Ohio Youth Tobacco Survey 2006

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Bureau of Health Promotion and Risk Reduction
Tobacco Risk Reduction Program

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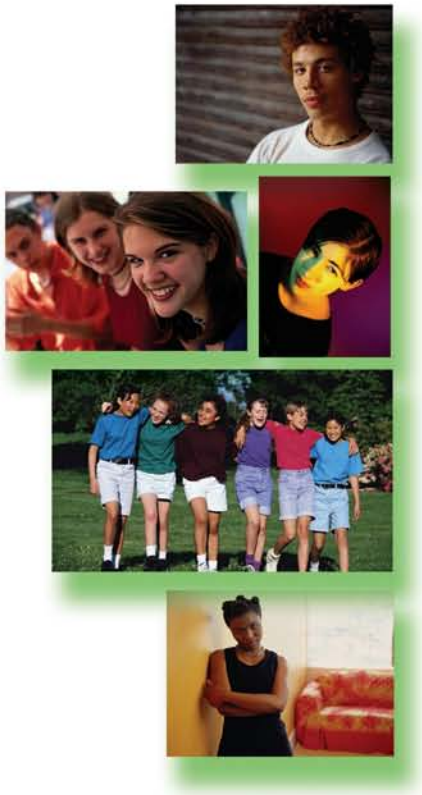

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Acknowledgements

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ODH wishes to show special appreciation to the many people around Ohio who contributed to the successful implementation of this survey. We are particularly grateful to the students, teachers, principals and superintendents who agreed to participate in the survey. Also, the survey could not have been completed without the contractor, ORC Macro International and the many individuals who administered the in-school surveys.

Introduction

Tobacco use contributes to more early and needless death and disease in the United States than any other single cause. In fact, more deaths result from tobacco-induced illness than from alcohol, all illicit drugs, homicide, suicide, fires, vehicle crashes and HIV combined. Unfortunately, the Ohio tobacco-addiction burden is unacceptably high, with an adult smoking rank of 16th in the nation. Knowing more than 80 percent of tobacco use is initiated before age 18, it is essential to prevent youth initiation to greatly reduce the one in five Ohio deaths now caused by tobacco.

During spring 2006, the Ohio Department of Health conducted the fourth Ohio Youth Tobacco Survey (OYTS), which is intended to provide information about tobacco and youth in Ohio. This information is collected to enhance the capacity of public health agencies and organizations to design, implement and evaluate tobacco prevention and control programs that target youth. This report provides a profile of middle school (grades six-eight) and high school (grades nine-12) students in Ohio, while also comparing results with OYTS data from 2000, 2002 and 2004.[1] It is hoped that sustained data collection of four years provides trend analysis opportunities that public health professionals, researchers and public policymakers can use to strengthen Ohio's efforts to curb the deadly epidemic of tobacco use in our state.

Sample Characteristics The middle school sample was predominantly white (72.0 percent), followed by black (16.2 percent), Native American (4.8 percent), Hispanic (4.1 percent), Asian (2.3 percent) and Hawaiian/Pacific Islander (0.5 percent). Males comprised 51.2 percent of the sample and females 48.8 percent. The sample equally represented grade six (32.9 percent), grade seven (33.3 percent) and grade eight (33.7 percent).

The high school sample was also predominantly white (76.5 percent), followed by black (16.0 percent), Hispanic (3.4 percent), Native American (2.0 percent), Asian (1.6 percent) and Hawaiian/Pacific Islander (0.5 percent). Males comprised 48.5 percent of the sample and females 51.5 percent. The sample was nearly equal across grades nine (30.1 percent), 10 (26.3 percent), 11 (25.2 percent) and 12 (18.5 percent).

[1] High school data not available for 2004.

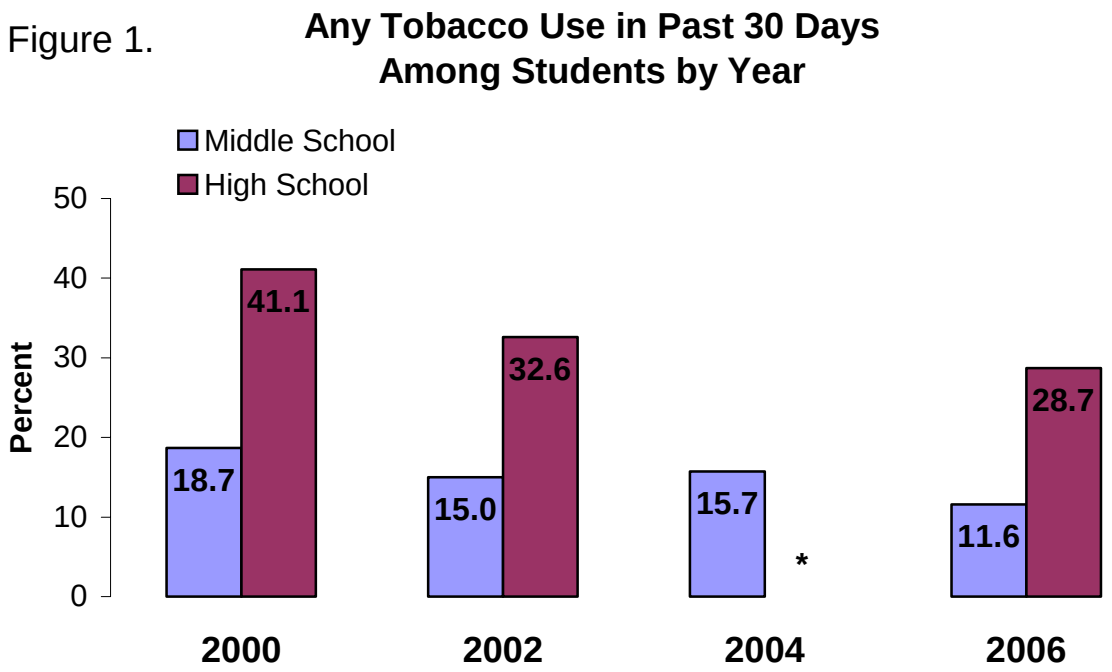
Tobacco Prevalence

Any Tobacco Use in the Past 30 Days

- In 2006, 11.6 percent of Ohio middle school students and 28.7 percent of Ohio high school students were current users of any form of tobacco products (cigarettes, smokeless tobacco, cigars, pipes, bidis[2], or kreteks[3]). *Current tobacco use is defined as using tobacco on one or more of the 30 days preceding the survey.*

- **Overall, rates of tobacco use among high school students decreased significantly from 2000 (41.1 percent) to 2006 (28.7 percent).**

Figure 1.



* Data not available for high school students in 2004.

[2] Bidis are small, brown, hand-rolled cigarettes primarily made in India and other southeast Asian countries.

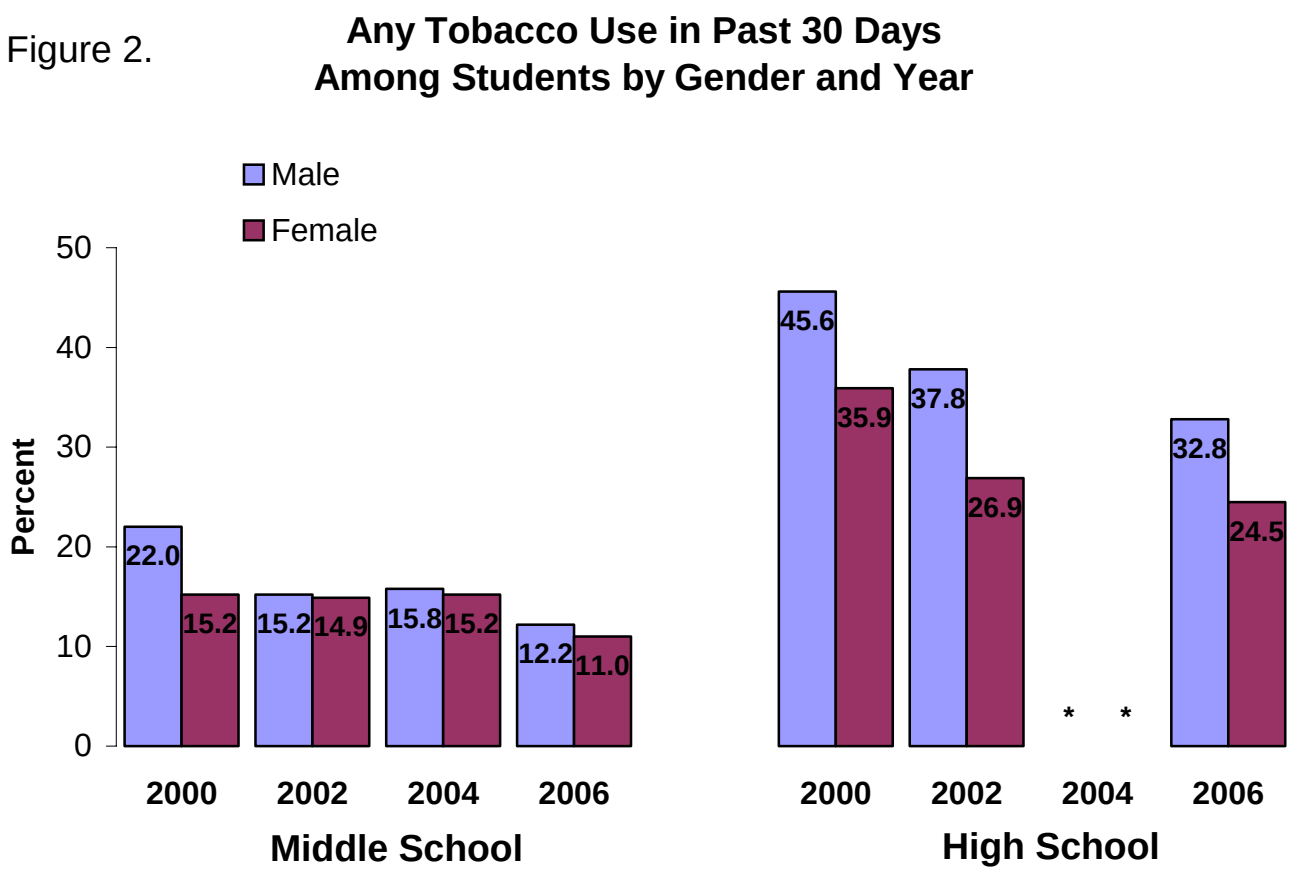
[3] Kreteks, or clove cigarettes, are cigarettes containing tobacco and clove extract.

Tobacco Prevalence: Gender Differences

- Rates of current tobacco use among male and female middle school students have remained comparable across 2000, 2002, 2004 and 2006. **Among high school students, however, there has been a significant decrease in the rates of current tobacco use among males (45.6 percent and 32.8 percent, respectively) and females (35.9 percent and 24.5 percent, respectively) between 2000 and 2006.**

- In 2006, rates of tobacco use among male and female middle school students were comparable. **Among high school students, however, males (32.8 percent) were significantly more likely than females (24.5 percent) to be current tobacco users.**

Figure 2.



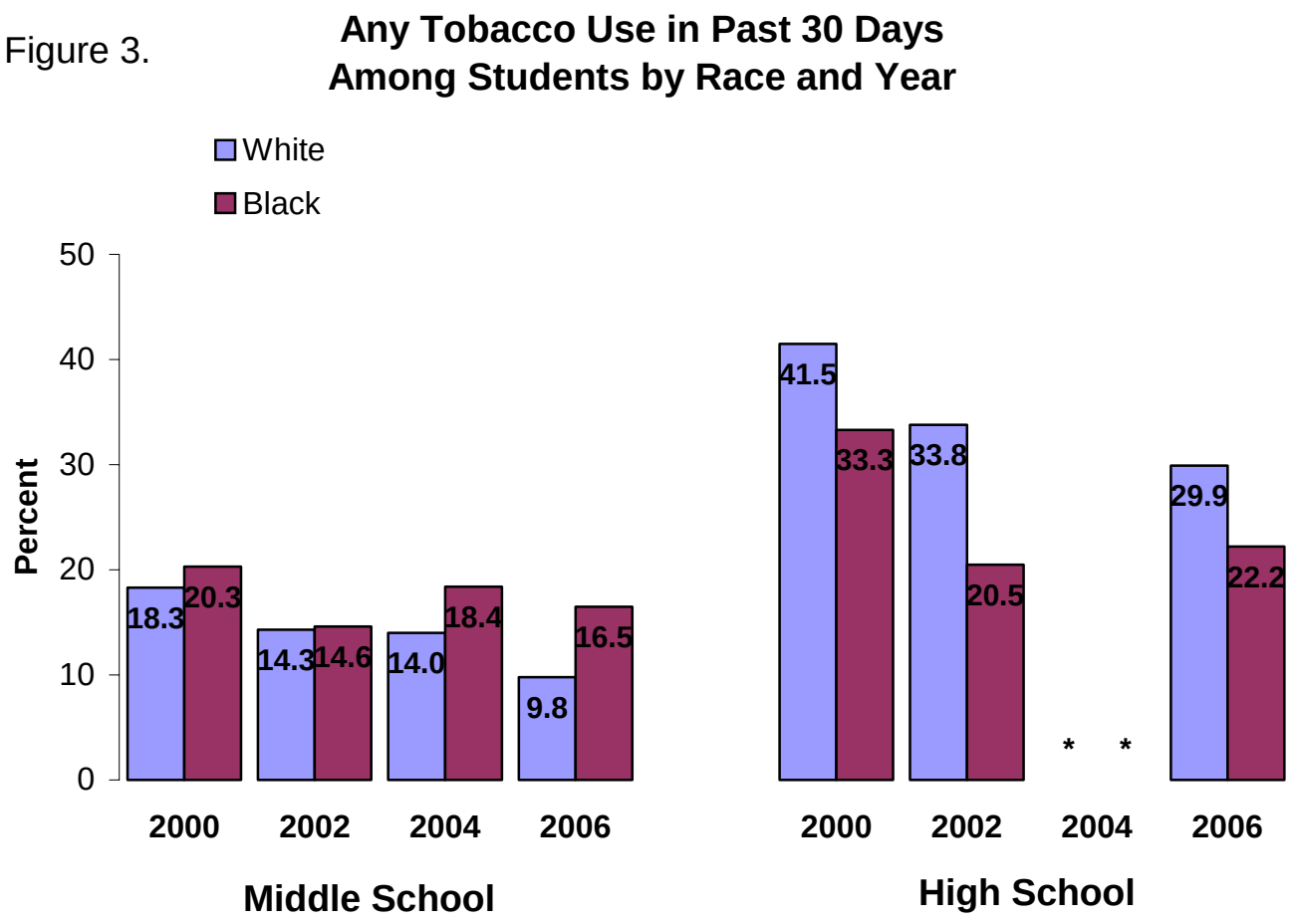
* Data not available for high school students in 2004.

Tobacco Prevalence: Racial Differences

- Rates of current tobacco use among black middle school and high school students have remained comparable from 2000 to 2006. **Among white high school students, however, there was a significant decrease in current tobacco use between 2000 and 2006 (41.5 percent and 29.9 percent, respectively).**

- In 2006, there were no significant differences between white and black middle school or high school students with respect to rates of tobacco use.

Figure 3.



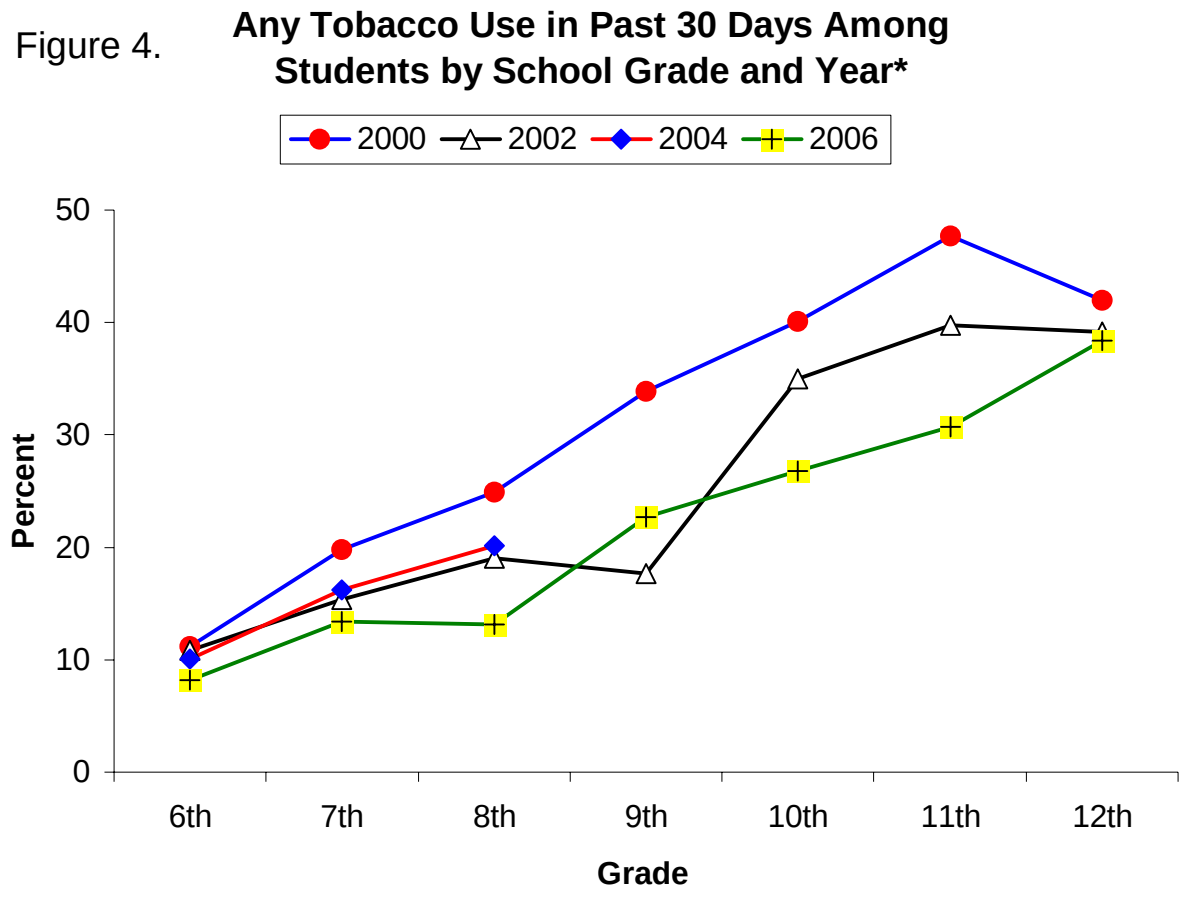
* Data not available for high school students in 2004.

Tobacco Prevalence: By School Grade

- Between 2000 and 2006, there has been no significant change in tobacco use in the middle school grades, **but there has been a significant decline in tobacco use among ninth (33.9 percent and 22.7 percent, respectively), 10th (40.1 percent and 26.8 percent, respectively), and 11th graders (47.7 percent and 30.7 percent, respectively).**

- **In 2006, 12th graders (38.4 percent) were significantly more likely than ninth or 10th graders to be current tobacco users.**

Figure 4.



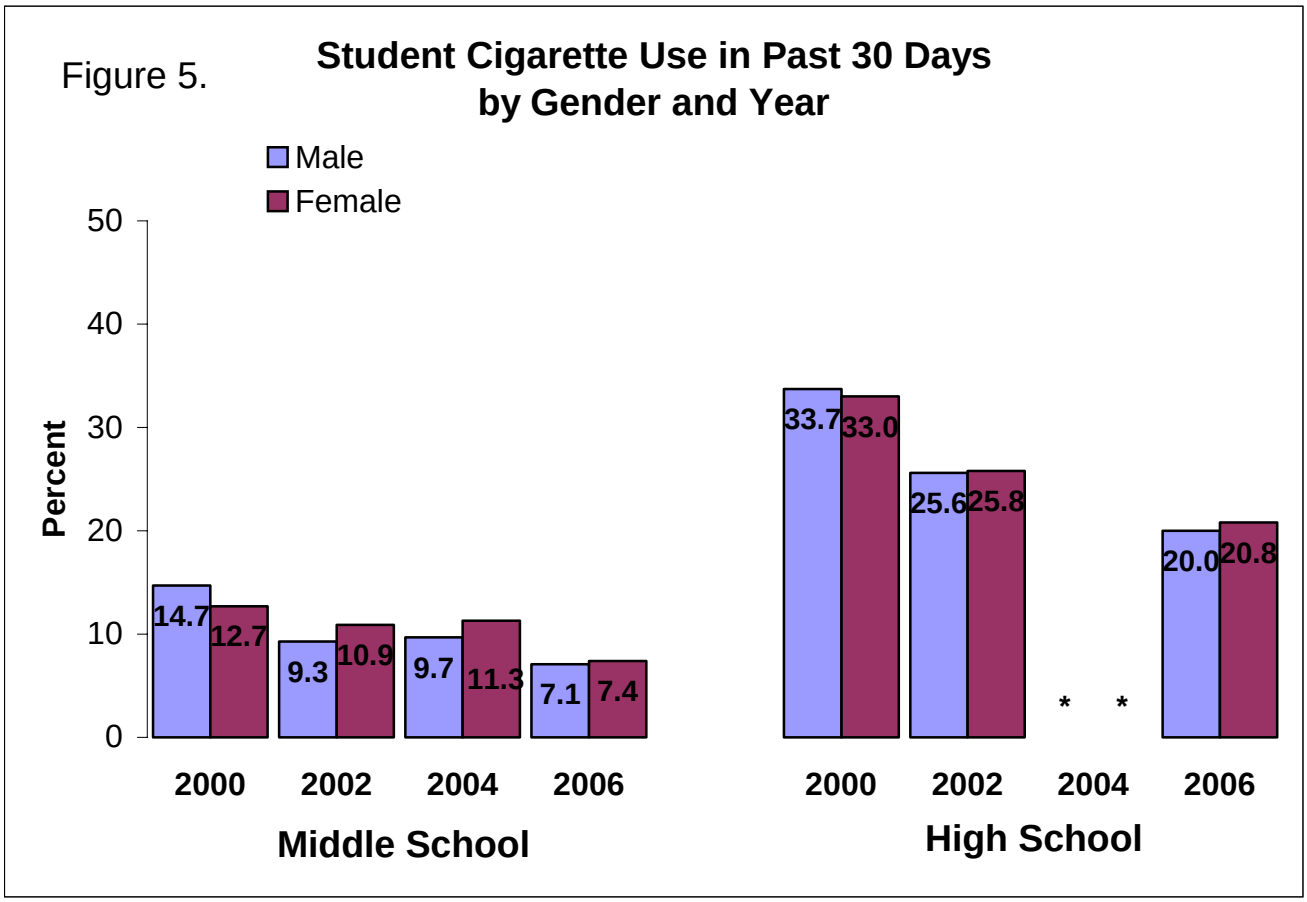
* Data not available for high school students in 2004.

Cigarette Use in the Past 30 Days: Gender Differences

- Overall, 7.2 percent of middle school students reported smoking cigarettes in the 30 days preceding the survey (*current cigarette use*), which is comparable to the rates of current cigarette use reported by middle school students in 2000, 2002 and 2004.

- Overall, 20.5 percent of high school students reported smoking cigarettes in the 30 days preceding the survey, **which is significantly less than the rate of current cigarette use reported by high school students in 2000 (33.4 percent).**

- In 2006, there was no significant difference between male and female middle school or high school students with respect to their rates of current cigarette use. **Current cigarette use among middle school males decreased significantly from 2000 to 2006 (14.7 percent and 7.1 percent, respectively), whereas, rates of current cigarette use decreased significantly among both male (33.7 percent and 20.0 percent, respectively) and female (33.0 percent and 20.8 percent, respectively) high school students between 2000 and 2006.**



* Data not available for high school students in 2004.

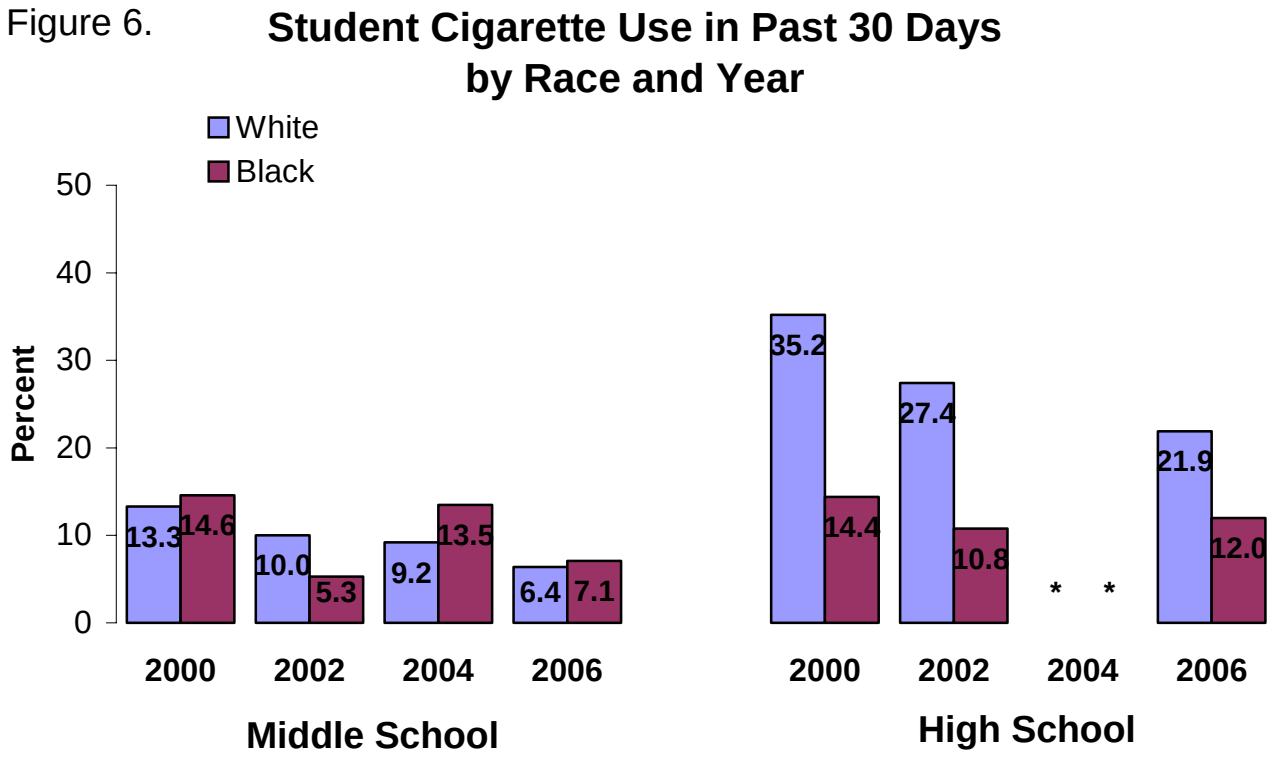
Cigarette Use in the Past 30 Days: Racial Differences

- Although black middle school students reported smoking significantly less in 2002 than in 2000, there has since been no significant change in their rates of current cigarette use. **Rates of current cigarette use among white middle school students, however, have decreased significantly from 2000 (13.3 percent) to 2006 (6.4 percent).**

- Rates of current cigarette use among black high school students have remained comparable from 2000 to 2006. **Among white high school students, current cigarette use has decreased significantly between 2000 (35.2 percent) and 2006 (21.9 percent).**

- In 2006, there was no significant difference between black and white middle school students with respect to rates of current cigarette use. **Among high school students, however, white students (21.9 percent) were significantly more likely to be current cigarette users than black students (12.0 percent).**

Figure 6.



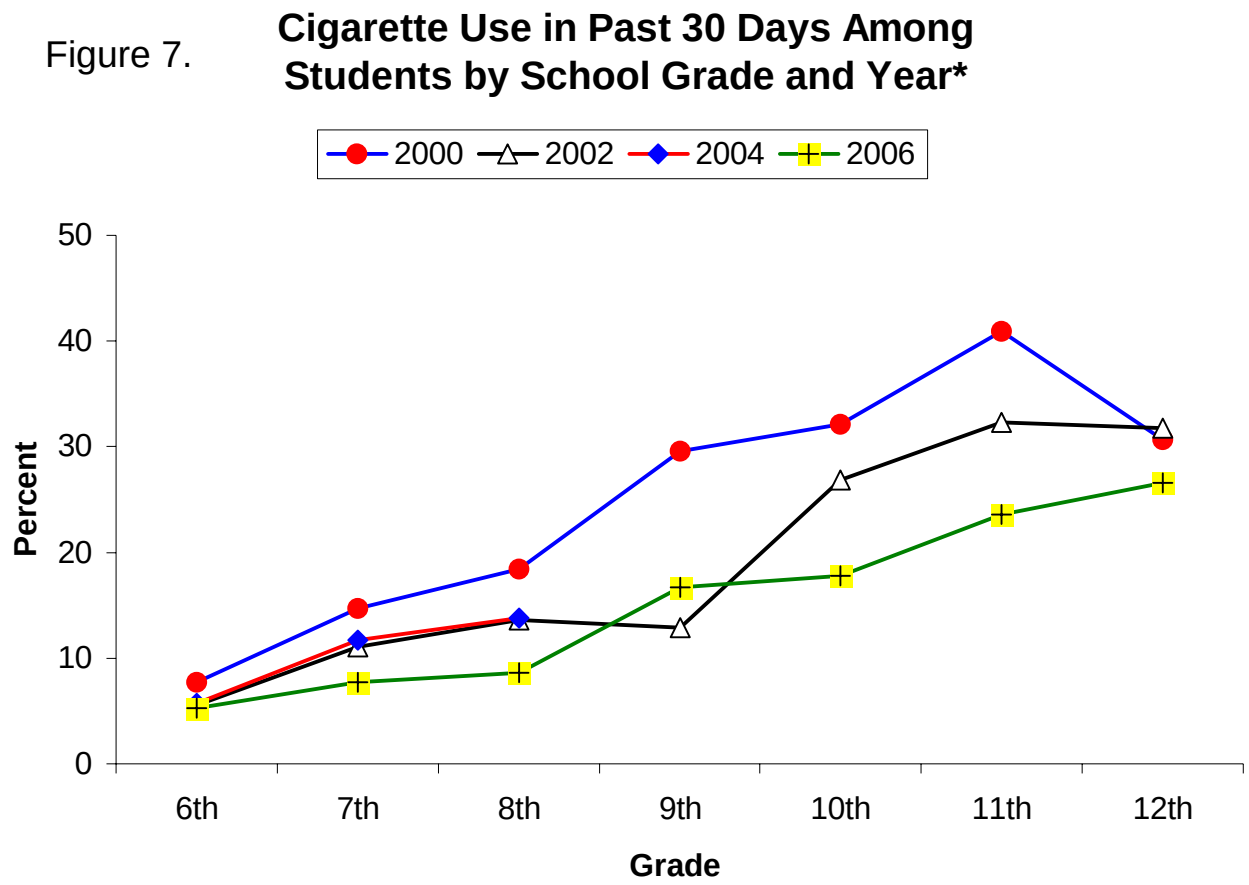
* Data not available for high school students in 2004.

Cigarette Use in the Past 30 Days: By School Grade

- Between 2000 and 2006, there has been no significant change in cigarette use in the middle school grades, **but there has been a significant decline in current cigarette use among ninth (29.6 percent and 16.7 percent, respectively), 10th (32.1 percent and 17.8 percent, respectively) and 11th graders (40.9 percent and 23.6 percent, respectively).**

- **In 2006, 12th graders (26.6 percent) were significantly more likely than ninth graders (16.7 percent) to be current cigarette smokers.**

Figure 7.



* Data not available for high school students in 2004.

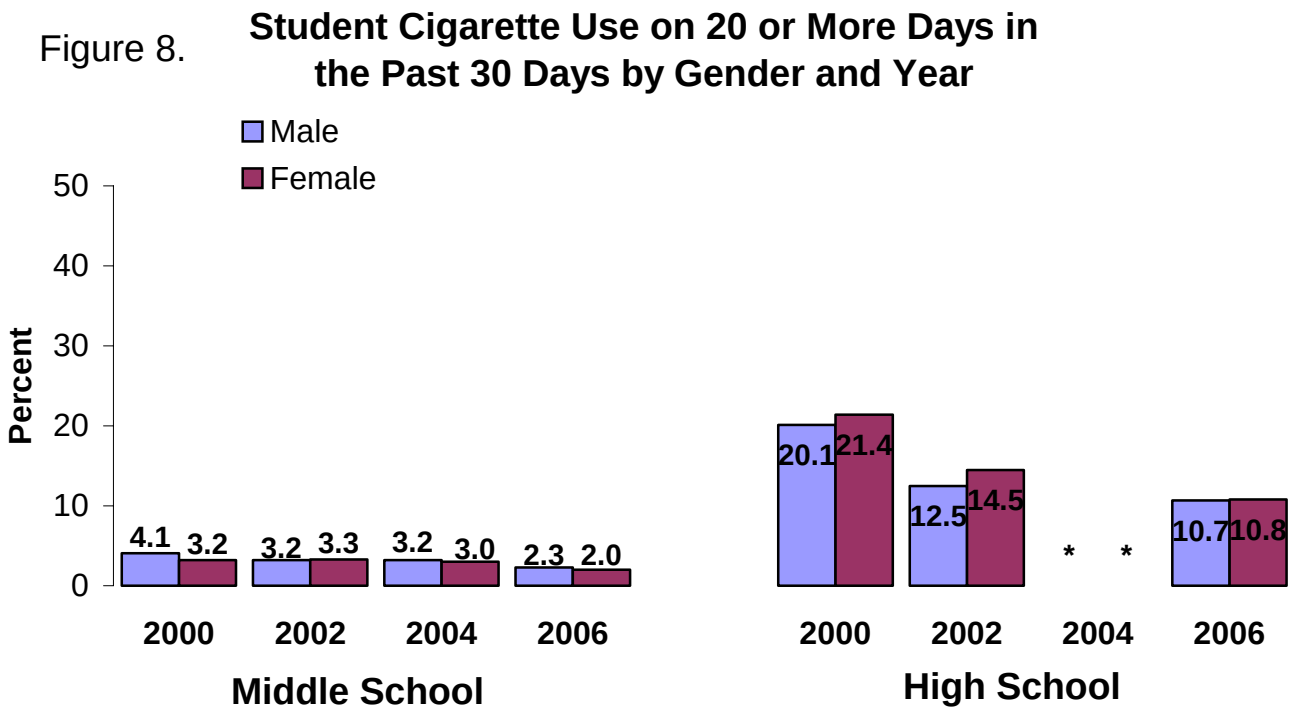
Cigarette Use on 20 or More of the Past 30 Days: Gender Differences

- Overall, 2.2 percent of middle school students and 10.9 percent of high school students reported being frequent smokers in 2006. Rates of frequent cigarette smoking among middle school students have remained comparable across 2000, 2002, 2004 and 2006. **Among high school students, however, there has been a significant decrease in frequent smoking between 2000 (20.7 percent) and 2006 (10.9 percent).****

- Between 2000 and 2006, there was no significant change in frequent smoking among male or female middle school students, **whereas there was a significant decrease in the rates of frequent smoking among male (20.1 percent and 10.7 percent, respectively) and female (21.4 percent and 10.8 percent, respectively) high school students between 2000 and 2006.**

- In 2006, there was no significant difference between male and female middle school or high school students with respect to their rates of frequent cigarette smoking.

Figure 8.



* Data not available for high school students in 2004.
** Data does not fall between male and female data possibly because of missing gender responses.

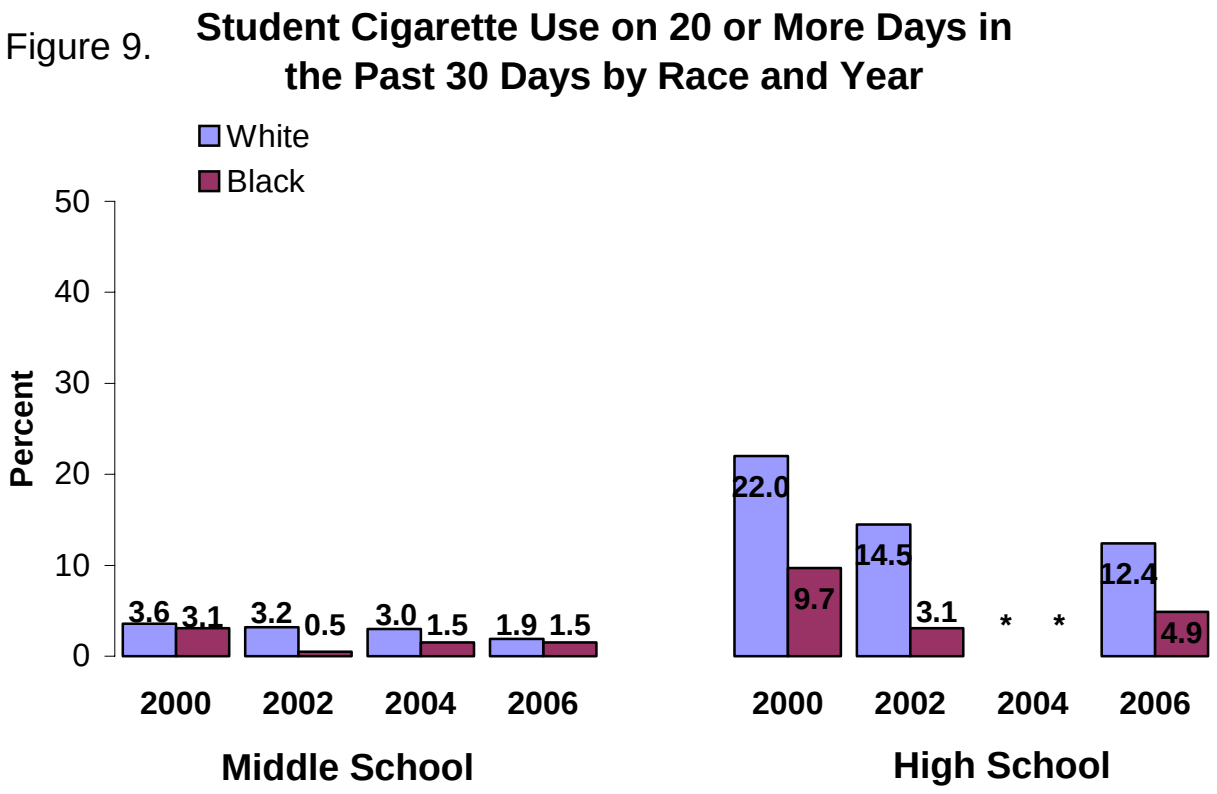
Cigarette Use on 20 or More of the Past 30 Days: Racial Differences

- Between 2000 and 2006, there has been no significant change among white and black middle school students in their rates of frequent cigarette smoking.

- There has been no significant change in frequent smoking among black high school students, **but rates of frequent smoking among white high school students decreased significantly between 2000 (22.0 percent) and 2006 (12.4 percent).**

- In 2006, rates of frequent smoking among white and black middle school students were comparable, **but white high school students (12.4 percent) were significantly more likely than black high school students (4.9 percent) to be frequent smokers.**

Figure 9.



* Data not available for high school students in 2004.

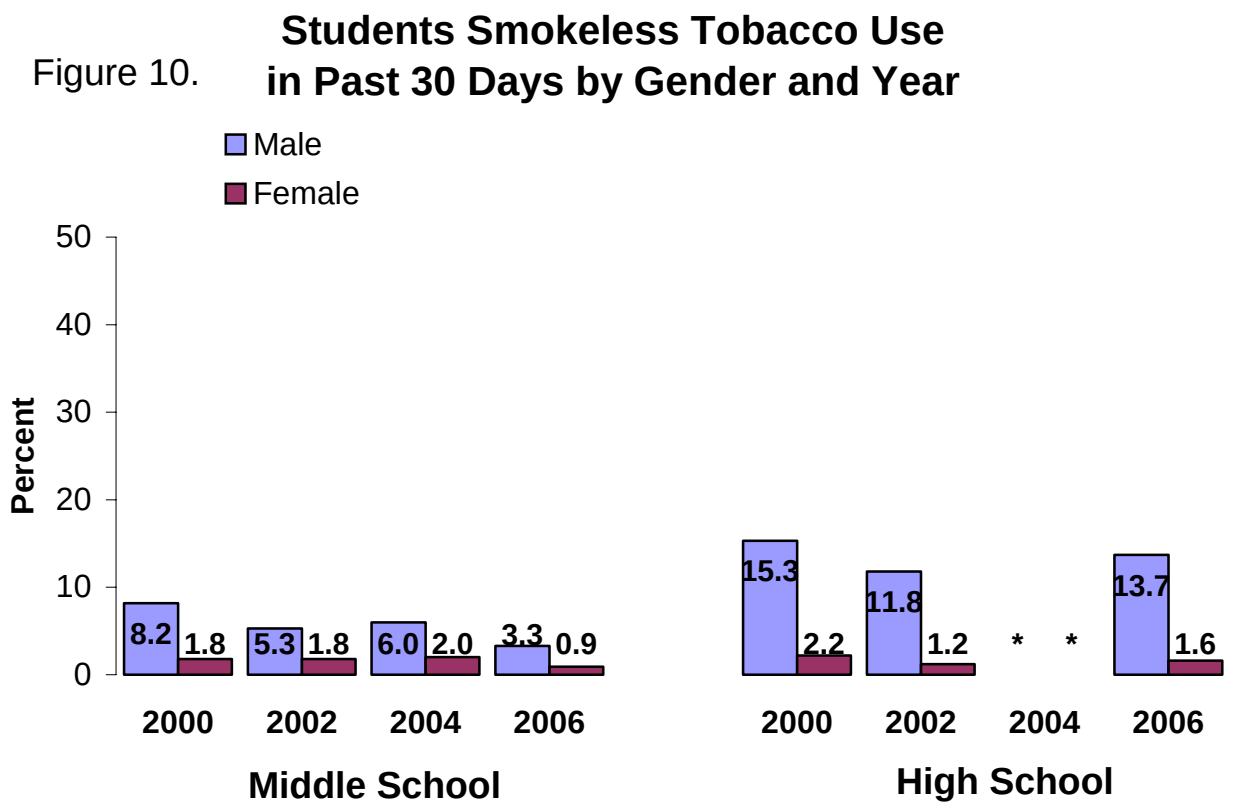
Smokeless Tobacco Use in the Past 30 Days: Gender Differences

- Overall, 2.1 percent of middle school students and 7.5 percent of high school students were current smokeless tobacco[4] users in 2006. **Rates of smokeless tobacco use among middle school students decreased significantly from 2004 (4.1 percent) to 2006 (2.1 percent).** Among high school students, however, there has been no significant change across 2000, 2002 and 2006.

- Between 2000 and 2006, there has been no significant change among male and female middle school or high school students in their rates of smokeless tobacco use.

- **In 2006, male middle school and high school students (3.3 percent and 13.7 percent, respectively) were significantly more likely to be smokeless tobacco users than female middle school and high school students (0.9 percent and 1.6 percent, respectively).**

Figure 10.



* Data not available for high school students in 2004.

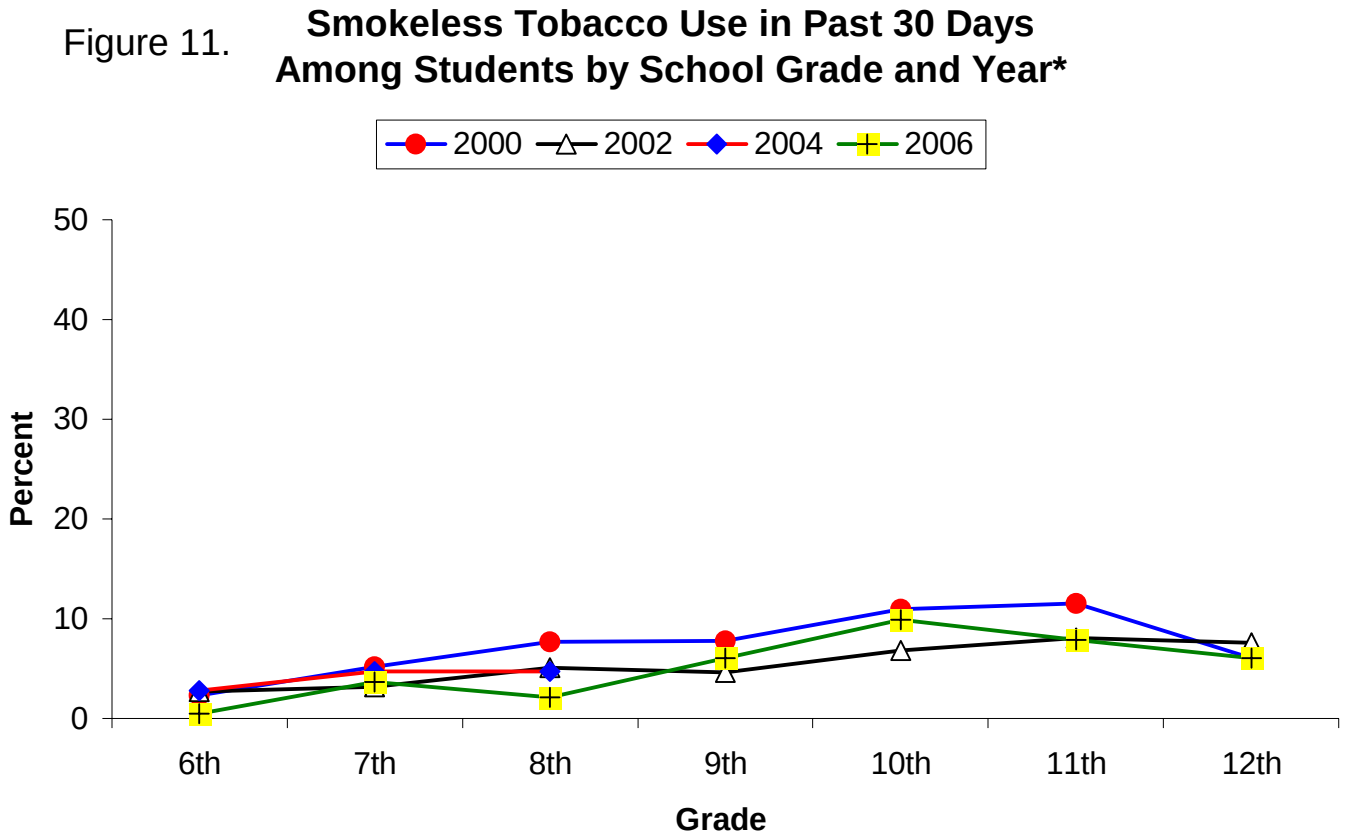
[4] Smokeless tobacco includes leaf chewing tobacco, snuff or dip.

Smokeless Tobacco Use in the Past 30 Days: By School Grade

- **In 2006, rates of smokeless tobacco use among sixth graders (0.5 percent) were significantly lower than those reported in 2000 (2.3 percent), 2002 (2.7 percent) and 2004 (2.8 percent).** There has been no significant change, however, among the high school grades with respect to current smokeless tobacco use from 2000 to 2006.

- **In 2006, seventh (3.7 percent) and eighth graders (2.1 percent) were significantly more likely than sixth graders (0.5 percent) to be current smokeless tobacco users.**

Figure 11.



* Data not available for high school students in 2004.

Cigar Use in the Past 30 Days: Gender Differences

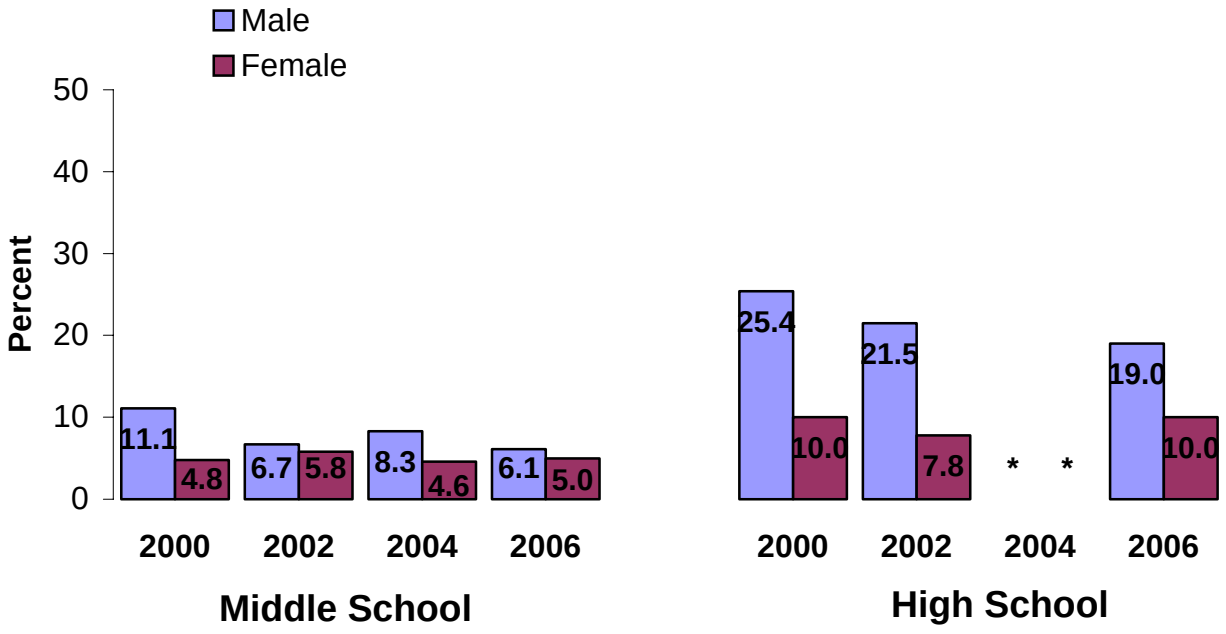
- Overall, 5.5 percent of middle school students and 14.4 percent of high school students reported smoking a cigar on one or more of the 30 days preceding the survey in 2006. Between 2000 and 2006, there has been no significant change in the rates of current cigar use among middle school or high school students.

- Between 2000 and 2006, there has been no significant change among male and female middle school or high school students in their rates of cigar use.

- In 2006, there were no significant differences between male and female students with respect to their rates of cigar use. **Among high school students, however, male students (19.0 percent) have significantly higher rates of cigar use than female students (10.0 percent).**

Figure 12.

Cigar Use in the Past 30 Days: Gender Differences Among Students by Year



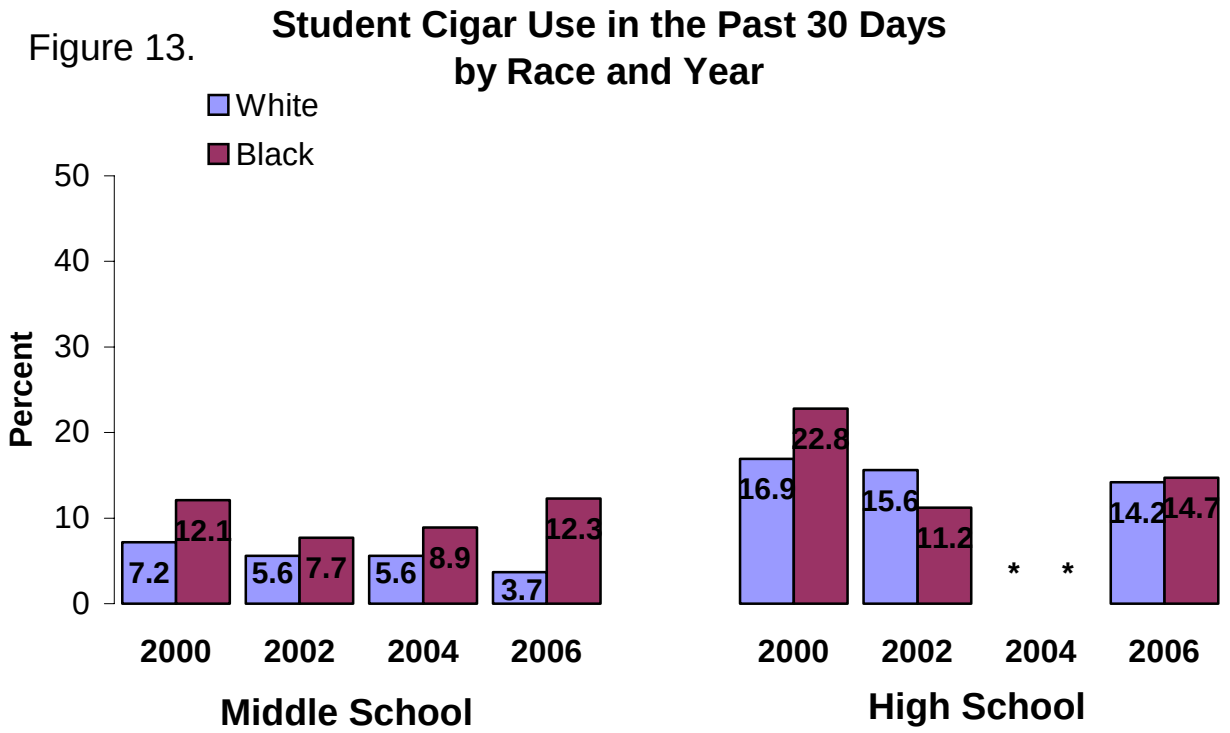
* Data not available for high school students in 2004.

Cigar Use in the Past 30 Days: Racial Differences

- Between 2000 and 2006, there has been no significant change in cigar use among black and white middle school or high school students.

- **In 2006, black middle school students (12.3 percent) were significantly more likely than white middle school students (3.7 percent) to be current cigar users,** but among high school students, there is no significant difference between black and white students in their rates of cigar use.

Figure 13.

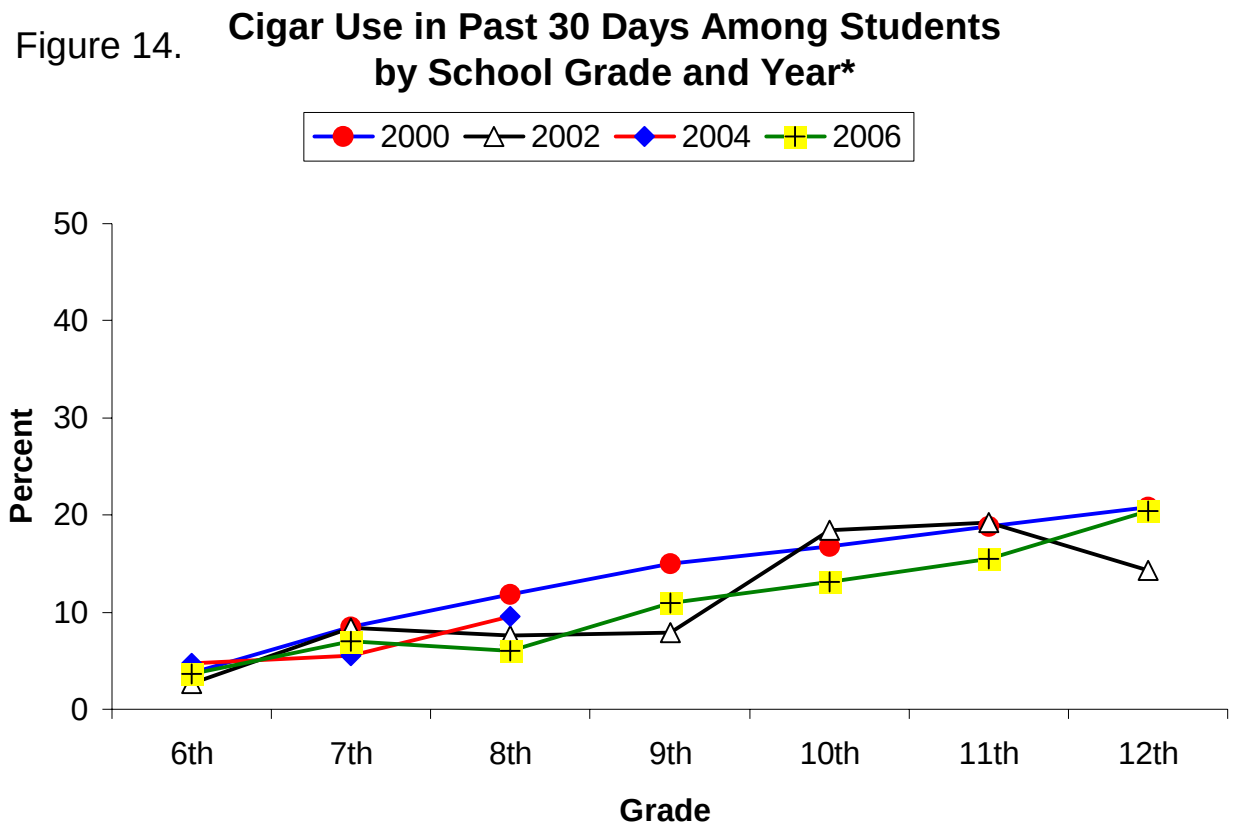


* Data not available for high school students in 2004.

Cigar Use in the Past 30 Days: By School Grade

- There has been no significant change among the middle school or high school grades with respect to current cigar use from 2000 to 2006.
- **In 2006, 12th graders (20.4 percent) were significantly more likely than ninth graders (10.9 percent) to be current cigar smokers.**

Figure 14.



* Data not available for high school students in 2004.

Bidis Use in the Past 30 Days

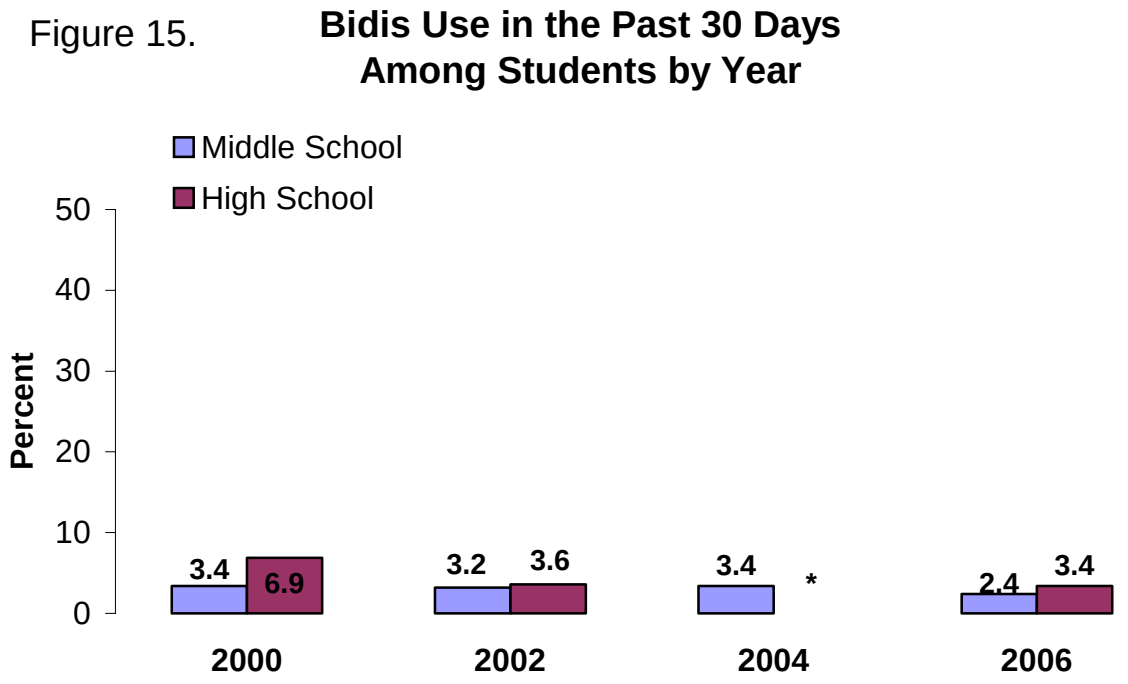
- Overall, 2.4 percent of middle school students and 3.4 percent of high school students reported smoking bidis cigarettes in the 30 days preceding the survey in 2006.

- Between 2000 and 2006, there has been no significant change in overall bidis use among middle school students with regard to gender or race.

- **At the high school level, bidis use decreased significantly overall between 2000 and 2006 (6.9 percent and 3.4 percent, respectively). Between 2000 and 2006, a significant decline was seen among female high school students (7.8 percent and 2.0 percent, respectively) and white high school students (5.2 percent and 2.6 percent, respectively).**

- **In 2006, black middle school students (4.9 percent) were significantly more likely than white middle school students (1.8 percent) to use bidis. Among high school students, males (4.6 percent) were significantly more likely than females (2.0 percent) to use bidis.**

Figure 15.

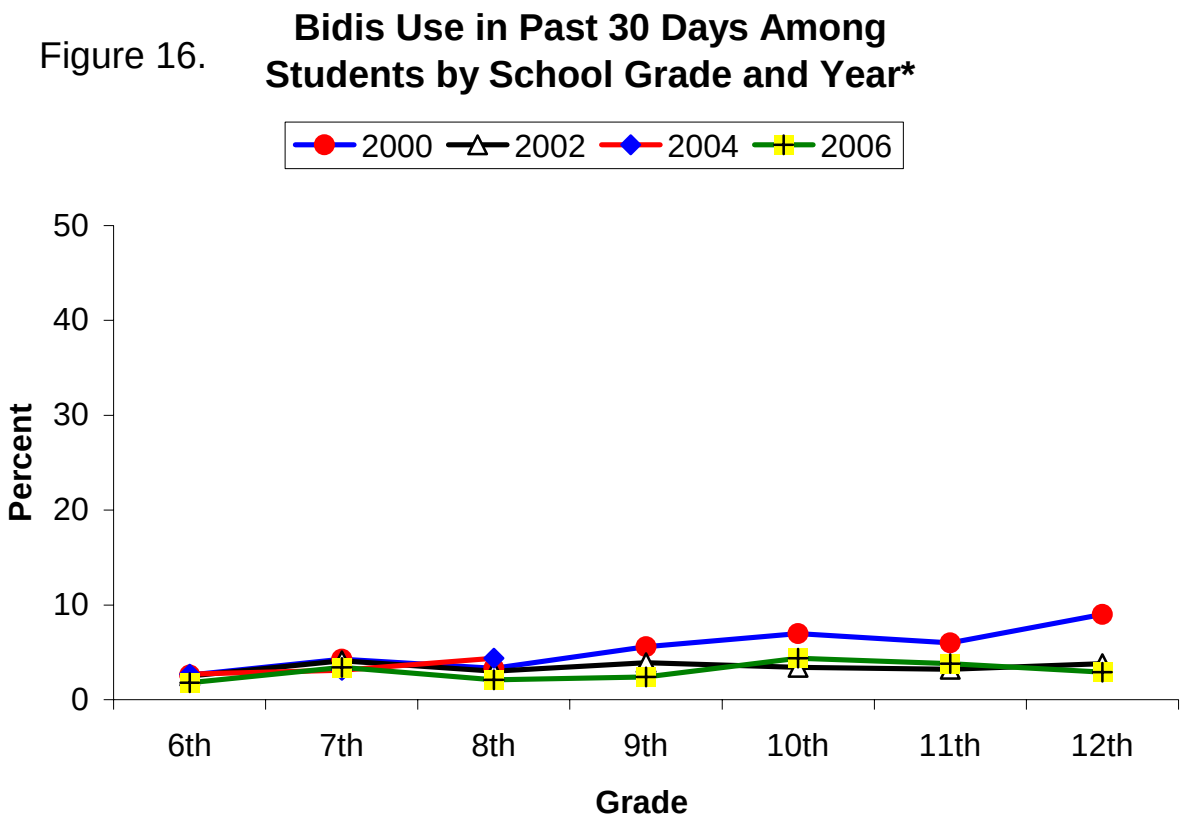


* Data not available for high school students in 2004.

Bidis Use in the Past 30 Days: By School Grade

- From 2000 to 2006, there has been no significant change among the middle school or high school grades with respect to current bidis use.
- In 2006, there were no significant differences among the middle school or high school grades with respect to bidis use.

Figure 16.



* Data not available for high school students in 2004.

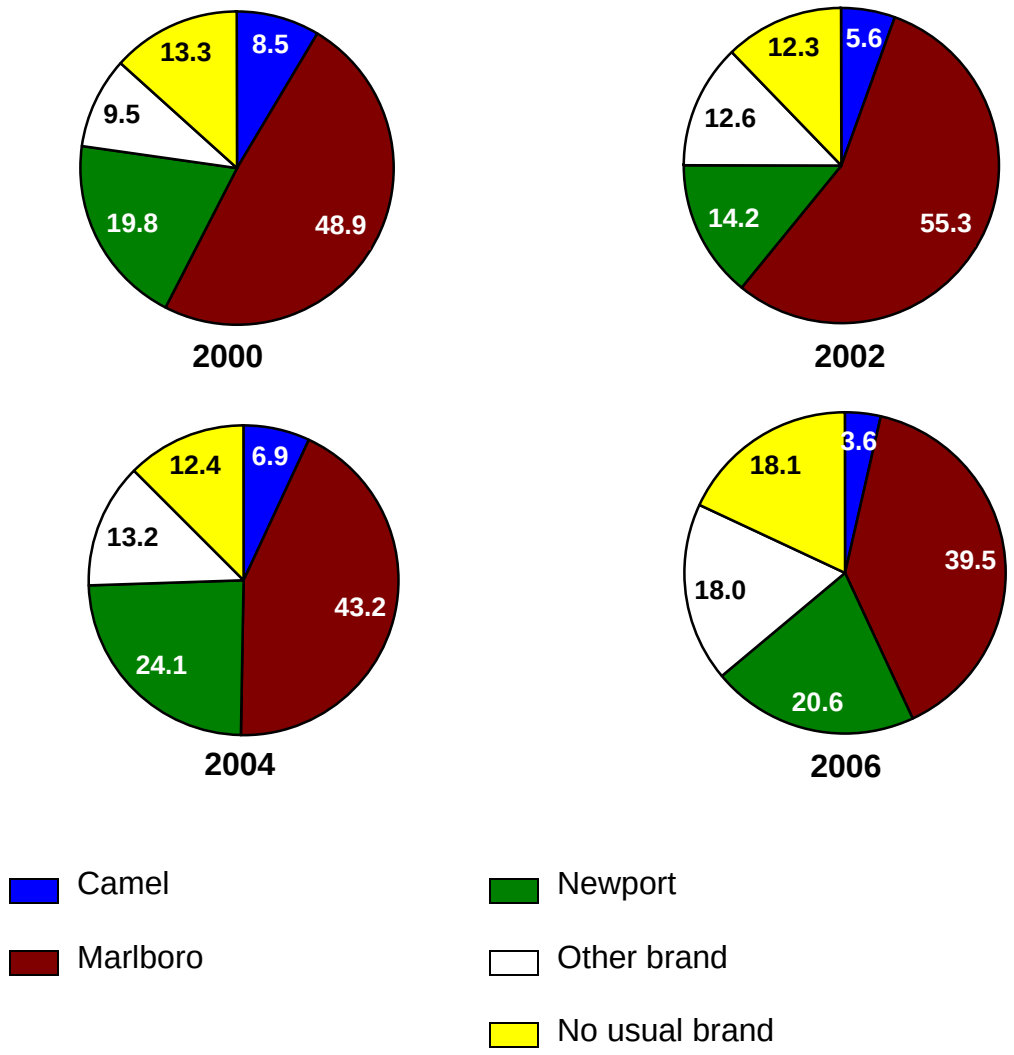
Usual Cigarette Brand, Middle School

- In 2006, Marlboro was the most common brand middle school students reported smoking in the 30 days preceding the survey. This finding was consistent in all four surveys.

- There was no significant change from 2000 to 2006 with respect to middle school students' cigarette brand preferences.

Figure 17.

Middle School Student Usual Cigarette Brand Smoked in Past 30 Days by Year

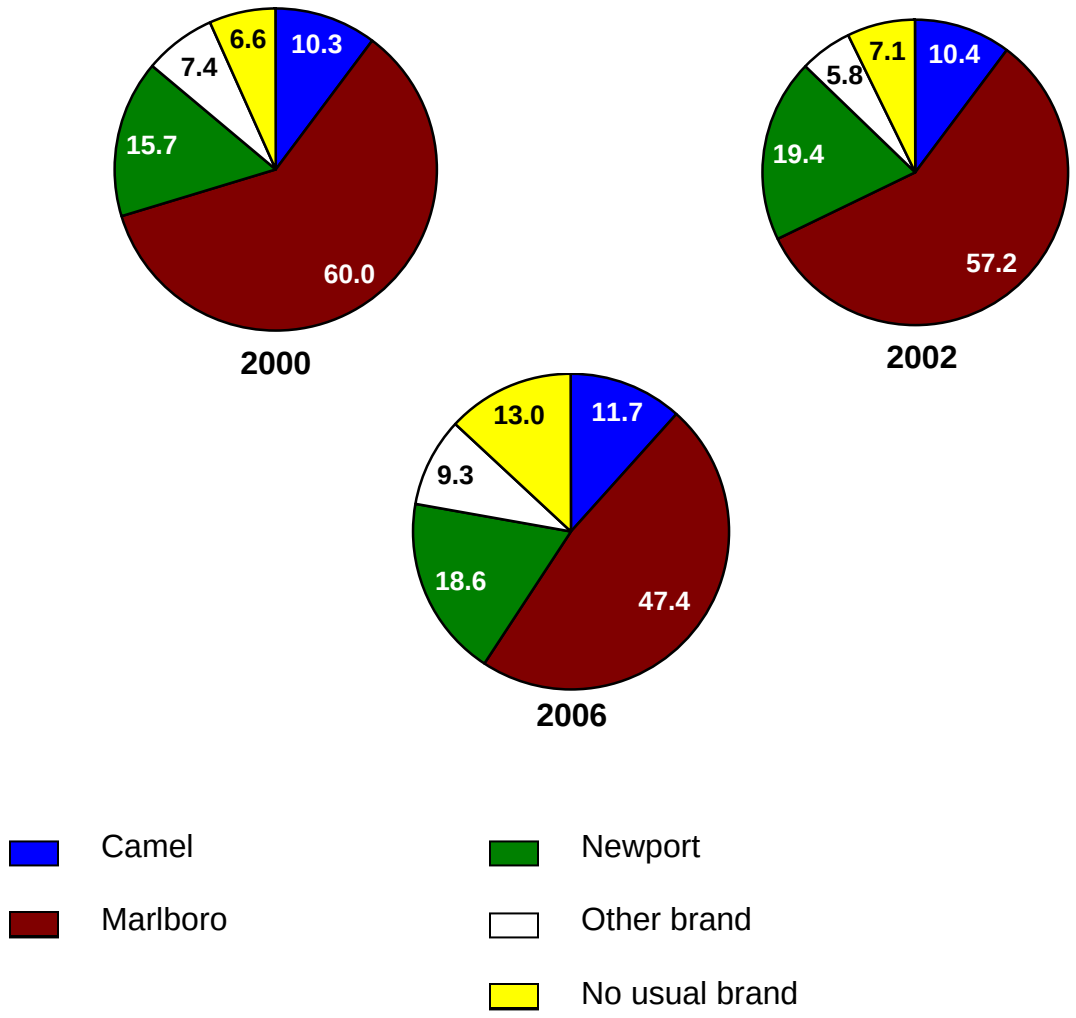


Usual Cigarette Brand, High School

- In 2006, Marlboro was the most common brand high school students reported smoking in the 30 days preceding the survey. This finding was consistent in all three surveys.

- **From 2000 to 2006, there was a significant increase in the percentage of high school students who reported that they smoked no usual brand in the past 30 days (6.6 percent and 13.0 percent, respectively).**

Figure 18. **High School Student Usual Cigarette Brand Smoked in Past 30 Days by Year***



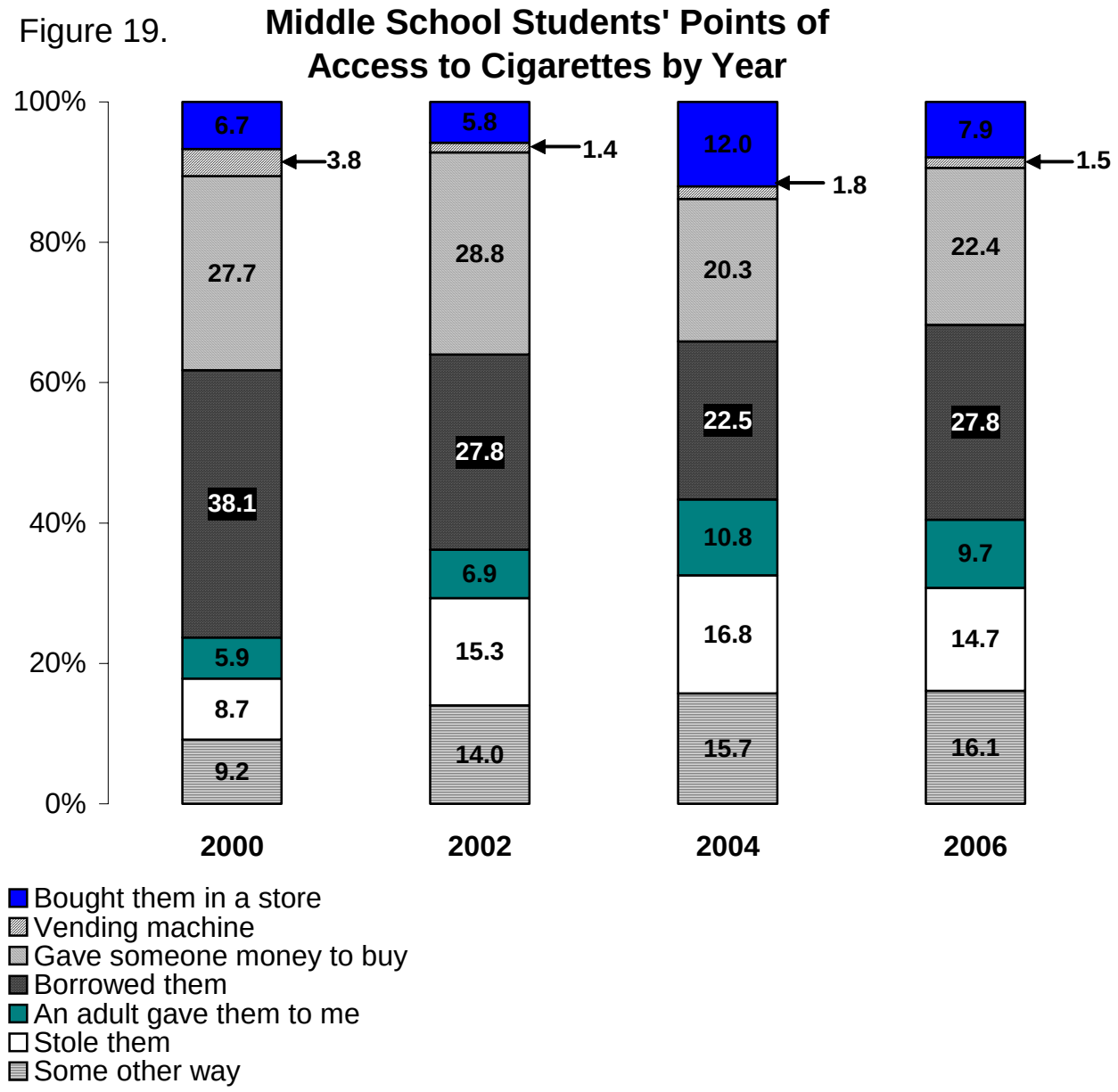
* Data not available for high school students in 2004.

Access to Tobacco, Middle School

- In all four surveys, the most common ways middle school students obtained cigarettes in the 30 days preceding the survey was to either give money to someone else to buy them or to borrow them.

- Across 2000, 2002, 2004 and 2006, there has been no significant change in the ways middle school students access cigarettes.

Figure 19.

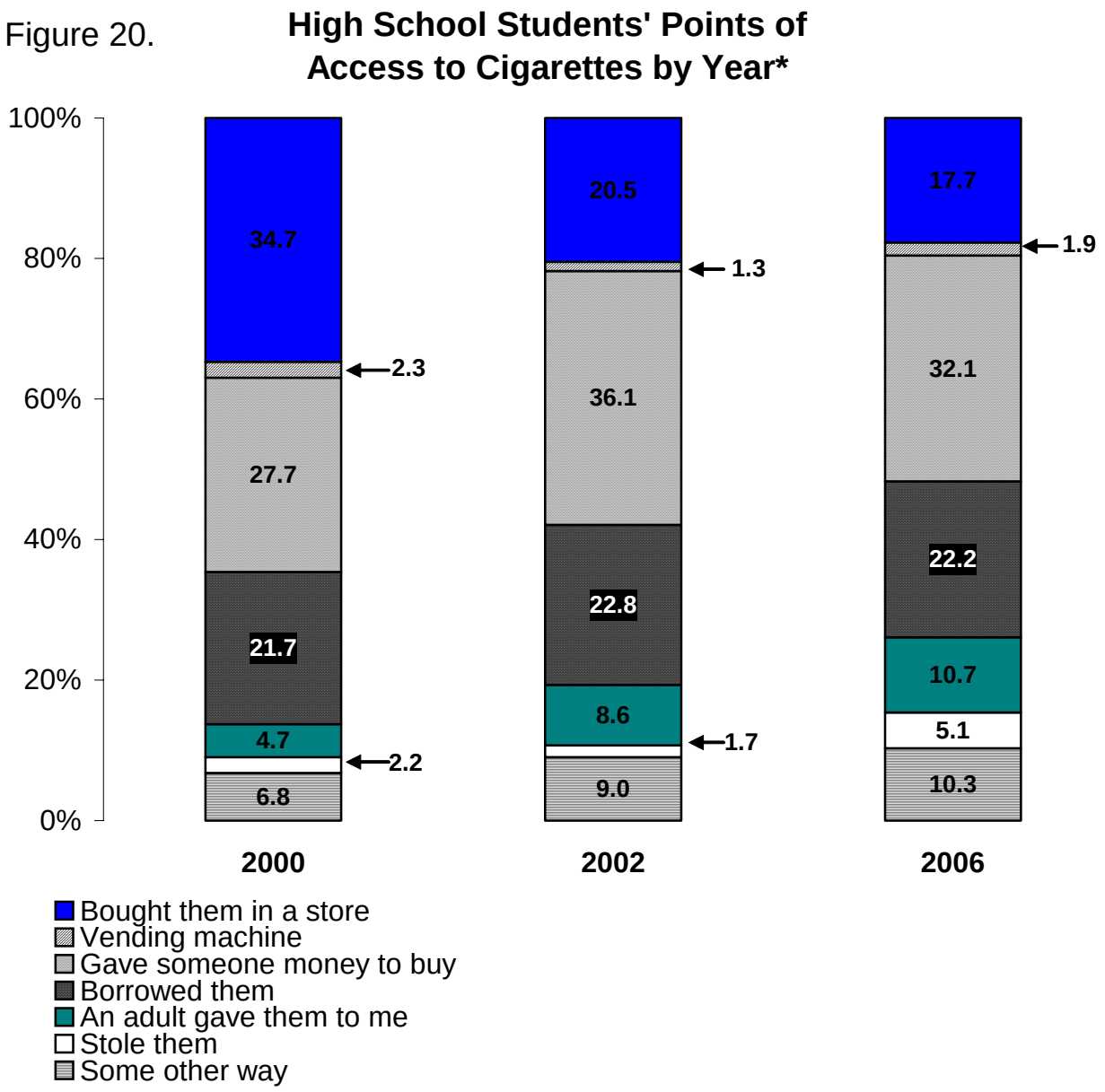


Access to Tobacco, High School

- In 2000, the most common way high school students obtained cigarettes was by purchasing them in a store, whereas in 2002 and 2006, the most common means of access was giving someone money to buy cigarettes for them.

- **From 2000 to 2006, there has been a significant decrease in the percentage of high school students who bought their cigarettes in a store (34.7 percent and 17.7 percent, respectively), but a significant increase in the percentage who were given cigarettes by an adult (4.7 percent and 10.7 percent, respectively).**

Figure 20.



* Data not available for high school students in 2004.

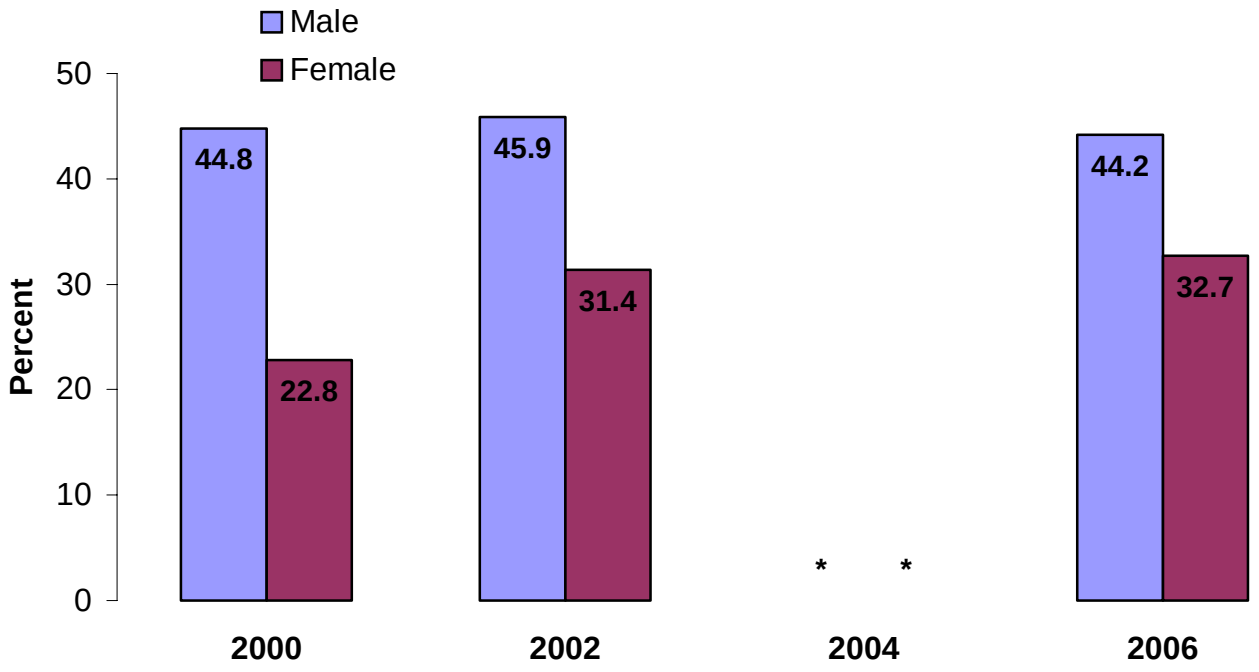
Access to Tobacco

- In 2006, 39.5 percent of high school current smokers under age 18 who bought their cigarettes in a store were asked to show proof of age. This rate is comparable to that observed in 2000 (34.5 percent) and 2002 (39.6 percent).

- In 2006, there was no significant difference between male (44.2 percent) and female (32.7 percent) high school current smokers with respect to the rates at which they were asked to show proof of age when purchasing cigarettes in a store.

Figure 21.

Current High School Smokers Under 18 Who Bought Cigarettes in a Store During the Past 30 Days and Were Asked to Show Proof of Age by Gender and Year



* Data not available for high school students in 2004.

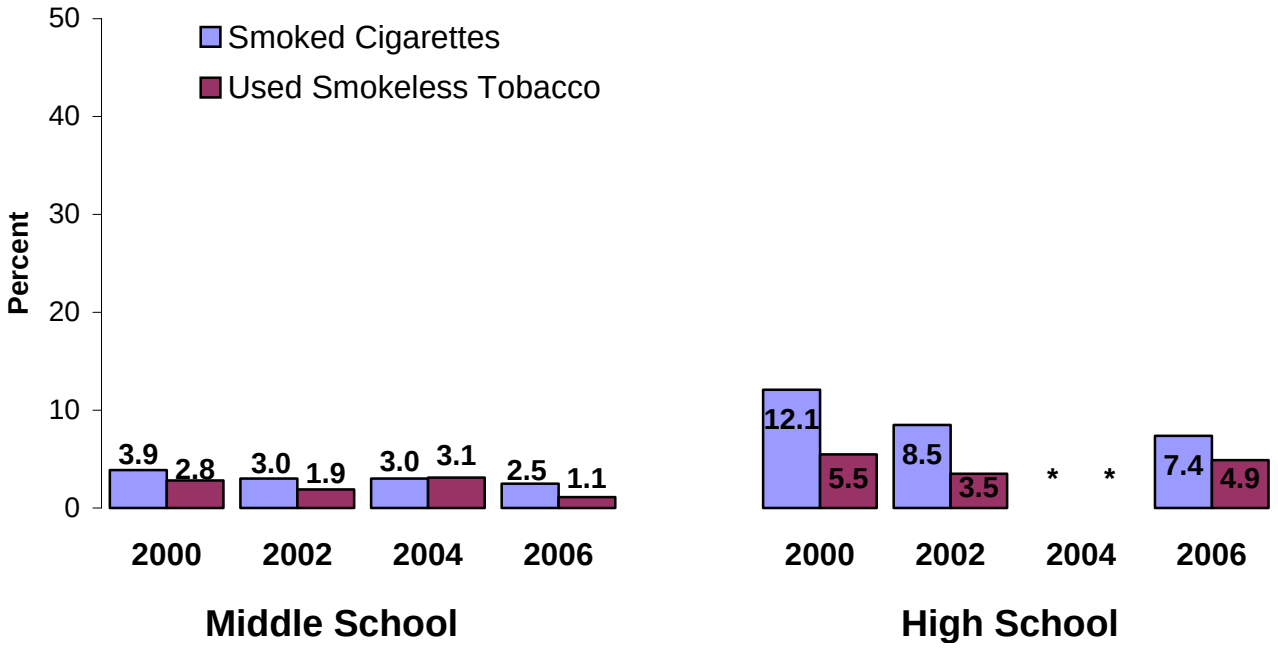
Tobacco Use on School Property

- Ohio Revised Code Section 3313.751 states, "No pupil shall smoke or use tobacco or possess any substance containing tobacco in any area under the control of a school district or an educational service center or at any activity supervised by any school operated by a school district or an educational service center."

- In 2006, 2.5 percent of middle school students smoked cigarettes on school property, which is comparable to the rate reported in 2000 (3.9 percent), 2002 (3.0 percent) and 2004 (3.0 percent). **Among high school students, however, there has been a significant decrease in the use of cigarettes on school property from 2000 (12.1 percent) to 2006 (7.4 percent).**

- **From 2004 to 2006, there has been a significant decrease in middle school students' rates of smokeless tobacco use on school property (3.1 percent and 1.1 percent, respectively).** Rates of smokeless tobacco use among high school students, however, have remained comparable across 2000 (5.5 percent), 2002 (3.5 percent) and 2006 (4.9 percent).

Figure 22. **Students Who Used Cigarettes or Smokeless Tobacco on School Property During the Past 30 Days by Year**



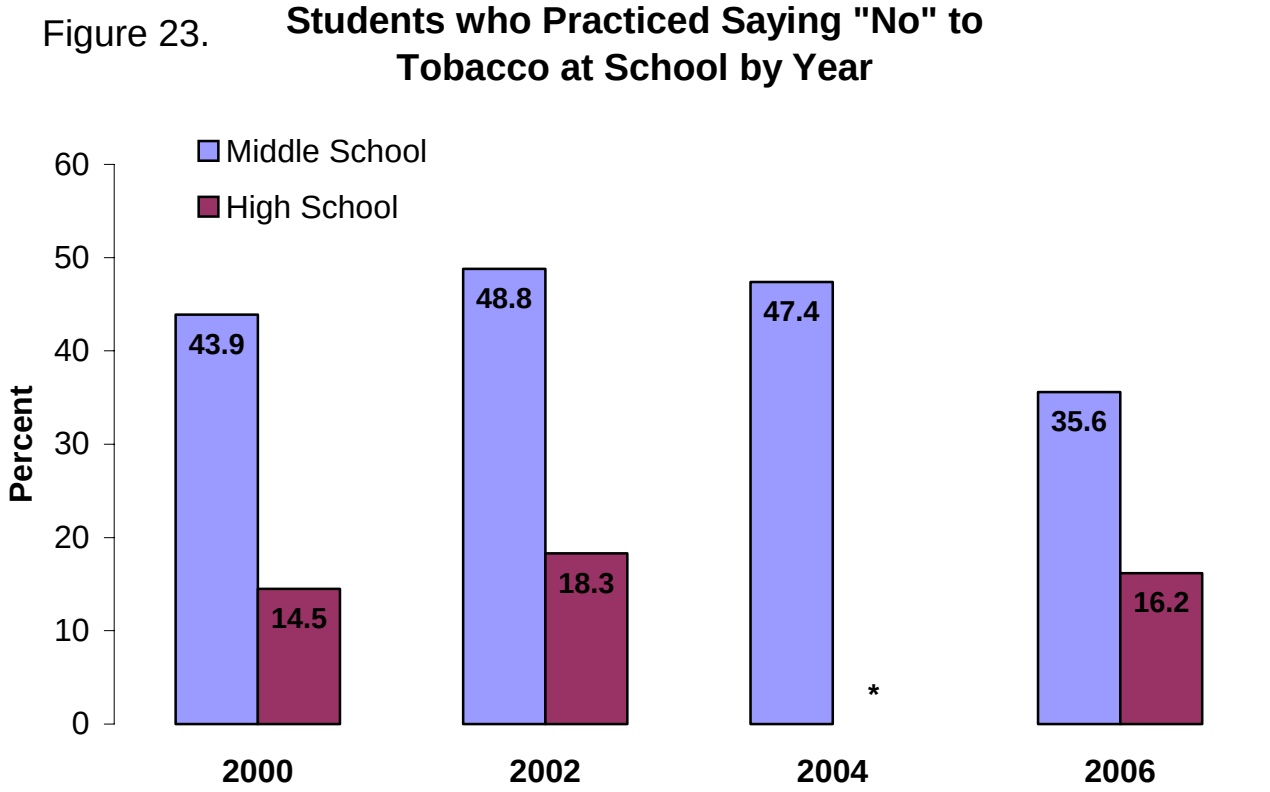
* Data not available for high school students in 2004.

Learning Refusal Skills in School

- **In 2006, middle school students were significantly less likely to report having practiced saying "No" to tobacco during the current school year than they were in 2002 (35.6 percent and 48.8 percent, respectively).** High school students reported having practiced saying "No" to tobacco during the current school year at comparable rates across 2000 (14.5 percent), 2002 (18.3 percent) and 2006 (16.2 percent).

- **Across 2000, 2002 and 2006, middle school students were significantly more likely than high school students to have practiced saying "No" to tobacco during the current school year.**

Figure 23.



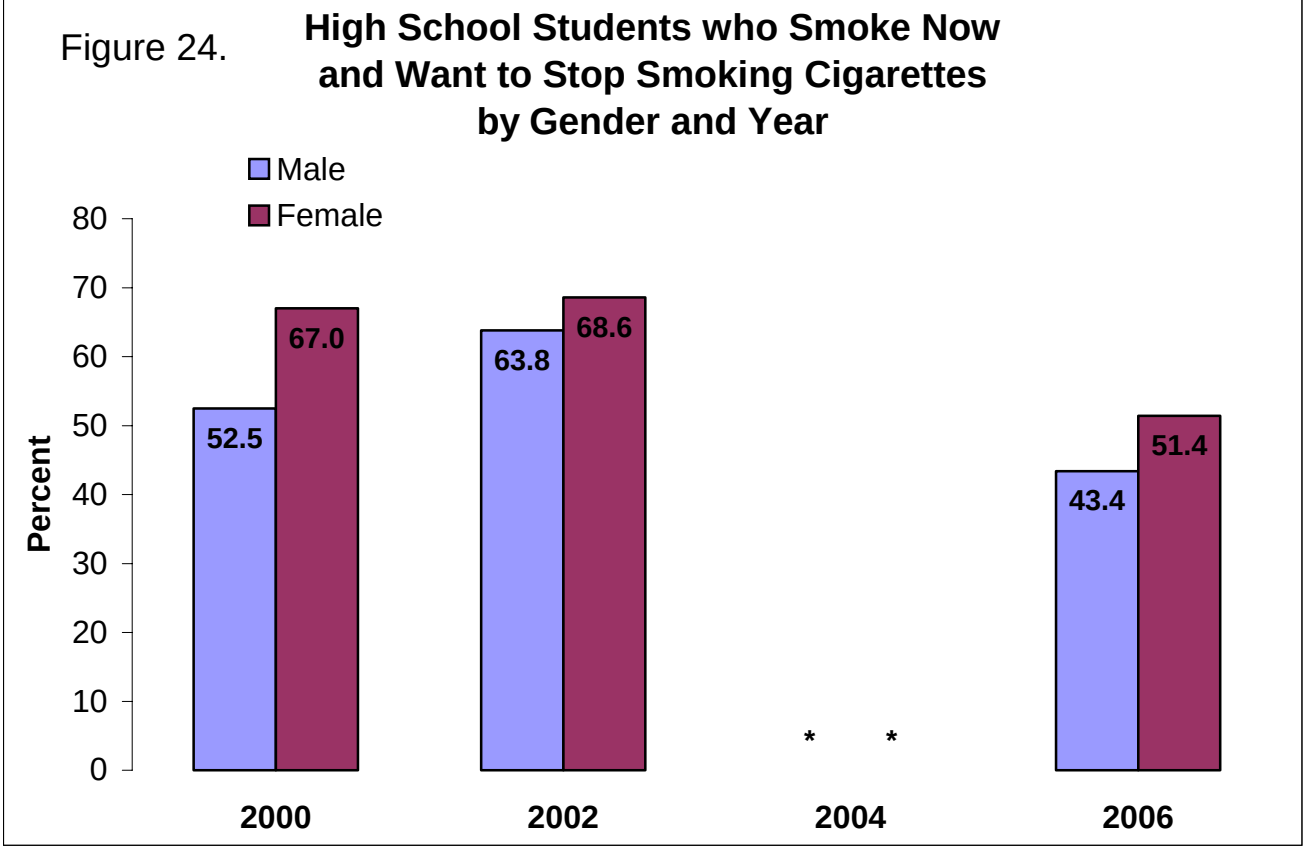
* Data not available for high school students in 2004.

Cessation

- **Overall in 2006, 47.9 percent of high school smokers reported wanting to quit smoking, which is significantly lower than the percentage who reported wanting to quit in 2000 (58.9 percent) and 2002 (65.9 percent).**

- **In 2006, significantly fewer male high school smokers (43.4 percent) reported wanting to quit smoking than in 2002 (63.8 percent). Among female high school smokers, the percentage who reported wanting to quit in 2006 (51.4 percent) was significantly lower than that reported in 2000 (67.0 percent).**

Figure 24.



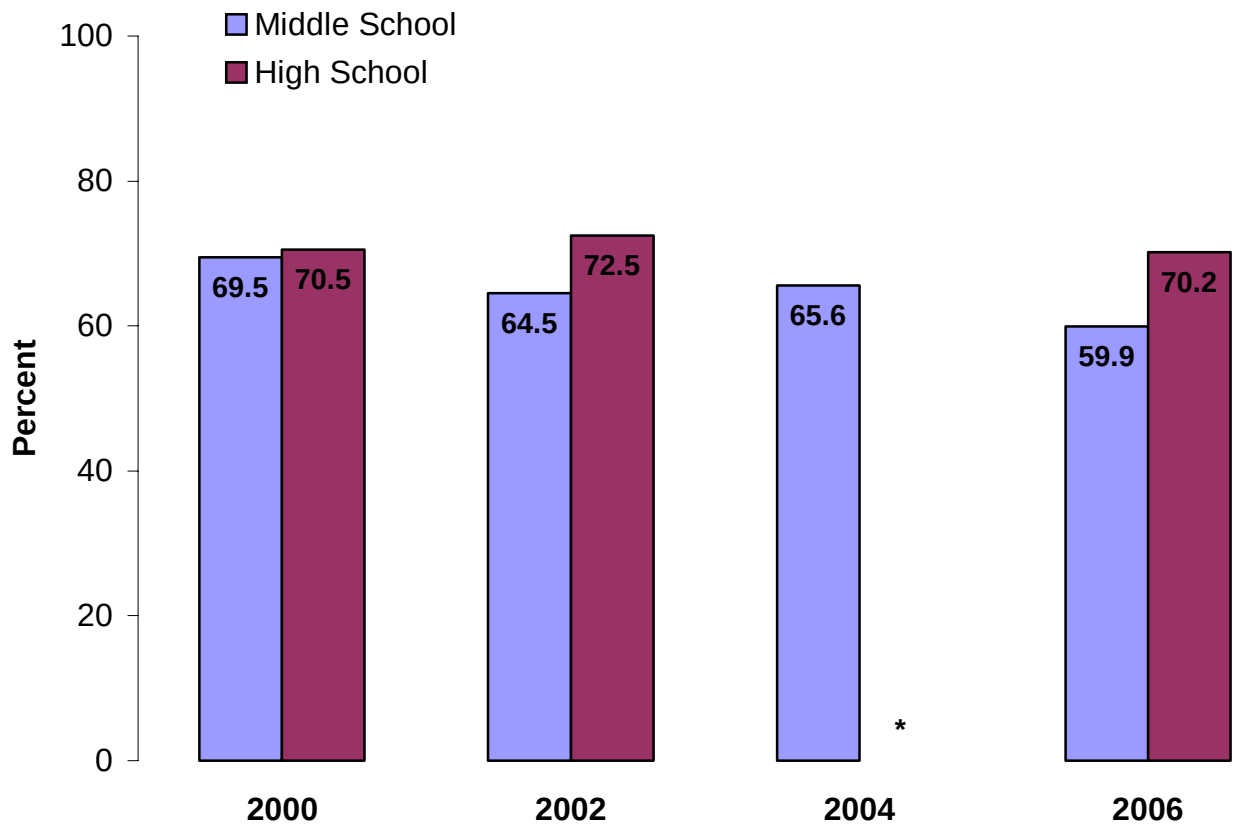
* Data not available for high school students in 2004.

Knowledge and Beliefs: Told About the Dangers of Smoking at Home

- Between 2000 and 2006, there has been no significant change in the percentage of middle school or high school current smokers who were told about the dangers of tobacco use at home.

- In 2006, the percentages of middle school and high school current smokers who reported being told about the dangers of tobacco use at home were comparable.

Figure 25. **Current Smokers Who Were Told About the Dangers of Tobacco Use at Home by Year**



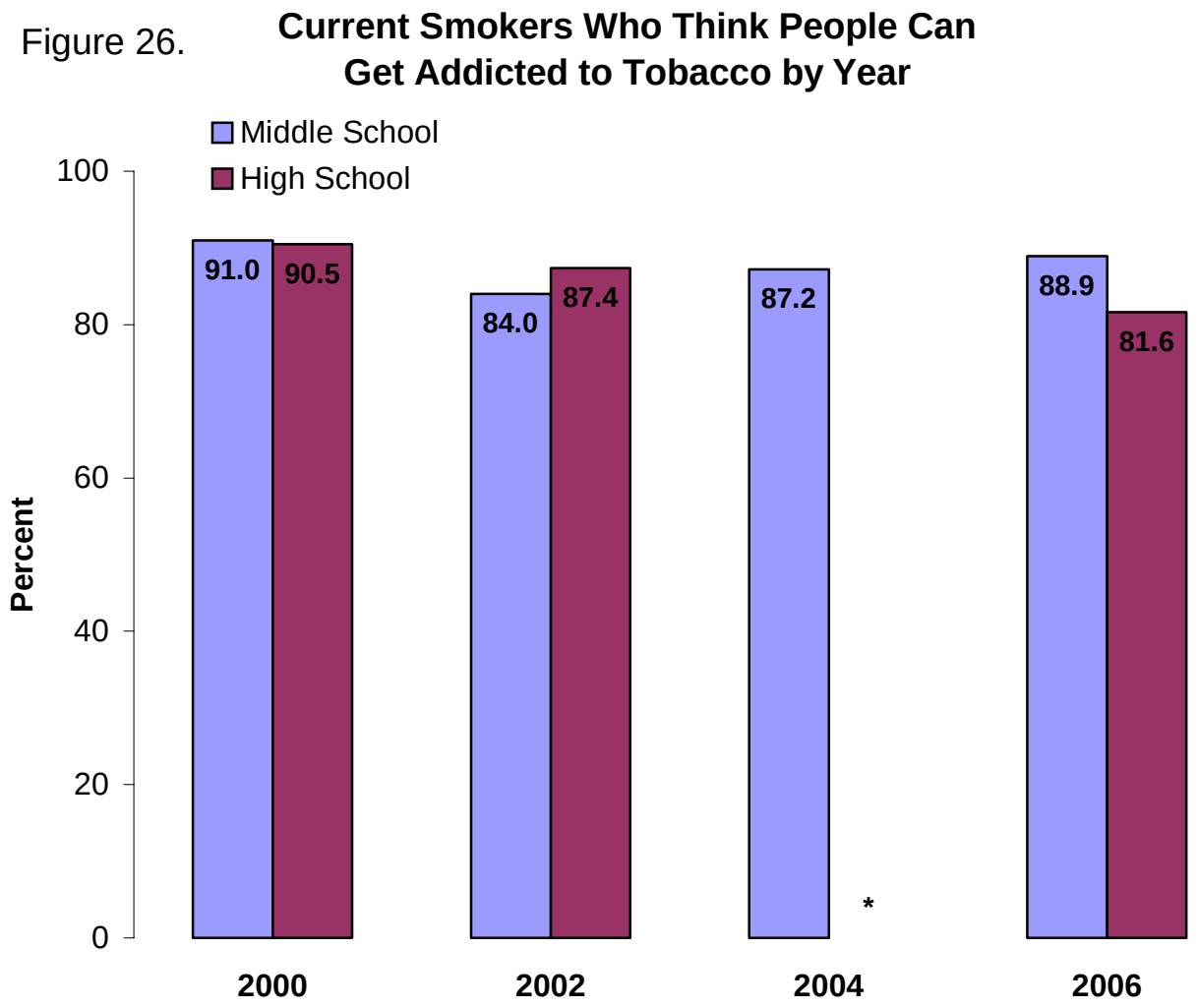
* Data not available for high school students in 2004.

Knowledge and Beliefs: Think People Can Get Addicted to Tobacco

- Between 2000 and 2006, there has been no significant change in middle school current smokers' beliefs about the addictive nature of tobacco. **At the high school level, however, there has been a significant decrease in the percentage of current smokers who believe people can get addicted to tobacco just like getting addicted to cocaine or heroin (90.5 percent and 81.6 percent, respectively).**

- In 2006, the percentages of middle school and high school current smokers who believe people can get addicted to tobacco were comparable.

Figure 26.



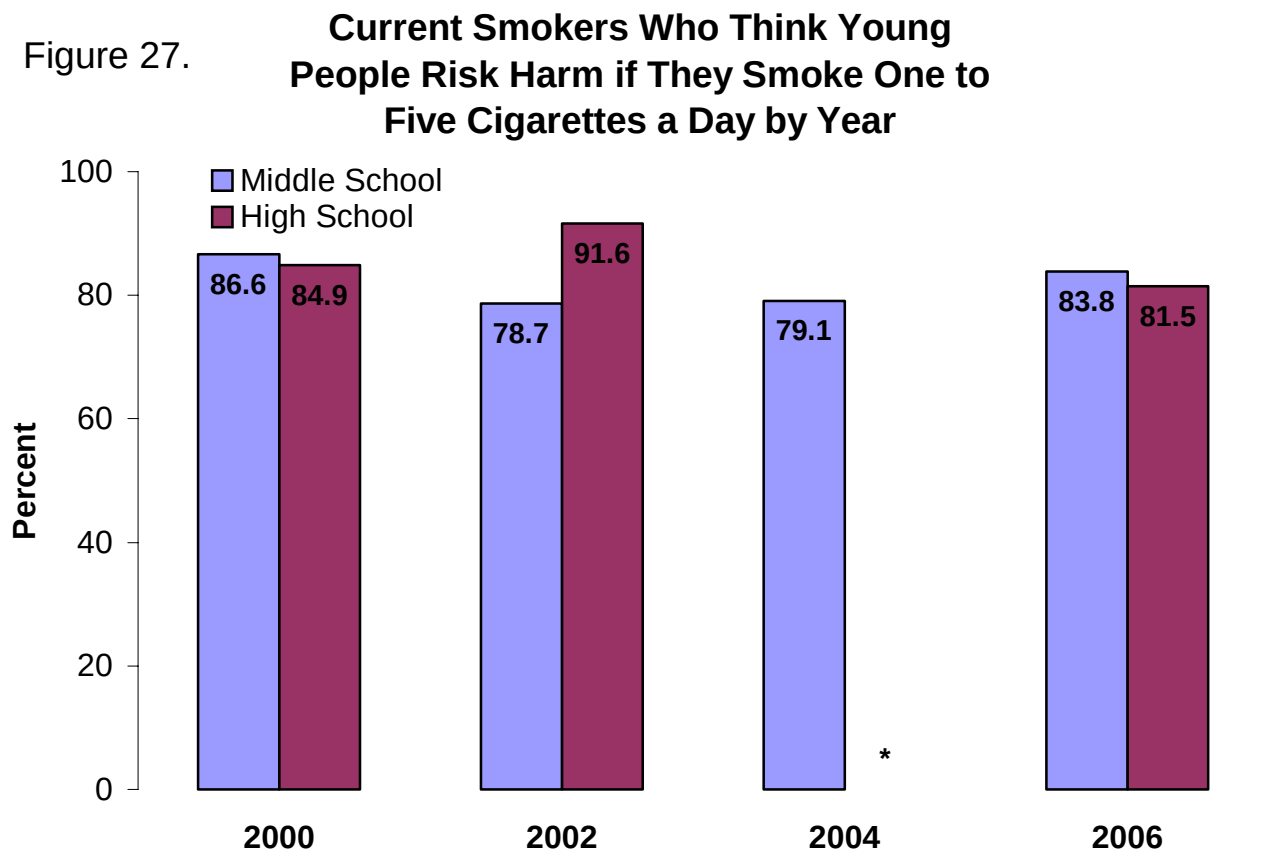
* Data not available for high school students in 2004.

Knowledge and Beliefs: Think Young People Risk Harm if They Smoke One to Five Cigarettes a Day

- Between 2000 and 2006, there has been no significant change in middle school current smokers' beliefs about the health risks associated with smoking one to five cigarettes a day. **In 2006, significantly fewer high school smokers (81.5 percent) reported believing that people risk harming themselves if they smoke one to five cigarettes a day than had reported as such in 2002 (91.6 percent).**

- In 2006, the percentages of middle school and high school current smokers who believe young people risk harm if they smoke one to five cigarettes a day were comparable.

Figure 27.



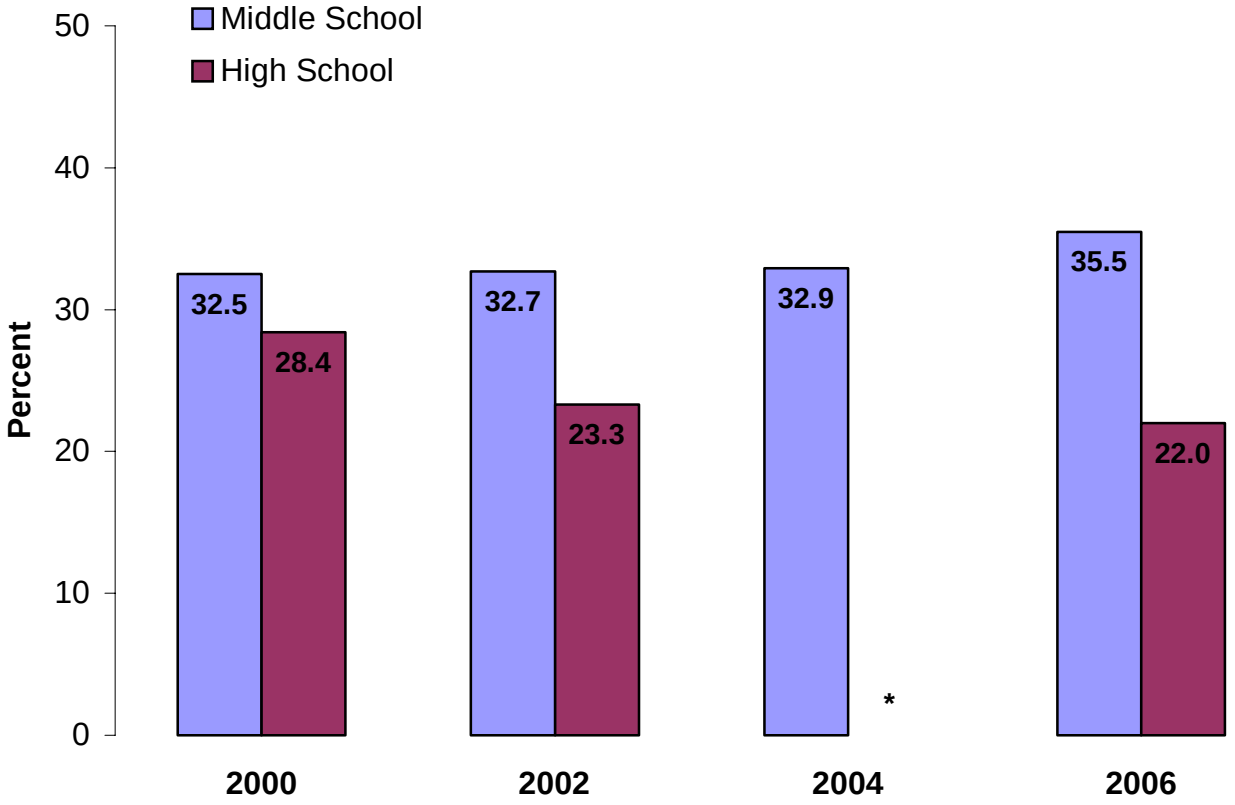
* Data not available for high school students in 2004.

Knowledge and Beliefs: Think it is Safe to Smoke for a Year or Two as Long as You Quit After That

- Between 2000 and 2006, there has been no significant change in middle school or high school current smokers' beliefs about the health risks associated with smoking for a year or two.

- **In 2006, middle school current smokers were significantly more likely than high school smokers to believe that it is safe to smoke for a year or two as long as you quit after that (35.5 percent and 22.0 percent, respectively).**

Figure 28. **Current Smokers Who Think it is Safe to Smoke for a Year or Two as Long as You Quit After That by Year**

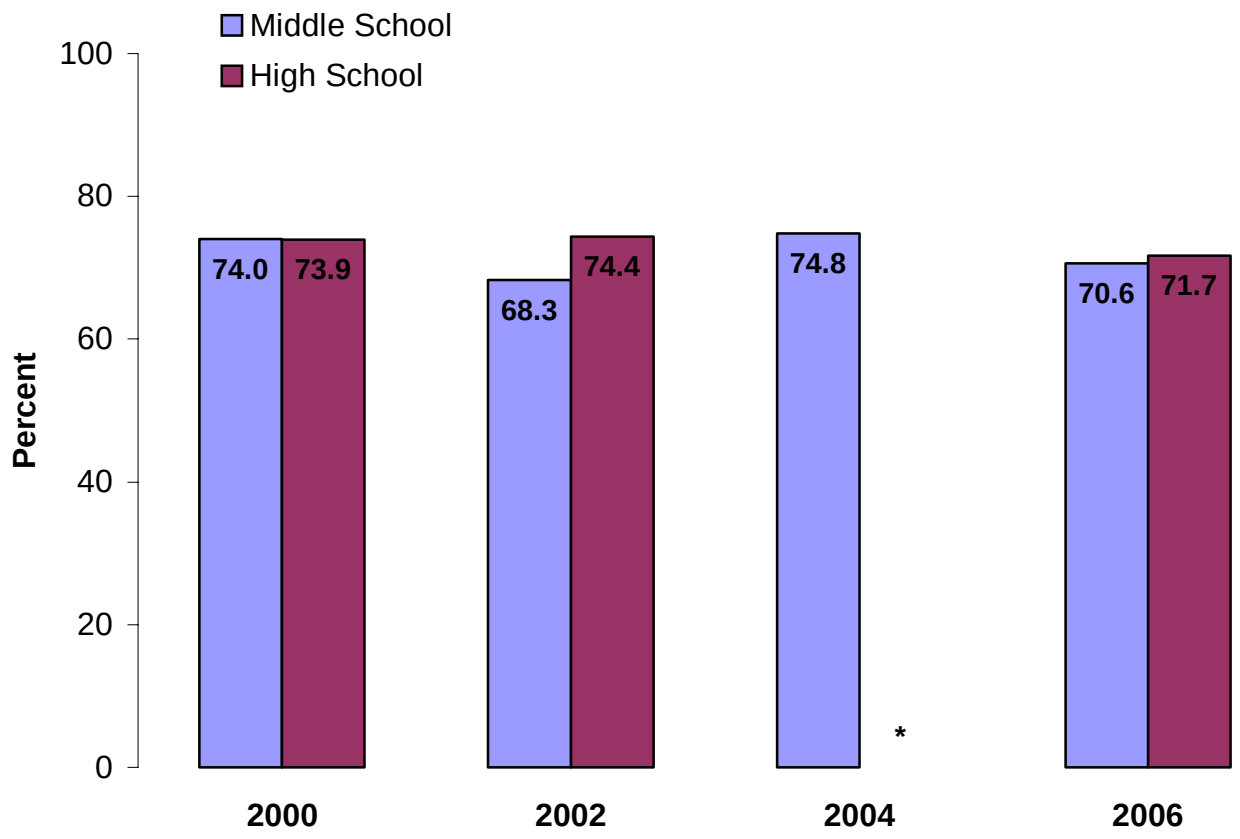


* Data not available for high school students in 2004.

Knowledge and Beliefs: Think They Would be Able to Quit Now if They Wanted To

- Between 2000 and 2006, there has been no significant change in middle school or high school current smokers' beliefs about their ability to quit smoking.
- In 2006, the percentages of middle school and high school current smokers who believe they could quit smoking now were comparable.

Figure 29. **Current Smokers Who Think They Would be Able to Quit Now if They Wanted to by Year**



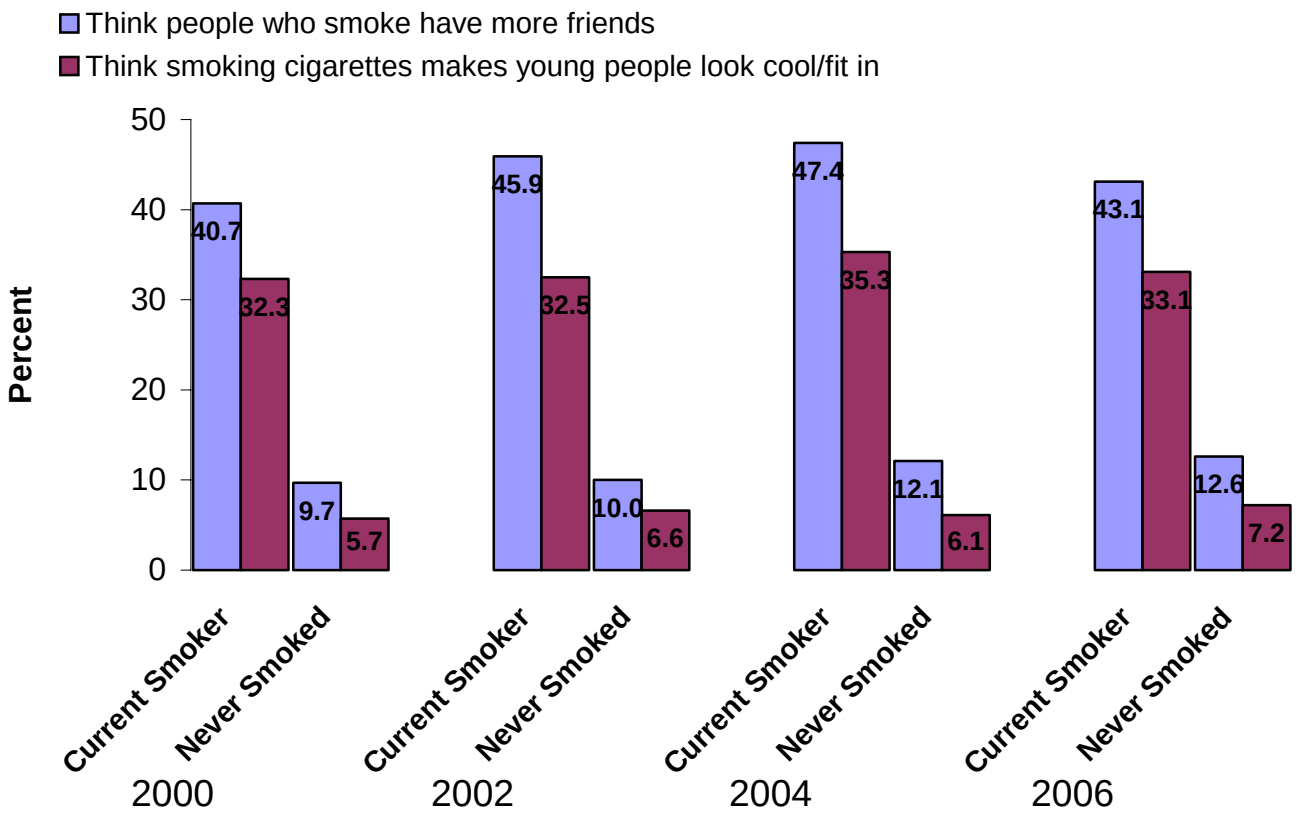
* Data not available for high school students in 2004.

Knowledge and Beliefs: Current Smokers vs. Never Smokers, Middle School

- Across 2000, 2002, 2004 and 2006 there has been no significant change among middle school current smokers and those who have never smoked with respect to their beliefs about whether smokers have more friends. **In each survey year, however, current smokers were significantly more likely than those who have never smoked to believe that smokers have more friends.**

- Similarly, across the survey years there has been no significant change among middle school current smokers and those who have never smoked with respect to their beliefs about whether smoking cigarettes makes young people look cool or fit in. **When comparing middle school students' beliefs by smoking status, however, in each survey year middle school current smokers were significantly more likely than those who have never smoked to endorse the belief that smoking cigarettes makes young people look cool or fit in.**

Figure 30. **Middle School Students' Beliefs about Smoking Cigarettes by Smoking Status and Year**

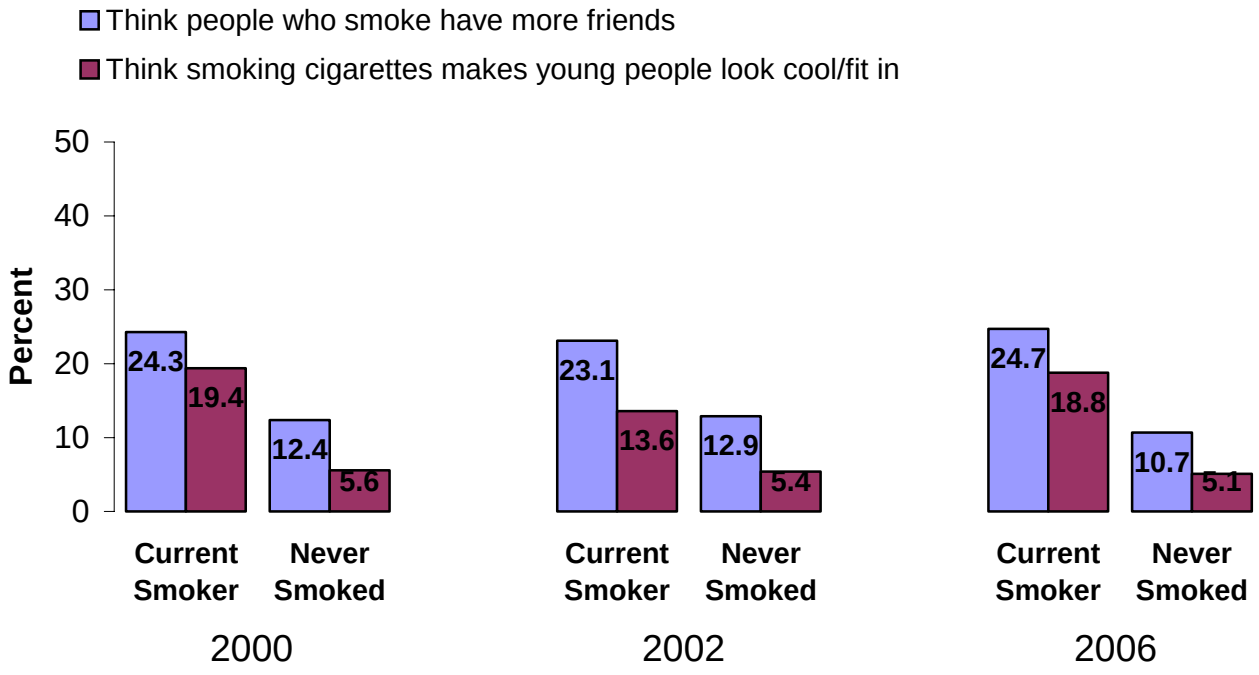


Knowledge and Beliefs: Current Smokers vs. Never Smokers, High School

- Across 2000, 2002 and 2006 there has been no significant change among high school current smokers and those who have never smoked with respect to their beliefs about whether smokers have more friends. **In each survey year, however, current smokers were significantly more likely than those who have never smoked to believe smokers have more friends.**

- Across the survey years there has been no significant change among high school current smokers and those who have never smoked with respect to their beliefs about whether smoking cigarettes makes young people look cool or fit in. **When comparing high school students' beliefs by smoking status, however, in each survey year high school current smokers were significantly more likely than those who have never smoked to endorse the belief that smoking cigarettes makes young people look cool or fit in.**

Figure 31. **High School Students' Beliefs about Smoking Cigarettes by Smoking Status and Year***



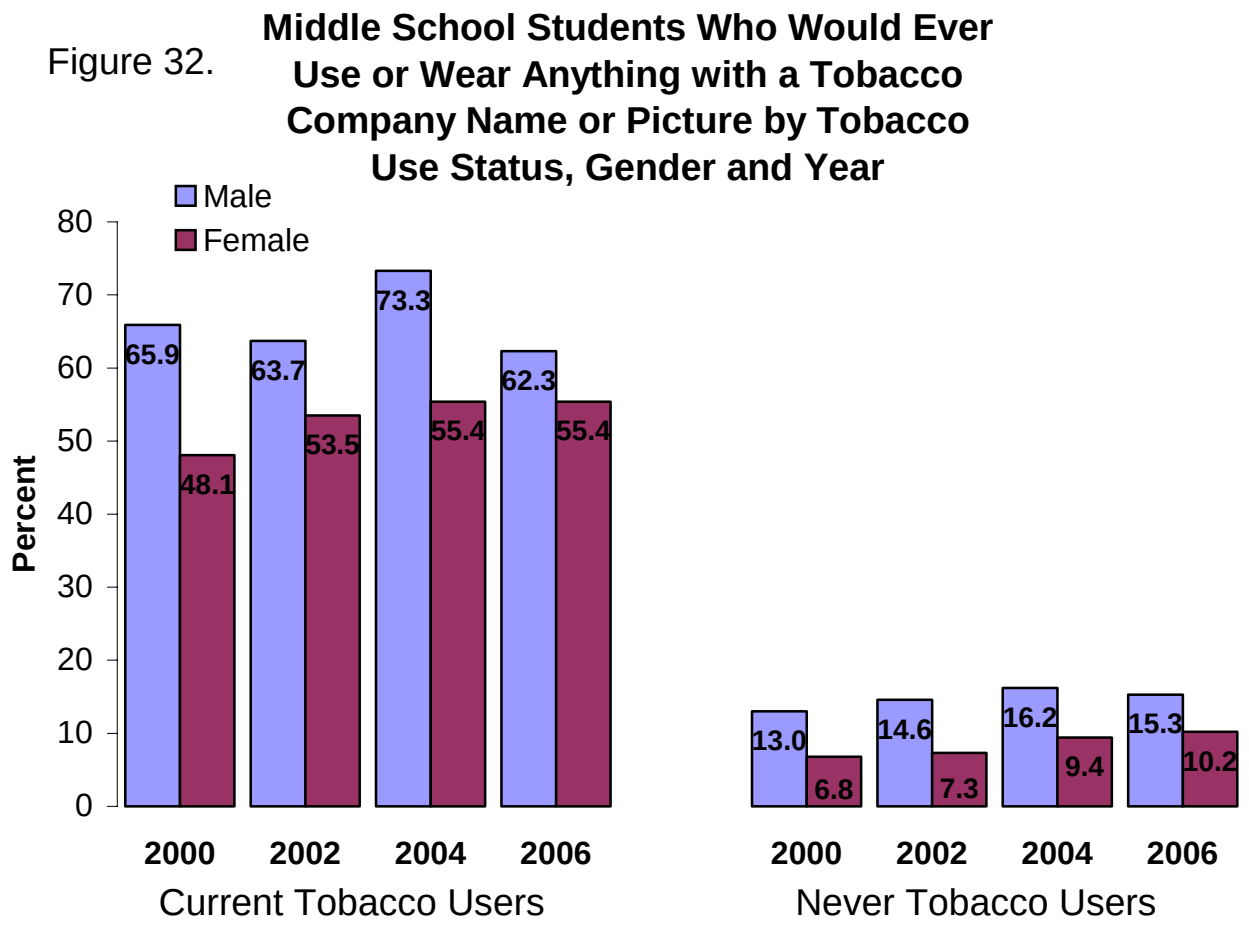
* Data not available for high school students in 2004.

Tobacco Company Tactics/Tobacco Company Promotional Efforts, Middle School

- Across 2000, 2002, 2004 and 2006 there has been no significant change among middle school current tobacco users and those who have never used tobacco with respect to their willingness to use or wear tobacco company promotional items.

- **In each survey year, however, male and female current tobacco users were significantly more likely than those who have never used tobacco to report that they would ever use or wear tobacco company promotional items.**

Figure 32.



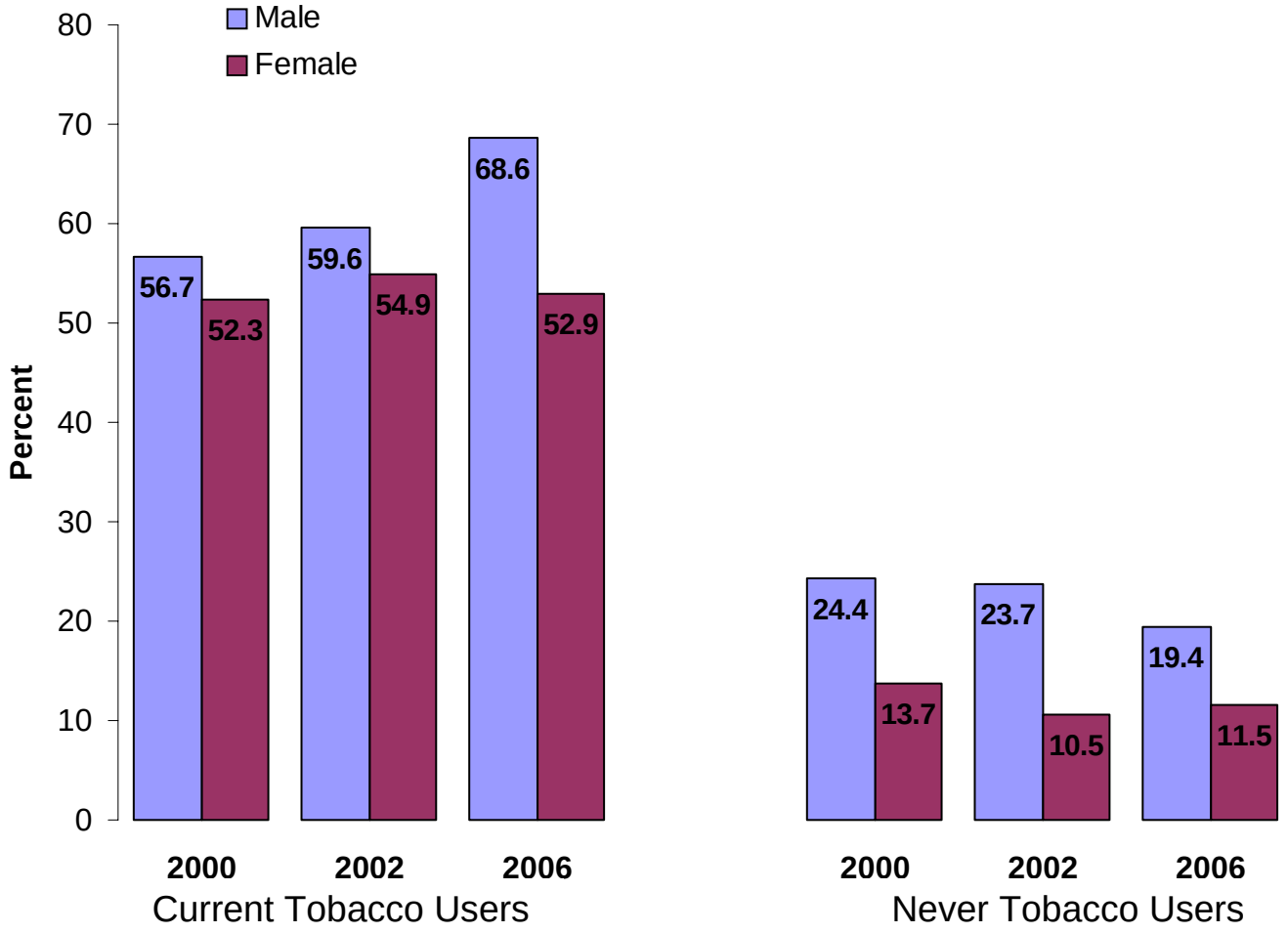
Tobacco Company Tactics/Tobacco Company Promotional Efforts, High School

- Across 2000, 2002 and 2006 there has been no significant change among high school current tobacco users and those who have never used tobacco with respect to their willingness to use or wear tobacco company promotional items.

- **In each survey year, however, male and female current tobacco users were significantly more likely than those who have never used tobacco to report they would ever use or wear tobacco company promotional items.**

Figure 33.

High School Students Who Would Ever Use or Wear Anything with a Tobacco Company Name or Picture by Tobacco Use Status, Gender and Year*



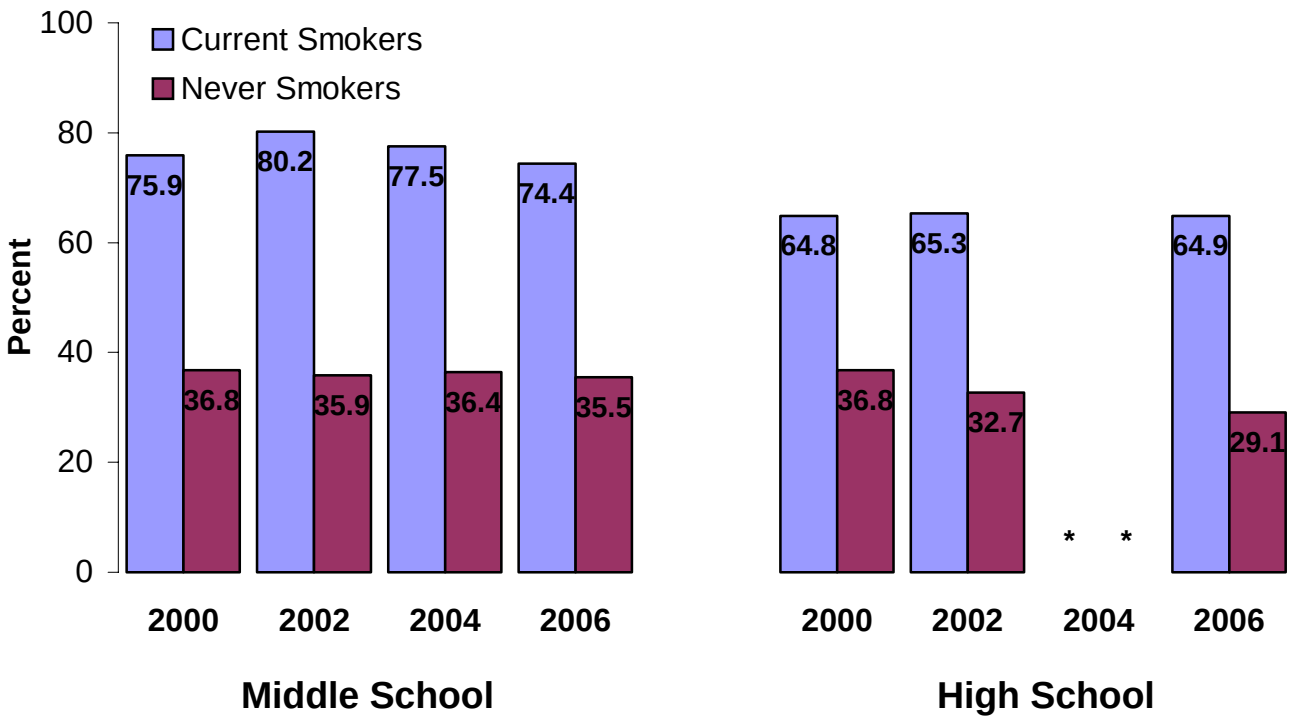
* Data not available for high school students in 2004.

Social Influences on Cigarette Smoking

- Across 2000, 2002, 2004 and 2006 there has been no significant change in the percentage of middle and high school students who live with someone who is a current smoker, regardless of student smoking status.

- **In each survey year, however, middle and high school students who currently smoke are significantly more likely than those who have never smoked to live with a current smoker.**

Figure 34. **Students Living with Someone Who Currently Smokes Cigarettes by Smoking Status and Year**



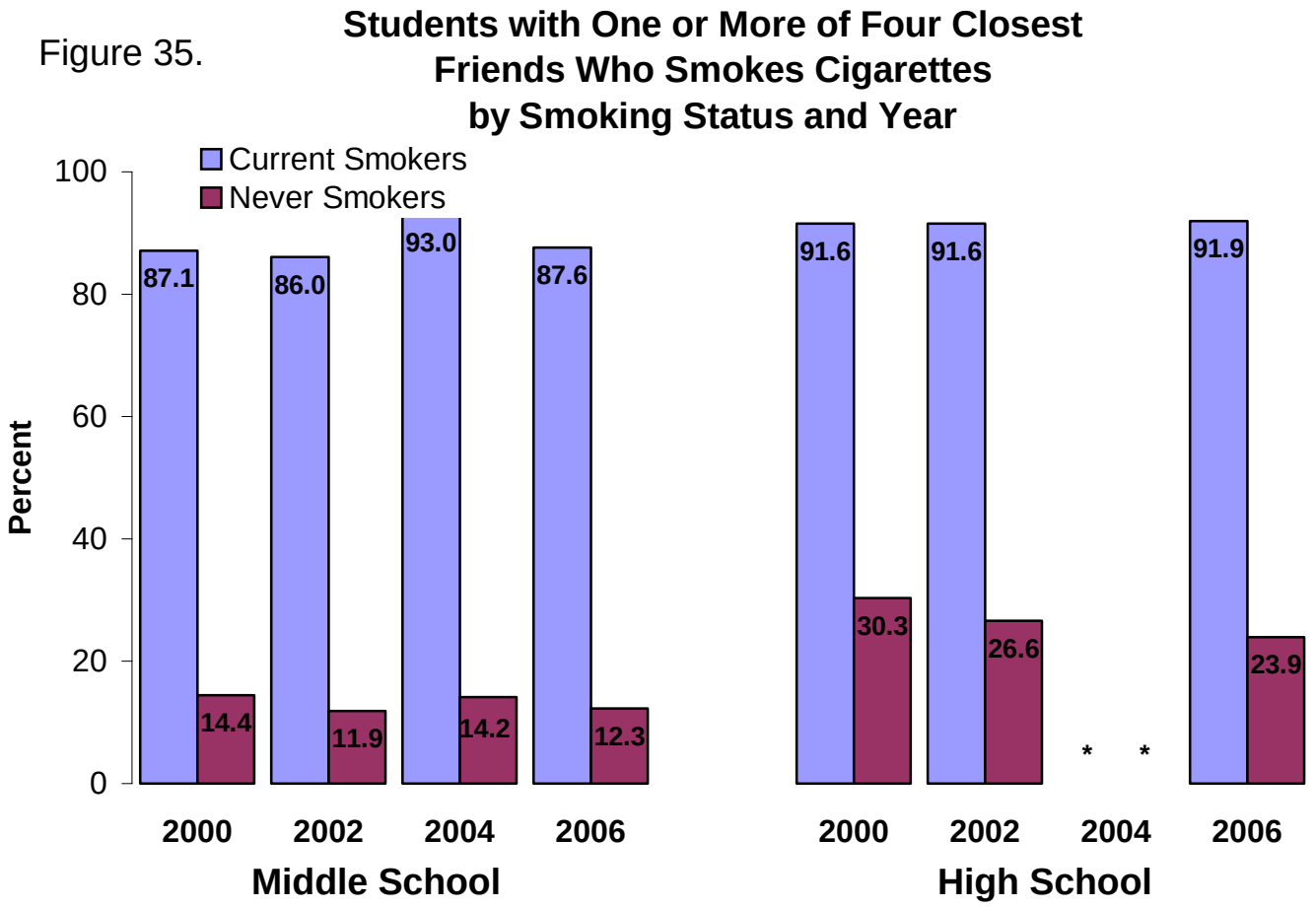
* Data not available for high school students in 2004.

Social Influences on Cigarette Use (continued)

- Across 2000, 2002, 2004 and 2006 there has been no significant change in the percentage of middle or high school students who have one or more close friends who smoke cigarettes, regardless of student smoking status.

- **In each survey year, middle and high school students who currently smoke are significantly more likely than those who have never smoked to have one or more close friends who smoke cigarettes.**

Figure 35.



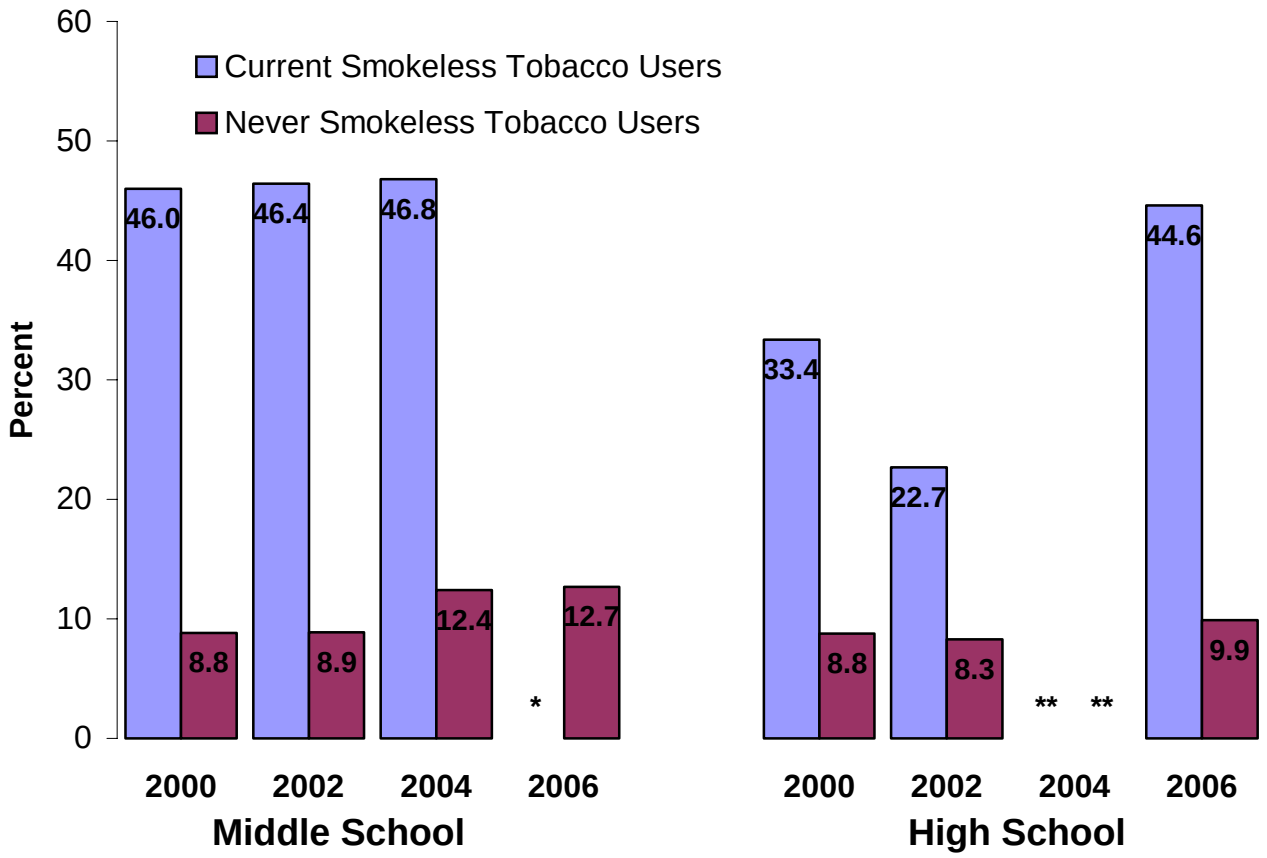
* Data not available for high school students in 2004.

Social Influences on Smokeless Tobacco Use

- Across 2000, 2002, 2004 and 2006 there has been no significant change in the percentage of middle school students who live with someone who is a current smokeless tobacco user, regardless of student smokeless tobacco use status. **Among high school students, however, there was a significant increase in the percentage of current smokeless tobacco users who live with someone who uses smokeless tobacco between 2002 and 2006 (22.7 percent and 44.6 percent, respectively).**

- **In each survey year for which data are available, middle and high school students who currently use smokeless tobacco are significantly more likely than those who have never used smokeless tobacco to live with a current smokeless tobacco user.**

Figure 36. **Students Living with Someone Who Currently Uses Smokeless Tobacco by Smokeless Tobacco Use Status and Year**



* 2006 data for middle school current smokeless tobacco users not presented, n < 50.
** Data not available for high school students in 2004.

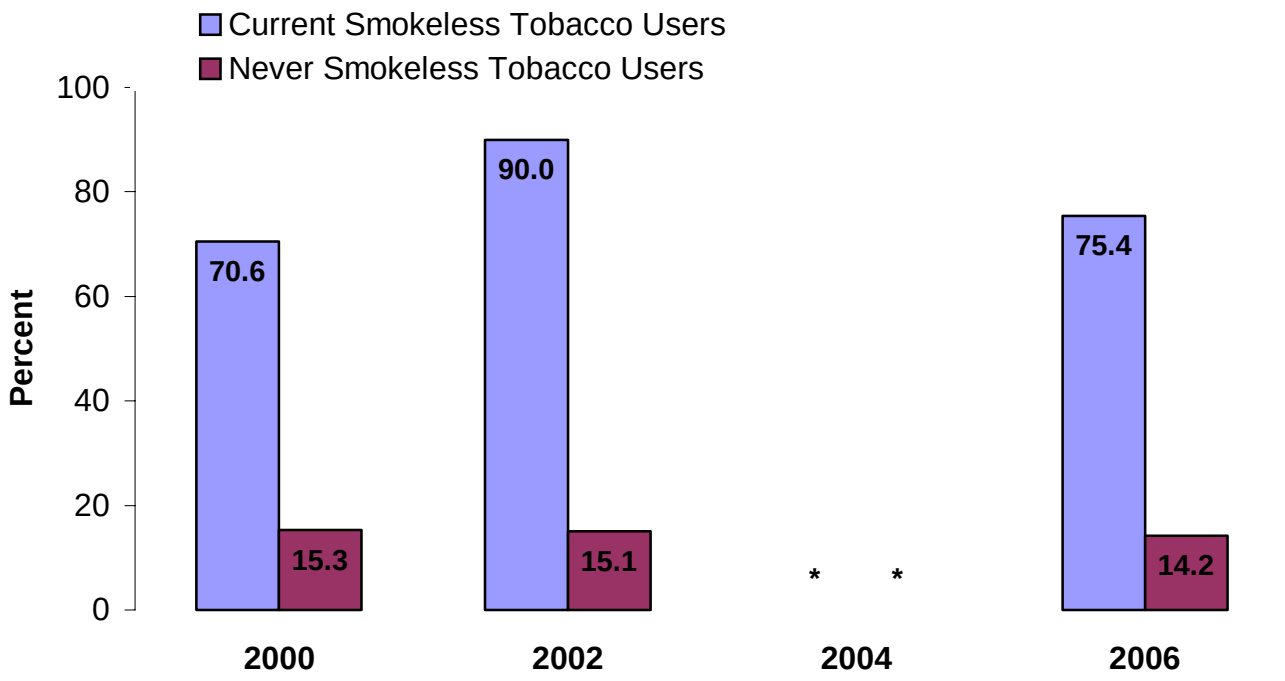
Social Influences on Smokeless Tobacco Use (continued)

- Across 2000, 2002 and 2006 there has been no significant change in the percentage of high school students who have one or more close friends who use smokeless tobacco, regardless of student smokeless tobacco use status.

- **In each survey year, high school students who currently use smokeless tobacco are significantly more likely than those who have never used smokeless tobacco to have one or more close friends who use smokeless tobacco.**

Figure 37.

High School Students with One or More of Four Closest Friends Who Uses Smokeless Tobacco by Smokeless Tobacco Use Status and Year



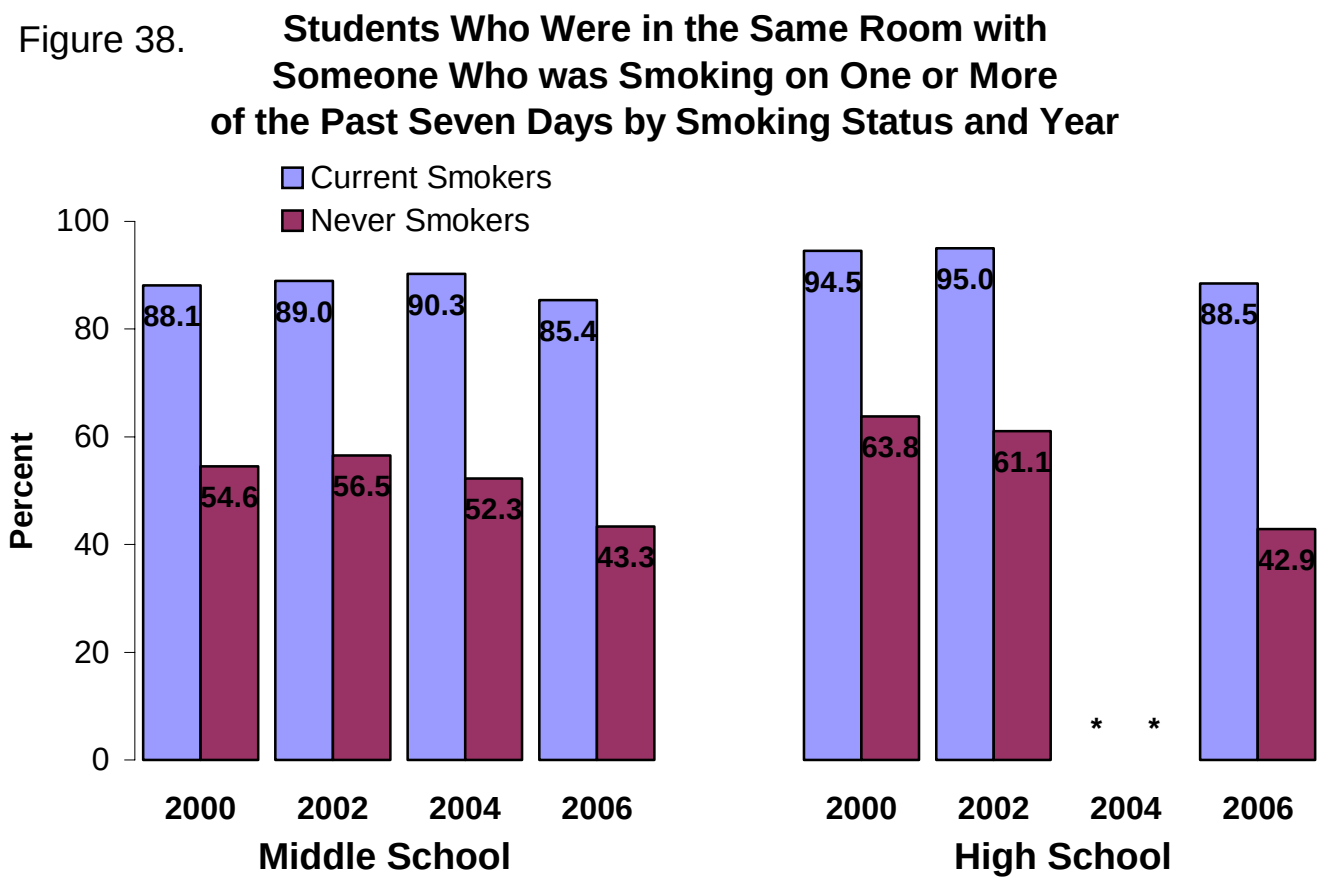
* Data not available for high school students in 2004.

Secondhand Smoke Exposure

- At the middle school level, there has been no significant change in current smokers' exposure to secondhand smoke across 2000, 2002, 2004 and 2006. **The 2006 rate (43.3 percent) of secondhand smoke exposure among middle school students who have never smoked, however, was significantly lower than the rates reported in 2000 (54.6 percent), 2002 (56.5 percent) and 2004 (52.3 percent).**

- **From 2000 to 2006, there has been a significant decrease in the percentage of high school current smokers who were exposed to secondhand smoke in the past seven days (94.5 percent and 88.5 percent, respectively). Similarly, the 2006 rate (42.9 percent) of never smokers' exposure to secondhand smoke was significantly lower than the rates reported in 2000 (63.8 percent) and 2002 (61.1 percent).**

Figure 38.



* Data not available for high school students in 2004.

Technical Information

Instrument

Students were surveyed using the Ohio Youth Tobacco Survey (OYTS) instrument. The instrument was based on the core Centers for Disease Control and Prevention (CDC) Youth Tobacco Survey and consisted of 69 multiple-choice questions. The instrument is self-administered and uses a questionnaire booklet and a scannable answer sheet. The OYTS addresses eight content areas: tobacco prevalence, access to tobacco products, smoking cessation, smoking intention, perceived consequences of tobacco use, mass media, awareness of tobacco industry strategies, and secondhand smoke.

Sample Description – Middle School Sample:

All public, private and technology schools containing grades six, seven or eight were included in the sampling frame. A two-stage cluster sample design was used to produce a representative sample of students in grades six – eight.

School Level – The first-stage sampling frame consisted of all schools containing any of the grades six – eight. Schools were selected with probability proportional to school enrollment size.

Class Level – The second sampling stage consisted of systematic equal probability sampling (with a random start) of classes from each school that participated in the survey. All second period classes in the selected schools were included in the sampling frame. All students in the selected classes were eligible to participate in the survey.

Overall Response Rates:

Schools – 46 of the 50 sampled schools participated (92.0 percent).

Students – 2,192 of the 2,364 sampled students completed usable questionnaires (92.7 percent).

Overall Response Rate – 92.0 percent x 92.7 percent = 85.3 percent.

Sample Description – High School Sample:

All public, private and technology schools containing grades nine, 10, 11 or 12 were included in the sampling frame. A two-stage cluster sample design was used to produce a representative sample of students in grades nine – 12.

School Level – The first-stage sampling frame consisted of all schools containing any of the grades nine – 12. Schools were selected with probability proportional to school enrollment size.

Class Level – The second sampling stage consisted of systematic equal probability sampling (with a random start) of classes from each school that participated in the survey. All second period classes in the selected schools were included in the sampling frame. All students in the selected classes were eligible to participate in the survey.

Overall Response Rates:

Schools – 45 of the 49 sampled schools participated (91.8 percent).

Students – 2,078 of the 2,305 sampled students completed usable questionnaires (90.2 percent).

Overall Response Rate – 91.8 percent x 90.2 percent = 82.8 percent.

Weighting:

A weight has been associated with each questionnaire to reflect the likelihood of sampling each student and to reduce bias by compensating for differing patterns of nonresponse. The weight used for estimation is given by:

$$W = W1 \times W2 \times f1 \times f2 \times f3 \times f4$$

W1 = the inverse of the probability of selecting the school

W2 = the inverse of the probability of selecting the classroom within the school

f1 = a school-level nonresponse adjustment factor calculated by school size category (small, medium, large)

f2 = a class adjustment factor calculated by school

f3 = a student-level nonresponse adjustment factor calculated by class

f4 = a post-stratification adjustment factor calculated by gender and grade

Use of Weighted Results:

The weighted results can be used to make important inferences concerning tobacco use risk behaviors of all public, private and technical school students in grades six through 12.

Table 1: Current* Tobacco Use Among Ohio Middle School Students by Gender, Race/Ethnicity and Grade at the 95% Confidence Interval (CI) **2006**

Category	Any§ Tobacco Use		Cigarette Use		Cigar Use		Pipe Use		Bidis Use		Smokeless Tobacco Use	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Gender												
Male	12.2	±4.0	7.1	±3.3	6.1	±3.1	2.9	±1.1	2.1	±0.8	3.3	±1.6
Female	11.0	±3.3	7.4	±2.8	5.0	±2.4	1.8	±0.7	2.7	±1.0	0.9	±0.4
Race/Ethnicity												
White	9.8	±3.1	6.4	±2.5	3.7	±1.7	2.1	±0.9	1.8	±0.8	2.2	±1.0
Black	16.5	±5.3	7.1	±4.8	12.3	±4.6	3.1	±2.1	4.9	±1.6	2.1	±1.9
Hispanic	20.3	±13.7	17.7	±14.5	13.4	±13.8	3.9	±3.8	5.1	±3.4	1.8	±2.9
Other	11.7	±6.0	7.5	±5.5	3.1	±3.7	2.5	±2.8	2.2	±2.6	2.5	±2.4
Grade												
6	8.2	±3.2	5.3	±2.0	3.6	±2.0	1.8	±0.8	1.8	±1.3	0.5	±0.5
7	13.4	±7.1	7.7	±6.7	7.0	±5.5	3.4	±1.5	3.4	±1.4	3.7	±1.7
8	13.1	±2.7	8.6	±2.5	6.0	±2.2	1.7	±1.3	2.1	±0.9	2.1	±0.8
Total	**11.6**	**±3.4**	**7.2**	**±3.0**	**5.5**	**±2.6**	**2.3**	**±0.8**	**2.4**	**±0.7**	**2.1**	**±0.8**

* Tobacco use on one or more of the 30 days preceding the survey.
§ Includes cigarettes, pipes, bidis, kreteks or smokeless tobacco.

Table 2: Current* Tobacco Use Among Ohio High School Students by Gender, Race/Ethnicity and Grade at the 95% Confidence Interval (CI) **2006**

Category	Any§ Tobacco Use		Cigarette Use		Cigar Use		Pipe Use		Bidis Use		Smokeless Tobacco Use	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Gender												
Male	32.8	±3.6	20.0	±3.1	19.0	±3.5	4.8	±1.2	4.6	±1.2	13.7	±2.8
Female	24.5	±3.7	20.8	±3.4	10.0	±2.3	3.7	±1.3	2.0	±0.8	1.6	±0.7
Race/Ethnicity												
White	29.9	±4.1	21.9	±3.9	14.2	±2.7	4.1	±1.1	2.6	±0.8	8.1	±1.7
Black	22.2	±6.2	12.0	±5.2	14.7	±4.7	5.6	±2.8	5.5	±3.1	4.3	±3.3
Hispanic	33.9	±8.9	26.4	±9.9	16.8	±7.2	4.0	±3.2	4.7	±4.5	4.9	±4.5
Other	24.5	±8.9	17.8	±9.1	13.5	±7.7	4.8	±4.4	6.4	±5.3	10.7	±7.1
Grade												
9	22.7	±4.1	16.7	±4.0	10.9	±2.3	4.7	±1.8	2.4	±1.3	6.1	±1.9
10	26.8	±3.7	17.8	±3.1	13.1	±2.6	4.7	±2.0	4.4	±1.6	9.9	±2.3
11	30.7	±6.7	23.6	±5.2	15.5	±4.8	4.0	±1.7	3.8	±1.8	7.9	±4.1
12	38.4	±7.2	26.6	±5.8	20.4	±5.3	4.0	±1.7	2.9	±2.0	6.1	±2.9
Total	**28.7**	**±3.3**	**20.5**	**±2.8**	**14.4**	**±2.4**	**4.4**	**±0.9**	**3.4**	**±0.8**	**7.5**	**±1.5**

* Tobacco use on one or more of the 30 days preceding the survey.
§ Includes cigarettes, pipes, bidis, kreteks or smokeless tobacco.

Table 3: Current* Tobacco Use Among Ohio Middle School Students by Gender, Race/Ethnicity and Grade at the 95% Confidence Interval (CI) **2004**

Category	Any§ Tobacco Use		Cigarette Use		Cigar Use		Pipe Use		Bidis Use		Smokeless Tobacco Use	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Gender												
Male	15.8	±4.0	9.7	±3.5	8.3	±2.6	4.0	±1.8	3.3	±1.1	6.0	±1.7
Female	15.2	±4.5	11.3	±4.3	4.6	±2.0	2.4	±0.8	3.3	±1.8	2.0	±0.9
Race/Ethnicity												
White	14.0	±3.7	9.2	±3.3	5.6	±2.0	2.8	±1.2	2.4	±0.9	3.4	±1.0
Black	18.4	±5.1	13.5	±4.8	8.9	±4.7	4.3	±2.6	6.9	±3.0	5.8	±2.6
Hispanic	¤		¤		¤		¤		¤		¤	
Other	17.5	±7.4	13.1	±6.5	8.2	±6.1	2.8	±3.5	3.8	±3.2	6.5	±5.2
Grade												
6	10.1	±3.2	5.7	±2.6	4.7	±2.1	2.4	±1.6	2.7	±2.0	2.8	±1.0
7	16.2	±5.8	11.7	±5.4	5.5	±2.6	3.2	±1.6	3.1	±1.5	4.7	±2.5
8	20.1	±6.7	13.8	±5.5	9.6	±3.9	4.0	±2.3	4.4	±2.1	4.7	±2.7
Total	15.7	±3.7	10.6	±3.4	6.7	±1.9	3.3	±1.0	3.4	±0.8	4.1	±1.1

* Tobacco use on one or more of the 30 days preceding the survey.
§ Includes cigarettes, pipes, bidis, kreteks or smokeless tobacco.
¤ Data not presented due to n < 50.

Table 4: Current* Tobacco Use Among Ohio Middle School Students by Gender, Race/Ethnicity, and Grade at the 95% Confidence Interval (CI) **2002**

Category	Any§ Tobacco Use		Cigarette Use		Cigar Use		Pipe Use		Bidis Use		Smokeless Tobacco Use	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Gender												
Male	15.2	±3.5	9.3	±3.3	6.7	±2.3	3.9	±1.6	3.2	±1.2	5.3	±2.0
Female	14.9	±4.1	10.9	±3.6	5.8	±2.8	2.7	±1.2	3.2	±1.7	1.8	±0.7
Race/Ethnicity												
White	14.3	±3.0	10.0	±2.6	5.6	±1.8	2.9	±1.1	2.2	±1.0	3.6	±1.0
Black	14.6	±5.8	5.3	±3.7	7.7	±5.5	4.1	±3.3	7.1	±5.4	1.7	±2.2
Hispanic	18.1	±9.4	14.5	±9.2	8.6	±6.3	3.0	±3.2	3.7	±5.0	1.8	±3.0
Other	22.6	±8.7	15.8	±7.9	9.9	±4.7	6.1	±5.6	6.9	±5.5	8.1	±5.7
Grade												
6	10.8	±3.7	5.5	±2.9	2.7	±1.5	2.5	±1.5	2.5	±1.5	2.7	±1.2
7	15.4	±3.5	11.1	±3.0	8.4	±3.5	3.8	±2.1	4.1	±1.9	3.2	±1.5
8	19.0	±5.3	13.6	±4.8	7.6	±4.1	3.5	±1.9	3.0	±1.7	5.1	±2.9
Total	**15.0**	**±2.6**	**10.1**	**±2.3**	**6.3**	**±1.9**	**3.3**	**±1.1**	**3.2**	**±1.2**	**3.6**	**±0.9**

* Tobacco use on one or more of the 30 days preceding the survey.
§ Includes cigarettes, pipes, bidis, kreteks or smokeless tobacco.

Table 5: Current* Tobacco Use Among Ohio High School Students by Gender, Race/Ethnicity and Grade at the 95% Confidence Interval (CI) **2002**

Category	Any§ Tobacco Use		Cigarette Use		Cigar Use		Pipe Use		Bidis Use		Smokeless Tobacco Use	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Gender												
Male	37.8	±6.0	25.6	±4.0	21.5	±5.7	4.5	±2.0	4.5	±1.6	11.8	±3.3
Female	26.9	±5.3	25.8	±5.2	7.8	±2.3	1.6	±1.2	2.5	±1.3	1.2	±1.3
Race/Ethnicity												
White	33.8	±5.1	27.4	±3.9	15.6	±3.9	2.6	±1.1	3.2	±1.2	7.1	±2.6
Black	20.5	±7.0	10.8	±5.4	11.2	±4.9	6.9	±4.2	3.6	±3.2	1.8	±2.2
Hispanic	¤		¤		¤		¤		¤		¤	
Other	¤		¤		¤		¤		¤		¤	
Grade												
9	17.7	±5.1	12.9	±4.2	7.9	±4.6	2.6	±1.9	3.9	±2.5	4.6	±2.3
10	35.0	±7.0	26.9	±6.9	18.4	±5.5	4.3	±2.2	3.4	±1.7	6.8	±3.2
11	39.8	±5.7	32.3	±4.4	19.2	±6.9	2.7	±1.9	3.2	±1.3	8.1	±4.2
12	39.2	±8.9	31.8	±5.2	14.3	±6.0	2.8	±2.7	3.8	±2.1	7.6	±3.4
Total	**32.6**	**±4.4**	**25.7**	**±3.2**	**15.1**	**±3.7**	**3.3**	**±1.2**	**3.6**	**±1.0**	**6.6**	**±2.1**

* Tobacco use on one or more of the 30 days preceding the survey.
§ Includes cigarettes, pipes, bidis, kreteks or smokeless tobacco.
¤ Data not presented due to n < 50.

Table 6: Current* Tobacco Use Among Ohio Middle School Students by Gender, Race/Ethnicity and Grade at the 95% Confidence Interval (CI) **2000**

Category	Any§ Tobacco Use		Cigarette Use		Cigar Use		Pipe Use		Bidis Use		Smokeless Tobacco Use	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Gender												
Male	22.0	±5.9	14.7	±3.9	11.1	±3.0	5.1	±1.4	4.6	±1.7	8.2	±3.9
Female	15.2	±3.9	12.7	±3.8	4.8	±1.3	1.7	±1.1	2.2	±0.7	1.8	±1.0
Race/Ethnicity												
White	18.3	±5.5	13.3	±4.2	7.2	±2.2	2.9	±1.1	3.1	±1.1	5.5	±3.0
Black	20.3	±7.4	14.6	±5.2	12.1	±4.6	7.2	±4.4	6.2	±4.1	3.8	±2.7
Hispanic	21.2	±13.4	15.6	±9.4	11.6	±9.5	1.7	±3.2	1.7	±3.2	1.7	±3.2
Other	19.9	±8.6	16.6	±8.3	11.5	±7.4	4.4	±4.2	2.4	±3.3	2.8	±3.2
Grade												
6	11.2	±2.6	7.7	±2.6	3.7	±1.4	2.4	±1.5	2.6	±1.6	2.3	±1.2
7	19.8	±5.5	14.7	±5.1	8.5	±3.2	3.9	±1.9	4.3	±1.6	5.2	±2.8
8	24.9	±10.3	18.4	±7.5	11.8	±3.6	4.1	±2.2	3.3	±1.8	7.7	±5.6
Total	**18.7**	**±4.6**	**13.7**	**±3.5**	**8.1**	**±2.0**	**3.5**	**±1.0**	**3.4**	**±1.0**	**5.1**	**±2.5**

* Tobacco use on one or more of the 30 days preceding the survey.
§ Includes cigarettes, pipes, bidis, kreteks or smokeless tobacco.

Table 7: Current* Tobacco Use Among Ohio High School Students by Gender, Race/Ethnicity, and Grade at the 95% Confidence Interval (CI) **2000**

	Any§ Tobacco Use		Cigarette Use		Cigar Use		Pipe Use		Bidis Use		Smokeless Tobacco Use	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Gender												
Male	45.6	±5.6	33.7	±3.8	25.4	±5.9	4.0	±1.8	5.8	±1.8	15.3	±4.0
Female	35.9	±4.6	33.0	±4.7	10.0	±3.1	2.7	±1.8	7.8	±3.9	2.2	±1.7
Race/Ethnicity												
White	41.5	±3.2	35.2	±2.8	16.9	±3.1	2.5	±0.8	5.2	±1.3	9.6	±2.4
Black	33.3	±10.9	14.4	±5.5	22.8	±10.0	5.6	±5.1	11.0	±5.1	4.0	±3.9
Hispanic	¤		¤		¤		¤		¤		¤	
Other	¤		¤		¤		¤		¤		¤	
Grade												
9	33.9	±4.6	29.6	±4.9	15.0	±3.1	4.5	±2.9	5.6	±2.8	7.8	±3.2
10	40.1	±7.8	32.1	±7.1	16.8	±7.1	3.4	±3.0	7.0	±3.3	11.0	±3.7
11	47.7	±4.7	40.9	±4.7	18.8	±5.8	1.9	±1.4	6.0	±3.8	11.5	±6.2
12	42.0	±8.5	30.7	±7.7	20.8	±8.4	3.5	±2.7	9.0	±5.2	6.1	±2.4
Total	**41.1**	**±3.3**	**33.4**	**±3.1**	**18.1**	**±3.0**	**3.4**	**±1.0**	**6.9**	**±1.8**	**9.1**	**±2.0**

* Tobacco use on one or more of the 30 days preceding the survey.
§ Includes cigarettes, pipes, bidis, kreteks or smokeless tobacco.
¤ Data not presented due to n < 50.

Glossary of Terms

Current Use – Use on one or more of the 30 days preceding the survey.

Frequent Use – Use on 20 or more of the 30 days preceding the survey.

Smokeless Tobacco – Also known as spit tobacco, includes chewing tobacco, snuff and dip. Any tobacco product that is not lighted but is put in the mouth to chew or placed between the lip and gums.

Bidis – A small, brown, hand-rolled cigarette primarily made in India and other Southeast Asian countries consisting of tobacco wrapped in a leaf and tied with a thread.

Kreteks – (Or clove cigarettes) are cigarettes containing tobacco and clove extract.