



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

**FY2019**

# Tobacco Prevention and Control Regional Profile:

## Northern Region

August 2019

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.

Major contributors include:

Chris Bushore, Program Design and Evaluation Services  
Erik Everson, MPH, Program Design and Evaluation Services  
Andrea Fenaughty, PhD, Deputy Section Chief

### **ACKNOWLEDGEMENTS**

*We would like to thank the following for their contribution to this report –*

Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

Kira Anderson, Tobacco Prevention & Control Program Evaluator  
David Howell, Public Health Data Analyst  
Sam Hyde-Rolland, BRFSS Coordinator  
Tazlina Mannix, YRBS Data Manager

Suggested Citation: Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion. *Tobacco Prevention and Control Regional Profile: Northern Region, FY2019 update*. Anchorage, AK: Alaska Department of Health and Social Services; 2019.

Copyright Information: All material in this document is in the public domain and may be reproduced or copied without permission; however, citation as to source is appreciated.

# Table of Contents

PREFACE .....	3
OVERVIEW.....	4
TOBACCO USE .....	5
Adult Smoking.....	5
Adult Smokeless Tobacco Use .....	7
Youth Smoking .....	7
Youth Smokeless Tobacco Use.....	8
ELIMINATING EXPOSURE TO SECONDHAND SMOKE.....	9
Secondhand Smoke (SHS) Indicators .....	9
Secondhand Smoke Policies.....	9
Tribal Resolutions.....	9
Smokefree Community Ordinances.....	10
Multi-Unit Housing Policies.....	10
Healthcare Policies.....	10
PREVENTING THE INITIATION OF TOBACCO USE.....	10
Youth Prevention Indicators .....	10
Tobacco Taxes.....	10
School District Policy Reports .....	11
EVIDENCE-BASED TOBACCO CESSATION INTERVENTIONS.....	12
Cessation Indicators.....	12
APPENDICES .....	13
Appendix A: Adult Tobacco Use.....	13
Appendix B: Eliminating Exposure to Secondhand Smoke.....	15
Appendix C: Preventing the Initiation of Tobacco Use.....	16
Appendix D: Evidence-Based Tobacco Cessation Interventions.....	17
Appendix E: Data Sources .....	18
References .....	21

## 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.<sup>i</sup> 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.

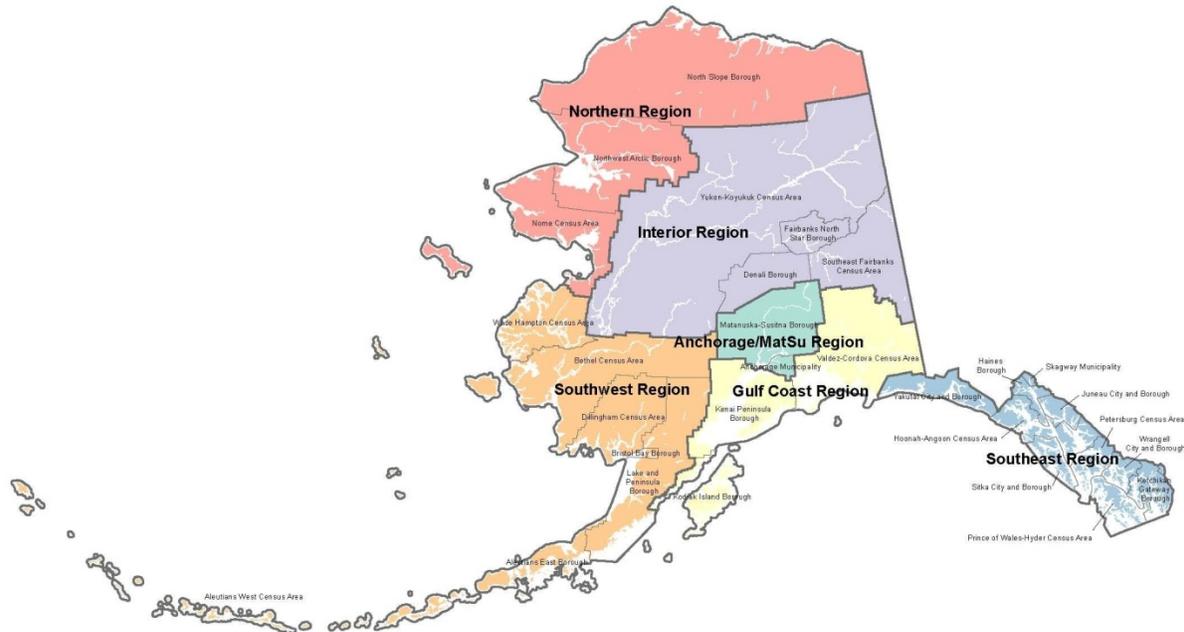
The State of Alaska Tobacco Prevention and Control (TPC) Program has achieved success by implementing an evidence-based comprehensive tobacco prevention and control program, including a tobacco quit line, counter-marketing media, and grants to promote tobacco-free policies in communities, schools and 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 rate of smoking and four times the rate 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 Northern 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 4, 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 27,704 people living in the Northern region of Alaska in 2018, accounting for 3.8% of the total population in Alaska.<sup>iv</sup> Nearly half of the people in the Northern region (n=13,454) live in 1 of the 4 most populous cities; these include Barrow, Kotzebue, Nome and Prudhoe Bay.

The Northern region is made up of the North Slope and Northwest Arctic Boroughs and the Nome Census Area. The annual average unemployment rate for the Northern region was 12.0% in 2017, up from the previous year's rate of 11.6%.<sup>v</sup> The most common occupation in 2016 was teacher assistants, and local government employed the most people.<sup>vi</sup>

Alaska Native Regional Corporations were established when the US Congress passed the Alaska Native Claims Settlement Act (ANCSA) in 1971. ANCSA settled land and financial claims made by the Alaska Native people and provided for the establishment of 13 regional corporations in the state to administer those claims. The Northern region contains the following three ANCSA Corporations and their related Native associations:<sup>vii</sup>

- Arctic Slope Regional Corporation (Arctic Slope Native Association)
- Bering Straits Native Corporation (Bering Straits Association)
- NANA Regional Corporation (Northwest Alaska Native Association)

The Northern region contains four school districts: the Bering Strait School District, the Nome Public School District, the North Slope Borough School District, and the Northwest Arctic Borough School District. The Northern region accounts for 4.9% of the 128,800 K-12th grade students in Alaska, and 4.2% of the state's 38,092 high school students.

**Table 1. School District Enrollment in the Northern Region as of October 1, 2018**

District Name	Total High School	Total K-12 <sup>th</sup>
Bering Strait School District	457	1,772
Nome Public School District	181	701
North Slope Borough School District	496	1,924
Northwest Arctic Borough School District	457	1,964
<b>TOTAL</b>	<b>1,591</b>	<b>6,361</b>

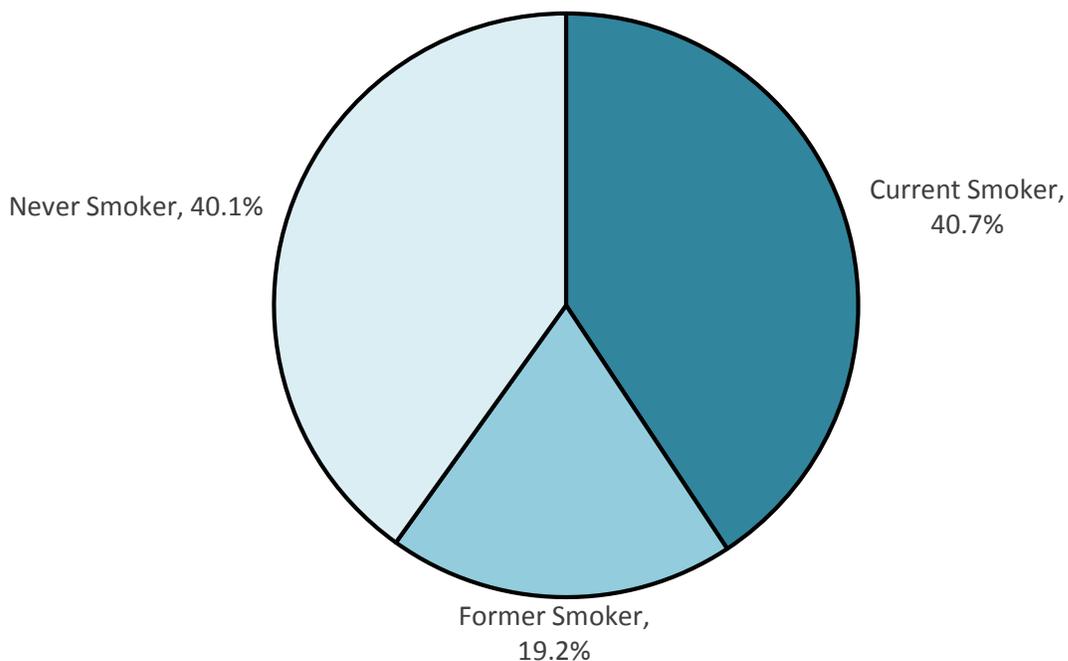
Source: Alaska Department of Education and Early Development: Assessment and Accountability, District Enrollment as of October 1, 2018 FY19. <http://education.alaska.gov/stats/>

## 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 2015-2017 data to calculate regional estimates. An estimated 40.7% of adults in the Northern region currently smoke cigarettes, about double the statewide 2015-2017 estimate of 19.7% (see Appendix A for all regional and statewide estimates).

**Figure 1. Adult Smoking Status, Northern Region, 2015-2017**

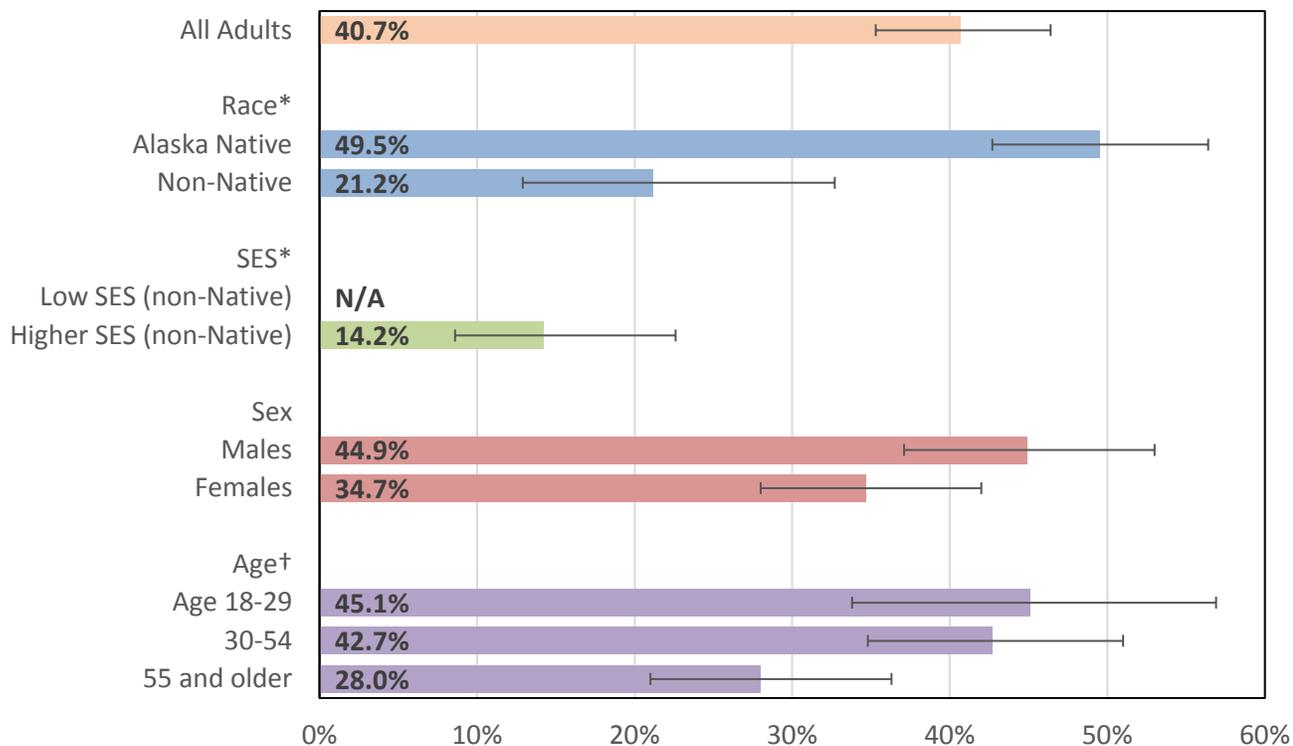


Source: Alaska Behavioral Risk Factor Surveillance System, Combined File, 2015-2017

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.

Among Alaska Native people in the Northern region, smoking prevalence was significantly higher than among non-Natives, 49.5% compared to 21.2%. Smoking prevalence was also significantly higher among ages 18-29 (45.1%) and 30-54 (42.7%) compared to people age 55 and older (28.0%).

**Figure 2.** Percent of Alaska Adults Who Currently Smoke, Northern Region, 2015-2017



\* Significant difference between or among subgroups, although due to small numbers the specific estimate for Low SES cannot be reported.

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

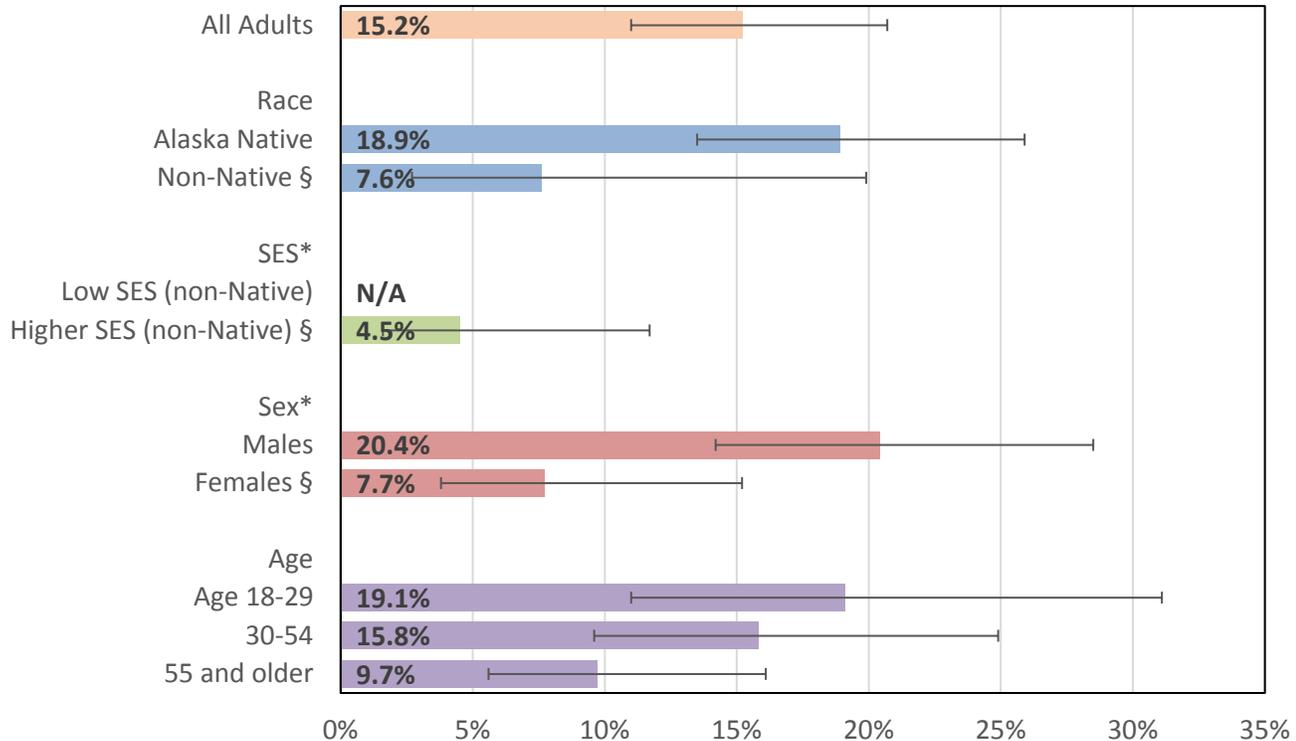
N/A: Estimate not shown, denominator less than 50 or numerator less than 5

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File, 2015-2017

## Adult Smokeless Tobacco Use

In the Northern region, an estimated 15.2% of adults use smokeless tobacco, higher than the statewide estimate of 5.7% for 2015-2017. Men in the Northern region were significantly more likely to use smokeless tobacco than were women, 20.4% compared to 7.7%.

**Figure 3.** Percent of Alaska Adults Who Use Smokeless Tobacco, Northern Region, 2015-2017



\* Significant difference between subgroups; however these should be considered with caution due to small numbers in groups.

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

N/A: Estimate not shown, denominator less than 50 or numerator less than 5

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File, 2015-2017

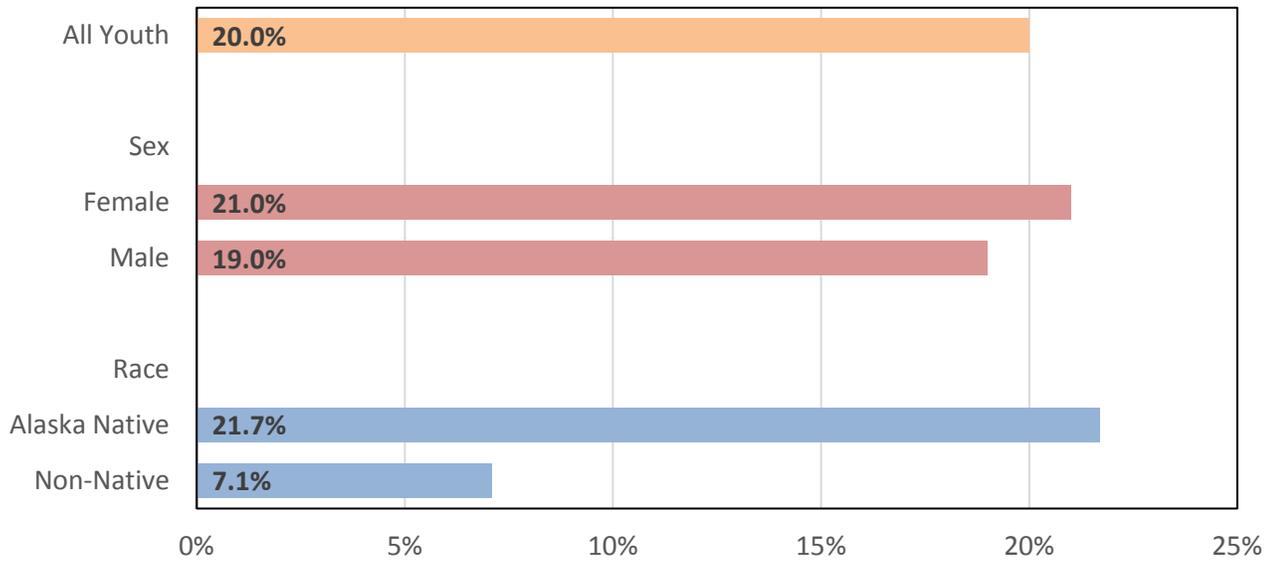
## Youth Smoking

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.

An estimated 20.0% of high school students in the Northern region smoked cigarettes in the past 30 days, compared with the statewide estimate of 10.5% during 2015 and 2017 combined. An estimated 7.4% of students smoked cigarettes on 20 or more of the past 30 days.

As seen in Figure 4, cigarette use is slightly higher among females than among males, 21.0% compared to 19.0%. Alaska Native youth in the Northern region reported smoking within the past 30 days at over triple the percentage of non-Native youth, 21.7% compared to 7.1%.

**Figure 4.** Youth Cigarette Use in Past 30 Days, Northern Region, 2015-2017

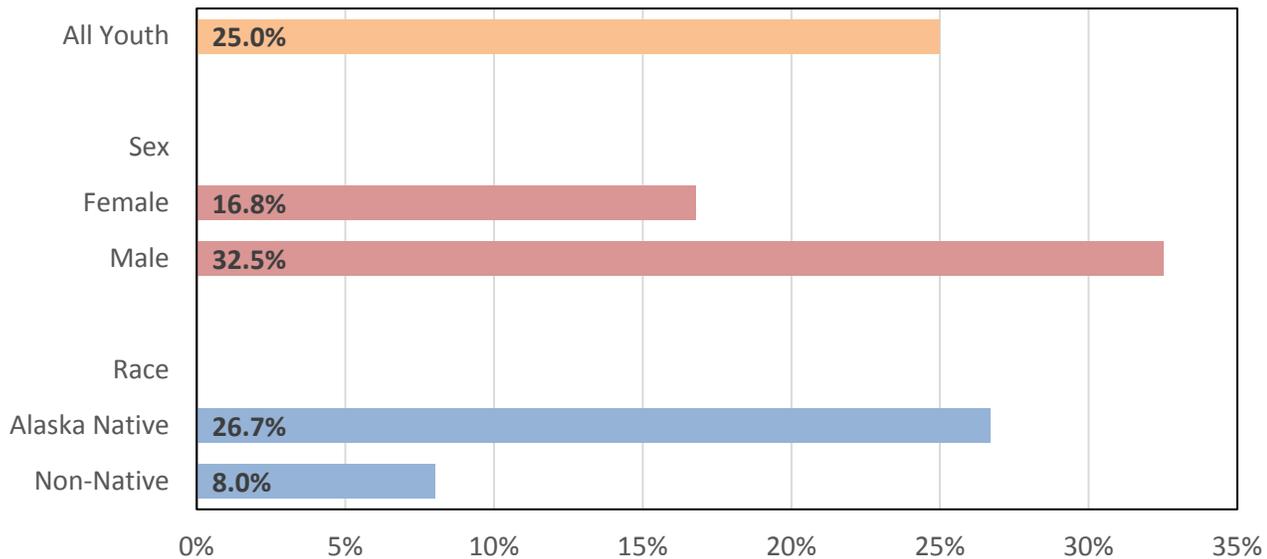


Source: Alaska Youth Risk Behavior Survey, Local File, 2015-2017

### Youth Smokeless Tobacco Use

For 2015 and 2017 combined, an estimated 25.0% of high school students in the Northern region used smokeless tobacco in the past 30 days, compared with the statewide estimate of 9.7%. Males in the Northern region used smokeless tobacco at approximately twice the rate of females, 32.5% compared to 16.8%. Alaska Native youth were three times more likely than non-Native youth to report smokeless tobacco use in the past 30 days, 26.7% compared to 8.0%.

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



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

## 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 Northern region, there is overwhelming support for both smokefree restaurants (89.7%) and workplaces (90.4%).

**Table 2.** Adult Secondhand Smoke (SHS) Indicators, Northern Region, 2015-2017

	<b>Prevalence</b> (95% Confidence Interval)
Has home smoking ban	91.2% (85.9%-94.6%)
No home SHS exposure	95.3% § (91.9%-97.3%)
Support for smokefree workplaces	90.4% (85.4%-93.9%)
Support for smokefree restaurants	89.7% (84.3%-93.4%)
Smoking not allowed in work areas (indoor workers)	92.1% § (86.2%-95.6%)
No indoor workplace SHS exposure (all workers)	91.8% (85.3%-95.6%)
No indoor workplace SHS exposure (indoor workers)	94.2% § (87.0%-97.6%)

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

Source: Alaska Behavioral Risk Factor Surveillance System, Modified File, 2015-2017

Although the vast majority of adults did not report secondhand smoke exposure in homes and workplaces, 35.2% of high school students surveyed in the Northern region during 2015 and 2017 reported being 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 and 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 Northern region, the TPC Program has 23 tobacco-free or smokefree tribal resolutions on record as of February 21, 2019, representing over half (57.5%) of the 40 tribes in the region.<sup>xi</sup> Most of the tribal resolutions are strong (18), while two are fair and three are incomplete. The remaining 17 tribes have not adopted a tobacco-free or smokefree policy.

## Smokefree Community Ordinances

Six communities in the Northern region have passed smokefree ordinances as of February 21, 2019. Strong ordinances have been adopted in the communities of Ambler, Koyuk, and Nome, which prohibit smoking in all indoor work and public places without exception. Incomplete ordinances have been adopted in Barrow, Buckland, and Point Hope; these ordinances do not cover all places of employment. Barrow's policy exempts tobacco retail businesses, 25% of hotel rooms, workplaces with fewer than four employees, and private enclosed spaces in nursing homes or assisted living facilities. Buckland's policy covers enclosed public places only. Point Hope's policy exempts designated smoking areas in private workplaces.

## Multi-Unit Housing Policies

Two multi-unit housing properties have added smokefree policies to their leases in the Northern region as of February 21, 2019. The Bering Straits Regional Housing Authority smokefree policy is rated strong and prohibits smoking by everyone in all indoor areas, with smokefree signs and enforcement of the policy. The Northwest Inupiat Housing Authority smokefree policy has been rated as incomplete, lacking smokefree signage and a statement of penalties for violating the policy.

## Healthcare Policies

Healthcare facilities exist to promote the health and wellbeing of the communities they serve. As such, healthy behaviors should be encouraged while activities known to cause harm should be prevented. In the Northern region, one healthcare facility has adopted a comprehensive tobacco-free policy. An additional facility has adopted an incomplete tobacco-free policy, meaning the policy lacks key elements that are considered essential for effective policies.

**Table 3.** Healthcare Policy Report for the Northern Region: Current Status as of February 21, 2019

Healthcare Facility	Current Policy Status
Maniilaq Association (Maniilaq Health Center)	Comprehensive
Norton Sound Health	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 social norms around tobacco use. An estimated 20.5% of high school students surveyed during 2015 and 2017 in the Northern region started smoking before the age of 13. Although the vast majority of the youth reported that their parents would consider it wrong for them to smoke cigarettes (85.5%), 37.2% thought that smoking one or more packs per day posed no risk or slight risk to their health. The majority (65.6%) of high school students thought their friends would consider it wrong for them to smoke cigarettes (see Appendix Table C-1 for additional regional and state estimates.)

### 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 tobacco tax is \$2.00 for a pack of 20 cigarettes. Three communities in the Northern region, Barrow, Kotzebue, and the Northwest Arctic Borough, have passed an additional local cigarette tax.

Alaska’s statewide tax on other tobacco products (cigars and chewing tobacco) is 75% of the wholesale price. The communities of Barrow, Kotzebue, and the Northwest Arctic Borough have placed an additional local 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 February 21, 2019: Northern 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>
Barrow	\$1.00	\$2.00	\$3.00	N/A	12% of wholesale
Kotzebue	\$2.20	\$2.00	\$4.20	N/A	55% of wholesale
Northwest Arctic Borough	\$2.00	\$2.00	\$4.00	45% of wholesale	45% of wholesale

Source: Barrow Municipal Code, Chapter 4.22 and Kotzebue Municipal Code, Chapter 3.40 and State of Alaska Tobacco Prevention and Control Program.

### 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 tobacco-free school policy adopted by the Northwest Arctic Borough School District is a comprehensive policy that closely resembles the model policy. The Bering Strait School District and the Nome Public School District have both implemented strong tobacco-free school policies that contain a majority of model policy elements. The North Slope Borough School District previously had an incomplete policy that did not specify who it applied to or where it applied, but the district has since revised their policy to mirror the model policy, and it is now considered comprehensive.

School policies are subject to change, and the TPC Program reviews and updates school district tobacco policies quarterly. The policy summaries here are current as of February 21, 2019.

**Table 5.** School Policy Report for the Northern Region: Current Status as of February 21, 2019

<b>School District</b>	<b>Current Policy Status</b>
North Slope Borough	Comprehensive
Northwest Arctic Borough	Comprehensive
Bering Strait	Strong
Nome Public Schools	Strong

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> Tobacco cessation programs are cost-effective and increase longevity while reducing health care costs.<sup>xiv</sup> Alaska has a statewide quit line accessible to all Alaska adults. In addition, the Northern region has local cessation resources provided by the Manilqa Association.

In the Northern region, 37.4% 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, 52.3% have attempted to quit smoking in the past 12 months.

**Table 6.** Adult Cessation Indicators, Northern Region, 2015-2017

	<b>Prevalence</b> (95% Confidence Interval)
Quit ratio (among ever smokers age 25 and older)	37.4% (30.5%-44.9%)
Attempted to quit (among current smokers)	52.3% (42.6%-61.8%)
Quit for 3+ months (among past year smokers)	3.0% § (1.0%-8.1%)
Aware of quit line (among current smokers)	84.3% § (73.7%-91.2%)
Advised to quit by health care provider (among smokers who had a health care visit in the past year)	61.2% § (42.2%-77.3%)

§ 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), 2015-2017

## APPENDICES

### Appendix A: Adult 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>	16.8% (15.4%-18.2%)	21.2% (18.9%-23.7%)	20.9% (19.1%-22.8%)	40.7% (35.3%-46.4%)	21.2% (19.1%-23.4%)	28.0% (24.0%-32.3%)	19.7% (18.8%-20.7%)
Alaska	34.5% (28.3%-41.2%)	41.2% (30.3%-53.1%)	29.1% (24.5%-34.3%)	49.5% (42.7%-56.4%)	35.6% (29.4%-42.3%)	38.9% (33.3%-44.8%)	38.1% (35.2%-41.1%)
Native	15.1% (13.8%-16.7%)	18.5% (16.4%-20.7%)	20.0% (18.1%-22.1%)	21.2% (12.9%-32.7%)	18.4% (16.3%-20.7%)	12.9% (8.9%-18.2%)	16.7% (15.7%-17.7%)
Non-Native	33.1% (28.6%-38.1%)	34.5% (28.6%-40.8%)	38.5% (32.5%-44.8%)	‡	38.2% (31.2%-45.7%)	28.8%*†	34.7% (31.6%-37.9%)
Low SES (non-Native)	11.8% (10.2%-13.6%)	13.9% (11.5%-16.8%)	17.2% (14.9%-19.8%)	14.2% (8.6%-22.6%)	15.6% (13.0%-18.5%)	8.4% (4.8%-14.1%)	13.3% (12.1%-14.5%)
Higher SES (non-Native)	18.0% (16.1%-20.2%)	24.9% (21.4%-28.7%)	23.6% (21.0%-26.5%)	44.9% (37.1%-53.0%)	23.4% (20.4%-26.8%)	33.4% (27.6%-39.8%)	22.1% (20.8%-23.5%)
Males	15.4% (13.5%-17.6%)	17.1% (14.3%-20.3%)	17.8% (15.5%-20.3%)	34.7% (28.0%-42.0%)	18.8% (16.2%-21.7%)	21.0% (16.5%-26.2%)	17.1% (15.9%-18.5%)
Females	17.1% (14.1%-20.6%)	23.5% (17.6%-30.8%)	23.6% (19.4%-28.5%)	45.1% (33.8%-56.9%)	25.0% (19.2%-31.8%)	42.2% (30.8%-54.6%)	21.8% (19.6%-24.2%)
Age 18-29	19.3% (17.1%-21.8%)	24.5% (20.7%-28.7%)	23.4% (20.6%-26.5%)	42.7% (34.8%-51.0%)	24.4% (21.1%-27.9%)	27.8% (22.7%-33.5%)	22.4% (20.9%-23.9%)
30-54	13.0% (11.2%-15.1%)	16.9% (13.9%-20.5%)	15.6% (13.5%-18.0%)	28.0% (21.0%-36.3%)	16.0% (13.5%-18.9%)	18.3% (14.1%-23.4%)	14.9% (13.7%-16.2%)
55 and older							

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File, 2015-2017

\* 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

**Table A-2. Percent of Alaska Adults Who Currently Use Smokeless Tobacco, by Public Health Region, 2015-2017**

	<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>	4.6% (3.9%-5.4%)	5.4% (4.3%-6.6%)	5.4% (4.5%-6.4%)	15.2% (11.0%-20.7%)	3.5% (2.6%-4.5%)	20.2% (16.8%-24.1%)	5.7% (5.2%-6.3%)
Alaska	7.5% (4.7%-11.7%)	8.1%* (4.6%-13.8%)	11.1% (8.0%-15.1%)	18.9% (13.5%-25.9%)	1.9%*† (0.8%-4.6%)	32.4% (27.1%-38.2%)	13.9% (12.0%-16.1%)
Native	4.3% (3.6%-5.2%)	5.0% (3.9%-6.3%)	4.7% (3.8%-5.8%)	7.6%† (2.7%-19.9%)	3.8% (2.9%-5.0%)	4.1% (2.4%-6.8%)	4.4% (3.9%-5.0%)
Non-Native	4.1% (2.6%-6.6%)	7.8% (4.9%-12.0%)	6.0% (3.7%-9.6%)	‡	4.8%*† (2.6%-8.9%)	‡	5.3% (4.0%-6.9%)
Low SES (non-Native)	5.0% (4.0%-6.3%)	5.5% (3.9%-7.5%)	4.5% (3.3%-6.0%)	4.5%*† (1.6%-11.7%)	4.3% (3.0%-6.2%)	5.2%† (2.8%-9.7%)	4.9% (4.2%-5.7%)
Higher SES (non-Native)	8.1% (6.8%-9.7%)	9.8% (7.8%-12.1%)	9.4% (7.8%-11.3%)	20.4% (14.2%-28.5%)	6.7% (5.1%-8.7%)	21.9% (17.1%-27.6%)	9.5% (8.6%-10.5%)
Males	1.0% (0.6%-1.8%)	0.4%*† (0.2%-0.8%)	0.8%* (0.5%-1.4%)	7.7%† (3.8%-15.2%)	N/A‡	18.0% (13.7%-23.4%)	1.7% (1.3%-2.2%)
Females	6.7% (4.9%-9.0%)	4.5%*† (2.4%-8.2%)	6.8% (4.6%-9.9%)	19.1% (11.0%-31.1%)	4.1%* (2.2%-7.3%)	28.8% (19.0%-41.1%)	7.8% (6.5%-9.5%)
Age 18-29	5.0% (4.0%-6.3%)	7.5% (5.6%-9.9%)	6.6% (5.1%-8.4%)	15.8% (9.6%-24.9%)	5.0% (3.4%-7.1%)	21.5% (17.0%-26.8%)	6.7% (5.9%-7.6%)
30-54	2.1% (1.4%-3.1%)	3.6% (2.4%-5.4%)	2.7% (1.9%-3.8%)	9.7% (5.6%-16.1%)	1.6% (1.0%-2.5%)	12.7% (9.5%-17.0%)	3.0% (2.5%-3.5%)
55 and older							

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File, 2015-2017

\* 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

	<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	92.1% (90.3%-93.6%)	91.2% (88.1%-93.5%)	90.1% (87.9%-91.9%)	91.2% (85.9%-94.6%)	91.4% (88.8%-93.5%)	95.2% (92.7%-96.9%)	91.7% (90.6%-92.7%)
No home SHS exposure	94.3% (93.1%-95.3%)	91.2% (88.5%-93.3%)	92.5% (90.9%-93.9%)	95.3%* (91.9%-97.3%)	93.4% (91.3%-94.9%)	94.3% (90.6%-96.6%)	93.6% (92.8%-94.3%)
Support for smokefree workplace policies	88.8% (87.2%-90.3%)	82.8% (79.3%-85.9%)	87.9% (85.9%-89.6%)	90.4% (85.4%-93.9%)	89.1% (87.0%-91.0%)	88.2% (83.9%-91.5%)	88.0% (86.9%-89.0%)
Support for smokefree restaurant policies	85.5% (83.7%-87.2%)	83.0% (80.2%-85.4%)	76.9% (74.3%-79.3%)	89.7% (84.3%-93.4%)	84.4% (82.0%-86.6%)	88.2% (83.7%-91.6%)	84.0% (82.8%-85.1%)
Smoking not allowed in work areas (indoor workers)	85.3% (82.4%-87.8%)	84.7% (79.3%-88.8%)	85.3% (82.3%-87.9%)	92.1%* (86.2%-95.6%)	88.2% (84.6%-91.1%)	78.7% (70.4%-85.1%)	85.5% (83.7%-87.1%)
No indoor workplace SHS exposure (all workers)	94.8% (93.2%-96.0%)	88.5% (84.0%-91.9%)	91.8% (89.6%-93.5%)	91.8% (85.3%-95.6%)	94.1% (91.9%-95.8%)	90.2% (83.3%-94.5%)	93.2% (92.1%-94.1%)
No indoor workplace SHS exposure (indoor workers)	95.7% (94.0%-96.9%)	89.2% (83.9%-92.9%)	93.7% (91.5%-95.3%)	94.2%* (87.0%-97.6%)	94.3% (91.4%-96.2%)	93.4% (85.6%-97.1%)	94.4% (93.2%-95.3%)

\* 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, 2015-2017

National Center for Health Statistics Data Quality Measures

## Appendix C: Preventing the Initiation of Tobacco Use

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

		<b>Anchorage /</b>					
		<b>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 risk 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 them 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 them 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

	<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)	62.6% (59.7%-65.4%)	60.1% (56.0%-64.0%)	58.3% (55.1%-61.5%)	37.4% (30.5%-44.9%)	58.4% (54.7%-62.0%)	50.4% (44.9%-56.0%)	59.5% (57.8%-61.2%)
Attempted to quit (among current smokers)	56.3% (51.6%-61.0%)	53.6% (47.0%-60.1%)	52.8% (47.7%-57.9%)	52.3% (42.6%-61.8%)	62.0% (56.3%-67.3%)	59.6% (51.1%-67.6%)	55.9% (53.2%-58.6%)
Quit for 3+ months (among past year smokers)	5.8% (3.9%-8.7%)	3.7%*† (2.0%-7.0%)	5.6% (3.5%-8.8%)	3.0%*† (1.0%-8.1%)	7.4% (4.2%-12.7%)	9.1%*† (4.4%-18.0%)	5.7% (4.5%-7.3%)
Aware of quit line (among current smokers)	86.5% (81.2%-90.4%)	85.2% (75.5%-91.5%)	84.5% (78.9%-88.9%)	84.3%* (73.7%-91.2%)	87.4% (81.6%-91.6%)	81.1% (69.4%-89.0%)	85.6% (82.7%-88.1%)
Advised to quit by health care provider (among smokers who had a health care visit in the past year)	70.8% (62.5%-77.8%)	65.7% (53.6%-76.1%)	61.8% (52.9%-69.9%)	61.2%* (42.2%-77.3%)	59.4% (49.6%-68.5%)	63.8% (47.3%-77.5%)	66.5% (61.8%-70.9%)

\* 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

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File (first two metrics) & Modified File (last three metrics), 2015-2017

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 1,200 to 1,400 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. 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. 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.

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 in each survey cycle 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

Although not all schools are selected for the state sample, schools can participate on a volunteer basis to receive aggregated data on their students. 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 representative of all schools within that region. However, in each region, students from at least two 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 50% or more of the school's sampled students participated in the survey. 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.

To protect the anonymity of school districts and students, the data may be publicly distributed if specific criteria are met. First, regional YRBS data are based upon aggregated school districts and do not report information about any single school district. Second, prevalence estimates are reported when a minimum of 100 student responses were received; otherwise, the results are suppressed as Data Statistically Unreliable (DSU).

#### 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 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 excluding 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 in the general adult population, the prevalence of health-related risk behaviors, chronic health conditions, and use of preventive services 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 randomized) 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 2017, approximately 265 Alaska adults were interviewed each month for the Standard BRFSS, to reach an annual sample size of 3,200 (530 per region); an additional 319 Alaska adults were interviewed each month for the Supplemental BRFSS in 2017, reaching an annual sample size of 3,833. Because sample size is lower per region and for some subpopulation reporting groups, data from 2015 to 2017 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.

The Standard and Supplemental BRFSS are each weighted separately for analysis of questions that are unique to that 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.

#### Reporting by Socio-Economic Status (SES)

In Tobacco Facts, the low SES priority population is defined as 'non-Native adults (age 25-64) of low socio-economic status.' Reporting by SES is restricted to non-Native because reporting for Alaska Native as a priority population is already done separately. Reporting by SES is also restricted to age 25 to 64 because younger adults (age 18-24) may not have had a chance to complete their education and begin to earn an income. Older adults age 65 and over are similarly excluded because income and education might be inadequate SES markers for those who are potentially retired and eligible for Medicare.

Poverty level (as calculated by income and household size) and education level were identified as key indicators of SES that are available using BRFSS. The State of Alaska guideline for Medicaid eligibility – household incomes at or below the 185% poverty guideline - was adopted as the poverty measure. Therefore, “low SES” was calculated as those persons with less than a High School education or less than 185% of the Alaska Poverty Level Guideline.

#### 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

---

- <sup>i</sup> Alaska Tobacco Facts, 2018 Update. Retrieved from [http://dhss.alaska.gov/dph/Chronic/Documents/Tobacco/PDF/2018\\_AKTobaccoFacts.pdf](http://dhss.alaska.gov/dph/Chronic/Documents/Tobacco/PDF/2018_AKTobaccoFacts.pdf)
- <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)
- Alaska Department of Labor and Workforce Development, Research and Analysis Section. (2019). Retrieved from <http://live.laborstats.alaska.gov/pop/index.cfm>
- <sup>v</sup> Alaska Department of Labor and Workforce Development, Research and Analysis Section. (2019). Retrieved from <http://live.laborstats.alaska.gov/labforce/>
- <sup>vi</sup> Alaska Department of Labor and Workforce Development, Research and Analysis Section. (2016). Alaska Local and Regional Information. Retrieved from <http://live.laborstats.alaska.gov/alari/>
- <sup>vii</sup> Alaska Department of Commerce, Community and Economic Development, Division of Corporations, ANCSA Information. Retrieved from <https://www.commerce.alaska.gov/web/cbpl/corporations/ancsainformation.aspx>
- <sup>viii</sup> The low SES definition is non-Native adults age 25-64 who have less than a High School education or less than 185% of the Alaska Poverty Level Guideline. Alaska Natives are excluded because they are a separate priority population.
- <sup>ix</sup> U.S. Department of Health and Human Services. (2006). *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*. 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.
- <sup>x</sup> Alaska Youth Risk Behavior Survey, 2015 and 2017.
- <sup>xi</sup> State of Alaska Tobacco Prevention and Control Program.
- <sup>xii</sup> U.S. Department of Health and Human Services. (1990). *The Health Benefits of Smoking Cessation*. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.
- <sup>xiii</sup> Doll R, Peto R, Boreham J, Sutherland I. (2004). Mortality in relation to smoking: 50 years' observations on male British doctors. *British Medical Journal*; 328(7455):1519–1527.
- <sup>xiv</sup> Center for Tobacco Research and Intervention, University of Wisconsin Medical School. *The Business Case for Investing in a Smoke-Free Workplace is Clear*. Retrieved from <http://www.ctri.wisc.edu/documents/businesscase.pdf>
- <sup>xv</sup> Blumberg SJ, Luke JV, Ganesh N, et al. (2011). Wireless substitution: State-level estimates from the National Health Interview Survey, January 2007–June 2010. *National Health Statistics Reports*; no 39. Hyattsville, MD: National Center for Health Statistics.