

South Dakota Youth Tobacco Survey 2007



GRADES 6 - 8



REPORT PREPARED FOR THE
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Tobacco Control Program
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The South Dakota Department of Health wishes to thank the school districts that graciously gave their time and energy to implement the survey in their classrooms.

EXECUTIVE SUMMARY

INTRODUCTION

Tobacco use remains the greatest cause of preventable death in South Dakota and the United States. Nearly one in every five deaths in the United States in 2000 was tobacco related (Mokdad 2004). Using this national percentage to estimate state mortality, nearly 1,300 South Dakotans die from tobacco-related causes each year. In addition, direct medical costs, lost productivity due to tobacco related diseases, and serious respiratory problems for those exposed to other secondhand tobacco smoke are consequences of tobacco use. Most adult tobacco users (80 percent) began using as a teenager (USDHHS 1994). Since smoking initiation rarely starts at later ages, the critical time for prevention occurs in adolescence (Nelson et al 2008). Because of the addictive nature of nicotine, preventing tobacco use among youth, and extinguishing the habit where possible is an especially important goal (USDHHS 2004).

In 2007, the South Dakota Tobacco Control Program conducted a youth tobacco survey among middle school students in the state. This survey has been conducted in odd numbered years since 1999 and can track changes in tobacco related behavior, priorities and policy over time. The South Dakota Youth Tobacco Survey (SDYTS) is a comprehensive survey of tobacco use, access to tobacco, cessation, knowledge and attitudes about tobacco, and exposure to secondhand tobacco smoke among South Dakota youth. The SDYTS provides useful information to guide youth tobacco prevention, cessation, and control efforts in the state. It also provides valuable data that can be used to track trends in South Dakota over time.

The goals of the South Dakota Tobacco Control Program are to 1) prevent the initiation of tobacco use among people, 2) promote tobacco cessation, and 3) eliminate non-smokers' exposure to secondhand smoke (South Dakota Department of Health 2007). The results of the SDYTS provide information that can be used to measure progress toward these goals, prioritize work necessary to sustain gains and improve services to meet these goals. This report is based on the responses from students in middle schools (sixth, seventh and eighth grades).

METHODOLOGY

The SDYTS consists of 58 questions developed by the Centers for Disease Control and Prevention (CDC) and the South Dakota Tobacco Control Program. Numerous states use the CDC's core questions and survey administration procedures, allowing findings from the SDYTS to be compared with findings from other states and the National Youth Tobacco Survey. In South Dakota, the survey was administered to 2,727 students from 42 middle schools between September and December, 2007. Ethnic data has been made available by CDC since 2003. Fifteen questions from the 2005 survey were dropped and sixteen new questions were added in 2007.

As with any survey, the findings may vary depending on the sample size selected, the population size, and the size of the finding. General trends across questions from different surveys need to be considered as well as the changes in percentage at different times. For the 2007 SDYTS, many of the changes such as the decline in current smokers are in the desired direction, but may not be statistically significant. Percentages given below have been rounded to the nearest whole number. All charts are scaled to 100 percent.

EXECUTIVE SUMMARY

FINDINGS

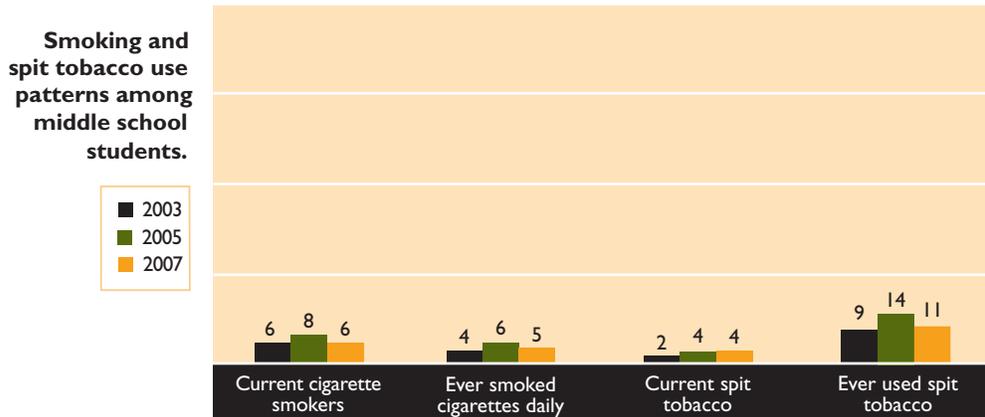
Results from the SDYTS provide valuable information on the student population about the prevalence of tobacco use, attitudes about tobacco, future intentions about tobacco use, exposure to secondhand tobacco smoke, and desire of current smokers to stop smoking. Findings are organized in a way that will allow policy makers, health educators, parents, and others concerned about the health of youth to find answers to key questions. Trends over time are presented for questions asked multiple times, while baseline data are provided for the new questions.

How many young people in South Dakota are currently using tobacco and how many have smoked daily or have ever used smokeless tobacco?

Most South Dakota youth do not use tobacco. Only 6 percent of middle school students are defined as current smokers, meaning that they have smoked a cigarette on one or more days during the past 30 days. Rates of current smoking at the middle school show a slight, but non-significant, decrease from 8 to 6 percent since the 2005 administration of the SDYTS.

Among middle school students, only 5 percent report ever smoking at least one cigarette daily for 30 days. Daily smoking varies by grade level; from 3 percent of sixth graders to 8 percent of eighth graders. Students at the middle school level report slightly lower rates of daily cigarette use since the 2005 administration of the SDYTS.

Fewer students report using spit tobacco than cigarettes and the current use of spit tobacco products (chew, snuff, or dip) has stayed the same among middle school students since the 2005 administration of the SDYTS. The percentage of middle school students who have ever used spit tobacco has decreased significantly from 2005 to 2007. More American Indian students than white students report using both cigarettes and spit tobacco.



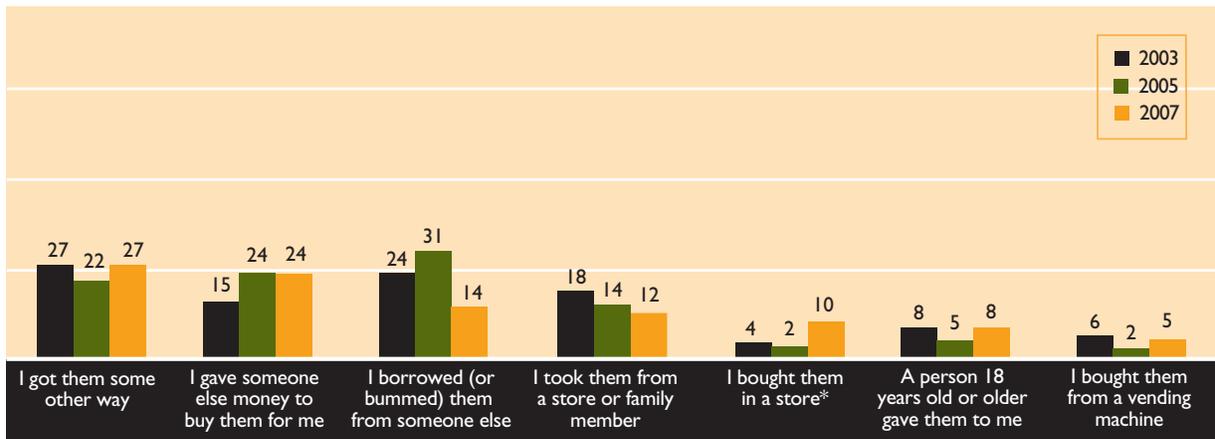
EXECUTIVE SUMMARY

How do young people in South Dakota get tobacco products?

Since most middle school students in South Dakota do not use tobacco, usual sources of cigarettes and spit tobacco products reported are based on 10 percent or less of all students. As these small numbers of respondents report changing patterns in usual sources, these percentage changes must be looked at in a context of increasing difficulty for students to obtain tobacco.

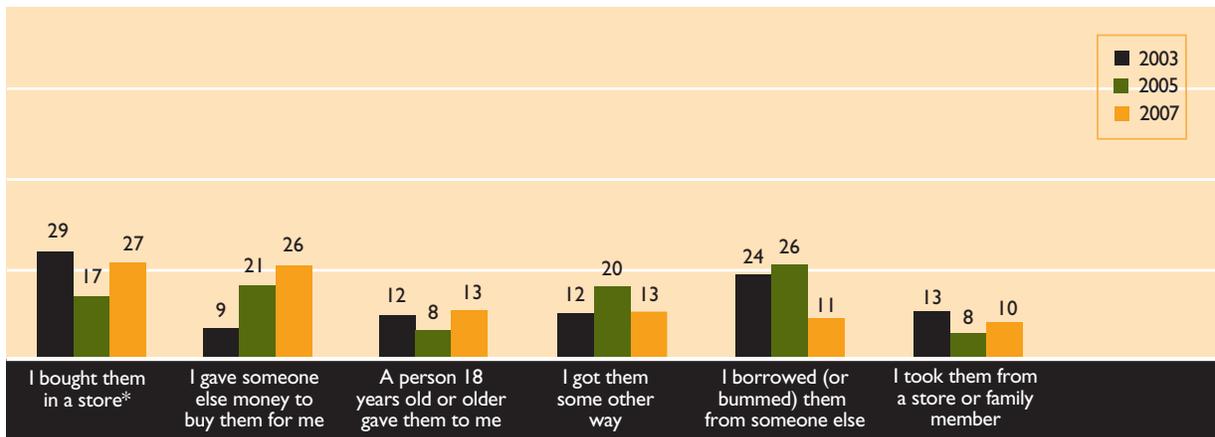
From a list of possible cigarette sources, most young people most frequently said “I got them some other way.” The next most frequent way to get cigarettes was by giving money to someone else to buy for them, or borrowing them from friends.

Percent of middle school students' usual way to get cigarettes



*such as a convenience store, supermarket, discount store, or gas station

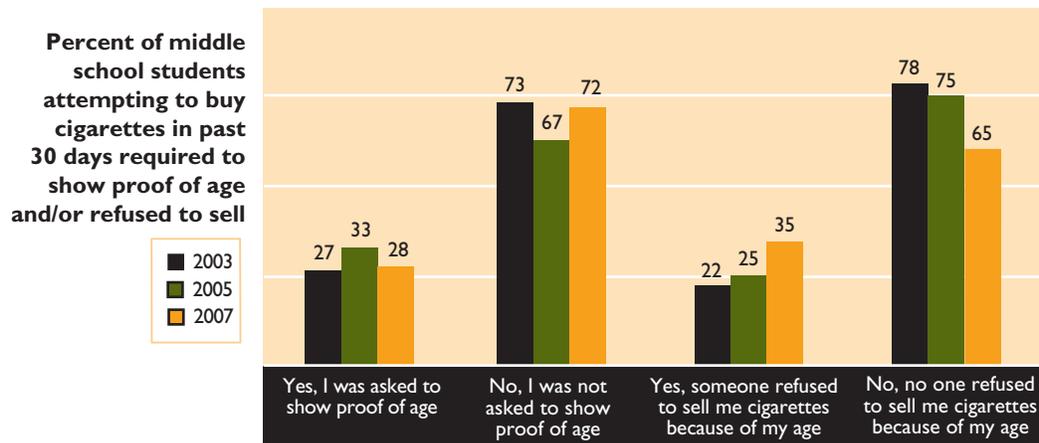
Percent of middle school students' usual way to get spit tobacco



*such as a convenience store, supermarket, discount store, or gas station

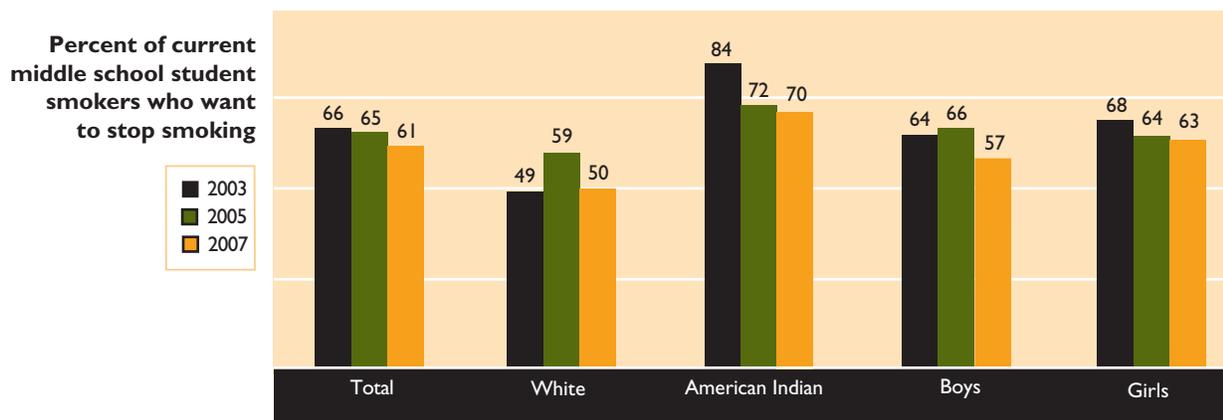
EXECUTIVE SUMMARY

A growing percentage of students trying to purchase cigarettes report being refused over the last three surveys; but currently, less than a third report being asked to provide proof of age.



How many current smokers in South Dakota schools would like to stop smoking?

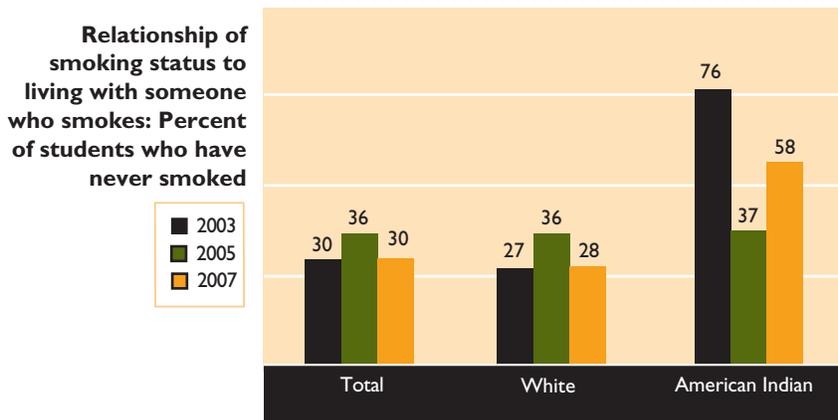
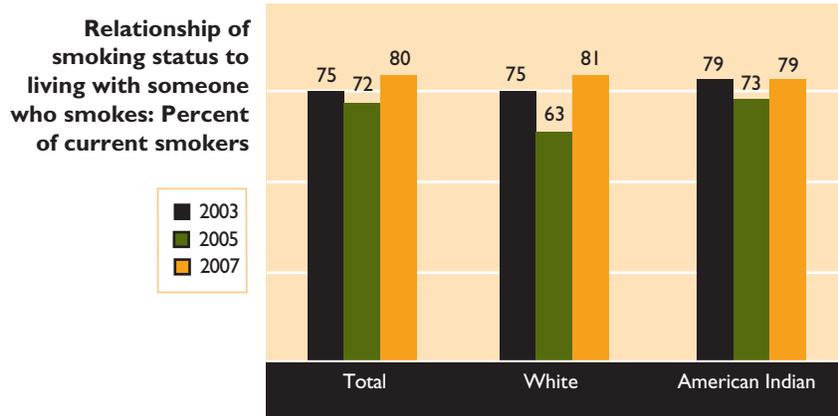
The majority of current smokers at the middle school level would like to stop smoking. More American Indian students than white students want to stop smoking now. Although the majority of current smokers would like to stop, 11 percent of all students who have ever smoked have participated in a program to help them quit using tobacco.



EXECUTIVE SUMMARY

How are smoking status and exposure to environmental tobacco smoke related?

Students who are current smokers are more likely to live in a home with someone who smokes. The following charts compare middle school current smokers with those who have never smoked.



INTRODUCTION

Tobacco use remains the greatest cause of preventable death in South Dakota and the United States. Nearly one in every five deaths in the United States in 2000 was tobacco related (Mokdad 2004). Using this national percentage to estimate state mortality, approximately 1,300 South Dakotans die from a tobacco-related disease each year. In addition, direct medical costs, lost productivity due to tobacco related diseases, and serious respiratory problems for those exposed to other secondhand tobacco smoke are consequences of tobacco use. Most adult tobacco users (80 percent) began using as a teenager (USDHHS 1994). Since smoking initiation rarely starts at later ages, the critical time for prevention occurs in adolescence (Nelson et al 2008). Because of the addictive nature of nicotine, preventing tobacco use is an especially important goal (USDHHS 2004).

In 2003 and 2005, the South Dakota Tobacco Control Program conducted a youth tobacco survey among middle school students in the state. This survey was conducted again in 2007. The South Dakota Youth Tobacco Survey (SDYTS) is a comprehensive survey of tobacco use, access to tobacco, cessation, knowledge and attitudes about tobacco, and exposure to secondhand tobacco smoke among South Dakota youth. The SDYTS provides useful information to guide youth tobacco prevention, cessation, and control efforts in the state. It also provides valuable data that can be used to track trends among South Dakota youth over time.

The goals of the South Dakota Tobacco Control Program are to 1) prevent the initiation of tobacco use among people, 2) promote tobacco cessation, and 3) eliminate nonsmokers' exposure to secondhand smoke (South Dakota Department of Health 2007). These goals are consistent with the Centers for Disease Control and Prevention (CDC) comprehensive tobacco control goals for the United States. The results of the SDYTS provide information that can be used to measure progress toward these goals, prioritize work necessary to sustain gains and improve services to meet these goals.

METHODOLOGY

The SDYTS, conducted in 2007, consists of 58 questions developed by the CDC and the South Dakota Tobacco Control Program. Numerous states use the CDC's core questions and survey administration procedures, allowing findings from the SDYTS to be compared with findings from other states and the National Youth Tobacco Survey.

The SDYTS was administered to 2,727 students from 42 middle schools between September and December, 2007. Data on ethnic background has been made available by CDC since 2003. Seventy-nine percent of the middle school sample identified themselves as white, 16 percent as American Indian and approximately 5 percent as other. The sample of students selected to complete the survey was drawn using a two-stage cluster sampling design. This method of selecting students increases the likelihood that survey results are representative of all students in South Dakota. Further, the number of students selected to participate that completed a useable survey was high. Therefore, the results of this survey can be used to make important inferences about tobacco use risk behaviors of all public school students in grades 6–8 throughout South Dakota. Students were assured that the procedures used to conduct the survey were designed to protect anonymity. For a more detailed description of the survey methodology including the sampling design, weighting of data, and response rates, see Appendix 1.

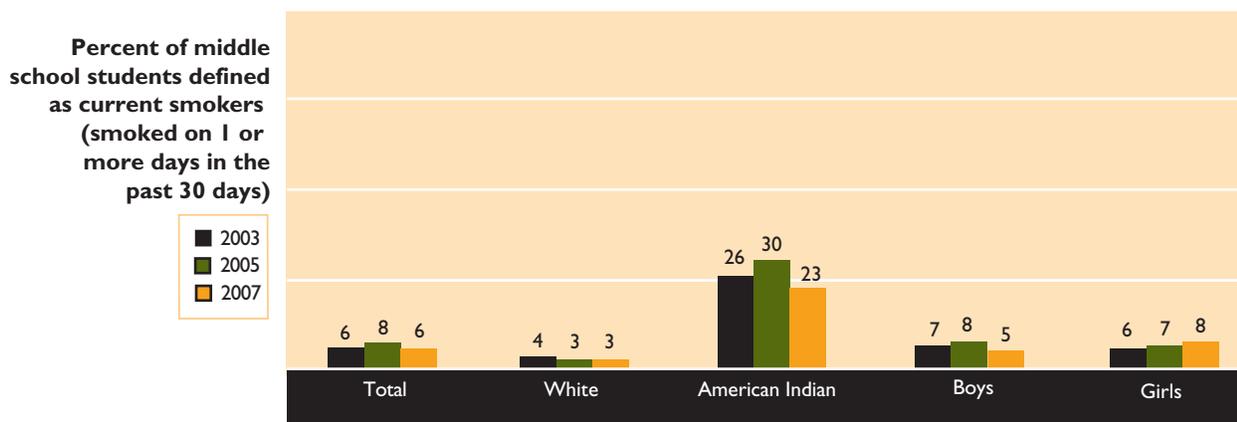
Fifteen questions from the 2005 survey were dropped and sixteen new questions were added in 2007. Trends over time are presented for questions asked at different times, while baseline data are provided for the new questions. A copy of the questions asked in the survey, the unweighted number of respondents and the frequencies weighted to represent South Dakota middle school students is available. All charts are scaled to 100 percent.

FINDINGS

Results from the SDYTS provide valuable information on the student population about the prevalence of tobacco use, attitudes about tobacco, future intentions about tobacco use, exposure to secondhand tobacco smoke, and desire of current smokers to stop smoking. Because smoking experimentation principally starts during adolescence, this report summarizes highlights from the survey that have implications for focusing prevention efforts toward students (Mowery 2004). The findings from the SDYTS are organized in a way that will allow policy makers, health educators, parents, and others concerned about youth health to answer a series of key questions.

How many young people in South Dakota are using tobacco and how many use it everyday?

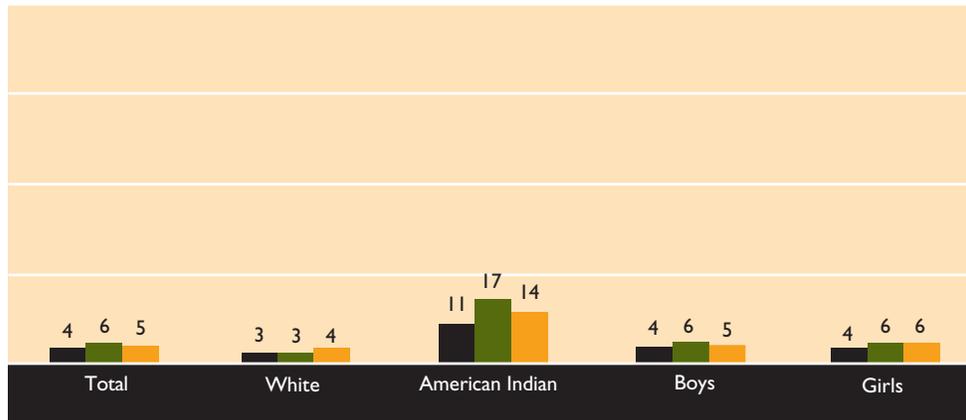
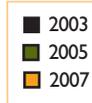
Most South Dakota youth do not use tobacco. Only 6 percent of middle school students are defined as current smokers, meaning that they have smoked a cigarette on one or more days during the past 30 days. The rates of use increase consistently with grade level, which suggests that there are continuing opportunities for prevention efforts throughout the middle school years. Rates of current smoking at the middle school level show a significant decline from 12 percent in 2001 and a slight decrease since the 2005 administration of the SDYTS. However, the percentage of American Indian middle school students who reported smoking on one or more days in the 30 days before taking the survey decreased significantly from 30 percent in 2005 to 23 percent in 2007.



Daily smoking also varies by grade level. Among 6th graders, only 3 percent report ever smoking at least one cigarette daily compared to 8 percent of 9th graders. Middle school students report slightly lower rates of daily cigarette use since the 2005 administration of the SDYTS.

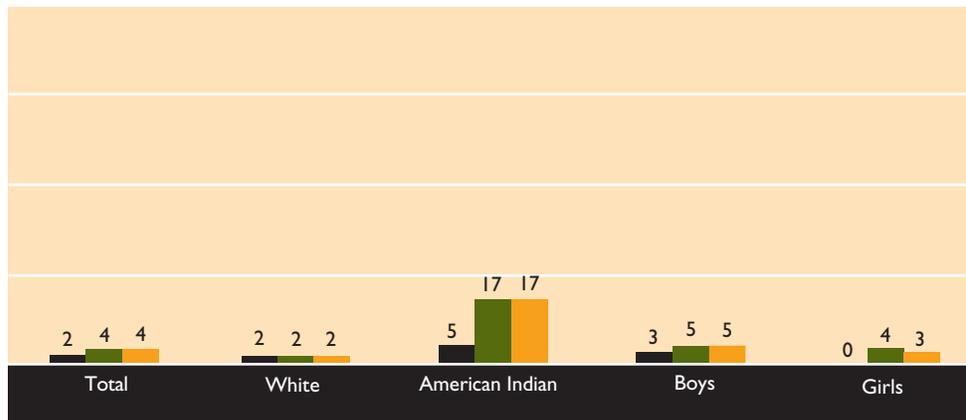
REPORT ON KEY QUESTIONS

Percent of middle school students who have ever smoked cigarettes daily (at least 1 cigarette every day for 30 days)

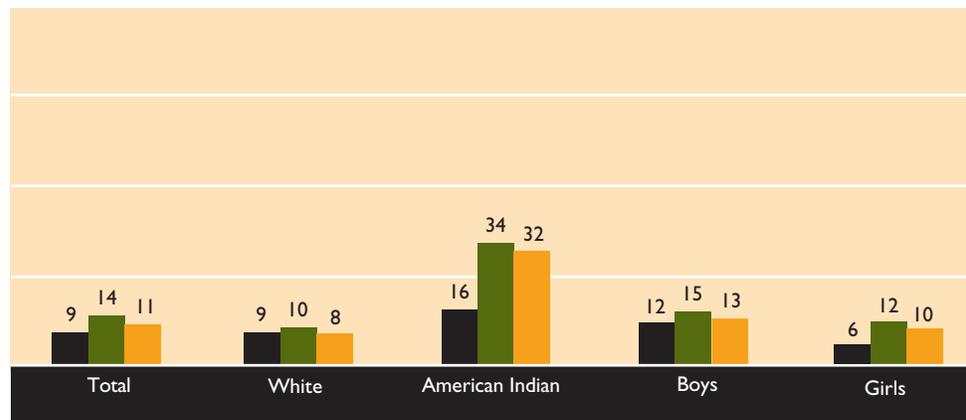


Fewer students report using spit tobacco than cigarettes and the use of spit tobacco products (chew, snuff, or dip) has decreased among middle school students since the first surveys in 1999 and 2001. The percentage that reported ever using spit tobacco decreased significantly from 2005 to 2007 which may indicate a reduction in experimentation or initiation of use. Boys are more likely to report the use of spit tobacco than girls.

Percent of middle school students who currently use spit tobacco (1 or more days in past 30 days)



Percent of middle school students who have ever used spit tobacco



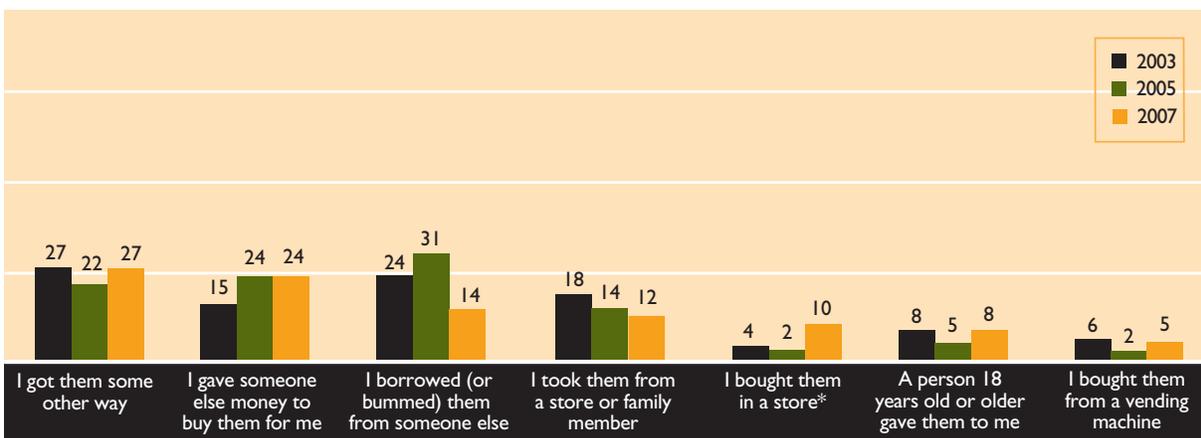
REPORT ON KEY QUESTIONS

How do young people in South Dakota get tobacco products?

Most of the students that are current smokers say they get cigarettes some way other than buying them on their own or they indicate they have someone else buy for them. The following tables are based on a smaller subsets for analysis. The number of current smokers who attempted to purchase cigarettes was the basis for questions about purchases in stores and whether students were asked to provide proof of age or refused service. Although some students did answer questions about trying to get tobacco in this way, the numbers become small and results are difficult to extrapolate.

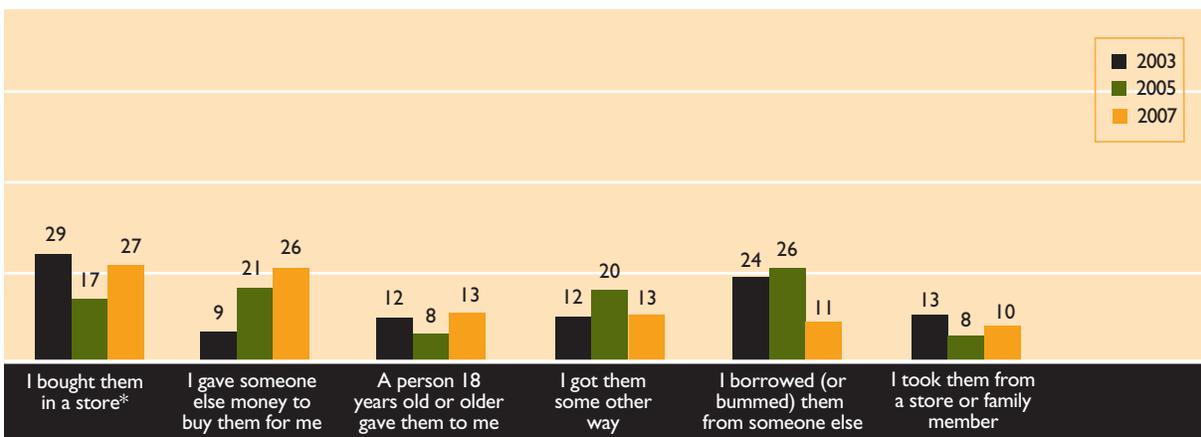
Ten percent of middle schools students who are current smokers bought cigarettes in a store during the past 30 days in 2007 compared to two percent in 2005. Caution should be used in interpreting this finding since the total unweighted number of respondents to this question who bought cigarettes in a store increased from six to 23 during that time.

Percent of middle school students' usual way to get cigarettes



*such as a convenience store, supermarket, discount store, or gas station

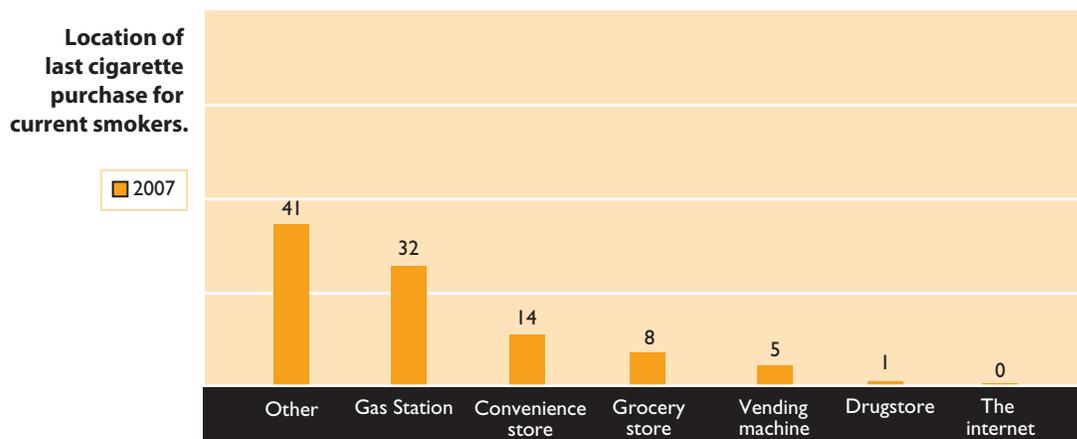
Percent of middle school students' usual way to get spit tobacco



*such as a convenience store, supermarket, discount store, or gas station

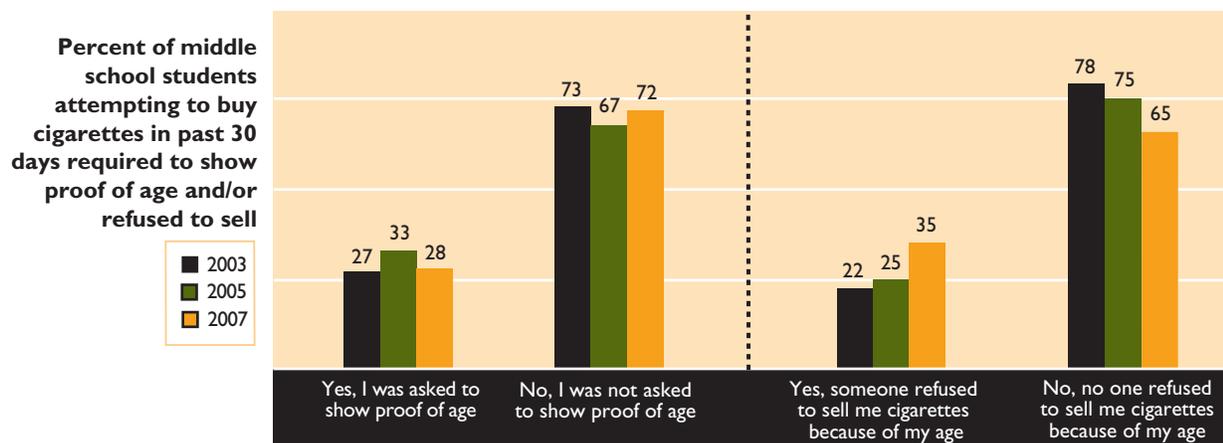
REPORT ON KEY QUESTIONS

A new question was added in the 2007 SDYTS to provide information on types of location where students obtained cigarettes. For the students who described themselves as having smoked cigarettes within 30 days of taking the survey, and having bought a pack, the most frequent response at 41 percent was “I got them in some other way.” The next most frequent locations were a gas station at 32 percent, a convenience store at 14 percent and grocery store at 8 percent.



New questions were asked about where the location for the last pack of cigarettes purchased, were you asked for ID or refused, and what brand do you smoke.

For the subgroup who tried to buy cigarettes in a store during the 30 days before taking the survey, 72 percent were not asked to show proof of age. Only 37 percent of those who attempted to buy cigarettes in a store were refused because of their age, although the data do not indicate if it was the same incident where they were asked to show proof of age.

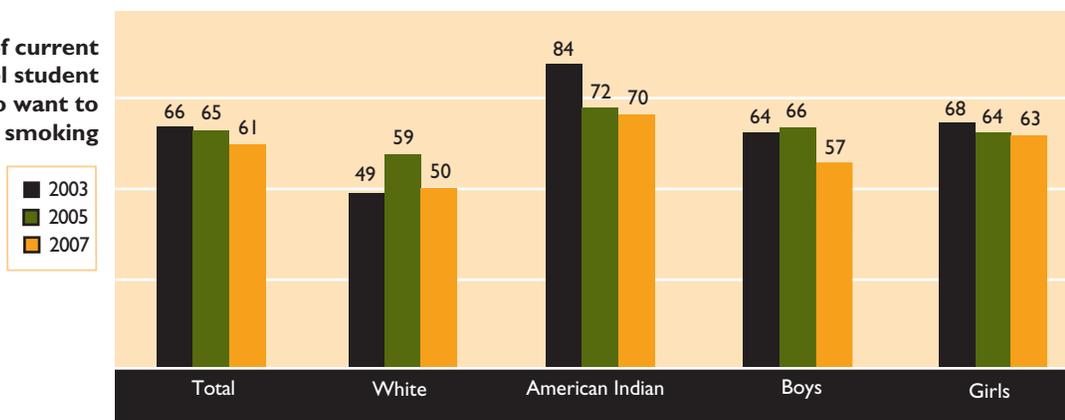


Among the current smokers, Marlboro was the usual brand for 57 percent, followed by “do not have a usual brand” at 15 percent and Camel at 14 percent.

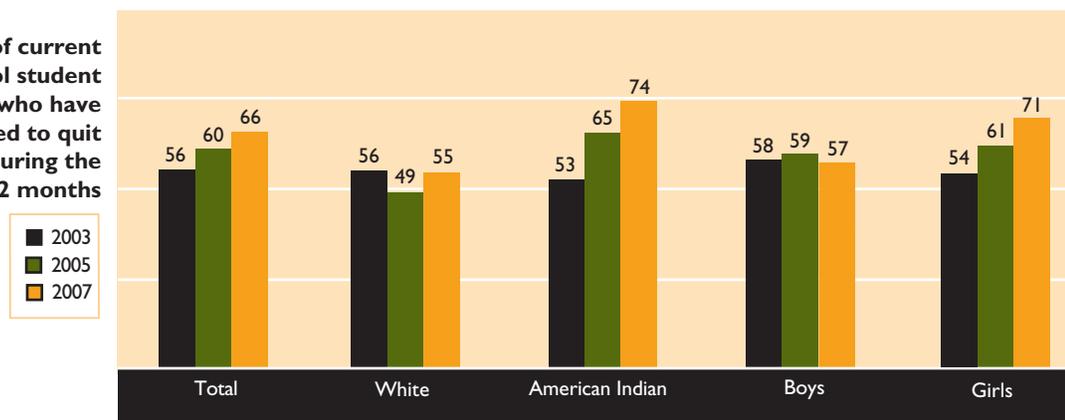
How many current smokers in South Dakota middle schools would like to stop smoking?

The majority of current smokers at the middle school level would like to stop smoking. Most current smokers have also tried to quit smoking at least once during the past 12 months. Most students who want to quit or who have tried to quit have not participated in a program to help quit using tobacco. Eleven percent of middle school students report attending a program designed to help them quit.

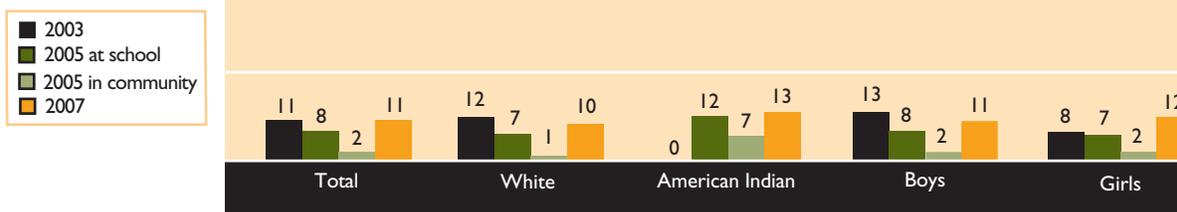
Percent of current middle school student smokers who want to stop smoking



Percent of current middle school student smokers who have ever tried to quit smoking during the past 12 months



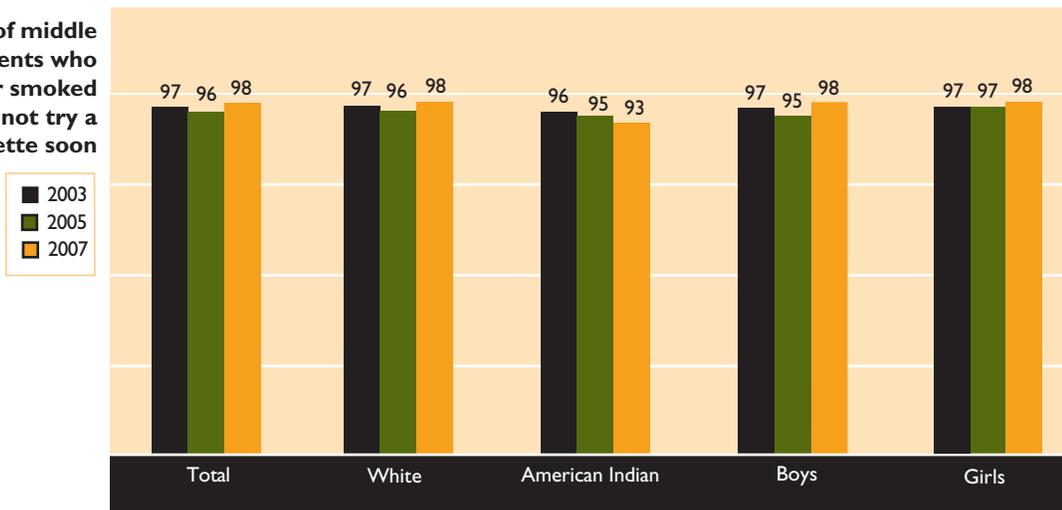
Percent of current middle school students who have ever participated in a program to help them quit using tobacco



How many young people in South Dakota think that they will smoke in the future?

The future intent to smoke is one indicator of risk for current non-smokers to begin smoking or for experimental smokers to become regular tobacco users (Wakefield 2004). Ninety-eight percent of middle school students who have never smoked say they will not try a cigarette soon.

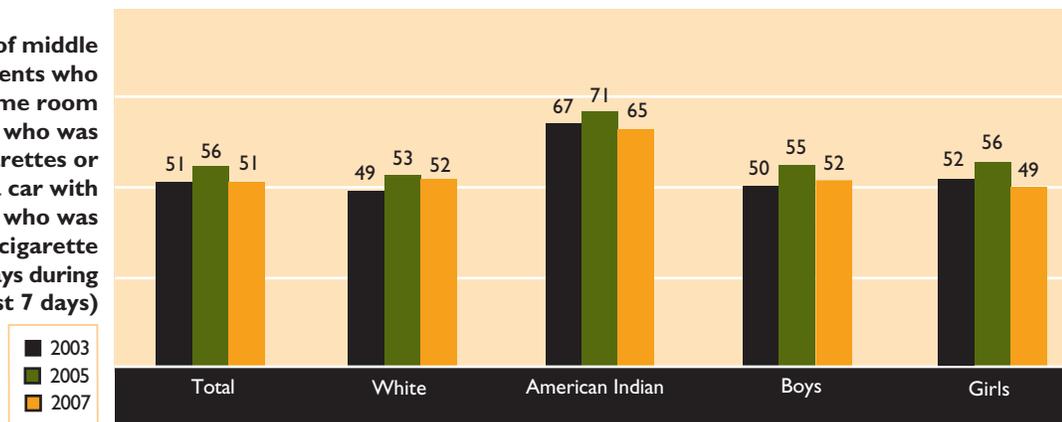
Percent of middle school students who have never smoked who will not try a cigarette soon



How many young people in South Dakota are regularly exposed to second-hand smoke?

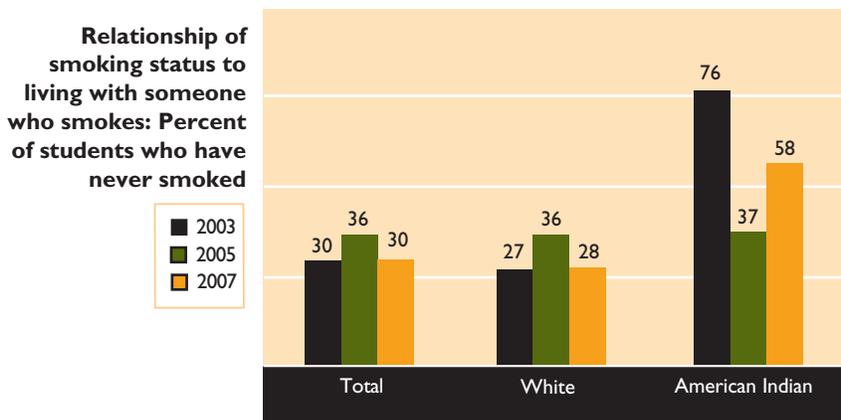
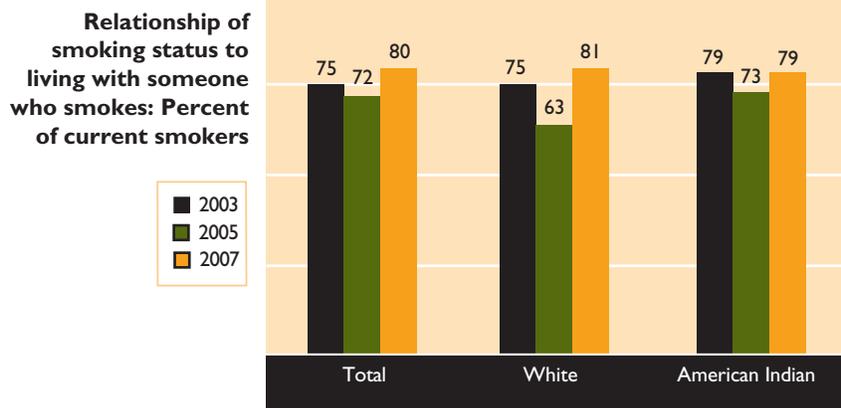
There are clearly documented health risks caused by exposure to secondhand tobacco smoke. The majority of middle school students are exposed to secondhand tobacco smoke each week. However, the decrease in students exposed to smoke in their homes or vehicles from 56 percent in 2005 to 51 percent in 2007 is statistically significant.

Percent of middle school students who were in the same room with someone who was smoking cigarettes or rode in a car with someone who was smoking a cigarette (1 or more days during the past 7 days)

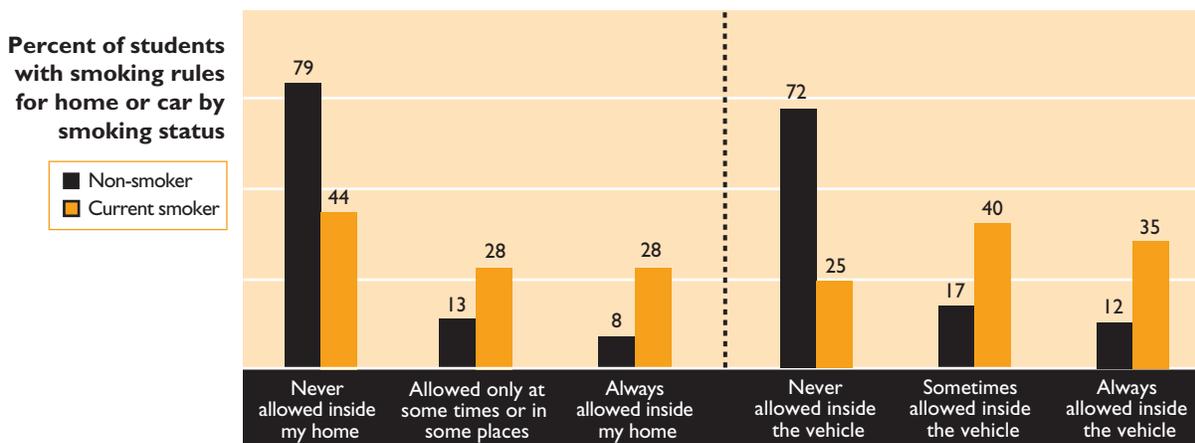


Students that have never smoked are less likely to be exposed to someone else’s tobacco smoke. Students that are current smokers are more likely to live in a home with someone who smokes.

REPORT ON KEY QUESTIONS



Rules for smoking in the vehicle or in the home showed wide differences depending on whether the respondent was a current smoker or not. This question was first asked in the 2007 survey and can be used as a baseline for future surveys.

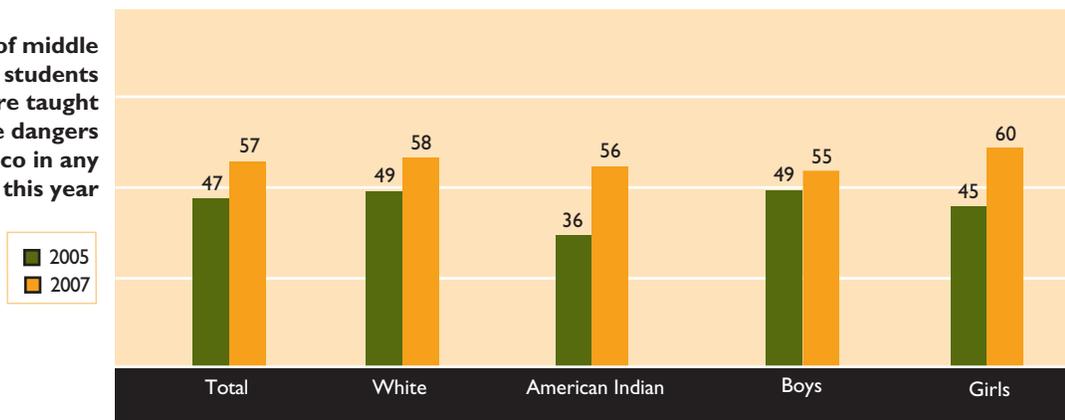


How many students have been taught about the dangers of tobacco use in school?

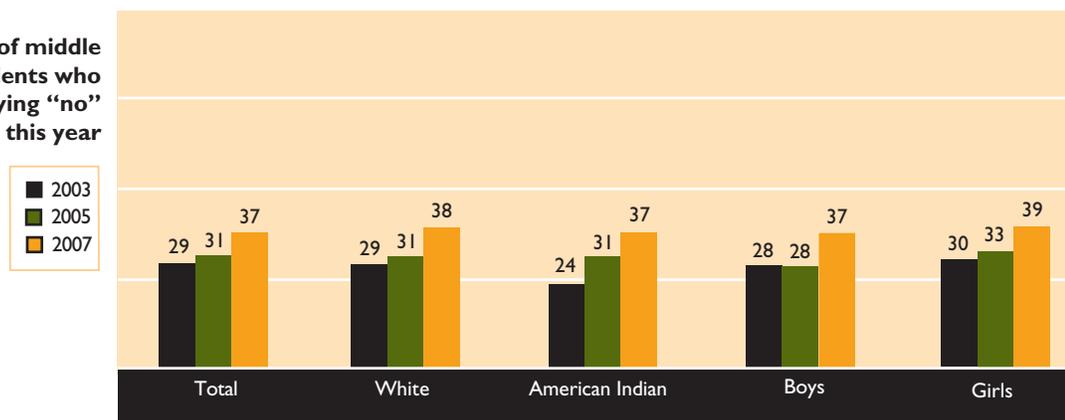
The number of students who are being taught about the dangers of tobacco has increased significantly from 2005 to 2007. Teaching refusal skills is one prevention strategy included in many tobacco use prevention curricula. Data from 2003 is not available for this question.

Less than half of middle school students report practicing saying “NO” to tobacco in class. However the increase from 31 percent who said they had done so in 2005 to 37 percent among the 2007 survey respondents was statistically significant. In addition, only 15 percent had been involved in a community activity within the previous year to discourage people from using tobacco. This was a significant increase from 12 percent who were a part of a community activity to discourage tobacco use prior to the 2005 YTS.

Percent of middle school students who were taught about the dangers of tobacco in any class this year



Percent of middle school students who practiced saying “no” in any class this year

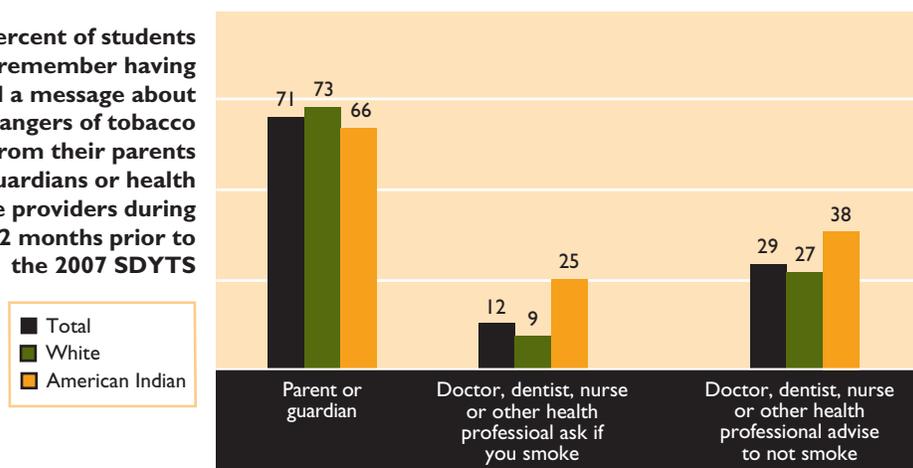


REPORT ON KEY QUESTIONS

How many students hear messages about the risks of tobacco use from their parents, health care providers, commercials on TV, radio, or the Internet?

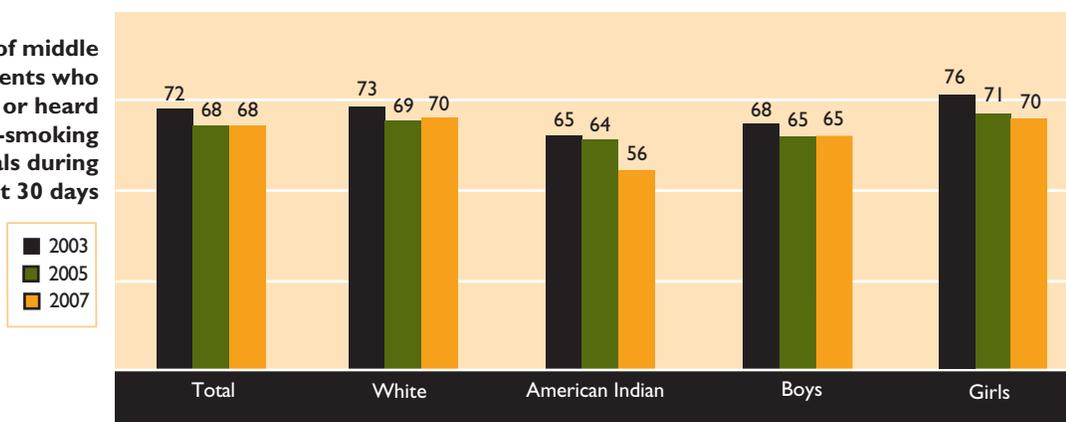
Counter-marketing campaigns, parental influence, and efforts to change social norms about tobacco use are components of effective comprehensive tobacco prevention efforts. The majority of middle school students report that a parent or guardian has discussed the dangers of tobacco use with them during the past 12 months. Most students do not recall having their doctor, dentist, nurse or other health professional asking about smoking or advising them not to smoke. The questions about health care providers asking or advising about tobacco use were different than previous surveys, therefore no trends are available.

Percent of students who remember having heard a message about the dangers of tobacco use from their parents or guardians or health care providers during the 12 months prior to the 2007 SDYTS



The majority of middle school students in the 2005 and 2007 surveys recall having seen or heard at least one anti-tobacco commercial during the past 30 days.

Percent of middle school students who have seen or heard anti-smoking commercials during the past 30 days

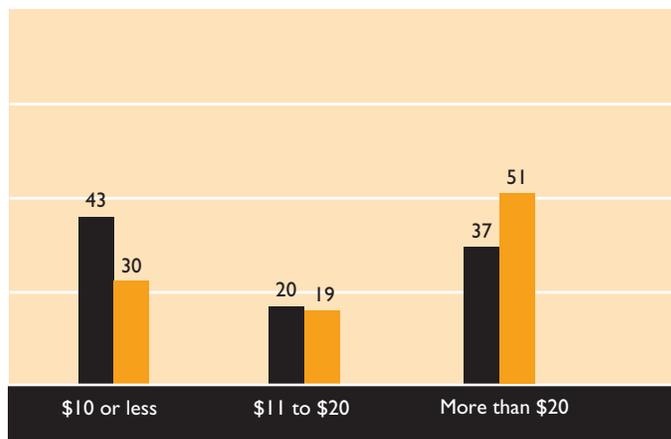
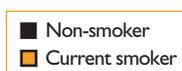


Other questions not included in previous reports.

Several new questions were asked for the first time in the 2007 survey. They included questions about exposure to secondhand smoke at work, rules for smoking in the home or car, and smoking Bidis, Kreteks or tobacco in a pipe, and discretionary spending money.

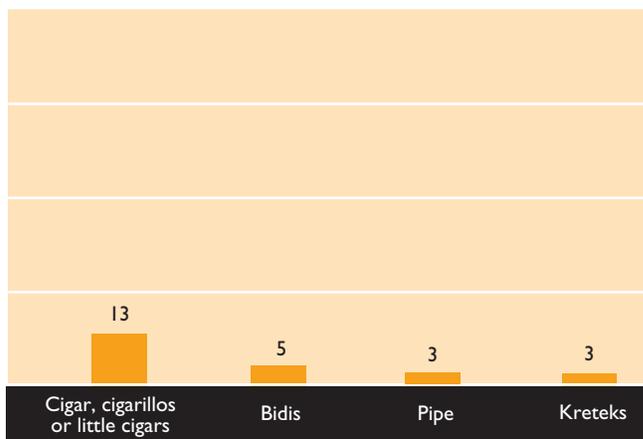
Students who were current smokers were likely to have more than \$20 a week that they could spend in any way they want to.

Percent of middle school students with weekly discretionary spending by smoking status



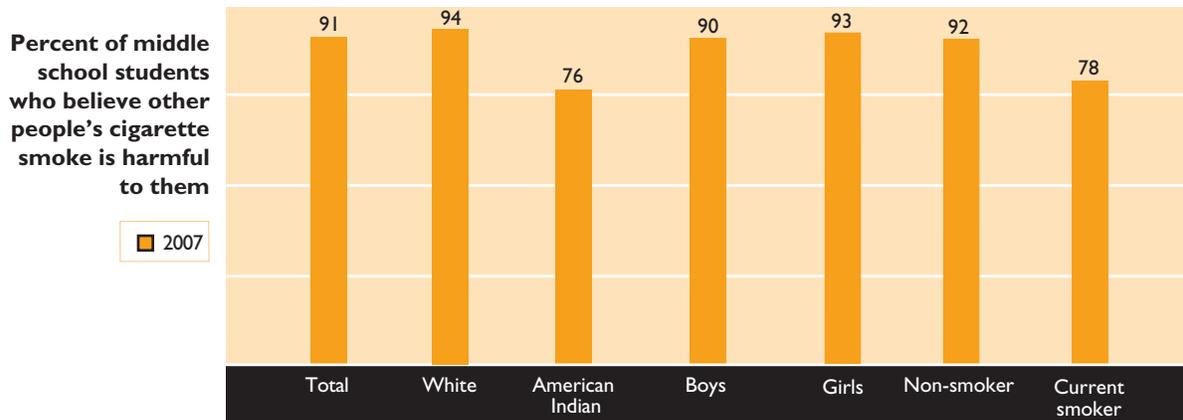
Three percent of middle school students reported smoking tobacco in a pipe. Three percent reported trying Kreteks and 5 percent tried Bidis (cigarettes containing clove extract). In contrast, 13 percent have tried cigars, cigarillos or little cigars in the 30 days prior to the survey.

Percent of middle school students smoking something other than cigarettes in 30 days prior to the 2007 SDYTS

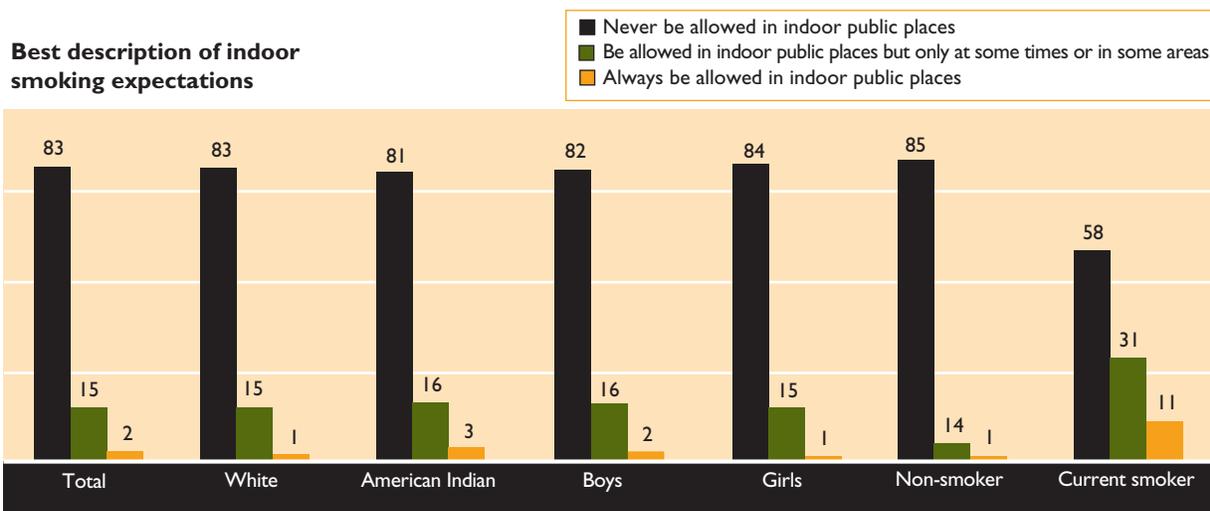


REPORT ON KEY QUESTIONS

Over 90 percent of middle school students believed that other people's cigarette smoke is harmful to them, although among current smokers the percentage drops to 78 percent.



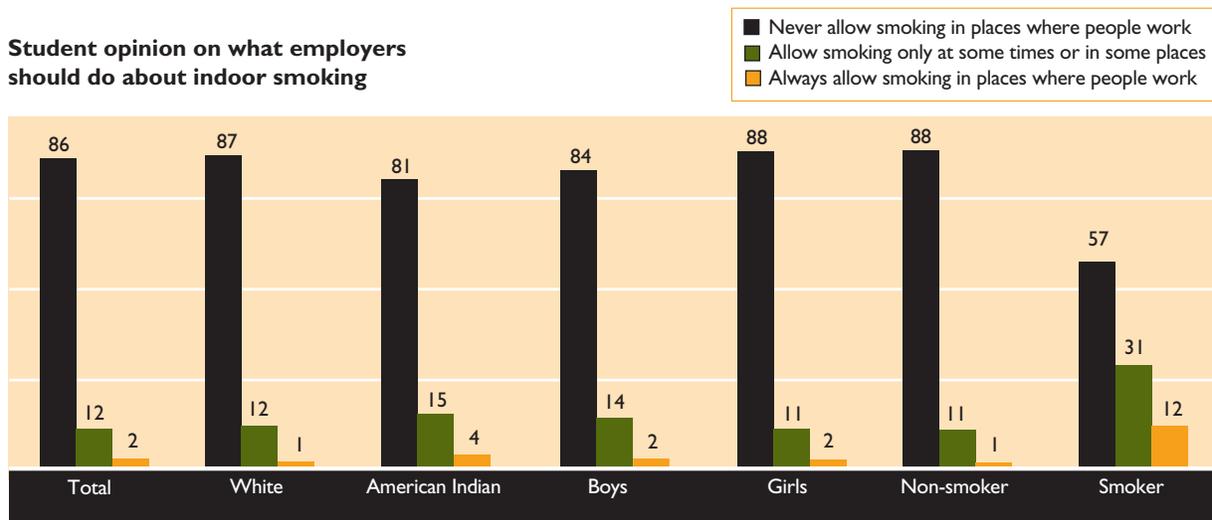
Eighty-three percent of students believed that indoor smoking should never be allowed, although among current smokers the percentage drops to 58 percent.



REPORT ON KEY QUESTIONS

Just over 85 percent of students believe employers should never allow smoking in places where people work, which decreases to 57 percent among smokers.

Student opinion on what employers should do about indoor smoking



Yet among those students who said they had a job, 76 percent said smoking should never be allowed in places where people work. Of students who had a job, 33 percent said smoking was sometimes or always allowed where they work. Of this subgroup who had a job, and who had worked within the seven days before the survey, 28 percent had been exposed to secondhand smoke.

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METHODOLOGY

The SDYTS is primarily a surveillance instrument that has some utility for evaluation purposes. Surveillance is the continuous monitoring or routine collection of data on various factors over regular intervals of time. Evaluation is the systematic collection of information about the activities, characteristics, and outcomes of programs to make judgments about the program, improve program effectiveness and/or inform decisions about future program development. The SDYTS findings should be used with care for program evaluation purposes because they constitute only one element of an evaluation of statewide and local efforts to prevent and control tobacco use.

SAMPLING DESIGN

A two-stage cluster sample design was used to produce a representative sample of students in South Dakota. For the middle school sample, the first-stage sampling frame consisted of all public schools containing any of grades 6-8. Forty-seven schools were selected with probability proportional to school enrollment size. The second-stage sampling consisted of systematic equal probability sampling 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. Passive parental consent was used and all students were provided information about the purpose of the survey and given the option to choose not to participate. Forty-five of the forty-seven sample schools (89.4 percent) participated and 2,727 of 3,088 sampled students (88.3 percent) completed useable questionnaires. The overall response rate was 78.9 percent (89.4 percent x 88.3 percent).

The CDC assigned a weight associated with each questionnaire to reflect the likelihood of sampling each student and to reduce bias by compensating for differing patterns of response. The weighting procedure is a method that helps ensure, based on a set of assumptions, that the sample of students completing the SDYTS actually matches the population of students in South Dakota. The weight used for estimation is determined by the equation:

$$W=W1*W2*f1*f2*f3*f4$$

W1=the inverse probability of selecting the school
 W2=the inverse 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

The CDC believe that the weighted results used to prepare this report can be used with confidence as a surveillance instrument to make important inferences concerning tobacco use risk behaviors of all regular public school students.

SAMPLING ERRORS

Sampling errors occur when estimates are derived from a sample rather than a census of the population. The sample used for a particular survey is only one of a large number of possible samples of the same size and design that could have been selected. Even if the same questionnaire and instructions were used, the estimates from each sample would differ from the others. This difference, termed sampling error, occurs by chance, and its variability is measured by the standard error associated with a particular survey.

The CDC has calculated confidence intervals for responses to each item. These confidence intervals are generated by a process that captures the true population percentage 95 percent of the time.

The data presented in this report take the sampling error and confidence interval into account whenever differences are present between males and females, grade levels or over time. In many cases, the differences that are present may be due to a sampling error. The authors have been careful to note this possibility when differences occur.



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