Regional Health Profile

Kodiak Area Native Association

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

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

Specifically, we would like to thank the following:

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

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

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

Kodiak Area Native Association
- KANA Contract Health Service, for providing contract health data.
Introduction

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

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

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

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

Technical Notes

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

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

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

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

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

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

Race Classification
Where possible, data was presented for Alaska Native people.

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

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

Mortality Rates
Data for US Whites (1980-2004) and Alaska Natives (1990-2004) were available through the National Cancer Institute’s Surveillance Epidemiology and End Results (SEER) Program. The on-line SEERStat software was used to calculate mortality rates.
Mortality data for the years 1980-1989 for Kodiak Area Native Association Alaska Natives and Alaska Natives statewide included in this report were analyzed by the AN EpiCenter. Rates were age-adjusted to the 2000 US standard population. Rates were calculated for those causes that had at least five deaths during the interval studied. We created rate ratios to compare Kodiak Area Alaska Natives (KANA AN) to US Whites.

Injury Hospitalization Rates
“Bridged” population estimates from the State of Alaska Department of Labor were used by the ANTHC Injury Prevention program staff to calculate injury hospitalization rates.
### Table 1. Technical Notes by Indicator

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Data Source</th>
<th>Analyzed by:</th>
<th>Geographical Definition</th>
<th>Population</th>
<th>Years Presented</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.H.S. User Population</td>
<td>NPIRS¹</td>
<td>Data Source</td>
<td>KANA Service Area</td>
<td>Alaska Natives</td>
<td>FY 2005</td>
</tr>
<tr>
<td>Census Counts by Community</td>
<td>I.H.S., AK Area</td>
<td>Data Source</td>
<td>Kodiak Island Borough</td>
<td>Alaska Natives</td>
<td>2000</td>
</tr>
<tr>
<td>Population Estimates</td>
<td>AK DOL²</td>
<td>Data Source</td>
<td>Kodiak Island Borough</td>
<td>Alaska Natives</td>
<td>2005</td>
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<tr>
<td>Educational Attainment</td>
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<td>Data Source</td>
<td>Kodiak Island Borough</td>
<td>Alaska Natives</td>
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</tr>
<tr>
<td>Employment Status</td>
<td>AK DOL²</td>
<td>Data Source</td>
<td>Kodiak Island Borough</td>
<td>All Races</td>
<td>Sep-07</td>
</tr>
<tr>
<td>Poverty Status and Household Income</td>
<td>2000 U.S. Census</td>
<td>SAIPE⁸</td>
<td>Kodiak Island Borough</td>
<td>All Races</td>
<td>2004</td>
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#### Demographics

<table>
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<th>Geographical Definition</th>
<th>Population</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Adult Behavior Data– Tobacco Use, Obesity</td>
<td>GPRA⁴</td>
<td>Data Source</td>
<td>KANA Service Area</td>
<td>Alaska Natives</td>
<td>GPRA Year 2007</td>
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<tr>
<td>Adult Behavior Data–Physical Activity, Substance Abuse</td>
<td>BRFSS⁵</td>
<td>Data Source</td>
<td>Gulf Coast Region</td>
<td>All Races</td>
<td>2006</td>
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#### Mortality and Morbidity

<table>
<thead>
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<th>Years Presented</th>
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<tr>
<td>Injury Hospitalizations</td>
<td>AK Trauma Registry</td>
<td>ANTHC Injury Prevention</td>
<td>KANA Service Area</td>
<td>Alaska Natives</td>
<td>2003-2005</td>
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#### Health Promotion

<table>
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<tr>
<th>Indicator</th>
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<th>Analyzed by:</th>
<th>Geographical Definition</th>
<th>Population</th>
<th>Years Presented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer Screenings– Colorectal Cancer, Cervical Cancer, Breast Cancer</td>
<td>GPRA⁴</td>
<td>Data Source</td>
<td>KANA Service Area</td>
<td>Alaska Natives</td>
<td>GPRA Year 2007</td>
</tr>
<tr>
<td>Immunizations</td>
<td>ANTHC Immunization Registry</td>
<td>Data Source</td>
<td>KANA Service Area</td>
<td>I.H.S. User Population</td>
<td>2007</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Alaska Area Diabetes Program</td>
<td>Data Source</td>
<td>Anchorage Service Unit</td>
<td>Alaska Natives</td>
<td>2005</td>
</tr>
<tr>
<td>Maternal, Infant and Child Health and Family Planning</td>
<td>ABVS³</td>
<td>Data Source</td>
<td>Kodiak Island Borough</td>
<td>Alaska Natives</td>
<td>2003-2005</td>
</tr>
<tr>
<td>Environmental Health</td>
<td>ANTHC DEHE⁷</td>
<td>Data Source</td>
<td>KANA Service Area</td>
<td>N/A</td>
<td>2006</td>
</tr>
</tbody>
</table>

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

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

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

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

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

- **Underweight** $\text{BMI} < 18.5 \text{ kg/m}^2$
- **Normal Weight** $18.5 \leq \text{BMI} < 25 \text{ kg/m}^2$
- **Overweight** $25 \leq \text{BMI} < 30 \text{ kg/m}^2$
- **Obese** $\text{BMI} \geq 30 \text{ kg/m}^2$

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

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

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

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

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

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

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

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

#### Objective

<table>
<thead>
<tr>
<th>Objective</th>
<th>Data Source***</th>
<th>Healthy Alaskans Objective</th>
<th>All AK Native</th>
<th>AK Non-Native</th>
<th>AK, All Races</th>
<th>U.S. White</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce the overall cancer death rate (deaths/year per 100,000 pop., age-adjusted)</td>
<td>SEER Stat(^{15}) (2000-2004)</td>
<td>159.9</td>
<td>282.1</td>
<td>240.6</td>
<td>AK White: 188.1</td>
<td>192.9</td>
</tr>
<tr>
<td>Reduce deaths due to disease of the heart (deaths/year per 100,000 pop., age-adjusted)</td>
<td>SEER Stat(^{15}) (2000-2004)</td>
<td>120.0</td>
<td>242.6</td>
<td>202.0</td>
<td>AK White: 180.9</td>
<td>181.5</td>
</tr>
<tr>
<td>Reduce cerebrovascular disease death rate (deaths/year per 100,000 pop., age-adjusted)</td>
<td>SEER Stat(^{15}) (2000-2004)</td>
<td>48.0</td>
<td>98.5</td>
<td>64.8</td>
<td>AK White: 56.2</td>
<td>58.5</td>
</tr>
<tr>
<td>Reduce the chronic obstructive pulmonary disease death rate (deaths/year per 100,000 pop., age-adjusted)</td>
<td>SEER Stat(^{15}) (2000-2004)</td>
<td>60.0</td>
<td>72.6</td>
<td>60.7</td>
<td>AK White: 46.0</td>
<td>46.4</td>
</tr>
</tbody>
</table>

#### Health Promotion

##### Tobacco Use

<table>
<thead>
<tr>
<th>Objective</th>
<th>Data Source</th>
<th>Percentage</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce the percentage of adults who smoke</td>
<td>GPRA(^4) (2007)</td>
<td>14.0%</td>
<td>63.3%</td>
</tr>
<tr>
<td>Reduce the percentage of adults who use smokeless tobacco</td>
<td>GPRA(^4) (2007)</td>
<td>3.0%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Reduce cigarette smoking by adolescents (high school students grades 9-12)</td>
<td>YRBS(^3) (2003)</td>
<td>17.0%</td>
<td>Not available</td>
</tr>
</tbody>
</table>

##### Physical Activity

<table>
<thead>
<tr>
<th>Objective</th>
<th>Data Source</th>
<th>Percentage</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce the proportion of adults who are physically inactive to 20%.</td>
<td>BRFSS(^2) (2006)</td>
<td>20.0%</td>
<td>Not available</td>
</tr>
<tr>
<td>Increase the proportion of adolescents (high school students grades 9-12) who engage in vigorous physical activity</td>
<td>YRBS(^3) (2003)</td>
<td>85.0%</td>
<td>Not available</td>
</tr>
</tbody>
</table>

##### Overweight and Obesity

<table>
<thead>
<tr>
<th>Objective</th>
<th>Data Source</th>
<th>Percentage</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce the proportion of adults who are obese (BMI greater than or equal to 30)</td>
<td>GPRA(^4) (2007)</td>
<td>18.0%</td>
<td>41.4%(^2)</td>
</tr>
<tr>
<td>Reduce the proportion of adolescents who are overweight (BMI greater than or equal to 95th percentile)</td>
<td>YRBS(^3) (2003)</td>
<td>5.0%</td>
<td>Not available</td>
</tr>
</tbody>
</table>

##### Substance Abuse

<table>
<thead>
<tr>
<th>Objective</th>
<th>Data Source</th>
<th>Percentage</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce binge drinking among adults (consumed 5 or more drinks on one occasion in the last 30 days)</td>
<td>BRFSS(^2) (2006)</td>
<td>13.0%</td>
<td>Gulf Coast(^1): 16.0%</td>
</tr>
<tr>
<td>Increase the proportion of adolescents (high school students grades 9-12) NOT using the following during the past 30 days:</td>
<td>YRBS(^3) (2003)</td>
<td>60.0%</td>
<td>Not available</td>
</tr>
<tr>
<td>Alcohol</td>
<td>YRBS(^3) (2003)</td>
<td>60.0%</td>
<td>Not available</td>
</tr>
<tr>
<td>Marijuana</td>
<td>YRBS(^3) (2003)</td>
<td>60.0%</td>
<td>Not available</td>
</tr>
<tr>
<td>Cocaine</td>
<td>YRBS(^3) (2003)</td>
<td>60.0%</td>
<td>Not available</td>
</tr>
</tbody>
</table>

*** Data source unless otherwise indicated
† All races

1. ABVS – Alaska Bureau of Vital Statistics
2. BRFSS – Behavioral Risk Factor Surveillance System
3. YRBS – Youth Risk Behavior Survey
4. GPRA – Government Performance and Results Act
### Regional Health Profile Overview

#### Objective

<table>
<thead>
<tr>
<th>Data Source***</th>
<th>Healthy Alaskans Objective</th>
<th>KANA AN</th>
<th>All AK Native</th>
<th>AK Non-Native</th>
<th>AK, All Races</th>
<th>U.S. White</th>
</tr>
</thead>
</table>

### Health Promotion

#### Injury Prevention

- **Reduce hospitalizations due to non-fatal unintentional injuries per 100,000**

#### Environmental Quality

- **Increase number of communities with access to safe water and proper sewage disposal**
  - ALASKA: 98.0%, U.S. All Races: 88% (2000)

#### Maternal and Child Health

- **Reduce infant death rate (infant deaths within 1 year of birth per 1,000 live births)**
  - Kodiak Island Borough: 1998-2004
  - Coastal Alaska Healthy Alaska Project
  - Healthy Alaskans: 10.4, AK White: 6.9

#### Preventive Services and Access to Care

- **Increase the proportion of pregnant women receiving adequate prenatal care (APNCU)**
  - ABVS 1 (2003-2005)
  - ALASKA: 90.0%, U.S. All Races: 80% (2003)

#### Immunizations

- **Increase the proportion of young children who have received all vaccines recommended for universal administration**
  - ANTHC Immunization Program 6 (9/2007)
  - ALASKA: 90.0%, AK White: 72% (2004), 75.3% (2004), 83% (2004)

- **Increase the proportion of adults aged 65 years and older who are vaccinated annually against influenza**
  - ANTHC Immunization Program 6 (9/2007)
  - ALASKA: 90.0%, AK White: 62.5% (2006), 71.3% (2006)

- **Increase the proportion of adults aged 65 years and older who have ever been vaccinated against pneumococcal disease**
  - ANTHC Immunization Program 6 (9/2007)
  - ALASKA: 90.0%, AK White: 63.1% (2006), 69.0% (2006)

#### Substance Abuse

- **Increase the proportion of adults who receive colorectal screening examination**
  - GPRA 4 (2007)

- **Increase the proportion of women aged 40 years and older who have received a mammogram within the preceding 2 years**
  - GPRA 4 (2007)

- **Increase the proportion of women aged 18 years and older who have received a Pap test within the preceding 3 years**
  - GPRA 4 (2007)
  - ALASKA: 95%, AK White: 87% (2006), 84% (2006)

- **Reduce the overall cancer incidence rate per 100,000**

#### Sexually Transmitted Diseases

- **Increase the proportion of sexually active high school students who use condoms**
  - YRBS 3 (2003)
  - ALASKA: 75.0%, AK White: 68.0% (2006), 62.0% (2005)

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* Infant Mortality Rate calculated with fewer than 20 deaths, should be interpreted with caution
** APNCU: Adequacy of Prenatal Care Utilization Index, also called the Kotelchuk Index
† All races
5. ANTHC/DEHE - Alaska Native Health Research, Division of Environmental Health and Engineering
6. ANTHC Immunization Program

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8. OANHR - Office of Alaska Native Health Research
9. National Cancer Institute, State Cancer Profiles
10. Alaska Native Tribal Health Consortium, Injury Prevention Program
11. Alaska Trauma Registry
12. National Center for Health Statistics
13. Alaska Department of Environmental Conservation
14. National Center for Health Statistics, National Immunization Program
15. National Cancer Institute, Surveillance and End Results Program
Demographic Information
2005 Population Estimates

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

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

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

Figure 2. Population Estimate Distribution by Age Group, Alaska Natives

KANA Service Area, 2005

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>127</td>
<td>107</td>
<td>234</td>
</tr>
<tr>
<td>5-9</td>
<td>120</td>
<td>83</td>
<td>203</td>
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<td>10-14</td>
<td>130</td>
<td>108</td>
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<td>15-19</td>
<td>132</td>
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<td>50-54</td>
<td>66</td>
<td>71</td>
<td>137</td>
</tr>
<tr>
<td>55-59</td>
<td>65</td>
<td>62</td>
<td>127</td>
</tr>
<tr>
<td>60-64</td>
<td>46</td>
<td>36</td>
<td>82</td>
</tr>
<tr>
<td>65+</td>
<td>66</td>
<td>100</td>
<td>166</td>
</tr>
<tr>
<td>Total</td>
<td>1,185</td>
<td>1,091</td>
<td>2,276</td>
</tr>
</tbody>
</table>

Data source: Alaska Department of Labor and Workforce Development ²
2005 User Population

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

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

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

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

Data Source: Indian Health Service National Patient Information and Reporting System (NPIRS) ¹ FY 2005
Note: Age is determined from the end date of FY 2005.
Summary:
- As shown in Figure 4, a much larger proportion of the KANA Alaska Native population is under the age of 20 as compared to the U.S. population.
- In 2005, males accounted for 52.1% of the population in the KANA Service Area. Females accounted for 47.9% of the population.

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

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

Geographical Definition: KANA service area is defined as the Kodiak Island Borough.
## Table 4. Census Counts by KANA Community, 1990 and 2000, Alaska Natives and Total Population

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

Data Source: Alaska Area Office, Indian Health Service 3
Summary:
- Among Alaska Natives living in the KANA Service Area in 2000, 11% had received an associate’s degree or higher as compared to 31% of the U.S. White population.
- In 2000, 48% of Alaska Natives in the KANA service area reported having earned at least a high school diploma or GED.

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

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

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

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

Data Source: 2000 US Census
Employment Status

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

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

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

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

---

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

Map provided by Alaska, Department of Labor and Workforce Development
Poverty Status

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

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

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

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

---

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

- Kodiak Island Borough: 8.5%
- Alaska: 9.8%
- U.S.: 12.5%

Data source: Small Area Income and Poverty Estimates Program

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

- Kodiak Island Borough: 10.6%
- Alaska: 12.5%
- U.S.: 17.6%

Data source: Small Area Income and Poverty Estimates Program
Household Income

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

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

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

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

---

**Figure 9. Estimated Median Household Income**

*All races, Age 18 and older, 2004*

<table>
<thead>
<tr>
<th></th>
<th>Median Household Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kodiak Island Borough</td>
<td>$52,734</td>
</tr>
<tr>
<td>Alaska</td>
<td>$52,141</td>
</tr>
<tr>
<td>U.S.</td>
<td>$44,334</td>
</tr>
</tbody>
</table>

Data source: Small Area Income and Poverty Estimates Program

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

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

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

### For more information:
Mortality

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

Data Source: Alaska Bureau of Vital Statistics

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

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

U.S. and Alaska Data Source: Surveillance, Epidemiology, and End Results (SEER) Program
**Mortality**

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

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

U.S. and Alaska Data Source: Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute
**Mortality—Trends, 1980-2004**

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

[Graph showing cancer death rates per 100,000 from 1980-2004 for KANA, AN, and USW with Healthy People Objective: 159.9.]

*Data Source: Surveillance, Epidemiology, and End Results (SEER) Program*

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

[Graph showing heart disease death rates per 100,000 from 1980-2004 for KANA, AN, and USW with Healthy People Objective: 166.]

*Data Source: Surveillance, Epidemiology, and End Results (SEER) Program*

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

[Graph showing cerebrovascular disease death rates per 100,000 from 1980-2004 for KANA, AN, and USW with Healthy People Objective: 48.]

*Data Source: Surveillance, Epidemiology, and End Results (SEER) Program*
### Contract Health

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

Data Source: KANA Contract Health Services

* ICD Recode combines similar primary diagnoses into categories

### ANMC

<table>
<thead>
<tr>
<th>Rank</th>
<th>Service</th>
<th>Number</th>
<th>% Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Orthopedic</td>
<td>21</td>
<td>30.4%</td>
</tr>
<tr>
<td>2</td>
<td>Surgery</td>
<td>21</td>
<td>30.4%</td>
</tr>
<tr>
<td>3</td>
<td>Gynecology</td>
<td>4</td>
<td>5.8%</td>
</tr>
<tr>
<td>4</td>
<td>Medicine (Adult)</td>
<td>4</td>
<td>5.8%</td>
</tr>
<tr>
<td>5</td>
<td>Newborn</td>
<td>4</td>
<td>5.8%</td>
</tr>
<tr>
<td>6</td>
<td>Otolaryngology</td>
<td>4</td>
<td>5.8%</td>
</tr>
<tr>
<td>7</td>
<td>Obstetrics</td>
<td>3</td>
<td>4.3%</td>
</tr>
<tr>
<td>8</td>
<td>Urology</td>
<td>2</td>
<td>2.9%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>6</td>
<td>8.7%</td>
</tr>
<tr>
<td></td>
<td>Total Discharges</td>
<td>69</td>
<td></td>
</tr>
</tbody>
</table>

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

* ANMC patient registration address was in KANA service area.
### Table 9. Top 15 Outpatient Visits by ICD Recode*

**All Ages, Fiscal Year 2005**

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

Total Outpatient Visits: 10,720

Data Source: I.H.S. NPIRS *

* ICD Recode combines similar primary diagnoses into categories

### Table 10. Top 15 Outpatient Visits by ICD Recode*

**All Ages, Fiscal Year 2005**

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

Total Outpatient Visits: 10,720

Data Source: I.H.S. NPIRS *

* ICD Recode combines similar primary diagnoses into categories
Health Promotion
**Tobacco Use**

**Definition:**

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

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

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

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

---

**Summary:**

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

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

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

---

**Figure 14. Percent of Patients Screened for Tobacco Use**

5 years and older, GPRA Year 2007

- KANA AN: 34.3%
- AN Statewide: 60.7%
- Indian Health Service AI/AN (2005): 34.0%

Data Source: GPRA Report Year 2007
Tobacco Use

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

Data Source: GPRA Report Year 2007

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

Data Source: GPRA Report Year 2007
Substance Abuse—Binge Drinking

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

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

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

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

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

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

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

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

Data Source: Alaska Behavioral Risk Factor Surveillance System 9
U.S. Data Source: Behavioral Risk Factor Surveillance System 21
Physical Activity

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

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

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

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

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

**Figure 18. No Leisure Time Physical Activity, 2006**

Data Source: Alaska Behavioral Risk Factor Surveillance System
U.S. Data Source: Behavioral Risk Factor Surveillance System
Obesity (adult) and Overweight (children)

Definition:

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

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

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

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

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

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

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

Summary:

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

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

Geographical Definition: KANA AN includes all patients residing in communities served by KANA.
Obesity (adult) and Overweight (children)

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

Data Source: GPRA Report Year 2007

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

Data Source: GPRA Report Year 2007

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

Data Source: GPRA Report Year 2007
Overweight– Adolescents

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

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

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

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

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

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

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

---

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

2003

- **AN Statewide:** 14%
- **AK Non-Natives:** 10%
- **U.S. Whites:** 10%

*Data Source: Alaska Youth Risk Behavior Survey* ¹⁰

*US Data Source: Youth Risk Behavior Survey* ²²
Summary:

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

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

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

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

Figure 23. Percent of high school students who engage in vigorous physical activity 1995 and 2003
Tobacco Use—Adolescents

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

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

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

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

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

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

For state and national level data, visit CDC Youth Risk Behavior Surveillance System website at [http://apps.nccd.cdc.gov/yrbss/](http://apps.nccd.cdc.gov/yrbss/)
Tobacco Use– Adolescents

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

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

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

Data Source: Alaska Youth Risk Behavior Survey
US Data Source: Youth Risk Behavior Survey
Substance Abuse – Adolescents

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

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

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

**Summary:**

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

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

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

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

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

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

Figure 29. Percent of high school students who used any form of cocaine, including powder, crack or freebase on one or more of the past 30 days, 1995 and 2003
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Health Protection
**Environmental Health– Water and Sewer Service Rates**

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

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

**Healthy People 2010:** N/A

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

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

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

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

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

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

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

Data Source: ANTHC DEHE
Injury Hospitalizations

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

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

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

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

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

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

**For more information:** For injury data on Alaska Natives, contact ANTHC’s Injury Prevention Program at 907-729-3513 or visit their website at http://www.anthc.org/cs/dehe/en/hlth/injprev/ or visit the Alaska Trauma Registry at the http://www.hss.state.ak.us/dph/chems/injury_prevention/trauma.htm

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

Data Source: Alaska Trauma Registry
Injury Hospitalizations– Unintentional Injuries and Falls

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

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

Data Source: Alaska Trauma Registry
Injury Hospitalizations—Suicide Attempts and Assaults

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

* Hospitalization rate not calculated due to small number of reported injuries.

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

Data Source: Alaska Trauma Registry
Preventive Services and Access to Health Care
Cancer–Leading Cancers

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

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

Table 13. Leading Cancers
KANA Alaska Natives
1989-2003

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

Table 14. Leading Cancers
All Alaska Natives
1989-2003

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

Data Source: ANTHC Alaska Native Tumor Registry
Cervical Cancer Screening

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

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

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

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

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

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

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

Data Source: GPRA Report Year 2007
Breast Cancer Screening

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

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

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

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

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

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

---

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

Data Source: GPRA Report Year 2007
Colorectal Cancer Screening

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

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

- **Healthy People 2010, Objective 3.12b:** Increase the proportion of adults aged 50 years and older who have received a colorectal cancer screening examination to 50%.
- **Healthy Alaskans 2010, Objective 22.10:** Increase the proportion of adults aged 50 years and older who have received a colorectal cancer screening examinations to 64%.

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

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

**Figure 36. Colorectal Cancer Screening Rates, 51-80 Years**

GPRA Year 2007

Data Source: GPRA Report Year 2007²⁶
Immunizations– 4:3:1:3:3

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

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

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

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

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

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

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

---

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

![Graph showing vaccination coverage](image-url)

**Data Source:** ANTHC Immunization Program

---

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

![Graph showing vaccination coverage](image-url)

**Data Source:** ANTHC Immunization Program

**US Data Source:** National Immunization Survey Data
Immunizations—Influenza and Pneumococcal Vaccine ages 65 and older

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

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

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

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

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

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

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

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

<table>
<thead>
<tr>
<th></th>
<th>KANA AN</th>
<th>AN Statewide</th>
<th>U.S. Whites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza in Past Year</td>
<td>47%</td>
<td>52%</td>
<td>71%</td>
</tr>
<tr>
<td>Pneumococcal Vaccine Ever</td>
<td>79%</td>
<td>88%</td>
<td>69%</td>
</tr>
</tbody>
</table>

Healthy People Objective: 90%

Data Source: ANTHC Immunization Program 15
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Diabetes

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

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

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

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

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

**For more information:** Go to the ANTHC Diabetes Program at [http://www.anmc.org/services/diabetes/](http://www.anmc.org/services/diabetes/)

**Note:** Maps reprinted with permission from Alaska Area Diabetes Program.
Figure 40. 2006 Diabetes Prevalence among Alaska Natives
Age-Adjusted Prevalence per 1,000 Population

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

Data Source: Alaska Area Diabetes Program Diabetes Registry 16
**Maternal, Infant and Child Health– Infant Mortality Rate**

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

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

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

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

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

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

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

---

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

![Graph showing infant mortality rates for different populations from 1980 to 2003.](image)

*Kodiak Island Borough infant mortality rate calculated with fewer than 20 deaths and should be interpreted with caution

Data Source: Surveillance, Epidemiology, and End Results (SEER) Program

---

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

<table>
<thead>
<tr>
<th>Population</th>
<th>Rate per 1,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kodiak Island Borough, all races</td>
<td>6.2*</td>
</tr>
<tr>
<td>Alaska Natives</td>
<td>8.2</td>
</tr>
<tr>
<td>U.S. Whites</td>
<td>5.8</td>
</tr>
</tbody>
</table>

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

Data Source: Surveillance, Epidemiology, and End Results (SEER) Program
Maternal, Infant and Child Health– Low Birth Weight

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

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

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

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

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

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

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

---

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

![Chart showing percentage of live births with low birth weight](chart.png)

- **KANA AN:** 9.1%
- **AN Statewide:** 5.7%
- **AK all Races:** 6.0%
- **U.S. all races (2004):** 6.3%

*Data Source:* Alaska Bureau of Vital Statistics

*US Data Source:* National Center for Health Statistics
**Maternal, Infant and Child Health—Adequate Prenatal Care**

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

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

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

**Summary:**

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

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

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

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

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

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

---

Data Source for Figure and Table: Alaska Bureau of Vital Statistics 17
U.S. Data Source: National Center for Health Statistics 24
Maternal, Infant and Child Health – Smoking and Alcohol Consumption during Pregnancy

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

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

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

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

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

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


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

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

![Graph showing percentage of women abstaining from alcohol and smoking](image)

**Data Source:** Alaska Bureau of Vital Statistics 17

U.S. Data Source: National Center for Health Statistics 24
Family Planning– Teen Birth Rate

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

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

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

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

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


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

---

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

![Bar Chart](chart.png)

**Data Source:** Alaska Bureau of Vital Statistics

U.S. Data Source: National Center for Health Statistics

* Healthy People Objective is for 15-17 year olds
Responsible Sexual Behavior– Adolescents

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

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

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

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

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

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

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

---

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

<table>
<thead>
<tr>
<th>Year</th>
<th>AN Statewide</th>
<th>AK Non-Natives</th>
<th>U.S. Whites</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>30%</td>
<td>31%</td>
<td>35%</td>
</tr>
<tr>
<td>2003</td>
<td>34%</td>
<td>26%</td>
<td>31%</td>
</tr>
</tbody>
</table>

**Healthy People Objective: 5%**

---

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

<table>
<thead>
<tr>
<th>Year</th>
<th>AN Statewide</th>
<th>AK Non-Natives</th>
<th>U.S. Whites</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>52%</td>
<td>54%</td>
<td>53%</td>
</tr>
<tr>
<td>2003</td>
<td>68%</td>
<td>60%</td>
<td>63%</td>
</tr>
</tbody>
</table>

**Healthy People Objective: 95%**

---

Data Source: Alaska Youth Risk Behavior Survey

US Data Source: Youth Risk Behavior Survey

---

Data Source: Alaska Youth Risk Behavior Survey

US Data Source: Youth Risk Behavior Survey
**Sexually Transmitted Infections (STI) Gonorrhea and Chlamydia**

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

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

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

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

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

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

---

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

- Southcentral AK: 1,424
- AN Statewide: 2,052
- AK all races: 664
- U.S. all races: 325

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

- Southcentral AK: 279
- AN Statewide: 305
- AK all races: 364
- U.S. all races: 115.6

*Data Source: State of AK, Section of Epidemiology, U.S. Data Source: CDC Division of STD Prevention*
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Behavioral Risk Factor Surveillance System

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

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

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

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

Youth Risk Behavior Survey
(Description from http://www.hss.state.ak.us/dph/chronic/school/YRBS.htm)

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

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

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

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

The Alaska Trauma Registry is an information system of the most seriously injured patients in Alaska, and the treatment that they have received. Since 1991, the trauma registry has collected data from all 24 of Alaska’s acute care hospitals. The purpose of the registry is to evaluate the quality of trauma patient care and to plan and evaluate injury prevention programs. The criteria for inclusion in the trauma registry are patients with injuries who are admitted to an Alaska hospital, held for observation, transferred to another acute care hospital, or declared dead in the emergency department, and for who contact occurred within 30 days of the injury. Injuries include trauma, poisoning, suffocation, and the effects of reduced temperature.

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

IPEMS provides quality improvement and administrative reports to hospital and ambulance service officials. Trauma registry information is also used by a variety of agencies and individuals in the planning and evaluation of injury prevention programs, for research and public education, for EMS training, and in developing public policy.
Appendix D. I.H.S. Service Units, And Corresponding Tribal Health Organizations, Villages And Census Area/Boroughs

<table>
<thead>
<tr>
<th>I.H.S. Service Unit</th>
<th>Tribal Health Corporation/Village</th>
<th>Census Area/Borough</th>
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<tr>
<td>Anchorage</td>
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<td>Census Area/Borough</td>
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