

# Interior Regional Health Profile



ALASKA NATIVE  
EPIDEMIOLOGY  
CENTER

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### Tribal:

Alaska Native Tribal Health Consortium

- Alaska Area Diabetes Program Diabetes Registry
- Immunization Program
- Injury Prevention Program

### State

- Alaska Trauma Registry
- Behavioral Risk Factor Surveillance System (BRFSS)
- Bureau of Vital Statistics
- HIV/STD Program
- Pregnancy Risk Assessment Monitoring System (PRAMS)
- Youth Risk Behavior Survey (YRBS)

### Federal

- Alaska Area Indian Health Service

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## Introduction

*“Alaska Natives are the healthiest people in the world.”*

-Alaska Native Tribal Health Consortium’s Vision

Significant improvements in health can be demonstrated by using data to monitor a population’s health status over time. In addition, health areas which are a concern, or for which inequities exist, can be readily identified for improvement through data tracking. Monitoring a population’s health status through reports such as this one helps us know where we are on the path to becoming the healthiest people in the world.

This report provides an overview of the health status of Interior Alaska Native people, which includes those served by the Tanana Chiefs Conference and the Council of Athabascan Tribal Governments. It includes a wide range of health topics as well as socioeconomic factors affecting Alaska Native health. The health indicators found in this report were selected as key health issues within the Alaska Tribal Health System for which data were available. Various data sources were accessed to compile this document. Each data source contains limitations which should be considered when using the data. Appendixes A and B explain some of these limitations as well as provide detailed information about the data sources.

Data is only part of the decision-making process. Data can guide advocacy, policy making, program planning, and program evaluation. We hope this document serves as a useful resource for those interested in Alaska Native health issues within Interior Alaska.

## Regional Health Profile Organization

This section provides an overview of the material presented in this Regional Health Profile. In addition, this section explains how the data are organized throughout this document.

The health indicators are presented in seven sections:

1. **Demographics** includes data on population estimates, user population, population change, educational attainment, unemployment, poverty status, and household income.
2. **Mortality** includes data about deaths such as: leading causes, life expectancy, years of potential life lost, and infant.
3. **Morbidity** includes the data on the leading causes of outpatient visits as well as information on injury-related hospitalizations. In addition, this section covers leading cancers and diabetes.
4. **Health Behavior—Adult** includes data on tobacco use, alcohol consumption, physical activity, obesity, and intimate partner violence.
5. **Health Behavior—Adolescent** includes data on tobacco use, alcohol consumption, physical activity, obesity, sexual behavior, substance use, and mental health.
6. **Additional Health Topics** includes data on low birth weight, fertility rate, teen birth rate, and sexually transmitted infections.
7. **Preventive Services and Access to Health Care** includes data on cervical, breast, and colorectal cancer screening, immunizations, prenatal care, and dental visits.

These main sections are followed by the following appendixes:

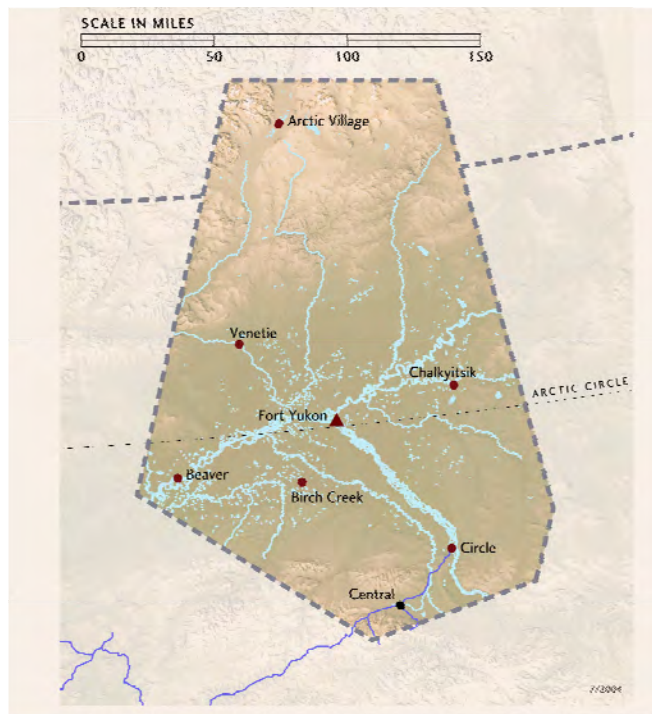
- **Appendix A** describes the data sources in detail;
- **Appendix B** includes a table of the race/ethnicity classifications used by each data source;
- **Appendix C** provides detailed data, sample sizes, and confidence intervals for the data provided throughout this document;
- **Appendix D** lists the titles of all figures and tables used throughout this document and may be used to find specific data quickly; and
- **Appendix E** lists a glossary of terms that are used throughout this regional health profile.



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Interior Alaska Region Maps

Map of the Council of Athabascan Tribal Governments



Map of Tanana Chiefs Conference



**Regional Health Profile Overview - Mortality**

<b>Indicator</b>	<b>Healthy People 2020 Objective</b>	<b>Interior Alaska Natives</b>	<b>Alaska Natives Statewide</b>	<b>U.S. Whites</b>	<b>Time Period</b>
Leading Cause of Death	N/A	Cancer	Cancer	Heart Disease <sup>1,2</sup>	2004-2008
Life Expectancy - Male	N/A	68.2	67.5	75.4 <sup>3</sup>	2000-2008
Life Expectancy - Female	N/A	72.1	73.5	80.4 <sup>3</sup>	2000-2008
Years of Potential Life Lost Mean	N/A	28.8	28.7	N/A	2004-2008
Cancer Deaths per 100,000	160.6	228.7	227.0	182.4 <sup>4</sup>	2004-2008
Coronary Heart Disease Deaths per 100,000	100.8	128.1	173.4	205.1 <sup>4</sup>	2004-2008
Unintentional Injury Deaths per 100,000	36.0	110.7	97.7	39.9 <sup>4</sup>	2004-2008
Cerebrovascular Disease Deaths per 100,000	33.8	48.1	56.7	44.5 <sup>4</sup>	2004-2008
Suicide Deaths per 100,000	10.2	41.1	42.3	12.0 <sup>4</sup>	2004-2008
Leading Cause of Injury Death	N/A	Suicide	Suicide	Motor Vehicle Accidents <sup>5</sup>	1999-2005
Infant Deaths per 1,000 Live Births	6.0	9.1	9.3	5.8 <sup>6</sup>	2004-2008

<sup>1</sup>Xu JQ, Kochanek KD, Murphy SL, Tejada-Vera B. Deaths: Final data for 2007. National Vital Statistics Reports; vol 58, no 19. Hyattsville, MD: National Center for Health Statistics. 2010.

<sup>2</sup>Reporting for year 2007

<sup>3</sup>Reporting for year 2005

<sup>4</sup>Reporting for years 2004-2006

<sup>5</sup>The Three Leading Causes of Injury Mortality in the United States, 1999-2005, Lois A. Fingerhut, Robert N. Anderson, National Center for Health Statistics, Health & Stats, <http://www.cdc.gov/nchs/data/hestat/injury99-05/injury99-05.pdf>.

<sup>6</sup>Reporting for years 2004-2005

N/A Not Available

INTERIOR REGIONAL HEALTH PROFILE

**Regional Health Profile Overview - Morbidity**

Indicator	Healthy People 2020 Objective	Interior Alaska Natives	Alaska Natives Statewide	U.S. Whites	Time Period
Leading Cause of Outpatient Visits	N/A	Essential Hypertension <sup>1</sup>	Other upper respiratory infection <sup>1,2,3</sup>	Progress visit, not otherwise specified <sup>4,5,6</sup>	FY2010
Leading Cause of Injury Hospitalizations	N/A	Falls	Suicide Attempt	N/A	1991-2003
Unintentional Injury Hospitalization per 10,000	N/A	109.1	99.8	N/A	1991-2003
Fall Hospitalization per 10,000	N/A	44.2	38.7	N/A	1991-2003
Suicide Attempt Hospitalization per 10,000	N/A	31.4	20.4	N/A	1991-2003
Assault Hospitalization per 10,000	N/A	25.4	18.5	N/A	1991-2003
Leading Cancers	N/A	Breast	Colorectal	Breast <sup>7,8</sup>	1998-2007
Diabetes per 1,000	N/A	44	41	53 <sup>9</sup>	2008
Percent Increase in Diabetes Prevalence	N/A	96%	124%	N/A	1990 to 2008

<sup>1</sup>Administrative/social admissions (including prescription refills), which were the most common cause of outpatient visits were excluded.

<sup>2</sup>Residual codes unclassified—the second most common cause of outpatient visits, which include many causes of inpatient visits that are not included in other categories, were excluded from this table.

<sup>3</sup>Other upper respiratory infections include: acute upper respiratory infections of multiple or unspecified sites, chronic sinusitis, croup, and other unspecified upper respiratory infections.

<sup>4</sup>Hing E, Hall MJ, Ashman JJ, Xu J. National Hospital Ambulatory Medical Care Survey: 2007 Outpatient Department Summary. National health statistics reports; no 28. Hyattsville, MD: National Center for Health Statistics. 2010.

<sup>5</sup>Used only when the only information given is progress of follow-up. Includes follow-up, NOS; routine follow-up; I'm better; Excludes: general checkup; follow-up, disease; follow-up, injury; follow-up, symptom; follow-up, test results; postoperative follow-up.

<sup>6</sup>Reporting for year 2007

<sup>7</sup>Surveillance, Epidemiology and End Results Program

<sup>8</sup>Reporting for years 2002-2006

<sup>9</sup>Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Health Interview Statistics, data from the National Health Interview Survey. Statistical analysis by the Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Diabetes Translation.

<http://www.cdc.gov/diabetes/statistics/prev/national/figbyrace.htm>

N/A Not Available

**Regional Health Profile Overview - Adult Health Behavior**

<b>Indicator</b>	<b>Healthy People 2020 Objective</b>	<b>Interior Alaska Natives</b>	<b>Alaska Natives Statewide</b>	<b>U.S. Whites</b>	<b>Time Period</b>
Adults Who Currently Smoke	12.0%	40.6%	39.5%	17.9% <sup>1</sup>	2007-2009
Percent of Adults Who Currently Use Smokeless Tobacco	0.3%	8.2%	10.9%	3.5% <sup>1,2**</sup>	2007-2009
Adults Who Binge Drink	24.3%	26.7%	19.2%	16.0% <sup>1</sup>	2007-2009
Adults Who Engage in Recommended Physical Activity Levels	47.9%	72.5%	67.3%	51.8% <sup>3</sup>	2007 & 2009
Overweight Adults	N/A	35.8%	37.3%	36.3% <sup>1</sup>	2007-2009
Obese Adults	30.6%	34.8%	34.5%	25.4% <sup>1</sup>	2007-2009
Adults Who Were A Victim of Intimate Partner Violence	N/A	32.7%	36.7%	N/A	2009
Pregnant Women Who Abstained from Cigarette Smoking	98.6%	68.5%	68.6%	N/A	2004-2008
Pregnant Women Who Abstained from Alcohol Use	98.3%	94.4%	95.8%	N/A	2004-2008

<sup>1</sup>Reporting for year 2008

<sup>2</sup>Substance Abuse and Mental Health Services Administration. Results from the 2008 National Survey on Drug Use and Health: Detailed Tables. Rockville (MD): Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2009.

<sup>3</sup>Reporting for year 2009

\*\* U.S. Total Population

N/A Not Available

INTERIOR REGIONAL HEALTH PROFILE

**Regional Health Profile Overview - Adolescent Health Behavior**

<b>Indicator</b>	<b>Healthy People 2020 Objective</b>	<b>Interior Alaska Natives</b>	<b>Alaska Natives Statewide</b>	<b>U.S. Whites</b>	<b>Time Period</b>
Adolescents Who Reported Cigarette Smoking During the Past Month	16.0%	N/A	24.2%	22.5%	2009
Adolescents Who Reported Spit Tobacco Use During the Past Month	6.9%	N/A	22.1%	11.9%	2009
Adolescents Who Reported Using Alcohol During the Past 30 Days	16.5%	N/A	32.3%	44.7%	2009
Adolescents Who Reported Binge Drinking During the Past Month	8.5%	N/A	19.0%	27.8%	2009
Adolescents Who Reported Marijuana Use During the Past 30 Days	6.0%	N/A	28.7%	20.7%	2009
Adolescents Who Reported Using Cocaine During Their Lifetime	N/A	N/A	4.0%	6.3%	2009
Adolescents Who Reported Engaging in Recommended Levels of Physical Activity	N/A	N/A	34.9%	39.9%	2009
Adolescents Who Are Overweight	N/A	N/A	16.7%	13.6%	2009
Adolescents Who Are Obese	16.1%	N/A	11.6%	10.3%	2009
Adolescents Who Have Ever Engaged in Sexual Intercourse	N/A	N/A	49.4%	42.0%	2009
Adolescents Who Reported Sad or Hopeless Feelings During the Past Year	N/A	N/A	25.6%	23.7%	2009
Adolescents Who Reported a Suicide Attempt in the Past Year	N/A	N/A	12.5%	5.0%	2009

N/A Not Available

**Regional Health Profile Overview - Additional Health Topics**

<b>Indicator</b>	<b>Healthy People 2020 Objective</b>	<b>Interior Alaska Natives</b>	<b>Alaska Natives Statewide</b>	<b>U.S. Whites</b>	<b>Time Period</b>
Low Birth Weight	N/A	5.7%	5.5%	7.2% <sup>1</sup>	2006-2008
Fertility Rate per 1,000 Females	N/A	88.4	107.4	66.3 <sup>2,3</sup>	2004-2008
Teen Birth Rate per 1,000 Females Ages 15-19 Years	N/A	57.2	79.3	37.0 <sup>2,3</sup>	2004-2008
Breastfeeding Initiation	81.9%	84.2%	91.4% <sup>4</sup>	74.0% <sup>4,5**</sup>	2004-2008
Breastfeeding 8 Weeks Postpartum	N/A	56.9%	65.7% <sup>4</sup>	62.5% <sup>4,5**</sup>	2004-2008
Childhood violence	N/A	N/A	31.1%	N/A	2009
Males with Gonorrhea per 100,000	N/A	N/A	155	25.6 <sup>6</sup>	2007
Females with Gonorrhea per 100,000	N/A	N/A	300	38.9 <sup>6</sup>	2007
Males with Chlamydia per 100,000	N/A	N/A	979	66.2 <sup>6</sup>	2007
Females with Chlamydia per 100,000	N/A	N/A	3,068	213.2 <sup>6</sup>	2007

<sup>1</sup>Reporting for year 2007

<sup>2</sup>National Center for Health Statistics. Health, United States, 2010: With Special Feature on Death and Dying. Hyattsville, MD. 2011.

<sup>3</sup>Reporting for year 2005

<sup>4</sup>Reporting for year 2006

<sup>5</sup>Breastfeeding Among U.S. Children Born 1999-2007, CDC National Immunization Survey. [http://www.cdc.gov/breastfeeding/data/NIS\\_data/index.htm](http://www.cdc.gov/breastfeeding/data/NIS_data/index.htm)

<sup>6</sup>U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for HIV, STD, and TB Prevention (NCHSTP), Division of STD/HIV Prevention, Sexually Transmitted Disease Morbidity for selected STDs by age, race/ethnicity and gender 1996-2008, CDC WONDER On-line Database, November 2009.

<http://wonder.cdc.gov/controller/datarequest/D46>

\*\* U.S. Total Population

N/A Not Available

INTERIOR REGIONAL HEALTH PROFILE

**Regional Health Profile Overview - Preventive Services and Access to Care**

<b>Indicator</b>	<b>Healthy People 2020 Objective</b>	<b>Interior Alaska Natives</b>	<b>Alaska Natives Statewide</b>	<b>U.S. Whites</b>	<b>Time Period</b>
Cervical Cancer Screening Within the Preceding Three Years	93.0%	N/A	86.2%	83.0%	2008
Breast Cancer Screening Within the Preceding Two Years	81.1%	N/A	62.8%	76.1%	2008
Colorectal Cancer Screening Ever	70.5%	58.1%	54.1%	64.0% <sup>1</sup>	2006 & 2008
Influenza Vaccination Rates - Adults Aged 65 and Older	90.0%	36.5%	48.9%	69.0% <sup>1</sup>	2010 <sup>2</sup>
Pneumococcal Vaccination Rates - Adults Aged 65 and Older	90.0%	91.6%	92.2%	63.0% <sup>1</sup>	2010 <sup>2</sup>
Two-Year Old 4:3:1:3:3:1 Vaccination Rates	80.0%	69.6%	79.7%	78.0% <sup>3</sup>	2010 <sup>2</sup>
Women Who Received Adequate Prenatal Care	77.6%	46.0%	43.5%	N/A	2004-2008
Adults Reporting a Dental Visit Within the Past Year	49.0%	55.0%	56.2%	73.5%	2008
Communities with access to safe water and proper sewage disposal	N/A	59.6%	76.0%	N/A	2008

<sup>1</sup>Reporting for year 2008

<sup>2</sup>The actual dates are June 30, 2009 to June 30, 2010.

<sup>3</sup>Reporting for year 2007

N/A Not Available

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# Demographics

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**User Population**

**Definition:** The Indian Health Service defines the **user population** as eligible American Indian/Alaska Native persons who used a tribal health facility at least once during the previous three year period. The facility must have been one that reported to the national Indian Health Service data system. Indian Health Service user population data are calculated by federal fiscal year. Federal Fiscal Year 2009 was from October 1, 2008 to September 30, 2009.

**Summary**

- 35.6% of the Interior user population is under the age of twenty.
- 7.2% of the user population is 65 years of age or older.

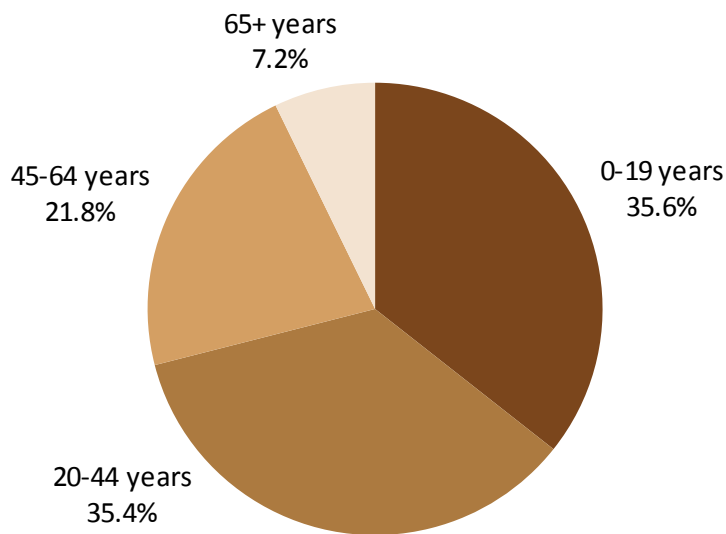
**Figure 1. User Population by Age Group, Alaska Natives, Interior Region, 2009 (N=13,701)**

Data Source: National Patient Information Reporting System, Indian Health Service National Data Warehouse

Note 1: Age is determined from the end date of fiscal year 2009

Note 2: Currently no data for the Denali Borough

Data Table C-1 in Appendix



## Population Estimates

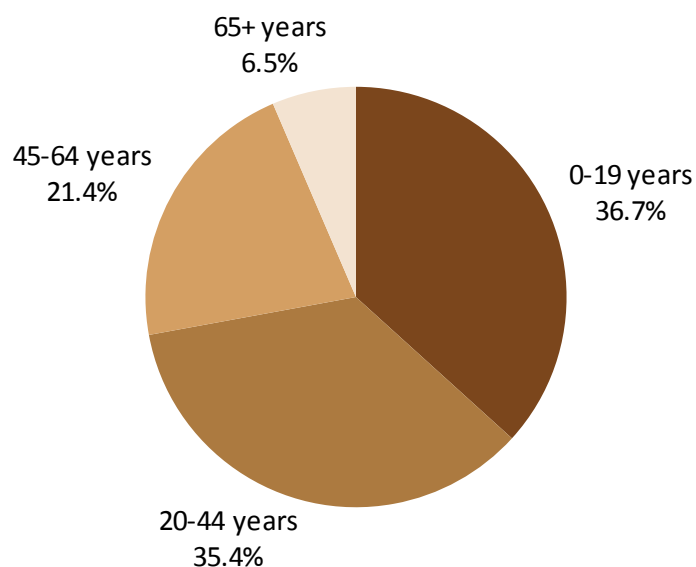
**Definition:** The State of Alaska Department of Labor and Workforce Development uses the U.S. Census, vital records and other data to calculate “bridged” **population estimates** between census years. “Bridged” refers to a method that makes multiple race and single race categories comparable over time since the 2000 U.S. Census allowed respondents to check multiple race categories for the first time.

### Summary

- The Alaska Department of Labor estimates that 15,019 Alaska Native people live in the Interior Region. This represents 13.8% of Interior’s total population (N=108,463).
- 36.7% of Interior Alaska Native people were under the age of 20 in 2009.

**Figure 2. Population Estimates by Age Group, Alaska Natives, Interior Region, 2009 (N=15,019)**

Data Source: Alaska Department of Labor and Workforce Development  
Data Table C-2 in Appendix.



**Population Pyramid**

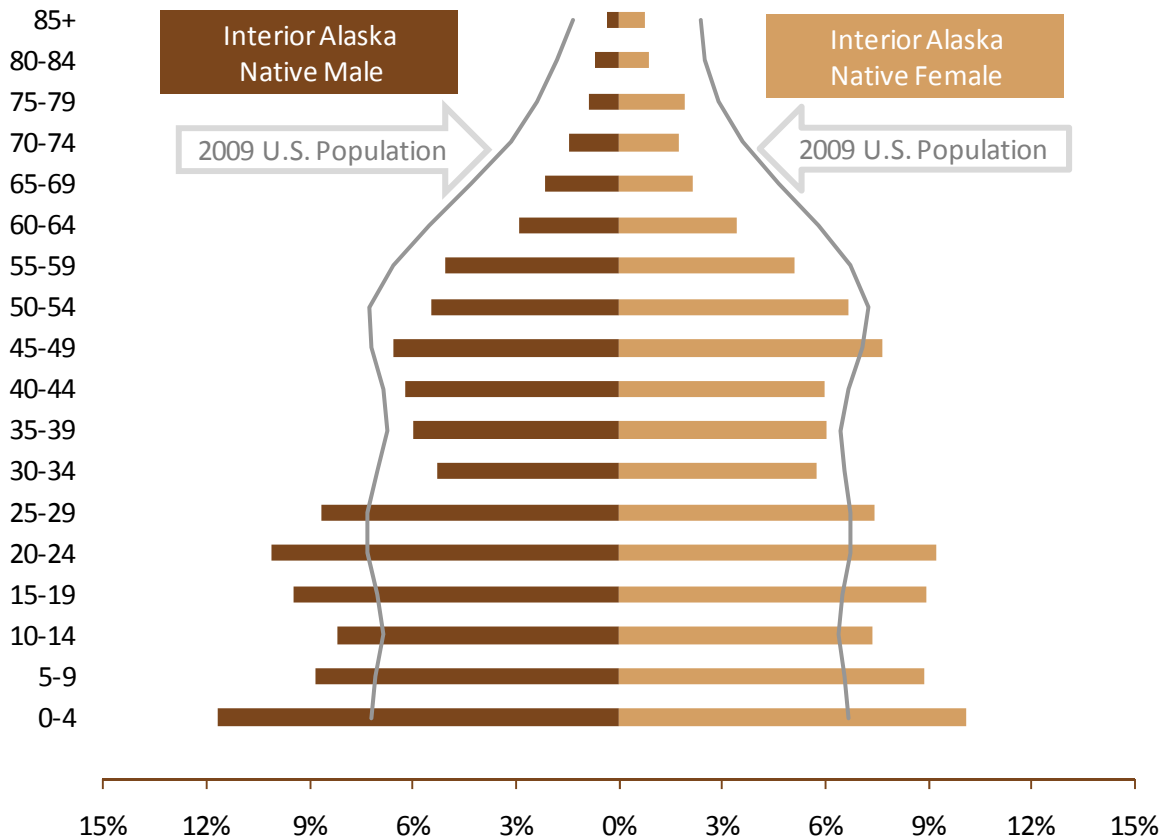
**Definition:** A **population pyramid** is a graphical representation of the age and sex distribution of a population. The proportion of males and females in each age group are displayed as horizontal bars. The gray lines show the distribution of the 2009 U.S. total population.

**Summary**

- A higher proportion of the Interior Alaska Native population is under the age of 30 (54.5%) compared to the U.S. total population (41.2%).
- Elders over the age of 65 (6.5%) account for a lower proportion of the population compared to the U.S. total population (12.9%).

**Figure 3. Population Pyramid, Alaska Natives, Interior Region, 2009**

Alaska Data Source: Alaska Department of Labor and Workforce Development  
 U.S. Data Source: US Census Bureau, Population Estimates Program



## 2001 and 2009 Population Change by Borough/Census Area

**Definition: Population change by borough/census area** is based on “bridged” population estimates. The State of Alaska Department of Labor and Workforce Development calculate these estimates from U.S. Census data, Alaska vital records, and other state data sources to calculate the population between the census years. “Bridged” refers to a method that makes multiple race and single race categories comparable over time since respondents were allowed to check multiple race categories for the first time in the 2000 U.S. Census.

### Summary

- All boroughs/census areas in Interior gained numbers of Alaska Native persons between 2001 and 2009 except the Yukon Koyukuk Census Area which lost persons.
- Overall, Interior saw an increase in the Alaska Native population by 1,948 people and the total population by 10,893 people between 2001 and 2009.

**Table 1. Population Change by Borough/Census Area, Interior Region, Bridged Population Estimates, 2001 to 2009**

Data Source: Alaska Department of Labor and Workforce Development

	2001		2009		% Change Alaska Native Population	% Change Total Population
	Alaska Native	Total Population	Alaska Native	Total Population		
Denali Borough	135	1,902	170	1,838	25.9%	- 3.4%
Fairbanks North Star Borough	7,432	83,276	10,119	93,779	36.2%	12.6%
Southeast Fairbanks Census Area	873	5,907	992	7,243	13.6%	22.6%
Yukon Koyukuk Census Area	4,631	6,485	3,738	5,603	-19.3%	-13.6%
<b>Total Interior</b>	<b>13,071</b>	<b>97,570</b>	<b>15,019</b>	<b>108,463</b>	<b>14.9%</b>	<b>11.2%</b>
<b>Total Alaska</b>	<b>110,694</b>	<b>632,200</b>	<b>125,200</b>	<b>692,314</b>	<b>13.1%</b>	<b>9.5%</b>

**2001 and 2009 Bridged Population Change - Male**

**Summary**

- The Interior Alaska Native male population increased by 16.6% (6,565 to 7,653), while the total Interior male population increased by 10.3% (50,844 to 56,106) between 2001 and 2009.
- While the overall Alaska Native male population in Interior increased, males between the ages of 10-14 and 35-39 decreased between 2001 and 2009.

**Table 2. Population Change by Age, Males, Interior Region, Bridged Population Estimates, 2001 to 2009**

Data Source: Alaska Department of Labor and Workforce Development

	2001		2009		% Change in Alaska Native Population	% Change in Total Population
	Alaska Native Male	Total Male Population	Alaska Native Male	Total Male Population		
0-4	698	4,187	894	5,314	28.1%	26.9%
5-9	634	4,099	675	4,789	6.5%	16.8%
10-14	727	4,489	625	4,163	-14.0%	-7.3%
15-19	709	4,203	724	4,223	2.1%	0.5%
20-24	520	3,793	776	4,223	49.2%	11.3%
25-29	434	3,969	663	4,404	52.8%	11.0%
30-34	366	3,798	405	4,212	10.7%	10.9%
35-39	501	4,254	459	3,971	-8.4%	-6.7%
40-44	463	4,195	476	3,422	2.8%	-18.4%
45-49	455	4,108	504	3,886	10.8%	-5.4%
50-54	306	3,518	419	3,912	36.9%	11.2%
55-59	238	2,285	385	3,609	61.8%	57.9%
60-64	185	1,489	224	2,608	21.1%	75.2%
65-69	115	946	166	1,563	44.3%	65.2%
70-74	100	717	110	840	10.0%	17.2%
75-79	58	417	65	482	12.1%	15.6%
80-84	33	232	56	318	69.7%	37.1%
85+	23	145	27	167	17.4%	15.2%
<b>Total</b>	<b>6,565</b>	<b>50,844</b>	<b>7,653</b>	<b>56,106</b>	<b>16.6%</b>	<b>10.3%</b>

**2001 and 2009 Bridged Population Change - Female**

**Summary**

- The Interior Alaska Native female population increased by 13.2% (6,506 to 7,366), while the total Interior female population increased by 12.1% (46,726 to 52,357) between 2001 and 2009.
- While the overall Alaska Native female population in Interior increased, females between the ages of 10-14 and 35-44 decreased between 2001 and 2009.

**Table 3. Population Change by Age, Females, Interior Region, Bridged Population Estimates, 2001 to 2009**

Data Source: Alaska Department of Labor and Workforce Development

	2001		2009		% Change in Alaska Native Population	% Change in Total Population
	Alaska Native Female	Total Female Population	Alaska Native Female	Total Female Population		
0-4	547	3,930	746	4,717	36.4%	20.0%
5-9	630	4,025	654	4,318	3.8%	7.3%
10-14	732	4,342	541	3,880	-26.1%	-10.6%
15-19	650	3,694	658	3,851	1.2%	4.3%
20-24	479	3,230	679	4,074	41.8%	26.1%
25-29	397	3,538	548	3,976	38.0%	12.4%
30-34	397	3,608	421	3,968	6.0%	10.0%
35-39	527	3,973	444	3,648	-15.7%	- 8.2%
40-44	504	4,100	442	3,409	-12.3%	-16.9%
45-49	464	3,787	566	3,798	22.0%	0.3%
50-54	373	2,917	490	3,743	31.4%	28.3%
55-59	227	1,847	377	3,079	66.1%	66.7%
60-64	159	1,222	254	2,139	59.7%	75.0%
65-69	131	795	159	1,343	21.4%	68.9%
70-74	123	670	129	812	4.9%	21.2%
75-79	75	498	139	664	85.3%	33.3%
80-84	44	309	64	487	45.5%	57.6%
85+	47	241	55	451	17.0%	87.1%
<b>Total</b>	<b>6,506</b>	<b>46,726</b>	<b>7,366</b>	<b>52,357</b>	<b>13.2%</b>	<b>12.1%</b>

## Educational Attainment

**Definition: Educational Attainment** is the highest level of school that a person completed.

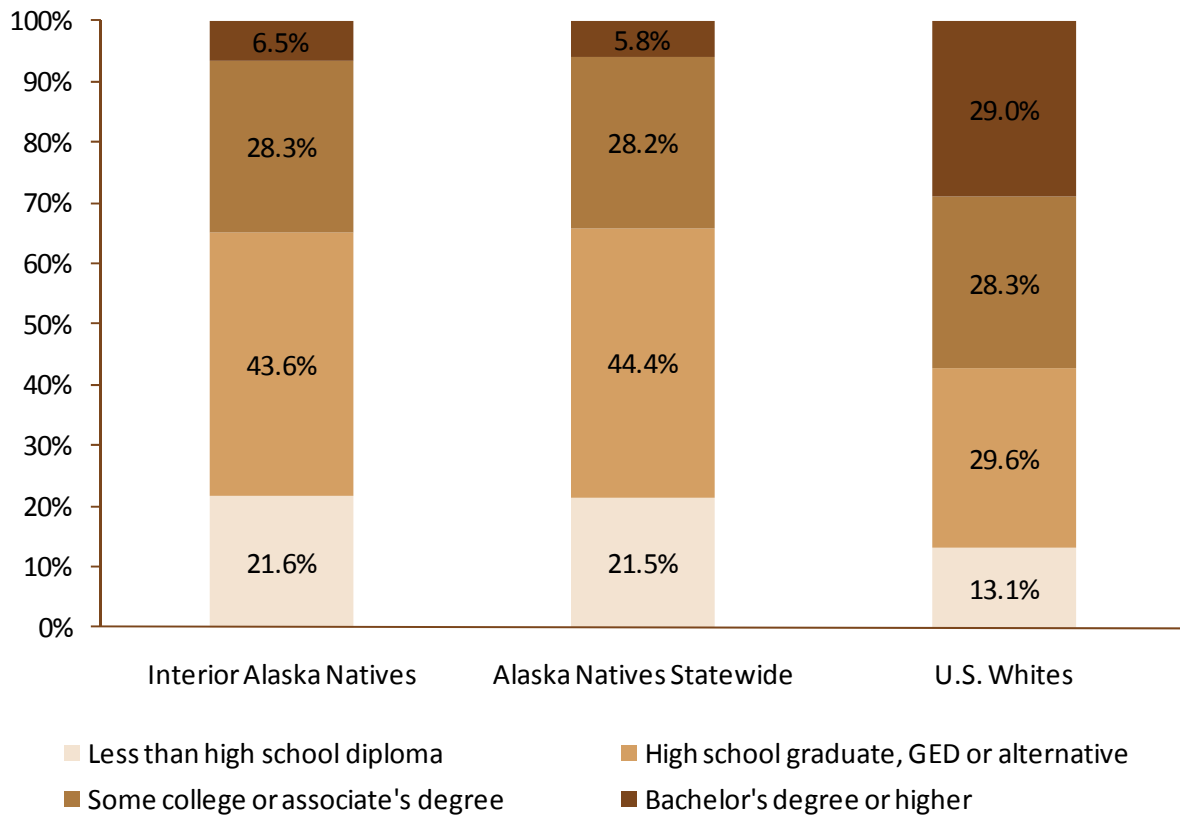
### Summary

- 6.5% of Interior Alaska Native people’s highest level of educational attainment was a bachelor’s degree or higher.
- 78.4% of Interior Alaska Native people received a high school diploma or higher.
- 29.0% of U.S. Whites received a Bachelor’s degree or higher. This is about 4.5 times that of Interior Alaska Native people (6.5%).

**Figure 4. Highest Educational Attainment, 25 Years and Older, 2005-2009**

Data Source: U.S. Census Bureau, 2005-2009 American Community Survey

Data Table C-3 in Appendix





## Unemployment

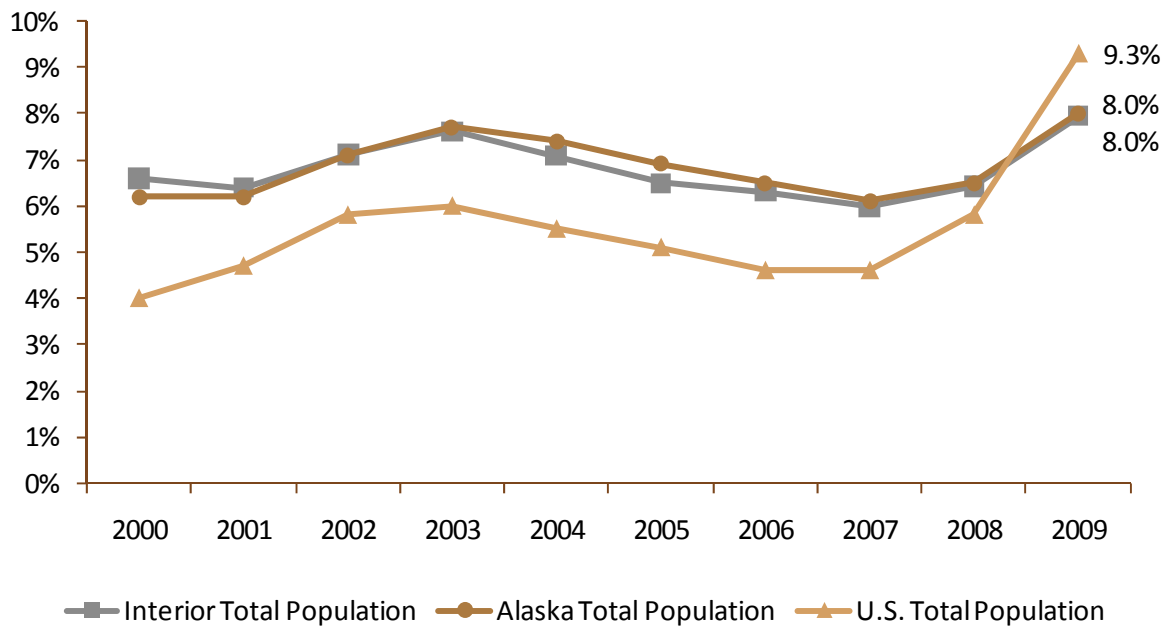
**Definition: Unemployment** includes anyone who has made an active attempt to find work in the four week period up to and including the week that includes the 12th of the referenced month. Due to the scarcity of employment opportunities in rural Alaska, many individuals do not meet the official definition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

### Summary

- In 2009, the unemployment rate for Interior (8.0%) was the same as the statewide unemployment rate (8.0%).
- In 2009, both the Interior and Alaska statewide rates (8.0%) were below the U.S. total population unemployment rate (9.3%).

**Figure 5. Unemployment, 2000-2009**

Data Source: Alaska Department of Labor and Workforce Development  
Data Table C-4 in Appendix



## Poverty Status - Adults

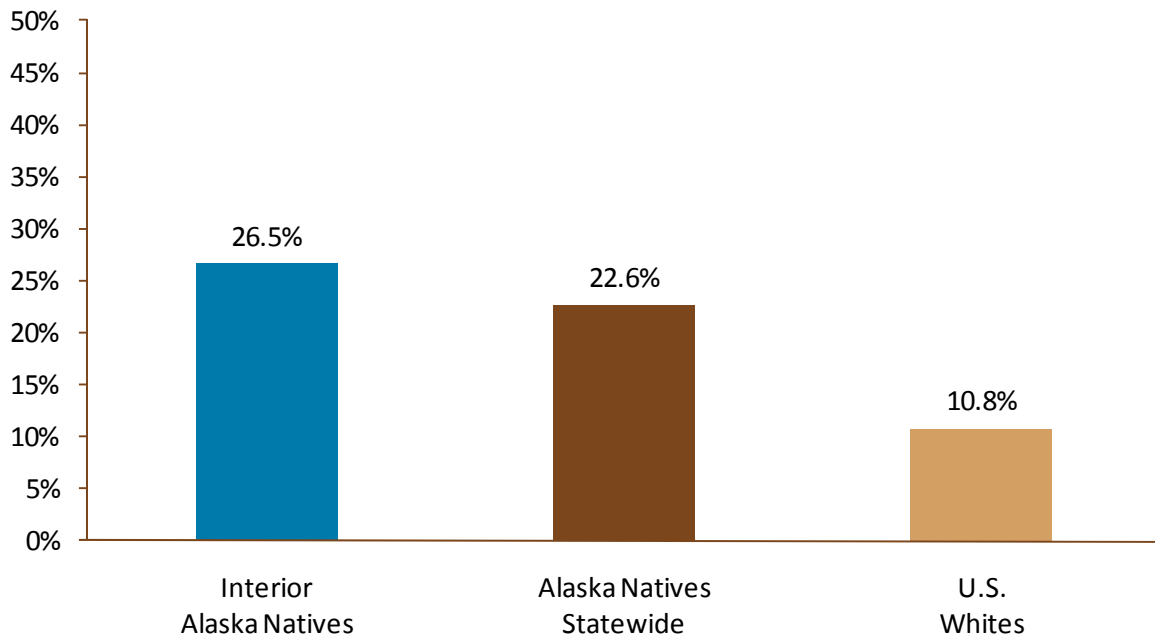
**Definition:** The U.S. Census Bureau uses a set of income thresholds that vary by family size and composition to determine who is in **poverty**. If a family’s total income is less than the threshold, then the family members are considered to be in poverty. The official poverty thresholds are updated for inflation using the Consumer Price Index, but they do not vary geographically. The official poverty definition uses money income before taxes and does not include capital gains or non-cash benefits (such as public housing, Medicaid, and food stamps).

### Summary

- During 2005-2009, 26.5% of Interior Alaska Native people lived below the Federal Poverty Level.
- The percentage of Interior Alaska Native people living below the Federal Poverty Level (26.5%) was about 2.5 times that of U.S. Whites (10.8%).

**Figure 6. Estimated Residents below the Poverty Level, All Ages, 2005-2009**

Data Source: U.S. Census Bureau, 2005-2009 American Community Survey  
Data Table C-5 in Appendix



## Poverty Status - Under 18 Years of Age

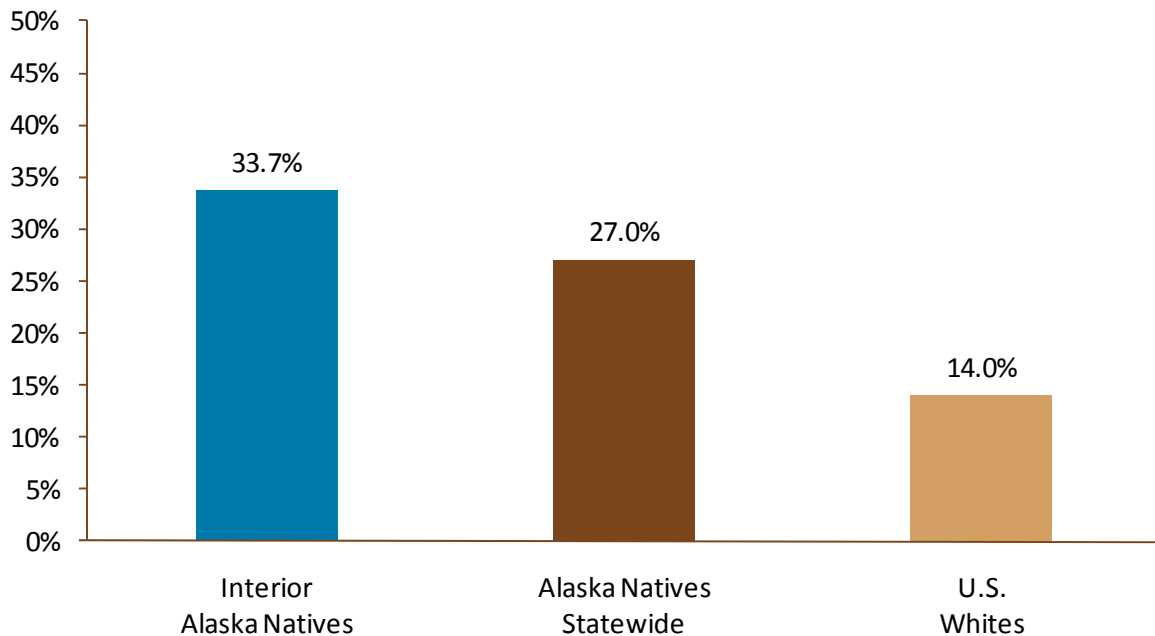
**Definition:** The U.S. Census Bureau uses a set of income thresholds that vary by family size and composition to determine who is in **poverty**. If a family’s total income is less than the threshold, then the family members are considered to be in poverty. The official poverty thresholds are updated for inflation using the Consumer Price Index, but they do not vary geographically. The official poverty definition uses money income before taxes and does not include capital gains or non-cash benefits (such as public housing, Medicaid, and food stamps). **Poverty status under 18 years of age** includes children in families determined to be in poverty under the age of 18.

### Summary

- During 2005-2009, 33.7% of Interior Alaska Native children lived below the Federal Poverty Level.
- The percentage of Interior Alaska Native children living below the Federal Poverty Level was about 2.4 times that of U.S. Whites.

**Figure 7. Estimated Residents below the Poverty Level, Under 18 Years of Age, 2005-2009**

Data Source: U.S. Census Bureau, 2005-2009 American Community Survey  
Data Table C-6 in Appendix



## Household Income

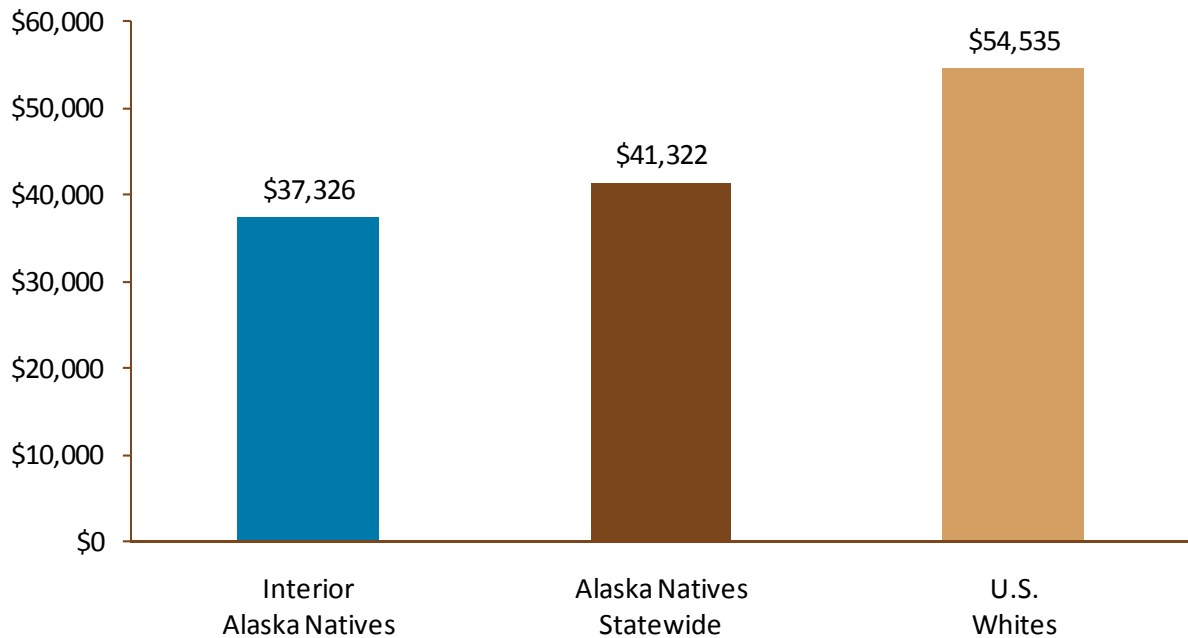
**Definition: Household income** is determined by the reported household income of the persons who completed the 2005, 2006, 2007, 2008, and 2009 American Community Survey. Income includes all monetary sources including wages, the Permanent Fund Dividend, corporation dividends and public assistance. Income does not include subsistence resources.

### Summary

- During 2005-2009, the estimated median household income for Interior Alaska Native people was \$37,326.
- The median household income for U.S. Whites (\$54,535) was 1.5 times the median household income for Interior Alaska Native people (\$37,326).

**Figure 8. Estimated Median Household Income, 2005-2009**

Data Source: U.S. Census Bureau, 2005-2009 American Community Survey



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# Mortality

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## Leading Causes of Death

**Definition:** The **leading causes of death** is a list of the top causes of death within a population. These lists are used frequently to measure the health status of a population when compared to the rank of causes of death among other populations.

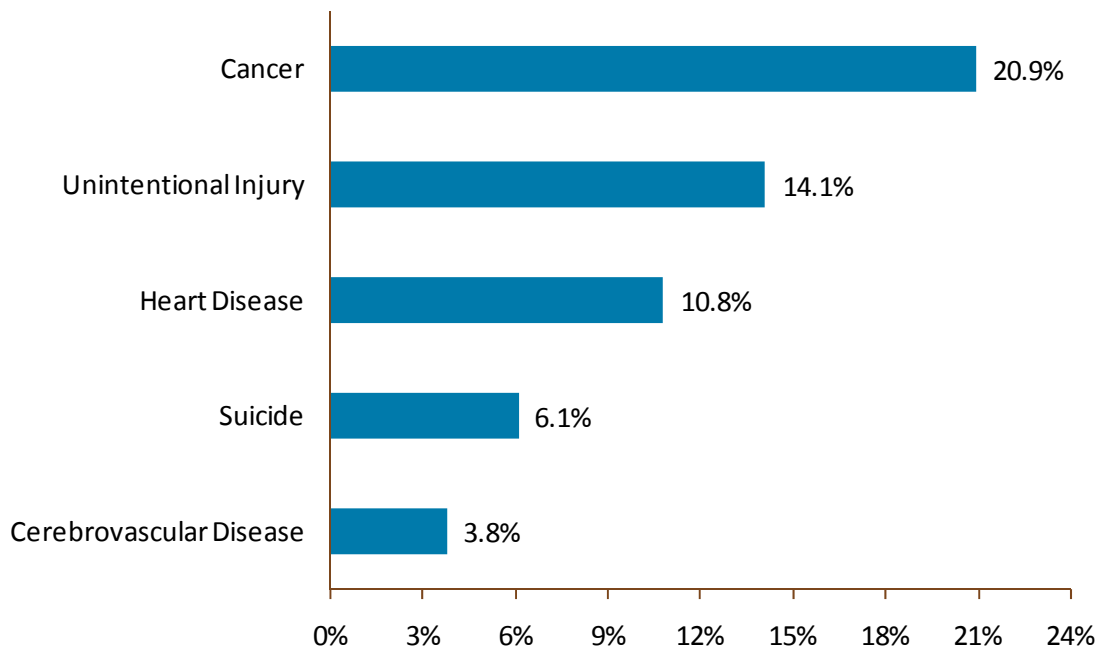
### Summary

- Cancer is the leading cause of death among Interior Alaska Native people.
- The top three leading causes of death among Interior Alaska Native people were similar to those of Alaska Native people statewide (cancer, heart disease, and unintentional injury).

**Figure 9. Leading Causes of Death, Alaska Natives, Interior Region, 2004-2008**

Data Source: Alaska Bureau of Vital Statistics

Data Table C-7 in Appendix



## Life Expectancy - Male

**Definition:** Life expectancy in this document refers to the average number of years a person is expected to live from birth.

### Summary

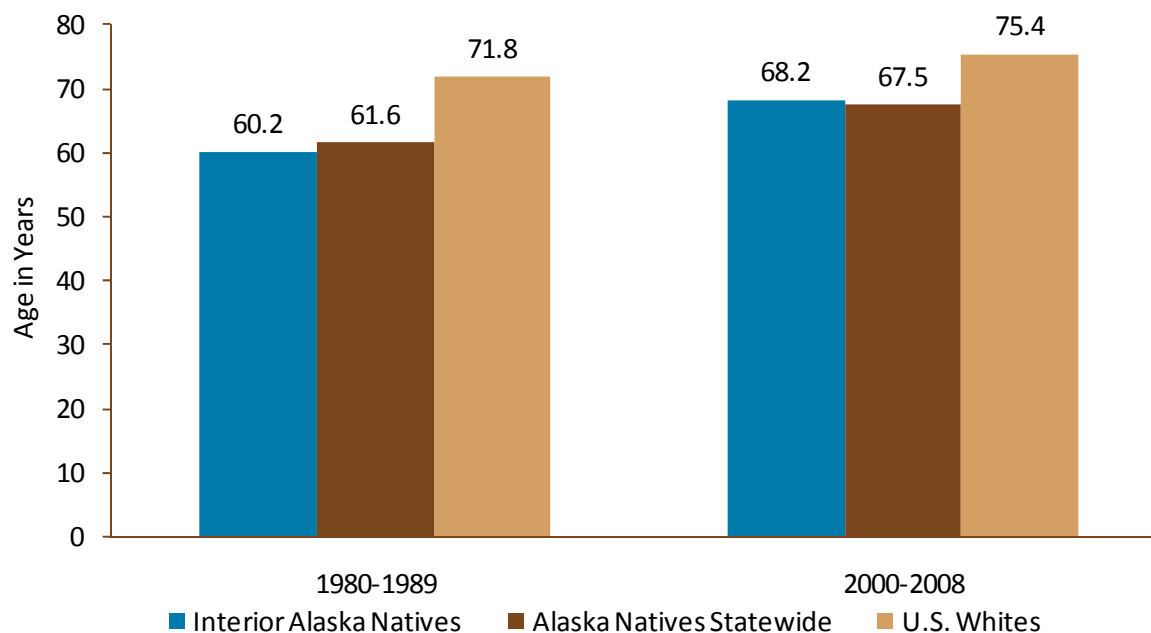
- The life expectancy among Interior Alaska Native males increased 8 years between 1980-1989 and 2000-2008.
- The life expectancy among Interior Alaska Native males (68.2) was higher than Alaska Native males statewide (67.5), but 7.2 years lower than U.S. White males (75.4) for 2000-2008.

**Figure 10. Estimated Life Expectancy, Males, Years from Birth, Comparing 1980-1989 and 2000-2008**

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: U.S. National Center for Health Statistics, National Vital Statistics Reports (NVSR), Deaths: Final Data for 2006, Vol. 57, No.14, April 17, 2009.

Note: U.S. Data are from 1985 and 2005



**Life Expectancy - Female**

**Definition:** Life expectancy in this document refers to the average number of years a person is expected to live from birth.

**Summary**

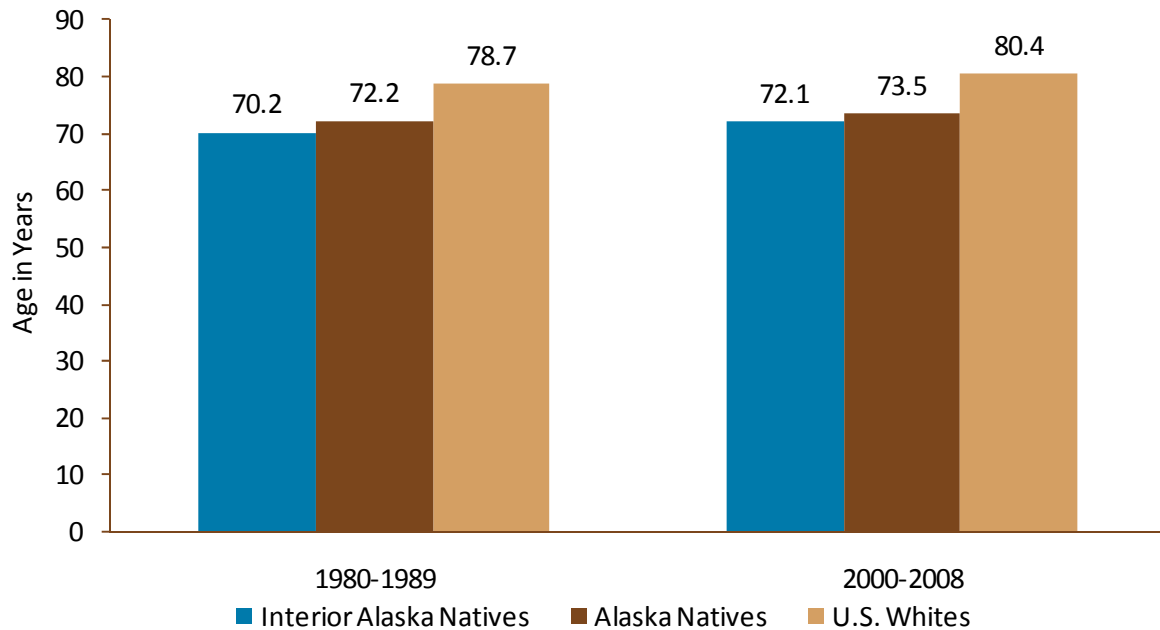
- The life expectancy among Interior Alaska Native females increased 1.9 years between 1980-1989 and 2000-2008.
- The life expectancy among Interior Alaska Native females (72.1) was similar to Alaska Native females statewide (73.5), but 8.3 years lower than U.S. White females (80.4) for 2000-2008.

**Figure 11. Estimated Life Expectancy, Females, Years from Birth, Comparing 1980-1989 and 2000-2008**

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: U.S. National Center for Health Statistics, National Vital Statistics Reports (NVSR), Deaths: Final Data for 2006, Vol. 57, No.14, April 17, 2009.

Note: U.S. Data are from 1985 and 2005





## Years of Potential Life Lost

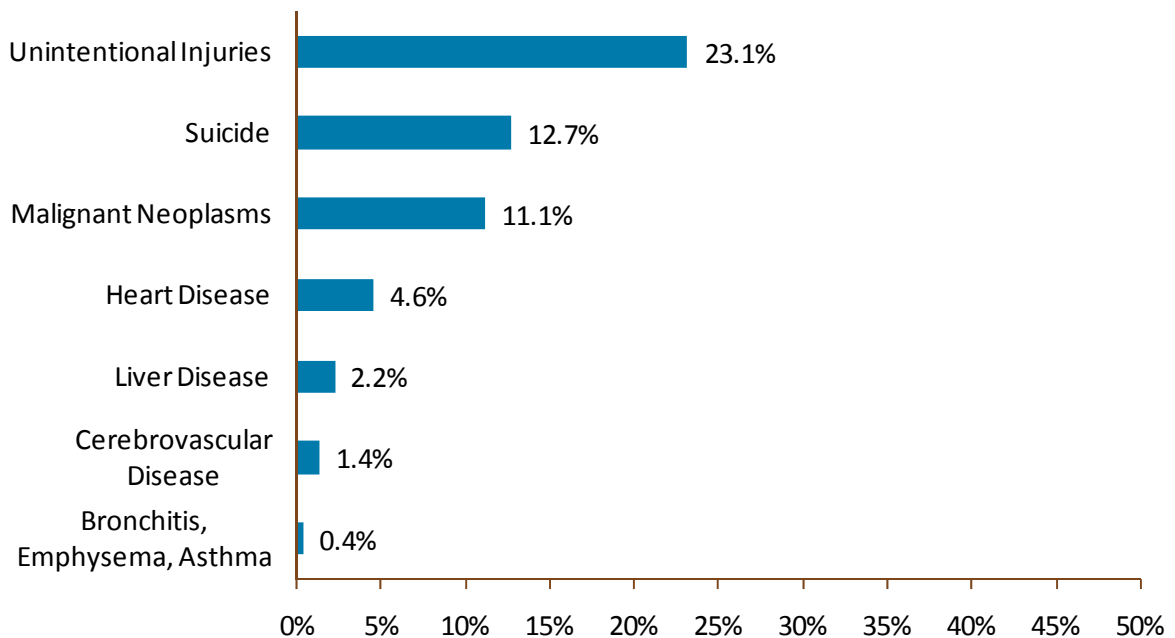
**Definition:** Years of potential life lost is a measure of premature mortality. It is an estimate based on the average number of years a person would have lived if he or she had not died before the age of 75.

### Summary

- Unintentional Injuries caused the highest number of years of potential life lost (2,126 years).
- The average number of years of potential life lost for all causes of premature death for Interior Alaska Native people is 28.8 years.

**Figure 12. Leading Causes of Total Years of Potential Life Lost: Deaths - Years from Age 75, Alaska Natives, Interior Region, Ages 1 to 74, 2004-2008**

Data Source: Alaska Bureau of Vital Statistics  
Data Table C-8 in Appendix



**Cancer Deaths**

**Definition: Cancer mortality** is defined as the number of deaths due to all types of cancer per 100,000 persons. The SEER cancer ICD-9 and ICD-10 codes are listed in table A-1 in Appendix.

**Healthy People 2020, Goal C-1:** Reduce the overall cancer death rate to 160.6 deaths per 100,000 persons.

**Summary**

- Interior Alaska Native deaths due to cancer were 228.7 per 100,000 for 2004-2008.
- Deaths due to cancer were similar from 1984-1988 to 2004-2008 (225.1 to 228.7 per 100,000) for Interior Alaska Native people.
- Deaths due to cancer were 24.5% higher for Interior Alaska Native people (227.0, per 100,000 population) than U.S. Whites (182.4, per 100,000 population) during 2004-2008.

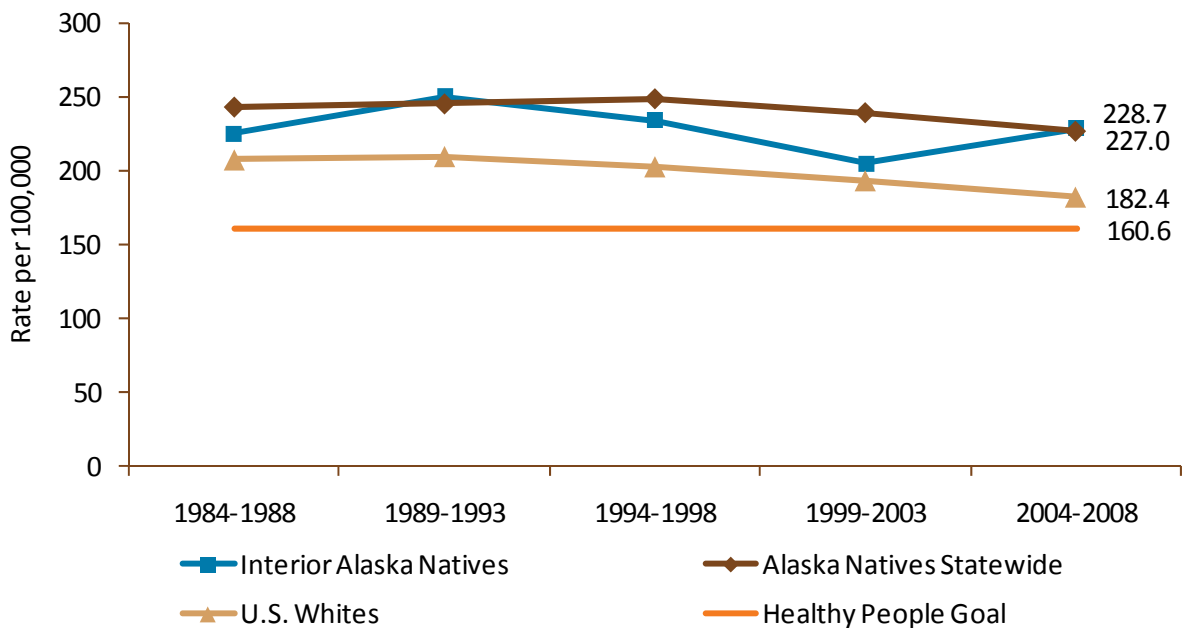
**Figure 13. Age-Adjusted Cancer Death Rates per 100,000, 1984-2008**

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: Surveillance, Epidemiology, and End Results Program

Note for the 2004-2008 time period: U.S. rates are calculated for 2004-2006.

Data Table C-9 in Appendix



## Coronary Heart Disease Deaths

**Definition: Coronary heart disease deaths** are defined as the total number of deaths due to heart disease per 100,000 persons. The SEER heart disease ICD-9 and ICD-10 codes are listed in table A-1 in Appendix.

**Healthy People 2020, Goal HDS-2:** Reduce coronary heart disease death rate to 100.8 per 100,000 persons.

### Summary

- The heart disease death rate of Interior Alaska Native people was 128.1 per 100,000 people from 2004-2008.
- Deaths due to heart disease decreased 63.5% from 1984-1988 (351.1, per 100,000 population) to 2004-2008 (128.1, per 100,000 population) for Interior Alaska Native people.
- Deaths due to heart disease were 37.5% lower for Interior Alaska Native people than U.S. White people (128.1 versus 205.1, per 100,000 population, respectively) for 2004-2008.

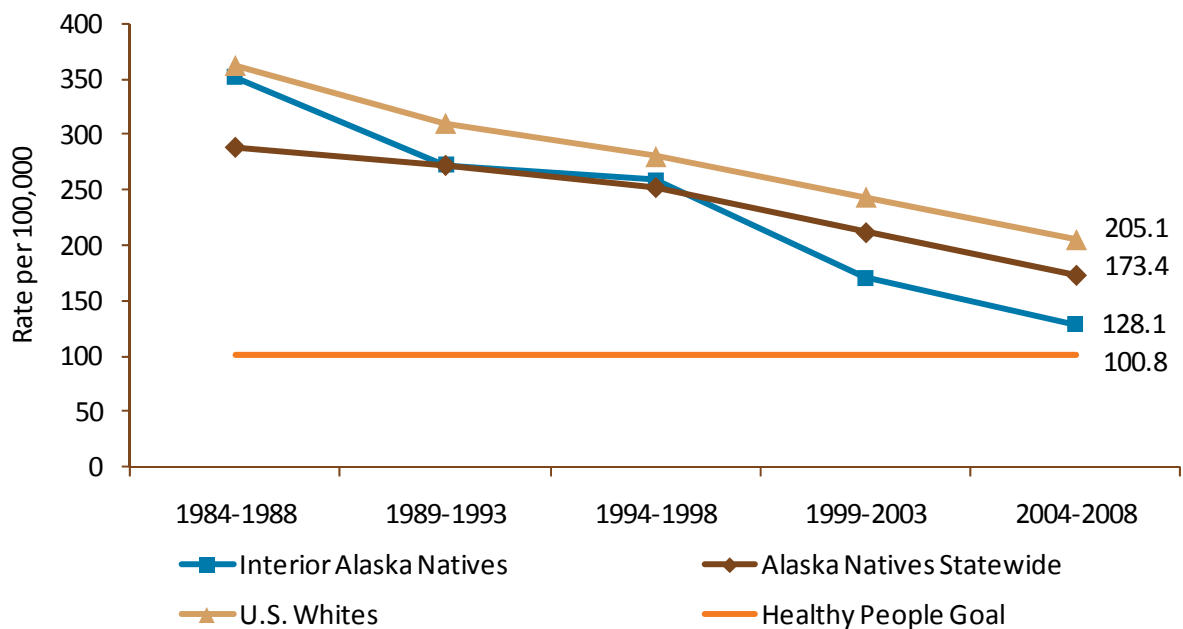
**Figure 14. Age-Adjusted Coronary Heart Disease Death Rates per 100,000, 1984-2008**

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: Surveillance, Epidemiology, and End Results Program

Note for the 2004-2008 time period: U.S. rates are calculated for 2004-2006.

Data Table C-10 in Appendix



## Unintentional Injury Deaths

**Definition: Unintentional injury deaths** are defined as the total number of deaths due to unintentional injuries per 100,000 persons.

**Healthy People 2020, Goal IVP-11:** Reduce unintentional injury death rate to 36.0 per 100,000 persons.

### Summary

- Interior Alaska Native deaths due to unintentional injuries were 110.7 per 100,000 population for 2004-2008.
- Deaths due to unintentional injuries decreased 46.5% between 1984-1988 and 1989-1993 (248.2 and 132.7, per 100,000 population, respectively), and between 1989-1993 and 2004-2008 unintentional injury deaths have decreased 16.6% (132.7 and 110.7, per 100,000 population, respectively) for Interior Alaska Native people.
- Although unintentional injury deaths have decreased for Interior Alaska Native people, the death rate for Interior Alaska Native people (110.7) is almost three times that of U.S. Whites (39.9).

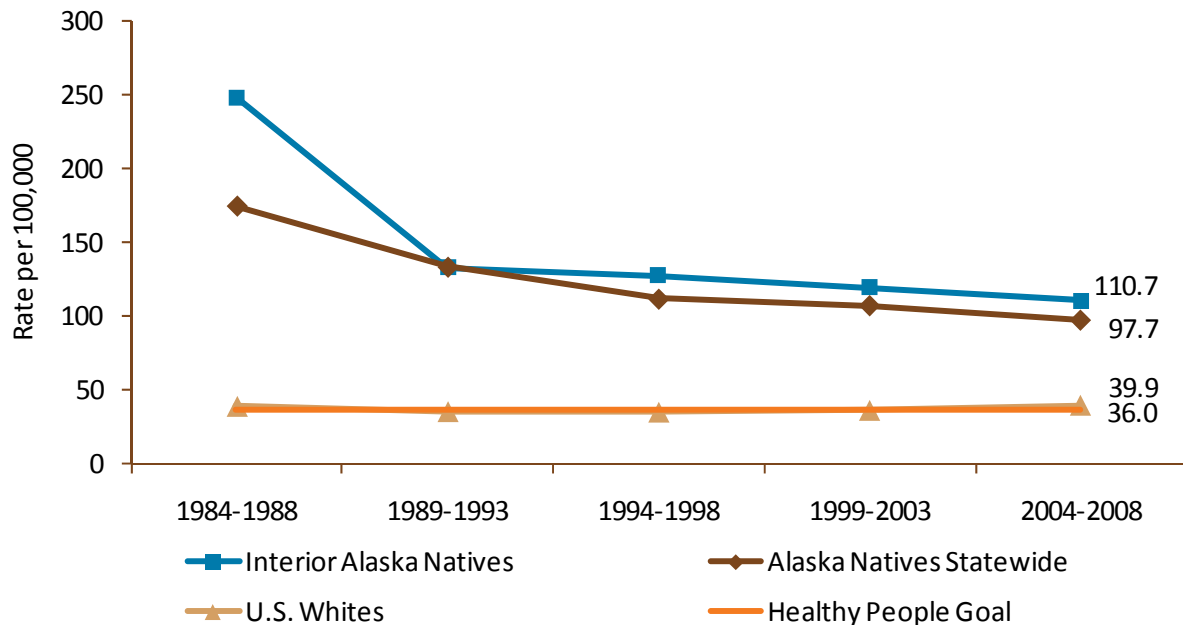
**Figure 15. Age-Adjusted Unintentional Injury Death Rates per 100,000, 1984-2008**

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: Surveillance, Epidemiology, and End Results Program

Note for the 2004-2008 time period: U.S. rates are calculated for 2004-2006.

Data Table C-11 in Appendix



## Cerebrovascular Disease Deaths

**Definition: Cerebrovascular disease (stroke) mortality** is defined as the total number of deaths due to cerebrovascular disease per 100,000 persons. The SEER cerebrovascular disease ICD-9 and ICD-10 codes are listed in table A-1 in Appendix.

**Healthy People 2020, Goal HDS-3:** Reduce the cerebrovascular disease (stroke) death rate to 33.8 per 100,000 persons.

### Summary

- The cerebrovascular disease death rate for Interior Alaska Native people was 48.1 per 100,000 people during 2004-2008.
- Deaths from cerebrovascular disease declined 50.1% from 1984-1988 (96.3, per 100,000 population) to 2004-2008 (48.1, per 100,000 population) for Interior Alaska Native people.
- Deaths due to cerebrovascular disease were similar for Interior Alaska Native people and U.S. White people (48.1 and 44.5, per 100,000 population, respectively) for 2004-2008.

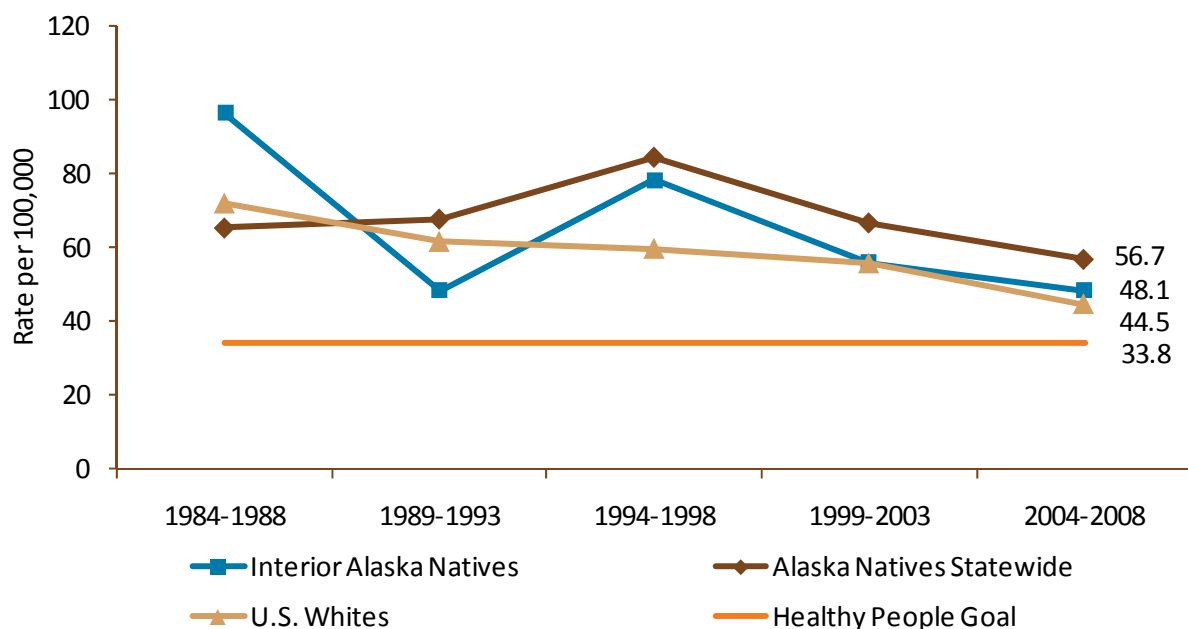
**Figure 16. Age-Adjusted Cerebrovascular Disease Death Rates per 100,000, 1984-2008**

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: Surveillance, Epidemiology, and End Results Program

Note for the 2004-2008 time period: U.S. rates are calculated for 2004-2006.

Data Table C-12 in Appendix



**Suicide Deaths**

**Definition: Suicide mortality** is defined as the act of causing ones own death. The SEER suicide ICD-9 and ICD-10 codes are listed in table A-1 in Appendix.

**Healthy People 2020, Goal MHMD-1:** Reduce the suicide death rate to 10.2 per 100,000 persons.

**Summary**

- Interior Alaska Native deaths due to suicide were 41.1, per 100,000 population for 2004-2008.
- Deaths due to suicides decreased 19.7% from 1984-1988 (51.2, per 100,000 population) to 2004-2008 (41.1, per 100,000 population) for Interior Alaska Native people.
- Although suicide deaths have been decreasing for Interior Alaska Native people, the death rate for Interior Alaska Native people (41.1, per 100,000) is approximately three times that of U.S. Whites (12.0, per 100,000).

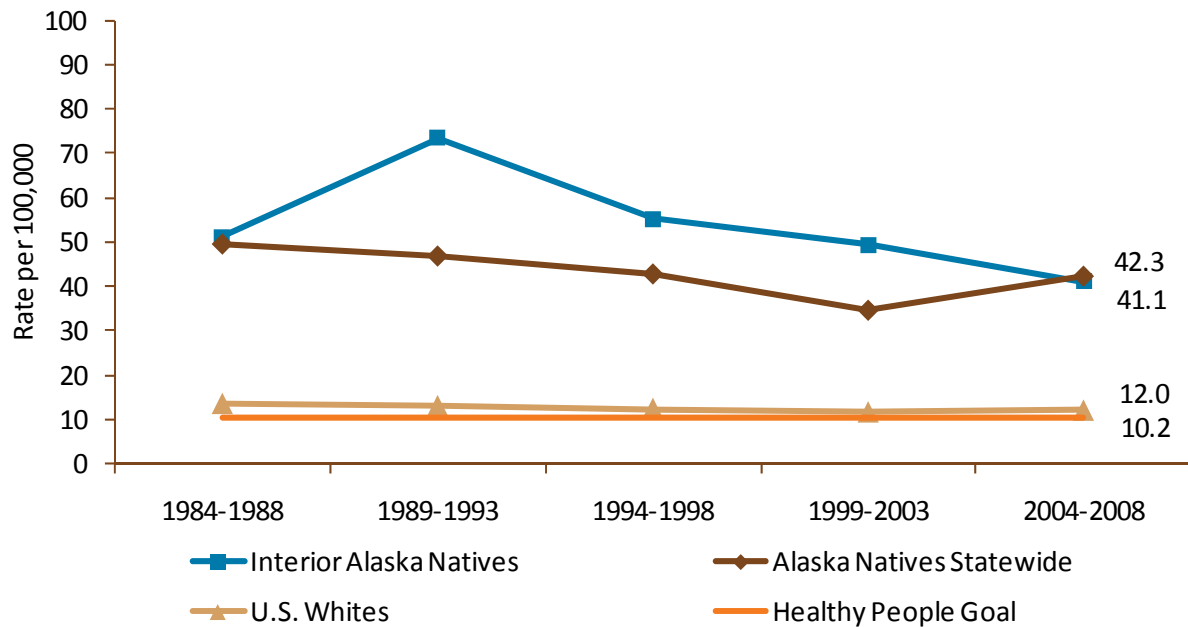
**Figure 17. Age-Adjusted Suicide Death Rates per 100,000, 1984-2008**

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: Surveillance, Epidemiology, and End Results Program

Note for the 2004-2008 time period: U.S. rates are calculated for 2004-2006.

Data Table C-13 in Appendix



## Leading Causes of Injury Deaths

**Definition:** The **leading causes of injury death** ranks the leading causes by type of injury-related death.

### Summary

- Suicide was the leading cause of injury-related death among Interior Alaska Native people.
- Interior Alaska Native people are nearly two times more likely to die of drowning than Alaska Native people statewide.

**Table 4. Leading Causes of Injury Death, Interior Region Alaska Natives, 1999-2005**

Data Source: Alaska Bureau of Vital Statistics

Causes of Injury Death by Rank	n	% Total	Rate per 100,000	Rate Ratio <sup>2</sup> :
				Interior Alaska Natives vs. Alaska Natives Statewide
Suicide	40	25%	42.9	1.1
Drowning	20	12%	23.1	1.8
Motor Vehicle	18	11%	23.2 <sup>1</sup>	1.3
Unintentional Poisoning	17	11%	20.8 <sup>1</sup>	1.2
Homicide	17	11%	19.4 <sup>1</sup>	1.4
Fire and Burn	9	6%	-	-
Excessive Natural Cold	8	5%	-	-
Off Road Vehicle	8	5%	-	-
Suffocation	5	3%	-	-
Other	18	11%		
<b>Total Injury</b>	<b>160</b>	<b>100%</b>	<b>189.4</b>	<b>1.2</b>
<b>Total Unintentional</b>	<b>91</b>	<b>57%</b>	<b>119.7</b>	<b>1.2</b>

(-) Rate and rate ratio not calculated due to the small number of deaths.

<sup>1</sup> Rate is based on 10-19 deaths and should be interpreted with caution.

<sup>2</sup> Rate Ratio: A rate ratio less than 1 means that the rate in the population of interest is lower than that of the comparison population. Conversely, a rate ratio greater than 1 means that the rate in the population of interest is higher than in the comparison population.

## Infant Mortality Rate

**Definition:** Infant mortality is defined as the number of fetal and infant deaths within the first year of life.

**Healthy People 2020, Goal MICH-1.3:** Reduce fetal and infant mortality rate to 6.0 per 1,000 live births.

### Summary

- The Interior Alaska Native infant mortality rate was 9.1, per 1,000 births for 2004-2008.
- There was a 21.6% decrease in the infant mortality rate from 1984-1988 (11.6, per 1,000 live births) to 2004-2008 (9.1, per 1,000 live births) for Interior Alaska Native infants.
- Interior’s Alaska Native infant mortality rate (9.1, per 1,000 live births) was 1.6 times the U.S. White rate (5.8, per 1,000 live births).

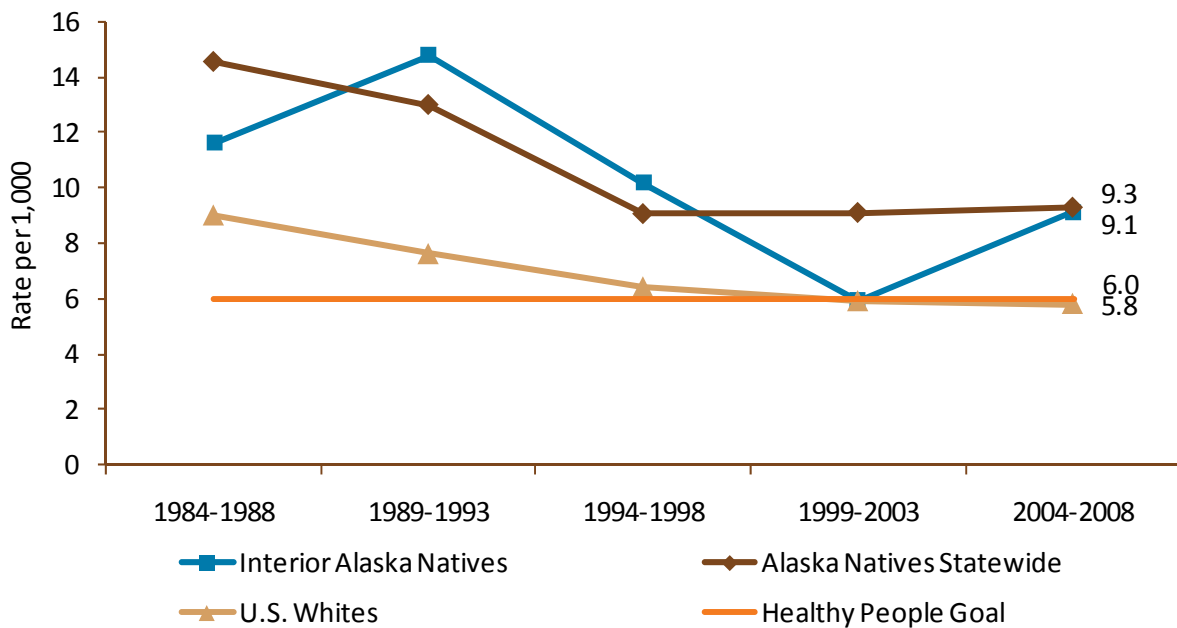
**Figure 18. Infant Mortality Rates per 1,000 Live Births, 1984-2008**

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: Surveillance, Epidemiology, and End Results Program

Note: 2004-2008 time period, U.S. rates are calculated for 2004-2005 data.

Data Table C-14 in Appendix





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# Morbidity

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## Leading Causes of Outpatient Visits

**Definition:** An **outpatient visit** is based on the primary International Classification of Diseases - 9 diagnoses as reported to the Indian Health Service’s National Patient Information Reporting System for the federal fiscal year.

### Summary

- The top three outpatient visits in Interior during FY 2010 were: essential hypertension, administrative/social admissions, and other upper respiratory infections.
- The top 15 causes of outpatient visits accounted for 46.6% of the workload in FY 2010.

**Table 5. Leading Causes of Outpatient Visits, Interior Region Alaska Natives, Fiscal Year 2010**

Data Source: National Patient Information Reporting System - Indian Health Service National Data Warehouse

<b>Top 15 Outpatient Visits by Clinical Classification Categories</b>	<b>n</b>	<b>%</b>
1. Essential hypertension†	8,678	8.7%
2. Administrative/social admission	6,447	6.5%
3. Other upper respiratory infections	3,447	3.4%
4. Diabetes mellitus without complication	3,423	3.4%
5. Mood disorders	3,360	3.4%
6. Blindness and vision defects	2,737	2.7%
7. Immunizations and screening for infectious disease	2,678	2.7%
8. Medical examination/evaluation	2,315	2.3%
9. Other eye disorders	2,268	2.3%
10. Spondylosis; intervertebral disc disorders; other back problems	2,130	2.1%
11. Anxiety disorders	2,078	2.1%
12. Disorders of lipid metabolism	1,807	1.8%
13. Skin and subcutaneous tissue infections	1,805	1.8%
14. Other non-traumatic joint disorders	1,763	1.8%
15. Asthma	1,615	1.6%
<b>Top 15 Outpatient Visits</b>	<b>46,551</b>	<b>46.6%</b>
All Other Causes	53,401	53.4%
<b>Total</b>	<b>99,952</b>	<b>100.0%</b>

†Essential hypertension refers to increased blood pressure without an identifiable cause.

Note: Data includes outpatient visits from the following clinics: Alatna, Allakaket, Anaktuvuk Pass, Arctic Village, Beaver, Birch Creek, Chalkyitsik, Chief Andrew Isaac Health Center, Circle, Dot Lake, Eagle, Evansville, Fairbanks Memorial Hospital, Galena, Hughes, Huslia, Kaltag, Koyukuk, Manley Hot Springs, McGrath Health Center, Minto, Nenana, Northway, Nulato, Rampart, Ruby, Stevens Village, Tanacross, Tanana Health Center, Tetlin, Tok, Venetie, and Yukon Flats Health Center.

## Leading Causes of Injury Hospitalizations

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

### Summary

- During 1991-2003, falls (44.2, per 10,000 population) were the leading cause of injury-related hospitalizations.
- Hospitalizations for suicide attempts and snowmachine crashes for Interior Alaska Native people were 1.5 times greater than Alaska Natives statewide ( $p < 0.05$ ).
- Hospitalizations for assaults were 1.4 times greater for Interior Alaska Native people compared to all Alaska Native people ( $p < 0.05$ ).
- Interior Alaska Native people were less likely (0.7 times) to be hospitalized for an ATV accident than Alaska Native people statewide ( $p < 0.05$ ).
- Interior Alaska Native people had an injury hospitalization rate of 167.6 per 10,000, which was 1.2 times that for Alaska Natives statewide ( $p < 0.05$ ).

**Table 6. Leading Causes of Injury Hospitalizations, Interior Region Alaska Natives, 1991-2003**

Data Source: Alaska Native Injury Atlas, Alaska Native Epidemiology Center

Leading Causes of Injury Hospitalization	n	% Total	Age-Adjusted Rate per 10,000	Rate Ratio <sup>1</sup> : Interior vs. Alaska Natives
Falls	653	26%	44.2	1.1
Suicide Attempt	464	19%	31.4	1.5*
Assault	376	15%	25.4	1.4*
Motor Vehicle	245	10%	16.6	1.2
Snowmachine	169	7%	11.4	1.5*
ATV	63	3%	4.3	0.7*
Other	507	20%		
<b>Total Unintentional</b>	<b>1,613</b>	<b>65%</b>	<b>109.1</b>	<b>1.1</b>
<b>Total Injury</b>	<b>2,477</b>	<b>100%</b>	<b>167.6</b>	<b>1.2*</b>

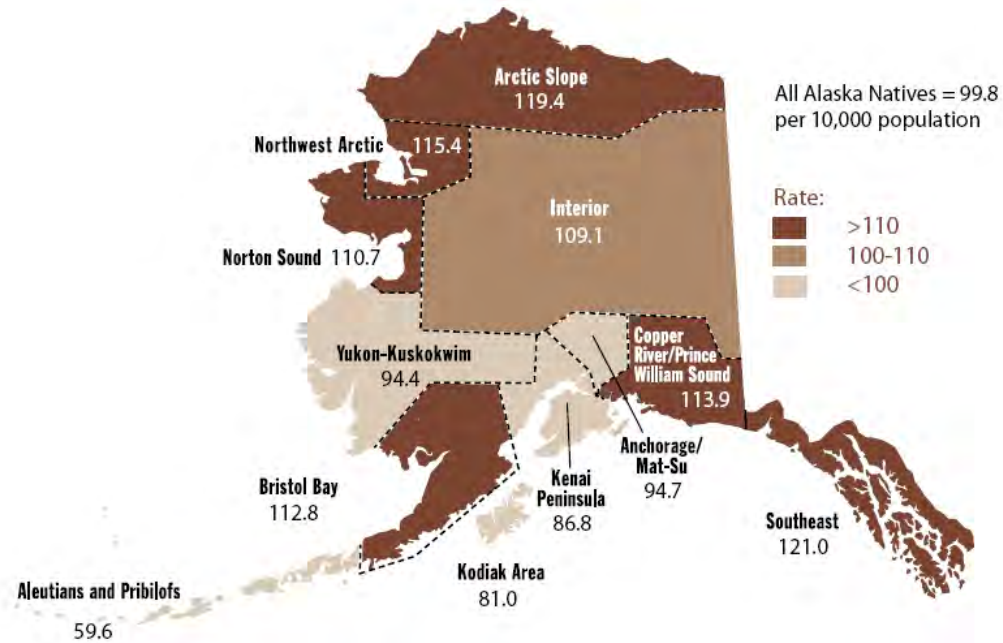
<sup>1</sup> Rate Ratio: A rate ratio less than 1 means that the rate in the population of interest is lower than that of the comparison population. Conversely, a rate ratio greater than 1 means that the rate in the population of interest is higher than in the comparison population.

\* Statistically significant difference at the  $p < 0.05$  probability level.

Injury Hospitalizations - Unintentional Injuries and Falls

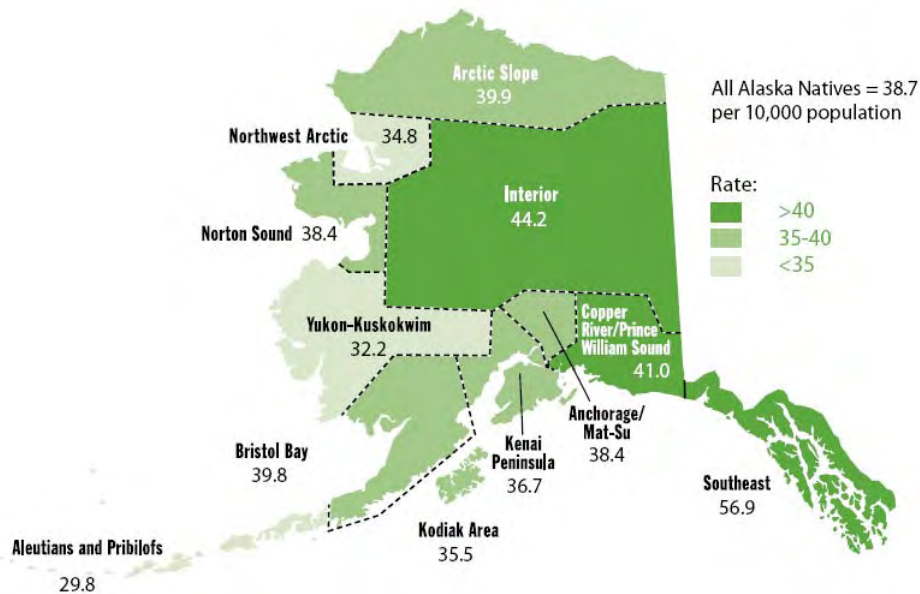
**Figure 19. Unintentional Injury Hospitalization Rate by Region, Alaska Natives, Rate per 10,000, 1991-2003**

Data Source: Alaska Trauma Registry



**Figure 20. Fall Hospitalization Rate by Region, Alaska Natives, Rate per 10,000, 1991-2003**

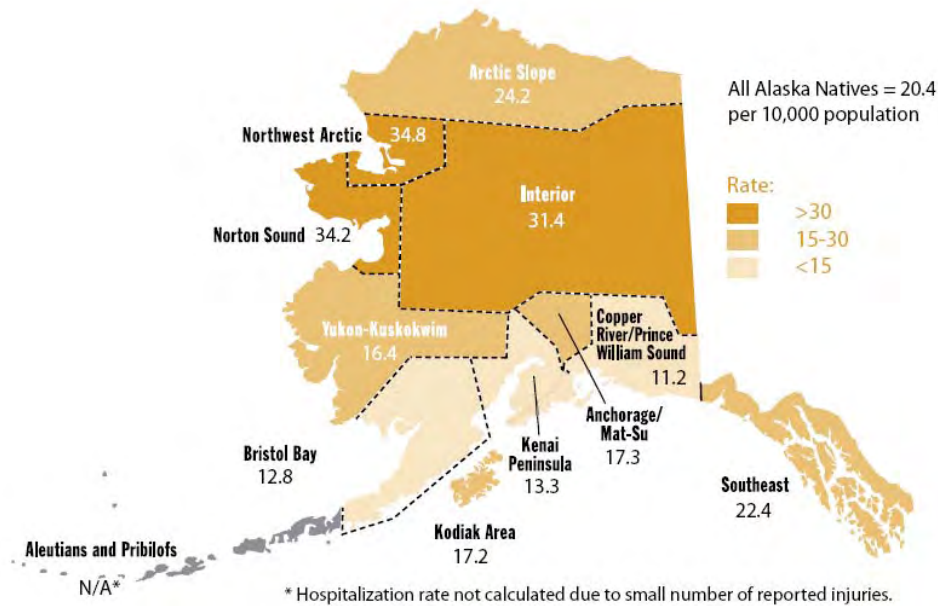
Data Source: Alaska Trauma Registry



Injury Hospitalizations - Suicide Attempts and Assaults

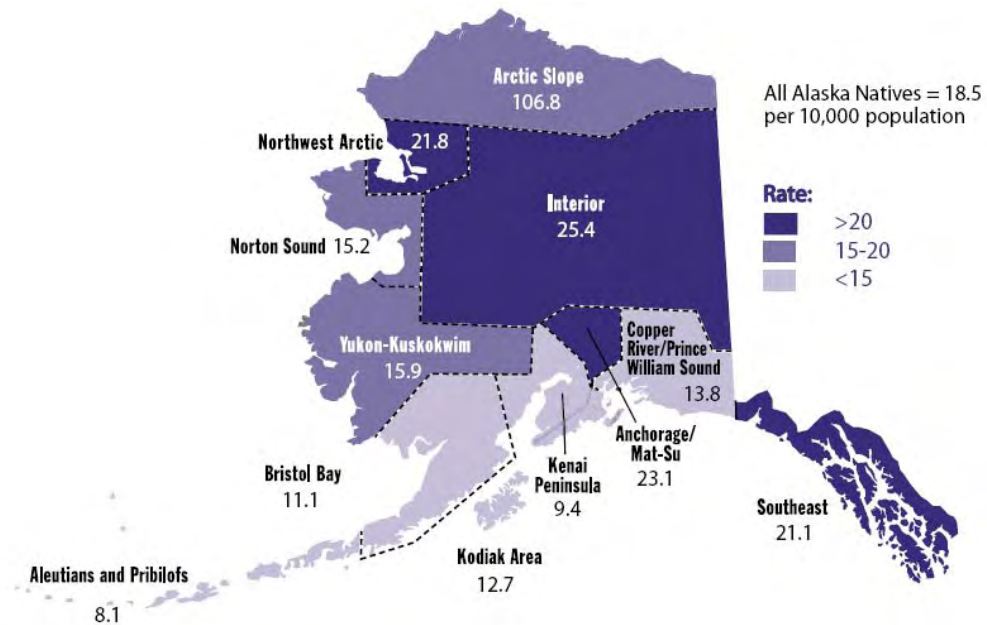
**Figure 21. Hospitalization Rate for Suicide Attempts by Region, Alaska Natives, Rate per 10,000, 1991-2003**

Data Source: Alaska Trauma Registry



**Figure 22. Hospitalization Rate for Assault Injuries by Region, Alaska Natives, Rate per 10,000, 1991-2003**

Data Source: Alaska Trauma Registry



## Leading Cancers

**Definition:** **Leading Cancers** is a count of the top ten new cases of cancer reported to the Alaska Native Tumor Registry.

### Summary

- During 1998-2007, the most frequently diagnosed cancers for Interior Alaska Native people were breast (19.0%), colon and rectum (17.5%), and lung (17.3%).
- The top three cancers accounted for 53.8% of all cancer for Interior Alaska Native people.

**Table 7. Leading Cancers, Interior Region Alaska Natives, 1998-2007**

Data Source: SEER Alaska Native Tumor Registry

Site of Cancer by Rank	n	%
1. Breast	76	19.0%
2. Colon and Rectum	70	17.5%
3. Lung	69	17.3%
4. Prostate	36	9.0%
5. Kidney and Renal Pelvis	21	5.3%
6. Oral	15	3.8%
7. Stomach	13	3.3%
8. Pancreas	12	3.0%
9. Esophagus	9	2.3%
10. Thyroid	8	2.0%
All Other Causes	70	17.5%
<b>Total</b>	<b>399</b>	<b>100.0%</b>

**Diabetes - Prevalence**

**Definition:** **Diabetes** is a metabolic disease characterized by high blood sugar levels, which result from defects in insulin secretion, insulin action, or both. The diabetes prevalence measures the number of people who currently have diabetes.

**Summary**

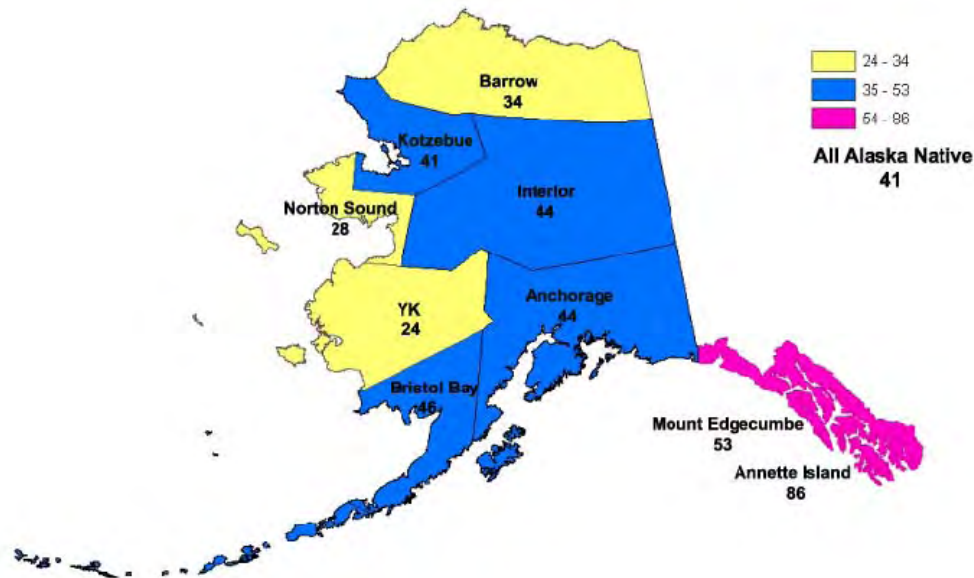
- The 2008 age-adjusted prevalence of diabetes among Interior Alaska Native people was 44 per 1,000 people.
- The diabetes rate among Interior Alaska Native people (44, per 1,000 people) was 17% lower than the diabetes rate for U.S. Whites (53, per 1,000 people).

**Figure 23. Diabetes Prevalence, Alaska Natives, Rate per 1,000, 2008**

Alaska Data Source: Alaska Area Diabetes Registry

U.S. Data Source: Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Health Interview Statistics, data from the National Health Interview Survey. Statistical analysis by the Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Diabetes Translation. <http://www.cdc.gov/diabetes/statistics/prev/national/figbyrace.htm>

Note: The Indian Health Service user population is the denominator and the data were age-adjusted to the Standard U.S. 2000 Population.



**Diabetes - Increase**

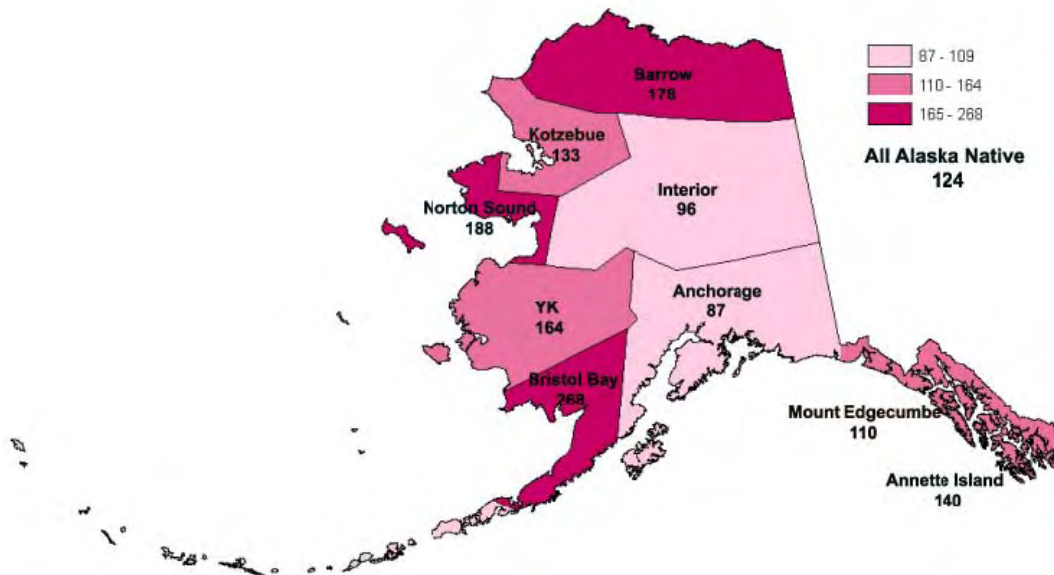
**Definition:** **Diabetes** is a metabolic disease characterized by high blood sugar levels, which result from defects in insulin secretion, insulin action, or both. The percent change compares the diabetes prevalence in 1990 to the diabetes prevalence in 2008.

**Summary**

- The prevalence of diabetes increased 96% from 1990 to 2008 among Alaska Native people in the Interior region.
- The prevalence of diabetes increased 124% from 1990 to 2008 among Alaska Native people statewide.

**Figure 24. Percent Increase in Diabetes Prevalence, Alaska Natives, 1990-2008**

Data Source: Alaska Area Diabetes Registry





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# **Adult Health Behavior**

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**Tobacco Use - Smoking**

**Definition:** Current smokers are adults who smoked at least 100 cigarettes during their lifetime and currently smoke some days or everyday.

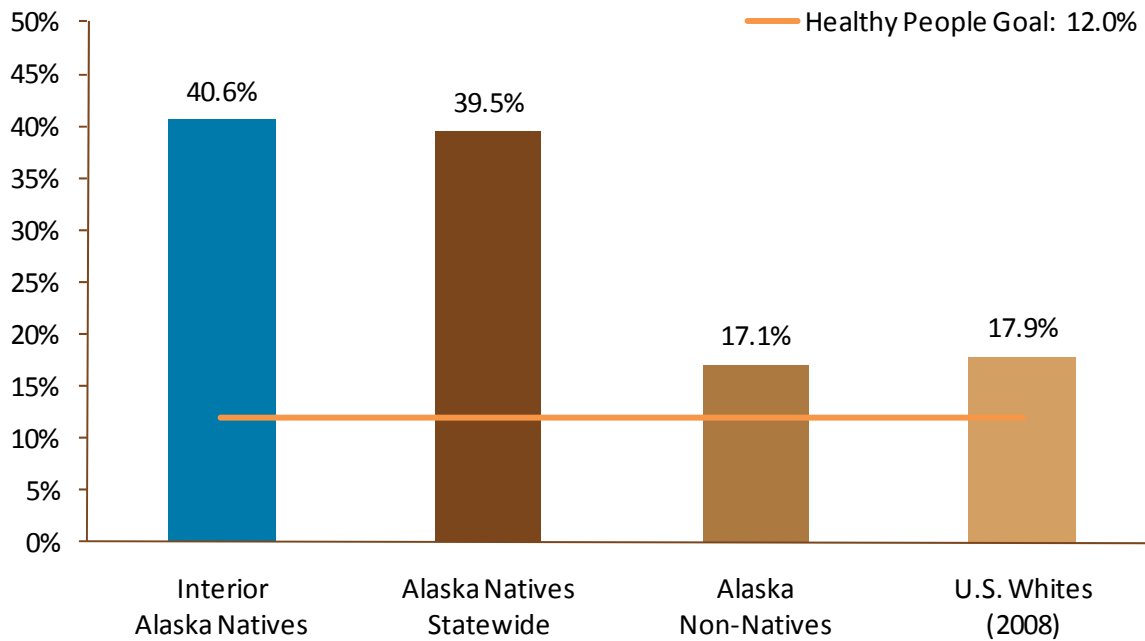
**Healthy People 2020, Goal TU-1.1:** Reduce tobacco use by adults to 12.0%.

**Summary**

- During 2007-2009, 40.6% of Interior Alaska Native people reported a current smoking prevalence.
- Interior Alaska Native people reported a current smoking prevalence (40.6%) significantly higher than Alaska Non-Natives (17.1%) ( $p < 0.05$ ).

**Figure 25. Current Smokers, 18 Years and Older, 2007-2009**

Data Source: Behavioral Risk Factor Surveillance System  
Data Table C-15 in Appendix



**Tobacco Use - Smokeless Tobacco**

**Definition: Smokeless tobacco use** is defined as adults who currently use smokeless tobacco products including chewing tobacco, snuff, Iq'mik, or Blackbull. Iq'mik is a mixture of ash and leaf tobacco.

**Healthy People 2020, Goal TU-1.2:** Reduce spit tobacco use by adults to 0.3%.

**Summary**

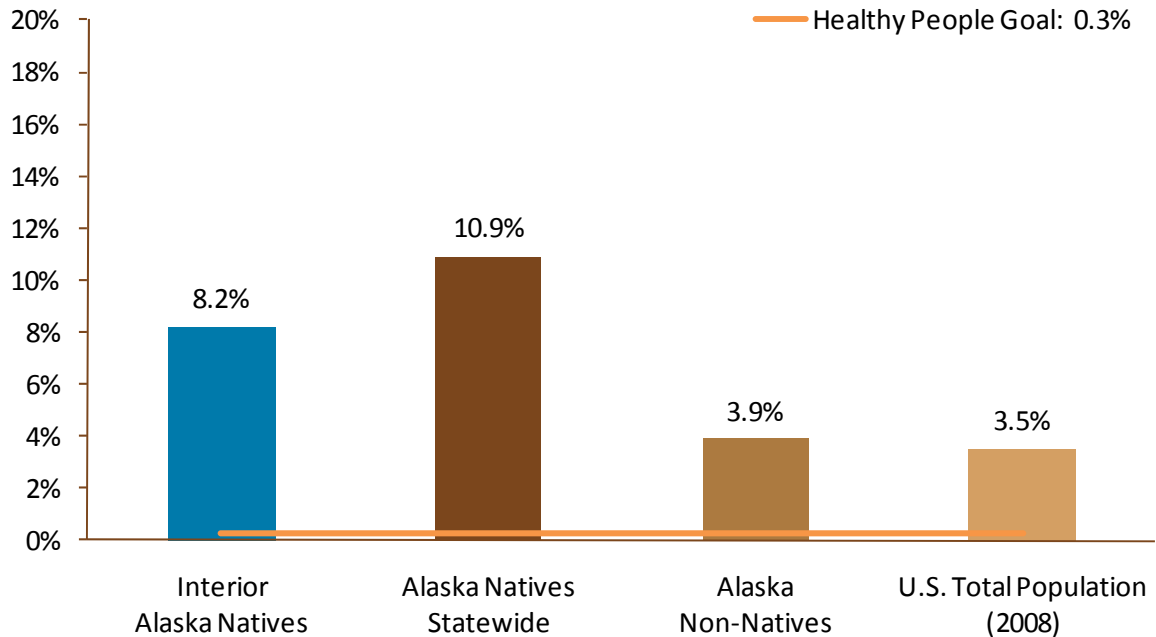
- During 2007-2009, 8.2% of Interior Alaska Native people reported a current smokeless tobacco use prevalence.
- Both Interior Alaska Native people (8.2%) and Alaska Native people statewide (10.9%) had significantly higher rates of smokeless tobacco use than Alaska Non-Native people (3.9%) ( $p < 0.05$ ).

**Figure 26. Current Smokeless Tobacco Users, 18 Years and Older, 2007-2009**

Alaska Data Source: Behavioral Risk Factor Surveillance System

U.S. Data Source: Substance Abuse and Mental Health Services Administration. Results from the 2008 National Survey on Drug Use and Health: Detailed Tables. Rockville (MD): Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2009.

Data Table C-16 in Appendix



## Alcohol Use - Binge Drinking

**Definition:** Binge drinking is defined as having 5 or more drinks for men or 4 or more drinks for women on one or more occasion in the past 30 days.

**Healthy People 2020, Goal SA-14.3:** Reduce the percentage of adults who engage in binge drinking during past month to 24.3%.

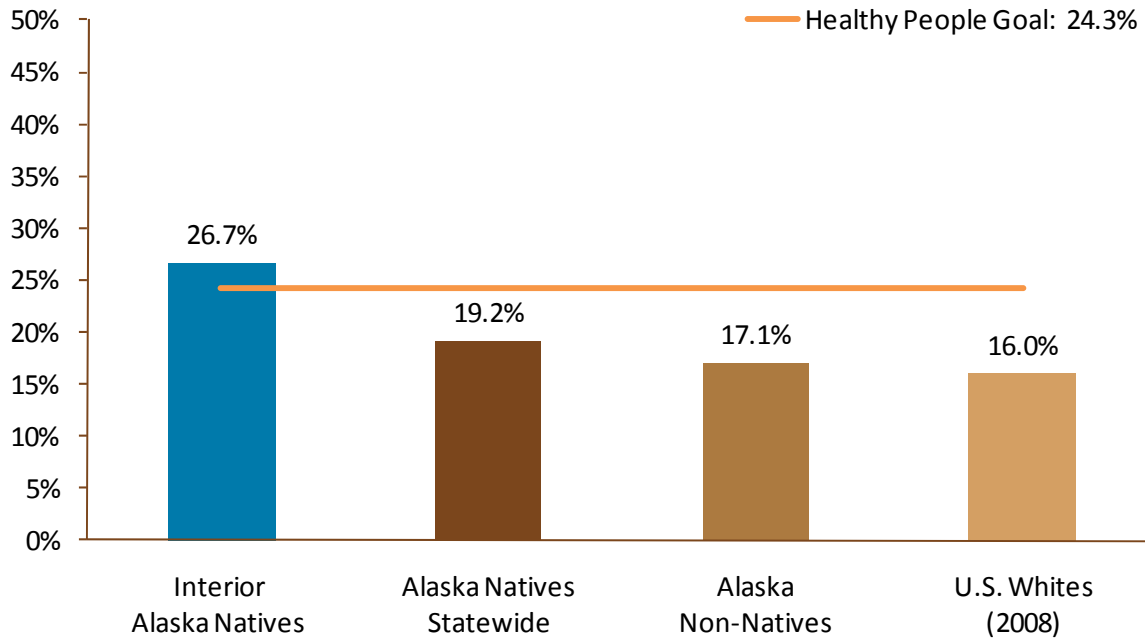
### Summary

- During 2007-2009, 26.7% of Interior Alaska Native people reported binge drinking.
- Interior Alaska Native people over the age of 18 reported significantly higher rates of binge drinking (26.7%) than Alaska Non-Natives (17.1%) ( $p < 0.05$ ).

**Figure 27. Binge Drinking, 18 Years and Older, 2007-2009**

Data Source: Behavioral Risk Factor Surveillance System

Data Table C-17 in Appendix



## Physical Activity

**Definition:** The recommended physical activity for adults is 150 or more total minutes per week of **moderate exercise or vigorous exercise** (where each minute of vigorous exercise contributes two minutes).

**Healthy People 2020, Goal PA-2.1:** Increase the proportion of adults who engage in regular, preferably daily, moderate physical activity for at least 30 minutes per day to 47.9%.

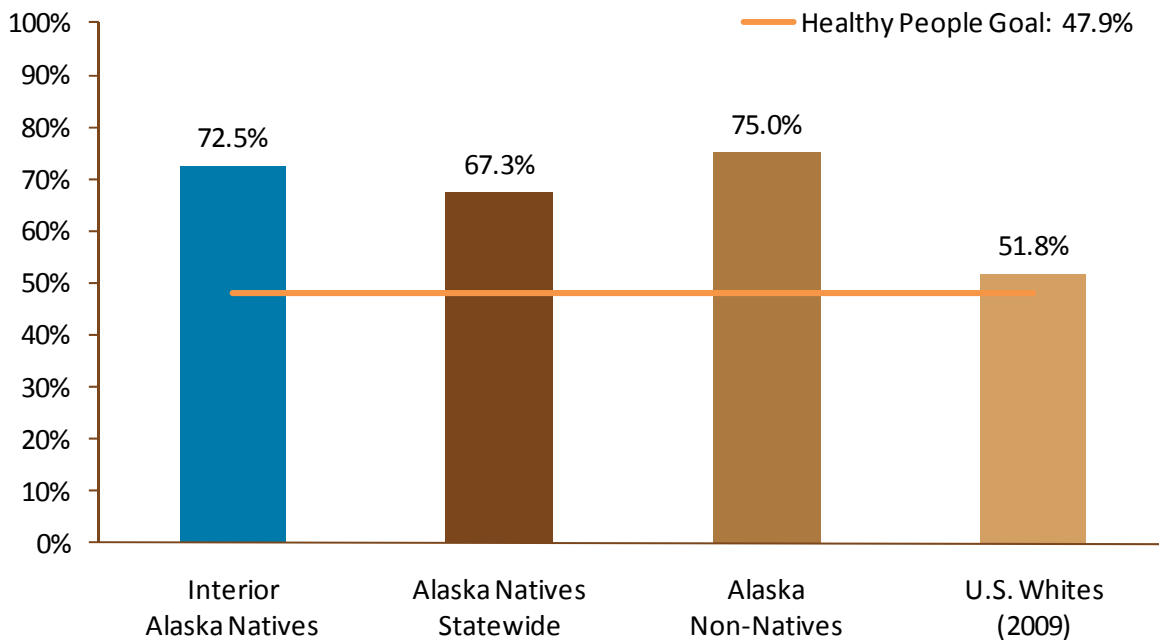
### Summary

- During 2007-2009, 72.5% of Interior Alaska Native people participated in moderate and/or vigorous physical activity.
- A similar percent of Interior Alaska Native people (72.5%) participated in moderate and/or vigorous physical activity as Alaska Native people statewide (67.3%) and Alaska Non-Natives (75.0%).

**Figure 28. Meets Moderate and/or Vigorous Physical Activity, 18 Years and Older, 2007 and 2009**

Data Source: Behavioral Risk Factor Surveillance System

Data Table C-18 in Appendix



## Overweight

**Definition:** **Overweight** is defined as having a body mass index (BMI) from 25.0 to 29.9.

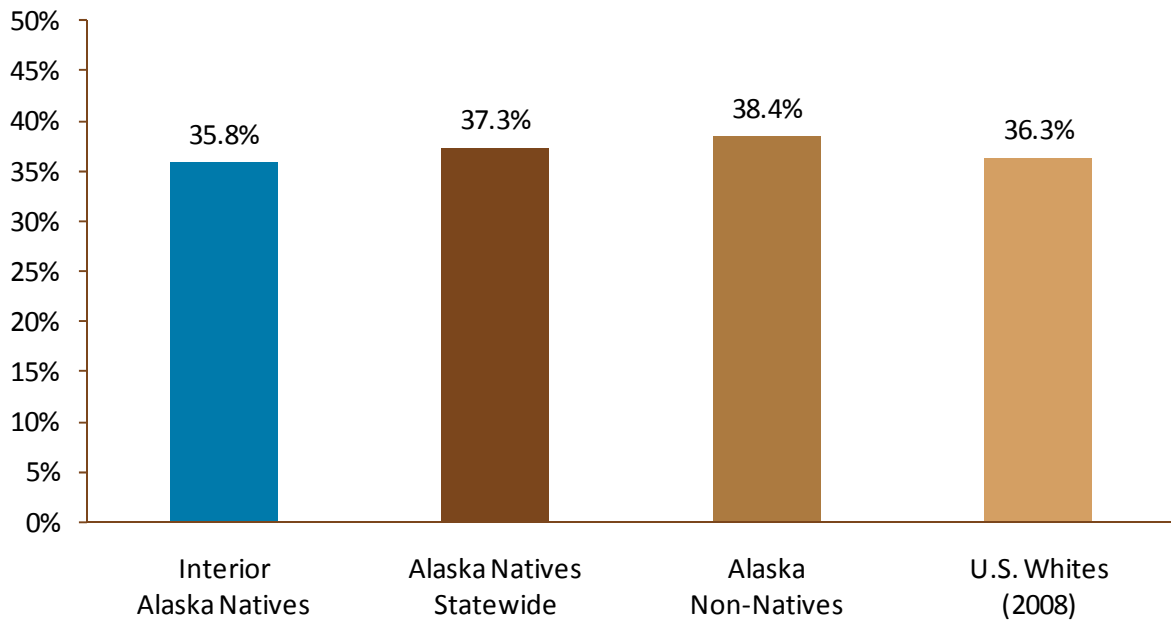
### Summary

- During 2007-2009, 35.8% of Interior Alaska Native adults reported a height and weight that indicated they were overweight.
- Interior Alaska Native, Alaska Native statewide, Alaska Non-Native, and U.S. White people reported a similar prevalence of overweight persons (range: 35.8% to 38.4%).

**Figure 29. Overweight (25 ≤ BMI ≤ 29.9), 18 Years and Older, 2007-2009**

Data Source: Behavioral Risk Factor Surveillance System

Data Table C-19 in Appendix



## Obesity

**Definition:** **Obesity** is defined as having a body mass index (BMI) of 30.0 or greater.

**Healthy People 2020, Goal NWS-9:** Reduce the proportion of adults who are obese to 30.6%.

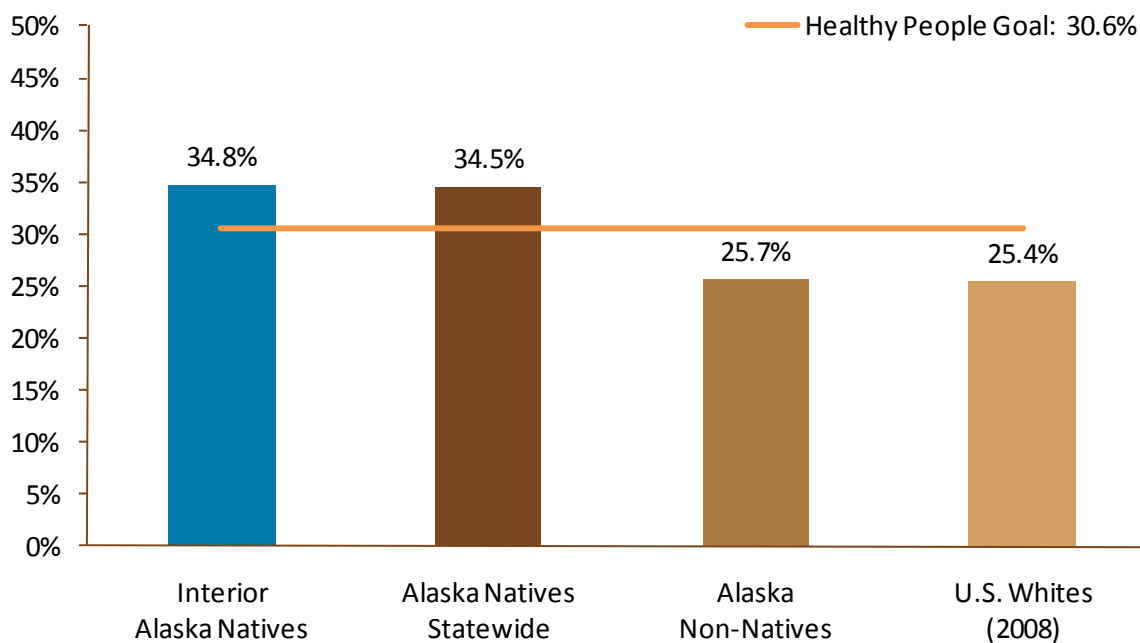
### Summary

- During 2007-2009, more than one out of three (34.8%) Interior Alaska Native adults were obese.
- Interior Alaska Native people (34.8%) and Alaska Natives statewide (34.5%) had a significantly higher prevalence of obesity than Alaska Non-Natives (25.7%) ( $p < 0.05$ ).

**Figure 30. Obesity (BMI  $\geq$  30), 18 Years and Older, 2007-2009**

Data Source: Behavioral Risk Factor Surveillance System

Data Table C-20 in Appendix



## Lifetime Intimate Partner Violence

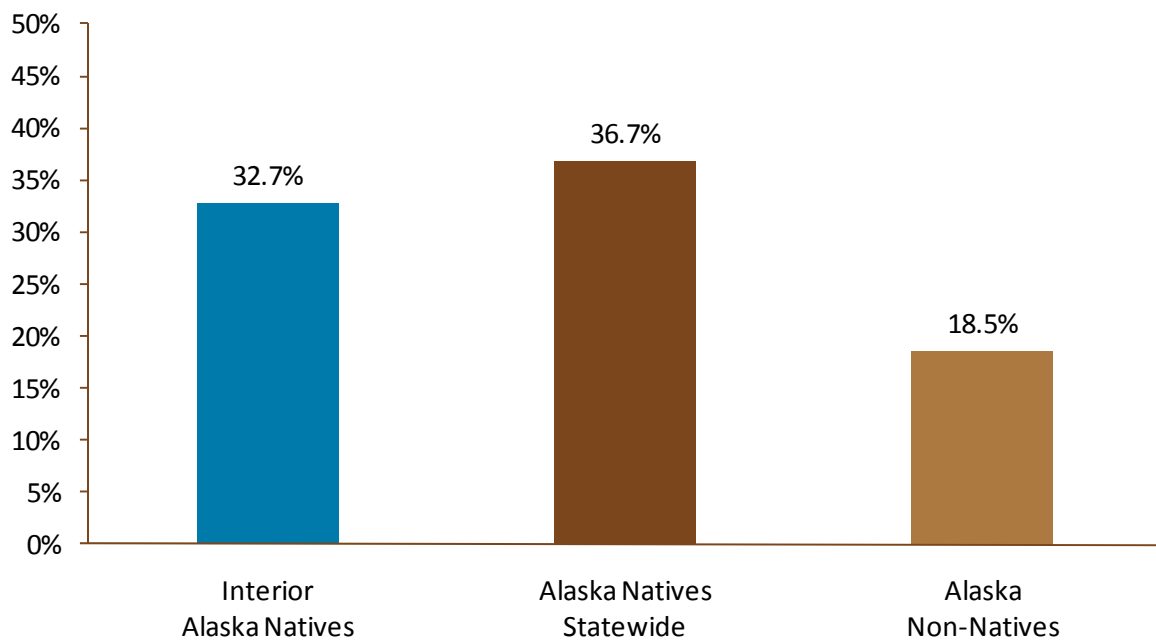
**Definition: Lifetime Intimate Partner Violence** is defined as an adult that has had an intimate partner ever hit, slap, punch, shove, kick, choke, hurt, or threaten them.

### Summary

- One out of three (32.7%) Interior Alaska Native people reported having ever experienced intimate partner violence during their lifetime.
- Alaska Natives statewide (36.7%) had a significantly higher prevalence of lifetime intimate partner violence than Alaska Non-Natives (18.5%) ( $p < 0.05$ ).

**Figure 31. Lifetime Intimate Partner Violence, 18 Years and Older, 2009**

Data Source: Behavioral Risk Factor Surveillance System  
Data Table C-21 in Appendix





## Abstaining from Smoking during Pregnancy

**Definition:** **Abstaining from smoking during pregnancy** is defined as women who reported that they did not smoke anytime during their pregnancy as documented on the birth certificate.

**Healthy People 2020, Goal MICH-11.3:** Increase abstinence from cigarettes among pregnant women to 98.6%.

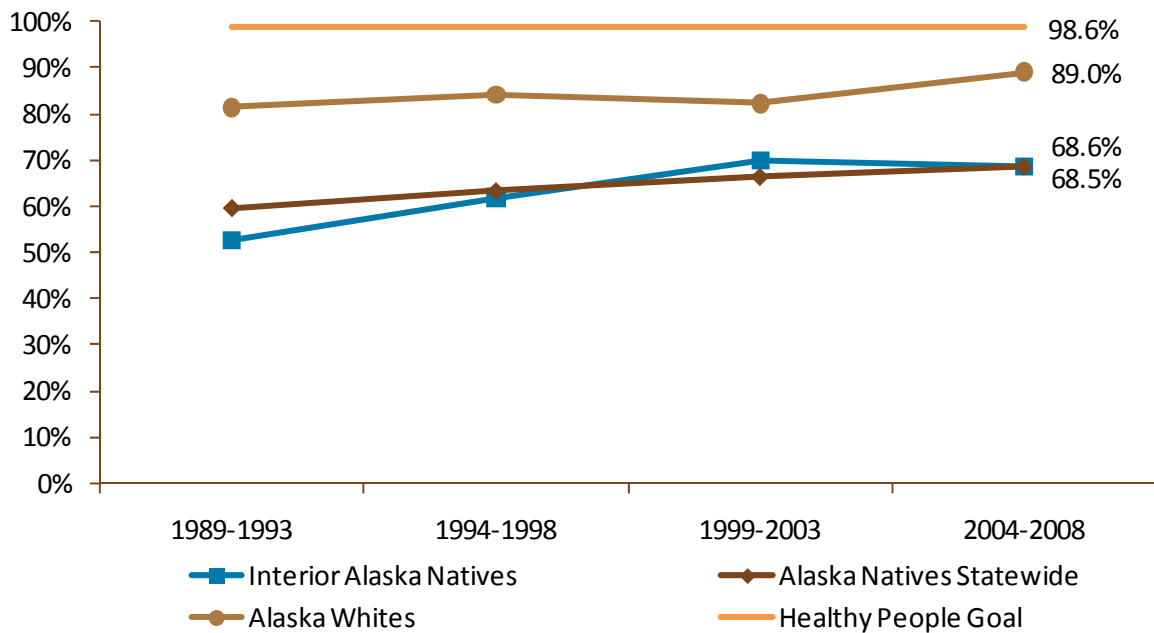
### Summary

- 68.5% of Interior Alaska Native mothers abstained from smoking during pregnancy for 2004-2008.
- The prevalence of Interior Alaska Native mothers that abstained from smoking during pregnancy increased 30.5% from 1989-1993 to 2004-2008.
- Although the number of Interior Alaska Native mothers abstaining from smoking during pregnancy has been increasing, 20.5% less Interior Alaska Native mothers abstained from smoking during pregnancy than Alaska White mothers for 2004-2008.

**Figure 32. Abstinence from Tobacco Use During Pregnancy, Pregnant Women, 1989-2008**

Data Source: Alaska Bureau of Vital Statistics

Data Table C-22 in Appendix



## Abstaining from Alcohol Consumption during Pregnancy

**Definition:** **Abstaining from alcohol consumption during pregnancy** is defined as women who reported that they did not drink alcohol anytime during their pregnancy as documented on the birth certificate.

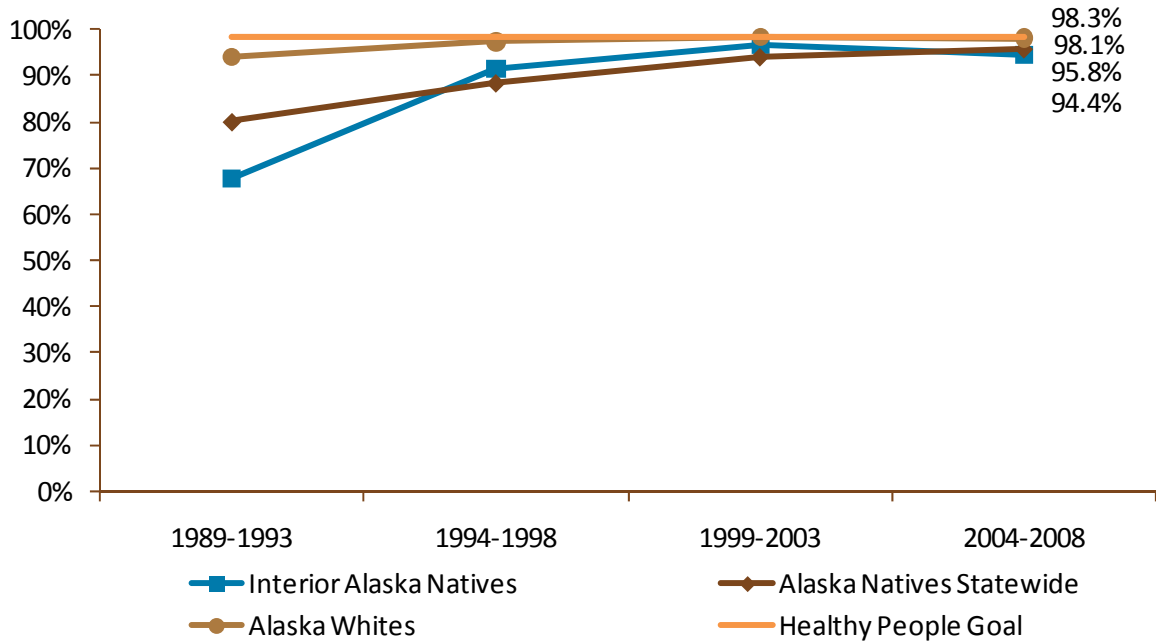
**Healthy People 2020, Goal MICH-11.1:** Increase abstinence from alcohol among pregnant women to 98.3%.

### Summary

- 94.4% of Interior Alaska Native mothers abstained from alcohol during pregnancy during 2004-2008.
- The prevalence of Interior Alaska Native mothers that abstained from alcohol during pregnancy increased 39.2% from 1989-1993 to 2004-2008.
- Interior Alaska Native mothers (94.4%), Alaska Native mothers statewide (95.8%), and Alaska White mothers (98.1%) reported a similar prevalence of abstaining from alcohol use during pregnancy.

**Figure 33. Abstinance from Alcohol Use During Pregnancy, Pregnant Women, 1989-2008**

Data Source: Alaska Bureau of Vital Statistics  
Data Table C-23 in Appendix



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# **Adolescent Health Behavior**

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## Tobacco Use - Smoking

**Definition:** Current **tobacco use** is defined as the percent of high school students in grades 9-12 who have smoked cigarettes on one or more of the past 30 days.

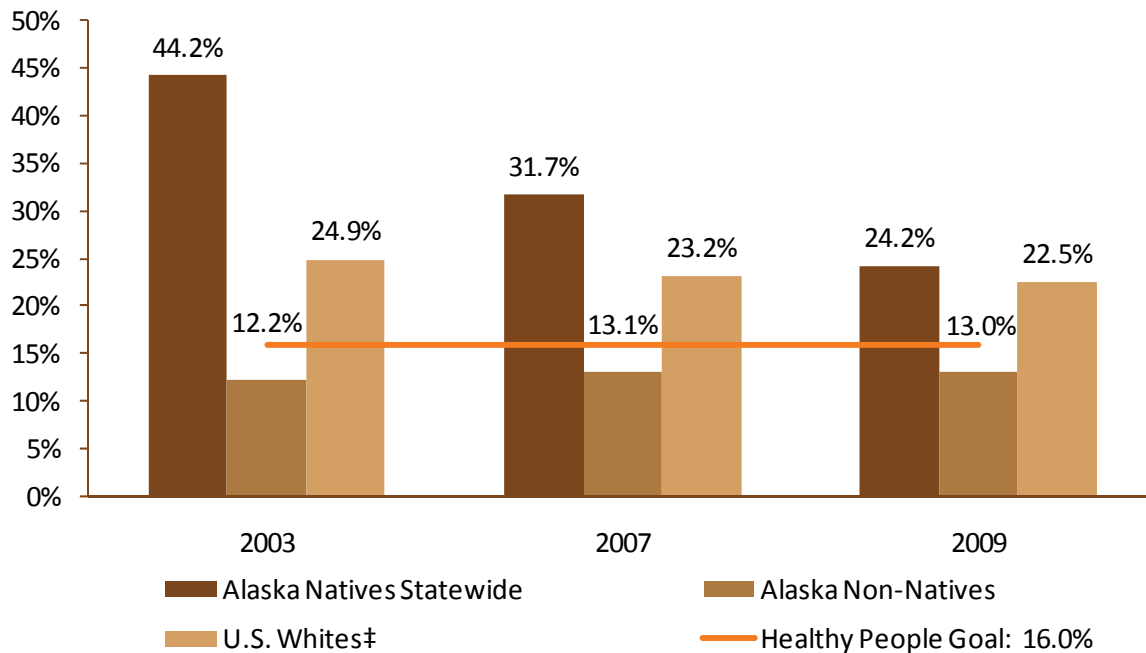
**Healthy People 2020, Goal TU-2.2:** Reduce cigarette smoking by adolescents in grades 9-12 during the past month to 16.0%.

### Summary

- 24.2% of Alaska Native high school students currently smoked in 2009.
- Current smoking decreased significantly among Alaska Native (-45.2%) high school students from 2003 to 2009 ( $p < 0.05$ ).
- Alaska Native high school students reported a significantly higher percent of smoking than Alaska Non-Native high school students in 2003, 2007, and 2009 ( $p < 0.05$ ).

**Figure 34. High School Students Who Smoked Cigarettes on One or More of the Past 30 Days, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System  
Data Table C-24 in Appendix



‡ Non Hispanic

## Tobacco Use - Smokeless Tobacco

**Definition:** Current **smokeless tobacco use** is defined as the percent of high school students in grades 9-12 who used chewing tobacco, snuff, or dip on one or more of the past 30 days.

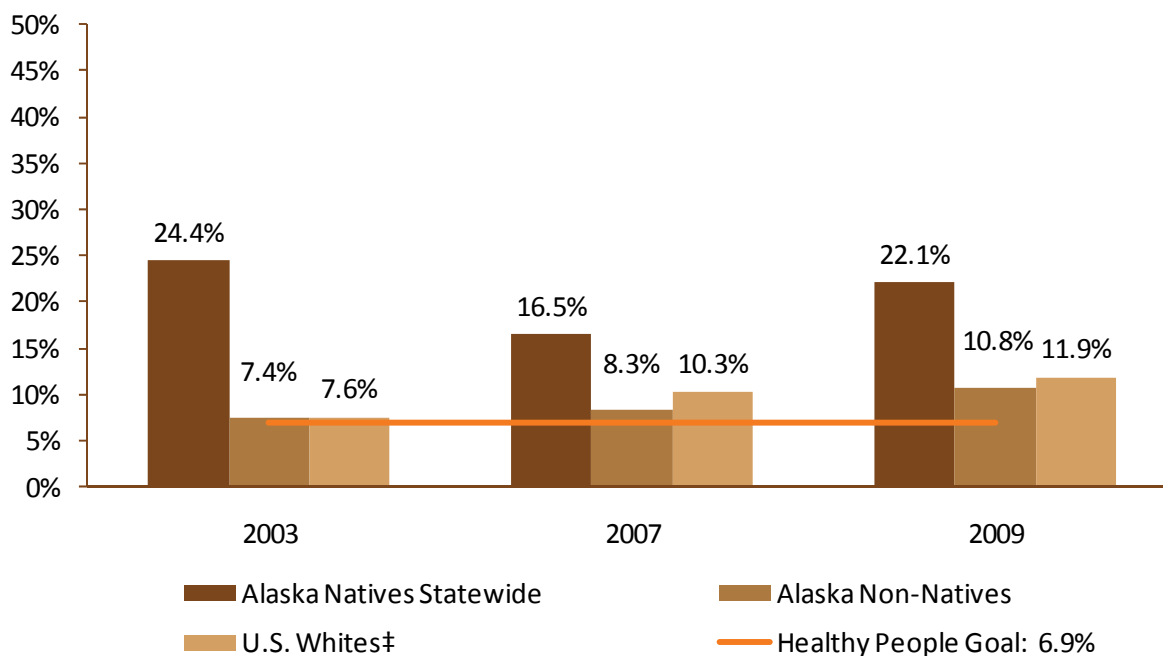
**Healthy People 2020, Goal TU-2.3:** Reduce spit tobacco use by adolescents in grades 9-12 during the past month to 6.9%.

### Summary

- 22.1% of Alaska Native high school students reported using smokeless tobacco in 2009.
- Although smokeless tobacco use among Alaska Native high school students increased from 2007 to 2009, it decreased 9.4% from 2003 to 2009, although these changes were not significant.
- Smokeless tobacco use prevalence for Alaska Native high school students was about two times that of Alaska Non-Native (10.8%) and U.S. White (11.9%) high school students in 2009, although these differences were not significant.

**Figure 35. High School Students Who Chewed Tobacco or Snuff on One or More of the Past 30 Days, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System  
Data Table C-25 in Appendix



‡ Non Hispanic

## Alcohol Use - Current Drinking

**Definition:** Adolescent **alcohol use** is the percent of high school students, grades 9-12, who consumed alcohol in the past 30 days.

**Healthy People 2020, Goal SA-13.1:** Reduce the proportion of adolescents reporting use of alcohol or any illicit drugs during the past 30 days to 16.5%.

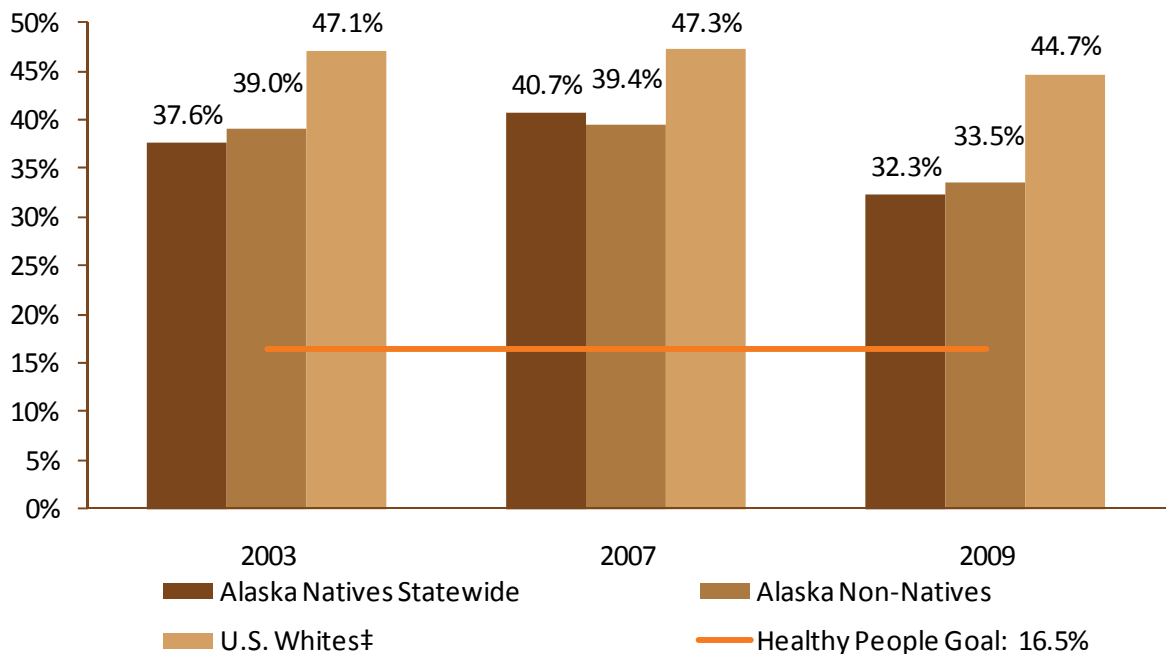
**NOTE:** Data presented are for alcohol consumption only. The Healthy People 2020 Goal is to reduce alcohol or any illicit drug use.

### Summary

- 32.3% of Alaska Native high school students reported current drinking in 2009.
- The percentage of current drinking decreased 14.1% for Alaska Native high school students from 2003 to 2009, although this was not a significant change.
- In 2009, Alaska Native high school students (32.3%) reported significantly lower percentages of drinking than U.S. Whites (44.7%) ( $p < 0.05$ ).

**Figure 36. High School Students Who Had at Least One Drink of Alcohol on One or More of the Past 30 Days, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System  
Data Table C-26 in Appendix



## Alcohol Use - Binge Drinking

**Definition:** Binge drinking is defined as high school students in grades 9-12 who had five or more drinks of alcohol in a row, within a couple of hours on one or more of the past 30 days.

**Healthy People 2020, Goal SA-14.4:** Reduce the percentage of adolescents (12 to 17 years) who engage in binge drinking during the past month to 8.5%.

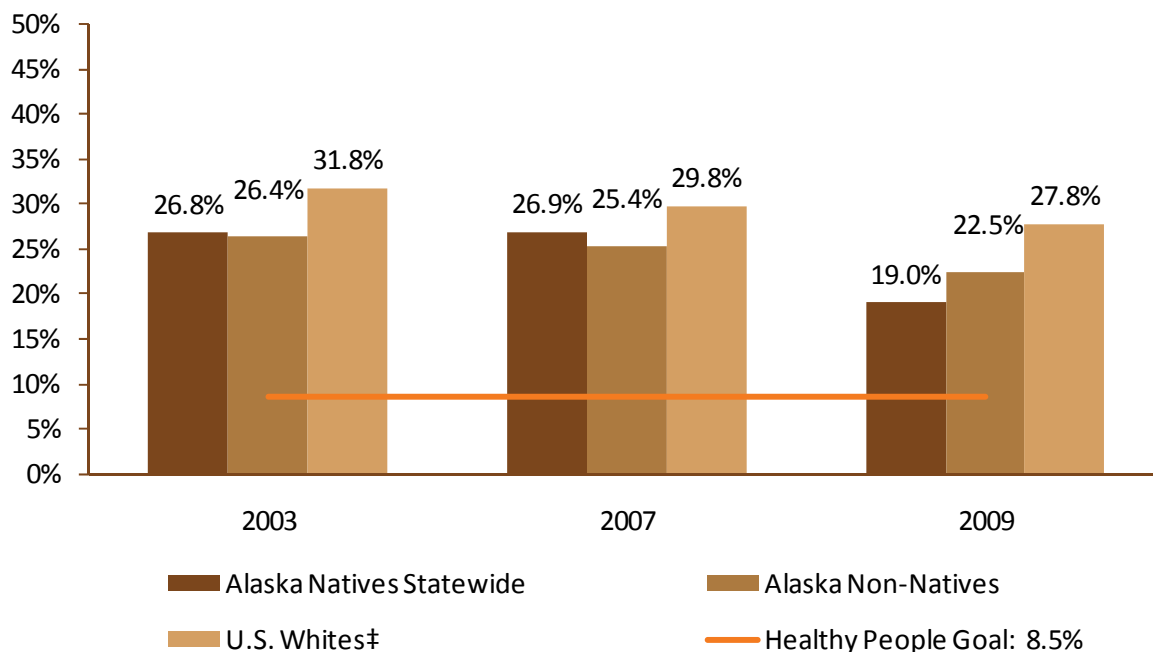
### Summary

- 19.0% of Alaska Native high school students reported binge drinking in 2009.
- Binge drinking among Alaska Native high school students decreased 29.1% from 2003 to 2009, although this change was not significant.
- In 2009, Alaska Native high school students (19.0%) reported significantly lower rates of binge drinking than U.S. White students (27.8%) ( $p < 0.05$ ).

**Figure 37. High School Students Reporting Binge Drinking on One or More of the Past 30 Days, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System

Data Table C-27 in Appendix



## Substance Use - Marijuana

**Definition:** Marijuana use among high school students, grades 9-12, is defined as having used marijuana in the past 30 days.

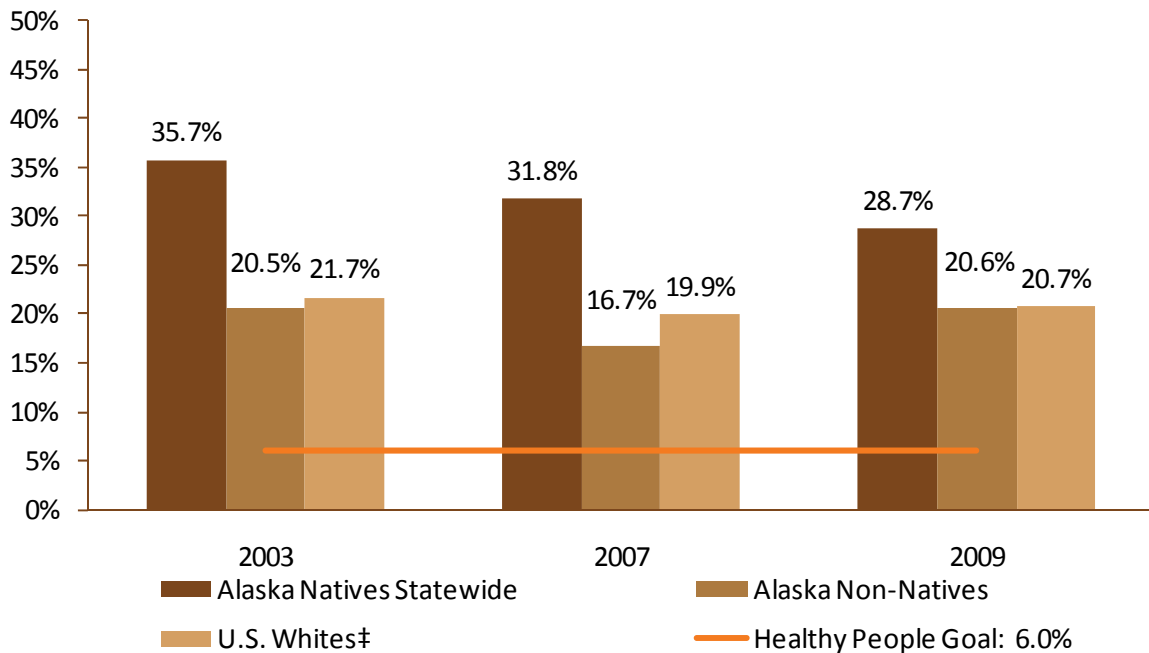
**Healthy People 2020, Goal SA-13.2:** Reduce the proportion of adolescents (12 to 17 years) reporting the use of marijuana during the past 30 days to 6.0%.

### Summary

- 28.7% of Alaska Native high school students currently used marijuana in 2009.
- Marijuana use decreased among Alaska Native (-19.6%) high school students from 2003 to 2009, although this change was not significant.
- Alaska Native high school students reported about 8% higher use of marijuana compared to Alaska Non-Natives and U.S. Whites in 2009, although the differences were not significant.

**Figure 38. High School Students Who Used Marijuana on One or More of the Past 30 Days, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System  
Data Table C-28 in Appendix



‡ Non Hispanic



**Substance Use - Cocaine**

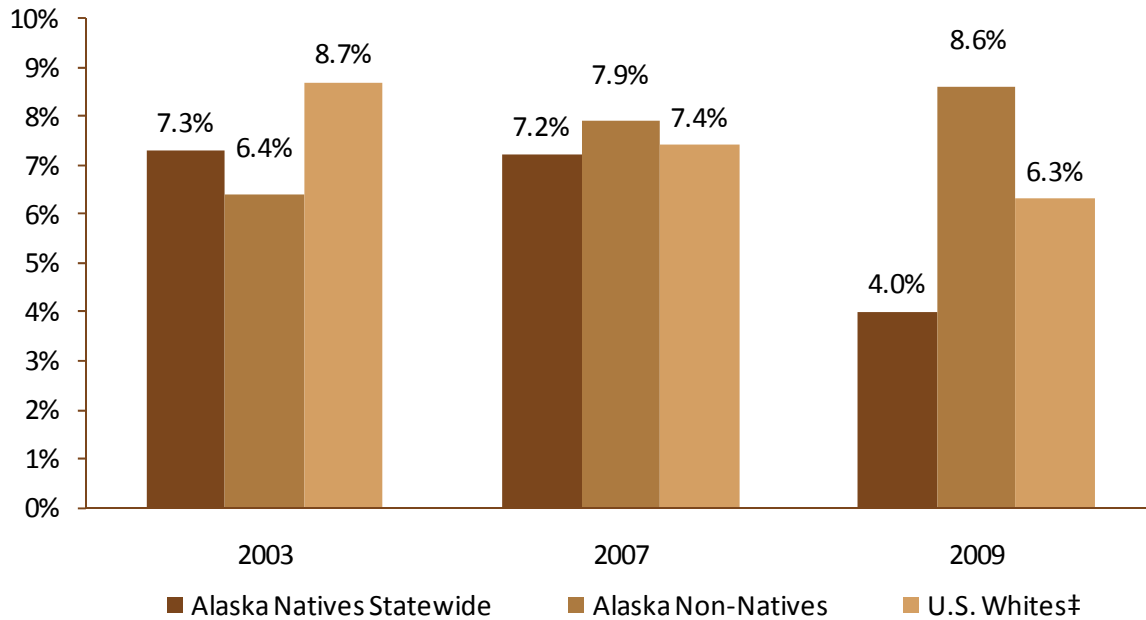
**Definition: Substance use - Cocaine** among high school students, grades 9-12, is defined as having used cocaine ever during their lifetime.

**Summary**

- 4.0% of Alaska Native high school students reported ever using cocaine in 2009.
- Lifetime cocaine use among Alaska Native high school students decreased 45.2% from 2003 to 2009, although this change was not significant.
- Lifetime cocaine use was lower for Alaska Native high school students than for Alaska Non-Native and U.S. White high school students in 2009, although the differences were not significant.

**Figure 39. High School Students Who Used Any Form of Cocaine, Including Powder, Crack or Freebase During Their Lifetime, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System  
Data Table C-29 in Appendix



‡ Non Hispanic

## Physical Activity

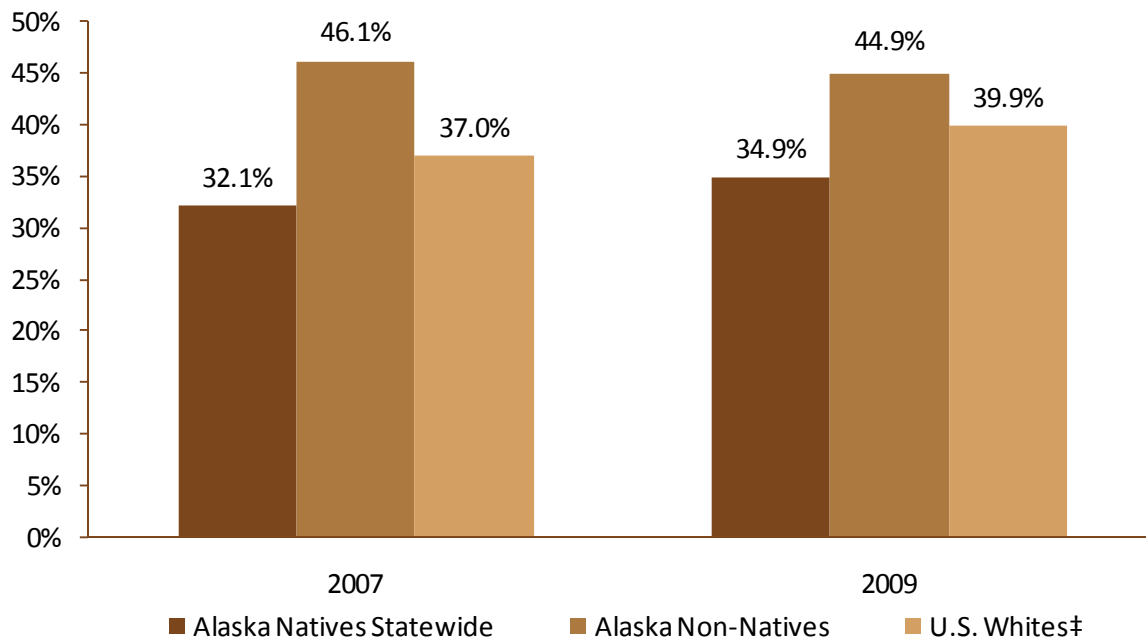
**Definition:** Recommended levels of **physical activity** is defined as high school students, grades 9-12, who were physically active for a total of at least sixty minutes per day on five or more of the past seven days.

### Summary

- 34.9% of Alaska Native high school students engaged in the recommended levels of physical activity in 2009.
- Alaska Native high school student's physical activity levels increased by 2.8% between 2007 and 2009.
- Alaska Native high school student's physical activity levels were lower than Alaska Non-Native and U.S. White levels in 2009, however these differences were not significant.

**Figure 40. High School Students Who Engage in Recommended Levels of Physical Activity, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System  
Data Table C-30 in Appendix



‡ Non Hispanic

## Overweight

**Definition:** In children and adolescents, **overweight** is defined as those who are at the 85th percentile or greater, but less than the 95th percentile for their body mass index when adjusted for age and sex.

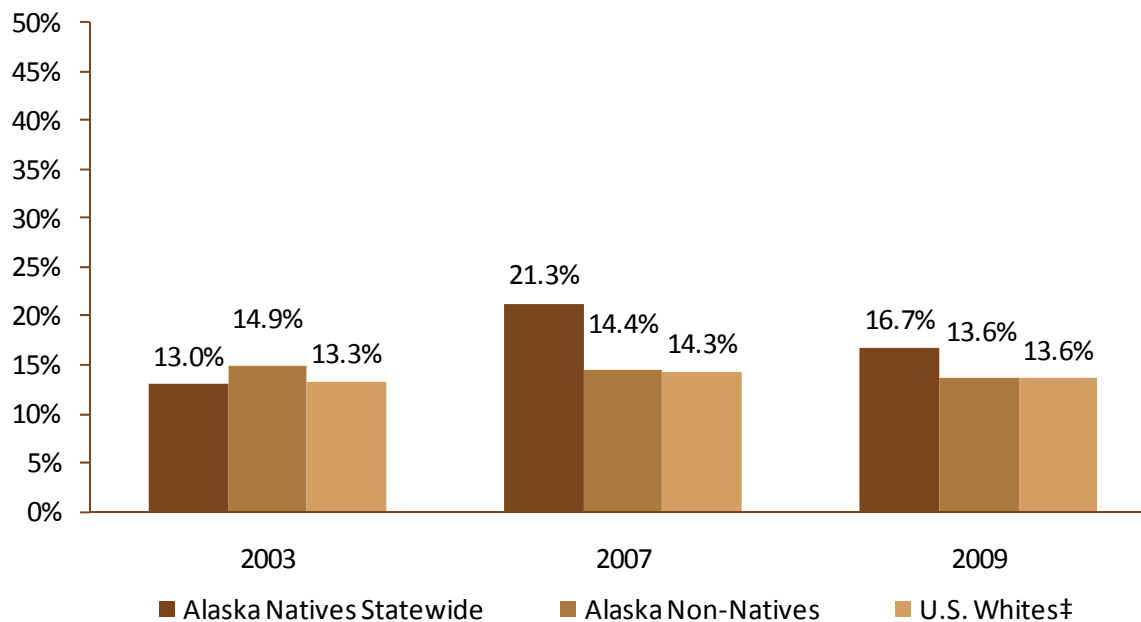
### Summary

- 16.7% of Alaska Native high school students were at overweight in 2009.
- Overweight among Alaska Native high school students increased 28.5% from 2003 to 2009.
- Alaska Native high school students reported a slightly higher prevalence of overweight in 2009 than Alaska Non-Native and U.S. White high school students, however these differences were not significant.

**Figure 41. High School Students Who are Overweight, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System

Data Table C-31 in Appendix



‡ Non Hispanic

**Obese**

**Definition:** In children and adolescents, **obesity** is defined as having a body mass index greater than or equal to the 95th percentile when adjusted for age and sex.

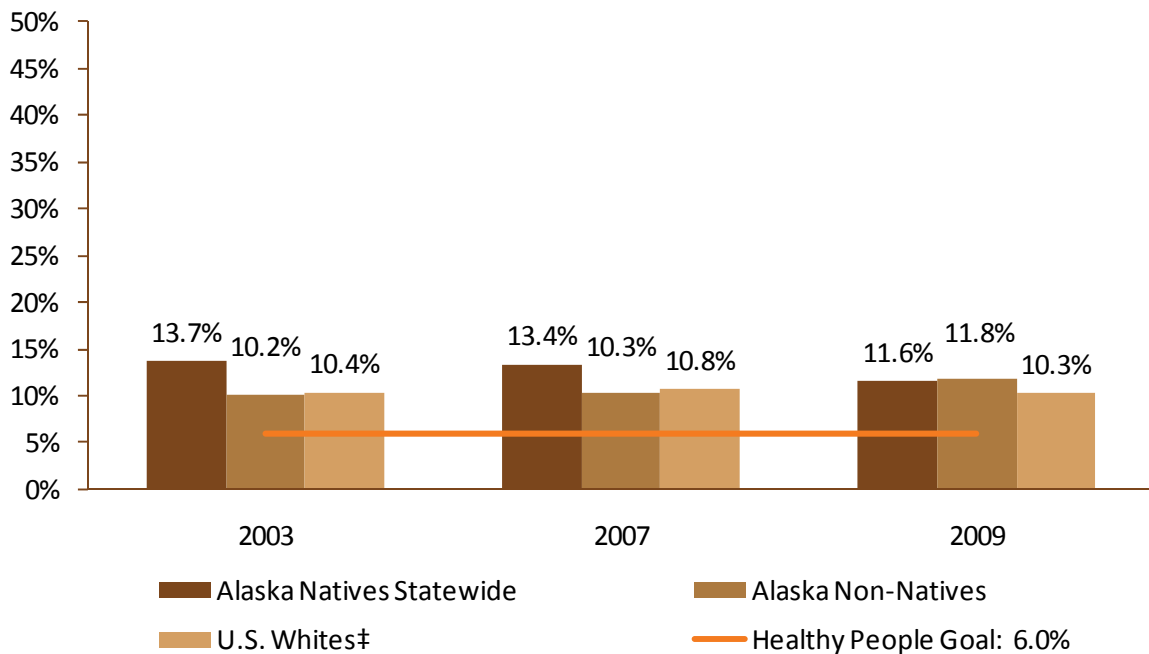
**Healthy People 2020, Goal NWS-10.3:** Reduce the proportion of adolescents aged 12 to 19 who are obese to 16.1%.

**Summary**

- 11.6% of Alaska Native high school students were considered obese in 2009.
- Alaska Native high school students reported a 15.3% decrease in obesity between 2003 and 2009, however this decrease was not significant.
- Alaska Native, Alaska Non-Native, and U.S. White students reported similar prevalences of obesity in 2009.

**Figure 42. High School Students Who are Obese, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System  
Data Table C-32 in Appendix



‡ Non Hispanic

**Sexual Behavior**

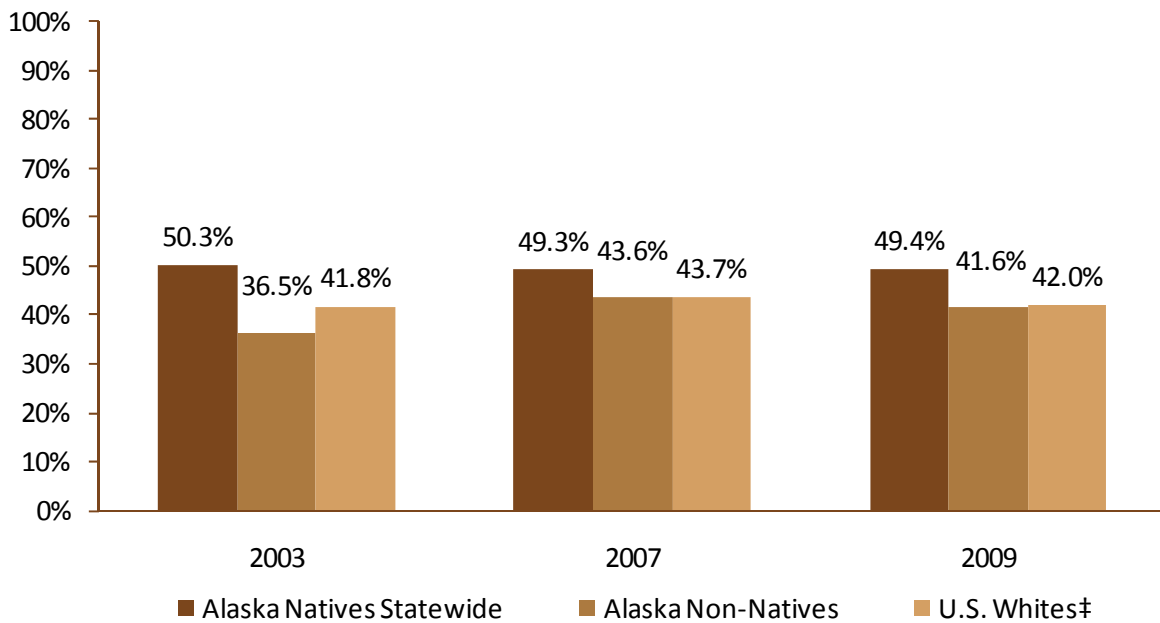
**Definition:** Sexual behavior of high school students, grades 9-12, is defined as having ever engaged in sexual intercourse.

**Summary**

- 49.4% of Alaska Native high school students reported ever engaging in sexual intercourse in 2009.
- Alaska Native high school students reporting having ever engaged in sexual intercourse did not change significantly between 2003 and 2009.
- Alaska Native high school students reporting having ever engaged in sexual intercourse in 2009 was slightly higher than Alaska Non-Natives and U.S. Whites, however these differences were not significant.

**Figure 43. High School Students Who Have Ever Engaged in Sexual Intercourse, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System  
Data Table C-33 in Appendix.



‡ Non Hispanic

## Sad or Hopeless Feelings

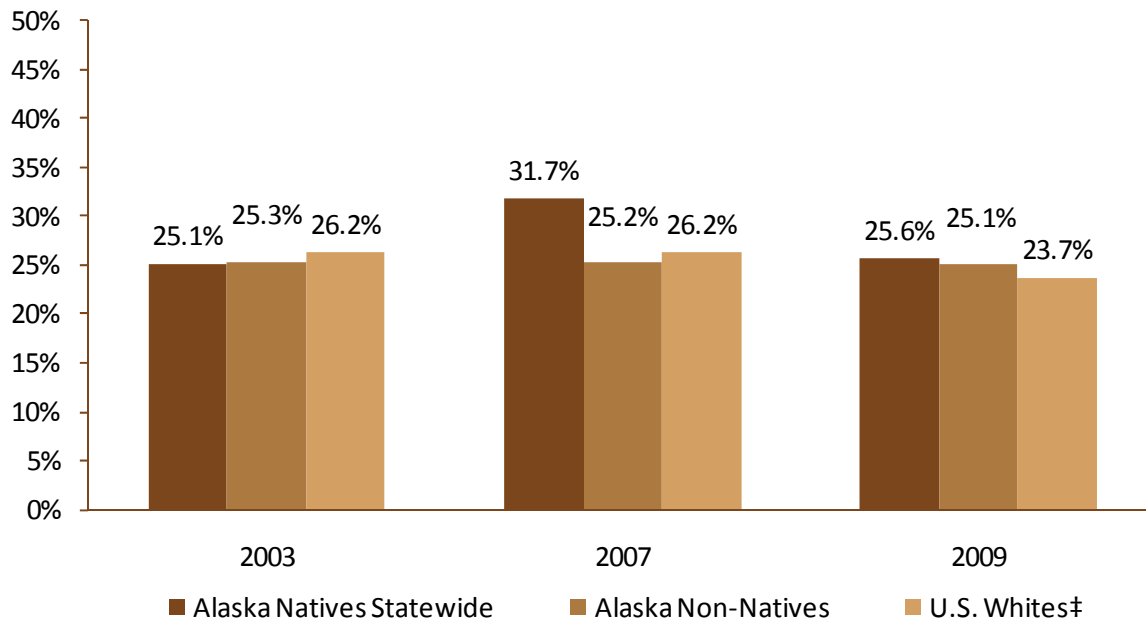
**Definition:** Among high school students in grades 9-12, **sad or hopeless feelings** are defined as ever feeling so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities during the past 12 months.

### Summary

- 25.6% of Alaska Native high school students reported sad or hopeless feelings affecting their usual activities in 2009.
- The percentage of Alaska Native high school students reporting sad or hopeless feelings did not change significantly between 2003 and 2009.
- Alaska Native, Alaska Non-Native, and U.S. White high school students reported a similar prevalence of sad or hopeless feelings affecting their usual activities in 2009.

**Figure 44. High School Students Reporting Sad or Hopeless Feelings That Caused Them to Stop Doing Some Usual Activities During the Past 12 Months, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System  
Data Table C-34 in Appendix



† Non Hispanic

## Suicide Attempts

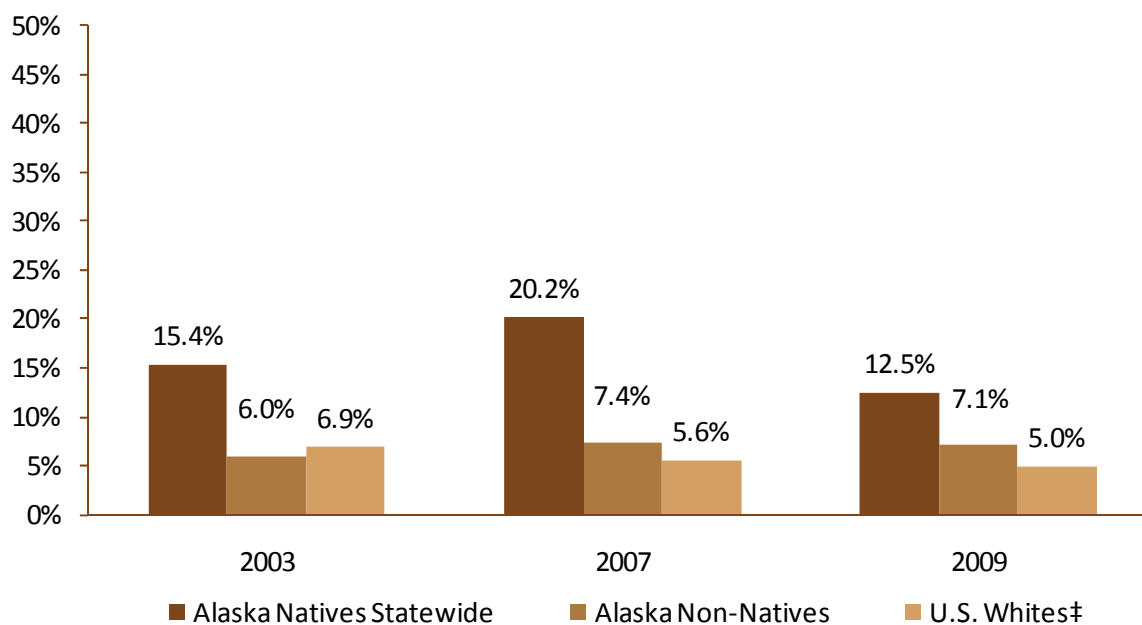
**Definition:** Among high school students in grades 9-12, a **suicide attempt** is when a person tries, but fails, to intentionally take their own life.

### Summary

- 12.5% of Alaska Native high school students attempted suicide one or more times during the past 12 months in 2009.
- Alaska Native high school students reporting one or more suicide attempts during the previous 12 months decreased from 2007 to 2009, although this was not a significant difference.
- Alaska Native high school students reported significantly higher suicide attempts than U.S. White high school students in 2003, 2007, and 2009 ( $p < 0.05$ ).

**Figure 45. High School Students Who Attempted Suicide One or More Times During the Past 12 Months, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System  
Data Table C-35 in Appendix



‡ Non Hispanic

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# **Additional Health Topics**

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**Low Birth Weight**

**Definition:** Low birth weight is defined as a birth weight of less than 2,500 grams.

**Summary**

- 5.7% of Interior Alaska Native infants were born with low birth weight during 2006-2008.
- Although there is fluctuation over time, low birth weight births appears to have increased slightly for Interior Alaska Native infants (3.5% to 5.7%) from 1994-1996 to 2006-2008.
- A lower percent of low birth weight births occurred among Interior Alaska Native people compared to U.S. Whites for 2006-2008.

**Figure 46. Live Births with Low Birth Weight, 1994-2008**

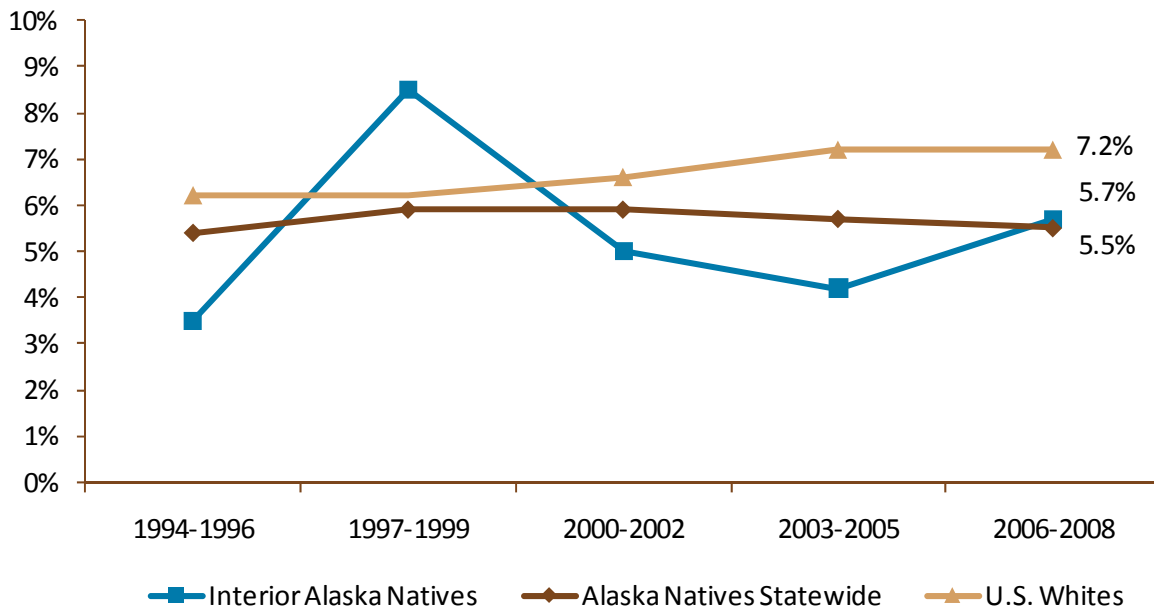
Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: National Center for Health Statistics. Health, United States, 2010: With Special Feature on Death and Dying. Hyattsville, MD. 2011.

Note 1: The U.S. data is for the following years: 1995, 2000, 2005, and 2007

Note 2: Interior is defined as the Doyon Alaska Native Corporation Census Boundary

Data Table C-36 in Appendix



## Fertility Rate

**Definition:** **Fertility Rate** is the total number of live births per 1,000 women aged 15 to 44 years.

### Summary

- During 2004-2008, the Interior Alaska Native fertility rate was 88.4 per 1,000 females aged 15-44.
- The Interior Alaska Native fertility rate decreased 32.8% from 1984-1988 (131.6, per 1,000 females aged 15-44) to 2004-2008 (88.4, per 1,000 females aged 15-44).
- The 2004-2008 fertility rate was 1.3 times higher among Interior Alaska Native people (88.4, per 1,000 females aged 15-44) than among U.S. Whites (66.3, per 1,000 females aged 15-44).

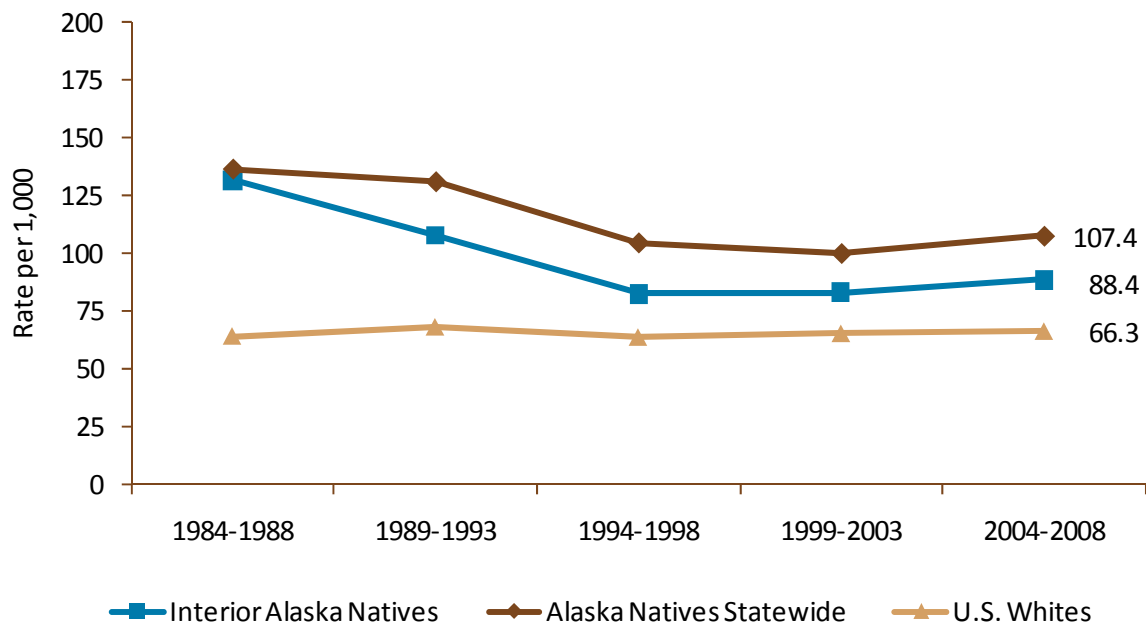
**Figure 47. Fertility Rate per 1,000 Females, Ages 15-44 Years, 1984-2008**

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: National Center for Health Statistics. Health, United States, 2010: With Special Feature on Death and Dying. Hyattsville, MD. 2011.

Note: The U.S. data is for the following years: 1985, 1990, 1995, 2000, and 2005.

Data Table C-37 in Appendix



## Teen Birth Rate

**Definition:** The **teen birth rate** is the number of births to girls 15-19 years of age per 1,000 females in this age group in the population per year.

### Summary

- During 2004-2008, the teen birth rate among Interior Alaska Native people was 57.2, per 1,000 females aged 15-19.
- The teen birth rate among Interior Alaska Native people decreased 47.3% from 1984-1998 (108.5, per 1,000 females aged 15-19) to 2004-2008 (57.2, per 1,000 females aged 15-19).
- The teen birth rate was 1.5 times higher for Interior Alaska Native people (57.2, per 1,000 females aged 15-19) than for U.S. Whites (37.0, per 1,000 females aged 15-19).

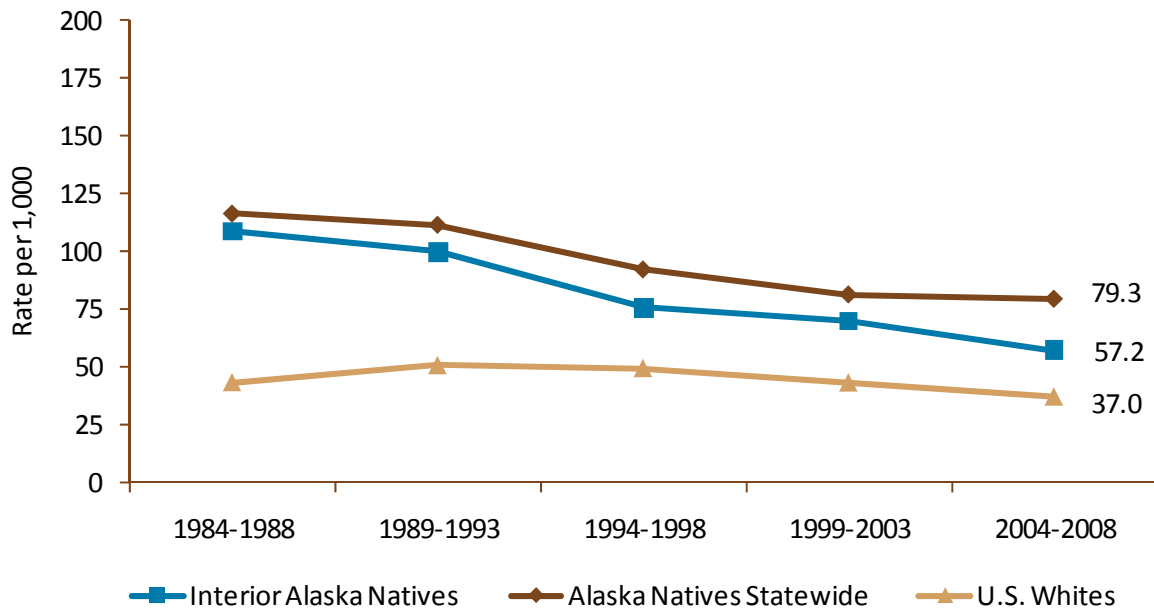
**Figure 48. Teen Birth Rate per 1,000 Females, Ages 15-19 Years, 1984-2008**

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: National Center for Health Statistics. Health, United States, 2010: With Special Feature on Death and Dying. Hyattsville, MD. 2011.

Note: The U.S. data is for the following years: 1985, 1990, 1995, 2000, and 2005.

Data Table C-38 in Appendix



## Breastfeeding - Initiation

**Definition: Breastfeeding initiation** indicates whether a mother initiated breastfeeding with her child.

**Healthy People 2020, Goal MICH-21.1:** Increase the percent who ever initiated breastfeeding to 81.9%.

### Summary

- During 2004-2008, 84.2% of Interior Alaska Native mothers initiated breastfeeding, which exceeded the Healthy People Goal of 81.9%
- Breastfeeding initiation was significantly higher among Interior Alaska Native mothers (84.2%) than the U.S. total population (74.0%) ( $p < 0.05$ ).

### Figure 49. Breastfeeding Initiation, 2004-2008

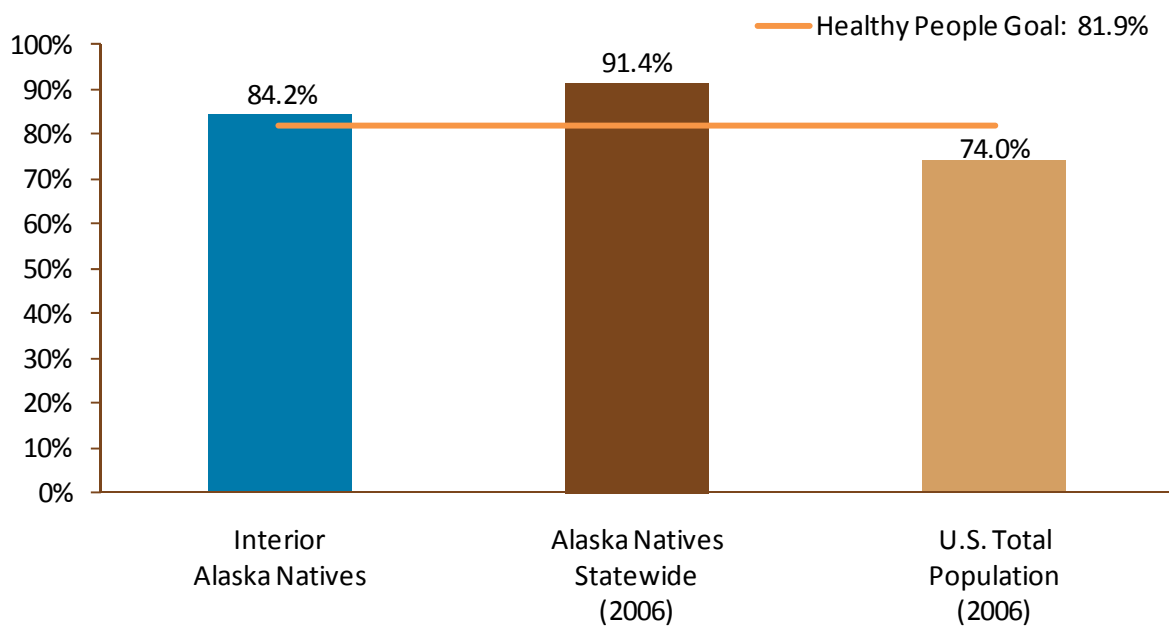
Alaska Data Source: Alaska Pregnancy Risk Assessment Monitoring System

U.S. Data Source: Breastfeeding Among U.S. Children Born 1999-2007, CDC National Immunization Survey.

[http://www.cdc.gov/breastfeeding/data/NIS\\_data/index.htm](http://www.cdc.gov/breastfeeding/data/NIS_data/index.htm)

Note: The U.S. data uses a slightly different definition for measuring breastfeeding. Breastfeeding initiation in the Pregnancy, Risk and Assessment Monitoring System roughly corresponds to the National Immunization Survey's breastfeeding ever data.

Data Table C-39 in Appendix



## Breastfeeding - 8 Weeks Postpartum

**Definition: Breastfeeding 8 Weeks Postpartum** indicates that a mother was still breastfeeding at eight weeks postpartum.

### Summary

- During 2004-2008, 56.9% of Interior Alaska Native mothers breastfed at eight weeks postpartum.
- 65.7% of Alaska Native mothers breastfed at eight weeks postpartum.

### Figure 50. Breastfeeding 8 weeks Postpartum, 2004-2008

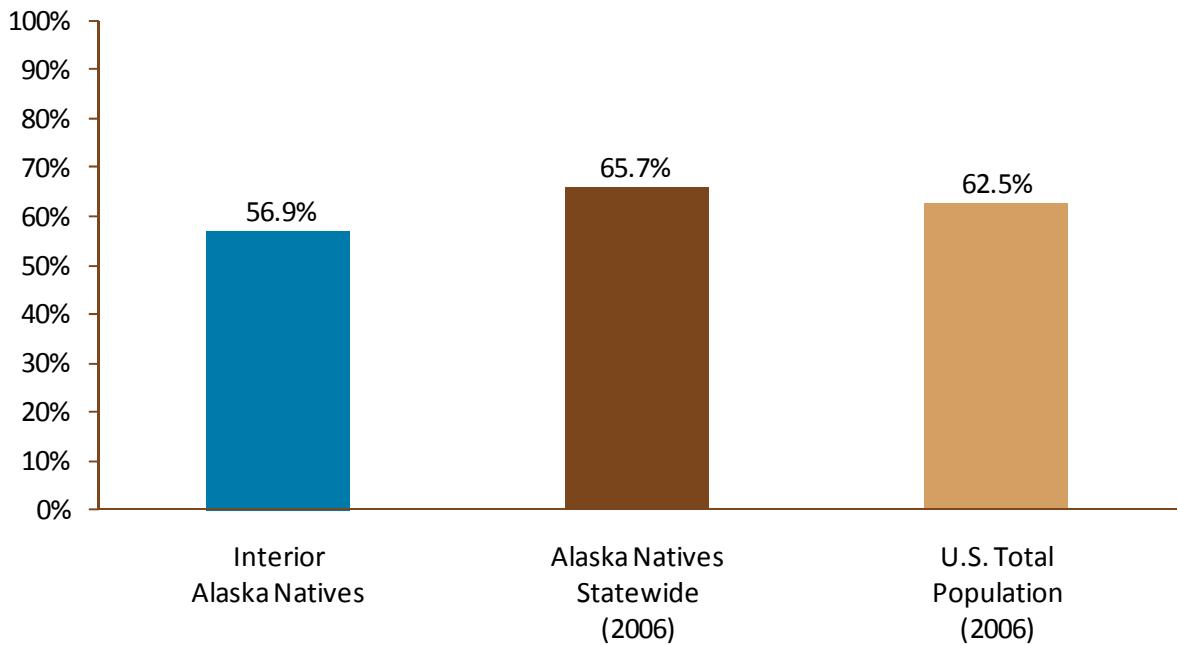
Alaska Data Source: Alaska Pregnancy Risk Assessment Monitoring System

U.S. Data Source: Breastfeeding Among U.S. Children Born 1999-2007, CDC National Immunization Survey.

[http://www.cdc.gov/breastfeeding/data/NIS\\_data/index.htm](http://www.cdc.gov/breastfeeding/data/NIS_data/index.htm)

Note: The U.S. data uses a slightly different definition for measuring breastfeeding. Breastfeeding at eight weeks postpartum in the Pregnancy, Risk and Assessment Monitoring System roughly corresponds to the National Immunization Survey's breastfeeding at two months.

Data Table C-40 in Appendix



## Intimate Partner Violence - Childhood Witness

**Definition: Childhood Violence** is defined as an adult reporting that, as a child, they saw or heard a parent or guardian being hit, slapped, punched, shoved, kicked, or otherwise physically hurt by their spouse or partner.

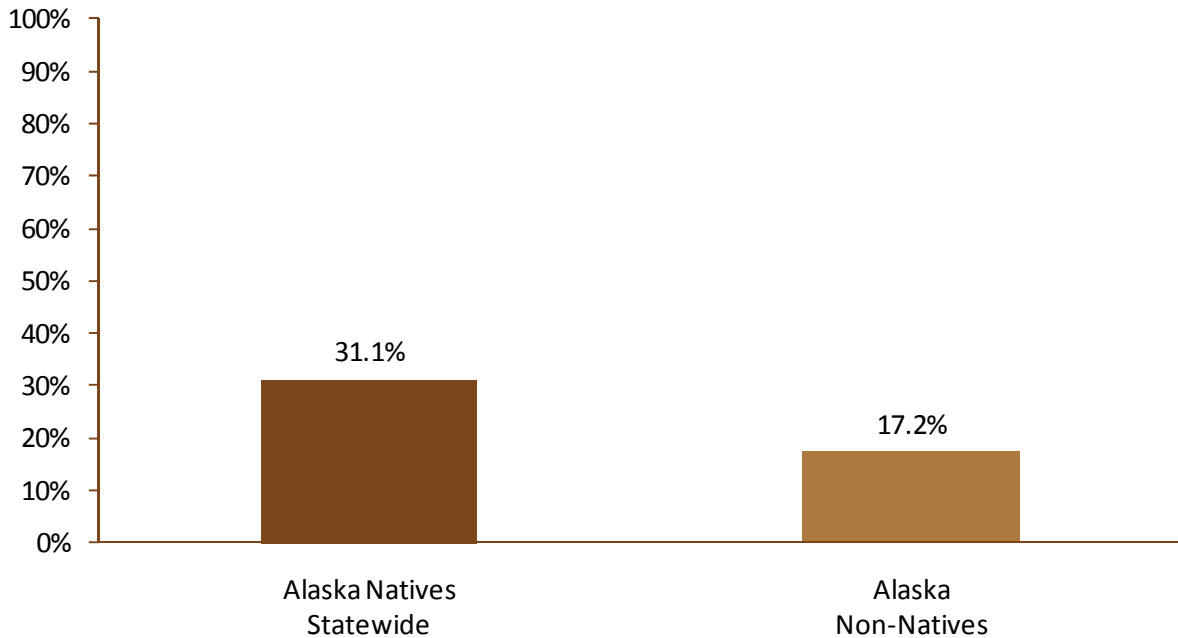
### Summary

- 31.1% of Alaska Native adults and 17.2% of Non-Native adults witnessed domestic violence as a child.
- Alaska Native adults (31.1%) witnessed domestic violence at a significantly higher rate (1.8 times) than Alaska Non-Native adults (17.2%) ( $p < 0.05$ ).

**Figure 51. Intimate Partner Violence – Childhood Witness, 18 Years and Older, 2009**

Data Source: Behavioral Risk Factor Surveillance System

Data Table C-41 in Appendix



## Sexually Transmitted Infections - Gonorrhea

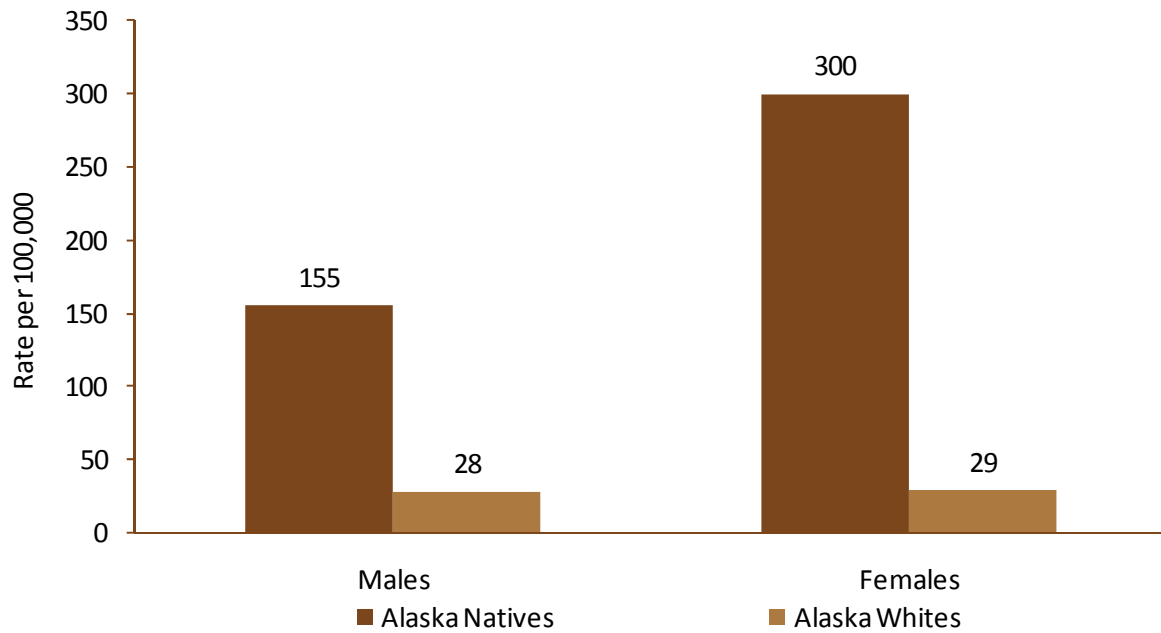
**Definition:** **Gonorrhea** is a sexually transmitted infection caused by the bacterium *Neisseria gonorrhoea*.

### Summary

- The gonorrhea rate for Alaska Native men (155, per 100,000 population) is about 6 times the rate among Alaska White men (28, per 100,000 population).
- The gonorrhea rate for Alaska Native women (300, per 100,000 population) is about 10 times the rate among Alaska White women (29, per 100,000 population).

**Figure 52. Gonorrhea Rate per 100,000 population, Alaska Natives Statewide, 2007**

Data Source: State of Alaska Epidemiology - HIV/STD Program





## Sexually Transmitted Infections - Chlamydia

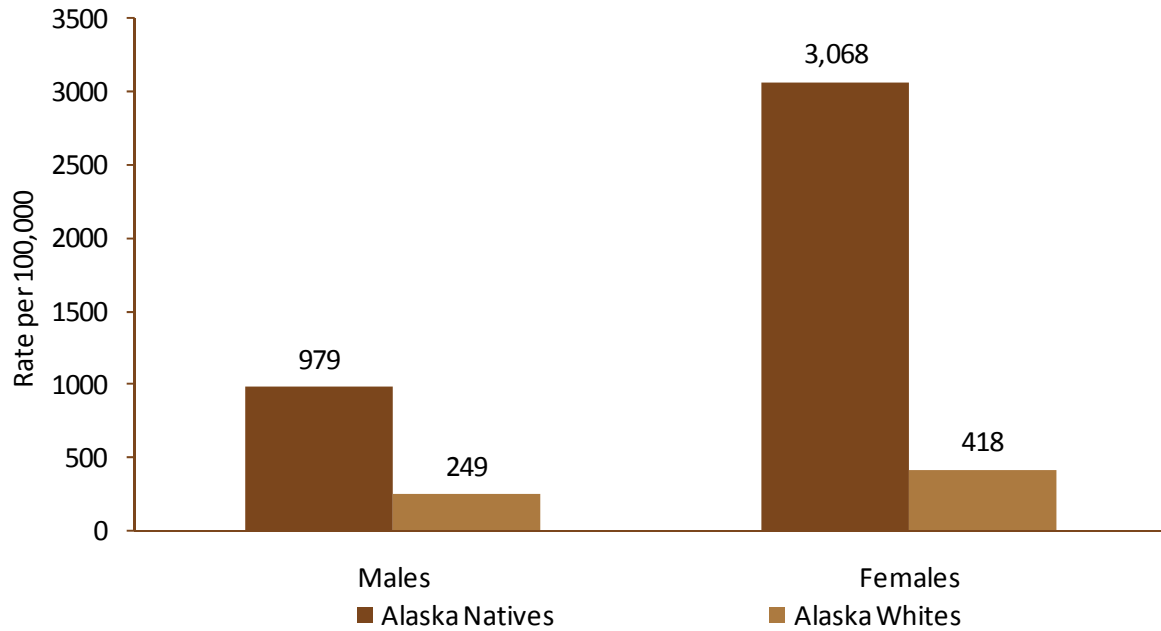
**Definition:** **Chlamydia** is a common sexually transmitted infection caused by the bacterium *Chlamydia trachomatis*.

### Summary

- The Chlamydia rate for Alaska Native men (979, per 100,000 population) is about 4 times the rate among Alaska White men (249, per 100,000 population).
- The Chlamydia rate reported for Alaska Native women (3,068, per 100,000 population) is about 7 times the rate among Alaska White women (418, per 100,000 population).

**Figure 53. Chlamydia Rate per 100,000 population, Alaska Natives Statewide, 2007**

Data Source: State of Alaska Epidemiology/HIV/STD Program



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**Preventive  
Services  
and  
Access to  
Health Care**

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## Cervical Cancer Screening

**Definition:** Cervical cancer screening is defined as females aged 18 and older who report at least one Pap test within the last three years.

**Healthy People 2020, Goal C-15:** Increase the proportion of women aged 18 years and older who received a Pap test within preceding three years to 93.0%.

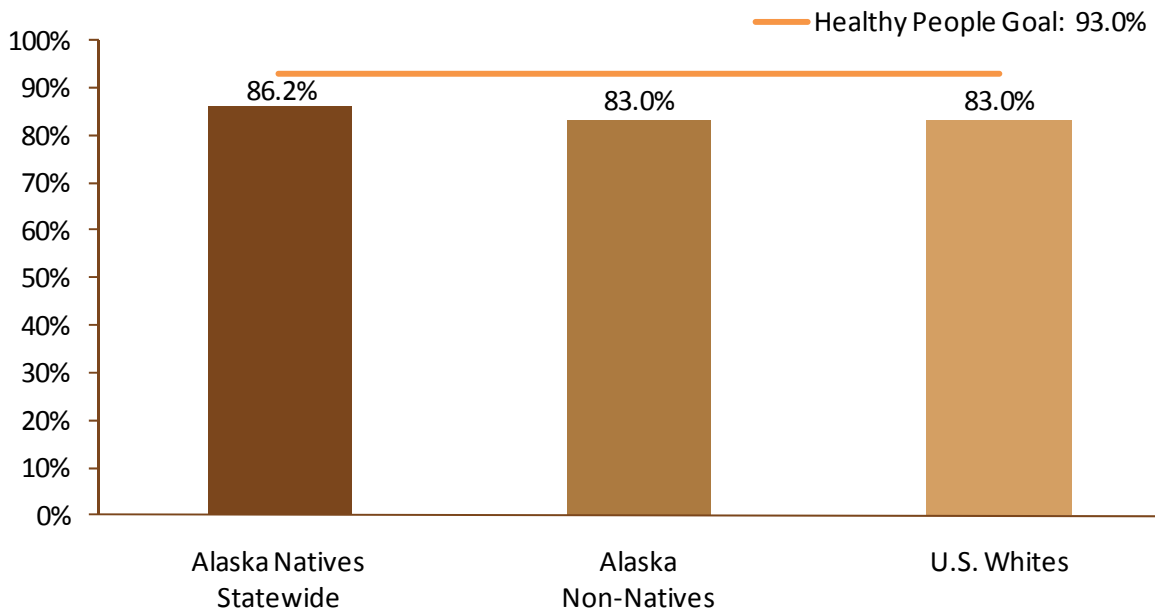
### Summary

- During 2008, 86.2% of Alaska Native women were screened for cervical cancer.
- Alaska Native (86.2%), Alaska Non-Native (83.0%), and U.S. White (83.0%) all had similar percentages of women that were screened for cervical cancer in the past three years.

**Figure 54. Pap Test within the Past Three Years, Women, 18 Years and Older, 2008**

Data Source: Behavioral Risk Factor Surveillance System

Data Table C-42 in Appendix



## Breast Cancer Screening

**Definition: Breast cancer screening** is defined as females aged 40 and older who report a mammogram within the last two years.

**Healthy People 2020, Goal C-17:** Increase the proportion of women aged 40 years and older who have received a mammogram within the preceding two years to 81.1%.

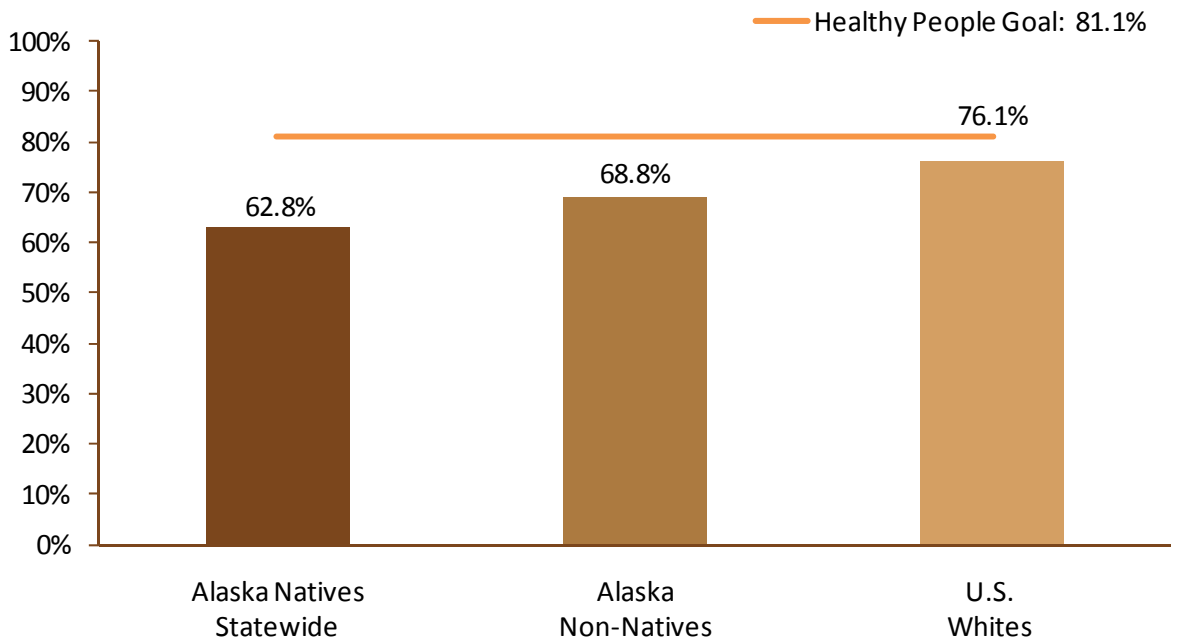
### Summary

- During 2008, 62.8% of Alaska Native women reported having a mammogram within the past two years.
- The percent of Alaska Native women receiving a mammogram in the past two years did not differ significantly from Alaska Non-Native women.

**Figure 55. Mammogram in the Last Two Years, Women, 40 Years and Older, 2008**

Data Source: Behavioral Risk Factor Surveillance System

Data Table C-43 in Appendix



## Colorectal Cancer Screening

**Definition: Colorectal cancer screening** is defined as adults aged 50 and older who report ever having a flexible sigmoidoscopy or colonoscopy.

**Healthy People 2020, Goal C-16:** Increase the proportion of adults aged 50 years and older who receive a colorectal cancer screening based on the most recent guidelines (fecal occult blood test in the previous year, flexible sigmoidoscopy in the previous five years, or colonoscopy in the previous 10 years for average risk adults) to 70.5%.

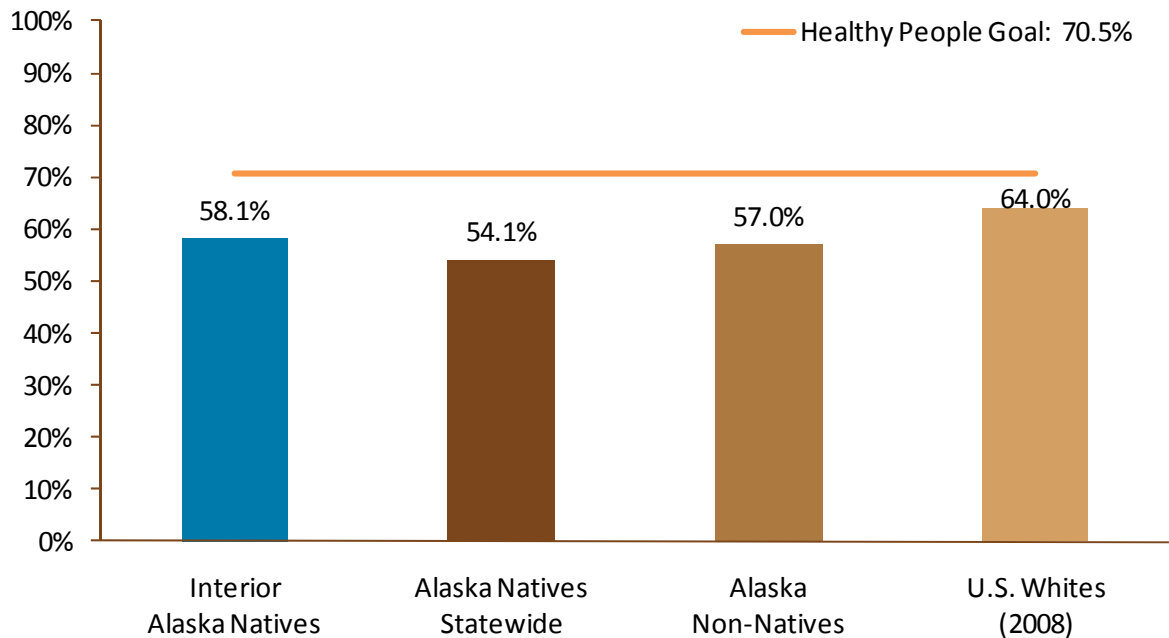
**NOTE:** Data presented are flexible sigmoidoscopy or colonoscopy ever. The Healthy People 2020 Goal is to increase colorectal cancer screening based on the most recent guidelines.

### Summary

- 58.1% of Interior Alaska Native people who were eligible reported ever having a sigmoidoscopy or colonoscopy.
- A similar percent of eligible Interior Alaska Native, Alaska Native Statewide, and Alaska Non-Native adults reported ever receiving a flexible sigmoidoscopy or colonoscopy.

**Figure 56. Flexible Sigmoidoscopy or Colonoscopy Ever, Adults, 50 Years and Older, 2006 and 2008**

Data Source: Behavioral Risk Factor Surveillance System  
Data Table C-44 in Appendix



**Immunizations – Influenza – Age 65 and Older**

**Definition: Influenza vaccine** is defined as adults aged 65 and older who received the influenza vaccine or flu nasal spray in the prior twelve months.

**Healthy People 2020, Goal IID-12.7:** Increase the proportion of elderly adults (65 years and older) immunized against influenza disease to 90.0%.

**Summary**

- Between June 30, 2009 and June 30, 2010, 36.5% of Alaska Native people aged 65 and older in the Interior region were vaccinated against influenza in the past year
- 47% less Interior Alaska Native people (36.5%) than U.S. Whites (69.0%) aged 65 and older received the influenza vaccine.

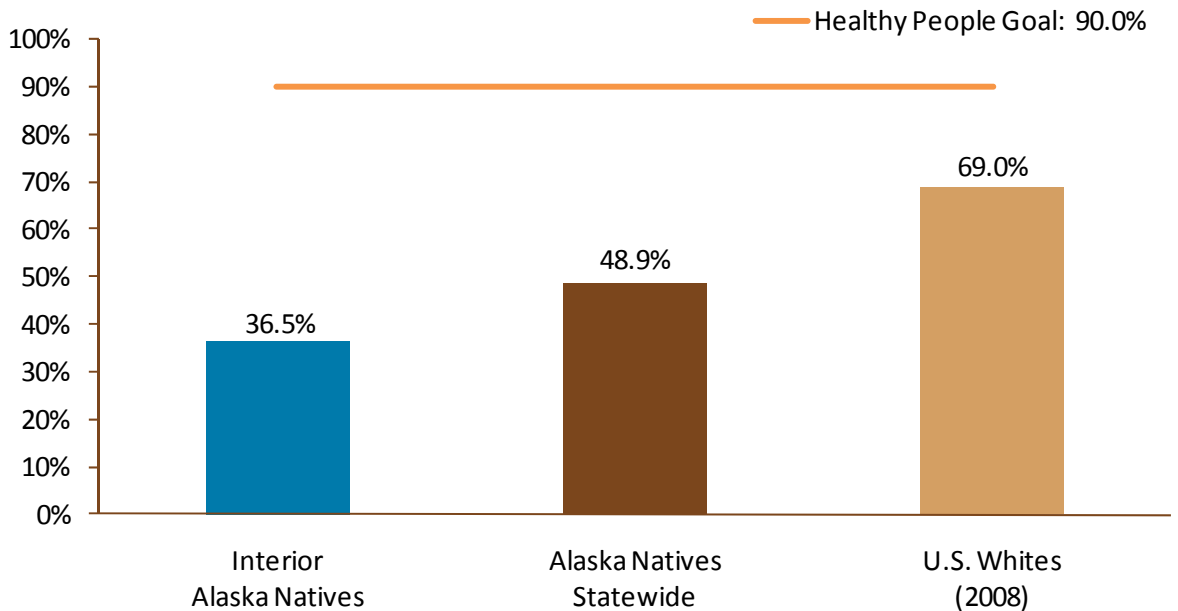
**Figure 57. Influenza Vaccination Rates, Adults, 65 Years and Older, June 30, 2009 to June 30, 2010**

Alaska Data Source: Alaska Native Tribal Health Consortium Immunization Registry

U.S. Data Source: Center for Disease Control and Prevention Wonder, Healthy People

Note: Interior Alaska Native data are from the Tanana Chief’s Conference, and are based on the age 65 and older user population.

Data Table C-45 in Appendix



**Immunizations – Pneumococcal – Age 65 and Older**

**Definition: Pneumococcal vaccine** is defined as adults 65 and older who ever received pneumococcal vaccine.

**Healthy People 2020, Goal IID-13.1:** Increase the proportion of elderly adults (65 years and older) immunized against pneumococcal disease to 90.0%.

**Summary**

- As of June 30, 2010, 91.6% of Alaska Native people aged 65 and older in the Interior region had received a pneumococcal vaccine in their lifetime.
- Interior Alaska Native (91.6%) and Alaska Native people statewide (92.2%) had higher rates of receiving pneumococcal vaccine than U.S. White adults (63.0%) aged 65 and older.

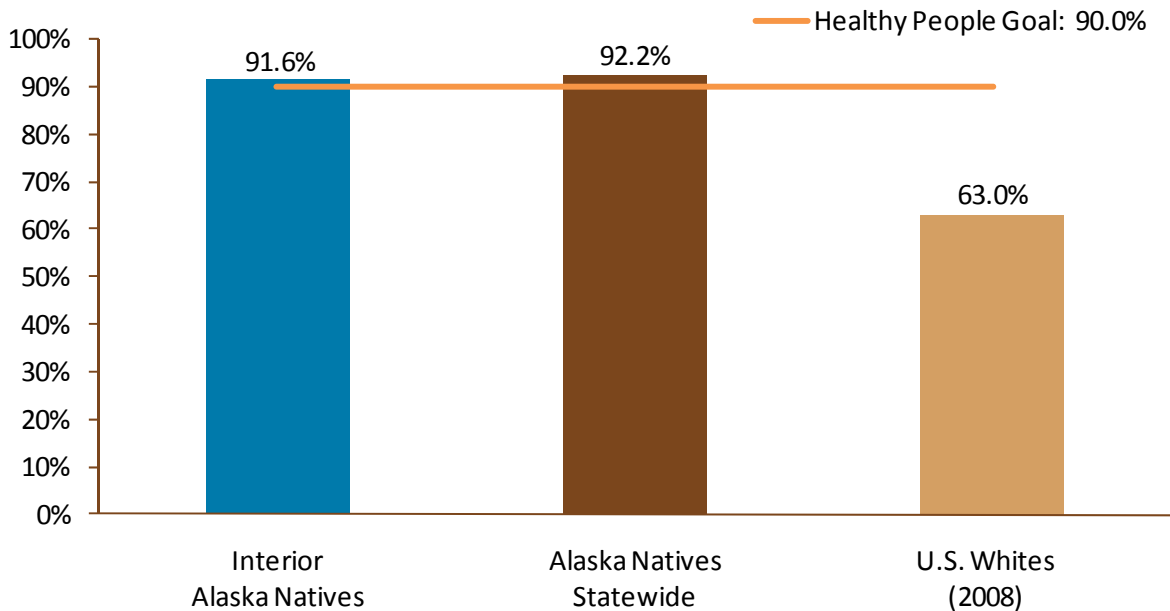
**Figure 58. Pneumococcal Vaccination Rates, Adults, 65 Years and Older, as of June 30, 2010**

Alaska Data Source: Alaska Native Tribal Health Consortium Immunization Registry

U.S. Data Source: Center for Disease Control and Prevention Wonder, Healthy People

Note: Interior Alaska Native data are from the Tanana Chief’s Conference, and are based on the age 65 and older user population.

Data Table C-46 in Appendix





**Immunizations - Childhood - 4:3:1:3:3:1**

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

**Healthy People 2020, Goal IID-8:** Increase the proportion of young children aged 19-35 months who have received the 4:3:1:3:3:1 series to 80.0%.

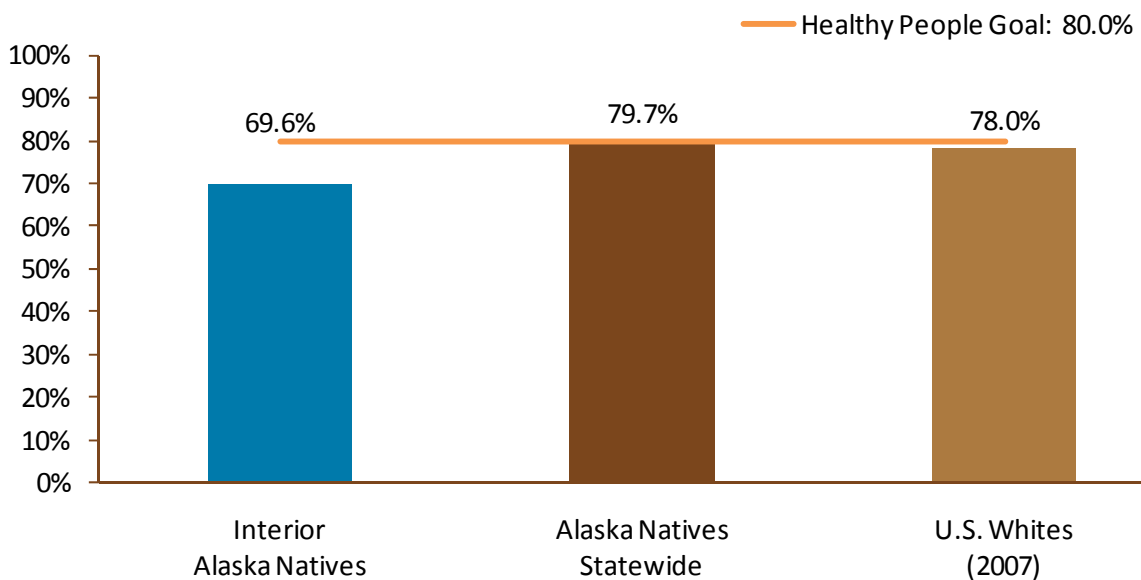
**NOTE:** Data presented are for two-year old vaccination rates. The Healthy People 2020 Goal is to increase immunization rates among children aged 19-35 months.

**Summary**

- 69.6% of Interior Alaska Native two-years olds received the 4:3:1:3:3:1 series of immunizations as of June 30, 2010.
- 10.8% less Interior Alaska Native two year olds received vaccination coverage than U.S. White two year olds as of June 30, 2010.

**Figure 59. Vaccination Coverage, Two Year Olds, as of June 30, 2010**

Alaska Data Source: Alaska Native Tribal Health Consortium Immunization Registry  
 U.S. Data Source: National Center for Health Statistics, Health, United States, 2009: With Special Feature on Medical Technology. Hyattsville, MD. 2010.  
 Note: Interior Alaska Native data are from the Tanana Chief’s Conference, and are based on the two year old user population.  
 Data Table C-47 in Appendix



## Adequate Prenatal Care

**Definition:** The Kessner Index of Care is a method to categorize levels of **prenatal care**. It is based on the month the prenatal care started, the number of visits, and the gestation length. 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.

**Adequate prenatal care** is defined as care that begins in the first trimester and includes nine visits throughout the pregnancy. Intermediate prenatal care is defined as care that begins during the first or second trimester and includes five to eight visits. Inadequate prenatal care is defined as beginning in the third trimester and includes no more than four visits.

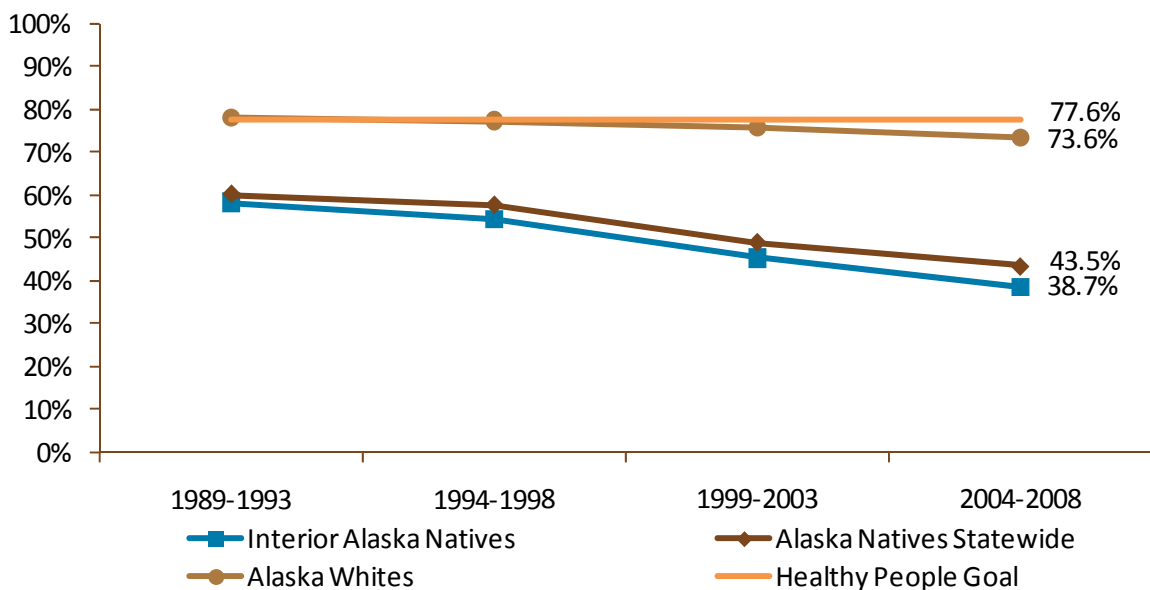
**Healthy People 2020, Goal MICH-10.2:** Increase the proportion of women who receive adequate prenatal care to 77.6%.

### Summary

- 38.7% of Interior Alaska Native pregnant women received adequate prenatal care during 2004-2008.
- It appears that the percentage of pregnant women receiving adequate prenatal care decreased for Interior Alaska Native people (-33.6%) from 1989-1993 to 2004-2008.
- The percentage of Interior Alaska Native pregnant women receiving adequate prenatal care was 34.9% lower than Alaska White pregnant women during 2004-2008.

**Figure 60. Adequate Prenatal Care, Pregnant Women, 1989-2008**

Data Source: Alaska Bureau of Vital Statistics  
Data Table C-48 in Appendix



## Dental Visits

**Definition:** A **dental visit** is counted if a person has visited the dentist or dental clinic within the past year for any reason.

**Healthy People 2020, Goal OH-7:** Increase the proportion of children, adolescents, and adults who used the oral health care system in the past year to 49.0%

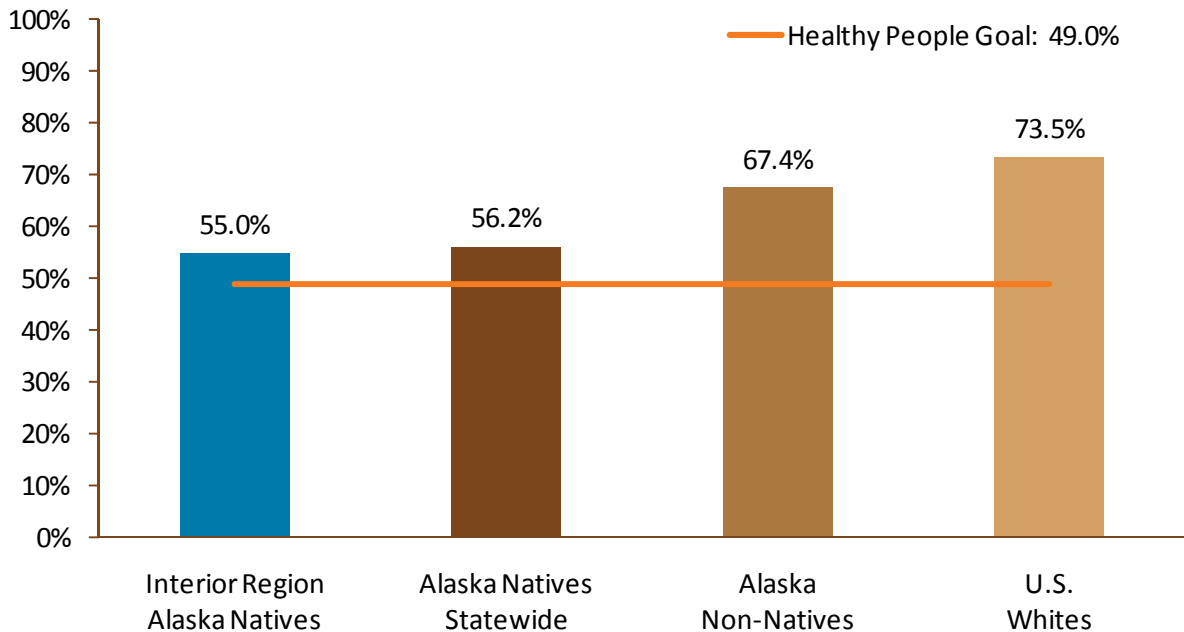
**NOTE:** Data presented are for adults aged 18 and older. The Healthy People 2020 Goal is to increase dental visits among children, adolescents and adults.

### Summary

- 55.0% of Interior Alaska Native people reported having a dental visit within the last year in 2008.
- The percentage of Interior Alaska Native people (55.0%) reporting a dental visit did not differ significantly from Alaska Natives statewide (56.2%) or Alaska Non-Natives (67.4%).

**Figure 61. Dentist or Dental Clinic Visit Within the Past Year for Any Reason, 18 Years and Older, 2008**

Data Source: Behavioral Risk Factor Surveillance System  
Data Table C-49 in Appendix



**Environmental Health - Water and Sewer Service**

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

**Summary**

- As of 2008, 59.6% of the communities in the Tanana Chiefs Conference in the Interior region had water and sewer service.
- The percentage of housing units served with water and sewer in Tanana Chiefs Conference in the Interior Region was one of the lowest among regions throughout the state in 2008.

**Table 8. Water and Sewer Rates by Major Rural Regional Health Corporation, Alaska 2008**

Data Source: Alaska Native Tribal Health Consortium, Department of Environmental Health and Engineering

<b>Major Rural Regional Health Corporation</b>	<b>2008 Housing Units with Flush Toilets &amp; Pressurized Water</b>	<b>2008 Total Housing Units</b>	<b>% Served</b>
Southeast Alaska Regional Health Consortium	2,288	2,329	98.2%
Kodiak Area Native Association	349	356	98.0%
Bristol Bay Area Health Corporation	1,364	1,572	86.8%
Maniilaq Association	865	1,140	75.9%
Norton Sound Health Corporation	970	1,509	64.2%
<b>Tanana Chiefs Conference</b>	<b>1,150</b>	<b>1,930</b>	<b>59.6%</b>
Yukon - Kuskokwim Health Corporation	2,753	4,760	57.8%

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# Appendixes

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## Appendix A. Methods and Description of Data Sources

**General Note:** Calculations for percentages are rounded to one decimal place, where the data source allowed therefore total percentages may not add up to 100.0%

### Statistical Significance

Throughout the document, differences are considered statistically significant if they are different at the 95% confidence level ( $p < 0.05$ ). Differences between rates and percentages are considered to be significantly different if the 95% confidence intervals did not overlap. Rate ratios are considered to be statistically significant if the 95% confidence interval of the rate ratio did not contain one.

### Alaska Area Diabetes Registry

The Alaska Area Diabetes Registry provided the diabetes data aggregated by the former Indian Health Service Units. The Alaska Area Diabetes Registry is a clinical and epidemiologic resource for tribal health care facilities throughout Alaska. The registry tracks patients diagnosed with diabetes and ensures that their care meets national standards. More information about the data may be found at: <http://www.anthc.org/anmc/services/diabetes/epidemiology/>.

### Alaska Area Indian Health Service

The Alaska Area Indian Health Service works in conjunction with Alaska Native Tribes and Tribal Health Organizations to provide comprehensive health services to approximately 139,000 Alaska Native people. The Alaska Area Indian Health Service's Division of Planning and Evaluation and Health Statistics provided the user population data. More information about the Alaska Area Indian Health Service may be found at: <http://www.ihs.gov/facilitieservices/areaoffices/alaska/index.asp>.

### Alaska Bureau of Vital Statistics

The State of Alaska Bureau of Vital Statistics provided the birth and death certificate data. The Alaska Native Epidemiology Center analyzed the data.

The mortality data for Interior Alaska Native people and Alaska Native people statewide is from 1984 to 2008. Rates are age-adjusted to the U.S. Standard Population. "Bridged" population estimates from the National Center for Health Statistics are used as the denominator to calculate the mortality rates. Bridged estimates are necessary to adjust for the option in the 2000 Census which allowed multiple races, rather than one race. The rates are calculated for those causes that had at least five deaths during the designated time period. Five years of the population data are summed for each time period to calculate the rates. The number of deaths for each five-year age group (0-4 up to 85+ years) are divided by the total population for that age group during that five-year interval. Those crude rates are multiplied by the standard population rate for that age group and then summed to get the overall age-adjusted rates.

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## Appendix A. Methods and Description of Data Sources (continued)

The low birthweight, adequate prenatal care, and smoking and alcohol consumption during pregnancy data are based upon data reported on birth certificates to the state of Alaska.

More information about the Alaska Bureau of Vital Statistics may be obtained at: <http://www.hss.state.ak.us/DPH/bvs/data/default.htm>.

### **Alaska Department of Labor and Workforce Development**

The Alaska Department of Labor and Workforce Development produces statistics about population, wages, employment, industry information, occupational information, and cost of living.

The Alaska Department of Labor and Workforce Development produces the population estimates presented in this report. These population estimates use the decennial census data as a baseline. The Alaska Department of Labor and Workforce Development adjusts the numbers yearly based upon administrative records including birth certificates, death certificates, income tax returns, Permanent Fund applications, school enrollment and driver's licenses. More information about the Alaska Department of Labor and Workforce Development's population statistics may be found at: <http://labor.alaska.gov/>.

The Alaska Department of Labor and Workforce Development calculates the unemployment statistics presented in this document. More information about the unemployment statistics may be found at: <http://labor.alaska.gov>.

### **Alaska Native Tribal Health Consortium's Immunization Registry**

The Alaska Native Tribal Health Consortium's Immunization Program coordinates tribal immunization programs, educates tribal staff on immunization recommendations and vaccine-preventable diseases, advocates with outside agencies for the needs of tribal programs, and maintains the Alaska Native Tribal Health Consortium Immunization Registry. This program provided the influenza vaccine, pneumococcal vaccine, and childhood immunizations data. More information about the program may be found at: <http://www.anthc.org/chs/crs/immunization/>.

### **Alaska Native Tribal Health Consortium Alaska Native Tumor Registry**

The Alaska Native Tumor Registry provided the leading cancers data. The Alaska Native Tumor Registry is a statewide population-based registry of all cancers diagnosed among Alaska Native people. The registry includes Alaska Native patients living in Alaska at the time of diagnosis who met eligibility requirements for Indian Health Service benefits. It is part of the National Cancer Institute's Surveillance Epidemiology and End Results Program.

### **Alaska Trauma Registry**

The Alaska Trauma Registry collects data on the most seriously injured patients in Alaska and the treatment they received. The Alaska Trauma Registry collects data from all 24 of Alaska's acute care hospitals. The criteria for inclusion in the registry are patients with injuries who are admitted to an

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**Appendix A. Methods and Description of Data Sources (continued)**

Alaska hospital, held for observation, transferred to another acute care hospital, or declared dead in the emergency department, and for whom contact with the health care system occurred within 30 days of the injury.

The Alaska Statute 18.23.010-070 protects the confidentiality of the data. All trauma registry personnel and those requesting trauma registry data are required to sign a confidentiality statement. The Alaska Native Epidemiology Center in collaboration with the Alaska Native Tribal Health Consortium Injury Prevention Program analyzed the data presented in this document.

More information about the Alaska Trauma Registry may be found at: [http://www.hss.state.ak.us/dph/ipems/injury\\_prevention/trauma.htm](http://www.hss.state.ak.us/dph/ipems/injury_prevention/trauma.htm) and more information about the Injury Prevention Program may be found at <http://www.anthc.org/chs/wp/injprev/>.

**Behavioral Risk Factor Surveillance System**

The Behavioral Risk Factor Surveillance System is an on-going national telephone-based survey supported by the Centers for Disease Control and Prevention. Alaska began participating in the Behavioral Risk Factor Surveillance System in 1990. 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 Behavioral Risk Factor Surveillance System 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 of their own. The entire interview takes less than 30 minutes to complete. Interviews are conducted during every month of the year. The State of Alaska interviews about 2,500 Alaskans each year. This is approximately 500 individuals from each region.

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. In order to achieve a representative sample, the State of Alaska “oversamples” rural regions; this leads to oversampling Alaska Native people, since there are more Alaska Native people living in rural Alaska .

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.



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## Appendix A. Methods and Description of Data Sources (continued)

The analyses of Behavioral Risk Factor Surveillance System accounts for the fact that not every adult resident of the state has an equal chance of being contacted for an interview. The analyses assign 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 representation are used to calculate a statistical weighting factor to be used in analyses to draw inferences about the overall population.

The State of Alaska Section of Chronic Disease Prevention and Health Promotion Health Survey Lab provided the raw data presented in this report. The Alaska Native Epidemiology Center staff analyzed the regional and statewide data. Within the regional and statewide data, multiple years are combined to achieve a meaningful sample size where possible. The U.S. results are calculated as the median of all individual state results. They are obtained from the Centers for Disease Control and Prevention’s Behavioral Risk Factor Surveillance System interactive tool located at: <http://apps.nccd.cdc.gov/brfss>.

Readers should use these estimates with caution since the number of respondents who are Alaska Native people from each region is relatively small. Differences between age groups, gender, and time cannot be determined to be statistically significant due to a small sample unless noted on the indicator page. Behavioral Risk Factor Surveillance System data are not age-adjusted to account for the different age distributions between the comparison populations in this document. Since the Alaska Native population is younger than the general Alaska and U.S. populations, comparisons between these populations should be interpreted with caution.

### **Healthy People 2020**

The Healthy People 2020 measures reported in this document are taken from following website: <http://www.healthypeople.gov/2020/default.aspx>

### **National Patient Information Reporting System - Indian Health Service National Data Warehouse**

The Indian Health Service’s National Patient Information Reporting System and the National Data Warehouse aggregate the Resource and Patient Management System and other systems data in order to track clinical practice patterns and episodes of care, provide measures of quality of care and clinical outcomes, perform epidemiologic studies, report on patient demographics and health care utilization patterns and provide data from which health care costs can be estimated.

The *Leading Causes of Outpatient Visits* are calculated by the Alaska Native Epidemiology Center using the National Patient Information Reporting System data. The data are calculated based on the primary diagnosis and categorized using the Agency for Healthcare Research and Quality’s Clinical Classification Software. This software groups the outpatient ICD-9 codes into clinically meaningful categories. More information about the Agency for Healthcare Research and Quality’s Clinical Classification Software may be found at:

## Appendix A. Methods and Description of Data Sources (continued)

<http://www.hcup-us.ahrq.gov/toolssoftware/ccs/CCSUsersGuide.pdf>

More information about the National Patient Information Reporting System and the National Data Warehouse may be found at: <http://www.ihs.gov/CIO/DataQuality/warehouse/>.

### **Pregnancy Risk Assessment Monitoring System**

The Alaska Pregnancy Risk Assessment Monitoring System (PRAMS) is primarily a mail survey (phone interviews are attempted for women who do not respond by mail) of mothers of newborn infants developed by the Centers for Disease Control and Prevention Division of Reproductive Health to collect information on the health risk behaviors and circumstances of pregnant and postpartum women. It was initiated in the state of Alaska in 1990 by the State of Alaska Division of Public Health, Section of Maternal, Child, and Family Health. The PRAMS has a core set of questions that each state that participates asks, and a limited number of state-specific questions. Topics covered include family planning; prenatal care; use of tobacco, alcohol, and drugs; participation in the Women, Infants, and Children's (WIC) nutrition program and Medicaid; payment for care; family income; breast-feeding; physical abuse; and life stressors such as illness, job loss, debt, divorce; plus other topics.

To be included in the Alaska PRAMS survey, women must be Alaska residents who have delivered a live birth in or out of state. The surveys are administered two to six months after the date of birth. Mothers to infants that die are included in the survey and grieving letters are mailed out to the mothers in these situations. If births are multiple, only one infant is randomly selected. Pending adoptions are also included as long as the biological mother is included on the birth record.

More information about the Alaska Pregnancy Risk Assessment Monitoring System may be found at: <http://www.epi.hss.state.ak.us/mchepi/PRAMS/default.stm>

### **Surveillance Epidemiology and End Results Program**

The Surveillance Epidemiology and End Results Program (SEER) is part of the National Cancer Institute. The SEER Program collects information on the incidence, survival, and prevalence of cancer, as well as the survival of persons with cancer. In addition, the SEER Program collects standard population data, U.S. mortality data, and U.S. population data. The non-cancer death data presented in this report are analyzed by Alaska Native Epidemiology Center staff using the SEER database with SEERStat (a computer program provided by the SEER Program). More information about SEER may be found at: <http://seer.cancer.gov/index.html>.

**Appendix A. Methods and Description of Data Sources (continued)**

**Table A-1. SEER Cause of Death Recode 1969+**

<b>Causes of Death</b>	<b>ICD-9 (1979-1998)</b>	<b>ICD-10 (1999+)</b>
All Malignant Cancers	140-208	C00-C97
Cerebrovascular Disease	430-438	I60-I69
Diseases of Heart	390-398, 402, 404-429	I00-I09, I11, I13, I20-I51
Suicide and Self-Inflicted Injury	E900-E959	X60-X84, Y87.0
Unintentional Injuries	E800-E949	X60,X84, Y87.0

Data source: Surveillance, Epidemiology, and End Results Program

**State of Alaska Epidemiology - HIV/STD Program**

The HIV/STD Program addresses public health issues and activities with the goal of preventing sexually transmitted diseases and HIV infection and their impact on health in Alaska. The data presented in this report are provided by the State of Alaska Epidemiology - HIV/STD Program. More information may be found at: <http://www.epi.hss.state.ak.us/hivstd/default.stm>.

**U.S. Census**

The U.S. Census has provided data about the U.S. population and the economy. The data used in this report are obtained from the 2005-2009 American Community Survey using the American Factfinder, an on-line tool on the U.S. Census website. More information about the U.S. Census and American Community Survey may be found at: [http://factfinder.census.gov/home/saff/main.html?\\_lang=en](http://factfinder.census.gov/home/saff/main.html?_lang=en).

**Youth Risk Behavior Surveillance System**

The Youth Risk Behavior Surveillance System was established in 1990 by the Centers for Disease Control and Prevention, and first implemented in Alaska in 1995. The Youth Risk Behavior Survey monitors the prevalence of behaviors that put Alaskan youth at risk for the most significant health and social problems, in order to assist in prevention and intervention planning and evaluation. The Youth Risk Behavior Surveillance System 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 and unintended pregnancies

## Appendix A. Methods and Description of Data Sources (continued)

- Dietary behaviors
- Physical activity

The Youth Risk Behavior Surveillance System has been administered in Alaska seven times: 1995, 1999 (excluding Anchorage), 2001, 2003, 2005, 2007, and 2009. Weighted (representative) data were collected in 1995, 1999, 2003, 2007, and 2009 resulting in published reports statewide. For purposes of this report, we included the three applicable survey-year data (2003, 2007, and 2009).

The Alaska data presented in this report were provided to the Alaska Native Epidemiology Center by the Alaska Division of Public Health, State of Alaska's Youth Risk Behavior Surveillance System program. More information about the state-level data may be found at:  
<http://www.hss.state.ak.us/dph/chronic/school/YRBS.htm>.

The U.S. White data were obtained from the *Youth Online: High School YRBS* data system located at:  
<http://apps.nccd.cdc.gov/youthonline/App/Default.aspx>.

**Appendix B. Race/Ethnicity Definition by Data Source**

Data Source	Race/Ethnicity Definition
Alaska Area Diabetes Registry	Alaska Native and/or American Indian persons who visited Indian Health Services or a tribal health facility in the past three years
Alaska Area Indian Health Service	Alaska Native and/or American Indian persons who visited Indian Health Services or a tribal health facility in the past three years
Alaska Bureau of Vital Statistics	Any mention of Alaska Native and/or American Indian
Alaska Department of Labor & Workforce Development	Alaska Native and/or American Indian
Alaska Native Tribal Health Consortium Immunization Registry	Alaska Native and/or American Indian person who uses the Alaska Tribal Health System
Alaska Native Tumor Registry	Alaska Native and/or American Indian persons living in Alaska at the time of a cancer diagnosis
Alaska Trauma Registry	Any mention of Alaska Native and/or American Indian
American Community Survey	Alaska Native and/or American Indian alone
Behavioral Risk Factor Surveillance System	Alaska Native and/or American Indian alone or in
National Patient Information Reporting System - Indian Health Service National Data Warehouse	Alaska Native and/or American Indian persons who visited Indian Health Service or a tribal facility that reports data to the Indian Health Service data system
Pregnancy Risk Assessment Monitoring System	Alaska Native and/or American Indian alone
State of Alaska Epidemiology HIV/STD Program	Alaska Native and/or American Indian
Surveillance, Epidemiology and End Results	Alaska Native and/or American Indian alone
Youth Risk Behavior Surveillance System	Any mention of Alaska Native and/or American Indian

Appendix C. Data Tables

**Table C-1. User Population by Age Group, Alaska Natives, Interior Region, 2009**

Data Source: National Patient Information Reporting System, Indian Health Service National Data Warehouse

Age (years)	Male		Female		Total	
	n	% of Total	n	% of Total	n	% of Total
0-4	658	9.7%	598	8.6%	1,256	9.2%
5-9	632	9.3%	593	8.6%	1,225	8.9%
10-14	577	8.5%	529	7.6%	1,106	8.1%
15-19	641	9.5%	652	9.4%	1,293	9.4%
20-24	674	10.0%	718	10.4%	1,392	10.2%
25-34	1,053	15.6%	987	14.2%	2,040	14.9%
35-44	700	10.3%	718	10.4%	1,418	10.3%
45-54	844	12.5%	945	13.6%	1,789	13.1%
55-64	538	8.0%	653	9.4%	1,191	8.7%
65+	450	6.6%	541	7.8%	991	7.2%
<b>Total</b>	<b>6,767</b>	<b>100.0%</b>	<b>6,934</b>	<b>100.0%</b>	<b>13,701</b>	<b>100.0%</b>

Note A: Age is determined from the end date of fiscal year 2009.

Note B: Currently no data for the Denali Borough

**Table C-2. Population Estimates by Age Group, Alaska Natives, Interior Region, 2009**

Data Source: Alaska Department of Labor and Workforce Development

Age (years)	Male		Female		Total	
	n	% of Total	n	% of Total	n	% of Total
0-4	894	11.7%	746	10.1%	1,640	10.9%
5-9	675	8.8%	654	8.9%	1,329	8.8%
10-14	625	8.2%	541	7.3%	1,166	7.8%
15-19	724	9.5%	658	8.9%	1,382	9.2%
20-24	776	10.1%	679	9.2%	1,455	9.7%
25-34	1,068	14.0%	969	13.2%	2,037	13.6%
35-44	935	12.2%	886	12.0%	1,821	12.1%
45-54	923	12.1%	1,056	14.3%	1,979	13.2%
55-64	609	8.0%	631	8.6%	1,240	8.3%
65+	424	5.5%	546	7.4%	970	6.5%
<b>Total</b>	<b>7,653</b>	<b>100.0%</b>	<b>7,366</b>	<b>100.0%</b>	<b>15,019</b>	<b>100.0%</b>

Appendix C. Data Tables

**Table C -3. Highest Educational Attainment, 25 Years and Older, 2005-2009**

Data Source: U.S. Census Bureau, 2005-2009 American Community Survey

	Interior Alaska Natives		Alaska Natives Statewide		U.S. Whites	
	n	%	n	%	n	%
Less than high school	1,344	21.6%	10,755	21.5%	19,960,118	13.1%
High school diploma, GED or alternative	2,717	43.6%	22,183	44.4%	45,253,222	29.6%
Some college or associate's degree	1,765	28.3%	14,099	28.2%	43,152,529	28.3%
Bachelor's degree or higher	402	6.5%	2,914	5.8%	44,345,249	29.0%
<b>Total</b>	<b>6,228</b>	<b>100.0%</b>	<b>49,951</b>	<b>100.0%</b>	<b>152,711,118</b>	<b>100.0%</b>

**Table C-4. Unemployment, 2000-2009**

Data Source: Alaska Department of Labor and Workforce Development

Year	Interior Total Population		Alaska Total Population		U.S. Total Population	
	n	%	n	%	n	%
2009	4,303	8.0%	28,751	8.0%	N/A	9.3%
2008	3,485	6.4%	23,059	6.5%	N/A	5.8%
2007	3,198	6.0%	21,416	6.1%	N/A	4.6%
2006	3,347	6.3%	22,950	6.5%	N/A	4.6%
2005	3,455	6.5%	23,715	6.9%	N/A	5.1%
2004	3,694	7.1%	25,106	7.4%	N/A	5.5%
2003	3,820	7.6%	25,787	7.7%	N/A	6.0%
2002	3,466	7.1%	23,273	7.1%	N/A	5.8%
2001	3,056	6.4%	19,790	6.2%	N/A	4.7%
2000	3,106	6.6%	19,678	6.2%	N/A	4.0%

**Table C-5. Estimated Residents below the Poverty Level, All Ages, 2005-2009**

Data Source: U.S. Census Bureau, 2005-2009 American Community Survey

	Total		
	n	Population	%
Interior Alaska Natives	2,776	10,460	26.5%
Alaska Natives Statewide	20,117	88,847	22.6%
U.S. Whites	23,620,700	219,117,490	10.8%

**Appendix C. Data Tables**

**Table C-6. Estimated Residents below the Poverty Level, Under 18 Years of Age, 2005-2009**

Data Source: U.S. Census Bureau, 2005-2009 American Community Survey

	n	Total Population	%
Interior Alaska Natives	1,023	3,033	33.7%
Alaska Natives Statewide	7,816	28,923	27.0%
U.S. Whites	6,990,869	49,929,023	14.0%

**Table C-7. Leading Causes of Death, Alaska Natives, Interior Region, 2004-2008**

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: Surveillance, Epidemiology, and End Results Program

Note: U.S. rates are from 2004-2006

Interior Alaska Natives by Rank	n	%	Rate per 100,000	U.S. Whites Rank	Alaska Natives Statewide by Rank
1. Cancer	93	20.9%	228.7	2	1
2. Unintentional Injury	63	14.1%	110.7	5	3
3. Heart Disease	48	10.8%	128.1	1	2
4. Suicide	27	6.1%	41.1	8	4
5. Cerebrovascular Disease	17	3.8%	48.1	3	6
<b>All Causes</b>	<b>446</b>	<b>100.0%</b>	<b>1,000.1</b>		

**Table C-8. Leading Causes of Total Years of Potential Life Lost: Deaths - Years from Age 75, Alaska Natives, Interior Region, Ages 1 to 74, 2004-2008**

Alaska Data Source: Alaska Bureau of Vital Statistics

Leading Causes of Death	Total Deaths		Years of Potential Life Lost		
	n	Total	%	Mean	
Unintentional Injuries	57	2,126	23.1%	37.3	
Suicide	26	1,164	12.7%	44.8	
Malignant neoplasms	60	1,022	11.1%	17.0	
Heart Disease	26	421	4.6%	16.2	
Liver disease	9	205	2.2%	22.8	
Cerebrovascular disease	6	127	1.4%	21.2	
Bronchitis, emphysema, asthma	6	38	0.4%	6.3	
All Others	135	4,082	44.4%	30.2	
<b>All Causes</b>	<b>319</b>	<b>9,185</b>	<b>100.0%</b>	<b>28.8</b>	



Appendix C. Data Tables

**Table C-9. Age-Adjusted Cancer Death Rates per 100,000, 1984-2008**

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: Surveillance, Epidemiology, and End Results Program

Note: For the 2004-2008 time period, U.S. rates are calculated for 2004-2006.

	Interior Alaska Natives		Alaska Natives Statewide		U.S. Whites	
	n	Rate	n	Rate	n	Rate
1984-1988	49	225.1	433	243.3	2,060,372	207.6
1989-1993	64	250.1	480	245.4	2,241,802	209.9
1994-1998	66	233.6	586	248.9	2,342,924	202.9
1999-2003	66	205.2	660	239.5	2,400,904	193.5
2004-2008	93	228.7	772	227.0	1,442,824	182.4

**Table C-10. Age-Adjusted Coronary Heart Disease Death Rates per 100,000, 1984-2008**

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: Surveillance, Epidemiology, and End Results Program

Note: For the 2004-2008 time period, U.S. rates are calculated for 2004-2006.

	Interior Alaska Natives		Alaska Natives Statewide		U.S. Whites	
	n	Rate	n	Rate	n	Rate
1984-1988	68	351.1	436	288.1	3,407,551	362.5
1989-1993	61	272.0	475	271.9	3,211,591	310.2
1994-1998	65	258.8	516	252.0	3,215,181	280.2
1999-2003	52	170.4	517	211.6	3,069,015	243.6
2004-2008	48	128.1	549	173.4	1,676,390	205.1

**Table C-11. Age-Adjusted Unintentional Injury Death Rates per 100,000, 1984-2008**

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: Surveillance, Epidemiology, and End Results Program

Note: For the 2004-2008 time period, U.S. rates are calculated for 2004-2006.

	Interior Alaska Natives		Alaska Natives Statewide		U.S. Whites	
	n	Rate	n	Rate	n	Rate
1984-1988	85	248.2	573	174.0	398,916	39.1
1989-1993	62	132.7	541	133.1	377,602	35.5
1994-1998	66	127.4	484	111.7	394,689	35.1
1999-2003	66	118.9	499	107.4	434,629	36.4
2004-2008	63	110.7	491	97.7	299,968	39.9

Appendix C. Data Tables

**Table C-12. Age-Adjusted Cerebrovascular Disease Death Rates per 100,000, 1984-2008**

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: Surveillance, Epidemiology, and End Results Program

Note: For the 2004-2008 time period, U.S. rates are calculated for 2004-2006.

	Interior Alaska Natives		Alaska Natives Statewide		U.S. Whites	
	n	Rate	n	Rate	n	Rate
1984-1988	18	96.3	101	65.1	657,451	72.0
1989-1993	13	48.2	113	67.5	628,088	61.5
1994-1998	16	78.3	150	84.1	682,431	59.6
1999-2003	18	55.9	158	66.5	704,290	55.6
2004-2008	17	48.1	164	56.7	365,596	44.5

**Table C-13. Age-Adjusted Suicide Death Rates per 100,000, 1984-2008**

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: Surveillance, Epidemiology, and End Results Program

Note: For the 2004-2008 time period, U.S. rates are calculated for 2004-2006.

	Interior Alaska Natives		Alaska Natives Statewide		U.S. Whites	
	n	Rate	n	Rate	n	Rate
1984-1988	24	51.2	201	49.5	138,479	13.5
1989-1993	38	73.4	225	46.8	139,088	13.0
1994-1998	33	55.3	219	42.8	139,109	12.4
1999-2003	31	49.5	198	34.7	137,651	11.6
2004-2008	27	41.1	252	42.3	88,895	12.0

**Table C-14. Infant Mortality Rates per 1,000 Live Births, 1984-2008**

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: Surveillance, Epidemiology, and End Results Program

Note: For the 2004-2008 time period, U.S. rates are calculated for 2004-2005.

	Interior Alaska Natives		Alaska Natives Statewide		U.S. Whites	
	n	Rate	n	Rate	n	Rate
1984-1988	19	11.6	202	14.5	N/A	9.0
1989-1993	23	14.8	194	13.0	N/A	7.6
1994-1998	13	10.2	120	9.0	N/A	6.4
1999-2003	8	5.9	126	9.1	N/A	5.9
2004-2008	14	9.1	142	9.3	N/A	5.8

N/A Not Available

**Appendix C. Data Tables**

**Table C-15. Current Smokers, 18 Years and Older, 2007-2009**

Data Source: Behavioral Risk Factor Surveillance System

	n	%	Confidence Interval
Interior Alaska Natives	169	40.6%	(35.1%-46.4%)
Alaska Natives Statewide	1,169	39.5%	(36.8%-42.4%)
Alaska Non-Natives	1,994	17.1%	(16.1%-18.3%)
U.S. Whites (2008)	N/A	17.9%	N/A

N/A Not Available

**Table C-16. Current Smokeless Tobacco Users, 18 Years and Older, 2007-2009**

Alaska Data Source: Behavioral Risk Factor Surveillance System

U.S. Data Source: Substance Abuse and Mental Health Services Administration. Results from the 2008 National Survey on Drug Use and Health: Detailed Tables. Rockville (MD): Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2009.

	n	%	Confidence Interval
Interior Alaska Natives	29	8.2%	(5.5%-12.1%)
Alaska Natives Statewide	341	10.9%	(9.5%-12.5%)
Alaska Non-Natives	398	3.9%	(3.4%-4.5%)
U.S. Total Population (2008)	N/A	3.5%	N/A

N/A Not Available

**Table C-17. Binge Drinking, 18 Years and Older, 2007-2009**

Data Source: Behavioral Risk Factor Surveillance System

	n	%	Confidence Interval
Interior Alaska Natives	68	26.7%	(20.5%-33.9%)
Alaska Natives Statewide	381	19.2%	(16.6%-22.1%)
Alaska Non-Natives	1,225	17.1%	(15.8%-18.5%)
U.S. Whites (2008)	N/A	16.0%	N/A

N/A Not Available

**Appendix C. Data Tables**

**Table C-18. Meets Moderate and/or Vigorous Physical Activity, 18 years and Older, 2007 and 2009**

Data Source: Behavioral Risk Factor Surveillance System

	n	%	Confidence Interval
Interior Alaska Natives	79	72.5%	(61.8%-81.1%)
Alaska Natives Statewide	567	67.3%	(62.2%-72.0%)
Alaska Non-Natives	2,579	75.0%	(72.9%-77.0%)
U.S. Whites (2009)	N/A	51.8%	N/A

N/A Not Available

**Table C-19. Overweight (25 ≤ BMI ≤ 29.9), 18 Years and Older, 2007-2009**

Data Source: Behavioral Risk Factor Surveillance System

	n	%	Confidence Interval
Interior Alaska Natives	146	35.8%	(30.5%-41.5%)
Alaska Natives Statewide	1,032	37.3%	(34.5%-40.2%)
Alaska Non-Natives	4,282	38.4%	(37.0%-39.8%)
U.S. Whites (2008)	N/A	36.3%	N/A

N/A Not Available

**Table C-20. Obesity (BMI ≥ 30), 18 Years and Older, 2007-2009**

Data Source: Behavioral Risk Factor Surveillance System

	n	%	Confidence Interval
Interior Alaska Natives	156	34.8%	(29.7%-40.2%)
Alaska Natives Statewide	1,069	34.5%	(31.9%-37.2%)
Alaska Non-Natives	3,047	25.7%	(24.5%-26.9%)
U.S. Whites (2008)	N/A	25.4%	N/A

N/A Not Available

**Table C-21. Lifetime Intimate Partner Violence, 18 Years and Older, 2009**

Data Source: Behavioral Risk Factor Surveillance System

	n	%	Confidence Interval
Interior Alaska Natives	24	32.7%	(20.6%-47.6%)
Alaska Natives Statewide	141	36.7%	(29.6%-44.5%)
Alaska Non-Natives	365	18.5%	(15.9%-21.5%)

Appendix C. Data Tables

**Table C-22. Abstinence from Tobacco Use During Pregnancy, Pregnant Women, 1989-2008**

Data Source: Alaska Bureau of Vital Statistics

	Interior Alaska Natives		Alaska Natives Statewide		Alaska Whites	
	n	%	n	%	n	%
1989-1993	710	52.5%	7,948	59.5%	31,352	81.3%
1994-1998	675	61.9%	7,448	63.2%	28,058	84.2%
1999-2003	798	69.8%	8,044	66.4%	26,845	86.6%
2004-2008	889	68.5%	9,288	68.6%	29,283	89.0%

**Table C-23. Abstinence from Alcohol Use During Pregnancy, Pregnant Women, 1989-2008**

Data Source: Alaska Bureau of Vital Statistics

	Interior Alaska Natives		Alaska Natives Statewide		Alaska Whites	
	n	%	n	%	n	%
1989-1993	919	67.8%	10,681	80.1%	36,179	93.9%
1994-1998	996	91.4%	10,415	88.4%	32,441	97.3%
1999-2003	1,103	96.7%	11,372	94.1%	30,438	98.2%
2004-2008	1,224	94.4%	12,957	95.8%	32,248	98.1%

**Table C-24. High School Students Who Smoked Cigarettes on One or More of the Past 30 Days, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System

	n	Alaska Natives	Alaska	U.S.
		Statewide	Non-Natives	Whites‡
2003		117	135	6,330
	%	44.2%	12.2%	24.9%
	Confidence Interval	(38.6%-50.0%)	(10.2%-14.6%)	(22.4%-27.5%)
2007		63	122	5,574
	%	31.7%	13.1%	23.2%
	Confidence Interval	(24.3%-40.2%)	(10.8%-15.7%)	(20.4%-26.2%)
2009		64	122	6,698
	%	24.2%	13.0%	22.5%
	Confidence Interval	(17.0%-33.2%)	(10.5%-15.9%)	(20.5%-25.2%)

‡ Non Hispanic

**Appendix C. Data Tables**

**Table C-25. High School Students Who Chewed Tobacco or Snuff on One or More of the Past 30 Days, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System

		<b>Alaska Natives Statewide</b>	<b>Alaska Non-Natives</b>	<b>U.S. Whites‡</b>
2003	n	66	89	6,289
	%	24.4%	7.4%	7.6%
	Confidence Interval	(15.2%-36.7%)	(5.7%-9.6%)	(5.8%-9.8%)
2007	n	41	90	5,587
	%	16.5%	8.3%	10.3%
	Confidence Interval	(8.0%-31.1%)	(6.6%-10.5%)	(8.2%-12.9%)
2009	n	60	99	6,775
	%	22.1%	10.8%	11.9%
	Confidence Interval	(14.6%-32.1%)	(7.9%-14.7%)	(9.5%-14.6%)

‡ Non Hispanic

**Table C-26. High School Students Who Had at Least One Drink of Alcohol on One or More of the Past 30 Days, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System

		<b>Alaska Natives Statewide</b>	<b>Alaska Non-Natives</b>	<b>U.S. Whites‡</b>
2003	n	102	434	6,196
	%	37.6%	39.0%	47.1%
	Confidence Interval	(27.3%-49.1%)	(35.0%-43.1%)	(44.1%-50.2%)
2007	n	93	376	5,440
	%	40.7%	39.4%	47.3%
	Confidence Interval	(30.0%-52.4%)	(35.7%-43.2%)	(43.9%-50.7%)
2009	n	84	317	6,429
	%	32.3%	33.5%	44.7%
	Confidence Interval	(27.5%-37.5%)	(29.6%-37.6%)	(42.4%-47.1%)

‡ Non Hispanic

**Appendix C. Data Tables**

**Table C-27. High School Students Reporting Binge Drinking on One or More of the Past 30 Days, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System

		<b>Alaska Natives Statewide</b>	<b>Alaska Non-Natives</b>	<b>U.S. Whites‡</b>
2003	n	78	302	6,383
	%	26.8%	26.4%	31.8%
	Confidence Interval	(17.0%-39.7%)	(22.7%-30.5%)	(29.8%-33.9%)
2007	n	66	250	5,683
	%	26.9%	25.4%	29.8%
	Confidence Interval	(18.3%-37.6%)	(22.1%-29.0%)	(27.4%-32.4%)
2009	n	49	226	6,778
	%	19.0%	22.5%	27.8%
	Confidence Interval	(14.3%-24.8%)	(19.4%-26.1%)	(25.7%-29.9%)

‡ Non Hispanic

**Table C-28. High School Students Who Used Marijuana on One or More of the Past 30 Days, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System

		<b>Alaska Natives Statewide</b>	<b>Alaska Non-Natives</b>	<b>U.S. Whites‡</b>
2003	n	100	236	6,548
	%	35.7%	20.5%	21.7%
	Confidence Interval	(30.1%-41.8%)	(17.9%-23.4%)	(19.4%-24.2%)
2007	n	74	172	5,713
	%	31.8%	16.7%	19.9%
	Confidence Interval	(23.3%-41.6%)	(14.1%-19.6%)	(17.4%-22.6%)
2009	n	79	208	6,824
	%	28.7%	20.6%	20.7%
	Confidence Interval	(21.0%-37.9%)	(17.7%-24.0%)	(18.9%-22.6%)

‡ Non Hispanic

**Appendix C. Data Tables**

**Table C-29. High School Students Who Used Any Form of Cocaine, Including Powder, Crack or Freebase During Their Lifetime, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System

		<b>Alaska Natives Statewide</b>	<b>Alaska Non-Natives</b>	<b>U.S. Whites‡</b>
2003	n	21	77	6,349
	%	7.3%	6.4%	8.7%
	Confidence Interval	(4.4%-12.0%)	(5.1%-8.0%)	(7.4%-10.2%)
2007	n	22	86	5,741
	%	7.2%	7.9%	7.4%
	Confidence Interval	(4.0%-12.7%)	(6.0%-10.5%)	(6.3%-8.7%)
2009	n	15	89	6,846
	%	4.0%	8.6%	6.3%
	Confidence Interval	(2.0%-7.6%)	(6.8%-10.7%)	(5.3%-7.4%)

‡ Non Hispanic

**Table C-30. High School Students Who Engage in Recommended Levels of Physical Activity, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System

		<b>Alaska Natives Statewide</b>	<b>Alaska Non-Natives</b>	<b>U.S. Whites‡</b>
2007	n	86	479	5,729
	%	32.1%	46.1%	37.0%
	Confidence Interval	(24.2%-41.3%)	(42.3%-49.9%)	(33.9%-40.3%)
2009	n	106	465	6,818
	%	34.9%	44.9%	39.9%
	Confidence Interval	(26.9%-43.7%)	(41.2%-48.5%)	(37.6%-42.1%)

‡ Non Hispanic



**Appendix C. Data Tables**

**Table C-31. High School Students Who are Overweight, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System

		<b>Alaska Natives Statewide</b>	<b>Alaska Non-Natives</b>	<b>U.S. Whites‡</b>
2003	n	37	173	6,052
	%	13.0%	14.9%	13.3%
	Confidence Interval	(9.3%-18.0%)	(12.6%-17.4%)	(12.1%-14.5%)
2007	n	54	149	5,483
	%	21.3%	14.4%	14.3%
	Confidence Interval	(15.6%-28.5%)	(12.2%-17.0%)	(12.9%-15.7%)
2009	n	49	144	6,549
	%	16.7%	13.6%	13.6%
	Confidence Interval	(12.3%-22.3%)	(11.4%-16.1%)	(12.0%-15.4%)

‡ Non Hispanic

**Table C-32. High School Students Who are Obese, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System

		<b>Alaska Natives Statewide</b>	<b>Alaska Non-Natives</b>	<b>U.S. Whites‡</b>
2003	n	37	111	6,052
	%	13.7%	10.2%	10.4%
	Confidence Interval	(8.3%-21.6%)	(8.2%-12.7%)	(8.6%-12.4%)
2007	n	32	112	5,483
	%	13.4%	10.3%	10.8%
	Confidence Interval	(8.6%-20.3%)	(8.4%-12.6%)	(9.3%-12.4%)
2009	n	31	117	6,549
	%	11.6%	11.8%	10.3%
	Confidence Interval	(9.0%-14.8%)	(9.6%-14.6%)	(8.8%-12.0%)

‡ Non Hispanic

**Appendix C. Data Tables**

**Table C-33. High School Students Who Have Ever Engaged in Sexual Intercourse, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System

		<b>Alaska Natives Statewide</b>	<b>Alaska Non-Natives</b>	<b>U.S. Whites‡</b>
2003	n	132	385	5,711
	%	50.3%	36.5%	41.8%
	Confidence Interval	(40.4%-60.2%)	(32.0%-41.2%)	(39.0%-44.5%)
2007	n	117	411	5,434
	%	49.3%	43.6%	43.7%
	Confidence Interval	(43.6%-55.1%)	(39.2%-48.1%)	(40.5%-47.0%)
2009	n	124	402	6,541
	%	49.4%	41.6%	42.0%
	Confidence Interval	(42.4%-56.5%)	(37.0%-46.3%)	(37.9%-46.3%)

‡ Non Hispanic

**Table C-34. High School Students Reporting Sad or Hopeless Feelings That Caused Them to Stop Doing Some Usual Activities During the Past 12 Months, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System

		<b>Alaska Natives Statewide</b>	<b>Alaska Non-Natives</b>	<b>U.S. Whites‡</b>
2003	n	77	300	6,369
	%	25.1%	25.3%	26.2%
	Confidence Interval	(19.2%-32.1%)	(22.5%-28.4%)	(24.1%-28.4%)
2007	n	90	274	5,737
	%	31.7%	25.2%	26.2%
	Confidence Interval	(26.6%-37.3%)	(22.0%-28.7%)	(24.5%-28.0%)
2009	n	84	280	6,801
	%	25.6%	25.1%	23.7%
	Confidence Interval	(20.0%-32.2%)	(22.0%-28.5%)	(22.1%-25.3%)

‡ Non Hispanic

**Appendix C. Data Tables**

**Table C-35. High School Students Who Attempted Suicide One or More Times During the Past 12 Months, 2003, 2007 and 2009**

Data Source: Youth Risk Behavior Surveillance System

		<b>Alaska Natives Statewide</b>	<b>Alaska Non-Natives</b>	<b>U.S. Whites‡</b>
2003	n	39	68	6,135
	%	15.4%	6.0%	6.9%
	Confidence Interval	(10.3%-22.4%)	(4.6%-7.8%)	(5.9%-8.0%)
2007	n	43	70	5,463
	%	20.2%	7.4%	5.6%
	Confidence Interval	(13.5%-29.1%)	(5.9%-9.3%)	(5.0%-6.3%)
2009	n	29	71	6,459
	%	12.5%	7.1%	5.0%
	Confidence Interval	(6.1%-24.0%)	(5.4%-9.4%)	(4.4%-5.7%)

‡ Non Hispanic

**Table C-36. Live Births with Low Birth Weight, 1994-2008**

Data Source: Alaska Bureau of Vital Statistics

	<b>Interior Alaska Natives</b>		<b>Alaska Natives Statewide</b>		<b>U.S. Whites</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
1994-1996	23	3.5%	377	5.4%	N/A	6.2%
1997-1999	63	8.5%	428	5.9%	N/A	N/A
2000-2002	37	5.0%	428	5.9%	N/A	6.6%
2003-2005	30	4.2%	442	5.7%	N/A	7.2%
2006-2008	48	5.7%	458	5.5%	N/A	7.2%

Note 1: The U.S. data is for the following years: 1995, 2000, 2005, and 2007

Note 2: Interior is defined as the Doyon Alaska Native Corporation Census Boundary

**Appendix C. Data Tables**

**Table C-37. Fertility Rate per 1,000 Females, Ages 15-44 Years, 1984-2008**

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: National Center for Health Statistics. Health, United States, 2010: With Special Feature on Death and Dying. Hyattsville, MD. 2011.

Note: The U.S. data is for the following years: 1985, 1990, 1995, 2000, and 2005.

	Interior Alaska Natives		Alaska Natives Statewide		U.S. Whites	
	n	Rate	n	Rate	n	Rate
1984-1988	1,406	131.6	12,114	136.5	N/A	64.1
1989-1993	1,366	107.6	13,419	131.0	N/A	68.3
1994-1998	1,105	82.4	11,743	104.5	N/A	63.6
1999-2003	1,177	83.1	12,153	99.9	N/A	65.3
2004-2008	1,320	88.4	13,553	107.4	N/A	66.3

N/A - Not Available

**Table C-38. Teen Birth Rate per 1,000 Females, Ages 15-19 Years, 1984-2008**

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: National Center for Health Statistics. Health, United States, 2010: With Special Feature on Death and Dying. Hyattsville, MD. 2011.

Note: The U.S. data is for the following years: 1985, 1990, 1995, 2000, and 2005.

	Interior Alaska Natives		Alaska Natives Statewide		U.S. Whites	
	n	Rate	n	Rate	n	Rate
1984-1988	197	108.5	1,829	116.5	N/A	43.3
1989-1993	214	99.7	2,010	111.6	N/A	50.8
1994-1998	196	75.5	1,966	92.1	N/A	49.5
1999-2003	221	69.6	2,144	81.2	N/A	43.2
2004-2008	202	57.2	2,295	79.3	N/A	37.0

N/A Not Available

**Appendix C. Data Tables**

**Table C-39. Breastfeeding Initiation, 2004-2008**

Alaska Data Source: Alaska Pregnancy Risk Assessment Monitoring System

U.S. Data Source: Breastfeeding Among U.S. Children Born 1999-2007, CDC National Immunization Survey.

[http://www.cdc.gov/breastfeeding/data/NIS\\_data/index.htm](http://www.cdc.gov/breastfeeding/data/NIS_data/index.htm)

Note: The U.S. data uses a slightly different definition for measuring breastfeeding. Breastfeeding initiation in the Pregnancy, Risk and Assessment Monitoring System roughly corresponds to the National Immunization Survey's breastfeeding ever data.

	<b>n</b>	<b>%</b>	<b>Confidence Interval</b>
Interior Alaska Natives	192	84.2%	(79.3%-88.1%)
Alaska Natives Statewide (2006)	N/A	91.4%	N/A
U.S. Total Population (2006)	24,866	74.0%	(73.1%-74.9%)

N/A Not Available

**Table C-40. Breastfeeding 8 Weeks Postpartum, 2004-2008**

Alaska Data Source: Alaska Pregnancy Risk Assessment Monitoring System

U.S. Data Source: Breastfeeding Among U.S. Children Born 1999-2007, CDC National Immunization Survey.

[http://www.cdc.gov/breastfeeding/data/NIS\\_data/index.htm](http://www.cdc.gov/breastfeeding/data/NIS_data/index.htm)

Note: The U.S. data uses a slightly different definition for measuring breastfeeding. Breastfeeding at eight weeks postpartum in the Pregnancy, Risk and Assessment Monitoring System roughly corresponds to the National Immunization Survey's breastfeeding at two months.

	<b>n</b>	<b>%</b>	<b>Confidence Interval</b>
Interior Alaska Natives	126	56.9%	(50.6%-62.9%)
Alaska Natives Statewide (2006)	N/A	65.7%	N/A
U.S. Total Population (2006)	N/A	62.5%	(61.5%-63.5%)

N/A Not Available

**Table C-41. Intimate Partner Violence - Childhood Witness, 18 Years and Older, 2009**

Data Source: Behavioral Risk Factor Surveillance System

	<b>n</b>	<b>%</b>	<b>Confidence Interval</b>
Alaska Natives Statewide	134	31.1%	(24.8%-38.0%)
Alaska Non-Natives	295	17.2%	(14.7%-20.1%)

**Appendix C. Data Tables**

**Table C-42. Pap Test within the Past Three Years, Women, 18 Years and Older, 2008**

Data Source: Behavioral Risk Factor Surveillance System

	n	%	Confidence Interval
Alaska Natives Statewide	224	86.2%	(78.7%-91.3%)
Alaska Non-Natives	689	83.0%	(77.7%-87.2%)
U.S. Whites	N/A	83.0%	N/A

N/A Not Available

**Table C-43. Mammogram in Last Two Years, Women, 40 Years and Older, 2008**

Data Source: Behavioral Risk Factor Surveillance System

	n	%	Confidence Interval
Alaska Natives Statewide	127	62.8%	(52.8%-71.9%)
Alaska Non-Natives	523	68.8%	(63.8%-73.5%)
U.S. Whites	N/A	76.1%	N/A

N/A Not Available

**Table C-44. Flexible Sigmoidoscopy or Colonoscopy Ever, Adults, 50 Years and Older, 2006 and 2008**

Data Source: Behavioral Risk Factor Surveillance System

	n	%	Confidence Interval
Interior Alaska Natives	41	58.1%	(42.5%-72.3%)
Alaska Natives Statewide	210	54.1%	(47.0%-61.0%)
Alaska Non-Natives	958	57.0%	(53.6%-60.5%)
U.S. Whites (2008)	N/A	64.0%	N/A

N/A Not Available

**Table C-45. Influenza Vaccination Rates, Adults, 65 Years and Older, June 30, 2009 to June 30, 2010**

Alaska Data Source: Alaska Native Tribal Health Consortium Immunization Registry

U.S. Data Source: Center for Disease Control and Prevention Wonder, Healthy People

Note: Interior Alaska Native data are from the Tanana Chief's Conference, and are based on the age 65 and older user population

	n	%
Interior Alaska Natives	266	36.5%
Alaska Natives Statewide	3,169	48.9%
U.S. Whites (2008)	N/A	69.0%

N/A Not Available

**Appendix C. Data Tables**

**Table C-46. Pneumococcal Vaccination Rates, Adults, 65 Years and Older, as of June 30, 2010**

Alaska Data Source: Alaska Native Tribal Health Consortium Immunization Registry

U.S. Data Source: Center for Disease Control and Prevention Wonder, Healthy People

Note: Interior Alaska Native data are from Tanana Chief’s Conference, and based on the age 65 and older user population

	n	%
Interior Alaska Natives	668	91.6%
Alaska Natives Statewide	5,982	92.2%
U.S. Whites (2008)	N/A	63.0%

N/A Not Available

**Table C-47. Vaccination Coverage, Two Years Olds, as of June 30, 2010**

Alaska Data Source: Alaska Native Tribal Health Consortium Immunization Registry

U.S. Data Source: National Center for Health Statistics, Health, United States, 2008, With Chartbook, Hyattsville, MD: 2009

Note: Interior Alaska Native data are from Tanana Chief’s Conference, and based on the age 65 and older user population

	n	%
Interior Alaska Natives	113	69.6%
Alaska Natives Statewide	2,941	79.7%
U.S. Whites (2007)	N/A	78.0%

N/A Not Available

**Table C-48. Adequate Prenatal Care, Pregnant Women, 1989-2008**

Data Source: Alaska Bureau of Vital Statistics

	Interior Alaska Natives		Alaska Natives Statewide		Alaska Whites	
	n	%	n	%	n	%
1989-1993	785	58.3%	7,933	60.1%	29,854	78.1%
1994-1998	584	54.3%	6,678	57.6%	25,609	77.4%
1999-2003	502	45.3%	5,730	49.0%	21,944	75.8%
2004-2008	472	38.7%	5,724	43.5%	22,251	73.6%

**Table C-49. Dentist or Dental Clinic Visit Within the Past Year for Any Reason, 18 Years and Older, 2008**

Data Source: Behavioral Risk Factor Surveillance System

	n	%	Confidence Interval
Interior Region Alaska Natives	49	55.0%	(41.7%-67.6%)
Alaska Natives Statewide	306	56.2%	(49.5%-62.7%)
Alaska Non-Natives	1,368	67.4%	(64.1%-70.6%)
U.S. Whites	N/A	73.5%	N/A

N/A Not Available

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## Appendix E. Glossary of Terms

**Age-Adjusted Rate** - 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 U.S. Standard Population.

**Body Mass Index** - A weight by 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>
Youth Overweight .....	85 <sup>th</sup> ≤ BMI < 95 <sup>th</sup> percentile	Youth Obese .....	BMI ≥ 95 <sup>th</sup> percentile

**Crude Rate** - 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 and then multiplied by 100,000 or other appropriate multiplier. When interpreting crude rates, be aware that the rates may be affected by differences in the age distribution between the comparison populations.

**Healthy People Goal** - Healthy People 2020 national goals sets health targets to be achieved by the year 2020. Healthy People 2020 provides a framework for health promotion and disease prevention.

**Infant Mortality Rate** - A rate calculated by dividing the number of infant deaths during a given time period by the number of live births reported in the same time period. 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)** - An international system designed to classify diseases and other health problems in medical records. The ICD is developed collaboratively between the World Health Organization and ten international centers.

**Mortality Rate** - Also referred to as death rate, it is the proportion of a population that dies during a specified period. It is calculated by dividing the number of deaths during a given time period by the appropriate population for that time period. It is generally reported as the number of deaths per 100,000.

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

**Rate Ratio** - A comparison of two groups in terms of incidence rates, mortality rates, etc.

**Weighted percent** - The resulting percent 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.

## Errata

8/31/2011

- “Coronary Heart Disease” was changed to “Heart Disease” on pages ii, 4, 29, 99, 114 and 117.
  - An additional note should be added to page 29 stating, “Note: The Healthy People Goal aims to reduce coronary heart disease deaths. The data presented includes deaths due to all heart disease.”
  - The data for the *Leading Causes of Outpatient Visits* (p. 36) was obtained from the Indian Health Service National Patient Information Reporting System - National Data Warehouse. The data is organized by the first listed ICD-9 codes. This is not necessarily the primary cause for the visit.
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