

# Maniilaq Association

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Map on cover used with approval of Maniilaq Association

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Specifically, we would like to thank the following:

### State of Alaska

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

### Alaska Native Tribal Health Consortium

- ANTHC Immunization Program, for providing region-specific immunization rates;
- ANTHC Injury Prevention Program, for providing region-specific injury rates among Alaska Natives;
- ANTHC Alaska Native Tumor Registry 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;
- ANTHC GPRA Pilot Project, for providing GPRA 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 estimates.

## Introduction

The Alaska Native Epidemiology Center (AN EpiCenter) has developed regional health profiles to monitor the health status of Alaska Native people from a specific region. This information will be useful as a baseline for advocacy, program planning, evaluation and for grant writing.

This regional health profile presents health status data in 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 the community 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 **Appendix 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) Behavioral Risk Factor Surveillance System (BRFSS)
- 6) Youth Risk Behavior Survey (YRBS)
- 7) Alaska Trauma Registry (ATR)
- 8) ANTHC Immunization Registry
- 9) Alaska Area Diabetes Program
- 10) ANTHC Department of Environmental Health and Engineering (ANTHC DEHE)
- 11) Alaska Native Tumor Registry
- 12) Government Performance and Results Act (GPRA)

### Analyses

Much of the information presented in this document was previously analyzed and has been reproduced for this report. **Table 1** shows by whom data was analyzed for each indicator. Previously analyzed data is identified in **Table 1** as being analyzed by the 'data source'. The AN EpiCenter and the ANTHC Injury Prevention Program also conducted data analysis for this report. A description of the methods used is listed on the following page.

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## Technical Notes

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

For this report, the results of BRFSS respondents from the Maniilaq 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 was analyzed in SAS Version 9.

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. For this reason, differences in estimates between populations, age groups, sexes, and over time cannot be determined to be statistically significant. 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.

### ***Alaska Bureau of Vital Statistics***

Mortality data for Alaska Natives from the Maniilaq service area and Alaska Natives statewide included in this report was analyzed by the AN EpiCenter. Deaths cover the years 1999-2003 with the exception of the table entitled **Leading Causes of Unintentional Injury Death**, which covers the years 1999-2005. Rates are age-adjusted to the US standard population. "Bridged" population estimates from the National Center for Health Statistics were used by the AN EpiCenter to calculate mortality rates. Bridged estimates were necessary to adjust for the new option in the Census 2000 to choose multiple races, rather than one race.

We only calculated rates for those causes that had at least five deaths during the interval studied. Data for US Whites was available through the National Cancer Institute's Surveillance Epidemiology and End Results (SEER) Program. We created rate ratios to compare Alaska Natives living in the Maniilaq service area (Maniilaq AN) to US Whites and calculated confidence intervals around these ratios. Maniilaq AN Rates were said to be statistically different if the 95% confidence interval did not contain one. The on-line SEERStat software was used to calculate mortality rates.

***Injury Hospitalization Rates:*** "Bridged" population estimates from the State of Alaska Department of Labor were used by ANTHC Injury Prevention to calculate injury hospitalization rates. These rates are not age-adjusted.



Table 1. Technical Notes by Indicator

Indicator	Data Source	Analyses Conducted by:	Geographical Definition	Population	Years Presented
<b>Demographics</b>					
I.H.S. User Population	NPIRS	Data Source	Kotzebue Service Unit	Alaska Natives	FY 2006
Census Counts by Community	I.H.S., AK Area	Data Source	Kotzebue Service Unit	Alaska Natives	2000
2005 Population Estimates	AK DOL	Data Source	Northw est Arctic Borough	Alaska Natives	2005
Educational Attainment	2000 U.S. Census	Data Source	Northw est Arctic Borough	Alaska Natives	2000
Employment Status	AK DOL	Data Source	Northw est Arctic Borough	All Races	Jun-07
Poverty Status and Household Income	2000 U.S. Census	SAIPE	Northw est Arctic Borough	All Races	2004
<b>Mortality and Morbidity</b>					
Mortality	ABVS	AN Epidemiology Center	Manilaq Service Area	Alaska Natives	1999-2003
Hospital Discharges, Inpatient Days	NPIRS	Data Source	Manilaq Service Area	Alaska Natives	FY 2005
<b>Health Promotion</b>					
Tobacco Use, Obesity	GPRA	Data Source	Manilaq Service Area	Alaska Natives	GY 2007
Physical Activity, Substance Abuse	BRFSS	AN Epidemiology Center	Manilaq Service Area	Alaska Natives	Varies by Indicator
Adolescent Behavior Data—Overw eight, Tobacco Use, Substance Abuse, Vigorous Physical Activity	YRBS	Data Source	State of Alaska	Alaska Natives	1995, 2003
<b>Health Protection</b>					
Injury Hospitalizations	AK Trauma Registry	ANTHC IP	Manilaq Service Area	Alaska Natives	2000-2005
Injury Deaths	ABVS	AN Epidemiology Center	Manilaq Service Area	Alaska Natives	1999-2005
<b>Preventive Services and Access to Health Care</b>					
Cancers	Alaska Native Tumor Registry	Data Source	Manilaq Service Area	Alaska Natives	1989-2003
Cancer Screenings— Colorectal Cancer, Cervical Cancer, Breast Cancer, Overw eight	GPRA	Data Source	Manilaq Service Area	Alaska Natives	GPRA Year 2007
Immunizations	ANTHC Immunization Registry	Data Source	Manilaq Service Area	I.H.S. User Population	6/2006 and 12/2007
Diabetes	Alaska Area Diabetes Program	Data Source	Kotzebue Service Unit	Alaska Natives	2006
Maternal, Infant and Child Health and Family Planning	ABVS	AN Epidemiology Center	Manilaq Service Area	Alaska Natives	2001-2005
Environmental Health	ANTHC DEHE	Data Source	Kotzebue Service Unit	N/A	2006

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

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## Race Classification

Where possible, data was presented for Alaska Natives only. However, the most current data for Employment Status, Poverty Status and Household Income includes all races. The population presented is listed for each indicator in **Table 1**.

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

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

## Geographical Definition

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

- Northwest Arctic Borough: This definition fits the Maniilaq Service Area with the following exceptions: Point Hope is not included but is part of the Maniilaq service area
- Kotzebue Service Unit: Indian Health Service designation which fits Maniilaq Service Area
- Maniilaq Service Area

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

Figure 1. ManiilAQ Association Service Area



Data Source: <http://www.maniilAQ.org/aboutNWAAlaska.html>

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## 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 framework for prevention for the nation.

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

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

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

**Prevalence**– The number of cases of illness 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.

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## Regional Health Profile Overview

Objective	Data Source***	Healthy Alaskans Objective	ALASKA				U.S.
			Maniilaq AN	All AK Native	AK Non-Native	AK, All Races	U.S. White
<b>Mortality</b>							
Reduce the overall cancer death rate (deaths/year per 100,000 pop., age-adjusted)	ABVS <sup>1</sup> (1999-2003)	159.9	347.8	245.4	Not available	195.3 <sup>15</sup>	193.5 <sup>15</sup>
Reduce deaths due to disease of the heart (deaths/year per 100,000 pop., age-adjusted)	ABVS <sup>1</sup> (1999-2003)	120.0	321.3	211.4	Not available	187.2 <sup>15</sup> (2000-2004)	243.6 <sup>15</sup>
Reduce unintentional injury death rate (deaths/year per 100,000 pop., age-adjusted)	ABVS <sup>1</sup> (1999-2003)	17.5	133.6	116.1	AK White: 51.7 <sup>15</sup>	59.2 <sup>15</sup>	36.4 <sup>15</sup>
Reduce the suicide rate (deaths/year per 100,000 pop., age-adjusted)	ABVS <sup>1</sup> (1999-2003)	5.0	79.5	36.3	AK White: 16.7 <sup>15</sup>	18.6 <sup>15</sup>	11.6 <sup>15</sup>
Reduce the homicide rate (deaths/year per 100,000 pop., age-adjusted)	ABVS <sup>1</sup> (1999-2003)	3.0	19.6	19.0	AK White: 4.2 <sup>15</sup>	6.5 <sup>15</sup>	3.9 <sup>15</sup>
<b>Health Promotion</b>							
<b>Tobacco Use</b>							
Reduce the percentage of adults who smoke	GPRA <sup>4</sup> (2007)	14.0%	77.0% (All Tobacco)	47.0%	19.0% <sup>2</sup> (2006)	24.0% <sup>2</sup> (2006)	20.4% <sup>2</sup> (2006)
Reduce the percentage of adults who use smokeless tobacco	GPRA <sup>4</sup> (2007)	3.0%	9.5%	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> (2003)	17.0%	Not available	44.2%	12.3%	19.3%	25.9% (2005)
<b>Physical Activity</b>							
Increase the proportion of adults who engage in recommended levels of moderate or vigorous physical activity	BRFSS <sup>2</sup> 2004/2005	40.0%	46.0%	55.0%	AK White: 60.4% (2005)	59.0% (2005)	51.0% (2005)
Increase the proportion of adolescents who engage in vigorous physical activity	YRBS <sup>3</sup> (2003)	85.0%	Not available	56.0%	71.3%	67.8%	65.5% (2005)
<b>Overweight and Obesity</b>							
Reduce the proportion of adults who are obese (BMI greater than or equal to 30)	GPRA <sup>4</sup> (2007)	18.0%	25.4% (2-74 Years)	36.4% (2-74 Years)	26.0% <sup>2</sup> (2006)	26.0% <sup>2</sup> (2006)	25.0% <sup>2</sup> (2006)
Reduce the proportion of adolescents who are overweight (BMI greater than or equal to 95th percentile)	YRBS <sup>3</sup> (2003)	5.0%	Not available	13.7%	10.2%	11.0%	11.8% (2005)
<b>Substance Abuse</b>							
Reduce binge drinking among adults (consumed 5 or more drinks on one occasion in the last 30 days)	BRFSS <sup>2</sup> (2000-2004)	13.0%	16.0%	15.0% (2006)	17.0% (2006)	17.0% (2006)	15.0% (2006)
Increase the proportion of adolescents NOT using the following during the past 30 days:							
Alcohol	YRBS <sup>3</sup> (2003)	60.0%	Not available	37.6%	39.1%	38.8%	46.4% (2005)
Marijuana	YRBS <sup>3</sup> (2003)	60.0%	Not available	35.7%	20.6%	23.9%	20.3% (2005)
Cocaine	YRBS <sup>3</sup> (2003)	60.0%	Not available	2.7%	2.6%	2.6%	3.2% (2005)

\*\*\* Data source unless otherwise indicated

† All races

Objective	Data Source***	Healthy Alaskans Objective	ALASKA				U.S.
			Maniilaq 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	1154	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%	82.0%	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	10.2	8.2	AK White: 5.5 (2000-2004)	6.9 (2000-2004)	5.8
Increase the proportion of pregnant women receiving adequate prenatal care (Kessner Index)	ABVS <sup>1</sup> (2001-2005)	90.0%	38.9%	49.7%	AK White: 75.7%	64.4% (2003-2005)	All Races: 75.2% <sup>12</sup>
<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> (12/2007)	90.0%	80.0%	84.0%	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> (6/2007)	90.0%	47.0%	52.0%	AK White: 62.5% <sup>2</sup> (2006)	62.5% <sup>2</sup> (2006)	71.3% <sup>2</sup> (2006)
Increase the proportion of adults aged 65 years and older who have ever been vaccinated against pneumococcal disease	ANTHC Immunization Program <sup>6</sup> (6/2007)	90.0%	88.0%	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	GPRA <sup>4</sup> (2007)	64%	44%	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%	65%	62%	72% <sup>2</sup> (2006)	73% <sup>2</sup> (2006)	77% <sup>2</sup> (2006)
Increase the proportion of women aged 18 years and older who have received a Pap test within the preceding 3 years	GPRA <sup>4</sup> (2007)	95%	91%	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	ANTHC/ANTR <sup>8</sup> (1989-2003)	N/A	425.5	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 sexually active high school students who use condoms	YRBS <sup>3</sup> (2003)	75.0%	Not available	68.0%	60.0%	62.0%	62.5% (2005)

† 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

## 2005 Population Estimates

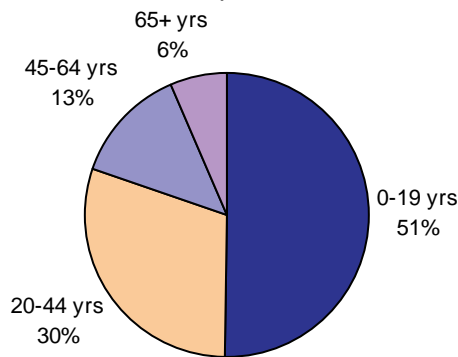
The State of Alaska Department of Labor uses the Census, Vital Records and other data to provide estimates of the population between census years. An explanation of the “bridged” estimates used in these figures can be found at <http://146.63.75.50/research/pop/estimates/Alaska1990Race.htm>

### Summary:

- The AK Department of Labor estimates that there are 5,899 Alaska Natives living in the Maniilaq service area.
- The population estimates for the Maniilaq service area are lower than Maniilaq’s user population on the following page due to different definitions for geographical boundaries as well as race.
- The age distribution for population estimates and user population are similar for the Maniilaq service area.

**Geographical Definition:** Maniilaq Service Area is defined as the Northwest Arctic Borough.

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



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

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

Age (years)	Male		Female		Total	
	Number	%	Number	%	Number	%
0-4	377	6.4%	344	5.8%	721	12.2%
5-9	364	6.2%	345	5.8%	709	12.0%
10-14	362	6.1%	384	6.5%	746	12.6%
15-19	414	7.0%	370	6.3%	784	13.3%
20-24	227	3.8%	248	4.2%	475	8.1%
25-29	177	3.0%	155	2.6%	332	5.6%
30-34	144	2.4%	151	2.6%	295	5.0%
35-39	188	3.2%	149	2.5%	337	5.7%
40-44	172	2.9%	172	2.9%	344	5.8%
45-49	143	2.4%	137	2.3%	280	4.7%
50-54	119	2.0%	87	1.5%	206	3.5%
55-59	79	1.3%	85	1.4%	164	2.8%
60-64	69	1.2%	66	1.1%	135	2.3%
65+	161	2.7%	210	3.6%	371	6.3%
<b>Total</b>	<b>2,996</b>	<b>50.8%</b>	<b>2,903</b>	<b>49.2%</b>	<b>5,899</b>	<b>100.0%</b>

Note: Maniilaq Service Area does not include Point Hope

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

## 2006 User Population

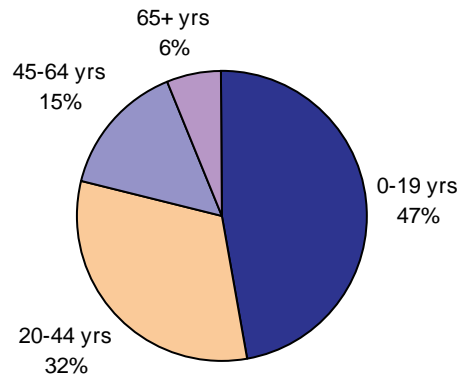
**Definition:** An I.H.S. user is defined by the Indian Health Service (I.H.S.) as an eligible American Indian/Alaska Native (AI/AN) who used a health facility at least once in the previous three year period. The facility must be one that reports to the national I.H.S. data system. I.H.S. user population data are provided by federal fiscal year (FY). FY2006 is from October 1, 2005 through September 30, 2006.

### Summary:

- In FY2006, 34% of the Maniilaq user population was under the age of 15.
- Six percent of the user population is 65 years of age or older.

**Geographical definition:** Maniilaq Service Area is defined by the Kotzebue Service Unit for Indian Health Service User data.

Figure 3. User Population by Age Group,  
Alaska Natives, Maniilaq Service Area, 2006



Data Source: Indian Health Service National Patient Information and Reporting System (NPIRS) <sup>1</sup> FY 2004  
Note: Age is determined from the end date of FY 2004.

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

Age (years)	Males		Females		Total	
	Number	%	Number	%	Number	%
Less than 1	111	1.5%	106	1.4%	217	2.8%
1 to 4	414	5.4%	396	5.2%	810	10.6%
5 to 9	417	5.5%	409	5.4%	826	10.8%
10 to 14	371	4.9%	391	5.1%	762	10.0%
15 to 19	515	6.7%	474	6.2%	989	13.0%
20 to 24	357	4.7%	313	4.1%	670	8.8%
25 to 34	457	6.0%	431	5.6%	888	11.6%
35 to 44	455	6.0%	395	5.2%	850	11.1%
45 to 54	420	5.5%	353	4.6%	773	10.1%
55 to 64	211	2.8%	177	2.3%	388	5.1%
65 +	212	2.8%	245	3.2%	457	6.0%
Unknown	0	0.0%	0	0.0%	0	0.0%
<b>Total</b>	<b>3,940</b>	<b>52%</b>	<b>3,690</b>	<b>48%</b>	<b>7,630</b>	<b>100%</b>

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 2006.

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

Community	Alaska Native Population, 2000 Census	% AK Native, 2000 Census	Total Population, 2000 Census	Alaska Native Population 1990 Census	Total Population 1990 Census	% Change, AK Native Pop.1990-2000
Ambler NWA	268	87%	309	279	311	-4%
Buckland NWA	393	97%	406	302	318	30%
Deering NWA	128	94%	136	148	157	-14%
Kiana NWA	360	93%	388	360	385	0%
Kivalina NWA	364	97%	377	309	317	18%
Kobuk NWA	102	94%	109	62	69	65%
Kotzebue NWA	2,365	77%	3,082	2,067	2,751	14%
Noatak NWA	411	96%	428	322	333	28%
Noorvik NWA	602	95%	634	498	531	21%
Point Hope NSB	686	91%	757	587	639	17%
Red Dog Mine NWA	22	69%	32	0	0	n/a
Selawik NWA	736	95%	772	569	596	29%
Shungnak NWA	242	95%	256	211	223	15%
Unspecified NWA	188	67%	279	82	122	129%
<b>Total</b>	<b>6,867</b>	<b>86%</b>	<b>7,965</b>	<b>5,796</b>	<b>6,752</b>	<b>18%</b>

NWA=Northwest Arctic Borough, NSB=North Slope Borough

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

## Population Pyramid

**Summary:**

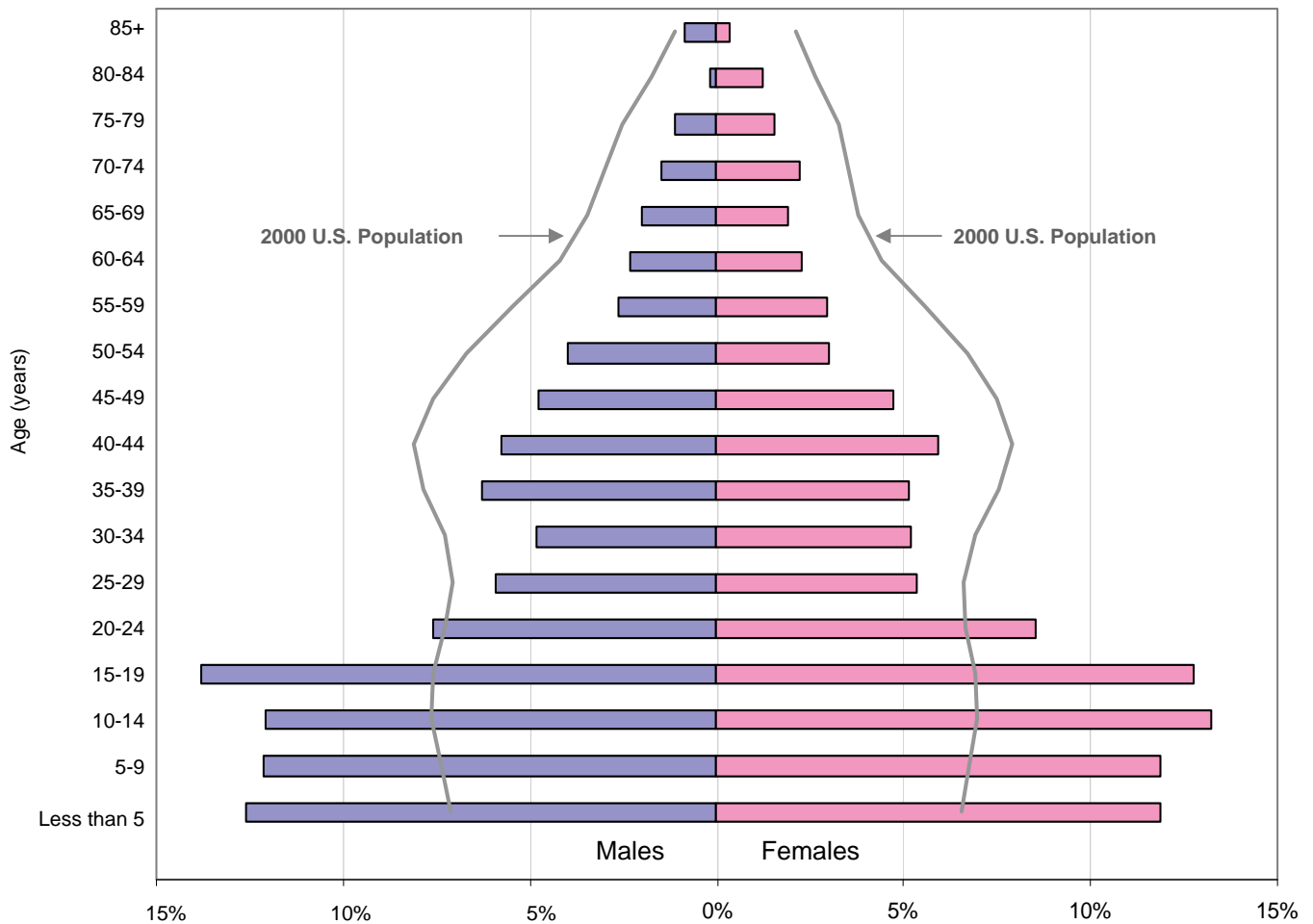
- As shown in Figure 4, a much larger proportion of the Maniilaq Alaska Native population is under the age of 20 as compared to the U.S. population.
- In 2005, males accounted for 50.8% of the population in the Maniilaq service area. Females accounted for 49.2% of the population.

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

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

**Geographical Definition:** Maniilaq Service Area is defined as the Northwest Arctic Borough.

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



Note: Maniilaq Service Area does not include Point Hope  
 Data source: Alaska Department of Labor and Workforce Development <sup>2</sup>

## Educational Attainment

**Summary:**

- Among Alaska Natives in the Maniilaq service area in 2000, 5% had received an associate's degree or higher as compared to 31% of the U.S. White population.
- In 2000, 34% of Alaska Natives in the Maniilaq service area reported having less than a high school diploma as compared to 6% of U.S. Whites.

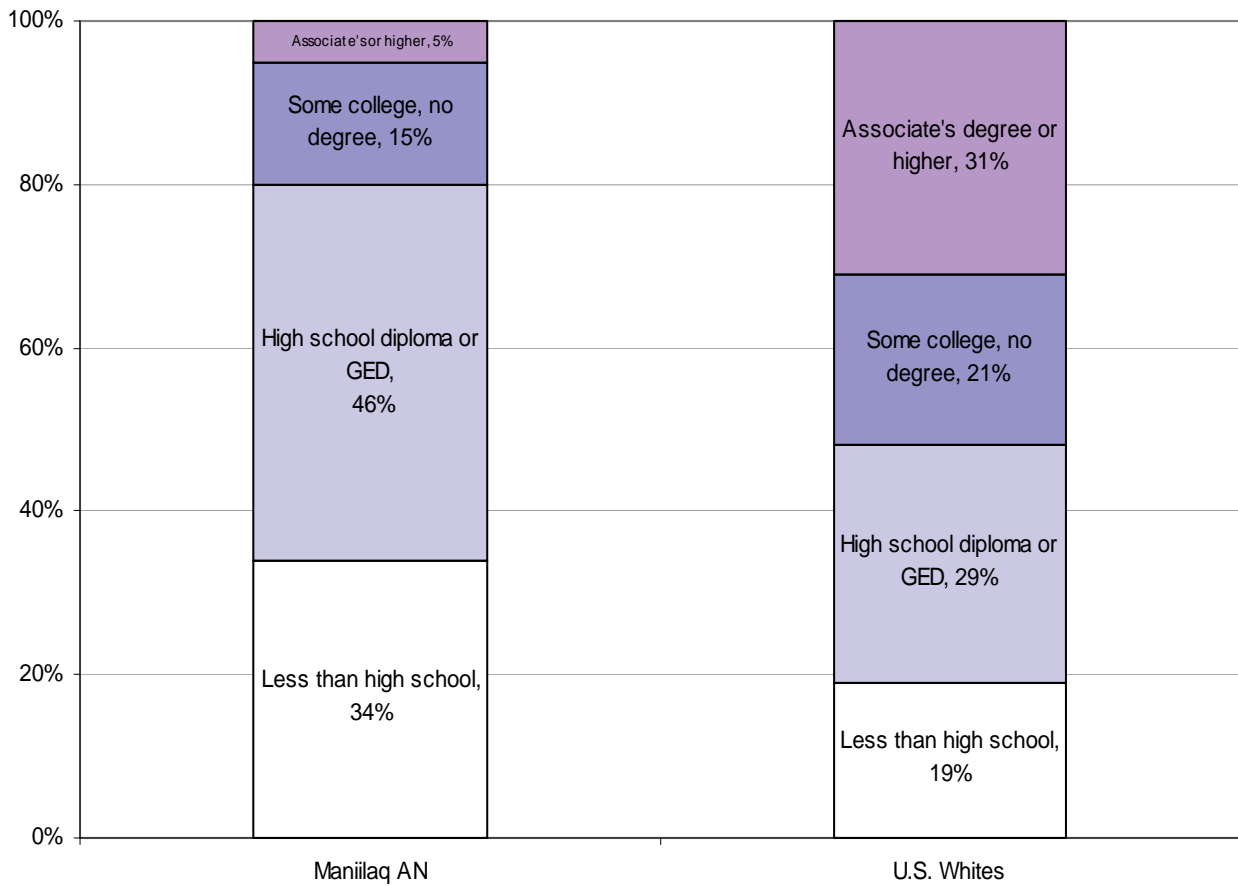
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**Data availability:** Data on the state level and census area/borough is available for census years (once every ten years). National level data is available through 2004 from the Current Population Survey.

**Geographical Definition:** Maniilaq Service Area is defined as the Northwest Arctic Borough.

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

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



Note: Maniilaq Service Area does not include Point Hope  
 Data Source: 2000 US Census<sup>4, 19</sup>

## Employment Status

**Definition:** Unemployment includes anyone who has made an active attempt to find work in the four-week period up to and including the week that includes the 12th day 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 June of 2007, the unemployment rate for the Northwest Arctic Borough was 10.8%.
- The statewide unemployment rate of 5.4% was half that of the unemployment rate in the Northwest Arctic Borough.

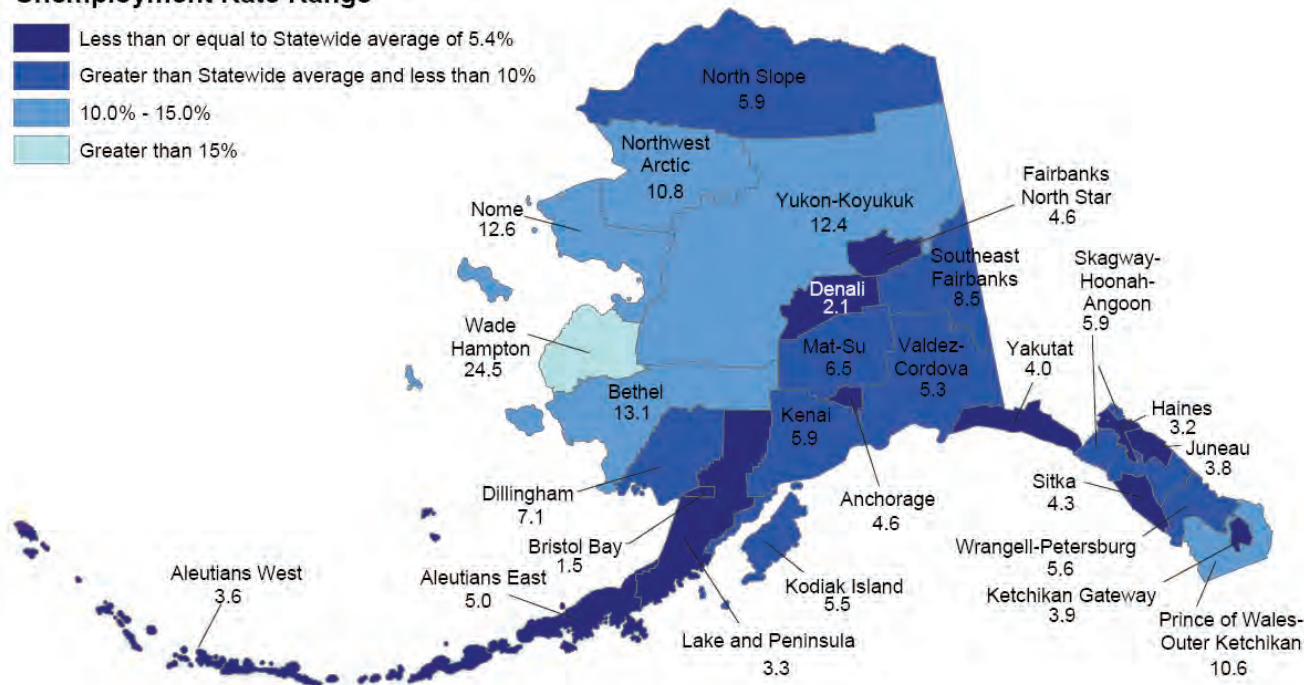
**Data availability:** Monthly data for each borough/census area is available within 2 to 3 months.

**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, June 2007

### Unemployment Rate Range

- Less than or equal to Statewide average of 5.4%
- Greater than Statewide average and less than 10%
- 10.0% - 15.0%
- Greater than 15%



Statewide Unemployment Rate for July 2007 is 5.4%

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).

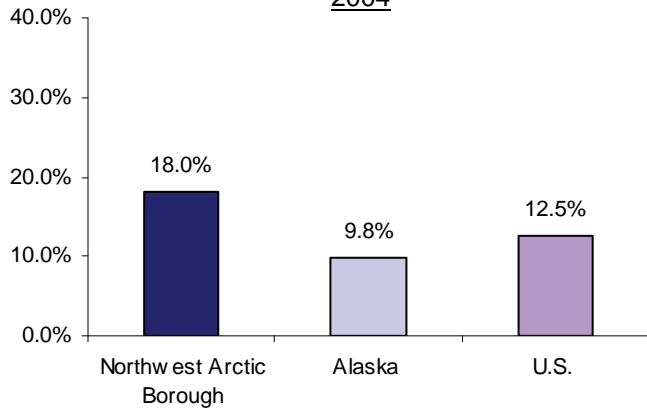
**Summary:**

- The percent of residents living below the federal poverty level in the Northwest Arctic Borough, was eighteen percent (18.0%).
- Just over one-fifth (21.7%) of children living in the Northwest Arctic Borough were living below the poverty level in 2003.

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

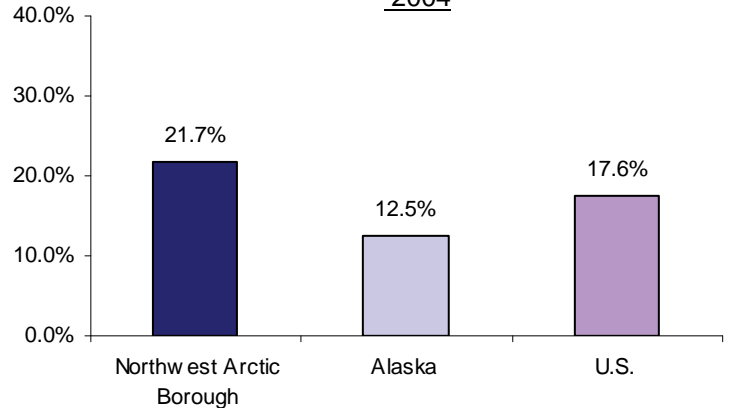
**For more information:** A source for the most current estimates of income and poverty is the U.S. Census' Small Area Income and Poverty Estimates program at <http://www.census.gov/hhes/www/saie/>

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



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

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



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



## Household Income

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

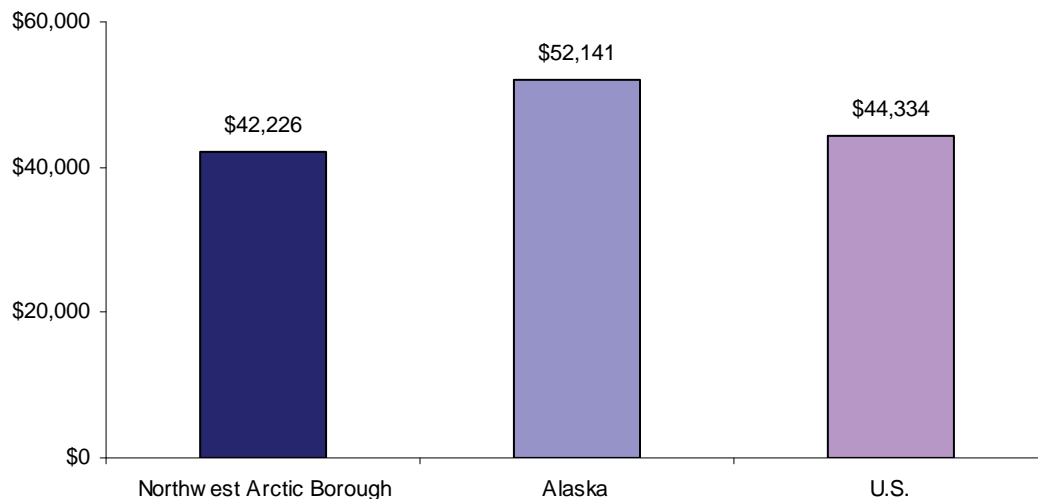
### Summary:

- For 2004, the estimated median household income in the Northwest Arctic Borough was lower than both that of Alaskans statewide and the U.S. (refer to Figure 9).

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

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

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



Data source: Small Area Income and Poverty Estimates Program

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# Morbidity and Mortality

## Mortality

### Summary:

- The top three leading causes of death among Alaska Natives in the Maniilaq service area during 1999-2003 were cancer, unintentional injury, and suicide.
- Cancer and unintentional injury were the leading causes of death, each accounting for 17.4% of all Alaska Native deaths in the Maniilaq service area during 1999-2003.
- The age-adjusted cancer mortality rate for Maniilaq Alaska Natives is 80% higher than for U.S. Whites. ( $p < .05$ ).
- Maniilaq Alaska Natives are more than three times as likely to die of an unintentional injury as U.S. Whites (133.6 vs. 36.4/100,000,  $p < .05$ ).
- Maniilaq Alaska Natives are nearly seven times more likely to die of suicide as U.S. Whites (79.5 vs. 11.6/100,000,  $p < .05$ ).

**Data availability:** Mortality data is available by borough or census area, race, and statewide through 2005. Periodic Reports on Alaska Native Mortality are published by the AN EpiCenter <http://www.anthc.org/cs/chs/epi/>

**Geographical Definition:** Maniilaq Service Area is defined as the Kotzebue Service Unit.

**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, 1999-2003

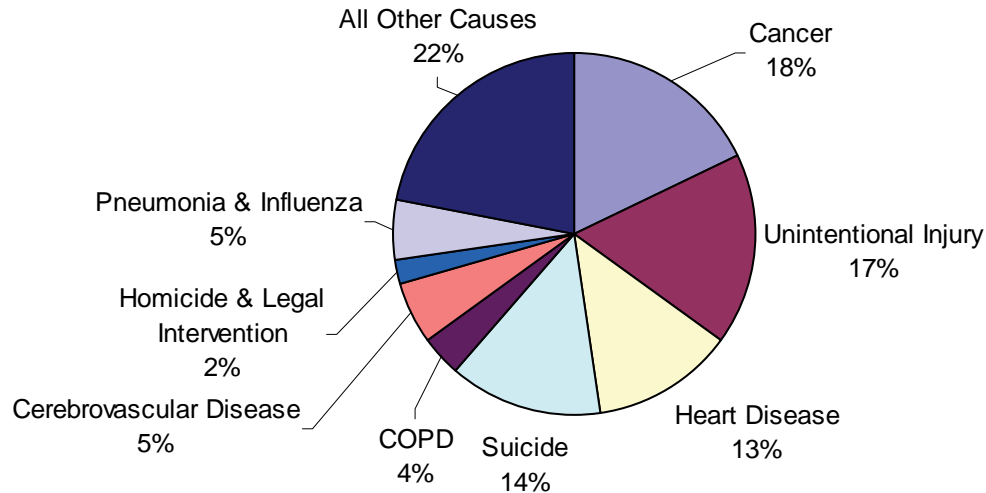
	Alaska Natives (AN) Maniilaq Service Area	Number	% Deaths	U.S. Whites Rank	AN Statewide Rank
1	Cancer	39	17.8%	2	1
2	Unintentional Injury	38	17.4%	5	3
3	Suicide	30	13.7%	8	4
4	Heart Disease	28	12.8%	1	2
5	Cerebrovascular Disease	12	5.5%	3	5
6	Pneumonia and Influenza	12	5.5%	6	8
7	Chronic Obstructive Pulmonary Disease	8	3.7%	4	6
8	Homicide & Legal Intervention	5	2.3%	10	7
	All other causes	48	21.9%		
	Total	219	100%		

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

Figure 10. Leading Causes of Death, Alaska Natives, Maniilaq Service Area, 1999-2003



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

Table 6. Leading Causes of Death, Age-Adjusted Mortality Rates per 100,000, 1999-2003

Mortality Rates, age adjusted per 100,000, 1999-2003	Maniilaq AN	AN Statewide	US White	Healthy People Objective	Rate Ratio (Maniilaq vs. US White)
Cancer	347.8	245.4	193.5	159.9	1.8*
Heart Disease	321.3	211.4	243.6	166.0	1.3
Unintentional Injuries	133.6	116.1	36.4	17.5	3.7*
Cerebrovascular Diseases	80.4	64.4	55.6	48.0	1.4
Suicide	79.5	36.3	11.6	5.0	6.9*
Homicide and Legal Intervention	19.6	19.0	4.0	3.0	4.9*

\*Maniilaq AN rate is significantly different from US White rate ( $p < .05$ );

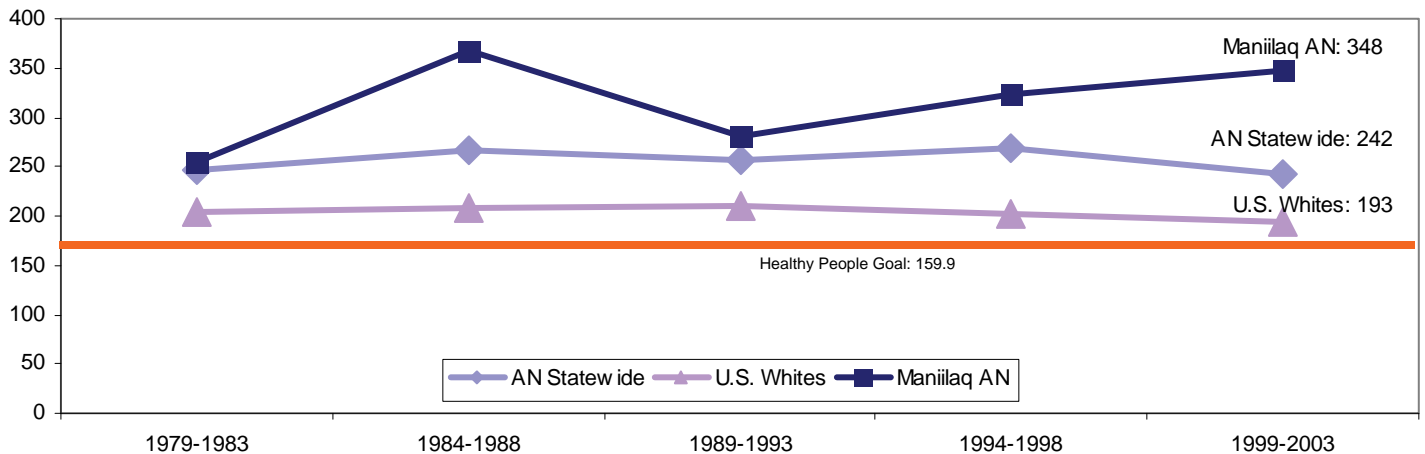
Alaska Data Source: Alaska Bureau of Vital Statistics<sup>7</sup>; Analysis Conducted by: Alaska Native Epidemiology Center;  
U.S. Data Source: Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute

## Mortality– Trends, 1979-2003

**Summary:**

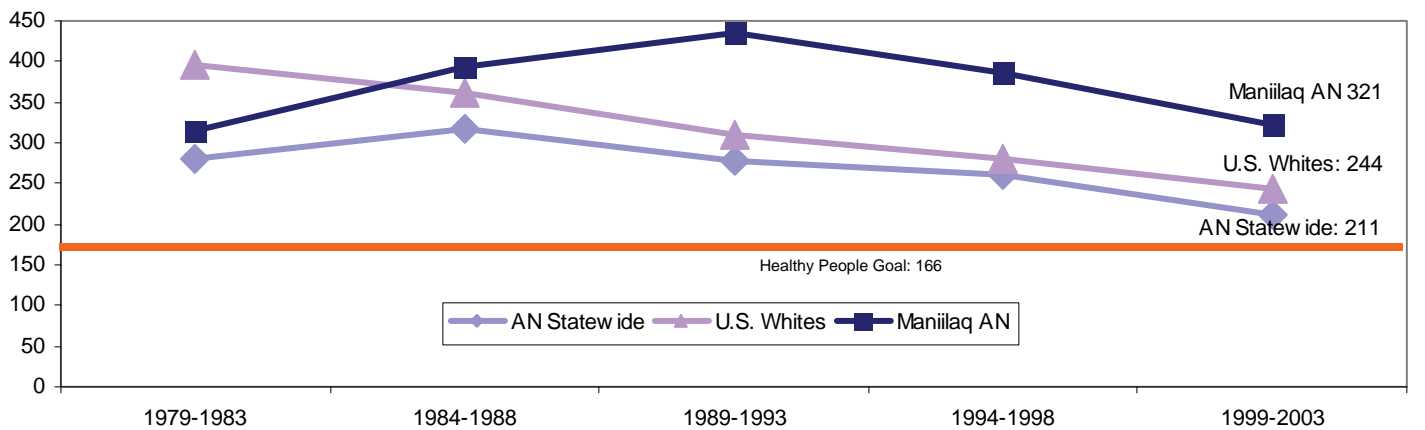
- The cancer death rate among Alaska Natives in the Maniilaq service area increased 36% between the two time periods 1979-1983 (255.4) and 1999-2003 (347.8). During this same time period the US White rate decreased by 4%.
- During 1999-2003, 38 Alaska Natives in the Maniilaq service area died from cancer.
- The heart disease death rate increased from 1979 to 1993 and then declined until 2003.
- During 1999-2003, 28 Alaska Natives in the Maniilaq service area died from heart disease.

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



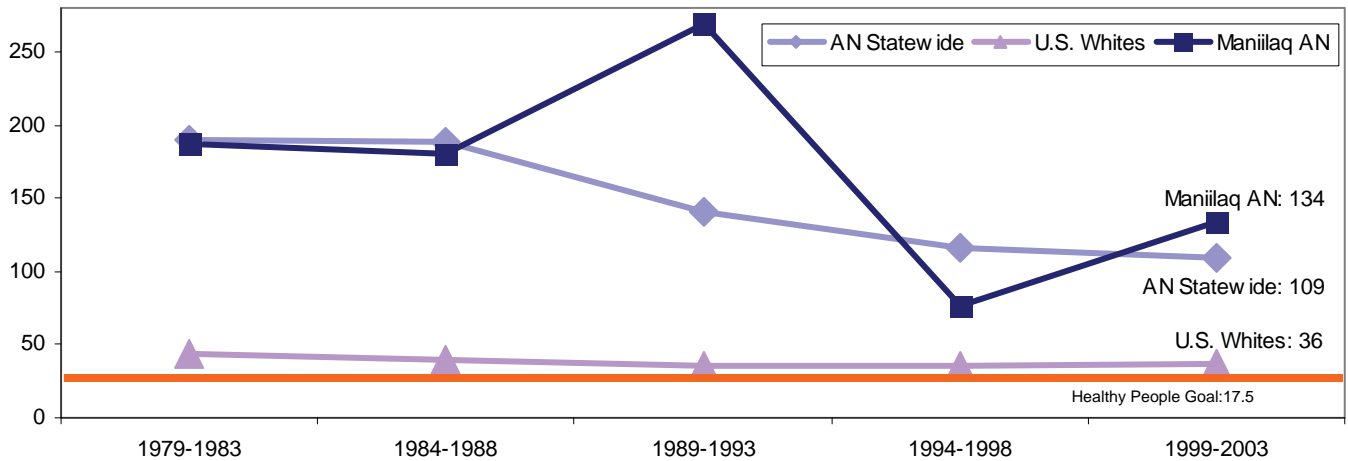
Data Source: Alaska Bureau of Vital Statistics <sup>7</sup>  
 U.S. Data Source: Surveillance, Epidemiology, and End Results (SEER) Program <sup>20</sup>

### Mortality– Trends, 1979-2003

**Summary:**

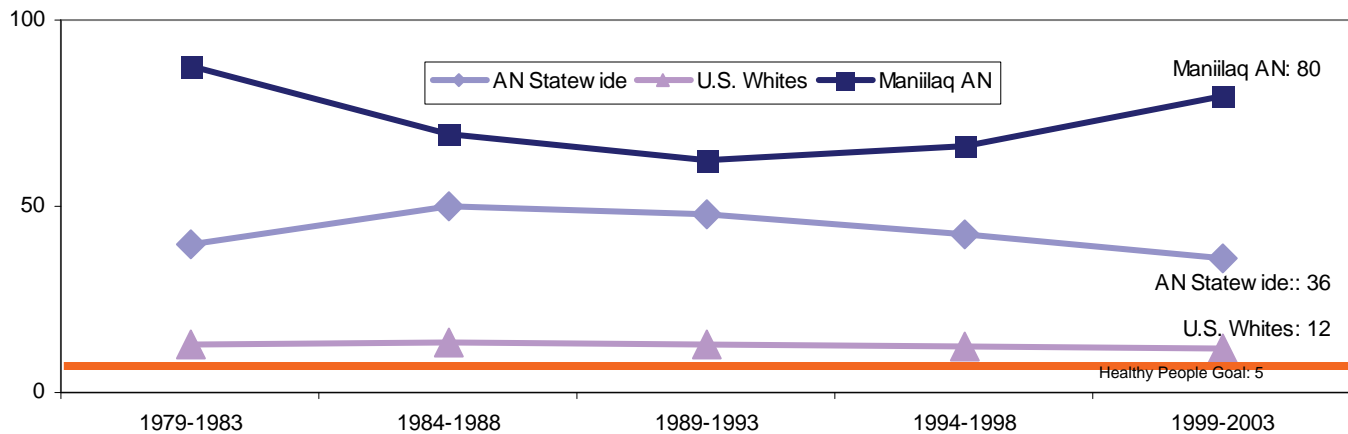
- Between 1989-1993 and 1994-1998, there was a decrease in the unintentional injury death rate for Alaska Natives in the Maniilaq Service Area. 27 Alaska Natives in the Maniilaq Service Area died as a result of an unintentional injury during 1994-1998; 30 fewer deaths than in 1989-1993 (57 deaths).
- Suicide rates decreased slightly from 1979-1983 and 1989-1993 and increased until 2003 resulting in an overall decrease of 9% in the Maniilaq Alaska Native suicide rate over time. 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



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 14. Age-Adjusted Suicide 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>

## Hospitalizations– Leading Causes of Hospital Discharges

Table 7. Top 15 Hospital Discharges by ICD Recode\*  
All Ages, Fiscal Year 2005

Maniilaq Health Center			
Rank	Cause	Number	% Total
1	Pneumonia	55	55.6%
2	Deliveries (Childbirth)	36	36.4%
3	Accidents & Injuries	17	17.2%
4	Heart Disease	12	12.1%
5	Neuroses & Personality Disorders	9	9.1%
6	Psychoses	8	8.1%
7	Bronchitis, Emphysema	7	7.1%
8	Urinary Tract Diseases	7	7.1%
9	Complications of Pregnancy	7	7.1%
10	Disease of the Blood	6	6.1%
11	Infected Skin	6	6.1%
12	Nutritional & Metabolic Disorders	4	4.0%
13	Cerebrovascular Disease	4	4.0%
14	Disease of the Gall Bladder	3	3.0%
15	Convulsions	3	3.0%
	<b>Total Discharges</b>	<b>99</b>	

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

\* ICD Recode combines similar primary diagnoses into categories

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

Alaska Tribal Health System Totals			
Rank	Cause	Number	% Total
1	Deliveries (Childbirth)	1,772	23.7%
2	Accidents & Injuries	1,083	14.5%
3	Pneumonia	602	8.0%
4	Complications of Pregnancy	333	4.4%
5	Infected Skin	308	4.1%
6	Heart Disease	303	4.0%
7	Alcohol Abuse	239	3.2%
8	Bronchitis, Emphysema	239	3.2%
9	Malignant Neoplasms	238	3.2%
10	Psychoses	193	2.6%
11	Urinary Tract Diseases	187	2.5%
12	Bone & Joint Disorders	187	2.5%
13	Disease of the Appendix	179	2.4%
14	Gynecologic Problems & Breast	146	2.0%
15	Disease of Gall Bladder	124	1.7%
	<b>Total Discharges</b>	<b>7,486</b>	

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

\* ICD Recode combines similar primary diagnoses into categories



## Hospitalizations– Leading Causes of Inpatient Days

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

Maniilaq Health Center			
Rank	Cause	Number	% Total
1	Pneumonia	163	26.2%
2	Heart Disease	92	14.8%
3	Accidents & Injuries	81	13.0%
4	Deliveries (childbirth)	52	8.4%
5	Bronchitis, Emphysema	28	4.5%
6	Neuroses & Personality Disorders	24	3.9%
7	Infected Skin	22	3.5%
8	Nutritional & Metabolic Disorders	20	3.2%
9	Psychoses	18	2.9%
10	Urinary Tract Diseases	17	2.7%
11	Gynecologic Problems & Breast	15	2.4%
12	Diseases of the Blood	14	2.3%
13	Asthma	13	2.1%
14	Malignant Neoplasms	10	1.6%
15	Cerebrovascular Disease	8	1.3%
	<b>Total Inpatient Days</b>	<b>622</b>	

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

\* ICD Recode combines similar primary diagnoses into categories

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

Alaska Tribal Health System Totals			
Rank	Cause	Number	% Total
1	Accidents & Injuries	6,046	16.7%
2	Deliveries (childbirth)	4,294	11.8%
3	Pneumonia	3,322	9.2%
4	Alcohol Abuse	3,241	8.9%
5	Malignant Neoplasms	2,295	6.3%
6	Infected Skin	1,863	5.1%
7	Psychoses	1,316	3.6%
8	Heart Disease	1,276	3.5%
9	Bone & Joint Disorders	1,120	3.1%
10	Bronchitis, Emphysema	988	2.7%
11	Urinary Tract Diseases	956	2.6%
12	Cerebrovascular Diseases	871	2.4%
13	Complications of Pregnancy	812	2.2%
14	Diseases of the Nervous System	716	2.0%
15	Arthritis	613	1.7%
	<b>Total Inpatient Days</b>	<b>36,278</b>	

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

\* ICD Recode combines similar primary diagnoses into categories

## Hospitalizations– Leading Causes of Outpatient Visits

Table 11. Top 15 Outpatient Visits by ICD Recode\*  
All Ages, Fiscal Year 2005

Maniilaq Health Center			
Rank	Cause	Number	% Total
1	Pregnancy, childbirth & puerperium	2,072	10.8%
2	Tests Only (Lab, X-Ray, Screening)	1,784	9.3%
3	Accidents & Injuries	1,656	8.6%
4	Upper Respiratory Problems	1,490	7.8%
5	Bone & Joint Disorders	892	4.7%
6	Assessment of Symptoms	863	4.5%
7	Otitis Media	702	3.7%
8	Hypertension	646	3.4%
9	Hospital Med/Surgical Follow-up	560	2.9%
10	Neuroses & Non-Psychotic Disorders	553	2.9%
11	Diabetes Mellitus	447	2.3%
12	Refractive Error	436	2.3%
13	Musculoskeletal Disorder	422	2.2%
14	Gastrointestinal Disease	402	2.1%
15	Arthritis	399	2.1%
	<b>Total Outpatient Visits</b>	<b>19,174</b>	

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

\* ICD Recode combines similar primary diagnoses into categories

Table 12. Top 15 Outpatient Visits by ICD Recode\*  
All Ages, Fiscal Year 2005

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

# Health Promotion

## Tobacco Use

**Definition:**

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

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

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

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

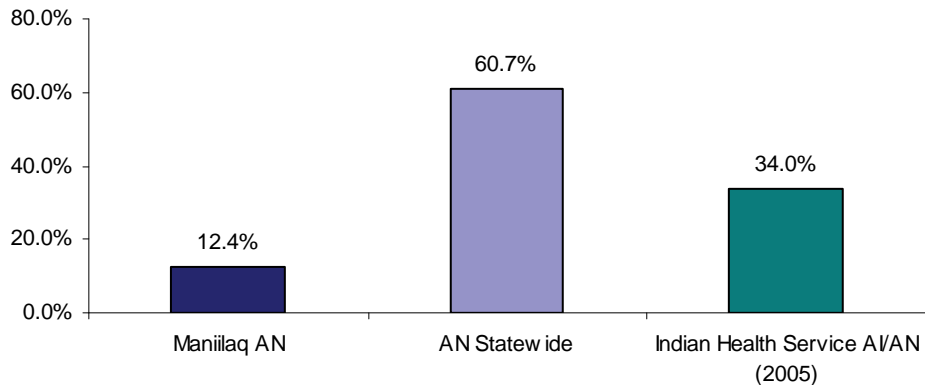
**Summary:**

- Twelve percent (12.4%) of Maniilaq Alaska Native patients were screened for tobacco use during GPRA year 2007. This is significantly lower than the screening rate for Alaska Natives statewide (60.7%).
- More than three-quarters (77.0%) of Maniilaq Alaska Native patients who were screened were tobacco users (smokers or smokeless) and one out of ten were smokeless tobacco users (9.5%).
- No tobacco users were documented to have received a tobacco cessation intervention within the past year.

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

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

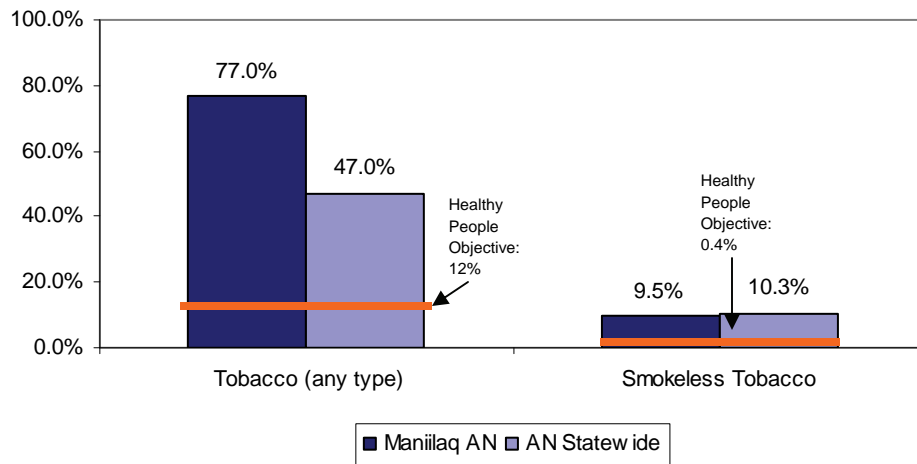
**Figure 15. Percent of Patients Screened for Tobacco Use 5 years and older, GPRA Year 2007**



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

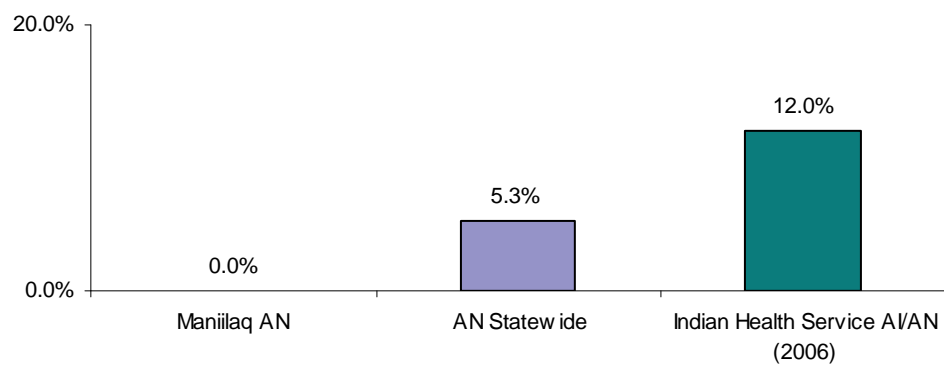
## Tobacco Use

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



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

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



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

## Obesity (adult) and Overweight (children)

**Definition:**

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

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

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

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

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

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

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

**Summary:**

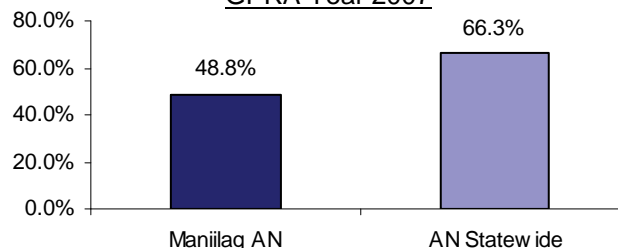
- About half (48.8%) of Maniilaq Alaska Natives have a current documented BMI assessment.
- One-quarter of Maniilaq Alaska Natives (25.4%) meet the definition of obese as compared to 36.4% of Alaska Natives statewide.
- In the Maniilaq service area, Alaska Native women aged 35-44 had the highest obesity rates (54%) and men aged 20-24 had the lowest obesity rates (0%).

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

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

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

**Figure 18. Proportion of Patients with Current BMI Assessment, 2-74 years, GPRA Year 2007**



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

## Obesity (adult) and Overweight (children)

Figure 19. Weight Status based on BMI  
2-74 Years, GPRA Year 2007

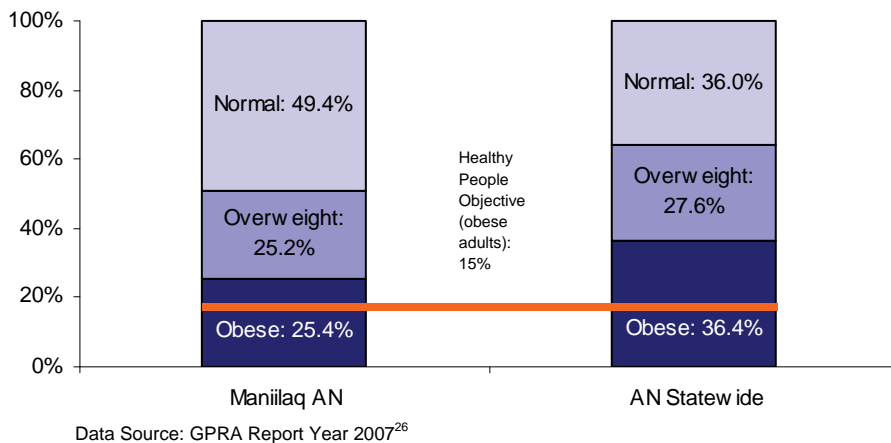
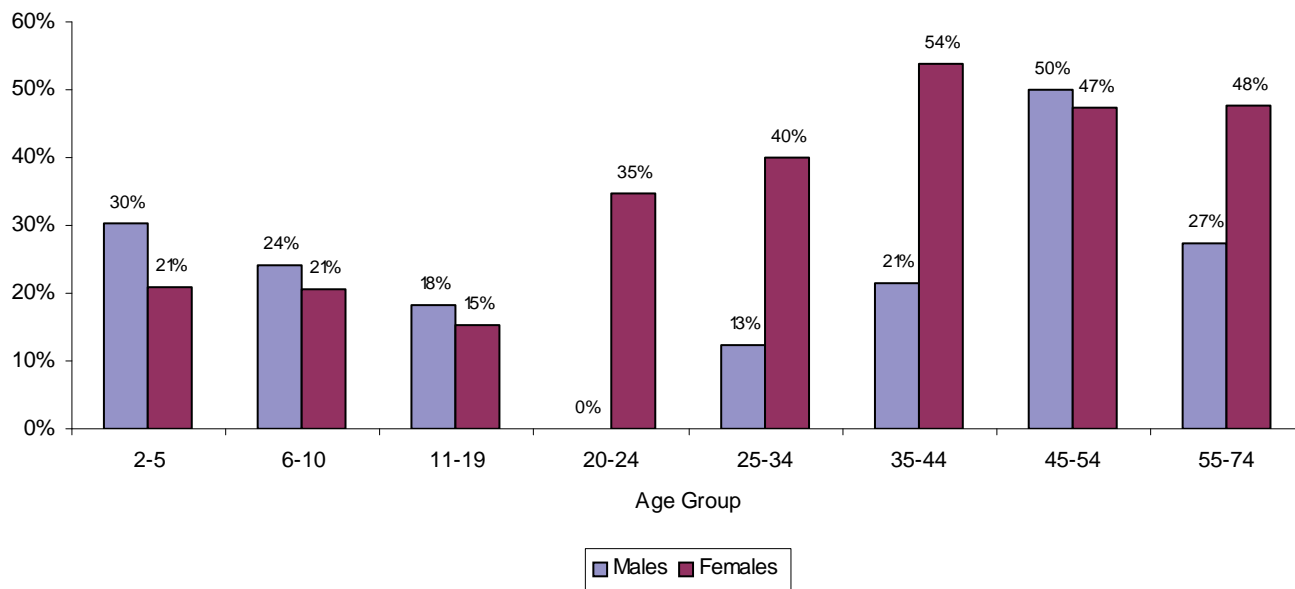


Figure 20. Obesity (30+ BMI) by Age Group and Gender,  
Maniilaq Association, Alaska Natives 2-74 Years, GPRA Year 2007



## Substance Abuse– Binge Drinking

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

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

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

### Summary:

- The self-reported rates of binge drinking are lower for Maniilaq Alaska Natives than the binge drinking rates for Alaska Natives statewide and the U.S. all races.
- The self-reported rates of binge drinking have decreased between 1996 and 2004.

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

**Geographical Definition:** Maniilaq AN includes all respondents residing in communities served by Maniilaq 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 13. Alcohol Use-Binge Drinking  
Maniilaq Association, Alaska Natives, 18 years and older

	n	N	Weighted %
<i>Gender (2000-2004)</i>			
Male	15	70	20%
Female	12	80	11%
Total	27	150	16%
<i>Years</i>			
1993-1995	9	54	21%
1996-1998	17	81	21%
1999-2001	18	89	17%
2002-2004	19	112	14%

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

Analysis conducted by: AN EpiCenter

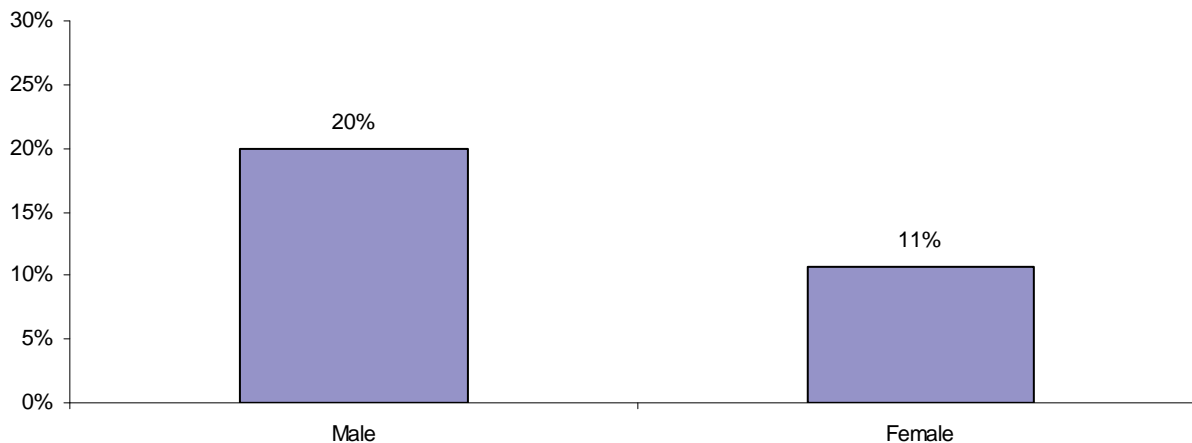
n= number of respondents who report they binge drink

N=total number of respondents in this subgroup



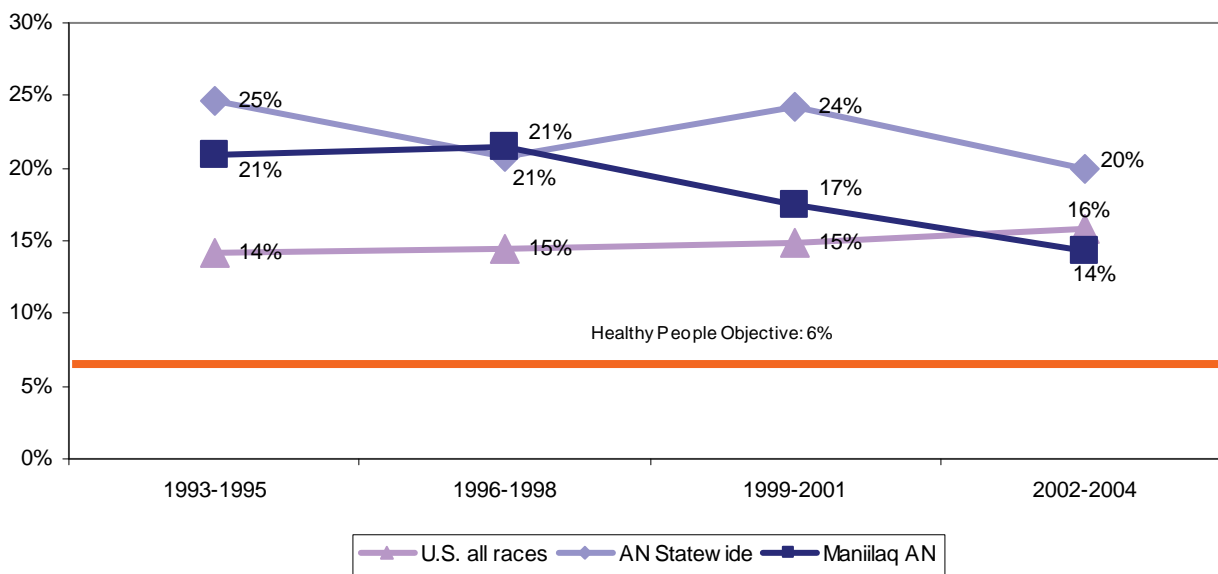
## Substance Abuse– Binge Drinking

Figure 21. Binge Drinking by Gender  
Maniilaq Association, Alaska Natives, 18 years and older, 2000-2004



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

Figure 22. Binge Drinking, 18 years and older, 1993-2004



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).

**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%.

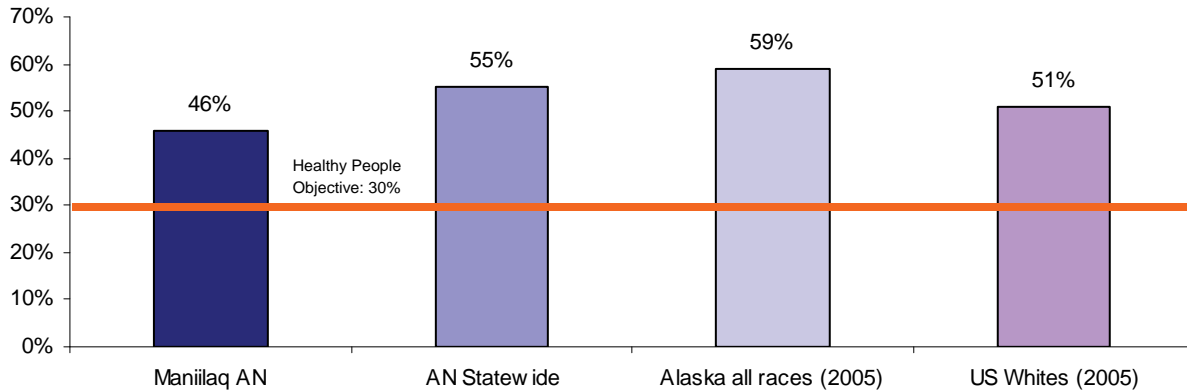
**Summary:**

- The percent of Alaska Natives in the Maniilaq Service Area who meet physical activity recommendations exceeds the Healthy People Object of 30%.

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

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

Figure 23. Meets moderate or vigorous physical activity recommendations, 2004-2005



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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## Overweight– Adolescents

**Definition:** In children, 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 or obese to 5%.

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

**Summary:**

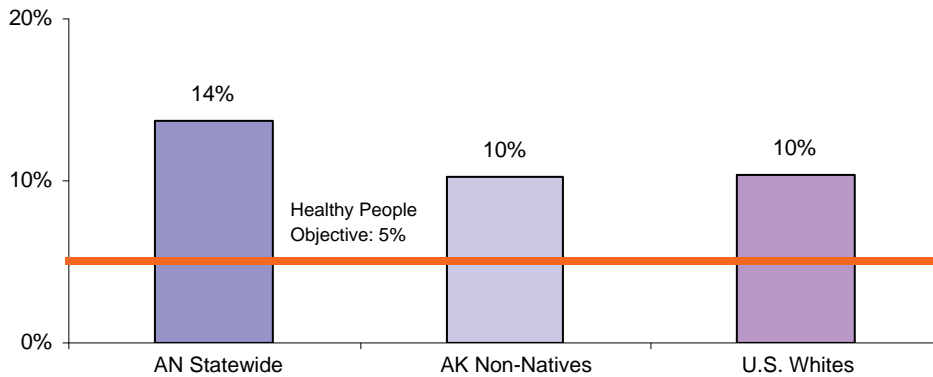
- According to data from the 2003 Youth Risk Behavior Survey, 14% of Alaska Native high school students are overweight. This is slightly higher than the rate for Alaska non-natives and U.S. Whites.

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

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

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

Figure 24. Percent of high school students who are overweight  
2003



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

## Vigorous Physical Activity– Adolescents

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

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

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

**Summary:**

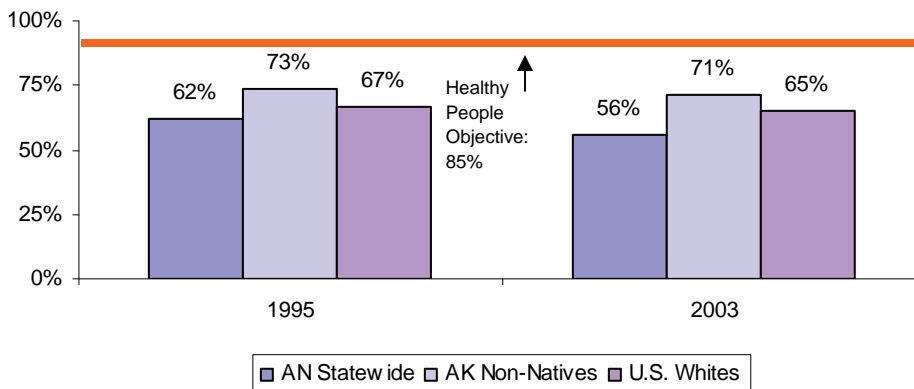
- 56% of Alaska Native high school students engaged in vigorous physical activity in 2003. This was 15% less than Alaska non-Native students and 9% lower than U.S. Whites.
- The rates of vigorous physical activity among high school students appear to have decreased between 1995 and 2003 among AK Natives,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

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

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

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

**Figure 25. Percent of high school students who engage in vigorous physical activity, 1995 and 2003**



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

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## Tobacco Use– Adolescents

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

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

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

### Summary:

- In 2003, 44% of Alaska Natives high school students smoked cigarettes on one or more of the past 30 days. This was an 18% decrease from 1995.
- The percent of Alaska Native high school students who used chewing tobacco or snuff during the past 30 days did not decrease between 1995 and 2003, while Non-Native high school students usage decreased by 50% (15% to 7%).

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

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

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

### Tobacco Use– Adolescents

Figure 26. Percent of high school students who smoked cigarettes on one or more of the past 30 days, 1995 and 2003

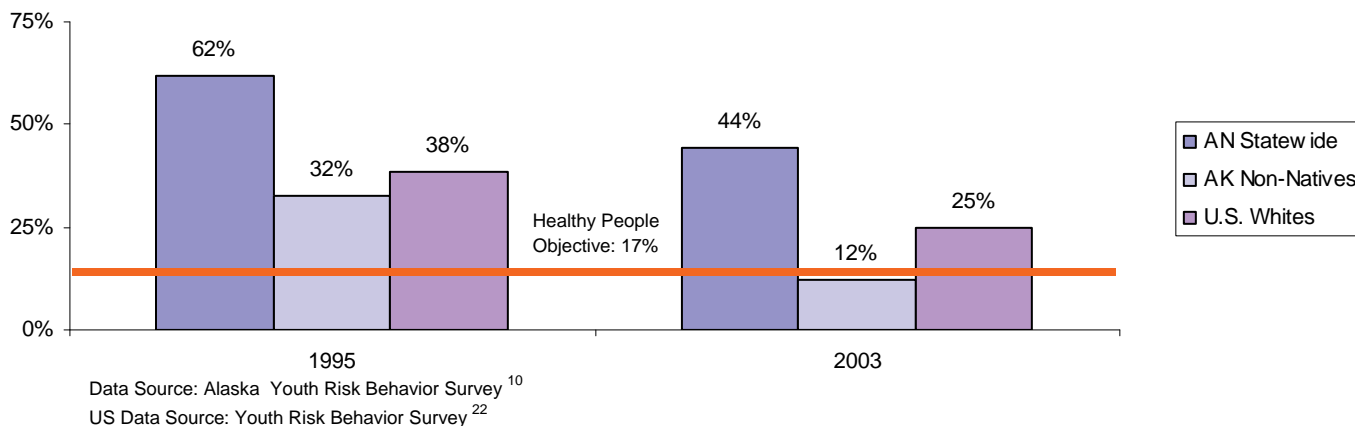


Figure 27. Percent of high school students who used chewing tobacco or snuff on one or more of the past 30 days, 1995 and 2003

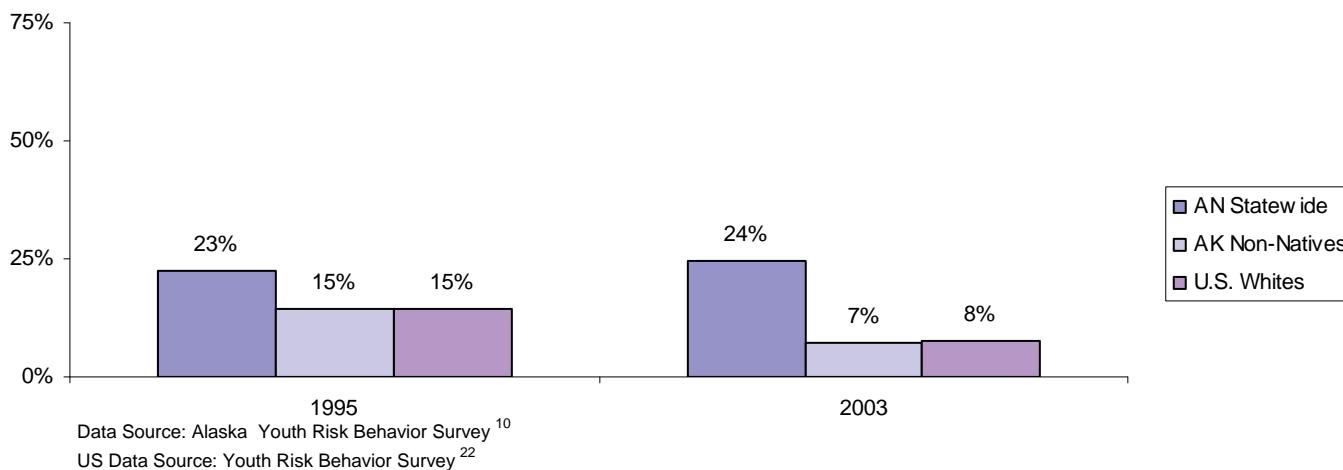
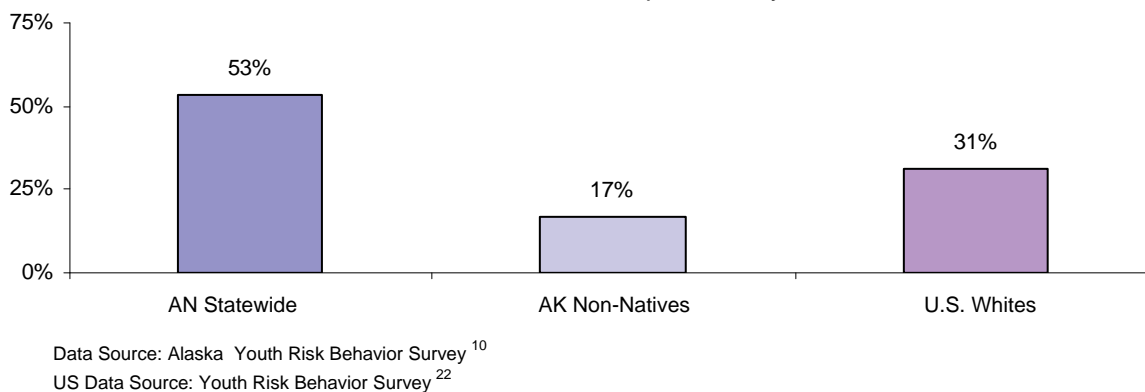


Figure 28. Percent of high school students who used any tobacco on one or more of the past 30 days, 2003



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## Substance Abuse– Adolescents

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

**Healthy People 2010, Objective 26.10a:** Increase the proportion of adolescents not using alcohol or any illicit drugs during the past 30 days to 89% (Decrease proportion who use to 11%).

**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% (Decrease proportion who use to 40%).

### Summary:

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

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

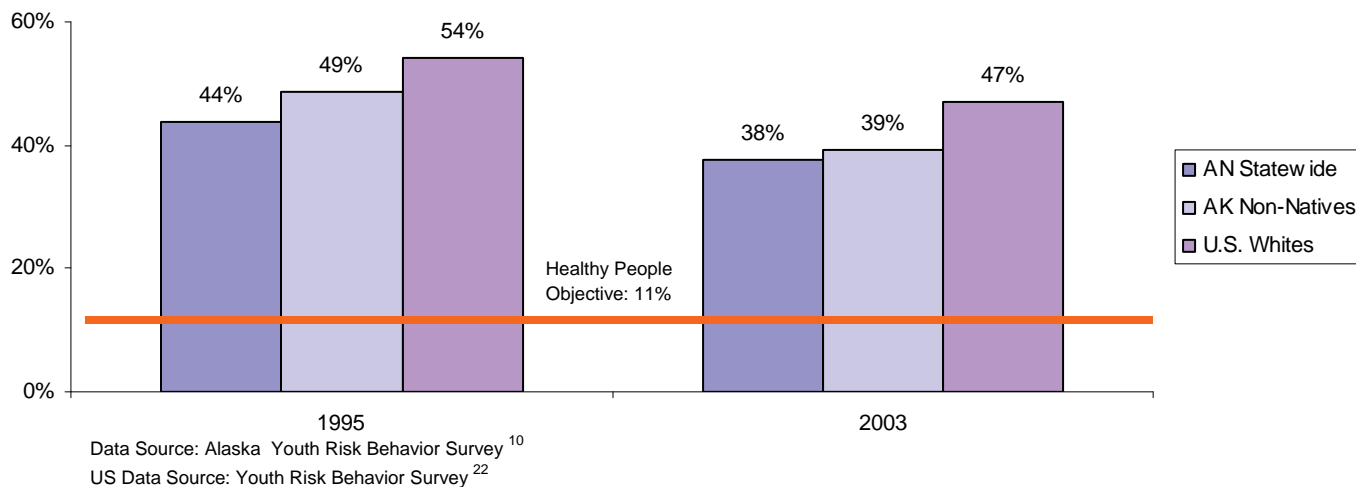
**For more information:** For Alaska Youth Risk Behavior Survey Reports (YRBS), go to <http://www.hss.state.ak.us/dph/chronic/school/YRBS.htm>

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

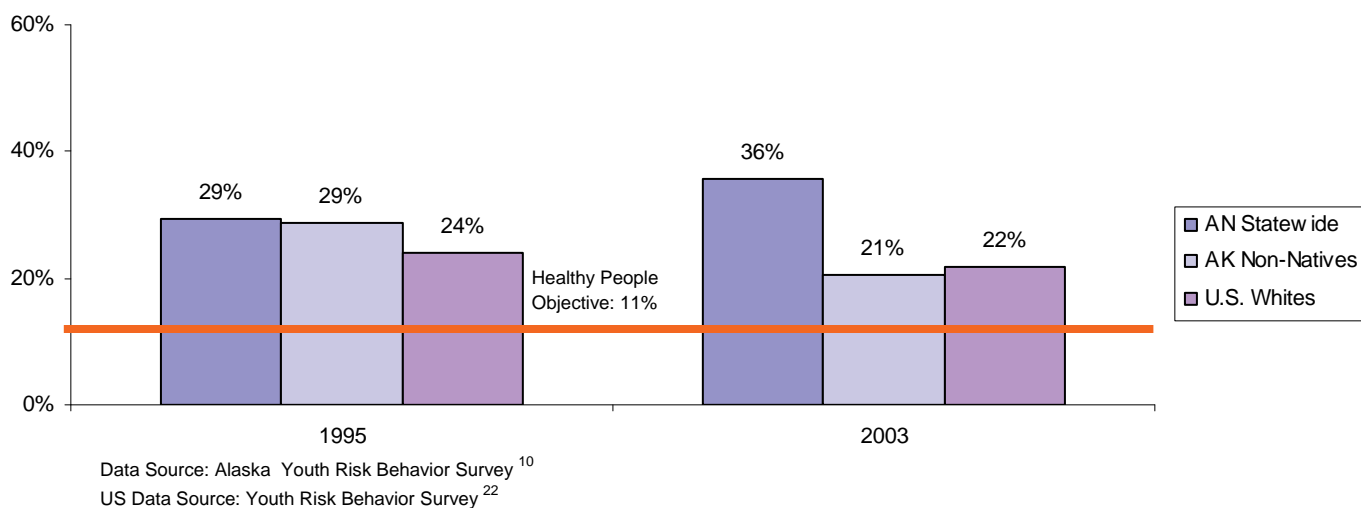


## Substance Abuse– Adolescents

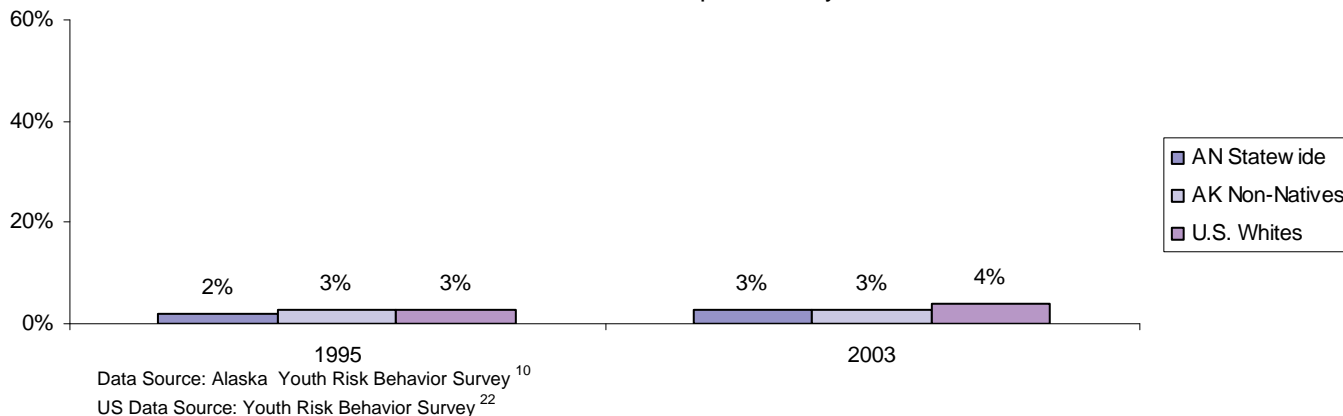
**Figure 29. Percent of high school students who had at least one drink of alcohol on one or more of the past 30 days, 1995 and 2003**



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



**Figure 31. Percent of high school students who used any form of cocaine, including powder, crack or freebase on one or more of the past 30 days, 1995 and 2003**



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# Health Protection

## Injury Death– Leading Causes

**Summary:**

- Suicide was the leading cause of injury death in the Maniilaq Service Area between 1999-2005, resulting in 36 deaths during this time period.
- Drowning was the leading cause of unintentional injury death, resulting in 16 deaths during 1999-2005.

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

**Geographical Definition:** Maniilaq Service Area includes all deaths occurring in communities served by Maniilaq Association.

**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 Bureau of Vital Statistics at <http://www.hss.state.ak.us/dph/bvs/>

Table 14. Leading Causes of Injury Death,  
Maniilaq Association, Alaska Natives, 1999-2005

Cause	No. of Deaths	% of Total
1. Suicide	36	38.7%
2. Drowning	16	17.2%
3. Off Road Vehicle	13	14.0%
4. Unintentional Poisoning	5	5.4%
5 (tie). Excessive Natural Cold	3	3.2%
5 (tie). Homicide	3	3.2%
<b>Total Deaths, All Causes</b>	<b>93</b>	

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

## Injury Hospitalizations

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

**Healthy People 2010, Objective 15.14:** Reduce 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 749 injury hospitalizations to Alaska Natives in the Maniilaq service area.
- Suicide attempts and falls were the most common causes of injury hospitalization, accounting for almost half of all injury hospitalizations.
- Assault injury accounted for more than one out of every eight injury hospitalizations in the Maniilaq service area.
- The Maniilaq unintentional injury hospitalization rate is 115.4/10,000 (see map).
- The Maniilaq service area had the highest suicide attempt rate of all service areas (see map).

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

**Geographical Definition:** Maniilaq Service Area includes all injury hospitalizations where the injury occurred in a community served by Maniilaq Association.

**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 15. Leading Causes of Injury Hospitalization  
Maniilaq Association, Alaska Natives, 2000-2005

Cause	No. of Hospitalizations	% of Total
1. Suicide Attempt	176	23.5%
2. Falls	163	21.8%
3. Assault	107	14.3%
4. Snow Machine	83	11.1%
5. ATV	59	7.9%
6. Pedestrian	16	2.1%
7. Unintentional Poisoning	15	2.0%
<b>Total Injury Hospitalizations, All Causes</b>	<b>749</b>	

Data Source: Alaska Trauma Registry  
Analysis Conducted by: AN EpiCenter

## Injury Hospitalizations

Figure 32. Crude Non-Fatal Unintentional Injury Hospitalization Rate by Region, Alaska, 1991-2003

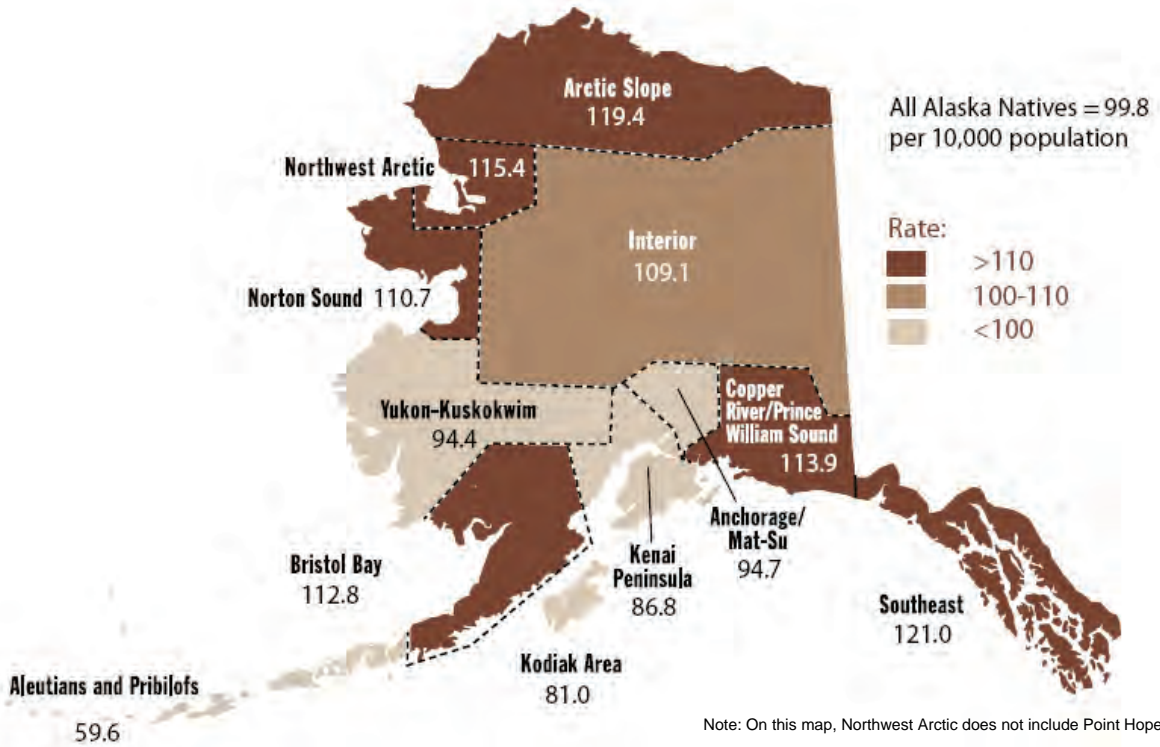
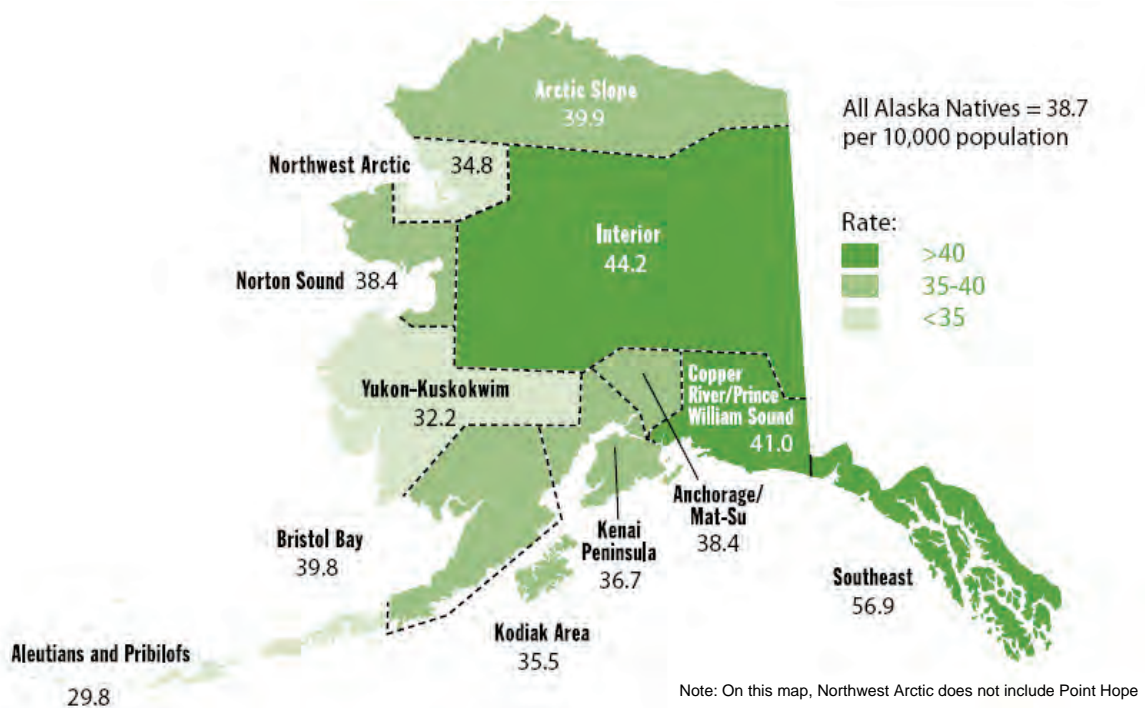


Figure 33. Crude Non-Fatal Fall Hospitalization Rate by Region, Alaska, 1991-2003



## Injury Hospitalizations– Suicide, Assaults

Figure 34. Crude Non-Fatal Hospitalization Rate for Suicide Attempts by Region, Alaska, 1991-2003

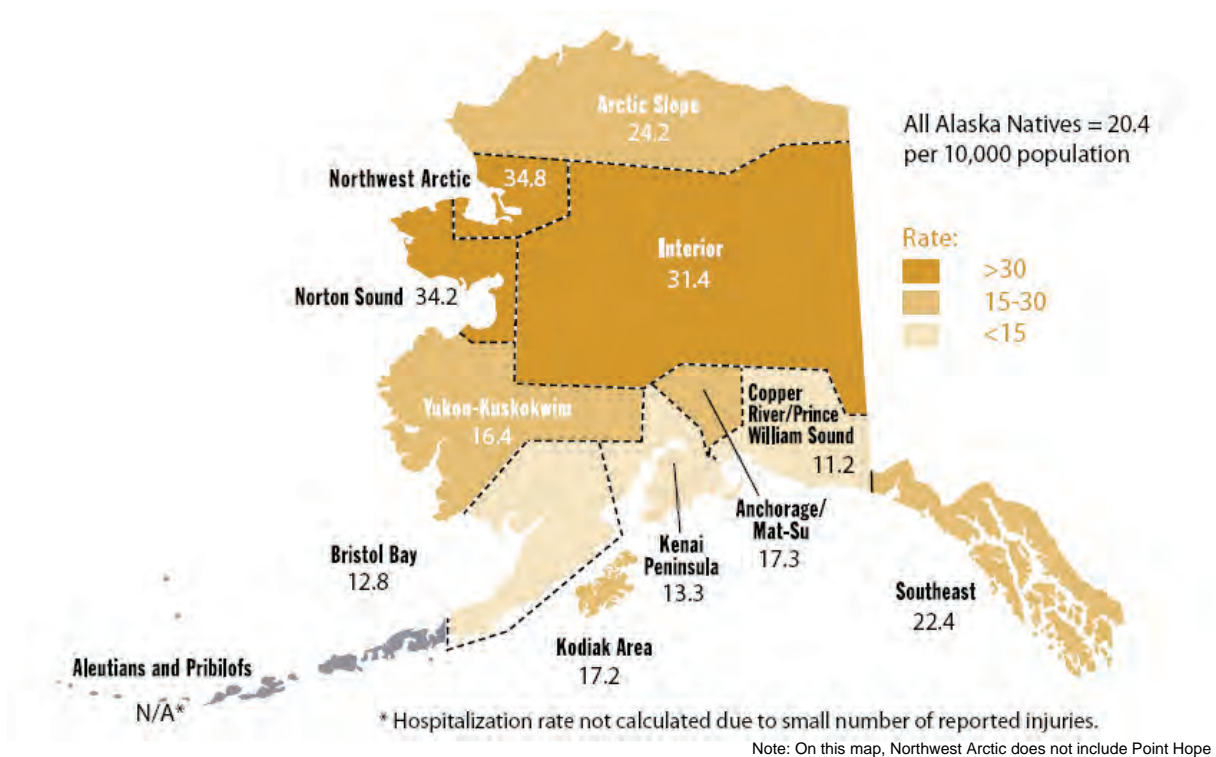
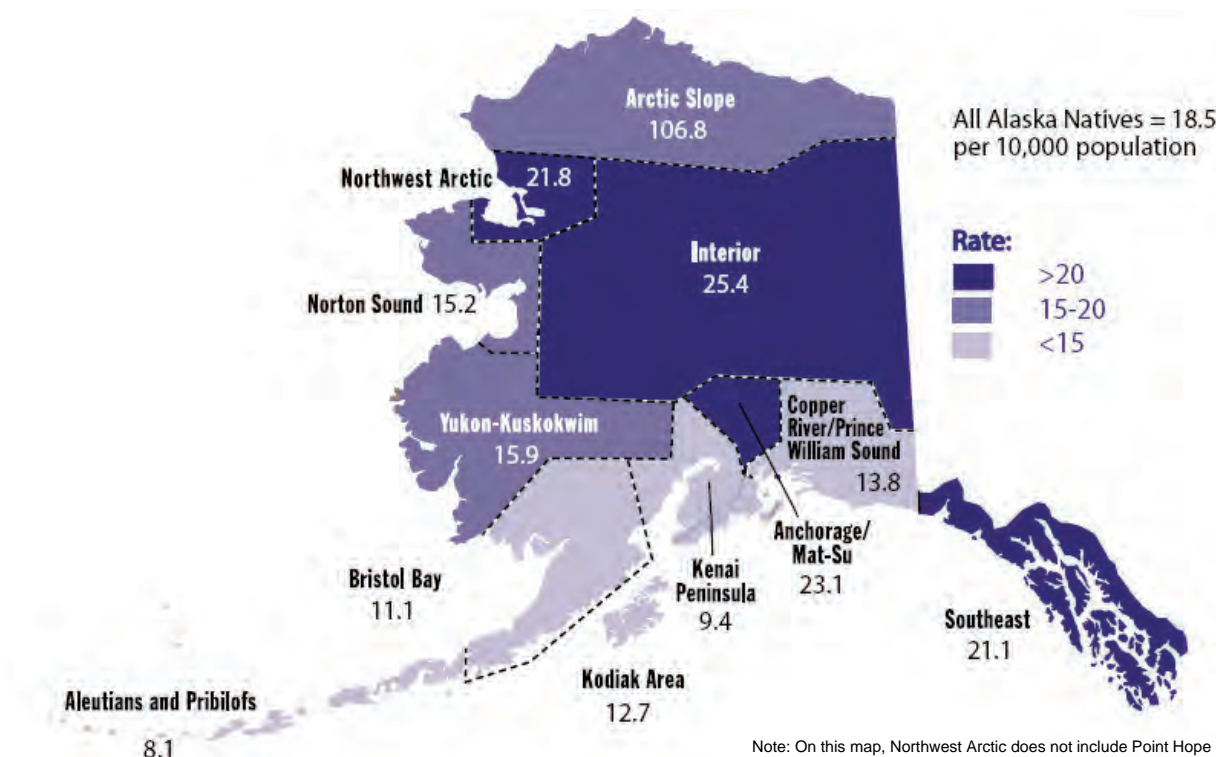


Figure 35. Crude Non-Fatal Hospitalization Rate for Assault Injuries by Region, Alaska, 1991-2003



Provided by: ANTHC Injury Prevention Program<sup>12</sup>  
Data Source: Alaska Trauma Registry

## Environmental Health– Water and Sewer Service Rates

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

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

**Healthy People 2010:** N/A

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

### Summary:

- As of 2006, 82% of the communities in the Maniilaq Service Area had water and sewer service.

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

**Geographical Definition:** Maniilaq is defined as all of the communities served by Maniilaq Association.

**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 16. Water and Sewer Service Rates by Tribal Health Organization, Alaska, 2006

Region	Total Number of Housing Units	% of Housing Units with Served Water and Sewer
Arctic Slope Native Association	1668	91%
Bristol Bay Area Health Corp.	1863	88%
Maniilaq Association	1504	82%
Norton Sound Health Corp.	1565	70%
SouthEast Alaska Regional Health Corp.	2098	98%
Tanana Chiefs Conference	877	49%
Yukon-Kuskokwim Health Corp.	4235	66%

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



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

## Cancer– Leading Cancers

Table 17. Leading Cancers, Maniilaq Alaska Natives, 1989-2003

	Site	No.	% of Total
1	Colon/Rectum	39	20.2%
2	Lung	34	17.6%
3	Breast	28	14.5%
4	Kidney	13	6.7%
5	Stomach	13	6.7%
6	Cervix	9	4.7%
7	Testis	7	3.6%
8	Prostate	6	3.1%
9	Liver	6	3.1%
10	Pancreas	5	2.6%
	<b>Total</b>	<b>160</b>	<b>82.9%</b>

Data Source: Alaska Native Tumor Registry

Table 18. Leading Cancers, All Alaska Natives, 1989-2003

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

Data Source: Alaska Native Tumor Registry

## Cervical Cancer Screening

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

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

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

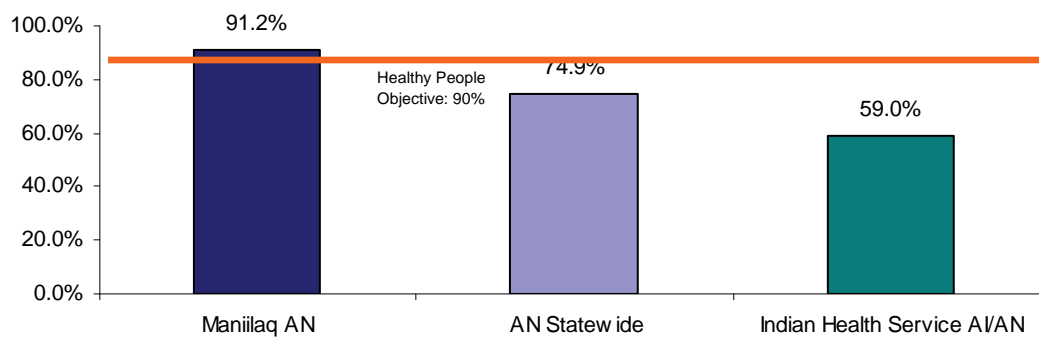
**Healthy Alaskans 2010, Objective 22.11:** Increase the proportion of women aged 18 years and older who received a Pap test within the preceding 3 years to 95%.

**Summary:**

- More than nine out of ten Alaska Native women in the Maniilaq service area had received a cervical cancer screening within three years of the end of GPRA year 2007. This exceeds the Healthy People 2010 Objective.

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

Figure 36. Cervical Cancer Screening Rates, Women, 21-64 years, GPRA Year 2007



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

## Breast Cancer Screening

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

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

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

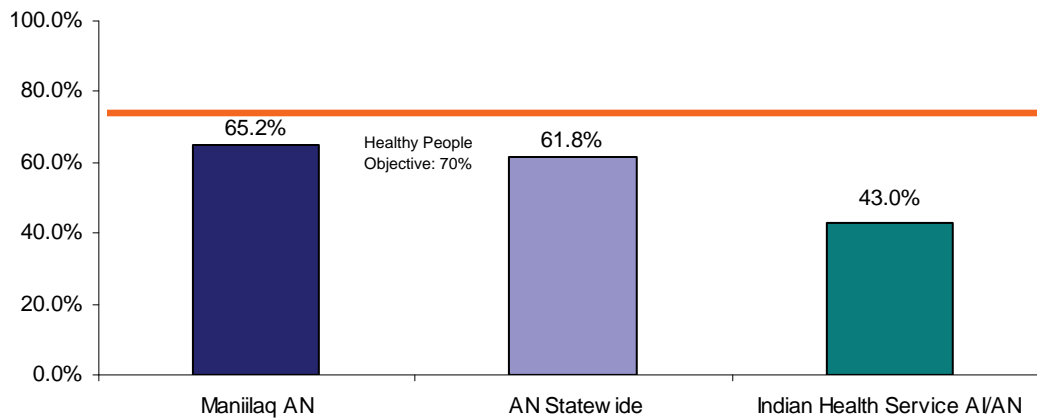
**Healthy Alaskans 2010, Objective 22.11:** Increase the proportion of women aged 40 years and older who have received a mammogram within the preceding 2 years to 76%.

### Summary:

- Sixty-five percent (65.2%) of Alaska Native women in the Maniilaq service area aged 52 to 64 years received a mammogram within two years of the end of GPRA Year 2007. This is 4% higher than for Alaska Natives statewide and 24% higher than for I.H.S. nationwide.

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

Figure 37. Breast Cancer Screening Rates, Women, 52-64 Years  
GPRA Year 2007



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

## Colorectal Cancer Screening

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

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

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

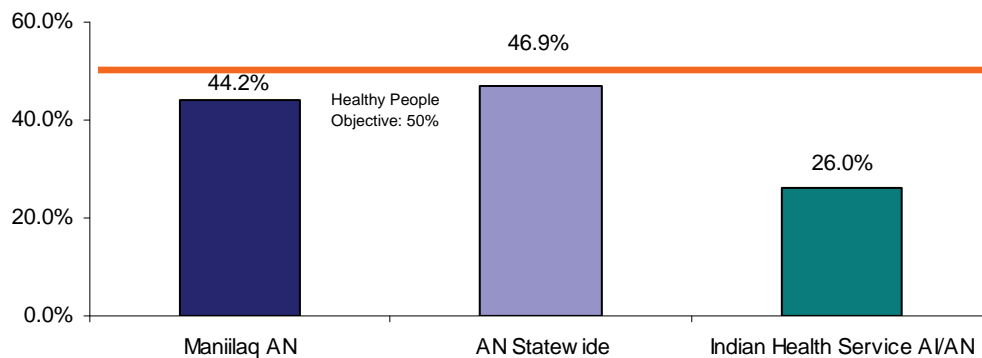
**Healthy Alaskans 2010, Objective 22.10:** Increase the proportion of adults aged 50 years and older who have received a colorectal cancer screening examinations to 64%.

### Summary:

- Forty-four percent (44.2%) of Alaska Natives age 51-80 years in the Maniilaq service area have had colorectal cancer screening, 2% lower than Alaska Natives statewide.

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

Figure 38. Colorectal Cancer Screening Rates, 51-80 Years  
GPRA Year 2007



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

## Immunizations– 4:3:1:3:3

**Definition:** By two years of age, it is recommended that all children should have received 4 doses of diphtheria-tetanus-pertussis (DTP), 3 doses of polio, 1 dose of measles-mumps-rubella (MMR), 3 doses of Hepatitis B, and 3 doses of Haemophilis 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 80% coverage, the Maniilaq Service Area had attained the Healthy People objective for 4:3:1:3:3 coverage.

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

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

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

Figure 39. Two-year old vaccination coverage, Maniilaq Association  
as of December 2007

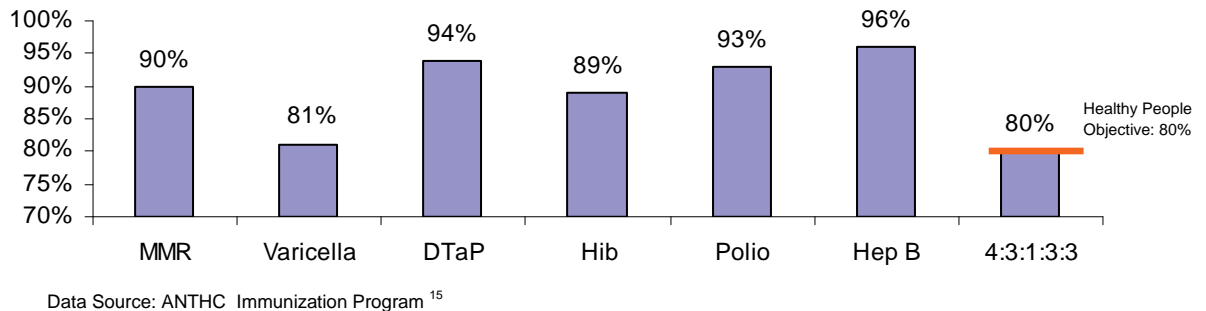
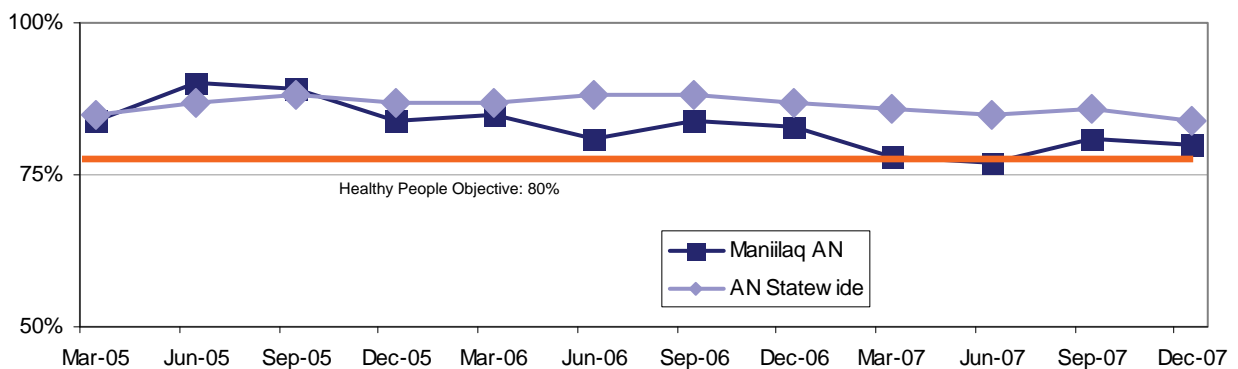


Figure 40. Two-Year Old Rates of 4:3:1:3:3 vaccination coverage  
March 2005-December 2007



## 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.

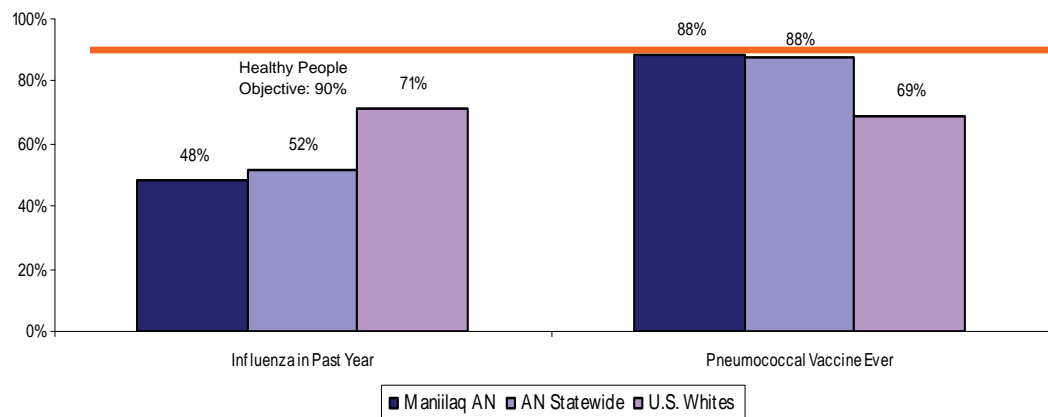
### Summary:

- As of June 2007, 48% of Alaska Natives age 65 years and older in the Maniilaq service area were vaccinated against influenza in the past year as compared to 71% of U.S. Whites.
- As of June 2007, 88% of Alaska Natives age 65 years and older in the Maniilaq service area 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:** Maniilaq AN includes all respondents residing in communities served by Maniilaq Association.

**Figure 41. 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 group of metabolic diseases characterized by high blood sugar levels, which result from defects in insulin secretion, or 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:**

- As of 2006, 39 out of every 1,000 people in the Maniilaq Service Area had diabetes.
- The rate of diabetes increased by 125% from 1990 to 2006 among Alaska Natives in the Maniilaq Service Area.

**Data Availability:** Available by region (tribal health organization), statewide for AK Natives and nationwide for the Indian Health System.

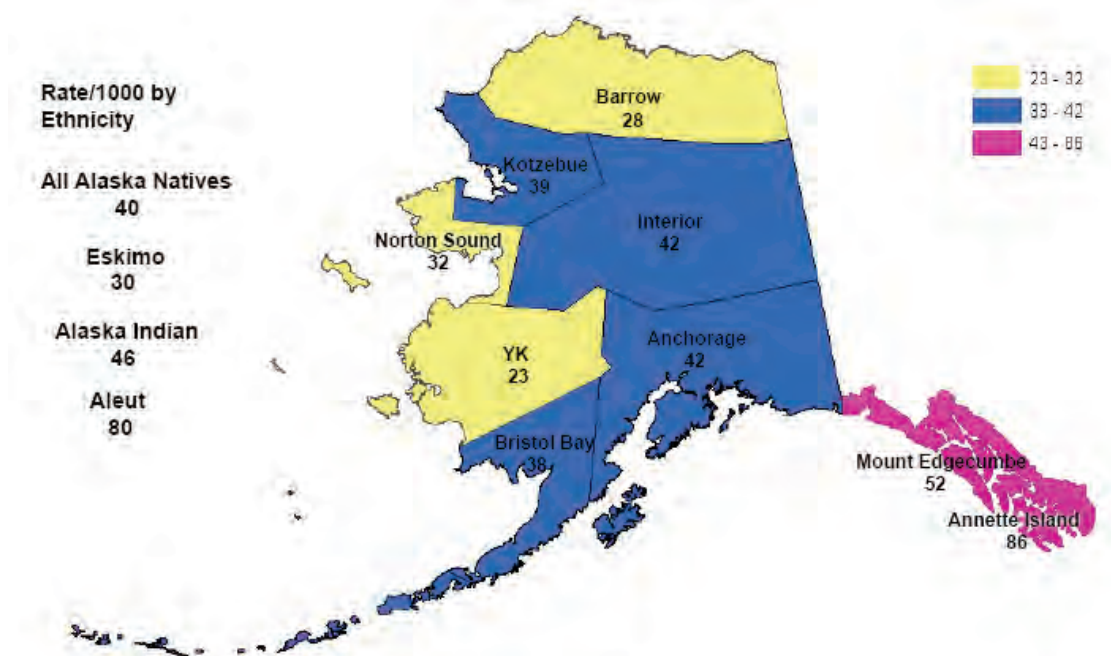
**Geographical Definition:** Maniilaq Service Area is defined as the Kotzebue Service Unit.

**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

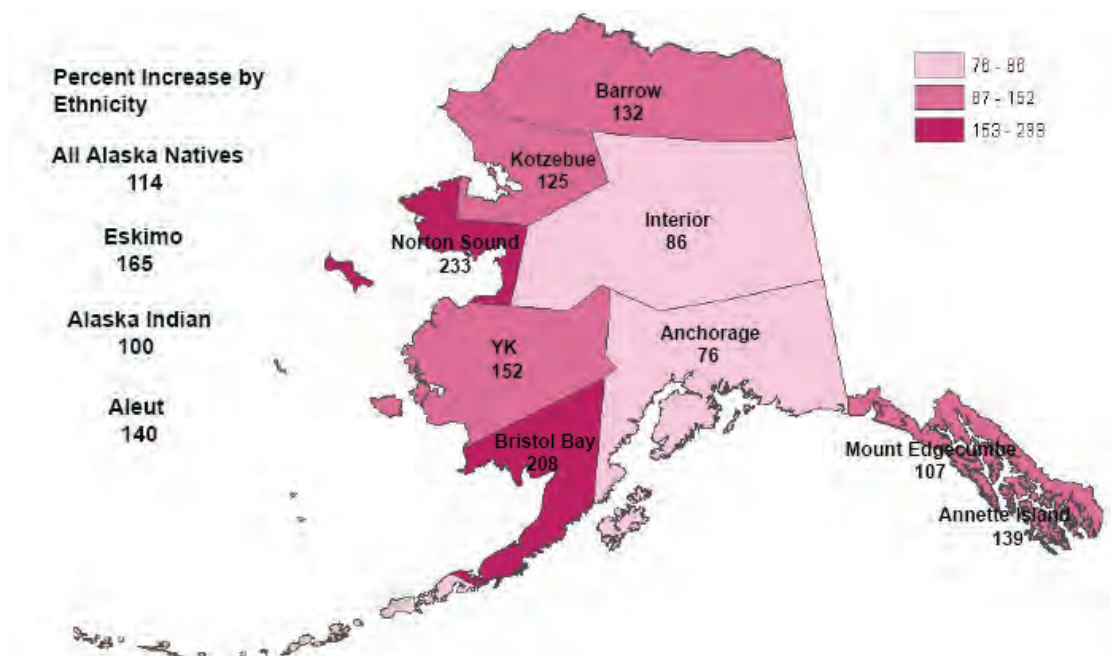


Figure 42. 2006 Diabetes Prevalence among Alaska Natives,  
age-adjusted prevalence per 1,000 population



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

Figure 43. 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:** Reduce infant death rate to 4.5/1,000 live births.

**Summary:**

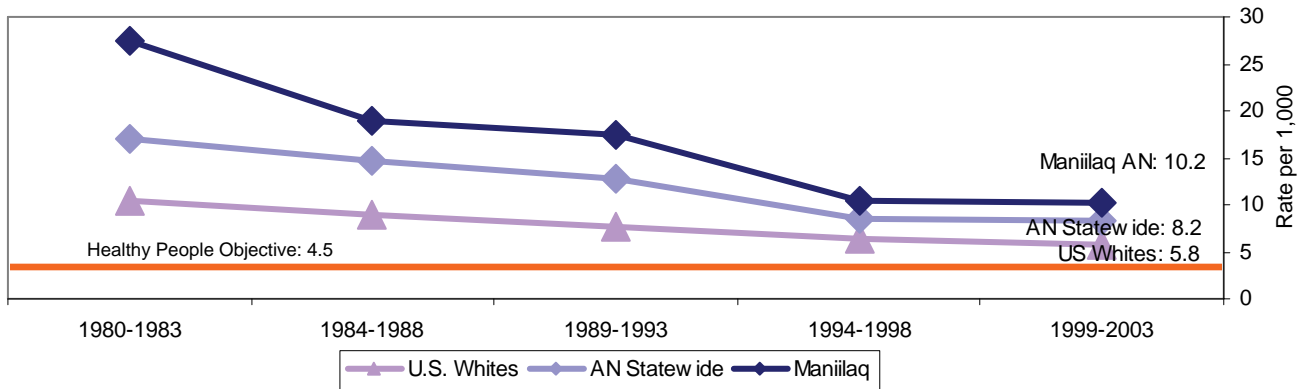
- There was a 63% decrease in the infant mortality rate during 1980-2003 for Maniilaq Alaska Natives ( $p < .05$ ).
- The infant mortality rate among Maniilaq Alaska Natives is 1.7 times greater than for U.S. Whites.

**Data availability:** Mortality data is available by borough or census area, race, and statewide through 2004. Periodic reports on Alaska Native Mortality are published by the AN EpiCenter, <http://www.anthc.org/cs/chs/epi/>

**Geographical Definition:** Maniilaq Service Area is defined as one of the communities served by Maniilaq Association.

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

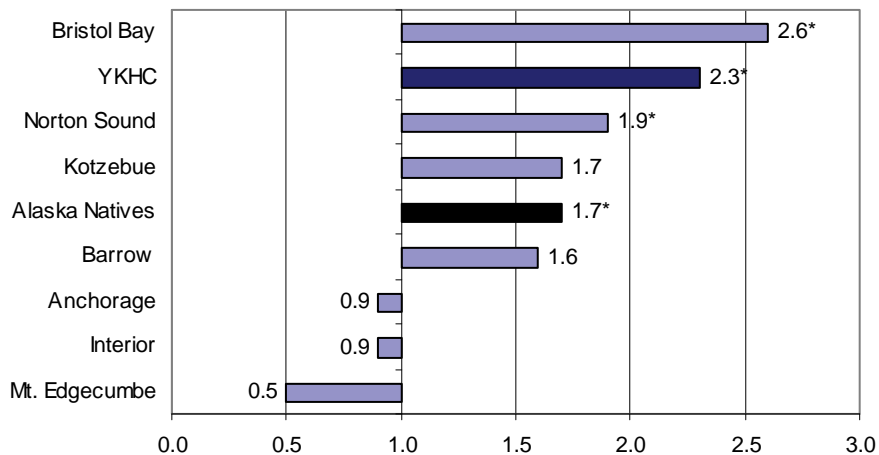
Figure 44. Infant Mortality Rates per 1,000 live births, 5-year Intervals, 1980-2003



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

Alaska Data Source: Alaska Bureau of Vital Statistics<sup>7</sup>; Analysis Conducted by: AN EpiCenter; U.S. Data Source: Surveillance, Epidemiology, and End Results (SEER) Program<sup>20</sup>

Figure 45. Ratio of Infant Mortality Rates, Alaska Natives compared to U.S. Whites for Service Regions, 1999-2003



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

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

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

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

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

### Summary:

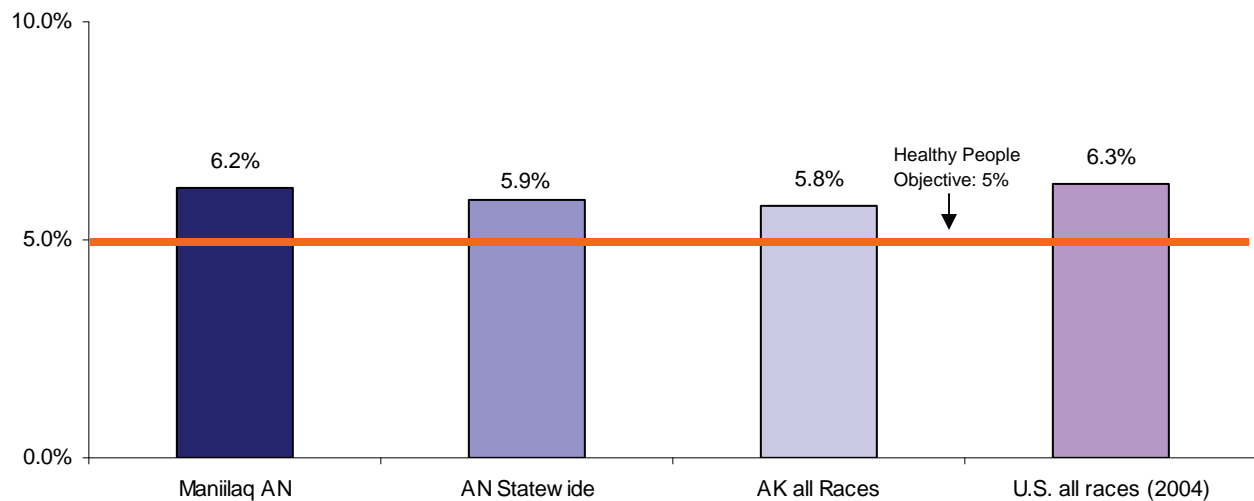
- 6.2% of Alaska Native babies in the Maniilaq service area were born with low birth weight; the same as U.S. babies (all races).

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

**Geographical Definition:** Maniilaq Service Area is defined as the Northwest Arctic Borough.

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

Figure 46. Percentage of Live Births with Low Birth Weight, 2000-2004



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 Kessner Index of Care is a method of categorizing adequacy of prenatal care. It is based on the month pregnancy care started, number of visits, and length of gestation. This index adjusts for the fact that women with short gestations have less time in which to make prenatal care visits. The Kessner Index assigns three levels of care– adequate, intermediate and inadequate.

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

**Healthy Alaskans 2010, Objective 11.b:** Increase the proportion of pregnant women who receive adequate prenatal care to 90%.

**Summary:**

- 38.9% of Alaska Native pregnant women in the Maniilaq service area were documented on the birth certificate as having received adequate prenatal care. This percent is 11% less than Alaska Native women statewide (65%).

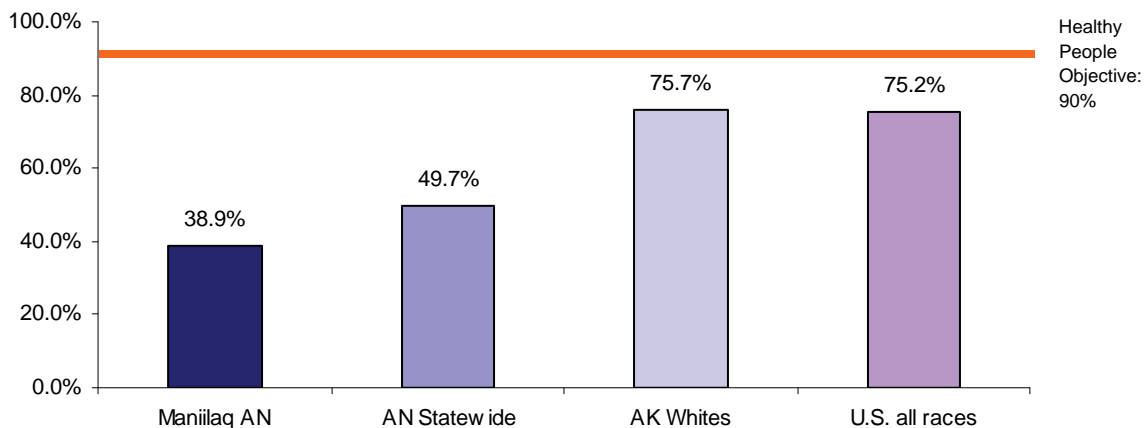
**Data availability:** Available by Census Area, by Race, Statewide

**Geographical Definition:** Maniilaq Service Area is defined as one of the communities served by Maniilaq Association.

**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 47. Percentage of Births with Adequate Prenatal Care (Kessner Index),  
2001-2005



Data Source: Alaska Bureau of Vital Statistics<sup>17</sup>  
Analysis Conducted by the AN EpiCenter  
U.S. Data Source: National Center for Health Statistics<sup>24</sup>

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

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

**Healthy People 2010, Objective 16-17a.** Increase the reported abstinence in 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 Maniilaq service area, 95% report abstaining from alcohol use during pregnancy compared to 98% percent of mothers statewide.
- Among Alaska Native mothers in the Maniilaq service area, 51% report abstaining from smoking cigarettes during pregnancy, 18% lower than Alaska Natives statewide.

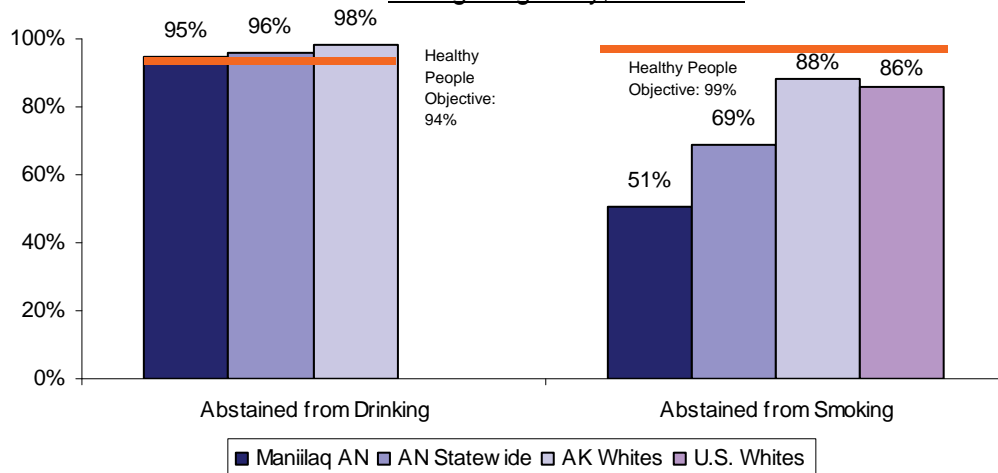
**Data availability:** Available by Census Area, by Race, Statewide

**Geographical Definition:** Maniilaq Service Area is defined as one of the communities served by Maniilaq Association.

**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 48. Percent of Women Reporting Abstaining from Alcohol Use and Smoking During Pregnancy, 2001-2005



Data Source: Alaska Bureau of Vital Statistics <sup>17</sup>  
 Analysis Conducted by the AN EpiCenter  
 U.S. Data Source: National Center for Health Statistics <sup>24</sup>

## Family Planning– Teen Birth Rate

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

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

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

### Summary:

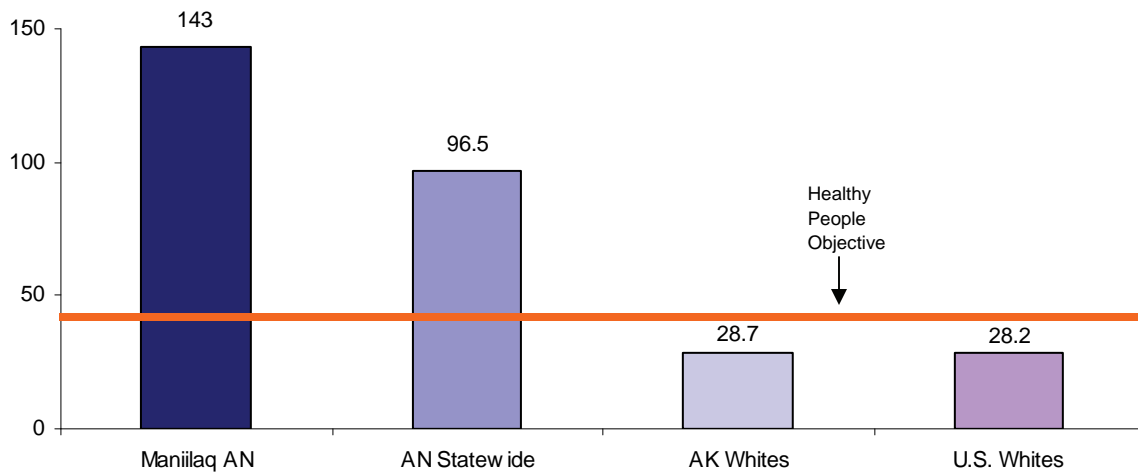
- The Alaska Native teen birth rate for the Maniilaq Service Area is 1.5 times higher than the rate for Alaska Natives statewide and is five times higher than the teen birth rate for Alaska Whites.

**Data availability:** Available by Census Area, by race, statewide

**Geographical Definition:** Maniilaq Service Area is defined as one of the communities served by Maniilaq Association.

**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/>

Figure 49. Teen Birth Rate (15-19 yrs), per 1,000 live births, 2001-2005



Data Source: Alaska Bureau of Vital Statistics <sup>18</sup>  
Analysis Conducted by the AN EpiCenter  
U.S. Data Source: National Center for Health Statistics <sup>24</sup>

## Responsible Sexual Behavior– Adolescents

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

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

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

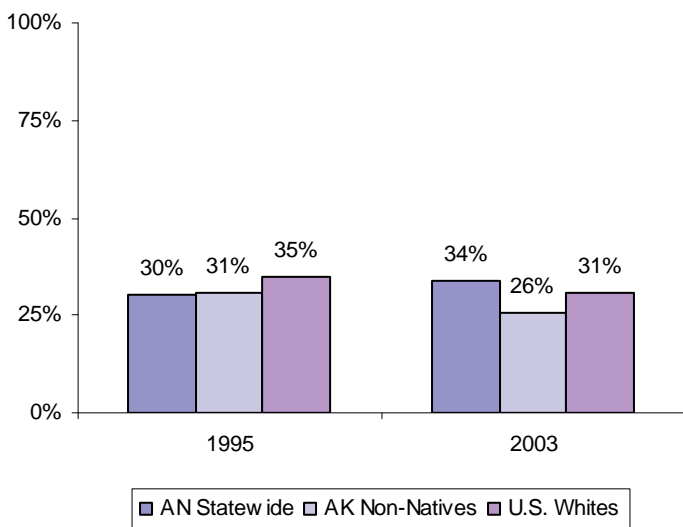
### Summary:

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

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

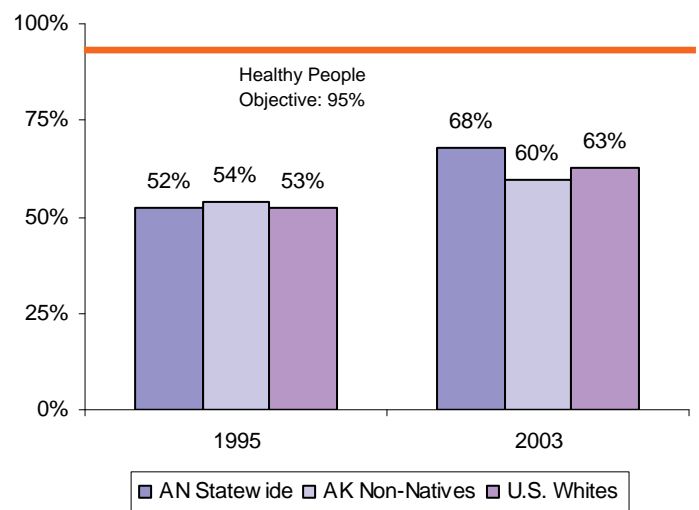
**For more information:** For Alaska Youth Risk Behavior Survey Reports (YRBS), go to <http://www.hss.state.ak.us/dph/chronic/school/YRBS.htm>  
For state and national level data, visit CDC Youth Risk Behavior Surveillance System website at <http://apps.nccd.cdc.gov/yrbss/>

Figure 50. Percent of high school students who had sex during the last three months, 1995 and 2003



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

Figure 51. Percent of sexually active high school students who used a condom during last sexual intercourse, 1995 and 2003



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

## Sexually Transmitted Infections (STI) Gonorrhea and Chlamydia

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

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

**Summary:**

- The Chlamydia rate for Alaska Natives in the Maniilaq service area (2823 per 100,000) is over four times that of all Alaskans, and more than eight times that of U.S. all races.
- The Gonorrhea rate for Alaska Natives in the Maniilaq service area is 432 per 100,000, more than 4 times that of all Alaskans.

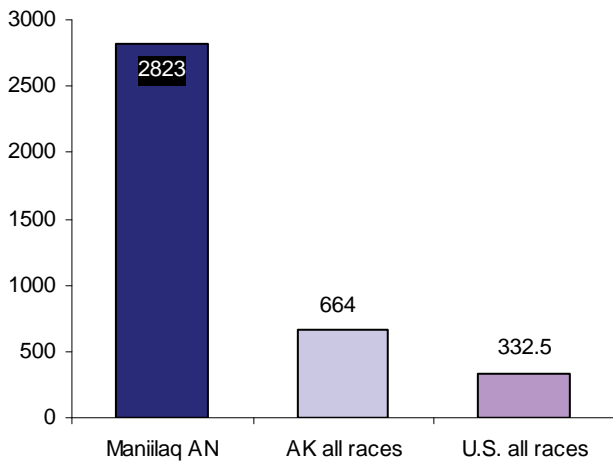
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**Data availability:** Available by Region, by Race, Statewide

**Geographical Definition:** Maniilaq AN includes all residents living in communities served by Maniilaq Association.

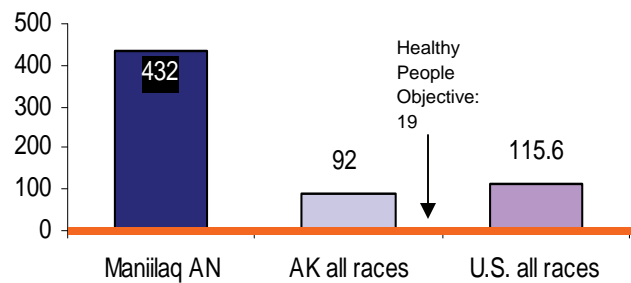
**For more information:** <http://www.epi.hss.state.ak.us/hivstd/std.stm>

Figure 52. Chlamydia Rate  
per 100,000, 2005



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

Figure 53. Gonorrhea Rate  
per 100,000, 2005



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



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## Appendix B. References and Data Sources

### Alaska Data

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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/saipe/county.html>.

#### **7) Mortality**

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

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

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

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

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

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### Alaska Data

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

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

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

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

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

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

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

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

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

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

#### **15) Immunizations**

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

#### **16) Diabetes**

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

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

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

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

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

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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)*. [www.seer.cancer.gov](http://www.seer.cancer.gov)

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

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

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

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

#### **23) Immunizations**

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

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

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

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

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

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

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



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## Appendix C. Description of Selected Data Sources

### Behavioral Risk Factor Surveillance System

The Behavioral Risk Factor Surveillance System (BRFSS) is an 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.

#### Cautionary Note:

For this report, the results of respondents from the Maniilaq Service Area were analyzed in order to give an estimate of several behavioral measures on a regional level. Although these estimates can be useful for 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 also not calculated for these estimates. For this reason, differences in estimates between populations, age groups, gender, and over time in this report cannot determine statistical significance.

BRFSS data has not been 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.

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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, 2001, 2003 and 2005. Weighted (representative) data were collected in 1995, 1999, and 2003, resulting in published reports.

### Alaska Trauma Registry

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

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

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

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

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

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

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

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