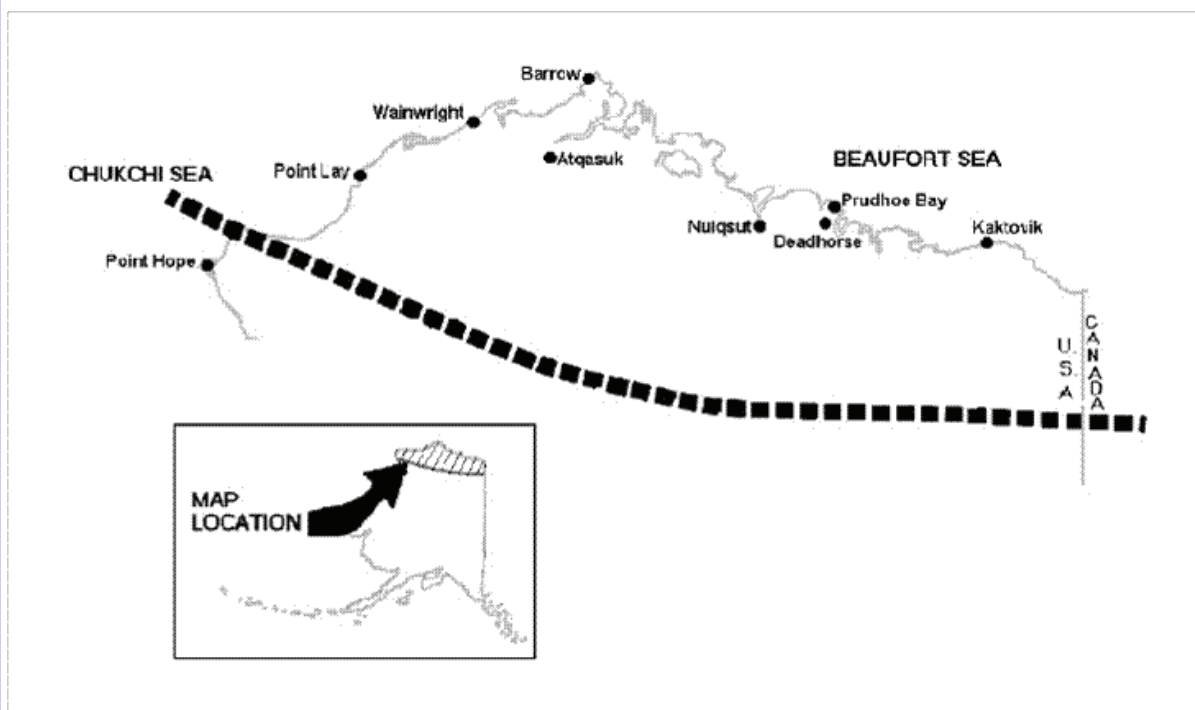


April 2009

## Regional Health Profile

### Arctic Slope



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## Acknowledgements

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Specifically, we would like to thank the following:

### State of Alaska

- Alaska Behavioral Risk Factor Surveillance System (BRFSS);
- 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)

- ANTHC Immunization Program, for providing region-specific immunization rates;
- ANTHC Injury Prevention Program, for providing region-specific injury rates;
- ANTHC Alaska Native Tumor Registry at the AN EpiCenter 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;

### Indian Health Service

- Bonnie Boedeker, Alaska Area Indian Health Service, for providing village level Alaska Native population estimates, I.H.S. user population estimates, NPIRS data and GPRA data.

## Introduction

The AN EpiCenter is developing regional health profiles to monitor the health status of Alaska Native people from specific regions. This information will be useful as a baseline for advocacy, program planning, evaluation and grant writing.

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

1. Demographics
2. Mortality and Morbidity
3. Health Promotion
4. Health Protection
5. 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. Listed below are the data sources used to access regional level data for the profile. Further detail about these data sources are available in the table that follows (Table 1) as well as in Appendices B & C.

- 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 (DEHE)
- 11) Alaska Native Tumor Registry

### 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 were analyzed for each indicator. Previously analyzed data is identified in **Table 1** as being analyzed by the 'data source'. The AN EpiCenter also conducted data analysis for this report. A description of the methods is listed on the following page.

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## Technical Notes

### Race Classification

Where possible, data were presented for Alaska Native people.

The way that Alaska Native people were 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 were those who were identified as American Indian or Alaska Native on their death certificate. Infant death certificates were matched with the birth certificate to ensure race is classified the same as on the birth certificate. For birth statistics, the birth certificate was 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 were those who were identified as beneficiaries of the Alaska Tribal Health System.

### Rate Calculations

**Mortality Rates:** Mortality trends for the years 1979-2003 for Arctic Slope Native Association Alaska Natives and Alaska Natives statewide included in this report were analyzed by the AN Epidemiology Center with data provided by the Alaska Bureau of Vital Statistics. "Bridged" population estimates from the National Center for Health Statistics were used to calculate rates. Bridged estimates were necessary to adjust for the new option in the Census 2000 to choose multiple races, rather than one race. 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. The on-line SEERStat software was used to calculate mortality rates. Mortality trends for US Whites (1980-2004) were available through the National Cancer Institute's Surveillance Epidemiology and End Results (SEER) Program. Mortality data included in the Leading Causes of Death tables for 2000-2004 (p.20-21) were also available through the SEER program.

**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. These rates were not age-adjusted.

### Behavioral Risk Factor Surveillance System (BRFSS) Estimates

For this report, the results of BRFSS respondents from the Arctic Slope Native Association (ASNA) service area were analyzed in order to give an estimate of several behavioral measures on the regional level. We followed CDC recommendations that data should not be reported where the unweighted sample size for the denominator is smaller than 50. In order to achieve a minimum sample size of 50, multiple years of respondent data were combined for analysis. For this reason, indicators reported include several years of data. Every year, the BRFSS survey contains slightly varied questions depending on the health topics that are of interest that particular year. Due to this variation, years presented in this report may vary between indicators. Data were analyzed in SAS Version 9.

Table 1. Technical Notes by Indicator

Indicator	Data Source	Analyses Conducted by:	Geographical Definition	Population	Years Presented
Demographics					
I.H.S. User Population	NPIRS	Data Source	North Slope Borough	Alaska Natives	FY 2006
Census Counts by Community	I.H.S., AK Area	Data Source	North Slope Borough	Alaska Natives	2000
Population Estimates	AK DOL	Data Source	North Slope Borough	Alaska Natives	2006
Educational Attainment	2000 U.S. Census	Data Source	North Slope Borough	Alaska Natives	2000
Employment Status	AK DOL	Data Source	North Slope Borough	All Races	Jan-08
Poverty Status and Household Income	2000 U.S. Census	SAIPE	North Slope Borough	All Races	2005
Mortality and Morbidity					
Mortality	ABVS	AN Epidemiology Center	North Slope Borough	Alaska Natives	1999-2003
Hospital Discharges, Inpatient Days	NPIRS	Data Source	North Slope Borough	Alaska Natives	2005
Health Promotion					
Adult Behavior Data—Tobacco Use, Physical Activity, Obesity, Substance Abuse, Overweight	GPRA/BRFSS	AN Epidemiology Center	North Slope Borough	Alaska Natives	Varies by Indicator
Adolescent Behavior Data—Overweight, Tobacco Use, Substance Abuse, Vigorous Physical Activity	YRBS	Data Source	State of Alaska	Alaska Natives	Varies by Indicator
Health Protection					
Injury Hospitalizations	AK Trauma Registry	ANTHC IP	North Slope Borough	Alaska Natives	1991-2003
Injury Deaths	ABVS	AN Epidemiology Center	North Slope Borough	Alaska Natives	1999-2005
Preventive Services and Access to Health Care					
Cancer Screenings—Colorectal Cancer, Cervical Cancer, Breast Cancer, Overweight	GPRA	AN Epidemiology Center	North Slope Borough	Alaska Natives	Varies by Indicator
Immunizations	ANTHC Immunization Registry	Data Source	North Slope Borough	I.H.S. User Population	Varies by Indicator
Diabetes	Alaska Area Diabetes Program	Data Source	North Slope Borough	Alaska Natives	2005
Maternal, Infant and Child Health and Family Planning	ABVS	Data Source	North Slope Borough	Alaska Natives	2003-2005
Environmental Health	ANTHC DEHE	Data Source	North Slope Borough	N/A	2001

NPIRS: National Patient Information Reporting System

AK DOL: Alaska Department of Labor

ABVS: Alaska Bureau of Vital Statistics

SEER: National Cancer Institute's Surveillance Epidemiology and End Results Program

GPRA: Government Performance and Results Act

BRFSS: Behavioral Risk Factor Surveillance System

YRBS: Youth Risk Behavior Survey

## Technical Notes

### Behavioral Risk Factor Surveillance System (BRFSS) Estimates- continued

Although these estimates can be useful for advocacy, planning, or evaluation purposes, the number of respondents from the region is relatively small therefore readers should use caution in the interpretation of these estimates. Confidence intervals were not calculated for these estimates and no test of statistical significance were performed for differences between populations, age groups, sexes, or over time. BRFSS data is not age-adjusted to account for the different age distributions between populations. Since Alaska's population as a whole is younger than the U.S. Population as a whole, comparisons between these populations should be interpreted with caution.

### Geographical Definition

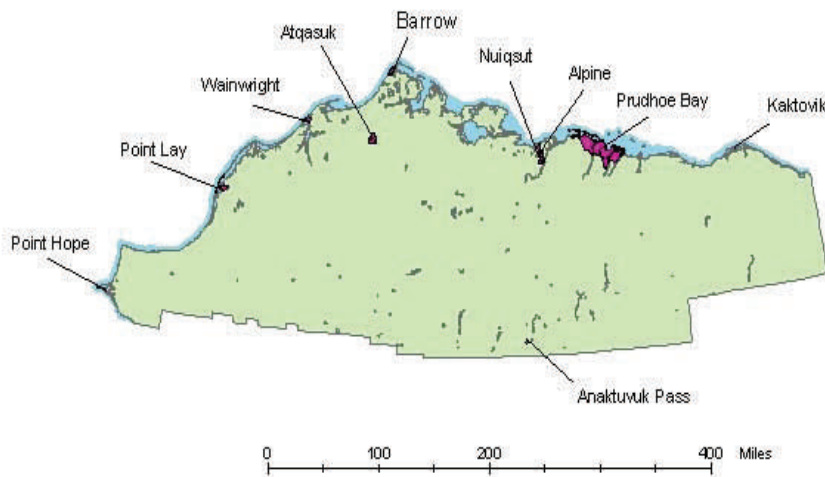
In this profile, Arctic Slope Native Association service area has been geographically defined as one of the following, depending on the data source:

- North Slope Borough: This definition fits the ASNA service area with one exception. Point Hope is a part of this Borough but not a part of the ASNA service area.
- Arctic Slope Native Association (ASNA) service area
- Barrow Service Unit: ASNA Service area fit this Indian Health Service designation.

**Table 1** identifies which geographical boundary was used for each of the indicators.



Figure 1. North Slope 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 adjusted 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**– A weight for height 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>

**Healthy People (HP) Objective**– Healthy People 2010 national objectives that are targeted to be achieved by the year 2010. Healthy People 2010 provides a national framework for disease prevention and health promotion.

**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 or other condition in a group or population at a point in time divided by the total number of persons in that group or population.

**Crude Rate**– 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, be aware 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 former local administrative units 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

Overview of Objectives included in Profile	Data Source***	Healthy Alaskans Objective	Arctic Slope AN	All AK Na-tive	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	283.1	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	173.9	202.0	AK White: 180.9	181.5	233.6
Reduce unintentional injury death rate (deaths/year per 100,000 pop., age-adjusted)	SEER Stat <sup>15</sup> (2000-2004)	17.5	137.5	102.1	AK White: 56.2	58.5	37.1
Reduce the suicide rate (deaths/year per 100,000 pop., age-adjusted)	SEER Stat <sup>15</sup> (2000-2004)	5.0	56.0	39.9	AK White: 17.3	20.3	11.7
<b>Health Promotion</b>							
<b>Tobacco Use</b>							
Reduce the percentage of adults who smoke	GPRA <sup>4</sup> (2007)	14.0%	91.3% (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 smoke-less tobacco	GPRA <sup>4</sup> (2007)	3.0%	1.1%	10.3%	3.0% <sup>2</sup> (2006)	4.0% <sup>2</sup> (2006)	Not available
Reduce cigarette smoking by adolescents (smoked in the last 30 days)	YRBS <sup>3</sup> (2007)	17.0%	Not available	31.7%	AK White: 14.5%	17.8%	23.2% (2007)
<b>Physical Activity</b>							
Increase the proportion of adults who meet recommended level of moderate and/or vigorous physical activity	BRFSS <sup>2</sup> (2001-2005)	40.0%	49.2%	53.1%	AK White: 60.4% (2005)	58.0%	58.0%
Increase the proportion of adolescents who engage in moderate physical activity	YRBS <sup>3</sup> (2007)	85.0%	Not available	32.1%	AK White: 47.2%	42.5%	37.0% (2007)
<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%	42.2% (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> (2007)	5.0%	Not available	13.4%	AK White: 10.0%	11.1%	10.8% (2007)
<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> (2003-2006)	13.0%	18.3%	18.7%	AK White: 16.7% (2005)	17.5% (2005)	14.4% (2005)
Decrease the proportion of adolescents using the following during the past 30 days:					AK White:		
Alcohol	YRBS <sup>3</sup> (2007)	Not available	Not available	40.7%	42.5%	39.7%	47.3% (2007)
Marijuana	YRBS <sup>3</sup> (2007)	Not available	Not available	31.8%	AK White: 17.4%	20.5%	19.9% (2007)
Cocaine	YRBS <sup>3</sup> (2007)	Not available	Not available	2.7%	AK White: 2.8%	2.9%	3.0% (2007)

\*\*\* Data source unless otherwise indicated

† All races

Overview of Objectives included in Profile	Data Source***	Healthy Alaskans Objective	Arctic Slope 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 nonfatal unintentional injuries per 100,000	ANTHC/IP <sup>10</sup> (1991-2003)	570	1194	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%	91.0%	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)	ABVS <sup>1</sup> (1999-2003)	4.5	9.2	8.2	AK White: 5.5	7.0 (2003)	5.8
Increase the proportion of pregnant women receiving adequate prenatal care (APNCU**)	ABVS <sup>1</sup> (2003-2005)	90.0%	29.4%	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%	82.0%	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%	46.0%	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%	82.0%	88.0%	AK White: 63.1% <sup>2</sup> (2006)	59.9% <sup>2</sup> (2006)	69.0% <sup>2</sup> (2006)
<b>Cancer</b>							
Increase the proportion of adults who receive colorectal screening examination (any CRC screening, see Definition on p. 53)	GPRA <sup>4</sup> (2007)	64%	11.5%	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%	48.3%	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 (women who have not had a hysterectomy)	GPRA <sup>4</sup> (2007)	95%	62.6%	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	Barrow Service Unit: 579.5	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 adolescents who abstain from sexual intercourse	YRBS <sup>3</sup> (2007)	65.0%	Not available	50.7%	AK White: 54.8% (2007)	54.9%	56.3% (2007)

† 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

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

6. ANTHC Immunization Program

8. ANTHC Alaska Native Tumor Registry

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

## Population Estimates

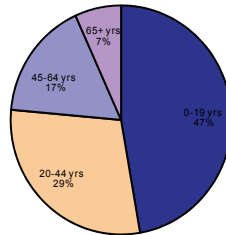
The State of Alaska Department of Labor uses the Census, vital records and other data to provide estimates of the population between census years. An explanation of the “bridged” estimates used in these figures can be found at <http://146.63.75.50/research/pop/estimates/Alaska1990Race.htm>

### Summary:

- The AK Department of Labor estimates that there are 4,784 Alaska Natives living in the Arctic Slope service area.
- About one out of every 15 Alaska Native people in the Arctic Slope service area is over the age of 65.

**Geographical Definition:** Arctic Slope service area is defined as the North Slope Borough.

Figure 2. Population Estimate Distribution by Age Group, Alaska Natives  
Arctic Slope Service Area, 2006



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

Table 2. Population Estimates by Age Group  
Alaska Natives, Arctic Slope Service Area, 2006

Age (years)	Male		Female		Total	
	Number	%	Number	%	Number	%
0-4	297	6.2%	307	6.4%	604	12.6%
5-9	261	5.5%	220	4.6%	481	10.1%
10-14	272	5.7%	256	5.4%	528	11.0%
15-19	323	6.8%	324	6.8%	647	13.5%
20-24	198	4.1%	190	4.0%	388	8.1%
25-29	116	2.4%	122	2.6%	238	5.0%
30-34	103	2.2%	93	1.9%	196	4.1%
35-39	122	2.6%	117	2.4%	239	5.0%
40-44	172	3.6%	163	3.4%	335	7.0%
45-49	152	3.2%	137	2.9%	289	6.0%
50-54	124	2.6%	97	2.0%	221	4.6%
55-59	95	2.0%	67	1.4%	162	3.4%
60-64	68	1.4%	64	1.3%	132	2.8%
65+	150	3.1%	174	3.6%	324	6.8%
Total	2,453	51.3%	2,331	48.7%	4,784	100.0%

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

## User Population

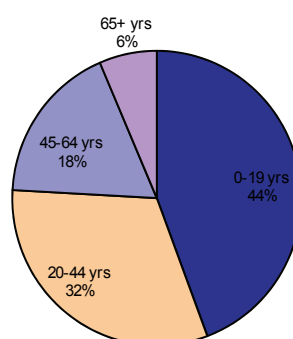
**Definition:** An I.H.S. user is defined by the Indian Health Service (I.H.S.) as an eligible American Indian/Alaska Native (AI/AN) who used a tribal health facility at least once in the previous three year period. The facility must be one that reports to the national I.H.S. data system. I.H.S. user population data are provided by federal fiscal year (FY). FY2006 is from October 1, 2004 through September 30, 2005 of the following year.

### Summary:

- In FY2006, 44% of the Arctic Slope user population was under the age of 20.
- The age distribution for the Alaska Native population as estimated by the State of Alaska and the Arctic Slope Native Association user population is similar.

**Geographical Definition:** Arctic Slope service area includes all patients residing in communities served by Arctic Slope Native Association.

Figure 3. User Population by Age Group, Alaska Natives  
Arctic Slope Service Area, FY2006



Data Source: Indian Health Service National Patient Information and Reporting System (NPIRS) <sup>1</sup> FY 2006  
Note: Age is determined from the end date of FY 2005.

Table 3 . User Population, Alaska Natives, by Sex and Age,  
Arctic Slope Service Area, FY2006

Age (years)	Males		Females		Total	
	Number	%	Number	%	Number	%
Less than 1	76	1.7%	62	1.4%	138	3.1%
1 to 4	228	5.2%	239	5.4%	467	10.6%
5 to 9	247	5.6%	204	4.6%	451	10.3%
10 to 14	190	4.3%	212	4.8%	402	9.2%
15 to 19	260	5.9%	227	5.2%	487	11.1%
20 to 24	202	4.6%	181	4.1%	383	8.7%
25 to 34	226	5.1%	247	5.6%	473	10.8%
35 to 44	272	6.2%	257	5.9%	529	12.1%
45 to 54	249	5.7%	245	5.6%	494	11.3%
55 to 64	152	3.5%	130	3.0%	282	6.4%
65 +	129	2.9%	154	3.5%	283	6.4%
Total	2,231	51%	2,158	49%	4,389	100%

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:

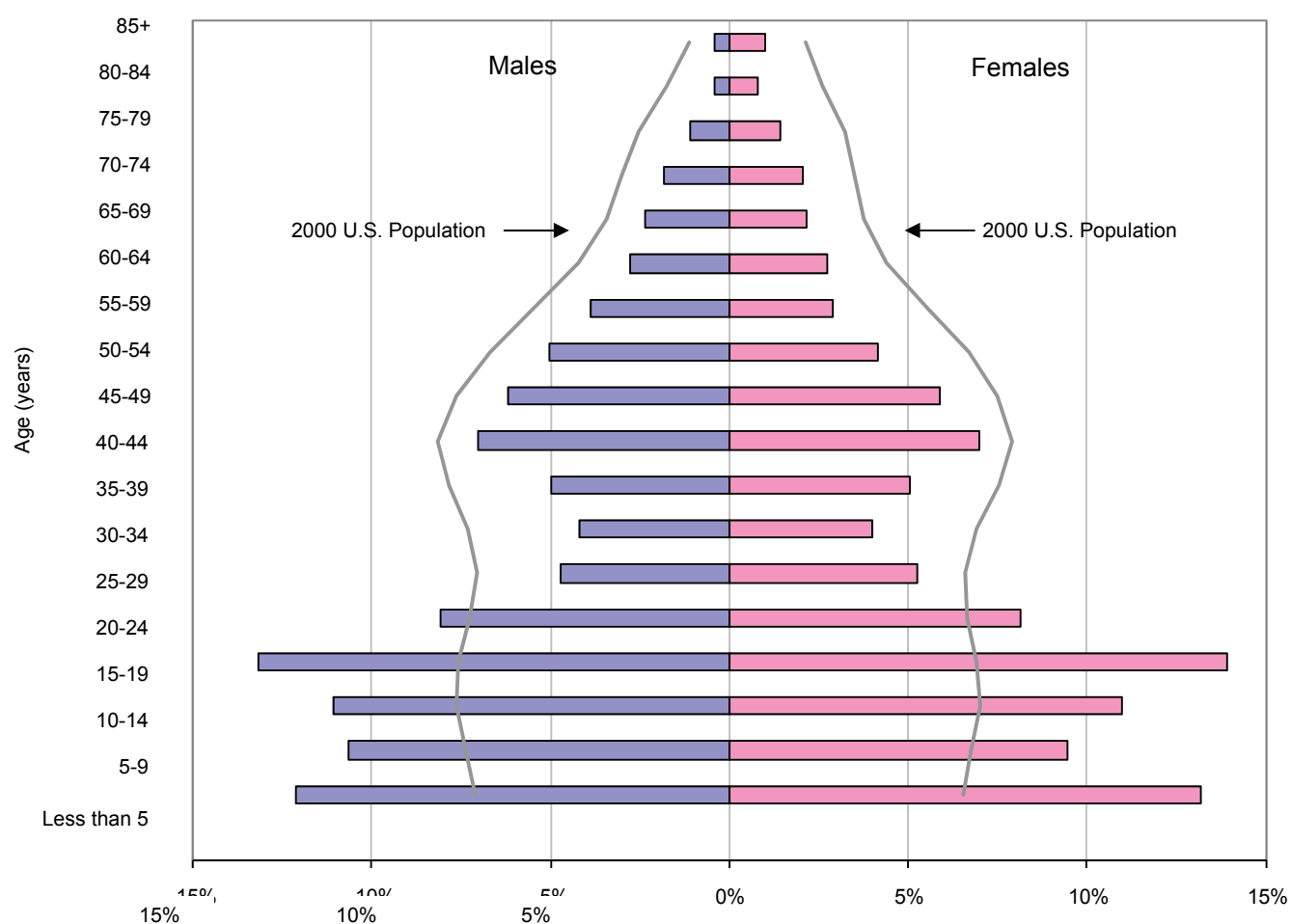
- As shown in Figure 4, a much larger proportion of the Arctic Slope Alaska Native population is under the age of 20 as compared to the U.S. population.
- In 2006, males accounted for 50.8% of the population in the Arctic Slope service area. Females accounted for 49.2% of the population.

**Data Availability:** Population estimates are available by state, race, borough or census area, place, and with modified age race (MARS) estimates, 1945-2006.

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

**Geographical Definition:** Arctic Slope service area is defined as the North Slope Borough.

Figure 4. Population Pyramid, Alaska Natives, Arctic Slope Service Area, 2006



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

Table 4. Census Counts by Arctic Slope 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 Population, 1990-2000
Atkasuk	215	94%	228	201	216	7%
Barrow	2,933	64%	4,581	1,771	2,763	66%
Deadhorse	0	N/A	0	3	26	-100%
Kaktovik	246	84%	294	189	224	30%
Nuiqsut	386	88%	437	328	354	18%
Point Lay	218	88%	247	113	139	93%
Prudhoe Bay	4	80%	5	4	47	0%
Wainwright	516	93%	554	464	492	11%
Unspecified	0	N/A	0	456	820	-100%

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

Educational Attainment

Summary:

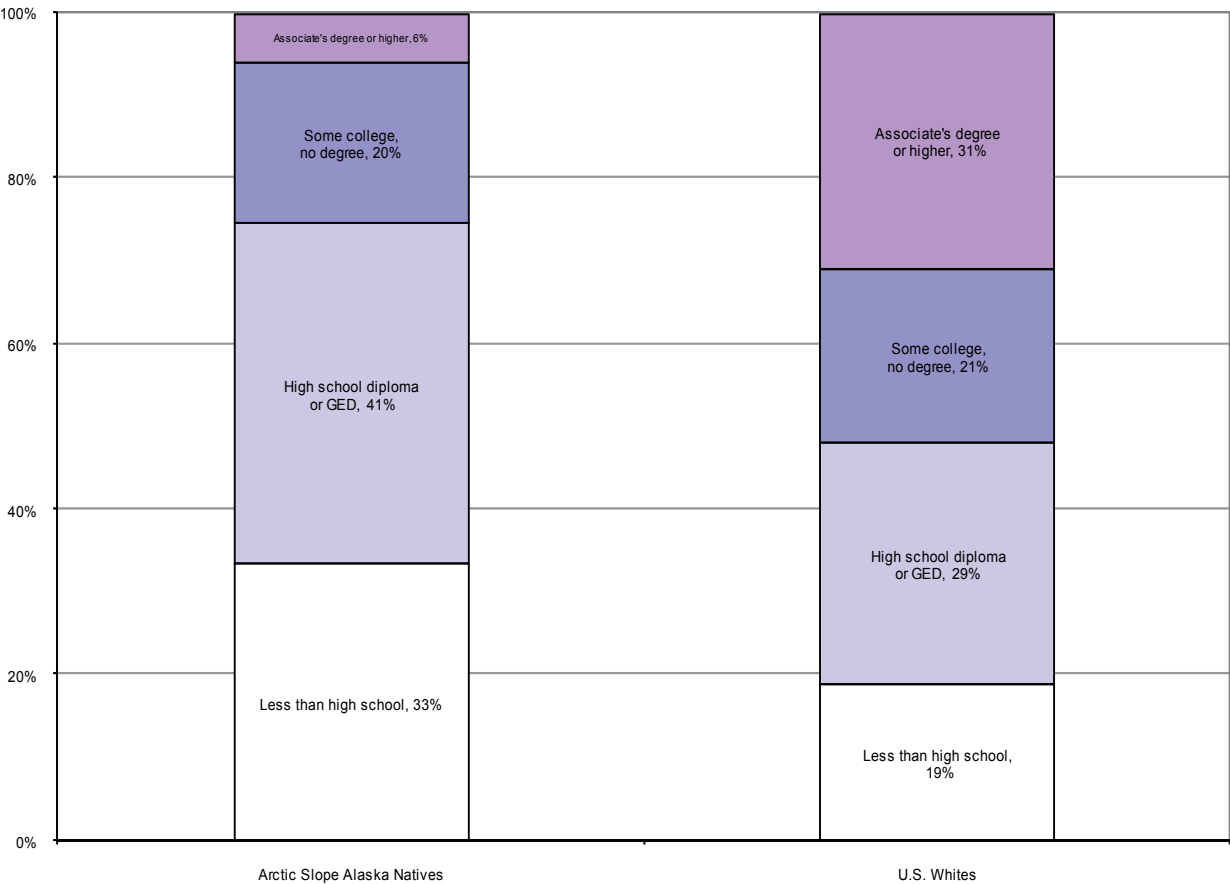
- Among Alaska Natives living in the Arctic Slope service area in 2000, 6% had received an associate's degree or higher as compared to 31% of the U.S. White population.
- In 2000, 41% of Alaska Natives in the Arctic Slope service area reported having earned at least a high school diploma or GED.

**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:** Arctic Slope service area is defined as the North Slope 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>

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## 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:

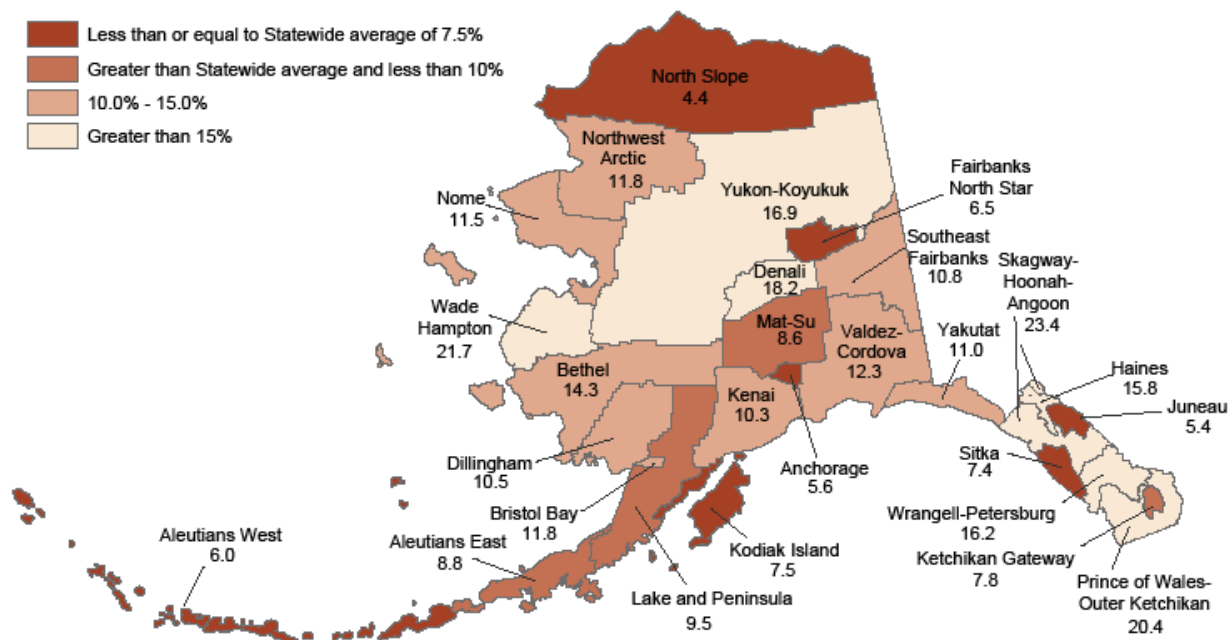
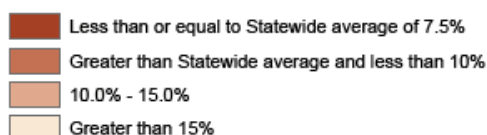
- In January of 2008, the unemployment rate for the North Slope Borough was 4.4%, less than the statewide unemployment rate of 7.5%.
- The unemployment rate for North Slope Borough was among the areas with the lowest unemployment rates in the state.

**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, January 2008

### Unemployment Rate Range



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).

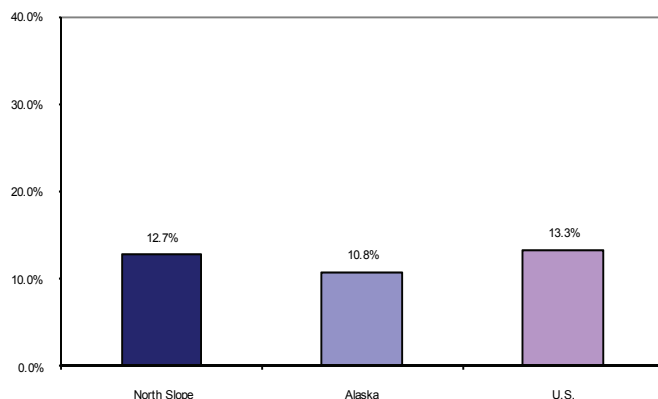
### Summary:

- The percent of residents living below the federal poverty level in the North Slope Borough, was twelve percent (12.7%). This is higher than the Alaskan rate and nearly the same as the U.S. rate.
- Sixteen percent (16.3%) of children living in the North Slope Borough were living below the poverty level in 2005. This also higher than the Alaskan and slightly lower than the U.S. rate.

**Data availability:** Available by borough/census area and statewide through 2005.

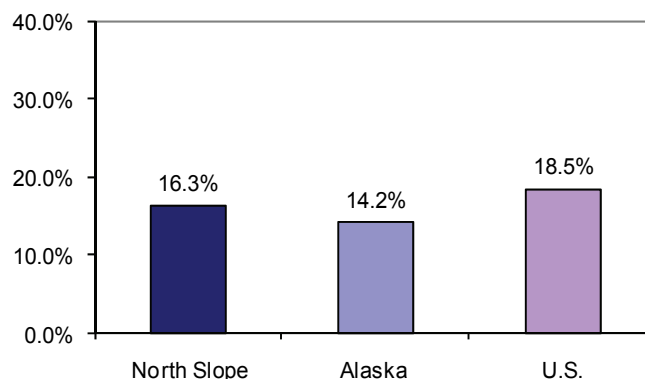
**For more information:** A source for the most current estimates of income and poverty is the U.S. Census' Small Area Income and Poverty Estimates program at <http://www.census.gov/hhes/www/saie/>

Figure 7. Estimated percent of residents  
below Poverty Level,  
All Races and Ages  
2005



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  
2005



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.

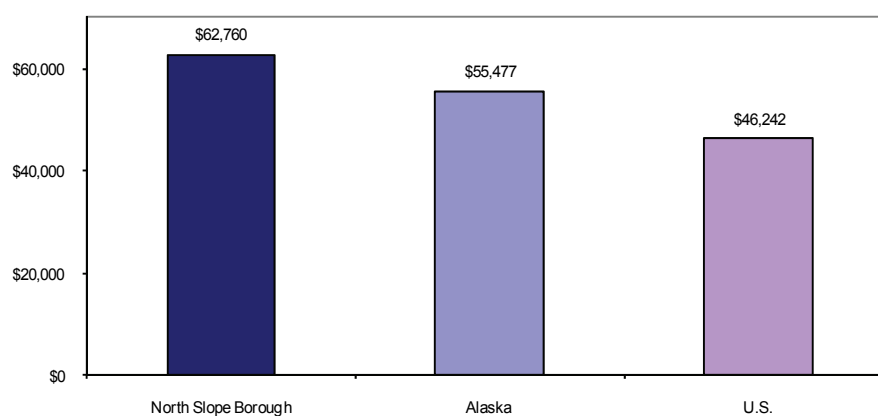
**Summary:**

- For 2005, the estimated median household income in the North Slope Borough was higher than that of Alaskans statewide and the U.S. (Refer to Figure 9).

**Data availability:** Available by Borough/Census Area and Statewide through 2005.

**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/saie/>

**Figure 9. Estimated Median Household Income**  
All races, Age 18 and older, 2005



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

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# Morbidity and Mortality

## Mortality

### Summary:

- The top three leading causes of death among Alaska Natives in the Arctic Slope service area during 2000-2004 were cancer, unintentional injury and heart disease.
- During 2000-2004, 36 Alaska Natives in the Arctic Slope service area died from cancer.
- Cancer accounted for more than one-fifth (22.1%) of all deaths in the Arctic Slope service area during 2000-2004.
- Slightly less than ten percent (9.2%) of Alaska Native deaths in the Arctic Slope service area were a result of suicide during 2000-2004.

**Data availability:** Mortality data is available by borough or census area, and by race statewide through 2006. Periodic Reports on Alaska Native Mortality are published by the AN EpiCenter <http://www.anthc.org/cs/chs/epi/>

**Geographical Definition:** Arctic Slope service area is defined as the North Slope Borough.

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

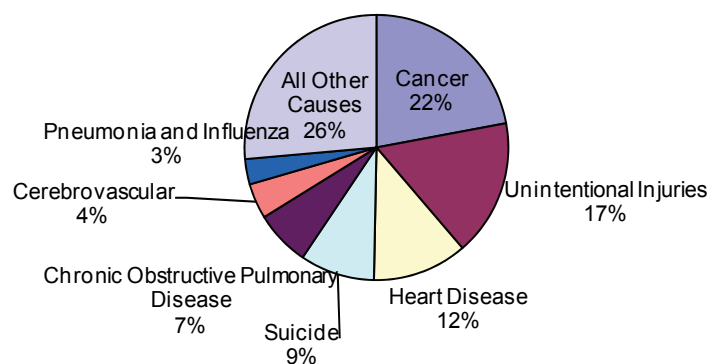
Table 5. Leading Causes of Death by Rank 2000-2004

Alaska Natives (AN) Arctic Slope service area		Number	% Deaths	U.S. Whites Rank	AN Statewide Rank
1	Cancer	36	22.1%	2	1
2	Unintentional Injury	27	16.6%	5	3
3	Heart Disease	19	11.7%	1	2
4	Suicide	15	9.2%	10	4
5	Chronic Obstructive Pulmonary Disease	11	6.7%	4	6
6	Cerebrovascular	7	4.3%	3	5
7	Pneumonia and Influenza	5	3.1%	7	7
	All other causes	43	26.4%		
	Total	163	100%		

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

## Mortality

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



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

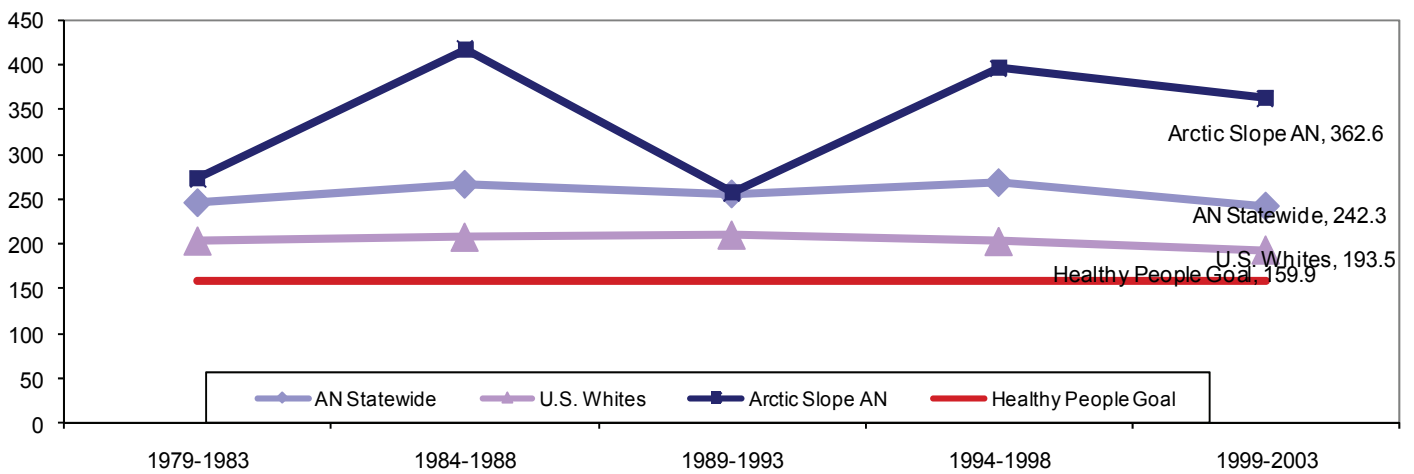
## Mortality– Trends, 1979-2003

### Summary:

- The cancer death rate in the Arctic Slope service area increased 33% between 1979-1983 (273.2) and 1999-2003 (362.6). During this same time period the US White rate decreased by 4%.
- The heart disease death rate rose from 1979 to 1993 and then declined until 2003 .

**Geographical Definition:** Arctic Slope service area is defined as the Barrow Service Unit.

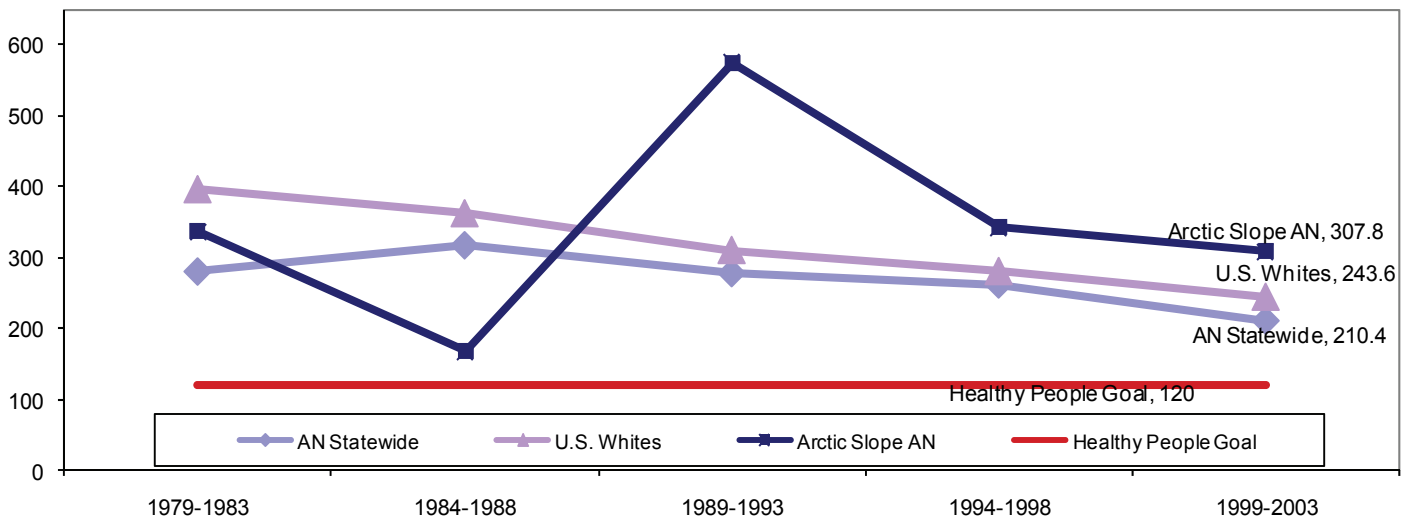
Figure 11. Age-Adjusted Cancer Death Rates per 100,000, 5-year Intervals, 1979-2003



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

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

Figure 12. Age-Adjusted Heart Disease Death Rates per 100,000, 5-year Intervals, 1979-2003



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

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

## Mortality– Trends, 1979-2003

### Summary:

- Between 1984-1988 and 1989-1993, there was a decrease in the unintentional injury death rate for Alaska Natives in the Arctic Slope service area. (124 Alaska Natives in the Arctic Slope service area died as a result of an unintentional injury during 1989-1993; 71 fewer deaths than in 1984-1988).
- Suicide rates increased 49% in the Arctic Slope services area from 1984 to 2003. The suicide death rate for US Whites decreased 12% between 1979-1983 and 1999-2003.

Figure 13. Age-Adjusted Unintentional Injury Death Rates per 100,000, 5-year Intervals, 1979-2003

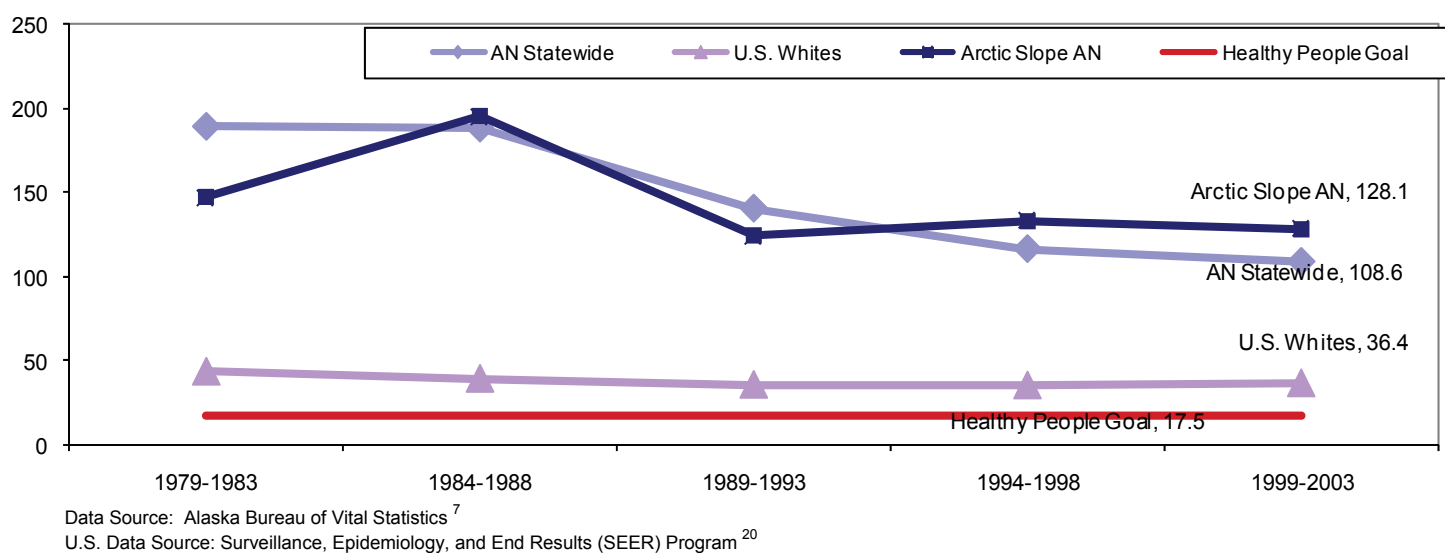
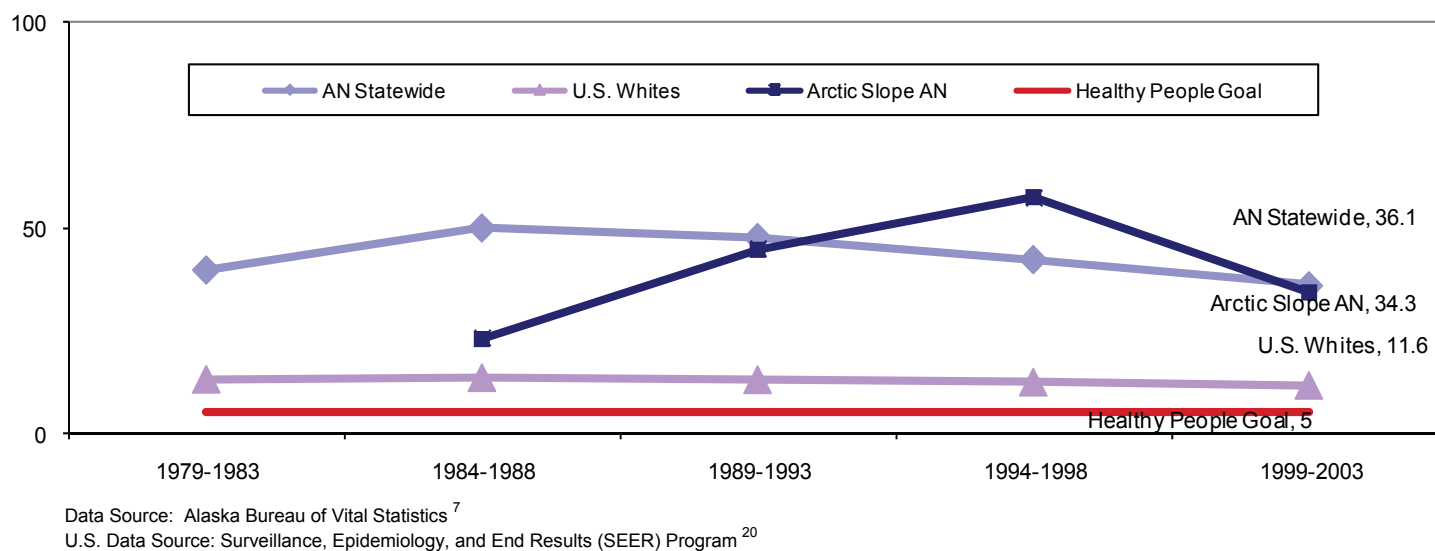


Figure 14. Age-Adjusted Suicide Death Rates per 100,000, 5-year Intervals, 1979-2003



## Hospitalizations– Leading Causes of Hospital Discharge and Inpatient Visits

Table 6. Top 10 Hospital Discharges by Admission Diagnosis  
All Ages, Fiscal Year 2006

Samuel Simmons Memorial Hospital			
Rank	Cause	Number	% Total
1	Complications of pregnancy/childbirth (630-677)	44	25.3%
2	Diseases of the respiratory system (460-519)	38	21.8%
3	Deliveries/childbirth (V01-V82)	38	21.8%
4	Disease of the digestive system (520-579)	10	5.7%
5	Diseases of the skin and subcutaneous tissue (680-709)	10	5.7%
6	Symptoms, signs and ill defined conditions (780-799)	8	4.6%
7	Endocrine, nutrition, metabolic, immunity disorders (240-279)	4	2.3%
8	Diseases of the nervous system and sense organs (320-389)	4	2.3%
9	Diseases of the circulatory system (390-459)	4	2.3%
10	Diseases of the muskuloskeletal system and connective tissue (710-739)	4	2.3%
	<b>Total Discharges</b>	<b>174</b>	

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

Table 7. Top 10 Inpatient Days by Admission Diagnosis  
All Ages, Fiscal Year 2006

Samuel Simmons Memorial Hospital			
Rank	Cause	Number	% Total
1	Diseases of the respiratory system (460-519)	127	32.3%
2	Complications of pregnancy/childbirth (630-677)	76	19.3%
3	Deliveries/childbirth (V01-V82)	54	13.7%
4	Diseases of the skin and subcutaneous tissue (680-709)	34	8.7%
5	Disease of the digestive system (520-579)	23	5.9%
6	Symptoms, signs and ill defined conditions (780-799)	18	4.6%
7	Endocrine, nutrition, metabolic, immunity disorders (240-279)	13	3.3%
8	Diseases of the muskuloskeletal system and connective tissue (710-739)	12	3.1%
9	Diseases of the circulatory system (390-459)	10	2.5%
10	Diseases of the nervous system and sense organs (320-389)	8	2.0%
	<b>Total Inpatient Days</b>	<b>393</b>	

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

## Leading Causes of Outpatient Visits

**Table 8. Top 15 Outpatient Visits by ICD Recode\***  
All Ages, Fiscal Year 2005

Samuel Simmons Memorial Hospital			
Rank	Cause	Number	% Total
1	Upper Respiratory Problems	718	11.9%
2	Accidents & Injuries	664	11.0%
3	Pregnancy, childbirth & puerperium	524	8.7%
4	Hospital Med/Surgical Follow-up	430	7.1%
5	Otitis Media	354	5.9%
6	Tests Only (Lab, X-Ray, Screening)	303	5.0%
7	Bone & Joint Disorders	249	4.1%
8	Assessment of Symptoms	243	4.0%
9	Hypertension	199	3.3%
10	Arthritis	158	2.6%
11	Musculoskeletal Disorder	146	2.4%
12	Eczema Urticaria/Skin Allergy	138	2.3%
13	Infected Skin & Abrasions	133	2.2%
14	Bronchitis, Emphysema	133	2.2%
15	Precordial & Abdominal Pain	123	2.0%
	<b>Total Outpatient Visits</b>	<b>6,046</b>	

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 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%
	<b>Total Outpatient Visits</b>	<b>571,455</b>	

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 fewer 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%.

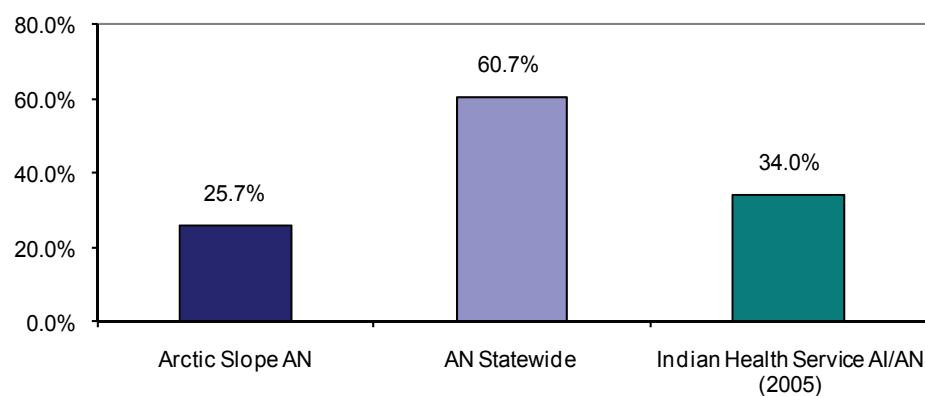
### Summary:

- More than one-third (42.2%) of Arctic Slope patients were screened for tobacco use during GPRA year 2007. This is lower than the screening rate for Alaska Natives statewide (60.7%).
- More than 9 out of 10 (91.3%) Arctic Slope patients who were screened for tobacco use were smokers and 1.1% were smokeless tobacco users.
- The percent of tobacco users who received a tobacco cessation intervention within the past year was about the same for the Arctic Slope as AN Statewide and less than half that of I.H.S.

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

**Geographical Definition:** Arctic Slope AN includes all patients residing in communities served by Arctic Slope Native Association.

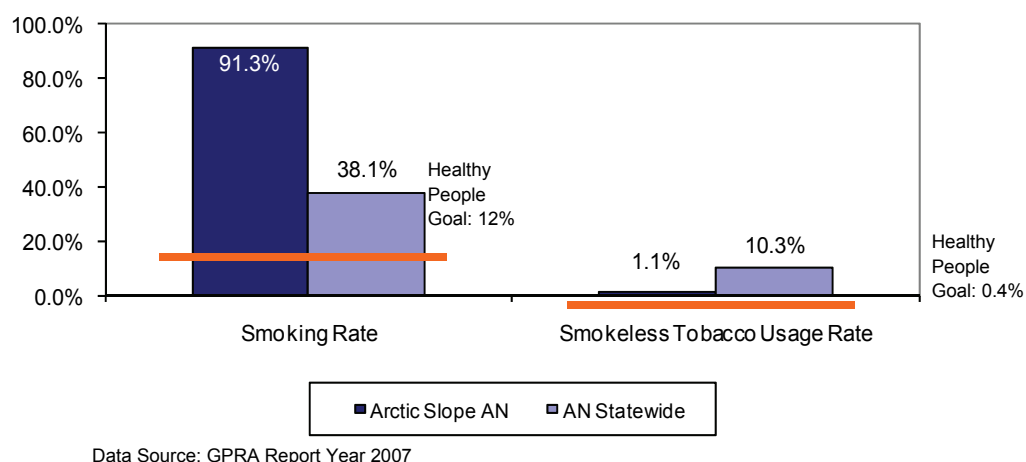
**Figure 15. Percent of Patients Screened for Tobacco Use  
5 years and older, GPRA Year 2007**



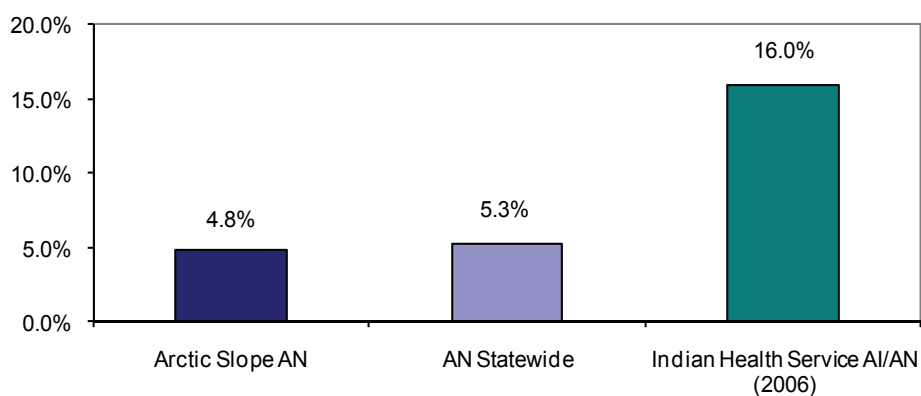
Arctic Slope AN and AN Statewide Data Source: GPRA Report Year 2007<sup>19</sup>

## Tobacco Use

**Figure 16. Tobacco and Smokeless Tobacco Usage Rates  
5 years and older, 2007**



**Figure 17. Tobacco-Using Patients Who Have Received Tobacco Cessation Intervention  
Within the Past Year, GPRA Year 2007**



## 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 of Arctic Slope males are more than double that for Arctic Slope females.
- The self-reported rates of binge drinking decreased 50% between 1991 and 2006.

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

**Geographical Definition:** Arctic Slope AN includes all respondents residing in communities served by Arctic Slope Native Association.

**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/>

**Note:** See Cautionary Note, Appendix B, regarding the interpretation of estimates of BRFSS data analyzed on a tribal health regional level.

**Table 10. Binge Drinking**  
**Arctic Slope Alaska Natives, 18 years and older**

	n	Weighted %	N
<b>Gender (2000-2004)</b>			
Male	17	30%	64
Female	14	12%	88
Total	31	22%	152
<b>Years</b>			
1991-1994	20	38%	98
1995-1998	13	26%	49
1999-2002	13	30%	55
2003-2006	22	18%	84

Data Source: Alaska Behavioral Risk Factor Surveillance System <sup>9</sup>

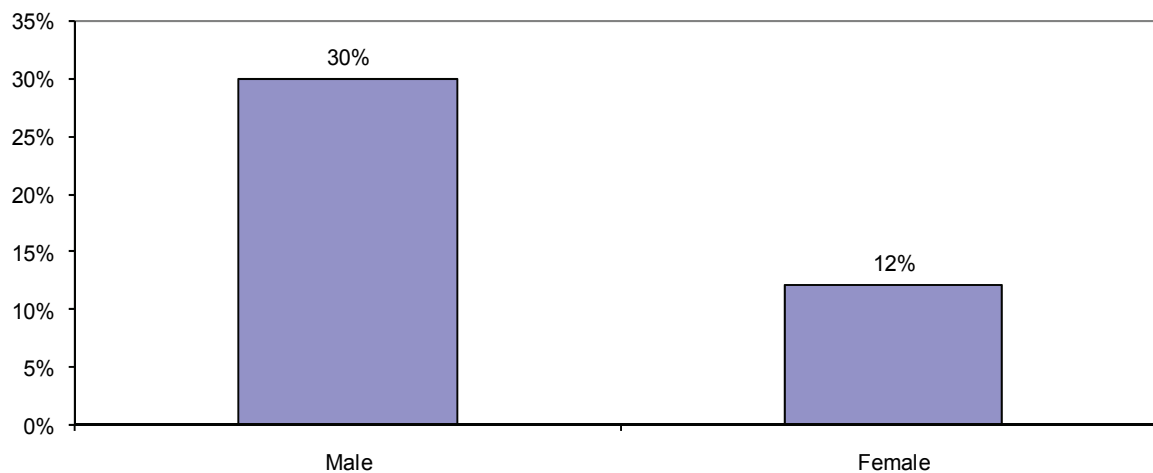
Analysis conducted by: AN EpiCenter

n= number of respondents who report they binge drink

N=total number of respondents in this subgroup

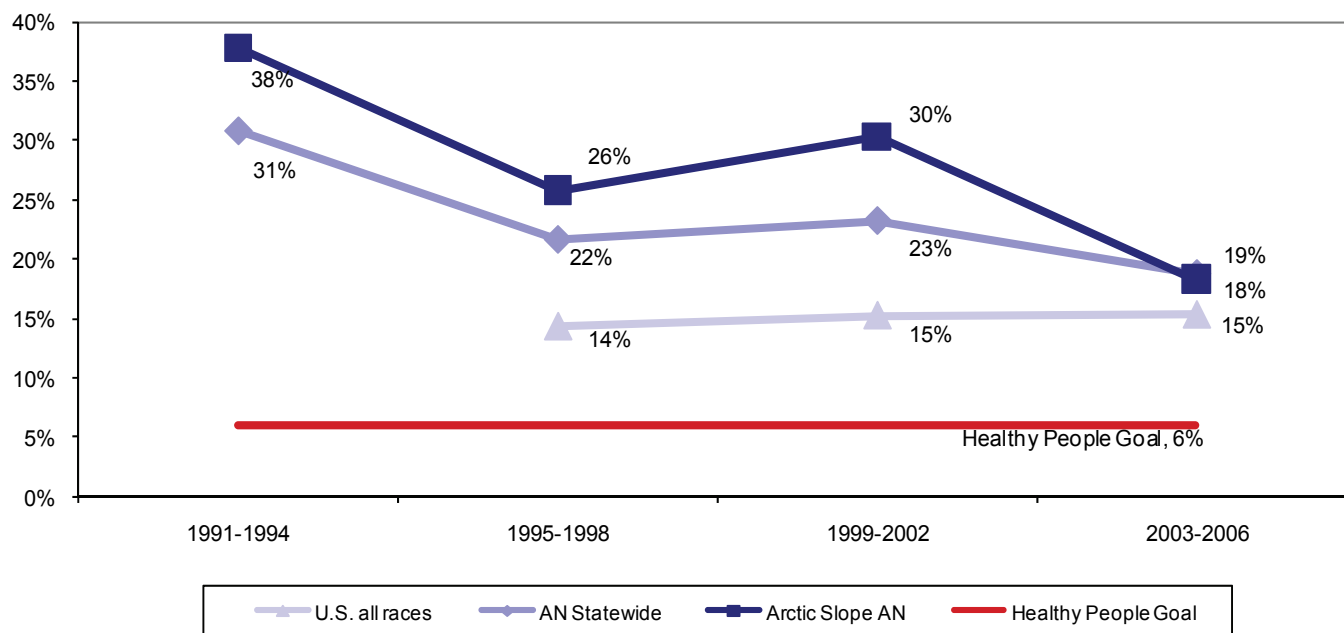
## Substance Abuse– Binge Drinking

Figure 18. Binge Drinking by Gender  
Arctic Slope Alaska Natives, 18 years and older, 2001-2004 (weighted)



Data Source: Alaska Behavioral Risk Factor Surveillance System<sup>9</sup>  
Analysis conducted by: AN EpiCenter

Figure 19. Binge Drinking, 18 years and older, 1993-2004 (weighted)



Data Source: Alaska Behavioral Risk Factor Surveillance System<sup>9</sup>  
Analysis conducted by: AN EpiCenter  
U.S. Data Source: Behavioral Risk Factor Surveillance System<sup>21</sup>

## Physical Activity

**Definition:** Adults who participated in moderate physical activity (30 or more minutes a day, 5 or more days per week) or vigorous physical activity (20 or more minutes a day, 3 times or more a week). Moderate physical activity is defined as some activity that causes an increase in breathing or heart rate. Vigorous physical activity is defined as some activity that causes a large increase in breathing or heart rate.

**Healthy People 2010, Objective 22.2:** Increase the proportion of adults who engage in regular, preferably daily, moderate physical activity to 30%.

**Healthy Alaskans 2010, Objective 1.2:** Increase the proportion of adults who engage in regular, preferable daily, moderate physical activity to 40%.

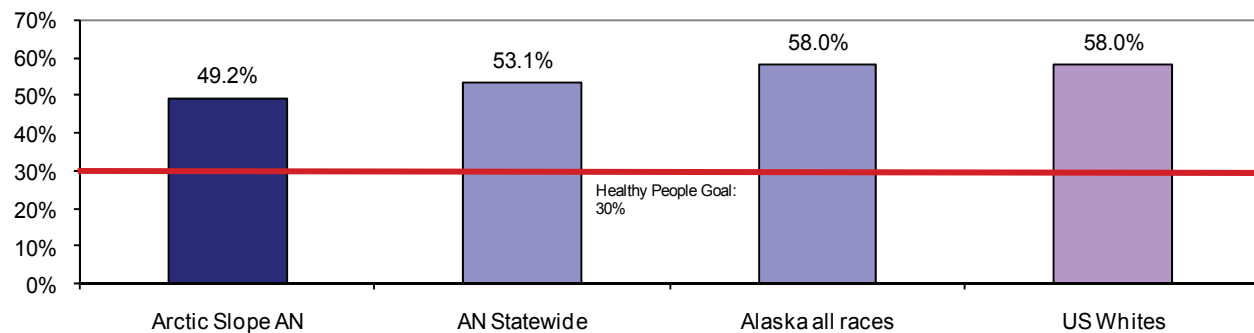
### Summary:

- The percent of Alaska Natives in the Arctic Slope service area who meet physical activity recommendations is about 4% less than for Alaska Natives statewide.

**Geographical Definition:** Arctic Slope AN includes all respondents residing in communities served by Arctic Slope Native Association.

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

Figure 20. Meets moderate or vigorous physical activity recommendations, 2001, 2003 & 2005 (weighted)



Data Source: Alaska Behavioral Risk Factor Surveillance System <sup>9</sup>

Analysis conducted by: AN EpiCenter

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 fewer than 2 visits to a medical clinic within the past 3 years.

### **Summary:**

- In the Arctic Slope service area, more than one out of every three (38.1%) Alaska Native children, 2-5 years, meet the definition of overweight.
- Five out of every ten (51.6%) Arctic Slope patients have a current BMI assessment on record with Arctic Slope. 42% meet the definition of obese (>18 years ) or overweight (≤18 years) as compared to 36% of Alaska Natives statewide.

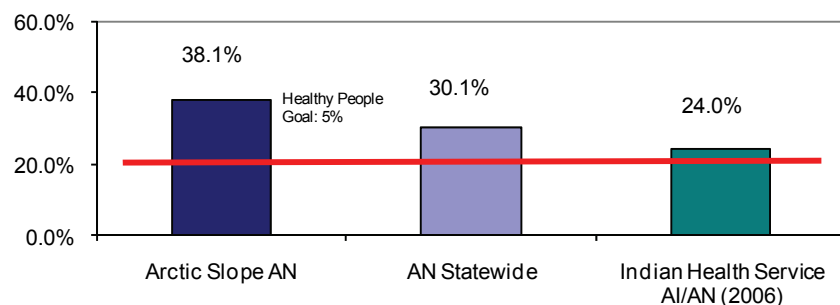
**Note:** BMI explained in detail in glossary of terms.

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

**Geographical Definition:** Arctic Slope AN includes all patients residing in communities served by Arctic Slope Native Association.

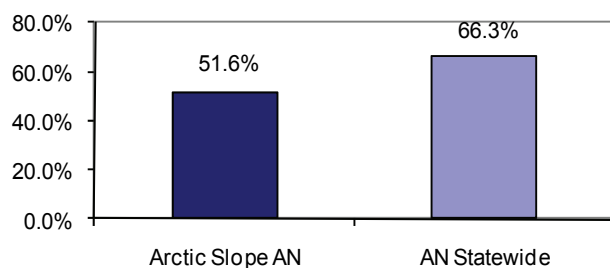
## Obesity (adult) and Overweight (children)

**Figure 21. Percent of Children who are Overweight**  
**2-5 years, GPRA Year 2007**



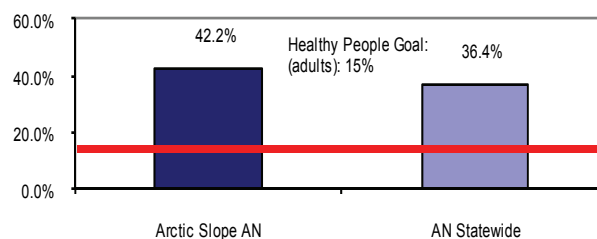
Data Source: GPRA Report Year 2007

**Figure 22. Proportion of Patients with**  
**Current BMI Assessment, 2-74 years**  
**GPRA Year 2007**



Data Source: GPRA Report Year 2007

**Figure 23. Percent of Patients who are Obese**  
**2-74 Years**  
**GPRA Year 2007**



Data Source: GPRA Report Year 2007

## 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:

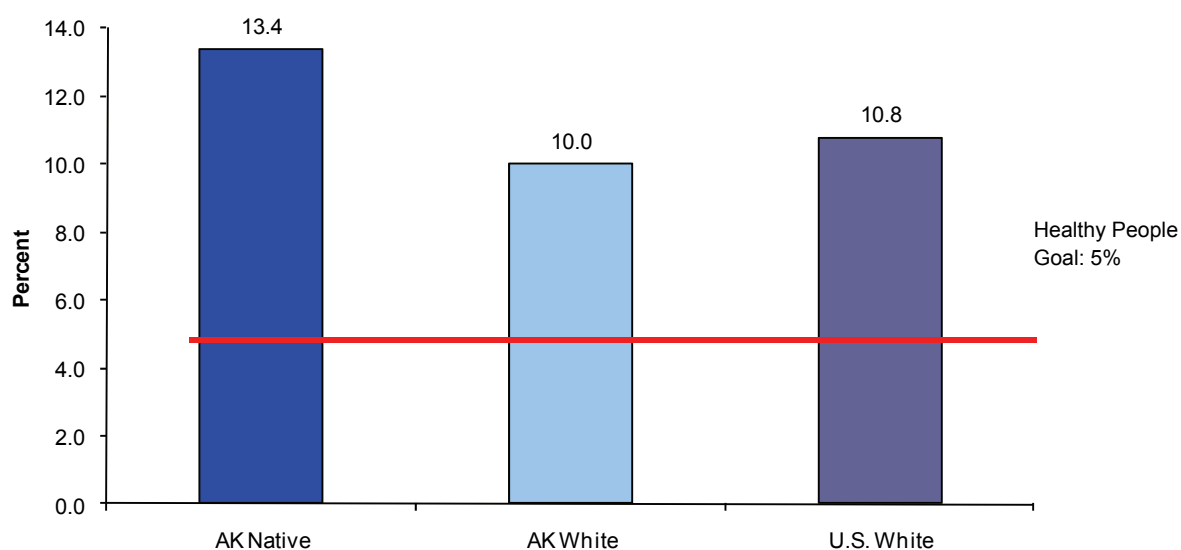
- According to data from the 2007 Youth Risk Behavior Survey, 13.4% of Alaska Native high school students are overweight. This is slightly higher than the rate for Alaska Whites and U.S. Whites.

**Data availability:** Alaska data is available for 1995, 1999 (excluding Anchorage), 2003 and 2007. Sample size is not large enough to be broken down to the regional level. Data from 1999 was excluded because it did not include Anchorage. Data from 1995 and 2003 were excluded due to small sample sizes.

**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 24. Percent of high school students who are overweight, 2007



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

## Physical Activity– Adolescents

**Definition:** The recommended level of physical activity for adolescents is defined as the proportion of students who were physically active for a total of at least sixty minutes per day on five or more of the past seven days.

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

**Healthy Alaskans 2010, Objective 1.5:** same definition and objective as above.

### Summary:

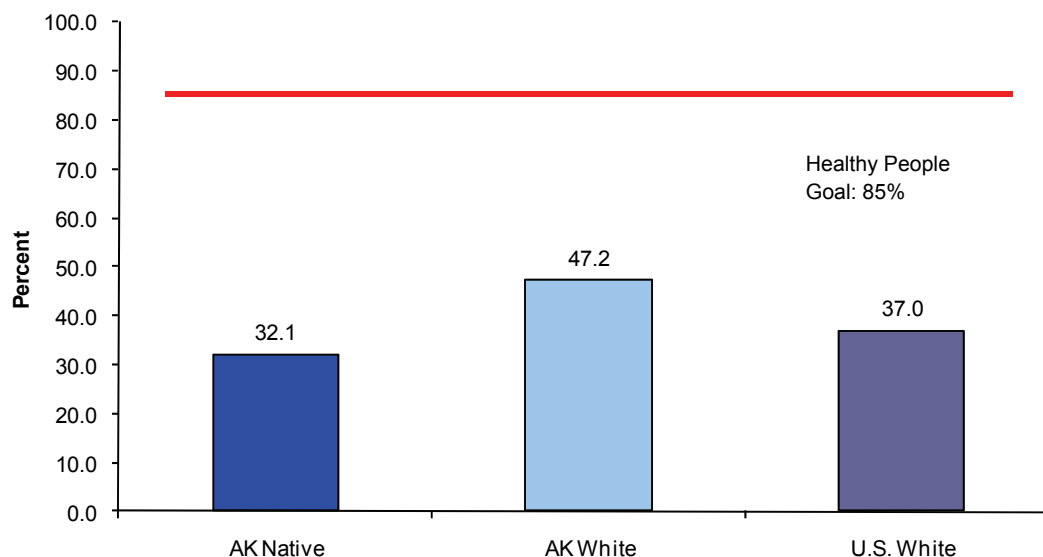
- 32.1% of Alaska Native high school students engaged in recommended levels of physical activity. This was 15.0% less than Alaska non-Native students and 5.0% less than U.S. Whites.

**Data availability:** Alaska data is available for 1995, 1999 (excluding Anchorage), 2003 and 2007. Sample size is not large enough to be broken down to the regional level. Data from 1999 was excluded because it did not include Anchorage. Data from 1995 and 2003 were excluded due to small sample sizes.

**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 25. Percent of high school students who engage in recommended levels of physical activity, 2007



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:** Cigarette smoking is defined as having smoked one or more 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 smokeless tobacco by adolescents to 8%.

### Summary:

- In 2007, 31.7% of Alaska Native high school students smoked cigarettes on one or more of the past 30 days. This was a slightly higher rate than that of U.S. White adolescents in 2007.
- In 2007, the percent of Alaska Native high school students who used chewing tobacco or snuff during the past 30 days was 16.6%. This was fifty percent higher than the rate of AK Non-Natives.

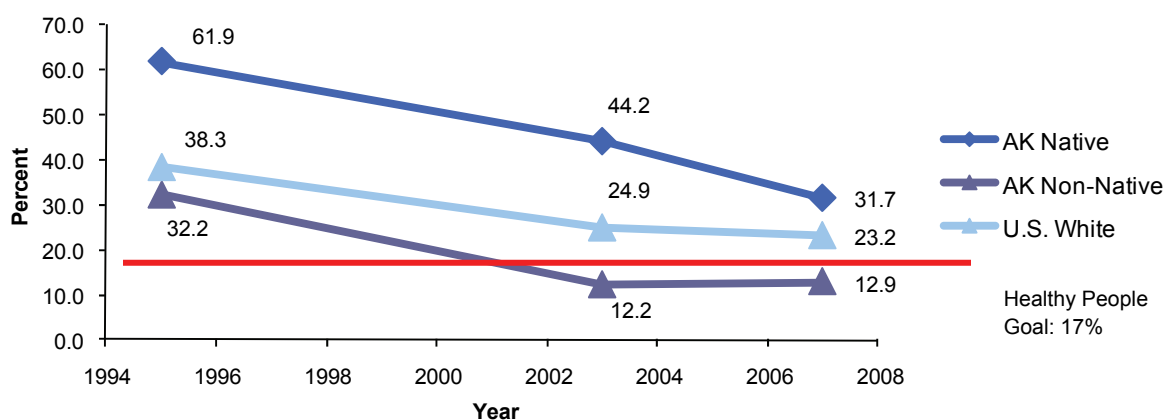
**Data availability:** Alaska data is available for 1995, 1999 (excluding Anchorage), 2003 and 2007. Sample size is not large enough to be broken down to the regional level. Data from 1999 was excluded because it did not include Anchorage.

**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/>

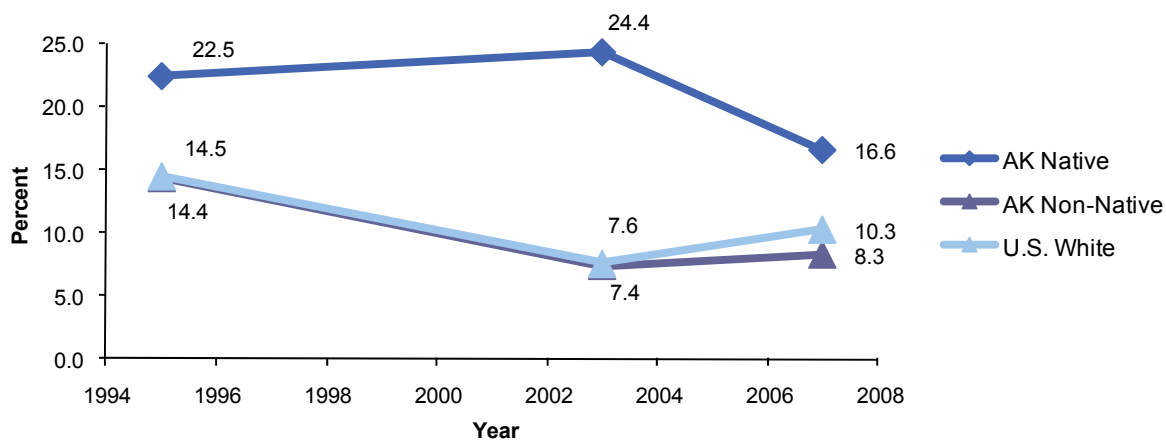
## Tobacco Use– Adolescents

Figure 26. Percent of high school students who smoked cigarettes on one or more of the past 30 days



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

Figure 27. Percent of high school students who used chewing tobacco or snuff on one or more of the past 30 days



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

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

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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:

- In 2007, 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 (40.8% vs. 47.3%).
- Almost one-third (31.7%) of Alaska Native high school students report using marijuana during one or more of the past 30 days in 2007 compared to 19.9% of U.S. Whites.
- The percent of Alaska Native high school students who used any form of cocaine in the last month in 2007 was similar to that for U.S. Whites.

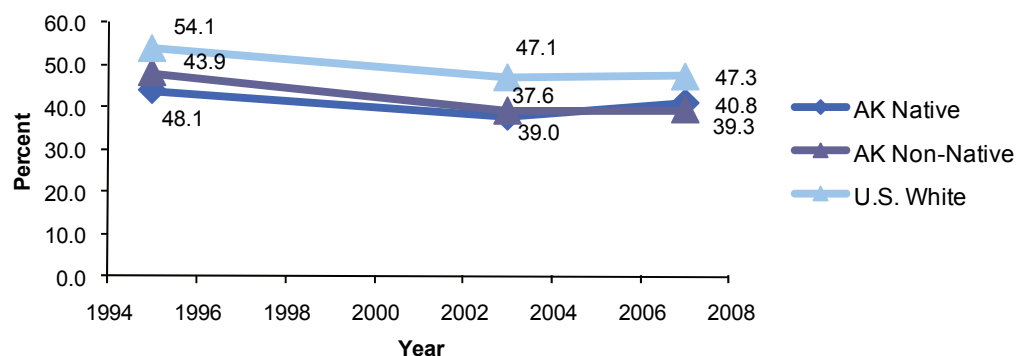
**Data availability:** Alaska data is available for 1995, 1999 (excluding Anchorage), 2003 and 2007. Sample size is not large enough to be broken down to the regional level. Data from 1999 was excluded because it did not include Anchorage.

**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/>

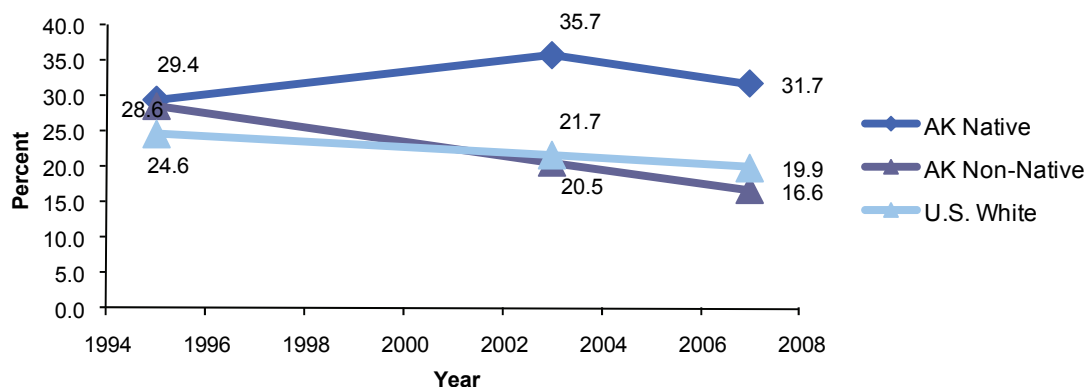
## Substance Abuse– Adolescents

Figure 28. Percent of high school students who had at least one drink of alcohol on one or more of the past 30 days



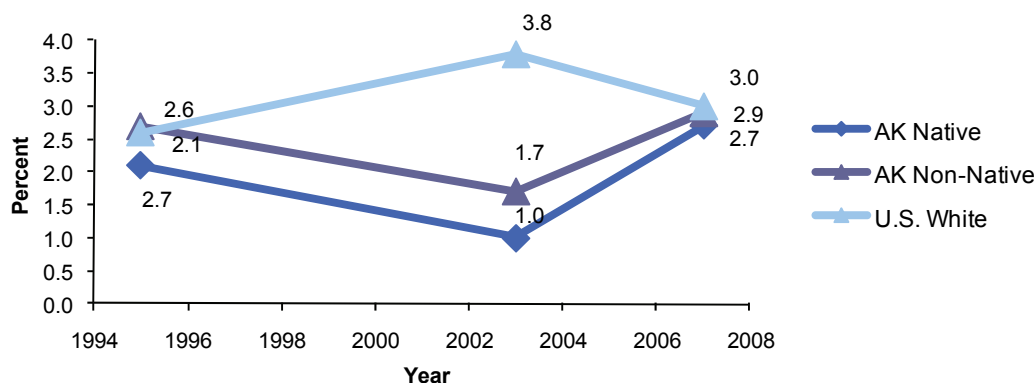
Data Source: Alaska Youth Risk Behavior Survey<sup>10</sup>

Figure 29. Percent of high school students who used marijuana on one or more of the past 30 days



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

Figure 30. 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, 2007, (weighted)



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

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# Health Protection

## Environmental Health– Water and Sewer Service Rates

**Definition:** A housing unit is considered to have water and sewer service if it has 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 2008, 94% of the communities in the Arctic Slope region had water and sewer service.

**Data availability:** Available by Tribal Health Region, Census Area, Statewide.

**Geographical Definition:** Arctic Slope is defined as the North Slope 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, 2008

Regional Health Corporation	2008 Housing Units with Pipes or Close Haul	2008 Total Housing Units	% Served
Aleutian Pribilofs Islands Association (APIA)	271	324	84%
Arctic Slope Native Association (ASNA)	462	491	94%
Bristol Bay Area Health Corporation (BBAHC)	1364	1572	87%
Chugachmuit	179	189	95%
Copper River Native Association	343	397	86%
Eastern Aleutian Tribes	507	541	94%
Kodiak Area Native Association	349	356	98%
Maniilaq Association	865	1140	76%
Norton Sound Health Corporation	970	1509	64%
Southcentral Foundation	212	238	89%
Southeast Alaska Regional Health Consortium	2288	2329	98%
Tanana Chiefs Conference	1150	1930	60%
Yukon-Kuskokwim Health Corporation	2753	4760	58%
Independent	1437	1556	92%
<b>Total</b>	<b>13150</b>	<b>17332</b>	<b>76%</b>

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

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## Injury Death– Leading Causes

### Summary:

- Suicide was the leading cause of injury death in the Arctic Slope service area between 1999-2005, comprising 39% of all injury deaths.
- Off road vehicles resulted in the deaths of 9 Alaska Natives in the Arctic Slope Service area during 1999-2005.

**Data availability:** Injury death data is available at the tribal health regional level, by census area, race and statewide. Data is analyzed through 2005.

**Geographical Definition:** Arctic Slope service area is defined as the North Slope 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/>. Injury data is also available from the Alaska Bureau of Vital Statistics on their website at <http://www.hss.state.ak.us/dph/bvs/>

Table 12. Leading Causes of Injury Death, Arctic Slope  
Alaska Natives 1999-2005

Cause	No. of Deaths	% Total
1. Suicide	19	39%
2. Off Road Vehicle	9	18%
Other	21	43%
Total Injury	49	100%
Total Unintentional	28	57%

Data Source: Alaska Bureau of Vital Statistics <sup>11</sup>  
Analysis Conducted by: AN EpiCenter

## Injury Hospitalizations

**Definition:** An injury hospitalization is defined as either an inpatient admission or transfer to an acute care facility due to injury.

**Healthy People 2010, Objective 15.14:** Reduce nonfatal unintentional injuries (developmental).

**Healthy Alaskans 2010, Objective 8.2:** Reduce hospitalizations due to nonfatal unintentional injuries to 57/10,000 population.

### Summary:

- During 2000-2005, there were 728 injury hospitalizations to Alaska Natives in the Arctic Slope service area.
- Suicide and falls were the most common causes of injury hospitalization in the Arctic Slope service area; Suicide attempts accounted for 24% of all injury hospitalizations.
- Assault injury accounted for more than one out of every eight injury hospitalizations in the Arctic Slope service area.
- The Arctic Slope injury hospitalization rate is 119.4/10,000, significantly higher than for Alaska Natives statewide (99.8 per 100,000).

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

**Geographical Definition:** Arctic Slope service area is defined as the North Slope 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 13. Leading Causes of Non-Fatal Injury Hospitalization,  
Arctic Slope, Alaska Natives, 2000-2005**

Cause	No. of Hospitalizations	% Total
1. Suicide Attempts	174	23.9%
2. Falls	162	22.3%
3. Assault	104	14.3%
4. Snow machine	82	11.3%
5. ATV	55	7.6%
6. Unintentional Poisoning	15	2.1%
7. Accidentally Struck by Person or Object	13	1.8%
8. Bicycle	11	1.5%
9. Motor Vehicle Traffic Occupant	11	1.5%
10. Caught Between Objects	10	1.4%
Other	91	12.5%
Total	728	100.0%

Provided by: ANTHC Injury Prevention Program<sup>12</sup>

Data Source: Alaska Trauma Registry

Injury Hospitalizations– Unintentional Injuries and Falls

Figure 31. Non-Fatal Unintentional Injury Hospitalization Rate by Region  
by Tribal Health Organization, Alaska, 1991-2003

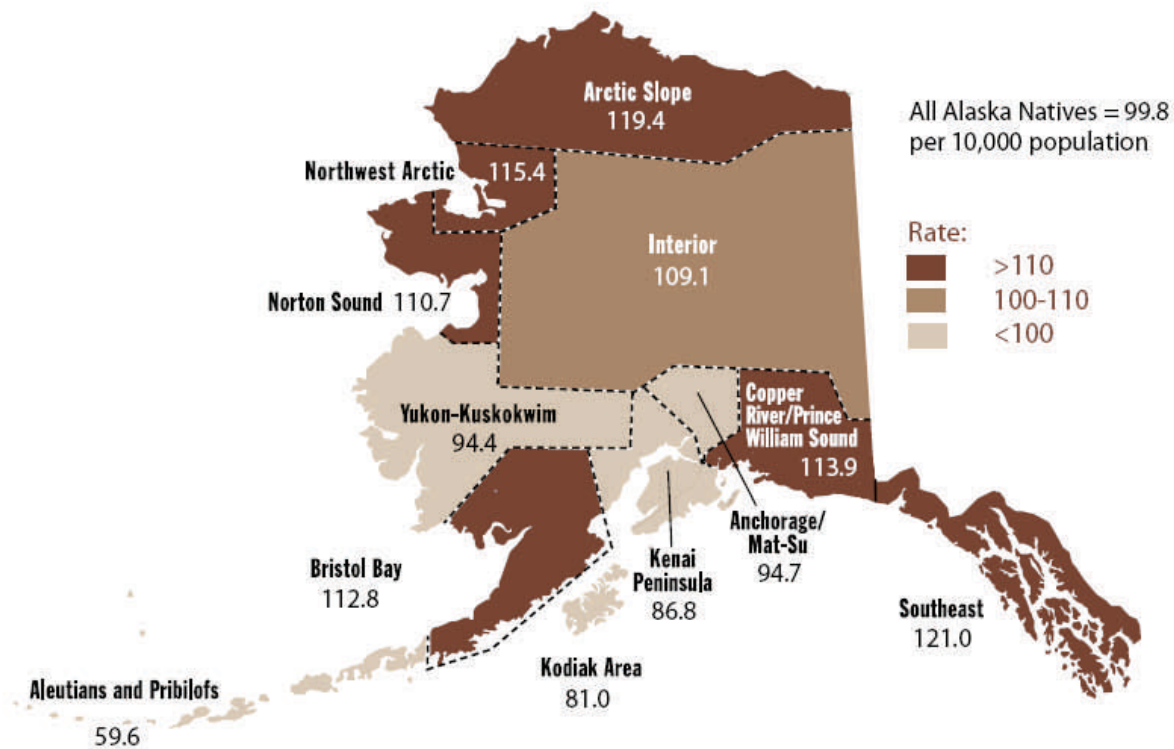
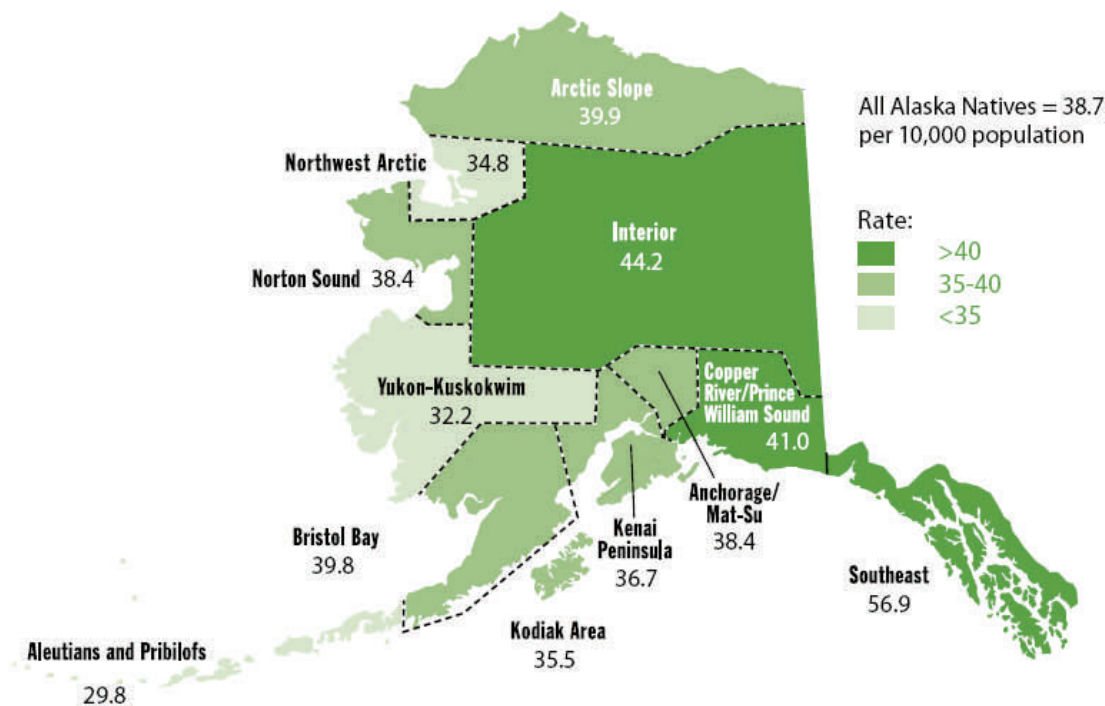


Figure 32. Non-Fatal Fall Hospitalization Rate by Region  
by Tribal Health Organization, Alaska, 1991-2003



Data Source: Alaska Trauma Registry

## Injury Hospitalizations– Suicide Attempts and Assaults

Figure 33. Non-Fatal Hospitalization Rate for Suicide Attempts  
by Region, Alaska, 1991-2003

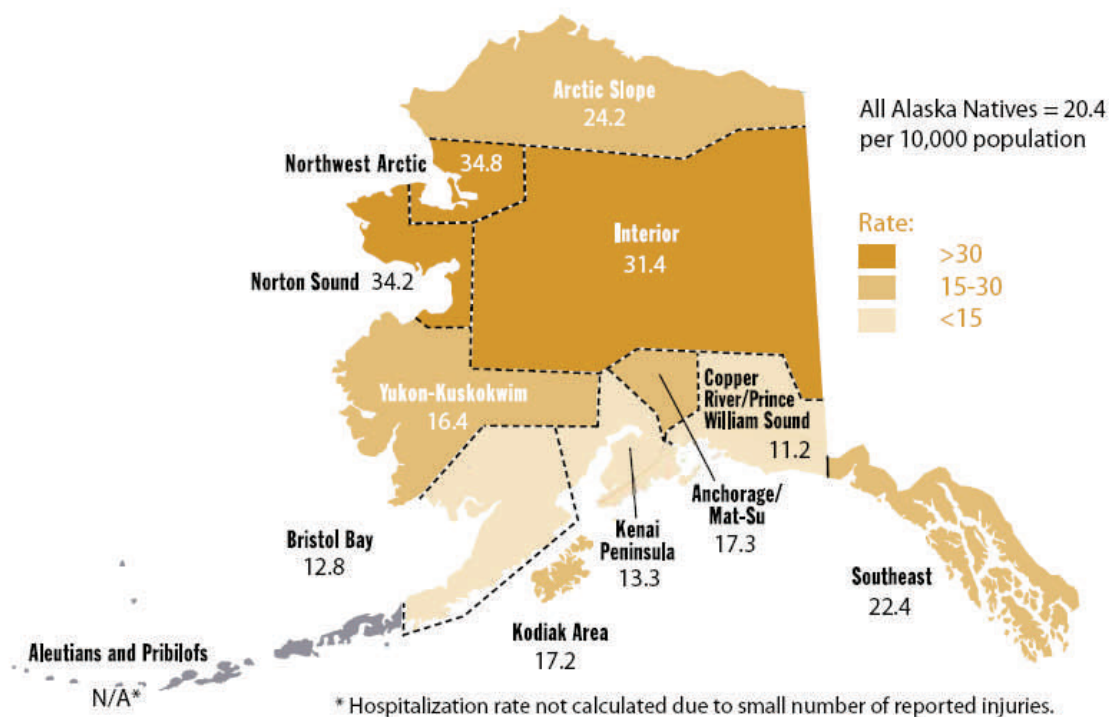
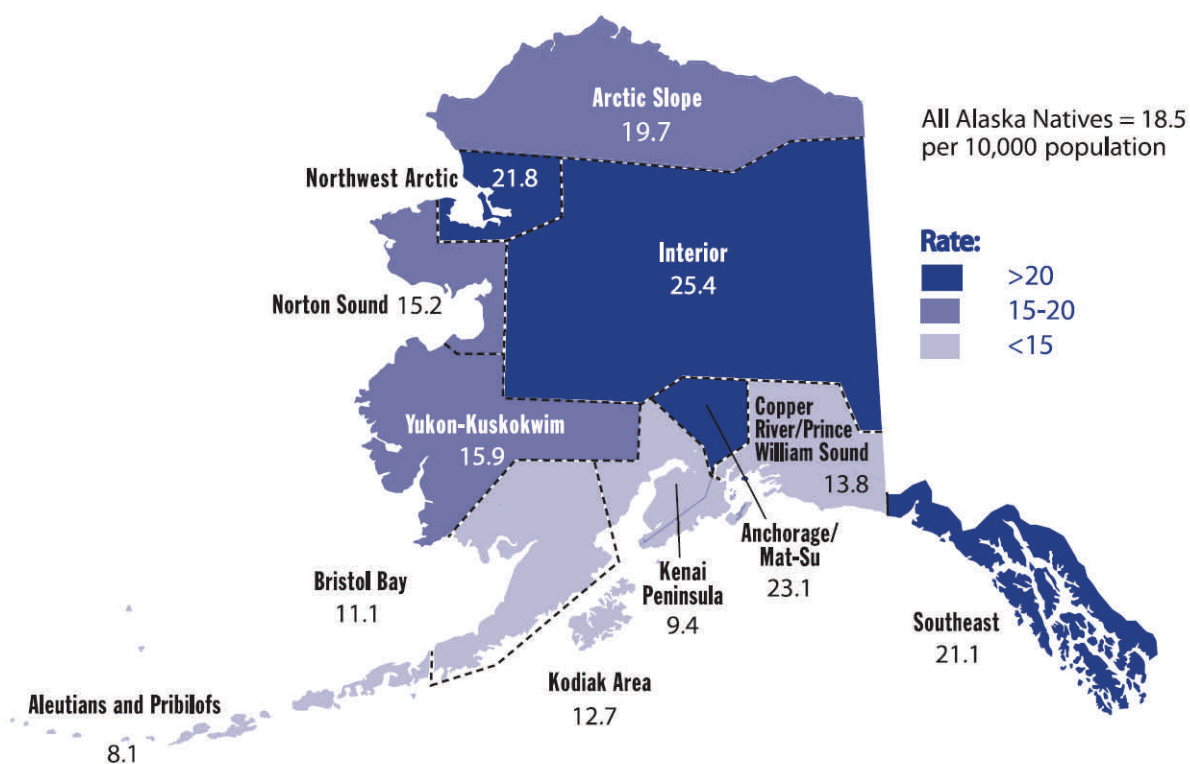


Figure 34. Non-Fatal Hospitalization Rate for Assault Injuries  
by Region, Alaska, 1991-2003



Data Source: Alaska Trauma Registry

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

## Cancer– Leading Cancers

### Summary:

- The most frequently diagnosed invasive cancers for Arctic Slope Alaska Native people during 1989-2003 were lung (41 cases), colon/rectum (32 cases) and breast (15 cases). These three cancers accounted for over half (56.4%) of all cancers diagnosed.
- The cancers most frequently diagnosed for Arctic Slope Alaska Natives were similar to the cancers most frequently diagnosed for all Alaska Natives statewide.

**Geographical Definition:** Arctic Slope AN includes all patients residing in communities served by Arctic Slope Native Association.

Table 14. Leading Invasive Cancers  
Arctic Slope Alaska Natives  
1989-2003

	Site	No.	% of Total
1	Lung	41	26.3%
2	Colon/Rectum	32	20.5%
3	Breast	15	9.6%
4	Stomach	10	6.4%
5	Prostate	7	4.5%
6	Kidney	7	4.5%
7	Pancreas	7	4.5%
8	Oral/Pharynx	4	2.6%
9	Non-Hodgkin	3	1.9%
10	Thyroid	3	1.9%
	Total	129	82.7%
	Other	156	100.0%

Data Source: ANTHC Alaska Native Tumor Registry

Table 15. Leading Invasive 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%
	Other	3,785	100.0%

Data Source: ANTHC Alaska Native Tumor Registry

## Cervical Cancer Screening

**Definition:** Cervical cancer screening for female patients aged 21 through 64 is defined as having 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 fewer 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 smear within preceding 3 years to 90%.

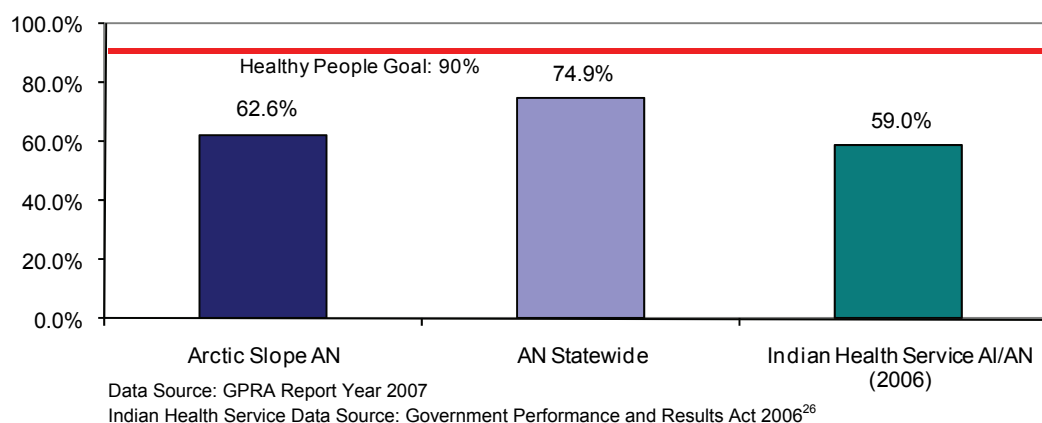
**Healthy Alaskans 2010, Objective 22.11:** Increase the proportion of women aged 18 years and older who received a Pap smear within the preceding 3 years to 95%.

### Summary:

- More than six out of ten Arctic Slope AK Native women had received a pap smear within three years of the end of GPRA year 2007. This is about 3% higher than that for all I.H.S. AI/AN nationwide.

**Geographical Definition:** Arctic Slope AN includes all patients residing in communities served by Arctic Slope Native Association.

Figure 35. Cervical Cancer Screening Rates, Women, 21-64 years, GPRA Year 2007



## Breast Cancer Screening

**Definition:** Breast cancer screening for female patients aged 52 through 64 is defined as having 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 who had fewer 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%.

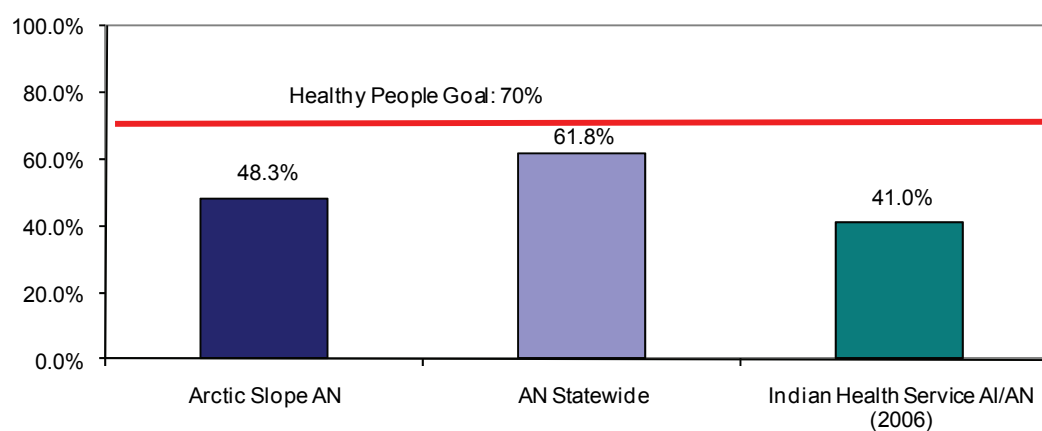
**Healthy Alaskans 2010, Objective 22.11:** Increase the proportion of women aged 40 years and older who have received a mammogram within the preceding 2 years to 76%.

### Summary:

- Forty-eight percent (48.3%) of Alaska Native women in the Arctic Slope service area aged 52 to 64 years received a mammogram within two years of the end of GPRA Year 2007. This is 7% higher than for I.H.S. AI/AN women nationwide, but 13% lower than Alaska Natives statewide.

**Geographical Definition:** Arctic Slope AN includes all patients residing in communities served by Arctic Slope Native Association.

Figure 36. Breast Cancer Screening Rates, Women, 52-64 Years  
GPRA Year 2007



Data Source: GPRA Report Year 2007

Indian Health Service Data Source: Government Performance and Results Act 2006

## Colorectal Cancer Screening

**Definition:** Colorectal cancer screening for adults aged 51 to 80 is defined as having had 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 who had fewer 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%.

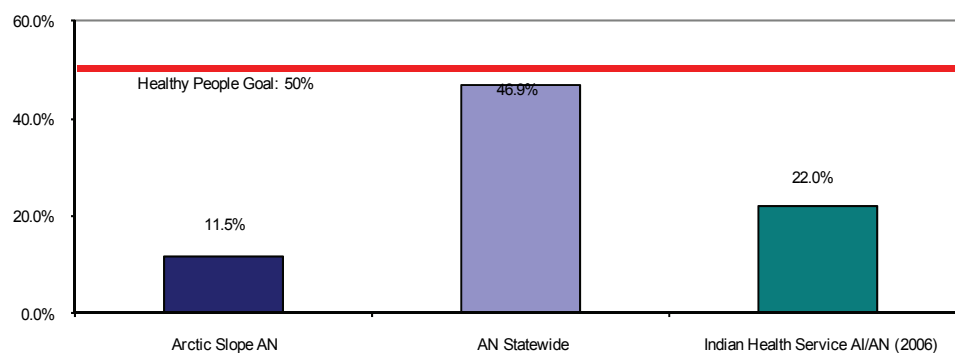
**Healthy Alaskans 2010, Objective 22.10:** Increase the proportion of adults aged 50 years and older who have received a colorectal cancer screening examinations to 64%.

### Summary:

- Arctic Slope's Alaska Native people aged 51 to 80 years had lower colorectal cancer screenings (11.5%) when compared to Alaska Native people statewide (46.9%).

**Geographical Definition:** Arctic Slope AN includes all patients residing in communities served by Arctic

Figure 37. Colorectal Cancer Screening Rates, 51-80 Years, GPRA Year 2007



Data Source: GPRA Report Year 2007

Indian Health Service Data Source: Government Performance and Results Act 2006

## 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:

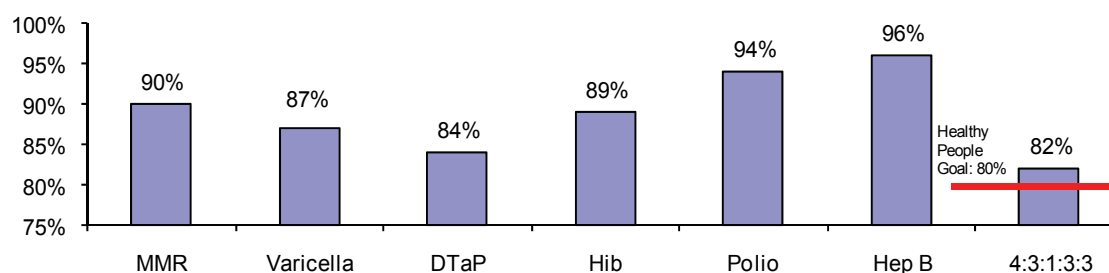
- As of December 2007, with 82% 4:3:1:3:3 coverage, the Arctic Slope service area attained the Healthy People objective of 80% coverage.

**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:** Arctic Slope AN includes all respondents residing in communities served by Arctic Slope Native Association.

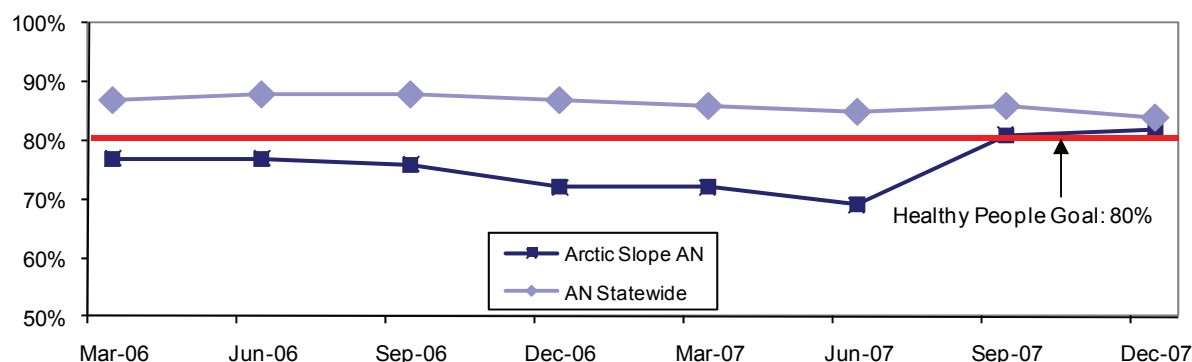
**For more information:** Go to the ANTHC Immunization Program at <http://www.anthc.org/cs/chs/immunization/>

Figure 38. Two-year old vaccination coverage, Arctic Slope  
As of December 2007



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

Figure 39. Two-Year Old Rates of 4:3:1:3:3 vaccination coverage  
March 2006-December 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:

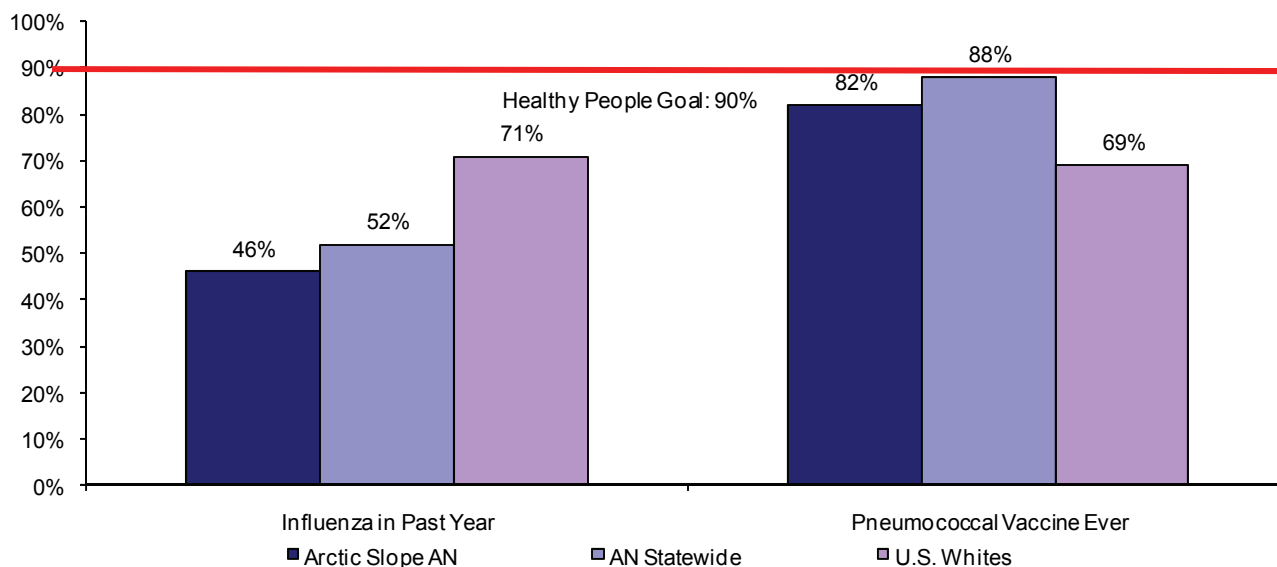
- As of June 2007, 46% of Arctic Slope users 65 years and older were vaccinated against influenza in the past year as compared to 71% of U.S. Whites.
- As of June 2007, 82% of Arctic Slope users 65 years and older had received a pneumococcal vaccine ever as compared to 69% of U.S. Whites.

**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:** Arctic Slope AN includes all respondents residing in communities served by Arctic Slope Native Association.

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

Figure 40. 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:

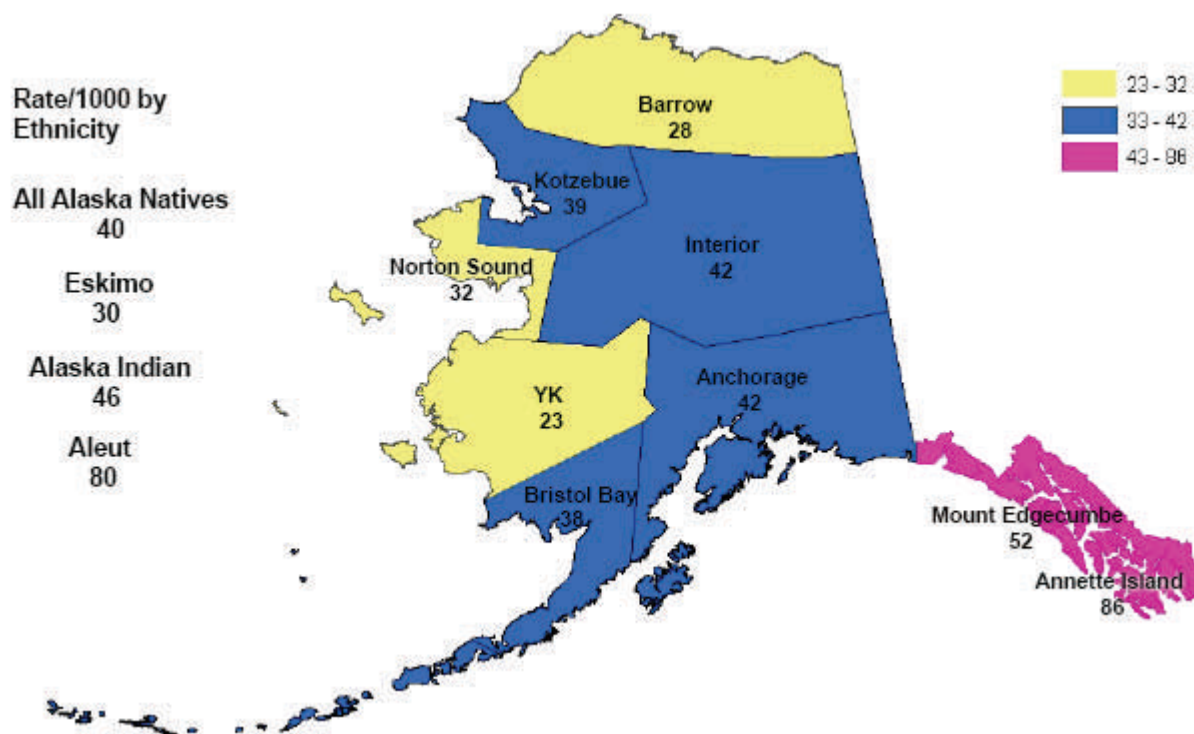
- The 2006 age-adjusted prevalence of diabetes among Alaska Natives in the Arctic Slope service area (labeled Barrow service unit) is 28/1,000 (81 cases). This is 30% lower than for Alaska Natives statewide.
- The rate of diabetes increased by 132% from 1990 to 2006 among Alaska Natives in the Arctic Slope service area.

**Geographical Definition:** Arctic Slope service area is defined as the Barrow Service Unit.

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

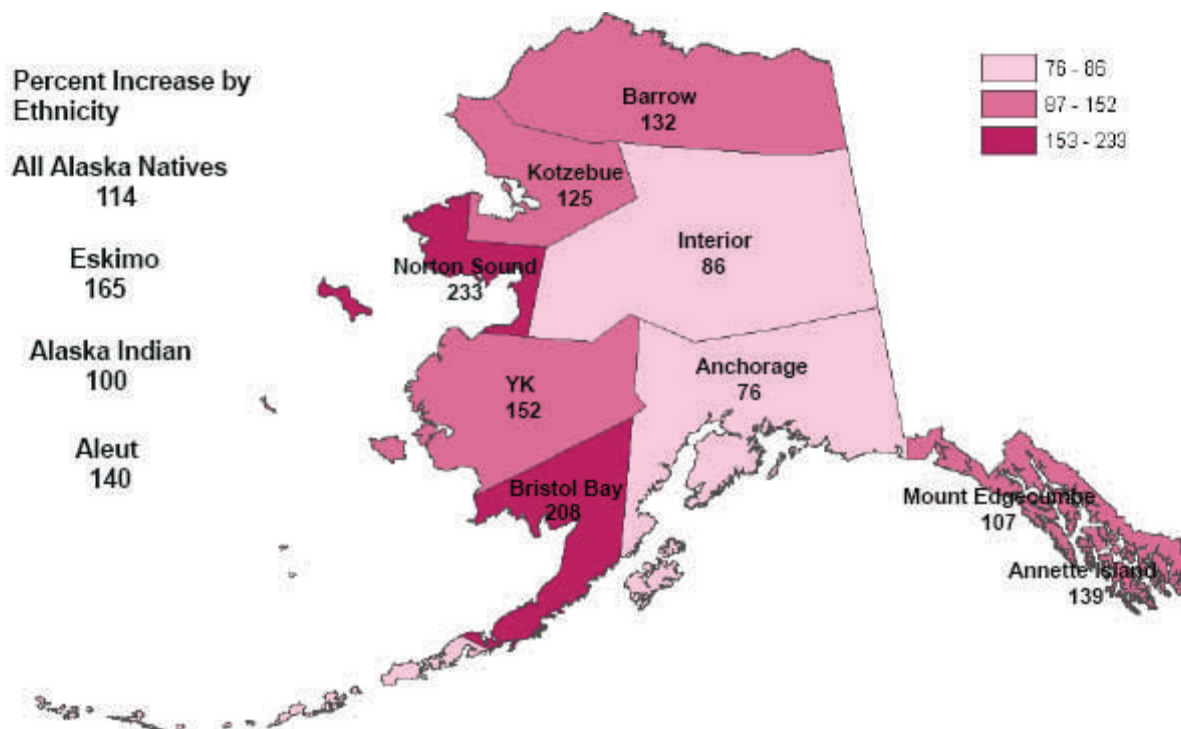
**Note:** Maps reprinted with permission from Alaska Area Diabetes Program

**Figure 41. 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 42. 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 4.5/1,000 live births.

**Healthy Alaskans 2010, Objective 16.2:** same definition and objective as above.

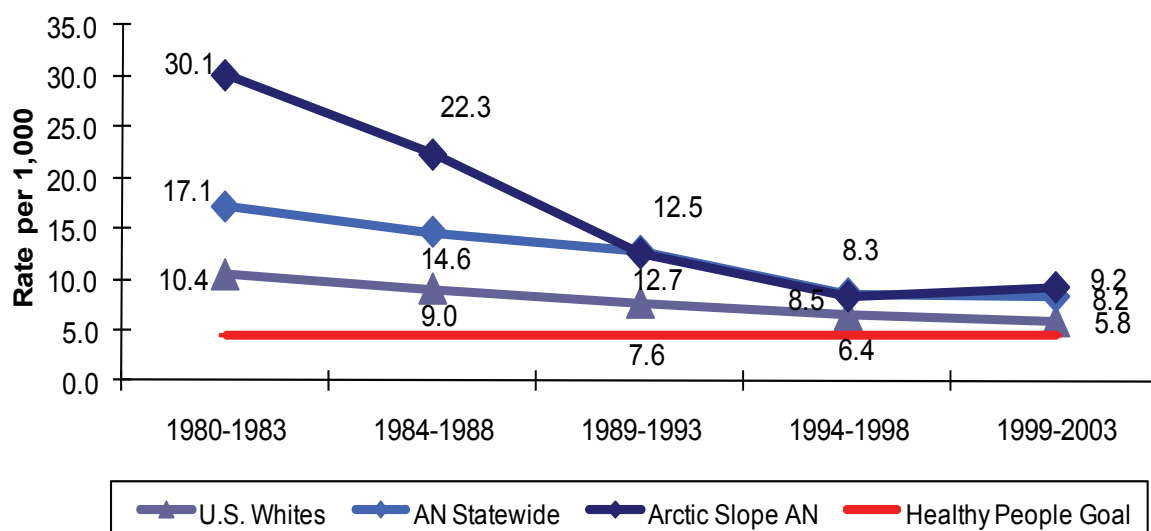
### Summary:

- The infant mortality rate decreased from 30.1 from 1980-1983 to 9.2 from 1999-2003.
- The infant mortality rate among Arctic Slope Alaska Natives is 1.6 times greater than for U.S. Whites.

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

**Geographical Definition:** Arctic Slope service area is defined as North Slope Borough.

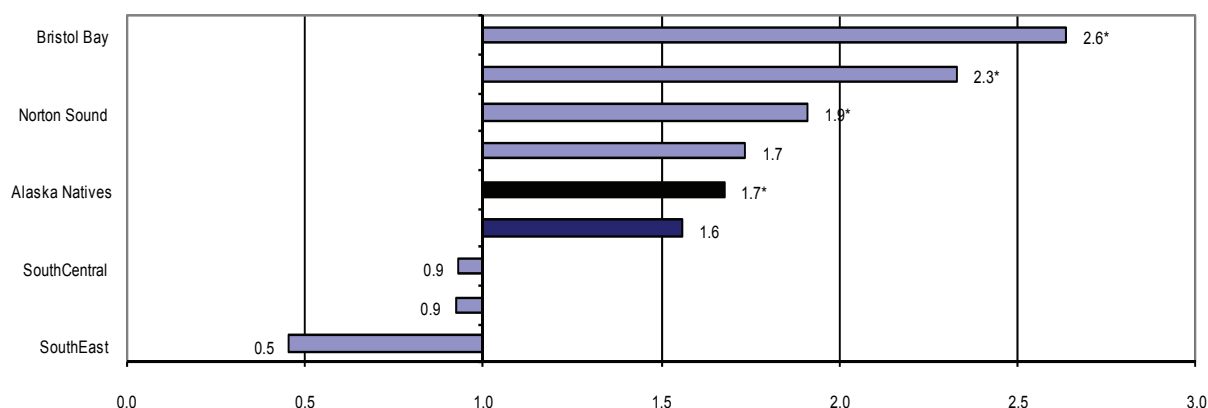
Figure 43. Infant Mortality Rates per 1,000 live births, 5-year Intervals, 1980-2003



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

Alaska

Figure 44. Rate Ratio of Infant Mortality Rates, Alaska Natives compared to U.S. Whites for Service Regions, 1999-2003



\* Rate is significantly different from US White rate (P<.05);

Alaska Data Source : Alaska Bureau of Vital Statistics<sup>7</sup>; Analysis Conducted by: AN EpiCenter

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

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

**Healthy People 2010, Objective:** Reduce low birth weight (LBW) to 4.5% of live births.

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

### Summary:

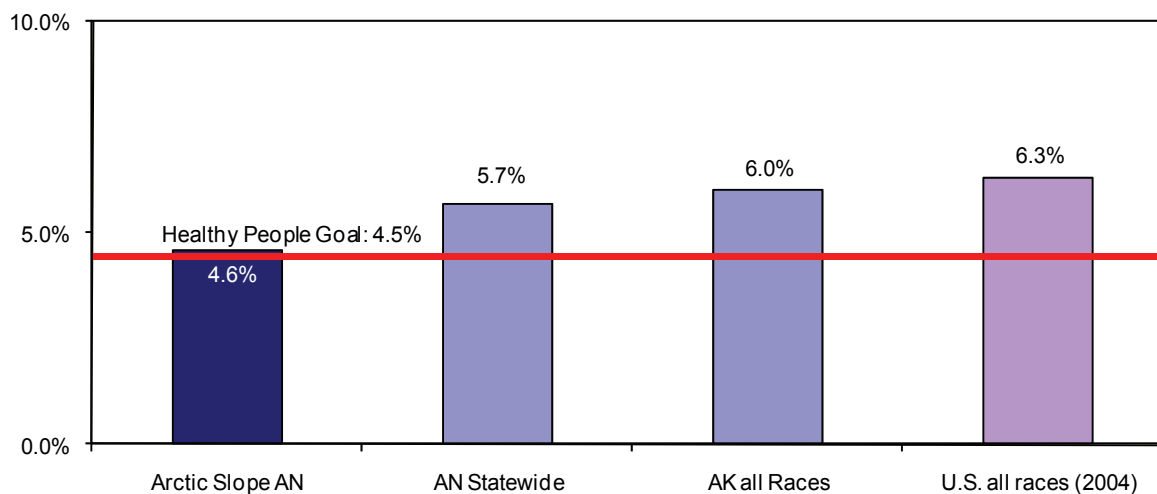
- 4.6% of Alaska Native live births in the Arctic Slope service area were born with low birth weight, achieving the Healthy People Goal of 4.5%.

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

**Geographical Definition:** Arctic Slope service area is defined as the North Slope Borough.

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

Figure 45. 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, prenatal care is considered “adequate plus”. If the ratio is greater than 80% but less than 110%, prenatal 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 (APNCU Index greater than or equal to 80) to 90%.

**Healthy Alaskans 2010, Objective 11.b:** same definition and objective as above.

### Summary:

- 29.4% of Alaska Native pregnant women in the Arctic Slope service area were documented on the birth certificate as having received “adequate or greater” prenatal care. These proportions were lower than for all Alaska and the U.S.

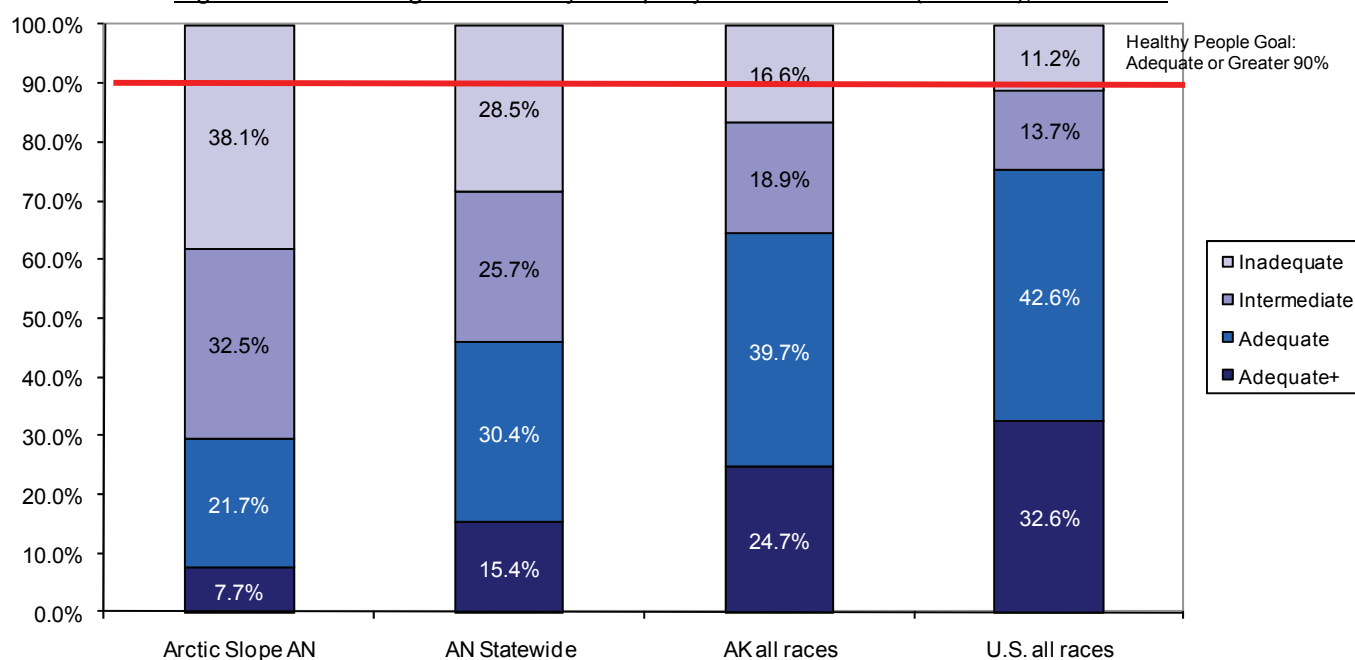
**Data availability:** Available by Census Area, by Race, Statewide

**Geographical Definition:** Arctic Slope service area is defined as the North Slope 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 46. 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>

Alaska Data Source: Alaska Bureau of Vital Statistics<sup>7</sup>; Analysis Conducted by: AN EpiCenter;

## 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 Arctic Slope service area, 95.2% report abstaining from alcohol use during pregnancy; slightly less than all Alaskan mothers (98%).
- Among Alaska Native mothers in the Arctic Slope service area, 49.9% report abstaining from smoking cigarettes during pregnancy, 18.6% lower than Alaska Natives statewide.

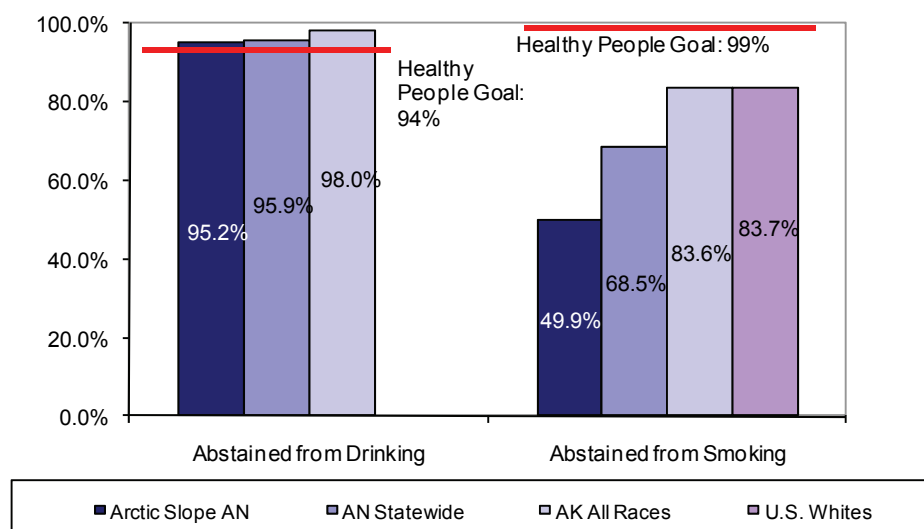
**Data availability:** Available by Census Area, by Race, Statewide

**Geographical Definition:** Arctic Slope service area is defined as the North Slope 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 47. Percent of Women Reporting Abstaining from Alcohol Use and Smoking During Pregnancy, 2003-2005



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 to 43 per 1,000 females (15 to 17 years).

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

### Summary:

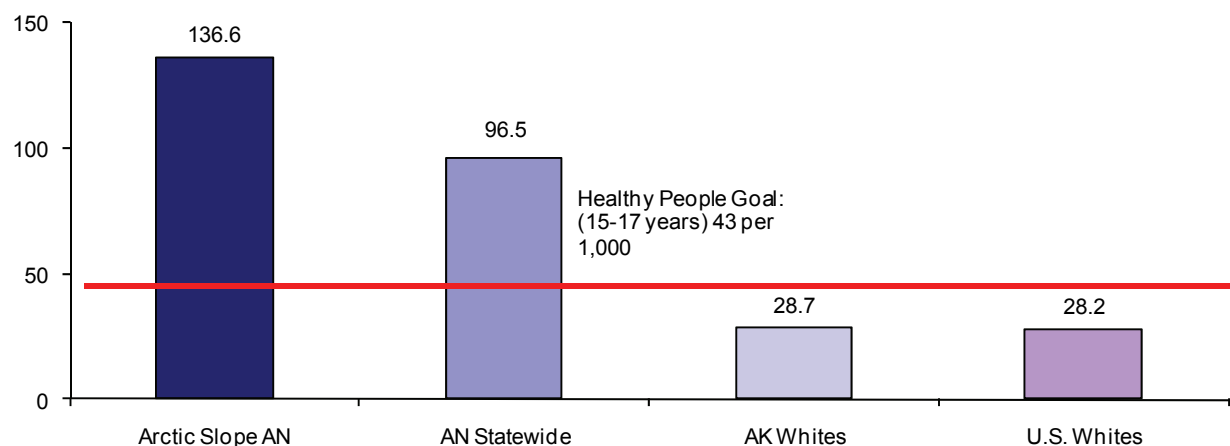
- The teen birth rate (15-19 years) for the Arctic Slope service area is higher than for Alaska Native people statewide and nearly 5 times the Alaska White rate.

**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 48. Teen Birth Rate (per 1,000 females 15-19 years), 2001-2005



Data Source: AN EpiCenter MCH Data Book

## Responsible Sexual Behavior– Adolescents

**Definition:** Responsible sexual behavior of adolescents is defined as having never engaged in sexual intercourse.

**Healthy People 2010, Objective 25.11:** Increase the proportion of adolescents who abstain from sexual intercourse 75%.

**Healthy Alaskans 2010, Objective 17.8:** Increase the proportion of adolescents who abstain from sexual intercourse to 65%

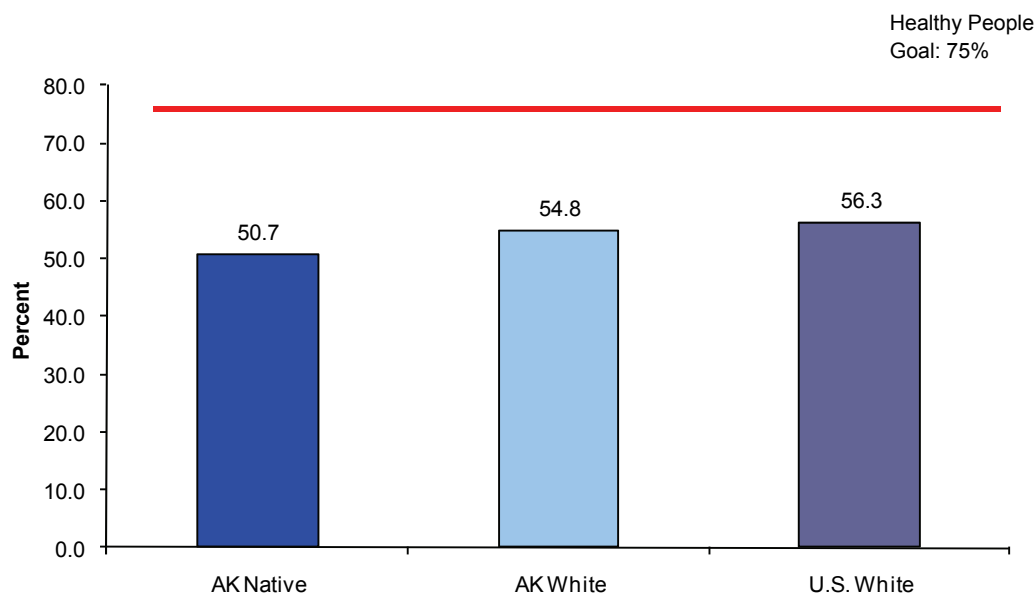
### Summary:

- One-half of Alaska Native high school students are sexually active.

**Data availability:** Alaska data is available for 1995, 1999 (excluding Anchorage), 2003 and 2007. Sample size is not large enough to be broken down to the regional level. Data from 1999 was excluded because it did not include Anchorage. Data from 1995 and 2003 were excluded due to small sample sizes.

**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 49. Percent of high school students who have never engaged in sexual intercourse, 2007



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 incidence rate to 19 per 100,000 population.

Summary:

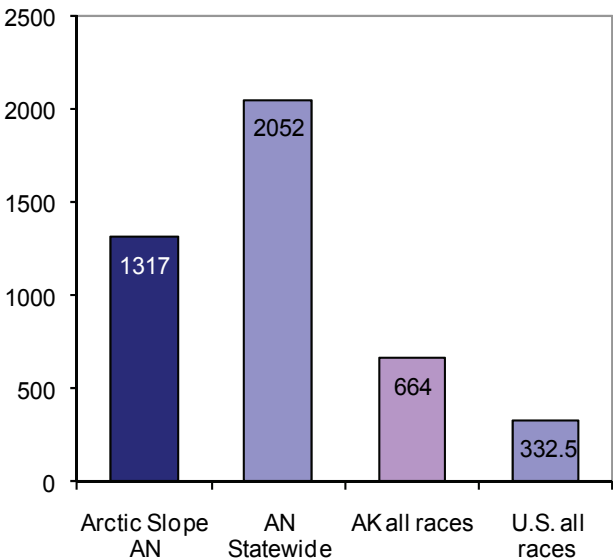
- The Chlamydia rate for Alaska Native people living in the Arctic Slope service area (1,317 per 100,000) is less than that of Alaska Natives statewide but double that of Alaska all races.
- The Arctic Slope gonorrhea rate of 20 per 100,000 is one-fifth that of all Alaskans.

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

**Geographical Definition:** Arctic Slope AN includes all respondents residing in communities served by Arctic Slope Native Association.

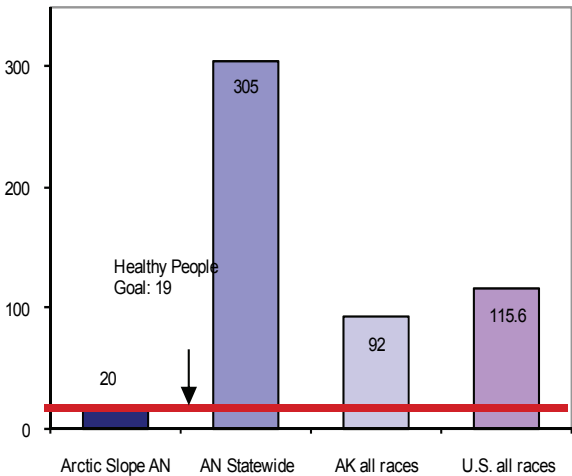
**For more information:** <http://www.epi.hss.state.ak.us/hivstd/std.stm>

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



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

Figure 51. Gonorrhea Rate  
per 100,000 population, 2005



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

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### 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.ihs.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.ihs.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, 2003 and 2007*. 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*.

## 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.

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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 ongoing 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 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 (excluding Anchorage), 2001, 2003, 2005 and 2007. Weighted (representative) data were collected in 1995, 1999, 2003, and 2007 resulting in published reports statewide. We excluded 1999 in this report since it did not include Anchorage.

### 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.

The registry 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	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
	St. George Island	
	Seldovia Village Tribe	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

<b>I.H.S. Service Unit</b>	<b>Tribal Health Corporation/Village</b>	<b>Census Area/Borough</b>
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	Southeast Alaska Regional Health Consortium	Yakutat Borough, Skagway-Hoonah-Angoon, Haines Borough, Juneau Borough, Sitka Borough, Wrangell-Petersburg, Prince of Wales/Outer Ketchikan
Ketchikan	Ketchikan Indian Community  Hoonah Indian Community  Yakutat Tlingit Tribe	Ketchikan-Gateway Borough   Yakutat Borough
Norton Sound	Norton Sound Health Corporation	Nome
Yukon-Kuskokwim Delta	Yukon-Kuskokwim Health Corporation	Bethel, Wade-Hampton