South Dakota

2015

Youth Tobacco Survey Report

March 2016

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The 2015 South Dakota Youth Tobacco Survey was completed by

Office of Nursing Research,

South Dakota State University

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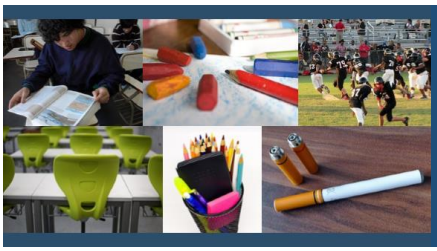


EXECUTIVE SUMMARY

PREVENTING TOBACCO USE AMONG YOUTH IS CRITICAL TO ENDING THE TOBACCO EPIDEMIC IN THE UNITES STATES.

The 2015 South Dakota Youth Tobacco Survey results reflect the changing landscape of tobacco use among youth nationwide. Rates of cigarette and smokeless tobacco use among South Dakota middle school students are trending downward, although not a statistically significant change since 2013. Use of cigars had an upward trend in 2015. Rates of use of alternative forms of tobacco and nicotine, especially electronic cigarettes, increased over 2013. The following key findings are presented with an associated call to action to reduce the health risks associated with tobacco use and second hand smoke exposure among the youth of South Dakota.

Key Findings

Trends in Tobacco Use among Middle School Students

- Current use of cigarettes and smokeless tobacco both followed a downward trend, at 2.8% each in 2015, compared to the 2013 cigarette use rate of 3.5% and the 2013 smokeless tobacco use rate of 3.3%.
- American Indian students continue to have the highest rates of current tobacco use at 20.6%, compared to White students at 2.6%, and other race students at 8.3%.
- Use of electronic cigarettes continues to increase. Current use doubled for the second time since 2011, and is at 2.2% among middle school students. Ever use of electronic cigarettes also doubled to a rate of 5.0% in 2015.
- Poly-tobacco use was reported by 44.2% of current middle school tobacco users.
- Of the middle school students that made an attempt to purchase cigarettes on their own, 70.9% reported they were not refused to purchase due to their age. Gas stations remain the most common place of purchase.
- Among current smokers, interest in quitting saw a large increase in 2015, with nearly 60% stating that they want to stop smoking for good compared to 46.1% in 2013.

Environmental Factors Contributing to Initiation and Ongoing Use of Tobacco

- Among current middle school tobacco users, 70.1% reported having a parent or other household member that uses tobacco, compared to a 38.3% household tobacco use rate among middle school students not using any type of tobacco.
- Rates of household tobacco use are high among American Indian students, with 65% reporting someone using tobacco in the household.
- Among middle schools students, 7.4% report either smoking or seeing someone smoke on school property in the past 30 days. E-cigarette use was also observed by students, with 5.3% of students reporting use or observation of use on school property in the last 30 days. American Indian students reported highest use or observation of use on school property, with observation of tobacco at 11.2% and observation of e-cigarette at 11.5%
- Over three-fourths of current tobacco users have at least one close friend who uses tobacco, at 82.3% of cigarette users and 78.1% of smokeless tobacco users.
- Among middle school students, 68.2% observed promotion of tobacco products in convenience stores, while TV and movie promotion of tobacco followed closely at 66.1%.

Anti-Tobacco Messaging

- Hearing an anti-tobacco message from at least one source (parent, healthcare provider, school, organized activity, or ReThink It media) declined to a rate of 81.6% from 88.3% in 2013.
- Among middle school students, 41% reported a parent had talked with them about not using tobacco in the past year. Students currently using tobacco reported higher rates of a parent having discussed the dangers of use (61.6%) compared to those not using tobacco (39.7%).
- Education on the dangers of tobacco use in school curriculum was reported by only 43.2% of students, a decrease of 9.5% from 2013.
- Among students who had seen a healthcare provider in the past year, just 30.4% reported the provider asked about tobacco use. Only 29% of students reported that the provider advised them about the dangers of tobacco.

Recommendations

Based on the 2015 South Dakota Youth Tobacco Survey, the following recommendations are offered for consideration, with further description and explanation in the full report:

1) ***Discourage use of alternative tobacco products, including electronic cigarettes.***

2) ***Monitor youth poly-tobacco users.***

3) ***Decrease tobacco use and secondhand smoke exposure among American Indian youth.***

4) ***Support tobacco education in schools.***

5) ***Encourage implementation of the South Dakota model policy for tobacco-free schools.***

6) ***Target healthcare providers for education on assessment of tobacco use for youth patients, including assessment of tobacco use in the household.***

7) ***Eliminate tobacco sales to underage youth.***

8) ***Target parents for cessation.***

9) ***Promote the South Dakota QuitLine in schools.***

SECTION 1: BACKGROUND

2015 SOUTH DAKOTA YOUTH TOBACCO SURVEY

The landscape of youth tobacco use has changed in recent years. Use of cigarettes among United States (U.S.) youth has declined, yet the use of alternative tobacco products, including electronic cigarettes (e-cigarettes) and hookahs, has increased among middle school students. National data from 2014 shows 2.5% of middle school students reported smoking cigarettes in the past 30 days, while 3.9% reported use of an e-cigarette in the past 30 days.[1] Overall, in 2014, 7.7% of middle school students reported using some type of tobacco product, and 3.1% reported the use of two or more tobacco products in the past 30 days.[1] Youth who use multiple tobacco products are at higher risk for developing nicotine dependence and might be more likely to continue using tobacco into adulthood.[2] Initiation of tobacco use during adolescence is a primary indicator for adult smoking status, as nearly 90% of cigarette smokers report having first tried smoking by age 18.[3-4] Various factors within an adolescents' social and physical environment, biological and genetics factors, mental health, personal perceptions, and other influences are associated with the initiation and maintenance of tobacco use among youth.[1]

The Youth Tobacco Survey (YTS) began in 1997 to assess the prevalence of tobacco use and examine environmental factors that contribute to tobacco use among school-age youth. Data from the YTS serves to enhance the capacity of state agencies and organizations to design, implement, and evaluate tobacco prevention and control programs. South Dakota (SD) began statewide youth tobacco surveillance in 2003 using the South Dakota Youth Tobacco Survey (SD YTS). The SD YTS is an adaptation of the national YTS and includes state-added questions specific to programming and youth tobacco use trends in SD. After the 2003 baseline survey, the SD YTS was repeated in 2005, 2007, 2009, 2011, and 2013. Repeating the survey on an every other year basis provides valuable data that is used to track tobacco use trends among youth.

The 2015 SD YTS was administered to 3,081 middle school students (grades 6-8) in 54 schools during the fall of 2015, of which 2,375 students completed usable questionnaires. The survey included 74 questions about tobacco use prevalence, access to tobacco, knowledge and attitudes about tobacco, cessation, exposure to secondhand tobacco smoke, future intent to use tobacco products and exposure to pro- and anti-tobacco media messages. The findings of the 2015 SD YTS are representative of all 6th through 8th grade public, non-public, and tribal school students in SD. The *2015 South Dakota Youth Tobacco Survey Report* summarizes current tobacco use patterns among SD youth using results from the most recent SD YTS. These results are compared with data collected from previous SD YTS administrations as well as national trends.

METHODS

Description of the South Dakota Sample
(This section was provided by the Centers for Disease Control Office of Smoking and Health.)

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 - 90% 54 of the 60 sampled schools participated.

Students- 77.09% 2,375 of the 3,081 sampled students completed usable questionnaires

Overall response rate - 90% * 77.09%= 69.38%

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.

Additional Notes on Methodology outside of CDC OSH Analysis

Categorization of Race/Ethnicity for the South Dakota Youth Tobacco Survey

The classification of students by race and ethnicity was conducted using methodology from the National Youth Tobacco Survey.[5] First, ethnicity was classified by response to the Hispanic or Latino ethnicity question. All respondents answering "yes" to Hispanic/Latino were classified as such regardless of selection on the race question that followed. For the remaining students, if only one of the races available were selected, students were classified into that race. If the student selected two or more races then the following hierarchy was followed:

"If a respondent selected multiple races and they selected "White" as one of those races, then they are categorized as "White". If a respondent selected multiple races but did NOT select "White" and they selected "Black or African American" as one of those races, then they are categorized as "Black or African American". If a respondent selected multiple races but did NOT select "White" or "Black or African American" and they selected "Asian" as one of those races, then they are categorized as "Asian". If a respondents selected multiple races but did NOT select "White", "Black or African American", or "Asian", and they selected "American Indian or Alaska Native" as one of those races, then they are categorized as "American Indian or Alaska Native". If a respondent selected "Native Hawaiian or Other Pacific Islander" and any other race category, the respondent would be categorized as that other race."[6]

To reflect the population demographics of South Dakota, a three level race/ethnicity categorization ("White", "American Indian", and "all other races") was created by merging Latino, Black or African American, Asian, and Native Hawaiian or Other Pacific Islander into a single category. Throughout the report, race/ethnicity that does not fall within the "White" or "American Indian" categorization will be referred to as "other races".

Categorization of Any Tobacco Product in the South Dakota Survey

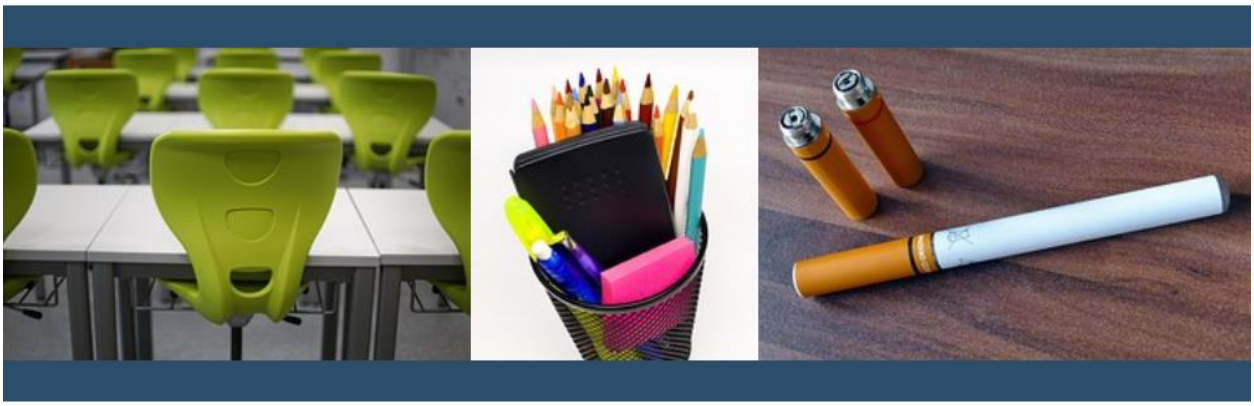
At various points throughout the report, multiple tobacco product use is combined together to form a single category "any tobacco". This category was created using National Youth Tobacco Survey methodology and consists of cigarettes, smokeless tobacco, cigars, pipe, bidis and kreteks.[7]

Historical South Dakota Youth Tobacco Survey Data

Throughout this report, historical data is provided from survey years 2005, 2007, 2009, 2011, and 2013. Except where noted, all of this data is drawn from printed reports.[8-10] The actual data was not reanalyzed, so the authors rely on the accuracy of previous reports for this information.

A full list of the 2015 YTS questions including the unweighted frequencies for each response is available as a separate document, by submitting a request to the South Dakota Department of Health Tobacco Control Program.

SECTION 2: PREVALENCE AND TRENDS IN TOBACCO USE AMONG MIDDLE SCHOOL STUDENTS



DESCRIPTION OF THE MIDDLE SCHOOL POPULATION

Demographical information collected in the 2015 SD YTS included gender, age, race/ethnicity, and grade level. A total of 2,375 usable surveys were submitted from 54 selected schools throughout the state. The SD YTS is conducted only with middle school students; therefore, 99.6% of the sample was between the ages of 11 and 14. The weighted sample was reflective of the SD middle school population with approximately one-third of the students from each of the three grades (six, seven and eight) and a near-equal gender distribution (51.0% male). Racial composition of the weighted sample was 73.9% White, 15.6% American Indian, and 10.5% other races.

EVER TOBACCO USE

Middle school students in SD were asked if they had ever tried various types of tobacco, including cigarettes, smokeless tobacco, cigars, or pipe. Ever tobacco use was defined as trying a tobacco product, even a puff or a pinch, on one occasion. For the YTS, tobacco products included under the "any tobacco use" category included cigarettes, smokeless tobacco, cigars, pipe, bidis and kreteks. Findings by gender, race and grade are characterized in Table 1.

Among middle school students in South Dakota, 16.7% have tried a tobacco product on at least one occasion.

Combining all types of tobacco use, 16.7% of middle school students had tried at least one tobacco product on at least one occasion, which is not a significant change from the 2013 rate of 17.2%. No differences existed by gender. Sixth grade students were significantly less likely to have used any type of tobacco than both seventh and eighth grade students ($p<0.0001$). However, the probability of ever using tobacco was roughly the same among seventh and eighth grade students. Differences in ever tobacco use also existed by race, as White students were less likely to have ever used tobacco than American Indian or other race students.

Ever Cigarette Use

Overall, 12.4% of middle school students had tried smoking a cigarette on at least one occasion (Table 1), which is similar to the 2013 results at 12.9%. No difference was found in cigarette use by gender in the 2015 survey, changing a trend from the 2011 and 2013 survey where females were more likely to use cigarettes. Rates of trying cigarettes were similar between seventh and eighth grade students, but significantly lower for sixth grade students ($p<0.05$). Significant differences also existed by race, with White students having the lowest rate of ever cigarette use (8.0%) and American Indian students having the highest rates of ever cigarette use at 33.2% ($p<.0001$).

Students in 7th and 8th grade are significantly more likely to have tried cigarettes than 6th grade students.

Evidence exists that long-term tobacco users start using tobacco at a young age.[3] Of the 12.4% of SD middle school students who had ever tried cigarettes, 40.4% reported they did so before age 11. This varied by gender, with 44.5% of females smoking a whole cigarette before age 11 compared to 35.9% of males.

Ever Smokeless Tobacco Use

Smokeless tobacco use on at least one occasion was reported by 6.2% of middle school students (Table 1), similar to 2013 findings at 6.5%. Rates of ever use of smokeless tobacco did not differ by gender, consistent with 2013 findings. Differences in ever use of smokeless tobacco existed by grade level, with rates of use similar between seventh and eighth grade students, but significantly lower for sixth grade students ($p<0.05$). American Indian students were significantly more likely to report using smokeless tobacco than White and other race students ($p<0.0001$). Of the 6.2% of SD middle school students who had ever tried smokeless tobacco, 25% reported they did so before age 11.

Ever Cigar and Pipe Use

Among middle school students, 6.5% had tried cigars, an increase over the 4.8% that reported cigar use in 2013. Although this is not a significant increase ($p=0.561$), the upward trend does not match the downward trend of other types of tobacco products. Pipe use was reported by 4.6% of middle school students (Table 1). Rates of ever using a pipe or cigars did not differ by gender, but differences did exist by grade level as rates of cigar use were significantly higher among 8th grade students than among 6th or 7th grade students ($p<0.05$). The probability of using a pipe increased significantly across progressive grade levels ($p<0.05$). Differences also existed by race as rates of cigar use were significantly higher among American Indian students as compared to both White students and other races ($p<0.05$). White students were significantly less likely to use a pipe compared to students of other races ($p<0.0001$). The rate of ever pipe use among American Indian students (13.7%) should be interpreted carefully since the YTS question does not clearly exclude the ceremonial use of a pipe. It is unknown how many of the students who report ever using a pipe were using a pipe for only ceremonial purposes.

Table 1. Ever Use of Tobacco by Product, Gender, Race and Middle School Grade Level, 2015

	ANY TOBACCO[a]	CIGARETTES	SMOKELESS TOBACCO	CIGARS	PIPES
	% (95% CI[b])	% (95% CI[b])	% (95% CI[b])	% (95% CI[b])	% (95% CI[b])
GENDER					
FEMALE	**17.5%** (±7.2)	13.3% (±7.7)	4.7% (±3.7)	6.0% (±4.2)	3.7% (±2.3)
MALE	**15.8%** (±4.8)	11.7% (±4.6)	7.7% (±3.9)	6.8% (±2.9)	5.4% (±2.9)
RACE					
WHITE	**11.9%** (±3.3)	8.0% (±3.8)	4.0% (±2.0)	5.2% (±3.0)	2.4% (±1.8)
AMERICAN INDIAN	**38.1%** (±13.6)	33.2% (±14.8)	17.9% (±12.7)	12.4% (±6.2)	13.7% (±4.7)
OTHER	**18.3%** (±6.6)	15.5% (±6.4)	5.5% (±3.4)	6.9% (±3.1)	6.4% (±3.6)
GRADE					
6	**9.5%** (±4.8)	7.0% (±4.2)	3.4% (±3.1)	4.5% (±2.9)	2.6% (±2.2)
7	**16.1%** (±8.5)	12.4% (±8.6)	6.0% (±3.5)	4.8% (±2.3)	4.2% (±2.7)
8	**24.2%** (±8.0)	17.6% (±8.2)	9.0% (±5.6)	10.1% (±6.5)	6.9% (±3.8)
OVERALL	**16.7%** (±5.7)	**12.4%** (±5.6)	**6.2%** (±3.4)	**6.5%** (±2.8)	**4.6%** (±2.3)

a Any Tobacco category includes cigarettes, smokeless tobacco, cigars, pipe, bidis, and kreteks per YTS methodology.[5]
b Confidence Interval

Other Tobacco Products

Students were asked if they have ever tried alternative forms of tobacco or nicotine products, with 13.6% responding they had. Table 2 indicates that e-cigarettes, roll-your-own, and hookah or waterpipe were the top three alternative tobacco or nicotine products used by SD middle school students. Ever use of other tobacco products among middle school students has increased in SD, especially in regards to e-cigarettes. In 2015, 5% of middle school students reported ever using e-cigarettes, compared to 1.7% reporting ever use in 2011 (Figure 1). National data released from the CDC shows that the number of U.S. youth who have used e-cigarettes, but have never smoked a regular cigarette, more than tripled in three years, from 79,000 in 2011 to over 263,000 in 2013.[11]

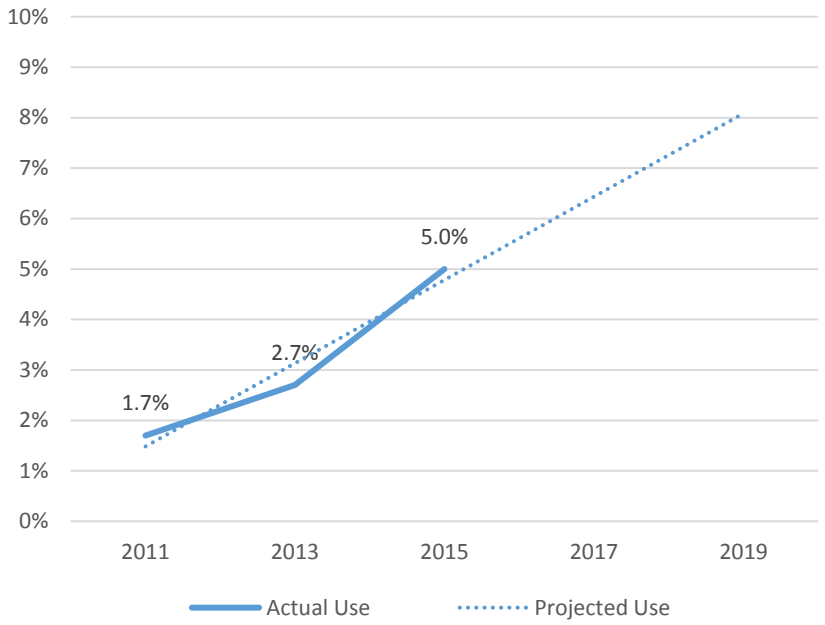
Use of electronic cigarettes by middle school students in South Dakota has increased from 1.7% in 2011 to 5.0% in 2015.

Table 2. Ever Use of Other Tobacco Products among SD Middle School Students, 2015

Product	% of middle school population
Electronic cigarettes	5.0% (± 2.5)
Roll-your-own cigarettes	3.0% (± 1.8)
Smoking tobacco from hookah or waterpipe	2.6% (± 1.6)
Snus	2.1% (± 1.8)
Flavored cigarettes	2.0% (± 1.3)
Flavored little cigars	1.4% (± 1.0)
Some other new tobacco product	1.4% (± 0.8)
Clove cigars	1.1% (± 1.1)
Dissolvable tobacco products	0.3% (± 0.3)

National data shows the number of U.S. youth who have used e-cigarettes, but have never smoked a regular cigarette, more than tripled in three years.[11]

Figure 1. Ever Use of Electronic Cigarettes among SD Middle School Students, 2011-2015 (projected to 2019)



Additional Student Characteristics

Truancy and the use of tobacco are highly correlated, and the odds of ever having tried a tobacco product increase as the number of days truant increases.[12] In 2015, high rates of tobacco use were found among middle school students who reported skipping one or more days of school in the past year (Table 3).

Table 3. Ever Tobacco Use by Number of Days of School Skipped, 2015

Number of school days skipped	% of population	% ever used tobacco
0 days	96.4%	15.2% (± 5.0)
1 day	2.3%	46.7% (± 19.4)
2 to 5 days	0.6%	74.7% (± 18.3)
6 to 10 days	0.3%	77.9% (± 30.7)
11 or more days	0.4%	58.4% (± 28.9)

CURRENT TOBACCO USE

Middle school students in SD were asked if they had used various types of tobacco, including cigarettes, smokeless tobacco, cigars, or pipe, in the past 30 days. Current tobacco use was defined using a 30-day point prevalence rate, or use of any tobacco product, even a puff or a pinch, on at least one occasion in the past 30 days. For the YTS, products included under the any tobacco use category included cigarettes, smokeless tobacco, cigars, pipe, bidis and kreteks. Table 4 outlines the findings by gender, race, and grade.

Table 4. Current Use of Tobacco Products, by Type of Product, Gender, Race, and Middle School Grade Level, 2015

	ANY TOBACCO*	CIGARETTES	SMOKELESS TOBACCO	CIGARS	PIPES
	% (95% CI[b])	% (95% CI[b])	% (95% CI[b])	% (95% CI[b])	% (95% CI[b])
GENDER					
FEMALE	**5.1%** (± 3.7)	3.5% (± 3.2)	2.3% (± 2.3)	1.5% (± 1.4)	1.9% (± 1.2)
MALE	**7.0%** (± 3.9)	2.1% (± 1.5)	3.3% (± 2.2)	2.3% (± 2.3)	3.4% (± 2.8)
RACE					
WHITE	**2.6%** (± 1.8)	0.7% (± 0.4)	1.0% (± 0.5)	1.2% (± 1.5)	1.4% (± 1.6)
AMERICAN INDIAN	**20.6%** (± 10.5)	11.8% (± 6.9)	11.5% (± 8.0)	5.3% (± 4.1)	6.8% (± 3.3)
OTHER	**8.3%** (± 4.0)	3.7% (± 2.6)	3.0% (± 2.6)	1.7% (± 1.2)	4.8% (± 2.9)
GRADE					
6	**3.4%** (± 3.4)	1.8% (± 1.9)	1.8% (± 1.8)	1.3% (± 1.3)	1.2% (± 1.0)
7	**5.6%** (± 3.7)	2.3% (± 2.2)	3.1% (± 2.4)	1.4% (± 1.3)	2.5% (± 1.7)
8	**8.9%** (± 5.1)	3.8% (± 2.9)	3.6% (± 2.9)	3.0% (± 3.3)	4.3% (± 4.0)
OVERALL	**6.1%** (± 3.6)	**2.8%** (± 2.2)	**2.8%** (± 2.1)	**1.9%** (± 1.7)	**2.7%** (± 1.7)

a Any Tobacco category includes cigarettes, smokeless tobacco, cigars, pipe, bidis, and kreteks per YTS methodology.[5]
b Confidence Interval

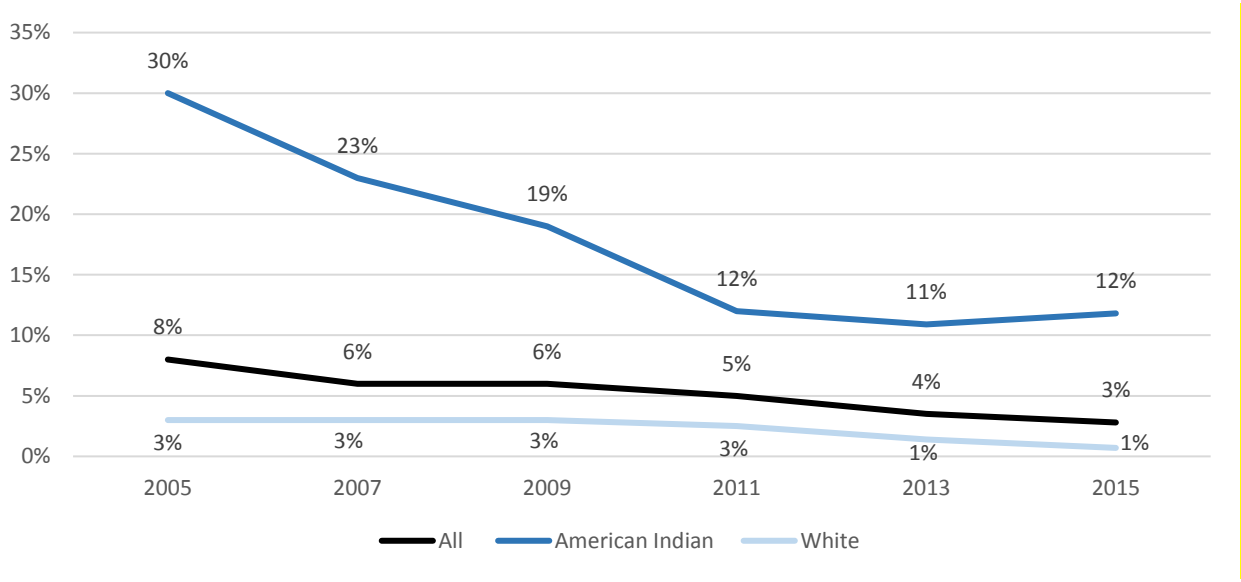
Among students using tobacco products in the past 30 days, 44.2% had used multiple types of tobacco.

Overall, current tobacco use among middle school students in SD was at 6.1% (Table 4). No significant difference in current tobacco use was found by gender. Significant differences were identified for race and grade level. The probability of current tobacco use increased significantly across progressive grade levels ($p<0.05$). Rates of current tobacco use were higher among American Indian and other race students as compared to White middle school students ($p<0.01$). Among students using tobacco products in the past 30 days, many had used multiple types of tobacco (44.2%). Of the remaining, use of only spit tobacco was reported by 22.8%, use of only cigarettes was reported by 18.4%, use of only pipe was reported by 12.9%, and only cigars was reported by 1.7%.

Current Cigarette Use

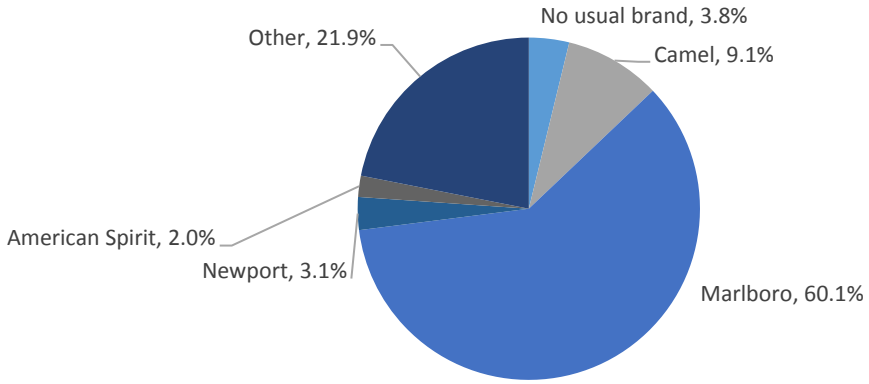
The current 30-day point prevalence of cigarette smoking was 2.8% (Table 4). This rate is trending downward slightly from the 2013 rate of 3.5%, but not statistically improved (p=0.480). No differences were found by gender. Rates of current cigarette use significantly increased by grade level (p<0.05). Significant differences also existed by race, with White students having significantly lower rates of current cigarette use (0.7%) compared to both American Indian students (11.8%) and other race students (3.8%), p<0.0001. Using data reported in previous SD YTS reports, a downward trend in the use of cigarettes among middle school students continued in 2015 (Figure 2).

Figure 2. Trends in Current Cigarette Use among SD Middle School Students, by Race, 2005-2015



Among all middle school students, 2.3% have smoked 100 or more cigarettes in their lifetime. Current frequent use of cigarettes (at least 20 of the past 30 days) was at 0.3% in the weighted sample of the entire SD middle school population. Among the 2.8% of students who reported current cigarette use, most were non-daily users, with just under half of the group (44.2%) smoking on only one or two of the past 30 days. Another 17.0% reported smoking on 3 to 5 days, 11.9% on 6 to 9 days, and 14.9% on 10 to 19 days. The remaining 12.0% reported smoking at least 20 of the past 30 days. Among current cigarette users, 7.4% state they have used 100 or more cigarettes in their lifetime, and 8.3% report using 6 or more cigarettes per day on the days they were smoking. Current cigarette users were asked about type of cigarette used. Over one-third (39.2%) reported use of menthol cigarettes. Brand preference is displayed in Figure 3, with Marlboro and other, unspecified types, being the most commonly used.

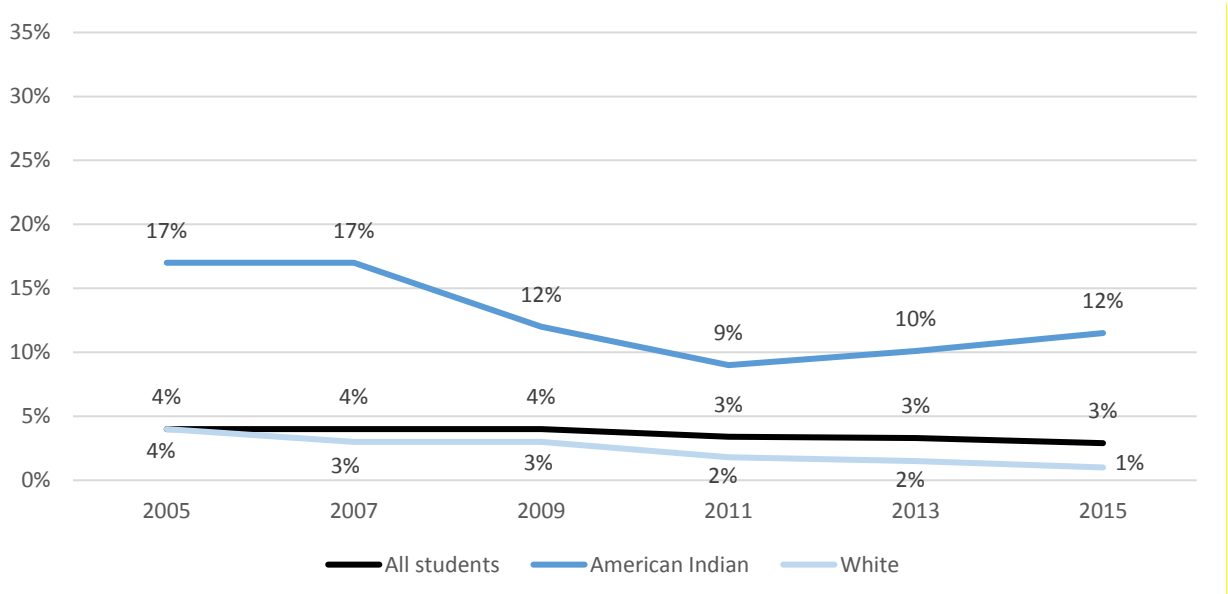
Figure 3. Brand of Cigarettes Used by Current Middle School Smokers, 2015



Current Smokeless Tobacco Use

The 30 day point prevalence of smokeless tobacco use among SD middle school youth was 2.8% (Table 4). This represents a decrease in overall rate among the entire middle school student population over the 2013 rate at 3.3%; however, the change is not significant (p=0.487). No differences were found by gender or grade level in rates of smokeless tobacco use. American Indian and other races were more likely to use smokeless tobacco than White students (p<0.01). Trend data in rates of smokeless tobacco use among middle school students is displayed in Figure 4. A slightly increasing trend is shown in the number of American Indian middle school students using smokeless tobacco.

Figure 4. Trends in Current Smokeless Tobacco Use by Race, 2005-2015



Current frequent use of smokeless tobacco (at least 20 of the past 30 days) was reported by only 0.1% of the weighted sample of the entire SD middle school population. Among the 2.8% of students who reported current smokeless tobacco use, over half of the group (58.3%) used smokeless tobacco on only 1 or 2 of the past 30 days. Another one-third (34.6%) report using smokeless tobacco between 3 and 9 days in the past month, 1.8% report using 10 to 19 days, and 5.3% report using on at least 20 of the past 30 days.

Current Cigar and Pipe Use

The 30 day point prevalence of cigar use among middle school youth overall was 1.9% (Table 4). No differences in current cigar use were found by gender or grade level. American Indian students were more likely to use cigars than White or other race middle school students ($p<0.01$). Among the students who reported current cigar use, most were non-daily users, with 7.6% reporting smoking cigars on at least 20 of the past 30 days.

The 30 day point prevalence of pipe use among middle school youth was 2.7% (Table 4). No differences in current pipe use were found by gender. The probability of pipe use increased significantly across progressive grade levels ($p<0.05$). Again, American Indian and other race students were more likely to use a pipe than White middle school students ($p<0.001$). As noted earlier in the report, ceremonial tobacco use is not explicitly excluded in the YTS questions. Among the 2.7% of students who reported current pipe use, most were non-daily users, with only 6.1% using a pipe on at least 20 of the past 30 days.

Current Use of Other Tobacco Products

Use of alternative forms of tobacco and nicotine products in the past 30 days was also examined. Overall, 8.4% of SD middle school students reported using one or more alternative tobacco product in the past 30 days. Table 5 indicates that e-cigarettes, roll-your-own cigarettes, and use of a hookah or waterpipe are the top three other tobacco or nicotine products currently used by SD middle school students.

Nationally, electronic cigarette use has surpassed current use of every other tobacco product, including cigarettes, and is now the most commonly used tobacco product among middle and high school students.

At a national level, the use of electronic cigarettes among both youth and adults is being monitored closely. For the first time in national YTS history, data from 2014 indicates that current e-cigarette use surpassed current use of every other tobacco product, including cigarettes, and is now the most commonly used tobacco product among middle and high school students.[13] From 2011 to 2014, substantial increases were observed in current e-cigarette and hookah use among middle and high school students, resulting in an overall estimated total of 2.4 million e-cigarette youth users and an estimated 1.6 million hookah youth users in 2014.[13] National survey data from 2014 indicates that 3.9% of middle school

students reported use of electronic cigarettes in the past 30 days, an increase from 0.6% in 2011, and current use of hookahs among middle school students increased to 2.5% of middle school students reporting use in the past 30 days, compared to 1% in 2011.[13] SD findings of current e-cigarette use are lower than the national data; however, the current rate of electronic cigarette use among middle school youth in SD doubled again from 0.6% in 2011 to 1.1% in 2013 to 2.2% in 2015.

Table 5. Current Use of Other Tobacco Products among SD Middle School Students, 2015

Product	% of middle school population
Electronic cigarettes	2.2% (± 2.2)
Roll-your-own cigarettes	1.8% (± 1.2)
Smoking tobacco from hookah or waterpipe	0.9% (± 0.5)
Flavored cigarettes	0.8% (± 0.8)
Snus	0.7% (± 0.6)
Some other new tobacco product not listed here	0.5% (± 0.5)
Flavored little cigars	0.4% (± 0.4)
Clove cigars	0.1% (± 0.1)
Dissolvable tobacco products	0.1% (± 0.1)

OBTAINING TOBACCO PRODUCTS

Among students ages 11 to 14 who attempted to purchase cigarettes, 70.9% were not refused. The most common specified place of purchase was a gas station.

The entire sample for the SD YTS was under age 18, which is the legal age in SD to purchase or use tobacco products. When asked about obtaining tobacco products, 66.7% of middle school students reported it would be "not easy at all", and 10.6% responded that it would be "very easy." Perception of ease in purchasing cigarettes increased by each grade level, with 6.2% of sixth grade students, 9.2% of seventh grade students, and 16.2% of eighth grade students reporting it would be "very easy" to purchase tobacco products ($p<0.0001$). No differences existed by race.

The majority of middle school students (94%) said they did not obtain cigarettes in the past 30 days. Among those students that had used cigarettes in the past 30 days, Figure 5 shows how the cigarettes were obtained. The most common method was to have someone else buy them. Only a small percentage (1.8%) of current smokers reported purchasing the cigarettes themselves. However,

of those that reported an attempt to purchase on their own, 70.9% report they were not refused to purchase due to their age. Although the change is not statistically significant (p=0.161), an improving trend is noted over the 77.2% that were not refused to purchase in 2013. Current middle school smokers that attempted a cigarette purchase reported buying cigarettes from a gas station (24.0%), grocery store (7.0%), convenience store (2.1%), over the internet (6.2%), drug store (2.8%), or another place (47.6%) (Figure 6).

Figure 5. How Current SD Middle School Smokers Obtained Cigarettes, 2015

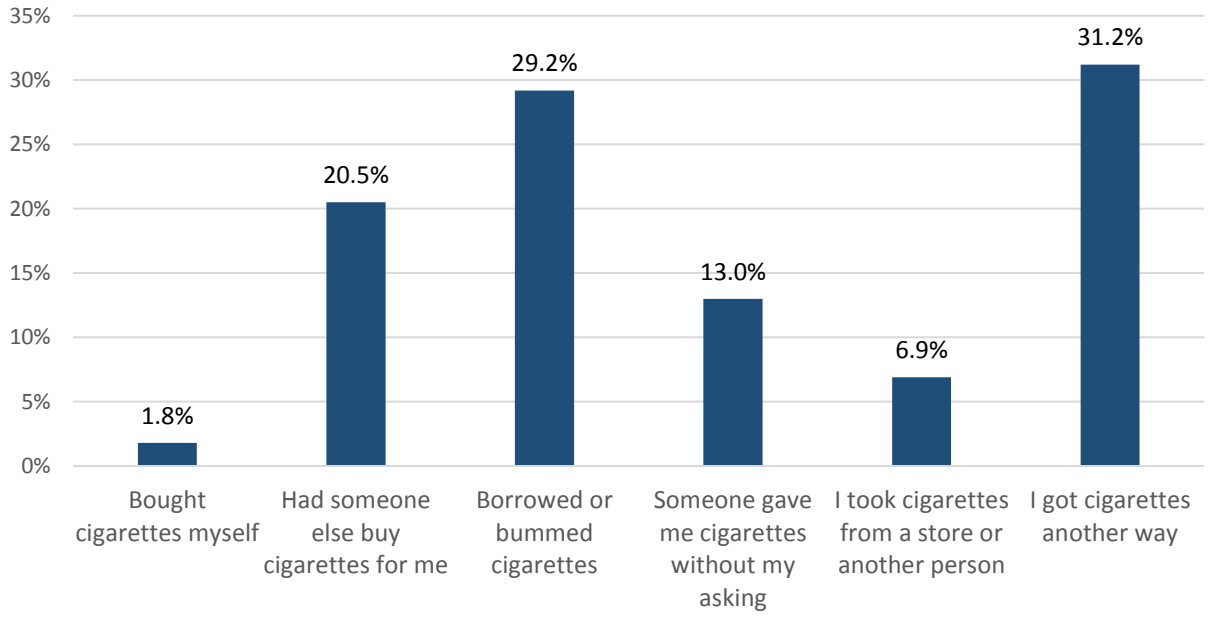
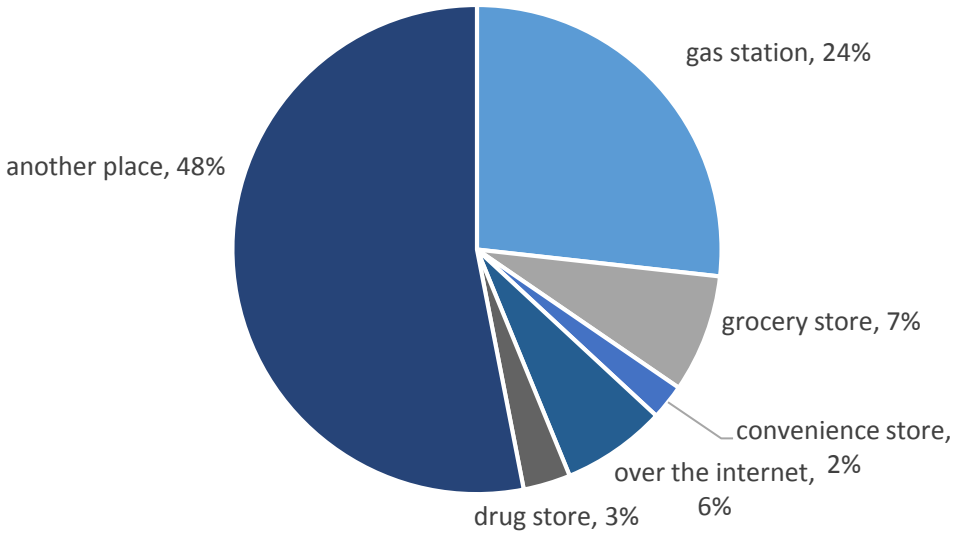


Figure 6. Location of Youth Cigarette Purchase, 2015



TOBACCO CESSATION

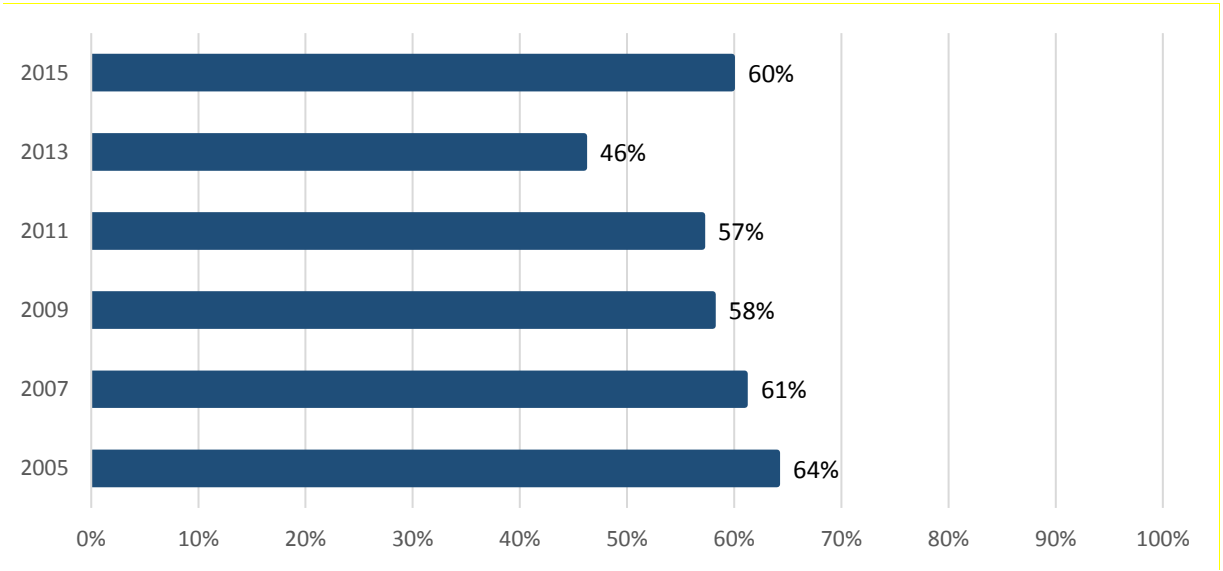
Current tobacco users were asked about their interest in quitting and past quit attempts. Most reported an interest in quitting (57.8%), with over one-quarter prepared to make an attempt in the next month (Table 6). Students were asked about types of resources utilized in the past year to assist with quitting tobacco. The most common reported method of making a quit attempt was "cold turkey", or unassisted, at 28.6% of current tobacco users. Other responses included nicotine gum (6.6%), school program (4.2%), help from family or friends (4.1%), nicotine patch (4.1%), community program (1.7%), a website with quitting information (1.6%), a quitline (0.7%), or cessation medication (0.6%).

Table 6. Quit Intent, Middle School Current Tobacco Users, 2015

Statement	Current tobacco users (%)
I want to quit in the next 30 days.	26.2%
I want to quit within the next 6 months.	11.8%
I want to quit, but longer than 6 months.	19.8%
I am not thinking about quitting the use of all tobacco.	42.2%

Among current smokers, 59.8% stated that they want to stop smoking for good. Most current smokers (80.2%) had at least one quit attempt in the past 12 months, although 60% of these students reported that the quit lasted 30 days or less. Figure 7 shows a marked increase over 2013 rates in interest in quitting among middle school smokers.

Figure 7. Interest in Quitting by Current SD Middle School Smokers, 2005-2015



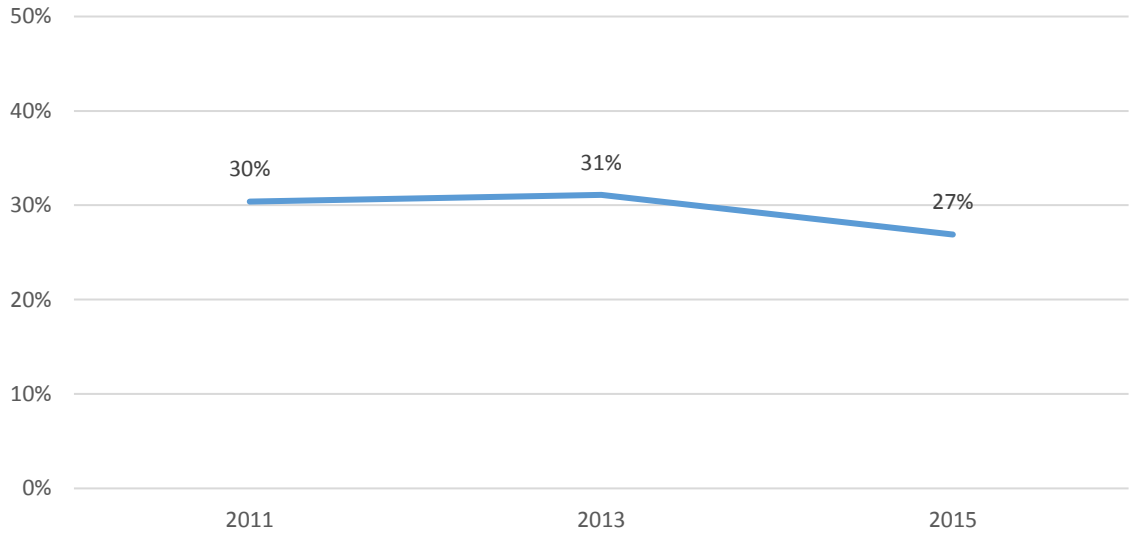
SECONDHAND SMOKE EXPOSURE

Secondhand smoke exposure is an attributable factor in the occurrence of numerous diseases, particularly cardiovascular and respiratory diseases in children. Exposure, even without direct use of tobacco, can lead to death and the development of chronic diseases.[14] Middle school students were asked about exposure to secondhand smoke, and beliefs about the harm of secondhand smoke. In the overall sample, 94.7% of students thought breathing smoke from other people's cigarettes or other tobacco products was "very" or "somewhat" harmful. Differences existed by gender, with males slightly less likely to perceive secondhand smoke as harmful (93.0% versus females at 96.5%; $p<0.05$). Significant differences existed by race, with 95.8% of White students agreeing that secondhand smoke is very or somewhat harmful, 91.3% of American Indian, and 93.5% of students of other races agreeing the same ($p<0.01$). No difference was found in perception of harm from secondhand smoke between smokers (90.7%) and non-smokers (94.9%; $p=0.333$).

Involuntary Exposure to Tobacco Smoke

Middle school students were asked how often they were exposed to secondhand smoke at home and in vehicles. Combining home and vehicle exposure, 26.6% of middle school students reported exposure to secondhand smoke on at least one day of the past week. Exposure in vehicles was reported slightly more frequently than exposure at home. Overall, a decreasing trend in secondhand exposure at home and in vehicles is noted (Figure 8).[9]

Figure 8. Exposure to secondhand smoke at least one day of the past week, 2011-2015



Just over one-quarter (26.6%) of SD middle school students reported exposure to secondhand smoke at home or in a vehicle in the past week.

Exposure at home was reported by 18.1% of students on at least one day in the past week. No difference existed by gender, but significant differences were found by current cigarette use and race. Of current smokers, 65.8% were at home while someone else smoked a tobacco product at least one time in the past week. Among never smokers, only 16.3% were in a home with someone smoking a tobacco product ($p<0.0001$). Overall, among American Indian students, 35.8% reported exposure to secondhand smoke at home on at least one day in the past week, compared to just 18.9% of other race students and 14.1% of White students reporting the same ($p<0.0001$).

Rates of secondhand smoke exposure in a vehicle at least one time in the past week was 20.4%. Among current smokers, 63.7% rode in a vehicle with someone who was smoking in the past week compared to never smokers, among whom only 19.0% reported the same ($p<0.0001$). Exposure in a vehicle also differed significantly by race with 38.0% of American Indian students reporting exposure in a vehicle compared to 16.7% of White students and 18.8% of other race students ($p<0.0001$).

Students were also asked about other places where secondhand smoke exposure could occur. When asked about breathing smoke from someone else smoking a tobacco product in a public indoor or outdoor area, 26.7% stated this had occurred on at least one day of the past week, and 4.0% stated it occurred daily. Exposure to cigarette smoke at work on at least one day in the past week was reported by 10.4% of middle school students. Interestingly, over 10.4% of students stated they had breathed smoke from someone else's tobacco product *on school property* in the past week, with 2.4% stating this occurred daily. The number of students exposed to secondhand smoke at school decreased from 16% in both 2011 and 2013.

Over 10% of middle school students in South Dakota reported breathing smoke from someone else's tobacco product on school property at least one time in the past week.

SECTION 3: ENVIRONMENTAL FACTORS PROMOTING TOBACCO USE AMONG MIDDLE SCHOOL STUDENTS

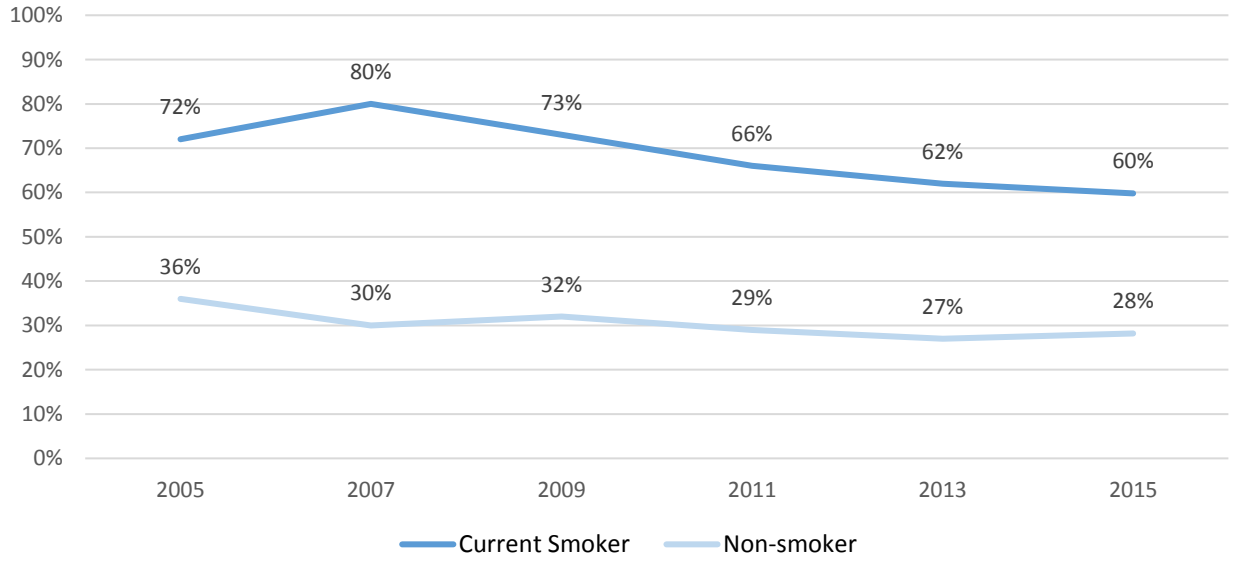
HOUSEHOLD TOBACCO USE

Among all middle school students, 40.2% reported someone in their household using a tobacco product. This finding was a slight decline compared to the rates of household use in the 2013 YTS survey at 43.4% and the 2011 survey at 42.0%. The most common tobacco product used by household members of middle school students was cigarettes (29.5%) followed by smokeless tobacco (12.4%). No differences were found by gender in prevalence of household tobacco use, but significant differences existed by race ($p<0.0001$). Of White students, 35.6% reported someone in the household used tobacco. Similarly, 34.3% of other race students reported household tobacco use. Rates were much higher among American Indian students, with 65.0% reporting someone using tobacco in the household.

Among middle school tobacco users, 70.1% reported a household member who uses tobacco.

Observation of others using tobacco is a promoting factor in initiation of tobacco use among youth.[1] Important differences were found in student tobacco use by household member use. Among those not using any type of tobacco, only 38.3% reported someone in the household using tobacco. In contrast, 70.1% of those students using a tobacco product reported someone in their household used tobacco. This difference was significant ($p<0.0001$). Figure 9 shows the trends specific to smoking. Among middle school smokers, 59.8% report someone in the household smoking compared to only 28.2% of never middle school smokers. Household smoking is at the lowest rate in the past decade, as is use of cigarettes by middle school students.

Figure 9. Trends in Household Member Smoking, by Student Current Smoking Status, 2005-2015



TOBACCO USE AMONG PEERS AND AT SCHOOL

Tobacco Use at School

Over 7% of middle school students reported smoking or observing someone smoking on school property in the past 30 days.

Smoking, or observing someone smoking, on school property in the past 30 days was reported by 7.4% of middle school students. No differences were found by gender, but eighth grade students were more likely to report smoking or observing smoking than sixth or seventh grade students ($p<0.05$). American Indian students were also more likely to use or observe use of cigarettes at school with 11.2% of students reporting this compared to 6.5% of White students, and 6.8% of students of other races ($p<0.05$). Other tobacco use (not cigarettes) was reported on school property by 4.9% of middle school students in the past 30 days. Rates did not vary by gender or grade level. American Indian students reported highest use or observation of use of other tobacco use on school property at 9.4%, compared to 3.8% of White students, and 5.3% of students of other races ($p<0.001$).

A new question was added to the 2015 SD YTS survey to assess use or observed use of e-cigarettes on school property. E-cigarette use, or observing someone using an e-cigarette, on school property in the past 30 days was reported by 5.3% of middle school students. Males were slightly more likely to report observing e-cigarette use on school property at 6.4% compared to females at 4.1% ($p<0.05$). Observation of e-cigarette use at school increased by grade level with 2.9% of sixth grade students, 5.1% of seventh grade students, and 7.9% of eighth grade students ($p<0.01$). American Indian students were also more likely to use or observe use of e-cigarettes at school at 11.5% compared to 4.0% of White students, and 4.0% of other race students ($p<0.0001$).

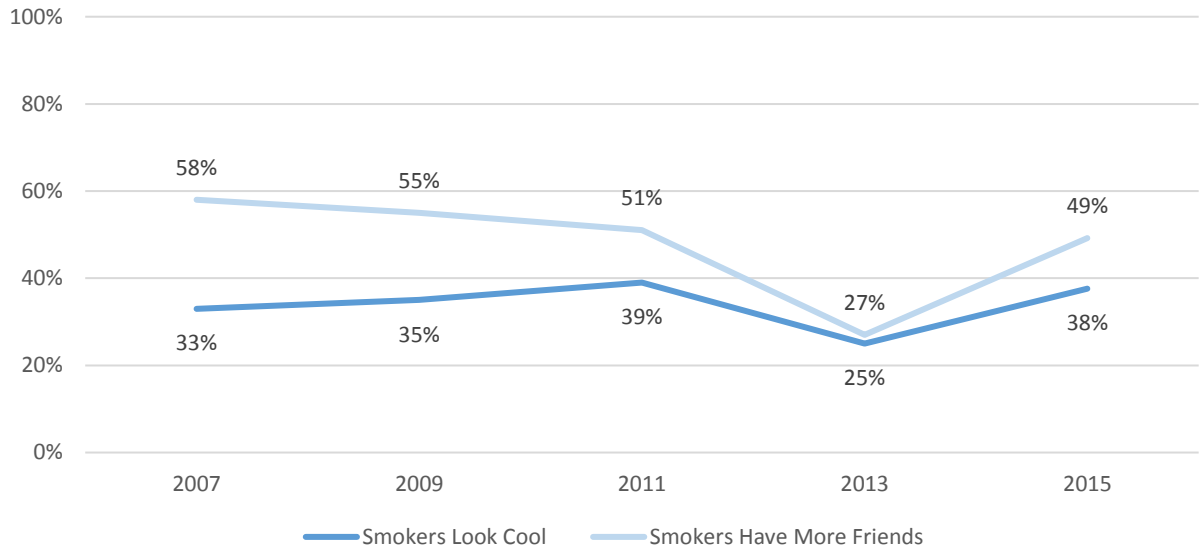
Perceptions of Tobacco Use

Middle school students were asked questions about their perception of students who smoke cigarettes. Agreement that smoking made young people look cool or fit in was reported by 6.3% of students. This perception did not vary by grade level, but did vary by gender, with 4.6% of females agreeing with statement that smoking makes people look cool or fit in, and 8.0% of males stating the same ($p<0.05$). Perceived "coolness" of smoking varied by race, with the lowest rates among White students at 4.2% and the highest rates among American Indian students at 13.8% ($p<0.0001$). Not surprisingly, rates also varied significantly by smoking status, with 37.6% of current smokers noting smoking made people look cool, as compared to only 5.1% of non-smokers ($p<0.0001$).

Students were also asked if those who smoke cigarettes have more friends, with 15.6% stating agreement. This did not vary by gender or grade level. Again, differences were found by race with a lower number of White students agreeing (11.8%) compared to

American Indian (31.2%) and other race students (20.7%) (p<0.0001). Smokers were much more likely to agree that students who use cigarettes have more friends at 49.2% compared to non-smokers at 14.6%. A marked drop towards less positive perceptions about smoking was noted among current smokers in 2013, as depicted in Figure 10. This trend did not continue in the 2015 data.

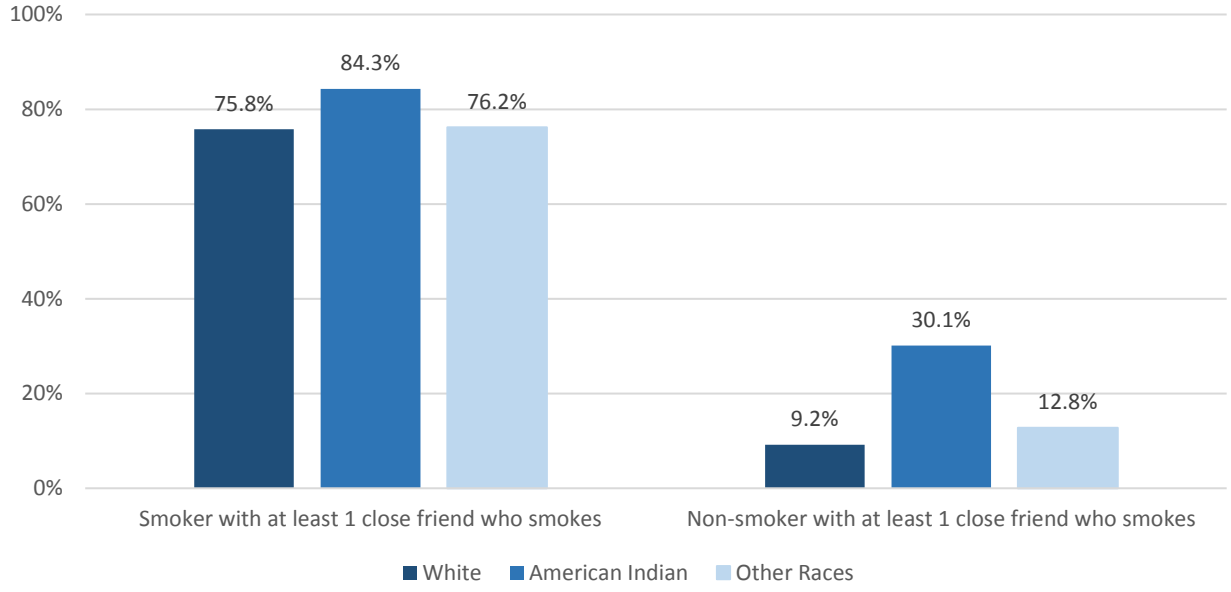
Figure 10. Perceptions about Smoking among Current Middle School Smokers, 2007-2015



Peer Tobacco Use

Middle school students were asked about peer use of tobacco products. Among the sample, most did not have close friends that smoked (85.1%) or used smokeless tobacco (87.6%). These 2015 findings are similar to both 2011 and 2013 reports. Variations by race and current smoking status existed. Among middle school students, American Indian students had the highest rates of reporting close friends who used cigarettes at 36.5%. This was significantly different from both White students at 9.9% and other race students at 17.0% (p<0.001). Among current smokers, the vast majority (82.3%) had at least one close friend that smoked (Figure 11). Findings were similar for smokeless tobacco use, with American Indians students reporting the highest rates of friends that used smokeless tobacco at 24.7%. This was compared to White students at 9.8% and other race students at 12.1% (p<0.0001). Among current smokeless tobacco users, 78.1% had one or more close friend(s) that used smokeless tobacco.

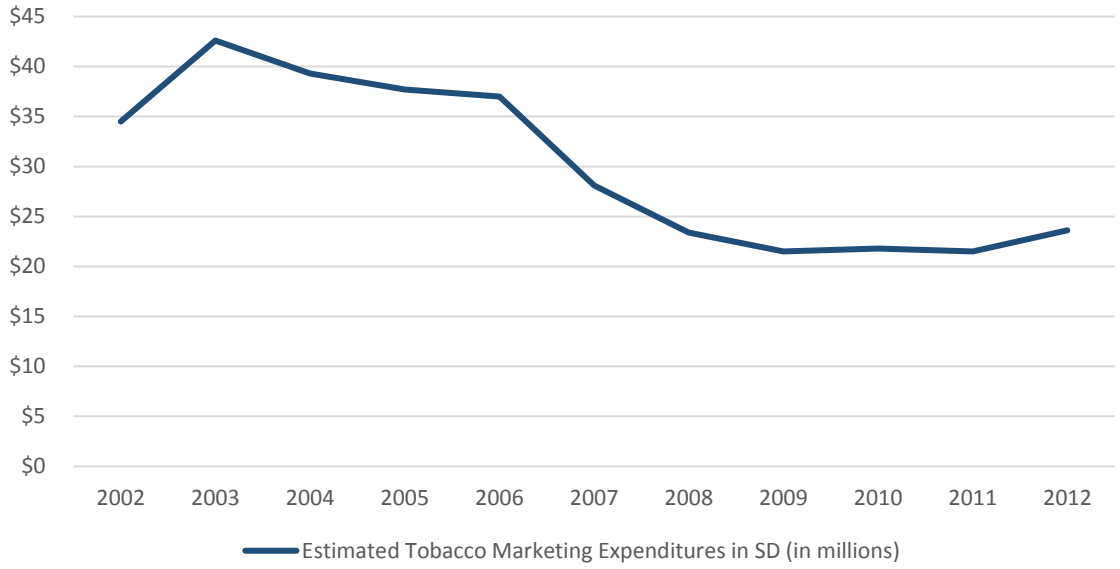
Figure 11. Rates of Peer Cigarette Use, by Current Smoking Status and Race, 2015



TOBACCO PRODUCT MARKETING

Tobacco product marketing aimed at youth continues, and marketing influences contribute to initiation of use among youth. In 2012, the most recent year of available data, the tobacco industry spent an estimated $26 million *per day* in marketing products nationwide, with an estimated annual $23.6 million marketing expenditures in SD alone.[15,16] Figure 12 shows the annual tobacco marketing expenditures in SD across a ten year span from 2002-2012.

Figure 12. Tobacco Marketing Expenditures in South Dakota, 2002-2012

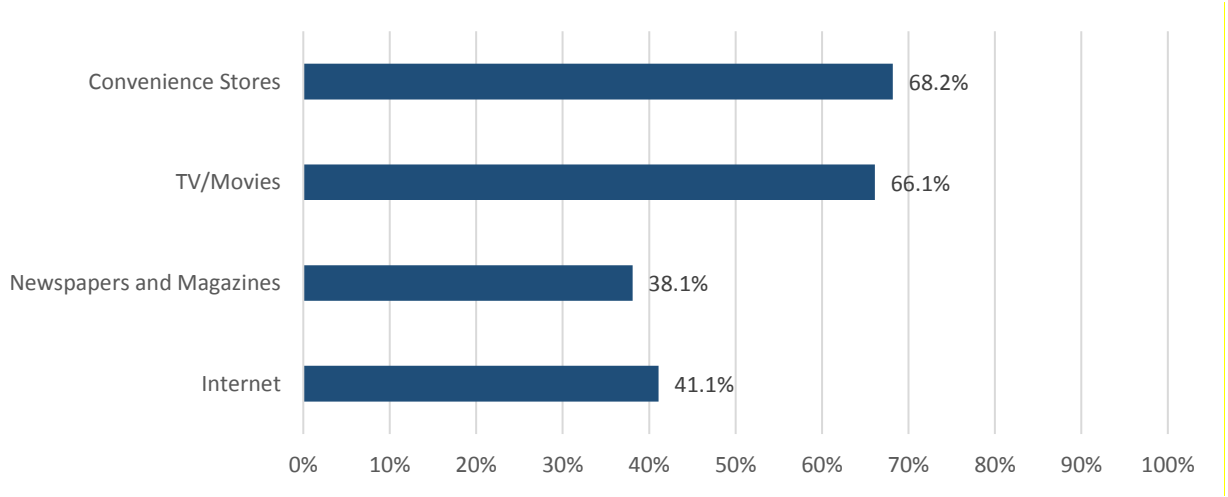


Middle school students were asked if tobacco companies marketed products to young people, finding 65.2% of students agreed that tobacco companies target youth. This rate continues to decline from 68.2% of students agreeing in 2013, and roughly 75% of students agreeing in 2011. The perception that tobacco companies target youth varied by gender, with 68.5% of females agreeing with the statement, and only 61.8% of males ($p<0.05$). Agreement also varied by grade level with just 59.5% of sixth grade students agreeing, and 68.0% of both seventh and eighth grade students agreeing ($p<0.05$). American Indian students had the lowest agreement at 55.5%, with White students having the highest at 67.9% ($p<0.05$). This also varied by tobacco use status, with only 53.3% of current tobacco users feeling the tobacco companies were targeting youth, and 65.9% of non-tobacco users feeling the same ($p<0.05$).

Students were asked many questions about receiving direct marketing from tobacco companies. Most students did not report receiving ads directly from a tobacco company (90.1%). Of the entire middle school student population, 5.7% reported receiving ads via the Internet, 1.5% received ads by mail, 1.2% by Facebook, 0.8% by email, 0.5% by a text message, and 0.2% by Myspace. New to the 2015 SD YTS, students were asked about receiving direct marketing from e-cigarette companies. Most students (88.3%) did not report receiving ads directly from a tobacco company for e-cigarettes. Of the entire population, 7.3% received ads via the Internet, 1.6% by Facebook, 1.4% by email, 1.1% by mail and 0.3% by a text message from e-cigarette companies.

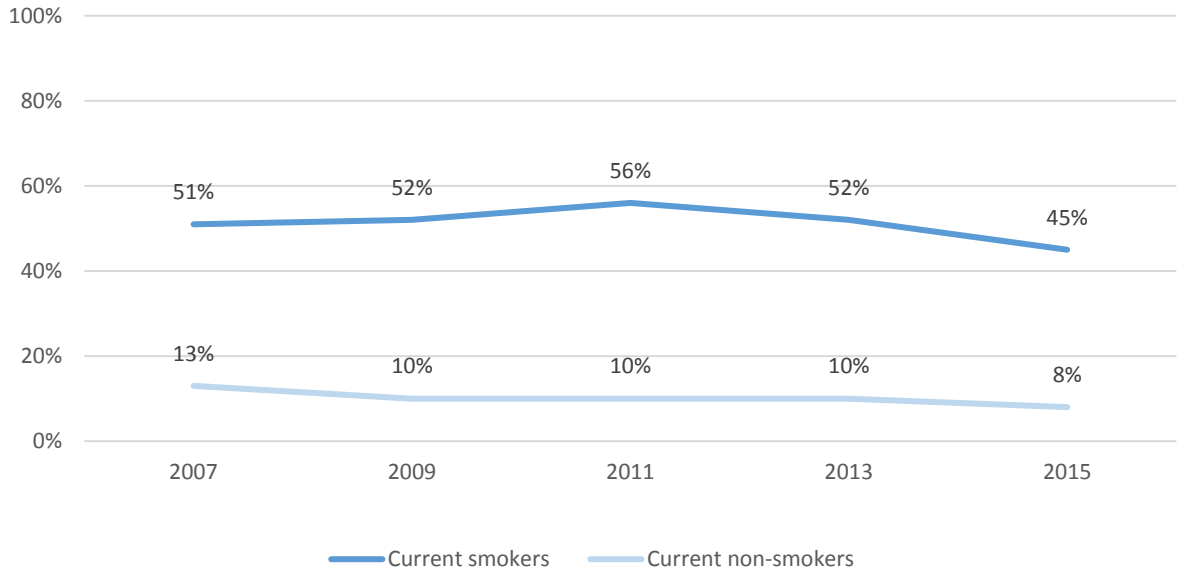
Students were also asked where, if anywhere, they had seen various types of tobacco product marketing. As Figure 13 shows, convenience stores and actors/actresses on TV and movies were the most common ways SD middle school students saw the promotion of tobacco. Combining the digital media avenues (Internet, TV and movies), 73.0% of middle school students reported sometimes, most of the time, or always, seeing ads for tobacco products. Media remains a significant source of pro-tobacco messaging.

Figure 13. Tobacco Product Advertising Viewed by Middle School Students, by Location, 2015



Finally, students were asked about the appeal of products (i.e., T-shirts, hats, water bottles) with tobacco company logos. Overall, just 9.4% of middle school students said it was very or somewhat likely they would wear or use a product with tobacco-company branding. These rates differed by smoking status, with 47.3% of current tobacco users stating they would use or wear such a product, and just 7.0% of non-tobacco users stating the same. Trends by middle school student smoking status are presented in Figure 14.

Figure 14. Trends in Middle School Students' Interest in Tobacco Company Branded Products, 2007-2015



SECTION 4: ANTI-TOBACCO EDUCATION AND MESSAGING

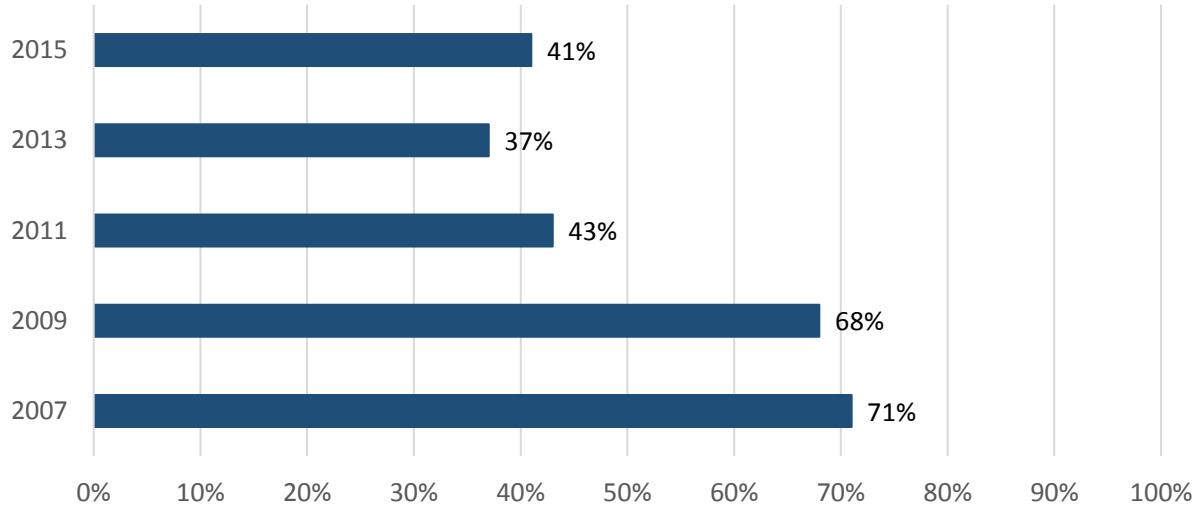
EDUCATION AND MESSAGES ABOUT TOBACCO USE

Strong media and community based messaging about the dangers of tobacco use are included as best practice guidelines to effectively reduce tobacco initiation among youth.[17] Survey findings show that among SD middle school students, 81.6% reported hearing an anti-tobacco message from at least one source (parent, healthcare provider, school, organized activity, or ReThink It media). This is a decline over last survey's finding at 88.3%. Prevention among youth is critical, and a publication from the Surgeon General specifically points to parents, schools, and mass media as key sources of information on the dangers of tobacco use for our youth. Strategies to include in a comprehensive, sustained, multi-component program include mass media campaigns, higher tobacco prices, smoke-free laws and policies, evidence-based school programs, and sustained community-wide efforts.[3]

Parental Messaging about Tobacco Use

Among middle school students, 41.0% reported a parent had talked with them about not using tobacco in the past year. This rate did not vary by gender, but did vary by race (White (39.3%), American Indian (51.0%) and other race (38.6%; $p<0.01$). Differences also existed by tobacco use status, with more current tobacco users reporting a parent had discussed dangers of use, 61.6%, compared to 39.7% of those not using tobacco ($p<0.001$). Figure 15 shows the decreasing trend in parental discussion on the dangers of tobacco use over the past eight years.

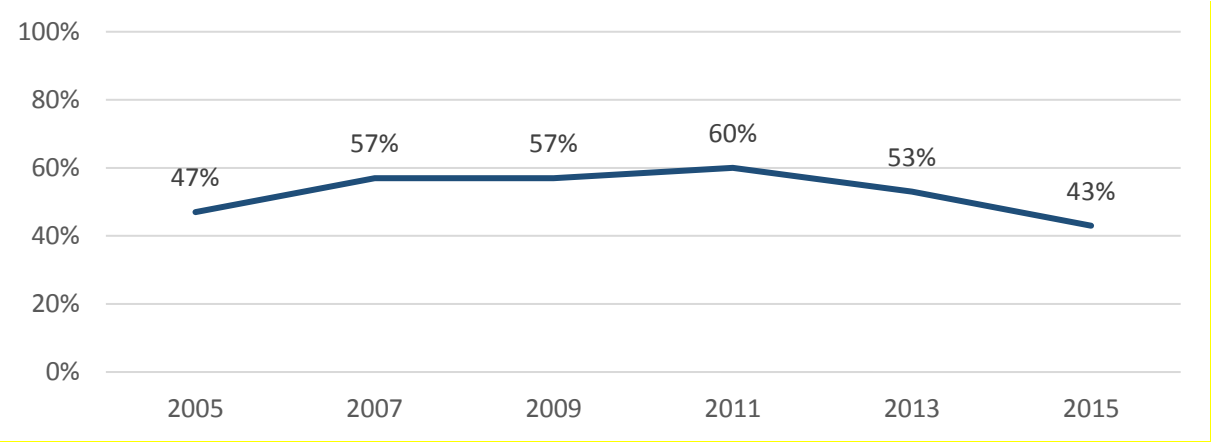
Figure 15. Trends in Parent(s) Discussing the Dangers of Tobacco Use, 2007-2015



Tobacco Education at School

A decline was noted in the number of middle school students receiving education on not using tobacco while at school. In 2015, 43.2% reporting anti-tobacco education at school compared to 52.7% in 2013. This did not vary by gender or race (American Indian students at 51.4%; White students at 41.0%; and other race students at 44.7%). No significant difference was found in receiving education in school by those currently using tobacco (52.3%) and those not using tobacco (42.6%). Figure 16 displays the trends of anti-tobacco education in schools over the past decade, with 2015 showing the lowest rate of school-based anti-tobacco education.

Figure 16. Trends in Number of Students Receiving School-based Education about the Dangers of Tobacco Use, 2005-2015



Organized Activities Discouraging Tobacco Use

Involvement in an organized activity to keep young people away from tobacco use was reported by 21.0% of middle school students. Examples of anti-tobacco organized activities in SD include Teens against Tobacco Use (TATU) groups and groups organized at local Boys and Girls Clubs. No differences were found by gender or tobacco use status. American Indian students were more likely to report involvement with an anti-tobacco student activity at 29.6% compared to White (19.1%) or other race (21.7%) students ($p<0.05$).

Healthcare Professional Messaging about Tobacco Use

Clinical practice guidelines recommend that clinicians ask both pediatric and adolescent patients about tobacco use and provide abstinence advice.[18] This recommendation is further expanded by the requirements of Stage 1 Meaningful Use, mandating that smoking status be recorded for all patients 13 years or older.[19]

Students were asked about discussions with healthcare providers (including doctors, dentists or nurses) regarding tobacco. Most students (89.5%) reported seeing a healthcare provider in the past year. Among those who had seen a healthcare professional, only 30.4% said this provider asked about use of tobacco products. This did not vary by gender or race. Differences were found by tobacco use status with 61.5% of current tobacco users asked versus only 28.5% of non-users.

Students were also asked if a healthcare professional had advised them not to use tobacco. Among those who had seen a healthcare professional in the past year, 29.0% reported this person advised against the use of tobacco products. This did not vary by gender, but did vary by race and tobacco use status with more American Indian students (38.6%) compared to White (27.3%) and other race students (29.2%) advised ($p<0.05$), and more current tobacco users advised (55.9%) compared to non-users (27.3%) ($p<0.0001$).

Anti-Tobacco Media

The SD Department of Health Tobacco Control Program has designed media aimed at providing information about the dangers of tobacco use, cessation information, and how tobacco companies target youth. This media is available at http://rethinktobacco.com. Among all SD middle school students, 48.2% reported hearing the "Rethink It. Seriously." slogan with no differences found by gender, race, or tobacco use status. This is a decline from the 2013 rate at 59.2% of middle school students.

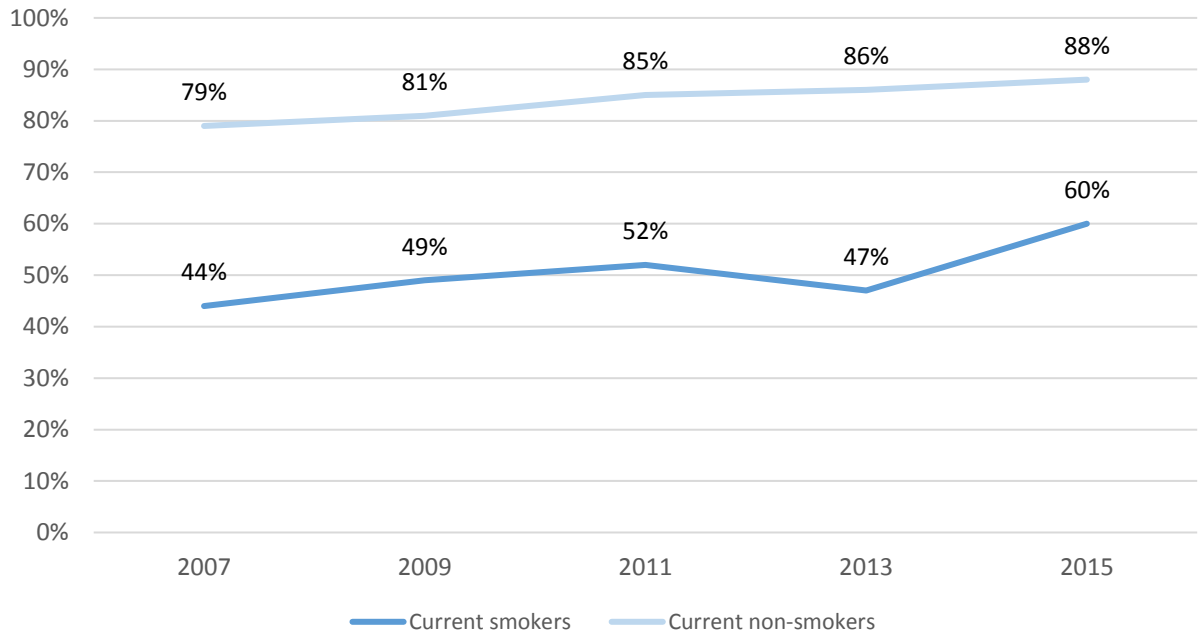
Warning Labels on Tobacco Products

Warning labels on tobacco products display messages that tobacco is harmful. Among SD middle school students who had seen a cigarette pack in the past 30 days, only 34.2% reported seeing the warning label on the pack. Viewing this warning label varied by gender with fewer females (27.6%) than males (39.8%) indicating they saw the warning label ($p<0.05$). The rate did not vary by race or smoking status. Among those who have seen a smokeless tobacco product, 31.4% report seeing the warning label. Similar to cigarettes, observation of the warning label differed by gender (24.6% of females compared to 36.6% of males), but not by race. Rates varied by use status, with 46.1% of spit tobacco users reporting seeing a warning label and 30.1% of those not using spit tobacco ($p<0.05$).

HOUSEHOLD INDOOR SMOKING RULES

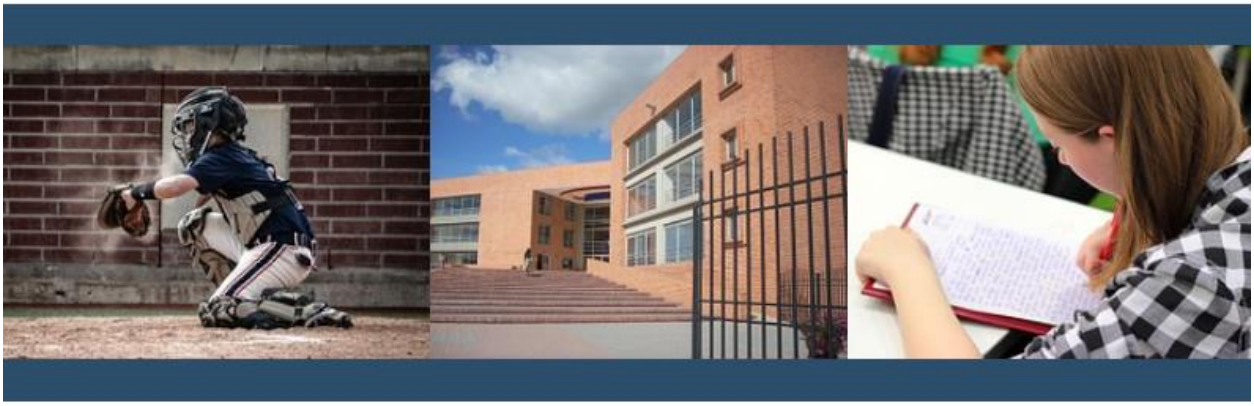
Home rules that prohibit smoking tobacco products indoors and in vehicles aid in reducing, but do not eliminate, the health impact to youth. Home rules about smoking indoors were assessed as both a protective factor in secondhand smoke exposure, and also as a message against smoking. The weighted sample of middle school students surveyed indicated that 87.3% lived in a home where smoking was *never* allowed inside, an upward trend from 2013 findings at 84.2%. No differences in home smoking rules existed by gender. However, results did vary significantly by race ($p<0.0001$). Among American Indian students, only 75.5% reported home rules, followed by other race students of which 85.0% reported home rules ($p<0.001$). Among White students, 90.2% reported home rules prohibiting smoking indoors ($p<0.0001$). Notably, differences also existed by current smoking status, with home rules reported by only 60.0% of students who smoke compared to 88.6% of non-smokers (Figure 17).

Figure 17. Trends in Home Rules Prohibiting Smoking Indoors, by Smoking Status, 2007-2015



Rules about smoking inside vehicles had similar rates. Overall, 78.3% of middle school students reported a rule that prohibited smoking inside vehicles. Again, this did not vary by gender, but did vary significantly by race and smoking status. American Indian students reported significantly lower rates of rules prohibiting smoking in vehicles at 54.3% compared to White students at 83.5% and other race students at 80.9% ($p<0.0001$). Non-smokers reported vehicle rules at a rate of 79.6% compared to smokers at 38.2% ($p<0.0001$).

SECTION 5: KEY FINDINGS AND RECOMMENDATIONS



2015 YOUTH TOBACCO SURVEY RECOMMENDATIONS

Based on results of the 2015 South Dakota YTS, the following recommendations are offered toward reducing the health risks associated with tobacco use and secondhand smoke exposure among the youth of South Dakota:

1) ***Discourage use of alternative tobacco products, including electronic cigarettes.***

   E-cigarette use by youth continues to be a growing trend nationwide. National data show the number of youth who have used e-cigarettes, but have never smoked a combustible cigarette, more than tripled in the past three years. The number of middle school students in SD that have *ever* used an e-cigarette increased from 1.7% in 2011 to 5.0% in 2015. Current use of e-cigarettes by middle school students has also doubled since 2013 and is now at a rate of 2.2%. Continued efforts to prohibit access and marketing of e-cigarettes among youth are needed. An upward trend was also noted of in the number of middle school students that have *ever* used cigars, now at a rate of 6.5%. This trend does not match the downward trend of other types of tobacco products and should be monitored in future years.

2) ***Monitor youth poly-tobacco users.***

   Among students using tobacco products in the past 30 days, 44.2% had used multiple types of tobacco. Research suggests that youth who use multiple tobacco products are at higher risk for developing nicotine dependence and might be more likely to continue using tobacco into adulthood.[2]

3) ***Decrease tobacco use and secondhand smoke exposure among American Indian youth.***

   Rates of current tobacco use continue to be higher among American Indian middle school students. American Indian students also reported higher secondhand smoke exposure at home and in vehicles. Efforts to reduce initiation and access to cessation service need to continue for this population. Encouraging findings were noted for this population, as American Indian students were more likely to report a parent advising against tobacco use, as well as more likely to report involvement with an anti-tobacco student activity.

4) ***Support tobacco education in schools.***

   Among SD middle school students, only 43.2% report receiving anti-tobacco education in school, a declining trend from 60% in 2011 and 53% in 2013. Tobacco use increases significantly between sixth and seventh grades. Anti-tobacco messaging to students grade six and younger may prove helpful.

5) *Encourage implementation of the SD model policy for tobacco-free schools.*

Display, promote, and encourage implementation of the model policy for tobacco-free schools among administrators and school boards. Over 10% of middle school students in SD report involuntary exposure to secondhand smoke *on school property* in the last week, with 2.4% stating this occurred daily. Additionally, 5.3% report using or observing someone using an e-cigarette on school property in the past 30 days. Tobacco use needs to be eliminated on all school property, at all school events, at all times.

6) *Target healthcare providers for education on assessment of tobacco use for youth patients, including assessment of tobacco use in the household.*

Clinical practice guidelines recommend that all healthcare providers ask pediatric and adolescent patients about the use of, and exposure to, tobacco products. Meaningful use stage one criteria requires smoking status to be recorded for patients 13 years of age and older.[19] Of middle school students who had seen a healthcare professional in the last year, only 30.4% were asked about use of tobacco products. Trends suggest e-cigarettes are an emerging product of choice among this age group, and should be included in the tobacco use assessment. The dangers of secondhand smoke exposure should also be discussed with the family during patient visits.

7) *Eliminate tobacco sales to underage youth.*

The legal age in SD to purchase tobacco products is 18 years. Among middle school students (ages 11-14) who attempted to purchase tobacco products on their own, 70.9% report they were not refused to purchase due to their age. The primary location of purchase was gas stations. More efforts are needed to enforce consequences for owners or employees who sell tobacco products to minors.

8) *Target parents for cessation.*

Among middle school students using tobacco, 70.1% had a household member that used tobacco. Parental cessation should continue to be a focus in order to improve health outcomes for families. A decline has been seen in rates of household smoking in the past decade, and use of cigarettes by middle school students follows that trend.

9) *Promote the SD QuitLine in schools.*

An interest in quitting tobacco use was reported by 57.8% of current middle school tobacco users. Unfortunately, the majority of students who made a quit attempt in the past year did so without assistance. Promotion of the SD QuitLine among school counselors, nurses, and staff is needed in order to help youth quit before tobacco causes long-term health consequences.

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APPENDIX A: Status of SD Tobacco Control Program Strategic Plan Goals

	OBJECTIVE:	STATUS:
Reduce Current Use of Tobacco among Young People	• Reduce the percentage of youth grades 6-8 that currently smoke from 3.5% to 3% by 2020. • Reduce the percentage of youth grades 6-8 that currently use spit tobacco from 3.3% to 2% by 2020.	• **IMPROVED**— In 2015, 2.8% of middle school youth reported current use of cigarettes, compared to 3.5% in 2013. • **IMPROVED**— In 2015, 2.8% of middle school youth reported current use of spit tobacco, compared to 3.3% in 2013.
Decrease Initiation of Tobacco Use among Young People	• Decrease the percentage of youth grades 6-8 who report ever smoked cigarettes from 12.9% to 11% by 2020. • Decrease the percentage of American Indian youth grades 6-8 who report ever smoked cigarettes from 33.4% to 32% by 2020.	• **UNCHANGED**—In 2015, 12.4% of middle school youth reported ever smoking a cigarette, compared to 12.9% in 2013. • **UNCHANGED**— In 2015, 33.2% of American Indian middle school youth reported ever smoking a cigarette, compared to 33.2% in 2013.
Eliminate Non-Smokers' Exposure to Secondhand Smoke	• Reduce the percentage of youth grades 6-8 that were in the same room or car as someone smoking from 31.1% to 27% by 2020.	• **IMPROVED**—In 2015, 26.6% of middle school youth reported exposure to secondhand smoke at home or in a vehicle during the past week
Electronic Cigarette Use	**STATUS:** The use of electronic cigarettes among middle school youth continues to increase at an alarming rate. In 2015, 5% of South Dakota middle school students reported trying an electronic cigarette at least once in their lifetime, an increase from 2.7% in 2013 and 1.7% in 2011. Current use of an electronic cigarette, or use in the last 30 days, was reported by 2.2% of SD youth in 2015, compared to 1.1% in 2013.	