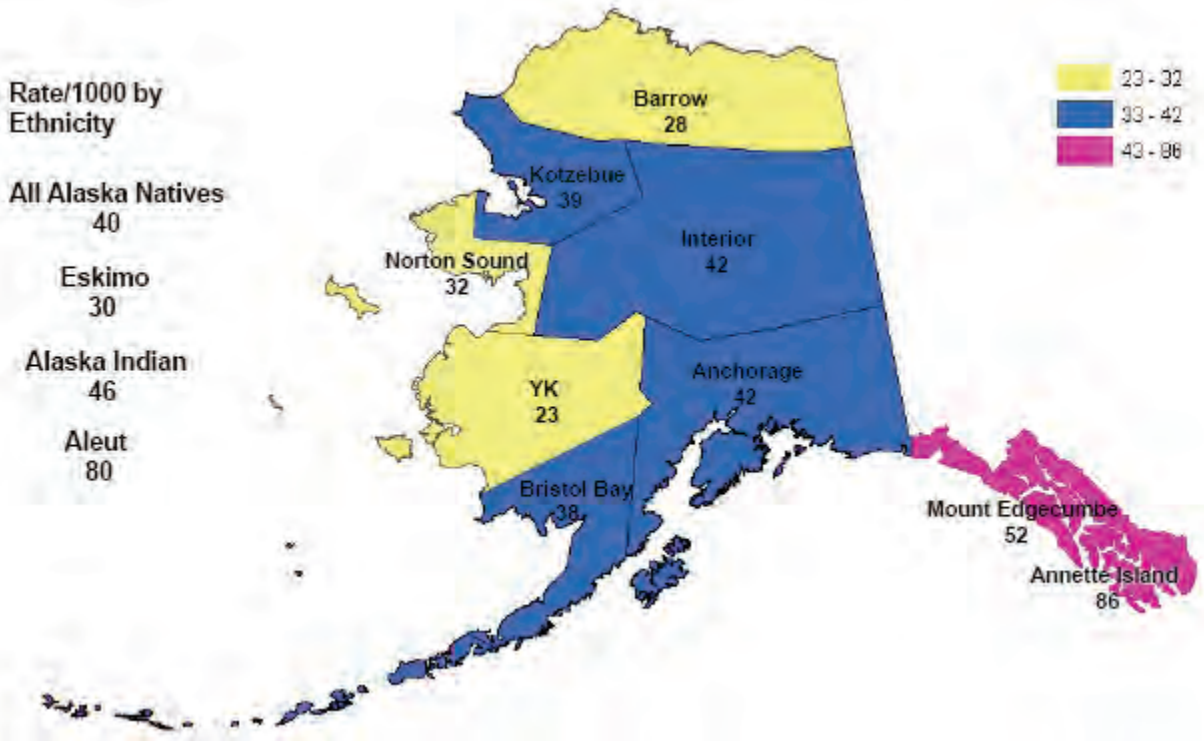
- The 2006 age-adjusted prevalence of diabetes among Alaska Natives in the KANA service area was 73.2 per 1,000 (123 cases, not shown in map). This is 83% higher than for Alaska Natives statewide.
- The rate of diabetes increased by 76% from 1990 to 2006 among Alaska Natives in the Anchorage Service Area (contains KANA service area).

**Geographical Definition:** Anchorage Service Unit is defined in Appendix D.

**For more information:** Go to the ANTHC Diabetes Program at <http://www.anmc.org/services/diabetes/>

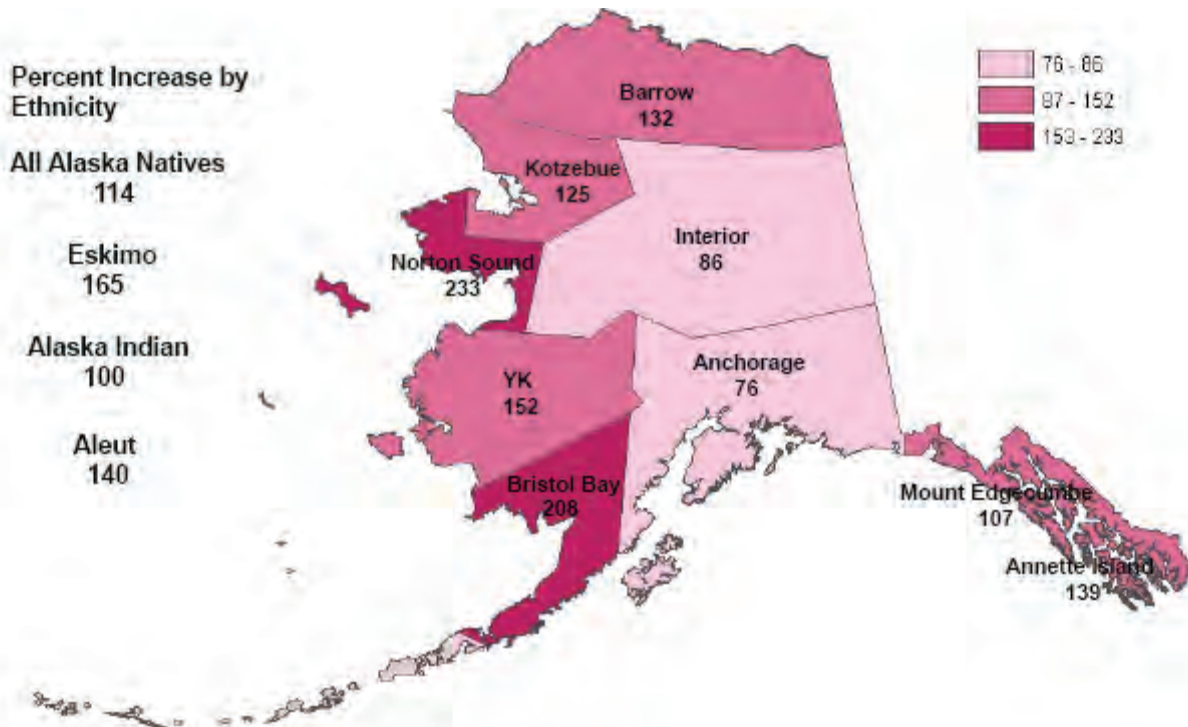
**Note:** Maps reprinted with permission from Alaska Area Diabetes Program

Figure 40. 2006 Diabetes Prevalence among Alaska Natives  
Age-Adjusted Prevalence per 1,000 Population



Data Source: Alaska Area Diabetes Program Diabetes Registry <sup>16</sup>

Figure 41. Percent Rate of Increase in Diabetes Prevalence Among Alaska Natives  
1990 versus 2006



Data Source: Alaska Area Diabetes Program Diabetes Registry <sup>16</sup>

## Maternal, Infant and Child Health– Infant Mortality Rate

**Definition:** Infant mortality rate is defined as number of deaths within the first year of life per 1,000 live births.

**Healthy People 2010, Objective 16.1c.** Reduce infant death rate to 4.5 per 1,000 live births.

**Healthy Alaskans 2010, Objective 16.2:** Reduce infant death rate to 4.5 per 1,000 live births.

**Summary:**

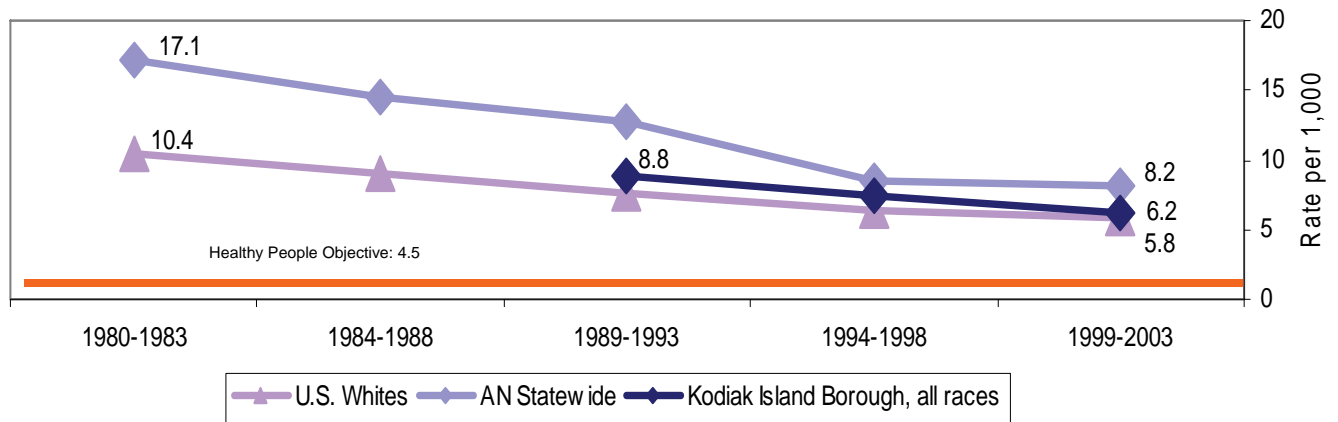
- There was a 29% decrease in the infant mortality rate during 1990-2003 (8.8 vs. 6.2) for Kodiak Island Borough. There was a similar decrease in other populations.
- The infant mortality rate in Kodiak Island Borough is 24% lower than for Alaska Natives statewide.

**Data availability:** Mortality data is available by borough or census area, race, and statewide through 2005.

**Geographical Definition:** KANA service area is defined as Kodiak Island Borough.

**For more information:** Visit the Alaska Bureau of Vital Statistics at <http://www.hss.state.ak.us/dph/bvs/>

Figure 42. Infant Mortality Rates\* per 1,000 live births, 5-year Intervals, 1980-2003



\* Kodiak Island Borough infant mortality rate calculated with fewer than 20 deaths and should be interpreted with caution  
Data Source: Surveillance, Epidemiology, and End Results (SEER) Program<sup>20</sup>

Table x. Infant Mortality Rates per 1,000 live births  
1999-2003

Population	Rate per 1,000
Kodiak Island Borough, all races	6.2*
Alaska Natives	8.2
U.S. Whites	5.8

\* Infant Mortality Rate calculated with fewer than 20 deaths and should be interpreted with caution  
Data Source: Surveillance, Epidemiology, and End Results (SEER) Program<sup>20</sup>

## Maternal, Infant and Child Health– Low Birth Weight

**Definition:** Low birth weight is defined as births less than 2500 grams.

**Healthy People 2010, Objective 16.10:** Reduce low birth weight (LBW) to 5% of live births.

**Healthy Alaskans 2010, Objective 16.12:** Reduce percentage of live births who have low birth weight to 4%.

**Summary:**

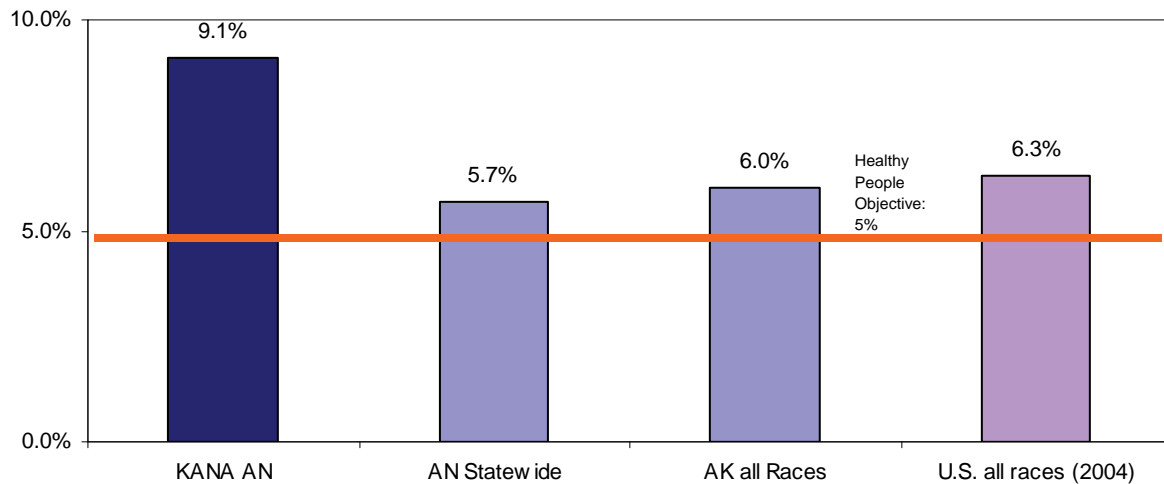
- 9.1% of Alaska Native live births from KANA service area were born with low birth weight, more than double the Healthy People Objective of 4%.

**Data availability:** Available by Census Area, by Race, Statewide through 2005

**Geographical Definition:** KANA Service Area is defined as the Kodiak Island Borough.

**For more information:** Statewide birth statistics are available at <http://www.hss.state.ak.us/DPH/bvs/data/default.htm>

Figure 43. Percentage of Live Births with Low Birth Weight, 2003-2005



Data Source: Alaska Bureau of Vital Statistics <sup>17</sup>  
US Data Source: National Center for Health Statistics <sup>24</sup>

## Maternal, Infant and Child Health– Adequate Prenatal Care

**Definition:** The Adequate Prenatal Care Utilization Index (APCNU) combines the initiation of prenatal care and the number of prenatal visits. A ratio of actual to recommended visits is calculated. When the ratio is 110% or greater, care is considered “adequate plus” prenatal care. If the ratio is greater than 80% but less than 110%, care is considered “adequate”. A ratio between 50 and 79% is considered “intermediate” and a ratio of less than 50% is considered “inadequate” (Bureau of Vital Statistics, 2002). For this report, the categories “adequate” and “adequate plus” were combined to create the category “adequate or greater.”

**Healthy People 2010, Objective 16.6b:** Increase the proportion of women who receive adequate prenatal care to 90%

**Healthy Alaskans 2010, Objective 11.b:** Increase the proportion of pregnant women who receive adequate prenatal care (APNCU Index greater than or equal to 80) to 90%.

**Summary:**

- 51.1% of Alaska Native pregnant women in the KANA service area were documented on the birth certificate as having received “adequate or greater” prenatal care. These proportions were higher than for Alaska Natives statewide but lower than for Alaska and the U.S. all races.

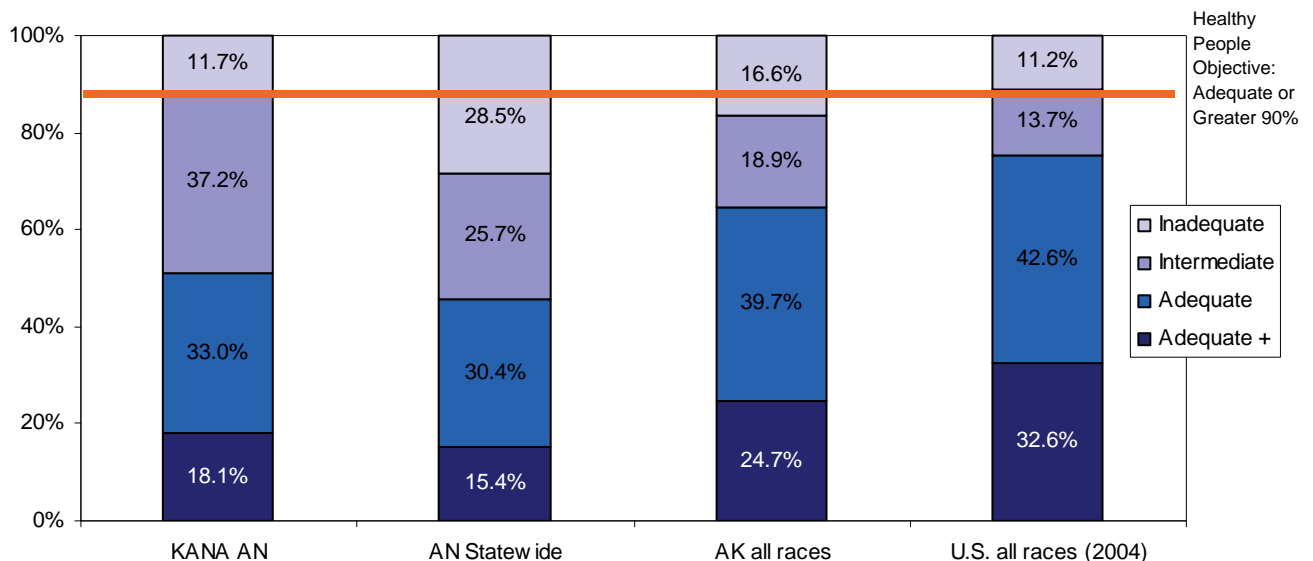
**Data availability:** Available by Census Area, by Race, Statewide

**Geographical Definition:** KANA Service Area is defined as the Kodiak Island Borough.

**For more information:** Statewide birth statistics are available at <http://www.hss.state.ak.us/DPH/bvs/data/default.htm>

**Note:** Differing methods in recording prenatal visits may lead to an under representation of adequate prenatal care; U.S. Rate is based on 41 states, the District of Columbia and New York City

Figure 44. Percentage of Births by Adequacy of Prenatal Care (APNCU), 2003-2005



Data Source for Figure and Table: Alaska Bureau of Vital Statistics<sup>17</sup>  
U.S. Data Source: National Center for Health Statistics<sup>24</sup>



## Maternal, Infant and Child Health– Smoking and Alcohol Consumption during Pregnancy

**Definition:** Women who reported alcohol-use and smoking anytime during pregnancy.

**Healthy People 2010, Objective 16-17a.** Increase the reported abstinence in the past month from alcohol use by pregnant women to 94%; **Objective 16-17c.** Increase the reported abstinence in past month from cigarette smoking by pregnant women to 99%.

**Healthy Alaskans 2010, Objective 16-17.** Decrease proportion of women who delivered a live birth who report use of alcohol during last 3 months of pregnancy to 3.5%. **Objective 16.18.** Decrease proportion of women who delivered a live birth who report cigarette smoking during last three months of pregnancy to 15%.

### Summary:

- Among Alaska Native mothers in the KANA service area, 99% report abstaining from alcohol use during pregnancy; very similar to all Alaskan mothers (98%).
- Among Alaska Native mothers in the KANA service area, 72% report abstaining from smoking cigarettes during pregnancy, 3.5% higher than Alaska Natives statewide.

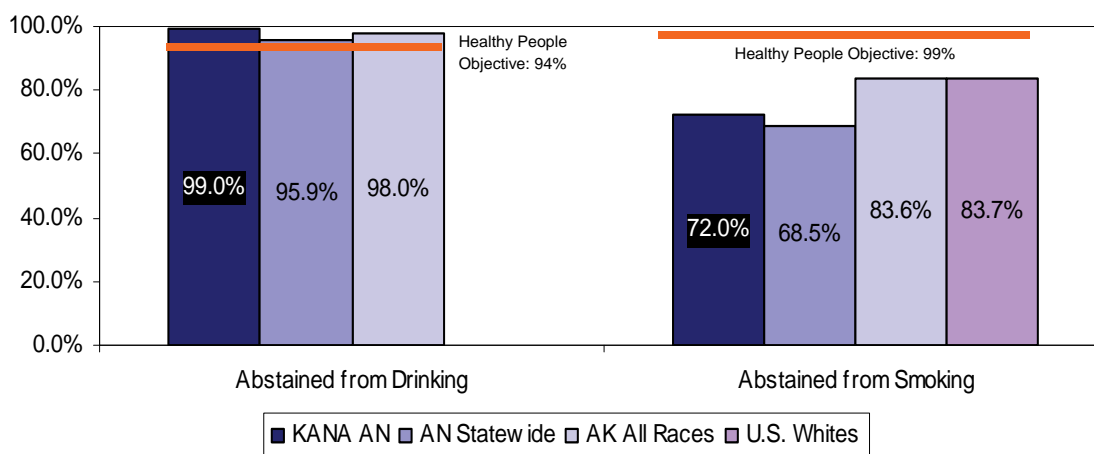
**Data availability:** Available by Census Area, by Race, Statewide

**Geographical Definition:** KANA Service Area is defined as the Kodiak Island Borough.

**For more information:** Statewide birth statistics are available at <http://www.hss.state.ak.us/DPH/bvs/data/default.htm>. National birth statistics available at <http://www.cdc.gov/nchs/products/pubs/pubd/hestats/prelimbirths04/prelimbirths04health.htm>

**Note:** Vital Statistics data reported here is data from birth certificates which refers to smoking and alcohol use at any time during pregnancy.

Figure 45. Percent of Women Reporting Abstaining from Alcohol Use and Smoking During Pregnancy, 2000-2004



Data Source: Alaska Bureau of Vital Statistics <sup>17</sup>  
U.S. Data Source: National Center for Health Statistics <sup>24</sup>

## Family Planning– Teen Birth Rate

**Definition:** Teen birth rate is defined as live births per 1,000 females age 15-19 years.

**Healthy People 2010, Objective 16.2.** Reduce pregnancies among adolescent females aged 15 to 17 years to 43 per 1,000 live births.

**Healthy Alaskans 2010, Objective 17.2.** Reduce young teen births 15 to 17 years to 18 per 1,000 live births.

### Summary:

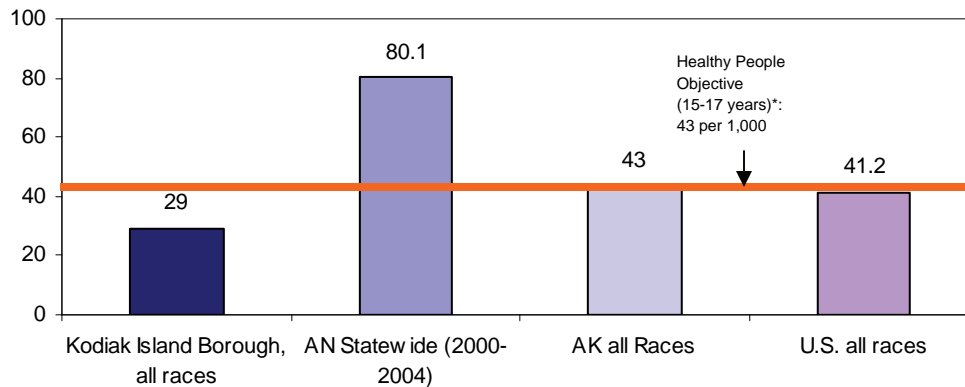
- The teen birth rate for the Kodiak Island Borough is lower than for all Alaska and the U.S.

**Data availability:** Available by Census Area, by Race, Statewide

**For more information:** Statewide birth statistics are available at <http://www.hss.state.ak.us/DPH/bvs/data/default.htm>. National birth statistics available at <http://www.cdc.gov/nchs/products/pubs/pubd/hestats/prelimbirths04/prelimbirths04health.htm>

**\*Note:** Data presented are for teen births aged 15-19 years. Healthy Alaskans 2010 and Healthy People 2010 Objectives are to reduce young teen births aged 15-17 years.

Figure 46. Teen Birth Rate per 1,000 females (15-19 yrs), 2003-2005



Data Source: Alaska Bureau of Vital Statistics <sup>18</sup>

U.S. Data Source: National Center for Health Statistics <sup>24</sup>

\* Healthy People Objective is for 15-17 year olds

## Responsible Sexual Behavior– Adolescents

**Definition:** Responsible sexual behavior of adolescents is defined as not having sexual intercourse OR having intercourse in past 30 days and using a condom at last intercourse.

**Healthy People 2010, Objective 25.11:** Increase the proportion of adolescents who abstain from sexual intercourse or use condoms if currently sexually active to 95%.

**Healthy Alaskans 2010, Objective 19.14:** Increase the proportion of adolescents who abstain from sexual intercourse to 65%; **Objective 19.15:** Increase the proportion of sexually active adolescents who use condoms.

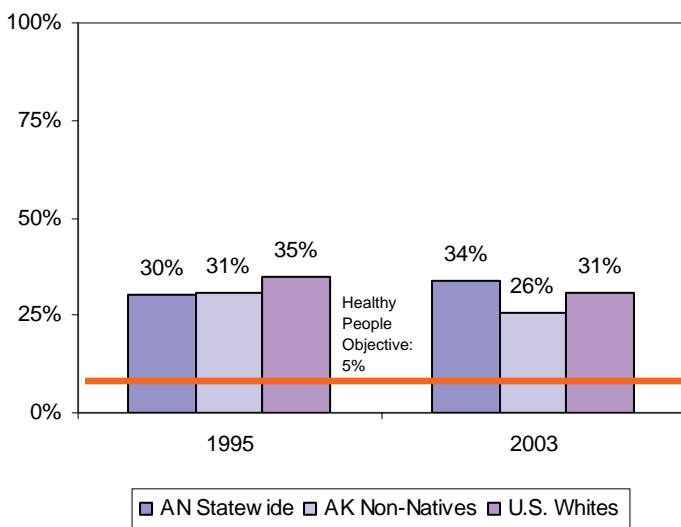
### Summary:

- One-third of Alaska Native high school students are sexually active. Of those students, 68% used a condom at last intercourse.

**Data availability:** Available by race, statewide. Sample size is not large enough to be broken down to the regional level. Due to a small sample size from 2005, no data was able to be analyzed.

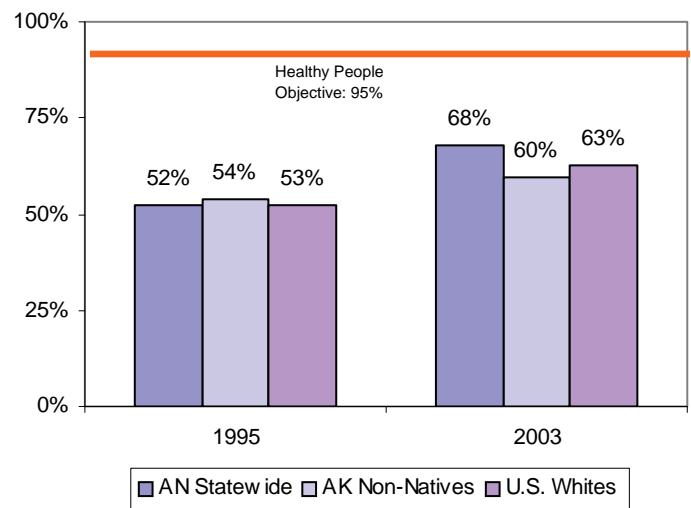
**For more information:** For Alaska Youth Risk Behavior Survey Reports (YRBS), go to <http://www.hss.state.ak.us/dph/chronic/school/YRBS.htm>  
For state and national level data, visit CDC Youth Risk Behavior Surveillance System website at <http://apps.nccd.cdc.gov/yrbss/>

Figure 47. Percent of high school students who had sex during the last three months, 1995 and 2003



Data Source: Alaska Youth Risk Behavior Survey<sup>10</sup>  
US Data Source: Youth Risk Behavior Survey<sup>22</sup>

Figure 48. Percent of sexually active high school students who used a condom during last sexual intercourse, 1995 and 2003



Data Source: Alaska Youth Risk Behavior Survey<sup>10</sup>  
US Data Source: Youth Risk Behavior Survey<sup>22</sup>

## Sexually Transmitted Infections (STI) Gonorrhea and Chlamydia

**Definition:** Chlamydia is a common STI caused by *Chlamydia trachomatis*, a bacterium, which can damage a woman's reproductive organs. Gonorrhea is an STI caused by the bacterium *Neisseria gonorrhoeae*.

**Healthy People 2010, Objective 25.1 and 25.2.** Reduce the proportion of adolescents and young adults with Chlamydia trachomatis infections to 3%; Reduce gonorrhea rate to 19 per 100,000 population.

**Summary:**

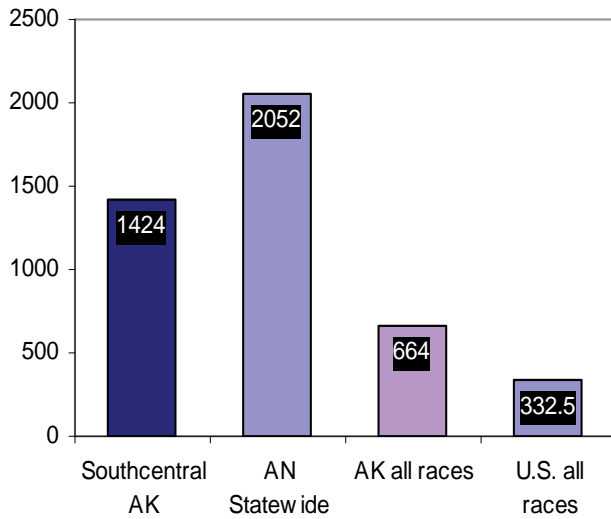
- The Chlamydia rate for Alaska Natives living in Southcentral Alaska (1,424 per 100,000) is less than that of Alaska Natives statewide but more than four times that of U.S. all races.
- The Southcentral Alaska gonorrhea rate of 279 per 100,000 is slightly less than that of Alaska Natives statewide but three times that of all Alaskans.

**Data availability:** Available by Region, by Race, Statewide.

**Geographical Definition:** Southcentral Alaska is the Anchorage Service Unit (Appendix D).

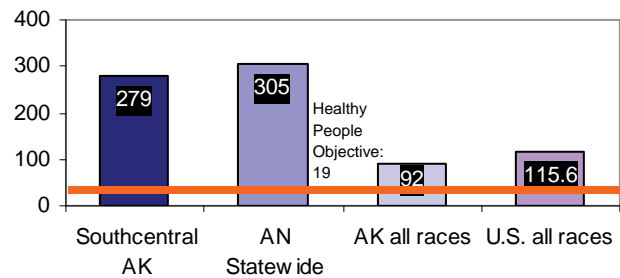
**For more information:** <http://www.epi.hss.state.ak.us/hivstd/std.stm>

Figure 49. Chlamydia Rate per 100,000 population, 2005



Data Source: State of AK, Section of Epidemiology  
U.S. Data Source: CDC Division of STD Prevention

Figure 50. Gonorrhea Rate per 100,000 population, 2005



Data Source: State of AK, Section of Epidemiology  
U.S. Data Source: CDC Division of STD Prevention

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## Appendix B. References and Data Sources

### Alaska Data

#### **1) I.H.S. User Population**

Indian Health Service (I.H.S.) National Patient Information and Reporting System (NPIRS). (2004). *Alaska 2004 Native Active User Populations, Based on the I.H.S. User Population Report (B), Version 75*. Anchorage, AK. Retrieved October 1, 2006 from <http://www.alaska.ihg.gov/dpehs/pdf/users04Dec22.pdf>

#### **2) 2004 Population Estimates**

Demographics Unit, Research and Analysis, Alaska Department of Labor and Workforce Development, State of Alaska. (2004). *"Bridge Series" Modified Age, Race, Sex Estimates, Alaska Boroughs and Census Areas*. Juneau, AK. Retrieved September 10, 2006 from <http://www.labor.state.ak.us/research/pop/estimates/CABridge04x.xls>

#### **3) Census Counts for Alaska Natives by Community**

Division of Planning, Evaluation and Health Statistics, Alaska Area Native Health Service, Indian Health Service, U.S. Department of Health and Human Services. (2001). *2000 Census Counts for Alaska Natives*. Anchorage, AK. Retrieved September 1, 2006 from <http://www.alaska.ihg.gov/dpehs/pdf/2000-census-report.pdf>

#### **4) Educational Attainment**

United States Census Bureau (2003). *Census 2000 Summary File 4 Technical Documentation*. Retrieved June 2006 from <http://www.icpsr.umich.edu/CENSUS2000/summaryfile4.html>

#### **5) Employment Status**

Research and Analysis Unit, Department of Labor and Workforce Development, State of Alaska. (September 2006). *Monthly Unemployment Rate, August 2006*. Retrieved October 1, 2006 from <http://almis.labor.state.ak.us/?PAGEID=67&SUBID=188>.

#### **6) Poverty Status and Household Income**

Small Area Estimates Branch, Housing and Household Economic Statistics Division, U.S. Census Bureau. Retrieved September 29, 2006 from <http://www.census.gov/hhes/www/saie/county.html>.

#### **7) Mortality**

Research Unit, Alaska Bureau of Vital Statistics, Division of Public Health, Department of Health and Human Services, State of Alaska (1999-2003). <http://www.hss.state.ak.us/DPH/bvs/Profiles/default.htm>

#### **8) Leading Causes of Hospital Discharges, Inpatient Days and Outpatient Visits**

Indian Health Service (I.H.S.) National Patient Information and Reporting System (NPIRS). Hospital Discharge Report, Inpatient Report, Outpatient Report, Location of Encounter: Hospital Discharges, Days and Average Length of Stay by Admission Diagnosis Recode, and Age Groups

#### **9) Adult Behavior Data- Tobacco Use, Physical Activity, Obesity, Substance Abuse, Colorectal Cancer, Overweight**

National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services. *Behavioral Risk Factor Surveillance System Survey Data, 1991-2004*. Atlanta, Georgia. <http://www.cdc.gov/brfss/>

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### Alaska Data

#### **10) Adolescent Behavior Data– Tobacco Use, Substance Abuse, Responsible Sexual Behavior, Vigorous Physical Activity**

National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention (CDC). *Youth Risk Behavior Surveillance System Survey Data, 1995 and 2003*. Atlanta, Georgia. <http://www.cdc.gov/HealthyYouth/yrbs/index.htm>

#### **11) Injury Mortality**

Research Unit, Alaska Bureau of Vital Statistics, Division of Public Health, Department of Health and Human Services, State of Alaska (1999-2005).

#### **12) Injury Hospitalizations**

Injury Prevention Program, Division of Environmental Health and Engineering, Alaska Native Tribal Health Consortium. (2006). Retrieved August 12, 2006 from <http://www.anthc.org/cs/dehe/envhlth/injprev/injurydata.cfm>

#### **13) Environmental Health**

Environmental Health Program, Division of Environmental Health and Engineering, Alaska Native Tribal Health Consortium. (2001) Anchorage, AK. <http://www.anthc.org/cs/dehe/envhlth/>

#### **14) Leading Cancers**

Office of Alaska Native Health Research and Alaska Native Epidemiology Center, Alaska Native Tribal Health Consortium. *Cancer in Alaska Natives , 1969-2003, 35-Year Report*.

#### **15) Immunizations**

Immunization Program, Division of Community Health Services, Alaska Native Tribal Health Consortium. *Tribal Health Organization Immunization Registry Reports, 2005-2006*. Anchorage, AK. <http://www.anthc.org/cs/chs/immunization/>

#### **16) Diabetes**

Alaska Area Diabetes Program, Alaska Native Medical Center, Alaska Native Tribal Health Consortium. (2004). Anchorage, AK. <http://www.anmc.org/services/diabetes/>

#### **17) Maternal, Infant and Child Health and Family Planning**

Research Unit, Alaska Bureau of Vital Statistics, Division of Public Health, Department of Health and Human Services, State of Alaska. (2000-2004). <http://www.hss.state.ak.us/DPH/bvs/Profiles/default.htm>

#### **18) Healthy Alaskans Objectives**

Division of Public Health, Department of Health and Social Services, State of Alaska. (2001). *Healthy Alaskans 2010: Targets and Strategies for Improved Health, Volume 1: Targets for Improved Health Executive Summary*.

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## Appendix B. References and Data Sources

### US Data

#### **19) Educational Attainment, Poverty Status, Household Income**

United States Census Bureau (2003). *Census 2000 Summary File 4 Technical Documentation*. Retrieved June 2006 from <http://www.icpsr.umich.edu/CENSUS2000/summaryfile4.html>

#### **20) Mortality**

Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute, DCCPS, Surveillance Research Program, Cancer Statistics Branch. (2005). *SEER\*Stat Database: Mortality - All COD, Public-Use With State, Total U.S. for Expanded Races (1990-2002)*. <http://www.seer.cancer.gov>

#### **21) Adult Behavior Data- Tobacco Use, Physical Activity, Obesity, Substance Abuse, Colorectal Cancer, Overweight**

National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services. *Behavioral Risk Factor Surveillance System Survey Data , 1991-2004*. Atlanta, Georgia. <http://www.cdc.gov/brfss/>

#### **22) Adolescent Behavior Data– Tobacco Use, Substance Abuse, Responsible Sexual Behavior, Vigorous Physical Activity**

National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention (CDC). *Youth Risk Behavior Surveillance System Survey Data, 1995 and 2003*. Atlanta, Georgia. <http://www.cdc.gov/HealthyYouth/yrbs/index.htm>

#### **23) Immunizations**

National Immunization Program, Centers for Disease Control and Prevention, Department of Health and Human Services. *National Immunization Survey Data*. Atlanta, GA. Retrieved October 25, 2006 from <http://www.cdc.gov/nip/coverage/default.htm>

#### **24) Maternal, Infant & Child Health**

National Center for Health Statistics. (2006). *Births: Final Data for 2004*. (National Vital Statistics Reports, vol. 55 no.1). Hyattsville, MD: Martin, JA, Hamilton, BE, Sutton PD, et al.

#### **25) Healthy People Objectives**

U.S. Department of Health and Human Services. *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. Washington, DC: U.S. Government Printing Office, November 2000.

#### **26) GPRA Measures**

Alaska Area 2007 Aggregate Report, IHS [Indian Health Service] 2007 National GPRA [Government Performance and Results Act of 1993] Clinical Performance Report, CRS [Clinical Reporting System] 2007, Version 7.0. Report run August 6, 2007, Alaska Area Native Health Service, Anchorage, Alaska.

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## Appendix C. Description of Selected Data Sources

### Behavioral Risk Factor Surveillance System

The Behavioral Risk Factor Surveillance System (BRFSS) is an on-going national telephone-based survey supported by the Centers for Disease Control and Prevention (CDC). Alaska began participating in the BRFSS in 1990. The CDC now provides funding and technical assistance to all 50 states, Washington DC, and 3 territories to conduct the survey annually. The survey includes questions about health status and perceptions, preventive health practices, and risky behaviors that influence the prevalence of chronic disease, injury, and preventable infectious diseases.

The BRFSS is a standardized telephone interview conducted with a computer-assisted script. There is a fixed core of questions asked by all states every year and a rotating core asked by all states in alternating years. In addition, there are a number of optional modules that states may or may not choose to use and states may add questions on their own. The entire interview takes less than 30 minutes to complete. Interviews are conducted during every month of the year. Approximately 200 adults are interviewed each month in Alaska.

Respondents are adults 18 years and older living in households. Individuals living in military barracks, dormitories, nursing homes, and other group living situations are excluded. Apart from that exclusion, each state's sample is designed to be representative of the state's population. Respondents are contacted by telephone using a selection process based on area codes and prefixes that are highly likely to be associated with residential listings. Alaska uses an additional sampling procedure to take into account differences in telephone coverage by geographic and economic factors. It is estimated that 97% of the households in the state as a whole have telephones (U.S. Census 2000 Summary File 3), but the percentage is substantially lower in some geographic areas and among groups of lower socioeconomic status.

The analysis of BRFSS data requires complex statistical procedures to take into account the fact that not every adult resident of the state has an equal chance of being contacted for an interview. The analysis assigns a probability to each respondent which reflects their likelihood of being contacted. In addition, each person interviewed is treated as a representative for other, similar persons. The probability factor and assumption of representativeness are used to calculate a statistical weighting factor to be used in analysis to draw inferences about the overall population.

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## Appendix C. Description of Selected Data Sources

### Youth Risk Behavior Survey

(Description from <http://www.hss.state.ak.us/dph/chronic/school/YRBS.htm>)

The Youth Risk Behavior Survey (YRBS) is part of an epidemiological surveillance system that was established in 1988 by the [Centers for Disease Control and Prevention \(CDC\)](#). The purpose of the Youth Risk Behavior Survey (YRBS) is to help monitor the prevalence of behaviors that put Alaskan youth at risk for the most significant health and social problems that can occur during adolescence and adulthood, in order to assist in prevention and intervention planning and evaluation. The YRBS survey is a school-based survey of high school students administered in cooperation with the [Department of Education and Early Development](#). This anonymous survey examines a minimum of six categories of adolescent behavior:

- behaviors that result in unintentional and intentional injuries
- tobacco use
- alcohol and other drug use
- sexual behaviors that can result in HIV infection, other sexually transmitted diseases (STD's) and unintended pregnancies
- dietary behaviors
- physical activity

The YRBS has been administered in Alaska five times, 1995, 1999, 2001, 2003 and 2005. Weighted (representative) data were collected in 1995 and 1999, and 2003, resulting in published reports.

### Alaska Trauma Registry

(Description from [http://www.hss.state.ak.us/dph/ipems/injury\\_prevention/trauma.htm](http://www.hss.state.ak.us/dph/ipems/injury_prevention/trauma.htm))

The Alaska Trauma Registry is an information system of the most seriously injured patients in Alaska, and the treatment that they have received. Since 1991, the trauma registry has collected data from all 24 of Alaska's acute care hospitals.

The purpose of the registry is to evaluate the quality of trauma patient care and to plan and evaluate injury prevention programs. The criteria for inclusion in the trauma registry are patients with injuries who are admitted to an Alaska hospital, held for observation, transferred to another acute care hospital, or declared dead in the emergency department, and for who contact occurred within 30 days of the injury. Injuries include trauma, poisoning, suffocation, and the effects of reduced temperature.

Trauma Registry data is confidential and protected under Alaska Statute 18.23.010-070 All trauma registry personnel and those requesting trauma registry data are required to sign a confidentiality statement. The trauma registry does not include patient, physician, hospital, clinic, or ambulance service identifiers.

IPEMS provides quality improvement and administrative reports to hospital and ambulance service officials. Trauma registry information is also used by a variety of agencies and individuals in the planning and evaluation of injury prevention programs, for research and public education, for EMS training, and in developing public policy.

## Appendix D. I.H.S. Service Units, And Corresponding Tribal Health Organizations, Villages And Census Area/Boroughs

I.H.S. Service Unit	Tribal Health Corporation/Village	Census Area/Borough
Anchorage	Alaska Native Tribal Health Consortium, Southcentral Foundation	Anchorage Municipality, Matanuska-Susitna Borough, Kenai Peninsula Borough, Kodiak Island Borough, Valdez-Cordova, Aleutians East Borough, Aleutians West Borough
	Aleutian Pribilof Islands Association	Aleutians East Borough, Aleutians West Borough
	Chickaloon	Matanuska-Susitna Borough
	Chitna	
	Chugachmuit	Kenai Peninsula Borough, Valdez/Cordova
	Copper River Native Association	Denali Borough, Southeast Fairbanks, Valdez/Cordova
	Eastern Aleutian Tribes	Aleutians East Borough
	Native Village of Eklutna	Anchorage Municipality
	Kenaitze Indian Tribe	Kenai Peninsula Borough
	Knik Tribal Council	Matanuska-Susitna Borough
	Kodiak Area Native Association	Kodiak Island Borough
	Mt. Sanford Tribal Consortium	Valdez/Cordova
	Southcentral Foundation	Anchorage Municipality, Matanuska-Susitna Borough
	St. George Island	
Seldovia Village Tribe	Kenai Peninsula Borough	
Native Village of Tyonek	Kenai Peninsula Borough	
Ninilchik Village Traditional Council	Kenai Peninsula Borough	
Annette Island	Metlakatla Indian Community	Prince of Wales/Outer Ketchikan
Barrow	Arctic Slope Native Association	North Slope Borough
Bristol Bay	Bristol Bay Area Health Corporation	Dillingham, Lake and Peninsula Borough, Bristol Bay Borough

I.H.S. Service Unit	Tribal Health Corporation/Village	Census Area/Borough
Interior	Tanana Chiefs Conference  Council of Athabascan Tribal Governments  Tanana Tribal Council	Denali Borough, Fairbanks North Star Borough, Southeast Fairbanks, Yukon-Koyukuk
Kotzebue	Maniilaq Association	Northwest Arctic Borough
Mt. Edgecumbe    Ketchikan	Southeast Alaska Regional Health Consortium   Ketchikan Indian Community  Hoonah Indian Community  Yakutat Tlingit Tribe	Yakutat Borough, Skagway-Hoonah-Angoon, Haines Borough, Juneau Borough, Sitka Borough, Wrangell-Petersburg, Prince of Wales/Outer Ketchikan   Ketchikan-Gateway Borough   Yakutat Borough
Norton Sound	Norton Sound Health Corporation	Nome
Yukon-Kuskokwim Delta	Yukon-Kuskokwim Health Corporation	Bethel, Wade-Hampton