

**TOBACCO PREVENTION AND  
CONTROL REGIONAL PROFILE:  
SOUTHWEST**

**FY2018**

**Tobacco Prevention and Control Regional Profile:**  
**Southwest Region**  
**Version 2: 6/11/2018**

Produced by the Section of Chronic Disease Prevention and Health Promotion, Tobacco Prevention and Control Program through a contract with Program Design and Evaluation Services, Multnomah County Health Department and Oregon Public Health Division.

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## **PREFACE**

Tobacco use remains Alaska's leading preventable cause of disease and death. More Alaskans die from the direct effects of tobacco use than from suicide, motor vehicle crashes, chronic liver disease and cirrhosis, homicide, and HIV/AIDS combined.<sup>i</sup> Tobacco use exacts an enormous burden on the State of Alaska and its residents, causing premature death and millions of dollars of avoidable medical care expenditures. The single best thing that Alaskans who use tobacco can do to improve their health and the health of those around them is to quit using all tobacco products.

The Centers for Disease Control and Prevention (CDC) has identified tobacco use as one of the most important “winnable battles” in public health – priorities with large-scale impact on health and known, effective strategies to address them.<sup>ii</sup> The CDC offers guidance to the states about how to reduce the burden of tobacco use through comprehensive tobacco prevention and control programs described in Best Practices for Comprehensive Tobacco Control Programs, 2014<sup>iii</sup>. These evidence-based, comprehensive, sustained statewide tobacco control programs have been shown to reduce smoking rates, tobacco-related deaths, and diseases caused by smoking.

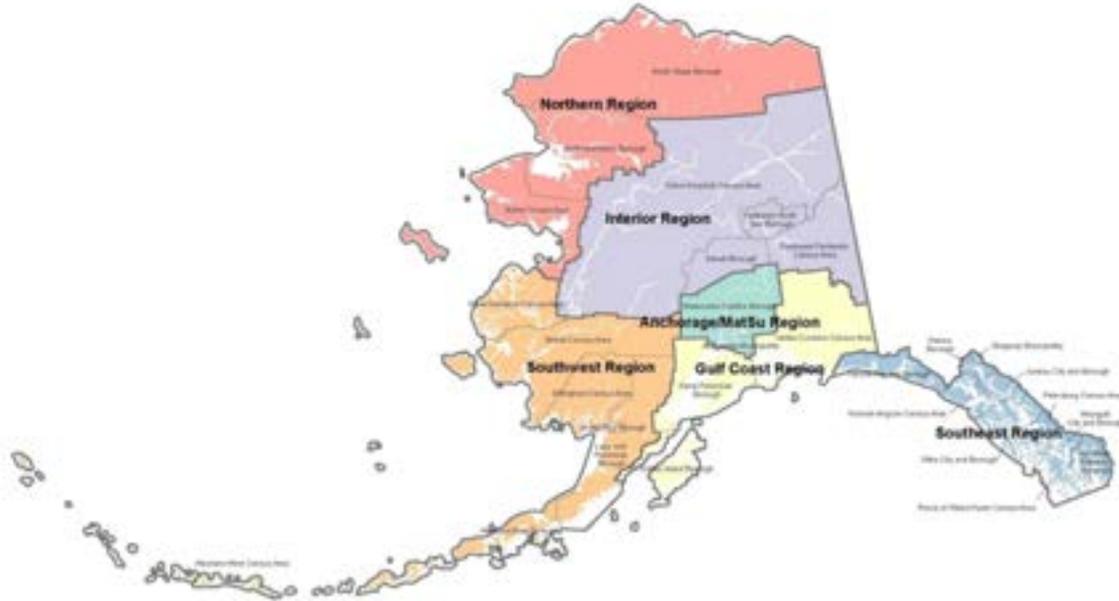
The State of Alaska Tobacco Prevention and Control (TPC) Program has achieved success by implementing an evidence-based comprehensive tobacco prevention and control program, including a tobacco quit line, counter-marketing media, and grants to promote tobacco-free policies in communities, schools and health care organizations. These program elements combine to address the four goals of the TPC Program:

1. prevent the initiation of tobacco use among youth;
2. promote cessation for tobacco users;
3. eliminate exposure to secondhand smoke (SHS); and
4. identify and eliminate tobacco use disparities.

The TPC Program had previously supported grant programs to independently fund work in these four goal areas, including community organizations, health care systems, and schools across the state. In 2013, the TPC Program streamlined this approach by offering a comprehensive, regional funding scenario in which partners can approach tobacco prevention and control at the community level.

Regional profiles have been compiled to support this innovative streamlined approach to comprehensive tobacco prevention and control in Alaska. Tobacco use varies considerably by region, with twice the rates of smoking and four times the rates of smokeless tobacco use in some regions when compared with the statewide estimates. These regional profiles summarize key demographic data, tobacco indicators, tobacco-related policies in the region, and potential partner organizations and infrastructure that could support regional tobacco prevention and control efforts. While this report is specific to the Southwest region, data for the other regions and statewide are included in Appendix A, and regional reports are available for each of the six Public Health/Labor Market regions in Alaska (see map on page 3, and details on included census areas/boroughs in Appendix E).

## The Six Public Health/Labor Market Regions in Alaska



### **OVERVIEW**

The Alaska Department of Labor and Workforce Development estimates 42,202 people living in the Southwest region of Alaska in 2017, accounting for 5.7% of the total population in Alaska.<sup>iv</sup> Over 40% of the people in this region (n=18,127) live in the Bethel Census Area.

The economy in the Southwest region is based on natural resources, subsistence and government spending,<sup>v</sup> with both commercial and recreational fishing acting as the mainstay of the economy. The Southwest region consists of the Aleutians East, Bristol Bay and Lake and Peninsula Boroughs, as well as the Aleutians West, Bethel, Dillingham and Kusilvak Census Areas. The annual average unemployment rate for the Southwest region was 10.9% in 2016, down from 11.4% in 2015. The local government, the trade, transportation and utilities sector, and the educational and health services sector employed over two-thirds of the workers in the Southwest region in 2016.<sup>vi</sup>

There are 13 Alaska Native Regional Corporations (or ANCSA Corporations) in the state of Alaska. ANCSA Corporations were established when the US Congress passed the Alaska Native Claims Settlement Act (ANCSA), which settled land and financial claims made by the Alaska Natives and provided for the establishment of 13 regional corporations to administer those claims. The Southwest region contains the following three ANCSA Corporations and their related Native associations:<sup>vii</sup>

- Bristol Bay Native Corporation (Bristol Bay Native Association)
- Calista Corporation (Association of Village Council Presidents)
- The Aleut Corporation

The Southwest region contains 14 school districts (see Table 1). The Southwest region accounts for approximately 7.4% of the 129,969 K-12<sup>th</sup> grade students in the state of Alaska, and approximately 6.6% of the state's 38,860 high school students.

**Table 1. School District Enrollment in the Southwest Region as of October 1, 2016**

<b>District Name</b>	<b>Total High School</b>	<b>Total K-12<sup>th</sup></b>
Aleutian Region School District	6	25
Aleutians East Borough School District	67	217
Bristol Bay Borough School District	46	117
Dillingham City School District	140	467
Kashunamiut School District	78	340
Kuspuk School District	88	337
Lake and Peninsula Borough School District	83	305
Lower Kuskokwim School District	1,123	4,109
Lower Yukon School District	477	2,003
Pribilof School District	9	59
Saint Mary's School District	50	203
Southwest Region School District	146	577
Unalaska City School District	136	387
Yupit School District	114	458
<b>TOTAL</b>	<b>2,563</b>	<b>9,604</b>

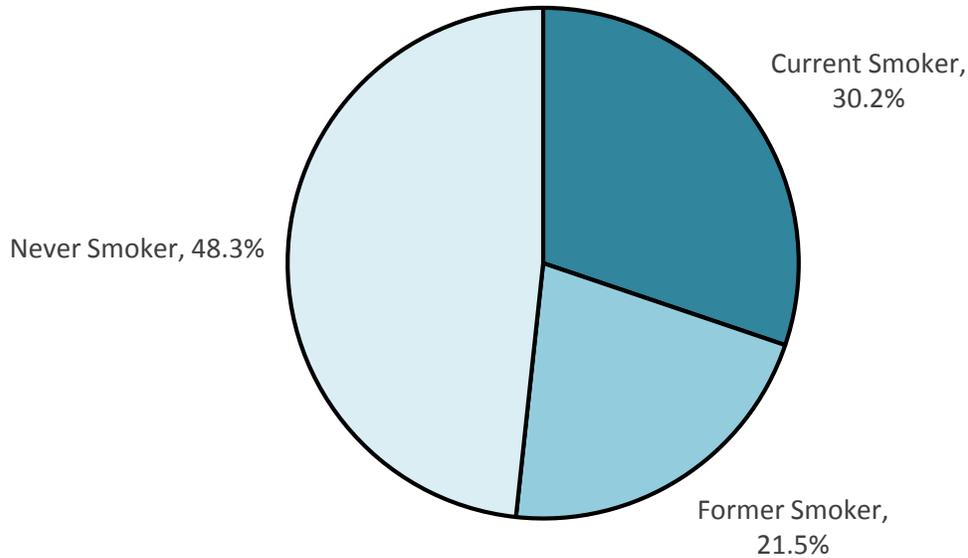
Source: Alaska Department of Education and Early Development: Assessment and Accountability, District Enrollment as of October 1, 2016 FY17. <http://education.alaska.gov/stats/>

## **TOBACCO USE**

### **Adult Smoking**

Adult tobacco use data are gathered using both the standard and supplemental surveys of the Alaska Behavioral Risk Factor Surveillance System (BRFSS; see Appendix E for details on both surveys). For this report, it was necessary to combine 2014-2016 data to calculate regional estimates. An estimated 30.2% of adults currently smoke cigarettes in the Southwest region, much higher than the statewide estimate of 19.8% for 2014-2016 pooled data. (See Appendix A for all regional and statewide estimates.)

**Figure 1.** Adult Smoking Status, Southwest Region, 2014-2016

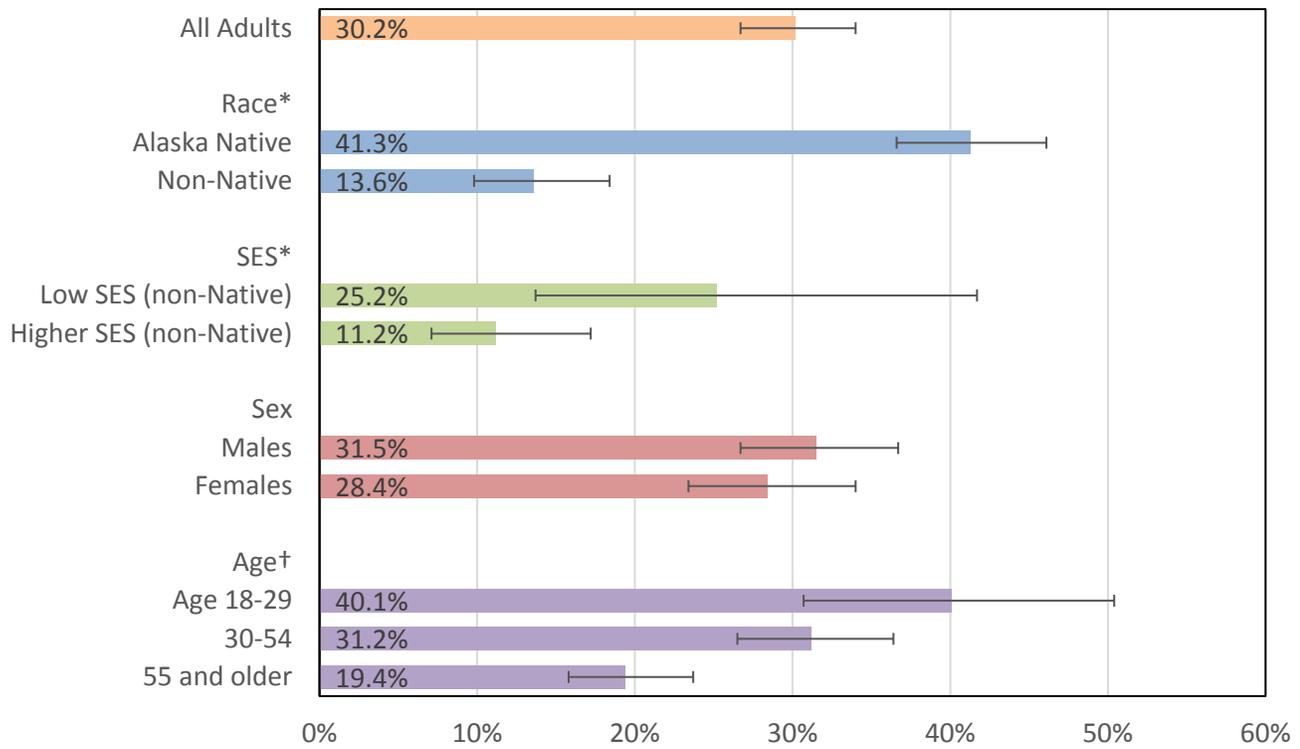


Source: Alaska Behavioral Risk Factor Surveillance System, Combined File, 2014-2016

Certain priority populations, including Alaska Native people, people with low socio-economic status (SES)<sup>viii</sup>, and young adults, may experience higher rates of tobacco use than others. The figure below summarizes data for specific population groups. These data are useful to monitor tobacco use in these populations and to help identify where to focus programmatic efforts for the Alaska Tobacco Prevention and Control (TPC) Program and its partners.

In the Southwest region, overall adult smoking prevalence was 30.2%. Among Alaska Natives, smoking prevalence was significantly higher than prevalence among non-Natives, 41.3% compared to 13.6%. Likewise, smoking prevalence was higher among people of low SES than among those of higher SES, 25.2% compared to 11.2%. The smoking prevalence among males and females were similar (31.5% compared to 28.4%). Both young adults aged 18-29 and adults age 30 to 54 were significantly more likely to smoke (40.1% and 31.2%, respectively) than adults aged 55 and older (19.4%).

**Figure 2.** Percent of Alaska Adults Who Currently Smoke, Southwest Region, 2014-2016



\* Significant difference between or among subgroups

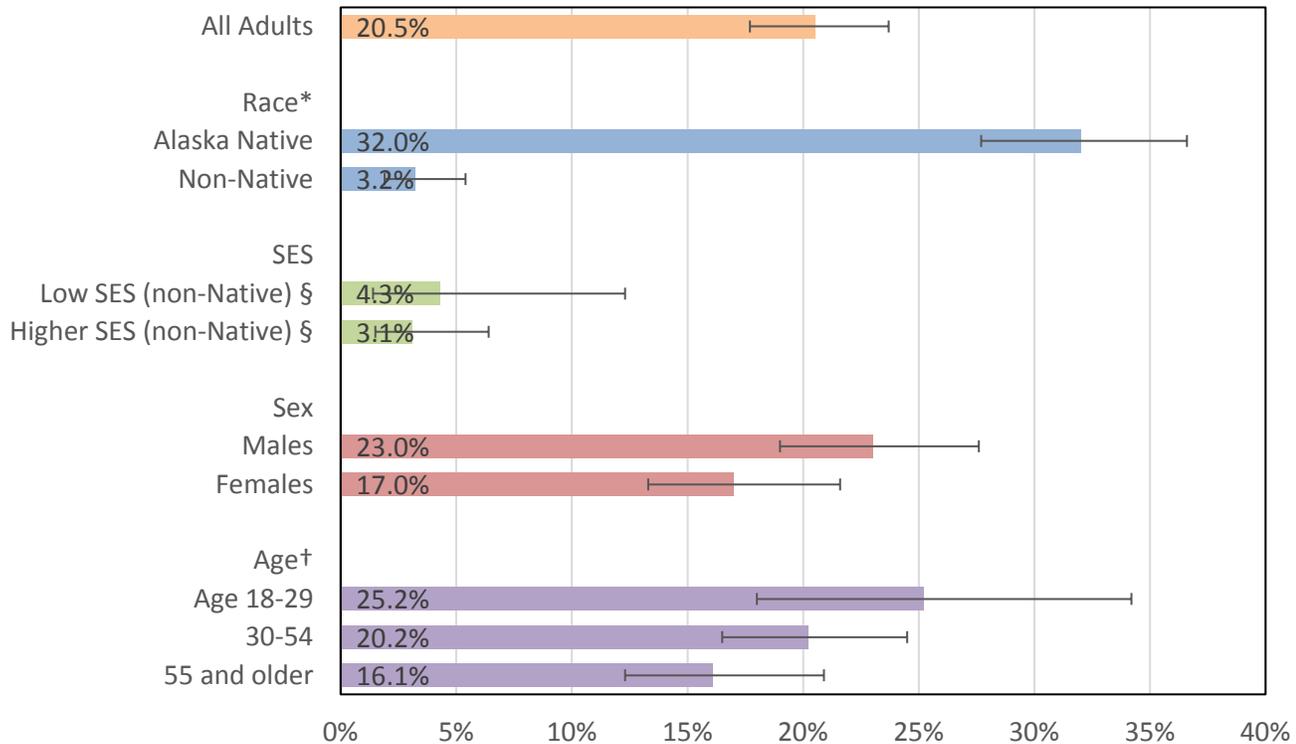
† Significant contrasts between ages 18-29 and 55 and older, ages 30-54 and 55 and older

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File, 2014-2016

## Adult Smokeless Tobacco Use

In the Southwest region, an estimated 20.5% of adults used smokeless tobacco, significantly higher than the statewide estimate of 5.7% for 2014-2016 data. Alaska Native adults used smokeless tobacco significantly more than non-Native adults in the Southwest region, 32.0% compared to 3.2%.

**Figure 3.** Percent of Alaska Adults Who Use Smokeless Tobacco, Southwest Region, 2014-2016



\* Significant difference between or among subgroups

† Significant contrasts between ages 18-29 and 55 and older

§ Interpret data with caution (for more information, see Appendix Table B-2)

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File, 2014-2016

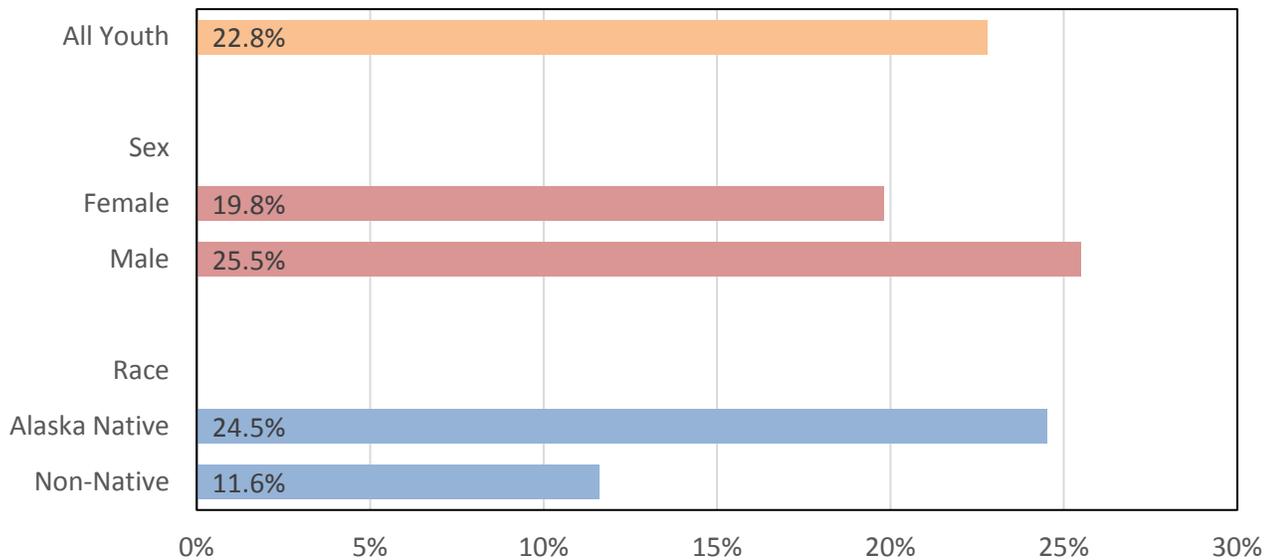
## Youth Smoking

Information about youth tobacco use and other related indicators comes from the Youth Risk Behavior Survey (YRBS), conducted in a sample of high schools every other year. Although the official state estimates are based on a scientifically selected statewide sample of schools and students, the regional data include a combination of the scientific statewide sample and schools that volunteered to participate as part of a local sample. (In Alaska, individual school districts can also conduct a local YRBS.) For this reason, regional estimates may not be generalizable to all students in the region (see Appendix E for additional detail). Because of the mixed sample, regional estimates are presented without confidence intervals. Estimates for this report are based on the two most recent years of YRBS data combined (2015 and 2017).

An estimated 22.8% of high school students in the Southwest region smoked cigarettes in the past 30 days, compared with the statewide estimate of 10.5% in 2015 and 2017. An estimated 7.1% of students surveyed smoked cigarettes on 20 or more of the past 30 days.

As seen in Figure 4, estimated smoking prevalence among high school males (25.5%) was higher than among high school females (19.8%). Likewise, a greater percentage of Alaska Native youth than non-Native youth reported smoking within the past 30 days in the Southwest region, 24.5% compared to 11.6%.

**Figure 4.** Youth Cigarette Use in Past 30 Days, Southwest Region, 2015 and 2017

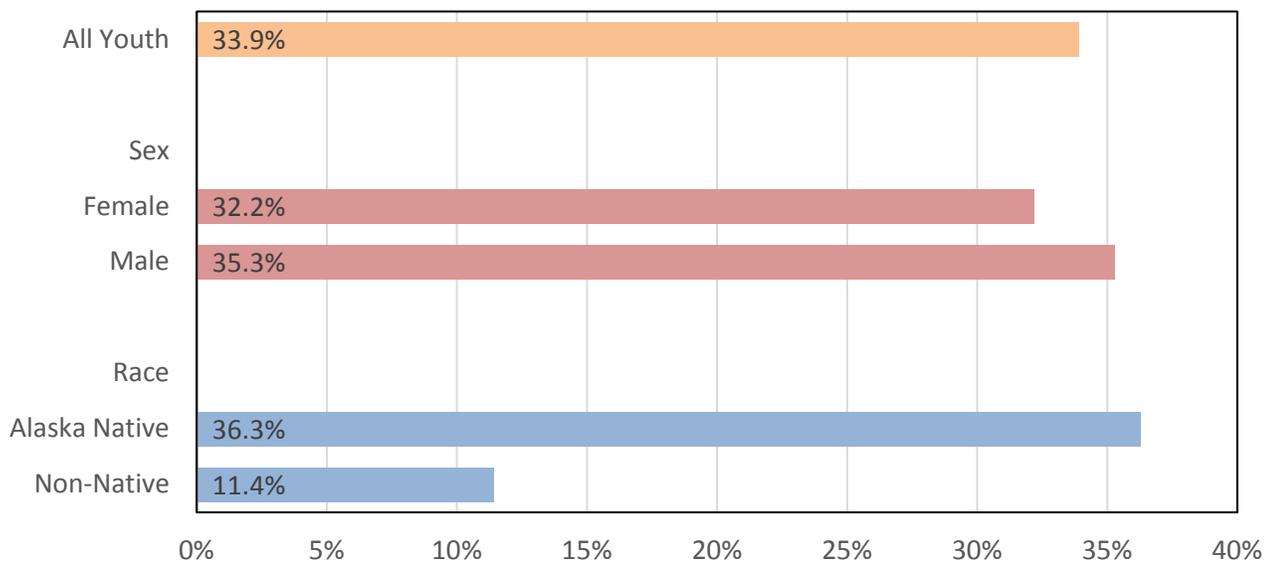


Source: Alaska Youth Risk Behavior Survey, Local File, 2015 and 2017

### Youth Smokeless Tobacco Use

In 2015 and 2017, an estimated 33.9% of high school students surveyed in the Southwest region used smokeless tobacco in the past 30 days, compared with the statewide estimate of 9.7%. This region has the highest prevalence of smokeless tobacco use among high schoolers. Alaska Native youth in the Southwest region were over three times as likely as non-Native youth to have used smokeless tobacco in the past 30 days, 36.3% compared to 11.4%. Prevalence of smokeless tobacco use in the Southwest region among both males (35.3%) and females (32.2%) was the highest of any region in Alaska.

**Figure 5.** Youth Smokeless Tobacco Use in Past 30 Days, Southwest Region, 2015 and 2017



Source: Alaska Youth Risk Behavior Survey, Local File, 2015 and 2017

## **ELIMINATING EXPOSURE TO SECONDHAND SMOKE**

### **Secondhand Smoke (SHS) Indicators**

There is no safe level of exposure to secondhand smoke. Creating completely smokefree indoor areas is the only way to protect nonsmokers from secondhand smoke. Policies establishing smokefree environments are the most effective way to eliminate secondhand smoke.<sup>ix</sup> In the Southwest region, there is overwhelming support for both smokefree restaurants (88.3%) and workplaces (88.8%).

**Table 2.** Adult Secondhand Smoke (SHS) Indicators, Southwest Region, 2014-2016

	<b>Prevalence (95% CI)*</b>
Has home smoking ban	94.7% (92.7%-96.1%)
No home SHS exposure	94.9% (92.7%-96.5%)
Support for smokefree workplaces	88.8% (85.2%-91.6%)
Support for smokefree restaurants	88.3% (85.2%-90.8%)
Smoking not allowed in work areas (indoor workers)	85.6% (80.5%-89.5%)
No indoor workplace SHS exposure (all workers)	91.1% (86.0%-94.4%)
No indoor workplace SHS exposure (indoor workers)	93.2% (88.4%-96.0%)

\* 95% Confidence Interval

Source: Alaska Behavioral Risk Factor Surveillance System, Modified File, 2014-2016

Although the vast majority of adults did not report secondhand smoke exposure in homes and workplaces, 25.1% of high school students surveyed in the Southwest region during 2015 and 2017 were in the same room with someone who was smoking in the past seven days.<sup>x</sup>

### **Secondhand Smoke Policies**

The Alaska TPC Program collects information on smokefree tribal resolutions, community ordinances, multi-unit housing policies and healthcare policies. These policies are evaluated in comparison to a model policy. Policies are grouped into four distinct categories based on the percentage of the model policy elements each contains: Comprehensive, strong, fair, and incomplete. A comprehensive policy contains at least 90% of the model policy elements, a strong policy has at least 80% while a fair policy has at minimum 70% of the model policy elements. Anything under 70% of the model policy elements is classified as an incomplete policy. Using these classification categories allows the TPC Program to rate the quality of tobacco control policies among different organizations as well as throughout the state.

### **Tribal Resolutions**

Many tribes across Alaska have adopted smokefree or tobacco-free resolutions. In the Southwest region, the TPC Program has 68 tobacco-free or smokefree tribal resolutions on record as of March 19, 2018, representing over two-thirds (69.4%) of the tribes in the region.<sup>xi</sup> The majority of these policies are strong (48),

while 13 are fair and seven are incomplete. Although this is the highest absolute number of tribal tobacco-free or smokefree resolutions for any region in Alaska, the remaining 30 tribes have yet to pass a resolution.

### **Smokefree Community Ordinances**

Six communities in the Southwest region have passed smokefree ordinances as of March 19, 2018. The Cities of Dillingham, King Cove, and Nunam Iqua have all passed fair smokefree ordinances that prohibit smoking in all indoor work places and public places with exceptions made for restaurants, hotel rooms, employee break rooms, tobacco retail establishments, and places of employment with two or fewer employees. The cities of Bethel and Unalaska as well as Bristol Bay Borough have all passed incomplete smokefree ordinances that make exceptions for bars, tobacco retail establishments, employee break rooms, a percentage of hotel rooms, private functions, private clubs, and stage theater.

### **Multi-Unit Housing Policies**

Two multi-unit housing properties have added smokefree policies to their leases in the Southwest region as of March 19, 2018. Both the Aleutian and Bristol Bay Housing Authorities have added smokefree addendums to their lease agreements, however they have both been rated as incomplete; they are both missing some key components that would make the policies strong, such as proper signage, statement of penalties for violating the policy, and inclusion of outdoor areas of the property.

### **Healthcare Policies**

Healthcare facilities exist to promote the health and wellbeing of the communities that they serve. As such, healthy behaviors should be encouraged while activities that are known to cause harm should be prevented. For these reasons, certain healthcare facilities have adopted tobacco-free policies. In the Southwest region, two healthcare facilities have adopted a strong tobacco-free policy and an additional facility has adopted an incomplete tobacco-free policy.

**Table 3.** Healthcare Policy Report for the Southwest Region: Current Status as of March 19, 2018

<b>Healthcare Facility</b>	<b>Current Policy Status</b>
Aleutian Pribilof Islands Association	Strong
Yukon-Kuskokwim Health Corporation	Strong
Bristol Bay Area Health Corporation	Incomplete

Source: State of Alaska Tobacco Prevention and Control Program

## **PREVENTING THE INITIATION OF TOBACCO USE**

### **Youth Prevention Indicators**

The YRBS data offer key indicators for tracking youth initiation of tobacco use and youth perceptions of the social norms around tobacco use. An estimated 18.9% of high school students surveyed during 2015 and 2017 in the Southwest region initiated smoking prior to age 13. Although nearly all of the youth reported that their parents would consider it wrong for them to smoke cigarettes (80.5%), nearly half (45.6%) thought that smoking one or more packs per day posed no or slight risk to their health. The majority of students (60.0%) thought their friends would consider it wrong for youth to smoke cigarettes. (See Appendix C for all youth indicators.)

### **Tobacco Taxes**

Numerous economic studies have documented that tobacco tax or price increases reduce both adult and underage smoking. States, municipalities and boroughs are allowed to levy a local tax on cigarettes and other tobacco products, including cigars and chewing tobacco.

Alaska’s statewide cigarette tax is \$2.00 for a pack of 20 cigarettes. Two communities in the Southwest region, Aniak and Bethel, have passed a local cigarette tax in addition to the statewide tax.

Alaska’s statewide tax on other tobacco products (cigars and chewing tobacco) is 75% of the wholesale price. The communities of Aniak and Bethel have also placed an additional local tax beyond the statewide tax on other tobacco products. See Table 4 for the cigarette and other tobacco product taxes in these communities.

**Table 4.** Tax Rates for Cigarettes and Other Tobacco Products as of March 19, 2018: Southwest Region

<b>Community</b>	<b>Local Cigarette Tax</b>	<b>State Base Cigarette Tax</b>	<b>Total State and Local Tax per Pack</b>	<b>e-cigarettes</b>	<b>Other Tobacco Products Local Tax</b>
Aniak	\$1.00	\$2.00	\$3.00	N/A	30% of wholesale
Bethel	\$2.21	\$2.00	\$4.21	N/A	45% of wholesale

Source: Alaska Department of Commerce, Community and Economic Development, Bethel Municipal Code, Chapter 4.17, and State of Alaska Tobacco Prevention and Control Program

\*Methods for computing the after-tax price vary.

### School District Policy Reports

In an effort to promote tobacco-free schools, the TPC Program recently revised the evaluation of tobacco-free school policies into four distinct categories: comprehensive, strong, fair, and incomplete. Each tobacco-free school policy is compared to a model policy, which is the ideal policy for tobacco-free schools. A comprehensive tobacco-free school policy has all or nearly all of the elements of a model policy while strong and fair policies have progressively fewer elements of the model policy, respectively. An incomplete policy is lacking too many components for the policy to be considered an effective tobacco-free school policy.

The majority of schools in the Southwest region have adopted comprehensive tobacco-free school policies that closely resemble the model school policy. The Aleutians East Borough school district has a fair tobacco-free policy that is missing some key elements of the model policy. The Aleutian Region, Dillingham City, Kuspuq, and Lake and Peninsula Borough school districts all currently have incomplete tobacco-free policies, requiring additional elements of the model policy to become effective. School policies are subject to change. The policy summaries presented here are current as of March 19, 2018. The TPC Program reviews and updates school district tobacco policies quarterly.

**Table 5.** School Policy Report for the Southwest Region: Current Status as of March 19, 2018

School District	Current Policy Status
Bristol Bay Borough	Comprehensive
Kashunamiut	Comprehensive
Lower Kuskokwim	Comprehensive
Lower Yukon	Comprehensive
Pribilof	Comprehensive
Southwest Region	Comprehensive
Unalaska City	Comprehensive
Yupiit	Comprehensive
Aleutians East Borough	Fair
Aleutian Region	Incomplete
Dillingham City	Incomplete
Kuspuk	Incomplete
Lake and Peninsula Borough	Incomplete

Source: State of Alaska Tobacco Prevention and Control Program

## **EVIDENCE-BASED TOBACCO CESSATION INTERVENTIONS**

### **Cessation Indicators**

Quitting tobacco provides health benefits at any age.<sup>xii-xiii</sup> Additionally, tobacco cessation programs are cost-effective and increase longevity while reducing health care costs.<sup>xiv</sup> Alaska has a statewide quitline accessible to all Alaska adults. In addition, the Southwest region has local cessation resources, such as programs at Bristol Bay Area Health Corporation, the Kodiak Area Native Association, and the Yukon-Kuskokwim Health Corporation.

In the Southwest region, 45.8% of adults ages 25 and older who have ever smoked regularly have quit (i.e., quit ratio, as shown in Table 7). Among adults who currently smoke, 61.1% have attempted to quit smoking in the past 12 months and an estimated 3.8% of past year smokers achieved a long-term quit of three months or more.

**Table 6.** Adult Cessation Indicators, Southwest Region, 2014-2016

	Prevalence (95% CI)*
Quit ratio (among ever smokers age 25 and older)	45.8% (41.2%-50.5%)
Attempted to quit (among current smokers)	61.1% (54.4%-67.4%)
Quit for 3+ months (among past year smokers)	3.8% § (1.9%-7.6%)
Aware of quit line (among current smokers)	77.4% (68.6%-84.3%)
Advised to quit by health care provider (among smokers who had a health care visit in the past year)	68.2% (56.4%-78.0%)

\* 95% Confidence Interval

§ Interpret data with caution (for more information, see Appendix Table D-1)

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File (first two metrics) & Modified File (last three metrics), 2014-2016



## APPENDICES

### Appendix A: Tobacco Use

	<b>Anchorage / Mat-Su</b>	<b>Gulf Coast</b>	<b>Interior</b>	<b>Northern</b>	<b>Southeast</b>	<b>Southwest</b>	<b>Statewide Total</b>
<b>All Adults</b>	17.0% (15.8%-18.4%)	20.1% (18.2%-22.2%)	20.4% (18.6%-22.3%)	39.1% (34.1%-44.3%)	21.2% (19.1%-23.4%)	30.2% (26.7%-34.0%)	19.8% (18.9%-20.7%)
Alaska	38.1% (32.4%-44.2%)	33.4% (26.4%-41.3%)	33.2% (28.2%-38.7%)	48.4% (42.1%-54.8%)	36.0% (30.2%-42.2%)	41.3% (36.6%-46.1%)	39.6% (37.1%-42.2%)
Native	15.5% (14.2%-16.9%)	19.3% (17.3%-21.5%)	19.0% (17.1%-21.0%)	18.4% (11.6%-27.9%)	18.6% (16.4%-21.1%)	13.6% (9.8%-18.4%)	16.8% (15.9%-17.8%)
Non-Native	32.9% (28.6%-37.4%)	35.6% (30.0%-41.6%)	35.7% (29.9%-42.0%)	N/A <sup>‡</sup>	41.0% (33.7%-48.6%)	25.2% (13.7%-41.7%)	34.3% (31.5%-37.3%)
Low SES (non-Native)	12.6% (11.1%-14.4%)	14.9% (12.5%-17.6%)	15.9% (13.8%-18.3%)	14.3% (9.2%-21.7%)	15.6% (13.1%-18.6%)	11.2% (7.1%-17.2%)	13.7% (12.6%-14.9%)
Higher SES (non-Native)	18.1% (16.3%-20.1%)	22.0% (19.2%-25.1%)	22.7% (20.1%-25.6%)	42.3% (35.1%-49.8%)	22.6% (19.5%-26.0%)	31.5% (26.7%-36.7%)	21.4% (20.2%-22.7%)
Males	15.9% (14.1%-17.9%)	18.0% (15.5%-20.8%)	17.7% (15.5%-20.2%)	35.1% (28.8%-42.0%)	19.7% (17.1%-22.7%)	28.4% (23.4%-34.0%)	18.0% (16.8%-19.2%)
Females	17.2% (14.3%-20.5%)	23.3% (17.8%-29.9%)	23.9% (19.4%-29.0%)	44.7% (34.1%-55.7%)	22.5% (17.2%-28.9%)	40.1% (30.7%-50.4%)	21.6% (19.5%-23.9%)
Age 18-29	20.5% (18.4%-22.8%)	24.2% (21.0%-27.7%)	21.6% (19.0%-24.5%)	39.6% (32.2%-47.5%)	25.9% (22.5%-29.7%)	31.2% (26.5%-36.4%)	22.9% (21.5%-24.3%)
30-54	12.4% (10.8%-14.2%)	14.8% (12.6%-17.4%)	16.1% (13.9%-18.5%)	32.4% (25.8%-39.8%)	15.5% (13.1%-18.4%)	19.4% (15.8%-23.7%)	14.5% (13.5%-15.6%)
55 and older							

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File, 2014-2016

<sup>‡</sup> Denominator is less than 50

**Table A-2.** Percent of Alaska Adults Who Currently Use Smokeless Tobacco, Public Health Regions, 2014-2016

	<b>Anchorage / Mat-Su</b>	<b>Gulf Coast</b>	<b>Interior</b>	<b>Northern</b>	<b>Southeast</b>	<b>Southwest</b>	<b>Statewide Total</b>
All Adults	4.6% (3.9%-5.4%)	5.1% (4.1%-6.2%)	5.2% (4.3%-6.2%)	13.3% (9.5%-18.2%)	3.9% (2.9%-5.2%)	20.5% (17.7%-23.7%)	5.7% (5.2%-6.2%)
Alaska Native	8.5% (5.8%-12.4%)	8.7% (5.3%-13.8%)	10.9% (7.7%-15.4%)	15.9% (11.2%-22.0%)	1.9%*† (0.9%-4.4%)	32.0% (27.7%-36.6%)	14.5% (12.8%-16.4%)
Non-Native	4.2% (3.5%-5.1%)	4.7% (3.7%-5.9%)	4.5% (3.6%-5.6%)	7.7%† (2.8%-19.7%)	4.3% (3.2%-5.9%)	3.2% (1.9%-5.4%)	4.4% (3.9%-4.9%)
Low SES (non-Native)	4.3% (2.8%-6.7%)	5.9% (3.5%-9.6%)	4.8% (2.9%-7.8%)	N/A‡	7.7%* (4.0%-14.2%)	4.3%† (1.4%-12.3%)	5.2% (4.0%-6.8%)
Higher SES (non-Native)	4.5% (3.6%-5.7%)	4.9% (3.5%-6.7%)	4.7% (3.6%-6.3%)	4.9%† (1.9%-12.5%)	3.6% (2.4%-5.4%)	3.1%† (1.5%-6.4%)	4.5% (3.9%-5.2%)
Males	7.9% (6.7%-9.4%)	9.1% (7.3%-11.2%)	9.1% (7.5%-10.9%)	18.8% (13.0%-26.5%)	7.2% (5.5%-9.6%)	23.0% (19.0%-27.6%)	9.4% (8.5%-10.3%)
Females	1.2% (0.7%-2.0%)	0.6%*† (0.3%-1.3%)	0.7%* (0.3%-1.4%)	6.3%† (3.0%-12.7%)	N/A‡	17.0% (13.3%-21.6%)	1.8% (1.4%-2.2%)
Age 18-29	6.8% (5.1%-9.1%)	5.8%* (3.4%-10.0%)	6.4% (4.3%-9.4%)	14.5%* (7.9%-25.3%)	7.4%* (4.3%-12.4%)	25.2% (18.0%-34.2%)	8.0% (6.7%-9.5%)
30-54	4.8% (3.8%-5.9%)	7.1% (5.3%-9.3%)	6.2% (4.9%-7.9%)	15.7% (9.7%-24.3%)	4.4% (2.9%-6.7%)	20.2% (16.5%-24.5%)	6.4% (5.6%-7.2%)
55 and older	2.3% (1.6%-3.3%)	2.7% (1.9%-3.9%)	2.6% (1.8%-3.7%)	7.5% (4.1%-13.3%)	1.6% (1.1%-2.5%)	16.1% (12.3%-20.9%)	3.0% (2.5%-3.6%)

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File, 2014-2016

\* Inadequate sample size for uncommon or very common events. For means and proportions < 25% or >75%, an estimate is flagged if it is based on a denominator which is less than 8 times a broadly calculated design effect, over the prevalence estimate.

† Large coefficient of variation

‡ Denominator is less than 50 or numerator is less than 5

## **Appendix B: Eliminating Exposure to Secondhand Smoke**

**Table B-1. Adult Secondhand Smoke (SHS) Indicators, Public Health Regions, 2014-2016**

	<b>Anchorage / Mat-Su</b>	<b>Gulf Coast</b>	<b>Interior</b>	<b>Northern</b>	<b>Southeast</b>	<b>Southwest</b>	<b>Statewide Total</b>
Has home smoking ban	91.5% (90.0%-92.7%)	90.3% (87.7%-92.4%)	90.0% (88.2%-91.6%)	91.6% (87.4%-94.5%)	90.9% (88.7%-92.7%)	94.7% (92.7%-96.1%)	91.2% (90.3%-92.0%)
No home SHS exposure	93.5% (92.2%-94.5%)	91.8% (89.4%-93.7%)	92.5% (90.9%-93.9%)	92.8% (88.7%-95.5%)	92.5% (90.1%-94.3%)	94.9% (92.7%-96.5%)	93.1% (92.3%-93.8%)
Support for smokefree workplaces	88.9% (87.3%-90.3%)	84.6% (81.7%-87.1%)	87.7% (85.6%-89.6%)	89.6% (84.7%-93.1%)	90.4% (88.3%-92.1%)	88.8% (85.2%-91.6%)	88.4% (87.4%-89.3%)
Support for smokefree restaurants	84.4% (82.5%-86.1%)	81.0% (78.0%-83.7%)	74.5% (71.6%-77.3%)	89.3% (84.9%-92.5%)	83.5% (80.8%-85.9%)	88.3% (85.2%-90.8%)	82.7% (81.5%-83.8%)
Smoking not allowed in work areas (indoor workers)	84.4% (81.6%-86.8%)	83.5% (78.1%-87.8%)	87.0% (83.8%-89.7%)	88.1% (81.1%-92.8%)	87.8% (84.0%-90.7%)	85.6% (80.5%-89.5%)	85.3% (83.5%-86.8%)
No indoor workplace SHS exposure (all workers)	93.4% (91.7%-94.8%)	89.9% (86.4%-92.5%)	91.4% (89.1%-93.3%)	91.8% (85.2%-95.6%)	93.2% (90.4%-95.2%)	91.1% (86.0%-94.4%)	92.5% (91.4%-93.5%)
No indoor workplace SHS exposure (indoor workers)	94.5% (92.7%-95.8%)	90.0% (85.7%-93.2%)	93.3% (90.9%-95.1%)	94.6%* (87.2%-97.8%)	93.8% (90.8%-95.9%)	93.2% (88.4%-96.0%)	93.7% (92.6%-94.7%)

\* Inadequate sample size for uncommon or very common events. For means and proportions < 25% or >75%, an estimate is flagged if it is based on a denominator which is less than 8 times a broadly calculated design effect, over the prevalence estimate.

Source: Alaska Behavioral Risk Factor Surveillance System, Modified File, 2014-2016

National Center for Health Statistics Data Quality Measures

**Appendix C: Preventing the Initiation of Tobacco Use**

**Table C-1.** Youth Tobacco Prevention Indicators, Public Health Regions, 2015-2017

		<b>Anchorage / Mat-Su</b>	<b>Gulf Coast</b>	<b>Interior</b>	<b>Northern</b>	<b>Southeast</b>	<b>Southwest</b>
Initiated smoking prior to age 13	%	7.1%	8.4%	6.7%	20.5%	8.1%	18.9%
	N	4,410	3,328	1,261	1,376	2,412	1,147
Perceives no or only slight risk from smoking*	%	17.3%	15.8%	12.6%	37.2%	13.9%	45.6%
	N	4,454	3,335	1,282	1,405	2,414	1,121
Thinks parents consider it wrong for child to smoke**	%	91.1%	90.3%	92.8%	85.5%	92.1%	80.5%
	N	4,395	3,320	1,278	1,374	2,398	1,153
Thinks friends consider it wrong for youth to smoke (2017)†	%	66.2%	68.1%	63.4%	65.6%	64.3%	60.0%
	N	2,158	1,983	690	658	1,058	848

\*Students who think smoking one or more packs of cigarettes per day is no or slight risk

\*\*Students who think parents feel it would be wrong or very wrong for them to smoke cigarettes

† Students who think friends feel it would be wrong or very wrong for them to smoke cigarettes, 2017 data only

Source: Alaska Youth Risk Behavior Survey, Local File, 2015-2017

**Appendix D: Evidence-Based Tobacco Cessation Interventions**

**Table D-1. Adult Cessation Indicators, Public Health Regions, 2014-2016**

	<b>Anchorage / Mat-Su</b>	<b>Gulf Coast</b>	<b>Interior</b>	<b>Northern</b>	<b>Southeast</b>	<b>Southwest</b>	<b>Statewide Total</b>
Quit ratio (among ever smokers age 25 and older)	61.9% (59.2%-64.5%)	61.3% (57.8%-64.6%)	59.3% (56.1%-62.5%)	37.1% (30.6%-44.0%)	58.6% (54.9%-62.2%)	45.8% (41.2%-50.5%)	59.2% (57.6%-60.8%)
Attempted to quit (among current smokers)	59.4% (55.2%-63.6%)	53.5% (47.9%-59.1%)	55.2% (50.0%-60.2%)	56.1% (47.1%-64.7%)	62.9% (57.3%-68.2%)	61.1% (54.4%-67.4%)	58.3% (55.8%-60.7%)
Quit for 3+ months (among past year smokers)	9.0% (6.4%-12.5%)	4.4%*† (2.0%-9.3%)	7.4% (4.8%-11.4%)	N/A‡	6.1%*† (3.2%-11.1%)	3.8%*† (1.9%-7.6%)	7.1% (5.7%-9.0%)
Aware of quit line (among current smokers)	86.3% (81.0%-90.3%)	85.2% (78.0%-90.4%)	85.5% (79.7%-89.9%)	76.3% (65.5%-84.4%)	87.4% (81.4%-91.7%)	77.4% (68.6%-84.3%)	85.0% (82.2%-87.4%)
Advised to quit by health care provider (among smokers who had a health care visit in the past year)	70.5% (62.5%-77.5%)	65.3% (53.6%-75.4%)	63.6% (53.9%-72.3%)	67.1%* (49.8%-80.7%)	63.4% (52.9%-72.9%)	68.2% (56.4%-78.0%)	67.6% (62.9%-71.9%)

\* Inadequate sample size for uncommon or very common events. For means and proportions < 25% or >75%, an estimate is flagged if it is based on a denominator which is less than 8 times a broadly calculated design effect, over the prevalence estimate.

† Large coefficient of variation

‡ Numerator is less than 5

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File (first two metrics) & Modified File (last three metrics), 2014-2016

National Center for Health Statistics Data Quality Measures

## **Appendix E: Data Sources**

### **Youth Risk Behavior Survey (YRBS)**

The YRBS is a systematic biennial survey of high school students that assesses prevalence of behaviors related to the leading causes of mortality, morbidity and social problems among youth. The Centers for Disease Control and Prevention sponsor national and state surveys every two years, most recently in 2017.

The statewide Alaska traditional high school YRBS is conducted using a two-stage sampling design. The sampling frame is traditional public schools containing grades 9, 10, 11, or 12. Schools are selected first with a probability of inclusion proportional to the size of their enrollment. Once a school is chosen, classes are selected, with each student having an equal opportunity for inclusion. From 2001 through 2017, active parental consent was required for each student participating in the YRBS. On the appointed survey day students completed written questionnaires and returned them in class in unmarked, sealed envelopes.

In a typical YRBS administration, about 1,250 to 1,350 students are surveyed from about 40 to 45 high schools that are scientifically selected to represent all public traditional high schools (excluding boarding schools, alternative schools, correspondence and home study schools, and correctional schools) in Alaska. These results are considered to be representative of Alaska's more than 30,000 high school students in grades 9-12 in traditional public high schools. Data are weighted to reflect the true distribution of Alaska traditional high school students by gender, race/ethnicity and grade level, but not by region of the state.

The traditional school-based YRBS does not estimate risk behaviors associated with youth who drop out of school or do not attend school. Beginning in 2009, about 1,600 students from 13 alternative high schools in Alaska have been surveyed to evaluate and address the health risks of this unique population. Further information about the YRBS, including survey results for the statewide traditional high school sample, the alternative high school sample and the correctional high school sample is available at <http://www.hss.state.ak.us/dph/chronic/school/YRBSresults.htm>.

#### **Reporting by Region**

For regional reporting, the sample includes all traditional public schools containing grades 9, 10, 11, or 12 who participated in the survey, whether they were part of the statewide official sample, or chose to participate in the local school district sample. Schools were not systematically and randomly selected and the regional group of participants may not be very representative of schools within their region. However, in each region, students from two or more of the school districts participated in the survey.

Data were weighted by school enrollment (or by district enrollment if there were 20 or fewer students in the school) by gender and grade only if the participation rate for the school achieved a 50% response rate. Not all of the participating schools met these requirements. Therefore, the regional estimates are based on a combination of weighted and unweighted responses. Due to the sampling limitations, confidence intervals are not calculated for these regional data.

The regional YRBS data are based upon aggregated school districts and do not reveal information on a single school district. Prevalence estimates are based upon a minimum of 100 responses or the results are suppressed as Data Statistically Unreliable (DSU). Based upon these measures to protect the anonymity of school districts and students, the data may be publicly distributed.

#### **Reporting by Race Group within Region**

In this Profile, we report race/ethnicity by whether the survey participant reported being Alaska Native or not. All YRBS survey participants who report being Alaska Native, either alone or in combination with other race groups or Hispanic ethnicity, are categorized in this report as being Alaska Native. We combine all other race groups to report a category called "Non-Native". This category includes students who report being White, Hispanic, African American, Asian, Hawaiian or Other Pacific Islander, or who report multiple race groups (except for Alaska Native). Those who did not report a race group or ethnicity are not included in the reporting.

## **Behavioral Risk Factor Surveillance System (BRFSS)**

The BRFSS is an anonymous telephone survey conducted by the Alaska Division of Public Health in cooperation with the Centers for Disease Control and Prevention (CDC). It aims to estimate the prevalence of health-related risk behaviors, chronic health conditions, and use of preventive services in the general adult population that are known to be associated with the leading causes of morbidity and mortality. The BRFSS has operated continuously in Alaska since it began in 1991.

The BRFSS uses a probability (or random) sample in which all Alaska households with landline telephones have a known, nonzero chance of selection. The sample is stratified into regions, with roughly equal numbers of interviews conducted in each region. This method deliberately over-samples rural areas of the state. Respondents are randomly selected from among the adult members of each household reached through a series of random telephone calls. Historically, those living in institutions (i.e., nursing homes, dormitories) are not surveyed. In 2011, the sample was stratified into six geographic regions. In addition, the sampling frame was expanded to include a random sample of cell phone owners as well as landline or household phones. This step was important because the proportion of households served only by cellular telephones has increased rapidly. By June 2010, about 20% of Alaska households were cell-only.<sup>xv</sup> Since 2011, Alaska's cell phone sample has been large enough to include it in weighting and reporting of data.

Interviews are conducted by trained interviewers during weekdays, evenings, and weekends throughout the year. In addition to tobacco use, the BRFSS questionnaire covers such topics as general health status, health care access, nutrition, physical activity, diabetes, alcohol use, women's health, injury prevention, and HIV/AIDS awareness. There are also questions on the demographic characteristics of respondents.

Alaska presently conducts two BRFSS surveys: the Standard BRFSS and a Supplemental BRFSS. The Supplemental Survey contains mostly additional tobacco-related questions, some of which have been adapted from the CDC's Adult Tobacco Survey. Both surveys are conducted throughout the year, using separate samples drawn using the same methodology. In 2016, approximately 240 Alaska adults were interviewed each month for the Standard BRFSS, to reach an annual sample size of 2,914 (485 per region); an additional 370 Alaska adults were interviewed each month for the Supplemental BRFSS in 2016, reaching an annual sample size of 4467. Because sample size is lower per region and some subpopulation reporting groups, data from 2014 to 2016 have been combined to report some key indicators.

BRFSS data are weighted to adjust the distribution of the sample data so that they reflect the total population of the sampled area, and to compensate for the over-representation or under-representation of persons in various subgroups. Beginning with the 2011 BRFSS, the CDC uses a new weighting method known as iterative proportional fitting, or raking. Raking allows for the inclusion of several key demographic factors in adjusting survey data to the adult population totals. The changes that have been made help ensure that the BRFSS can continue to be a valuable source of information for health planning and improvement.

Both the Standard and Supplemental BRFSS are weighted (separately) for analysis of items that occur only in one version. In addition, a combined dataset (Standard plus Supplemental) is created and weighted for analysis of questions that occur in both versions, so that some data can be reported for a total of 5,000 or more survey respondents each year since 2004. The larger sample sizes allow for more precision in the estimates. For tobacco-related items, this includes smoking and SLT use prevalence.

### Regional Reporting

Alaska Public Health Regions were defined using borough designation. Although the BRFSS survey data do not provide enough representation for reporting by most of the individual boroughs, combining boroughs provides a useful geographic factor for analyses.

Regional groups for this report are as follows:

- 1) Anchorage/Mat-Su – Municipality of Anchorage and Matanuska-Susitna Borough
- 2) Gulf Coast – Kenai Peninsula Borough, Kodiak Island Borough, and Valdez-Cordova Census Area
- 3) Interior – Denali Borough, Fairbanks North Star Borough, Southeast Fairbanks Census Area, and Yukon-Koyukuk Census Area
- 4) Northern – Nome Census Area, North Slope Borough, and Northwest Arctic Borough
- 5) Southeast – Haines Borough, Hoonah-Angoon Census Area, Juneau City and Borough, Ketchikan Gateway Borough, Petersburg Census Area, Prince of Wales-Hyder Census Area, Sitka City and Borough, Skagway Municipality, Wrangell City and Borough, and Yakutat City and Borough
- 6) Southwest – Aleutians East Borough, Aleutians West Census Area, Bethel Census Area, Bristol Bay Borough, Dillingham Census Area, Lake and Peninsula Borough, and Kusilvak Census Area (formerly Wade Hampton Census Area)

#### Reporting by Race Group

Information by race group is reported by Alaska Native and non-Native status. For this report, Alaska Native includes all survey respondents who reported “Alaska Native/American Indian” as their primary or only race group. Those who report being Hispanic or reported their race as something other than Alaska Native or American Indian were included in the “non-Native” group.

#### Data Suppression Guidelines

In this report, BRFSS information is suppressed or flagged based on statistical guidelines developed by Alaska’s Division of Public Health in the Department of Health and Human Services, which are based upon the national Joint Policy of Variance Estimation and Statistical Reporting Standards for the National Health and Nutrition Examination Survey (NHANES-III) and the Continuing Survey of Food Intake by Individuals (CSFII) Reports. An asterisk is used to indicate that the estimate may lack statistical precision. Estimates are flagged if the coefficient of variation (ratio of the standard error to the mean expressed as a percent) is greater than 30. In some cases, the flag also denotes that estimates are based on an inadequate sample size, as determined by whether the event, or risk factor, is very common, common, or very uncommon. Finally, information is suppressed if the unweighted sample size for the denominator (N) is less than 50, or if the numerator (n) is less than 5.

## References

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- <sup>ii</sup> See <http://www.cdc.gov/winnablebattles/>
- <sup>iii</sup> See [https://www.cdc.gov/tobacco/stateandcommunity/best\\_practices/index.htm](https://www.cdc.gov/tobacco/stateandcommunity/best_practices/index.htm)
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