

SOUTH DAKOTA YOUTH RISK BEHAVIOR SURVEY TREND REPORT 1991-2005

Prepared by David B. Schubot, Ph.D.
Behavioral Scientist

Supported by a contract with:

Coordinated School Health Program
Office of Educational Services and Support
South Dakota
Department of Education
700 Governors Drive
Pierre, South Dakota 57501-2291
Phone (605) 773-3261

Division of Alcohol and Drug Abuse
South Dakota
Department of Human Services
3800 East Highway 34, Hillsview Plaza
Pierre, South Dakota 57501-5070
Phone (605) 773-3123

Tobacco Control Program
Office of Health Promotion
Division of Health and Medical Services
South Dakota
Department of Health
615 East Fourth Street
Pierre, SD 57501-1700
Phone (605)773-3737



Questions/concerns or requests for additional copies of this publication should be directed to:
Coordinated School Health, DOE, 700 Governors Drive, Pierre, SD 57501-2291
Phone: (605) 773-3261 FAX: (605) 773-3782
Web site: <http://doe.sd.gov/oess/schoolhealth/index.asp>

Acknowledgements

South Dakota is one of only three states that have been able to secure weighted data for every year the Youth Risk Behavior Survey (YRBS) has been conducted. This achievement could only have been accomplished with the continued commitment of our state's school administrators, school principals, teachers, parents, and students. Sincere appreciation is extended to those school districts that have participated in past and present surveys.

This trend report contains data from state and national Youth Risk Behavior Survey reports that were conducted 1991-2005. This report would not be possible without the participation of countless school districts, several partnering agencies and the Centers for Disease Control and Prevention.

Special thanks are extended to Dr. Rick Melmer, Secretary of the South Dakota Department of Education, Jerry Hofer, Secretary of the South Dakota Department of Human Services and Doneen Hollingsworth, Secretary of the South Dakota Department of Health for their continued support of the Youth Risk Behavior Survey and the Youth Risk Behavior Survey Trend Report.

Gratitude is also expressed to the South Dakota Department of Social Services and the South Dakota Department of Public Safety for their input regarding survey question development.

Technical assistance and financial support for this report have been provided by the Division of Adolescent and School Health, United States Centers for Disease Control and Prevention.

Table of Contents

Description of the Youth Risk Behavior Survey	4
Youth Risk Behavior Survey Trend Data	4
Explanation of Trend Results	4
Results	
Behaviors that Result in Intentional and Unintentional Injuries and Violence	7
Tobacco Use.....	24
Alcohol and Other Drug Use.....	32
Sexual Behaviors that Result in HIV Infection, Other Sexually Transmitted Diseases, and Unintended Pregnancy	44
Dietary Behaviors	49
Physical Activity	61
References	68
Resources	74

Description of the Youth Risk Behavior Survey

The Youth Risk Behavior Survey (YRBS) is a questionnaire that assesses the six priority health-risk behaviors that result in the greatest amount of morbidity, mortality, and social problems among youth. The YRBS was developed cooperatively by the Centers for Disease Control and Prevention (CDC), and state and local departments of education. The six priority health-risk behaviors assessed in the YRBS are behaviors that result in intentional and unintentional injuries; tobacco use; alcohol and other drug use; sexual behaviors that result in HIV infection, other sexually transmitted diseases (STDs), and unintended pregnancy; dietary behaviors; and physical activity.

These six priority health-risk behaviors were selected for inclusion in the survey because in the United States, 71% of all deaths among youth and young adults aged 10–24 years result from four causes: motor vehicle crashes (31%), other unintentional injuries (14%), homicide (15%), and suicide (11%).⁹⁷ Substantial morbidity and social problems also result from the approximately 831,000 pregnancies among women aged 15–19 years,⁹⁸ the estimated 9.1 million cases of sexually transmitted diseases (STDs) among persons aged 15–24 years,⁵³ and the estimated 4,842 cases of HIV/AIDS among persons aged 15–24 years⁵⁵ that occur annually. Among adults aged >25 years, 61% of all deaths in the United States result from cardiovascular diseases (38%) and cancer (23%).⁹⁷ These leading causes of morbidity and mortality among youth and adults in the United States are related to six categories of priority health risk behaviors: behaviors that contribute to unintentional injuries and violence; tobacco use; alcohol and other drug use; sexual behaviors that contribute to unintended pregnancy and STDs, including HIV infection; unhealthy dietary behaviors; and physical inactivity. These behaviors frequently are interrelated and often are established during childhood and adolescence and extend into adulthood.

Youth Risk Behavior Survey Trend Data

This report presents the results of the South Dakota Youth Risk Behavior Survey (YRBS) and the National YRBS for the period of 1991 to 2005. The South Dakota YRBS was administered biennially during this period to a random sample of approximately 1,500 students in grades 9 through 12 attending regular public, private, and Bureau of Indian Affairs (BIA) schools in South Dakota. Ungraded and out-of-school programs were excluded. The National YRBS was administered biennially to a nationally representative sample of approximately 15,000 U.S. students in grades 9 through 12. Details of the National YRBS can be obtained at www.cdc.gov/yrbs.

Explanation of Trend Results

This trend report is organized according to the question order of the 2005 South Dakota Youth Risk Behavior Survey Report. To be included in this trend report a question must minimally have data for both 2003 and 2005. Therefore, questions that were added to the YRBS in 2005 do not appear in this trend report.

In addition to graphically representing the trend results of each question, this report includes the results of statistical tests for two types of trend changes – linear and quadratic.

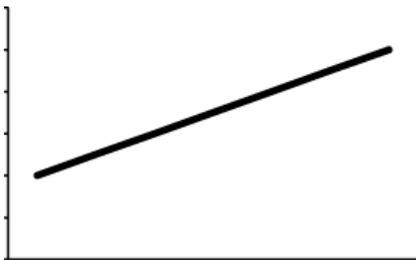
A statistically significant linear change indicates that the behavior either increased or decreased during the time period covered by the analysis, e.g., 1991 to 2005. A visual inspection of the trend line is required to determine whether the behavior increased or decreased over time. If the behavior **increased** over time, then the interpretation of the linear change is: *Overall, there was an **increase** in the behavior from 1991 to 2005.* If the behavior decreased over time, then the interpretation of the linear change is: *Overall, there was a decrease in the behavior from 1991 to 2005.*

A statistically significant quadratic change indicates that during the time period covered by the analysis, e.g., 1991 to 2005, the behavior changed in any one of several ways that doesn't resemble a straight line. A visual inspection of a quadratic change will reveal some combination of the behavior increasing and/or decreasing and/or staying the same over time – revealed as at least one bend in the trend line.

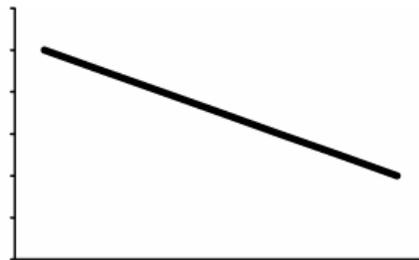
During the period of 1991 to 2005, a risk behavior could show any one of the four possible changes shown below: 1) a linear change only, 2) a quadratic change only, 3) both a linear change and a quadratic change, or 4) no statistically significant change.

1. Linear change = YES; Quadratic change = NO

This means the behavior either increased (A) or decreased (B) significantly over time. If you graph the trend line it will be relatively straight.



A

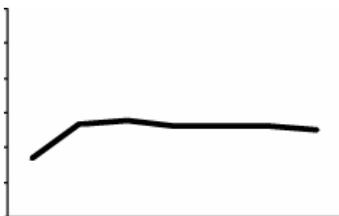


B

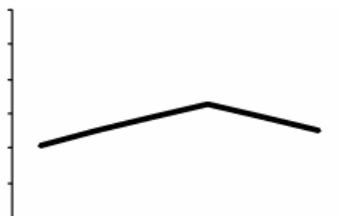
An example of a linear change but no quadratic change is shown by Question 9 on page 9: The percentage of South Dakota high school students who never or rarely wore a seatbelt when riding in a car driven by someone else **decreased** from 54% in 1991 to 20% in 2005. This change is similar to that shown in Figure B above.

2. Linear change = NO; Quadratic change = YES

This means the behavior increased or decreased slightly over time, but not enough to be a significant linear change, and then leveled off (C); the behavior increased or decreased and then went in the opposite direction (D); or the behavior started out level and then increased or decreased over time, but not enough to be a significant linear change (E). If you graph the trend line, it will have a bend in it. You need at least three years of data to detect a quadratic change.



C



D



E

An example of a quadratic change but no linear change is shown by Question 64 on page 43: The percentage of South Dakota high school students who have had someone offer, sell, or give them an illegal drug on school property during the past 12 months **increased** from 18% in 1993 to 30% in 1997, and then **decreased** to 21% in 2005. These changes are similar to those shown in Figure D above.

3. Linear change = YES; Quadratic change = YES

This means that while there was an overall significant increase or decrease in the behavior over time, the behavior has either leveled off or begun to move in the opposite direction (F). If you graph the trend line, it will have a bend in it.

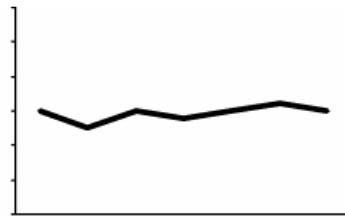


F

An example of both a linear change and a quadratic change is shown by Question 11 on page 11: The percentage of South Dakota high school students who during the past 30 days rode one or more times in a car or other vehicle driven by someone who had been drinking alcohol **decreased** from 50% in 1991 to 32% in 2005. However, there was no statistically significant change from 50% in 1991 to 50% in 1997.

4. Linear change = NO; Quadratic change = NO

This means that there was no significant change in the behavior over time. If you graph the trend line it will be relatively flat (G).



G

An example of neither a quadratic change nor a linear change is shown by Question 15 on page 14: The percentage of South Dakota high school students who have been threatened or injured with a weapon such as a gun, knife, or club on school property one or more times during the past 12 months showed no statistically significant change from 6% in 1993 to 8% in 2005.

Note: Special care should be used in interpreting trend results for behaviors that have very low prevalence. Trend analyses can be sensitive to the small number of respondents in the numerator of very low prevalence behaviors.

Margin of Error

During each year that the YRBS was administered, the sample of students selected for the YRBS was only one of many possible random samples of students that could have been drawn from the population of 9th through 12th grade students. Each sample would have yielded slightly different results had it actually been selected. This variation in results is called sampling error and it can be estimated using the results that were obtained from the YRBS. In general, larger samples produce smaller sampling errors. The South Dakota YRBS sample sizes were designed to yield sampling errors that would produce a margin of error of approximately plus or minus 5% for each YRBS question. Therefore, some trend results may appear to show year-to-year changes when they are actually random fluctuations resulting from sampling errors and are not statistically significant.

Behaviors that Result in Intentional and Unintentional Injuries and Violence

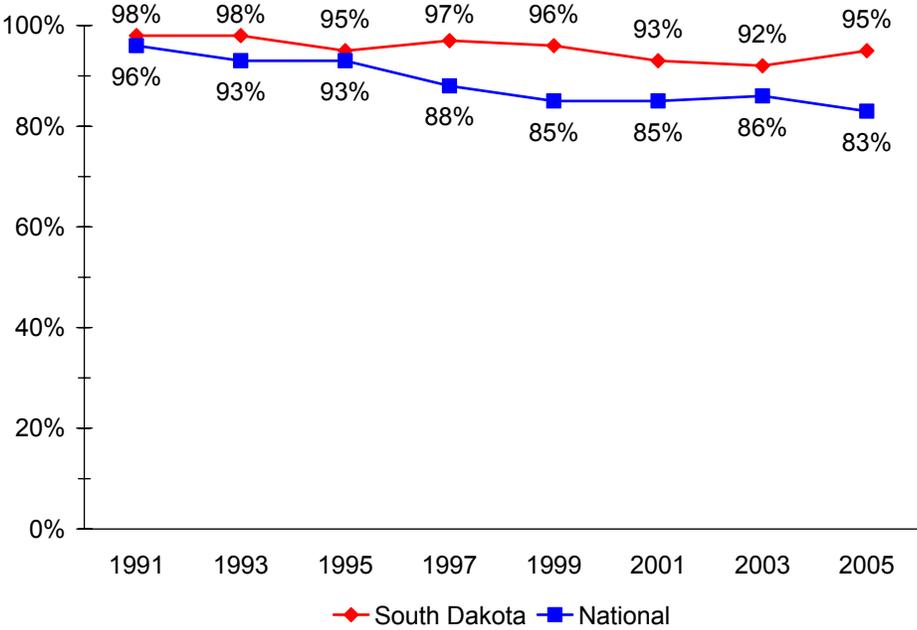
Question:

8. When you rode a bicycle during the past 12 months, how often did you wear a helmet?

Rationale:

This question measures the frequency of helmet use while riding a bicycle. In 2000-2001, bicycle activities were the third leading type of sports and recreation-related activities in which 15- to 19-year-old males were injured and treated at an emergency department.¹ In 2004, children 14 years and younger accounted for 18% of all bicycle fatalities, making this one of the most frequent causes of injury-related deaths for young children.² Head injury is the leading cause of death in bicycle crashes^{3,4} and use of bicycle helmets is the single most effective way of reducing head injuries and fatalities.² Estimates indicate bicycle helmets may prevent approximately 56% of bicycle-related deaths,⁵ 65%-88% of bicycle-related brain injuries,^{6,7} and 65% of serious facial injuries to the upper and middle regions of the face.⁸ In 2005, among the 68% of high school students nationwide who reported riding a bicycle during the 12 months preceding the survey, 83% had rarely or never worn a bicycle helmet.⁹

Question 8 Of students who rode a bicycle during the past twelve months, the percentage who never or rarely wore a helmet



South Dakota Trends
There was a decrease from 1991 to 2005.

National Trends
Overall, there was a decrease from 1991 to 2005. However, there was no statistically significant change from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	Yes

Behaviors that Result in Intentional and Unintentional Injuries and Violence

Questions:

9. How often do you wear a seatbelt when riding in a car driven by someone else?
10. How often do you wear a seatbelt when driving a car?

Rationale:

These questions measure the frequency with which seat belts are worn when riding in or driving a car. Motor-vehicle related injuries kill more young adults aged 15 to 19 years than any other single cause in the United States.¹⁰ Safety belts, when used, reduce the risk of fatal injury to front-seat passenger car occupants by 45% and the risk of moderate-to-critical injury by 50%.¹¹ In 2005, 10% of high school students nationwide had rarely or never worn a seat belt when riding in a car driven by someone else.⁹

RELATED NATIONAL HEALTH OBJECTIVES FOR THE YEAR 2010

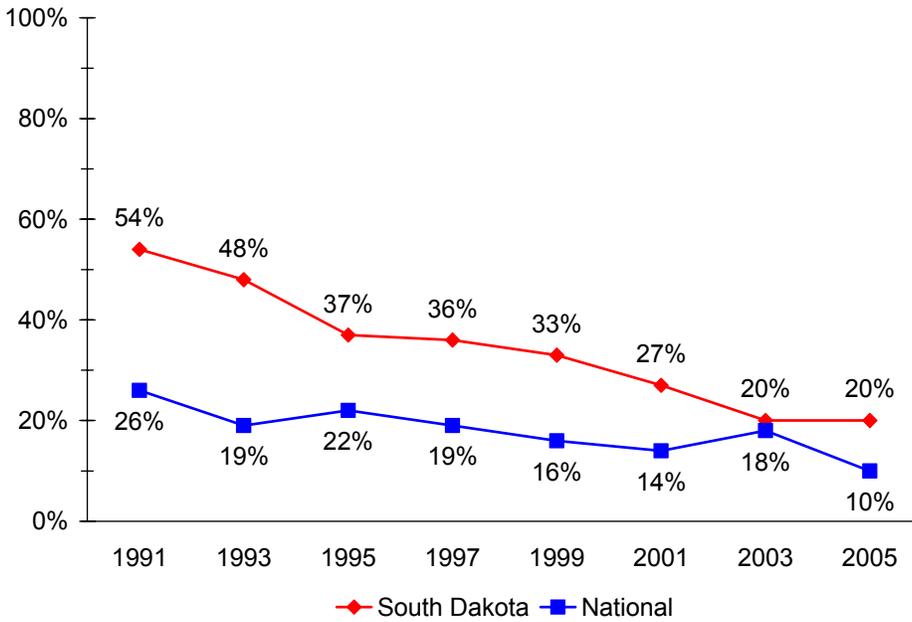
15-19 Increase use of seatbelts to 92%.¹²

Results: The results for Questions 9 and 10 are summarized on page 9.

Behaviors that Result in Intentional and Unintentional Injuries and Violence

Question 9

Percentage of students who never or rarely wore a seatbelt when riding in a car driven by someone else



South Dakota Trends

There was a decrease from 1991 to 2005.

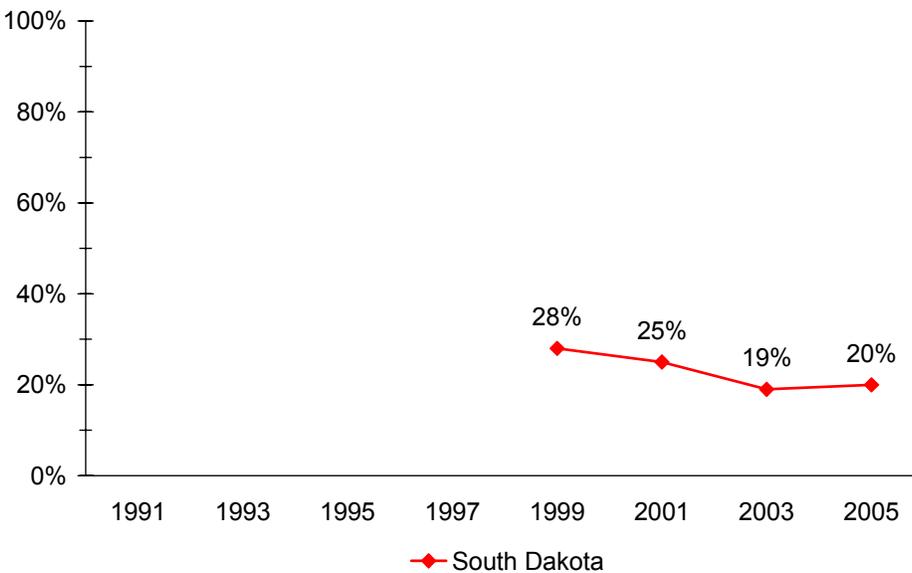
National Trends

There was a decrease from 1991 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	No

Question 10

Of students who drove a car, the percentage who never or rarely wore a seatbelt



South Dakota Trends

There was a decrease from 1999 to 2005.

This question was not included on the National YRBS questionnaire.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No

Behaviors that Result in Intentional and Unintentional Injuries and Violence

Questions:

11. During the past 30 days, how many times did you ride in a car or other vehicle driven by someone who had been drinking alcohol?
12. During the past 30 days, how many times did you drive a car or other vehicle when you had been drinking alcohol?

Rationale:

These questions measure the frequency with which high school students drove a motor vehicle while under the influence of drugs or alcohol or rode as a passenger in a motor vehicle operated by someone who was under the influence of alcohol or drugs. In 2004, 5% of 15- to 20-year-old drivers who were involved in crashes that resulted in injuries had been drinking alcohol and 22% of 15- to 20-year-old drivers involved in fatal crashes had been drinking alcohol.¹³ Alcohol use is associated with 24% of fatalities among those less than 15 years old.¹⁴ In 2005, 10% of high school students nationwide had driven a car or other vehicle one or more times when they had been drinking alcohol and 29% of high school students nationwide had ridden one or more times in a car or other vehicle driven by someone who had been drinking alcohol during the 30 days preceding the survey.⁹

RELATED NATIONAL HEALTH OBJECTIVES FOR THE YEAR 2010

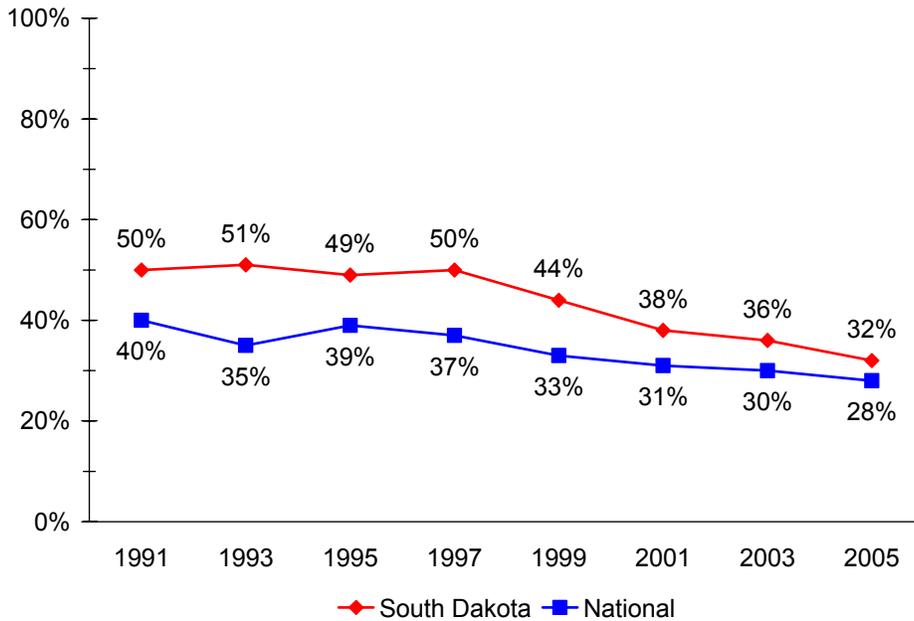
- 26-6 Reduce the proportion of adolescents who report that they rode, during the previous 30 days, with a driver who had been drinking alcohol to 30 percent.¹²

Results: The results for Questions 11 and 12 are summarized on page 11.

Behaviors that Result in Intentional and Unintentional Injuries and Violence

Question 11

Percentage of students who during the past 30 days rode one or more times in a car or other vehicle driven by someone who had been drinking alcohol



South Dakota Trends

Overall, there was a decrease from 1991 to 2005. However, there was no statistically significant change from 1991 to 1997.

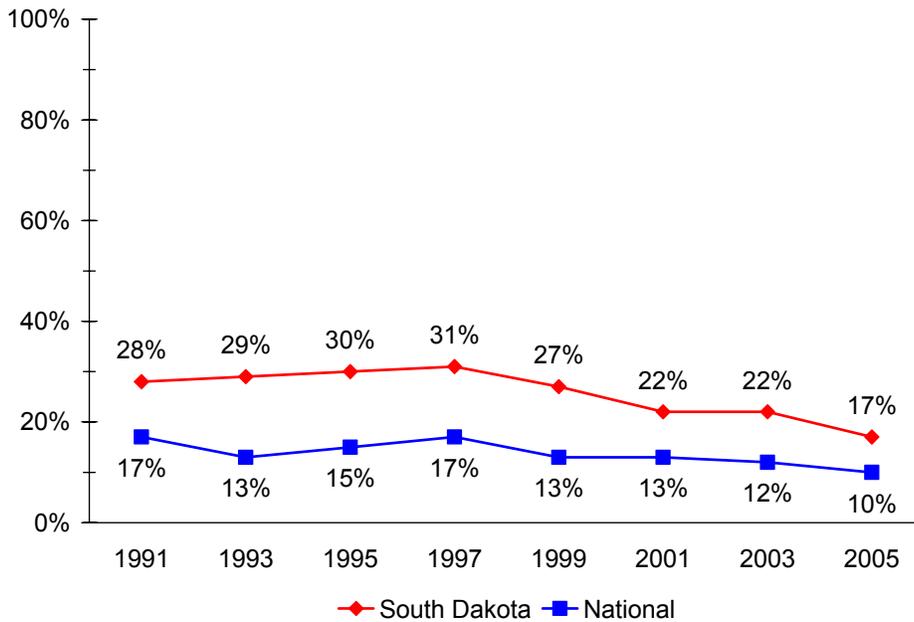
National Trends

There was a decrease from 1991 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	Yes
National	Yes	No

Question 12

Percentage of students who during the past 30 days drove a car or other vehicle one or more times when they had been drinking alcohol



South Dakota Trends

Overall, there was a decrease from 1991 to 2005. However, there was no statistically significant change from 1991 to 1997.

National Trends

Overall, there was a decrease from 1991 to 2005. However, there was no statistically significant change from 1991 to 1997.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	Yes
National	Yes	Yes

Behaviors that Result in Intentional and Unintentional Injuries and Violence

Questions:

13. During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club on school property?
14. During the past 30 days, on how many days did you not go to school because you felt you would be unsafe at school or on your way to or from school?
15. During the past 12 months, how many times has someone threatened or injured you with a weapon such as a gun, knife, or club on school property?
16. During the past 12 months, how many times has someone stolen or deliberately damaged your property such as your car, clothing, or books on school property?

Rationale:

These questions measure violence-related behaviors and school-related violent behaviors. Homicide is the second leading cause of death among all youth aged 15-19 years (9.5 per 100,000) and is the leading cause of death among black youth aged 15-19 years (33.2 per 100,000).¹⁰ Approximately 84% of homicide victims in the United States in 2004 were killed with a weapon, such as a gun, knife, or club.¹⁵ In 2003, 82% of homicide victims 15 to 19 years old were killed with firearms.¹⁰ Firearms intensify violence and increase the likelihood of fatality in a conflict.¹⁶ Of all violent deaths that occurred on school property between 1994 and 1999, 75% involved firearms.¹⁷ Nearly 100% of school districts have a policy prohibiting weapon possession or use by high school students on school property.¹⁸ Among high school students nationwide in 2005, 19% had carried a weapon, 5% had carried a gun, and 7% had carried a weapon on school property on ≥ 1 of the 30 days preceding the survey.⁹ About 1.2 million thefts of student property occurred at school in 2003.¹⁹ In 2005, 30% of high school students nationwide had their property stolen or deliberately damaged on school property one or more times during the 12 months preceding the survey.⁹

RELATED NATIONAL HEALTH OBJECTIVES FOR THE YEAR 2010

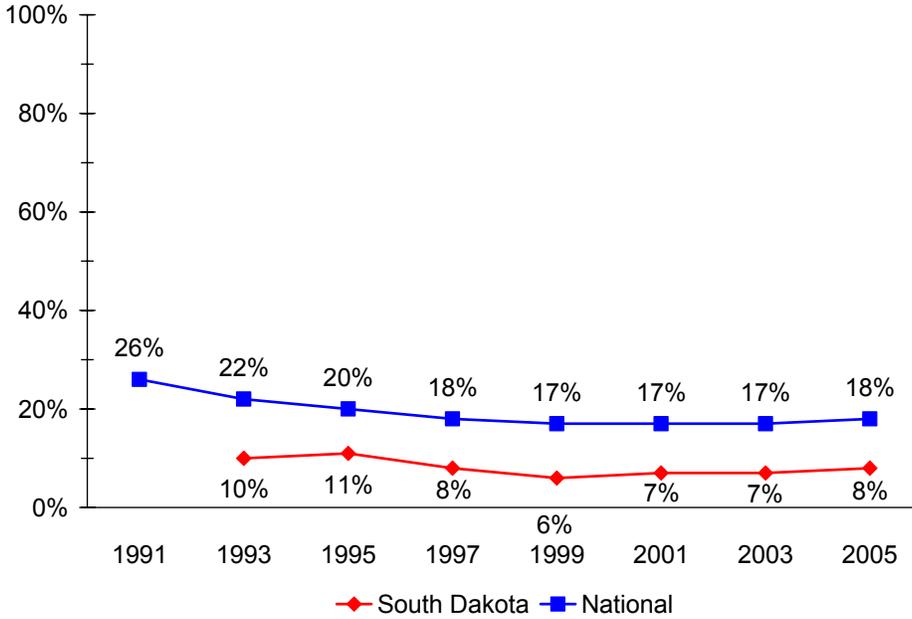
15-39 Reduce weapon carrying by adolescents on school property to 4.9%.¹²

Results: The results for Questions 13 to 16 are summarized on pages 13 and 14.

Behaviors that Result in Intentional and Unintentional Injuries and Violence

Question 13

Percentage of students who carried a weapon such as a gun, knife, or club on school property on one or more of the past 30 days



South Dakota Trends

Overall, there was a decrease from 1993 to 2005. However, there was no statistically significant change from 1997 to 2005.

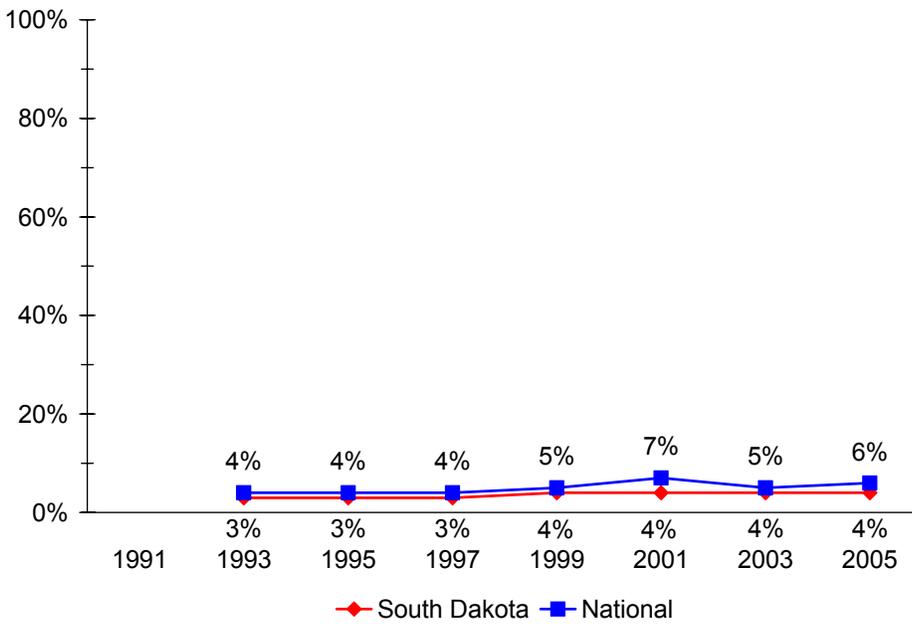
National Trends

Overall, there was a decrease from 1991 to 2005. However, there was no statistically significant change from 1997 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	Yes
National	Yes	Yes

Question 14

Percentage of students who did not go to school on one or more of the past 30 days because they felt they would be unsafe at school or on their way to or from school



South Dakota Trends

There was no statistically significant change from 1993 to 2005.

National Trends

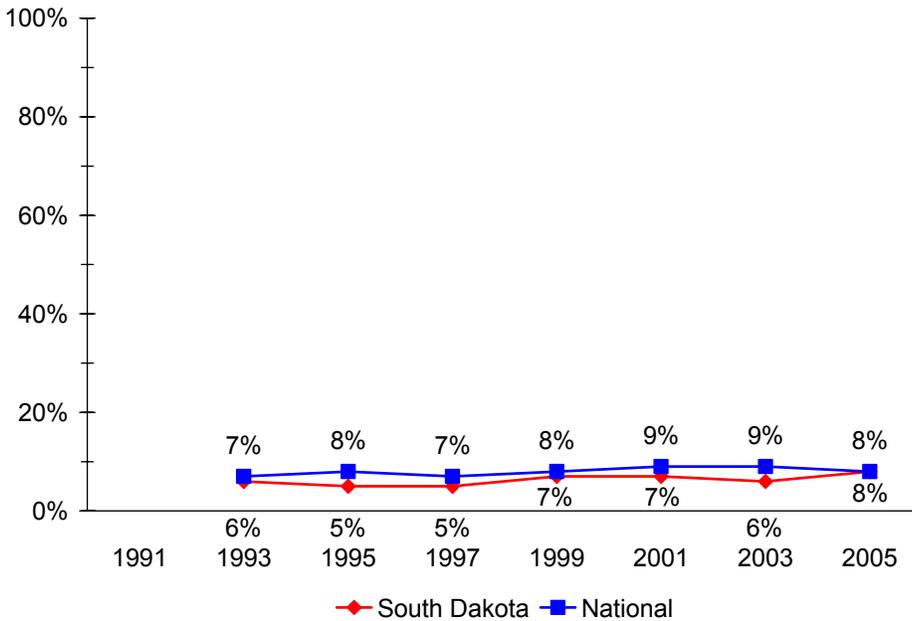
There was an increase from 1993 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	Yes	No

Behaviors that Result in Intentional and Unintentional Injuries and Violence

Question 15

Percentage of students who have been threatened or injured with a weapon such as a gun, knife, or club on school property one or more times during the past 12 months



South Dakota Trends

There was no statistically significant change from 1993 to 2005.

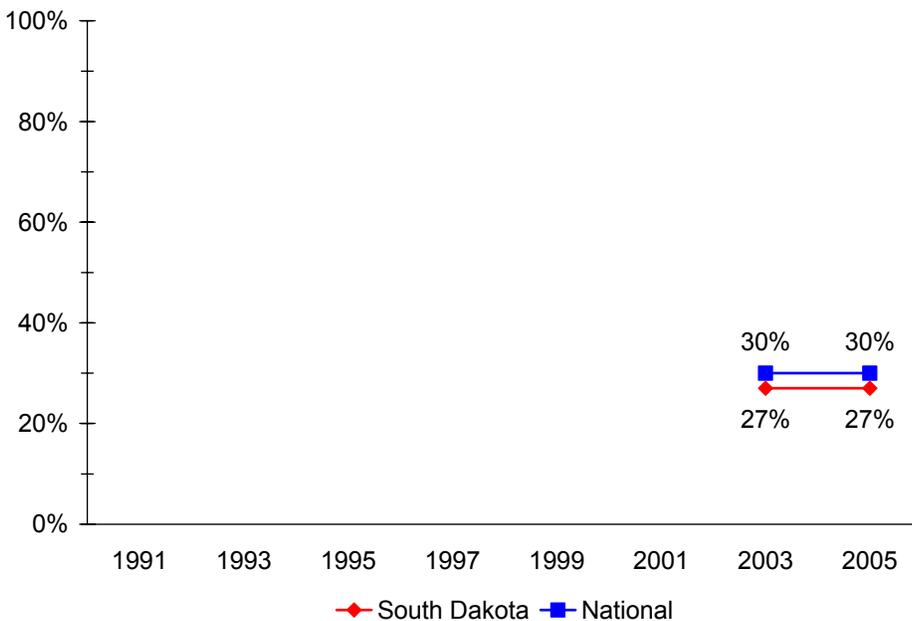
National Trends

There was no statistically significant change from 1993 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	No	No

Question 16

Percentage of students who had property, such as their car, clothing, or books, stolen or deliberately damaged on school property one or more times during the past 12 months



South Dakota Trends

There was no statistically significant change from 2003 to 2005.

National Trends

There was no statistically significant change from 2003 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	N/A
National	No	N/A

Behaviors that Result in Intentional and Unintentional Injuries and Violence

Questions:

17. During the past 12 months, how many times were you in a physical fight?
18. During the past 12 months, how many times were you in a physical fight in which you were injured and had to be treated by a doctor or nurse?
19. During the past 12 months, how many times were you in a physical fight on school property?
20. During the past 12 months, did your boyfriend or girlfriend ever hit, slap, or physically hurt you on purpose?
21. Have you ever been physically forced to have sexual intercourse when you did not want to?
22. During your whole school life, has anyone (this includes students, teachers, other school employees, and anyone else) ever touched, grabbed or pinched you in a sexual way when you did not want them to?
23. During your whole school life, has anyone (this includes students, teachers, other school employees, and anyone else) ever made sexual comments, jokes, gestures, or looks when you did not want them to?

Rationale:

These questions measure the frequency and severity of physical fights, school-related fights, and abusive behavior. Physical fighting is a marker for other problem behaviors²⁰ and is associated with serious injury-related health outcomes.^{21,22} Among high school students nationwide in 2005, 36% had been in a physical fight and 14% had been in a physical fight on school property one or more times during the 12 months preceding the survey.⁹ Intimate partner abuse victimization is associated with participation in other high risk behaviors.²³ In 2005, 9% of high school students nationwide had been hit, slapped, or physically hurt on purpose by their boyfriend or girlfriend during the 12 months preceding the survey.⁹ Forced sexual intercourse is associated with negative psychosocial and mental health consequences.^{24,25} In 2005, 7.5% of high school students nationwide had ever been physically forced to have sexual intercourse when they did not want to.

RELATED NATIONAL HEALTH OBJECTIVES FOR THE YEAR 2010

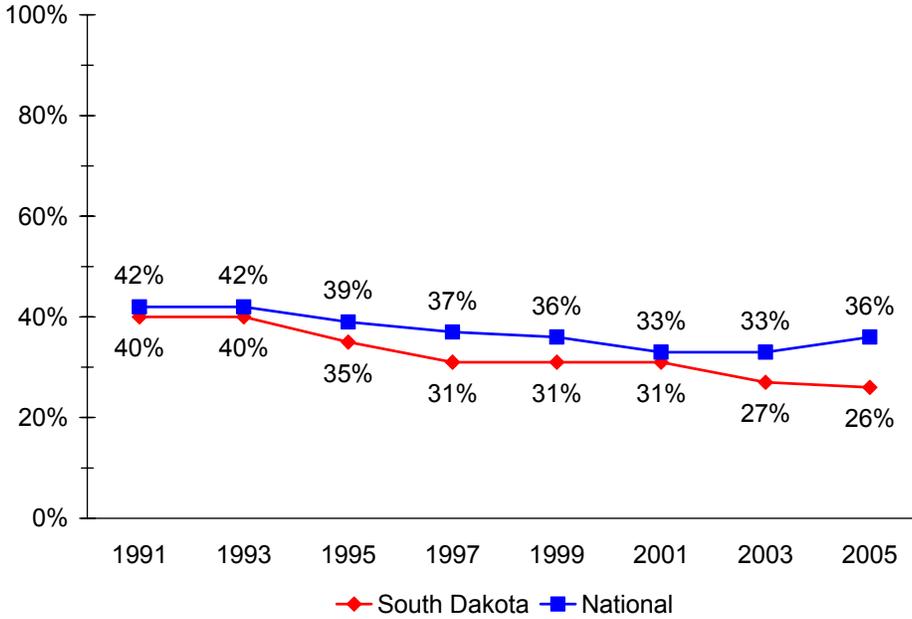
15-38 Reduce physical fighting among adolescents students to 32%.¹²

Results: The results for Questions 17 to 23 are summarized on pages 16 to 19.

Behaviors that Result in Intentional and Unintentional Injuries and Violence

Question 17

Percentage of students who were in a physical fight one or more times during the past 12 months



South Dakota Trends

There was a decrease from 1991 to 2005.

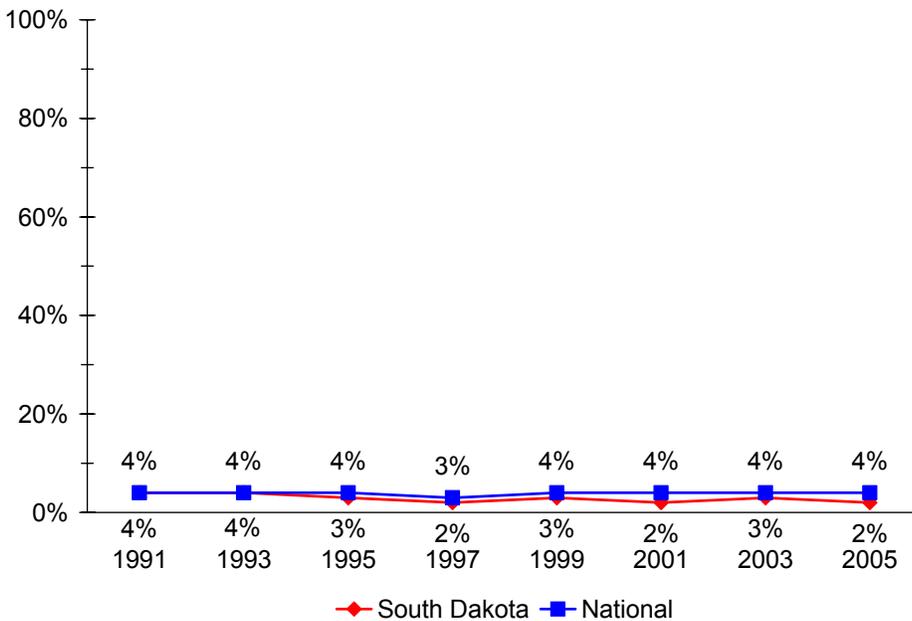
National Trends

Overall, there was a decrease from 1991 to 2005. However, there was an increase from 2003 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	Yes

Question 18

Percentage of students who were injured in a physical fight and had to be treated by a doctor or nurse one or more times during the past 12 months



South Dakota Trends

There was a decrease from 1991 to 2005.

National Trends

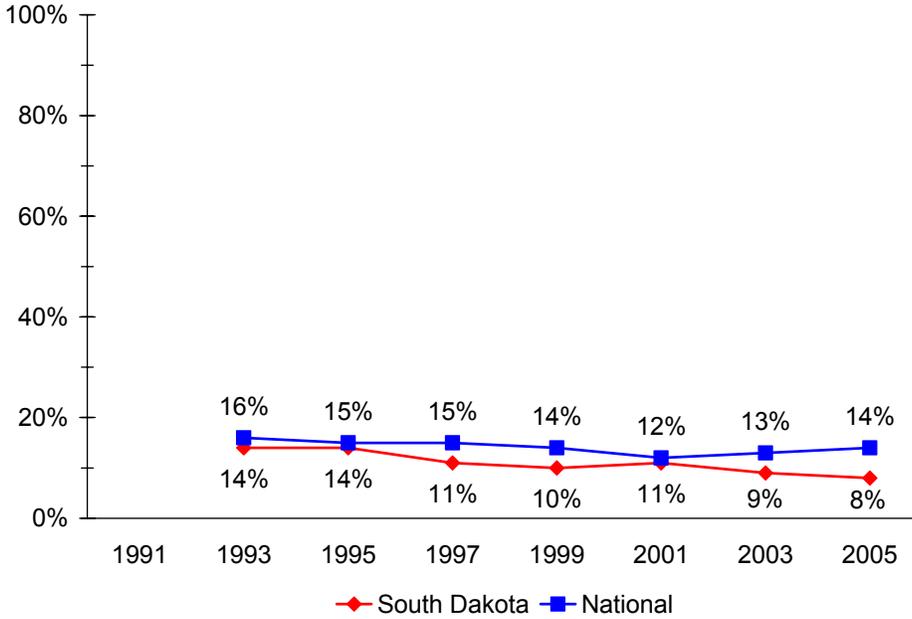
There was no statistically significant change from 1991 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	No	No

Behaviors that Result in Intentional and Unintentional Injuries and Violence

Question 19

Percentage of students who were in a physical fight on school property one or more times during the past 12 months



South Dakota Trends

There was a decrease from 1993 to 2005.

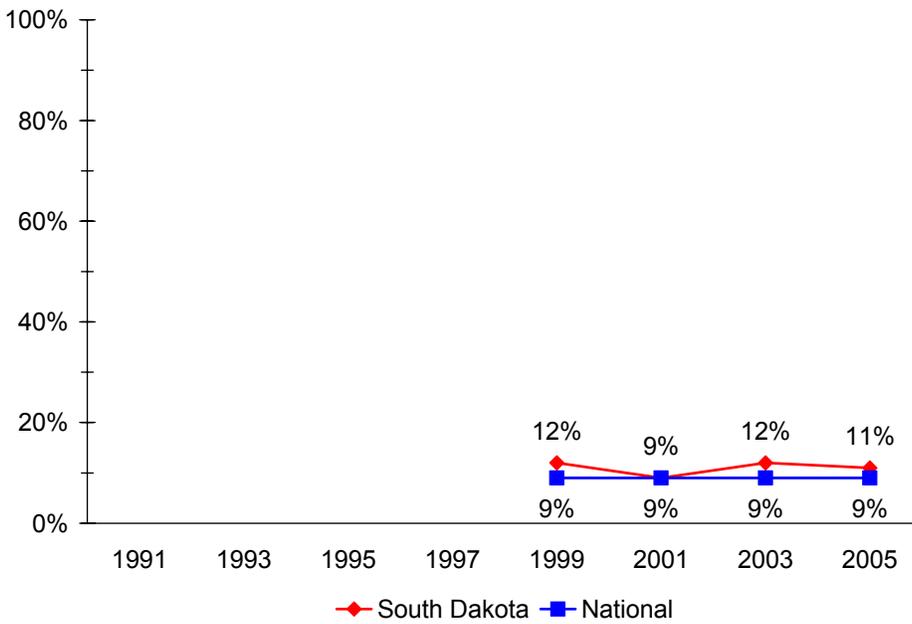
National Trends

Overall, there was a decrease from 1993 to 2005. However, there was an increase from 2001 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	Yes

Question 20

Percentage of students who during the past 12 months were ever hit, slapped, or physically hurt on purpose by their boyfriend or girlfriend



South Dakota Trends

There was no statistically significant change from 1999 to 2005.

National Trends

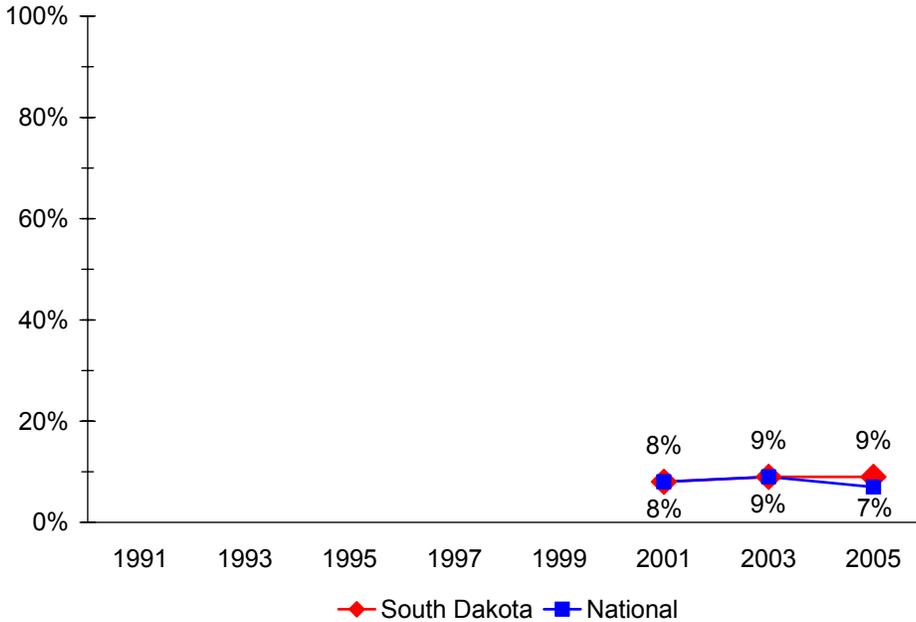
There was no statistically significant change from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	No	No

Behaviors that Result in Intentional and Unintentional Injuries and Violence

Question 21

Percentage of students who were ever physically forced to have sexual intercourse when they did not want to



South Dakota Trends

There was no statistically significant change from 2001 to 2005.

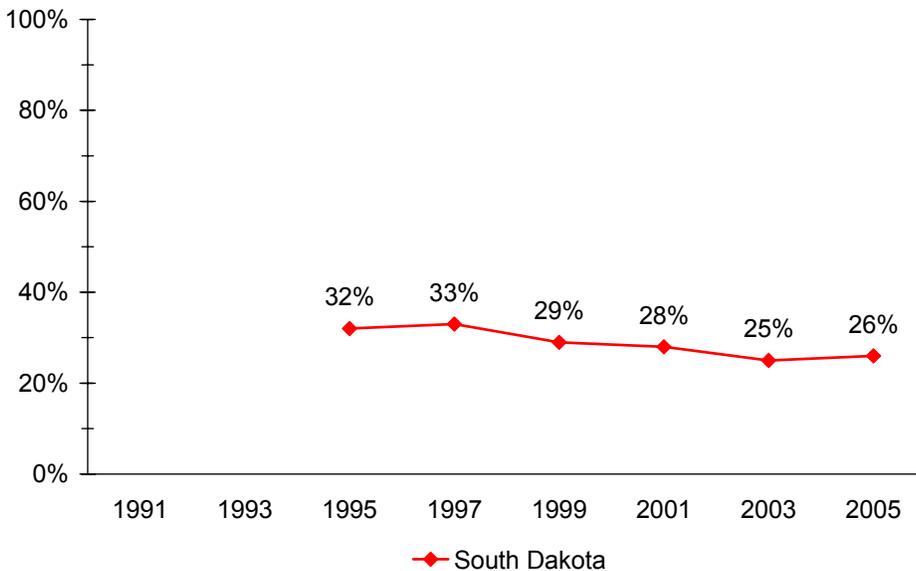
National Trends

There was no statistically significant change from 2001 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	No	No

Question 22

Percentage of students who, during their whole school life, had been touched, grabbed, or pinched in a sexual way by anyone when they didn't want them to



South Dakota Trends

There was a decrease from 1995 to 2005.

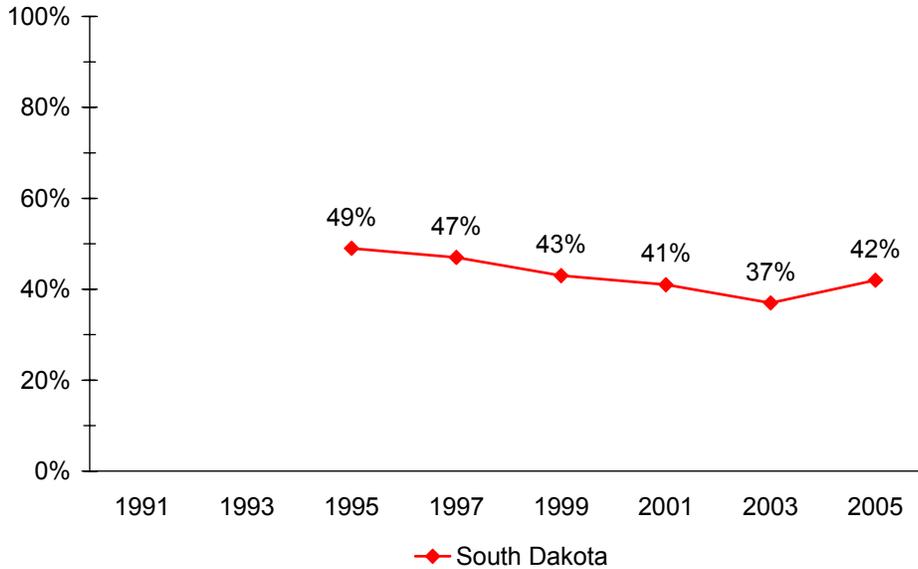
This question was not included on the National YRBS questionnaire.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No

Behaviors that Result in Intentional and Unintentional Injuries and Violence

Question 23

Percentage of students who, during their whole school life, had anyone make sexual comments, jokes, gestures, or looks when they did not want them to



South Dakota Trends

Overall, there was a decrease from 1995 to 2005. However, there was a decrease from 1995 to 2003, and an increase from 2003 to 2005.

This question was not included on the National YRBS questionnaire.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	Yes

Behaviors that Result in Intentional and Unintentional Injuries and Violence

Questions:

24. During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?
25. During the past 12 months, did you ever seriously consider attempting suicide?
26. During the past 12 months, did you make a plan about how you would attempt suicide?
27. During the past 12 months, how many times did you actually attempt suicide?
28. If you attempted suicide during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?
29. Suppose a friend wanted help for suicidal thoughts. Who would you recommend first?

Rationale:

These questions measure sadness, suicide ideation, attempted suicide, and the seriousness of those attempts. Suicide is the third leading cause of death among youth aged 15-19.¹⁰ The suicide rate for persons aged 15-19 was 7.3 per 100,000 in 2003 down from a high of 10.9 per 100,000 in 1994.¹⁰ Among high school students nationwide in 2005, 17% had seriously considered attempting suicide, 13% had made a plan about how they would attempt suicide, and 8% had actually attempted suicide one or more times during the 12 months preceding the survey.⁹

RELATED NATIONAL HEALTH OBJECTIVES FOR THE YEAR 2010

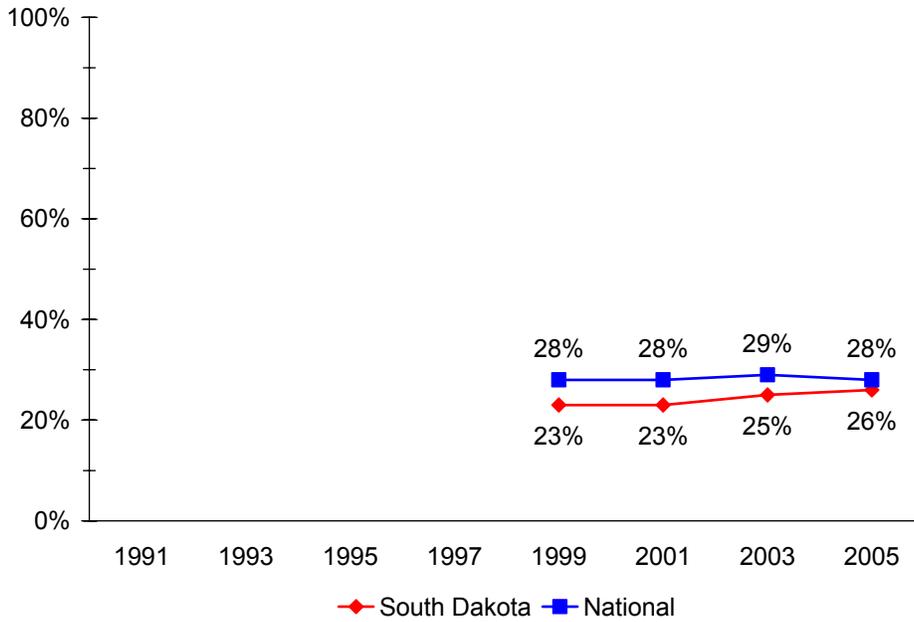
18-02 Reduce the rate of suicide attempts by adolescents to 1%.¹²

Results: The results for Questions 24 to 29 are summarized on pages 21 to 23.

Behaviors that Result in Intentional and Unintentional Injuries and Violence

Question 24

Percentage of students who during the past 12 months felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities



South Dakota Trends

There was no statistically significant change from 1999 to 2005.

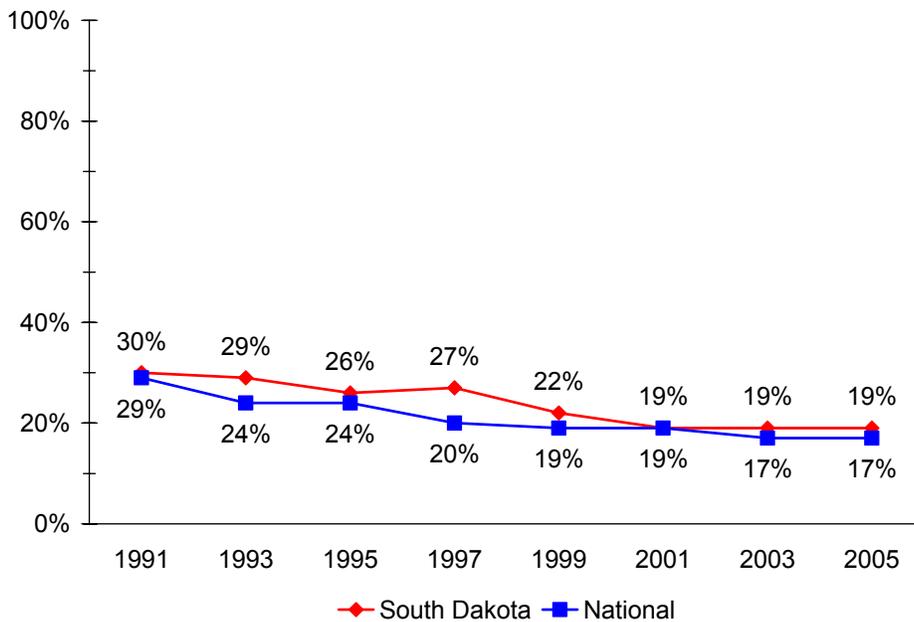
National Trends

There was no statistically significant change from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	No	No

Question 25

Percentage of students who ever seriously considered attempting suicide during the past 12 months



South Dakota Trends

There was a decrease from 1991 to 2005.

National Trends

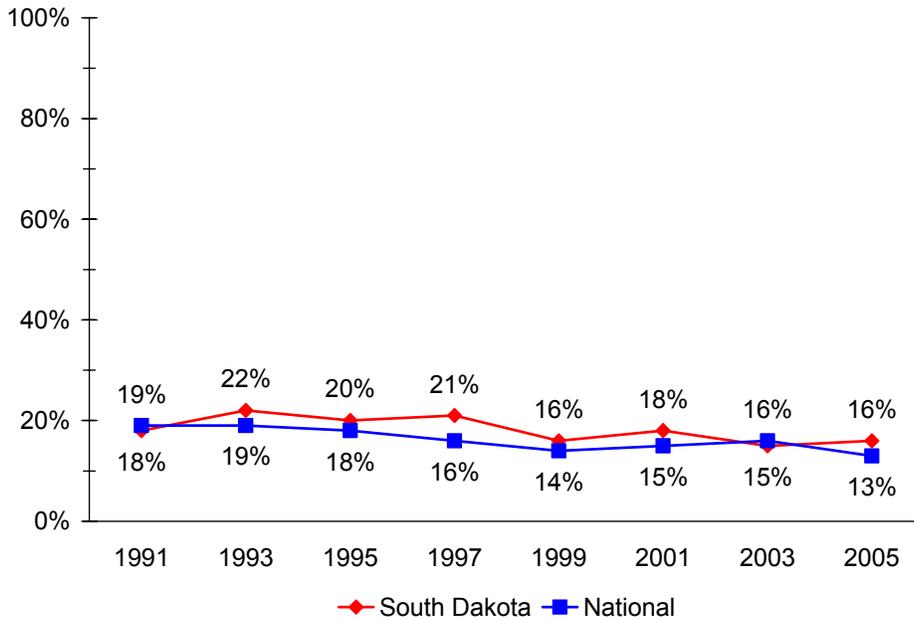
Overall, there was a decrease from 1991 to 2005. However, there was no statistically significant change from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	Yes

Behaviors that Result in Intentional and Unintentional Injuries and Violence

Question 26

Percentage of students who made a plan about how they would attempt suicide during the past 12 months



South Dakota Trends

There was a decrease from 1991 to 2005.

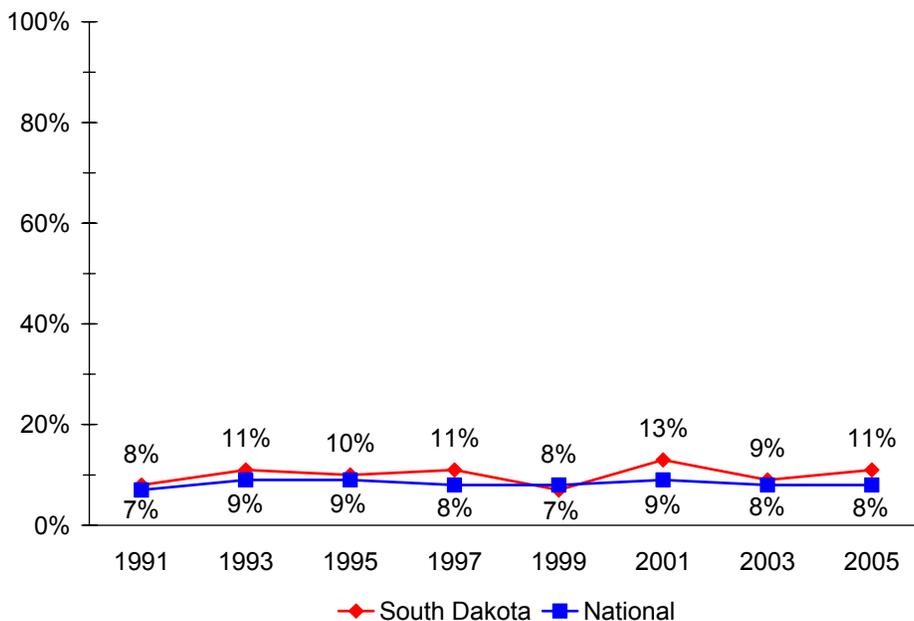
National Trends

There was a decrease from 1991 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	No

Question 27

Percentage of students who actually attempted suicide one or more times during the past 12 months



South Dakota Trends

There was no statistically significant change from 1991 to 2005.

National Trends

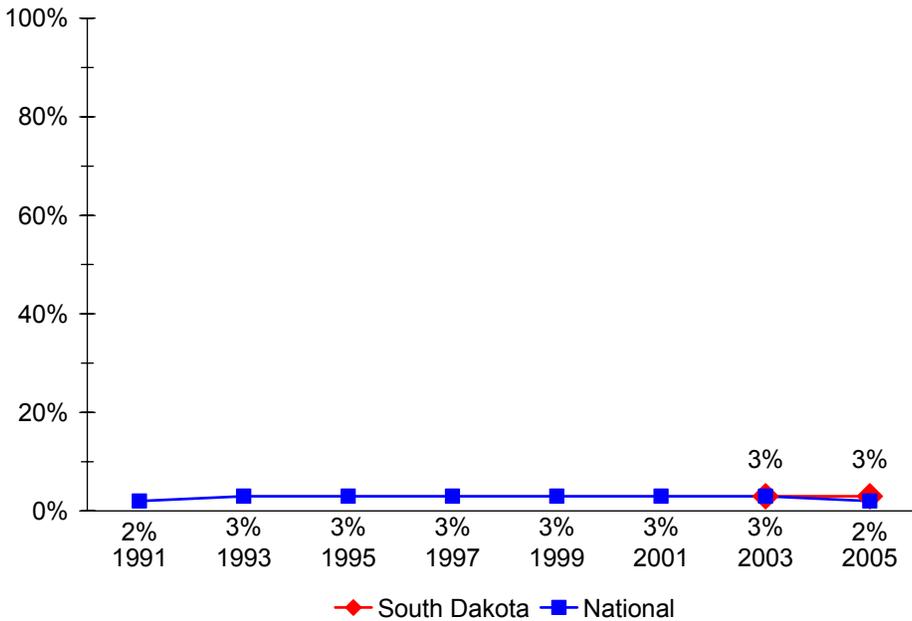
There was no statistically significant change from 1991 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	No	No

Behaviors that Result in Intentional and Unintentional Injuries and Violence

Question 28

Percentage of students whose attempted suicide during the past 12 months resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse



South Dakota Trends

There was no statistically significant change from 2003 to 2005.

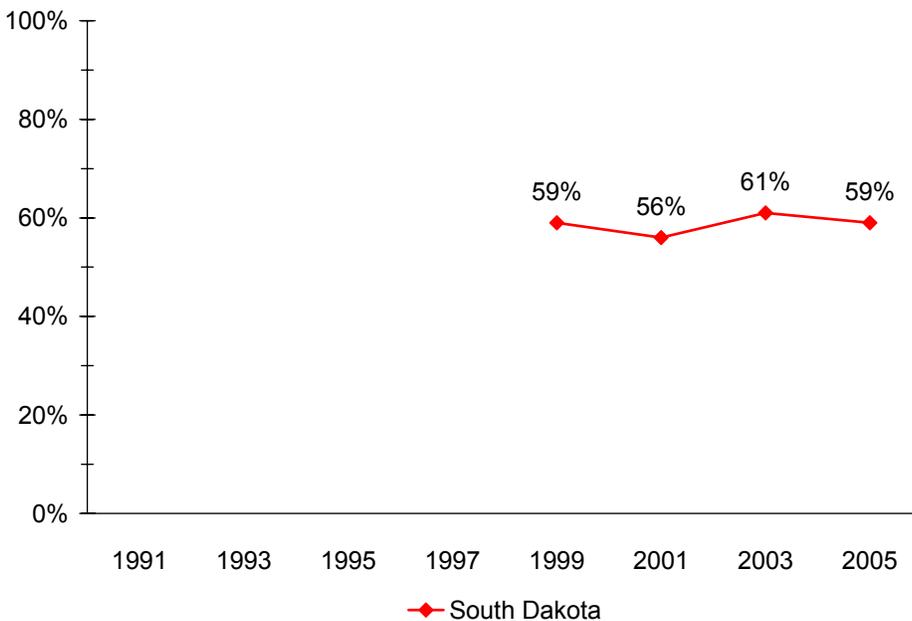
National Trends

There was an increase from 1991 to 1993, no statistically significant change from 1993 to 2003, and a decrease from 2003 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	N/A
National	No	Yes

Question 29

Percentage of respondents who would first recommend family, friends, or peer helpers or a school counselor, school nurse, school psychologist, or school social worker to a friend who wanted help with suicidal thoughts



South Dakota Trends

There was no statistically significant change from 1999 to 2005.

This question was not included on the National YRBS questionnaire.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No

Tobacco Use

Questions:

30. Have you ever tried cigarette smoking, even one or two puffs?
31. How old were you when you smoked a whole cigarette for the first time?
32. During the past 30 days, on how many days did you smoke cigarettes?
33. During the past 30 days, on the days you smoked, how many cigarettes did you smoke per day?
34. During the past 30 days, how did you usually get your own cigarettes?
35. During the past 30 days, on how many days did you smoke cigarettes on school property?
36. Have you ever smoked cigarettes daily, that is, at least one cigarette every day for 30 days?
38. During the past 12 months, did you ever try to quit smoking cigarettes?

Rationale:

These questions measure lifetime and current smoking patterns, age of initiation, access to cigarettes, smoking on school property, and attempts to quit smoking. Cigarette smoking is the leading cause of preventable death in the United States²⁶ and accounts for approximately 440,000 deaths each year.²⁷ Cigarette smoking increases risk of heart disease; chronic obstructive pulmonary disease; acute respiratory illness; stroke; and cancers of the lung, larynx, oral cavity, pharynx, pancreas, and cervix.²⁶ In addition, as compared to nonsmokers, cigarette smokers are more likely to drink alcohol, use marijuana and cocaine, engage in physical fighting, carry a weapon, and attempt suicide.^{28,29} If current patterns of smoking behavior persist, an estimated 6.4 million U.S. persons who were under the age of 18 in 2000 could die prematurely from smoking-related illnesses.³⁰ Approximately 64% of school districts in the United State prohibit tobacco use by students, all school staff, and visitors on school property, in school vehicles, and during school events on or off campus.³¹ Among high school students nationwide in 2005, 54% had ever tried cigarette smoking, 23% had smoked cigarettes on ≥ 1 of the 30 days preceding the survey, and 7% had smoked cigarettes on school property on ≥ 1 of the 30 days preceding the survey.

RELATED NATIONAL HEALTH OBJECTIVES FOR THE YEAR 2010

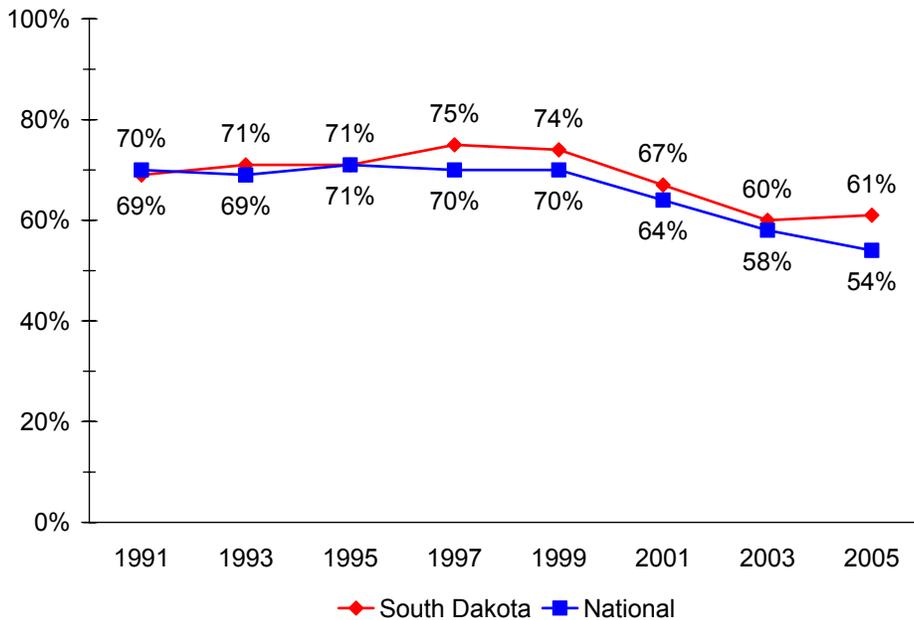
- 27-02a Reduce use of tobacco products in the past month by adolescents to 21%.¹²
- 27-02b Reduce use of cigarettes in the past month by adolescents to 16%.¹²
- 27-07 Increase tobacco use cessation attempts by adolescent smokers to 84%.¹²

Results: The results for Questions 30 to 36 and 38 are summarized on pages 25 to 29.

Tobacco Use

Question 30

Percentage of students who ever tried cigarette smoking, even one or two puffs



South Dakota Trends

Overall, there was a decrease from 1991 to 2005. However, there was an increase from 1991 to 1997.

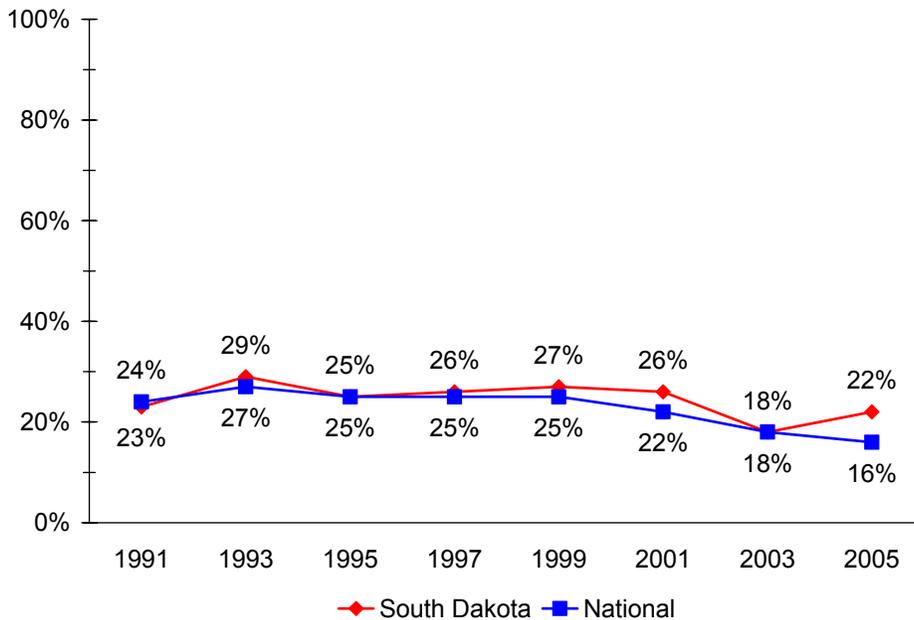
National Trends

Overall, there was a decrease from 1991 to 2005. However, there was no statistically significant change from 1991 to 1999.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	Yes
National	Yes	Yes

Question 31

Percentage of students who smoked a whole cigarette for the first time prior to age 13



South Dakota Trends

Overall, there was a decrease from 1991 to 2005. However, there was no statistically significant change from 1995 to 2001.

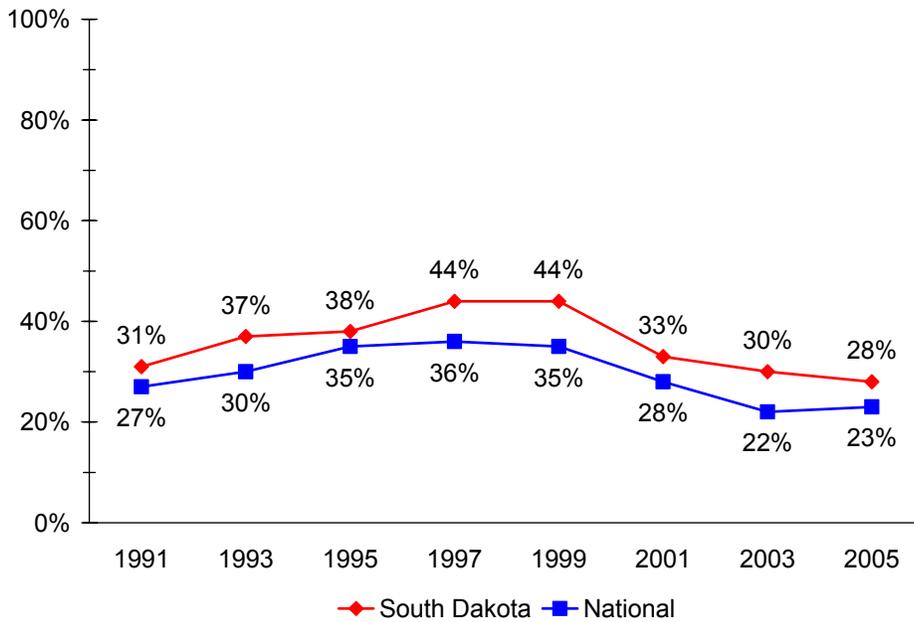
National Trends

Overall, there was a decrease from 1991 to 2005. However, there was no statistically significant change from 1991 to 1999.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	Yes
National	Yes	Yes

Tobacco Use

Question 32A Percentage of students who smoked cigarettes on one or more of the past 30 days



South Dakota Trends

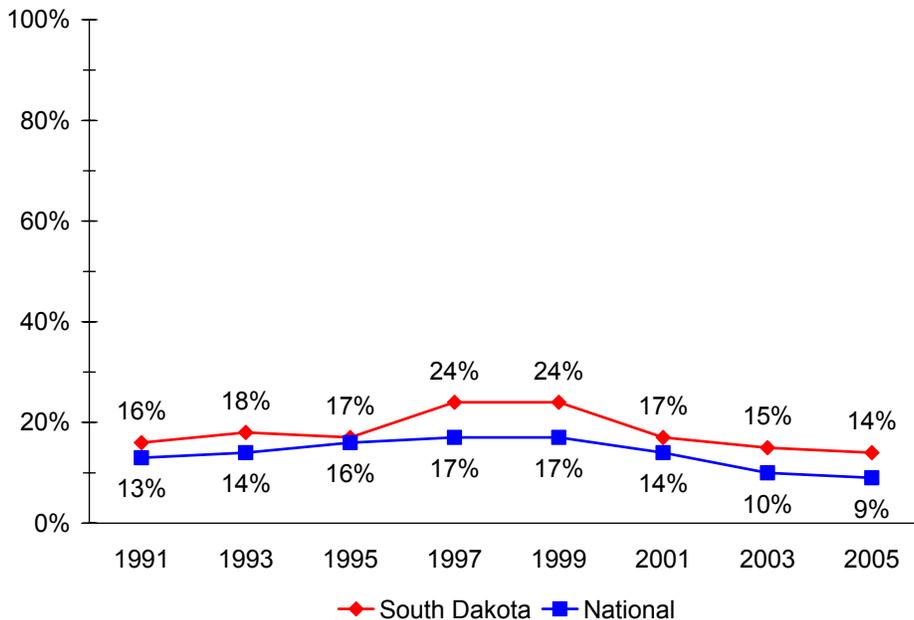
Overall, there was a decrease from 1991 to 2005. However, there was an increase from 1991 to 1997.

National Trends

Overall, there was a decrease from 1991 to 2005. However, there was an increase from 1991 to 1997.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	Yes
National	Yes	Yes

Question 32B Percentage of students who smoked cigarettes on 20 or more of the past 30 days



South Dakota Trends

There was an increase from 1991 to 1997, and a decrease from 1999 to 2005.

National Trends

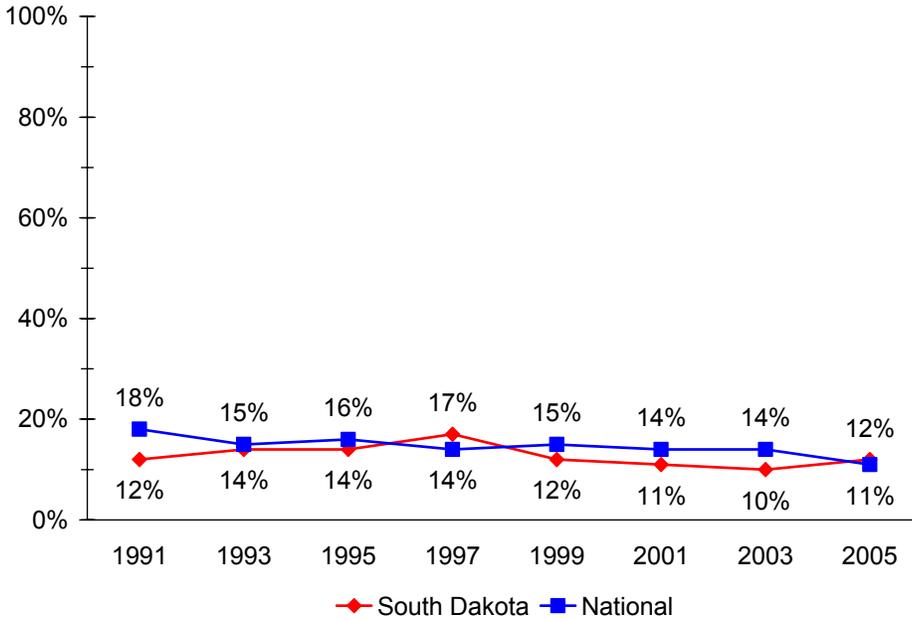
Overall, there was a decrease from 1991 to 2005. However, there was an increase from 1991 to 1997, and a decrease from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	Yes
National	Yes	Yes

Tobacco Use

Question 33

Among students who are current smokers, the percentage who smoked more than 10 cigarettes per day on the days they smoked during the past 30 days



South Dakota Trends

There was no statistically significant change from 1991 to 2005.

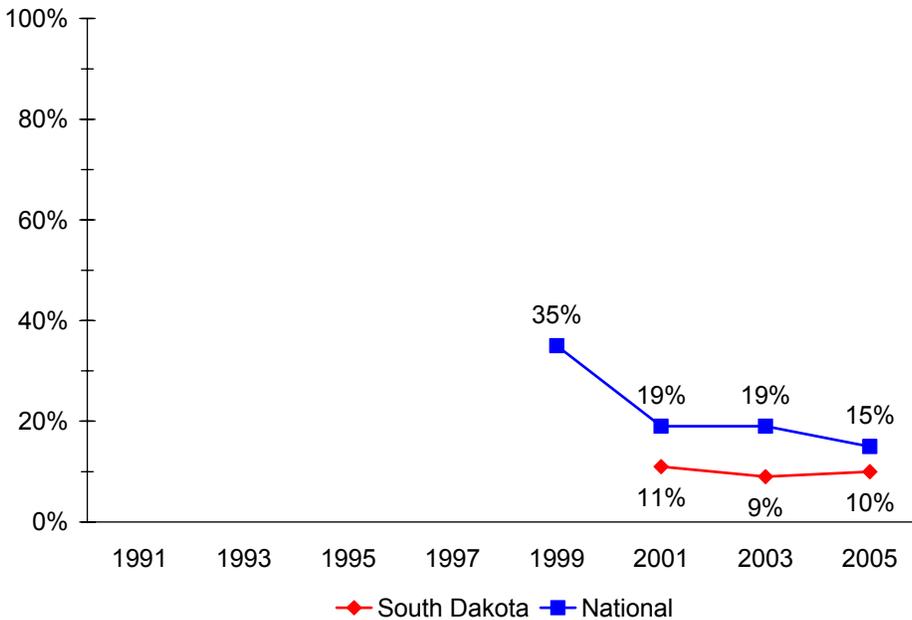
National Trends

There was a decrease from 1991 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	Yes	No

Question 34

Of students less than 18 years old who smoked cigarettes during the past 30 days, the percentage who bought their own cigarettes in a store such as a convenience store, supermarket, discount store, or gas station



South Dakota Trends

There was no statistically significant change from 2001 to 2005.

National Trends

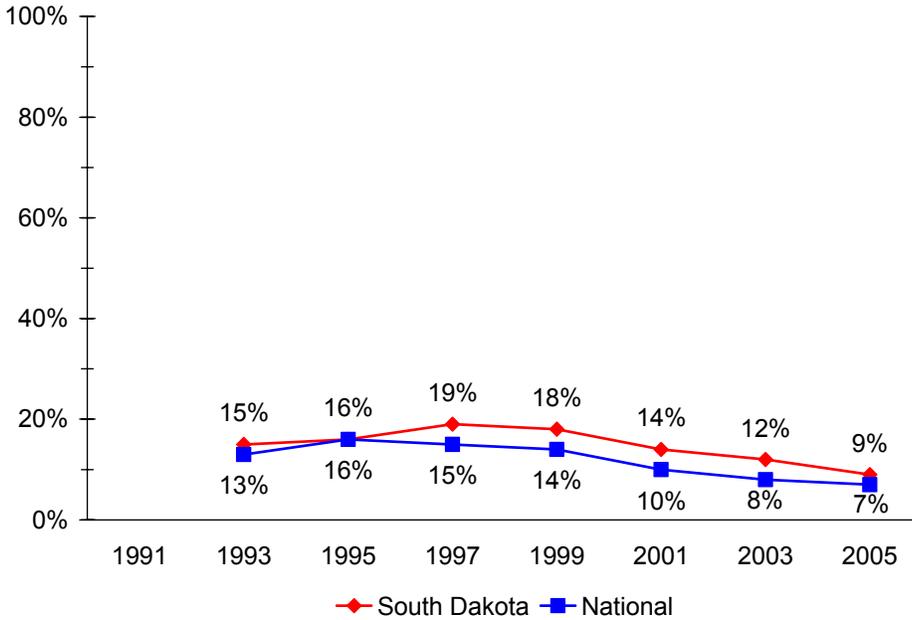
Overall, there was a decrease from 1999 to 2005. However, there was no statistically significant change from 2001 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	Yes	Yes

Tobacco Use

Question 35

Percentage of students who smoked cigarettes on school property on one or more of the past 30 days



South Dakota Trends

Overall, there was a decrease from 1993 to 2005. However, there was an increase from 1993 to 1997, and a decrease from 1997 to 2005.

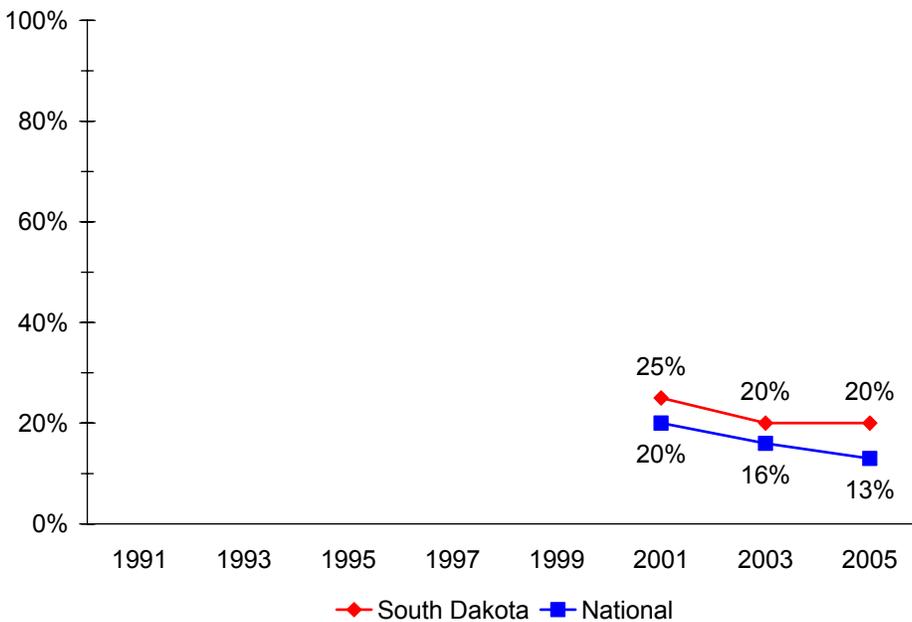
National Trends

Overall, there was a decrease from 1993 to 2005. However, there was an increase from 1993 to 1995, and a decrease from 1995 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	Yes
National	Yes	Yes

Question 36

Percentage of students who ever smoked cigarettes daily, that is, at least one cigarette every day for 30 days



South Dakota Trends

There was a decrease from 2001 to 2005.

National Trends

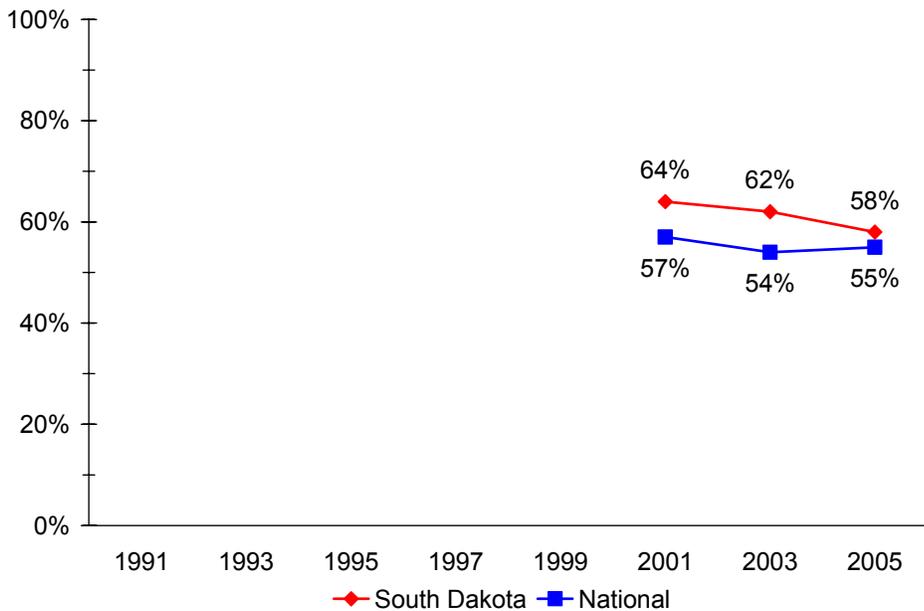
There was a decrease from 2001 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	No

Tobacco Use

Question 38

Percentage of students who smoked cigarettes during the past 30 days who ever tried to quit smoking cigarettes during the past 12 months



South Dakota Trends

There was no statistically significant change from 2001 to 2005.

National Trends

There was no statistically significant change from 2001 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	No	No

Tobacco Use

Questions:

42. During the past 30 days, on how many days did you use chewing tobacco, snuff, or dip, such as Redman, Levi Garrett, Beechnut, Skoal, Skoal Bandits, or Copenhagen?
43. During the past 30 days, on how many days did you use chewing tobacco, snuff, or dip on school property?

Rationale:

These questions measure smokeless tobacco use and smokeless tobacco use on school property. Approximately 75% of oral cavity and pharyngeal cancers are attributed to the use of smoked and smokeless tobacco.³² Use of smokeless tobacco also causes gum disease^{33,34} and an increased risk of heart disease and stroke.^{33,35} Among high school students nationwide in 2005, 8% had used smokeless tobacco and 5% had used smokeless tobacco on school property on ≥ 1 of the 30 days preceding the survey.⁹ The overall risk of oral and pharyngeal cancer is 7-10 times higher among cigar smokers compared to those who never smoked.³⁶ Additionally, cigar smoking can cause lung cancer, coronary heart disease, and chronic obstructive pulmonary disease.^{37,38}

RELATED NATIONAL HEALTH OBJECTIVES FOR THE YEAR 2010

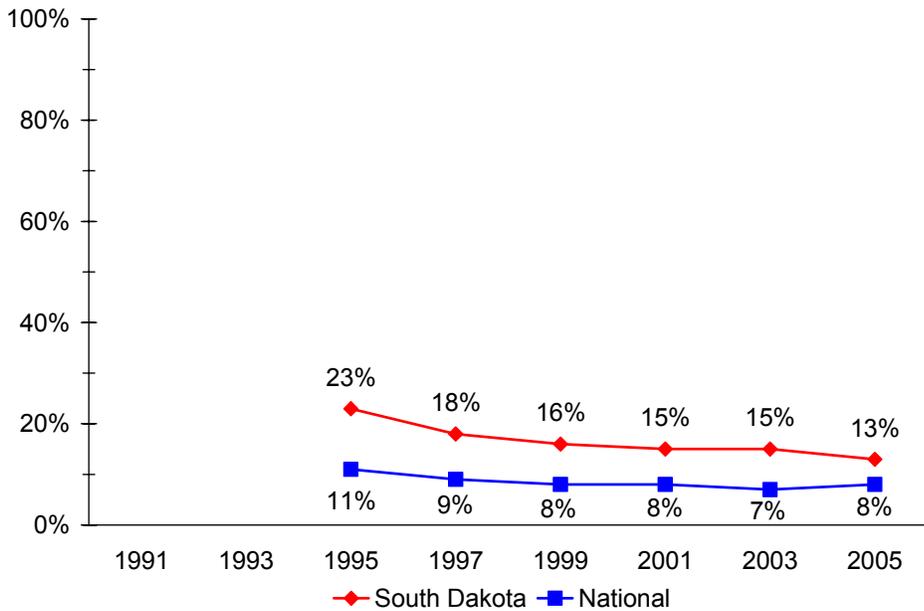
27-02c Reduce use of spit tobacco in the past month by adolescents to 1%.¹²

Results: The results for Questions 42 and 43 are summarized on page 31.

Tobacco Use

Question 42

Percentage of students who used chewing tobacco or snuff such as Redman, Levi Garrett, Beechnut, Skoal, Skoal Bandits, or Copenhagen, during the past 30 days



South Dakota Trends

There was a decrease from 1995 to 2005.

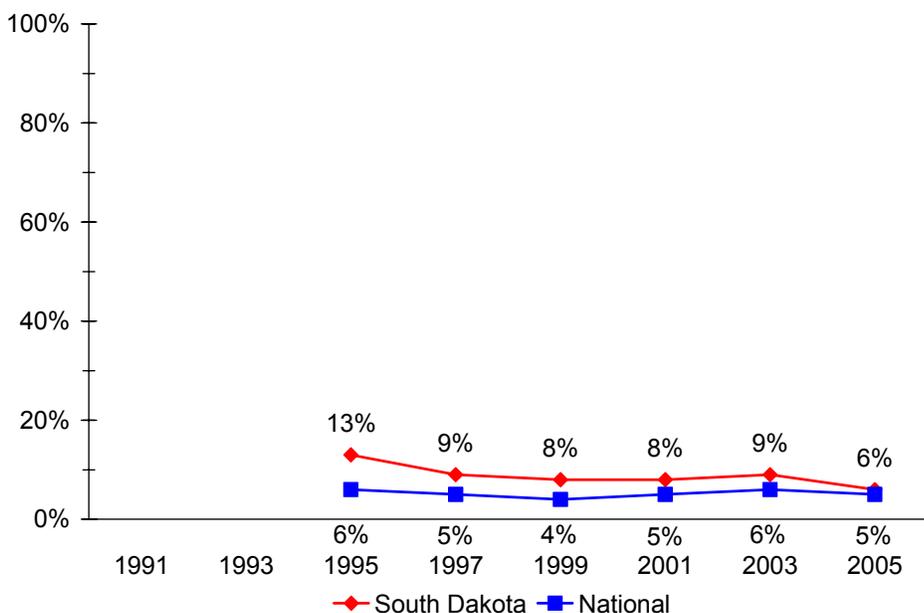
National Trends

There was a decrease from 1995 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	No

Question 43

Percentage of students who used chewing tobacco or snuff on school property on one or more of the past 30 days



South Dakota Trends

There was a decrease from 1995 to 2005.

National Trends

There was no statistically significant change from 1995 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	No	No

Alcohol and Other Drug Use

Questions:

47. During your life, on how many days have you had at least one drink of alcohol?
48. How old were you when you had your first drink of alcohol other than a few sips?
49. During the past 30 days, on how many days did you have at least one drink of alcohol?
50. During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?
51. During the past 30 days, on how many days did you have at least one drink of alcohol on school property?

Rationale:

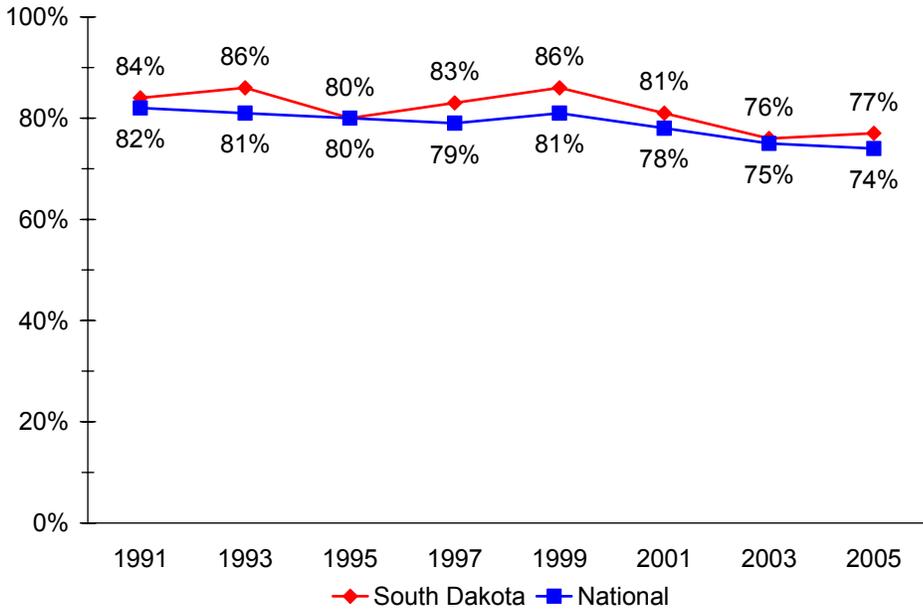
These questions measure lifetime and current use of alcohol, age of initiation, episodic heavy drinking, access to alcohol, and drinking on school property. Motor vehicle crashes are the leading cause of death among youth aged 15–19 years in the United States¹⁰ and alcohol use is associated with 9% of all motor vehicle crashes that result in injury and more than one-third of all motor vehicle crash fatalities.³⁹ Heavy drinking among youth is associated with risky sexual behavior (including sexual initiation, multiple sex partners, condom use, and pregnancy)³⁹ and use of cigarettes,^{40,41} marijuana, cocaine, and other illegal drugs.⁴⁰ Limiting youth access to alcohol has reduced underage drinking and alcohol-related problems.⁴² However, youth continue to obtain alcohol from a variety of sources, reflecting the need for improved enforcement of underage drinking laws as well as greater public awareness of restrictions on drinking by underage youth. Among high school students nationwide in 2005, 74% had had at least one drink of alcohol on ≥ 1 day during their life and 43% had had at least one drink of alcohol and 26% had had ≥ 5 drinks of alcohol in a row on ≥ 1 of the 30 days preceding the survey.⁹

Results: The results for Questions 47 to 51 are summarized on pages 33 to 35.

Alcohol and Other Drug Use

Question 47

Percentage of students who had at least one drink of alcohol on one or more days during their life



Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	Yes

South Dakota Trends

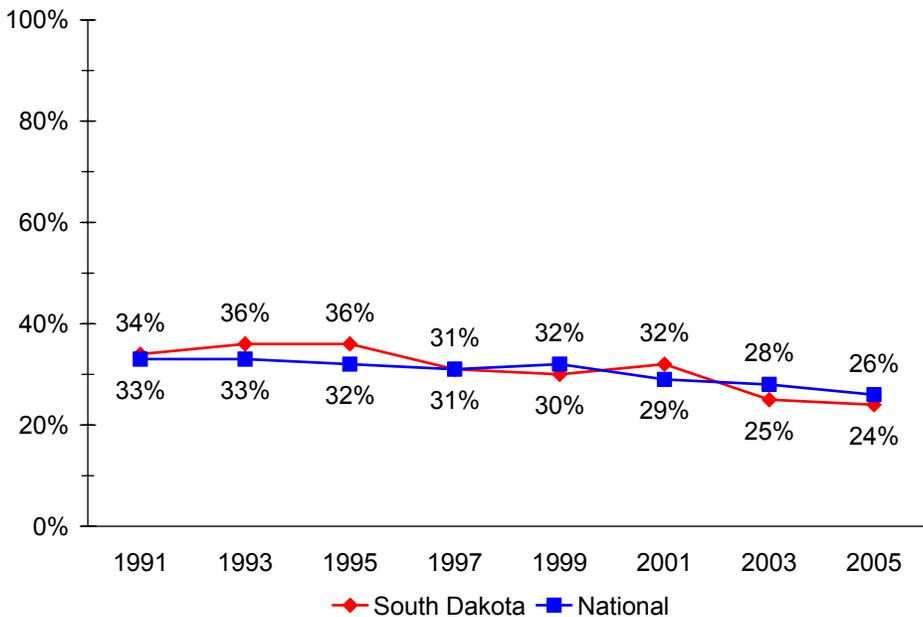
There was a decrease from 1991 to 2005.

National Trends

Overall, there was a decrease from 1991 to 2005. However, there was no statistically significant change from 1991 to 1999.

Question 48

Percentage of students who had their first drink of alcohol other than a few sips prior to age 13



Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	Yes
National	Yes	Yes

South Dakota Trends

Overall, there was a decrease from 1991 to 2005. However, there was no statistically significant change from 1991 to 1995.

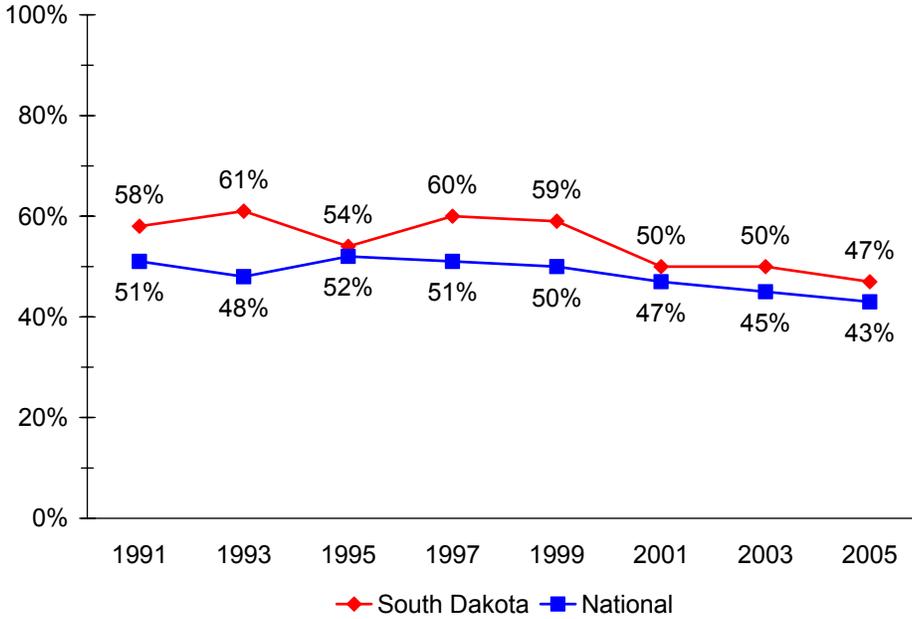
National Trends

Overall, there was a decrease from 1991 to 2005. However, there was no statistically significant change from 1991 to 1999.

Alcohol and Other Drug Use

Question 49

Percentage of students who had at least one drink of alcohol on one or more of the past 30 days



Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	Yes
National	Yes	Yes

South Dakota Trends

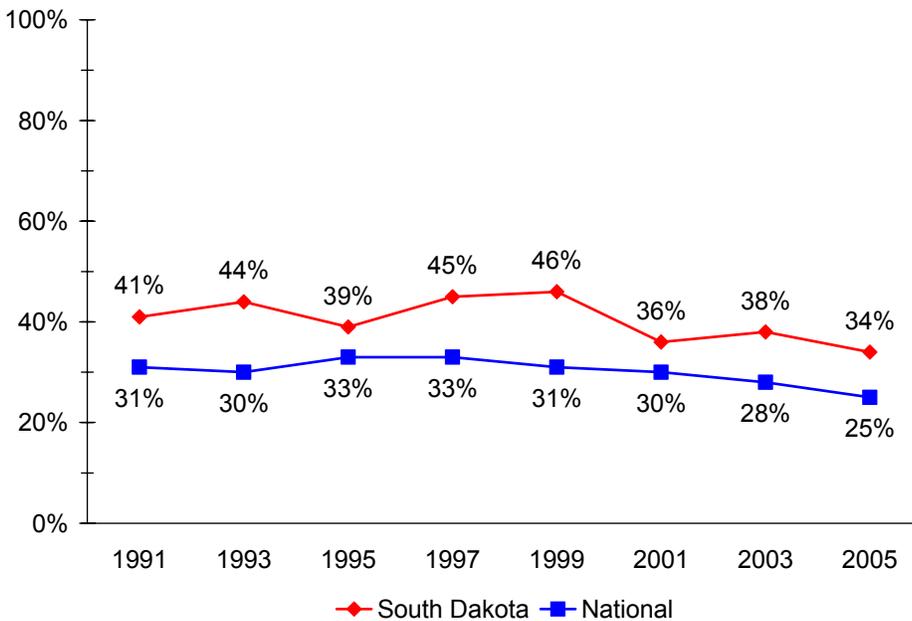
Overall, there was a decrease from 1991 to 2005. However, there was an increase from 1995 to 1997.

National Trends

Overall, there was a decrease from 1991 to 2005. However, there was an increase from 1993 to 1995.

Question 50

Percentage of students who had 5 or more drinks of alcohol in a row, that is, within a couple of hours, on one or more of the past 30 days



Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	Yes
National	Yes	Yes

South Dakota Trends

Overall, there was a decrease from 1991 to 2005. However, there was an increase from 1995 to 1999.

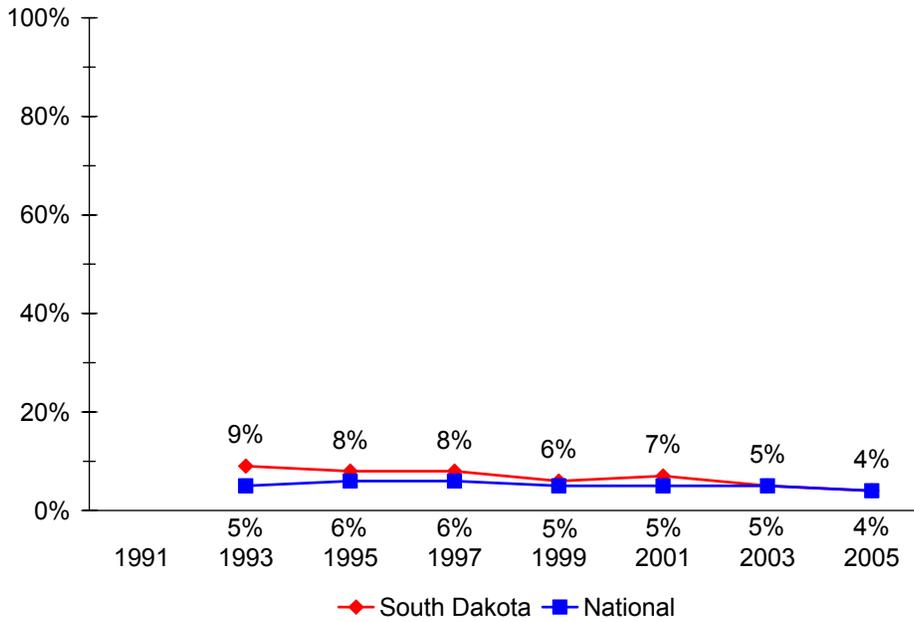
National Trends

Overall, there was a decrease from 1991 to 2005. However, there was an increase from 1993 to 1995.

Alcohol and Other Drug Use

Question 51

Percentage of students who had at least one drink of alcohol on school property on one or more of the past 30 days



South Dakota Trends

There was a decrease from 1993 to 2005.

National Trends

There was a decrease from 1993 to 2005.

◆ South Dakota ■ National

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	No

Alcohol and Other Drug Use

Questions:

52. During your life, how many times have you used marijuana?
53. How old were you when you tried marijuana for the first time?
54. During the past 30 days, how many times did you use marijuana?
55. During the past 30 days, how many times did you use marijuana on school property?
56. During the past 30 days, how many times did you use any form of cocaine, including powder, crack, or freebase?
57. During your life, how many times have you sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high?
58. During the past 30 days, how many times have you sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high?
59. During your life, how many times have you used heroin (also called smack, junk, or China White)?
60. During your life, how many times have you used methamphetamines (also called speed, crystal, crank, or ice)?
61. During your life, how many times have you used ecstasy (also called MDMA)?
62. During your life, how many times have you taken steroid pills or shots without a doctor's prescription?
63. During your life, how many times have you used a needle to inject any illegal drug into your body?
64. During the past 12 months, has anyone offered, sold, or given you an illegal drug on school property?

Rationale:

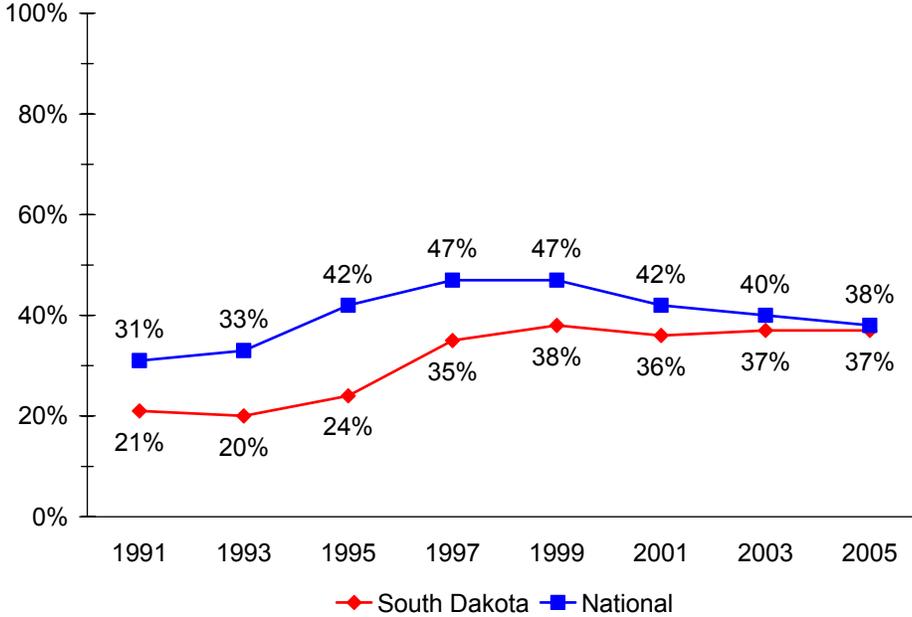
These questions measure lifetime and current use of marijuana, cocaine, and inhalants, and lifetime use of heroin, methamphetamines, ecstasy, steroids, and injected drugs. Among youth, illicit drug use is associated with heavy alcohol and tobacco use,⁴³ violence and delinquency,⁴⁴⁻⁴⁶ and suicide.⁴⁷ Among high school students nationwide in 2005, 38% had used marijuana, 8% had used any form of cocaine, 2% had injected drugs, 12% had used inhalants, 4% had used steroids, 9% had used hallucinogenic drugs, 2% had used heroin, 6% had used methamphetamines, and 6% had used ecstasy one or more times during their life.⁹

Results: The results for Questions 52 to 64 are summarized on pages 37 to 43.

Alcohol and Other Drug Use

Question 52

Percentage of students who used marijuana one or more times during their life



South Dakota Trends

Overall, there was an increase from 1991 to 2005. However, there was no statistically significant change from 1999 to 2005.

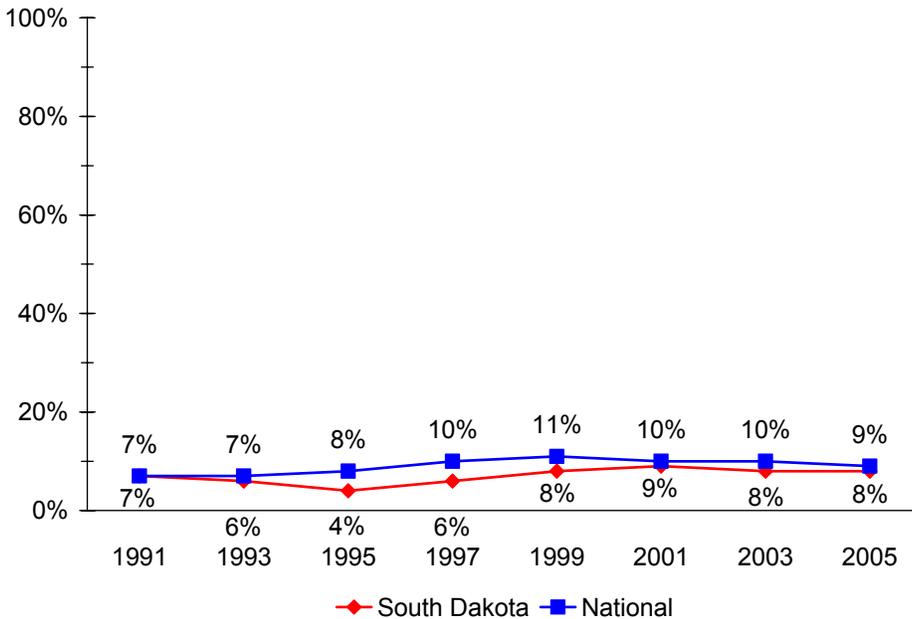
National Trends

Overall, there was an increase from 1991 to 2005. However, there was an increase from 1991 to 1997, and a decrease from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	Yes
National	Yes	Yes

Question 53

Percentage of students who tried marijuana for the first time prior to age 13



South Dakota Trends

There was no statistically significant change from 1991 to 2005.

National Trends

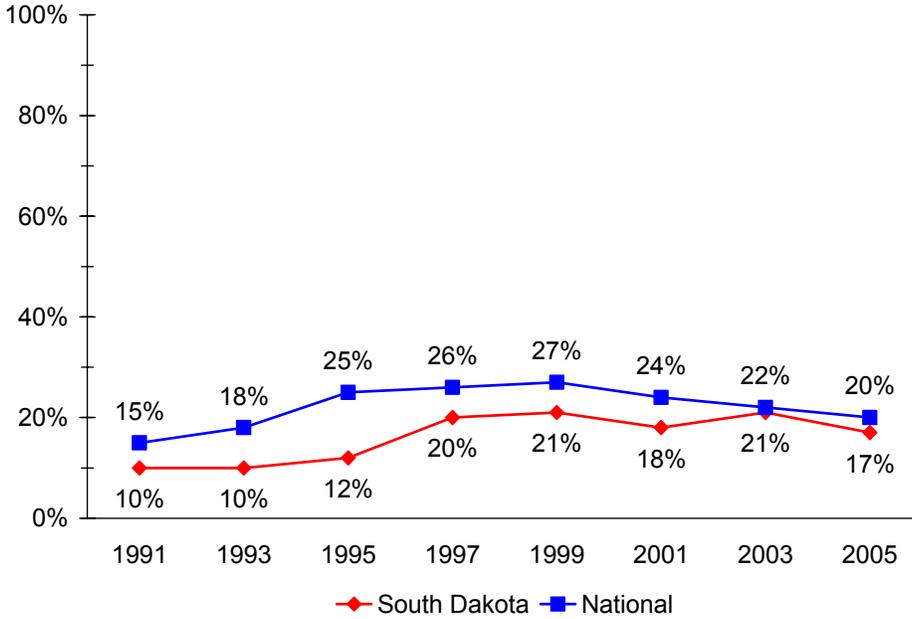
Overall, there was an increase from 1991 to 2005. However, there was no statistically significant change from 1997 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	Yes	Yes

Alcohol and Other Drug Use

Question 54

Percentage of students who used marijuana one or more times during the past 30 days



South Dakota Trends

Overall, there was an increase from 1991 to 2005. However, there was no statistically significant change from 1997 to 2003.

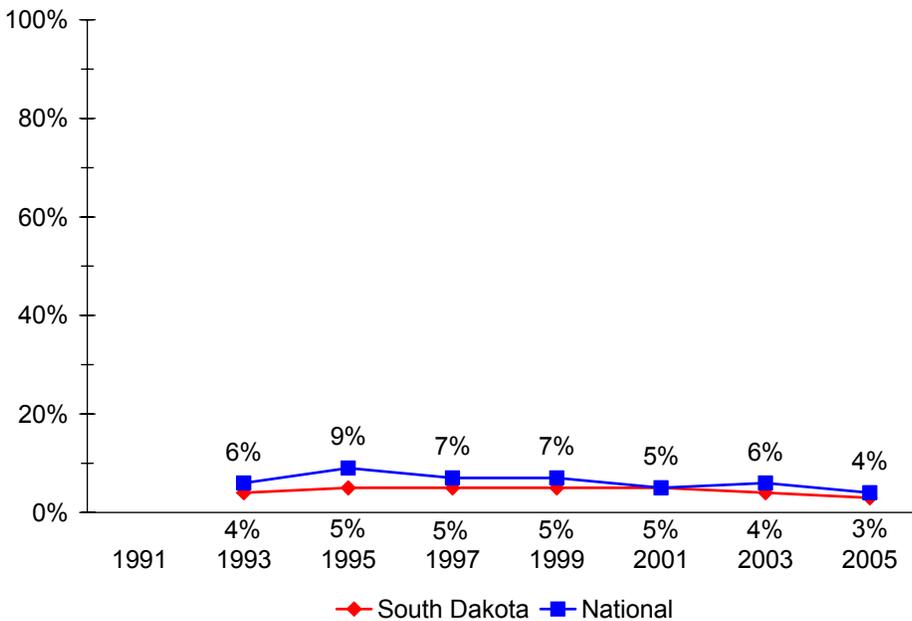
National Trends

Overall, there was an increase from 1991 to 2005. However, there was an increase from 1991 to 1999, and a decrease from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	Yes
National	Yes	Yes

Question 55

Percentage of students who used marijuana on school property one or more times during the past 30 days



South Dakota Trends

There was an increase from 1993 to 1995, no statistically significant change from 1995 to 2001, and a decrease from 2001 to 2005.

National Trends

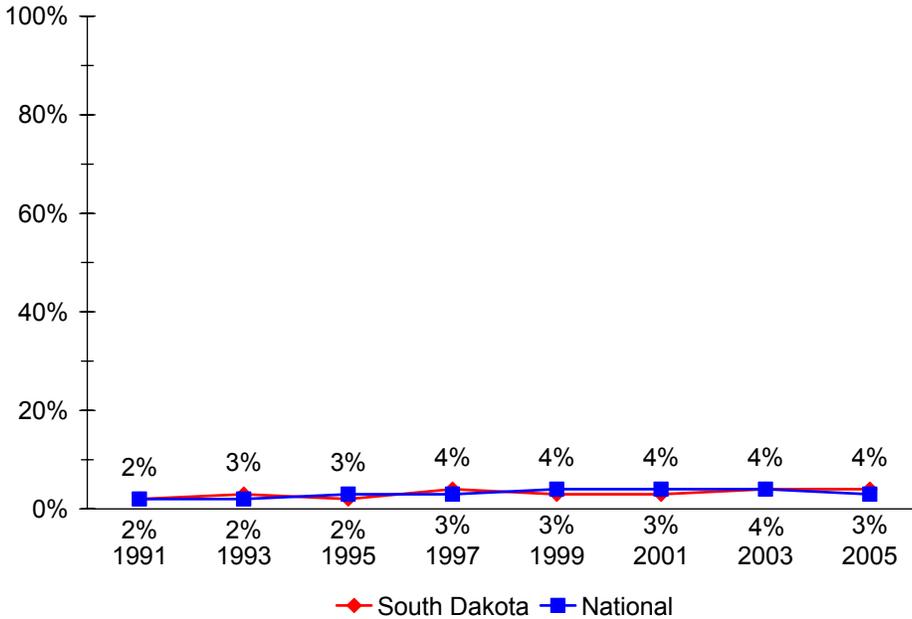
Overall, there was a decrease from 1993 to 2005. However, there was an increase from 1993 to 1995, and a decrease from 1995 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	Yes
National	Yes	Yes

Alcohol and Other Drug Use

Question 56

Percentage of students who had used any form of cocaine including powder, crack, or freebase, one or more times during the past 30 days



South Dakota Trends

There was an increase from 1991 to 2005.

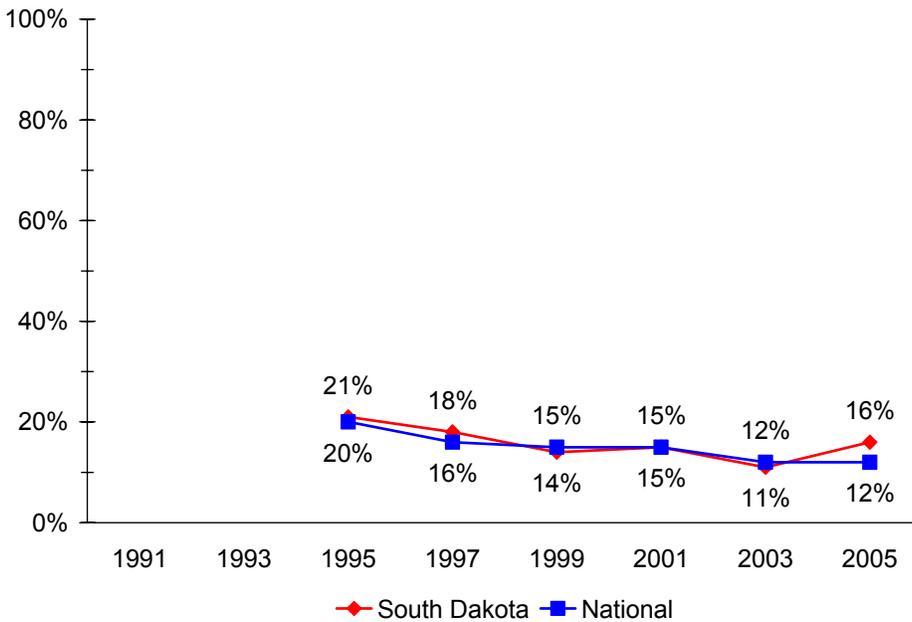
National Trends

Overall, there was an increase from 1991 to 2005. However, there was no statistically significant change from 1997 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	Yes

Question 57

Percentage of students who had sniffed glue, breathed the contents of aerosol spray cans, or inhaled any sprays or paints to get high during their life



South Dakota Trends

There was a decrease from 1995 to 2005.

National Trends

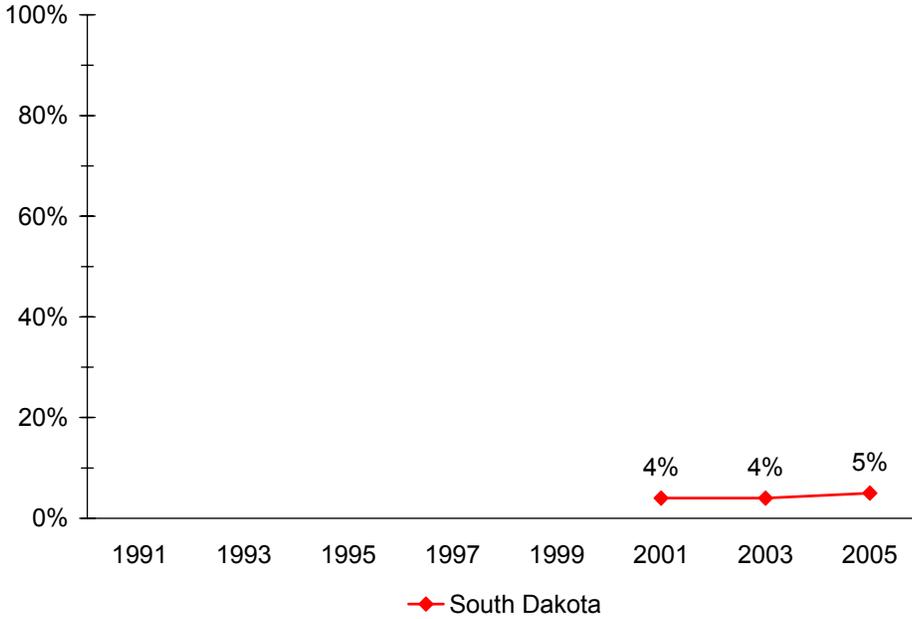
Overall, there was a decrease from 1995 to 2005. However, there was no statistically significant change from 1999 to 2001.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	Yes

Alcohol and Other Drug Use

Question 58

Percentage of students who had sniffed glue, breathed the contents of aerosol spray cans, or inhaled any sprays or paints to get high during the past 30 days



South Dakota Trends

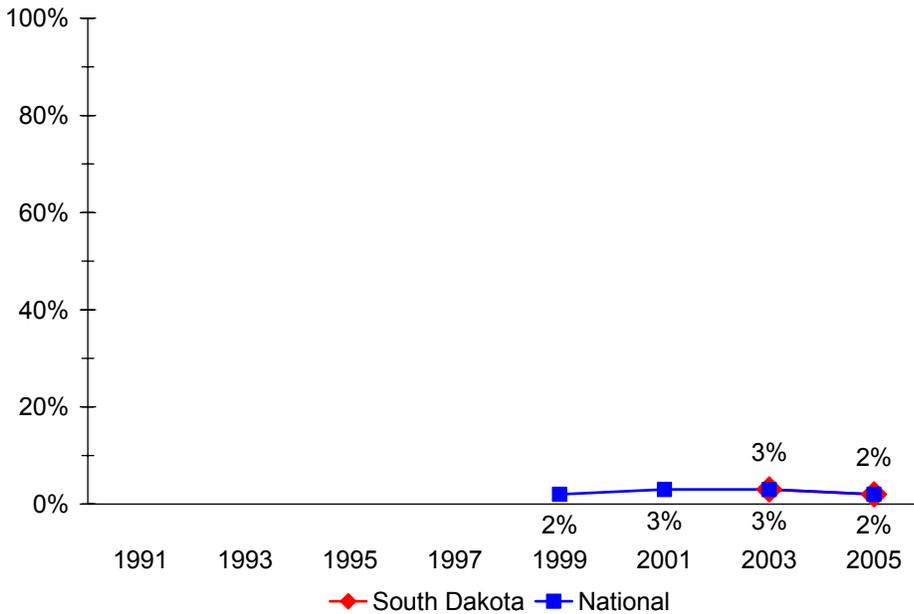
There was no statistically significant change from 2001 to 2005.

This question was not included on the National YRBS questionnaire.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No

Question 59

Percentage of students who used heroin one or more times during their life



South Dakota Trends

There was no statistically significant change from 2003 to 2005.

National Trends

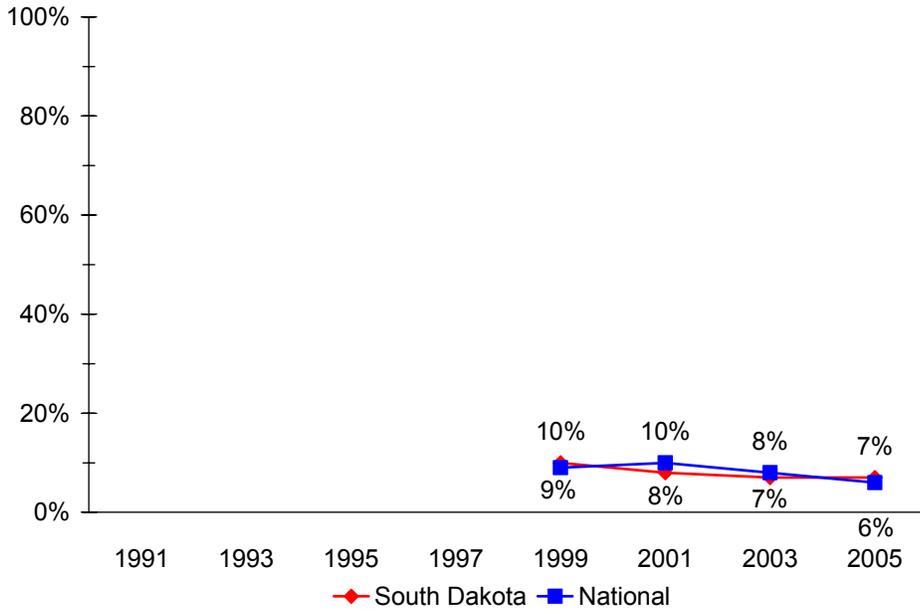
There was an increase from 1999 to 2001, no statistically significant change from 2001 to 2003, and a decrease from 2003 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	N/A
National	No	Yes

Alcohol and Other Drug Use

Question 60

Percentage of students who used methamphetamines one or more times during their life



South Dakota Trends

There was a decrease from 1999 to 2005.

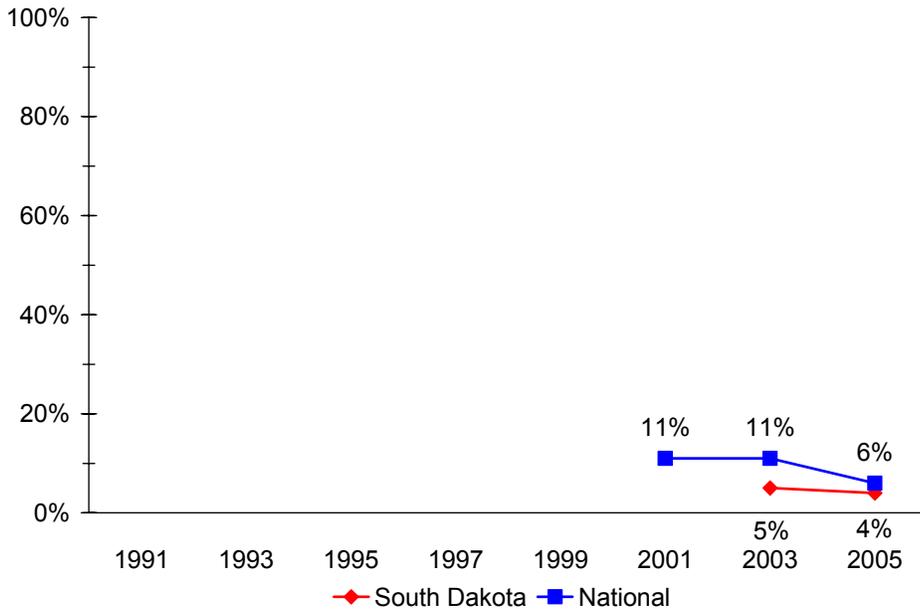
National Trends

There was a decrease from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	No

Question 61

Percentage of students who used ecstasy one or more times during their life



South Dakota Trends

There was no statistically significant change from 2003 to 2005.

National Trends

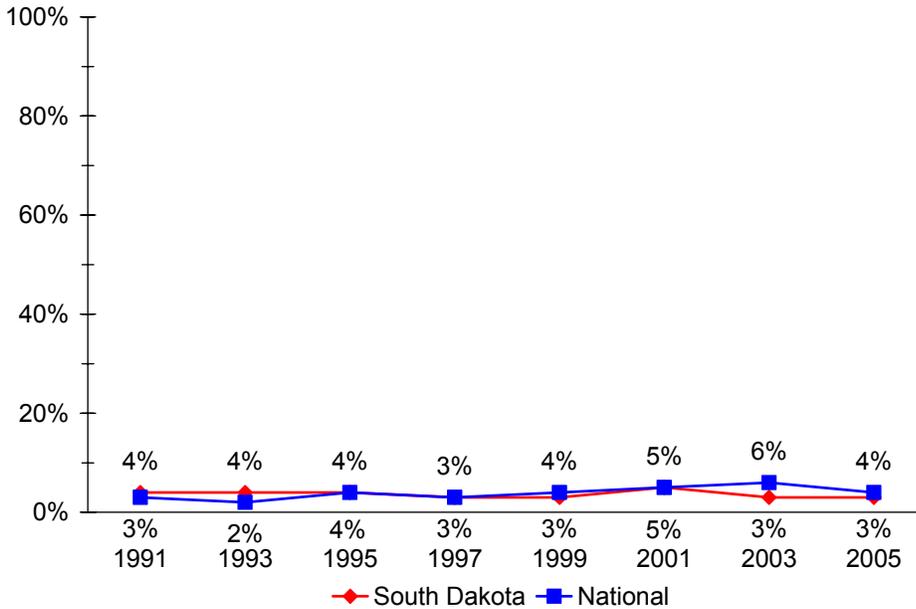
There was a decrease from 2001 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	N/A
National	Yes	No

Alcohol and Other Drug Use

Question 62

Percentage of students who had taken steroid pills or shots without a doctor's prescription, one or more times during their life



South Dakota Trends

There was no statistically significant change from 1991 to 2005.

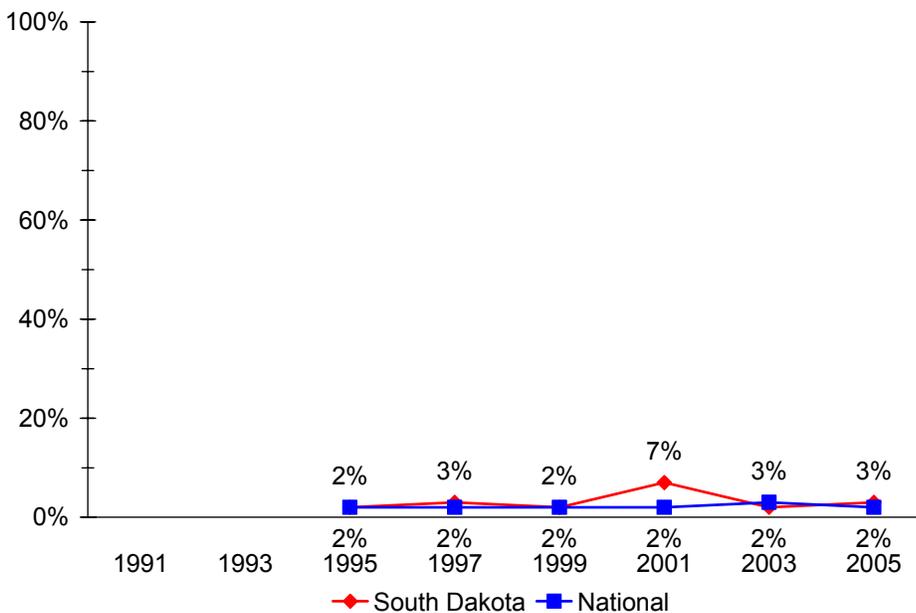
National Trends

Overall, there was an increase from 1991 to 2005. However, there was no statistically significant change from 1991 to 1999.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	Yes	Yes

Question 63

Percentage of students who ever used a needle to inject any illegal drug into their body one or more times during their life



South Dakota Trends

There was an increase from 1995 to 2001, and a decrease from 2001 to 2005.

National Trends

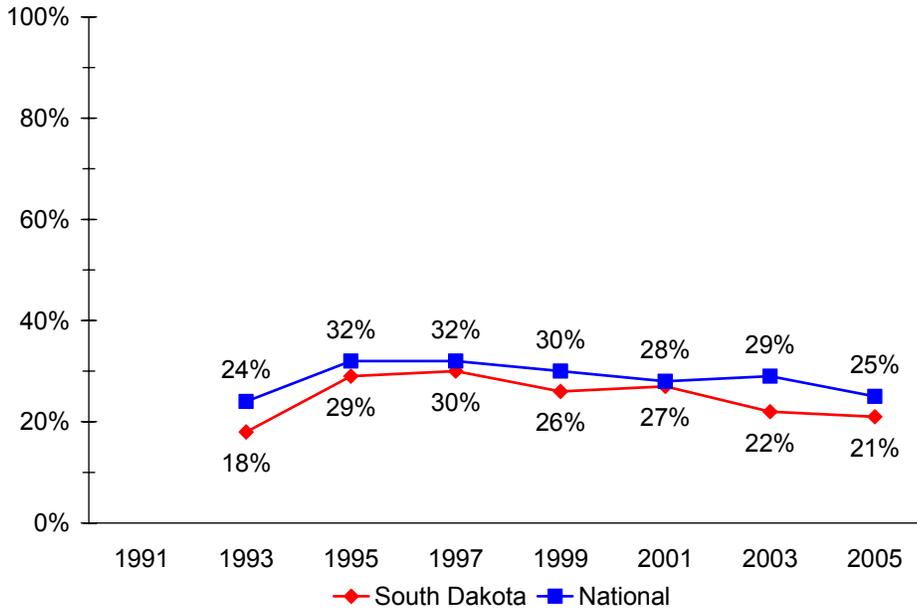
There was no statistically significant change from 1995 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	Yes
National	No	No

Alcohol and Other Drug Use

Question 64

Percentage of students who have had someone offer, sell, or give them an illegal drug on school property during the past 12 months



South Dakota Trends

There was an increase from 1993 to 1997, and a decrease from 1997 to 2005.

National Trends

There was an increase from 1993 to 1995, and a decrease from 1995 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	Yes
National	No	Yes

Sexual Behaviors that Result in HIV Infection, Other Sexually Transmitted Diseases, and Unintended Pregnancies

Questions:

65. Have you ever had sexual intercourse?
66. How old were you when you had sexual intercourse for the first time?
67. During your life, with how many people have you had sexual intercourse?
68. During the past 3 months, with how many people did you have sexual intercourse?
69. Did you drink alcohol or use drugs before you had sexual intercourse the last time?
70. The last time you had sexual intercourse, did you or your partner use a condom?
71. The last time you had sexual intercourse, what one method did you or your partner use to prevent pregnancy?
96. Have you ever been taught about AIDS or HIV infection in school?

Rationale:

These questions measure the prevalence of sexual activity, number of sexual partners, age at first intercourse, alcohol and other drug use related to sexual activity, condom use, contraceptive use, and whether high school students received HIV prevention education. Early initiation of sexual intercourse is associated with having a greater number of lifetime sexual partners.^{48,49} In addition, adolescents who initiate sexual intercourse early are less likely to use contraception⁵¹ and are at higher risk for pregnancy.^{51,52} Each year, there are an estimated 9.1 million cases of sexually transmitted diseases among persons aged 15–24 years.⁵³ Gonorrhea rates are highest among females between the ages of 15 and 19 years (610.9 cases per 100,000 females) and males between the ages of 20 and 24 years (430.6 cases per 100,000 males).⁵⁴ In 2004, there were an estimated 4,842 cases of HIV/AIDS among persons aged 15–24 years.⁵⁵ Among high school students nationwide, 47% had had sexual intercourse and 14% had had sexual intercourse with ≥ 4 persons during their life and 34% had had sexual intercourse with ≥ 1 persons during the 3 months preceding the survey. In 2000, 73% of senior high schools nationally taught HIV prevention education in a required health education course.⁵⁶

RELATED NATIONAL HEALTH OBJECTIVES FOR THE YEAR 2010

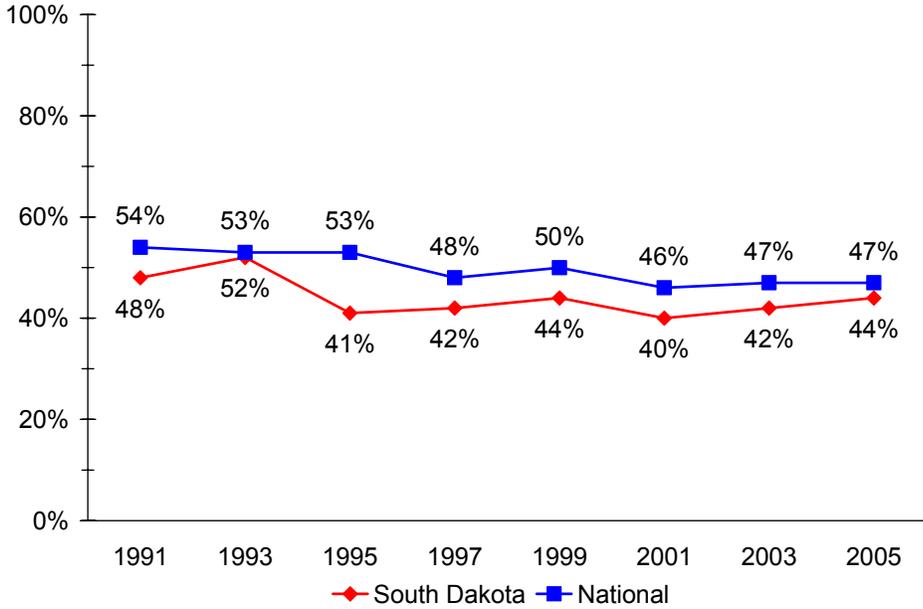
- 25-11 Increase the proportion of adolescents who abstain from sexual intercourse or use condoms if currently sexually active to 95%.¹²

Results: The results for Questions 65 to 71 and 96 are summarized on pages 45 to 48.

Sexual Behaviors that Result in HIV Infection, Other Sexually Transmitted Diseases, and Unintended Pregnancies

Question 65

Percentage of students who ever had sexual intercourse



South Dakota Trends

There was a decrease from 1991 to 2005.

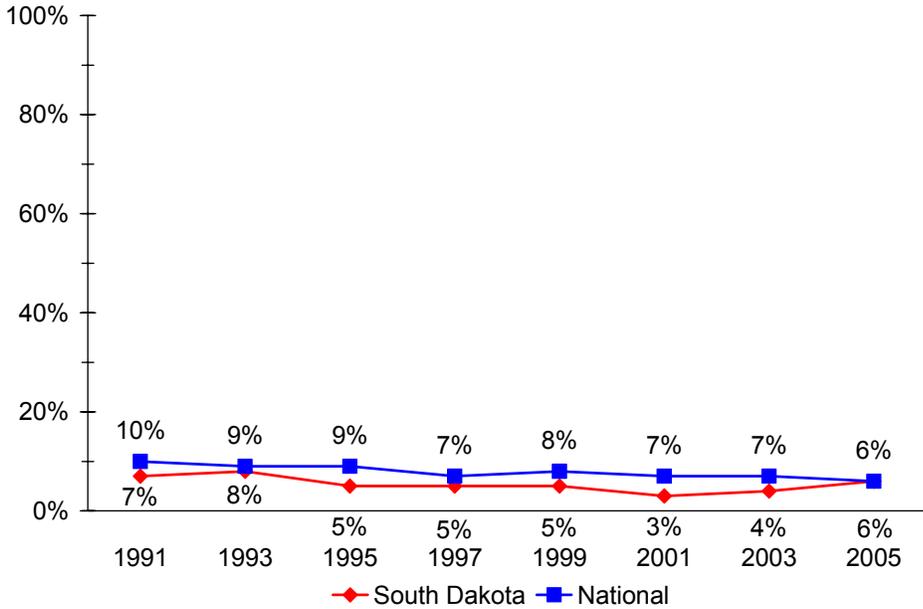
National Trends

There was a decrease from 1991 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	No

Question 66

Percentage of students who had sexual intercourse for the first time prior to age 13



South Dakota Trends

There was a decrease from 1991 to 2005.

National Trends

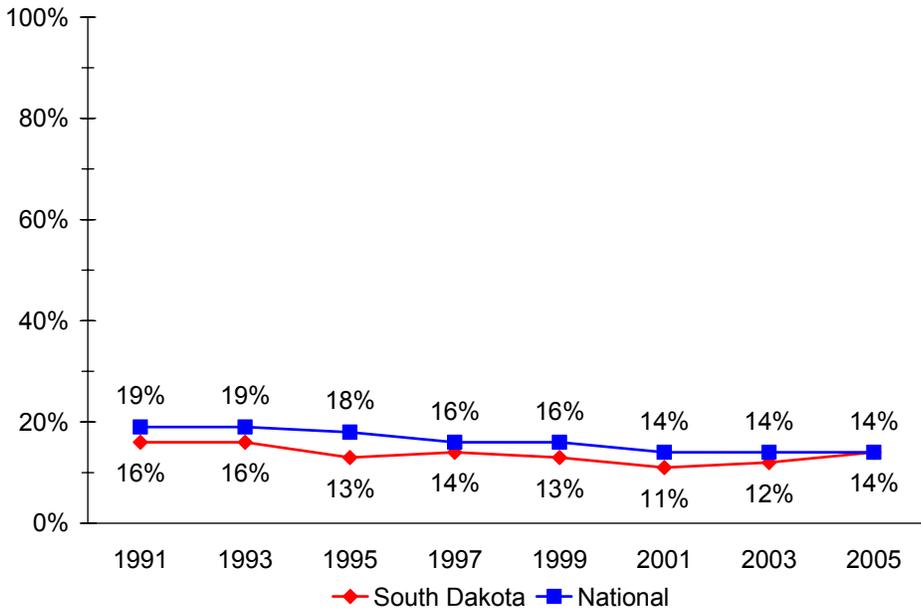
There was a decrease from 1991 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	No

Sexual Behaviors that Result in HIV Infection, Other Sexually Transmitted Diseases, and Unintended Pregnancies

Question 67

Percentage of students who had sexual intercourse with four or more people during their life



South Dakota Trends

There was a decrease from 1991 to 2005.

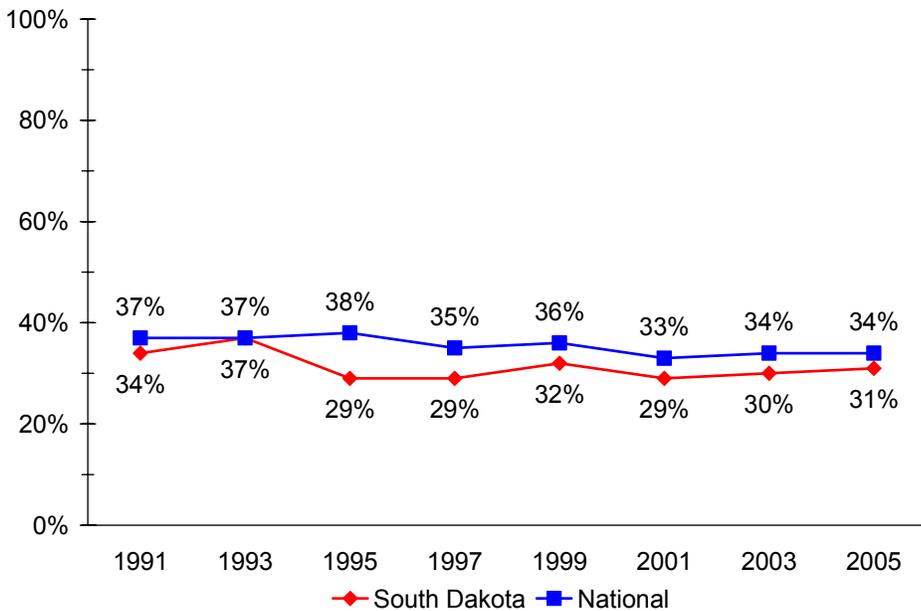
National Trends

There was a decrease from 1991 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	No

Question 68

Percentage of students who had sexual intercourse with one or more people during the past 3 months



South Dakota Trends

There was a decrease from 1991 to 2005.

National Trends

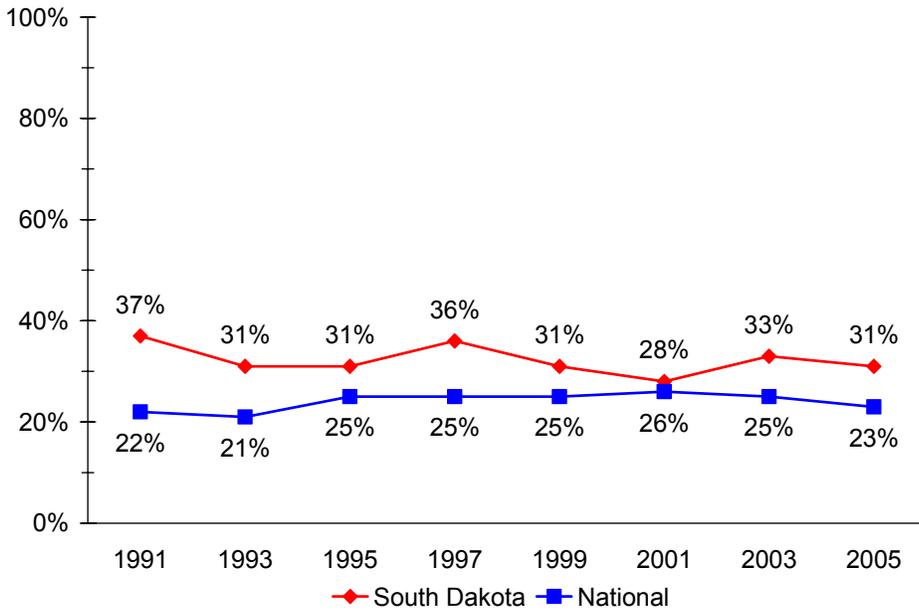
There was a decrease from 1991 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	No

Sexual Behaviors that Result in HIV Infection, Other Sexually Transmitted Diseases, and Unintended Pregnancies

Question 69

Of students who had sexual intercourse during the past 3 months, the percentage who drank alcohol or used drugs before last sexual intercourse



South Dakota Trends

There was no statistically significant change from 1991 to 2005.

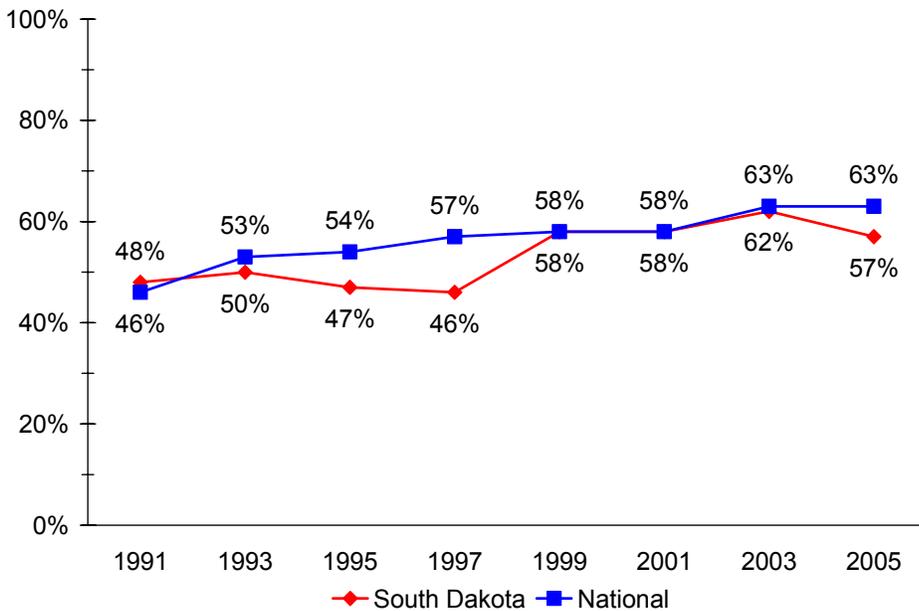
National Trends

Overall, there was an increase from 1991 to 2005. However, there was an increase from 1991 to 2001, and a decrease from 2001 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	Yes	Yes

Question 70

Of students who had sexual intercourse during the past 3 months, the percentage who used or whose partner used a condom during last sexual intercourse



South Dakota Trends

There was an increase from 1991 to 2005.

National Trends

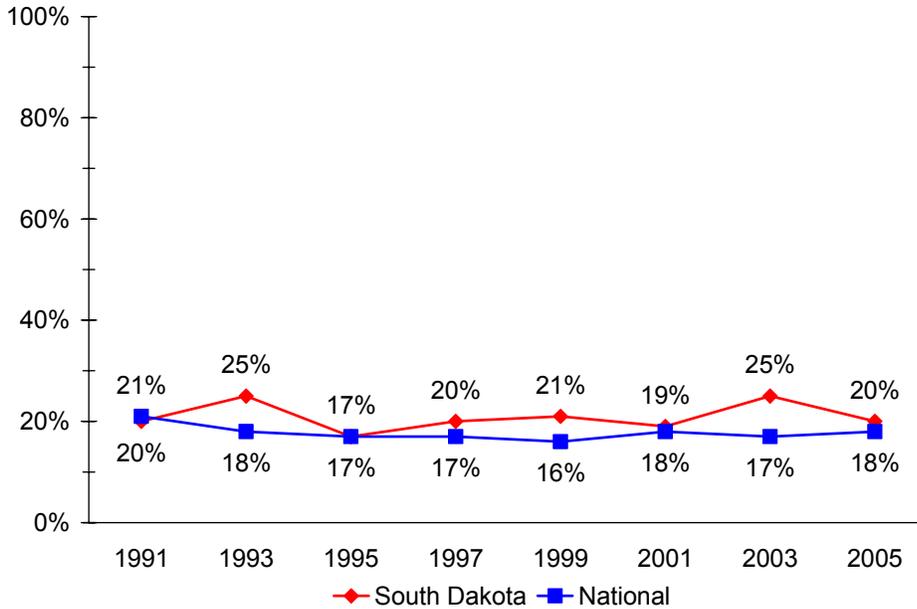
There was an increase from 1991 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	No

Sexual Behaviors that Result in HIV Infection, Other Sexually Transmitted Diseases, and Unintended Pregnancies

Question 71

Of students who had sexual intercourse during the past 3 months, the percentage who used or whose partner used birth control pills to prevent pregnancy during last sexual intercourse



South Dakota Trends

There was no statistically significant change from 1991 to 2005.

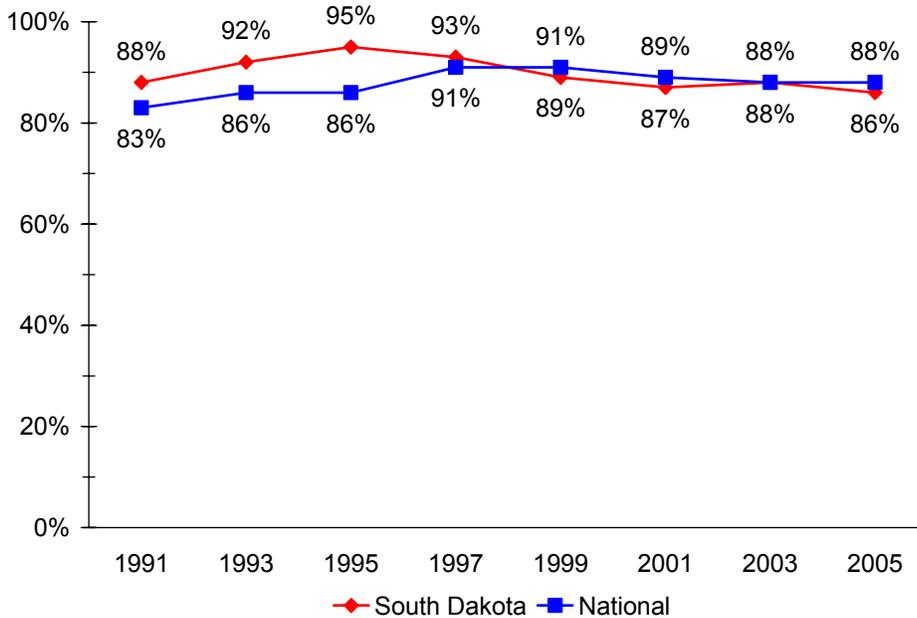
National Trends

There was a decrease from 1991 to 1995, and no statistically significant change from 1995 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	No	Yes

Question 96

Percentage of students who had been taught about AIDS/HIV infection in school



South Dakota Trends

Overall, there was a decrease from 1991 to 2005. However, there was an increase from 1991 to 1995, and a decrease from 1995 to 2005.

National Trends

Overall, there was an increase from 1991 to 2005. However, there was an increase from 1991 to 1997, and a decrease from 1997 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	Yes
National	Yes	Yes

Dietary Behaviors

Questions:

6. How tall are you without your shoes on?
7. How much do you weigh without your shoes on?
72. How do you describe your weight?
73. Which of the following are you trying to do about your weight?
74. During the past 30 days, did you exercise to lose weight or to keep from gaining weight?
75. During the past 30 days, did you eat less food, fewer calories, or foods low in fat to lose weight or to keep from gaining weight?
76. During the past 30 days, did you go without eating for 24 hours or more (also called fasting) to lose weight or to keep from gaining weight?
77. During the past 30 days, did you take any diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight? (Do not include meal replacement products such as Slim Fast.)
78. During the past 30 days, did you vomit or take laxatives to lose weight or to keep from gaining weight?

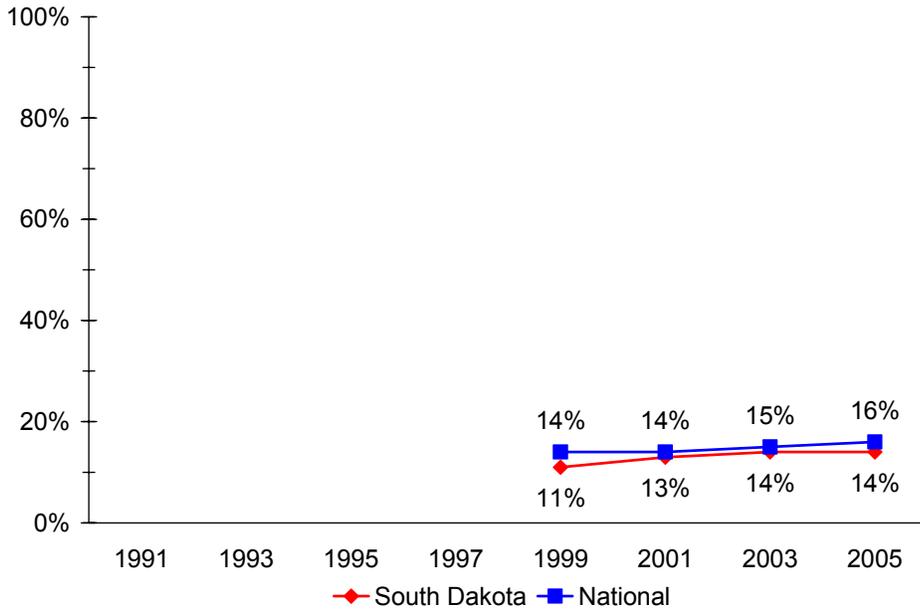
Rationale:

These questions measure self-reported height and weight, self-perception of body weight status, and specific weight control behaviors. Data on self-reported height and weight can be used to calculate body mass index and provide a proxy measure of whether high school students are overweight. Although overweight prevalence estimates derived from self-reported data are likely to be low,^{82,83} they can be useful in tracking trends over time. Prevalence trends from national surveys of adults using self-reported height and weight⁸⁴ have been consistent with trend data from national surveys using measured heights and weights.⁸⁵ In 2003–2004, 66% of persons aged 20 years or older were either overweight or obese and 17% of adolescents aged 12–19 years were overweight.⁸⁶ In 2003–2004, there were more than three times as many overweight adolescents as there were in 1976–1980 (17% versus 5%, respectively).⁸⁷ Overweight or obesity acquired during childhood or adolescence may persist into adulthood.⁸⁸⁻⁹⁰ Overweight during childhood and adolescence is associated with negative psychological and social consequences and adverse health outcomes, including type 2 diabetes, obstructive sleep apnea, hypertension, dyslipidemia, and the metabolic syndrome.⁹¹ Studies have shown high rates of body dissatisfaction and dieting among adolescents, with many engaging in unhealthy weight control behaviors, such as fasting and self-induced vomiting which can lead to abnormal physical and psychological development.^{92,93} It is estimated that 5 million Americans are affected by eating disorders every year.⁹⁴ Among high school students nationwide in 2005, 12% had gone without eating for ≥ 24 hours, 6% had taken diet pills, powders, or liquids without a doctor's advice, and 5% had vomited or taken laxatives to lose weight or keep from gaining weight during the 30 days preceding the survey.⁹

Results: On page 50, the results of Questions 6 and 7 are used to show the percentage of students who are at risk for becoming overweight, and the percentage of students who are overweight. The results for Questions 72 to 78 are summarized on pages 51 to 54.

Dietary Behaviors

Questions 6 and 7 Percentage of students who are at risk for becoming overweight



South Dakota Trends

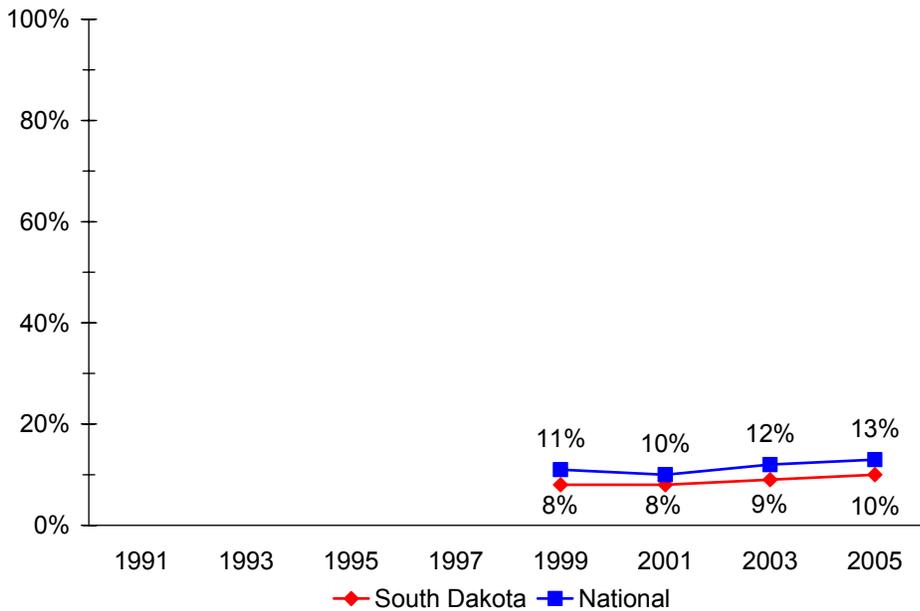
There was an increase from 1999 to 2005.

National Trends

There was an increase from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	No

Questions 6 and 7 Percentage of students who are overweight



South Dakota Trends

There was an increase from 1999 to 2005.

National Trends

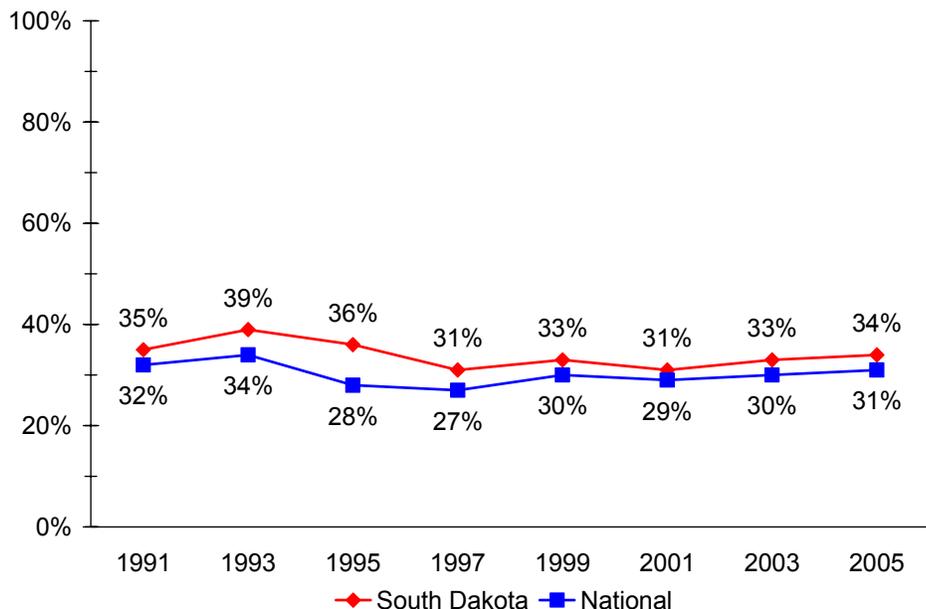
There was an increase from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	No

Dietary Behaviors

Question 72

Percentage of students who described themselves as slightly or very overweight



South Dakota Trends

There was a decrease from 1991 to 2005.

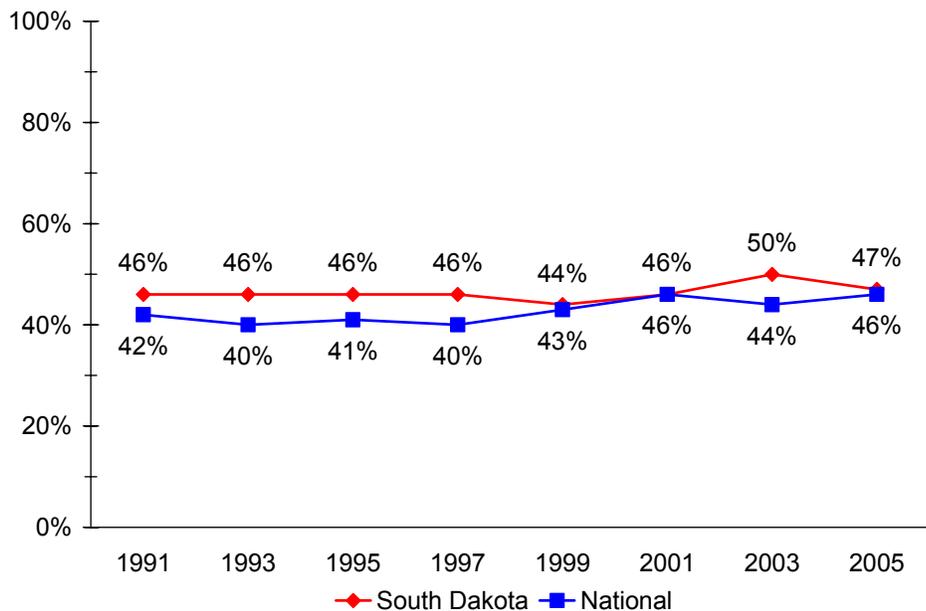
National Trends

Overall, there was a decrease from 1991 to 2005. However, there was a decrease from 1991 to 1997, and an increase from 1997 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	Yes

Question 73

Percentage of students who are trying to lose weight



South Dakota Trends

There was no statistically significant change from 1991 to 2005.

National Trends

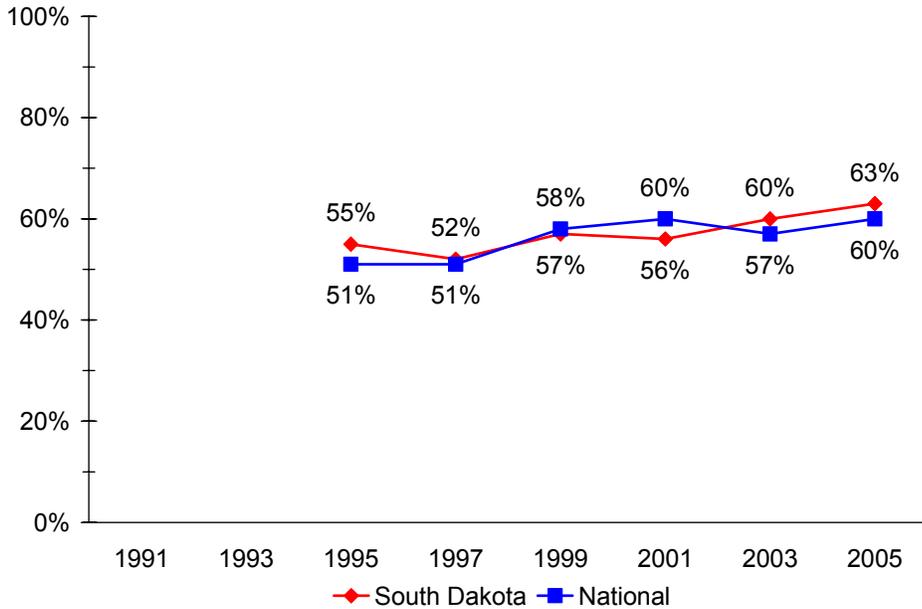
There was an increase from 1991 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	Yes	No

Dietary Behaviors

Question 74

Percentage of students who exercised to lose weight or to keep from gaining weight during the past 30 days



South Dakota Trends

There was an increase from 1995 to 2005.

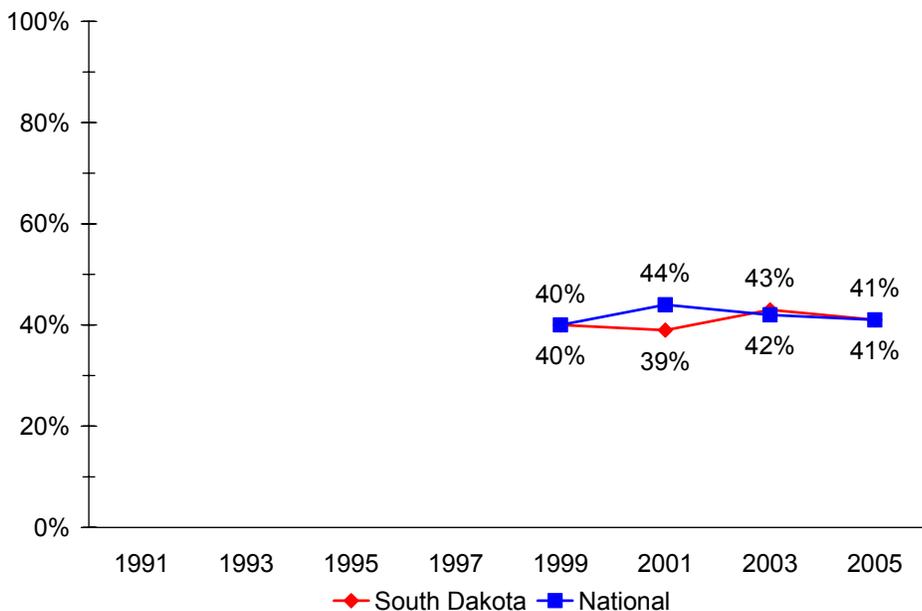
National Trends

Overall, there was an increase from 1995 to 2005. However, there was an increase from 1995 to 2001, and no statistically significant change from 2001 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	Yes	Yes

Question 75

Percentage of students who ate less food, fewer calories, or foods low in fat to lose weight or to keep from gaining weight during the past 30 days



South Dakota Trends

There was no statistically significant change from 1999 to 2005.

National Trends

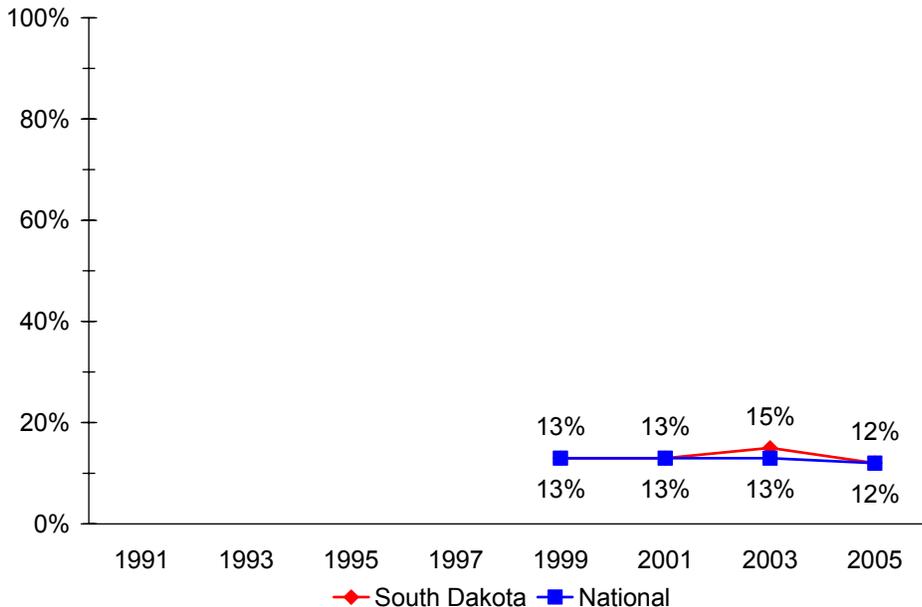
There was an increase from 1999 to 2001, and a decrease from 2001 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	No	Yes

Dietary Behaviors

Question 76

Percentage of students who went without eating for 24 hours or more to lose weight or to keep from gaining weight during the past 30 days



South Dakota Trends

There was no statistically significant change from 1999 to 2005.

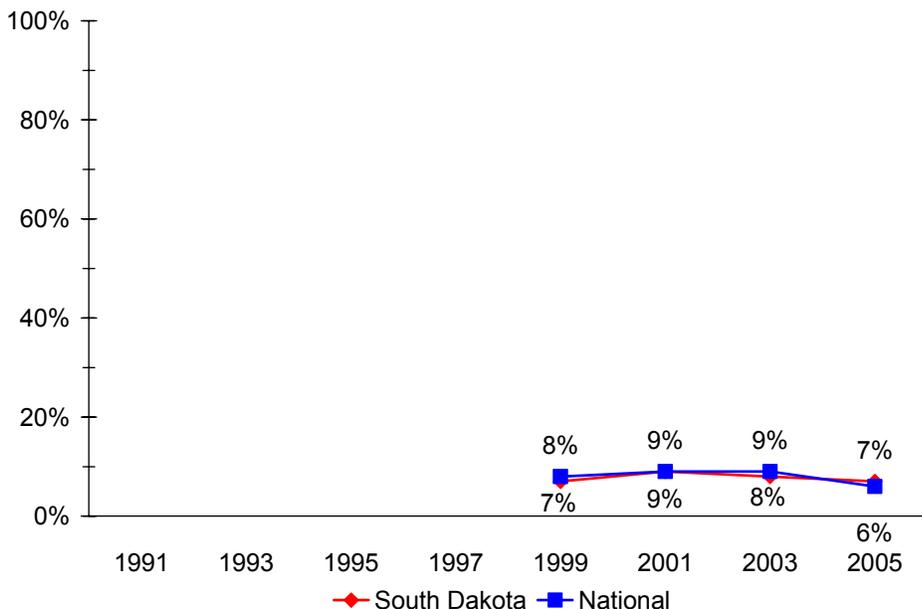
National Trends

There was no statistically significant change from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	No	No

Question 77

Percentage of students who took diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight during the past 30 days



South Dakota Trends

There was no statistically significant change from 1999 to 2005.

National Trends

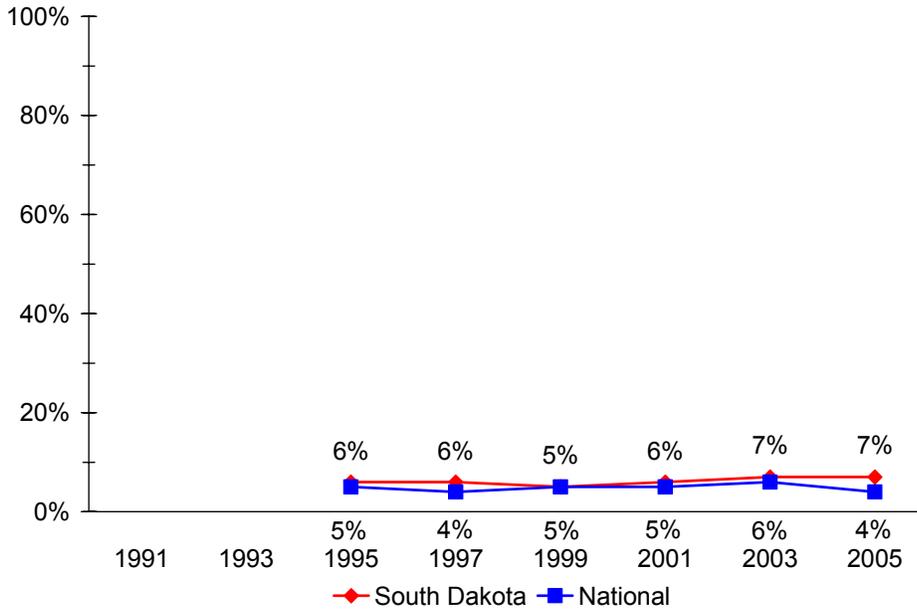
There was an increase from 1999 to 2001, and a decrease from 2003 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	No	Yes

Dietary Behaviors

Question 78

Percentage of students who vomited or took laxatives to lose weight or to keep from gaining weight during the past 30 days



South Dakota Trends

There was no statistically significant change from 1995 to 2005.

National Trends

There was no statistically significant change from 1995 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	No	No

Dietary Behaviors

Questions:

79. During the past 7 days, how many times did you drink 100% fruit juices such as orange juice, apple juice, or grape juice? (Do not count punch, Kool-Aid, sports drinks, or other fruit-flavored drinks.)
80. During the past 7 days, how many times did you eat fruit? (Do not count fruit juice.)
81. During the past 7 days, how many times did you eat green salad?
82. During the past 7 days, how many times did you eat potatoes? (Do not count french fries, fried potatoes, or potato chips.)
83. During the past 7 days, how many times did you eat carrots?
84. During the past 7 days, how many times did you eat other vegetables? (Do not count green salad, potatoes, or carrots.)
85. During the past 7 days, how many glasses of milk did you drink? (Include the milk you drank in a glass or cup, from a carton, or with cereal. Count the half pint of milk served at school as equal to one glass.)
86. During the past 7 days, how many times did you eat breakfast?
87. When was the last time you saw a dentist for a check-up, exam, teeth cleaning, or other dental work?

Rationale:

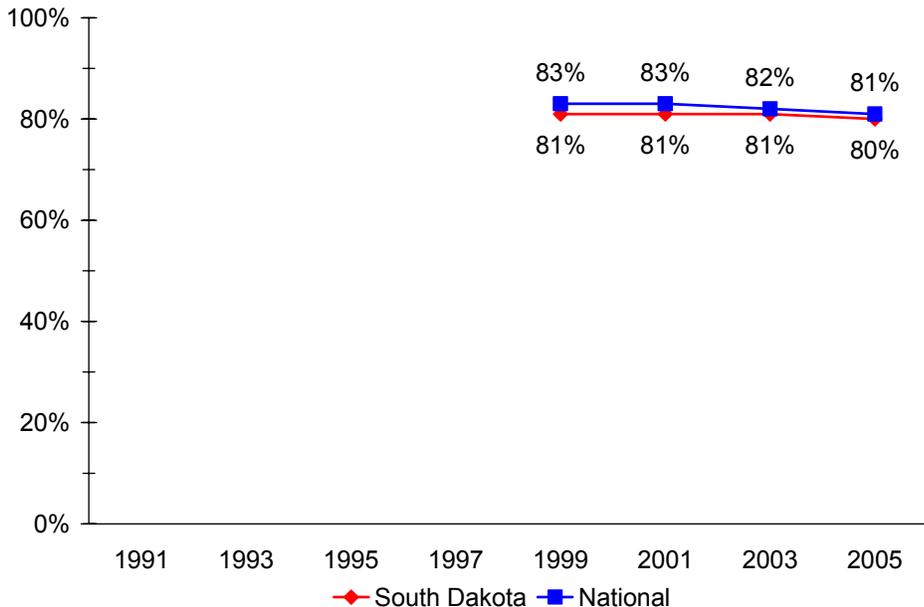
These questions measure food choices. Six of the questions address fruit and vegetable consumption, and one addresses milk consumption. The fruit and vegetable questions are similar to questions asked of adults on CDC's Behavioral Risk Factor Survey.⁵⁷ Fruits and vegetables are good sources of complex carbohydrates, vitamins, minerals, and other substances that are important for good health. There is probable evidence to suggest that dietary patterns with higher intakes of fruits and vegetables are associated with a decreased risk for some types of cancer,⁵⁸⁻⁶⁰ cardiovascular disease,⁶¹ and stroke.⁶² Although data are limited, an increased intake of fruits and vegetables appears to be associated with a decreased risk of overweight.⁶³⁻⁶⁵ In 2005, 20% of high school students nationwide ate fruits and vegetables five or more times per day.⁹ Milk is an important source of calcium for adolescents.^{66,67} Calcium is essential for the forming and maintaining healthy bones and low calcium intake during the first two to three decades of life is an important risk factor in developing osteoporosis.⁶⁸ Although the recommended intake of calcium is 1,300 mg/day,⁶⁹ most adolescents consume far less. National data indicate that the average calcium intake per day among persons aged 12 to 19 years was 1125 mg/day (among males) and 814 mg/day (among females).⁶⁷ In 2005, 21% of male and 12% of female high school students nationwide had drunk ≥ 3 glasses of milk per day.⁹

Results: The results for Questions 79 to 87 are summarized on pages 56 to 60.

Dietary Behaviors

Question 79

Percentage of students who drank 100% fruit juice one or more times during the past seven days



South Dakota Trends

There was no statistically significant change from 1999 to 2005.

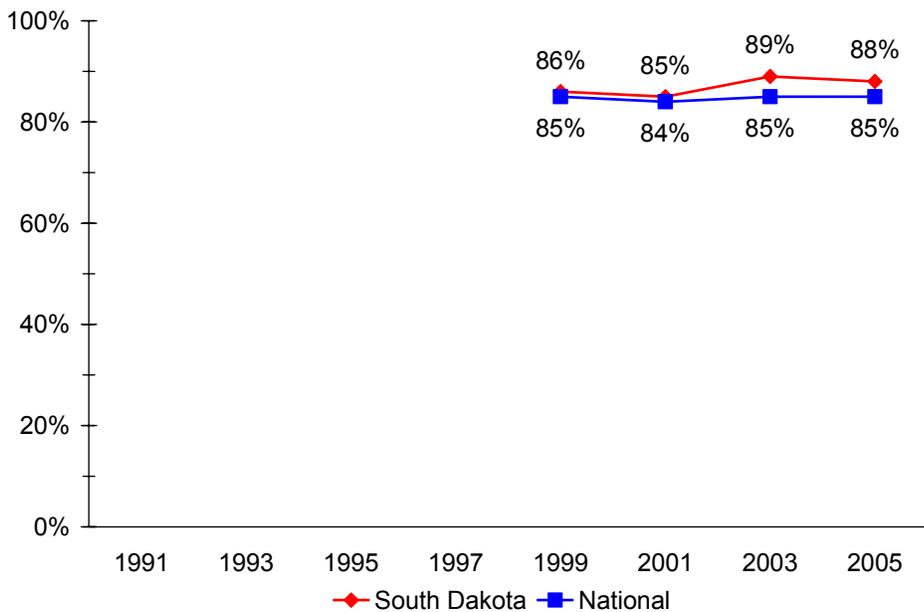
National Trends

There was no statistically significant change from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	No	No

Question 80

Percentage of students who ate fruit one or more times during the past seven days



South Dakota Trends

There was an increase from 1999 to 2005.

National Trends

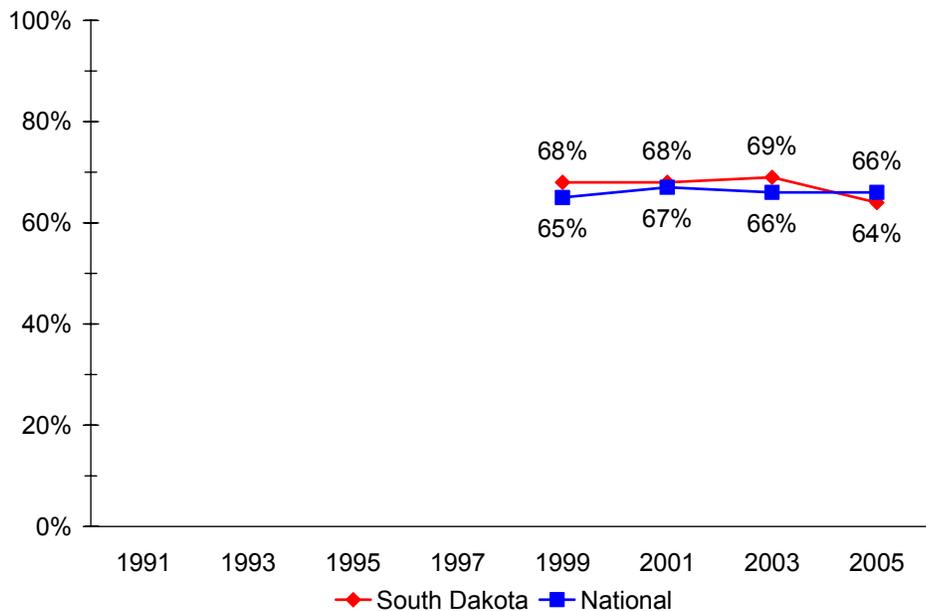
There was no statistically significant change from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	No	No

Dietary Behaviors

Question 81

Percentage of students who ate green salad one or more times during the past seven days



South Dakota Trends

There was no statistically significant change from 1999 to 2005.

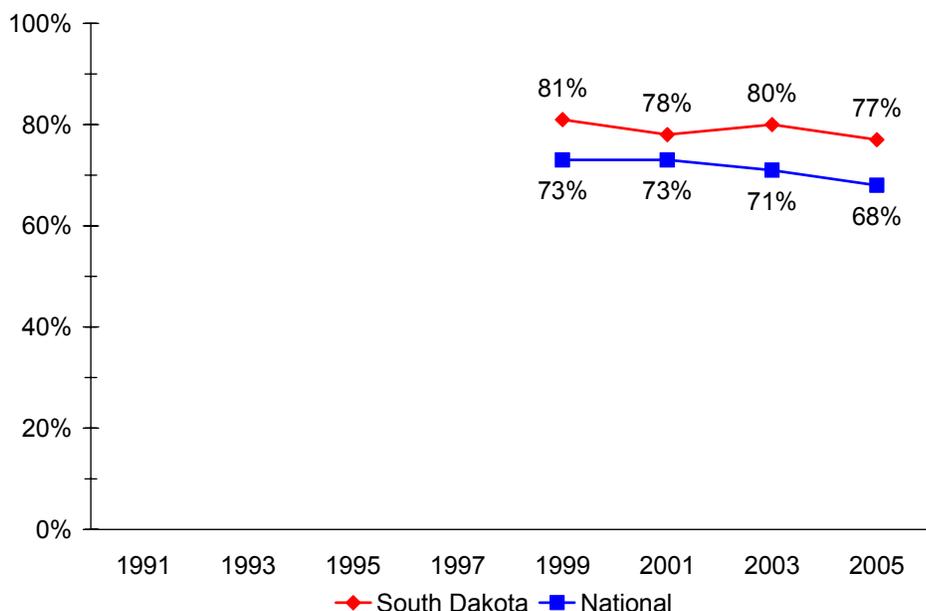
National Trends

There was no statistically significant change from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	No	No

Question 82

Percentage of students who ate potatoes one or more times during the past seven days



South Dakota Trends

There was no statistically significant change from 1999 to 2005.

National Trends

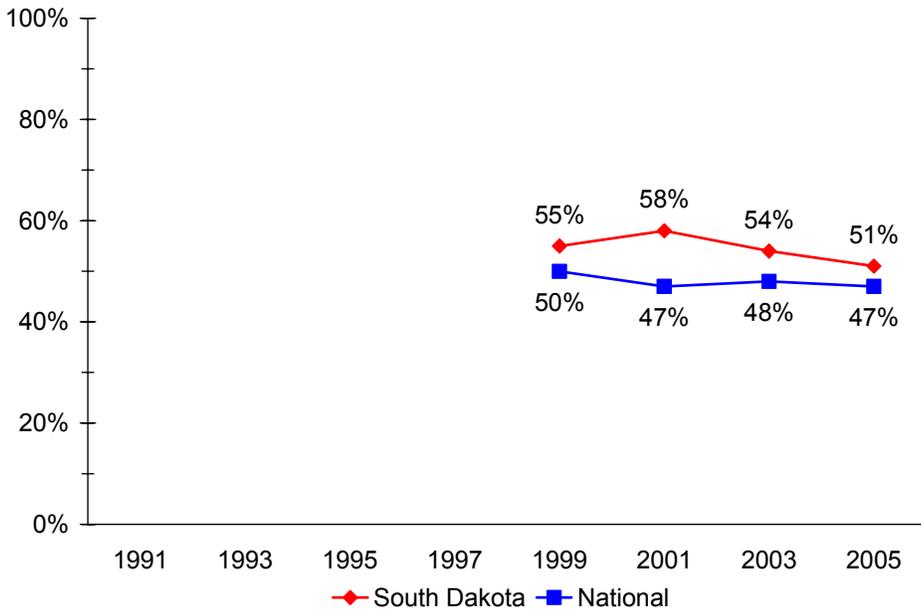
There was a decrease from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	Yes	No

Dietary Behaviors

Question 83

Percentage of students who ate carrots one or more times during the past seven days



South Dakota Trends

Overall, there was a decrease from 1999 to 2005. However, there was an increase from 1999 to 2001, and a decrease from 2001 to 2005.

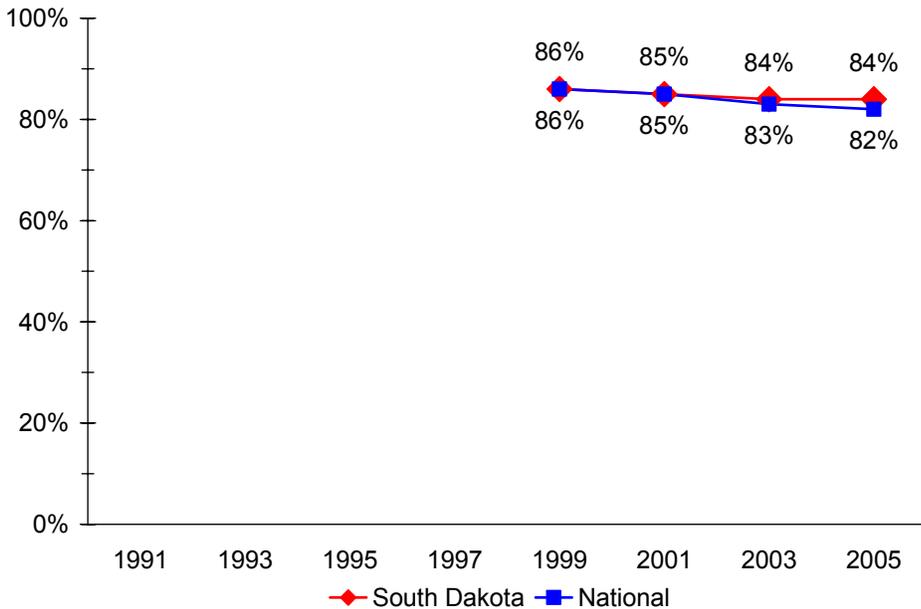
National Trends

There was no statistically significant change from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	Yes
National	No	No

Question 84

Percentage of students who ate other vegetables one or more times during the past seven days



South Dakota Trends

There was no statistically significant change from 1999 to 2005.

National Trends

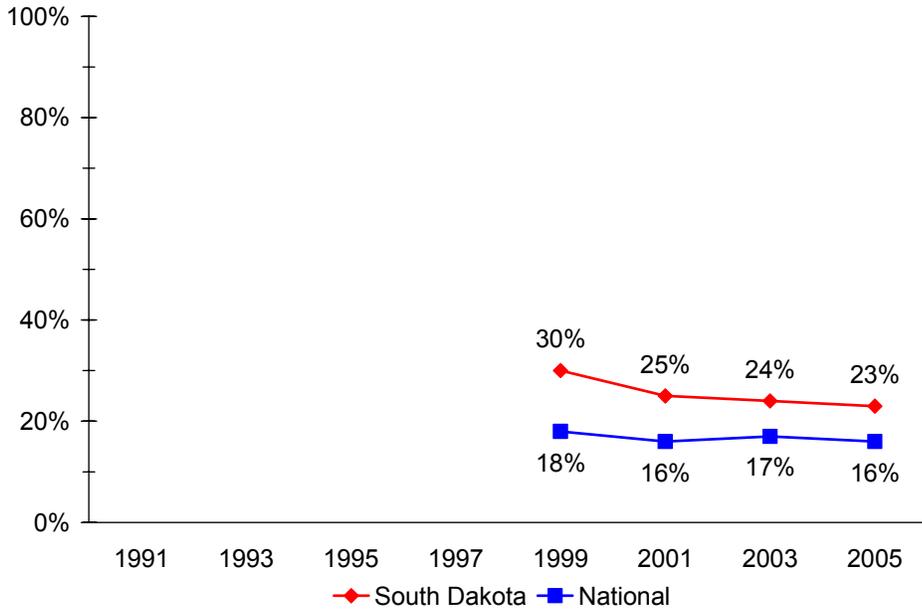
There was a decrease from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	Yes	No

Dietary Behaviors

Question 85

Percentage of students who drank three or more glasses of milk per day during the past seven days



South Dakota Trends

There was a decrease from 1999 to 2005.

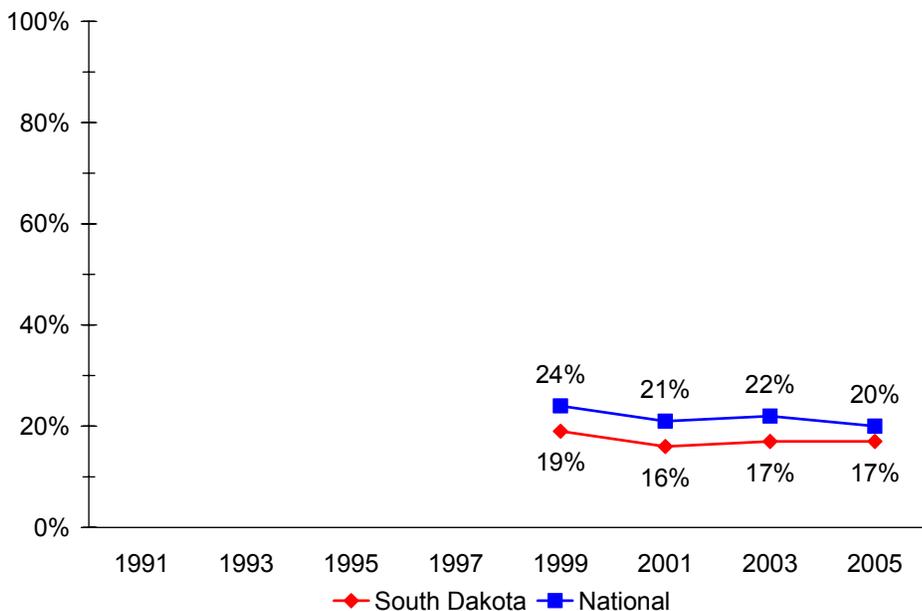
National Trends

There was no statistically significant change from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	No	No

Questions 79 to 84

Percentage of students who ate five or more servings of fruits and vegetables per day during the past 7 days



South Dakota Trends

There was no statistically significant change from 1999 to 2005.

National Trends

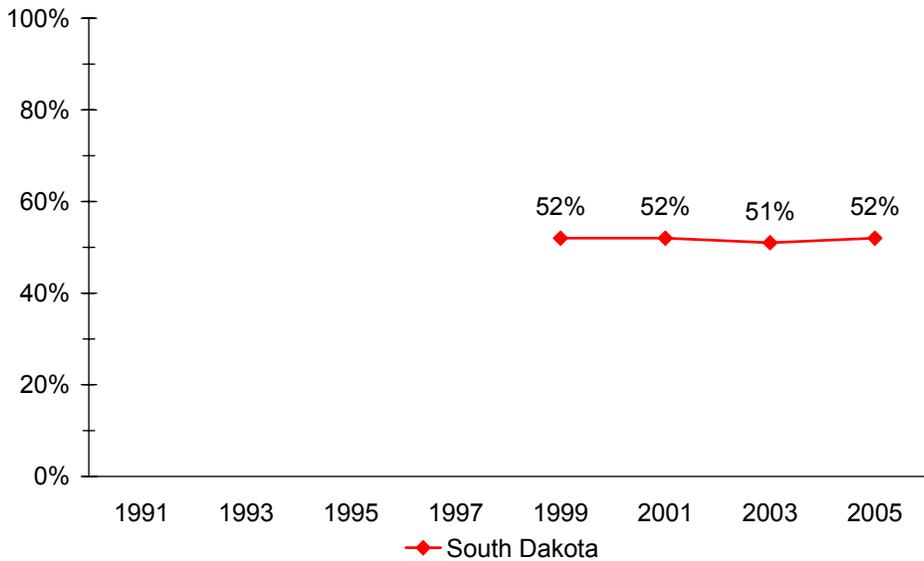
There was a decrease from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	Yes	No

Dietary Behaviors

Question 86

Percentage of students who ate breakfast four or more times during the past seven days



Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No

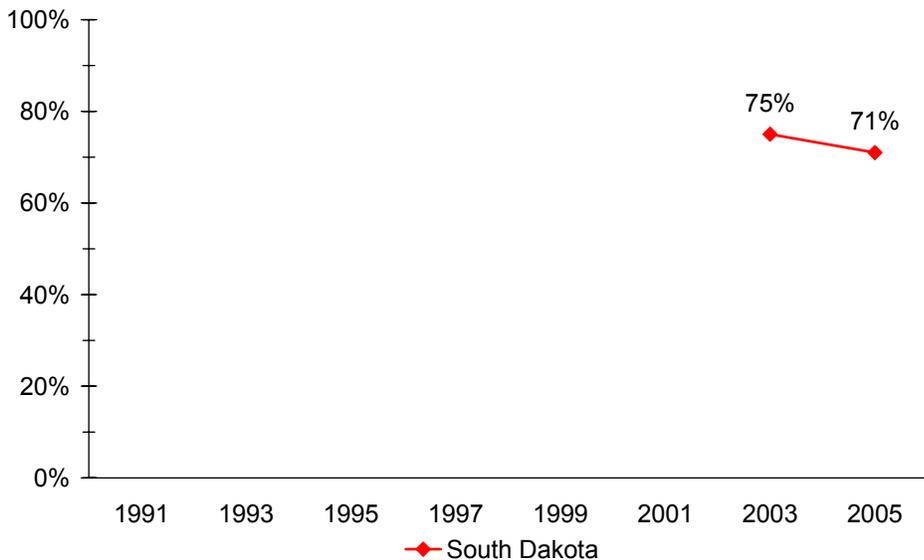
South Dakota Trends

There was no statistically significant change from 1999 to 2005.

This question was not included on the National YRBS questionnaire.

Question 87

Percentage of students who saw a dentist during the past 12 months for a check-up, exam, teeth cleaning, or other dental work



Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	N/A

South Dakota Trends

There was no statistically significant change from 2003 to 2005.

This question was not included on the National YRBS questionnaire.

Physical Activity

Questions:

88. On how many of the past 7 days did you exercise or participate in physical activity for at least 20 minutes that made you sweat and breathe hard, such as basketball, soccer, running, swimming laps, fast bicycling, fast dancing, or similar aerobic activity?
89. On how many of the past 7 days did you participate in physical activity for at least 30 minutes that did not make you sweat or breathe hard, such as fast walking, slow bicycling, skating, pushing a lawn mower, or mopping floors?
91. On an average school day, how many hours do you watch TV?
92. In an average week when you are in school, on how many days do you go to physical education (PE) classes?
93. During an average physical education (PE) class, how many minutes do you spend actually exercising or playing sports?
94. During the past 12 months, on how many sports teams did you play? (Include any teams run by your school or community groups.)
95. On an average school day, how many hours do you play video games or use a computer for fun? (Include activities such as Nintendo, Game Boy, Play Station, and computer games.)

Rationale:

These questions measure participation in physical activity, physical education classes, sports teams, television watching, and video game/computer use. Participation in regular physical activity helps build and maintain healthy bones and muscles, control weight, build lean muscle, and reduce fat; reduces feelings of depression and anxiety; and promotes psychological well-being.⁷² Over time, regular physical activity decreases the risk of dying prematurely, dying of heart disease, and developing diabetes, colon cancer, and high blood pressure.⁷² The 2005 Dietary Guidelines for Americans recommends that youth engage in at least 60 minutes of physical activity on most, preferably all, days of the week.⁶⁶ In 2005, 44% of male and 28% of female high school students nationwide had been physically active doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time for a total of at least 60 minutes/day on ≥ 5 of the 7 days preceding the survey.⁹ School physical education classes can increase adolescent participation in physical activity⁷³⁻⁷⁶ and help high school students develop the knowledge, attitudes, and skills they need to engage in lifelong physical activity.⁷⁷ In 2005, 54% of high school students nationwide went to physical education classes on one or more days in an average week when they were in school.⁹ Television viewing, computer usage, and video game playing are associated with physical inactivity among adolescents⁷⁸ and young adults.⁷⁹ Television viewing during childhood and adolescence is associated with being overweight.^{80,81} Among high school students nationwide in 2005, 37% watched television ≥ 3 hours/day on an average school day.

RELATED NATIONAL HEALTH OBJECTIVES FOR THE YEAR 2010

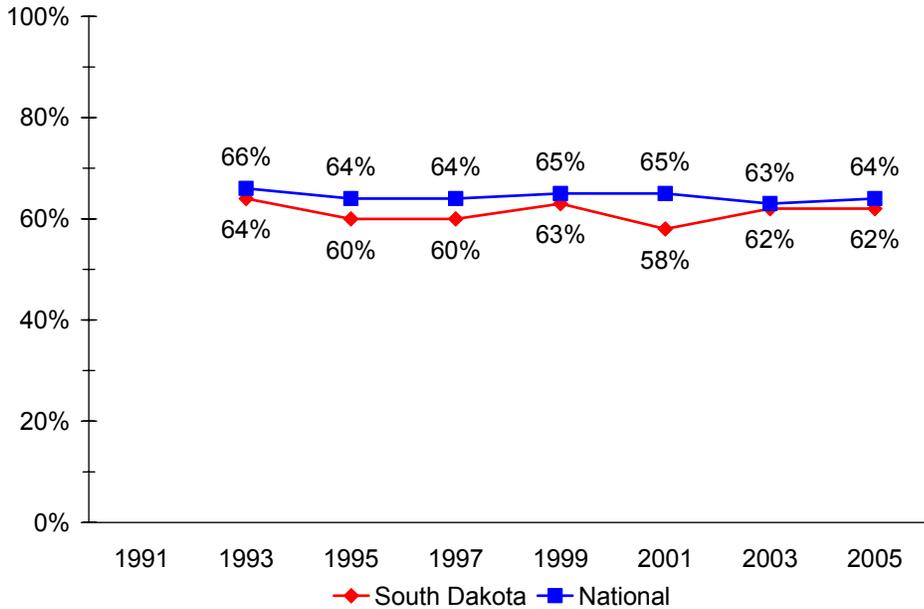
- 22-09 Increase the proportion of adolescents who participate in daily school physical education to 50%.¹²
- 22-10 Increase the proportion of adolescents who spend at least 50% of school physical education class time being physically active to 50%.¹²
- 22-11 Increase the proportion of adolescents who view television 2 or fewer hours on a school day to 75%.¹²

Results: The results for Questions 88, 89 and 91 to 95 are summarized on pages 63 to 67.

Physical Activity

Question 88

Percentage of students who exercised or participated in physical activity that made them sweat and breathe hard for 20 minutes or more on 3 or more of the past 7 days



South Dakota Trends

There was no statistically significant change from 1993 to 2005.

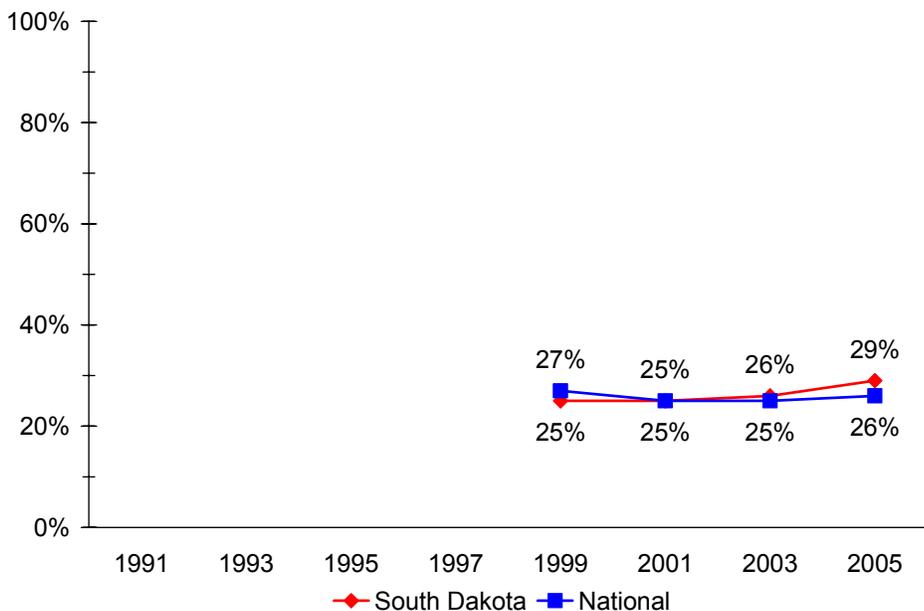
National Trends

There was no statistically significant change from 1993 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	No	No

Question 89

Percentage of students who participated in physical activity that did not make them sweat or breathe hard for 30 minutes or more on 5 or more of the past 7 days



South Dakota Trends

There was an increase from 1999 to 2005.

National Trends

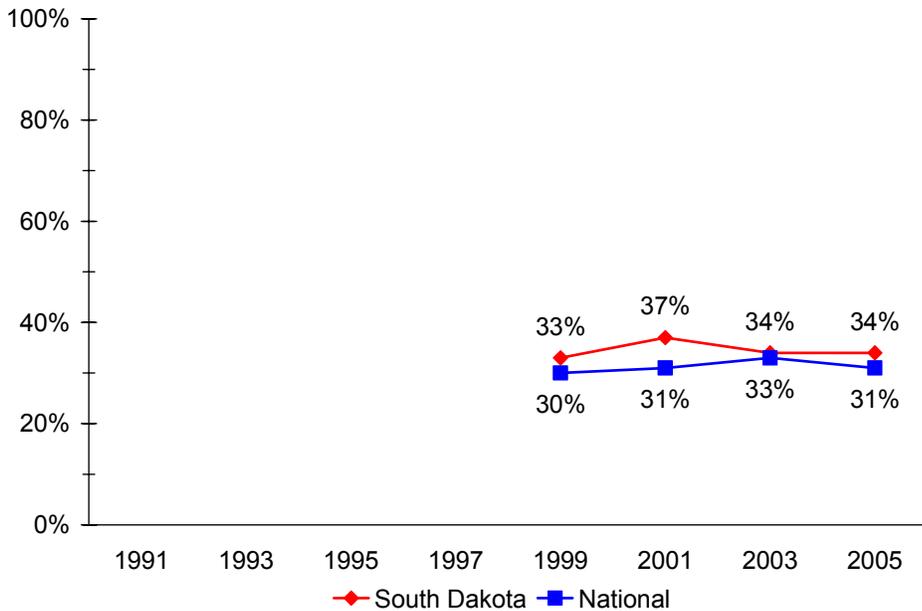
There was a decrease from 1999 to 2001, and no statistically significant change from 2001 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	No
National	No	Yes

Physical Activity

Questions 88 and 89

Percentage of students who had not participated in at least 20 minutes of vigorous physical activity on 3 or more of the past 7 days and had not participated in at least 30 minutes of moderate physical activity on 5 or more of the past 7 days



South Dakota Trends

There was no statistically significant change from 1999 to 2005.

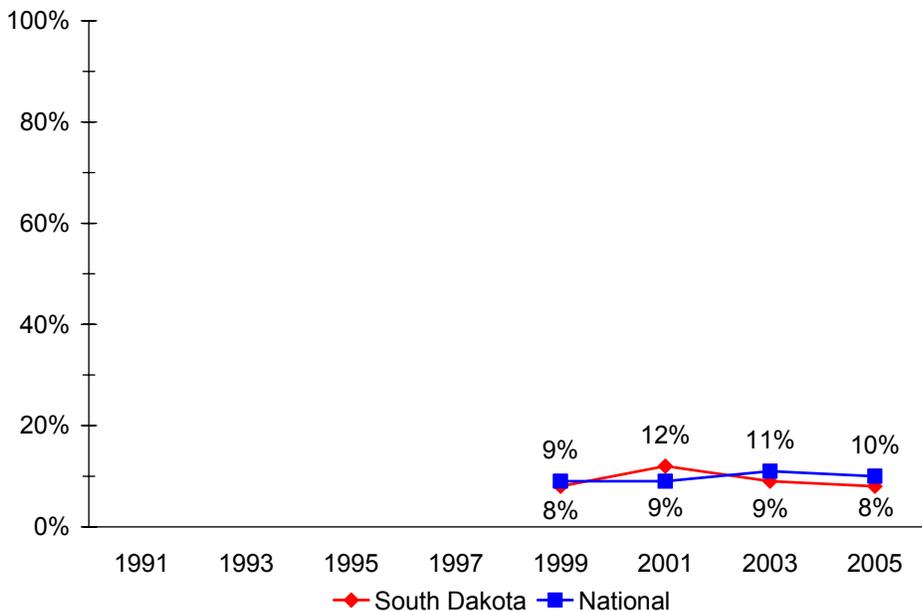
National Trends

There was no statistically significant change from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	No	No

Questions 88 and 89

Percentage of students who had not participated in any vigorous or moderate physical activity during the past 7 days



South Dakota Trends

There was an increase from 1999 to 2001, and a decrease from 2001 to 2005.

National Trends

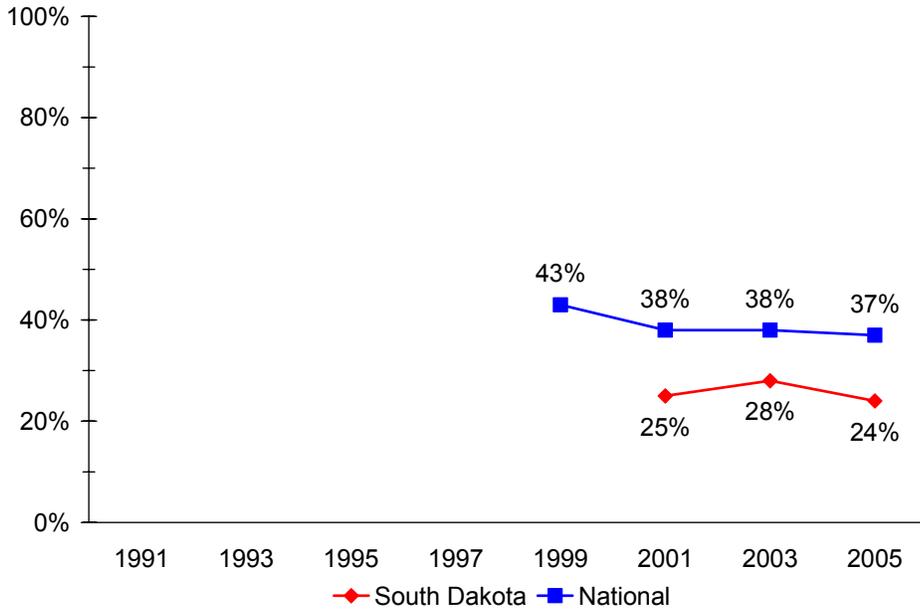
There was no statistically significant change from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	Yes
National	No	No

Physical Activity

Question 91

Percentage of students who during an average school day watched TV for 3 or more hours per day



South Dakota Trends

There was no statistically significant change from 2001 to 2005.

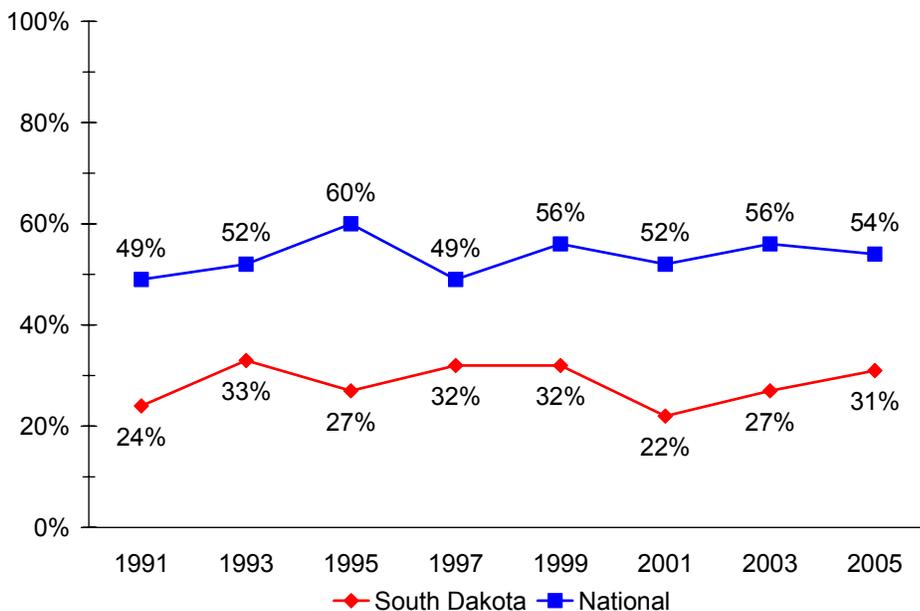
National Trends

There was a decrease from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	Yes	No

Question 92

Percentage of students who went to physical education class one or more days in an average school week



South Dakota Trends

There was no statistically significant change from 1991 to 2005.

National Trends

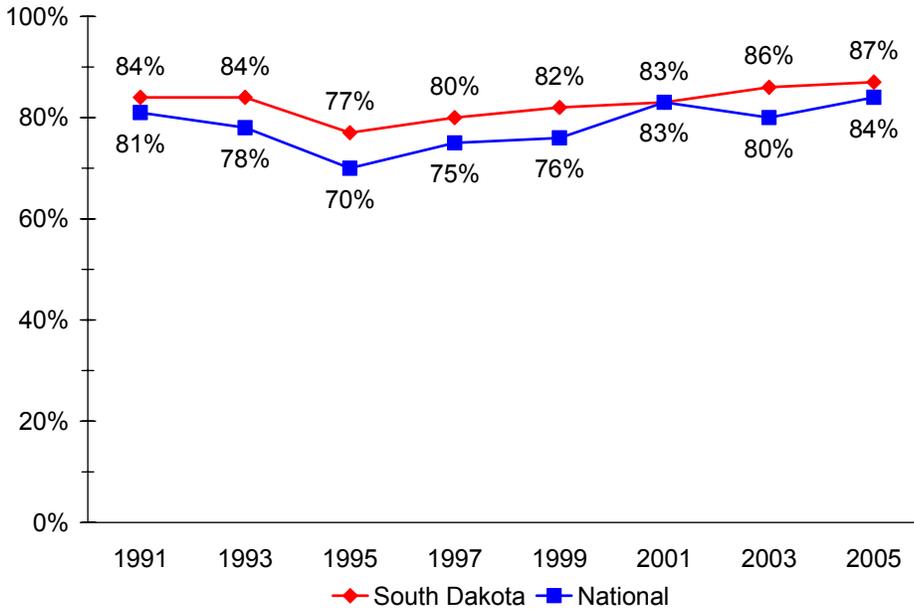
There was no statistically significant change from 1991 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	No	No

Physical Activity

Question 93

Of students enrolled in physical education class, the percentage who exercised or played sports more than 20 minutes during an average physical education class



South Dakota Trends

There was a decrease from 1991 to 1995, and an increase from 1995 to 2005.

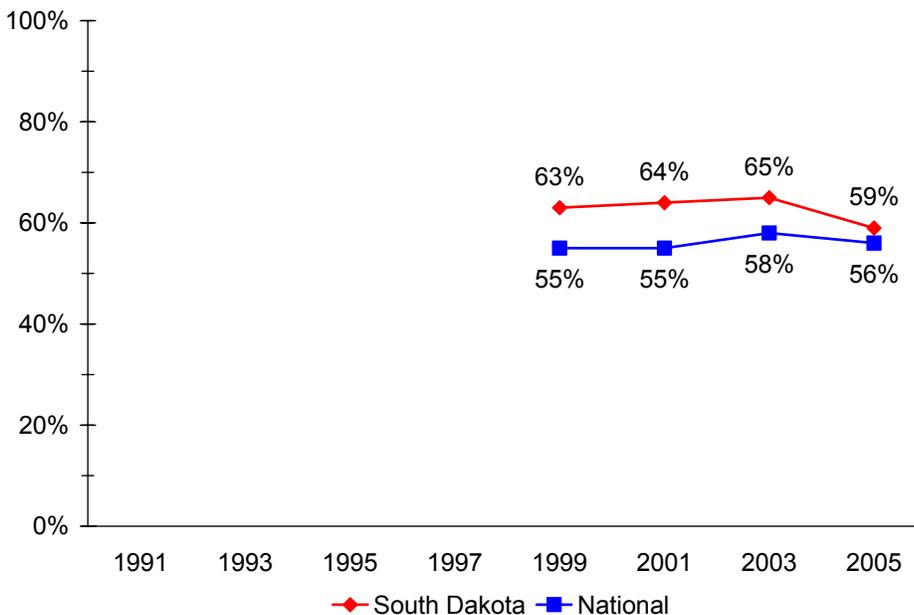
National Trends

Overall, there was an increase from 1991 to 2005. However, there was a decrease from 1991 to 1995, and an increase from 1995 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	Yes
National	Yes	Yes

Question 94

Percentage of students who played on one or more sports teams during the past 12 months



South Dakota Trends

There was no statistically significant change from 1999 to 2005.

National Trends

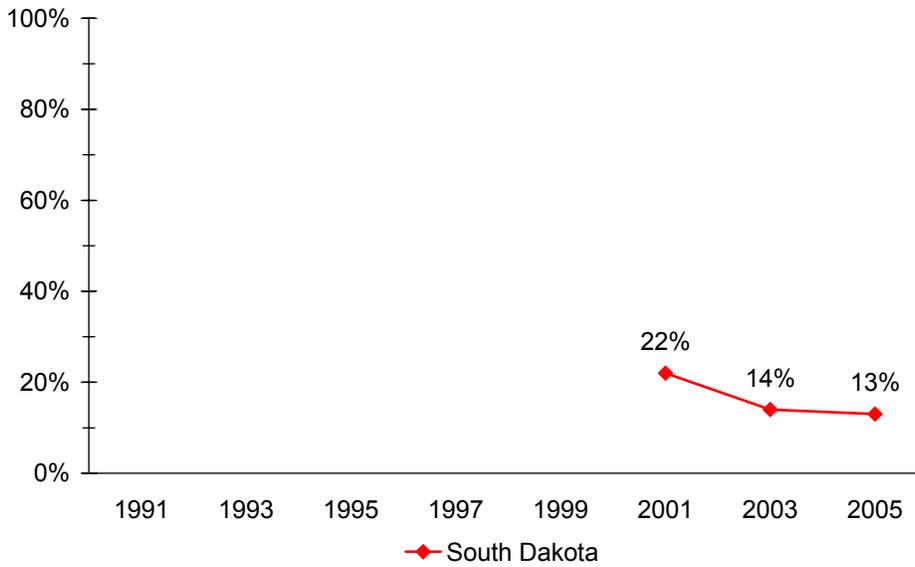
There was no statistically significant change from 1999 to 2005.

Trend Analysis	Linear Change	Quadratic Change
South Dakota	No	No
National	No	No

Physical Activity

Question 95

Percentage of students who played video games or used a computer for fun 3 or more hours on an average school day



Trend Analysis	Linear Change	Quadratic Change
South Dakota	Yes	Yes

South Dakota Trends

Overall, there was a decrease from 2001 to 2005. However, there was a decrease from 2001 to 2003, and no statistically significant change from 2003 to 2005.

This question was not included on the National YRBS questionnaire.

References

1. Centers for Disease Control and Prevention. Nonfatal sports- and recreation-related injuries treated in emergency departments - United States, July 2000-July 2001. *Morbidity and Mortality Weekly Report* 2002;51(33):736-740.
2. National Highway Traffic Safety Administration. Traffic Safety Facts, Laws: Bicycle Helmet Use Laws. National Highway Traffic Safety Administration Web site. Available at: <http://www.nhtsa.dot.gov/staticfiles/DOT/NHTSA/Rulemaking/Articles/Associated%20Files/02%20Bike%20Helmet%20Use.pdf>. Accessed June 5, 2006.
3. Centers for Disease Control and Prevention. Injury-control recommendations: Bicycle helmets. *Morbidity and Mortality Weekly Report* 1995;44(RR-1):1-17.
4. Sosin DM, Sacks JJ, Webb KW. Pediatric head injuries and deaths from bicycling in the United States. *Pediatrics* 1996;98:868-870.
5. Rivara FP. Traumatic deaths of children in the United States: currently available prevention strategies. *Pediatrics* 1985;75:456-462.
6. Thompson DC, Rivara FP, Thompson RS. Effectiveness of bicycle safety helmets in preventing head injuries: a case-control study. *Journal of the American Medical Association* 1996;276:1968-1973.
7. Thompson RS, Rivara FP, Thompson DC. A case-control study of the effectiveness of bicycle safety helmets. *New England Journal of Medicine* 1989;320:1361-1367.
8. Thompson DC, Nunn MW, Thompson RS, Rivara FP. Effectiveness of bicycle safety helmets in preventing serious facial injury. *Journal of the American Medical Association* 1996;276:1974-1975.
9. Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance—United States, 2005. *Morbidity and Mortality Weekly Report* 2006;55(SS-5):1-108.
10. Web-based Injury Statistics Query and Reporting System (WISQARS) [database online]. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention; 2006. Updated March 30, 2006.
11. National Highway Traffic Safety Administration. Traffic Safety Facts 2004: Occupant protection. National Highway Traffic Safety Administration Web site. Available at: <http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSF2004/809909.pdf>. Accessed June 5, 2006.
12. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. Washington D.C., Government Printing Office, 2004.
13. National Highway Traffic Safety Administration. Traffic Safety Facts 2004: A Compilation of motor vehicle crash data from the Fatality Analysis Reporting System and the General Estimates System. National Highway Traffic Safety Administration Web site. Available at: <http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSFAnn/TSF2004.pdf>. Accessed June 5, 2006.
14. Centers for Disease Control and Prevention. Child Passenger Deaths Involving Drinking Drivers, 1997-2002. *Morbidity and Mortality Weekly Report* 2004; 53(04):77-79.
15. Department of Justice. Crime in the United States, 2004. Uniform Crime Reports. Federal Bureau of Investigation Web site. Available at: http://www.fbi.gov/ucr/cius_04/. Accessed June 5, 2006.
16. Cook PJ, Ludwig J. The costs of gun violence against children. *Future of Children* 2002; 12(2):87-99.

17. Anderson M, Kaufman J, Simon TR, et al. School-associated violent deaths in the United States, 1994-1999. *Journal of the American Medical Association* 2001; 286:2695-2702.
18. Kolbe LJ, Kann L, Brener ND. School Health Policies and Programs Study: A summary report. *Journal of School Health* 2001;71:253-259.
19. DeVoe JF, Peter K, Kaufman P, et al. Indicators of School Crime and Safety: 2005. NCES 2006-001/NCJ 210697. Washington, D.C., U.S. Departments of Education and Justice, 2006.
20. Sosin DM, Koepsell TD, Rivara FP, Mercy JA. Fighting as a marker for multiple problem behaviors in adolescents. *Journal of Adolescent Health* 1995;16:209-215.
21. Borowsky IW, Ireland M. Predictors of future fight-related injury among adolescents. *Pediatrics* 2004;113:530-536.
22. Pickett W, Craig W, Harel Y, et al. Cross-national study of fighting and weapon carrying as determinants of adolescent injury. *Pediatrics* 2005;116:855-863.
23. Roberts TA, Klein J, Fisher S. Longitudinal effect of intimate partner abuse and high-risk behavior among adolescents. *Archives of Pediatrics & Adolescent Medicine* 2003; 157:875-881.
24. Ackard DM, Neumark-Sztainer D. Date violence and date rape among adolescents: associations with disordered eating behaviors and psychological health. *Child Abuse & Neglect* 2002;26:455-473.
25. Howard DE, Wang MQ. Psychosocial correlates of U.S. adolescents who report a history of forced sexual intercourse. *Journal of Adolescent Health* 2005;36:372-379.
26. U.S. Department of Health and Human Services. The Health Consequences of Smoking: A Report of the Surgeon General. U.S. Department of Health and Human Services; Centers for Disease Control and Prevention; National Center for Chronic Disease Prevention and Health Promotion; Office on Smoking and Health, 2004.
27. Centers for Disease Control and Prevention. Annual smoking-attributable mortality, years of potential life lost, and productivity losses—United States, 1997–2001. *Morbidity and Mortality Weekly Report* 2002;54:625–8.
28. Everett SA, Malarcher AM, Sharp DJ, Husten CG, Giovino GA. Relationship between cigarette, smokeless tobacco, and cigar use, and other health risk behaviors among U.S. high school students. *Journal of School Health* 2000;70:234-240.
29. Substance Abuse and Mental Health Services Administration. Results from the 2004 National Survey on Drug Use and Health: National Findings. (Office of Applied Studies, NSDUH Series H-28, DHHS Publication No. SMA 05-4062). Rockville, MD, 2005.
30. Hahn EJ, Rayens MK, Chaloupka FJ, Okoli CTC, Yang J. Projected smoking-related deaths among U.S. youth: A 2000 update. *ImpacTeen. Research Paper Series* 2002;22.
31. Small MI, Jones SE, Barrios LC, Crossett LS, Dahlberg LL, Albuquerque MS et al. School policy and environment: Results from the School Health Policies and Programs Study 2000. *Journal of School Health* 2001;71:325-334.
32. Oral Cancer: Deadly to Ignore. Fact Sheet on Oral Cancer. 2002; Centers for Disease Control and Prevention Web site. Available at: <http://www.cdc.gov/OralHealth/factsheets/oc-facts.htm>. Accessed May 22, 2006.
33. U.S. Department of Health and Human Services. Preventing Tobacco Use Among Young People: A Report of the Surgeon General. Washington, D.C., U.S. Government Printing Office, 2004.

34. Johnson GK, Slach NA. Impact of Tobacco Use on Periodontal Status. *Journal of Dental Education* 2001;65:313-321.
35. Henley SJ, Thun MJ, Connell C, Calle EE. Two large prospective studies of mortality among men who use snuff or chewing tobacco (United States). *Cancer Causes and Control* 2005;16:347-358.
36. U.S. Department of Health and Human Services. Oral Health in America: A Report of the Surgeon General. Rockville, MD, U.S. Department of Health and Human Services, National Institute for Dental and Craniofacial Research, National Institutes of Health, 2000.
37. U.S. Department of Health and Human Services. Smoking and Tobacco Control Monograph No. 9: Cigars - Health Effects and Trends. No. 98-4302:217, 1998.
38. Shaper AG, Wannamethee SG, Walker M. Pipe and cigar smoking and major cardiovascular events, cancer incidence and all-cause mortality in middle-age British men. *International Journal of Epidemiology* 2003;32:802-808.
39. Dunn MS, Bartee RT, Perko MA. Self-reported alcohol use and sexual behaviors of adolescents. *Psychological Reports* 2003;92:339-348.
40. Everett SA, Oeltmann J, Wilson TW, Brener ND, Hill CV. Binge drinking among undergraduate college students in the United States: Implications for other substance use. *Journal of American College Health* 2001;50:33-38.
41. Johnson P, Boles SM, Vaughan R, Herbert D. The co-occurrence of smoking and binge drinking in adolescence. *Addictive Behaviors* 2000;25:779-783.
42. Klepp KI, Schmid LA, Murray DM. Effects of the increased minimum drinking age law on drinking and driving behavior among adolescents. *Addiction Research* 1996;4:237-244.
43. Substance Abuse and Mental Health Services Administration. Results from the 2004 National Survey on Drug Use and Health: National Findings. (Office of Applied Studies, NSDUH Series H-28, DHHS Publication No. SMA 05-4062). Rockville, MD, 2005.
44. Substance Abuse and Mental Health Services Administration. Youth violence and illicit drug use. The NSDUH Report 2006;5:1-4. Available at: <http://oas.samhsa.gov/youth.htm>. Accessed June 5, 2006.
45. Substance Abuse and Mental Health Services Administration. Marijuana use and delinquent behaviors among youths. The NSDUH Report January 9, 2004. Available at: <http://oas.samhsa.gov/youth.htm>. Accessed June 5, 2006.
46. Substance Abuse and Mental Health Services Administration. Inhalant use and delinquent behaviors among young adolescents. The NSDUH Report March 17, 2005. Available at: <http://oas.samhsa.gov/youth.htm>. Accessed June 5, 2006.
47. Substance Abuse and Mental Health Services Administration. Substance use and the risk of suicide among youths. The NHSDA Report July 12, 2002. Available at: <http://oas.samhsa.gov/youth.htm>. Accessed June 5, 2006.
48. Shrier LA, Emans SJ, Woods ER, DuRant RH. The association of sexual risk behaviors and problem drug behaviors in high school students. *Journal of Adolescent Health* 1996, 20:377-383.
49. Smith CA (1997). Factors associated with early sexual activity among urban adolescents. *Social Work* 1997;42:334-346.
50. Manning WD, Longmore MA, Giordano PC. The relationship context of contraceptive use at first intercourse. *Family Planning Perspectives* 2000;32(3):104-110.

51. Manlove J, Terry E, Gitelson L, Papillo AR, Russell S. Explaining demographic trends in teenage fertility, 1980–1995. *Family Planning Perspectives* 2000;32(4):166–175.
52. Thornberry TP, Smith CA, Howard GJ. Risk factors for teenage fatherhood. *Journal of Marriage & the Family* 1997;59:505–522.
53. Weinstock H, Berman S, Cates W. Sexually transmitted disease among American youth: Incidence and prevalence estimates, 2000. *Perspect Sex Reprod Health* 2004;36(1):6–10.
54. Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2004. September 2005; Atlanta, GA: U.S. Department of Health and Human Services. Available at: <http://www.cdc.gov/std/stats/default.htm>. Accessed June 9, 2006.
55. CDC. HIV/AIDS Surveillance Report, 2004. Vol. 16. Atlanta: US Department of Health and Human Services, Centers for Disease Control and Prevention; 2005. Also available at: <http://www.cdc.gov/hiv/stats/hasrlink.htm>.
56. Kann L, Brener ND, Allensworth DD. Health Education: Results from the School Health Policies and Programs Study 2000. *Journal of School Health* 2001;71(7):266-278.
57. Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System Survey Questionnaire. 2005. Atlanta, GA, U.S. Department of Health and Human Services; Centers for Disease Control and Prevention. Available at: <http://www.cdc.gov/brfss/questionnaires/english.htm>.
58. Key T, Schatzkin A, Willet WC, Allen NE, Spencer EA, Travis RC. Diet, nutrition, and the prevention of cancer. *Public Health Nutrition* 2004;7(1A):187-200.
59. National Cancer Institute. 5 A Day for Better Health Program. 2001; NIH Publication 01-5019.
60. Terry P, Terry JB, Wolk A. Fruit and vegetable consumption in the prevention of cancer: An update. *Journal of Internal Medicine* 2001;250(4):280-290.
61. Bazzano LA, He J, Ogden LG, Loria CM, Vupputuri S, Myers L, Whelton PK. Fruit and vegetable intake and risk of cardiovascular disease in US adults: the first National Health and Nutrition Examination Survey Epidemiologic Follow-up Study. *American Journal of Clinical Nutrition* 2002;76(1):93-99.
62. He FJ, Nowson CA, MacGregor GA. Fruit and vegetable consumption and stroke: meta-analysis of cohort studies. *Lancet* 2006;367(9507):320-326.
63. Rolls BJ, Ello-Martin JA, Tohill BC. What can intervention studies tell us about the relationship between fruit and vegetable consumption and weight management. *Nutrition Reviews* 2004;62(1):1-17.
64. He K, Hu FB, Colditz GA, Manson JE, Willett WC, Liu S. Changes in intake of fruits and vegetables in relation to risk of obesity and weight gain among middle-aged women. *International Journal of Obesity* 2004;28:1569-1574.
65. Goss J, Grubbs L. Comparative analysis of body mass index, consumption of fruits and vegetables, smoking, and physical activity among Florida residents. *Journal of Community Health Nursing* 2005;22(1):37-46.
66. US Department of Health and Human Services and US Department of Agriculture: Dietary Guidelines for Americans 2005. Washington, DC, 2005. Available at <http://www.healthierus.gov/dietaryguidelines/>. Accessed June 9, 2006.
67. Forshee RA, Anderson PA, Storey ML. Changes in calcium intake and association with beverage consumption and demographics: Comparing data from CSFII 1994-1996, 1998 and NHANES 1999-2002. *Journal of the American College of Nutrition* 2006;25(20):108-116.

68. NIH Consensus Development on Optimal Calcium Intake. Optimal calcium intake. *Journal of the American Medical Association* 1994;272:1942-1948.
69. Institute of Medicine, Food and Nutrition Board. *Dietary Reference Intakes for Calcium, Phosphorus, Magnesium, Vitamin D, and Fluoride*. Washington, DC: National Academy Press; 1997
70. Nielsen SJ, Popkin BS. Changes in beverage intake between 1977 and 2001. *American Journal of Preventive Medicine*;2004;27(3):205-210.
71. Ludwig DS, Peterson KE, Gortmaker SL. Relation between consumption of sugar-sweetened drinks and childhood obesity: A prospective, observational analysis. *Lancet* 2001;357:505-508.
72. U.S. Department of Health and Human Services. *Physical Activity and Health: A Report of the Surgeon General*. Atlanta, GA, Centers for Disease Control and Prevention; National Center for Chronic Disease Prevention and Health Promotion, 1996
73. McKenzie TL, Nader PR, Strikemiller PK, et al. School physical education: Effect of the Child and Adolescent Trial for Cardiovascular Health. *Preventive Medicine* 1996;25:423-431.
74. McKenzie TL, Li DL, Derby CA, Webber LS, Luepker RV, Cribb P. Maintenance of effects of the CATCH Physical Education Program: Results from the CATCH-ON Study. *Health Education & Behavior* 2003;30:447-462.
75. Sallis J, McKeziem TL, Alcaraz J, Kolody B, Faucette N, Hovell M. The effects of a 2-year physical education program (SPARK) on physical activity and fitness in elementary school students. *American Journal of Public Health* 1997;87:1328-1334.
76. McKenzie TL, Sallis JF, Prochaska JJ, Conway TL, Marshall SJ, Rosengard P. Evaluation of a two-year middle-school physical education intervention: M-SPAN. *Medicine & Science in Sports & Exercise* 2004;36:1382-1388.
77. Centers for Disease Control and Prevention. Guidelines for school and community programs to promote lifelong physical activity among young people. *Morbidity and Mortality Weekly Report* 1997;46(RR-6):1-36.
78. Gordon-Larson P, Adair LS, Popkin BM. Ethnic differences in physical activity and inactivity patterns and overweight status. *Obesity Research* 2002;10(3):141-149.
79. Fotheringham MJ, Wonnacott RL, Owen N. Computer use and physical inactivity in young adults: public health perils and potentials of new information technologies. *Annals of Behavioral Medicine* 2000;22:269-275.
80. Crespo CJ, Smith E, Troian RP, Bartlett SJ, Macera CA, Anderson RE. Television watching, energy intake, and obesity in US children. *Archives of Pediatric and Adolescent Medicine* 2001; 155:360-365.
81. Kaur H, Choi WS, Mayo MS, Harris KJ. Duration of television watching is associated with increased body mass index. *Journal of Pediatrics* 2003;143(4):506-511.
82. Brener ND, McManus T, Galuska DA, Lowry R, Wechsler H. Reliability and validity of self-reported height and weight among high school students. *Journal of Adolescent Health* 2003; 32:281-287.
83. Goodman E, Hinden BR. Accuracy of teen and parental reports of obesity and body mass index. *Pediatrics* 2000;106:52-58.
84. Galuska DA, Serdula M, Pamuk E, Siegel PZ, Byers T. Trends in overweight among US adults from 1987 to 1993: a multistate telephone survey. *American Journal of Public Health* 1996;86:1729-1735.

85. CDC. Update: Prevalence of overweight among children, adolescents, and adults – United States, 1988-1994. *Morbidity and Mortality Weekly Report* 1997;46(9):199-202.
86. Ogden CL, Carroll MD, Curtin LR, McDowell MA, Tabak CJ, Flegal KM. Prevalence of overweight and obesity in the United States, 1999-2004. *Journal of the American Medical Association* 2005;295:1549-1555.
87. National Center for Health Statistics. Prevalence of overweight and obesity among children and adolescents: United States, 2003-2004. NCHS Health E-Stats. Available at: http://www.cdc.gov/nchs/products/pubs/pubd/hestats/obese03_04/overwght_child_03.htm. Accessed June 9, 2006.
88. Freedman DS, Khan, LK, Serdula MK, Dietz WH, Srinivasan SR, Berenson GS. The relation of childhood BMI to adult adiposity: The Bogalusa Heart Study. *Pediatrics* 2005; 115(1):22-27.
89. Sandhu J, Ben-Shlomo Y, Cole TJ, Holly J, Smith GD. The impact of childhood body mass index on timing of puberty, adult stature and obesity: a follow-up study based on adolescent anthropometry recorded at Christ's Hospital (1936-1964). *International Journal of Obesity* 2006;30:14-22.
90. Guo SS, Wu W, Cameron W, Roche AF. Predicting overweight and obesity in adulthood from body mass index values in childhood and adolescence. *American Journal of Clinical Nutrition* 2002;76:653-658.
91. Daniels SR, Arnett DK, Eckel RH, et. al. Overweight in children and adolescents: Pathophysiology, consequences, prevention, and treatment. *Circulation* 2005;111:1999-2012.
92. Neumark-Sztainer D, Hannan PJ. Weight-related behaviors among adolescent girls and boys. *Archives of Pediatric and Adolescent Medicine* 2000;154:569-577.
93. Neumark-Sztainer D, Story M, Hannan PJ, Perry CL, Irving LM. Weight-related concerns and behaviors among overweight and nonoverweight adolescents: Implications for preventing weight-related disorders. *Archives of Pediatric and Adolescent Medicine* 2002;156(2):1-21.
94. Becker AE, Grinspoon SK, Klibanski A, Herzog DB. Eating disorders. *The New England Journal of Medicine* 1999;340:1092-1098.
95. Dey AN, Bloom B. Summary health statistics for U.S. children: National Health Interview Survey, 2003. *Vital Health Statistics* 2005;10(223).
96. CDC. Asthma prevalence, health care use, and mortality, 2002. Hyattsville, MD: US Department of Health and Human Services, CDC, National Center for Health Statistics; 2004. Available at: <http://www.cdc.gov/nchs/products/pubs/pubd/hestats/asthma/asthma.htm>. Accessed June 9, 2006.
97. CDC, NCHS. Public use data file and documentation: Multiple cause of death for ICD-10 2003 data [CD-ROM]. 2006.
98. Ventura SJ, Abma JC, Mosher WD, Henshaw S. Estimated pregnancy rates for the United States, 1990-2000: An update. *Natl Vital Stat Rep* 2004;52(23):1-10.

RESOURCES

**South Dakota Department of Education
Office of Educational Services and Support
700 Governors Drive
Pierre, SD 57501-2291
Phone: (605) 773-3261
Fax: (605) 773-3782
<http://doe.sd.gov/oess/>**

Programs

Coordinated School Health
(605) 773-3261
<http://doe.sd.gov/oess/schoolhealth/index.asp>

Comprehensive School Health Education
(605) 773-6808
<http://doe.sd.gov/oess/schoolhealth/8components/healthed.asp>

HIV/AIDS Prevention Education
(605) 773-6898
<http://doe.sd.gov/oess/schoolhealth/HIVprevention/index.asp>

Child and Adult Nutrition Services
(605) 773-3413
<http://doe.sd.gov/oess/cans/index.asp>

Training

Training is offered in a variety of areas within the scope of the Coordinated School Health Program. Some of the training that is available includes but is not limited to:

Coordinated School Health Approach – the 8 component model

Health Education Standards and Assessment Training

Special topics may be covered upon request with emphasis on tobacco prevention, nutrition, physical activity, universal precautions and HIV/AIDS and teen pregnancy prevention within the context of comprehensive school health education. For a list of current training events, visit

<http://doe.sd.gov/oess/schoolhealth/training/index.asp>

Resources

South Dakota Health Education Standards – Guidelines for Achieving Health Literacy - approved January 2000

<http://doe.sd.gov/contentstandards/health/index.asp>

South Dakota Physical Education Standards – approved January 2000

<http://doe.sd.gov/contentstandards/pe/index.asp>

South Dakota Youth Risk Behavior Survey Trend Data 1991-2001

Compares South Dakota and national YRBS results

<http://doe.sd.gov/oess/schoolhealth/HIVprevention/docs/YouthRiskManual.pdf>

2006 South Dakota School Health Profiles

Assesses status of health education, physical education and health policy in SD schools

<http://doe.sd.gov/oess/schoolhealth/docs/FINAL%202006%20School%20Health%20Profile.pdf>

Centers for Disease Control (CDC) Division of Adolescent School Health

<http://www.cdc.gov/HealthyYouth/about/healthyyouth.htm>

South Dakota Schools Walk campaign

Encourages school staff, students and parents to walk

<http://doe.sd.gov/oess/schoolhealth/sdwalks/>

VERB

CDC's youth media campaign to encourage physical activity

<http://www.cdc.gov/youthcampaign/index.htm>

School Health Index: A Self-Assessment and Planning Guide

The School Health Index is a self-assessment and planning tool that schools can use to improve their health and safety policies and programs. It's easy to use and completely confidential.

<http://apps.nccd.cdc.gov/shi/default.aspx>

Fit, Healthy, and Ready to Learn: A School Health Policy Guide

Policy guide which is organized around sample policies that reflect best practice, which can be adapted to fit local circumstances

<http://www.nasbe.org/HealthySchools/fitthealthy.html>

**South Dakota Department of Human Services
Division of Alcohol & Drug Abuse
East Highway 34 c/o 500 East Capitol Avenue
Pierre, SD 57501-5070
Phone: (605) 773-3123
Fax: (605) 773-7076
<http://dhs.sd.gov/>**

Regional Prevention Resource Centers (PRCs)

Northeastern Prevention Resource Center
PO Box 1030
123 19th Street NE
Watertown, SD 57201-6030
Phone: (605) 886-0123
dodih@humanserviceagency.org

Southeastern Prevention Resource Center
PO Box 89306
1309 West 51st Street
Sioux Falls, SD 57109
Phone: (605) 335-6474
seprc@voa-dakotas.org

Western Prevention Resource Center
202 East Adams Street
PO Box 2813
Rapid City, SD 57709-2813
(605) 342-1593
beilers@youthandfamilyservices.org

Northwestern Prevention Resource Center
Three Rivers
PO Box 447
11 East 4th Street
Lemmon, SD 57638
Phone: (605) 374-3862
threerivers@sdplains.com

Prevention Resource Center Training

Trainings and technical assistance are available to schools, parent and community groups. Numerous curriculum trainings are available, for example, Natural Helpers, LifeSkills Training and Bullying Prevention. Please contact your regional PRC for further information/requests.

School-based Prevention Programs

Prairie View Prevention – Eastern SD
822 # 41st St Ste 235
Sioux Falls, SD 57105
Phone : (605) 331-5724
pvps@dtgnet.com

Lifeways, Inc. – Western SD
1010 9th Street, Suite 2
Rapid City, SD 57701
Phone: (605) 716-6555
paulalifeways@rushmore.com

**South Dakota Department of Health
Office of Health Promotion – Office of Family Health –
Office of Disease Prevention
615 East 4th Street, Pierre, SD 57501-1700
Phone (605) 773-3737 Fax: (605) 773-5683
<http://doh.sd.gov/>**

Programs

Coordinated School Health
<http://doh.sd.gov/SchoolHealth.aspx>

Family Planning/Pregnancy Prevention
<http://doh.sd.gov/FamilyHealth/FamilyPlanning.aspx>

Abstinence Education Program
<http://doh.sd.gov/Abstinence/default.aspx>

Diabetes Prevention and Control Program
(605) 773-3737
<http://diabetes.sd.gov/>

Oral Health
(605) 773-7150
<http://doh.sd.gov/OralHealth/Default.aspx>

Tobacco Control and Prevention
<http://doh.sd.gov/Tobacco/Default.aspx>

Disease Prevention
(800) 592-1861
<http://doh.sd.gov/Disease/default.aspx>

Healthy South Dakota
<http://www.healthysd.gov/>

Resources

Youth Tobacco Survey

<http://doh.sd.gov/Tobacco/Default.aspx>

School Height and Weight Report

<http://doh.sd.gov/SchoolWeight/default.aspx>

Vital Statistics

<http://doh.sd.gov/VitalRecords/default.aspx>

Behavioral Risk Factor Surveillance

<http://doh.sd.gov/Statistics/default.aspx>

Motor Vehicle Crash Statistics

<http://www.state.sd.us/dps/AccidentRecords/stats.htm>

This publication was supported by Cooperative Agreement number U87/CCU822626-05 from the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not represent official views of the Centers for Disease Control and Prevention.