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Contact: Patti Meyer
Phone: (734) 647-1083
E-mail: pmeyer@umich.edu
Study Web site: www.monitoringthefuture.org

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EDITORS: Results of this survey are scheduled to be released at a news conference at 11:00 A.M. EST on Friday, December 19, 2003, in Washington, D.C., to be held at the White House Briefing Room. Participants will include Secretary of Health and Human Services Tommy Thompson, and Director of the Office of National Drug Control Policy John Walters. A follow-up press briefing is scheduled for 12:30 P.M. EST at the National Press Club. Participating will be John Walters, director of the Office of National Drug Control Policy, Nora Volkow, director of the National Institute on Drug Abuse, and Lloyd Johnston, principal investigator of the Monitoring the Future study. For further information on the study, contact Johnston at (734) 763-5043.

Teen smoking continues to decline in 2003, but declines are slowing.

ANN ARBOR, Mich.--- Cigarette use among American adolescents has been falling since the mid-1990s, with smoking rates among younger teens dropping by roughly one-half. The 2003 results from the Monitoring the Future annual series of nationwide surveys, released today by the University of Michigan Institute for Social Research, show that declines in teen smoking continued into 2003 though results also show that the rate of decline is slowing appreciably.

This year's survey is the 29th in an annual series and involves nearly 50,000 eighth-, 10th-, and 12th- grade students in 392 secondary schools nationwide. Among eighth-graders, the prevalence of current smoking (smoking one or more cigarettes in the prior 30 days) fell by only half a percentage point this year, and among 10th-graders the comparable decline was only one

percentage point. Neither of these declines is statistically significant, and both are the smallest declines observed in these grades over the past four or five years. (See Figure 1.) The 12th-graders do show a statistically significant 2.3 percentage point decline in their rate of current smoking; but the investigators believe that this decline largely reflects an echo of the declines exhibited earlier when these students were in the lower grades. So far, current smoking has declined since 1997 by one-third (from 37 percent to 24 percent in 2003) among 12th-graders, but the investigators predict a continuation of the decline at this grade level as the lower-smoking 10th-graders from the past two years reach 12th-grade.

“This year’s results suggest that the improvements we have been seeing in teen smoking for the past eight years or so may be near an end,” says Lloyd Johnston, the study’s principal investigator. “While those declines have been substantial and important, it must be remembered that, to a considerable degree, they were simply offsetting the dramatic increases in teen smoking observed in the first half of the ’90s. Even with the improvements, we still have a quarter of our young people who are actively smoking by the time that they leave high school, which is an unacceptably high rate for a behavior that so endangers their health and reduces their life expectancy.”

The rates of current *daily* smoking and of current smoking at the *half-pack-per-day* level also continued their longer-term declines in all three grades this year (see Table 1). None of these one-year changes reached statistical significance. The most promising finding is that the proportions of students who have ever initiated smoking continue to drop significantly in all three grades (see Table 1).

As would be expected, smoking increases with age: 10 percent of the eighth-graders, 17 percent of the 10th-graders, and 24 percent of the 12th-graders surveyed in 2003 said that they had smoked some in the prior 30 days. The proportions that were current *daily* smokers were 5 percent, 9 percent, and 16 percent, respectively. “We know from our follow-up studies of past graduating senior classes that a number of the non-daily smokers in high school become daily smokers after graduation,” state the investigators. “This increase is likely due to the fact that they no longer spend much of the day in school and in their parents’ homes, where they usually are prohibited from smoking.” In addition to Johnston, the other authors of the forthcoming report are Patrick O’Malley, Jerald Bachman, and John Schulenberg—all research professors at the University of Michigan Institute for Social Research.

Perceived Risk. The proportion of students who see smoking at a pack-a-day level as dangerous had been rising steadily since 1995, and that strengthened belief may well have contributed to the substantial decline in their smoking rates. In fact, perceived risk, as the investigators call it, began to rise a year prior to the decline in actual smoking (1996 and 1997, respectively), consistent with a causal interpretation. But the increase in perceived risk associated with smoking ended after 2000 in the lower grades and after 2002 in 12th-grade (see Figure 1), possibly contributing to the deceleration of the decline in use by 2003. “This argues for not letting up on anti-smoking efforts,” says Johnston.

Disapproval. Students' personal disapproval of smoking also had been rising for some years but showed no further increase this year among eighth-graders and only a small increase among 10th- and 12th-graders (see Figure 1).

Dating Preferences. Other attitudinal measures seem to be leveling as well, following a period of considerable change in a negative direction. The proportion of 12th-graders, for example, who said that they prefer to date people who do not smoke rose from 64 percent in 1997 to 72 percent in 2002, but remained at 72 percent in 2003. In commenting on these preferences, Johnston observes, "It is clear that a young person today pays a significant social price for becoming a smoker, with nearly three-quarters of the opposite sex saying that they prefer to date people who do not smoke. This is just the opposite of what tobacco ads have promised for so many years."

Availability. The eighth- and 10th-grade students are asked, "How difficult do you think it would be for you to get cigarettes, if you wanted some?" The proportion of students saying "fairly easy" or "very easy" has been declining quite steadily from 1996 through 2003. In 1996, 77 percent of eighth-graders said it would be easy to get cigarettes, but that proportion is down to 63 percent in 2003. Over the same interval, the proportion of 10th-graders saying they could get cigarettes fairly easily has dropped from 91 percent to 81 percent. The investigators conjecture that some of this decline could be due to the fact that fewer students have friends who smoke and who may have served as the source of their cigarettes. Also, some of the decline in perceived availability may be due to changes in retailer behavior. Still, even today the majority of these young people, ranging from 13 to 16 years of age, say that they could get cigarettes fairly or very easily.

Smokeless Tobacco

Cigarette smoking is not the only form of tobacco use that has been in decline in recent years. Chewing or “spit” tobacco, which is primarily used by boys—and particularly by boys from rural areas—has been declining since 1994 or 1995 among teens (see Figure 2). The declines have been substantial, with the prevalence of any use of smokeless tobacco in the prior 30 days falling by about half in all three grade levels (see Table 5). However, for the first time in recent years the decline halted this year in eighth- and 10th-grades. In other words, there is evidence that the decline in the use of smokeless tobacco may be bottoming out, as well. Since 1995, teenagers have gradually come to see the use of smokeless tobacco as dangerous to the user, and since 1996, they have steadily become more disapproving of its use (see Figure 2). Both of these factors may help to explain the long-term decline in their use of smokeless tobacco.

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Monitoring the Future has been funded under a series of competing, investigator-initiated research grants from the National Institute on Drug Abuse. Surveys of nationally representative samples of American high school seniors were begun in 1975, making the class of 2003 the 29th such class surveyed. Surveys of eighth- and 10th-graders were added to the design in 1991, making the 2003 nationally representative samples the 13th such classes surveyed. The sample sizes in 2003 are 17,000 eighth-graders located in 141 schools, 16,200 10th-graders located in 129 schools, and 15,200 12th-graders located in 122 schools, for a total of 48,500 students in 392 schools overall. The samples are drawn to be representative of students in private and public secondary schools across the coterminous United States, selected with probability proportionate to estimated class size, to yield separate, nationally representative samples of students from each of the three grade levels.

The findings summarized here will be published in the forthcoming volume: Johnston, L. D., O’Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2004). *Monitoring the Future national results on adolescent drug use: Overview of key findings, 2003*. (NIH Publication No. [yet to be assigned].) Bethesda MD: National Institute on Drug Abuse. It and many other publications from the study may be found on the study’s Web site, www.monitoringthefuture.org.

TABLE 1
Long-Term Trends in Prevalence of Use of Cigarettes for Eighth, Tenth, and Twelfth Graders

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	'02-'03 change	
Lifetime																															
8th Grade																	44.0	45.2	45.3	46.1	46.4	49.2	47.3	45.7	44.1	40.5	36.6	31.4	28.4	-3.0ss	
10th Grade																	55.1	53.5	56.3	56.9	57.6	61.2	60.2	57.7	57.6	55.1	52.8	47.4	43.0	-4.4sss	
12th Grade	73.6	75.4	75.7	75.3	74.0	71.0	71.0	70.1	70.6	69.7	68.8	67.6	67.2	66.4	65.7	64.4	63.1	61.8	61.9	62.0	64.2	63.5	65.4	65.3	64.6	62.5	61.0	57.2	53.7	-3.5ss	
Thirty-Day																															
8th Grade																	14.3	15.5	16.7	18.6	19.1	21.0	19.4	19.1	17.5	14.6	12.2	10.7	10.2	-0.5	
10th Grade																	20.8	21.5	24.7	25.4	27.9	30.4	29.8	27.6	25.7	23.9	21.3	17.7	16.7	-1.0	
12th Grade	36.7	38.8	38.4	36.7	34.4	30.5	29.4	30.0	30.3	29.3	30.1	29.6	29.4	28.7	28.6	29.4	28.3	27.8	29.9	31.2	33.5	34.0	36.5	35.1	34.6	31.4	29.5	26.7	24.4	-2.3s	
Daily																															
8th Grade																	7.2	7.0	8.3	8.8	9.3	10.4	9.0	8.8	8.1	7.4	5.5	5.1	4.5	-0.6	
10th Grade																	12.6	12.3	14.2	14.6	16.3	18.3	18.0	15.8	15.9	14.0	12.2	10.1	8.9	-1.2	
12th Grade	26.9	28.8	28.8	27.5	25.4	21.3	20.3	21.1	21.2	18.7	19.5	18.7	18.7	18.1	18.9	19.1	18.5	17.2	19.0	19.4	21.6	22.2	24.6	22.4	23.1	20.6	19.0	16.9	15.8	-1.1	
1/2 pack+ per day																															
8th Grade																	3.1	2.9	3.5	3.6	3.4	4.3	3.5	3.6	3.3	2.8	2.3	2.1	1.8	-0.3	
10th Grade																	6.5	6.0	7.0	7.6	8.3	9.4	8.6	7.9	7.6	6.2	5.5	4.4	4.1	-0.2	
12th Grade	17.9	19.2	19.4	18.8	16.5	14.3	13.5	14.2	13.8	12.3	12.5	11.4	11.4	10.6	11.2	11.3	10.7	10.0	10.9	11.2	12.4	13.0	14.3	12.6	13.2	11.3	10.3	9.1	8.4	-0.8	
Approx. Ns: (in thousands)																															
8th Grade																	17.5	18.6	18.3	17.3	17.5	17.8	18.6	18.1	16.7	16.7	16.2	15.1	16.5		
10th Grade																	14.8	14.8	15.3	15.8	17.0	15.6	15.5	15.0	13.6	14.3	14.0	14.3	15.8		
12th Grade	9.4	15.4	17.1	17.8	15.5	15.9	17.5	17.7	16.3	15.9	16.0	15.2	16.3	16.3	16.7	15.2	15.0	15.8	16.3	15.4	15.4	14.3	15.4	15.2	13.6	12.8	12.8	12.9	14.6		

NOTES: Level of significance of difference between the two most recent classes: s = .05, ss = .01, sss = .001.
Any apparent inconsistency between the change estimate and the prevalence of use estimates for the two most recent classes is due to rounding error.
SOURCE: The Monitoring the Future Study, The University of Michigan.

TABLE 2

Cigarettes: Trends in Thirty-Day Prevalence of Use by Subgroups for Eighth and Tenth Graders

	Percentage who used in last thirty days																											
	8th Grade													10th Grade														
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	'02-'03 change	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	'02-'03 change
	<i>Approx. N = 17500 18600 18300 17300 17500 17800 18600 18100 16700 16700 16200 15100 16500</i>													<i>14800 14800 15300 15800 17000 15600 15500 15000 13600 14300 14000 14300 15800</i>														
Total	14.3	15.5	16.7	18.6	19.1	21.0	19.4	19.1	17.5	14.6	12.2	10.7	10.2	-0.5	20.8	21.5	24.7	25.4	27.9	30.4	29.8	27.6	25.7	23.9	21.3	17.7	16.7	-1.0
Sex:																												
Male	15.5	14.9	17.2	19.3	18.8	20.6	19.1	18.0	16.7	14.3	12.2	11.0	9.6	-1.4	20.8	20.6	24.6	26.6	27.7	30.1	28.2	26.2	25.2	23.8	20.9	16.7	16.2	-0.5
Female	13.1	15.9	16.3	17.9	19.0	21.1	19.5	19.8	17.7	14.7	12.0	10.4	10.6	+0.3	20.7	22.2	24.5	23.9	27.9	30.8	31.1	29.1	25.8	23.6	21.5	18.6	17.0	-1.6
College Plans:																												
None or under 4 years	29.2	31.9	34.1	36.6	36.5	39.2	40.0	40.1	40.3	34.7	30.0	29.3	27.8	-1.5	36.5	35.0	41.9	42.2	46.3	46.2	47.2	45.2	44.0	38.6	38.1	33.3	33.0	-0.3
Complete 4 years	11.8	13.1	14.3	16.1	16.8	18.2	16.9	16.5	14.5	12.2	10.0	8.9	8.3	-0.6	17.3	18.6	21.0	21.7	24.7	27.8	26.8	24.5	22.7	21.5	18.5	15.1	14.0	-1.1
Region:																												
Northeast	13.7	14.4	15.0	17.8	18.6	22.1	18.0	15.6	15.7	13.7	11.4	9.1	7.7	-1.4	22.4	21.9	27.1	24.5	27.8	31.7	29.3	30.1	28.0	23.9	18.1	15.9	16.6	+0.7
North Central	15.5	16.5	16.3	18.5	20.9	23.2	20.0	22.3	21.3	17.1	12.0	11.0	12.2	+1.2	22.9	24.3	26.0	28.8	30.1	32.5	31.7	29.5	30.2	27.1	24.2	19.2	18.4	-0.9
South	15.7	17.0	18.2	19.5	19.4	21.1	21.0	21.1	18.7	14.7	14.3	13.0	11.7	-1.3	21.2	19.8	24.0	25.7	30.8	33.4	32.2	29.8	26.3	25.5	23.5	19.6	18.2	-1.3
West	10.0	12.2	16.4	18.0	16.5	17.1	17.1	15.1	12.1	12.2	9.3	7.5	7.0	-0.5	16.7	20.2	21.2	20.1	19.6	20.8	23.2	19.6	17.5	16.8	15.0	14.1	12.5	-1.6
Population Density:																												
Large MSA	12.8	15.0	14.1	15.5	16.5	19.4	15.8	16.4	12.7	12.1	9.3	7.5	7.7	+0.2	19.7	21.6	22.5	22.3	23.3	26.2	26.6	22.5	22.9	23.1	17.3	14.2	13.1	-1.1
Other MSA	14.9	15.3	17.8	20.7	19.4	21.4	19.7	17.7	16.0	13.1	11.6	10.6	9.8	-0.8	20.3	20.3	23.8	26.3	28.9	31.1	28.9	26.6	25.0	21.3	20.5	17.6	16.6	-1.0
Non-MSA	14.8	16.4	17.9	17.8	21.5	22.1	22.8	24.8	26.1	21.1	16.9	14.9	14.4	-0.6	22.7	23.7	28.2	26.7	31.3	33.9	34.9	35.7	30.4	29.4	27.6	22.6	22.4	-0.2
Parental Education: ^a																												
1.0-2.0 (Low)	26.2	24.1	23.3	26.1	25.3	26.5	26.9	26.7	26.6	22.0	20.3	20.3	17.5	-2.7	23.5	28.4	29.5	26.4	30.9	28.7	28.2	28.0	30.5	29.3	22.5	21.4	23.4	+2.0
2.5-3.0	16.4	16.9	19.8	20.6	22.7	24.4	22.4	23.9	23.5	19.6	16.4	14.5	14.8	+0.3	24.1	23.3	28.0	29.1	33.2	33.8	33.2	33.0	29.6	26.8	25.7	22.4	21.2	-1.2
3.5-4.0	13.9	14.9	17.4	20.1	20.8	21.4	20.9	21.4	17.0	14.7	12.6	10.5	9.6	-0.9	20.4	20.6	24.8	26.0	27.8	31.6	30.9	27.3	26.0	25.3	21.1	17.4	16.2	-1.1
4.5-5.0	10.1	13.3	12.5	14.9	14.9	18.4	16.2	14.2	12.3	10.2	8.3	7.8	6.7	-1.1	18.5	19.5	20.1	22.6	25.9	28.7	28.5	25.7	22.4	21.2	18.9	15.1	13.4	-1.7
5.5-6.0 (High)	11.3	11.5	13.3	15.1	14.5	17.3	15.3	13.8	12.2	9.8	6.9	5.8	6.0	+0.1	18.5	18.9	21.4	20.7	21.8	27.8	24.6	22.5	21.4	19.1	17.1	12.7	11.6	-1.1
Race (2-year average): ^b																												
White	—	16.2	17.8	18.9	20.7	22.7	22.8	21.5	20.1	17.7	14.7	12.0	10.9	-1.1	—	24.1	26.0	27.8	29.7	32.9	34.4	33.2	30.8	28.2	25.7	22.4	20.0	-2.5s
Black	—	5.3	6.6	8.7	8.9	9.6	10.9	10.6	10.7	9.6	8.2	7.7	6.9	-0.8	—	6.6	7.5	9.8	11.5	12.2	12.8	13.7	12.5	11.1	11.1	9.8	8.9	-0.9
Hispanic	—	16.7	18.3	21.3	21.6	19.6	19.1	20.1	20.5	16.6	13.0	12.7	11.9	-0.9	—	18.3	20.5	19.4	21.4	23.7	23.0	21.3	21.1	19.6	16.8	14.3	13.2	-1.1

NOTES: Level of significance of difference between the two most recent classes: s = .05, ss = .01, sss = .001. '—' indicates data not available.

Any apparent inconsistency between the change estimate and the prevalence of use estimates for the two most recent classes is due to rounding error.

SOURCE: The Monitoring the Future Study, the University of Michigan.

^aParental education is an average score of mother's education and father's education.

^bTo derive percentages for each racial subgroup, data for the specified year *and* the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

TABLE 3

Cigarettes: Trends in Thirty-Day Prevalence of Use by Subgroups for Twelfth Graders

	Percentage who used in last thirty days																										'02-'03 change				
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000		2001	2002	2003	
<i>Approx. N =</i>	<i>9400 15400 17100 17800 15500 15900 17500 17700 16300 15900 16000 15200 16300 16300 16700 15200 15000 15800 16300 15400 15400 14300 15400 15200 13600 12800 12800 12900 14600</i>																														
Total	36.7	38.8	38.4	36.7	34.4	30.5	29.4	30.0	30.3	29.3	30.1	29.6	29.4	28.7	28.6	29.4	28.3	27.8	29.9	31.2	33.5	34.0	36.5	35.1	34.6	31.4	29.5	26.7	24.4	-2.3s	
Gender:																															
Male	37.2	37.7	36.6	34.5	31.2	26.8	26.5	26.8	28.0	25.9	28.2	27.9	27.0	28.0	27.7	29.1	29.0	29.2	30.7	32.9	34.5	34.9	37.3	36.3	35.4	32.8	29.7	27.4	26.2	-1.2	
Female	35.9	39.1	39.6	38.1	37.1	33.4	31.6	32.6	31.6	31.9	31.4	30.6	31.4	28.9	29.0	29.2	27.5	26.1	28.7	29.2	32.0	32.4	35.2	33.3	33.5	29.7	28.7	25.5	22.1	-3.4s	
College Plans:																															
None or under 4 years	—	46.3	46.2	44.6	43.0	39.6	38.1	38.7	38.0	37.9	40.5	38.5	39.7	37.5	38.0	37.5	38.1	38.6	37.3	40.9	43.5	45.0	45.7	46.7	44.9	43.6	40.8	37.5	36.2	-1.3	
Complete 4 years	—	29.8	29.4	27.4	26.0	22.3	22.3	22.1	23.3	22.7	22.8	24.0	24.3	24.4	24.1	25.4	24.2	23.8	27.3	28.0	29.9	30.8	33.1	31.3	31.4	27.3	25.9	23.6	20.8	-2.8ss	
Region:																															
Northeast North	40.1	41.8	43.0	40.6	37.0	34.1	31.5	32.1	34.6	33.5	34.2	35.2	34.1	31.2	29.4	31.9	30.5	29.6	34.2	33.2	34.4	38.5	40.6	35.9	34.2	33.1	30.3	27.3	25.0	-2.3	
Central South	39.5	41.3	40.5	39.0	36.6	31.5	32.4	33.5	33.2	31.4	34.1	32.5	31.7	31.1	34.9	34.0	34.6	31.7	33.2	36.2	37.8	37.7	39.3	40.0	37.8	35.6	35.9	31.7	27.3	-4.4s	
West	36.2	39.1	37.6	35.7	35.4	31.8	28.9	29.4	28.7	28.6	25.6	26.1	26.0	28.0	26.4	26.1	25.4	26.4	29.0	30.7	33.5	33.2	35.0	34.3	36.2	29.6	25.9	27.2	24.3	-3.0	
Population Density:																															
Large MSA	39.7	40.4	40.9	37.5	33.4	31.2	30.6	32.1	30.8	31.3	31.9	30.8	29.3	26.9	25.9	27.9	26.2	25.6	29.5	29.0	33.9	32.1	34.9	32.9	30.0	27.4	27.3	24.8	18.9	-5.9sss	
Other MSA	35.1	35.9	36.1	34.3	33.5	29.7	27.4	27.8	29.1	28.2	28.5	28.0	28.2	28.3	28.2	29.6	29.3	26.9	29.8	31.1	31.7	32.6	35.7	34.2	35.0	31.5	28.2	26.2	25.1	-1.1	
Non-MSA	36.7	40.9	39.2	39.4	36.4	30.9	30.9	31.2	31.5	29.3	30.8	31.0	31.8	31.4	32.2	30.4	28.6	31.5	30.3	33.8	36.2	38.2	40.0	39.7	38.7	36.3	34.3	30.1	30.4	+0.3	
Parental Education: ^a																															
(Low)																															
1.0-2.0	37.2	43.2	39.6	38.1	38.1	32.7	32.5	32.6	32.7	33.6	32.3	28.6	28.8	28.1	25.4	26.3	31.3	27.1	26.5	26.2	31.2	31.5	31.2	32.3	33.0	31.3	24.8	20.9	23.5	+2.6	
2.5-3.0	37.0	41.2	40.8	39.3	35.9	34.2	31.7	32.0	32.2	31.8	32.3	32.3	31.4	29.9	30.8	30.8	28.7	30.3	30.4	32.8	35.0	35.5	36.5	36.0	37.3	32.2	31.5	28.9	27.0	-1.9	
3.5-4.0	31.9	35.3	37.3	34.0	33.3	28.0	28.2	29.0	28.0	28.1	29.7	29.7	28.8	27.8	29.4	29.3	28.4	27.8	29.9	31.4	33.2	33.2	35.6	36.7	35.0	32.8	30.3	28.6	24.3	-4.4sss	
4.5-5.0	32.3	35.0	33.0	32.6	30.1	25.7	26.0	25.5	27.8	25.2	27.7	26.4	27.6	28.6	27.0	29.1	26.9	25.8	30.1	32.0	32.6	34.5	37.5	34.2	32.4	30.2	29.3	25.0	22.6	-2.4	
5.5-6.0 (High)	26.8	30.8	32.8	31.9	29.6	24.0	22.5	25.1	25.5	23.7	22.6	26.7	29.3	27.8	26.3	28.6	27.1	25.5	30.5	30.4	34.0	32.9	38.5	33.1	34.4	27.4	25.0	25.3	21.0	-4.3s	
Race (2-year average): ^b																															
White	—	—	38.3	37.6	36.0	33.0	30.5	30.7	31.3	31.2	31.3	31.9	32.1	32.2	32.2	32.3	32.2	31.8	33.2	35.2	36.6	38.1	40.7	41.7	40.1	37.9	35.3	32.5	29.4	-3.0s	
Black	—	—	36.7	32.7	30.2	26.8	23.7	21.8	21.2	19.3	18.1	16.9	14.2	13.3	12.6	12.2	10.6	8.7	9.5	10.9	12.9	14.2	14.3	14.9	14.9	14.3	13.3	12.1	10.0	-2.1	
Hispanic	—	—	35.7	32.8	26.8	22.6	23.2	24.7	24.7	25.3	25.5	23.7	22.7	21.9	20.6	21.7	24.0	25.0	24.2	23.6	25.1	25.4	25.9	26.6	27.3	27.7	23.8	21.3	19.0	-2.2	

NOTES: Level of significance of difference between the two most recent classes: s = .05, ss = .01, sss = .001. '—' indicates data not available. Any apparent inconsistency between the change estimate and the prevalence of use estimates for the two most recent classes is due to rounding error.

SOURCE: The Monitoring the Future Study, the University of Michigan.
^aParental education is an average score of mother's education and father's education.

^bTo derive percentages for each racial subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

TABLE 4

Trends in Availability and Attitudes about Smoking One or More Packs of Cigarettes per Day, for Eighth, Tenth, and Twelfth Graders

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	'02-'03 change			
Perceived Risk^a																																	
8th Grade																		51.6	50.8	52.7	50.8	49.8	50.4	52.6	54.3	54.8	58.8	57.1	57.5	57.7	+0.2		
10th Grade																		60.3	59.3	60.7	59.0	57.0	57.9	59.9	61.9	62.7	65.9	64.7	64.3	65.7	+1.3		
12th Grade	51.3	56.4	58.4	59.0	63.0	63.7	63.3	60.5	61.2	63.8	66.5	66.0	68.6	68.0	67.2	68.2	69.4	69.2	69.5	67.6	65.6	68.2	68.7	70.8	70.8	73.1	73.3	74.2	72.1	-2.1			
Disapproval^b																																	
8th Grade																			82.8	82.3	80.6	78.4	78.6	77.3	80.3	80.0	81.4	81.9	83.5	84.6	84.6	0.0	
10th Grade																		79.4	77.8	76.5	73.9	73.2	71.6	73.8	75.3	76.1	76.7	78.2	80.6	81.4	+0.8		
12th Grade	67.5	65.9	66.4	67.0	70.3	70.8	69.9	69.4	70.8	73.0	72.3	75.4	74.3	73.1	72.4	72.8	71.4	73.5	70.6	69.8	68.2	67.2	67.1	68.8	69.5	70.1	71.6	73.6	74.8	+1.2			
Availability^c																																	
8th Grade																				77.8	75.5	76.1	76.4	76.9	76.0	73.6	71.5	68.7	67.7	64.3	63.1	-1.2	
10th Grade																				89.1	89.4	90.3	90.7	91.3	89.6	88.1	88.3	86.8	86.3	83.3	80.7	-2.6	sss
Approx. Ns: (in thousands)																																	
8th Grade																																	
10th Grade																																	
12th Grade	2.8	2.9	3.1	3.8	3.3	3.2	3.6	3.6	3.3	3.3	3.3	3.0	3.3	3.3	2.8	2.6	2.5	2.7	2.8	2.6	2.6	2.4	2.6	2.5	2.3	2.1	2.1	2.2	2.5				

NOTES: Level of significance of difference between the two most recent classes: s = .05, ss = .01, sss = .001.
Any apparent inconsistency between the change estimate and the prevalence of use estimates for the two most recent classes is due to rounding error.

SOURCE: The Monitoring the Future Study, The University of Michigan.

^aThe question text was: How much do you think people risk harming themselves (physically or in other ways) if they smoke one or more packs of cigarettes per day? Answer alternatives were: (1) No risk, (2) Slight risk, (3) Moderate risk, (4) Great risk, and (5) Can't say, drug unfamiliar. The percentage saying "great risk" is shown. For 8th and 10th graders: Beginning in 1999, perceived risk data based on two of four forms; N is two-thirds of N indicated.

^bThe question text was: Do you disapprove of people smoking one or more packs of cigarettes per day? For 12th graders, the question asked about people who are "18 or older." Answer alternatives were: (1) Don't disapprove, (2) Disapprove, and (3) Strongly disapprove. For 8th and 10th graders, there was another category—"Can't say, drug unfamiliar"—which was included in the calculation of these percentages. The percentage saying they "disapprove" or "strongly disapprove" is shown. For 8th and 10th graders: Beginning in 1999, disapproval data based on two of four forms; N is two-thirds of N indicated.

^cThe question text was: How difficult do you think it would be for you to get cigarettes, if you wanted some? Answer alternatives were: (1) Probably impossible, (2) Very difficult, (3) Fairly difficult, (4) Fairly easy, (5) Very easy, and (8) Can't say, drug unfamiliar (included in the calculation of these percentages). The percentage saying cigarettes are "fairly easy" or "very easy" to get is shown. In 1992 only, availability data based on one of two forms; N is one-half of N indicated. The question was not asked of the 12th graders.

TABLE 5

Long-Term Trends in Prevalence of Use of Smokeless Tobacco for Eighth, Tenth, and Twelfth Graders

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	'02-'03 change	
Lifetime																															
8th Grade																	22.2	20.7	18.7	19.9	20.0	20.4	16.8	15.0	14.4	12.8	11.7	11.2	11.3	+0.1	
10th Grade																	28.2	26.6	28.1	29.2	27.6	27.4	26.3	22.7	20.4	19.1	19.5	16.9	14.6	-2.4s	
12th Grade											31.4	32.2	30.4	29.2	—	—	32.4	31.0	30.7	-0.3	29.8	25.3	26.2	23.4	23.1	19.7	18.3	17.0	-1.3		
Thirty-Day																															
8th Grade																	6.9	7.0	6.6	7.7	7.1	7.1	5.5	4.8	4.5	4.2	4.0	3.3	4.1	+0.9	
10th Grade																	10.0	9.6	10.4	10.5	9.7	8.6	8.9	7.5	6.5	6.1	6.9	6.1	5.3	-0.8	
12th Grade											11.5	11.3	10.3	8.4	—	—	11.4	10.7	11.1	12.2	9.8	9.7	8.8	8.4	7.6	7.8	6.5	6.7	+0.2		
Daily																															
8th Grade																	1.6	1.8	1.5	1.9	1.2	1.5	1.0	1.0	0.9	0.9	1.2	0.8	0.8	0.0	
10th Grade																	3.3	3.0	3.3	3.0	2.7	2.2	2.2	2.2	1.5	1.9	2.2	1.7	1.8	+0.1	
12th Grade											4.7	5.1	4.3	3.3	—	—	4.3	3.3	3.9	3.6	3.3	4.4	3.2	2.9	3.2	2.8	2.0	2.2	+0.2		
Approx. Ns:																															
<i>(in thousands)</i>																															
8th Grade																	17.5	18.6	18.3	17.3	17.5	17.8	18.6	18.1	16.7	16.7	16.2	15.1	16.5		
10th Grade																	14.8	14.8	15.3	15.8	17.0	15.6	15.5	15.0	13.6	14.3	14.0	14.3	15.8		
12th Grade											15.2	16.3	16.3	16.7	15.2	15.0	15.8	16.3	15.4	15.4	14.3	15.4	15.2	13.6	12.8	12.8	12.9	14.6			

NOTES: Level of significance of difference between the two most recent classes: s = .05, ss = .01, sss = .001.
 Any apparent inconsistency between the change estimate and the prevalence of use estimates for the two most recent classes is due to rounding error.
 For 8th and 10th graders: Data based on one of two forms for 1991–96 and on two of four forms beginning in 1997; N is one-half of N indicated.
 For 12th graders: Data based on one form; N is one-fifth of N indicated in 1986–1988 and one-sixth of N indicated beginning in 1989.
 The prevalence of use of smokeless tobacco was not asked of twelfth graders in 1990 and 1991. Prior to 1990 the prevalence of use question on smokeless tobacco was located near the end of one twelfth-grade questionnaire form, whereas after 1991 the question was placed earlier and in a different form. This shift could explain the discontinuities between the corresponding data.

SOURCE: The Monitoring the Future Study, The University of Michigan.

TABLE 6

Smokeless Tobacco: Trends in Thirty-Day Prevalence of Use by Subgroups for Eighth and Tenth Graders

	Percentage who used in last thirty days																											
	8th Grade														10th Grade													
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	'02-'03 change	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	'02-'03 change
<i>Approx. N =</i>	<i>17500186001830017300175001780018600181001670016700162001510016500</i>														<i>14800148001530015800170001560015500150001360014300140001430015800</i>													
Total	6.9	7.0	6.6	7.7	7.1	7.1	5.5	4.8	4.5	4.2	4.0	3.3	4.1	+0.9	10.0	9.6	10.4	10.5	9.7	8.6	8.9	7.5	6.5	6.1	6.9	6.1	5.3	-0.8
Gender:																												
Male	12.7	12.5	10.9	12.8	11.8	11.4	9.9	8.1	6.9	6.7	6.9	5.4	6.7	+1.3	18.7	18.1	19.3	19.2	17.2	15.0	14.9	13.8	12.2	11.4	12.7	9.9	9.6	-0.3
Female	1.4	2.0	2.7	2.4	2.9	2.9	1.5	1.5	2.1	1.8	1.4	1.3	1.8	+0.5	1.3	1.8	2.0	2.1	2.1	2.3	2.7	1.7	1.3	1.3	1.6	2.1	1.3	-0.8
College Plans:																												
None or under 4 years	12.7	17.1	15.5	16.7	15.4	16.4	12.6	13.9	13.2	11.4	14.6	10.2	12.8	+2.6	16.9	17.5	20.2	19.9	20.3	16.3	18.5	17.8	13.2	13.9	16.0	13.6	13.0	-0.6
Complete 4 years	6.1	5.5	5.3	6.5	6.0	5.6	4.6	3.8	3.5	3.4	2.9	2.6	3.3	+0.7	8.4	8.0	8.4	8.5	7.8	7.2	7.2	5.7	5.4	4.8	5.4	4.8	4.1	-0.7
Region:																												
Northeast	5.0	4.9	3.4	6.1	5.4	4.9	3.2	2.7	2.5	2.7	3.7	2.7	3.1	+0.4	8.6	5.3	8.0	9.0	7.6	6.8	9.3	6.5	5.2	4.6	4.9	4.7	4.5	-0.3
North Central	7.1	7.5	7.2	7.1	7.6	8.3	6.8	4.3	5.3	4.8	4.0	3.9	3.5	-0.5	11.0	9.6	10.0	10.0	11.0	9.5	7.1	7.9	8.1	6.2	7.0	4.8	4.9	+0.1
South	9.5	9.3	8.0	9.9	8.7	8.1	6.7	6.9	5.9	5.8	5.4	4.1	5.9	+1.8	11.6	11.4	11.8	11.7	10.9	10.2	10.2	9.5	7.9	7.7	9.6	8.3	7.5	-0.8
West	3.5	4.4	6.3	6.0	5.0	5.9	4.1	3.9	2.9	1.9	2.1	1.5	2.5	+1.1	7.8	10.9	11.1	10.9	7.7	6.0	8.2	4.6	4.0	4.5	3.0	5.1	3.5	-1.6
Population Density:																												
Large MSA	4.8	4.2	3.3	4.6	4.1	4.2	3.6	2.9	1.8	2.4	2.4	1.5	2.6	+1.1	5.9	6.4	6.5	6.2	5.9	5.5	4.2	3.7	4.6	5.6	4.1	4.5	3.7	-0.8
Other MSA	6.2	6.9	6.8	6.4	6.7	7.1	4.7	4.1	3.9	3.9	3.5	2.9	3.7	+0.8	9.2	9.3	10.1	10.9	9.2	8.4	8.3	5.7	5.3	4.3	5.7	6.1	4.8	-1.4
Non-MSA	10.4	10.3	9.9	13.0	11.2	10.6	9.0	8.5	8.9	7.0	7.0	6.2	6.9	+0.8	14.7	13.3	14.1	13.9	15.0	12.2	14.7	15.1	11.3	9.8	12.5	8.2	9.2	+1.0
Parental Education: ^a																												
1.0-2.0 (Low)	11.4	7.8	9.4	8.9	10.6	6.3	8.3	5.4	6.6	7.4	5.0	4.5	6.8	+2.4	6.6	10.1	10.9	9.4	9.6	8.1	9.0	6.8	7.2	7.4	6.9	6.7	7.4	+0.7
2.5-3.0	8.4	8.5	7.5	8.4	9.9	8.8	6.0	5.1	5.7	5.2	5.4	5.1	5.1	-0.1	12.1	11.0	12.2	12.5	10.4	9.7	9.4	8.2	7.0	6.4	8.9	8.1	5.0	-3.1s
3.5-4.0	6.7	7.0	7.5	8.7	7.0	7.2	6.5	5.9	4.5	4.5	3.7	3.2	4.1	+0.9	10.6	10.5	10.9	10.2	10.9	8.3	10.3	8.6	7.3	6.3	7.1	5.5	4.9	-0.6
4.5-5.0	4.8	7.0	5.2	6.1	5.0	6.8	4.8	4.4	3.3	2.9	2.5	2.4	3.1	+0.7	9.3	7.6	9.9	9.8	9.8	8.5	7.2	6.9	6.1	6.2	5.7	5.4	5.7	+0.3
5.5-6.0 (High)	6.1	4.6	4.9	6.8	5.8	5.9	3.7	3.9	3.1	3.0	4.2	2.5	2.7	+0.2	8.6	8.1	7.0	8.9	6.0	7.7	8.3	5.2	4.8	4.0	4.8	5.2	4.3	-1.0
Race (2-year average): ^b																												
White	—	8.3	8.0	8.1	8.9	8.8	7.6	6.1	5.4	5.2	4.8	4.1	3.9	-0.2	—	11.4	12.0	12.5	12.0	11.0	10.4	10.0	8.7	7.5	7.5	7.7	6.9	-0.9
Black	—	1.8	2.7	3.2	2.6	2.2	2.6	2.3	2.3	2.7	2.2	1.6	2.7	+1.0	—	2.9	2.3	2.3	2.5	2.5	2.8	2.3	1.6	2.0	3.2	2.6	2.5	-0.1
Hispanic	—	4.2	4.0	5.0	5.7	5.2	4.6	4.5	4.6	3.7	3.3	4.0	4.7	+0.7	—	6.2	6.1	4.3	3.6	4.0	4.6	4.8	4.8	4.5	4.0	4.0	4.1	+0.1

NOTES: Level of significance of difference between the two most recent classes: $s = .05$, $ss = .01$, $sss = .001$. '—' indicates data not available. Any apparent inconsistency between the change estimate and the prevalence of use estimates for the two most recent classes is due to rounding error. Data based on one of two forms in 1991–96 and on two of four forms beginning in 1997; N is one-half of N indicated.

SOURCE: The Monitoring the Future Study, the University of Michigan.
^aParental education is an average score of mother's education and father's education.

^bTo derive percentages for each racial subgroup, data for the specified year *and* the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

TABLE 7

Smokeless Tobacco: Trends in Thirty-Day Prevalence of Use by Subgroups for Twelfth Graders

	Percentage who used in last thirty days																			'02-'03 change	
	Class of:																				
	1975-85	1986	1987	1988	1989	1990 ^a	1991 ^a	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003		
<i>Approx. N =</i>	—	15200	16300	16300	16700	15200	15000	15800	16300	15400	15400	14300	15400	15200	13600	12800	12800	12900	14600		
Total	—	11.5	11.3	10.3	8.4	—	—	11.4	10.7	11.1	12.2	9.8	9.7	8.8	8.4	7.6	7.8	6.5	6.7	+0.2	
Gender:																					
Male	—	22.3	22.8	19.9	15.9	—	—	20.8	19.7	20.3	23.6	19.5	18.7	15.6	15.5	14.4	14.2	12.2	12.5	+0.3	
Female	—	1.6	0.7	1.7	1.2	—	—	2.0	2.3	2.6	1.8	1.1	1.2	1.5	1.3	1.3	1.6	1.2	1.0	-0.2	
College Plans:																					
None or under 4 years	—	14.5	15.5	13.1	9.6	—	—	18.0	14.9	15.8	18.7	17.6	16.9	14.3	10.5	15.8	13.0	10.8	12.8	+2.0	
Complete 4 years	—	9.8	9.0	8.8	7.7	—	—	9.4	9.4	9.3	9.9	7.6	7.4	7.1	7.6	5.4	6.1	4.8	4.8	+0.1	
Region:																					
Northeast	—	9.5	7.3	5.9	5.0	—	—	8.2	9.6	12.0	9.6	8.4	6.9	2.6	4.3	5.3	5.4	5.3	6.3	+1.0	
North Central	—	13.5	11.3	10.8	8.3	—	—	12.3	13.6	14.7	16.7	12.6	13.4	11.8	8.9	11.1	9.9	7.8	5.7	-2.0	
South	—	12.2	13.7	12.1	9.8	—	—	12.5	11.1	9.7	11.9	9.2	9.0	10.5	10.7	7.3	8.5	7.9	7.9	+0.1	
West	—	9.3	11.7	10.9	9.1	—	—	11.1	7.0	8.5	8.6	8.5	9.1	7.3	7.0	6.3	6.2	3.9	6.0	+2.2	
Population Density:																					
Large MSA	—	9.0	6.4	7.7	6.8	—	—	5.9	7.1	7.5	12.5	8.6	6.5	4.7	4.9	4.2	4.4	3.4	3.4	0.0	
Other MSA	—	8.9	10.5	8.5	7.6	—	—	11.1	9.9	11.3	9.5	7.4	7.4	7.7	8.5	7.9	8.0	5.7	6.9	+1.2	
Non-MSA	—	17.1	17.5	16.1	11.7	—	—	16.9	15.0	14.7	16.7	15.3	17.9	16.1	11.7	11.4	11.5	11.9	10.4	-1.6	
Parental Education: ^b																					
1.0-2.0 (Low)	—	8.6	11.7	10.7	5.3	—	—	14.9	7.0	12.3	9.8	6.3	5.8	6.1	5.4	4.3	6.3	4.1	9.3	+5.1	
2.5-3.0	—	14.4	11.5	10.7	7.0	—	—	12.4	11.6	12.9	11.5	10.4	10.7	9.0	9.1	9.9	7.5	5.6	5.9	+0.3	
3.5-4.0	—	11.5	12.1	10.6	9.0	—	—	12.4	10.8	9.8	12.8	9.1	10.4	9.8	8.8	8.9	8.6	7.4	6.5	-0.9	
4.5-5.0	—	10.4	11.7	11.8	10.2	—	—	8.0	13.3	11.1	12.8	11.4	9.1	9.6	8.5	6.2	6.2	7.3	7.6	+0.3	
5.5-6.0 (High)	—	7.7	8.1	7.2	8.4	—	—	10.6	7.8	10.2	11.6	8.1	9.9	7.4	7.9	5.7	10.3	4.6	6.2	+1.6	
Race (2-year average): ^c																					
White	—	—	12.9	12.0	10.6	—	—	—	13.8	13.8	13.8	13.0	12.2	11.8	11.0	10.5	10.3	9.7	8.5	-1.3	
Black	—	—	2.1	4.5	4.5	—	—	—	2.0	1.9	2.1	2.7	2.2	1.4	1.5	1.5	1.2	1.0	1.0	0.0	
Hispanic	—	—	4.4	5.2	5.1	—	—	—	6.0	5.4	7.6	8.1	5.3	4.3	3.9	3.8	3.2	2.6	3.1	+0.5	

NOTES: Level of significance of difference between the two most recent classes: $s = .05$, $ss = .01$, $sss = .001$. '—' indicates data not available. Any apparent inconsistency between the change estimate and the prevalence of use estimates for the two most recent classes is due to rounding error.

Data based on one of six forms; N is one-sixth of N indicated.

SOURCE: The Monitoring the Future Study, the University of Michigan.

CAUTION: Limited sample sizes (see "Notes" above). Use caution in interpreting subgroup trends.

^aPrevalence of smokeless tobacco use was not asked of twelfth graders in 1990 and 1991. Prior to 1990 the prevalence of use question on smokeless tobacco was located near the end of one twelfth-grade questionnaire form, whereas after 1991 the question was placed earlier and in a different form. This shift could explain the discontinuities between the corresponding data.

^bParental education is an average score of mother's education and father's education.

^cTo derive percentages for each racial subgroup, data for the specified year *and* the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

TABLE 8
Trends in Attitudes about Regular Smokeless Tobacco Use
for Eighth, Tenth, and Twelfth Graders

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	'02-'03 change
Perceived Risk^a																														
8th Grade																	35.1	35.1	36.9	35.5	33.5	34.0	35.2	36.5	37.1	39.0	38.2	39.4	39.7	+0.4
10th Grade																	40.3	39.6	44.2	42.2	38.2	41.0	42.2	42.8	44.2	46.7	46.2	46.9	48.0	+1.1
12th Grade											25.8	30.0	33.2	32.9	34.2	37.4	35.5	38.9	36.6	33.2	37.4	38.6	40.9	41.1	42.2	45.4	42.6	43.3	+0.8	
Disapproval^b																														
8th Grade																	79.1	77.2	77.1	75.1	74.0	74.1	76.5	76.3	78.0	79.2	79.4	80.6	80.7	+0.1
10th Grade																75.4	74.6	73.8	71.2	71.0	71.0	72.3	73.2	75.1	75.8	76.1	78.7	79.4	+0.7	
Approx. Ns: (in thousands)																														
8th Grade																	17.5	18.6	18.3	17.3	17.5	17.8	18.6	18.1	16.7	16.7	16.2	15.1	16.5	
10th Grade																14.8	14.8	15.3	15.8	17.0	15.6	15.5	15.0	13.6	14.3	14.0	14.3	15.8		
12th Grade											3.0	3.3	3.3	2.8	2.6	2.5	2.7	2.8	2.6	2.6	2.4	2.6	2.5	2.3	2.1	2.1	2.2	2.5		

NOTES: Level of significance of difference between the two most recent classes: s = .05, ss = .01, sss = .001.
Any apparent inconsistency between the change estimate and the prevalence of use estimates for the two most recent classes is due to rounding error.
SOURCE: The Monitoring the Future Study, The University of Michigan.

^aThe question text was: How much do you think people risk harming themselves (physically or in other ways) if they use smokeless tobacco regularly? Answer alternatives were: (1) No risk, (2) Slight risk, (3) Moderate risk, (4) Great risk, and (5) Can't say, drug unfamiliar. The percentage saying "great risk" is shown.

^bThe question text was: Do you disapprove of people using smokeless tobacco regularly? Answer alternatives were: (1) Don't disapprove, (2) Disapprove, and (3) Strongly disapprove. For 8th and 10th graders, there was another category—"Can't say, drug unfamiliar"—which was included in the calculation of these percentages. The percentage saying they "disapprove" or "strongly disapprove" is shown. This question was not asked of 12th graders.

FIGURE 1
Cigarettes: Trends in 30-Day Use, Risk, Disapproval, and Availability
 Eighth, Tenth, and Twelfth Graders

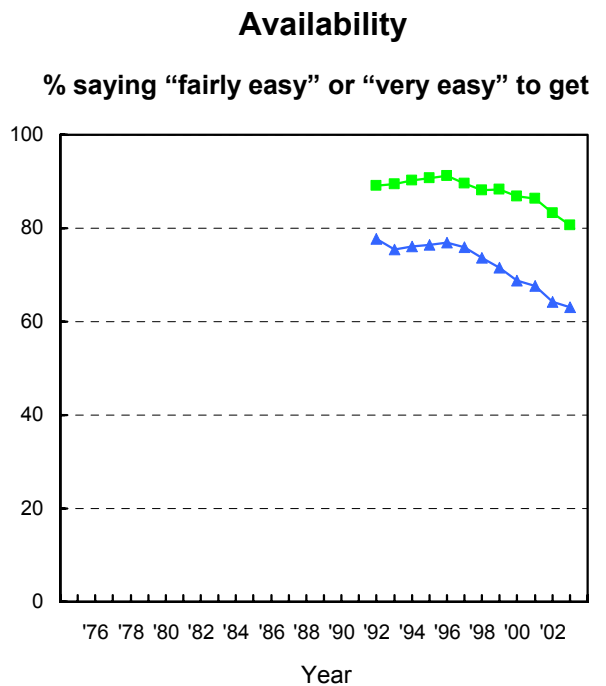
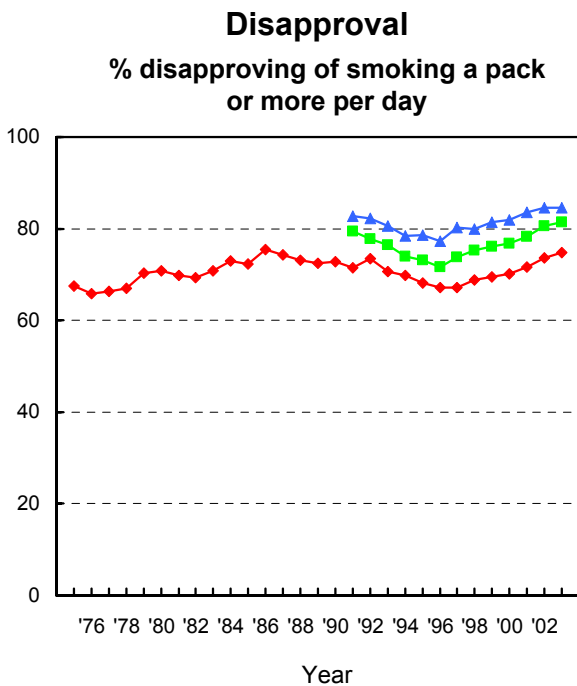
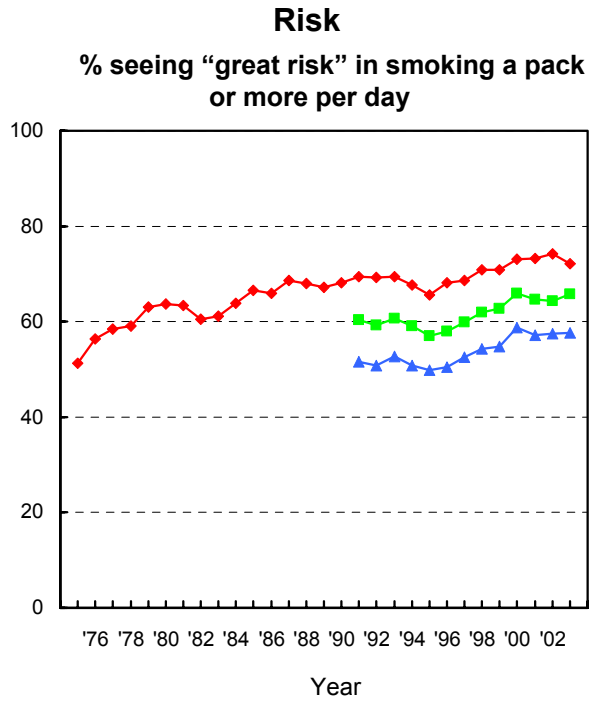
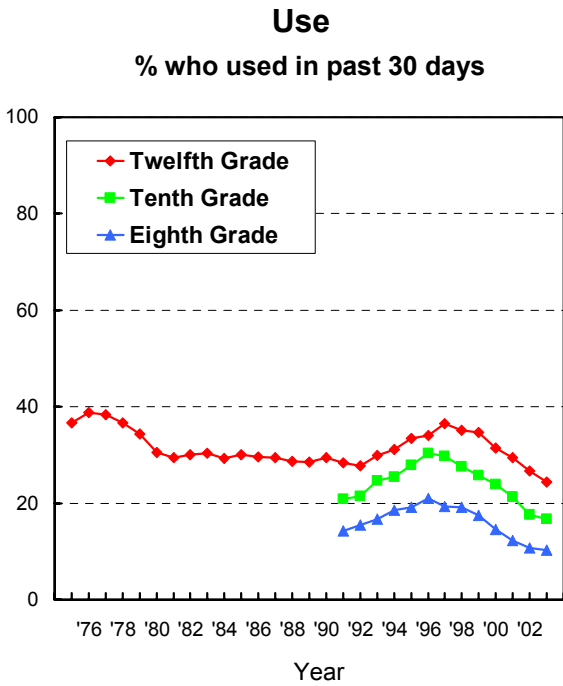
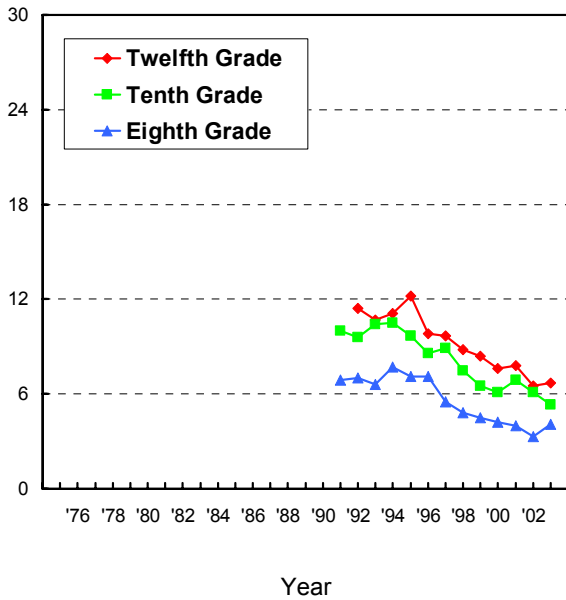


FIGURE 2
Smokeless Tobacco: Trends in 30-Day Use, Risk, Disapproval,
and Availability
 Eighth, Tenth, and Twelfth Graders

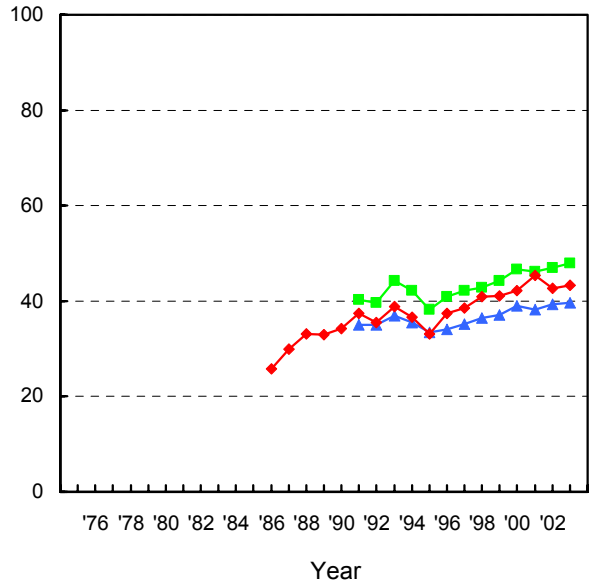
Use

% who used in past 30 days



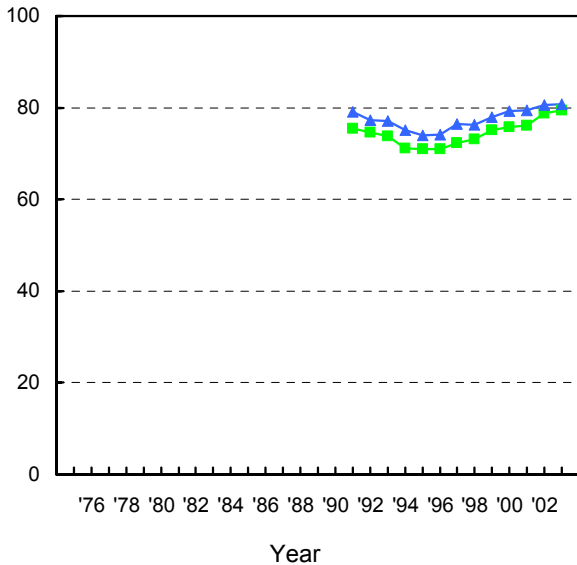
Risk

% seeing "great risk" in using regularly



Disapproval

% disapproving of using regularly



Availability

% saying "fairly easy" or "very easy" to get

