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Study Web site: www.monitoringthefuture.org

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<u>EDITORS</u>: Results of this year's Monitoring the Future survey are being released at a news conference to be held at the National Press Club in Washington, D.C. jointly by the University of Michigan, which designed and conducts the study, and the National Institute on Drug Abuse, which sponsors the study. Participating will be the director of the White House Office of National Drug Control Policy (ONDCP), John Walters; the United States Attorney General, Alberto Gonzales; the director of the National Institute on Drug Abuse (NIDA), Nora Volkow; and the principal investigator of the study, Lloyd Johnston. For further information, contact Johnston at (734) 763-5043.

# Decline in daily smoking by younger teens has ended

ANN ARBOR, Mich.----Following a decade of substantial improvement, daily smoking among young people in their early and middle teens has stopped declining, according to the latest *Monitoring the Future* (MTF) survey.

MTF, which is now in its  $32^{nd}$  year, measures smoking, drinking, and illicit drug use among the nation's secondary school students, surveying about 50,000 eighth, tenth, and twelfth graders in over 400 secondary schools every year.

The study had previously been reporting a large and continuing decline in cigarette smoking in these populations since they reached their recent peak smoking rates in the mid-1990s; *current daily smoking* has fallen by half among 12<sup>th</sup> graders, and by more than half among those in 8<sup>th</sup> and 10<sup>th</sup> grades.

However, this year no further decline in daily smoking was observed at 8<sup>th</sup> or 10<sup>th</sup> grade. Further declines did occur at 12<sup>th</sup> grade; daily smoking fell a bit further from 13.6 percent in 2005 to 12.2 percent in 2006 (a not quite statistically significant drop). Their half-pack-a-day smoking fell from 6.9 percent to 5.9 percent (which was significant).

Although the proportion reporting *daily* smoking in the past month has stabilized in the lower grades this year, all grades showed at least a small continuing decline in the proportions of students reporting *any past month smoking*. Rates for 8<sup>th</sup> graders were down from 9.3 percent in 2005 to 8.7 percent in 2006, for 10<sup>th</sup> graders from 14.9 percent to 14.5 percent, and for 12<sup>th</sup> graders from 23.2 percent to 21.6 percent. No one of these changes was large enough to be statistically significant, but the three in combination were.

The investigators note that even occasional smoking in senior year is important, because many of the light to moderate smokers transition into regular smoking in the years after high school. Like daily smoking, the statistics for monthly smoking are down by large proportions from the mid-1990s, when they reached a peak.

Monthly prevalence (the percent smoking at all in the past 30 days) is down by about 60 percent, 50 percent, and 40 percent in grades 8, 10, and 12, respectively. The 12<sup>th</sup> grade is currently showing the greatest declines, note the investigators, as the class cohorts of 8<sup>th</sup> and 10<sup>th</sup> graders who have previously shown large declines in their use move into 12<sup>th</sup> grade.

"Many fewer of today's students have ever even tried smoking than was true a decade ago, when recent peak levels in lifetime prevalence were attained," said University of Michigan researcher Lloyd Johnston, the principal investigator of the study. While 49 percent of the 8<sup>th</sup> graders in 1996 had tried cigarettes, "only" 25 percent of the 8<sup>th</sup> graders in 2006 indicated having done so.

Lifetime prevalence of ever smoking a cigarette is down by about half among 8<sup>th</sup> graders, 40 percent among 10<sup>th</sup> graders, and 30 percent among 12<sup>th</sup> graders since the recent peak year of 1996, or 1997 in the case of 12<sup>th</sup> graders.

"We expect the decline among 12<sup>th</sup> graders to continue as the younger, less tobacco-experienced class cohorts move into 12<sup>th</sup> grade," Johnston added.

In addition to Johnston, the authors of the forthcoming report (referenced at the end of this release) include Patrick O'Malley, Jerald Bachman, and John Schulenberg—all research professors at the U-M Institute for Social Research and all social or developmental psychologists.

The investigators believe that some of the forces contributing to the substantial declines in smoking over the past decade have diminished, which likely explains the leveling in teen smoking that is now taking place.

The public debate that led up to the Tobacco Settlement between the major tobacco companies and the state attorneys general centered attention on the hazards of smoking and some of the questionable practices of the industry, all of which likely led to less favorable attitudes toward smoking.

In addition, there were several relevant changes as a direct result of the settlement: the tobacco companies raised cigarette prices considerably to permit the industry to cover the costs of the settlement, the Joe Camel campaign and all billboard advertising were both terminated, and the

American Legacy Foundation was created with settlement monies and launched a successful national anti-tobacco advertising campaign. Moreover, many states mounted their own ad campaigns and initiated other activities aimed at curbing smoking, in part with settlement monies.

Now, however, there is no heated public debate about the behavior of the industry: state antitobacco initiatives, including anti-smoking ad campaigns, have shrunk as settlement monies have been diverted by many states to other activities; the national ad campaign has diminished considerably as a result of time limitations in the settlement's funding of the American Legacy Foundation; and there are fewer states raising tobacco taxes and thus raising the price of cigarettes. The investigators believe that the substantial, and concurrent, diminution of these various forces helps to explain why youth smoking is no longer declining.

# Attitudes and beliefs about smoking

"For some years we were seeing an increase in the proportions of young people who thought smoking was dangerous—what we have labeled 'perceived risk'—but over the past two years perceived risk of cigarette use has held level among 10<sup>th</sup> graders and has begun to drop among 8<sup>th</sup> graders," Johnston said. "Generally we have found perceived risk to be an important indicator of changes in future use of a drug, so this is not a favorable development. The good news is that disapproval of cigarette smoking is still rising and is at very high levels among teens."

Certain other attitudes related to smoking have been included in MTF surveys over the years, and they show that negative attitudes about smoking and smokers grew from 1996 or 1997 through about 2004, before leveling.

Some have continued to increase, though, including "Smoking is a dirty habit" and "I think becoming a smoker reflects poor judgment." The most widely endorsed of these attitudinal statements about smoking is "I prefer to date people who don't smoke." Some 80 percent of all 8<sup>th</sup> and 10<sup>th</sup> graders agree with this statement, while 77 percent of 12<sup>th</sup> graders now endorse it, and the percentage is still rising at 12<sup>th</sup> grade.

"Wanting to be attractive to the opposite sex should be a major motivation to avoid smoking for nearly all teens today," Johnston said. "Clearly the social stigma attached to smoking has grown, and is now very high, even within their peer group."

# **Availability of cigarettes**

After 1996, the proportions of  $8^{th}$  and  $10^{th}$  graders who said that they could get cigarettes fairly easily began to decline; the decline continues today for the  $8^{th}$  graders and pretty much leveled off after 2003 among the  $10^{th}$  graders, though there was some further decline this year. (Twelfth graders are not asked this question.)

In sum, after a very important increase in the rate of smoking among the nation's teens in the early 1990s, there was a turnaround that began after 1996/1997—one that has now more than offset the increases in smoking observed in the early 1990s. However, this more recent period of decline in teen smoking appears to be nearing its end, except insofar as there are cohort effects

still emerging at 12<sup>th</sup> grade. In the lower grades, perceived risk has begun to decline, and the declines in use are now very small—indeed, they have ended for daily smoking.

#### **Smokeless Tobacco**

Like cigarettes, the 30-day prevalence of using *smokeless tobacco*, or "spit," reached a recent peak level in the mid-1990s and then began to decline. All three grade levels have shown about a one-half decline in their 30-day prevalence since those peak levels, but the declines have ended at the lower grades, where use remained level this year. Only the 12<sup>th</sup> graders are showing further evidence of any decline in their use of smokeless tobacco, no doubt the result of a cohort effect working its way up the age scale. At present, the prevalence rates for any use in the prior 30 days are 3.7 percent, 5.7 percent, and 6.1 percent in grades 8, 10, and 12. That means that one in every sixteen high school seniors is a current user of smokeless tobacco.

"This is a bit deceptive though, because boys account for almost all smokeless tobacco use," Johnston said. "Among 12<sup>th</sup>-grade males, one in nine is a current user."

#### **Bidis and Kreteks**

In 2000, a single question was introduced into the study about the use of *bidis*—small flavored cigarettes imported from India—because of rising concern at the time about their growing use. In 2001, a single question was introduced for similar reasons about the use of *kreteks*—clove-flavored cigarettes imported from Indonesia.

Relatively low prevalence rates were observed for both types of specialty cigarettes in the initial years of measurement, and since then use has declined substantially and fairly steadily in all grades.

By 2006, the annual prevalence of bidi use was down by three quarters among 12<sup>th</sup> graders, from 9 percent in 2000 to 2 percent in 2006, including a statistically significant drop this year. Annual prevalence of kretek use among 12<sup>th</sup> graders is down by about 40 percent since 2001, including further decline this year.

Therefore, the investigators conclude that both bidis and kreteks constituted short-term fads that have not caught on with mainstream American youth, making it unlikely that they will become the health menace some had feared. The investigators note, however, that mainstream tobacco companies have themselves introduced flavored cigarettes, which may help to explain the demise of these fringe products.

# # #

Monitoring the Future has been funded under a series of competing, investigator-initiated research grants from the National Institute on Drug Abuse, part of the National Institutes of Health. Surveys of nationally representative samples of American high school seniors were begun in 1975, making the class of 2006 the 32<sup>nd</sup> such class surveyed. Surveys of 8<sup>th</sup> and 10<sup>th</sup> graders were added to the design in 1991, making the 2006 nationally representative samples the 16<sup>th</sup> such classes surveyed. The sample sizes in 2006 are 17,026 eighth graders in 151 schools,

16,620 tenth graders in 123 schools, and 14,814 twelfth graders in 136 schools, for a total of 48,460 students in 410 secondary schools. The samples are drawn separately at each grade level to be representative of students in that grade in public and private secondary schools across the coterminous United States. Schools are selected with probability proportionate to their estimated class size.

The findings summarized here will be published in the forthcoming volume: Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2007). *Monitoring the Future national results on adolescent drug use: Overview of key findings, 2006.* (NIH Publication No. [yet to be assigned].) Bethesda, MD: National Institute on Drug Abuse.

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

**Risk** Use % seeing "great risk" in smoking a pack % who used in past 30 days or more per day 100 100 → Twelfth Grade --- Tenth Grade 80 80 **★** Eighth Grade 60 60 40 40 20 20 0 '76 '78 '80 '82 '84 '86 '88 '90 '92 '94 '96 '98 '00 '02 '04 '06 '76 '78 '80 '82 '84 '86 '88 '90 '92 '94 '96 '98 '00 '02 '04 '06 Year Year **Disapproval Availability** % disapproving of smoking a pack % saying "fairly easy" or "very easy" to get or more per day 100 100 80 80 60 60 40 40 20 20

'76 '78 '80 '82 '84 '86 '88 '90 '92 '94 '96 '98 '00 '02 '04 '06

Year

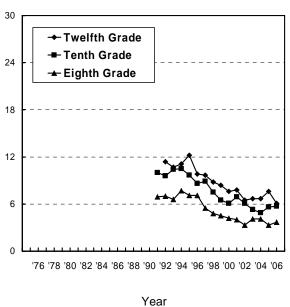
'76 '78 '80 '82 '84 '86 '88 '90 '92 '94 '96 '98 '00 '02 '04 '06

Year

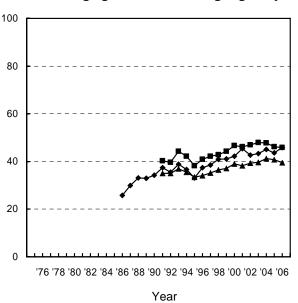
FIGURE 2 Smokeless Tobacco: Trends in 30-Day Use, Risk, Disapproval, and Availability

Eighth, Tenth, and Twelfth Graders

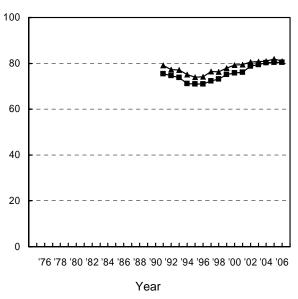
Use % who used in past 30 days



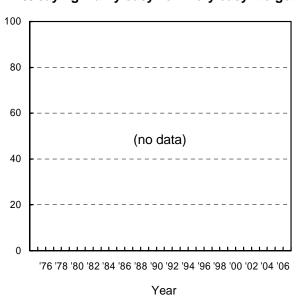
Risk
% seeing "great risk" in using regularly



Disapproval
% disapproving of using regularly



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



Source: The Monitoring the Future Study, the University of Michigan

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

<b>Lifetime</b> 8th Grade	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	Contd
8th Grade																	
	ı	1	1	1	1	[	1	1	1	1	I	1	1	I	I	1	
10th Grade	ı				1		1	1	1			1			1		
	73.6	75.4	75.7	75.3	74.0	71.0	71.0	70.1	9.07	2.69	8.89	9.79	67.2	66.4	65.7	64.4	
Thirty-Day																	
8th Grade		I	I		I	I	I	I	I		I	I	I	1	I	I	
10th Grade	ı	1	1	1	I		I	I	I	1		I			I	I	
12th Grade 36	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	
Daily																	
8th Grade	ı	1	1	I	I	I	I	I	I	I	I	I	I	I	I	I	
10th Grade	ı			I	I		l	I	I	I	I	l	I	I	I		
	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	
1/2 Pack+ per Day																	
8th Grade	1	ı	I		I		I	I	I			I			I		
10th Grade	1	ı	I		I		I	I	I			I			I		
12th Grade 17	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	
Approx. Ns:																	
8th Grade		I	I	1	I	I	I	I	I	1	I	I	I	I	I	I	
10th Grade	I														I		
12th Grade 9,	9,400 15,400		. 1001,71	17,100 17,800 15,500 15,900 17,500 17,700 16,300	15,500	15,900	17,500	17,700		15,900	16,000	15,200	16,000 15,200 16,300 16,300 16,700	16,300	16,700	15,200	

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

Level of significance of difference between the two most recent classes: s = .05, ss = .01, sss = .001. Notes:

<sup>&#</sup>x27;-' indicates data not available.

Trends in Prevalence of Use of Cigarettes for Eighth, Tenth, and Twelfth Graders TABLE 1 (cont'd)

																	,02-,06
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	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	27.9	25.9	24.6	-1.3
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	40.7	38.9	36.1	-2.8 ss
12th Grade	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	52.8	20.0	47.1	-2.9 s
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	9.2	9.3	8.7	9.0-
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	16.0	14.9	14.5	-0.4
12th Grade	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	25.0	23.2	21.6	-1.6
Daily																	
8th Grade	7.2	7.0	8.3	8.8	9.3	10.4	0.6	8.8	8.1	7.4	5.5	5.1	4.5	4.4	4.0	4.0	-0.1
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	8.3	7.5	7.6	0.0
12th Grade	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	15.6	13.6	12.2	-1.4
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	1.7	1.7	1.5	-0.1
10th Grade	6.5	0.9	7.0	7.6	8.3	9.4	9.8	7.9	7.6	6.2	5.5	4.4	4.1	3.3	3.1	3.3	+0.2
12th Grade	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	8.0	6.9	5.9	-1.0 s
Approx. Ns:																	
8th Grade	17,500 18,600	18,600	18,300	17,300	17,500 17,800		18,600	18,100	16,700	16,700 16,700 16,200		15,100	16,500	17,000	16,800 16,500	16,500	
10th Grade	14,800 14,800	14,800	15,300	15,800 17,000 15,600	17,000		15,500	15,000	13,600	13,600 14,300 14,000		14,300	14,300 15,800	16,400	16,400 16,200 16,200	16,200	
12th Grade	15,000 15,800	15,800	16,300	15,400 15,400 14,300	15,400	14,300	15,400 15,200		13,600	13,600 12,800 12,800	12,800	12,900 14,600	14,600	14,600	14,600 14,700 14,200	14,200	

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

<sup>&#</sup>x27;-' indicates data not available.

Trends in Availability and Attitudes about Smoking One or More Packs of Cigarettes per Day for Eighth, Tenth, and Twelfth Graders TABLE 2

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Perceived Risk $^{\mathrm{a}}$																
8th Grade	1	I	I	1	1	1	I	1	1	1	I	I	1	1	I	I
10th Grade	1	I	I	1	1	1	I	1	1	1	I	I	1	1	I	I
12th Grade	51.3	56.4	58.4	29.0	63.0	63.7	63.3	9.09	61.2	63.8	9.99	0.99	9.89	0.89	67.2	68.2
<u>a</u>																
Disapprovai																
8th Grade																
10th Grade	I	I		1			1			1	1					I
12th Grade	67.5	62.9	66.4	0.79	70.3	70.8	6.69	69.4	70.8	73.0	72.3	75.4	74.3	73.1	72.4	72.8
Availability <sup>c</sup>																
8th Grade	1	1	1	1	1	I	1	I	1	1	1	1	1	1	1	1
10th Grade	1		1	1			1	I		1	I	I		1	I	1
Approx. Ns:																
8th Grade		I		1				I								1
10th Grade	1	I	I	I	I	I	I	1	I	1	I	I	I		I	I
12th Grade	2,800	2,900	3,100	3,800	3,300	3,200	3,600	3,600	3,300	3,300	3,300	3,000	3,300	3,300	2,800	2,600
Consider the Nation of the Constant of the Con	+ ~ circ	, si i +i i ] ~ c	C+1.01.4	4+ 0 d+	J 0 1 1 1 1 0 1 0 1	) A A! O ! A	2									

Level of significance of difference between the two most recent classes: s = .05, ss = .01, sss = .001. Notes:

'--' 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.

Trends in Availability and Attitudes about Smoking One or More Packs of Cigarettes per Day for Eighth, Tenth, and Twelfth Graders TABLE 2 (cont'd)

'05-'06 change	-2.1	-0.3	+1.1		+0.4	<u></u>	+1.7		1.1	-2.0 ss
, 5000	59.4	7.79	77.6		92.6	83.2	81.5		58.0	79.5
2005	61.5	68.1	76.5		85.3	84.3	8.62		59.1	81.5
2004	62.4	68.4	74.0		85.7	82.7	76.2		60.3	81.4
2003	57.7	65.7	72.1		84.6	81.4	74.8		63.1	80.7
2002	57.5	64.3	74.2		84.6	9.08	73.6		64.3	83.3
2001	57.1	64.7	73.3		83.5	78.2	71.6		7.79	86.3
2000	58.8	62.9	73.1		81.9	7.97	70.1		68.7	8.98
1999	54.8	62.7	70.8		81.4	76.1	69.5		71.5	88.3
1998	54.3	61.9	70.8		0.08	75.3	8.89		73.6	88.1
1997	52.6	59.9	68.7		80.3	73.8	67.1		76.0	9.68
1996	50.4	57.9	68.2		77.3	71.6	67.2		76.9	91.3
1995	49.8	57.0	9.59		78.6	73.2	68.2		76.4	90.7
1994	50.8	59.0	9.79		78.4	73.9	8.69		76.1	90.3
1993	52.7	7.09	69.5		9.08	76.5	9.07		75.5	89.4
1992	50.8	59.3	69.2		82.3	77.8	73.5		77.8	89.1
1991	51.6	60.3	69.4		82.8	79.4	71.4		I	I
Perceived $Risk^a$	8th Grade	10th Grade	12th Grade	Disapproval <sup>b</sup>	8th Grade	10th Grade	12th Grade	Availability <sup>c</sup>	8th Grade	10th Grade

# pprox. Ns:

14,800 14,800 15,800 15,800 17,000 15,600 15,500 15,000 13,600 14,300 14,300 14,300 15,800 16,400 16,200 16,200 2,400 2,400 2,500 2,400 17,500 18,600 18,300 17,300 17,500 17,800 18,600 18,100 16,700 16,700 16,200 15,100 16,500 17,000 16,800 16,500 2,600 2,700 2,800 2,600 2,600 2,400 2,600 2,500 2,300 2,100 2,100 2,200 10th Grade 12th Grade 8th Grade

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 <sup>a</sup>the 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 indicated.

<sup>&</sup>lt;sup>b</sup>The question text was: Do you disapprove of people smoking one or more packs of cigarettes per day? 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.

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 The 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 forms; N is one-half of N indicated. The question was not asked of the 12th graders.

Trends in Various Attitudes Towards Cigarette Use Among Eighth, Tenth, and Twelfth Graders TABLE 3

						Perc	Percentage who	e who r	report "mostly		agree"	or "agree"	.ee				
		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
I prefer to date people who don't sm	o don't smoke																
	8th Grade	77.8	76.0	75.2	74.1	73.6	70.9	72.3	74.5	6.97	77.2	79.4	9.08	9.6/	81.0	81.2	81.2
	10th Grade	75.9	76.4	74.3	71.6	71.6	69.1	68.2	71.8	73.0	75.2	75.4	76.3	76.7	79.5	9.62	80.4
	12th Grade	74.0	72.3	70.4	0.69	0.99	0.99	63.9	0.99	64.4	70.0	68.5	72.3	71.8	72.0	74.8	76.7
2 co. 7																	
SMOKING	Smoking is a diffy habit	71.4	70 B	70.3	48 4	68.4	0 2 9	7 29	68.7	70.0	70.8	723	74.1	71.6	74.3	737	74.8
	10th Grade		71.0	69.2	57.5	1 0 89	,,,0	65.7	7 89	7.0.7	20.07	70.3	71.7	70.5	717	72.0	73.7
	12th Grade		73.1	71.8	68.0	68.2	67.5	70.0	70.5	7.69	73.5	71.6	74.5	73.3	72.6	74.9	77.1
I think that becoming a smoker reflects poor judgment	oor judament																
	8th Grade	62.2	6.09	59.7	58.7	59.3	57.0	57.6	58.8	0.09	6.09	63.1	64.3	63.7	64.1	64.6	65.5
	10th Grade	57	59.0	57.3	54.2	53.7	52.9	50.1	53.9	54.7	56.5	55.4	59.3	56.8	58.8	59.4	61.5
	12th Grade	61.0	60.7	59.4	58.1	55.1	54.9	56.2	54.7	55.5	58.9	57.2	8.69	9.99	96.0	60.3	61.9
I strongly dislike being near people who are smoking	o are smoking																
	8th Grade	53.8	52.1	52.9	51.1	49.7	45.7	46.6	48.5	48.7	50.1	52.2	54.0	54.4	57.0	55.7	55.4
	10th Grade	50.7	50.9	50.0	47.7	46.0	42.6	41.6	44.4	44.0	46.5	46.7	49.1	51.2	52.6	52.3	55.2
	12th Grade	48.9	49.4	48.6	47.4	44.2	42.3	38.3	41.0	39.3	41.3	43.3	47.4	47.6	46.5	47.8	49.7
I personally don't mind being around people who are smoking	o are smoking	Ĺ	(	4	(		1	•	1	(	,	1	(	1	1		1
	stn Grade	74.5	3.	ς 	37.8	34.2	37.8	34.8	34./	32.9	31.6	30.7	79.1	8.17	9.17	8.07	71.17
	10th Grade	33.1		35.1		38.5	42.8	41.1	39.7	38.8	38.1	35.5	34.7	32.2	30.0	30.4	30.8
	12th Grade	33.1	34.5	33.0	35.5	37.0	39.1	41.8	38.6	41.3	39.6	39.7	35.0	33.5	32.7	35.1	32.0
The harmful effects of cigarettes have been exaggerated	ı exaggerated																
	8th Grade	19.9	21.8	22.4	24.4	23.1	25.3	22.4	23.8	22.7	21.6	21.4	22.0	20.5	22.1	20.4	21.1
	10th Grade	16.4	17.9	18.8	18.9	19.3	20.0	19.5	20.1	19.3	18.8	17.3	18.0	19.5	17.8	17.5	17.4
	12th Grade	13.8	13.0	13.6	14.9	14.4	12.8	14.0	13.4	14.5	16.8	15.8	12.7	13.1	13.1	13.1	14.1
Smokers know how to enjoy life more than nonsmokers	an nonsmokers																
	8th Grade	4.9		5.4	6.3	5.9	6.7	5.4	5.8	6.1	5.4		5.2	5.3	5.9	5.4	5.7
	10th Grade		3.9	4.2	4.1	4.2	4.6	3.7		4.2	4.7	4.5	4.1	4.8		4.0	4.4
	12th Grade	3.6		3.5	3.8	4.0	3.5	3.2	3.8	4.3	3.7		4.1	3.5	3.5	3.4	3.8
a ceidolla a cutano del control contro	ity of Michigan			1				ļ.		:	:			1			

For 8th graders: Ns range from 6,604 to 8,005. For 10th graders: Ns range from 6,398 to 7,807. For 12th graders: Ns range from 1,795 to 3,112. Notes:

Trends in Prevalence of Use of Smokeless Tobacco for Eighth, Tenth, and Twelfth Graders TABLE 4

	1975-85 1986	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	'05-'06 change
Lifetime																							
8th Grade	I	I		I	I	I	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	11.0	10.1	10.2	+0.1
10th Grade	I		1	I	I	I	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	13.8	14.5	15.0	+0.6
12th Grade	I	31.4	32.2	30.4	29.2	I	I	32.4	31.0	30.7	30.9	29.8	25.3	26.2	23.4	23.1	19.7	18.3	17.0	16.7	17.5	15.2	-2.3
Thirty-Day																							
8th Grade	I		1	I	1		6.9	7.0	9.9	7.7	7.1	7.1	5.5	4.8	4.5	4.2	4.0	3.3	4.1	4.1	3.3	3.7	+0.3
10th Grade	I		I	I	I	I	10.0	9.6	10.4	10.5	6.7	9.8	8.9	7.5	6.5	6.1	6.9	6.1	5.3	4.9	9.6	5.7	+0.1
12th Grade	I	11.5	11.3	10.3	8.4	I		11.4	10.7	11.1	12.2	8.6	6.7	8.8	8.4	7.6	7.8	6.5	6.7	6.7	7.6	6.1	-1.5
Daily																							
8th Grade	I	1	I	I	I	I	1.6	9.	1.5	1.9	1.2	1.5	1.0	1.0	6.0	6.0	1.2	0.8	0.8	1.0	0.7	0.7	+0.1
10th Grade	I	I	1	I	I	I	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	1.6	1.9	1.7	-0.2
12th Grade	I	4.7	5.1	4.3	3.3		I	4.3	3.3	3.9	3.6	3.3	4.4	3.2	2.9	3.2	2.8	2.0	2.2	2.8	2.5	2.2	-0.3
13																							
Approx. Ivs:	ı	ı	ı	ı	ı	ı	17 500 18 600		18 300 17 300 17 500	17 300	17 500	17 800	17 800 18 600 18 100 14 700 15 300 15 100 15 500 17 000 16 800 15 500	, 001 81	. 002 91	. 002 91	16.200	15 100	16 500	17 000	16 800	16 500	
100 C							200		, ,	000	7 , 7	0 0	2 5	,			7 7 7		, L	2 2			
ium Grade						l	14,800 14,800		008,61	008/61	000'/	009,61 000,71 008,61	13,500 13,000 13,600 14,300 14,000 14,300 15,800 16,400 10,200	000'61	3,000	14,300	14,000	14,300	008/61	10,400	10,200	10,200	
12th Grade	I	15,200	16,300	16,300	16,700	15,200	15,200 16,300 16,300 16,700 15,200 15,000 15,800		16,300	15,400	15,400	14,300	16,300 15,400 15,400 14,300 15,400 15,200 13,600 12,800 12,800 12,900 14,600 14,600 14,700 14,200	15,200	13,600	12,800	12,800	12,900	14,600	14,600	14,700	14,200	

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

<sup>&#</sup>x27;-' indicates data not available.

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 12th graders in 1990 and 1991. Prior to 1990 the prevalence of use question on smokeless tobacco was located near the end of one 12th-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

Trends in Attitudes about Regular Smokeless Tobacco Use for Eighth, Tenth, and Twelfth Graders TABLE 5

′05–′06 <u>change</u>		-1.2	-0.2	+2.3			-1.	+0.1				
2006		39.5	45.9	45.9			81.0	80.5		16,500	16,200	2,400
2005		40.8	46.1	43.6			82.0	80.5		16,800	16,200	2,500
2004		41.3	47.8	45.0			81.0	80.2		17,000	16,400	2,400
2003		39.7	48.0	43.3			80.7	79.4		16,500	15,800	2,400
2002		39.4	46.9	42.6			9.08	78.7		15,100	14,300	2,200
2001		38.2	46.2	45.4			79.4	76.1		18,300 17,300 17,500 17,800 18,600 18,100 16,700 16,700 16,200 15,100 16,500 17,000 16,800 16,500	15,300 15,800 17,000 15,600 15,500 15,000 13,600 14,300 14,000 14,300 15,800 16,400 16,200 16,200	2,800 2,600 2,600 2,400 2,600 2,500 2,300 2,100 2,100 2,200 2,400 2,400 2,500 2,400
2000		39.0	46.7	42.2			79.2	75.8		16,700	14,300	2,100
1999		37.1	44.2	41.1			78.0	75.1		16,700	13,600	2,300
1998		36.5	42.8	40.9			76.3	73.2		18,100	15,000	2,500
1997		35.2	42.2	38.6			76.5	72.3		18,600	15,500	2,600
1996		34.0	41.0	37.4			74.1	71.0		17,800	15,600	2,400
1995		33.5	38.2	33.2			74.0	71.0		17,500	17,000	2,600
1994		35.5	42.2	36.6			75.1	71.2		17,300	15,800	2,600
1993		36.9	44.2	38.9			77.1	73.8		18,300	15,300	2,800
1992		35.1	39.6	35.5				74.6		18,600	14,800	2,700
1991		35.1	40.3	37.4			79.1	75.4		17,500 18,600	14,800 14,800	3,000 3,300 3,300 2,800 2,600 2,600 2,700
1990		Ι		34.2								2,600
1989		I	I	33.2 32.9							I	2,800
1988		1	I	33.2							I	3,300
1987		1	I	30.0						I		3,300
1986		I	I	25.8						I	I	3,000
<u>1975-85</u> <u>1986</u> <u>1987</u> <u>1988</u> <u>1989</u> <u>1990</u> <u>1991</u>		I										
	Perceived Risk <sup>a</sup>	8th Grade	10th Grade	12th Grade	1	Disapproval <sup>o</sup>	8th Grade	10th Grade	Approx. Ns:	8th Grade	10th Grade	12th Grade

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.

<sup>&</sup>lt;sup>a</sup>The 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.

<sup>&</sup>lt;sup>b</sup>The 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.