

# 11. Healthy Lifestyles, Healthy Environments

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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 wellbeing. 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 Oregon. Over 60% of AI/AN adults in Oregon are overweight or obese, and approximately one quarter of AI/AN children (ages 2-5) seen in Oregon Indian health clinics are obese. Nearly 30% of AI/AN males and 46% of AI/AN females reported exercising in the past month, and the majority of AI/AN reported always wearing a seat belt. Over 20% of AI/AN report smoking every day, which is higher than the smoking rate for NHW in the state. Over 30% of tobacco-using patients at Oregon Indian health clinics received a tobacco cessation intervention from 2009 to 2013, which was lower than the average across all IHS areas.

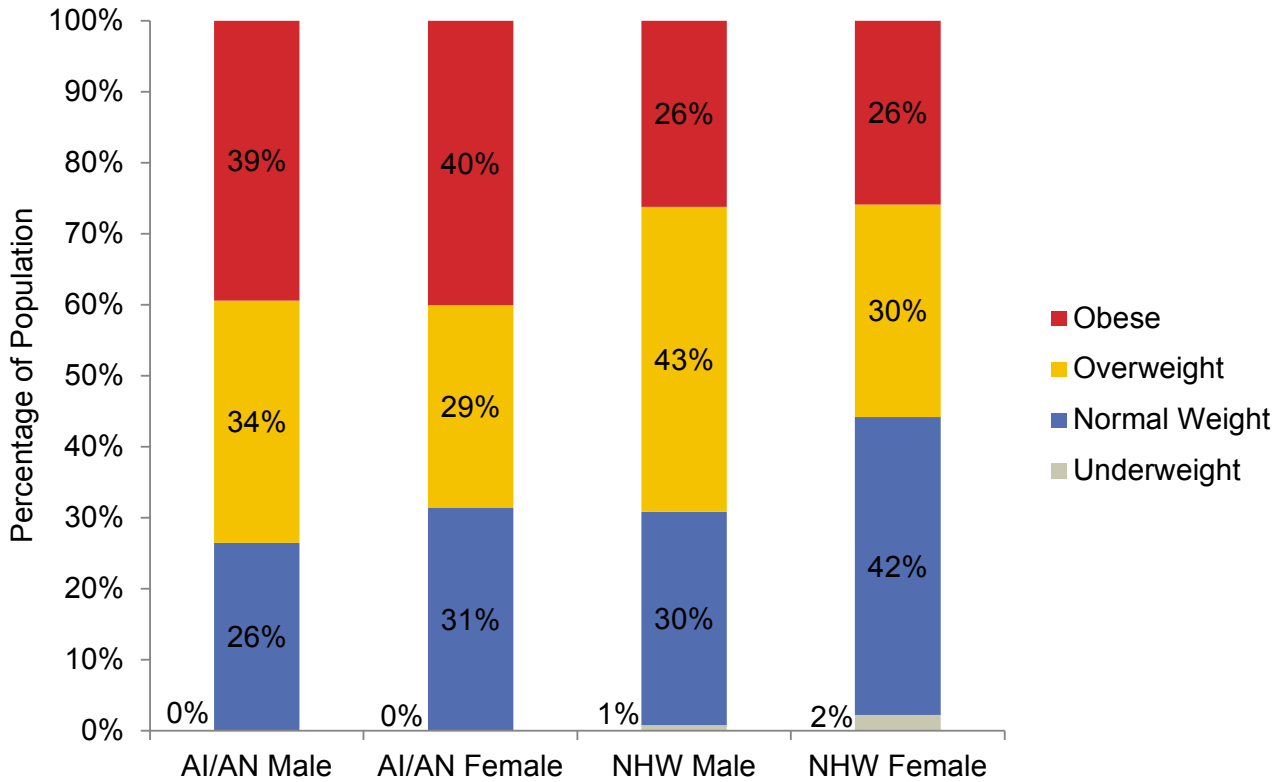
# Body Mass Index (BMI)

From 2006-2012, AI/AN males and females in Oregon were more likely to be overweight or obese than their white counterparts in the state (Figure 11.1). Over 60% of AI/AN males and females had a BMI in the overweight or obese range. Compared to AI/AN males, a lower percentage of AI/AN females were overweight (29% vs. 34%); however, AI/AN females had the highest percentage in the obese category (40%).

**Data Source:** CDC Behavioral Risk Factor Surveillance System (BRFSS), 2006-2012.

**Data Notes:** The BRFSS prevalence estimates (shown as a percentage) are weighted to make the survey responses representative of the Oregon 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, Oregon, 2006-2012.**



BMI categories (in kg/m<sup>2</sup>): Underweight: <18.5; Normal weight: 18.5 - 24.9; Overweight: 25.0 - 29.9; Obese: >30.0

Sample sizes (n): AI/AN males=150; AI/AN females=207; NHW males=12,893; NHW females=18,202.

# Childhood Weight Control (BMI Percentile)

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).

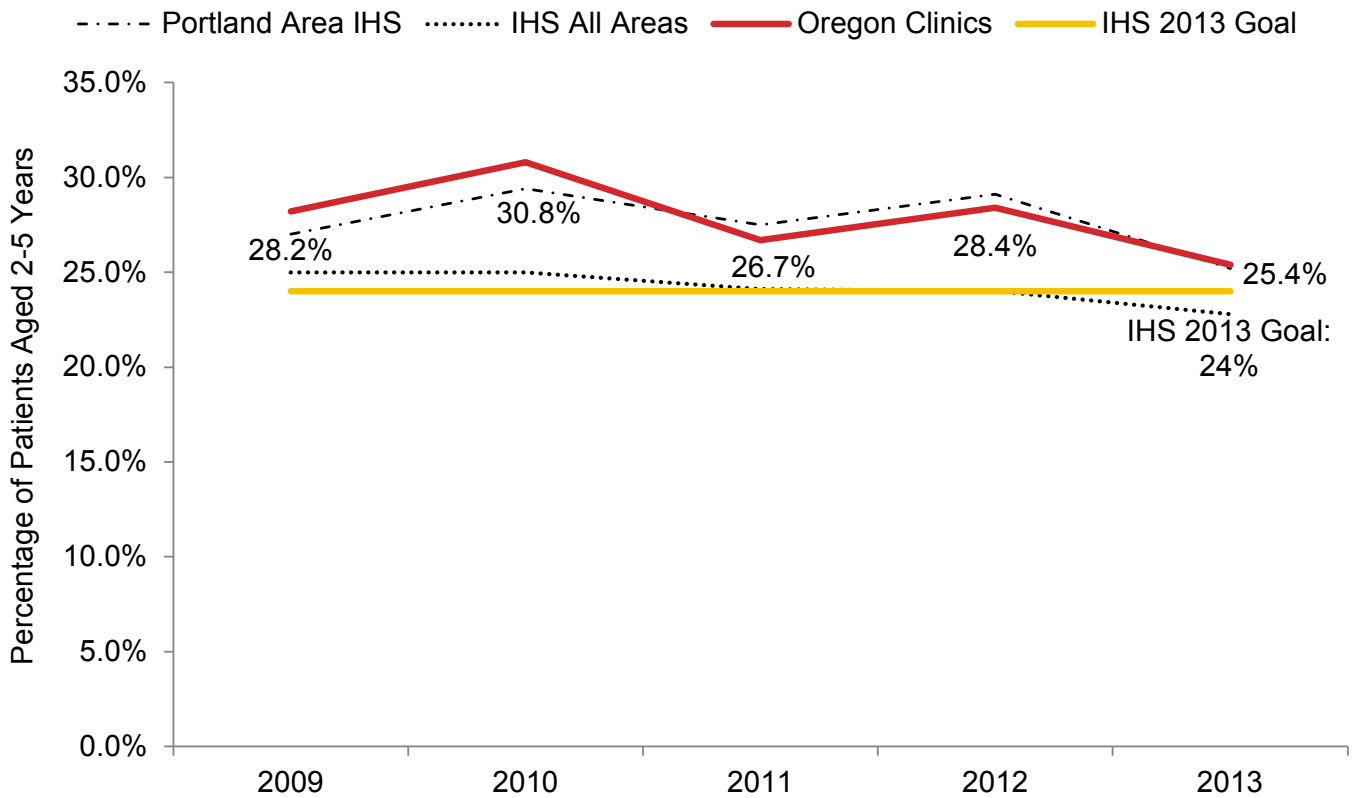
IHS tracks the percentage of AI/AN children (ages 2-5) with a BMI in the 95th percentile range. In 2013, the IHS goal for childhood obesity was 24%. Having a lower score means better performance (i.e., fewer overweight children) for this measure.

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 (22.8%) was below the 2013 goal of 24%. The prevalence of childhood obesity for Oregon clinics and the Portland Area IHS has fluctuated since 2009, and has not shown a consistent upward or downward trend. In 2013, the prevalence of childhood obesity for Oregon clinics (25.4%) was higher than the 2013 goal.

**Data Source:** Portland Area Indian Health Service.

**Data Notes:** Data labels only shown for Oregon clinics. Oregon clinics include non-urban federal and tribal Indian health facilities in Oregon. 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 to 5 years old considered obese, 2009-2013.**



# Exercise

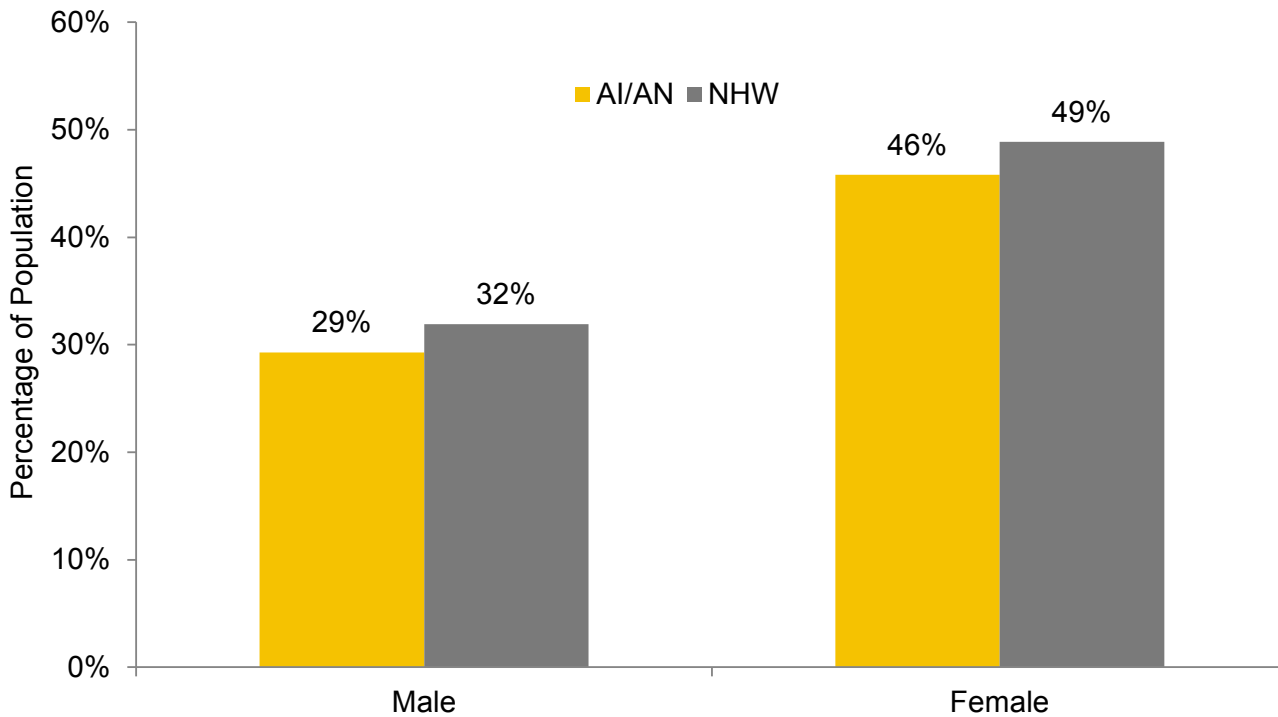
From 2006-2012, 29% of AI/AN males and 46% of AI/AN females in Oregon reported having exercised in the past month (Figure 11.3). For both genders, the percentage reporting physical activity in the past month was lower for AI/AN than for NHW (29% vs. 32% for males, 46% vs. 49% for females).

**Data Source:** CDC Behavioral Risk Factor Surveillance System (BRFSS), 2006-2012.

**Data Notes:** The BRFSS prevalence estimates (shown as a percentage) are weighted to make the survey responses representative of the Oregon 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, Oregon, 2006-2012.**



Sample sizes (n): AI/AN males=408; AI/AN females=594; NHW males=30,687; NHW females=48,127.

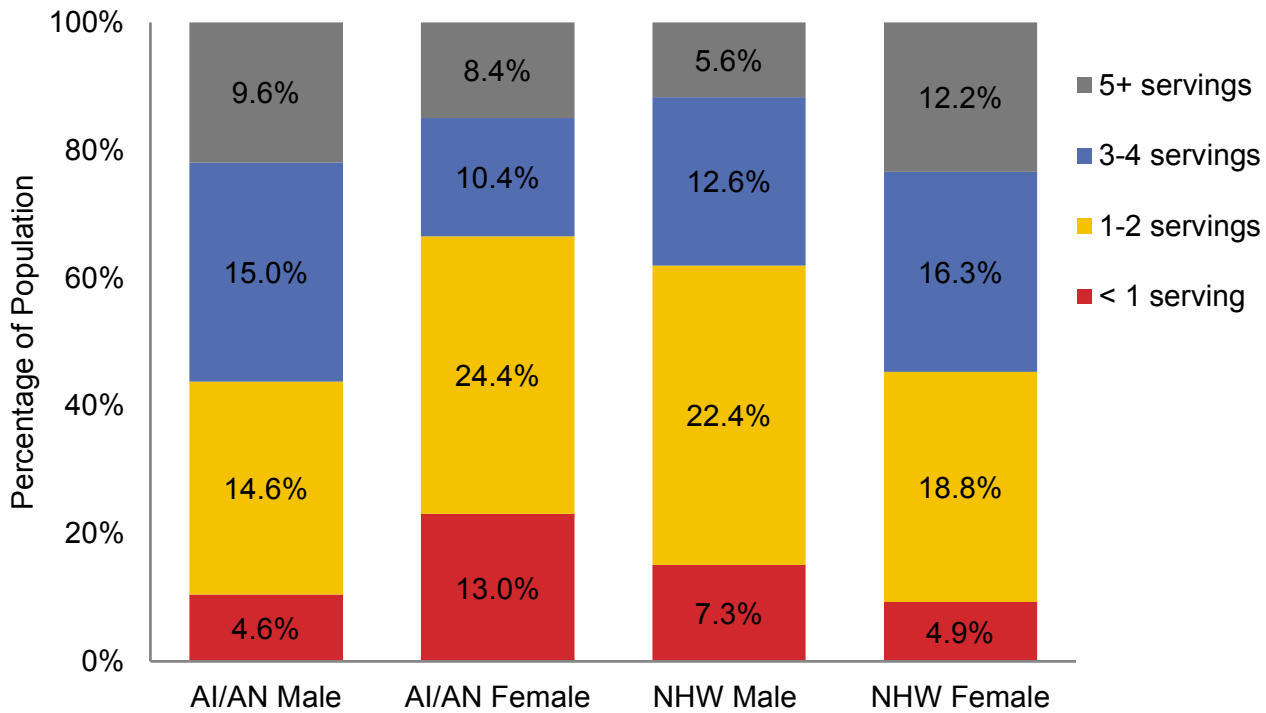
# Fruit and Vegetable Consumption

Figure 11.4 shows the number of fruit and vegetable servings eaten per day for AI/AN and NHW in Oregon. About 5% of AI/AN males and 13% of AI/AN females reported eating less than 1 serving of fruit or vegetables per day. Approximately 15% of AI/AN males and 24% of AI/AN females ate 1-2 servings per day. Only 25% of AI/AN males and 19% of AI/AN females reported eating three or more fruits or vegetables per day.

**Data Source:** CDC Behavioral Risk Factor Surveillance System (BRFSS), 2007, 2009, 2011.

**Data Notes:** The BRFSS prevalence estimates (shown as a percentage) are weighted to make the survey responses representative of the Oregon 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: Daily fruit and vegetable consumption by race, Oregon, 2007-2011.**



Sample sizes (n): AI/AN males=18; AI/AN females=30; NHW males=2,177; NHW females=3,218.

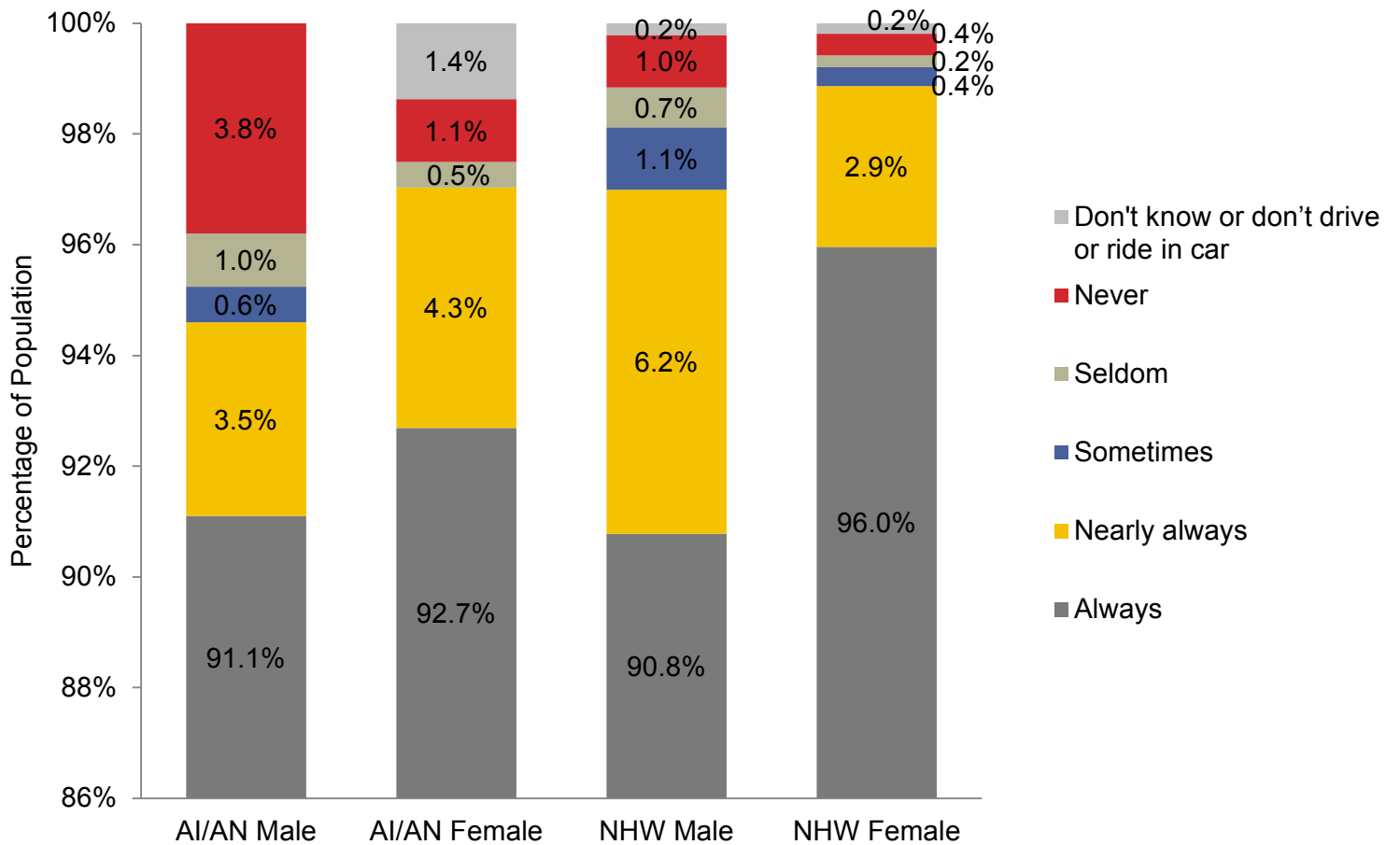
# Seatbelt Use

Among AI/AN and NHW in Oregon, women were more likely than men to report always wearing a seatbelt (Figure 11.5). The majority (96%) of NHW women always wore seatbelts, while 93% of AI/AN women always wore seatbelts. Approximately 5% percent of AI/AN men and 2% of NHW men reported that they seldom or never wore seatbelts.

**Data Source:** CDC Behavioral Risk Factor Surveillance System (BRFSS), 2006-2012.

**Data Notes:** The BRFSS prevalence estimates (shown as a percentage) are weighted to make the survey responses representative of the Oregon 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, Oregon, 2006-2012.**



Sample sizes (n): AI/AN males=314; AI/AN females=438; NHW males=23,182; NHW females=36,076.

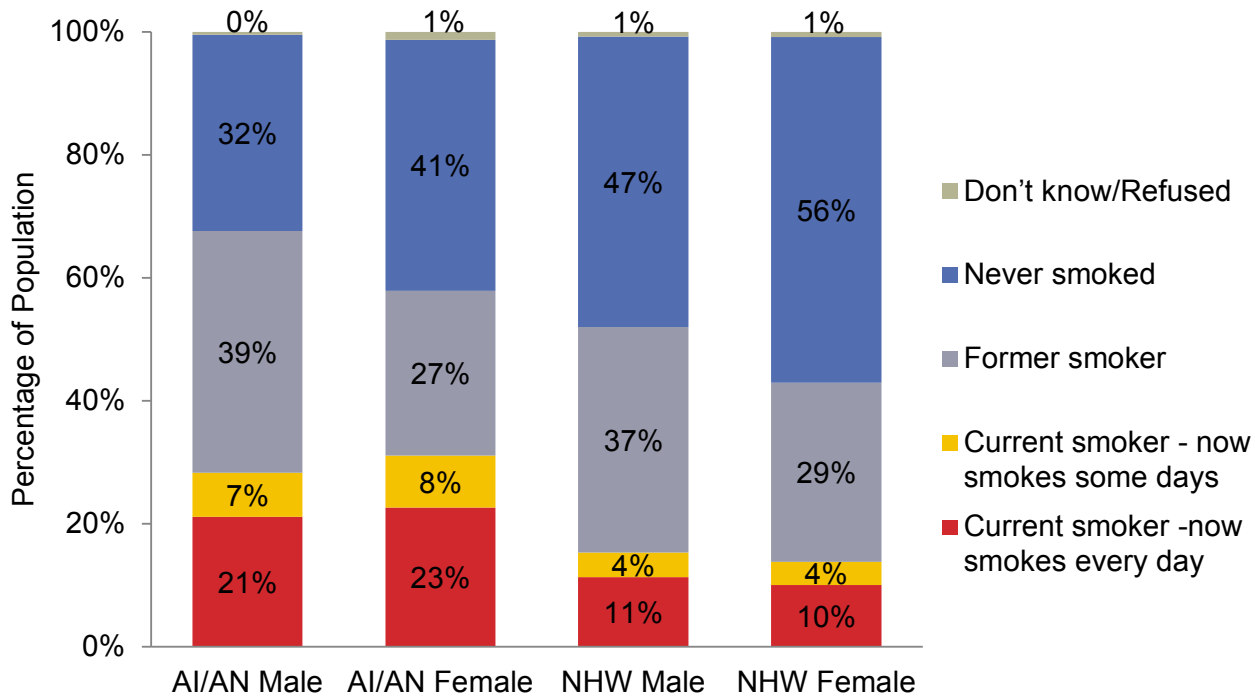
# Smoking Status

AI/AN males and females in Oregon were more likely to report being current smokers than NHW in the state. From 2006-2012, over 20% of AI/AN males and females reported smoking every day, and 7% of AI/AN males and 8% of AI/AN females reported smoking some days (Figure 11.6). AI/AN females were more likely to be current smokers than AI/AN males (31% vs. 28%). A lower percentage of AI/AN males (32%) had never smoked compared to AI/AN females (41%), NHW males (47%), and NHW females (56%).

**Data Source:** CDC Behavioral Risk Factor Surveillance System (BRFSS), 2006-2012.

**Data Notes:** The BRFSS prevalence estimates (shown as a percentage) are weighted to make the survey responses representative of the Oregon 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, Oregon, 2006-2012.**



Sample sizes (n): AI/AN males=783; AI/AN females=1,148; NHW males=49,342; NHW females=77,177.

# Asthma Prevalence

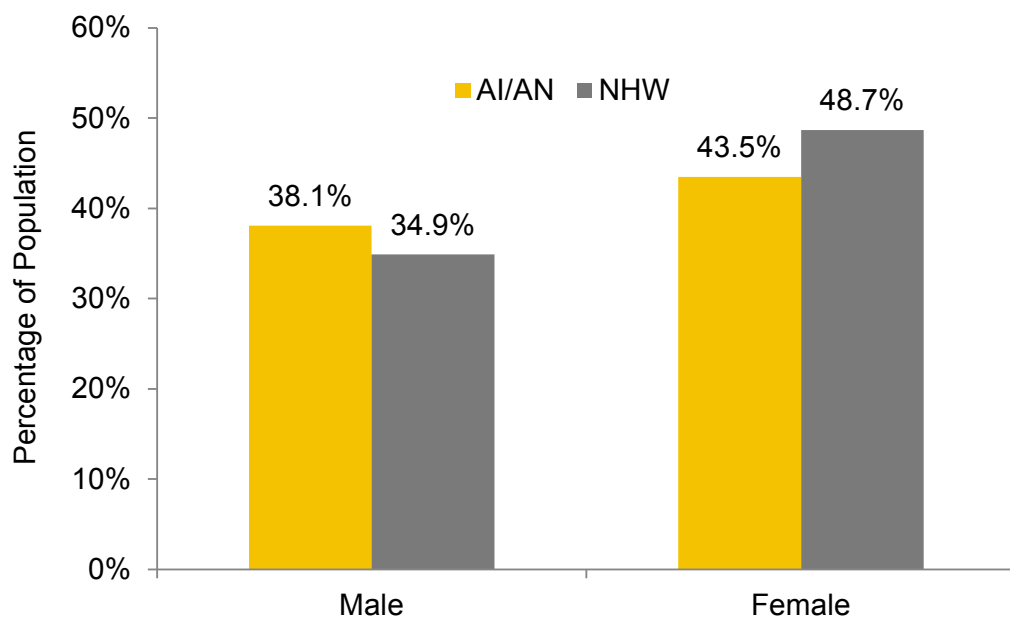
Smoking and exposure to second-hand smoke are triggers for asthma in children and adults. Nearly 45% of AI/AN females reported having asthma during their lifetime. This was higher when compared to AI/AN males (38%), NHW males (35%), and was 49% higher than NHW females (44%).

**Data Source:** CDC Behavioral Risk Factor Surveillance System (BRFSS), 2006-2012.

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



**Figure 11.7: Lifetime asthma prevalence by race and sex, Oregon, 2006-2012.**



Sample sizes (n): AI/AN males=170; AI/AN females=221; NHW males=13,060; NHW females=19,475.

# Tobacco Cessation

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

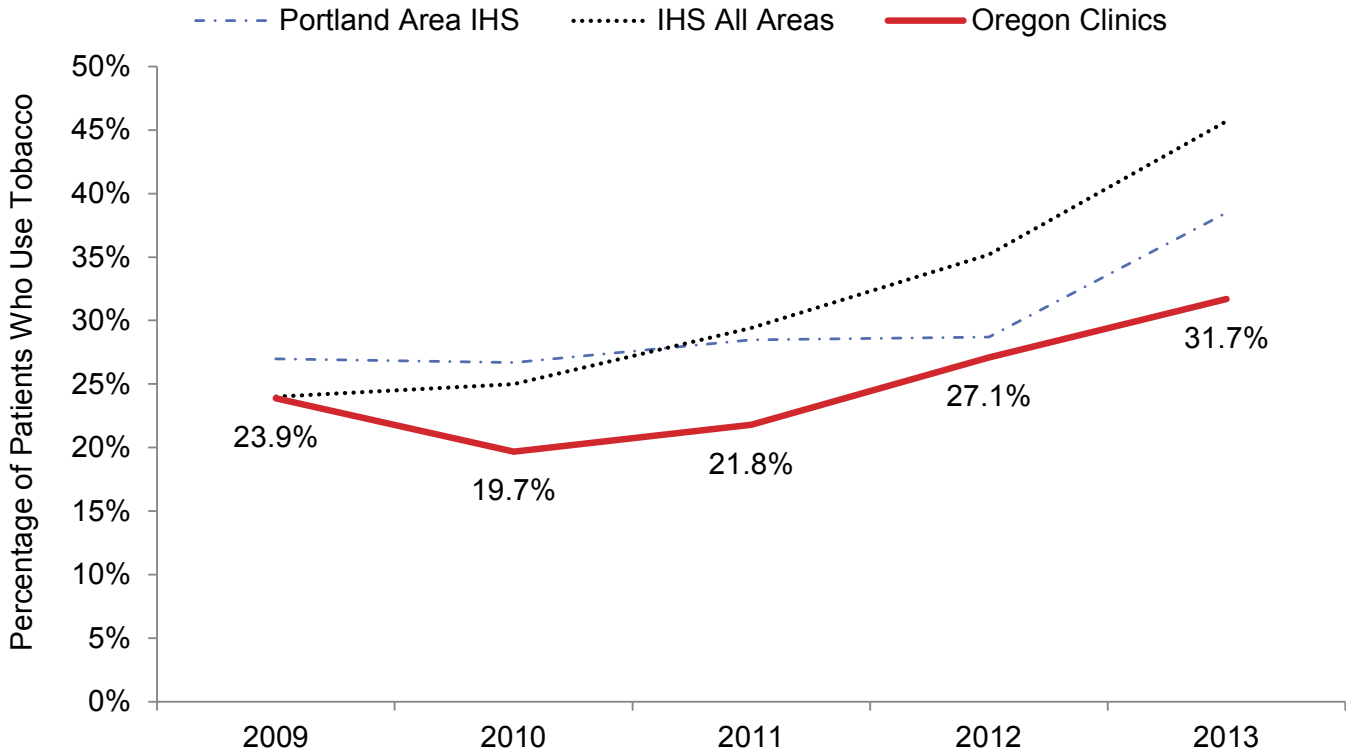
IHS tracks the percentage of tobacco-using patients who have received a tobacco cessation intervention (such as tobacco cessation counseling) in the past year. The 2012 goal for this measure was 30%. IHS is using 2013 rates to establish a new baseline for this measure, and did not set a 2013 goal.

The tobacco cessation counseling rate for Oregon clinics fluctuated between 19-32% between 2009 and 2013, and was below Portland Area and national IHS rates for all years. All three areas have shown an upward trend for this measure since 2010, with a sharper increase for the national IHS. In 2012, Oregon clinics and the Portland Area IHS were below the national goal of 30%.

**Data Source:** Portland Area Indian Health Service.

**Data Notes:** Data labels only shown for Oregon clinics. Oregon clinics include non-urban federal and tribal Indian health facilities in Oregon. Portland Area IHS clinics include non-urban federal and tribal Indian health facilities in Idaho, Oregon, and Washington.

**Figure 11.8: Tobacco cessation counseling rates for IHS patients, 2009-2013.**



# 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 (CO), particulate matter (PM-2.5 and PM-10), lead, and nitrogen dioxide. 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.

Oregon has three non-attainment areas in the state (Figure 11.9): Eugene-Springfield (PM-10), Klamath Falls (PM-2.5), and Oakridge (PM 2.5 and PM-10). PM 2.5 are small particles 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.

Oregon has several air quality maintenance areas for CO, ozone, and PM-10. These areas currently meet air quality standards, but exceeded them in the past.

None of the federally recognized tribes in Oregon have lands within Oregon's air quality nonattainment or maintenance areas. However, AI/AN living in urban areas could be affected by local air quality conditions.

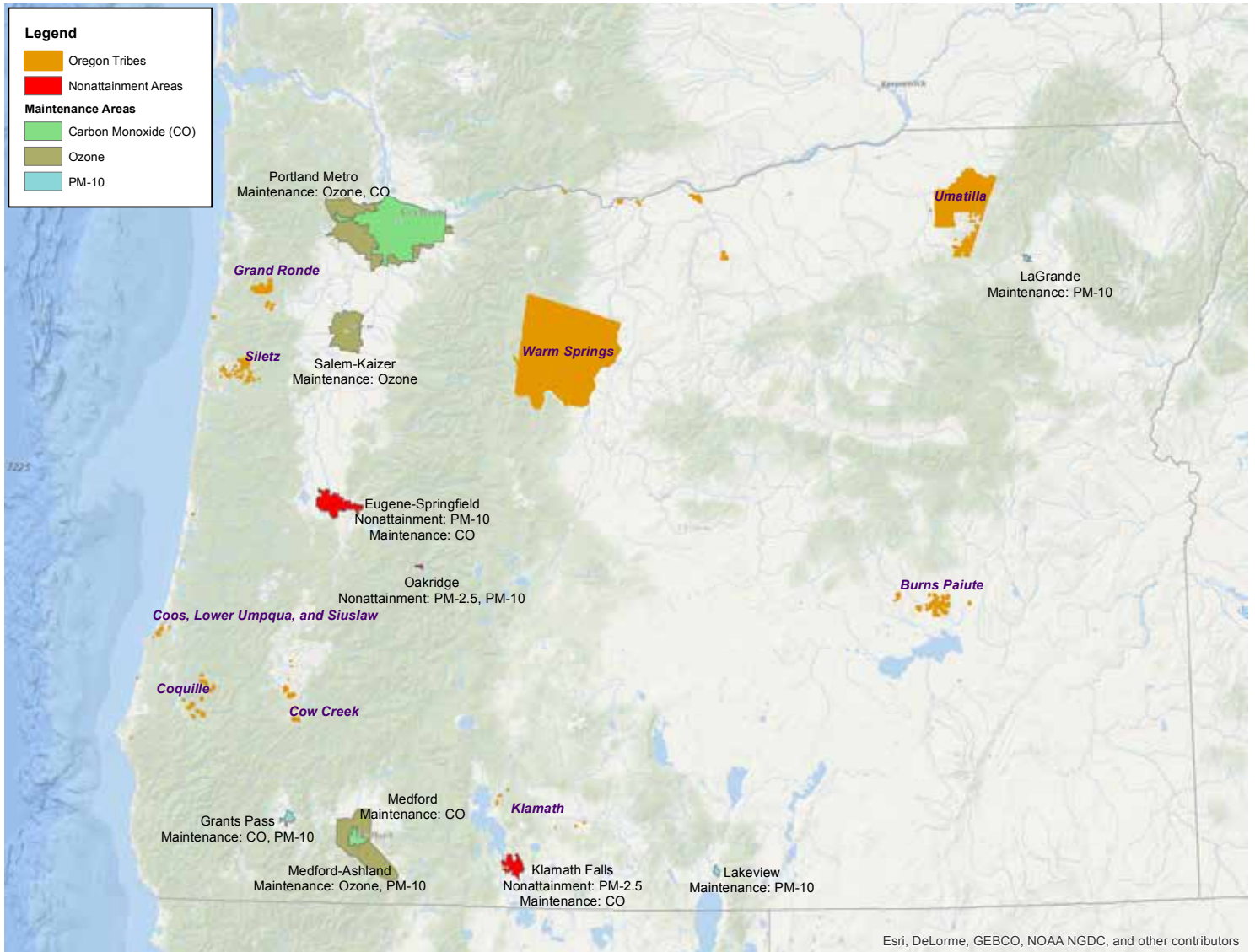
<sup>1</sup> <http://www.epa.gov/air/criteria.html>

**Data Source:** Oregon Department of Environmental Quality.

Air Quality Website: <http://www.deq.state.or.us/aq/planning/index.htm>.

**Data Notes:** The air quality information presented in this report is current as of September 2014. For up-to-date information on air quality in Oregon, visit: <http://www.deq.state.or.us/aq/planning/index.htm>.

**Figure 11.9: Air quality non-attainment and maintenance areas in Oregon.**



# Environmental Health: Fish Consumption Advisories

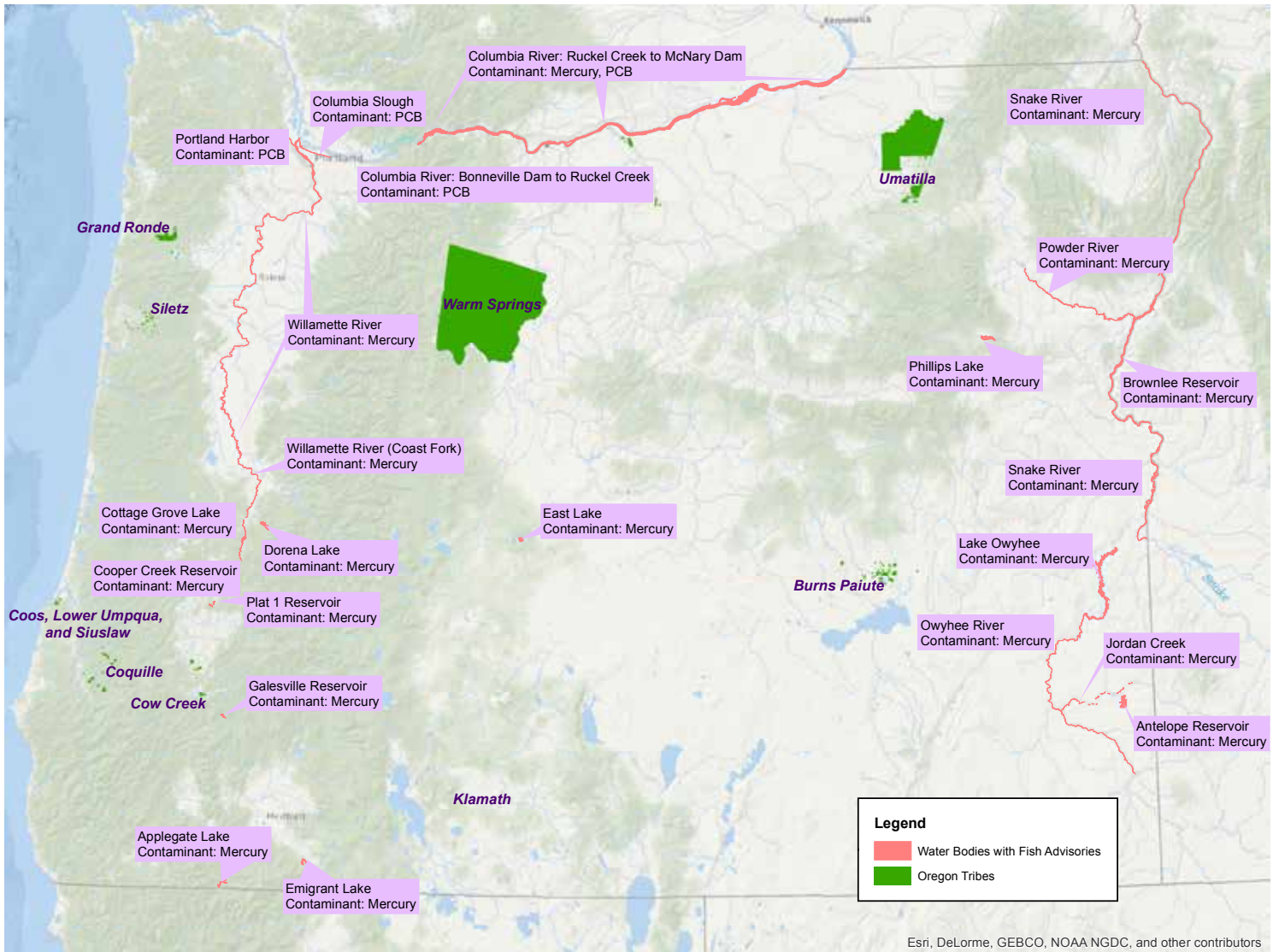
Fish are important to many Northwest Tribes' culture, traditions, and history. Fish are also an important dietary source of healthy fats, protein, and essential nutrients. However, fish can become contaminated with chemicals in the environment. Exposure to these chemicals can potentially pose health risks to people who eat contaminated fish. Women of childbearing age, pregnant women, nursing mothers, and young children are particularly vulnerable to chemical exposures, but can also benefit from the healthful nutrients in fish.

The State of Oregon has issued fish consumption advisories for several water bodies in Oregon (Figure 11.10 and Table 11.1). These advisories help people make healthy choices when eating fish caught from contaminated water bodies in Oregon. Oregon also has guidance for choosing fish from grocery stores and restaurants (available at: <http://public.health.oregon.gov/HealthyEnvironments/Recreation/FishConsumption/Pages/seafood-shellfish.aspx>)

**Data Source:** Oregon Public Health Division, Environmental Public Health.

**Data Notes:** Table adapted from Oregon's fish advisory program website. The fish advisory information presented in this report is current as of September 2014. For up-to-date information on fish advisories in Oregon, visit: <http://public.health.oregon.gov/HealthyEnvironments/Recreation/FishConsumption/Pages/index.aspx>.

**Figure 11.10: Map of fish consumption advisories in Oregon, 2014.**





**Table 11.1: Fish consumption advisories in Oregon.**

Water Body	Contaminants	Affected Fish Species	Meals per month	
			Vulnerable Populations*	Everyone Else
Antelope Reservoir	Mercury	All resident fish	0	1
Applegate Lake	Mercury	Large and small mouth bass,	2	5
		yellow perch Bluefish and crappie	4	13
Columbia River: Bonneville Dam to Ruckel Creek (1 mile upstream)	PCB	All resident fish	0	0
Columbia River: Ruckel Creek to McNary Dam (150 miles upstream from Bonneville)	Mercury, PCB	All resident fish	4	4
Columbia Slough	PCB	All resident fish	2	2
Cooper Creek Reservoir	Mercury	All resident fish	1	4
Cottage Grove Reservoirs	Mercury	All resident fish except stocked, fin-clipped rainbow trout (12 inches or less)	0	1
		All resident fish except stocked, fin-clipped rainbow trout (12 inches or less)	1	4
East Lake	Mercury	All resident fish, brown trout (16 inches or longer)	1	3
		All resident fish except rainbow trout	0	1
Emigrant Reservoir	Mercury	All resident fish except rainbow trout	1	3
Galesville Reservoir	Mercury	All resident fish	1	4
Jordan Creek	Mercury	All resident fish	0	1
Owyhee Reservoir	Mercury	All resident fish	1	3
Owyhee River upstream to Three Forks	Mercury	All resident fish	2	6
Phillips Reservoir	Mercury	Yellow perch	2	5
Plat 1 Reservoir	Mercury	All resident fish	2	6
Portland Harbor (Lower Willamette River and Multnomah Channel)	PCB	All resident fish; avoid eating carp, bass and catfish	0	1
Snake River including Brownlee Reservoir and Powder River	Mercury	All resident fish	3	8
Willamette River (including Coast Fork)	Mercury	All resident fish	1	4

PCB = Polychlorinated biphenyls

\*Vulnerable populations include women of childbearing age, children under 6, and people with thyroid or immune system problems.

PCBs = Polychlorinated biphenyls; DDT = dichlorodiphenyltrichloroethane; PBDEs = Polybrominated diphenyl ethers



## ***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) risks for cancer and chronic diseases. These factors include tobacco use, obesity, physical activity, diet, and getting preventive health screenings. 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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[http://www.npaihb.org/epicenter/project/comprehensive\\_cancer\\_tribal\\_brfss\\_project](http://www.npaihb.org/epicenter/project/comprehensive_cancer_tribal_brfss_project)

