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# Tobacco Use

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## CIGARETTE SMOKING

*Definition: Respondents who report having smoked at least 100 cigarettes in their lifetime and now smoke every day or smoke some days.*

### Prevalence of Current Cigarette Smoking

- South Dakota 20.3%
- Nationwide median 20.1%

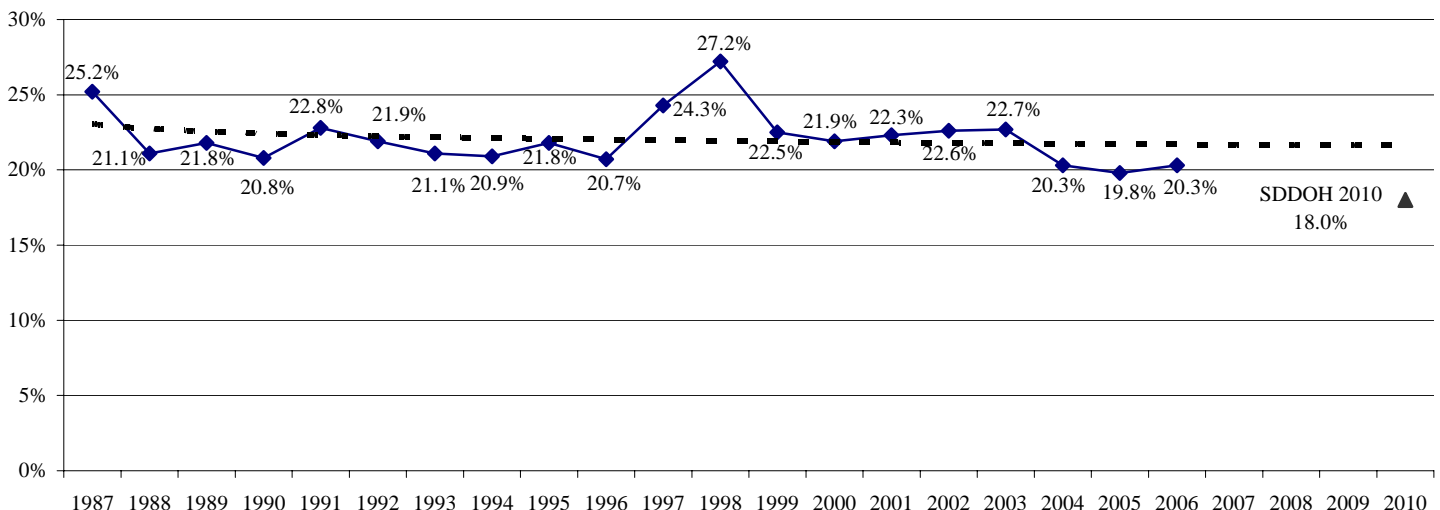
### South Dakota Department of Health 2010 Initiative

*Reduce the percent of adults who smoke cigarettes to 18 percent.*

### Trend Analysis

This question was first asked in 1987 and hit its peak in 1998 with 27.2 percent and its low in 2005 with 19.8 percent of the respondents stating that they currently smoke. South Dakota has not yet met the *South Dakota Department of Health 2010 Initiative* of 18 percent.

**Figure 8**  
**Percent of Respondents Who Currently Smoke Cigarettes, 1987-2006**



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 1987-2006

### Demographics

**Gender** There is no significant gender difference shown by the available data or for any demographic group between the two.

**Age** The prevalence of cigarette smoking generally decreases as age increases. This includes significant decreases when the 55-64, 65-74, and 75 and older age groups are reached.

**Race** American Indians demonstrate a significantly higher prevalence of cigarette smoking than whites.

- Region** The American Indian counties region exhibits a significantly higher prevalence of cigarette smoking than the other four regions.
- Household Income** Cigarette smoking generally decreases as household income increases. This includes a significant decrease as the \$75,000 or more group is reached.
- Education** The prevalence of cigarette smoking generally decreases as education increases. This includes a significant decrease as the college graduate level is reached. However, it should be noted that the eighth grade or less education level shows a very low prevalence of cigarette smoking.
- Employment Status** Those who are unemployed or unable to work exhibit a very high prevalence of cigarette smoking, while those who are retired show a very low prevalence.
- Marital Status** Those who are divorced, separated, or have never been married demonstrate a very high prevalence of cigarette smoking, while those who are married or widowed show a very low prevalence.

**Table 12**  
**Respondents Who Currently Smoke Cigarettes, 2006**

	Total			Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>Total</b>	<b>6,633</b>	<b>20.3</b>	<b>(18.9-21.8)</b>	<b>2,587</b>	<b>21.6</b>	<b>(19.3-24.0)</b>	<b>4,046</b>	<b>19.1</b>	<b>(17.4-20.9)</b>
<b>Age</b>									
18-24	264	32.5	(26.2-39.6)	112	35.5	(26.0-46.3)	152	29.3	(21.5-38.6)
25-34	737	24.2	(20.6-28.2)	284	25.2	(19.6-31.8)	453	23.2	(19.2-27.8)
35-44	1,035	17.1	(14.6-19.9)	419	17.7	(13.9-22.2)	616	16.5	(13.5-20.0)
45-54	1,409	24.9	(22.3-27.8)	588	25.1	(21.1-29.5)	821	24.8	(21.5-28.5)
55-64	1,164	16.7	(14.4-19.3)	494	16.8	(13.5-20.7)	670	16.6	(13.7-20.1)
65-74	944	11.3	(9.3-13.8)	363	11.8	(8.5-16.1)	581	11.0	(8.5-14.0)
75+	1,011	5.9	(4.6-7.7)	304	5.7	(3.6-9.1)	707	6.1	(4.4-8.2)
<b>Race</b>									
White	5,914	17.4	(16.0-18.9)	2,317	18.6	(16.4-20.9)	3,597	16.3	(14.7-18.2)
American Indian	512	53.5	(46.9-59.9)	185	56.5	(46.0-66.4)	327	50.4	(42.7-58.1)
<b>Region</b>									
Southeast	1,487	19.5	(16.9-22.5)	579	21.7	(17.5-26.5)	908	17.4	(14.3-21.1)
Northeast	1,609	18.0	(15.6-20.7)	608	19.6	(15.6-24.4)	1,001	16.5	(13.8-19.6)
Central	1,355	18.5	(15.9-21.5)	530	20.5	(16.2-25.6)	825	16.5	(13.8-19.7)
West	1,515	20.8	(18.1-23.8)	601	19.9	(15.9-24.6)	914	21.6	(18.2-25.5)
American Indian Counties	667	40.8	(34.8-47.0)	269	39.9	(30.4-50.2)	398	41.7	(35.2-48.6)
<b>Household Income</b>									
Less than \$10,000	312	41.4	(33.5-49.9)	*	*	*	*	*	*
\$10,000-\$14,999	393	32.6	(26.1-39.9)	112	33.1	(22.1-46.4)	281	32.3	(24.6-41.3)
\$15,000-\$19,999	506	31.0	(24.5-38.3)	161	35.8	(24.0-49.6)	345	26.9	(20.7-34.2)
\$20,000-\$24,999	559	32.7	(27.0-38.9)	206	30.5	(22.3-40.1)	353	34.6	(27.2-42.8)
\$25,000-\$34,999	894	21.8	(17.9-26.4)	382	23.2	(17.7-29.8)	512	20.3	(15.0-27.0)
\$35,000-\$49,999	1,132	21.0	(18.0-24.4)	491	23.0	(18.4-28.4)	641	18.9	(15.4-23.0)
\$50,000-\$74,999	1,028	15.5	(12.7-18.9)	481	17.7	(13.3-23.1)	547	12.9	(10.0-16.6)
\$75,000+	919	8.3	(6.1-11.2)	460	9.0	(5.8-13.7)	459	7.3	(5.2-10.3)
<b>Education</b>									
8th Grade or Less	286	11.2	(7.0-17.6)	125	9.8	(4.9-18.7)	161	13.0	(6.9-23.3)
Some High School	339	36.2	(28.8-44.3)	131	42.2	(31.3-54.0)	208	30.3	(21.3-41.2)
High School or G.E.D.	2,134	27.0	(24.2-30.1)	864	27.3	(23.1-32.0)	1,270	26.7	(23.1-30.7)
Some Post-High School	1,833	22.9	(20.1-26.0)	653	24.8	(20.1-30.2)	1,180	21.4	(18.3-24.8)
College Graduate	2,026	9.5	(8.0-11.3)	803	10.6	(8.1-13.8)	1,223	8.5	(6.9-10.4)

**Table 12 (continued)**  
**Respondents Who Currently Smoke Cigarettes, 2006**

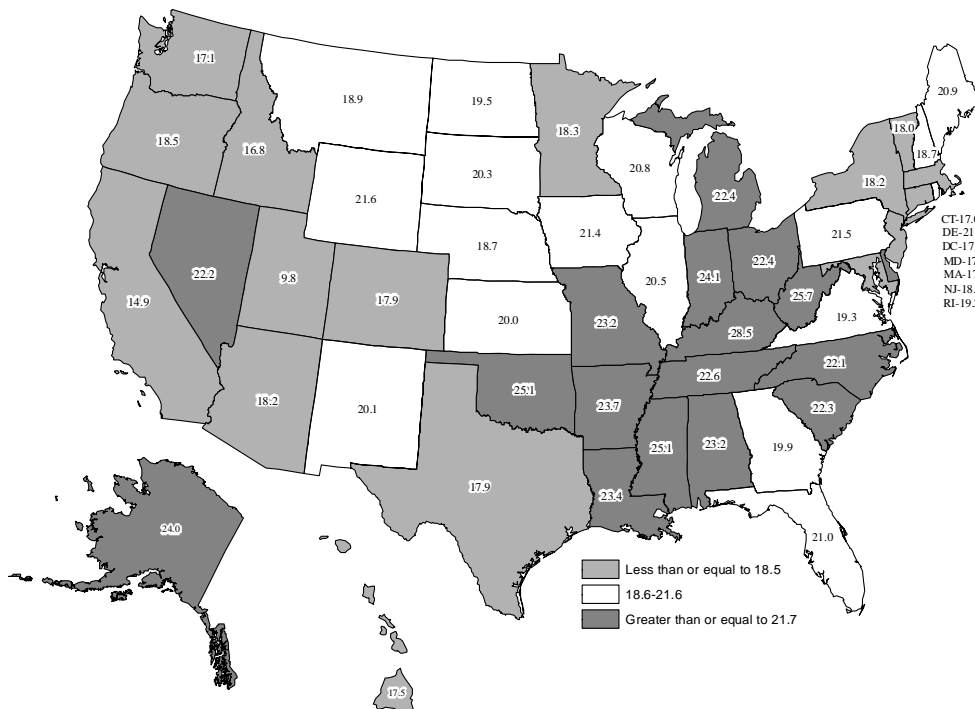
	Total			Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>Employment Status</b>									
Employed for Wages	3,227	22.5	(20.4-24.6)	1,220	24.6	(21.3-28.2)	2,007	20.4	(18.1-22.8)
Self-employed	907	13.4	(10.9-16.4)	594	12.2	(9.3-15.7)	313	16.7	(12.0-22.9)
Unemployed	180	47.4	(36.8-58.1)	*	*	*	*	*	*
Homemaker	401	16.1	(11.7-21.7)	*	*	*	*	*	*
Retired	1,551	9.1	(7.7-10.8)	553	10.2	(7.8-13.2)	998	8.3	(6.6-10.3)
Unable to Work	269	41.9	(33.1-51.3)	*	*	*	*	*	*
<b>Marital Status</b>									
Married/Unmarried Couple	3,952	15.6	(14.1-17.1)	1,694	15.6	(13.5-18.0)	2,258	15.5	(13.6-17.6)
Divorced/Separated	873	37.7	(33.6-41.9)	340	38.5	(32.1-45.3)	533	37.0	(31.9-42.5)
Widowed	1,026	14.0	(11.6-16.9)	152	18.2	(12.3-26.0)	874	13.2	(10.6-16.3)
Never Married	759	33.6	(28.4-39.2)	393	35.7	(28.5-43.7)	366	30.4	(23.8-38.1)

Note: \*Results based on sample sizes less than 100 have been suppressed.  
 Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2006

**National Statistics**

The national median for respondents who currently smoke cigarettes was 20.1 percent. South Dakota had 20.3 percent of respondents who currently smoke cigarettes. Utah had the lowest percent of respondents who currently smoke cigarettes with 9.8 percent, while Kentucky had the highest percent of respondents who currently smoke cigarettes with 28.5 percent.

**Figure 9**  
**Nationally, Respondents Who Currently Smoke Cigarettes, 2006**



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2006

## Further Analysis

Following are data illustrating the percent of those who currently smoke cigarettes for various health behaviors and conditions. For example, 37.3 percent of respondents who stated they binge drink currently smoke cigarettes, while 16.2 percent of respondents who do not binge drink currently smoke cigarettes.

<b>Health Behavior or Condition</b>	<b># Respondents</b>	<b>% Currently Smoke Cigarettes</b>	<b>95% CI</b>
Obese (BMI = 30.0+)	1,681	19.3	16.9-21.9
Overweight (BMI = 25.0-29.9)	2,425	19.9	17.6-22.4
Recommended Weight (BMI = 18.5-24.9)	2,092	22.4	19.8-25.4
No Leisure Time Physical Activity	1,741	29.1	25.7-32.7
Leisure Time Physical Activity	4,886	17.6	16.1-19.2
Not Heard of "Healthy South Dakota" Program	3,888	22.1	20.1-24.2
Heard of "Healthy South Dakota" Program	2,413	17.4	15.5-19.5
Smokeless Tobacco Use	300	27.5	21.3-34.7
No Smokeless Tobacco Use	6,119	19.9	18.4-21.5
Diabetes	596	16.0	12.8-19.8
No Diabetes	6,036	20.6	19.1-22.2
Current Asthma	489	22.8	17.8-28.7
Former Asthma	174	28.3	19.8-38.6
Never Had Asthma	5,936	19.8	18.3-21.4
No Mammogram within Past Two Years (40+)	780	23.2	19.8-27.0
Mammogram within Past Two Years (40+)	2,264	13.6	12.0-15.3
No Clinical Breast Exam within Past Two Years	866	25.9	22.0-30.2
Clinical Breast Exam within Past Two Years	3,082	17.2	15.4-19.3
No Pap Smear within the Past Three Years	510	21.9	17.4-27.2
Pap Smear within the Past Three Years	2,381	19.6	17.3-22.0
No PSA Test within the Past Two Years (40+)	797	20.7	17.6-24.3
PSA Test within the Past Two Years (40+)	1,055	13.7	11.5-16.4
No Digital Rectal Exam within the Past Two Years (40+)	845	19.7	16.7-23.1
Digital Rectal Exam within the Past Two Years (40+)	1,071	14.2	11.9-16.7
Prostate Cancer (40+)	101	5.5	2.4-12.1
No Prostate Cancer (40+)	1,834	17.2	15.3-19.4
No Blood Stool Test within the Past Two Years (50+)	2,805	15.0	13.5-16.6
Blood Stool Test within the Past Two Years (50+)	865	11.4	9.3-14.0
Never Had a Sigmoidoscopy or Colonoscopy (50+)	1,642	18.8	16.7-21.2
Ever Had a Sigmoidoscopy or Colonoscopy (50+)	2,072	10.4	9.0-11.9
Diagnosed with Cancer in the Past 12 Months	155	21.2	14.0-30.8
Not Diagnosed with Cancer in the Past 12 Months	6,221	20.3	18.8-21.9
Drank Alcohol in Past 30 Days	3,377	23.4	21.4-25.6
No Alcohol in Past 30 Days	3,230	16.5	14.6-18.5
Binge Drinker	866	37.3	32.7-42.1
Not a Binge Drinker	5,587	16.2	14.9-17.7
Heavy Drinker	206	49.7	40.5-58.9
Not a Heavy Drinker	6,240	18.6	17.2-20.0
No Health Insurance (18-64)	403	44.7	37.3-52.4
Health Insurance (18-64)	4,028	20.7	19.1-22.5
Employer Based Health Insurance Coverage (18-64)	2,711	17.4	15.6-19.4
Private Health Insurance Plan (18-64)	569	11.2	8.3-15.0
Medicare (18-64)	126	41.3	29.9-53.8
Medicaid or Medical Assistance (18-64)	169	59.3	48.3-69.5
The Military, CHAMPUS, TriCare, or the VA (18-64)	175	28.4	20.9-37.3
The Indian Health Service (18-64)	223	52.3	42.5-62.0

<b>Table 13 (continued)</b>			
<b>Currently Smoke Cigarettes for Selected Health Behaviors and Conditions, 2006</b>			
<b>Health Behavior or Condition</b>	<b># Respondents</b>	<b>% Currently Smoke Cigarettes</b>	<b>95% CI</b>
No Flu Shot (65+)	521	13.9	10.8-17.7
Flu Shot (65+)	1,427	6.7	5.4-8.2
No Pneumonia Shot (65+)	649	10.6	8.1-13.6
Pneumonia Shot (65+)	1,238	7.4	6.0-9.1
Haven't Been to the Dentist in the Past Year	2,126	27.7	24.8-30.8
Been to the Dentist in the Past Year	4,482	17.1	15.6-18.8
Not Taking any Precautions Against West Nile Virus	2,747	21.9	19.5-24.5
Taking Precautions Against West Nile Virus	3,628	19.0	17.3-20.9
Sometimes/Seldom/Never Wear Seat Belt	1,150	31.3	27.4-35.4
Always/Almost Always Wear Seat Belt	5,372	17.7	16.2-19.3
Previously Had a Heart Attack	452	21.3	17.0-26.3
Never Had a Heart Attack	6,157	20.3	18.8-21.9
Have Angina or Coronary Heart Disease	386	15.8	11.9-20.6
Do Not have Angina or Coronary Heart Disease	6,192	20.5	19.0-22.1
Previously Had a Stroke	247	21.7	14.9-30.5
Never Had a Stroke	6,380	20.3	18.9-21.8
Fair or Poor Health Status	995	28.8	24.9-33.1
Excellent, Very Good, or Good Health Status	5,615	19.2	17.7-20.8
Physical Health Not Good for 30 Days of the Past 30	425	30.4	23.9-37.8
Physical Health Not Good for 0-29 Days of the Past 30	6,086	19.8	18.4-21.4
Mental Health Not Good for 20-30 Days of the Past 30	353	40.1	33.0-47.6
Mental Health Not Good for 0-19 Days of the Past 30	6,184	19.3	17.8-20.8
Usual Activities Unattainable for 10-30 Days of the Past 30	449	36.7	30.3-43.5
Usual Activities Unattainable for 0-9 Days of the Past 30	6,121	19.3	17.8-20.8
Dissatisfied / Very Dissatisfied with Life	235	37.3	30.0-45.1
Satisfied / Very Satisfied with Life	6,192	19.8	18.3-21.3
Physical, Mental, or Emotional Disability	1,521	25.2	22.2-28.5
No Physical, Mental, or Emotional Disability	5,092	19.2	17.6-20.9
Disability with Special Equipment Needed	532	20.1	15.7-25.4
No Disability with Special Equipment Needed	6,098	20.3	18.9-21.9
Injured in a Fall (45+)	234	25.3	19.0-32.8
Not Injured in a Fall (45+)	4,266	16.1	14.8-17.5
Never Been Tested for HIV (18-64)	3,541	20.6	18.8-22.7
Been Tested for HIV (18-64)	899	33.2	29.0-37.7
Military Veteran	1,000	20.4	17.4-23.9
Not a Military Veteran	5,618	20.3	18.8-22.0

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2006

Respondents who tried to stop smoking for one day or longer because they were trying to quit smoking hit its peak in 2002 with 57.5 percent. Since then the percent of respondents who tried to stop smoking for one day or longer because they were trying to quit smoking has been decreasing up till 2006 when it increased to 56.6 percent. Table 14, on the next page, displays this.

**Table 14**  
**Respondents Who Tried to Stop Smoking, Within the Past 12 Months, for One Day or Longer Because They Were Trying to Quit Smoking, 2000-2006**

Year	# of Respondents	Percent
2006	1,250	56.6
2005	1,314	53.3
2004	1,217	53.9
2003	1,139	57.3
2002	970	57.5
2001	1,079	55.2
2000	839	48.2

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2000-2006

Table 15, below, displays the percent of current cigarette smokers by type of health insurance they have for the last six years. Indian Health Service had the highest percent average of current smokers from 2002-2006 with 51.6 percent. Medicaid or medical assistance with 50.5 percent and none with 43.5 percent rounded out the top three.

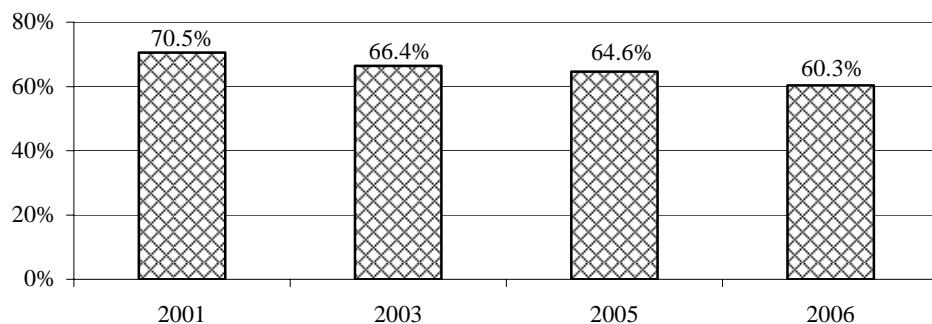
**Table 15**  
**Percent of Current Cigarette Smoking by Type of Health Insurance, Ages 18-64, 2000-2006**

Type of Health Insurance	2002-2006	2001-2005	2000-2004
The Indian Health Service	51.6%	56.8%	54.6%
Medicaid or Medical Assistance	50.5%	58.8%	49.4%
None	43.5%	45.6%	39.3%
Medicare	40.7%	32.7%	38.0%
The Military, CHAMPUS, TriCare, or the VA	28.4%	26.9%	21.0%
Employer Based Coverage	20.0%	21.6%	24.0%
Private Health Insurance Plan	14.2%	18.5%	14.5%

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2000-2006

Figure 10, below, displays the percent of respondents who have been advised to quit smoking in the past 12 months by a health professional. Overall, the percent of respondents has been decreasing since 2001.

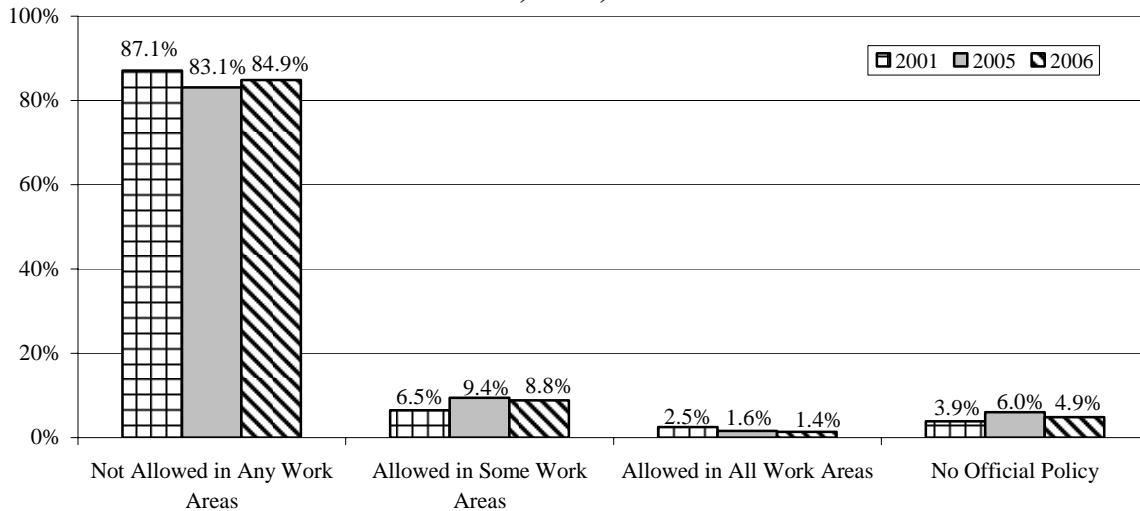
**Figure 10**  
**Respondents Who Have Been Advised by a Doctor, Nurse, or Other Health Professional to Quit Smoking in the Past 12 Months, 2001, 2003, 2005, and 2006**



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2001, 2003, 2005, and 2006

Figure 11, below, displays respondent's place of work official smoking policy for work areas. The majority of respondents in 2001, 2005, and 2006 stated that smoking was not allowed in any work areas with 87.1, 83.1, and 84.9 percent, respectively.

**Figure 11**  
**Respondent's Place of Work Official Smoking Policy for Work Areas,**  
**2001, 2005, and 2006**



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2001, 2005, and 2006

The series of Tables 16 through 16d, below, asks the opinion of the effects on second hand smoke of current smokers, former smokers, and respondents who have never smoked. Table 16, below, asks if second hand smoke causes lung cancer. The majority of respondents in 2005, 79.9 percent, and 2006, 82.7 percent, answered yes.

<b>Table 16</b>						
<b>Opinion on Effects of Second Hand Smoke: Causes Lung Cancer,</b>						
<b>2005 and 2006</b>						
	<b>2006</b>			<b>2005</b>		
	<b>Yes</b>	<b>No</b>	<b>Don't Know/Not Sure</b>	<b>Yes</b>	<b>No</b>	<b>Don't Know/Not Sure</b>
<b>Total</b>	82.7%	8.7%	8.6%	79.9%	8.9%	11.2%
Current Smoker	66.8%	21.1%	12.1%	63.1%	20.3%	16.6%
Former Smoker	78.4%	10.3%	11.3%	75.3%	9.9%	14.8%
Never Smoked	90.6%	3.4%	6.0%	88.0%	4.4%	7.6%

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2005 and 2006

Table 16a, on the next page, asks if second hand smoke causes heart disease. The majority of respondents in 2005, 67.0 percent, and 2006, 69.0 percent, answered yes.

<b>Table 16a</b>						
<b>Opinion on Effects of Second Hand Smoke: Causes Heart Disease</b>						
<b>2005 and 2006</b>						
	<b>2006</b>			<b>2005</b>		
	<b>Yes</b>	<b>No</b>	<b>Don't Know/Not Sure</b>	<b>Yes</b>	<b>No</b>	<b>Don't Know/Not Sure</b>
<b>Total</b>	69.0%	14.5%	16.6%	67.0%	12.6%	20.4%
Current Smoker	58.3%	25.4%	16.2%	55.8%	23.8%	20.3%
Former Smoker	68.7%	14.4%	16.9%	66.9%	11.8%	21.3%
Never Smoked	73.1%	10.4%	16.5%	71.1%	9.0%	19.9%

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2005 and 2006

Table 16b, below, asks if `second hand smoke causes colon cancer. In 2005, almost half of the respondents, 46 percent, answered don't know/not sure, while in 2006 only 38.3 percent answered don't know/not sure.

<b>Table 16b</b>						
<b>Opinion on Effects of Second Hand Smoke: Causes Colon Cancer</b>						
<b>2005 and 2006</b>						
	<b>2006</b>			<b>2005</b>		
	<b>Yes</b>	<b>No</b>	<b>Don't Know/Not Sure</b>	<b>Yes</b>	<b>No</b>	<b>Don't Know/Not Sure</b>
<b>Total</b>	24.6%	37.1%	38.3%	21.7%	32.2%	46.0%
Current Smoker	19.4%	50.0%	30.6%	15.0%	46.7%	38.4%
Former Smoker	23.0%	36.6%	40.3%	22.3%	28.8%	48.9%
Never Smoked	27.3%	32.5%	40.2%	23.9%	28.6%	47.5%

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2005 and 2006

Table 16c, below, asks if second hand smoke causes health problems in children. The majority of respondents in 2005, 91.5 percent, and in 2006, 91.5 percent, answered yes.

<b>Table 16c</b>						
<b>Opinion on Effects of Second Hand Smoke: Causes Health Problems in Children, 2005 and 2006</b>						
	<b>2006</b>			<b>2005</b>		
	<b>Yes</b>	<b>No</b>	<b>Don't Know/Not Sure</b>	<b>Yes</b>	<b>No</b>	<b>Don't Know/Not Sure</b>
<b>Total</b>	91.5%	5.1%	3.4%	91.5%	3.6%	4.9%
Current Smoker	85.5%	9.9%	4.6%	86.1%	7.5%	6.5%
Former Smoker	89.6%	5.8%	4.7%	90.3%	3.4%	6.3%
Never Smoked	94.6%	3.0%	2.4%	94.0%	2.3%	3.6%

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2005 and 2006

Table 16d, on the next page, asks if second hand smoke causes sudden infant death syndrome. The highest percent of respondents in 2005 was don't know/not sure with 47.4 percent, while in 2006 the highest percent of respondents said yes with 43.1 percent.

<b>Table 16d</b>						
<b>Opinion on Effects of Second Hand Smoke: Causes Sudden Infant Death Syndrome, 2005 and 2006</b>						
	<b>2006</b>			<b>2005</b>		
	<b>Yes</b>	<b>No</b>	<b>Don't Know/Not Sure</b>	<b>Yes</b>	<b>No</b>	<b>Don't Know/Not Sure</b>
<b>Total</b>	43.1%	19.1%	37.8%	35.7%	16.9%	47.4%
Current Smoker	37.1%	30.2%	32.7%	31.1%	25.0%	43.9%
Former Smoker	37.0%	20.5%	42.5%	31.4%	17.0%	51.6%
Never Smoked	48.1%	14.4%	37.5%	39.4%	14.0%	46.6%

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2005 and 2006

## SMOKELESS TOBACCO

**Definition:** Respondents who report that they use chewing tobacco or snuff every day or some days.

### Prevalence of Smokeless Tobacco

- South Dakota 5.8%
- There is no nationwide median for smokeless tobacco

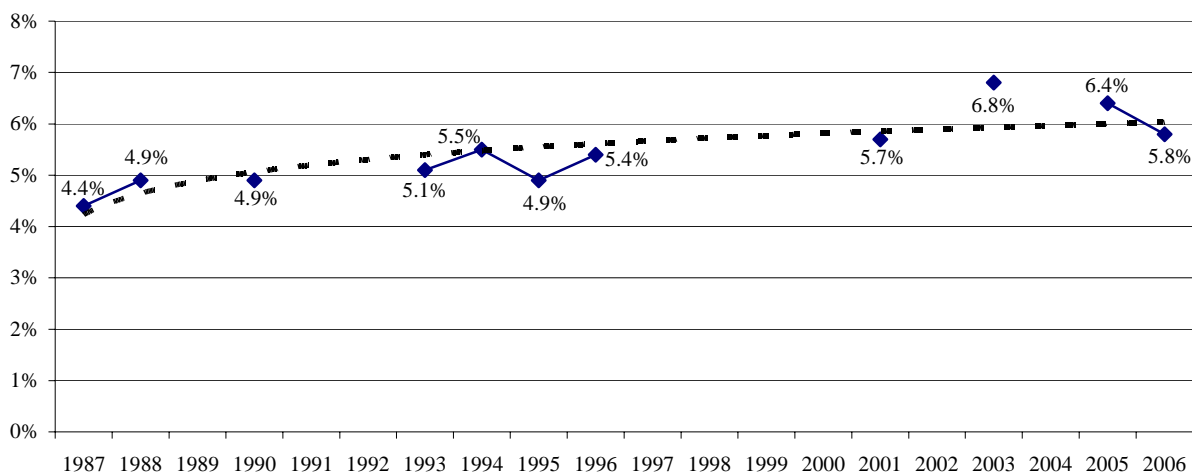
### Healthy People 2010 Objective

There was no stated Healthy People 2010 Objective for smokeless tobacco use.

### Trend Analysis

In the last couple of years, the percent of respondents who used smokeless tobacco had been increasing reaching a high of 6.8 percent in 2003. There was a sharp decrease from 6.4 percent in 2005 to 5.8 percent in 2006.

**Figure 12**  
**Percent of Respondents Who Use Smokeless Tobacco,**  
**1987-1988, 1990, 1993-1996, 2001, 2003, and 2005-2006**



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 1987-1988, 1990, 1993-1996, 2001, 2003, and 2005-2006

### Demographics

**Gender** Males exhibit a significantly higher prevalence of smokeless tobacco use than females. This difference is evident throughout virtually every demographic group between the two as well.

**Age** Smokeless tobacco use generally decreases as age increases. This includes a significant decrease as the 45-54 age group is reached.

**Race** American Indians exhibit a significantly higher prevalence of smokeless tobacco use than whites. This difference is much more evident in males.

**Region** The American Indian counties and central regions demonstrate a very large percentage of smokeless tobacco users, while the southeast, northeast, and west regions show a very low percentage.

**Household Income** Smokeless tobacco use does not seem to change as household income changes.

**Education** Overall there seems to be no association with smokeless tobacco use and education levels.

**Employment Status** Those who are self-employed or unemployed show a very high prevalence of smokeless tobacco use, while those who are retired, a homemaker, or unable to work show a very low prevalence. Males who are employed for wages show a very high prevalence as well.

**Marital Status** Those who are widowed exhibit a significantly lower prevalence of smokeless tobacco users than all other marital status categories.

**Table 17**  
**Respondents Who Use Smokeless Tobacco, 2006**

	Total			Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>Total</b>	<b>6,433</b>	<b>5.8</b>	<b>(5.0-6.7)</b>	<b>2,481</b>	<b>11.1</b>	<b>(9.6-12.9)</b>	<b>3,952</b>	<b>0.8</b>	<b>(0.5-1.3)</b>
<b>Age</b>									
18-24	251	8.2	(5.1-13.0)	104	14.2	(8.4-23.0)	147	2.2	(0.7-6.8)
25-34	715	8.1	(6.1-10.8)	276	14.5	(10.7-19.4)	439	1.4	(0.7-2.8)
35-44	999	8.6	(6.7-11.0)	400	16.6	(12.9-21.1)	599	0.6	(0.2-1.6)
45-54	1,372	4.9	(3.7-6.5)	566	9.8	(7.3-13.0)	806	0.2	(0.1-0.8)
55-64	1,137	4.1	(3.0-5.7)	479	7.6	(5.4-10.7)	658	0.5	(0.2-1.4)
65-74	914	2.4	(1.4-4.2)	343	5.2	(2.9-9.1)	571	0.1	(0.0-0.4)
75+	985	1.1	(0.6-1.8)	294	2.4	(1.4-4.2)	691	0.2	(0.0-1.2)
<b>Race</b>									
White	5,752	5.5	(4.7-6.5)	2,230	10.6	(9.0-12.4)	3,522	0.7	(0.4-1.4)
American Indian	492	11.8	(7.5-18.1)	175	22.4	(14.1-33.6)	317	1.5	(0.7-3.0)
<b>Region</b>									
Southeast	1,433	3.8	(2.7-5.4)	552	7.5	(5.3-10.7)	881	0.2	(0.1-0.6)
Northeast	1,565	5.8	(4.4-7.7)	587	11.4	(8.6-15.0)	978	0.9	(0.3-2.9)
Central	1,314	7.7	(5.9-10.0)	511	14.9	(11.3-19.4)	803	0.6	(0.2-1.6)
West	1,468	6.5	(4.8-8.6)	570	11.8	(8.7-15.8)	898	1.5	(0.6-3.5)
American Indian Counties	653	14.3	(9.6-20.7)	261	25.7	(17.3-36.6)	392	1.9	(0.9-3.7)
<b>Household Income</b>									
Less than \$10,000	300	6.9	(3.4-13.5)	*	*	*	*	*	*
\$10,000-\$14,999	382	3.9	(2.0-7.6)	106	9.9	(4.5-20.4)	276	0.9	(0.3-2.8)
\$15,000-\$19,999	486	9.0	(5.2-15.0)	152	18.3	(10.4-30.3)	334	2.1	(0.4-9.8)
\$20,000-\$24,999	541	6.3	(3.9-10.0)	194	12.7	(7.6-20.3)	347	0.7	(0.2-2.9)
\$25,000-\$34,999	879	7.1	(4.6-10.8)	375	13.0	(8.4-19.6)	504	0.7	(0.3-1.9)
\$35,000-\$49,999	1,102	5.4	(3.9-7.5)	470	9.8	(7.1-13.5)	632	0.9	(0.2-4.3)
\$50,000-\$74,999	1,009	6.7	(4.9-9.1)	467	11.9	(8.6-16.2)	542	0.7	(0.2-2.1)
\$75,000+	891	5.9	(4.3-8.1)	444	10.3	(7.5-13.9)	447	0.1	(0.0-0.7)
<b>Education</b>									
8 <sup>th</sup> Grade or Less	269	3.9	(2.1-7.1)	113	7.6	(4.1-13.8)	156	0.3	(0.0-2.3)
Some High School	324	7.5	(4.2-13.2)	123	13.1	(7.2-22.8)	201	2.4	(0.4-14.1)
High School or G.E.D.	2,060	7.8	(6.2-9.7)	821	14.4	(11.5-18.0)	1,239	1.0	(0.4-2.4)
Some Post-High School	1,794	5.5	(4.1-7.4)	635	11.1	(8.2-15.0)	1,159	0.8	(0.3-1.7)
College Graduate	1,973	4.0	(3.0-5.4)	780	7.9	(5.8-10.5)	1,193	0.4	(0.2-0.9)
<b>Employment Status</b>									
Employed for Wages	3,131	6.1	(4.9-7.4)	1,173	11.5	(9.3-14.1)	1,958	0.8	(0.4-1.8)
Self-employed	887	12.4	(9.7-15.7)	576	16.9	(13.2-21.4)	311	0.8	(0.2-3.4)
Unemployed	172	7.1	(3.4-14.2)	*	*	*	*	*	*
Homemaker	388	1.6	(0.5-4.7)	*	*	*	*	*	*
Retired	1,499	2.0	(1.3-3.0)	524	4.3	(2.8-6.5)	975	0.3	(0.1-1.0)
Unable to work	262	3.7	(1.9-7.1)	*	*	*	*	*	*

**Table 17 (continued)**  
**Respondents Who Use Smokeless Tobacco, 2006**

	Total			Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>Marital Status</b>									
Married/Unmarried Couple	3,836	5.4	(4.5-6.5)	1,628	10.3	(8.6-12.3)	2,208	0.5	(0.3-1.0)
Divorced/Separated	837	7.7	(5.5-10.8)	315	16.5	(11.6-23.0)	522	1.2	(0.6-2.5)
Widowed	1,005	1.4	(0.8-2.4)	147	7.0	(3.8-12.5)	858	0.2	(0.0-1.2)
Never Married	735	8.4	(5.9-11.8)	383	12.6	(8.7-18.0)	352	2.3	(0.8-6.6)

Note: \*Results based on sample sizes less than 100 have been suppressed.

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2006

### Further Analysis

Following are data illustrating the percent of those who currently use smokeless tobacco for various health behaviors and conditions. For example, 14.2 percent of respondents who stated they are a heavy drinker use smokeless tobacco, while 5.4 percent of respondents who stated they are not a heavy drinker use smokeless tobacco.

**Table 18**  
**Smokeless Tobacco Use for Selected Health Behaviors and Conditions, 2006**

Health Behavior or Condition	# Respondents	% Use Smokeless Tobacco	95% CI
Obese (BMI = 30.0+)	1,643	8.1	6.3-10.2
Overweight (BMI = 25.0-29.9)	2,353	6.1	4.9-7.6
Recommended Weight (BMI = 18.5-24.9)	2,025	4.5	3.2-6.4
No Leisure Time Physical Activity	1,675	7.7	5.9-10.0
Leisure Time Physical Activity	4,752	5.2	4.3-6.2
Not Heard of "Healthy South Dakota" Program	3,894	6.2	5.2-7.4
Heard of "Healthy South Dakota" Program	2,417	5.2	3.9-6.8
Current Smoker	1,204	7.9	6.0-10.3
Former Smoker	1,773	6.9	5.2-9.1
Never Smoked	3,442	4.6	3.7-5.7
Diabetes	584	5.7	3.2-9.9
No Diabetes	5,847	5.8	5.0-6.8
Current Asthma	469	5.0	2.9-8.4
Former Asthma	167	7.9	3.4-17.2
Never Had Asthma	5,764	5.8	5.0-6.8
No Mammogram within Past Two Years (40+)	771	0.6	0.2-1.7
Mammogram within Past Two Years (40+)	2,249	0.3	0.1-0.6
No Clinical Breast Exam within Past Two Years	855	1.4	0.4-4.3
Clinical Breast Exam within Past Two Years	3,053	0.6	0.4-1.1
No Pap Smear within the Past Three Years	503	1.3	0.3-5.9
Pap Smear within the Past Three Years	2,356	0.8	0.4-1.5
No PSA Test within the Past Two Years (40+)	780	12.8	10.3-15.9
PSA Test within the Past Two Years (40+)	1,041	5.3	3.9-7.0
No Digital Rectal Exam within the Past Two Years (40+)	830	13.2	10.7-16.2
Digital Rectal Exam within the Past Two Years (40+)	1,054	4.7	3.5-6.4
Prostate Cancer (40+)	101	2.8	0.6-11.6
No Prostate Cancer (40+)	1,805	8.8	7.4-10.4
No Blood Stool Test within the Past Two Years (50+)	2,783	3.3	2.6-4.2
Blood Stool Test within the Past Two Years (50+)	857	1.3	0.7-2.7
Never Had a Sigmoidoscopy or Colonoscopy (50+)	1,630	4.2	3.2-5.6
Ever Had a Sigmoidoscopy or Colonoscopy (50+)	2,057	1.9	1.3-2.7
Diagnosed with Cancer in the Past 12 Months	155	1.2	0.3-4.9
Not Diagnosed with Cancer in the Past 12 Months	6,231	5.9	5.1-6.8

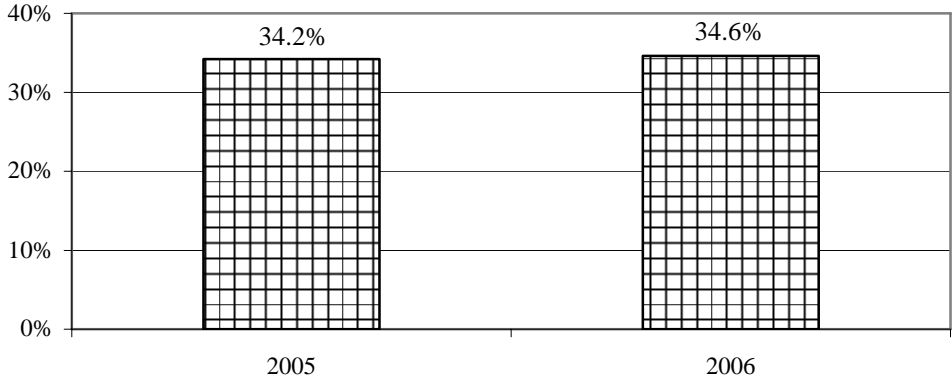
**Table 18 (continued)**  
**Smokeless Tobacco Use for Selected Health Behaviors and Conditions, 2006**

<b>Health Behavior or Condition</b>	<b># Respondents</b>	<b>% Use Smokeless Tobacco</b>	<b>95% CI</b>
Drank Alcohol in Past 30 Days	3,287	7.6	6.4-9.0
No Alcohol in Past 30 Days	3,135	3.6	2.7-4.7
Binge Drinker	847	13.4	10.5-16.9
Not a Binge Drinker	5,444	3.9	3.3-4.8
Heavy Drinker	199	14.2	9.2-21.1
Not a Heavy Drinker	6,080	5.4	4.6-6.3
No Health Insurance (18-64)	403	10.5	6.8-15.9
Health Insurance (18-64)	4,033	6.4	5.4-7.5
Employer Based Health Insurance Coverage (18-64)	2,716	5.4	4.3-6.7
Private Health Insurance Plan (18-64)	569	10.6	7.7-14.4
Medicare (18-64)	125	8.3	3.5-18.7
Medicaid or Medical Assistance (18-64)	169	6.4	3.6-11.1
The Military, CHAMPUS, TriCare, or the VA (18-64)	172	5.8	3.2-10.3
The Indian Health Service (18-64)	226	12.9	6.1-25.1
No Flu Shot (65+)	506	2.6	1.2-5.2
Flu Shot (65+)	1,388	1.4	0.8-2.4
No Pneumonia Shot (65+)	631	2.0	0.9-4.3
Pneumonia Shot (65+)	1,206	1.5	0.9-2.5
Haven't Been to the Dentist in the Past Year	2,058	8.8	7.1-10.9
Been to the Dentist in the Past Year	4,351	4.5	3.7-5.5
Not Taking any Precautions Against West Nile Virus	2,748	7.2	5.9-8.6
Taking Precautions Against West Nile Virus	3,637	4.7	3.7-5.9
Sometimes/Seldom/Never Wear Seat Belt	1,129	12.5	9.9-15.8
Always/Almost Always Wear Seat Belt	5,293	4.3	3.6-5.1
Previously Had a Heart Attack	429	4.9	2.6-9.3
Never Had a Heart Attack	5,980	5.9	5.1-6.8
Have Angina or Coronary Heart Disease	374	3.8	1.7-8.5
Do Not have Angina or Coronary Heart Disease	6,006	5.9	5.1-6.9
Previously Had a Stroke	239	2.5	0.9-6.4
Never Had a Stroke	6,188	5.9	5.1-6.8
Fair or Poor Health Status	964	5.4	3.7-7.7
Excellent, Very Good, or Good Health Status	5,448	5.9	5.0-6.9
Physical Health Not Good for 30 Days of the Past 30	418	5.4	3.1-9.0
Physical Health Not Good for 0-29 Days of the Past 30	5,897	5.8	5.0-6.8
Mental Health Not Good for 20-30 Days of the Past 30	342	9.2	5.1-16.0
Mental Health Not Good for 0-19 Days of the Past 30	5,997	5.7	4.9-6.6
Usual Activities Unattainable for 10-30 Days of the Past 30	438	5.8	3.6-9.2
Usual Activities Unattainable for 0-9 Days of the Past 30	5,935	5.8	5.0-6.7
Dissatisfied / Very Dissatisfied with Life	234	3.4	1.6-7.1
Satisfied / Very Satisfied with Life	6,160	5.9	5.1-6.8
Physical, Mental, or Emotional Disability	1,492	5.3	3.9-7.3
No Physical, Mental, or Emotional Disability	4,920	5.9	5.0-7.0
Disability with Special Equipment Needed	520	2.2	1.0-4.8
No Disability with Special Equipment Needed	5,910	6.0	5.2-7.0
Injured in a Fall (45+)	231	5.6	2.4-12.3
Not Injured in a Fall (45+)	4,209	3.3	2.7-4.1
Never Been Tested for HIV (18-64)	3,526	6.8	5.7-8.1
Been Tested for HIV (18-64)	886	7.1	5.0-9.8
Military Veteran	964	9.9	7.2-13.4
Not a Military Veteran	5,464	5.1	4.3-6.0

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2006

Figure 13, below, displays the percent of respondents who were advised by a doctor, nurse, or other health professional to stop using smokeless tobacco. There was a slight increase from 2005 to 2006 in the percent of respondents who were advised to quit using smokeless tobacco by a doctor, nurse, or other health professional.

**Figure 13**  
**Percent of Respondents Advised to Quit Using Smokeless Tobacco by a Doctor, Nurse, or Other Health Professional, 2005 and 2006**



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2005 and 2006