

State of Alaska
Epidemiology



Bulletin

Recommendations
and
Reports

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Disparities in Tobacco Use - Alaska

Part 3 of a 5-Part Series

Racial Disparities in Tobacco Use

Disparities are differences that occur by gender, race or ethnicity, education or income, disability, living in rural locations, or sexual orientation.¹ The reduction of disparities in health status is an explicit goal of both federal and Alaskan health policy.^{2,3} The identification of racial, regional, and socioeconomic disparities in tobacco use is an important first step in reducing the associated disparities in tobacco-related morbidity and mortality. Racial/ethnic disparities are the result of a complex interaction among genetic variations, environmental factors, and specific health behaviors.^{4,5}

Youth

Results from Alaska's 2003 Youth Risk Behavior Survey (YRBS), a statewide, representative survey of high school students' risk and preventive behaviors, reveal significant racial disparities in youth tobacco use. As shown in Figure 1, Alaska Native male and female high school students are one and a half times more likely to have ever taken a puff of a cigarette, and three to five times more likely to smoke or smoke frequently compared to their non-Native peers. There is a particularly large racial disparity among high school girls in usage of smokeless tobacco (ST): Alaska Native girls are nine times as likely to use ST as are non-Native girls.⁶ (See 2nd Epidemiology Bulletin of this series for a more detailed description of ST use in Alaska.)

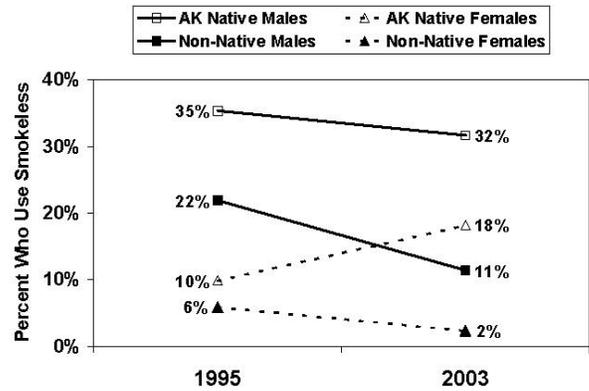
Figure 1. Percentage of High School Youth Who Used Tobacco, By Race and Sex, Alaska YRBS, 2003

	Males		Females	
	Alaska Native	Non-Native	Alaska Native	Non-Native
Ever took a puff of a cigarette	81%	50%	84%	46%
Smoked cigarettes 1+ days last month	40%	13%	49%	11%
Smoked cigarettes 20+ days last month	19%	5%	18%	5%
Used smokeless tobacco 1+ days last month	32%	12%	18%	2%
Smoked cigarettes or used smokeless tobacco 1+ days last month	55%	22%	57%	13%

Not only are Alaska Native high school students more likely than non-Native students to use tobacco, but they also appear to initiate use at a much earlier age. By the 9th grade, 42% of Alaska Native students—but only 7% of non-Native students—report having smoked cigarettes at least one day in the past month.⁷ One in five Alaska Native high school students reports having begun smoking before 13 years of age; only 5% of non-Native students report having started smoking by this age.⁸

Comparison of Alaska's 2003 YRBS data with those from the 1995 YRBS survey reveals disparities of similar magnitude at the two points in time. While rates of smoking have decreased among Alaska Native and non-Native students alike, the gap between the two sets of rates appears as large in 2003 as it was 8 years earlier.⁹ Moreover, because ST use has increased among Alaska Native girls while it has decreased among non-Native girls, the disparity in ST use among high school girls has actually widened (see Figure 2).¹⁰

Figure 2. Percentage of High School Youth Who Use Smokeless Tobacco, By Sex, Race and Year, Alaska YRBS, 1995 & 2003



Adults

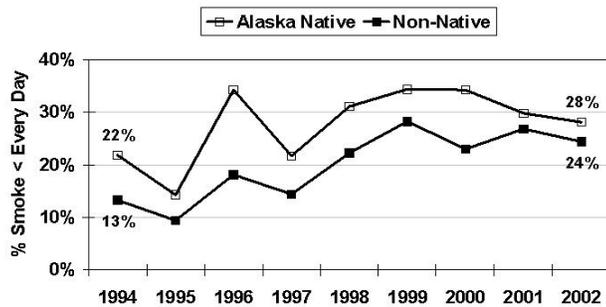
As seen among youth, large racial disparities exist in the tobacco use of adult Alaskans. Unless otherwise noted, data on adult tobacco use comes from the Behavioral Risk Factor Surveillance System (BRFSS), a population-based telephone survey used to provide representative statewide estimates of the risk and health behaviors of Alaskans age 18 and older. BRFSS data from 2000 through 2002 combined reveal that Alaska Natives are about twice as likely as adults in other race groups to report smoking cigarettes on some or all days.¹¹ Similar patterns are seen with ST: Alaska Native men are twice as likely as non-Native men to use ST, and Alaska Native women are about 10 times as likely to use it.¹² Trend data reveal that disparities in both cigarette and ST use have remained fairly stable since 1991.¹³

Data on prenatal and postpartum tobacco use among Alaskan women are collected from the Pregnancy Risk Assessment Monitoring System (PRAMS), a population-based survey of Alaskan women who have recently delivered a live-born infant. While the majority of PRAMS respondents are adults, because of the nature of survey, teenagers who are mothers of newborns are surveyed as well. Nearly twelve percent (11.5%) of the 1999 PRAMS-eligible population was less than 20 years old.¹⁴ PRAMS 2000 data indicate that Alaska Native women (29%) are twice as likely as White women (14%) to report having smoked during the last three months of pregnancy.¹⁵ Trend data show that this disparity has existed throughout the 1990's.¹⁶ A similar disparity is seen in prenatal use of ST. PRAMS data from 1996-2000 reveal that prenatal ST use was 22% among Alaska Native women compared to less than 3% among women of other races.¹⁷

It is worth noting that although survey data consistently reveal a higher prevalence of smoking among Alaska Natives compared to non-Natives, there is some evidence to suggest that Alaska Native smokers smoke less than do non-Native smokers. Figure 3 shows the proportion of adult Alaska Native and non-Native smokers who report smoking cigarettes less often than every day. In addition to showing a gradual increase in the prevalence of non-daily smokers, this graph indicates that, relative to non-Natives, Alaska Natives have a consistently higher proportion of smokers who fall

into this category.¹⁸ Furthermore, considering just those smokers who do smoke every day, Alaska Natives report smoking fewer cigarettes per day compared with non-Natives (mean cigarettes per day = 13.5 [Alaska Natives] versus 18.1 [non-Natives], 1999-2000 BRFSS).¹⁹

Figure 3. Trend in Percentage of Adult Smokers Who Smoke Less Than Every Day, By Race, Alaska BRFSS, 1994-2002

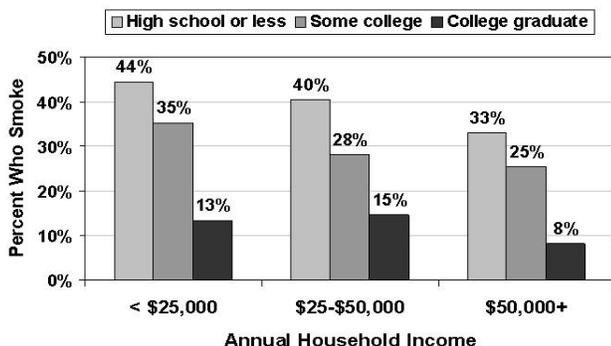


Socioeconomic (SES) Disparities in Tobacco Use

As discussed above, racial disparities in health status and risk behaviors are believed to be due in large part to underlying differences in social or environmental factors, such as socioeconomic status (SES). Examination of 2000-2002 BRFSS data on adult tobacco use reveals many such disparities, including those based on education level, household income level, employment status, and health care coverage.

Men and women with less than a high school education (46%, males; 43%, females) are over four times as likely to smoke as are those who have graduated from college (11%, males; 10%, females).²⁰ Smokeless tobacco use shows a similar pattern.²¹ In addition, adults who report an annual household income of less than \$15,000 smoke at much higher rates (41%) than do those who report an income of \$50,000 or more (19%).²² As Figure 4 shows, college educated adults smoke at relatively low levels, regardless of income level.²³ In contrast, adults in the highest income level who never attended college report smoking at relatively high levels (33%).

Figure 4. Percentage of Adults Who Smoke, By Education Level and Income, Alaska BRFSS, 2000-2002

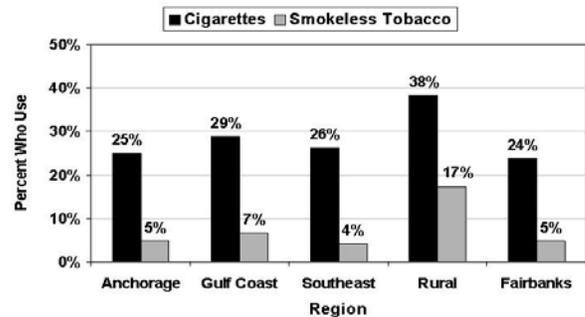


Large disparities in smoking prevalence exist by employment status. Fifty percent of adults who are either unemployed or unable to work are smokers.²⁴ This is nearly double the smoking prevalence reported by those who are employed (28%, males; 26%, females). Those who report having no health care coverage are almost twice as likely to smoke (41%) as are those who do have some type of health plan (24%), including private insurance or Medicaid.²⁵ Regardless of health plan status, however, unemployed adults have the highest rates of smoking.²⁶

Regional Disparities in Tobacco Use

Rural-to-urban disparities are present in both cigarette and ST use in Alaska. For the purpose of this report, “rural” is defined as the areas of the state exclusive of: Anchorage and vicinity, Fairbanks and vicinity, Southeast, and Gulf Coast. Figure 5 depicts the prevalence of smoking and ST use by BRFSS-defined region. Smoking prevalence, denoted with black bars, is highest in “rural” parts of the state.²⁷ The rural-to-urban disparity is even larger for ST (gray bars), which is used by 17% of adults in the rural region, but by only 4% to 7% of adults in the other regions.²⁸

Figure 5. Percentage of Adults Who Smoke, Use Smokeless Tobacco, By BRFSS Region, Alaska BRFSS, 2000-2002



Extreme regional disparities in prenatal ST use have also been noted. Specifically, according to 1996-2000 PRAMS data, the prevalence of prenatal ST use in the Yukon-Kuskokwim region (consisting of the Wade Hampton and Bethel census areas) (57%) is seven times higher than the prevalence seen in the second-highest region, the North/Northwest region (8%).²⁹

Summary

Racial, regional, and socioeconomic disparities in tobacco use exist in Alaska. Alaska Native high school students, adults, and pregnant women smoke and use ST at much higher rates than their non-Native peers. Adults with the fewest years of formal education, the lowest annual income, no job, or no health care plan are at greatest risk of using tobacco. Alaskans living in rural areas of the state smoke and—in particular—use ST more than Alaskans living in Anchorage, Fairbanks, Southeast, or the Gulf Coast. Moreover, these disparities do not appear to be diminishing over time. More work is clearly needed to uncover the root causes for these disparities, with particular attention focused on those disparities that are widening (e.g., ST use among high school girls).

Accessible, understandable, and current information on tobacco use behaviors and attitudes is an essential tool in the fight against this public health threat. It is hoped that this series of Bulletins can provide that tool for health professionals, affiliated partners, and concerned Alaskans alike. A complete copy of the new report, *Tobacco in the Great Land*, can be found at <http://www.epi.alaska.gov/pubs/tobaccofeb04.pdf>.

The following topics will be addressed in future Bulletins of this series:

- environmental tobacco smoke
- tobacco use cessation

Previous Bulletins in this series:

- overview of tobacco use in Alaska
- smokeless tobacco use

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