

Norton Sound Regional Health Data Profile



Map courtesy of
Norton Sound Health Corporation



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Alaska Native Tribal Health Consortium

- Alaska Area Diabetes Program Diabetes Registry
- Division of Environmental Health and Engineering
- Immunization Program
- Injury Prevention Program

Indian Health Service

- Alaska Area Indian Health Service

State of Alaska

- Alaska Trauma Registry
- Behavioral Risk Factor Surveillance System
- Bureau of Vital Statistics
- HIV/STD Program
- Youth Risk Behavior Survey

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Introduction

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

Alaska Native people are continuing to make progress toward the Alaska Native Tribal Health Consortium vision. Monitoring health status helps us to know where the Alaska Native population is on the path to becoming the healthiest people and how far there is to go to reach this vision.

This report provides an overview of the health status of Alaska Native people in the Norton Sound region. By using data to monitor health status, significant improvements in health over time can be demonstrated. In addition, health areas which are a concern, or for which inequities exist, can be readily identified for improvement.

This report covers demographics, leading causes of mortality, adolescent and adult lifestyle risk factors, maternal and child health issues, cancer and cancer screening, immunizations, diabetes, infectious diseases, and environmental health. The health status topics found in this report were selected from the national Healthy People 2010 document. They were chosen based upon the health priorities of the Alaska Native Tribal Health System and by what data were available. Various data sources were accessed to compile this document. Each data source contains certain limitations which should be considered when using the data. Appendixes A and B explain these limitations as well as providing detailed information about the data sources.

Data is only part of the decision-making process. This document serves as a useful reference tool for all those interested in Norton Sound Alaska Native health issues and for those interested in contributing to achieving the vision of the Alaska Native population becoming the healthiest people in the world.

How is the regional health profile organized?

This section outlines the regional health profile, provides a map of the region, and gives a description of the appendixes. It also includes the *Regional Health Profile Overview*, which is a table that provides an overview of the data presented in this document.

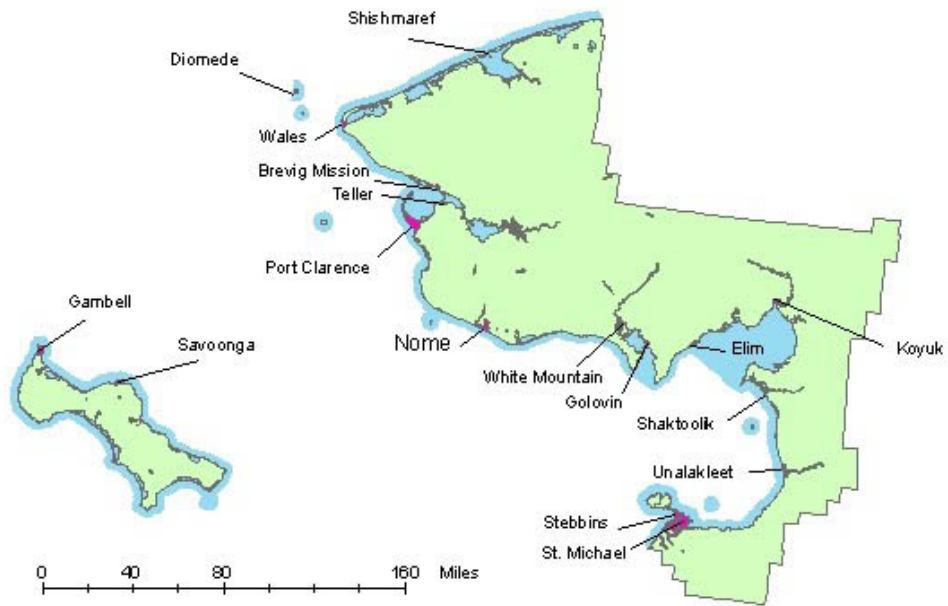
Health indicators are presented in the following five sections:

1. **Demographics** includes data for population estimates, user population, population change, educational attainment, unemployment, poverty status, and household income.
2. **Mortality** includes data about deaths including: leading causes, cancer, heart disease, unintentional injury, leading causes of injury, suicide, and infant.
3. **Health Behavior** includes adult and adolescent data on tobacco use, alcohol consumption, physical activity, obesity, sexual behavior, and substance use.
4. **Health Indicators** includes leading causes of inpatient and outpatient visits as well as information on injury-related hospitalizations. In addition this section covers leading cancers, diabetes, low birth weight, teen birth rate, and sexually transmitted infections.
5. **Preventive Services and Access to Health Care** includes data on cervical, breast, and colorectal cancer screening, influenza and pneumococcal vaccination for ages 65 and older, two-year old vaccinations, prenatal care, and water and sewer service.

These main sections are followed by the appendixes:

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

Norton Sound Region Map



Source: Alaska Department of Labor And Workforce Development, Research and Analysis and US Census Bureau, 2000 Tigerline files.

Regional Health Profile Overview

Indicator	Healthy People 2010 Objective	Norton Sound Alaska Natives	Alaska Natives Statewide	U.S. Whites	Time Period
Mortality & Morbidity					
Leading causes of death	N/A	Cancer	Cancer	Heart Disease 2007 193.4	2004-2007
Cancer death rate - per 100,000	159.9	234.6	226.3	(2004-2005)	2004-2008
Coronary heart disease death rate - per 100,000	166.0	149.9	172.7	209.5 (2004-2005)	2004-2008
Unintentional injury death rate - per 100,000	17.5	136.1	97.7	39.3 (2004-2005)	2004-2008
Leading causes of injury death	N/A	Suicide	Suicide	Motor Vehicle Accidents ¹ 12.0	1999-2005
Suicide death rate - per 100,000	5.0	75.8	42.3	(2004-2005)	2004-2008
Infant mortality rate - per 1,000 live births	4.5	14.0	9.3	5.8 (2004-2005)	2004-2008
Health Behavior					
Percent of adults who currently smoke	12.0%	58.0%	40.7%	19.5% (2006)	2005-2007
Percent of adults who currently use smokeless tobacco	0.4%	9.0%	10.4%	4.3% ² (2007)	2005-2007
Percent of adults who engage in binge drinking	6.0%	22.1%	18.1%	15.8% (2006)	2005-2007
Percent of adults who engage in regular, preferably daily, moderate physical activity	30.0%	40.1%	55.4%	49.1% 25.1%	2005
Percent of obese adults	15.0%	21.6%	31.1%	(2006)	2005-2007

¹ 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>.

² Substance Abuse and Mental Health Services Administration. Results from the 2007 National Survey on Drug Use and Health: Detailed Tables. Rockville (MD): Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2007. N/A Not Available

Note: Sources for data not listed here are provided in the appropriate section of this report.

Regional Health Profile Overview

Indicator	Healthy People 2010 Objective	Norton Sound Alaska Natives	Alaska Natives Statewide	U.S. Whites	Time Period
Health Behavior					
Percent of overweight adults	N/A	32.5%	38.1%	36.5% (2006)	2005-2007
Percent of pregnant women who reported abstinence from cigarette smoking	N/A	45.2%	68.6%	87.0% ¹ (2006)	2006-2008
Percent of pregnant women who reported abstinence from alcohol use	N/A	92.6%	95.7%	N/A	2006-2008
Percent of overweight adolescents	5.0%	†	13.2%	10.8%	2007
Percent of adolescents who engage in recommended levels of physical activity	85.0%	†	32.2%	37.0%	2007
Percent of adolescents who reported cigarette smoking during the past month	16.0%	†	31.7%	23.2%	2007
Percent of adolescents who reported spit tobacco use during the past month	1.0%	†	16.6%	10.3%	2007
Percent of adolescents using alcohol during the past 30 days	N/A	†	40.8%	47.3%	2007
Percent of adolescents who have ever engaged in sexual intercourse	25.0%	†	49.4%	43.7%	2007
Percent of adolescents who reported marijuana use in the past 30 days	0.7%	†	31.7%	19.9%	2007
Percent of adolescents who reported using cocaine during the past 30 days	N/A	†	7.3%	7.4%	2007

¹ National Center for Health Statistics, Health, United States, 2009: With Special Feature on Medical Technology. Hyattsville, MD. 2010.

N/A Not Available

† Numbers too small

Note: Sources for data not listed here are provided in the appropriate section of this report.

Regional Health Profile Overview

Indicator	Healthy People 2010 Objective	Norton Sound Alaska Natives	Alaska Natives Statewide	U.S. Whites	Time Period
Health Indicators					
Leading Causes of Inpatient Discharges	N/A	Normal pregnancy and/or delivery	Liveborn	Pregnancy ¹ Routine	FFY 2009
Leading Causes of Outpatient Visits	N/A	Other upper respiratory infections	Admin/ social	infant or child health check ²	FFY 2009
Leading Causes of Injury Hospitalizations	N/A	Falls	Suicide attempt	Falls ³ (1995-2000)	1991-2003
Unintentional injury hospitalization - per 10,000	N/A	110.7	99.8	N/A	1991-2003
Fall hospitalization - per 10,000	N/A	38.4	38.7	N/A	1991-2003
Suicide attempts hospitalization - per 10,000	N/A	34.2	20.4	N/A	1991-2003
Assault hospitalization - per 10,000	N/A	15.2	18.5	N/A	1991-2003
Leading Cancers	N/A	Lung	Colorectal	Breast ⁴	1998-2007
Clinically diagnosed diabetes - per 1,000	25.0	29.0	40.0	N/A	2007
Percent increase in diabetes prevalence	N/A	201.0%	117.0%	N/A	1990-2007
Low birth weight Pregnancies among 15-19 year old females - per 1,000	4.5%	5.0%	5.5%	7.2% ³ (2006)	2006-2008
	43.0	103.6	75.6	38.0 (2006)	2004-2006

¹Levit K (Thomson Reuters), Wier L (Thomson Reuters), Stranges E (Thomson Reuters), Ryan K (Thomson Reuters), Elixhauser A (AHRQ). HCUP Facts and Figures: Statistics on Hospital-based Care in the United States, 2007. Rockville, MD: Agency for Healthcare Research and Quality, 2009 (<http://www.hcup.us-ahrq.gov/reports.jsp>).

²Schappert SM, Rechtsteiner EA. Ambulatory medical care utilization estimates for 2006. National health statistics reports; number 8. Hyattsville, MD: National Center for Health Statistics, 2008.

³National Center for Health Statistics, Health, United States, 2009: With Special Feature on Medical Technology. Hyattsville, MD.2010.

⁴Altekruse SF, Kosary CL, Krapcho M, Neyman N, Aminou R, Waldron W, Ruhl J, Howlander N, Tatalovich Z, Cho H, Mariotto A, Eisner MP, Lewis DR, Cronin K, Chen HS, Feuer EJ, Stinchcomb DG, Edwards BK (eds). SEER Cancer Statistics Review, 1975-2007, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2007/, based on November 2009 SEER data submission, posted to the SEER website, 2010.

FFY Federal Fiscal Year

N/A Not Available

Note: Sources for data not listed here are provided in the appropriate section of this report.

Regional Health Profile Overview

Indicator	Healthy People 2010 Objective	Norton Sound Alaska Natives	Alaska Natives Statewide	U.S. Whites	Time Period
Health Indicators					
Persons with Gonorrhea - per 100,000	N/A	599.7	305.5	114.6** ¹	2005
Persons with Chlamydia - per 100,000	N/A	1,582.2	2,052.3	329.4** ¹	2005
Preventive Services and Access to Health Care					
Percent of women aged 18 years and older who received a Pap test within the preceding three years	90.0%	†	89.0%	84.9% (2006)	2004 & 2006
Percent of women aged 40 years and older who have received a mammogram within the preceding two years	70.0%	†	74.0%	77.0% (2006)	2004 & 2006
Percent of adults aged 50 years and older who have ever received a sigmoidoscopy or colonoscopy	50.0%	†	52.8%	59.1% (2006)	2004 & 2006
Percent of elderly adults immunized against influenza in the past 12 months	90.0%	70.8%	48.9%	69.0% (2008)	2009-2010
Percent of elderly adults who have ever been immunized against pneumococcal disease	90.0%	94.1%	92.2%	63.0% (2008)	2010
Percent of young children aged 19 to 35 months who have received the 4:3:1:3:3	80.0%	86.7%	82.4%	78.0%** ¹ (2007)	2010
Percent of women who receive adequate prenatal care	90.0%	46.6%	41.8%	70.2% (2006)	2006-2008
Percent of communities with access to safe water and proper sewage disposal	N/A	64.0%	76.0%	N/A	2008

¹National Center for Health Statistics, Health, United States, 2009: With Special Feature on Medical Technology, Hyattsville, MD: 2010.

** U.S. Total Population

N/A Not Available

† Numbers too small

Note: Sources for data not listed here are provided in the appropriate section of this report.

Demographics

Population Estimates

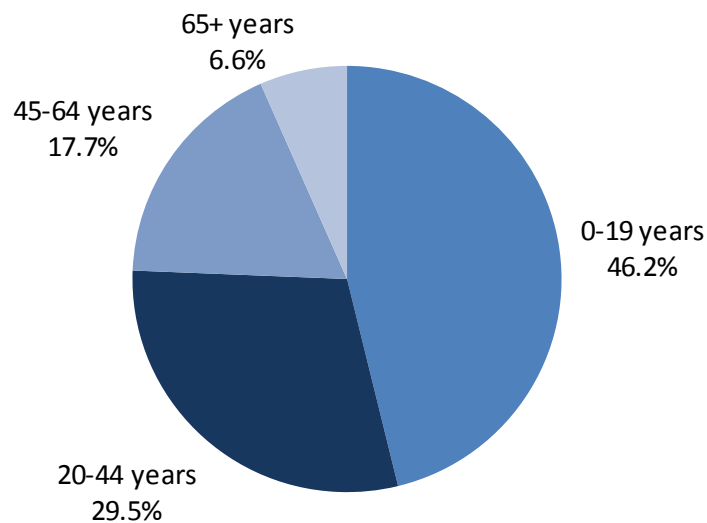
Definition: The State of Alaska Department of Labor and Workforce Development uses the U.S. Census, vital records and other data to calculate “bridged” **population estimates** between census years. “Bridged” refers to a method that makes multiple race and single race categories comparable over time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

Summary

- The Alaska Department of Labor and Workforce Development estimated that 7,247 Alaska Natives lived in Norton Sound in 2009. This represents 76.3% of Norton Sound’s total population (9,500).
- Almost half (46.2%) of the Alaska Native population in Norton Sound was under the age of 20 in 2009.

Figure 1. Population Estimates by Age Group, Alaska Natives, Norton Sound, 2009 (N=7,247)

Data Source: Alaska Department of Labor and Workforce Development
Data Table C-1 in Appendix



Population Pyramid

Definition: A **population pyramid** is a graphical representation of the age and sex distribution of a population. The proportion of the males and females in each age group are displayed as horizontal bars. The gray lines show the distribution of the 2008 U.S. total population.

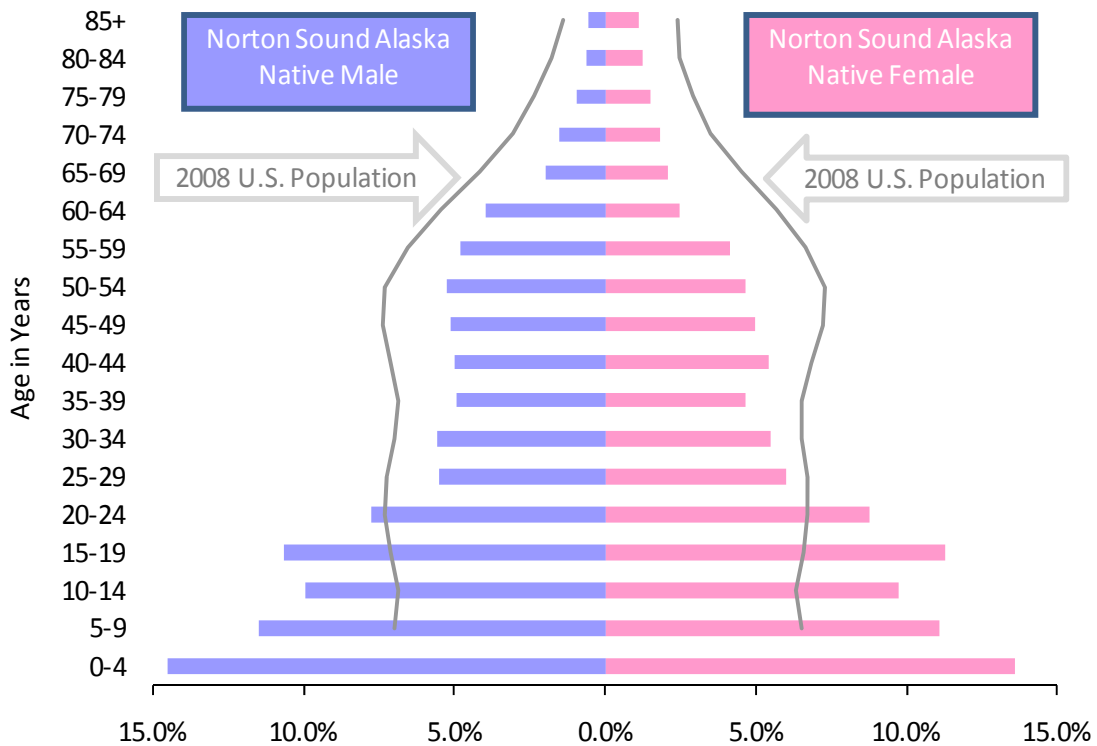
Summary

- A larger proportion (46.2%) of the Norton Sound Alaska Native population was under the age of 20 compared to the U.S. population (27.2%).
- In 2009, men and women made up 52.3% and 47.7%, respectively, of the Alaska Native population in Norton Sound.

Figure 2. Population Pyramid, Alaska Natives, Norton Sound, 2009

Data Source: Alaska Department of Labor and Workforce Development

U.S. Data Source: U.S. Census



User Population

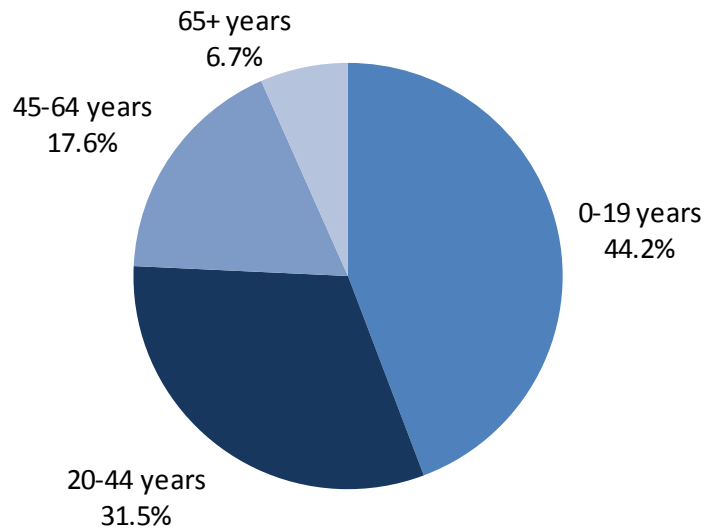
Definition: The Indian Health Service defines the **user population** as an eligible American Indian/ Alaska Native person who used a tribal health facility at least once during the previous three year period. The facility must have been one that reported to the national Indian Health Service data system. 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

- 44.2% of the Norton Sound user population was under the age of 20 years in 2009.
- 6.7% percent of the Norton Sound user population was 65 years of age or older.

Figure 3. User Population by Age Group, Norton Sound, Fiscal Year 2009 (N=8,269)

Data Source: Alaska Area Indian Health Service; National Patient Information Reporting System, Indian Health Service National Data Warehouse
Data Table C-2 in Appendix



1990-2000 Census Counts and Population Change by Norton Sound Community

Summary

- The overall Norton Sound Alaska Native population increased by 17.5% from 6,026 in 1990 to 7,082 in 2000.
- While the Alaska Native population of most communities in Norton Sound increased, the Alaska Native population of Council, Diomedé (Inalik), Solomon, and Wales decreased between 1990 and 2000.

Table 1. Census Counts by Norton Sound Community, 1990 and 2000 U.S. Census

Data Source: Alaska Area Indian Health Service Census Data

Community	Alaska Native Population 2000 Census	Total Population 2000 Census	Alaska Native Population 1990 Census	Total Population 1990 Census	% Change, AK Native Population 1990-2000
Brevig	254	276	183	198	38.8%
Council	0	0	5	8	-100.0%
Diomedé (Inalik)	137	146	167	178	-18.0%
Elim	297	313	242	264	22.7%
Gambell	622	649	505	525	23.2%
Golovin	133	144	118	127	12.7%
Koyuk	280	297	219	231	27.9%
Nome	2,057	3,505	1,824	3,500	12.8%
Port Clarence	0	21	0	26	0.0%
Savoonga	614	643	494	519	24.3%
Shaktoolik	218	230	168	178	29.8%
Shishmaref	531	562	431	456	23.2%
Solomon	0	0	6	6	-100.0%
St. Michael	343	368	269	295	27.5%
Stebbins	518	547	379	400	36.7%
Teller	248	268	131	151	89.3%
Unalakleet	655	747	584	714	12.2%
Wales	137	152	143	161	- 4.2%
White Mountain	175	203	158	180	10.8%
Total	7,082	9,071	6,026	8,117	17.5%

2001 and 2009 Population Change - Females

Summary

- Between 2001 and 2009, the Norton Sound Alaska Native female population increased by 2.6% (3,373 to 3,460), while the total Norton Sound female population increased by 3.5% (4,373 to 4,524).
- Between 2001 and 2009, while the overall Alaska Native female population in Norton Sound increased, females between the ages of 5-14, 25-29, 35-44, and 85+ decreased.

Table 2. Population Change for Females by Age, Norton Sound, 2001 and 2009 Bridged Population Estimates

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	408	481	471	540	15.4%	12.3%
5-9	409	485	384	465	- 6.1%	- 4.1%
10-14	441	538	336	433	-23.8%	-19.5%
15-19	347	407	391	466	12.7%	14.5%
20-24	221	260	304	356	37.6%	36.9%
25-29	213	305	207	284	- 2.8%	- 6.9%
30-34	187	262	190	277	1.6%	5.7%
35-39	216	321	161	248	-25.5%	-22.7%
40-44	242	337	187	256	-22.7%	-24.0%
45-49	145	248	172	282	18.6%	13.7%
50-54	121	196	160	260	32.2%	32.7%
55-59	103	147	144	210	39.8%	42.9%
60-64	74	107	85	132	14.9%	23.4%
65-69	69	82	73	94	5.8%	14.6%
70-74	61	73	62	76	1.6%	4.1%
75-79	45	49	52	57	15.6%	16.3%
80-84	27	31	42	49	55.6%	58.1%
85+	44	44	39	39	-11.4%	-11.4%
Total	3,373	4,373	3,460	4,524	2.6%	3.5%

2001 and 2009 Population Change - Males

Summary

- Between 2001 and 2009, the Norton Sound Alaska Native male population increased by 2.6% (3,692 to 3,787) while the total Norton Sound male population increased by 1.7% (4,893 to 4,976).
- Between 2001 and 2009, while the overall Alaska Native male population in Norton Sound increased, males between the ages of 5-14, 25-49, 65-69, and 80-84 decreased.

Table 3. Population Change for Males by Age, Norton Sound, 2001 and 2009 Bridged Population Estimates

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	445	519	550	644	23.6%	24.1%
5-9	441	535	434	546	- 1.6%	2.1%
10-14	448	533	376	458	-16.1%	-14.1%
15-19	359	428	403	485	12.3%	13.3%
20-24	250	287	293	326	17.2%	13.6%
25-29	219	306	208	274	- 5.0%	-10.5%
30-34	224	298	212	296	- 5.4%	- 0.7%
35-39	276	387	186	258	-32.6%	-33.3%
40-44	218	367	188	285	-13.8%	-22.3%
45-49	200	345	194	314	- 3.0%	- 9.0%
50-54	184	310	198	314	7.6%	1.3%
55-59	109	173	183	287	67.9%	65.9%
60-64	107	137	150	213	40.2%	55.5%
65-69	84	109	75	106	-10.7%	- 2.8%
70-74	55	68	58	75	5.5%	10.3%
75-79	35	45	36	44	2.9%	- 2.2%
80-84	24	27	23	25	- 4.2%	- 7.4%
85+	14	19	20	26	42.9%	36.8%
Total	3,692	4,893	3,787	4,976	2.6%	1.7%

Educational Attainment

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

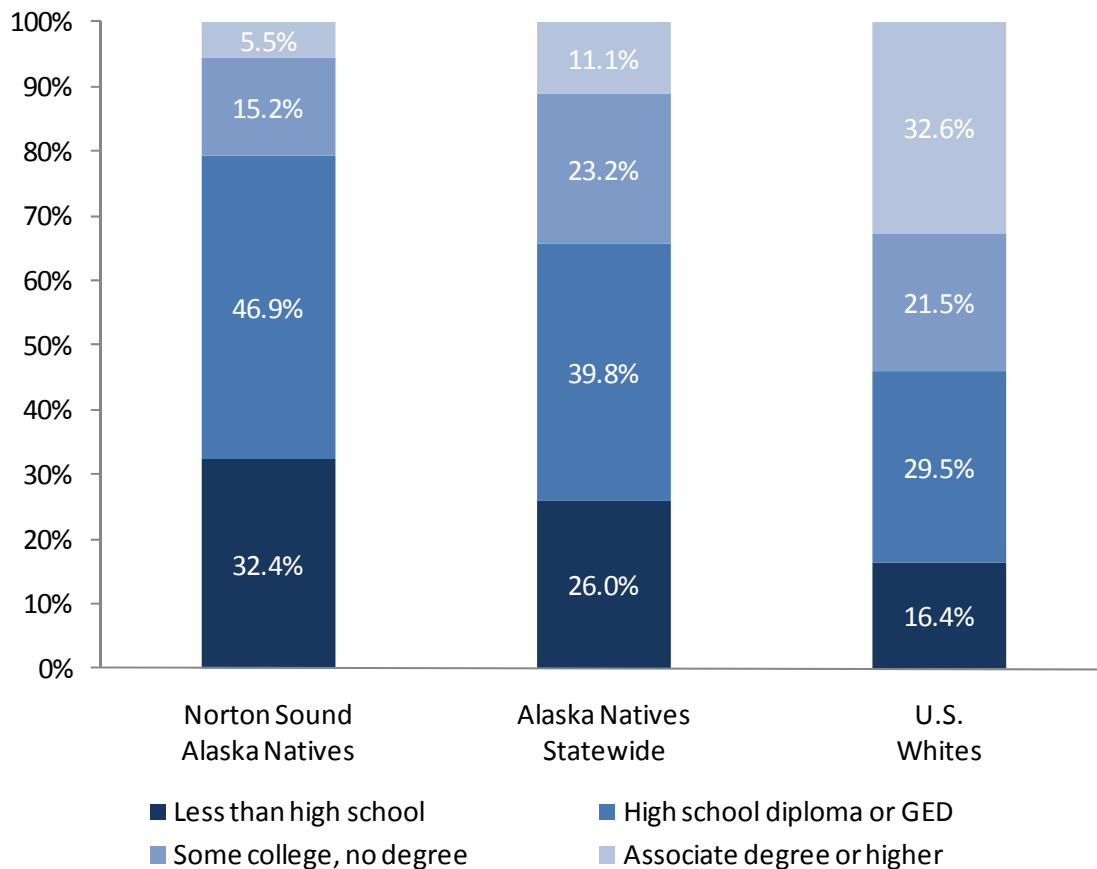
Summary

- In 2000, 5.5% of Norton Sound Alaska Natives highest level of educational attainment was an associate degree or higher, compared to 11.1% of Alaska Native people statewide.
- 67.6% of Norton Sound Alaska Native people had received a high school diploma or higher in 2000, compared to 74.0% of Alaska Native people statewide.
- 32.6% of U.S. Whites received an Associate degree or higher in 2000, which was almost six times that of Norton Sound Alaska Native people (5.5%).

Figure 4. Highest Educational Attainment, 25 Years and Older, 2000

Data Source: U.S. Census

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.

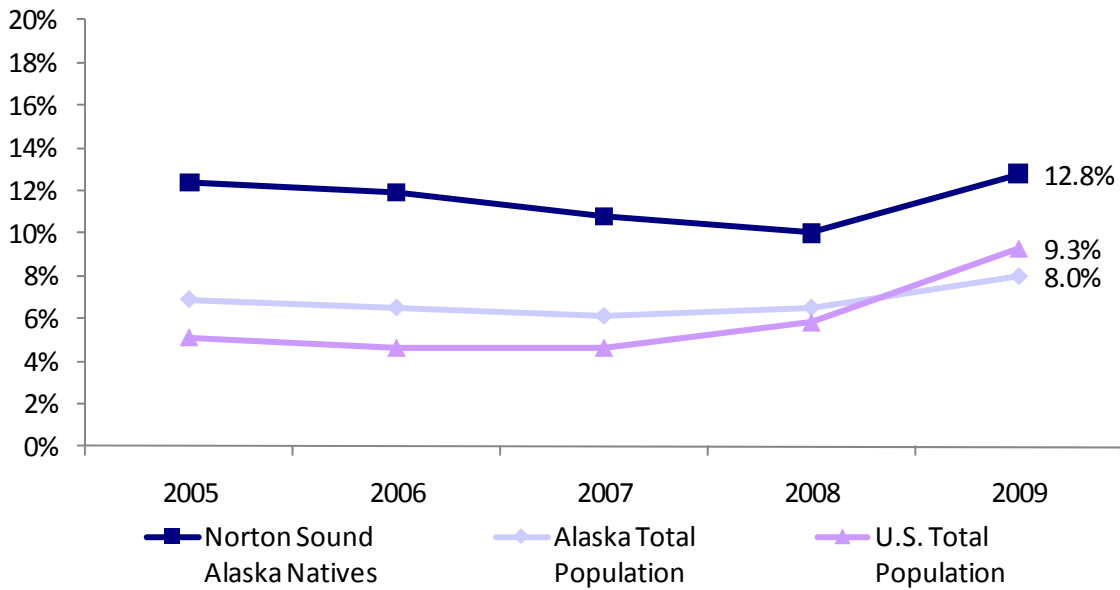
Summary

- The unemployment rate for the Norton Sound region has been higher than the statewide unemployment rate since 2005.
- The unemployment rate for Norton Sound decreased from 2005 (12.4%) to 2008 (10.0%), but increased in 2009 to 12.8%.

Figure 5. Unemployment for Norton Sound, Alaska and U.S. Total Populations, 2005-2009

Data Source: Alaska Department of Labor and Workforce Development

Data Table C-4 in Appendix



Poverty Status

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 that family and every individual in it is 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

- 21.2% of Norton Sound Alaska Native people lived below the Federal Poverty Level.
- 22.6% of Norton Sound Alaska Native children lived below the Federal Poverty Level.

Figure 6. Estimated Percent of Residents below the Federal Poverty Level, All Ages, 2000

Data Source: U.S. Census
Data Table C-5 in Appendix

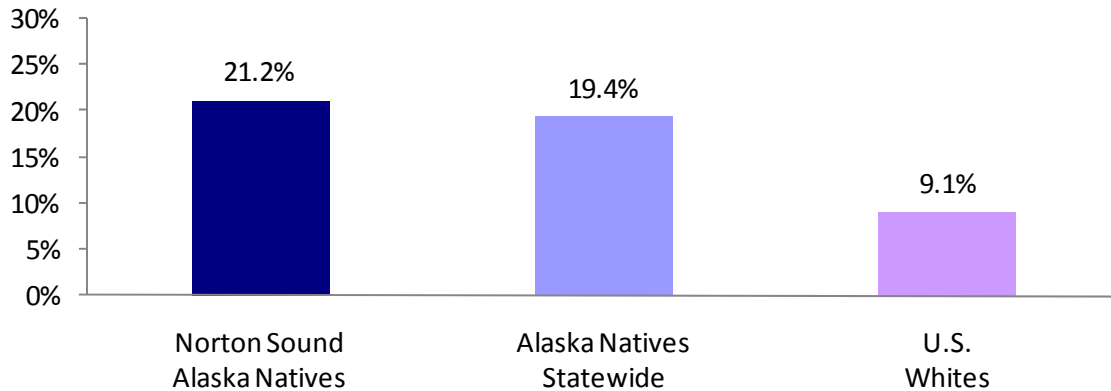
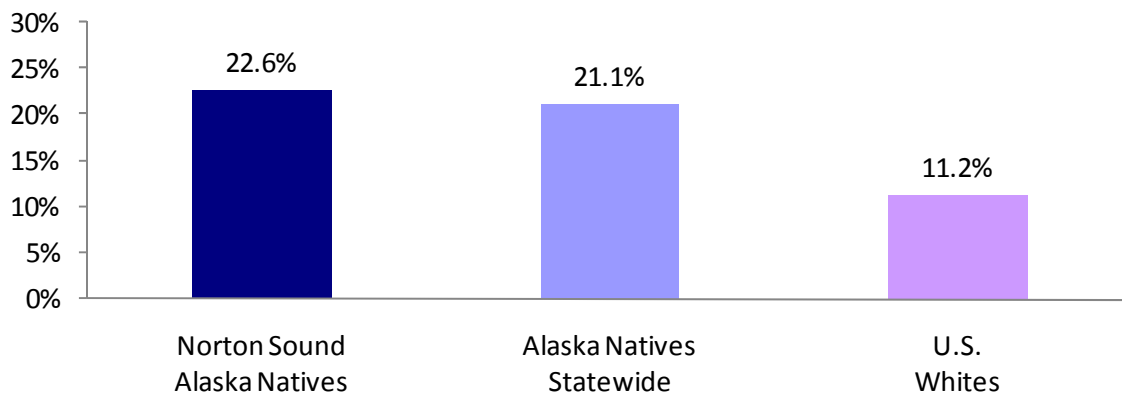


Figure 7. Estimated Percent of Residents below the Federal Poverty Level, Under 18, 2000

Data Source: U.S. Census
Data Table C-6 in Appendix



Household Income

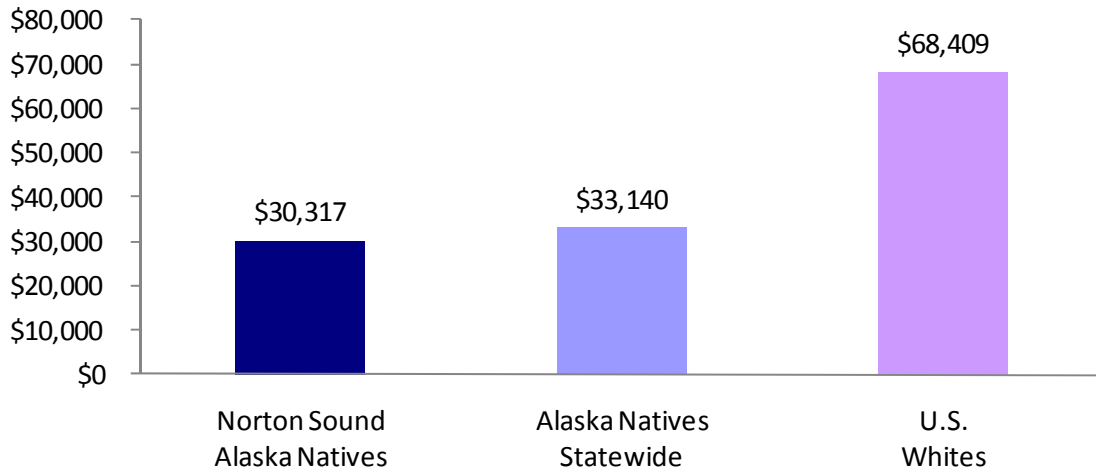
Definition: Household income is determined by the reported household income of the person who completed the U.S. Census. Income includes all monetary sources including wages, the Permanent Fund Dividend, corporation dividends and public assistance. Income does not include subsistence resources.

Summary

- The estimated median household income for Norton Sound Alaska Native people was \$30,317.
- The median household income for Alaska Native people statewide (\$33,140) was 1.1 times that of Norton Sound Alaska Natives, and the median household income for U.S. Whites (\$68,409) was 2.3 times that of Norton Sound Alaska Natives.

Figure 8. Estimated Median Household Income, 2000

Data Source: U.S. Census



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Mortality

Leading Causes of Death

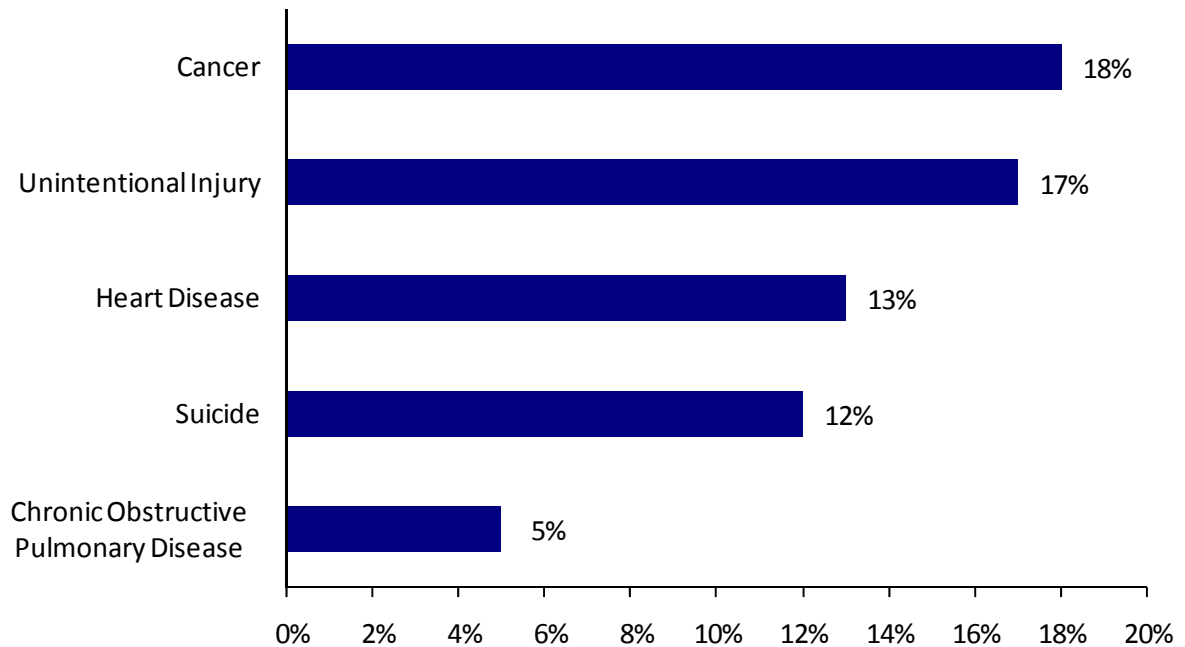
Definition: The **leading causes of death** is a list of the primary causes of death within a population. These lists are used frequently to measure the health status of a population when compared to the rank of causes of death among other populations.

Summary

- Cancer was the leading cause of death among Norton Sound Alaska Native people, closely followed by unintentional injury.
- The top five leading causes of death among Alaska Natives in the Norton Sound Region accounted for 55% of all deaths.

Figure 9. Leading Causes of Death, Norton Sound Alaska Natives, 2004-2007

Data Source: Alaska Native Health Status Report, Alaska Native Epidemiology Center, Alaska Native Tribal Health Consortium, August, 2009
Data Table C-7 in Appendix



Cancer Deaths

Definition: Cancer deaths are defined as the number of deaths due to all types of cancer per 100,000 population.

Healthy People 2010, Goal 3.1: Reduce the overall cancer death rate to 159.9 deaths per 100,000 of the population.

Summary

- Age-adjusted death rates due to cancer among Norton Sound Alaska Natives increased 13.4% (352.1 to 399.4 per 100,000 population) between 1984-1988 and 1994-1998, but decreased 41.3% (399.4 to 234.6 per 100,000 population) between 1994-1998 and 2004-2008.
- Norton Sound Alaska Native death rates due to cancer were higher than the Healthy People 2010 Goal from 1984-2008, but the gap to the Healthy People Goal appears to have decreased between 1994-1998 and 2004-2008.

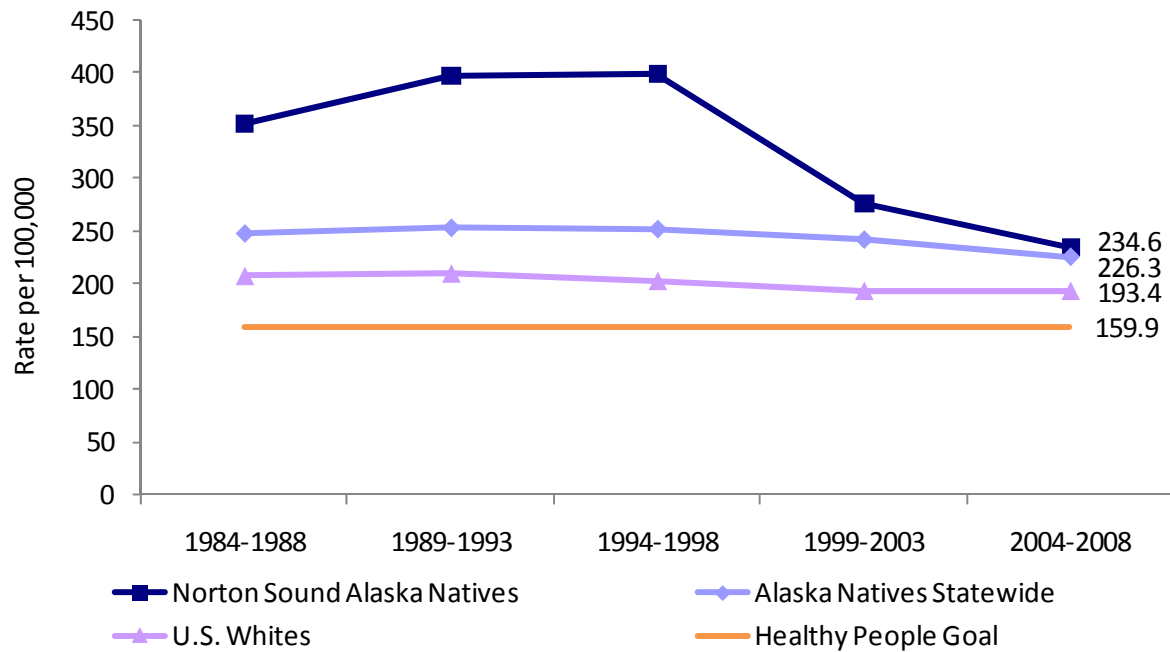
Figure 10. Age-Adjusted Cancer Death Rates per 100,000, 1984-2008

Alaska Data Source: Alaska Bureau of Vital Statistics

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

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

Data Table C-8 in Appendix



Heart Disease Deaths

Definition: Heart disease deaths are defined as the total number of deaths due to heart disease per 100,000 population.

Healthy People 2010, Goal 12.1: Reduce coronary heart disease death rate to 166.0 per 100,000 of the population.

Summary

- Age-adjusted death rates due to heart disease decreased 71.6% (527.6 to 149.9 per 100,000 population) from 1984-1988 to 2004-2008 for Norton Sound Alaska Native people.
- The heart disease death rate of Norton Sound Alaska Native people was 149.9 per 100,000 population from 2004-2008, which met the Healthy People Goal.

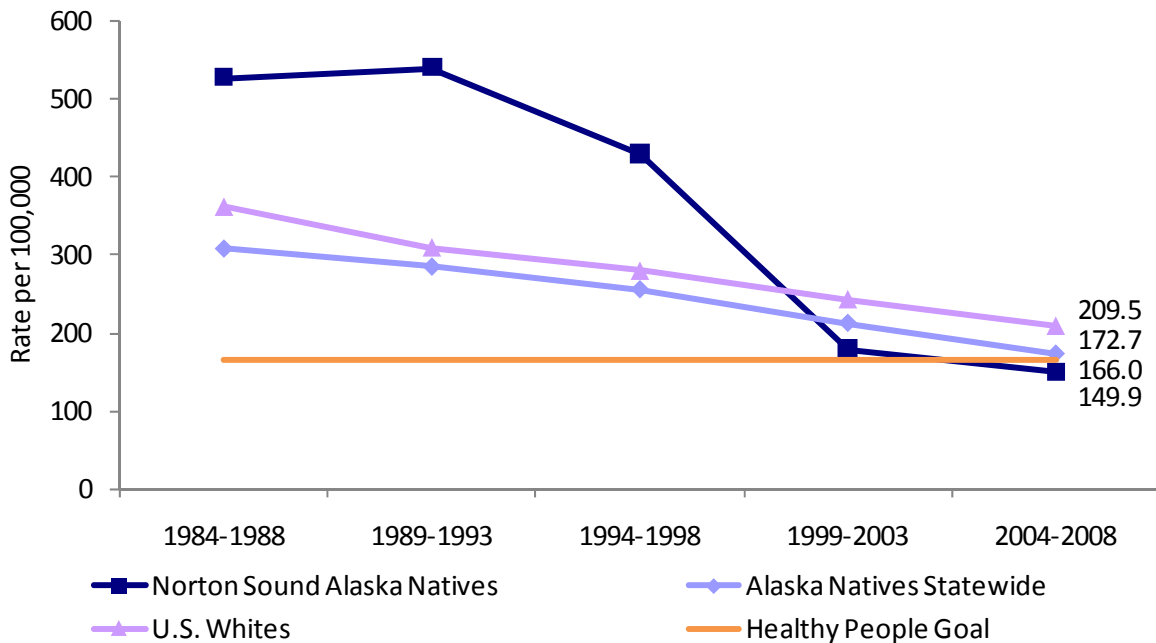
Figure 11. Age-Adjusted Heart Disease Death Rates per 100,000, 1984-2008

Alaska Data Source: Alaska Bureau of Vital Statistics

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

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

Data Table C-9 in Appendix



Unintentional Injury Deaths

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

Healthy People 2010, Goal 15.13: Reduce unintentional injury death rate to 17.5 per 100,000 of the population.

Summary

- Age-adjusted death rates due to unintentional injuries decreased 28.9% (191.5 to 136.1 per 100,000 population) between 1984-1988 and 2004-2008.
- The death rate for unintentional injury among Norton Sound Alaska Native people (136.1) was more than 3 times that of U.S. Whites (39.3).

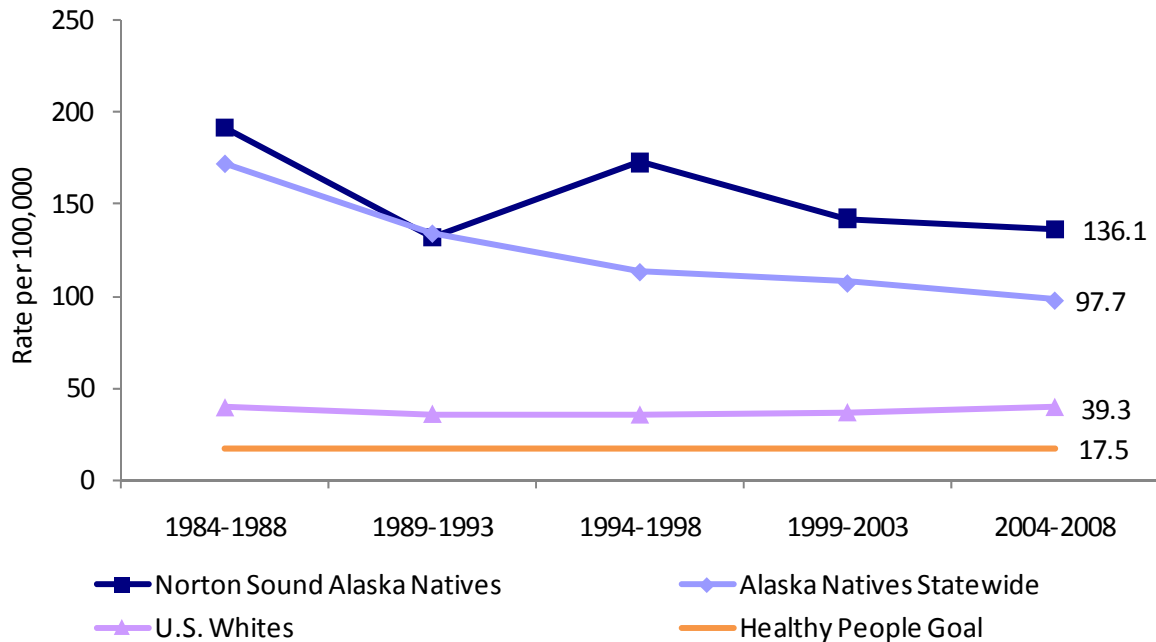
Figure 12. Age-Adjusted Unintentional Injury Death Rates per 100,000, 1984-2008

Alaska Data Source: Alaska Bureau of Vital Statistics

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

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

Data Table C-10 in Appendix



Leading Causes of Injury Death

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 Norton Sound Alaska Native people during 1999-2005.
- Norton Sound Alaska Native people were 2.4 times more likely to die from suicide than Alaska Native people statewide.

Table 4. Leading Causes of Injury Death, Norton Sound Alaska Natives, 1999-2005

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

Causes of Injury Death by Rank	N	%	Age-Adjusted Rate per 100,000	Rate Ratio ¹ :
				Norton Sound vs. Alaska Natives Statewide
Suicide	49	41%	92.9	2.4*
Unintentional Poisoning	11	9%	33.0 ²	1.9
Motor Vehicle	10	8%	26.0 ²	1.4
Drowning	9	8%	†	†
Off Road Vehicle	9	8%	†	†
Excessive Natural Cold	8	4%	†	†
Homicide	7	6%	†	†
Suffocation	6	5%	†	†
Other	10	12%		
Total Injury	119		263.1	1.7*
Total Unintentional	63	53%	152.1	1.5*

¹ 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.

² Rate is based on 10-19 deaths and should be interpreted with caution.

* Statistically significant difference at the p<0.05 level

† Numbers too small

Suicide Deaths

Definition: Suicide deaths are defined as the total number of deaths that were caused by intentional self-harm per 100,000 population.

Healthy People 2010, Goal 15.13: Reduce suicide death rates to 5.0 per 100,000 of the population.

Summary

- The age-adjusted suicide rate for Norton Sound Alaska Natives was 75.8 per 100,000 during 2004-2008, which was above the Healthy People 2010 goal of 5.0 per 100,000 population.
- The age-adjusted death rate for suicides per 100,000 population among Norton Sound Alaska Native people (75.8) was more than six times that of U.S. Whites (12.0) during 2004-2008.
- Age-adjusted suicide rates among Norton Sound Alaska Native people dropped 19.6% (94.3 to 75.8 per 100,000 population) between 1984-1988 and 2004-2008.

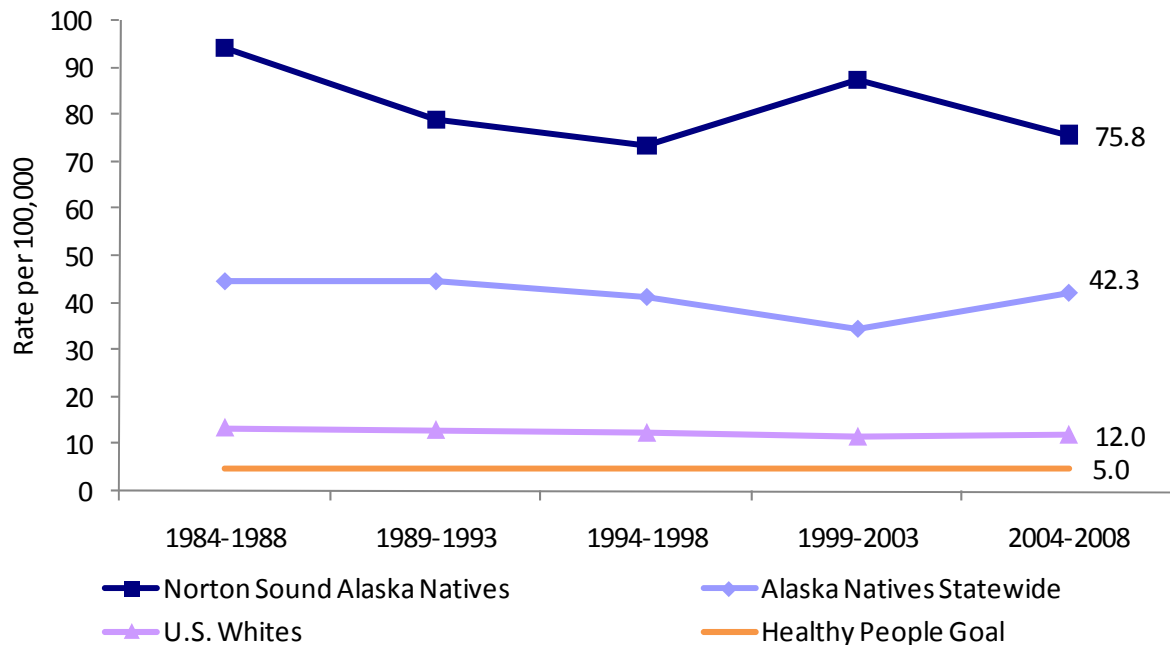
Figure 13. Age-Adjusted Suicide Death Rates per 100,000, 1984-2008

Alaska Data Source: Alaska Bureau of Vital Statistics

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

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

Data Table C-11 in Appendix



Infant Mortality Rate

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

Healthy People 2010, Goal 16.1c: Reduce infant mortality rate to 4.5 per 1,000 live births.

Summary

- Infant mortality rates among Norton Sound Alaska Natives decreased 20.0% (17.5 to 14.0 per 1,000 live births) between 1984-1988 and 2004-2008 for Norton Sound Alaska Natives.
- The Norton Sound Alaska Native infant mortality rate (14.0) was more than double the U.S. White rate (5.8) during 2004-2008.

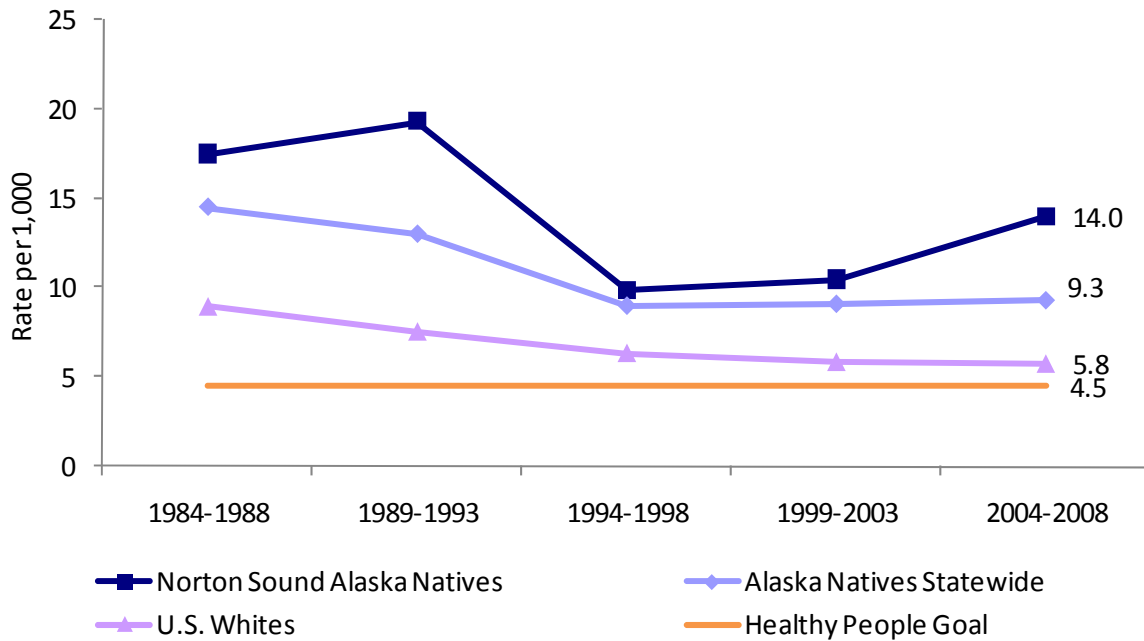
Figure 14. Infant Mortality Rates per 1,000 Live Births, 1984-2008

Alaska Data Source: Alaska Bureau of Vital Statistics

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

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

Data Table C-12 in Appendix



Health Behavior

Tobacco Use - Smoking - Adults

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

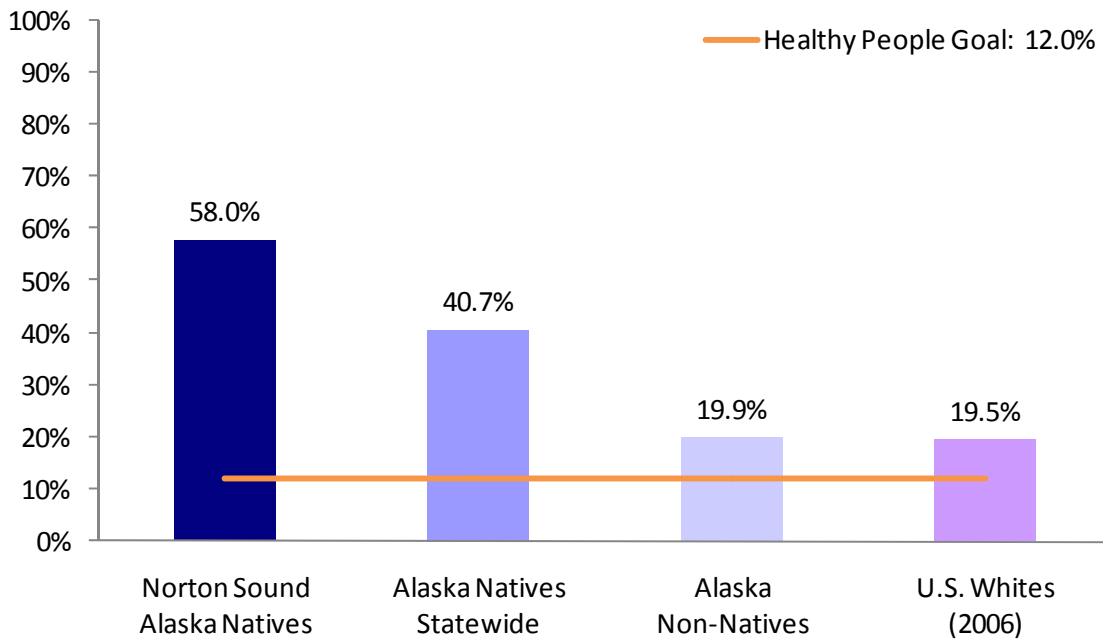
Healthy People 2010, Goal 27.1a: Reduce tobacco use by adults to 12.0%.

Summary

- Norton Sound Alaska Native people reported a current smoking prevalence of 58.0%.
- The prevalence of current smoking among Norton Sound Alaska Native people (58.0%) was significantly higher than the prevalence among Alaska Natives statewide (40.7%). This prevalence was nearly three times greater than Alaska Non-Natives (19.9%) or U.S. Whites (19.5%).

Figure 15. Adults who are Current Smokers, 2005-2007

Data Source: Behavioral Risk Factor Surveillance System
Data Table C-13 in Appendix



Tobacco Use - Smokeless Tobacco - Adults

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 2010, Goal 27.1b: Reduce spit tobacco use by adults to 0.4%.

Summary

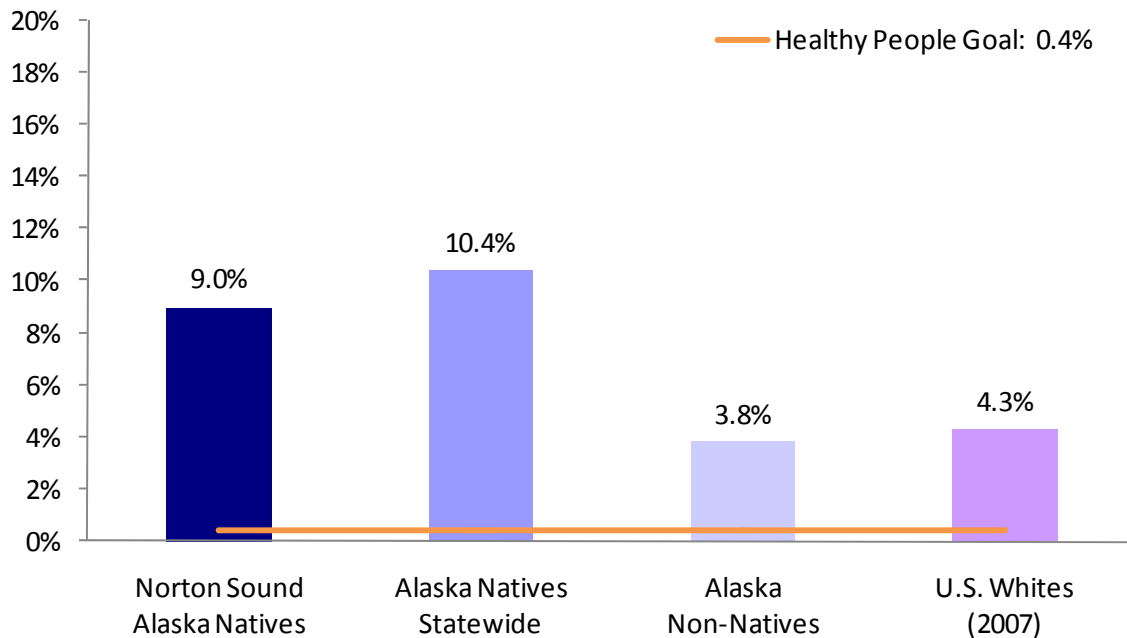
- 9.0% of Norton Sound Alaska Native people were current smokeless tobacco users.
- Norton Sound Alaska Native people were not significantly different in their prevalence of smokeless tobacco use compared to Alaska Native people statewide; however they were significantly different than Alaska Non-Natives.

Figure 16. Current Smokeless Tobacco Users, 18 years and Older, 2005-2007

Data Source: Behavioral Risk Factor Surveillance System

U.S. Data Source: Substance Abuse and Mental Health Services Administration. Results from the 2007 National Survey on Drug Use and Health: Detailed Tables. Rockville (MD): Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2007

Data Table C-14 in Appendix



Alcohol Use - Binge Drinking - Adults

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.

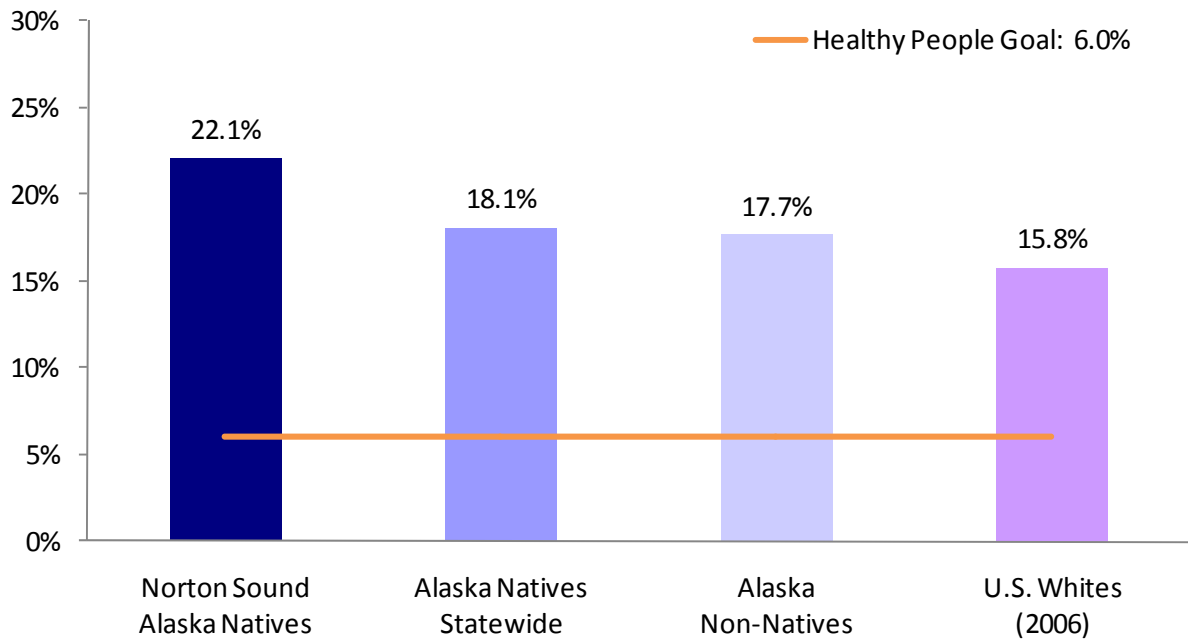
Healthy People 2010, Goal 26.11c: Reduce the percentage of adults who engage in binge drinking during past month to 6.0%.

Summary

- 22.1% of Norton Sound Alaska Native people reported binge drinking.
- Although it appears that Norton Sound Alaska Native people over the age of 18 reported higher rates of binge drinking than Alaska Natives statewide (18.1%), Alaska Non-Natives (17.7%), and U.S. Whites (15.8%), these differences were not statistically significant.

Figure 17. Binge Drinking, 18 Years and Older, 2005-2007

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



Physical Activity - Adults

Definition: The recommended physical activity for adults is **moderate physical activity** which includes 30 or more minutes of physical activity on 5 or more days per week and/or **vigorous physical activity** which includes 20 or more minutes of vigorous physical activity on 3 or more days per week.

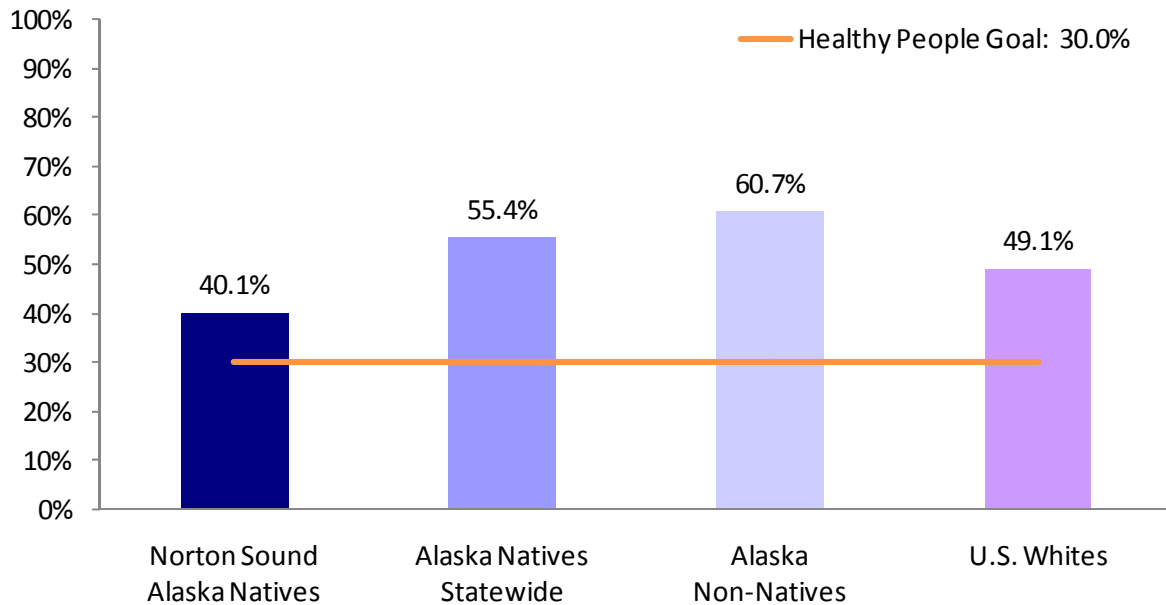
Healthy People 2010, Goal 22.2: Increase the proportion of adults who engage in regular, preferably daily, moderate physical activity to 30%.

Summary

- Norton Sound Alaska Native people exceeded the Healthy People 2010 goal for physical activity during 2005.
- 40.1% of Norton Sound Alaska Native people participated in moderate or vigorous physical activity in 2005. Although this appears lower than the rate of moderate or vigorous physical activity among Alaska Natives statewide (55.4%), Alaska Non-Natives (60.7%), and U.S. Whites (49.1%), these differences were not statistically significant.

Figure 18. Adults who Meet Moderate and/or Vigorous Physical Activity Recommendations, 2005

Data Source: Behavioral Risk Factor Surveillance System
Data Table C-16 in Appendix



Obesity - Adults

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

Healthy People 2010, Goal 19.1 and 19.2: Increase proportion of adults who are at a healthy weight ($18.5 \leq \text{BMI} < 25$) to 60.0%. Reduce the proportion of adults who are obese to 15.0%.

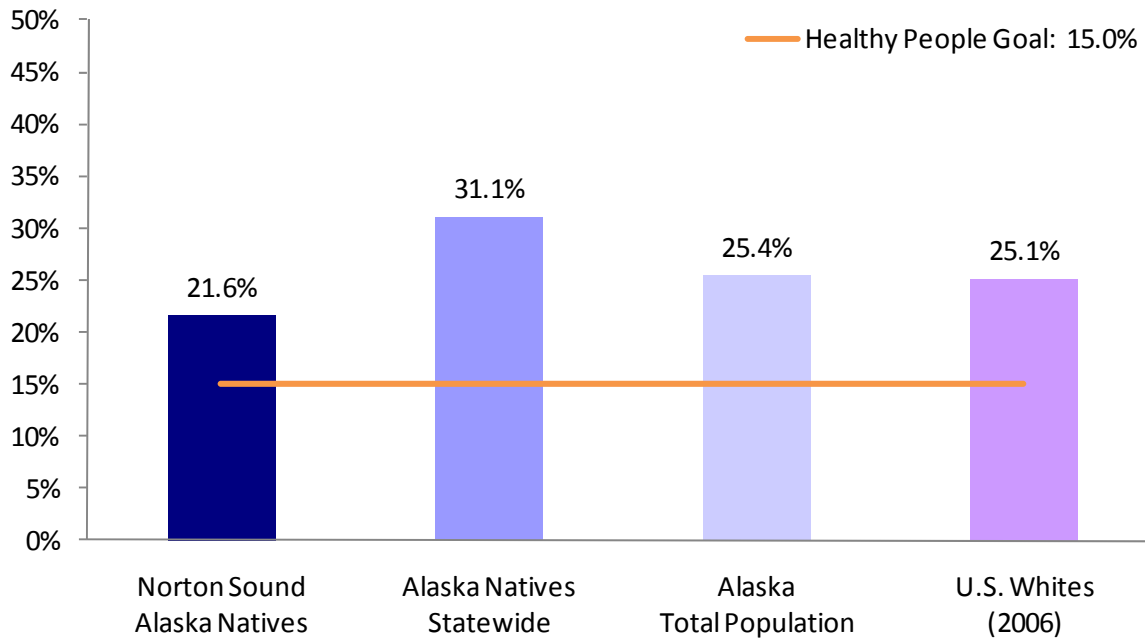
Summary

- One out of every five (21.6%) Norton Sound Alaska Native people reported a BMI ≥ 30.0 .
- Norton Sound Alaska Native people had a significantly lower prevalence of obesity than Alaska Natives statewide (31.1%) ($p < 0.05$).

Figure 19. Obesity (BMI ≥ 30), 18 Years and Older, 2005-2007

Data Source: Behavioral Risk Factor Surveillance System

Data Table C-17 in Appendix



Overweight - Adults

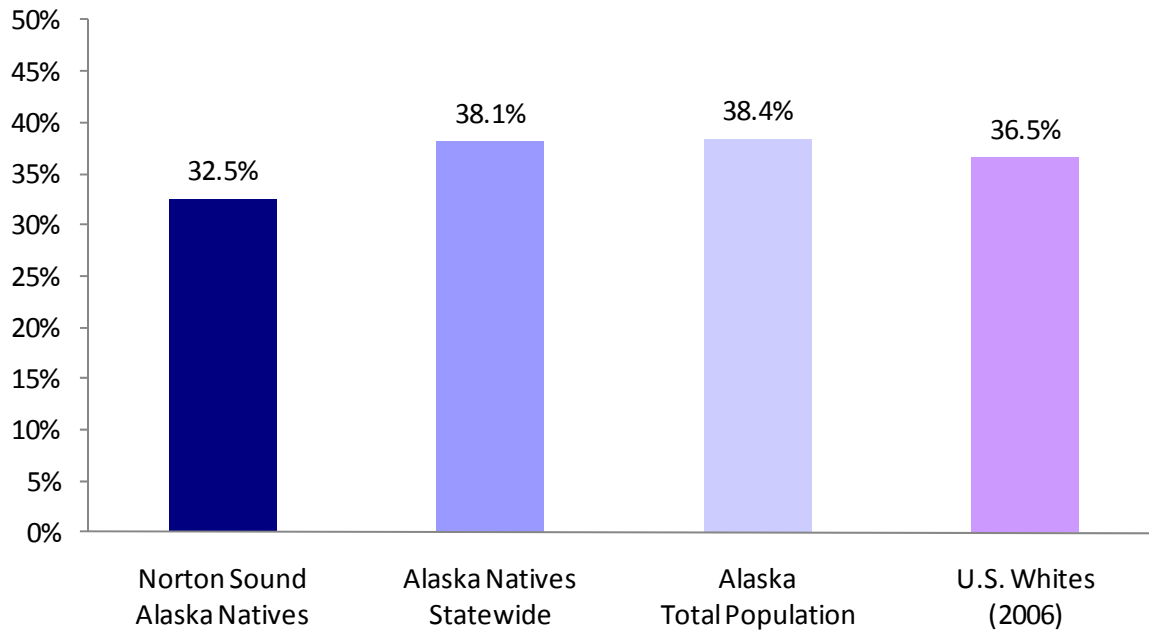
Definition: Overweight is defined as having a body mass index (BMI) from 25.0 to 29.9.

Summary

- 32.5% of Norton Sound Alaska Native people reported a BMI between 25.0 to 29.9.
- One out of every three (32.5%) Norton Sound Alaska Native people reported being overweight.
- The prevalence of overweight adults in Norton Sound Alaska Natives did not differ significantly from the prevalence in the other three groups.

Figure 20. Overweight (25 ≤ BMI ≤ 29.9), 18 Years and Older, 2005-2007

Data Source: Behavioral Risk Factor Surveillance System
Data Table C-18 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.

Summary

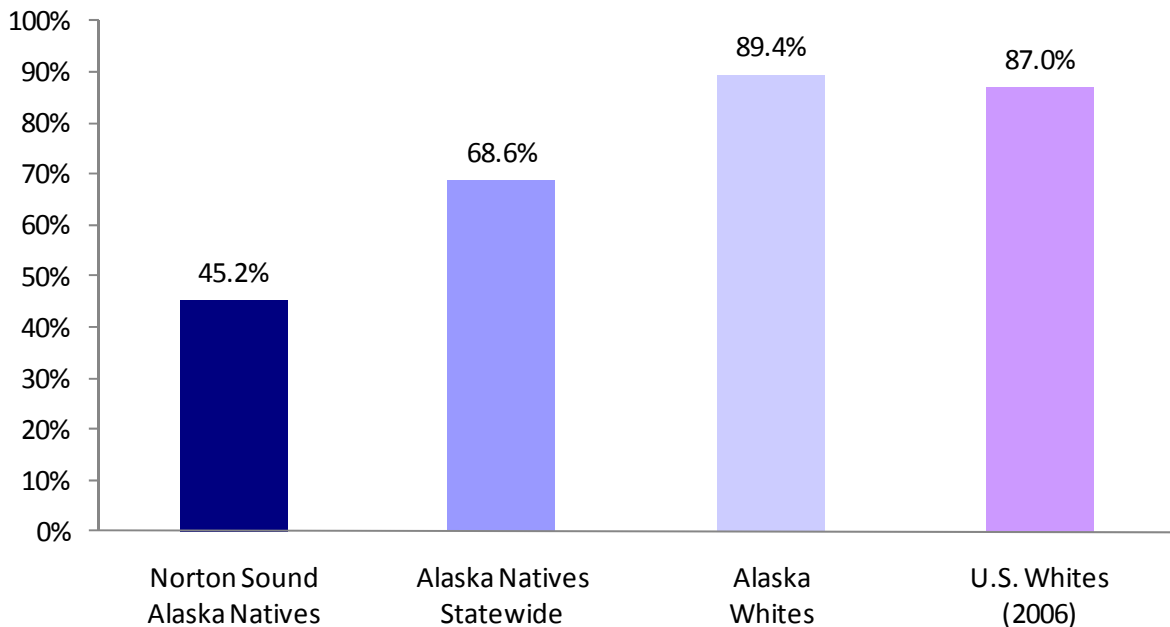
- Among Norton Sound Alaska Native mothers, 45.2% abstained from smoking during pregnancy.
- 68.6% of Alaska Native mothers, 89.4% of Alaska White mothers and 87.0% of U.S. White mothers abstained from tobacco use during pregnancy.
- The percent of Norton Sound Alaska Native mothers abstaining from smoking during pregnancy appears to be significantly different than Alaska Natives statewide, Alaska Whites or U.S. Whites.

Figure 21. Percent of Women Reporting Abstinence from Tobacco Use During Pregnancy, 2006-2008

Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: National Center for Health Statistics. Health, United States, 2009: With Special Feature on Medical Technology. Hyattsville, MD. 2010.

Data Table C-19 in Appendix



Abstaining from Alcohol Consumption during Pregnancy

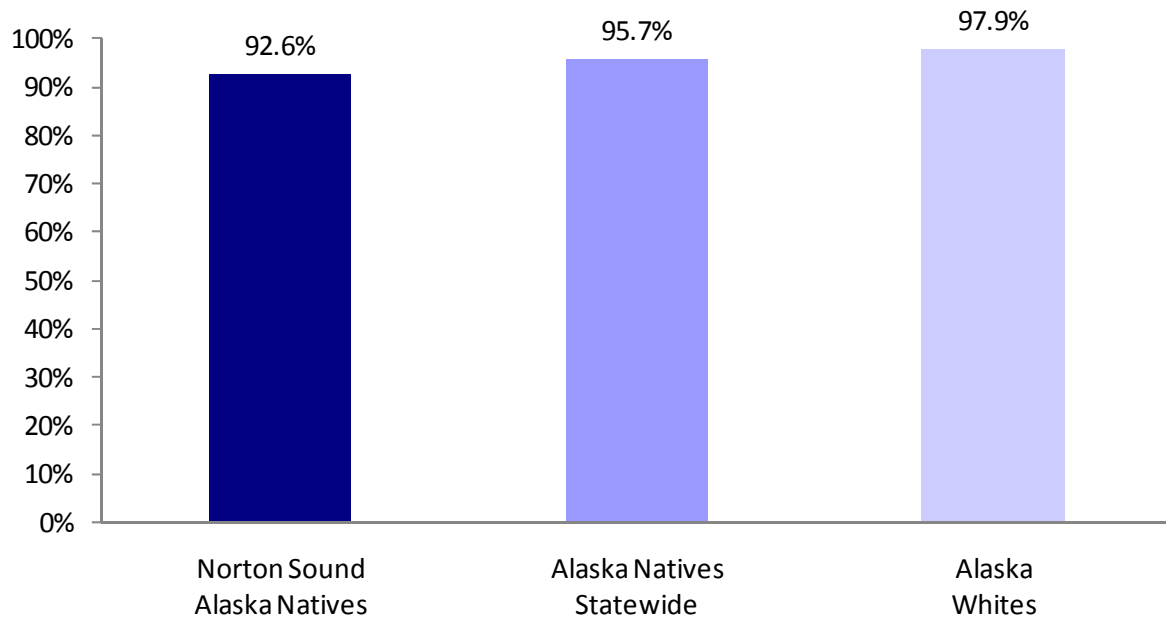
Definition: **Abstaining from alcohol consumption during pregnancy** is defined as women who reported that they did not drink alcohol anytime during their pregnancy as documented on the birth certificate.

Summary

- 92.6% of Norton Sound Alaska Native mothers abstained from alcohol during pregnancy.
- 95.7% of Alaska Native mothers and 97.9% of Alaska White mothers abstained from alcohol consumption during pregnancy.

Figure 22. Percent of Women Reporting Abstinence from Alcohol Use During Pregnancy, 2006-2008

Data Source: Alaska Bureau of Vital Statistics
Data Table C-20 in Appendix



Overweight – Adolescents

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

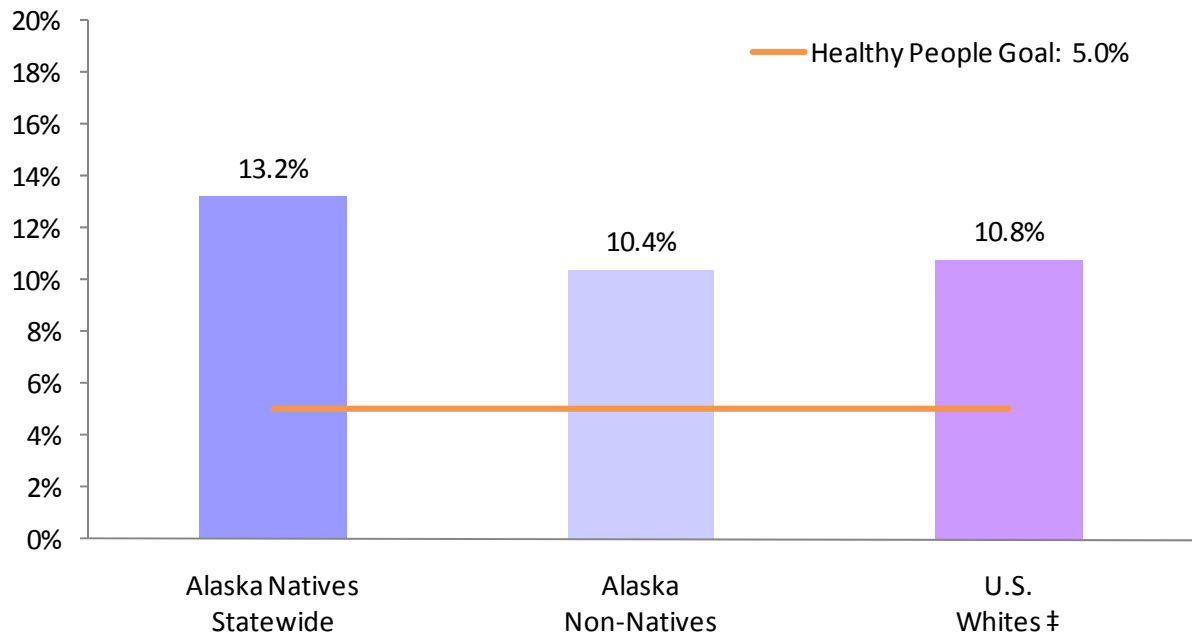
Healthy People 2010, Goal 19.3c: Reduce the proportion of children and adolescents who are overweight to 5.0%.

Summary

- 13.2% of Alaska Native high school students reported a BMI greater than or equal to the 95th percentile.
- Alaska Native youth, Alaska White youth, and U.S. White youth did not differ significantly and had not achieved the Healthy People 2010 Goal.

Figure 23. Percent of High School Students Who are Overweight, 2007

Data Source: Youth Risk Behavior Surveillance System
Data Table C-21 in Appendix



‡ Non-Hispanic

Physical Activity – Adolescents

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

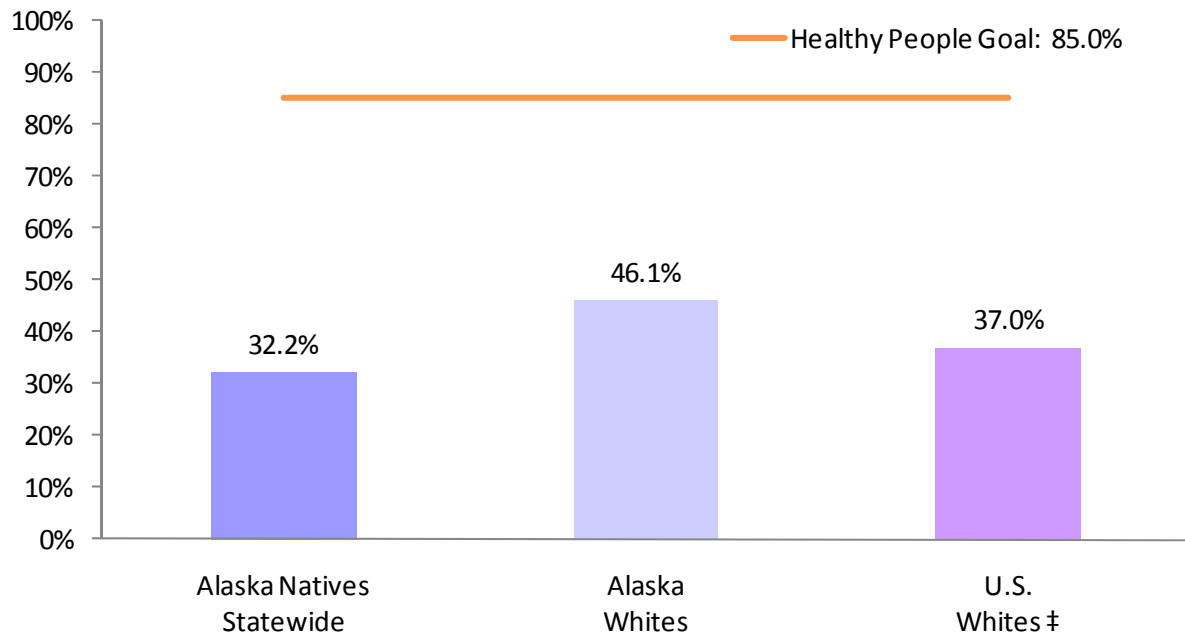
Healthy People 2010, Goal 22.7: Increase the proportion of adolescents who engage in recommended levels of physical activity to 85.0%.

Summary

- 32.2% of Alaska Native high school students engaged in recommended levels of physical activity.
- Alaska Native high school students participated in physical activity significantly less than Alaska White students (46.1%).

Figure 24. Percent of High School Students Who are Engage in Recommended Levels of Physical Activity, 2007

Data Source: Youth Risk Behavior Surveillance System
Data Table C-22 in Appendix



‡ Non-Hispanic

Tobacco Use - Smoking - Adolescents

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

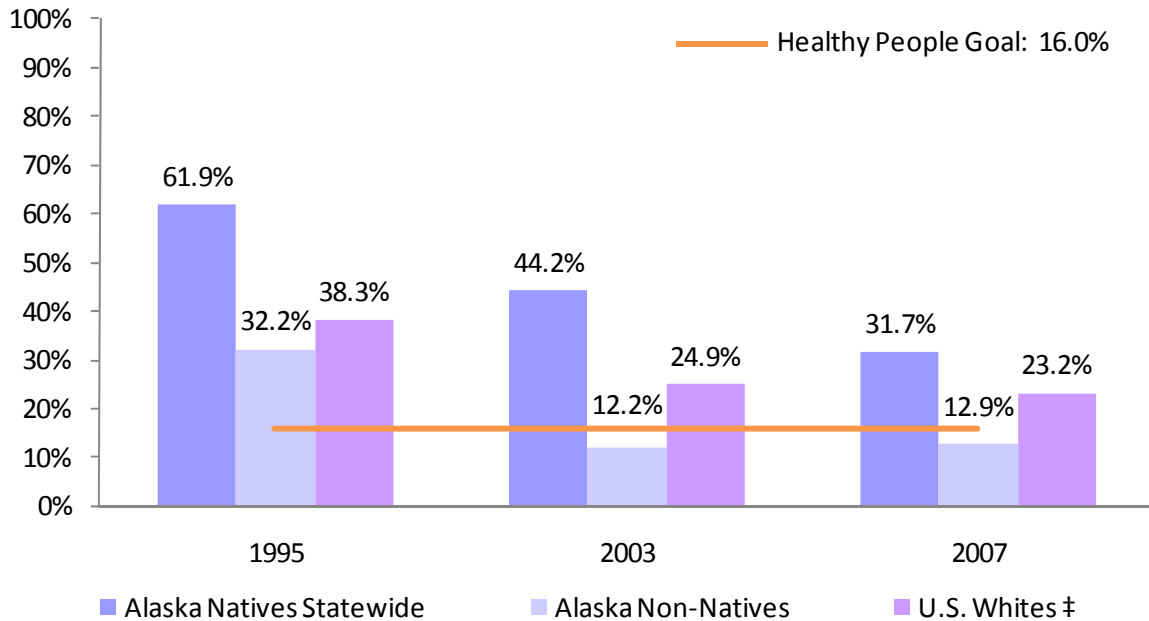
Healthy People 2010, Goal 27.2b: Reduce cigarette smoking by adolescents in the past month to 16.0%.

Summary

- Alaska Native youth reported a significantly higher prevalence of smoking (31.7%) than Alaska Non-Native (12.9%) youth in 2007 ($p < 0.05$).
- Current smoking decreased among Alaska Native youth (-30.2%), Alaska Non-Native youth (-19.3%), and U.S. Whites (-15.1%) from 1995 to 2007.

Figure 25. Percent of High School Students Who Smoked Cigarettes on One or More of the Past 30 days, 1995, 2003 and 2007

Data Source: Youth Risk Behavior Surveillance System
Data Table C-23 in Appendix



‡ Non-Hispanic

Tobacco Use - Smokeless - Adolescents

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

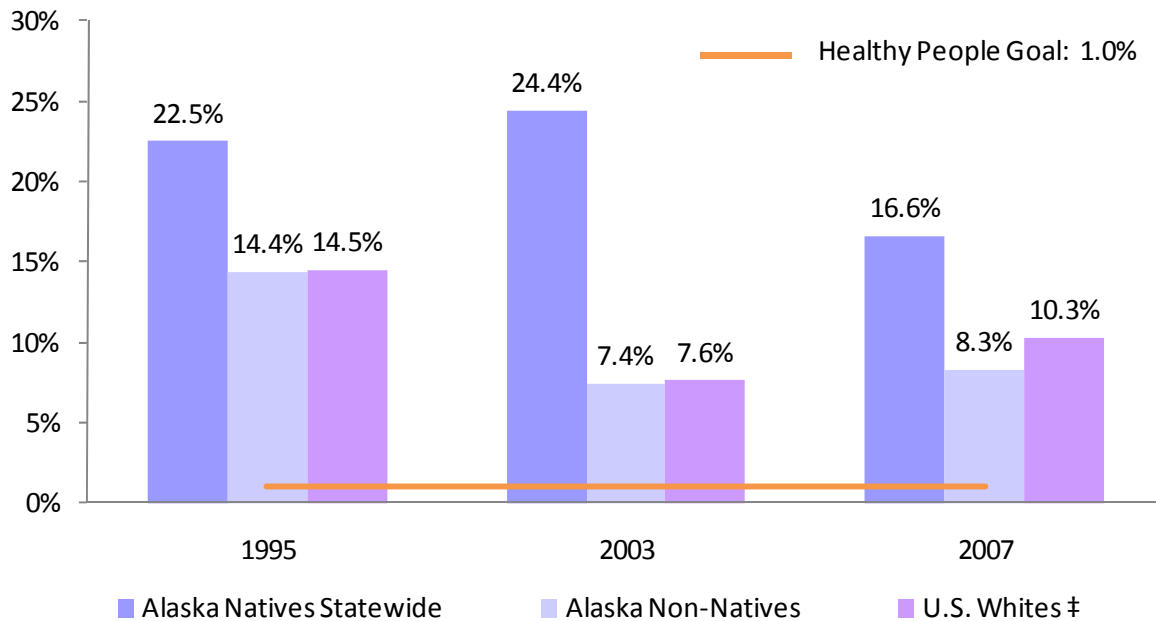
Healthy People 2010, Goal 27.2c: Reduce spit tobacco use by adolescents in the past month to 1.0%.

Summary

- The prevalence of smokeless tobacco use among Alaska Natives Statewide, Alaska Non-Natives, and U.S. White youth were all above the Healthy People Goal of 1.0% in 1995, 2003 and 2007, however, they all decreased the gap to the Healthy People Goal between 1995 and 2007.
- Current smokeless tobacco use decreased among Alaska Native youth (-5.9%), Alaska Non-Native youth (-6.1%), and U.S. Whites (-4.2%) from 1995 to 2007.

Figure 26. Percent of High School Students Who Used Chewing Tobacco or Snuff on One or More of the Past 30 days, 1995, 2003 and 2007

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



‡ Non-Hispanic

Alcohol Use - Adolescents

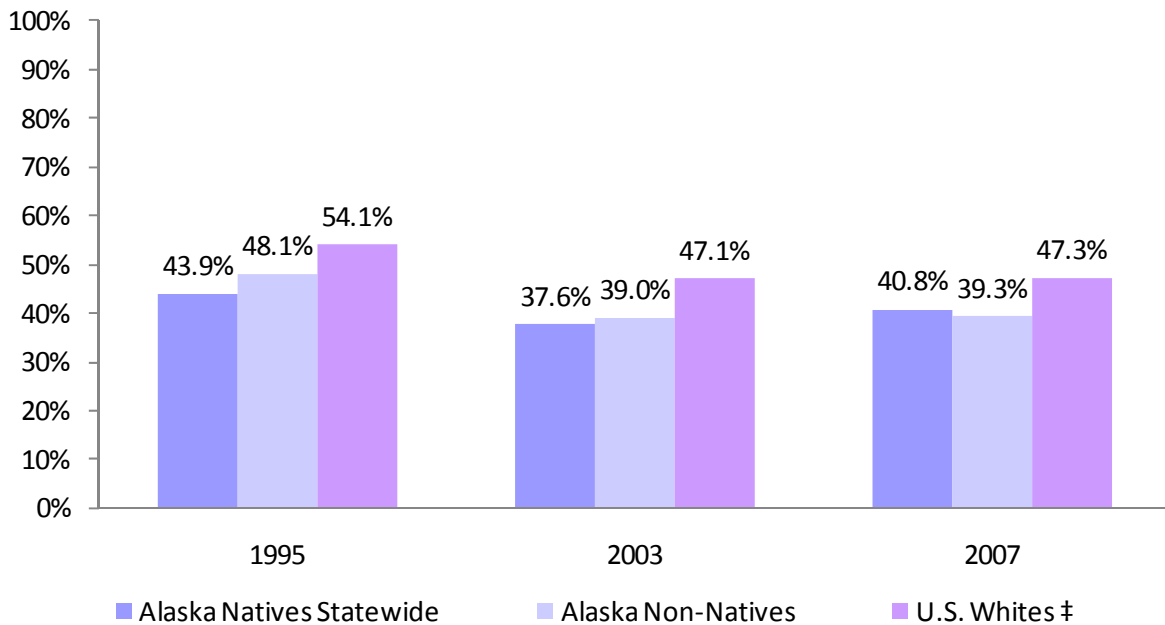
Definition: Adolescent alcohol use is the percent of high school students, grades 9-12, who consumed alcohol in the past 30 days.

Summary

- 40.8% of Alaska Native, 39.3% of Alaska Non-Native, and 47.3% of U.S. White high school students reported drinking in the past thirty days in 2007.
- The prevalence of current drinking among high school students decreased 3.1% for Alaska Natives, 8.8% for Alaska Non-Natives, and 6.8% for U.S. Whites from 1995 to 2007.

Figure 27. Percent of High School Students Who Had at Least One Drink of Alcohol on One or More of the Past 30 days, 1995, 2003 and 2007

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



‡ Non-Hispanic

Responsible Sexual Behavior - Adolescents

Definition: Responsible sexual behavior of adolescents, grades 9-12, is defined as having ever engaged in sexual intercourse.

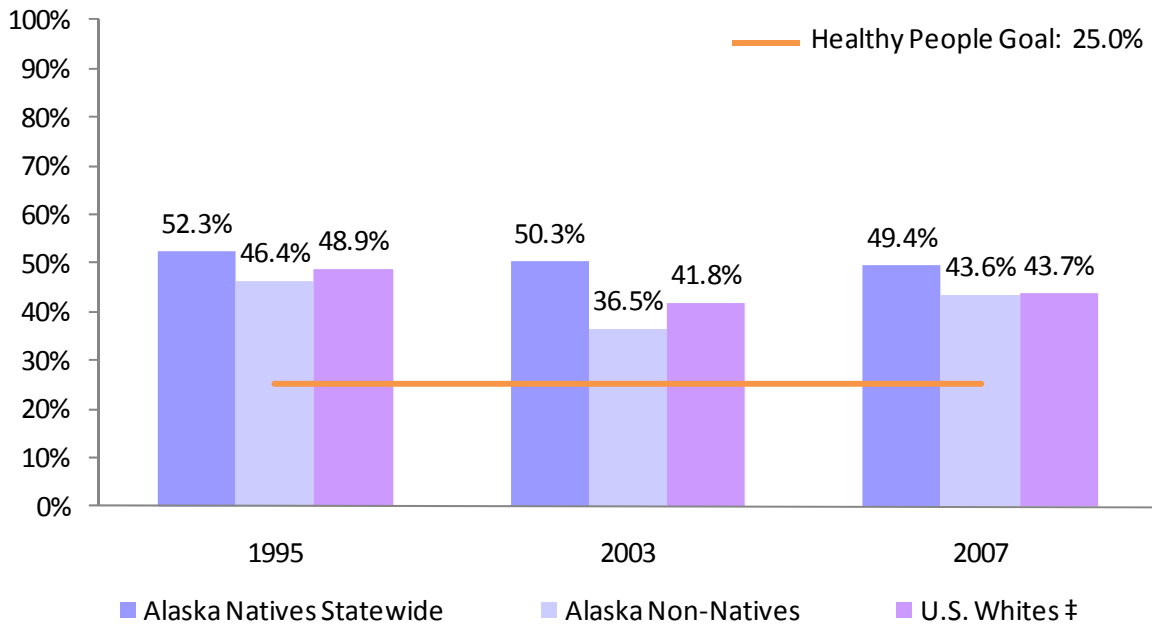
Healthy People 2010, Goal 25.11: Decrease the proportion of adolescents who engage in sexual intercourse to below 25%.

Summary

- One-half of Alaska Native high school students are sexually active.
- Alaska Native youth, Alaska Non-Native youth and U.S. White youth did not reach the Healthy People Goal.

Figure 28. Percent of High School Students Who Have Ever Engaged in Sexual Intercourse, 1995, 2003 and 2007

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



‡ Non-Hispanic

Substance Use - Marijuana - Adolescents

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

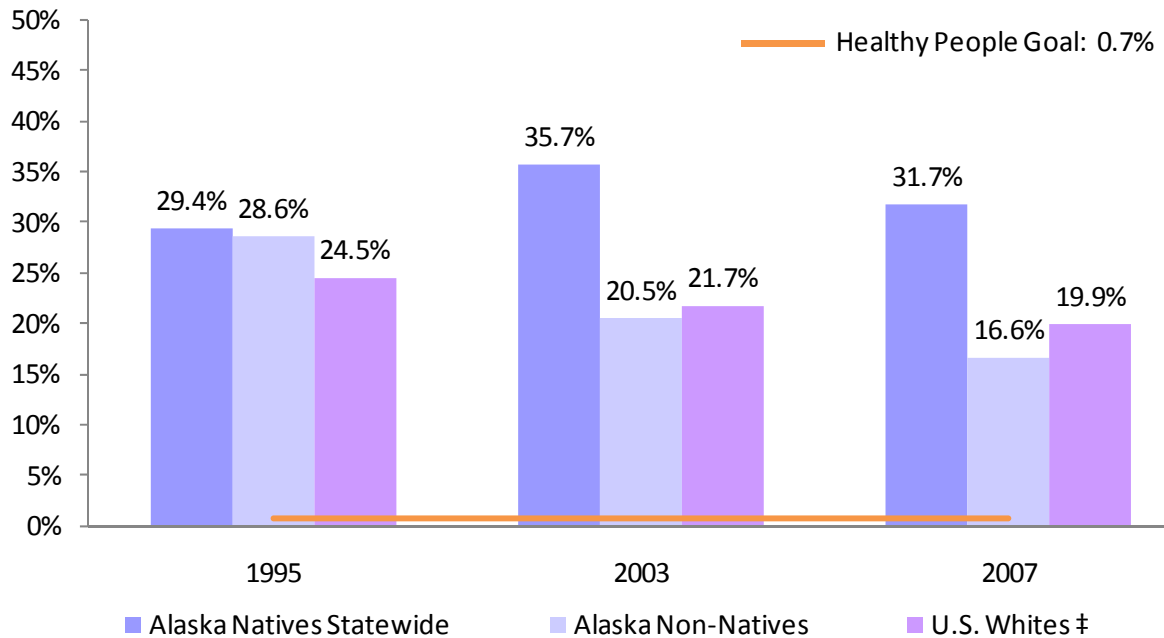
Healthy People 2010, Goal 26.10b: Reduce the proportion of adolescents reporting the use of marijuana during the past 30 days to 0.7%.

Summary

- Alaska Native students (31.7%) reported a significantly higher percent of using marijuana in the past 30 days than Alaska Non-Native (16.6%) and U.S. White (19.9%) students ($p < 0.05$).
- The prevalence of marijuana use among Alaska Native high school students increased 2.3% between 1995 and 2007, while it decreased among Alaska Non-Native (-12.0%) and U.S. White (-4.6%) high school students during the same period.

Figure 29. Percent of High School Students Who Used Marijuana on One or More of the Past 30 days, 1995, 2003 and 2007

Data Source: Youth Risk Behavior Surveillance System
Data Table C-27 in Appendix



‡ Non-Hispanic

Substance Use - Cocaine - Adolescents

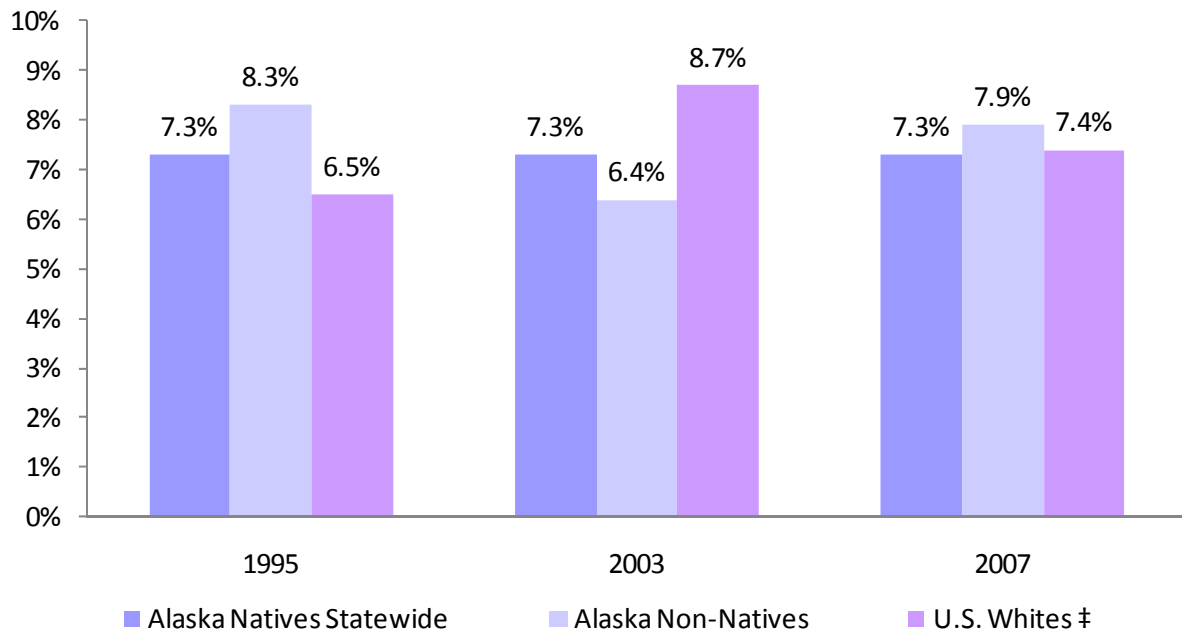
Definition: Cocaine use among adolescents, grades 9-12, is defined as having used cocaine ever during their lifetime.

Summary

- Alaska Native students (7.3%), Alaska Non-Native (7.9%), and U.S. White students (7.4%) reported a similar prevalence of cocaine use.
- The prevalence of cocaine use among Alaska Natives statewide, Alaska Non-Native and U.S. White high school students did not change significantly between 1995 and 2007.

Figure 30. Percent of High School Students Who Used Any Form of Cocaine, Including Powder, Crack or Freebase During their Lifetime, 1995, 2003 and 2007

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



‡ Non-Hispanic

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Health Indicators

Leading Causes of Hospital Inpatient Discharges

Definition: A **hospital discharge** is represented by the primary International Classification of Disease discharge diagnosis for inpatient visits as reported to the Indian Health Service’s National Patient Information Reporting System for the federal fiscal year.

Summary

- Normal pregnancy and delivery of newborn infants accounted for the top cause of hospitalizations in Norton Sound (20.0%) in FY 2009.
- The top 10 discharge diagnoses accounted for 63.6% of the hospitalizations in Norton Sound.
- The average length of hospitalization stay in Norton Sound was 3.7 days.

Table 5. Leading Causes of Hospital Discharges, Norton Sound, Federal Fiscal Year 2009

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

Primary Discharge Diagnosis Clinical Classification Group by Rank	N	%	Total Days	Average Length of Stay
1. Normal pregnancy and/or delivery	157	20.0%	979	6.2
2. Liveborn	88	11.2%	138	1.6
3. Pneumonia‡	66	8.4%	301	4.6
4. Alcohol-related disorders	53	6.8%	174	3.3
5. Poisoning by other medications and drugs	30	3.8%	69	2.3
6. Other complications of birth; puerperium affecting management of mother	25	3.2%	101	4.0
7. Other complications of pregnancy	24	3.1%	44	1.8
8. Acute bronchitis	22	2.8%	55	2.5
9. Mood disorders	19	2.4%	71	3.7
10. Chronic obstructive pulmonary disease and bronchiectasis	15	1.9%	57	3.8
All Other Causes	270	34.4%	819	3.0
Total	784	100.0%	2,866	3.7

‡Does not include discharges for pneumonia associated with tuberculosis or sexually transmitted diseases.

Leading Causes of Outpatient Visits

Definition: An **outpatient visit** is represented by the primary International Classification of Disease diagnosis for ambulatory care 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 Norton Sound during Federal Fiscal Year 2009 were: other upper respiratory infections, otitis media, and alcohol-related disorders.
- The top 15 causes of outpatient visits accounted for 50.1% of the workload.

Table 6. Leading Causes of Outpatient Visits, Norton Sound, Federal Fiscal Year 2009

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

Outpatient Visits in Clinical Classification Categories by Rank		
	N	%
1. Other upper respiratory infections	5,213	8.4%
2. Otitis media and related conditions	2,925	4.7%
3. Alcohol-related disorders	2,640	4.3%
4. Blindness and vision defects	2,385	3.9%
5. Other ear and sense organ disorders	2,343	3.8%
6. Administrative/social	2,209	3.6%
7. Immunizations and screening for infectious disease	1,912	3.1%
8. Other aftercare	1,862	3.0%
9. Medical examination/evaluation	1,549	2.5%
10. Spondylosis; intervertebral disc disorders; other back problems	1,419	2.3%
11. Other non-traumatic joint disorders	1,411	2.3%
12. Normal pregnancy and/or delivery	1,386	2.2%
13. Other screening for suspected conditions (not mental disorders or infectious disease)	1,337	2.2%
14. Abdominal pain	1,220	2.0%
15. Skin and subcutaneous tissue infections	1,096	1.8%
All Other Causes	30,826	49.9%
Total	617,433	100.0%

Note: Data includes outpatient visits from the following clinics: Brevig, Elim, Gambell, Golovin, Koyuk, Little Diomed, Norton Sound Hospital, Savoonga, Shaktoolik, Shishmaref, St. Michael, Stebbins, Teller, Unalakleet, Wales, and White Mountain.

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

- Falls were the leading causes of injury hospitalizations from 1991-2003 among Norton Sound Alaska Natives. The rate of fall hospitalizations was similar to that of Alaska Natives Statewide.
- The motor vehicle accident hospitalization rate for Norton Sound Alaska Natives (0.7) was significantly lower than that for Alaska Natives statewide ($p < 0.05$).
- Norton Sound Alaska Native people were 1.7 times more likely to be hospitalized for suicide attempts, 2.4 times more likely to be hospitalized for ATV injuries, and 1.8 times more likely to be hospitalized for snowmachine injuries than Alaska Natives Statewide ($p < 0.05$).
- Norton Sound Alaska Native people had a total injury hospitalization rate of 162.2 per 10,000, which was significantly higher than Alaska Natives Statewide ($p < 0.05$).

Table 7. Leading Causes of Injury Hospitalizations, Norton Sound Alaska Natives, 1991-2003

Primary Data Source: Alaska Trauma Registry

Secondary Data Source: Alaska Native Injury Atlas of Mortality and Morbidity, The Injury Prevention Program and the Alaska Native Epidemiology Center, January 2008

Leading Causes	N	%	Age-Adjusted Rate per 10,000	Rate Ratio ¹ : Norton Sound vs. Alaska Natives Statewide
Falls	328	24%	38.4	1.0
Suicide Attempt	292	21%	34.2	1.7*
Assault	130	9%	15.2	0.8
ATV	125	9%	14.6	2.4*
Snowmachine	116	8%	13.6	1.8*
Motor Vehicle	78	6%	9.1	0.7*
Other	316	23%		
Total Injury	1,385	100%	162.2	1.2*
Total Unintentional	945	68%	110.7	1.1

¹ 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 $p < 0.05$ level

Injury Hospitalizations - Unintentional Injuries and Falls

Figure 31. Unintentional Injury Hospitalization Rate by Region, Alaska Natives, Rate per 10,000, 1991-2003

Primary Data Source: Alaska Trauma Registry

Secondary Data Source: Alaska Native Injury Atlas of Mortality and Morbidity, The Injury Prevention Program and the Alaska Native Epidemiology Center, January 2008

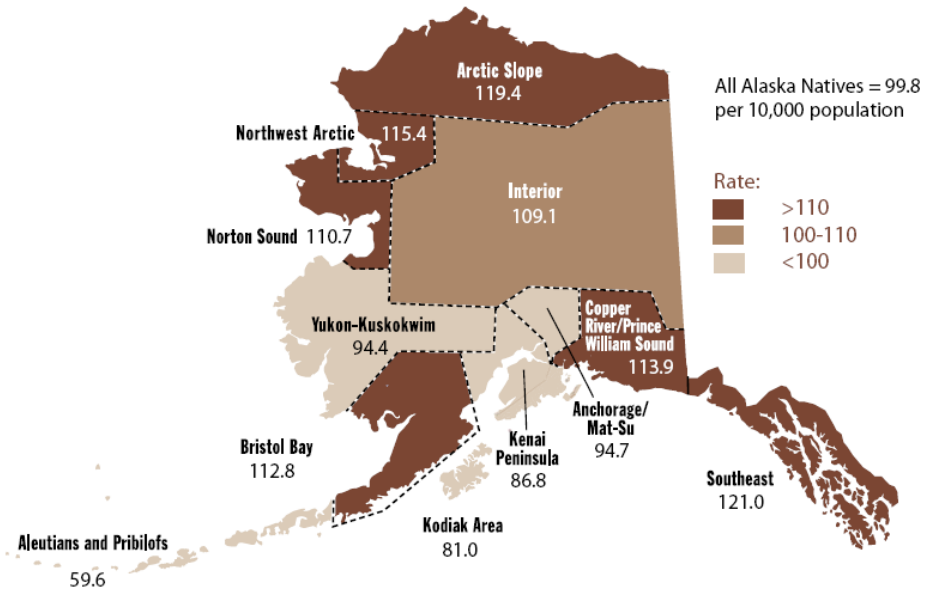
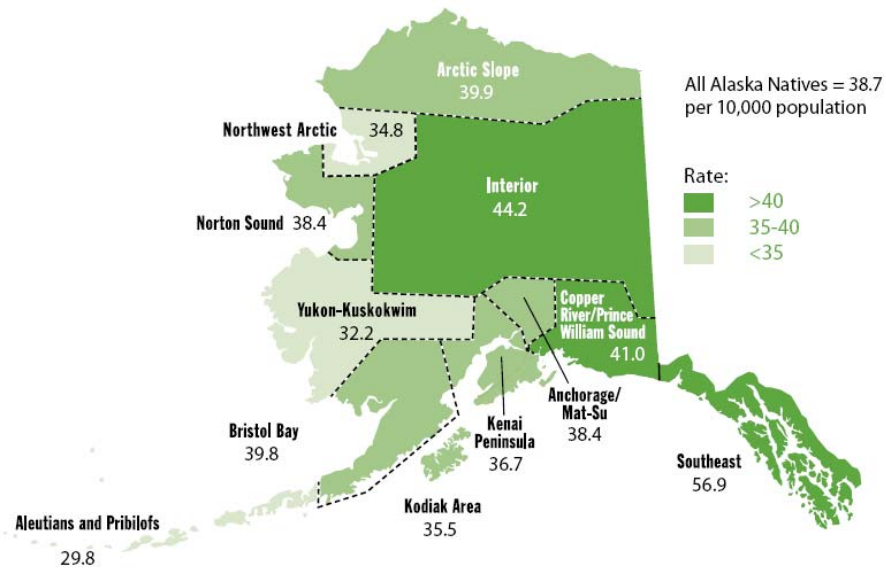


Figure 32. Fall Hospitalization Rate by Region, Alaska Natives, Rate per 10,000, 1991-2003

Primary Data Source: Alaska Trauma Registry

Secondary Data Source: Alaska Native Injury Atlas of Mortality and Morbidity, The Injury Prevention Program and the Alaska Native Epidemiology Center, January 2008



Injury Hospitalizations - Suicide Attempts and Assaults

Figure 33. Hospitalization Rate for Suicide Attempts by Region, Alaska Natives, Rate per 10,000, 1991-2003

Primary Data Source: Alaska Trauma Registry

Secondary Data Source: Alaska Native Injury Atlas of Mortality and Morbidity, The Injury Prevention Program and the Alaska Native Epidemiology Center, January 2008

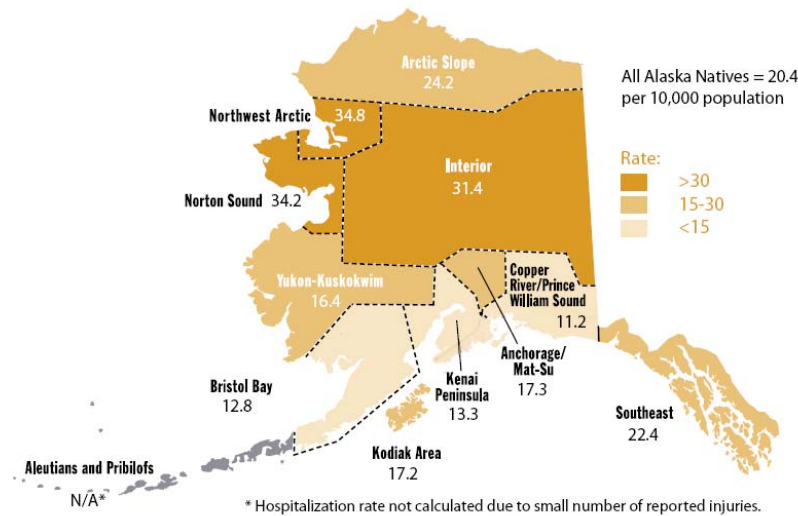
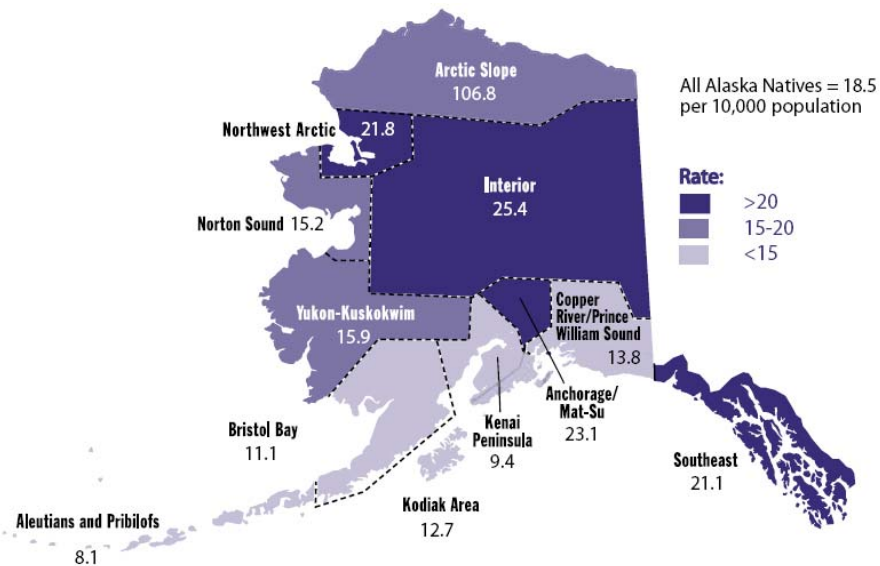


Figure 34. Hospitalization Rate for Assault Injuries by Region, Alaska Natives, Rate per 10,000, 1991-2003

Primary Data Source: Alaska Trauma Registry

Secondary Data Source: Alaska Native Injury Atlas of Mortality and Morbidity, The Injury Prevention Program and the Alaska Native Epidemiology Center, January 2008



Leading Cancers

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

Summary

- The most frequently diagnosed cancers for Norton Sound Alaska Natives during 1998-2007 were Lung (24.1%), Colorectal (23.6%), and Breast (9.9%).
- The top three cancers accounted for over half (57.5%) of all cancer for Norton Sound Alaska Natives.

Table 8. Leading Cancers, Norton Sound Alaska Natives, 1998-2007

Data Source: Surveillance, Epidemiology, and End Results Programs

Site of Cancer by Rank	N	%
1. Lung	51	24.1%
2. Colorectal	50	23.6%
3. Breast	21	9.9%
4. Stomach	17	8.0%
5. Oral Cancers	7	3.3%
6. Esophageal	5	2.4%
7. Liver	5	2.4%
8. Pancreas	5	2.4%
All Other Cancers	51	24.1%
Total	212	100.0%

Diabetes

Definition: **Diabetes** is a metabolic disease characterized by high blood sugar levels, which result from defects in insulin secretion, insulin action, or both. The measures for diabetes include diabetes prevalence, and the percent increase of diabetes prevalence.

Healthy People 2010, Goal 5.3: Reduce the overall cases of diabetes that are clinically diagnosed to 25 per 1,000 population.

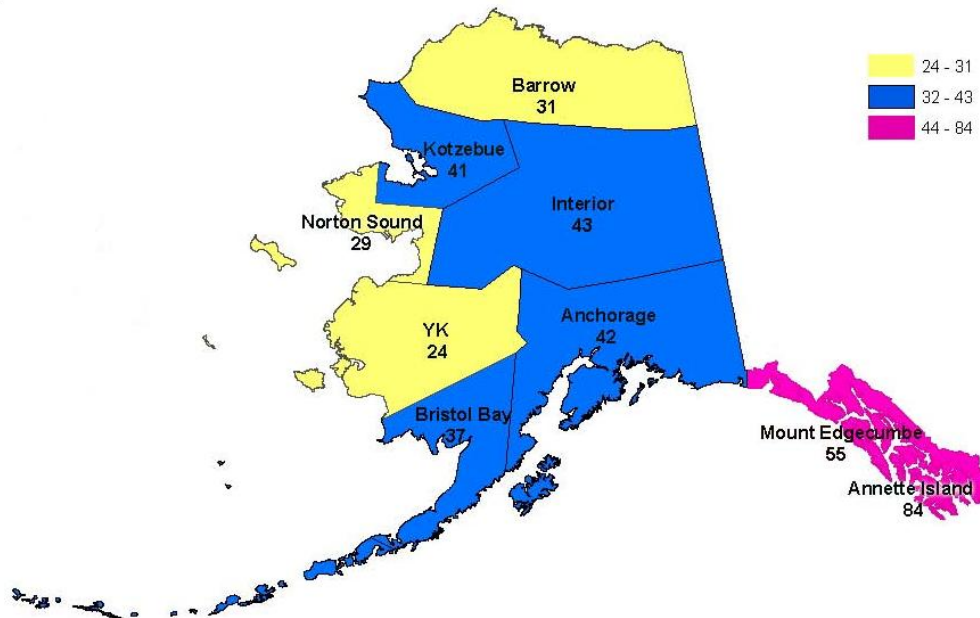
Summary

- The 2007 age-adjusted prevalence of diabetes among Norton Sound Alaska Native people was 29 per 1,000 people. This is lower than the prevalence of diabetes among Alaska Native people statewide (40 per 1,000 people).
- The prevalence of diabetes increased 201% from 1990 to 2007 among Norton Sound Alaska Native people. The Alaska Native statewide diabetes prevalence increase was 117% for the same time period.

Figure 35. Diabetes Prevalence among Alaska Natives, Rate per 1,000, 2007

Data Source: Alaska Area Diabetes Registry

*The I.H.S. user population is the denominator and the data was age-adjusted to the Standard U.S. 2000 Population.

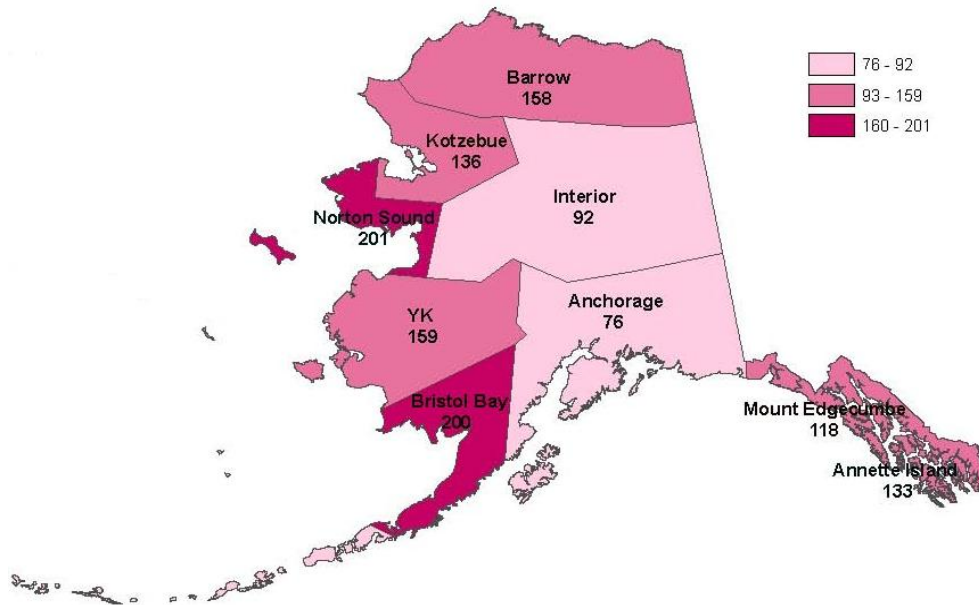


Diabetes

Figure 36. Percent Increase in Diabetes Prevalence among Alaska Natives, 1990-2007

Data Source: Alaska Area Diabetes Registry

*The I.H.S. user population is the denominator and the data was age-adjusted to the Standard U.S. 2000 Population.



Low Birth Weight

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

Healthy People 2010, Goal 16.10a: Reduce low birth weight to at most 4.5% of live births.

Summary

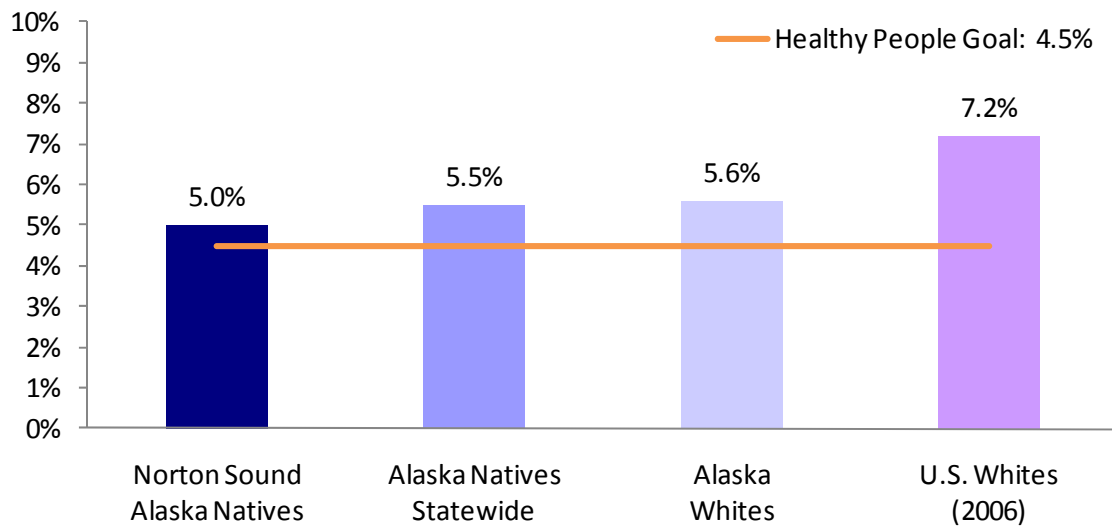
- 5.0% of Alaska Native live births in the Norton Sound region were born with low birth weight. This is very close to the Healthy People 2010 Goal.

Figure 37. Percentage of Live Births with Low Birth Weight, 2006-2008

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: National Center for Health Statistics. Health, United States, 2009: With Special Feature on Medical Technology. Hyattsville, MD. 2010.

Data Table C-29 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.

Healthy People 2010, Goal 16.2: Reduce pregnancies among adolescent females to 43.0 per 1,000 females (15 to 17 years).

NOTE: Data presented are for teen births aged 15-19 years. The Healthy People 2010 Goals are to reduce teen births aged 15-17 years.

Summary

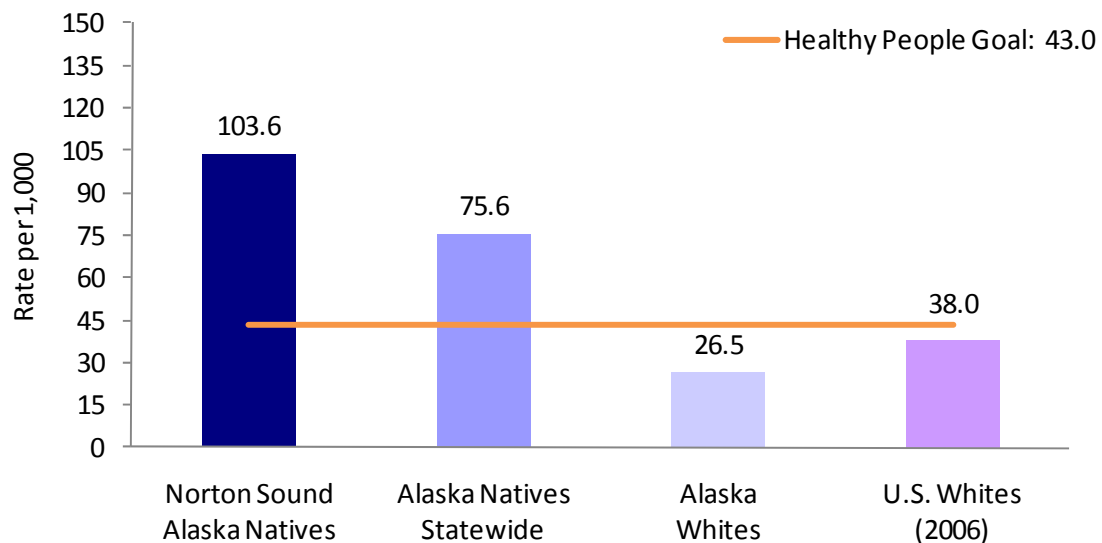
- The teen birth rate among Norton Sound Alaska Native teens was 103.6, and among Alaska Natives statewide it was 75.6 per 1,000 live births.
- The teen birth rate for Norton Sound Alaska Native teens was 1.4 times the teen birth rate of Alaska Natives statewide (75.6) and 2.7 times the rate of U.S. Whites (38.0), respectively.

Figure 38. Teen Birth Rate per 1,000 Live Births, Females 15-19 Years, 2004-2006

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: Martin TA, Hamilton BE, Sutton PD, Ventura ST, Menacker F, Kirmeyer S, Mathews TJ. Births: Final data for 2006. National Vital Statistics Reports 2009; 57(7).

Data Table C-30 in Appendix



Sexually Transmitted Infections - Gonorrhea

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

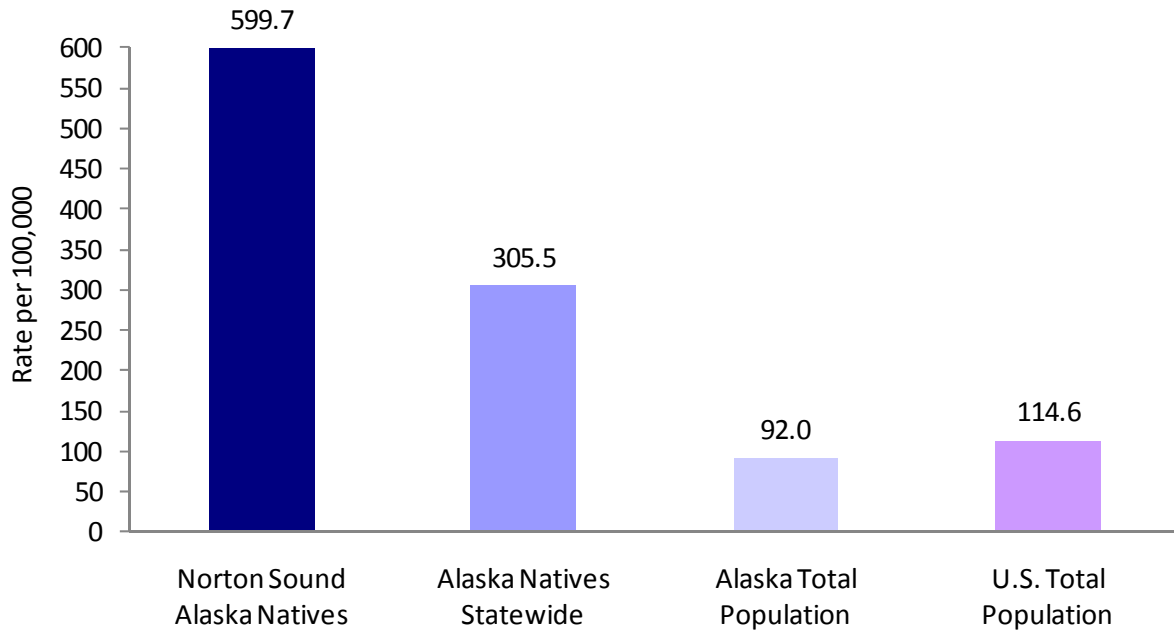
Summary

- The gonorrhea rate for Norton Sound Alaska Natives (599.7) was 2.0 times the rate of gonorrhea for Alaska Natives statewide (305.5), and over five times that of the Alaska total population and the U.S. total population.
- The gonorrhea rate for Alaska Natives statewide (305.5) was 2.7 times the rate of gonorrhea for the U.S. total population (114.6).

Figure 39. Gonorrhea Rate for Alaska Native People Statewide per 100,000 population, 2005

Alaska Data Source: State of Alaska Epidemiology - HIV/STD Program and Center for Disease Control and Prevention Division of Sexually Transmitted Disease Prevention

U.S. Data Source: National Center for Health Statistics. Health, United States, 2009: With Special Feature on Medical Technology. Hyattsville, MD. 2010.



Sexually Transmitted Infections - Chlamydia

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

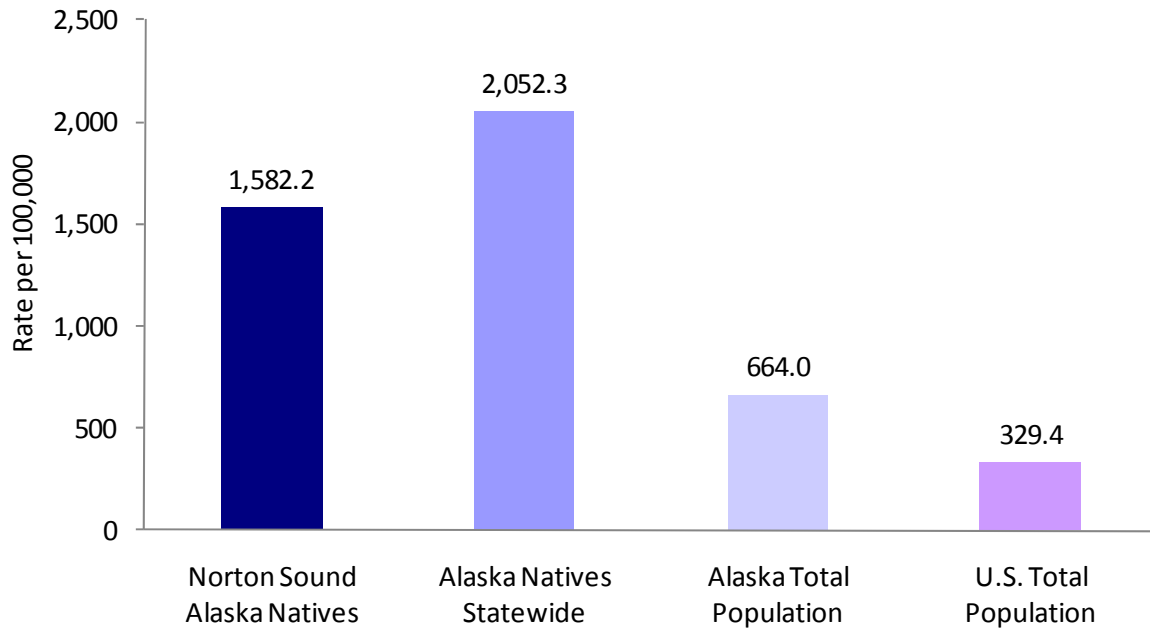
Summary

- The Chlamydia rate for Norton Sound Alaska Natives (1,582.2) was less than that of Alaska Natives statewide (2,052.3).
- The Chlamydia rate for Norton Sound Alaska Natives (1,582.2) was 2.4 times the rate for the Alaska total population (664.0) and nearly five times the rate for the U.S. total population (329.4).

Figure 40. Chlamydia Rate for Alaska Native People Statewide per 100,000 population, 2005

Alaska Data Source: State of Alaska Epidemiology - HIV/STD Program and Center for Disease Control and Prevention Division of Sexually Transmitted Disease Prevention

U.S. Data Source: National Center for Health Statistics. Health, United States, 2009: With Special Feature on Medical Technology. Hyattsville, MD. 2010.



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**Preventive
Services
and
Access to
Health Care**

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.

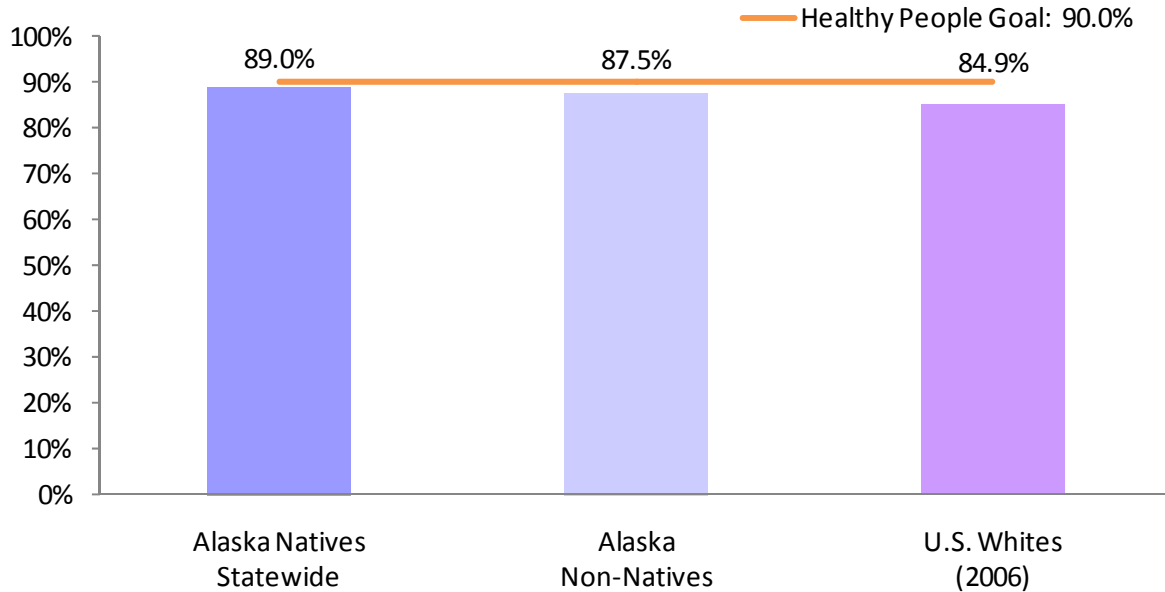
Healthy People 2010, Goal 3.13: Increase the proportion of women aged 18 years and older who received a Pap test within preceding 3 years to 90.0%.

Summary

- Alaska Native women nearly met the Healthy People 2010 goal of 90.0% for cervical cancer screening with 89.0% receiving a Pap test within the last 3 years.
- 87.5% of Alaska Non-Native people and 84.9% of U.S. Whites were screened for cervical cancer.

Figure 41. Percent of Women with a Pap Test within the Past Three Years, 18 Years and Older, 2004 and 2006

Data Source: Behavioral Risk Factor Surveillance System
Data Table C-31 in Appendix



Breast Cancer Screening

Definition: Breast cancer screening is defined as females aged 40 and older who report a mammogram within the last 2 years.

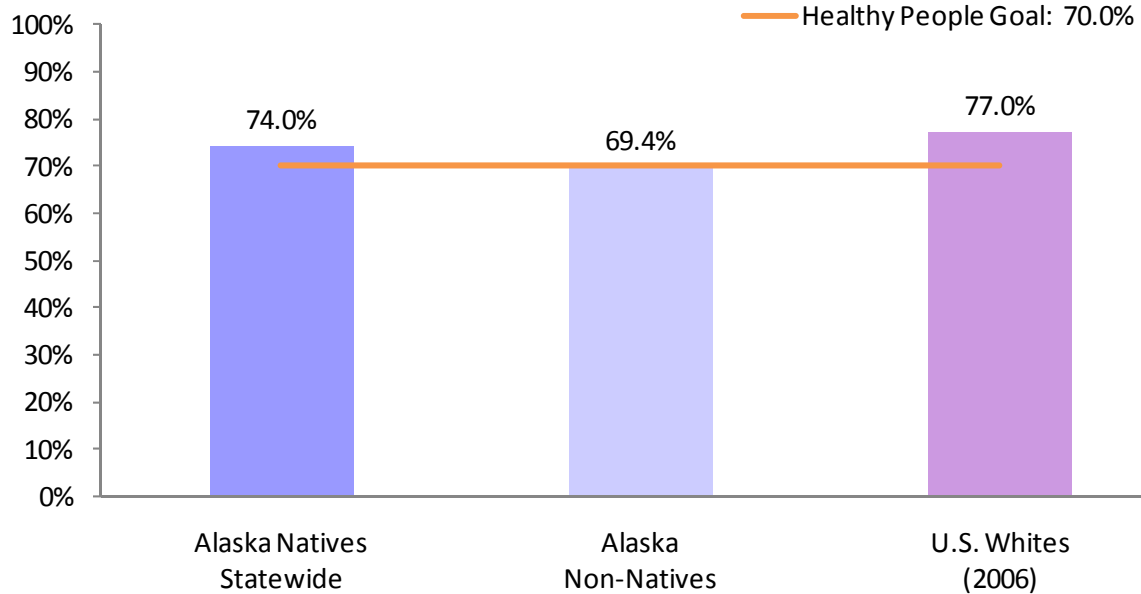
Healthy People 2010, Goal 3.13: Increase the proportion of women aged 40 years and older who have received a mammogram within the preceding 2 years to 70%.

Summary

- Alaska Native women (74.0%) exceeded the Healthy People Goal of 70% for having a mammogram within the past two years.
- 69.4% of Alaska Non-Natives and 77.0% of U.S. Whites received a mammogram within the preceding two years.

Figure 42. Percent of Women with Mammogram in the Last Two Years, 40 Years and Older, 2004 and 2006

Data Source: Behavioral Risk Factor Surveillance System
Data Table C-32 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.

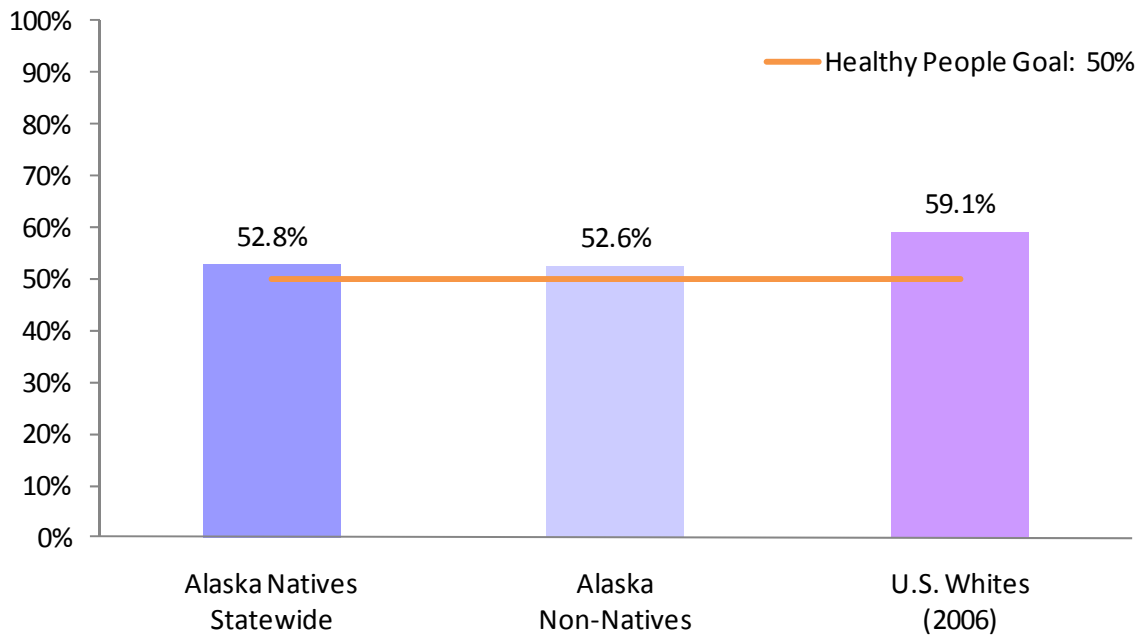
Healthy People 2010, Goal 3.12b: Increase the proportion of adults aged 50 years and older who have ever received a sigmoidoscopy to 50%.

Summary

- 52.8% of Alaska Native people aged 50 years and older reported ever having a flexible sigmoidoscopy or colonoscopy; achieving the Healthy People Goal of 50%.
- Alaska Non-Natives (52.6%) and U.S. Whites (59.1%) also achieved the Healthy People Goal.

Figure 43. Percent Who Have Had a Flexible Sigmoidoscopy or Colonoscopy Ever, 50 Years and Older, 2004 and 2006

Data Source: Behavioral Risk Factor Surveillance System
Data Table C-33 in Appendix



Immunizations - Influenza Vaccine ages 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 2010, Goal 14.29a: Increase the proportion of elderly adults (65 years and older) immunized against influenza disease to 90%.

Summary

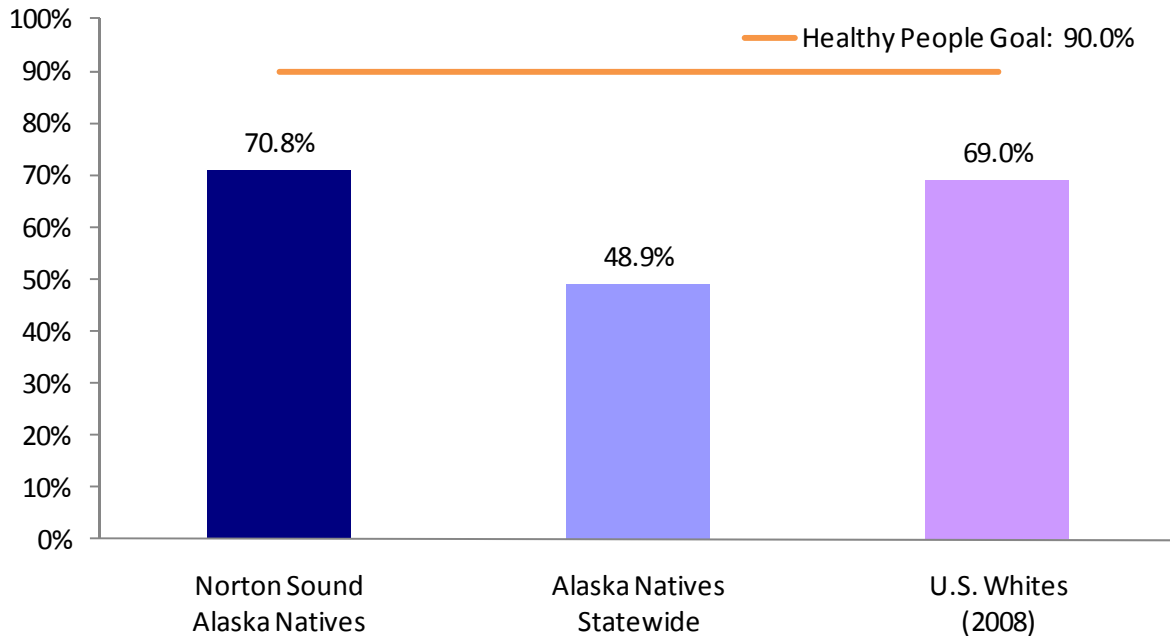
- Between June 30, 2009 and June 30, 2010, 70.8% of Alaska Native people aged 65 years and older in the Norton Sound region were vaccinated against influenza in the past year, while 48.9% of Alaska Native people statewide had received the influenza vaccine.
- Norton Sound Alaska Natives, Alaska Natives Statewide and U.S. Whites all did not reach the Healthy People Goal of 90% being vaccinated for influenza in the prior twelve months.

Figure 44. 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

Data Table C-34 in Appendix



Immunizations - Pneumococcal Vaccine ages 65 and older

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

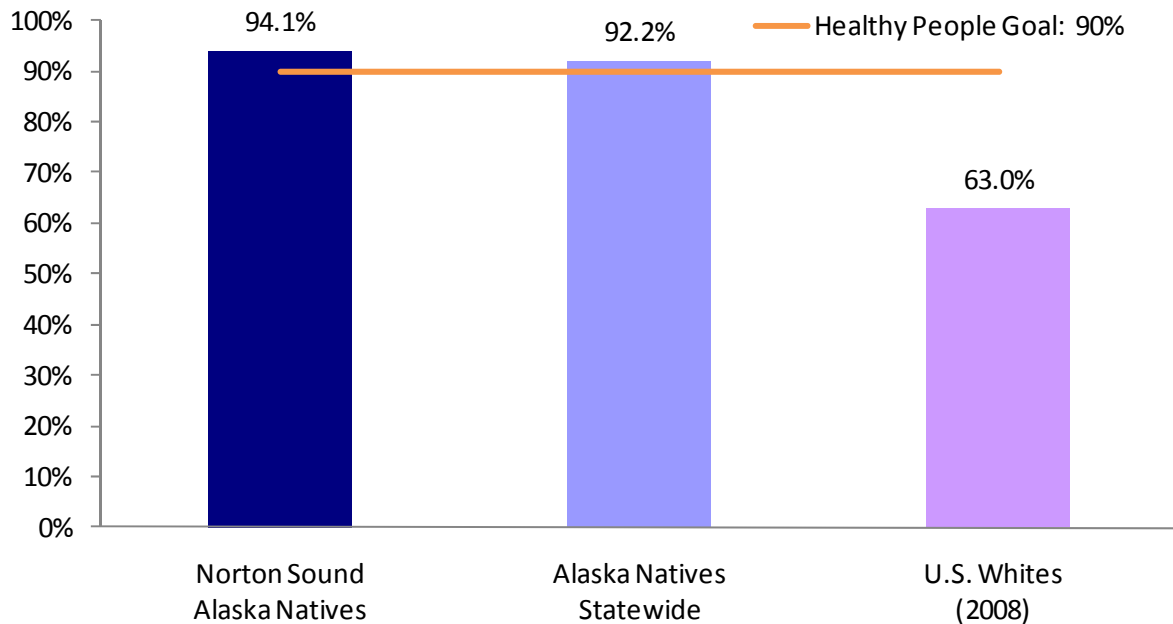
Healthy People 2010, Goal 14.29b: Increase the proportion of elderly adults (65 years and older) immunized against pneumococcal disease to 90%.

Summary

- As of June 2010, 94.1% of Alaska Native people aged 65 years and older in the Norton Sound region and 92.2% of Alaska Native statewide received a pneumococcal vaccine in their lifetime achieving the Healthy People Goal of 90%.
- Norton Sound Alaska Native and Alaska Native people statewide aged 65 and older had higher rates of ever receiving pneumococcal vaccine than U.S. adults aged 65 and older as of June 30, 2010.

Figure 45. Pneumococcal 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 Data Table C-35 in Appendix



Immunizations - 4:3:1:3:3

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

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

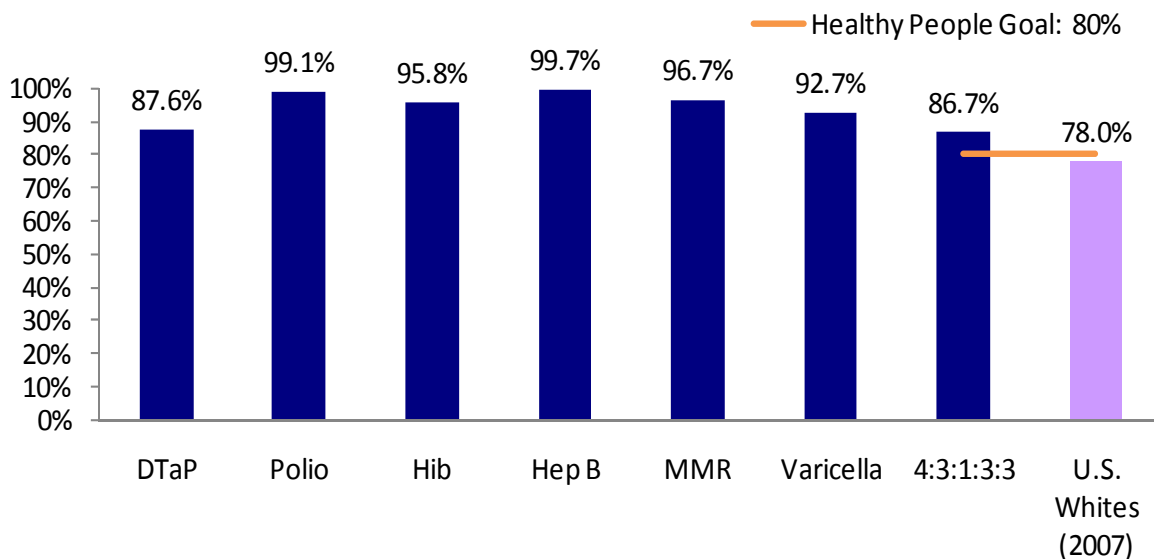
NOTE: Data presented are for two-year old vaccination rates. The Healthy People 2010 Goal is to increase immunization rates among children aged 19-35 months.

Summary

- As of June 2010, the Norton Sound Region had met the Healthy People goal by achieving 86.7% immunization coverage (4:3:1:3:3) for Alaska Native two-year olds.
- Norton Sound achieved over 90% two-year old vaccination coverage for diphtheria-tetanus-pertussis, polio, Haemophilus Influenza type b, Hepatitis B, and measles-mumps-rubella vaccination rates.

Figure 46. Two-Year Old Vaccination Coverage, Norton Sound Alaska Native Two Year Olds, as of June 30, 2010

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.
 Data Table C-35 in Appendix



Adequate Prenatal Care

Definition: The **Adequate Prenatal Care Utilization Index** combines the initiation of prenatal care and the number of prenatal visits reported on the birth certificate. A ratio of actual to recommended visits is calculated. When the ratio is 110.0% or greater, care is considered “adequate plus” prenatal care. If the ratio is greater than 80.0% but less than 110.0%, care is considered “adequate”. A ratio between 50.0% and 79.0% is considered “intermediate” and a ratio of less than 50.0% is considered “inadequate.”

Healthy People 2010, Goal 16.6b: Increase the proportion of women who receive at least adequate prenatal care to 90%.

Summary

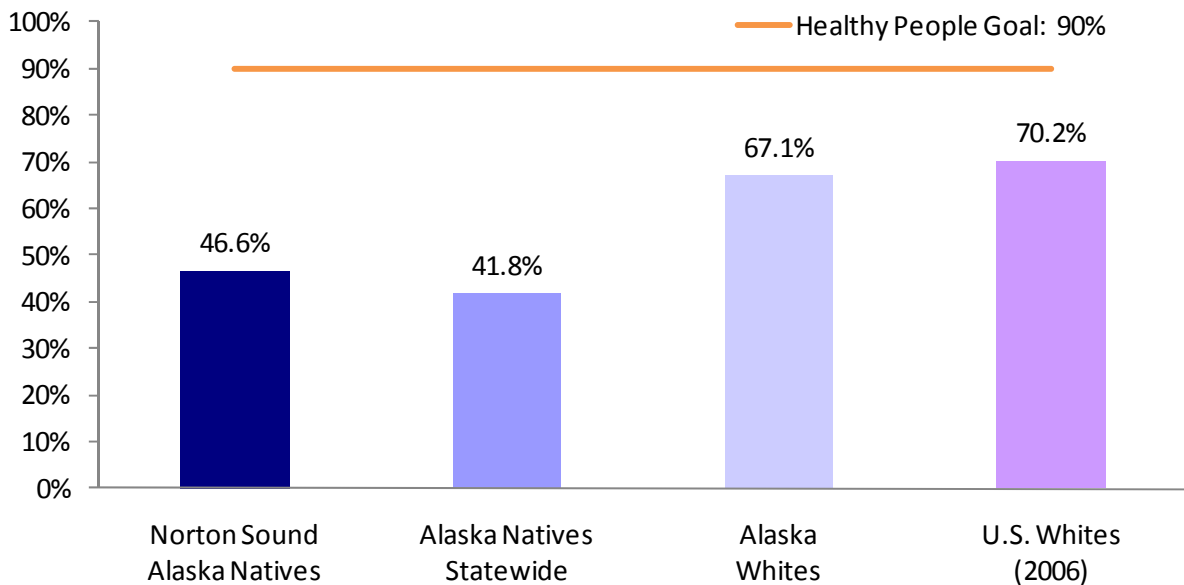
- According to documentation, it appears that 46.6% of Norton Sound Alaska Native pregnant women and 41.8% of Alaska Natives statewide received adequate prenatal care.
- Documentation of adequate prenatal care among Norton Sound Alaska Natives and Alaska Natives Statewide appears to differ from Alaska Whites and U.S. Whites.

Figure 47. Percent of Births Where the Mother Received Adequate or Adequate Plus Prenatal Care, 2006-2008

Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: National Center for Health Statistics. Health, United States, 2009: With Special Feature on Medical Technology. Hyattsville, MD. 2010.

Data Table C-36 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, 64.2% of the communities in the Norton Sound region had water and sewer service.
- The percentage of housing units served with water and sewer in Norton Sound was one of the lowest among regions throughout the state in 2008.

Table 9. 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

Major Rural Regional Health Corporation	2008 Housing Units		% Served
	with Flush Toilets & Pressurized Water	2008 Total Housing Units	
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%
Tanana Chiefs Conference	1,150	1,930	59.6%
Yukon - Kuskokwim Health Corporation	2,753	4,760	57.8%

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Appendixes

Appendix A. Description of Data Sources

General Note: Calculations for percentages are rounded to one decimal place, therefore total percentages may not add up to 100.0%

Statistical Significance

Throughout the document, differences were considered statistically significant if they were different at the 95% level ($p < 0.05$). Statistical significance was denoted by the use of the word “significant” in the summary boxes. Differences between rates and percentages were considered to be significantly different if the 95% confidence intervals did not overlap. Rate ratios were 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 is a clinical and epidemiologic resource for tribal health care facilities throughout Alaska. The registry is used to track patients diagnosed with diabetes and to ensure that care is provided based on national standards. It is also used to highlight the prevalence of diabetes and its complications in the Alaska Native population.

The aggregated diabetes data presented in this document were provided by the Alaska Area Diabetes Registry. The data are aggregated by the former Indian Health Service Units. More information about the data may be found at <http://www.anmc.org/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 136,065 Alaska Natives. The Alaska Area Indian Health Service’s Division of Planning and Evaluation and Health Statistics provided the user population data and the village population estimates for 1990 and 2000. 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 analyses are described below. More information about the Alaska Bureau of Vital Statistics may be obtained at: <http://www.hss.state.ak.us/DPH/bvs/data/default.htm>.

Mortality Trends and Injury Death

Mortality data for Norton Sound Alaska Native people and Alaska Native people statewide was from 1984 to 2008. Rates are age-adjusted to the U.S. Standard Population. “Bridged” population estimates from the National Center for Health Statistics were used as the denominator to calculate the mortality rates. Bridged estimates were necessary to adjust for the option in the Census 2000 to choose multiple races, rather than one race. The rates were calculated for those causes that had at least five deaths during the designated time period. To calculate the rates, five years of population

Appendix A. Description of Data Sources

data were summed for each interval (1984-1988 to 2004-2008). The number of deaths for each five-year age group (0-4 up to 85+ years) was divided by the total population for that age group during that five-year interval. Those crude rates were multiplied by the standard population rate and summed to get the overall age-adjusted rates. Data for U.S. Whites were available through the National Cancer Institute's Surveillance Epidemiology and End Results Program.

For leading causes of injury death, we calculated rate ratios with confidence intervals to compare Norton Sound Alaska Native people to U.S. Whites. We considered the rates statistically different if the 95% confidence interval did not contain a value of one. We used the on-line SEERStat software to calculate mortality rates.

Infant Mortality

The infant mortality rates were grouped into five-year intervals, except for the last time period which was four years, from 1984-2007. The U.S. White data were from the Surveillance Epidemiology and End Results program and calculated using the SEERStat software.

Low Birthweight, Adequate Prenatal Care, Smoking and Alcohol Consumption during Pregnancy

These data were based upon data reported on birth certificates to the state of Alaska. They were obtained from the Bureau of Vital Statistics. 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 population estimates presented in this report are produced in the years between the censuses and are based on the census as a baseline. The estimates use administrative records as indicators of change in a population and use these to adjust the population numbers. Examples of such records are birth and death records, income tax returns, Permanent Fund applications, school enrollment and driver's licenses. More information about the Alaska Department of Labor and Workforce Development population statistics may be found at <http://labor.alaska.gov/>

The unemployment statistics exclude anyone who has not made an active attempt to find work in the four-week period up to and including the week that includes the last day of the reference month. Many individuals in rural Alaska do not meet the definition because they have not conducted an active job search due to the scarcity of employment opportunities. More information about unemployment statistics may be found at <http://labor.alaska.gov/>.

Alaska Native Tribal Health Consortium's Department of Environmental Health and Engineering

The Alaska Native Tribal Health Consortium's Division of Environmental Health and Engineering provides planning, design, construction and operations support of public health infrastructure in

Appendix A. Description of Data Sources

Native communities throughout the state of Alaska. As part of the Alaska Tribal Health System, the Division of Environmental Health and Engineering is focused on the delivery of sustainable public health solutions.

The data provided in this regional health profile are for areas off the road system and provided by the Division of Environmental Health and Engineering. More information regarding the program and services may be found at <http://www.anthc.org/cs/dehe/>.

Alaska Native Tribal Health Consortium's Immunization Registry

The Alaska Native Tribal Health Consortium's Immunization Program works to coordinate tribal immunization programs, educate tribal staff on immunization recommendations and vaccine-preventable diseases, and advocate with outside agencies for the needs of tribal programs.

The goal of the Alaska Native Tribal Health Consortium's Immunization Program is to eliminate disparities in vaccine-preventable diseases in Alaska Native people through immunization.

The data provided in this regional health profile was provided by the Alaska Native Tribal Health Consortium Immunization Registry. More information about the program may be found at: <http://www.anthc.org/cs/chs/immunization/>.

Alaska Native Tribal Health Consortium Alaska Native Tumor Registry

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

Alaska Trauma Registry

Alaska Trauma Registry data was from 1991-2003. The Alaska Trauma Registry is an information system of the most seriously injured patients in Alaska, and the treatment that they have received. Since 1991, the trauma registry has collected data from all 24 of Alaska's acute care hospitals.

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

Trauma Registry data is confidential and protected under Alaska Statute 18.23.010-070. All trauma registry personnel and those requesting trauma registry data are required to sign a confidentiality

Appendix A. Description of Data Sources

statement. The trauma registry does not include patient, physician, hospital, clinic, or ambulance service identifiers.

Trauma registry information is also used by a variety of agencies and individuals in the planning and evaluation of injury prevention programs, for research and public education, for Emergency Medical Service training, and in developing public policy.

(Description from: http://www.hss.state.ak.us/dph/ipems/injury_prevention/trauma.htm)

The data were analyzed by the Alaska Native Epidemiology Center in collaboration with the Alaska Native Tribal Health Consortium's Injury Prevention Program. More information about the program may be found at: <http://www.anthc.org/chs/wp/injprev/index.cfm>.

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 Centers for Disease Control and Prevention provides funding and technical assistance to all 50 states, Washington D.C., and 3 territories to conduct the survey annually. The survey includes questions about health status and perceptions, preventive health practices, and risky behaviors that influence the prevalence of chronic disease, injury and preventable infectious diseases.

The 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 on their own. The entire interview takes less than 30 minutes to complete. Interviews are conducted during every month of the year. Approximately 2,500 Alaskans are interviewed each year, 500 of which are Alaska Natives.

Respondents are adults 18 years and older living in households. Individuals living in military barracks, dormitories, nursing homes, and other group-living situations are excluded. Apart from that exclusion, each state's sample is designed to be representative of the state's population.

Respondents are contacted by telephone using a selection process based on area codes and prefixes that are highly likely to be associated with residential listings. Alaska uses an additional sampling procedure to take into account differences in telephone coverage by geographic and economic factors.

The analyses of Behavioral Risk Factor Surveillance System data require complex statistical procedures to take into account the fact that not every adult resident of the state has an equal chance of being contacted for an interview. The analyses assign a probability to each respondent

Appendix A. Description of Data Sources

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 Bureau of Chronic Disease Prevention and Health Promotion BRFSS Health Survey Lab provided state data. The Behavioral Risk Factor Surveillance System respondents from the Norton Sound Region and statewide were analyzed by the Alaska Native Epidemiology Center. The Norton Sound Region includes all respondents residing in communities served by the Norton Sound Alaska Regional Health Corporation. In order to achieve a meaningful sample size, multiple (three) years of data were combined for the analyses. More information about the Alaska BRFSS data may be obtained at: <http://www.hss.state.ak.us/dph/chronic/hsl/brfss/regions.htm>.

The U.S. Results were from the Center for Disease Control and Prevention's Behavioral Risk Factor Surveillance System interactive tool located at: <http://apps.nccd.cdc.gov/brfss/>.

The Behavioral Risk Factor Surveillance System survey contains slightly varied questions yearly depending on the health topics that are of interest for that particular year. Due to this variation, years presented in this report may vary between indicators.

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. Behavioral Risk Factor Surveillance System data are not age-adjusted to account for the different age distributions between the comparison populations. 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 2010

The Healthy People 2010 measures reported in this document were taken from the following document and may be found online at: <http://www.healthypeople.gov/Publications/>.

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

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 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.

Appendix A. Description of Data Sources

The *Leading Causes of Hospital Inpatient Discharges* and the *Leading Causes of Outpatient Visits* were calculated by the Alaska Native Epidemiology Center using the National Patient Information Reporting System data. The data were calculated based on the primary diagnosis. The data were categorized using the Agency for Healthcare Research and Quality's Clinical Classification Software. This software groups the outpatient and inpatient 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:

<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/>.

Surveillance Epidemiology and End Results Program

The Surveillance Epidemiology and End Results Program (SEER) is part of the National Cancer Institute. The SEER Program's primary purpose is to collect 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 were 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>.

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. HIV/STD Program staff apply the best available scientific information, public health program experience, and epidemiologic methods to help guide statewide disease control strategies, policies, and activities. The data presented in this report were 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 were from the 2000 decennial census or the American Community Survey using the American Factfinder, an on-line tool on the U.S. Census website. More information about the U.S. Census may be found at: http://factfinder.census.gov/home/saff/main.html?_lang=en.

Youth Risk Behavior Surveillance System

The Youth Risk Behavior Surveillance System was established in 1988 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:

Appendix A. Description of Data Sources

- 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
- Dietary behaviors
- Physical activity

The Youth Risk Behavior Surveillance System has been administered in Alaska six times, 1995, 1999 (excluding Anchorage), 2001, 2003, 2005, and 2007. Weighted (representative) data were collected in 1995, 1999, 2003, and 2007 resulting in published reports statewide. We excluded 1999 in this report since it did not include Anchorage, and 2001 and 2005, because weighted (representative) data were not collected.

The Alaska data presented in this report were provided to the Alaska Native Epidemiology Center by the 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 following sources listed respectively by the following years 1995, 2003 and 2007 :

Centers for Disease Control and Prevention. *CDC Surveillance Summaries*, September 27, 1996 MMWR; 45(No.SS-4);

Centers for Disease Control and Prevention. *Surveillance Summaries*, May 21, 2004. MMWR 2004: 53(No. SS-2); and

Centers for Disease Control and Prevention. *Health Risk Behaviors by Race/Ethnicity National YRBS: 2007*. http://www.cdc.gov/HealthyYouth/yrbs/pdf/yrbs07_us_disparity_race.pdf

Appendix B. Race/Ethnicity Classification by Data Source

Data Source	Racial Classification
Alaska Area Diabetes Registry	Alaska Native and American Indian persons who visited Indian Health Services or a tribal health facility in the past three years
Alaska Area Indian Health Service - Census Data	One tribe alone, or in combination with one other tribe, or in combination with any other race group in addition to Alaska Native and American Indian
Alaska Bureau of Vital Statistics	Alaska Native and American Indian
Alaska Department of Labor & Workforce Development	Alaska Native and American Indian
Alaska Native Tribal Health Consortium Immunization Registry	Alaska Native and American Indian person who uses the Alaska Tribal Health System
Alaska Native Tumor Registry	Alaska Native and American Indian persons living in Alaska at the time of a cancer diagnosis
Alaska Trauma Registry	Any mention of Alaska Native and American Indian
American Community Survey	Alaska Native and American Indian alone
Behavioral Risk Factor Surveillance System	Any mention of Alaska Native and American Indian
National Patient Information Reporting System - Indian Health Service National Data Warehouse	Alaska Native and American Indian persons who used Indian Health Service or a tribal facility that reports data through the Indian Health Service data
State of Alaska Epidemiology HIV/STD Program	Alaska Native and American Indian
Surveillance, Epidemiology and End Results Program	Alaska Native and American Indian
U.S. Census	Alaska Native and American Indian alone
Youth Risk Factor Surveillance System	Any mention of Alaska Native and American Indian

Appendix C. Data Tables

Table C-1. Population Estimates by Age Group, Alaska Natives, Norton Sound, 2009

Data Source: Alaska Department of Labor and Workforce Development

Age (years)	Male		Female		Total	
	Number	% of Total	Number	% of Total	Number	% of Total
0-4	550	14.5%	471	13.6%	1,021	14.1%
5-9	434	11.5%	384	11.1%	818	11.3%
10-14	376	9.9%	336	9.7%	712	9.8%
15-19	403	10.6%	391	11.3%	794	11.0%
20-24	293	7.7%	304	8.8%	597	8.2%
25-34	420	11.1%	397	11.5%	817	11.3%
35-44	374	9.9%	348	10.1%	722	10.0%
45-54	392	10.4%	332	9.6%	724	10.0%
55-64	333	8.8%	229	6.6%	562	7.8%
65+	212	5.6%	268	7.7%	480	6.6%
Total	3,787	100.0%	3,460	100.0%	7,247	100.0%

Table C-2. User Population by Age Group, Norton Sound, Fiscal Year 2009

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

Age (years)	Male		Female		Total	
	Number	% of Total	Number	% of Total	Number	% of Total
0-4	586	13.5%	538	13.7%	1,124	13.6%
5-9	453	10.4%	428	10.9%	881	10.7%
10-14	423	9.8%	378	9.6%	801	9.7%
15-19	427	9.8%	424	10.8%	851	10.3%
20-24	390	9.0%	347	8.8%	737	8.9%
25-34	580	13.4%	474	12.1%	1,054	12.7%
35-44	429	9.9%	386	9.8%	815	9.9%
45-54	451	10.4%	419	10.7%	870	10.5%
55-64	329	7.6%	257	6.5%	586	7.1%
65+	270	6.2%	280	7.1%	550	6.7%
Total	4,338	100.0%	3,931	100.0%	8,269	100.0%

Appendix C. Data Tables

Table C-3. Highest Educational Attainment, 25 Years and Older, 2000

Data Source: U.S. Census Bureau

	Norton Sound Alaska Natives		Alaska Natives Statewide		U.S. Whites	
	N	%	N	%	N	%
Less than high school	1,133	32.4%	15,239	26.0%	23,498,237	16.4%
High school diploma or GED	1,641	46.9%	23,347	39.8%	42,216,532	29.5%
Some college, no degree	531	15.2%	13,615	23.2%	30,763,729	21.5%
Associate degree or higher	194	5.5%	6,507	11.1%	46,607,161	32.6%
Total	3,499	100.0%	58,708	100.0%	143,085,659	100.0%

Table C-4. Unemployment for Norton Sound, Alaska and U.S. Total Population, 2005-2009

Data Source: Alaska Department of Labor and Workforce Development

Year	Norton Sound Alaska Natives		Alaska Total Population		U.S. Total Population	
	Annual Average	%	Annual Average	%	Annual Average	%
2005	493	12.4%	23,715	6.9%	N/A	5.1%
2006	465	11.9%	22,950	6.5%	N/A	4.6%
2007	411	10.8%	21,416	6.1%	N/A	4.6%
2008	401	10.0%	23,059	6.5%	N/A	5.8%
2009	512	12.8%	28,751	8.0%	N/A	9.3%

N/A Not Available

Table C-5. Estimated Percent of Residents below the Poverty Level, All Ages, 2000

Data Source: U.S. Census Bureau

	N	%
Norton Sound Alaska Natives	1,493	21.2%
Alaska Natives Statewide	20,195	19.4%
U.S. Whites	18,847,674	9.1%

Appendix C. Data Tables

Table C-6. Estimated Percent of Residents below the Poverty Level, Under 18, 2000

Data Source: U.S. Census Bureau

	N	%
Norton Sound Alaska Natives	668	22.6%
Alaska Natives Statewide	9,072	21.1%
U.S. Whites	5,469,560	11.2%

Table C-7. Leading Causes of Death, Norton Sound Alaska Natives, 2004-2007

Data Source: Surveillance, Epidemiology, and End Results Program

Norton Sound Alaska Natives by Rank	N	% Deaths	Rate per 100,000	Rate Ratio:
				Norton Sound vs. Alaska Natives
1 - Cancer	36	18%	219.7	0.9
2 - Unintentional Injury	33	17%	129.7	1.4
3 - Heart Disease	25	13%	144.5	0.8
4 - Suicide	23	12%	77.5	1.9*
5 - Chronic obstructive pulmonary disease	9	5%	61.8	1.1
Total - All Causes of Death	199	100%	1,019.7	0.9

* Statistically significant difference at the p<0.05 level

Table C-8. 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 only on 2004-2005 data.

		Norton Sound	Alaska Natives	
		Alaska Natives	Statewide	U.S. Whites
1984-1988	N	40	433	2,060,372
	Rate	352.1	248	207.6
1989-1993	N	40	480	2,241,802
	Rate	397.3	253.3	209.9
1994-1998	N	51	586	2,342,924
	Rate	399.4	252.1	202.9
1999-2003	N	55	664	2,400,907
	Rate	276.1	242.3	193.4
2004-2008	N	48	772	960,225
	Rate	234.6	226.3	193.4

Appendix C. Data Tables

Table C-9. Age-Adjusted 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 only on 2004-2005 data.

		Norton Sound Alaska Natives	Alaska Natives Statewide	U.S. Whites
1984-1988	N	44	436	3,407,551
	Rate	527.6	307.2	362.5
1989-1993	N	45	477	3,211,591
	Rate	539.3	284.1	310.2
1994-1998	N	44	515	3,215,181
	Rate	428.8	255.1	280.2
1999-2003	N	36	515	3,069,015
	Rate	178.7	212.0	243.6
2004-2008	N	33	549	1,130,448
	Rate	149.9	172.7	209.5

Table C-10. 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 only on 2004-2005 data.

		Norton Sound Alaska Natives	Alaska Natives Statewide	U.S. Whites
1984-1988	N	39	573	398,916
	Rate	191.5	171.5	39.1
1989-1993	N	37	541	377,602
	Rate	132.2	134.0	35.5
1994-1998	N	42	483	394,689
	Rate	172.7	113.1	35.1
1999-2003	N	41	499	434,629
	Rate	142.4	107.0	36.4
2004-2008	N	43	491	196,165
	Rate	136.1	97.7	39.3

Appendix C. Data Tables

Table C-11. 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 only on 2004-2005 data.

		Norton Sound Alaska Natives	Alaska Natives Statewide	U.S. Whites
1984-1988	N	26	201	138,479
	Rate	94.3	44.8	13.5
1989-1993	N	27	225	139,088
	Rate	78.9	44.8	13.0
1994-1998	N	26	219	139,109
	Rate	73.5	41.4	12.4
1999-2003	N	34	198	137,651
	Rate	87.4	34.5	11.6
2004-2008	N	29	243	58,761
	Rate	75.8	42.3	12.0

Table C-12. 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 only on 2004-2005 data.

		Norton Sound Alaska Natives	Alaska Natives Statewide	U.S. Whites
1984-1988	N	18	202	N/A
	Rate	17.5	14.5	9.0
1989-1993	N	21	194	N/A
	Rate	19.3	13.0	7.6
1994-1998	N	9	120	N/A
	Rate	9.9	9.0	6.4
1999-2003	N	10	126	N/A
	Rate	10.5	9.1	5.9
2004-2008	N	15	142	N/A
	Rate	14.0	9.3	5.8

N/A Not Available

Appendix C. Data Tables

Table C-13. Adults Who are Current Smokers, 2005-2007

Data Source: Behavioral Risk Factor Surveillance System

	N	%	Confidence Interval
Norton Sound Alaska Natives	148	58.0%	(50.9%-64.8%)
Alaska Natives Statewide	1,281	40.7%	(38.0%-43.5%)
Alaska Non-Natives	2,277	19.9%	(18.8%-21.0%)
U.S. Whites (2006)	N/A	19.5%	(16.4%-22.2%)

N/A Not Available

Table C-14. Current Smokeless Tobacco Users, 18 Years and Older, 2005-2007

Data Source: Behavioral Risk Factor Surveillance System

	N	%	Confidence Interval
Norton Sound Alaska Natives	465	9.0%	(5.7% - 14.0%)
Alaska Natives Statewide	349	10.4%	(9.1% - 12.0%)
Alaska Non-Natives	389	3.8%	(3.3% - 4.4%)
U.S. Whites (2007)	6,589	4.3%	N/A

N/A Not Available

Table C-15. Binge Drinking, 18 Years and Older, 2005-2007

Data Source: Behavioral Risk Factor Surveillance System

	N	%	Confidence Interval
Norton Sound Alaska Natives	27	22.1%	(14.9%-31.5%)
Alaska Natives Statewide	352	18.1%	(15.3%-21.2%)
Alaska Non-Natives	1,222	17.7%	(16.2%-19.4%)
U.S. Whites (2006)	N/A	15.8%	N/A

N/A Not Available

Table C-16. Adults Who Meet Moderate and/or Vigorous Physical Activity Recommendations, 2005

Data Source: Behavioral Risk Factor Surveillance System

	N	%	Confidence Interval
Norton Sound Alaska Natives	32	40.1%	(28.8%-52.7%)
Alaska Natives Statewide	517	55.4%	(50.2%-60.4%)
Alaska Non-Natives	2,316	60.7%	(58.3%-63.0%)
U.S. Whites	N/A	49.1%	N/A

N/A Not Available

Appendix C. Data Tables

Table C-17. Obesity (BMI ≥ 30), 18 Years and Older, 2005-2007

Data Source: Behavioral Risk Factor Surveillance System

	N	%	Confidence Interval
Norton Sound Alaska Natives	65	21.6%	(16.6%-27.5%)
Alaska Natives Statewide	1,033	31.1%	(28.6%-33.6%)
Alaska Non-Natives	2,970	25.4%	(24.3%-26.6%)
U.S. Whites (2006)	N/A	25.1%	N/A

N/A Not Available

Table C-18. Overweight (25 ≤ BMI ≤ 29.9), 18 Years and Older, 2005-2007

Data Source: Behavioral Risk Factor Surveillance System

	N	%	Confidence Interval
Norton Sound Alaska Natives	81	32.5%	(26.3%-39.5%)
Alaska Natives Statewide	3,082	38.1%	(35.3%-40.9%)
Alaska Non-Natives	11,327	38.4%	(37.1%-39.7%)
U.S. Whites (2006)	N/A	36.5%	N/A

N/A Not Available

Table C-19. Percent of Women Reporting Abstinence from Tobacco Use during Pregnancy, 2006-2008

Primary Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: National Center for Health Statistics, Health, United States, 2009: With Special Feature on Medical Technology. Hyattsville, MD. 2010.

	N	%
Norton Sound Alaska Natives	274	45.2%
Alaska Natives Statewide	5,740	68.6%
Alaska Whites	18,404	89.4%
U.S. Whites (2006)	N/A	87.0%

N/A Not Available

Appendix C. Data Tables

Table C-20. Percent of Women Reporting Abstinence from Alcohol Use during Pregnancy, 2006-2008

Primary Data Source: Alaska Bureau of Vital Statistics

	N	%
Norton Sound Alaska Natives	561	92.6%
Alaska Natives Statewide	8,003	95.7%
Alaska Whites	20,159	97.9%

Table C-21. Percent of High School Students Who are Overweight, 2007

Data Source: Youth Risk Behavior Surveillance System

	N	%	Confidence Interval
Alaska Natives Statewide	32	13.2%	(8.5% - 20.0%)
Alaska Non-Natives	112	10.4%	(8.4% - 12.7%)
U.S. Whites‡	5,483	10.8%	(9.3% - 12.4%)

‡ Non-Hispanic

Table C-22. Percent of High School Students Who Engage in Recommended Levels of Physical Activity, 2007

Data Source: Youth Risk Behavior Surveillance System

	N	%	Confidence Interval
Alaska Natives Statewide	88	32.2%	(24.2% - 41.4%)
Alaska Whites	477	46.1%	(42.4% - 50.0%)
U.S. Whites‡	5,729	37.0%	(33.9% - 40.3%)

‡ Non-Hispanic

Appendix C. Data Tables

Table C-23. Percent of High School Students Who Smoked Cigarettes on One or More of the Past 30 Days, 1995, 2003, 2007

Data Source: Youth Risk Behavior Surveillance System

		Alaska Natives Statewide	Alaska Non-Natives	U.S. Whites‡
1995	N	103	458	4,327
	%	61.9%	32.2%	38.3%
	Confidence Interval	(52.6% - 70.4%)	(29.3% - 35.1%)	(35.6% - 41.1%)
2003	N	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	N	65	120	5,574
	%	31.7%	12.9%	23.2%
	Confidence Interval	(24.7% - 39.6%)	(10.8% - 15.5%)	(20.4% - 26.2%)

‡ Non-Hispanic

Table C-24. Percent of High School Students Who Used Chewing Tobacco or Snuff on One or More of the Past 30 Days, 1995, 2003, 2007

Data Source: Youth Risk Behavior Surveillance System

		Alaska Natives Statewide	Alaska Non-Natives	U.S. Whites‡
1995	N	40	205	4,390
	%	22.5%	14.4%	14.5%
	Confidence Interval	(16.0% - 30.6%)	(11.7% - 17.5%)	(13.1% - 16.1%)
2003	N	66	89	6,286
	%	24.4%	7.4%	7.6%
	Confidence Interval	(15.3% - 36.7%)	(5.7% - 9.6%)	(5.8% - 9.8%)
2007	N	43	88	5,587
	%	16.6%	8.3%	10.3%
	Confidence Interval	(8.2% - 30.5%)	(6.5% - 10.5%)	(8.2% - 12.9%)

‡ Non-Hispanic

Appendix C. Data Tables

Table C-25. Percent of High School Students Who Had at Least One Drink of Alcohol on One or More of the Past 30 Days, 1995, 2003, 2007

Data Source: Youth Risk Behavior Surveillance System

		Alaska Natives Statewide	Alaska Non-Natives	U.S. Whites‡
1995	N	75	673	4,321
	%	43.9%	48.1%	54.1%
	Confidence Interval	(36.5% - 51.6%)	(43.6% - 52.7%)	(50.5% - 57.6%)
2003	N	102	434	6,196
	%	37.6%	39.0%	47.1%
	Confidence Interval	(27.3% - 49.2%)	(35.0% - 43.1%)	(44.1% - 50.2%)
2007	N	95	374	5,440
	%	40.8%	39.3%	47.3%
	Confidence Interval	(30.0% - 52.6%)	(35.7% - 43.2%)	(43.9% - 50.7%)

‡ Non-Hispanic

Table C-26. Percent of High School Students Who Have Ever Engaged in Sexual Intercourse, 1995, 2003, 2007

Data Source: Youth Risk Behavior Surveillance System

		Alaska Natives Statewide	Alaska Non-Natives	U.S. Whites‡
1995	N	92	646	4,278
	Rate	52.3%	46.4%	48.9%
	Confidence Interval	(40.2%-64.2%)	(42.4%-50.4%)	(43.8%-54.1%)
2003	N	132	385	5,711
	Rate	50.3%	36.5%	41.8%
	Confidence Interval	(40.4%-60.2%)	(32.0%-41.2%)	(39.0%-44.5%)
2007	N	120	408	5,434
	Rate	49.4%	43.6%	43.7%
	Confidence Interval	(43.9%-54.8%)	(39.1%-48.1%)	(40.5%-47.0%)

‡ Non-Hispanic

Appendix C. Data Tables

Table C-27. Percent of High School Students Who Used Marijuana on One or More of the Past 30 Days, 1995, 2003, 2007

Data Source: Youth Risk Behavior Surveillance System

		Alaska Natives Statewide	Alaska Non-Natives	U.S. Whites‡
1995	N	57	413	4,395
	%	29.4%	28.6%	24.5%
	Confidence Interval	(22.3% - 37.5%)	(26.0% - 31.4%)	(22.0% - 27.3%)
2003	N	100	236	6,458
	%	35.7%	20.5%	21.7%
	Confidence Interval	(30.2% - 41.7%)	(17.9% - 23.4%)	(19.4% - 24.2%)
2007	N	76	170	5,713
	%	31.7%	16.6%	19.9%
	Confidence Interval	(23.4% - 41.4%)	(14.1% - 19.4%)	(17.4% - 22.6%)

‡ Non-Hispanic

Table C-28. Percent of High School Students Who Used Any Form of Cocaine, Including Powder, Crack or Freebase During their Lifetime, 1995, 2003, 2007

Data Source: Youth Risk Behavior Surveillance System

		Alaska Natives Statewide	Alaska Non-Natives	U.S. Whites‡
1995	N	13	118	4,384
	%	7.3%	8.3%	6.5%
	Confidence Interval	(3.0%-16.8%)	(6.9%-10.1%)	(5.4%-7.9%)
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	23	85	5,741
	%	7.3%	7.9%	7.4%
	Confidence Interval	(4.2%-12.5%)	(6.0%-10.5%)	(6.3%-8.7%)

‡ Non-Hispanic

Appendix C. Data Tables

Table C-29. Percent of Live Births with Low Birth Weight, 2006-2008

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: National Center for Health Statistics. Health, United States, 2009: With Special Feature on Medical Technology. Hyattsville, MD. 2010.

	N	%
Norton Sound Alaska Natives	30	5.0%
Alaska Natives Statewide	458	5.5%
Alaska Whites	1,154	5.6%
U.S. Whites (2006)	N/A	7.2%

N/A Not Available

Table C-30. Teen Birth Rate per 1,000 Live Births, Females 15-19 Years, 2004-2006

Alaska Data Source: Alaska Bureau of Vital Statistics

U.S. Data Source: Martin TA, Hamilton BE, Sutton PD, Ventura ST, Menacker F, Kirmeyer S, Mathews TJ. Births: Final data for 2006. National Vital Statistics Reports 2009; 57(7).

	N	Rate per 1,000 live births
Norton Sound Alaska Natives	124	103.6
Alaska Natives Statewide	1,347	75.6
Alaska Whites	1,428	26.5
U.S. Whites (2006)	N/A	38.0

N/A Not Available

Table C-31. Percent of Women with Pap Test within Past Three Years, 18 Years and Older, 2004 and 2006

Data Source: Behavioral Risk Factor Surveillance System

	N	%	Confidence Interval
Alaska Natives Statewide	416	89.0%	(84.5 - 92.2)
Alaska Non-Natives	1,338	87.5%	(84.6 - 89.9)
U.S. Whites (2006)	N/A	84.9%	N/A

N/A Not Available

Appendix C. Data Tables

Table C-32. Percent of Women with Mammogram in Last Two Years, 40 Years and Older, 2004 and 2006

Data Source: Behavioral Risk Factor Surveillance System

	N	%	Confidence Interval
Alaska Natives Statewide	224	74.0%	(66.4 - 80.5)
Alaska Non-Natives	870	69.4%	(65.8 - 72.7)
U.S. Whites (2006)	N/A	77.0%	N/A

N/A Not Available

Table C-33. Percent Who Have Had a Flexible Sigmoidoscopy or Colonoscopy Ever, 50 Years and Older, 2004 and 2006

Data Source: Behavioral Risk Factor Surveillance System

	N	%	Confidence Interval
Alaska Natives Statewide	182	52.8%	(45.3 - 60.1)
Alaska Non-Natives	776	52.6%	(49.0 - 56.1)
U.S. Whites (2006)	N/A	59.1%	N/A

N/A Not Available

Table C-34. 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

	N	%
Norton Sound Alaska Natives	286	70.8%
Alaska Natives Statewide	3,169	48.9%
U.S. Whites (2008)	N/A	69.0%

N/A Not Available

Table C-35. Pneumococcal 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

	N	%
Norton Sound Alaska Natives	380	94.1%
Alaska Natives Statewide	5,982	92.2%
U.S. Whites (2008)	N/A	63.0%

N/A Not Available

Appendix C. Data Tables

Table C-36. Two-Year Old Vaccination Coverage, Norton Sound Alaska Native Two-Year Olds, as of June 30, 2010

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.

	N	%
DTaP	289	87.6%
Polio	327	99.1%
Hib	316	95.8%
Hep B	329	99.7%
MMR	319	96.7%
Varicella	306	92.7%
4:3:1:3:3	286	86.7%

Table C-37. Percent of Births Where the Mother Received Adequate or Adequate Plus Prenatal Care, 2006-2008

Data Source: Alaska Bureau of Vital Statistics and National Center for Health Statistics

U.S. Data Source: National Center for Health Statistics, Health, United States, 2009: With Special Feature on Medical Technology. Hyattsville, MD. 2010.

	N	%
Norton Sound Alaska Natives	278	46.6%
Alaska Natives Statewide	3,389	41.8%
Alaska Whites	12,711	67.1%
U.S. Whites (2006)	N/A	70.2%

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 ²	Overweight	25 ≤ BMI < 30 kg/m ²
Normal Weight.....	18.5 ≤ BMI < 25 kg/m ²	Obese.....	BMI ≥ 30 kg/m ²

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 2010 national goals sets health targets to be achieved by the year 2010. Healthy People 2010 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 Code) - 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, person-time rates, or mortality rates.

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.