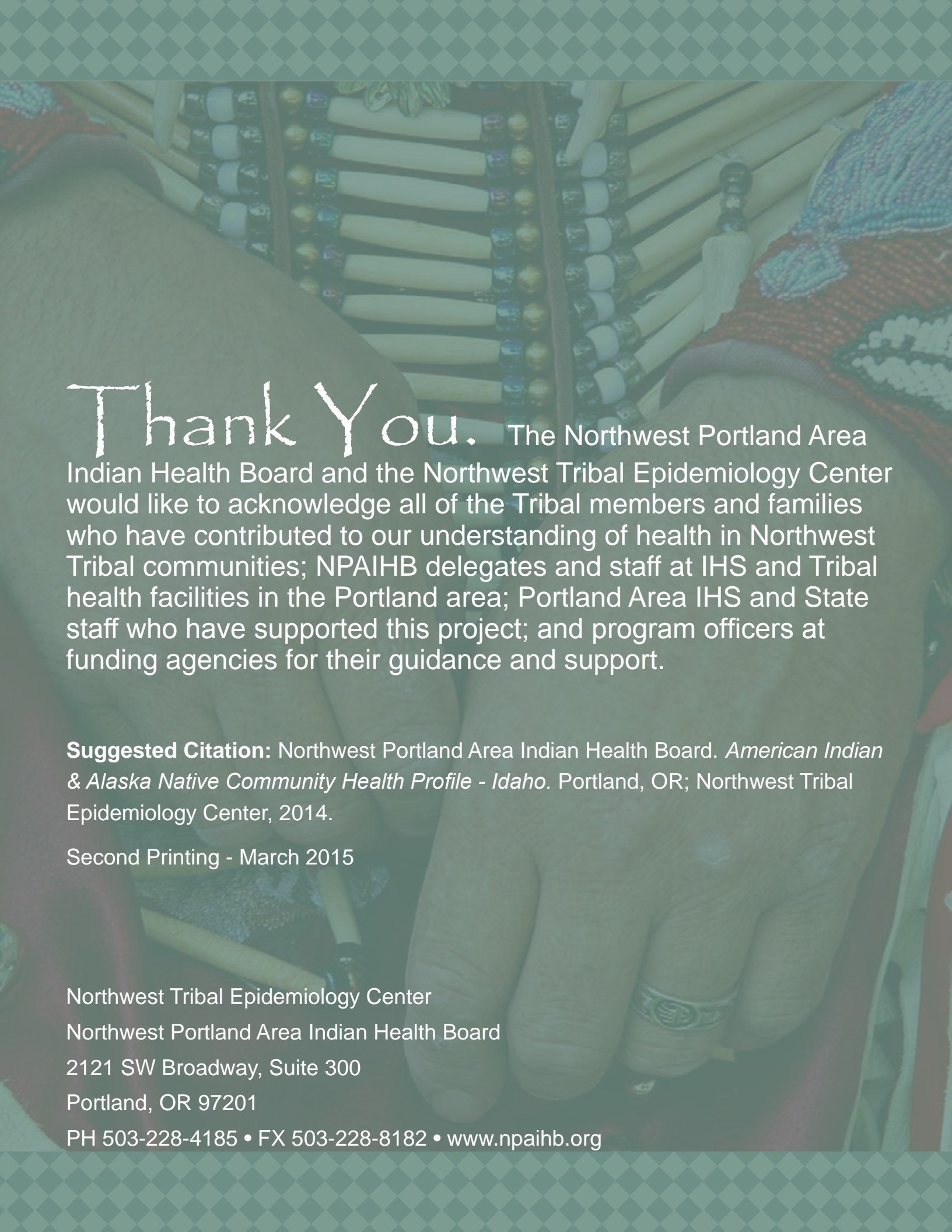Issued 2014

Idaho
American Indian & Alaska Native
Community Health Profile

Northwest Tribal Epidemiology Center
Northwest Portland Area Indian Health Board

Thank You.

The Northwest Portland Area Indian Health Board and the Northwest Tribal Epidemiology Center would like to acknowledge all of the Tribal members and families who have contributed to our understanding of health in Northwest Tribal communities; NPAIHB delegates and staff at IHS and Tribal health facilities in the Portland area; Portland Area IHS and State staff who have supported this project; and program officers at funding agencies for their guidance and support.

Idaho

American Indian & Alaska Native Community Health Profile

The Northwest Portland Area Indian Health Board (NPAIHB) is a tribal organization governed by the 43 federally recognized Tribes of Idaho, Oregon, and Washington. Tribal governments appoint a delegate to represent them on the Board, which meets on a quarterly basis. The delegates guide the priorities and programs of the NPAIHB.

This report was developed in an effort to provide Tribes in Idaho with accurate health data on priority health issues. Our goal is to provide high quality health data for tribal nations in the Northwest to inform public health programs and priorities.

Contents

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Letter from the Director

AI/AN in the Pacific Northwest are a small but diverse population. Northwest Tribes have demonstrated their resilience and leadership in facing multiple historical, social, economic and health challenges. Tribal leaders recognize that valid and reliable health statistics are the foundation of a strong public health system. However, AI/AN are not well-represented in local, state, and national health status reports. Without reliable health information, Tribes remain limited in their ability to identify priorities and actions that will improve the health of their communities.

This Community Health Profile report describes the health status of AI/AN residing in Idaho, and identifies health disparities experienced by this population. This comprehensive report enhances the available data on the health of AI/AN in Idaho, and can be used by tribal leaders for health policy development and public health decision making.

Since 1996, the Northwest Tribal Epidemiology Center has worked to provide accurate data, training and technical assistance to the 43 federally recognized Tribes in the Portland Area. This report is one of three state-level reports produced by the Improving Data and Enhancing Access – Northwest (IDEA-NW) project and the Northwest Tribal Epicenter.

Victoria Warren-Mears, PHD, RD
Northwest Tribal Epicenter Director

Introduction

Purpose and Objectives

The Northwest Tribal Epidemiology Center (NW TEC), part of the Northwest Portland Area Indian Health Board (NPAIHB), prepared this health profile report in order to provide Northwest Tribes with accurate and up-to-date information on the health of their communities. This report is intended to assist Tribes of Idaho to:

- identify health priorities in Northwest Tribes and Tribal communities,

- aid in the development of new programs and guide allocation of resources,

- identify data gaps and prioritize areas for new research and data collection,

- monitor clinical performance measures for clinic patients, and

- provide supporting data and statistics for grant applications.

NPAIHB Member Tribes

Nooksack
Lummi
Upper Skagit
Kootenai
Samish
Kalispel
Swinomish
Makah
Colville
Sauk-Suiattle
Lower Elwha
Tulalip
Spokane
Stillaguamish
Quileute
Port Gamble S'Klallam
Jamestown S'Klallam
Hoh
Suquamish
Coeur d'Alene
Quinault
Snoqualmie
Skokomish
Puyallup
Squaxin Island
Muckleshoot
Nisqually
Nez Perce
Chehalis
Shoalwater Bay
Yakama Nation
Cowlitz Tribe
Umatilla
Grand Ronde
Siletz
Warm Springs
Coos, Lower Umpqua, and Siuslaw
Burns Paiute
Coquille
Fort Hall Shoshone-Bannock
Cow Creek
Klamath
Northwestern Shoshone

Methods - Data Notes

Selection of Health Topics and Indicators

The NW TEC established a planning team for the health profile reports in December 2013. This core group of NW TEC employees holds planning meetings once or twice per month, with open attendance to anyone at NPAIHB.

The planning team selected health topics and indicators based on the availability and quality of data, and whether the indicator was considered a high priority for Northwest Tribes (based on the results from a Tribal Health Priorities survey conducted during the April 2013 Quarterly Board Meeting).

Selection of Data Sources and Years

The most high-quality and recently available data were chosen for each health indicator. If statistically sound data on American Indian and Alaska Natives (AI/AN) were not available, we did not report on that indicator. For most indicators, we combined several years of data in order to obtain enough information for analysis and comparisons.

This report uses data from several state and federal data sources. We prioritized NW TEC data sets that have been corrected for AI/AN racial misclassification These data sets provide more accurate health statistics for the Northwest AI/AN population. In addition, we

considered factors such as AI/AN sample size, sampling design, accessibility of the data set, and ability to examine AI/AN-specific data at the state level.

Specific information on data sources can be found in the appendix, and data source information accompanies each indicator throughout this report.

Who is represented by the data?

This report focuses on AI/AN who are residents of Idaho. For the most part, it does not include members of Idaho Tribes who live in other places.

Birth certificate, death certificate and cancer data presented in this report come from vital statistics and cancer registry records held by the state. These data sets usually take their race information from medical records, which sometimes have inaccurate information about a person's race. If an AI/AN person is incorrectly listed as another race in these data sets, the numbers of AI/AN affected by disease or death appear lower than they actually are. In order to correct this, we have compared the birth, death, and cancer data sets to our Northwest Tribal Registry (NTR). The NTR is a list of all AI/AN people who have been seen at an IHS or tribal clinic.

Methods - Data Notes

For all the data presented on these topics in this report, we have defined AI/AN as anyone who was originally listed as AI/AN in the vital statistics or cancer registries, or who appeared in the NTR. It should be noted that the NTR does not include very many urban AI/AN, nor those who self-identify as AI/AN but are not enrolled in a federally recognized Tribe. The NTR also does not include patients who received care at tribal clinics that do not share their patient information with IHS.

Data presented in this report from other sources such as the Behavioral Risk Factor Surveillance System and U.S. Census Bureau use different definitions of AI/AN, most commonly self-identification.

Data Analysis and Interpretation

When possible, we presented data on males, females, and the total population. Some indicators include a breakdown by age group. Most indicators include a comparison between AI/AN race and non-Hispanic whites (NHW) in the state. For some measures, we compared esimates to Healthy People 2020 targets or to Indian Health Service (IHS) performance goals.

Mortality rates presented in this report were calculated using the National Center for Health Statistics bridged race population estimates in the denominator and race-corrected death counts in the numerator. Population estimates were revised after the 2010 census, and as a result the rates presented in this report are not comparable with those found in earlier NW TEC reports.

Where appropriate, statistical tests were used to determine if there were changes over time or differences between groups. If a result is presented as statistically significant, it can be interpreted to mean that there is less than a 5% chance that the difference seen is just a result of random fluctuations. Put another way, it means there is a 95% or higher chance that it reflects a true difference in the population.

It should be noted that statistical significance does not give any insight into whether the difference is relevant clinically or useful for decision making. For example, with a large enough sample size, a tiny decrease in Hemoglobin A1c levels - say from 7.9% to 7.8% - may be statistically significant. However, 7.8% is still well into the diabetic range, and the difference will probably not change a patient's risk of complications. This would be an example of a result that is statistically significant but not clinically relevant.

Methods – Definitions and Abbreviations

AI/AN: American Indian or Alaska Native.

Age-adjusted rate: A rate that controls for different age distributions in populations; allows for more accurate comparisons of rates between populations.

APC: Annual percent change - the average annual change in rates over a period of time, expressed as a percent of the rate.

BRFSS: Behavioral Risk Factor Surveillance System (see data sources).

CDC: Centers for Disease Control and Prevention.

CI: Confidence interval.

Hispanic: A person of Cuban, Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin, regardless of race.

ICD: International Classification of Diseases.

IHS: Indian Health Service (see data sources).

Incidence: Number of new health event cases in a population that occur during a specified time period; usually presented as a rate (e.g., number of new HIV cases per 100,000 population that occurred in 2013).

n: Sample size.

N: Population size.

NHW: Non-Hispanic white; a person of white ancestry but no Hispanic ancestry.

NPAIHB: Northwest Portland Area Indian Health Board ("the Board"); established in 1972 as a non-profit tribal advisory organization serving the 43 federally recognized tribes of Oregon, Washington, and Idaho. NPAIHB is located in Portland, Oregon.

NW TEC: The Northwest Tribal Epidemiology Center, or "the Epicenter," is part of the Northwest Portland Area Indian Health Board in Portland, Oregon. The mission of the EpiCenter is to collaborate with Northwest American Indian Tribes to provide health-related research, surveillance, and training to improve the quality of life of AI/AN.

Prevalence: Number of people who have a disease, risk factor, or condition in a population; often presented as a percentage (e.g., percentage of current female smokers).

Tribe: There are 43 federally recognized tribes in Idaho, Oregon, and Washington, which are represented by the NPAIHB and NW TEC. There are 566 federally recognized tribes in the U.S., plus an unknown number of tribes that are not federally recognized.
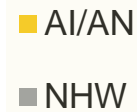
Guide to Reading a Column Chart

■ AI/AN

■ NHW

Age-Adjusted Mortality Rate per 100,000

125

100

75

50

25

0

57.2

25.4

65.3

19.7

22.4

Male

Female

Both sexes

Guide to Reading a Line Chart

Vertical Axis
The vertical axis label shows what is being measured. In this report, it is usually rates or percentages. When comparing charts, note that the starting and ending values of the axes may not be the same.

Shaded Area
The line charts in this report show how a measure has changed over time. Some measures have undergone changes in definition or the way data are collected during the time frame being reported. Shaded areas on the chart indicate the point in time when changes like this occurred. Any abrupt changes across that time should be interpreted with caution - they may be a result of the definition change rather than an actual change in the population.

Legend
The legend shows what each color on the chart represents. In this report, AI/AN is usually yellow.

95%Confidence Band
Just as in the column chart, the annual values that make up the line are estimates of the true value in the population. The light yellow band around the line shows a "confidence interval", or a range in which the true value is found 95% of the time.

Annual Percent Change
If there has been a statistically significant change in the measure across the time period, an arrow here will show whether it increased or decreased. The value shows the average yearly change. If there was no statistically significant change, no arrow is shown.

— AI/AN 15-19
— NHW 15-19

APC = -3.4%

APC = -4.5%

Vertical axis label: Live births per 1,000 women in age group

Vertical axis values: 120, 100, 80, 60, 40, 20, 0

Horizontal axis labels: 1990-1992, 1991-1993, 1992-1994, 1993-1995, 1994-1996, 1995-1997, 1996-1998, 1997-1999, 1998-2000, 1999-2001, 2000-2002, 2001-2003, 2002-2004, 2003-2005, 2004-2006, 2005-2007, 2006-2008, 2007-2009, 2008-2010, 2009-2011, 2010-2012
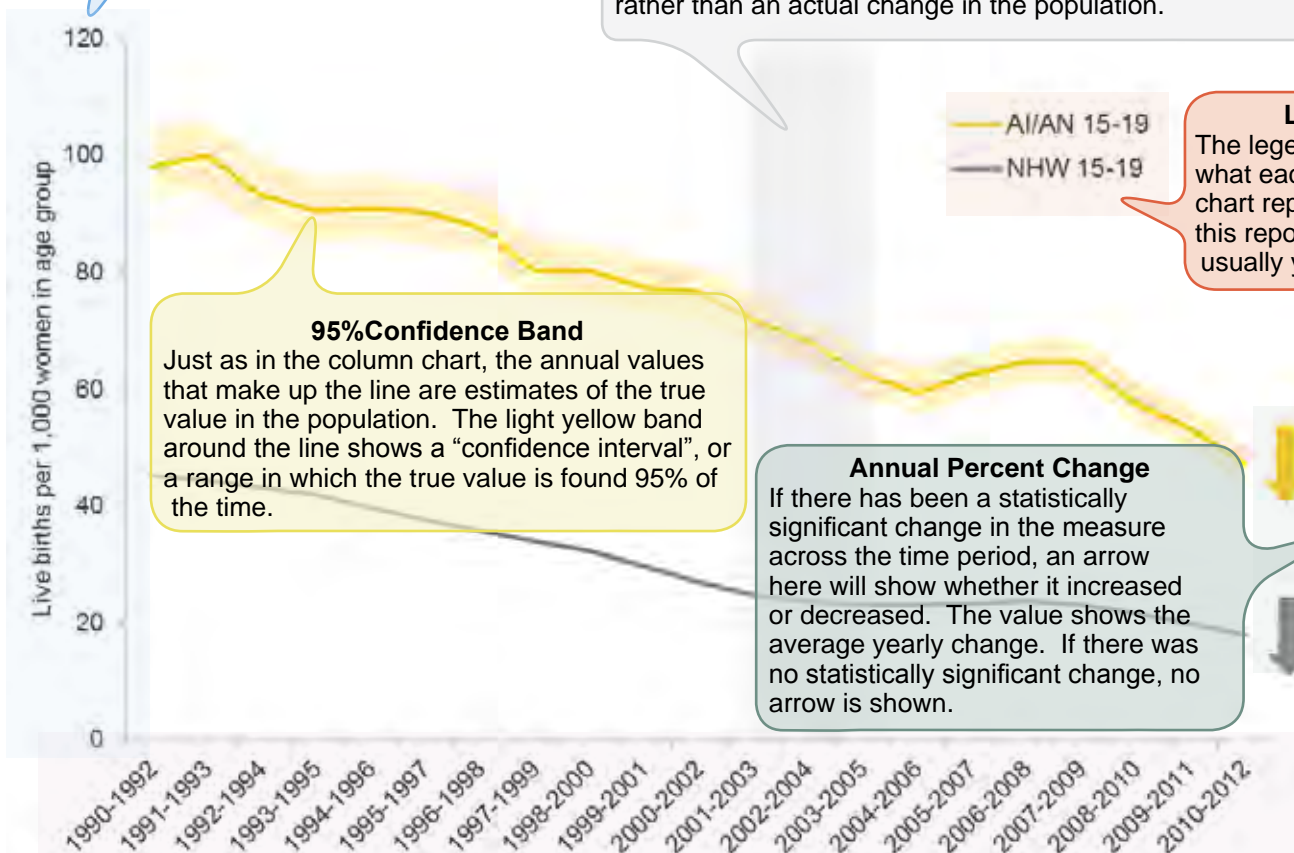
Horizontal Axis
These labels show what years are being reported.

Data Sources

U.S. Census Bureau

The U.S. Census provides official population counts and demographic information for the United States. The U.S. Census provides information on population age, race, sex, household make-up, income, education, insurance status, and other demographics. Race information collected by the Census Bureau is self-reported, and individuals can report belonging to more than one race group.
Website: http://www.census.gov/

American Community Survey (ACS)

The ACS is an ongoing national survey conducted by the Census Bureau. It is sent to approximately 250,000 addresses monthly (or 3 million per year), and provides population-level information on age, race, sex, household make-up, income, education, insurance status, and other demographics. Race information in the ACS is self-reported, and individuals can report belonging to more than one race group.
Website: http://www.census.gov/acs/www/

Behavioral Risk Factor Surveillance System (BRFSS)

The BRFSS is a national telephone survey that collects information on health risk behaviors, preventive health practices, and health care access primarily related to chronic disease and injury annually. It is run by the Centers for Disease Control and Prevention (CDC) and conducted by individual state health departments.
Website: http://www.cdc.gov/brfss/

Indian Health Service (IHS) GPRA performance measures

The Indian Health Service (IHS) reports on performance measures to track the quality of care it provides to patients, in accordance with the Government Performance and Results Act (GPRA). Health topics covered by these measures include behavioral health, cancer screening, cardiovascular disease, dental health, diabetes, immunizations, and prenatal HIV screening.
Website: http://www.ihs.gov/qualityofcare/

National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) Atlas
The NCHHSTP Atlas provides an interactive platform for accessing data collected by the CDC's NCHHSTP. This interactive tool provides an effective way to disseminate data on the reported occurrence of nationally notifiable infectious diseases in the U.S., including HIV, viral hepatitis, some sexually transmitted diseases (STDs), and tuberculosis (TB), while allowing users to observe trends and patterns by creating detailed reports, maps, and other graphics.
Website: http://www.cdc.gov/nchhstp/atlas/

Idaho birth certificates, corrected for misclassified race
Data from Idaho birth certificates are from the Idaho Department of Health and Welfare Bureau of Vital Records and Health Statistics. These data that have been corrected for misclassified AI/AN race by the IDEA-NW Project (part of the NW TEC). AI/AN includes all birth records with any mention of AI/AN race in either the Idaho dataset or the Northwest Tribal Registry (NTR), which is maintained by the IDEA-NW Project.
Website: http://www.npaihb.org/epicenter/project/improving_data_enhancing_access_northwest_idea_nw

Idaho death certificates, corrected for misclassified race
Idaho death certificate data are from the Idaho Department of Health and Welfare Bureau of Vital Records and Health Statistics. These data that have been corrected for misclassified AI/AN race by the IDEA-NW Project (part of the NW TEC). AI/AN includes all death records with any mention of AI/AN race in either the Idaho dataset or the Northwest Tribal Registry (NTR), which is maintained by the IDEA-NW Project.
Website: http://www.npaihb.org/epicenter/project/improving_data_enhancing_access_northwest_idea_nw

Cancer Data Registry of Idaho (CDRI), corrected for misclassified race
Idaho cancer registry data are from the CDRI office. These data that have been corrected for misclassified AI/AN race by the IDEA-NW Project (part of the NW TEC). AI/AN includes all records with any mention of AI/AN race in either the CDRI dataset or the Northwest Tribal Registry (NTR), which is maintained by the IDEA-NW Project.
Website: http://www.npaihb.org/epicenter/project/improving_data_enhancing_access_northwest_idea_nw

1. Demographics

Demographics provide information on the age, gender, and geographic distribution of a population. Demographics also include data on social and economic factors that influence people's health, including income levels, educational attainment, and employment status. Demographic information can help health researchers, planners, and healthcare providers understand the communities they serve, and identify factors that might explain health outcomes and disparities experienced by a population.

AI/AN make up about 2.8% of the population in the Northwestern states of Idaho, Oregon, and Washington. AI/AN in the Northwest are noticeably different from the general Northwest population on several demographic indicators[1], including the following:

- **AI/AN in the Northwest are younger than the general population**. The median age for AI/AN in Idaho, Oregon, and Washington is about seven years younger than the general population in these states.

- **AI/AN have lower levels of educational attainment than the general population.** About 16% of adult AI/AN have not completed a high school degree or equivalent, compared to 10% of the general population.

- **AI/AN have lower income levels and higher poverty rates than the general population.** The median income for AI/AN in the Northwest is $9,770 lower than the regional average. About 27% of AI/AN in the Northwest live in poverty, compared to 15.5% of the general population.

This section describes key demographic characteristics of AI/AN in Idaho, and includes data on age distribution, geographic distribution, educational attainment, and economic indicators.

1. U.S. Census Bureau. American Community Survey 3-year Estimates, 2010-2012.

Population

In 2010, a total of 36,385 AI/AN were living in Idaho, which represents about 2.3% of the total state population (Table 1.1). Most of Idaho's AI/AN population were living in counties that overlap with Tribal lands or near the cities of Boise or Twin Falls. This is shown in Figure 1.1, where the darker shading indicates a larger AI/AN population. Ada County, which includes Boise, has the greatest number of AI/AN residents (N=5,884 or 16% of Idaho's total AI/AN population).

Table 1.1: Population by race and sex, Idaho, 2010.

	Male Population N (%)	Female Population N (%)	Total Population N (%)
AI/AN	18,085 (2.3%)	18,300 (2.3%)	36,385 (2.3%)
NHW	656,298 (83.6%)	659,945 (84.4%)	1,316,243 (84.0%)
Other Races	110,941 (14.1%)	104,013 (13.3%)	214,954 (13.7%)
All Races	785,324 (100.0%)	782,258 (100.0%)	1,567,582 (100.0%)

Data Source: Table 1.1 - 2010 Census Summary File 2 QT-P1 TABLE; Figure 1.1 - 2007-2012 American Community Survey Selected Population Tables

Data Notes: For information on confidentiality protection, non-sampling errors, and definitions, see http://www.census.gov/prod/cen2010/doc/sf2.pdf. Summary File 2 has a population threshold of 100. Data are available only for the population groups having a population of 100 or more of that specific group within a particular geographic area.

Figure 1.1: AI/AN population by county, Idaho, 2010.

Legend

- • City
- Idaho Tribes

AI/AN Population
- <500
- 500 - 999
- 1000 - 4999
- >5000

Kootenai

Coeur d'Alene

Coeur d'Alene

Lewiston

Nez Perce

Boise

Nampa

Idaho Falls

Fort Hall Shoshone-Bannock

Pocatello

Twin Falls

Northwestern Shoshone

Esri, DeLorme, GEBCO, NOAA NGDC, and other contributors
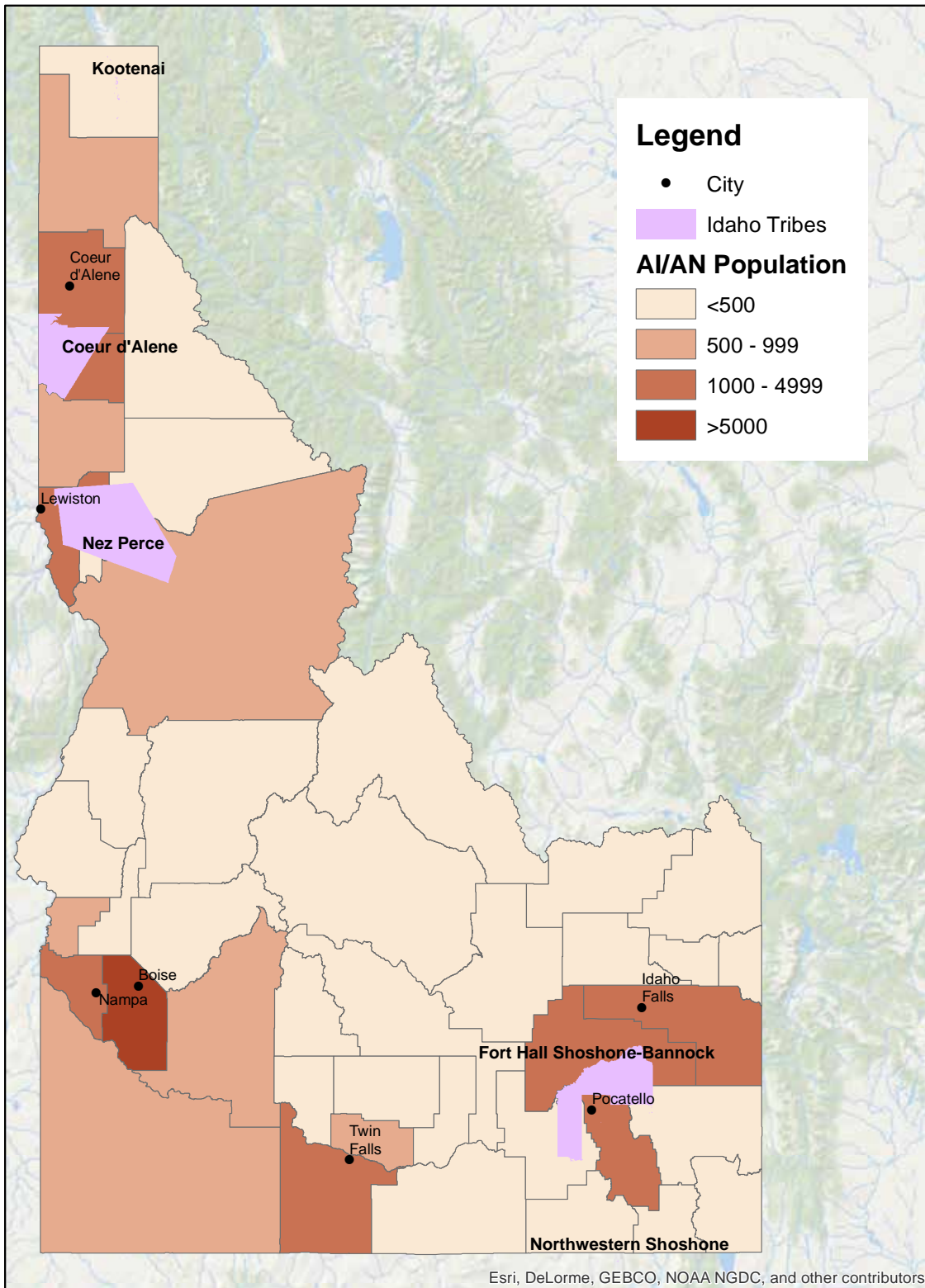
Age Distribution

AI/AN in Idaho are younger than NHW in the state. In 2010, the median age for AI/AN was 28.6 years, which was 8.7 years younger than the median age for NHW (37.3 years).The age distribution for Idaho AI/AN (Figure 1.2) is noticeably different than the age distribution for NHW in the state (Figure 1.3). A larger proportion of the AI/AN population is in the younger age groups, while a larger proportion of the NHW population is in the older age groups. In both cases, women are achieving advanced age in greater numbers than men.

Data Source: 2010 Census Summary File 2 QT-P1 TABLE

Data Notes: For information on confidentiality protection, non-sampling errors, and definitions, see http://www.census.gov/prod/cen2010/doc/sf2.pdf. Summary File 2 has a population threshold of 100. Data are available only for the population groups having a population of 100 or more of that specific group within a particular geographic area.

Figure 1.2: Age distribution by sex for AI/AN, Idaho, 2010.
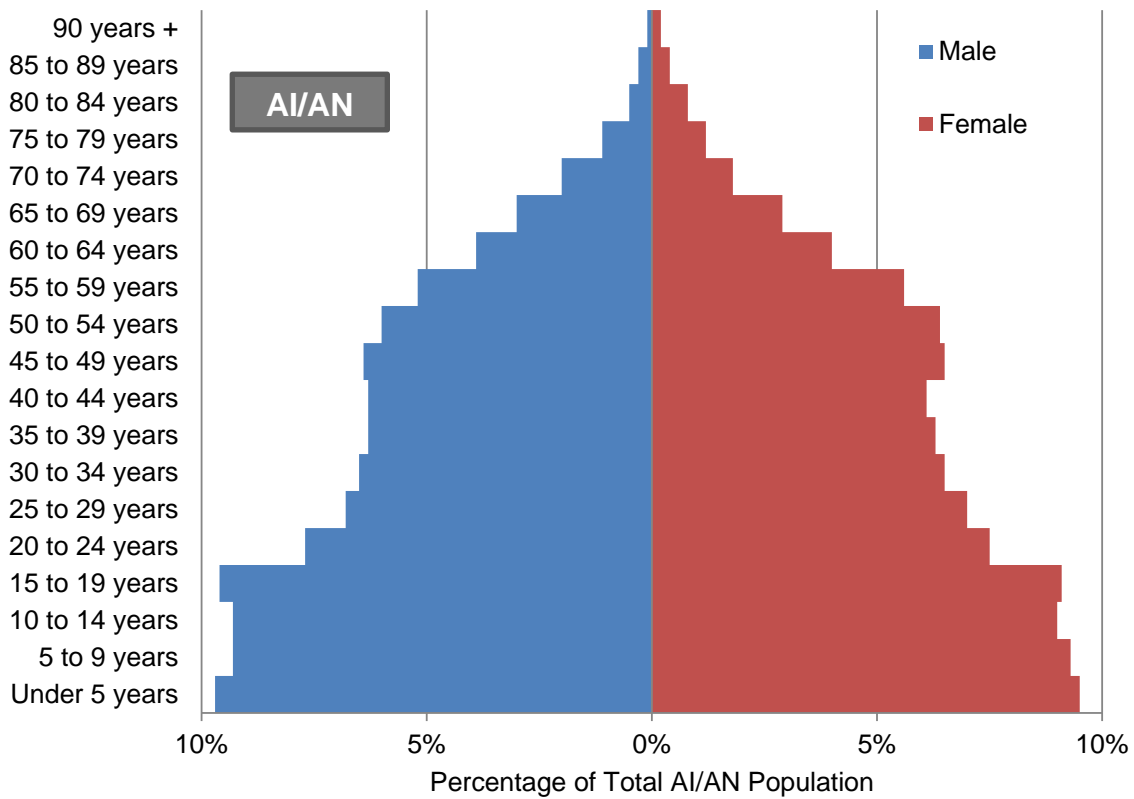
Figure 1.3: Age distribution by sex for NHW, Idaho, 2010.
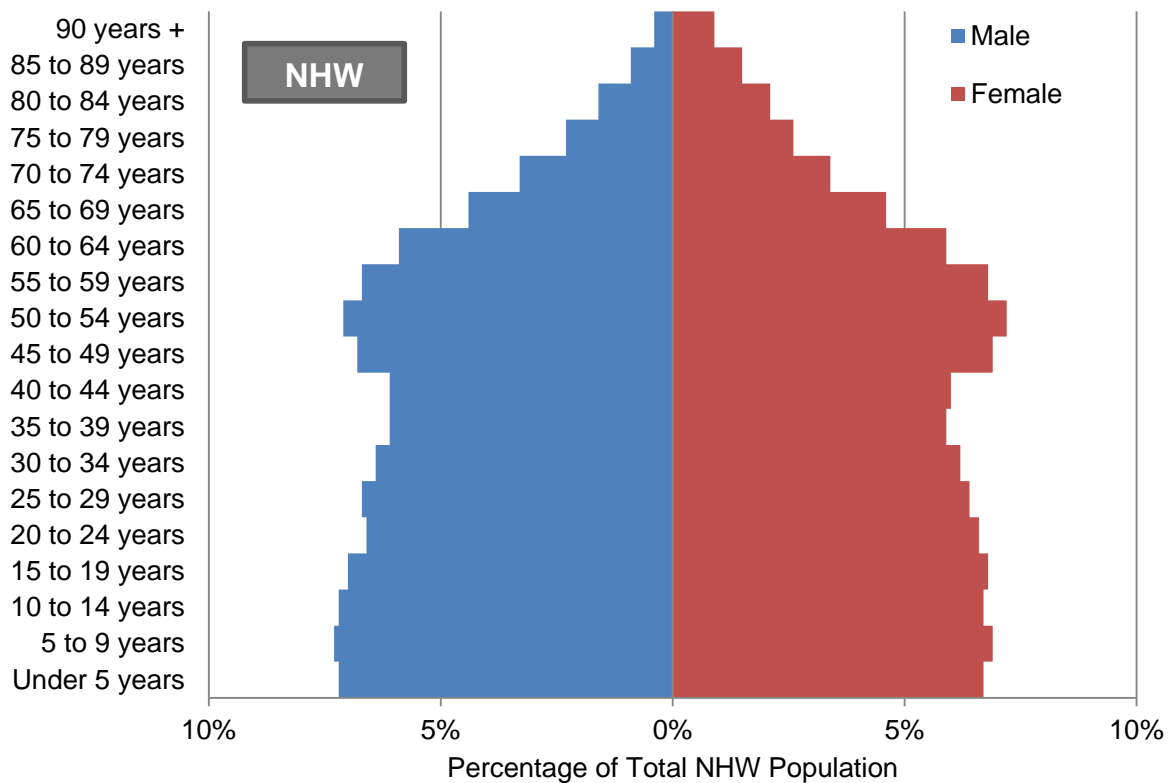
Educational Attainment

Figure 1.4 compares educational attainment for adult AI/AN and NHW in Idaho. Compared to NHW, fewer AI/AN completed high school. About 28% of AI/AN females went only as far as graduating high school or getting a GED in their education, which was similar to NHW males and females. However, a higher percentage of AI/AN males ended their education with high school (35%). NHW males and females were about the same in their likelihood to complete a Bachelor's degree (18% and 17.5% respectively), while AI/AN were much less likely to go on to complete a Bachelor's degree. Female AI/AN were slightly more likely to attain a bachelor's degree than male AI/AN (8.4% versus 6.3%); however when considering all higher education there was little difference between the genders.

Data Source: 2006-2010 American Community Survey Selected Population Tables. B15002: SEX BY EDUCATIONAL ATTAINMENT FOR THE POPULATION 25 YEARS AND OVER - Universe: Population 25 years and over

Figure 1.4: Educational attainment for adults by race and sex, Idaho, 2006-2010.

Legend:
- Masters / Professional / Doctorate degree
- Bachelors degree
- Associates degree
- College, no degree
- High School/ GED
- < High school

AI/AN Male: 5.4%, 6.3%, 8.0%, 23.8%, 35.3%, 21.2%

AI/AN Female: 3.9%, 8.4%, 9.0%, 33.5%, 27.8%, 17.3%

NHW Male: 9.4%, 18.0%, 8.6%, 26.3%, 28.9%, 8.8%

NHW Female: 6.5%, 17.5%, 9.1%, 28.7%, 29.7%, 8.8%
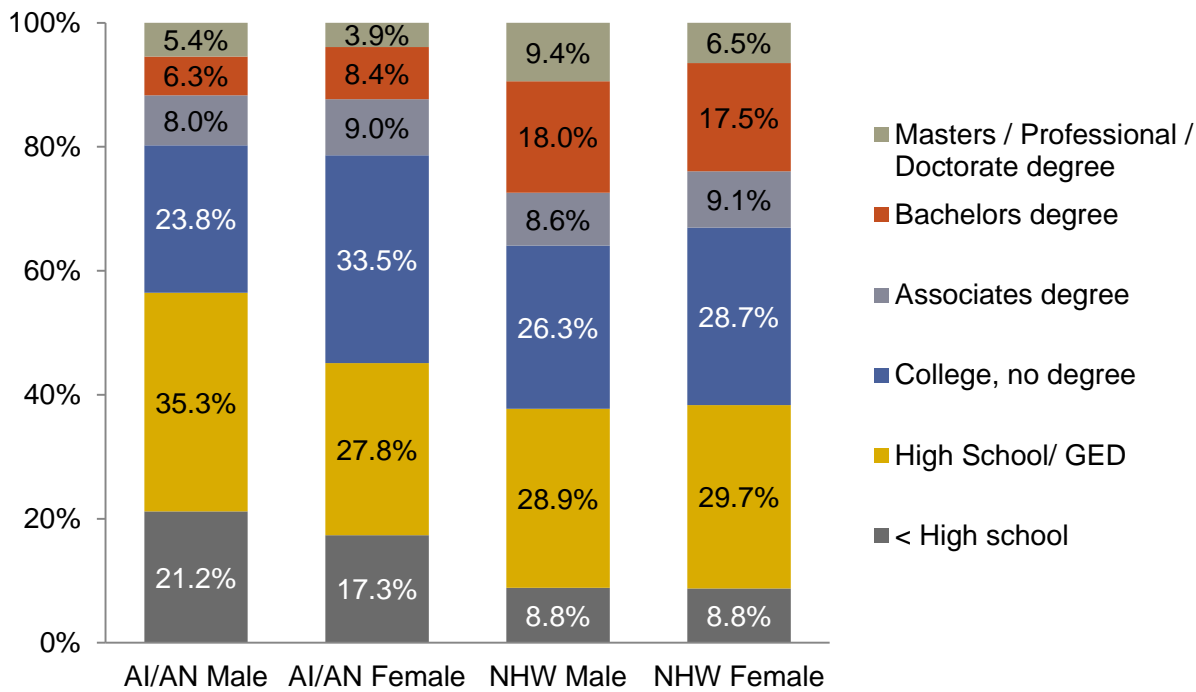
N *(25 yrs+): AI/AN males=49,864; AI/AN females=54,752; NHW males=1,674,125; NHW females=1,750,956.*

GED = General Educational Development degree.

Economic Indicators

Table 1.2 shows some key economic indicators for AI/AN and NHW in Idaho. The median income for AI/AN is about $12,500 lower than that of the NHW population. The percent of AI/AN families in poverty is two and a half times that of NHW; the percent of AI/AN individuals in poverty is approximately twice that of NHW. The percentage of unemployed AI/AN is double that of the NHW population and those who receive food stamps is almost triple that of the NHW population.

Data Source: 2006-2010 American Community Survey Selected Population Tables. B15002: SEX BY EDUCATIONAL ATTAINMENT FOR THE POPULATION 25 YEARS AND OVER - Universe: Population 25 years and over

Table 1.2: Economic indicators by race, Idaho, 2006-2010.

Economic Indicator	AI/AN	NHW
Median Income	$35,497	$48,049
Percent of Families in Poverty	22.6%	8.0%
Percent of People in Poverty	25.4%	11.6%
Percent of Children[†] in Poverty	32.5%	13.5%
Percent Unemployed	13.3%	6.4%
Receive Food Stamp Benefits	21.4%	7.1%

[†] Under 18 years of age

2. Maternal & Child Health

Maternal and child health indicators describe the health and well-being of mothers, infants, children, and families. We focus attention on this specific group because their health and well-being affects not only the present generation, but also the health and well-being of future generations. A mother's health and well-being before, during, and after pregnancy has direct and sometimes lifelong effects on the health of her child. Promoting healthy practices before, during, and after pregnancy is critical to ensuring that children will have the chance to begin life with good health.

The U.S. has shown improvement on several maternal and child health indicators over the last 20 years. However, we continue to see disparities by race and ethnicity, with some of the greatest burden in American Indian and Alaska Native populations. It is a nation-wide priority to eradicate these disparities and improve the health and well-being of AI/AN women, children, and communities.

For AI/AN in Idaho, birth rates were higher than for the general population. AI/AN teen birth rates were over two and a half times higher than NHW teen birth rates. AI/AN mothers experienced risk factors that could lead to poor outcomes for their babies - one in five smoked during pregnancy, one third were obese pre-pregnancy, and one quarter received inadequate prenatal care. In spite of these risk factors, birth outcomes were generally good. Less than 10% of AI/AN babies were born premature, and 84% were born at a healthy birth weight.

Birth Rates

Figure 2.1 shows birth rates per 1,000 population for Idaho AI/AN and NHW. Young Teen Birth Rate is defined as the number of births to females ages 10-14 per 1,000 females ages 10-14 per year, Teen Birth Rate as the number of births to females ages 15-19 per 1,000 females ages 15-19 per year, and General Fertility Rate as the number of live births to females 15-44 per 1,000 females ages 15-44 per year.

From 2006-2012, AI/AN women in Idaho had a higher General Fertility Rate than NHW (87.4 versus 73.9 per 1,000), as well as a significantly higher Teen Birth Rate than NHW in Idaho (72.8 versus 27.2 births per 1,000).

Figure 2.1: Birth rates by age group and race, Idaho, 2006-2012.
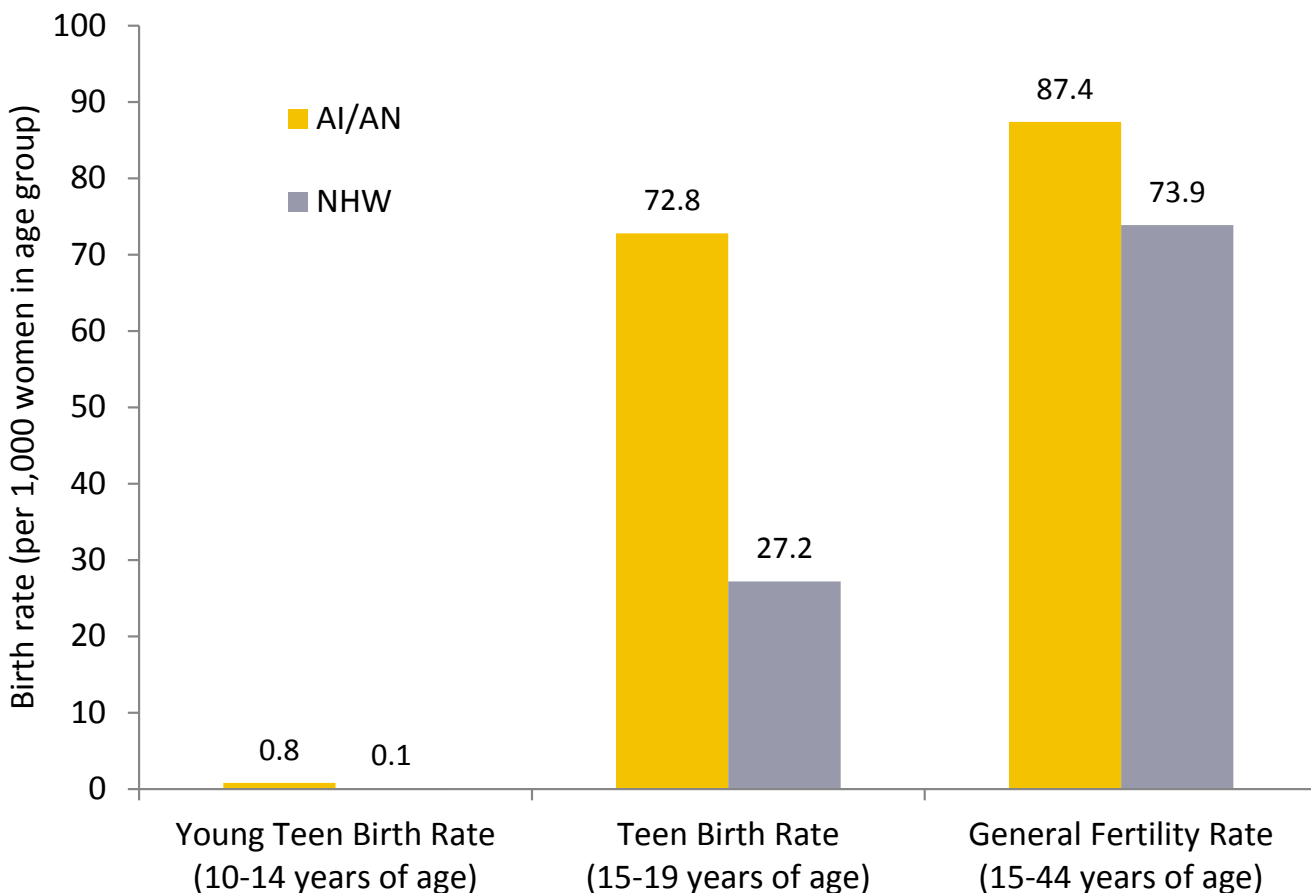
Maternal Risk Factors

Table 2.1 shows selected maternal risk factors during pregnancy for AI/AN and NHW mothers in Idaho. AI/AN women have higher risks for some factors, which could affect their babies' health and the outcomes of their pregnancies. These factors include the following:

- About 1 in 5 AI/AN women reported smoking during their pregnancy. This was 55% higher than the smoking rate among NHW pregnant women.

- Over 30% of AI/AN mothers were obese pre-pregnancy, compared to 20% of NHW women.

- Complications during pregnancy were more common among AI/AN women than NHW women: 5% developed gestational diabetes and 8% developed hypertension during pregnancy.

- One in four (25%) AI/AN women received inadequate prenatal care, compared to only 12% of NHW women.

Data Source: Data from the birth certificates in the Idaho birth registry from 2006-2012 were used to provide the following statistics. Race was corrected for misclassification through linkage with the Northwest Tribal Registry.

Table 2.1: Maternal risk factors by race, Idaho, 2006-2012.

	AI/AN (%)	NHW (%)
Smoked during pregnancy	19.4%	12.5%
Pre-pregnancy BMI		
Underweight (<18.5)	3.2%	3.9%
Normal (18.5-24.9)	36.1%	52.3%
Overweight (25.0-29.9)	27.7%	23.4%
Obese (30.0 and above)	32.4%	19.7%
Diabetes		
Pre-pregnancy	1.3%	0.6%
Gestational	5.0%	3.6%
Hypertension		
Pre-pregnancy	1.0%	1.0%
Gestational	7.6%	6.7%
Adequacy of Prenatal Care		
Inadequate	25.9%	12.1%
Intermediate	7.9%	8.2%
Adequate	35.4%	44.0%
Intensive	27.4%	33.6%

Prenatal Care Initiation

Prenatal care is care women receive during pregnancy and can help health care providers detect health issues early on for mother and/or baby. Inadequate prenatal care means a woman received 50% or fewer of the expected prenatal care visits for her type of pregnancy. One in four (25%) AI/AN women had inadequate prenatal care during pregnancy, compared to 12% of NHW women.

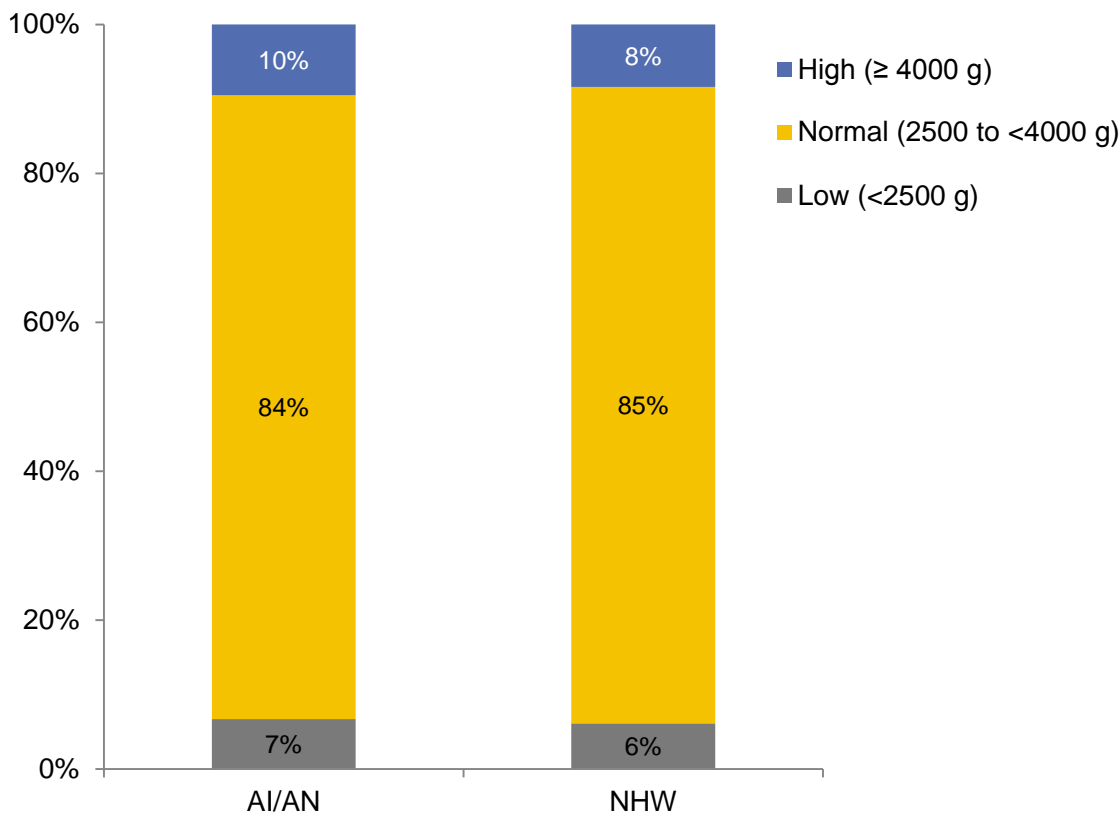**Figure 2.2: Adequacy of prenatal care by race, Idaho, 2010-2012.**
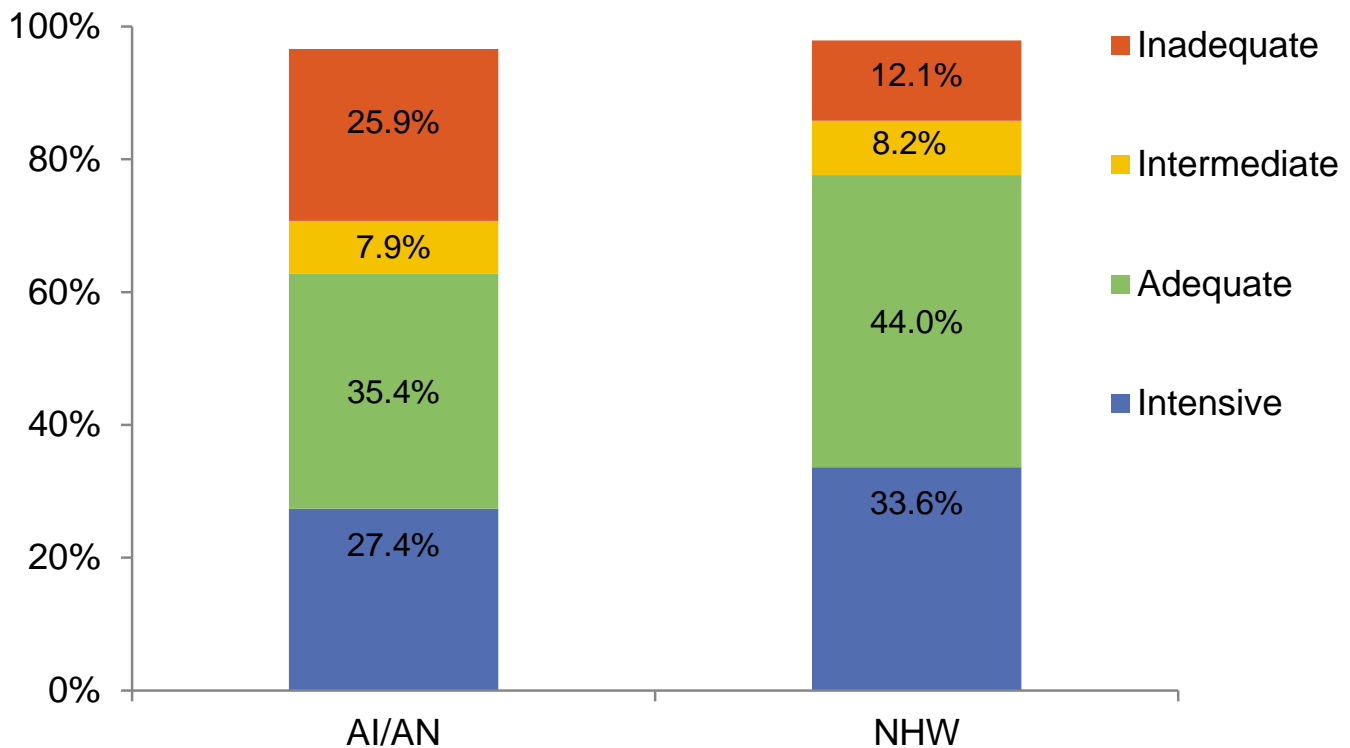
Birth Weight and Prematurity

Babies who have very low or very high weight at birth can be at higher risk of death and other complications as they grow up[1]. Low birth weight is also often indicative of broader public health concerns among the mothers, including poor nutrition, substance abuse, and inadequate access to health care.

Figure 2.3 shows that the majority of AI/AN babies born in Idaho are in a healthy birth weight range. Only seven percent were born with low birth weight, and only ten percent with higher than normal birth weight. This is very similar to the distribution seen among NHW babies in the state.

1. Maureen Hack, Nancy K. Klein, and H. Gerry Taylor, "Long-Term Developmental Outcomes of Low Birth Weight Infants," The Future of Children 5, no. 1 (1995), 176–96.

Figure 2.3: Birth weight by race, Idaho, 2006-2012

Legend:
- High (≥ 4000 g)
- Normal (2500 to <4000 g)
- Low (<2500 g)

AI/AN: High 10%, Normal 84%, Low 7%
NHW: High 8%, Normal 85%, Low 6%

2. Maternal & Child Health

From 2006-2012, 8.9% of AI/AN babies were born premature (before 37 weeks gestation) (Figure 2.4). Most of these premature births were moderately premature (from 32 to less than 37 weeks), while 1.2% were very premature (less than 32 weeks). For NHW, 9.1% of babies were moderately premature and 1.5% were very premature.

Figure 2.4: Premature births by race, Idaho, 2006-2012.
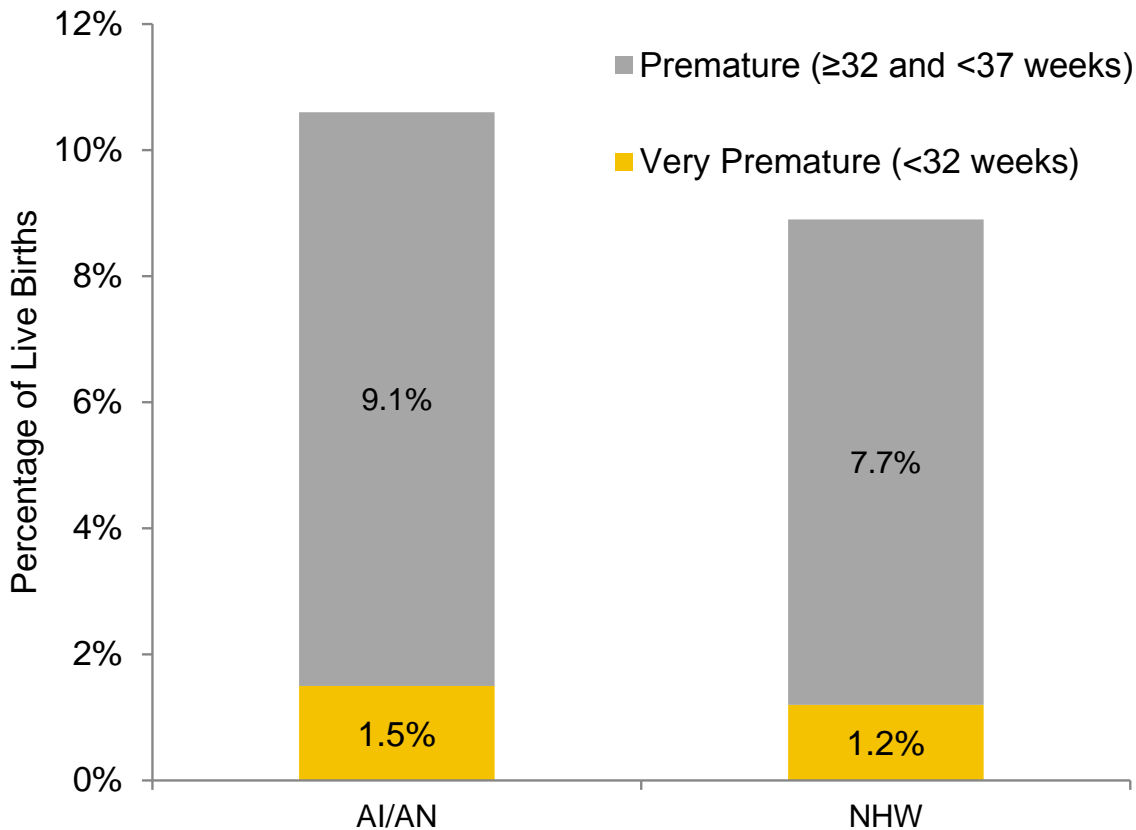
Program Spotlight: Native CARS

NPAIHB's Native CARS (Native Children Always Ride Safe) is working with tribal communities to design, implement and test the effectiveness of tribal interventions to improve the use of child safety seats among AI/AN children.

Working in partnership with the six Northwest tribes, Native CARS sought to identify the barriers to and facilitators of proper and consistent use of child restraints. The study partnership used this information to design and implement community-level interventions. The interventions resulted in significant reductions in the percentage of children riding completely unrestrained in motor vehicles from 29% in 2009 to 14% in 2013 and increased proper restraint from 49% in 2009 to 60% in 2013. NATIVE CARS is currently working to disseminate its evidence-based protocols and intervention materials through the **Native CARS Atlas**, which can be used by other tribes in the Northwest and nationwide.

For more information, please contact:

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tlutz@npaihb.org 503-416-3271
nativecars@npaihb.org   http://www.npaihb.org/epicenter/project/native_cars_study

Program Spotlight: Northwest Tribal Fetal Alcohol Spectrum Disorder (FASD) Project

The consumption of alcohol during pregnancy is one of the leading preventable causes of birth defects and childhood disabilities in the United States. The Northwest Tribal FASD Project seeks to reduce the incidence of FASD and to assist tribal communities to improve the quality of life of those living with FASD. by providing prevention education about the effects of fetal exposure to alcohol. The project also provides training for community members in diagnosing FASD, and works with communities to develop services that support and protect community members already affected by FASD. The Northwest FASD Project has worked with Northwest Tribes to develop tribal coalitions to address FASD within their communities. These coalitions have identified long-term goals and strategies, and receive trainings on counseling for expecting mothers, educational strategies for children, and chemical dependency for adolescents and adults who may have had fetal alcohol exposure. For more information, please contact:

Jacqueline Left Hand Bull (Sicangu Lakota) jlefthandbull@npaihb.org
http://www.npaihb.org/programs/the_northwest_tribal_fetal_alcohol_spectrum_disorders_project

3. Mortality

Mortality rates, also known as death rates, are a measure of the number of deaths in a community compared to the population size during a given time period. These statistics are one of the most fundamental measures of the health of a community. Consistent monitoring of mortality is key to knowing whether or not our interventions and programs are working. By examining the leading causes of mortality, we can identify new threats to health and well-being and focus limited resources. Comparing mortality across geography, gender and age groups shows us which populations are facing the greatest challenges, and allows us to identify areas of success that can be shared with others.

Nationally, the mortality rate for AI/AN is 964.4 per 100,000[1]. This is about 19% higher than the national rate for whites. In Idaho, the all-cause mortality rate for AI/AN was 936.9, which was lower than the rate for AI/AN elsewhere in our region but still 11% higher than the rate among NHW in Idaho. Heart disease, cancer, unintentional injury and diabetes were the top causes of death for AI/AN in the state, which highlights the need to build upon initiatives aimed at supporting healthy lifestyles. Unintentional injury is of particular concern for youth in Idaho. Some of the highest unintentional injury rates, as well as the greatest disparities, were seen among Idaho AI/AN under the age of 30.

Across the state, the highest AI/AN mortality rates occurred in the North Central region (Latah, Clearwater, Nez Perce, Lewis, and Idaho counties). The lowest rates were seen in Central Idaho (Valley, Boise, Ada and Elmore counties).

The statistics reported here show only the numbers; what they fail to capture is the profound impact each preventable or early death has on tribal communities. The loss of each young person who will never have the opportunity to grow into the leader he or she could have become is a tragedy. The death of a middle aged person may have the widest spread impact, as they are often vital members of the community upon whom both children and elders rely for support and care. And, of course, the premature passing of every elder results in a loss of the history, language and knowledge of their Tribe.

The following section provides detailed information on mortality rates and leading causes of death, as well as life expectancy estimates. Mortality rates for each specific topic area are presented throughout the report.

1. Espey DK, Jim MA, Cobb N, Bartholomew M, Becker T, Haverkamp D, et al. Leading causes of death and all-cause mortality in American Indians and Alaska natives. American journal of public health. 2014;104 Suppl 3:S303-11.

Leading Causes of Death

Table 3.1 presents the top ten causes of death for Idaho. Both AI/AN and NHW shared the same top two causes of death, heart disease and cancer. These leading two causes accounted for a larger proportion of deaths among NHW (45%) than AI/AN (35%). Unintentional injury was the third leading cause for AI/AN, accounting for proportionally nearly twice as many deaths as among NHW. Chronic liver disease and diabetes were the fourth and fifth leading causes of death, respectively, for AI/AN but did not appear in the top five for NHW. Alzheimer's disease was the sixth leading cause of death for NHW but did not appear in the top ten causes for AI/AN.

**Table 3.1: Top ten causes of death by race, Idaho, 2006-2012.**

Rank	AI/AN	(%) N[†]	NHW	(%) N[†]
1	Heart disease	17.5% (176)	Cancer	22.4% (16,548)
2	Cancer	17.0% (171)	Heart Disease	22.1% (16,332)
3	Unintentional injury	11.3% (114)	Chronic lower respiratory disease	6.7% (4,929)
4	Liver disease	7.8% (79)	Stroke	5.7% (4,234)
5	Diabetes	6.6% (66)	Unintentional injury	5.5% (4,093)
6	Suicide	4.8% (48)	Alzheimer's disease	3.6% (2,676)
7	Chronic lower respiratory disease	4.4% (44)	Diabetes	3.1% (2,268)
8	Stroke	4.2% (42)	Suicide	2.3% (1,722)
9	Influenza & pneumonia	2.3% (23)	Influenza & Pneumonia	1.9% (1,415)
10	Nephritis	1.6% (16)	Nephritis	1.4% (1,050)
Total deaths		**1,007 (100%)**		**73,846 (100%)**

[†] N = number of deaths

Mortality Rates

Throughout the seven year period, all-cause mortality rates for AI/AN were 1.3 times that of NHW. Figure 3.1 shows the five highest age-adjusted death rates. AI/AN rates were higher than NHW for all but cancer, which was just about the same between the two races. AI/AN rates of death due to liver disease (not shown) and diabetes are notable for particularly large disparities – 5.5 times higher for liver disease and 2.8 times for diabetes.

Figure 3.1: Top five age-adjusted mortality rates for AI/AN, Idaho, 2006-2012.
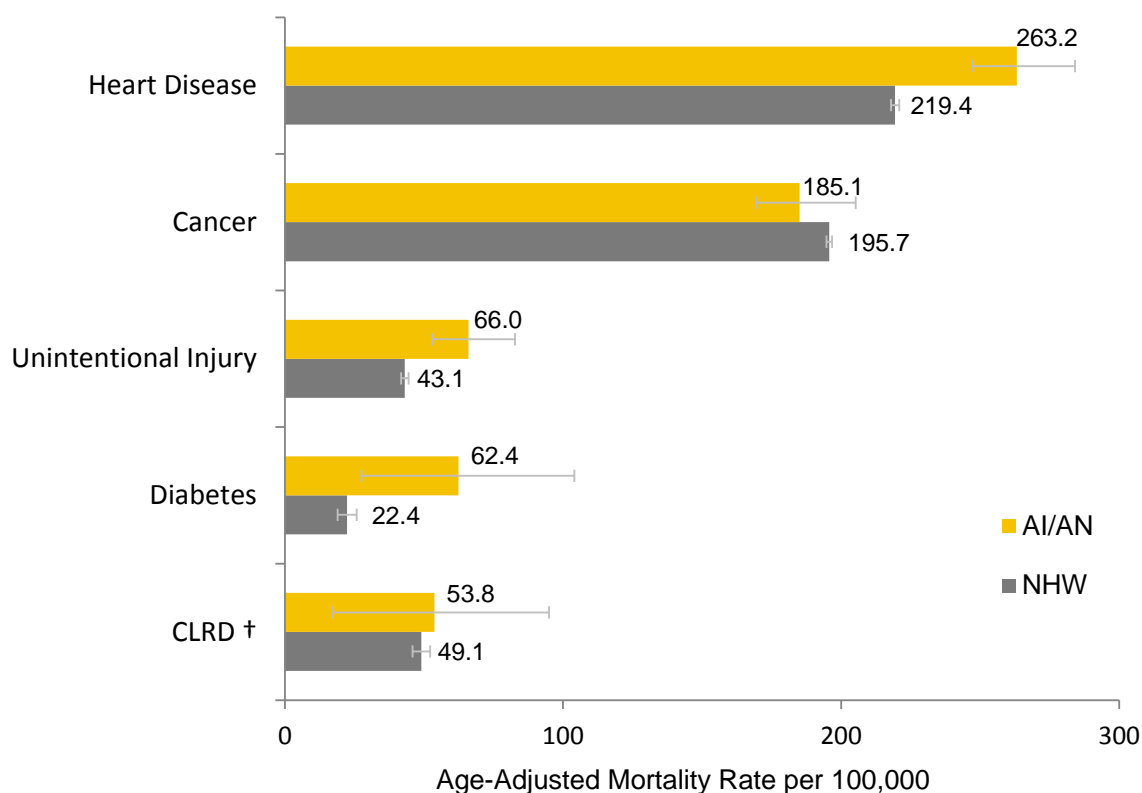
† CLRD = Chronic Lower Respiratory Disease

Data Source: Idaho state death certificates, 2006-2010, corrected for misclassified AI/AN race.

Data Notes: ICD classification follows WISQARS; excludes deaths of infants under one year old.

Life Expectancy at Birth

Figure 3.2 displays life expectancy at birth for AI/AN and NHW by sex, as estimated from life tables calculated based on linkage-corrected death certificate data (see appendix II for abridged life tables). Life expectancy at birth can be thought of as the average number of years a baby born today would be expected to live, given current mortality patterns. Life expectancy for Idaho AI/AN was 74.5 years, which was about three years longer than Washington AI/AN and very similar to Oregon AI/AN.

Across the Northwest, female AI/AN had a life expectancy 3.7 years longer than male AI/AN. The gender gap was smallest among the Idaho population at 1.9 years.

Compared with their NHW counterparts, life expectancy at birth was 5 years lower for Idaho AI/AN. The gap between races was greater for females than males: AI/AN females had a life expectancy 6.1 years shorter than their NHW counterparts, versus 3.9 years for males.

Data Source: Idaho state death certificates, 2008-2010, corrected for misclassified AI/AN race by the IDEA-NW Project.

Data Notes: Life tables were generated using death counts and mortality rates computed from Idaho state death certificate data. AI/AN includes all deaths with any mention of AI/AN race in either the Idaho state death certificate data or the Northwest Tribal Registry.

Figure 3.2: Life expectancy at birth by race and sex, Idaho, 2008-2010.
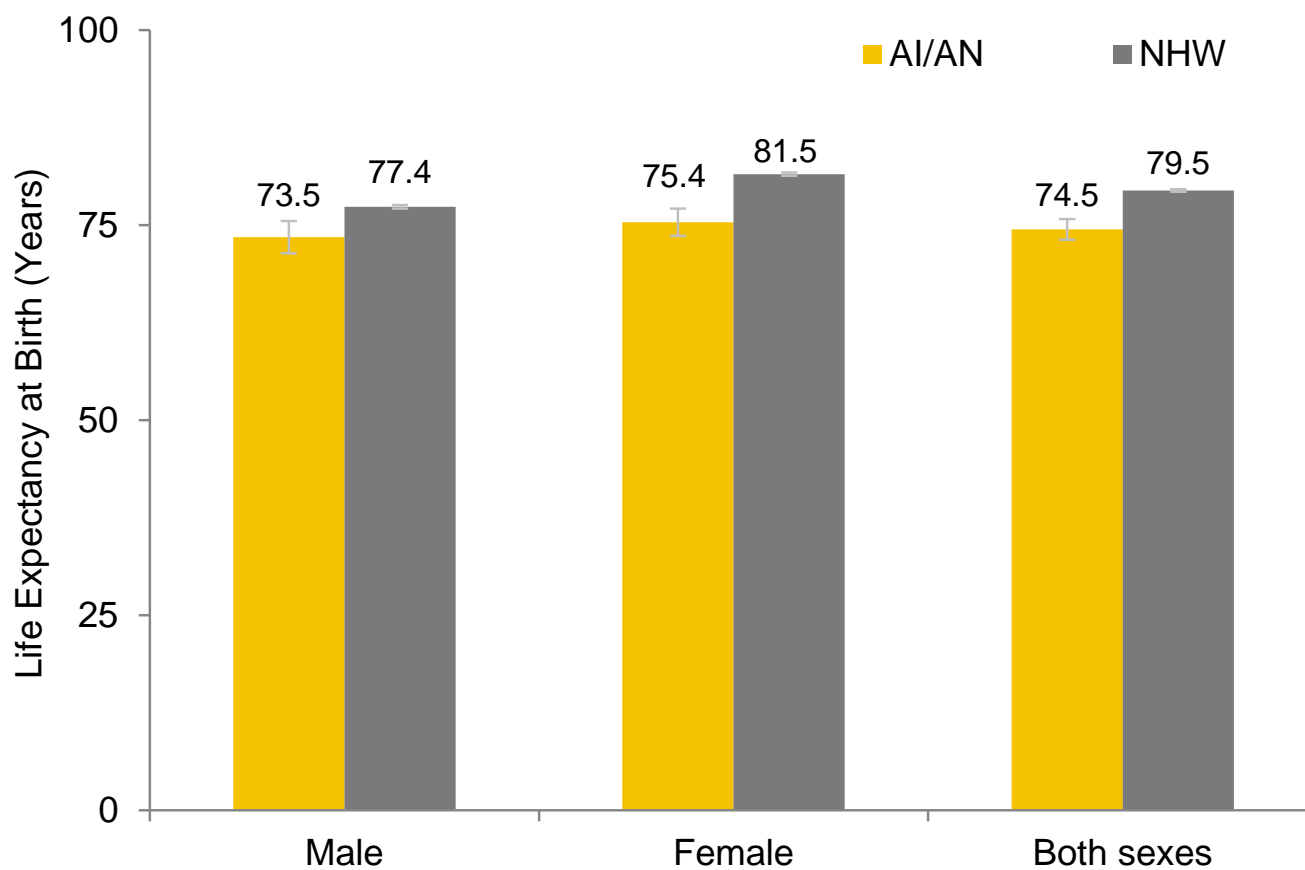
4. Diabetes

Diabetes (also called diabetes mellitus) is a chronic disease caused by high levels of blood glucose (or blood sugar). Blood glucose levels are controlled by the hormone insulin, which moves glucose from the blood into cells to be used as energy. In type 1 diabetes, the body does not make enough insulin to control blood sugar levels. In type 2 diabetes (the most common type), the body no longer uses insulin efficiently. Although the two forms are different in many ways, the end result of both is high blood sugar. If left untreated, diabetes can damage nearly every tissue in the body, and can cause heart attacks, stroke, blindness, kidney failure, and amputations of toes, feet, or legs.[1]

AI/AN adults have among the highest rates of diabetes in the U.S. From 2010-2012, the age-adjusted percentage of AI/AN adults with diabetes was 15.9%, compared to 7.6% for NHW, 12.8% for Hispanics, and 13.2% for African Americans.[2] AI/AN diabetes rates vary by region, from 6% for Alaska Natives to 24.1% for American Indians in Arizona.[2] Diabetes is the fourth leading cause of death for AI/AN nationwide.

Diabetes prevalence among Idaho AI/AN, both by self-report and Indian health facility medical records, was around 10-15%. Diabetic screening rates are similar to other AI/AN in the Portland Area and nationally, and close to the IHS goals. However, two-thirds of diabetic AI/AN seen at Idaho clinics did not have their blood sugar and blood pressure under control. Diabetes was a major cause of death with AI/AN mortality rates nearly three times higher than NHW.

While diabetes is a life-long disease, it can be managed by exercising regularly, eating a healthful diet, taking medications, and getting regular health check-ups. People with pre-diabetes can reduce their risk by getting regular physical activity, losing a moderate amount of weight, and eating a balanced diet. Since 1997, the Special Diabetes Program for Indians (SDPI) has funded initiatives to prevent and treat diabetes in AI/AN communities. These initiatives have resulted in improved access to treatment and prevention services and improved clinical outcomes for diabetes patients.[3]

1. National Diabetes Information Clearinghouse. Your guide to diabetes: Type 1 and Type 2. Available at: http://www.diabetes.niddk.nih.gov/dm/pubs/type1and2/index.aspx.

2. Centers for Disease Control and Prevention. *National Diabetes Statistics Report: Estimates of Diabetes and Its Burden in the United States, 2014*. Atlanta, GA: US Department of Health and Human Services; 2014.

3. Indian Health Service Division of Diabetes Treatment and Prevention. Special Diabetes Program for Indians: Successful Interventions and Sustained Achievements (2012). Available at: http://www.ihs.gov/MedicalPrograms/Diabetes/index.cfm?module=resourcesFactSheets#2

Self-Reported Diabetes

Figure 4.1 shows the prevalence of self-reported diabetes among AI/AN and NHW adults in Idaho. From 2006-2012, AI/AN male diabetes prevalence was less than half that of AI/AN females (7% versus 15%). AI/AN female diabetes prevalence was also double that of NHW females (7%), while AI/AN males had rates similar to NHW males (7% versus 5%). Rates of pre-diabetes and gestational diabetes were very low for all groups.

Figure 4.1: Self-reported diabetes by race and sex, Idaho, 2006-2012.
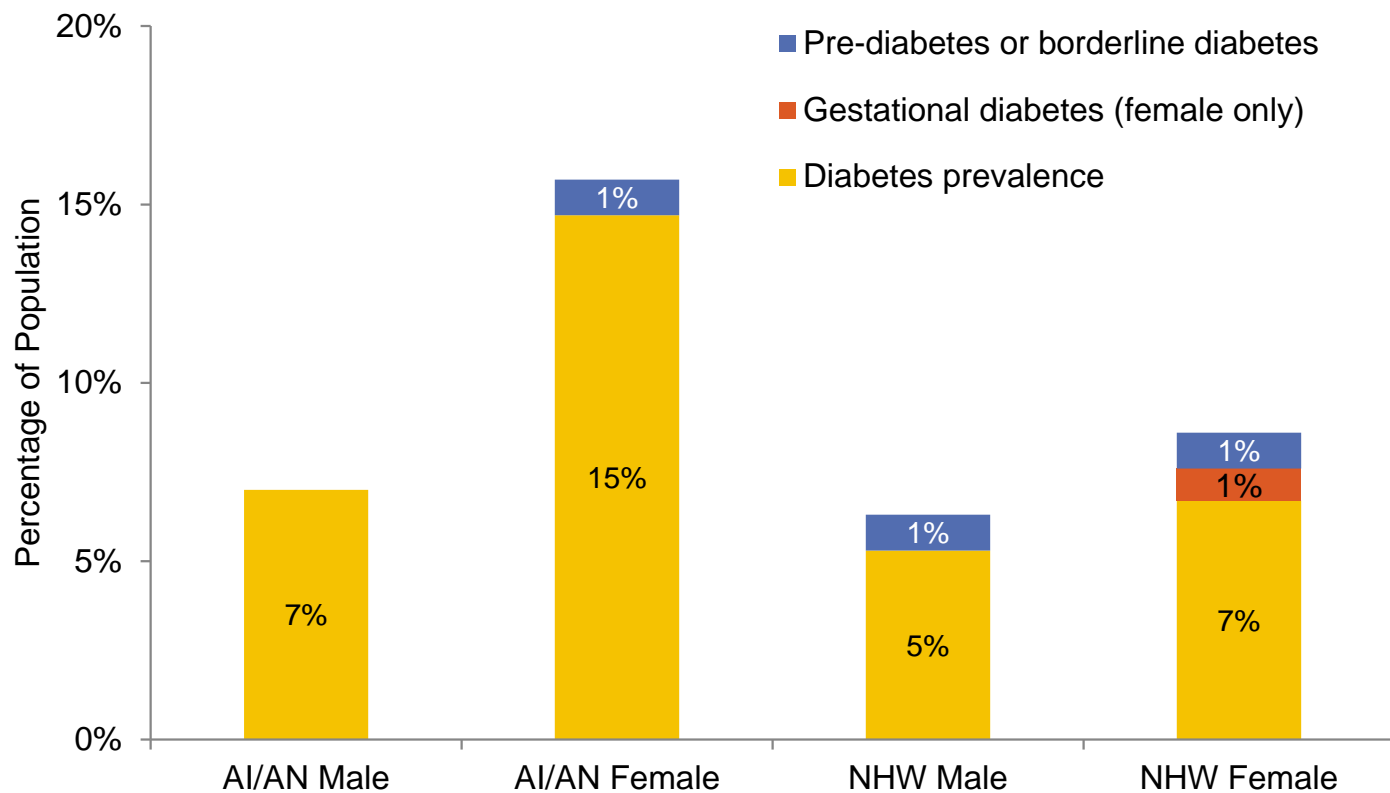
Sample sizes (n): AI/AN males=185; AI/AN females=313; NHW males=13,751; NHW females=20,911.

Data Source: 2006 – 2012 CDC BRFSS

Data Notes: The BRFSS prevalence estimates (shown as a percentage) are weighted to make the survey responses representative of the Idaho population. The sample sizes presented below the figures are the unweighted number of people who answered this question for the indicated years.

Diabetes Prevalence

From 2009-2013, AI/AN patients who received care at Indian health facilities in Idaho had a higher prevalence of diabetes compared to all Portland Area IHS patients and IHS patients nationwide (Figure 4.2). The diabetes prevalence in the Idaho patient population rose slightly during this time period, from 13.6% in 2009 to 16.1% in 2013.

Data Source: Portland Area Indian Health Service.

Data Notes: Data labels only shown for Idaho clinics. 2013 data not available for IHS All Areas. Idaho clinics include non-urban federal and tribal Indian health facilities in Idaho. Portland Area IHS clinics include non-urban federal and tribal Indian health facilities in Idaho, Oregon, and Washington.

Figure 4.2: Diabetes prevalence among IHS patients, 2009-2013.
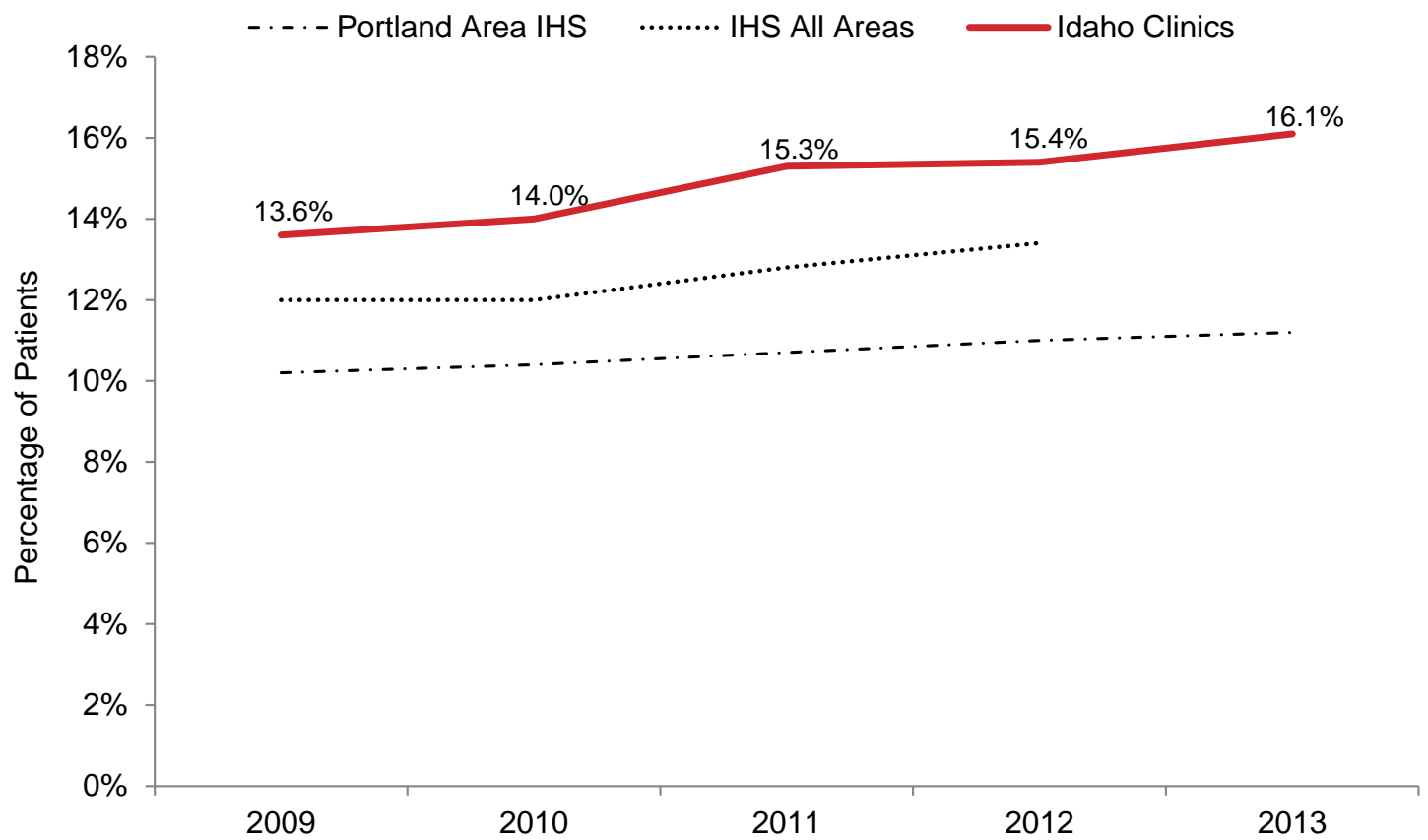
Diabetes Control and Management

Blood Sugar Control

Blood sugar control, as measured by the Hemoglobin A1c, is an important indicator of how well diabetes patients are managing their disease. The U.S. goal is for 58.9% of adults with diabetes to have a hemoglobin A1c level below 7% (Healthy People 2020). Until 2012, IHS defined ideal blood sugar control as having a hemoglobin A1c level below 7%. This treatment goal was relaxed in 2013 to a hemoglobin A1c result below 8%.
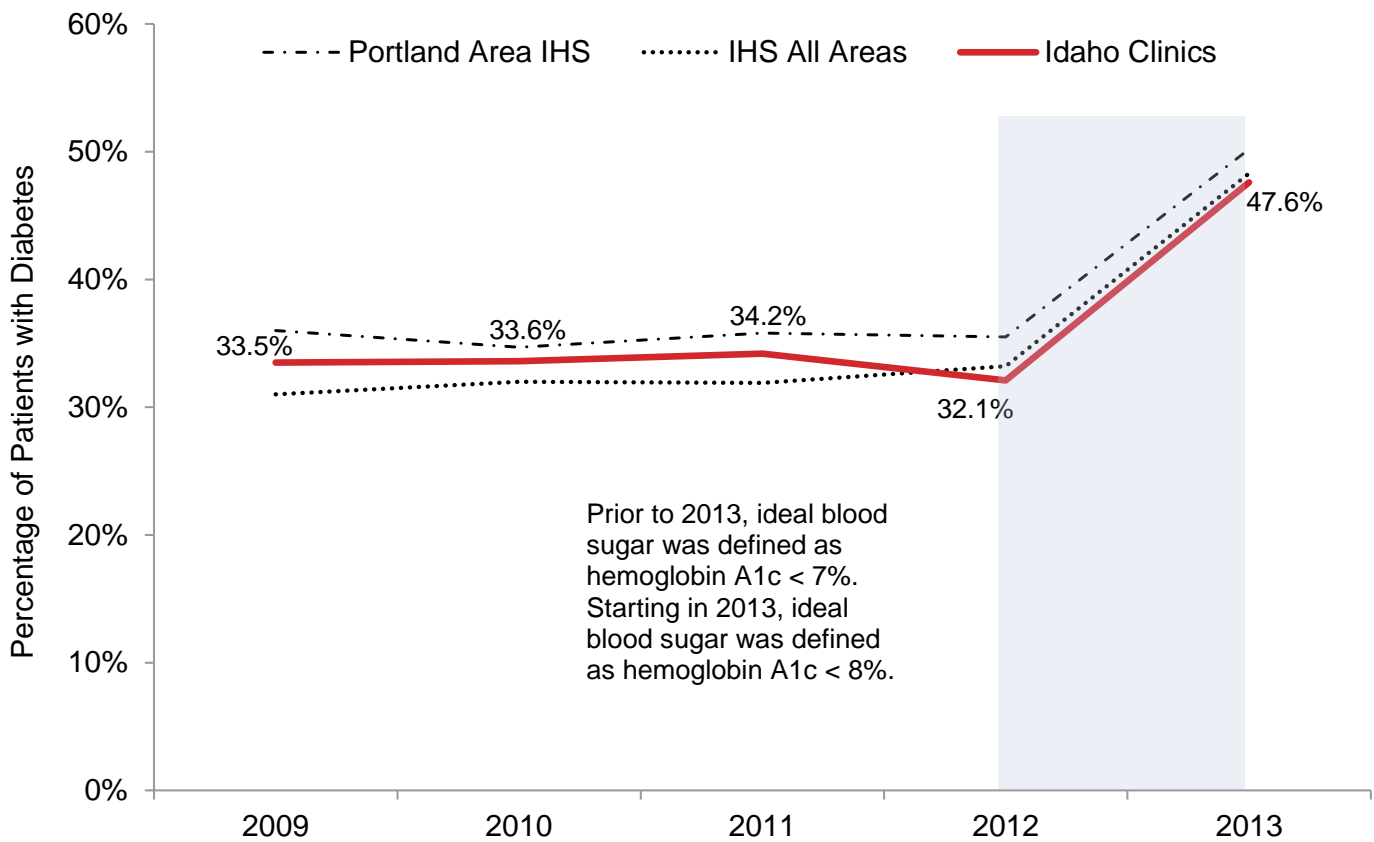
From 2009 to 2012, between 32-34% of AI/AN diabetes patients seen in Idaho clinics had ideal blood sugar levels. In 2013, this increased to 47.6% as a result of the definition change. Idaho clinics have a slightly lower percentage of patients with controlled blood sugar compared to the Portland Area IHS overall, but exceed the national IHS average.

Data Source: Portland Area Indian Health Service.

Data Notes: Data labels only shown for Idaho clinics. The shaded area shows the year when the definition for ideal blood control changed.

Idaho clinics include non-urban federal and tribal Indian health facilities in Idaho. Portland Area IHS clinics include non-urban federal and tribal Indian health facilities in Idaho, Oregon, and Washington.

Figure 4.3: Percentage of IHS diabetes patients with ideal blood sugar control, 2009-2013.

Prior to 2013, ideal blood sugar was defined as hemoglobin A1c < 7%. Starting in 2013, ideal blood sugar was defined as hemoglobin A1c < 8%.

Blood Pressure Control

Diabetes patients have increased risks for heart disease, and can reduce these risks by managing their blood pressure. The U.S. goal is for 57% of adults with diabetes to have their blood pressure under control (Healthy People 2020). Until 2012, IHS defined ideal blood pressure control for diabetes patients as having a blood pressure level below 130/80 mm Hg. This treatment goal was relaxed in 2013 to a blood pressure level below 140/90 mm Hg.
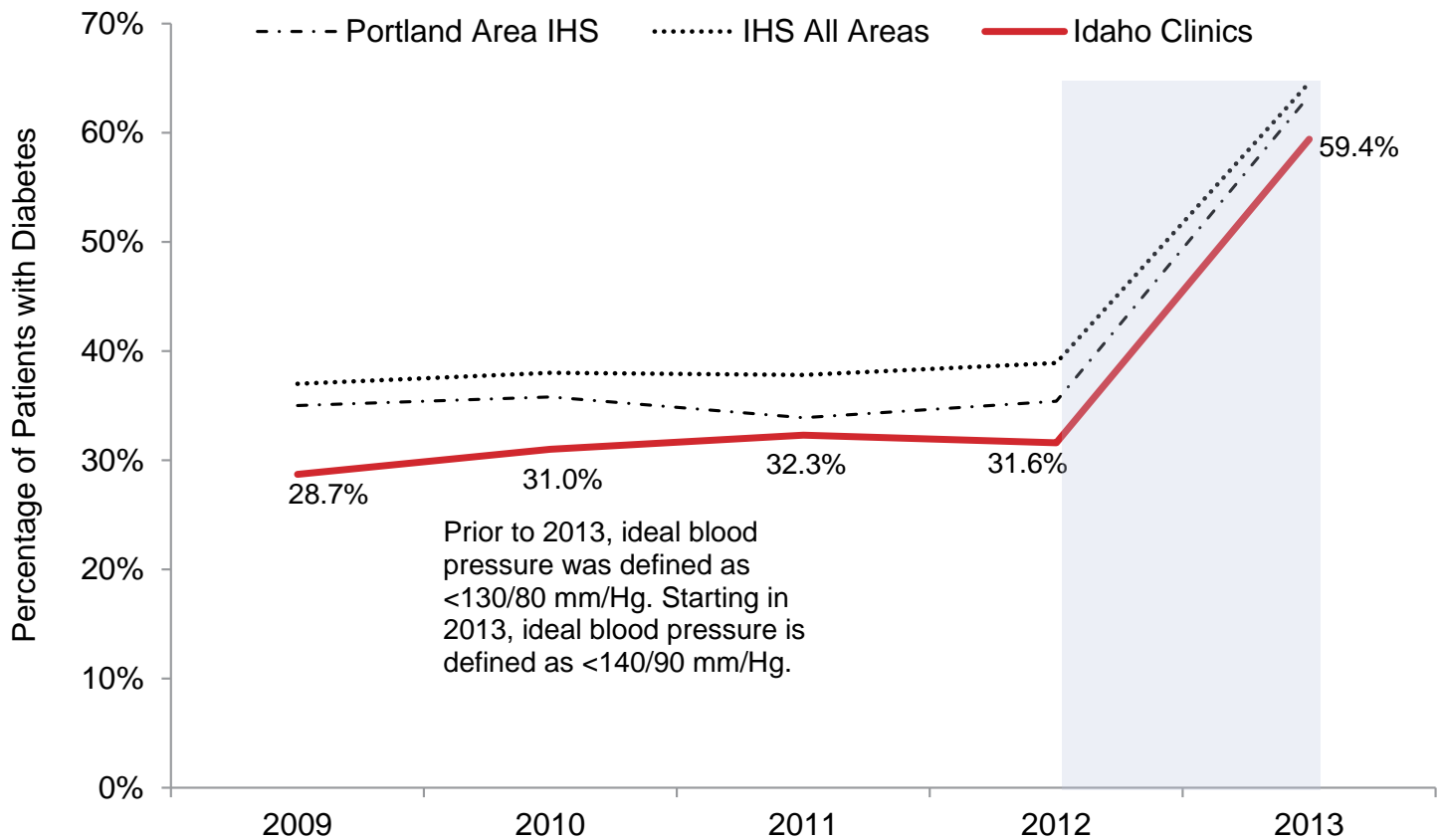
From 2009 to 2012, approximately 30% of AI/AN diabetes patients seen in Idaho clinics had ideal blood pressure levels. In 2013, this increased to 59.4% as a result of the definition change. Idaho clinics have a lower percentage of patients with controlled blood sugar compared to the Portland Area IHS average.

Data Source: Portland Area Indian Health Service.

Data Notes: Data labels only shown for Idaho clinics. The shaded area shows the year when the definition for ideal blood control changed.

Idaho clinics include non-urban federal and tribal Indian health facilities in Idaho. Portland Area IHS clinics include non-urban federal and tribal Indian health facilities in Idaho, Oregon, and Washington.

Figure 4.4: Percentage of IHS diabetes patients with ideal blood pressure, 2009-2013.

Prior to 2013, ideal blood pressure was defined as <130/80 mm/Hg. Starting in 2013, ideal blood pressure is defined as <140/90 mm/Hg.

Recommended Screenings - LDL Assessment

Diabetes patients are at increased risk for heart disease, kidney disease, eye problems, and other health issues. Diabetes patients can reduce their risk for these complications by receiving regular screening and monitoring. Routine physical examinations and test can help patients and their healthcare providers to manage diabetes and related health issues. IHS has performance goals to measure how many diabetes patients are examined yearly for LDL (low density lipoprotein) cholesterol (related to heart disease risk), nephropathy (related to kidney disease risk), and diabetic retinopathy (or diabetic eye disease).
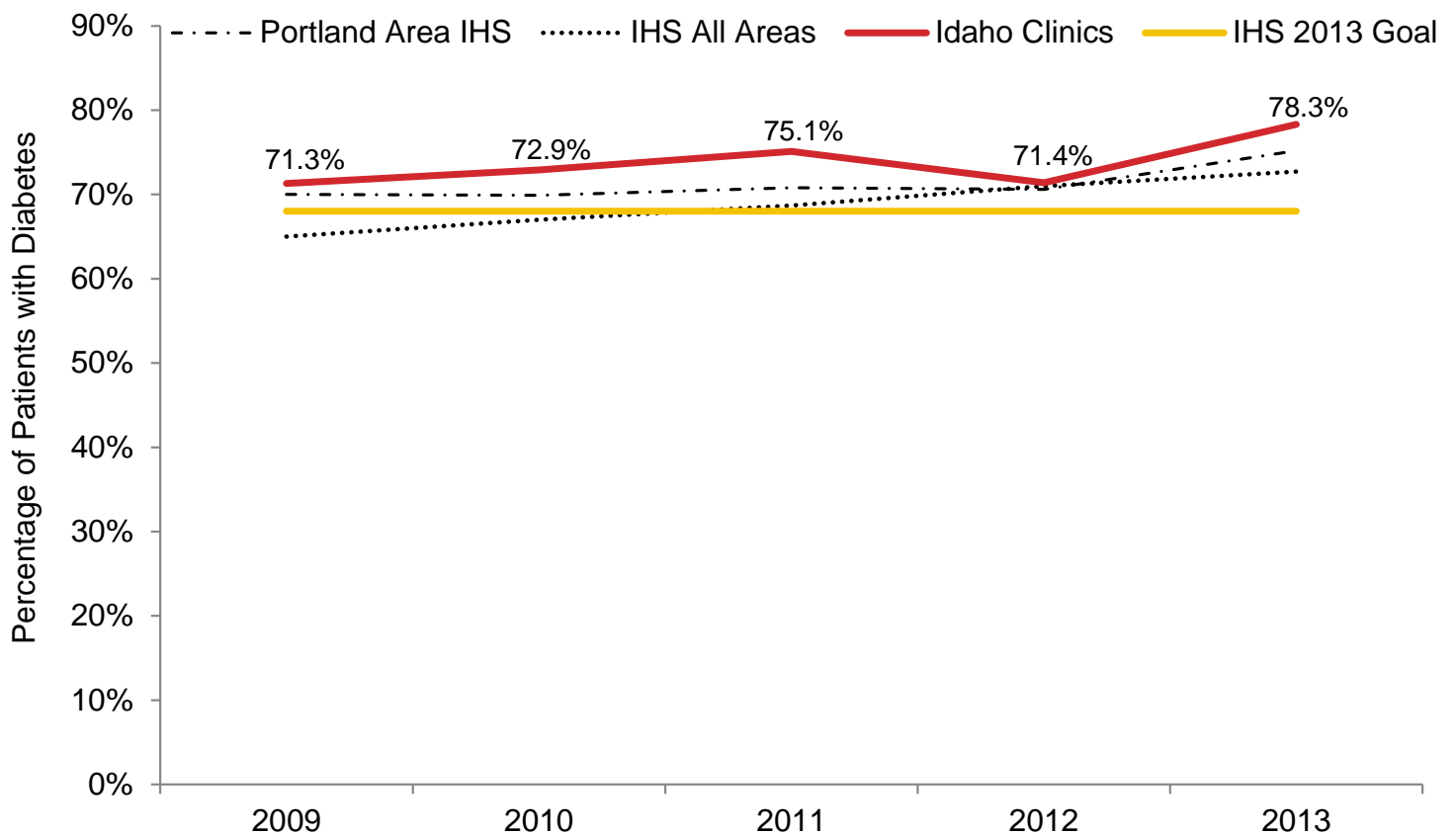
Data Source: Portland Area Indian Health Service.

Data Notes: Data labels only shown for Idaho clinics.

Idaho clinics include non-urban federal and tribal Indian health facilities in Idaho. Portland Area IHS clinics include non-urban federal and tribal Indian health facilities in Idaho, Oregon, and Washington.

LDL Cholesterol Assessment: From 2009-2012, approximately 72% of AI/AN diabetes patients seen in Idaho clinics had their LDL cholesterol levels assessed. This increased to 78.3% in 2013, which exceeded the IHS goal of 68% (Figure 4.5). Since 2009, Idaho clinics have slightly exceeded both the Portland Area IHS and the IHS national average on this measure.

Figure 4.5: Percentage of IHS diabetes patients who received an LDL assessment, 2009-2013.

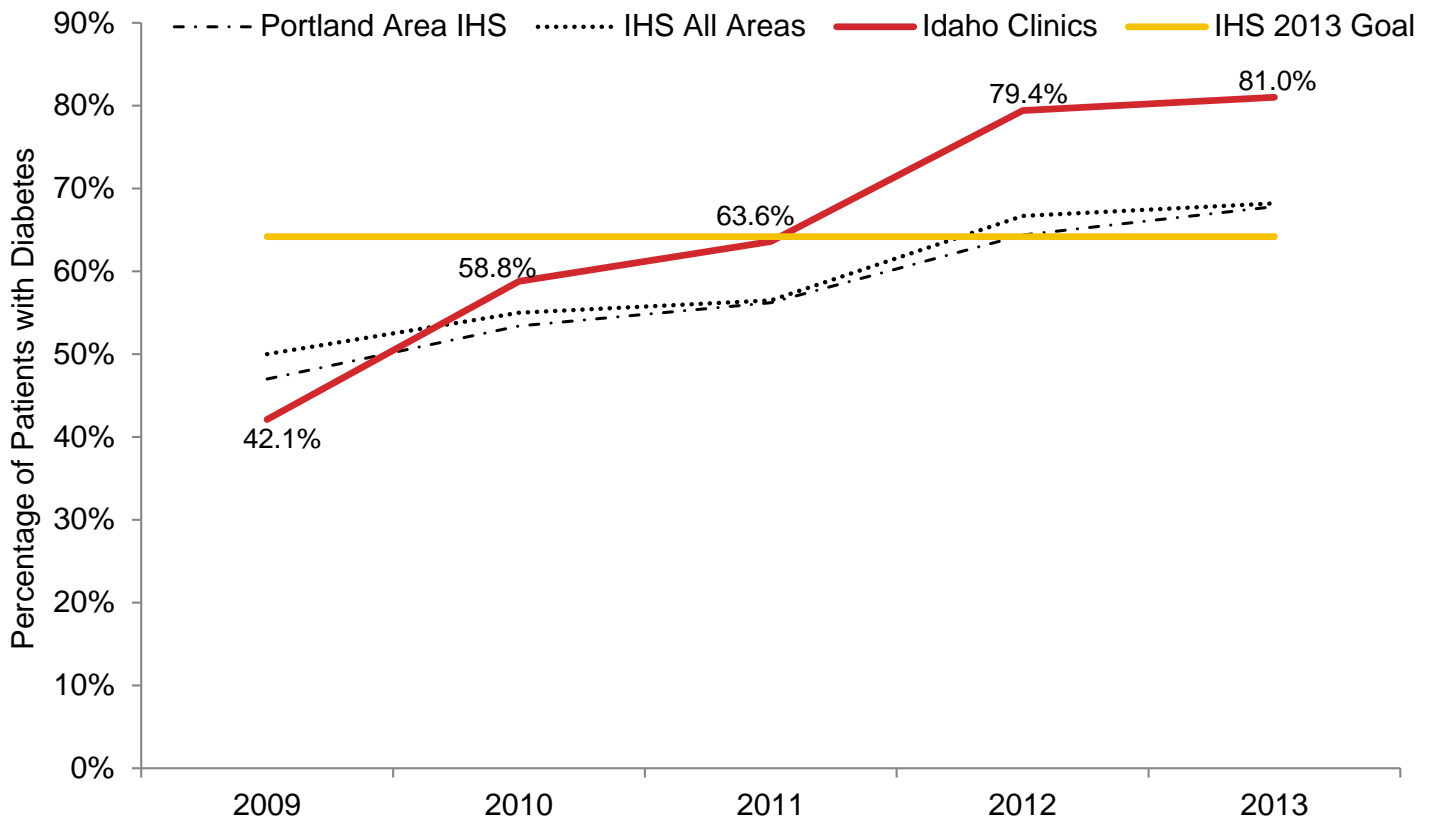# Recommended Screenings - Nephropathy Assessment

Diabetic Nephropathy: The percentage of Idaho AI/AN diabetes patients who had a diabetic nephropathy assessment has increased from 42.1% in 2009 to 81.0% in 2013. Idaho clinics exceeded the IHS goal of 64.2% in 2013. From 2010 on, Idaho clinics have had a higher percentage of patients who received this recommended screening compared to the Portland Area IHS and national IHS. Both the Portland Area and national IHS exceeded the 2013 goal for this measure.

Data Source: Portland Area Indian Health Service.

Data Notes: Data labels only shown for Idaho clinics.

Idaho clinics include non-urban federal and tribal Indian health facilities in Idaho. Portland Area IHS clinics include non-urban federal and tribal Indian health facilities in Idaho, Oregon, and Washington.

Figure 4.6: Percentage of IHS diabetes patients who received a nephropathy assessment, 2009-2013.

Recommended Screenings - Retinopathy Assessment

Diabetic Retinopathy: The U.S goal is for 58.7% of adults with diabetes to have had a dilated eye exam in the past year, (Healthy People 2020), and the IHS goal for 2013 was for 56.8% to have received this recommended screening.

The percentage of Idaho AI/AN diabetes patients who had a diabetic retinopathy exam has decreased from 61.1% in 2009 to 54.6% in 2013. Idaho clinics have had a higher percentage of patients who received this recommended screening compared to the Portland Area IHS and exceeded the national IHS percentage in 2009 and 2011 (Figure 4.7). Idaho clinics and the Portland Area IHS did not meet the IHS goal in 2013. The national IHS average has increased over time and met the 2013 goal for this measure.

Data Source: Portland Area Indian Health Service.

Data Notes: Data labels only shown for Idaho clinics.

Idaho clinics include non-urban federal and tribal Indian health facilities in Idaho. Portland Area IHS clinics include non-urban federal and tribal Indian health facilities in Idaho, Oregon, and Washington.

Figure 4.7: Percentage of IHS diabetes patients who received a retinopathy assessment, 2009-2013.
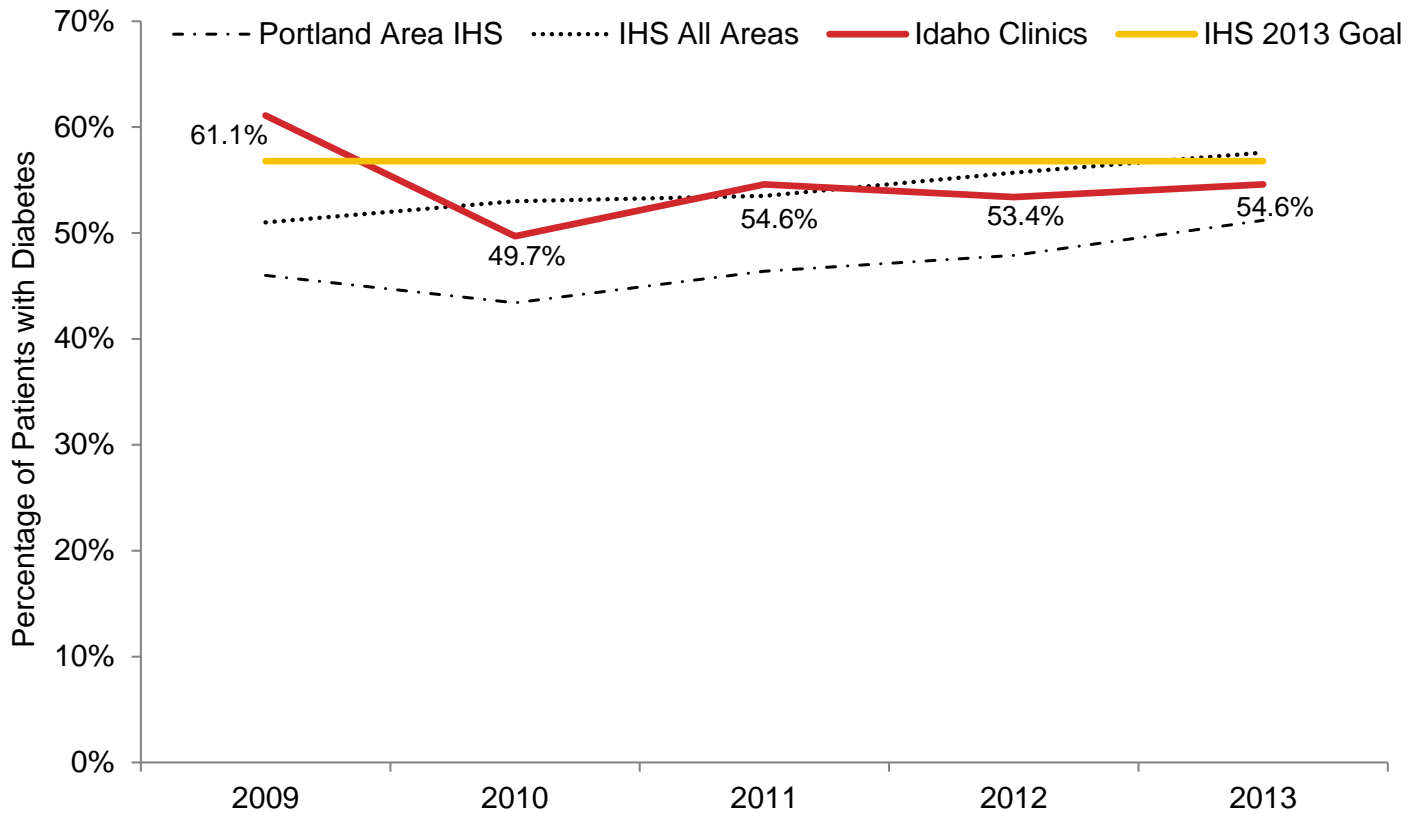
Diabetes Mortality

Diabetes is the fifth leading cause of death among Idaho AI/AN. Figure 4.8 shows the age-adjusted death rates for diabetes among AI/AN and NHW in Idaho. Female AI/AN are about 14% more likely to die of the disease than males. Compared to NHW, AI/AN diabetes death rates are 2.8 times higher. Throughout the Northwest, AI/AN in all three states have very similar diabetes death rates.

**Table 4.1: Diabetes mortality rates by race and sex, Idaho, 2006-2012.**

Sex	AI/AN Rate (95% CI)	NHW Rate (95% CI)	AI/AN vs. NHW Rate Ratio (95% CI)
Male	57.2 (37.3, 88.4)	25.5 (24.0, 26.9)	2.25 (1.59, 3.18)[‡]
Female	65.3 (43.5, 95.4)	19.72 (18.3, 21.1)	3.31 (2.34, 4.68)[‡]
Both Sexes	62.5 (46.9, 82.6)	22.4 (21.3, 23.4)	2.79 (2.19, 3.57)[‡]

CI = confidence interval
‡ Indicates a statistically significant difference (p<.05).

Data Source: Idaho Death Certificate File (Idaho Dept. of Health and Welfare), 2006-2012, corrected for misclassified AI/AN race

Figure 4.8: Age-adjusted diabetes mortality rates by race and sex, Idaho, 2006-2012.
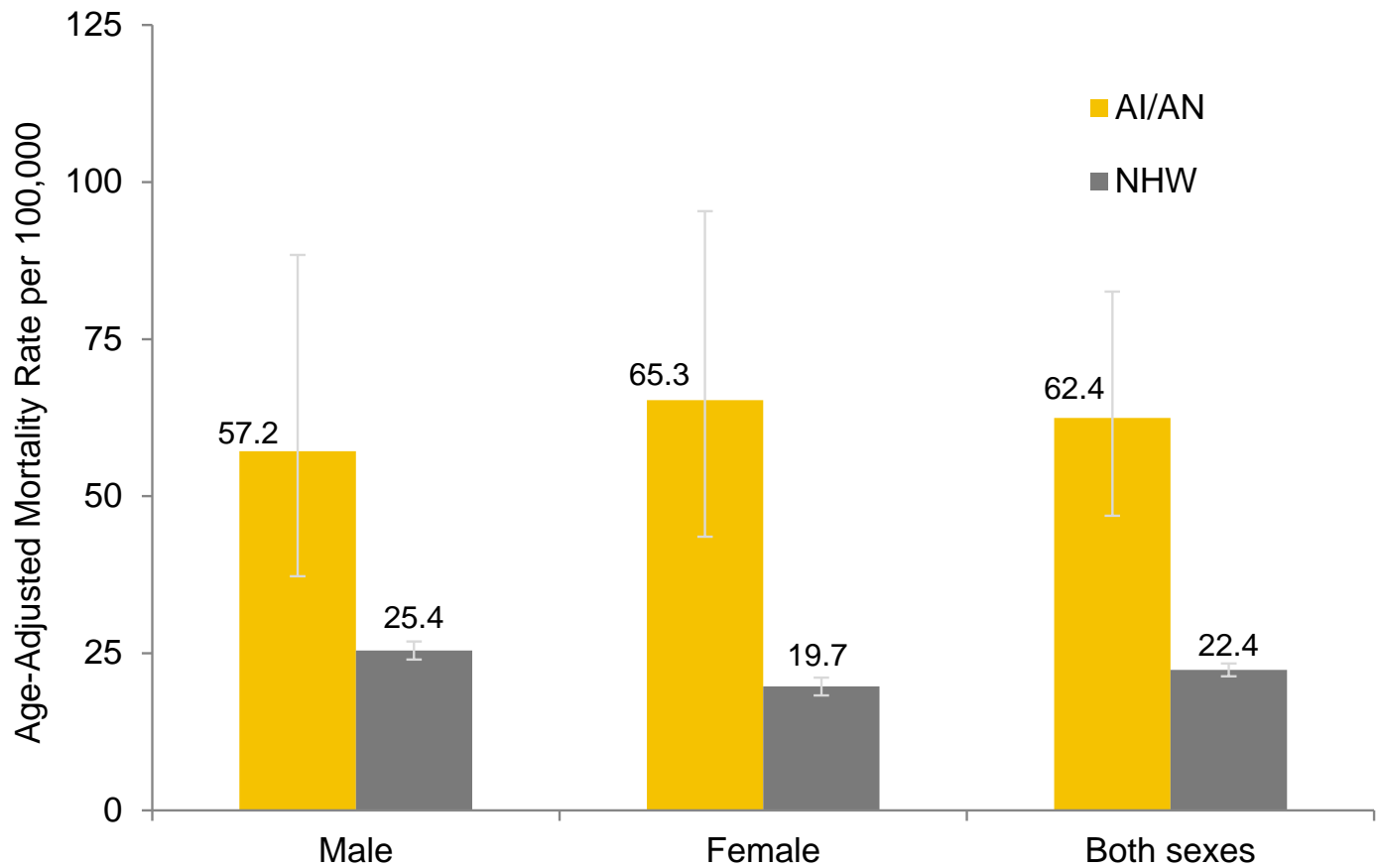
Program Spotlight: Western Tribal Diabetes Project

The WTDP assists tribal programs in tracking, reporting, and utilizing accurate data on patients with diabetes. This information is used to improve the quality of patient care, gain additional resources, and plan effective intervention programs to reduce the burden of diabetes at the local level. WTDP provides tribes with training, technical assistance, and tools so they can:

Build a foundation to provide complete and accurate information about patients with diabetes

Estimate the burden of disease and impact of diabetes by using an electronic diabetes register

Improve health outcomes by using an electronic diabetes register to make informed decisions about clinical diabetes care

Prevent diabetes in high-risk individuals. WTDP holds regular trainings on the Diabetes Management System, provides technical assistance with completing the Annual IHS Diabetes Audit and maintaining local diabetes registers, prepares tribe and area-level reports on patient care and outcomes, and provides information on best practices to prevent and manage diabetes. WTDP also partners with the Portland Area IHS and Nike to host Nike Native Fitness workshops at the Nike World Headquarters in Beaverton, OR. WTDP is funded by an annual 5% set-aside from the Portland Area's allocation for the Special Diabetes Program for Indians.

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epicenter/project/wtdp

5. Cardiovascular Disease & Stroke

Heart disease (also known as cardiovascular disease, ischemic heart disease or coronary artery disease) is the leading cause of death in the United States. AI/AN have similar rates of self-reported and diagnosed heart disease compared to NHW but higher rates of hospitalization and death due to these causes. Risk factors for heart disease include smoking, sedentary lifestyle and obesity. Other medical conditions that increase the risk of developing heart disease include hypertension, diabetes and hyperlipidemia. Heart disease is more common in men compared to women and increases with age.

Efforts to prevent heart disease in AI/AN include smoking cessation, dietary counseling, exercise programs and control of blood pressure, blood sugar and cholesterol. The Department of Health and Human Services launched a campaign in 2011 to prevent 1 million heart attacks and strokes by 2017— the Million Hearts campaign. Many of the efforts outlined by this campaign to prevent heart disease are tracked by IHS through the Government Performance and Reporting Act. IHS is working to prevent heart disease by setting goals for the control of blood pressure, diabetes, cholesterol, and obesity, and increasing smoking cessation.

Despite efforts at all levels of care, heart disease remains the number one killer of AI/AN in Idaho, and AI/AN are significantly more likely to die from the disease than NHW in the state. This disparity is greatest among younger AI/AN.

Stroke is another of the top ten causes of death for Idaho AI/AN, but rates are much lower than for heart disease. Looking at both sexes combined there was no disparity relative to NHW; female AI/AN did have 50% higher rates of stroke death than female NHW.

Self-Reported Heart Disease

Figure 5.1 shows the percentage of AI/AN and NHW adults who have ever been told they had angina or coronary heart disease by a health care provider. From 2006-2012, AI/AN males and AI/AN females had similar rates of self-reported heart disease (2.5% and 2.9% respectively). Compared to NHW, AI/AN did not experience a disparity in prevalence of self-reported heart disease.

Data Source: 2006 – 2012 CDC BRFSS

Data Notes: The BRFSS prevalence estimates (shown as a percentage) are weighted to make the survey responses representative of the Idaho population. The sample sizes presented below the figures are the unweighted number of people who answered this question for the indicated years.

Figure 5.1: Prevalence of self-reported heart disease by race and sex, Idaho, 2006-2012.
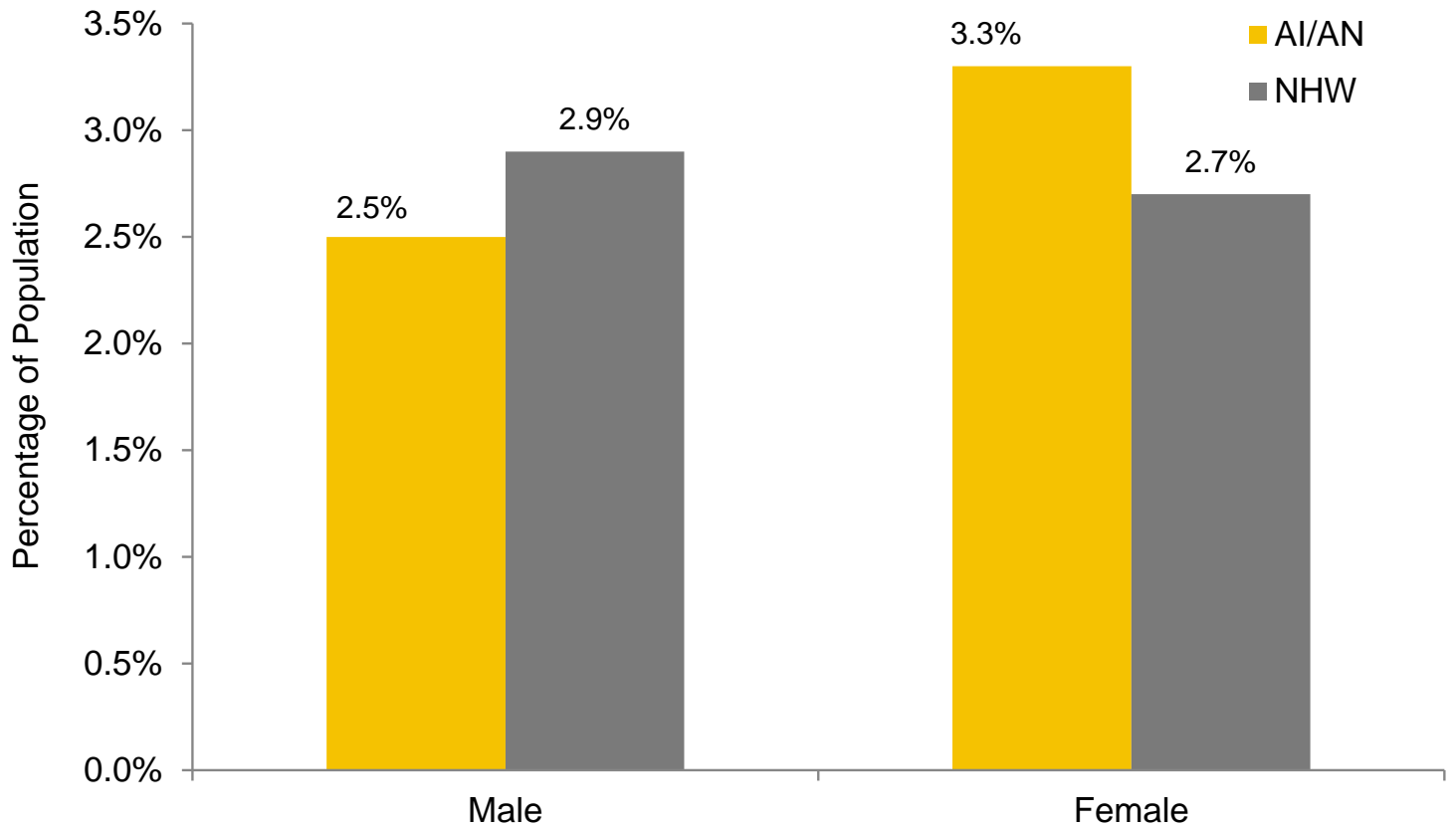
Sample sizes (n): AI/AN males=468; AI/AN females=770; NHW males=31,987; NHW females=49,551.

Heart Disease Management

IHS has a performance goal for the percentage of adult heart disease patients who receive a comprehensive cardiovascular disease (CVD) assessment. Prior to 2012, IHS measured the percentage of AI/AN patients ages 22 and older with ischemic heart disease who received a comprehensive CVD assessment. In 2013, IHS changed the definition to the percentage of AI/AN patients ages 22 and older with coronary heart disease who received a CVD assessment. A comprehensive CVD assessment includes having the following:

- blood pressure measured at least twice in the past two years;

- low-density lipoprotein (LDL) cholesterol measured in the past year;

- tobacco use screened in the past year;

- BMI calculated in the past year; and,

- lifestyle adaptation counseling (e.g., nutrition counseling, exercise education) in past year.

Since 2010, the percentage of at-risk patients who received a comprehensive CVD assessment has increased for Idaho clinics, the Portland Area IHS, and the national IHS (Figure 5.2). In 2013, all three areas exceeded the IHS goal of 32.3%.

Data Source: Portland Area Indian Health Service.

Data Notes: Data labels only shown for Idaho clinics. The shaded area shows the year when the definition for comprehensive CVD assessment changed.

Idaho clinics include non-urban federal and tribal Indian health facilities in Idaho. Portland Area IHS clinics include non-urban federal and tribal Indian health facilities in Idaho, Oregon, and Washington.

Figure 5.2: Percentage of IHS AI/AN patients (ages 22 years and older) with heart disease who received a comprehensive CVD assessment.
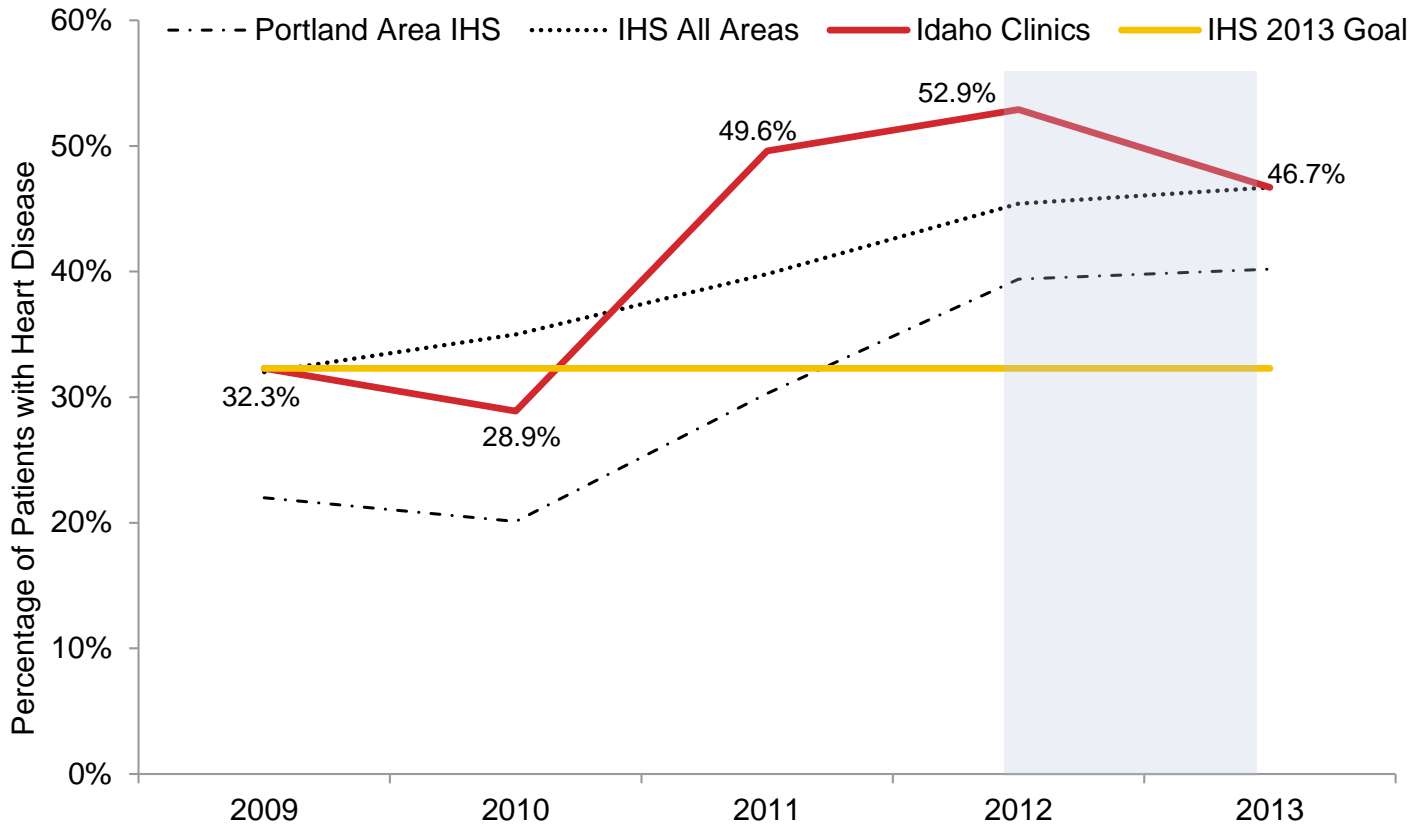
Heart Disease Mortality

Heart disease is the number one killer for Idaho AI/AN. Figure 5.3 shows the age-adjusted death rates for heart disease among AI/AN and NHW in Idaho. Male and female rates are very similar for AI/AN. Compared to NHW, AI/AN heart disease death rates are 20% higher (Table 5.1). This disparity is attributable to the fact that AI/AN women are 1.4 times more likley to die from heart disease than NHW women. Male AI/AN heart disease mortality rates did not differ from NHW males.

Among AI/AN in the Northwest region, Idaho AI/AN have lower heart disease death rates than Washington's AI/AN population, but higher rates than those seen in Oregon AI/AN.

**Table 5.1: Age-adjusted heart disease mortality rates by race and sex, Idaho, 2006-2012.**

Sex	AI/AN Rate (95% CI)	NHW Rate (95% CI)	AI/AN vs. NHW Rate Ratio (95% CI)
Male	266.9 (226.7, 304.4)	264.6 (216.2, 222.6)	1.01 (0.8, 1.2)
Female	254.6 (213.0, 332.7)	181.6 (260.0, 269.1)	1.40 (1.2, 1.7) [‡]
Both Sexes	263.2 (207.1, 310.3)	219.4 (177.2, 186.0)	1.20 (1.1, 1.4)[‡]

CI = confidence interval
‡ Indicates a statistically significant difference (p<.05).

Data Source: Idaho Death Certificate File (Idaho Dept. of Health and Welfare), 2006-2012, corrected for misclassified AI/AN race

Figure 5.3: Age-adjusted heart disease mortality rates by race and sex, Idaho, 2006-2012.
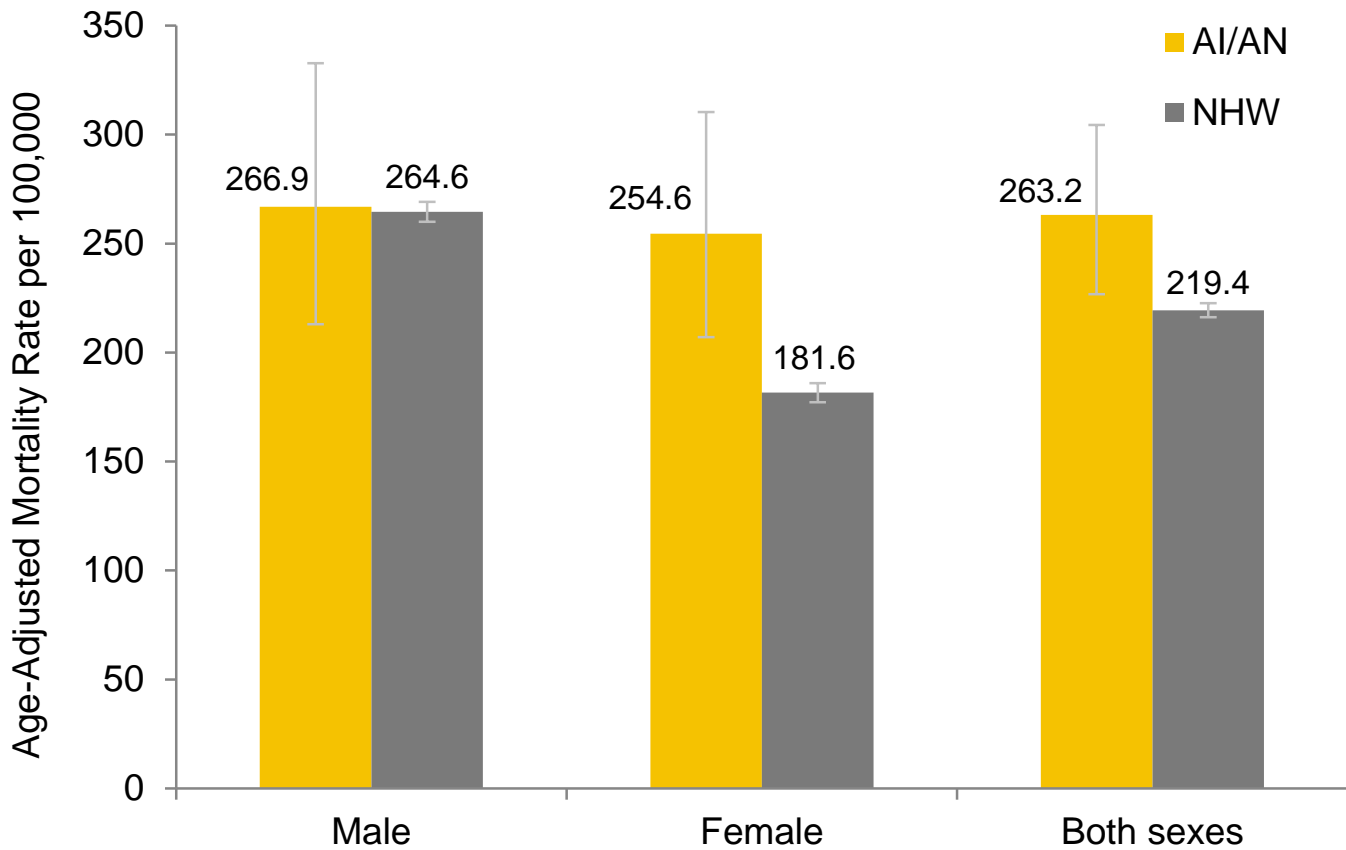
Heart Disease Mortality Across Life Span

While the majority of heart disease deaths for both populations occurred in the older ages, the disparity was largest among 30-39-year-olds, with AI/AN 2.4 times more likely to die from heart disease in this age group (Figure 5.4). The rate ratio declined steadily throughout the life span, and by age 70 there was no statistically significant difference between AI/AN and NHW in heart disease death rates.

Data Source: Idaho Death Certificate File (Idaho Dept. of Health and Welfare), 2006-2012, corrected for misclassified AI/AN race

Figure 5.4: Age-specific heart disease mortality rates by race and sex, Idaho, 2006-2012.
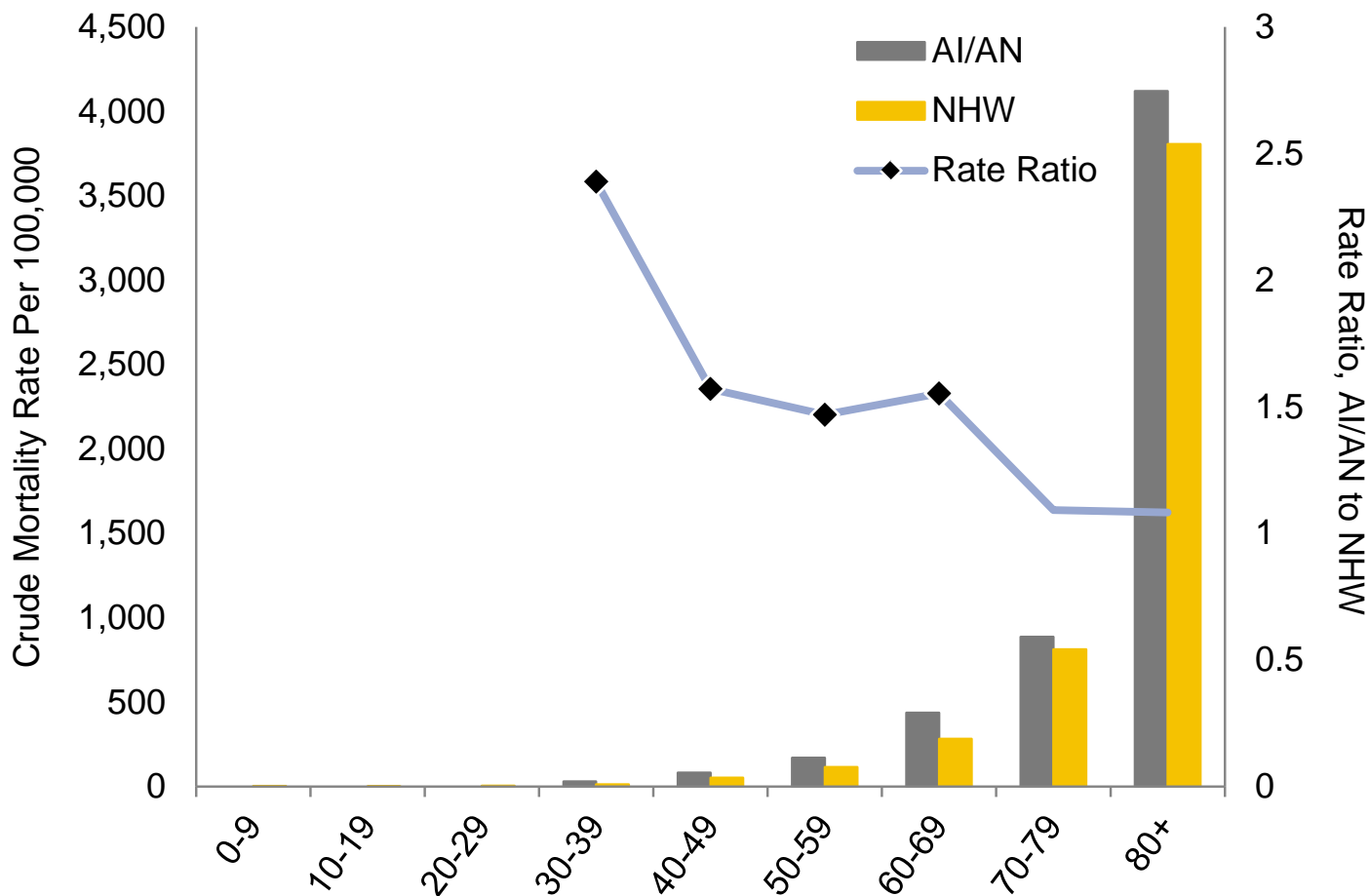
Note: Rate Ratio is a comparison of AI/AN to NHW rates; a value above 1 indicates AI/AN rates are higher than NHW. Black markers are shown for age groups in which the AI/AN rates are statistically significantly higher than NHW rates. Categories for which AI/AN had fewer than 5 deaths are not shown (0 – 29 years).

Stroke Mortality

Stroke is the eighth leading cause of death for Idaho AI/AN, accounting for about 4% of all deaths. Figure 5.5 shows the age-adjusted death rates for stroke among AI/AN and NHW in Idaho. AI/AN females have almost double the risk of death from stroke compared to males, and are 50% more likely to die than NHW females (Table 5.2). Idaho AI/AN have lower rates of stroke than other AI/AN in the Northwest region.

**Table 5.2: Age-adjusted stroke mortality rates by race and sex, Idaho, 2006-2012.**

Sex	AI/AN Rate (95% CI)	NHW Rate (95% CI)	AI/AN vs. NHW Rate Ratio (95% CI)
Male	32.9 (15.3, 64.4)	41.7 (39.9, 43.5)	0.79 (0.5, 1.4)
Female	62.6 (40.3, 93.7)	41.4 (39.3, 43.5)	1.51 (1.1, 2.2) ‡
Both Sexes	49.4 (34.2, 69.9)	41.7 (40.3, 43.1)	1.19 (0.9, 1.6)

CI = confidence interval
‡ Indicates a statistically significant difference (p<.05).

Data Source: Idaho Death Certificate File (Idaho Dept. of Health and Welfare), 2006-2012, corrected for misclassified AI/AN race

Figure 5.5: Age-adjusted stroke mortality rates by race and sex, Idaho, 2006-2012.
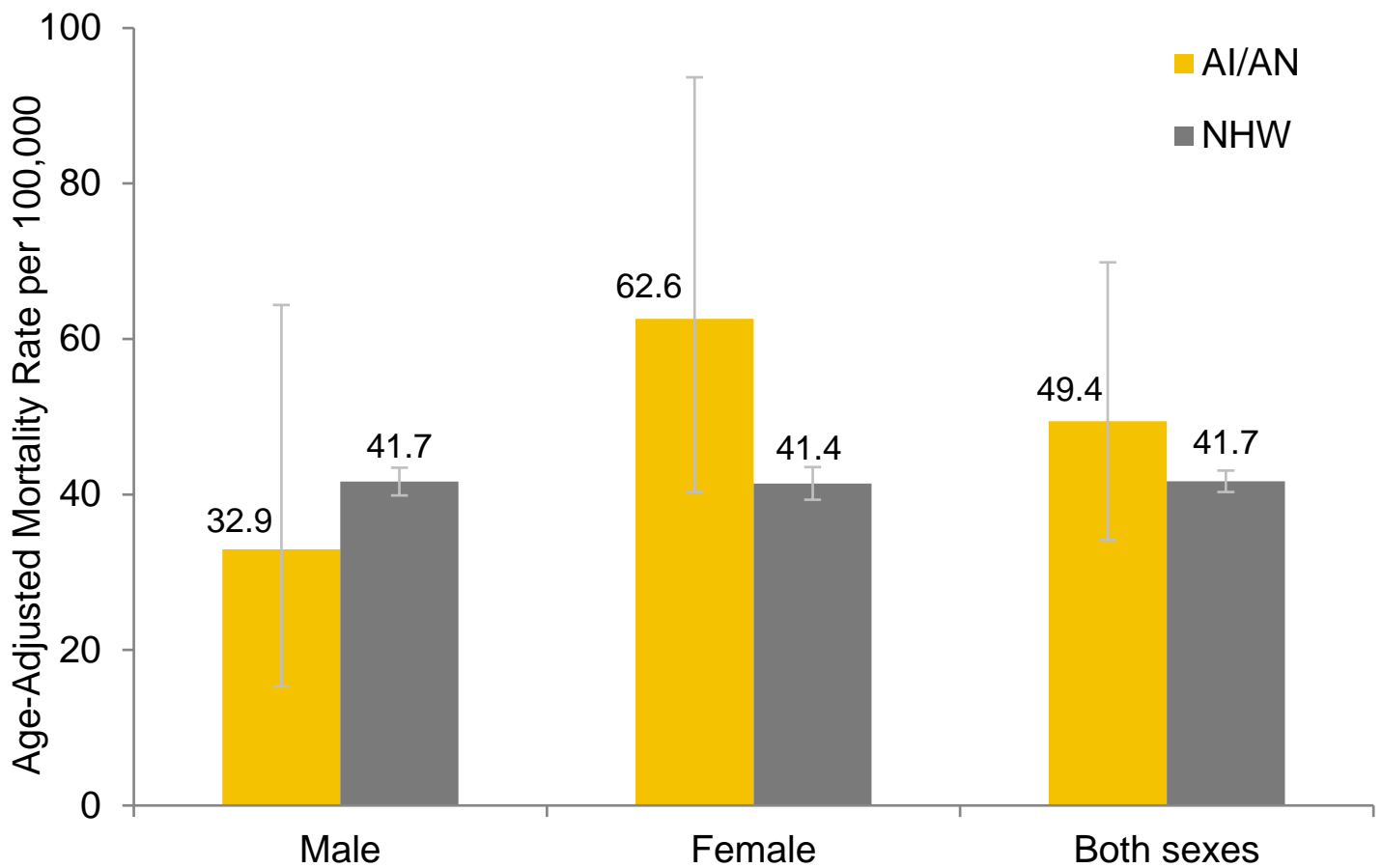
6. Cancer

Cancer is the second leading cause of death for AI/AN in the Northwest and nationwide. Cancer occurs when cells in the body begin to grow abnormally and spread throughout the body. The severity, progression, and the ability to screen for and treat cancer often depend on the place in the body where the abnormal growth first occurs. Some cancer sites (such as lung, breast, and prostate cancers) are relatively common, while others are rare. Just as there are many risk factors for cancer, there are also many strategies to reduce the risk for developing cancer, and to improve survival and quality of life for cancer patients.

Perhaps the most important strategy to reduce cancer mortality is early detection. The primary clinical tool to dectect cancer early is by routine cancer screening tests. Cancer screening tests can detect cancer in its early stages, which can improve treatment outcomes and survival for cancer patients. IHS tracks cervical, breast, and colorectal cancer screenings as part of its reporting for the Government Performance and Reporting Act (GPRA).

In Idaho, screening rates for breast, cervical and colorectal cancers have remained relatively unchanged for the past five years. In 2013, two thirds had received appropriate Pap screenings, but closer to one third had received recommended mammogram and colorectal screenings.

The most common cancer sites for AI/AN in Idaho are breast, prostate, lung, blood and colorectal cancers. Cancer incidence rates for AI/AN were lower than rates for NHW in the state and have remained relatively stable since 1992.

Despite lower cancer indicence, AI/AN mortality from cancer is similar to that for NHW in Idaho. This is related to the fact that only 40% of AI/AN cancer diagnoses are made during the early stages of illness, compared to 52% of NHW diagnoses. A diagnosis made at late stages of illness when the cancer may already have spread is less responsive to treatment.

This section presents data on cancer screening, incidence, stage at diagnosis and mortality for AI/AN in Idaho.

Cancer Screenings

Cervical Cancer

Pap screenings are used to detect early signs of cervical cancer. The U.S. goal is for 93% of women (ages 21-65) to receive a cervical cancer screening at least once every three years (Healthy People 2020).

Until 2012, IHS measured the percentage of female AI/AN patients ages 21-64 who received a Pap screen within the past three years. The 2012 IHS goal for this measure was 59.5%. In 2013, IHS changed the definition for this measure to the percentage of women ages 25-64 who received a Pap screening within the previous four years.

From 2009-2012, Pap screening rates decreased within the Idaho, the Portland Area, and national IHS patient population (Figure 6.1). In 2012, the screening rates for all three areas were below the 2012 goal of 59.5%. In 2013, Idaho clinics had a higher screening rate compared to the Portland Area and national IHS. The increase in rates across all areas between 2012 and 2013 is likely due to the change in this measure's definition.

Data Source: Portland Area Indian Health Service.

Data Notes: Data labels only shown for Idaho clinics. The shaded area shows the year when the definition for pap screening rates changed.

Idaho clinics include non-urban federal and tribal Indian health facilities in Idaho. Portland Area IHS clinics include non-urban federal and tribal Indian health facilities in Idaho, Oregon, and Washington.

Figure 6.1: Pap screening rates for IHS female patients, 2009-2013.
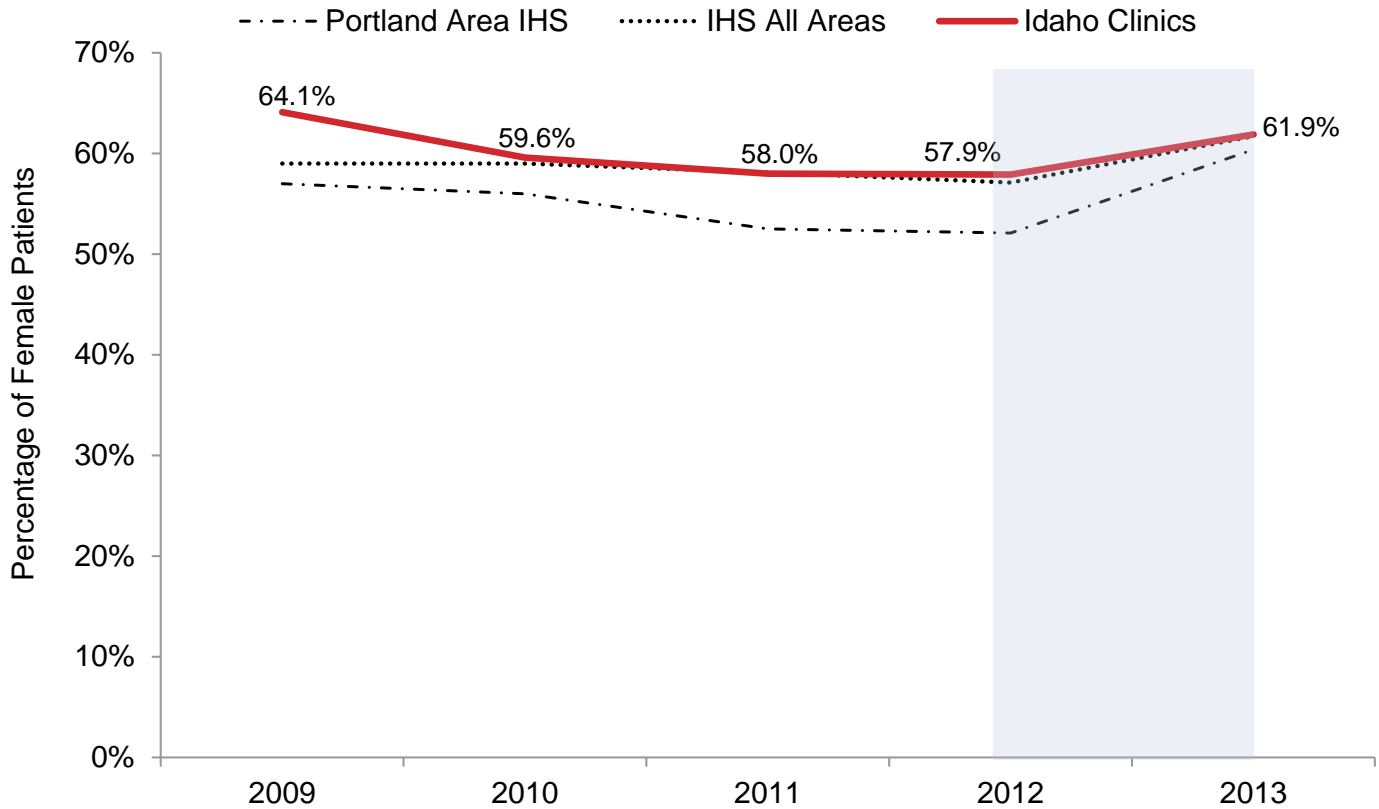
Breast Cancer

Mammograms are an important tool for detecting breast cancer early. Women ages 50-64 should receive a mammogram at least once every two years, and some organizations recommend that biennial screenings should begin at age 40. The U.S. goal is for 81.1% of women (ages 50-74) to receive a mammogram at least once every two years (Healthy People 2020).

IHS tracks the percentage of AI/AN female patients ages 52-64 who have received at least one mammogram in the past two years. The 2013 goal for the measure was 49.7%.

The national IHS mammogram screening rate has steadily increased since 2009, and exceeded the national goal in 2013 (Figure 6.2). Mammogram screening rates in Idaho clinics have also increased since 2009, but remained below Portland Area and national IHS rates. Neither Idaho clinics nor Portland Area IHS met the 2013 goal for this measure.

Data Source: Portland Area Indian Health Service.

Data Notes: Data labels only shown for Idaho clinics.

Idaho clinics include non-urban federal and tribal Indian health facilities in Idaho. Portland Area IHS clinics include non-urban federal and tribal Indian health facilities in Idaho, Oregon, and Washington.

Figure 6.2: Mammogram screening rates for IHS female patients, 2009-2013.
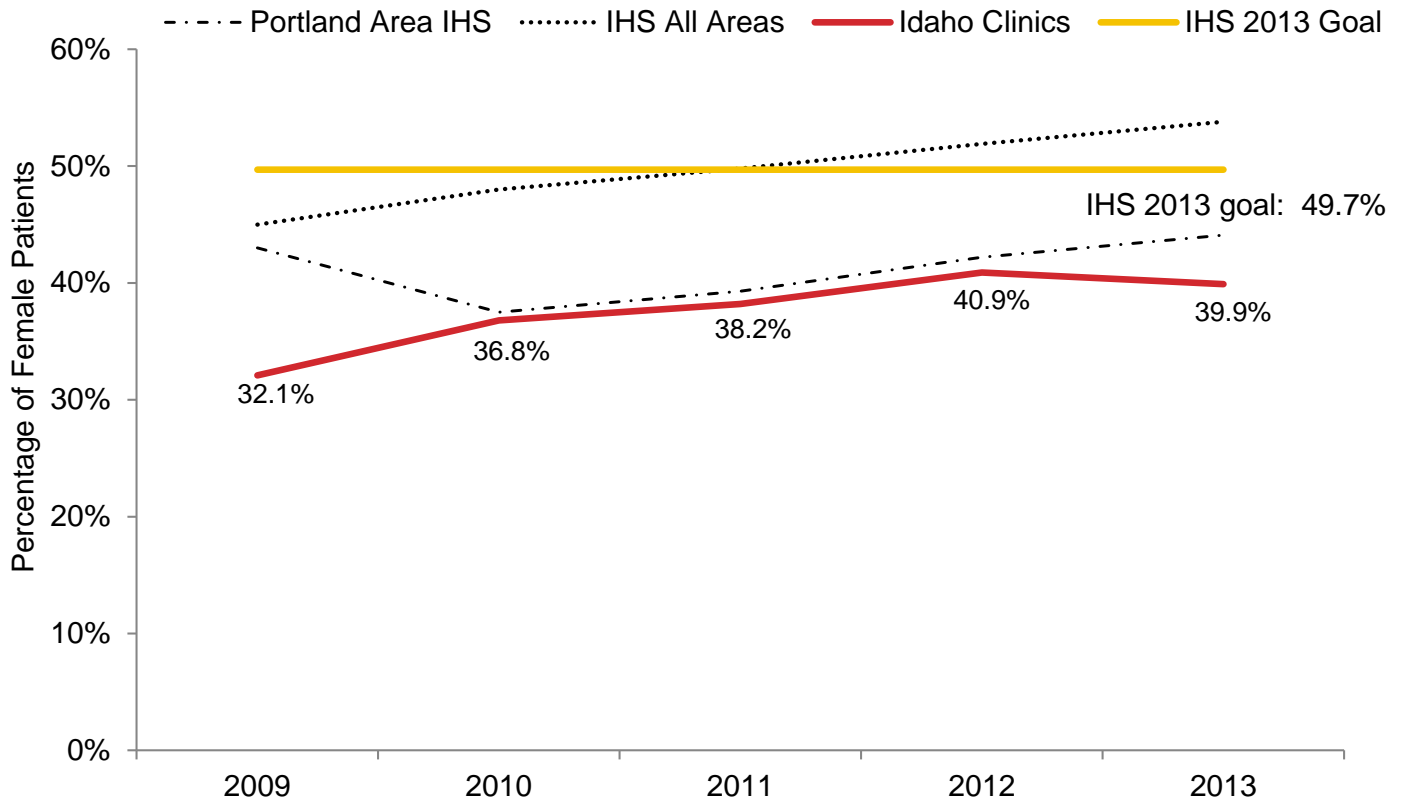
Colorectal Cancer

Colorectal cancer screenings can identify colorectal cancer in its early stages and improve treatment outcomes. The U.S. goal is for 70.5% of adults (ages 50-75) to be screened for colorectal cancer by (Healthy People 2020).

Until 2012, IHS tracked the percentage of patients ages 51-80 who received any of the following screenings:

- a fecal occult blood test or fecal immunochemical test during the past year

- a flexible sigmoidoscopy in the past five years, or

- a colonoscopy in the past ten years

In 2013, IHS changed this measure's definition to the percentage of patients ages 50-75 who received a colorectal cancer screening.

Colorectal cancer screening rates increased across all areas from 2009-2012 (Figure 6.3). The screening rates for Idaho clinics (47.7%), Portland Area IHS (46.8%) and national IHS (46.1%) exceeded the 2012 goal of 43.2%. The drop in screening rates between 2012 and 2013 is likely due to the change in this measure's definition.

Data Source: Portland Area Indian Health Service.

Data Notes: Data labels only shown for Idaho clinics. The shaded area shows the year when the definition for colorectal screening rates changed.

Idaho clinics include non-urban federal and tribal Indian health facilities in Idaho. Portland Area IHS clinics include non-urban federal and tribal Indian health facilities in Idaho, Oregon, and Washington.

Figure 6.3: Colorectal cancer screening rates for IHS patients, 2009-2013.
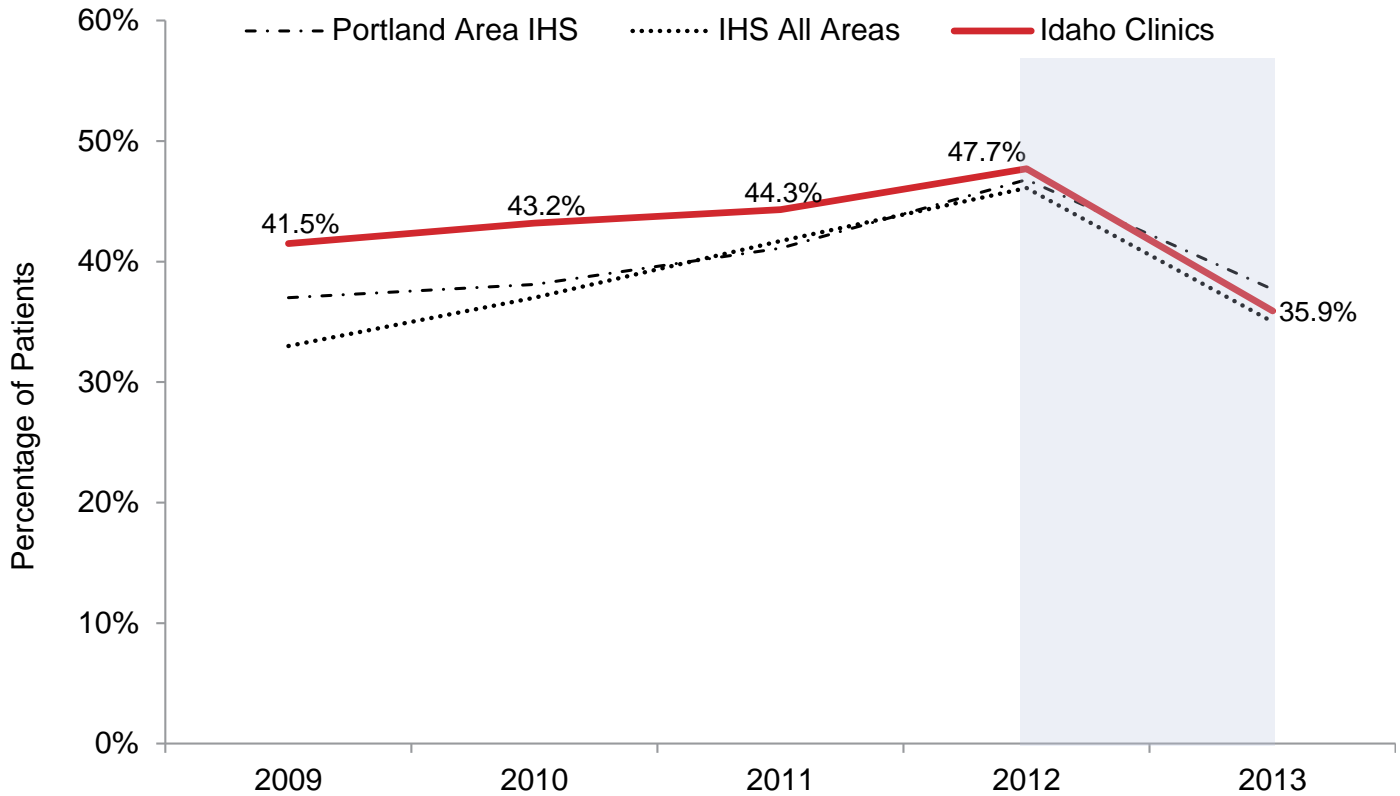
Leading Cancer Incidence Sites

Table 6.1 shows the leading cancer incidence sites for AI/AN males and females in Idaho. From 2006-2011, there were 157 newly diagnosed cancers for AI/AN males and 173 newly diagnosed cancers for AI/AN females. The most common cancer sites for AI/AN men were prostate cancer, lung cancer, and cancers of the blood. Breast cancer was the most common cancer site for AI/AN women, followed by lung cancer and colorectal cancer.

Data Source: Cancer Data Registry of Idaho (CDRI), 2006-2011, corrected for misclassified AI/AN race by the IDEA-NW Project.

Data Notes: Incidence counts and rates include invasive cancers and in situ urinary bladder cancer.

Table 6.1: Leading cancer incidence sites for AI/AN by sex, Idaho, 2006-2011.

Rank	Males	N (%)	Females	N (%)
1	Prostate	44 (28.0%)	Breast	51 (29.5%)
2	Lung & Bronchus	20 (12.7%)	Lung & Bronchus	26 (15.0%)
3	Blood Cancers[†]	19 (12.1%)	Colorectal	25 (14.5%)
4	Colorectal	14 (8.9%)	Uterine	9 (5.2%)
5	Liver & Intrahepatic Bile Duct	11 (7.0%)	Thyroid Blood Cancers[†]	8 (4.6%) 8 (4.6%)
Total	All Invasive Cancers	157 (100.0%)	All Invasive Cancers	173 (100.0%)

† Blood cancers include leukemia, Hodgkin lymphoma, non-Hodgkin lymphoma, and multiple myeloma

Cancer Incidence Rates

From 2006-2011, AI/AN in Idaho had a lower overall cancer incidence rate than NHW in the state (Table 6.2). The incidence rate for AI/AN males was 35% lower than the rate for NHW males, and the rate for AI/AN females was 24% lower than NHW females. For both races, males had higher cancer incidence rates than females, though the gap between sexes was smaller for AI/AN.

Figure 6.4 shows the age-adjusted incidence rates for most common cancer sites among AI/AN in Idaho, with comparisons to NHW. AI/AN had lower rates of prostate, breast, and blood cancers compared to NHW in the state. The rate of colorectal cancer was about 12% higher for AI/AN, though this difference was not statistically significant. The rate of liver and intrahepatic bile duct cancer for AI/AN was 3.4 times higher than the NHW rate.

Table 6.2: Cancer incidence rates by race and sex, Idaho, 2006-2011.

Sex	AI/AN Rate (95% CI)	NHW Rate (95% CI)	AI/AN vs. NHW Rate Ratio (95% CI)
Male	345.5 (285.3, 418.6)	532.1 (524.7, 539.4)	0.65 (0.55, 0.76)‡
Female	318.2 (268.3, 376.7)	420.6 (413.8, 427.4)	0.76 (0.65, 0.88)‡
Both Sexes	328.2 (289.6, 371.8)	470.1 (465.1, 475.1)	0.70 (0.63, 0.78)‡

CI = confidence interval
‡ Indicates a statistically significant difference (p<.05)

Figure 6.4: Age-adjusted incidence rates for leading cancer sites by race, Idaho, 2006-2011.
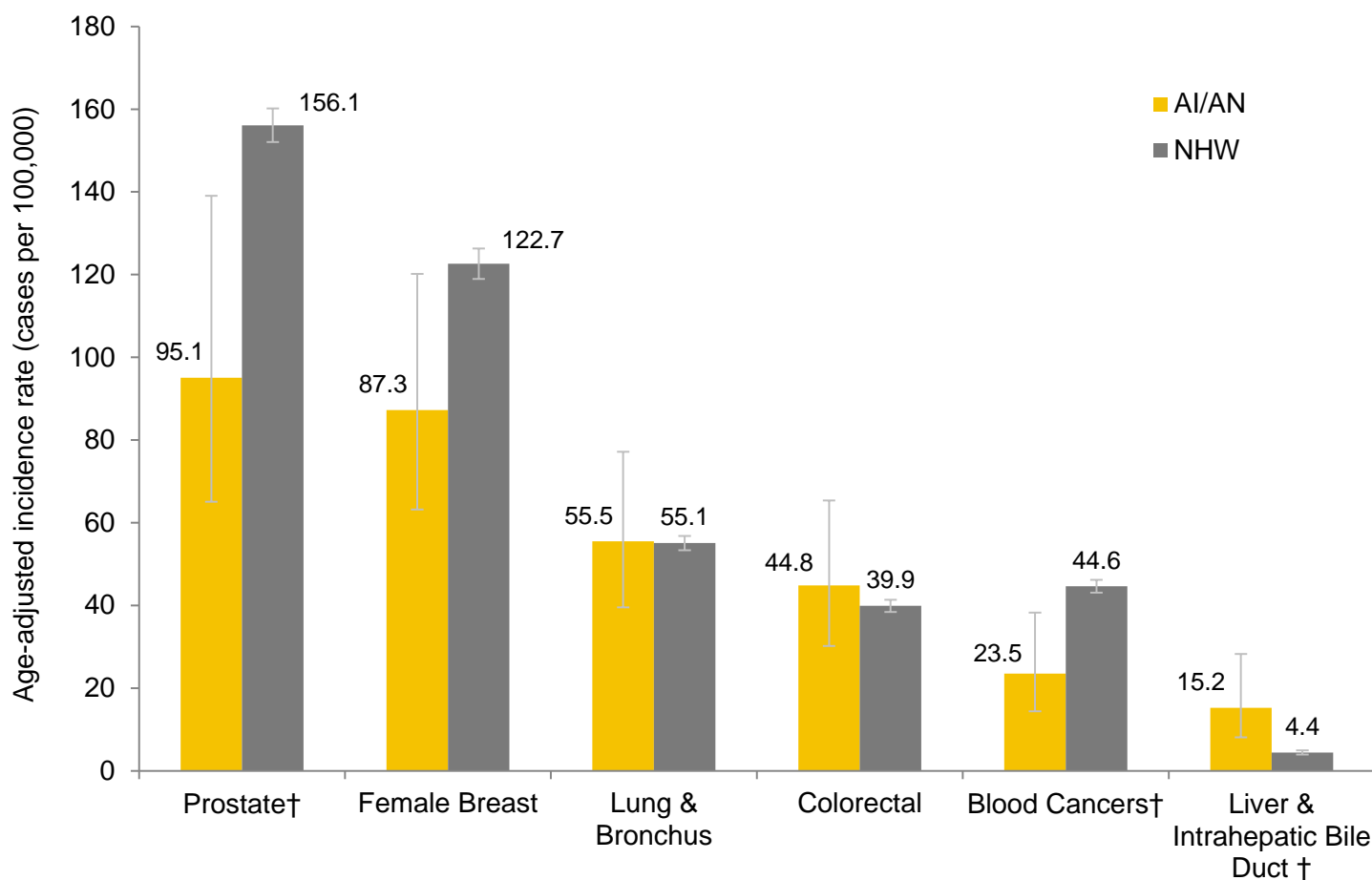
† *Indicates a statistically significant difference (p<.05)*

Data Source: Cancer Data Registry of Idaho (CDRI), 2006-2011, corrected for misclassified AI/AN race by the IDEA-NW Project.

*Data Notes: Incidence counts and rates include invasive cancers and in situ urinary bladder cancer.*

Cancer Incidence Trends

Figure 6.5 shows trends in age-adjusted cancer incidence rates for AI/AN and NHW in Idaho. From 1992-2011, there was no observable upward or downward trend for AI/AN. Since 1992, NHW cancer incidence rates have increased by 0.3% annually, though in recent years the rate has begun to decrease. NHW in Idaho have consistently had higher rates of cancer compared to AI/AN in the state; in recent years, the NHW rate has been roughly 40% higher than the AI/AN rate.

Data Source: Cancer Data Registry of Idaho (CDRI), 1992-2011, corrected for misclassified AI/AN race by the IDEA-NW Project.

Data Notes: Incidence counts and rates include invasive cancers and in situ urinary bladder cancer.

Figure 6.5: Age-adjusted cancer incidence rates, three-year rolling averages, by race, Idaho, 1992-2010.

APC = Annual percent change
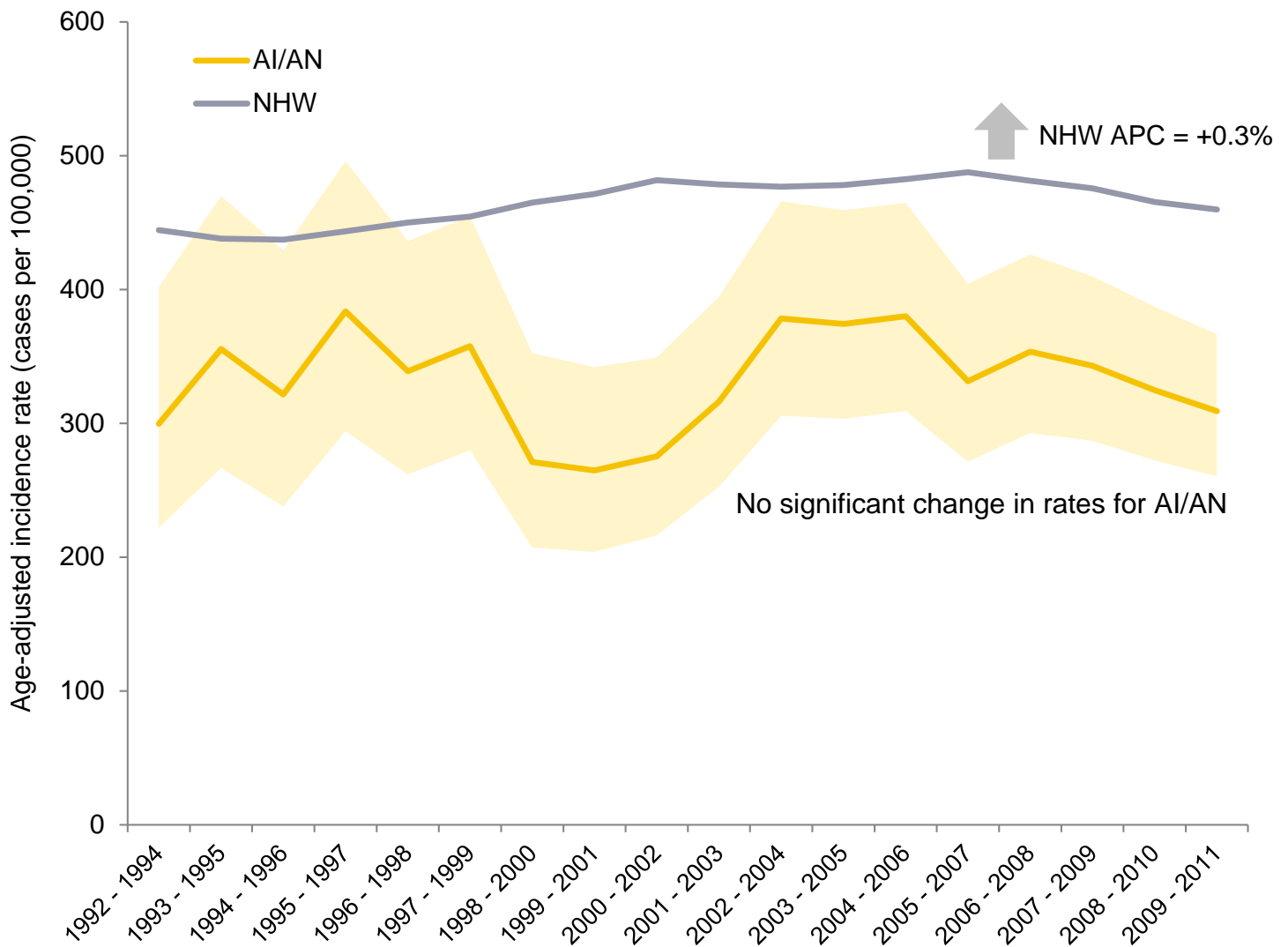
Stage at Diagnosis

Stage at diagnosis describes the extent to which a cancer has spread in the body. In most cases, cancers that are diagnosed at an earlier stage are less severe and easier to treat. Cancer registries use five main categories to describe stage at diagnosis:

- In-situ: Cancer cells are only present in the layer of cells in which they developed

- Localized: Cancer cells are only present in the organ where the cancer began

- Regional: Cancer cells have spread beyond the primary organ to nearby tissues, organs, or lymph nodes

- Distant: Cancer cells have spread to distant tissues, organs, or lymph nodes

- Unstaged: Not enough information to determine the stage

Compared to NHW in the state, a smaller proportion of AI/AN in Idaho are diagnosed during the earlier stages of their cancers (Figure 6.6). From 2006-2011, only 2.4% of cancers among AI/AN were diagnosed during the earliest (in situ) stage of cancer, compared to 9.7% of cancers among NHW. About 28% of AI/AN cancers and 23% of NHW cancers were diagnosed when the cancer had spread to distant organs and tissues. A higher percentage (11.5%) of AI/AN cancers were not staged, compared to 7% of NHW cancers.

Data Source: Data Source: Cancer Data Registry of Idaho (CDRI), 2006-2011, corrected for misclassified AI/AN race by the IDEA-NW Project.

Data Notes: Excludes cases with cancers that cannot be staged and cases missing stage data.

Figure 6.6: Stage at diagnosis for incident cancer cases by race, Idaho, 2006-2011.
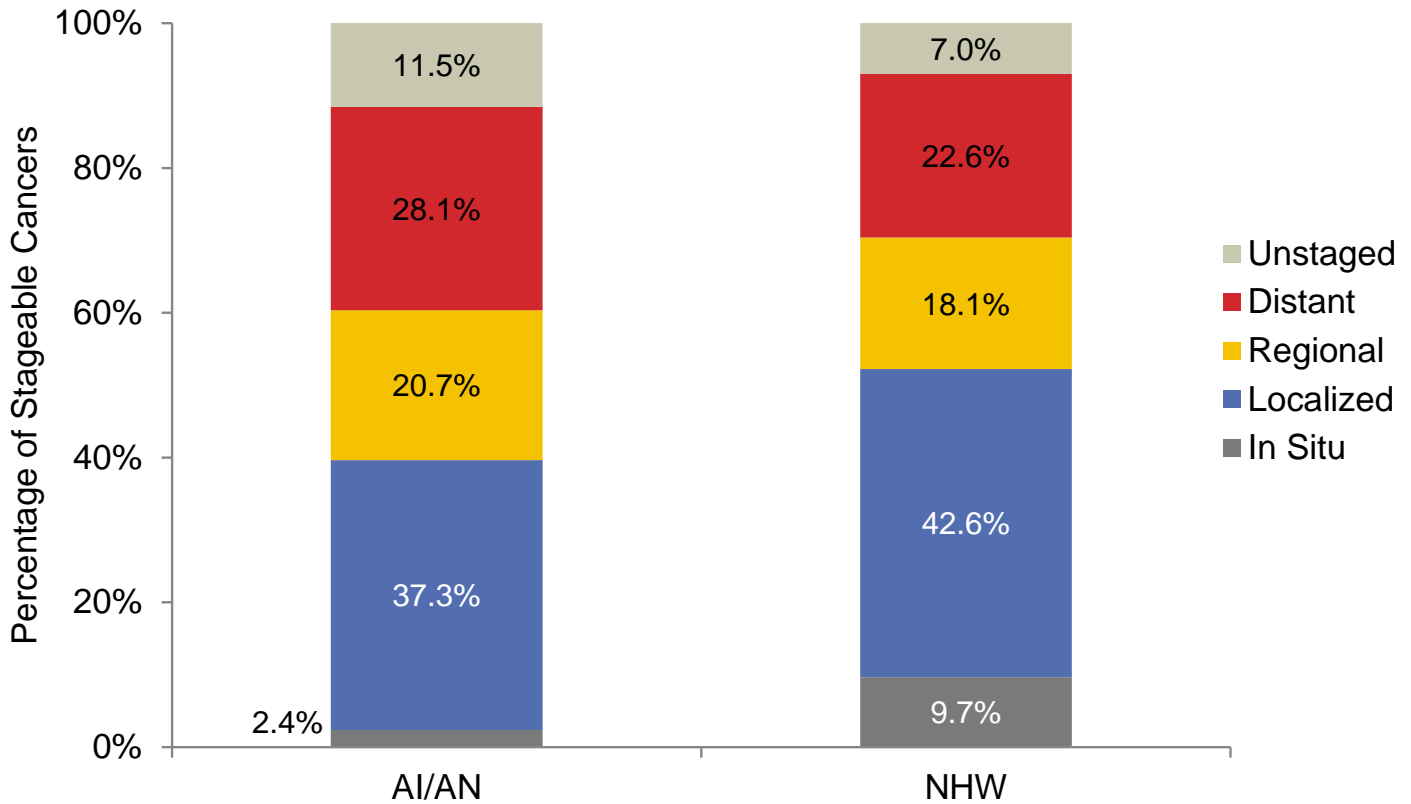
Leading Cancer Mortality Sites

Table 6.3 shows the leading cancer mortality sites for AI/AN males and females in Idaho. From 2006-2012, lung cancer was the most common cause of cancer deaths for AI/AN in the state, accounting for 15% of cancer deaths among males and 30% of cancer deaths among females. Liver and prostate cancers each accounted for 12.5% of cancer deaths among AI/AN males. Colorectal cancer was the second leading cause of cancer deaths for AI/AN females, followed by breast cancer and blood cancers.

Data Source: Idaho state death certificates, 2006-2012, corrected for misclassified AI/AN race by the IDEA-NW Project.

Data Notes: Mortality rates exclude deaths from benign cancers.

Table 6.3: Leading cancer mortality sites for AI/AN by sex, Idaho, 2006-2012.

Rank	Males	N (%)	Females	N (%)
1	Lung & Bronchus	13 (14.8%)	Lung & Bronchus	25 (30.1%)
2	Liver & Intrahepatic Bile Duct Prostate	11 (12.5%) 11 (12.5%)	Colorectal	14 (16.9%)
3	Blood Cancers	10 (11.4%)	Female Breast Blood Cancers	8 (9.6%) 8 (9.6%)
4	Colorectal	9 (10.2%)	Liver & Intrahepatic Bile Duct	5 (6.0%)
Total	All Invasive Cancers	88 (100.0%)	All Invasive Cancers	83 (100.0%)

† Blood cancers include leukemia, Hodgkin lymphoma, non-Hodgkin lymphoma, and multiple myeloma

Cancer Mortality Rates

From 2006-2012, AI/AN in Idaho had cancer mortality rates that were slightly higher than the rates for NHW in the state (Table 6.4), though the difference was not statistically significant. For AI/AN, the cancer mortality rate for males was 52% higher than the rate for females. The rate for NHW males was 38% higher than the rate for NHW females.

Compared to NHW, AI/AN had higher mortality rates for prostate, colorectal, and blood cancers, and a statistically significant higher rate for liver cancer (Figure 6.7).

Table 6.4: Cancer mortality rates by race and sex, Idaho, 2006-2012.

Sex	AI/AN Rate (95% CI)	NHW Rate (95% CI)	AI/AN vs. NHW Rate Ratio (95% CI)
Male	212.0 (163.3, 272.8)	191.9 (187.9, 195.9)	1.10 (0.90, 1.36)
Female	139.6 (108.6, 178.1)	139.0 (135.3, 142.7)	1.00 (0.81, 1.25)
Both Sexes	168.2 (140.9, 199.9)	161.9 (159.2, 164.6)	1.04 (0.89, 1.21)

CI = confidence interval

Data Source: Idaho state death certificates, 2006-2012, corrected for misclassified AI/AN race by the IDEA-NW Project.
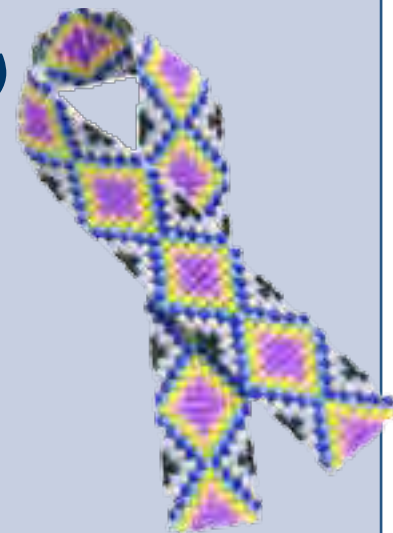
Data Notes: Mortality rates exclude deaths from benign cancers.

Figure 6.7: Age-adjusted mortality rates for leading cancer sites by race, Idaho, 2006-2010.
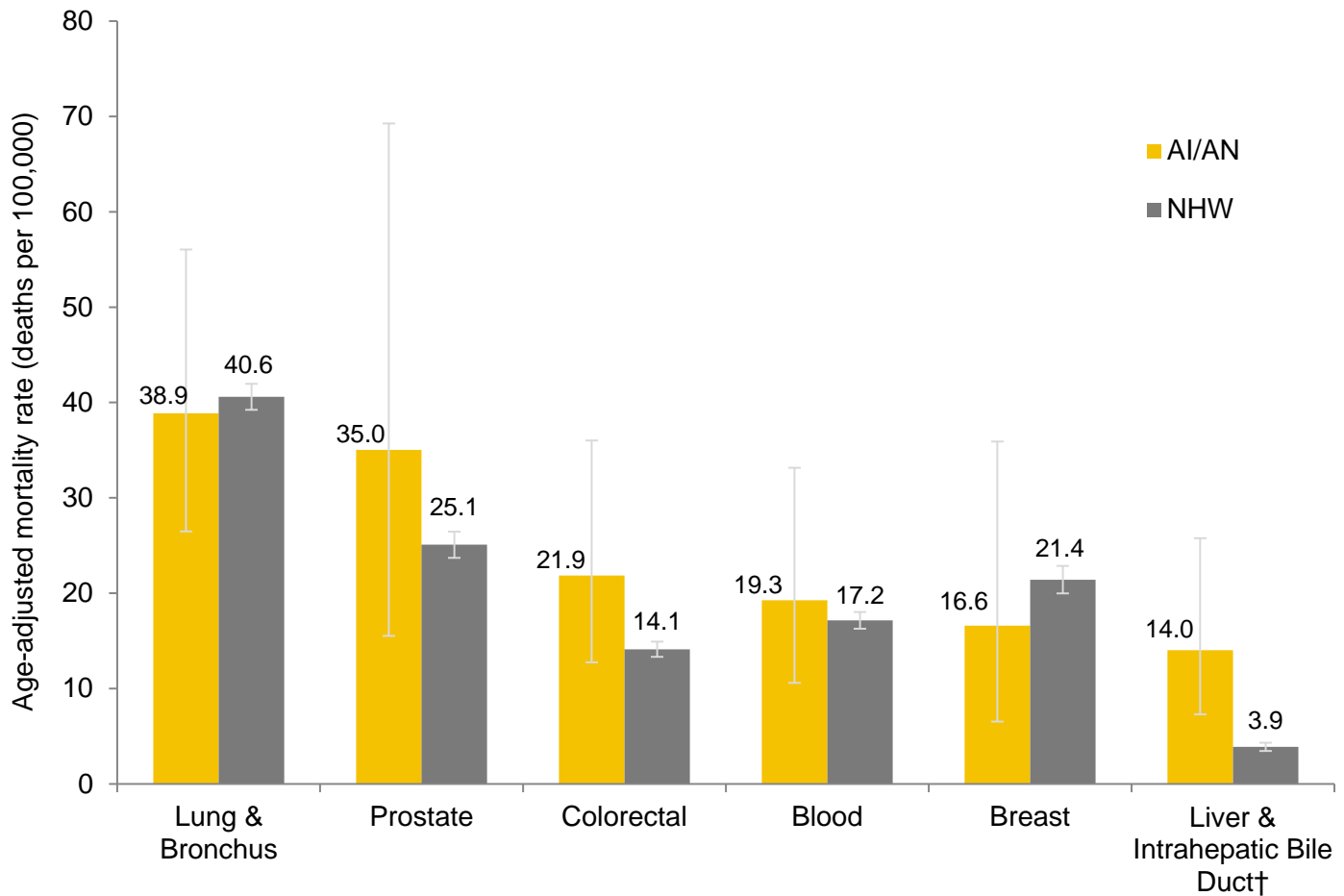
† *Indicates a statistically significant difference (p<.05)*

Program Spotlight: Northwest Tribal Comprehensive Cancer Project (NTCCP)

Northwest Tribal Comprehensive Cancer Project (NTCCP)
In collaboration with 43 Northwest tribes, the NTCCP works toward cancer-free tribal communities by taking an integrated and coordinated approach to cancer control. The NTCCP was the first tribal recipient of a Comprehensive Cancer Grant from the CDC. NTCCP has been at the forefront in developing and implementing strategies to address cancer in tribal communities. These strategies include developing a tribal comprehensive cancer plan, forming a multi-state tribal cancer coalition, and designing a tribal behavioral risk factor survey. NTCCP's goals are to:

• Facilitate a process for Northwest tribes to promote cancer risk reduction strategies

• Provide information on the most current early detection, screening and treatment practices through education and resource materials.

• Provide education regarding quality of life for cancer patients, their families and caretakers

• Coordinate and collaborate with local and national cancer organizations and individuals

• Improve Indian-specific cancer control data

NTCCP coordinates three tribal cancer coalition meetings per year; these meetings provide a forum for tribal programs, cancer centers, local and state health departments, non-profits, and private organizations to network and share resources. NTCCP also provides technical assistance to tribes to implement local cancer control plans, provides toolkits and educational materials to promote cancer screening, and assists tribes with data and funding resources. The Northwest Tribal Comprehensive Cancer Program is funded by a cooperative agreement from the Centers for Disease Control and Prevention.
For more information, please contact:
Kerri Lopez (Tolowa Tribe)
Project Director
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503-416-3301
http://www.npaihb.org/programs/nw_tribal_cancer_control_project

7. Injury and Violence

Injuries and violence have been major public health concerns in Indian Country for many years.[1] Generally, injuries are separated into two categories: unintentional injuries, which result from events such as motor vehicle crashes, falls, accidental poisoning, or drowning; and intentional injuries, which are caused deliberately by one person to another or to himself, such as physical abuse, homicide, or suicide.

According to the most recently available national data (1999-2011), intentional injuries are the leading cause of death for AI/AN ages 1-44 and the third leading cause of death for AI/AN of all ages combined.[2] Homicide is among the top five leading causes of death for AI/AN ages 1-44.[2] A 2010 study found that AI/AN women have the highest reported lifetime rates of domestic violence among all racial and ethnic groups, at 46%.[3]

For AI/AN in Idaho, unintentional Injury is the third leading cause of death, led by motor vehicle crashes and accidental poisoning (usually drug overdose). The disparity between AI/AN and NHW is particularly alarming among AI/AN under 30.

This section presents mortality data for unintentional injury and homicide, as well as screening for domestic or intimate partner violence. Suicide-related data can be found in the chapter on Mental Health and Suicide.

1. Smith, R.J., and Robertson L.S. (2000). Unintentional Injuries and trauma. In Roades ER (ed.), American Indian Health, Baltimore, MD: Johns Hopkins University Press.

2. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS) [online]. (2013) [cited 2014 Sep 25]. Available from URL: www.cdc.gov/ncipc/wisqars

3. Black, M.C., Basile, K.C., Breiding, M.J., Smith, S.G., Walters, M.L., Merrick, M.T., Chen, J., & Stevens, M.R. (2011). The National Intimate Partner and Sexual Violence Survey (NISVS): 2010 Summary Report. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

Domestic and Intimate Partner Violence Screening

IHS tracks the percentage of AI/AN female patients ages 15-40 who were screened for domestic or intimate partner violence in the past year. The domestic violence screening rate has steadily increased for the Portland Area IHS and the national IHS since 2009, but has remained about the same for Idaho clinics. (Figure 7.1).

The screening rate for Idaho clinics has consistently been higher than the rates for the Portland Area and exceeded the national IHS rate until 2013. In 2013, the screening rates for Idaho clinics exceed the 2013 goal of 58.3%, while the Portland Area IHS rates fell short of the goal.

Data Source: Portland Area Indian Health Service.

Data Notes: Data labels only shown for Idaho clinics.

Idaho clinics include non-urban federal and tribal Indian health facilities in Idaho. Portland Area IHS clinics include non-urban federal and tribal Indian health facilities in Idaho, Oregon, and Washington.

Figure 7.1: Domestic violence screening rates for IHS female patients, 2009-2013.
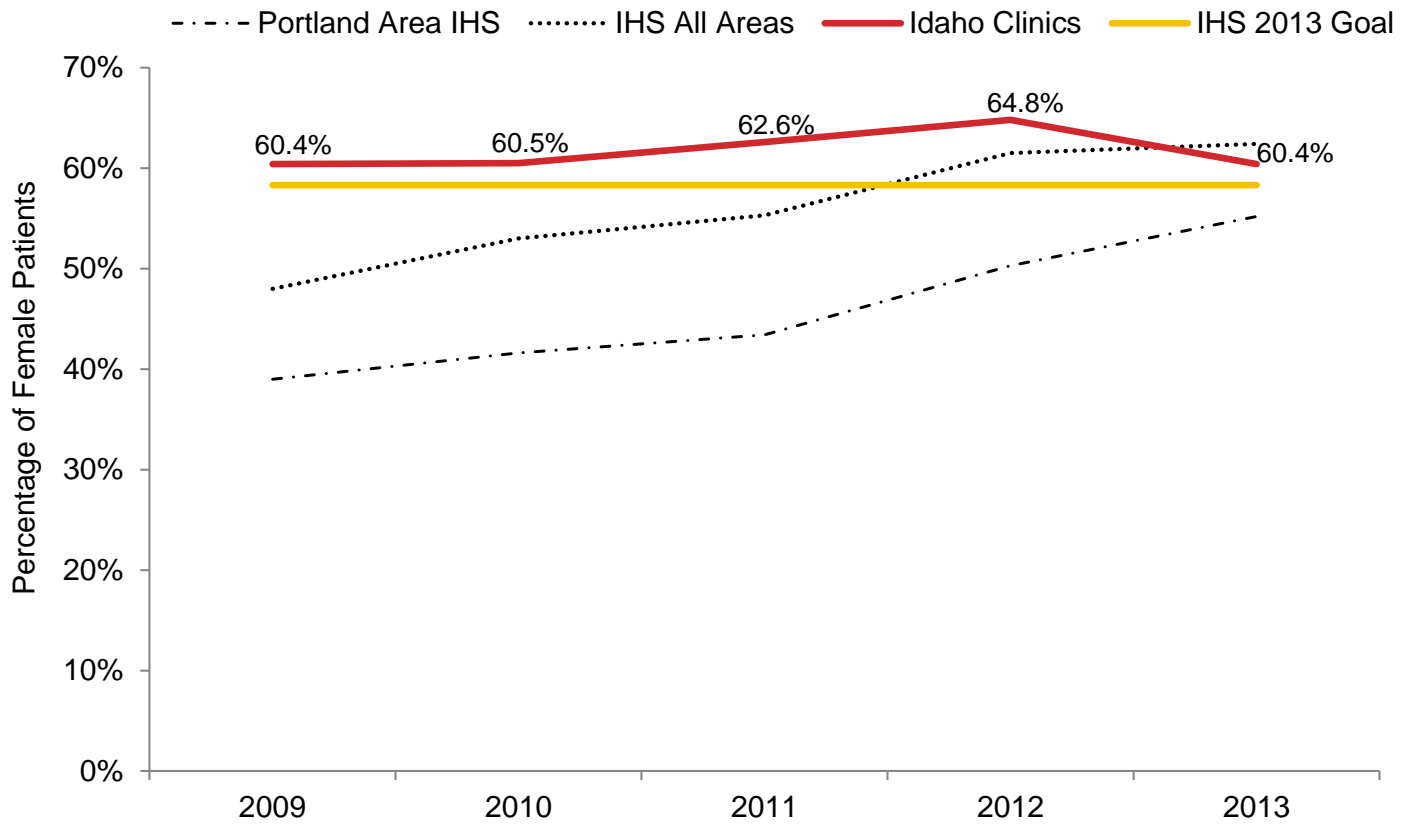
Causes of Unintentional Injury Deaths

The majority of unintentional injury deaths among both groups came from motor vehicle crashes (MVC) and accidental poisoning, although MVCs accounted for proportionally more deaths among AI/AN than NHW (Figure 7.2). NHW had a much higher proportion of unintentional injury deaths due to falls than AI/AN. This is possibly related to the difference in age at death as we find AI/AN are dying at younger ages of other causes while most fall deaths among NHW occur in those eighty years and older.

Figure 7.2: Leading causes of unintentional injury mortality by race, Idaho, 2006-2012.
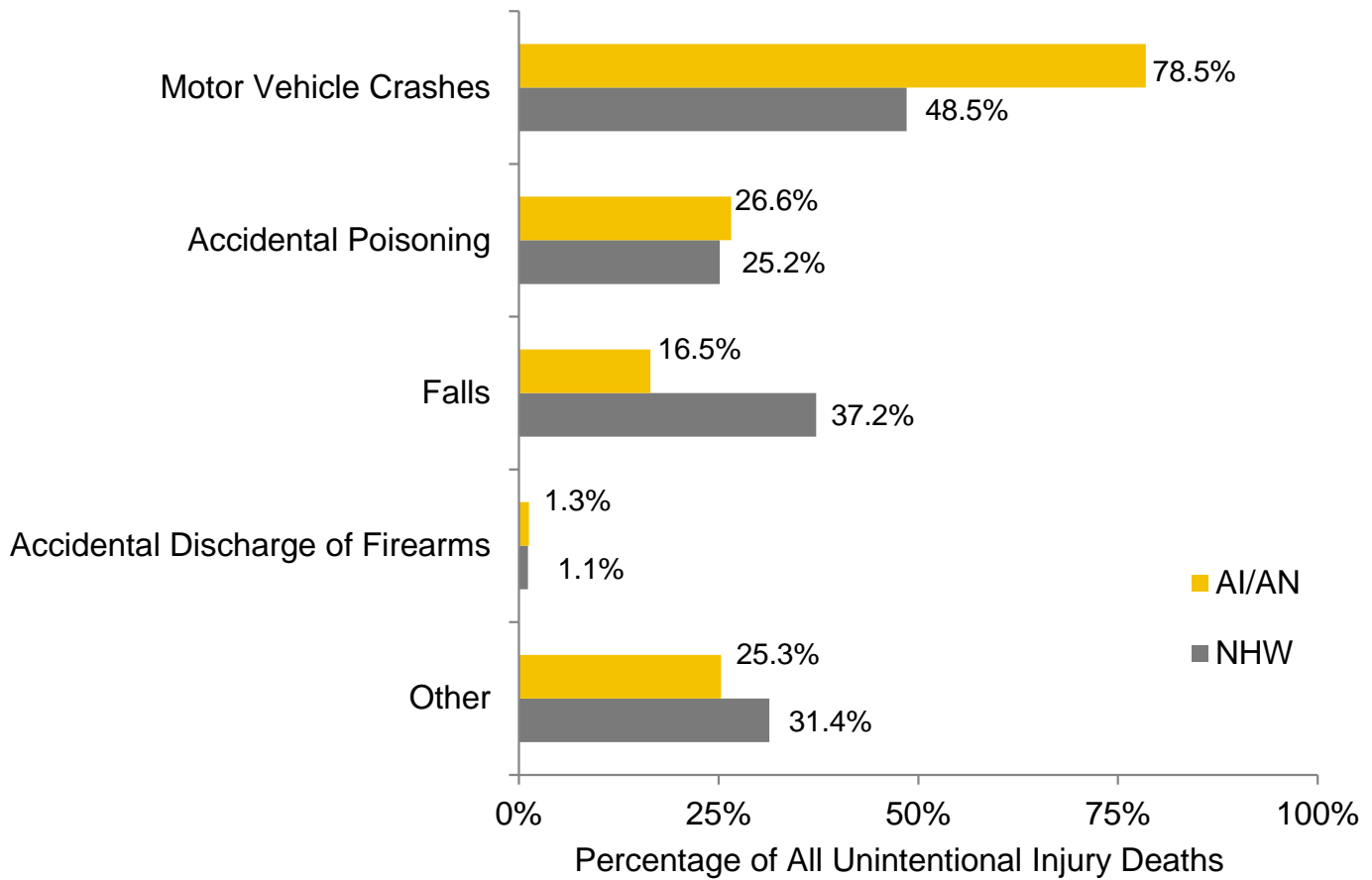
Mortality from Unintentional Injuries

Unintentional Injury is the third leading cause of death for Idaho AI/AN. Figure 7.3 shows the age-adjusted death rates for unintentional injury among AI/AN and NHW in Idaho. Male AI/AN are about 20% more likely to die from unintentional injuries than females. Compared to NHW, AI/AN unintentional injury death rates are 53% higher. Idaho AI/AN unintentional injury death rates fall in the middle when compared to other AI/AN in the region, with lower rates than found among Washington populations, but higher rates than those seen in Oregon.

Table 7.1: Age-adjusted unintentional injury mortality rates by race and sex, Idaho, 2006-2012.

Sex	AI/AN Rate (95% CI)	NHW Rate (95% CI)	AI/AN vs. NHW Rate Ratio (95% CI)
Male	71.8 (52.6, 101.2)	56.0 (53.8, 58.1)	1.28 (1.00, 1.64)
Female	60.2 (43.3, 84.0)	30.7 (29.1, 32.4)	1.96 (1.48, 2.59)[‡]
Both Sexes	66.0 (53.1, 82.8)	43.11 (41.8, 44.5)	1.53 (1.27, 1.84)[‡]

CI = confidence interval
‡ Indicates a statistically significant difference (p<.05)

Data Source: Idaho Death Certificate File (Idaho Dept. of Health and Welfare), 2006-2012, corrected for misclassified AI/AN race

Figure 7.3: Age-adjusted unintentional mortality rates by race and sex, Idaho, 2006-2012.
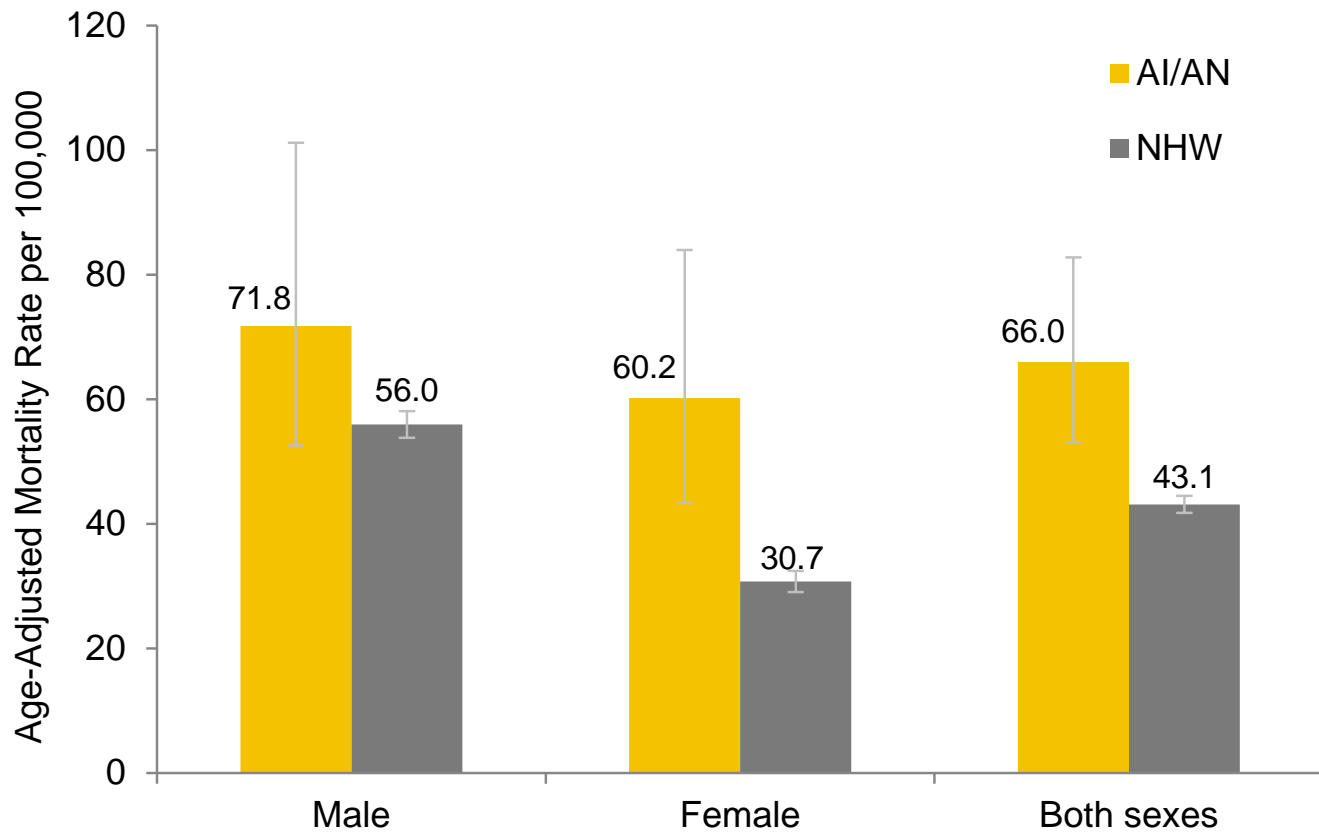
Unintentional Injury Mortality Across Life Span

Figure 7.4 shows the death rates by age group for AI/AN and NHW. The blue line shows the rate ratio comparing the two populations.   The AI/AN at highest risk for unintentional injury deaths were 20-29 year-olds and those 85 and older. The largest disparities occurred in children and young adults, with all age groups under 30 experiencing more than twice as many unintentional injury deaths than their NHW counterparts. AI/AN aged 20-29 experienced the largest disparity compared to NHW at 2.6 times higher.

Figure 7.4: Age-specific unintentional injury mortality rates by race, Idaho, 2006-2012.
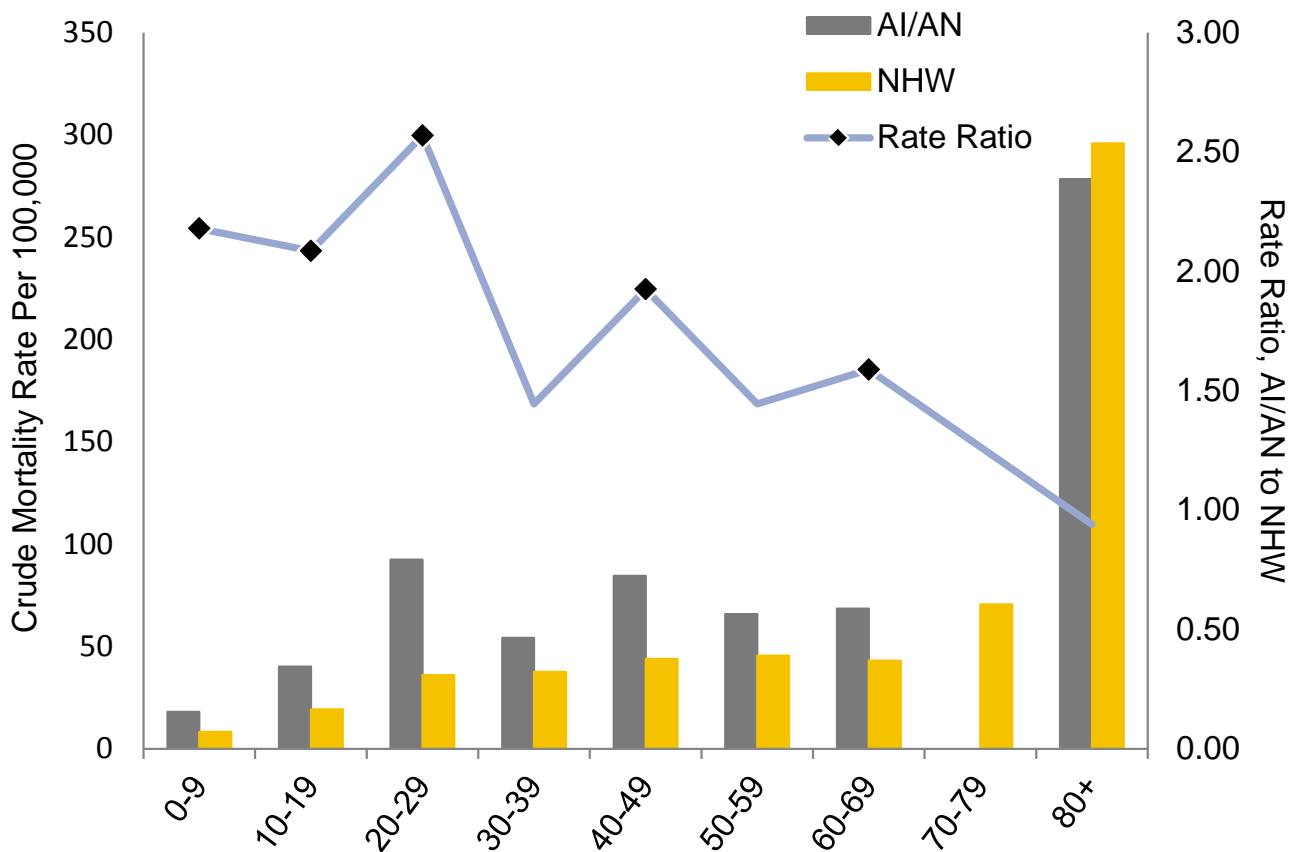
Note: Rate Ratio is a comparison of AI/AN to NHW rates; a value above 1 indicates AI/AN rates are higher than NHW. Black markers are shown for age groups in which the AI/AN rates are statistically significantly higher than NHW rates.

Mortality from Homicide

Figure 7.5 shows the age-adjusted homicide rates among AI/AN and NHW in Idaho. Compared to NHW, AI/AN homicide rates were more than three times higher. AI/AN in Idaho have the lowest homicide rates among AI/AN in the Northwest region.

It should be noted that, due to small numbers, the rates presented here may be unstable (as seen in the wide confidence intervals). Statistical tests take into account this level of uncertainty, and thus the rate ratio comparisons with NHW shown in Table 7.2 can be interpreted as reflecting a true disparity, while differences in the actual rate estimates alone may not.

**Table 7.2: Age-adjusted homicide mortality rates by race and sex, Idaho, 2006-2012.**

Sex	AI/AN Rate (95% CI)	NHW Rate (95% CI)	AI/AN vs. NHW Rate Ratio (95% CI)
Male	9.6 (2.6, 27.8)	2.1 (1.7, 2.5)	4.66 (2.49, 8.70)‡
Female	0.7 (0.0, 12.2)	1.3 (1.0, 1.6)	0.52 (0.07, 3.77)
Both Sexes	5.2 (2.7, 12.7)	1.7 (1.4, 2.0)	3.08 (1.71, 5.54)‡

CI = confidence interval
‡ Indicates a statistically significant difference (p<.05)

Data Source: Idaho Death Certificate File (Idaho Dept. of Health and Welfare), 2006-2012, corrected for misclassified AI/AN race

Figure 7.5: Age-adjusted homicide mortality rates by race and sex, Idaho, 2006-2012.
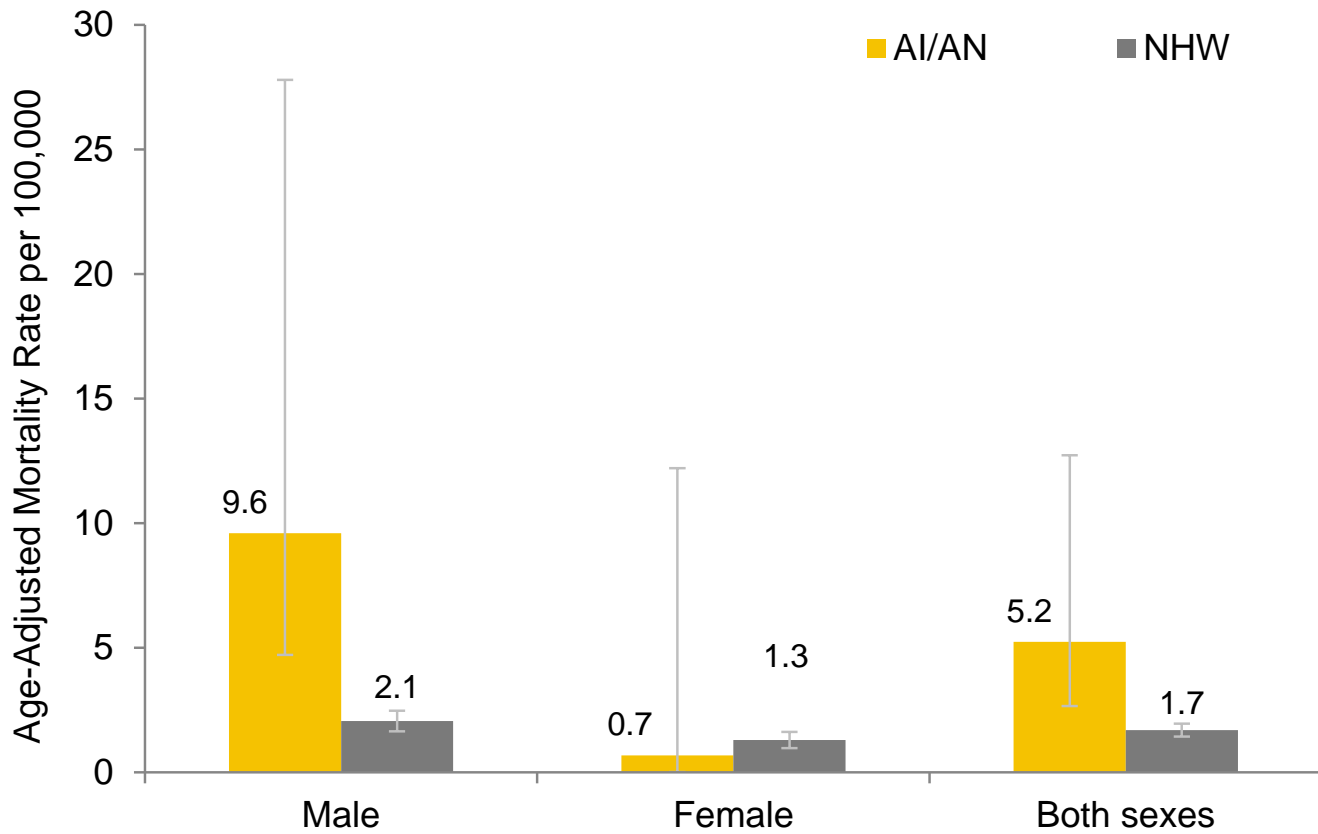
Program Spotlight: Injury Prevention Program

The Injury Prevention Program (IPP) works to develop and implement effective injury prevention strategies across the 43 Northwest Tribes. The IPP coordinates a Northwest Tribal Injury Prevention Coalition, whose members represent Northwest tribes, transportation safety organizations, and other key stakeholders. The IPP and Coalition members completed a 5-year Tribal Injury Prevention Plan in 2012, and are now working on implementing injury prevention and education strategies, with an emphasis on motor vehicle safety and elder falls prevention. The IPP also contributes to the collection, analysis and interpretation of injury data. The IPP is funded through a cooperative agreement with the Indian Health Service.

The IPP's goals are to:
- Provide a central location for coordination and dissemination of injury prevention resources and expertise for Northwest tribes.
- Collaborate with Northwest tribes to provide information, technical assistance and training for injury prevention, and to increase IP-related activities at the tribal level.
- Collect and evaluate community-specific data on injuries among American Indians in the Northwest, and support development of reducing injuries in targeted communities.

For more information, contact:
Luella Azule (Yakama/Umatilla)
Program Coordinator
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503-416-3263
http://www.npaihb.org/epicenter/project/injury_prevention_program

8. Mental Health and Suicide

Mental health is closely tied to and affected by our physical, social, and spiritual health. Historical trauma, community violence, family history, and drug or alcohol use can all contribute to poor mental health outcomes. Common mental health conditions include depression, anxiety, panic disorder, attention deficit disorder, and obsessive-compulsive disorder. Patients can manage these conditions with proper treatment from qualified medical providers.

Self-harm and suicide are among the most tragic consequences of mental health illness. Suicide rates for AI/AN are typically highest in early adulthood and decrease with age, while suicide rates in the general population tend to increase with age. In recent data from the CDC, suicide was the second leading cause of death for AI/AN teens and young adults. At the state level, annual suicide rates for AI/AN tend to fluctuate widely because the actual number of deaths each year is relatively small. Data from several years are often compiled to address this challenge.

About half of the patients seen in Idaho Indian health clinics were screened for depression, which is close to the IHS goal for this screening. However, suicide remains a top killer of AI/AN in the state, and compared to NHW, suicide mortality rates were about 40% higher for AI/AN. Males had about three times higher risk of suicide death than females.

Depression Screening

IHS tracks the percentage of AI/AN patients ages 18 years and older who received a depression screening in the past year. Since 2009, the screening rate for depression has increased for Idaho clinics, the Portland Area IHS, and the national IHS (Figure 8.1). The national IHS average exceeded the 2013 goal of 58.6%, while the screening rate for Idaho clinics and the Portland Area IHS were slightly below the 2013 goal for this measure.

Figure 8.1: Percentage of IHS AI/AN patients (ages 18 and older) who were screened for depression during the past year, 2009-2013.
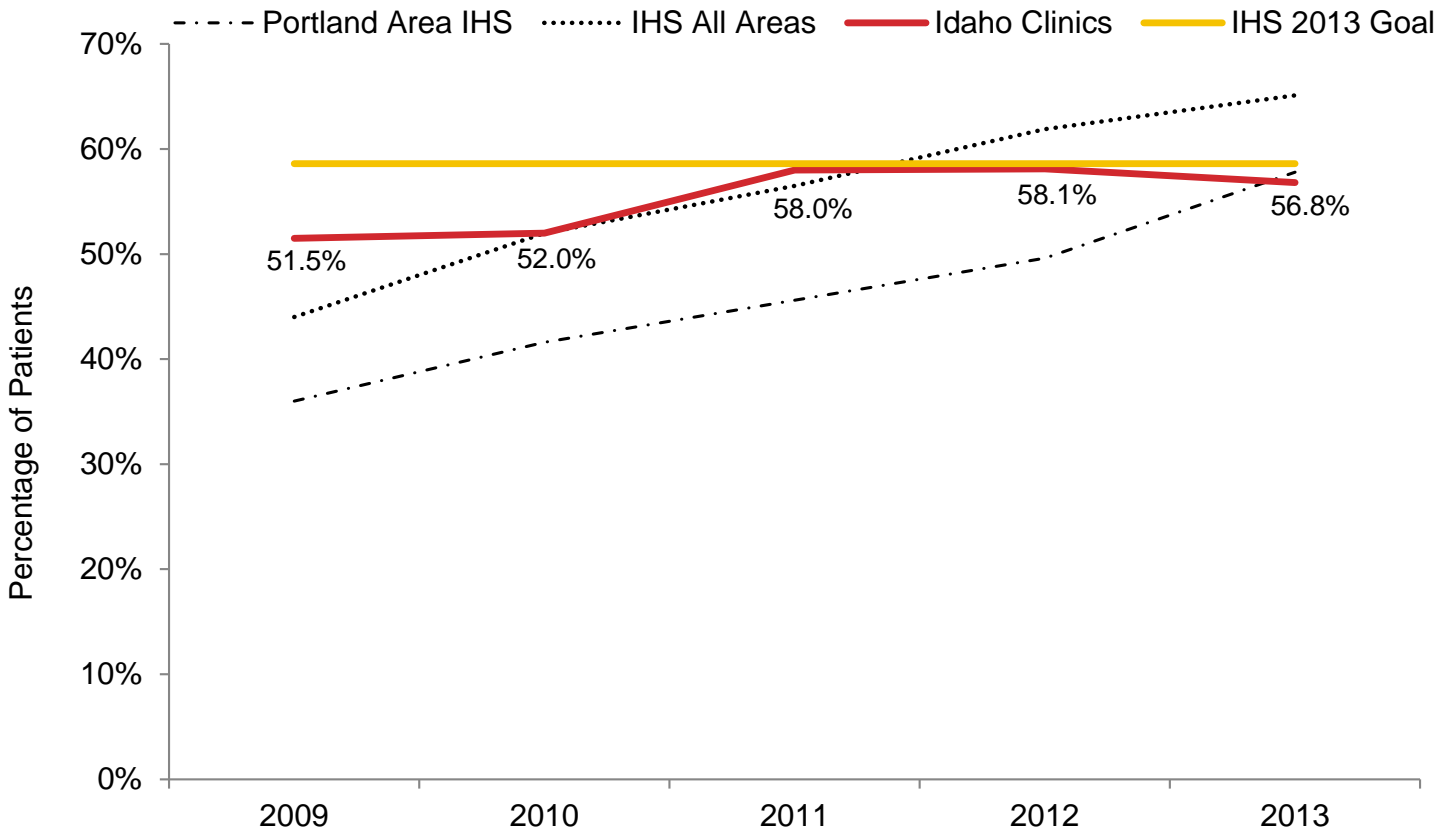
Data Source: Portland Area Indian Health Service.

Data Notes: Data labels only shown for Idaho clinics.

Idaho clinics include non-urban federal and tribal Indian health facilities in Idaho. Portland Area IHS clinics include non-urban federal and tribal Indian health facilities in Idaho, Oregon, and Washington.

Suicide Mortality

Suicide is the sixth leading cause of death among Idaho AI/AN. Figure 8.2 shows the age-adjusted death rates for suicide among AI/AN and NHW in Idaho. Male AI/AN are over three times more likely to die from suicide than females. While the rates of completed suicides are much higher for males, it should be noted that several studies have found that females are more likely to attempt suicide than males; however, females are less likely to choose a violent mechanism and so are more likely to survive the attempt[1,2]. Compared to NHW, AI/AN suicide rates are 40% higher. Among AI/AN in the Northwest, those living in Idaho have the highest suicide rates of the three states.

1. Dorgan BL. The Tragedy of Native American Youth Suicide. Psychological Services 2010;7(3):213-218.

2. Alcantara C, Gone JP. Reviewing Suicide in Native American Communities: Situating Risk and Protective Factors within a Transactional-Ecological Framework. Death Studies 2007;31:457-477.

Table 8.1: Age-adjusted suicide mortality rates by race and sex, Idaho, 2006-2012.

Sex	AI/AN Rate (95% CI)	NHW Rate (95% CI)	AI/AN vs. NHW Rate Ratio (95% CI)
Male	39.2 (26.6, 62.6)	30.3 (28.7, 38.9)	1.29 (0.93, 1.80)
Female	12.1 (6.2, 25.8)	7.5 (6.7, 8.2)	1.62 (0.91, 2.87)
Both Sexes	25.7 (18.6, 38.6)	18.6 (17.7, 19.5)	1.38 (1.04, 1.84)[‡]

CI = confidence interval
‡ Indicates a statistically significant difference (p<.05)

Figure 8.2: Age-adjusted suicide mortality rates by race and sex, Idaho, 2006-2012.
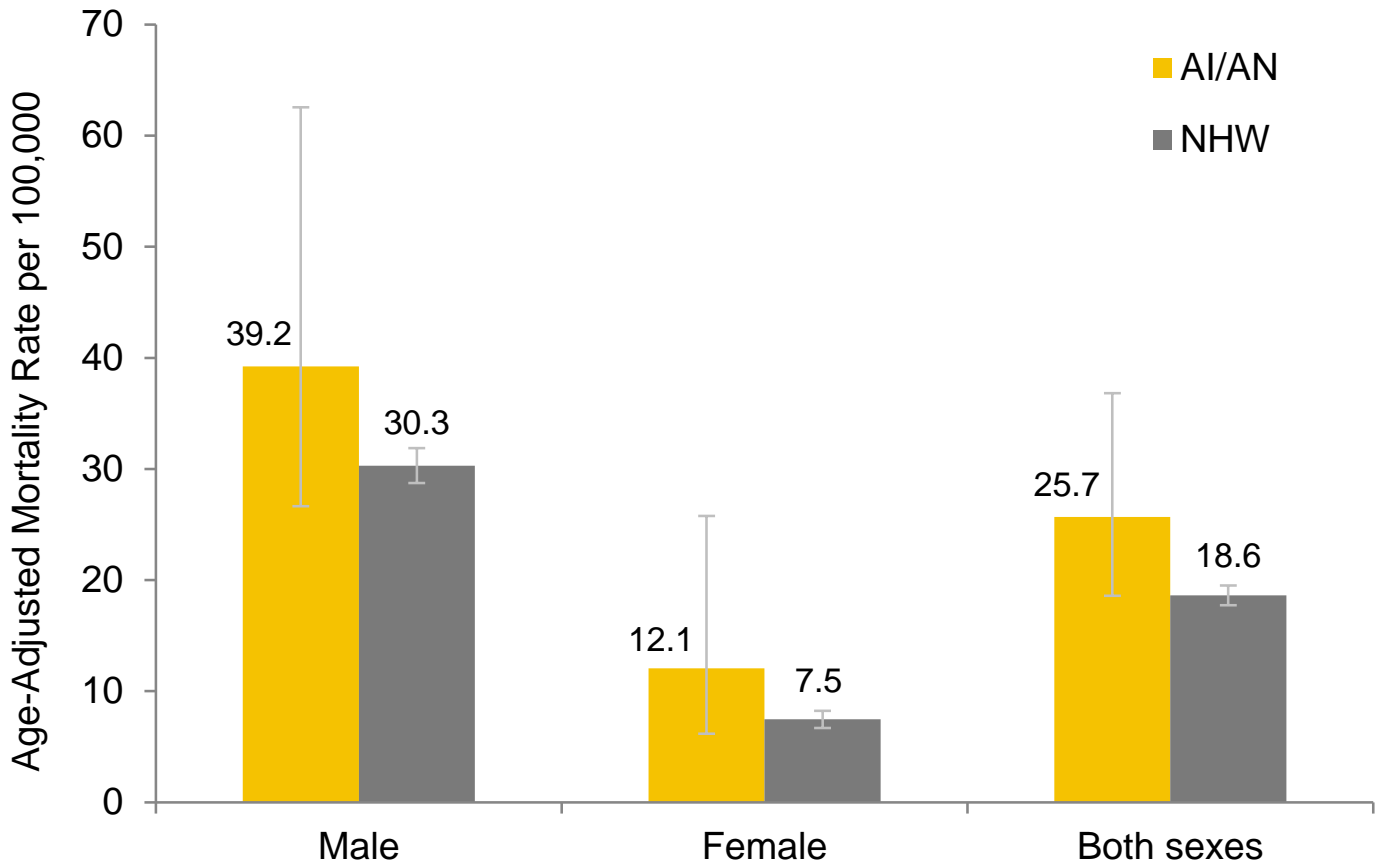
Data Source: Idaho Death Certificate File (Idaho Dept. of Health and Welfare), 2006-2012, corrected for misclassified AI/AN race

Program Spotlight: THRIVE

Suicide is a sensitive issue, but one that is of great concern to many AI/AN communities. While the data on suicide among Northwest AI/AN is sobering, there are many factors that can protect against suicide, including:

• Connecting to family and friends
• Connecting to culture and spirituality
• Good emotional and physical health
• Positive communication with family or friends
• Restricted access to lethal means
• Access to mental health care
• Problem solving skills

Since 2009, NPAIHB's THRIVE program has assisted Northwest tribes in implementing culturally appropriate suicide prevention programs and media campaigns. THRIVE's activities are directed by three priority goals:

1. Increase knowledge and awareness about suicide among Tribal community members.
2. Improve intertribal and interagency communication about suicide prevention and treatment.
3. Increase the capacity of Tribal health programs to track, prevent, and treat suicide.

THRIVE works with other NPAIHB projects to convene the *NW Native Adolescent Health Alliance,* which is an inclusive, multi-functional group that meets in OR, WA, and ID to discuss cross-cutting planning and prevention strategies targeting AI/AN teens and young adults.

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9. Substance Abuse

Substance abuse has continued to be a major cause of illness and death for Northwest AI/AN. It is a complex social problem in AI/AN communities, associated with multiple underlying issues. For example, childhood physical and sexual abuse, generational trauma, perceived discrimination, and cultural disruption have all been linked to the development of substance abuse.[1,2]

The abuse of alcohol and prescription medications, use of illicit drugs, and commercial tobacco use are all linked to serious health conditions such as heart disease, cancer, and liver disease. The use of intoxicants also contributes significantly to the incidence of fatal motor vehicle crashes, homicides, suicides, and sexually transmitted diseases. The impact of substance abuse on communities and families can be seen in high rates of homelessness, children in foster care or living with relatives other than parents, incarceration, unemployment, low educational achievement, domestic violence and premature death.

According to national data on drug and alcohol use, AI/AN have the highest rates of substance dependence or abuse of all ethnic groups at 14.9%, compared to 8.4% for whites.[3] AI/AN communities report high rates of alcohol, tobacco and marijuana use, and AI/AN have the highest estimated Years of Potential Life Lost resulting from alcohol abuse compared to any other race.[4] Methamphetamine abuse has become a significant problem for Northwest tribes and the abuse of prescription medications has also been on the rise and is causing devastating consequences within AI/AN communities.

Idaho AI/AN were similar to the NHW population in level of self-reported drinking; however, binge drinking was more common with 33% of females and 43% of males reporting at least one episode of binge drinking in the past month. Drug overdose was a concern particularly among AI/AN females who were 75% more likely to die from an overdose than AI/AN males, and nearly twice as likely compared to NHW females. Almost one third of all AI/AN deaths in the state had alcohol or drugs as a contributing or underlying factor.

Effective prevention depends on increased community awareness, screening for substance abuse at clinics and ultimately referral for treatment of substance abuse disorders. Successful programs include community involvement, skills training, leadership commitment and program evaluation.[5]

1. Adverse childhood exposures and alcohol dependence among seven Native American tribes. Koss, M., N. Yuan , D. Dightman, R. Prince, M. Polacca, B. Sanderson, D. Goldman. Am. J. Prev. Med 2003; 25(3): 238-2443.

2. Preventing substance abuse in American Indian and Alaska Native youth: Promising strategies for healthier communities. Hawkins, E., L. Cummins, G. Marlatt. Psych Bull. 2004;130(2): 304-323.

3. Substance Abuse and Mental Health Services Administration, Results from the 2013 National Survey on Drug Use and Health: Summary of National Findings, NSDUH Series H-48, HHS Publication No. (SMA) 14-4863. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2014.

4. MMWR Morbidity & Mortality Weekly Report. 2014 Mar 14;63(10):213-6. Alcohol-attributable deaths and years of potential life lost--11 States, 2006-2010.

5. Hawkins, E., L. Cummins, G. Marlatt. Psych Bull. 2004

Self-Reported Alcohol Consumption

From 2006-2012, 47% of AI/AN males and 36% of AI/AN females in Idaho reported having at least one alcoholic drink in the past 30 days (Figure 9.1). Over half of AI/AN adults in the state reported no alcohol consumption in the past 30 days, and while males were more likely to report drinking the past 30 days for both races, the proportion was similar between AI/AN and NHW.

Data Source: 2006 – 2012 CDC BRFSS

Data Notes: The BRFSS prevalence estimates (shown as a percentage) are weighted to make the survey responses representative of the Idaho population. The sample sizes presented below the figures are the unweighted number of people who answered this question for the indicated years.

Figure 9.1: Prevalence of self-reported alcohol consumption by race and sex, Idaho, 2006-2012.
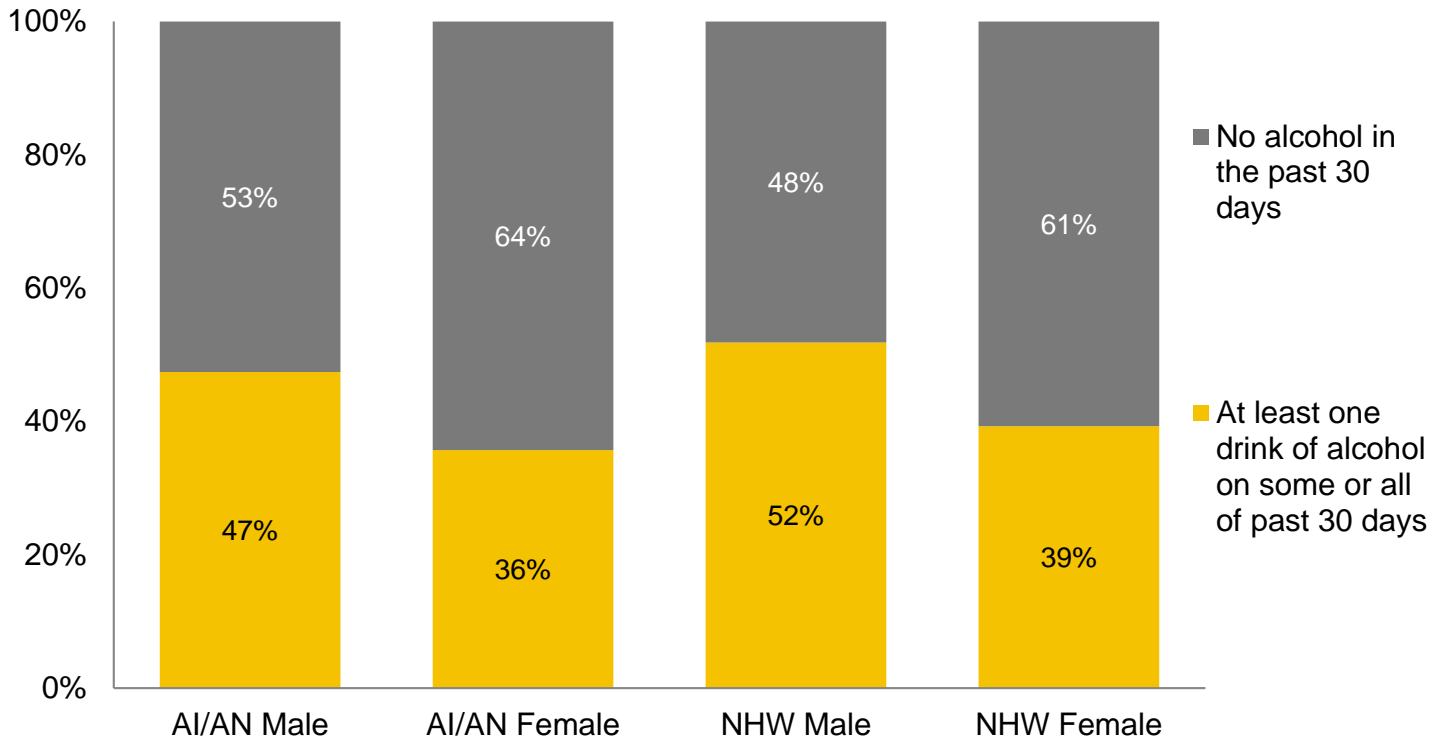
Sample sizes (n): AI/AN males=173; AI/AN females=294; NHW males=13,179; NHW females=20,029.

Self-Reported Binge Drinking

Figure 9.2 shows the percentage who reported binge drinking in the past month (defined as four or more drinks for women and five or more drinks for men on an occasion). While non-binge drinking was similar between the races as seen in the previous measure, a difference is clearly seen when considering binge drinking. Compared to 30% of NHW males, 43% of AI/AN males reported binge drinking in the past month. AI/AN females were also more likely to binge drink than their NHW counterparts (33% vs. 20%).

Data Source: 2006 – 2012 CDC BRFSS

Data Notes: The BRFSS prevalence estimates (shown as a percentage) are weighted to make the survey responses representative of the Idaho population. The sample sizes presented below the figures are the unweighted number of people who answered this question for the indicated years.

Figure 9.2: Prevalence of self-reported binge drinking by race and sex, Idaho, 2006-2012.
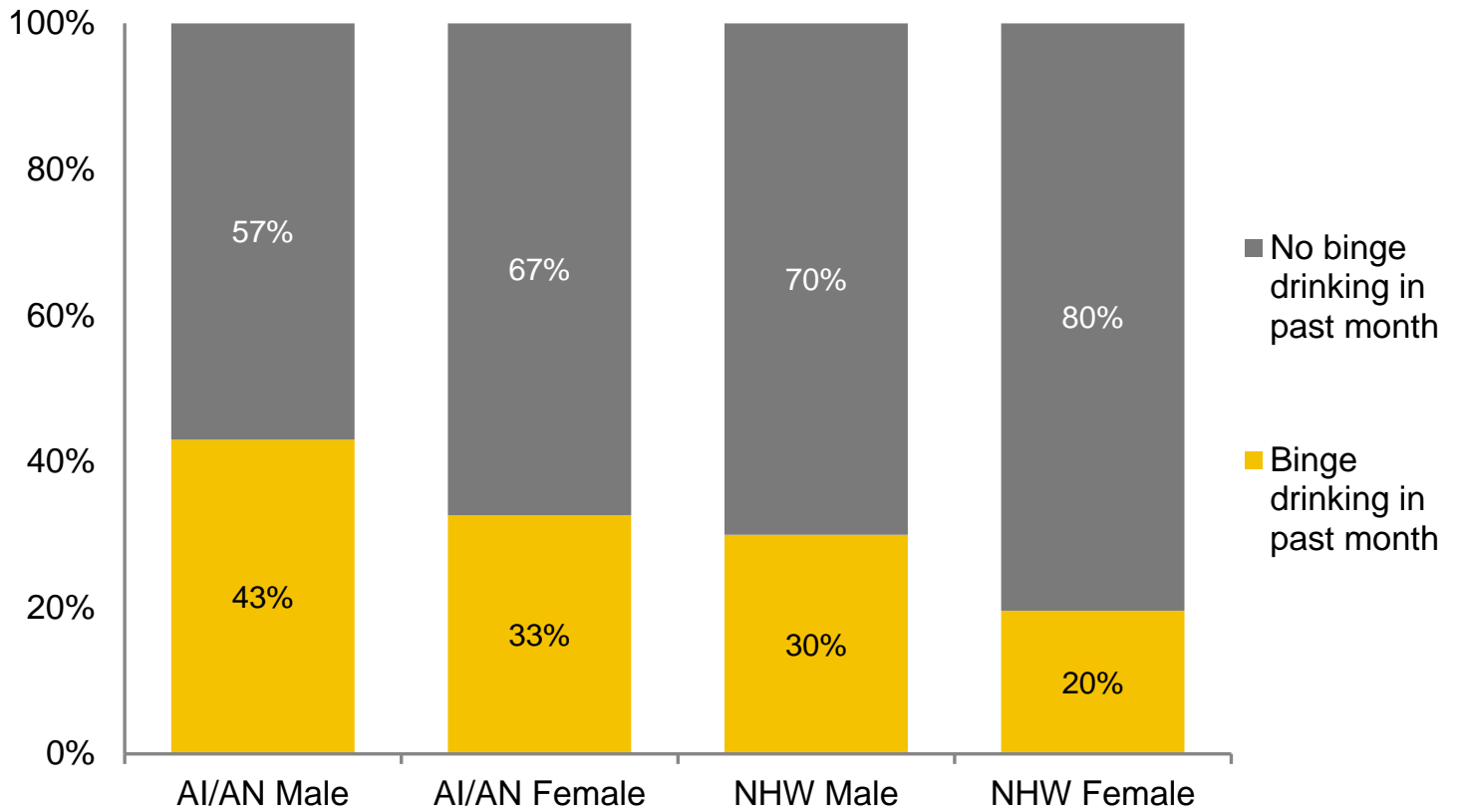
Sample sizes (n): AI/AN males=221; AI/AN females=265; NHW males=17,868; NHW females=21,232.

Accidental Poisoning & Overdose Mortality

Accidental poisoning was the second leading cause of AI/AN unintentional injury death in Idaho (following motor vehicle crashes). By far the leading contributor to poisoning deaths was accidental drug and alcohol overdoses. Poisonings due to substances such as gas and vapors, pesticides, household chemicals, and other noxious substances made up less than 2% of poisoning deaths in both AI/AN and NHW.

Figure 9.3 shows the age-adjusted death rates for accidental poisoning among AI/AN and NHW in Idaho. Female AI/AN are 76% more likely to suffer an accidental poisoning death than males. Compared to NHW, female AI/AN are twice as likely to suffer an accidental poisoning death, which was a statistically significant disparity. Combining both sexes, the AI/AN rate was 42% higher than the NHW rate; however, with very small numbers to compare, statistical significance was not seen. Compared to the rest of the AI/AN in the Northwest region, Idaho AI/AN had the lowest rates of accidental poisoning deaths.

Table 9.1: Age-adjusted accidental poisoning mortality rates by race and sex, Idaho, 2006-2012.

Sex	AI/AN Rate (95% CI)	NHW Rate (95% CI)	AI/AN vs. NHW Rate Ratio (95% CI)
Male	8.2 (3.5, 26.6)	8.7 (7.9, 9.6)	0.95 (0.47, 1.90)
Female	14.5 (7.7, 28.9)	7.3 (6.5, 8.0)	1.99 (1.14, 3.47)[‡]
Both Sexes	11.4 (7.0, 20.1)	8.0 (7.4, 8.6)	1.42 (0.92, 2.19)

CI = confidence interval
‡ Indicates a statistically significant difference (p<.05)

Figure 9.3: Age-adjusted accidental poisoning mortality rates by race and sex, Idaho, 2006-2012.
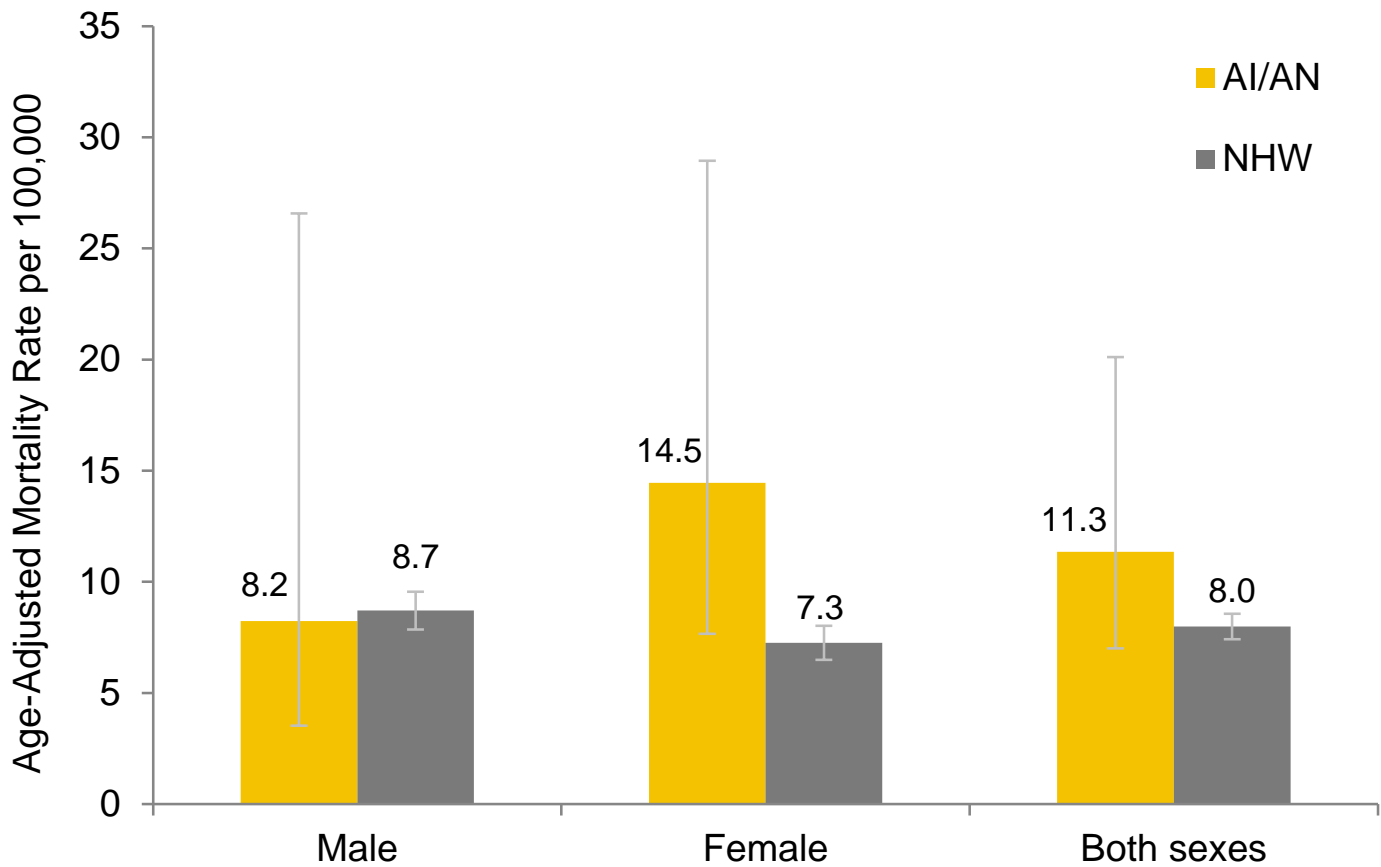
Types of Drug and Alcohol Overdose Deaths

Table 9.2 summarizes the types of drug and alcohol overdose deaths seen among Idaho AI/AN and NHW. This includes both deaths with underlying cause of drug or alcohol, and those with contributing cause of drug or alcohol. For example, a death with an underlying cause of motor vehicle crash may have had alcohol as a contributing factor - this would be included in the row "alcohol associated deaths". Note that "drug associated" and "alcohol associated" include deaths from both short term and long term substance use, but exclude drug deaths that are not related to substance abuse such as medical errors or allergic reactions.

For Idaho AI/AN, drugs and alcohol played a role in 29% of all deaths. Nearly 3% of all AI/AN deaths in Idaho had drug overdose as the underlying cause. There were no deaths recorded as being due to illicit drug overdoses, and the majority of the drug associated deaths had prescription drugs identified as a contributing or underlying cause. Alcohol was a factor in 27% of all Idaho AI/AN deaths.

Data Source: Idaho Death Certificate File (Idaho Dept. of Health and Welfare), 2006-2012, corrected for misclassified AI/AN race

Table 9.2: Types of drug and alcohol overdose deaths by race, Idaho, 2006-2012.

	AI/AN		NHW	
	N	% of all deaths	N	% of all deaths
Drug OD deaths (underlying only)[1]	28	2.7%	1,043	1.4%
Drug associated deaths[2]	29	2.8%	1,130	1.5%
Prescription drugs contributing[3]	10	1.0%	566	0.8%
Prescription OPR contributing[4]	6	0.6%	403	0.5%
Illicit drugs contributing[5]	0	0.0%	98	0.1%
Alcohol associated deaths[6]	274	26.6%	15,812	21.2%
Total drug & alcohol associated	300	29.1%	16,665	22.4%
Total deaths	1,030	100.0%	74,542	

1   Underlying COD X40--X44, X60--X64, X85, or Y10--Y14

2   Underlying or Contributing COD X40--X44, X60--X64, X85, Y10--Y14. F11.0-F19.9, R78.1-R78.5, T36- T39, T40.1 -T40.9, T41.0-T43.9, T44.0-T50.9

3   Contributing COD T36--T39, T40.2--T40.4, T41--T43.5, and T43.7--T50.8, any underlying COD

4   Contributing COD T40.2--T40.4, any underlying COD

5   Contributing COD T40.1, T40.5, T40.7--T40.9, and T43.6, any underlying COD

6   Underlying or Contributing COD—F10, G31.2, G62.1, G72.1, I42.6, K29.2, K70, K85.2, K86.0, R78.0, X45, X65, E24.4, Y15

N = number, OD = Overdose, OPR = Opioid Pain Reliever, COD = Cause of Death

Note that columns do not add up due to multiple drugs contributing to a single death and crossover in the definitions.

COMMUNITY IS THE **HEALER** THAT **BREAKS THE SILENCE**

Program Spotlight: THRIVE

NPAIHB's THRIVE project (Tribal Health: Reaching Out InVolves Everyone) works with Northwest Tribes to prevent drug and alcohol abuse. In 2010 the project hosted meetings with regional partners to develop a 5-year strategic plan: the Northwest Tribal Substance Abuse Action Plan. The plan is now being used to guide program planning, catalyze community outreach efforts, and foster a coordinated response to substance abuse in our Northwest Tribes.

Acting upon one of the goals of the plan - to

increase knowledge and awareness about substance abuse"- the THRIVE project developed a national media campaign focusing on alcohol and drug prevention for AI/AN teens and young adults. The campaign, Strengthen My Nation, was funded by the Indian Health Service's Meth & Suicide Prevention Initiative, and was developed with feedback from hundreds of teens, parents, and health educators throughout the U.S. The campaign includes posters, brochures, fact sheets, and public service announcements on television and radio.

All of the campaign materials are available on the NPAIHB website:
http://www.npaihb.org/epicenter/project/mspi_prevention_media_resources/
For more information, contact:
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http://www.npaihb.org/epicenter/project/thrive

STAND UP STAND STRONG WE PREVENT

10. Communicable Diseases

Among communicable diseases, sexually transmitted infections (STI) have perhaps received the most attention in recent years. The primary STIs include chlamydia, gonorrhea and human immunodeficiency virus (HIV). Because each of these conditions can be spread by people unaware that they have acquired the disease, efforts to increase screening of asymptomatic patients have been recommended by CDC and the US Preventive Services Task Force. Current screening guidelines recommend screening all women ages 15 to 25 annually for chlamydia. For HIV, the recommendations are to screen all pregnant women and to offer HIV testing a least once to every patient between the ages of 13 and 64, regardless of any risk factors that may or may not be present

The importance of these conditions cannot be overemphasized. Chlamydia and gonorrhea are the primary causes of pelvic inflammatory disease in women which can lead to tubo-ovarian abscess and scarring of the fallopian tubes, which in turn can result in infertility and ectopic pregnancy. If left untreated, these diseases can result in unnecessary morbidity and even death. Antibiotic resistance in recent years has been a significant development complicating the effective treatment of infections caused by gonorrhea.

HIV infection is a life-long infection which progresses to Acquired Immune Deficiency Syndrome (AIDS) if not treated. Fortunately, effective treatments for HIV have been developed and are available in the US. AI/AN are among those who qualify for reduced or free medications to treat HIV. Unfortunately, because of stigma and a lack of awareness, many AI/AN do not know their HIV status and do not receive appropriate care until they have advanced disease. Because an estimated 50% of new HIV infections are caused by approximately 20% HIV positive individuals who are infected but unaware, there has been increased effort to screen everyone between the ages of 13 and 64 who might otherwise not be recognized by healthcare providers as potentially infected. Making HIV screening a part of routine preventive health care helps reduce the stigma and barriers to testing.

HIV screening among pregnant AI/AN women in Indian health clinics was good - nearly three quarters received a screening. Chlamydia is a particular concern among AI/AN women, who had rates 3-4 times that of white women. AI/AN in Idaho were also more likely than NHW to be diagnosed with gonorrhea.

HIV Screening in Pregnancy

HIV screening during pregnancy can identify women who are at risk for infecting their newborns. HIV-positive mothers who receive treatment during their pregnancy can reduce the risk that their newborns will be infected with HIV. The U.S. has a long-term (Healthy People 2020) goal for 74.1% of women ages 15-44 who were pregnant in the past year to have received an HIV test as part of their prenatal care. IHS tracks the percentage of pregnant AI/AN women who were tested for HIV during their pregnancy.

The HIV screening rates for pregnant AI/AN women seen in Idaho clinics has increased slightly from 70.0% to 72.6% between 2009 and 2013. Idaho clinics have exceeded the Portland Area IHS measure for all years except 2013, when Idaho clinic rates fell slightly and were lower than the Portland Area average. The Portland Area IHS rates have increased since 2009, but have consistently remained below the national IHS screening rate (Figure 10.1). Idaho clinics have also been below the national average, with the exception of 2012 when they were about the same. The screening rate for the national IHS exceeded the 2013 goal for prenatal HIV screening, while Idaho clinics and the Portland Area IHS did not meet the goal.

Data Source: Portland Area Indian Health Service.

Data Notes: Data labels only shown for Idaho clinics.

Idaho clinics include non-urban federal and tribal Indian health facilities in Idaho. Portland Area IHS clinics include non-urban federal and tribal Indian health facilities in Idaho, Oregon, and Washington.

Figure 10.1: HIV screening rates for pregnant AI/AN women seen at IHS facilities, 2009-2013.
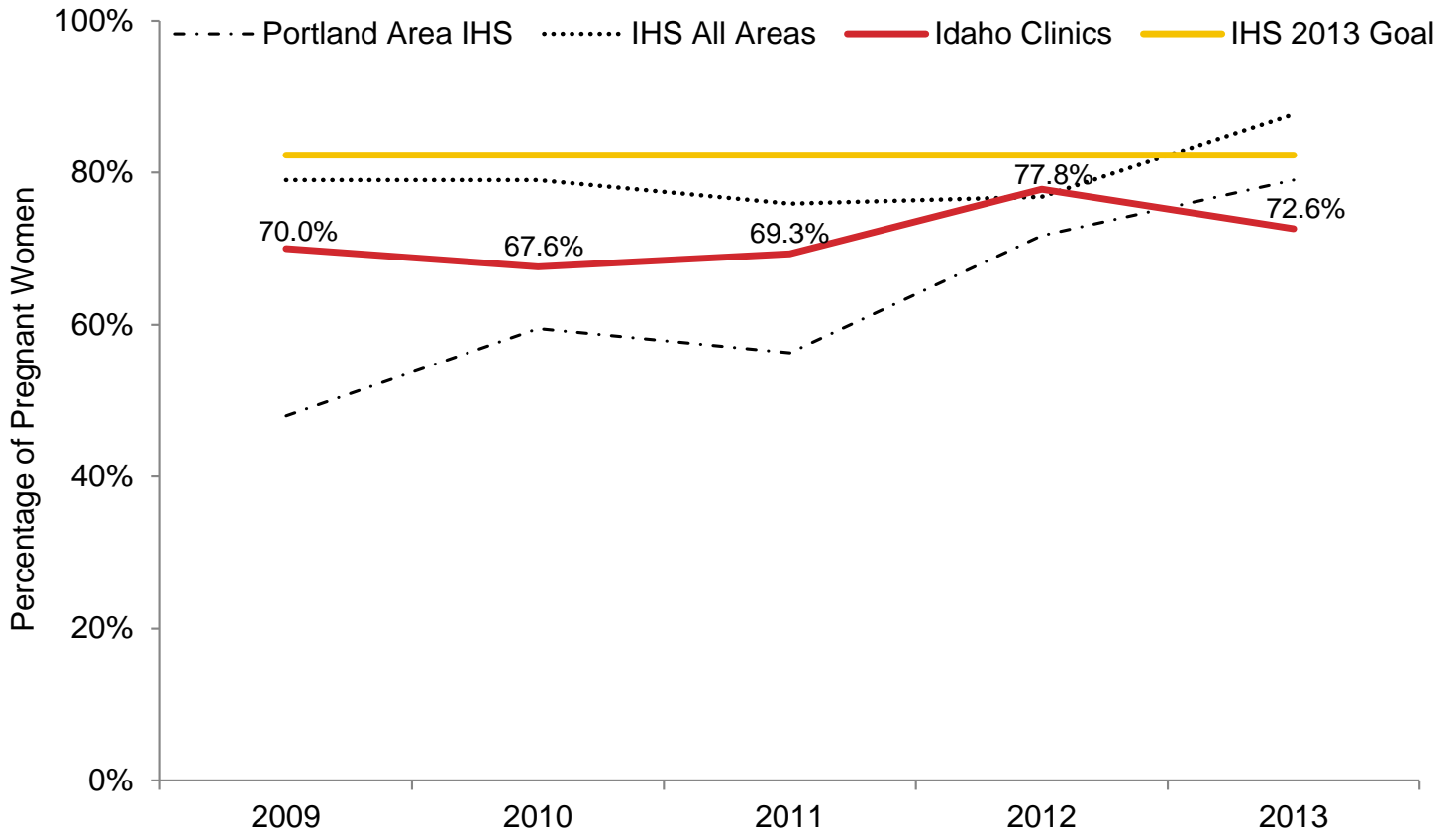
Chlamydia Diagnoses

Figure 10.2 shows the rate of chlamydia diagnoses for AI/AN and white males and females in Idaho since 2000. Females of both races have higher rates of chlamydia diagnoses than their male counterparts. Since 2000, the rate for AI/AN females has been 4-6 times higher than the rate for AI/AN males, and 3-4 times higher than the rate for white females. Chlamydia diagnosis rates have increased for males and females of both races, with males having a larger average annual increase in rates than females (8.4% for AI/AN males and 6.3% for white males).

Trends in sexually transmitted infections (STIs) may reflect changes in diagnosis and reporting practices instead of actual changes in disease incidence rates over time, and should be interpreted with caution.

Data Source: Center for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) Atlas. http://gis.cdc.gov/GRASP/NCHHSTPAtlas/main.html

Data Notes: Rates based on confirmed diagnoses during the year. Comparisons are based on unadjusted rates and do not take into account the age differences in the AI/AN and NHW populations.

Figure 10.2: Chlamydia diagnosis rates by race, sex, and year, Idaho, 2000-2012.
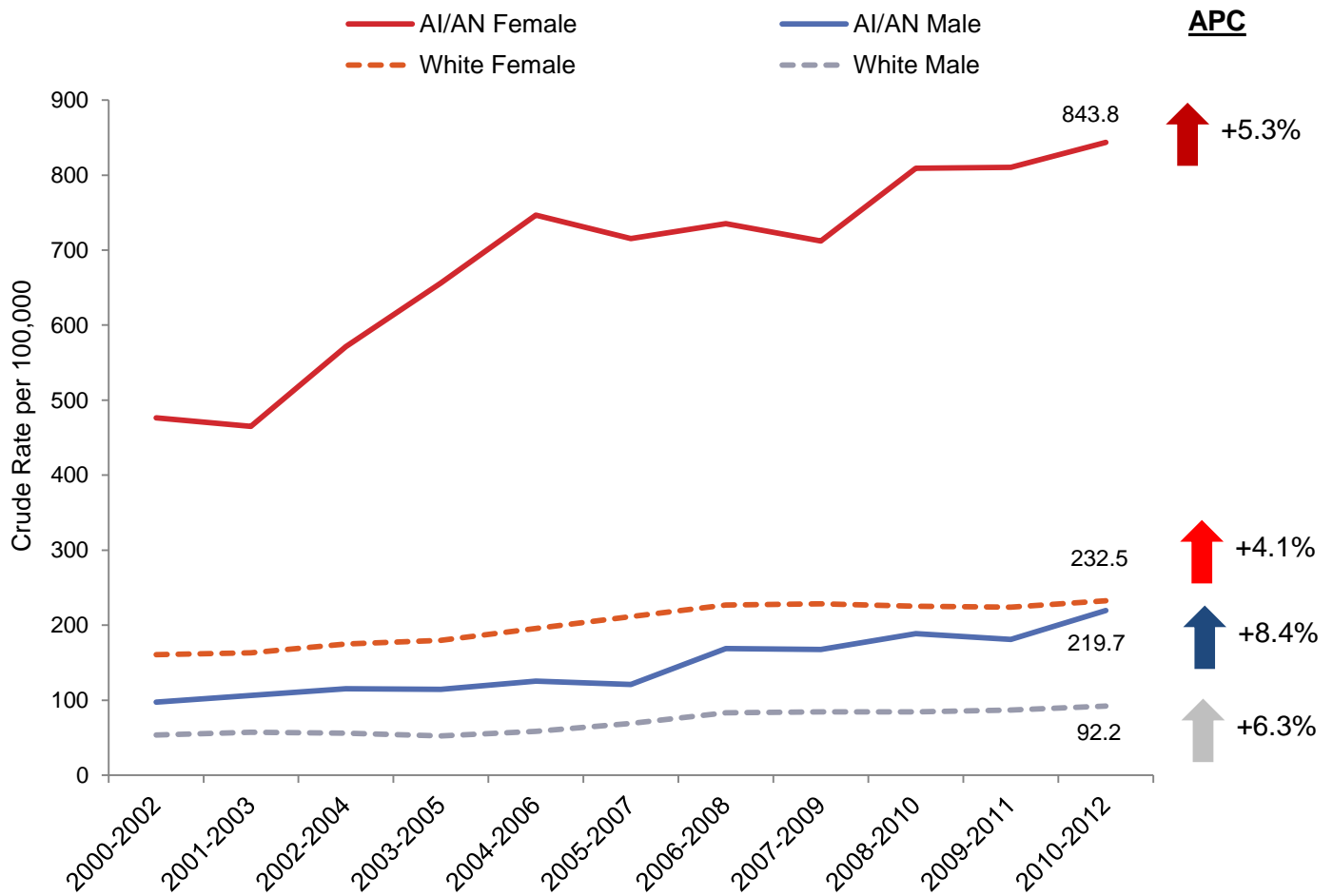
APC = Annual Percentage Change.

Gonorrhea Diagnoses

From 2008-2012, AI/AN in Idaho had a higher rate of gonorrhea diagnoses compared to whites in the state (Figure 10.3). The crude rate for AI/AN (18.2 diagnoses per 100,000) was 3.3 times higher than the rate for whites; this difference was statistically significant. AI/AN females had a slightly higher rate of gonorrhea diagnoses than AI/AN males.

Data Source: Center for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) Atlas. http://gis.cdc.gov/GRASP/NCHHSTPAtlas/main.html

Data Notes: Rates based on confirmed diagnoses during the year. Comparisons are based on unadjusted rates and do not take into account the age differences in the AI/AN and NHW populations.

Figure 10.3: Gonorrhea diagnosis rates, by race, Idaho, 2000-2012.
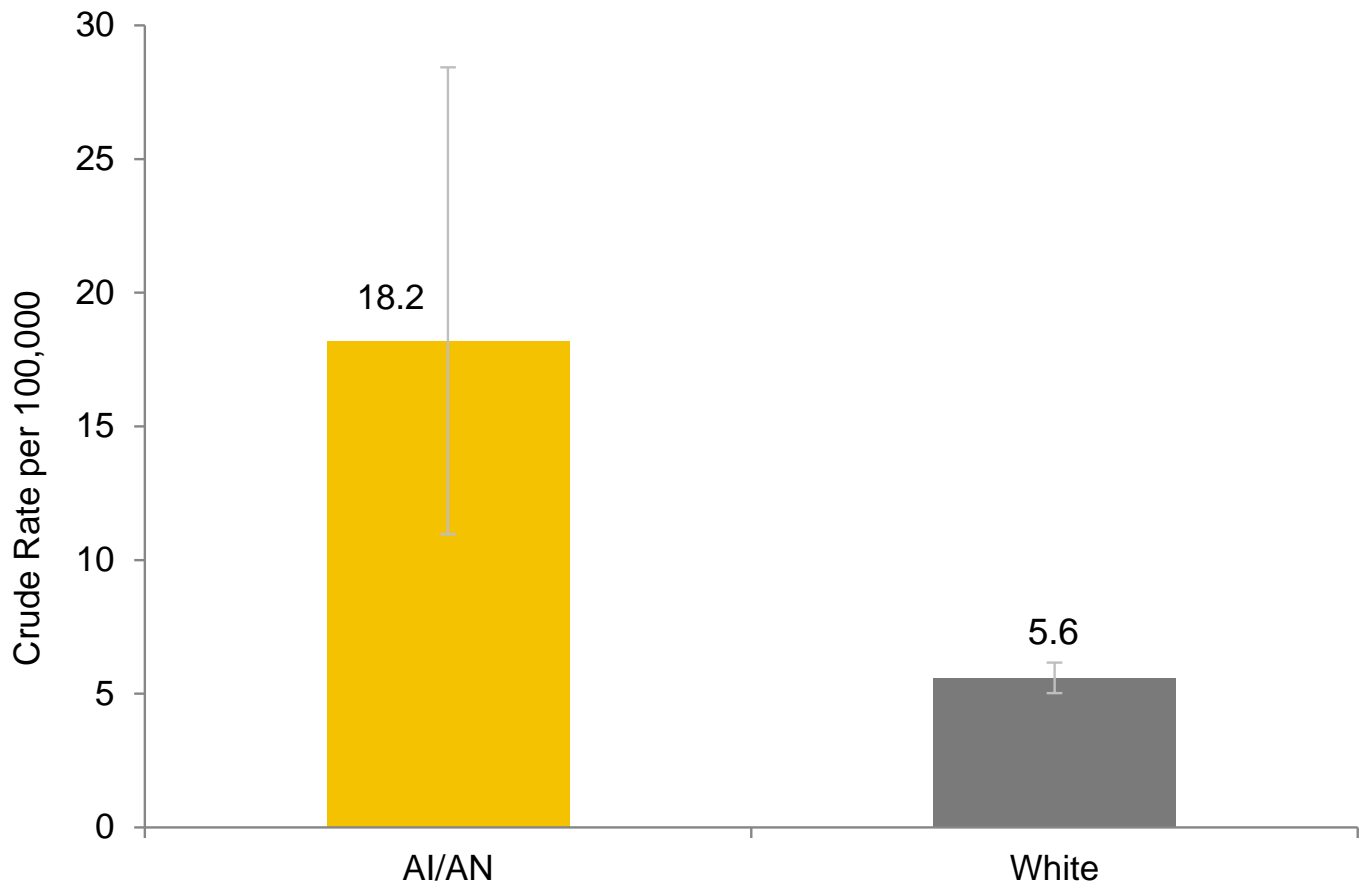
Program Spotlight: Project Red Talon

Project Red Talon (PRT) has provided training and technical assistance to tribes and tribal organizations throughout the U.S. on implementing and evaluating culturally appropriate sexual health and STD/HIV prevention programs since 1988. Project Red Talon works to delay sexual initiation, reduce sexual risk-taking, reduce STD/HIV infections and disparities, and achieve a more coordinated national and regional response to STDs and HIV. PRT's activities include:

We R Native: We R Native is a multimedia health resource for Native teens and young adults. Special features include monthly contests, community service grants, an "Ask Auntie" Q&A service, discussion boards, and medically accurate information reviewed by experts in public health, mental health, community engagement, and activism.

Native VOICES: The Native VOICES project is an initiative to develop an evidence-based sexual health video for AI/AN teens and young adults (15-24 years old) to reduce the incidence of HIV/STD and teen pregnancy. The video provides accurate risk information, corrects misconceptions, and demonstrates

culturally-specific strategies for encouraging condom use and enhancing partner communication.

Native It's Your Game (IYG): Native IYG is a multimedia sexual health curriculum for middle school aged youth (12-14 years). IYG teaches about healthy relationships, life skills, communication, and refusal skills. It emphasizes abstinence, but also teaches students how to protect themselves from pregnancy and sexually transmitted infections using medically accurate information. Native IYG was developed in partnership wit

STD/HIV Quality Improvement: PRT staff collaborate with IHS STD and HIV Programs to improve STD, HIV, and Hepatitis C screening measures at Indian Health Service/Tribal/Urban (I/T/U) clinics nationwide. The project works to address organizational, cultural, and individual factors that prevent AI/AN from being screened for STDS, HIV, and Hepatitis C. The project provides training and technical assistance to assist clinics in improving screening rates and clinical sexual health measures.

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11. Healthy Lifestyles, Healthy Environments

Maintaining a healthy lifestyle throughout the course of life is essential for overall wellbeing. A healthy lifestyle incorporates everything from eating a balanced diet, being physically active, avoiding unhealthy behaviors like smoking, getting preventive care and screening tests, and developing strong social support systems within families and communities. Adopting a healthy lifestyle early in life can set a person on a course toward good health for years to come. Our environment also plays an important role in our health and well-being. There are many environmental factors that affect health, including the quality of the water we drink, the air we breathe, and the food we eat.

This section provides data on several indicators related to healthy lifestyles and environment for AI/AN in Idaho, including: weight status for both children and adults; levels of exercise; fruit and vegetable consumption; tobacco cessation; seatbelt use; asthma prevalence; and state-wide air quality; and locations of fish consumption advisories.

Most of the other indicators in this report can be seen as eventual outcomes of the issues presented in this section. Improving these measures is a crucial starting point at decreasing chronic disease and accidents.

Less than one third of Idaho AI/AN reported exercising, less than ten percent reported eating the recommended number of fruits and vegetables, and less than a third were at a healthy weight. Smoking was still more common among AI/AN than NHW with about a third of AI/AN reporting smoking currently. Of note, however, was that 33% of AI/AN males and 25% of females were former smokers who have now quit. This may be in part due to tobacco cessation counseling, as nearly 40% of Idaho Indian health clinic patients had received cessation counseling. This was better than the rest of Portland area. Air quality was good across most of Idaho; however, some parts of the Fort Hall reservation are in poor air quality areas.

Body Mass Index (BMI)

From 2006-2012, AI/AN males and females in Idaho were more likely to be overweight or obese than their NHW counterparts in the state. Eighty percent of AI/AN males had a BMI in the overweight or obese range, compared to three quarters of NHW males. Among females, 3 out of 4 AI/AN women were overweight or obese compared to 57% of NHW women. (Figure 11.1). AI/AN females were slightly more than AI/AN males to fall in the normal weight range (25% versus 18%).

Data Source: 2006 – 2012 CDC BRFSS

Data Notes: The BRFSS prevalence estimates (shown as a percentage) are weighted to make the survey responses representative of the Idaho population. The sample sizes presented below the figures are the unweighted number of people who answered this question for the indicated years.

Figure 11.1: Body mass index (BMI) by race and sex, Idaho, 2006-2012.
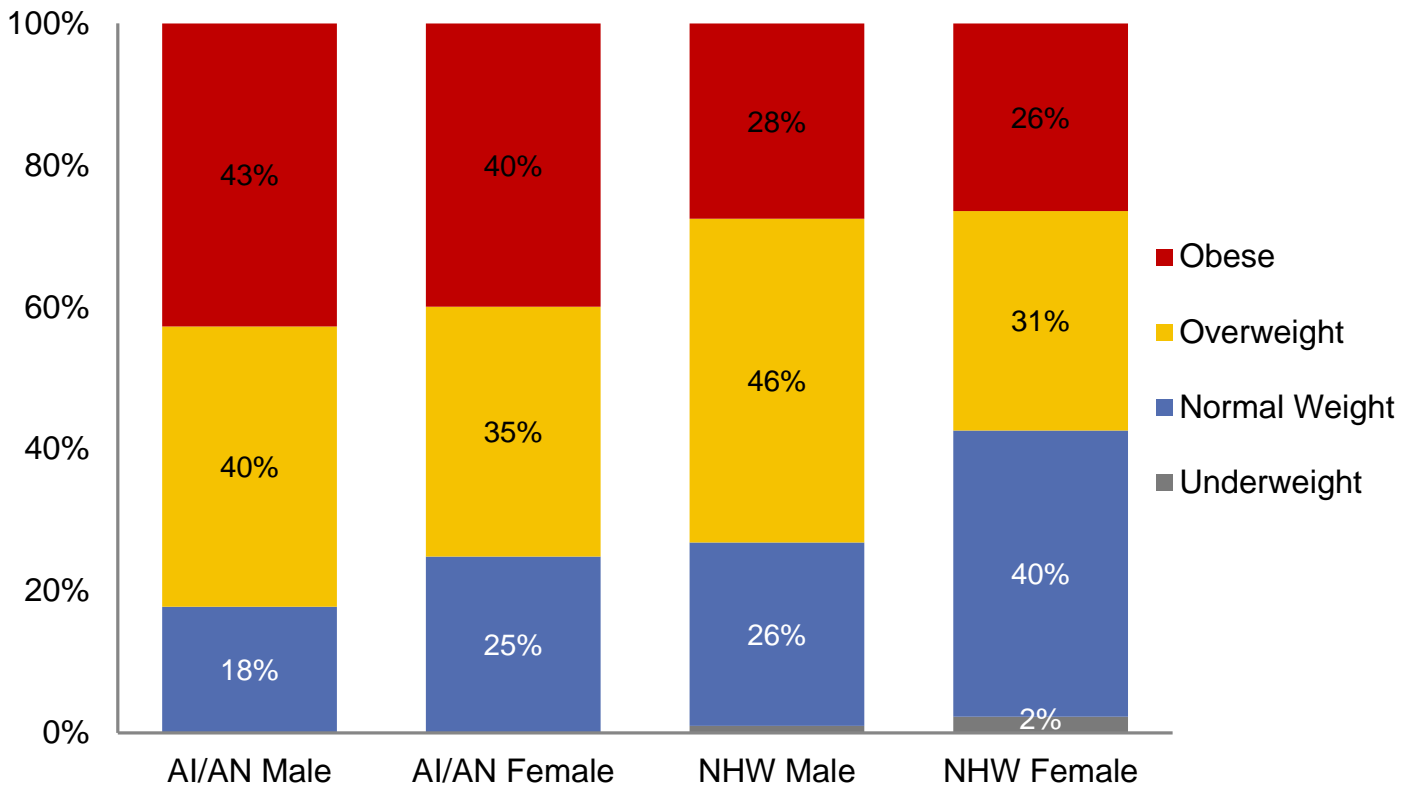
BMI categories (in kg/m²): Underweight: <18.5; Normal Weight: 18.5 – 24.9; Overweight: 25.0 – 29.9; Obese: >30.0

Sample sizes (n): AI/AN males=185; AI/AN females=289; NHW males=3,773; NHW females=5,090.

Childhood Weight Control

Children with a BMI that is at or above the 95th percentile for their age group are considered obese. The U.S.goal is for no more than 9.6% of children ages 2-5 to be considered obese (Healthy People 2020).

IHS tracks the percentage of AI/AN children (ages 2-5) with a BMI in the 95th percentile range. In 2013, the IHS goal for childhood obesity was 24%. Having a lower score means better performance (i.e., fewer overweight children) for this measure.

The percentage of IHS AI/AN children with an overweight BMI has decreased at the national IHS level since 2009 (Figure 11.2). In 2013, the national IHS average for this measure was 22.8%, meaning there were fewer obese children than the 2013 goal of 24%. The prevalence of childhood obesity for Idaho clinics and the Portland Area IHS has fluctuated since 2009, and has not shown a consistent upward or downward trend. In 2013, 26.7% of children seen at Idaho clinics were obese, which was slightly more than the goal of IHS 2013 goal of 24%.

Data Source: Portland Area Indian Health Service.

Data Notes: Data labels only shown for Idaho clinics.

Idaho clinics include non-urban federal and tribal Indian health facilities in Idaho. Portland Area IHS clinics include non-urban federal and tribal Indian health facilities in Idaho, Oregon, and Washington.

Figure 11.2: Percentage of IHS patients ages 2-5 considered obese (with BMI ≥ 95 percentile), 2009-2013.
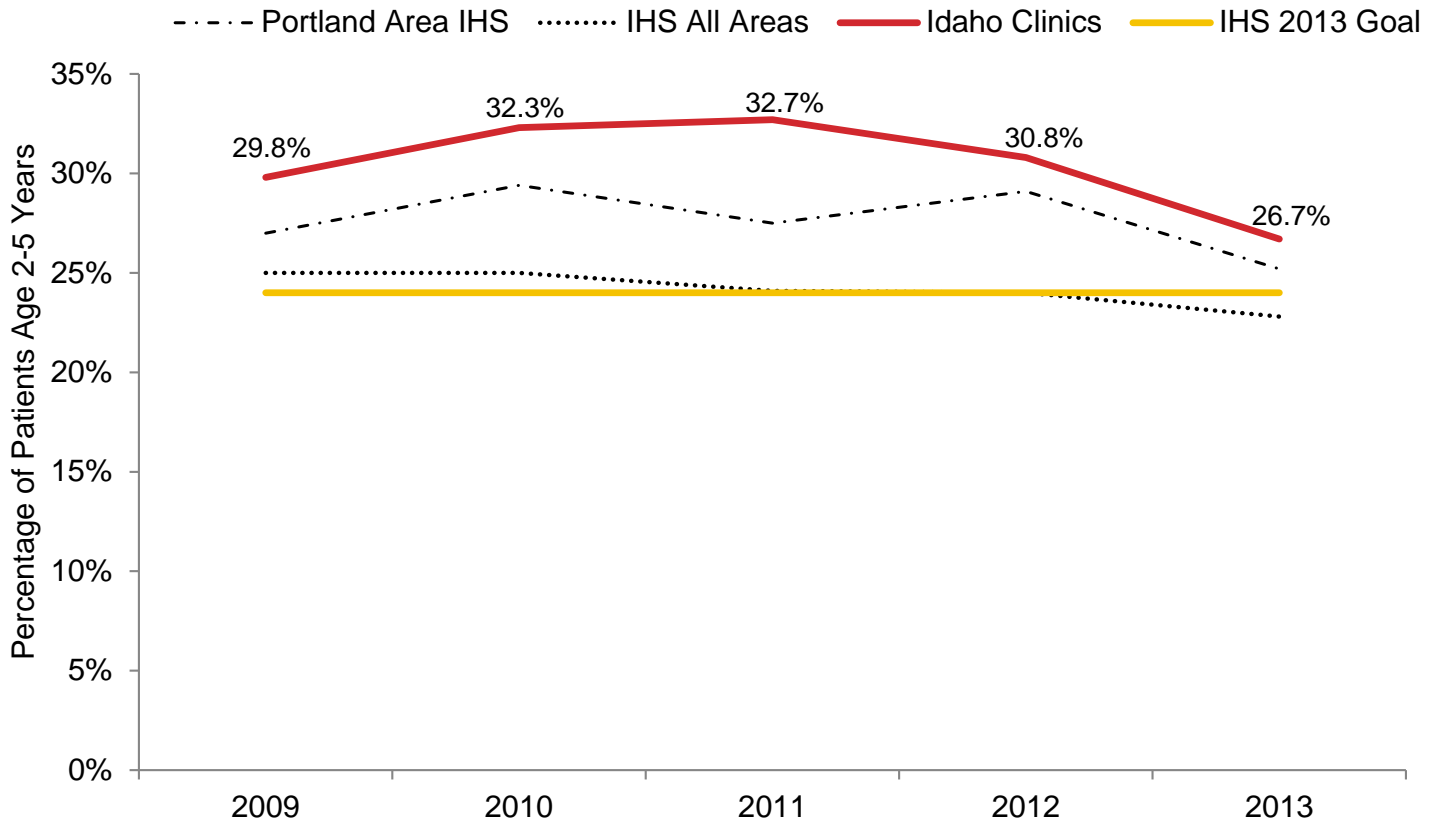
Exercise

Exercise and physical activity was defined as any exercise in the past month. Females of both races were more likely than males to have exercised, and there was not much difference between AI/AN and NHW.

Less than half of AI/AN women and less than one third of AI/AN men reported participating in any exercise in the past month.

Data Source: 2006 – 2012 CDC BRFSS

Data Notes: The BRFSS prevalence estimates (shown as a percentage) are weighted to make the survey responses representative of the Idaho population. The sample sizes presented below the figures are the unweighted number of people who answered this question for the indicated years.

Figure 11.3: Percentage of population who exercised in the past month, by race and sex, Idaho, 2006-2012.
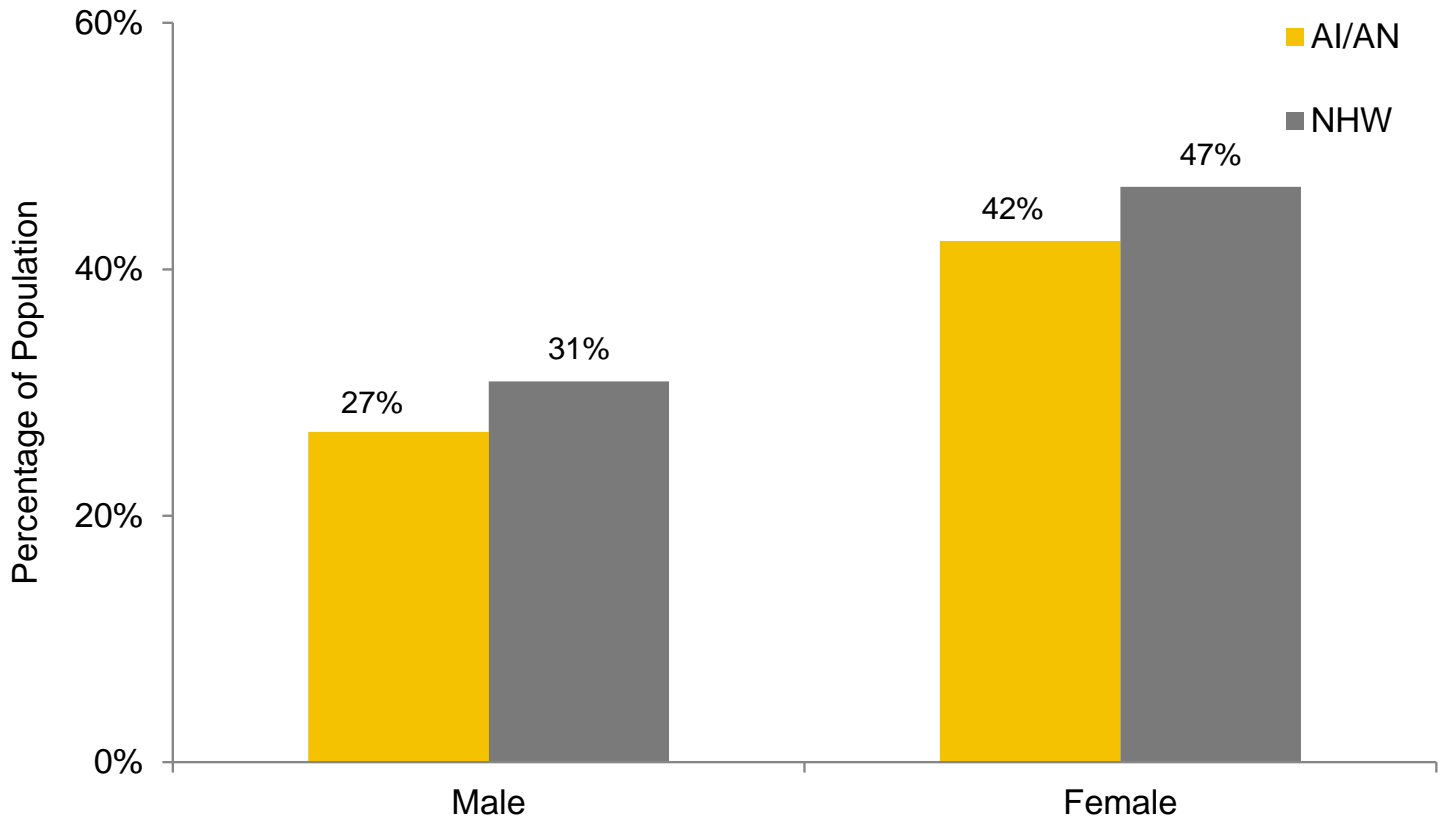
Sample sizes (n): AI/AN males=521; AI/AN females=865; NHW males=36,250; NHW females=56,138.

Fruit and Vegetable Consumption

Self-reported fruit and vegetable consumption is shown in Figure 11.4. Only 15% of AI/AN males and 14% of AI/AN females reported eating at least 3 to 5 servings of fruit and vegetables on an average day, which was similar to the NHW results. The proportion who reported eating fewer than one serving on average was very low for AI/AN females (2%), in fact lower than NHW. However, almost one third of AI/AN males reported eating fewer than one serving of fruits and vegetables on an average day.

Data Source: 2006 – 2012 CDC BRFSS

Data Notes: The BRFSS prevalence estimates (shown as a percentage) are weighted to make the survey responses representative of the Idaho population. The sample sizes presented below the figures are the unweighted number of people who answered this question for the indicated years.

Figure 11.4: Self-Reported fruit and vegetable consumption by race and sex, Idaho 2006-2012
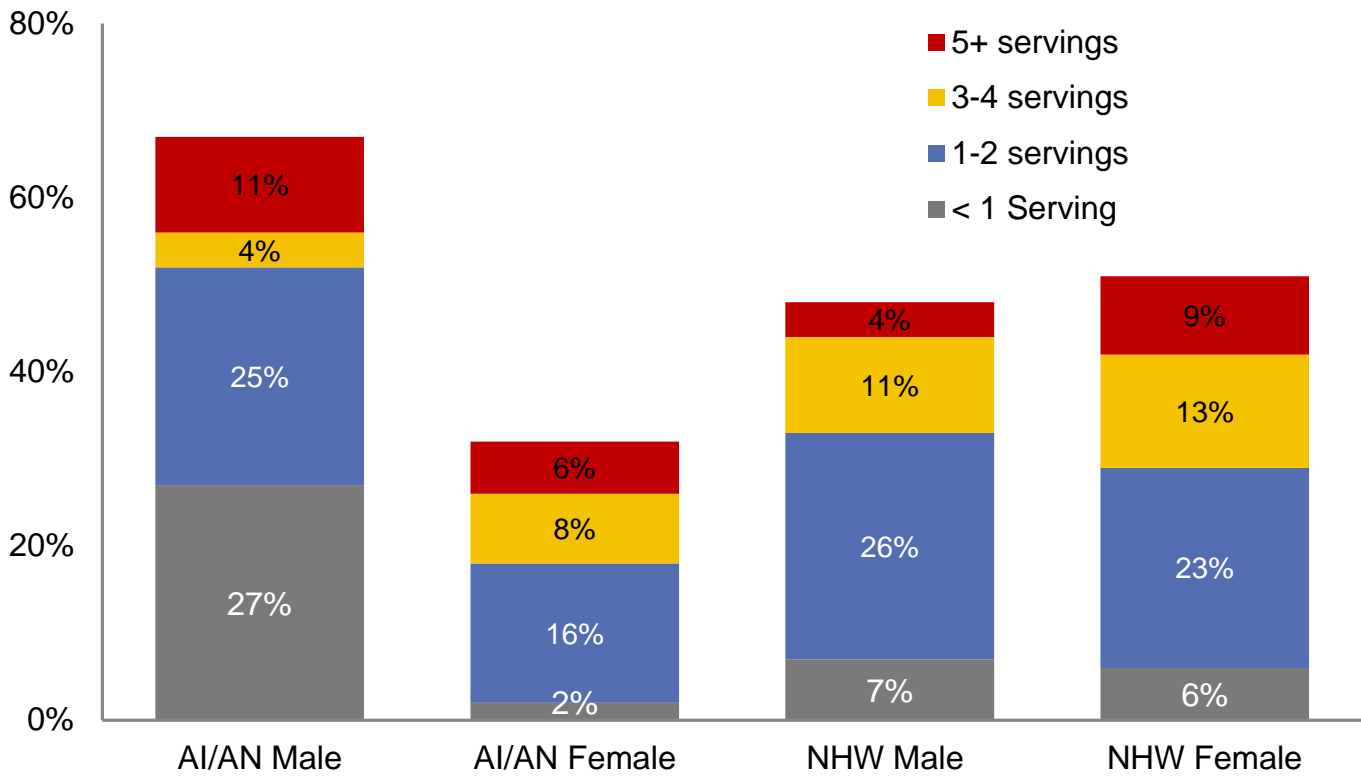
Sample sizes (n): AI/AN males=33; AI/AN females=47; NHW males=2,271; NHW females=3,422.

Seatbelt Use

Among AI/AN and NHW in Idaho, women were more likely than men to report always wearing a seatbelt (Figure 11.5). The majority (82%) of NHW women always wore seatbelts, while 76% of AI/AN women always wore seatbelts. Eight percent of AI/AN men and six percent of NHW men reported that they seldom or never wore seatbelts. It should be noted that some of these data were collected prior to states implementing seatbelt ticketing laws.

Data Source: 2006 – 2012 CDC BRFSS

Data Notes: The BRFSS prevalence estimates (shown as a percentage) are weighted to make the survey responses representative of the Idaho population. The sample sizes presented below the figures are the unweighted number of people who answered this question for the indicated years.

Figure 11.5: Self-reported seatbelt use by race and sex, Idaho, 2006-2012.
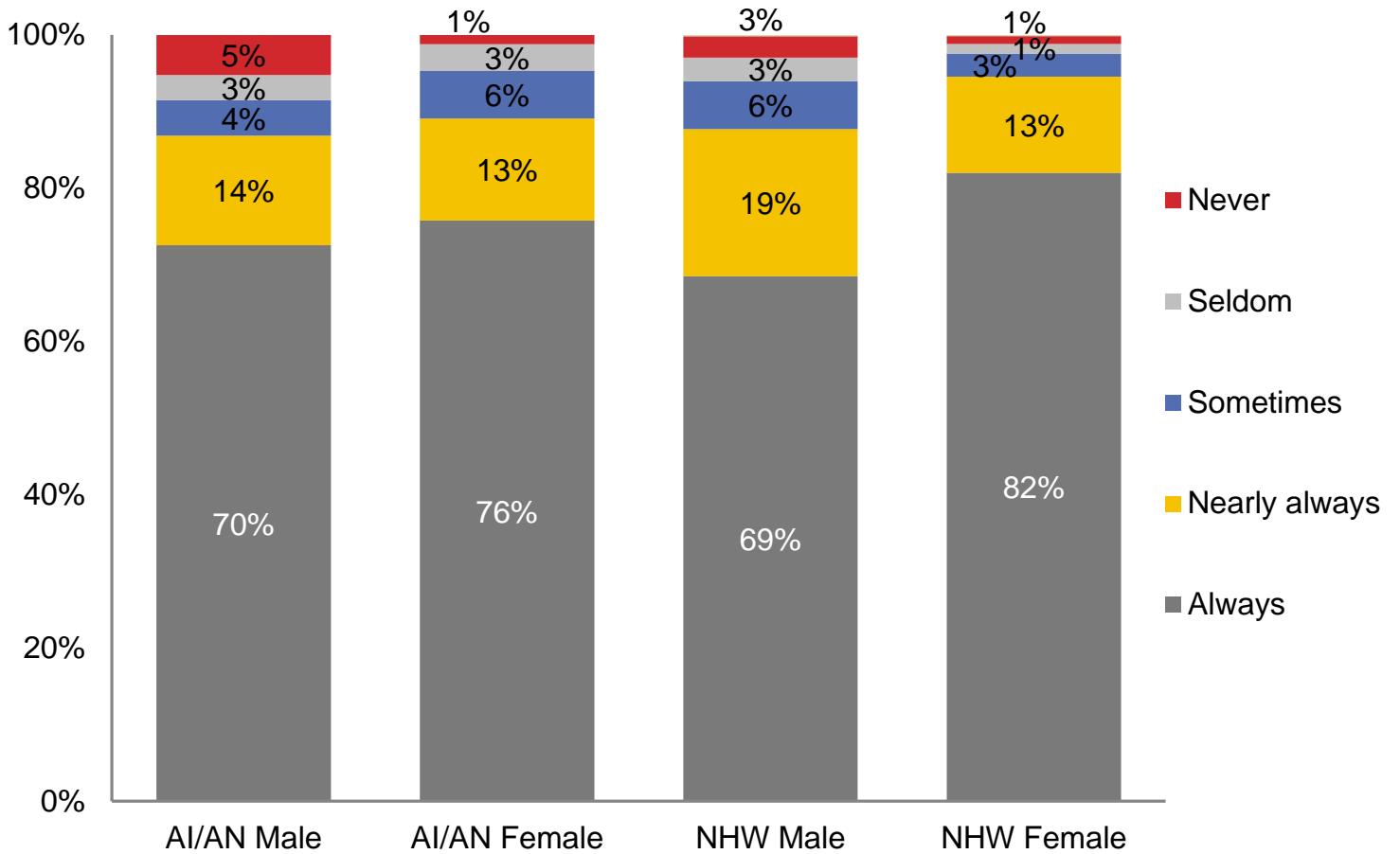
Sample sizes (n): AI/AN males=375; AI/AN females=660; NHW males=27,452; NHW females=42,555.

Smoking Status

AI/AN males and females in Idaho were more likely to report being current smokers than NHW in the state. From 2006-2012, about one in four AI/AN males reported smoking every day while 8% reported smoking some days (Figure 11.6). AI/AN females were less likely to be current smokers than AI/AN males; however, one in five still reported smoking every day and an additional 14% on some days.

Among NHW, about 15% were current smokers. More than half had never smoked, compared to about a third of AI/AN.

Data Source: 2006 – 2012 CDC BRFSS

Data Notes: The BRFSS prevalence estimates (shown as a percentage) are weighted to make the survey responses representative of the Idaho population. The sample sizes presented below the figures are the unweighted number of people who answered this question for the indicated years.

Figure 11.6: Smoking status by race and sex, Idaho, 2006-2012.
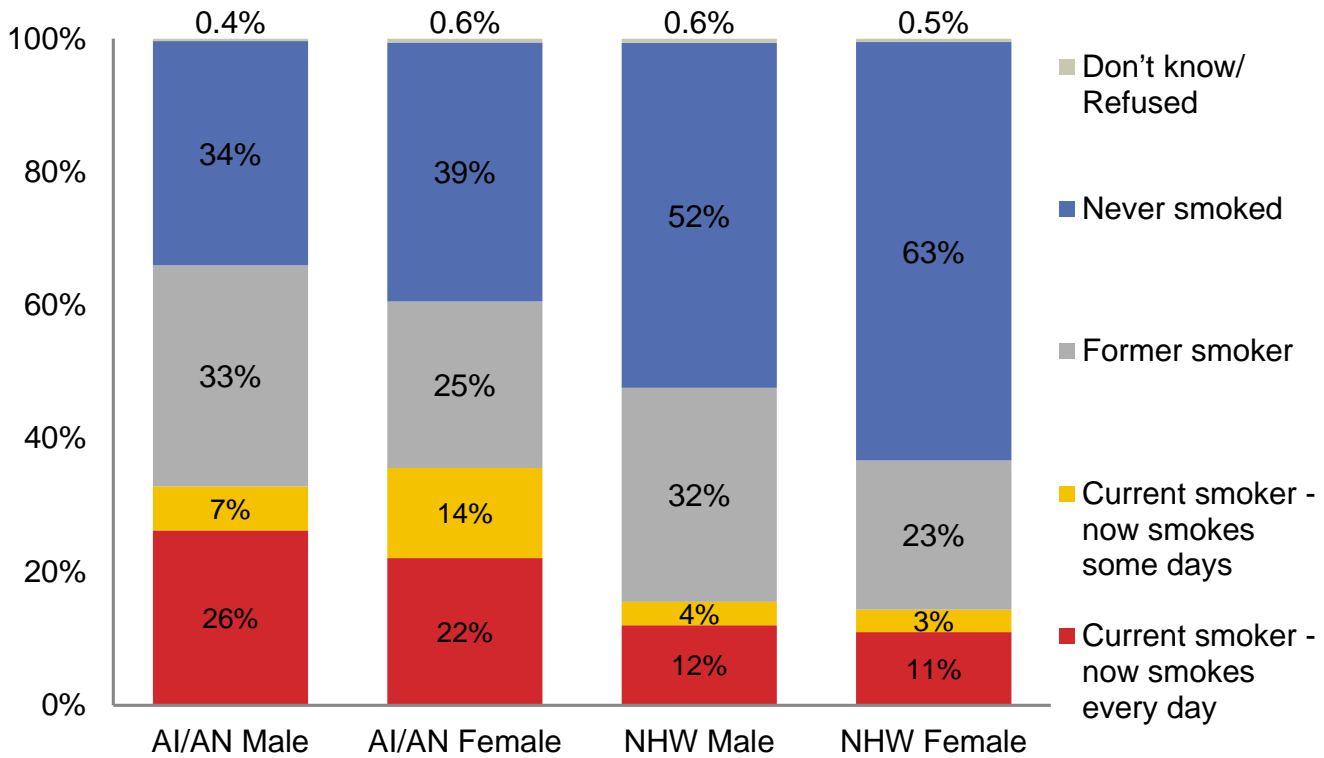
Sample sizes (n): AI/AN males=530; AI/AN females=875; NHW males=36,557; NHW females=56,587.

Tobacco Cessation

Tobacco use increases the risk for many diseases, including lung cancer, cardiovascular diseases, and respiratory diseases. The U.S. goal is for 80% of adult smokers to attempt to stop smoking in the past 12 months (Healthy People 2020).

IHS tracks the percentage of tobacco-using patients who have received a tobacco cessation intervention (such as tobacco cessation counseling) in the past year. The 2012 goal for this measure was 30%. IHS is using 2013 rates to establish a new baseline for this measure, and did not set a 2013 goal.

The tobacco cessation counseling rates for Idaho clinics fluctuated between 30-40% from 2009 and 2013, and exceeded the Portland Area IHS average for all years. The Portland Area and national IHS have shown an upward trend for this measure since 2009, with a sharper increase for the national IHS. In 2012, Idaho clinics and the national IHS exceeded the 2012 goal of 30%, while the Portland Area IHS fell below this goal.

Data Source: Portland Area Indian Health Service.

Data Notes: Data labels only shown for Idaho clinics.

Idaho clinics include non-urban federal and tribal Indian health facilities in Idaho. Portland Area IHS clinics include non-urban federal and tribal Indian health facilities in Idaho, Oregon, and Washington.

Figure 11.7: Tobacco cessation counseling rates for IHS patients, 2009-2013.
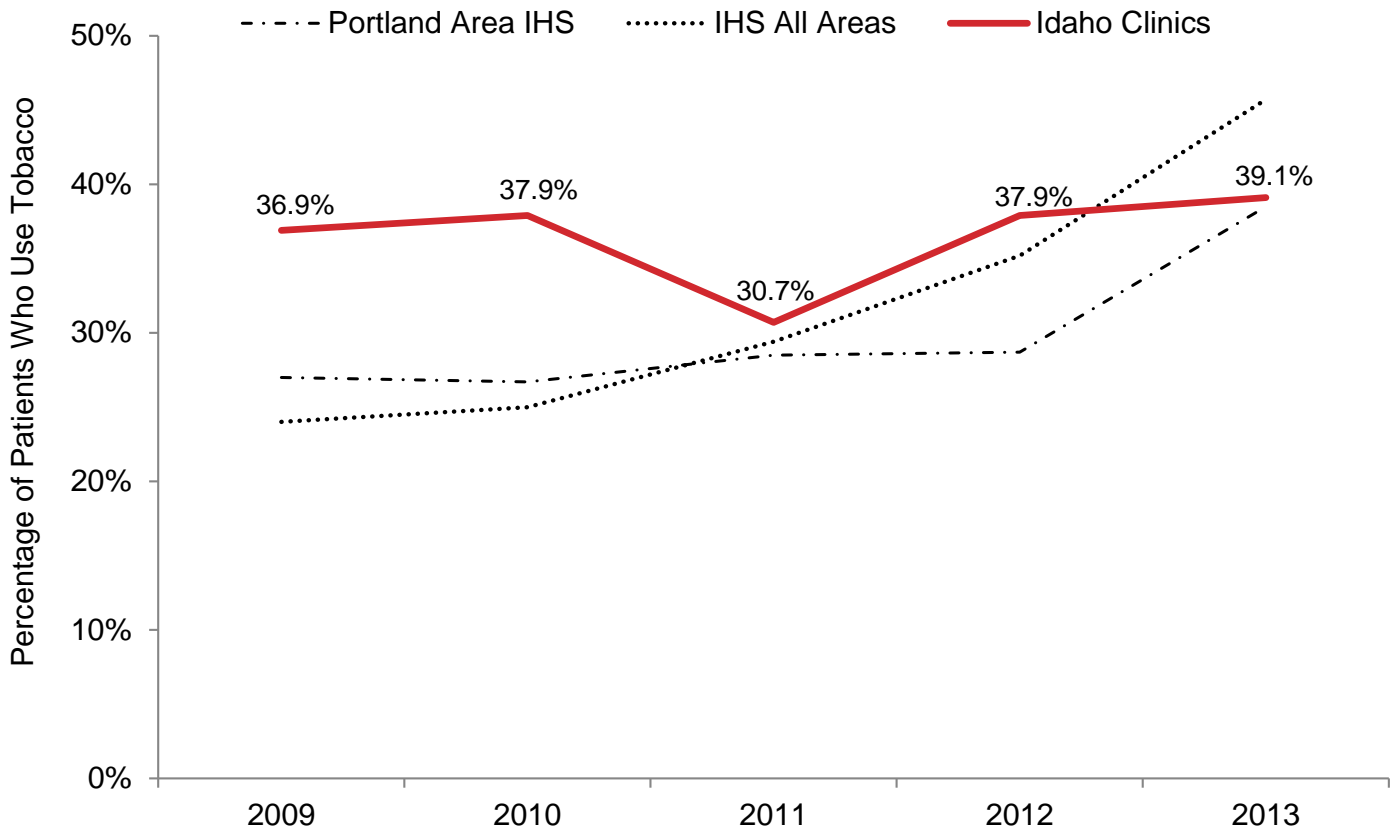
Asthma Prevalence

Compared to their NHW counterparts in the state, more AI/AN males and females in Idaho reported having experienced asthma during their lifetime (Figure 11.8). Thirteen percent of AI/AN females reported having asthma during their lifetime. This was much higher when compared to AI/AN males (8%), NHW males (4%), and NHW females (8%).

Data Source: 2006 – 2012 CDC BRFSS

Data Notes: The BRFSS prevalence estimates (shown as a percentage) are weighted to make the survey responses representative of the Idaho population. The sample sizes presented below the figures are the unweighted number of people who answered this question for the indicated years.

Figure 11.8: Lifetime asthma prevalence by race and sex, Idaho, 2006-2012.
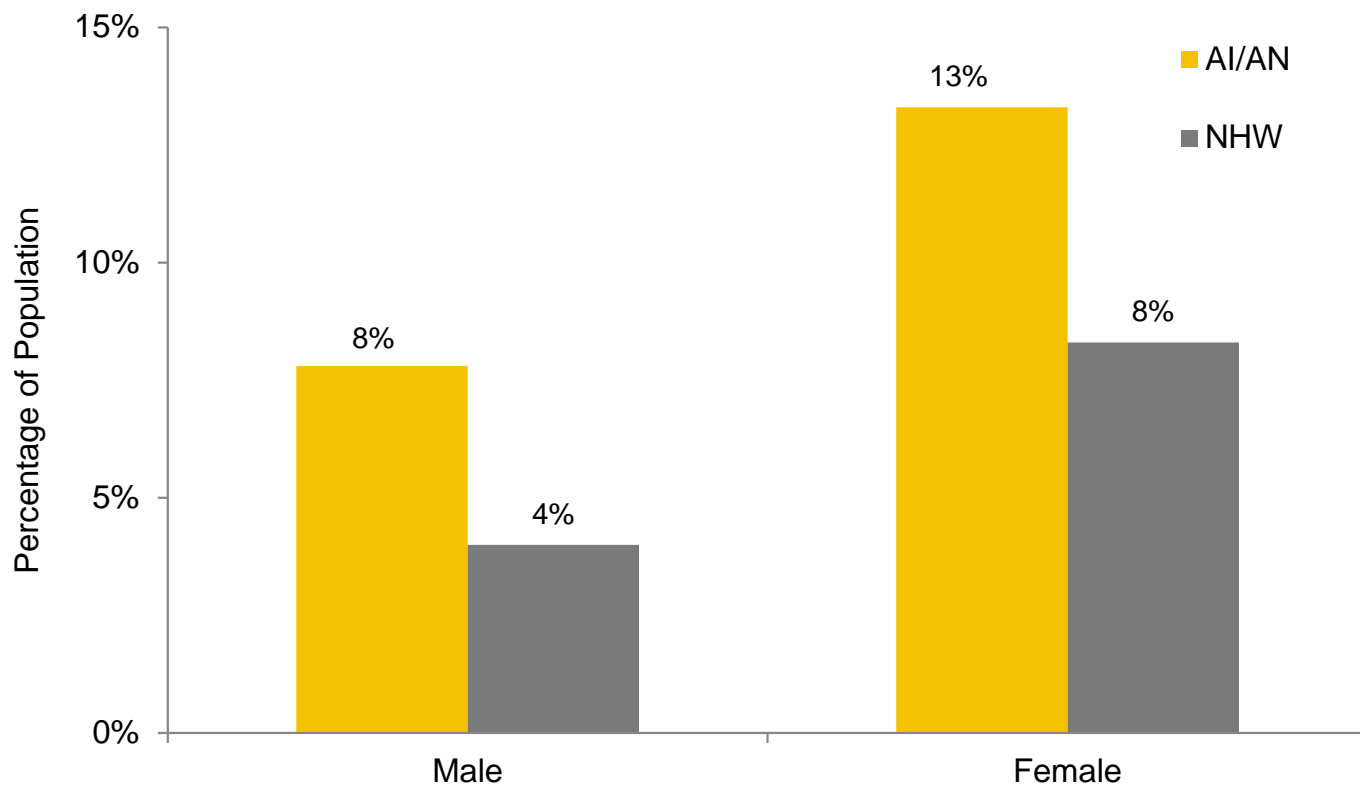
Sample sizes (n): AI/AN males=185; AI/AN females=313; NHW males=13,758; NHW females=20,918.

Environmental Health

Air Quality

The U.S. Environmental Protection Agency (EPA) has national air quality standards for six key air pollutants: ozone, sulfur dioxide, carbon monoxide, particulate matter (PM-2.5 and PM-10), lead, and nitrogen dioxide[1]. Non-attainment areas are geographic areas where air pollution levels are consistently higher than these national standards. The EPA requires local and state governments to take actions to reduce air pollution in non-attainment areas. If a non-attainment area meets and maintains air quality standards, it can be re-designated as a maintenance area.

Idaho has three non-attainment areas in the state (Figure 11.9): Fort Hall (PM-10), Cache Valley (PM-2.5), and Pinehurst (PM-10). PM 2.5 are small particles that are generated from smoke (especially from wood-burning stoves), vehicle exhaust, and industrial processes. PM-10 are larger particles (such as dust) that become airborne due to wind and human activities. Exposure to PM-2.5 and PM-10 in the air can increase risks for respiratory illnesses, cardiovascular disease, and premature death.

Idaho has three air quality maintenance areas: Portneuf Valley (PM-10), Sandpoint (PM-10), and Northern Ada County (CO and PM-10). These areas currently meet air quality standards, but exceeded them in the past.

1. http://www.epa.gov/air/criteria.html

2. http://www.ecy.wa.gov/programs/air/sips/designations/pm_tacoma.htm

Data Source: Idaho Department of Environmental Quality Air Quality Website: http://www.deq.idaho.gov/air-quality

GIS Layers: http://cloud.insideidaho.org/

Data Notes: The air quality information presented in this report is current as of August 2014. For up-to-date information on air quality in Idaho, visit: http://www.deq.idaho.gov/air-quality

Figure 11.9: Air quality non-attainment and maintenance areas in Idaho.
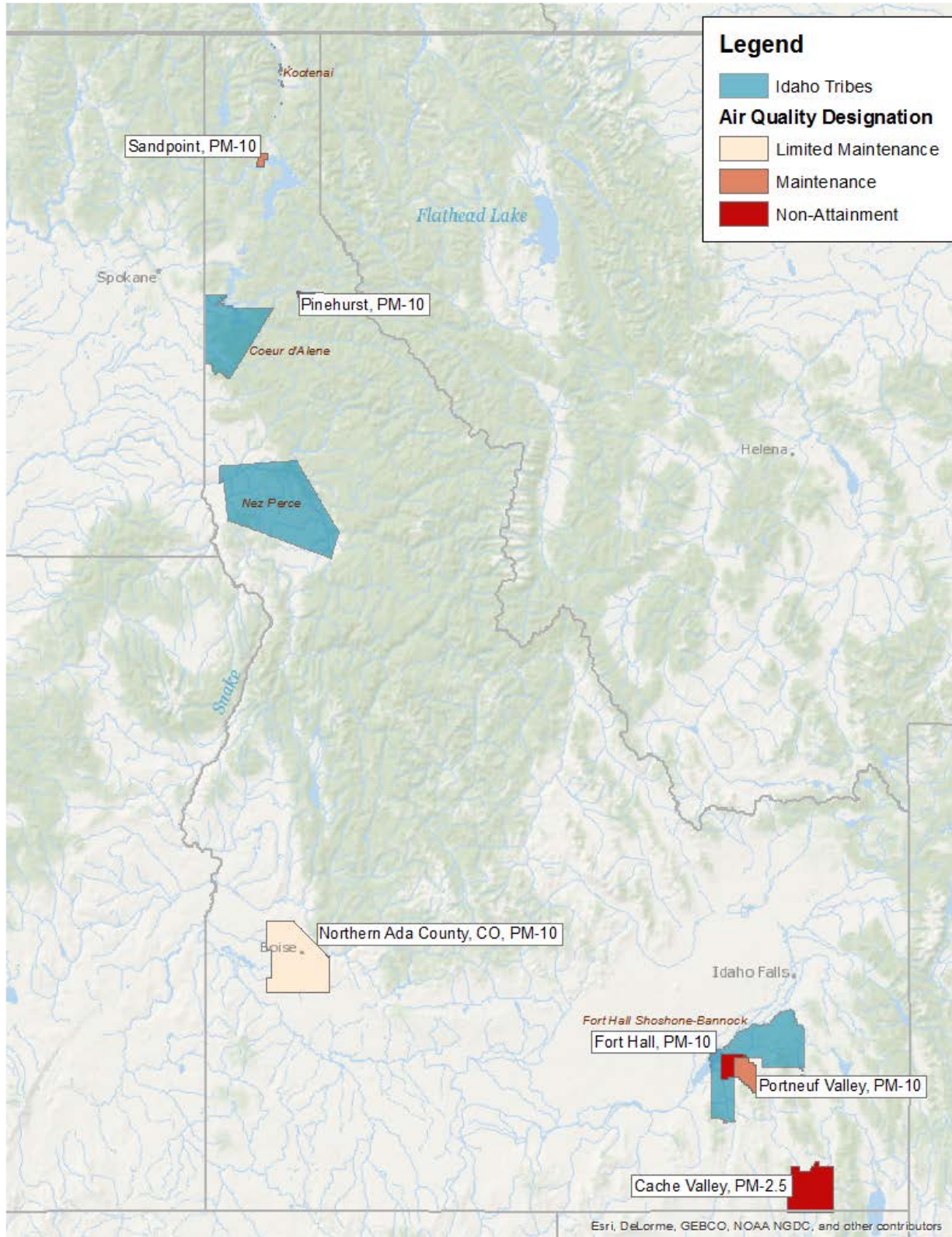
Program Spotlight: Comprehensive Cancer Tribal BRFSS Project

AI/AN are a diverse population representing hundreds of tribes with a variety of cultural beliefs and customs. Disease incidence rates and risk factors within the AI/AN population also vary by region. However, there is little tribe-specific information on the factors that could increase (or decrease) health risks; these factors include tobacco use, obesity, physical activity, diet, and getting screened for cancer. While states collect information on health behaviors and risk factors through the Behavioral Risk Factor Surveillance System (BRFSS), AI/AN populations are not well-represented in state-level BRFSS data. NPAIHB's Comprehensive Cancer Tribal BRFSS Project is one of seven tribal sites that receive funding for comprehensive cancer control activities through the National Comprehensive Cancer Control Program (NCCCP). The Project is working with other NCCCP tribal programs to improve cancer and other health risk factor surveillance by conducting BRFSS-type health surveys within tribal communities or working with states to obtain a more representative sample of AI/AN through the traditional BRFSS. These activities will provide local-level data on risk factors and build tribes' capacity to implement health surveys within their communities. The Comprehensive Cancer Tribal BRFSS Project is funded through the Centers of Disease Control and Prevention through a contract with the Indian Health Service.

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12. Access to Care

Having good access to healthcare means that patients can find affordable and quality care close to home. This care includes having access to primary, preventative, specialty, mental health, and dental care providers. Having private health insurance or coverage through public programs is an important factor in making healthcare affordable for most people. Prior to 2012, approximately 4.6 million people in the U.S. (15% of the population) did not have health insurance coverage. Of the 5 million AI/AN living in the U.S. in 2012, 23.3% did not have health coverage through private or public sources.[1] Members of federally-recognized tribes who utilize IHS, Tribal and Urban (I/T/U) clinics for primary care often have limited access to specialty, dental, and behavioral health care. This is due to chronic underfunding of the Indian health system which limits referral care, and long travel distances to reach providers of these services.

The data in this section were collected before the major provisions of the Affordable Care Act (ACA) were implemented. These data should be viewed as "baseline" information that provides a picture of disparities in healthcare coverage and access prior to ACA implementation. In Idaho, 27% of AI/AN reported being without any health care coverage. These data are from self-identified AI/AN so this may include some people who are not eligible for IHS services. About the same number reported having no primary care physician. About a third had seen a dentist in the past year. Two thirds of AI/AN children were up to date on their vaccines, which was similar to the rest of the Portland Area; however, this number has been falling in recent years. More than half of adults had received a flu vaccine and almost 90% had received a pnuemococcal vaccine.

The ACA will provide much needed insurance coverage to AI/AN who do not utilize the I/T/U system for primary care. It will also provide additional resources to provide referral care for those who do not qualify for Purchased and Referred Care (PRC, formerly known as Contract Health Services [CHS]). In addition, IHS is working to increase the capacity of I/T/U clinics to provide efficient, high quality, primary care services through the Improving Patient Care collaborative. The Improving Patient Care collaborative focuses on organizing clinical care and linking patients to primary care teams. This sets the foundation for sites to become accredited as State and National Patient-Centered Medical Home programs.

1. U.S. Census Bureau. Selected population profile in the United States. American Community Survey 3-year estimates, 2010-2012.

Health Insurance Coverage

Prior to 2013, the majority of AI/AN and NHW in Idaho reported having some kind of health coverage through private health insurance or public coverage (Table 12.1). However, a higher percentage (27%) of AI/AN did not have healthcare coverage compared to NHW in the state (14%). For NHW, females were more likely to lack health insurance than males (Figure 12.1); however, the proportion of uninsured was about the same for male and female AI/AN.

Table 12.1: Health insurance coverage by race, Idaho, 2010-2012.

Coverage Status	AI/AN (N = 35,978)	NHW (N = 1,310,281)
Private Health Insurance	46.8%	71.0%
Public Coverage	36.8%	27.9%
No Health Insurance	27.1%	14.4%

Data Source: Table 12.1 – American Community Survey 3-Year Estimates, 2010-2012; Figure 12.1 – 2006 – 2012 CDC BRFSS

Data Notes: The BRFSS prevalence estimates (shown as a percentage) are weighted to make the survey responses representative of the Idaho population. The sample sizes presented below the figures are the unweighted number of people who answered this question for the indicated years.

Figure 12.1: Percentage of population without health insurance by race and sex, Idaho, 2006-2012.
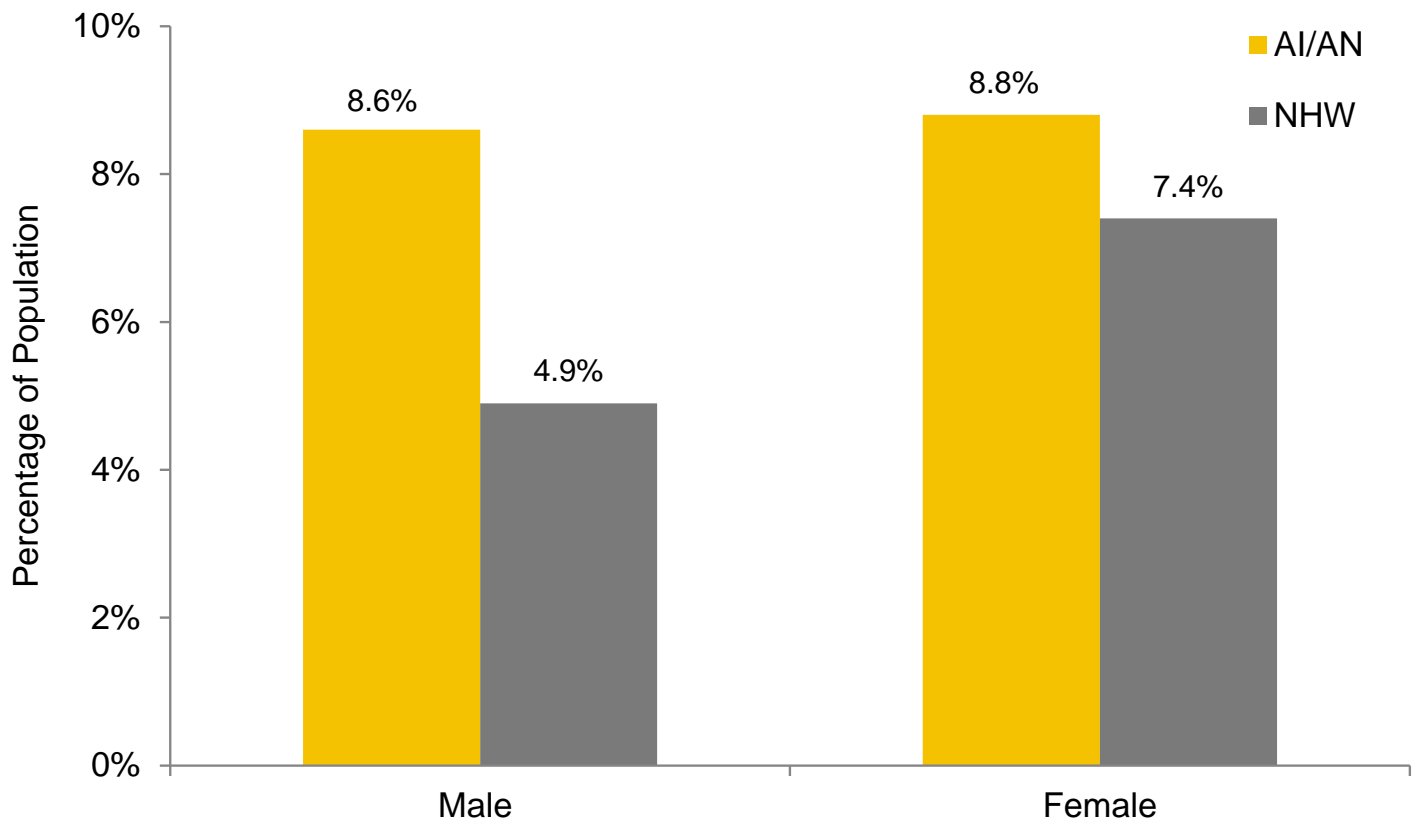
Sample sizes(n): AI/AN males=185; AI/AN females=313; NHW males=13,758; NHW females=20,918.

Primary Care Physician

The majority of AI/AN and NHW in Idaho reported having a primary care provider (Figure 12.2). However, when compared to NHW of the same sex, fewer AI/AN had a primary care provider. About 1 in 3 AI/AN males and 1 in 4 NHW males did not have a primary care provider. For females, one quarter of AI/AN and 15% of NHW were without a primary care provider. AI/AN were slightly more likely to have more than one primary care doctor than NHW.

Data Source: 2006 – 2012 CDC BRFSS

Data Notes: The BRFSS prevalence estimates (shown as a percentage) are weighted to make the survey responses representative of the Idaho population. The sample sizes presented below the figures are the unweighted number of people who answered this question for the indicated years.

Figure 12.2: Percentage of population with a primary care provider by race and sex, Idaho, 2006-2012.
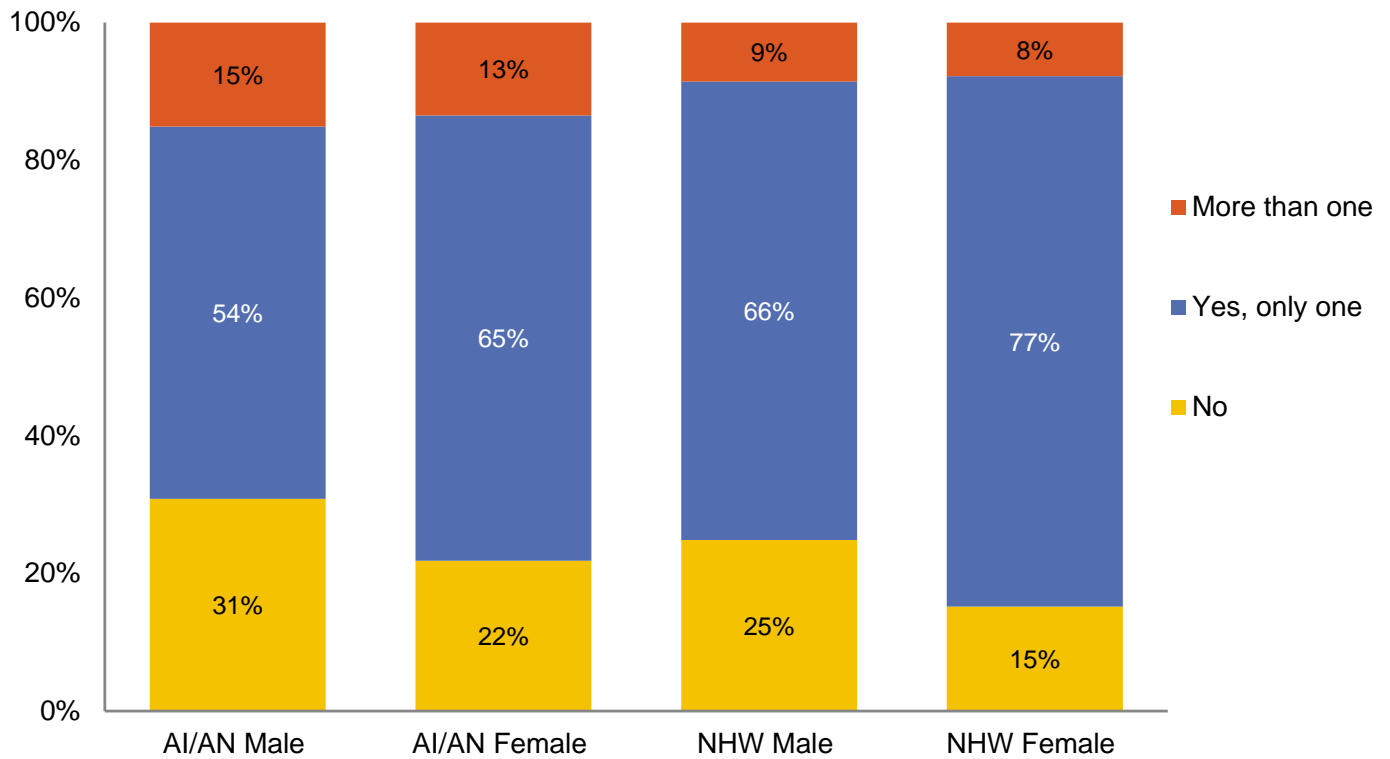
Sample sizes (n): AI/AN males=530; AI/AN females=875; NHW males=36,557; NHW females=56,587.

Access to Dental Care

Time Since Last Dental Visit

From 2006-2012, fewer AI/AN in Idaho reported having a dental visit in the past year compared to NHW in the state (Figure 12.3). Among AI/AN males, 53% had a dental visit in the past year and 69% had a dental visit in the past two years; for NHW males, 65% had a visit in the past year and 77% had a visit in the past two years. Less than one percent of AI/AN men had never had a dental visit. Among AI/AN females, 62% had a dental visit in the past year (vs. 69% of NHW females), and 71% had a dental visit in the past two years (vs. 80% of NHW females).

Data Source: 2006 – 2012 CDC BRFSS

Data Notes: The BRFSS prevalence estimates (shown as a percentage) are weighted to make the survey responses representative of the Idaho population. The sample sizes presented below the figures are the unweighted number of people who answered this question for the indicated years.

Figure 12.3: Time since last dental visit by race and sex, Idaho, 2006-2012.
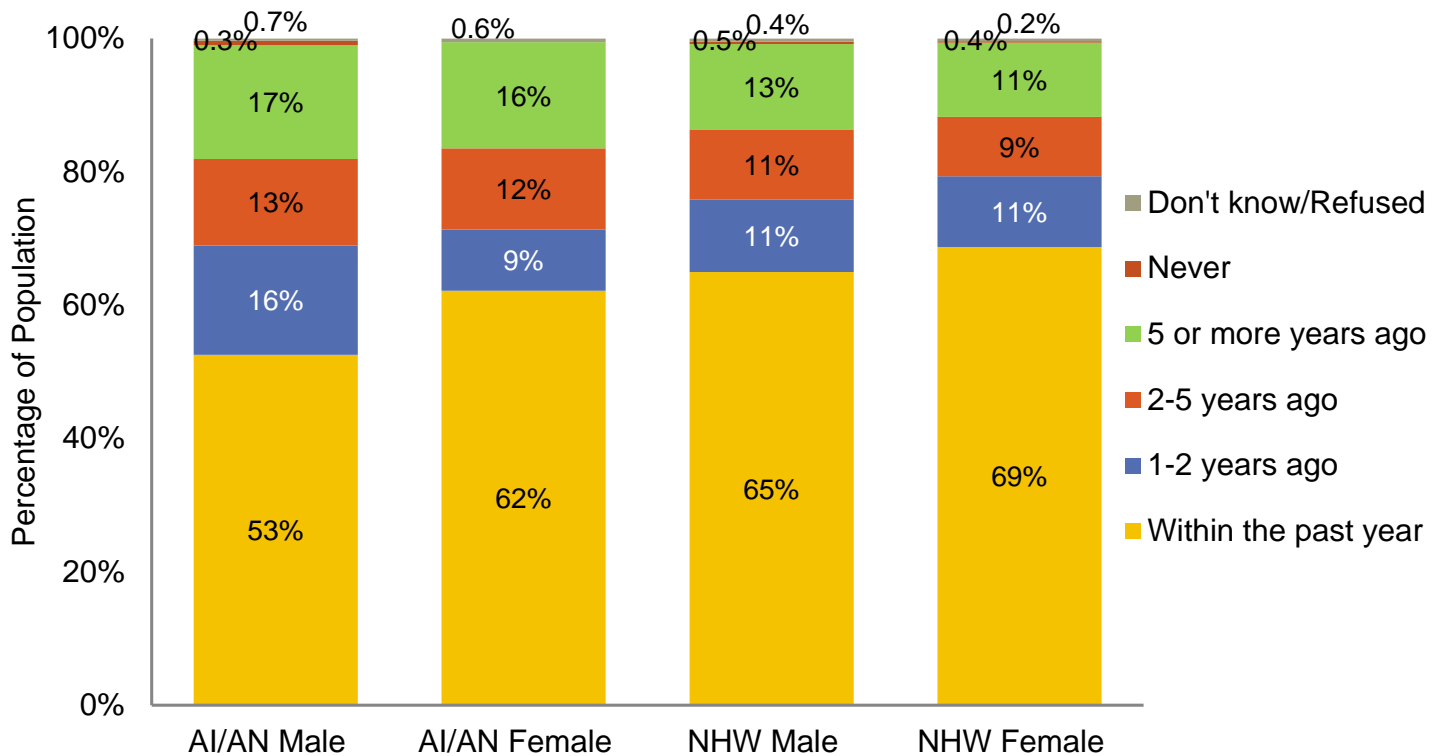
Sample sizes (n): AI/AN males=293; AI/AN females=534; NHW males=221,418; NHW females=33,513.

Dental Visit in Past Year

Regular dental check-ups can help prevent oral infections and tooth decay, and improve overall health and well-being. The U.S. goal is for 49% of people ages 2 and older to have had a dental visit in the past year (Healthy People 2020). IHS tracks the percentage of AI/AN patients who had a dental visit in the past year.

In 2013, the IHS goal for dental visits was 26.9% of all patients. About 31% of patients seen in Idaho clinics had a dental visit in the past year, which exceeded the 2013 goal and the IHS national average (Figure 12.4), but was lower than the Portland Area IHS average.

Program Spotlight: Northwest Tribal Dental Support Center

NPAIHB's Northwest Tribal Dental Support Center (NTDSC) works with 34 IHS and tribal dental programs to improve the oral health of AI/AN in the Northwest. NTDSC has a four-pronged approach to address the needs of the dental programs in the Portland Area: 1) clinical program support, 2) prevention program support, 3) implementation of a surveillance system to track oral health status, and 4) provision of continuing dental education opportunities.

The objectives of the NTDSC are to increase overall dental access, increase access for patients with diabetes, increase use of sealants, increase use of topical fluoride treatments, and prevent and treat periodontal diseases among diabetic patients. The NTDSC communicates with local dental programs via site visits, email groups, webinars, telephone consultation, and an annual Prevention Coordinators meeting.

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http://www.npaihb.org/epicenter/project/northwest_tribal_dental_support_center

Figure 12.4: Percentage of IHS AI/AN patients who had a dental visit in the past year, 2009-2013.
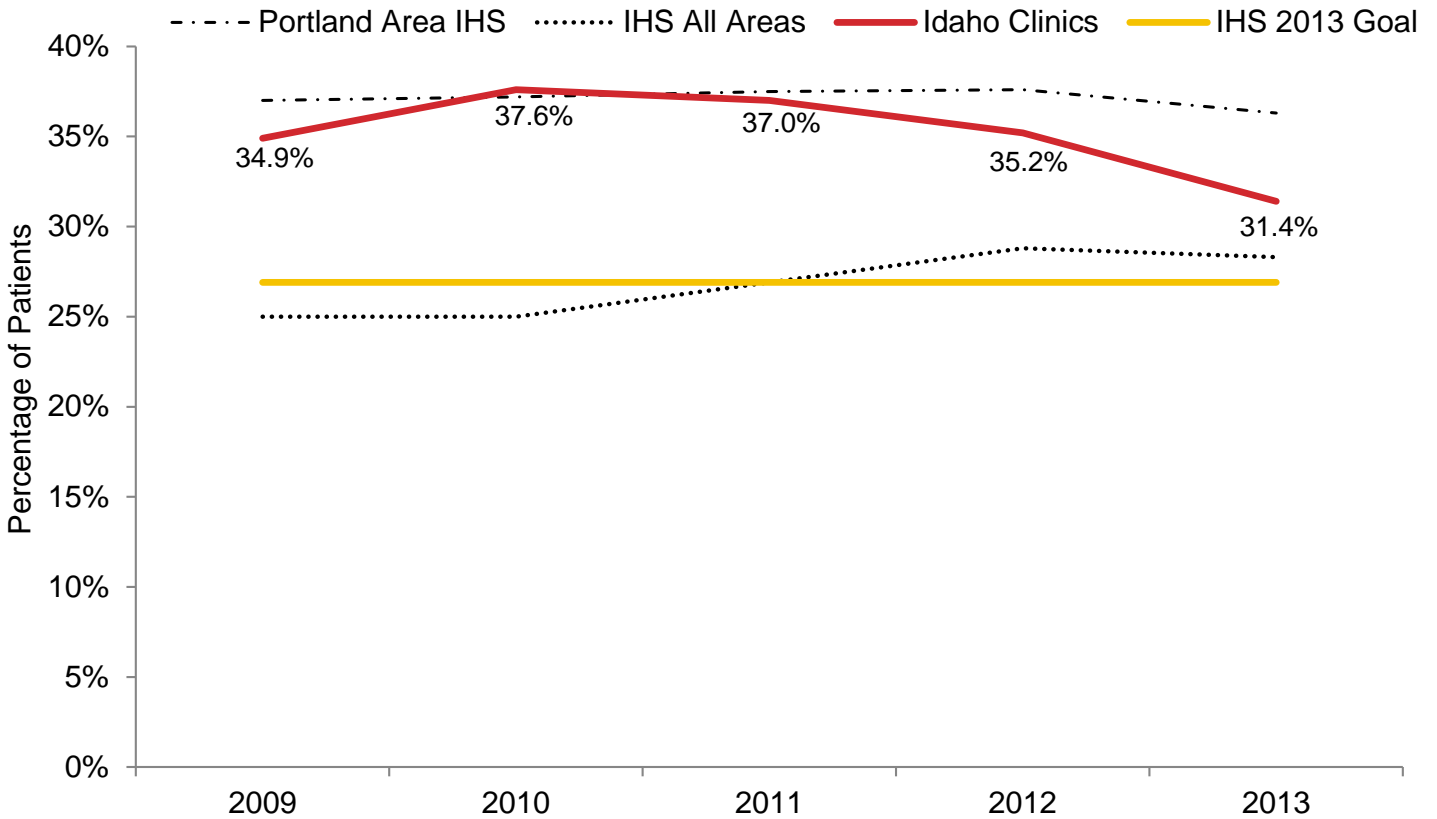
Data Source: Portland Area Indian Health Service.

Data Notes: Data labels only shown for Idaho clinics.

Idaho clinics include non-urban federal and tribal Indian health facilities in Idaho. Portland Area IHS clinics include non-urban federal and tribal Indian health facilities in Idaho, Oregon, and Washington.

Immunizations

Childhood

Vaccines help protect people from infectious diseases such as polio, measles, pertussis, and influenza. In order to be up-to-date on childhood immunizations, children between the ages of 19-35 months must receive all of the following vaccines: four doses of diphtheria, tetanus and pertussis (DTaP), three doses of polio, one dose of measles, mumps and rubella (MMR), three doses of Haemophilus influenzae B (HiB), three doses of hepatitis B, one dose of varicella, and four doses of pneumococcal. This series is abbreviated as 4:3:1:3:3:1:4.

The U.S. goal is for at least 80% of children ages 19-35 months to be up-to-date on the above childhood immunizations (Healthy People 2020). IHS is using 2013 rates to establish a new baseline for this measure, and did not set a 2013 goal. The 2012 goal for this measure was 77.8%.

Childhood immunization rates for Idaho clinics and the Portland Area IHS have decreased since 2009 (Figure 12.5). In 2012, the childhood immunization rate for Idaho clinics (66.3%), the Portland Area IHS (65.1%), and the national IHS (76.8%) did not meet the 2012 goal of 77.8%. Idaho clinics have had consistently higher immunization rates than the Portland Area IHS averages, with the exception of 2013 when Idaho clinics were just about the same as the area average. From 2009 to 2012, Idaho clinics were exceeding or the same as the IHS national average for childhood immunizations; however, in 2013 they fell below the national rates.

Data Source: Portland Area Indian Health Service.

Data Notes: Data labels only shown for Idaho clinics.

Idaho clinics include non-urban federal and tribal Indian health facilities in Idaho. Portland Area IHS clinics include non-urban federal and tribal Indian health facilities in Idaho, Oregon, and Washington.

Figure 12.5: Percentage of IHS AI/AN children (ages 19-35 months) who received the 4:3:1:3:3:1:4 immunization schedule, 2009-2013.
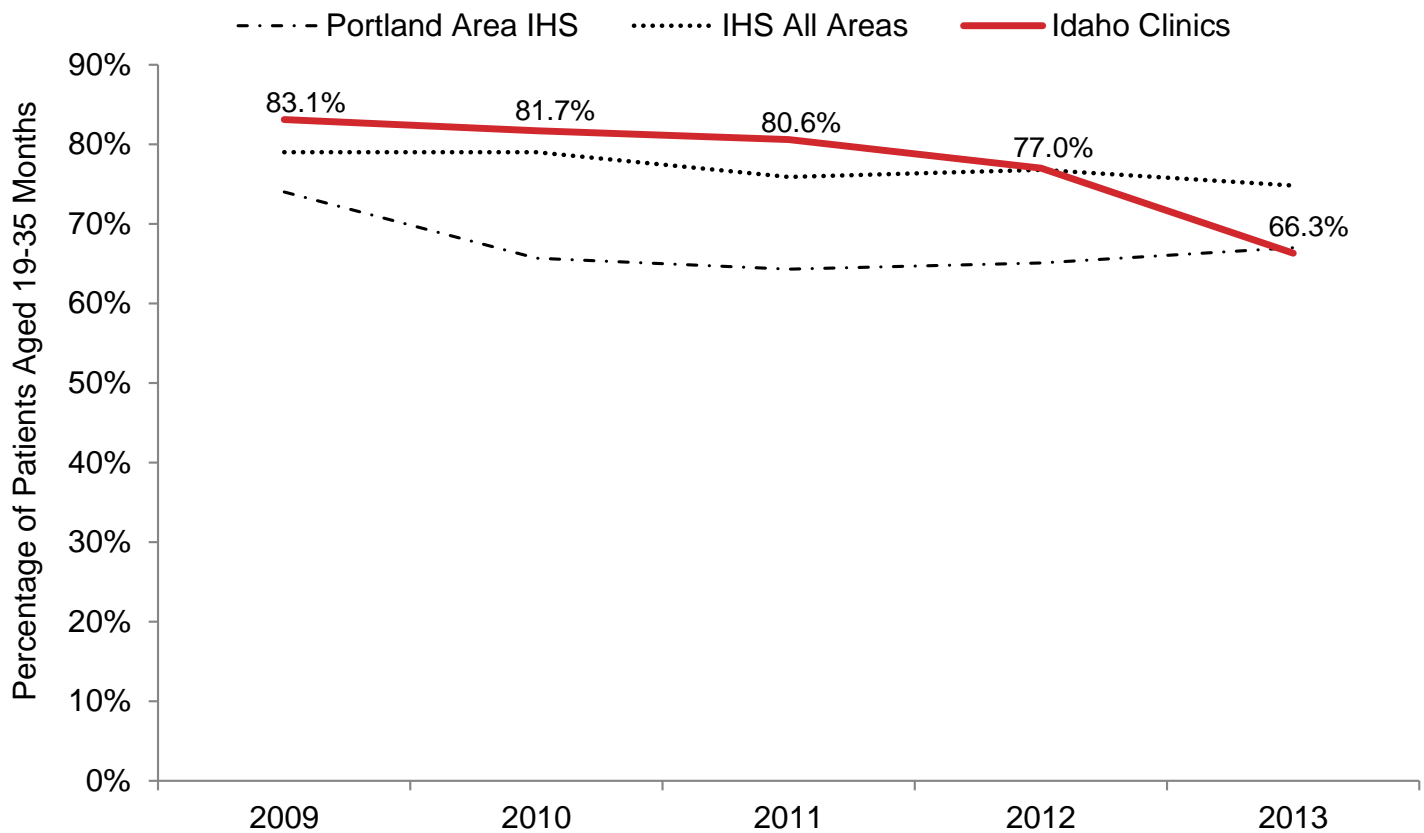
Adult Flu Vaccine

The influenza (or flu) vaccine is an effective way to prevent illnesses and deaths from the influenza virus. Flu vaccines are especially important for people who are at greatest risk of complications from the flu. These groups include people over 65 years of age, pregnant women, and people with diabetes, chronic lung disease, or other serious illnesses.

The U.S. goal is for 90% of non-institutionalized high-risk adults ages 65 and older to receive a seasonal flu vaccine each year (Healthy People 2020). IHS tracks the percentage of AI/AN patients ages 65 years and older who received the influenza vaccine in the past year. In 2013, the IHS goal for this measure was 62.3%.

The flu vaccination rate for Idaho clinics decreased from 2009 to 2011 before increasing to 60.9% in 2013 (Figure 12.6). The Portland Area IHS rate decreased from 2009 to 2012, but increased from 52.1% in 2012 to 67.7% in 2013. The national IHS average steadily increased from 2009 to 2012, and dropped slightly in 2013. In 2013 Idaho clinics fell slightly below the IHS goal of 62.3%.

Data Source: Portland Area Indian Health Service.

Data Notes: Data labels only shown for Idaho clinics.

Idaho clinics include non-urban federal and tribal Indian health facilities in Idaho. Portland Area IHS clinics include non-urban federal and tribal Indian health facilities in Idaho, Oregon, and Washington.

Figure 12.6: Percentage of IHS AI/AN patients ages 65 years and older who received a flu vaccine in the past year, 2009-2013.
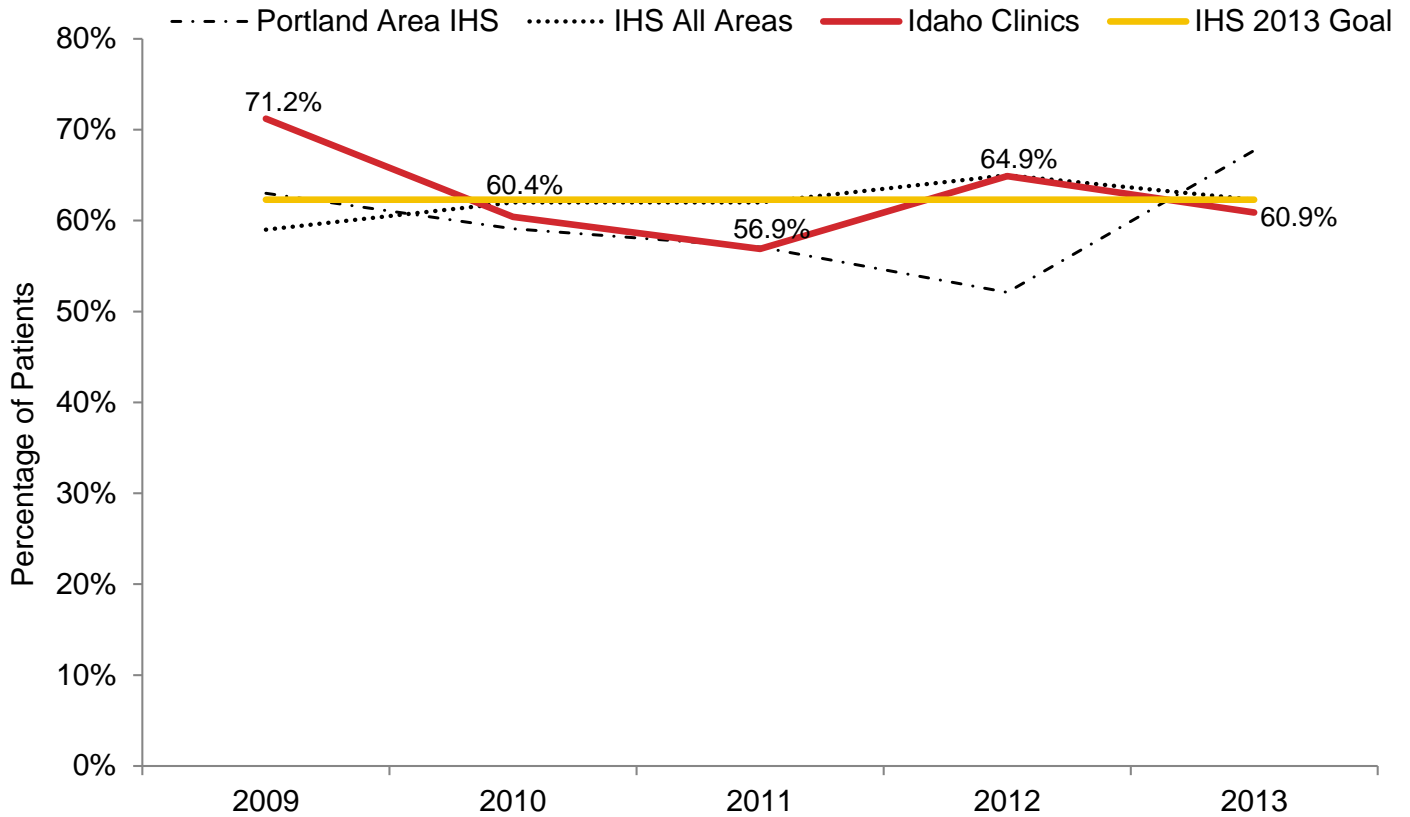
Adult Pneumococcal Vaccine

The pneumococcal vaccine can prevent illnesses such as pneumonia, meningitis, and bacteremia. This vaccine is especially important for people who may have weak immune systems, including people over the age of 65, those with diabetes or other serious illnesses and those who smoke tobacco.

The U.S. goal is for 90% of adults ages 65 and older to receive a pneumococcal vaccination (Healthy People 2020). IHS tracks the percentage of AI/AN patients ages 65 years and older who received a pneumococcal vaccination once after age 65. The IHS 2013 goal for this measure was 84.7%.

Idaho clinics, the Portland Area IHS, and the national IHS all exceeded the 2013 goal for pneumococcal vaccinations (Figure 12.7). In 2013, the vaccination rate for Idaho clinics was 87.3%, while the Portland Area IHS was 86%, and the national average was 89.2%. Pneumococcal vaccination rates have steadily increased since 2009 for the Portland Area and IHS nationally; for Idaho clinics the rates dropped between 2009 and 2010, but have been stable since then.

Data Source: Portland Area Indian Health Service.

Data Notes: Data labels only shown for Idaho clinics.

Idaho clinics include non-urban federal and tribal Indian health facilities in Idaho. Portland Area IHS clinics include non-urban federal and tribal Indian health facilities in Idaho, Oregon, and Washington.

Figure 12.7: Percentage of IHS AI/AN patients ages 65 years and older who ever received a pneumococcal vaccine, 2009–2013.
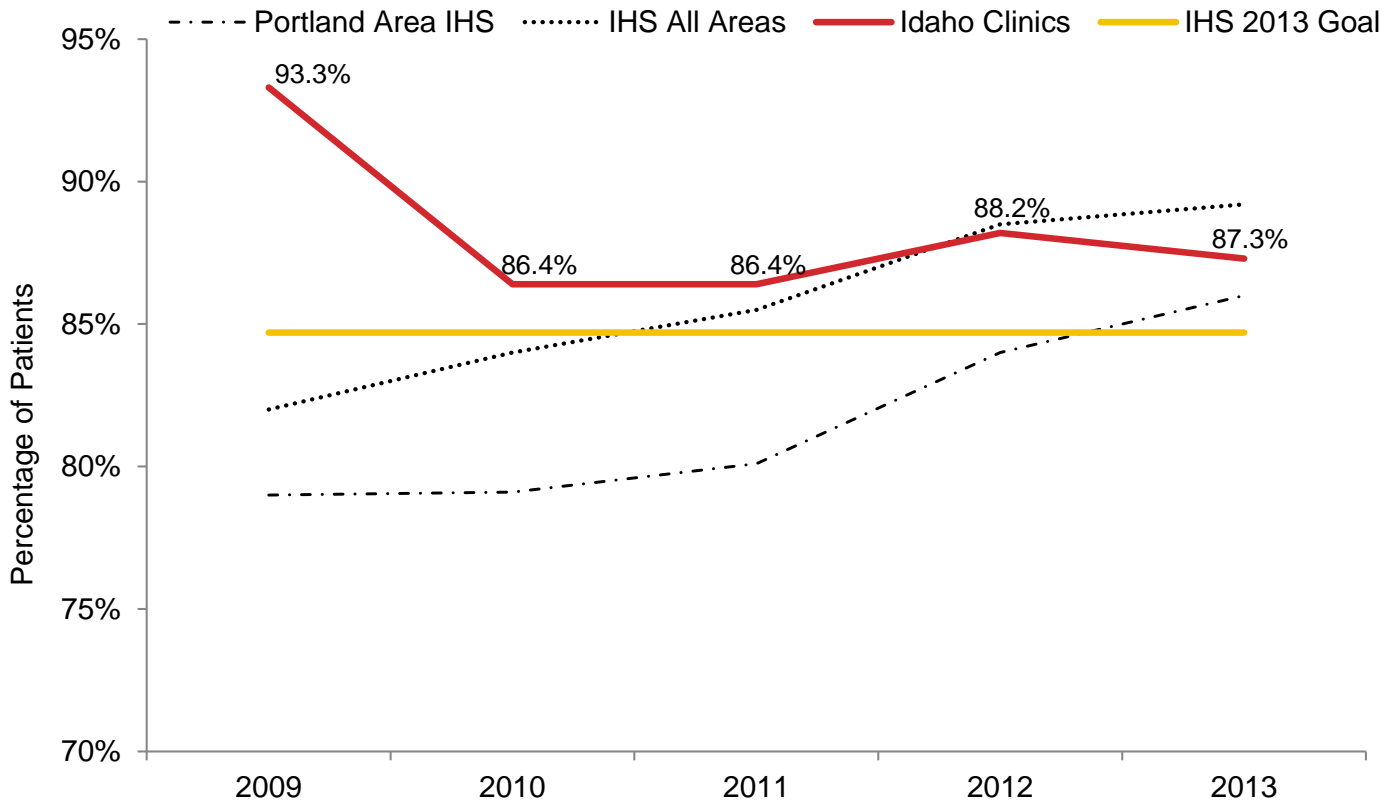
Program Spotlight: Northwest Tribal Immunization Project

Immunizations are a safe and effective means for preventing disease in children, adolescents, and adults. Although many vaccine-preventable childhood diseases are near record low levels, recent outbreaks of diseases such as pertussis and measles serve as a reminder that these diseases have not disappeared. Since 2008, NPAIHB's Immunization Program has focused on understanding and addressing the causes of low immunization coverage among AI/AN in the Northwest, especially among infants and young children. The program supports IHS and tribal clinics in reporting immunization coverage data for children, adolescents and adults on a quarterly basis. Additional reports are collected annually to monitor influenza vaccination rates for both patients and healthcare providers. These data have been useful in addressing recent epidemics of vaccine preventable diseases such as the influenza A H1N1 pandemic and the 2012 pertussis epidemic in Washington and parts of Idaho and Oregon.

The Immunization Program supports immunization coordinators from 33 clinical sites by sponsoring annual RPMS trainings and holding monthly calls. Program staff also serve as liaisons between clinical sites and State health departments, the IHS National Immunization Program and CDC, and assist sites with locating vaccine supplies, responding to vaccine recalls, and undertaking special projects to improve immunization coverage and immunization data exchange with State Immunization Information Systems. The program is funded by the Portland Area Indian Health Service. For more information, contact:

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Conclusions

The information presented in this report paints a picture of a population facing serious health challenges, and yet resilient. In spite of socioeconomic disadvantage and barriers to accessing care, there are strengths.

Birth outcomes were good among AI/AN in Idaho. While heart disease was the leading cause of death, AI/AN did not experience higher mortality than NHW from heart disease and screening rates are on the rise. AI/AN stroke mortality rates were also similar to NHW. Cancer incidence was lower among AI/AN than NHW, and did not increase in the past two decades. Immunization rates were high relative to the Portland Area as a whole, and have mostly been above IHS target levels.

However, there are also areas of concern. All-cause mortality rates were 30% higher among AI/AN than NHW in the state. Diabetes and liver disease showed the largest disparities (2.8 times higher and 5.5 times higher respectively). IHS GPRA data show that diabetes prevalence is higher among Idaho AI/AN patients than it is for the Portland Area as a whole – in 2013, 16% of patients had diabetes, and only about one third had their blood sugar and blood pressure under control. Cancer registry data show that while incidence is lower, mortality is not. Unintentional injuries are also concerning, particularly among children and young adults. Motor vehicle crashes and accidental overdose are the leading contributors to unintentional injury death among AI/AN in Idaho. Rates of suicide, binge drinking, and drug and alcohol associated deaths were higher among AI/AN than NHW. STIs were also an issue, with AI/AN chlamydia rates on the rise (especially among females) and AI/AN gonorrhea rates more than triple that of NHW.

There is a common thread among many of these disparities in that the causes are often preventable. This also points to an opportunity to improve them. The healthy lifestyles and environments section brings these underlying factors into sharp focus. Here we learn that less than 20% of AI/AN in Idaho had a healthy body mass index (BMI), and Idaho AI/AN children were more likely to be obese than AI/AN children anywhere else in the Northwest. Very few Idaho AI/AN reported getting any exercise, and most ate fewer than three servings of fruits and vegetables each day. Tobacco use was still common (more than one third were smokers), although tobacco cessation counseling rates were high relative to the Portland Area and nationally, and almost a third had quit smoking.

Programs aimed at encouraging healthy lifestyles may be the best approach to move the needle on some of the disparities currently faced by the AI/AN population in Idaho. A reduction in BMI through improved nutrition and exercise could impact diabetes, cancer, heart disease and stroke among others. Injury prevention efforts targeting motor vehicle safety and overdose prevention are particularly needed among youth. Mental health programs including suicide prevention and campaigns targeting substance abuse will have broad reaching effects across the spectrum of both community and personal health and well-being. Cancer screening is the most effective tool to reduce mortality from the disease, and screening rates among AI/AN in Idaho show room to improve.

This report provides a baseline of where we stand today. But it can also help tribes plant the seeds for healthier AI/AN communities, showing where there are strong roots from which to grow, and where there are challenges to be addressed.

Appendix I: Maps

The maps presented in this section show how mortality rates for AI/AN vary across the state of Idaho. Lighter color indicates a lower rates, and darker color higher rates.

Rates are given for by "health districts", which are the same as the seven public health districts as used by Idaho's department of Health and Welfare.

Counties included in each district are:

District 1 (Panhandle): Boundary, Bonner, Kootenai, Benewah, Shoshone

District 2 (North Central): Latah, Clearwater, Nez Perce, Lewis, Idaho

District 3 (Southwest): Adams, Washington, Payette, Gem, Canyon, Owyhee

District 4 (Central): Valley, Boise, Ada, Elmore

District 5 (South Central): Camas, Blaine, Gooding, Lincoln, Jerome, Minideka, Twin Falls, Cassia

District 6 (Southeastern): Butte, Bingham, Power, Bannock, Caribou, Oneida, Franklin, Bear Lake

District 7 (Eastern): Lemhi, Custer, Clark, Fremont, Jefferson, Madison, Teton, Bonneville

Tribal lands are found in the following districts:

Kootenai - District 1

Coeur d'Alene - District 1

Nez Perce - District 2

Shoshone Bannock - District 6

Districts shown with diagonal lines across are those for which the AI/AN mortality rate was statistically significantly higher than the NHW rate in the district.

Districts shown as plain white are those for which there were fewer than five AI/AN deaths and thus the rates were not calculated.

Map 1: AI/AN age-adjusted all cause mortality rates by health district, Idaho, 2006-2012.
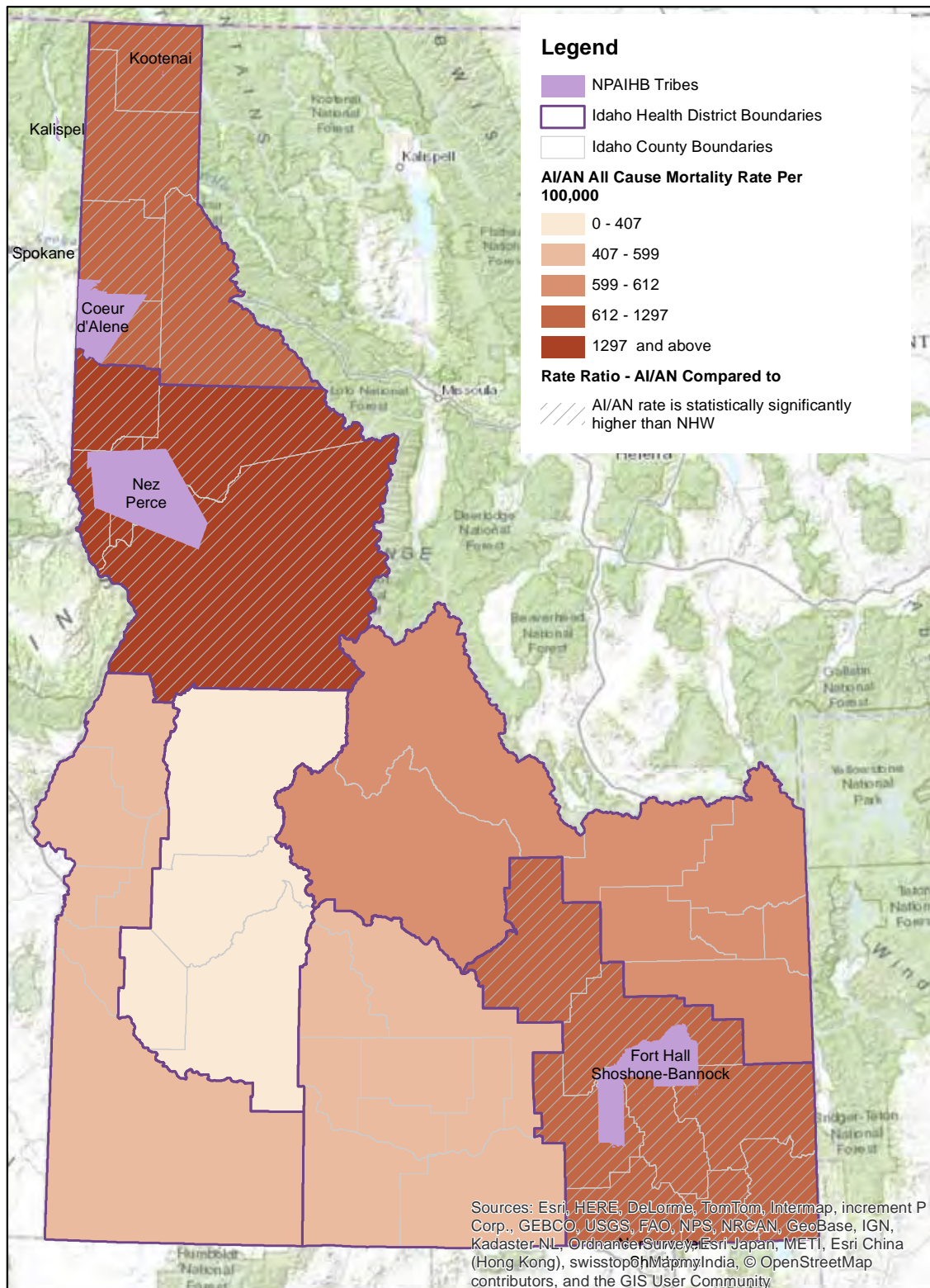
Map 2: AI/AN age-adjusted diabetes mortality rates by health district, Idaho, 2006-2012.
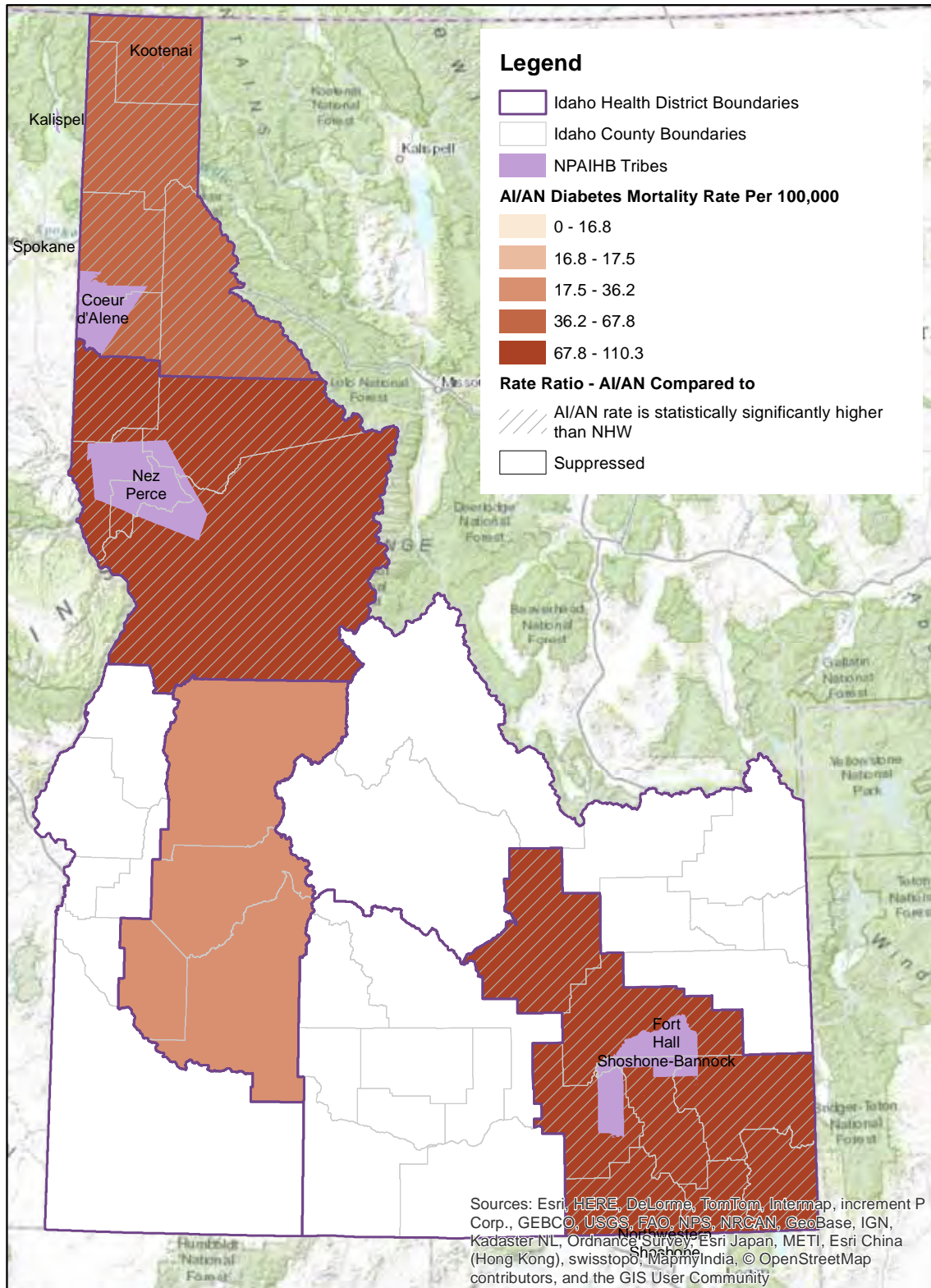
Map 3: AI/AN age-adjusted heart disease mortality rates by health district, Idaho, 2006-2012.

Legend

- NPAIHB Tribes
- Idaho Health District Boundaries
- Idaho County Boundaries

Rate Ratio - AI/AN Compared to NHW

- AI/AN rate is statistically significantly higher than NHW

AI/AN Heart Disease Mortality Rate Per 100,000

- 0 - 100
- 100 - 156
- 156 - 358
- 358 - 381
- 381 and above

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community.

Map 4: AI/AN age-adjusted stroke mortality rates by health district, Idaho, 2006-2012.

Map 5: AI/AN age-adjusted motor vehicle crash (MVC) mortality rates by health district, Idaho, 2006-2012.

Legend

- NPAIHB Tribes
- Idaho Health District Boundaries
- Idaho County Boundaries

AI/AN MVC Mortality Rate Per 100,000

- 0 - 2.6
- 2.6 - 7.8
- 7.8 - 44.2
- 44.2 - 86.8

Rate Ratio - AI/AN Compared to NHW

- AI/AN rate statistically significantly higher than NHW
- Suppressed

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Map 6: AI/AN age-adjusted unintentional injury mortality rates by health district, Idaho, 2006-2012.

Map 7: AI/AN age-adjusted suicide mortality rates by health district, Idaho, 2006-2012.

Legend

- ▦ NPAIHB Tribes
- ▢ Idaho Health District Boundaries
- ▢ Idaho County Boundaries

AI/AN Suicide Mortality Rate Per 100,000

- 0 - 8.6
- 8.6 - 9.4
- 9.4 - 19.1
- 19.1 - 44.1
- 44.1 and above

Rate Ratio - AI/AN Compared to NHW

- ▨ AI/AN rate is statistically significantly higher than NHW
- ▢ Suppressed

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Abridged Life Tables for American Indians and Alaska Natives of Idaho, 2008-2010 (Both Sexes)

Both Sexes, Idaho

Age Interval x to x+n	Mortality rate per 1,000 for x to x+n m|x	Probability of dying between ages x to x+n q|x	Number surviving to age x l|x	Number dying between ages x to x+n d|x	Person-years lived between ages x to x+n L|x	Total number of person-years lived above age x T|x	Expectation of life at age x e|x	Lower CI	Upper CI
Birth to 1 year	3.63	0.003	100,000	338	99,792	7,445,971	74.46	73.13	75.79
1-4	0.42	0.002	99,662	167	398,123	7,346,179	73.71	72.40	75.02
5-9	0.13	0.001	99,495	59	497,271	6,948,056	69.83	68.53	71.14
10-14	0.25	0.001	99,437	123	496,755	6,450,785	64.87	63.57	66.18
15-19	1.32	0.007	99,314	663	495,236	5,954,030	59.95	58.65	61.25
20-24	2.57	0.013	98,651	1,272	490,116	5,458,794	55.33	54.05	56.62
25-29	2.19	0.011	97,379	1,034	484,064	4,968,678	51.02	49.78	52.27
30-34	2.33	0.012	96,345	1,136	478,840	4,484,614	46.55	45.33	47.76
35-39	3.02	0.015	95,209	1,446	472,981	4,005,773	42.07	40.89	43.26
40-44	3.68	0.018	93,763	1,720	464,104	3,532,792	37.68	36.52	38.83
45-49	6.13	0.030	92,044	2,785	453,896	3,068,688	33.34	32.21	34.47
50-54	6.73	0.033	89,258	2,961	439,126	2,614,792	29.29	28.21	30.38
55-59	9.25	0.046	86,297	3,940	422,083	2,175,666	25.21	24.16	26.26
60-64	14.02	0.070	82,357	5,743	399,278	1,753,584	21.29	20.28	22.31
65-59	17.27	0.084	76,614	6,432	368,319	1,354,306	17.68	16.72	18.63
70-74	33.24	0.158	70,182	11,060	326,518	985,986	14.05	13.15	14.95
75-79	50.43	0.231	59,122	13,660	263,312	659,468	11.15	10.34	11.96
80-84	83.53	0.330	45,463	14,991	186,589	396,156	8.71	8.01	9.42
85+	145.40	1.000	30,471	30,471	209,567	209,567	6.88	6.29	7.46

CI = 95% confidence interval

Note that age-specific mortality rates are based on small numerators in some cases, and are not recommended for use in analyses without standard errors.

Abridged Life Tables for American Indians and Alaska Natives of Idaho, 2008-2010 (Male)

Age Interval x to x+n	Mortality rate per 1,000 for x to x+n m|x	Probability of dying between ages x to x+n q|x	Number surviving to age x l|x	Number dying between ages x to x+n d|x	Person-years lived between ages x to x+n L|x	Total number of person- years lived above age x T|x	Expectation of life at age x e|x	Lower CI	Upper CI
Male AI/AN, Idaho									
Birth to 1 year	2.15	0.003	100,000	338	99,792	7,348,537	73.49	71.41	75.56
1-4	0.28	0.001	99,662	101	398,295	7,248,745	72.73	70.67	74.80
5-9	0.25	0.001	99,561	118	497,392	6,850,450	68.81	66.75	70.87
10-14	0.00	0.000	99,443	-	497,215	6,353,058	63.89	61.83	65.94
15-19	1.60	0.008	99,443	804	496,053	5,855,843	58.89	56.83	60.94
20-24	3.89	0.019	98,639	1,888	488,089	5,359,790	54.34	52.31	56.36
25-29	2.43	0.012	96,751	1,121	480,413	4,871,701	50.35	48.40	52.31
30-34	2.33	0.011	95,630	1,034	475,092	4,391,288	45.92	44.00	47.84
35-39	4.35	0.022	94,595	2,049	468,600	3,916,196	41.40	39.52	43.28
40-44	5.53	0.027	92,546	2,538	455,852	3,447,596	37.25	35.42	39.09
45-49	6.52	0.032	90,008	2,884	442,873	2,991,744	33.24	31.46	35.02
50-54	7.67	0.038	87,124	3,307	427,086	2,548,871	29.26	27.52	30.99
55-59	7.49	0.038	83,817	3,194	412,457	2,121,785	25.31	23.63	27.00
60-64	14.01	0.073	80,622	5,924	391,657	1,709,328	21.20	19.56	22.85
65-59	16.67	0.082	74,699	6,143	360,865	1,317,671	17.64	16.06	19.22
70-74	39.55	0.177	68,556	12,161	312,419	956,806	13.96	12.44	15.47
75-79	43.59	0.198	56,394	11,150	253,436	644,387	11.43	10.03	12.83
80-84	113.21	0.429	45,244	19,408	172,962	390,951	8.64	7.34	9.94
85+	118.52	1.000	25,836	25,836	217,989	217,989	8.44	7.37	9.51

CI = 95% confidence interval

Note that age-specific mortality rates are based on small numerators in some cases, and are not recommended for use in analyses without standard errors.

Abridged Life Tables for American Indians and Alaska Natives of Idaho, 2008-2010 (Female)

Age Interval	Mortality rate per 1,000 for ages x to x+n	Probability of dying between ages x to x+n	Number surviving to age x	Number dying between ages x to x+n	Person-years lived between ages x to x+n	Total number of person-years lived above age x	Expectation of life at age x	Lower CI	Upper CI
x to x+n	m\x	q\x	l\x	d\x	L\x	T\x	e\x		
Female AI/AN, Idaho									
Birth to 1 year	5.02	0.003	100,000	338	99,792	7,538,064	75.38	73.63	77.13
1-4	0.58	0.002	99,662	236	397,942	7,438,272	74.63	72.92	76.35
5-9	0.00	0.000	99,426	-	497,132	7,040,331	70.81	69.11	72.51
10-14	0.51	0.003	99,426	260	496,223	6,543,199	65.81	64.11	67.51
15-19	1.01	0.005	99,167	500	494,329	6,046,975	60.98	59.29	62.66
20-24	1.17	0.006	98,667	634	492,302	5,552,647	56.28	54.62	57.94
25-29	1.93	0.010	98,033	951	487,883	5,060,344	51.62	49.99	53.25
30-34	2.33	0.013	97,081	1,227	482,774	4,572,461	47.10	45.51	48.69
35-39	1.68	0.009	95,854	856	477,591	4,089,687	42.67	41.12	44.21
40-44	1.78	0.009	94,998	840	472,726	3,612,096	38.02	36.51	39.54
45-49	5.73	0.029	94,158	2,686	465,320	3,139,370	33.34	31.85	34.84
50-54	5.83	0.029	91,473	2,634	451,557	2,674,050	29.23	27.80	30.67
55-59	10.94	0.052	88,839	4,630	432,303	2,222,493	25.02	23.63	26.41
60-64	14.03	0.067	84,209	5,674	407,267	1,790,190	21.26	19.94	22.58
65-59	17.84	0.085	78,536	6,680	375,791	1,382,922	17.61	16.38	18.83
70-74	26.63	0.144	71,856	10,315	340,767	1,007,131	14.02	12.89	15.14
75-79	56.74	0.268	61,541	16,477	270,626	666,364	10.83	9.82	11.84
80-84	65.38	0.259	45,064	11,668	191,311	395,738	8.78	7.95	9.61
85+	163.37	1.000	33,396	33,396	204,427	204,427	6.12	5.42	6.82

CI = 95% confidence interval

Note that age-specific mortality rates are based on small numerators in some cases, and are not recommended for use in analyses without standard errors.

Appendix III: List of Figures and Tables

1. Demographics

2. Maternal & Child Health

3. Mortality

4. Diabetes

5. Cardiovascular Disease & Stroke

6. Cancer

7. Injury and Violence

8. Mental Health and Suicide

9. Substance Abuse

10. Communicable Diseases

11. Healthy Lifestyles, Healthy Environments

12. Access to Care

Appendix I: Maps

Tables

1. Demographics

2. Maternal & Child Health

3. Mortality

4. Diabetes

5. Cardiovascular Disease & Stroke

6. Cancer

7. Injury and Violence

8. Mental Health and Suicide

9. Substance Abuse

12. Access to Care

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Diabetes title page:
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OCVA, Native American Salmon Bake. CC BY-ND 2.0

Cardiovascular Disease & Stroke title page:
Alan Vernon, Shoshone Falls on the Snake River. CC BY-NC-SA 2.0
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Mental Health & Suicide title page:
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Kami Jo, Julyamsh 2008. CC BY-NC-ND 2.0

Substance Abuse title page:
Brewbooks, Lewisia rediviva on Tronsen Ridge (bitter root). CC BY-SA 2.0
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Communicable Diseases title page:
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Healthy Lifestyles title page:
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Kristyl Webb, Nez Perce. CC BY-NC-SA 2.0

Access to Care title page:
Nez Perce beaded bag made from two pieces of brain tanned hide. Public Domain.
Joni Packard, Riders at Bear Paw battle commemoration October 2010. CC BY 2.0
Erin Pass, Chatcolet Lake. CC BY NC-ND-2.0

Community Health Profile Feeback Questionnaire

We hope you found this report useful, but we know it isn't perfect! Your feedback is important to make sure future versions better meet your community's needs. Please take a moment to complete the following questionnaire.If you prefer, you can also complete the same survey online at www.surveymonkey.com/s/D38NS9G
To return the form you can mail it to NPAIHB at 2121 SW Broadway, Suite 300 Portland OR 97201. You can also fax it to 503-416-3265 or scan and email to ideanw@npaihb.org

Q1. How did you receive this report?
☐ Hard copy mailed or given to me from NPAIHB
☐ Hard copy given to me by someone else
☐ Electronic copy emailed directly to me from NPAIHB
☐ Electronic copy forwarded to me from someone else
☐ Downloaded from NPAIHB website
☐ Other (please specify):_____

Q2. Which best describes your position or role?
☐ Tribal council member or other tribal leader
☐ Tribal health director
☐ Clinic staff
☐ Grant writer
☐ Researcher
☐ Other (please specify):_____

Q3. Overall, how useful did you find this report?
☐ Not at all useful
☐ Somewhat useful
☐ Very useful
☐ Extremely useful

Q4. Which section did you find the most useful?
☐ Demographics
☐ Maternal & Child Health
☐ Mortality
☐ Diabetes
☐ Cardiovascular Disease & Stroke
☐ Cancer
☐ Injury & Violence
☐ Mental Health & Suicide
☐ Substance Abuse
☐ Communicable Diseases
☐ Healthy Lifestyles, Healthy Environments
☐ Access to Care

Q5. How easy or difficult was it for you to understand this report?
☐ Extremely difficult to understand
☐ Somewhat difficult to understand
☐ Somewhat easy to understand
☐ Extremely easy to understand

Q6. What would have made it easier to understand?
_____
_____
_____

Q7. How will you use the information in this report?
☐ Grants
☐ Program planning
☐ Financial allocation planning
☐ Presentations
☐ Manuscripts
☐ Advocacy
☐ Not sure
☐ Other (please specify):_____

Q8. Do you have any other comments or questions?
_____
_____
_____

If you would like a staff person to respond to your questions or comments, please share your contact information below:

Name _____

Job Position_____

Address_____

_____

Email_____

Phone_____   Fax_____

Do you prefer to be contacted by ☐ Email   or ☐ Phone

Thank you for your feedback!