ALASKA TOBACCO FACTS

2018

Alaska Tobacco Facts

2018 Update

Bill Walker, Governor
Valerie Davidson, Commissioner, Department of Health and Social Services
Jay Butler, MD, Chief Medical Officer and Director, Division of Public Health
Tari O'Connor, MSW, Section Chief, Chronic Disease Prevention & Health Promotion

Suggested Citation:
http://dhss.alaska.gov/dph/Chronic/Documents/Tobacco/PDF/2018_AKTobaccoFacts.pdf

Acknowledgements

Tobacco Facts was commissioned by the Tobacco Prevention and Control Program, Section of Chronic Disease Prevention and Health Promotion, Division of Public Health, Alaska Department of Health and Social Services. Major contributors to the development of this report include Erik Everson, Chris Bushore, and Kathy Pickle from Program Design and Evaluation Services in Portland, Oregon.

We would like to acknowledge the following individuals and organizations for their contributions to this report:

Alaska Department of Health and Social Services
- Division of Public Health
  - Section of Chronic Disease Prevention and Health Promotion
    - Andrea Fenaughty, PhD, Deputy Section Chief
    - Ray Troche, PhD, Lead Tobacco Prevention Evaluator
    - Aulasa Liendo, MA, MPH, Alaska BRFSS Coordinator
    - David Howell, Public Health Data Analyst
    - Charles Utermohle, PhD, Public Health Analyst
    - Tazlina Mannix, MPH, Alaska YRBS Coordinator
    - Wendy Hamilton, Alaska School Health Program Manager
  - Section of Women's, Children, and Family Health
    - Kathy Perham-Hester, MS, MPH, Alaska PRAMS Coordinator
  - Health Analytics & Vital Records
    - Heidi Lengdorfer, MPH, Chief, Health Analytics & Vital Records
    - Richard Raines, Health Analytics Research Analyst
- Division of Behavioral Health
  - Joe Darnell, Chief Investigator, Tobacco Enforcement and Youth Education

Alaska Department of Revenue
- Tax Division
  - Ken Alper, MUP, Director

Table of Contents

Introduction

Alaska Tobacco Facts is designed to be a brief, annual update of key indicators from state data sources. This report can be used to educate Alaskans about the toll that tobacco continues to take on the health and well-being of our citizens.

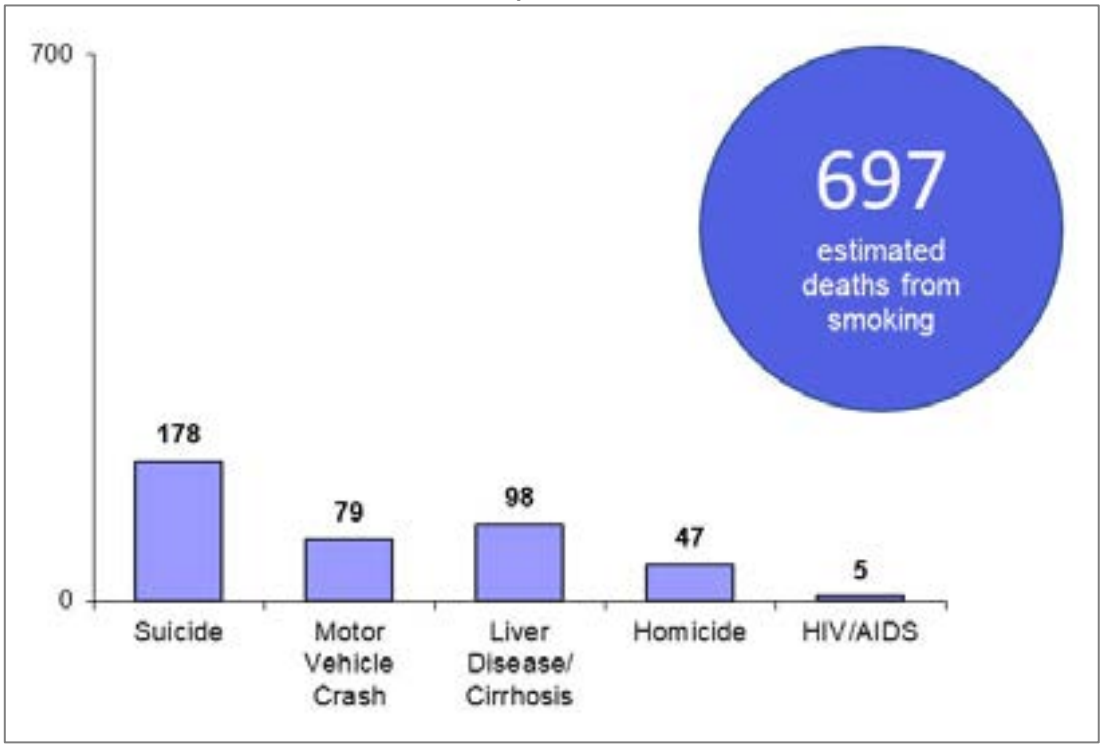
Trends in tobacco use are measured from the baseline year of 1996, prior to two early events in tobacco prevention and control in Alaska: the tobacco tax increase in 1997 and Alaska's decision to join in the national multi-state Tobacco Master Settlement Agreement in 1998. In this report, we have also assessed more recent change, from 2007 to the present. Differences are noted where there is statistical significance ($p < 0.05$).

The following are highlights from *Alaska Tobacco Facts, 2018 Update*:

- Per adult cigarette consumption declined 61.4% from State Fiscal Year (SFY) 1996 to SFY 2016; 508 million fewer cigarettes were sold in 2016 compared to 1996.
- The annual cost of smoking to Alaska in 2014 dollars includes $575 million in direct medical expenditures and $264 million in lost productivity due to smoking-related deaths.
- The percentage of adult smokers in Alaska has declined by 27.7% between 1996 and 2016, a statistically significant decrease.
- The smoking prevalence among Alaska Native adults was over double that of non-Native adults (40.6% compared to 16.6%), but has decreased significantly since 1996.
- Among non-Native adults age 25 to 64, those of low socioeconomic status (SES) are over twice as likely as those of higher SES to be smokers (34.6% versus 14.2%); smoking prevalence has decreased since 1996 only among those of higher SES.
- The majority of Alaska adults who currently smoke want to quit (67.6%); moreover, the majority of smokers tried to quit in the last 12 months (55.6%).
- Smoking among high school students has declined 73%, from 36.5% in 1995 to 9.9% in 2017. In 2017 more high school students used e-cigarettes (15.7%) than smoked cigarettes currently.
- Alaska Native high school students are significantly more likely to smoke than non-Native students, although the gap has decreased considerably since 2003.
- Since the mid-2000s, secondhand smoke (SHS) exposure has decreased significantly among children at home, and among high school students at home and other indoor spaces, but 29.4% of high school students are still regularly exposed to indoor secondhand smoke.
- Among those who work primarily indoors, men are significantly less likely to be protected from SHS by a clean indoor air policy than are women.
- Nearly all Alaska adults (89.0%) agree that people should be protected from SHS. Support is high even among adult smokers; 79.4% of adult smokers agree that people should be protected from SHS.

I. Smoking-Related Deaths and Economic Costs

Figure 1. Average Annual Number of Deaths Due to Selected Causes, Alaska, 2012-2016



Sources: Alaska Section of Health Analytics and Vital Records; see Appendix B for data sources and methods for smoking-related mortality estimate.[1]

- More Alaskans die annually from the direct effects of smoking tobacco than from suicide, motor vehicle crashes, chronic liver disease and cirrhosis, homicide, and HIV/AIDS combined.
- Using data from 2012 to 2016, an average of 697 Alaskans are estimated to have died annually from smoking-related diseases. These premature deaths were associated with an annual average of $264 million dollars in lost productivity.[1]
- In 2014, smoking cost Alaska an estimated $575 million in direct medical expenditures.[1] However, these figures underestimate total costs, as lost productivity from tobacco-related illness and costs due to secondhand smoke exposure-related illness or death are not included.[2]

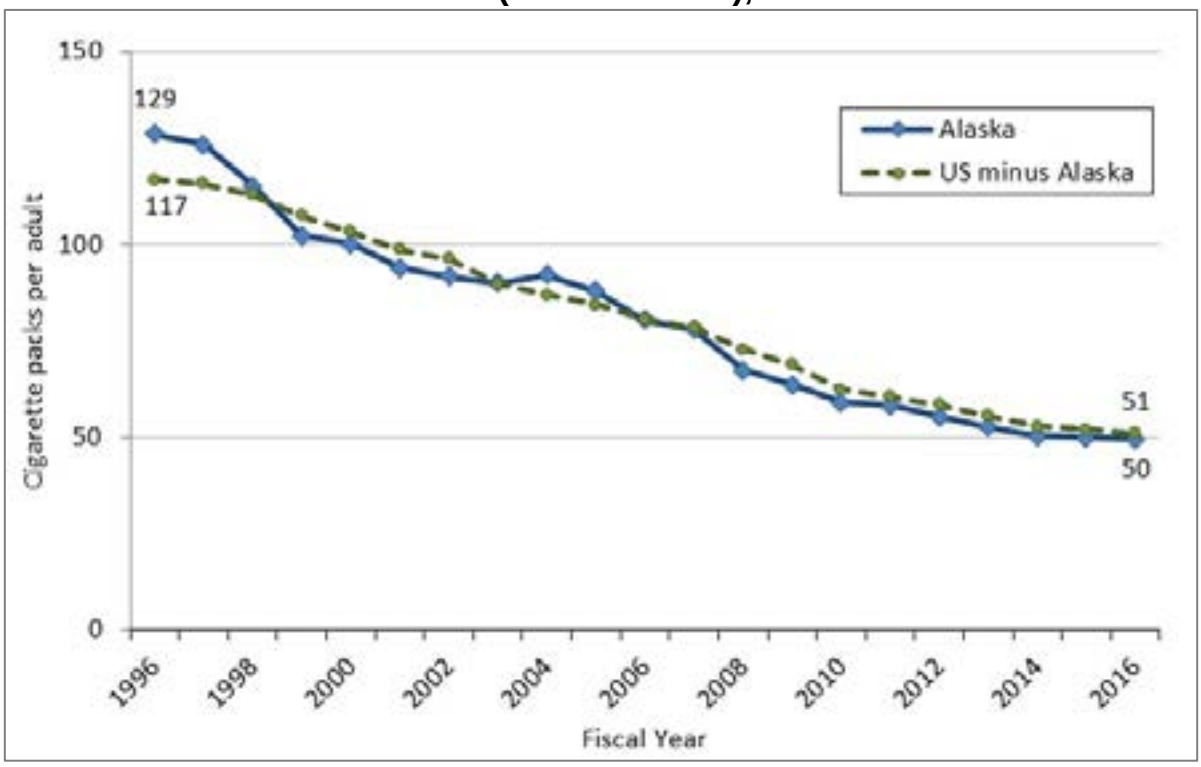
[1] See Appendix B for information on how smoking-attributable mortality and economic costs were estimated.

[2] Nationally, exposure to secondhand smoke causes more than 41,000 deaths among nonsmoking adults and 400 deaths in infants each year, and approximately $5.6 billion annually in lost productivity (U.S. Department of Health and Human Services 2014 report, "The health consequences of smoking: 50 years of progress: a report of the Surgeon General." Available at http://www.surgeongeneral.gov/library/reports/50-years-of-progress; Max W, Sung H-Y, Shi Y. Deaths from secondhand smoke exposure in the United States: economic implications. Am J Public Health 2012; 102:2173-80).

II. Adult Tobacco Use

A. *Cigarette Sales*

Figure 2. Annual Per Adult Sales of Cigarette Packs, By Fiscal Year, Alaska and US (minus Alaska), 1996 – 2016

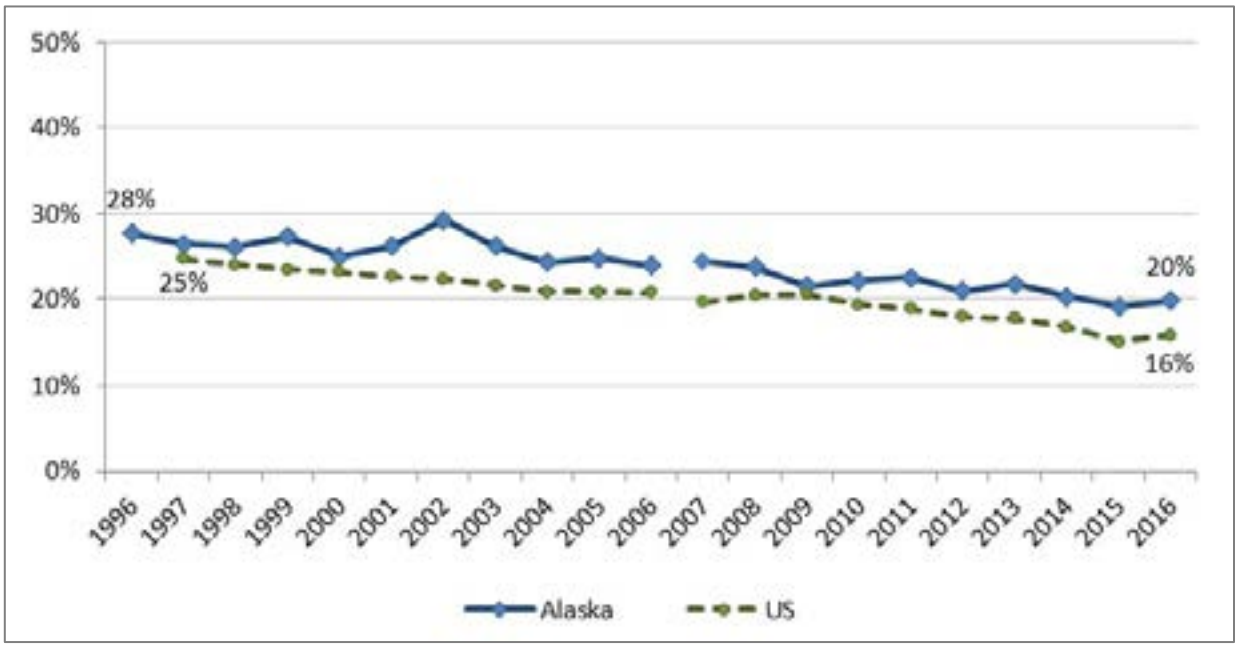


Sources: Alaska Department of Revenue, Tax Division FY16 Reports;
Orzechowski & Walker, *The Tax Burden on Tobacco*, 2016 (vol 51).

- The number of cigarette packs sold per adult in Alaska dropped 61.4%, from 128.6 packs in 1996 to 49.6 packs in 2016.
- This drop in cigarette sales translates to 508 million fewer cigarettes sold in Alaska in 2016 than in 1996.

B. *Cigarette Use*

Figure 3. Percentage of Adults Who Smoke, by Year, Alaska and US, 1996 – 2016



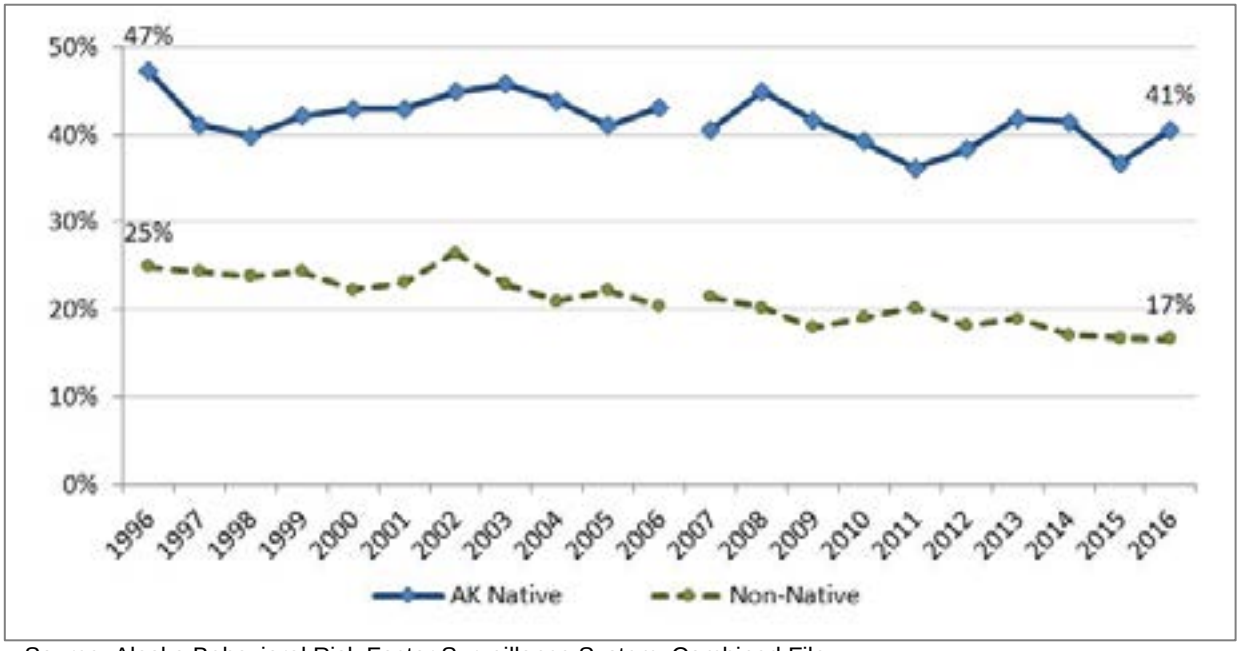
Sources: Alaska Behavioral Risk Factor Surveillance System Combined File,
National Health Interview Survey.
BRFSS estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

For Alaska:

- Smoking prevalence has declined significantly from 27.7% in 1996 to 19.9% in 2016. The more recent 10-year trend from 2007 to 2016 also shows a significant decline in smoking.
- This decrease represents about 41,000 fewer adult smokers in 2016 than in 1996.[3]
- Smoking prevalence has decreased significantly for both men and women. Among women, smoking prevalence went from 24.2% in 1996 to 17.5% in 2016, and among men, it fell from 30.8% in 1996 to 22.1% in 2016. The more recent trends from 2007 to 2016 also show a significant decline in smoking for both groups.
- Regionally, from 1998 to 2016, smoking prevalence decreased significantly in all regions of Alaska except the Southwest region. More recent trends (from 2007 to 2016) for smoking show significant declines in all regions except the Southwest and Southeast regions. (See Figure 9 for current regional disparities, and Appendix A Table 6 for more detailed information.)

[3] The estimated number fewer adult smokers is calculated using 2010 Census adult population total for Alaska, multiplied by the Alaska adult smoking prevalence for 1996 and for 2016 respectively, and then subtracting the 2016 estimated number of smokers from the 1996 number (of smokers) and rounding to the nearest 1,000.

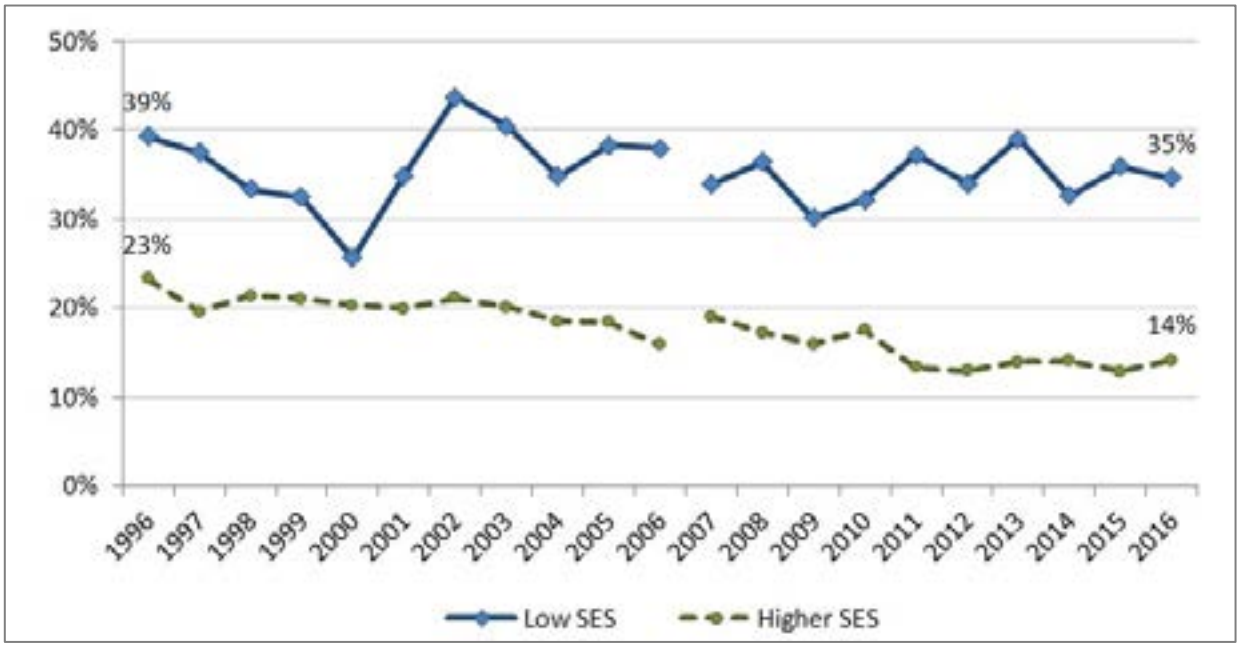
Figure 4. Percentage of Adults Who Smoke, by Year and Alaska Native Status, Alaska, 1996 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Combined File
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- Among Alaska Native adults, the long-term trend (from 1996 to 2016) in smoking prevalence showed a significant decrease. The more recent trend from 2007 to 2016 was not significant.
- Among non-Native adults, smoking has decreased significantly from 24.9% in 1996 to 16.6% in 2016. The more recent trend was also a significant decrease.

Figure 5. Percentage of Adults who Smoke, by Year and Socioeconomic Status,[4] Alaska, 1996 – 2016

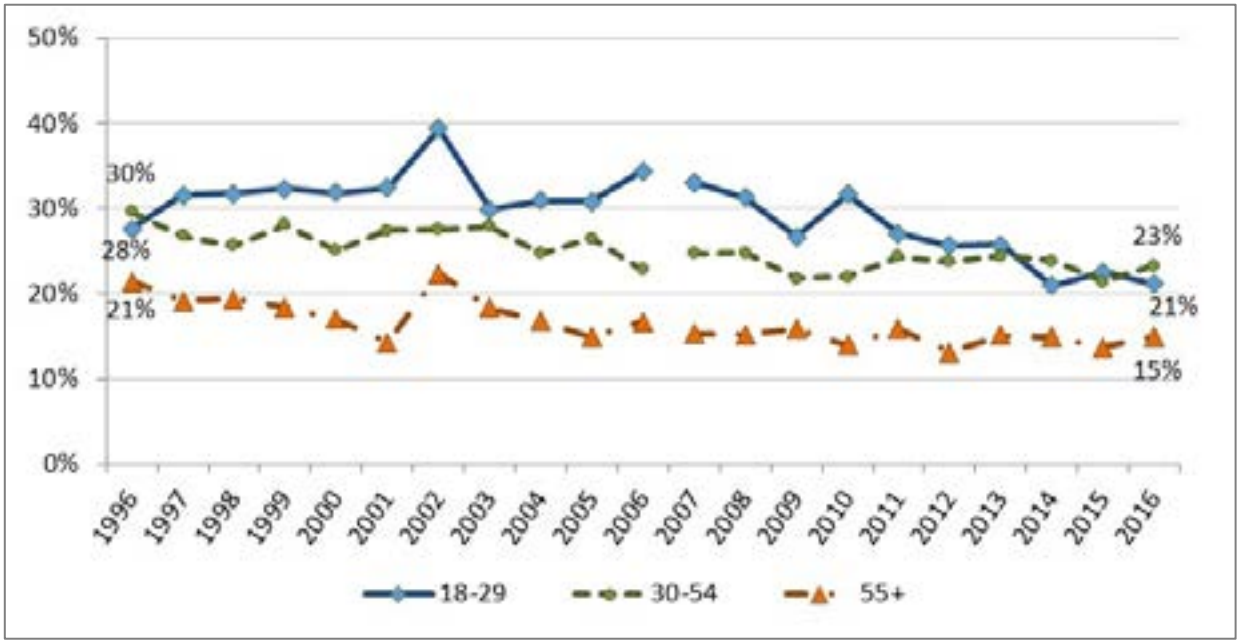


Source: Alaska Behavioral Risk Factor Surveillance System, Combined File
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- Among adults with low socioeconomic status (SES), smoking prevalence has not changed significantly between 1996 and 2016, and the trend from 2007 to 2016 is also not significant.
- Among adults with higher SES, smoking prevalence has decreased significantly from 23.3% in 1996 to 14.2% in 2016. The more recent trend from 2007 to 2016 was also significant.

[4] The SES measure is restricted to non-Natives age 25 to 64. Low SES is defined as less than high school education or household income at 185% or less of the Alaska Poverty Level Guideline. See Appendix B for more information.

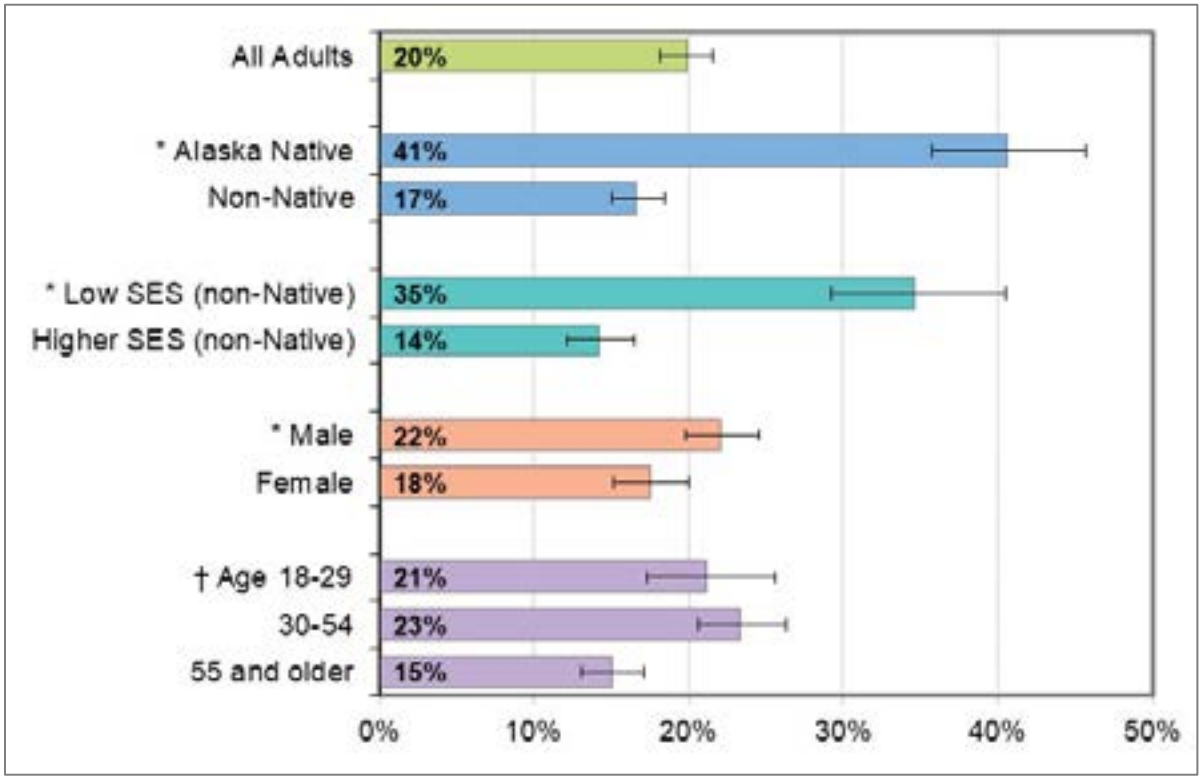
Figure 6. Percentage of Adults Who Smoke, by Year and Age Group, Alaska, 1996 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Combined File
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- Among adults age 18 to 29, smoking has decreased significantly from 27.7% in 1996 to 21.2% in 2016. Most of the decrease has occurred in more recent years; the trend from 2007 to 2016 was also significant.
- Among adults age 30 to 54, smoking has decreased significantly from 29.6% in 1996 to 23.3% in 2016. In more recent years, the trend was not significant.
- Smoking also decreased significantly among adults age 55 and older from 21.4% in 1996 to 15.0% in 2016. In more recent years, the trend was not significant.

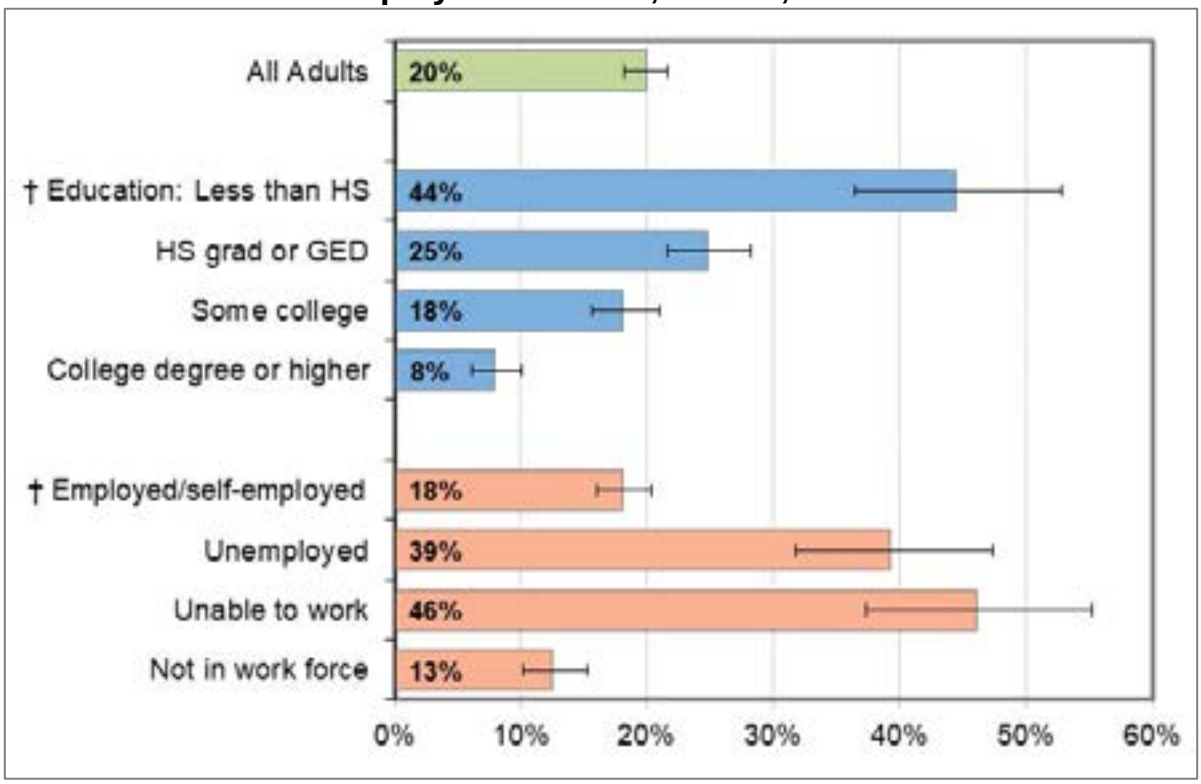
Figure 7. Percentage of Adults Who Smoke, by Selected Demographic Factors, Alaska, 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Combined File
* Significant difference between the two sub-groups.
† Significant differences as described below.

- In 2016, adult smoking was significantly higher among Alaska Native adults than among non-Native adults.
- Adults in the low SES group were more likely than those of higher SES to be smokers.
- Men were more likely than women to be smokers.
- Smoking prevalence was similar for young adults age 18 to 29 and adults age 30 to 54. Both groups were significantly more likely to be smokers than adults age 55 and older.
- Age at initiation of smoking:
  More than half of adults who were current smokers in 2016 (58.1%) reported that they had started smoking regularly before they were 18 years old.

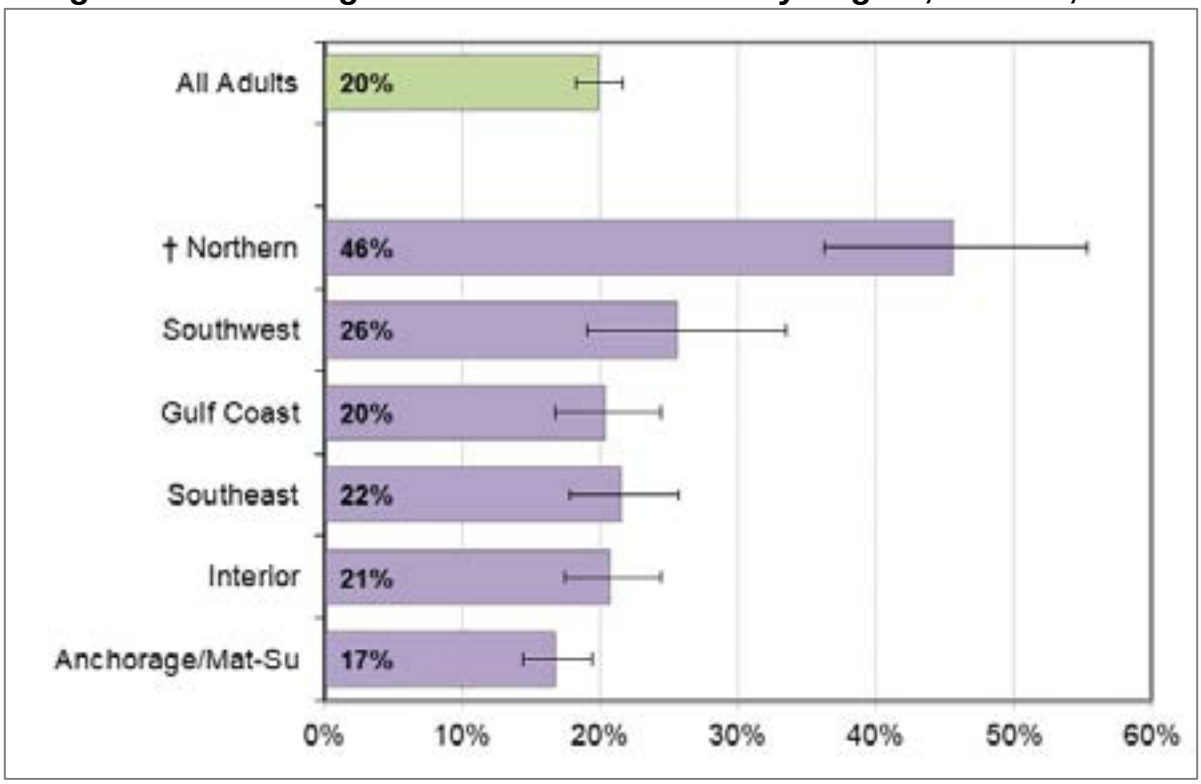
Figure 8. Percentage of Adults Who Smoke, by Formal Education Status and Employment Status, Alaska, 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Combined File
† Significant differences as described below.

- In 2016, smoking was higher among adults with less educational attainment. Each increase in level of education from less than high school to high school graduate or GED, to some college, to a college degree or higher, was associated with a significant decrease in smoking prevalence.
- Alaska adults who were employed were significantly less likely to smoke than those who were unemployed or unable to work.
- Adults who are not in the work force:
  Those who were not in the work force were less likely to smoke than those in the other employment status groups. The “not in work force” group includes adults who reported their employment status as retired, homemakers or students. Smoking prevalence among homemakers was 15.5%, compared to 12.9% among students and 11.1% among retirees.

Figure 9. Percentage of Adults Who Smoke by Region,[5] Alaska, 2016

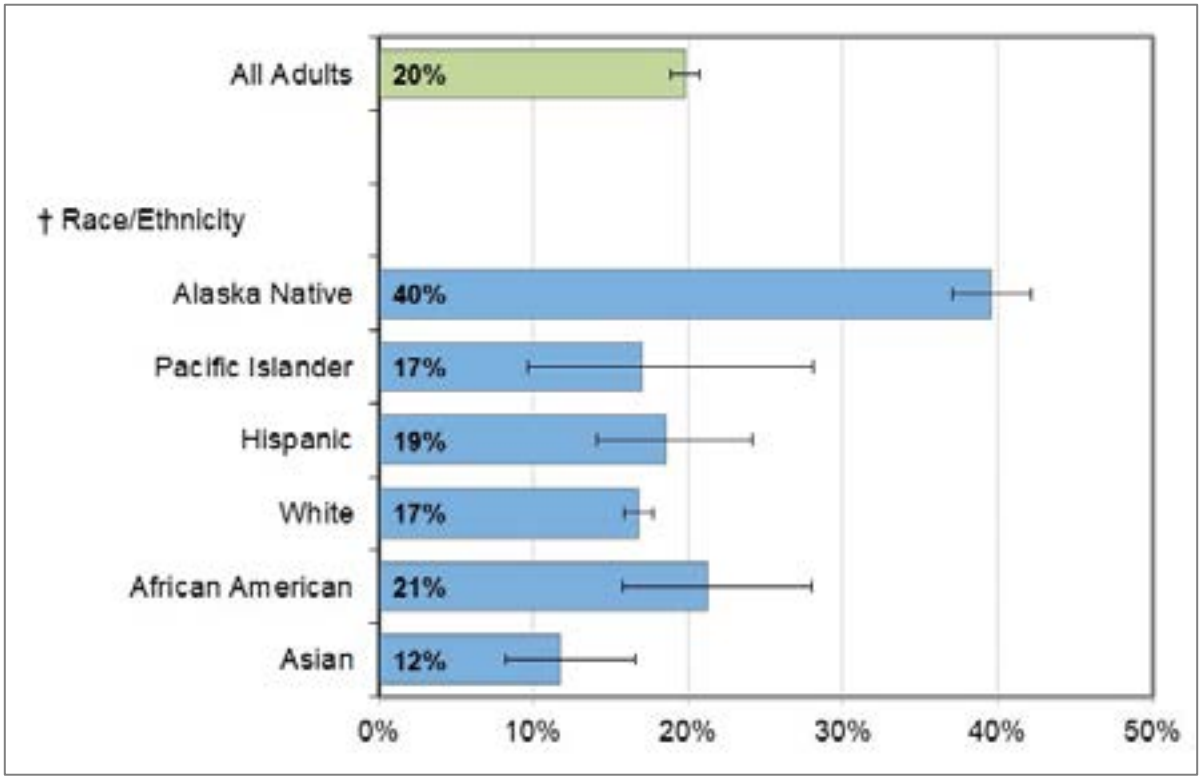


Source: Alaska Behavioral Risk Factor Surveillance System, Combined File
† Significant differences as described below.

- In 2016, adults in the Northern Region were more likely to smoke than adults in other regions.
- Adult smoking prevalence was also significantly lower in Anchorage/Mat-Su than in the Southeast and Southwest regions.
- Adult smoking prevalence was not significantly different between the Gulf Coast, Interior, Southeast, and Southwest regions.

[5] Public Health Regions include:
- Northern – Nome, Northwest Arctic, and North Slope
- Southwest – Bristol Bay, East Aleutians, West Aleutians, Dillingham, Lake & Peninsula, Bethel, and Kusilvak
- Gulf Coast – Kenai, Kodiak, and Valdez Cordova
- Interior – Denali, Fairbanks North Star, Southeast Fairbanks, and Yukon Koyukuk
- Southeast – Yakutat, Skagway, Hoonah-Angoon, Juneau, Sitka, Haines, Wrangell, Petersburg, Prince of Wales-Hyder, and Ketchikan Gateway
- Anchorage/Mat-Su – Municipality of Anchorage, Matanuska-Susitna Borough

Figure 10. Percentage of Adults Who Smoke, by Race/Ethnicity, Alaska, 2014 – 2016



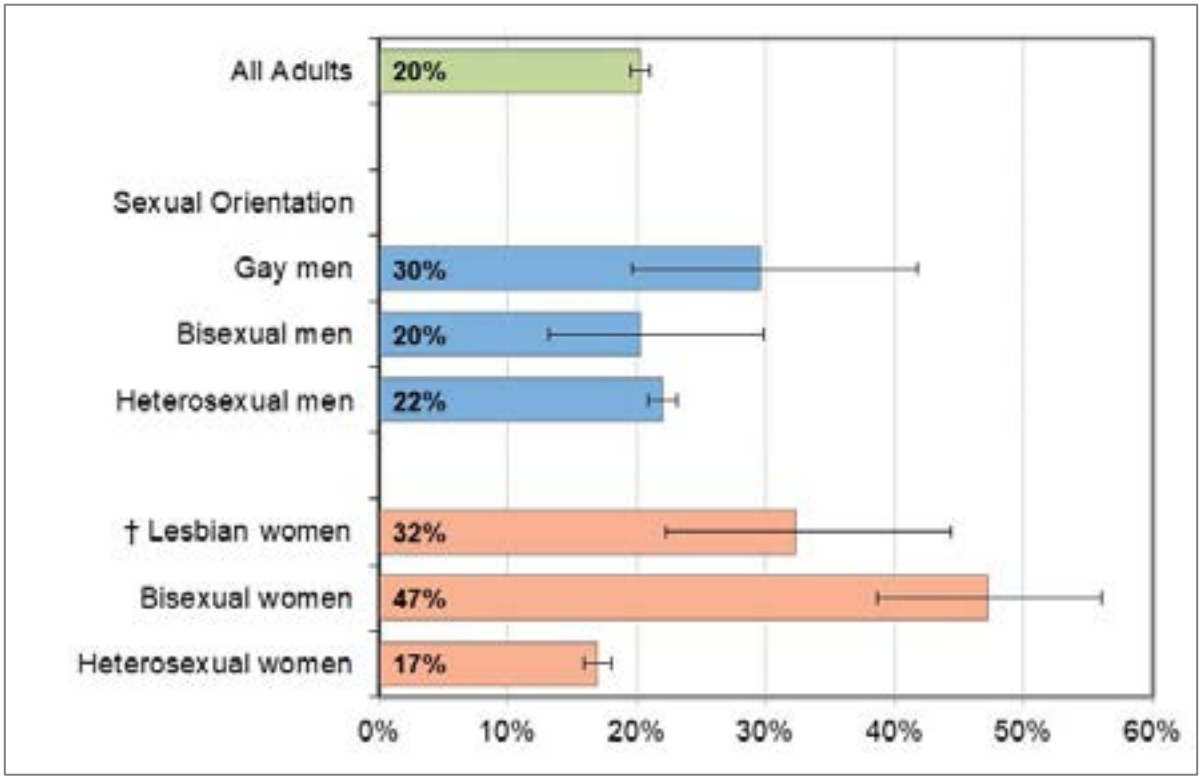
Source: Alaska Behavioral Risk Factor Surveillance System, Combined File
† Significant differences as described below.

Note: The race categories of African American, Asian, Pacific Islander, and White do not include respondents of Hispanic ethnicity. Percentages reported in this graph are for 2014-2016 combined, and may differ from those reported elsewhere for 2016 only.

In 2014-2016:

- Alaska Native adults were significantly more likely to be smokers than were adults from any other race or ethnicity group.
- Asian adults were significantly less likely to be smokers than were adults from each other race or ethnicity group except Pacific Islander adults.
- There was no significant difference in smoking prevalence between White, African American, Pacific Islander, and Hispanic adults.

Figure 11. Percentage of Adults Who Smoke, by Gender and Sexual Orientation, Alaska, 2013 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Combined File
† Significant differences as described below.

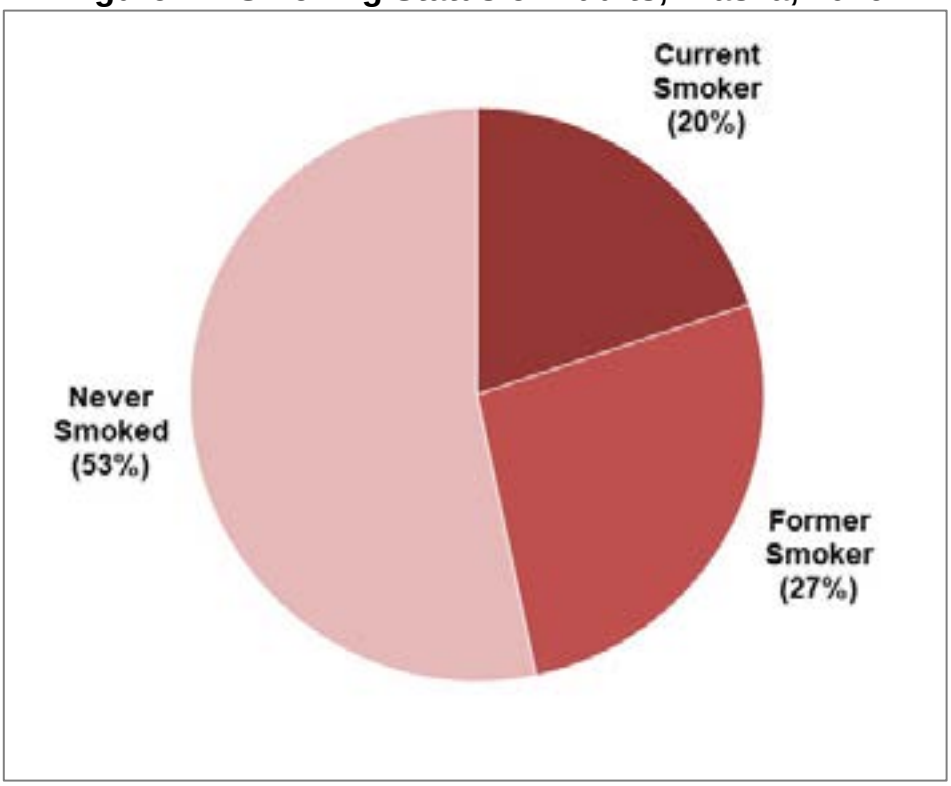
Note: Percentages reported in this graph are for 2013-2016 combined, and may differ from those reported elsewhere for 2016 only.

In 2013-2016:

- Among men, there were no significant differences in smoking prevalence by sexual orientation.
- Women who identified as bisexual were significantly more likely to be smokers than were women who identified as lesbian or heterosexual.
- Lesbian-identified women were significantly more likely to be smokers than heterosexual-identified women.

C. *Cessation: Quitting Cigarettes*

Figure 12. Smoking Status of Adults, Alaska, 2016

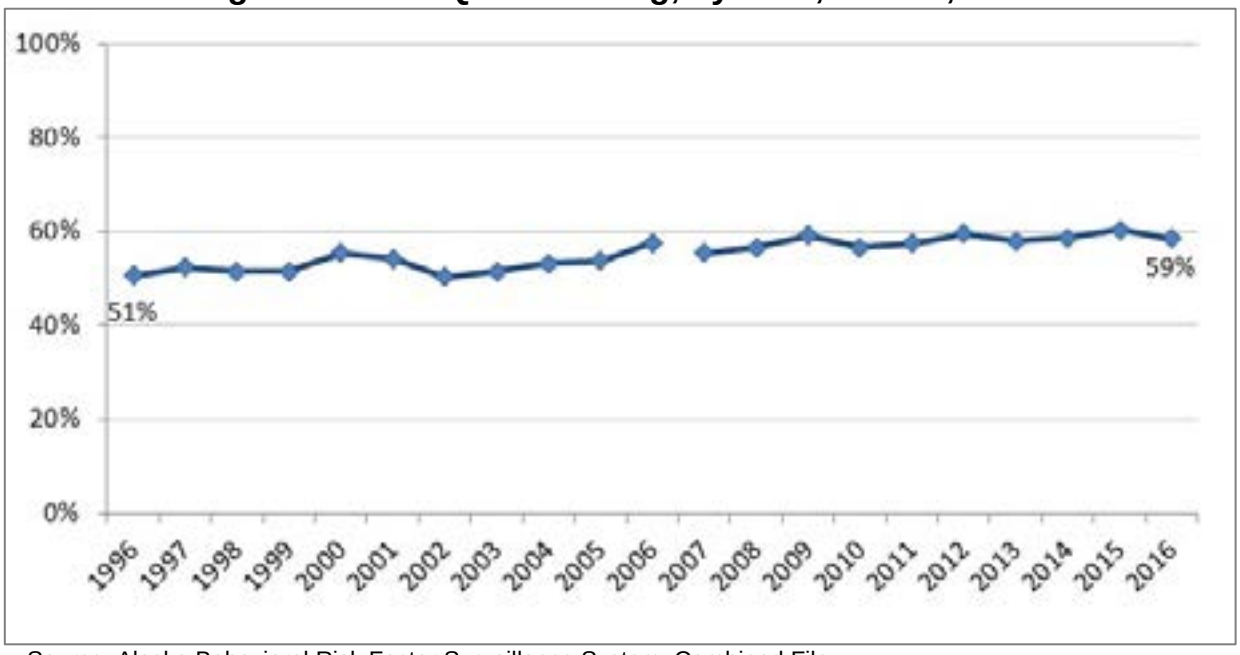


Source: Alaska Behavioral Risk Factor Surveillance System, Combined File

- As the proportion of smokers has decreased over time, the proportion of Alaskans who have never been smokers has increased, from 46.3% in 1996 to 53.3% in 2016.
- There are disparities in never smoking by age, gender, race, education, employment status, and socio-economic status.
- In 2016, 58.5% of women had never been smokers, compared to 48.5% of men.
- Alaska Native adults were significantly less likely than non-Native adults to have never smoked (34.9% vs 56.3%).
- Those with higher SES[6] are significantly more likely to have never been smokers compared to adults with low SES (59.1% vs. 41.5%).

[6] The SES measure is restricted to non-Natives age 25 to 64. Low SES is defined as less than high school education or household income at 185% or less of the Alaska Poverty Level Guideline. See Appendix B for more information.

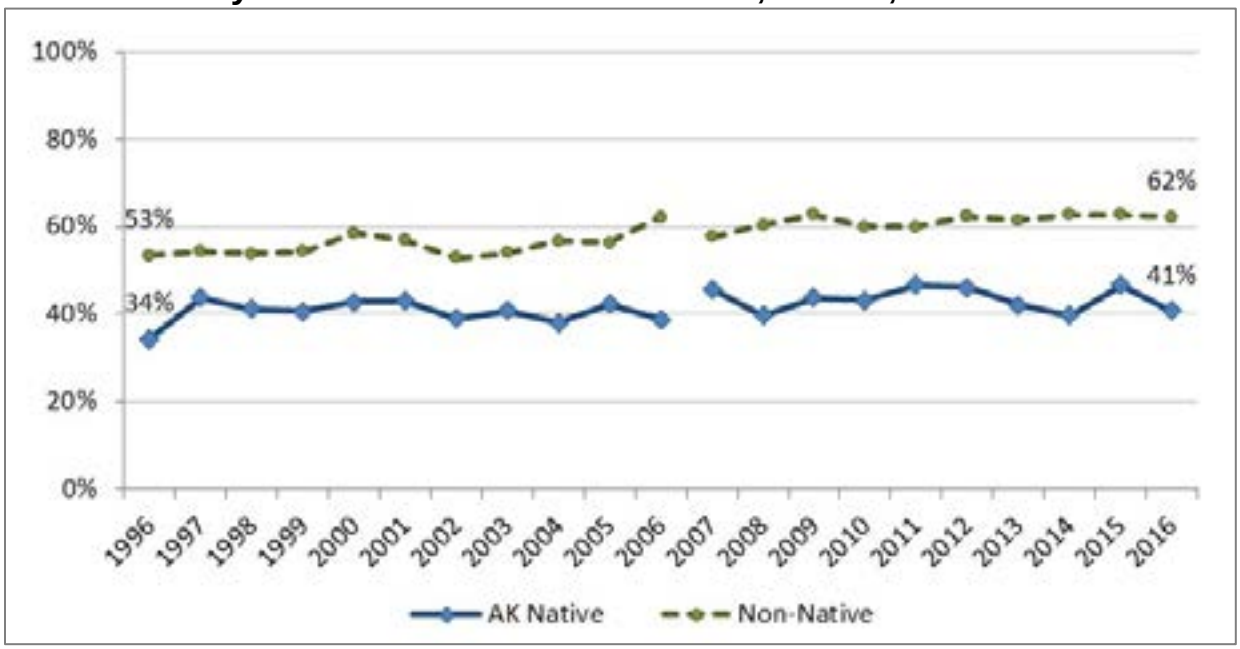
Figure 13. Quit Ratio: Among Adults age 25 or Older who were Ever Smokers, Percentage who have Quit Smoking, by Year, Alaska, 1996 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Combined File
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- The quit ratio is a measure that shows the proportion of people who have quit smoking among those who have ever been smokers. This measure is reported among adults who are age 25 or older, so that the trend is less likely to be affected by changes in initiation of smoking occurring in those who are less than 25 years of age.
- The quit ratio has increased significantly since 1996. The proportion of ever smokers age 25 or older who have quit smoking increased from 50.7% in 1996 to 58.5% in 2016. The more recent trend from 2007 to 2016 also shows an increase.
- The quit ratio has increased significantly among men (from 50.4% in 1996 to 58.1% in 2016) and among women (from 51.2% in 1996 to 59.2% in 2016). The more recent trends from 2007 to 2016 do not show a significant change for either men or women.
- From 1998 to 2016, the quit ratio increased significantly in four regions—the Gulf Coast, Anchorage/Mat-Su, Interior, and Southeast Alaska. There has been no significant change in the quit ratio in any region since 2007. See Appendix A Tables 12 and 13 for more detailed information.

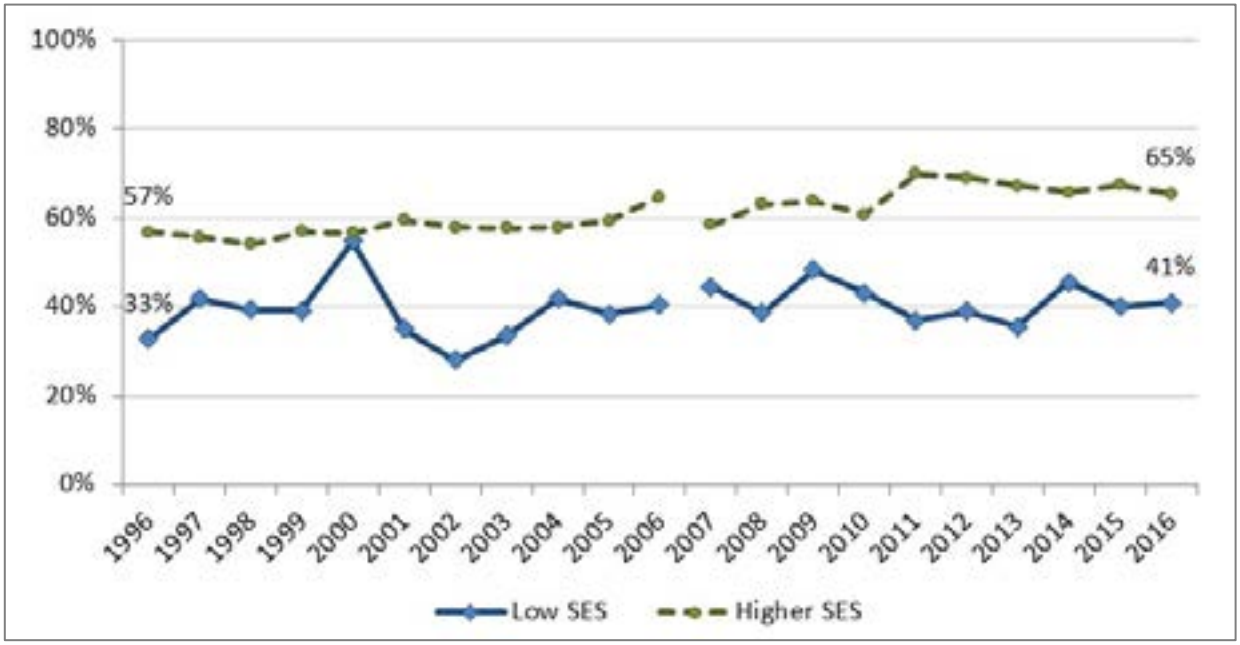
Figure 14. Quit Ratio: Among Adults age 25 or Older who were Ever Smokers, Percentage who have Quit Smoking, by Year and Alaska Native Status, Alaska, 1996 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Combined File
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- Among Alaska Native adults age 25 and older who ever smoked, there has been no significant trend in the quit ratio from 1996 to 2016, or more recently from 2007 to 2016.
- Among non-Native adults age 25 and older, the quit ratio has increased significantly between 1996 and 2016. The more recent trend was also significant.

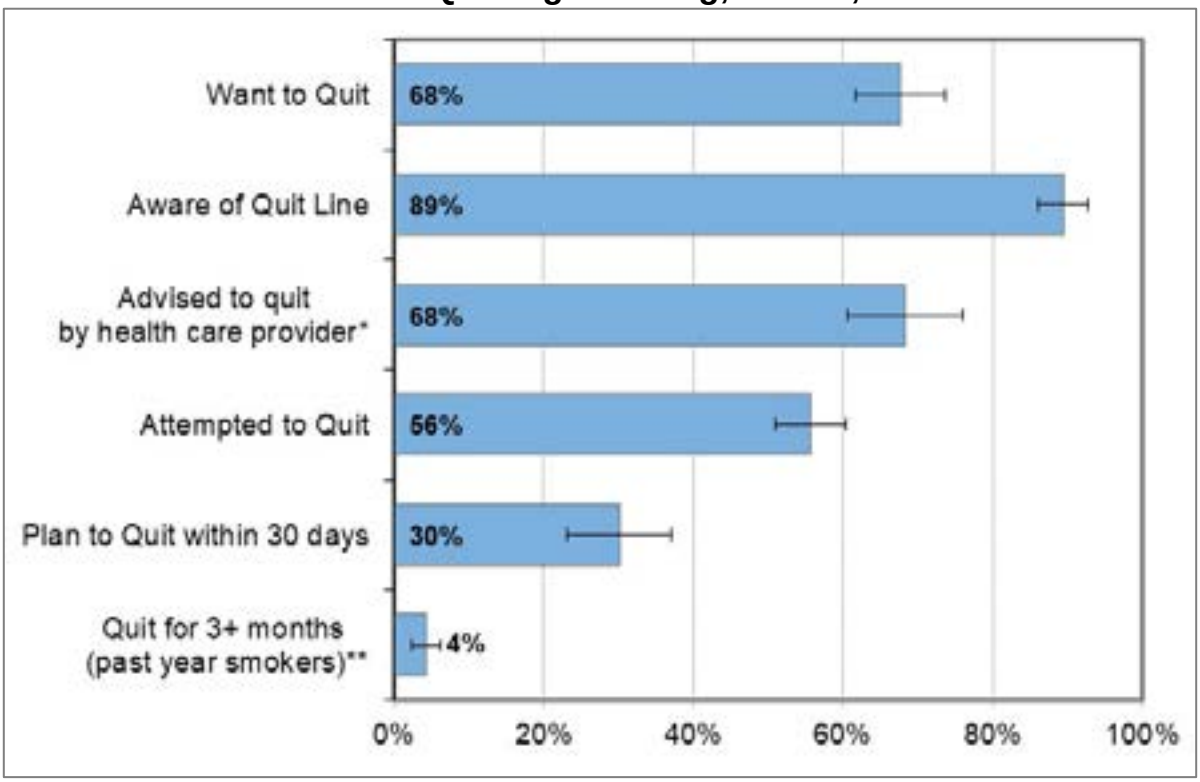
Figure 15. Quit Ratio: Among Adults age 25 or Older who were Ever Smokers, Percentage who have Quit Smoking, by Year and Socioeconomic Status, Alaska, 1996 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Combined File
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- Among adults with low SES, the quit ratio has not changed significantly between 1996 and 2016, and the trend from 2007 to 2016 is also not significant.
- Among adults with higher SES, the quit ratio increased significantly between 1996 and 2016. The more recent trend from 2007 to 2016 was also significant.

Figure 16. Percentage of Adult Smokers Represented in Selected Indicators Related to Quitting Smoking, Alaska, 2016



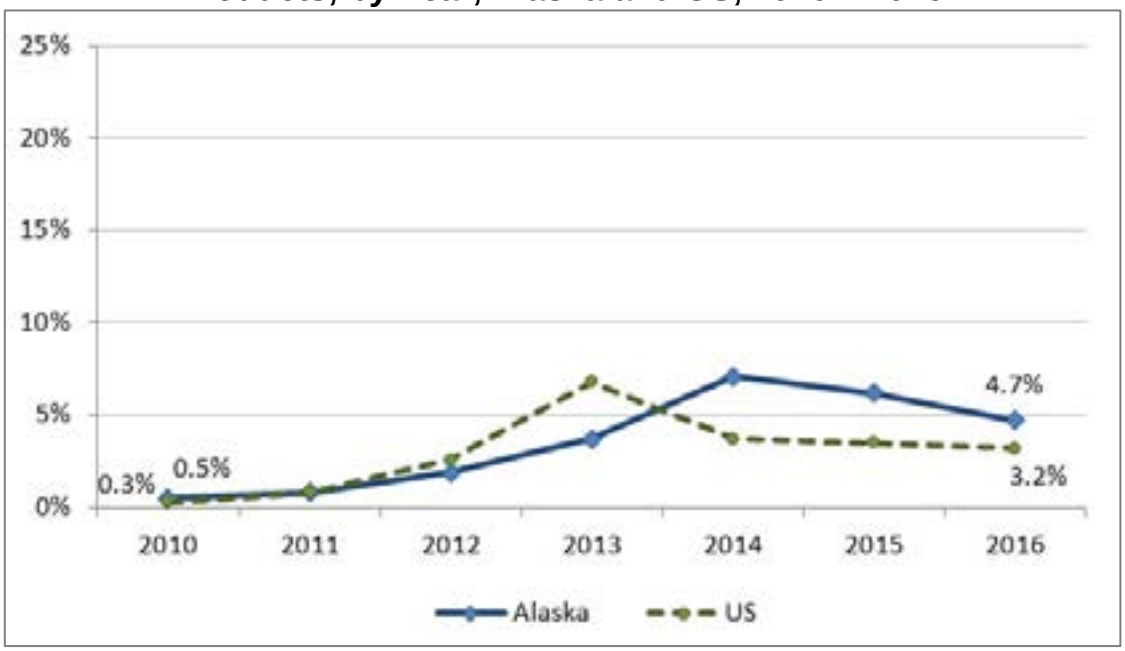
Sources: Alaska Behavioral Risk Factor Surveillance System, Combined and Supplemental Files.
*Among current smokers who had a health care visit in the past 12 months.
**Among current and former smokers who were smoking in the past year.

- Most Alaska adult smokers want to quit (67.6%), and most are aware that Alaska has a Tobacco Quit Line that provides free, phone based counseling and nicotine replacement therapy (89.4%). In 2016, 1,731 Alaska residents called the Quit Line. Most calls (90.9%, 1,574 callers) were from tobacco users who requested a cessation intervention.
- Over half of current smokers (55.6%) have attempted to quit in the past 12 months.
- In 2016, 4.3% of Alaska adults who smoked in the past year had successfully quit for 3 or more months. Being able to stay quit for 3 or more months greatly increases the chances of quitting tobacco for life.[7]

[7] Hughes JR, Keely J, Naud S. Shape of the relapse curve and long-term abstinence among untreated smokers. Addiction. 2004;99:29-38.

D. *Vaping and E-Cigarette Use*[8]

Figure 17. Percentage of Adults Who Use E-cigarettes or Other Vapor Products, by Year, Alaska and US, 2010 – 2016



Source for AK data: Alaska Behavioral Risk Factor Surveillance System Supplemental and Combined Files.
Source for US data 2010-2013: McMillen et al, Trends in Electronic Cigarette Use among US Adults: Use is Increasing in Both Smokers and Nonsmokers, Nicotine & Tobacco Research, 2015, 1195-1202.
Source for US data 2014-2016: National Health Interview Survey[9].

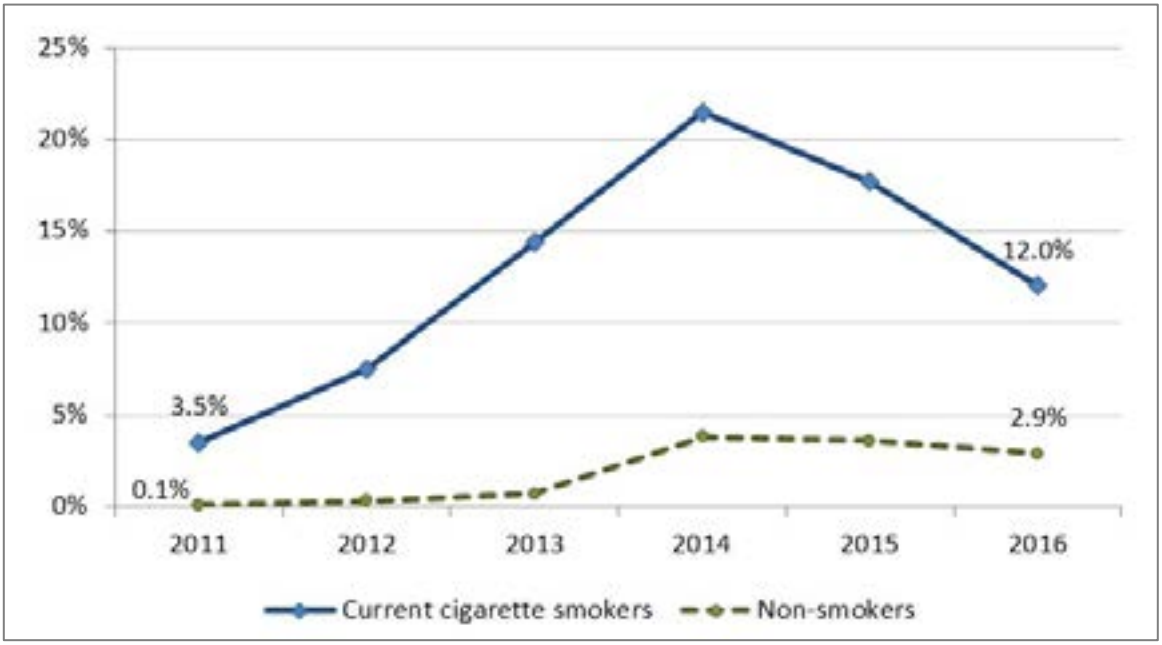
- E-cigarette and other vapor product use among adults has been measured in Alaska since 2010, and use increased significantly between 2010 and 2016.
- Although these products are relatively new and prevalence is still relatively low, use increased sharply between 2010 and 2014. Since peaking in 2014, prevalence decreased slightly in 2015 and 2016.
- This pattern was similar across demographic subpopulations (by gender, age, Alaska Native status, and SES). See Appendix A Table 16 for more detailed information.
- The national estimates in the graph above come from two different studies with similar questions about current use.

---

[8] Electronic vapor products are battery-operated nicotine devices that that heat a liquid solution into a vapor which is inhaled. Electronic vapor products include e-cigarettes, vape pipes, vaping pens, e-hookahs, and hookah pens.

[9] 2014 NHIS estimate: Schoenborn CA, Gindi RM. Electronic cigarette use among adults: United States, 2014. NCHS data brief, no. 217. Hyattsville, MD: National Center for Health Statistics. 2015. https://www.cdc.gov/nchs/data/databriefs/db217.pdf.
2015 NHIS estimate: QuickStats: Cigarette Smoking Status Among Current Adult E-cigarette Users, by Age Group — National Health Interview Survey, United States, 2015. MMWR Morb Mortal Wkly Rep 2016;65:1177. DOI: http://dx.doi.org/10.15585/mmwr.mm6542a7.
2016 NHIS estimate: QuickStats: Percentage of Adults Who Ever Used an E-cigarette and Percentage Who Currently Use E-cigarettes, by Age Group — National Health Interview Survey, United States, 2016. MMWR Morb Mortal Wkly Rep 2017;66:892. DOI: http://dx.doi.org/10.15585/mmwr.mm6633a6

Figure 18. Percentage of Adults Who Use E-cigarettes or Other Vapor Products, by Year and Combustible Cigarette Smoking Status, Alaska, 2011 – 2016

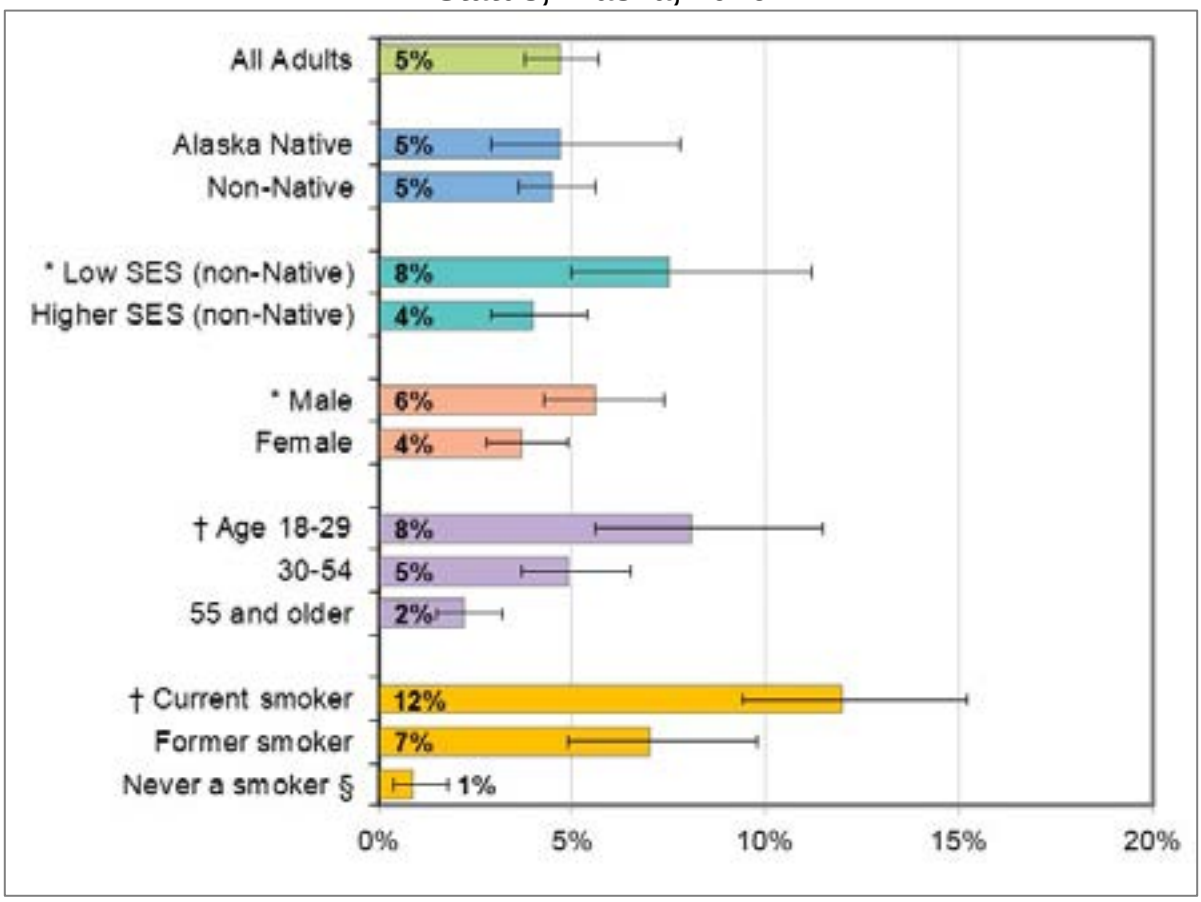


Source: Alaska Behavioral Risk Factor Surveillance System Supplemental and Combined Files.

- In Alaska, the use of e-cigarettes was disproportionately higher among smokers of combustible cigarettes than among non-smokers.
- Between 2011 and 2016, use of e-cigarettes increased significantly among Alaska adult smokers and non-smokers (of combustible cigarettes). In order to show Alaska trends in e-cigarette use from 2011 to the present, former smokers and never smokers are combined as one group.
- By combining years of data, we can compare e-cigarette use by smoking status and how recently former smokers have quit. In 2015-2016, adult e-cigarette use was highest among former smokers who quit within the past year (19.0%), former smokers who quit between 1 and 5 years ago (18.6%), and current smokers (15.7%). Each of these groups was significantly more likely to report current e-cigarette use than former smokers who quit over 5 years ago (2.5%) and never smokers (1.8%).
- National data show a similar pattern; in 2014, use of e-cigarettes was highest among recent former smokers who quit in the past year and current smokers, compared to longer-term former smokers and never smokers.[10]

[10] Schoenborn CA, Gindi RM. Electronic cigarette use among adults: United States, 2014. NCHS data brief, no. 217. Hyattsville, MD: National Center for Health Statistics. 2015. https://www.cdc.gov/nchs/data/databriefs/db217.pdf

Figure 19. Percentage of Adults Who Used E-Cigarettes or other Vapor Products in the Past 30 Days, by Selected Demographic Factors and Smoking Status, Alaska, 2016

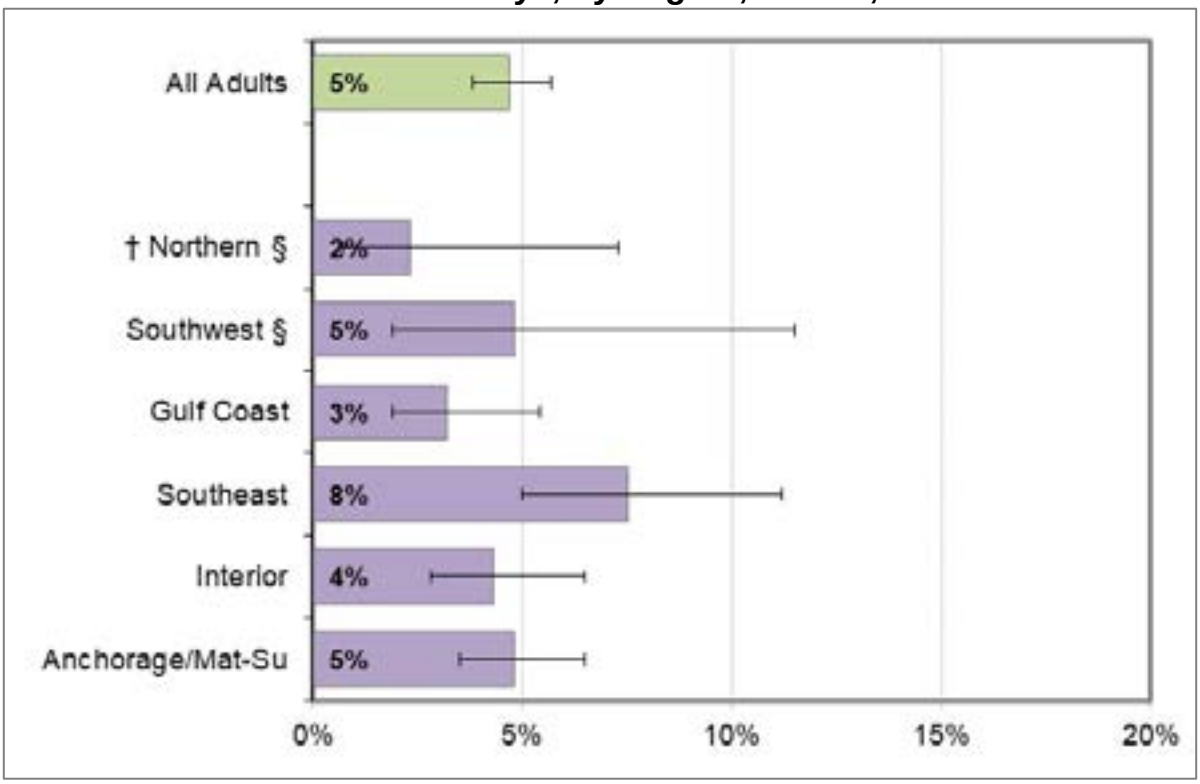


Source: Alaska Behavioral Risk Factor Surveillance System, Combined File
* Significant difference between the two sub-groups.
† Significant differences as described below.
§ Interpret with caution. Estimate with high coefficient of variation or sample size inadequate for uncommon event.

- There were disparities in e-cigarette or other vapor product use by SES,[11] gender, age and smoking status, but not by Alaska Native status.
- Adults age 55 and older were significantly less likely than adults in the younger age groups to use e-cigarettes.
- Current smokers of combustible cigarettes were more likely than former or never smokers to use e-cigarettes; former smokers were more likely than never smokers to use them.
- Among smokers who use e-cigarettes, 62.7% reported using them because they were trying to quit smoking.

[11] The SES measure is restricted to non-Natives age 25 to 64. Low SES is defined as less than high school education or household income at 185% or less of the Alaska Poverty Level Guideline. See Appendix B for more information.

Figure 20. Percentage of Adults Who Use E-Cigarettes or other Vapor Products in the Past 30 Days, by Region, Alaska, 2016

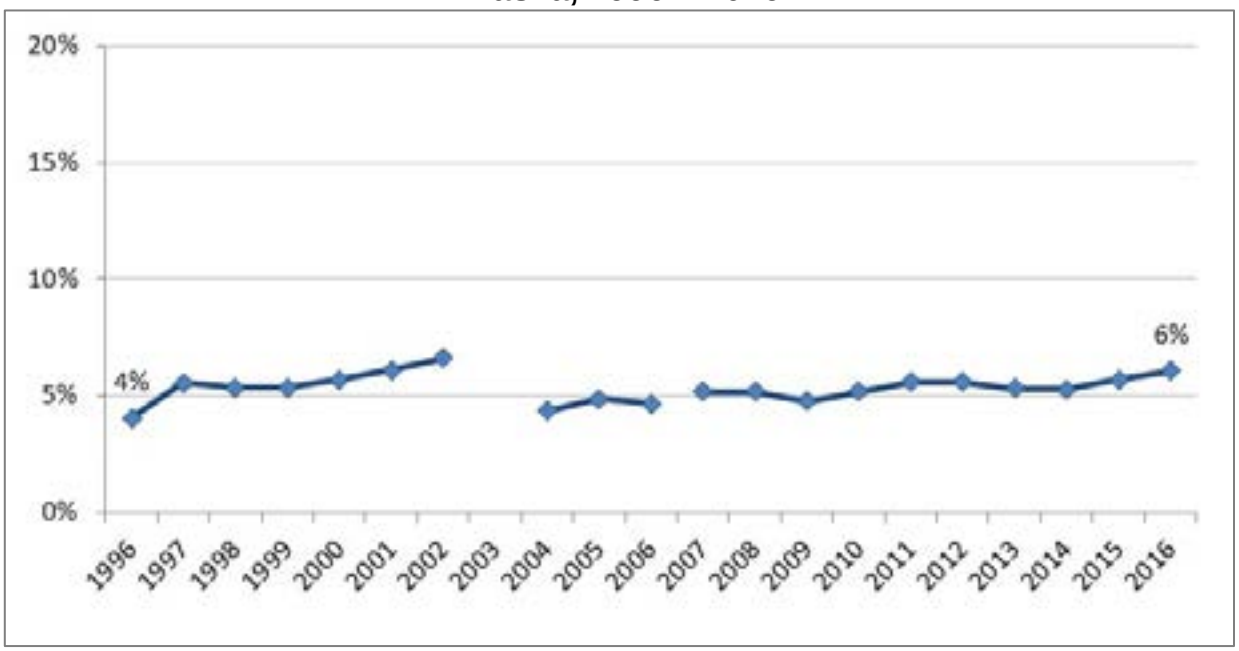


Source: Alaska Behavioral Risk Factor Surveillance System, Combined File
† Significant differences as described below.
§ Interpret with caution. Estimate with high coefficient of variation or sample size inadequate for uncommon event.

- Use of e-cigarettes or other vapor products was significantly higher among adults in the Southeast region than among adults in the Northern or Gulf Coast regions.
- There were no other significant regional differences in e-cigarette use in 2016.

E. *Smokeless Tobacco Use*

Figure 21. Percentage of Adults Who Use Smokeless Tobacco, by Year, Alaska, 1996 – 2016



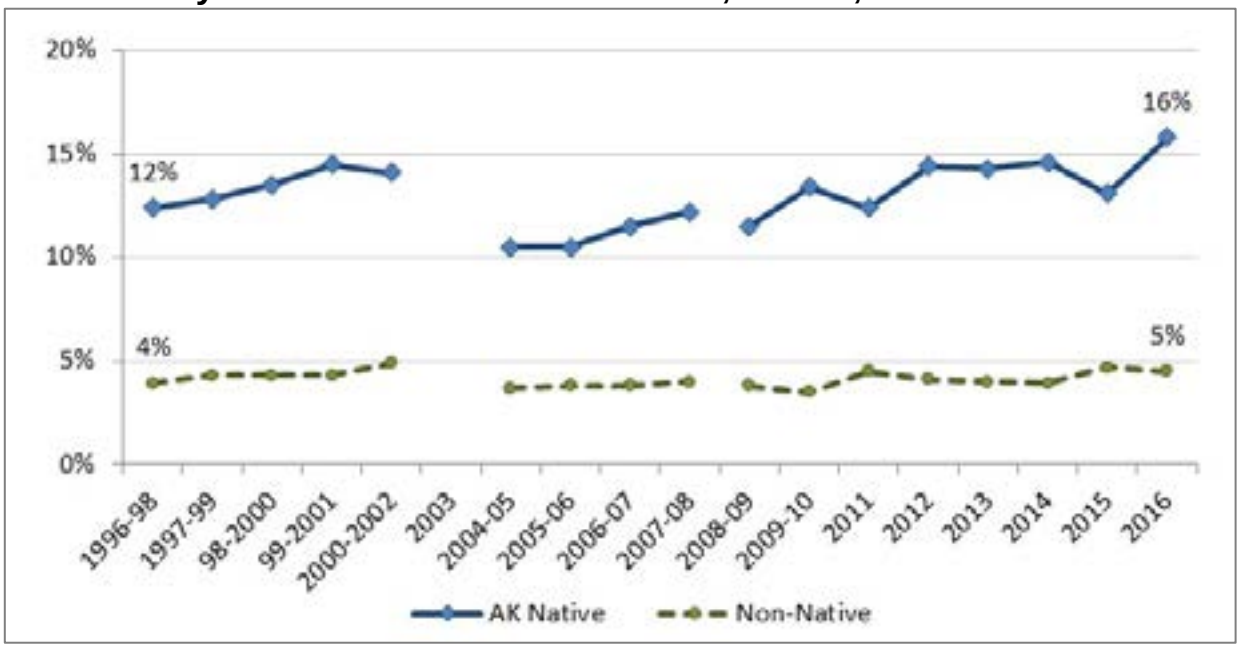
Source for AK data: Alaska Behavioral Risk Factor Surveillance System Supplemental and Combined Files.
Note: Question about SLT use was not asked in 2003 in the Alaska BRFSS.
State estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- Smokeless tobacco (SLT) use is a known cause of cancer of the mouth and gum, and is linked to oral health problems like periodontitis and tooth loss.[12]
- Use of SLT in Alaska has not changed significantly between 1996 and 2016 overall or by gender. Recent trends from 2007 to 2016 also show no significant change.
- SLT use increased significantly between 1998 and 2016 in the Northern region, and between 2007 and 2016 in both the Northern and Anchorage/Mat-Su regions. Use of SLT did not change significantly in other regions over either time period.
- Although a national source of comparable SLT trend data is not available, the questions used in the National Health Interview Survey (NHIS) are similar to the BRFSS. Combined year 2012-2014 NHIS data show that nationally, 2.9% of U.S. adults and 5.6% of adult men currently use SLT.[13]

[12] IARC Working Group on the Evaluation of Carcinogenic Risk to Humans. Smokeless Tobacco and Some Tobacco-specific N-Nitrosamines. Lyon (FR): International Agency for Research on Cancer; 2007. http://www.ncbi.nlm.nih.gov/books/NBK326493/. Accessed May 15, 2016.

[13] Clarke TC, Villarroel MA, Schoenborn CA. Tables of adult health behaviors, tobacco use: National Health Interview Survey, 2011–2014. 2016. Available from: http://ftp.cdc.gov/pub/Health_Statistics/NCHS/NHIS/SHS/2011-2014_AHB_Table_TOB-7.pdf. Accessed June 26, 2018.

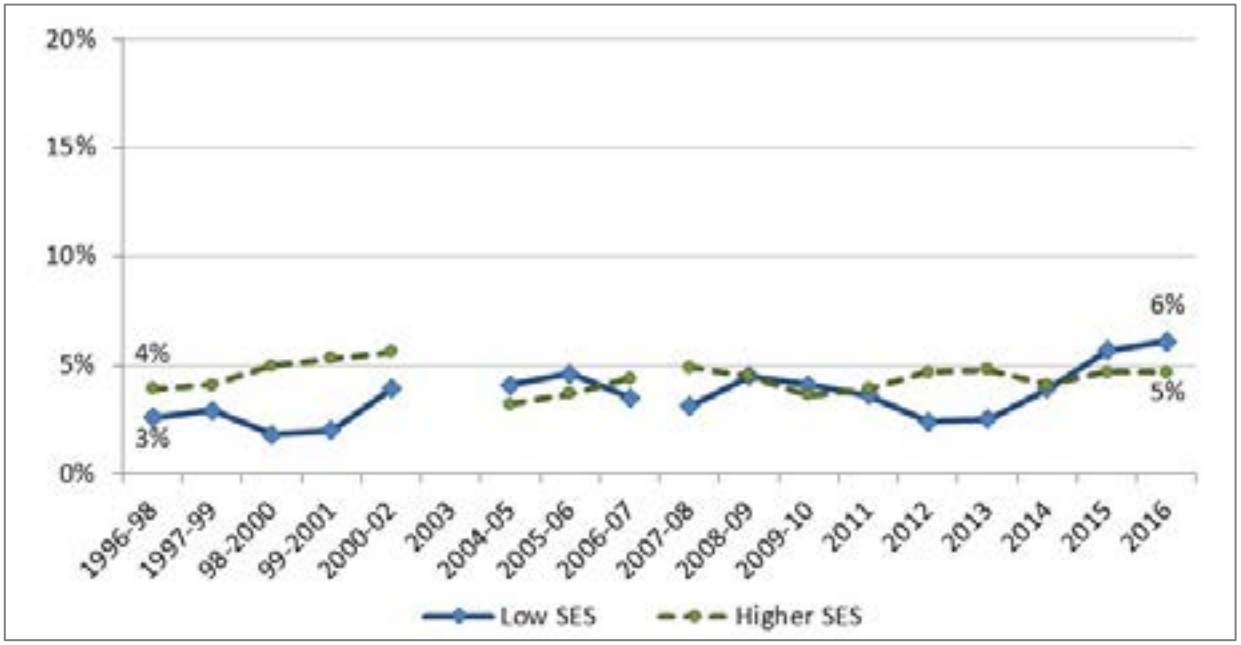
Figure 22. Percentage of Adults Who Use Smokeless Tobacco, by Year and Alaska Native Status, Alaska, 1996 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Combined and Supplemental Files, question not asked in 2003.
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.
In years prior to 2011, SLT use estimates by Alaska Native status are reported using combined year rolling averages, so that the N (denominator) is higher and the estimates are more stable. Increases in sample size occurred in 2005 and in 2011. See Appendix A for more information.

- Alaska Native adults are more likely to use smokeless tobacco (SLT) than are non-Native adults, but there was no significant trend in prevalence for either group between 1996 and 2016, or more recently between 2007 and 2016.

Figure 23. Percentage Adults Who Use Smokeless Tobacco, by Year and Socioeconomic Status,[14] Alaska, 1996 – 2016

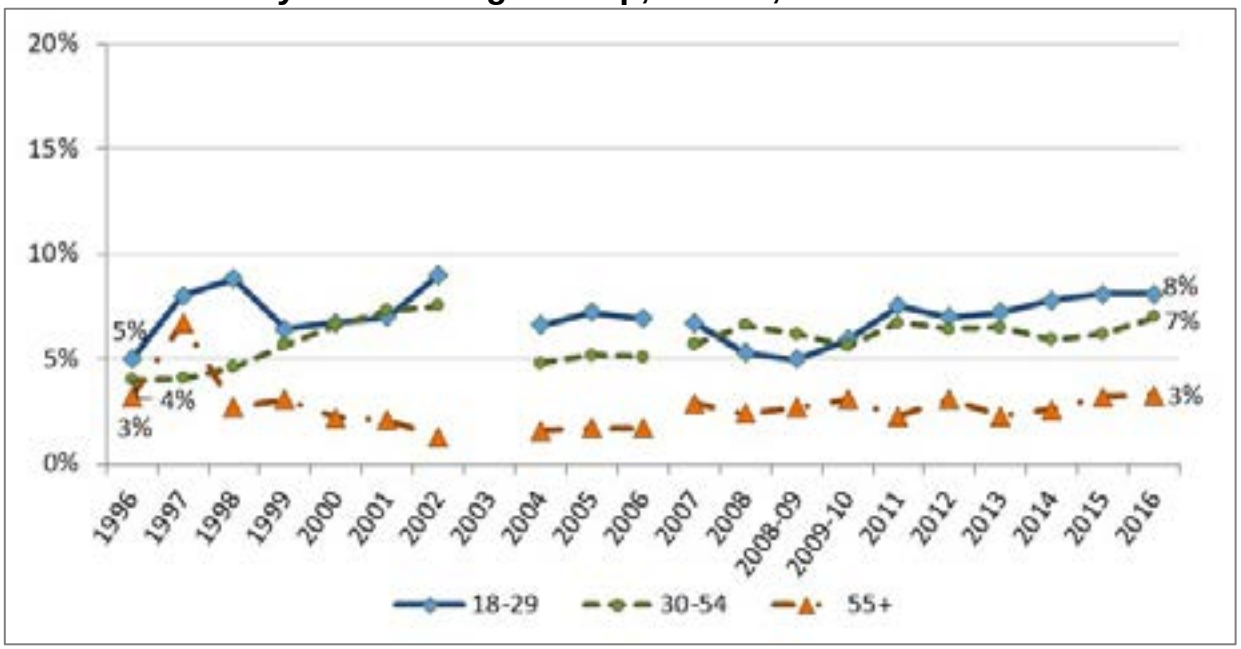


Source: Alaska Behavioral Risk Factor Surveillance System, Combined and Supplemental Files, question not asked in 2003.
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.
In years prior to 2011, estimates for SES groups are reported using combined year rolling averages, so that the N (denominator) is higher and the estimates are more stable. Increases in sample size occurred in 2005 and in 2011. See Appendix A for more information.

- There was no significant trend in SLT prevalence by SES; SLT use did not change significantly among adults of low or higher SES between 1996 and 2016. There were also no significant changes between 2007 and 2016.

[14] The SES measure is restricted to non-Natives age 25 to 64. Low SES is defined as less than high school education or household income at 185% or less of the Alaska Poverty Level Guideline. See Appendix B for more information.

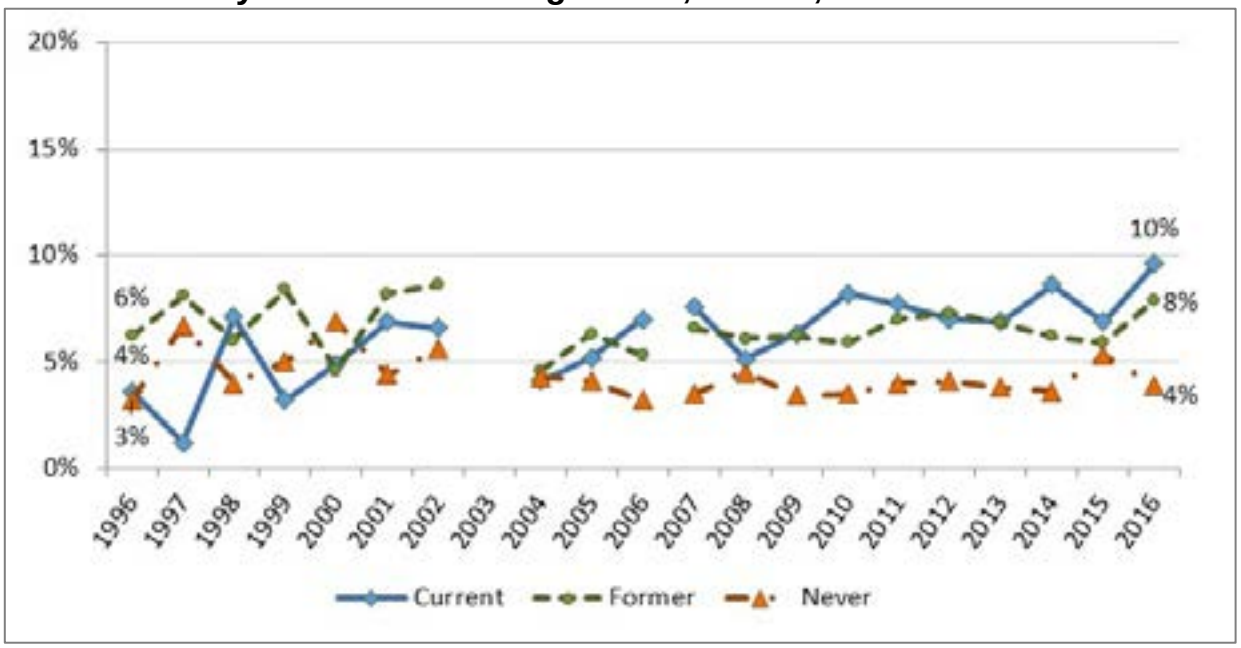
Figure 24. Percentage of Adults Who Use Smokeless Tobacco, by Year and Age Group, Alaska, 1996 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Combined and Supplemental Files, question not asked in 2003.
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- Use of smokeless tobacco (SLT) increased significantly between 1996 and 2016 among ages 30 to 54. The more recent trend, from 2007 to 2016, increased significantly only among 18 to 29 year olds.

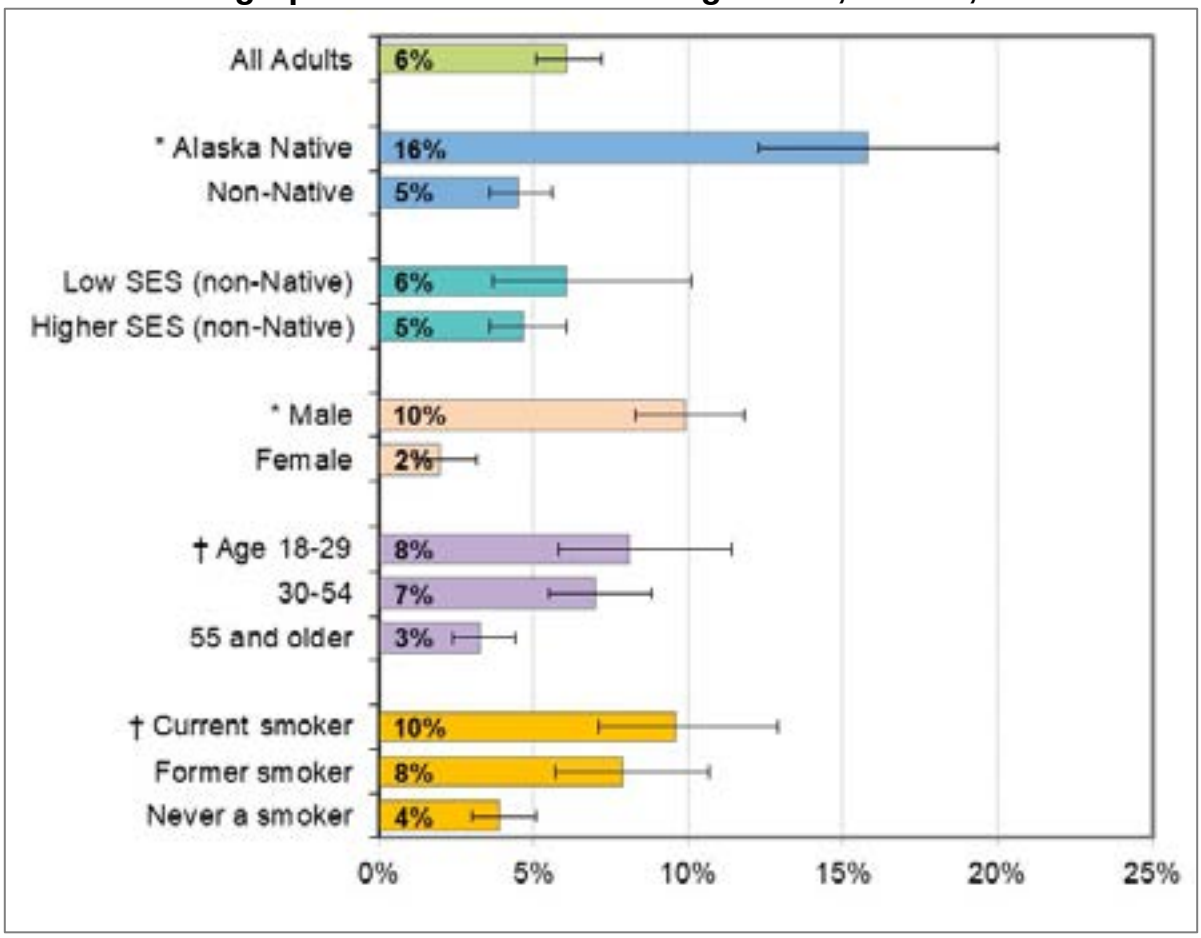
Figure 25. Percentage of Adults Who Use Smokeless Tobacco, by Year and Smoking Status, Alaska, 1996 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Combined and Supplemental Files, question not asked in 2003.
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- Use of smokeless tobacco (SLT) significantly increased from 1996 to 2016 among current smokers, while concurrently decreasing among those who have never smoked. There is no significant trend more recently between 2007 and 2016.

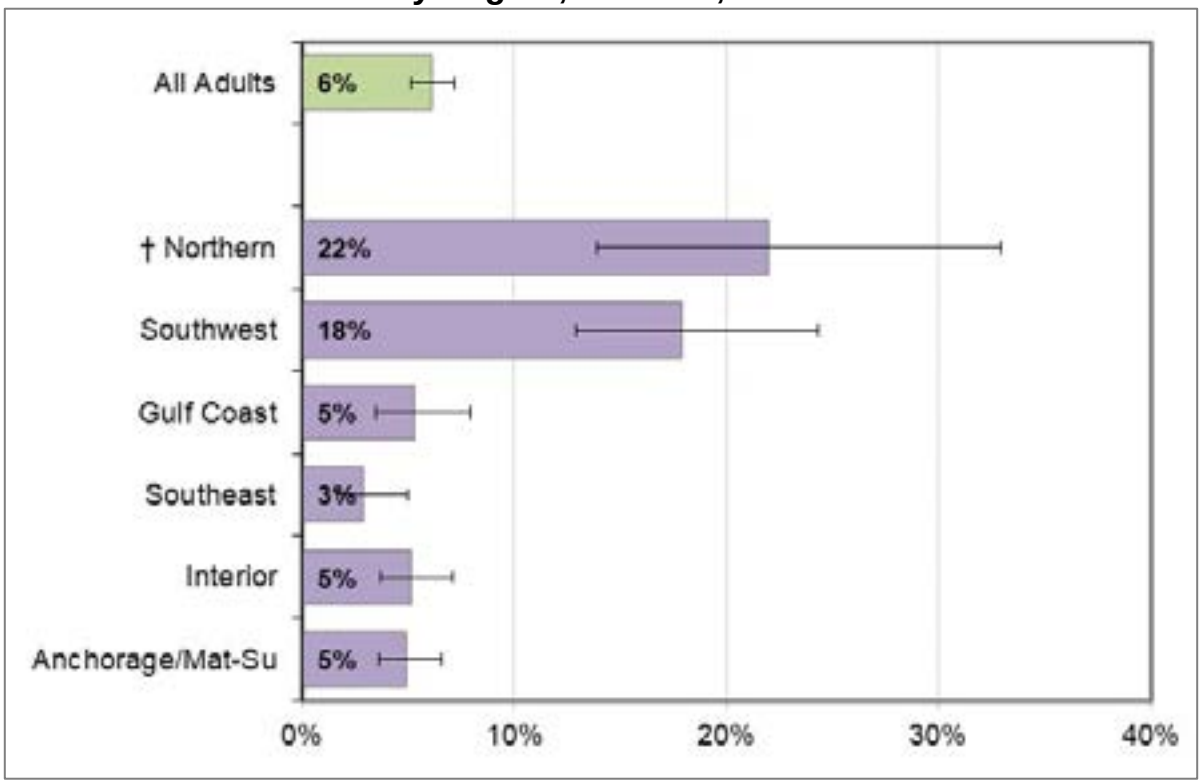
Figure 26. Percentage of Adults Who Use Smokeless Tobacco by Selected Demographic Factors and Smoking Status, Alaska, 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Combined File
* Significant difference between the two sub-groups.
† Significant differences as described below.

- Use of smokeless tobacco (SLT) was significantly higher among Alaska Native adults than non-Native adults (15.8% vs 4.5%).
- Men were significantly more likely than women to use SLT.
- Young adults age 18 to 29 and middle-aged adults (age 30 to 54) were significantly more likely than older adults (age 55 and older) to use SLT.
- Current smokers and former smokers were both significantly more likely than adults who have never smoked to use SLT.
- Adults living with children in their home were significantly more likely than those without children in the home to use SLT (7.4% vs 5.1%).

Figure 27. Percentage of Adults Who Use Smokeless Tobacco, by Region,[15] Alaska, 2016

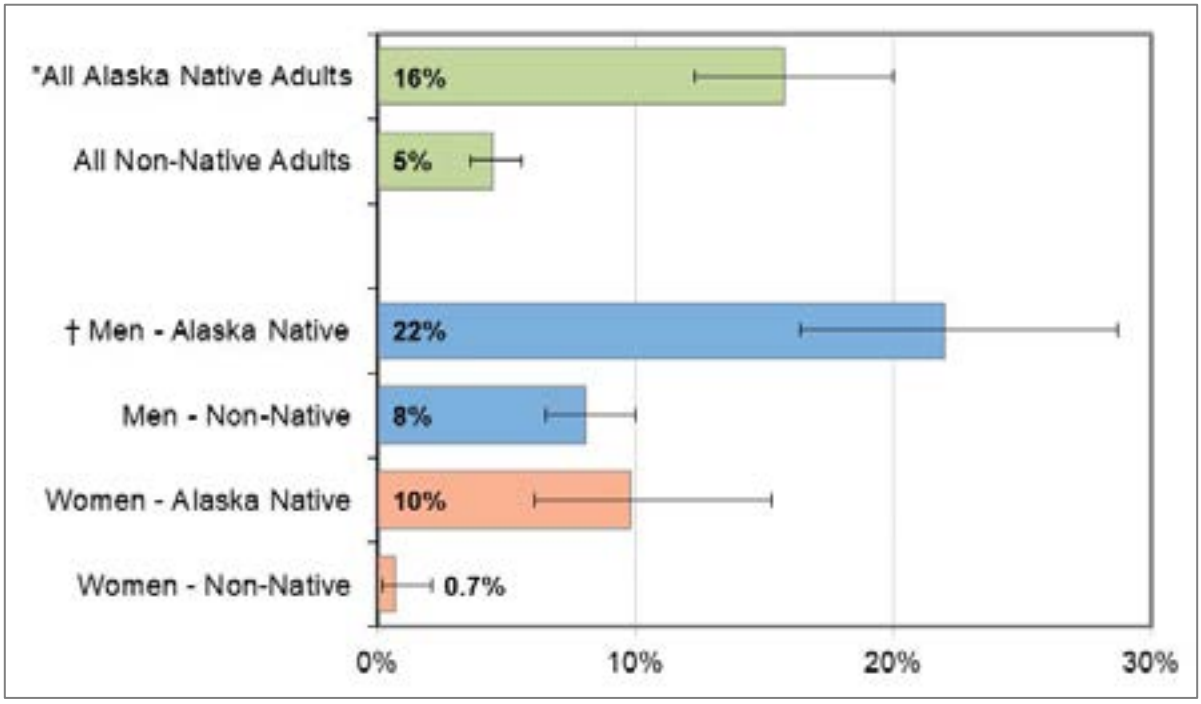


Source: Alaska Behavioral Risk Factor Surveillance System, Combined File
† Significant differences as described below.

- Adults in the Northern and Southwest Alaska regions are significantly more likely to use smokeless tobacco (SLT) than adults in other regions.
- In 2016, 32.6% of Alaska Native adults in Southwest Alaska reported using SLT, compared to 1.8% of non-Native adults in the region.

[15] Public Health Regions include:
- Northern – Nome, Northwest Arctic, and North Slope
- Southwest – Bristol Bay, East Aleutians, West Aleutians, Dillingham, Lake & Peninsula, Bethel, and Kusilvak
- Gulf Coast – Kenai, Kodiak, and Valdez Cordova
- Interior – Denali, Fairbanks North Star, Southeast Fairbanks, and Yukon Koyukuk
- Southeast – Yakutat, Skagway, Hoonah-Angoon, Juneau, Sitka, Haines, Wrangell, Petersburg, Prince of Wales-Hyder, and Ketchikan Gateway
- Anchorage/Mat-Su – Municipality of Anchorage, Matanuska-Susitna Borough

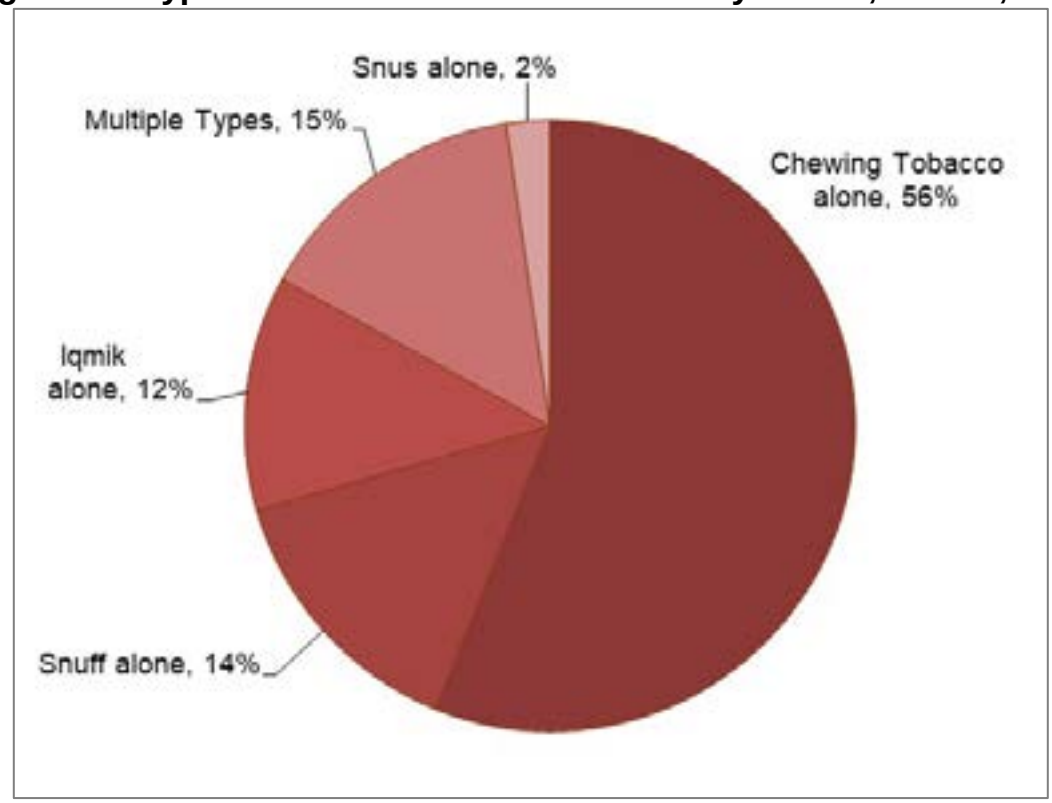
Figure 28. Percentage of Adults Who Use Smokeless Tobacco, by Gender and Alaska Native Status, Alaska, 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Combined File.
* Significant difference between the two sub-groups.
† Significant differences as described below.

- In general, men are more likely than women to use smokeless tobacco (SLT). In addition, SLT use among Alaska Native adults has historically been higher than among non-Native adults.
- In 2016, Alaska Native men were more likely to use SLT than any other sex-by-race group.
- Alaska Native women and non-Native men were similarly likely to use SLT.

Figure 29. Type of Smokeless Tobacco Used by Adults, Alaska, 2016

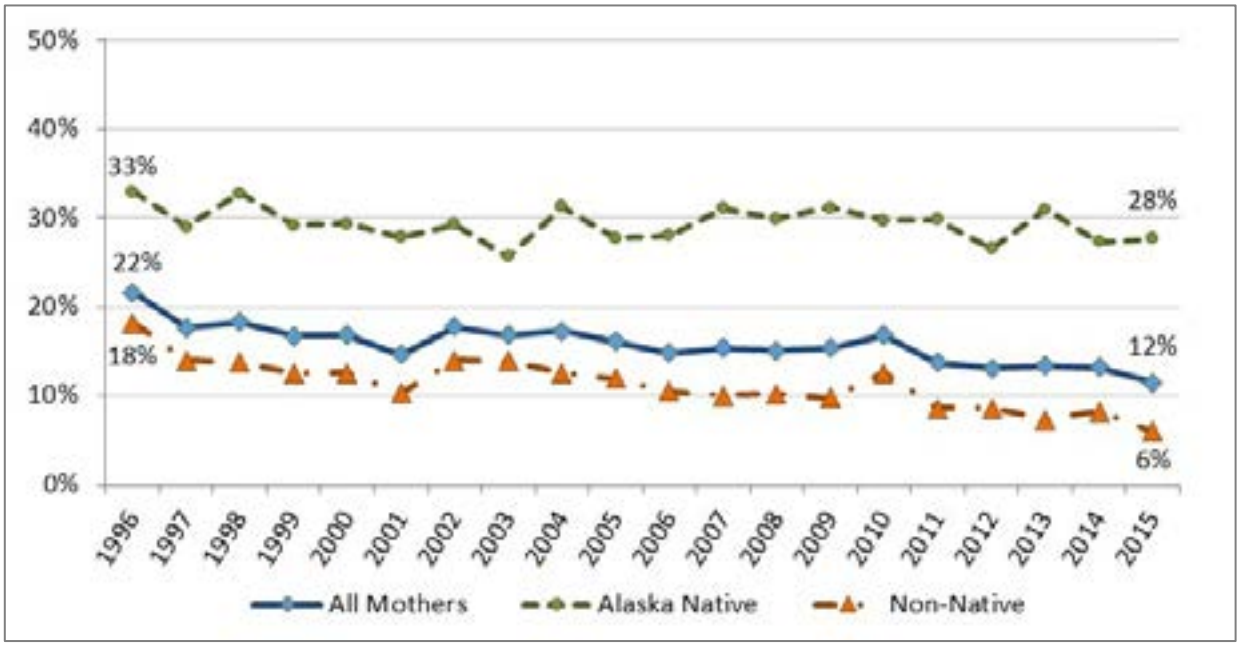


Source: Alaska Behavioral Risk Factor Surveillance System, Combined File

- In 2016, 56.2% of all Alaska adults who use smokeless tobacco (SLT) reported “chewing tobacco” as their only type of SLT use. However, the proportion using only chewing tobacco differs by race group. Among those who use SLT, 26.8% of Alaska Native adults reported using only chewing tobacco, compared to 70.0% of non-Native adults.
- Overall, 12.4% of Alaska adults who use SLT reported using Iqmik as their only type of SLT. Iqmik, also known as Blackbull, is an Alaska-specific SLT variant prepared by mixing chewing tobacco with the ash of a punk fungus. Iqmik is used primarily by Alaska Native groups in the Southwest region of Alaska. In that region, 48.2% of Alaska Native adults who use SLT reported using only Iqmik.

F. *Tobacco Use During Pregnancy*

Figure 30. Percentage of Alaska Mothers who Smoked Cigarettes during the Last 3 Months of Pregnancy, by Year and Alaska Native Status, Alaska, 1996 – 2015

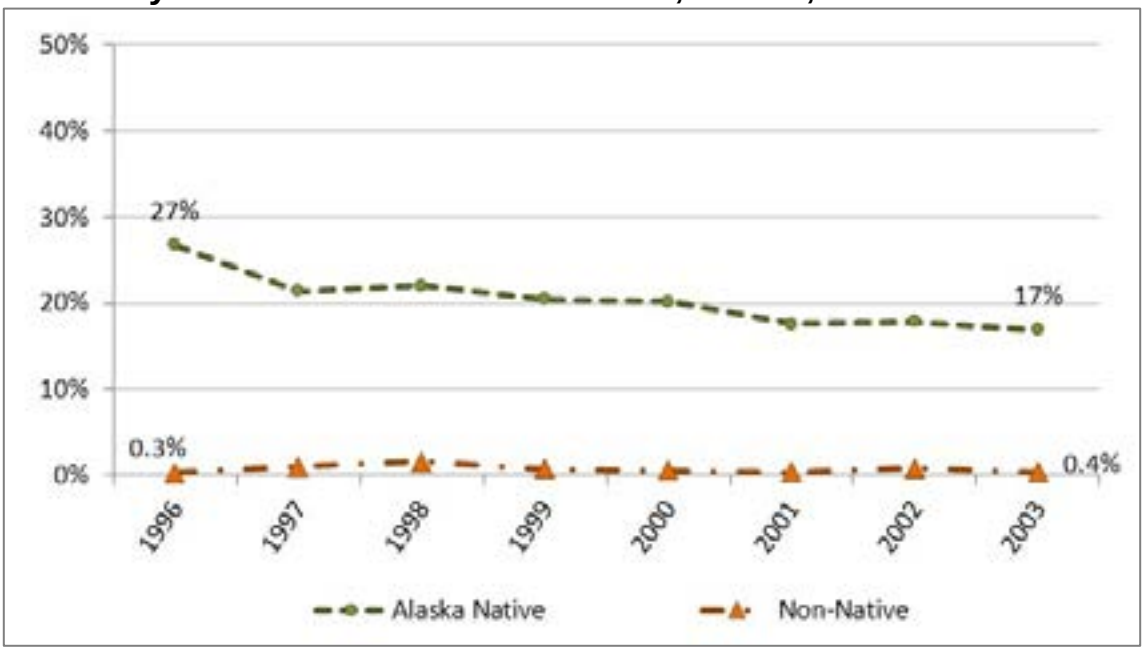


Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS)

- Prenatal smoking (maternal smoking during pregnancy) accounts for 20-30% of all low birth weight births in the United States. According to the 2004 Surgeon General's Report, eliminating maternal smoking may lead to a 10% reduction in all sudden infant deaths and a 12% reduction in deaths from perinatal conditions.[16]
- Prenatal smoking has decreased significantly from 1996 to 2015 overall in Alaska, as well as among non-Native mothers (from 18.2% to 6.0%). In the more recent trend from 2007 to 2015, the decrease is still significant overall and among non-Native mothers. Among Alaska Native mothers, prenatal smoking prevalence has not changed significantly since 1996 or since 2007.

[16] The Health Consequences of Smoking: 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, 2004.

Figure 31. Percentage of Alaska Mothers who Used Smokeless Tobacco during Pregnancy, including Chew and/or Snuff Use, by Year and Alaska Native Status, Alaska, 1996 – 2003



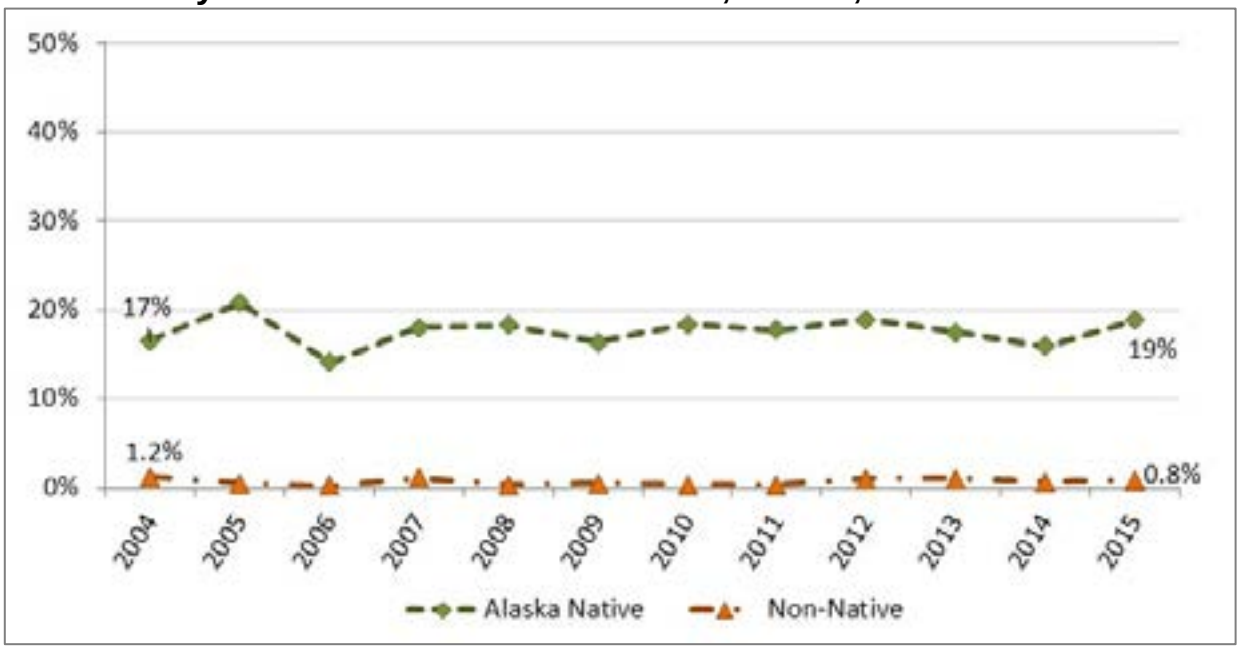
Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS)

Note: Prior to 2004, survey questions about SLT use in PRAMS asked about smokeless tobacco use (chew or snuff) and did not specifically include Iqmik. For this reason, information about smokeless tobacco or spit tobacco use is presented in separate trend tables.

- Between 1996 and 2003 there was a statistically significant decline in prenatal smokeless tobacco (SLT) use among Alaska Native women, from 26.7% to 16.9%. Prenatal SLT use among non-Native women stayed below 2% during this time period.[17]

[17] Schoellhorn KJ, Perham-Hester KA, Goldsmith YW. Alaska Maternal and Child Health Data Book 2008: Health Status Edition. Anchorage, AK. Maternal and Child Health Epidemiology Unit, Section of Women's, Children's, and Family Health, Division of Public Health, Alaska Department of Health and Social Services. December 2008, pg 48.

Figure 32. Percentage of Alaska Mothers who Used Smokeless Tobacco during Pregnancy, including Chew, Snuff and/or Iqmik Use, by Year and Alaska Native Status, Alaska, 2004 – 2015



Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS)

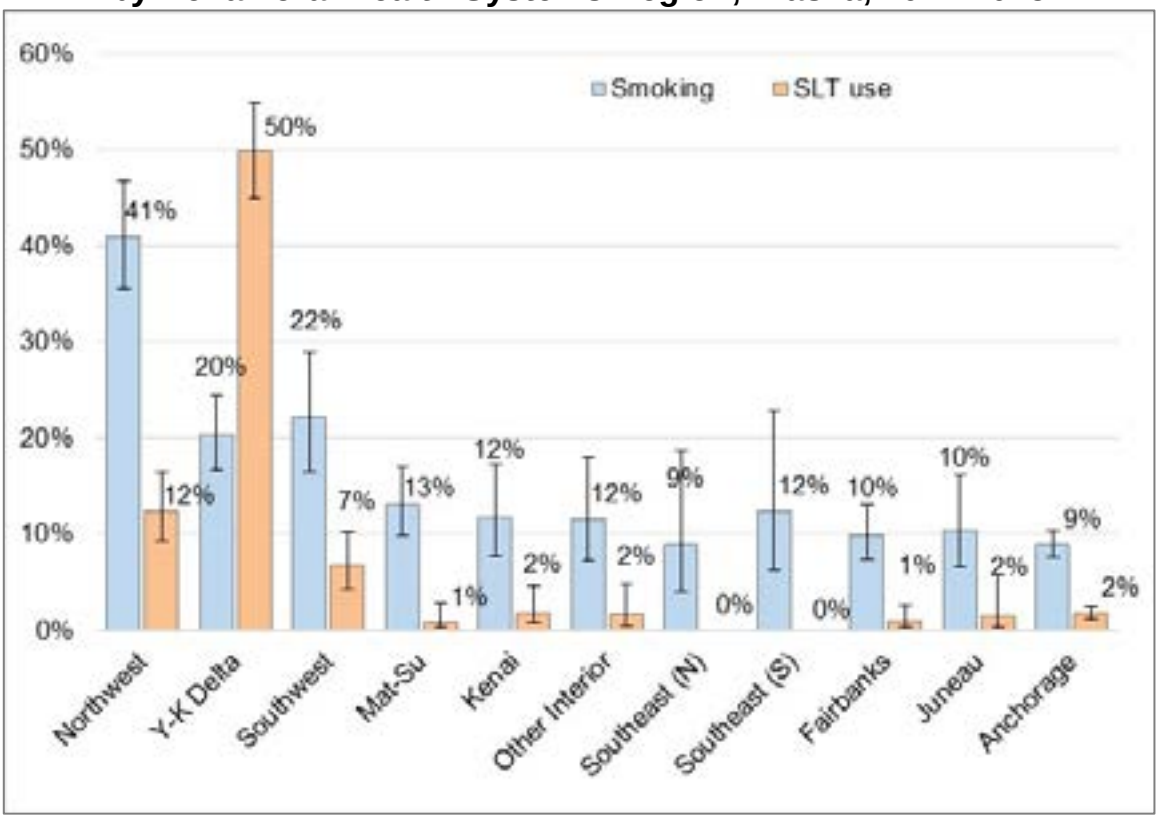
Note: Since 2004, PRAMS questions about smokeless tobacco (SLT) use during pregnancy have included language about Iqmik as well as spit tobacco, chew or snuff. Iqmik is an Alaska-specific type of SLT and is prepared by mixing chewing tobacco with the ash of a punk fungus.

- Between 2004 and 2015, prenatal use of SLT did not change significantly overall or by Alaska Native status. SLT use during pregnancy is higher in Alaska than in many other states, in large part because of Alaska Native SLT use, which includes Iqmik, an Alaska-specific smokeless tobacco (SLT) variant.

<u>Among Alaska Native mothers</u>:

- During 2004-2015, prenatal use of SLT among Alaska Native mothers ranged between 14.1% (in 2006) and 20.8% (in 2005), but there was no significant trend during this time period.
- For 2015, among Alaska Native mothers who used SLT during pregnancy, 63.2% reported using Iqmik either alone or in addition to other SLT products.

Figure 33. Percentage of Alaska Mothers who Smoked Cigarettes during the Last 3 Months of Pregnancy and Percentage of Alaska Mothers who Used Smokeless Tobacco during Pregnancy, by Behavioral Health Systems Region, Alaska, 2012-2015



Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS)

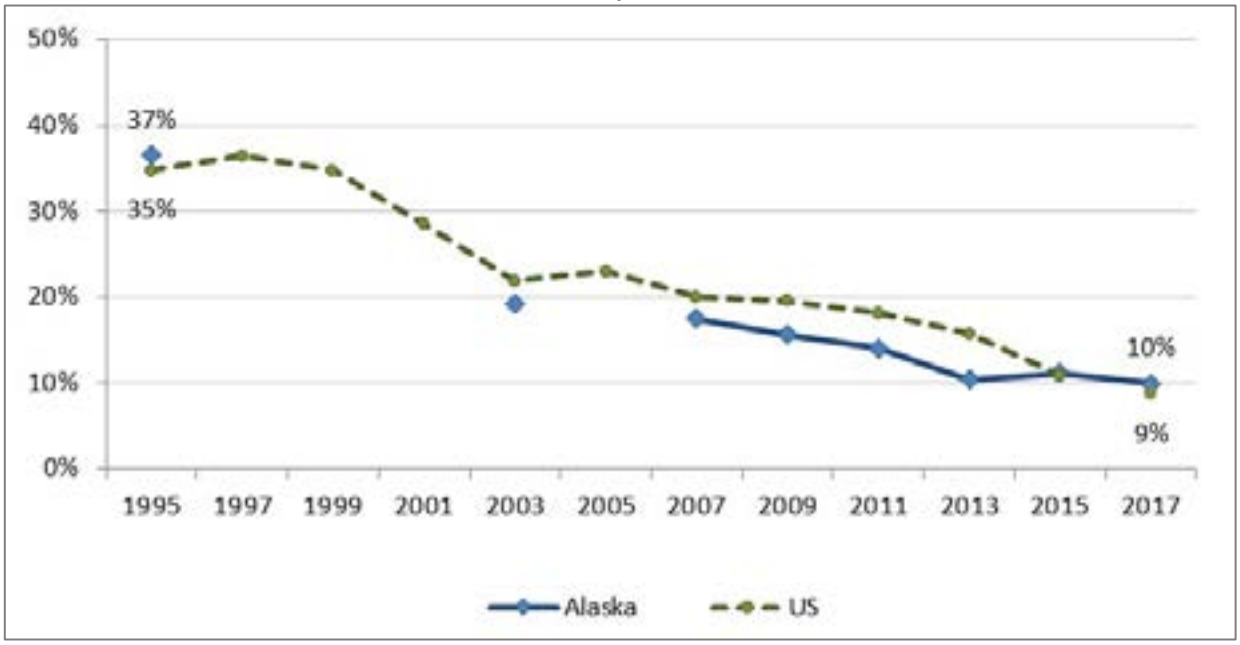
- By combining years of data, we can report estimates of prenatal tobacco use by Behavioral Health Systems Regions.[18]
- For the period 2012-2015, prenatal smoking was significantly higher in the Northwest than in any other region; 41.0% of mothers in that region reported smoking cigarettes during the last 3 months of pregnancy compared to between 9% and 22% in the other regions. Prenatal smoking was also significantly higher in Southwest Alaska (22.2%) and the Y-K Delta (20.3%) than in Anchorage, Fairbanks and Juneau.
- In the Y-K Delta, 49.9% of mothers reported using SLT during pregnancy, higher than in any other region (range of 0% to 12%). Use of Iqmik occurs primarily in this region.
- Prenatal SLT use was higher in the Y-K Delta (49.9%) than in any of the other regions (0%-12%), higher in the Northwest (12.4%) than in other regions except Y-K Delta and Southwest, and higher in Southwest (6.7%) than in Mat-Su (0.9%), Fairbanks (1.0%), or Anchorage (1.8%). No prenatal SLT use was reported among respondents in the North Southeast or South Southeast regions.

[18] These regions are not the same as the Public Health Regions. Differences in prenatal tobacco use by Behavioral Health Systems Region were determined by assessing overlap in 95% confidence intervals. See Appendix B for regional map.

III. Youth Tobacco Use

A. *Cigarette Use*

Figure 34. Percentage of High School Students Who Smoke, Alaska & US, 1995 – 2017

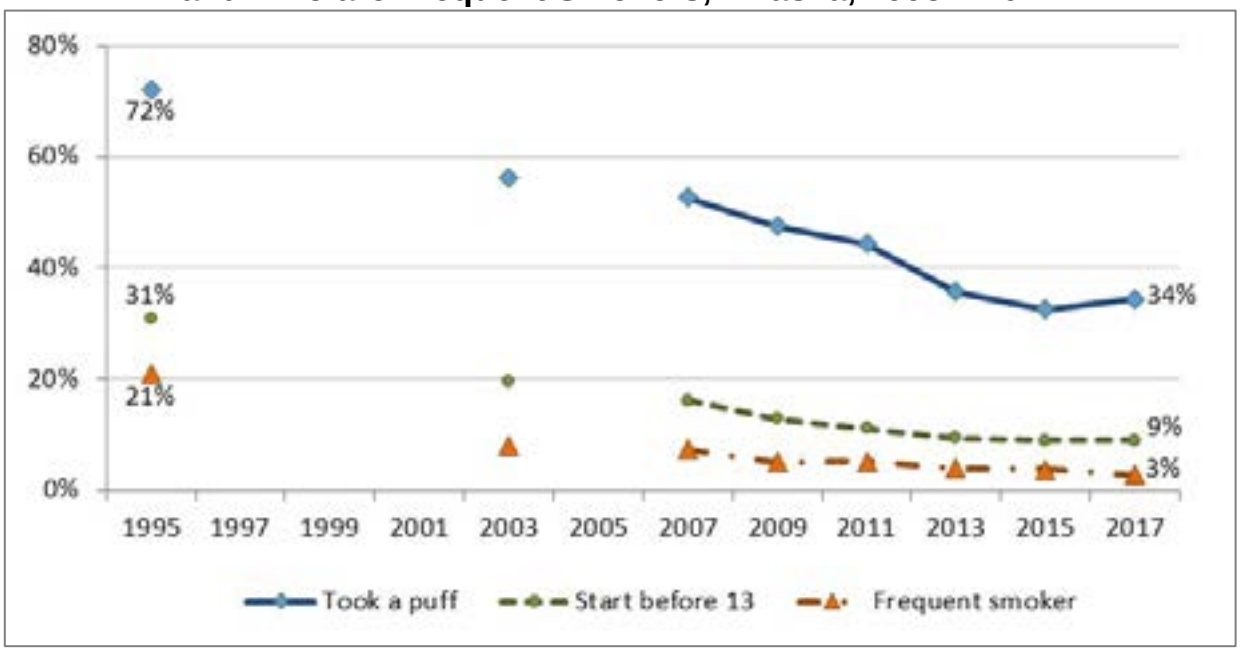


Source: Alaska Youth Risk Behavior Survey and National Youth Risk Behavior Survey
Alaska YRBS data are only available for 1995, 2003, and 2007 to present.

- Current smoking prevalence, defined as smoking on 1 or more days in the past 30 days, decreased nationally and in Alaska since 1995. Smoking among Alaska high school students fell significantly from 36.5% in 1995 to 9.9% in 2017. The more recent trend starting in 2007 also shows a significant decline in smoking.
- This decrease means that there are approximately 11,000 fewer Alaska youth smokers in 2017 than there were in 1995.[19]

[19] The estimated number fewer youth smokers is calculated using 2010 Census population total people age 14-17 in Alaska, multiplied by the Alaska youth smoking prevalence for 1995, and for 2017, subtracting the 2017 estimated number of smokers from the 1995 number (of smokers), and rounding to the nearest 1,000.

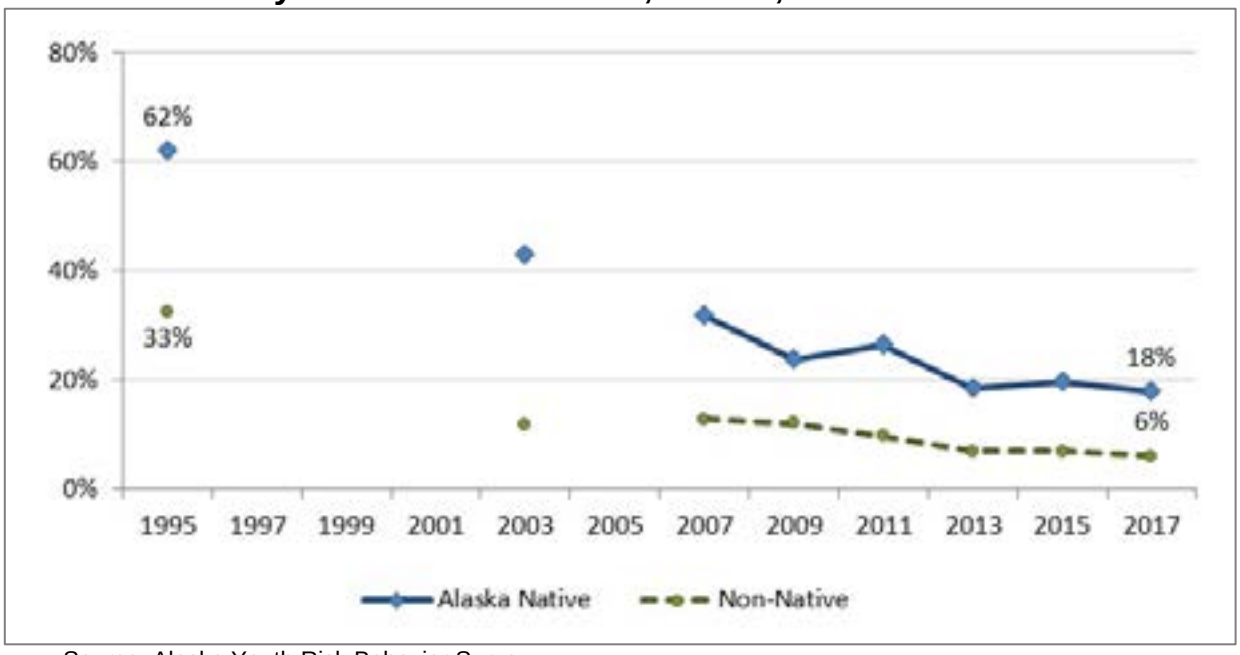
Figure 35. Selected Smoking Indicators: Percentage of High School Students Who Ever Tried Smoking, Started Smoking before Age 13, and Who are Frequent Smokers,* Alaska, 1995 – 2017



Source: Alaska Youth Risk Behavior Survey
Alaska YRBS data are only available for 1995, 2003, and 2007 to present.
*Frequent smoking is defined as having smoked on 20 or more of the past 30 days.

- Among Alaska high school students, the proportion who reported ever trying smoking (even a puff) decreased from 72.1% of students in 1995 to 34.4% in 2017.
- The proportion of Alaska high school students who started smoking prior to age 13 decreased from 30.7% of students in 1995 to 8.9% of students in 2017.
- The proportion of Alaska high school students who are frequent smokers (defined as smoking on 20 or more of the past 30 days) decreased from 21.0% of students in 1995 to 2.8% of students in 2017.
- Each of these metrics have declined significantly, both in the long-term trend (1995-2017) and the more recent trend (2007-2017).

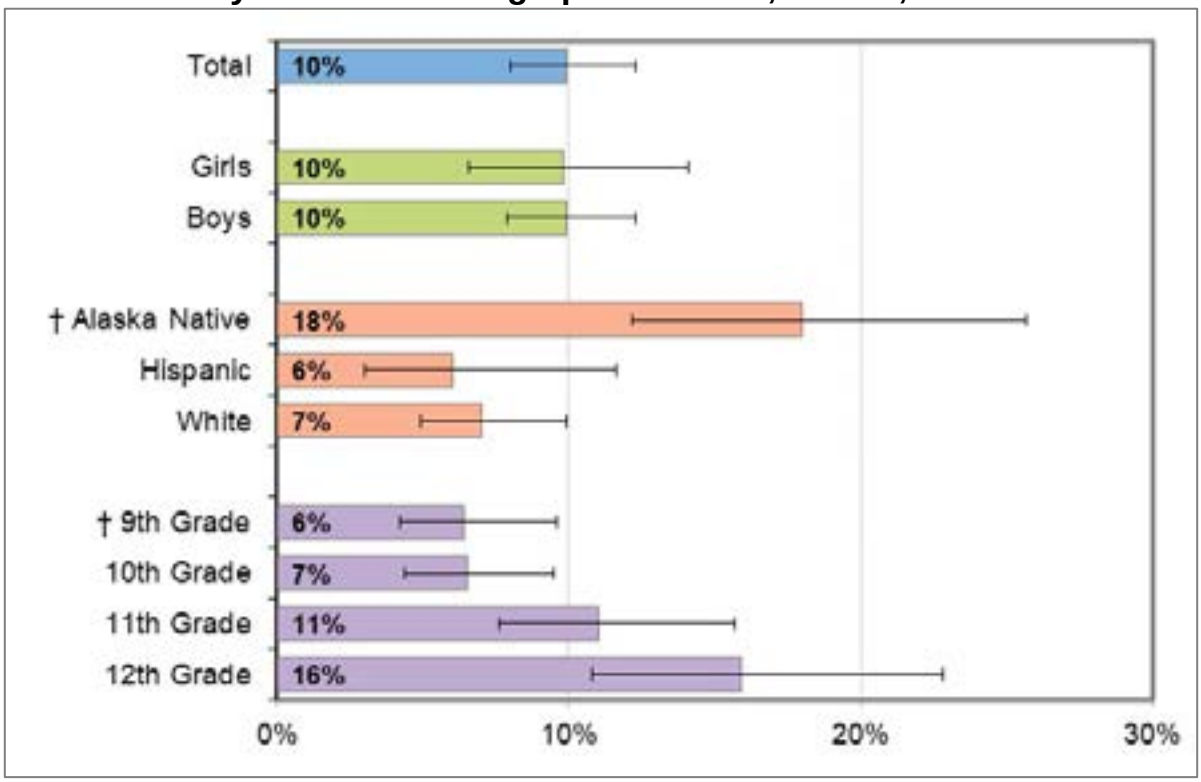
Figure 36. Percentage of High School Students Who Smoke, by Alaska Native Status, Alaska, 1995 – 2017



Source: Alaska Youth Risk Behavior Survey
Alaska YRBS data are only available for 1995, 2003, and 2007 to present.

- Between 1995 and 2017, significant declines in youth smoking occurred among both Alaska Native and non-Native students. These declines were also significant over the more recent time period of 2007 to 2017.
- The percentage of Alaska Native students who are current smokers decreased 71% from 1995 to 2015.

Figure 37. Percentage of High School Students Who are Current Smokers, by Selected Demographic Factors, Alaska, 2017

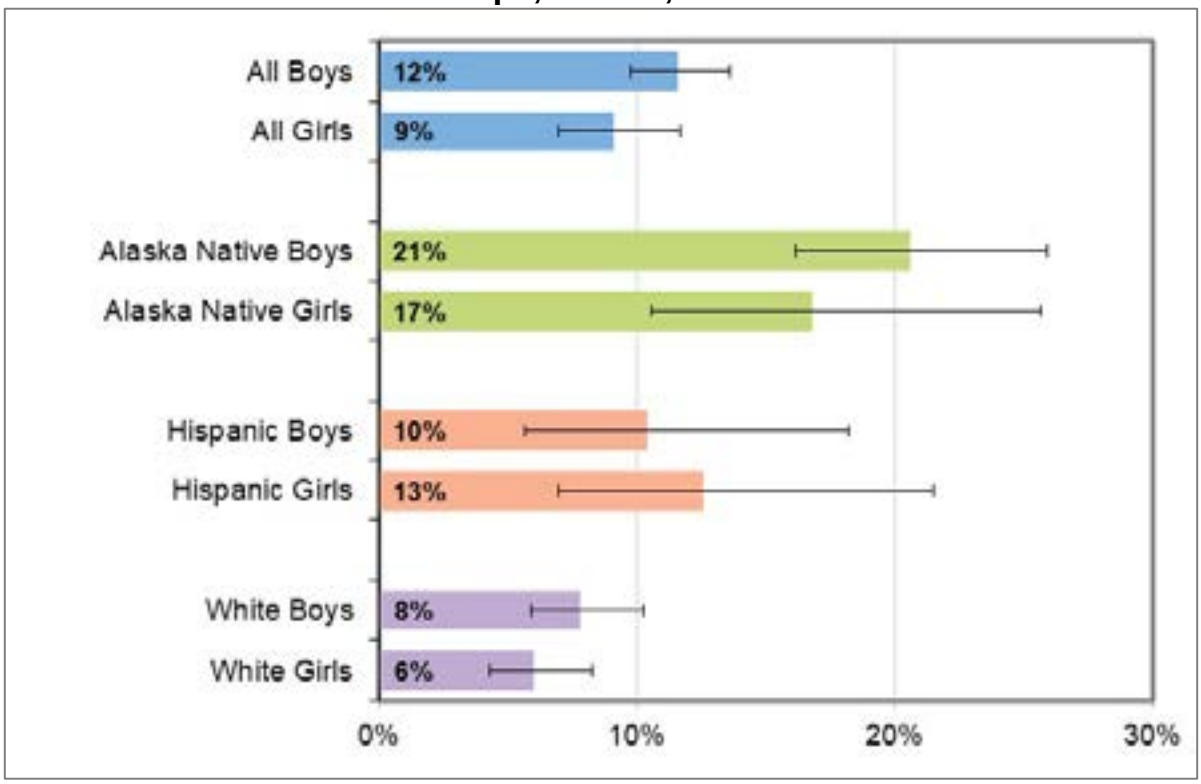


Source: Alaska Youth Risk Behavior Survey
† Significant differences as described below.

- Alaska Native youth were more likely than non-Native youth to be current smokers—that is, to have smoked on 1 or more of the past 30 days.
- Smoking prevalence was higher among 12th graders than among students in ninth and tenth grades.
- Youth smoking prevalence was significantly higher in Southwest Alaska (21.6%) than in other regions (7.8%-14.8%), and higher in Northern Alaska (14.8%) than in the Gulf Coast (8.6%) or Anchorage/Mat-Su (7.8%). Regional differences are also likely to reflect differences by Alaska Native status, since the majority of student survey participants in Southwest Alaska and Northern Alaska are Alaska Native.[20]
- Statewide, 74.0% of Alaska high school students report that their parents consider it very wrong for them to smoke cigarettes. This proportion was significantly lower among Alaska Native youth than among White youth (67.0% vs 75.5%). It was also lower in Southwest Alaska (65.3%) than in the Anchorage/Mat-Su (74.3%), Interior (75.5%), or Southeast (75.4%) regions in the 2017 YRBS survey.

[20] More information about regional reporting for YRBS can be found in Appendix B. Additional information and graphic presentation is also available online at http://dhss.alaska.gov/dph/InfoCenter/Pages/ia/yrbss/yrbss_health_profiles.aspx

Figure 38. Percentage of High School Students Who Smoke, by Gender within Racial and Ethnic Groups, Alaska, 2015 and 2017 combined

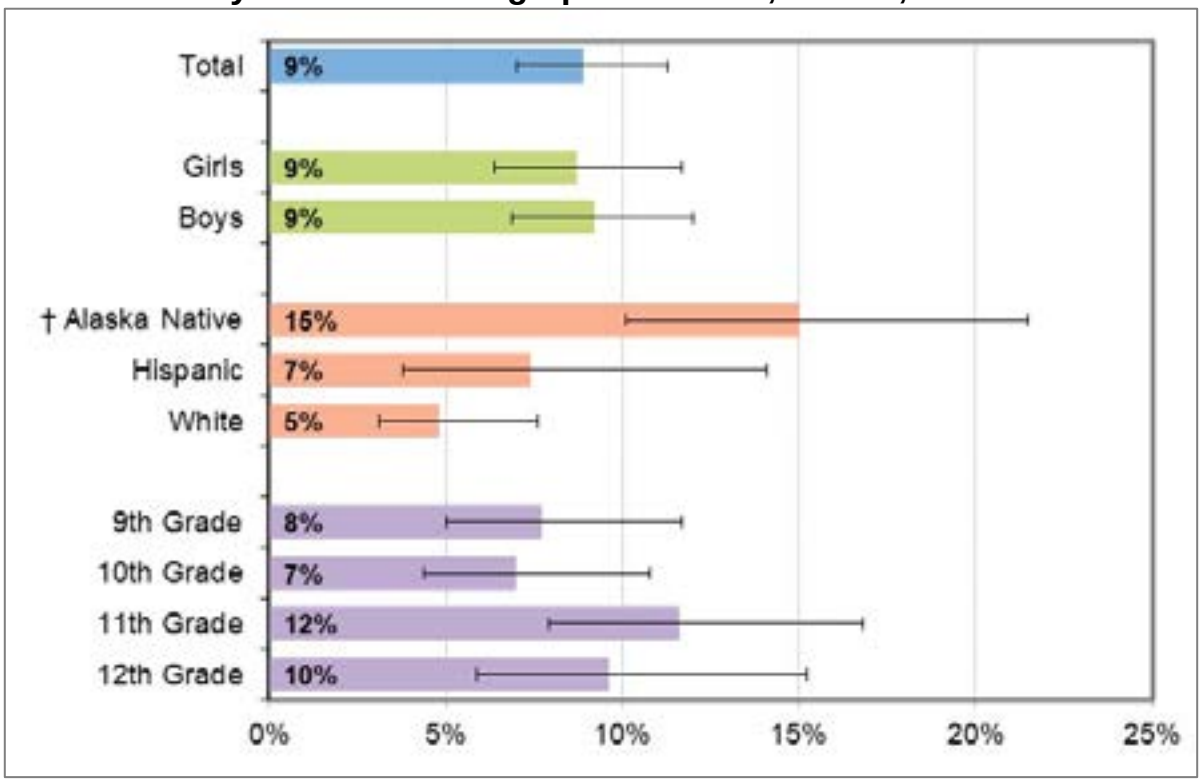


Source: Alaska Youth Risk Behavior Survey

Note: Percentages reported in this graph are for 2015 and 2017 data combined, and may differ from those reported elsewhere for 2017 only.

- If we combine the two most recent years of survey data, we can examine youth tobacco use prevalence within race group by gender, and ethnic group by gender.
- Alaska Native boys were significantly more likely to smoke than Hispanic boys, White boys, or White girls. Alaska Native girls were more likely to be current smokers than White boys or girls.
- Although smoking rates were higher among Hispanic boys and girls than among White boys and girls, none of these differences reached statistical significance.

Figure 39. Percentage of High School Students Who Smoked before Age 13, by Selected Demographic Factors, Alaska, 2017

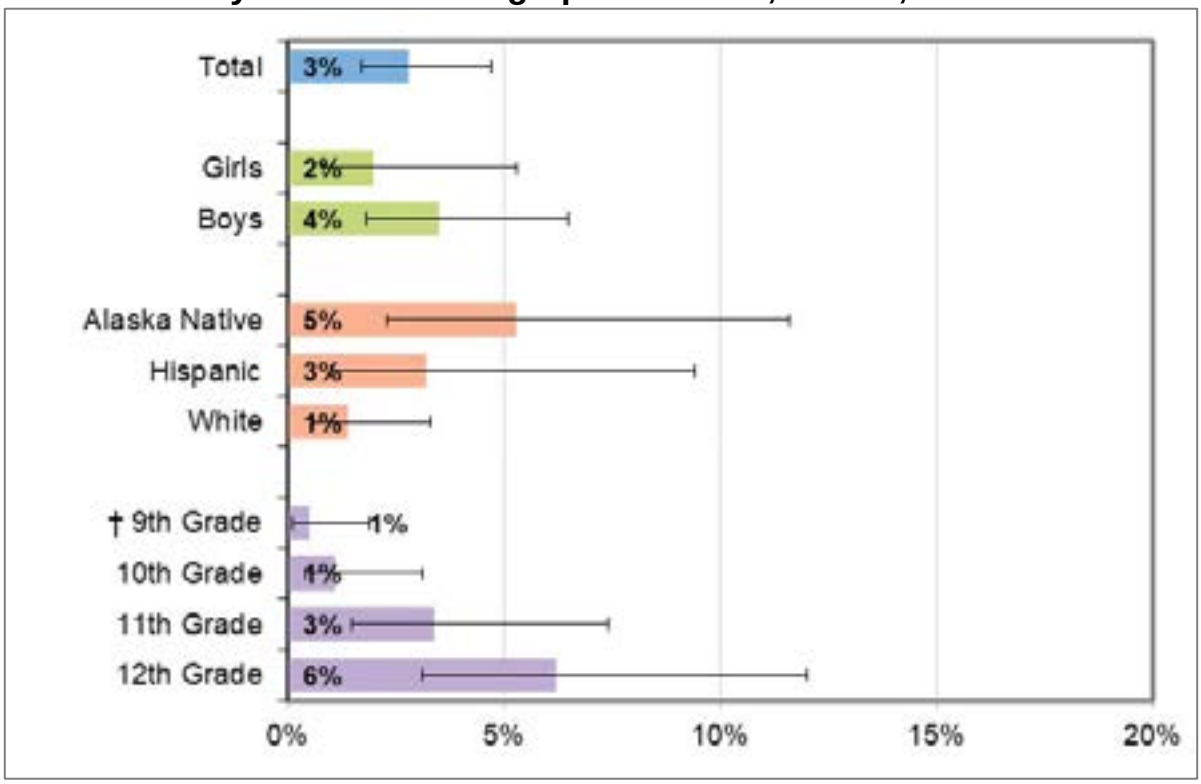


Source: Alaska Youth Risk Behavior Survey
† Significant difference as described below.

- Alaska Native students were significantly more likely than White students to have started smoking before age 13. In 2017, 15.0% of Alaska Native students reported started smoking before age 13, compared to 4.8% of White students.

- Regionally, starting smoking before age 13 was significantly higher among high school students in Southwest Alaska (16.6%) and Northern Alaska (16.5%) than in the Gulf Coast (8.4%), Southeast Alaska (8.5%), Anchorage/Mat-Su (6.7%), or the Interior (10.6%). Smoking before age 13 was also significantly higher in the Interior than in Anchorage/Mat-Su.

Figure 40. Percentage of High School Students Who Are Frequent Smokers,* by Selected Demographic Factors, Alaska, 2017



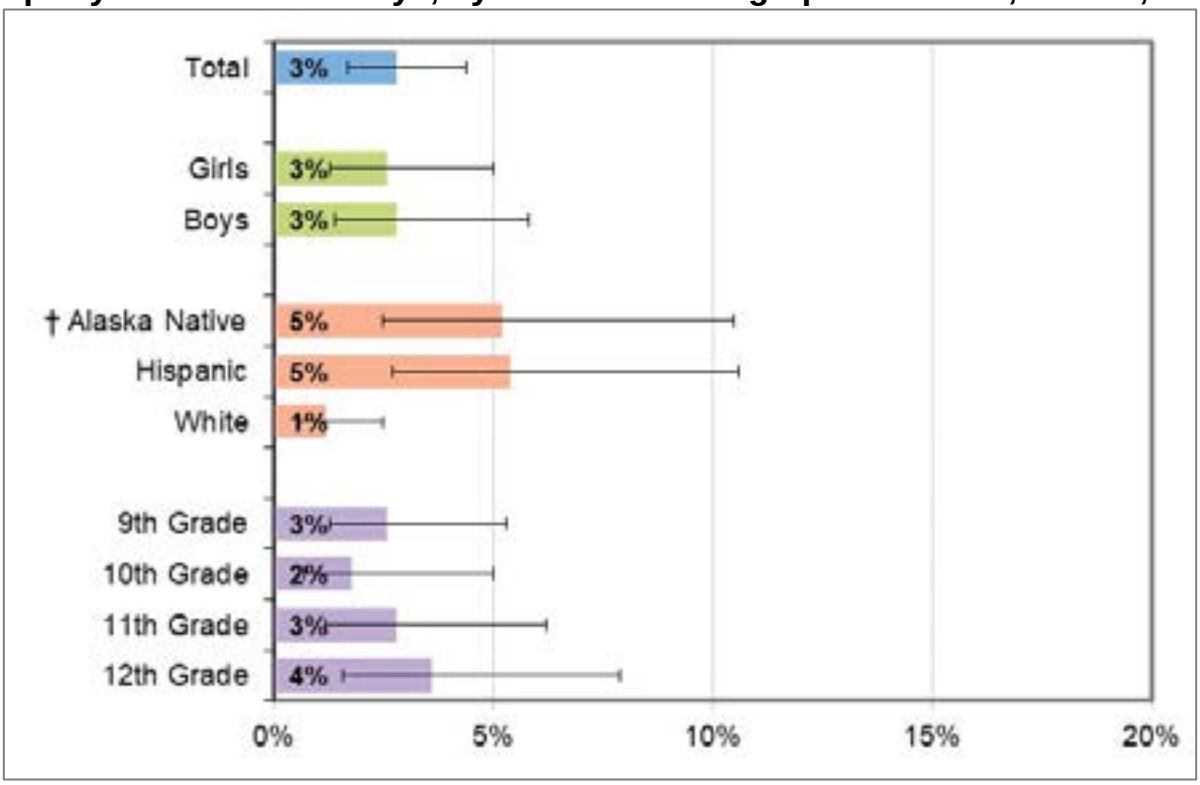
Source: Alaska Youth Risk Behavior Survey
*Frequent smokers are defined as having smoked on 20 or more of the past 30 days.
† Significant differences as described below.

- Alaska 12th grade students were significantly more likely than students in ninth and tenth grades to be frequent smokers.

- Students in Southwest Alaska (6.3%) were significantly more likely to report smoking frequently in the past 30 days than students in Anchorage/Mat-Su (2.5%), the Gulf Coast (2.4%), the Interior (3.2%), or Southeast Alaska (3.3%). Frequent smoking was also significantly higher in Northern Alaska (5.3%) than in Anchorage/Mat-Su or the Gulf Coast.

- Overall, 53.6% of Alaska high school students thought that people greatly risk harming themselves if they smoke one or more packs of cigarettes per day. However, Alaska Native students were significantly less likely than White students to recognize this risk (41.7% vs 63.7%). Fewer students in Southwest Alaska (25.7%) reported that they think people risk harm from this level of smoking than in Anchorage/Mat-Su (60.0%), the Gulf Coast (61.6%), the Interior (57.1%), Northern Alaska (33.8%), or Southeast Alaska (63.8%).

Figure 41. Percentage of High School Students Who Smoked on School Property in the Past 30 days, by Selected Demographic Factors, Alaska, 2017



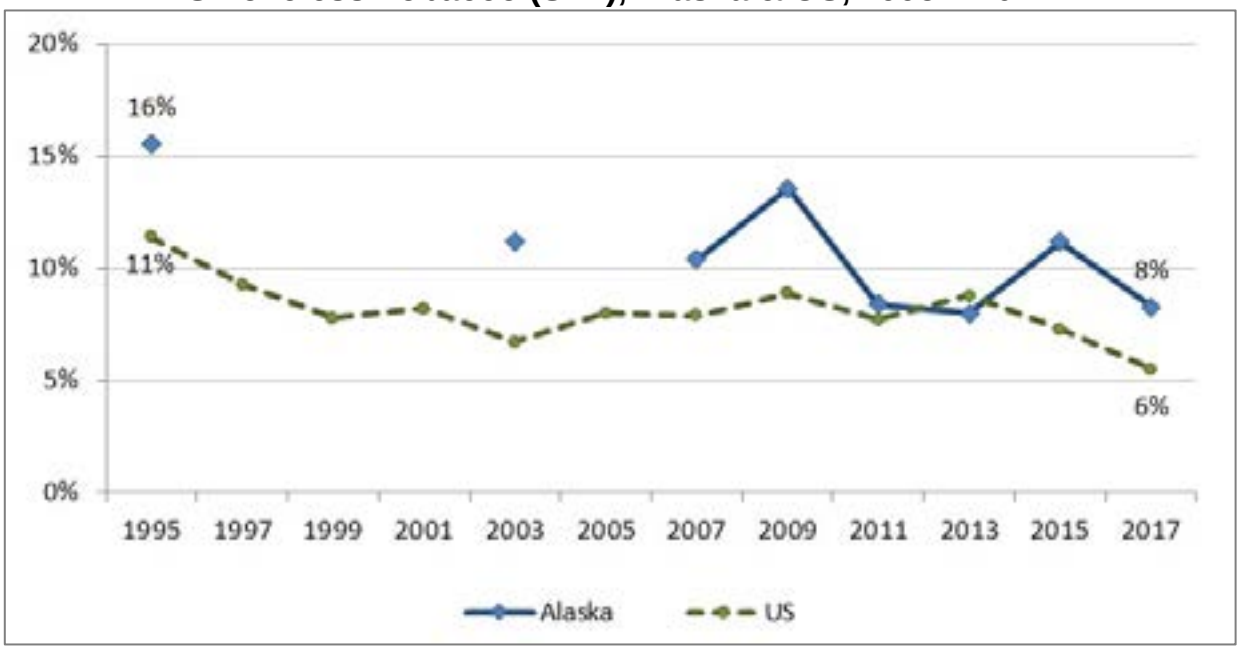
Source: Alaska Youth Risk Behavior Survey
† Significant differences as described below.

- Alaska Native (5.2%) and Hispanic students (5.4%) were more likely than White students (1.2%) to have smoked on school property in the past 30 days. There are no differences among the other demographic groups shown in Figure 41.

- Regionally, high school students in Southwest Alaska (6.6%) were significantly more likely than those in Anchorage/MatSu (2.3%), the Gulf Coast (1.7%), Northern Alaska (3.7%), or Southeast Alaska (2.8%) to report smoking on school property in the past 30 days.

B. *Smokeless Tobacco Use*

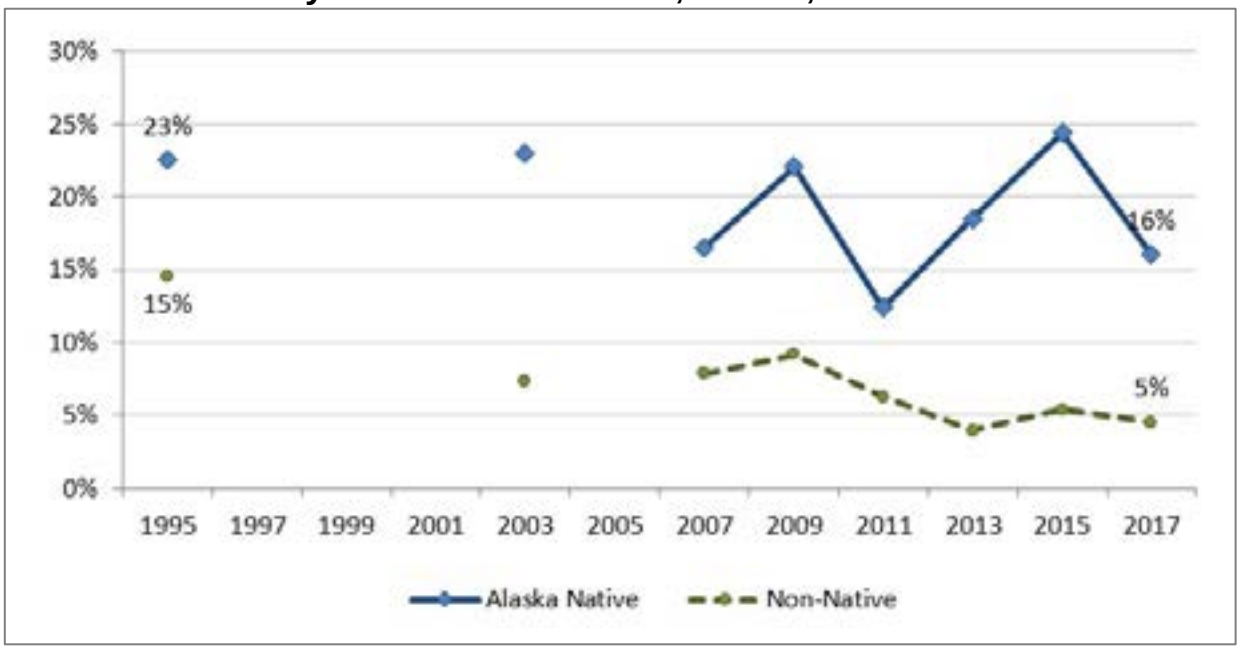
Figure 42. Percentage of High School Students Who Use Smokeless Tobacco (SLT), Alaska & US, 1995 – 2017



Source: Alaska Youth Risk Behavior Survey and National Youth Risk Behavior Survey
Alaska YRBS data are only available for 1995, 2003, and 2007 to present.
Note: In 2017, snus and dissolvable tobacco were added to the YRBS question.

- Overall, use of smokeless tobacco (SLT) among Alaska high school students dropped from 15.6% in 1995 to 8.3% in 2017. The more recent trend starting in 2007 did not show a significant change. Nationally, youth SLT use has decreased from 11.4% in 1995 to 5.5% in 2017.
- Among high school boys, SLT use declined significantly from 23.5% in 1995 to 10.7% in 2017.

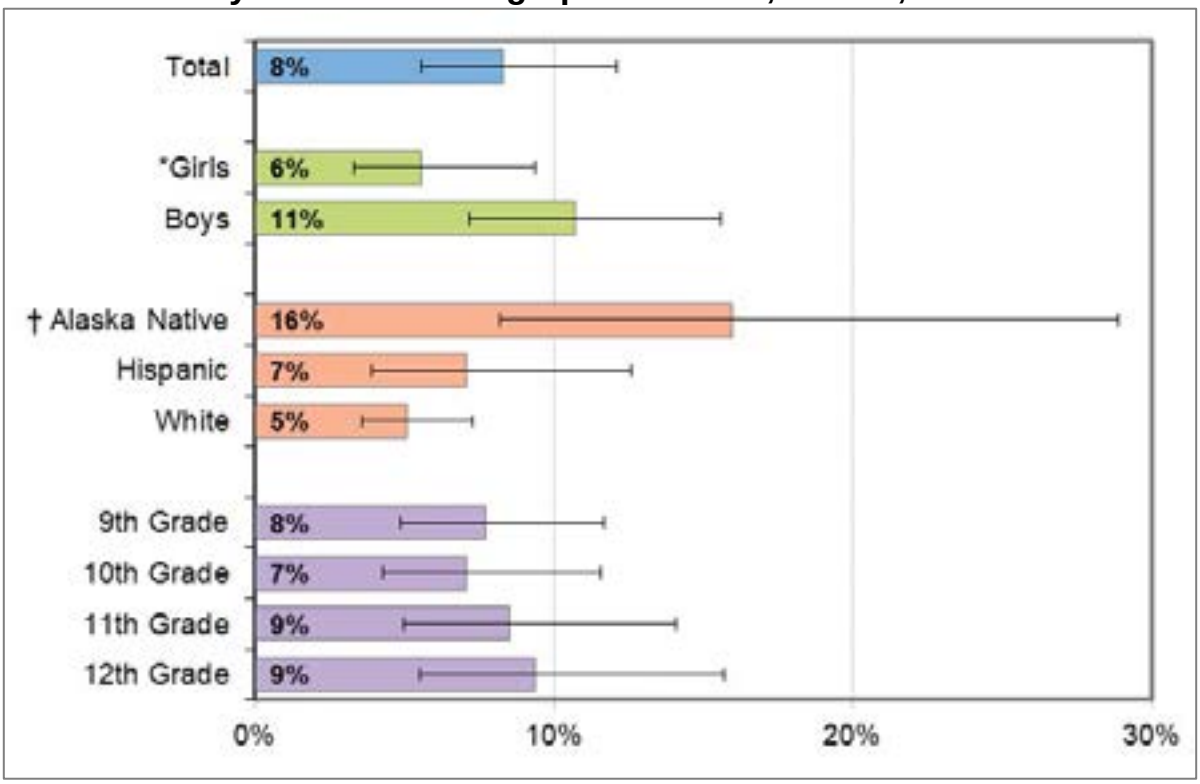
Figure 43. Percentage of High School Students Who Use SLT, by Alaska Native Status, Alaska, 1995 – 2017



Source: Alaska Youth Risk Behavior Survey
Alaska YRBS data are only available for 1995, 2003, and 2007 to present.
Note: In 2017, snus and dissolvable tobacco were added to the YRBS question.

- SLT use has decreased significantly since among non-Native youth since 1995, and since 2007. SLT use did not decrease among Alaska Native youth over either timeframe.
- Among non-Native high school students, SLT use decreased from 14.5% in 1995 to 4.5% in 2017.

Figure 44. Percentage of High School Students Who Currently Use SLT, by Selected Demographic Factors, Alaska, 2017



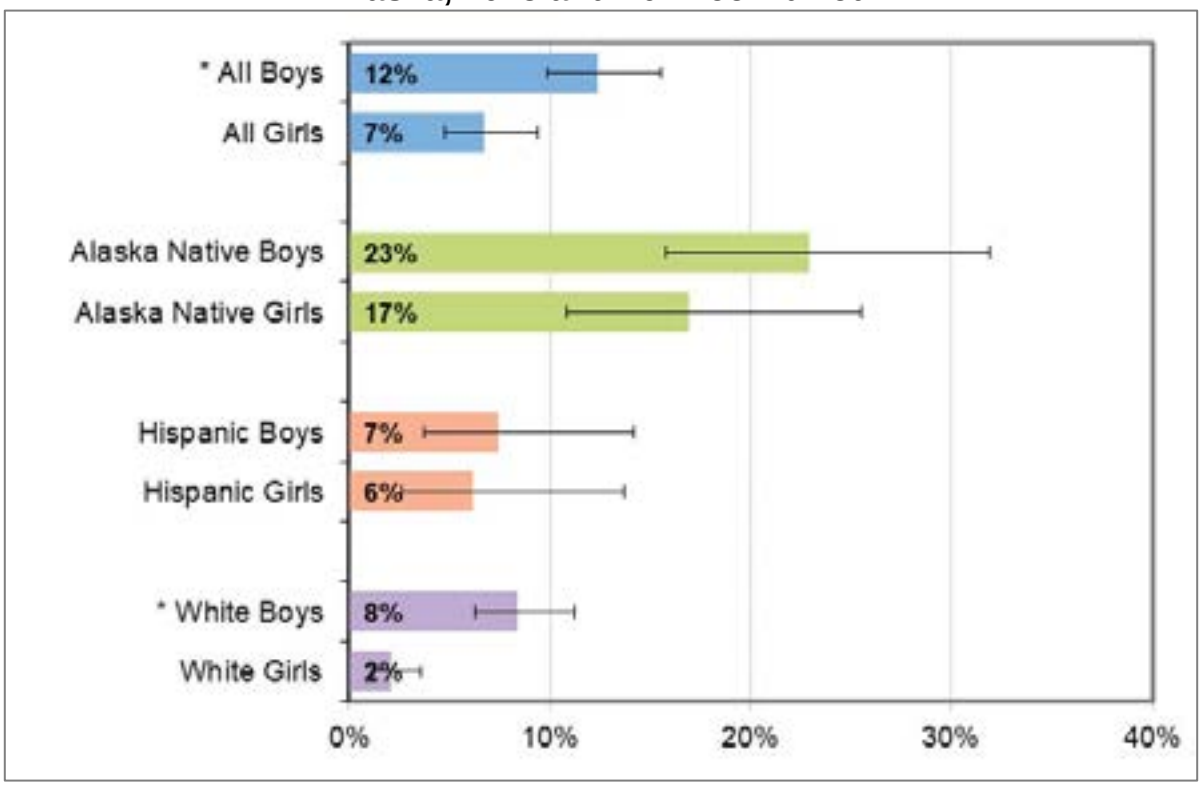
Source: Alaska Youth Risk Behavior Survey
* Significant difference between the two sub-groups.
† Significant difference as described below.
Note: In 2017, snus and dissolvable tobacco were added to the YRBS question.

- Boys are significantly more likely than girls to use smokeless tobacco (SLT).
- Alaska Native students were more than 3 times more likely than White students to use SLT (16.0% versus 5.1%).
- Regional patterns for youth SLT use in 2017 were similar to those seen among adults.[21] Youth SLT use was significantly higher in Southwest Alaska (37.3%) than in Northern Alaska (22.3%), the Gulf Coast (6.1%), Anchorage/Mat-Su (5.7%), the Interior (7.3%), or Southeast Alaska (3.6%). SLT use was higher in Northern Alaska than in all other regions except Southwest Alaska.
- As described on page 32, Iqmik is a regional variant of SLT used by Alaska Natives.[22] As with adults, youth Iqmik use was significantly higher in Southwest Alaska (43.0%) than in other regions (1.5%-6.1%), and was also higher in Northern Alaska (6.1%) than in Anchorage/Mat-Su (2.0%), the Gulf Coast (2.0%), or Southeast Alaska (1.5%).

[21] More information about regional reporting for YRBS can be found in Appendix B. Additional information and graphic presentation is also available online at http://dhss.alaska.gov/dph/InfoCenter/Pages/ia/yrbss/yrbss_health_profiles.aspx

[22] The YRBS question about Iqmik use was added in 2013 and is a separate from the SLT use question. About 75% of those who report using Iqmik also reported SLT use.

Figure 45. Percentage of High School Students Who Use SLT, by Gender within Racial and Ethnic Groups, Alaska, 2015 and 2017 combined



Source: Alaska Youth Risk Behavior Survey

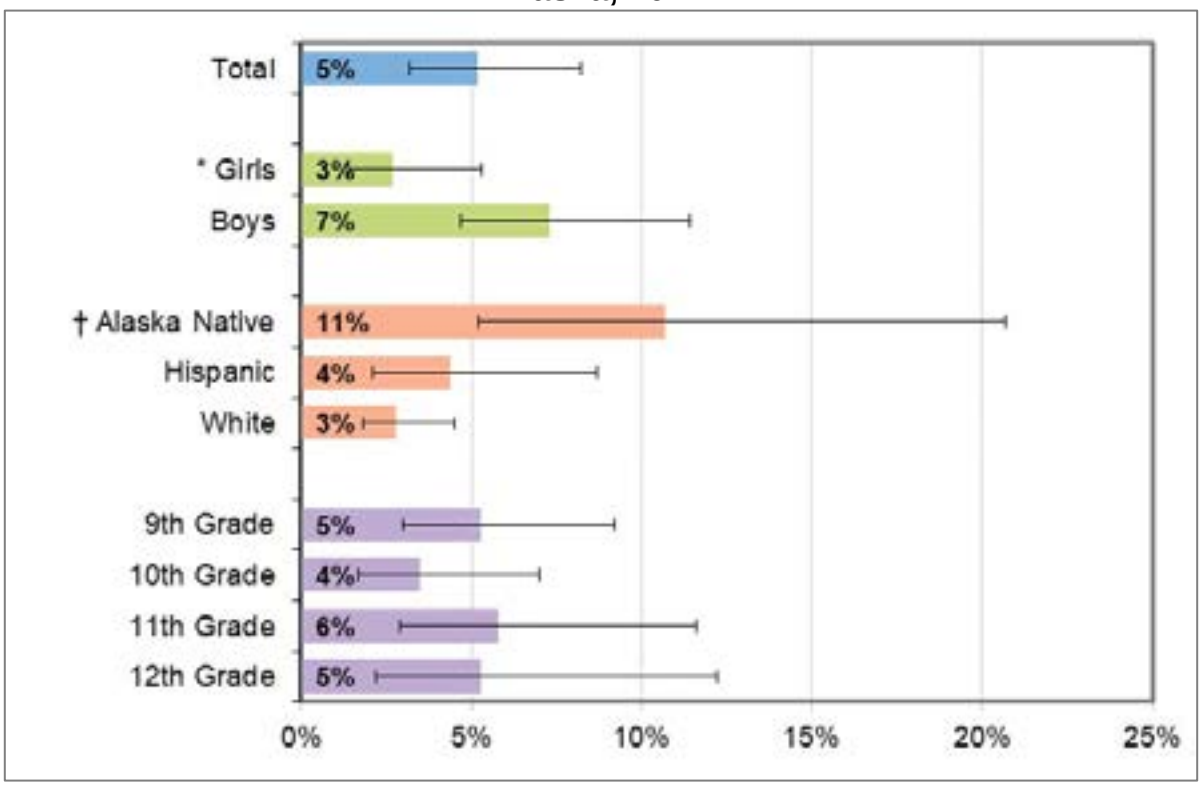
Note: Percentages reported in this graph are for 2015 and 2017 data combined, and may differ from those reported elsewhere for 2017 only.

* Significant difference between the two sub-groups.

Note: In 2017, snus and dissolvable tobacco were added to the YRBS question.

- If we combine the two most recent years of survey data, we can examine youth smokeless tobacco (SLT) use prevalence within race group and ethnicity group by gender.
- Both Alaska Native girls and boys were significantly more likely than their Hispanic and White peers to use SLT.
- White boys were significantly more likely to use SLT than White girls (8.4% versus 2.1%).

Figure 46. Percentage of High School Students Who Currently Use SLT on School Property, by Selected Demographic Factors, Alaska, 2017

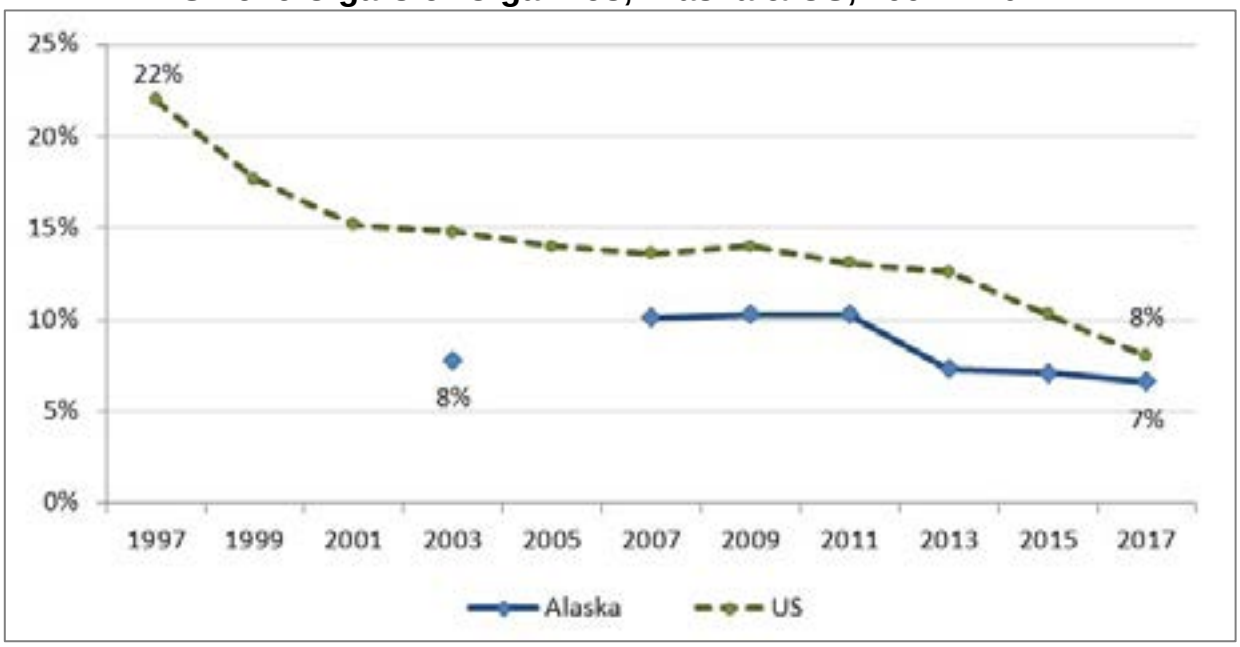


Source: Alaska Youth Risk Behavior Survey
* Significant difference between the two sub-groups.
† Significant difference as described below.
Note: In 2017, snus and dissolvable tobacco were added to the YRBS question.

- As with general SLT use, boys were more likely to use SLT on school property than were girls.
- SLT use on school property was more likely among Alaska Native students (10.7%) than among White students (2.8%).
- Regionally, youth SLT use on school property was significantly higher in Southwest Alaska (24.8%) than in Northern Alaska (16.1%), Anchorage/Mat-Su (3.4%), Southeast Alaska (2.1%), the Gulf Coast (3.2%), or the Interior (4.4%). SLT use on school property was also higher in Northern Alaskan than in all other regions except Southwest.

C. *Cigar Use*

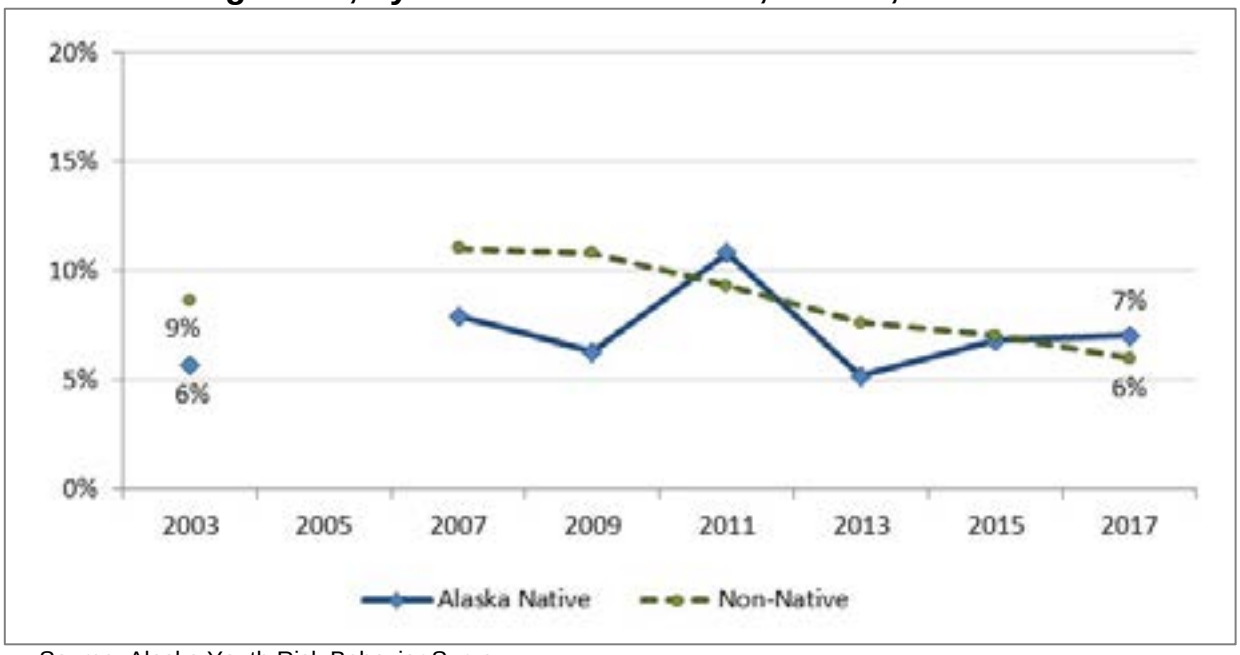
Figure 47. Percentage of High School Students Who Smoke Cigars or Cigarillos, Alaska & US, 1997 – 2017



Source: Alaska Youth Risk Behavior Survey and National Youth Risk Behavior Survey
Alaska YRBS data about cigar use are only available for 2003 and 2007 to present.
Note: Question was not in the national YRBS prior to 1997, and was first included in the Alaska YRBS in 2003.

- Nationally, the proportion of high school students who smoke cigars or cigarillos has decreased since 1997.
- The Alaska YRBS has included a question about cigar or cigarillo use since 2003. The trend of youth cigar or cigarillo use declined significantly between 2003 and 2017, and between 2007 and 2017.
- Additionally, cigar/cigarillo use has declined significantly among boys since 2003, and since 2007.

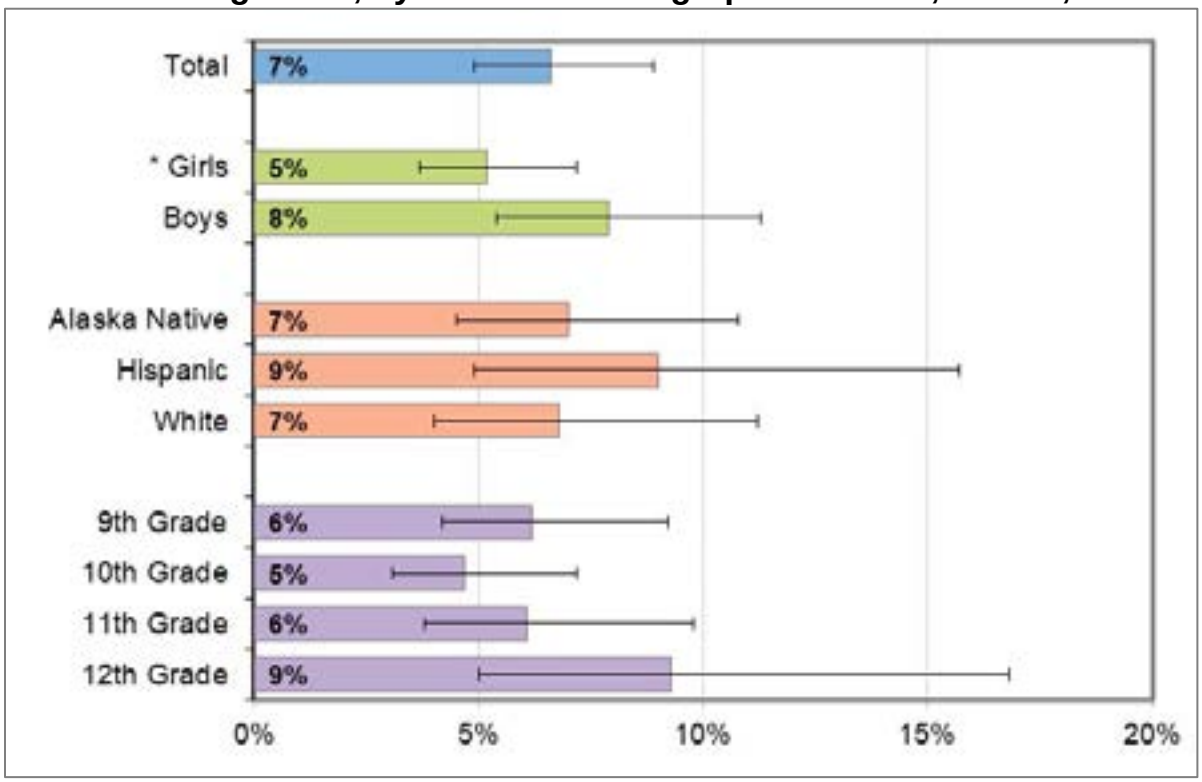
Figure 48. Percentage of High School Students Who Smoke Cigars or Cigarillos, by Alaska Native Status, Alaska, 2003 – 2017



Source: Alaska Youth Risk Behavior Survey
Alaska YRBS data about cigar use are only available for 2003 and 2007 to present.

- Cigar/cigarillo use has declined significantly among non-Native high school students in Alaska between 2003 and 2017, and between 2007 and 2017, but has not changed significantly among Alaska Native students.

Figure 49. Percentage of High School Students Who Currently Smoke Cigars or Cigarillos, by Selected Demographic Factors, Alaska, 2017

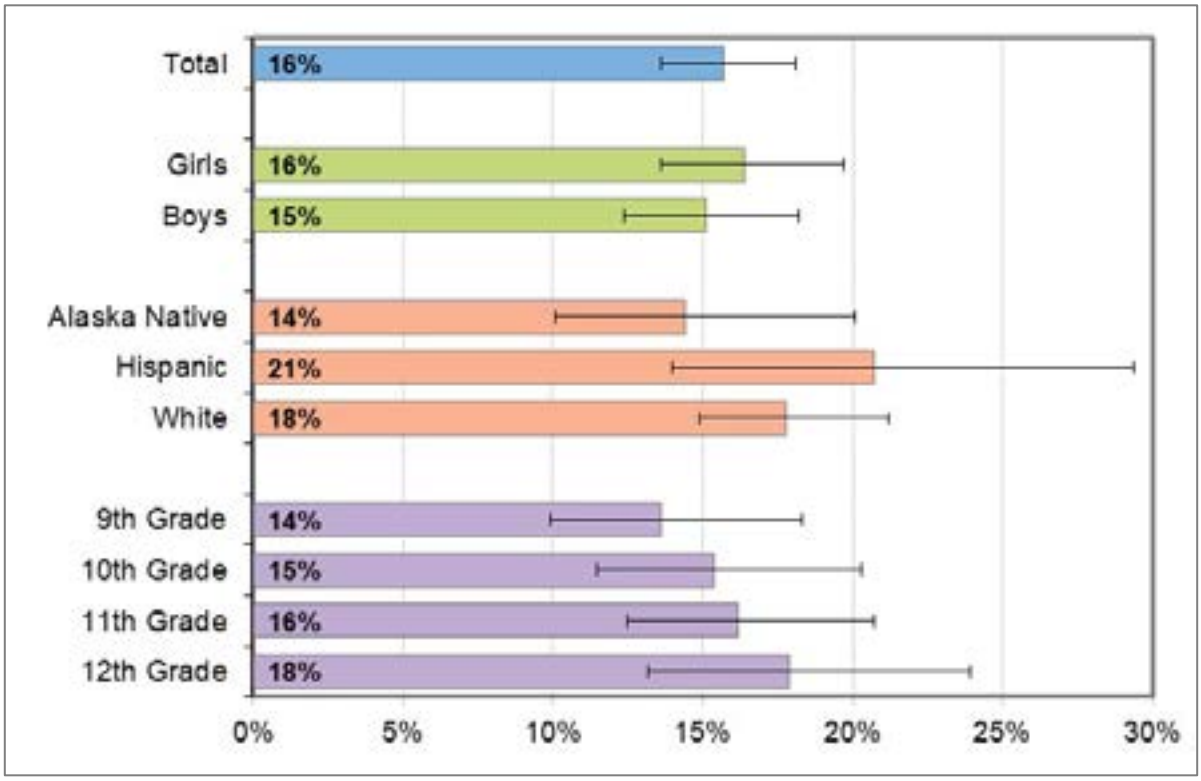


Source: Alaska Youth Risk Behavior Survey
* Significant difference between the two sub-groups.

- Boys were significantly more likely than girls to smoke cigars or cigarillos (7.9% versus 5.2%).
- There were no significant differences in cigar/cigarillo use by race/ethnicity group or grade.
- Among students who smoke cigarettes, 40.4% also reported also smoking cigars/cigarillos in the past 30 days, whereas only 1.6% of students who do not smoke cigarettes reported smoking cigars/cigarillos.
- Youth cigar/cigarillo use did not vary significantly by region; regional prevalence rates ranged between 5.1% and 7.7%.

D. *Vaping and E-Cigarette Use*

Figure 50. Percentage of High School Students Who Currently Use E-Cigarettes or other Vapor Products, by Selected Demographic Factors, Alaska, 2017



Source: Alaska Youth Risk Behavior Survey

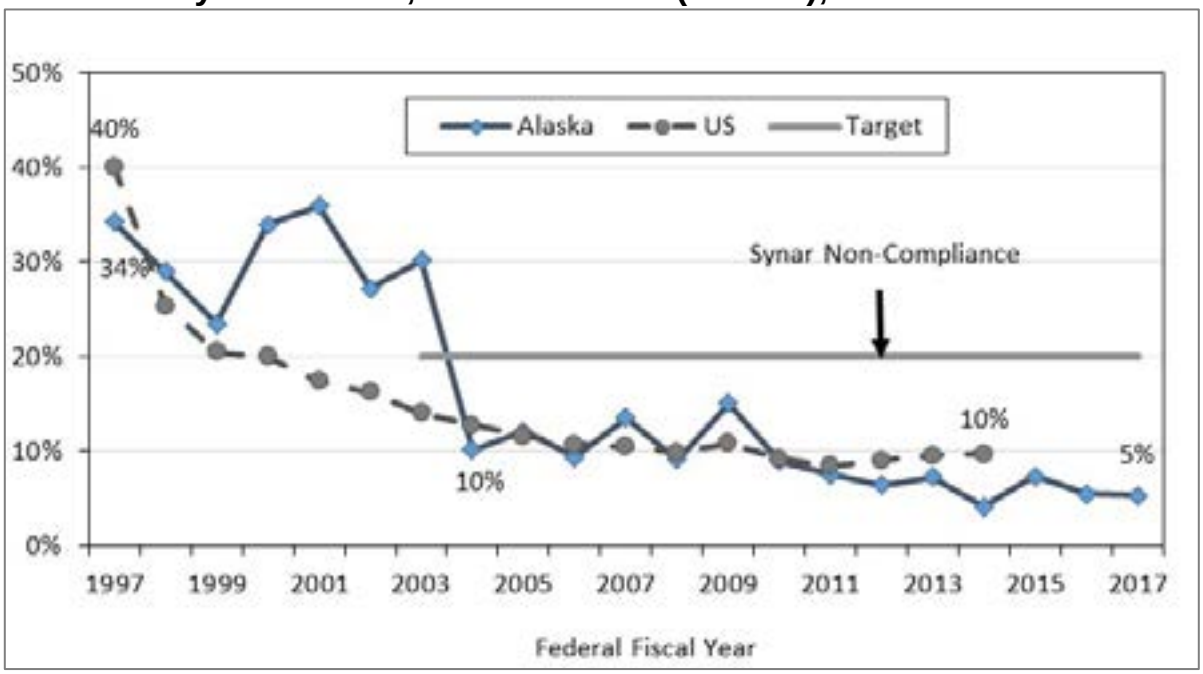
- There were no significant differences in e-cigarette/vapor use by gender, race/ethnicity group, or grade.

- Regionally, e-cigarette or vapor product use was significantly higher among students in the Gulf Coast (20.7%), Southeast Alaska (18.4%), and Anchorage/Mat-Su (17.6%) regions than in the Interior (11.1%), Southwest (9.1%) or Northern Alaska (6.5%) regions. Vaping was also significantly higher in the Interior than in Northern Alaska.

- About half of youth (51.5%) who smoke combustible cigarettes also reported using e-cigarettes or other vapor products. Among youth who do not smoke combustible cigarettes, 10.7% reported vaping in the past 30 days.

E. *Access to Tobacco*

Figure 51. Percentage of Vendors Found Selling Tobacco to Minors by Fiscal Year, Alaska and US (Median), 1997 – 2017

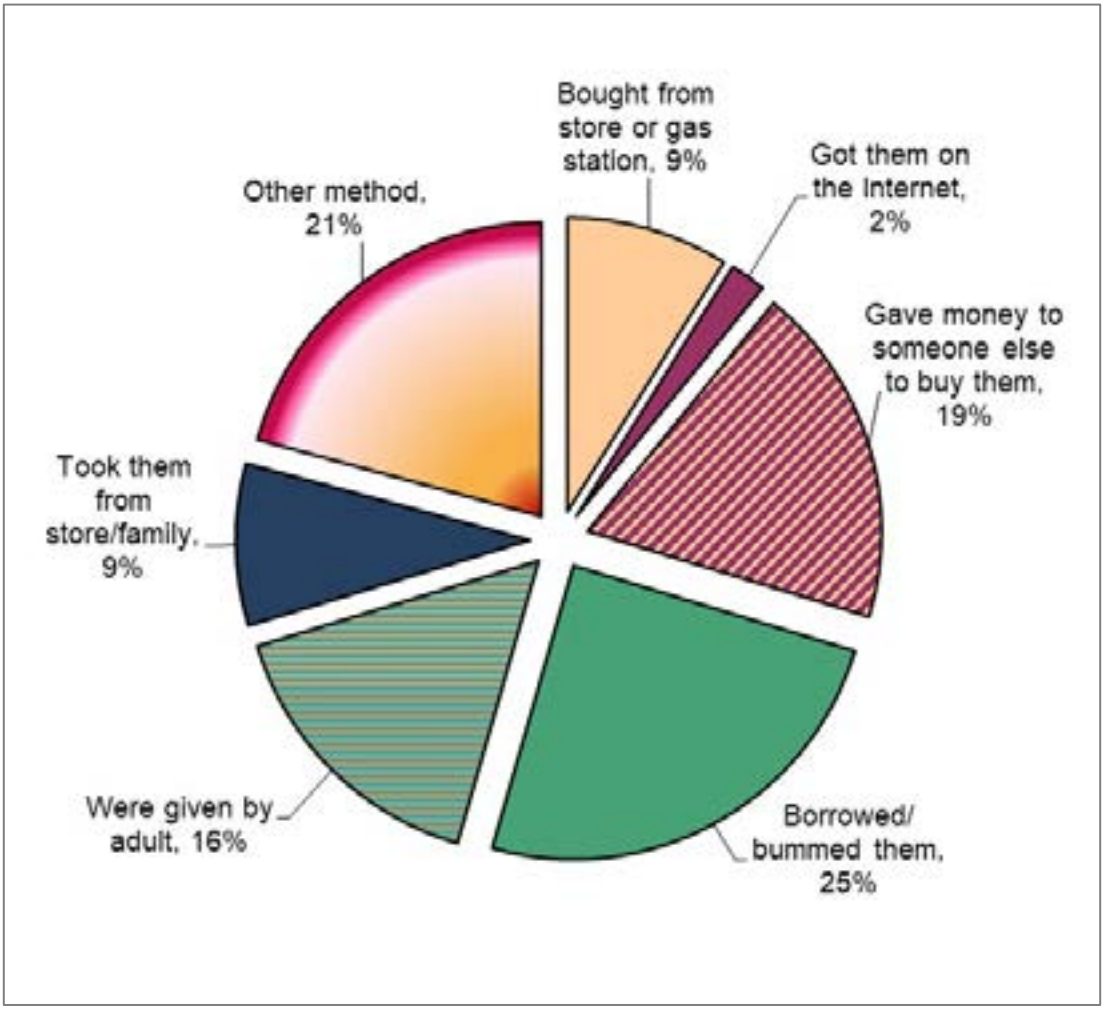


Sources: Alaska Synar Compliance Database, SAMHSA Synar Annual Reports

- Since 2003, Alaska has maintained the "20% or below" compliance rate established by the federal Synar amendment. This means fewer tobacco vendors statewide are selling tobacco products to minors compared to previous years.
- Both the Synar compliance data and youth self-report indicate that Alaska has made great progress in reducing sales of tobacco directly to underage youth.
- Youth self-report data indicate similar patterns. The proportion of Alaska high school smokers who reported that their usual way of getting cigarettes was to buy them in a store decreased from 27.1% in 1995 to 8.6% in 2017.

Source: Alaska Youth Risk Behavior Survey

Figure 52. Usual Methods of Getting Cigarettes in the Past 30 Days Among High School Student Smokers, Alaska, 2017



Source: Alaska Youth Risk Behavior Survey

- In 2017, over half of high school smokers reported that they usually get their cigarettes with help from other people. This includes 19% of youth smokers who give money to someone else to buy cigarettes, 25% who borrow or bum their cigarettes from someone else, and 16% who report that someone age 18 or older usually gives them cigarettes.

IV. Secondhand Smoke

According to the 2006 Surgeon General's report:[23]

- There is no risk-free level of secondhand smoke exposure. Even brief exposure can be dangerous.
- Nonsmokers who are exposed to secondhand smoke at home or work increase their heart disease risk by 25–30% and their lung cancer risk by 20–30%.
- Eliminating smoking in indoor spaces is the only way to fully protect nonsmokers from secondhand smoke exposure. Separating smokers from nonsmokers, cleaning the air, and ventilating buildings cannot eliminate secondhand smoke exposure.

In Alaska:

- Roughly 6,400 Alaska children are exposed to secondhand smoke in their homes.[24]
- Having a home rule against smoking inside significantly lowers the risk of secondhand smoke exposure for children.[23] Alaska BRFSS data show that 57.9% of Alaska children living in a home with no rules about smoking were exposed to tobacco smoke in their homes in the past 30 days, compared to 0.7% of children living in homes where smoking is not allowed inside. Even among children living with a smoker, those with rules against smoking in the home were significantly less likely to be exposed to smoke than those without those rules (0.7% vs 86.9%).[25]
- The proportion of Alaska high school students who report being in the same room with someone who was smoking in the past 7 days has decreased from 49.1% in 2003 to 29.4% in 2017. However, this means that a large number of high school students are still being exposed to indoor secondhand smoke exposure on a regular basis.[26]
- There is widespread support for clean indoor air policies. The majority of Alaska adults agree that smoking should not be allowed on hospital grounds (86.2%), in workplaces (89.5%), or in restaurants (82.7%). Even among smokers, most agree that smoking should not be allowed in workplaces (79.3%).[27]

---

[23] U.S. Department of Health and Human Services. The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006 [cited 2006 Sep 27]. Available from: http://www.surgeongeneral.gov/library/secondhandsmoke/report/

[24] Alaska Behavioral Risk Factor Surveillance System Supplemental File, combined years 2014-2016, and Alaska Department of Labor and Workforce Development Population Estimates, 2016 (from vintage 2017 population files).

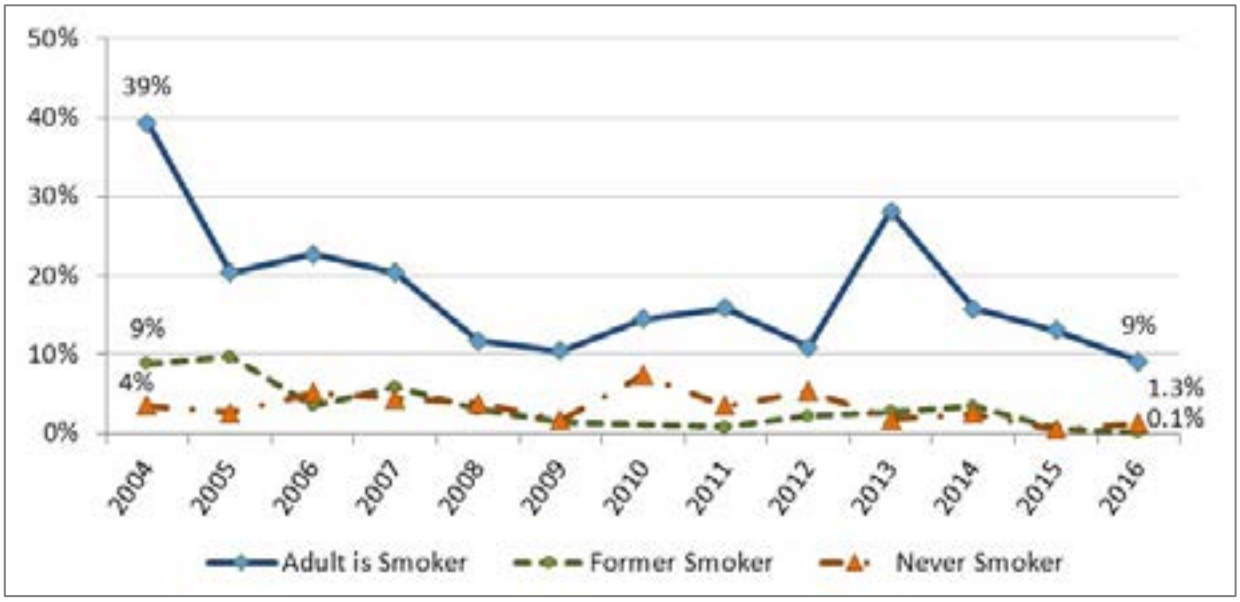
[25] Alaska Behavioral Risk Factor Surveillance System Supplemental File, combined years 2014-2016.

[26] Alaska Youth Risk Behavior Survey 2017.

[27] Alaska Behavioral Risk Factor Surveillance System Supplemental File, 2016.

A. *Secondhand Smoke at Home*

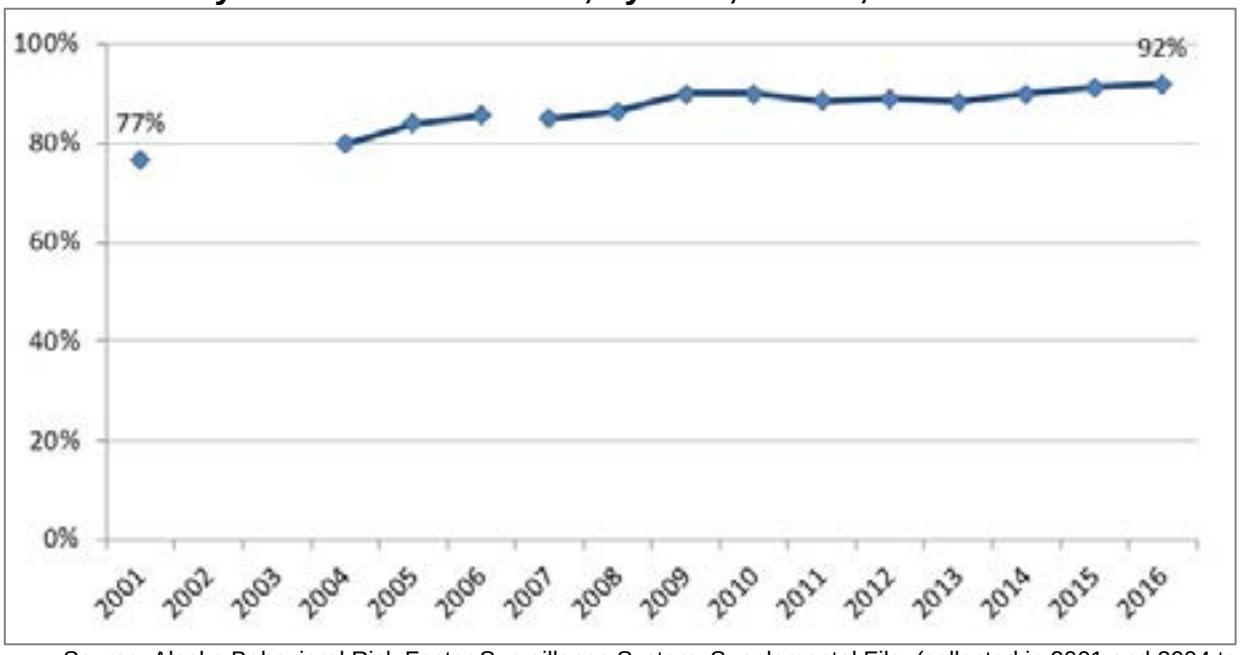
Figure 53. Percentage of Children Exposed to Smoke in their Homes in the Past Month, by Smoking Status of Adult Respondent, Alaska, 2004 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

- Overall, the proportion of children exposed to secondhand smoke at home decreased in Alaska from 13.0% in 2004 to 2.3% in 2016. Exposure is measured by report of any smoking inside the home in the past 30 days, among adults who report that children live in their household.
- Among households where the adult respondent is a smoker, child exposure to secondhand smoke at home decreased from 39.4% in 2004 to 9.1% in 2016.
- Child exposure to secondhand smoke at home also decreased in households where the adult respondent is a former smoker, from 8.8% in 2004 to 0.1% in 2016.

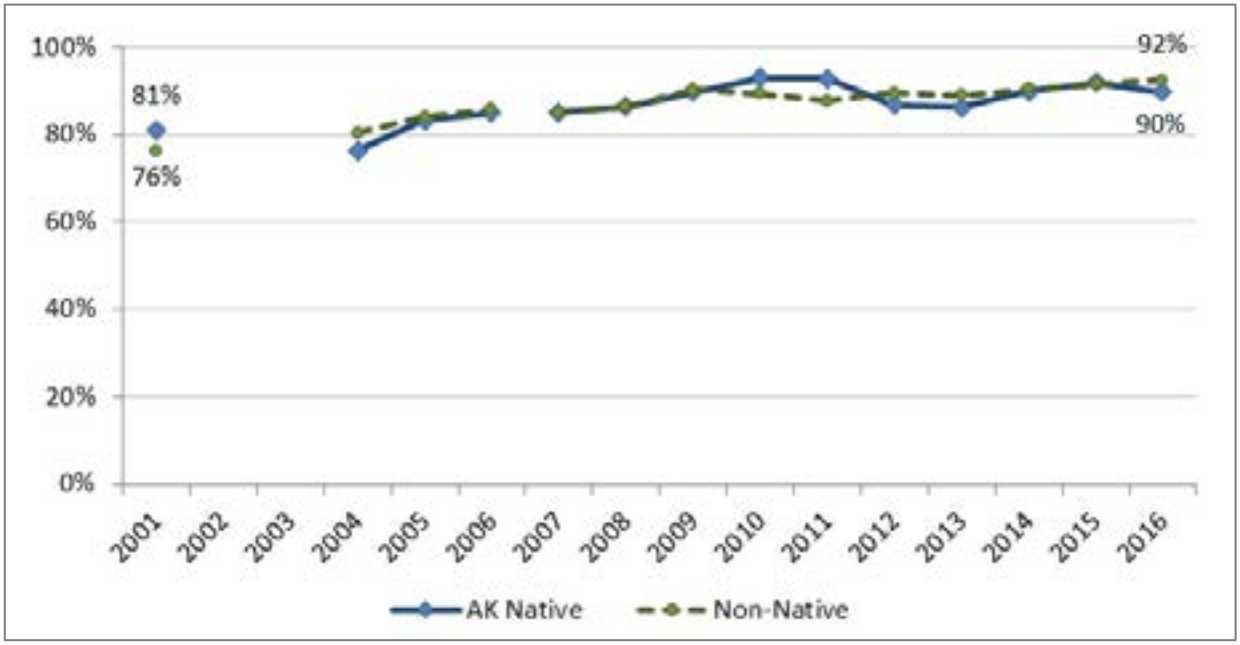
Figure 54. Percentage of Adults Who Report that Smoking is Not Allowed Anywhere in their Homes, by Year, Alaska, 2001 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File, (collected in 2001 and 2004 to present).
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- The proportion of Alaska adults who reported that smoking is not allowed anywhere inside their home increased significantly from 76.8% in 2001 to 92.0% in 2016. The recent 10-year trend from 2007 to 2016 was also significant.
- The proportion of Alaska adults who reported that smoking is not allowed anywhere inside their home has increased since 2001 in all Alaska regions and across all gender, age, education status, and employment demographic groups, except unemployed adults.

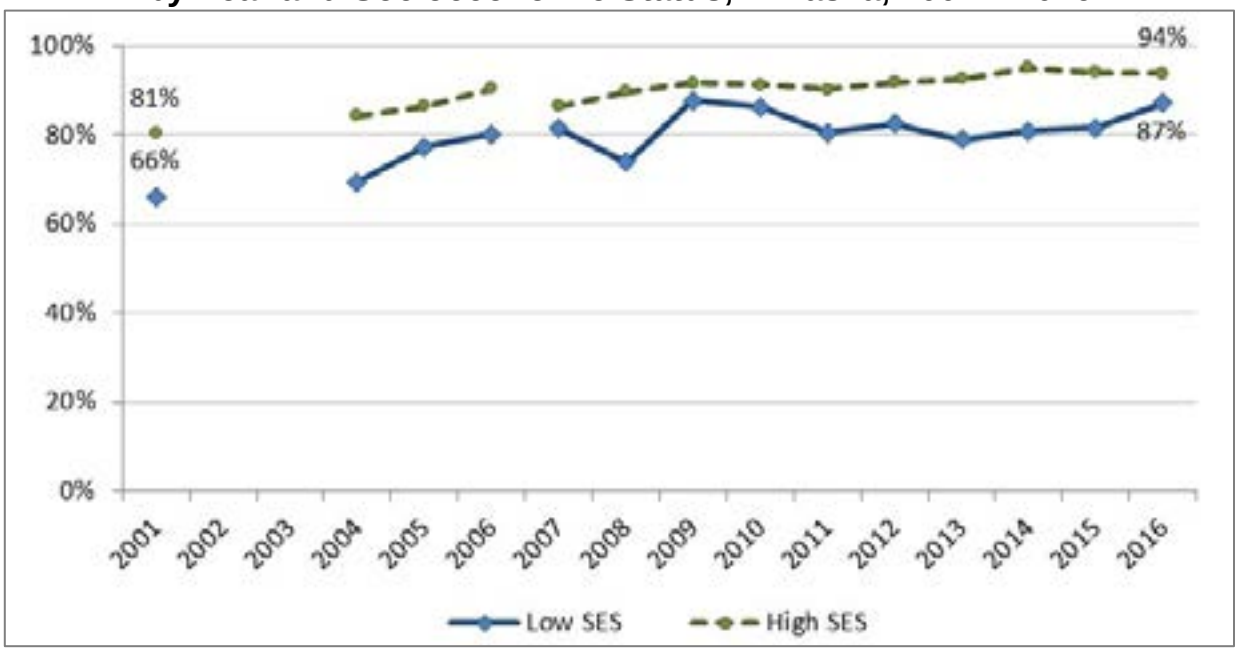
Figure 55. Percentage of Adults Who Report that Smoking is Not Allowed Anywhere in their Homes, by Year and Alaska Native Status, Alaska, 2001 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File (collected in 2001 and 2004 to present).
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- The proportion of Alaska Native adults who reported that smoking is not allowed anywhere inside their home increased significantly from 80.9% in 2001 to 89.7% in 2016. The more recent trend from 2007 to 2016 was not significant.
- The proportion of non-Native adults who reported that smoking is not allowed anywhere inside their home increased significantly from 76.1% in 2001 to 92.4% in 2016. The more recent trend from 2007 to 2016 was significant as well.

Figure 56. Percentage of Adults Who Report that Smoking is Not Allowed Anywhere in their Homes, by Year and Socioeconomic Status,[28] Alaska, 2001 – 2016

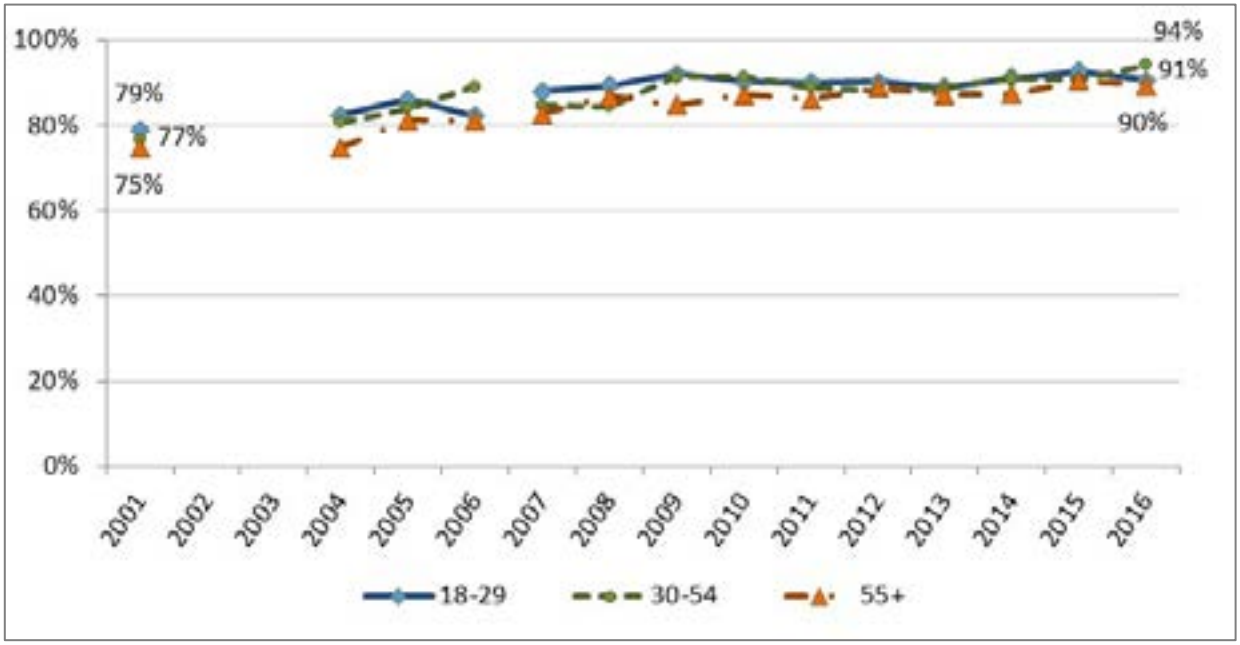


Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File (collected in 2001 and 2004 to present).
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- Among those of low SES, the proportion who reported that smoking is not allowed anywhere inside their home increased significantly from 66.2% in 2001 to 87.3% in 2016. The more recent trend from 2007 to 2016, however, was not significant.
- The proportion of adults of higher SES who reported that smoking is not allowed anywhere inside their home increased significantly from 80.5% in 2001 to 93.9% in 2016. The more recent upward trend from 2007 to 2016 was also significant.

[28] The SES measure is restricted to non-Natives age 25 to 64. Low SES is defined as less than high school education or household income at 185% or less of the Alaska Poverty Level Guideline. See Appendix B for more information.

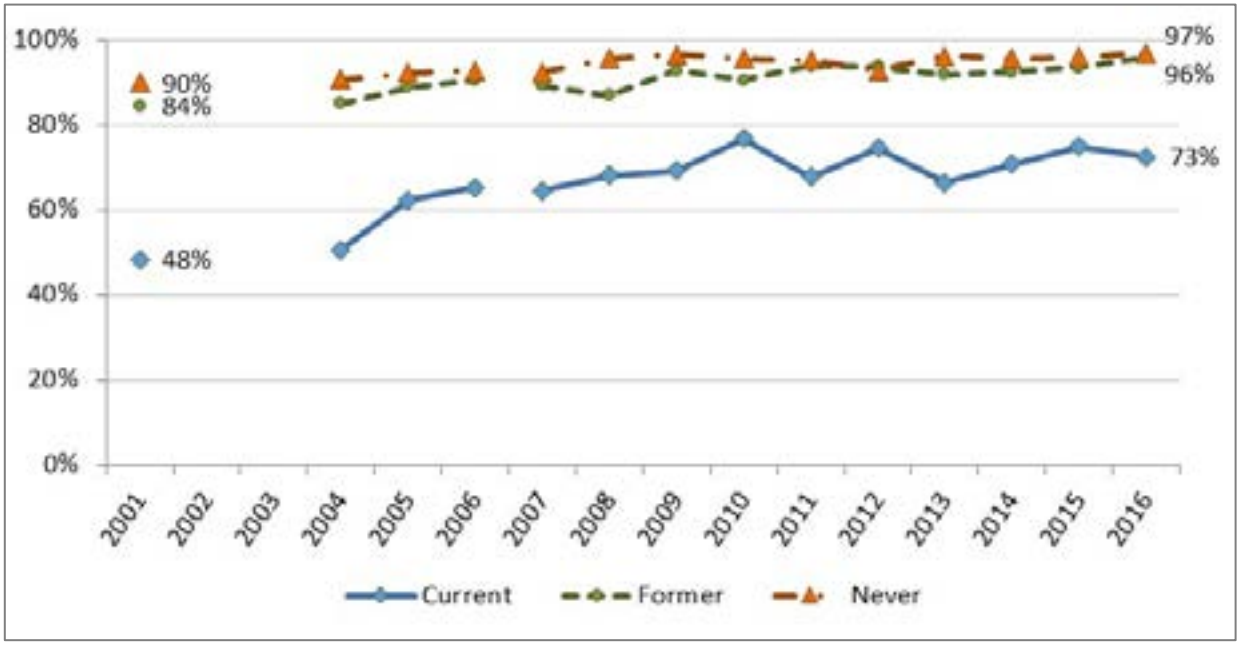
Figure 57. Percentage of Adults Who Report that Smoking is Not Allowed Anywhere in their Homes, by Year and Age Group, Alaska, 2001 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File (collected in 2001 and 2004 to present).
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- The proportion of Alaska adults age 18 to 29 who reported that smoking is not allowed anywhere inside their home increased significantly from 79.0% in 2001 to 90.8% in 2016. The more recent trend from 2007 to 2016 was not significant.
- The proportion of Alaska adults age 30 to 54 who have smokefree rules in their home increased significantly from 76.6% in 2001 to 94.3% in 2016. The more recent trend from 2007 to 2016 was also significant.
- The proportion of Alaska adults age 55 and older who have smokefree rules in their home increased significantly from 75.0% in 2001 to 89.7% in 2016. The more recent trend from 2007 to 2016 was also significant.

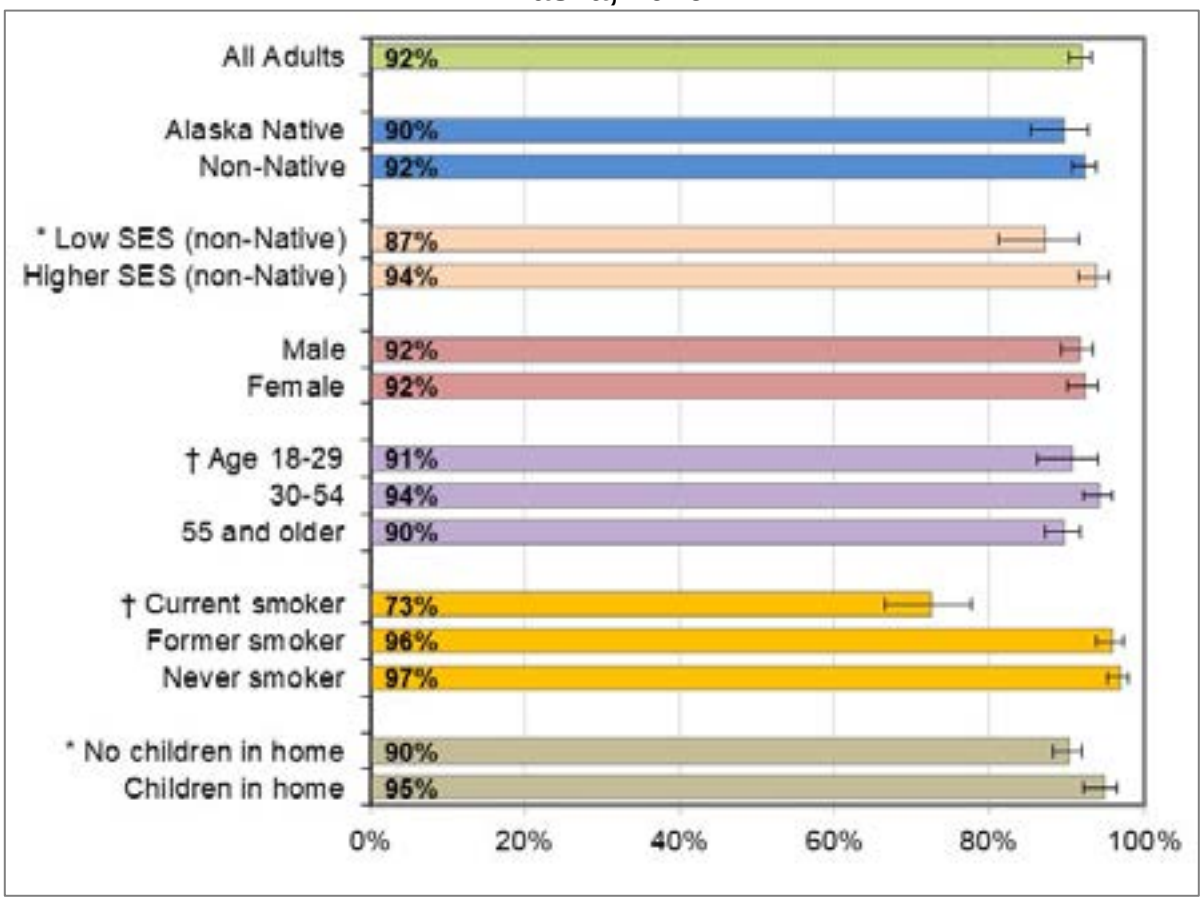
Figure 58. Percentage of Adults Who Report that Smoking is Not Allowed Anywhere in their Homes, by Year and Smoking Status, Alaska, 2001 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File (collected in 2001, and 2004 to present).
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- Among current smokers as well as non-smokers, there has been a significant increase in the proportion of people who have home smokefree rules.
- The proportion of Alaska adult smokers who reported that smoking is not allowed anywhere inside their home increased significantly from 48.3% in 2001 to 72.5% in 2016. There was not a significant trend from 2007 to 2016.
- The proportion of Alaska adult former smokers who have smokefree rules in their home increased significantly from 84.4% in 2001 to 96.0% in 2016. There was also a significant increase in the more recent trend from 2007 to 2016.
- The proportion of never-smoking Alaska adults who have smokefree rules in their home increased significantly from 89.9% in 2001 to 96.9% in 2016. There was also a significant increase in the more recent trend from 2007 to 2016.

Figure 59. Percentage of Adults Who Report that Smoking is Not Allowed Anywhere in their Homes, by Selected Demographic Factors, Alaska, 2016

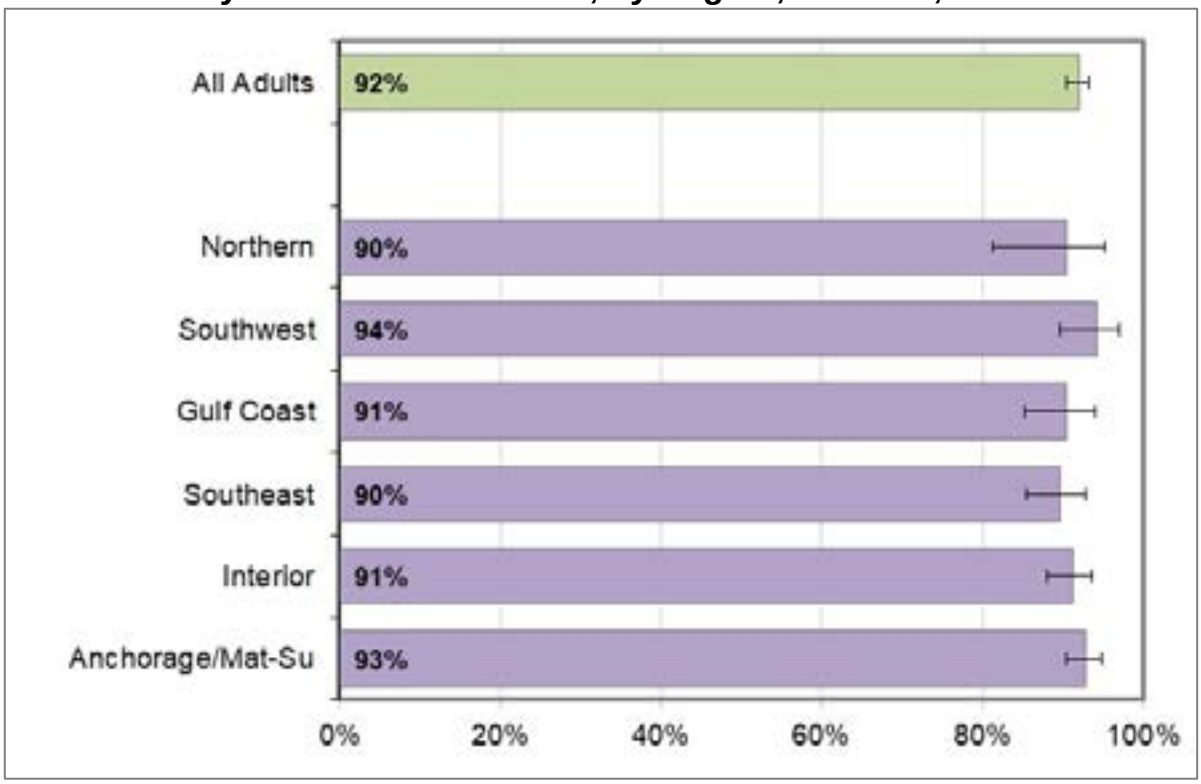


Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File
* Significant difference between the two sub-groups.
† Significant differences as described below.

- Adults in the low SES group were significantly less likely to have a smokefree home rule than adults in the higher SES group, 87.3% compared to 93.9%.
- Current smokers (72.5%) were significantly less likely to have rules against smoking in the home than both former smokers (96.0%) and never smokers (96.9%).
- Adults with children living in the household were significantly more likely to have rules against smoking in the home as compared to those without children, 94.8% compared to 90.3%.
- In 2014, nearly all Alaska women (98.1%) who had recently delivered a live-born infant reported that smoking is not allowed in their home.[29]

[29] Source: Alaska Pregnancy Risk Monitoring System 2015.

Figure 60. Percentage of Adults Who Report that Smoking is Not Allowed Anywhere in their Homes, by Region,[30] Alaska, 2016



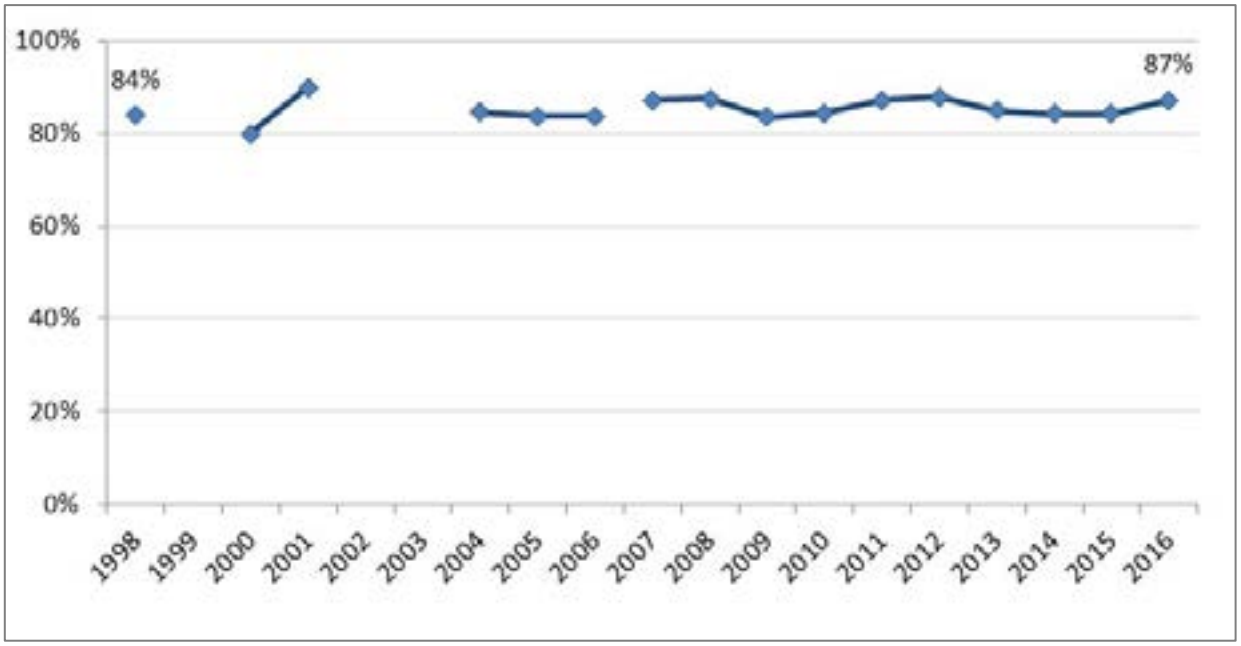
Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

- Across Alaska, most adults report that smoking is not allowed anywhere inside their homes.
- The prevalence of rules against smoking in the home was not significantly different between any two regions.

[30] Public Health Regions include:
- Northern – Nome, Northwest Arctic, and North Slope
- Southwest – Bristol Bay, East Aleutians, West Aleutians, Dillingham, Lake & Peninsula, Bethel, and Kusilvak
- Gulf Coast – Kenai, Kodiak, and Valdez Cordova
- Interior – Denali, Fairbanks North Star, Southeast Fairbanks, and Yukon Koyukuk
- Southeast – Yakutat, Skagway, Hoonah-Angoon, Juneau, Sitka, Haines, Wrangell, Petersburg, Prince of Wales-Hyder, and Ketchikan Gateway
- Anchorage/Mat-Su – Municipality of Anchorage, Matanuska-Susitna Borough

B. *Secondhand Smoke at Work*

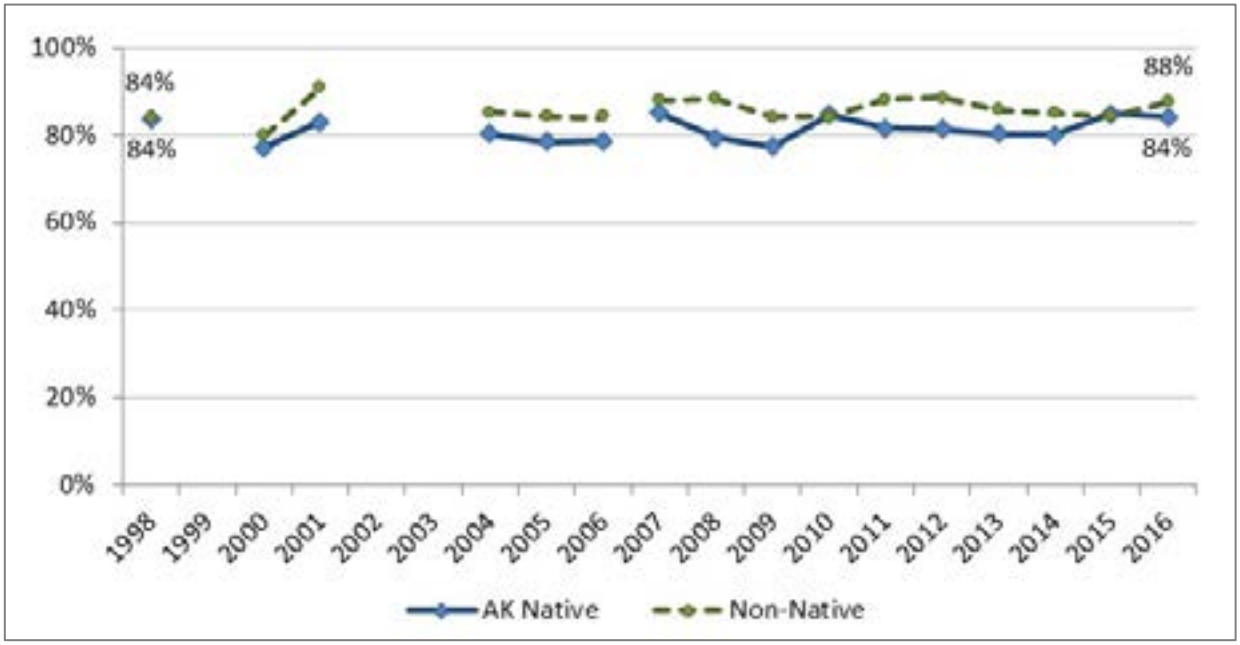
Figure 61. Percentage of Adults Working Primarily Indoors Who Report that Smoking is Not Allowed in Work Areas, by Year, Alaska, 1998 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File; information not collected in 1999, 2002, or 2003.
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- The majority of adults working primarily indoors (87.2%) report that their workplace does not allow smoking in work areas. Trends did not show a significant change between 1998 and 2016 or between 2007 and 2016.
- Regionally, the long-term trend increased in Interior Alaska, from 78.1% in 1998 to 90.9% in 2016, as did the more recent trend in Northern Alaska, from 85.1% in 2007 to 88.8% in 2016.

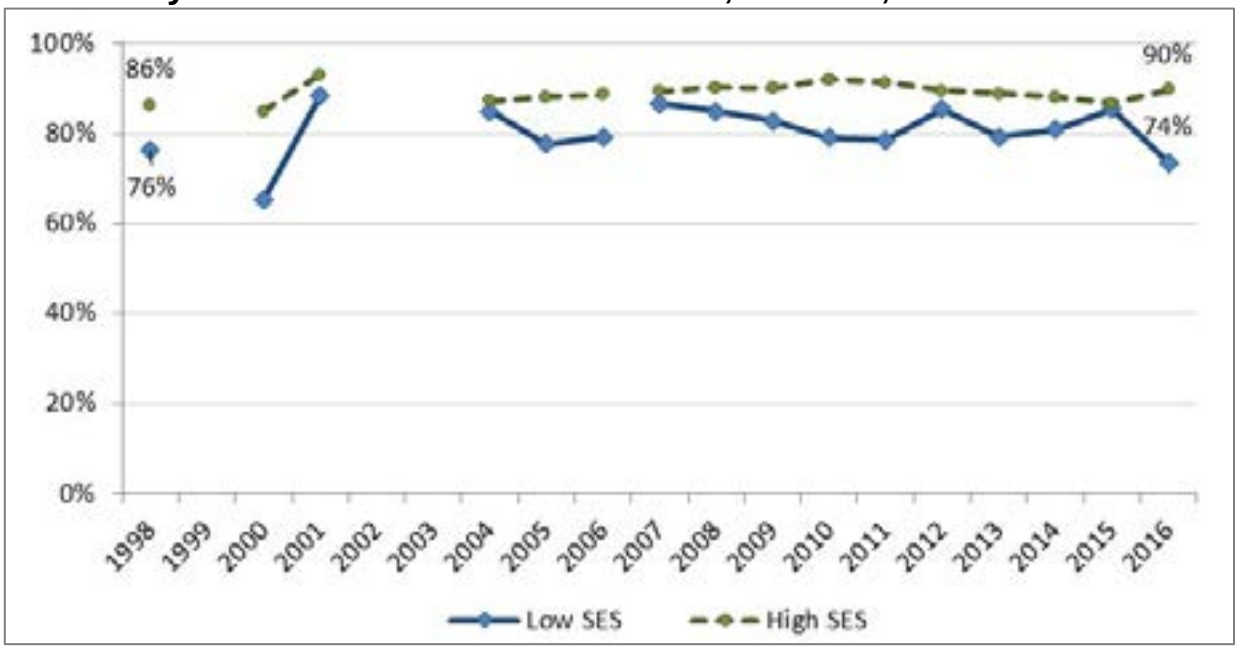
Figure 62. Percentage of Adults Working Primarily Indoors Who Report that Smoking is Not Allowed in Work Areas by Year and Alaska Native Status, Alaska, 1998 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File; information not collected in 1999, 2002, or 2003.
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- Among both Alaska Native adults and non-Native adults who work primarily indoors, the proportion who report that their workplace does not allow smoking in work areas has remained relatively high since 1998 and has not changed significantly since 1998. Moreover, there has been no significant trend since 2007.

Figure 63. Percentage of Adults Working Primarily Indoors Who Report that Smoking is Not Allowed in Work Areas, by Year and Socioeconomic Status,[31] Alaska, 1998 – 2016

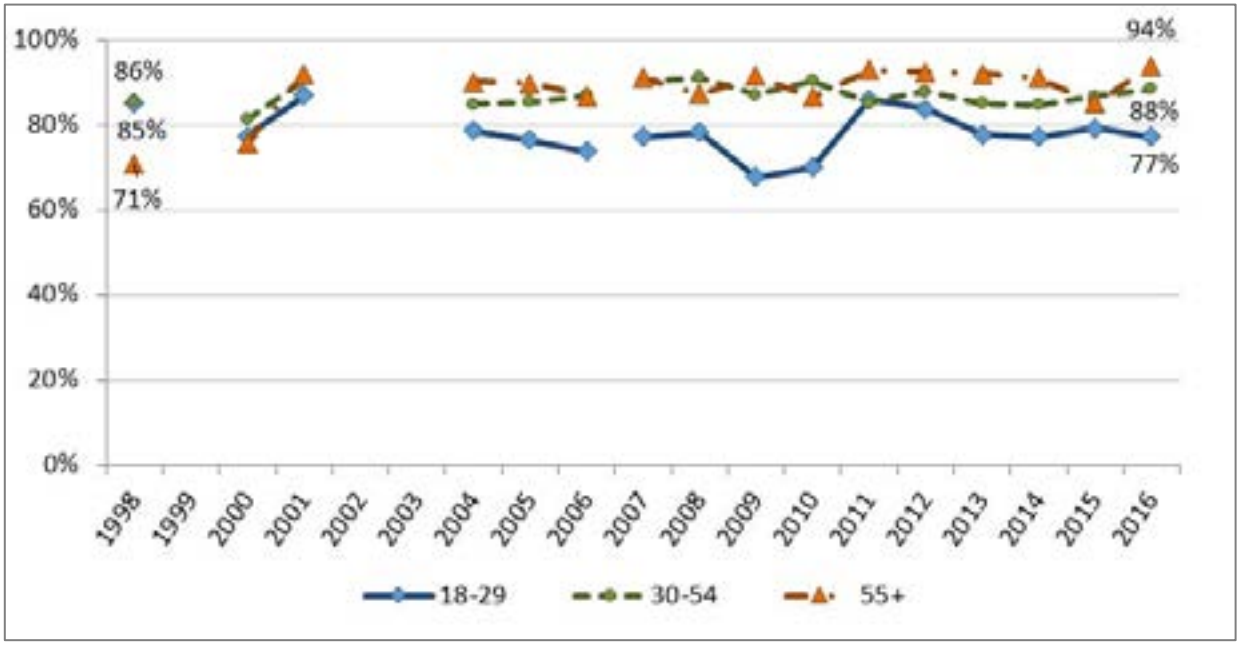


Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File; information not collected in 1999, 2002, or 2003.
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- The percentage of adults working primarily indoors who report that their workplace does not allow smoking in work areas has remained relatively high since 1998 and has not changed significantly within socioeconomic groups. Moreover, there was no significant recent trend (from 2007 to 2016) for either socioeconomic group.

[31] The socioeconomic (SES) measure is restricted to non-Natives age 25 to 64. Low SES is defined as less than high school education or household income at 185% or less of the Alaska Poverty Level Guideline. See Appendix B for more information.

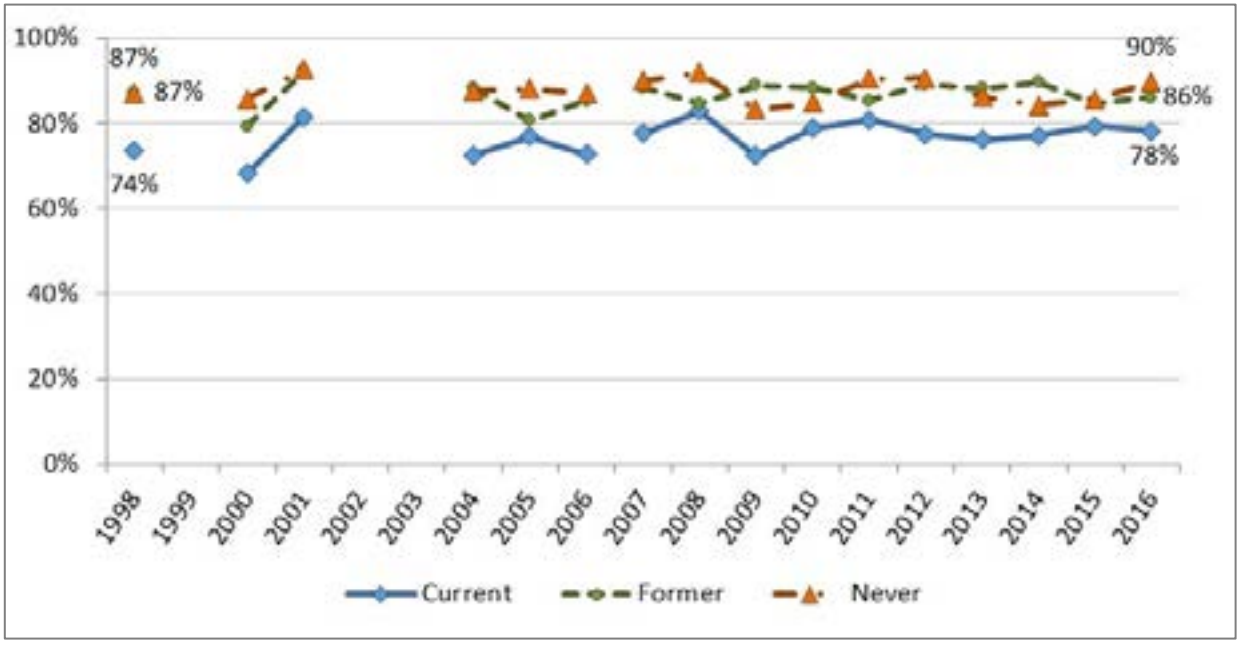
Figure 64. Percentage of Adults Working Primarily Indoors Who Report that Smoking is Not Allowed in Work Areas, by Year and Age Group, Alaska, 1998 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File; information not collected in 1999, 2002, or 2003.
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- Among adults age 30 to 54, the proportion who are protected by workplace smokefree policies decreased slightly but significantly from 2007 (90.2%) to 2016 (88.4%)
- Among adults age 55 or more, the proportion who are protected by workplace smokefree policies has significantly increased from 1998 (71.0%) to 2016 (93.9%). However, there is no significant recent trend from 2007 to 2016 for this age group.

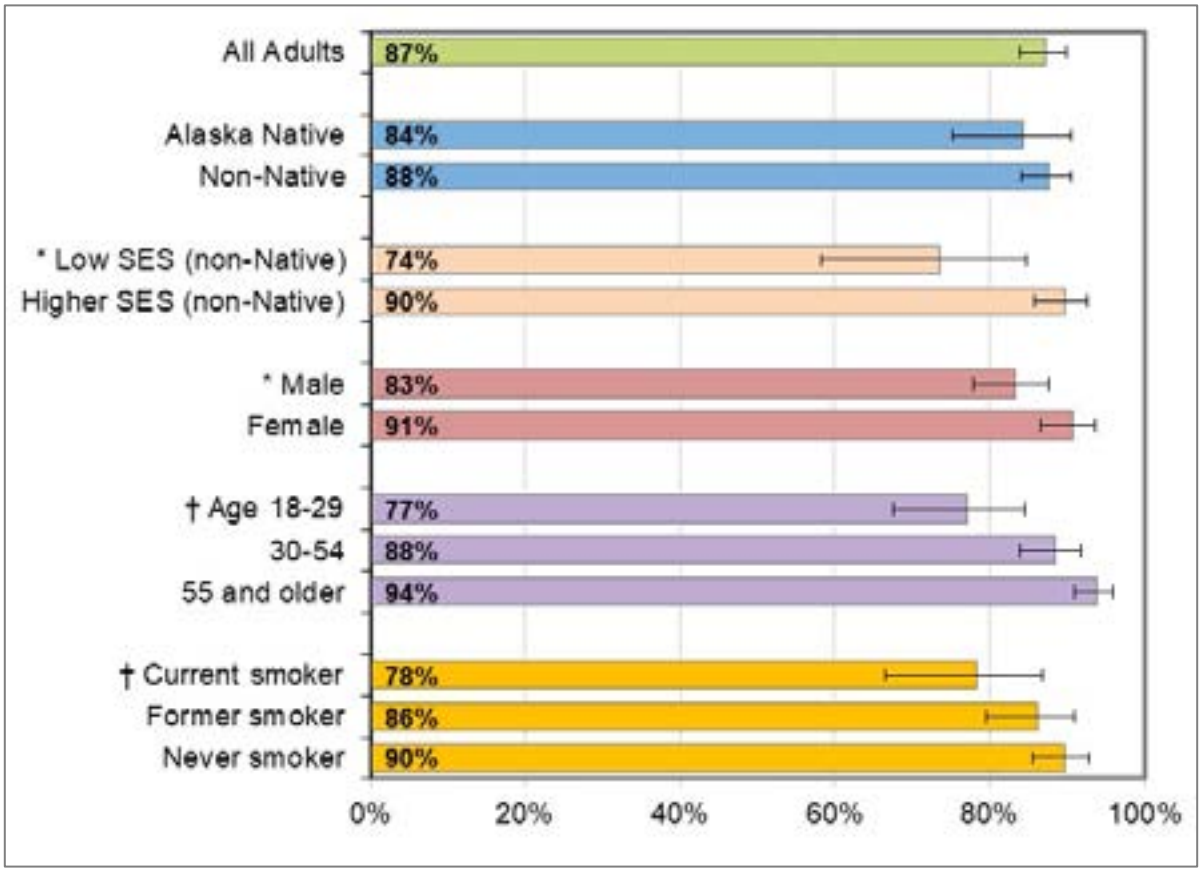
Figure 65. Percentage of Adults Working Primarily Indoors Who Report that Smoking is Not Allowed in Work Areas, by Year and Smoking Status, Alaska, 1998 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File; information not collected in 1999, 2002, or 2003.
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- The proportion of workers protected by workplace smokefree policies did not change significantly from either 1998 to 2016 or from 2007 to 2016 among current smokers, former smokers or never smokers.

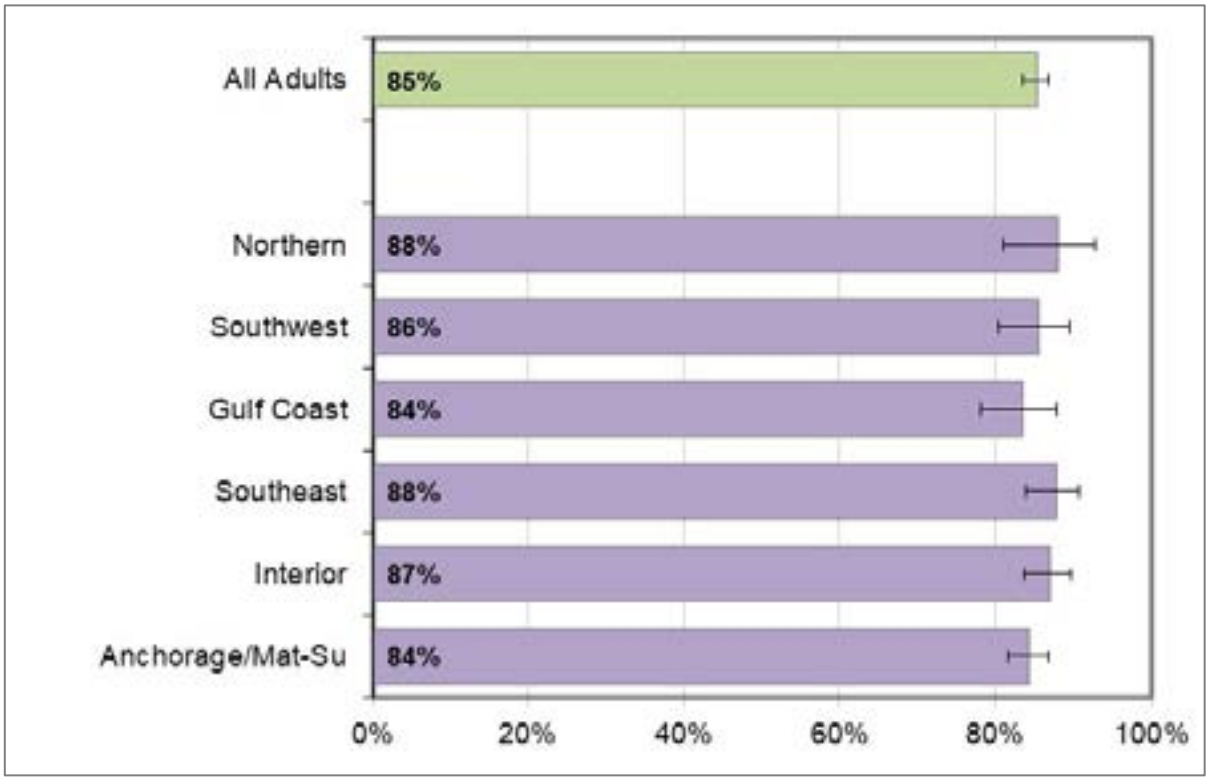
Figure 66. Percentage of Adults Working Primarily Indoors Who Report that Smoking is Not Allowed in Work Areas, by Selected Demographic Factors, Alaska, 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.
* Significant difference between the two sub-groups.
† Significant differences as described below.

- Among adults who work primarily indoors, men are significantly less likely than women to be protected by smokefree workplace policies.
- Adults in the low SES group are significantly less likely than higher-SES adults to be protected by smokefree workplace policies.
- Adults age 18-29 were significantly less like to have a smokefree workplace policy than were adults in older age groups. In addition, indoor workers age 30-54 were less likely to be protected by such a policy than those age 55 and older.
- Current smokers who work primarily indoors were significantly less likely to be protected by smokefree workplace policies than indoor workers who have never been smokers.

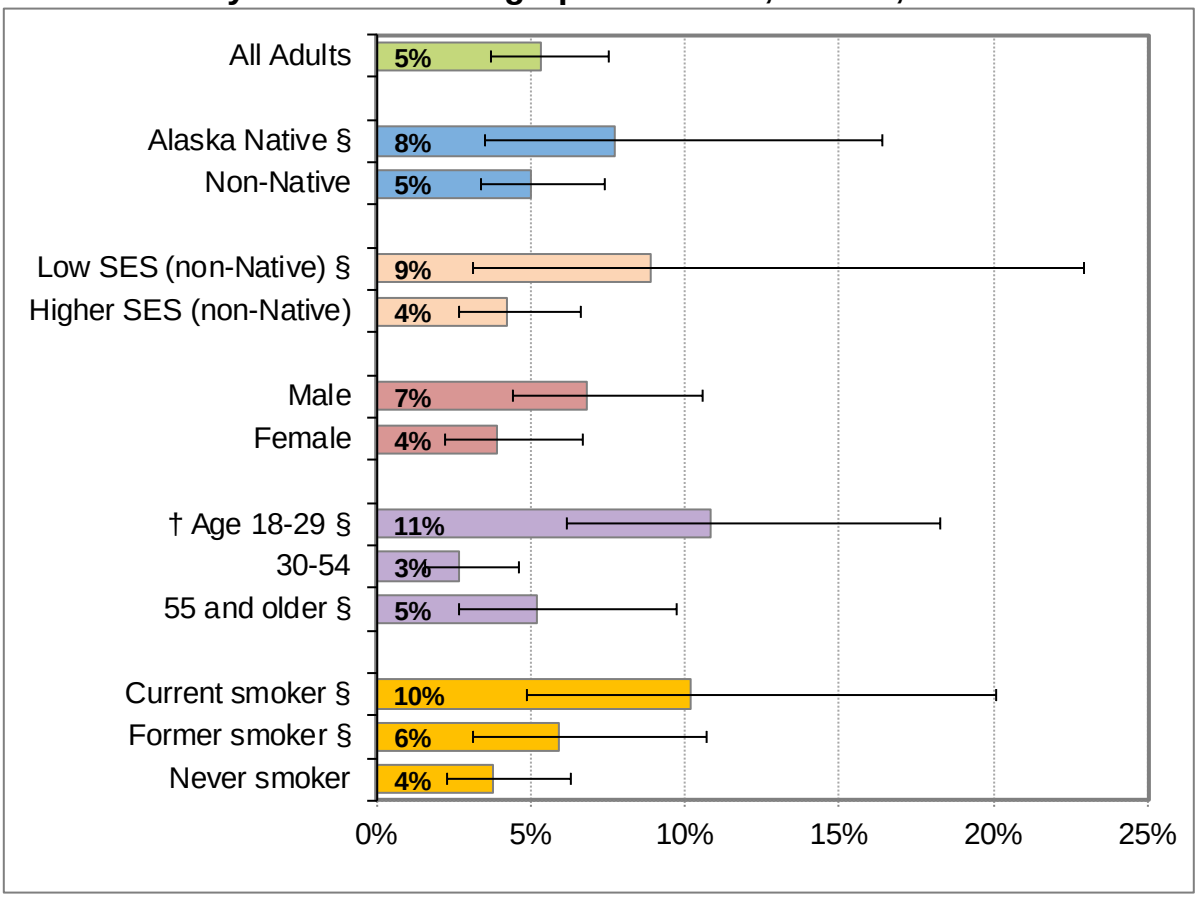
Figure 67. Percentage of Adults Working Primarily Indoors Who Report that Smoking is Not Allowed in Work Areas, by Region, Alaska, 2014-2016



Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.
Note: Percentages reported in this graph are for 2014-2016 combined, and may differ from those reported elsewhere for 2016 only.

- There were no significant differences across the regions among adults who work primarily indoors who reported that smoking is not allowed in work areas.

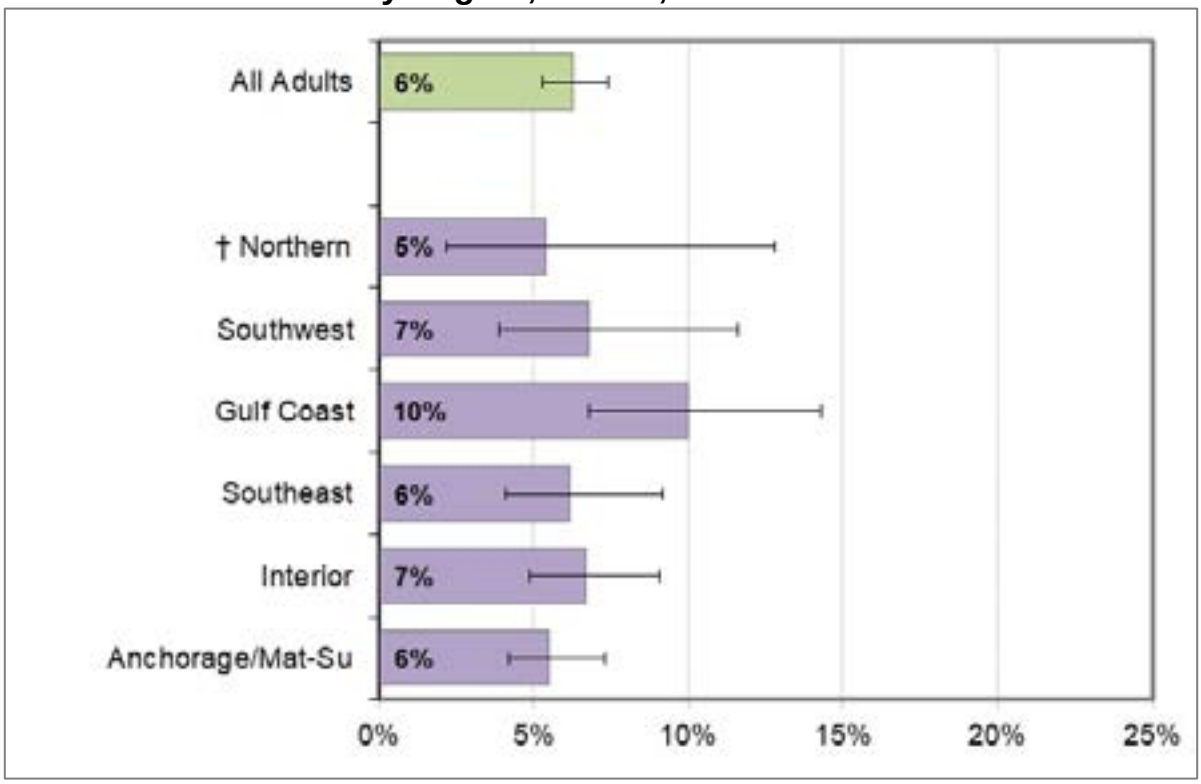
Figure 68. Percentage of Adults Working Primarily Indoors Who Report Workplace Exposure to Smoke in Past 30 Days, by Selected Demographic Factors, Alaska, 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.
† Significant difference as described below.
§ Interpret with caution. Estimate with high coefficient of variation or sample size inadequate for uncommon event.

- Younger adults ages 18-29 were significantly more likely than ages 30-54 to report secondhand smoke exposure in the workplace (10.8% vs 2.7%).
- There were no other significant differences in workplace exposure among groups within the above demographic categories.

Figure 69. Percentage of Adults Working Primarily Indoors Who Report Exposure to Smoke Anywhere at the Workplace, by Region, Alaska, 2014-2016

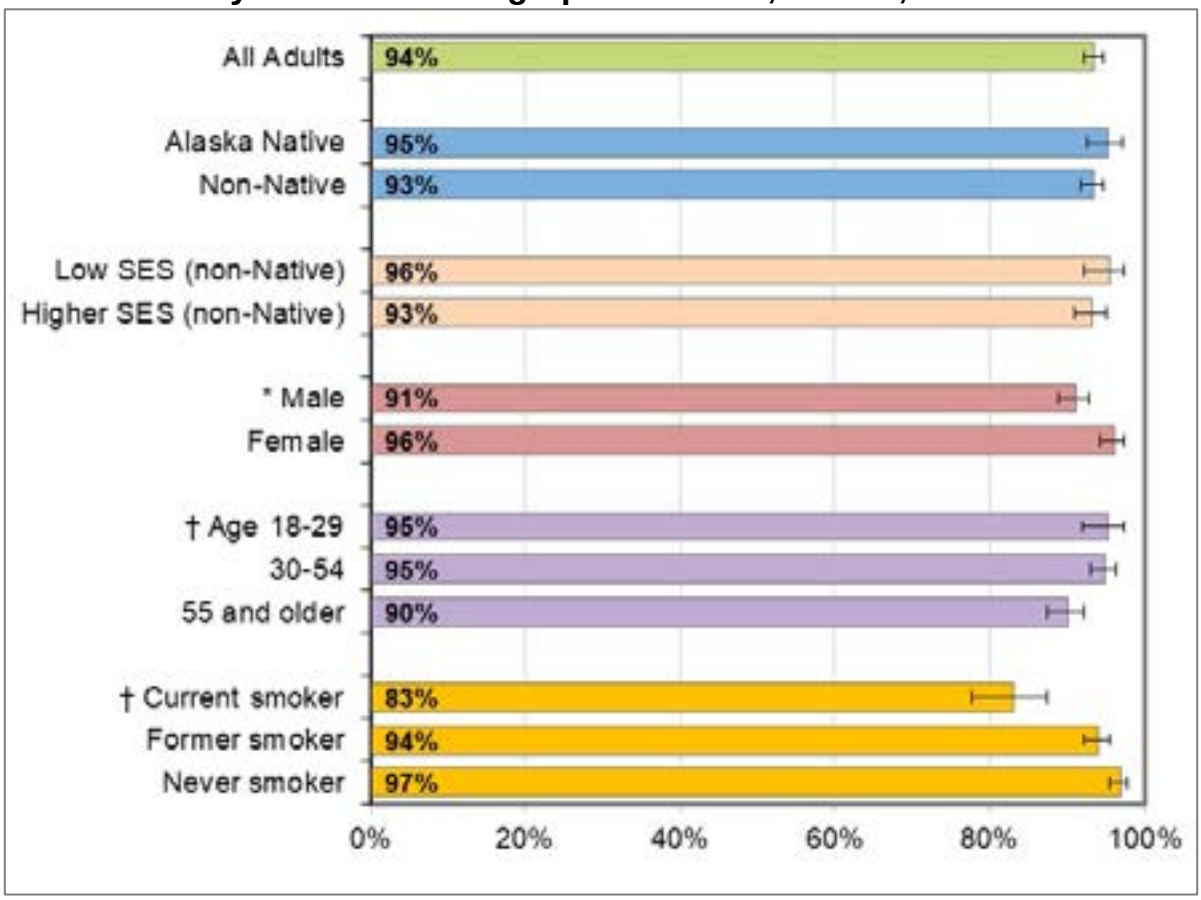


Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.
Note: Percentages reported in this graph are for 2014-2016 combined, and may differ from those reported elsewhere for 2016 only.
† Significant difference as described below.

- If we combine data for 2014 to 2016, we can compare the proportion of adults who work primarily indoors and report smoke exposure in their workplace in the past 30 days by region.
- The proportion of adults reporting indoor workplace smoke exposure in the Gulf Coast (10.0%) was significantly higher than in Anchorage/Mat-Su (5.5%). No other regional differences were significant.

C. *Knowledge of Health Risks from Secondhand Smoke Exposure*

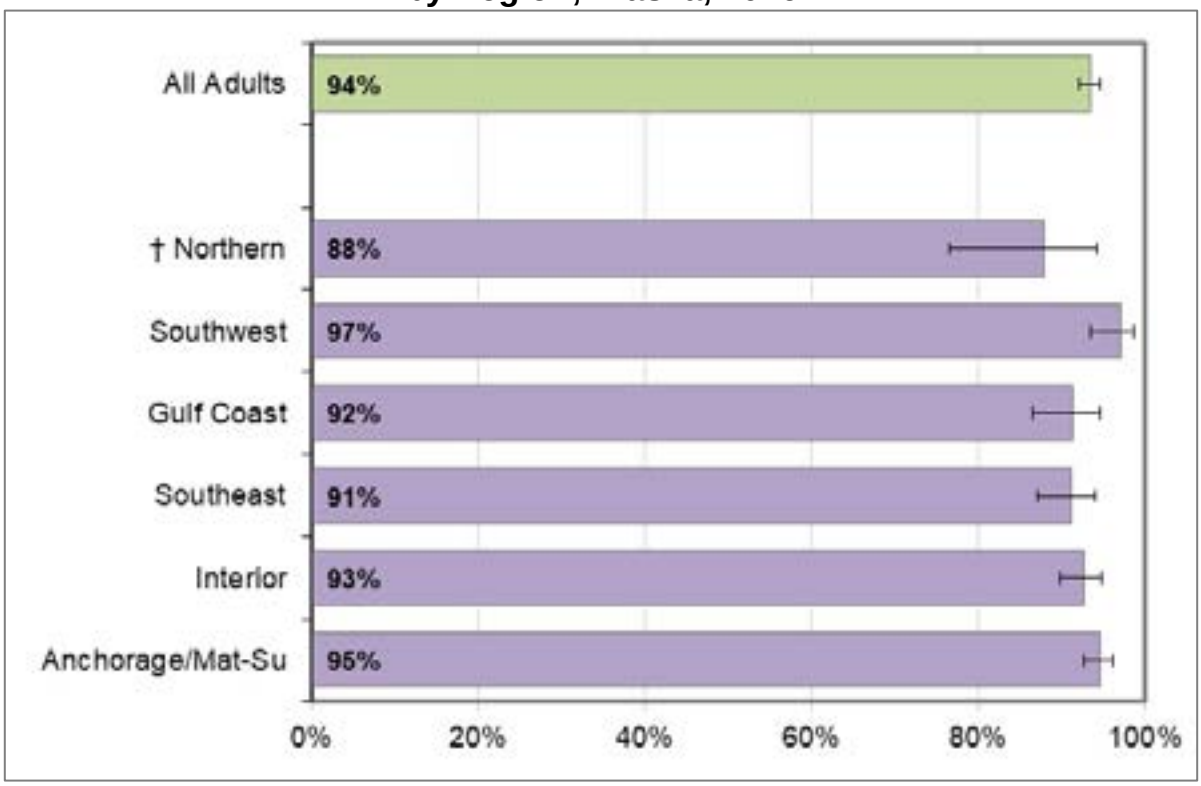
Figure 70. Percentage of Adults Who Agree that Breathing Smoke from Other People's Cigarettes is Somewhat or Very Harmful to One's Health, by Selected Demographic Factors, Alaska, 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.
* Significant difference between the two sub-groups.
† Significant differences as described below.

- Most Alaskans (93.5%) recognized that there are health risks to secondhand smoke exposure, but there were differences between groups. Recognition was significantly higher among women than among men (96.1% vs 91.1%).
- Alaska adults age 55 and older (90.2%) were significantly less likely to recognize the harm of secondhand smoke compared to those age 18-29 (95.4%) and those age 30-54 (95.0%).
- Current smokers (83.2%) were significantly less likely to view secondhand smoke as harmful as compared to former smokers (94.0%) and never smokers (96.9%). Moreover, recognition that secondhand smoke is harmful was significantly higher among never smokers than among former smokers.

Figure 71. Percentage of Adults Who Agree that Breathing Smoke from Other People's Cigarettes is Somewhat or Very Harmful to One's Health, by Region, Alaska, 2016

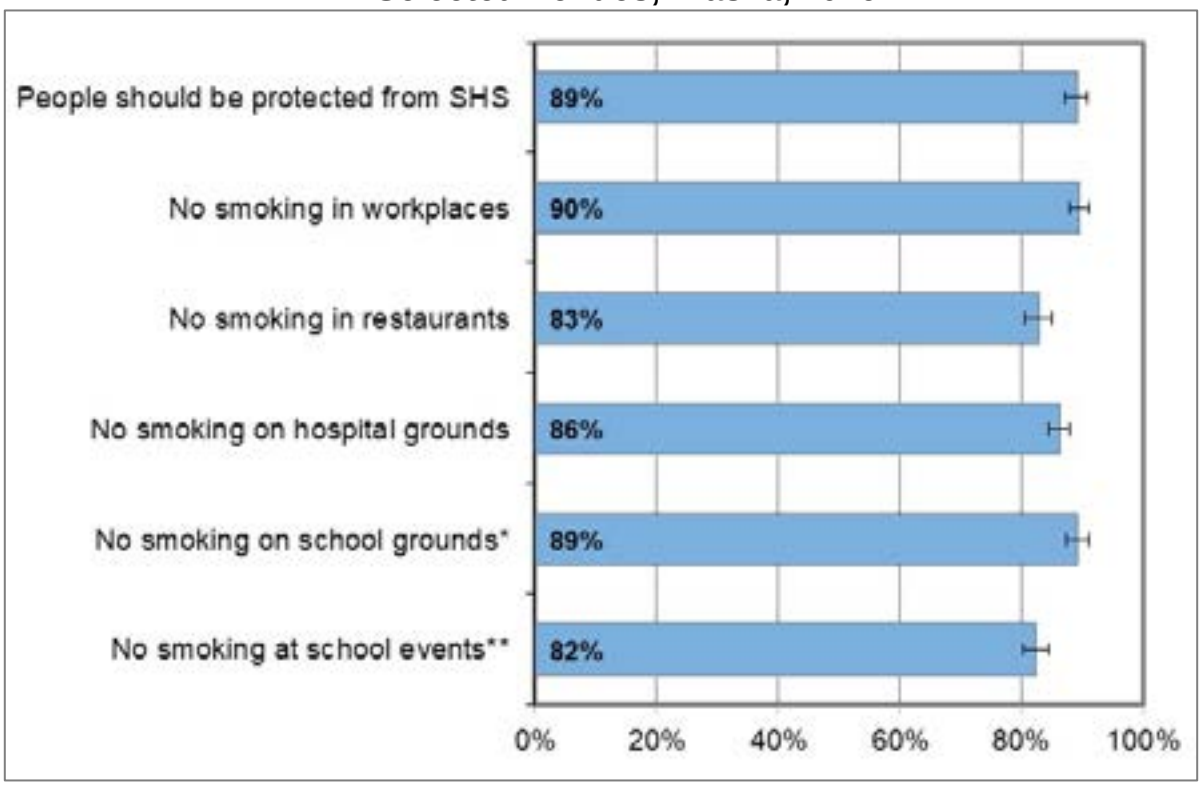


Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.
† Significant differences as described below.

- The percentage of adults who agree that breathing smoke from other people's cigarettes is somewhat or very harmful was significantly higher in the Southwest region (97.2%) than in the Northern (88.0%), Gulf Coast (91.5%), Southeast (91.2%), or Interior (92.8%) regions.
- There were no significant differences in recognizing the harm of secondhand smoke between other regions.

D. *Attitudes about Secondhand Smoke*

Figure 72. Support for Protection against Secondhand Smoke in Selected Venues, Alaska, 2016

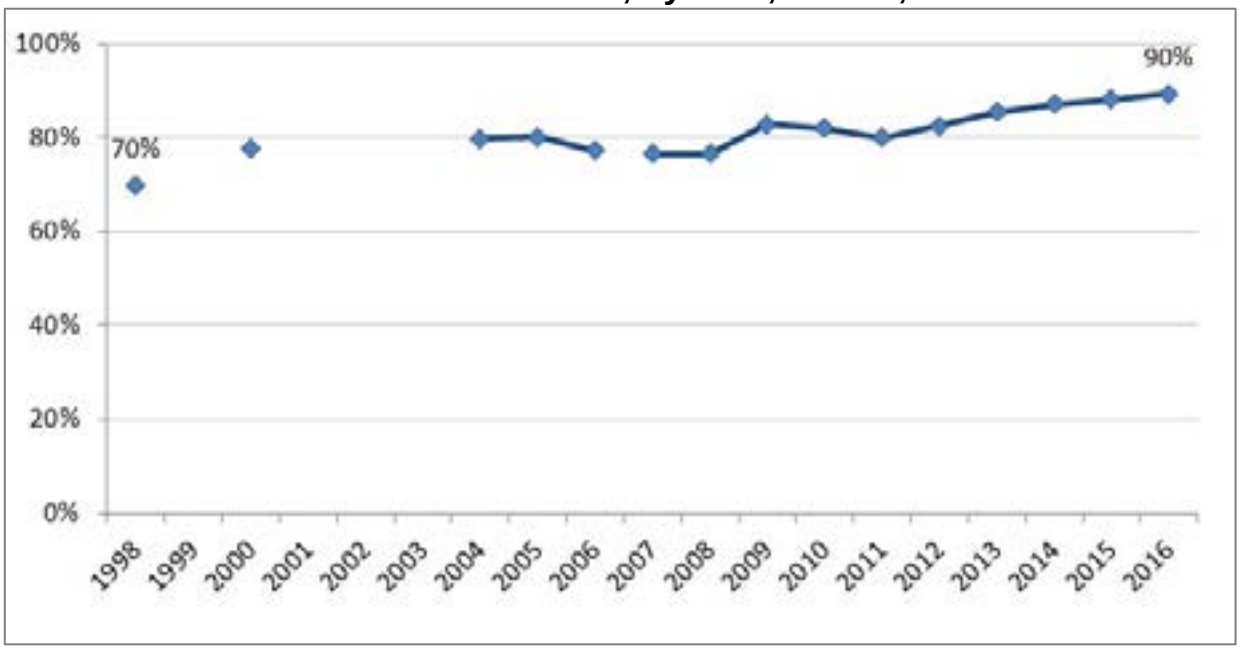


Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.
* Support for not allowing smoking on school grounds after school hours, including evenings and weekends.
** Support for not allowing smoking at school-sponsored events, even those that are not held on school grounds.

- The majority of Alaska adults (89.0%) agreed that people should be protected from secondhand smoke (SHS). Support was high even among smokers (79.4%).
- There is widespread support for clean indoor air policies; Alaska adults agreed that smoking should not be allowed in hospitals or on hospital grounds (86.2%), or in workplaces (89.5%). Most Alaska adults agreed that smoking should not be allowed on school grounds, not just during school (95.0%), but also after school or on weekends (89.2%) and at school events held off school grounds (82.3%).
- Most Alaska adults also supported smokefree restaurants (82.7%). Even among smokers, the majority (70.9%) supported smokefree restaurants.
- Studies across the country show that comprehensive clean indoor air policies do not have an adverse impact on the hospitality industry.[32]

[32] The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. (2006).

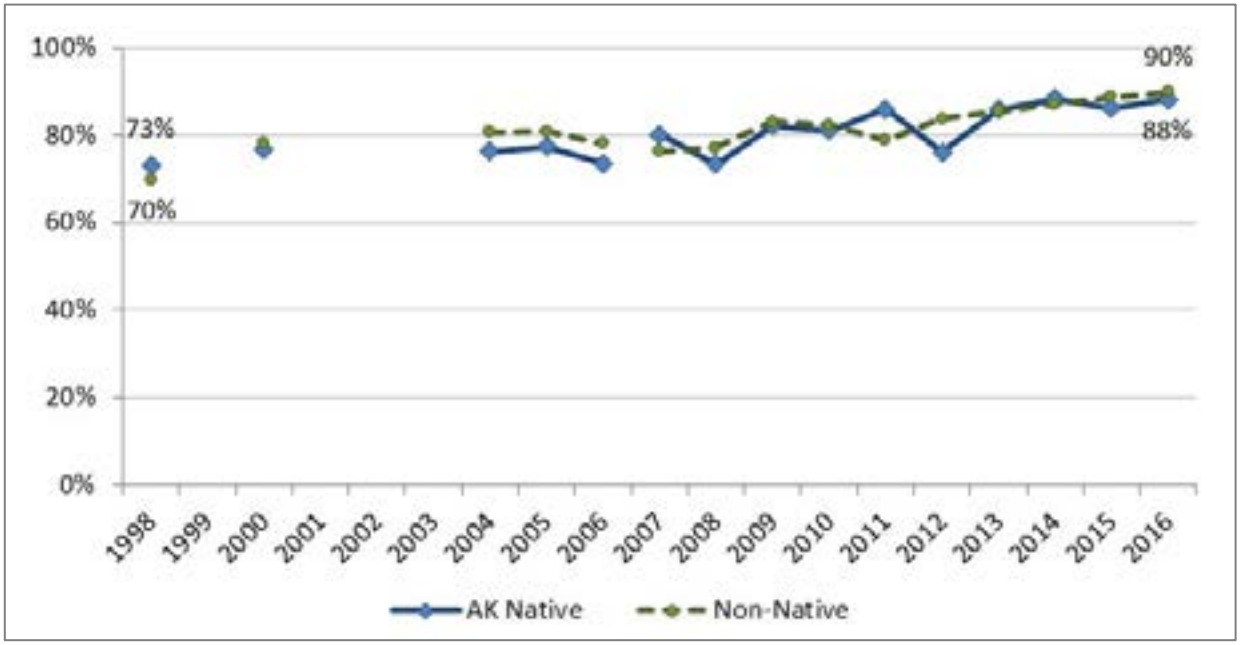
Figure 73. Percentage of Adults Who Agree that Smoking Should Not Be Allowed in Indoor Work Areas, by Year, Alaska, 1998 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File; data not collected in 1999 or 2001 through 2003.
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- Support for smokefree workplace policies that protect people from secondhand smoke (SHS) have increased across many groups of Alaskans. The proportion of adults who agree that smoking should not be allowed in indoor work areas has increased significantly from 70.0% in 1998 to 89.5% in 2016.
- The more recent trend (2007 to 2016) also shows a significant increase in support for smokefree workplace policies.
- Regionally, support for smokefree workplaces increased significantly in all regions from 1998 to 2016. Moreover, support increased significantly between 2007 and 2016 in all regions except Southwest.

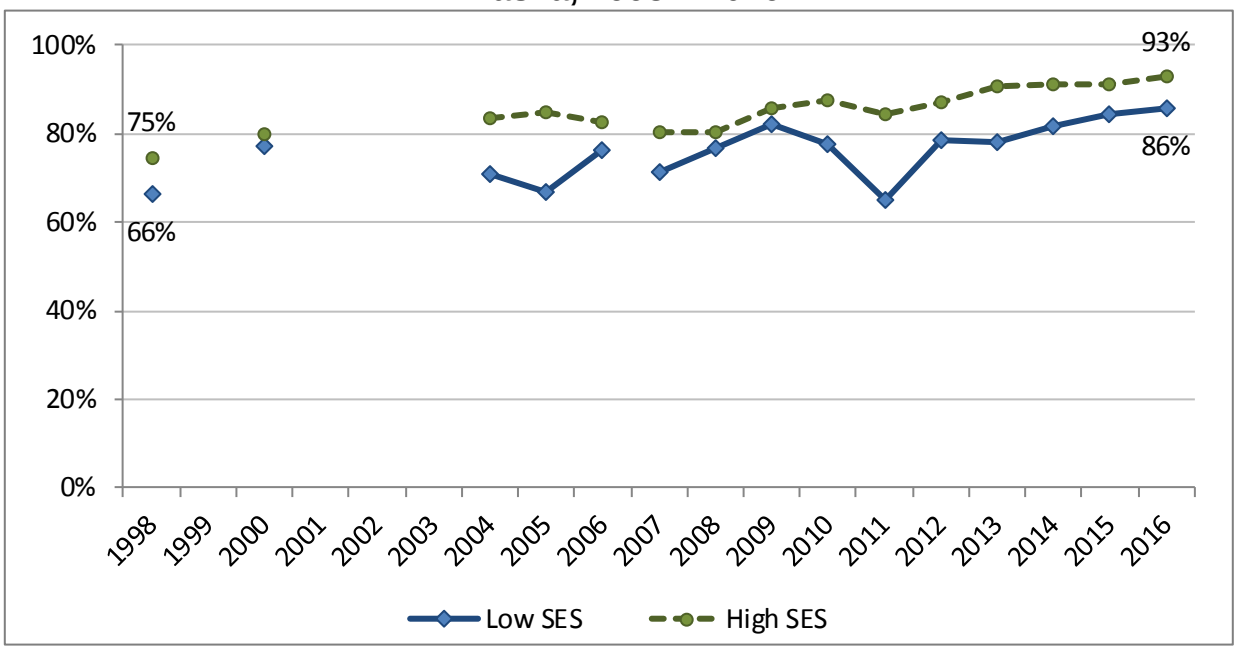
Figure 74. Percentage of Adults Who Agree that Smoking Should Not Be Allowed in Indoor Work Areas, by Year and Alaska Native Status, Alaska, 1998 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File; data not collected in 1999 or 2001 through 2003.
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- The proportion of Alaska Native adults who agree that smoking should not be allowed in indoor work areas has increased significantly from 73.2% in 1998 to 88.3% in 2016. The more recent trend (2007 to 2016) also shows a significant increase.
- The proportion of non-Native adults who agree that smoking should not be allowed in indoor work areas has increased significantly from 69.8% in 1998 to 89.9% in 2016. The more recent trend (2007 to 2016) also shows a significant increase.

Figure 75. Percentage of Adults Who Agree that Smoking Should Not Be Allowed in Indoor Work Areas, by Year and Socioeconomic Status[33], Alaska, 1998 – 2016

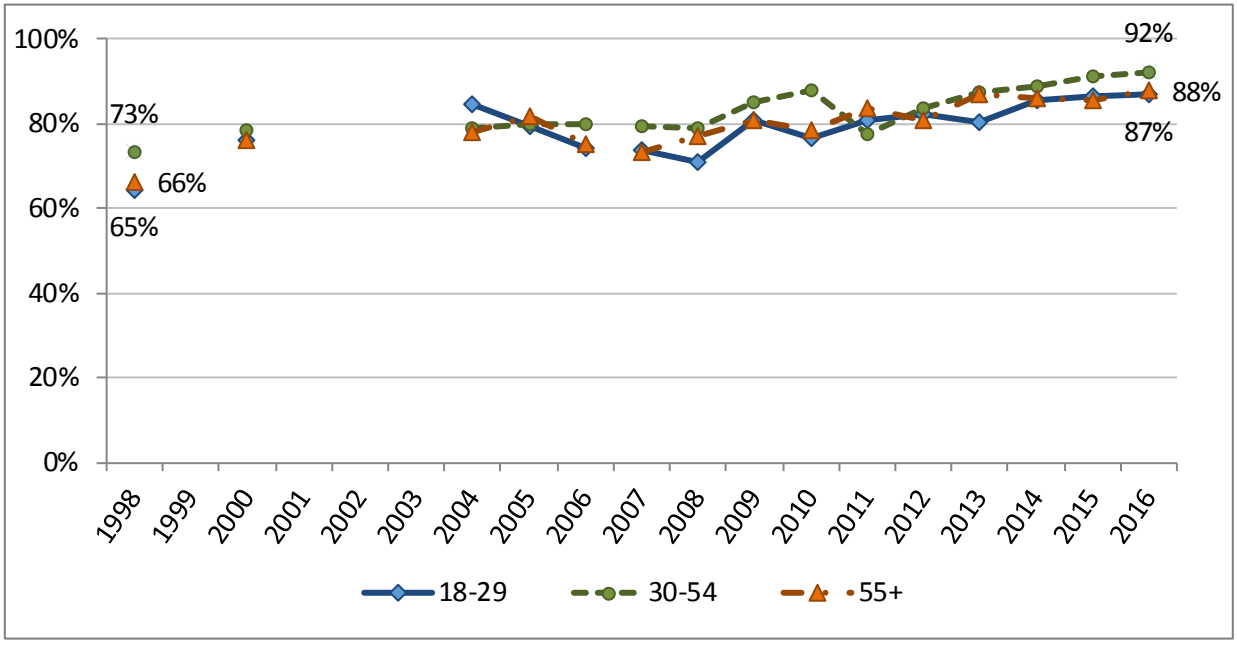


Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File; data not collected in 1999 or 2001 through 2003.
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- Among adults with low SES, the percentage who agree that smoking should not be allowed in indoor work areas has significantly increased from 66.3% in 1998 to 85.8% in 2016. The more recent trend (2007 to 2016) also shows a significant increase.
- Among adults with higher SES, the percentage who agree that smoking should not be allowed in indoor work areas also increased significantly, from 74.6% in 1998 to 92.8% in 2016. The more recent trend (2007 to 2016) also shows a significant increase.

[33] The socioeconomic status (SES) measure is restricted to non-Natives age 25 to 64. Low SES is defined as less than high school education or household income at 185% or less of the Alaska Poverty Level Guideline. See Appendix B for more information.

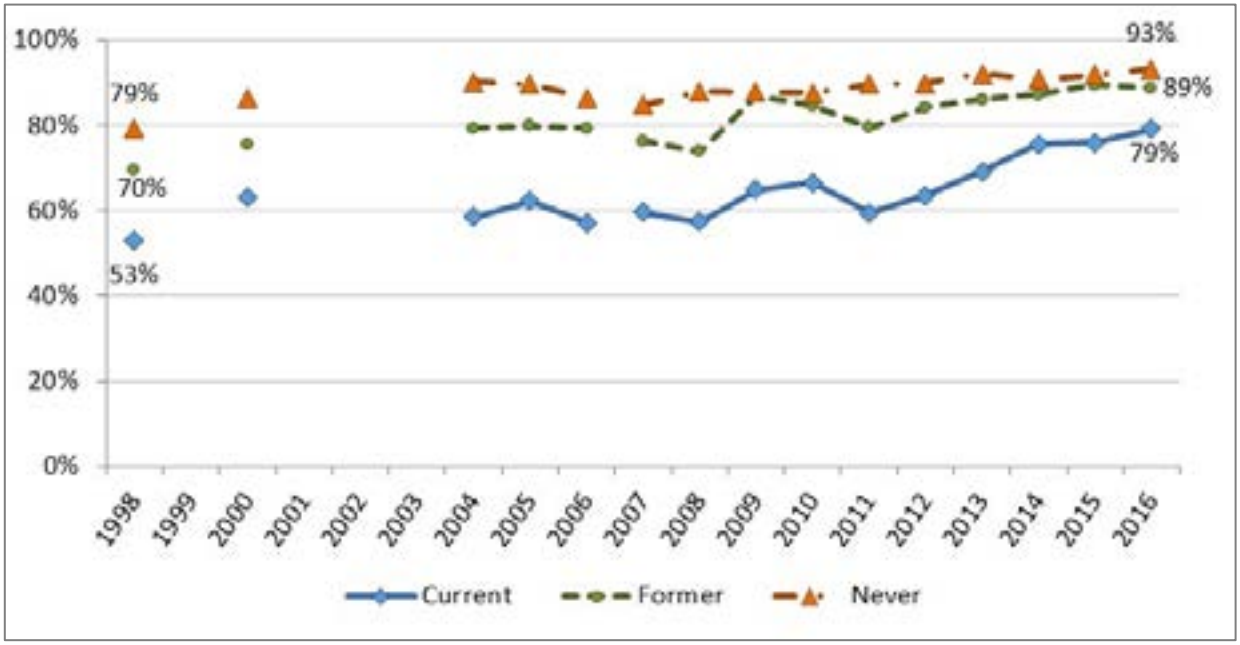
Figure 76. Percentage of Adults Who Agree that Smoking Should Not Be Allowed in Indoor Work Areas, by Year and Age Group, Alaska, 1998 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File; data not collected in 1999 or 2001 through 2003.
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- The proportion of Alaska adults age 18 to 29 who support smokefree workplace policies increased significantly from 64.6% in 1998 to 86.9% in 2016.
- Likewise, the proportion of Alaska adults age 30 to 54 who support smokefree workplace policies increased significantly from 73.4% in 1998 to 92.4% in 2016.
- Similar to the increase in support among younger adults, the proportion of Alaska adults age 55 and older who support smokefree workplace policies increased significantly from 66.4% in 1998 to 87.8% in 2016.
- The more recent trend (2007 to 2016) also shows a significant increase in support for smokefree workplace policies in all age groups.

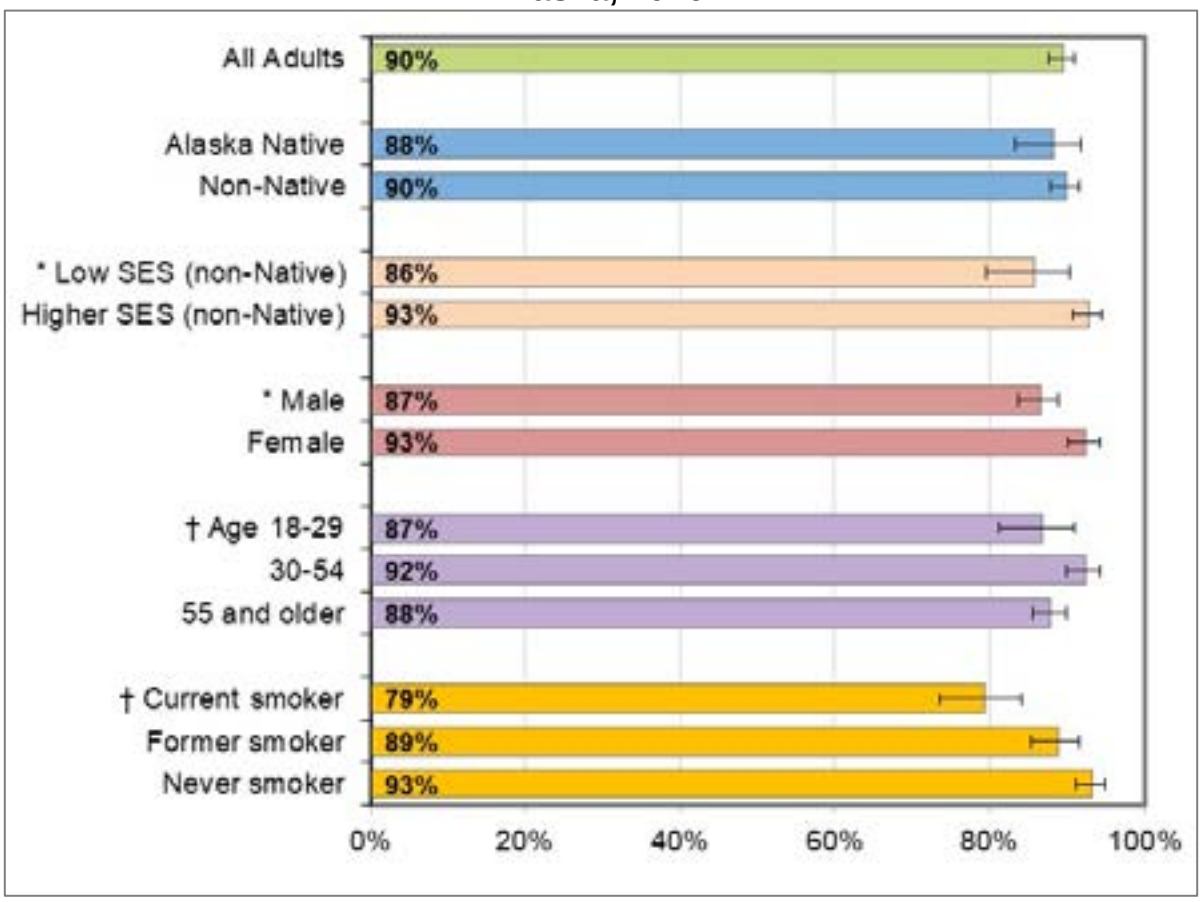
Figure 77. Percentage of Adults Who Agree that Smoking Should Not Be Allowed in Indoor Work Areas, by Year and Smoking Status, Alaska, 1998 – 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File; data not collected in 1999 or 2001 through 2003.
Estimates for 2007 and later use a newer weighting method; see Appendix B for more information.

- Among Alaska adults who are current smokers, support for smokefree workplaces increased significantly from 53.0% in 1998 to 79.3% in 2016.
- Among Alaska adult never smokers, support for smokefree workplaces also increased significantly from 79.2% in 1998 to 93.3% in 2016.
- The proportion of Alaska adult former smokers who agree that smoking should not be allowed in indoor work areas increased significantly from 69.6% in 1998 to 88.9% in 2016.
- The more recent trend (2007 to 2016) also shows a significant increase in support for smokefree workplace policies across all groups—smokers as well as former and never smokers.

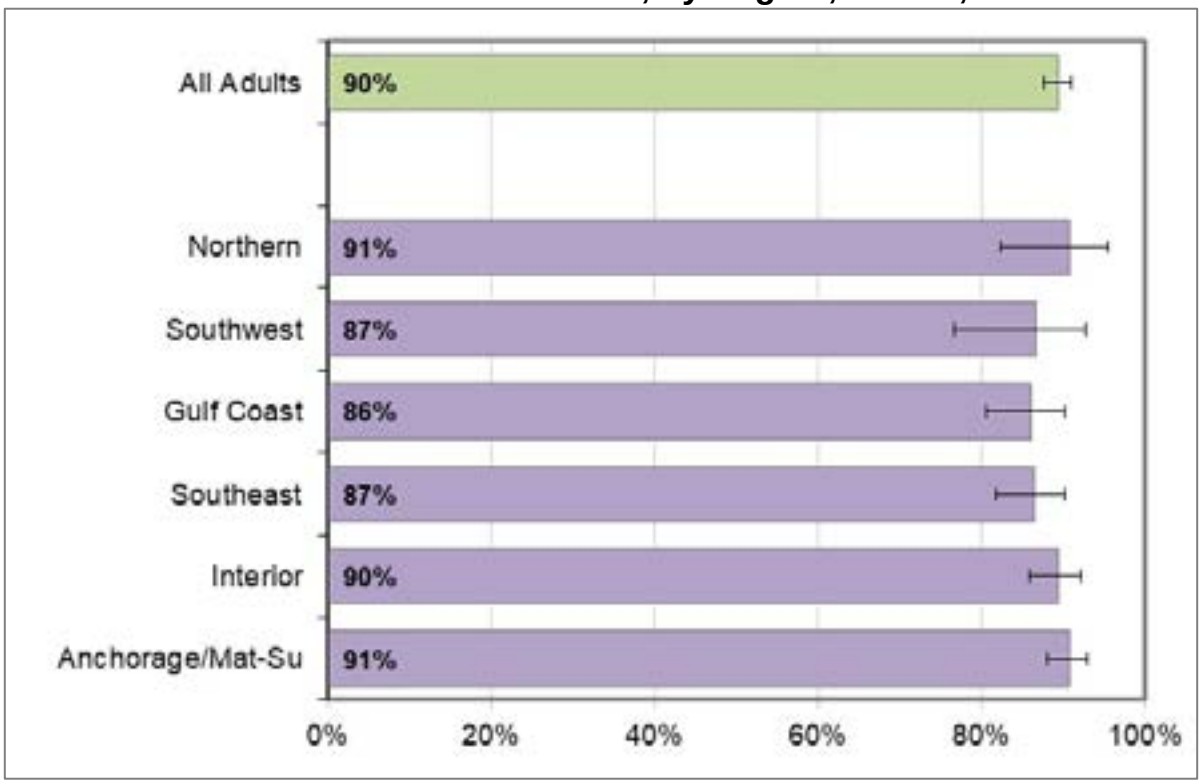
Figure 78. Percentage of Adults Who Agree that Smoking Should Not Be Allowed in Indoor Work Areas, by Selected Demographic Factors, Alaska, 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.
*Significant difference between the two sub-groups.
†Significant differences as described below.

- Most Alaskans (89.5%) agreed that smoking should not be allowed in indoor work areas, but there were differences between groups. Adults with higher SES (92.8%) were significantly more likely to support smokefree workplaces than their lower SES counterparts (85.8%).
- Support for smokefree workplaces was significantly higher among females (92.5%) as compared to males (86.6%).
- Adults age 30-54 (92.4%) were significantly more likely to support smokefree workplaces as compared to adults 18 to 29 (86.9%) or age 55 and older (87.8%).
- Current smokers (79.3%) were significantly less likely than both former smokers (88.9%) and never smokers (93.3%) to support smokefree workplaces. Moreover, support among former smokers was lower than among never smokers.

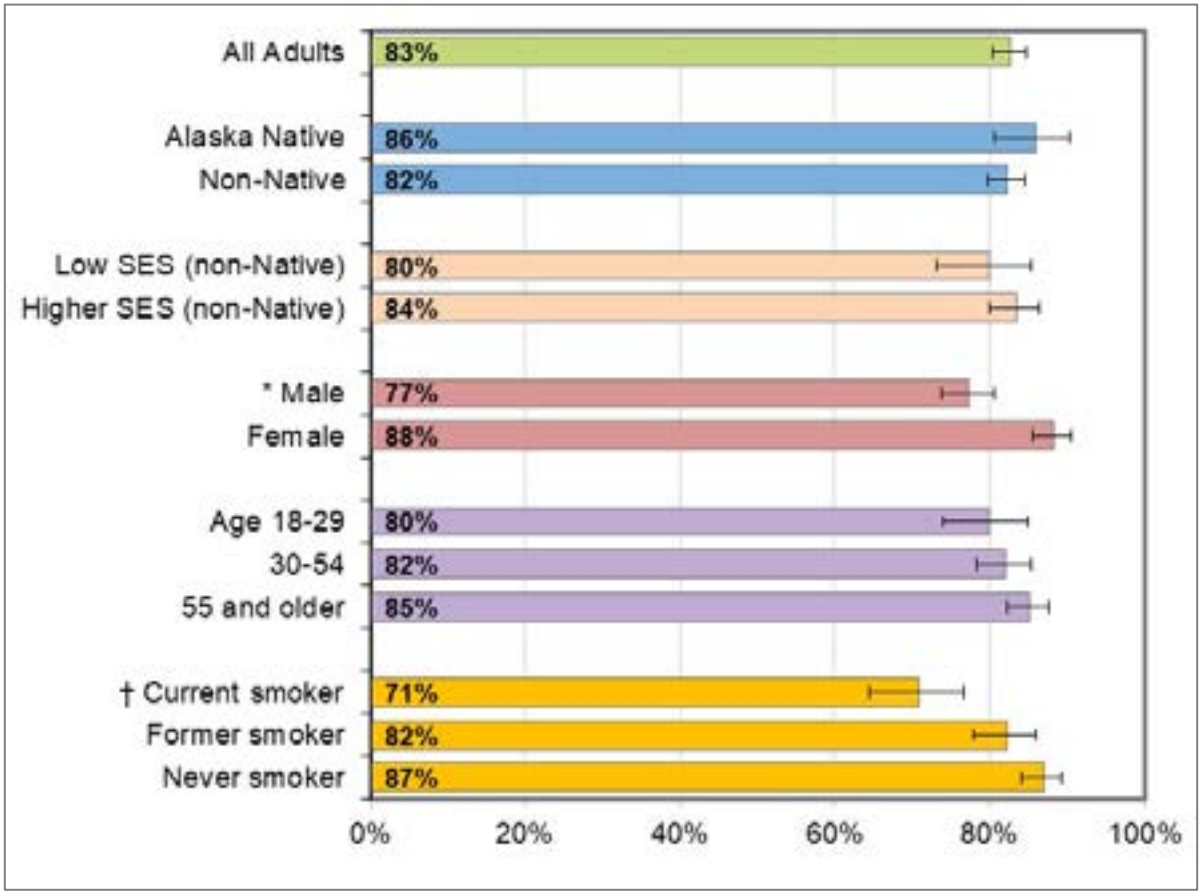
Figure 79. Percentage of Adults Who Agree that Smoking Should Not Be Allowed in Indoor Work Areas, by Region, Alaska, 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

- The proportion of adults who agree that smoking should not be allowed in indoor work areas did not differ significantly between Alaska regions.

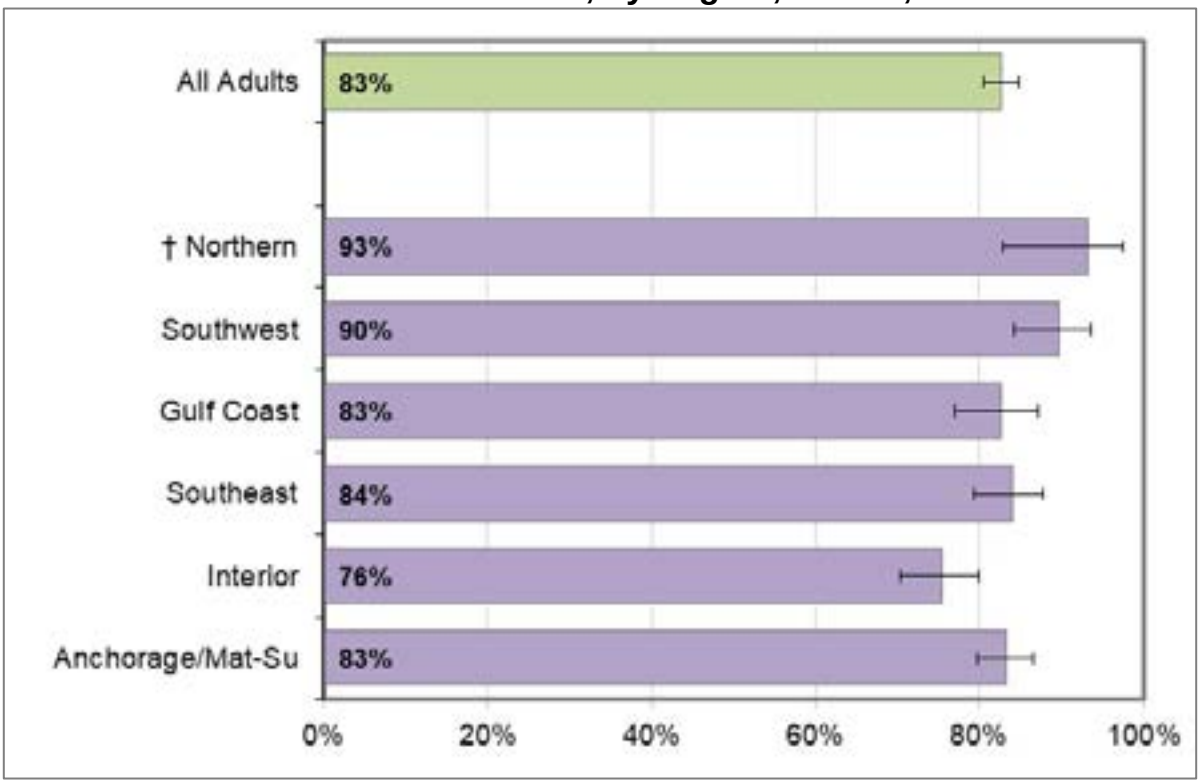
Figure 80. Percentage of Adults Who Agree that Smoking Should Not Be Allowed in Restaurants, by Selected Demographic Factors, Alaska, 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.
* Significant differences between the two sub-groups.
† Significant differences as described below.

- Support for smokefree restaurants was significantly higher among women (88.3%) than among men (77.4%).
- Current smokers (70.9%) were significantly less likely to support smokefree restaurants than both former smokers (82.3%) and never smokers (87.0%).

Figure 81. Percentage of Adults Who Agree that Smoking Should Not Be Allowed in Restaurants, by Region, Alaska, 2016



Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.
† Significant differences as described below.

- Adults in the Northern region (93.2%) were significantly more likely to agree that smoking should not be allowed in restaurants than those in the Interior (75.5%), Southeast (84.0%), or Anchorage/Mat-Su (83.3%) regions of Alaska.
- Adults in the Southwest region (89.8%) were significantly more likely to support smokefree restaurants than adults in the Gulf Coast (82.7%), Interior, and Anchorage/Mat-Su regions.
- Adults in Interior Alaska (75.5%) were significantly less likely to support smokefree restaurants than adults in all other regions.
- In the Municipality of Anchorage, where smoking is not allowed in any restaurants, bars or other indoor workplaces, 92.8% of adults reported that they go out to bars and similar establishments just as much or more often than they did when smoking was allowed in those places. Among smokers, 77.7% reported going as often or more often.

V. Alaska Tobacco Prevention and Control Program

The State of Alaska Tobacco Prevention and Control Program (TPCP) is located within the Department of Health and Social Services, Division of Public Health, in the Section of Chronic Disease Prevention and Health Promotion (CDPHP). The work of the TPCP is complemented by initiatives undertaken by many other organizations, including non-profits, tribal health organizations, state and local governments, schools, community groups, and the Alaska Tobacco Control Alliance (ATCA), the statewide tobacco prevention and control coalition.

The Alaska TPCP follows the model outlined in *Best Practices for Comprehensive Tobacco Prevention and Control Programs,* a CDC document that describes strategies shown to reduce tobacco use when employed in a sustained and comprehensive manner.[34] The model, drawing on the tobacco prevention and control research and outcomes in states across the country, has four primary goals, which are:

1. Prevent the initiation of tobacco use by young people
2. Promote tobacco cessation among adults and young people
3. Eliminate exposure to secondhand smoke
4. Identify and eliminate tobacco-related disparities in specific populations

These four goals are accomplished through work in five overarching categories, including: 1) State and Community Interventions, 2) Health Communications, 3) Cessation Interventions, 4) Surveillance and Evaluation, and 5) Administration and Management. A description of each category and TPCP activities in each is given below. The TPCP has also identified health equity as an additional element to be addressed in each of the five components in order to better reach priority populations.

1) State and Community Interventions

The State and Community Interventions component focuses on building infrastructure and implementing programming at the state and local level, including efforts to reduce tobacco-related disparities.

Statewide Programs

Statewide programs are designed to provide resources and information that support coordinated and effective tobacco control activities in a state. The Alaska TPCP currently has the following statewide programs:

[34] Centers for Disease Control and Prevention. Best Practices for Comprehensive Tobacco Control Programs-2014. 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.

- Technical assistance and training to community programs on action planning, coalition development, local policy change, and media advocacy
- Support training and development for the statewide tobacco coalition (ATCA)
- Implementation of a statewide strategic plan in conjunction with ATCA

Community Programs

Community programs are designed to reduce secondhand smoke (SHS) exposure and promote individual behavior change by altering the way tobacco is promoted, sold, and used. Community programs also work to change social norms around tobacco use by influencing tobacco-related knowledge, attitudes, and practices.

The Alaska TPCP provides grants to local organizations for staff, operating expenses, resource materials, education, training, and public education. As of FY14, the TPCP has been implementing a regional funding model designed to support comprehensive tobacco prevention and control efforts at the local level. The TPCP funds 13 lead organizations across the 6 Economic Regions in the state and 3 organizations working at a statewide level. The lead agencies have subcontracted with an additional 16 organizations. In FY19, the TPCP funding structure will change to further prioritize prevention and cessation work in communities experiencing higher burdens of tobacco use.

Regional and statewide grantees provide education around the effects of tobacco use and SHS exposure and promote evidence-based strategies that discourage youth initiation, provide support for tobacco users to quit, and protect residents from SHS exposure. Grantees also act as a resource to community leaders and organizations interested in reducing the impact of tobacco use within their communities.

Tobacco-Related Disparities

Tobacco-related disparities have been defined as “differences in patterns, prevention, and treatment in tobacco use, differences in the risk, incidence, morbidity, mortality, and burden of tobacco-related illness that exist among specific population groups in the United States, and related differences in capacity and infrastructure, access to resources, and environmental tobacco smoke exposure.”[35] The CDC recommends that state program plans include strategies to identify and eliminate tobacco-related disparities.

Regional and statewide grantees have identified tobacco-related disparities in their service areas and incorporate efforts to eliminate those disparities in their workplans. In addition to focused local efforts, the TPCP has a number of statewide initiatives designed to identify and reduce tobacco-related disparities.

[35] Fagan P, King G, Lawrence D, Petrucci SA, Robinson RG, Banks D, et al. Eliminating tobacco-related health disparities: directions for future research. American Journal of Public Health 2004; 94:211-217.

In 2006, Alaska was chosen as one of 11 states funded by the CDC to participate in a strategic planning process around disparities. The TPCP convened a planning team, the Leadership for Eliminating Alaskan Disparities (LEAD) workgroup, which published a strategic plan to eliminate disparities in tobacco use due to race, region of residence, or socioeconomic status.

The TPCP created a position to oversee the disparities component of the program in 2008 and hired a contractor to revise and update the disparities plan in March 2010. An updated plan was published in 2011 that included detailed strategies and action steps for each of the program goals among priority populations. The priority populations include Alaska Native adults, adults of low socioeconomic status, and young adults age 18-29. Workgroups were formed to implement the strategies for each of the priority populations. Grantees and partners across the state continue to work on these strategies. In addition, the TPCP supports tobacco prevention and control efforts with community-based organizations that partner with and provide service to ethnic minorities, and the Lesbian/Gay/Bisexual/Transgender population.

2) Health Communication Interventions

Health communication interventions are an important component of efforts to change the social norms around tobacco use. Effective media messages can build public support for tobacco prevention and control policies, increase knowledge of the harms of tobacco use and exposure to secondhand smoke, and contribute to decreases in youth and adult tobacco use.

TPCP health communications interventions include a wide range of activities, including paid television, radio, online, and print media. The television, radio, online, and print materials developed by the TPCP are designed to motivate tobacco users to quit and educate Alaskans about the health risks associated with exposure to secondhand smoke. TPCP grantees also receive technical assistance around the development, production, and placement of media that supports their local tobacco prevention and cessation efforts.

3) Cessation Interventions

Programs that assist tobacco users in quitting can produce significant health and economic benefits. Evidence-based clinical practice guidelines outline effective cessation strategies, including brief advice by medical providers to quit using tobacco, FDA-approved pharmacotherapy (e.g., nicotine replacement therapy [NRT]), and population-based helplines or quit lines. System changes are critical to the broad-based success of cessation interventions.

The TPCP currently funds a statewide, toll-free tobacco quit line that includes the provision of NRT and counseling via the telephone, web, or text message. TPCP grantees also work with local health care organizations to integrate protocols for identifying and treating tobacco use into their clinical practices. A key component of this program is training staff in Alaska's

hospitals and clinics to screen patients for tobacco use and exposure to secondhand smoke, advise patients to quit tobacco, and to refer tobacco users to cessation services.

4) Surveillance and Evaluation

Surveillance and evaluation systems are used to monitor progress in reducing tobacco use and to document program accountability. Surveillance efforts focus on regular monitoring of tobacco-related knowledge, attitudes, and behaviors, while evaluation uses data to assess program implementation and effectiveness.

The Alaska TPCP collects tobacco-related data annually through a variety of methods, which are described in detail in Appendix B. Key tobacco indicators are published annually in Alaska Tobacco Facts (this report). In addition, the TPCP routinely conducts specialized data analysis projects, including reports on tobacco use among Alaska Native adults, adults of lower socioeconomic status, smokeless tobacco (SLT), and tobacco cessation.

The focus of program evaluation efforts shifts from year to year based on program and partner needs, but has included evaluation of grantee progress, quit rates and satisfaction among Alaska's Tobacco Quit Line clients, and recall and reaction to tobacco prevention media.

5) Administration and Management

An effective tobacco control program requires a strong management structure that can oversee the implementation of program components and coordinate efforts with partner agencies. The TPCP administers numerous grants and contracts to implement the activities of the comprehensive program. The TPCP also partners with other state agencies, ATCA, non-profit organizations, the CDC, tribal health organizations, local governments, schools, and community groups. The TPCP is overseen by a full-time Program Manager and supported by a Deputy Manager. Several administrative staff positions in the CDPHP Section also provide some clerical support to the TPCP on an as-needed basis.

Funding for the TPCP Program is provided primarily through the Tobacco Use Education and Cessation Fund (TUECF), which was established in 2001 by the Alaska State Legislature under AS 37.05.580 to provide a source to finance a comprehensive tobacco use prevention, education, and cessation program authorized by AS 44.29.020(A)(15). In 1998 the State of Alaska joined 45 other states in the national multi-state Master Settlement Agreement (MSA) with the tobacco industry. The settlement funds to states are intended to offset the costs of tobacco-related illness by supporting tobacco prevention and cessation programs. Each year, 20 percent of the MSA revenue and a portion of the state cigarette tax revenue are to be placed in the TUECF fund and are available for appropriation to tobacco prevention and control efforts.

The Centers for Disease Control and Prevention (CDC) has issued recommendations on the financial resources needed in each state to counter the aggressive marketing of tobacco

products. Since 2000, Alaska's funding appropriations have grown to levels at or near the CDC recommendations, with funds administered by the Alaska TPCP.

VI. Appendix A: Trend Tables

For most tables in this appendix, we present trend estimates overall and by key demographic subgroups. In addition to the estimate, we present the 95% confidence intervals, represented in the columns marked LB (lower bound) and UB (upper bound), and the total number of respondents (within the subgroup) who answered that question, represented in the column marked "N". Also reported in these tables are the p-values from the tests for trend. P-values less than 0.05 indicate that a difference between percentages or across years is statistically significant at the 95% confidence level.

Although most indicators are presented from 1996 through 2017 for the years in which data are available, the tables presenting estimates by geographic region do not include 1996 or 1997, due to smaller sample sizes in earlier years. For the adult data, we provide the p-values for two trend periods; from 1996 (or 1998) to 2017, and a more recent trend from 2007 to 2017 (for most indicators).

For smokeless tobacco use estimates presented in Tables 17 through 23, rolling averages are used for some subgroups, in order to better represent larger trend patterns and de-emphasize individual year fluctuations. Estimates of SLT use by Alaska Native status and by SES status among non-Native Alaska adults are presented using rolling averages (estimates from combinations of either 2 or 3 years) until 2011. Similarly, rolling averages are used to report estimates before 2011 for the Northern region of Alaska, as well as Mat-Su Borough and the Municipality of Anchorage. For 2009 and 2010, rolling averages are also presented for SLT use estimates by age groups and all geographic regions, due to smaller sample size issues during that time frame.

Section II. Adult Tobacco Use

Table 1: Annual Per Adult Sales of Cigarettes, by Fiscal Year

Fiscal Year	Alaska	US minus Alaska
1996	128.6	116.7
1997	125.9	115.7
1998	115.2	112.8
1999	102.3	107.5
2000	100.2	103.4
2001	94.0	98.8
2002	91.6	96.2
2003	90.1	89.9
2004	92.0	86.9
2005	88.0	84.4
2006	80.4	80.7
2007	78.0	78.4
2008	67.4	72.8
2009	63.7	68.9
2010	59.1	62.5
2011	58.2	60.5
2012	55.3	58.5
2013	52.6	55.6
2014	50.3	52.9
2015	50.0	52.0
2016	49.6	50.9

Sources: Alaska Department of Revenue, Tax Division FY15 Reports; Orzechowski & Walker, *The Tax Burden on Tobacco*, 2016 (vol 51).

Table 2: Trends in Adult Cigarette Smoking by Gender, Alaska 1996-2016

Year	All Adults	LB	UB	N	Male	LB	UB	N	Female	LB	UB	N
1996	27.7%	24.4	31.2	1,530	30.8%	25.9	36.2	712	24.2%	20.3	28.6	818
1997	26.5%	23.4	30.0	1,543	27.2%	22.6	32.3	716	25.8%	21.7	30.3	827
1998	26.1%	23.6	28.8	1,986	28.3%	24.6	32.3	922	23.7%	20.5	27.3	1,064
1999	27.3%	24.4	30.4	2,045	25.3%	21.9	29.0	999	29.5%	24.8	34.6	1,046
2000	25.0%	22.4	27.9	2,072	26.8%	22.9	31.0	984	23.1%	19.7	26.9	1,088
2001	26.2%	23.8	28.6	2,866	26.4%	23.0	30.1	1,356	25.9%	22.9	29.2	1,510
2002	29.3%	26.7	32.2	2,690	32.0%	28.0	36.2	1,185	26.5%	23.1	30.3	1,505
2003	26.2%	23.9	28.7	2,657	30.2%	26.7	33.9	1,228	21.9%	19.1	25.1	1,429
2004	24.3%	22.6	26.0	5,094	26.9%	24.4	29.6	2,317	21.4%	19.4	23.5	2,777
2005	24.8%	23.2	26.6	5,722	28.6%	26.0	31.3	2,665	20.8%	18.9	23.0	3,057
2006	24.0%	22.1	26.0	4,219	25.4%	22.7	28.4	1,882	22.5%	20.0	25.1	2,337
2007	24.4%	22.4	26.4	5,068	26.9%	24.0	30.0	2,305	21.7%	19.2	24.4	2,763
2008	23.8%	21.9	25.8	4,915	25.6%	22.8	28.5	2,272	21.9%	19.4	24.7	2,643
2009	21.5%	19.6	23.5	4,722	22.8%	19.9	26.0	2,130	20.0%	17.7	22.6	2,592
2010	22.2%	19.7	24.9	3,209	23.5%	19.8	27.7	1,447	20.8%	17.7	24.3	1,762
2011	22.6%	20.9	24.4	6,076	24.0%	21.6	26.6	2,773	21.1%	18.9	23.5	3,303
2012	21.0%	19.5	22.6	8,240	22.2%	20.1	24.4	3,826	19.7%	17.5	22.0	4,414
2013	21.8%	20.4	23.4	9,041	23.9%	21.8	26.2	4,158	19.6%	17.7	21.7	4,883
2014	20.3%	18.9	21.7	8,815	21.4%	19.5	23.5	4,023	19.0%	17.1	21.0	4,792
2015	19.2%	17.8	20.7	8,113	20.8%	18.8	23.0	3,745	17.5%	15.5	19.6	4,368
2016	19.9%	18.2	21.6	7,267	22.1%	19.8	24.6	3,324	17.5%	15.2	20.0	3,943
p for trend 1996-2016				<0.001				<0.001				<0.001
p for trend 2007-2016				<0.001				<0.001				<0.001

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File

Note also: Percentages reported in tables may not always match percentages reported in the graphs, due to differences in rounding.

Table 3: Trends in Adult Cigarette Smoking by Alaska Native Status, Alaska 1996-2016

Year	Alaska Native	LB	UB	N	Non-Native	LB	UB	N
1996	47.3%	38.9	55.9	317	24.9%	21.5	28.7	1,202
1997	41.1%	33.6	49.0	317	24.3%	20.9	28.1	1,199
1998	39.8%	33.7	46.2	361	23.8%	21.1	26.8	1,595
1999	42.1%	35.2	49.3	417	24.3%	21.1	27.8	1,591
2000	42.9%	35.7	50.4	389	22.2%	19.4	25.4	1,611
2001	42.9%	37.0	49.0	583	23.0%	20.5	25.7	2,202
2002	44.9%	38.2	51.8	549	26.4%	23.6	29.5	2,114
2003	45.8%	39.7	52.0	524	22.9%	20.5	25.5	2,119
2004	43.9%	39.4	48.5	1,024	20.9%	19.2	22.7	4,026
2005	41.0%	37.0	45.2	1,113	22.1%	20.3	24.0	4,562
2006	43.1%	38.0	48.5	804	20.4%	18.4	22.6	3,371
2007	40.6%	35.6	45.7	1,044	21.4%	19.3	23.6	3,983
2008	45.0%	40.0	50.2	970	20.2%	18.2	22.4	3,899
2009	41.7%	36.2	47.4	858	17.9%	16.0	20.1	3,808
2010	39.2%	32.4	46.5	575	19.0%	16.5	21.9	2,596
2011	36.2%	31.8	40.8	1,066	20.2%	18.4	22.2	4,927
2012	38.3%	34.2	42.5	1,638	18.1%	16.5	19.8	6,507
2013	41.8%	37.5	46.2	1,390	18.9%	17.3	20.5	7,474
2014	41.5%	37.4	45.7	1,242	17.1%	15.7	18.7	7,356
2015	36.7%	32.8	40.8	1,356	16.7%	15.2	18.4	6,531
2016	40.6%	35.7	45.7	1,155	16.6%	15.0	18.5	5,905
p for trend 1996-2016				0.02				<0.001
p for trend 2007-2016				0.28				<0.001

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File

Information presented in these tables differs slightly from prior year reports, due to changes in definition for Alaska Native and non-Native groups where respondents reported more than one race group.

Table 4: Trends in Adult Cigarette Smoking by Socioeconomic Status, Alaska 1996-2016

Year	Low SES	LB	UB	N	Higher SES	LB	UB	N
1996	39.3%	30.0	49.5	197	23.3%	19.2	27.9	816
1997	37.5%	28.2	47.8	196	19.6%	15.8	24.0	788
1998	33.4%	26.3	41.3	280	21.4%	18.1	25.1	1,022
1999	32.5%	26.0	39.8	277	21.0%	17.0	25.7	1,068
2000	25.6%	19.2	33.3	241	20.3%	17.1	24.0	1,058
2001	34.9%	28.0	42.5	330	19.9%	16.9	23.3	1,458
2002	43.7%	36.1	51.6	358	21.1%	18.0	24.6	1,327
2003	40.5%	33.3	48.1	360	20.1%	17.3	23.3	1,352
2004	34.8%	29.9	40.0	690	18.5%	16.5	20.7	2,561
2005	38.3%	33.3	43.5	780	18.4%	16.4	20.6	2,879
2006	38.0%	31.6	44.9	459	15.9%	14.0	18.1	2,191
2007	33.9%	28.3	40.0	551	19.0%	16.6	21.6	2,617
2008	36.4%	30.6	42.6	556	17.2%	14.9	19.6	2,577
2009	30.1%	24.8	36.1	588	16.0%	13.7	18.6	2,360
2010	32.2%	25.2	40.1	385	17.5%	14.3	21.2	1,607
2011	37.2%	32.0	42.8	732	13.4%	11.6	15.4	2,754
2012	34.0%	29.3	39.0	1,101	13.0%	11.3	15.0	3,720
2013	39.0%	34.4	43.8	1,202	14.0%	12.4	15.9	4,198
2014	32.6%	28.3	37.1	1,095	14.1%	12.4	16.0	4,044
2015	35.9%	30.9	41.2	892	12.9%	11.2	14.8	3,481
2016	34.6%	29.2	40.5	742	14.2%	12.2	16.5	3,039
p for trend 1996-2016				0.66				<0.001
p for trend 2007-2016				0.53				<0.001

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File

* Interpret with caution. Asterisk indicates estimate with high coefficient of variation or small sample size, which affects the precision of the estimate.

The socioeconomic status (SES) measure is restricted to non-Natives age 25 to 64. Low SES is defined as less than high school education or household income at 185% or less of the Alaska Poverty Level Guideline. See Appendix B for more information.

Information presented in these tables differs slightly from prior year reports, due to changes in definition for Alaska Native and non-Native groups where respondents reported more than one race group, and changes in calculation of percentage poverty status.

Table 5: Trends in Adult Cigarette Smoking by Age Group, Alaska 1996-2016

Year	Ages 18-29	LB	UB	N	Ages 30-54	LB	UB	N	Age 55 & older	LB	UB	N
1996	27.7%	21.0	35.5	250	29.6%	25.4	34.1	1,000	21.4%	14.4	30.5	270
1997	31.6%	24.6	39.5	260	26.8%	22.7	31.3	968	19.2%	13.6	26.5	303
1998	31.8%	26.5	37.5	397	25.7%	22.5	29.2	1,219	19.4%	14.4	25.6	360
1999	32.4%	26.6	38.8	370	28.1%	24.1	32.5	1,284	18.4%	13.5	24.8	381
2000	31.9%	25.3	39.4	376	25.1%	21.8	28.6	1,285	17.0%	12.5	22.6	399
2001	32.5%	27.0	38.6	545	27.5%	24.4	30.8	1,703	14.3%	10.9	18.5	584
2002	39.4%	32.7	46.6	459	27.6%	24.5	31.0	1,579	22.4%	17.5	28.3	638
2003	29.9%	24.6	35.7	466	27.9%	24.7	31.3	1,518	18.3%	14.8	22.4	650
2004	31.0%	26.7	35.6	890	24.7%	22.6	27.0	2,875	16.8%	14.1	19.8	1,278
2005	30.9%	26.7	35.5	927	26.5%	24.3	28.8	3,168	14.9%	12.7	17.5	1,578
2006	34.4%	29.0	40.2	607	22.9%	20.6	25.3	2,246	16.7%	14.0	19.7	1,301
2007	33.1%	27.9	38.7	767	24.7%	22.2	27.3	2,706	15.3%	12.7	18.3	1,538
2008	31.3%	26.1	37.0	676	24.8%	22.3	27.4	2,500	15.2%	12.9	17.8	1,684
2009	26.7%	21.6	32.6	581	21.8%	19.3	24.6	2,352	15.9%	13.5	18.5	1,731
2010	31.7%	24.7	39.7	339	22.0%	18.9	25.4	1,532	14.0%	11.5	17.1	1,295
2011	27.1%	22.6	32.0	708	24.4%	22.0	26.9	2,798	15.9%	13.8	18.2	2,490
2012	25.7%	22.2	29.6	1,152	23.8%	21.4	26.3	3,645	13.2%	11.3	15.4	3,342
2013	25.8%	22.3	29.7	1,198	24.5%	22.2	26.9	3,802	15.1%	13.2	17.2	3,951
2014	21.0%	17.7	24.8	937	23.9%	21.7	26.1	3,593	14.9%	13.2	16.7	4,147
2015	22.6%	19.1	26.6	859	21.4%	19.2	23.8	3,095	13.7%	11.9	15.7	4,032
2016	21.2%	17.3	25.6	725	23.3%	20.6	26.3	2,529	15.0%	13.1	17.1	3,863
p for trend 1996-2016				<0.001				<0.001				<0.001
p for trend 2007-2016				<0.001				0.46				0.42

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File

Note: Percentages reported in tables may not always match percentages reported in the graphs, due to differences in rounding.

Table 6: Trends in Adult Cigarette Smoking by Economic Region, Alaska 1998-2016

Year	Northern	LB	UB	N	South-west	LB	UB	N	Gulf Coast	LB	UB	N
1998	46.9%	37.5	56.5	133	33.5%	26.3	41.5	203	29.8%	24.7	35.5	414
1999	45.9%	32.8	59.6	109	34.2%	26.9	42.3	223	28.7%	23.9	34.1	396
2000	47.1%	36.0	58.4	127	25.4%	19.0	33.0	214	24.2%	19.5	29.6	406
2001	44.2%	36.6	52.2	221	34.5%	28.3	41.2	311	30.6%	25.9	35.7	545
2002	54.6%	44.6	64.3	197	31.8%	25.1	39.3	268	31.2%	26.7	36.0	571
2003	44.8%	36.1	53.9	166	40.5%	33.5	48.0	254	22.6%	18.6	27.2	510
2004	41.0%	35.1	47.2	342	34.4%	29.7	39.4	523	25.9%	23.1	29.0	1,097
2005	51.1%	45.0	57.3	331	34.6%	30.0	39.5	576	21.3%	18.9	24.0	1,221
2006	42.7%	35.5	50.3	245	43.4%	37.3	49.7	367	26.9%	23.5	30.6	864
2007	46.2%	39.3	53.3	312	33.0%	27.3	39.2	524	23.5%	20.1	27.4	1,028
2008	51.0%	44.1	57.8	308	37.5%	31.5	44.0	491	27.1%	23.4	31.1	997
2009	45.4%	37.4	53.7	260	28.0%	22.5	34.2	406	21.4%	17.9	25.3	973
2010	47.0%	37.0	57.3	162	33.6%	26.2	41.9	292	19.1%	15.4	23.4	665
2011	44.9%	37.2	52.9	312	36.0%	29.2	43.3	505	25.4%	21.4	29.8	1,088
2012	39.6%	31.4	48.4	482	27.9%	22.8	33.7	999	18.1%	14.8	22.0	1,116
2013	42.2%	34.2	50.6	368	32.2%	26.5	38.5	770	21.1%	18.2	24.4	1,443
2014	39.2%	30.4	48.8	267	30.9%	25.1	37.5	641	19.9%	16.8	23.3	1,353
2015	30.7%	24.8	37.3	376	33.7%	28.7	39.0	894	20.2%	17.2	23.5	1,249
2016	45.6%	36.3	55.3	312	25.6%	19.0	33.5	681	20.3%	16.7	24.4	1,074
p for trend 1998-2016				0.02				0.17				<0.001
p for trend 2007-2016				0.02				0.14				0.01

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File

* Interpret with caution. Asterisk indicates estimate with high coefficient of variation or small sample size, which affects the precision of the estimate.

Note: Percentages reported in tables may not always match percentages reported in the graphs, due to differences in rounding.

Table 6 (continued): Trends in Adult Cigarette Smoking by Economic Region, Alaska 1998-2016

Year	Interior	LB	UB	N	South-east	LB	UB	N	Anchorage/ Mat-Su	LB	UB	N
1998	26.3%	21.9	31.1	434	24.4%	19.9	29.4	398	23.4%	19.2	28.1	404
1999	29.2%	24.9	33.9	498	26.9%	22.0	32.4	411	24.6%	19.7	30.3	408
2000	24.7%	20.8	29.2	468	25.6%	20.9	30.9	432	23.6%	19.2	28.7	425
2001	24.0%	20.6	27.8	673	27.4%	23.4	31.8	564	23.5%	19.7	27.9	552
2002	26.6%	22.5	31.1	602	25.7%	21.7	30.2	542	28.3%	23.7	33.2	510
2003	26.0%	22.4	30.0	635	24.3%	20.5	28.6	538	24.8%	21.0	29.2	554
2004	22.2%	19.8	24.9	1,208	23.2%	20.1	26.5	860	22.6%	19.9	25.6	1,064
2005	22.3%	19.7	25.1	1,261	21.5%	18.9	24.3	1,140	24.5%	21.7	27.5	1,193
2006	22.3%	19.4	25.5	978	22.8%	19.6	26.5	810	21.0%	18.0	24.5	955
2007	26.6%	23.1	30.4	1,139	23.4%	20.2	26.9	1,038	21.9%	18.7	25.5	1,027
2008	21.7%	18.5	25.3	1,165	25.0%	21.3	29.0	920	20.6%	17.5	24.1	1,034
2009	25.5%	22.1	29.1	1,131	20.8%	17.5	24.5	957	18.3%	15.2	21.8	995
2010	20.9%	17.1	25.4	770	26.1%	21.2	31.6	675	19.7%	15.6	24.4	645
2011	22.1%	18.7	25.9	1,284	22.6%	18.3	27.4	1,123	19.9%	17.5	22.7	1,764
2012	22.9%	19.4	26.8	1,734	20.0%	16.4	24.3	1,165	19.4%	17.2	21.9	2,744
2013	24.6%	21.7	27.6	2,001	19.5%	16.7	22.7	1,499	19.5%	17.2	22.0	2,960
2014	17.2%	14.5	20.4	1,782	21.0%	17.3	25.2	1,305	19.0%	17.0	21.2	3,467
2015	23.3%	20.3	26.5	1,761	21.1%	18.0	24.6	1,279	15.5%	13.3	17.9	2,554
2016	20.7%	17.4	24.4	1,589	21.5%	17.8	25.7	1,106	16.7%	14.4	19.4	2,505
p for trend 1998-2016				<0.001				0.001				<0.001
p for trend 2007-2016				0.03				0.06				0.003

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File

Note: Percentages reported in tables may not always match percentages reported in the graphs, due to differences in rounding.

Table 7: Trends in Adult Cigarette Smoking by Selected Boroughs, Alaska 1998-2016

Year	Anchorage	LB	UB	N	Mat-Su	LB	UB	N
1998	22.4%	18.0	27.6	328	*	*	*	76
1999	22.6%	18.1	27.8	342	*	*	*	66
2000	21.8%	17.1	27.5	346	*	*	*	79
2001	22.4%	18.1	27.4	437	*	*	*	115
2002	25.8%	20.9	31.2	416	*	*	*	94
2003	23.8%	19.5	28.8	431	28.5%	20.5	38.1	123
2004	21.9%	18.8	25.3	820	25.1%	19.7	31.4	244
2005	22.5%	19.5	25.9	920	30.5%	24.4	37.4	273
2006	17.7%	14.7	21.1	743	32.0%	24.3	40.8	212
2007	19.5%	16.0	23.6	759	28.9%	22.5	36.4	268
2008	18.3%	15.0	22.2	754	26.6%	20.3	34.1	280
2009	15.7%	12.3	19.8	742	25.5%	19.3	32.9	253
2010	17.0%	12.6	22.5	489	29.0%	20.3	39.5	156
2011	19.2%	16.2	22.5	1,064	22.5%	18.5	27.1	700
2012	18.8%	16.3	21.7	1,614	21.4%	17.1	26.4	1,130
2013	19.0%	16.3	22.1	1,703	21.2%	17.6	25.3	1,257
2014	17.8%	15.4	20.4	2,109	22.9%	19.6	26.7	1,358
2015	15.1%	12.4	18.2	1,312	16.7%	14.1	19.6	1,242
2016	15.9%	13.0	19.4	1,325	19.2%	16.2	22.7	1,180
p for trend 1998-2016				<0.001				<0.001
p for trend 2007-2016				0.21				<0.001

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File

* Interpret with caution. Asterisk next to number indicates estimate with high coefficient of variation or sample size inadequate for very common event.
Note that estimates for MatSu are only reported from 2003 to present.

Table 8: Trends in the Quit Ratio: Among Adults age 25 or Older who were Ever Smokers, Percentage who have Quit Smoking, Alaska 1996-2016

Year	All Adults	LB	UB	N	Male	LB	UB	N	Female	LB	UB	N
1996	50.7%	45.3	56.1	797	50.4%	42.9	57.8	399	51.2%	43.6	58.7	398
1997	52.4%	46.9	57.8	745	55.7%	48.2	62.9	382	48.2%	40.4	56.1	363
1998	51.5%	47.1	55.9	930	52.6%	46.5	58.6	483	50.0%	43.7	56.3	447
1999	51.5%	46.5	56.4	1,025	55.4%	49.2	61.5	518	47.1%	39.7	54.6	507
2000	55.4%	50.8	59.9	981	55.6%	49.4	61.6	497	55.1%	48.3	61.8	484
2001	54.2%	50.2	58.1	1,419	57.5%	51.6	63.2	730	49.9%	44.7	55.1	689
2002	50.3%	46.1	54.4	1,334	50.5%	44.8	56.2	664	49.9%	43.8	56.1	670
2003	51.6%	47.7	55.6	1,306	50.3%	45.0	55.7	673	53.4%	47.7	59.1	633
2004	53.2%	50.3	56.1	2,412	53.2%	49.2	57.2	1,233	53.2%	49.2	57.2	1,179
2005	53.7%	51.0	56.4	2,746	51.7%	47.8	55.5	1,414	56.4%	52.7	60.1	1,332
2006	57.7%	54.7	60.7	2,099	60.0%	55.9	64.1	1,058	54.7%	50.5	58.8	1,041
2007	55.5%	52.4	58.6	2,432	54.5%	50.1	58.9	1,223	56.8%	52.5	61.0	1,209
2008	56.6%	53.6	59.6	2,475	57.7%	53.5	61.8	1,281	55.2%	50.8	59.6	1,194
2009	59.2%	55.8	62.4	2,296	59.7%	54.8	64.3	1,152	58.5%	54.1	62.7	1,144
2010	56.7%	52.4	60.8	1,531	55.8%	49.7	61.7	756	57.8%	52.0	63.3	775
2011	57.5%	54.7	60.3	2,933	58.7%	54.8	62.5	1,492	56.0%	51.9	60.0	1,441
2012	59.5%	56.6	62.3	3,735	60.2%	56.4	64.0	1,910	58.5%	54.2	62.7	1,825
2013	58.1%	55.5	60.6	4,216	58.5%	55.0	62.0	2,130	57.5%	53.7	61.3	2,086
2014	58.7%	56.1	61.2	3,965	59.5%	56.0	62.8	2,017	57.7%	53.8	61.5	1,948
2015	60.4%	57.6	63.1	3,637	59.7%	56.0	63.4	1,820	61.2%	56.9	65.2	1,817
2016	58.5%	55.4	61.6	3,273	58.1%	53.9	62.1	1,663	59.2%	54.6	63.7	1,610
p for trend 1996-2016				<0.001				<0.001				<0.001
p for trend 2007-2016				0.04				0.18				0.13

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File

Note also: Percentages reported in tables may not always match percentages reported in the graphs, due to differences in rounding.

Table 9: Trends in the Quit Ratio: Among Adults age 25 or Older who were Ever Smokers, Percentage who have Quit Smoking, by Alaska Native Status, Alaska 1996-2016

Year	Alaska Native	LB	UB	N	Non-Native	LB	UB	N
1996	34.4%	24.4	46.0	187	53.4%	47.4	59.3	605
1997	43.7%	33.4	54.6	180	54.3%	48.1	60.4	554
1998	41.1%	32.8	50.1	200	53.7%	48.5	58.8	723
1999	40.6%	31.8	50.1	256	54.3%	48.5	59.9	751
2000	42.8%	32.8	53.5	227	58.5%	53.3	63.5	718
2001	42.9%	34.9	51.2	344	56.9%	52.2	61.4	1,029
2002	39.0%	30.9	47.6	337	52.8%	48.0	57.5	981
2003	40.7%	33.1	48.9	326	54.0%	49.5	58.5	973
2004	38.0%	32.7	43.7	597	56.7%	53.5	59.9	1,798
2005	42.2%	36.6	48.1	654	56.4%	53.3	59.5	2,073
2006	38.8%	32.9	44.9	481	62.2%	58.7	65.5	1,599
2007	45.7%	39.8	51.7	620	57.6%	54.0	61.1	1,797
2008	39.6%	33.9	45.6	619	60.4%	56.8	63.8	1,832
2009	43.7%	37.4	50.3	534	62.8%	59.0	66.5	1,735
2010	43.1%	34.9	51.8	354	60.0%	55.1	64.7	1,160
2011	46.7%	40.5	53.1	634	60.1%	57.0	63.3	2,266
2012	46.1%	40.2	52.1	907	62.4%	59.1	65.5	2,787
2013	42.1%	36.5	47.8	817	61.5%	58.6	64.3	3,324
2014	39.6%	34.5	45.0	714	62.7%	59.8	65.5	3,172
2015	46.7%	41.4	52.2	761	62.8%	59.6	65.9	2,775
2016	40.8%	34.7	47.2	666	62.3%	58.8	65.7	2,521
p for trend 1996-2016				0.15				<0.001
p for trend 2007-2016				0.77				0.04

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File

Information presented in these tables differs slightly from prior year reports, due to changes in definition for Alaska Native and non-Native groups where respondents reported more than one race group.

Table 10: Trends in the Quit Ratio: Among Adults age 25 or Older who were Ever Smokers, Percentage who have Quit Smoking, by Socioeconomic Status, Alaska 1996-2016

Year	Low SES	LB	UB	N	Higher SES	LB	UB	N
1996	32.8%	22.0	45.9	116*	56.8%	49.7	63.7	435
1997	41.8%	29.7	54.9	122*	55.7%	48.0	63.1	364
1998	39.2%	29.3	50.0	162	54.1%	47.8	60.3	484
1999	39.0%	28.5	50.7	161	56.9%	49.5	64.0	521
2000	54.7%	42.3	66.6	137*	56.6%	50.3	62.7	490
2001	34.9%	26.6	44.3	198	59.5%	53.8	64.9	725
2002	28.0%	20.7	36.7	219	57.8%	52.0	63.5	629
2003	33.5%	25.4	42.6	209	57.6%	52.0	63.0	640
2004	41.8%	35.0	49.0	415	57.8%	53.8	61.7	1,161
2005	38.3%	32.2	44.8	475	59.2%	55.3	63.0	1,305
2006	40.4%	32.8	48.5	302	64.6%	60.5	68.5	1,031
2007	44.4%	36.7	52.3	333	58.4%	53.9	62.8	1,173
2008	38.6%	31.3	46.4	355	63.1%	58.6	67.3	1,148
2009	48.3%	40.0	56.7	339	63.8%	58.9	68.4	1,040
2010	43.0%	33.3	53.2	223	60.6%	54.3	66.6	687
2011	36.9%	30.6	43.6	457	69.8%	66.0	73.5	1,191
2012	38.9%	32.6	45.6	615	69.0%	64.9	72.8	1,518
2013	35.5%	30.3	41.2	715	67.2%	63.4	70.8	1,785
2014	45.5%	39.6	51.5	661	65.7%	61.8	69.4	1,568
2015	39.9%	33.3	46.9	510	67.3%	63.1	71.2	1,374
2016	40.8%	33.6	48.4	419	65.3%	60.7	69.7	1,239
p for trend 1996-2016				0.43				<0.001
p for trend 2007-2016				0.43				0.002

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File

* Interpret with caution. Asterisk indicates estimate with high coefficient of variation or small sample size, which affects the precision of the estimate.

The socioeconomic status (SES) measure is restricted to non-Natives age 25 to 64. Low SES is defined as less than high school education or household income at 185% or less of the Alaska Poverty Level Guideline. See Appendix B for more information.

Information presented in these tables differs slightly from prior year reports, due to changes in definition for Alaska Native and non-Native groups where respondents reported more than one race group, and changes in calculation of percentage poverty status.

Table 11: Trends in the Quit Ratio: Among Adults age 25 or Older who were Ever Smokers, Percentage who have Quit Smoking, by Age Group, Alaska 1996-2016

Year	Ages 25-29	LB	UB	N	Ages 30-54	LB	UB	N	Age 55 & older	LB	UB	N
1996	38.4%	24.2	55.0	64*	47.6%	41.2	53.9	564	66.2%	53.6	76.9	169
1997	43.6%	26.5	62.4	52*	47.9%	41.4	54.6	505	68.5%	58.0	77.4	188
1998	36.3%	25.1	49.1	92	48.4%	43.1	53.7	624	67.2%	58.0	75.3	214
1999	41.1%	29.0	54.5	96	44.9%	39.0	50.9	691	71.2%	61.9	79.0	238
2000	42.2%	28.5	57.1	87	50.5%	44.8	56.2	662	72.4%	63.9	79.6	232
2001	46.2%	32.6	60.5	127	47.2%	42.5	52.0	940	75.2%	68.6	80.9	352
2002	32.1%	20.5	46.5	106	49.3%	44.2	54.5	854	61.6%	53.5	69.1	374
2003	43.7%	31.9	56.4	128	47.1%	42.0	52.2	811	66.7%	60.1	72.6	367
2004	32.3%	24.4	41.4	234	49.4%	45.8	53.1	1,481	69.2%	64.2	73.7	697
2005	36.9%	29.4	45.2	242	48.1%	44.5	51.8	1,606	72.1%	67.8	76.1	898
2006	38.0%	28.2	48.9	159	52.9%	48.9	56.8	1,160	72.3%	67.7	76.5	780
2007	37.1%	27.9	47.5	210	50.4%	46.3	54.5	1,354	72.5%	67.6	76.9	868
2008	37.5%	28.6	47.3	228	50.9%	46.6	55.1	1,256	73.9%	69.8	77.6	991
2009	42.0%	30.1	54.8	157	53.5%	48.8	58.1	1,134	73.3%	69.1	77.0	1,005
2010	24.8%	15.1	38.0	101*	54.8%	49.2	60.3	738	73.4%	68.2	78.0	692
2011	38.7%	28.7	49.7	174	51.9%	47.9	55.8	1,378	71.7%	68.0	75.1	1,381
2012	46.6%	37.2	56.4	249	51.8%	47.6	55.9	1,724	74.5%	70.7	78.0	1,762
2013	41.5%	32.8	50.8	267	50.4%	46.6	54.2	1,809	73.1%	69.8	76.3	2,140
2014	40.9%	31.2	51.4	173	52.0%	48.3	55.7	1,619	72.5%	69.5	75.4	2,173
2015	33.3%	23.6	44.6	179	55.1%	50.9	59.1	1,391	74.1%	70.6	77.2	2,067
2016	39.7%	28.9	51.7	135	51.1%	46.4	55.8	1,145	72.2%	68.6	75.5	1,993
p for trend 1996-2016				0.61				0.001				0.01
p for trend 2007-2016				0.57				0.70				0.91

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File

* Interpret with caution. Asterisk indicates estimate with high coefficient of variation or small sample size, which affects the precision of the estimate.

Note: Percentages reported in tables may not always match percentages reported in the graphs, due to differences in rounding.

Table 12: Trends in the Quit Ratio: Among Adults age 25 or Older who were Ever Smokers, Percentage who have Quit Smoking, by Economic Region, Alaska 1998-2016

Year	Northern	LB	UB	N	South-west	LB	UB	N	Gulf Coast	LB	UB	N
1998	35.4%	24.3	48.4	75*	48.8%	38.2	59.4	103	48.4%	40.9	56.0	212
1999	38.9%	23.3	57.2	67*	45.2%	34.1	56.7	116	48.3%	40.5	56.1	210
2000	35.2%	23.5	48.9	78*	55.9%	40.5	70.2	91	52.9%	43.5	62.2	183
2001	37.9%	28.8	47.9	130	47.7%	38.0	57.6	162	48.2%	40.9	55.5	286
2002	22.7%	15.2	32.5	119	45.4%	35.8	55.4	130	49.8%	43.2	56.4	294
2003	32.9%	23.9	43.4	100	40.1%	31.1	49.9	138	58.9%	52.1	65.3	251
2004	41.1%	33.4	49.4	194	46.0%	39.2	53.0	264	49.2%	44.3	54.2	515
2005	29.7%	22.9	37.6	190	45.0%	38.5	51.7	280	60.5%	56.2	64.7	613
2006	42.7%	33.7	52.2	145	39.5%	32.1	47.3	197	54.2%	48.9	59.5	443
2007	34.5%	26.4	43.7	166	47.3%	39.7	55.0	264	57.3%	51.4	62.9	506
2008	31.7%	24.3	40.2	179	44.0%	36.0	52.3	256	54.9%	50.0	59.8	519
2009	28.6%	20.9	37.8	143	56.2%	47.4	64.6	208	62.4%	56.9	67.6	487
2010	33.1%	23.5	44.3	99	46.9%	36.9	57.1	155	59.3%	52.2	65.9	297
2011	30.3%	22.2	39.8	160	40.8%	32.5	49.7	261	50.7%	44.4	56.9	533
2012	43.2%	31.8	55.4	255	51.3%	43.6	58.8	453	65.0%	58.2	71.3	523
2013	40.8%	30.3	52.3	208	48.0%	40.0	56.2	388	62.7%	57.6	67.5	729
2014	35.8%	24.8	48.6	143	44.5%	37.1	52.2	317	60.5%	54.8	65.9	657
2015	46.6%	37.5	55.9	184	45.6%	39.0	52.4	453	61.0%	55.5	66.3	581
2016	31.5%	21.1	44.1	170	47.9%	37.5	58.6	318	62.2%	55.6	68.4	499
p for trend 1998-2016				0.45				0.94				<0.001
p for trend 2007-2016				0.20				0.67				0.06

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File

* Interpret with caution. Asterisk indicates estimate with high coefficient of variation or small sample size, which affects the precision of the estimate.

Note: Percentages reported in tables may not always match percentages reported in the graphs, due to differences in rounding.

Table 12 (continued): Trends in the Quit Ratio: Among Adults age 25 or Older who were Ever Smokers, Percentage who have Quit Smoking, by Economic Region, Alaska 1998-2016

Year	Interior	LB	UB	N	South-east	LB	UB	N	Anchorage /Mat-Su	LB	UB	N
1998	55.6%	47.5	63.5	184	52.8%	44.7	60.6	177	52.5%	44.6	60.3	179
1999	50.3%	43.4	57.2	242	54.7%	47.3	62.0	210	53.5%	44.3	62.5	180
2000	51.5%	44.3	58.7	221	54.5%	46.7	62.0	210	58.8%	50.9	66.3	198
2001	60.2%	54.1	66.1	312	51.8%	45.1	58.5	273	56.5%	49.3	63.5	256
2002	52.8%	45.7	59.9	263	55.5%	48.7	62.0	287	51.8%	44.5	59.1	241
2003	49.1%	42.9	55.4	292	54.9%	48.3	61.3	265	52.7%	45.9	59.5	260
2004	52.2%	47.5	56.9	540	61.7%	56.5	66.6	428	54.3%	49.3	59.3	471
2005	55.6%	50.8	60.2	540	59.4%	54.8	63.9	579	53.1%	48.3	57.8	544
2006	57.0%	51.9	62.0	464	58.8%	53.4	63.9	410	61.9%	56.6	66.9	440
2007	51.2%	46.1	56.3	520	58.7%	53.4	63.7	520	58.2%	52.5	63.6	456
2008	58.5%	53.1	63.7	560	56.4%	50.9	61.8	486	60.1%	54.5	65.4	475
2009	53.0%	47.7	58.3	545	64.9%	59.6	69.8	492	61.8%	55.6	67.6	421
2010	61.8%	55.1	68.1	368	54.3%	47.7	60.9	325	58.4%	50.7	65.7	287
2011	60.4%	54.3	66.1	606	58.3%	51.0	65.2	550	61.5%	57.0	65.8	823
2012	57.5%	51.0	63.8	803	63.9%	57.0	70.3	542	59.8%	55.2	64.3	1,159
2013	55.0%	50.4	59.5	942	60.4%	54.9	65.6	669	60.1%	55.6	64.4	1,280
2014	64.3%	58.7	69.5	773	59.7%	52.9	66.2	602	59.4%	55.4	63.3	1,473
2015	55.8%	50.8	60.7	792	59.3%	53.5	64.8	583	64.7%	59.8	69.3	1,044
2016	58.2%	52.0	64.0	711	56.7%	50.1	63.1	507	61.6%	56.5	66.6	1,068
p for trend 1998-2016				0.005				0.02				<0.001
p for trend 2007-2016				0.16				0.996				0.27

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File

Note: Percentages reported in tables may not always match percentages reported in the graphs, due to differences in rounding.

Table 13: Trends in the Quit Ratio: Among Adults age 25 or Older who were Ever Smokers, Percentage who have Quit Smoking, by Selected Boroughs, Alaska 1998-2016

Year	Anchorage	LB	UB	N	Mat-Su	LB	UB	N
1998	51.2%	42.2	60.1	136	*			43*
1999	55.1%	45.8	64.1	149	*			31*
2000	60.1%	51.2	68.5	156	*			42*
2001	59.7%	51.4	67.5	199	*			57*
2002	55.8%	47.4	63.9	188	*			53*
2003	55.1%	47.2	62.8	198	45.1%	32.3	58.5	62*
2004	55.3%	49.3	61.1	348	51.6%	41.9	61.2	123
2005	54.5%	49.0	60.0	397	49.6%	40.5	58.6	147
2006	63.6%	57.5	69.3	331	56.6%	46.0	66.6	109
2007	59.0%	52.0	65.6	318	56.4%	46.6	65.7	138
2008	59.7%	53.0	66.0	333	61.0%	50.9	70.2	142
2009	65.6%	57.9	72.4	302	53.2%	42.2	63.9	119
2010	61.3%	51.9	70.0	204	50.1%	37.5	62.6	83*
2011	62.7%	57.0	68.0	464	58.2%	51.1	64.9	359
2012	60.4%	54.8	65.6	645	58.3%	49.8	66.3	514
2013	59.8%	54.2	65.2	681	60.8%	54.1	67.0	599
2014	60.4%	55.3	65.3	826	56.8%	51.0	62.4	647
2015	64.5%	58.0	70.5	504	65.3%	59.8	70.4	540
2016	61.1%	54.2	67.5	495	63.1%	57.3	68.5	573
p for trend 1998-2016				0.01				0.002
p for trend 2007-2016				0.76				0.08

Source: Alaska Behavioral Risk Factor Surveillance System, Combined File

* Interpret with caution. Asterisk next to number indicates estimate with high coefficient of variation or sample size inadequate for very common event.
Note that estimates for MatSu are only reported from 2003 to present.

Where N <= 50, no estimate is reported.

Table 14: Trends in E-Cigarette or Other Vapor Product Use, Alaska 2010-2015

Year	All Adults	LB	UB	N
2010	0.5%	0.2	1.4	1,270
2011	0.8%	0.5	1.4	5,754
2012	1.9%	1.3	2.8	3,978
2013	3.7%	2.8	4.9	4,568
2014	7.1%	5.8	8.7	4,612
2015	6.2%	5.2	7.4	7,872
2016	4.7%	3.8	5.7	7,277
p for trend 2010-2016				<0.001

Source: Alaska Behavioral Risk Factor Surveillance System, Combined and Supplemental Files

Table 15: Trends in E-Cigarette or Other Vapor Product Use, by Combustible Cigarette Smoking Status, Alaska 2011-2015

Year	Cigarette Smoker	LB	UB	N	Non-Smokers	LB	UB	N
2011	3.5%	2.1	5.9	1,168	0.1%	0.0	0.2	4,539
2012	7.5%	4.9	11.3	777	0.3%	0.1	0.8	3,168
2013	14.4%	10.8	19.1	806	0.7%	0.3	1.7	3,732
2014	21.5%	16.9	26.9	727	3.8%	2.7	5.4	3,854
2015	17.7%	14.5	21.6	1,290	3.6%	2.7	4.9	6,532
2016	12.0%	9.4	15.2	1,206	2.9%	2.1	4.0	6,042
p for trend 2011-2016				<0.001				<0.001

Year	Former Smoker	LB	UB	N	Never Smoker	LB	UB	N
2011	0.2%	0.1	0.5	1,731	*	*	*	2,808
2012	0.8%	0.3	2.4	1,140	*	*	*	2,028
2013	1.0%	0.5	2.2	1,400	0.5%	0.1	2.6	2,332
2014	6.9%	4.5	10.4	1,420	2.3%	1.3	4.1	2,434
2015	5.8%	3.9	8.5	2,385	2.6%	1.7	4.0	4,147
2016	7.0%	4.9	9.8	2,217	0.9%*	0.4	1.8	3,825
p for trend 2011-2016				<0.001				<0.001

Source: Alaska Behavioral Risk Factor Surveillance System, Combined and Supplemental Files

Note: "Non-Smokers" includes both Former and Never Smokers. The numerators for Never Smoker are too small to report for 2011 and 2012, and are marked with an asterisk. .

* Interpret with caution. Asterisk next to number indicates estimate with high coefficient of variation or sample size inadequate for very uncommon event.

Table 16: Trends in E-Cigarette or Other Vapor Product Use by Selected Demographic Factors, Alaska 2011-2015

Year	Male	LB	UB	N	Female	LB	UB	N
2011	1.0%	0.5	2.0	2,613	0.7%	0.4	1.2	3,141
2012	1.9%	1.1	3.4	1,857	1.8%	1.1	3.2	2,121
2013	2.7%	1.8	4.1	2,068	4.8%	3.2	7.0	2,500
2014	9.1%	7.0	11.7	2,141	5.0%	3.6	6.9	2,471
2015	7.6%	6.0	9.5	3,629	4.8%	3.6	6.3	4,243
2016	5.6%	4.3	7.4	3,332	3.7%	2.8	4.9	3,945
p for trend 2011-2016				<0.001				<0.001

Year	Alaska Native	LB	UB	N	Non-Native	LB	UB	N
2011	1.3%	0.5	3.2	980	0.7%	0.4	1.3	4,696
2012	1.9%	0.6	6.3	795	1.9%	1.2	2.8	3,132
2013	3.2%	1.8	5.6	658	3.9%	2.8	5.3	3,820
2014	7.4%	5.0	10.9	666	7.1%	5.7	9.0	3,837
2015	7.8%	5.4	11.2	1,291	6.1%	5.0	7.4	6,362
2016	4.7%	2.9	7.8	1,160	4.5%	3.6	5.6	5,909
p for trend 2011-2016				<0.001				<0.001

Year	Low SES Non-Native	LB	UB	N	Higher SES Non-Native	LB	UB	N
2011	1.4%	0.6	2.8	693	1.0%	0.4	2.3	2,666
2012	4.1%	2.1	7.9	556	1.0%	0.6	1.7	1,747
2013	6.7%	3.9	11.3	582	2.5%	1.7	3.8	2,163
2014	11.6%	7.6	17.4	562	5.1%	3.5	7.3	2,105
2015	9.9%	6.9	14.0	853	3.8%	2.7	5.3	3,389
2016	7.5%	5.0	11.2	742	4.0%	2.9	5.4	3,038
p for trend 2011-2016				<0.001				<0.001

Year	Ages 18-29	LB	UB	N	Ages 30-54	LB	UB	N	Ages 55+	LB	UB	N
2011	0.4%	0.1	1.2	648	1.1%	0.6	2.2	2,645	0.5%	0.2	1.3	2,389
2012	3.1%	1.7	5.7	547	2.2%	1.2	3.9	1,762	0.5%	0.2	1.0	1,614
2013	7.1%	4.2	11.9	562	3.4%	2.3	5.0	1,881	1.8%	1.2	2.6	2,073
2014	14.2%	10.6	18.9	463	6.8%	4.8	9.4	1,839	2.4%	1.6	3.7	2,223
2015	14.3%	11.0	18.3	804	4.9%	3.7	6.4	2,983	2.1%	1.5	3.0	3,963
2016	8.1%	5.6	11.5	724	4.9%	3.7	6.5	2,534	2.2%	1.5	3.2	3,870
p for trend 2011-2016				<0.001				<0.001				<0.001

Source: Alaska Behavioral Risk Factor Surveillance System, Combined and Supplemental Files

Table 17: Trends in Smokeless Tobacco Use by Gender, Alaska 1996-2016

Year	All Adults	LB	UB	N	Male	LB	UB	N	Female	LB	UB	N
1996	4.1%	3.0	5.6	1,506	6.8%	4.8	9.6	699	1.1%	0.7	1.7	807
1997	5.6%	4.1	7.6	1,543	9.2%	6.5	12.9	715	1.6%	0.8	2.9	828
1998	5.4%	4.1	7.0	1,989	8.6%	6.4	11.4	924	1.9%	1.2	3.1	1,065
1999	5.4%	4.2	6.8	2,050	8.7%	6.7	11.3	1,001	1.7%	1.0	2.8	1,049
2000	5.7%	4.4	7.5	2,079	9.5%	6.9	12.8	985	1.7%	1.1	2.4	1,094
2001	6.1%	4.9	7.6	2,873	10.1%	7.9	12.9	1,357	1.8%	1.2	2.6	1,516
2002	6.6%	5.3	8.2	2,692	11.2%	8.8	14.1	1,186	1.8%	1.2	2.6	1,506
2003	N/A				N/A				N/A			
2004	4.4%	3.3	5.7	2,462	7.5%	5.6	10.0	1,103	1.0%	0.5	2.0	1,359
2005	4.9%	4.1	5.9	5,343	8.6%	7.1	10.4	2,489	1.0%	0.8	1.4	2,854
2006	4.7%	3.8	5.7	4,124	7.8%	6.2	9.7	1,835	1.4%	0.9	2.0	2,289
2007	5.2%	4.3	6.3	4,939	9.0%	7.3	11.0	2,244	1.2%	0.9	1.8	2,695
2008	5.2%	4.3	6.2	4,772	8.6%	7.0	10.5	2,190	1.6%	1.1	2.2	2,582
2009	4.8%	3.9	5.8	4,560	8.4%	6.8	10.4	2,037	0.9%	0.6	1.4	2,523
2010	5.2%	4.1	6.6	2,901	8.2%	6.2	10.8	1,295	1.9%	1.3	2.8	1,606
2011	5.6%	4.8	6.6	6,120	9.3%	7.8	11.0	2,799	1.7%	1.2	2.6	3,321
2012	5.6%	4.8	6.5	8,305	9.2%	7.8	10.8	3,856	1.6%	1.2	2.2	4,449
2013	5.3%	4.6	6.1	9,071	8.7%	7.5	10.2	4,171	1.6%	1.1	2.4	4,900
2014	5.3%	4.6	6.1	8,820	8.4%	7.2	9.8	4,034	1.9%	1.4	2.7	4,786
2015	5.7%	5.0	6.7	8,108	9.8%	8.4	11.5	3,748	1.4%	0.9	2.1	4,360
2016	6.1%	5.1	7.2	7,259	9.9%	8.3	11.8	3,321	2.0%	1.2	3.2	3,938
p for trend 1996-2016				0.55				0.61				0.56
p for trend 2007-2016				0.10				0.24				0.11

Source: Alaska Behavioral Risk Factor Surveillance System, Combined and Supplemental Files

Note: Questions about SLT use were not asked in 2003.

Percentages reported in tables may not always match percentages reported in the graphs, due to differences in rounding.

Table 18: Trends in Smokeless Tobacco Use by Alaska Native Status, Alaska 1996-2016

Year	Alaska Native	LB	UB	N	Non-Native	LB	UB	N
1996-1998	12.4%	9.9	15.5	988	3.9%	3.1	5.0	3,983
1997-1999	12.8%	10.4	15.8	1,101	4.3%	3.5	5.3	4,387
1998-2000	13.5%	11.1	16.2	1,176	4.3%	3.5	5.3	4,802
1999-2001	14.5%	12.1	17.3	1,400	4.3%	3.6	5.3	5,410
2000-2002	14.1%	11.8	16.7	1,532	4.9%	4.0	5.9	5,931
2001-2002	14.3%	11.5	17.7	1,139	5.0%	4.0	6.1	4,317
2003	N/A				N/A			
2002&2004	10.8%	8.2	14.2	1,023	4.6%	3.7	5.6	4,079
2004-05	10.5%	7.9	13.9	1,515	3.7%	3.1	4.5	6,220
2005-06	10.5%	8.9	12.4	1,818	3.8%	3.2	4.6	7,562
2006-07	11.5%	9.5	13.8	1,762	3.8%	3.1	4.6	7,218
2007-08	12.2%	10.2	14.5	1,905	4.0%	3.3	4.7	7,724
2008-09	11.5%	9.6	13.6	1,732	3.8%	3.2	4.6	7,507
2009-10	13.4%	11.0	16.3	1,313	3.5%	2.8	4.4	6,063
2011	12.4%	9.9	15.4	1,078	4.5%	3.6	5.5	4,960
2012	14.4%	11.5	18.1	1,661	4.1%	3.3	4.9	6,548
2013	14.3%	11.7	17.4	1,397	4.0%	3.3	4.9	7,495
2014	14.6%	11.9	17.7	1,241	3.9%	3.3	4.7	7,363
2015	13.1%	10.7	15.9	1,357	4.7%	3.9	5.7	6,524
2016	15.8%	12.3	20.0	1,155	4.5%	3.6	5.6	5,896
p for trend 1996-2016				0.23				0.93
p for trend 2007-2016				0.08				0.15

Source: Alaska Behavioral Risk Factor Surveillance System, Combined and Supplemental Files

Note: Questions about SLT use were not asked in 2003.

Percentages reported in tables may not always match percentages reported in the graphs, due to differences in rounding.

In years prior to 2011, estimates for Alaska Native/Non-Native groups are reported using combined year rolling averages, so that the N (denominator) is higher and the estimates are more stable. Tests for trend, however, use single years.

Information presented in these tables differs slightly from prior year reports, due to changes in definition for Alaska Native and non-Native groups where respondents reported more than one race group.

Table 19: Trends in Smokeless Tobacco Use by Socioeconomic Status, Alaska 1996-2016

Year	Low SES	LB	UB	N	Higher SES	LB	UB	N
1996-1998	2.6%	1.3	5.3	668	3.9%	2.9	5.2	2,620
1997-1999	2.9%	1.5	5.5	754	4.1%	3.1	5.3	2,879
1998-2000	1.8%	1.0	3.3	799	5.0%	3.8	6.4	3,150
1999-2001	2.0%	1.2	3.4	849	5.3%	4.2	6.6	3,586
2000-2002	3.9%	2.2	6.8	928	5.6%	4.4	6.9	3,844
2001-2002	5.5%	3.0	9.9	687	5.3%	4.1	6.7	2,785
2003	N/A				N/A			
2002&2004	5.2%	2.8	9.4	687	4.4%	3.5	5.7	2,581
2004-05	4.1%	2.4	6.7	1,045	3.2%	2.5	4.0	3,953
2005-06	4.6%	2.8	7.5	1,167	3.7%	3.0	4.6	4,852
2006-07	3.5%	2.1	5.9	987	4.4%	3.5	5.3	4,727
2007-08	3.1%	1.9	5.1	1,081	4.9%	3.9	6.0	5,097
2008-09	4.5%	2.8	7.2	1,109	4.5%	3.6	5.6	4,818
2009-10	4.1%	2.4	6.9	907	3.6%	2.8	4.6	3,763
2011	3.6%	2.3	5.5	736	3.9%	3.1	5.1	2,774
2012	2.4%	1.5	3.9	1,106	4.7%	3.7	5.9	3,742
2013	2.5%	1.6	3.9	1,205	4.8%	3.7	6.2	4,205
2014	3.9%	2.4	6.2	1,099	4.1%	3.2	5.1	4,044
2015	5.7%	3.9	8.3	891	4.7%	3.6	6.2	3,473
2016	6.1%	3.7	10.1	741	4.7%	3.6	6.1	3,031
p for trend 1996-2016				0.06				0.78
p for trend 2007-2016				0.11				0.75

Source: Alaska Behavioral Risk Factor Surveillance System, Combined and Supplemental Files

* Interpret with caution. Asterisk indicates estimate with high coefficient of variation or small sample size, which affects the precision of the estimate.

The socioeconomic status (SES) measure is restricted to non-Natives age 25 to 64. Low SES is defined as less than high school education or household income at 185% or less of the Alaska Poverty Level Guideline. See Appendix B for more information.

Note: Questions about SLT use were not asked in 2003.

Percentages reported in tables may not always match percentages reported in the graphs, due to differences in rounding.

In years prior to 2011, estimates for Alaska Native/Non-Native groups are reported using combined year rolling averages, so that the N (denominator) is higher and the estimates are more stable. Tests for trend, however, use single years.

Information presented in these tables differs slightly from prior year reports, due to changes in definition for Alaska Native and non-Native groups where respondents reported more than one race group, and changes in calculation of percentage poverty status.

Table 20: Trends in Smokeless Tobacco Use by Age Group, Alaska 1996-2016

Year	Ages 18-29	LB	UB	N	Ages 30-54	LB	UB	N	Age 55 & older	LB	UB	N
1996	5.0%	2.7	9.0	246	4.0%	2.6	6.1	982	3.2%	1.6	6.2	269
1997	8.0%	4.5	14.0	260	4.1%	2.6	6.3	970	6.7%	3.4	12.8	302
1998	8.8%	5.9	12.9	397	4.6%	3.1	6.8	1,220	2.7%	1.4	5.2	362
1999	6.4%	3.9	10.2	372	5.7%	4.2	7.7	1,286	3.1%	1.6	5.9	381
2000	6.7%	4.4	10.1	375	6.6%	4.6	9.5	1,288	2.2%	1.2	4.0	404
2001	7.0%	4.8	10.0	546	7.3%	5.5	9.8	1,706	2.1%	1.2	3.8	587
2002	9.0%	5.7	14.0	460	7.5%	5.9	9.6	1,579	1.3%	0.7	2.3	639
2003	N/A				N/A				N/A			
2004	6.6%	4.0	10.7	430	4.8%	3.3	6.7	1,413	1.6%	0.7	3.6	590
2005	7.2%	5.1	10.1	866	5.2%	4.2	6.5	2,949	1.7%	1.1	2.5	1,482
2006	6.9%	4.4	10.7	587	5.1%	4.1	6.4	2,197	1.7%	1.2	2.5	1,281
2007	6.7%	4.5	9.7	744	5.7%	4.4	7.2	2,647	2.9%	1.9	4.4	1,495
2008	5.3%	3.5	8.0	647	6.6%	5.2	8.2	2,448	2.4%	1.7	3.5	1,631
2008-09	5.0%	3.8	6.7	1,208	6.2%	5.2	7.4	4,713	2.7%	2.0	3.5	3,311
2009-10	5.9%	4.1	8.4	865	5.6%	4.6	6.8	3,640	3.1%	2.3	4.0	2,862
2011	7.5%	5.4	10.3	712	6.7%	5.5	8.3	2,810	2.3%	1.6	3.1	2,516
2012	7.0%	5.1	9.4	1,162	6.4%	5.3	7.8	3,673	3.1%	2.2	4.4	3,366
2013	7.2%	5.5	9.4	1,196	6.5%	5.3	7.8	3,812	2.3%	1.6	3.2	3,971
2014	7.8%	5.9	10.2	939	5.9%	4.9	7.0	3,588	2.6%	2.0	3.4	4,153
2015	8.1%	6.0	10.8	858	6.2%	5.1	7.6	3,088	3.2%	2.3	4.4	4,035
2016	8.1%	5.8	11.4	724	7.0%	5.5	8.8	2,530	3.3%	2.4	4.4	3,856
p for trend 1996-2016				0.71				0.03				0.70
p for trend 2007-2016				0.04				0.35				0.51

Source: Alaska Behavioral Risk Factor Surveillance System, Combined and Supplemental File

Note: Questions about SLT use were not asked in 2003.

Estimates for 2009 and 2010 are reported using combined year rolling averages, so that the N (denominator) is higher and the estimates are more stable. Tests for trend, however, use single years.

Percentages reported in tables may not always match percentages reported in the graphs, due to differences in rounding.

Table 21: Trends in Smokeless Tobacco Use by Cigarette Smoking Status, Alaska 1996-2016

Year	Smokers	LB	UB	N	Former Smokers	LB	UB	N	Never Smokers	LB	UB	N
1996	3.6%	1.9	6.5	443	6.2%	3.5	10.9	395	3.2%	2.1	4.8	663
1997	1.2%	0.6	2.4	403	8.1%	4.7	13.5	414	6.7%	4.4	10.0	724
1998	7.1%	4.8	10.2	549	6.0%	3.6	10.0	505	4.0%	2.4	6.4	932
1999	3.2%	2.0	5.1	592	8.4%	5.7	12.2	532	5.0%	3.4	7.3	921
2000	4.9%	2.9	8.3	536	4.6%	3.0	6.9	542	6.9%	4.5	10.3	990
2001	6.9%	4.4	10.9	819	8.2%	5.5	11.9	779	4.4%	3.3	5.9	1,266
2002	6.6%	4.2	10.3	753	8.6%	5.9	12.4	714	5.6%	4.0	7.6	1,221
2003	N/A				N/A				N/A			
2004	4.1%	2.4	7.1	611	4.6%	2.9	7.0	642	4.3%	2.8	6.5	1,194
2005	5.2%	3.6	7.5	1,312	6.3%	4.6	8.6	1,461	4.1%	3.2	5.4	2,540
2006	7.0%	4.6	10.4	1,000	5.3%	4.0	7.0	1,206	3.2%	2.4	4.4	1,896
2007	7.6%	5.2	10.9	1,062	6.6%	4.8	9.1	1,440	3.5%	2.7	4.5	2,395
2008	5.1%	3.5	7.4	1,057	6.1%	4.6	8.0	1,449	4.5%	3.3	6.1	2,238
2009	6.3%	4.1	9.4	897	6.2%	4.5	8.6	1,427	3.4%	2.5	4.6	2,194
2010	8.2%	4.8	13.5	563	5.9%	4.2	8.3	858	3.5%	2.5	5.0	1,457
2011	7.7%	5.7	10.3	1,264	7.0%	5.3	9.2	1,841	4.0%	3.0	5.1	2,967
2012	7.0%	5.2	9.3	1,624	7.3%	5.6	9.3	2,367	4.1%	3.2	5.3	4,239
2013	6.9%	5.1	9.3	1,724	6.8%	5.5	8.4	2,732	3.8%	3.0	4.9	4,562
2014	8.6%	6.6	11.1	1,471	6.2%	4.9	7.9	2,661	3.6%	2.9	4.4	4,638
2015	6.9%	5.2	9.0	1,347	5.9%	4.5	7.7	2,443	5.3%	4.2	6.6	4,268
2016	9.6%	7.1	12.9	1,205	7.9%	5.7	10.7	2,216	3.9%	3.0	5.1	3,810
p for trend 1996-2016				<0.001				0.76				0.05
p for trend 2007-2016				0.12				0.50				0.24

Source: Alaska Behavioral Risk Factor Surveillance System, Combined and Supplemental File

Note: Questions about SLT use were not asked in 2003.

Percentages reported in tables may not always match percentages reported in the graphs, due to differences in rounding.

Table 22: Trends in Smokeless Tobacco Use by Economic Region, Alaska 1998-2016

Year	Northern	LB	UB	N	Year	Southwest	LB	UB	N
1997-1999	7.7%	4.4	13.2	370	1998	20.6%	14.7	28.2	204
1998-2000	5.6%	3.4	9.0	372	1999	20.3%	14.5	27.5	223
1999-2001	6.2%	4.0	9.4	459	2000	28.6%	21.7	36.6	216
2000-2002	7.0%	4.7	10.3	545	2001	26.1%	20.0	33.2	314
2001-2002	7.7%	5.0	11.7	418	2002	23.4%	17.7	30.3	271
2003	N/A				2003	N/A			
2002&2004	7.0%	4.1	11.5	356	2004	17.0%	12.2	23.2	247
2004-05	6.5%	3.9	10.8	466	2005	19.9%	16.0	24.4	545
2005-06	6.1%	4.0	9.1	542	2006	22.4%	17.4	28.3	355
2006-07	6.7%	4.4	10.2	528	2007	25.7%	20.2	32.0	503
2007-08	7.2%	4.9	10.7	583	2008	27.0%	21.8	32.9	475
2008-09	7.9%	5.3	11.6	541	2008-09	21.4%	17.9	25.4	862
2009-10	7.2%	4.0	12.6	384	2009-10	23.7%	19.0	29.1	645
2011	9.1%	5.7	14.1	314	2011	21.5%	17.2	26.5	512
2012	13.4%	7.1	24.1	486	2012	21.1%	17.2	25.7	1,017
2013	7.1%	4.3	11.6	367	2013	24.5%	19.5	30.4	775
2014	8.3%	4.8	14.2	264	2014	21.6%	16.6	27.5	642
2015	6.7%	4.2	10.8	380	2015	22.0%	17.9	26.7	892
2016	22.0%	13.9	32.9	314	2016	17.9%	12.9	24.3	677
p for trend 1998-2016				0.002					0.38
p for trend 2007-2016				0.01					0.07

Source: Alaska Behavioral Risk Factor Surveillance System, Combined and Supplemental File

Note: Questions about SLT use were not asked in 2003.

Estimates for all years prior to 2011 for the Northern region and for 2009 and 2010 in all other regions are reported using combined year rolling averages, so that the N (denominator) is higher and the estimates are more stable. Tests for trend, however, use single years.

Percentages reported in tables may not always match percentages reported in the graphs, due to differences in rounding.

Table 22 (continued): Trends in Smokeless Tobacco Use by Economic Region, Alaska 1998-2016

Year	Gulf Coast	LB	UB	N	Interior	LB	UB	N
1998	3.2%	1.6	6.3	414	6.0%	3.9	9.1	435
1999	3.4%	1.9	6.0	398	5.2%	3.2	8.3	498
2000	4.2%	2.3	7.4	407	4.2%	2.7	6.5	468
2001	8.2%	5.3	12.4	547	5.6%	4.0	7.9	676
2002	7.5%	4.9	11.5	571	5.7%	3.8	8.4	602
2003	N/A				N/A			
2004	4.9%	2.9	8.3	514	4.5%	2.9	7.0	580
2005	4.1%	3.0	5.6	1,148	5.2%	3.8	7.1	1,183
2006	5.8%	4.1	8.1	851	4.6%	3.2	6.6	955
2007	5.9%	4.3	8.1	1,003	4.4%	3.0	6.3	1,112
2008	4.3%	2.9	6.3	968	5.3%	3.9	7.1	1,134
2008-09	4.5%	3.4	5.9	1,905	6.0%	4.8	7.4	2,224
2009-10	5.4%	4.0	7.1	1,544	6.2%	4.7	8.2	1,785
2011	8.8%	5.8	13.1	1,093	6.9%	4.8	9.8	1,295
2012	4.3%	2.6	6.9	1,123	5.9%	4.1	8.3	1,745
2013	4.7%	3.5	6.3	1,445	5.4%	4.1	7.1	2,010
2014	4.2%	2.9	6.1	1,348	4.8%	3.4	6.6	1,790
2015	5.6%	4.1	7.7	1,246	5.6%	4.1	7.5	1,765
2016	5.3%	3.5	7.9	1,072	5.1%	3.7	7.1	1,586
p for trend 1998-2016				0.62				0.67
p for trend 2007-2016				0.66				0.84

Source: Alaska Behavioral Risk Factor Surveillance System, Combined and Supplemental File

Note: Questions about SLT use were not asked in 2003.

Estimates for 2009 and 2010 are reported using combined year rolling averages, so that the N (denominator) is higher and the estimates are more stable. Tests for trend, however, use single years.

Percentages reported in tables may not always match percentages reported in the graphs, due to differences in rounding.

Table 22 (continued): Trends in Smokeless Tobacco Use by Economic Region, Alaska 1998-2016

Year	Southeast	LB	UB	N	Anchorage/ Mat-Su	LB	UB	N
1998	4.6%	2.6	7.8	398	4.1%	2.3	7.2	404
1999	5.9%	3.6	9.4	412	4.3%	2.6	6.9	408
2000	4.7%	2.8	8.0	432	4.5%	2.4	8.1	429
2001	3.1%	1.8	5.3	563	4.2%	2.5	7.1	552
2002	4.8%	3.0	7.7	542	5.5%	3.5	8.5	509
2003	N/A				N/A			
2004	4.1%	2.2	7.5	421	2.8%	1.4	5.5	541
2005	3.6%	2.5	5.2	1,055	3.8%	2.5	5.5	1,105
2006	4.4%	3.0	6.3	794	2.7%	1.6	4.6	934
2007	4.2%	3.0	5.9	1,011	3.6%	2.3	5.6	1,017
2008	2.5%	1.6	3.8	893	3.7%	2.5	5.5	1,012
2008-09	3.4%	2.5	4.6	1,830	3.4%	2.4	4.6	1,970
2009-10	3.5%	2.5	4.9	1,556	2.8%	1.8	4.2	1,547
2011	3.8%	2.4	6.1	1,134	3.4%	2.4	4.7	1,772
2012	3.7%	2.4	5.6	1,178	4.2%	3.2	5.5	2,756
2013	2.7%	1.9	3.8	1,504	4.1%	3.1	5.4	2,970
2014	4.9%	2.9	8.0	1,309	4.1%	3.2	5.2	3,467
2015	3.9%	2.5	6.0	1,279	4.8%	3.6	6.3	2,546
2016	2.9%	1.7	5.0	1,109	4.9%	3.6	6.6	2,501
p for trend 1998-2016				0.09				0.94
p for trend 2007-2016				0.92				0.03

Source: Alaska Behavioral Risk Factor Surveillance System, Combined and Supplemental File

Note: Questions about SLT use were not asked in 2003.

Estimates for 2009 and 2010 are reported using combined year rolling averages, so that the N (denominator) is higher and the estimates are more stable. Tests for trend, however, use single years.

Percentages reported in tables may not always match percentages reported in the graphs, due to differences in rounding.

Table 23: Trends in Smokeless Tobacco Use by Selected Boroughs, Alaska 1998-2016

Year	Anchorage	LB	UB	N	Mat-Su	LB	UB	N
1997-1999	4.4%	3.1	6.3	906	4.2%	2.1	8.3	213
1998-2000	4.2%	2.9	6.1	1,020	4.6%	2.2	9.1	221
1999-2001	4.3%	3.0	6.1	1,129	4.4%	2.2	8.4	260
2000-2002	4.4%	3.1	6.2	1,202	6.1%	3.3	10.9	288
2001-2002	4.4%	3.0	6.4	852	6.8%	3.4	13.3	209
2003	N/A				N/A			
2002&2004	3.5%	2.2	5.5	830	6.4%	3.3	12.1	220
2004-05	2.9%	1.8	4.6	1,262	4.3%	2.3	7.8	384
2005-06	2.6%	1.8	3.9	1,570	5.0%	2.9	8.6	469
2006-07	2.4%	1.5	3.7	1,476	5.6%	3.3	9.3	475
2007-08	3.0%	2.1	4.3	1,491	5.4%	3.2	8.9	538
2008-09	2.7%	1.9	4.0	1,450	5.0%	2.8	8.6	520
2009-10	2.0%	1.2	3.2	1,161	5.3%	2.6	10.5	386
2011	2.9%	1.8	4.4	1,069	5.2%	3.2	8.2	703
2012	3.5%	2.4	4.9	1,621	6.6%	4.2	10.1	1,135
2013	3.8%	2.7	5.4	1,708	5.1%	3.2	8.0	1,262
2014	4.0%	3.0	5.4	2,107	4.3%	2.8	6.4	1,360
2015	4.4%	3.0	6.4	1,310	6.0%	4.5	8.0	1,236
2016	4.6%	3.0	6.9	1,326	5.9%	4.2	8.4	1,175
p for trend 1998-2016				0.71				0.82
p for trend 2007-2016				0.01				0.89

Source: Alaska Behavioral Risk Factor Surveillance System, Combined and Supplemental File

Note: Questions about SLT use were not asked in 2003.

Note also: Estimates for years prior to 2011 are reported using combined year rolling averages, so that the N (denominator) is higher and the estimates are more stable. Tests for trend, however, use single years.

Note also: Percentages reported in tables may not always match percentages reported in the graphs, due to differences in rounding.

Table 24: Trends in Maternal Smoking in the Last Three Months of Pregnancy, Alaska, 1996-2015

Year	All Mothers	LB	UB	N	Alaska Native	LB	UB	N	Non-Native	LB	UB	N
1996	21.6%	19.2	24.2	1,264	33.0%	29.3	36.9	512	18.2%	15.3	21.4	752
1997	17.6%	15.5	19.9	1,331	29.0%	25.6	32.8	542	14.0%	11.6	16.9	789
1998	18.3%	16.2	20.6	1,348	32.8%	29.5	36.4	588	13.8%	11.3	16.7	760
1999	16.7%	14.7	18.9	1,400	29.2%	26.0	32.6	618	12.6%	10.3	15.4	782
2000	16.8%	14.8	19.0	1,371	29.4%	26.2	32.8	618	12.6%	10.3	15.3	753
2001	14.7%	13.0	16.7	1,417	27.8%	24.9	31.0	640	10.3%	8.3	12.8	777
2002	17.7%	15.8	19.9	1,488	29.3%	26.4	32.5	658	14.0%	11.6	16.7	830
2003	16.8%	14.9	19.0	1,506	25.7%	22.9	28.7	677	13.9%	11.6	16.7	829
2004	17.3%	15.0	19.9	1,241	31.3%	27.5	35.3	514	12.6%	9.9	15.9	727
2005	16.1%	13.9	18.5	1,251	27.7%	24.2	31.5	523	12.0%	9.5	15.1	728
2006	14.8%	12.7	17.1	1,221	28.0%	24.3	32.1	476	10.5%	8.1	13.4	745
2007	15.4%	13.4	17.7	1,331	31.1%	27.5	35.1	517	10.1%	7.8	13.0	814
2008	15.1%	12.9	17.5	1,206	29.9%	26.1	33.9	501	10.2%	7.8	13.3	705
2009	15.4%	13.3	17.7	1,152	31.2%	26.9	35.8	427	9.8%	7.5	12.7	725
2010	16.8%	14.3	19.7	1,077	29.7%	25.5	34.2	399	12.6%	9.7	16.3	678
2011	13.8%	11.8	16.2	1,071	29.8%	25.4	34.5	392	8.6%	6.4	11.5	679
2012	13.1%	11.0	15.6	844	26.6%	22.0	31.8	309	8.6%	6.3	11.7	535
2013	13.4%	11.6	15.5	1,285	31.0%	27.3	35.1	495	7.4%	5.4	10.1	790
2014	13.2%	11.2	15.5	1,183	27.3%	23.3	31.6	430	8.3%	6.2	11.2	753
2015	11.6%	9.8	13.6	1,158	27.7%	23.8	31.9	452	6.0%	4.2	8.5	706
p for trend 1996-2015				<0.001				0.21				<0.001
p for trend 2007-2015				<0.001				0.12				0.002

Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS)

Table 25: Trends in Maternal Smokeless Tobacco Use during Pregnancy, including Chew or Snuff Use, Alaska, 1996-2003

Year	All Mothers	LB	UB	N	Alaska Native	LB	UB	N	Non-Native	LB	UB	N
1996	6.5%	5.6	7.7	1,039	26.7%	22.6	30.8	410	0.3%	0.1	1.5	625
1997	5.9%	5.0	6.9	1,364	21.3%	18.3	24.6	566	1.0%	0.5	2.1	793
1998	6.5%	5.6	7.7	1,361	22.0%	19.1	25.2	596	1.6%	0.9	3.0	758
1999	5.6%	4.8	6.5	1,444	20.4%	17.7	23.4	630	0.7%	0.3	1.7	783
2000	5.5%	4.7	6.3	1,460	20.1%	17.3	22.9	643	0.5%	0.2	1.5	752
2001	4.7%	4.0	5.5	1,523	17.5%	15.1	20.3	654	0.4%	0.1	1.1	786
2002	5.0%	4.3	5.9	1,605	17.8%	15.4	20.5	672	0.8%	0.4	1.8	831
2003	4.5%	3.8	5.2	1,617	16.9%	14.6	19.4	693	0.4%	0.1	1.1	827
p for trend 1996-2003				<0.001				<0.001				0.19

Table 26: Trends in Maternal Smokeless Tobacco Use during Pregnancy, including Chew, Snuff and/or Iqmik Use, Alaska, 2004-2015

Year	All Mothers	LB	UB	N	Alaska Native	LB	UB	N	Non-Native	LB	UB	N
2004	5.0%	4.1	6.2	1,312	16.6%	13.8	19.9	508	1.2%	0.5	2.7	726
2005	5.7%	4.9	6.8	1,337	20.8%	17.7	24.2	518	0.5%	0.1	1.6	715
2006	3.6%	2.9	4.4	1,386	14.1%	11.4	17.3	485	0.2%	0.03	1.3	738
2007	5.3%	4.4	6.4	1,476	18.0%	15.0	21.3	526	1.1%	0.5	2.5	807
2008	4.7%	3.9	5.7	1,273	18.3%	15.2	21.8	498	0.3%	0.1	1.3	698
2009	4.6%	3.7	5.7	1,207	16.4%	13.2	20.3	423	0.5%	0.1	1.6	720
2010	4.7%	3.8	5.8	1,124	18.4%	14.9	22.4	396	0.3%	0.04	1.7	673
2011	4.5%	3.6	5.7	1,057	17.7%	14.1	21.9	382	0.3%	0.05	1.6	675
2012	5.5%	4.3	7.0	842	18.9%	14.9	23.8	312	1.0%	0.3	2.6	530
2013	5.2%	4.2	6.3	1,283	17.5%	14.5	21.0	497	1.0%	0.4	2.3	786
2014	4.6%	3.7	5.8	1,165	15.9%	12.8	19.6	424	0.7%	0.3	1.9	741
2015	5.4%	4.4	6.6	1,142	18.9%	15.5	22.7	441	0.8%	0.3	2.1	701
p for trend 2004-2015				0.72				0.81				0.71

Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS)
Note: See Appendix B for additional information about changes to the questions regarding smokeless or spit tobacco use.

Section III. Youth Tobacco Use

Table 27: Trends in Current Cigarette Smoking among High School Students, by Gender, Alaska 1995-2017

Year	All	LB	UB	N	Female	LB	UB	N	Male	LB	UB	N
1995	36.5%	32.6	40.5	1,602	36.5%	30.9	42.4	795	36.4%	31.6	41.4	801
2003	19.2%	16.7	21.9	1,407	20.2%	16.5	24.5	688	18.3%	15.5	21.5	714
2007	17.5%	14.8	20.6	1,244	19.4%	14.9	24.9	620	15.7%	13.1	18.7	619
2009	15.6%	13.0	18.5	1,284	16.8%	13.7	20.5	676	14.2%	11.3	17.6	599
2011	14.0%	10.7	18.1	1,238	14.6%	10.1	20.6	634	13.4%	10.7	16.7	599
2013	10.4%	8.1	13.2	1,162	8.0%	5.4	11.7	598	12.3%	9.4	16.1	561
2015	11.1%	9.1	13.5	1,351	8.4%	6.0	11.6	679	13.3%	10.6	16.6	667
2017	9.9%	8.0	12.3	1,260	9.8%	6.6	14.1	629	9.9%	7.9	12.3	626
p for trend 1995-2017				<0.001				<0.001				<0.001
p for trend 2007-2017				<0.001				<0.001				0.004

Source: Alaska Youth Risk Behavior Survey
Note: Percentages reported in tables may not always match percentages reported in the graphs, due to differences in rounding.
Note: Estimates for years 2003-2013 may vary from previously published results: see Appendix B.

Table 28: Trends in Current Cigarette Smoking among High School Students, by Alaska Native Status, Alaska 1995-2017

Year	Alaska Native	LB	UB	N	Non-Native	LB	UB	N
1995	61.9%	52.8	70.2	177	32.5%	29.7	35.3	1,338
2003	42.9%	37.5	48.6	309	11.9%	9.8	14.3	1,086
2007	31.7%	24.5	40.0	238	12.8%	10.5	15.5	979
2009	23.8%	17.0	32.4	275	12.0%	9.6	14.8	911
2011	26.4%	16.4	39.5	275	9.7%	7.2	12.9	931
2013	18.5%	13.0	25.7	260	6.9%	5.2	9.1	867
2015	19.7%	14.7	26.0	331	7.0%	5.4	9.0	970
2017	18.0%	12.2	25.7	320	6.0%	4.4	8.0	900
p for trend 1995-2017				<0.001				<0.001
p for trend 2007-2017				0.004				<0.001

Source: Alaska Youth Risk Behavior Survey
Note: Estimates for years 2003-2013 may vary from previously published results: see Appendix B.

Table 29: Trends in Current Cigarette Smoking among High School Students, by Grade, Alaska 1995-2017

Year	9th grade	LB	UB	N	10th grade	LB	UB	N
1995	35.4%	28.7	42.6	482	33.2%	26.6	40.6	379
2003	12.4%	9.2	16.6	487	23.6%	19.1	28.8	301
2007	12.1%	9.0	16.1	396	19.1%	13.6	26.1	237
2009	13.9%	10.3	18.5	365	13.3%	9.6	18.2	314
2011	9.6%	6.6	13.7	391	14.5%	9.1	22.3	328
2013	6.7%	4.1	11.0	332	12.5%	8.4	18.1	302
2015	7.2%	4.4	11.5	317	10.3%	7.2	14.5	414
2017	6.4%	4.2	9.6	400	6.5%	4.4	9.5	345
p for trend 1995-2017				<0.001				<0.001
p for trend 2007-2017				<0.001				<0.001

Year	11th grade	LB	UB	N	12th grade	LB	UB	N
1995	39.7%	35.8	43.7	468	38.7%	32.5	45.3	265
2003	19.2%	13.8	26.1	342	23.2%	17.3	30.5	261
2007	18.9%	12.9	26.7	318	21.5%	16.8	27.1	275
2009	12.6%	8.6	18.2	337	21.6%	16.0	28.4	238
2011	15.1%	10.6	21.0	299	17.8%	11.9	25.8	213
2013	8.8%	5.4	14.1	267	13.6%	9.6	19.0	251
2015	9.7%	6.9	13.6	342	17.0%	13.2	21.6	266
2017	11.0%	7.6	15.7	297	15.9%	10.8	22.8	208
p for trend 1995-2017				<0.001				<0.001
p for trend 2007-2017				0.01				0.05

Source: Alaska Youth Risk Behavior Survey
Note: Estimates for years 2003-2013 may vary from previously published results: see Appendix B.

Table 30: Trends in Current Smokeless Tobacco Use among High School Students, by Gender, Alaska 1995-2017

Year	All	LB	UB	N	Female	LB	UB	N	Male	LB	UB	N
1995	15.6%	12.8	18.9	1,622	6.7%	4.5	9.8	801	23.5%	19.6	28.0	815
2003	11.2%	8.8	14.2	1,457	6.2%	3.0	12.5	706	15.6%	12.9	18.8	741
2007	10.4%	7.4	14.5	1,301	7.3%	4.5	11.5	647	13.5%	9.8	18.3	648
2009	13.6%	10.7	17.0	1,323	7.4%	5.0	10.8	699	19.3%	15.3	23.9	618
2011	8.4%	6.7	10.3	1,319	4.3%	2.4	7.7	672	12.1%	9.3	15.5	643
2013	8.0%	5.5	11.5	1,205	4.5%	2.2	8.9	622	11.2%	8.0	15.4	578
2015	11.2%	8.4	14.8	1,391	7.9%	5.0	12.1	694	14.1%	10.9	18.2	691
2017	8.3%	5.6	12.1	1,308	5.6%	3.3	9.4	644	10.7%	7.2	15.6	660
p for trend 1995-2017				<0.001				0.62				<0.001
p for trend 2007-2017				0.20				0.59				0.09

Source: Alaska Youth Risk Behavior Survey
Note: Estimates for years 2013-2015 may vary from previously published results: see Appendix B.
Note: In 2017, snus and dissolvable tobacco were added to the YRBS question.

Table 31: Trends in Current Smokeless Tobacco Use among High School Students, by Alaska Native Status, Alaska 1995-2017

Year	Alaska Native	LB	UB	N	Non-Native	LB	UB	N
1995	22.5%	16.1	30.5	183	14.5%	11.9	17.6	1,352
2003	23.0%	14.5	34.5	324	7.4%	5.8	9.4	1,119
2007	16.5%	8.1	30.8	252	7.9%	6.3	9.9	1,020
2009	22.1%	14.7	32.0	288	9.2%	6.8	12.4	929
2011	12.4%	9.3	16.3	303	6.3%	4.8	8.3	976
2013	18.5%	11.5	28.3	274	4.0%	3.0	5.4	897
2015	24.4%	16.5	34.6	348	5.4%	3.9	7.4	989
2017	16.0%	8.2	28.9	341	4.5%	3.3	6.1	928
p for trend 1995-2017				0.43				<0.001
p for trend 2007-2017				0.81				<0.001

Source: Alaska Youth Risk Behavior Survey
Note: Estimates for years 2013-2015 may vary from previously published results: see Appendix B.
Note: In 2017, snus and dissolvable tobacco were added to the YRBS question.

Table 32: Trends in Current Smokeless Tobacco Use among High School Students, by Grade, Alaska 1995-2017

Year	9th grade	LB	UB	N	10th grade	LB	UB	N
1995	14.4%	10.5	19.5	492	14.8%	10.8	20.1	381
2003	8.6%	6.4	11.5	502	14.9%	9.3	23.0	308
2007	11.3%	7.4	16.9	415	9.2%	4.9	16.7	253
2009	11.9%	7.4	18.7	373	13.6%	8.8	20.4	332
2011	7.3%	4.4	11.8	416	6.7%	4.2	10.4	347
2013	5.9%	3.5	9.7	341	9.6%	6.0	15.1	315
2015	10.5%	6.6	16.3	331	11.6%	7.0	18.7	420
2017	7.7%	4.9	11.7	420	7.1%	4.3	11.6	358
p for trend 1995-2017				0.02				0.01
p for trend 2007-2017				0.18				0.55

Year	11th grade	LB	UB	N	12th grade	LB	UB	N
1995	16.4%	12.2	21.7	474	17.2%	12.5	23.4	267
2003	13.9%	9.5	19.9	358	6.5%	3.9	10.9	267
2007	9.3%	6.1	13.8	334	11.8%	7.9	17.3	282
2009	11.8%	7.8	17.5	351	15.9%	9.6	25.2	237
2011	8.0%	5.5	11.5	318	11.7%	8.3	16.3	231
2013	8.3%	5.1	13.3	275	7.7%	4.1	13.9	262
2015	10.0%	6.5	15.1	354	12.3%	8.6	17.2	274
2017	8.5%	5.0	14.1	306	9.4%	5.5	15.7	214
p for trend 1995-2017				0.002				0.12
p for trend 2007-2017				0.61				0.23

Source: Alaska Youth Risk Behavior Survey
Note: Estimates for years 2013-2015 may vary from previously published results: see Appendix B.
Note: In 2017, snus and dissolvable tobacco were added to the YRBS question.

Table 33: Trends in Current Cigar Smoking among High School Students, by Gender, Alaska 2003-2017

Year	All	LB	UB	N	Female	LB	UB	N	Male	LB	UB	N
2003	7.8%	6.3	9.6	1,480	3.5%	2.4	5.1	709	11.7%	9.2	14.6	761
2007	10.1%	8.5	12.0	1,313	6.1%	4.2	8.8	651	13.6%	11.3	16.4	654
2009	10.3%	8.6	12.3	1,368	6.2%	4.7	8.2	716	13.7%	10.8	17.3	641
2011	10.3%	8.1	13.0	1,322	6.1%	4.0	9.1	672	14.2%	11.2	17.9	645
2013	7.3%	5.8	9.1	1,229	4.6%	3.2	6.4	628	9.2%	6.7	12.5	593
2015	7.1%	5.6	8.9	1,406	3.7%	2.2	5.9	698	9.9%	7.6	12.8	701
2017	6.6%	4.9	8.9	1,308	5.2%	3.7	7.2	644	7.9%	5.4	11.3	660
p for trend 2003-2017				0.03				0.93				0.01
p for trend 2007-2017				<0.001				0.10				<0.001

Source: Alaska Youth Risk Behavior Survey

Table 34: Trends in Current Cigar Smoking among High School Students, by Alaska Native Status, Alaska 2003-2017

Year	Alaska Native	LB	UB	N	Non-Native	LB	UB	N
2003	5.7%	3.4	9.4	335	8.6%	6.9	10.7	1,131
2007	7.9%	5.2	11.9	258	11.0%	9.1	13.1	1,026
2009	6.3%	3.8	10.1	300	10.8%	8.6	13.4	957
2011	10.8%	7.1	16.0	303	9.3%	7.3	11.8	979
2013	5.2%	3.0	9.0	283	7.6%	5.9	9.7	910
2015	6.8%	4.5	10.3	353	7.0%	5.3	9.1	998
2017	7.0%	4.5	10.8	342	6.0%	3.8	9.2	926
p for trend 1995-2017				0.82				0.01
p for trend 2007-2017				0.54				<0.001

Source: Alaska Youth Risk Behavior Survey

Table 35: Trends in Current Cigar Smoking among High School Students, by Grade, Alaska 2003-2017

Year	9th grade	LB	UB	N	10th grade	LB	UB	N
2003	5.1%	3.5	7.4	510	7.1%	4.7	10.7	313
2007	8.1%	5.7	11.4	420	10.1%	7.1	14.1	255
2009	4.4%	2.8	6.9	382	7.8%	5.4	11.0	339
2011	3.4%	2.2	5.4	418	9.1%	6.1	13.5	348
2013	4.7%	2.9	7.6	345	9.4%	6.0	14.2	322
2015	4.5%	2.8	7.0	331	6.0%	3.7	9.6	428
2017	6.2%	4.2	9.2	424	4.7%	3.1	7.2	352
p for trend 2003-2017				0.59				0.16
p for trend 2007-2017				0.38				0.01

Year	11th grade	LB	UB	N	12th grade	LB	UB	N
2003	10.5%	7.2	15.1	362	9.1%	6.1	13.4	273
2007	10.0%	7.2	13.7	337	12.7%	8.6	18.3	283
2009	16.2%	12.5	20.7	362	12.1%	9.0	16.0	250
2011	11.8%	9.0	15.4	319	18.4%	11.7	27.7	230
2013	6.2%	3.8	9.8	282	8.9%	6.0	13.2	266
2015	7.5%	5.3	10.5	358	9.9%	6.3	15.2	276
2017	6.1%	3.8	9.8	307	9.3%	5.0	16.8	215
p for trend 2003-2017				0.005				0.69
p for trend 2007-2017				<0.001				0.14

Source: Alaska Youth Risk Behavior Survey

Section IV. Secondhand Smoke

Table 36: Trends in Percentage of Children (Age 0-17) Exposed to Smoke in their Homes in Past Month by Respondent Smoking Status, Alaska 2004-2016

Year	Overall	LB	UB	N	Smokers	LB	UB	N
2004	13.0%	10.3	16.4	1,125	39.4%	31.3	48.1	302
2005	9.0%	7.0	11.5	1,247	20.4%	15.0	27.1	332
2006	9.1%	6.6	12.3	880	22.7%	15.2	32.4	226
2007	8.1%	6.0	10.7	1,108	20.4%	14.0	28.6	259
2008	5.5%	3.8	8.0	959	11.8%	7.8	17.4	242
2009	3.3%	2.2	4.8	930	10.4%	6.1	17.3	187
2010	6.4%	2.4	16.0	480	14.5%	8.5	23.7	106
2011	5.4%	3.5	8.1	995	15.9%	9.9	24.5	216
2012	5.9%	3.7	9.2	1,559	11.0%	6.2	18.7	354
2013	7.6%	4.3	13.0	1,598	28.2%	15.4	45.8	315
2014	5.6%	3.7	8.5	1,554	15.8%	9.0	26.5	271
2015	2.4%	1.3	4.5	1,432	13.1%	6.3	25.1	251
2016	2.3%	1.3	4.0	1,331	9.1%	4.5	17.3	229
p for trend 2004-2016				<0.001				0.001
p for trend 2007-2016				0.004				0.85

Year	Former Smokers	LB	UB	N	Never Smokers	LB	UB	N
2004	8.8%	4.0	18.1	251	3.5%	2.3	5.4	564
2005	9.7%	5.5	16.6	304	2.6%	1.5	4.6	601
2006	3.5%	1.3	9.4	214	5.2%	2.9	9.1	435
2007	5.9%	3.3	10.3	271	4.5%	2.5	7.9	570
2008	3.0%	0.9	9.4	236	3.9%	1.8	8.2	474
2009	1.4%	0.6	3.1	253	1.7%	0.8	3.7	479
2010	NA	NA	NA	138	7.4%	1.5	29.1	232
2011	0.8%	0.2	3.3	261	3.5%	1.5	8.1	509
2012	2.2%	0.4	10.5	375	5.4%	2.5	11.3	816
2013	2.7%	1.1	6.9	418	1.9%	0.8	4.1	856
2014	3.4%	1.4	8.4	372	2.5%	1.2	5.0	900
2015	0.6%	0.1	2.9	365	0.5%	0.1	2.1	812
2016	0.1%	<0.1	0.4	347	1.3%	0.4	3.7	750
p for trend 2004-2016				<0.001				0.003
p for trend 2007-2016				0.04				0.001

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File

Notes: N is the number of adult respondents with children in the household. For 2010, no former smoker respondents reported any smoking in the household in the past 30 days, so percentage and confidence interval are not reported.

Table 37: Trends in the Percentage of Adults who Report that Smoking Is Not Allowed Anywhere in Their Homes, by Gender, Alaska 2001-2016

Year	All Adults	LB	UB	N	Male	LB	UB	N	Female	LB	UB	N
2001	76.8%	74.3	79.1	2,646	76.9%	73.3	80.2	1,260	76.6%	73.3	79.7	1,386
2002	NA				NA				NA			
2003	NA				NA				NA			
2004	79.8%	77.6	81.9	2,457	77.2%	73.7	80.3	1,098	82.6%	79.8	85.2	1,359
2005	84.0%	82.0	85.8	2,930	81.0%	77.8	83.9	1,375	87.2%	84.8	89.3	1,555
2006	85.6%	82.9	88.0	2,116	87.5%	84.1	90.2	933	83.6%	79.2	87.3	1,183
2007	85.0%	82.8	87.0	2,535	83.3%	79.9	86.2	1,176	86.9%	84.0	89.4	1,359
2008	86.4%	83.9	88.6	2,263	84.1%	80.2	87.4	1,037	88.9%	85.5	91.5	1,226
2009	90.0%	88.2	91.6	2,316	89.9%	87.0	92.2	1,034	90.2%	87.6	92.3	1,282
2010	90.1%	87.2	92.4	1,261	89.9%	86.0	92.8	593	90.4%	85.5	93.7	668
2011	88.6%	86.2	90.6	2,553	88.0%	84.6	90.7	1,143	89.2%	85.7	92.0	1,410
2012	89.1%	87.3	90.7	3,971	88.5%	85.8	90.7	1,862	89.8%	87.3	91.9	2,109
2013	88.4%	86.7	90.0	4,540	86.2%	83.5	88.6	2,059	90.8%	88.6	92.6	2,481
2014	90.1%	88.5	91.5	4,549	89.2%	86.8	91.2	2,102	91.2%	88.9	93.0	2,447
2015	91.4%	89.8	92.8	4,532	90.5%	88.0	92.6	2,092	92.4%	90.2	94.2	2,440
2016	92.0%	90.4	93.3	4,419	91.7%	89.4	93.5	1,988	92.4%	90.1	94.1	2,431
p for trend 2001-2016				<0.001				<0.001				<0.001
p for trend 2007-2016				<0.001				<0.001				<0.001

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

Note: Question not asked in 2002 and 2003.

Table 38: Trends in the Percentage of Adults who Report that Smoking Is Not Allowed Anywhere in Their Homes, by Alaska Native Status, Alaska 2001-2016

Year	Alaska Native	LB	UB	N	Non-Native	LB	UB	N
2001	80.9%	76.4	84.8	530	76.1%	73.2	78.7	2,039
2002	NA				NA			
2003	NA				NA			
2004	76.4%	70.4	81.5	473	80.4%	78.0	82.7	1,959
2005	83.3%	78.3	87.3	577	84.1%	81.9	86.1	2,329
2006	85.0%	79.4	89.2	399	85.7%	82.6	88.4	1,688
2007	85.1%	80.3	88.9	500	85.1%	82.7	87.3	2,004
2008	86.5%	81.6	90.2	445	86.4%	83.5	88.9	1,795
2009	89.7%	85.5	92.7	403	90.2%	88.0	92.0	1,874
2010	93.1%	86.5	96.6	225	89.4%	86.0	92.1	1,019
2011	92.8%	89.5	95.1	485	87.7%	85.0	90.0	2,032
2012	86.8%	81.9	90.6	795	89.5%	87.6	91.2	3,126
2013	86.3%	81.9	89.7	658	89.0%	87.1	90.7	3,796
2014	89.9%	86.5	92.5	661	90.4%	88.6	91.9	3,783
2015	92.0%	88.2	94.6	678	91.5%	89.6	93.0	3,712
2016	89.7%	85.4	92.9	665	92.4%	90.7	93.8	3,623
p for trend 2001-2016				<0.001				<0.001
p for trend 2007-2016				0.15				<0.001

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

Note: Question not asked in 2002 and 2003.

Information presented in these tables differs slightly from prior year reports, due to changes in definition for Alaska Native and non-Native groups where respondents reported more than one race group.

Table 39: Trends in the Percentage of Adults who Report that Smoking Is Not Allowed Anywhere in Their Homes, by Socioeconomic Status, Alaska 2001-2016

Year	Low SES	LB	UB	N	Higher SES	LB	UB	N
2001	66.2%	58.2	73.3	303	80.5%	77.1	83.5	1,356
2002	NA				NA			
2003	NA				NA			
2004	69.4%	62.0	75.8	329	84.4%	81.6	86.8	1,252
2005	77.4%	71.0	82.7	402	86.5%	83.8	88.9	1,458
2006	80.3%	72.1	86.5	221	90.5%	88.3	92.3	1,124
2007	81.5%	74.7	86.7	263	86.5%	83.5	89.0	1,337
2008	73.9%	65.1	81.2	252	89.7%	86.4	92.2	1,204
2009	87.8%	81.5	92.1	284	91.8%	89.5	93.7	1,174
2010	86.3%	77.3	92.1	149	91.4%	87.9	94.0	631
2011	80.6%	73.0	86.4	303	90.3%	86.6	93.1	1,220
2012	82.6%	76.9	87.2	551	91.9%	89.4	93.9	1,758
2013	78.9%	72.6	84.0	581	92.6%	90.5	94.3	2,157
2014	81.0%	75.4	85.5	557	95.2%	93.6	96.5	2,086
2015	81.7%	75.4	86.6	474	94.2%	92.1	95.7	1,987
2016	87.3%	81.3	91.5	420	93.9%	91.6	95.6	1,876
p for trend 2001-2016				<0.001				<0.001
p for trend 2007-2016				0.41				<0.001

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File. .

Note: Question not asked in 2002 and 2003.

The socioeconomic status (SES) measure is restricted to non-Natives age 25 to 64. Low SES is defined as less than high school education or household income at 185% or less of the Alaska Poverty Level Guideline. See Appendix B for more information.

Information presented in these tables differs slightly from prior year reports, due to changes in definition for Alaska Native and non-Native groups where respondents reported more than one race group, and changes in calculation of percentage poverty status.

Table 40: Trends in the Percentage of Adults who Report that Smoking Is Not Allowed Anywhere in Their Homes, by Age Group, Alaska 2001-2016

Year	Ages 18-29	LB	UB	N	Ages 30-54	LB	UB	N	Age 55 and older	LB	UB	N
2001	79.0%	73.0	84.0	498	76.6%	73.4	79.5	1,572	75.0%	69.5	79.7	544
2002	NA				NA				NA			
2003	NA				NA				NA			
2004	82.4%	76.9	86.8	431	80.7%	77.8	83.4	1,411	75.0%	70.2	79.2	588
2005	86.2%	81.5	89.9	494	84.2%	81.4	86.6	1,588	81.3%	76.9	85.0	817
2006	82.2%	71.8	89.3	277	89.2%	86.9	91.2	1,149	81.2%	76.7	85.0	655
2007	88.1%	82.4	92.1	393	84.7%	81.6	87.3	1,350	82.8%	78.6	86.2	764
2008	89.5%	82.6	93.9	314	84.5%	80.6	87.7	1,189	87.0%	83.6	89.8	733
2009	92.2%	86.7	95.6	296	91.5%	89.2	93.3	1,162	84.9%	81.1	88.1	830
2010	90.4%	80.2	95.7	142	91.4%	87.8	94.0	596	87.3%	82.8	90.7	502
2011	90.1%	83.3	94.3	264	89.1%	85.4	91.9	1,190	86.2%	82.9	89.0	1,053
2012	90.4%	86.5	93.3	549	88.2%	85.3	90.6	1,773	89.1%	86.1	91.5	1,593
2013	89.1%	84.4	92.5	562	88.9%	86.1	91.2	1,884	87.3%	84.8	89.3	2,043
2014	91.3%	87.0	94.3	459	91.1%	88.7	93.1	1,827	87.6%	84.8	89.9	2,179
2015	92.9%	88.3	95.8	430	91.0%	88.2	93.2	1,728	90.6%	88.6	92.4	2,282
2016	90.8%	86.1	94.0	419	94.3%	92.2	95.9	1,506	89.7%	87.2	91.8	2,386
p for trend 2001-2016				<0.001				<0.001				<0.001
p for trend 2007-2016				0.34				<0.001				<0.001

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

Note: Question not asked in 2002 and 2003.

Table 41: Trends in the Percentage of Adults who Report that Smoking Is Not Allowed Anywhere in Their Homes, by Smoking Status, Alaska 2001-2016

Year	Smokers	LB	UB	N	Former Smokers	LB	UB	N	Never Smokers	LB	UB	N
2001	48.3%	43.0	53.6	806	84.4%	80.5	87.6	766	89.9%	87.3	92.1	1,068
2002	NA				NA				NA			
2003	NA				NA				NA			
2004	50.7%	45.0	56.3	608	85.0%	80.8	88.3	642	90.8%	88.5	92.6	1,192
2005	62.3%	56.9	67.5	721	88.9%	85.3	91.7	813	92.3%	90.0	94.1	1,379
2006	65.3%	58.8	71.3	519	90.5%	86.8	93.2	613	92.8%	87.9	95.8	973
2007	64.5%	58.1	70.4	530	89.2%	85.6	91.9	734	92.4%	89.5	94.5	1,254
2008	68.1%	61.6	74.0	506	86.9%	81.2	91.1	691	95.6%	92.8	97.4	1,052
2009	69.2%	62.2	75.4	432	92.9%	89.9	95.1	711	96.6%	95.1	97.7	1,152
2010	76.8%	68.6	83.4	243	90.6%	85.5	94.1	394	95.7%	90.8	98.1	616
2011	67.7%	60.6	74.1	518	93.9%	91.1	95.9	750	95.3%	92.0	97.3	1,266
2012	74.5%	69.7	78.9	782	93.8%	90.7	96.0	1,136	92.9%	90.5	94.8	2,020
2013	66.5%	60.9	71.6	803	91.9%	89.2	94.0	1,390	96.2%	94.7	97.3	2,318
2014	70.7%	65.2	75.7	718	92.5%	89.4	94.7	1,399	95.6%	93.9	96.8	2,402
2015	74.9%	69.3	79.7	721	93.5%	90.3	95.8	1,392	96.1%	94.3	97.4	2,395
2016	72.5%	66.5	77.8	684	96.0%	93.8	97.4	1,354	96.9%	95.3	98.0	2,371
p for trend 2001-2016				<0.001				<0.001				<0.001
p for trend 2007-2016				0.06				<0.001				0.02

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

Note: Question not asked in 2002 and 2003.

Table 42: Trends in the Percentage of Adults who Report that Smoking Is Not Allowed Anywhere in Their Homes, by Economic Region, Alaska 2001-2016

Year	Northern	LB	UB	N	South-west	LB	UB	N	Gulf Coast	LB	UB	N
2001	77.5%	70.3	83.3	205	83.1%	77.8	87.3	288	72.2%	67.2	76.7	512
2002	NA				NA				NA			
2003	NA				NA				NA			
2004	74.8%	65.8	82.1	159	88.5%	83.5	92.2	247	76.7%	72.2	80.7	512
2005	82.6%	75.3	88.0	172	88.9%	84.3	92.3	303	85.8%	82.6	88.4	618
2006	80.1%	70.2	87.4	129	92.3%	86.9	95.6	187	81.7%	77.2	85.5	425
2007	82.9%	74.1	89.1	164	90.0%	83.8	94.0	252	80.1%	75.1	84.3	519
2008	82.6%	71.9	89.8	142	87.3%	79.6	92.3	240	80.2%	73.9	85.2	442
2009	88.0%	77.5	94.0	121	90.6%	84.0	94.7	190	87.0%	82.5	90.5	496
2010	96.5%	90.5	98.8	52*	93.3%	85.6	97.0	107	87.0%	79.3	92.1	257
2011	84.1%	71.9	91.6	153	94.3%	90.6	96.6	242	84.9%	77.7	90.0	496
2012	81.5%	67.8	90.2	232	94.3%	91.3	96.3	488	87.6%	82.6	91.2	534
2013	79.6%	68.0	87.8	168	90.2%	83.3	94.5	321	86.2%	82.6	89.3	743
2014	92.5%	84.2	96.6	138	93.8%	90.1	96.2	349	88.4%	82.9	92.3	681
2015	92.0%	85.0	95.9	169	96.0%	92.9	97.8	381	92.0%	88.8	94.3	753
2016	90.4%	81.2	95.3	170	94.3%	89.7	97.0	387	90.5%	85.2	94.0	719
p for trend 2001-2016				<0.001				<0.001				<0.001
p for trend 2007-2016				0.13				0.01				<0.001

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

Note: Question not asked in 2002 and 2003.

* Interpret with caution. Asterisk next to number indicates estimate with high coefficient of variation or sample size inadequate for common event.

Table 42 *(continued)*: Trends in the Percentage of Adults who Report that Smoking Is Not Allowed Anywhere in Their Homes, by Economic Region, Alaska 2001-2016

Year	Interior	LB	UB	N	South-east	LB	UB	N	Anchorage /Mat-Su	LB	UB	N
2001	74.2%	70.1	77.9	612	79.3%	75.2	82.8	517	77.4%	73.0	81.2	512
2002	NA				NA				NA			
2003	NA				NA				NA			
2004	76.5%	72.4	80.2	580	81.0%	76.6	84.8	419	80.7%	76.8	84.0	540
2005	83.2%	79.8	86.1	645	84.3%	80.9	87.3	599	83.3%	79.7	86.4	593
2006	84.9%	80.8	88.3	494	87.3%	83.6	90.3	420	85.9%	80.9	89.7	461
2007	82.2%	77.1	86.4	548	80.8%	75.8	85.0	535	87.5%	83.9	90.5	517
2008	88.8%	84.9	91.7	534	83.4%	77.7	87.9	425	87.7%	83.2	91.1	480
2009	85.6%	80.5	89.5	566	88.1%	83.8	91.4	457	92.5%	89.5	94.7	486
2010	89.4%	84.2	93.1	315	82.7%	73.5	89.2	275	91.8%	86.5	95.1	255
2011	86.1%	81.5	89.7	580	91.0%	87.6	93.5	553	89.5%	85.4	92.5	529
2012	89.8%	86.1	92.6	875	91.1%	86.7	94.2	570	88.8%	86.0	91.2	1,272
2013	87.9%	84.9	90.4	1,048	89.2%	85.8	91.8	790	89.3%	86.3	91.7	1,470
2014	89.9%	86.2	92.7	956	89.8%	85.7	92.8	678	90.1%	87.6	92.2	1,747
2015	88.9%	85.7	91.5	963	93.1%	89.5	95.5	761	91.3%	88.5	93.5	1,505
2016	91.3%	88.1	93.7	923	89.7%	85.4	92.8	713	92.9%	90.5	94.8	1,507
p for trend 2001-2016				<0.001				<0.001				<0.001
p for trend 2007-2016				0.002				<0.001				0.04

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

Note: Question not asked in 2002 and 2003.

Table 43: Trends in the Percentage of Adults who Report that Smoking Is Not Allowed Anywhere in Their Homes, by Selected Boroughs, Alaska 2001-2015

Year	Anchorage	LB	UB	N	Mat-Su	LB	UB	N
2001	79.6%	74.8	83.7	403	68.5%	58.0	77.4	109
2002	NA				NA			
2003	NA				NA			
2004	81.2%	76.8	85.0	414	78.8%	70.5	85.3	126
2005	85.5%	81.5	88.8	446	77.0%	68.9	83.5	147
2006	84.7%	78.2	89.5	348	89.3%	82.6	93.6	113
2007	89.8%	86.0	92.7	386	80.5%	70.8	87.6	131
2008	92.3%	88.5	94.9	347	76.0%	64.1	84.8	133
2009	93.9%	90.9	96.0	369	87.9%	78.3	93.6	117
2010	94.9%	90.6	97.2	201	80.2%*	61.5	91.2	54*
2011	89.9%	84.8	93.4	371	88.0%	81.4	92.4	158
2012	89.5%	86.2	92.0	740	86.8%	80.0	91.5	532
2013	90.0%	86.2	92.8	816	87.0%	82.9	90.2	654
2014	91.4%	88.6	93.6	1,072	86.1%	79.8	90.6	675
2015	90.9%	87.1	93.6	760	92.8%	90.1	94.8	745
2016	94.0%	90.8	96.2	794	89.6%	86.1	92.4	713
p for trend 2001-2016				<0.001				<0.001
p for trend 2007-2016				0.99				<0.001

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

Note: Question not asked in 2002 and 2003.

* Interpret with caution. Asterisk next to number indicates estimate with high coefficient of variation or sample size inadequate for common event.

Table 44: Trends in the Percentage of Employed or Self-Employed Alaskan Adults Working Primarily Indoors who Report that Smoking is not Allowed in Any Work Areas, by Gender, Alaska 1998-2016

Year	All Adults	LB	UB	N	Male	LB	UB	N	Female	LB	UB	N
1998	83.9%	80.4	86.9	1,061	78.2%	71.8	83.5	422	89.1%	85.6	91.8	639
1999	NA				NA				NA			
2000	80.0%	75.8	83.6	1,108	77.6%	71.2	82.8	471	82.2%	76.3	86.8	637
2001	90.0%	87.8	91.8	1,523	89.1%	85.6	91.8	644	90.9%	88.0	93.2	879
2002	NA				NA				NA			
2003	NA				NA				NA			
2004	84.6%	81.9	87.0	1,364	79.9%	75.3	83.9	535	89.0%	85.8	91.6	829
2005	83.8%	80.8	86.4	1,521	78.8%	73.7	83.2	636	88.4%	85.1	91.0	885
2006	83.8%	80.1	87.0	1,119	79.9%	73.6	85.0	426	87.2%	82.6	90.8	693
2007	87.3%	84.0	90.0	1,308	82.7%	76.9	87.3	551	91.7%	88.5	94.1	757
2008	87.6%	84.2	90.3	1,147	83.9%	78.6	88.1	462	91.0%	86.2	94.2	685
2009	83.6%	78.9	87.4	1,142	81.2%	73.8	86.9	456	86.0%	79.6	90.6	686
2010	84.5%	77.7	89.5	635	88.8%	82.7	92.9	270	80.8%	69.5	88.6	365
2011	87.2%	83.9	90.0	1,236	81.6%	75.3	86.5	488	92.5%	89.5	94.7	748
2012	88.0%	85.4	90.2	1,831	84.9%	80.4	88.5	771	90.9%	87.9	93.2	1,060
2013	85.0%	82.3	87.4	2,363	81.2%	76.5	85.2	962	88.5%	85.4	91.0	1,401
2014	84.4%	81.4	86.9	2,386	79.9%	75.2	84.0	1,005	88.3%	84.5	91.3	1,381
2015	84.4%	81.2	87.2	2,337	79.9%	74.8	84.3	971	88.3%	84.1	91.5	1,366
2016	87.2%	84.0	89.9	2,020	83.3%	77.9	87.6	846	90.8%	86.7	93.7	1,174
p for trend 1998-2016				0.18				0.46				0.27
p for trend 2007-2016				0.55				0.27				0.78

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

Note: Question not asked in 1999, 2002 and 2003.

Percentages reported in tables may not always match percentages reported in the graphs, due to differences in rounding.

Table 45: Trends in the Percentage of Employed or Self-Employed Alaskan Adults Working Primarily Indoors who Report that Smoking is not Allowed in Any Work Areas, by Alaska Native Status, Alaska 1998-2016

Year	Alaska Native	LB	UB	N	Non-Native	LB	UB	N
1998	83.9%	73.0	91.0	140	84.0%	80.2	87.2	910
1999	NA				NA			
2000	77.2%	62.3	87.4	162*	80.1%	75.6	84.0	918
2001	83.2%	74.5	89.3	269	91.1%	88.8	92.9	1,211
2002	NA				NA			
2003	NA				NA			
2004	80.4%	72.7	86.3	232	85.3%	82.3	87.8	1,117
2005	78.6%	69.8	85.3	243	84.5%	81.3	87.3	1,270
2006	78.7%	67.1	87.0	163*	84.4%	80.3	87.7	942
2007	85.1%	77.7	90.3	206	88.0%	84.4	90.9	1,084
2008	79.4%	70.7	86.1	169	88.4%	84.7	91.3	968
2009	77.5%	67.3	85.2	159	84.3%	79.1	88.5	969
2010	84.7%	72.7	92.0	97*	84.3%	76.5	89.9	532
2011	81.7%	69.5	89.8	196*	88.3%	84.7	91.1	1,023
2012	81.5%	72.2	88.1	271	88.7%	85.9	91.0	1,544
2013	80.3%	73.7	85.6	301	85.8%	82.8	88.3	2,025
2014	80.2%	72.4	86.1	306	85.1%	81.9	87.9	2,029
2015	84.9%	78.9	89.4	308	84.4%	80.8	87.5	1,957
2016	84.3%	75.3	90.5	269	87.7%	84.1	90.5	1,693
p for trend 1998-2016				0.52				0.20
p for trend 2007-2016				0.76				0.47

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

Note: Question not asked in 1999, 2002 and 2003.

Information presented in these tables differs slightly from prior year reports, due to changes in definition for Alaska Native and non-Native groups where respondents reported more than one race group.

* Interpret with caution. Asterisk next to number indicates estimate with high coefficient of variation or sample size inadequate for common event.

Table 46: Trends in the Percentage of Employed or Self-Employed Alaskan Adults Working Primarily Indoors who Report that Smoking is not Allowed in Any Work Areas, by Socioeconomic Status, Alaska 1998-2016

Year	Low SES	LB	UB	N	Higher SES	LB	UB	N
1998	76.2%	66.0	84.0	137	86.4%	81.6	90.0	681
1999	NA				NA			
2000	65.1%	48.3	78.8	108*	85.0%	81.2	88.1	713
2001	88.5%	82.3	92.8	152	93.1%	90.9	94.8	937
2002	NA				NA			
2003	NA				NA			
2004	85.0%	76.3	90.8	149	87.2%	84.1	89.8	857
2005	77.7%	66.4	86.0	168	88.1%	85.0	90.6	960
2006	79.2%	65.1	88.7	94*	88.6%	85.4	91.2	758
2007	86.7%	74.7	93.5	100	89.3%	85.1	92.5	879
2008	85.0%	66.9	94.0	95*	90.3%	87.1	92.7	784
2009	82.8%	69.7	91.0	130*	90.0%	85.4	93.2	754
2010	79.0%	50.2	93.3	50*	92.0%	87.0	95.2	432
2011	78.6%	64.1	88.3	121*	91.3%	88.0	93.8	791
2012	85.5%	76.6	91.4	218	89.6%	86.3	92.2	1,123
2013	79.2%	69.8	86.3	267	88.8%	85.7	91.3	1,450
2014	80.9%	72.5	87.2	255	88.2%	84.2	91.3	1,451
2015	85.5%	78.9	90.2	217	86.7%	82.3	90.2	1,373
2016	73.6%	58.2	84.8	143	89.8%	85.9	92.7	1,247
p for trend 1998-2016				0.42				0.31
p for trend 2007-2016				0.36				0.19

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

Note: Question not asked in 1999, 2002 and 2003.

The socioeconomic status (SES) measure is restricted to non-Natives age 25 to 64. Low SES is defined as less than high school education or household income at 185% or less of the Alaska Poverty Level Guideline. See Appendix B for more information.

Information presented in these tables differs slightly from prior year reports, due to changes in definition for Alaska Native and non-Native groups where respondents reported more than one race group, and changes in calculation of percentage poverty status.

* Interpret with caution. Asterisk next to number indicates estimate with high coefficient of variation or sample size inadequate for very common event.

Table 47: Trends in the Percentage of Employed or Self-Employed Alaskan Adults Working Primarily Indoors who Report that Smoking is not Allowed in Any Work Areas, by Age Group, Alaska 1998-2016

Year	Ages 18-29	LB	UB	N	Ages 30-54	LB	UB	N	Ages 55+	LB	UB	N
1998	85.1%	79.2	89.6	206	85.6%	81.9	88.7	756	71.0%	51.8	84.7	96*
1999	NA				NA				NA			
2000	77.4%	66.4	85.6	207*	81.4%	76.7	85.4	794	75.9%	60.5	86.6	101*
2001	86.9%	80.2	91.5	292	90.8%	88.4	92.7	1035	92.0%	86.5	95.4	178
2002	NA				NA				NA			
2003	NA				NA				NA			
2004	78.6%	69.1	85.8	210	84.9%	81.7	87.6	939	90.2%	85.3	93.6	200
2005	76.4%	68.2	83.1	263	85.4%	81.9	88.4	961	89.8%	83.1	94.0	275
2006	73.7%	61.3	83.2	158*	87.0%	83.1	90.0	729	86.7%	79.1	91.8	217
2007	77.2%	66.6	85.2	198	90.2%	87.0	92.7	837	91.2%	84.7	95.1	256
2008	78.3%	67.0	86.5	142	91.1%	88.2	93.3	740	87.4%	76.4	93.7	251
2009	67.7%	53.7	79.0	151*	87.1%	81.8	91.1	702	91.5%	87.0	94.6	279
2010	70.1%	51.9	83.6	78*	90.4%	85.2	94.0	383	86.6%	65.7	95.6	166*
2011	86.0%	76.4	92.1	127	85.2%	80.3	89.1	705	93.0%	88.9	95.6	381
2012	83.8%	77.3	88.7	258	88.0%	84.2	90.9	1,049	92.4%	87.7	95.4	502
2013	77.7%	70.5	83.6	320	85.0%	81.3	88.1	1,241	92.1%	87.1	95.3	776
2014	77.2%	69.7	83.2	263	84.8%	80.5	88.3	1,246	91.1%	86.6	94.2	825
2015	79.3%	70.3	86.1	249	86.8%	82.7	90.1	1,170	85.1%	78.7	89.8	861
2016	77.1%	67.6	84.5	213	88.4%	83.9	91.8	958	93.9%	91.0	96.0	795
p for trend 1998-2016				0.24				0.36				0.003
p for trend 2007-2016				0.37				0.02				0.75

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

Note: Question not asked in 1999, 2002 and 2003.

* Interpret with caution. Asterisk next to number indicates estimate with high coefficient of variation or sample size inadequate for very common event.

Table 48: Trends in the Percentage of Employed or Self-Employed Alaskan Adults Working Primarily Indoors who Report that Smoking is not Allowed in Any Work Areas, by Smoking Status, Alaska 1998-2016

Year	Current Smokers	LB	UB	N	Former Smokers	LB	UB	N	Never Smokers	LB	UB	N
1998	73.7%	65.8	80.3	268	87.4%	80.5	92.2	253	87.1%	81.9	91.0	540
1999	NA				NA				NA			
2000	68.3%	58.0	77.0	268*	79.4%	69.8	86.5	271	85.9%	81.6	89.4	566
2001	81.7%	75.6	86.5	392	92.4%	88.6	95.0	410	92.9%	90.1	95.0	717
2002	NA				NA				NA			
2003	NA				NA				NA			
2004	72.7%	64.8	79.3	302	88.3%	83.0	92.1	342	87.7%	84.3	90.4	713
2005	76.9%	69.2	83.1	325	80.8%	74.1	86.0	404	88.2%	84.4	91.1	787
2006	72.8%	62.8	81.0	242	85.5%	79.4	90.0	322	87.2%	81.7	91.2	551
2007	77.8%	67.4	85.6	246	88.4%	81.8	92.8	364	90.2%	86.4	93.0	692
2008	83.0%	75.7	88.4	213	84.8%	77.2	90.1	328	92.0%	88.0	94.8	599
2009	72.4%	59.9	82.1	181*	89.1%	84.6	92.5	342	83.3%	75.6	89.0	610
2010	78.9%	61.2	89.9	109*	88.5%	77.1	94.6	179	84.9%	75.0	91.4	345
2011	80.9%	71.1	88.0	210	85.4%	78.7	90.3	337	90.6%	86.0	93.8	680
2012	77.5%	69.6	83.8	285	89.3%	83.4	93.3	477	90.8%	87.4	93.3	1,054
2013	76.3%	68.7	82.5	358	88.2%	83.5	91.7	644	86.4%	82.5	89.5	1,351
2014	77.1%	69.2	83.5	326	89.8%	84.7	93.4	630	84.3%	80.1	87.7	1,418
2015	79.5%	72.5	85.1	338	84.8%	77.3	90.1	642	85.8%	81.3	89.3	1,349
2016	78.3%	66.6	86.8	264	86.3%	79.7	91.0	557	89.8%	85.7	92.8	1,192
p for trend 1998-2016				0.11				0.43				0.34
p for trend 2007-2016				0.83				0.74				0.36

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

Note: Question not asked in 1999, 2002 and 2003.

* Interpret with caution. Asterisk next to number indicates estimate with high coefficient of variation or sample size inadequate for very common event.

Table 49: Trends in the Percentage of Employed or Self-Employed Alaskan Adults Working Primarily Indoors who Report that Smoking is not Allowed in Any Work Areas, by Economic Region, Alaska 1998-2016

Year	Northern	LB	UB	N	South-west	LB	UB	N	Gulf Coast	LB	UB	N
1998	84.2%	72.6	91.4	82	81.5%	69.3	89.5	104	78.6%	70.6	84.8	174
1999	NA				NA				NA			
2000	77.8%	61.4	88.5	67	88.3%	79.6	93.5	101	73.3%	64.4	80.7	181
2001	79.5%	68.7	87.3	131	88.4%	81.7	92.9	163	84.9%	79.4	89.1	252
2002	NA				NA				NA			
2003	NA				NA				NA			
2004	86.5%	76.0	92.8	87	80.5%	70.5	87.7	125	77.2%	70.1	83.1	259
2005	79.2%	68.6	87.0	97	86.6%	79.2	91.6	156	79.9%	74.5	84.4	311
2006	80.9%	66.5	90.0	64	92.1%	85.3	95.9	85	80.9%	73.2	86.7	189
2007	85.1%	73.6	92.1	95	85.4%	76.8	91.2	126	89.4%	83.3	93.4	237
2008	65.1%	49.4	78.1	78	87.7%	77.4	93.7	119	82.2%	73.7	88.4	199
2009	75.1%	57.4	87.1	66	88.6%	77.4	94.6	93	81.8%	74.0	87.7	214
2010	*			26	82.6%*	63.2	93.0	55*	82.7%	71.6	90.0	113
2011	80.8%	64.4	90.8	86	75.4%	61.7	85.4	115	83.7%	74.6	89.9	216
2012	93.3%	87.1	96.6	110	88.8%	77.8	94.7	222	84.1%	75.7	90.0	214
2013	65.6%	49.5	78.8	103	87.5%	78.6	93.0	170	82.0%	75.6	87.0	316
2014	79.7%	63.2	89.9	82	85.0%	76.2	90.9	187	87.0%	78.8	92.3	309
2015	94.3%	85.3	97.9	106	79.1%	68.8	86.6	210	84.3%	77.5	89.4	330
2016	88.8%*	74.8	95.5	96*	93.6%	87.2	97.0	202	79.6%	67.0	88.2	293
p for trend 1998-2016				0.33				0.93				0.12
p for trend 2007-2016				0.04				0.77				0.49

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

Note: Question not asked in 1999, 2002 and 2003.

* Interpret with caution. Asterisk next to number indicates estimate with high coefficient of variation or sample size inadequate for very common event.

Where N <= 50, no estimate is reported.

Table 49 *(continued)*: Trends in the Percentage of Employed or Self-Employed Alaskan Adults Working Primarily Indoors who Report that Smoking is not Allowed in Any Work Areas, by Economic Region, Alaska 1998-2016 *(cont.)*

Year	Interior	LB	UB	N	South-east	LB	UB	N	Anchorage /Mat-Su	LB	UB	N
1998	78.1%	71.2	83.8	234	83.3%	76.7	88.3	224	86.8%	80.5	91.2	243
1999	NA				NA				NA			
2000	80.2%	74.2	85.0	263	82.8%	76.2	87.8	253	79.9%	72.6	85.6	243
2001	87.1%	83.0	90.3	390	91.3%	86.9	94.4	279	92.4%	88.5	95.0	308
2002	NA				NA				NA			
2003	NA				NA				NA			
2004	80.3%	75.0	84.7	335	81.5%	75.2	86.5	247	88.2%	83.6	91.7	311
2005	84.6%	79.4	88.8	338	86.4%	81.7	90.1	308	83.9%	78.5	88.1	311
2006	79.9%	72.6	85.6	274	81.5%	74.5	87.0	236	85.5%	79.1	90.1	271
2007	80.3%	72.6	86.3	292	84.4%	78.2	89.1	278	89.8%	84.2	93.6	280
2008	84.2%	77.1	89.5	288	85.4%	78.0	90.6	215	91.5%	85.3	95.2	248
2009	79.4%	70.3	86.3	288	86.0%	78.7	91.1	218	84.9%	76.5	90.6	263
2010	84.2%	75.0	90.5	161*	81.3%	66.5	90.5	132	85.3%	73.3	92.5	148
2011	81.2%	72.3	87.8	278	86.5%	79.7	91.3	267	90.9%	85.4	94.4	274
2012	88.0%	81.7	92.3	391	88.2%	79.6	93.4	263	88.3%	84.4	91.3	631
2013	86.7%	81.1	90.8	547	82.7%	75.2	88.2	432	86.5%	82.3	89.9	795
2014	85.6%	78.6	90.6	504	87.3%	79.7	92.4	362	83.2%	78.5	87.0	942
2015	85.6%	80.5	89.6	516	90.3%	85.4	93.7	380	82.9%	77.5	87.2	795
2016	90.9%	85.8	94.3	424	85.3%	77.1	90.9	308	87.6%	82.6	91.3	697
p for trend 1998-2016				0.001				0.26				0.73
p for trend 2007-2016				0.009				0.31				0.07

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

Note: Question not asked in 1999, 2002 and 2003.

* Interpret with caution. Asterisk next to number indicates estimate with high coefficient of variation or sample size inadequate for very common event.

Table 50: Trends in the Percentage of Employed or Self-Employed Alaskan Adults Working Primarily Indoors who Report that Smoking is not Allowed in Any Work Areas, by Selected Boroughs, Alaska 1998-2016 *(cont.)*

Year	Anchorage	LB	UB	N	Mat-Su	LB	UB	N
1998	87.1%	80.2	91.9	209	*			34
1999	NA				NA			
2000	79.9%	71.7	86.1	209	*			34
2001	93.0%	88.7	95.8	254	89.2%	76.9	95.3	54*
2002	NA				NA			
2003	NA				NA			
2004	89.4%	84.3	93.1	252	83.5%	70.9	91.2	59*
2005	86.9%	81.2	91.1	236	75.2%	62.1	84.9	75*
2006	87.6%	80.7	92.3	220	*			51
2007	92.4%	85.9	96.0	214	80.4%	66.1	89.6	66*
2008	93.2%	85.9	96.8	192*	86.0%	70.4	94.1	56*
2009	83.9%	74.1	90.5	208	88.8%	69.9	96.5	55*
2010	86.5%	73.0	93.8	123*	*			25
2011	93.8%	87.6	97.0	198*	79.4%	64.3	89.1	76*
2012	90.2%	86.1	93.2	398	80.1%	68.5	88.2	233
2013	86.6%	81.4	90.5	481	86.4%	79.3	91.3	314
2014	83.2%	77.7	87.5	633	83.1%	73.6	89.7	309
2015	82.1%	75.6	87.2	436	86.3%	80.7	90.5	359
2016	87.6%	81.2	92.0	394	87.7%	81.2	92.2	303
p for trend 1998-2016				0.54				0.34
p for trend 2007-2016				0.03				0.47

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

Note: Question not asked in 1999, 2002 and 2003.

* Interpret with caution. Asterisk next to number indicates estimate with high coefficient of variation or sample size inadequate for very common event.

Where N <= 50, no estimate is reported.

Table 51: Trends in the Percentage of Adults who Agree that Smoking Should Not be Allowed in Indoor Work Areas, by Gender, Alaska 1998-2016

Year	All Adults	LB	UB	N	Male	LB	UB	N	Female	LB	UB	N
1998	70.0%	67.1	72.8	1,951	63.5%	59.0	67.8	903	77.2%	73.5	80.5	1,048
1999	NA				NA				NA			
2000	77.7%	75.0	80.3	2,052	71.9%	67.6	75.8	972	84.1%	80.8	87.0	1,080
2001	NA				NA				NA			
2002	NA				NA				NA			
2003	NA				NA				NA			
2004	79.9%	77.6	81.9	2,448	72.4%	68.7	75.7	1,090	87.9%	85.4	90.0	1,358
2005	80.3%	78.0	82.3	2,921	74.6%	71.0	77.9	1,361	86.3%	83.6	88.5	1,560
2006	77.4%	74.3	80.1	2,110	70.8%	66.1	75.1	927	84.3%	80.4	87.6	1,183
2007	76.7%	73.9	79.2	2,551	70.0%	65.6	74.0	1,185	83.8%	80.6	86.6	1,366
2008	76.7%	73.6	79.6	2,268	71.0%	66.3	75.3	1,037	82.9%	78.8	86.4	1,231
2009	83.0%	80.3	85.5	2,315	80.2%	75.7	83.9	1,037	86.2%	82.7	89.0	1,278
2010	82.2%	78.0	85.7	1,265	80.7%	74.9	85.4	595	83.9%	77.4	88.8	670
2011	80.0%	77.0	82.7	2,570	74.5%	69.8	78.7	1,153	86.0%	82.2	89.0	1,417
2012	82.6%	80.6	84.4	3,995	79.1%	76.1	81.7	1,874	86.4%	83.9	88.6	2,121
2013	85.5%	83.7	87.2	4,552	82.1%	79.3	84.6	2,059	89.1%	86.7	91.2	2,493
2014	87.3%	85.5	88.9	4,589	82.5%	79.7	85.0	2,122	92.4%	90.3	94.1	2,467
2015	88.3%	86.5	89.9	4,546	84.2%	81.3	86.7	2,091	92.8%	90.6	94.5	2,455
2016	89.5%	87.7	91.0	4,436	86.6%	83.8	88.9	1,987	92.5%	90.2	94.3	2,449
p for trend 1998-2016				<0.001				<0.001				<0.001
p for trend 2007-2016				<0.001				<0.001				<0.001

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

Note: Question not asked in 1999, or 2001-2003.

Note also: Percentages reported in tables may not always match percentages reported in the graphs, due to differences in rounding.

Table 52: Trends in the Percentage of Adults who Agree that Smoking Should Not be Allowed in Indoor Work Areas, by Alaska Native Status, Alaska 1998-2016

Year	Alaska Native	LB	UB	N	Non-Native	LB	UB	N
1998	73.2%	66.9	78.7	349	69.8%	66.5	72.9	1,573
1999	NA				NA			
2000	76.7%	68.7	83.1	387	78.4%	75.4	81.2	1,593
2001	NA				NA			
2002	NA				NA			
2003	NA				NA			
2004	76.3%	70.2	81.4	471	80.7%	78.3	82.9	1,954
2005	77.5%	71.4	82.7	577	81.0%	78.6	83.2	2,320
2006	73.6%	65.3	80.5	398	78.1%	74.7	81.1	1,685
2007	80.2%	74.0	85.2	503	76.3%	73.2	79.2	2,017
2008	73.5%	66.0	79.9	449	77.3%	73.8	80.5	1,795
2009	82.3%	76.4	87.0	405	83.1%	79.9	85.9	1,873
2010	81.1%	67.9	89.7	228	82.4%	77.9	86.1	1,023
2011	86.0%	81.4	89.6	489	78.9%	75.4	82.0	2,044
2012	76.2%	70.8	80.9	798	83.8%	81.7	85.7	3,147
2013	85.8%	81.3	89.4	660	85.5%	83.4	87.3	3,805
2014	88.5%	84.3	91.6	665	87.1%	85.1	88.9	3,817
2015	86.3%	81.1	90.3	685	88.8%	86.8	90.5	3,722
2016	88.3%	83.4	91.9	670	89.9%	87.9	91.6	3,636
p for trend 1998-2016				<0.001				<0.001
p for trend 2007-2016				<0.001				<0.001

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

Note: Question not asked in 1999, or 2001-2003.

Note also: Information presented in these tables differs slightly from prior year reports, due to changes in definition for Alaska Native and non-Native groups where respondents reported more than one race group.

Table 53: Trends in the Percentage of Adults who Agree that Smoking Should Not be Allowed in Indoor Work Areas, by Socioeconomic Status, Alaska 1998-2016

Year	Low SES	LB	UB	N	Higher SES	LB	UB	N
1998	66.3%	58.4	73.4	277	74.6%	70.6	78.2	1,009
1999	NA				NA			
2000	77.0%	69.5	83.1	240	80.1%	76.6	83.1	1,048
2001	NA				NA			
2002	NA				NA			
2003	NA				NA			
2004	70.8%	63.7	77.0	327	83.6%	80.6	86.1	1,252
2005	67.0%	59.6	73.6	398	85.1%	82.4	87.4	1,457
2006	76.1%	66.6	83.6	223	82.7%	79.4	85.5	1,117
2007	71.3%	63.5	78.0	264	80.2%	76.4	83.4	1,342
2008	76.6%	67.9	83.6	252	80.3%	76.1	84.0	1,202
2009	82.0%	74.7	87.6	286	85.6%	82.2	88.5	1,171
2010	77.7%*	65.1	86.7	149*	87.7%	83.6	90.8	631
2011	65.1%	55.7	73.4	304	84.3%	80.2	87.6	1,227
2012	78.7%	73.0	83.5	558	87.0%	84.4	89.2	1,759
2013	78.1%	71.3	83.7	579	90.6%	88.7	92.3	2,163
2014	81.6%	76.4	85.9	559	91.3%	88.9	93.2	2,101
2015	84.4%	79.6	88.2	469	91.2%	88.7	93.2	1,993
2016	85.8%	79.5	90.3	419	92.8%	90.7	94.5	1,887
p for trend 1998-2016				<0.001				<0.001
p for trend 2007-2016				<0.001				<0.001

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

Note: Question not asked in 1999, or 2001-2003.

* Interpret with caution. Asterisk next to number indicates estimate with high coefficient of variation or sample size inadequate for very common event.

The socioeconomic status (SES) measure is restricted to non-Natives age 25 to 64. Low SES is defined as less than high school education or household income at 185% or less of the Alaska Poverty Level Guideline. See Appendix B for more information.

Information presented in these tables differs slightly from prior year reports, due to changes in definition for Alaska Native and non-Native groups where respondents reported more than one race group, and changes in calculation of percent poverty status.

Table 54: Trends in the Percentage of Adults who Agree that Smoking Should Not be Allowed in Indoor Work Areas, by Age Group, Alaska 1998-2016

Year	Ages 18-29	LB	UB	N	Ages 30-54	LB	UB	N	Ages 55+	LB	UB	N
1998	64.6%	58.1	70.6	394	73.4%	69.8	76.8	1,203	66.4%	58.3	73.6	347
1999	NA				NA				NA			
2000	76.4%	69.1	82.4	374	78.7%	75.4	81.7	1,274	76.3%	69.7	81.8	393
2001	NA				NA				NA			
2002	NA				NA				NA			
2003	NA				NA				NA			
2004	84.5%	79.5	88.4	429	79.0%	75.9	81.8	1,408	78.2%	73.6	82.3	584
2005	79.7%	74.3	84.3	494	80.1%	76.9	82.9	1,586	81.9%	78.0	85.3	810
2006	74.5%	64.7	82.3	278	79.8%	76.1	83.0	1,146	75.4%	70.7	79.5	651
2007	73.9%	66.3	80.3	395	79.3%	75.8	82.5	1,357	73.5%	68.3	78.1	767
2008	71.1%	62.6	78.3	315	79.1%	74.8	82.9	1,187	77.2%	72.5	81.3	739
2009	81.1%	72.6	87.4	297	85.1%	81.5	88.0	1,159	80.7%	76.5	84.4	831
2010	76.7%*	64.0	85.8	142*	88.1%	83.9	91.2	597	78.5%	72.4	83.6	507
2011	80.7%	72.8	86.7	267	77.7%	72.9	81.8	1,194	83.6%	80.2	86.5	1,063
2012	82.1%	77.4	86.1	547	83.8%	80.9	86.4	1,777	81.0%	77.9	83.8	1,616
2013	80.3%	74.8	84.9	560	87.3%	84.6	89.5	1,885	87.1%	85.0	89.0	2,057
2014	85.8%	81.0	89.5	463	88.7%	86.1	90.9	1,832	86.1%	83.2	88.5	2,208
2015	86.5%	80.6	90.8	430	91.4%	89.1	93.2	1,722	85.7%	83.0	88.0	2,303
2016	86.9%	81.3	91.0	421	92.4%	90.0	94.2	1,505	87.8%	85.5	89.9	2,400
p for trend 1998-2016				<0.001				<0.001				<0.001
p for trend 2007-2016				<0.001				<0.001				<0.001

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

Note: Question not asked in 1999, or 2001-2003.

* Interpret with caution. Asterisk next to number indicates estimate with high coefficient of variation or sample size inadequate for very common event

Table 55: Trends in the Percentage of Adults who Agree that Smoking Should Not be Allowed in Indoor Work Areas, by Smoking Status, Alaska 1998-2016

Year	Smokers	LB	UB	N	Former Smokers	LB	UB	N	Never Smokers	LB	UB	N
1998	53.0%	47.1	58.8	532	69.6%	63.5	75.1	497	79.2%	75.0	82.9	920
1999	NA				NA				NA			
2000	63.2%	56.4	69.6	524	75.4%	69.8	80.3	533	86.5%	83.6	88.9	984
2001	NA				NA				NA			
2002	NA				NA				NA			
2003	NA				NA				NA			
2004	58.6%	52.9	64.1	609	79.4%	74.7	83.3	640	90.4%	88.1	92.3	1,184
2005	62.2%	56.6	67.5	719	80.0%	75.3	84.0	808	89.8%	87.3	91.8	1,377
2006	57.2%	50.2	63.9	514	79.4%	74.3	83.6	610	86.5%	82.0	90.0	974
2007	59.7%	52.8	66.2	531	76.5%	71.4	80.9	735	84.9%	81.2	88.0	1,265
2008	57.4%	50.4	64.2	507	73.9%	67.8	79.2	693	88.1%	84.1	91.2	1,054
2009	65.0%	57.6	71.7	429	87.0%	82.5	90.4	714	87.9%	83.8	91.1	1,150
2010	66.7%*	55.7	76.0	244*	84.7%	78.9	89.1	391	87.7%	81.8	92.0	621
2011	59.4%	51.8	66.6	519	79.6%	73.6	84.6	754	89.8%	86.0	92.7	1,277
2012	63.6%	58.2	68.8	781	84.4%	80.8	87.4	1,147	89.9%	87.8	91.7	2,033
2013	69.2%	63.7	74.2	801	86.3%	83.0	89.0	1,393	92.2%	90.2	93.8	2,328
2014	75.6%	70.5	80.0	719	87.4%	84.2	90.1	1,409	90.9%	88.5	92.9	2,431
2015	76.0%	70.6	80.7	721	89.6%	86.3	92.1	1,398	92.0%	89.6	93.8	2,400
2016	79.3%	73.5	84.1	683	88.9%	85.4	91.6	1,353	93.3%	91.2	94.9	2,389
p for trend 1998-2016				<0.001				<0.001				<0.001
p for trend 2007-2016				<0.001				<0.001				<0.001

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

Note: Question not asked in 1999, or 2001-2003.\

* Interpret with caution. Asterisk next to number indicates estimate with high coefficient of variation or sample size inadequate for very common event

Table 56: Trends in the Percentage of Adults who Agree that Smoking Should Not be Allowed in Indoor Work Areas, by Economic Region, Alaska 1998-2016

Year	Northern	LB	UB	N	South-west	LB	UB	N	Gulf Coast	LB	UB	N
1998	73.1%	63.5	80.9	130	78.5%	71.1	84.4	198	64.4%	58.7	69.8	407
1999	NA				NA				NA			
2000	76.0%*	64.8	84.5	126*	82.0%	73.9	88.0	212	66.8%	60.3	72.6	405
2001	NA				NA				NA			
2002	NA				NA				NA			
2003	NA				NA				NA			
2004	76.8%	67.4	84.2	159	81.3%	74.6	86.5	248	73.2%	68.4	77.5	511
2005	82.4%	75.1	87.9	173	88.5%	83.7	92.0	302	77.4%	73.2	81.2	612
2006	75.5%	65.9	83.1	129	78.8%	70.4	85.3	189	70.3%	65.0	75.2	424
2007	78.4%	69.0	85.6	167	89.6%	83.6	93.5	254	73.5%	68.3	78.0	520
2008	68.3%	57.0	77.8	144	77.0%	67.7	84.3	241	70.2%	63.4	76.1	439
2009	82.5%	72.7	89.3	122	80.8%	70.6	88.1	191	82.4%	77.9	86.2	498
2010	91.5%*	74.2	97.6	52*	91.3%	79.2	96.7	107	83.0%	76.1	88.2	257
2011	81.9%	71.8	88.9	155	83.9%	76.1	89.5	246	79.8%	72.7	85.4	501
2012	76.8%	63.2	86.5	231	78.6%	71.6	84.2	493	81.0%	76.2	85.1	538
2013	81.0%	67.6	89.7	167	89.7%	84.5	93.3	323	82.3%	77.9	85.9	743
2014	86.8%	75.5	93.4	138	91.8%	87.7	94.6	354	83.8%	78.2	88.2	693
2015	90.6%	81.5	95.4	170	87.0%	80.6	91.5	385	83.6%	79.3	87.2	755
2016	90.9%	82.4	95.6	170	86.8%	76.7	92.9	387	86.1%	80.6	90.3	721
p for trend 1998-2016				<0.001				0.003				<0.001
p for trend 2007-2016				0.001				0.13				<0.001

Source: Alaska Behavioral Risk Factor Surveillance System, Supplemental File.

Note: Question not asked in 1999, or 2001-2003.

* Interpret with caution. Asterisk next to number indicates estimate with high coefficient of variation or sample size inadequate for very common event.

Table 56 *(continued)*: Trends in the Percentage of Adults who Agree that Smoking Should Not be Allowed in Indoor Work Areas, by Economic Region, Alaska 1998-2016

Year	Interior	LB	UB	N	South-east	LB	UB	N	Anchorage /Mat-Su	LB	UB	N
1998	63.9%	58.9	68.6	429	75.7%	70.8	80.1	391	70.8%	65.5	75.6	396
1999	NA				NA				NA			
2000	73.2%	68.6	77.4	464	78.8%	74.0	83.0	425	81.0%	76.0	85.1	420
2001	NA				NA				NA			
2002	NA				NA				NA			
2003	NA				NA				NA			
2004	81.1%	77.3	84.3	577	76.4%	71.4	80.8	414	81.9%	78.0	85.2	539
2005	77.8%	73.8	81.3	644	80.5%	76.6	83.9	596	80.6%	76.6	84.0	594
2006	79.0%	74.5	82.9	491	79.1%	74.5	83.1	421	78.0%	72.5	82.6	456
2007	77.1%	72.0	81.5	553	80.8%	76.3	84.6	537	75.0%	70.2	79.3	520
2008	78.0%	71.3	83.6	538	81.3%	75.8	85.7	427	77.3%	72.0	81.9	479
2009	81.4%	76.7	85.3	567	81.7%	76.8	85.7	455	84.2%	79.2	88.2	482
2010	81.2%	74.1	86.7	318	72.4%	63.1	80.1	277	82.8%	75.2	88.4	254
2011	79.5%	74.4	83.8	582	80.5%	73.7	85.9	554	79.7%	74.5	84.0	532
2012	78.5%	73.4	82.8	880	83.2%	78.7	87.0	574	84.8%	81.8	87.3	1,279
2013	82.2%	78.4	85.5	1,052	82.1%	76.6	86.5	797	87.7%	84.8	90.1	1,470
2014	86.4%	82.1	89.8	966	90.8%	86.9	93.6	683	87.2%	84.5	89.5	1,755
2015	87.3%	83.8	90.1	968	93.6%	91.2	95.4	759	88.5%	85.5	91.0	1,509
2016	89.5%	85.9	92.3	929	86.6%	81.9	90.2	717	90.9%	88.1	93.1	1,512
p for trend 1998-2016				<0.001				<0.001				<0.001
p for trend 2007-2016				<0.001				<0.001				<0.001

Source: Alaska Behavioral Risk Factor Surveillance System

Note: Question not asked in 1999, or 2001-2003.

Table 57: Trends in the Percentage of Adults who Agree that Smoking Should Not be Allowed in Indoor Work Areas, by Selected Boroughs, Alaska 1998-2015

Year	Anchorage	LB	UB	N	Mat-Su	LB	UB	N
1998	72.9%	67.0	78.1	321	61.7%	49.0	73.0	75*
1999	NA				NA			
2000	84.7%	79.4	88.8	342	64.3%	51.7	75.2	78*
2001	NA				NA			
2002	NA				NA			
2003	NA				NA			
2004	84.6%	80.4	88.1	414	72.8%	63.6	80.5	125
2005	83.8%	79.5	87.4	448	70.9%	61.7	78.7	146
2006	80.7%	74.6	85.6	345	70.4%	58.2	80.2	111*
2007	77.6%	72.1	82.3	390	67.1%	56.6	76.1	130
2008	79.6%	73.6	84.6	347	71.3%	59.9	80.5	132
2009	86.6%	81.0	90.7	364	76.3%	64.0	85.4	118*
2010	84.8%	76.2	90.7	200	75.1%	56.9	87.3	54*
2011	81.0%	74.8	86.0	371	75.0%	65.3	82.7	161
2012	84.5%	80.9	87.6	744	85.5%	80.6	89.3	535
2013	88.4%	84.7	91.3	817	85.6%	81.8	88.7	653
2014	88.2%	85.0	90.8	1,078	83.9%	78.3	88.3	677
2015	89.2%	85.1	92.2	759	86.6%	83.1	89.5	750
2016	91.7%	88.0	94.3	799	88.4%	85.1	91.0	713
p for trend 1998-2016				<0.001				<0.001
p for trend 2007-2016				<0.001				<0.001

Source: Alaska Behavioral Risk Factor Surveillance System

Note: Question not asked in 1999, or 2001-2003.

* Interpret with caution. Asterisk next to number indicates estimate with high coefficient of variation or sample size inadequate for very common event.

Supplemental Tables with Detailed Information on Differences by Region in 2016

Table 58. P-values for Smoking Prevalence by Region, Alaska BRFSS 2016

	Northern	Southwest	Gulf Coast	Southeast	Interior	Anchorage /Mat-Su
Northern						
Southwest	0.001					
Gulf Coast	<0.001	0.209				
Southeast	<0.001	0.331	0.678			
Interior	<0.001	0.234	0.886	0.769		
Anchorage/Mat-Su	<0.001	0.024	0.130	0.049	0.073	

Table 59. P-values for E-cigarette Use by Region, Alaska BRFSS 2016

	Northern	Southwest	Gulf Coast	Southeast	Interior	Anchorage /Mat-Su
Northern						
Southwest	0.336					
Gulf Coast	0.572	0.502				
Southeast	0.012	0.317	0.016			
Interior	0.246	0.811	0.422	0.072		
Anchorage/Mat-Su	0.120	0.978	0.179	0.109	0.672	

Table 60. P-values for SLT Use by Region, Alaska BRFSS 2016

	Northern	Southwest	Gulf Coast	Southeast	Interior	Anchorage /Mat-Su
Northern						
Southwest	0.470					
Gulf Coast	0.001	<0.001				
Southeast	<0.001	<0.001	0.083			
Interior	0.001	<0.001	0.905	0.059		
Anchorage/Mat-Su	0.001	<0.001	0.768	0.075	0.840	

Table 61. P-values for Rules Against Smoking in the Home by Region, Alaska BRFSS 2016

	Northern	Southwest	Gulf Coast	Southeast	Interior	Anchorage /Mat-Su
Northern						
Southwest	0.304					
Gulf Coast	0.982	0.169				
Southeast	0.860	0.071	0.786			
Interior	0.800	0.180	0.744	0.486		
Anchorage/Mat-Su	0.478	0.497	0.313	0.134	0.364	

Table 62. P-values for Workplace Smokefree Policies by Region, Alaska BRFSS 2014-2016

	Northern	Southwest	Gulf Coast	Southeast	Interior	Anchorage /Mat-Su
Northern						
Southwest	0.493					
Gulf Coast	0.224	0.529				
Southeast	0.914	0.444	0.152			
Interior	0.741	0.596	0.218	0.751		
Anchorage/Mat-Su	0.247	0.655	0.738	0.120	0.193	

Table 63. P-values for Workplace Smoke Exposure among Adults Working Primarily Indoors by Region, Alaska BRFSS 2014-2016

	Northern	Southwest	Gulf Coast	Southeast	Interior	Anchorage /Mat-Su
Northern						
Southwest	0.651					
Gulf Coast	0.144	0.240				
Southeast	0.786	0.773	0.096			
Interior	0.640	0.947	0.132	0.758		
Anchorage/Mat-Su	0.977	0.514	0.029	0.649	0.373	

Table 64. P-values for Percentage of Adults Who Agree that Breathing Smoke from Other People's Cigarettes is Harmful, by Region, Alaska BRFSS 2016

	Northern	Southwest	Gulf Coast	Southeast	Interior	Anchorage /Mat-Su
Northern						
Southwest	0.042					
Gulf Coast	0.463	0.015				
Southeast	0.493	0.005	0.912			
Interior	0.287	0.013	0.576	0.456		
Anchorage/Mat-Su	0.132	0.099	0.144	0.076	0.226	

Table 65. P-values for Percentage of Adults Who Agree that Smoking Should Not be Allowed in Indoor Work Areas, by Region, Alaska BRFSS 2016

	Northern	Southwest	Gulf Coast	Southeast	Interior	Anchorage /Mat-Su
Northern						
Southwest	0.421					
Gulf Coast	0.235	0.889				
Southeast	0.261	0.967	0.885			
Interior	0.696	0.528	0.247	0.271		
Anchorage/Mat-Su	0.990	0.331	0.084	0.081	0.502	

Table 66. P-values for Percentage of Adults Who Agree that Smoking Should Not be Allowed in Restaurants, by Region, Alaska BRFSS 2016

	Northern	Southwest	Gulf Coast	Southeast	Interior	Anchorage /Mat-Su
Northern						
Southwest	0.413					
Gulf Coast	0.013	0.041				
Southeast	0.022	0.069	0.698			
Interior	<0.001	<0.001	0.041	0.009		
Anchorage/Mat-Su	0.009	0.026	0.845	0.802	0.009	

VII. Appendix B: Data Sources

Tobacco Tax Data

Data on cigarette sales in Alaska were obtained from the Alaska Department of Revenue, Tax Division. In Alaska, a tobacco tax is levied on cigarettes and other tobacco products that are sold, imported, or transferred into the state. This tax, which currently amounts to $2.00 for a pack of 20 cigarettes and 75 percent of wholesale price for cigars and chewing tobacco, is collected primarily from licensed wholesalers and distributors. Tobacco tax returns are filed monthly by the last day of the month following the month in which the sales were made. Alaska tax data may fail to account for tobacco products that are consumed here but are purchased out of state or through other means not captured by tax records (e.g., bought over the Internet). Because data files are updated monthly, variations can occur depending on when a report is accessed. Sales estimates for years prior to FY 2008 are those calculated for and included in prior Tobacco Facts reports, and are not updated to reflect any further changes. Estimates used for 2017 come from the "FY 17 Cigarette and Other Tobacco Products Summary" dated August 2017 (and including data from July 2016 to June 2017). Tax reports can be found on the Alaska Department of Revenue web pages at: http://www.tax.alaska.gov//programs/programs/reports/index.aspx?60170.

Population Estimates

Alaska and U.S. population estimates by age, used in calculating U.S. tobacco consumption (packs per adult), come from the U.S. Census Bureau Population Division website Table 2: Annual Estimates of the Population by Sex and Selected Age Groups for the United States: April 1, 2000 to July 1, 2010 (NC-EST2007-02). For 2010, these data were replaced with information from the Census release at http://2010.census.gov/2010census/ . The Alaska census data are also located on the Alaska Department of Labor and Workforce Development population estimate web pages at http://laborstats.alaska.gov/census/ .

Current year Alaska population estimates by age, sex and race/ethnicity, used in calculating the number of tobacco users and Alaska consumption (packs per adult), come from the Alaska Department of Labor and Workforce Development population estimate web pages at http://laborstats.alaska.gov/?PAGEID=67&SUBID=171.

Smoking-Related Deaths and Economic Costs

In prior years, we estimated the proportion of deaths and economic costs associated with smoking using an online program developed by CDC called "Smoking Attributable Mortality, Morbidity and Economic Costs (SAMMEC)." Several years ago this application was taken offline when new data became available on relative risks for smoking-related diseases. Several new smoking-related diseases were also identified.

These new data were published in Chapter 12 of the U.S. Department of Health and Human Services 2014 report, "The Health Consequences of Smoking: 50 Years of Progress. A Report of the Surgeon General." The report (referred to below as the SG report) is available at http://www.surgeongeneral.gov/library/reports/50-years-of-progress.

We calculated smoking-attributable deaths, lost productivity and medical expenditures using the methods described in the SG report. All estimates were done in a spreadsheet entitled, "SAMMEC-SAM 2012-2016, YPLL, LP, SAE by source.xlsx"

Smoking-attributable mortality

We requested resident mortality data from the Alaska Section of Health Analytics and Vital Records for 2012-2016 in 5 year age groups from age 35 and older for the smoking-related diseases identified. We combined deaths from these age groups to match the age- and sex-specific relative risk estimates published in the SG report. We used age- and sex-specific smoking prevalence estimates from BRFSS for 2012-2016 to produce a combined estimate for each age and sex group.

We calculated age- and sex-specific smoking-attributable fractions (SAFs) using smoking prevalence and mortality data for smoking-related diseases. The SAFs were applied to the mortality data for each smoking-related disease and summed to produce the overall smoking-attributable mortality across age groups and causes of death for both sexes for each year from 2012-2016. We then calculated the average number of smoking-attributable deaths for that time period.

Lost productivity costs due to smoking-attributable deaths

We estimated productivity losses based on premature mortality using methods from the SG report. We began with estimates for lifetime production (total and market) provided by Grosse et al[36] of the present value of future earnings, published for 2007. We then updated this table to 2014 dollars by using the Employment Cost Index current dollars table. We used the figures for total production (not market production) for each age group and multiplied the previously estimated deaths in each age group to corresponding forgone earnings. We used total estimates rather than those for men and women separately, as well as the 3% discount rate, as recommended by CDC.

[36] Grosse SD, Krueger KV, Mvundura M. Economic Productivity by Age and Sex, 2007 Estimates for the United States. Medical Care 2009;47: S94-S103.

The total amount of lost productivity as represented by forgone earnings was determined by summing the product of earnings and smoking-attributable deaths across all age groups. For the average annual estimate for 2012-2016, we divided by five.

Smoking-attributable medical expenditures

We used the smoking attributable fractions (SAFs) of medical expenditures developed by CDC and used in the 2014 Surgeon General Report. These SAFs were originally estimated in 2004 and were used in the SAMMEC web application before it was taken offline. The SAFS were obtained via personal communication from CDC and are listed below:

	Alaska	US
Hospitals	0.1172	0.1025
Ambulatory Care	0.0506	0.049
Nursing Home Care	0.0822	0.0787
Prescription Drugs	0.102	0.0948
Other Services	0.037	0.0331

To estimate smoking-attributable medical expenditures, the SAFs are applied to total medical expenditures by category. Data for Alaska for 2011-2014 were obtained from the Centers for Medicare and Medicaid Services: https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsStateHealthAccountsResidence.html

Before applying the SAFs, we combined some CMS categories (home health, durable medical equipment, other health professionals fees, and costs for other residential and personal care), to correspond to the "Other Services" category used by CDC, as per the methods used in the SG report. We also excluded dental expenses.

In addition, we excluded the estimated 9.6% of costs for services delivered to children and adolescents 19 years of age or younger. We derived this estimate using work published by Bul, et al[37], in which 2013 total health care expenditures for children and adolescents 19 or younger was estimated at $233,500 million. We divided total US expenditures ($2,435,624 million) by this figure to arrive at 9.6%. Total expenditures were adjusted downward by this percentage.

[37] Bul AL, Dieleman JL, Hamavid H, et al. Spending on children's personal health care in the United States, 1996-2013. JAMA Pediatr. 2017;171(2):181-189. Available at: http://jamanetwork.com/journals/jamapediatrics/fullarticle/2593700

Deaths due to secondhand smoke

Estimates for deaths due to secondhand smoke inhalation are national estimates referenced in “The Health Consequences of Smoking: 50 Years of Progress. A Report of the Surgeon General.”

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 (CDC). It aims to estimate the prevalence of behavioral risk factors in the general population that are known to be associated with the leading causes of morbidity and mortality in adults. The BRFSS has operated continuously in Alaska since 1991.

Alaska presently conducts two BRFSS surveys: the standard BRFSS and a separately funded supplemental BRFSS. The supplemental survey contains most of the 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 615 Alaska adults were interviewed each month for the two BRFSS surveys combined. The 2016 sample includes 2,369 respondents reached by cell phone and 5,012 respondents reached by their residential landline phone. Because sample size is lower for some subpopulation reporting groups, data years have occasionally been combined to report some key indicators.

How BRFSS Survey Participants are Selected

The BRFSS uses a probability (or random) sample in which all Alaska households with landline telephones have a known, nonzero chance of selection. Respondents are randomly selected from among the adult members of each household reached through a series of telephone calls. Historically, those living in institutional housing (i.e., nursing homes and barracks) are not surveyed. The sample is stratified into geographic regions, with roughly equal numbers of interviews conducted in each region. This method deliberately oversamples rural areas of the state. The sample was stratified into six geographic regions in 2011—Anchorage, Mat-Su, Gulf, Southeast, Fairbanks North Star, and Rural. Since 2012, the landline sample has been stratified into seven regions for the supplemental survey and six regions for the cell sample. Where possible, the rural region is divided into two regions: Southwest and Northern/Interior.

In addition, the sampling frame has been expanded to include cell phones as well as landline or household phones. This step was important because the proportion of households served only by cell phones has increased rapidly. By June 2010, about 20% of Alaska households were cell-only. Starting in 2011, Alaska’s cell phone sample was 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.

Data Weighting and Methods Issues

BRFSS data are weighted to adjust the distribution of the sample data so that it reflects the total population of the sampled area, and to compensate for the over-representation or under-representation of persons in various subgroups.

Changes in both the weighting and sampling methods are reflected in the estimates reported in this update of Tobacco Facts (and other recent Tobacco Facts updates since 2013). These changes help ensure that the BRFSS can continue to be a valuable source of information for health planning and improvement. The first change is a newer 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. To provide additional context for interpretation about changes in prevalence estimates over time, raking was applied to data from 2007 forward, and therefore the estimates listed for 2007 through 2010 may be slightly different from estimates reported in older publications.

As noted above, starting in 2011 survey participants include people who have cell phones, in addition to those who have a traditional landline phone. Therefore, 2011 and later data for many key indicators like adult smoking and smokeless tobacco use will reflect the population of cell-only Alaskan adults as well as those who have landline only or landline and cell phones. This change in sampling may also have an effect on prevalence estimates, although the differences are often minimal. More information about the changes in BRFSS methods can be found in the January 2013 issue of *Chronicles*: http://dhss.alaska.gov/dph/Chronic/Documents/Publications/assets/ChroniclesV5-1.pdf.

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. In recent years, the combined sample has included more respondents (between 6,000-9,000 each year from 2011 to 2016), but prior years included fewer respondents. Between 1996 and 2003 annual sample size ranged from 1,536 to 2,875 respondents, and from 2004 to 2010, the annual combined sample size averaged about 4,750 respondents. The larger sample sizes allow for more precision in the estimates of tobacco-related items, including prevalence of smoking and SLT use. Where possible, the combined dataset was used to provide the estimates contained in this report. In cases where questions appeared on only one or another of the BRFSS surveys, that particular dataset was used.

In this report, we used inter-group difference tests in our comparisons between groups of Alaskans. These are tests of association between group and outcome variables (for example, smoking [yes, no] and gender [male, female]). For trend analyses, we used logistic

regression models that tested for a statistically significant linear change over time. P-values less than 0.05 indicate that a difference seen between percentages or across years is statistically significant at the 95% confidence level.

In the appendix tables, we report the 95% confidence intervals as well as the estimates and denominators. In the bar graphs, the error bars (lines with a "T" at either end) reflect the confidence intervals and show the range of where the true population estimate is expected to be, at the 95% confidence level.

Defining Tobacco Use

Since 1996. the BRFSS has defined current cigarette smoking from two questions: 1) Have you smoked at least 100 cigarettes in your entire life? and 2) Do you now smoke cigarettes every day, some days, or not at all. Current smoking includes those who have smoked at least 100 cigarettes in their life and now smoke every day or some days. Former smoking is defined as having smoked at least 100 cigarettes in your entire life but currently not smoking at all.

Information about e-cigarette or vape use has been collected since 2010. For 2016, the question about e-cigarette use includes an optional clarifying statement: "Electronic cigarettes (e-cigarettes) and other electronic "vaping" products include electronic hookahs (e-hookahs), vape pens, e-cigars, and others. These products are battery-powered and usually contain nicotine and flavors such as fruit, mint, or candy." Respondents are asked if they have ever used e-cigarettes or other electronic vapor products, if they currently use e-cigarettes every day, some days, or not at all, and on how many days of the past 30 they used e-cigarettes. Current e-cigarette use is defined as using e-cigarettes or other electronic vapor products on some days or every day. Former e-cigarette use is defined as having ever used these products, but not currently.

For smokeless tobacco use, respondents are asked if they currently use chewing tobacco, snuff, snus and/or Iqmik every day, some days, or not at all. In the Supplemental BRFSS there is also a question about ever use of smokeless tobacco products. From 1996 to 2002, current use was defined as every day or some days use of chewing tobacco and/or snuff. Since 2004, Iqmik has also been in the list of SLT products noted in the question, and since 2009, Snus has also been included. In 2008, a follow-up question was added to get more information about which products respondents use.

Reporting by Priority Populations

The Leadership for Eliminating Alaskan Disparities (LEAD) workgroup identified three initial priority populations in the 2007 Alaska Strategic Plan for Eliminating Tobacco-Related Disparities. BRFSS data are a key source of information for all three priority populations – Alaska Natives, people of low socio-economic status, and young adults (age 18-29).

Reporting by Race Group

Alaska Native includes all survey respondents who report “Alaska Native/American Indian” as their primary or only race group, as well as those who reported “Alaska Native/American Indian” as one of their race groups but did not select a different race group as primary. Those who report being Hispanic or reported their race as something other than Alaska Native or American Indian are included in the “non-Native” group.

In order to monitor disparities in tobacco use among other racial/ethnic groups, adult tobacco use is also reported for 5 race/ethnicity categories. Because there are small numbers of BRFSS respondents who report their primary race group as something other than White or Alaska Native each year, the most recent three years of data are combined in order to report adult tobacco use for these groups.

Information presented in 2017 and 2018 Tobacco Facts reports may differ slightly from prior year reports, due to changes in definition for Alaska Native and non-Native groups.

Reporting by Socio-Economic Status (SES)

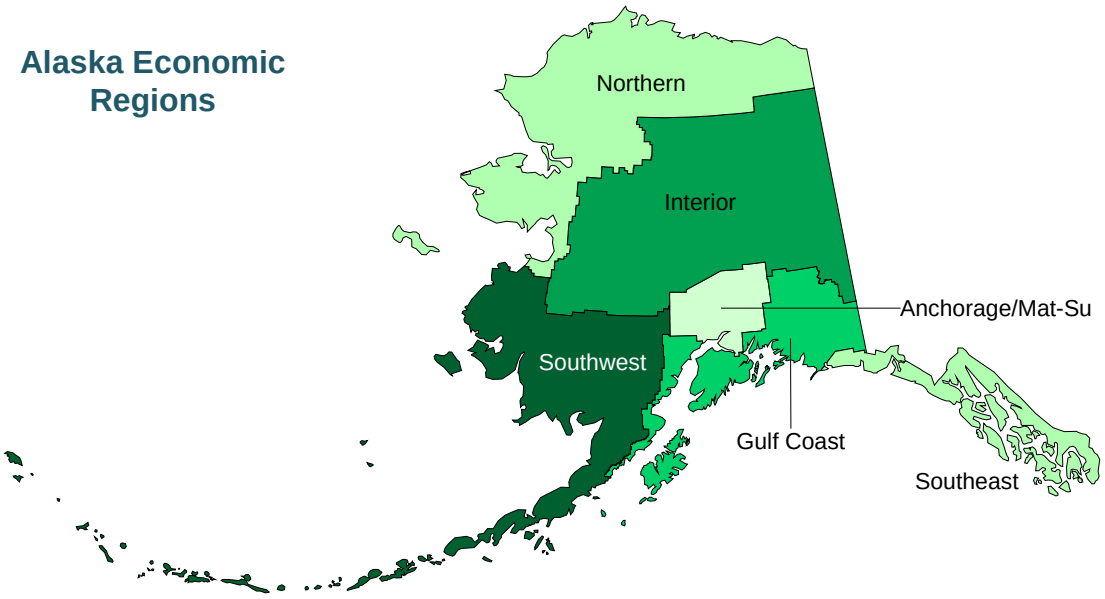
In Tobacco Facts, the low SES priority population is defined as 'non-Native adults (age 25-64) of low socio-economic status.' Reporting by SES is restricted to non-Native because reporting for Alaska Native as a priority population is already done separately. Reporting by SES is also restricted to age 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.

Information presented in 2017 and 2018 Tobacco Facts reports may differ slightly from prior year reports, due to changes in definition for Alaska Native and non-Native groups and a change in calculating poverty status for records with partially missing information for number of people in the household.

Regional Reporting

As the BRFSS survey data do not provide sufficient representation for reporting by most of the individual boroughs, we combined boroughs to create regions for analysis of patterns by the geographic areas of Alaska. Regions reported here are the Alaska Economic Regions, as defined by the Alaska Department of Labor and Workforce Development.



Source: State of Alaska, DHSS, DPH, Section of Chronic Disease Prevention and Health Promotion

The Alaska Economic Regions are defined using borough designation 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

In addition, separate estimates for the Municipality of Anchorage and Matanuska-Susitna (Mat-Su) are included in the trend tables in Appendix A.

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 suppressed if the unweighted sample size for the denominator (N) is less than 50, or if the numerator (n) is less than 5. In addition, estimates may be reported but flagged with an asterisk if there is inadequate sample size for normal approximation, or for uncommon or very common event. Finally, if the coefficient of variation is greater than 30%, the estimate is also considered imprecise and is flagged.

Youth Risk Behavior Survey (YRBS)

The YRBS is a systematic survey of high school students investigating behaviors related to the leading causes of mortality, morbidity and social problems among youth. The Centers for Disease Control and Prevention sponsors national and state surveys every two years, most recently in 2017. Data are currently available through 2017.

How YRBS Survey Participants are Selected

The statewide Alaska YRBS is conducted using a two-stage sampling design. 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 2003 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 addition to the statewide survey, all Alaska school districts have the opportunity to conduct a local survey, which employs the same questionnaire and data analysis methods as the statewide survey. If a district conducts a local survey and one of its classrooms was selected for the statewide survey, additional classrooms will be surveyed as part of the local survey. Districts that conduct a local survey and obtain at least 30 responses receive a district level report based on results of all classrooms surveyed.

Data Weighting and Methods Issues

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 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 33,000 high school students in grades 9-12 in traditional public high schools. Data are weighted to reflect the true distribution of Alaska high school students by

gender and grade level, but not by region of the state, since the CDC's sampling method for YRBS does not stratify by region.

Alaska first conducted a statewide YRBS in 1995. Although Alaska participation rates met CDC standards in 1999, this sample did not include Anchorage schools and so the 1999 YRBS data are generally not included in multi-year analyses. To assure statistical validity for weighting, the CDC requires a response rate of at least 60% for the statewide survey. In addition to the 1995 survey, Alaska achieved a representative sample on the statewide survey in 2003, and 2007 through 2017.

Analyses used for YRBS data are similar to those used for BRFSS. We used inter-group difference tests in our comparisons between groups of Alaskan youth. These are tests of association between group and outcome variables (for example, smoking [yes, no] and gender [male, female]). For trend analyses, we used logistic regression models that tested for a statistically significant linear change over time. P-values less than 0.05 indicate that a difference seen between percentages or across years is statistically significant at the 95% confidence level.

School-based surveys do not estimate risk behaviors associated with youth who drop out of school or do not attend school. However, for the first time in 2009, about 1,000 students from 15 alternative high schools in Alaska were surveyed to evaluate and address the health risks of this unique population. This process was repeated in subsequent surveys in 2011, 2013 and 2015 (with 16 alternative high schools). High school-age youth in correctional institutions have also been surveyed since 2009. Further information about the Alaska YRBS surveys and health information from those surveys is available at http://www.hss.state.ak.us/dph/chronic/school/YRBSresults.htm.

Reporting by Race Group and by Ethnicity

We report race/ethnicity by whether the survey participant reported being Alaska Native, Hispanic, or White. 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. Participants who identified as Hispanic ethnicity and any race category except Alaska Native are reported as Hispanic. Participants who identified as non-Hispanic and White are reported as White. We also combine all non-Alaska Native race groups to report a category "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 and ethnicity are not included in the race group reporting.

Reporting by other individual race or groups is limited by the relatively small number of students in the YRBS sample.

Data Suppression Guidelines

Information for population subgroups is suppressed where the total participation (as indicated by the denominator N in the appendix tables) is less than 100 students by group. Data are also suppressed if the number of students reporting a behavior (n) is fewer than 5 or the denominator (N) minus the number of students reporting the behavior (n) is less than 5.

Reporting YRBS by Alaska Economic Regions

In addition to contributing to the scientific sample of traditional (comprehensive) Alaska high schools in order to obtain statewide prevalence estimates, school districts were given the opportunity to survey their student body starting in 2003 in order to learn more about local adolescent behavior. These ad hoc student surveys have been aggregated to the six Alaska Economic regions. As this collection of surveys is not conducted with the same scientific rigor as those producing the statewide estimates, the resulting rates should be considered indicators of the existence of specific behaviors but not necessarily the precise prevalence estimates. For the regional estimates, the surveys have been weighted to represent their district or school if participation was 50% or higher of eligible students. Surveys collected where the participation was less than 50% received a weight of one, i.e., representative of the respondent only. All available high school YRBS surveys are used regardless of their source as part of the statewide and/or local samples or type of school. Regional representation varies from a low of 7.6% of students in the Interior region in 2003 to effectively 100% for the Anchorage/Mat-Su region in 2009. Since 2009, the weighted sample represents over three-quarters of high school students from traditional, alternative, and correctional institutions. Additional information about the representation can be found here: http://www.hss.state.ak.us/instantatlas/yrbss/YRBS_Local_Sample_by_APHR.pdf.

The regional presentation of the YRBS data is intended to provide information about adolescent behaviors at the sub-state level. The data show that adolescent risk behaviors exist in every region, although the magnitude can vary. Statewide estimates for traditional high school students are included for comparison.

Logical Consistency Edits

To ensure the quality of YRBS results, the Centers for Disease Control and Prevention (CDC) and the Alaska YRBS Program use logical consistency edits as part of the YRBS data cleaning process. For each survey respondent, these logic edits check for agreement across logically related questions and responses (e.g., a student responding in one question that they have never smoked and responding in a subsequent question that they smoke 10 cigarettes a day). Responses that conflict are removed from the YRBS dataset. The same logic edits are applied to the Alaska statewide traditional high school, Alaska statewide alternative high school data, and Alaska local YRBS datasets.

In 2017, the Alaska YRBS Program identified several additional logic edits that could be used to clean Alaska statewide and local YRBS data. These edits resulted in small

differences between CDC and Alaska-produced prevalence estimates and confidence intervals for select YRBS measures. Although 2017 YRBS results were primarily impacted by this change, prior-year prevalence estimates for current smoking (2003-2013) and current SLT use (2013-2015) were also affected.

For more information about this change, please contact Tazlina Mannix at (907)-269-8107 or tazlina.mannix@alaska.gov.

Synar Compliance Data

The Center for Substance Abuse Prevention (CSAP) oversees implementation of the Synar Amendment, which requires states to have laws in place prohibiting the sale and distribution of tobacco products to persons under age 18. (Alaska, Utah, Alabama, and New Jersey have expanded this prohibition to persons under 19.) States are required to collect data on vendor compliance with underage sales laws, and must achieve a maximum sales-to-minors rate of not greater than 20 percent to avoid penalties. The sample from which these data are collected must reflect the distribution of the underage population throughout the state and the distribution of outlets that are accessible to youth throughout the state.

Alaska data on vendor sales of tobacco products to minors are obtained through the Alaska Department of Health and Social Services, Division of Behavioral Health's Tobacco Enforcement Program. A business license database provided by the Department of Occupational Licensing is used to identify outlets that are accessible to youth. Each summer, eligible, trained, underage youth attempt to purchase tobacco products in the sampled establishments. Undercover Tobacco Enforcement staff monitor these transactions, noting whether sales occurred.

Synar data are reported for the federal fiscal year, October through September. The year reported in this document reflects the federal fiscal year in which the data are used as a planning tool. Therefore, data collected from 2016 are reported for the FY2017 indicator.

Pregnancy Risk Assessment Monitoring System (PRAMS)

PRAMS data were used in this report to document prenatal tobacco use, both cigarettes and smokeless, chewing or spit tobacco. PRAMS is a population-based survey of Alaska women who have recently delivered a live-born infant. It gathers information on the health risk behaviors and circumstances of pregnant and postpartum women. PRAMS is conducted in collaboration with the CDC. Forty-seven states, New York City, Puerto Rico, the District of Columbia and the Great Plains Tribal Chairmen's Health Board (GPTCHB) currently participate in PRAMS, representing approximately 83% of all U.S. live births.

In Alaska, the Division of Public Health has administered PRAMS since 1990. A stratified systematic sample is drawn each month from the state's live birth records for infants

between two and six months of age. Sampled mothers receive up to three mailed questionnaires to solicit a response, and since 1997, telephone follow-up has been initiated among those who do not respond by mail. Sampling is not limited to adult women, so PRAMS data does include responses from teenage mothers (approximately 6% in recent years).

In addition to maternal tobacco use, the PRAMS questionnaire addresses such topics as content of prenatal care, maternal use of alcohol, maternal stress, breastfeeding, physical abuse, and other topics. Survey responses are weighted so that reported prevalence accurately describes the population of Alaska women delivering a live-born infant during the year reported. The weighted response rate was 65% in 2012, 69% in 2013, 65% in 2014, and 66% in 2015.

Because the questions about smokeless tobacco use changed significantly in 2004, trend data are shown with a break between 1996 to 2003, and 2004 to 2014. Starting in 2004, question wording changed to spit tobacco use and included a specific question about Iqmik use, whereas prior to 2004, the question referred only to chew or snuff and used the term “smokeless”. The questions also changed slightly in 2009 and again in 2012, but responses still reflect smokeless tobacco use that includes Iqmik.

See http://dhss.alaska.gov/dph/wcfh/Pages/mchepi/prams/default.aspx for more information about PRAMS questionnaires and methodology.

Reporting PRAMS data by Alaska Behavioral Health Systems Regions

Source: State of Alaska, DHSS, DPH, Section of Chronic Disease Prevention and Health Promotion

By combining years of data, PRAMS information can also be reported by region. For this report, Behavioral Health Systems Regions were used for PRAMS data.

The Alaska Behavioral Health Systems Regions are defined using borough designation as follows:

1) **Anchorage** – Municipality of Anchorage
2) **Fairbanks** – Fairbanks North Star Borough
3) **Juneau** – Juneau City and Borough
4) **Kenai** – Kenai Peninsula Borough
5) **Mat-Su** – Matanuska-Susitna Borough
6) **Northwest** – Nome Census Area, North Slope Borough, and Northwest Arctic Borough
7) **Other Interior** – Denali Borough, Southeast Fairbanks Census Area, Valdez-Cordova Census Area, and Yukon-Koyukuk Census Area
8) **Southeast—Northern** – Haines Borough, Hoonah-Angoon Census Area, Petersburg Census Area, Sitka City and Borough, Skagway Municipality, Wrangell City and Borough, and Yakutat City and Borough
9) **Southeast—Southern** – Ketchikan Gateway Borough, Prince of Wale-Hyder Census Area
10) **Southwest** – Aleutians East Borough, Aleutians West Census Area, Bristol Bay Borough, Dillingham Census Area, Kodiak Island Borough, and Lake and Peninsula Borough
11) **Y-K Delta** – Bethel Census Area and Kusilvak Census Area