



# ALASKA TOBACCO FACTS

2013



# Alaska Tobacco Facts

2013 Update

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## Acknowledgements

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## 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. Differences are noted where there is statistical significance ( $p < .05$ ).

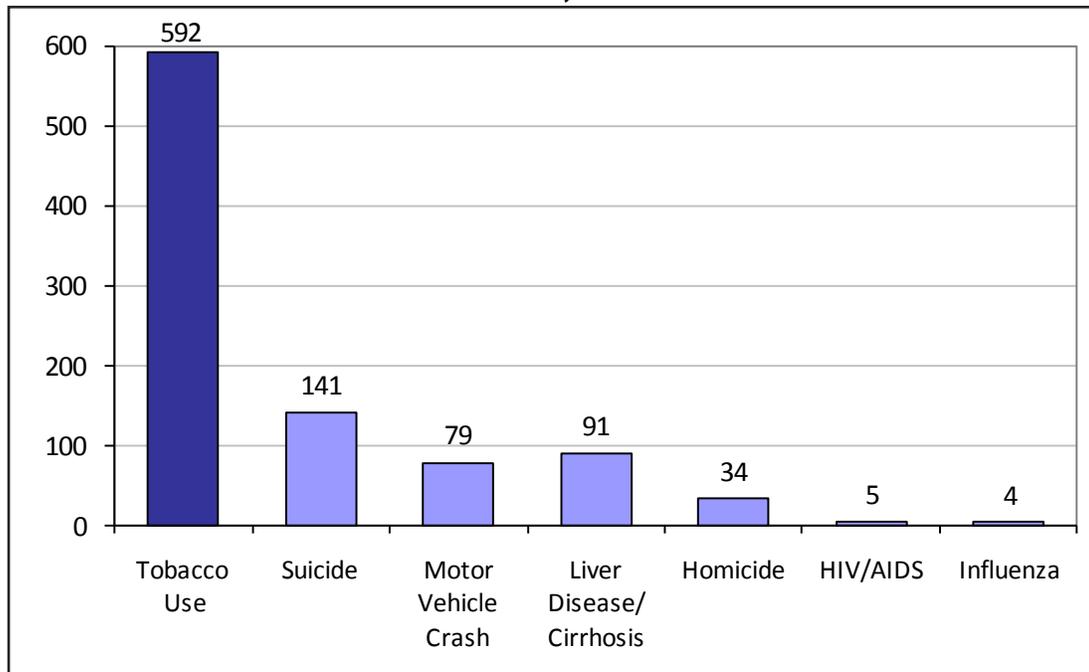
The following are highlights from *Alaska Tobacco Facts, 2013 Update*:

- Per adult cigarette consumption declined 55% from State Fiscal Year (SFY) 1996 to SFY 2011; **433 million fewer cigarettes** were sold in 2011 compared to 1996.
- In 2011, tobacco use cost Alaska \$327 million in direct medical expenditures and an additional \$236 million in lost productivity due to tobacco-related deaths.
- **The percentage of adult smokers in Alaska has declined** by 18% since 1996 to 22.6 percent in 2011, a statistically significant decrease.
- About 1 in 3 (36%) Alaska Native adults smoke, compared to 1 in 5 (20%) non-Native adults.
- Among non-Native adults age 25 to 64, about 2 in 5 (38%) of those in the low socio-economic status (SES) group are smokers, compared to 15% among higher SES.
- The majority of Alaska adults who currently smoke want to quit; nearly 3 in 5 smokers tried to quit in the last 12 months.
- **Smoking among high school students has declined** more than 60%, from 37% in 1995 to 14% in 2011.
- Alaska Native high school students—both boys and girls—are significantly more likely to smoke than students from other race groups, although the gap has decreased considerably since 2003.
- Secondhand smoke (SHS) exposure has decreased significantly among children at home, and among high school students at home and other indoor spaces, but 1 in 3 high school students are still regularly exposed to secondhand smoke.
- Among those who work primarily indoors, men and low SES non-Native adults age 25 to 64 are significantly less likely to be protected by a clean indoor air policy and are more likely to be exposed to tobacco smoke at work.
- Nearly 9 in 10 Alaska adults (87%) agree that people should be protected from secondhand smoke (SHS). Support is high even among smokers; more than 3 in 4 smokers (77%) agree that people should be protected from SHS.

## I. Tobacco-Related Deaths and Economic Costs

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**Figure 1. Number of Deaths Due to Selected Causes, Alaska, 2011**



Sources: Alaska Bureau of Vital Statistics (2011 deaths); Alaska Behavioral Risk Factor Surveillance System (smoking prevalence); CDC, Smoking Attributable Morbidity, Mortality, and Economic Costs.<sup>1</sup>

- More Alaskans die annually from the direct effects of tobacco use than from suicide, motor vehicle crashes, chronic liver disease and cirrhosis, homicide, HIV/AIDS and influenza combined.
- Nationally, exposure to secondhand smoke kills more than 49,000 adult non-smokers from coronary heart disease and lung cancer each year.<sup>2</sup>
- In 2011, tobacco use cost Alaska an estimated \$327 million in direct medical expenditures and an additional \$236 million in lost productivity due to tobacco-related deaths.<sup>1</sup>
- This sums to an astounding \$563 million, yet it underestimates total costs; lost productivity from tobacco-related illness and costs due to second-hand smoke exposure-related illness or death are not included.

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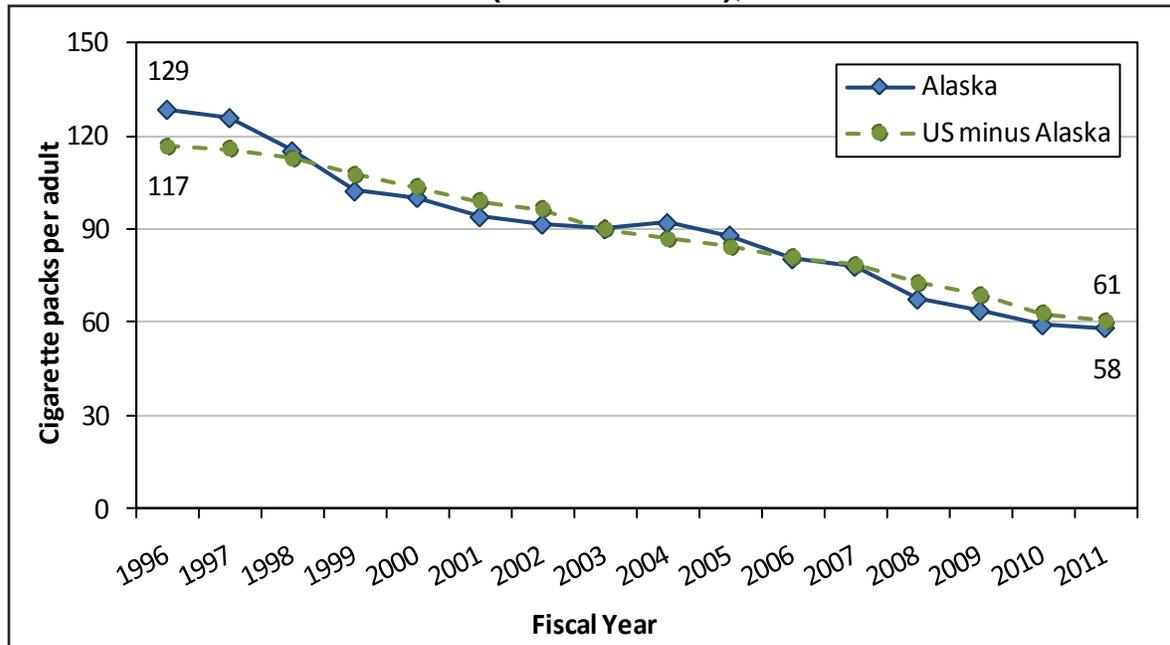
<sup>1</sup> See Appendix B: Data Sources, for information on how smoking-attributable deaths and costs were estimated.

<sup>2</sup> National estimates from the U.S. Department of Health and Human Services 2006 report, "The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General."

## II. Adult Tobacco Use

### A. Cigarette Consumption

Figure 2. Annual Per Adult Sales of Cigarette Packs, By Fiscal Year, Alaska and US (minus Alaska), 1996 – 2011

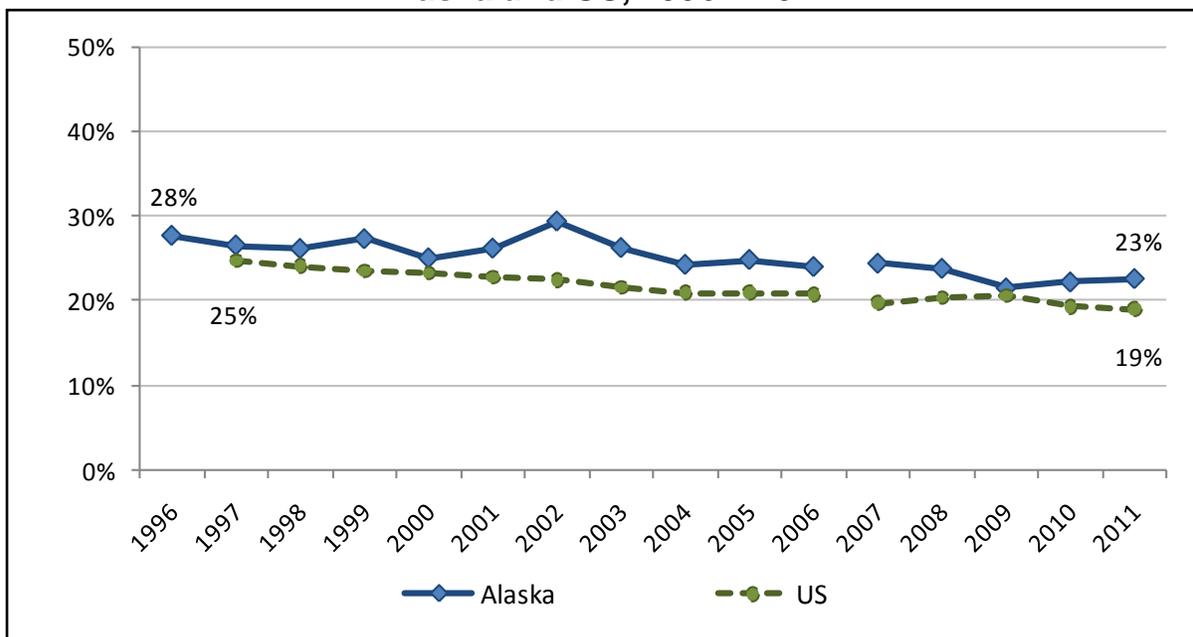


Sources: Alaska Department of Revenue, Tax Division FY11 Reports; Orzechowski & Walker, *The Tax Burden on Tobacco*, 2012 (vol 46).

- Between State Fiscal Years (SFY) 1996 and 2011, the per-adult number of cigarette packs sold in Alaska dropped 55%, from 129 packs to 58 packs per adult.
- This drop in cigarette sales translates to 433 million fewer cigarettes sold in Alaska in 2011 compared to 1996.

## B. Smoking Prevalence

**Figure 3. Percent of Adults Who Smoke, by Year, Alaska and US, 1996 – 2011**

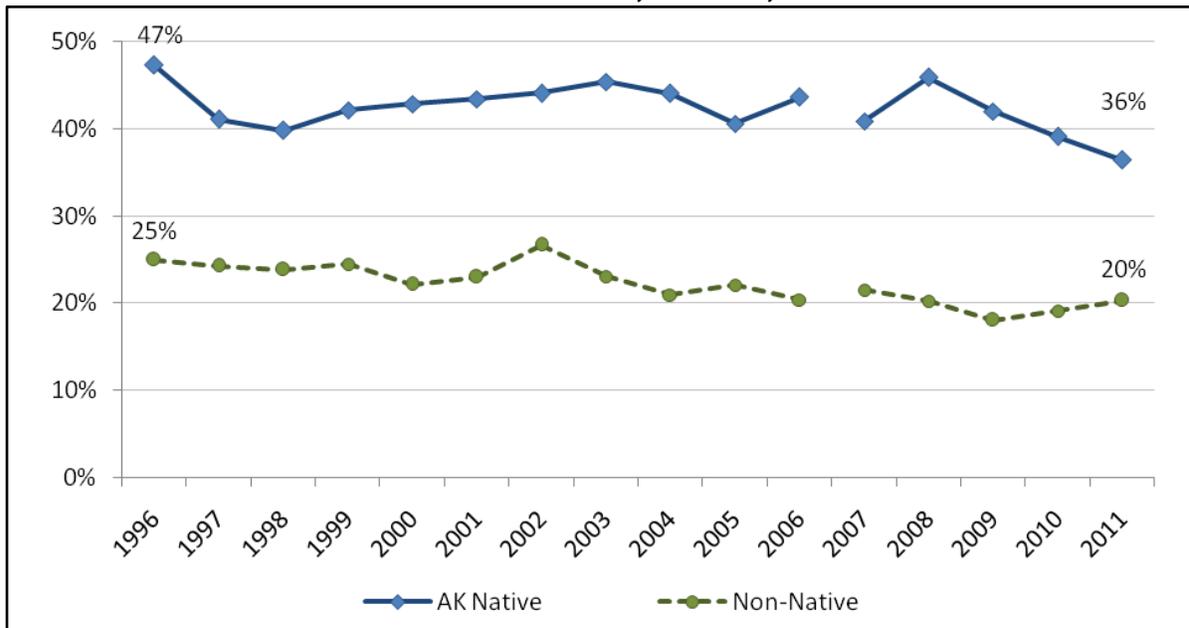


Sources: Alaska Behavioral Risk Factor Surveillance System; National Health Interview Survey BRFSS estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

For Alaska:

- Smoking prevalence has declined significantly from 27.7% in 1996 to 22.6% in 2011 ( $p < 0.001$ ). Using the 2010 Census information for Alaska, this represents about 27,000 fewer adult smokers in 2011 than in 1996.
- Among women, the proportion of smokers has decreased significantly from 24.2% in 1996 to 21.1% in 2011 ( $p < 0.01$ ).
- Among men, the decline in smoking is also significant, falling from 30.8% in 1996 to 24.0% in 2011 ( $p = 0.01$ ).
- Between 1998 and 2011, adult smoking prevalence decreased significantly in two regions, the Gulf Coast and Anchorage/Mat-Su. It also decreased significantly in Fairbanks North Star Borough and the Municipality of Anchorage. See Appendix A Table 2 for further information.

**Figure 4. Percent of Adults Who Smoke, by Year and Alaska Native Status, Alaska, 1996 – 2011**

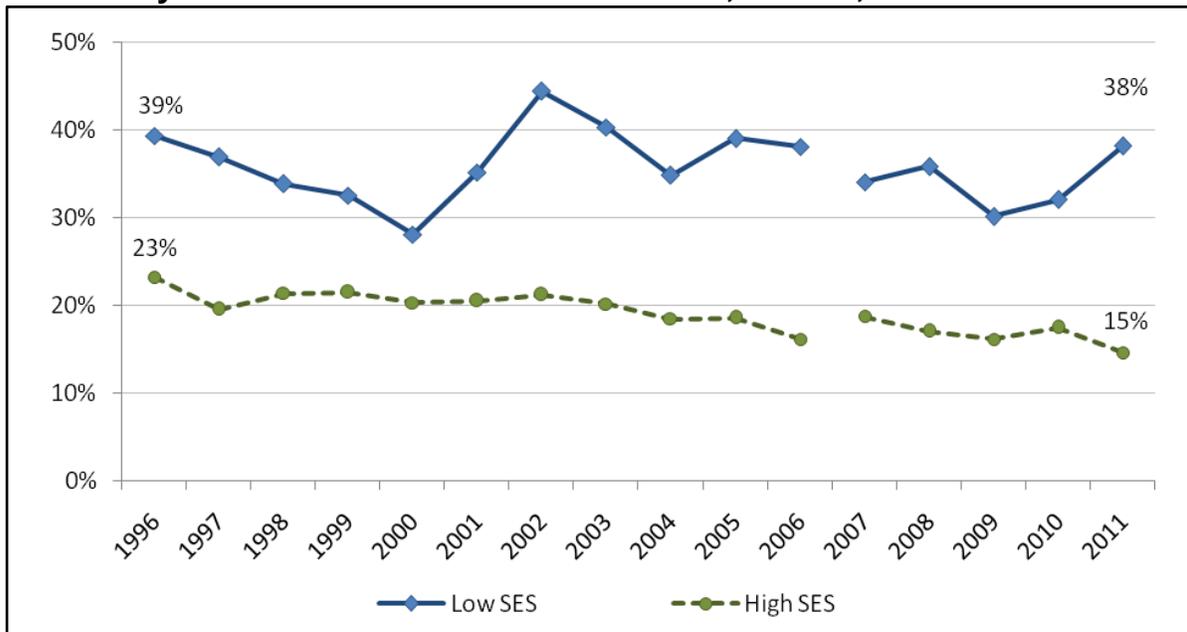


Source: Alaska Behavioral Risk Factor Surveillance System

Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

- Smoking prevalence has remained high for Alaska Native adults, and has not changed significantly since 1996. Roughly 1 in 3 Alaska Native adults (36.4%) smoked in 2011.
- Among non-Native adults, smoking has decreased significantly from 24.9% in 1996 to 20.3% in 2011 ( $p < 0.001$ ).

**Figure 5. Percent of Non-Native Adults Age 25-64 Who Smoke, by Year and Socio-Economic Status, Alaska, 1996 – 2011**



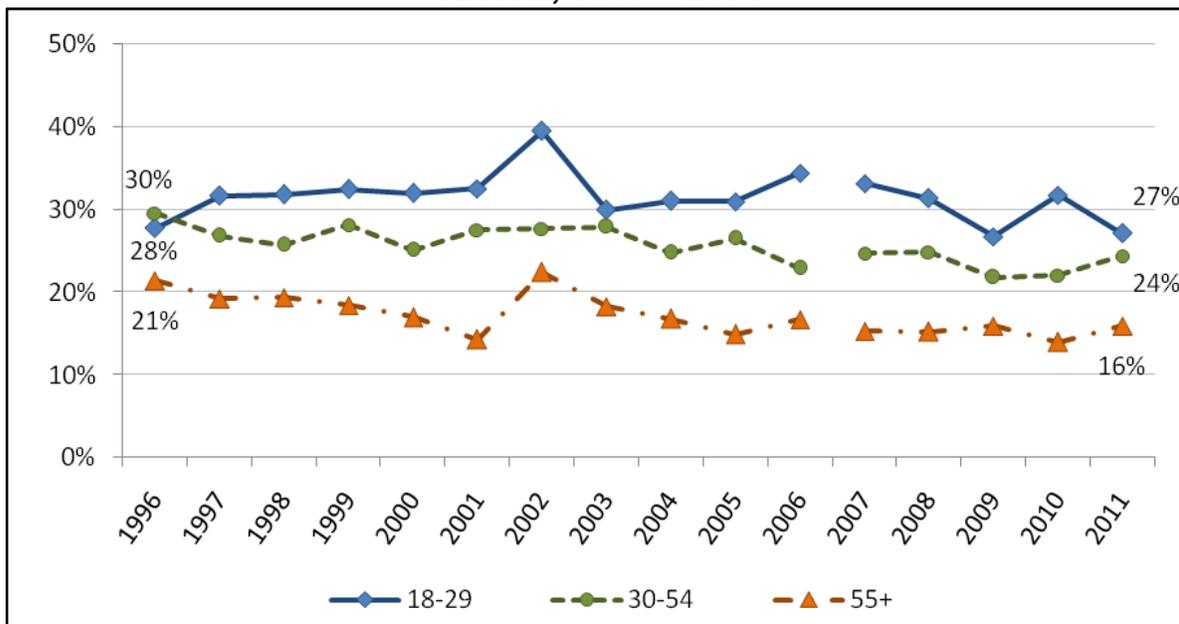
Source: Alaska Behavioral Risk Factor Surveillance System

Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

- Among non-Native adults age 25 to 64, smoking prevalence has remained high for those of low socio-economic status (SES).<sup>3</sup>
- Among higher SES non-Native adults age 25 to 64, smoking has decreased significantly from 23.2% in 1996 to 14.6% in 2011 ( $p < 0.001$ ).
- Non-Native adults age 25 to 64 of low SES are currently 2.5 times more likely than adults of higher SES to smoke.

<sup>3</sup> Lower SES is calculated as those persons with less than a High School education or less than 185% of the Alaska Poverty Level Guideline. Measurement of 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. See Appendix B, p 132 for more information.

**Figure 6. Percent of Adults Who Smoke, by Year and Age Group, Alaska, 1996 – 2011**

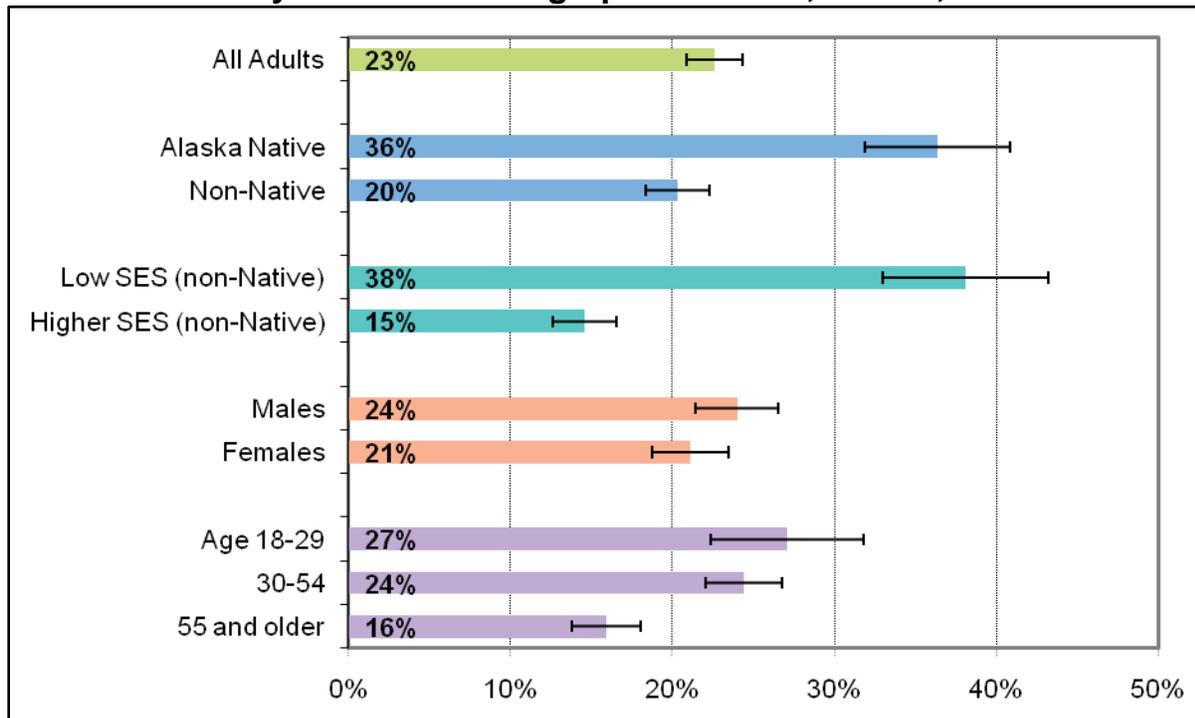


Source: Alaska Behavioral Risk Factor Surveillance System

Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

- Over 1 in 4 Alaska adults age 18 to 29 currently smoke. Smoking prevalence has remained high for this young adult group and has not changed significantly since 1996.
- Among adults age 30 to 54, smoking has decreased significantly from 29.6% in 1996 to 24.4% in 2011 ( $p=0.02$ ).
- Adults age 55 and older smoke less than younger adults, but smoking prevalence did not decrease significantly for this group between 1996 and 2011.

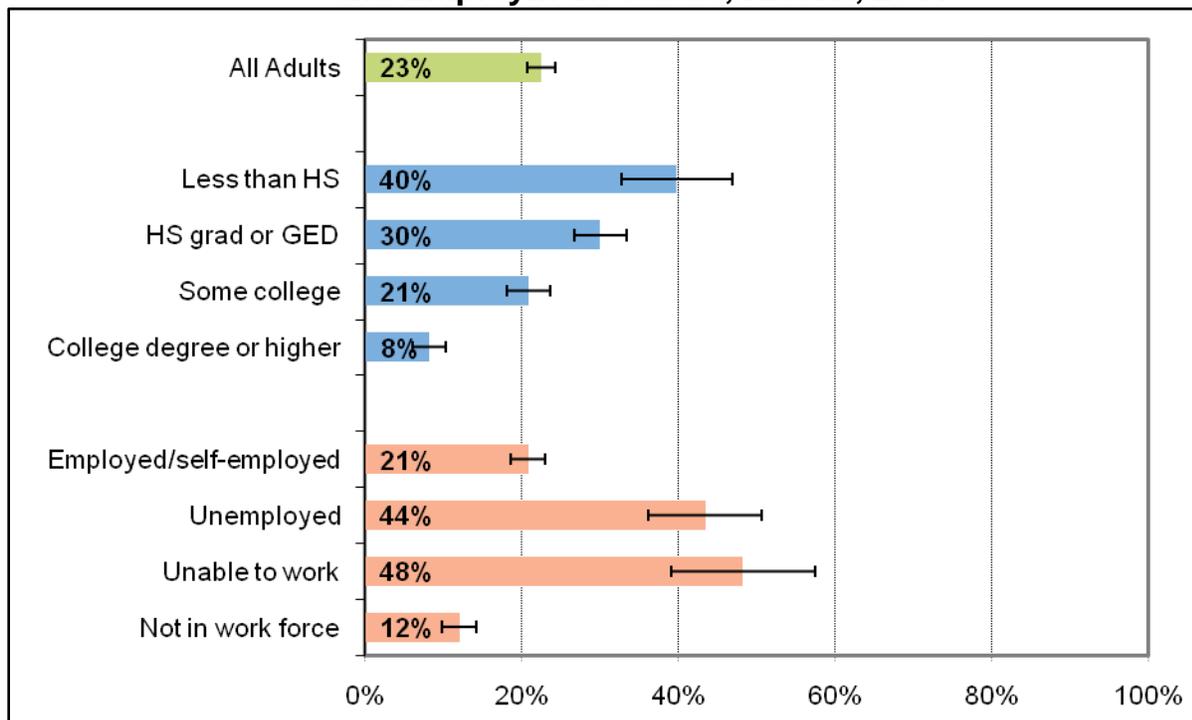
**Figure 7. Percent of Adults Who Smoke, by Selected Demographic Factors, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- The graph above shows that adult smoking is significantly higher among non-Native adults of low SES (38.1%) and among Alaska Native adults (36.4%), than their counterparts.
- About 1 in 3 Alaska Native adults currently smoke, compared to 1 in 5 non-Native adults.
- Among non-Native adults age 25 to 64, those of low SES are more than twice as likely as those of higher SES to be smokers.
- Younger adults remain a priority group for tobacco prevention efforts. In 2011, over 1 in 4 (27.1%) young adults age 18 to 29 reported being a smoker. This proportion has remained about the same since 1996, and is significantly higher than smoking prevalence for adults age 55 and older.
- More than half of adults who were current smokers in 2011 (56%) reported that they had started smoking by the time they were 17 years old.

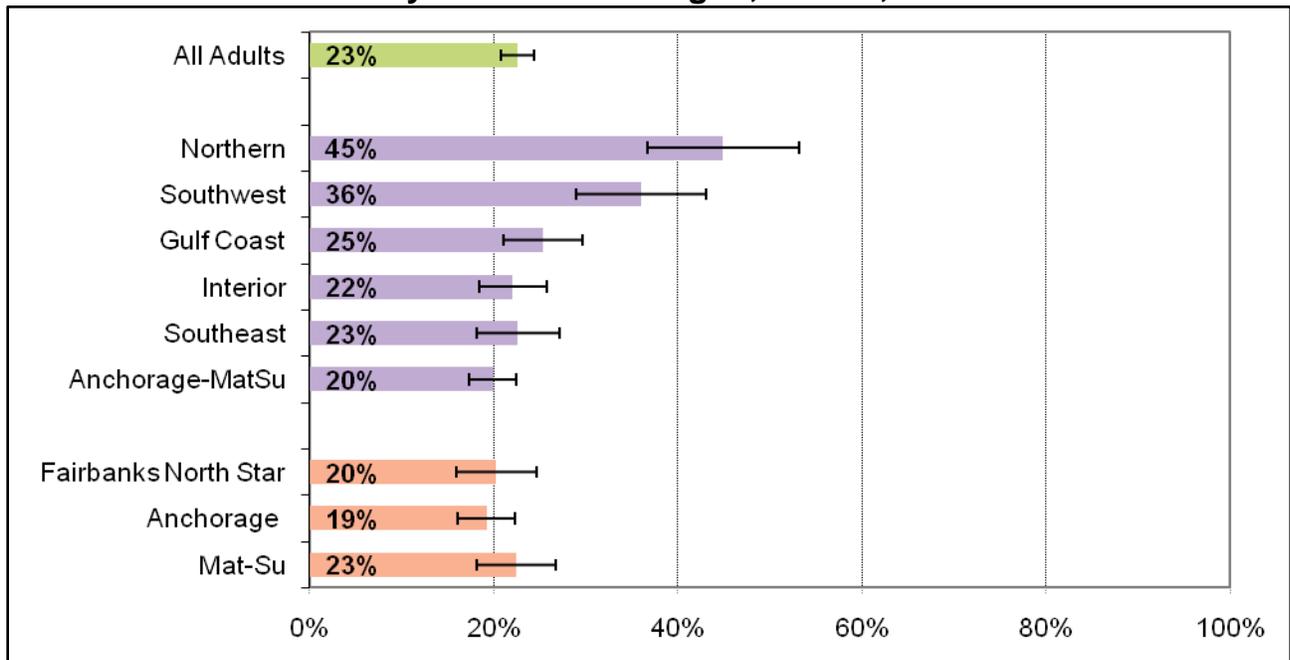
**Figure 8. Percent of Adults Who Smoke, by Formal Education Status and Employment Status, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- Smoking is higher among adults with less educational attainment. Those with less than a high school education are 5 times more likely to smoke than those with a college or higher degree.
- Each increase in level of education from a high school degree or GED, to some college, to a college degree or higher degree, is associated with a significant decrease in smoking prevalence.
- Employment status is another factor related to both SES and smoking. Although unemployed adults and those who are unable to work comprise about 15% of the overall adult population, they are disproportionately likely to smoke. About 2 in 5 unemployed adults (44%) and 1 in 2 adults who are unable to work (48%) are smokers, whereas only 1 in 5 employed adults (21%) smoke.
- Those who are not considered to be in the work force are least likely to smoke. Adults categorized as “not in the work force” include those who reported that they are primarily homemakers, students, or retirees.

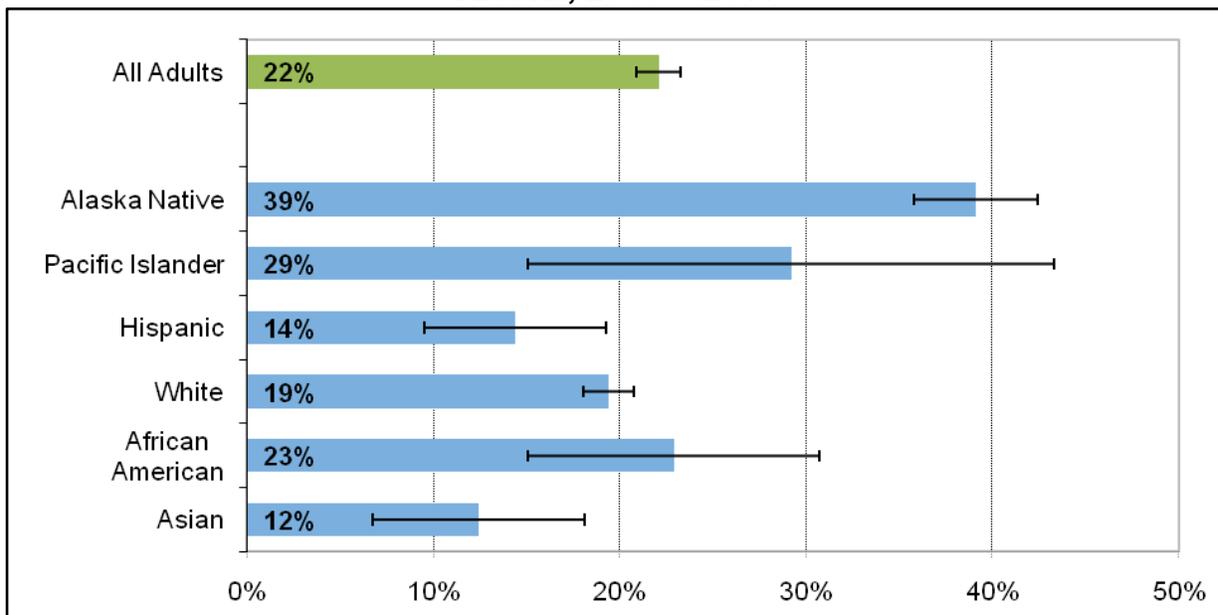
**Figure 9. Percent of Adults Who Smoke, by Region and by Selected Boroughs, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- Adults in more rural regions in Alaska – Southwest and Northern Regions – are more likely to smoke than adults in other regions.
- Prevalence can also be reported separately for Fairbanks North Star Borough, the Municipality of Anchorage, and Mat-Su Borough; smoking prevalence is not significantly different among these boroughs.
- Public Health Regions include:
  - Northern – Nome, Northwest Arctic, and North Slope
  - Southwest – Bristol Bay, East Aleutians, West Aleutians, Dillingham, Lake & Peninsula, Bethel, and Wade Hampton
  - 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. Percent of Adults Who Smoke, by Race/Ethnicity, Alaska, 2009 – 2011**



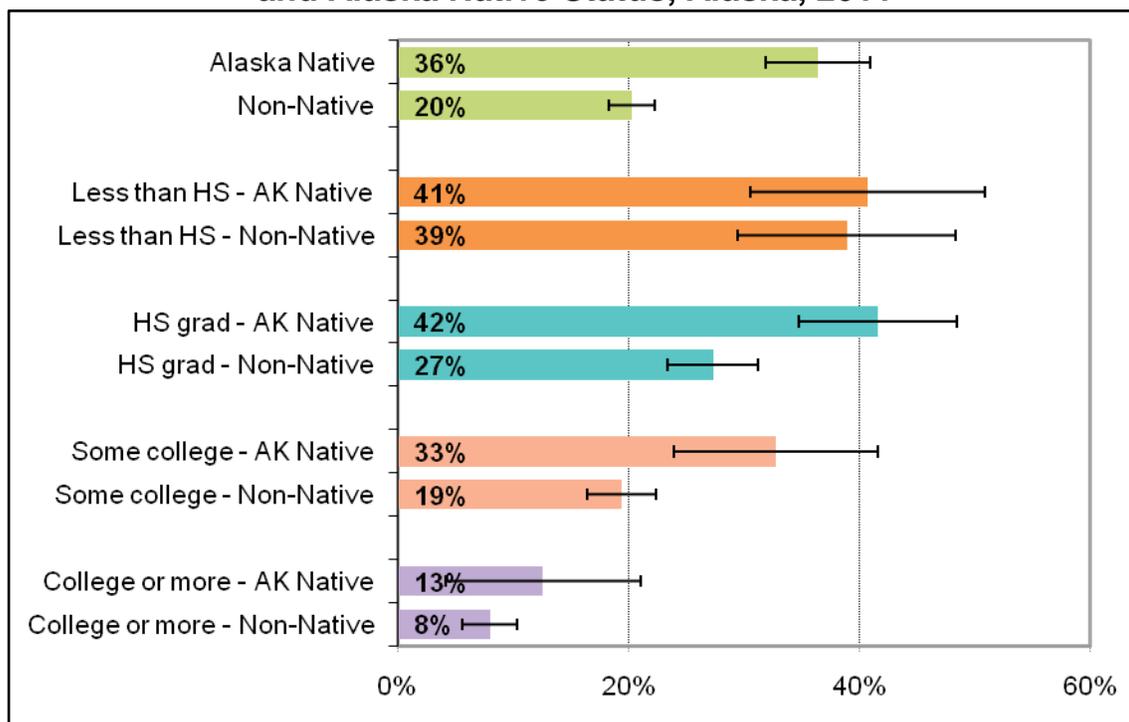
Source: Alaska Behavioral Risk Factor Surveillance System

*Note: The race categories of Alaska Native, African American, Asian, Pacific Islander, and White do not include respondents of Hispanic ethnicity.*

*Note also: Percents reported in this graph are for 2009-2011 combined, and may differ from those reported elsewhere for 2011 only.*

- Alaska Native adults are more likely to be smokers than Hispanic, White, African American, or Asian adults.
- There is no significant difference in smoking prevalence between White, African American, Asian, Pacific Islander, and Hispanic adults.

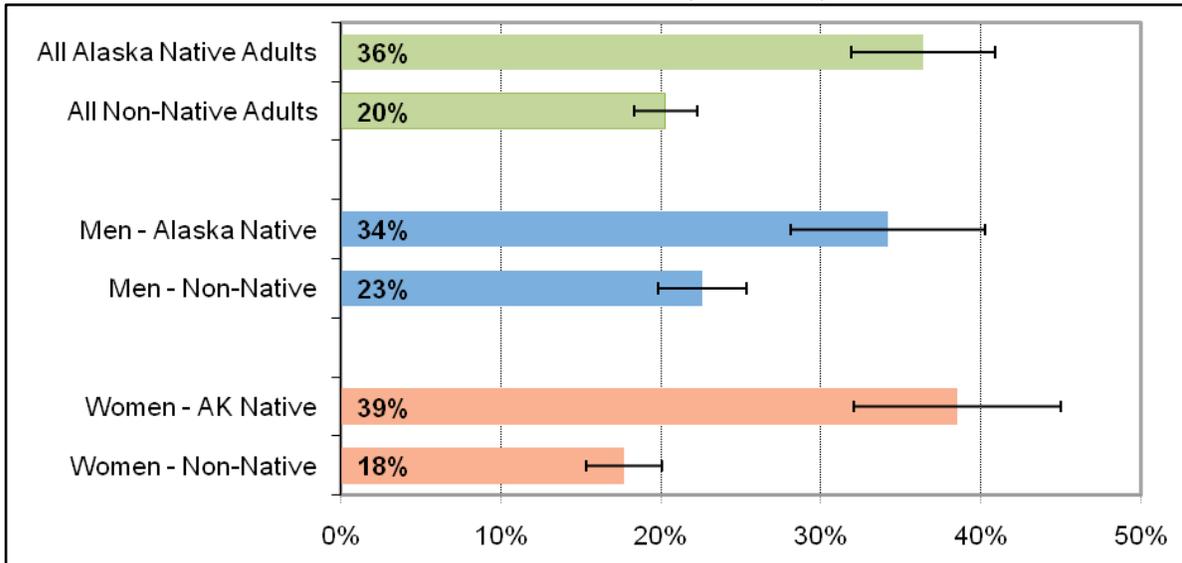
**Figure 11. Percent of Adults Who Smoke, by Formal Education Status and Alaska Native Status, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- In Alaska, educational attainment is associated with higher smoking prevalence regardless of Alaska Native status.
- Although Alaska Native adults are more likely to smoke than non-Native adults, among adults with less than a high school education, Alaska Native and non-Native adults are equally likely to be smokers.
- Among Alaska adults who graduated with a degree from a four-year college or received a higher degree, there is no significant difference in smoking prevalence between Alaska Native and non-Native adults.

**Figure 12. Percent of Adults Who Smoke, by Gender and Alaska Native Status, Alaska, 2011**

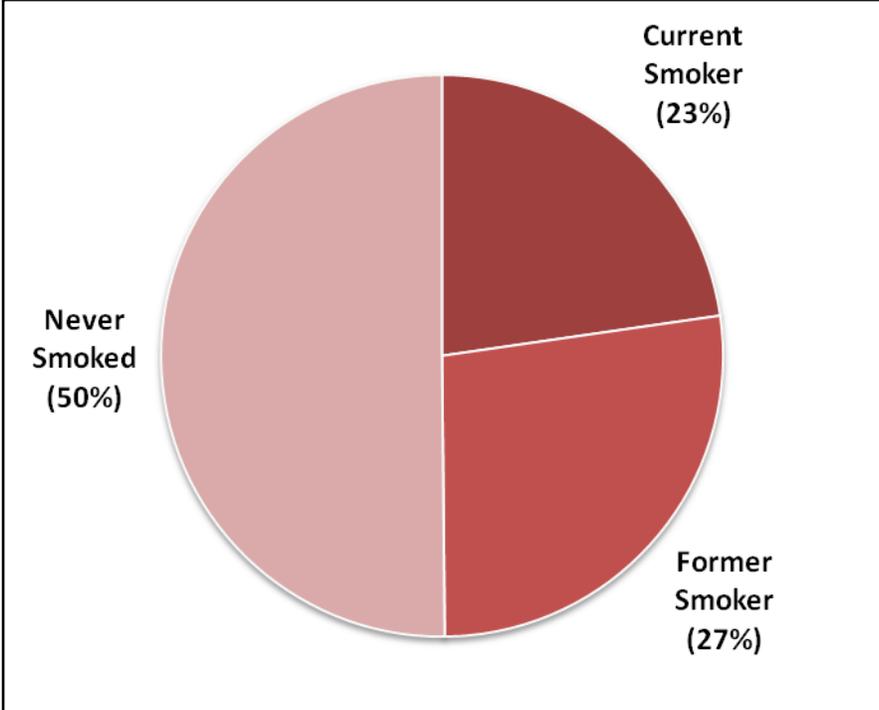


Source: Alaska Behavioral Risk Factor Surveillance System

- In Alaska, there are significant differences in smoking prevalence by Alaska Native status and gender.
- Although there is no significant difference in smoking prevalence between men and women in Alaska overall, non-Native women are significantly less likely to smoke than non-Native men.
- Alaska Native women are as likely to smoke as Alaska Native men, and significantly more likely to smoke than Non-Native men or women.
- Among men, Alaska Native men are significantly more likely to smoke than non-Native men.

**C. Cessation: Quitting Smoking**

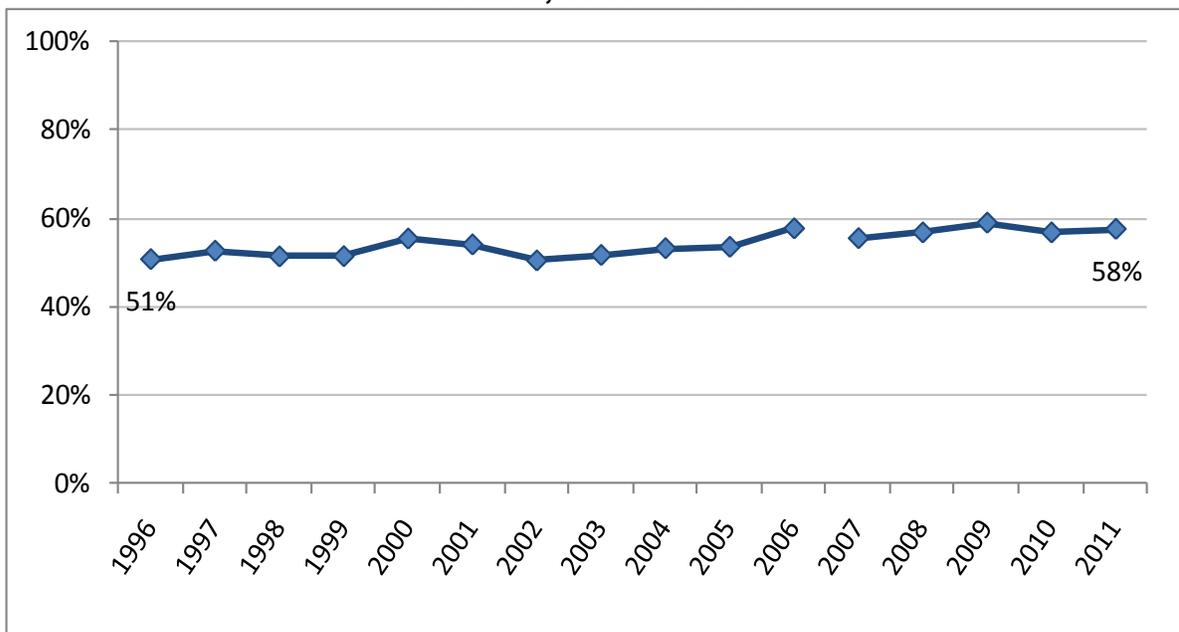
**Figure 13. Smoking Status of Adults  
Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- As the proportion of smokers decreases, the proportion of Alaskans who have never been smokers has increased from 46.3% in 1996 to 49.9% in 2011.
- In 2011, among Alaska Native adults, only 1 in 3 (34.3%) had never been smokers, compared to 1 in 2 (52.4%) non-Native adults.
- Among non-Native adults age 25 to 64, those of low SES are significantly less likely than those of higher SES to never have smoked (40.1% vs 54.7%).

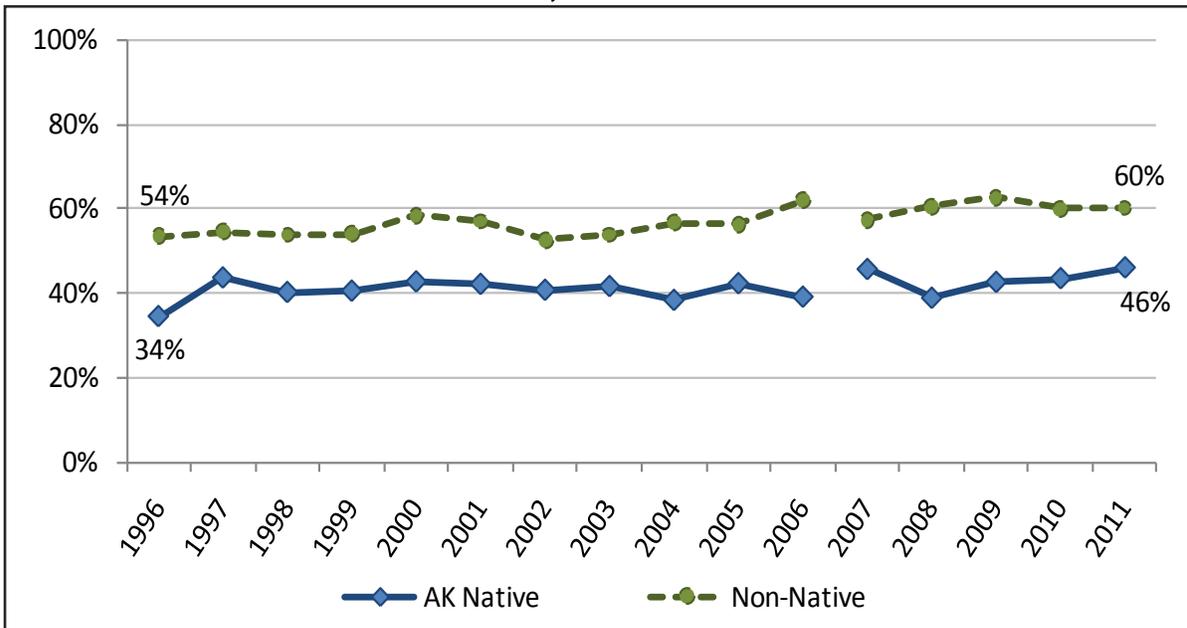
**Figure 14. Quit Ratio: Among Adults age 25 or Older, Percent of Former Smokers Who Were Ever Smokers, by Year, Alaska, 1996 – 2011**



Source: Alaska Behavioral Risk Factor Surveillance System  
 Estimates for 2007 and later use a new weighting method; see Appendix B p 129 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, because the quitting trend is less likely to be affected by changes in initiation of smoking in the slightly older group.
- The quit ratio has increased significantly since 1996. The proportion of ever smokers age 25 or older who have quit smoking increased from 50.8% in 1996 to 57.6% in 2011.
- The quit ratio has increased significantly among men, from 50.4% in 1996 to 58.6 in 2011.
- The quit ratio has increased significantly in two regions—Interior and Gulf Coast. See Appendix A Table 3 for more information.

**Figure 15. Quit Ratio: Among Adults age 25 or Older, Percent of Former Smokers Who Were Ever Smokers, by Year and Alaska Native Status, Alaska, 1996 – 2011**

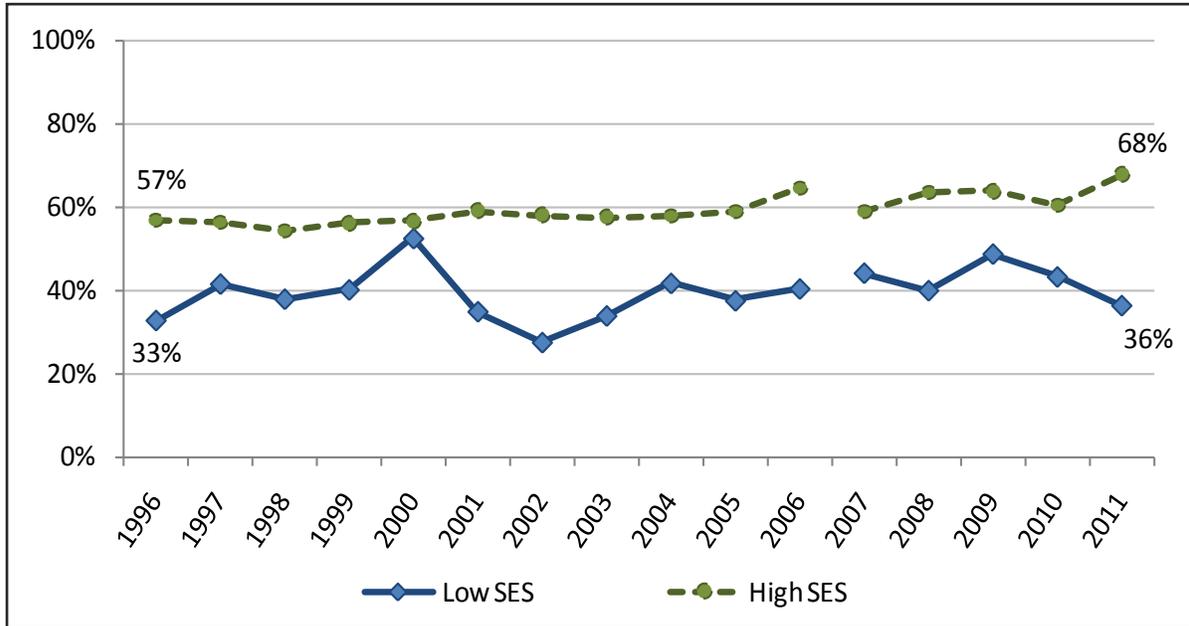


Source: Alaska Behavioral Risk Factor Surveillance System

Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

- Among adults age 25 and older who ever smoked, the quit ratio has not changed significantly for Alaska Native adults.
- Among non-Native adults age 25 and older, the quit ratio has increased significantly since 1996 ( $p < 0.01$ ).
- In 2011, among adults age 25 and older, about 3 in 5 non-Native ever smokers have quit smoking, compared to 2 in 5 Alaska Native ever smokers.

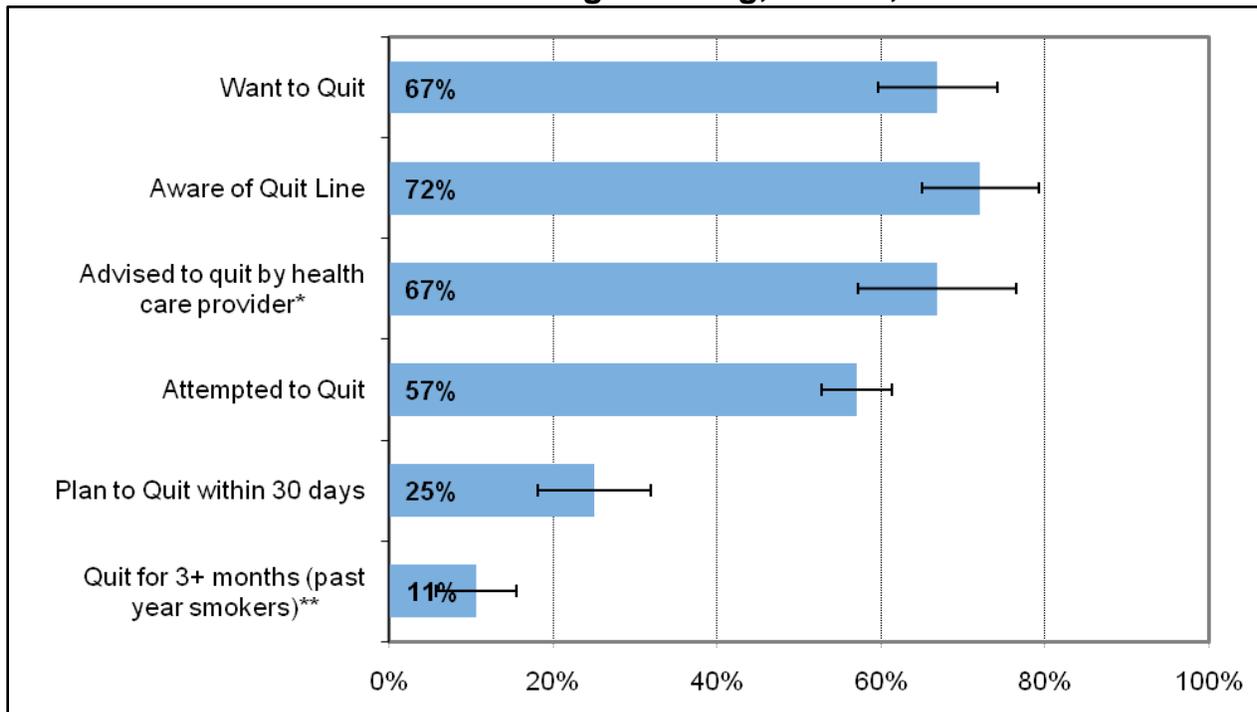
**Figure 16. Quit Ratio: Among Non-Native Adults Age 25 to 64, Percent of Former Smokers Who Were Ever Smokers, by Year and Socio-Economic Status, Alaska, 1996 – 2011**



Source: Alaska Behavioral Risk Factor Surveillance System  
 Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

- Among non-Native adults age 25 to 64, the quit ratio has not changed significantly for those of low socio-economic status (SES).
- Among higher SES non-Native adults age 25 to 64, the quit ratio has increased significantly since 1996 ( $p < 0.01$ ).
- In 2011, among non-Native adults age 25 to 64 who were ever smokers, about 2 in 3 higher SES respondents have quit, compared to 1 in 3 low SES respondents.

**Figure 17. Percent of Adult Smokers Represented in Selected Indicators Related to Quitting Smoking, Alaska, 2011**



Sources: Alaska Behavioral Risk Factor Surveillance System

\*Among current smokers who had a health care visit in the past 12 months.

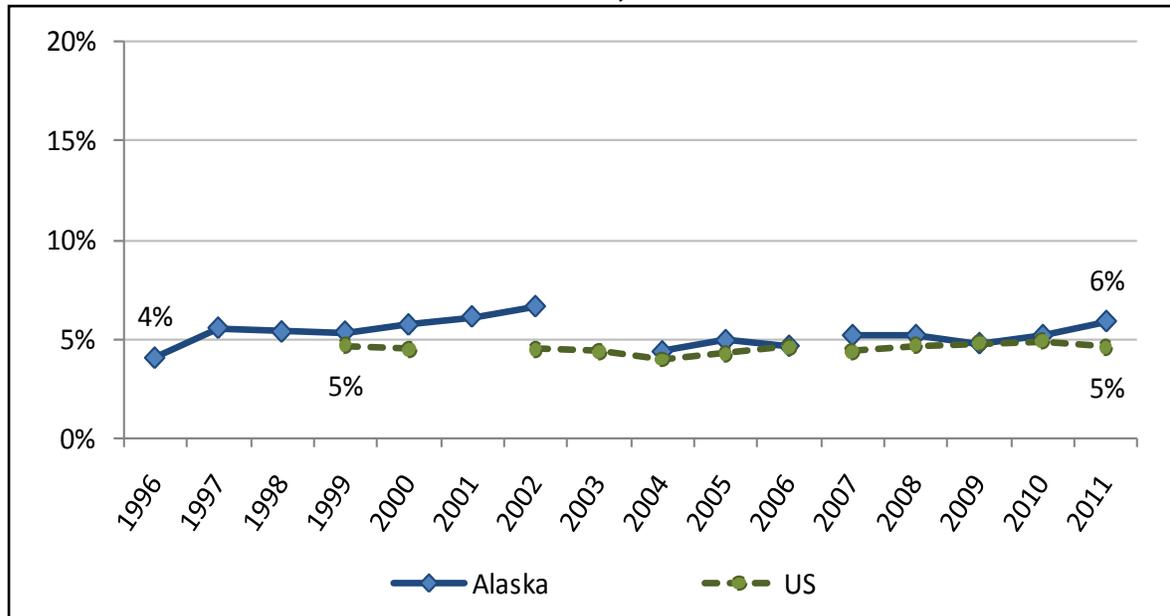
\*\*Among current and former smokers who were smoking in the past year.

- Two-thirds of Alaska adults who currently smoke (67%) want to quit.
- Most Alaska adult smokers (72%) are aware that Alaska has a Tobacco Quit Line that provides free, phone based counseling and nicotine replacement therapy. In 2012, 3,215 Alaska residents called the quit line. Nearly all calls (99%, 3,168 callers) were tobacco users who requested a cessation intervention.
- Two-thirds of current smokers who had a health care visit in the past 12 months were advised to quit by a doctor or other health care provider.
- Nearly 3 in 5 current smokers (57%) have attempted to quit in the past 12 months; quit attempts were made by over half of those who smoke every day (53%) and two-thirds of those who smoke some days (67%).
- About 1 in 4 current smokers (25%) reported that they plan to quit within 30 days.
- About 1 in 10 (11%) Alaska adults who smoked in the past year had successfully quit for 3 or more months, and results were not significantly different for Alaska Native and non-Native past-year smokers (8% vs 12%). Being able to stay quit for 3 or more months greatly increases the chances of quitting tobacco for life.<sup>4</sup>

<sup>4</sup> Hughes JR, Keely J, Naud S. Shape of the relapse curve and long-term abstinence among untreated smokers. *Addiction*. 2004;99:29-38.

## D. Smokeless Tobacco Prevalence

**Figure 18. Percent of Adults Who Use Smokeless Tobacco, by Year, Alaska and U.S., 1996 – 2011**



Source: Alaska Behavioral Risk Factor Surveillance System and Substance Abuse and Mental Health Services Administration National Survey on Drug Use and Health (NSDUH), smokeless tobacco use in the past year; <http://www.samhsa.gov/data/NSDUH.aspx>. Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

Note: Question about SLT use was not asked in 2003 in the Alaska BRFSS, and there are no national NSDUH data posted for SLT use for 1996-1998 and 2001.

- Use of smokeless tobacco (SLT) in Alaska has not changed significantly between 1996 and 2011 overall or by gender.
- Nationally, an estimated 4.6% of adults used SLT within the past year; with use much higher among men (8.7%) than women (0.7%).

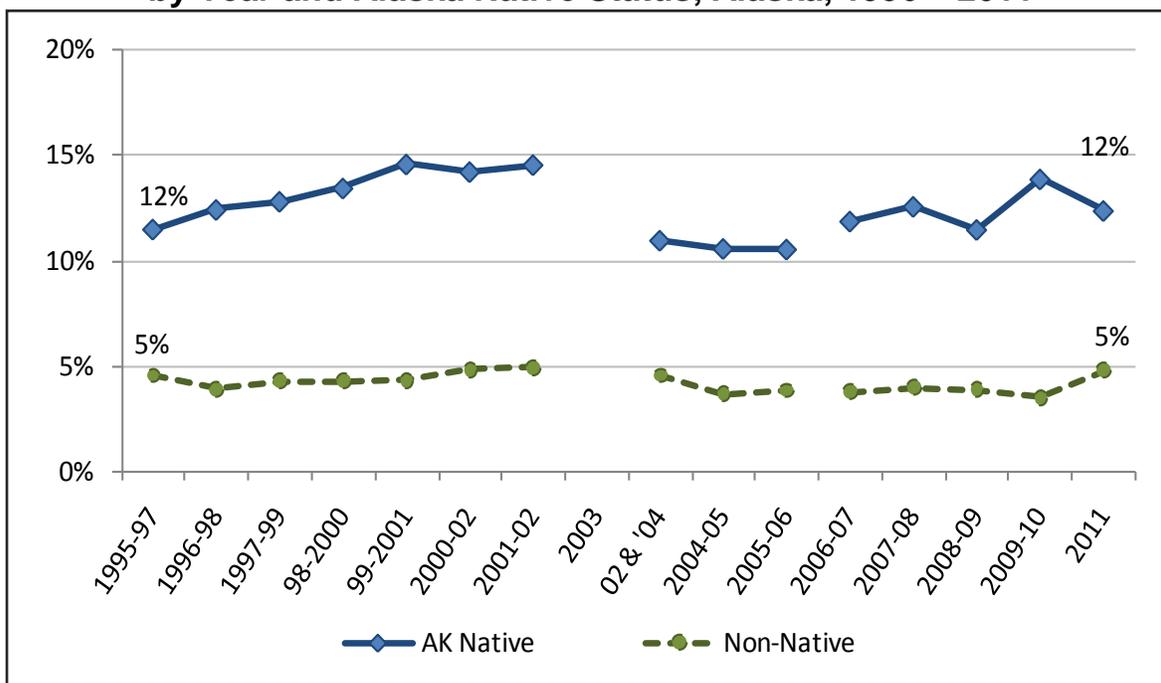
Source: Substance Abuse and Mental Health Services Administration. Results from the 2011 National Survey on Drug Use and Health: Detailed Tables, Table 2.31B. Rockville, MD: Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality; 2011; <http://www.samhsa.gov/data/NSDUH.aspx>.

- 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.

Source: International Agency for Research on Cancer (IARC). Summaries and Evaluations Tobacco Products, Smokeless (Group 1); February 1998.

- SLT use has increased significantly in the Gulf Coast region of Alaska. See Appendix A Table 4 for more information.

**Figure 19. Percent of Adults Who Use Smokeless Tobacco, by Year and Alaska Native Status, Alaska, 1996 – 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

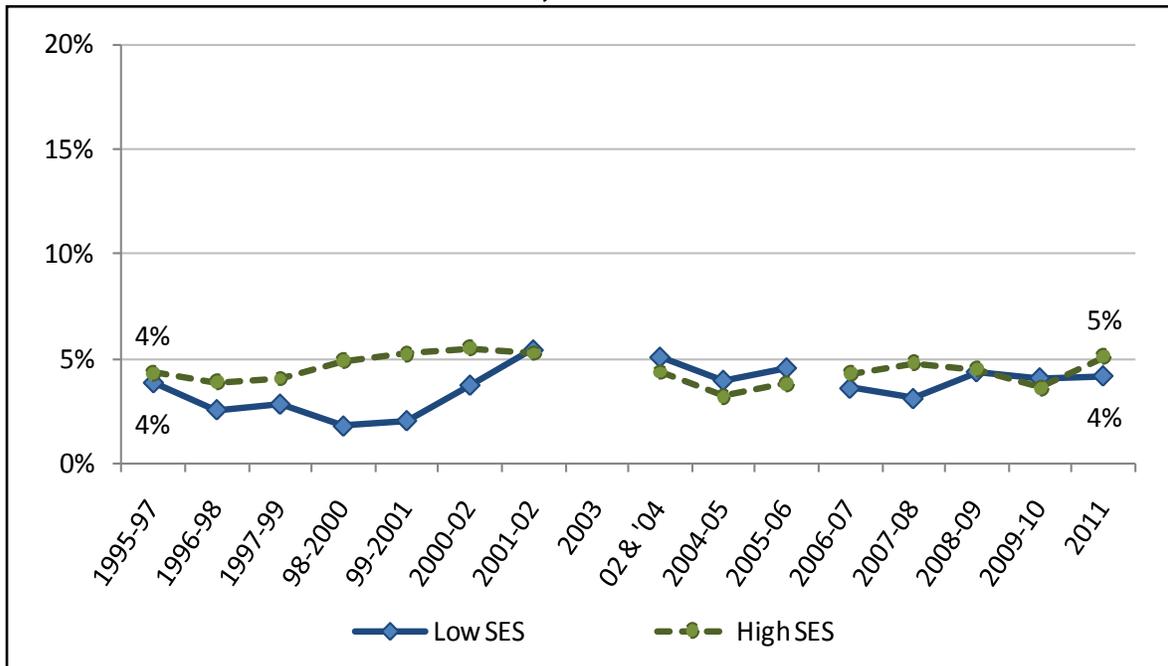
Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

SLT use estimates by Alaska Native status are reported using combined year averages until 2011. See Appendix A Table 4 for more information.

Note: Question was not asked in 2003.

- Alaska Native adults are more likely to use smokeless tobacco than non-Native adults, but there have been no significant changes in prevalence for either group, between 1996 and 2011.

**Figure 20. Percent of Non-Native Adults Age 25-64 Who Use Smokeless Tobacco, by Year and Socio-Economic Status, Alaska, 1996 – 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

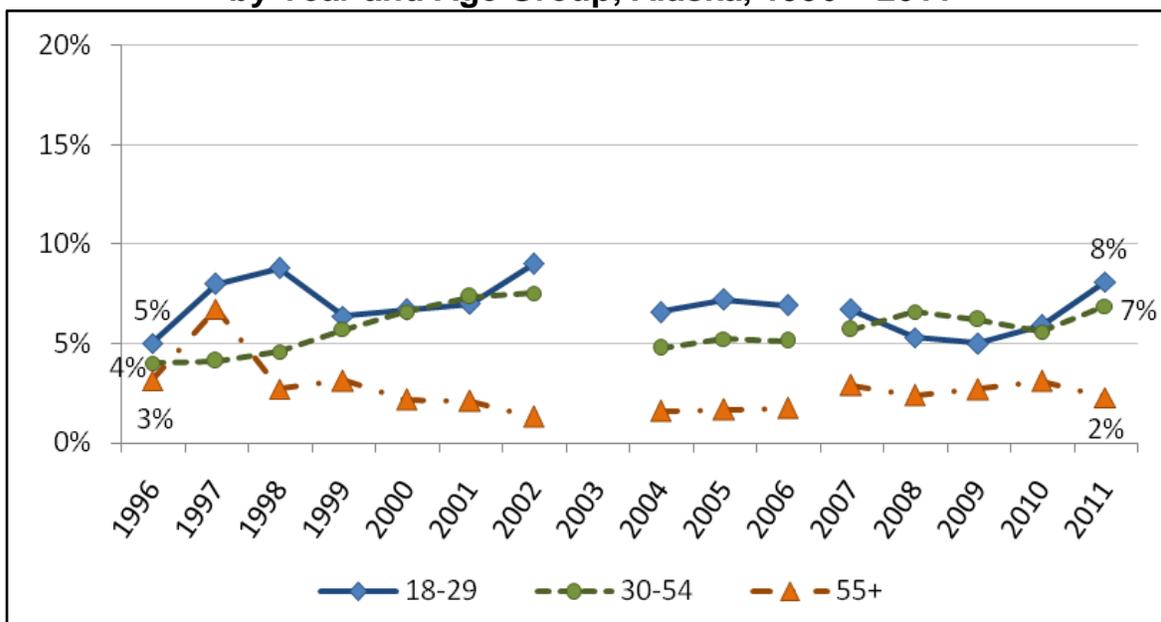
Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

SLT use estimates for non-Native Alaska adults by Socio-Economic Status are reported using combined year averages until 2011. See Appendix A Table 4 for more information.

Note: Question was not asked in 2003.

- Among non-Native adults age 25 to 64, use of smokeless tobacco has not changed significantly between 1996 and 2011, either for those of low SES or those with higher SES.

**Figure 21. Percent of Adults Who Use Smokeless Tobacco, by Year and Age Group, Alaska, 1996 – 2011**

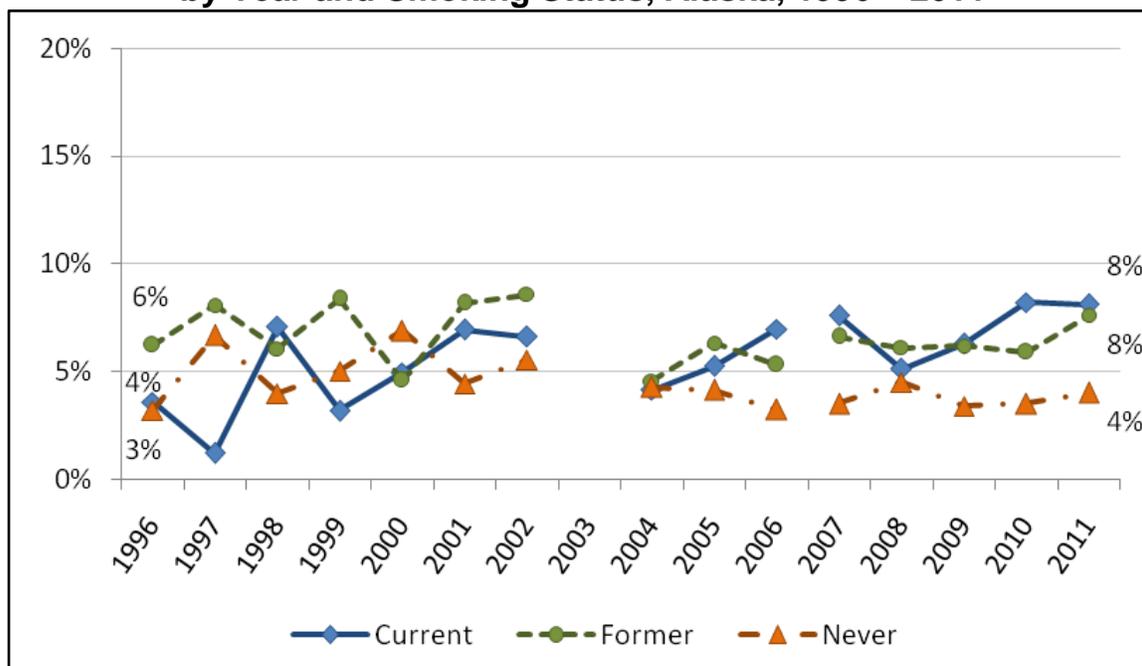


Source: Alaska Behavioral Risk Factor Surveillance System  
 Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

Note: Question was not asked in 2003.

- Use of smokeless tobacco has decreased slightly among adults age 55 and older, from 3.2% in 1996 to 2.3% in 2011.

**Figure 22. Percent of Adults Who Use Smokeless Tobacco, by Year and Smoking Status, Alaska, 1996 – 2011**



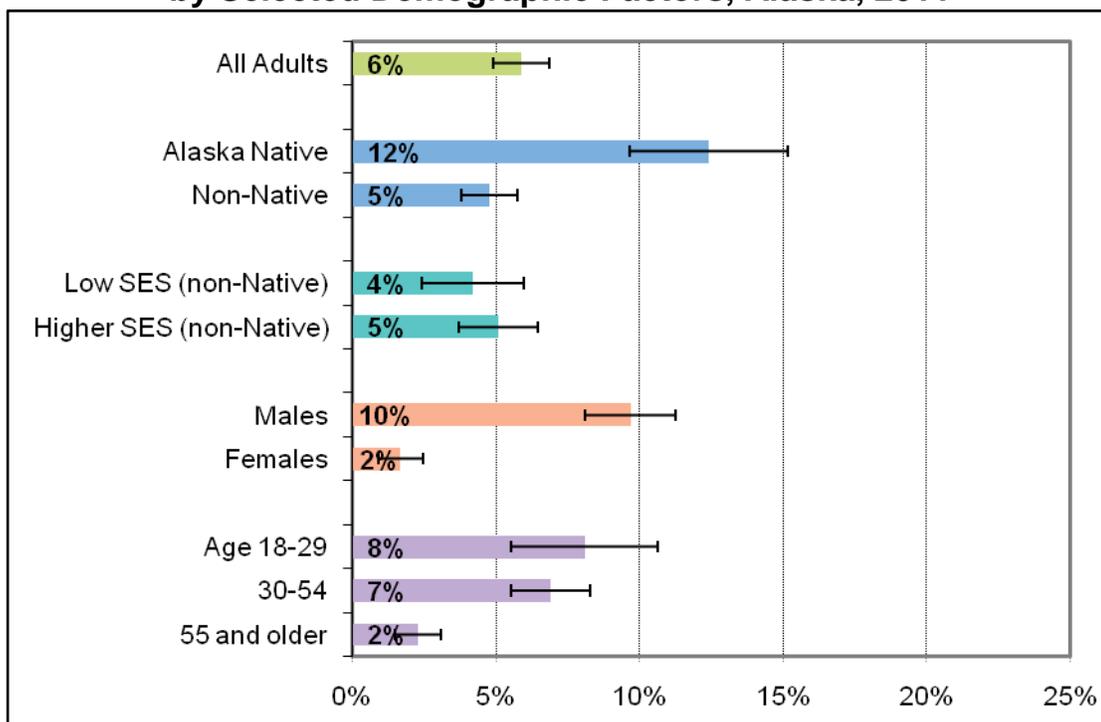
Source: Alaska Behavioral Risk Factor Surveillance System

Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

Note: Question was not asked in 2003.

- Use of smokeless tobacco has increased significantly among current smokers from 3.6% in 1996 to 8.1% in 2011.
- Use of smokeless tobacco has not changed significantly among former smokers, but it has decreased among adults who have never been smokers.

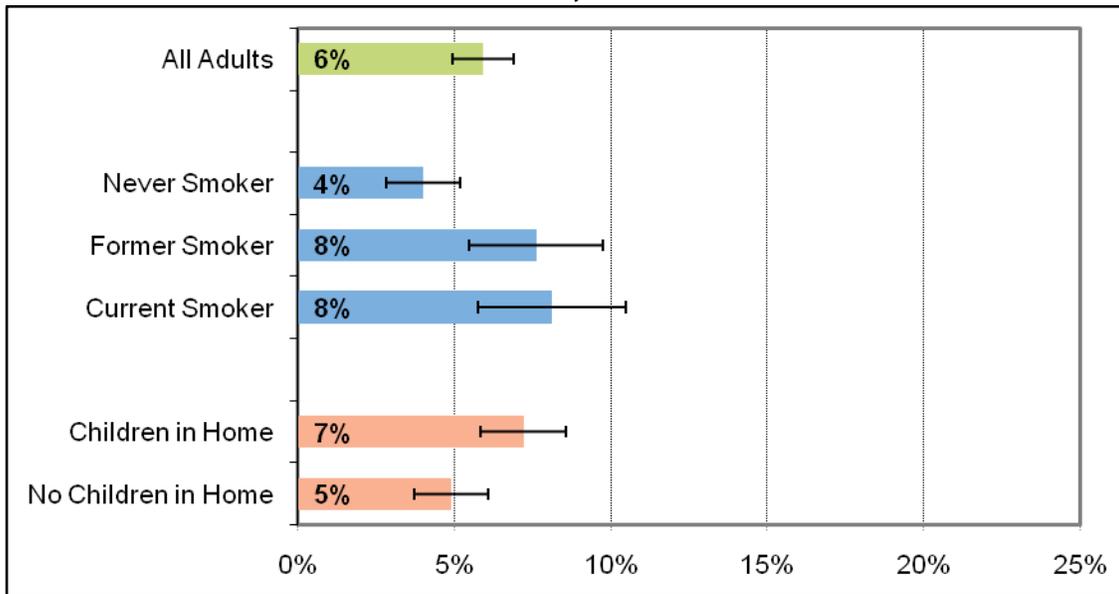
**Figure 23. Percent of Adults Who Use Smokeless Tobacco, by Selected Demographic Factors, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- Use of smokeless tobacco is significantly higher among Alaska Native adults; about 1 in 8 report smokeless tobacco use compared to 1 in 20 non-Native adults (12.4% vs 4.8%).
- Men are significantly more likely than women to use smokeless tobacco (9.7% vs 1.7%).
- Young adults age 18 to 29 and adults in the middle age group (age 30 to 54) are significantly more likely than older adults (age 55 and older) to use smokeless tobacco (8.1% and 6.9% vs 2.3%).

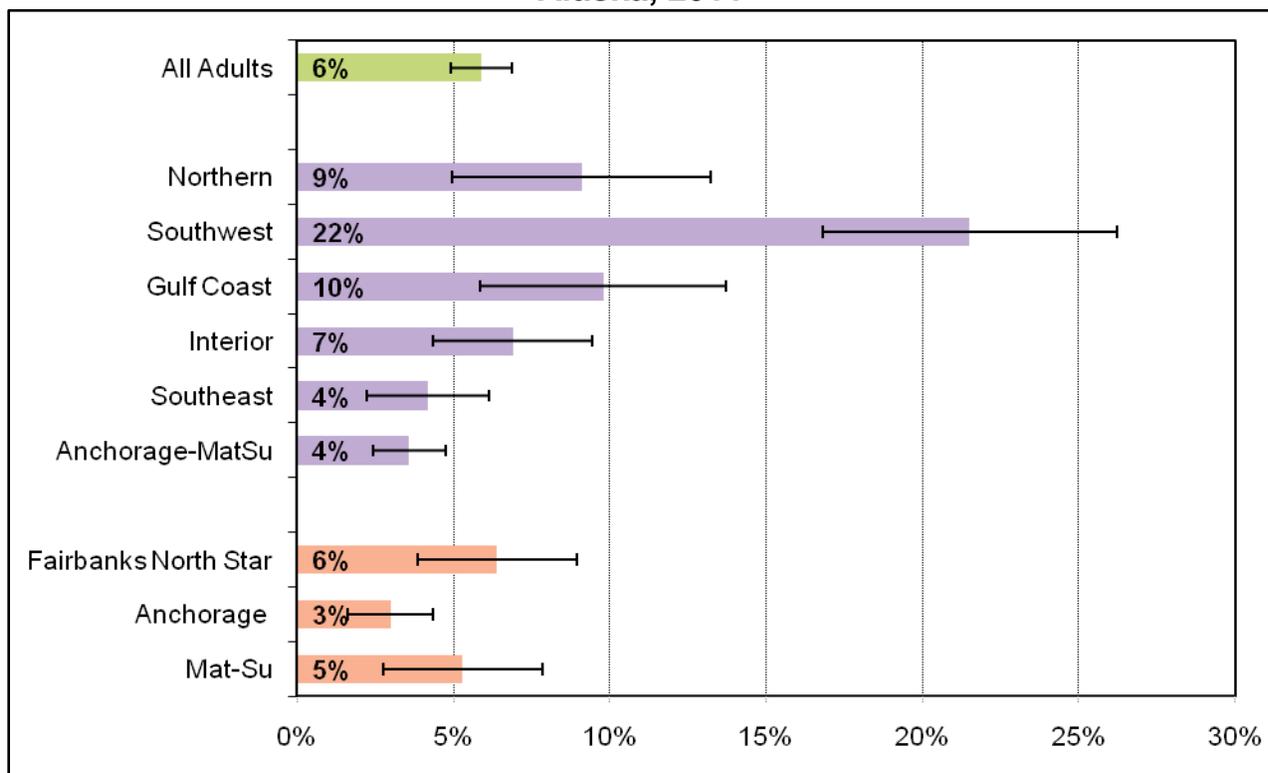
**Figure 24. Percent of Adults Who Use Smokeless Tobacco, by Smoking Status and by Presence of Children in the Home, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- Adults who have never been smokers are significantly less likely than current or former smokers to use smokeless tobacco (4.0% vs 8.1% and 7.6%).
- Adults living with children in their home are significantly more likely than those without children in the home to use smokeless tobacco (7.2% vs 4.9%).

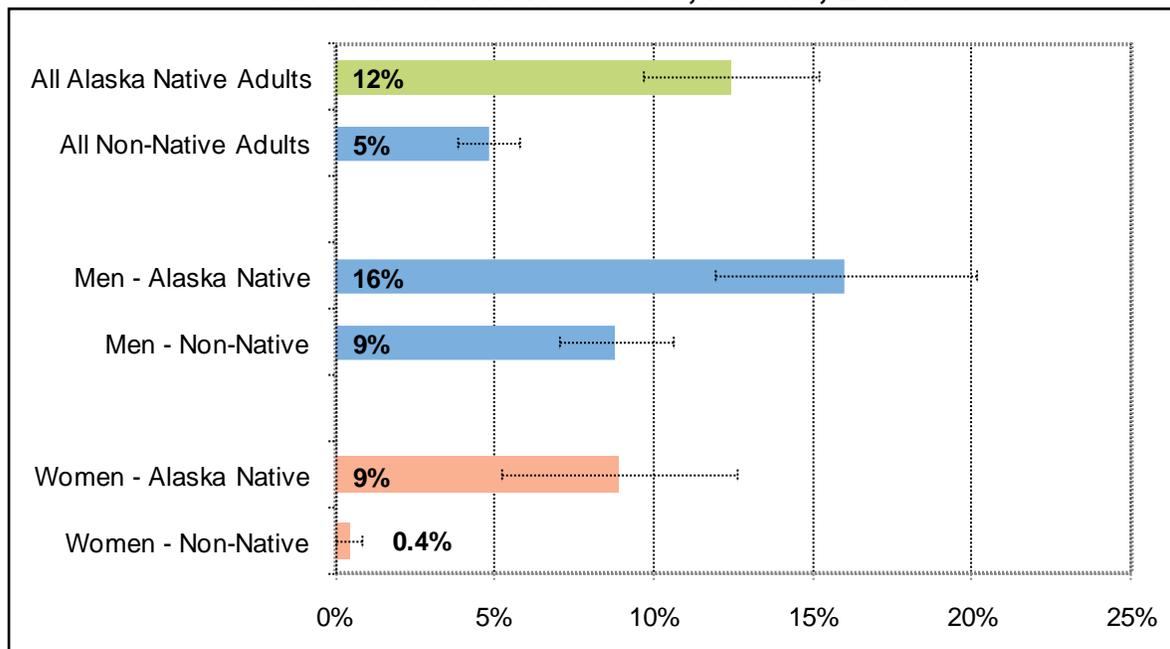
**Figure 25. Percent of Adults Who Use Smokeless Tobacco, by Region and by Selected Boroughs, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- Adults in Southwest Alaska are significantly more likely to use smokeless tobacco than adults in any other region. In 2011, nearly 1 in 3 Alaska Native adults (30.5%) in Southwest Alaska used SLT, compared to 5.9% of non-Native adults in the region.
- Adults in Northern Alaska and the Gulf Coast area are more likely to use smokeless tobacco than those in Anchorage/Mat-Su region.
- Public Health Regions include:
  - Northern – Nome, Northwest Arctic, and North Slope
  - Southwest – Bristol Bay, East Aleutians, West Aleutians, Dillingham, Lake & Peninsula, Bethel, and Wade Hampton
  - 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

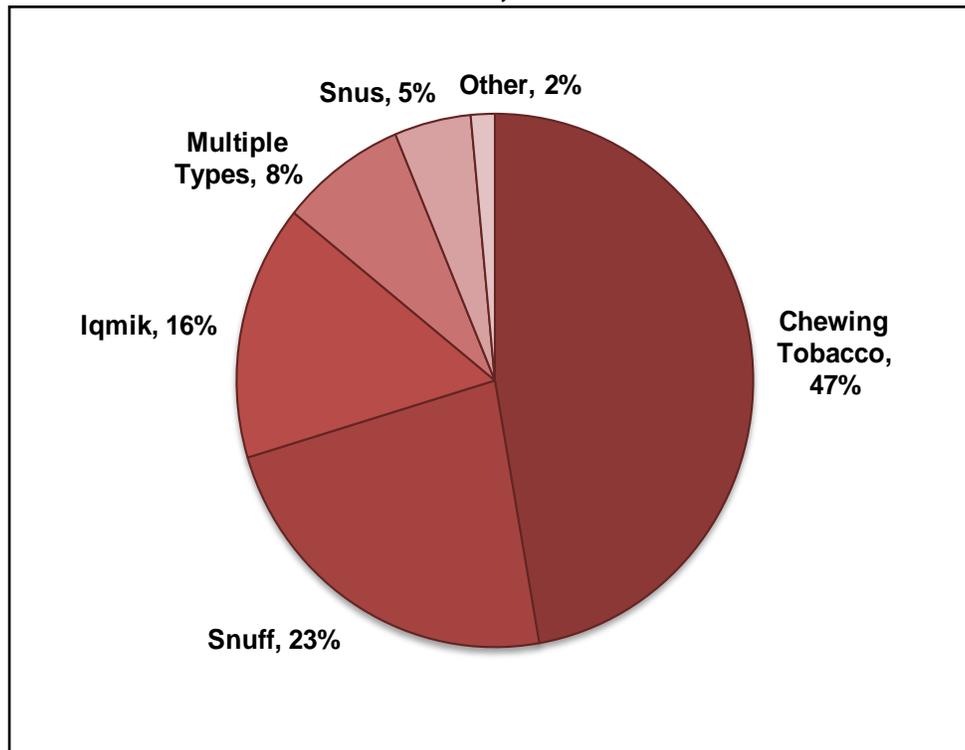
**Figure 26. Percent of Adults Who Use Smokeless Tobacco, by Gender And Alaska Native Status, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- Men use smokeless tobacco more than women, but Alaska Native women are as likely to use smokeless tobacco as non-Native men (8.9% vs .8.8%).
- Among Alaska Native adults, men are more likely than women to use smokeless tobacco (16.0% vs 8.9%).

**Figure 27. Type of Smokeless Tobacco Used by Adults, Alaska, 2011**

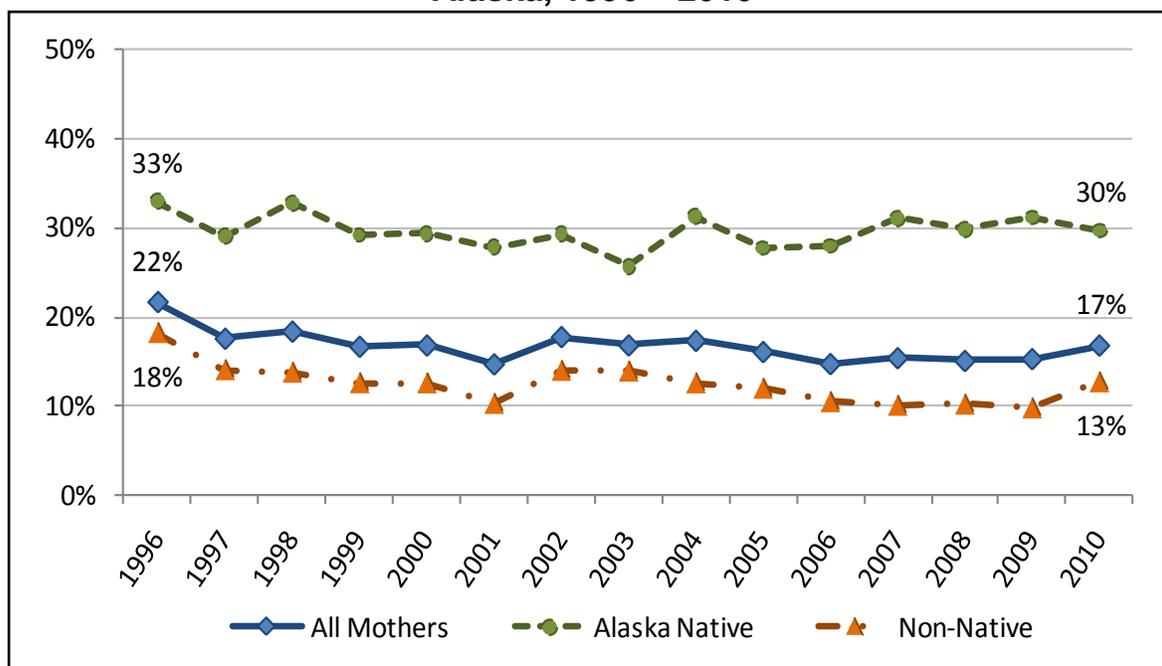


Source: Alaska Behavioral Risk Factor Surveillance System

- Almost half of Alaska adults who are using smokeless tobacco (47%) report using only “chewing tobacco”; chewing tobacco accounts for 21% of Alaska Native and 59% of non-Native adult SLT use.
- Sixteen percent of adults who use smokeless tobacco report using Iqmik. Iqmik, also known as Blackbull, is an Alaska-specific SLT variant prepared by mixing chewing tobacco with the ash of a punk fungus. It is used primarily among Alaska Native people; 46% of Alaska Native SLT users report using only Iqmik (compared to 1% of non-Native SLT users).

## E. Tobacco Use During Pregnancy

**Figure 28. Percent of Alaska Mothers who Smoked Cigarettes during the Last 3 Months of Pregnancy, by Year and Alaska Native Status, Alaska, 1996 – 2010**



Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS)

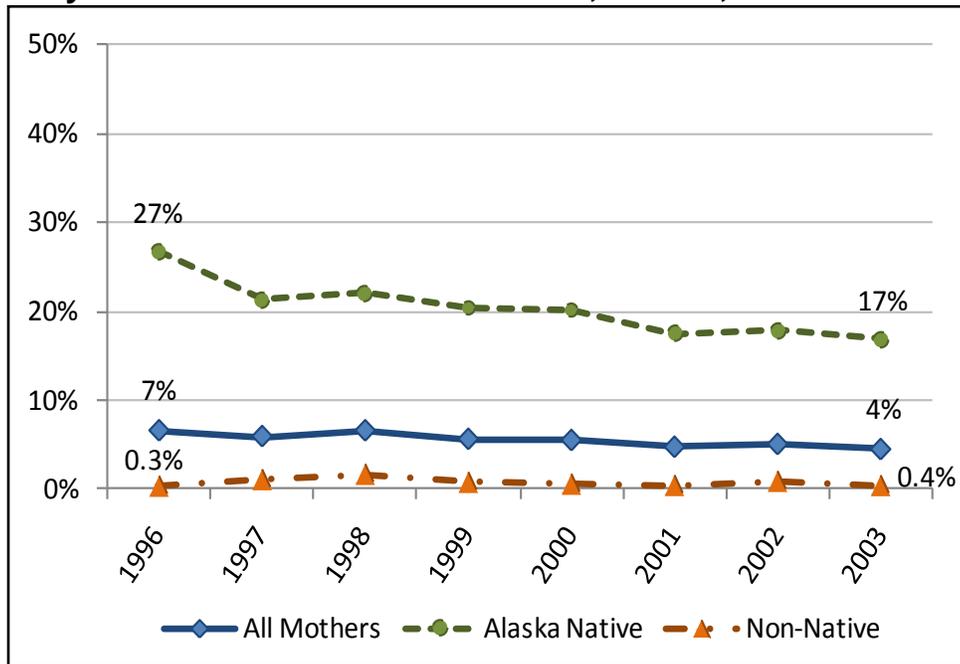
- Prenatal smoking (maternal smoking during pregnancy) accounts for 20-30% of all low birth weight births in the United States. According to the 2004 Surgeon General's Report, eliminating maternal smoking may lead to a 10% reduction in all sudden infant deaths and a 12% reduction in deaths from perinatal conditions.

Source: 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.

- Overall, maternal cigarette use during pregnancy in Alaska has decreased significantly from 21.6% in 1996 to 16.8% in 2010, as well as among non-Native women (from 18% to 13%). However, most of the decrease occurred between 1996 and 1997.
- Prenatal smoking prevalence has not changed significantly among Alaska Native women. Among Alaska Native women, for the period 2004 to 2008, prenatal smoking prevalence was significantly higher in four tribal health regions: Arctic Slope, Bristol Bay, Northwest Arctic, and Norton Sound.

Source: Young MB, Perham-Hester KA, Kemberling MM. Alaska Maternal and Child Health Data Book 2011: Alaska Native Edition. Anchorage, AK: A collaboration of the Alaska Department of Health and Social Services, Division of Public Health, and the Alaska Native Tribal Health Consortium, Alaska Native Epidemiology Center. October 2011.

**Figure 29. Percent of Alaska Mothers who Used Smokeless Tobacco during Pregnancy, including Chew and/or Snuff Use, by Year and Alaska Native Status, Alaska, 1996 – 2003**



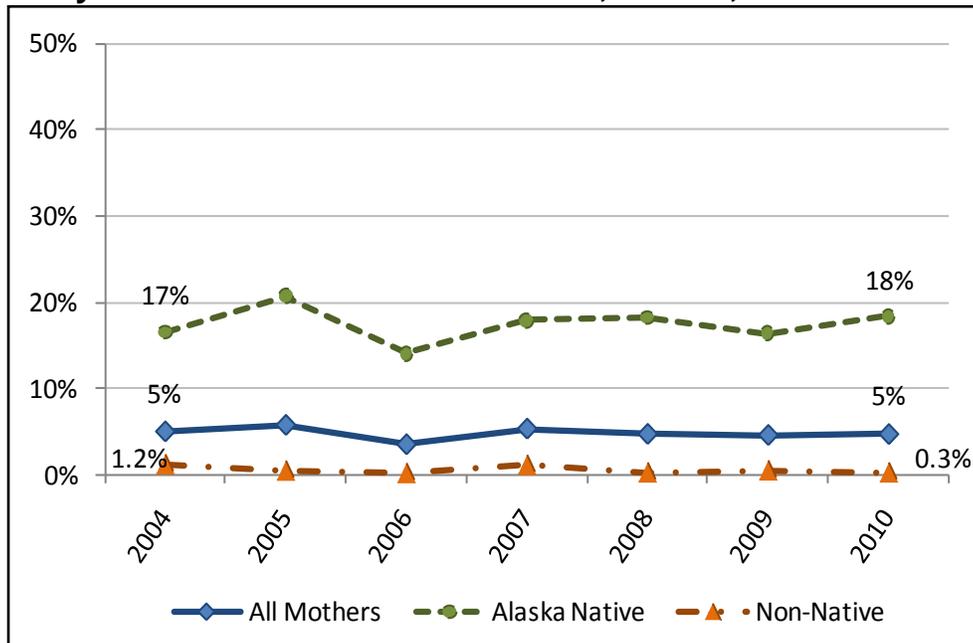
Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS)

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.

Source: 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.

**Figure 30. Percent of Alaska Mothers who Used Spit Tobacco during Pregnancy, including Chew, Snuff and/or Iqmik Use, by Year and Alaska Native Status, Alaska, 2004 – 2010**



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.

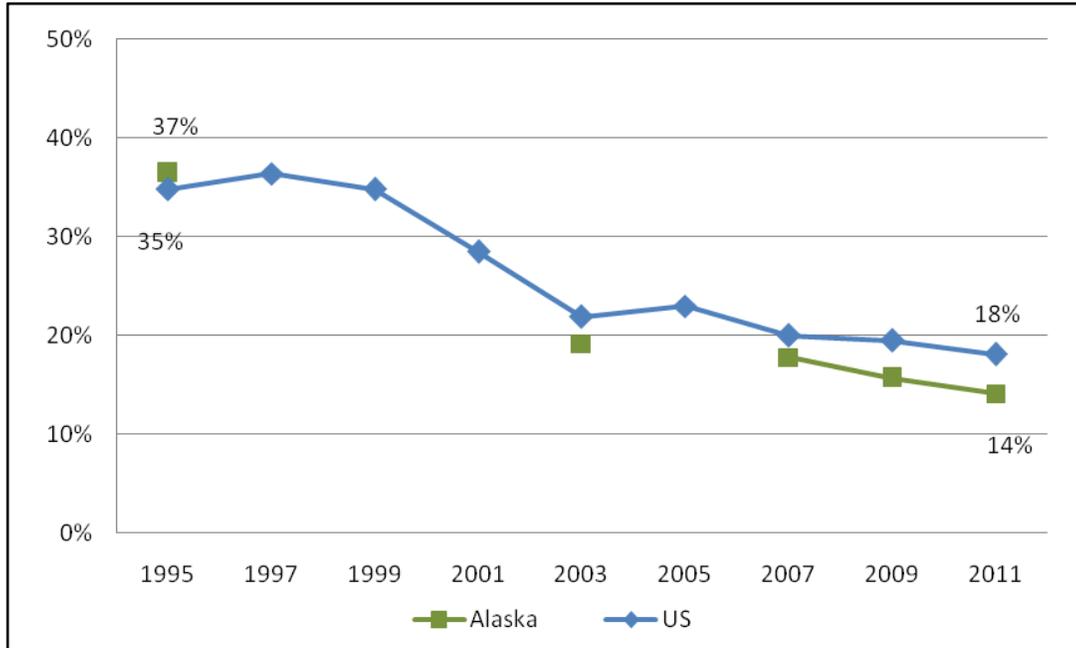
- Between 2004 and 2010, prenatal use of SLT did not change significantly overall or by Alaska Native status. SLT use among Alaska women is higher than in many other states, in large part because of Alaska Native SLT use, including Iqmik, an Alaska-specific SLT variant.
- During 2004-2010, prenatal SLT (spit tobacco or Iqmik) use among Alaska Native women ranged between 14.1% (in 2006) and 20.8% (in 2005), but there was no significant trend during the seven-year period.
- Iqmik is primarily used among Alaska Native people in Southwest Alaska. For the period 2004 to 2008, 57.7% of Alaska Native mothers residing in the Yukon-Kuskokwim tribal health region reported prenatal SLT use. However, 15.3% of Alaska Native mothers in Bristol Bay, 13.1% in Norton Sound and 10.3% in Southcentral tribal health regions also reported prenatal SLT use.

Source: Young MB, Perham-Hester KA, Kemberling MM. Alaska Maternal and Child Health Data Book 2011: Alaska Native Edition. Anchorage, AK: A collaboration of the Alaska Department of Health and Social Services, Division of Public Health, and the Alaska Native Tribal Health Consortium, Alaska Native Epidemiology Center. October 2011.

### III. Youth Tobacco Use

#### A. Smoking Prevalence – Cigarettes

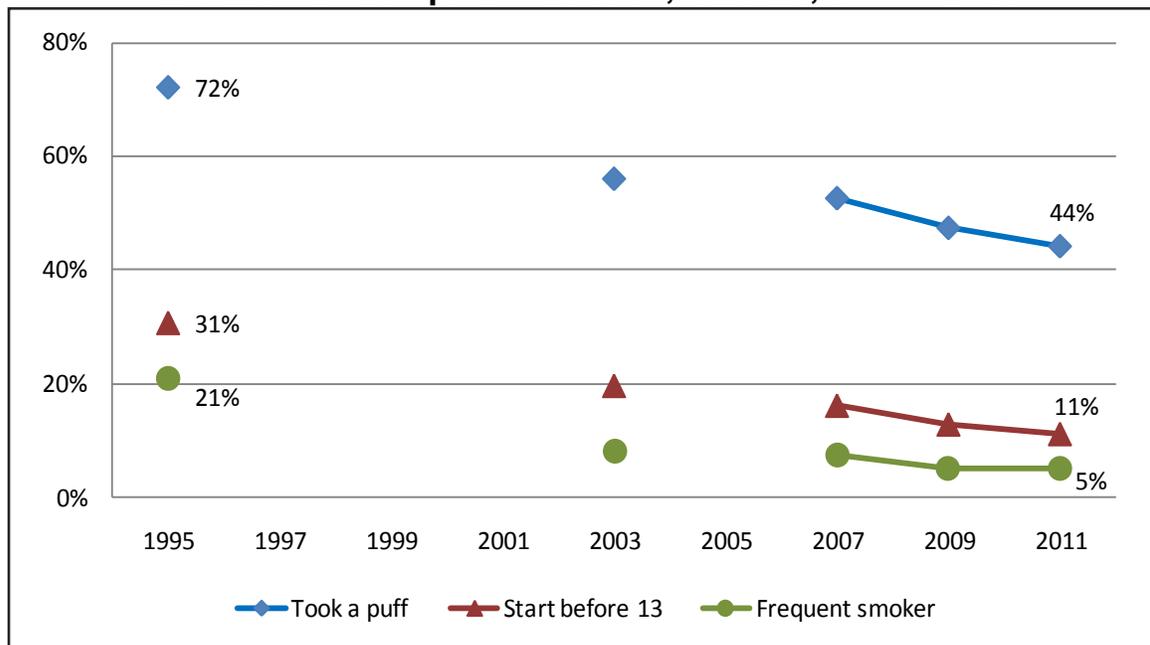
**Figure 31. Percent of High School Students Who Smoke, Alaska & US, 1995 – 2011**



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. Smoking among Alaska high school students dropped from 36.5% in 1995 to 14.1% in 2011.
- This decrease means that there are almost 9,800 fewer youth smokers in 2011 than there were in 1995.  
Note: Population numbers used to calculate the number fewer smokers are from 2000 Census, ages 14 to 17.
- Smoking decreased significantly between 1995 and 2011 among both boys and girls in Alaska. See Appendix A Table 8 for more information.
- Most Alaska youth who smoke have also tried to quit. In 2011, about 2 in 3 youth smokers in Alaska (68.0%) reported that they tried to quit smoking cigarettes during the 12 months prior to the survey. Nationally, 49.9% of student smokers tried to quit in the past year.

**Figure 32. Selected Smoking Indicators: Percent of High School Students Who Ever Tried Smoking, Started Smoking before Age 13, and Who are Frequent Smokers,\* Alaska, 1995 – 2011**

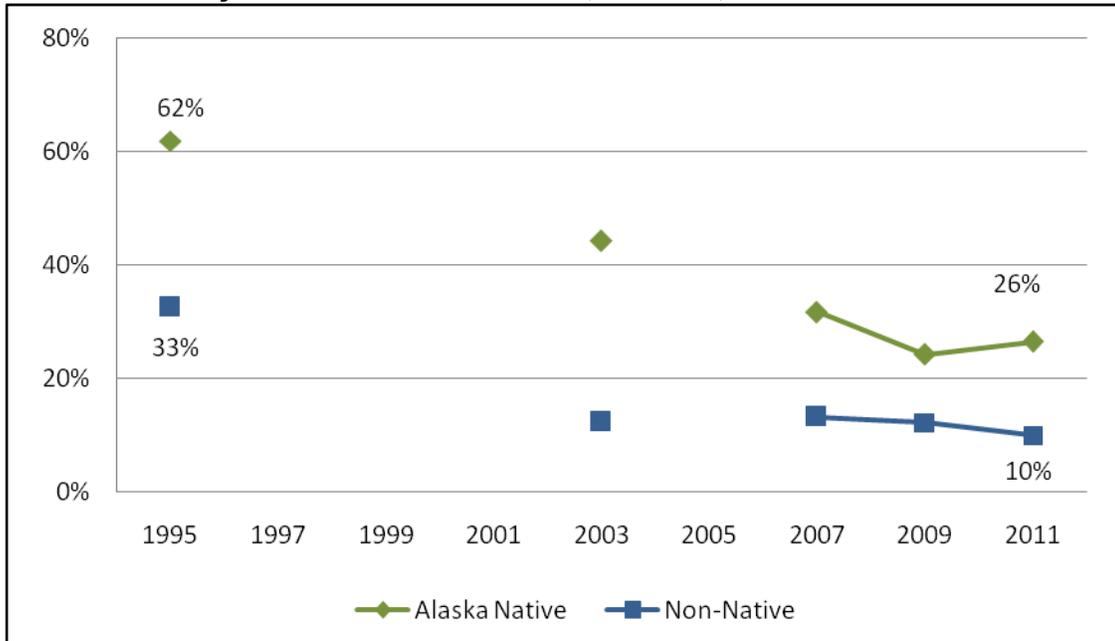


Source: Alaska Youth Risk Behavior Survey  
 Alaska YRBS data are only available for 1995, 2003, and 2007 to present.

\* 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 nearly 3 in 4 students (72.1%) in 1995 to less than 1 in 2 (44.3%) in 2011.
- The proportion of Alaska high school students who started smoking prior to age 13 decreased from nearly 1 in 3 students (30.7%) in 1995 to 1 in 10 students (11.1%) in 2011.
- The percent of Alaska high school students who are frequent smokers (defined as smoking on 20 or more of the past 30 days) decreased from 1 in 5 students (21.0%) in 1995 to 1 in 20 students (5.2%) in 2011.

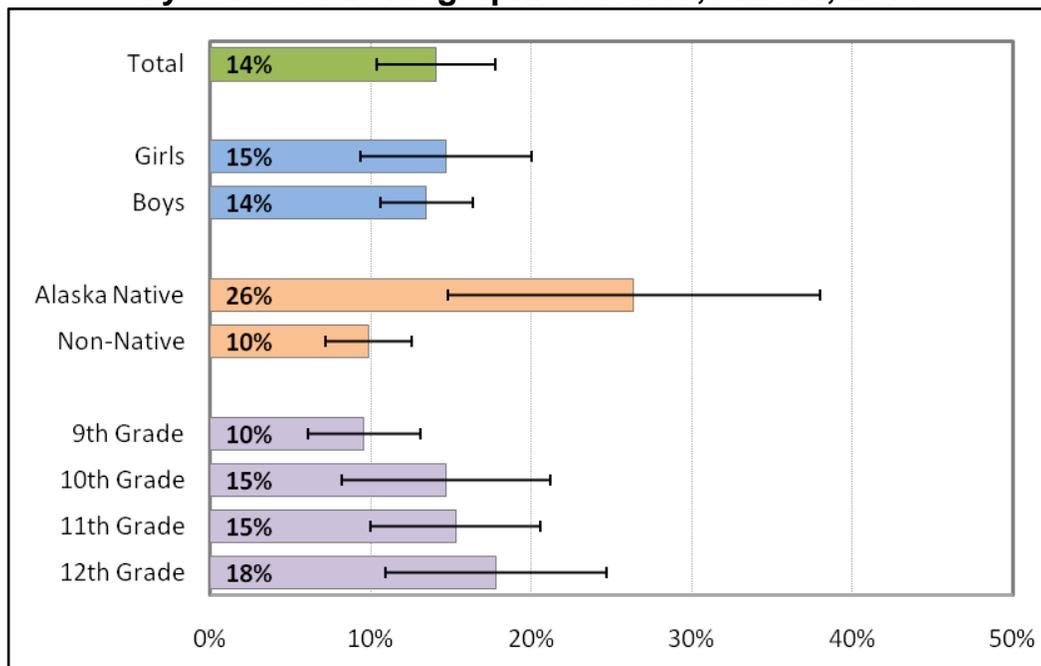
**Figure 33. Percent of High School Students Who Smoke, by Alaska Native Status, Alaska, 1995 – 2011**



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

- Between 1995 and 2011, significant declines in youth smoking occurred for both Alaska Native and non-Native students.
- The percent of Alaska Native students who are current smokers declined over 50% from 1995 to 2011.

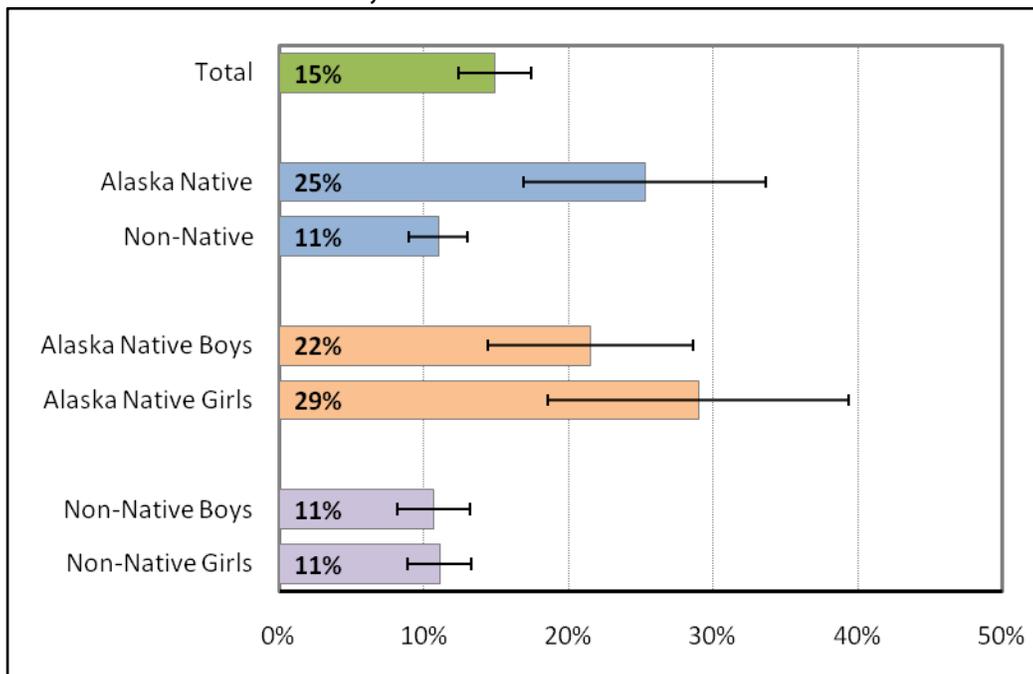
**Figure 34. Percent of High School Students Who are Current Smokers, by Selected Demographic Factors, Alaska, 2011**



Source: Alaska Youth Risk Behavior Survey 2011

- Alaska Native youth are more likely than non-Native youth to report current smoking.
- Likewise, 11<sup>th</sup> and 12<sup>th</sup> graders are more likely than 9<sup>th</sup> graders to be smokers. There is no difference between girls and boys.

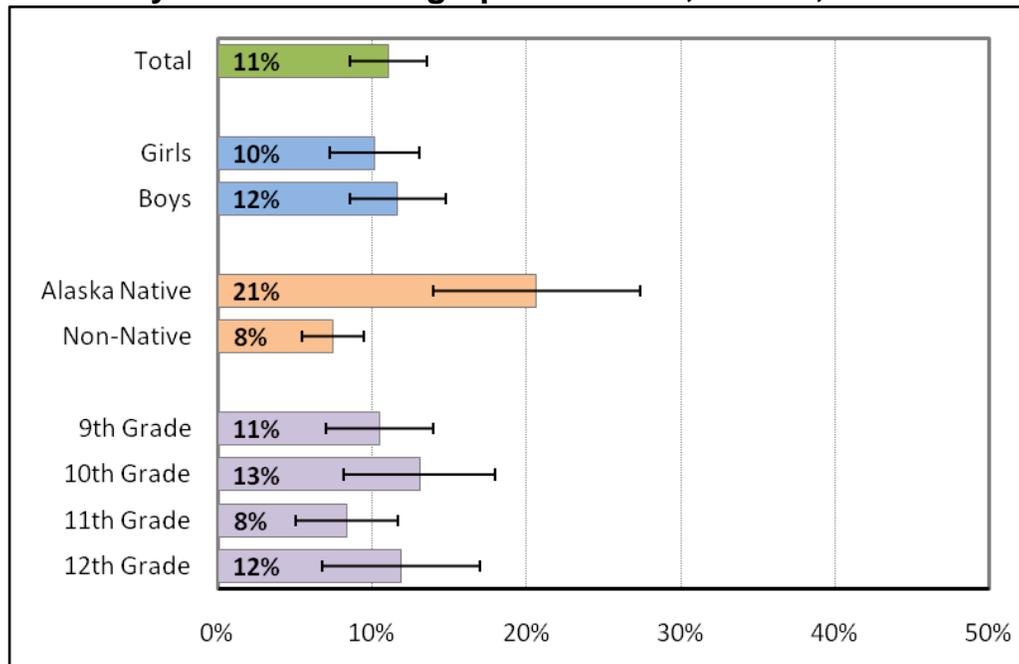
**Figure 35. Percent of High School Students Who Smoke, by Gender and Alaska Native Status, Alaska, 2009 and 2011 combined**



Source: Alaska Youth Risk Behavior Survey 2009 and 2011

- If we combine the two most recent years of survey data, we can examine youth tobacco use prevalence within race group by gender.
- Alaska Native boys and girls are significantly more likely to smoke than non-Native boys or girls.
- Within race groups, there is no significant difference in smoking prevalence between boys and girls.

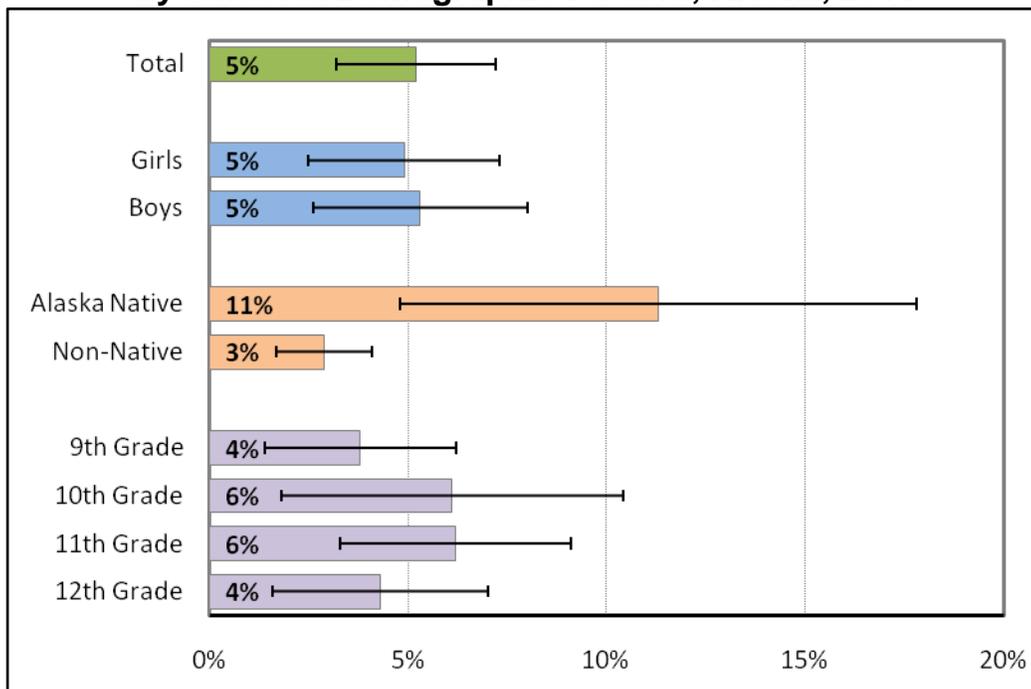
**Figure 36. Percent of High School Students Who Smoked before Age 13, by Selected Demographic Factors, Alaska, 2011**



Source: Alaska Youth Risk Behavior Survey 2011

- Alaska Native students are significantly more likely than non-Native students to have started smoking before age 13. One in five Alaska Native students (20.7%) started smoking before age 13 in 2011, compared to about 1 in 14 (7.5%) of non-Native students.

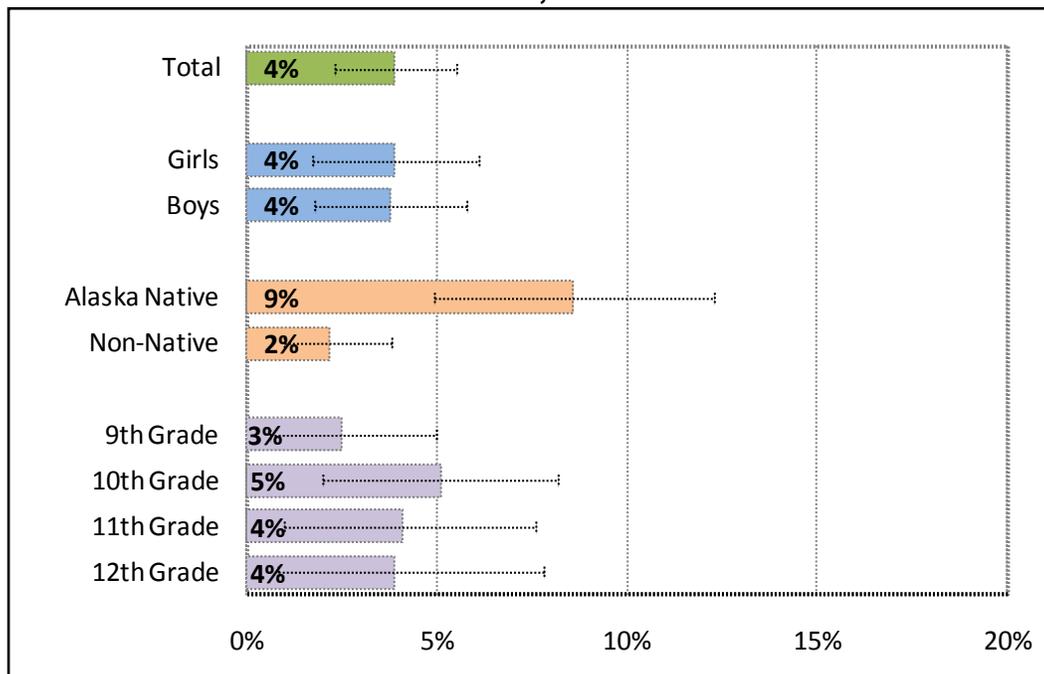
**Figure 37. Percent of High School Students Who Are Frequent Smokers\*, by Selected Demographic Factors, Alaska, 2011**



\*Frequent smokers are defined as having smoked on 20 or more of the past 30 days.  
 Source: Alaska Youth Risk Behavior Survey 2011

- Alaska Native students are significantly more likely than non-Native students to be frequent smokers. There is no difference by gender or by grade levels.

**Figure 38. Percent of High School Students Who Smoked on School Property in the Past 30 days, by Selected Demographic Factors, Alaska, 2011**

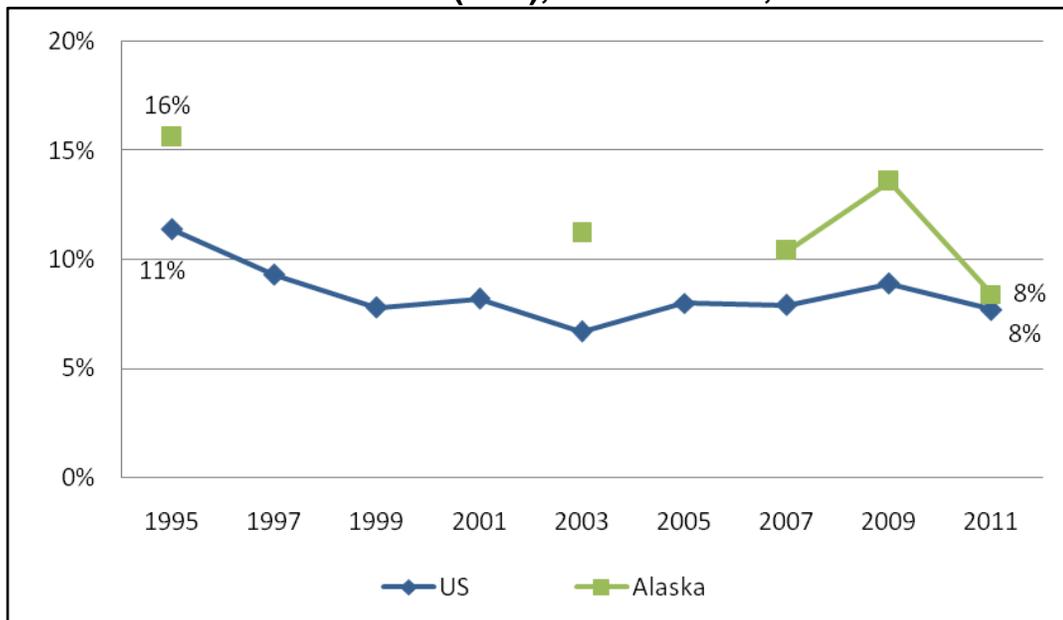


Source: Alaska Youth Risk Behavior Survey 2011

- Alaska Native students are about 4 times more likely than non-Native students to have smoked on school property in the past 30 days. There is no difference by gender or by grade levels.

## B. Smokeless Tobacco Use

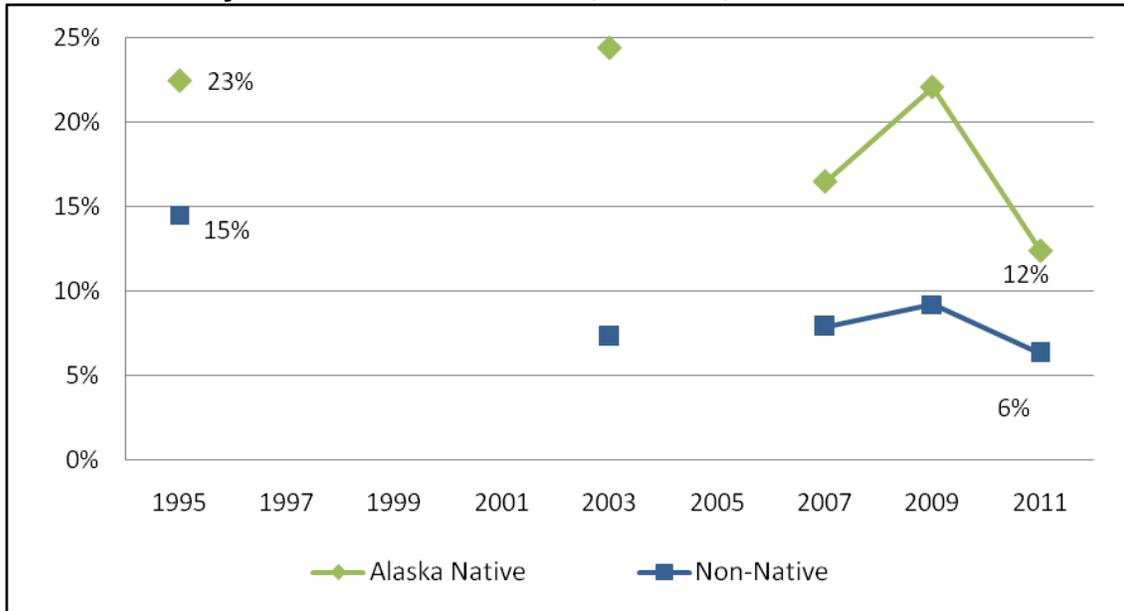
**Figure 39. Percent of High School Students Who Use Smokeless Tobacco (SLT), Alaska & US, 1995 – 2011**



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.

- Overall, use of smokeless tobacco (SLT) among high school students dropped from 15.6% in 1995 to 8.4% in 2011, mirroring a decrease in the national trend.
- Among high school boys, SLT use dropped from 23.5% in 1995 to 12.1% in 2011. See Appendix A Table 9 for more information.

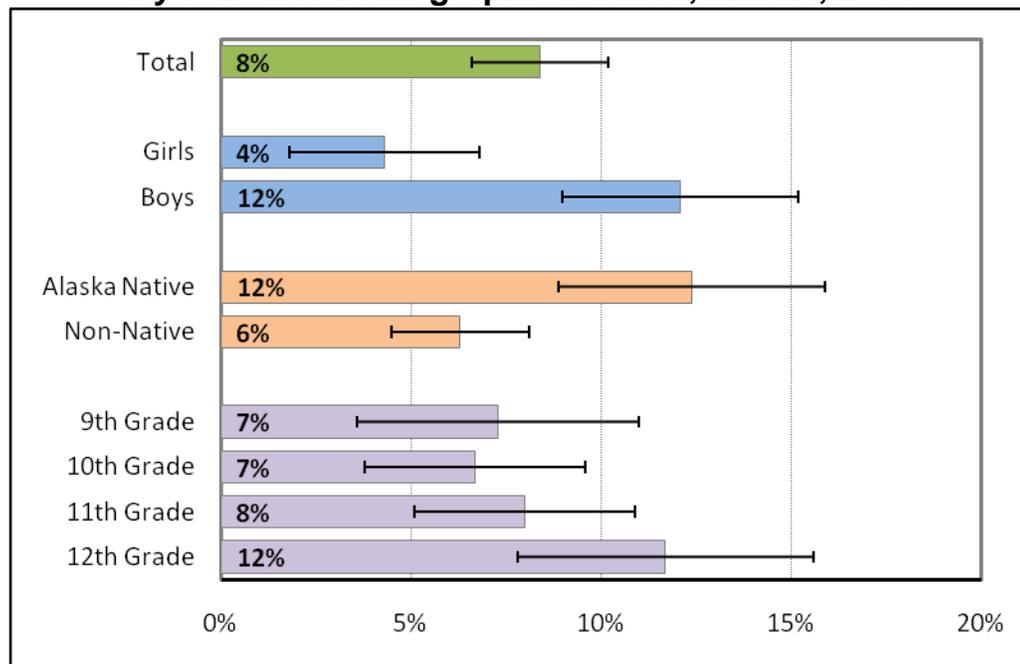
**Figure 40. Percent of High School Students Who Use SLT, by Alaska Native Status, Alaska, 1995 – 2011**



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

- SLT use decreased significantly among Alaska Native youth as well as non-Native youth. Among Alaska Native high school students, SLT use decreased from 22.5% in 1995 to 12.4% in 2011.
- Among non-Native high school students, SLT use decreased from 14.5% in 1995 to 6.3% in 2011.

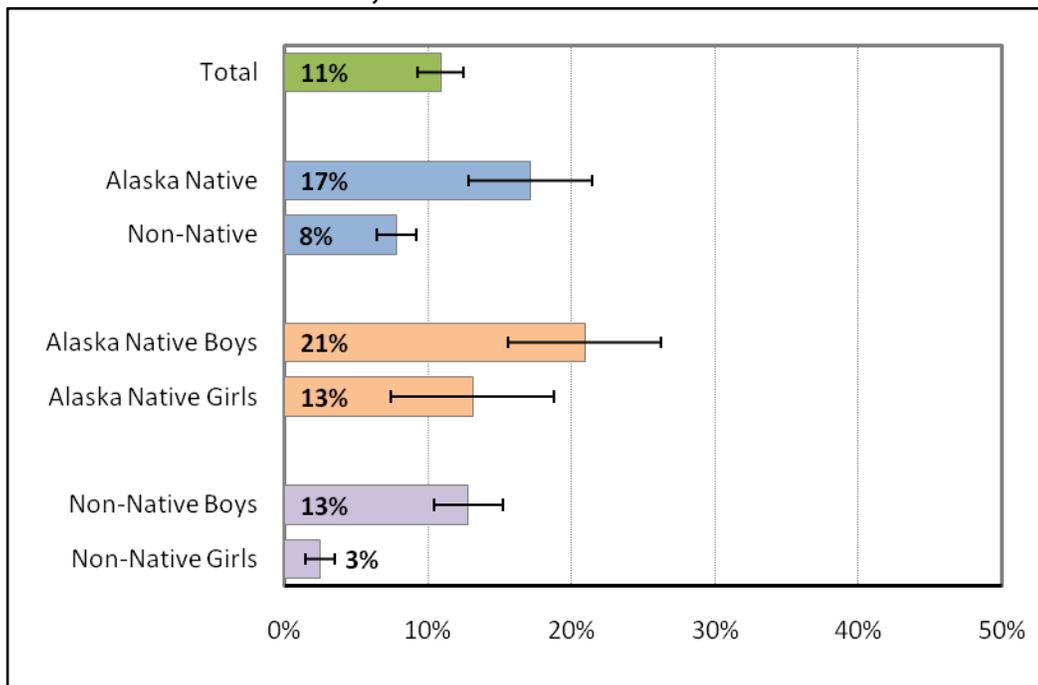
**Figure 41. Percent of High School Students Who Currently Use SLT, by Selected Demographic Factors, Alaska, 2011**



Source: Alaska Youth Risk Behavior Survey 2011

- SLT use among Alaska Native students is twice as high as that of non-Native students (12.4% vs 6.3%).
- Boys are three times as likely as girls to use SLT (12.1% vs 4.3%).
- 12<sup>th</sup> graders are significantly more likely than students in other grades to use SLT.

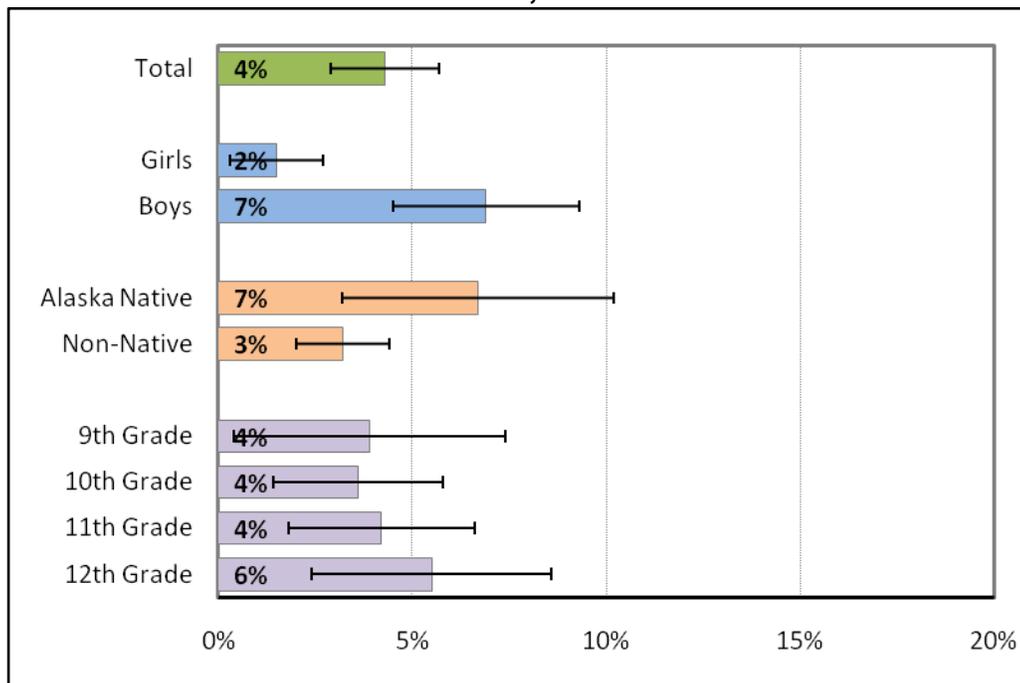
**Figure 42. Percent of High School Students Who Use SLT, by Gender and Alaska Native Status, Alaska, 2009 and 2011 combined**



Source: Alaska Youth Risk Behavior Survey 2009 and 2011

- If we combine the two most recent years of survey data, we can examine youth tobacco use prevalence within race group by gender.
- Alaska Native girls are significantly more likely than non-Native girls to use smokeless tobacco. However, Alaska Native girls and non-Native boys are equally likely to use smokeless tobacco.
- Alaska Native boys are more likely than non-Native boys to use smokeless tobacco. The apparent difference between Alaska Native boys and girls, however, is not statistically significant.

**Figure 43. Percent of High School Students Who Currently Use SLT on School Property, by Selected Demographic Factors, Alaska, 2011**

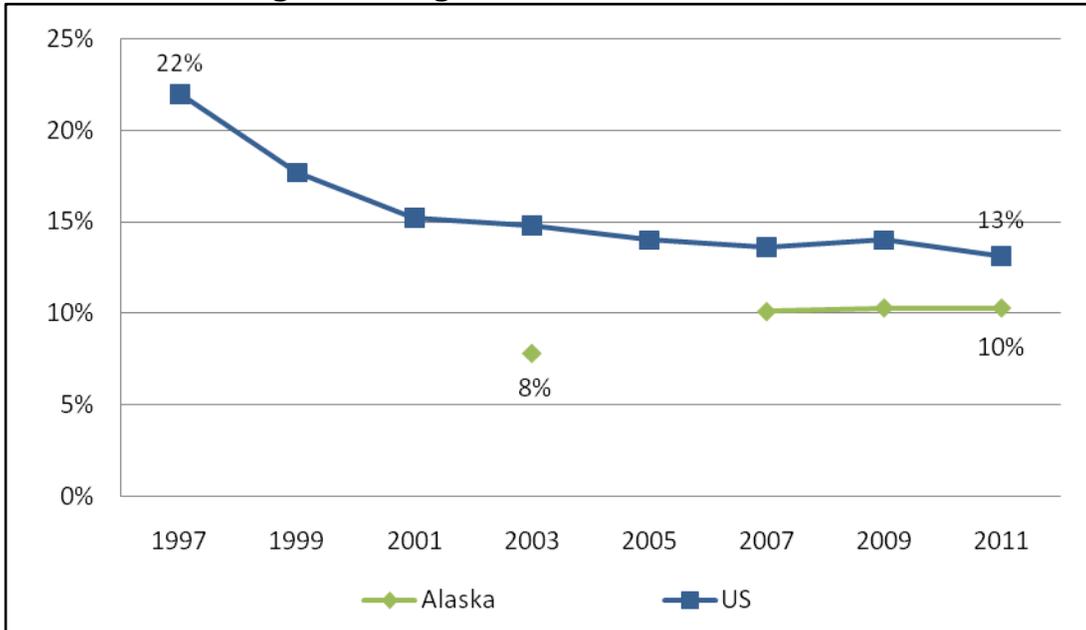


Source: Alaska Youth Risk Behavior Survey 2011

- Patterns of SLT use on school property are similar to SLT use in general.
- SLT use on school property is more likely among Alaska Native students than non-Native students. About 1 in 14 Alaska Natives report using SLT on school property.
- Boys are more likely than girls to use SLT use on school property. About 1 in 14 boys report using SLT on school property.
- There are no significant differences by grade level.

### C. Cigar Use

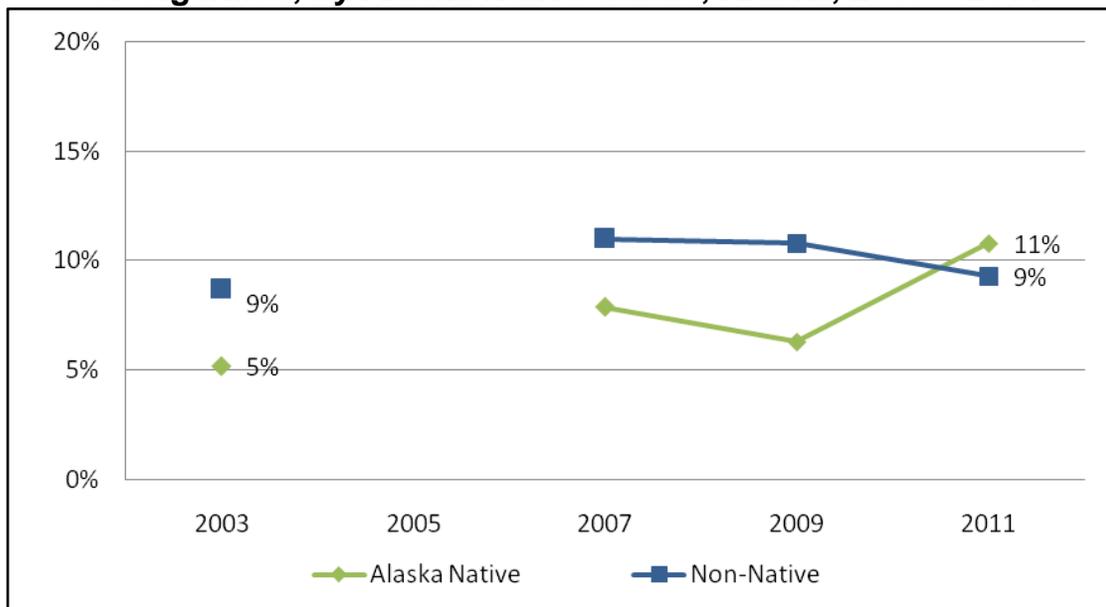
**Figure 44. Percent of High School Students Who Smoke Cigars or Cigarillos, Alaska & US, 1997 – 2011**



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.

- The Alaska YRBS has included a question about cigar or cigarillo use since 2003. Cigar use has increased slightly but significantly among Alaska high school students, from 7.8% in 2003 to 10.3% in 2011.
- Cigar use has increased significantly among girls, but has not changed significantly among boys. See Appendix A Table 10 for more information.
- Nationally, the proportion of high school students who smoke cigars has decreased since 1995.

**Figure 45. Percent of High School Students Who Smoke Cigars or Cigarillos, by Alaska Native Status, Alaska, 2003 – 2011**

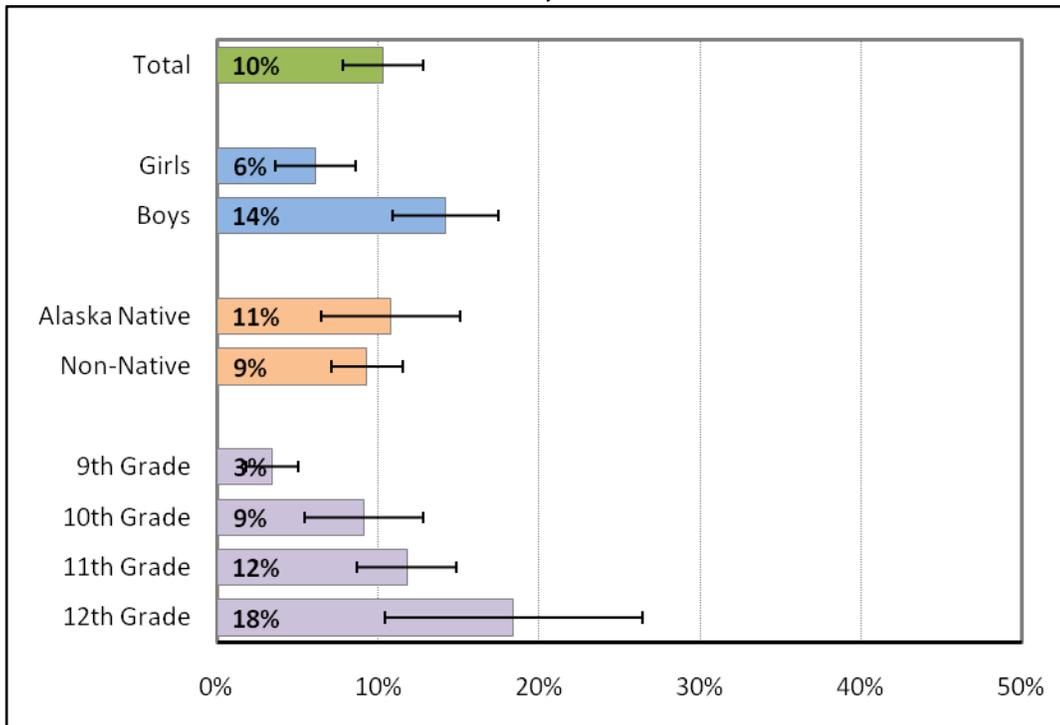


Source: Alaska Youth Risk Behavior Survey

Alaska YRBS data about cigar use are only available for 2003 and 2007 to present.

- Cigar use has not changed significantly among non-Native high school students in Alaska since 2003.
- Among Alaska Native high school students, cigar use in 2011 is significantly higher than it was in 2003, although it is not significantly different from use in 2007 or 2009.

**Figure 46. Percent of High School Students Who Currently Smoke Cigars or Cigarillos, by Selected Demographic Factors, Alaska, 2011**



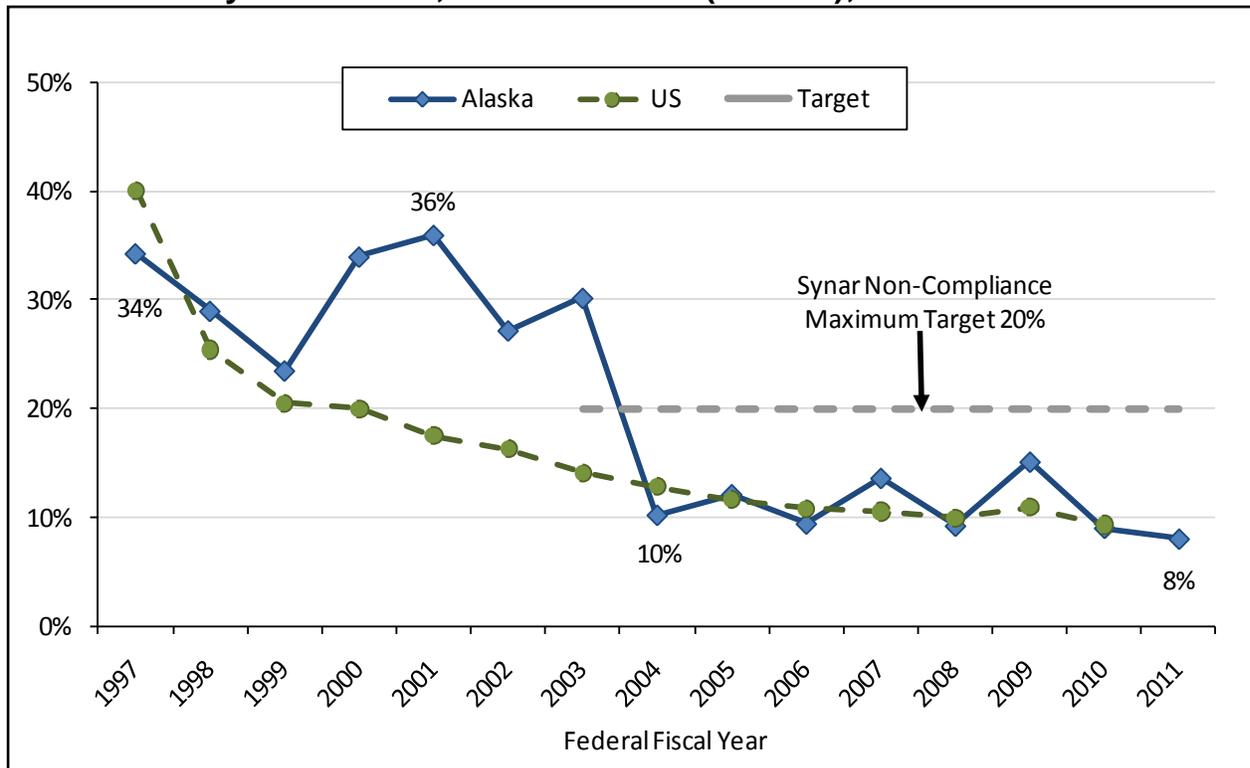
Source: Alaska Youth Risk Behavior Survey

- Although boys are more likely than girls to smoke cigars, the proportion of girls smoking cigars increased significantly between 2003 and 2011.
- By grade, cigar use is significantly higher among 12<sup>th</sup> graders than all other grades, and 9<sup>th</sup> graders are significantly less likely than 10<sup>th</sup>-12<sup>th</sup> graders to smoke cigars.
- Nearly one in three students (32.4%) who smoke cigarettes also reported smoking one or more cigars in the past 30 days, whereas only 4.9% of students who do not smoke cigarettes reported smoking cigars.
- There were differences by gender; nearly half (47.4%) of the boys who smoke cigarettes also smoked one or more cigars in the past 30 days, compared to 18.2% of girls who smoke cigarettes.
- Using two years of data combined, we can examine differences by race group among smokers. About 1 in 5 (19.5%) Alaska Native youth cigarette smokers also smoked cigars, compared to 2 in 5 (42.6%) non-Native youth cigarette smokers.

Source: Alaska Youth Risk Behavior Survey, combined years 2009 and 2011.

## D. Youth Access to Tobacco

**Figure 47. Percent of Vendors Found Selling Tobacco to Minors by Fiscal Year, Alaska and US (Median), 1997 – 2011**

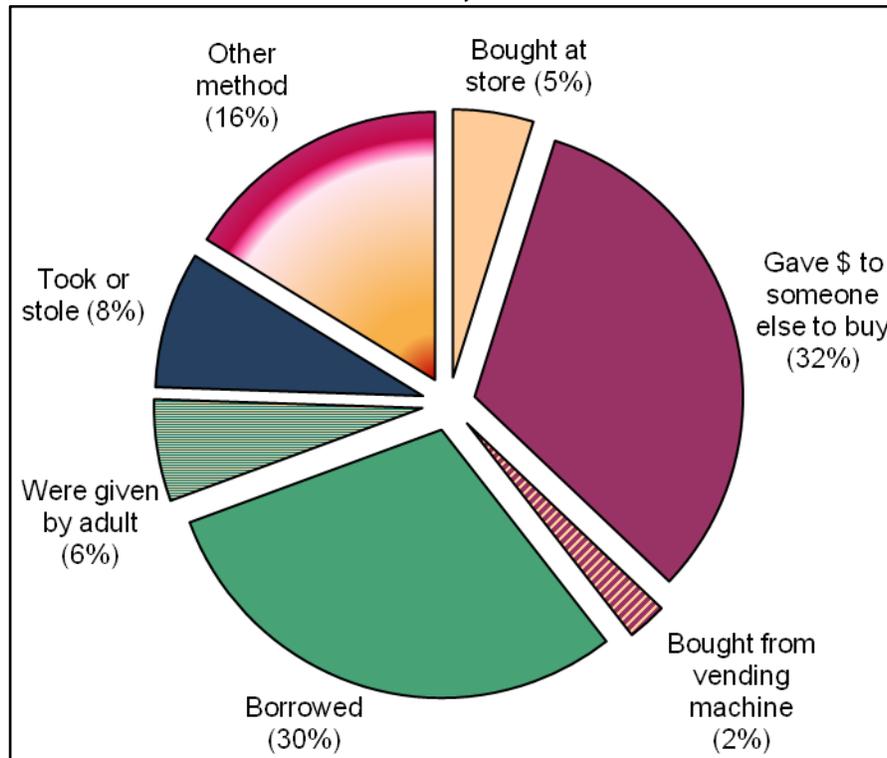


Source: Alaska Synar Compliance Database.

- 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 the last decade in reducing sales of tobacco directly to underage youth.
- The proportion of 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 4.8% in 2011.

Source: Alaska Youth Risk Behavior Survey

**Figure 48. Usual Methods of Getting Cigarettes in the Past 30 Days  
Among High School Student Smokers,  
Alaska, 2011**



Source: Alaska Youth Risk Behavior Survey

- In 2011, two out of three high school smokers (68%) reported that they usually got their cigarettes with assistance from other people around them. About 1 in 3 youth smokers (32%) gave money to someone else to buy them, 3 in 10 (30%) borrowed them from someone else, and about 1 in 16 (6%) were given cigarettes by someone who was age 18 or older.

## IV. Secondhand Smoke

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According to the 2006 Surgeon General's report:

- 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%.
- Almost 60% of U.S. children age 3–11 years—or almost 22 million children—are exposed to secondhand smoke.
- 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.

Source: U.S. Department of Health and Human Services. [The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General](http://www.surgeongeneral.gov/library/secondhandsmoke/report/). 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/>.

- Roughly 9,262 Alaska children are exposed to secondhand smoke in their homes.

Source: Alaska Behavioral Risk Factor Surveillance System 2009-2011; Alaska Department of Labor and Workforce Development Population Estimates, 2011.

- Having a home rule against smoking inside significantly lowers the risk of secondhand smoke exposure for children. In homes with no smoking ban, nearly 3 in 5 Alaska children have been exposed to tobacco smoke in their homes in the past 30 days, compared to 2.2% of children living in homes where smoking is not allowed inside. Among children living with a smoker in Alaska and with no home smoking ban, 76.4% were exposed to secondhand smoke.

Source: Alaska Behavioral Risk Factor Surveillance System 2009-2011

- Among Alaska children living with a smoker in the household, older children age 13 to 17 are more likely than younger children (under age 5) to be exposed to secondhand smoke in the home (20.9% vs 10.0%).

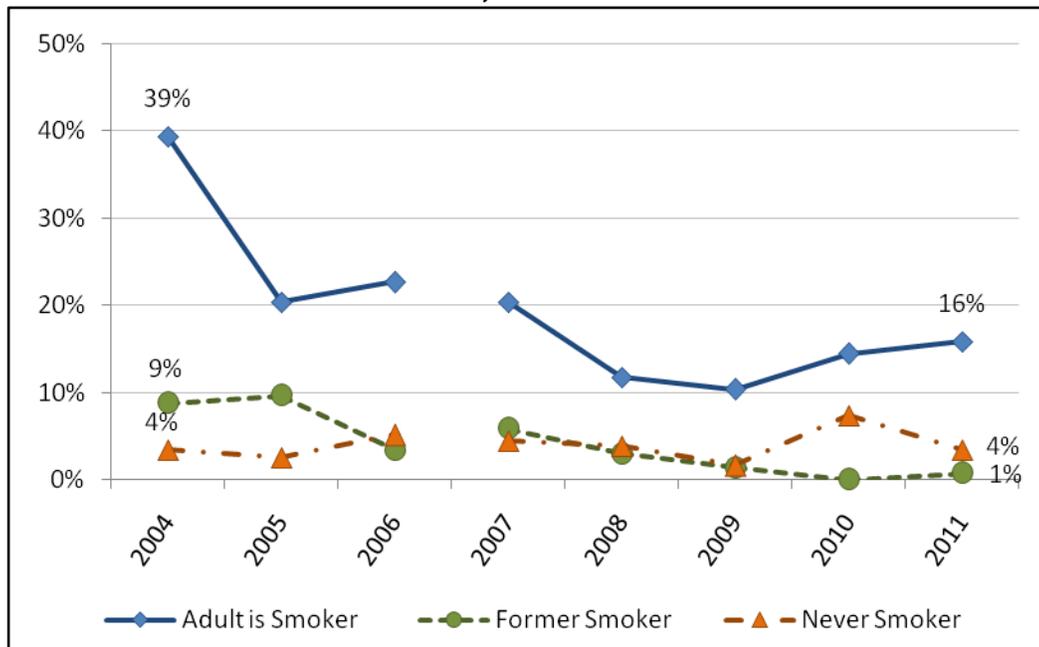
Source: Alaska Behavioral Risk Factor Surveillance System 2009-2011

- 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 35.6% in 2011. However, over 1 in 3 high school students are still being exposed to indoor secondhand smoke exposure on a regular basis.

Source: Alaska Youth Risk Behavior Survey

## A. *Secondhand Smoke at Home*

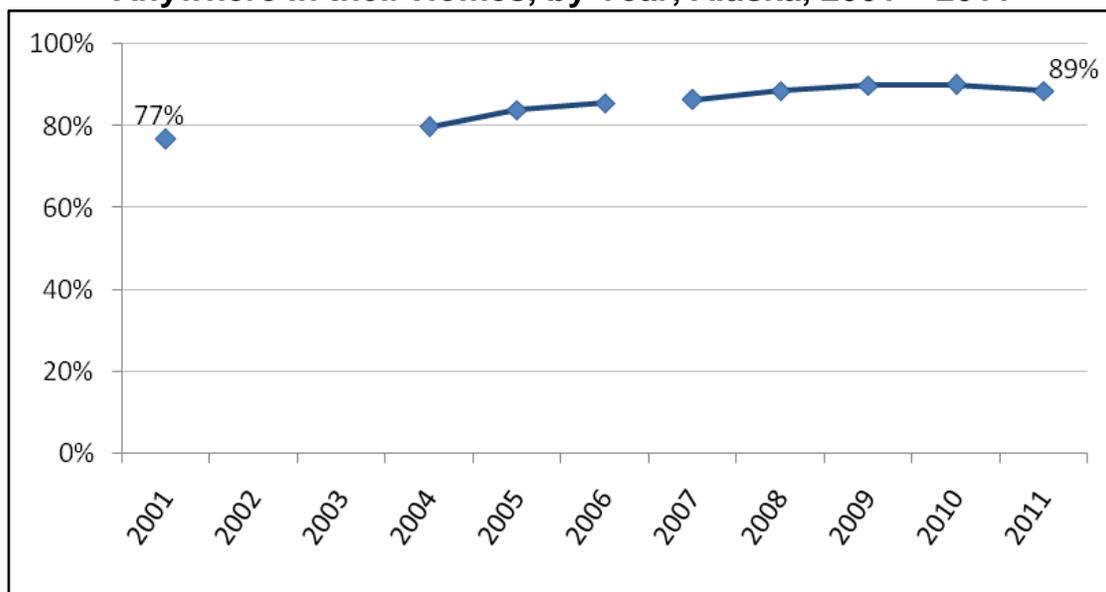
**Figure 49. Percent of Children Exposed to Smoke in their Homes in the Past Month, by Smoking Status of Adult Respondent, Alaska, 2004 – 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- Overall, the proportion of children exposed to secondhand smoke at home decreased in Alaska from 13.0% in 2004 to 5.4% in 2011. 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 15.9% in 2011.
- 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 0.8% in 2011.

**Figure 50. Percent of Adults Who Report that Smoking is Not Allowed Anywhere in their Homes, by Year, Alaska, 2001 – 2011**

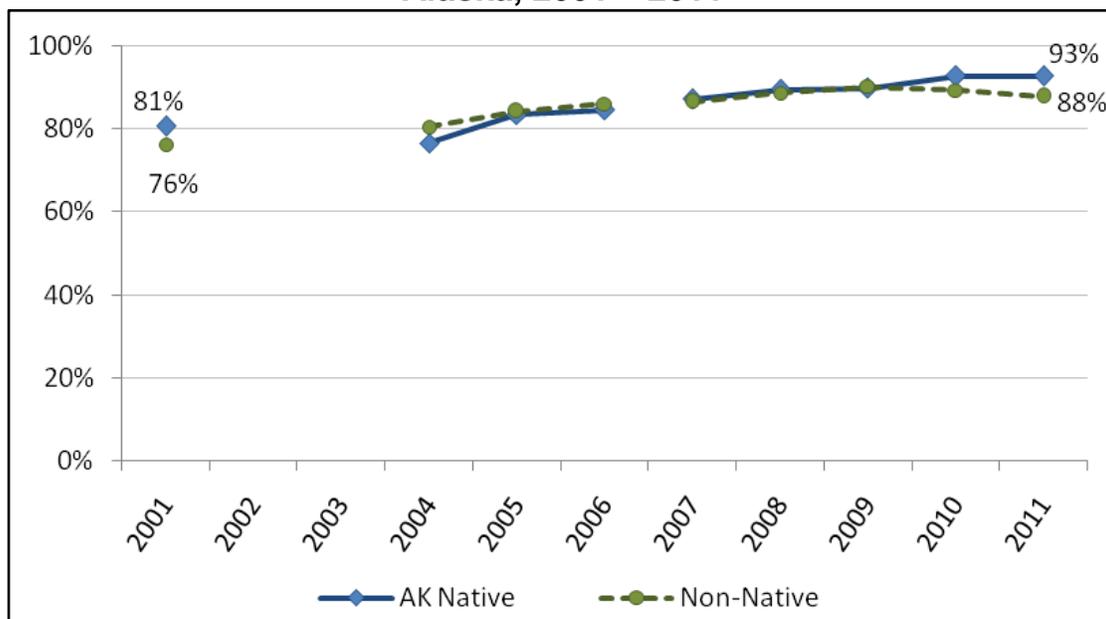


Source: Alaska Behavioral Risk Factor Surveillance System (information collected in 2001 and 2004 to present).

Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

- The proportion of Alaska adults who reported that smoking is not allowed anywhere inside their home increased from 76.8% in 2001 to 88.6% in 2011. Significant increases occurred among men and women, and across most demographic groups. See Appendix A Table 12 for more information.

**Figure 51. Percent of Adults Who Report that Smoking is Not Allowed Anywhere in their Homes, by Year and Alaska Native Status, Alaska, 2001 – 2011**

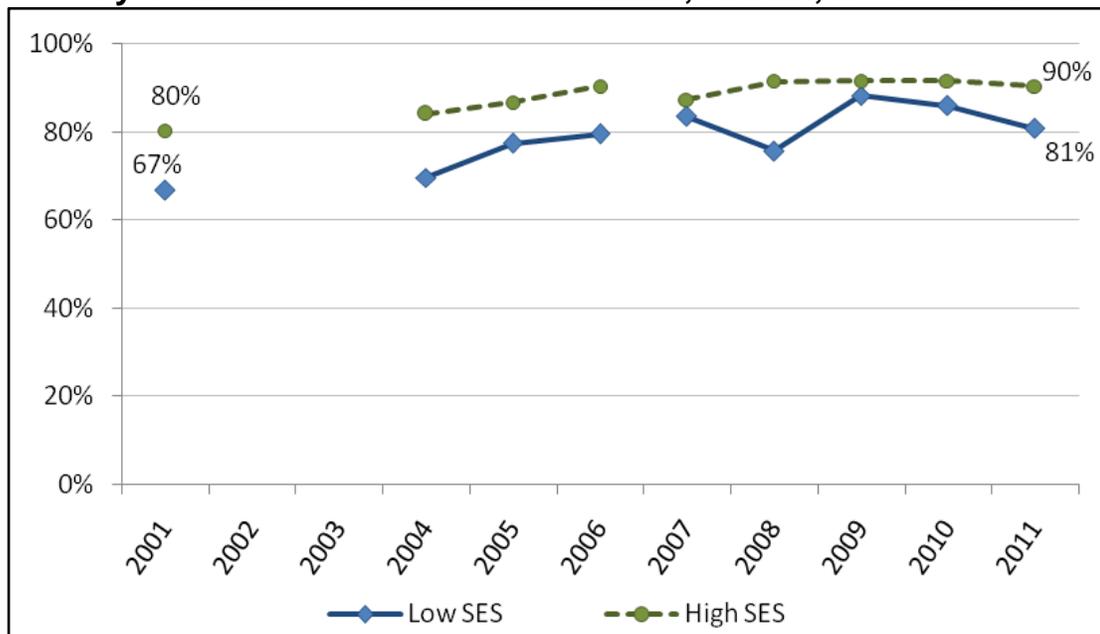


Source: Alaska Behavioral Risk Factor Surveillance System (information collected in 2001 and 2004 to present).

Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

- The proportion of Alaska Native adults who reported that smoking is not allowed anywhere inside their home increased from 80.7% in 2001 to 92.7% in 2011.
- The proportion of non-Native adults who reported that smoking is not allowed anywhere inside their home increased from 76.1% in 2001 to 87.7% in 2011.

**Figure 52. Percent of Non-Native Adults Age 25-64 Who Report that Smoking is Not Allowed Anywhere in their Homes, by Year and Socio-Economic Status, Alaska, 2001 – 2011**

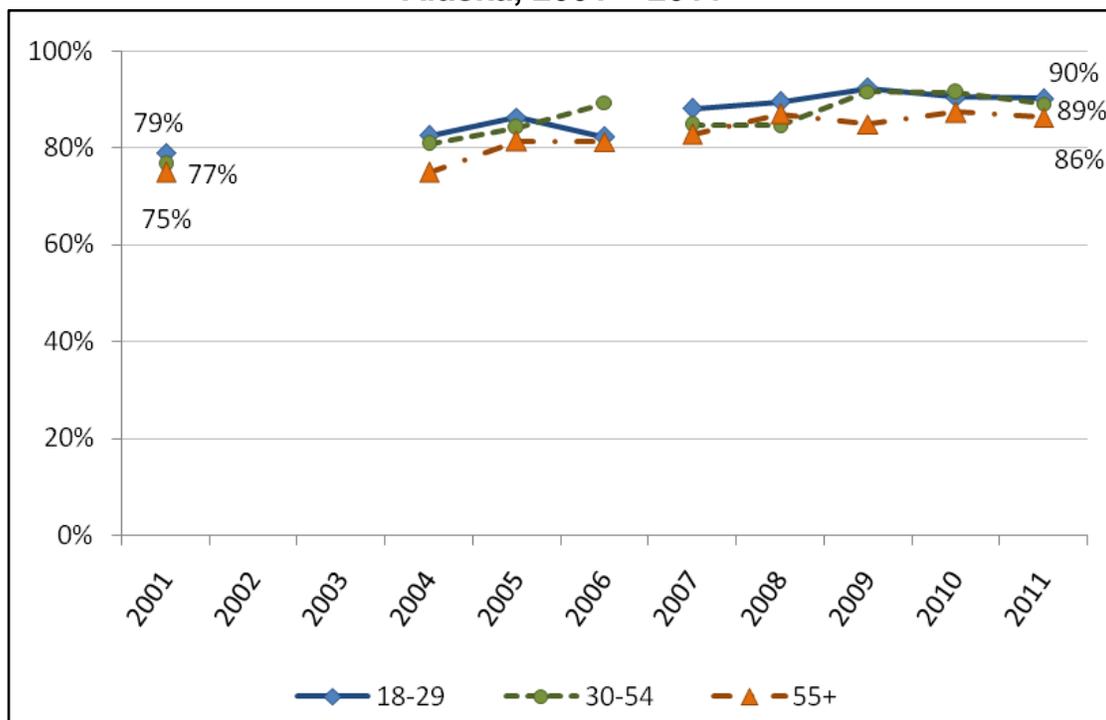


Source: Alaska Behavioral Risk Factor Surveillance System (information collected in 2001 and 2004 to present).

Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

- Among non-Natives age 25 to 64, the prevalence of home smokefree rules increased regardless of socio-economic status. Among those of low SES, the proportion who reported that smoking is not allowed anywhere inside their home increased from 66.7% in 2001 to 80.7% in 2011.
- The proportion of non-Native adults age 25 to 64 of higher SES who reported that smoking is not allowed anywhere inside their home increased from 80.4% in 2001 to 90.4% in 2011.

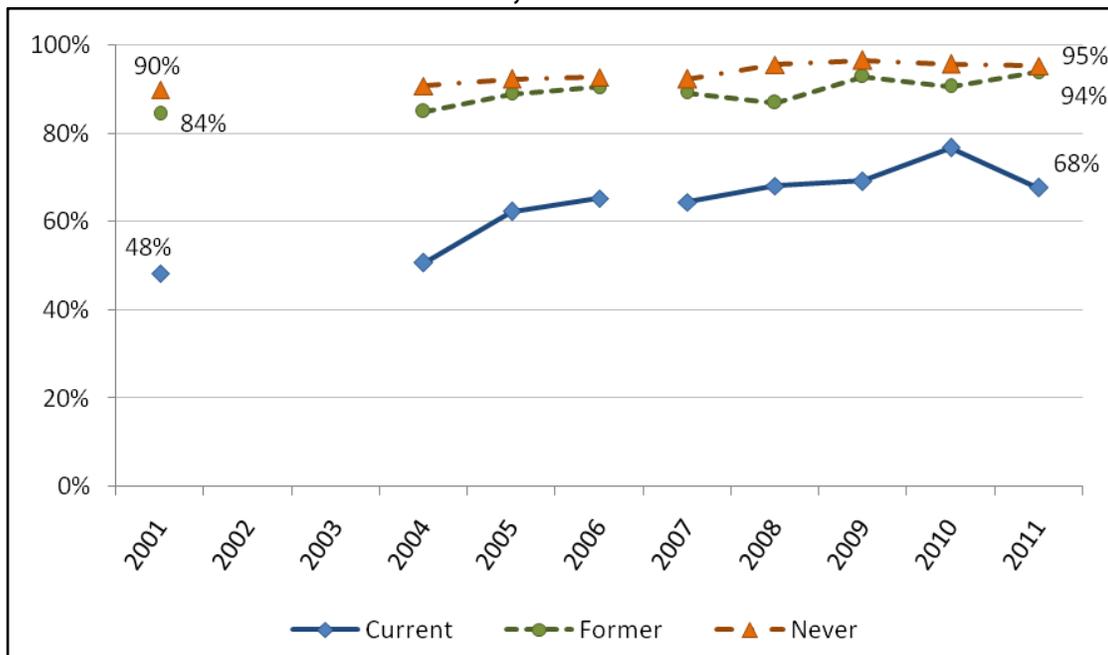
**Figure 53. Percent of Adults Who Report that Smoking is Not Allowed Anywhere in their Homes, by Year and Age Group, Alaska, 2001 – 2011**



Source: Alaska Behavioral Risk Factor Surveillance System (information collected in 2001 and 2004 to present).  
 Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

- Home smokefree rules increased among all Alaska adults regardless of age group.
- The proportion of Alaska adults age 18 to 29 who have smokefree rules in their home increased from about 4 in 5 (79.0%) in 2001 to 9 in 10 (90.1%) in 2011.
- The proportion of Alaska adults age 30 to 54 who have smokefree rules in their home increased from 76.6% in 2001 to 89.1% in 2011.
- The proportion of Alaska adults age 55 and older who have smokefree rules in their home increased from 75.0% in 2001 to 86.2% in 2011.

**Figure 54. Percent of Adults Who Report that Smoking is Not Allowed Anywhere in their Homes, by Year and Smoking Status, Alaska, 2001 – 2011**

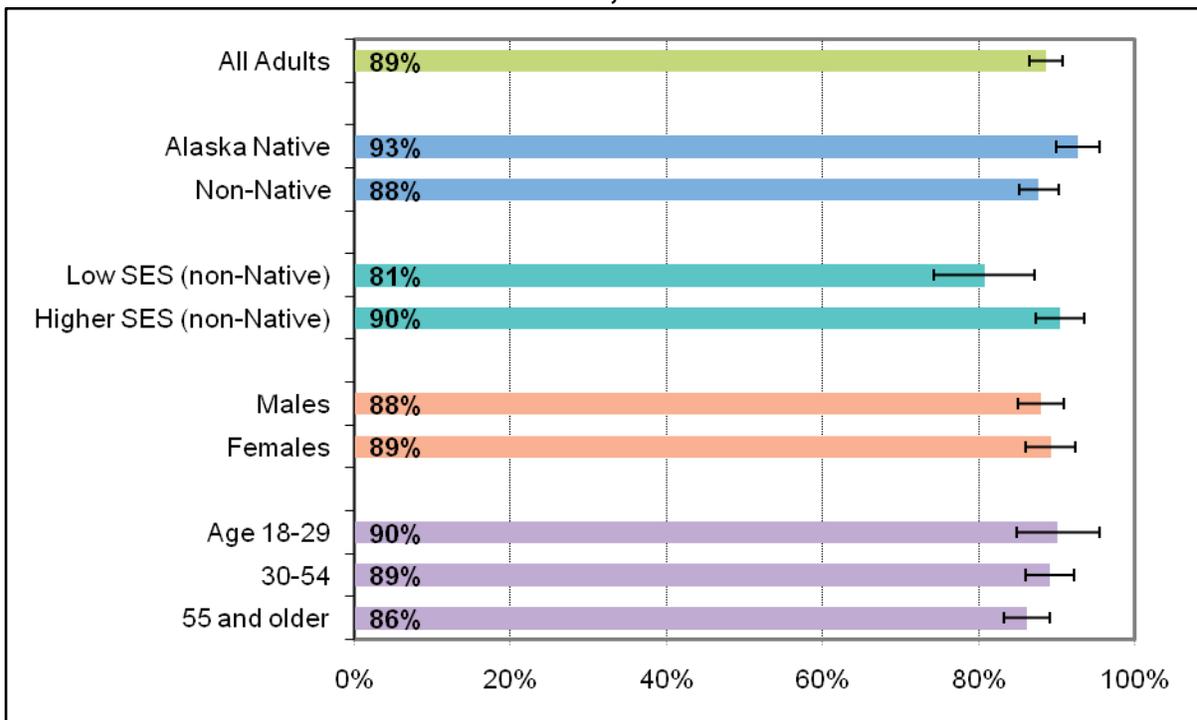


Source: Alaska Behavioral Risk Factor Surveillance System (information collected in 2001, and 2004 to present).

Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

- Home smokefree rules increased among all Alaska adults regardless of smoking status.
- The proportion of Alaska adult smokers who have smokefree rules in their home increased from about 1 in 2 (48.3%) in 2001 to 2 in 3 (67.7%) in 2011.
- The proportion of Alaska adult former smokers who have smokefree rules in their home increased from 84.4% in 2001 to 93.9% in 2011.
- The proportion of never smoking Alaska adults who have smokefree rules in their home increased from 89.9% in 2001 to 95.3% in 2011.

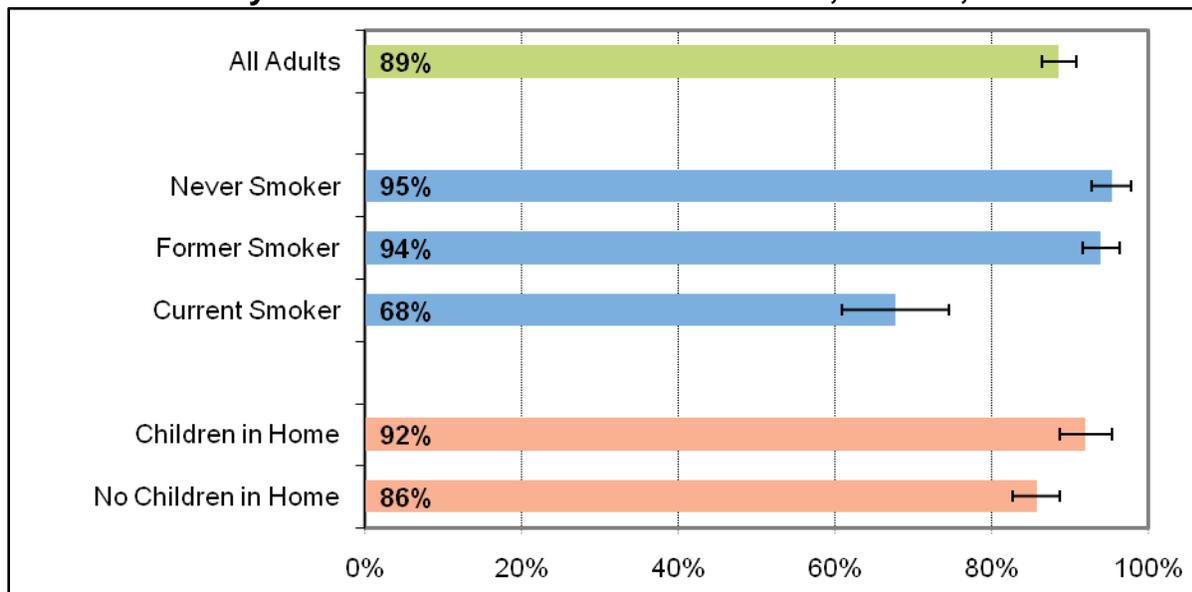
**Figure 55. Percent of Adults Who Report that Smoking is Not Allowed Anywhere in their Homes, by Selected Demographic Factors, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- About nine in ten Alaska adults report having smoking bans and no secondhand smoke exposure in their homes. Having a rule about no smoking in the home reduces the risk of exposure.
- Among non-Native adults age 25 to 64, those of low SES are less likely than those of higher SES to have a home smoking ban (80.7% vs 90.4%).

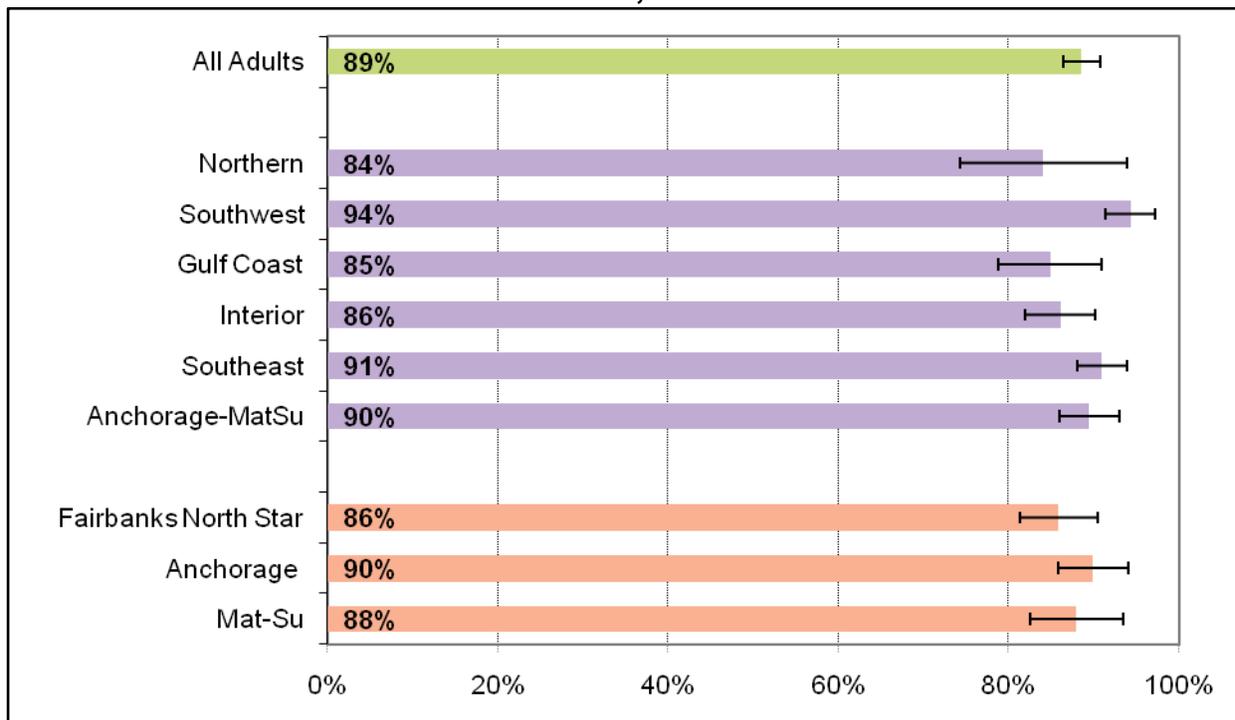
**Figure 56. Percent of Adults Who Report that Smoking is Not Allowed Anywhere in their Homes, by Smoking Status and by Presence of Children in the Home, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- Non-smokers—both former smokers and those who have never been smokers—are more likely than smokers to report having home smoking bans (93.9% and 95.3% vs 67.7%).
- Adults with children living in the household are more likely than those without children to report having a home smoking ban (92.0% vs 85.7%).

**Figure 57. Percent of Adults Who Report that Smoking is Not Allowed Anywhere in their Homes, by Region and by Selected Boroughs, Alaska, 2011**

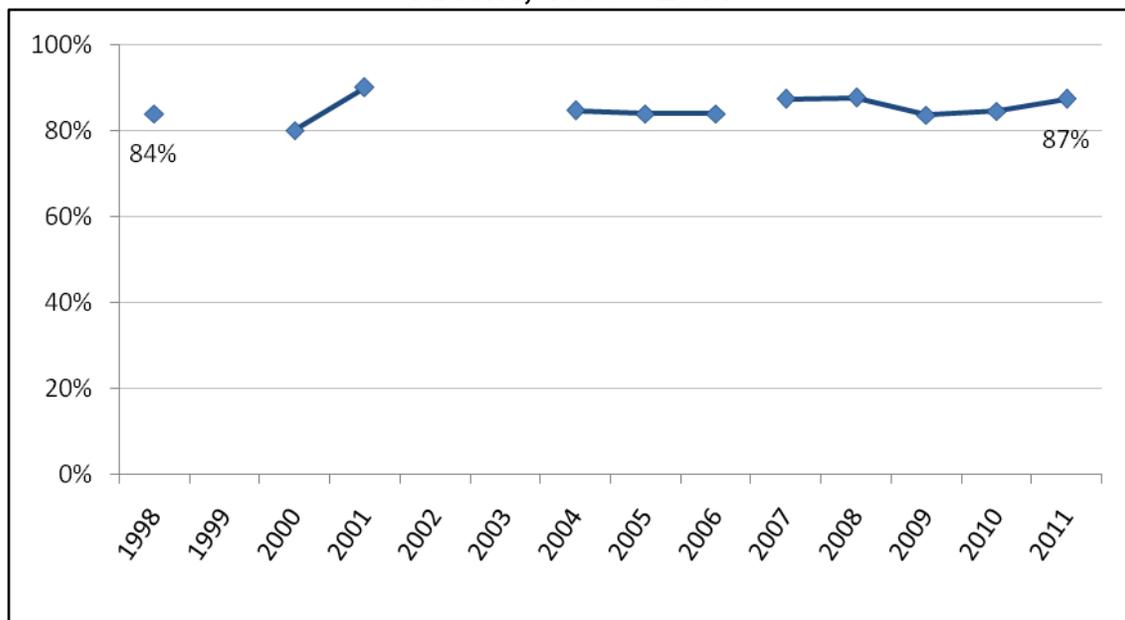


Source: Alaska Behavioral Risk Factor Surveillance System

- Across Alaska, most people report that smoking is not allowed anywhere inside their homes. There are no significant differences by geographic region, or among the selected boroughs.
- Public Health Regions include:
  - Northern – Nome, Northwest Arctic, and North Slope
  - Southwest – Bristol Bay, East Aleutians, West Aleutians, Dillingham, Lake & Peninsula, Bethel, and Wade Hampton
  - 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 58. Percent of Adults Working Primarily Indoors Who Report that Smoking is Not Allowed in Work Areas, by Year, Alaska, 1998 – 2011**



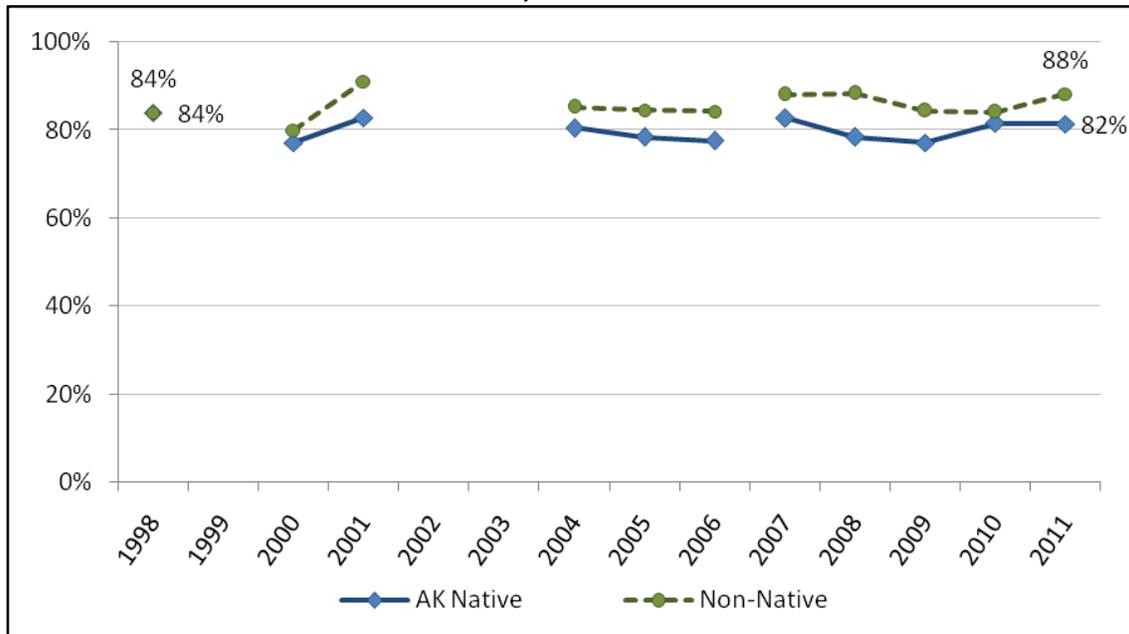
Source: Alaska Behavioral Risk Factor Surveillance System (information not collected in 1999, 2002, or 2003).

Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

- The percent of adults working primarily indoors who report that their workplace does not allow smoking in work areas increased from 83.9% in 1998 to 87.2% in 2011. The proportion reporting workplace smokefree policies increased among both men and women.
- Regionally, there was a statistically significant increase in Anchorage; the percent of Anchorage adults working primarily indoors who report that their workplace does not allow smoking in work areas increased from 87% in 1998 to 94% in 2011. (In July 2007 the Municipality of Anchorage passed a comprehensive clean indoor air ordinance that prohibits smoking in workplaces, including bars.) See Appendix A Table 13 for more information.
- Among Alaska adults in the workforce, 3 out of 4 (76.2%) report working primarily indoors. Among all Alaska adults, over half (55.9%) work primarily indoors, about 1 out of 6 (17.5%) do not work indoors, and about 1 in 4 (26.6%) report not being employed in the workforce.

Source: 2011 Alaska Behavioral Risk Factor Surveillance System

**Figure 59. Percent of Adults Working Primarily Indoors Who Report that Smoking is Not Allowed in Work Areas by Year and Alaska Native Status, Alaska, 1998 – 2011**

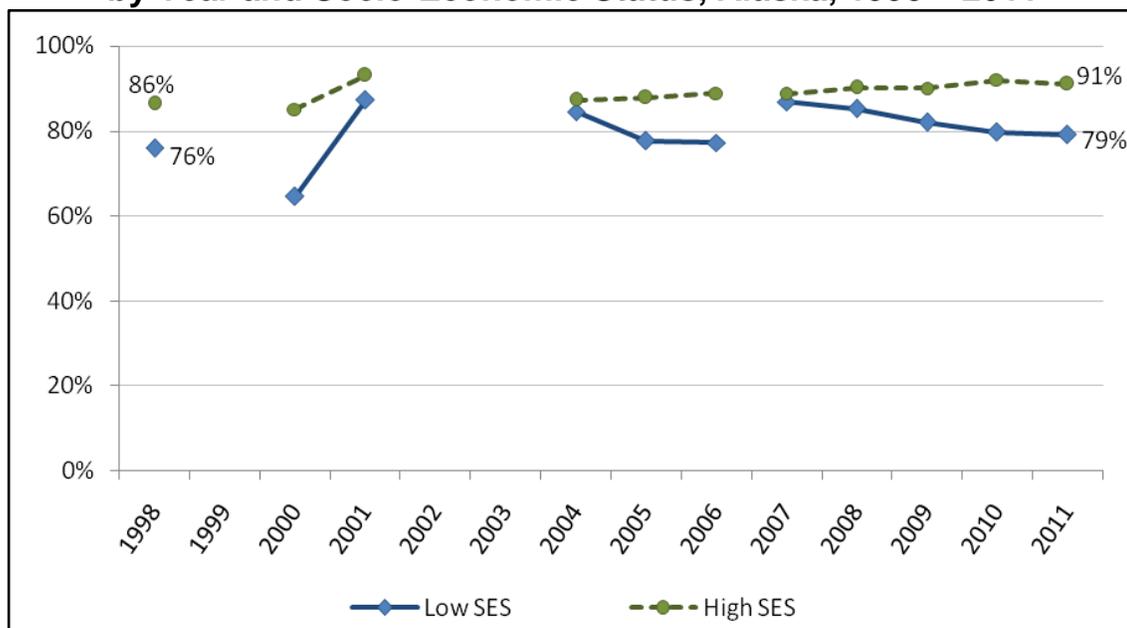


Source: Alaska Behavioral Risk Factor Surveillance System (information not collected in 1999, 2002, or 2003).

Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

- The percent of non-Native adults working primarily indoors who report that their workplace does not allow smoking in work areas increased from 83.9% in 1998 to 88.3% in 2011.
- The percent of Alaska Native adults working primarily indoors who report that their workplace does not allow smoking in work areas did not change significantly between 1998 to 2011; approximately 4 in 5 are protected by smokefree workplace policies.

**Figure 60. Percent of Non-Native Adults Age 25-64 Working Primarily Indoors Who Report that Smoking is Not Allowed in Work Areas, by Year and Socio-Economic Status, Alaska, 1998 – 2011**

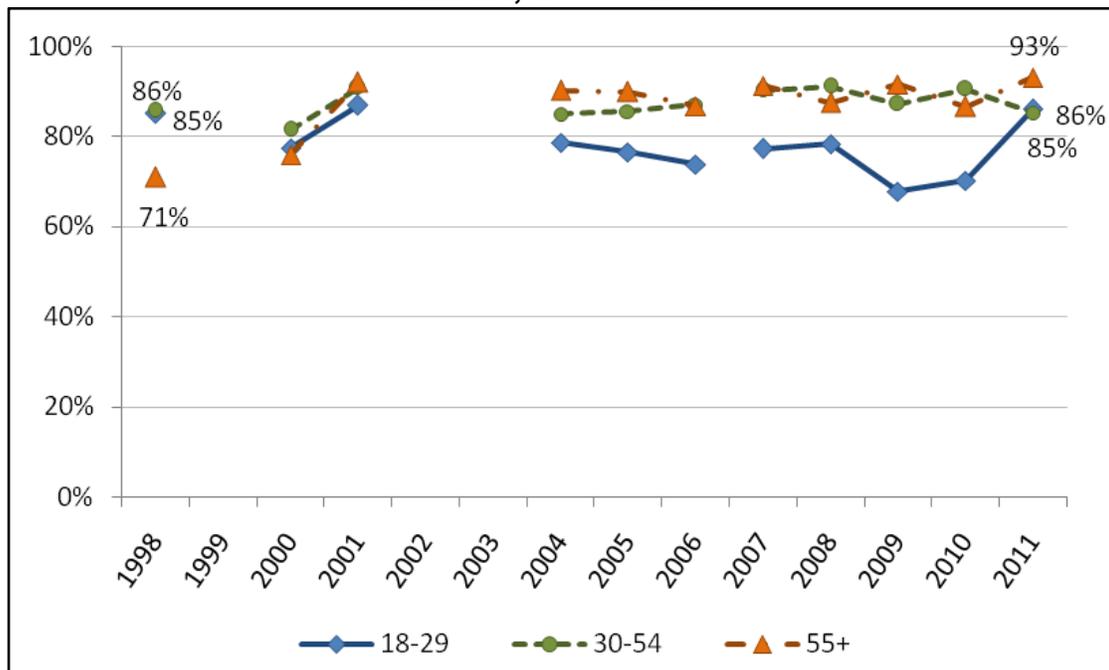


Source: Alaska Behavioral Risk Factor Surveillance System (information not collected in 1999, 2002, or 2003).

Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

- Among higher SES non-Native adults age 25 to 64 working primarily indoors, the percent who report that their workplace does not allow smoking in work areas increased from 86.3% in 1998 to 91.0% in 2011.

**Figure 61. Percent of Adults Working Primarily Indoors Who Report that Smoking is Not Allowed in Work Areas, by Year and Age Group, Alaska, 1998 – 2011**

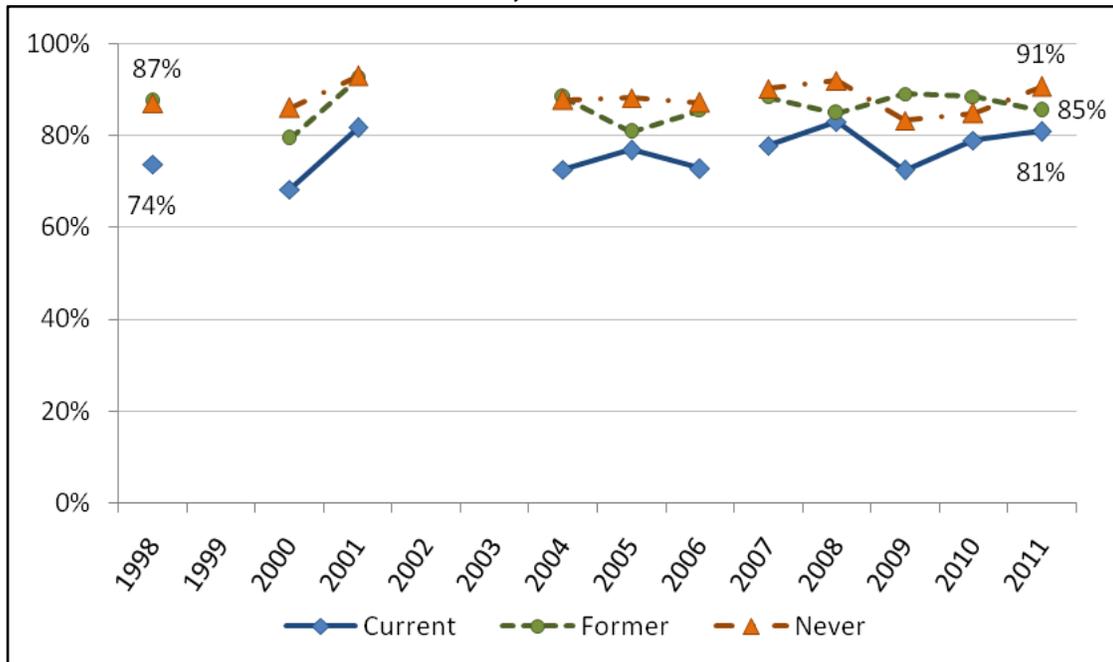


Source: Alaska Behavioral Risk Factor Surveillance System (information not collected in 1999, 2002, or 2003).

Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

- The proportion of workers who are protected by workplace smokefree policies has increased among adults age 30 to 54 as well as older adults age 55 and over.
- Among adults age 30 to 54 who work primarily indoors, the proportion who report that their workplace does not allow smoking in work areas increased significantly, even though the prevalence was nearly the same in 1998 and 2011 (85.6% and 85.2%, respectively).
- Among adults age 55 and older who work primarily indoors, the proportion who report that their workplace does not allow smoking in work areas increased significantly from 71.0% in 1998 to 93.0% in 2011.

**Figure 62. Percent of Adults Working Primarily Indoors Who Report that Smoking is Not Allowed in Work Areas, by Year and Smoking Status, Alaska, 1998 – 2011**

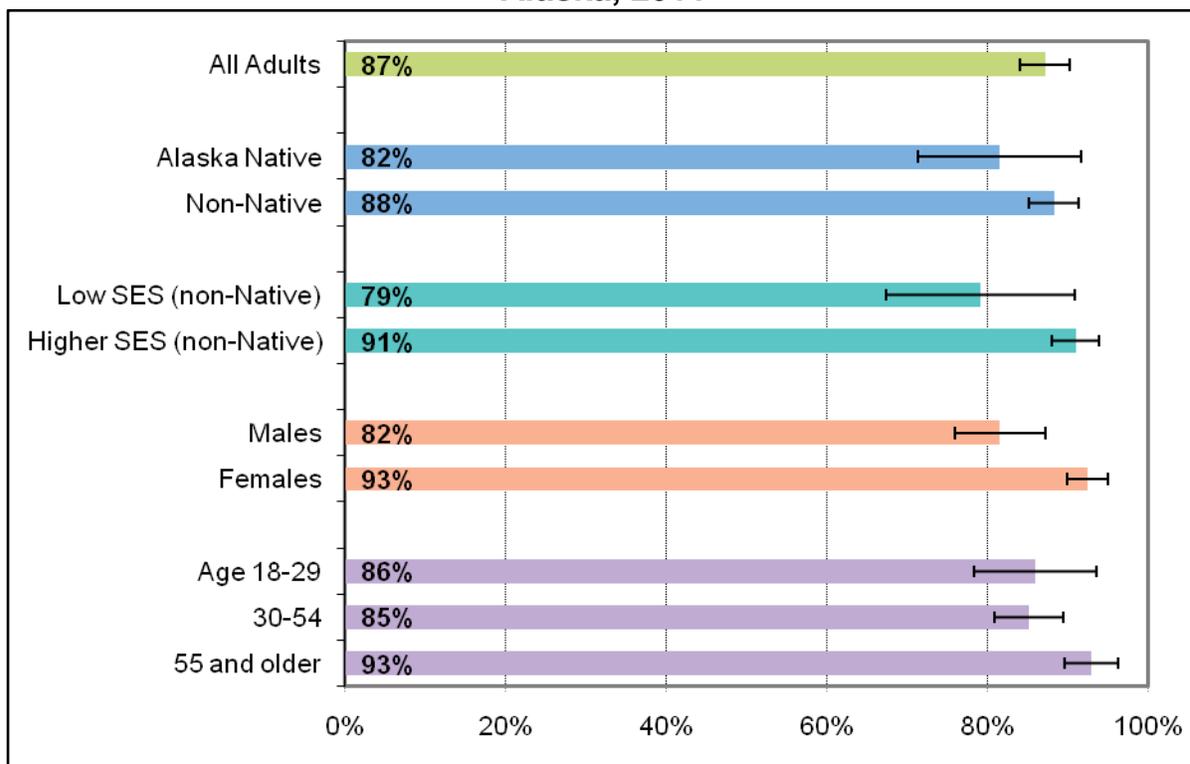


Source: Alaska Behavioral Risk Factor Surveillance System (information not collected in 1999, 2002, or 2003).

Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

- The proportion of workers who are protected by workplace smokefree policies has remained high and in fact has increased among non-smoking workers (both former and never smokers). However, the proportion of smokers who work in smokefree workplaces did not change significantly between 1998 and 2011.
- Among adults working primarily indoors who have never been smokers, the proportion who report that their workplace does not allow smoking in work areas increased from 87.1% in 1998 to 90.6% in 2011.
- Among adults working primarily indoors who are former smokers, the proportion who report that their workplace does not allow smoking in work areas increased as well, although the proportion in 1998 was 87.4% in 1998 and in 2011 was 85.4%.

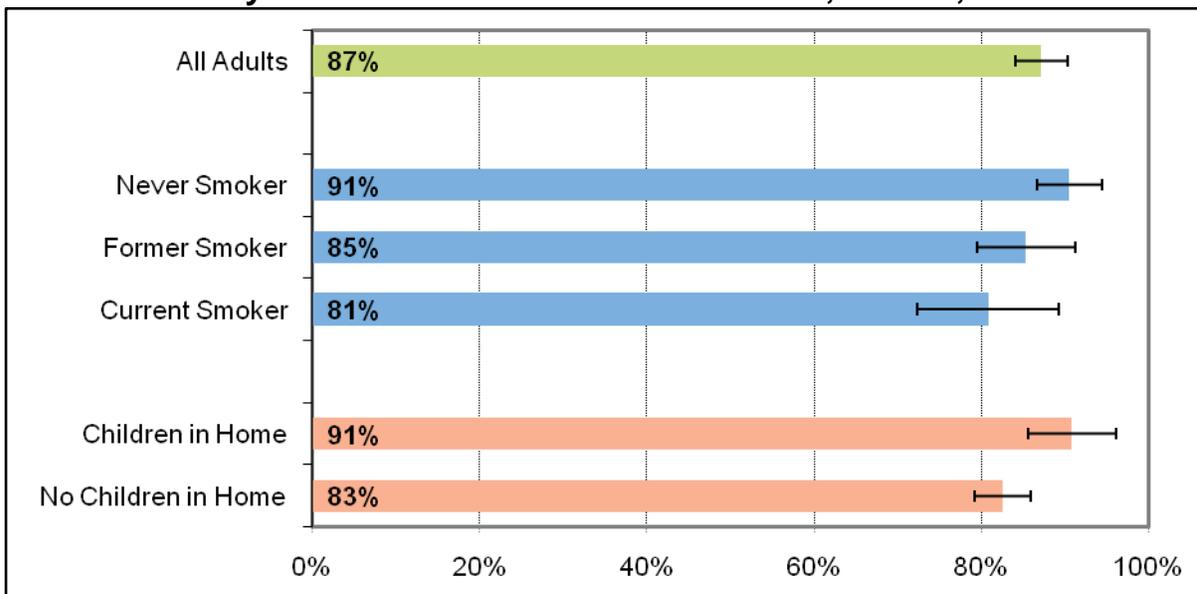
**Figure 63. Percent of Adults Working Primarily Indoors Who Report that Smoking is Not Allowed in Work Areas, by Selected Demographic Factors, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- Almost nine in ten Alaska adults who work primarily indoors (87.2%) report that smoking is not allowed in work areas at their workplaces.
- Among non-Native adults age 25 to 64 working primarily indoors, those of higher SES are significantly more likely than those of low SES to be protected by smokefree workplace policies (91.0% vs 79.2%).
- Women are significantly more likely than men to be protected by smokefree workplace policies (92.5% vs 81.6%).

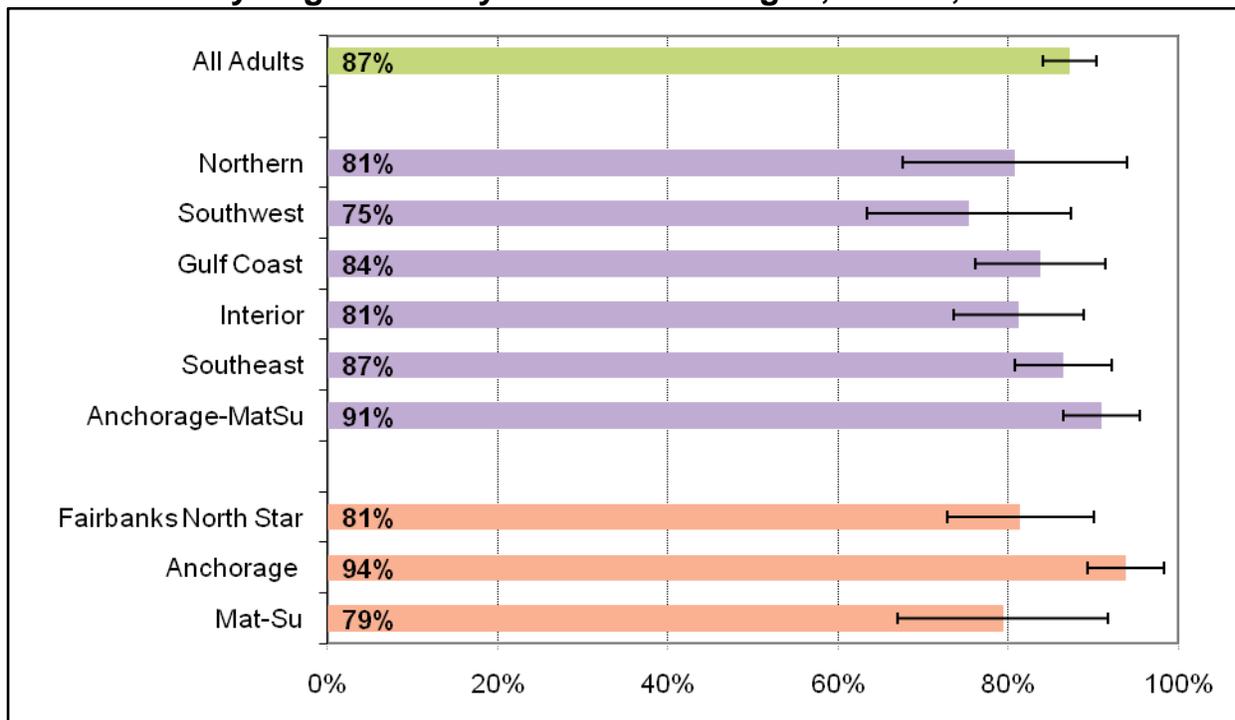
**Figure 64. Percent of Adults Working Primarily Indoors Who Report that Smoking is Not Allowed in Work Areas, by Smoking Status and by Presence of Children in the Home, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- Among adults working primarily indoors, those who have never been smokers are more likely than smokers to report having smokefree workplace policies at their place of work (90.6% vs 80.9%).
- Adults working primarily indoors who have children living in their household are more likely than those without children to report having smokefree workplace policies at their place of work (90.9% vs 82.6%).

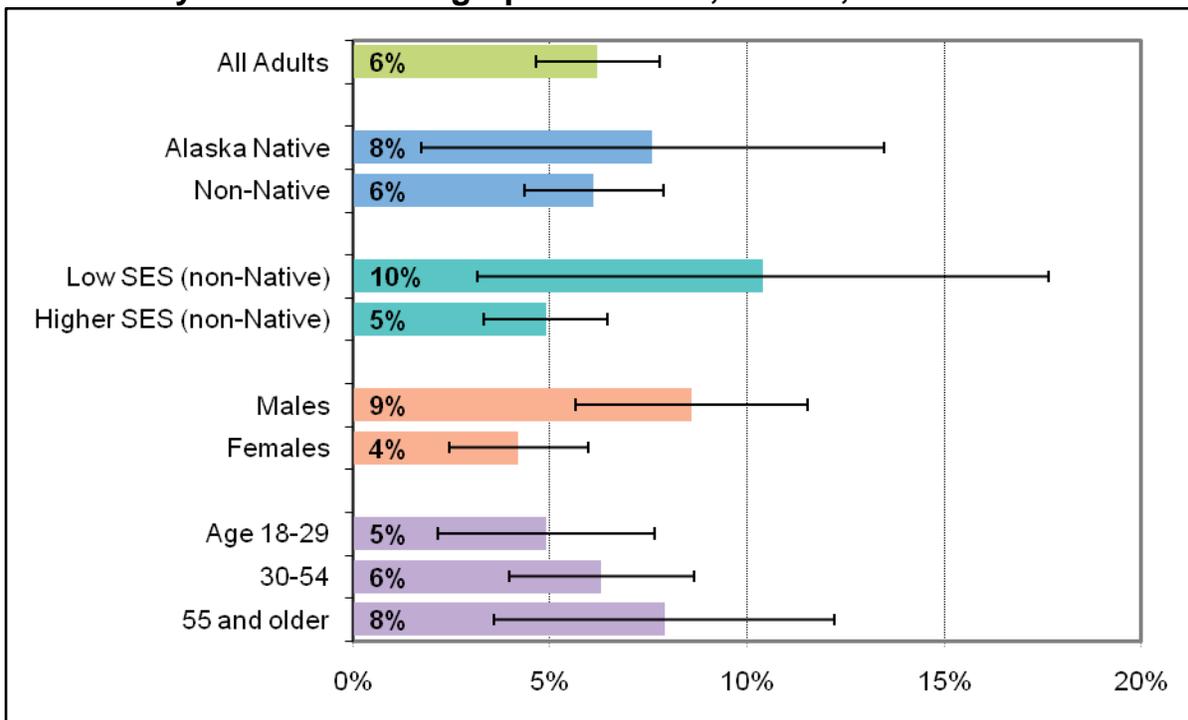
**Figure 65. Percent of Adults Working Primarily Indoors Who Report that Smoking is Not Allowed in Work Areas, by Region and by Selected Boroughs, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- Among adults working primarily indoors, the proportion who report having smokefree workplace policies at their place of work differs by geographic location.
- Adults working primarily indoors in the Anchorage-MatSu region are more likely to work in a smokefree workplace than those in Southwest or Interior regions.
- Adults working primarily indoors in the Municipality of Anchorage are significantly more likely to work in a smokefree workplace than those in Mat-Su or Fairbanks North Star boroughs, as well as those in Southwest or Interior Alaska regions. (In July 2007, the Municipality of Anchorage passed a comprehensive clean indoor air ordinance that prohibits smoking in workplaces, including bars.)

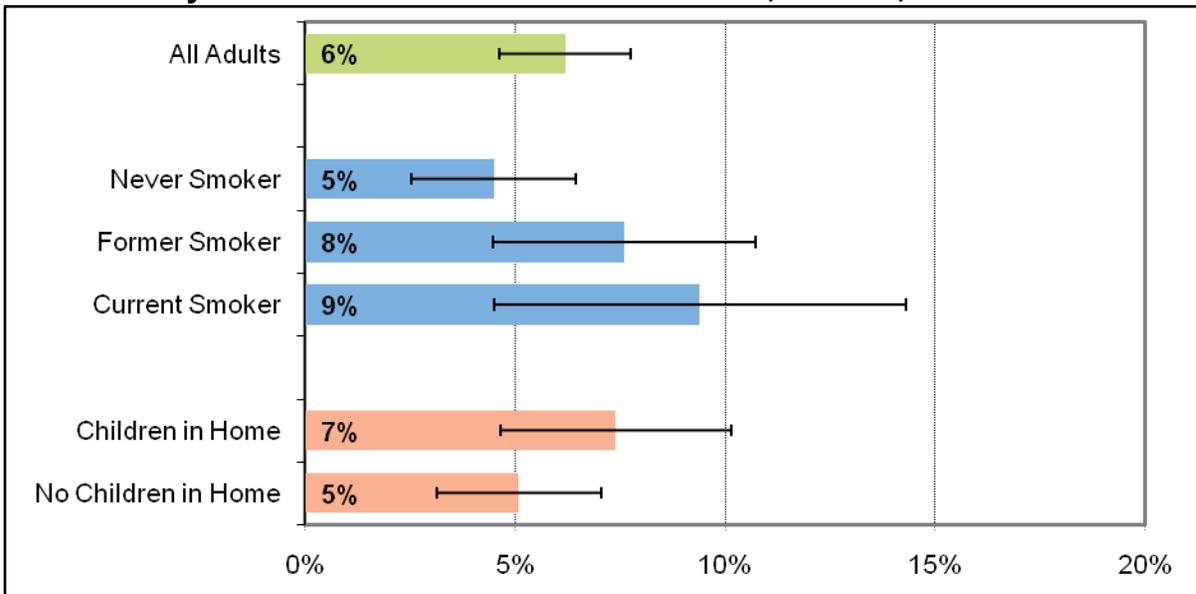
**Figure 66. Percent of Adults Working Primarily Indoors Who Report Workplace Exposure to Smoke in Past 30 Days, by Selected Demographic Factors, Alaska, 2010 – 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- The proportion of adults who work primarily indoors and report secondhand smoke exposure at the workplace in the past 30 days is slightly lower than the proportion who report not having smokefree policies at their workplace (6.2% vs 12.8%).
- The differences in workplace smoke exposure are similar to those found in workplace policies; men and non-Native adults of low SES are more likely to be exposed to tobacco smoke at work.
- Among non-Native adults age 25 to 64 working primarily indoors, those of lower SES are significantly more likely than those of higher SES to report workplace smoke exposure in the past 30 days (10.4% vs 4.9%).
- Men are significantly more likely than women to report workplace smoke exposure in the past 30 days (8.6% vs 4.2%).

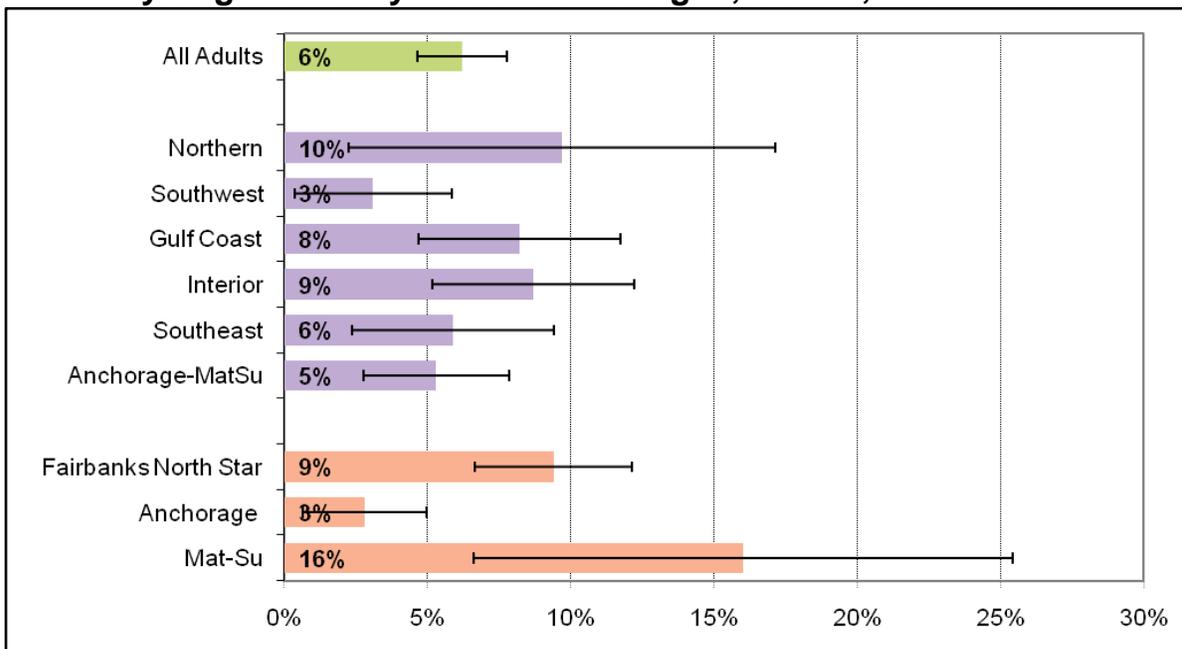
**Figure 67. Percent of Adults Working Primarily Indoors Who Report Workplace Exposure to Smoke in Past 30 Days, by Smoking Status and by Presence of Children in the Home, Alaska, 2010 – 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- Among adults working primarily indoors, smokers are more likely than those who have never been smokers to report smoke exposure in their workplace in the past 30 days (9.4% vs 4.5%).
- There is no significant difference in workplace smoke exposure for adults working primarily indoors by whether they have children living in the home or not.

**Figure 68. Percent of Adults Working Primarily Indoors Who Report Exposure to Smoke Anywhere at the Workplace, by Region and by Selected Boroughs, Alaska, 2010 – 2011**

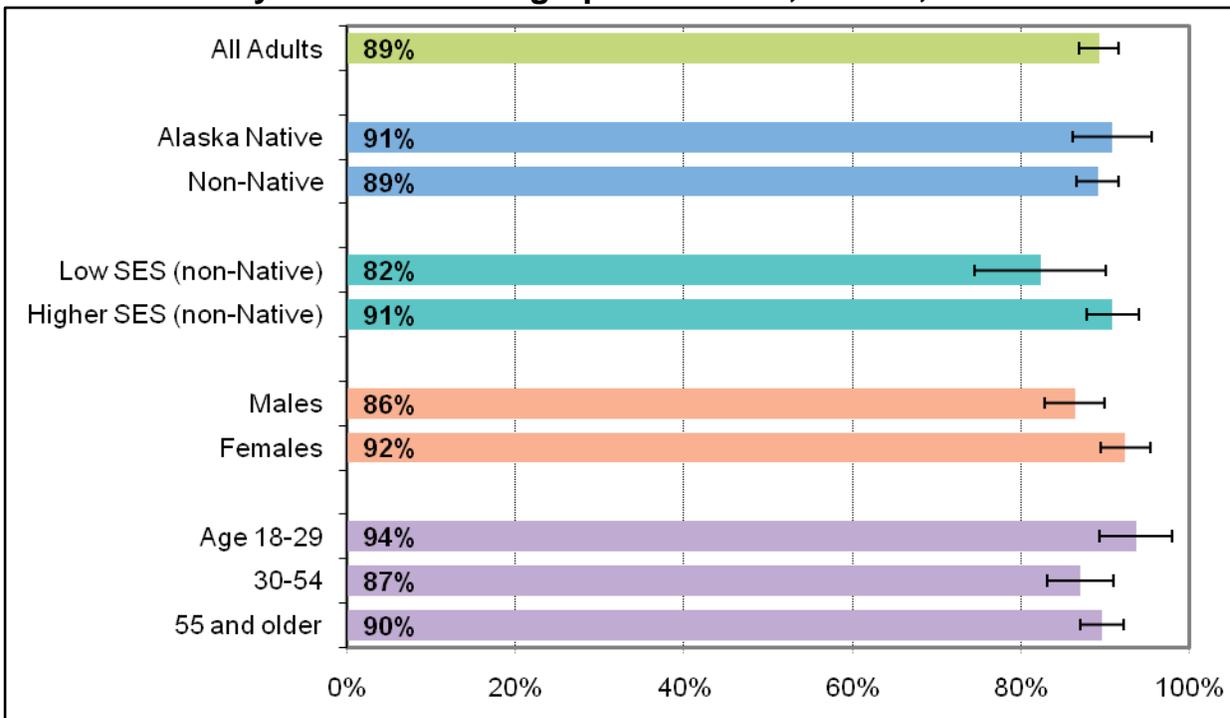


Source: Alaska Behavioral Risk Factor Surveillance System

- Among adults working primarily indoors, the proportion who report smoke exposure in their workplace in the past 30 days differs by geographic location, primarily between Anchorage Municipality and other areas.
- Anchorage adults working primarily indoors are five times less likely to be exposed to smoke at work than those in Mat-Su Borough.
- Anchorage adults working primarily indoors are three times less likely to be exposed to smoke at work than those in Fairbanks North Star.
- Anchorage adults working primarily indoors are also less likely to be exposed to smoke at work than those in Gulf Coast and Interior regions.
- Adults working primarily indoors in Southwest Alaska are less likely to be exposed to smoke at work than those in the Gulf Coast and Interior regions, and those in Fairbanks North Star or Mat-Su boroughs.
- Clean indoor air policies in Anchorage and Juneau enacted prior to 2010 protect more workers in these jurisdictions.

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

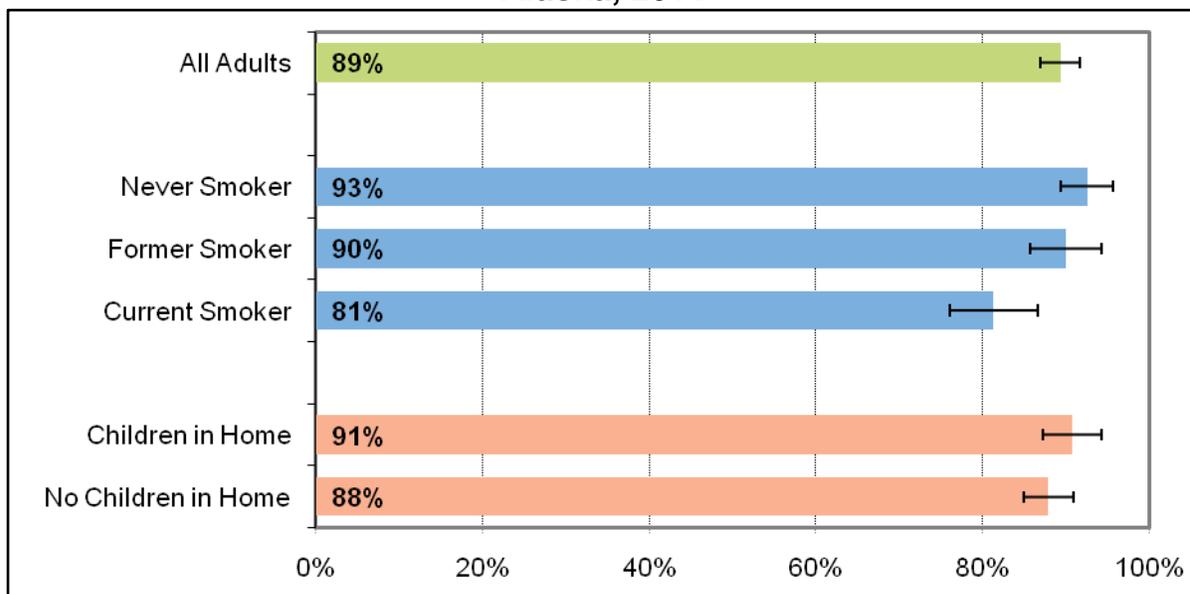
**Figure 69. Percent of Adults Who Agree that Breathing Smoke from Other People’s Cigarettes is Somewhat or Very Harmful to One’s Health, by Selected Demographic Factors, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- Most Alaskans recognize that there are health risks to secondhand smoke exposure; 9 in 10 adults (89.3%) agree that secondhand smoke is harmful, and 6 of those 10 (60.2%) agree that it is very harmful.
- Knowledge about the harm of secondhand smoke is high among Alaska Native and non-Native adults alike (90.9% and 89.1%).
- Among non-Native adults age 25 to 64, those of higher SES are more likely than those of low SES to agree that breathing smoke from other people’s cigarettes is harmful (90.9% vs 82.3%).
- Women are more likely than men to agree that breathing smoke from other people’s cigarettes is harmful (92.4% vs 86.4%).

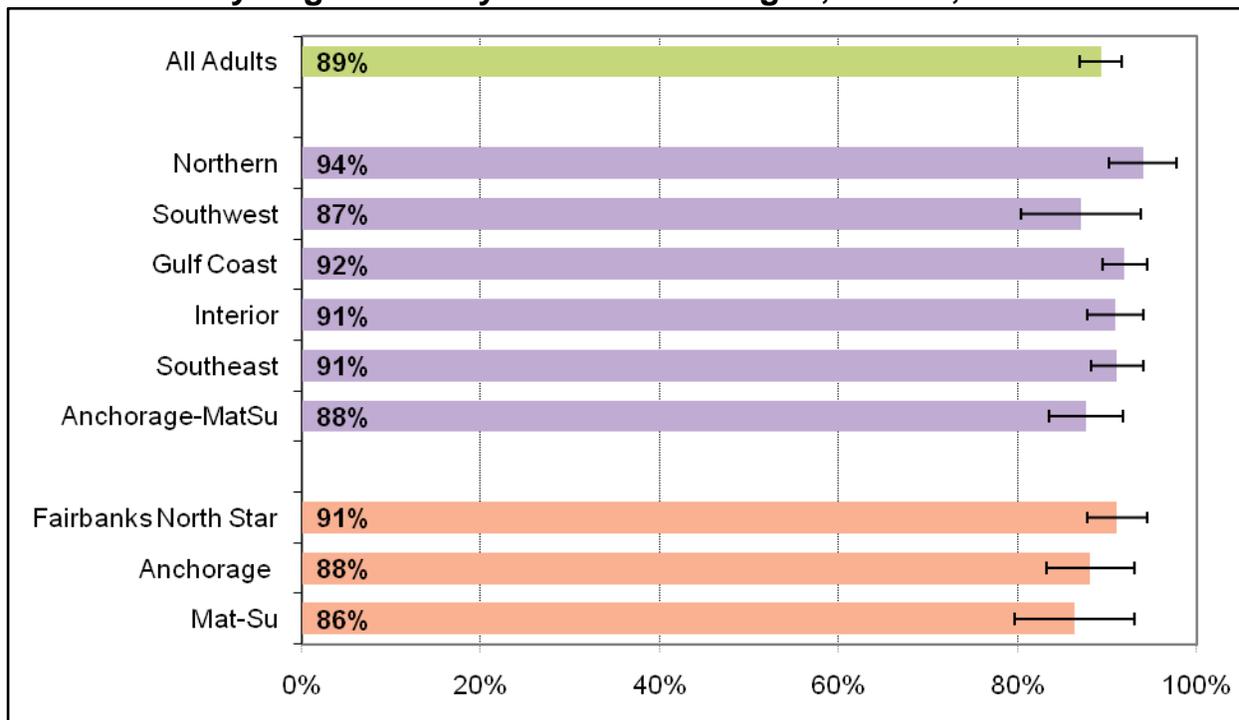
**Figure 70. Percent of Adults Who Agree that Breathing Smoke from Other People's Cigarettes is Somewhat or Very Harmful to One's Health, by Smoking Status and by Presence of Children in the Home, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- Recognition that secondhand smoke is harmful to one's health is significantly higher among never smokers (92.5%) and former smokers (90.0%) than among current smokers (81.3%). However, even among smokers, 4 in 5 agree that secondhand smoke is somewhat or very harmful.
- About 2 in 3 former and never smokers (62.6% and 67.6%) agree that secondhand smoke is very harmful, compared to 2 in 5 smokers (41.5%).

**Figure 71. Percent of Adults Who Agree that Breathing Smoke from Other People’s Cigarettes is Somewhat or Very Harmful to One’s Health, by Region and by Selected Boroughs, Alaska, 2011**

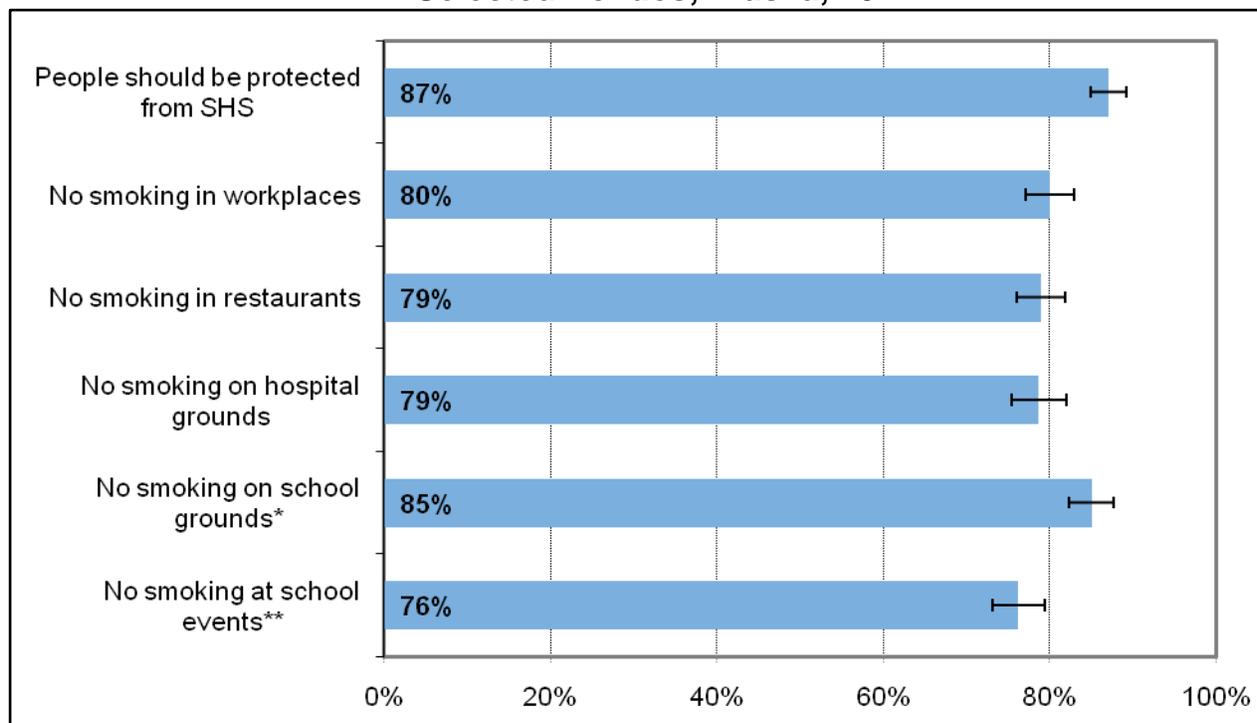


Source: Alaska Behavioral Risk Factor Surveillance System

- The proportion of adults who agree that secondhand smoke exposure is harmful to one’s health is fairly high across Alaska. There are no significant differences by region or by selected boroughs.

## D. Attitudes about Secondhand Smoke

**Figure 72. Support for Protection against Secondhand Smoke in Selected Venues, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

\* Support for not allowing smoking on school grounds, even after school hours and on weekends.

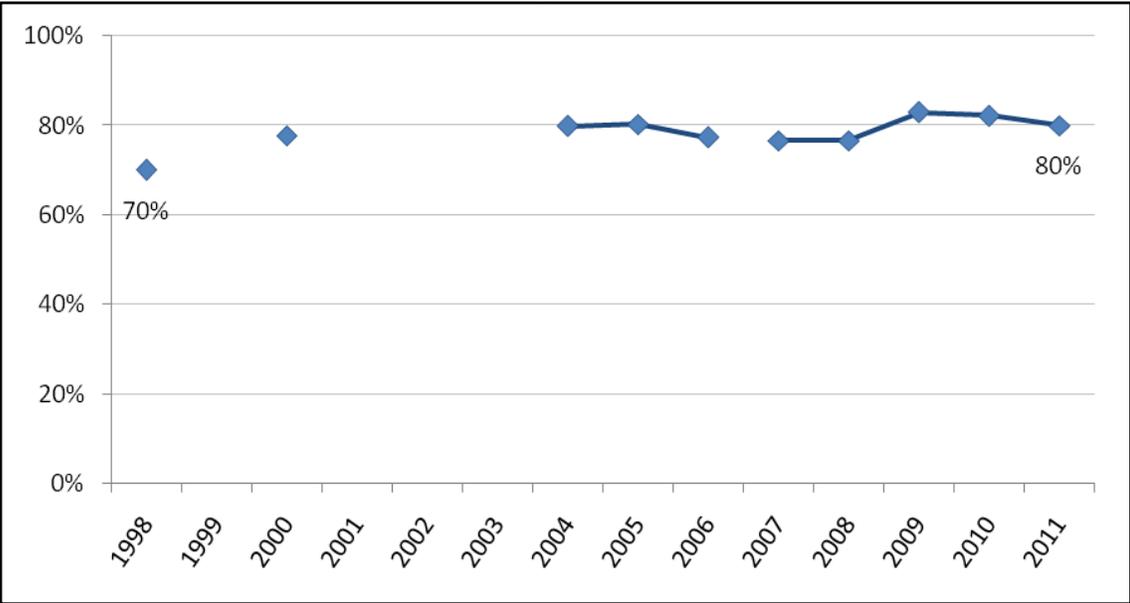
\*\* Support for not allowing smoking at school-sponsored events, even those that are not held on school grounds.

- Nearly 9 in 10 Alaska adults (87.1%) agree that people should be protected from secondhand smoke (SHS). Support is high even among smokers; 3 in 4 (76.5%) agree that people should be protected from SHS.
- There is widespread support for clean indoor air policies. About 4 in 5 Alaska adults agree that smoking should not be allowed in hospitals or on hospital grounds, or in workplaces, including restaurants.
- Studies across the country show that comprehensive clean indoor air policies do not have an adverse impact on the hospitality industry.

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

- Most Alaska adults agree that smoking should not be allowed on school grounds, during school (94.2%), after school or on weekends (85.0%) or even at school events held off school grounds (76.2%).

**Figure 73. Percent of Adults Who Agree that Smoking Should Not Be Allowed in Indoor Work Areas, by Year, Alaska, 1998 – 2011**

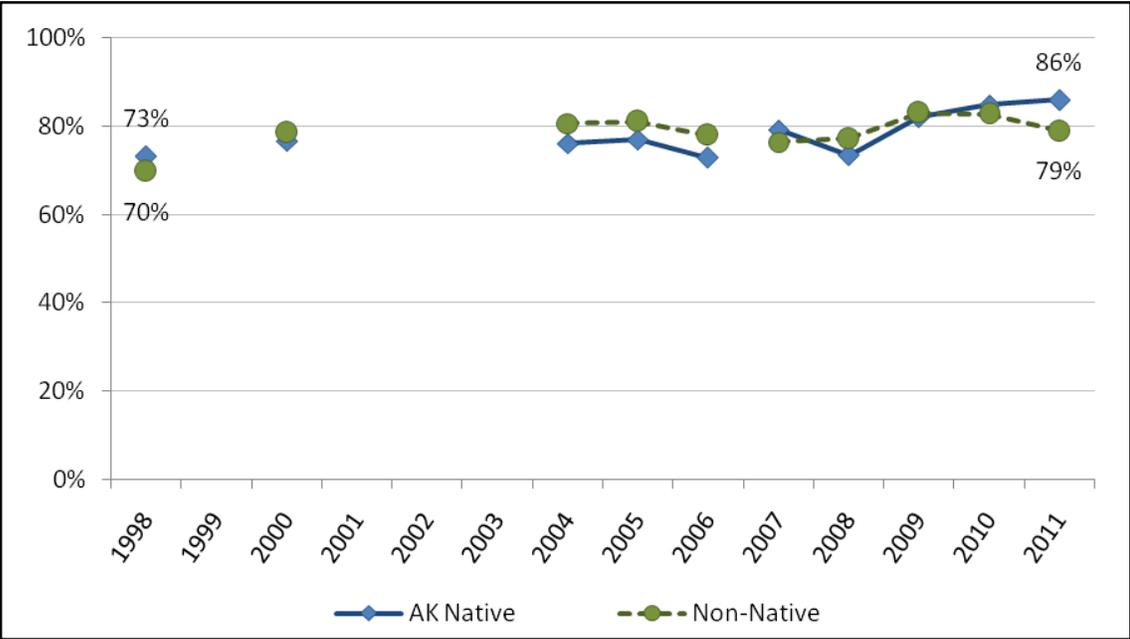


Source: Alaska Behavioral Risk Factor Surveillance System (information not collected in 1999 or 2001 through 2003).

Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

- Support for 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 from 70.0% in 1998 to 80.0% in 2011.
- Support for smokefree workplaces increased among both men and women, and among most demographic groups.
- Regionally, support for smokefree workplaces increased significantly in Gulf Coast, Interior, Anchorage/Mat-Su, and Southwest Alaska. See Appendix A Table 14 for more information.

**Figure 74. Percent of Adults Who Agree that Smoking Should Not Be Allowed in Indoor Work Areas, by Year and Alaska Native Status, Alaska, 1998 – 2011**

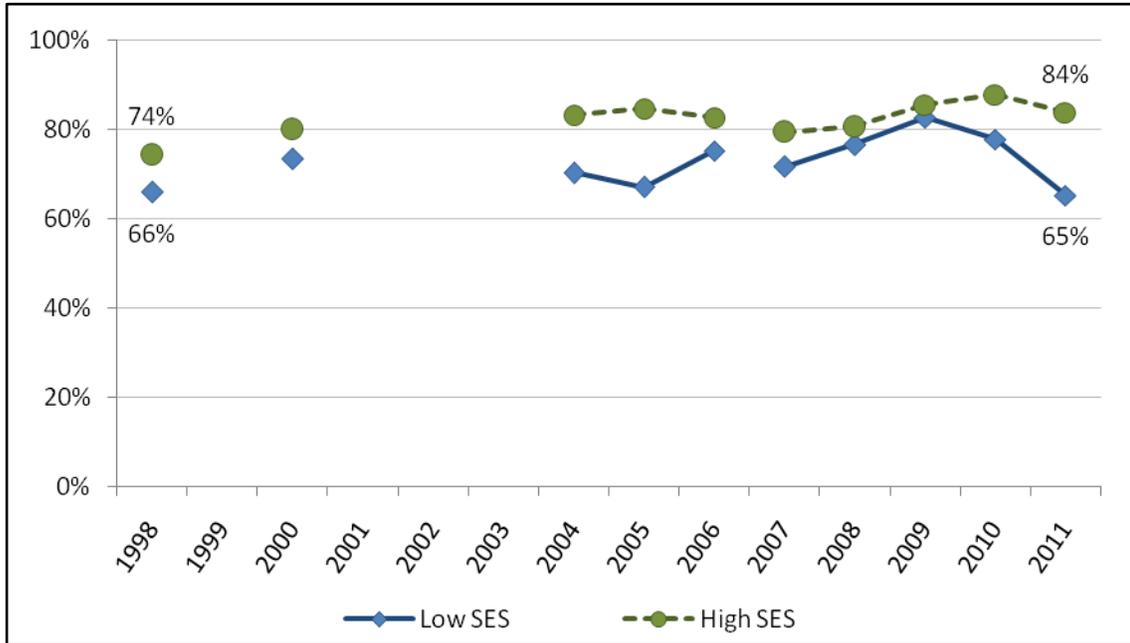


Source: Alaska Behavioral Risk Factor Surveillance System (information not collected in 1999 or 2001 through 2003).

Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

- The proportion of Alaska Native adults who agree that smoking should not be allowed in indoor work areas has increased from 73.2% in 1998 to 86.0% in 2011.
- The proportion of non-Native adults who agree that smoking should not be allowed in indoor work areas has increased from 69.7% in 1998 to 78.9% in 2011.

**Figure 75. Percent of Non-Native Adults Age 25-64 Who Agree that Smoking Should Not Be Allowed in Indoor Work Areas, by Year and Socio-Economic Status, Alaska, 1998 – 2011**

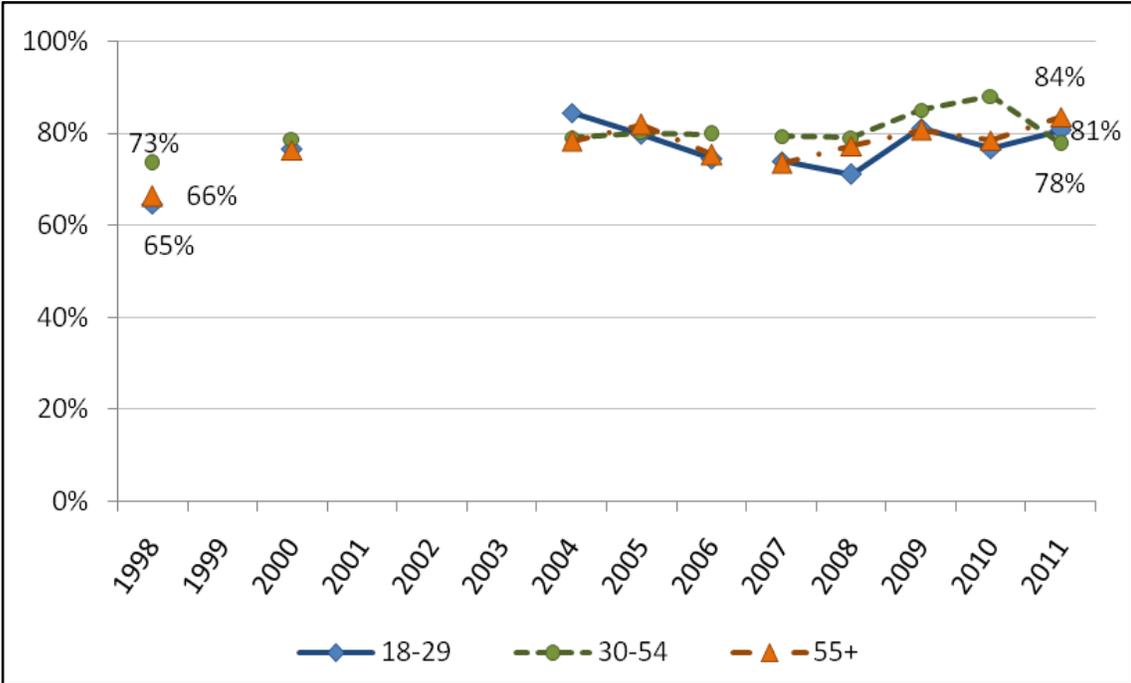


Source: Alaska Behavioral Risk Factor Surveillance System (information not collected in 1999 or 2001 through 2003).

Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

- Among low SES non-Native adults age 25 to 64, the percent who agree that smoking should not be allowed in indoor work areas has significantly increased between 1998 and 2011, even though the proportion in 2011 dropped back to roughly the same level as in 1998.
- Among higher SES non-Native adults age 25 to 64, the percent who agree that smoking should not be allowed in indoor work areas increased from 74.3% in 1998 to 83.8% in 2011.

**Figure 76. Percent of Adults Who Agree that Smoking Should Not Be Allowed in Indoor Work Areas, by Year and Age Group, Alaska, 1998 – 2011**

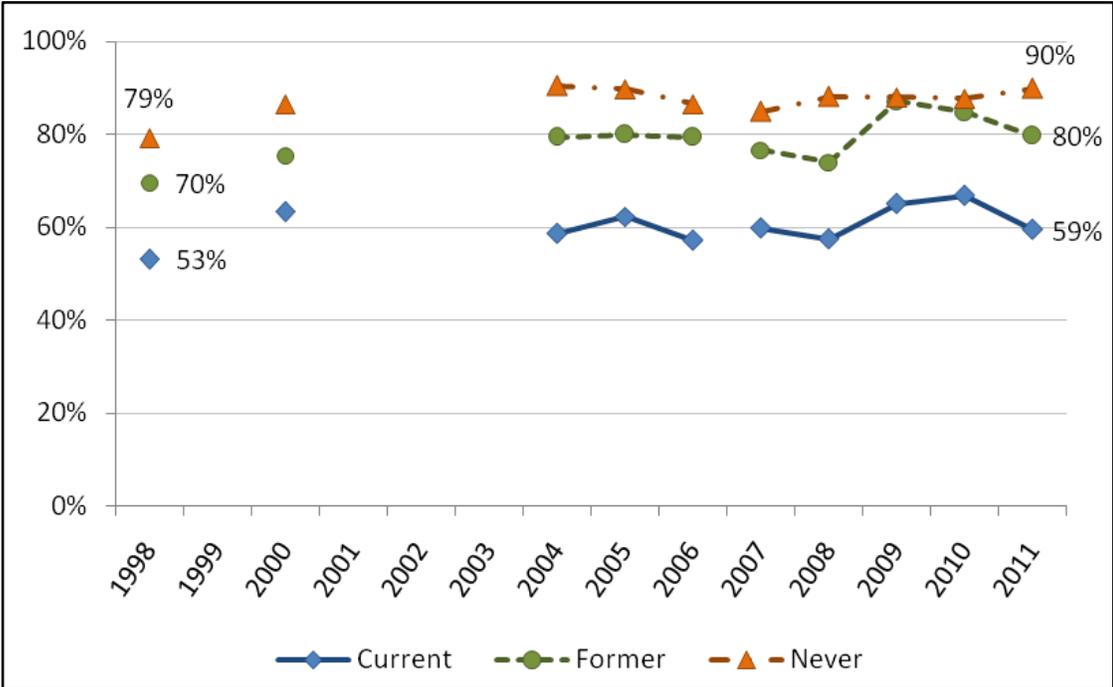


Source: Alaska Behavioral Risk Factor Surveillance System (information not collected in 1999 or 2001 through 2003).

Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

- The proportion of Alaska adults age 18 to 29 who support smokefree workplace policies increased from about 2 in 3 (64.6%) in 1998 to 4 in 5 (80.7%) in 2011.
- The proportion of Alaska adults age 30 to 54 who support smokefree workplace policies increased from 73.4% in 1998 to 77.7% in 2011.
- The proportion of Alaska adults age 55 and older who support smokefree workplace policies increased from 2 in 3 (66.4%) in 1998 to 4 in 5 (83.6%) in 2011.

**Figure 77. Percent of Adults Who Agree that Smoking Should Not Be Allowed in Indoor Work Areas, by Year and Smoking Status, Alaska, 1998 – 2011**

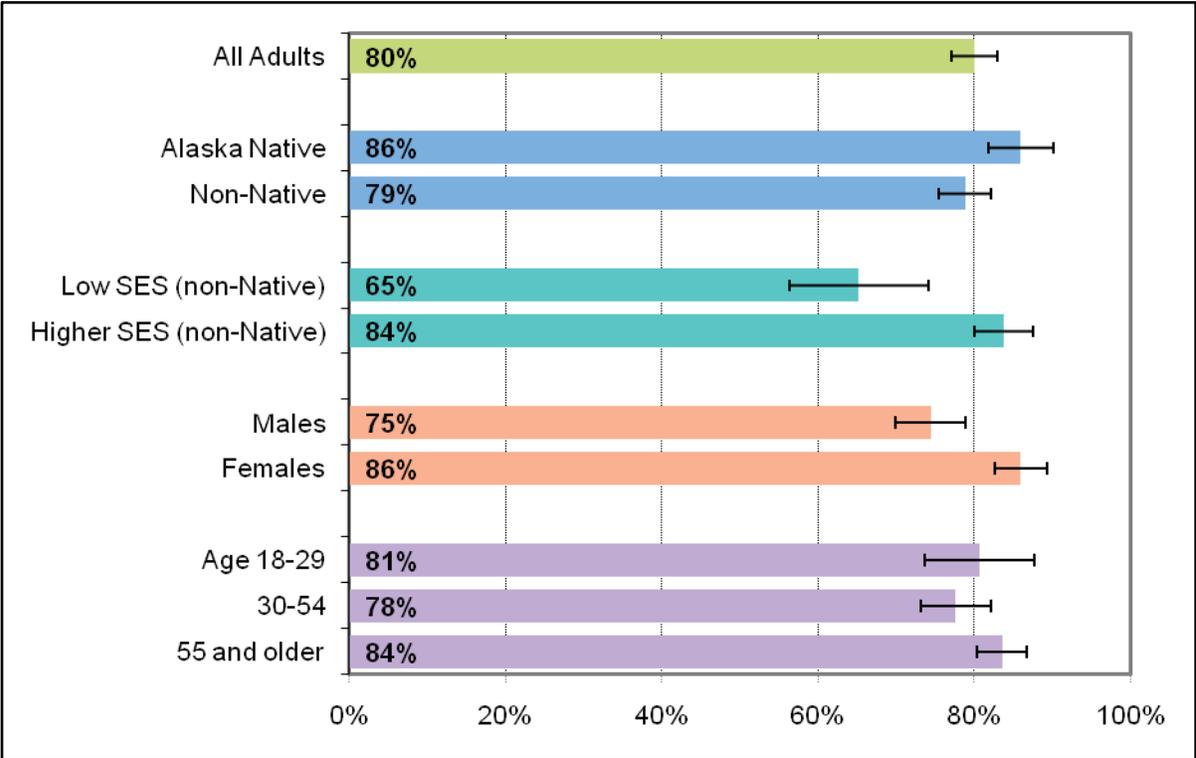


Source: Alaska Behavioral Risk Factor Surveillance System (information not collected in 1999 or 2001 through 2003).

Estimates for 2007 and later use a new weighting method; see Appendix B p 129 for more information.

- Support for smokefree workplaces has increased significantly among non-smokers.
- The proportion of Alaska adult never smokers who agree that smoking should not be allowed in indoor work areas increased from 79.2% in 1998 to 89.8% in 2011.
- The proportion of Alaska adult former smokers who agree that smoking should not be allowed in indoor work areas increased from 69.6% in 1998 to 79.6% in 2011.

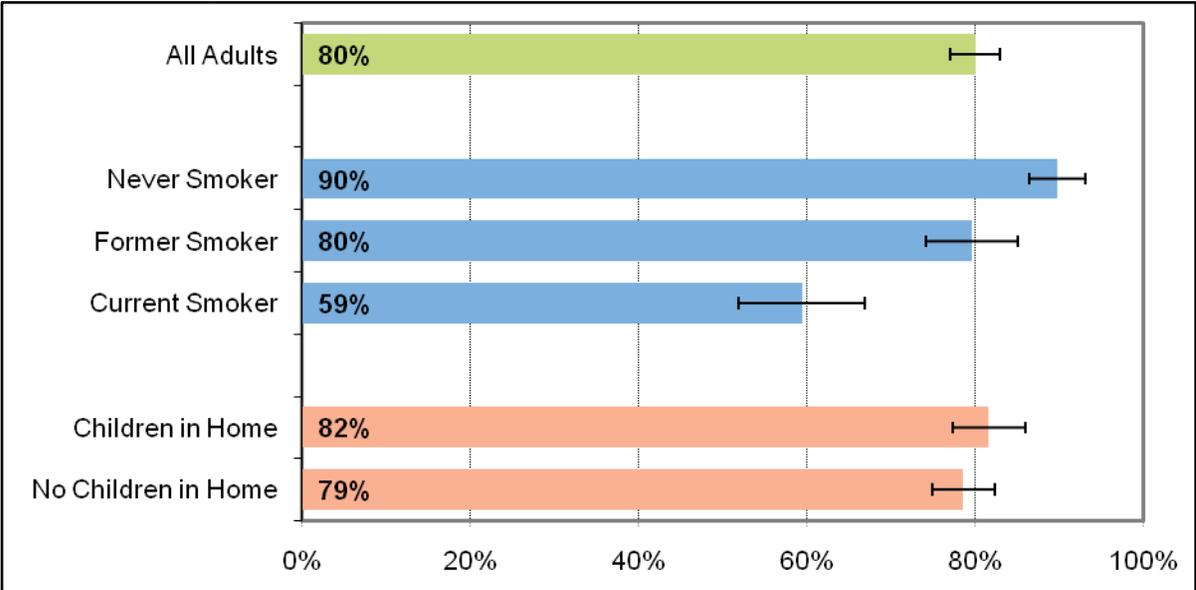
**Figure 78. Percent of Adults Who Agree that Smoking Should Not Be Allowed in Indoor Work Areas, by Selected Demographic Factors, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- About 4 in 5 Alaska adults (80.0%) support smokefree workplaces. Support is high across most groups of people.
- Support for smokefree workplaces is significantly higher among higher SES non-Native adults age 25 to 64 than those of low SES (83.8% vs 65.3%).
- Women are significantly more likely than men to support smokefree workplaces (86.0% vs 74.5%).

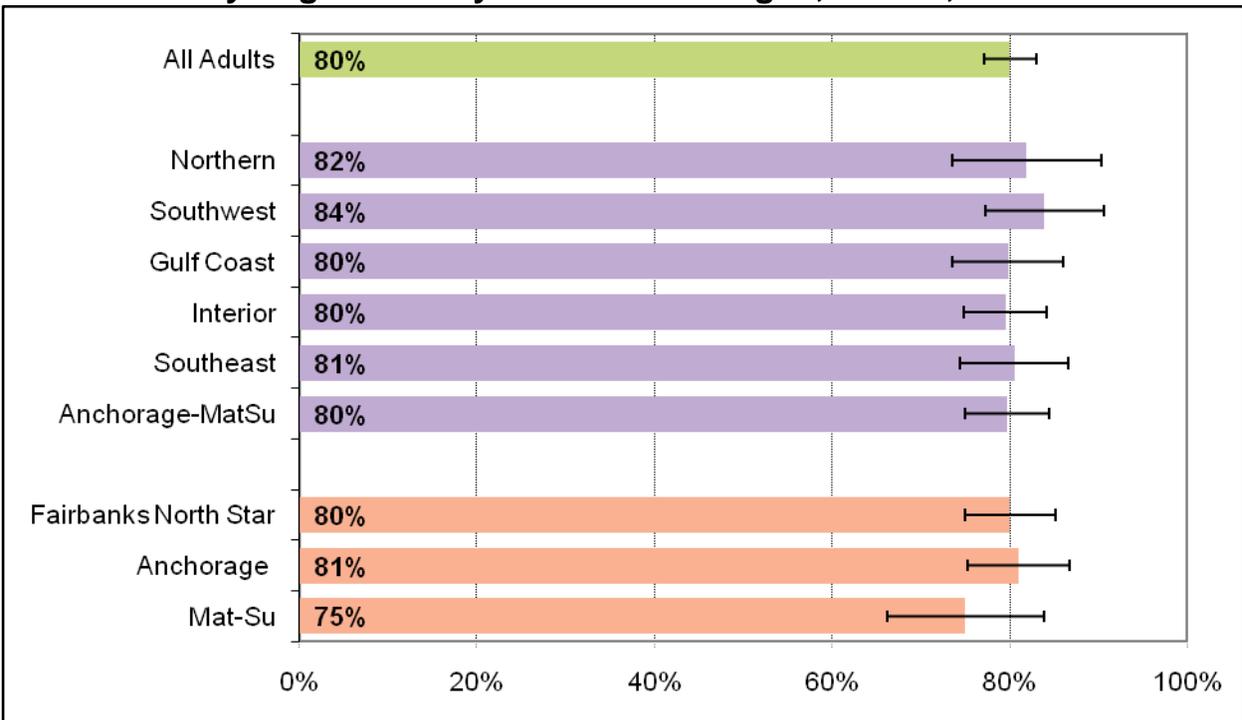
**Figure 79. Percent of Adults Who Agree that Smoking Should Not Be Allowed in Indoor Work Areas, by Smoking Status and by Presence of Children in the Home, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- Support for smokefree workplaces is significantly higher among never smokers (89.8%) than former smokers (79.6%) or current smokers (59.4%).
- Former smokers are more likely than current smokers to support smokefree workplace policies. About 4 in 5 former smokers agree that smoking should not be allowed in indoor work areas, compared to 3 in 5 current smokers.

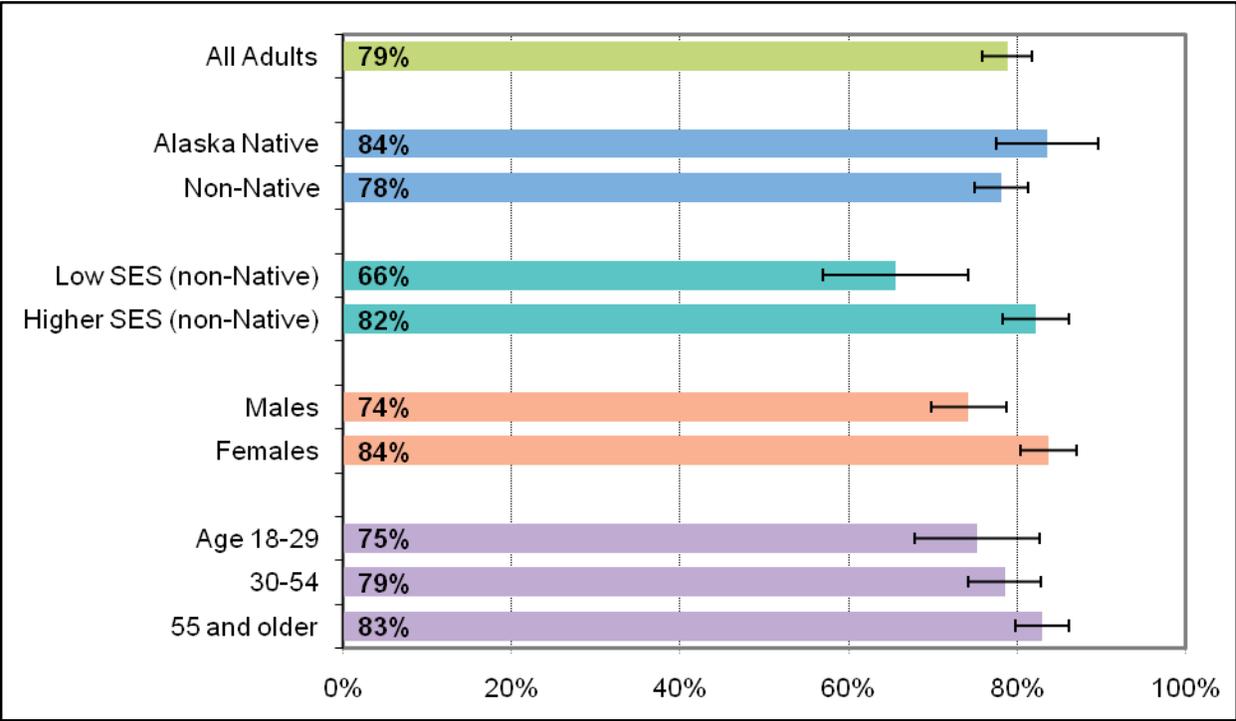
**Figure 80. Percent of Adults Who Agree that Smoking Should Not Be Allowed in Indoor Work Areas, by Region and by Selected Boroughs, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- The proportion of adults who agree that smoking should not be allowed in indoor work areas is fairly high across Alaska. There are no significant differences by region or by selected boroughs.

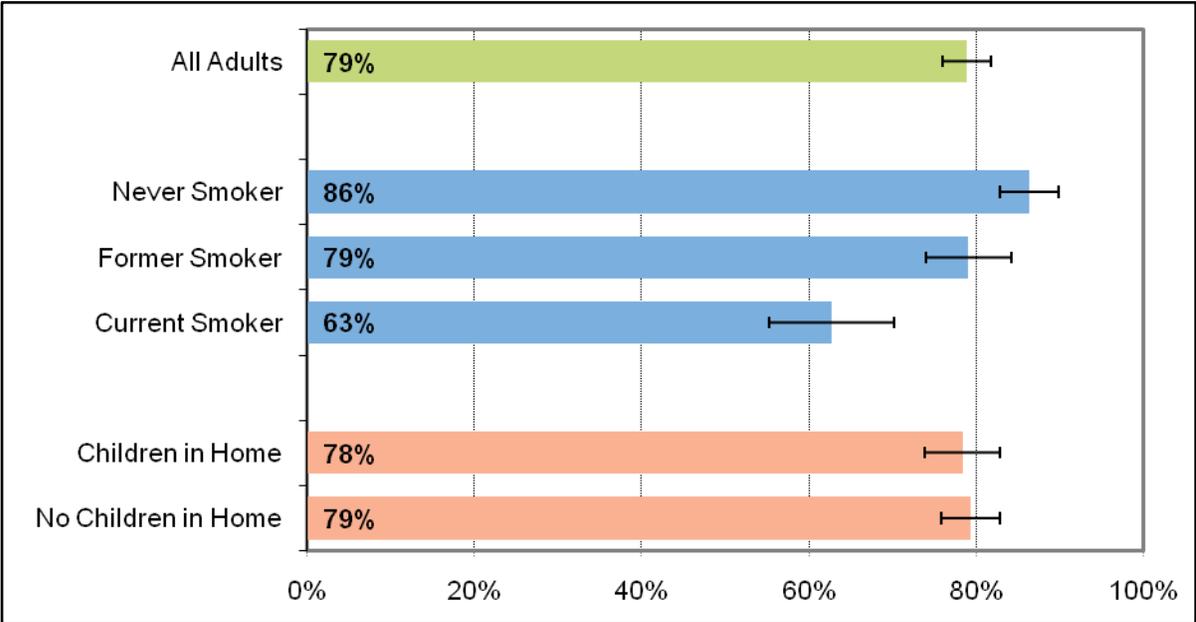
**Figure 81. Percent of Adults Who Agree that Smoking Should Not Be Allowed in Restaurants, by Selected Demographic Factors, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- Nearly 4 in 5 Alaska adults (78.9%) support smokefree restaurants. Support is high across most groups of people.
- Support for smokefree restaurants is significantly higher among higher SES non-Native adults age 25 to 64 than those of low SES (82.2% vs 65.6%).
- Women are significantly more likely than men to support smokefree workplaces (83.8% vs 74.3%).

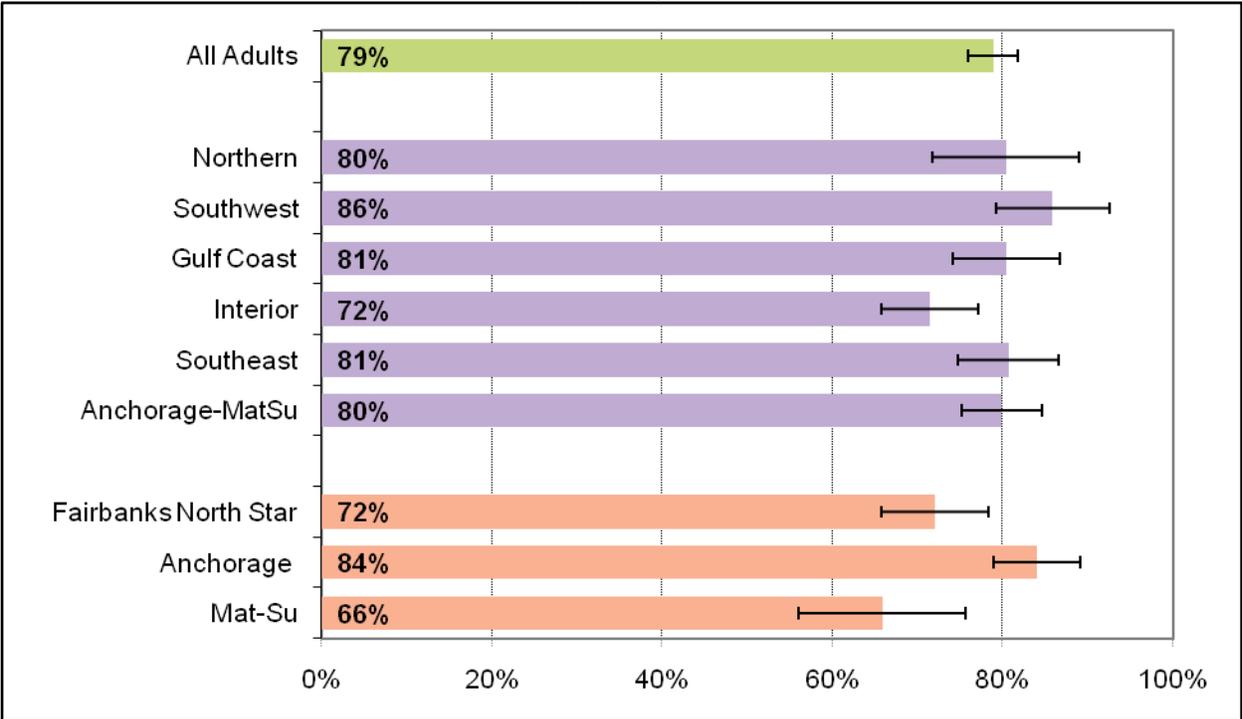
**Figure 82. Percent of Adults Who Agree that Smoking Should Not Be Allowed in Restaurants, by Smoking Status and by Presence of Children in the Home, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- Support for smokefree restaurants is significantly higher among never smokers (86.3%) than former smokers (79.1%) or current smokers (62.7%).
- Former smokers are more likely than current smokers to support smokefree restaurants. About 4 in 5 former smokers agree that smoking should not be allowed in restaurants, compared to 3 in 5 current smokers.

**Figure 83. Percent of Adults Who Agree that Smoking Should Not Be Allowed in Restaurants, by Region, Alaska, 2011**



Source: Alaska Behavioral Risk Factor Surveillance System

- Although the proportion of adults who agree that smoking should not be allowed in restaurants is fairly high across Alaska there are differences by geographic location.
- Adults in Anchorage Municipality and in Southwest Alaska are more likely than those in Mat-Su or Fairbanks North Star boroughs to agree that smoking should not be allowed in restaurants. More than 4 in 5 Anchorage residents (84.1%) and Southwest Alaska residents (85.9%) support smokefree restaurants, compared to 2 in 3 Mat-Su residents and 7 in 10 Fairbanks North Star residents.
- Adults in Anchorage Municipality and in Southwest Alaska are more likely than those in the Interior region to support smokefree restaurants.

## V. Alaska Tobacco Prevention and Control Program

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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.<sup>5</sup> The model, drawing on the tobacco prevention and control literature 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

Work to achieve the four goals is 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.

### **1) State and Community Interventions**

The overarching State and Community Interventions component has five subcategories, including: Statewide Programs, Community Programs, Tobacco-Related Disparities, Youth Programs, and Chronic Disease Programs.

#### 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:

- Technical assistance to community programs (TPCP grantees) 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

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<sup>5</sup> Centers for Disease Control and Prevention. *Best Practices for Comprehensive Tobacco Control Programs-2007*. 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; October 2007.

## 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 local media. In FY13, the TPCP funded 21 organizations in the state to provide education around the effects of tobacco use and SHS exposure and to 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.

Many communities in Alaska have developed and implemented strong policies that protect residents from exposure to secondhand smoke and discourage tobacco use. In July 2007 the Municipality of Anchorage passed a comprehensive clean indoor air ordinance that prohibits smoking in workplaces, including bars. In January of 2008 Juneau strengthened its existing workplace ordinance to include prohibitions against smoking in bars and clubs. The comprehensive policies in these two communities protect nearly half the state's workers from secondhand smoke exposure. In addition to these comprehensive policies, many other Alaska communities have passed ordinances or resolutions that restrict smoking in workplaces and public spaces.

## 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.”<sup>6</sup> The CDC recommends that state program plans include strategies to identify and eliminate tobacco-related disparities.

Alaska TPCP efforts to reduce and eliminate tobacco-related disparities were formalized in 2006 when 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 those with elevated tobacco use rates, including Alaska Native adults, adults of low socioeconomic status, and young adults age 18-29. In addition, the LEAD

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<sup>6</sup> 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.

workgroup continues tobacco prevention and control efforts with behavioral health clients, other ethnic minorities, and the Lesbian/Gay/Bisexual/Transgender population.

### Youth Prevention

Because most tobacco users begin before they are age 18, programs that prevent the uptake of smoking among young people are a recommended component of a comprehensive tobacco control effort. Local and state level policies that increase the unit price of tobacco products, create smoke-free environments, and restrict minors' access to tobacco products have been shown to contribute to the non-use of tobacco among youth.

Community and state-level organizations in Alaska have taken important steps to prevent youth from using tobacco. In 1997 the state tax on cigarettes was raised to \$1.00 per pack, and the tax rate on other tobacco products was raised from 25% to 75% of the wholesale price. In 2005 the Alaska State Legislature passed a second \$1.00 per pack cigarette tax increase that was implemented incrementally between January 2005 and July 2007. Many local government agencies also levy an additional tax on cigarettes and other tobacco products. State and local policies increasing the unit price of tobacco products have been accompanied by statewide counter-marketing efforts.

In 2007 the Alaska TPCP initiated a school-based tobacco prevention grant program. In FY13 the program funded 7 school districts to develop comprehensive school tobacco prevention programs that include a tobacco-free campus environment, prevention curricula, and outreach to communities. To promote synergy between school-based and community efforts, all funded school programs were required to be located in regions also served by the community grant program.

Additionally, in 2011 the TPCP worked with the Association of Alaska School Boards to develop a model tobacco-free campus policy. Through a contractor, the TPCP is working to assess current tobacco policies in each district and to encourage adoption of the model policy.

School and community programs to reduce youth tobacco use are supported and reinforced by statewide efforts to reduce youth access to tobacco. Through the Division of Behavioral Health, the State of Alaska conducts a statewide program to comply with the Federal Synar Amendment, which requires states to have laws in place prohibiting the sale and distribution of tobacco products to persons under age 18. Alaska is one of several states that have expanded this prohibition to persons under age 19. The Synar Amendment also requires states to collect data on vendor compliance with underage sales laws and report annually to the Secretary of Health and Human Services. States face penalties if the sales rates to minors exceed 20 percent. Since 2003 Alaska has successfully met federal requirements that illegal vendor sales not exceed 20 percent.

### Chronic Disease Programs

Tobacco use is a risk factor for many chronic diseases, including numerous types of cancers, heart disease, stroke, and respiratory illness. Programs designed to reduce or

prevent chronic disease should include tobacco prevention and control activities and may also focus on other risk factors that contribute to those illnesses.

The TPCP is located within the Section of Chronic Disease Prevention and Health Promotion (CDPHP) within the Alaska Division of Public Health. TPCP staff are involved in CDPHP strategic planning efforts and also link cessation resources available through the Alaska Tobacco Quit Line with information on other chronic conditions. Quit line staff distribute information on chronic conditions to health care providers and quit line callers.

## **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 the dangers of exposure to secondhand smoke, and contribute to decreases in youth and adult tobacco use rates.

TPCP health communications interventions include a wide range of activities, including paid television, radio, and print media. The TPCP currently has a contract for the development, acquisition, and placement of paid media. The television, radio, and print materials developed through this contract 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. In FY13 the TPCP also funded ten health care centers across Alaska to build comprehensive, sustainable health care systems that identify and treat tobacco users. 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, and to refer tobacco users to cessation services. In 2011 the TPCP launched "Mission 100", a program designed to expand the number of health care organizations and providers that routinely screen patients for tobacco use and refer them to appropriate treatment. Mission 100 provides outreach and technical assistance on implementing the U.S. Public Health Service *Clinical Guidelines for Treating Tobacco Use and Dependence* to health care organizations statewide.

#### **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 C. 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, and tobacco cessation.

Routine program evaluation efforts include monitoring of grantee progress as well as assessments of specific TPCP program components, including surveys of quit rates and satisfaction among Alaska Tobacco Quit Line clients as well as media recall and recognition surveys.

#### **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 include TPCP administrative functions.

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

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For most tables in this appendix, we present trend estimates overall and by key demographic subgroups. In addition to the estimate, we present the margin of error, represented in the column marked "+/-", and the total number of respondents (within the subgroup) who answered that question, represented in the column marked "N". The margin of error is usually defined as the "radius" (or half the width) of a confidence interval for a particular statistic from a survey. When the margin of error is added to or subtracted from the estimate, it shows the range of where the true population estimate is expected to be, at the 95% confidence level. Larger margins of error indicate that we have less confidence that the estimate is exact, whereas smaller margins indicate more precision or confidence that the estimate reflects the true percent of the population. Where the margin of error produces a 95% confidence interval that crosses 0% or 100%, we do not report margin of error, but instead report the confidence interval using a logit transformation, which is calculated to stay within the 0-100% range. Also reported in these tables is the p-value. P-values less than 0.05 indicate that a difference seen between percentages or across years is statistically significant at the 95% confidence level.

### A. Section II. Adult Tobacco Use

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

<b>Fiscal Year</b>	<b>Alaska</b>	<b>US minus Alaska</b>
<b>1996</b>	128.6	116.7
<b>1997</b>	125.9	115.7
<b>1998</b>	115.2	112.8
<b>1999</b>	102.3	107.5
<b>2000</b>	100.2	103.4
<b>2001</b>	94.0	98.8
<b>2002</b>	91.6	96.2
<b>2003</b>	90.1	89.9
<b>2004</b>	92.0	86.9
<b>2005</b>	88.0	84.4
<b>2006</b>	80.4	80.7
<b>2007</b>	78.0	78.4
<b>2008</b>	67.4	72.8
<b>2009</b>	63.7	68.9
<b>2010</b>	59.1	62.5
<b>2011</b>	58.2	60.5

Sources: Alaska Department of Revenue, Tax Division FY11 Reports; Orzechowski & Walker, *The Tax Burden on Tobacco*, 2012 (vol 46).

**Table 2: Trends in Cigarette Smoking in Alaska, 1996-2011**

Year	All Adults	±	N	Male	±	N	Female	±	N
1996	27.7%	3.4%	1530	30.8%	5.2%	712	24.2%	4.2%	818
1997	26.5%	3.3%	1543	27.2%	4.9%	716	25.8%	4.3%	827
1998	26.1%	2.6%	1986	28.3%	3.8%	922	23.7%	3.4%	1064
1999	27.3%	3.0%	2045	25.3%	3.5%	999	29.5%	4.9%	1046
2000	25.0%	2.7%	2072	26.8%	4.1%	984	23.1%	3.6%	1088
2001	26.2%	2.4%	2866	26.4%	3.6%	1356	25.9%	3.2%	1510
2002	29.4%	2.7%	2690	32.0%	4.1%	1185	26.5%	3.6%	1505
2003	26.2%	2.4%	2657	30.2%	3.6%	1228	21.9%	3.0%	1429
2004	24.3%	1.7%	5094	26.9%	2.6%	2317	21.4%	2.1%	2777
2005	24.8%	1.7%	5722	28.6%	2.6%	2665	20.8%	2.0%	3057
2006	24.0%	1.9%	4219	25.4%	2.9%	1882	22.5%	2.5%	2337
2007	24.4%	2.0%	5068	26.9%	2.9%	2305	21.7%	2.5%	2763
2008	23.8%	2.0%	4915	25.6%	2.9%	2272	21.9%	2.7%	2643
2009	21.5%	2.0%	4722	22.8%	3.1%	2130	20.0%	2.5%	2592
2010	22.2%	2.5%	3209	23.5%	3.9%	1447	20.8%	3.3%	1762
2011	22.6%	1.8%	6076	24.0%	2.5%	2773	21.1%	2.4%	3303
<b>p-value</b>	<b>&lt;0.001</b>			<b>0.01</b>			<b>&lt;0.01</b>		

Year	Alaska Native	±	N	Non-Native	±	N
1996	47.3%	8.5%	317	24.9%	3.6%	1203
1997	41.1%	7.7%	317	24.2%	3.6%	1207
1998	39.8%	6.3%	361	23.8%	2.8%	1604
1999	42.1%	7.1%	417	24.5%	3.3%	1599
2000	42.9%	7.4%	389	22.1%	2.9%	1628
2001	43.4%	6.1%	572	23.0%	2.6%	2213
2002	44.1%	6.9%	544	26.7%	3.0%	2119
2003	45.4%	6.3%	516	23.0%	2.5%	2127
2004	44.0%	4.6%	1004	20.9%	1.8%	4046
2005	40.6%	4.1%	1094	22.0%	1.8%	4565
2006	43.6%	5.3%	788	20.4%	2.0%	3376
2007	40.9%	5.1%	992	21.5%	2.2%	4003
2008	45.9%	5.3%	943	20.2%	2.2%	3909
2009	42.0%	5.7%	844	18.0%	2.0%	3807
2010	39.1%	7.1%	533	19.1%	2.7%	2598
2011	36.4%	4.5%	1049	20.3%	2.0%	4935
<b>p-value</b>	<b>0.54</b>			<b>&lt;0.001</b>		

**Table 2: Trends in Cigarette Smoking in Alaska, 1996-2011 (cont.)**

Year	Low SES	±	N	Higher SES	±	N
1996	39.3%	9.8%	197	23.2%	4.3%	832
1997	36.9%	9.7%	201	19.5%	4.0%	809
1998	33.8%	7.5%	287	21.3%	3.5%	1037
1999	32.5%	6.8%	287	21.4%	4.3%	1090
2000	28.1%	7.5%	259	20.3%	3.4%	1101
2001	35.2%	7.0%	353	20.5%	3.2%	1520
2002	44.4%	7.8%	364	21.2%	3.3%	1353
2003	40.3%	7.4%	368	20.2%	3.0%	1371
2004	34.8%	5.0%	708	18.4%	2.0%	2620
2005	39.0%	5.1%	792	18.5%	2.1%	2927
2006	38.1%	6.6%	469	16.1%	2.0%	2244
2007	34.0%	5.7%	572	18.7%	2.4%	2704
2008	35.8%	5.9%	574	17.0%	2.4%	2642
2009	30.1%	5.5%	605	16.1%	2.4%	2429
2010	32.0%	7.3%	405	17.4%	3.3%	1669
2011	38.1%	5.1%	837	14.6%	2.0%	2960
<b>p-value</b>	0.19			<b>&lt;0.001</b>		

Year	Ages 18-29	±	N	Ages 30-54	±	N	Ages 55+	±	N
1996	27.7%	7.3%	250	29.6%	4.3%	1000	21.4%	8.0%	270
1997	31.6%	7.5%	260	26.8%	4.3%	968	19.2%	6.5%	303
1998	31.8%	5.5%	397	25.7%	3.3%	1219	19.4%	5.6%	360
1999	32.4%	6.2%	370	28.1%	4.2%	1284	18.5%	5.6%	381
2000	31.9%	7.1%	376	25.1%	3.4%	1285	17.0%	5.1%	399
2001	32.5%	5.8%	545	27.5%	3.2%	1703	14.3%	3.8%	584
2002	39.4%	7.0%	459	27.6%	3.3%	1579	22.4%	5.4%	638
2003	29.9%	5.6%	466	27.9%	3.3%	1518	18.3%	3.8%	650
2004	31.0%	4.4%	890	24.7%	2.2%	2875	16.8%	2.8%	1278
2005	30.9%	4.4%	927	26.5%	2.3%	3168	14.9%	2.4%	1578
2006	34.4%	5.6%	607	22.9%	2.3%	2246	16.7%	2.8%	1301
2007	33.1%	5.5%	767	24.7%	2.5%	2706	15.3%	2.7%	1538
2008	31.3%	5.5%	676	24.8%	2.5%	2500	15.2%	2.5%	1684
2009	26.7%	5.5%	581	21.8%	2.7%	2352	15.9%	2.5%	1731
2010	31.7%	7.4%	339	22.0%	3.3%	1532	14.0%	2.7%	1295
2011	27.1%	4.7%	708	24.4%	2.4%	2798	15.9%	2.2%	2490
<b>p-value</b>	0.52			<b>0.02</b>			0.26		

**Table 2: Trends in Cigarette Smoking in Alaska, 1996-2011 (cont.)**  
**By Public Health Region**

Year	Northern	±	N	South-west	±	N	Gulf Coast	±	N
1998	47%	9.6%	133	34%	7.6%	206	30%	5.4%	415
1999	46%	13.7%	109*	35%	7.7%	228	29%	5.1%	397
2000	47%	11.4%	127	25%	7.0%	218	24%	5.1%	407
2001	45%	7.8%	221	35%	6.5%	315	31%	4.9%	545
2002	55%	10.0%	197	32%	7.1%	275	31%	4.6%	572
2003	45%	9.0%	166	41%	7.3%	257	23%	4.3%	511
2004	41%	6.1%	342	34%	4.8%	535	26%	3.0%	1100
2005	51%	6.1%	331	35%	4.7%	584	21%	2.6%	1223
2006	43%	7.4%	245	43%	6.2%	374	27%	3.5%	868
2007	46%	7.1%	312	33%	5.9%	524	24%	3.7%	1028
2008	51%	6.9%	308	38%	6.3%	491	27%	3.7%	997
2009	45%	8.2%	260	28%	5.9%	418	21%	3.7%	974
2010	47%	10.2%	162	34%	7.8%	297	19%	3.9%	665
2011	45%	8.2%	312	36%	7.1%	505	25%	4.3%	1088
<b>p-value</b>	0.61			<b>0.05</b>			<b>&lt;0.001</b>		

Year	Interior	±	N	South-east	±	N	Anchorage/ MatSu	±	N
1998	26%	4.7%	434	24%	4.7%	398	23%	4.4%	403
1999	29%	4.5%	498	27%	5.2%	411	25%	5.3%	407
2000	25%	4.1%	468	26%	5.0%	432	24%	4.7%	424
2001	24%	3.5%	673	27%	4.2%	564	24%	4.1%	552
2002	27%	4.3%	602	26%	4.3%	542	28%	4.8%	509
2003	26%	3.7%	635	24%	4.0%	538	25%	4.1%	553
2004	22%	2.5%	1208	23%	3.2%	860	23%	2.8%	1061
2005	22%	2.7%	1261	21%	2.7%	1140	24%	2.9%	1191
2006	22%	3.1%	978	23%	3.5%	810	21%	3.2%	951
2007	27%	3.7%	1139	23%	3.3%	1038	22%	3.3%	1027
2008	22%	3.3%	1165	25%	3.9%	919	21%	3.3%	1034
2009	26%	3.5%	1131	21%	3.5%	957	18%	3.3%	994
2010	21%	4.3%	770	26%	5.3%	676	20%	4.5%	645
2011	22%	3.7%	1284	23%	4.5%	1123	20%	2.5%	1764
<b>p-value</b>	0.07			0.43			<b>0.04</b>		

**Table 2: Trends in Cigarette Smoking in Alaska, 1996-2011 (cont.)**  
**By Selected Boroughs**

Year	Fairbanks North Star	±	N	Anchorage	±	N	MatSu	±	N
1998	27%	5.1%	362	22%	4.8%	327	*	*	76
1999	27%	4.9%	392	23%	4.9%	341	*	*	66
2000	23%	4.5%	383	22%	5.2%	345	*	*	79
2001	23%	3.9%	551	22%	4.6%	437	*	*	115
2002	25%	4.5%	495	26%	5.2%	415	*	*	94
2003	23%	4.0%	523	24%	4.6%	430	28%	8.9%	123
2004	21%	2.8%	979	22%	3.3%	817	25%	5.9%	244
2005	21%	3.0%	1022	23%	3.2%	918	31%	6.5%	273
2006	21%	3.4%	797	18%	3.2%	739	32%	8.3%	212
2007	26%	3.9%	921	20%	3.9%	759	29%	7.1%	268
2008	20%	3.7%	932	18%	3.5%	754	27%	6.9%	280
2009	26%	3.9%	928	16%	3.7%	741	26%	6.9%	252
2010	18%	4.1%	625	17%	4.9%	489	29%	9.6%	156
2011	20%	4.3%	1010	19%	3.1%	1063	23%	4.3%	701
<b>p-value</b>	<b>0.04</b>			<b>0.04</b>			0.37		

Source: Alaska Behavioral Risk Factor Surveillance System

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

Note that estimates for MatSu are only reported from 2003 to present.

**Table 3: Trends in the Quit Ratio in Alaska: Percent of Former Smokers Among Adults age 25 or older Who Were Ever Smokers, 1996-2011**

Year	All Adults	±	N	Male	±	N	Female	±	N
1996	50.8%	5.4%	801	50.4%	7.5%	401	51.3%	7.6%	400
1997	52.7%	5.4%	754	56.0%	7.4%	388	48.3%	7.9%	366
1998	51.4%	4.4%	938	52.6%	6.1%	485	49.8%	6.3%	453
1999	51.4%	4.9%	1033	55.4%	6.2%	523	47.1%	7.5%	510
2000	55.4%	4.5%	987	55.7%	6.1%	499	55.1%	6.8%	488
2001	54.1%	4.0%	1443	57.3%	5.7%	745	49.9%	5.2%	698
2002	50.5%	4.2%	1343	50.5%	5.7%	668	50.4%	6.2%	675
2003	51.7%	3.9%	1319	50.5%	5.4%	677	53.4%	5.7%	642
2004	53.2%	2.8%	2442	53.2%	4.0%	1244	53.3%	4.0%	1198
2005	53.6%	2.7%	2769	51.4%	3.9%	1423	56.4%	3.6%	1346
2006	57.7%	2.9%	2136	60.1%	4.1%	1073	54.7%	4.2%	1063
2007	55.5%	3.1%	2460	54.6%	4.3%	1237	56.7%	4.3%	1223
2008	56.8%	2.9%	2503	57.8%	4.1%	1290	55.5%	4.3%	1213
2009	59.0%	3.3%	2324	59.7%	4.7%	1158	58.1%	4.3%	1166
2010	56.8%	4.1%	1551	56.0%	6.1%	765	57.6%	5.7%	786
2011	57.6%	2.7%	2974	58.6%	3.9%	1511	56.1%	4.1%	1463
<b>p-value</b>	<b>&lt;0.01</b>			<b>0.03</b>			0.131		

Year	Alaska Native	±	N	Non-Native	±	N
1996	34.4%	11.0%	187	53.5%	6.0%	608
1997	43.7%	10.8%	180	54.7%	6.2%	563
1998	40.2%	8.7%	203	53.9%	5.1%	726
1999	40.5%	9.2%	260	54.1%	5.7%	758
2000	42.7%	10.5%	228	58.5%	5.0%	728
2001	42.1%	8.1%	351	57.0%	4.5%	1043
2002	40.7%	8.6%	335	52.6%	4.7%	991
2003	41.6%	8.0%	328	53.9%	4.5%	984
2004	38.3%	5.5%	600	56.8%	3.2%	1820
2005	42.3%	5.8%	649	56.3%	3.1%	2087
2006	39.1%	6.0%	489	62.1%	3.4%	1620
2007	45.7%	6.1%	606	57.4%	3.5%	1820
2008	38.8%	5.9%	613	60.6%	3.5%	1853
2009	42.6%	6.3%	532	62.7%	3.7%	1753
2010	43.5%	8.8%	340	60.0%	4.7%	1172
2011	46.1%	6.3%	639	60.3%	3.1%	2294
<b>p-value</b>	0.88			<b>&lt;0.01</b>		

**Table 3: Trends in the Quit Ratio in Alaska: Percent of Former Smokers Among Adults age 25 or older Who Were Ever Smokers, 1996-2011 (cont.)**

Year	Low SES	±	N	Higher SES	±	N
1996	32.8%*	12.2%	116*	56.8%	7.0%	443
1997	41.6%*	12.8%	124*	56.2%	7.5%	379
1998	37.9%	10.3%	164	54.3%	6.3%	491
1999	40.2%	11.3%	169	56.1%	7.2%	534
2000	52.5%	12.1%	149	56.7%	6.1%	514
2001	34.9%	8.6%	214	59.0%	5.4%	764
2002	27.5%	7.8%	224	58.0%	5.7%	648
2003	33.9%	8.6%	216	57.5%	5.4%	650
2004	41.7%	6.9%	425	57.9%	3.9%	1190
2005	37.5%	6.2%	485	58.9%	3.8%	1329
2006	40.4%	7.8%	308	64.5%	4.0%	1059
2007	44.2%	7.6%	344	58.8%	4.3%	1213
2008	40.0%	7.4%	366	63.4%	4.3%	1186
2009	48.8%	8.2%	350	63.8%	4.7%	1076
2010	43.3%	9.8%	236	60.4%	6.1%	710
2011	36.4%	6.3%	519	67.8%	3.9%	1288
<b>p-value</b>	0.06			<b>&lt;0.01</b>		

Year	Ages 18-29	±	N	Ages 30-54	±	N	Ages 55+	±	N
1996	38.5%*	15.9%	64*	47.6%	6.4%	564	66.2%	11.8%	169
1997	43.6%*	18.8%	52*	48.0%	6.6%	505	68.5%	9.8%	188
1998	36.3%	12.2%	92	48.4%	5.4%	624	67.2%	8.8%	214
1999	41.1%	13.0%	96	44.9%	6.0%	691	71.2%	8.6%	238
2000	42.2%	14.6%	87	50.5%	5.7%	662	72.4%	7.9%	232
2001	46.3%	14.3%	127	47.2%	4.8%	940	75.2%	6.1%	352
2002	32.1%	13.2%	106	49.3%	5.1%	854	61.6%	7.9%	374
2003	43.7%	12.5%	128	47.1%	5.1%	811	66.7%	6.3%	367
2004	32.3%	8.6%	234	49.4%	3.7%	1481	69.2%	4.7%	697
2005	36.9%	8.0%	242	48.1%	3.6%	1606	72.1%	4.2%	898
2006	38.0%	10.5%	159	52.9%	4.0%	1160	72.3%	4.4%	780
2007	37.1%	10.0%	210	50.4%	4.1%	1354	72.5%	4.7%	868
2008	37.5%	9.4%	228	50.9%	4.3%	1256	73.9%	3.9%	991
2009	42.0%	12.5%	157	53.5%	4.7%	1134	73.3%	3.9%	1005
2010	24.8%*	11.6%	101*	54.8%	5.5%	738	73.4%	4.9%	692
2011	38.7%	10.6%	174	51.9%	3.9%	1378	71.7%	3.5%	1381
<b>p-value</b>	0.84			0.39			0.32		

**Table 3: Trends in the Quit Ratio in Alaska: Percent of Former Smokers Among Adults age 25 or older Who Were Ever Smokers, 1996-2011 (cont.)**

**By Public Health Region**

Year	Northern	±	N	South-west	±	N	Gulf Coast	±	N
1998	35%	12.2%	77	42%	9.9%	118	45%	7.6%	228
1999	39%*	17.6%	68*	38%	10.6%	130	46%	7.5%	224
2000	35%	12.9%	78	52%	13.4%	110*	52%	9.0%	198
2001	38%	9.4%	134	43%	9.2%	187	47%	7.0%	314
2002	23%	8.6%	119	41%	9.3%	148	45%	6.4%	316
2003	34%	9.8%	104	35%	8.5%	162	54%	7.0%	267
2004	40%	7.8%	199	41%	6.4%	312	47%	4.8%	553
2005	30%	7.4%	190	38%	6.0%	329	58%	4.3%	647
2006	43%	9.2%	148	33%	6.9%	228	52%	5.2%	489
2007	34%	8.6%	169	47%	7.6%	271	57%	5.7%	509
2008	31%	7.8%	182	44%	8.2%	261	55%	4.9%	522
2009	29%	8.4%	144	56%	8.6%	209	62%	5.3%	491
2010	33%	6.7%	100	46%	10.0%	159	59%	6.9%	301
2011	31%	8.8%	165	41%	9.0%	270	51%	6.3%	539
p-value	0.26			0.54			<0.01		

Year	Interior	±	N	South-east	±	N	Anchorage/ MatSu	±	N
1998	55%	8.0%	186	50%	7.9%	191	52%	7.9%	181
1999	50%	6.9%	244	51%	7.6%	224	54%	9.2%	180
2000	51%	7.3%	222	51%	7.6%	222	59%	7.7%	199
2001	61%	6.1%	320	48%	6.3%	306	56%	7.1%	261
2002	53%	7.1%	263	55%	6.5%	309	52%	7.3%	245
2003	49%	6.3%	293	53%	6.5%	283	53%	6.9%	262
2004	52%	4.7%	545	57%	5.0%	463	54%	5.0%	476
2005	55%	4.7%	547	59%	4.4%	611	53%	4.7%	546
2006	57%	5.1%	469	55%	5.5%	436	62%	5.2%	443
2007	51%	5.1%	525	59%	5.1%	525	58%	5.5%	461
2008	59%	5.3%	564	57%	5.5%	490	60%	5.5%	483
2009	53%	5.3%	554	65%	5.1%	499	62%	6.1%	427
2010	62%	6.5%	371	54%	6.7%	329	59%	7.4%	291
2011	60%	5.9%	612	58%	7.1%	559	62%	4.5%	829
p-value	0.04			0.14			0.08		

**Table 3: Trends in the Quit Ratio in Alaska: Percent of Former Smokers Among Adults age 25 or older Who Were Ever Smokers, 1996-2011 (cont.)**

**By Selected Boroughs**

Year	Fairbanks North Star	±	N	Anchorage	±	N	MatSu	±	N
1998	49%	7.7%	199	51%	9.0%	138	*	*	44*
1999	47%	7.5%	202	55%	9.2%	149	*	*	33*
2000	51%	7.7%	188	60%	8.7%	158	*	*	47*
2001	55%	6.6%	277	59%	8.1%	203	*	*	61
2002	48%	7.3%	238	56%	8.2%	191	*	*	58
2003	49%	7.0%	239	55%	7.9%	199	45%	13.2%	64
2004	53%	5.1%	454	55%	5.9%	351	50%	9.6%	130
2005	52%	5.3%	461	54%	5.5%	399	49%	8.9%	160
2006	55%	5.8%	392	64%	5.9%	334	45%	10.5%	121
2007	52%	5.9%	405	59%	6.9%	322	57%	9.6%	139
2008	61%	5.7%	430	60%	6.5%	340	61%	9.8%	143
2009	51%	5.9%	435	65%	7.3%	308	53%	11.0%	119
2010	65%	7.1%	283	61%	9.2%	207	51%	12.7%	84
2011	61%	6.9%	448	63%	5.5%	468	58%	6.9%	361
<b>p-value</b>	0.06			0.22			0.47		

Source: Alaska Behavioral Risk Factor Surveillance System

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

Note that estimates for MatSu are only reported from 2003 to present.

**Table 4: Trends in Smokeless Tobacco Use in Alaska, 1996-2011**

Year	All Adults	±	N	Male	±	N	Female	±	N
1996	4.1%	1.3%	1506	6.8%	2.4%	699	1.1%	0.5%	807
1997	5.6%	1.7%	1543	9.2%	3.1%	715	1.6%	1.0%	828
1998	5.4%	1.4%	1989	8.6%	2.5%	924	1.9%	0.9%	1065
1999	5.4%	1.3%	2050	8.7%	2.3%	1001	1.7%	0.9%	1049
2000	5.7%	1.6%	2079	9.5%	2.9%	985	1.7%	0.6%	1094
2001	6.1%	1.3%	2873	10.2%	2.5%	1357	1.8%	0.7%	1516
2002	6.6%	1.4%	2692	11.2%	2.6%	1186	1.8%	0.6%	1506
2003	N/A			N/A			N/A		
2004	4.4%	1.2%	2462	7.5%	2.2%	1103	1.0%	0.7%	1359
2005	5.0%	0.9%	5343	8.6%	1.6%	2489	1.0%	0.3%	2854
2006	4.7%	0.9%	4124	7.8%	1.7%	1835	1.4%	0.5%	2289
2007	5.2%	1.0%	4939	9.0%	1.8%	2244	1.2%	0.4%	2695
2008	5.2%	1.0%	4772	8.6%	1.8%	2190	1.6%	0.6%	2582
2009	4.8%	1.0%	4560	8.4%	1.8%	2037	0.9%	0.4%	2523
2010	5.2%	1.2%	2901	8.2%	2.4%	1295	1.9%	0.8%	1606
2011	5.9%	1.0%	6119	9.7%	1.6%	2800	1.7%	0.8%	3319
p-value	0.37			0.66			0.15		

Year	Alaska Native	±	N	Non-Native	±	N
1995-1997	11.5%	2.6%	928	4.6%	1.0%	3604
1996-1998	12.5%	2.8%	988	3.9%	0.9%	4000
1997-1999	12.8%	2.7%	1101	4.3%	0.9%	4411
1998-2000	13.5%	2.5%	1176	4.3%	0.9%	4836
1999-2001	14.6%	2.6%	1389	4.3%	0.8%	5446
2000-2002	14.3%	2.5%	1516	4.9%	0.9%	5964
2001-2002	14.6%	3.1%	1123	5.0%	1.0%	4333
2003	N/A			N/A		
2002&2004	11.0%	3.1%	1008	4.6%	0.9%	4094
2004-05	10.6%	3.0%	1486	3.7%	0.7%	6233
2005-06	10.6%	1.8%	1783	3.8%	0.7%	7570
2006-07	11.9%	2.2%	1696	3.8%	0.8%	7241
2007-08	12.6%	2.2%	1830	4.0%	0.8%	7750
2008-09	11.5%	2.0%	1693	3.9%	0.8%	7514
2009-10	13.9%	2.7%	1259	3.5%	0.8%	6061
2011	12.4%	2.7%	1061	4.8%	1.0%	4970
p-value	0.27			0.48		

**Table 4: Trends in Smokeless Tobacco Use in Alaska, 1996-2011 (cont.)**

Year	Low SES	±	N	Higher SES	±	N
1995-1997	3.9%	2.4%	574	4.3%	1.2%	2483
1996-1998	2.6%	1.8%	680	3.9%	1.1%	2671
1997-1999	2.8%	1.8%	776	4.1%	1.1%	2937
1998-2000	1.8%	1.0%	834	4.9%	1.2%	3230
1999-2001	2.0%	1.0%	900	5.2%	1.2%	3713
2000-2002	3.8%	2.1%	975	5.5%	1.2%	3975
2001-2002	5.5%	3.2%	716	5.3%	1.3%	2873
2003	N/A			N/A		
2002&2004	5.1%	3.1%	701	4.4%	1.1%	2641
2004-05	4.0%	2.0%	1065	3.2%	0.7%	4038
2005-06	4.6%	2.2%	1189	3.8%	0.8%	4961
2006-07	3.6%	1.8%	1020	4.3%	0.8%	4878
2007-08	3.1%	1.6%	1119	4.8%	1.0%	5236
2008-09	4.4%	2.2%	1143	4.5%	1.0%	4937
2009-10	4.1%	2.2%	940	3.6%	0.8%	3884
2011	4.2%	1.8%	841	5.1%	1.4%	2982
p-value	<b>0.01</b>			0.37		

Year	Ages 18-29	±	N	Ages 30-54	±	N	Ages 55+	±	N
1996	5.0%	3.0%	246	4.0%	1.7%	982	3.2%	2.2%	269
1997	8.0%	4.6%	260	4.1%	1.8%	970	6.7%	4.4%	302
1998	8.8%	3.5%	397	4.6%	1.8%	1220	2.7%	1.8%	362
1999	6.4%	3.1%	372	5.7%	1.7%	1286	3.1%	2.0%	381
2000	6.7%	2.8%	375	6.6%	2.4%	1288	2.2%	1.3%	404
2001	7.0%	2.5%	546	7.3%	2.1%	1706	2.1%	1.3%	587
2002	9.0%	4.0%	460	7.5%	1.9%	1579	1.3%	0.7%	639
2003	N/A			N/A			N/A		
2004	6.6%	3.2%	430	4.8%	1.7%	1413	1.6%	1.3%	590
2005	7.2%	2.5%	866	5.2%	1.2%	2949	1.7%	0.7%	1482
2006	6.9%	3.0%	587	5.1%	1.1%	2197	1.7%	0.6%	1281
2007	6.7%	2.5%	744	5.7%	1.4%	2647	2.9%	1.2%	1495
2008	5.3%	2.2%	647	6.6%	1.6%	2448	2.4%	0.8%	1631
2008-09	5.0%	1.4%	1208	6.2%	1.2%	4713	2.7%	0.8%	3311
2009-10	5.9%	2.2%	865	5.6%	1.2%	3640	3.1%	0.8%	2862
2011	8.1%	2.5%	713	6.9%	1.4%	2811	2.3%	0.8%	2516
p-value	0.64			0.09			<b>0.02</b>		

**Table 4: Trends in Smokeless Tobacco Use in Alaska, 1996-2011 (cont.)**

<b>Year</b>	<b>Smokers</b>	<b>±</b>	<b>N</b>	<b>Former Smokers</b>	<b>±</b>	<b>N</b>	<b>Never Smokers</b>	<b>±</b>	<b>N</b>
<b>1996</b>	3.6%	2.2%	443	6.2%	3.6%	395	3.2%	1.3%	663
<b>1997</b>	1.2%	0.8%	403	8.1%	4.3%	414	6.7%	2.8%	724
<b>1998</b>	7.1%	2.7%	549	6.0%	3.1%	505	4.0%	1.9%	932
<b>1999</b>	3.2%	1.5%	592	8.4%	3.2%	532	5.0%	1.9%	921
<b>2000</b>	4.9%	2.6%	536	4.6%	1.9%	542	6.9%	2.8%	990
<b>2001</b>	7.0%	3.2%	819	8.2%	3.2%	779	4.4%	1.3%	1266
<b>2002</b>	6.6%	3.0%	753	8.6%	3.2%	714	5.6%	1.7%	1221
<b>2003</b>	N/A			N/A			N/A		
<b>2004</b>	4.1%	2.3%	611	4.6%	2.0%	642	4.3%	1.8%	1194
<b>2005</b>	5.2%	1.9%	1312	6.3%	2.0%	1461	4.1%	1.1%	2540
<b>2006</b>	7.0%	2.9%	1000	5.3%	1.5%	1206	3.2%	1.0%	1896
<b>2007</b>	7.6%	2.7%	1062	6.6%	2.2%	1440	3.5%	1.0%	2395
<b>2008</b>	5.1%	2.0%	1057	6.1%	1.8%	1449	4.5%	1.4%	2238
<b>2009</b>	6.3%	2.5%	897	6.2%	2.2%	1427	3.4%	1.0%	2194
<b>2010</b>	8.2%	4.1%	563	5.9%	2.0%	858	3.5%	1.2%	1457
<b>2011</b>	8.1%	2.4%	1264	7.6%	2.2%	1842	4.0%	1.2%	2965
<b>p-value</b>	<b>&lt;0.001</b>			<b>0.50</b>			<b>0.03</b>		

**By Public Health Region**

<b>Year</b>	<b>Northern</b>	<b>±</b>	<b>N</b>
<b>1997-99</b>	7.7%	4.3%	370
<b>1998-2000</b>	5.6%	2.7%	372
<b>1999-2001</b>	6.2%	2.7%	459
<b>2000-2002</b>	7.0%	2.7%	545
<b>2001-2002</b>	7.7%	3.3%	418
<b>2003</b>	N/A		
<b>2002&amp;2004</b>	7.0%	3.5%	356
<b>2004-05</b>	6.5%	3.3%	466
<b>2005-06</b>	6.1%	2.5%	542
<b>2006-07</b>	6.7%	2.7%	528
<b>2007-08</b>	7.2%	2.9%	583
<b>2008-09</b>	7.9%	3.1%	541
<b>2009-10</b>	7.2%	4.1%	384
<b>2011</b>	9.1%	4.1%	313
<b>p-value</b>	<b>0.61</b>		

**Table 4: Trends in Smokeless Tobacco Use in Alaska, 1996-2011 (cont.)  
By Public Health Region (cont.)**

Year	South-west	±	N	Gulf Coast	±	N
1998	20.3%	6.7%	207	3.2%	2.2%	415
1999	19.9%	6.4%	228	3.4%	2.0%	399
2000	28.2%	7.4%	220	4.2%	2.4%	408
2001	25.8%	6.5%	318	8.2%	3.4%	547
2002	23.0%	6.2%	278	7.5%	3.2%	572
2003	N/A			N/A		
2004	16.9%	5.4%	250	4.9%	2.6%	515
2005	19.7%	4.1%	551	4.1%	1.3%	1150
2006	22.3%	5.4%	361	5.8%	2.0%	855
2007	25.7%	5.9%	503	5.9%	2.0%	1003
2008	27.0%	5.5%	475	4.3%	1.8%	968
2008-09	21.4%	3.7%	862	4.5%	1.2%	1906
2009-10	23.7%	5.1%	645	5.4%	1.6%	1545
2011	21.5%	4.7%	512	9.8%	3.9%	1094
p-value	<b>0.05</b>			<b>0.01</b>		

Year	Interior	±	N	South-east	±	N	Anchorage/ MatSu	±	N
1998	6.0%	2.5%	435	4.6%	2.5%	398	4.1%	2.4%	403
1999	5.2%	2.5%	498	5.9%	2.8%	412	4.3%	2.1%	407
2000	4.2%	1.8%	468	4.7%	2.5%	432	4.5%	2.7%	428
2001	5.6%	2.0%	676	3.1%	1.7%	563	4.2%	2.2%	552
2002	5.7%	2.2%	602	4.8%	2.3%	542	5.5%	2.4%	508
2003	N/A			N/A			N/A		
2004	4.5%	2.0%	580	4.1%	2.5%	421	2.8%	1.9%	540
2005	5.2%	1.6%	1183	3.6%	1.4%	1055	3.8%	1.5%	1103
2006	4.6%	1.8%	955	4.4%	1.6%	794	2.7%	1.4%	930
2007	4.5%	1.6%	1112	4.2%	1.4%	1011	3.6%	1.6%	1017
2008	5.3%	1.6%	1134	2.5%	1.0%	892	3.7%	1.6%	1012
2008-09	6.0%	1.4%	2224	3.4%	1.0%	1828	3.4%	1.0%	1969
2009-10	6.2%	1.8%	1785	3.5%	1.2%	1555	2.8%	1.2%	1546
2011	6.9%	2.5%	1294	4.2%	2.0%	1135	3.6%	1.2%	1773
p-value	0.76			0.38			0.77		

**Table 4: Trends in Smokeless Tobacco Use in Alaska, 1996-2011 (cont.)  
By Selected Boroughs**

Year	Fairbanks North Star	±	N
1998	5.5%	2.5%	387
1999	5.1%	2.0%	392
2000	4.0%	2.0%	383
2001	4.6%	2.0%	552
2002	5.9%	2.5%	495
2003	N/A		
2004	4.4%	2.2%	481
2005	4.9%	1.8%	954
2006	4.2%	1.8%	778
2007	4.6%	1.8%	901
2008	4.5%	1.6%	906
2008-09	5.3%	1.4%	1807
2009-10	5.6%	1.0%	1461
2011	6.4%	2.5%	1016
p-value	0.91		

Year	Anchorage	±	N	MatSu	±	N
1997-99	4.4%	1.6%	904	4.2%	2.9%	213
1998-2000	4.2%	1.5%	1017	4.6%	3.2%	221
1999-2001	4.3%	1.5%	1127	4.4%	2.9%	260
2000-2002	4.4%	1.5%	1200	6.1%	3.6%	288
2001-2002	4.4%	1.7%	851	6.8%	4.7%	209
2003	N/A			N/A		
2002&2004	3.5%	1.6%	828	6.4%	4.2%	220
2004-05	2.9%	1.4%	1259	4.3%	2.6%	384
2005-06	2.6%	1.0%	1564	5.0%	2.7%	469
2006-07	2.4%	1.0%	1472	5.6%	2.9%	475
2007-08	3.0%	1.2%	1491	5.4%	2.7%	538
2008-09	2.7%	1.0%	1449	5.0%	2.7%	520
2009-10	2.0%	1.0%	1160	5.3%	3.7%	386
2011	3.0%	1.4%	1069	5.3%	2.5%	704
p-value	0.44			0.98		

Source: Alaska Behavioral Risk Factor Surveillance System

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

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

Note that because estimates for some groups and regions are reported using combined year rolling averages, the N (numerator) is higher and the estimates are more stable.

**Table 5: Trends in Maternal Smoking in the Last Three Months of Pregnancy, Alaska, 1996-2010**

Year	All Mothers	±	N	Alaska Native	±	N	Non-Native	±	N
1996	21.6%	2.5%	1264	33%	3.8%	512	18%	3.1%	752
1997	17.6%	2.2%	1331	29%	3.6%	542	14%	2.7%	789
1998	18.3%	2.2%	1348	33%	3.4%	588	14%	2.7%	760
1999	16.7%	2.1%	1400	29%	3.3%	618	13%	2.5%	782
2000	16.8%	2.1%	1371	29%	3.3%	618	13%	2.5%	753
2001	14.7%	1.9%	1417	28%	3.1%	640	10%	2.3%	777
2002	17.7%	2.1%	1488	29%	3.1%	658	14%	2.5%	830
2003	16.8%	2.1%	1506	26%	2.9%	677	14%	2.6%	829
2004	17.3%	2.4%	1241	31%	3.9%	514	13%	3.0%	727
2005	16.1%	2.3%	1251	28%	3.7%	523	12%	2.8%	728
2006	14.8%	2.2%	1221	28%	3.9%	476	11%	2.6%	745
2007	15.4%	2.2%	1331	31%	3.8%	517	10%	2.6%	814
2008	15.1%	2.3%	1206	30%	3.9%	501	10%	2.8%	705
2009	15.3%	2.2%	1152	31%	4.4%	427	10%	2.6%	725
2010	16.8%	2.7%	1077	30%	4.4%	399	13%	3.3%	678
<b>p-value</b>	<b>&lt;0.001</b>			0.65			<b>&lt;0.001</b>		

Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS)

Note: See introductory paragraph on p 92 for additional information

**Table 6: Trends in Maternal Smokeless Tobacco Use during Pregnancy, including Chew or Snuff Use, Alaska, 1996-2003**

Year	All Mothers	95% CI	N	Alaska Native	95% CI	N	Non-Native	95% CI	N
1996	6.5%	5.6-7.7%	1039	26.7%	22.6-30.8%	410	0.3%	0.1-1.5%	625
1997	5.9%	5.0-6.9%	1364	21.3%	18.3-24.6%	566	1.0%	0.5-2.1%	793
1998	6.5%	5.6-7.7%	1361	22.0%	19.1-25.2%	596	1.6%	0.9-3.0%	758
1999	5.6%	4.8-6.5%	1444	20.4%	17.7-23.4%	630	0.7%	0.3-1.7%	783
2000	5.5%	4.7-6.3%	1460	20.1%	17.3-22.9%	643	0.5%	0.2-1.5%	752
2001	4.7%	4.0-5.5%	1523	17.5%	15.1-20.3%	654	0.4%	0.1-1.1%	786
2002	5.0%	4.3-5.9%	1605	17.8%	15.4-20.5%	672	0.8%	0.4-1.8%	831
2003	4.5%	3.8-5.2%	1617	16.9%	14.6-19.4%	693	0.4%	0.1-1.1%	827
<b>p-value</b>	<b>&lt;0.001</b>			<b>&lt;0.001</b>			0.19		

Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS)

Note: For maternal smokeless tobacco use, we report the 95% confidence interval (CI) instead of the margin of error (+/-). See introductory paragraph on p 92 for additional information.

**Table 7: Trends in Maternal Spit Tobacco Use during Pregnancy, including Chew, Snuff and/or Iqmik Use, Alaska, 2004-2010**

Year	All Mothers	95% CI	N	Alaska Native	95% CI	N	Non-Native	95% CI	N
2004	5.0%	4.1-6.2%	1312	16.6%	13.8-19.9%	508	1.2%	0.5-2.7%	726
2005	5.7%	4.9-6.8%	1337	20.8%	17.7-24.2%	518	0.5%	0.1-1.6%	715
2006	3.6%	2.9-4.4%	1386	14.1%	11.4-17.3%	485	0.2%	0.03-1.3%	738
2007	5.3%	4.4-6.4%	1476	18.0%	15.0-21.3%	526	1.1%	0.5-2.5%	807
2008	4.7%	3.9-5.7%	1273	18.3%	15.2-21.8%	498	0.3%	0.1-1.3%	698
2009	4.6%	3.7-5.7%	1207	16.4%	13.2-20.3%	423	0.5%	0.1-1.6%	720
2010	4.7%	3.8-5.8%	1124	18.4%	14.9-22.4%	396	0.3%	0.04-1.7%	673
<b>p-value</b>	0.48			0.93			0.15		

Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS)

Note: For maternal spit tobacco use, we report the 95% confidence interval (CI) instead of the margin of error (+/-). See introductory paragraph on p 92 for additional information on margin of error and confidence intervals. See Appendix B p 134 for additional information about changes to the questions regarding smokeless or spit tobacco use.

## Section III. Youth Tobacco Use

**Table 8: Trends in Current Cigarette Smoking among High School Students, Alaska 1995-2011**

	1995	2003	2007	2009	2011	p-value
<b>All Students</b>	36.5	19.2	17.8	15.7	14.1	
±	4.5	2.5	2.9	2.7	3.7	<b>&lt;0.001</b>
<b>N</b>	1602	1408	1247	1286	1240	decrease
<b>Female</b>	36.5	20.2	19.7	17.1	14.7	
±	5.9	4.1	4.9	3.5	5.3	<b>&lt;0.001</b>
<b>N</b>	795	688	622	678	635	decrease
<b>Male</b>	36.4	18.4	15.9	14.2	13.5	
±	5.3	2.9	2.7	3.1	2.9	<b>&lt;0.001</b>
<b>N</b>	801	715	620	599	600	decrease
<b>9th Grade</b>	35.4	12.5	12.1	14.1	9.6	
±	7.3	3.7	3.5	4.1	3.5	<b>&lt;0.001</b>
<b>N</b>	482	488	396	366	391	decrease
<b>10th Grade</b>	33.2	23.6	19.3	13.3	14.7	
±	7.6	4.7	6.3	4.3	6.5	<b>&lt;0.001</b>
<b>N</b>	379	301	238	314	329	decrease
<b>11th Grade</b>	39.7	19.2	19.1	13.0	15.3	
±	4.5	6.1	6.9	4.7	5.3	<b>&lt;0.001</b>
<b>N</b>	468	342	319	338	300	decrease
<b>12th Grade</b>	38.7	23.2	21.9	21.6	17.8	
±	6.7	6.5	5.1	6.1	6.9	<b>&lt;0.001</b>
<b>N</b>	265	261	276	238	213	decrease
<b>Alaska Native</b>	61.9	44.2	31.7	24.2	26.4	
±	9.2	5.7	7.8	8.0	11.6	<b>&lt;0.001</b>
<b>N</b>	177	268	238	276	275	decrease
<b>Non-Native</b>	32.5	12.3	13.1	12.1	9.9	
±	3.1	2.2	2.5	2.5	2.7	<b>&lt;0.001</b>
<b>N</b>	1338	1128	982	912	933	decrease

Source: Alaska Youth Risk Behavior Survey

**Table 9: Trends in Current Smokeless Tobacco Use among High School Students, Alaska 1995-2011**

		1995	2003	2007	2009	2011	p-value
<b>All Students</b>		15.6	11.2	10.4	13.6	8.4	
	±	2.7	2.7	3.5	3.1	1.8	<b>&lt;0.01</b>
	<b>N</b>	1622	1457	1301	1323	1319	decrease
<b>Female</b>		6.7	6.2	7.3	7.4	4.3	
	±	2.5	4.5	3.3	2.9	2.5	0.58
	<b>N</b>	801	706	647	699	672	no trend
<b>Male</b>		23.5	15.6	13.5	19.3	12.1	
	±	4.1	3.1	4.1	4.1	3.1	<b>&lt;0.001</b>
	<b>N</b>	815	741	648	618	643	decrease
<b>9th Grade</b>		14.4	8.6	11.3	11.9	7.3	
	±	4.3	2.5	4.7	5.5	3.7	0.08
	<b>N</b>	492	502	415	373	416	no trend
<b>10th Grade</b>		14.8	14.9	9.2	13.6	6.7	
	±	4.5	6.9	5.7	5.7	2.9	<b>0.03</b>
	<b>N</b>	381	308	253	332	347	decrease
<b>11th Grade</b>		16.4	13.9	9.3	11.8	8.0	
	±	4.7	5.3	3.7	4.7	2.9	<b>&lt;0.01</b>
	<b>N</b>	474	358	334	351	318	decrease
<b>12th Grade</b>		17.2	6.5	11.8	15.9	11.7	
	±	5.3	3.3	4.5	7.6	3.9	0.522
	<b>N</b>	267	267	282	237	231	no trend
<b>Alaska Native</b>		22.5	24.4	16.5	22.1	12.4	
	±	6.9	10.6	11.2	8.0	3.5	<b>0.04</b>
	<b>N</b>	183	284	252	288	303	decrease
<b>Non-Native</b>		14.5	7.3	7.9	9.2	6.3	
	±	2.7	1.8	1.8	2.7	1.8	<b>&lt;0.001</b>
	<b>N</b>	1352	1159	1020	929	976	decrease

Source: Alaska Youth Risk Behavior Survey

**Table 10: Trends in Current Cigar Smoking among High School Students, Alaska 1995-2011**

	1995	2003	2007	2009	2011	<i>p</i> -value
<b>All Students</b>		7.8	10.1	10.3	10.3	
	±	1.8	1.8	2.0	2.5	<b>0.04</b>
	N	1480	1313	1368	1322	increase
<b>Female</b>		3.5	6.1	6.2	6.1	
	±	1.4	2.2	1.8	2.5	<b>0.04</b>
	N	709	651	716	672	increase
<b>Male</b>		11.7	13.6	13.7	14.2	
	±	2.7	2.5	3.1	3.3	0.20
	N	761	654	641	645	no trend
<b>9th Grade</b>		5.1	8.1	4.4	3.4	
	±	2.0	2.9	2.0	1.6	0.19
	N	510	420	382	418	no trend
<b>10th Grade</b>		7.1	10.1	7.8	9.1	
	±	2.9	3.7	2.7	3.7	0.49
	N	313	255	339	348	no trend
<b>11th Grade</b>		10.5	10.0	16.2	11.8	
	±	3.9	3.1	4.1	3.1	0.24
	N	362	337	362	319	no trend
<b>12th Grade</b>		9.1	12.7	12.1	18.4	
	±	3.7	4.9	3.5	8.0	<b>0.04</b>
	N	273	283	250	230	increase
<b>Alaska Native</b>		5.2	7.9	6.3	10.8	
	±	2.9	3.3	3.1	4.3	0.11
	N	294	258	300	303	no trend
<b>Non-Native</b>		8.7	11.0	10.8	9.3	
	±	2.0	2.0	2.4	2.2	0.44
	N	1172	1026	957	979	no trend

Source: Alaska Youth Risk Behavior Survey

## Section IV. Secondhand Smoke

**Table 11: Trends in the Percent of Children (Age 0-17) Exposed to Smoke in their Homes in the Past Month (as reported by adult in household), Alaska 2004-2011**

Year	All	±	N	Smokers	±	N
2004	13.0%	2.9%	1125	39.4%	8.4%	302
2005	9.0%	2.2%	1247	20.4%	6.1%	332
2006	9.1%	2.9%	880	22.7%	8.6%	226
2007	8.1%	2.4%	1108	20.4%	7.3%	259
2008	5.5%	2.2%	959	11.8%	4.7%	242
2009	3.3%	1.2%	930	10.4%	5.5%	187
2010	3.1%	2.4%	480	14.5%	7.4%	106
2011	5.4%	2.4%	993	15.9%	7.3%	214
<b>p-value</b>	<b>&lt;0.001</b>			<b>&lt;0.001</b>		

Year	Former Smokers	±	N	Never Smokers	±	N
2004	8.8%	6.7%	251	3.5%	1.6%	564
2005	9.7%	5.5%	304	2.6%	1.6%	601
2006	3.5%	3.5%	214	5.2%	2.9%	435
2007	5.9%	3.3%	271	4.5%	2.5%	570
2008	3.0%	3.5%	236	3.9%	2.9%	474
2009	1.4%	1.2%	253	1.7%	1.4%	479
2010	NA	NA	138	7.4%	11.2%	232
2011	0.8%	1.2%	261	3.5%	2.9%	509
<b>p-value</b>	<b>&lt;0.001</b>			0.35		

Source: Alaska Behavioral Risk Factor Surveillance System

Note: 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 percent and margin of error are not reported.

**Table 12: Trends in the Percent of Adults who Report that Smoking Is Not Allowed Anywhere in Their Homes, Alaska 2001-2011**

Year	All Adults	±	N	Male	±	N	Female	±	N
2001	76.8%	2.4%	2646	76.9%	3.5%	1260	76.6%	3.2%	1386
2002	NA			NA			NA		
2003	NA			NA			NA		
2004	79.8%	2.1%	2646	77.2%	3.3%	1098	82.7%	2.7%	1359
2005	84.0%	1.9%	2457	81.0%	3.0%	1375	87.2%	2.2%	1555
2006	85.6%	2.5%	2930	87.5%	3.1%	933	83.6%	4.0%	1183
2007	85.0%	2.2%	2535	83.3%	3.1%	1176	86.9%	2.7%	1359
2008	86.4%	2.4%	2263	84.1%	3.5%	1037	88.9%	2.9%	1226
2009	90.0%	1.8%	2316	89.9%	2.5%	1034	90.2%	2.4%	1282
2010	90.1%	2.5%	1261	89.1%	3.3%	593	90.4%	4.1%	668
2011	88.6%	2.2%	2553	88.0%	2.9%	1143	89.2%	3.1%	1410
p-value	<0.001			<0.001			<0.001		

Year	Alaska Native	±	N	Non-Native	±	N
2001	80.7%	4.3%	521	76.1%	2.7%	2048
2002	NA			NA		
2003	NA			NA		
2004	76.5%	5.6%	463	80.4%	2.3%	1969
2005	83.3%	4.6%	564	84.1%	2.1%	2326
2006	84.5%	5.0%	391	85.9%	2.9%	1685
2007	85.1%	2.2%	476	85.2%	2.4%	1997
2008	87.8%	3.9%	432	86.3%	2.7%	1791
2009	89.7%	3.7%	393	90.1%	2.0%	1870
2010	92.7%	5.5%	192	89.3%	3.1%	1011
2011	92.7%	2.7%	478	87.7%	2.5%	2030
p-value	<0.001			<0.001		

**Table 12: Trends in the Percent of Adults who Report that Smoking Is Not Allowed Anywhere in Their Homes, Alaska 2001-2011 (cont.)**

Year	Low SES	±	N	Higher SES	±	N
2001	66.7%	7.3%	325	80.4%	3.2%	1414
2002	NA			NA		
2003	NA			NA		
2004	69.7%	6.8%	336	84.1%	2.6%	1284
2005	77.3%	5.7%	409	86.7%	2.5%	1490
2006	79.5%	7.4%	227	90.4%	2.0%	1166
2007	81.9%	5.9%	272	86.1%	2.7%	1383
2008	72.9%	8.0%	262	89.8%	2.9%	1234
2009	88.3%	4.9%	293	91.6%	2.0%	1215
2010	85.9%	7.1%	159	91.6%	2.9%	668
2011	80.7%	6.5%	314	90.4%	3.1%	1263
p-value	<0.001			<0.001		

Year	Ages 18-29	±	N	Ages 30-54	±	N	Age 55 and older	±	N
2001	79.0%	5.5%	498	76.6%	3.0%	1572	75.0%	5.1%	544
2002	NA			NA			NA		
2003	NA			NA			NA		
2004	82.4%	5.0%	431	80.7%	2.8%	1411	75.0%	4.5%	588
2005	86.2%	4.2%	494	84.2%	2.6%	1588	81.3%	4.0%	817
2006	82.2%	8.7%	277	89.2%	2.1%	1149	81.2%	4.2%	655
2007	88.1%	4.7%	393	84.7%	2.9%	1350	82.8%	3.7%	764
2008	89.5%	5.5%	314	84.5%	3.5%	1189	87.0%	3.1%	733
2009	92.2%	4.3%	296	91.5%	2.0%	1162	84.9%	3.5%	830
2010	90.4%	7.3%	142	91.4%	2.9%	596	87.3%	3.9%	502
2011	90.1%	5.3%	264	89.1%	3.1%	1190	86.2%	2.9%	1053
p-value	<0.01			<0.001			<0.001		

**Table 12: Trends in the Percent of Adults who Report that Smoking Is Not Allowed Anywhere in Their Homes, Alaska 2001-2011 (cont.)**

Year	Smokers	±	N	Former Smokers	±	N	Never Smokers	±	N
2001	48.3%	5.3%	806	84.4%	3.6%	766	89.9%	2.4%	1068
2002	NA			NA			NA		
2003	NA			NA			NA		
2004	50.7%	5.7%	608	85.0%	3.7%	642	90.8%	2.0%	1192
2005	62.3%	5.3%	721	88.9%	3.2%	813	92.3%	2.0%	1379
2006	65.3%	6.3%	519	90.5%	3.2%	613	92.8%	3.8%	973
2007	64.5%	6.1%	530	89.2%	3.1%	734	92.4%	2.5%	1254
2008	68.1%	6.3%	506	86.9%	4.9%	691	95.6%	2.2%	1052
2009	69.2%	6.7%	432	92.9%	2.5%	711	96.6%	1.4%	1152
2010	76.8%	7.4%	243	90.6%	4.1%	394	95.7%	3.3%	616
2011	67.7%	6.9%	518	93.9%	2.4%	750	95.3%	2.5%	1266
p-value	<b>&lt;0.001</b>			<b>&lt;0.001</b>			<b>&lt;0.001</b>		

**By Public Health Region**

Year	Northern	±	N	South-west	±	N	Gulf Coast	±	N
2001	78%	6.5%	205	83%	4.7%	291	79%	3.8%	517
2002	NA			NA			NA		
2003	NA			NA			NA		
2004	75%	8.2%	159	89%	4.3%	250	81%	4.1%	419
2005	83%	6.3%	172	89%	3.9%	305	84%	3.2%	599
2006	80%	8.6%	129	92%	4.3%	189	87%	3.3%	420
2007	83%	7.4%	164	90%	4.9%	252	80%	4.5%	519
2008	83%	8.8%	142	87%	6.3%	240	80%	5.7%	442
2009	88%	8.0%	121	91%	5.3%	189	87%	3.9%	496
2010	97%	‡	52	93%	5.3%	107	87%	6.3%	257
2011	84%	9.8%	153	94%	2.9%	242	85%	6.1%	496
p-value	<b>0.02</b>			<b>0.01</b>			<b>&lt;0.001</b>		

‡ The 95% confidence interval for Northern Region 2010 is 90.5%-98.8%. See introductory paragraph on p 92 for additional information.

**Table 12: Trends in the Percent of Adults who Report that Smoking Is Not Allowed Anywhere in Their Homes, Alaska 2001-2011 (cont.)**  
**By Public Health Region (cont.)**

Year	Interior	±	N	South-east	±	N	Anchorage /Mat-Su	±	N
2001	74%	3.9%	612	74%	4.3%	500	77%	4.1%	512
2002	NA			NA			NA		
2003	NA			NA			NA		
2004	77%	3.9%	580	77%	4.2%	481	81%	3.6%	539
2005	83%	3.1%	645	85%	3.4%	523	83%	3.3%	592
2006	85%	3.7%	494	86%	4.1%	407	86%	4.4%	459
2007	82%	4.7%	548	81%	4.5%	535	88%	3.3%	517
2008	89%	3.3%	534	83%	5.1%	425	88%	3.9%	480
2009	86%	4.3%	566	88%	3.7%	457	93%	2.5%	487
2010	89%	4.3%	315	83%	7.8%	275	92%	4.1%	255
2011	86%	4.1%	580	91%	2.9%	553	90%	3.5%	529
<b>p-value</b>	<b>&lt;0.001</b>			<b>&lt;0.001</b>			<b>&lt;0.001</b>		

**By Selected Boroughs**

Year	Fairbanks North Star	±	N	Anchorage	±	N	Mat-Su	±	N
2001	74%	4.3%	500	80%	4.5%	403	69%	9.8%	109
2002	NA			NA			NA		
2003	NA			NA			NA		
2004	77%	4.2%	481	77%	4.1%	413	79%	7.3%	126
2005	85%	3.4%	523	86%	3.7%	445	77%	7.4%	147
2006	86%	4.1%	407	82%	5.7%	346	89%	5.5%	113
2007	83%	4.9%	445	90%	3.3%	386	81%	8.4%	131
2008	89%	3.5%	422	92%	3.1%	347	76%	10.4%	133
2009	86%	4.9%	465	94%	2.5%	370	88%	7.4%	117
2010	90%	4.9%	263	95%	3.1%	201	80%*	14.9%	54*
2011	86%	4.5%	452	90%	4.1%	371	88%	5.5%	158
<b>p-value</b>	<b>&lt;0.001</b>			<b>&lt;0.001</b>			<b>&lt;0.01</b>		

Source: Alaska Behavioral Risk Factor Surveillance System

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 13: Trends in the Percent of Employed or Self-Employed Alaskan Adults Working Primarily Indoors who Report that Smoking is not Allowed in Any Work Areas, Alaska 1998-2011**

Year	All Adults	±	N	Male	±	N	Female	±	N
1998	83.9%	3.2%	1061	78.2%	5.8%	422	89.1%	3.1%	639
1999	NA			NA			NA		
2000	80.0%	3.9%	1108	77.6%	5.8%	471	82.2%	5.3%	637
2001	90.0%	2.0%	1523	89.1%	3.1%	644	90.9%	2.5%	879
2002	NA			NA			NA		
2003	NA			NA			NA		
2004	84.6%	2.5%	1364	79.9%	4.3%	535	89.0%	2.9%	829
2005	83.8%	2.8%	1521	78.8%	4.7%	636	88.4%	3.0%	885
2006	83.8%	3.4%	1119	79.9%	5.7%	426	87.2%	4.1%	693
2007	87.3%	2.9%	1308	82.7%	5.1%	551	91.7%	2.7%	757
2008	87.6%	2.9%	1147	83.9%	4.7%	462	91.0%	3.9%	685
2009	83.6%	4.3%	1142	81.2%	6.5%	456	86.0%	5.5%	686
2010	84.5%	5.9%	635	88.8%	4.9%	270	80.8%	9.6%	365
2011	87.2%	3.1%	1236	81.6%	5.7%	488	92.5%	2.5%	748
<b>p-value</b>	<b>&lt;0.001</b>			<b>&lt;0.01</b>			<b>&lt;0.01</b>		

Year	Alaska Native	±	N	Non-Native	±	N
1998	84.0%	8.9%	140	83.9%	3.4%	913
1999	NA			NA		
2000	77.2%	12.6%	162	79.9%	4.2%	929
2001	82.9%	7.4%	266	91.1%	2.0%	1214
2002	NA			NA		
2003	NA			NA		
2004	80.5%	6.8%	226	85.2%	2.8%	1123
2005	78.5%	7.9%	237	84.5%	3.0%	1270
2006	77.7%	10.4%	158	84.3%	3.7%	940
2007	82.8%	6.9%	196	88.1%	3.3%	960
2008	78.4%	8.0%	165	88.4%	3.3%	966
2009	77.2%	9.0%	155	84.4%	4.7%	967
2010	81.6%	11.4%	84	84.1%	6.7%	529
2011	81.5%	10.2%	191	88.3%	3.1%	1021
<b>p-value</b>	<b>0.98</b>			<b>&lt;0.001</b>		

**Table 13: Trends in the Percent of Employed or Self-Employed Alaskan Adults Working Primarily Indoors who Report that Smoking is not Allowed in Any Work Areas, Alaska 1998-2011 (cont.)**

Year	Low SES	±	N	Higher SES	±	N
1998	76.0%	8.9%	139	86.3%	4.2%	689
1999	NA			NA		
2000	64.6%	15.0%	113	85.2%	3.4%	735
2001	87.2%	5.4%	165	93.1%	1.9%	971
2002	NA			NA		
2003	NA			NA		
2004	84.5%	7.2%	154	87.3%	2.8%	878
2005	77.7%	9.7%	171	87.8%	2.8%	977
2006	77.3%	12.3%	98	88.9%	2.8%	782
2007	86.9%*	9.0%	103*	88.8%	3.7%	909
2008	85.2%*	12.9%	98*	90.2%	2.7%	804
2009	82.0%*	10.4%	133*	90.0%	3.7%	770
2010	79.7%*	21.2%	53*	92.0%	3.9%	449
2011	79.2%*	11.8%	125*	91.0%	2.9%	821
<b>p-value</b>	0.14			<b>&lt;0.01</b>		

Year	Ages 18-29	±	N	Ages 30-54	±	N	Age 55 and older	±	N
1998	85.1%	5.2%	206	85.6%	3.4%	756	71.0%*	16.9%	96*
1999	NA			NA			NA		
2000	77.4%	9.6%	207	81.4%	4.3%	794	75.9%*	13.2%	101*
2001	86.9%	5.6%	292	90.8%	2.2%	1035	92.0%	4.3%	178
2002	NA			NA			NA		
2003	NA			NA			NA		
2004	78.6%	8.4%	210	84.9%	2.9%	939	90.2%	4.1%	200
2005	76.4%	7.5%	263	85.4%	3.2%	961	89.8%	5.3%	275
2006	73.7%	11.0%	158	87.0%	3.4%	729	86.7%	6.2%	217
2007	77.2%	9.4%	198	90.2%	2.9%	837	91.2%	4.9%	256
2008	78.3%	9.8%	142	91.1%	2.5%	740	87.4%*	8.4%	251*
2009	67.7%	12.9%	151	87.1%	4.5%	702	91.5%	3.7%	279
2010	70.1%*	16.3%	78*	90.4%	4.3%	383	86.6%*	‡	166*
2011	86.0%*	7.6%	127*	85.2%	4.3%	705	93.0%	3.3%	381
<b>p-value</b>	0.05			<b>&lt;0.001</b>			<b>0.01</b>		

‡ The 95% confidence interval for Age 55 and older 2010 is 65.7%-95.6%. See introductory paragraph on p 92 for additional information.

**Table 13: Trends in the Percent of Employed or Self-Employed Alaskan Adults Working Primarily Indoors who Report that Smoking is not Allowed in Any Work Areas, Alaska 1998-2011 (cont.)**

Year	Smokers	±	N	Former Smokers	±	N	Never Smokers	±	N
1998	73.7%	7.3%	268	87.4%	5.7%	253	87.1%	4.5%	540
1999	NA			NA			NA		
2000	68.3%	9.6%	268	79.4%	8.4%	271	86.0%	3.9%	566
2001	81.7%	5.4%	392	92.4%	3.1%	410	92.9%	2.4%	717
2002	NA			NA			NA		
2003	NA			NA			NA		
2004	72.7%	7.3%	302	88.3%	4.5%	342	87.7%	3.1%	782
2005	76.9%	7.0%	325	80.8%	6.0%	404	88.2%	3.3%	856
2006	72.8%	9.1%	242	85.5%	5.3%	322	87.2%	4.7%	608
2007	77.8%	9.2%	246	88.4%	5.5%	364	90.2%	3.3%	692
2008	83.0%	6.3%	213	84.8%	6.5%	328	92.0%	3.3%	599
2009	72.4%	11.2%	181	89.1%	3.9%	342	83.3%	6.7%	610
2010	78.9%*	14.3%	109*	88.5%	8.4%	179	84.9%	8.0%	345
2011	80.9%	8.4%	210	85.4%	5.9%	337	90.6%	3.9%	680
<b>p-value</b>	0.20			<b>0.03</b>			<b>0.03</b>		

**Table 13: Trends in the Percent of Employed or Self-Employed Alaskan Adults Working Primarily Indoors who Report that Smoking is not Allowed in Any Work Areas, Alaska 1998-2011 (cont.)**

**By Public Health Region**

Year	Northern	±	N	South-west	±	N	Gulf Coast	±	N
1998	84%	9.2%	82	81%	10.1%	104	79%	7.1%	175
1999	NA			NA			NA		
2000	78%*	13.7%	67*	88%	6.7%	103	73%	8.2%	181
2001	80%	9.2%	131	89%	5.4%	165	85%	4.8%	252
2002	NA			NA			NA		
2003	NA			NA			NA		
2004	87%	8.2%	87	81%	8.5%	126	77%	6.5%	259
2005	79%	9.2%	97	87%	6.1%	158	80%	5.0%	311
2006	81%*	11.6%	64*	91%*	5.4%	87*	81%	6.8%	189
2007	85%	9.0%	95	85%	7.1%	126	89%	4.9%	237
2008	65%	14.7%	78	88%	7.8%	119	82%	7.4%	199
2009	75%*	15.1%	66*	89%*	8.2%	93*	82%	6.9%	214
2010	*	*	26	83%*	14.7%	55*	83%*	9.0%	113
2011	81%*	13.1%	86*	75%	12.0%	115	84%	7.6%	216
<b>p-value</b>	0.30			0.26			0.11		

Year	Interior	±	N	South-east	±	N	Anchorage /Mat-Su	±	N
1998	78%	6.3%	234	83%	5.8%	224	87%	5.3%	242
1999	NA			NA			NA		
2000	80%	5.5%	263	83%	5.7%	253	80%	6.5%	243
2001	87%	3.7%	390	91%	3.7%	279	92%	3.2%	308
2002	NA			NA			NA		
2003	NA			NA			NA		
2004	80%	4.9%	335	81%	5.6%	247	88%	4.0%	311
2005	85%	4.7%	338	86%	4.2%	308	84%	4.7%	311
2006	80%	6.5%	274	82%	6.2%	236	85%	5.5%	271
2007	80%	6.9%	292	84%	5.5%	278	90%	4.5%	280
2008	84%	6.1%	288	85%	6.3%	215	92%	2.4%	248
2009	79%	8.0%	288	86%	6.1%	218	85%	7.1%	263
2010	84%*	7.6%	161*	81%*	12.0%	132	85%*	9.4%	148*
2011	81%	7.6%	278	87%	5.7%	267	91%	4.5%	274
<b>p-value</b>	0.34			0.27			<b>0.02</b>		

**Table 13: Trends in the Percent of Employed or Self-Employed Alaskan Adults Working Primarily Indoors who Report that Smoking is not Allowed in Any Work Areas, Alaska 1998-2011 (cont.)**

**By Selected Boroughs**

Year	Fairbanks North Star	±	N	Anchorage	±	N	Mat-Su	±	N
1998	78%	6.7%	196	87%	5.7%	208	*	*	34
1999	NA			NA			NA		
2000	81%	5.8%	225	80%	7.3%	209	*	*	34
2001	89%	3.6%	332	93%	3.3%	254	89%*	8.8%	54*
2002	NA			NA			NA		
2003	NA			NA			NA		
2004	80%	5.2%	292	89%	4.3%	252	84%	10.0%	59
2005	84%	5.1%	293	87%	4.9%	236	75%	11.6%	75
2006	80%	7.0%	233	88%	5.7%	220	77%	14.9%	51*
2007	80%	7.3%	249	92%	4.9%	214	80%	11.8%	66
2008	84%	6.7%	248	93%*	5.1%	192*	86%*	11.4%	56*
2009	79%	8.8%	249	84%	8.0%	208	89%*	‡	55*
2010	84%*	8.2%	139*	87%*	10.0%	123*	*	*	25
2011	81%	8.6%	221	94%*	4.5%	198*	79%	12.3%	76
<b>p-value</b>	0.25			<b>0.02</b>			0.85		

Source: Alaska Behavioral Risk Factor Surveillance System

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 < 35, no estimate is reported.

‡ The 95% confidence interval for Mat-Su 2009 is 69.97%-96.5%. See introductory paragraph on p 92 for additional information.

**Table 14: Trends in the Percent of Adults who Agree that Smoking Should Not be Allowed in Indoor Work Areas, Alaska 1998-2011**

Year	All Adults	±	N	Male	±	N	Female	±	N
1998	70.0%	2.8%	1951	63.5%	4.4%	903	77.2%	3.5%	1048
1999	NA			NA			NA		
2000	77.8%	2.7%	2052	71.9%	4.1%	972	84.1%	3.1%	1080
2001	NA			NA			NA		
2002	NA			NA			NA		
2003	NA			NA			NA		
2004	79.9%	2.2%	2448	72.4%	3.5%	1090	87.9%	2.3%	1358
2005	80.3%	2.2%	2921	74.6%	3.4%	1361	86.3%	2.5%	1560
2006	77.4%	2.9%	2110	70.8%	4.5%	927	84.3%	3.6%	1183
2007	76.7%	2.7%	2551	70.0%	4.1%	1185	83.8%	2.9%	1366
2008	76.7%	2.9%	2268	71.0%	4.5%	1037	82.9%	3.7%	1231
2009	83.0%	2.5%	2315	80.2%	4.1%	1037	76.2%	3.1%	1278
2010	82.2%	3.9%	1265	80.7%	5.3%	595	83.9%	5.7%	670
2011	80.0%	2.9%	2570	74.5%	4.5%	1153	86.0%	3.3%	1417
p-value	<b>&lt;0.001</b>			<b>&lt;0.001</b>			<b>&lt;0.001</b>		

Year	Alaska Native	±	N	Non-Native	±	N
1998	73.2%	5.9%	349	69.7%	3.2%	1582
1999	NA			NA		
2000	76.7%	7.2%	387	78.5%	2.8%	1610
2001	NA			NA		
2002	NA			NA		
2003	NA			NA		
2004	76.1%	5.7%	461	80.7%	2.3%	1964
2005	77.1%	5.8%	564	81.1%	2.3%	2317
2006	72.9%	7.7%	391	78.0%	3.2%	1682
2007	79.3%	5.9%	479	76.4%	2.9%	2009
2008	73.4%	7.3%	436	77.2%	3.3%	1791
2009	82.1%	5.5%	395	83.0%	2.9%	1869
2010	84.9%	8.6%	196	82.8%	4.1%	1015
2011	86.0%	4.1%	483	78.9%	3.3%	2042
p-value	<b>0.01</b>			<b>&lt;0.001</b>		

**Table 14: Trends in the Percent of Adults who Agree that Smoking Should Not be Allowed in Indoor Work Areas, Alaska 1998-2011 (cont.)**

Year	Low SES	±	N	Higher SES	±	N
1998	65.9%	7.5%	284	74.3%	3.8%	1024
1999	NA			NA		
2000	73.4%	7.6%	258	79.9%	3.2%	1091
2001	NA			NA		
2002	NA			NA		
2003	NA			NA		
2004	70.3%	6.7%	333	83.3%	2.8%	1285
2005	67.1%	7.0%	405	84.7%	2.6%	1489
2006	75.3%	8.6%	228	82.7%	3.0%	1158
2007	71.6%	7.1%	273	79.4%	3.5%	1391
2008	76.6%	7.6%	262	80.6%	3.9%	1231
2009	82.7%	6.3%	295	85.5%	3.1%	1210
2010	77.8%	10.6%	159	87.8%	3.5%	666
2011	65.3%	8.8%	315	83.8%	3.7%	1271
<b>p-value</b>	<b>0.03</b>			<b>&lt;0.001</b>		

Year	Ages 18-29	±	N	Ages 30-54	±	N	Age 55 and older	±	N
1998	64.6%	6.2%	394	73.4%	3.5%	1203	66.4%	7.7%	347
1999	NA			NA			NA		
2000	76.4%	6.7%	374	78.7%	3.2%	1274	76.3%	6.1%	393
2001	NA			NA			NA		
2002	NA			NA			NA		
2003	NA			NA			NA		
2004	84.5%	4.4%	429	79.0%	3.0%	1408	78.3%	4.4%	584
2005	79.7%	5.0%	494	80.1%	3.0%	1586	82.0%	3.7%	810
2006	74.5%	8.8%	278	79.8%	3.4%	1146	75.4%	4.4%	651
2007	73.9%	7.1%	395	79.3%	3.3%	1357	73.5%	4.9%	767
2008	71.1%	7.8%	315	79.1%	4.1%	1187	77.2%	4.5%	739
2009	81.1%	7.3%	297	85.1%	3.3%	1159	80.7%	3.9%	831
2010	76.7%	11.0%	142	88.1%	3.7%	597	78.5%	5.7%	507
2011	80.7%	7.1%	267	77.7%	4.5%	1194	83.6%	3.1%	1063
<b>p-value</b>	<b>&lt;0.001</b>			<b>&lt;0.001</b>			<b>&lt;0.001</b>		

**Table 14: Trends in the Percent of Adults who Agree that Smoking Should Not be Allowed in Indoor Work Areas, Alaska 1998-2011 (cont.)**

Year	Smokers	±	N	Former Smokers	±	N	Never Smokers	±	N
1998	53.0%	5.9%	532	69.6%	5.9%	497	79.2%	3.9%	920
1999	NA			NA			NA		
2000	63.2%	6.6%	524	75.4%	5.3%	533	86.5%	2.6%	984
2001	NA			NA			NA		
2002	NA			NA			NA		
2003	NA			NA			NA		
2004	58.6%	5.6%	609	79.4%	4.3%	640	90.4%	2.1%	1184
2005	62.2%	5.5%	719	80.0%	4.3%	808	89.8%	2.2%	1377
2006	57.2%	6.9%	514	79.4%	4.7%	610	86.5%	4.0%	974
2007	59.7%	6.7%	531	76.5%	4.7%	735	84.9%	3.3%	1265
2008	57.4%	6.9%	507	73.9%	5.7%	693	88.1%	3.5%	1054
2009	65.0%	7.1%	429	87.0%	3.9%	714	87.9%	3.7%	1150
2010	66.7%	10.2%	244	84.7%	5.1%	391	87.7%	5.1%	621
2011	59.4%	7.4%	519	79.6%	5.5%	754	89.8%	3.3%	1277
<b>p-value</b>	0.23			<b>&lt;0.001</b>			<b>&lt;0.001</b>		

**Table 14: Trends in the Percent of Adults who Agree that Smoking Should Not be Allowed in Indoor Work Areas, Alaska 1998-2011 (cont.)**

By Public Health Region									
Year	Northern	±	N	South-west	±	N	Gulf Coast	±	N
1998	73%	8.8%	130	79%	6.6%	201	65%	5.5%	408
1999	NA			NA			NA		
2000	76%	10.0%	126	82%	6.9%	216	67%	6.2%	406
2001	NA			NA			NA		
2002	NA			NA			NA		
2003	NA			NA			NA		
2004	77%	8.4%	159	81%	5.9%	251	73%	4.5%	512
2005	82%	6.5%	173	89%	4.1%	304	77%	4.0%	613
2006	76%	8.6%	129	79%	7.4%	191	70%	5.1%	426
2007	78%	8.2%	167	90%	4.9%	254	74%	4.9%	520
2008	68%	10.6%	144	77%	8.2%	241	70%	6.3%	439
2009	83%	8.2%	122	82%	8.6%	190	82%	4.1%	498
2010	92%*	‡	52*	91%	8.0%	107	83%	6.1%	257
2011	82%	8.4%	155	84%	6.7%	246	80%	6.3%	501
<b>p-value</b>	0.23			<b>0.04</b>			<b>&lt;0.001</b>		

‡ The 95% confidence interval for Northern 2010 is 74.2%-97.6%. See introductory paragraph on p 92 for additional information.

**Table 14: Trends in the Percent of Adults who Agree that Smoking Should Not be Allowed in Indoor Work Areas, Alaska 1998-2011 (cont.)**

**By Public Health Region**

<b>Year</b>	<b>Interior</b>	<b>±</b>	<b>N</b>	<b>South-east</b>	<b>±</b>	<b>N</b>	<b>Anchorage /Mat-Su</b>	<b>±</b>	<b>N</b>
<b>1998</b>	64%	4.3%	429	76%	4.6%	391	71%	5.1%	395
<b>1999</b>	NA			NA			NA		
<b>2000</b>	73%	4.5%	464	79%	4.5%	425	81%	4.5%	419
<b>2001</b>	NA			NA			NA		
<b>2002</b>	NA			NA			NA		
<b>2003</b>	NA			NA			NA		
<b>2004</b>	81%	3.5%	577	76%	4.7%	414	82%	3.6%	538
<b>2005</b>	78%	3.7%	644	81%	3.7%	596	81%	3.7%	593
<b>2006</b>	79%	4.3%	491	79%	4.3%	421	78%	5.0%	454
<b>2007</b>	77%	4.7%	553	81%	4.1%	537	75%	4.5%	520
<b>2008</b>	78%	6.1%	538	81%	4.9%	427	77%	4.9%	479
<b>2009</b>	81%	4.3%	567	82%	4.3%	455	84%	4.5%	483
<b>2010</b>	81%	6.3%	318	72%	8.6%	277	83%	6.7%	254
<b>2011</b>	80%	4.7%	582	81%	6.1%	554	80%	4.7%	532
<b>p-value</b>	<b>&lt;0.001</b>			0.38			<b>&lt;0.01</b>		

**Table 14: Trends in the Percent of Adults who Agree that Smoking Should Not be Allowed in Indoor Work Areas, Alaska 1998-2011 (cont.)**

**By Selected Boroughs**

Year	Fairbanks North Star	±	N	Anchorage	±	N	Mat-Su	±	N
1998	62%	5.3%	360	73%	5.5%	320	62%	12.3%	75
1999	NA			NA			NA		
2000	74%	4.8%	380	85%	4.7%	341	64%	12.0%	78
2001	NA			NA			NA		
2002	NA			NA			NA		
2003	NA			NA			NA		
2004	82%	3.7%	478	85%	3.9%	413	73%	8.6%	125
2005	79%	4.1%	522	84%	3.9%	447	71%	8.6%	146
2006	80%	4.6%	404	81%	5.5%	343	70%	11.2%	111
2007	78%	5.1%	448	78%	5.1%	390	67%	9.8%	130
2008	82%	5.3%	422	80%	5.5%	347	71%	10.4%	132
2009	83%	4.3%	464	86%	4.7%	365	76%	10.8%	118
2010	80%	7.1%	264	85%	7.3%	200	75%*	15.5%	54*
2011	80%	5.1%	454	81%	5.7%	371	75%	8.8%	161
<b>p-value</b>	<b>&lt;0.001</b>			<b>&lt;0.01</b>			0.715		

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.

## VII. Appendix B: Data Sources

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### ***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 2011 come from the “FY 11 Cigarette and Other Tobacco Products Summary” dated August 2012. 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 Attributable Mortality, Morbidity and Economic Costs (SAMMEC)***

Estimates of Alaska’s mortality and economic costs associated with tobacco use were calculated using an online application developed at CDC known as Smoking Attributable Mortality, Morbidity and Economic Costs (SAMMEC). The SAMMEC formula applies age- and sex-specific smoking-attributable fractions to mortality data for each smoking-related

disease in the population under study, also taking into consideration the smoking prevalence for each population. The overall smoking-attributable mortality is the sum of the smoking-attributable deaths across age groups and causes of death for both sexes combined for a given year.

SAMMEC also provides estimates of smoking-attributed medical expenditures and for productivity losses due to smoking mortality. This application does not currently allow estimates of morbidity-related productivity costs. The estimates of adult medical expenditures attributable to smoking and the loss of productivity due to smoking-related mortality were calculated using such measures as the state's 2011 age-and-sex-specific mortality rates for specified conditions, the 2011 BRFSS estimate of adult smoking prevalence, the 2004 present value for future earnings, and the 2004 U.S. life expectancy. The estimate for productivity losses was adjusted using the 2011 employment cost index information from the U.S. Department of Labor, Bureau of Labor and Statistics (<http://www.bls.gov/ncs/ect/>). The 2004 estimate of total medical spending in Alaska, obtained from the Centers for Medicare and Medicaid Services, was used in estimating smoking-related medical expenditures. This estimate was then adjusted to 2011 using medical consumer price index information from the U.S. Department of Labor, Bureau of Labor and Statistics (<http://www.bls.gov/cpi/>).

Data on specific causes of deaths from smoking-related diseases in Alaska were abstracted from death certificates, provided by the Alaska Bureau of Vital Statistics. The cause of death used in our analysis was the underlying cause, based on the Tenth Revision of the International Classification of Diseases (ICD-10). Deaths of Alaska residents who died out of state were not included in the figures used to produce the SAMMEC estimates of tobacco-related deaths and the associated economic costs. The estimates of current smoking prevalence used for the SAMMEC calculations were obtained from the Alaska BRFSS.

Estimated deaths due to secondhand smoke are national estimates from the U.S. Department of Health and Human Services 2006 report, "The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General." Available from the 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: <http://www.surgeongeneral.gov/library/secondhandsmoke/report/>

### ***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 it began in 1991.

## 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 random telephone calls. Historically, those living in institutional housing (i.e., nursing homes, barracks, and dormitories) are not surveyed. The sample is stratified into regions, with roughly equal numbers of interviews conducted in each region. This method deliberately over-samples rural areas of the state. In 2011, the sample was stratified into six geographic regions.

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. 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.

Alaska presently conducts two BRFSS surveys: the standard BRFSS and a 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 2011, approximately 510 Alaska adults were interviewed each month for for the two BRFSS surveys combined. The 2011 sample includes 330 respondents reached by cell phone and 5,796 respondents reached by their residential landline phone. Because sample size is lower per region and some subpopulation reporting groups, data from 2009 to 2011 have been combined to report some key indicators.

## 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. These changes will help ensure that the BRFSS can continue to be a valuable source of information for health planning and improvement. The first change is a new weighting method known as iterative proportional fitting, or raking. Raking allows for the inclusion of several key demographic factors in adjusting survey data to the adult population totals. 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 earlier publications.

As noted above, starting in 2011 survey participants include people who only have cell phones, in addition to those who have a traditional landline phone. Therefore, 2011 and future data for many key indicators like adult smoking and smokeless 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 2011, the combined sample included 6,126 respondents, 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. For tobacco-related items, this includes smoking and SLT use prevalence. 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 chi-square tests in our comparisons between groups of Alaskans. Chi-square tests 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 margin of error around the estimate in the column listed as "+/-". In the bar graphs, the margin of error is shown using error bars (lines with a "T" at either end). The margin of error is usually defined as the "radius" (or half the width) of a confidence interval for a particular statistic from a survey. When the margin of error is added to or subtracted from the estimate, it shows the range of where the true population estimate is expected to be, at the 95% confidence level. Where the margin of error produces a 95% confidence interval that crosses 0% or 100%, we do not report margin of error, but instead report the confidence interval using a logit transformation, which is calculated to stay within the 0-100% range.

### Regional Reporting

The Alaska Public Health Regions were defined using borough designation. 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.

Regional groups for this report are as follows:

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

In addition, estimates are reported for 3 boroughs individually: Fairbanks North Star, the Municipality of Anchorage, and Matanuska-Susitna (Mat-Su).

#### 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. 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.

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

In the BRFSS data, 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 less education were identified as key indicators of low SES that were 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” is calculated as those persons with less than a High School education or less than 185% of the Alaska Poverty Level Guideline.

### Data Suppression Guidelines

In this report BRFSS information is suppressed or flagged based on statistical guidelines developed by Alaska’s Division of Public Health in the Department of Health and Human Services, which are based upon the national Joint Policy of Variance Estimation and Statistical Reporting Standards for the National Health and Nutrition Examination Survey (NHANES-III) and the Continuing Survey of Food Intake by Individuals (CSFII) Reports. An asterisk is used to indicate that the estimate may lack statistical precision. Estimates are suppressed if the unweighted sample size for the denominator (N) is less than 30, 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 2013. Data are currently available through 2011.

### How YRBS Survey Participants are Selected

The 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 2011, 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.

### Data Weighting and Methods Issues

In a typical YRBS administration, about 1,250 to 1,350 students are surveyed from about 40 to 45 high schools that are scientifically selected to represent all public 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 participated in the 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. The next statewide survey with a statistically valid, representative sample was in 2003. Alaska was unsuccessful in its attempt to obtain a statewide representative sample in 2005, but achieved the participation rates required to meet the CDC representative sample standards in subsequent years. Overall participation rates were above 60% in all years for which data are presented.

Analyses used for YRBS data are similar to those used for BRFSS. We used chi-square tests in our comparisons between groups of Alaskans, and 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 2011. 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

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

### Data Suppression Guidelines

Information is suppressed where the total participation (as indicated by the denominator N in the appendix tables) is less than 100 students by group, or where the number of students reporting a behavior is fewer than 5.

## ***Pregnancy Risk Assessment Monitoring System (PRAMS)***

PRAMS data were used in this report to document prenatal tobacco use, both cigarettes and smokeless 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 states and New York City currently participate in PRAMS. PRAMS surveillance currently covers about 78% of all U.S. 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 a series of mailed questionnaires to solicit a response, and since 1997, telephone follow-up has been initiated among those who do not respond to the third mailed request.

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 prevalences accurately describe the population of Alaska women delivering a live-born infant during the year reported. The weighted response rate was 71% in 2008, 69% in 2009 and 65% in 2010.

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 2010. Starting in 2004, question wording changed to spit tobacco use and included a specific question about lqmik 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, but questions still reflect spit tobacco use that includes lqmik.

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

## ***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 end date of the federal fiscal year; that is, data collected from October 2010 to September 2011 are reported as the 2011 data.

