

Smokeless Tobacco Use among Florida Public Middle and High School Students, 2004

Introduction

The Florida Youth Tobacco Survey (FYTS) is a statewide school-based confidential survey of Florida public middle and high school students. The FYTS tracks indicators of tobacco use and exposure to second-hand smoke among these students, and provides data for monitoring and evaluating tobacco use among youth in the Florida-Tobacco Prevention and Control Program.

The FYTS is based on a two-stage cluster probability sample design. First, a random sample of public middle schools and high schools is selected for participation in the survey. Then, within each selected school, a random sample of classrooms is selected, and all students in that class are invited to participate in the survey. The responses of the survey participants are calculated to reflect the prevalence of tobacco usage in Florida public middle and high school students.

The first FYTS was administered in 1998. Since then, the FYTS has been conducted annually by the Florida Department of Health. The FYTS became a part of the Florida Youth Survey (FYS) in 2000, which now includes the Communities That Care and Youth Risk Behavior surveys. The FYTS has been supported by many agencies, including the Florida Department of Education, school districts throughout the state, and the Office on

Smoking and Health at the Centers for Disease Control and Prevention (CDC).

The 2004 FYTS was conducted in March and April. Participants in the 2004 FYTS included a sample of 7,364 students attending 80 middle schools (grades six to eight) and 7,023 students attending 78 high schools (grades 9-12) across the state. Overall, response rates were 80.5 percent for the middle school survey and 77.8 percent for the high school survey based on a 98.8 percent middle school response rate, 100.0 percent high school response rate, 81.5 percent middle school student response rates, and 77.8 percent high school student response rate.

Data presented in this report are statewide estimates of prevalence. These estimates are computed based on the survey results, probability of survey respondents being selected for the survey, and demographics of Florida middle school and high school students. Tests of statistical significance were conducted on differences between prevalence estimates. Tests that result in a p-value (probability value) of less than 0.05 are considered statistically significant. Because the FYTS is a random survey and all estimates of prevalence are subject to random sample errors, 95 percent confidence intervals are presented with each prevalence in the detailed tables at the end of this report.

This report focuses on smokeless tobacco use.

Executive Summary

The prevalence of lifetime smokeless tobacco use among Florida public middle and high school students decreased significantly from 1998 to 2001, followed by a leveled prevalence during 2001-2004. The prevalence of current smokeless tobacco use among high school students showed a significant decrease by 31.3 percent from 1998 to 2002, and it leveled from 2002 to 2004. The prevalence of current smokeless tobacco use among middle school students decreased by 53.6 percent from 1998 to 2000 and it remained at the same level from 2000 through 2004. The prevalence of frequent smokeless tobacco use decreased significantly during 1998-2002 among high school students, while it was stable for middle school students between 1998-2004. In 2004, the prevalences of lifetime, current, or frequent smokeless tobacco use were higher among male students than among female students, and higher among Non-Hispanic White students than among non-Hispanic Black and Hispanic students. Hispanic students also had higher prevalence of lifetime smokeless tobacco use than non-Hispanic Black students. The prevalence of smokeless tobacco use (lifetime, current, or frequent use) was higher among high school students than among middle school students.

Lifetime Smokeless Tobacco Use

Figure 1: Percentage of Florida public middle school students who ever tried smokeless tobacco in their lives (lifetime smokers) by sex, race/ethnicity, and grade, 2004

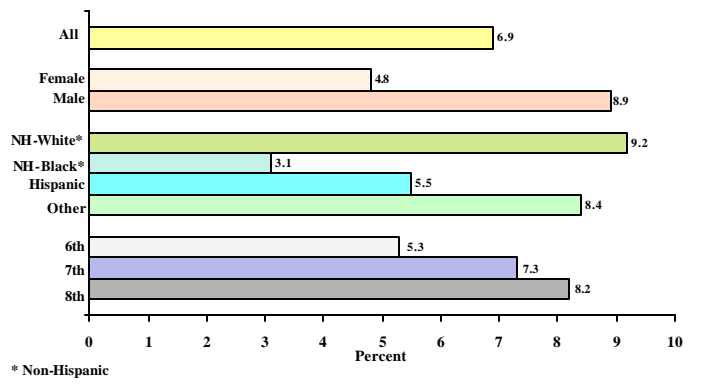


Figure 2: Percentage of Florida public high school students who ever tried smokeless tobacco in their lives (lifetime smokeless tobacco users) by sex, race/ethnicity, and grade, 2004

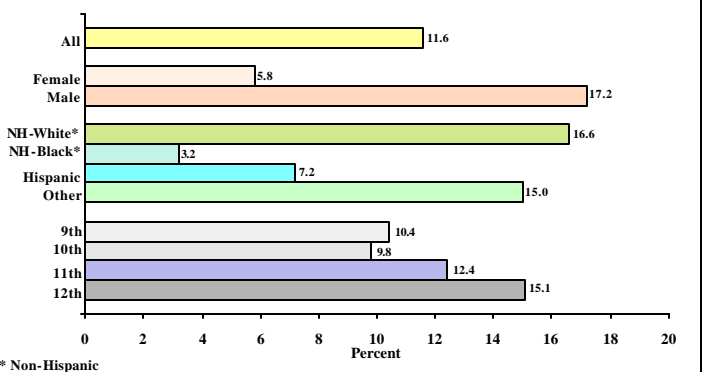
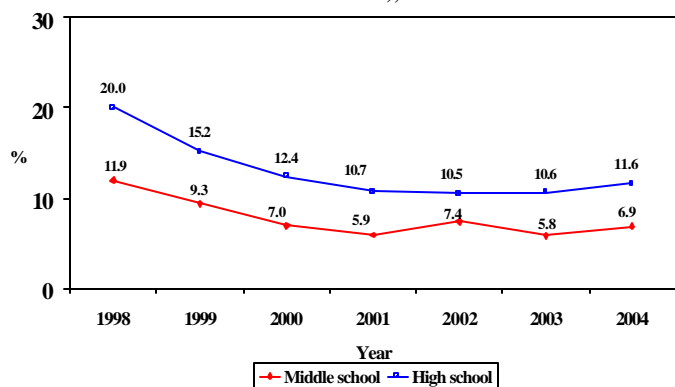


Figure 3: Percentage of Florida public middle and high school students who ever tried smokeless tobacco in their life (lifetime smokeless tobacco users), 1998-2004



Lifetime smokeless tobacco users: Students who have ever used chewing tobacco, snuff, or dip such as Redman, Levi Garrett, Beechnut, Skoal, Skoal Bandits, or Copenhagen in their lives.

Middle School

One in 15 (6.9 percent) middle school students reported ever using smokeless tobacco. The prevalence of ever trying smokeless tobacco in middle school students was higher:

- among male students (8.9 percent) than among female students (4.8 percent)
- among non-Hispanic White students (9.2 percent) than among non-Hispanic Black (3.1 percent) and Hispanic students (5.5 percent)
- among Hispanic students (5.5 percent) than among non-Hispanic Black students (3.1 percent)
- among 8th grade students (8.2 percent) than among 6th grade students (5.3 percent)

See Figure 1 and Table 1.

High School

One in nine (11.6 percent) high school students reported ever using smokeless tobacco. The prevalence of ever trying smokeless tobacco in high school students was higher:

- among male students (17.2 percent) than among female students (5.8 percent)
- among non-Hispanic White students (16.6 percent) than among non-Hispanic Black (3.2 percent) and Hispanic students (7.2 percent)
- among Hispanic students (7.2 percent) than among non-Hispanic Black students (3.2 percent)
- among 12th grade students (15.1 percent) than among 9th (10.4 percent) and 10th (9.8 percent) grade students

See Figure 2 and Table 1.

Trends 1998-2004

The prevalence of ever having tried smokeless tobacco decreased significantly by 50.4 percent and 46.5 percent for middle and high school students, respectively, from 1998 to 2001. From 2001 through 2004, this prevalence leveled for both middle and high school students. High school students had a higher prevalence than middle school students of ever having tried smokeless tobacco every year during this time period. See Figure 3.

Current Smokeless Tobacco Use

Current smokeless tobacco users: Students who tried chewing tobacco, snuff, or dip such as Redman, Levi Garrett, Beechnut, Skoal, Skoal Bandits, or Copenhagen on one or more of the past 30 days prior to the survey.

Middle School

One out of 32 (3.2 percent) middle school students were current smokeless tobacco users. The prevalence of current smokeless tobacco use in middle school students was higher:

- among male students (4.1 percent) than among female students (2.1 percent)
- among non-Hispanic White students (3.9 percent) than among non-Hispanic Black (2.1 percent) and Hispanic students (2.6 percent)
- among 8th grade students (4.1 percent) than among 6th grade students (2.5 percent)

See Figure 4 and Table 2.

High School

One out of 18 (5.6 percent) high school students were current smokeless tobacco users. The prevalence of current smokeless tobacco use in high school students was higher:

- among male students (8.8 percent) than among female students (2.2 percent)
- among non-Hispanic White students (7.2 percent) than among non-Hispanic Black (2.3 percent) and Hispanic students (3.9 percent)
- among 12th grade students (7.1 percent) than among 10th grade students (4.8 percent)

See Figure 5 and Table 2.

Trends 1998-2004

Among high school students, the 2004 prevalence of current smokeless tobacco use was statistically the same as that in 1998. The prevalence decreased by 31.3 percent from 1998 to 2002, then increased slightly between 2002 and 2004. Among middle school students, the prevalence of current smokeless tobacco use decreased dramatically by 53.6 percent from 1998 to 2000, and leveled from 2000 through 2004. High school students had a higher prevalence than middle school students each year since 1999. See Figure 6.

Figure 4: Percentage of Florida public middle school students who used smokeless tobacco on one or more of the previous 30 days (current smokeless tobacco users) by sex, race/ethnicity, and grade, 2004

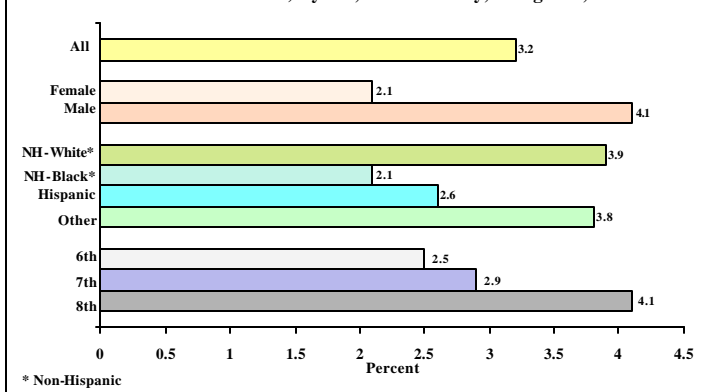


Figure 5: Percentage of Florida public high school students who used smokeless tobacco on one or more of the previous 30 days (current smokeless tobacco users) by sex, race/ethnicity, and grade, 2004

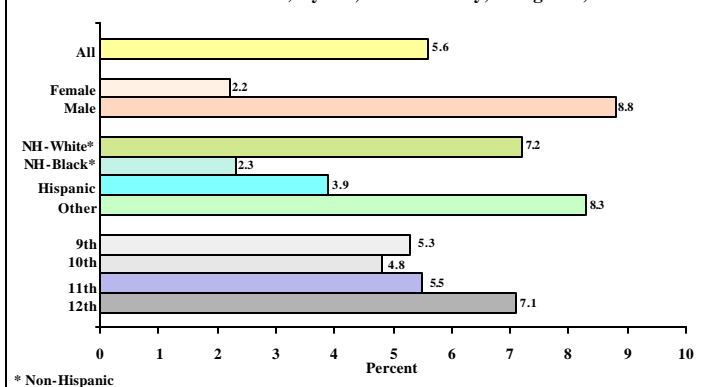
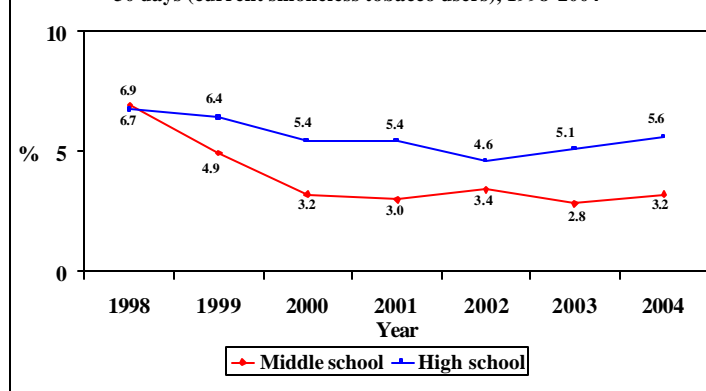
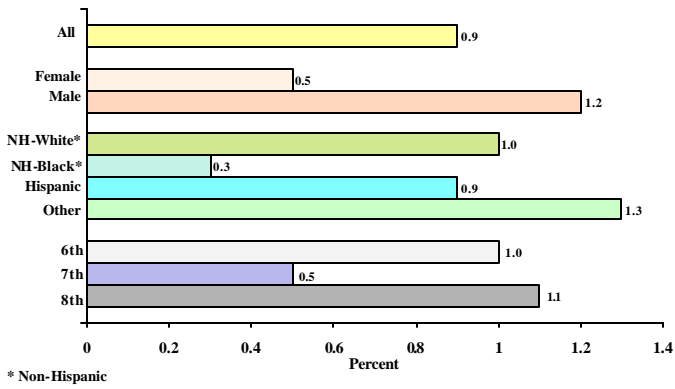


Figure 6: Percentage of Florida public middle and high school students who used smokeless tobacco on one or more of the previous 30 days (current smokeless tobacco users), 1998-2004



Frequent Smokeless Tobacco Use

Figure 7: Percentage of Florida public middle school students who used smokeless tobacco on 20 or more of the previous 30 days (frequent smokeless tobacco users) by sex, race/ethnicity, and grade, 2004



Frequent smokeless tobacco users: Students who tried chewing tobacco, snuff, or dip such as Redman, Levi Garrett, Beechnut, Skoal, Skoal Bandits, or Copenhagen on 20 or more of the past 30 days prior to the survey.

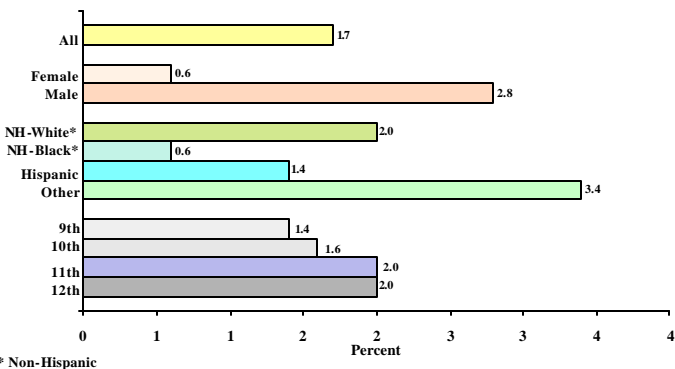
Middle School

Only one out of 112 (0.9 percent) middle school students were frequent smokeless tobacco users. The prevalence of frequent smokeless tobacco use in middle school students was higher:

- among male students (1.2 percent) than among female students (0.5 percent)
- among non-Hispanic White students (1.0 percent) than among non-Hispanic Black students (0.3 percent)
- among 8th grade students (1.1 percent) than among 7th grade students (0.5 percent)

See Figure 7 and Table 3.

Figure 8: Percentage of Florida public high school students who used smokeless tobacco on 20 or more of the previous 30 days (frequent smokeless tobacco users) by sex, race/ethnicity, and grade, 2004



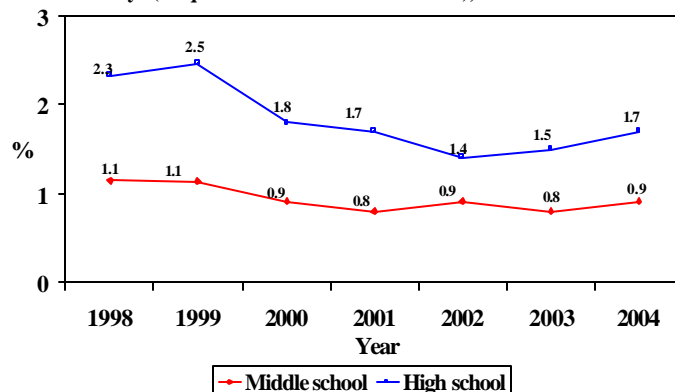
High School

One out of 59 (1.7 percent) high school students were frequent smokeless tobacco users. The prevalence of frequent smokeless tobacco use in high school students was higher:

- among male students (2.8 percent) than among female students (0.6 percent)
- among non-Hispanic White students (2.0 percent) than among non-Hispanic Black students (0.6 percent)

See Figure 8 and Table 3.

Figure 9: Percentage of Florida public middle and high school students who used smokeless tobacco on 20 or more of the previous 30 days (frequent smokeless tobacco users), 1998-2004



Trends 1998-2004

Among high school students, the prevalence of frequent smokeless tobacco use showed a significant decrease of 39.1 percent from 1998 (2.3 percent) to 2002 (1.4 percent). The prevalence remained at the same level in 2002 through 2004. Among middle school students, the prevalence of frequent smokeless tobacco use remained at a very low level and unchanged in all seven years. High school students had a higher prevalence than middle school students every year during this time period. See Figure 9.

Detailed Tables

Table 1. Percentage of Florida public middle and high school students who have ever tried smokeless tobacco (lifetime smokeless tobacco use), by gender, race/ethnicity, and grade, FYTS 2004

		Middle School			High School		
		Lifetime smokeless tobacco use			Lifetime smokeless tobacco use		
		%	95% CI*		%	95% CI*	
Gender	Female	4.8	4.0	5.6	5.8	4.8	6.9
	Male	8.9	7.5	10.4	17.2	15.2	19.2
Race/Ethnicity	non-Hispanic White	9.2	7.7	10.7	16.6	14.7	18.4
	non-Hispanic Black	3.1	2.3	3.8	3.2	2.1	4.3
	Hispanic	5.5	4.2	6.8	7.2	5.6	8.8
	Other	8.4	6.3	10.5	15.0	11.6	18.4
Grade (Middle/High)	6th/9th	5.3	4.2	6.4	10.4	8.5	12.2
	7th/10th	7.3	5.9	8.8	9.8	8.1	11.6
	8th/11th	8.2	6.7	9.7	12.4	10.3	14.6
	--/12th	.	.	.	15.1	12.5	17.7
Total		6.9	6.0	7.8	11.6	10.3	12.8

* 95 percent (%) confidence interval

Table 2. Percentage of Florida public middle and high school students who have used smokeless tobacco on one or more of the previous 30 days (current smokeless tobacco use), by gender, race/ethnicity, and grade, FYTS 2004

		Middle School			High School		
		Current smokeless tobacco use			Current smokeless tobacco use		
		%	95% CI*		%	95% CI*	
Gender	Female	2.1	1.6	2.7	2.2	1.6	2.8
	Male	4.1	3.4	4.9	8.8	7.5	10.1
Race/Ethnicity	non-Hispanic White	3.9	3.0	4.7	7.2	5.9	8.5
	non-Hispanic Black	2.1	1.3	2.9	2.3	1.5	3.2
	Hispanic	2.6	1.8	3.3	3.9	2.9	5.0
	Other	3.8	2.2	5.3	8.3	5.8	10.8
Grade (Middle/High)	6th/9th	2.5	1.8	3.1	5.3	4.2	6.5
	7th/10th	2.9	2.1	3.8	4.8	3.7	5.8
	8th/11th	4.1	3.3	4.9	5.5	4.2	6.9
	--/12th	.	.	.	7.1	5.5	8.6
Total		3.2	2.7	3.7	5.6	4.8	6.3

* 95 percent (%) confidence interval

Table 3. Percentage of Florida public middle and high school students who have used smokeless tobacco on 20 or more of the past 30 days (frequent smokeless tobacco use), by gender, race/ethnicity, and grade, FYTS 2004

		Middle School			High School		
		Frequent smokeless tobacco use			Frequent smokeless tobacco use		
		%	95% CI*		%	95% CI*	
Gender	Female	0.5	0.2	0.8	0.6	0.3	0.8
	Male	1.2	0.7	1.6	2.8	2.2	3.4
Race/Ethnicity	non-Hispanic White	1.0	0.5	1.5	2.0	1.5	2.5
	non-Hispanic Black	0.3	0.0	0.6	0.6	0.2	1.1
	Hispanic	0.9	0.3	1.4	1.4	0.8	2.0
	Other	1.3	0.5	2.1	3.4	2.0	4.8
Grade (Middle/High)	6th/9th	1.0	0.5	1.4	1.4	1.0	1.9
	7th/10th	0.5	0.2	0.8	1.6	1.0	2.1
	8th/11th	1.1	0.6	1.6	2.0	1.2	2.8
	--/12th	.	.	.	2.0	1.3	2.8
Total		0.9	0.6	1.1	1.7	1.4	2.0

* 95 percent (%) confidence interval

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