

*State of Alaska  
Epidemiology*



# **Bulletin**

**Recommendations  
and  
Reports**

Department of Health and Social Services  
Joel Gilbertson, Commissioner

Division of Public Health  
Richard Mandsager, MD, Director

Section of Epidemiology  
John Middaugh, MD, Editor

3601 C Street, Suite 540, PO Box 240249, Anchorage, Alaska 99524-0249 (907) 269-8000  
24-Hour Emergency Number 1-800-478-0084

<http://www.epi.Alaska.gov>

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# **Smokeless Tobacco Use in Alaska**

*Part 2 of a 5-Part Series*

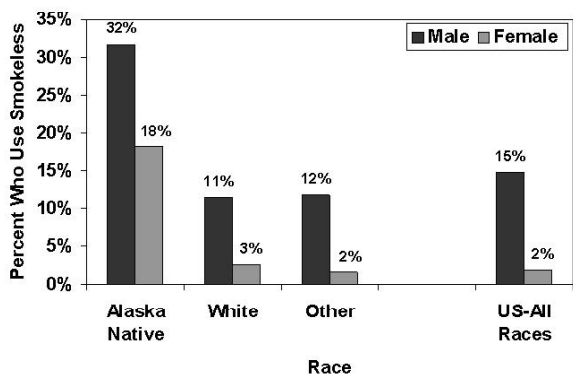
Smokeless tobacco use is a serious and pernicious public health problem in Alaska and nationwide. Chronic use of smokeless tobacco, including snuff and chewing tobacco, can cause oral cancer and precancerous oral lesions, and is a risk factor for cardiovascular disease and nicotine addiction.<sup>1</sup> Smokeless tobacco use also causes periodontal disease, delayed wound healing, and dental caries.<sup>2-6</sup> This summary of the use of smokeless tobacco in Alaska is the second in a series of Bulletins over the next two months that describe Alaska's heavy burden of tobacco-related disease, as reported in the new publication: *Tobacco in the Great Land: A Portrait of Alaska's Leading Cause of Death*.

### Smokeless Tobacco Use Among Youth

Results from Alaska's 2003 Youth Risk Behavior Survey (YRBS), a statewide, representative survey of high school students' risk and preventive behaviors, reveal that 16% of Alaskan high school boys and 6% of Alaskan high school girls had used smokeless tobacco during the previous 30 days.<sup>7</sup> In comparison with other states' YRBS results, Alaska has one of the highest rates of smokeless use among girls (second only to Wyoming) and the 8<sup>th</sup> highest rate overall.<sup>8</sup> In Alaska, 13% of high school boys and 4% of high school girls are already using smokeless tobacco by the 9<sup>th</sup> grade.<sup>9</sup>

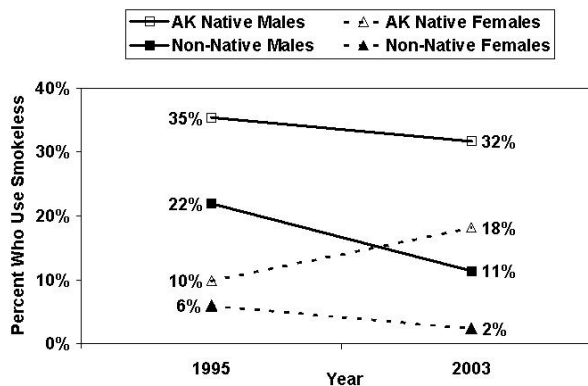
As Figure 1 shows, Alaska Native male and female students are more likely than students of other race groups to report smokeless tobacco use. Alaska Native males use smokeless tobacco at three times the rate of non-Native Alaskan males and twice the rate of male students nationwide; Alaska Native females use smokeless tobacco at seven times the rate of non-Native Alaskan females and nine times the rate of female students nationwide.<sup>10</sup>

Figure 1. Percentage of High School Youth Who Use Smokeless Tobacco, By Sex and Race, Alaska YRBS (2003), US YRBS (2001)



The 2003 rates of smokeless tobacco use represent a significant decline in use compared to Alaska's previous valid high school survey in 1995, when nearly one in four boys and 7% of high school girls reported current use. However, when results are examined by race it becomes clear that although smokeless tobacco use decreased among Alaska Native and non-Native boys as well as non-Native girls, use nearly doubled among Alaska Native girls in that same time period (see Figure 2).<sup>11</sup>

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

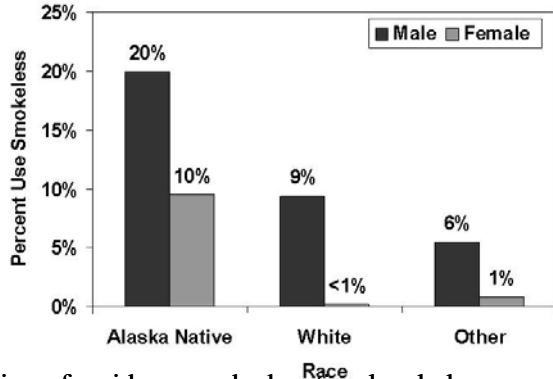


### Smokeless Tobacco Use Among Adults

According to the three most recent years of data (2000-2002) from the Alaska Behavioral Risk Factor Surveillance System (BRFSS), 6% of Alaskan adults currently use smokeless tobacco and an additional 21% formerly used smokeless tobacco but no longer do so.<sup>12</sup> Men are much more likely than women to be using smokeless tobacco currently (10% current use among men vs. 2% current use among women) or to have ever used smokeless tobacco (43% lifetime use among men vs. 9% lifetime use among women). However, among those adults who have ever used smokeless tobacco, men (24%) and women (19%) are about equally as likely to be using smokeless tobacco currently. This differs from the pattern seen nationally, where 24% of male, but only 4% of female lifetime users reported currently using smokeless tobacco.<sup>13</sup> This suggests that, compared to their peers in other states, women in Alaska are at higher risk of developing a smokeless tobacco habit.

As was seen with youth data, Alaska Native adults are about three times as likely to be using smokeless tobacco as Alaskans of other races. Figure 3 shows rates of use by race and sex. Of note is that fact that while Alaska Native men are about twice as likely as non-native men to use smokeless tobacco, Alaska Native women are 10 times as likely as non-Native women to use it.<sup>14</sup>

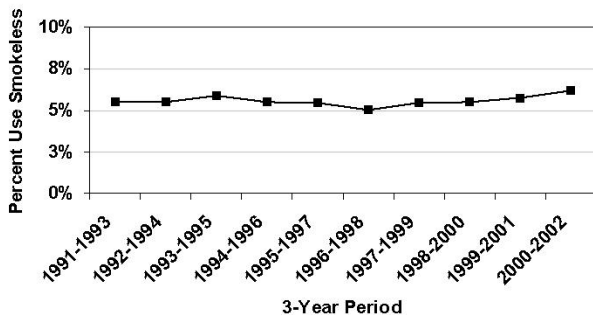
Figure 3. Percentage of Adults Who Use Smokeless Tobacco, By Sex and Race, Alaska BRFSS, 2000-2002



Region of residence and education level also appear to be associated with adult smokeless tobacco use. Alaskans who live in the BRFSS-designated “rural” areas of the state<sup>15</sup> report using smokeless tobacco at about three times the rate of those who reside in other regions (17% vs. 4%-7%).<sup>16</sup> Nine percent of Alaskan adults with less than a high school diploma, but only 3% of those who graduated from college, use smokeless tobacco.<sup>17</sup>

Unlike use of cigarettes, which appears to peak in the 18-to-24 year old age group, smokeless tobacco use is greatest among those 25-to-34 years old, after which age use declines.<sup>18</sup> Also unlike the pattern seen with smoking, adults aged 25 to 44 report the highest prevalence of lifetime smokeless tobacco use.<sup>19</sup> This appears counterintuitive, as those in older age groups presumably would have had more cumulative opportunities to be exposed to, experiment with, and develop the habit of smokeless tobacco use. This may be an indication that the high rates of use we now see are a relatively new phenomenon. Indeed, national data reflect an increase in smokeless tobacco consumption beginning in the late 1970s, which has leveled off somewhat since 1980.<sup>20</sup> Consistent with this pattern, the trend in current use in Alaska has been relatively stable over the past decade.<sup>21</sup>

Figure 4. Trend in Percentage of Adults Who Use Smokeless Tobacco (3-Year Moving Averages), Alaska BRFSS, 1991-2002



## Summary

Alaskan youth and adults use smokeless tobacco at high rates in comparison with the nation. The decline in use seen among Alaska’s high school youth in recent years does not include Alaska Native girls, among whom rates have doubled. At the same time, adult prevalence has not decreased over the past decade. Among adults, Alaska Natives, those living in rural areas of the state, 25-to-34 years olds, and those with less than a high school education are at greatest risk of using smokeless tobacco.

Some would argue that because fewer negative health effects have been linked to smokeless tobacco, it should be considered a less harmful alternative to cigarette smoking. Before accepting such a proposal one should consider the following points highlighted in the National Cancer Institute’s monograph on smokeless tobacco use:<sup>22</sup>

- The addictive substance in both smokeless tobacco and cigarette smoke is nicotine, and there is a clear potential for smokeless tobacco to serve as a gateway to cigarette smoking, or to reinforce previously established nicotine use;
- The prevalence of smokeless tobacco use is high among vulnerable populations;
- Smokeless tobacco products are marketed aggressively with special targeting of vulnerable populations in the United States and abroad;
- Users of smokeless tobacco are at increased risk for oral cancer, noncancerous oral pathologies, and nicotine addiction; and
- The biological effects and epidemiology of smokeless tobacco use are a recent focus of research, and it is possible and probable that continued investigation will identify further health risks and harmful effects.

For these and other reasons, the National Cancer Institute monograph echoes the conclusion posited in the 1986 Surgeon General’s Report on the health effects of smokeless tobacco:<sup>23</sup>

**There is no safe form of tobacco.**

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:

- disparities in tobacco use
- environmental tobacco smoke
- tobacco use cessation

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- <sup>7</sup> Peterson E, Fenaughty A, Eberhart-Phillips JE, Tobacco in the Great Land, A Portrait of Alaska's Leading Cause of Death. Anchorage, AK: Section of Epidemiology, Division of Public Health, Alaska Department of Health and Social Services, 2004, pp. 62.
- <sup>8</sup> Ibid, pp. 63.
- <sup>9</sup> Ibid, pp. 65.
- <sup>10</sup> Ibid, pp. 64.
- <sup>11</sup> Ibid, pp. 63.
- <sup>12</sup> Ibid, pp. 105.
- <sup>13</sup> Ibid, pp. 105-107.
- <sup>14</sup> Ibid, pp. 108.
- <sup>15</sup> That is, anywhere excluding the following areas: Anchorage and vicinity (including the Matanuska-Sustina Valley), Fairbanks and vicinity, Southeast Alaska, the Gulf Coast.
- <sup>16</sup> Peterson E, Fenaughty A, Eberhart-Phillips JE, Tobacco in the Great Land, A Portrait of Alaska's Leading Cause of Death. Anchorage, AK: Section of Epidemiology, Division of Public Health, Alaska Department of Health and Social Services, 2004, pp. 109.
- <sup>17</sup> Ibid, pp. 110.
- <sup>18</sup> Ibid, pp. 109.
- <sup>19</sup> Ibid, pp. 109.
- <sup>20</sup> Stotts RC, Schroeder KL, Burns DM (editors). Smokeless tobacco or health, an international perspective. Bethesda, Maryland: US Dept Health Human Services (NIH). NIH Publ No. 92-3461; 1992, pp. v.
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State of Alaska, Section of Epidemiology  
PO Box 240249  
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