Youth Access to Cigarettes in Colorado

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Background: In 2000, the Colorado General Assembly decided how to spend payments to the State 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 cigarettes regularly 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 for their household’s second interview.

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.

The TABS “over-samples” and the overall size of the samples 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

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† 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).
indistinguishable from the 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 Colorado minors’ access to cigarettes. Other reports address adult cigarette smoking, youth cigarette smoking, issues of secondhand smoke, and Coloradans’ use of other tobacco products.

* 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

- Half (48%) of Colorado’s adolescent smokers younger than 18 are usually given the cigarettes they smoke. Providers are usually friends (60%), siblings (15%) or acquaintances (10%).

- Nearly half (44%) of high school smokers younger than 18 – and nearly three-fourths (74%) of current established smokers younger than 18 – usually buy their own cigarettes or have someone buy for them. (*Current established smokers* have smoked at least 100 cigarettes and smoke currently.)

- Nearly two-thirds of adolescents (64%) who are experimenting with cigarettes but aren’t established smokers are usually given the cigarettes they smoke.

- Fewer than one-fourth (21%) of middle-school students who have never smoked cigarettes think cigarettes are easy to get, but the percentage increases to more than three-fourths (78%) of never-smokers in 12th grade. More than 80% of current established smokers in all grades think cigarettes are easy to get.

- About two-thirds of Colorado adults – smokers and nonsmokers alike – think businesses should need a special license to sell cigarettes.

- Cigarette smoking by adolescents is no less common in Colorado communities that prohibit it than in communities that don’t, and adolescents equally often say getting cigarettes is easy in the two types of communities. Nevertheless, a large majority of both smokers and nonsmokers (87%) say minors should be prohibited from having or smoking cigarettes.
Introduction

Regular tobacco use among U.S. adults usually begins in adolescence\(^1,2,3\) and is the single-most preventable cause of death and disease.\(^4,5\) Although adolescent cigarette smoking has declined since 1996-1997,\(^6\) it remains widespread. In Colorado, 25% of high school students were currently smoking cigarettes in 2001.\(^*\)

Colorado law prohibits furnishing cigarettes to minors (people younger than 18).\(^†\) During the last three years, federally required investigations\(^‡\) to measure retailer compliance with the law have estimated that fewer than 8 percent of cigarette retailers sell to minors.\(^§\) This rate is among the lowest in the nation. As the current report shows, however, the percentage of outlets that sell cigarettes to minors presents an incomplete picture of adolescent access to cigarettes. In the TABS 2001 surveys, Colorado adolescents and adults discussed minors’ access to cigarettes and what should be done about it. The results are the subject of this report.

References and Footnotes


\(^†\) Colorado Revised Statutes, 18-13-121.

\(^‡\) Title 45, Code of Federal Regulations, Part 96 (the “Synar” regulation, named for sponsoring Rep. Mike Synar (deceased) of Oklahoma.

Modes and Extent of Access

Overview

The most common way Colorado adolescents get cigarettes is by being given them – it’s the usual way for roughly half (48.2% ± 2.8%) of all underage smokers across all grades (Figure 1).

The second most common way to get cigarettes differs from middle to high school: Nearly one-third of high school students (30.3% ± 2.8%) usually have someone else buy for them, while a similar proportion of middle school students (32.8% ± 5.4%) usually take cigarettes without permission, most commonly from home (20.9% ± 4.3%).

Sales to or for smokers younger than 18

Among adolescent cigarette experimenters and established users,* more than one-third (37.9% ±2.9%) of those younger than 18 usually buy their own cigarettes or have someone buy for them. Direct and proxy buying is largely confined to “current established smokers.” (These are adolescents whose previous and current use levels would define them as current smokers if they were adults.) Current established smokers are nearly three-fifths (59.2% ± 3.9%) of the adolescents who usually rely on direct or proxy buying. Conversely, nearly three-fourths (74.0% ± 4.2%) of current established smokers usually rely on direct or proxy buying. These results are highly consistent with findings elsewhere that non-commercial sources are the main way adolescents get cigarettes until they become addicted and start buying for themselves or asking others to buy for them.

Direct buying is the usual mode for fewer than one in 20 experimenters (4.8% ± 1.9%) and one-fourth of established smokers (24.8% ± 5.0%). Two-thirds of usual direct buyers (67.7% ± 8.1%) are current established smokers. The mean age of usual buyers is 16, a year older than the mean age of those who usually get their cigarettes in other ways.

* Experimenters have smoked at least one whole cigarette but deny having smoked 100 total. Established users have smoked 100 or more cigarettes total.
Usual direct buyers are more often in higher grades and more often male (Figure 2). The gender difference is larger than the margins of error in 10th and 11th grades, but it disappears in 12th grade. This finding could be a chance result of survey error, a result of higher dropout rates among males, or real. If it is genuine, the underlying reasons are not known.

Usual direct buyers report signs of addiction more widely than do adolescent smokers that use other access modes: They are almost three times more likely to smoke their first cigarette within an hour of awakening (16.2% vs. 5.8%, p<0.001). More than half (53.2% ± 8.9%) smoke equally often alone and among people; in contrast, a majority of smokers who use other access modes say they smoke mostly around other people (57.7% ± 3.8%).

In high school, pocket money is linked with being a usual buyer. Among the one in five students who have more than $50 a week to spend as they please, smokers are twice as likely to usually buy their cigarettes as smokers who have less to spend each week (22.9% vs. 11.4%, p<0.001).

The extent of usual buying differs among regions, but the differences are not larger than the margins of error (results not shown). Differences among ethnicities are slight and smaller than the margins of error (results not shown).

Proxy-mediated buying – having someone else buy one’s cigarettes – is the usual access mode for fewer than one in six experimenters (15.8% ± 1.7%) but nearly half of established smokers (48.1% ± 4.7%). More than half (55.6% ± 4.4%) of proxy-mediated buyers are current established smokers. The mean age of smokers who usually rely on proxy buyers is 15.6, about nine months older than the mean age of those who usually get their cigarettes in other ways.

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* The dropout rate affects availability of students to complete the TABS survey. Colorado public school noncompletion rates in 2001 were 21.2 percent for males and 15.2 percent for females. Source: Colorado Department of Education.
Like direct buyers, proxy-mediated buyers are more often in higher grades. Unlike direct buyers, they are more often female (Figure 3). The gender difference is larger than the margins of error only in middle school.

In contrast to direct buyers, proxy-mediated buyers aren’t more likely than others to say they light up within an hour of awakening. Nearly half (44.6% ± 5.7%) smoke equally often when alone and with other people, however.

### Proxy buyers

People who serve as proxy buyers most often are a friend of the smoker (Figure 4). The next most common proxy buyer is a family member, usually a brother or sister. Rarely do strangers serve as the usual proxy buyers for underage smokers. Most proxy buyers (83.6% ± 3.5%) are 18 or older, but about one in nine (11.7% ± 3.2%) is underage.
Social sources

Nearly all students (92.4% ± 1.3%) who have given cigarettes to friends or acquaintances have themselves smoked cigarettes. Social distribution is much more widespread in high school than in middle school (Figure 5), and those who have given cigarettes are about 1.5 years older on average than those who have not (15.4 years old vs. 14.0 years old, p<0.0001). No gender difference is apparent. In high school, white students are more likely than Hispanic or black students to give cigarettes to friends or acquaintances (54.6%, 48.5%, 33.8%, respectively, p<0.001).

Giving and receiving cigarettes are typically not reciprocal behaviors among Colorado adolescents (Figure 6). Although there is some overlap, about two-thirds of the givers usually get their cigarettes in other ways, and about two-thirds of those who are usually given their cigarettes say they’ve never given cigarettes to friends or acquaintances.

Who are the smokers that give cigarettes to friends but usually get their own in other ways?

- They are almost a year older on average than other experimental and established smokers (mean age 15.9 years vs. 15.1 years, p<0.0001).
- Nearly two-thirds (64.9% ± 4.3%) are established smokers.
- About one-third (34.3% ± 4.7%) usually buy their cigarettes, but nearly half (47.5% ± 4.8%) have someone else buy cigarettes for them.

Who are the smokers that usually get their cigarettes from someone but don’t give them to others?
They are about half a year younger on average (15.1 years vs. 15.6 years, \( p=0.0001 \)).
Almost all (97.7\% \pm 1.1\%) are experimenters rather than established smokers.
They are slightly more often female (54.9\% \pm 4.6\%).

In sum: Most exclusive givers are somewhat older, established smokers who usually have other people buy cigarettes for them or who buy cigarettes for themselves. Almost all exclusive recipients are experimenting with cigarettes.

**Perceived ease of access**

Whether or not they have smoked cigarettes, most high school students (71.5\% \pm 1.6\%) say getting cigarettes is easy – a realistic view given more widespread use in high school, along with the increase in social sources. Smokers are more likely than non-smokers to think so, though, and current established smokers are generally more likely than other smokers to think so (Figure 7) The differences are larger than the margins of error except between types of smokers in 10\textsuperscript{th} and 12\textsuperscript{th} grades.

**Refusal to sell**

In any given month, about one in eight underage high school students tries to buy cigarettes (12.8\% \pm 1.3\%). Among those who tried in the month before completing the TABS survey, more than half (53.8\% \pm 5.4\%) said they were *not* asked for proof of age. Yet a Colorado law enforcement survey during the same time found minors were asked for proof of age in most undercover purchase attempts (87.2\% \pm 2.0\%).\(^1\) Although these two findings appear contradictory, at least two explanations seem plausible. First, undercover purchase attempts and genuine attempts may differ in unknown ways that let clerks detect and refuse undercover minors while selling cigarettes to genuine underage customers. A second, less speculative explanation arises from the fact that federal law requires undercover purchase attempts to randomly estimate the proportion of cigarette retailers that sell to minors – but genuine underage cigarette buyers aren’t likely to shop randomly. Rather, they are likely to find stores that sell at least sometimes, and return repeatedly for their purchase attempts. If one in eight stores do not ask for proof of age, minors might readily identify those stores and confine purchase attempts to them.

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\(^{1}\) Levinson A, Hendershott S, Byers T. The ID-effect on youth access to cigarettes. *Tobacco Control* (accepted July 24, 2002; publication pending).
Most Colorado adults favor stricter laws and enforcement to prevent youth access to cigarettes (Table 1). A majority believes current enforcement is inadequate. More than two-thirds say tobacco retailers should be required to obtain a license to sell tobacco; nearly two-thirds of smokers say so, too. Most adults say minors should be prohibited from having or smoking cigarettes, and a narrow majority favors stricter regulation of tobacco advertising and sales.

At least 39 states require licenses to sell tobacco, and 26 states can impose license suspension or revocation for selling cigarettes to minors.*

At least 35 Colorado cities and counties prohibit minors from having or smoking cigarettes. Fewer than half of Colorado adults (46.6% ± 1.1%) and adolescents (36.7% ± 2.5%) accurately know whether their community has such a prohibition, however. In communities that do have such laws, adolescent current smoking is no less common than in communities without such laws (17.2% vs. 15.9%, n.s.). And, in both types of communities, similar proportions of adolescents say it’s easy to get cigarettes (54.5% in locales with possession-use laws, 52.2% in locales without such laws).

Current federal law on tobacco sales requires states to prohibit sales to minors, to enforce this prohibition, and to estimate the noncompliance rate. Colorado law adds to these provisions a ban on cigarette sales through vending machines where minors have access.

Current federal law on tobacco advertising is limited to requiring warning labels on product packages and advertisements.

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