

# 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 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 Washington, including: weight status for both children and adults; levels of exercise; fruit and vegetable consumption; tobacco cessation; seatbelt use; asthma prevalence; state-wide air quality; and locations of fish consumption advisories.

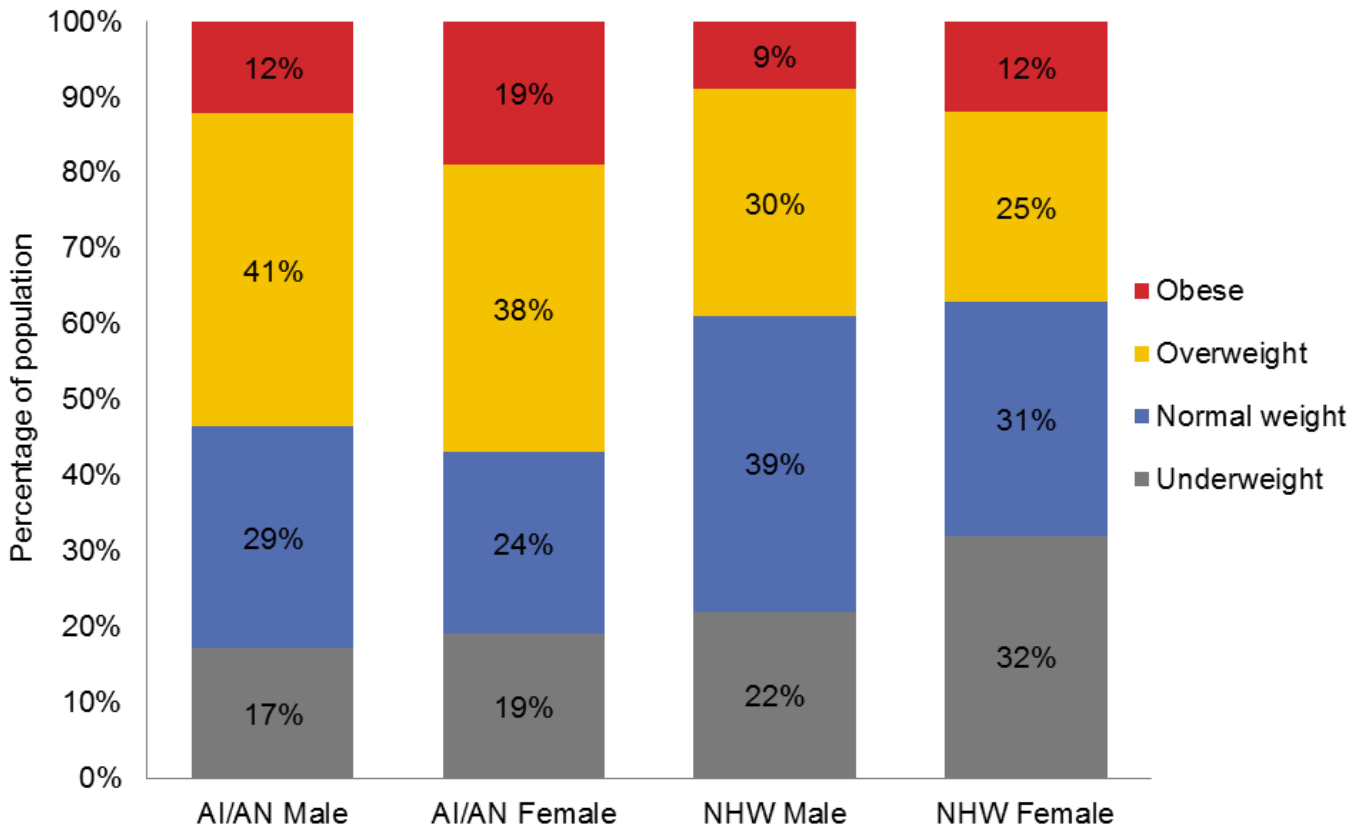
# Body Mass Index (BMI)

From 2006-2012, AI/AN males and females in Washington were more likely to be overweight or obese than their white counterparts in the state. Over 50% of AI/AN males and females had a BMI in the overweight or obese range, while less than 40% of NHW males and females had BMIs in this range (Figure 11.1). Compared to AI/AN males, a lower percentage of AI/AN females were overweight (38% vs 41%); however, AI/AN females were more likely to be obese (19% vs. 12%). For both AI/AN and NHW, females were more likely to be underweight than males.

**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 Washington 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, Washington, 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=776; AI/AN females=1,125; NHW males=49,225; NHW females=76,068.

# Childhood Weight Control (BMI Percentile)

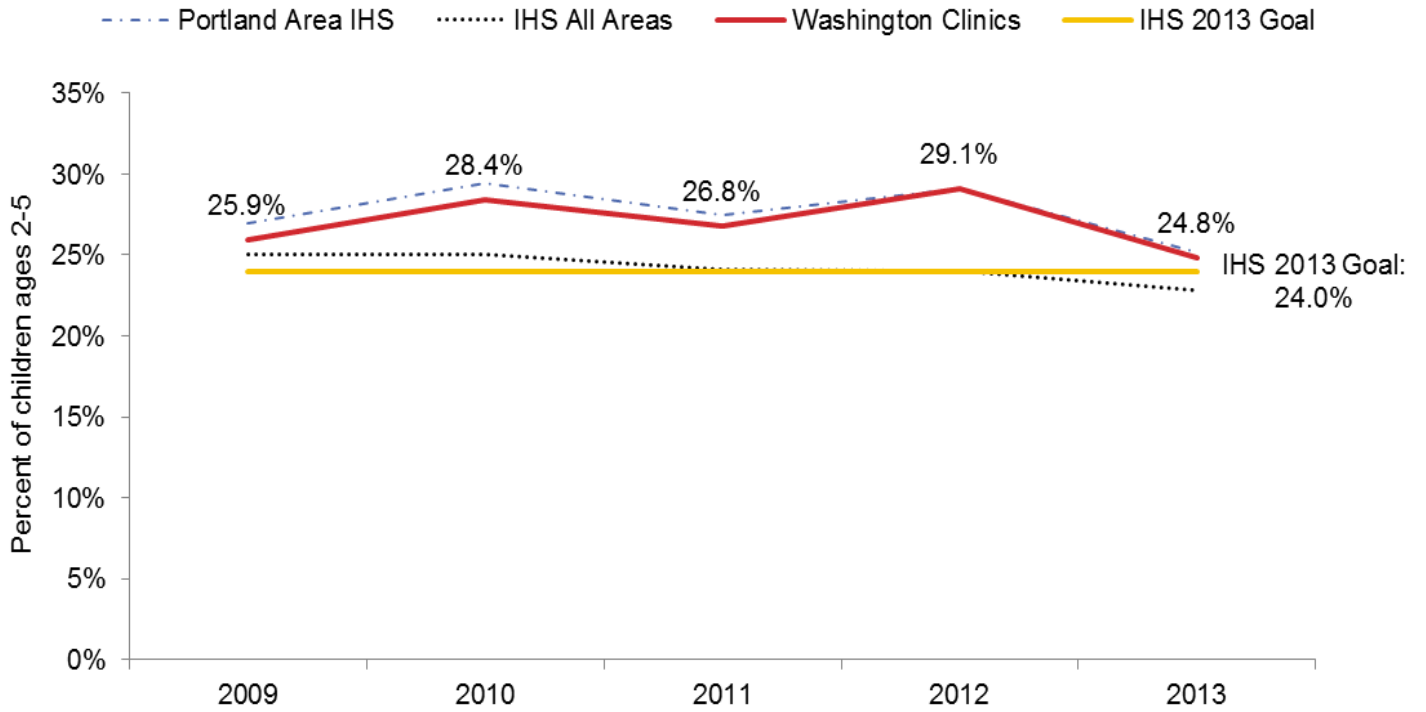
Children with a BMI that is at or above the 95th percentile for their age group are considered obese. The U.S. has a Healthy People 2020 goal for no more than 9.6% of children ages 2-5 to be considered obese. IHS tracks the percentage of AI/AN children (ages 2-5) with a BMI in the 95th percentile range. In 2013, the IHS goal for childhood overweight 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 lower than the 2013 goal of 24%. The prevalence of childhood overweight for Washington 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 overweight for Washington clinics (24.8%) did not meet the 2013 goal.

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

**Data Notes:** Data labels only shown for Washington clinics. Washington clinics include non-urban federal and tribal Indian health facilities in Washington. 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 overweight, 2009-2013.**



# Exercise

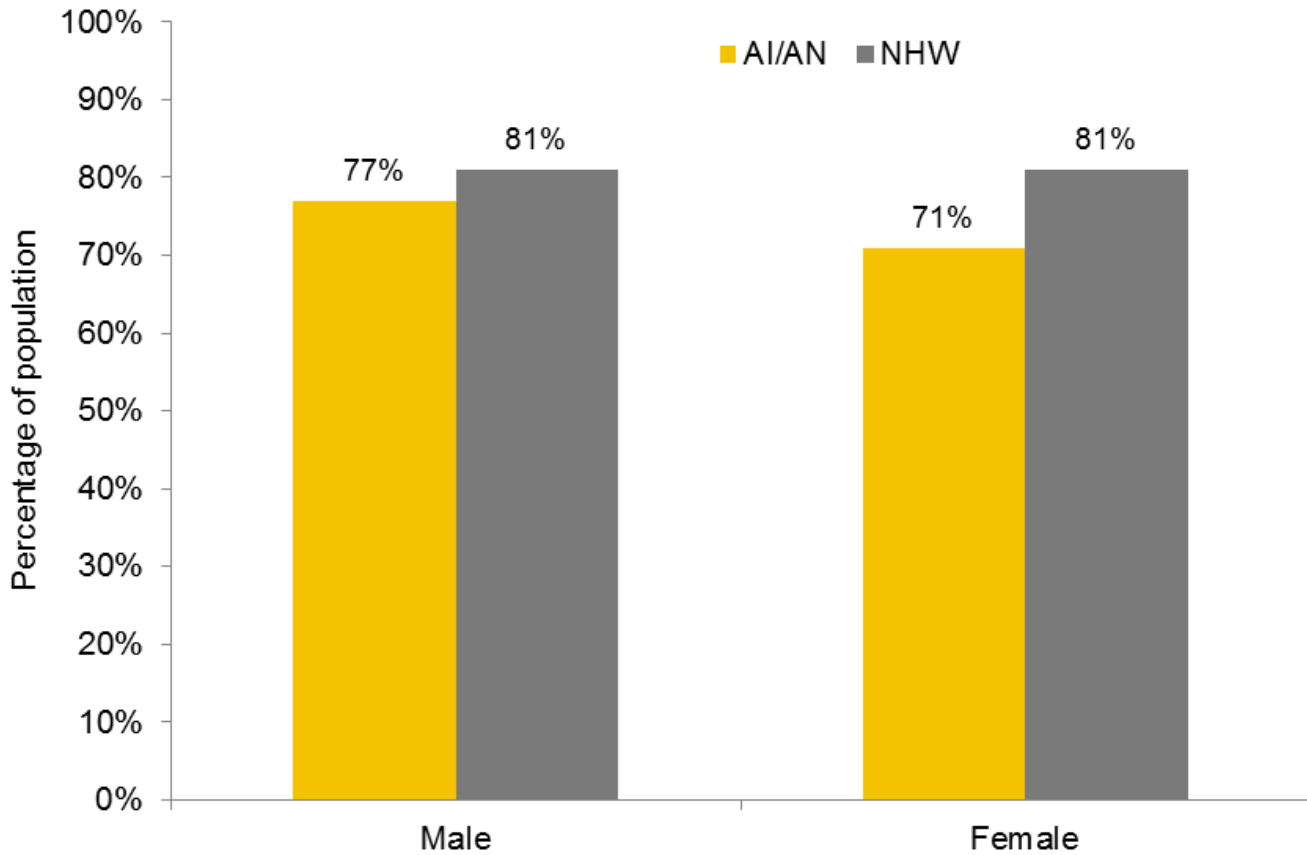
From 2006-2012, over 70% of AI/AN in Washington reported having exercised in the past month (Figure 11.3). AI/AN males were more likely to exercise than AI/AN females (77% vs. 71%). Compared to AI/AN, a higher percentage of NHW (81%) reported getting some physical activity in the past month.

**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 Washington 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, Washington, 2006-2012.**



Sample sizes (n): AI/AN males=779; AI/AN females=1,146; NHW males=49,259; NHW females=77,059.

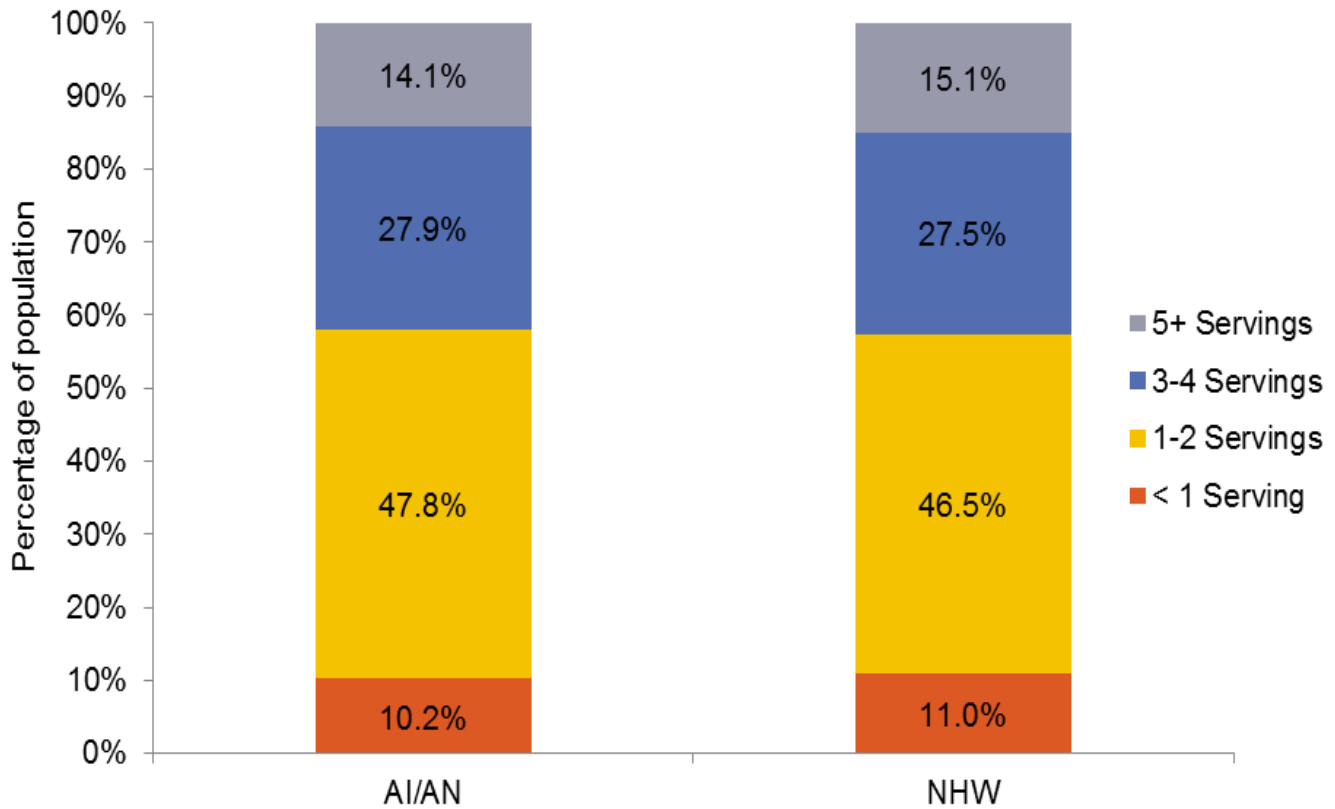
# Fruit and Vegetable Consumption

Figure 11.4 shows the number of fruit and vegetable servings eaten per day for AI/AN and NHW in Washington. Approximately 10% of AI/AN and 11.0% of NHW reported eating less than one serving of fruit or vegetables per day. Approximately 47% of AI/AN and NHW ate 1-2 servings per day, while 28% ate 3-4 servings per day. Only 14.1% of AI/AN and 15.1% of NHW reported eating five 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 Washington 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, Washington, 2007, 2009, 2011.**



Sample sizes (n): AI/AN: 178, NHW: 12,944

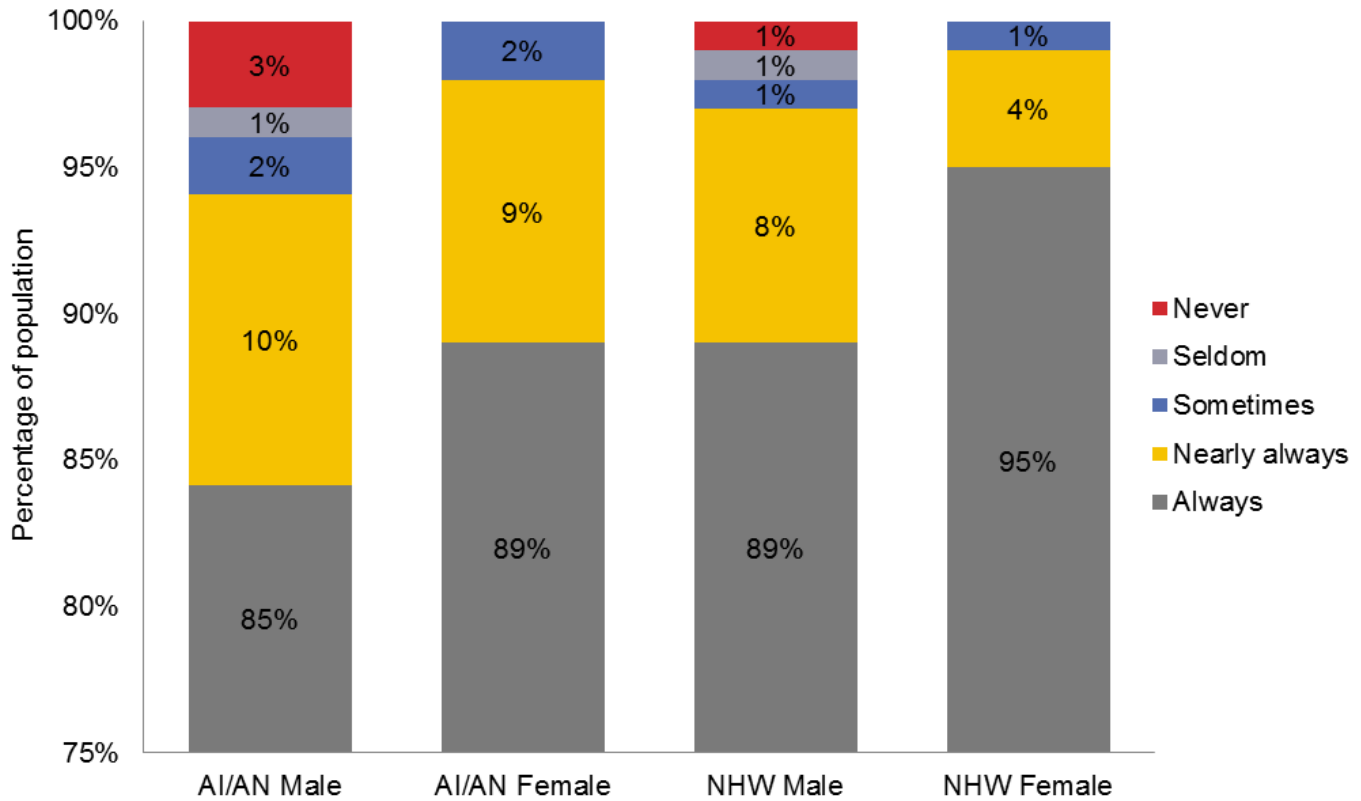
# Seat belt Use

Among AI/AN and NHW in Washington, women were more likely than men to report always wearing a seat belt (Figure 11.5). The majority (95%) of NHW women always wore seat belts, while 89% of AI/AN women always wore seat belts. Four percent of AI/AN men and 2% of NHW men reported that they seldom or never wore seat belts.

**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 Washington 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 seat belt use by race and sex, Washington, 2006-2012.**



Sample sizes (n): AI/AN males=499; AI/AN females=748; NHW males=33,008; NHW females=51,295.

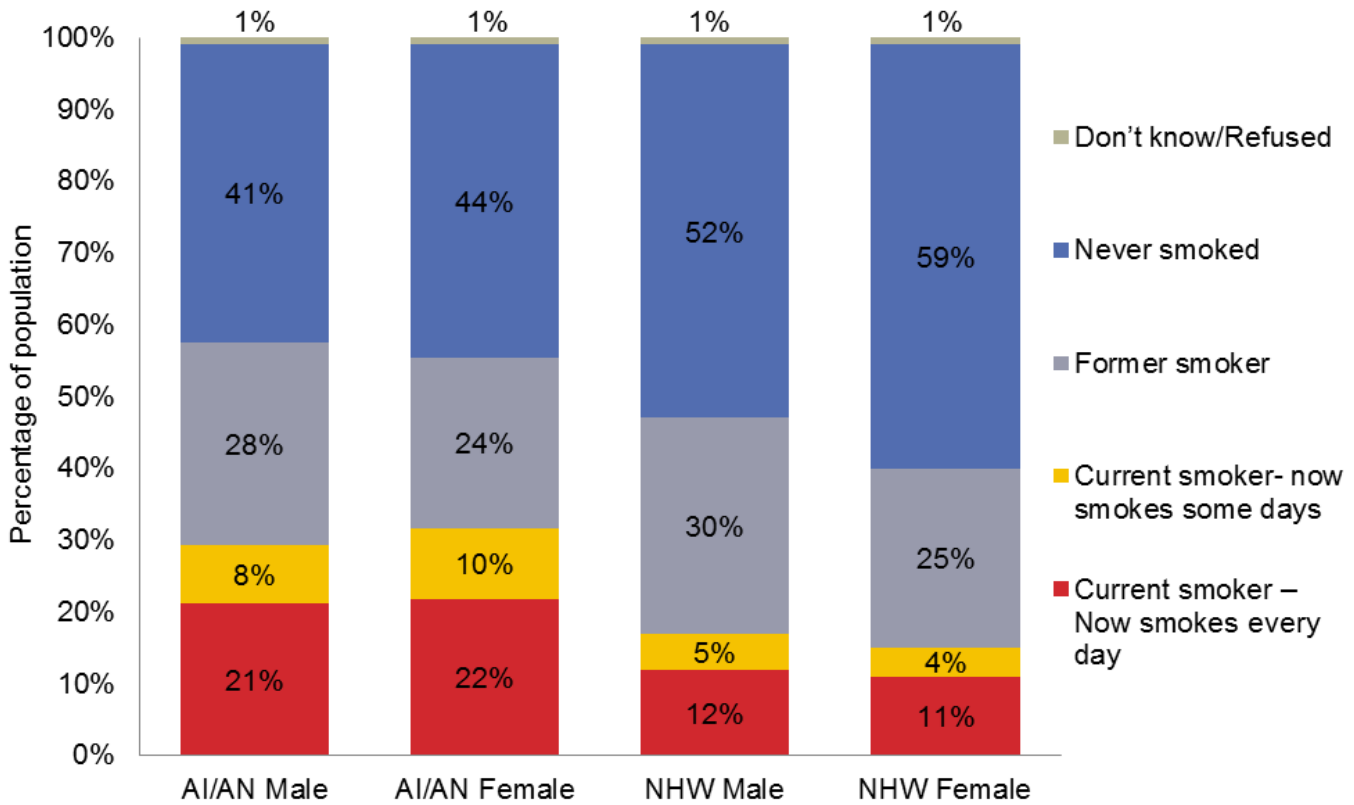
# Smoking Status

AI/AN males and females in Washington 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 8% of AI/AN males and 10% 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 (32% vs. 29%), while NHW females were less likely to be current smokers than NHW males (15% vs. 17%). A lower percentage of AI/AN males (41%) had never smoked compared to AI/AN females (44%), NHW males (52%), and NHW females (59%).

**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 Washington 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, Washington, 2006-2012.**



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

# Asthma Prevalence

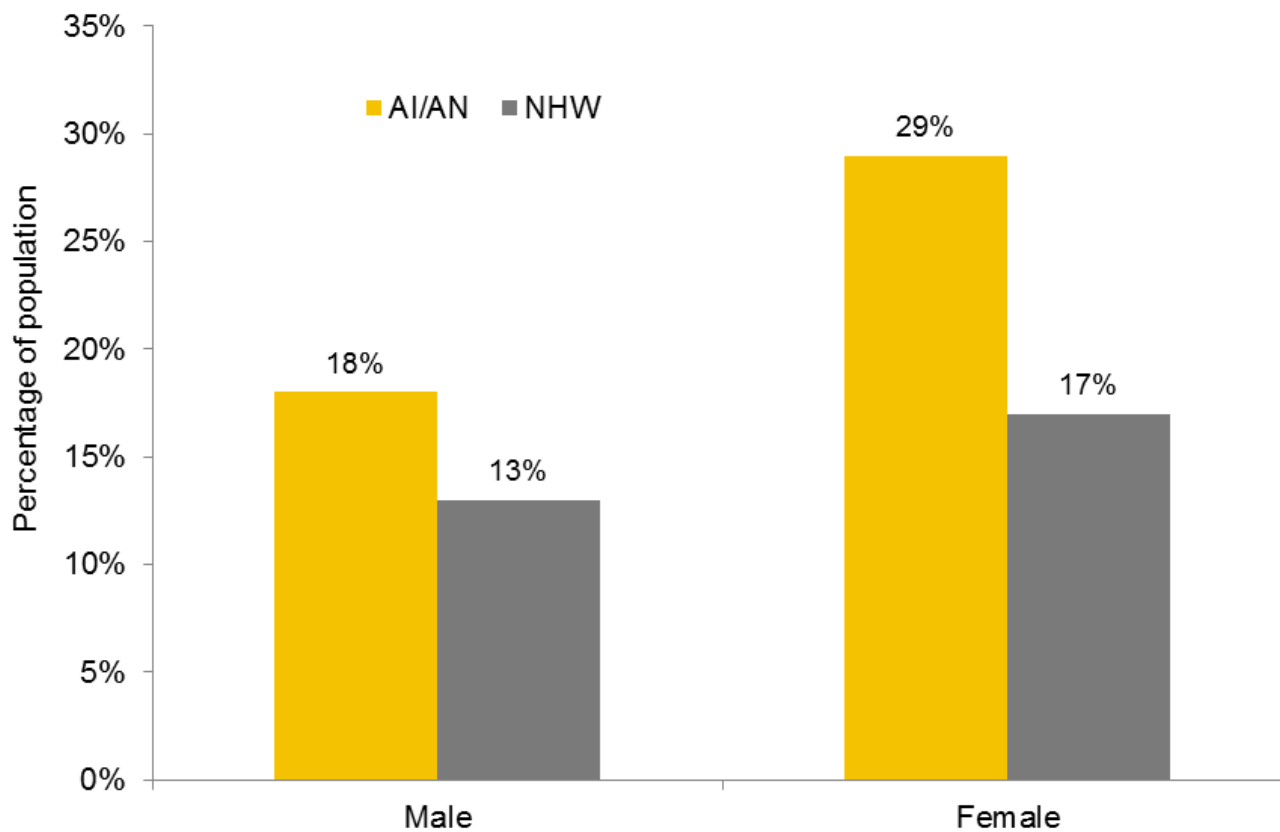
Smoking and exposure to second-hand smoke are triggers for asthma in children and adults. Compared to their NHW counterparts in the state, a higher percentage of AI/AN males and females in Washington reported having asthma during their lifetime (Figure 11.7). Almost 30% of AI/AN females reported having asthma during their lifetime. This was much higher when compared to AI/AN males (18%), NHW males (13%), and NHW females (17%).

**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 Washington 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, Washington, 2006-2012.**



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

# Tobacco Cessation

Tobacco use increases the risk for many diseases, including lung cancer, cardiovascular disease, and respiratory diseases. 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%.

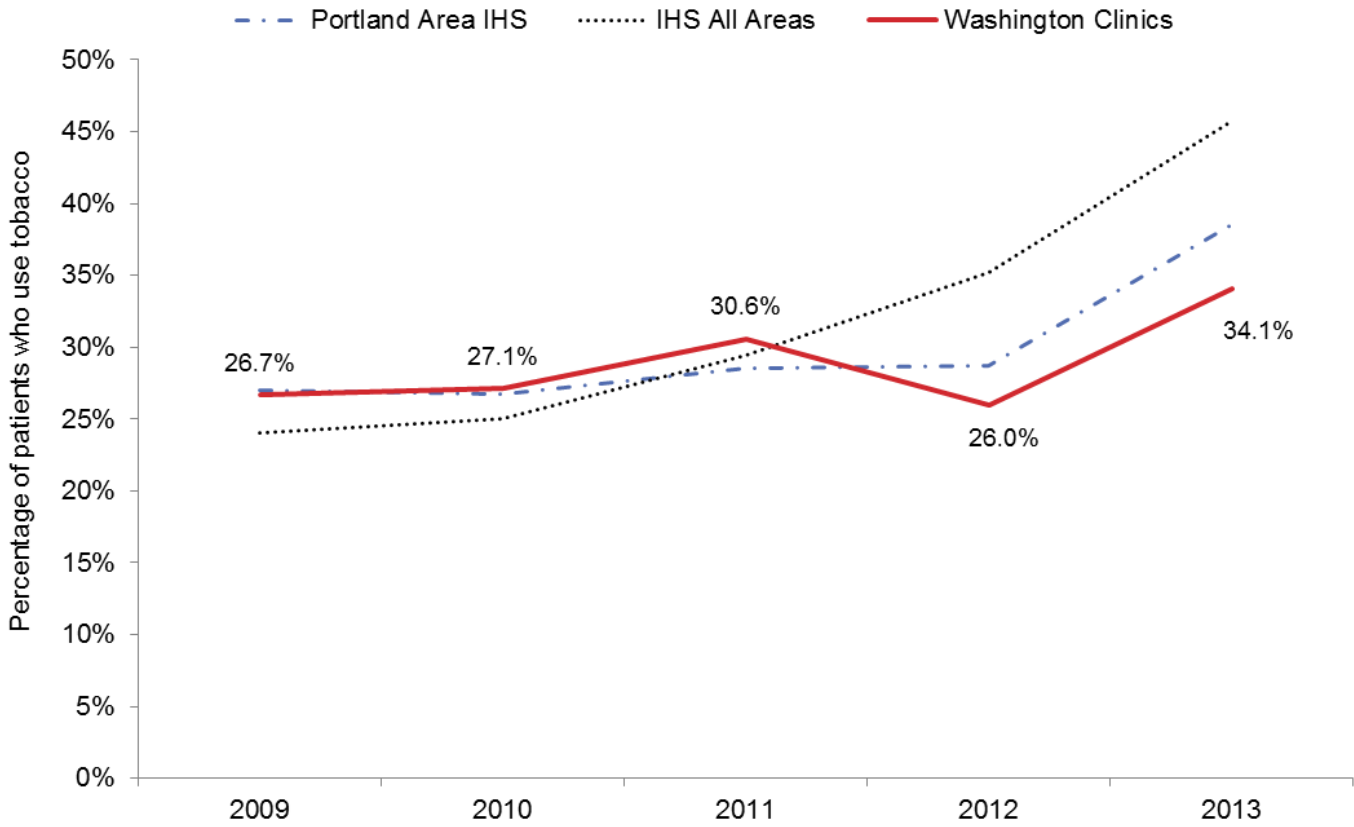
The tobacco cessation counseling rates for Washington clinics fluctuated from 26-30% before increasing to 34.1% in 2013 (Figure 11.8). The national IHS average has shown a more obvious upward trend since 2009. The national IHS average exceeded the 2012 goal for this measure, while Washington clinics and the Portland Area IHS fell below this goal.

The IHS is using 2013 rates to establish a new baseline for this measure, and did not set a 2013 goal.

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

**Data Notes:** Data labels only shown for Washington clinics. Washington clinics include non-urban federal and tribal Indian health facilities in Washington. 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, particulate matter (PM-2.5 and PM-10), lead, and nitrogen dioxide<sup>2</sup>. 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.

Washington currently has one non-attainment area in Tacoma-Pierce County for fine particulate matter (PM-2.5) (Figure 11.9). This area was designated as a non-attainment area in 2009. PM 2.5 is generated from smoke (especially from wood-burning stoves), vehicle exhaust, and industrial processes. Exposure to PM 2.5 in the air can increase risks for respiratory illnesses, cardiovascular disease, and premature death. One Washington Tribe (Puyallup) is within the PM 2.5 non-attainment area.

Washington has several air quality maintenance areas for ozone, PM-10, and carbon monoxide. These areas currently meet air quality standards, but exceeded them in the past. Several tribes near the Puget Sound are within these maintenance areas.

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

<sup>2</sup> [http://www.ecy.wa.gov/programs/air/sips/designations/pm\\_tacoma.htm](http://www.ecy.wa.gov/programs/air/sips/designations/pm_tacoma.htm)

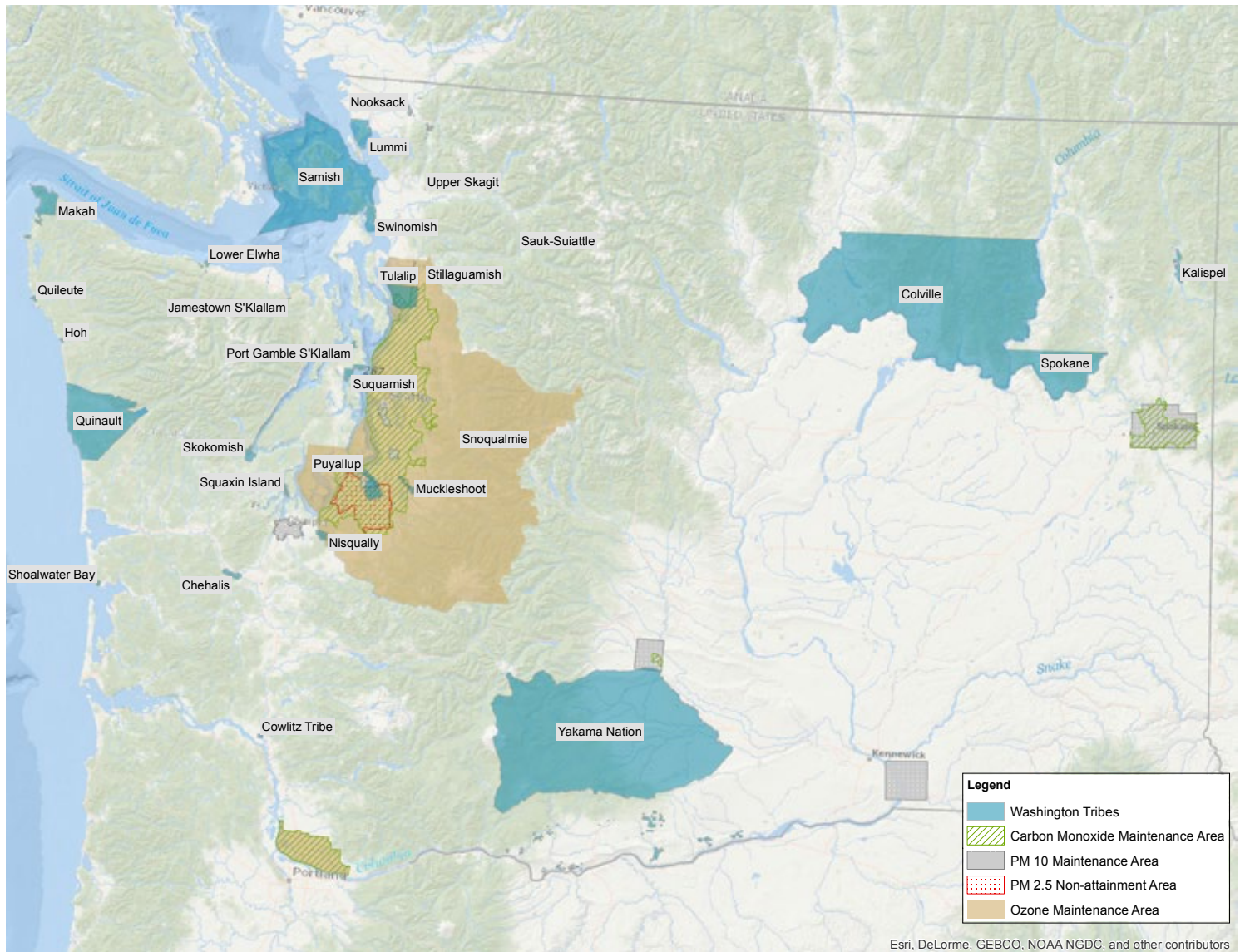
**Data Source:** Washington Department Ecology.

Air Quality Website: <http://www.ecy.wa.gov/programs/air/sips/sips.htm>.

GIS Layers: <http://www.ecy.wa.gov/services/gis/data/data.htm>.

**Data Notes:** The air quality information presented in this report is current as of July 2014. For up-to-date information on air quality in Washington, visit: <http://www.ecy.wa.gov/programs/air/sips/sips.htm>.

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



# 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.

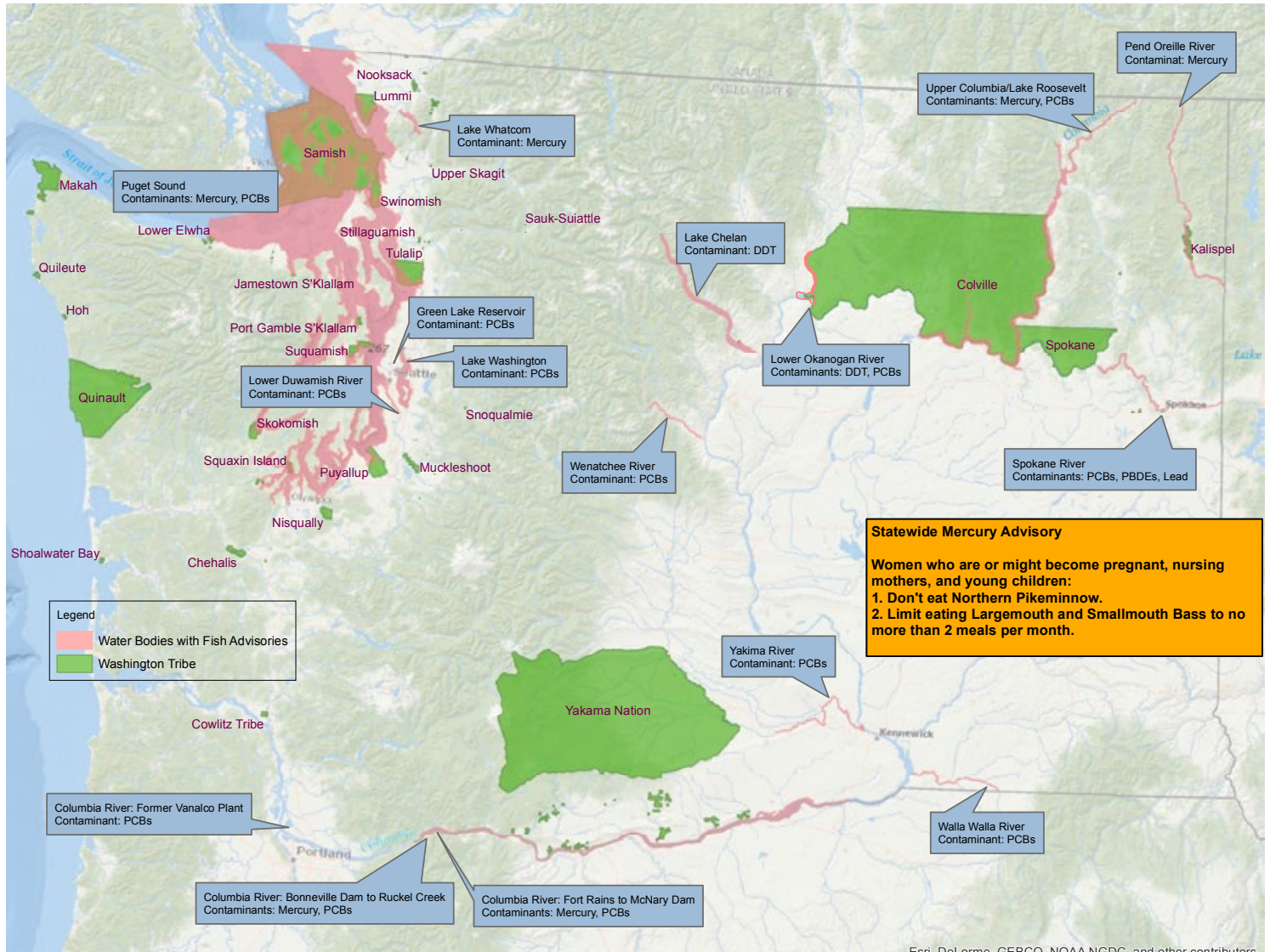
The State of Washington has issued fish consumption advisories for several water bodies in Washington (Figure 11.10 and Table 11.1). These advisories help people make healthy choices when eating fish caught from contaminated water bodies in Washington. Washington also has guidance for choosing fish from grocery stores and restaurants (available at: <http://www.doh.wa.gov/CommunityandEnvironment/Food/Fish.aspx>).

**Data Source:** Washington State Department of Health.

**Data Notes:** The fish advisory information presented in this report is current as of July 2014. For up-to-date information on fish advisories in Washington, visit: <http://www.doh.wa.gov/CommunityandEnvironment/Food/Fish/Advisories.aspx>.



**Figure 11.10: Map of fish consumption advisories in Washington.**



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

Water Body	Contaminants	Advisory
Statewide Advisory	Mercury	Women who are or might become pregnant, nursing mothers, and young children: Don't eat Northern Pikeminnow, Limit eating largemouth and smallmouth bass to no more than 2 meals per month
Columbia River: Bonneville Dam to Ruckel Creek (1 mile upstream)	Mercury, PCBs	Don't eat resident fish (Bass, Bluegill, Carp, Catfish, Crappie, Sucker, Sturgeon, Walleye, and Yellow Perch)
Columbia River: Ruckel Creek to McNary Dam (150 miles upstream from Bonneville)	Mercury, PCBs	No more than 1 meal per week of resident fish (Bass, Bluegill, Carp, Catfish, Crappie, Sucker, Sturgeon, Walleye, and Yellow Perch)
Lower Duwamish River	PCBs	Don't eat crab, shellfish, or resident fish from the Lower Duwamish River. Limit Chinook Salmon to 1 meal per week and Blackmouth (resident Puget Sound Chinook) to 2 meals per month. Chum, Coho, Pink, and Sockeye Salmon are okay to eat 2-3 meals per week.
Green Lake Reservoir	PCBs	Limit Carp to 1 meal per month
Lake Chelan	DDT	Limit Lake trout (Mackinaw) to 1 meal per week
Lake Washington	PCBs	Don't eat Northern Pikeminnow and Carp. Limit Cutthroat Trout to 1 meal per month and Yellow Perch to 1 meal per week. Sockeye Salmon, Rainbow Trout, and Pumpkin Seed are okay to eat 2-3 meals per week.
Lake Whatcom	Mercury	Women who are or might become pregnant, nursing mothers, and young children should not eat Smallmouth Bass. Limit Yellow Perch to 1 meal per week.
Lower Columbia River - Former Vanalco Plant	PCBs	Don't eat freshwater clams near and downstream of the former Vanalco plant (5710 NW Lower River Road, Vancouver), river mile 103
Okanogan River	DDT, PCBs	Limit Carp to 1 meal per month (Malott Bridge to Brewster Bridge and Chief Joseph State Park on the Columbia River (Lake Pateros)).
Pend Oreille River	Mercury	Women who are or might become pregnant, nursing mothers, and young children should not eat Northern Pike bigger than 24 inches. Northern Pike smaller than 24 inches should be limited to 2 meals per month.
Puget Sound	Mercury and PCBs	Multiple advisories depending on marine area location and fish/shellfish species.
Spokane River	PCBs, PBDEs, Lead	Idaho Border to Upriver Dam: Don't eat any fish. Upriver Dam to Nine Mile Dam: Don't eat Largescale Sucker, limit all other fish to 1 meal per month. Lake Spokane (Long Lake): Limit Largescale Sucker & Brown Trout to 1 meal per month. Limit Mountain Whitefish to 1 meal per week.
Upper Columbia River/Lake Roosevelt: Grand Coulee Dam to Canadian border	Mercury, PCBs	Do not eat Northern Pikeminnow. Largescale sucker & Largemouth Bass: Women of childbearing age & children limit to 2 meals per month, everyone else 1 meal per week. Eat only 4 meals per month of any combination of Burbot, Longnose Sucker, Mountain Whitefish, Smallmouth bass, and Walleye.
Walla Walla River	PCBs	Limit Carp from the lower Walla Walla River (Dry Creek to the Columbia River) and Northern Pikeminnow from the upper Walla Walla River to 1 meal per month.
Wenatchee River: Icicle Creek to Columbia River	PCBs	Don't eat Mountain Whitefish.
Yakima River: Prosser to Columbia River	PCBs	Limit Common Carp to 1 meal per week.

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 preventative 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)

