Use in Colorado of Non-Cigarette Tobacco (NCT)

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Colorado Tobacco Attitudes and Behaviors Surveys, 2001

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Background: In 2000, the Colorado General Assembly decided how to spend payments that the tobacco industry makes to settle legal claims of racketeering and taxpayer medical costs caused by tobacco use. The initial spending categories include 8 percent for a Colorado Tobacco Research Program (CTRP) administered by the University of Colorado (CU), and 15 percent for a Tobacco Education Program administered by the Colorado Department of Public Health and Environment (CDPHE).

As part of the plan, the Legislature directed the CTRP to “fund evaluative research for the collection of baseline demographic data on tobacco use by persons within the state.” [C.R.S 23-20-206(1)(b)] This baseline information will help CU develop and refine CTRP research priorities, help the CDPHE plan and evaluate tobacco prevention and control programs, and help lawmakers consider new or revised state policies. AMC Cancer Research Center received the contract to conduct the baseline “Colorado Tobacco Attitudes and Behaviors Surveys” (TABS).

The TABS 2001 adult survey randomly selected and interviewed adults across the state, including extra-large samples of (a) adults who had ever smoked, (b) residents of selected geographic areas (Denver, El Paso, Larimer, Mesa and Pueblo counties), and (c) African American adults. The survey picked people to interview by randomly choosing Colorado telephone numbers. All English- or Spanish-speaking households with telephones* were eligible to participate. In each consenting household, one adult was randomly chosen for an interview. After this adult was chosen, any other household adult who had ever smoked had a chance to be randomly chosen for a second interview from the household. A total of 13,006 people were interviewed, including 2,900 ever-smokers selected as a household’s second interviewee.

The TABS youth survey collected information during the fall 2001 term from Colorado public schools chosen to represent the statewide student population, including an extra-large sample from Denver and representation of alternative high schools. The TABS youth survey selected a stratified random sample of schools in proportion to student population size, then randomly picked two classes per grade from a required school period or required subject.† All English-literate students in selected classes were eligible to participate. Participating schools informed parents in advance of the survey, and students voluntarily completed or declined the survey anonymously with no benefit or consequence from either choice. A total of 16,157 students in 130 schools completed the survey; most were finished in 15 minutes or less. Suburban schools, which enroll slightly more than half of Colorado’s regular public school students, participated less often than other schools did. This report often presents suburban estimates separately to provide estimates that are as precise as possible among the nonsuburban student population.

The TABS “oversamples” and overall size allow analysts to produce more precise statistics than were available before, using weights to compensate for disproportionate sampling. In the previous year, for example, Colorado’s adult smoking rate was estimated at 20.0 percent, 10th lowest among states, but a ±2.0 percent margin of error‡ made the rate indistinguishable from the

† TABS used a stratified, two-stage cluster design with systematic sampling for probability proportional to size (pps) selection.
‡ The margins of error in this report represent 95% confidence intervals, which means 95 of 100 similar surveys would produce rates within these margins (for example, 18.0% to 22.0% for Colorado’s adult smoking rate in 2000).
national average. In contrast, the Colorado TABS margin of error on the estimate of adult current smoking is smaller than ±1.0 percent. The previous estimate of current smoking† among 12th grade students was 25.7 percent with a margin of error of ±10.2 percent. The Colorado TABS margin of error for the same rate in the same grade is less than half as wide (±4.4 percent). The CDPHE intends to fund a second wave of TABS in fiscal year 2005, and the two sets of TABS results will be compared to measure progress in addressing the problem of tobacco use.

The current report describes Coloradans’ use of tobacco products other than cigarettes. Other reports address adult and youth cigarette smoking, secondhand tobacco smoke, and youth access to cigarettes. TABS reports are on the internet at: http://www.cdphe.state.co.us/pp/tobacco/.

* Median rate among 50 states, the District of Columbia, and Puerto Rico. Source: Centers for Disease Control and Prevention (CDC), Behavioral Risk Factor Surveillance System (BRFSS).
† Smoked any cigarettes in the previous 30 days.
Notable Findings

- Cigars, oral snuff, and chewing tobacco are ever used and currently used more commonly by adolescents than by adults.

- Current use of these non-cigarette tobacco (NCT) products is four times more common among middle-school girls, and 10 times more common among female high school students, than it is among adult women.

- Nearly one-fourth (22%) of male high school students currently uses NCT.

- Current cigar smoking is three times as common among male high school students as it is among adult men.

- Current use of smokeless tobacco (chew, snuff) is nearly twice as common among male high school students as it is among adult men.

- Ever-use of novelty cigarettes (bidis, kreteks) is less common in Colorado than in the nation as a whole.
Introduction

Although cigarettes remain the most commonly consumed tobacco product in the United States, non-cigarette tobacco (NCT) is also widely used. Like cigarettes, NCT products cause cancer. Smokeless tobacco causes cancer of the mouth, throat, voicebox or esophagus. Cigars cause cancer in these sites plus the lungs. One large cigar delivers as much nicotine, tar and carbon monoxide as half a pack of cigarettes.

Smokeless tobacco also causes non-cancerous mouth diseases and is highly addictive because it delivers three or more times as much nicotine per use as a cigarette.

In recent years, novelty tobacco products called bidis and kreteks have become popular among U.S. youth. These flavored, hand-rolled “cigarettes” deliver several times more nicotine, tar and carbon monoxide than typical U.S. cigarettes. Smokers also must puff them harder and more frequently to keep them lit, increasing intake of these poisons.

The current report describes NCT use among Colorado adolescents and adults. The first section describes which groups of Coloradans have ever used and currently use any NCT product. Other sections describe use of each type of product (smokeless tobacco, cigars, pipes, bidis, and kreteks).

* Sources:
Lifetime Use of Non-Cigarette Tobacco

More than a third of Colorado adults and almost a third of high school students have ever used some form of non-cigarette tobacco (NCT).

| Table 1. Ever used non-cigarette tobacco, Colorado 2001 (%) |
|-------------------------|-------------------|
| %                       | margins of error* |
| middle school           | 8.9               | 7.4 to 10.4 |
| high school             | 31.2              | 28.6 to 33.7 |
| adults                  | 34.2              | 33.2 to 35.3 |

* 95% confidence interval

Most NCT users have also smoked cigarettes (Table 2). This is especially true in adolescence.

| Table 2. Cigarette use among ever-users (%) of non-cigarette tobacco |
|-------------------------|-------------------|
| %                       | margins of error* |
| middle school           | 84.8              | 78.5 to 98.2 |
| high school             | 88.6              | 86.6 to 90.7 |
| adults                  | 58.2              | 56.2 to 60.2 |

* 95% confidence interval

For more than half of adolescents who ever used both NCT and cigarettes, NCT use occurred after cigarette smoking. Nearly 90% of adolescents who have used NCT did it when they were 15 or younger.

At the same time, more than half of adolescents who have smoked cigarettes have never used NCT (55.8% ± 3.7%).
Unlike cigarettes, NCT is much more commonly used by males than by females. Overall, 56.6% of Colorado men have used NCT compared to 12.0% of women, and 27.3% of adolescent males have used it compared to 14.4% of adolescent females. Males who have ever used cigarettes and also ever used NCT are more common among today’s high school students than among men who are now adults (Figure 1).

Figure 1. Ever used non-cigarette tobacco, adolescents and adults (%), by gender and cigarette-smoking history

<table>
<thead>
<tr>
<th>Gender</th>
<th>Never smoked cigarettes</th>
<th>Has smoked cigarettes (at least a puff)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>0.7%</td>
<td>62.5%</td>
</tr>
<tr>
<td>Female</td>
<td>4.3%</td>
<td>36.4%</td>
</tr>
</tbody>
</table>

Ever use of NCT is also more common among today’s teenaged girls and younger women than among women who are now middle-aged or older (Figure 2).

Figure 2. Ever used non-cigarette tobacco, females (%), by age group


* Margins of error: men, ±1.8%; women, ± 1.0%; adolescent males, ± 2.2%; adolescent females, ± 1.7%.
Current Use of Non-Cigarette Tobacco

More than one in seven Colorado men (15.3% ± 1.3%) currently use NCT. The rate is higher among men younger than 45 (Figure 3). In contrast, fewer than one percent of women currently use NCT, although the rate is also higher among women younger than 45.

Figure 3. Currently use non-cigarette tobacco, adolescents and adults (%), by gender

Among adolescents, nearly one-fourth of male high school students currently use NCT, and use is twice as common among those who smoke cigarettes (Figure 4). Among female high school students who smoke cigarettes, roughly one-fourth use NCT as well, a much higher level of NCT use than is reported by female adult cigarette smokers. This widespread use of NCT by female adolescent cigarette smokers needs further study.

Figure 4. Currently use non-cigarette tobacco, adolescents and adults (%), by gender and cigarette-smoking status

* any use in previous 30 days
Smokeless Tobacco

Use of oral snuff or chewing tobacco* is almost exclusively a male behavior, especially among adults. Fewer than one in 20 adult women has ever used smokeless tobacco (Figure 5), and only one in a thousand currently uses it (Figure 6). Daily use is more common than use on some days. Current use is three times more common among men younger than 45 than among men aged 45 and older (10.8% vs. 3.4%, p<0.0001; not displayed in figures).

* The products are also known as chew, dip, and spit tobacco.
Current use varies widely among Colorado’s ethnic populations. Among men aged 18-44, it is more common among white non-Hispanic men than among Hispanic or black non-Hispanic men (Figure 7). The differences are larger than the margins of error.

A similar pattern appears among male high school adolescents, except that use is also higher among white non-Hispanic males than among Asian males. The differences are larger than the margins of error.
Current use is consistently lowest in urban areas and highest in rural areas, and nearly as common among high school students in these areas as it is among adults aged 18-44 (Figure 9). In the suburbs, however, current use is more common among high school students than it is among adults.

This distinction in the suburbs may be due to the fact that cessation is more common among suburban adults than among urban or rural adults. Just 16.8% of suburban males aged 18-44 who ever used smokeless tobacco currently do so, compared to 26.2% in urban areas and 36.3% in rural areas (not displayed in figure).*

* p<0.01 for urban-surburban comparison, p<0.0001 for other comparisons.
Cigars

Nearly half of Colorado adult men have smoked a cigar (Figure 10). Although just one in 20 adult men still does, one in six male high school students is now doing it. Among women, current use is rare, but less so among female adolescents.

Among adult women, the likelihood of having ever smoked a cigar is greater with younger age (Figure 11). The opposite is true for men ever smoking cigars regularly* – having ever done so is twice as common among those older than 45 (Figure 12).

* 50 or more cigars smoked in lifetime
White non-Hispanic and American Indian men are more likely than black, Asian or Hispanic men to have ever smoked cigars (Figure 13); the differences are larger than the margins of error. Differences are similar among women, and are larger than the margins of error for white non-Hispanic vs. Hispanic or black non-Hispanic women.

![Figure 13. Ever smoked cigars, adults (%), by gender and ethnicity](image)

Regular cigar smoking is most common among white non-Hispanic and American Indian men (Figure 14). The differences are larger than the margins of error. Among women, one percent or fewer have ever smoked cigars regularly, except that 3.1% of black women have done so. This difference is not larger than the margins of error and may be a random result.

![Figure 14. Ever smoked cigars regularly, men (%), by ethnicity](image)

Among adolescents, ethnicity does not appear to be a factor in commonness of cigar smoking. Among both adults and adolescents, cigar smoking is similarly common in Colorado’s urban, suburban, and rural regions.
Pipes*

Men aged 45 and older commonly have ever smoked tobacco in a pipe (Figure 15), but the experience is half as common among younger men, and just one in 45 Colorado men smokes a pipe now. Only one in 2,000 Colorado women currently smokes a pipe.

* asked of adults only.
Bidis, Kreteks*

Bidis are small brown cigarettes from India consisting of tobacco wrapped in a leaf tied with a thread. Kreteks (also called clove cigarettes) are flavored cigarettes containing tobacco and clove extract. Adolescent ever-use of these products in Colorado was less common in 2001 than it was nationally in 2000† (Figure 16). Use is about twice as common among male adolescents as among female adolescents (Figure 17).

* asked of adolescents only.