

Tobacco Use

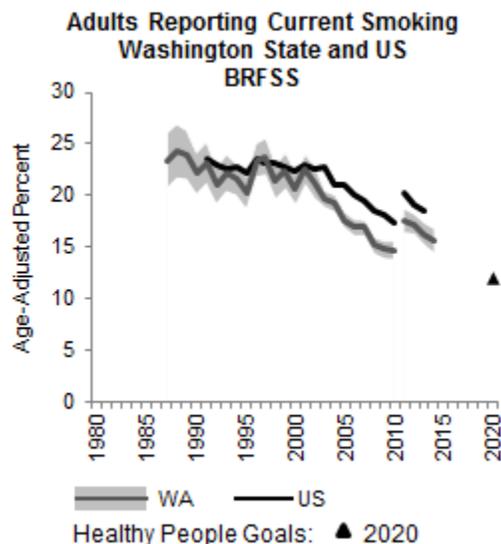
Definition: Tobacco use includes the intake of tobacco smoke from cigarettes, cigars, pipes, and hookahs either by the individual smoking or the oral absorption of nicotine and related toxins through smokeless/spit tobacco (chew, dip, snus, or snuff). An adult who has smoked at least 100 cigarettes in his or her lifetime and currently smokes every day or some days is defined as a current smoker. This report includes data on maternal smoking before, during and after pregnancy. Most reports classify a new mother as a smoker if she smoked in the three months prior to pregnancy. A current youth smoker is an adolescent who has smoked on at least one of the past 30 days.

This is a data update of the *Health of Washington State* chapter on [Tobacco Use](#) published in 2012.

Adults and Youth

Time Trends

In 2014, the prevalence of current smoking among Washington State adults was 15% ($\pm 1\%$).



In 2011, the [Behavioral Risk Factor Surveillance System](#) (BRFSS) integrated cell phones into its sampling and changed the methods used to weight data to match the target population. These changes resulted in a break in the trend between 2010 and 2011. The 2011 estimates were notably higher than in 2010, but subsequent years have indicated that the downward trend between 2001 and 2010 continued after 2011. The national *Healthy People 2020* target for adult tobacco use is to

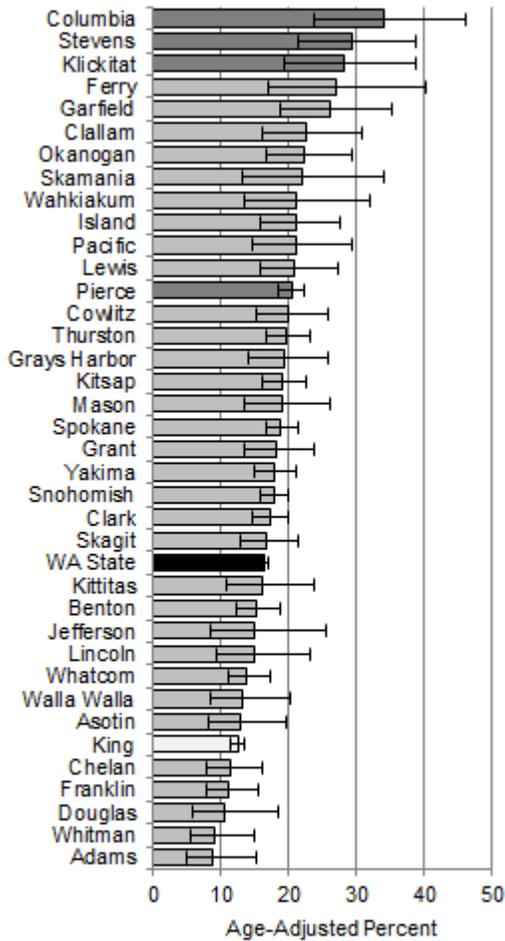
reduce current smoking to an age-adjusted prevalence of 12% or less. If current trends continue, Washington will likely meet this goal.

Among Washington youth, cigarette smoking in the past 30 days decreased between 2002 and 2014. Among 10th grade students, the prevalence of past 30-day smoking fell from 15% ($\pm 1\%$) to 8% ($\pm 1\%$). The decline in cigarette smoking, however, does not account for increases in other types of tobacco products. The prevalence of e-cigarette use among 10th grade students increased from 4% ($\pm 1\%$) in 2012 to 18% in 2014 ($\pm 2\%$). Nationally, recent increases in e-cigarette use and hookah use have offset declines in other traditional tobacco products, yielding flat or increasing rates of any kind of tobacco use.¹

Geographic Variation

Age-adjusted county data on current smoking from BRFSS for 2012–2014 indicate variation in smoking prevalence by county, from an age-adjusted prevalence of 9% ($\pm 5\%$) in Adams County to 34% ($\pm 11\%$) in Columbia County. King County's smoking rate was lower than the state. Pierce, Columbia, Stevens and Klickitat Counties had a higher rate. San Juan and Pend Oreille counties were not included because there were too few survey respondents.

**Adult Current Smoking
Washington Counties
WA BRFSS 2012–2014**

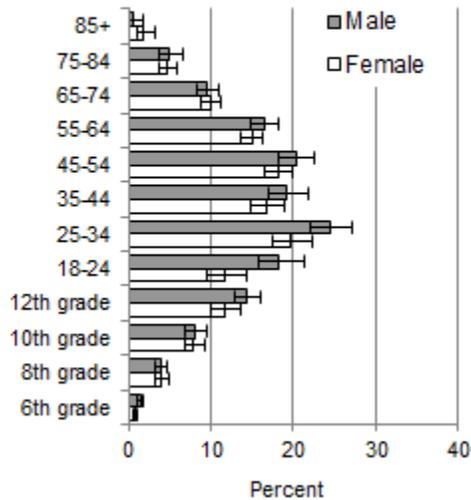


- Washington State
- Value lower than WA State
- ▒ Value same as WA State
- Value higher than WA State

Age and Gender

Based on the 2014 [Healthy Youth Survey](#) (HYS) and the 2012–2014 BRFSS, smoking prevalence continues to be at its highest in late adolescence and early adulthood, peaking at 20% (±2%) among 25–34 year old women and at 24% (±3%) among men.

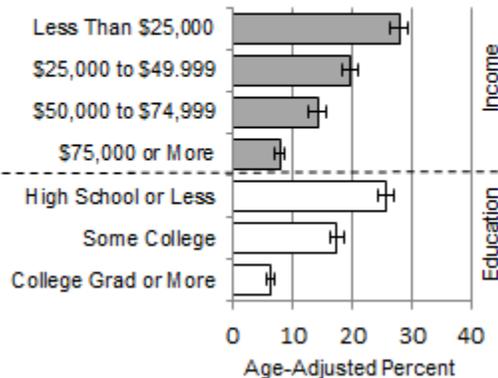
**Adult and Youth
Current Cigarette Smoking
Age and Gender
WA BRFSS 2012–2014
HYS 2014**



Economic Factors and Education

In the 2012–2014 BRFSS, current smoking prevalence decreased as levels of education and household income increased. Numerous studies have documented this relationship and also found higher quitting rates among those with higher levels of education.^{2,3,4,5}

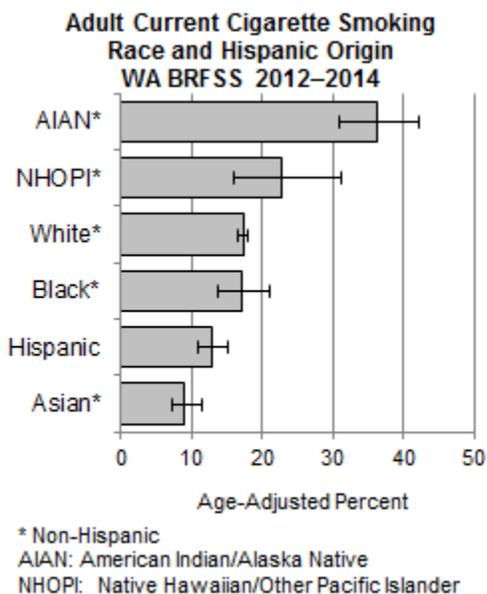
**Adult Current Cigarette Smoking
Annual Household Income
and Education
WA BRFSS 2012–2014**



Race and Hispanic Origin

Based on BRFSS data for 2012–2014 combined, Asians and Hispanics have the lowest smoking prevalence rates and the American Indian/Alaska Native population continues to have the highest prevalence of current smoking. The black, white and

Native Hawaiian/Other Pacific Islander populations have smoking prevalence rates in the middle.



Health Effects

The 2014 Surgeon General’s report, *The Health Consequences of Smoke – 50 Years of Progress*, included major updates on the diseases caused by smoking and how to estimate the public health burden of smoking. About 480,000 American die annually from smoking cigarettes,⁶ which includes about 8,300 adults in Washington.⁷

Other Measures of Tobacco Use

Smokeless tobacco. In the 2014 BRFSS, 4% ($\pm 1\%$) of Washington adults reported using smokeless tobacco in the past month. Among adult men ages 18 and older, the prevalence of smokeless tobacco use was 6% ($\pm 1\%$), while among women it was less than 1%. On the 2014 HYS, 5% ($\pm 1\%$) of boys in 10th grade and 2% ($\pm 1\%$) of girls in 10th grade reported using smokeless tobacco in the past 30 days.

Cigars. In the 2014 HYS, the prevalence of cigar smoking among 10th grade students was 5% ($\pm 1\%$).

Hookah. In the 2014 HYS, the prevalence of hookah use was 10% ($\pm 1\%$) among 10th grade students. In the 2013 BRFSS, the prevalence of hookah use was 2%, but varied by age. Young adults, age 18–24 had the highest prevalence of past 30-day hookah use at 10% ($\pm 3\%$).

E-Cigarettes. In 2014, 6% ($\pm 1\%$) of adults had used e-cigarettes in the past 30 days. E-cigarette use was highest among younger adults 18–24 years old at 11% ($\pm 3\%$). The prevalence of past 30-day e-cigarette use among 10th grade students in 2014 was 18% ($\pm 2\%$).

High-Risk Populations

Several groups are at high risk for tobacco use in addition to those with lower incomes and lower levels of formal education, and those from specific racial groups discussed previously. In the 2014 BRFSS, 25% ($\pm 7\%$) of adults who identified as lesbian, gay or bisexual were current smokers compared to 15% ($\pm 1\%$) of adults who identified as heterosexual.

Washington 2014 BRFSS data indicate that adults reporting 14 or more days of poor mental health in the past 30 days had a smoking prevalence (29% $\pm 4\%$) double that of adults reporting less than 14 days of poor mental health in the past 30 days (14% $\pm 1\%$).

Pregnant Women

In 2009, the Washington [Pregnancy Risk Assessment Monitoring System](#) (PRAMS) changed how it asks about smoking before, during and after pregnancy. Similar to the BRFSS methodology change in 2011, PRAMS smoking results prior to 2009 should not be compared to results from 2009 or after. In 2012, 18% ($\pm 3\%$) of new mothers reported they smoked in the three months before pregnancy, 8% ($\pm 3\%$) smoked during the last three months of pregnancy and nearly 12% ($\pm 3\%$) smoked after giving birth.

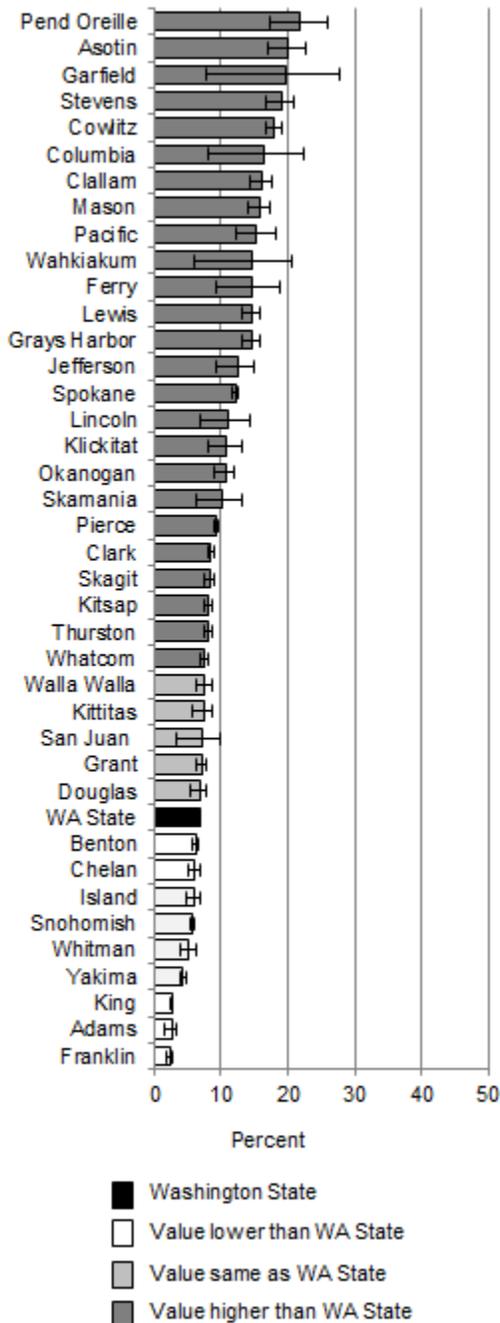
Time Trends

PRAMS data indicate a slight decrease in smoking before pregnancy, dropping from 23% ($\pm 3\%$) in 2009 to 18% ($\pm 3\%$) in 2012. Smoking rates during and after pregnancy have not changed since 2009.

Geographic Variation

PRAMS does not provide rates by county, but birth certificate data from 2012–2014 indicate that smoking rates among pregnant mothers do vary substantially by geography. Rates of smoking during pregnancy vary nearly tenfold across counties, from 2% ($\pm 1\%$) in Franklin County to 22% ($\pm 4\%$) in Pend Oreille County.

**Smoking in Pregnancy by County
Washington Birth Certificate Data
2012–2014**



Age

PRAMS data for 2010–2012 indicate that prevalence of smoking before and during pregnancy are highest among younger mothers. Thirty six percent (±9%) of mothers under 20 years old, 32% (±5%) of mothers age 20–24,

17% (±3%) of mothers age 25–29 and only 9% (±3%) of mothers over 35 years of age smoked cigarettes during the three months before pregnancy. The inverse relationship between smoking before pregnancy and age of the mother does not hold true for all groups. Among American Indian and Alaska Native mothers the rate remains high regardless of age. Among Hispanic mothers there is no meaningful decrease in smoking prevalence before pregnancy until 35 years of age.

Economic Factors

PRAMS data for 2010–2012 combined show 47% (±7%) of low-income mothers who received Medicaid and were eligible for income assistance smoked before pregnancy. Among low income women who received Medicaid, but did not receive cash assistance (Pregnancy Medical eligible), 28% (±4%) smoked before pregnancy. Undocumented women who were eligible for Medicaid had low rates of smoking before pregnancy (3% ±3%) while among non-Medicaid eligible women the prevalence of smoking before pregnancy was 11% (±2%).

Race and Hispanic Origin

PRAMS data for 2010–2012 combined indicate that smoking before pregnancy is highest among American Indian or Alaska Native (AIAN) women at 50% (±5%) followed by white women 22% (±3%) and Black women at 18% (±3%). Hispanic women had the second lowest prevalence at 10% (±3%) and Asians had the lowest prevalence of smoking before pregnancy at 6% (±2%). The rate for Native Hawaiians and other Pacific Islanders is higher than the rate for Asians and Hispanics but wide margins of error make it difficult to tell if their rate differs from those of AIAN, whites and Blacks.

Data Sources (For additional detail, see [Appendix B](#))

Washington State Behavioral Risk Factor Surveillance System (BRFSS) 1987–2014, Washington State Department of Health, collected under federal cooperative agreement numbers: U58/CCU002118 (1987-2003), U58/CCU022819 (2004–2008), and U58/DP001996 (2009–2010), U58/DP001996 (2009–2010), U58/SO000047 (2011–2014).

United States Behavioral Risk Factor Surveillance System: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), Atlanta, Georgia, 1994–2013, available at: <https://chronicdata.cdc.gov/health-area/tobacco-use>.

Washington State Birth Certificate Data: Washington State Department of Health, Vital Registration System Annual Statistical Files, Births 2012–2014.

Washington Pregnancy Risk Assessment Monitoring System (PRAMS), Washington State Department of Health, Office of Healthy Communities, Surveillance and Evaluation, 1996–2012; data prepared by Office of Healthy Communities.

Healthy Youth Survey. Washington State Department of Health, Office of the Superintendent of Public Instruction, Department of Social and Health Services, Department of Commerce, Family Policy Council and Liquor Control Board, 2008, 2010, 2012, 2014; data prepared by Washington State Department of Health Office of Healthy Communities.

For More Information

Washington State Department of Health, Tobacco Prevention and Control Program,
<http://www.doh.wa.gov/YouandYourFamily/IllnessandDisease/TobaccoRelated.aspx> (360) 236-3665

U.S. Centers for Disease Control and Prevention, Office on Smoking and Health, <http://www.cdc.gov/tobacco/>

The Guide to Community Preventive Services: a comprehensive review of published community-based interventions to reduce tobacco use,
<http://www.thecommunityguide.org/tobacco/default.htm>

U.S. Centers for Disease Control and Prevention, State Tobacco Activities Tracking and Evaluation System,
http://www.cdc.gov/tobacco/tobacco_control_programs/stateandcommunity/index.htm

Acknowledgments

Authors:

Trevor Christensen, MPH

Justin Weisser, MPH

Washington State Department of Health

Endnotes

¹ Arrazola RA, Singh T, Corey CG, et al. Tobacco use among middle and high school students - United States, 2011–2014. *MMWR Morb Mortal Wkly Rep.* 2015 Apr 17;64(14):381-385. PubMed PMID: 25879896.

² Escobedo L, Peddicord J. Smoking Prevalence in US Birth Cohorts: The Influence of Gender and Education. *Am J Public Health.* 1996;86(2):231-236.

³ U.S. Centers for Disease Control and Prevention. Cigarette Smoking Among Adults – United States, 2002. *MMWR Morb Mortal Wkly Rep.* 2004;53(20):427-431.

⁴ Barbeau E, Krieger N, Soobader M. Working Class Matters: Socioeconomic Disadvantage, Race/Ethnicity, Gender, and Smoking in NHIS 2000. *Am J Public Health.* 2004;94(2):269-278.

⁵ Honjo K, Tsutsumi A, Kawachi I, Kawakami N. What accounts for the relationship between social class and smoking cessation? Results of a path analysis. *Soc Sci Med.* 2006;62(2):317-328.

⁶ U.S. Department of Health and Human Services. *The Health Consequences of Smoking: 50 Years of Progress.* A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014. Printed with corrections, January 2014.

⁷ Centers for Disease Control and Prevention. *Best Practices for Comprehensive Tobacco Control Programs—2014.* Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.