

2011 South Dakota Youth Tobacco Survey

Report on Key Findings for Grades 6 through 8



Prepared for South Dakota Department of Health – Tobacco Control Program



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Acknowledgements

Thank you to the school districts, school administrators, and teachers who assisted in the implementation of the 2011 South Dakota Youth Tobacco Survey and to the students who completed the survey.

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This report is available electronically on the South Dakota Department of Health website:

<http://doh.sd.gov/tobacco>

Prepared May 2012

Table of Contents

Executive Summary.....	iii
Tobacco Use.....	iii
Frequency of Use.....	iii
Ever Used	iii
Age at First Use.....	iii
How Youth Obtain Tobacco Products.....	iii
Secondhand Smoke	iii
Middle School Students Who Want to Quit	iii
Rules About Smoking	iv
Trends in Middle School Smokers, 2003 - 2011	iv
Introduction.....	1
Methodology.....	1
Findings from the 2011 South Dakota Youth Tobacco Study.....	2
Tobacco Use	2
Frequency of Use	6
Ever Used	7
Age at First Use	10
How Youth Obtain Tobacco Products	12
Social Influences and Perceptions	18
Advertising	23
Secondhand Smoke.....	28
Middle School Students Who Want to Quit.....	32
Rules About Smoking.....	37
Awareness of Health Effects.....	40
Conclusion and Recommendations	48
Conclusion.....	48
Recommendations.....	48
Prevent people from starting to use tobacco products	48
Help current tobacco users quit	49
Reduce nonsmokers’ exposure to secondhand smoke	49
Appendix A.....	50
Methodology	50

Sample description 50

Overall response rates..... 50

Weighting..... 50

Use of the weighted results..... 50

Response numbers 51

Sampling errors 51

References 51

Executive Summary

Tobacco Use

Cigarettes are the most widely used tobacco product among South Dakota middle school students. The percentage of middle school students who are current smokers is the lowest (5%) in the 8 year period (2003-2011).

Spit tobacco (including chewing tobacco, snuff, and dip) use also declined. In 2011, there was a dramatic decline among American Indian students using spit tobacco, to 9% from a high of 17% in 2005 and 2007.

Frequency of Use

Of those middle school students that currently use tobacco products, there are some differences in how often they use those products. Many current smokers smoked just 1 or 2 days in the previous 30 days. This was the same for spit tobacco users.

Ever Used

Many middle school students who are not current users of tobacco products have nonetheless tried tobacco products at some point. Roughly 14% of middle school students have tried smoking at least once, 9% have tried spit tobacco, 7% have tried cigars, and 5% have tried pipe tobacco. These percentages are consistently higher for American Indian students than white students.

Age at First Use

Among those who have tried cigarettes, American Indian students are less likely than white students to have tried when they were age 8 or younger, while girls are slightly more likely than boys to have tried at age 8 or younger.

How Youth Obtain Tobacco Products

Given that it is illegal to sell tobacco products to anyone under 18; it is interesting to see how middle school students obtain them. Borrowing is the most likely way that current smokers obtain cigarettes.

While middle school students should not be able to purchase cigarettes, the data show that those who do purchase their own cigarettes are not generally prevented from doing so. In 2011, 75% of middle school students who attempted to buy cigarettes in the last 30 days were not refused because of their age, an increase from 65% in 2007. Success in purchasing cigarettes is similar for all groups.

Secondhand Smoke

Two-thirds (66%) of current middle school smokers live with someone who also smokes. Less than one-third of non-smoking middle school students live with someone who smokes. One-fifth of middle school students reported someone smoking in their home while they were present within the past 7 days. Middle school students were also exposed to secondhand smoke in a vehicle, at work, and in a public place.

Middle School Students Who Want to Quit

While a majority of current middle school smokers would like to quit, that number has been steadily declining since 2003. Efforts to quit are often unsuccessful.

Rules About Smoking

Smoking in the home is “Never allowed” in the vast majority of middle school student’s homes. This percentage has increased steadily since 2007 in both non-smoker and current smoker homes. Current smokers are still more likely to be allowed to smoke in the home than are non-smokers.

Trends in Middle School Smokers, 2003 - 2011

- Current smokers are the lowest in the time period from 2003 to 2011.
- American Indian current smokers have dropped steadily from 30% in 2005 to 12% in 2011.
- Spit tobacco use by American Indians declined dramatically from 17% to the current 9%.
- There was an increase in the percent of current middle school smokers who bought their own cigarettes in a store, from 4% in 2009 to 9% in 2011.
- There was an increase in the percentage of middle school students who bought cigarettes and were not refused, from 65% in 2007 to 75% in 2011.
- Current middle school smokers who live with someone who smokes showed a decrease from 75% in 2003 to 66% in 2011.
- Since 2003, exposure to secondhand smoke remains fairly constant with about 50% of students being exposed to it.
- There has been a steady decline since 2003 in the percent of middle school smokers who want to quit smoking.
- The belief that secondhand smoke is harmful has been increasing since 2007.
- The percent of middle school students who were taught in school that they should not use tobacco increased from 48% in 2003 to 60% in 2011.

Introduction

“EACH DAY IN THE UNITED STATES, APPROXIMATELY 3,800 YOUNG PEOPLE UNDER 18 YEARS OF AGE SMOKE THEIR FIRST CIGARETTE, AND AN ESTIMATED 1,000 YOUTH IN THAT AGE GROUP BECOME DAILY CIGARETTE SMOKERS (CDC, 2012).”

The concern over youth tobacco use and its prevention is the impetus for the Youth Tobacco Survey (YTS). The National Youth Tobacco Survey began in 1997; South Dakota has participated in the survey since 2003. This report provides results from the 2011 South Dakota Youth Tobacco Study (SDYTS). The focus is on middle school youth in grades 6, 7, and 8 and tobacco-related matters. The 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 survey has been conducted in odd numbered years since 1999 and can track changes in tobacco related behavior over time. 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 South Dakota Department of Health, Tobacco Control Program coordinates state efforts to:

1. Prevent people from starting to use tobacco products,
2. Help current tobacco users quit, and
3. Reduce nonsmokers' exposure to secondhand smoke

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 2011 SDYTS consisted of 66 questions developed by the Centers for Disease Control and Prevention (CDC) and the South Dakota Tobacco Control Program. Many 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 surveyed 2,044 students in 42 schools. The overall response rate was 64 percent. More information about the methodology of the SDYTS can be found in Appendix A.

Findings from the 2011 South Dakota Youth Tobacco Study

Tobacco Use

Cigarettes are the most widely used tobacco product among South Dakota middle school students. Figure 1 shows the percent of middle school students who were current cigarette smokers at the time of the survey in 2011. In this report, a middle school student is defined as a “current smoker” if they have smoked one or more days in the previous 30 days. As shown in the figure, 5% of middle school students were current smokers in 2011. The percentage of girls and boys who smoke is roughly the same, but these percentages are consistently higher in American Indian (12%) middle school students. Based on these data it is estimated that there are approximately 1,431 current middle school smokers in South Dakota.

Figure 1. Percent of middle school students who are current smokers, 2011

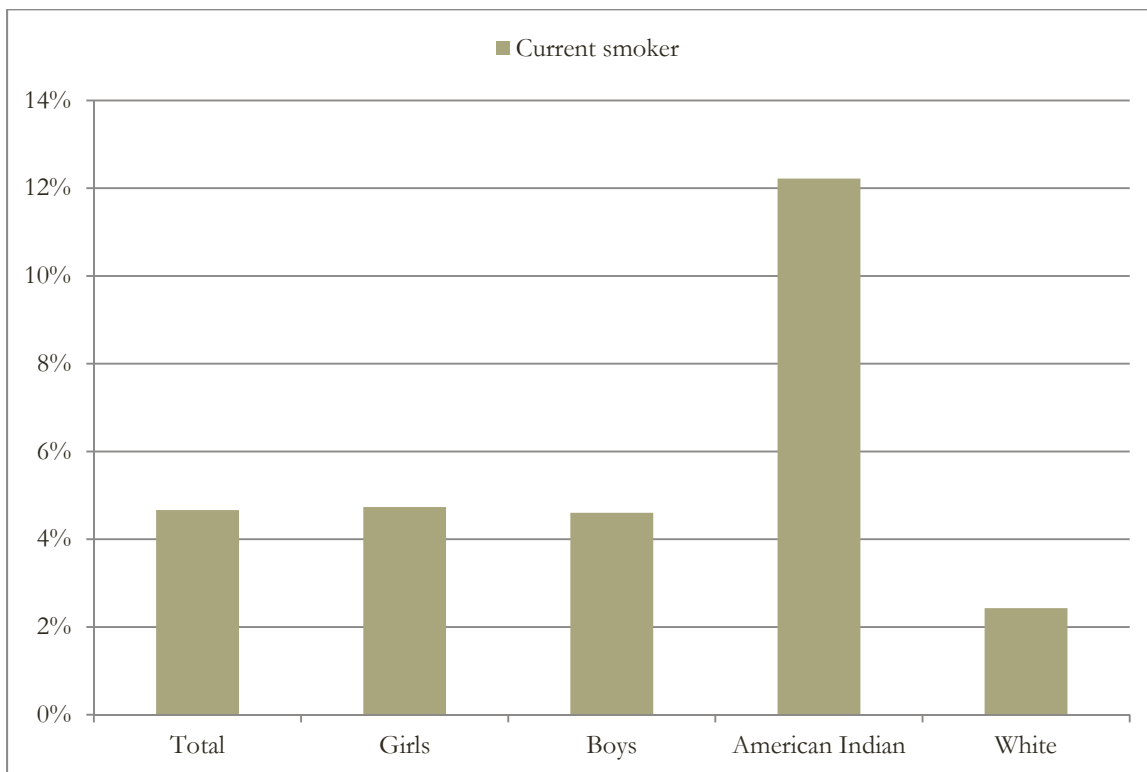
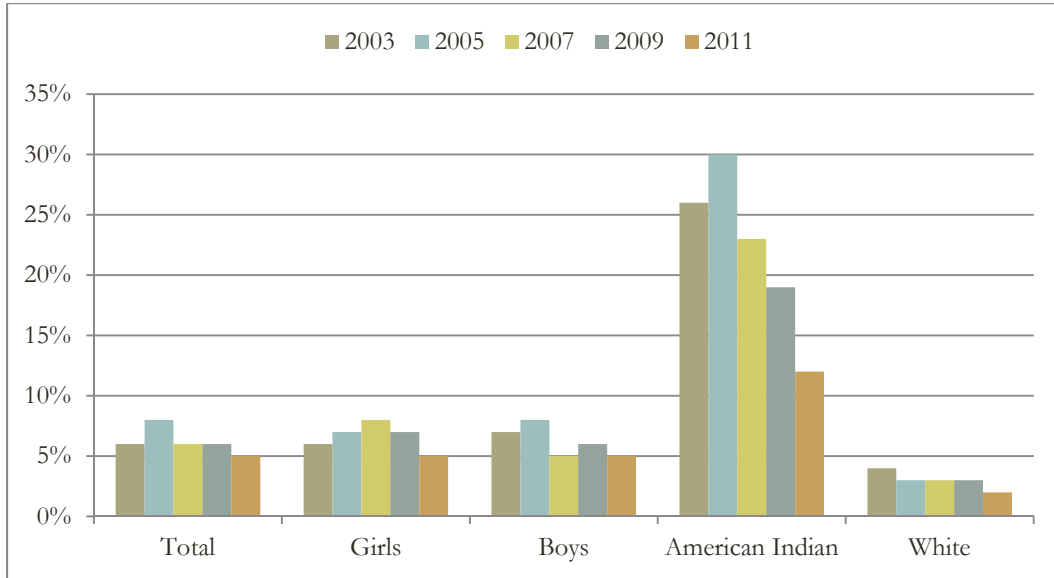


Figure 2 shows the percentage of current smokers since the first SDYTS in 2003 to now. The overall percentage of 5% in 2011 is the lowest in this 8 year period. The percentage of current smokers has declined among girls since 2007, and the boys' percentage is also down from a high of 8% in 2005.

Figure 2. Percent of middle school students who are current smokers, 2003-2011



Spit tobacco (including chewing tobacco, snuff, and dip) use has also declined in 2011. Figure 3 shows the percentage of middle school students who are current users of spit tobacco products. Based on these data there are an estimated 1,048 current middle school students who use spit tobacco in South Dakota.

Figure 3. Percent of middle school students who currently use spit tobacco, 2011

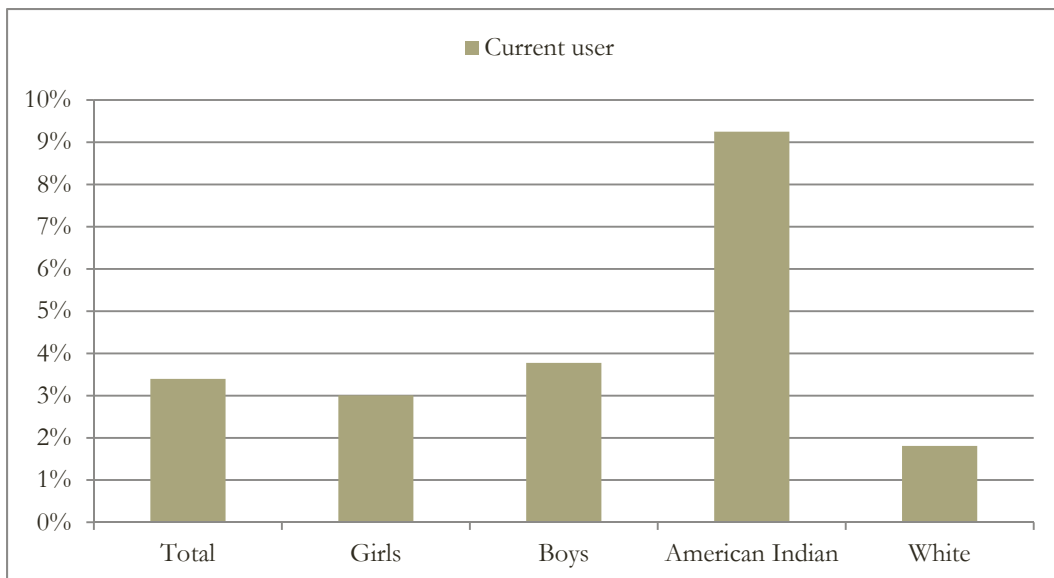
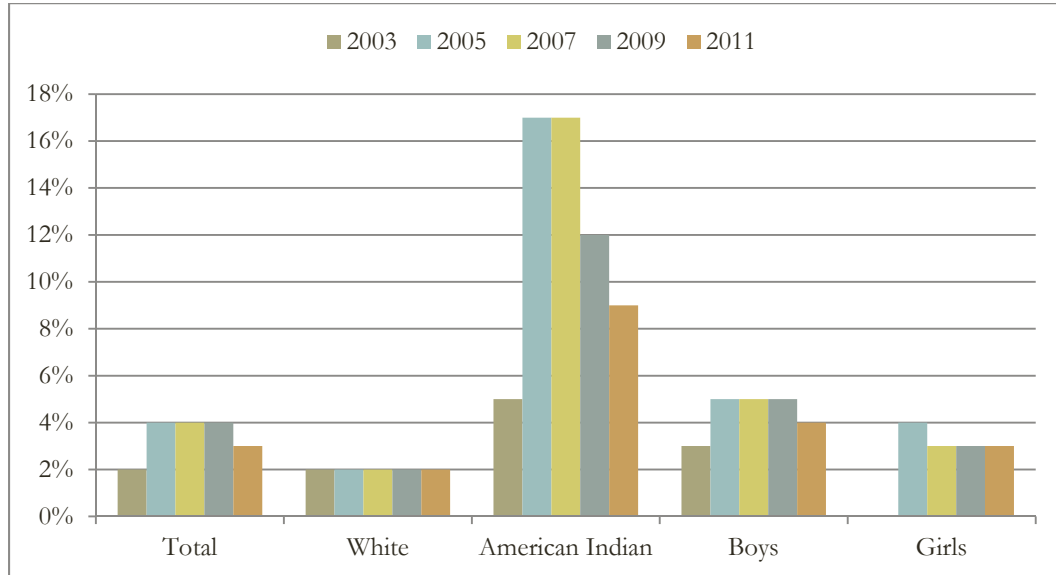


Figure 4 shows these percentages from 2003 through 2011. We see a slight decline to 3% overall in 2011, with more dramatic declines among American Indian students from a high of 17% in 2005 and 2007 to 9% in 2011.

Figure 4. Percent of middle school students who currently use spit tobacco, 2003-2011



Middle school student use of cigars, pipes, and bidis are shown in Figure 5. Cigar use shows a steady decline, with only 1% of students currently using cigars, down from 5% in 2007. Pipe and bidis have remained steady since 2009, at 2% and 1% respectively.

Figure 5. Percent of middle school students who currently use other tobacco products, 2007-2011

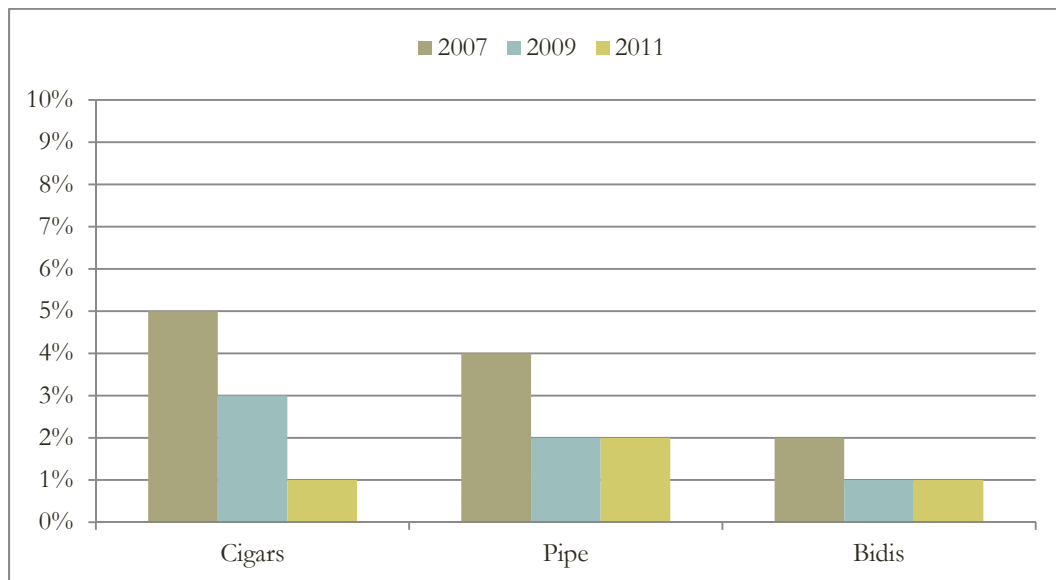
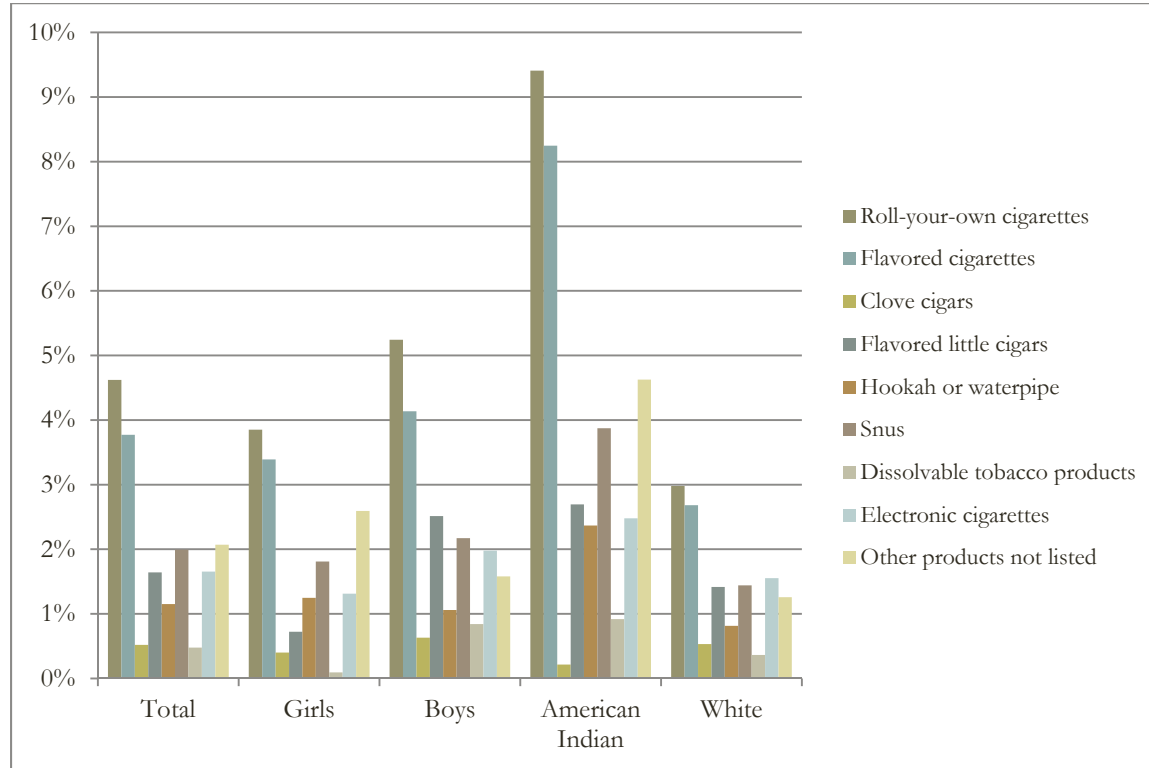


Figure 6 shows what percent of middle school students are using other tobacco products in 2011. Roll-your-own cigarettes and flavored cigarettes¹ are the most commonly used of these other products overall, and among the different groups.

Figure 6. Percent of middle school students who currently use other tobacco products, 2011



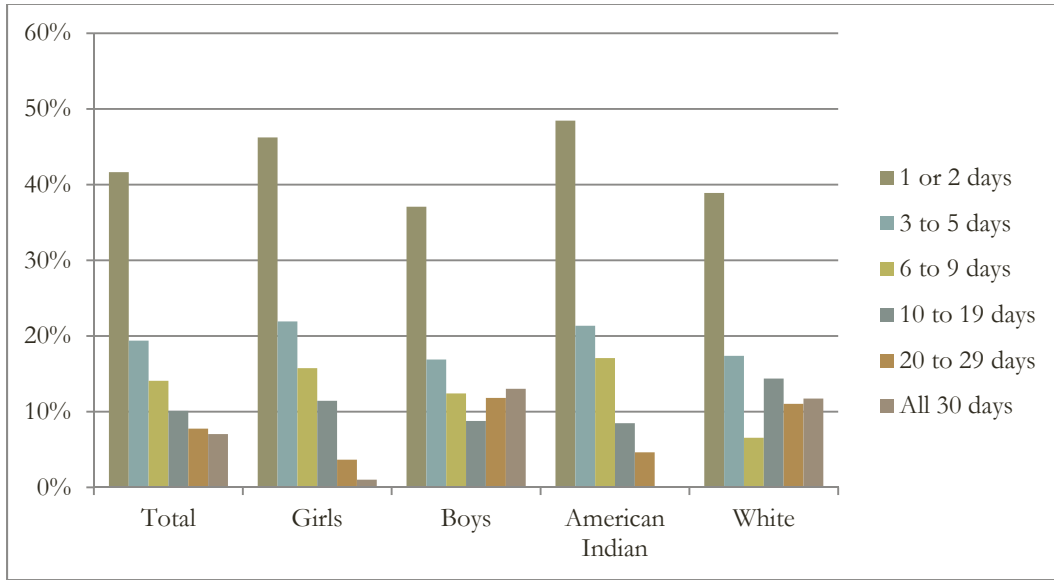
¹ The U.S. Food and Drug Administration website, accessed on May 23, 2012 notes: On September 22, 2009 a ban on cigarettes containing certain characterizing flavors went into effect. The ban, authorized by the new [Family Smoking Prevention and Tobacco Control Act](#), is part of a national effort by FDA to reduce smoking in America. The FDA’s ban on certain characterizing flavored cigarettes highlights the importance of reducing the number of children who start to smoke, and who become addicted to dangerous tobacco products. The FDA is also examining options for regulating both menthol cigarettes and flavored tobacco products other than cigarettes. According to the act

...a cigarette or any of its component parts (including the tobacco, filter, or paper) shall not contain, as a constituent (including a smoke constituent) or additive, an artificial or natural flavor (other than tobacco or menthol) or an herb or spice, including strawberry, grape, orange, clove, cinnamon, pineapple, vanilla, coconut, licorice, cocoa, chocolate, cherry, or coffee, that is a characterizing flavor of the tobacco product or tobacco smoke.

Frequency of Use

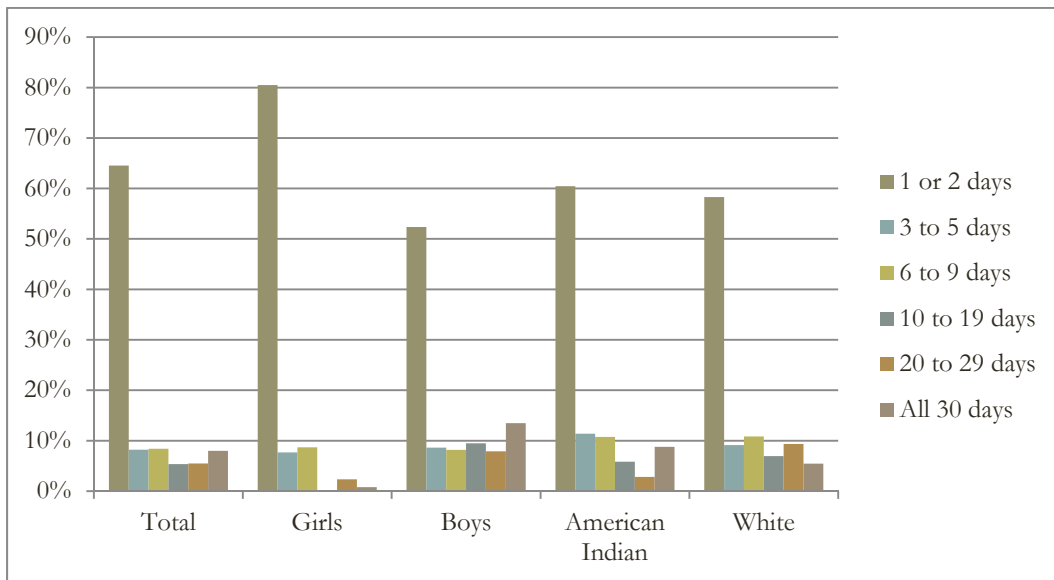
Of those middle school students that currently use tobacco products, there are some differences in how often they use those products. Figures 7 and 8 show how often current users of cigarettes and spit tobacco used those products in the past 30 days. Figure 7 shows that many current smokers smoked just 1 or 2 days in the previous 30 days.

Figure 7. Days smoked in past 30 days, current smokers only, 2011



For spit tobacco users, Figure 8 shows that a majority used on 1 or 2 days of the previous 30 days.

Figure 8. Days of spit tobacco use in past 30 days, current users only, 2011

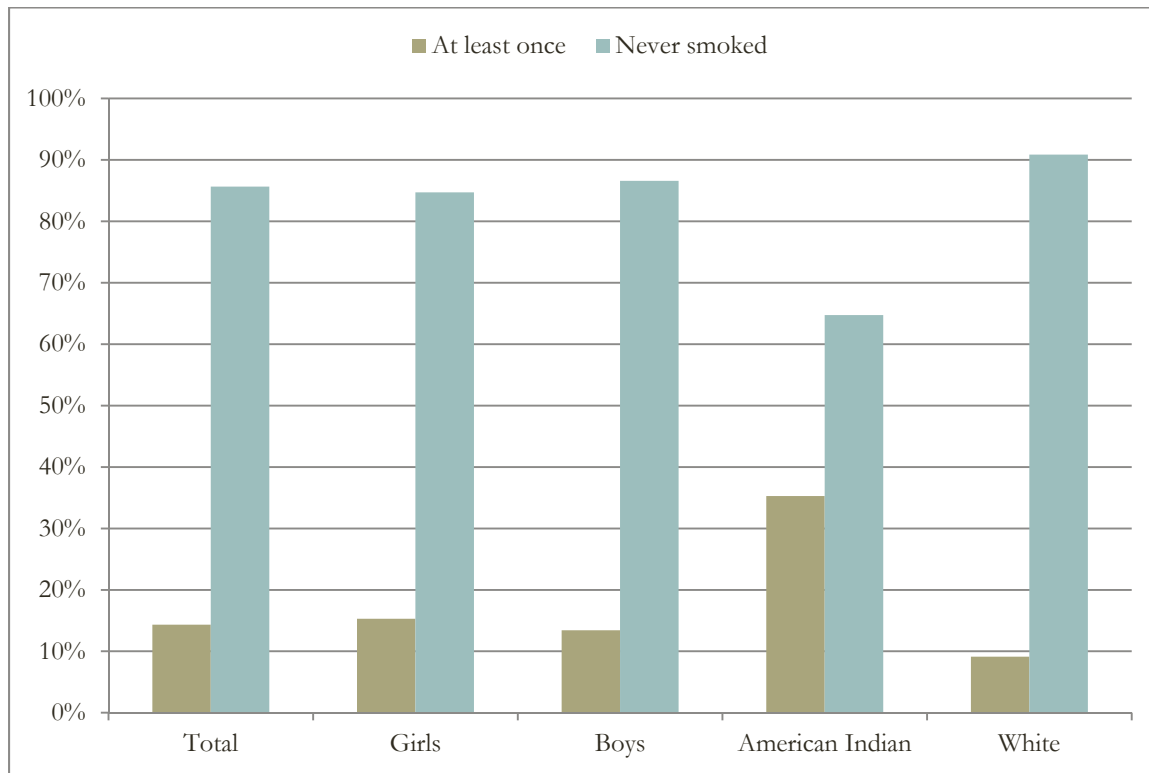


Ever Used

Many middle school students who are not current users of tobacco products have nonetheless tried tobacco products at some point. Figures 9 through 13 describe the percentages of students who have (or have not) tried various tobacco products. Most of these figures are only available for 2011.

Roughly 14% of middle school students have tried smoking at least once (Figure 9), 9% have tried spit tobacco (Figure 10), 7% have tried cigars (Figure 11), and 5% have tried pipe tobacco (Figure 12). These percentages are consistently higher for American Indian students. Girls are slightly more likely to have tried cigarettes than boys (15% to 13%), while boys are more likely than girls to have tried spit tobacco (11% to 6%) and cigars (10% to 4%).

Figure 9. Percent of middle school students who have ever smoked, 2011*



*Not available from previous years.

The percentage of students who have tried spit tobacco has increased slightly from 8% in 2009 to 9% in 2011 (Figure 10), although the percentage for American Indian students declined from 21% to 17% over this same period.

Figure 10. Percent of middle school students who ever used spit tobacco, 2003 - 2011

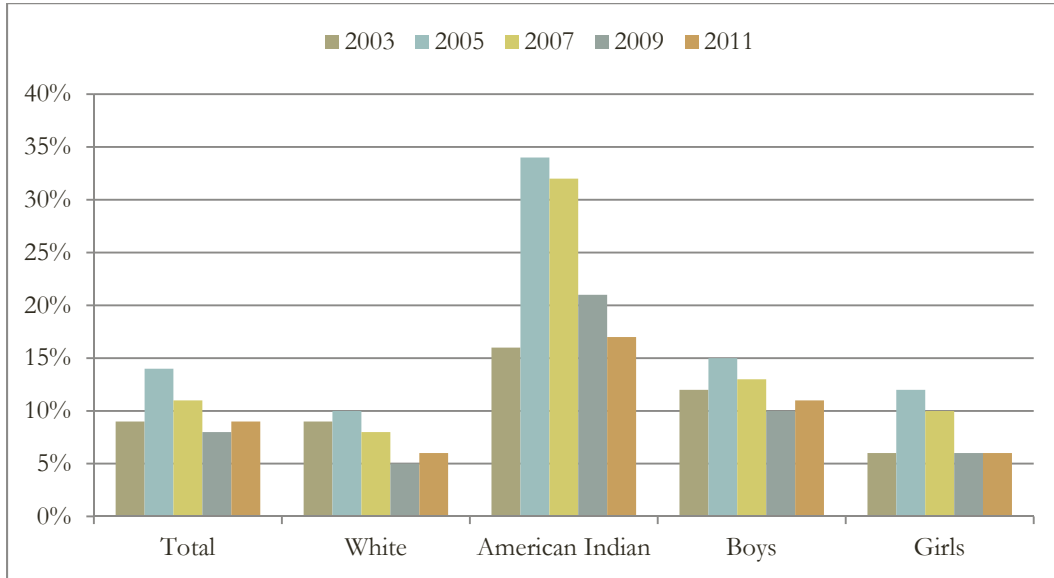


Figure 11. Percent of middle school students who ever smoked cigars*, 2011



*Including cigarillos and little cigars

Figure 12. Percent of middle school students who ever tried smoking tobacco in a pipe, 2011

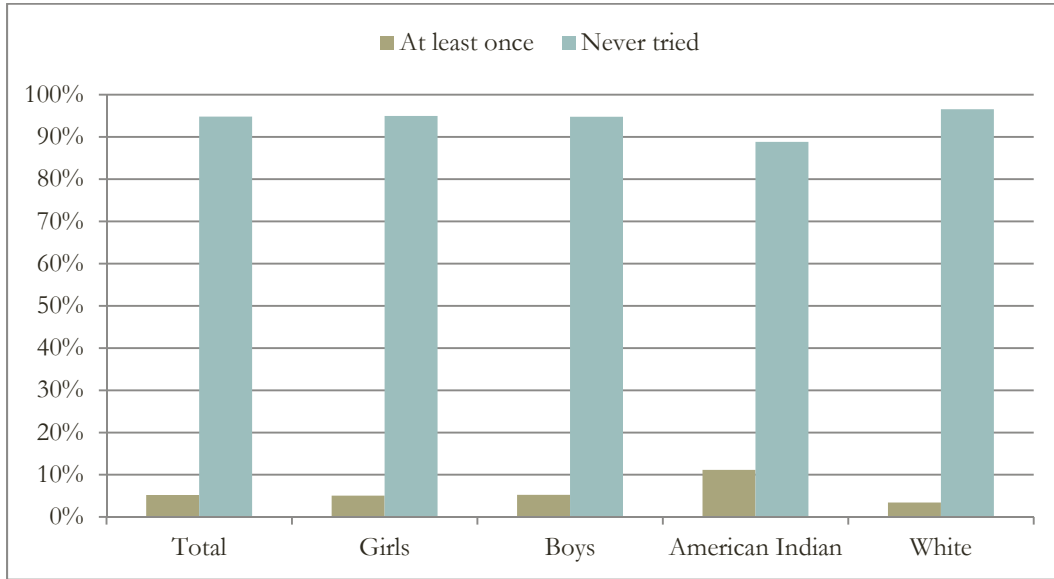
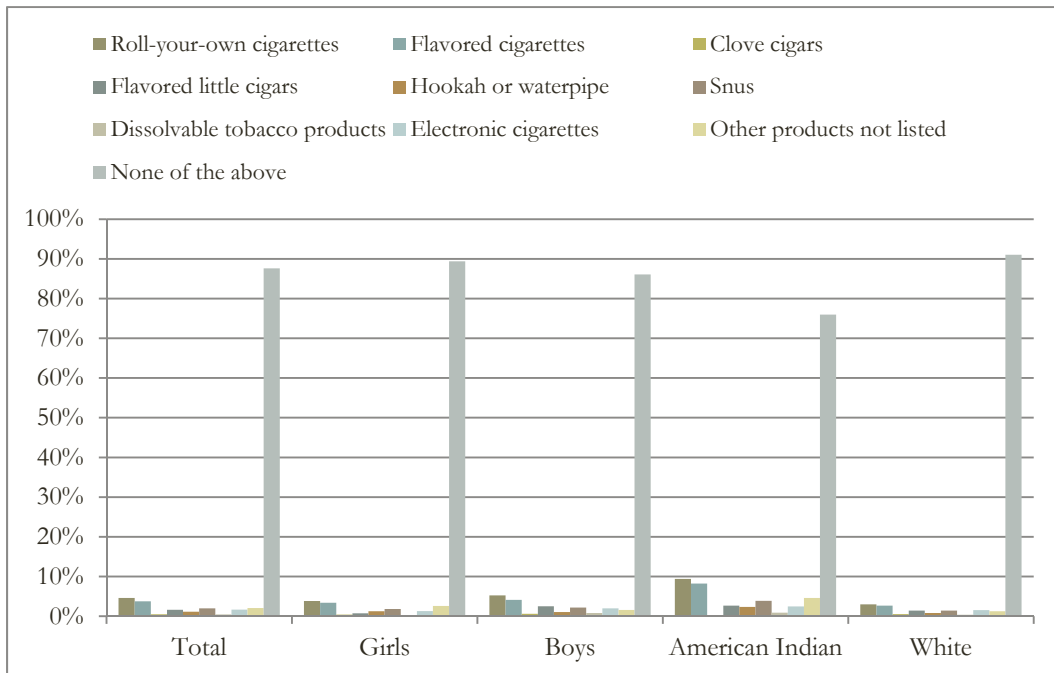


Figure 13 shows the percent of middle school students who have tried other tobacco products. Roll-your-own cigarettes and flavored cigarettes are the most commonly tried of these other products (5% and 4% overall). In 2011, 88% of South Dakota middle school students never tried any of these other products.

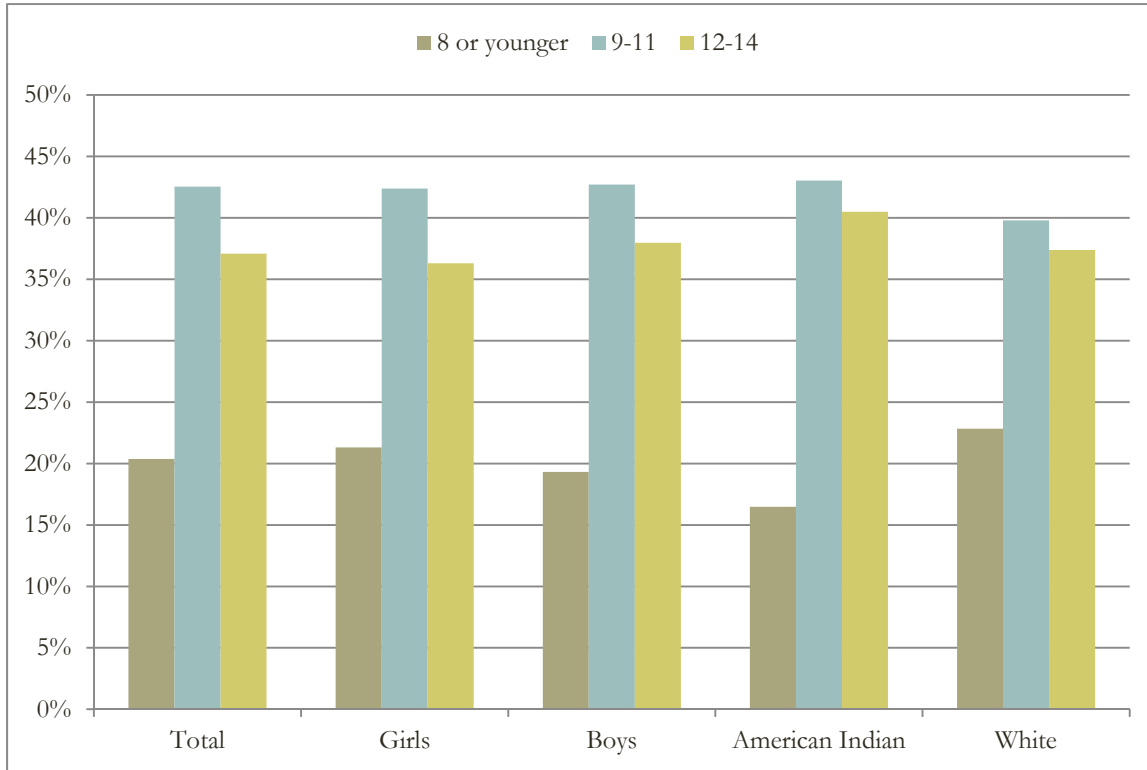
Figure 13. Percent of middle school students who ever tried other tobacco products, 2011



Age at First Use

Figures 14 through 16 show for 2011, the age of middle school students when they first tried tobacco products. Among those who have tried cigarettes, American Indian students are less likely to have tried when they were 8 or younger, while girls are slightly more likely than boys to have tried at 8 or younger (Figure 14).

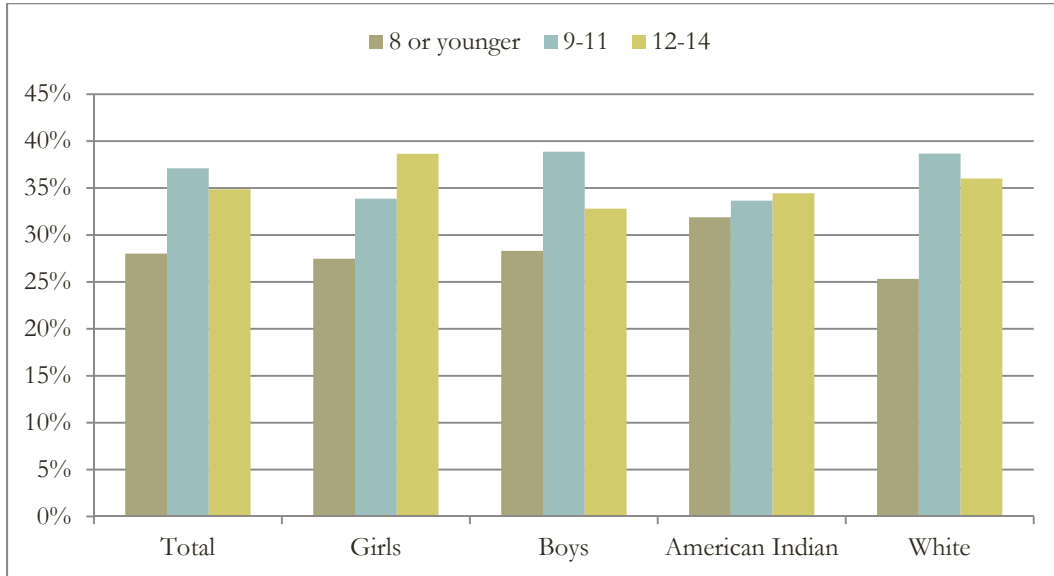
Figure 14. Age at first use*: Cigarettes



*Of students who have ever smoked.

In Figure 15, we see that girls who try spit tobacco are more likely to do so at older ages than boys, and American Indians are more likely to try spit tobacco at 8 or younger.

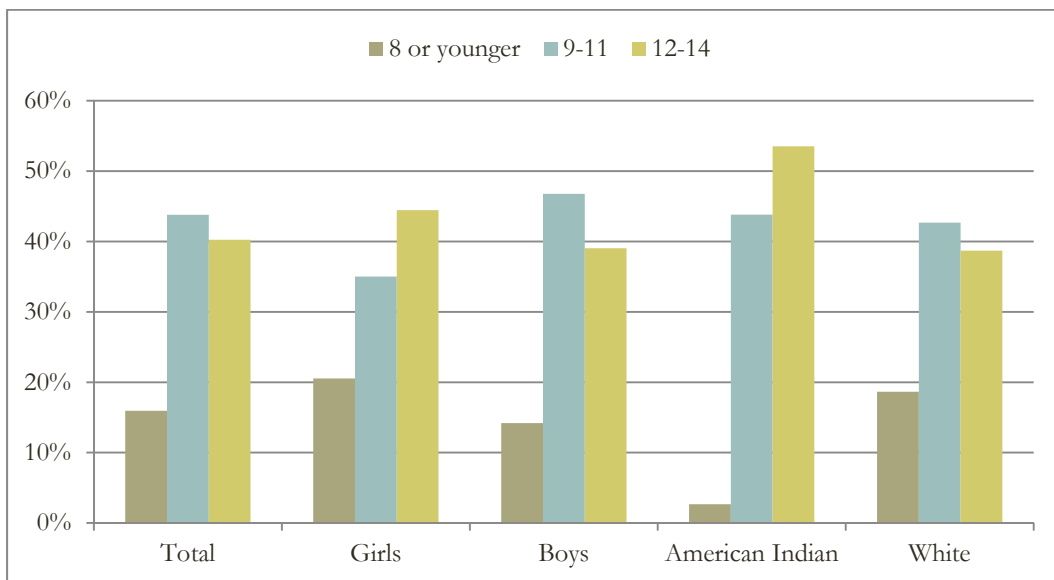
Figure 15. Age at first use*: Spit tobacco



*Of students who have ever used.

Figure 16 shows age at first cigar use. Similar to first cigarette use, girls who have tried cigars are more likely to have done so at 8 or younger than boys, and American Indians are more likely to start at age 9 or older.

Figure 16. Age at first use*: Cigars, cigarillos or little cigars



*Of students who have ever used.

How Youth Obtain Tobacco Products

Given that it is illegal to sell tobacco products to anyone under 18; it is interesting to see how middle school students obtain them. All percentages in this section relate to the number of students who currently use these products unless otherwise noted.

Figure 17 shows the percentage of students who obtain their cigarettes through various means. For boys and white students, borrowing is the most common way to obtain cigarettes (39% and 34%, respectively). Borrowing is also the most likely way that current smokers overall obtain cigarettes (28%, total). Girls are most likely to have been given a cigarette without having asked (24%) or to have someone else buy them (23%). The most common ways for American Indian students to obtain cigarettes are being given cigarettes without having asked (26%) or to borrow them (25%).

Figure 17. How middle school students obtain cigarettes 2011

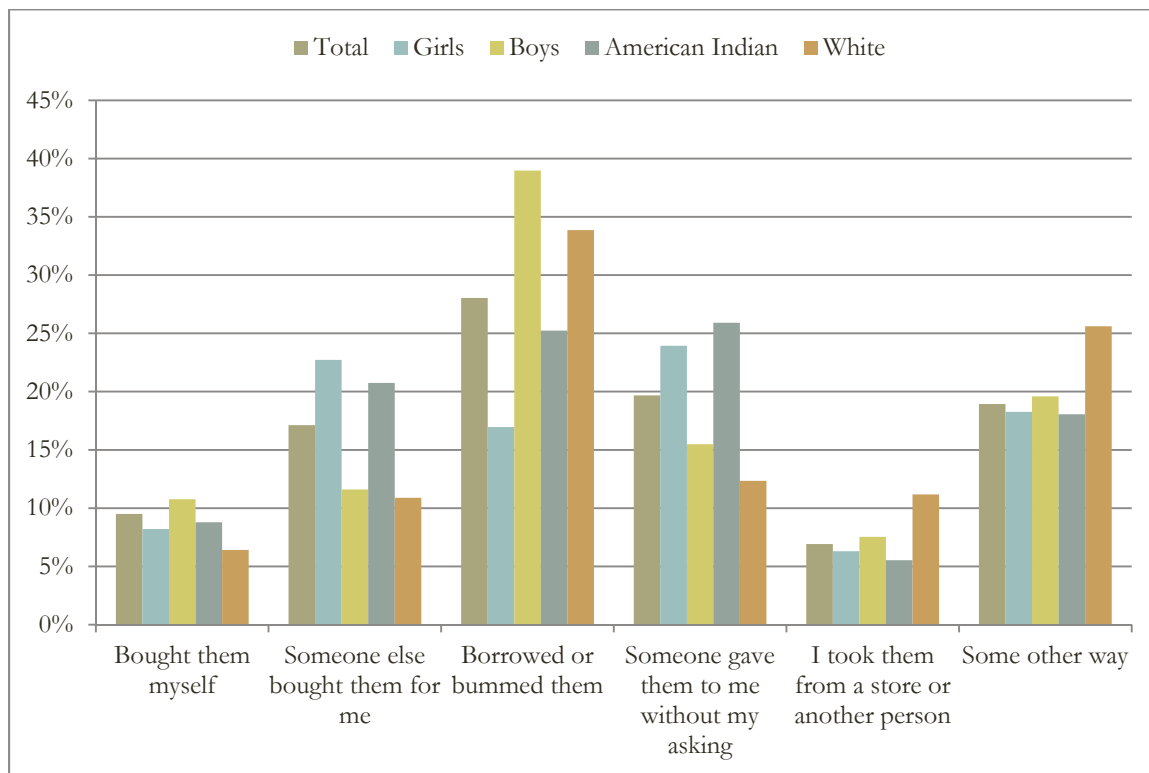


Figure 18 shows no clear pattern in how middle school students have obtained cigarettes since 2003. Borrowing is usually the most common way for students, overall, while stealing has become less likely over the time period. Nine percent of current middle school smokers bought their own cigarettes in a store in 2011, up from 4% in 2009. (Note that some of the categories in Figure 17 are not represented in Figure 18 due to differences in the survey questions across years.)

Figure 18. How middle school students obtain cigarettes, 2003-2011

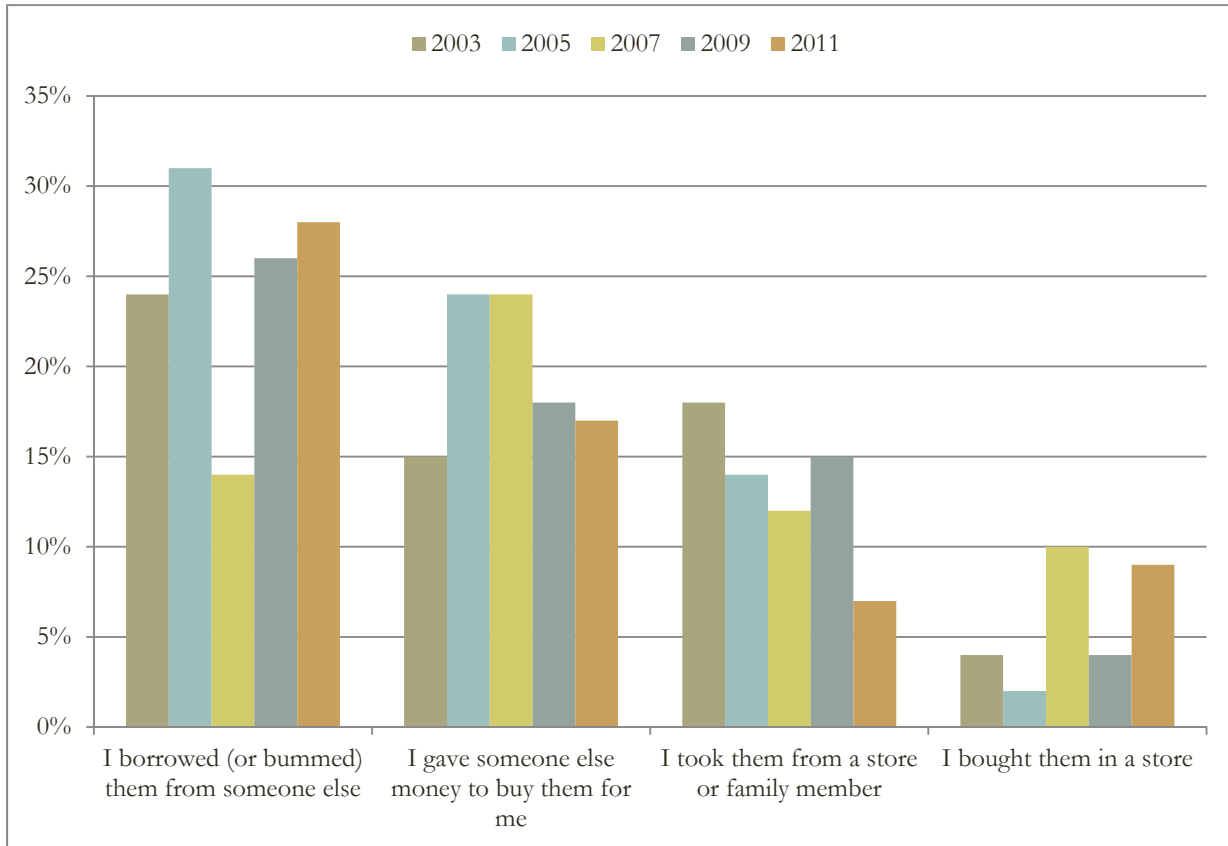
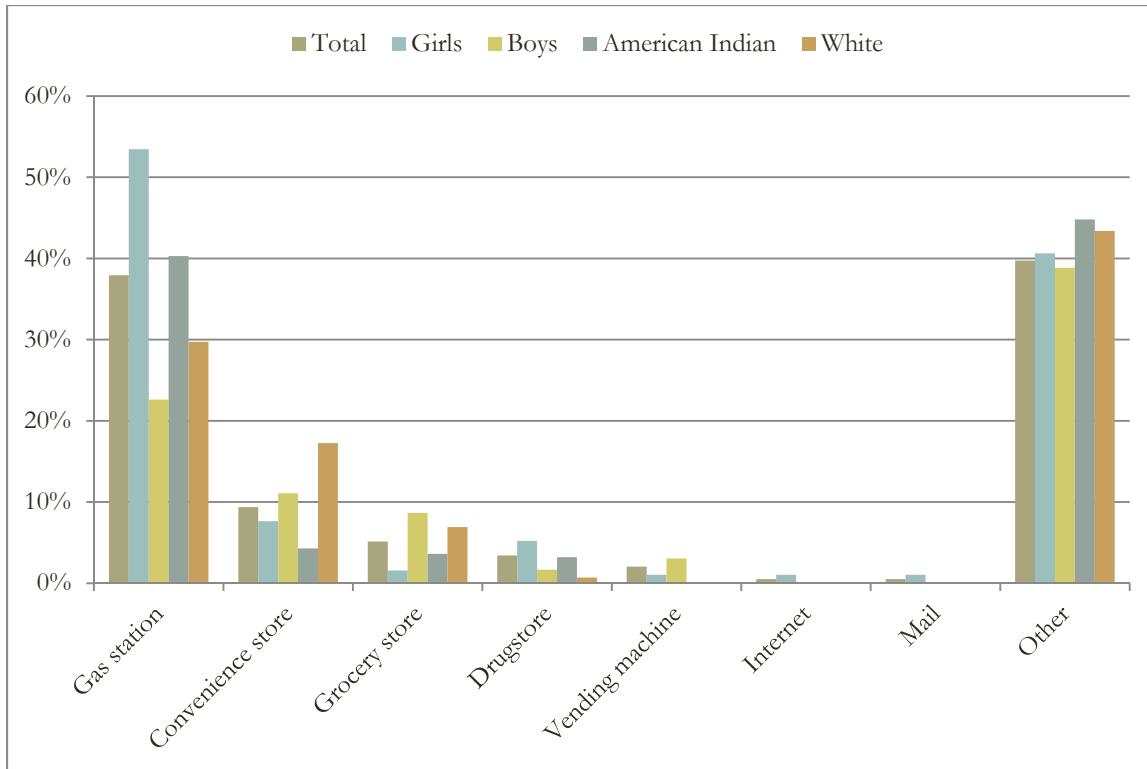


Figure 19 shows that girls who bought their own cigarettes were most likely to have done so at a gas station (53%), while all other groups were more likely to have purchased them in a manner not listed in the survey. This might include buying from friends or family members, or some other illicit purchase. This is an area that warrants further investigation in future surveys.

Figure 19. Where middle school students purchase their own cigarettes, 2011*



*Percent of current smokers who bought their own cigarettes in the past 30 days.

While middle school students should not be able to purchase cigarettes, Figure 20 makes it clear that those who do purchase their own cigarettes are not generally prevented from doing so. In 2011, 75% of middle school students who attempted to buy cigarettes in the last 30 days were not refused because of their age, an increase from 65% in 2007. One explanation for this might be that students who have found ways to successfully buy cigarettes in the past are the most likely to have attempted to buy their own cigarettes in the past 30 days. Another explanation could be that students are increasingly buying from vendors that do not enforce the age requirement, which could be consistent with the findings from Figure 19 that show students buying from sources not listed in the survey.

Figure 20. Middle school student success in purchasing cigarettes despite age, 2003-2011

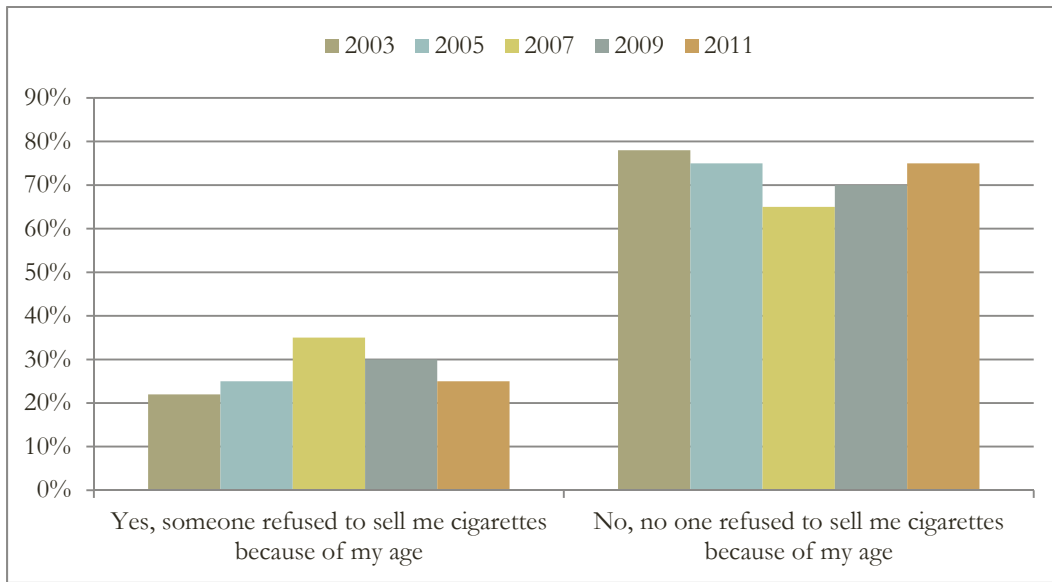


Figure 21 shows that success in purchasing cigarettes is similar for all groups.

Figure 21. Middle school student success in purchasing cigarettes despite age, 2011

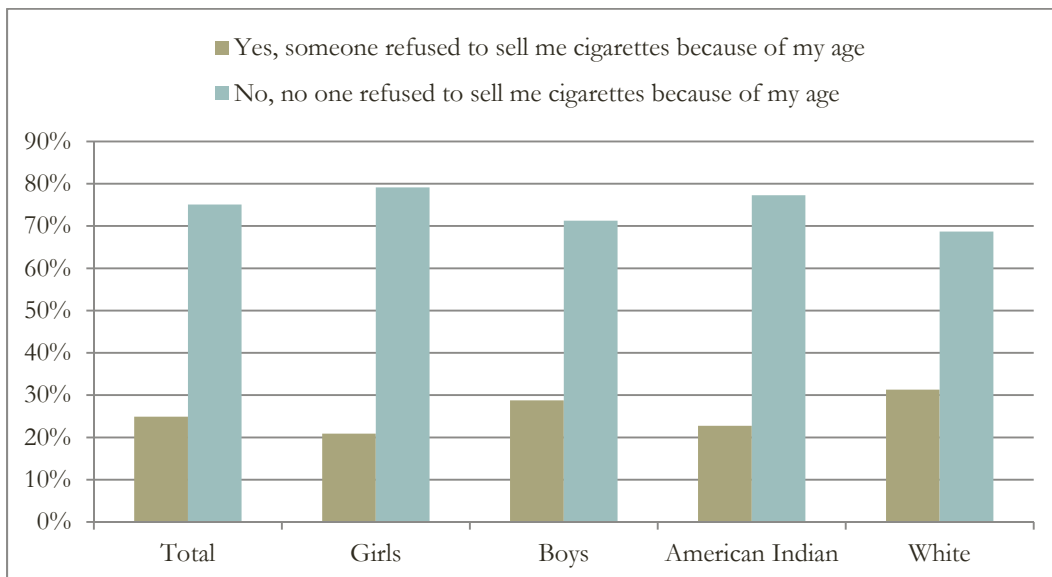


Figure 22 shows how current middle school users of spit tobacco obtain that product. Borrowing is the most common way for all groups, followed by having someone else buy for them, being given it without asking, and some other way not listed in the survey.

Figure 22. How middle school students obtain spit tobacco, 2011

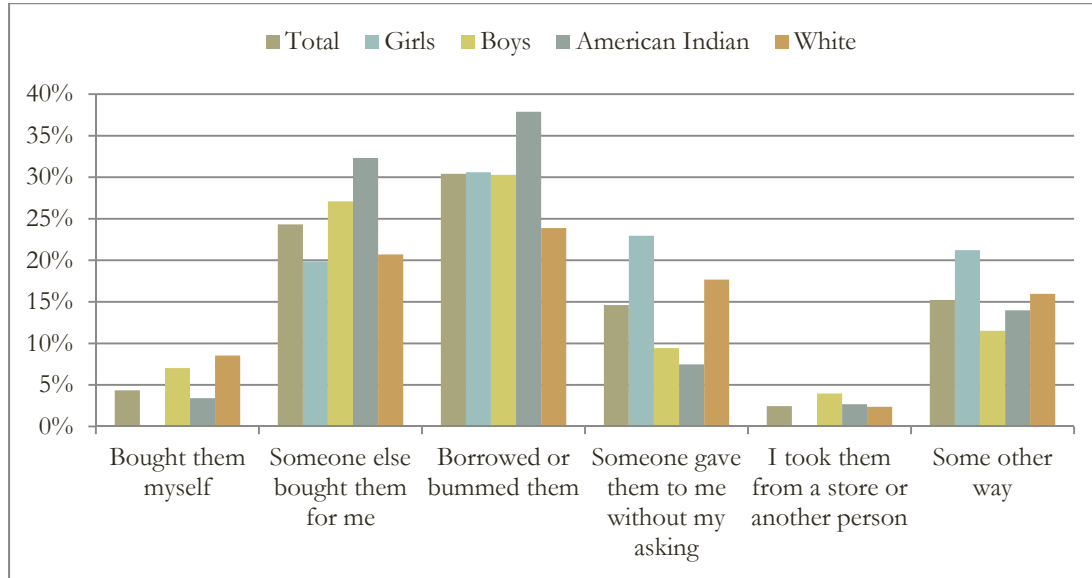


Figure 23 shows that borrowing spit tobacco has increased to 30% since 2003, while buying spit tobacco in a store has decreased substantially from 29% to only 4% in 2011.

Figure 23. How middle school students obtain spit tobacco, 2003-2011

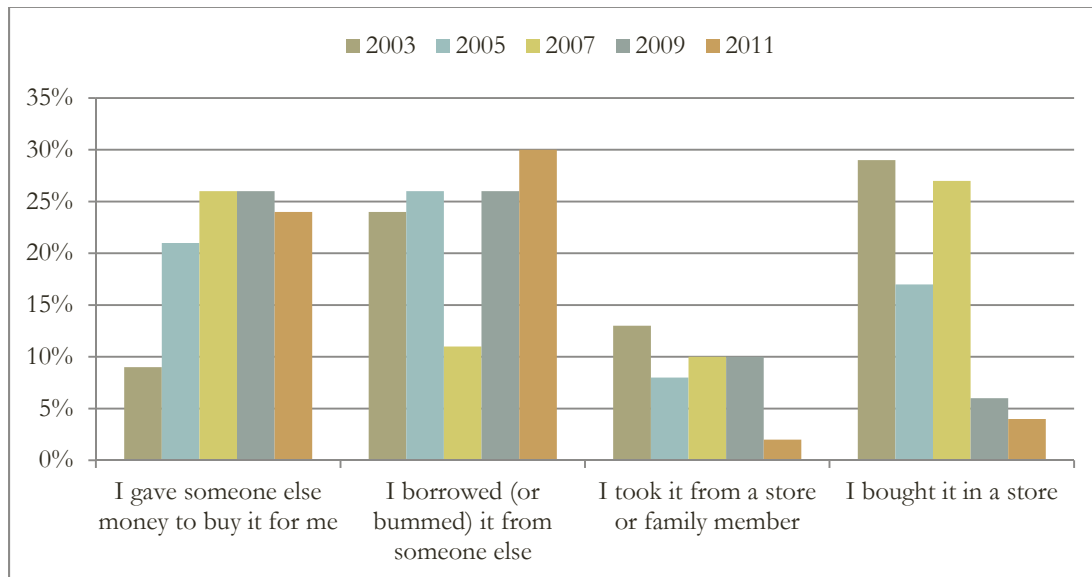
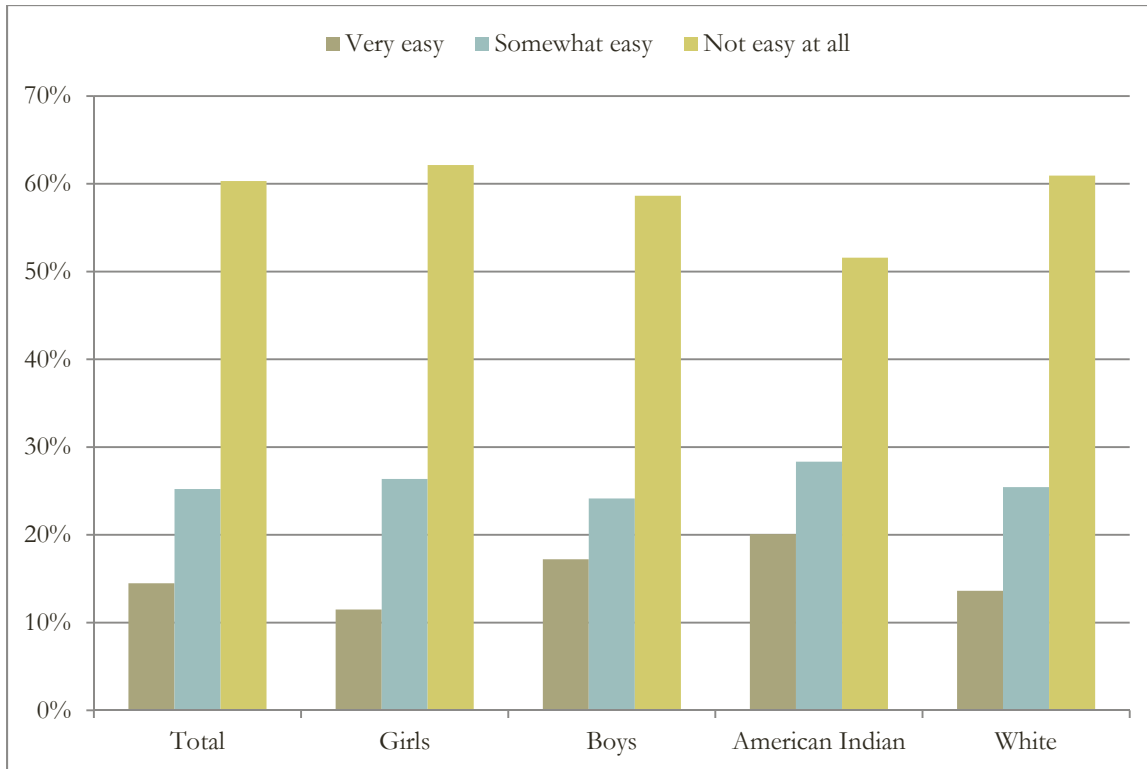


Figure 24 shows middle school student’s perceptions of how easy it would be to obtain tobacco products. Thirty-nine percent (39%) say that obtaining tobacco products would be “Very easy” or “Somewhat easy” compared with 60% who say it would be “Not easy at all”. Boys are more likely to believe that it is very or somewhat easy, as are American Indian students.

Figure 24. How easy would it be to get tobacco products?*



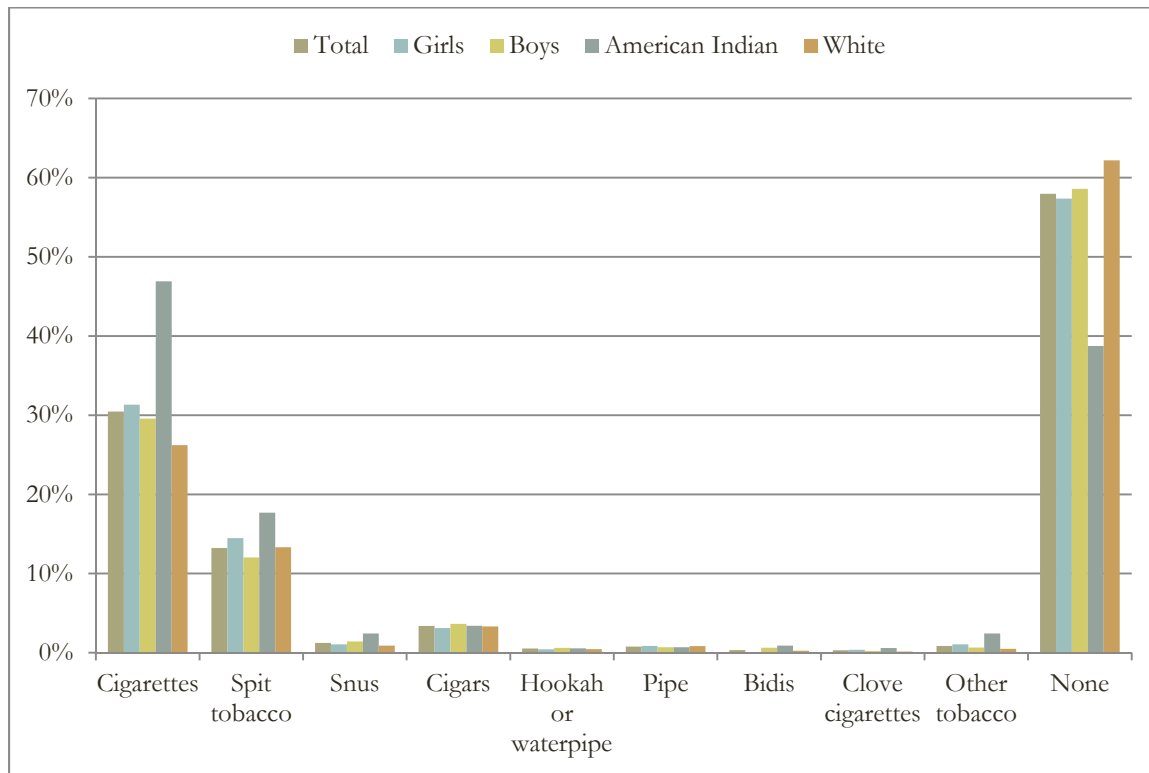
*Percentages include all middle school students, whether they use tobacco products or not.

Social Influences and Perceptions

Since middle school student’s decisions on tobacco use can be influenced by the behaviors of their family and friends, the SDYTS asks several questions relating to the tobacco use of those around them, and student perceptions about the social consequences of tobacco use.

Figure 25 shows the percent of middle school students who live with users of various tobacco products. (*Note that a student could live with someone who uses multiple products*). Almost one-third (30%) of middle school students live with someone who uses cigarettes. The percentage is higher for American Indian students (47%). Roughly 13% of middle school students live with someone who uses spit tobacco. Almost three-fifths (58%) of middle school students do not live with anyone who uses any tobacco products.

Figure 25. Percent of middle school students who live with users of tobacco products



Figures 26 and 27 show how many of middle school student’s closest friends smoke or use spit tobacco. While Figure 26 shows 81% of students have no close friends that smoke; American Indian students are more likely to have close friends that smoke.

Figure 26. Number of middle school student’s closest friends that smoke

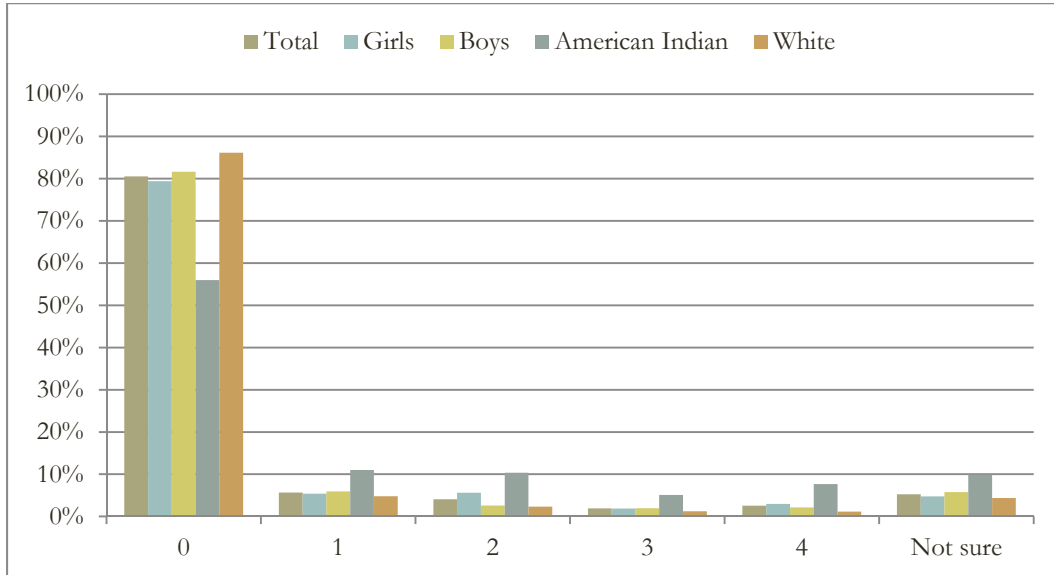
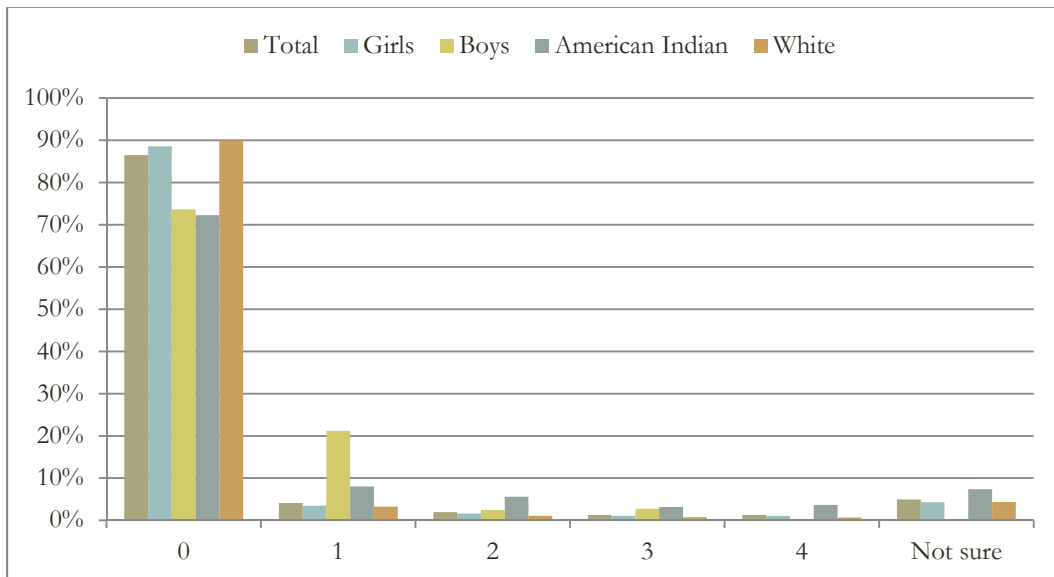


Figure 27 shows 86% of middle school students have no close friends that use spit tobacco. Both boys and American Indians are more likely to have close friends that use spit tobacco.

Figure 27. Number of middle school student’s closest friends that use spit tobacco



Figures 28 and 29 look at whether middle school students think smoking helps young people look cool or fit in. Figure 28 shows, for 2011, 82% of middle school students responded “Definitely not”, while another 10% responded “Probably not”. Disagreement is slightly lower for American Indian students (68% and 16% respectively) but all students were more likely to disagree than to agree.

Figure 28. Middle school student’s thoughts on whether smoking cigarettes helps young people look cool or fit in, 2011

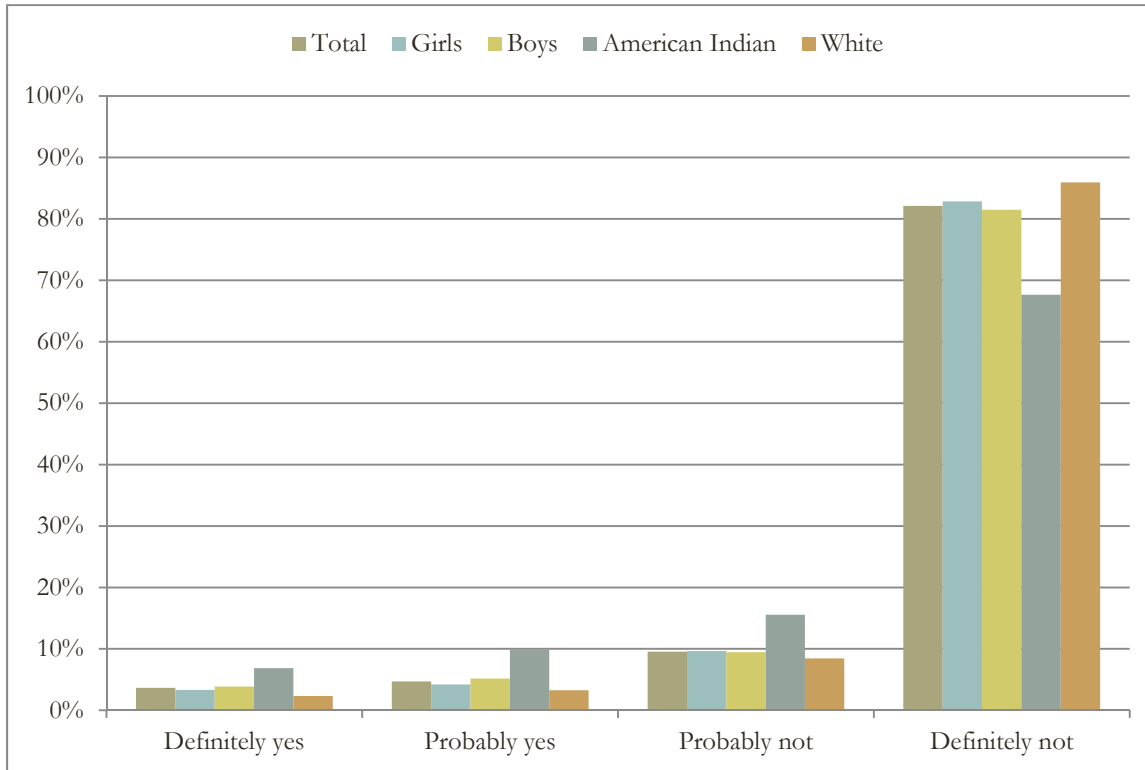
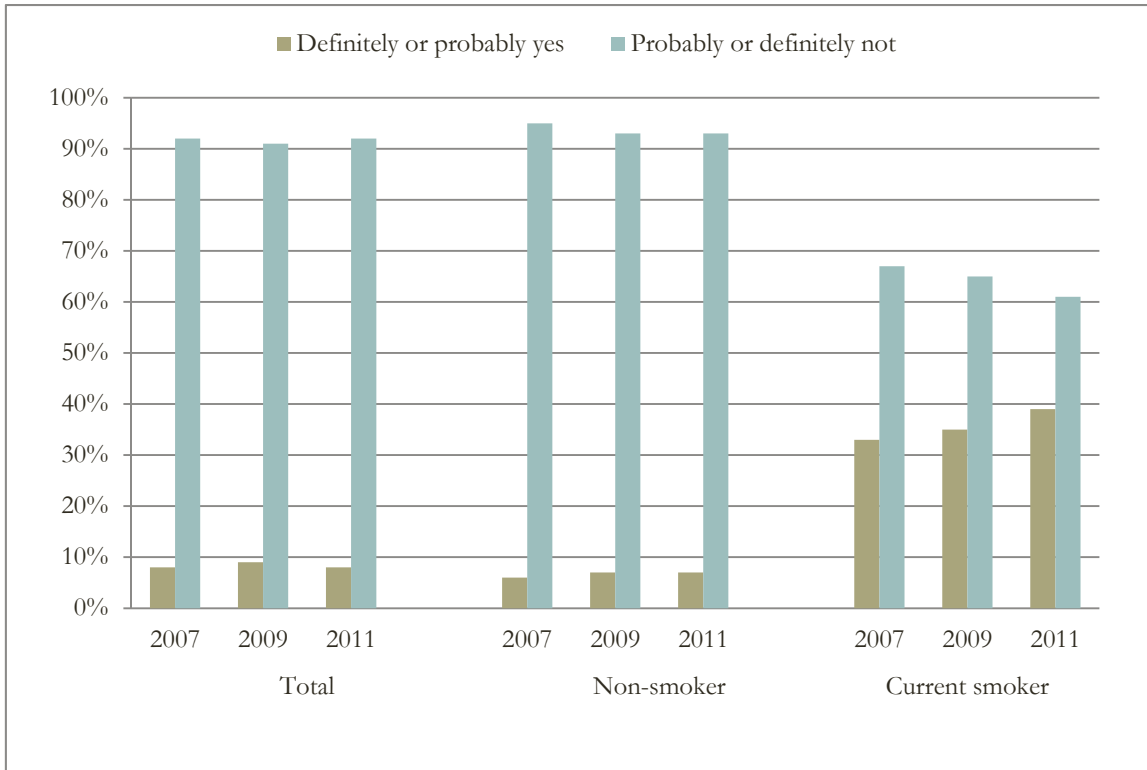


Figure 29 shows that these attitudes are stable overall, but also points to a discrepancy among non-smokers and current smokers. Non-smokers overwhelmingly reject the idea that smoking helps young people look cool or fit in, but current smokers are much more likely to believe it does, with 33% agreeing with the statement in 2007, and increasing to 39% agreement in 2011.

Figure 29. Middle school student’s thoughts on whether smoking cigarettes helps young people look cool or fit in, 2007-2011



When asked if young people who smoke have more friends, middle school students generally disagree. Figure 30 shows the responses in 2011, with all groups disagreeing with the statement.

Figure 30. Middle school student’s thoughts on whether young people who smoke have more friends, 2011

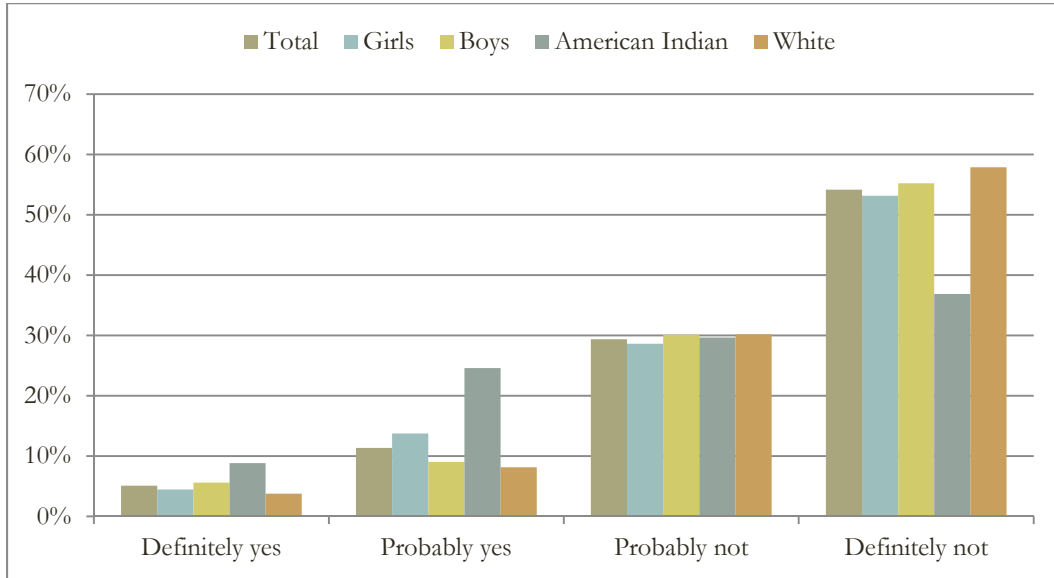
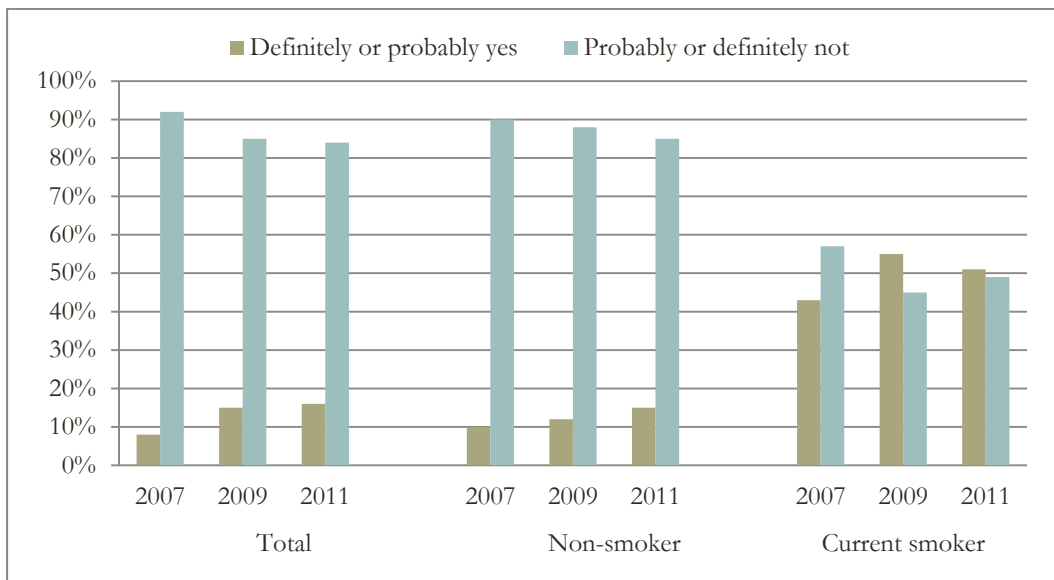


Figure 31 shows again that beliefs vary substantially among non-smokers and current smokers. Since 2009, a majority of current smokers agree with the idea that smokers have more friends (51% in 2011), in stark contrast with non-smokers who overwhelmingly disagree (85% in 2011).

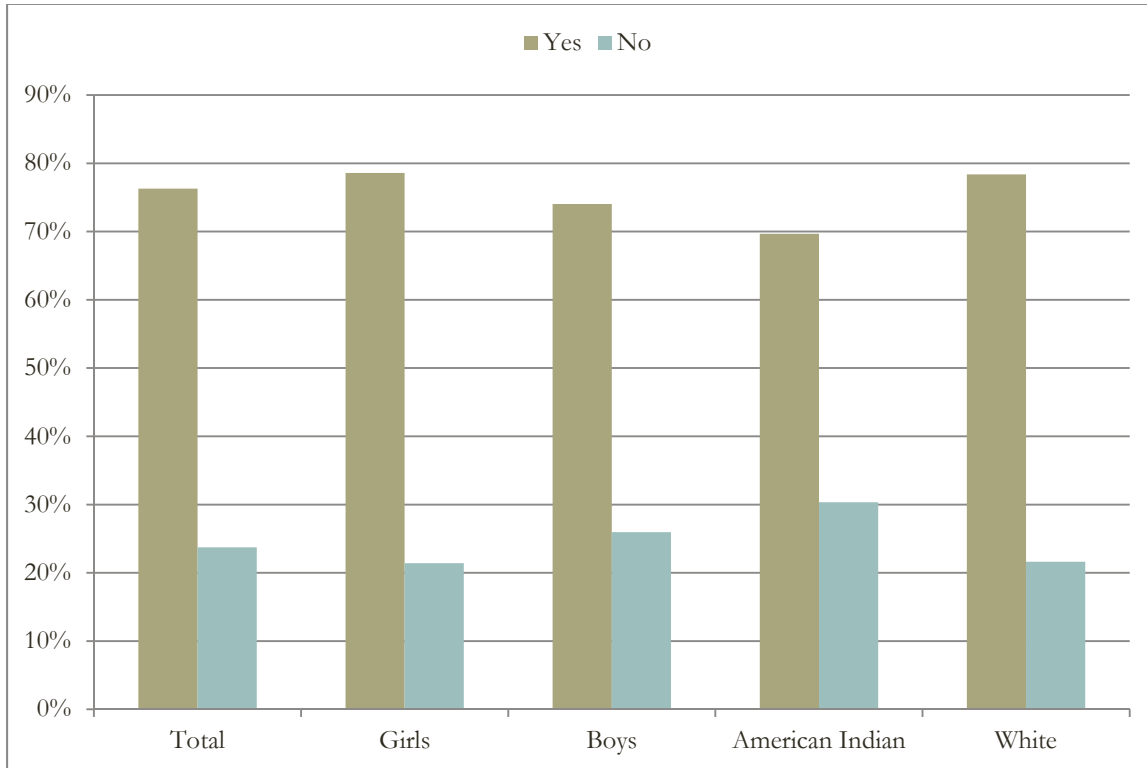
Figure 31. Middle school student’s thoughts on whether young people who smoke have more friends, 2007-2011



Advertising

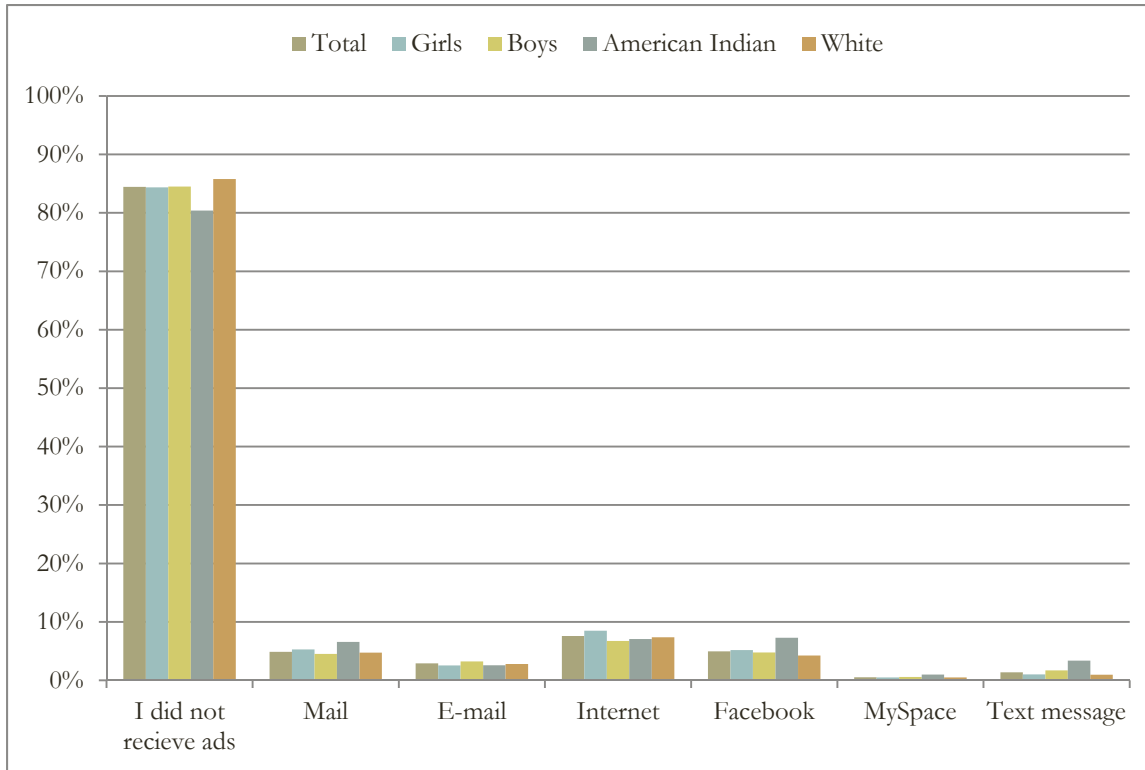
Several SDYTS questions address the advertising of tobacco products. In Figure 32, a consistent majority of middle school students believe that tobacco companies try to get them to use tobacco products. This belief is relatively consistent across different groups.

Figure 32. Percent of middle school students who believe tobacco companies try to get young people under 18 to use tobacco products



American Indian middle school students are somewhat less likely to believe tobacco companies try to get young people to use tobacco products. Despite this finding, American Indian students are more likely to report that they have received advertisements from tobacco companies in the past 30 days. Figure 33 depicts the percent of students who report that they have received advertisements from tobacco companies in the past 30 days. A great majority, 84%, had not received any ads. Those that did receive ads were most likely to have received them on the internet (8%) or Facebook (5%).

Figure 33. Percent of middle school student receiving ads from tobacco companies during the past 30 days.



Middle school students also see advertisements that are not received directly by them. Figure 34 shows that 50% of middle school students see tobacco ads “Most of the time” or “Always” when they go to convenience stores, supermarkets, or gas stations. Note that American Indian students are the most likely to say they never see tobacco ads at those places, and also most likely to say they do not go to those places; this may explain why these students are less likely to believe that they are being targeted by tobacco companies (refer back to Figure 32).

Figure 34. How often middle school students see tobacco ads at convenience stores, supermarkets, or gas stations.

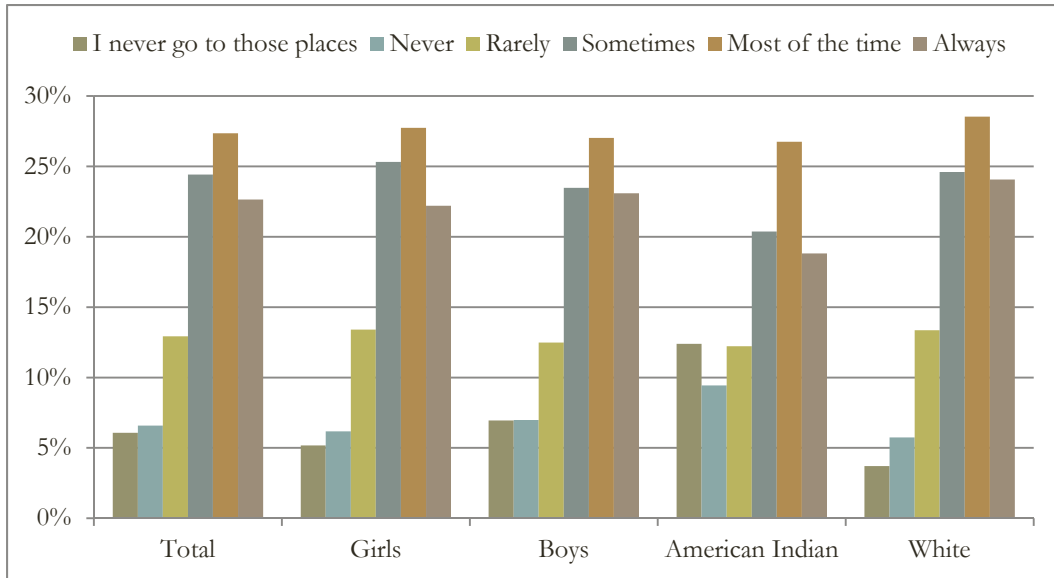
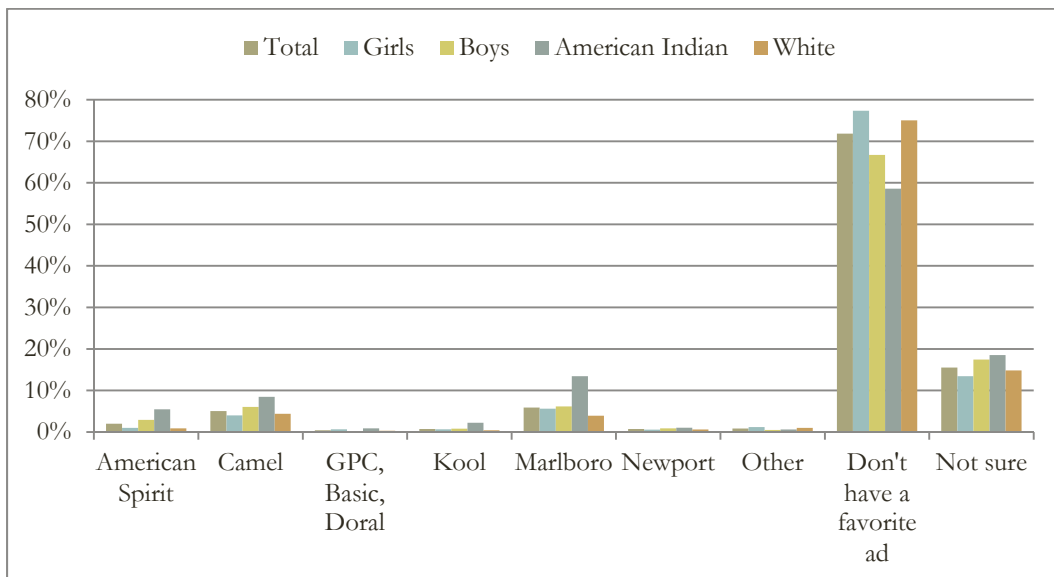


Figure 35 shows that 10% of students have a favorite cigarette ad, with ads from Marlboro and Camel the most likely to be middle school student’s favorites.

Figure 35. Middle school student’s favorite cigarette ads.



Figures 36 and 37 address the likelihood that students will wear or use something with a tobacco company name or picture. Figure 36 shows that 78% of students are “very unlikely” to do so, with an additional 9% choosing “somewhat unlikely”. Boys are somewhat more likely than girls to wear or use such a product, and American Indians are also somewhat more likely.

Figure 36. How likely middle school students are to use or wear something with a tobacco company name or picture

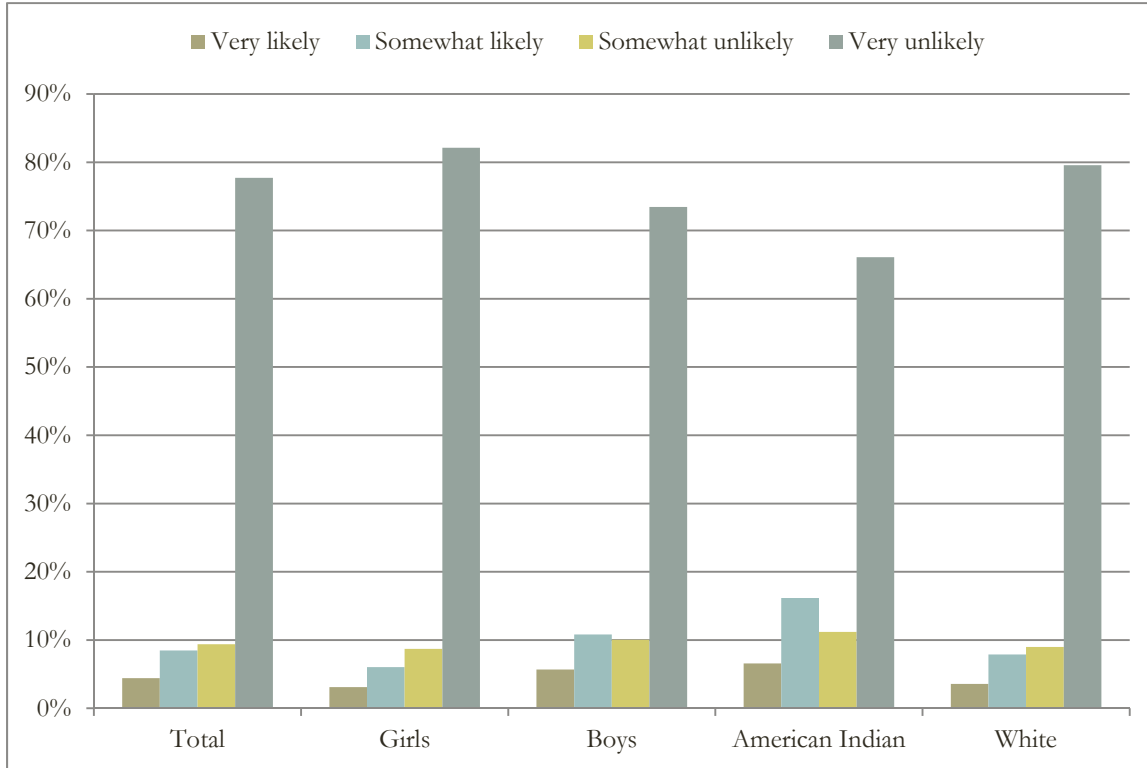
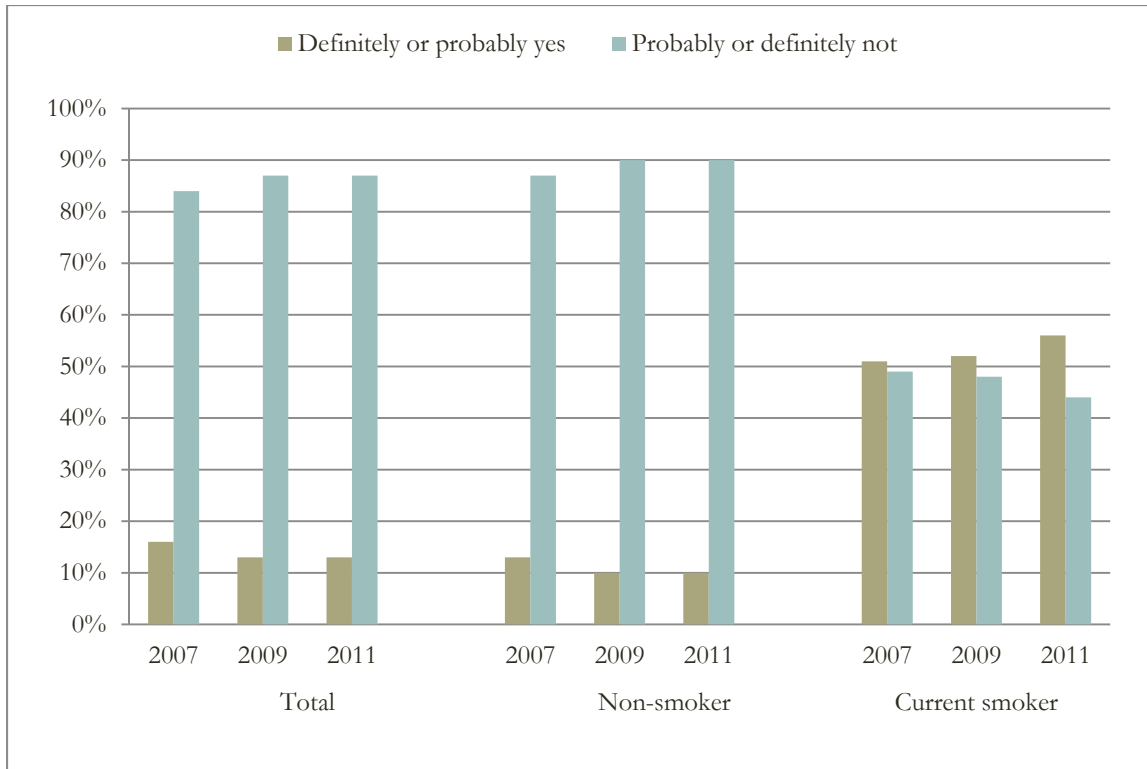


Figure 37 shows that the likelihood of using or wearing something with a tobacco company name or picture has declined overall and among non-smoking middle school students, but has increased slightly among current smokers, from 51% in 2007 to 56% in 2011.

Figure 37. How likely middle school students are to use or wear something with a tobacco company name or picture, 2007-2011



Secondhand Smoke

Exposure of middle school students to secondhand smoke is an additional area of concern. In Figure 38, 66% of current middle school smokers live with someone who also smokes. Conversely, 29% of non-smoking middle school students live with someone who smokes.

Figure 38. Percent of middle schools students also living with someone who smokes, 2003-2011

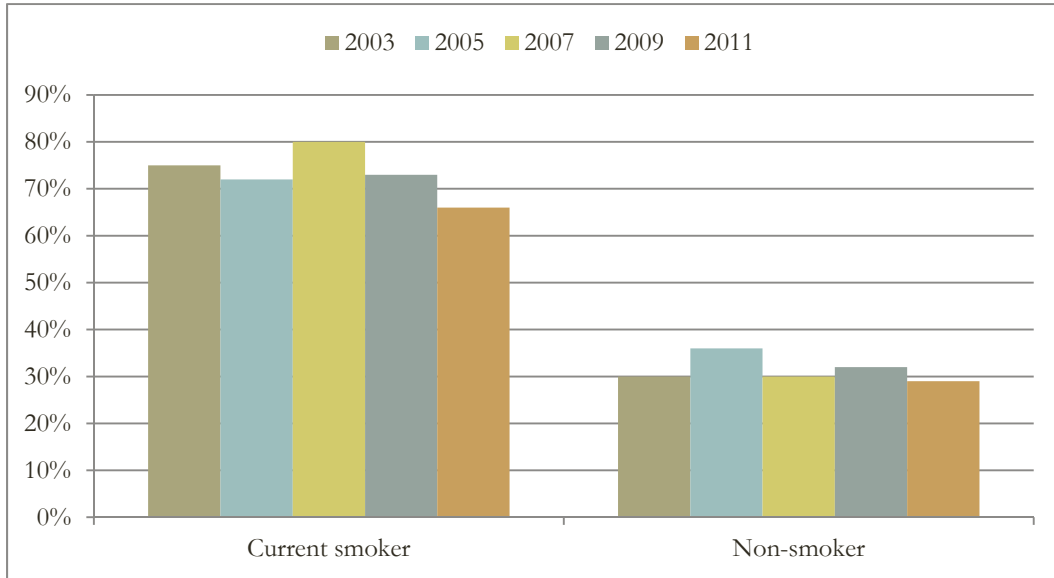
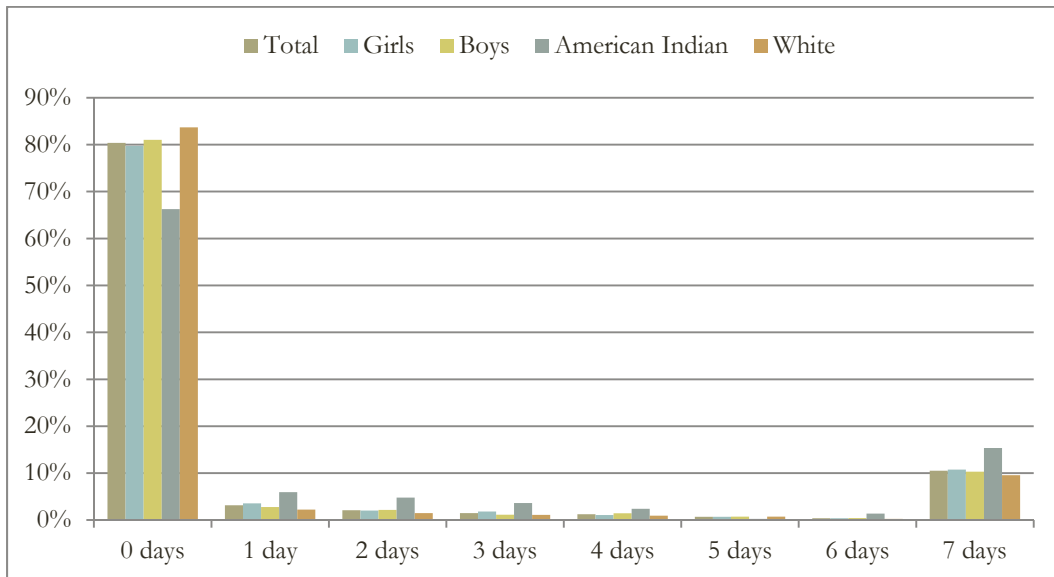


Figure 39 shows that 20% of middle school students reported someone smoking in their home while they were present within the past 7 days.

Figure 39. How many days in the last week someone smoked in the middle school student’s home while they were present, 2011



Figures 40 through 43 look at some of the areas where middle school students can be exposed to secondhand smoke besides their home. Within the past week, 26% of students were exposed to secondhand smoke in a vehicle (Figure 40), 16% at school (Figure 41), 3% at work (Figure 42), and 31% at a public place (Figure 43).

Figure 40. How many days in the last week someone smoked in a vehicle the middle school student was riding in, 2011

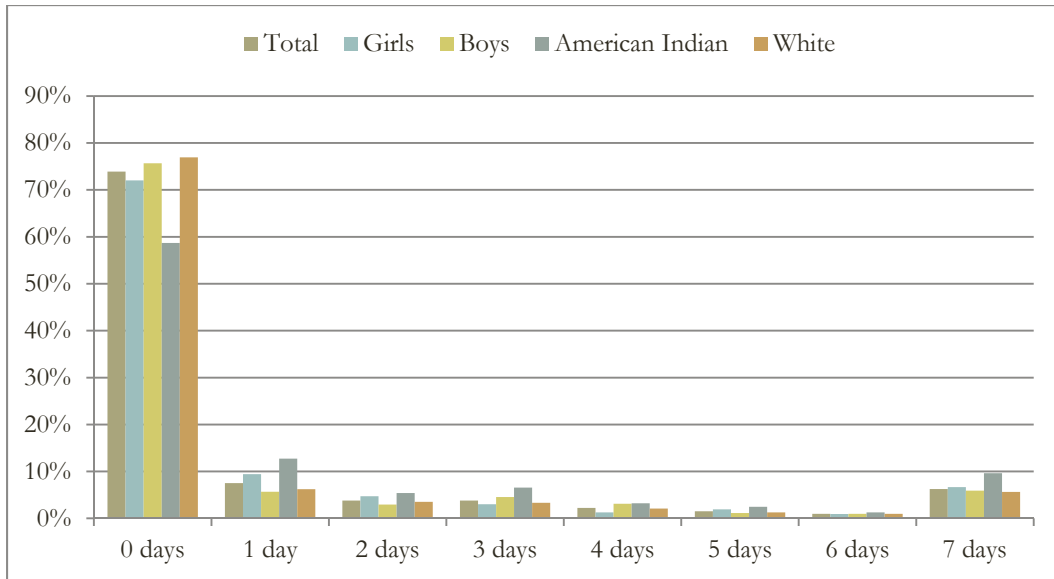


Figure 41. How many days in the last week middle school students breathed smoke from someone smoking at school, 2011

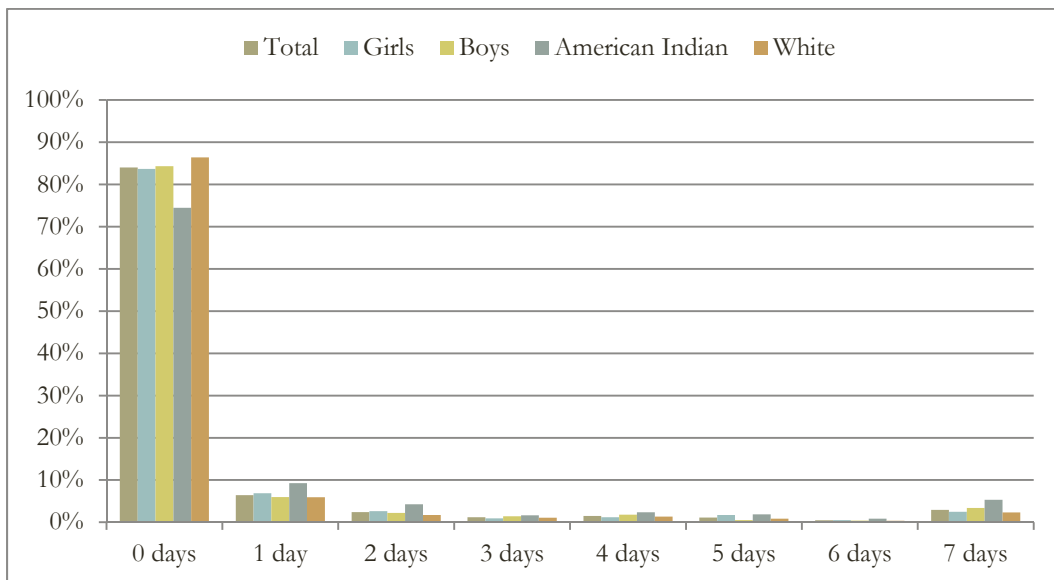


Figure 42. How many days in the last week middle school students breathed smoke from someone smoking at work, 2011

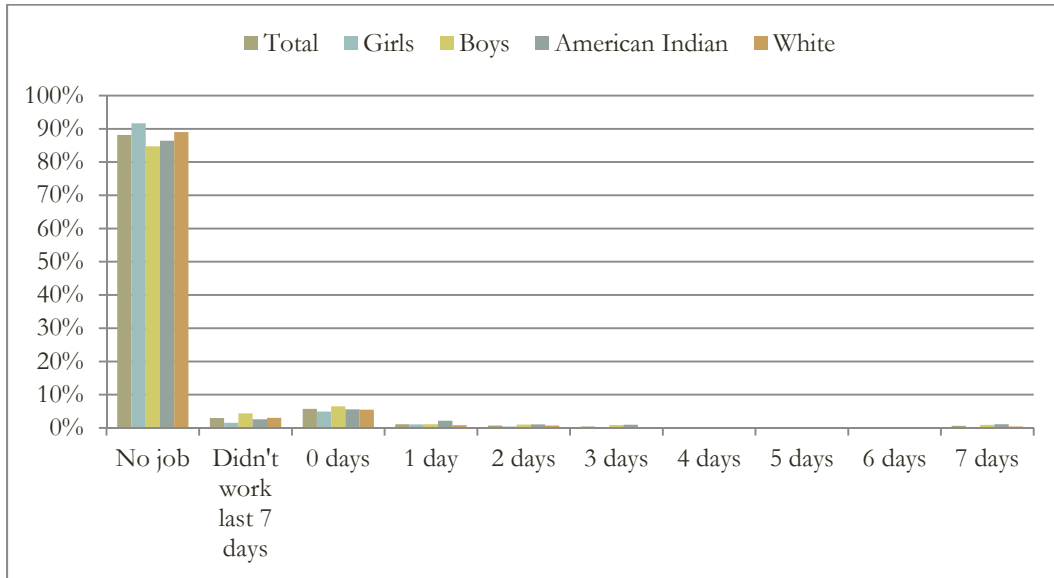
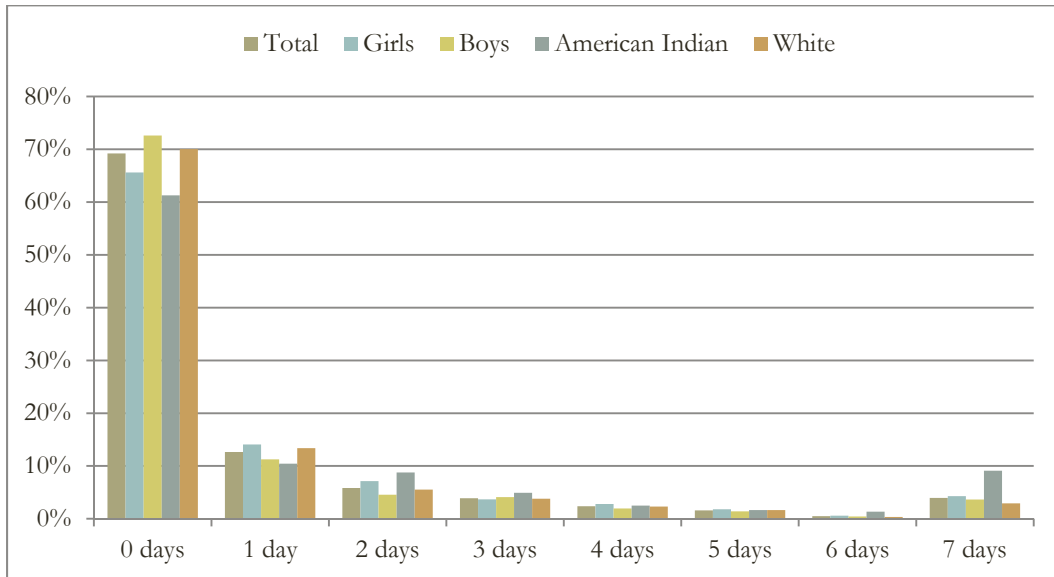
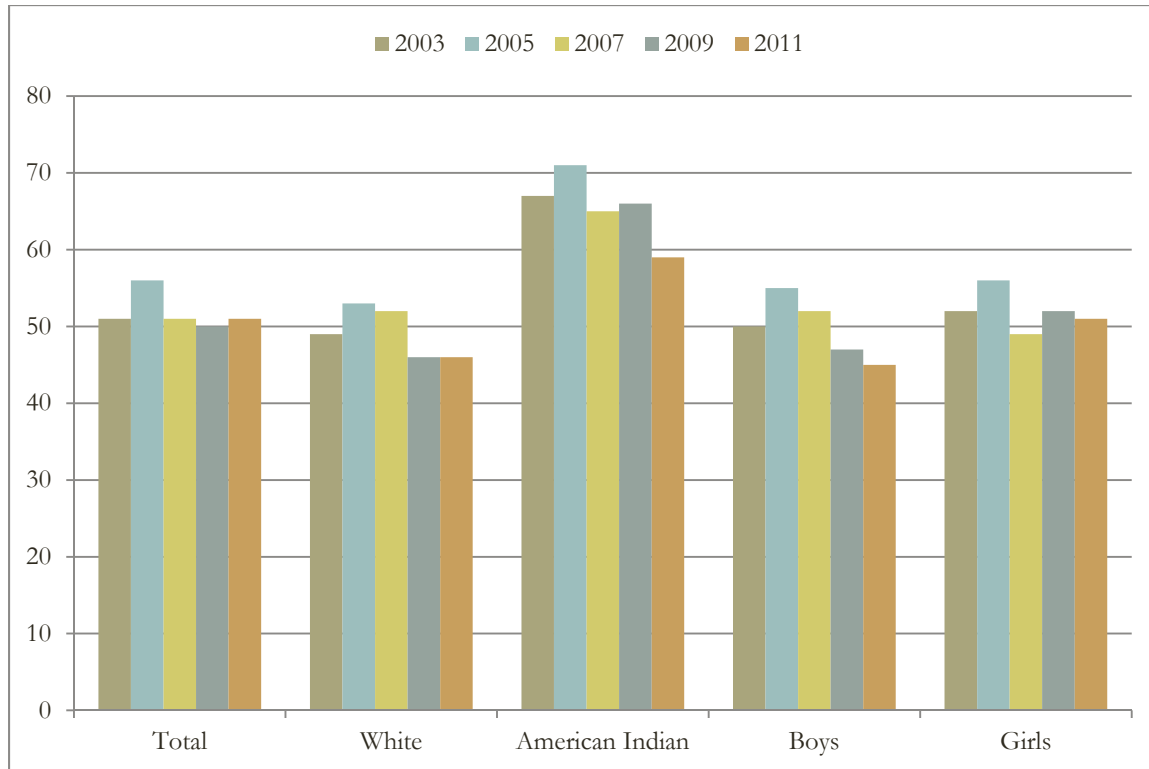


Figure 43. How many days in the last week middle school students breathed smoke from someone smoking in a public place, 2011



Overall, 49% of all students were exposed to secondhand smoke within the past 7 days, a figure that has remained relatively constant since 2003 (Figure 44).

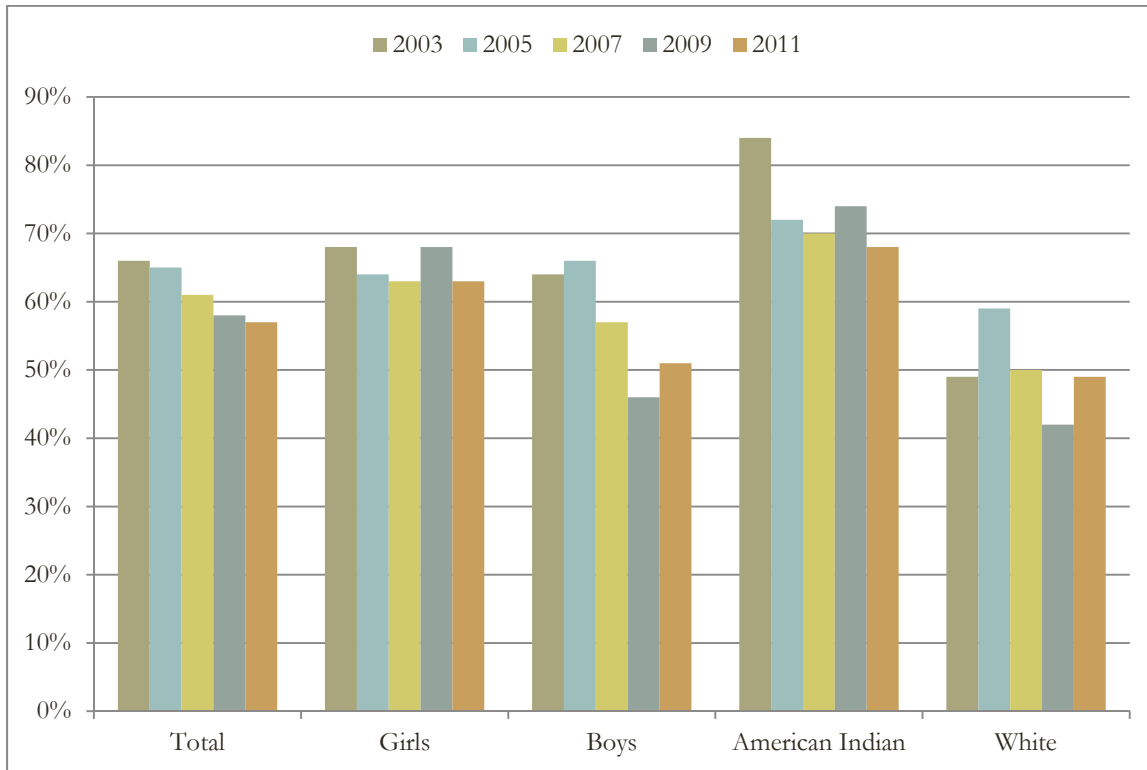
Figure 44. Percent of middle school students who were in the same room with someone who was smoking cigarettes or rode in a car with someone who was smoking a cigarette in the past 7 days. 2003-2011



Middle School Students Who Want to Quit

Many middle school students who currently use tobacco products would like to quit. Figure 45 shows that while a majority of current middle school smokers would like to quit, that number has steadily declined since 2003. In 2003, two-thirds (66%) of students indicated they would like to stop smoking compared to 57% in 2011. Since the number of current smokers has declined over this time period, it may be that the proportion that remain are simply less interested in stopping.

Figure 45. Percent of current smokers who want to stop smoking cigarettes.



While a majority of current smokers would like to quit, Figure 46 shows that efforts to quit are often unsuccessful. Almost four-fifths (79%) of current middle school smokers report trying to quit one or more times within the past year. Over one-fifth (22%) of current middle school smokers tried to stop smoking ten or more times in the past year. *Trying to compare the quit attempts in Figure 46 with data from previous years is somewhat problematic due to differences in survey design.*

Figure 46. How many times in the past year current smoker middle school students have tried to stop smoking for 1 day or longer while trying to quit for good, 2011

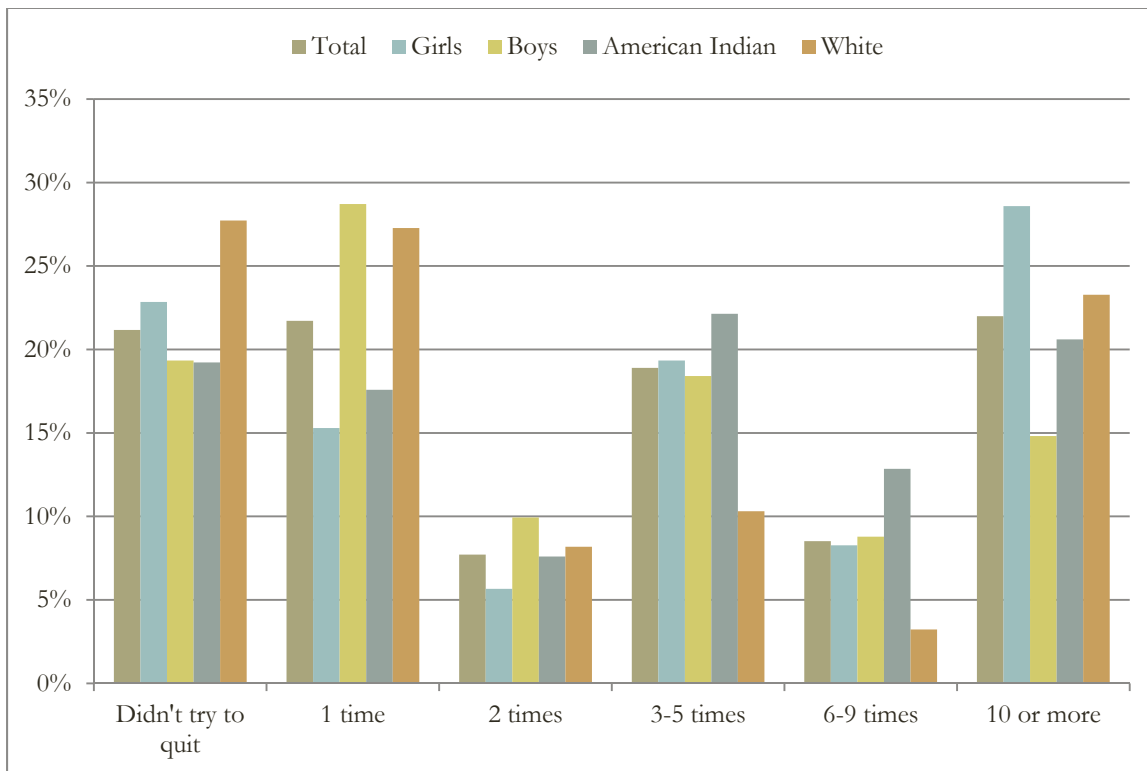
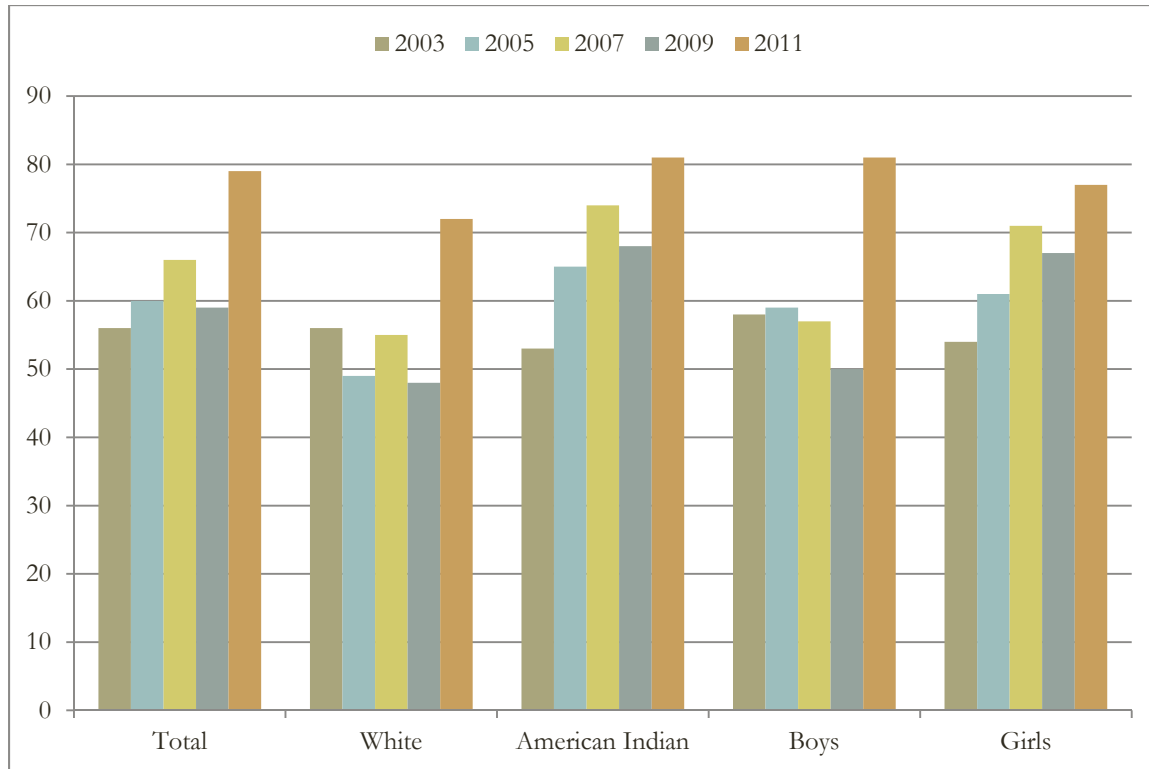


Figure 47 attempts to compare the percent of current smokers who have tried to quit in the past 12 months from 2003-2011. The percentage who have tried to quit (79% overall) appears to be much higher in 2011 than in previous years.

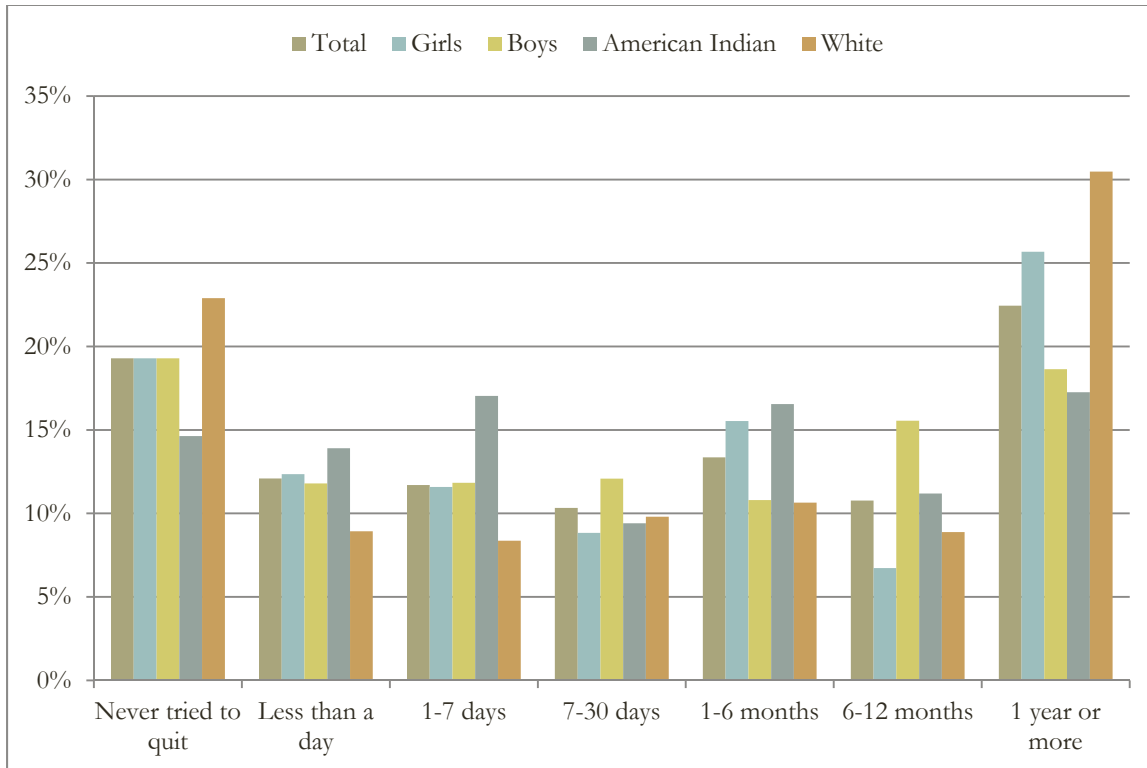
Figure 47. Percent of current middle school student smokers who have tried to quit in the past 12 months, 2003-2011*



**The question asked in 2011 appears to be more specific than in previous years, specifically mentioning “for 1 day or longer”. It’s possible this led students to include more (or fewer) quit attempts than they would have in previous years, so comparison of 2011 with prior years may be misleading.*

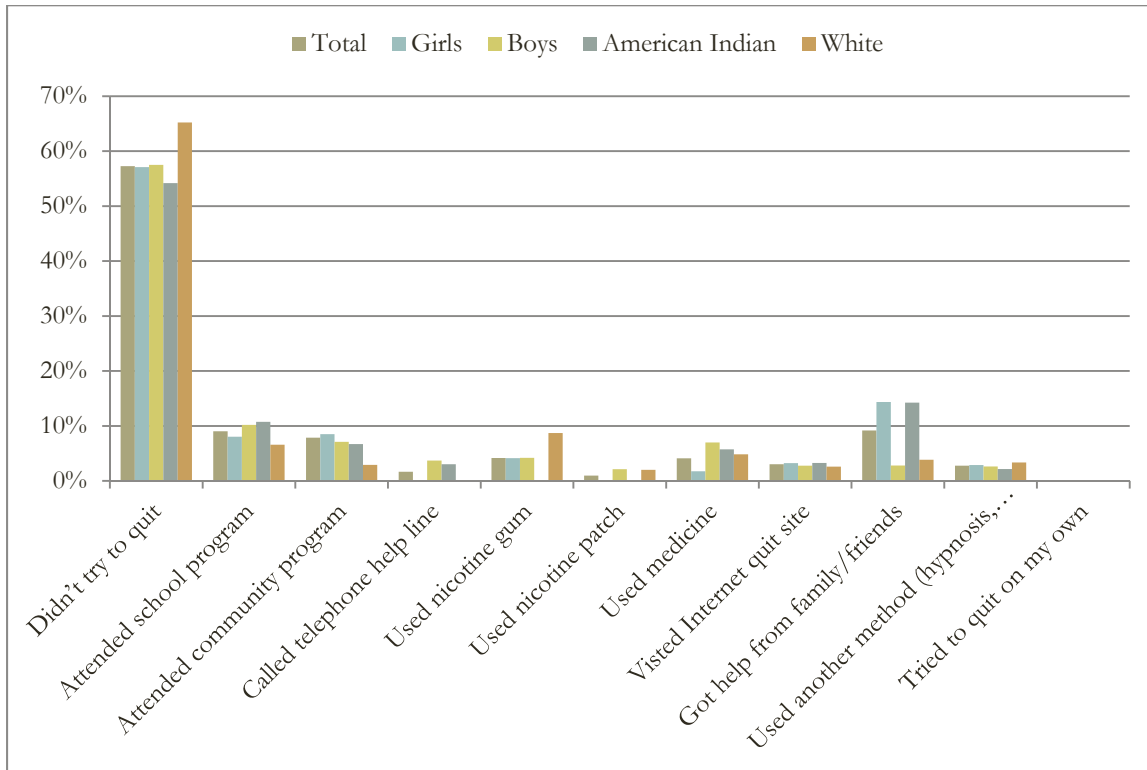
Attempts to quit result in students staying off cigarettes for varying amounts of time. Figure 48 shows the duration of these attempts. Almost one-fifth (19%) of students who have ever smoked have not tried to quit; 24% students who have ever smoked report that their last attempt to quit lasted seven days or less; 16% report an attempt lasting 1-6 months; 11% 6-12 months; and 22% report having been able to quit for one year or more.

Figure 48. How long middle school students stayed off cigarettes when they last tried to quit for good, 2011



Middle school students try a variety of methods when attempting to quit using tobacco products. Figure 49 shows which methods were used by middle school students who smoked within the past 12 months.

Figure 49. What middle school students do for help when trying to quit using tobacco products, 2011



Rules About Smoking

Family expectations about where smoking is or is not allowed may affect whether a middle school student smokes. Figures 50 and 51 examine the rules on smoking in the middle school student’s home.

Figure 50 shows that smoking in the home is “Never allowed” in 84% of middle school student’s homes.

Figure 50. Rules on smoking at middle school student’s homes, 2011

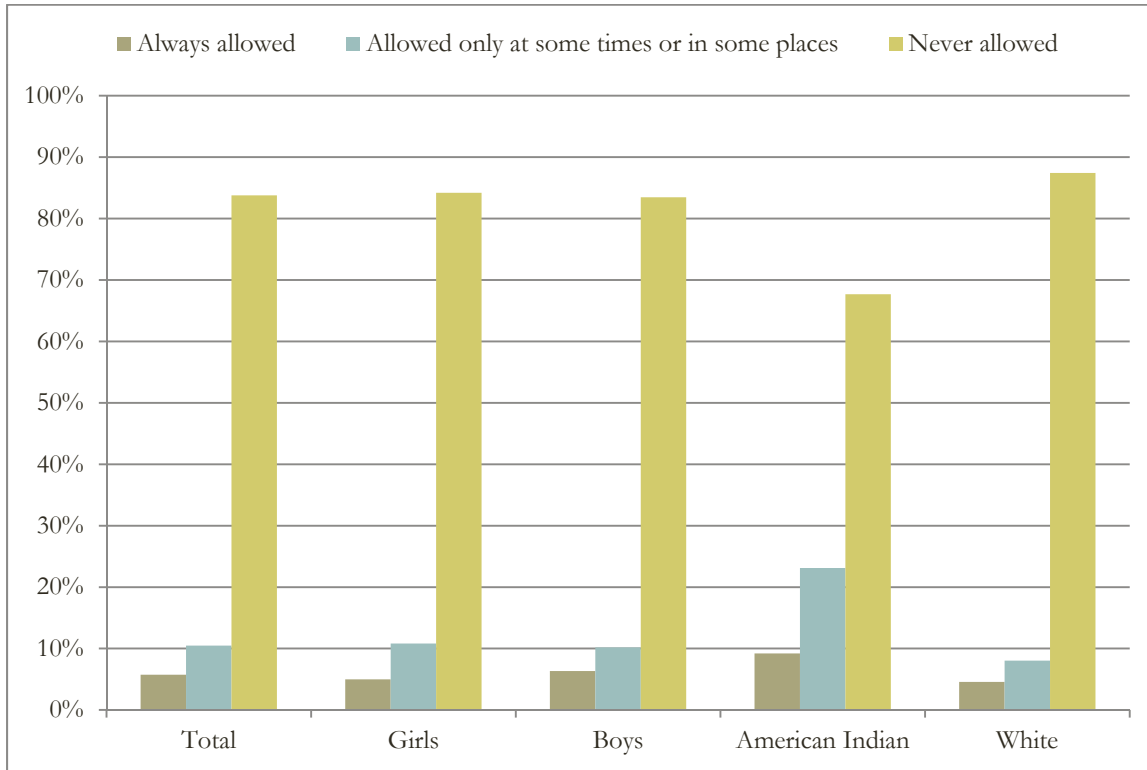
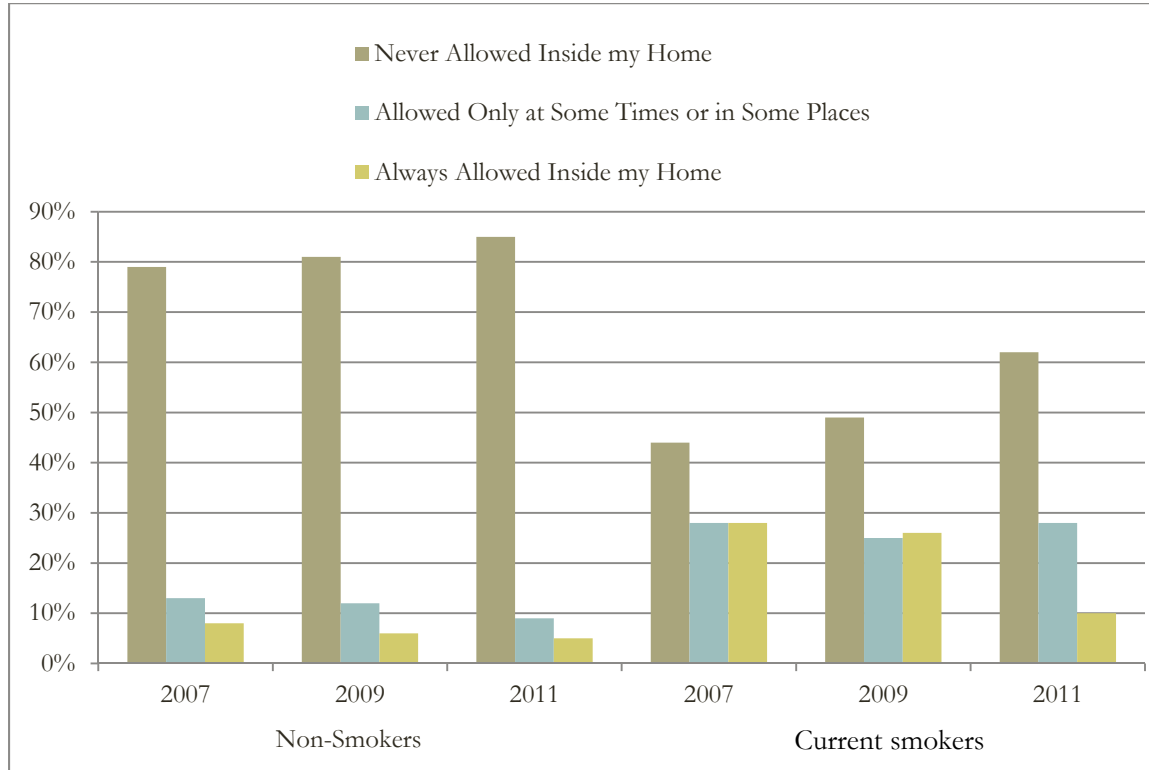


Figure 51 shows that this percentage has increased steadily since 2007 in both non-smoker and current smoker homes. Current smokers are still more likely to be allowed to smoke in the home than are non-smokers.

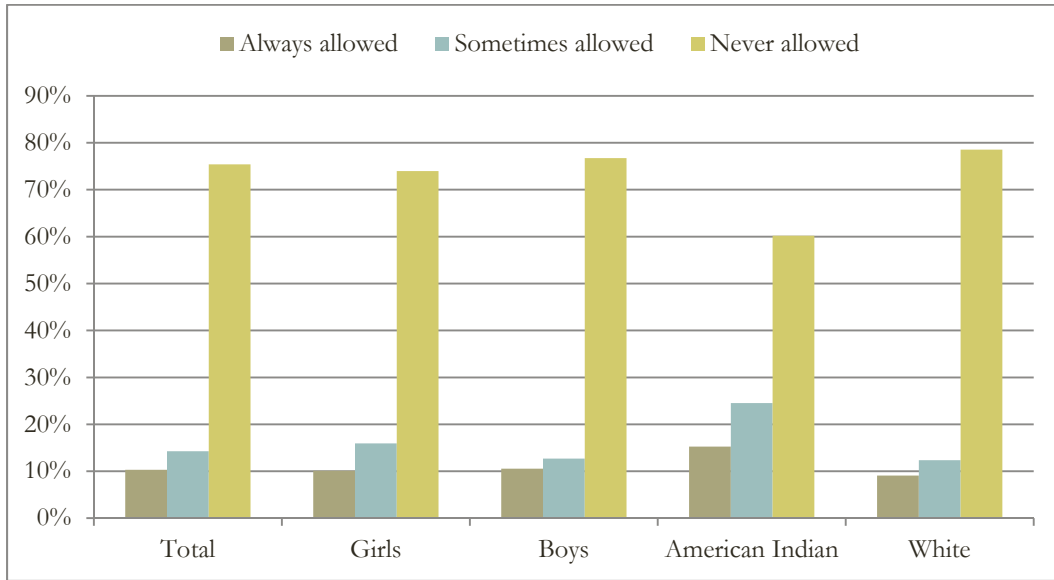
Figure 51. Percent of students with smoking rules in home, 2007-2011



Figures 52 and 53 look at the rules on smoking in family vehicles.

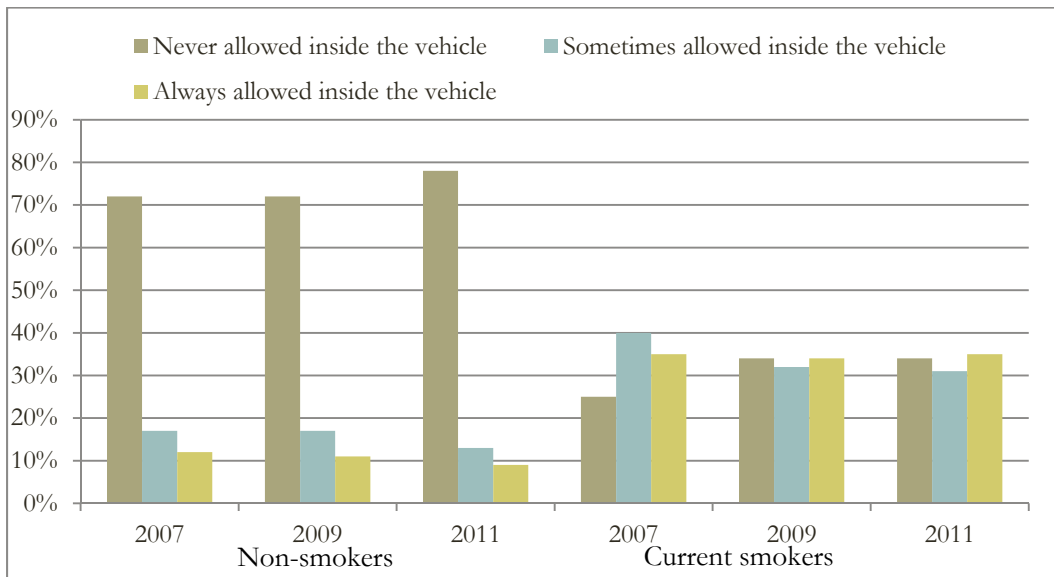
Figure 52 shows that, in 2011, a majority of middle school student’s families do not allow smoking in family vehicles (75% overall).

Figure 52. Rules on smoking at middle school student’s family vehicles, 2011



The percentage is higher than it was in 2007 as seen in Figure 53. In 2011, smoking is more likely to be allowed "sometimes" or "always" in the family vehicles of current middle school smokers than in the homes of non-smokers (66% and 22% respectively).

Figure 53. Percent of students with smoking rules in vehicle, 2007-2011



Awareness of Health Effects

In this final section, issues related to middle school student awareness of the health effects of tobacco use are detailed. Warning labels are one way that health officials and policy makers have tried to inform the public about the hazards of tobacco use. Figures 54 and 55 show how often middle school students see a warning label on cigarettes and spit tobacco products respectively.

In Figure 54, 67% of middle school students did not see a cigarette pack (and therefore, did not see a warning label) in the past 30 days. Of the remaining 33%, just under half (15% overall) report that they ‘Never’ or ‘Rarely’ saw a warning label on the pack.

Figure 54. How often middle school students see a warning label on a cigarette pack, 2011

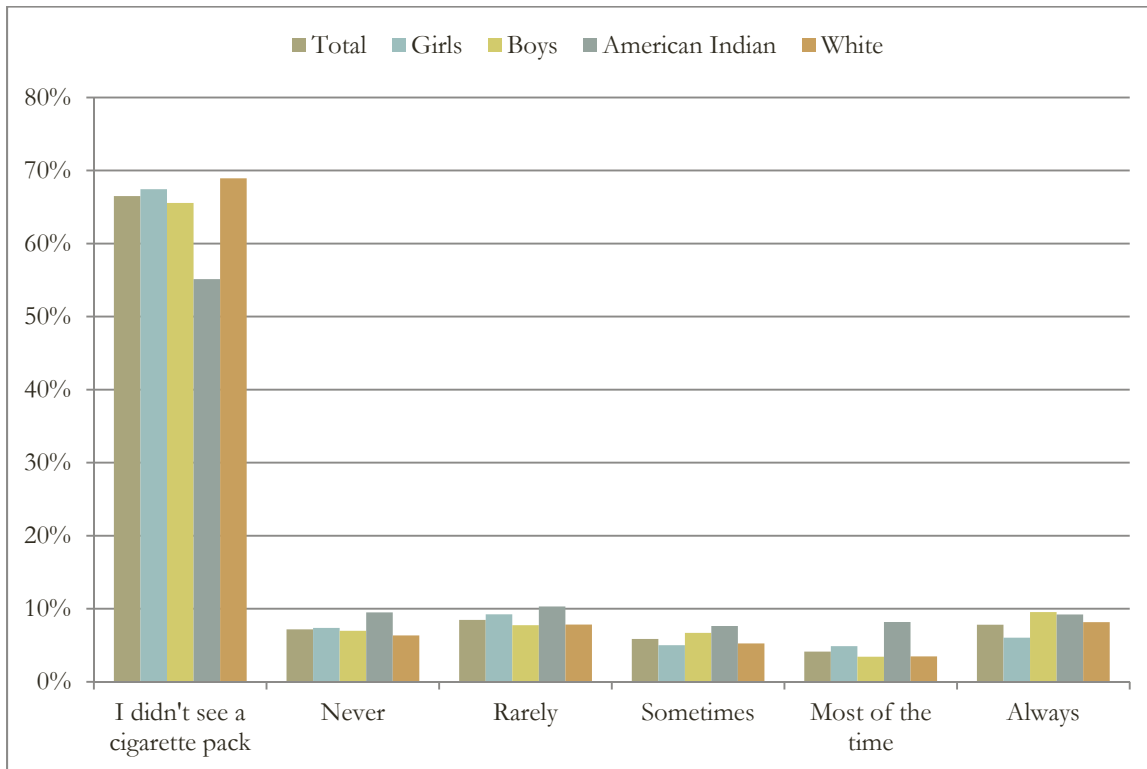
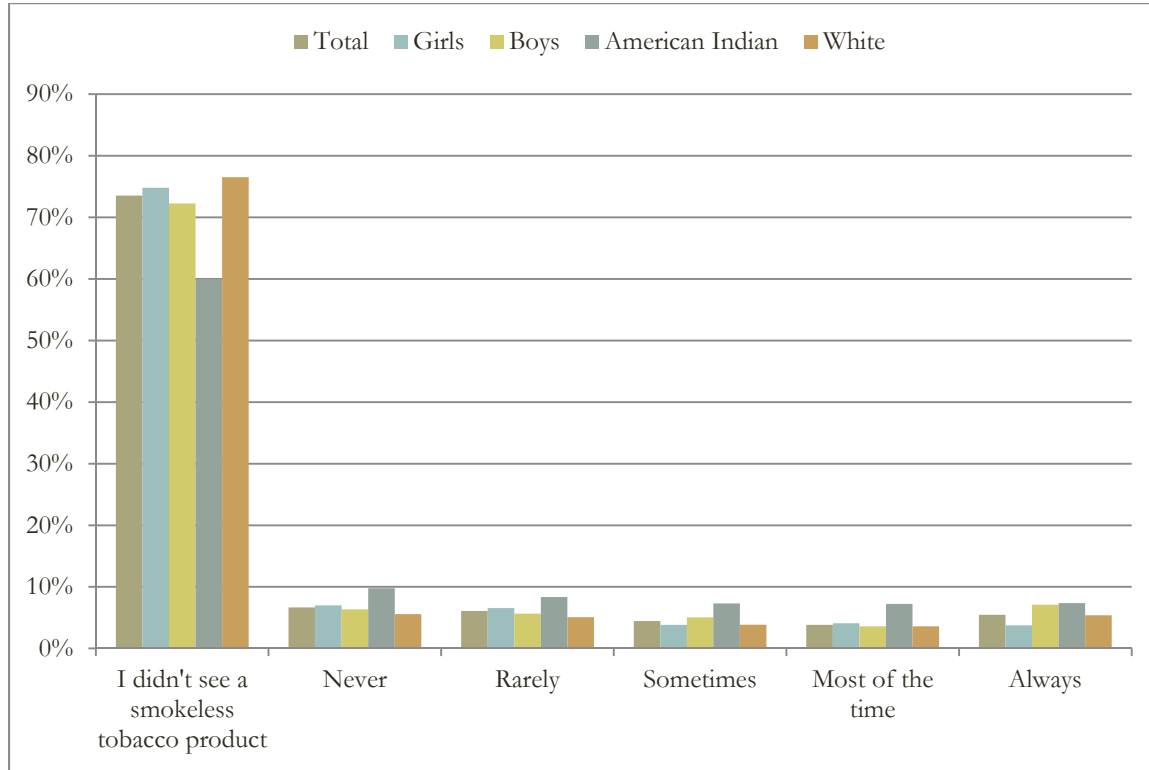


Figure 55 shows that 75% of middle school students did not see a spit tobacco product within the past 30 days. Of the remaining 25%, just over half (13% overall) report that they ‘Never’ or ‘Rarely’ saw a warning label.

Figure 55. How often middle school students see a warning label on a spit tobacco product, 2011



Medical professionals are a possible source of information about the health effects of tobacco products. Figures 56 and 57 ask middle school students about their interactions with medical professionals in the past 12 months.

Figure 56 shows that only 15% of middle school students saw a doctor, dentist, or nurse in the past 12 months and were asked about their use of tobacco. For American Indian students, this number is much higher, with 23% of students having been asked about tobacco usage within the past 12 months.

Figure 56. Percent of middle school students asked in last 12 months by a doctor, dentist or nurse if they use tobacco of any kind, 2011

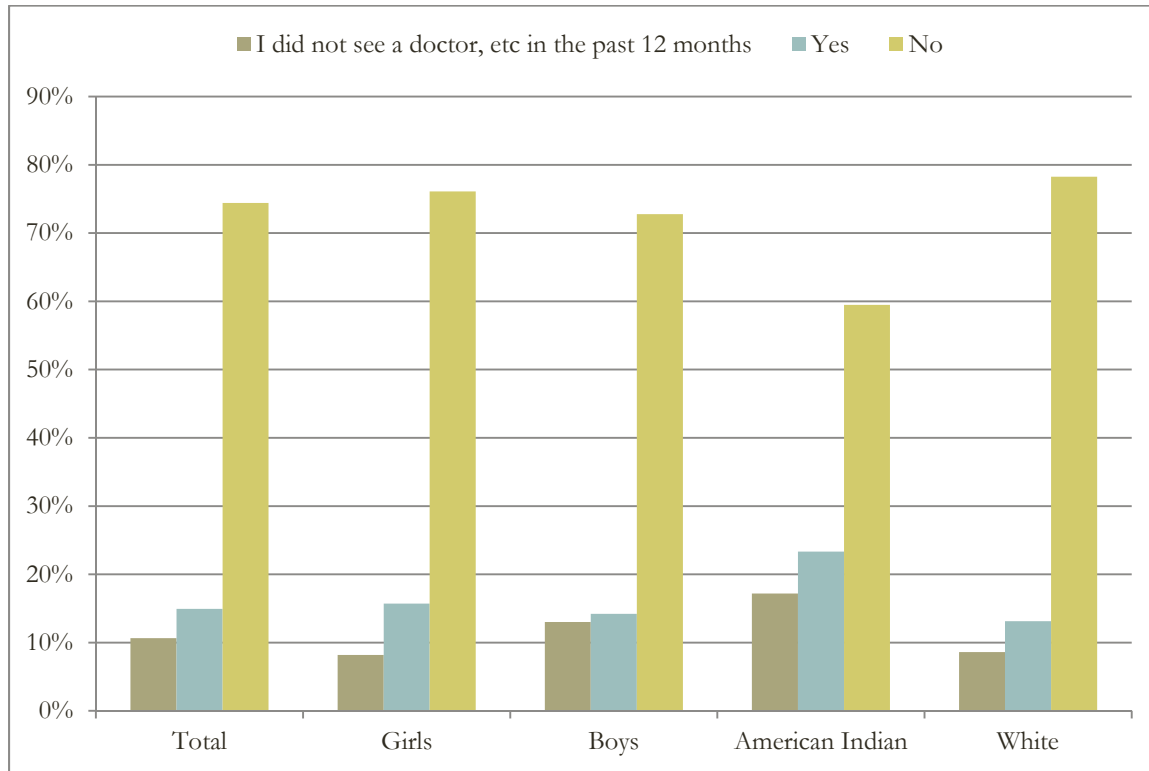
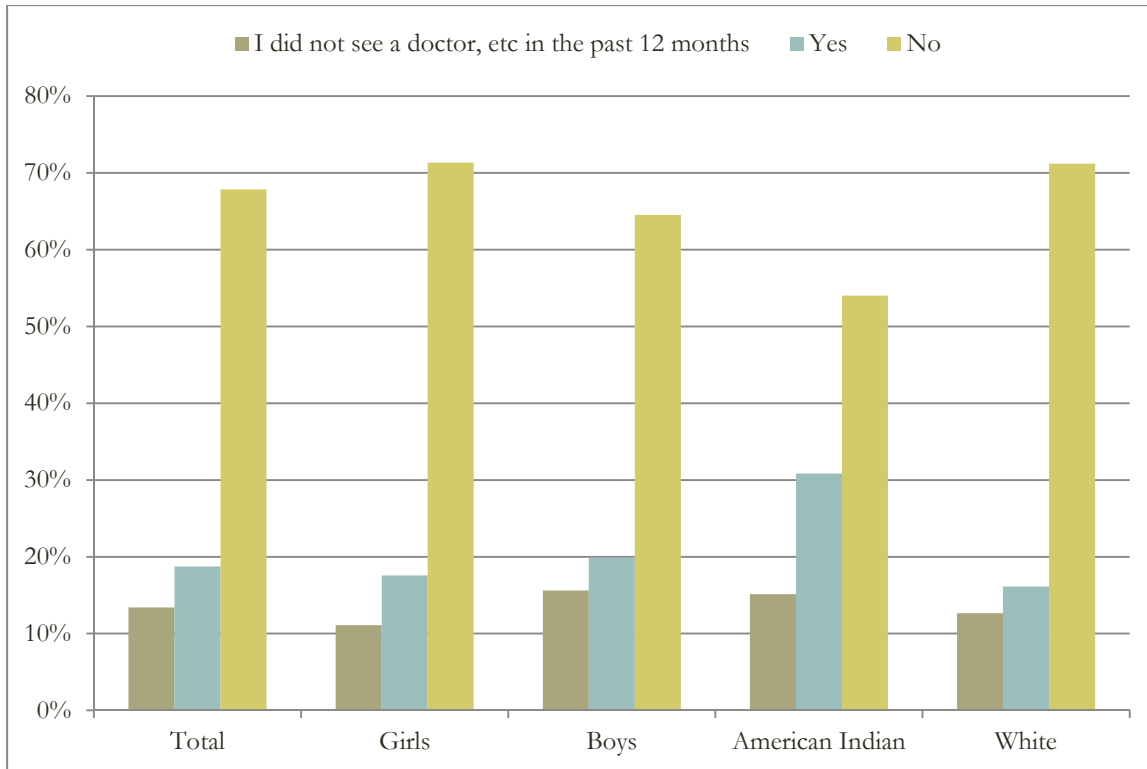


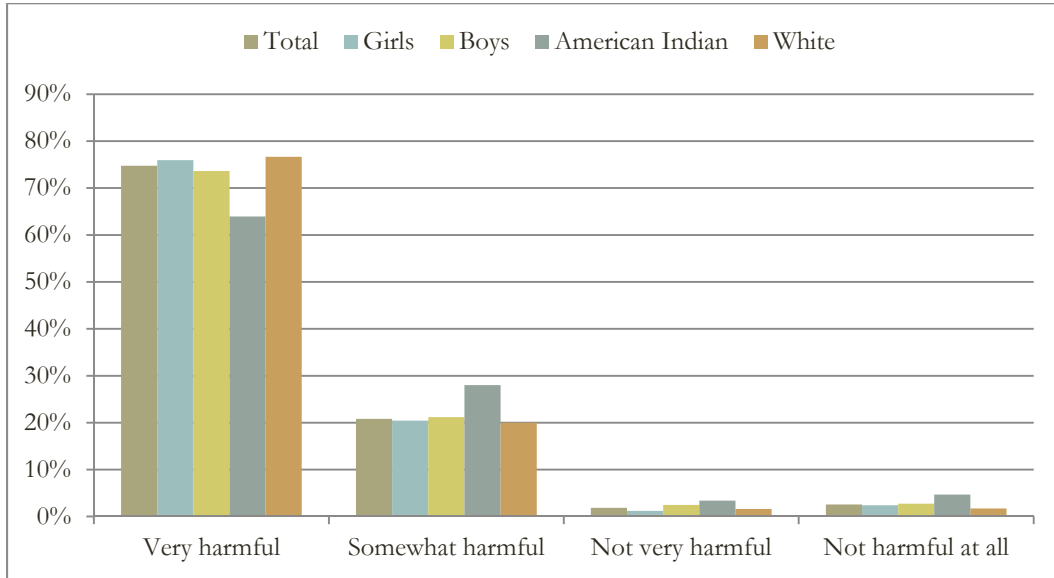
Figure 57 shows that only 19% of middle school students saw a doctor, dentist, or nurse within the last 12 months and were advised not to use tobacco of any kind. Again, this figure is higher among American Indian students, at 31%.

Figure 57. Percent advised in last 12 months by a doctor, dentist, or nurse not to use tobacco of any kind, 2011



Figures 58 and 59 address middle school student’s beliefs about the health effects of secondhand smoke. Large majorities believe that secondhand smoke is either very harmful or somewhat harmful (Figure 58).

Figure 58. Middle school student’s beliefs about the health effects of secondhand smoke, 2011



The belief that secondhand smoke is harmful has been increasing since 2007, as shown in Figure 59. In every category, more middle school students believe secondhand smoke is harmful in 2011 than believed it in 2007. Current smokers are less likely to believe than non-smokers (80% compared to 97%).

Figure 59. Percent of middle school students who believe secondhand smoke is harmful to them, 2007-2011



Figure 60 looks at the beliefs of middle school students about the health effect of tobacco products in general. Over three-fourths (78%) of students strongly agree that, “All tobacco products are dangerous”, with an additional 17% who agree with the statement.

Figure 60. Middle school student’s agreement with the statement ‘All tobacco products are dangerous’, 2011

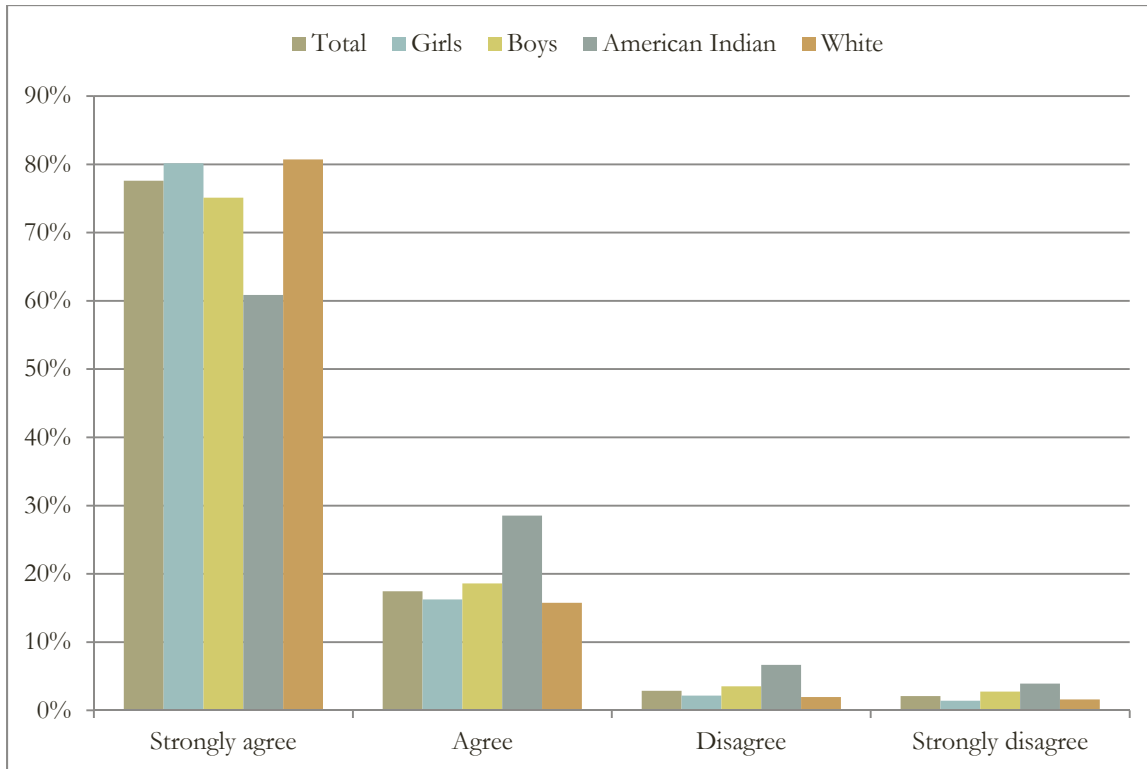
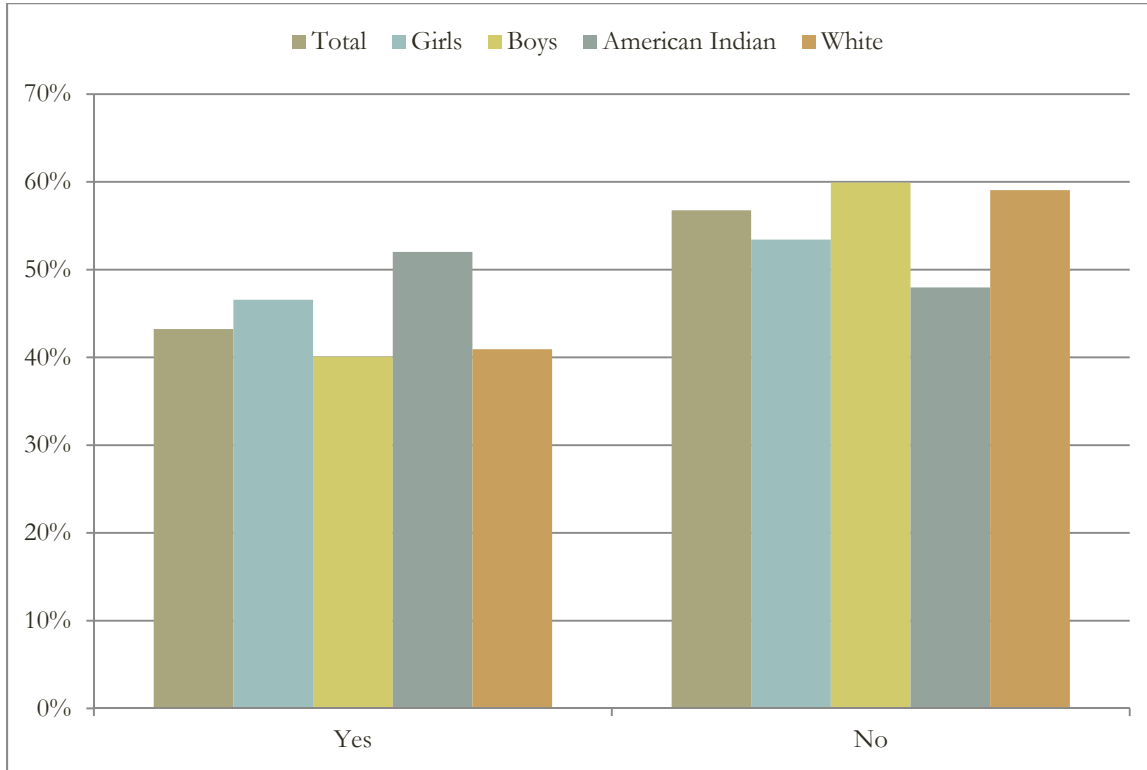


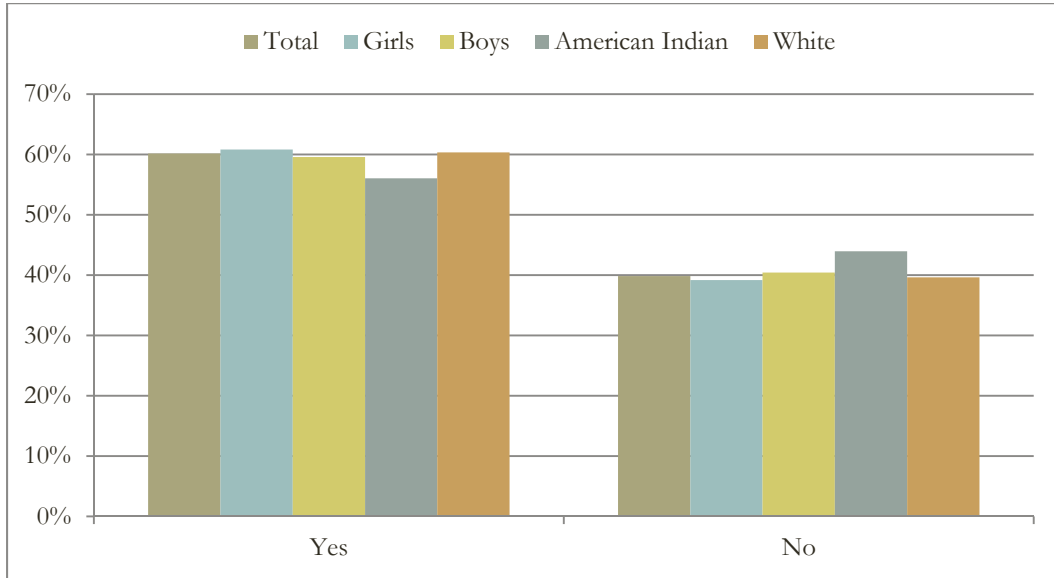
Figure 61 shows that 57% of middle school student’s parents or guardians have not spoken with them about not using tobacco products in the past year.

Figure 61. Percent of middle school students whose parents or guardians have talked with them in the past year, even once, about not using tobacco products.



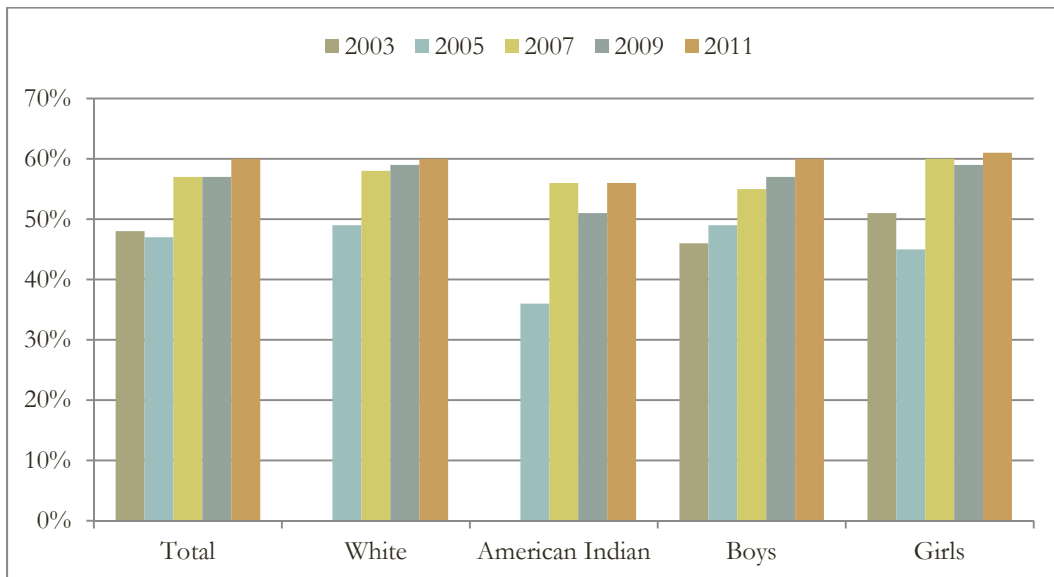
In contrast, Figure 62 shows that in the past year 60% of middle school students have been taught in school about why they should not use tobacco products.

Figure 62. Percent of middle school students who were taught in school (past year) about why they should not use tobacco, 2011



As shown in Figure 63, that number is up from 48% in 2003.

Figure 63. Percent of middle school students who were taught in school (past year) about why they should not use tobacco, 2003-2011



Conclusion and Recommendations

Conclusion

As new groups of 6th graders transition in while groups of 8th graders transition out there will be a need for persistent efforts in tobacco prevention and education. The exposure to secondhand smoke encourages an expansion of education to parent and community groups.

Also, the early age of first use would support extending efforts into elementary grades. Strong tobacco free school policies would help sustain and expand efforts for prevention. The modeling of tobacco free school environments may assist in the reduction of secondhand exposure.

From the results of the 2011 Youth Tobacco Survey, students who participate in school and community support groups to quit smoking reported success in quitting. They also reported success in quitting smoking when they received help from family and friends. In addition the results point to a need to further investigate where middle school students are purchasing their cigarettes.

Recommendations

The South Dakota Department of Health, Tobacco Control Program coordinates state efforts to:

1. Prevent people from starting to use tobacco products,
2. Help current tobacco users quit, and
3. Reduce nonsmokers' exposure to secondhand smoke

The data from the 2011 South Dakota Youth Tobacco Survey indicate the following areas could provide a beginning emphasis.

Prevent people from starting to use tobacco products

The data showed that 14% of middle school students have tried smoking at least once; they began using cigarettes at ages 9-11, and that they used tobacco products only 1 to 2 days during a month. About 12% of American Indian middle school students are current smokers.

The data also reveal that youth get their tobacco products three ways: by borrowing, someone else buys the tobacco product for them or they are given tobacco products without asking for them. If they buy cigarettes products the majority get them from a gas station or other source. It is also interesting to note that girls are most likely to buy cigarettes from a gas station.

Recommendation: Identify the “other” ways middle school students are obtaining cigarettes.

Recommendation: Identify how underage girls are able to buy cigarettes from gas stations.

Recommendation: Work with tribal organizations to identify programs that would reduce the number of students who smoke.

Recommendation: Develop age-appropriate prevention campaign for ages 7 to 9.

Help current tobacco users quit

The data showed that a majority of current middle school smokers would like to quit though that number has been steadily declining since 2003. In the 2011 survey, almost 80% of current smokers tried to quit, 57% reported that they would like to quit, and 22% have stayed off cigarettes for a year or more. The most common methods that students used to help in quitting were attending a school or community program and getting help from family and friends.

Recommendation: Strengthen school and community programs (or create programs if none exist) that work with middle school students who currently smoke to find a way to quit smoking.

Recommendation: Strengthen peer-to-peer networks (or create peer-to-peer networks if none exist) within schools and communities to help middle school students quit smoking and stay smoke free.

Recommendation: Explore quitting smoking programs that incorporate school, community, and family and friends support as a cohesive unit to increase middle school students' desire to quit.

Recommendation: Combine school and family programs to assist current middle school smokers and their parents to quit together.

Reduce nonsmokers' exposure to secondhand smoke

The data showed that two-thirds of current smokers live with someone who smokes. The data also revealed that almost half of all middle school students were exposed to second hand smoke—either in a vehicle or in the same room. Middle school students are aware of the health effects of secondhand smoke. Large majorities believe that secondhand smoke is very or somewhat harmful. This belief has been increasing since 2007, especially with non-smokers.

Recommendation: Continue to show (or create new) educational messages about the health effects of secondhand smoke.

Recommendation: Expand the message of the harmful effects of secondhand smoke to parent groups and community members.

Recommendation: Disseminate the results from the 2011 Youth Tobacco Survey to community members and parents to highlight the apparent connection between exposure to secondhand smoke and middle school students beginning to smoke.

Appendix A

Methodology

The 2011 SDYTS consisted of 66 questions developed by the Centers for Disease Control and Prevention (CDC) and the South Dakota Tobacco Control Program. Many 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.

Sample description

All regular public schools in South Dakota containing grades 6, 7, or 8 were included in the sampling frame. A two-stage cluster sample design was used to produce a representative sample of students in grades 6-8.

School Level - The first-stage sampling frame consisted of all public schools containing any of grades 6-8. 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 2nd 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 - 76.36 % (42 of the 55 sampled schools participated)

Students - 84.36 % (2,044 of the 2,423 sampled students completed usable questionnaires)

Overall response rate - $76.36\% * 84.36\% = 64.42\%$

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:

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

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, race and grade.

Use of the weighted results

The weighted results can be used to make important inferences concerning tobacco use risk behaviors of all regular public school students in grades 6 through 8 in South Dakota.

Response numbers

(These numbers are the actual counts. By contrast the data in the report are based on the weighting formula described above)

Number of boys – 1,071

Number of girls – 972

Number of American Indians – 340

Sampling errors

Sampling errors occur when estimates are derived from a sample of a population rather than the total 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. The 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 % of the time. The data presented in the 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.

References

Centers for Disease Control and Prevention. *Youth and Tobacco Fact Sheet*. National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Atlanta, GA. [Accessed 23 May 2012]. http://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use/index.htm.

The survey was administered November and December 2011. Data were analyzed and this report prepared May 2012

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