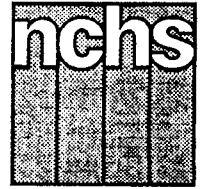


Advance Data



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Recent Trends in Adolescent Smoking, Smoking-Uptake Correlates, and Expectations About the Future

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Highlights

In 1989, the National Center for Health Statistics (NCHS) conducted the National Health Interview Survey (NHIS) on Teenage Attitudes and Practices (TAPS), a national survey of adolescents interviewed about their use of tobacco. Among the findings are the following highlights:

- About 1.7 million youths had smoked a whole cigarette before their 12th birthday. An estimated 3.7 million U.S. teenagers (16 percent) were current cigarette smokers. An additional 6.8 million teenagers (29 percent) had experimented with cigarettes.
- Among 16–18-year-olds, about 60 percent were either currently smoking (25 percent) or had experimented with cigarettes (34 percent). About the same proportions of boys and girls reported that they currently smoked.
- Proportionately more black teenagers (63 percent) than white teenagers (52 percent) said that they had never smoked.
- Teenagers were three times more likely to smoke (37 percent) if their parents and at least one older sibling smoked than if no one in the household smoked (12 percent).
- Teenagers with no best friends of the same sex who smoked seldom smoked (about 3 percent). However, almost half of those with at least two best friends who smoked were smokers themselves.
- About 40 percent of teenagers who smoked reported using cigarettes daily. Proportionately, twice as many white teenage smokers smoked every day (42 percent) as did black adolescent smokers (22 percent). About one in five 16–18-year-olds who smoked averaged at least 20 cigarettes per day.
- About three teenagers in four who were current smokers (2.7 million adolescents) had made at least one serious attempt to quit smoking cigarettes. Ninety-two percent of all adolescents did not expect to be smoking 1 year later.

Background

Over the past 25 years, cigarette smoking practices of U.S. adolescents have undergone a number of marked changes. In 1968, 17 percent of teenage boys and 10 percent of teenage girls 12–18 years of age reported smoking cigarettes regularly or occasionally (1). In 1974, while the proportion of boys who smoked remained virtually unchanged (16.3 percent), there was about a 60-percent increase in the proportion of teenage girls who smoked (15.9 percent). That year marked the first time the percentages of girls and boys who smoked were about the same. Between 1974 and 1979, a decrease in cigarette smoking rates was observed among both sexes, but, because the rate of decline was greater among teenage boys, the percent of girls who smoked actually exceeded that of boys (13 percent compared with 11 percent) (2–5). Throughout most of the 1980's, the percentages of teenagers who smoked remained fairly stable, though, according to some surveys, more



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teenage girls smoked than did teenage boys. It now appears, however, that teenage smoking levels are similar for both sexes (6,7).

Even with the vast body of information now available regarding the adverse effects of cigarette smoking and recent efforts to encourage smokers to quit and young people not to start, cigarette smoking continues to appeal to millions of teenagers. In fact, teenagers are beginning to smoke at younger ages, with the age of initiation decreasing especially among girls (6). Furthermore, teenage smoking tends to establish habits leading to subsequent adult addiction, which, in turn, often leads to significant morbidity and premature death.

This report contains estimates of adolescent tobacco-use patterns derived from the National Center for Health Statistics' 1989 Teenage Attitudes and Practices Survey (TAPS).

Data and Methods

In 1989, the National Center for Health Statistics (NCHS), in collaboration with the Centers for Disease Control Office on Smoking and Health (OSH) and the National Cancer Institute (NCI) and as part of its National Health Interview Survey (NHIS), conducted the Teenage Attitudes and Practices Survey (TAPS). The TAPS was conducted to provide national household-based smoking data on teenagers between the ages of 12 and 18. In addition to providing updated and detailed estimates of adolescent smoking practices, the TAPS also was designed to provide a data base for collecting longitudinal data on future smoking behaviors of TAPS adolescents.

Prior to the TAPS, the last national household-based survey focused primarily on teenage smoking practices was conducted in 1979 by telephone by Chilton Research Services for the U.S. Department of Health, Education, and Welfare (1). More recent national estimates of teenage smokers are available from school-based surveys from the

National Institute on Drug Abuse (NIDA) (University of Michigan 1991 Monitoring the Future Project) and the Youth Risk Behavior Surveys (YRBS) (7,8). These estimates excluded high school dropouts and teenagers with high absentee records, two population groups at greatest risk to smoke (9). Further, many details about teenage smoking behavior contained in the TAPS were not included in these surveys.

The TAPS sampling frame consisted of all teenagers between the ages of 12 and 18 (on November 1, 1989) who resided in households interviewed for the NHIS during the last two quarters of 1988 and the first two quarters of 1989. The final TAPS-eligible sample contained 12,097 adolescents. Of that number, 9,965 (about 82 percent) were subsequently interviewed. All figures presented in this report were based upon these sample persons and were weighted to produce national estimates.

Data were primarily collected with computer-assisted telephone interviews (CATI). However, mail questionnaires were also used for those teenagers who could not be reached by telephone (that is, those living in homes without telephones, those with unknown telephone numbers, and those whose telephones were not answered). By necessity, the mail questionnaire represented an abbreviated version of the CATI and did not contain all of the questions asked in the telephone interview.

The technical notes in this report contain more detailed descriptions of the sample design, response rates, data collection procedures employed, and the definitions of certain terms.

Methods for constructing approximate standard errors and tests of significance for estimates and percents presented in this report also appear in these notes. Unless otherwise noted, the comparisons made within the text are significant at the .05 level.

Included in this report are estimates of the number and percent distribution of adolescents in the United States according to their

current smoking practices (table 1). The adolescent smoking status categories used to classify adolescents were: "never smoked" (subdivided by future expectations in regard to smoking, that is, "no intention" or "may smoke"), "experimenter," "former smoker," and "current smoker" (characterized as "heavy," "light," and "occasional"). These categories are described more fully in the technical notes. Tables 2, 3, and 5 contain data that characterized current smokers' past and current smoking practices, including number of days they smoked in the past month; average number of cigarettes smoked per day, per weekday, and per weekend day; and number of quit attempts. Table 4 contains figures on predicted future smoking practices of teenagers (that is, whether or not they reported they expected to be smoking 1 year from the interview). Table 6 includes estimates of ages adolescents reported smoking their first whole cigarette. Table 7 contains estimates for several known correlates of adolescent smoking-uptake behavior, including smoking practices of other household members and best friends of the same sex (3,4,10-20), and participation in organized physical activities (20,21). In table 8, data are presented according to several school-related smoking-uptake correlates, including type of student, attitude toward school, and school-skipping occurrence (14,20-23). In table 9, estimates are presented for four types of risk-taking behavior (24,25): fighting in the past year, riding a motorcycle or minibike, riding with a drunk driver or someone on drugs, and enjoyment of risk-taking activities. Data on several measurements of smoking knowledge and beliefs are presented in table 10.

Findings

Prevalence of teenage smokers

Table 1 contains estimates of the number and percent distribution of adolescents in the United States according to their current smoking practices. These estimates are shown

by the following demographic and socioeconomic indicators: sex, age, race, Hispanic origin, family income, poverty status, highest level of education attained by family, geographic region, and place of residence. Results from the Teenage Attitudes and Practices Survey (TAPS), as stated earlier, were representative of all U.S. teenagers 12–18 years of age.

In 1989, an estimated 3.7 million teenagers (16 percent) were current cigarette smokers (table 1). About the same proportions of boys and girls reported that they currently smoked. This trend was noted regardless of age. For the TAPS, a “current” smoker was defined as someone who smoked any time within 30 days of the date of the interview. An additional 6.8 million teenagers (29 percent) had experimented with cigarettes. “Experimenters” included teenagers who had ever tried cigarette smoking but had smoked fewer than 100 cigarettes and had not smoked any cigarettes in the past 30 days. While only 4 percent of 12- and 13-year-olds were current smokers, an additional 21 percent of adolescents at those ages reported having experimented with cigarettes. Among 16–18-year-olds, about 60 percent were either currently smoking (25 percent) or had experimented with cigarettes (34 percent).

Experimentation with cigarettes among adolescents appears to have occurred with about the same frequency, regardless of gender, race, or ethnicity. However, among the youngest adolescents, more boys reported experimenting with cigarettes than did girls (24 percent, compared with 18 percent).

Proportionately more black teenagers (63 percent) than white teenagers (52 percent) reported that they never smoked at all. Teenagers of Hispanic origin were also somewhat more likely never to have smoked (57 percent) than were non-Hispanic adolescents (53 percent) (0.10 level of significance).

Among the youngest group of teenage smokers, only about one out

of seven was classified as a heavy smoker. By 16–18 years of age, half of all teenagers who smoked were heavy smokers. A “heavy” smoker, by the TAPS’s definition, was someone who had smoked at least 10 days in the past month and averaged 5 or more cigarettes daily during the past 7 days. Differences were also noted in smoking levels of teenage boys and girls, particularly among older teenagers. Overall, a somewhat higher proportion of teenage boys who smoked were heavy smokers (47 percent, compared with 40 percent of girls who smoked). Among smokers 16–18 years of age, 55 percent of male smokers and 46 percent of female smokers met the TAPS heavy-smoker criteria.

Smoking practices of current teenage smokers

Table 2 provides details about the teenage smoking practices of current smokers, measured by the number of days smoked in the past month and the average number of cigarettes smoked daily. Distributions of cigarette smoking behavior on weekdays and weekend days are presented in table 3. Estimates in tables 2 and 3 are shown by age, sex, race, and Hispanic origin.

Similar proportions of teenage male and female smokers smoked on about the same number of days a month, but females reported smoking fewer cigarettes on the days that they did smoke (table 2).

About 40 percent of teenagers who smoked reported using cigarettes daily. Daily cigarette smoking was directly proportional to the age of the smoker, from 17 percent among 12- and 13-year-olds to 48 percent of those 16–18 years of age. Proportionately, about twice as many white teenage smokers smoked every day as did black teenagers (42 percent, compared with 22 percent). Hispanic youths who smoked were also less likely to be daily smokers (26 percent).

As with daily cigarette consumption, the average number of cigarettes smoked by teenagers also increased with age. Proportionately,

about twice as many smokers 12 and 13 years of age averaged fewer than five cigarettes a day as did those between the ages of 16 and 18 (64 percent, compared with 32 percent). No teenagers in the youngest age group averaged 20 cigarettes or more a day, but about 1 in 5 teenagers 16–18 years of age who smoked reported smoking at this level.

Among the youngest smokers, boys and girls smoked at similar levels: about 90 percent of each gender averaged fewer than 10 cigarettes daily on the days they did smoke. However, older adolescent girls who smoked consumed fewer cigarettes on the days they did smoke than did their male counterparts. For example, whereas about one-fourth of male 16–18-year-olds who smoked averaged 20 cigarettes or more a day, only about 15 percent of females 16–18 years old reported smoking at this level.

In patterns similar to those seen in adults, black adolescents smoked on fewer days and averaged fewer cigarettes per day than did white adolescent smokers. Proportionately, about twice as many white teenage smokers smoked every day (42 percent) as did black adolescent smokers (22 percent). About half of black female adolescent smokers reported using cigarettes from 1 to 4 days in the past month compared with 23 percent of white female teenagers. Similarly, Hispanic youths also smoked less often and smoked fewer cigarettes on average than did non-Hispanic teenagers who smoked. Almost 60 percent of Hispanic adolescent smokers averaged fewer than five cigarettes a day, compared with about 36 percent of non-Hispanic teenage smokers who reported smoking fewer than five cigarettes a day.

Overall, teenage smokers appear to smoke slightly more on weekend days than on weekdays: 20 percent reported smoking 20 cigarettes or more per weekend day, compared with 16 percent for weekdays (table 3). However, on average, only slight variations are seen between the

estimates presented in this table for teenagers' weekday smoking levels and those for weekends, and some of the observed differences may be due to sampling variation.

Expected smoking behavior and quit attempts

When adolescents were asked whether they thought they would be smoking 1 year later, 92 percent answered "no" (table 4). Among current smokers, proportionately twice as many adolescents 16–18 years of age predicted future smoking (45 percent) as did adolescents 12–13 years of age (20 percent). Black teenagers who currently smoked were more optimistic about smoking cessation than were their white counterparts (24 percent and 45 percent, respectively, predicted smoking the next year).

There was also a direct relationship between the percent of smokers expecting still to be smoking in 1 year and the amount currently smoked. Only 16 percent of "occasional" smokers (those who had smoked 1–9 days in the previous 30 days) predicted smoking 1 year later. However, 46 percent of "light" smokers and 66 percent of "heavy" smokers said they would be still smoking in 1 year. For the TAPS definition, both light and heavy smokers had smoked 10 or more days in the previous 30 days; however, light smokers averaged fewer than 5 cigarettes daily in the past week, and heavy smokers averaged 5 cigarettes or more a day. Less than 1 percent of teenagers who had never smoked predicted becoming a smoker within the year.

Table 5 contains estimates of unsuccessful attempts to quit smoking among current adolescent smokers, classified by age, sex, race, and Hispanic origin. About three teenagers in four who currently smoked (2.7 million adolescents) had made at least one serious attempt to quit smoking cigarettes. For more than half of these teenagers, the attempt(s) took place in the 6 months preceding the TAPS interview. Furthermore, regardless of age, sex,

or race, estimates revealed that the adolescent smokers who had tried to quit outnumbered those who had not, ranging from 66 percent of black male smokers to 84 percent of 12- and 13-year-old boys who smoked.

The percent of teenage smokers who made at least one attempt to quit smoking in the previous 6 months decreased from 73 percent of 12- and 13-year-olds to 52 percent of 16–18-year-olds. Similarly, proportionately fewer teenagers 16–18 years of age reported ever attempting to quit (73 percent, compared with 82 percent of youngest smokers).

Smoking initiation

Table 6 presents estimates of adolescents' reported ages for smoking their first whole cigarette by age, sex, race, and Hispanic origin. About 1.7 million youths had smoked a whole cigarette before their 12th birthday. Boys were somewhat more likely to have smoked their first whole cigarette at a younger age. By the age of 14, however, gender differences had disappeared.

While similar proportions of black, white, and Hispanic adolescent girls reported first smoking at a given age, white and non-Hispanic male adolescent smokers tended to smoke their first cigarette somewhat earlier than did their black and Hispanic male counterparts. For example, 44 percent of white male adolescent smokers between 16 and 18 years of age had smoked by age 13, compared with about 31 percent of black males. Similarly, Hispanic boys were more likely to have had their first whole cigarette at an older age than were non-Hispanic boys. Of teenagers 16–18 years of age, 32 percent of Hispanic males had smoked by 12 years of age, compared with 43 percent of non-Hispanic males.

Correlates of smoking uptake

Tables 7–9 present estimates of adolescents' current and expected smoking behavior, according to variables that appear to be associated with teenage smoking practices. Estimates for all of the measures in

tables 7–9 described above are shown by age and sex.

Adolescents living in households where no one smoked were the least likely to smoke (table 7). Among this group, about 61 percent of teenagers had never smoked, and only 12 percent currently smoked. Teenagers were three times more likely to smoke (37 percent) if their parents and at least one older sibling smoked than if no one in the household smoked (12 percent).

The smoking practices of older brothers or sisters living at home were more closely associated with teenager smoking than was parental smoking. Thirty percent of adolescents reported currently smoking in homes where only older siblings smoked, compared with 15 percent of teenagers from homes where only their parents smoked.

The TAPS included a question to determine the number of best friends of the same sex who smoked. As expected, the smoking patterns for both teenage boys and girls were highly correlated with the smoking practices of their closest friends. Teenagers with no best friends of the same sex who smoked seldom smoked (about 3 percent). However, almost half of adolescents with at least two best friends who smoked were smokers themselves.

The relationship adolescents had with their parents, as measured by whether teenagers talked to them about serious problems, was associated with smoking status. Among teenagers who said that they discussed serious problems with their parents, only 11 percent currently smoked. In contrast, proportionately more than twice as many teenagers who confided only with friends—and not with a parent, other relative, or another adult—were smokers (23 percent).

Another correlate of adolescent smoking is the level of involvement in organized activities, including athletics (20,21). Proportionately, almost twice as many teenagers who did not participate in organized team sports currently smoked (21 percent) as did teenagers involved in

competitive sports activities (12 percent). Involvement in sports was not found to be a determining factor, however, for young adolescents.

Dramatic differences in teenage smoking practices were also found among adolescents through self-reported school performance ratings and attitudes toward school. Of adolescents who classified themselves as "above average" students, only 10 percent currently smoked; in contrast, 44 percent of "below average" students smoked (table 8). Similarly, proportionately about three times as many adolescents who reported not liking school very much were current smokers (35 percent) as were teenagers who said that they liked school a lot (11 percent).

There also appeared to be a direct relationship between the number of unsupervised hours adolescents were left at home before and after school and their current smoking behavior. About twice as many teenagers who were left alone for 15 hours or more a week currently smoked as teenagers who were never without adult supervision (18 percent, compared with 8 percent).

Several data items were obtained in the TAPS to identify adolescents who might be considered prone to problems. Two items of this type are shown in this report: skipping any full days from school in the previous 2 weeks and physical fighting in the previous year with someone other than a family member. Adolescents who participated in certain kinds of risk-taking behavior were identified in the TAPS, and data for three of these items are also shown: whether they had ridden a motorcycle or minibike in the previous year, if they had ridden with a driver in the past month who had used alcohol or drugs, and if they agreed that "I get a kick out of doing things every now and then that are a little risky or dangerous."

Proportionately, about twice as many adolescents who skipped school were current smokers (38 percent) as youths who had not (17 percent). This 2-to-1 ratio was also found for 3

of the 4 risk-taking behaviors mentioned previously. That is, compared with other teenagers, proportionately about twice as many youths who smoked had been in fights, had ridden a motorcycle or minibike, or enjoyed risky activities now and then (table 9). For the fourth measure, proportionately, more than three times as many teenagers who had ridden with a driver who used alcohol or drugs currently smoked (43 percent) as teenagers who did not report this activity (12 percent).

Smoking knowledge and beliefs

The TAPS questionnaire contained a series of questions to assess teenagers' knowledge and beliefs about cigarette addiction, health risks associated with cigarettes, and perceived benefits from smoking. Table 10 contains data for a few of these indicators by age and sex.

The TAPS interview ascertained whether teenagers had ever taken a class or course at school in which the health risks of smoking were discussed. About the same proportion of teenagers who said they had taken a course of this type were currently smoking as were teenagers who had not taken a class where health risks were discussed.

Similarly, TAPS polled teenagers about recent media exposure—through television, radio, newspapers, or magazines—to information on the health risks of smoking, and the findings parallel those of classroom exposure. Among teenagers the percentage of smokers was the same regardless of whether they had recently seen, heard, or read materials about the adverse effects of smoking (16 percent).

While similarities in teenage smoking practices were found regardless of their reported exposure to information on the health risks associated with cigarette smoking, teenagers' perception of derived benefits and some common myths about smoking reveal substantial differences in smoking behavior. These findings were illustrated by the following three TAPS statements with

which respondents agreed or disagreed: 1) "it's safe to smoke for 1 or 2 years," 2) "cigarettes help people relax," and 3) "smoking helps keep weight down."

Teenagers who assigned positive attributes to cigarettes were 2–4 times more likely to be smokers as were other adolescents. For example, about one-third of adolescents who said that cigarettes help people relax were smokers. In contrast, of teenagers who disagreed with this statement, only 9 percent smoked. Among those who said it was safe to smoke for 1 or 2 years, almost half (46 percent) smoked, compared with 13 percent of the teenagers who did not agree with this statement.

Discussion

Even infrequent experimentation with cigarette smoking among adolescents has been found to increase the likelihood of becoming a smoker in adulthood by a factor of 16, compared with adolescents who had never tried smoking (26). According to the Teenage Attitudes and Practices Survey (TAPS), experimentation with cigarettes occurred with about the same frequency among adolescents regardless of gender, race, or ethnicity. However, among the youngest adolescents interviewed, more boys reported experimenting with cigarettes than did girls, a finding that was reported in another study (10). The TAPS results also showed that about the same proportions of boys and girls in each age group reported that they currently smoked, and these findings were similar to those of other recent national and smaller surveys.

With levels of morbidity and mortality as criteria, cigarette smoking has been called the most serious and widespread form of addiction in the world (27). One way to observe the habit-forming properties of cigarette smoking is to compare the smoking levels of preadolescent and older teenage smokers. According to the TAPS, among the youngest group of teenage smokers, only about one out of seven

was a "heavy smoker." By 16–18 years of age, however, half of all teenagers who smoked were "heavy smokers," by the TAPS criteria.

When the smoking habits of teenage smokers were compared with those of adult smokers (that is, frequency of smoking and number of cigarettes smoked), teenage smoking was, by comparison, "light" (28). Even so, about 40 percent of teenagers who smoked reported using cigarettes daily. Daily cigarette smoking was directly proportional to the age of the smoker. As with daily cigarette consumption, the average number of cigarettes smoked by teenagers also increased with age. Whereas virtually no teenagers in the youngest age group averaged 20 cigarettes or more a day, about 1 in 5 smokers 16–18 years of age reported smoking at these levels. The increases found in the frequency of daily smoking and average numbers of cigarettes smoked daily among teenagers by age group further reflect the addiction known to result from the use of tobacco products over time (6).

The TAPS finding that the vast majority of teenagers (92 percent) did not expect to be smoking in 1 year parallels those of other studies conducted in the late 1960's and 1970's in which about 9 out of 10 teenagers did not expect to be cigarette smokers 5 years later (1,5). Given the substantial body of evidence establishing that cigarettes and other forms of tobacco are addictive (6), these expected behaviors about future smoking reveal most adolescent smokers' naivete about difficulties encountered when attempting to quit. Nonetheless, teenagers and adults who smoke are likely to experience similar withdrawal symptoms (29), so cessation is no easier for young smokers than for their older counterparts.

Other studies also have found that the best predictor of adolescents' future smoking was their previous or current smoking behavior (11,32,33). The TAPS finding that teenage quit attempts decreased with age

(73 percent of 12- and 13-year-olds had made at least one attempt to quit smoking in the previous 6 months, compared with 52 percent of teenagers 16–18 years old) may, in part, have reflected a gradual realization that their cessation attempts would be unsuccessful. The TAPS also estimated that only about 342,000 adolescents (1.5 percent of U.S. teenagers who ever smoked) had quit successfully. If expected smoking behaviors were to reflect actual future smoking, particularly among teenagers who currently smoked, more than 50 percent of current adolescent smokers would have to have quit.

It is widely recognized that preventing the onset of smoking in adolescence (and early adulthood) is the best means to eliminate smoking-induced illness (32). Furthermore, children who begin to smoke at a young age are more likely to consume more cigarettes daily than those who start later in life (33). Children 4–10 years of age represent the most impressionable age group where appropriately designed and repetitive antismoking campaigns may be especially important (34). Given that the age of smoking initiation has declined over time, particularly among women (6), and that about 1.7 million youths have smoked a whole cigarette before their 12th birthday, these and other TAPS findings support other recent recommendations that antismoking education start before the age of 9 (35).

Consistent with findings from other surveys (6), TAPS results found that, up to the age of 14, boys were somewhat more likely to smoke their first whole cigarette at an earlier age than were girls. Also, other recent study results were replicated by the TAPS finding that, for the most part, white teenagers were more likely to smoke their first cigarette at an earlier age than were black teenagers (6).

The TAPS also found that black and Hispanic adolescents smoked on fewer days and averaged fewer cigarettes per day than did white and

non-Hispanic adolescent smokers and were more likely never to be smokers. Cigarette advertising campaigns are now targeting these specific minority groups in recognition of this potential "untapped" cigarette-smoking market (36).

The TAPS findings revealed that older adolescent girls who smoked consumed fewer cigarettes on the days they did smoke than did their male counterparts. Another study has suggested that females experience greater social pressures to smoke than do boys but have a higher sensitivity to nicotine, which is resolved by smoking both at lower levels and choosing low nicotine cigarettes (37).

Both current and future smoking practices among teenagers are greatly influenced by the smoking practices of persons with whom these young people are most often in contact: parents, brothers, sisters, and friends (3,4,10–20). Findings from previous studies differ somewhat as to which group or combination of groups provides the best predictors of adolescent smoking. However, with few exceptions, studies consistently have found that teenagers who smoke are more likely to have friends, siblings, and parents who smoke. The TAPS results parallel these findings. Adolescents who lived in households where no one smoked were the least likely to be smokers themselves. Teenagers were three times more likely to smoke if their parents and at least one older sibling smoked than if no one in the household smoked.

Studies have also found that smoking is positively correlated with the use of alcohol and other drugs, with escalation from cigarettes to alcohol the most prevalent pattern found (38,39). Certain types of risk-taking behavior, such as drug and alcohol use, also have been shown to be predictive of smoking uptake (24,25). Findings from a recent study that concluded that problem-prone youths are most likely to smoke (40) were also demonstrated in the TAPS results. Teenage smoking practices varied markedly among adolescents, based on self-reported school

performance ratings and attitudes toward school. Proportionately, four times as many adolescents who classified themselves as below average students smoked as above average students, those who reported not liking school very much were three times as likely to be current smokers as those who liked school a lot, and twice as many adolescents who skipped school were current smokers as other youths. For three other troublesome behaviors—youths who smoked had been in fights, ridden a motorcycle or minibike, or enjoyed risky activities now and then—this same 2-to-1 ratio occurred. Similarly, teenagers who had ridden with a driver who used alcohol or drugs were three times more likely to smoke as were other teenagers.

The TAPS attempted to assess teenagers' knowledge and beliefs about cigarette addiction, health risks associated with cigarettes, and perceived beneficial results from smoking through a series of detailed questions. The TAPS also assessed whether teenagers had ever taken a class or course at school in which the health risks of smoking were discussed or whether they had been exposed recently to the adverse effects of smoking through television, radio, newspapers, or magazines. Unfortunately, the TAPS questionnaire did not obtain details about the school course curriculum or media exposure to enable further analysis of the TAPS result that showed similar estimates of teenage smokers regardless of their exposure to these "smoking education" efforts. Somewhat contradictory results have also been presented in other studies regarding the effectiveness of educational efforts in reducing smoking among youths (12,37,38,41).

Other TAPS results showed that teenagers who perceived smoking to be beneficial—helped keep weight down or helped people relax, for example—were 2–4 times more likely to smoke than were adolescents who did not attribute benefits to smoking. Nevertheless, from these and other TAPS findings presented in this report, it appears that continued

educational efforts are still needed to further sensitize teenagers to the health risks associated with smoking.

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Table 1. Number and percent distribution of teenagers by smoking status, according to selected characteristics: United States, 1989

Characteristic	All statuses	Never smoked					Former smoker	All current smokers ²	Type of current smoker		
		All never smoked ¹	No intention	May smoke	Experimenter	Heavy			Light	Occasional	
Age											
Number in thousands											
All teenagers ^{3,4}	23,528	12,561	10,098	1,615	6,826	342	3,688	1,619	632	1,206	
12-13 years	6,567	4,925	3,796	756	1,362	*15	241	*36	*38	145	
14-15 years	6,485	3,566	2,850	493	1,943	81	845	257	184	323	
16-18 years	10,476	4,071	3,452	367	3,520	245	2,601	1,326	410	738	
Sex and age											
Male	12,219	6,299	5,004	867	3,698	209	1,957	919	280	634	
12-13 years	3,391	2,455	1,874	388	800	*10	114	*13	*17	77	
14-15 years	3,434	1,855	1,443	291	1,049	62	448	133	73	195	
16-18 years	5,394	1,989	1,687	188	1,848	136	1,394	773	190	362	
Female	11,309	6,263	5,094	748	3,129	133	1,731	700	352	572	
12-13 years	3,176	2,470	1,922	367	563	*5	127	*23	*22	68	
14-15 years	3,051	1,711	1,407	202	894	*19	397	124	111	127	
16-18 years	5,082	2,082	1,766	178	1,672	109	1,207	553	219	376	
Race and sex											
White	19,068	9,774	7,978	1,282	5,533	319	3,361	1,530	557	1,067	
Male	9,915	4,910	3,993	672	2,992	199	1,772	861	242	560	
Female	9,153	4,864	3,984	610	2,541	120	1,589	669	314	507	
Black	3,552	2,234	1,695	259	1,068	*9	217	50	*33	113	
Male	1,814	1,101	790	158	564	*8	130	*40	*15	61	
Female	1,738	1,133	905	101	504	*2	87	*10	*18	52	
Hispanic origin and sex											
Non-Hispanic	21,243	11,268	9,233	1,342	6,146	316	3,419	1,538	580	1,093	
Male	11,038	5,623	4,544	725	3,351	200	1,817	876	258	576	
Female	10,206	5,645	4,689	617	2,795	116	1,602	661	323	517	
Hispanic	2,285	1,294	866	273	681	*25	268	81	51	112	
Male	1,182	676	461	142	347	*9	139	43	*22	58	
Female	1,103	618	405	131	334	*17	129	*39	*29	55	
Family income											
Under \$20,000	5,633	2,948	2,158	404	1,593	85	950	447	147	280	
\$20,000-\$34,999	5,595	2,883	2,332	398	1,748	91	849	378	157	273	
\$35,000 or more	9,260	5,080	4,311	603	2,577	122	1,465	574	265	528	
Poverty status											
In poverty	2,956	1,596	1,083	236	808	*38	468	201	64	159	
Not in poverty	19,091	10,153	8,415	1,255	5,559	293	3,025	1,315	538	996	
Highest education level of family member											
Less than 12 years	3,011	1,533	1,006	267	861	*33	556	300	60	151	
12 years	8,894	4,491	3,614	566	2,629	139	1,571	742	282	451	
13 years or more	11,544	6,487	5,449	768	3,316	165	1,556	577	287	601	
Geographic region											
Northeast	4,441	2,390	1,953	269	1,183	66	782	374	105	267	
Midwest	6,123	3,181	2,629	423	1,818	86	1,015	451	184	310	
South	8,050	4,294	3,357	535	2,471	109	1,130	509	176	351	
West	4,914	2,696	2,160	388	1,354	81	761	285	167	278	
Place of residence											
MSA	17,556	9,472	7,585	1,263	5,011	256	2,748	1,245	452	889	
Not MSA	5,972	3,090	2,514	353	1,815	86	940	374	179	317	

Table 1. Number and percent distribution of teenagers by smoking status, according to selected characteristics: United States, 1989—Con.

Characteristic	All statuses	Never smoked			Experimenter	Former smoker	All current smokers ²	Type of current smoker		
		All never smoked ¹	No intention	May smoke				Heavy	Light	Occasional
Age										
Percent distribution										
All teenagers ^{3,5}	100.0	53.6	43.1	6.9	29.2	1.5	15.7	6.9	2.7	5.1
12–13 years	100.0	75.3	58.0	11.5	20.8	*0.2	3.7	*0.6	*0.6	2.2
14–15 years	100.0	55.4	44.3	7.7	30.2	1.3	13.1	4.0	2.9	5.0
16–18 years	100.0	39.0	33.1	3.5	33.7	2.4	24.9	12.7	3.9	7.1
Sex and age										
Male	100.0	51.8	41.1	7.1	30.4	1.7	16.1	7.6	2.3	5.2
12–13 years	100.0	72.6	55.5	11.5	23.7	*0.3	3.4	*0.4	*0.5	2.3
14–15 years	100.0	54.3	42.3	8.5	30.7	1.8	13.1	3.9	2.1	5.7
16–18 years	100.0	37.1	31.4	3.5	34.4	2.5	26.0	14.4	3.5	6.7
Female	100.0	55.6	45.3	6.6	27.8	1.2	15.4	6.2	3.1	5.1
12–13 years	100.0	78.1	60.7	11.6	17.8	*0.1	4.0	*0.7	*0.7	2.2
14–15 years	100.0	56.6	46.6	6.7	29.6	*0.6	13.1	4.1	3.7	4.2
16–18 years	100.0	41.1	34.8	3.5	33.0	2.2	23.8	10.9	4.3	7.4
Race and sex										
White	100.0	51.5	42.0	6.8	29.1	1.7	17.7	8.1	2.9	5.6
Male	100.0	49.7	40.4	6.8	30.3	2.0	17.9	8.7	2.5	5.7
Female	100.0	53.4	43.7	6.7	27.9	1.3	17.4	7.3	3.4	5.6
Black	100.0	63.3	48.0	7.3	30.3	*0.3	6.2	1.4	*0.9	3.2
Male	100.0	61.1	43.8	8.7	31.3	*0.4	7.2	*2.2	*0.8	3.4
Female	100.0	65.7	52.4	5.9	29.2	*0.1	5.0	*0.6	*1.0	3.0
Hispanic origin and sex										
Non-Hispanic	100.0	53.3	43.7	6.3	29.1	1.5	16.2	7.3	2.7	5.2
Male	100.0	51.2	41.3	6.6	30.5	1.8	16.5	8.0	2.3	5.2
Female	100.0	55.6	46.2	6.1	27.5	1.1	15.8	6.5	3.2	5.1
Hispanic	100.0	57.1	38.2	12.0	30.0	*1.1	11.8	3.6	2.2	4.9
Male	100.0	57.7	39.3	12.2	29.6	*0.7	11.9	3.6	*1.9	4.9
Female	100.0	56.3	36.9	11.9	30.4	*1.5	11.8	*3.5	*2.7	5.0
Family income										
Under \$20,000	100.0	52.9	38.7	7.2	28.6	1.5	17.0	8.0	2.6	5.0
\$20,000–\$34,999	100.0	51.8	41.9	7.1	31.4	1.6	15.2	6.8	2.8	4.9
\$35,000 or more	100.0	55.0	46.6	6.5	27.9	1.3	15.8	6.2	2.9	5.7
Poverty status										
In poverty	100.0	54.9	37.2	8.1	27.8	*1.3	16.1	6.9	2.2	5.5
Not in poverty	100.0	53.4	44.2	6.6	29.2	1.5	15.9	6.9	2.8	5.2
Highest education level of family member										
Less than 12 years	100.0	51.4	33.7	9.0	28.9	*1.1	18.6	10.1	2.0	5.1
12 years	100.0	50.9	40.9	6.4	29.8	1.6	17.8	8.4	3.2	5.1
13 years or more	100.0	56.3	47.3	6.7	28.8	1.4	13.5	5.0	2.5	5.2
Geographic region										
Northeast	100.0	54.1	44.2	6.1	26.8	1.5	17.7	8.5	2.4	6.0
Midwest	100.0	52.1	43.1	6.9	29.8	1.4	16.6	7.4	3.0	5.1
South	100.0	53.6	41.9	6.7	30.9	1.4	14.1	6.4	2.2	4.4
West	100.0	55.1	44.1	7.9	27.7	1.7	15.6	5.8	3.4	5.7
Place of residence										
MSA	100.0	54.2	43.4	7.2	28.7	1.5	15.7	7.1	2.6	5.1
Not MSA	100.0	52.1	42.4	5.9	30.6	1.4	15.8	6.3	3.0	5.3

¹Includes unknown intentions.²Includes unknown type of current smoker.³Includes all other races, unknown family income, unknown poverty status and unknown education.⁴Includes unknown smoking status.⁵Excludes unknown smoking status.

NOTE: MSA is metropolitan statistical area.

Table 2. Percent distribution of teenage current smokers by number of days smoked in the past month and average number of cigarettes smoked daily, according to selected characteristics: United States, 1989

Characteristic	Days smoked in past month					Cigarettes smoked daily				
	Total ¹	Less than 5 days	5-9 days	10-29 days	Every day	Total ²	Less than 5	5-9	10-19	20 or more
Age										
Percent distributions										
All teenage current smokers	100.0	24.1	8.7	26.4	40.8	100.0	37.9	20.4	25.7	16.0
12-13 years	100.0	51.9	*8.3	23.3	*16.5	100.0	64.3	*24.6	*11.0	0.0
14-15 years	100.0	28.4	9.8	34.5	27.3	100.0	55.5	17.2	23.0	*4.3
16-18 years	100.0	20.0	8.4	24.1	47.5	100.0	31.6	21.1	27.2	20.1
Sex and age										
Male	100.0	23.9	8.5	26.6	41.0	100.0	33.9	19.3	27.6	19.2
12-13 years	100.0	57.5	*10.1	*24.3	*8.1	100.0	*70.7	*18.4	*10.8	0.0
14-15 years	100.0	31.1	12.5	30.9	25.5	100.0	52.8	16.0	26.9	*4.2
16-18 years	100.0	18.8	7.1	25.4	48.7	100.0	27.5	20.2	28.4	23.9
Female	100.0	24.3	8.9	26.2	40.6	100.0	42.7	21.6	23.5	12.1
12-13 years	100.0	47.0	*6.7	*22.3	*24.0	100.0	*58.3	*30.5	*11.2	0.0
14-15 years	100.0	25.5	*6.8	38.5	29.3	100.0	58.3	18.4	19.0	*4.4
16-18 years	100.0	21.4	9.9	22.5	46.1	100.0	36.7	22.2	25.7	*15.3
Race and sex										
White	100.0	23.4	8.4	26.2	42.0	100.0	36.6	20.1	26.5	16.8
Male	100.0	23.5	8.1	26.3	42.1	100.0	32.7	19.0	28.3	20.0
Female	100.0	23.4	8.7	26.0	41.9	100.0	41.4	21.4	24.4	12.9
Black	100.0	37.0	*15.0	26.5	21.6	100.0	60.3	*20.5	*16.3	*2.9
Male	100.0	*29.5	*17.3	*24.6	*28.6	100.0	*52.7	*22.6	*19.7	*5.0
Female	100.0	48.2	*11.4	*29.4	*11.0	100.0	*71.0	*17.5	*11.5	*0.0
Hispanic origin and sex										
Non-Hispanic	100.0	23.5	8.5	26.0	42.0	100.0	36.3	20.2	26.9	16.7
Male	100.0	23.3	8.4	26.0	42.3	100.0	32.1	18.9	28.6	20.4
Female	100.0	23.8	8.7	25.9	41.6	100.0	41.3	21.7	24.8	12.2
Hispanic	100.0	30.7	*11.2	31.9	26.3	100.0	59.2	22.5	*11.6	*6.6
Male	100.0	31.2	*10.1	34.3	*24.4	100.0	58.9	*24.3	*14.3	*2.6
Female	100.0	*30.2	*12.3	*29.2	*28.3	100.0	59.6	*20.7	*8.7	*11.0

¹Excludes unknown number of days smoked.²Excludes unknown number of cigarettes smoked daily and none smoked in past week.

Table 3. Percent distribution of teenage current smokers by average number of cigarettes smoked per weekday and per weekend day, according to selected characteristics: United States, 1989

Characteristic	Cigarettes smoked per weekday					Cigarettes smoked per weekend day				
	Total ¹	Less than 5	5-9	10-19	20 or more	Total ²	Less than 5	5-9	10-19	20 or more
Age										
Percent distributions										
All teenage current smokers	100.0	39.7	19.5	24.8	16.0	100.0	37.7	18.6	23.6	20.1
12-13 years	100.0	72.9	*16.1	*11.0	0.0	100.0	66.0	*19.6	*8.8	*5.5
14-15 years	100.0	57.3	15.8	22.2	*4.7	100.0	52.1	16.6	22.7	8.7
16-18 years	100.0	33.1	20.7	26.1	20.1	100.0	32.1	19.1	24.6	24.2
Sex and age										
Male	100.0	35.9	17.4	27.2	19.5	100.0	33.5	16.4	26.3	23.8
12-13 years	100.0	*76.5	*12.7	*10.8	0.0	100.0	*64.1	*23.7	*12.2	0.0
14-15 years	100.0	55.5	*13.4	26.1	*5.0	100.0	52.1	*11.7	28.1	*8.2
16-18 years	100.0	29.1	18.7	28.1	24.1	100.0	27.3	17.4	26.3	28.9
Female	100.0	44.3	22.0	21.8	11.9	100.0	42.7	21.2	20.5	15.7
12-13 years	100.0	*69.5	*19.3	*11.2	0.0	100.0	*67.6	*16.0	*5.9	*10.5
14-15 years	100.0	59.1	18.3	18.2	*4.4	100.0	52.0	21.7	17.1	*9.2
16-18 years	100.0	38.0	23.3	23.6	15.0	100.0	38.3	21.3	22.3	18.1
Race and sex										
White	100.0	38.4	19.0	25.7	16.9	100.0	36.5	18.0	24.3	21.2
Male	100.0	34.9	16.7	28.0	20.4	100.0	32.4	15.4	27.1	25.0
Female	100.0	42.7	21.8	22.9	12.6	100.0	41.3	21.1	20.8	16.7
Black	100.0	61.8	*23.9	*11.3	*2.9	100.0	58.9	*22.7	*15.5	*2.8
Male	100.0	49.8	*28.3	*16.9	*5.0	100.0	*47.5	*32.8	*15.0	*4.7
Female	100.0	78.7	*17.7	*3.6	*0.0	100.0	*75.9	*7.7	*16.4	*0.0
Hispanic origin and sex										
Non-Hispanic	100.0	38.0	19.4	25.8	16.8	100.0	35.8	18.7	24.5	21.0
Male	100.0	34.2	16.9	28.2	20.7	100.0	31.6	16.2	27.0	25.2
Female	100.0	42.7	22.4	22.9	12.0	100.0	40.9	21.6	21.5	16.0
Hispanic	100.0	61.2	*20.6	*11.6	*6.6	100.0	61.8	*17.3	*12.7	*8.3
Male	100.0	58.9	*24.3	*14.3	*2.6	100.0	58.9	*19.0	*16.8	*5.3
Female	100.0	63.7	*16.6	*8.7	*11.0	100.0	64.9	*15.4	*8.2	*11.5

¹Excludes unknown number of cigarettes smoked per weekday and none smoked in past week.²Excludes unknown number of cigarettes smoked per weekend day and none smoked in past week.

Table 4. Percent distribution of teenagers by expected smoking status in 1 year, according to selected characteristics: United States, 1989

Characteristic	Total ¹	Will smoke			Will not smoke		
		Total	Definitely	Probably	Total	Definitely	Probably
Percent distribution							
All teenagers	100.0	7.5	1.0	6.5	91.9	16.7	75.2
Smoking status							
Never smoked	100.0	0.6	*0.1	0.5	99.1	10.5	88.7
No intention	100.0	—	—	—	100.0	100.0	—
May smoke	100.0	4.6	*0.9	3.7	93.7	76.0	17.7
Experimenter	100.0	1.3	*0.2	1.2	98.3	18.7	79.6
Former smoker	100.0	4.8	0.0	*4.8	93.4	26.1	67.3
Current smoker	100.0	43.5	5.6	37.9	54.2	33.8	20.5
Heavy	100.0	66.0	10.6	55.4	30.9	23.6	7.3
Light	100.0	46.4	*5.1	41.2	51.4	43.6	7.8
Occasional	100.0	15.7	*0.2	15.4	83.1	42.3	40.8
Age and smoking status							
12–13 years	100.0	1.7	*0.3	1.3	97.8	16.3	81.5
Never smoked	100.0	0.5	*0.1	0.4	99.2	11.7	87.5
Experimenter	100.0	*3.0	*0.6	2.4	96.1	29.3	66.9
Current smoker	100.0	20.1	*3.9	*16.2	78.8	38.4	40.4
14–15 years	100.0	6.6	0.7	5.9	92.8	17.2	75.6
Never smoked	100.0	*0.7	*0.1	*0.6	99.0	11.6	87.4
Experimenter	100.0	*1.1	0.0	*1.1	98.7	20.9	77.7
Current smoker	100.0	44.7	4.9	39.8	53.2	32.3	20.9
16–18 years	100.0	11.8	1.5	10.2	87.6	16.5	71.0
Never smoked	100.0	*0.7	*0.2	*0.6	99.2	8.0	91.2
Experimenter	100.0	*0.8	*0.1	*0.8	98.9	13.7	85.2
Current smoker	100.0	45.3	6.0	39.3	52.3	33.8	18.5
Sex and smoking status							
Male	100.0	7.6	1.1	6.5	91.7	17.6	74.2
Never smoked	100.0	0.7	*0.1	0.6	98.9	10.9	87.9
Experimenter	100.0	*1.2	*0.2	*1.0	98.4	19.2	79.2
Current smoker	100.0	42.2	6.0	36.2	55.6	35.4	20.1
Female	100.0	7.5	0.9	6.6	92.1	15.7	76.4
Never smoked	100.0	*0.5	*0.1	*0.4	99.4	10.0	89.4
Experimenter	100.0	1.5	*0.1	1.5	98.2	18.2	80.0
Current smoker	100.0	45.0	5.2	39.9	52.7	31.8	20.9
Race and smoking status							
White	100.0	8.5	1.1	7.5	90.8	17.3	73.5
Never smoked	100.0	0.6	*0.1	0.5	99.2	10.5	88.7
Experimenter	100.0	1.3	*0.2	1.1	98.4	19.5	78.9
Current smoker	100.0	44.8	5.6	39.2	53.1	33.5	19.6
Black	100.0	2.6	*0.5	2.1	96.9	13.0	83.9
Never smoked	100.0	*1.0	*0.2	*0.8	98.6	9.9	88.7
Experimenter	100.0	1.7	*0.2	1.5	98.0	14.0	84.0
Current smoker	100.0	24.4	5.5	18.8	73.6	38.2	35.4
Hispanic origin and smoking status							
Non-Hispanic	100.0	7.5	1.0	6.5	91.9	16.2	75.8
Never smoked	100.0	0.4	*0.1	*0.3	99.4	9.8	89.6
Experimenter	100.0	1.2	*0.1	1.1	98.4	18.0	80.4
Current smoker	100.0	43.3	5.4	37.8	54.5	33.7	20.9
Hispanic	100.0	7.8	*1.2	6.6	91.3	21.3	70.0
Never smoked	100.0	*2.5	*0.2	*2.2	96.8	16.5	80.3
Experimenter	100.0	*2.3	*0.7	*1.6	97.3	25.7	71.6
Current smoker	100.0	46.9	*8.0	38.9	50.0	35.3	*14.8

¹Includes unknown expected smoking status.

Table 5. Percent distribution of teenage current smokers by whether they had ever attempted to quit, and percent who attempted to quit in past 6 months, according to selected characteristics: United States, 1989

Characteristic	Total ¹	Ever quit smoking		Attempted to quit in past 6 months
		Yes	No	
Age	Percent distribution			Percent
All teenage current smokers ²	100.0	74.2	25.8	57.1
12-13 years	100.0	81.8	*18.2	72.6
14-15 years	100.0	77.4	22.6	68.5
16-18 years	100.0	72.6	27.4	52.0
Sex and age				
Male	100.0	72.0	28.0	55.8
12-13 years	100.0	83.9	*16.1	70.0
14-15 years	100.0	73.2	26.8	67.2
16-18 years	100.0	70.6	29.4	51.0
Female	100.0	76.8	23.2	58.6
12-13 years	100.0	79.5	*20.5	75.2
14-15 years	100.0	82.1	17.9	69.9
16-18 years	100.0	74.8	25.2	53.3
Race and sex				
White	100.0	74.5	25.5	57.4
Male	100.0	72.6	27.4	56.1
Female	100.0	76.6	23.4	58.9
Black	100.0	70.5	29.5	51.7
Male	100.0	66.3	*33.7	49.1
Female	100.0	77.3	*22.7	*55.9
Hispanic origin and sex				
Non-Hispanic	100.0	74.5	25.5	57.4
Male	100.0	72.2	27.8	55.9
Female	100.0	77.2	22.8	59.1
Hispanic	100.0	70.3	29.7	53.7
Male	100.0	68.9	*31.1	54.0
Female	100.0	71.8	*28.2	53.3

¹Excludes unknown quit attempts.²Excludes current smokers who never smoked regularly.

Table 6. Number of teenagers who ever smoked and cumulative percent by age at which they smoked first whole cigarette, according to selected characteristics: United States, 1989

Characteristic	All teenagers who ever smoked ¹	Total ²	Age smoked first whole cigarette								
			Under 10 years	Under 11 years	Under 12 years	Under 13 years	Under 14 years	Under 15 years	Under 16 years	Under 17 years	Under 18 years
Age	Number in thousands	Cumulative percent									
12-13 years	902	100.0	17.5	34.4	59.8	88.4	100.0	...	...	...	...
14-15 years	2,032	100.0	8.5	14.9	23.0	44.0	71.5	95.4	100.0	...	...
16-18 years	5,131	100.0	5.0	9.0	13.3	25.7	40.2	55.4	75.4	92.6	98.9
Sex and age											
Male:											
12-13 years	483	100.0	19.3	36.3	62.9	87.2	100.0	...	...	...	...
14-15 years	1,111	100.0	10.1	18.8	26.1	48.2	75.1	96.2	100.0	...	...
16-18 years	2,727	100.0	6.8	11.7	15.7	28.0	42.2	55.4	75.8	92.9	98.8
Female:											
12-13 years	419	100.0	15.5	32.2	56.2	89.7	100.0	...	...	...	...
14-15 years	920	100.0	6.5	10.2	19.3	38.8	67.2	94.3	100.0	...	...
16-18 years	2,404	100.0	3.0	6.0	10.6	23.0	38.0	55.4	75.0	92.3	99.0
Race and age											
White:											
12-13 years	797	100.0	17.0	34.1	59.5	88.9	100.0	...	...	...	...
14-15 years	1,847	100.0	8.6	15.2	23.7	45.4	72.2	95.3	100.0	...	...
16-18 years	4,593	100.0	5.0	9.3	13.6	26.3	41.0	56.1	76.2	92.9	99.0
Black:											
12-13 years	70	100.0	*18.6	*31.4	60.0	90.0	100.0	...	...	...	...
14-15 years	143	100.0	*10.0	*15.0	*17.9	28.6	63.6	95.7	100.0	...	...
16-18 years	414	100.0	*5.5	*6.8	*8.9	19.9	34.8	46.3	68.3	91.1	98.7
Hispanic origin and age											
Hispanic:											
12-13 years	71	100.0	*5.6	*14.1	*32.4	85.9	100.0	...	...	...	...
14-15 years	152	100.0	*7.2	*16.4	*21.7	40.8	66.4	94.1	100.0	...	...
16-18 years	429	100.0	*4.4	*6.5	11.0	18.7	31.3	49.5	65.1	86.6	99.5
Non-Hispanic:											
12-13 years	830	100.0	18.5	36.2	62.3	88.6	100.0	...	...	...	...
14-15 years	1,879	100.0	8.6	14.8	23.2	44.2	72.0	95.5	100.0	...	...
16-18 years	4,702	100.0	5.1	9.3	13.5	26.3	41.0	55.9	76.4	93.1	98.8
Race, sex, and age											
White male:											
12-13 years	424	100.0	18.6	37.0	64.1	88.7	100.0	...	...	...	...
14-15 years	1,009	100.0	10.3	19.3	26.7	49.5	75.3	96.3	100.0	...	...
16-18 years	2,433	100.0	6.7	12.1	16.4	29.5	43.8	56.8	76.9	93.3	99.1
White female:											
12-13 years	373	100.0	15.3	30.9	54.4	89.1	100.0	...	...	...	...
14-15 years	838	100.0	6.4	10.4	20.1	40.5	68.6	94.1	100.0	...	...
16-18 years	2,159	100.0	3.0	6.1	10.6	22.7	37.9	55.4	75.3	92.5	98.9
Black male:											
12-13 years	46	100.0	*21.9	*26.5	*56.7	*85.3	100.0	...	...	...	...
14-15 years	73	100.0	*10.8	*19.3	*22.1	*31.9	75.6	93.1	100.0	...	...
16-18 years	242	100.0	*8.2	*8.9	*9.4	*14.8	30.8	44.7	67.9	91.5	97.7
Black female:											
12-13 years	*24	100.0	*13.8	*40.3	*67.9	100.0	...	...	...	...	...
14-15 years	70	100.0	*9.9	*9.9	*12.9	*25.6	*50.7	98.9	100.0	...	...
16-18 years	172	100.0	*1.8	*3.9	*8.0	27.0	40.2	48.7	68.9	90.3	100.0

Table 6. Number of teenagers who ever smoked and cumulative percent by age at which they smoked first whole cigarette, according to selected characteristics: United States, 1989—Con.

Characteristic	All teenagers who ever smoked ¹	Age smoked first whole cigarette									
		Total ²	Under 10 years	Under 11 years	Under 12 years	Under 13 years	Under 14 years	Under 15 years	Under 16 years	Under 17 years	Under 18 years
Hispanic origin, sex, and age	Number in thousands	Cumulative percent									
Hispanic male:											
12-13 years	*31	100.0	*0.0	*0.0	*22.6	*67.0	100.0	. . .	. . .	. . .	. . .
14-15 years	68	100.0	*10.0	*18.7	*25.0	*43.3	77.0	92.5	100.0	. . .	. . .
16-18 years	239	100.0	*3.2	*5.3	*9.3	17.6	32.3	46.8	58.9	84.2	100.0
Hispanic female:											
12-13 years	*40	100.0	*10.4	*24.3	*39.3	100.0	100.0	. . .	. . .	. . .	. . .
14-15 years	85	100.0	*5.5	*14.3	*19.3	*39.2	57.3	94.5	100.0	. . .	. . .
16-18 years	190	100.0	*6.5	*7.8	*13.1	*19.8	30.2	53.0	72.9	89.9	98.7
Non-Hispanic male:											
12-13 years	452	100.0	20.6	38.9	65.7	88.6	100.0	. . .	. . .	. . .	. . .
14-15 years	1,044	100.0	10.1	18.8	26.2	48.5	75.0	96.5	100.0	. . .	. . .
16-18 years	2,488	100.0	7.2	12.4	16.3	29.0	43.2	56.2	77.5	93.7	98.7
Non-Hispanic female:											
12-13 years	378	100.0	16.1	33.1	58.1	88.6	100.0	. . .	. . .	. . .	. . .
14-15 years	836	100.0	6.7	9.8	19.3	38.8	68.2	94.3	100.0	. . .	. . .
16-18 years	2,214	100.0	2.7	5.8	10.4	23.3	38.7	55.6	75.2	92.5	99.0

¹Limited to teenagers who answered "yes" to the question: "Have you ever smoked a cigarette?"

²Excludes unknown age when smoked first whole cigarette.

NOTE: Estimates of teenagers who ever smoked in this table are lower than the estimates of teenage smokers who ever smoked presented in table 1. Some teenagers answered "no" to this data item (see footnote 1) but still were classified as Experimenters since they responded "yes" to a subsequent question: "Have you ever tried or experimented with cigarette smoking, even a few puffs?"

Table 7. Number of teenagers, percent distribution by smoking status, and percent expecting to smoke in 1 year, according to selected smoking-uptake correlates, age, and sex: United States, 1989

Selected smoking-uptake correlates by age and sex	All teenagers	Smoking status			Teenagers expecting to smoke in 1 year	
		Total ¹	Never smoked	Experi- menter		Current smoker
Smoking status of household	Number in thousands	Percent distribution			Percent	
All ages:						
No smokers	12,534	100.0	60.7	26.0	12.0	5.1
Parents, but no older siblings	8,322	100.0	51.1	32.1	15.2	8.1
Older siblings, but no parents	748	100.0	38.5	29.5	29.7	13.6
Parents and older siblings	1,088	100.0	31.7	27.8	36.9	20.4
Other	804	100.0	38.7	31.6	27.7	16.8
12-13 years:						
No smokers	3,520	100.0	84.3	14.3	1.3	*0.9
Parents, but no older siblings	2,413	100.0	69.1	26.4	4.1	2.2
Older siblings, but no parents	183	100.0	61.7	22.4	*14.2	*4.4
Parents and older siblings	243	100.0	47.7	29.6	20.6	*8.2
Other	191	100.0	73.8	*20.9	*5.2	*0.0
14-15 years:						
No smokers	3,520	100.0	61.7	26.4	10.7	5.0
Parents, but no older siblings	2,322	100.0	53.1	32.6	12.4	6.3
Older siblings, but no parents	204	100.0	42.6	31.9	24.5	*14.2
Parents and older siblings	291	100.0	32.3	33.7	32.6	18.9
Other	141	100.0	47.5	33.3	*19.1	*15.6
16-18 years:						
No smokers	5,495	100.0	44.9	33.2	19.7	7.9
Parents, but no older siblings	3,586	100.0	37.6	35.7	24.6	13.2
Older siblings, but no parents	361	100.0	24.7	31.9	40.4	17.7
Parents and older siblings	553	100.0	24.4	24.1	46.3	26.8
Other	472	100.0	21.6	35.4	39.6	23.9
Male:						
No smokers	6,645	100.0	57.9	27.6	13.0	5.3
Parents, but no older siblings	4,241	100.0	48.9	33.6	15.4	7.7
Older siblings, but no parents	356	100.0	32.3	35.4	31.2	18.5
Parents and older siblings	563	100.0	34.5	24.3	38.0	21.7
Other	399	100.0	36.1	35.6	26.3	14.5
Female:						
No smokers	5,890	100.0	63.9	24.1	10.9	4.9
Parents, but no older siblings	4,081	100.0	53.3	30.6	15.0	8.5
Older siblings, but no parents	392	100.0	44.4	24.2	28.6	*9.2
Parents and older siblings	525	100.0	28.6	31.6	35.6	19.0
Other	405	100.0	41.2	27.9	29.1	19.0
Best friends of the same sex who smoke						
All ages:						
None	14,444	100.0	68.3	27.5	3.3	1.2
1 friend	3,561	100.0	41.5	38.5	17.7	6.7
2 friends or more	5,194	100.0	20.2	26.9	*49.0	26.1
12-13 years:						
None	5,278	100.0	81.3	17.0	1.4	*0.7
1 friend	646	100.0	57.6	34.5	7.3	*3.3
2 friends or more	535	100.0	35.0	40.4	21.7	10.3
14-15 years:						
None	4,095	100.0	68.2	28.3	2.3	1.0
1 friend	997	100.0	42.1	39.7	14.6	6.5
2 friends or more	1,287	100.0	23.1	28.2	46.1	24.9
16-18 years:						
None	5,072	100.0	54.9	37.7	6.0	1.9
1 friend	1,918	100.0	35.8	39.2	22.7	8.1
2 friends or more	3,371	100.0	16.7	24.2	54.4	29.0
Male:						
None	7,673	100.0	65.2	30.3	3.4	1.4
1 friend	1,820	100.0	37.1	39.7	19.8	6.9
2 friends or more	2,529	100.0	19.5	24.1	52.1	27.2

Table 7. Number of teenagers, percent distribution by smoking status, and percent expecting to smoke in 1 year, according to selected smoking-uptake correlates, age, and sex: United States, 1989—Con.

Selected smoking-uptake correlates by age and sex	All teenagers	Smoking status			Teenagers expecting to smoke in 1 year	
		Total ¹	Never smoked	Experi- menter		Current smoker
	Number in thousands	Percent distribution			Percent	
Best friends of the same sex who smoke—Con.						
Female:						
None	6,771	100.0	71.8	24.3	3.1	1.0
1 friend	1,740	100.0	46.0	37.2	15.4	6.6
2 friends or more	2,665	100.0	20.8	29.5	46.0	25.0
Talks about problems to—						
All ages:						
Parent	12,317	100.0	61.8	25.7	11.4	5.4
Friend	4,518	100.0	41.3	33.2	23.2	11.2
Other person	5,517	100.0	50.1	31.3	16.9	8.7
No one	1,015	100.0	49.5	29.3	19.3	10.5
12–13 years:						
Parent	4,126	100.0	81.0	16.5	2.4	1.2
Friend	662	100.0	63.1	28.1	7.6	*3.5
Other person	1,462	100.0	69.4	24.6	5.7	*1.8
No one	264	100.0	73.9	25.4	*0.8	*4.2
14–15 years:						
Parent	3,399	100.0	61.7	27.7	9.5	4.2
Friend	1,146	100.0	46.4	32.8	19.5	9.9
Other person	1,620	100.0	52.6	29.7	15.3	9.4
No one	277	100.0	57.0	28.9	*12.6	*5.8
16–18 years:						
Parent	4,792	100.0	45.2	32.1	20.5	9.7
Friend	2,710	100.0	33.8	34.5	28.6	13.5
Other person	2,436	100.0	37.0	36.3	24.8	12.3
No one	474	100.0	31.4	31.6	33.5	16.9
Male:						
Parent	6,654	100.0	59.2	27.7	11.8	5.3
Friend	2,004	100.0	36.0	32.9	28.0	13.3
Other person	2,853	100.0	48.4	33.8	15.9	8.0
No one	619	100.0	48.3	29.4	20.2	10.2
Female:						
Parent	5,663	100.0	64.8	23.2	10.9	5.4
Friend	2,514	100.0	45.5	33.4	19.4	9.4
Other person	2,665	100.0	52.0	28.6	18.0	9.4
No one	396	100.0	51.0	29.0	17.9	11.1
Participates in organized physical activities						
All ages:						
Yes	15,317	100.0	57.5	28.9	12.2	5.4
No	8,093	100.0	48.7	27.9	21.4	11.6
12–13 years:						
Yes	4,843	100.0	75.8	20.5	3.5	1.4
No	1,678	100.0	77.8	18.1	3.6	2.4
14–15 years:						
Yes	4,418	100.0	57.6	29.5	11.1	5.2
No	2,029	100.0	53.5	28.7	16.8	9.7
16–18 years:						
Yes	6,056	100.0	42.8	35.3	20.0	8.6
No	4,386	100.0	35.3	31.3	30.3	16.0
Male:						
Yes	8,730	100.0	55.9	30.3	12.2	5.3
No	3,427	100.0	43.0	29.2	25.5	13.4
Female:						
Yes	6,587	100.0	59.7	27.1	12.3	5.5
No	4,666	100.0	52.9	26.9	18.3	10.3

¹Includes other and unknown smoking status.

Table 8. Number of teenagers, percent distribution by smoking status, and percent expecting to smoke in 1 year, according to selected school-related smoking-uptake correlates, age, and sex: United States, 1989

Selected school-related smoking-uptake correlates by age and sex	All teenagers	Smoking status			Teenagers expecting to smoke in 1 year	
		Total ¹	Never smoked	Experi- menter		Current smoker
Type of student	Number in thousands	Percent distribution			Percent	
All ages:						
Better than average	12,307	100.0	62.2	26.3	10.4	4.3
Average	10,204	100.0	47.7	31.6	18.8	9.1
Below average	924	100.0	26.1	26.1	44.2	32.6
12-13 years:						
Better than average	3,536	100.0	82.5	14.6	2.7	*0.8
Average	2,786	100.0	70.6	25.1	3.9	1.9
Below average	203	100.0	47.8	37.4	*14.8	*13.3
14-15 years:						
Better than average	3,403	100.0	63.9	26.8	8.4	3.6
Average	2,811	100.0	49.4	32.2	16.3	8.1
Below average	251	100.0	32.7	30.7	35.5	30.7
16-18 years:						
Better than average	5,368	100.0	47.7	33.8	16.8	6.9
Average	4,607	100.0	32.8	35.1	29.3	14.2
Below average	470	100.0	13.2	18.7	61.5	42.1
Male:						
Better than average	6,069	100.0	60.3	27.7	10.7	4.1
Average	5,563	100.0	46.0	32.7	19.1	9.0
Below average	548	100.0	25.9	28.5	42.0	30.3
Female:						
Better than average	6,238	100.0	64.0	25.0	10.1	4.4
Average	4,641	100.0	49.7	30.2	18.4	9.3
Below average	376	100.0	26.3	22.6	47.3	35.9
How much liked school						
All ages:						
A lot	9,431	100.0	60.6	26.9	11.2	4.1
Some	11,170	100.0	52.2	31.1	14.6	6.7
Little or not at all	2,838	100.0	34.0	28.2	34.7	21.9
12-13 years:						
A lot	2,704	100.0	80.9	15.4	3.2	*1.0
Some	3,175	100.0	73.8	22.6	3.0	1.5
Little or not at all	662	100.0	56.0	34.1	8.8	*5.4
14-15 years:						
A lot	2,496	100.0	63.4	27.9	7.4	3.4
Some	3,178	100.0	52.9	31.5	13.4	5.9
Little or not at all	794	100.0	37.3	30.6	29.2	19.3
16-18 years:						
A lot	4,231	100.0	45.9	33.7	18.5	6.6
Some	4,816	100.0	37.4	36.5	23.0	10.6
Little or not at all	1,382	100.0	21.6	24.0	50.2	31.3
Male:						
A lot	4,434	100.0	58.2	28.6	11.7	3.9
Some	6,076	100.0	51.3	31.6	14.7	6.7
Little or not at all	1,657	100.0	34.1	30.4	32.3	20.3
Female:						
A lot	4,997	100.0	62.7	25.5	10.7	4.3
Some	5,094	100.0	53.2	30.5	14.5	6.6
Little or not at all	1,181	100.0	34.0	25.1	37.9	24.1

Table 8. Number of teenagers, percent distribution by smoking status, and percent expecting to smoke in 1 year, according to selected school-related smoking-uptake correlates, age, and sex: United States, 1989—Con.

Selected school-related smoking-uptake correlates by age and sex	All teenagers	Smoking status			Teenagers expecting to smoke in 1 year	
		Total ¹	Never smoked	Experi- menter		Current smoker
Skipped school in past 2 weeks	Number in thousands	Percent distribution			Percent	
All ages:						
No.	5,018	100.0	49.2	31.9	17.3	7.7
Yes	951	100.0	22.3	35.4	37.6	17.5
12-13 years:						
No.	1,472	100.0	67.7	26.2	5.2	*1.6
Yes	104	100.0	40.4	35.6*	18.3*	14.4*
14-15 years:						
No.	1,568	100.0	45.8	35.5	17.7	9.1
Yes	208	100.0	21.6	32.7	40.9	23.6
16-18 years:						
No.	1,978	100.0	38.0	33.4	26.0	11.1
Yes	639	100.0	19.6	36.2	39.7	16.0
Male:						
No.	2,473	100.0	47.6	34.3	16.7	6.9
Yes	436	100.0	23.9	38.3	32.8	16.3
Female:						
No.	2,545	100.0	50.7	29.7	18.0	8.4
Yes	515	100.0	21.0	33.0	41.7	18.4
Hours (per week) alone before and/or after school						
All ages:						
None	6,401	100.0	65.2	25.6	8.4	4.2
1-5 hours	4,950	100.0	65.0	24.7	9.0	4.5
6-10 hours	2,612	100.0	58.4	28.4	11.9	5.3
11-15 hours	1,140	100.0	54.2	32.5	12.7	6.6
More than 15 hours	1,040	100.0	47.4	32.9	18.4	7.8
12-13 years:						
None	2,737	100.0	78.9	18.0	3.0	1.6
1-5 hours	2,244	100.0	75.6	20.5	3.6	*1.6
6-10 hours	844	100.0	73.3	21.0	5.1	*2.6
11-15 hours	394	100.0	70.1	26.1	*3.8	*2.0
More than 15 hours	252	100.0	72.6	22.6	*4.8	*0.0
14-15 years:						
None	2,502	100.0	59.1	29.2	10.7	5.3
1-5 hours	1,800	100.0	59.7	25.4	12.6	7.3
6-10 hours	1,145	100.0	55.3	29.8	13.4	5.9
11-15 hours	478	100.0	48.5	34.9	15.9	9.2
More than 15 hours	469	100.0	42.6	34.5	21.5	10.2
16-18 years:						
None	1,162	100.0	46.0	35.7	16.4	8.0
1-5 hours	905	100.0	49.5	33.7	15.2	6.1
6-10 hours	622	100.0	43.9	35.9	18.6	7.9
11-15 hours	268	100.0	41.0	37.3	20.1	*8.6
More than 15 hours	318	100.0	34.9	38.7	24.5	*10.7
Male:						
None	3,335	100.0	63.4	27.2	8.4	4.1
1-5 hours	2,615	100.0	62.9	26.6	8.9	3.9
6-10 hours	1,319	100.0	54.6	31.2	12.2	6.1
11-15 hours	612	100.0	50.3	34.3	14.4	5.6
More than 15 hours	509	100.0	47.2	34.0	18.5	7.7
Female:						
None	3,066	100.0	67.1	23.7	8.4	4.3
1-5 hours	2,335	100.0	67.5	22.6	9.1	5.2
6-10 hours	1,292	100.0	62.3	25.5	11.7	4.5
11-15 hours	527	100.0	59.0	30.4	10.6	7.8
More than 15 hours	531	100.0	47.6	32.0	18.3	8.1

¹Includes other and unknown smoking status.

Table 9. Number of teenagers, percent distribution by smoking status, and percent expecting to smoke in 1 year, according to selected risk-taking behaviors, age, and sex: United States, 1989

Selected risk-taking behaviors by age and sex	All teenagers	Smoking status			Teenagers expecting to smoke in 1 year	
		Total ¹	Never smoked	Experimenter		Current smoker
Fought in past year	Number in thousands	Percent distribution			Percent	
All ages:						
Yes	6,446	100.0	38.5	33.6	24.8	12.8
No	17,001	100.0	59.0	27.4	12.2	5.5
12-13 years:						
Yes	1,877	100.0	58.0	32.9	7.9	2.8
No	4,657	100.0	81.6	16.0	2.0	1.3
14-15 years:						
Yes	1,857	100.0	37.8	35.3	23.3	13.2
No	4,608	100.0	62.0	27.8	8.9	3.9
16-18 years:						
Yes	2,712	100.0	25.3	32.9	37.5	19.4
No	7,736	100.0	43.6	33.9	20.3	9.0
Male:						
Yes	4,708	100.0	40.5	33.7	22.5	11.4
No	7,469	100.0	58.4	28.1	12.0	5.1
Female:						
Yes	1,738	100.0	32.9	33.1	31.1	16.6
No	9,532	100.0	59.5	26.7	12.4	5.8
Rode a motorcycle or minibike in past year						
All ages:						
Yes	9,375	100.0	42.4	32.6	22.8	11.1
No	14,044	100.0	62.6	25.8	10.4	5.1
12-13 years:						
Yes	2,144	100.0	66.0	27.2	6.4	3.1
No	4,382	100.0	81.5	16.0	2.2	1.0
14-15 years:						
Yes	2,620	100.0	45.5	30.8	21.4	11.2
No	3,836	100.0	63.8	28.1	7.1	3.5
16-18 years:						
Yes	4,611	100.0	29.7	36.1	31.2	14.8
No	5,827	100.0	47.6	31.6	18.8	9.2
Male:						
Yes	6,003	100.0	43.1	32.8	21.9	10.6
No	6,157	100.0	61.2	27.2	10.2	4.5
Female:						
Yes	3,372	100.0	41.2	32.3	24.5	12.1
No	7,887	100.0	63.7	24.7	10.6	5.5
Rode with driver using alcohol and/or drugs in past year						
All ages:						
Yes	2,556	100.0	23.4	30.9	42.7	22.7
No	20,860	100.0	58.3	28.3	12.0	5.6
12-13 years:						
Yes	274	100.0	60.9	28.8	*9.1	*5.8
No	6,259	100.0	77.0	19.4	3.3	1.5
14-15 years:						
Yes	584	100.0	31.8	32.0	32.5	18.8
No	5,870	100.0	58.9	28.9	10.9	5.4
16-18 years:						
Yes	1,698	100.0	14.4	30.8	51.6	26.7
No	8,732	100.0	44.5	34.2	19.0	8.7

Table 9. Number of teenagers, percent distribution by smoking status, and percent expecting to smoke in 1 year, according to selected risk-taking behaviors, age, and sex: United States, 1989—Con.

Selected risk-taking behaviors by age and sex	All teenagers	Smoking status			Teenagers expecting to smoke in 1 year	
		Total ¹	Never smoked	Experimenter		Current smoker
Rode with driver using alcohol and/or drugs in past year—Con.	Number in thousands	Percent distribution			Percent	
Male:						
Yes	1,404	100.0	25.0	27.1	44.6	23.6
No.	10,756	100.0	55.8	30.4	12.2	5.4
Female:						
Yes	1,152	100.0	21.6	35.5	40.5	21.6
No.	10,104	100.0	60.9	26.1	11.8	5.8
Enjoyed risk-taking activities						
All ages:						
Yes	9,867	100.0	38.4	36.5	22.7	11.1
No.	11,672	100.0	65.4	22.9	10.0	4.5
12–13 years:						
Yes	2,014	100.0	59.4	32.0	7.5	3.7
No.	3,985	100.0	82.2	15.4	1.9	*0.6
14–15 years:						
Yes	2,792	100.0	40.4	38.0	19.5	10.7
No.	3,129	100.0	68.2	22.4	7.5	3.3
16–18 years:						
Yes	5,061	100.0	28.9	37.5	30.4	14.3
No.	4,558	100.0	48.9	29.9	18.9	8.7
Male:						
Yes	5,780	100.0	38.6	36.7	22.0	10.5
No.	5,512	100.0	63.8	24.1	10.3	4.8
Female:						
Yes	4,087	100.0	38.1	36.3	23.6	12.1
No.	6,160	100.0	66.9	21.9	9.8	4.3

¹Includes other and unknown smoking status.

Table 10. Number of teenagers and percent distribution by smoking status, according to selected smoking-knowledge indicators, age, and sex: United States, 1989

Smoking-knowledge indicators by age and sex	Smoking status				
	All teenagers	Total ¹	Never smoked	Experimenter	Current smoker
Taken class about health risks		Percent distribution			
All ages:					
Yes	17,688	100.0	53.5	29.6	15.2
No.	5,665	100.0	57.6	25.5	15.7
12-13 years:					
Yes	4,642	100.0	76.1	20.3	3.3
No.	1,852	100.0	77.1	18.6	4.0
14-15 years:					
Yes	4,834	100.0	55.7	30.2	12.6
No.	1,620	100.0	58.6	26.0	13.9
16-18 years:					
Yes	8,213	100.0	39.4	34.5	23.5
No.	2,193	100.0	40.3	31.0	27.0
Male:					
Yes	9,158	100.0	51.0	31.0	16.0
No.	2,966	100.0	56.1	27.3	15.2
Female:					
Yes	8,531	100.0	56.1	28.2	14.3
No.	2,699	100.0	59.1	23.6	16.3
T.V., radio, or other media exposure					
All ages:					
Yes	19,264	100.0	54.7	28.6	15.2
No.	4,212	100.0	53.4	28.4	16.4
12-13 years:					
Yes	5,409	100.0	76.1	20.1	3.5
No.	1,143	100.0	77.7	18.2	3.8
14-15 years:					
Yes	5,351	100.0	56.3	29.5	12.8
No.	1,107	100.0	56.5	28.6	13.0
16-18 years:					
Yes	8,504	100.0	40.1	33.5	24.0
No.	1,962	100.0	37.6	34.3	25.6
Male:					
Yes	10,078	100.0	52.8	30.0	15.4
No.	2,113	100.0	49.0	30.5	18.7
Female:					
Yes	9,185	100.0	56.8	27.1	14.9
No.	2,099	100.0	57.9	26.4	14.1
"Most doctors are against smoking cigarettes"					
All ages:					
Agree	18,743	100.0	53.7	28.7	15.8
Disagree	4,165	100.0	52.3	30.8	14.8
12-13 years:					
Agree	5,219	100.0	76.0	19.8	3.6
Disagree	1,154	100.0	70.2	24.9	4.4
14-15 years:					
Agree	5,042	100.0	55.2	29.7	13.5
Disagree	1,244	100.0	54.7	31.7	10.7
16-18 years:					
Agree	8,481	100.0	39.0	33.6	24.7
Disagree	1,767	100.0	38.9	34.1	24.4

Table 10. Number of teenagers and percent distribution by smoking status, according to selected smoking-knowledge indicators, age, and sex: United States, 1989—Con.

Smoking-knowledge indicators by age and sex	Smoking status				
	All teenagers	Total ¹	Never smoked	Experi- menter	Current smoker
"Most doctors are against smoking cigarettes"—Con.	Number in thousands		Percent distribution		
Male:					
Agree	9,807	100.0	52.1	30.2	15.7
Disagree	2,087	100.0	49.0	31.3	17.2
Female:					
Agree	8,936	100.0	55.4	27.1	16.0
Disagree	2,078	100.0	55.5	30.3	12.4
"Safe to smoke 1 or 2 years"					
All ages:					
Agree	1,631	100.0	24.0	26.5	45.7
Disagree	21,471	100.0	55.9	29.2	13.2
12–13 years:					
Agree	302	100.0	41.7	38.4	20.2
Disagree	6,144	100.0	76.8	19.8	2.8
14–15 years:					
Agree	384	100.0	29.7	27.6	36.2
Disagree	5,961	100.0	57.1	30.1	11.3
16–18 years:					
Agree	944	100.0	16.1	22.5	57.7
Disagree	9,366	100.0	41.4	34.8	21.2
Male:					
Agree	1,048	100.0	21.5	27.6	46.6
Disagree	10,932	100.0	54.7	30.6	12.9
Female:					
Agree	583	100.0	28.6	24.7	44.1
Disagree	10,539	100.0	57.2	27.8	13.5
"Cigarettes help people relax"					
All ages:					
Agree	6,265	100.0	32.8	29.9	34.4
Disagree	16,397	100.0	61.2	28.6	8.7
12–13 years:					
Agree	1,129	100.0	61.4	30.0	7.4
Disagree	5,148	100.0	78.3	18.6	2.7
14–15 years:					
Agree	1,678	100.0	38.4	29.9	29.0
Disagree	4,583	100.0	61.4	29.8	7.2
16–18 years:					
Agree	3,458	100.0	20.7	29.9	45.9
Disagree	6,666	100.0	47.9	35.5	14.4
Male:					
Agree	3,591	100.0	32.8	30.7	33.2
Disagree	8,136	100.0	59.5	30.2	8.7
Female:					
Agree	2,674	100.0	32.8	28.8	36.0
Disagree	8,261	100.0	63.0	27.1	8.7

Table 10. Number of teenagers and percent distribution by smoking status, according to selected smoking-knowledge indicators, age, and sex: United States, 1989—Con

Smoking-knowledge indicators by age and sex	Smoking status				
	All teenagers	Total ¹	Never smoked	Experi- menter	Current smoker
"Smoking helps keep weight down"	Number in thousands		Percent distribution		
All ages:					
Agree	4,178	100.0	40.6	30.8	26.2
Disagree	18,786	100.0	57.6	28.0	13.0
12-13 years:					
Agree	852	100.0	67.3	26.2	6.0
Disagree	5,532	100.0	77.6	19.0	3.1
14-15 years:					
Agree	1,045	100.0	43.2	32.9	21.8
Disagree	5,292	100.0	59.2	28.2	11.3
16-18 years:					
Agree	2,280	100.0	29.6	31.6	35.9
Disagree	7,963	100.0	42.6	34.2	21.0
Male:					
Agree	2,027	100.0	38.1	31.8	27.7
Disagree	9,859	100.0	55.2	29.6	13.6
Female:					
Agree	2,151	100.0	43.0	29.9	24.9
Disagree	8,926	100.0	60.2	26.3	12.4

¹Includes other and unknown smoking status.

Technical notes

Source and description of data

This report contains data from the 1989 Teenage Attitudes and Practices Survey (TAPS). The TAPS was a targeted population study of U.S. teenagers 12–18 years of age. The study was conducted by the National Center for Health Statistics' National Health Interview Survey (NHIS) and co-sponsored by the Centers for Disease Control Office on Smoking and Health (OSH) and the National Cancer Institute (NCI).

The TAPS was designed to obtain national household data about current cigarette-smoking behavior and lifetime smoking practices of adolescents and their beliefs about smoking. Selected correlates of smoking uptake were also addressed in the study.

The TAPS sample was derived from NHIS's household interviews conducted during the final two quarters of 1988 and the first two quarters of 1989. All teenagers living in households contacted and interviewed during this period that were 12–18 years of age as of November 1, 1989, were included in the sample. The eligible sample for the TAPS was 12,097 persons.

The TAPS utilized two modes of data collection. The primary method consisted of computer-assisted telephone interviewing (CATI) in households where a telephone number was provided during the original NHIS interview. In addition, self-administered questionnaires were mailed to sample teenagers living in households without telephones or an available telephone number. Mail questionnaires were also sent to those teenagers living in households with an original telephone number but who were never reached using the CATI method. Telephone interviews and all other data collection activities were performed by U.S. Bureau of the Census personnel. Data collection began in August 1989 and, except for late receipt of some mail questionnaires, concluded in December 1989.

Unlike the original NHIS interview, all teenagers responded for themselves. However, prior to the initial telephone contact, advance letters were mailed to a responsible related adult and to each eligible teenager in the household explaining the sponsorship and objectives of the upcoming survey and assuring confidentiality.

The total interviewed TAPS sample included 9,965 adolescents, 9,135 from CATI interviews and the remaining 830 cases from completed mail questionnaires. The total combined response rate for the TAPS from these 2 data-collection procedures was 82 percent. Most of the nonresponse resulted from teenagers' failure to return the mail questionnaire. Only 3.7 percent of interviews of adolescents reached by telephone ended in a refusal either because of the parent's or teenager's initial refusal or subsequent termination of the interview. Item nonresponse was less than 1 percent for the questions discussed in this report. More details about nonresponse are available in a recent report (42).

Sampling errors

Because estimates shown in this report are based on a sample of the population rather than on the entire population, they are subject to sampling error. When an estimate or the numerator or denominator of a percent is small, the sampling error may be relatively high. In addition, the complex sample design of the NHIS has the effect of making the sampling errors larger than they would be had a simple random sample of equal size been used.

The following method for computing sampling errors is presented for the convenience of readers who want a simple method to use in calculating standard errors for estimates in this report. More precise methods, such as that available in the software program SUDAAN (43), which estimates standard errors for complex sample surveys using Taylor linearization, are recommended for detailed analysis of NHIS data.

Approximate standard errors of the estimated numbers (x) in this report (except for age, sex, and race for all teenagers when the standard error is assumed to be 0.0) may be calculated using the formula

$$SE(x) = \sqrt{0.0000307(x)^2 + 3,640(x)}$$

Except as noted below, approximate standard errors of the estimated percents in this report may be calculated using the formula

$$SE(p) = \sqrt{\frac{3,640(p)(100-p)}{y}}$$

where p is the estimated percent and y is the population denominator.

Approximate standard errors for the percents in table 1 by age, sex, and race only and the percents for the "all teenagers" category in table 4 may be calculated by using the formula

$$SE(p) = p\sqrt{0.0000307 + 3,640/x}$$

where p is the estimated percent and $x = py/100$ with $y =$ the population denominator.

If x_1 and x_2 are two estimates, then the approximate standard error of the difference ($x_1 - x_2$) can be computed as follows:

$$\sqrt{SE(x_1)^2 + SE(x_2)^2 - 2r SE(x_1)SE(x_2)}$$

where $SE(x_1)$ and $SE(x_2)$ are computed using the appropriate formulas previously presented in this section, and r is the correlation coefficient between x_1 and x_2 (assuming $r = 0.0$ will result in an accurate standard error if the two estimates are actually uncorrelated and will result in an overestimate of the standard error if the correlation is positive or an underestimate if the correlation is negative).

In this report, unless otherwise noted, a difference was considered statistically significant at the 5 percent level if the difference ($x_1 - x_2$) was at least twice as large as its standard error.

Related documentation

More detailed discussion of the sample design of the NHIS,

estimating procedures, procedures for estimating standard errors, nonsampling errors, and definitions of other sociodemographic terms used in this report has been published in *Vital and Health Statistics*, Series 10, nos. 160 and 176; Series 1, no. 18; and Series 2, 110 (44-47).

A public use data file based on the 1989 TAPS was released in February 1992. Information regarding the purchase of the public use tape may be obtained by writing to the Division of Health Interview Statistics, National Center for Health Statistics, 6525 Belcrest Road, Hyattsville, Maryland 20782.

Definition of terms—TAPS smoking status categories

Never smoked—Never smoked a cigarette.

Never smoked, no intention—Never smoked a cigarette or tried or experimented with cigarette smoking; will not try a cigarette soon; and definitely will not be smoking in 1 year.

Never smoked, may smoke—Never smoked a cigarette or tried or experimented with cigarette smoking; may try a cigarette soon or may be smoking in 1 year.

Experimenter—Has either smoked a cigarette or tried or experimented with cigarette smoking, but has not smoked 100 cigarettes and has not smoked in the past 30 days.

Former smoker—Has smoked at least 100 cigarettes, but has not smoked in the past 30 days.

Current smoker—Has smoked a cigarette in the past 30 days.

Current light smoker—Has smoked 10 or more days in the past 30 days, and has smoked an average of fewer than 5 cigarettes per day in the past 7 days.

Current heavy smoker—Has smoked 10 or more days in the past 30 days, and has smoked an average of 5 cigarettes or more per day in the past 7 days.

Current occasional smoker—Has smoked 1 to 9 days in the past 30 days.

Symbols

---	Data not available
. . .	Category not applicable
-	Quantity zero
0.0	Quantity more than zero but less than 0.05
Z	Quantity more than zero but less than 500 where numbers are rounded to thousands
*	Figure does not meet standard of reliability or precision

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