

# The Health Behaviors of South Dakotans 2016

*A Report of the South Dakota  
Behavioral Risk Factor Surveillance System*

South Dakota Department of Health  
600 East Capitol Avenue  
Pierre, South Dakota 57501

In cooperation with  
the Centers for Disease Control and Prevention  
Atlanta, Georgia

February 2018

Copies of this report and its distribution were paid for by a grant from  
the Centers for Disease Control and Prevention.



---

## ***Preface***

---

*The Health Behaviors of South Dakotans 2016* serves as a way to measure health risks of South Dakotans.

The information used to develop the report came from the Behavioral Risk Factor Surveillance System (BRFSS). The South Dakota Department of Health (DOH) initiated the BRFSS with help from the Centers for Disease Control and Prevention (CDC).

The survey consists of questions aimed at tracking and trending prevalence of health behaviors and conditions over time.

The BRFSS is the world's largest telephone survey. The survey is administered to households with adults age 18 years or older.

The Office of Health Statistics edited and compiled data for this publication. This report contains as much information as practical from the survey.

For questions regarding *The Health Behaviors of South Dakotans 2016*, please contact:

Office of Health Statistics  
615 East 4th Street  
Pierre, South Dakota 57501-2536  
Phone: (605) 773-3361  
<http://doh.sd.gov/Statistics/>  
National web site: <http://www.cdc.gov/brfss/>

The following people were the main contributors to the development of this report:

Katie Hill	Communications Coordinator
Carrie Cushing	Policy Data Analyst
Mark Gildemaster	Coordinator of South Dakota Behavioral Risk Factor Surveillance System



---

## ***Table of Contents***

---

Preface .....	v
List of Tables.....	viii
List of Figures .....	xii
Overview.....	3
Methodology .....	11
Health Behavior Topics.....	15
Overweight and Obesity.....	17
Physical Activity .....	26
Tobacco Use.....	35
Diabetes.....	51
Health Insurance.....	60
Breast and Cervical Cancer Screening.....	71
Cardiovascular Disease .....	79
Colorectal Cancer Screening.....	88
Immunization .....	91
Cancer .....	100
Prostate Cancer.....	111
Asthma.....	116
Arthritis.....	119
Chronic Obstructive Pulmonary Disease .....	122
Depression.....	125
Kidney Disease.....	128
Vision Impairment .....	131
Seat Belt Use.....	134
Alcohol Use.....	137
Sleep.....	146
General Health Status.....	149
Sunblock Use.....	166
HIV/AIDS.....	169
Caregivers .....	172
Hearing Difficulty.....	179
Substance Abuse Treatment .....	181
HPV Vaccination.....	183
Oral Health.....	185
Falls .....	188
Appendix A: Demographics.....	193
Appendix B: BRFSS Questionnaire .....	199

---

## **List of Tables**

---

1. Estimated Percentage and Number of Persons at Risk Due to Selected Factors (Ages 18 and Older Unless Otherwise Specified): South Dakota BRFSS, 2016 .....	5
2. Topics Covered on the South Dakota BRFSS, 2007-2016 .....	6-7
3. Disposition of All Telephone Numbers in the Sample, 2016 .....	13
4. Respondents Who Are Overweight or Obese, 2012-2016 .....	18
5. Respondents Who Are Class I-III Obese, 2012-2016 .....	21
6. Respondents Who Are Class II-III Obese, 2012-2016 .....	24
7. Respondents Who Reported Leisure Time Physical Activity, 2012-2016 .....	27
8. Respondents Who Report Seven or More Exercise Trips Per Week, 2015-2016 .....	29-30
9. Respondents Who Are Sedentary 12 or More Hours Per Day, 2015-2016 .....	32-33
10. Respondents Who Currently Smoke Cigarettes, 2012-2016 .....	36
11. Respondents Who Tried to Stop Smoking, Within the Past 12 Months, for One Day or Longer Because They Were Trying to Quit Smoking, 2011-2016 .....	38
12. Percent of Current Cigarette Smoking by Type of Health Insurance, Ages 18-64, 2011-2016 .....	38
13. Respondents Who Use Smokeless Tobacco, 2012-2016 .....	41
14. Respondents Who Currently Smoke E-Cigarettes, 2016 .....	44
15. Respondents Who Use Tobacco, 2016 .....	46
16. Respondents Who Have Heard of the <i>QuitLine</i> Program, 2013-2016 .....	49
17. Respondents Who Were Told They Have Diabetes, 2012-2016 .....	52
18. Respondents, Ages 18-64, Who Do Not Have Health Insurance, 2012-2016 .....	61
19. Type of Health Insurance, Ages 18-64, 2011-2016 .....	63
20. How Long Since Respondent Last Visited a Doctor for a Routine Checkup, 2011-2016 .....	63
21. Respondents' Children, Ages 0-17, Who Do Not Have Health Insurance, 2012-2016 .....	66

22.	Different Types of Health Coverage for Respondents' Children, Ages 17 and Under, 2011-2016 .....	67
23.	Respondents Who Have Had a Routine Checkup Within the Past Two Years, 2012-2016.....	68-69
24.	Female Respondents, Ages 40 and Older, Who Have Had a Mammogram in the Past Two Years, 2012-2016.....	72
25.	Female Respondents Who Had Cervical Cancer Screening in the Past Three Years, 2012-2016 .....	75
26.	Female Respondents Who Have Had an HPV Test Within the Past Three Years, 2016.....	77
27.	Respondents Who Previously Had a Heart Attack, 2012-2016 .....	80
28.	Respondents Who Have Angina or Coronary Heart Disease, 2012-2016 .....	83
29.	Respondents Who Previously Had a Stroke, 2012-2016.....	86
30.	Respondents, Ages 50 to 75, Who Met Colorectal Cancer Screening Recommendations, 2012-2016 .....	88-89
31.	Respondents, Ages 50 to 75, Who Met Colorectal Cancer Screening Recommendations, 2012, 2014, and 2016 .....	90
32.	Respondents, Ages 65 and Older, Who Have Had a Flu Shot Within the Past 12 Months, 2012-2016 .....	92
33.	Respondents, Ages 65 and Older, Who Have Had a Pneumonia Shot, 2012-2016.....	95
34.	Respondents Who Have Had a Tetanus Shot Since 2005, 2013-2016 .....	97-98
35.	Respondents Who Have Ever Been Diagnosed With Cancer (Excluding Skin Cancer), 2012-2016 .....	100-101
36.	Type of Cancer Respondents Have Been Diagnosed With, 2015-2016.....	103
37.	Respondents' Treatment for Cancer, 2016.....	103
38.	Type of Doctor Providing a Majority of Health Care for Respondents With Cancer, 2016 .....	103
39.	Respondents Who Have Ever Been Diagnosed With Skin Cancer, 2012-2016.....	108-109

40.	Male Respondents, Ages 40 and Older, Who Have Had a PSA Test Within the Past Two Years, 2012, 2014, and 2016 .....	112
41.	Respondents Who Were Told They Have Asthma, 2012-2016 .....	117
42.	Respondents Who Were Told They Have Arthritis, 2012-2016 .....	120
43.	Respondents Who Have Been Told They Have COPD, 2012-2016.....	123
44.	Respondents Who Were Told They Have Depression, 2012-2016 .....	126
45.	Respondents Who Have Been Told They Have Kidney Disease, 2012-2016 .....	129
46.	Respondents Who Have a Vision Impairment, 2013-2016 .....	132
47.	Respondents Who Always Wear a Seat Belt, 2012-2016.....	135
48.	Respondents Who Drank Alcohol in Past 30 Days, 2012-2016.....	138
49.	Respondents Who Engage in Binge Drinking, 2012-2016.....	141
50.	Respondents Who Engage in Heavy Drinking, 2012-2016.....	144
51.	Respondents Who Get Less Than Six Hours of Sleep in a 24-Hour Period, 2013, 2014, and 2016 .....	147
52.	Respondents Reporting Fair or Poor Health Status, 2012-2016 .....	150
53.	Respondents Who Reported Physical Health Not Good for 30 Days of the Past 30, 2012-2016.....	153
54.	Respondents Who Stated Mental Health Not Good for 20-30 Days of the Past 30, 2012-2016 .....	157
55.	Respondents Who Are Taking Medicine or Receiving Treatment for Mental Health or Emotional Problems, 2016.....	160-161
56.	Respondents Who Stated Usual Activities Unattainable for 10-30 Days of the Past 30, 2012-2016 .....	163
57.	Respondents Who Use Sunblock Most of the Time, 2014 and 2016.....	167
58.	Respondents, Ages 18-64, Who Have Been Tested For HIV, 2012-2016.....	170
59.	Respondents Who Provide Regular Care to a Friend or Family Member During the Past 30 Days, 2016 .....	172-173
60.	Type of Relationship to the Caregiver, 2016 .....	174
61.	Length of Time Care Has Been Provided, 2016 .....	174

62.	Hours Per Week Care Has Been Provided, 2016.....	174
63.	Type of Health Condition, 2016 .....	174
64.	Types of Support Services For Caregivers, 2016.....	176
65.	Respondents Who Provide Fulltime, Regular Care to a Friend or Family Member, 2016 .....	177-178
66.	Respondents Who Are Deaf or Have Serious Difficulty Hearing, 2016 .....	179-180
67.	Respondents Who Have Been or are Currently Being Treated for Substance Abuse, 2016 .....	181-182
68.	Respondents, Ages 18 to 49, Who Have Ever Had an HPV Vaccination, 2016.....	183-184
69.	Respondents Who Have Visited a Dentist or Dental Clinic for Any Reason Within the Past Year, 2012-2016.....	186
70.	Respondents, Ages 45 and Older, Who Were Injured in a Fall in the Past 12 Months, 2012, 2014, and 2016.....	189
71.	Demographics of Survey Respondents, 2016 .....	193
72.	Surveys Completed by Resident County, 2016 .....	194-195

---

## **List of Figures**

---

1.	Percent of Respondents Who Are Overweight or Obese Based on Body Mass Index, 1993-2010.....	17
2.	Percent of Respondents Who Are Overweight or Obese Based on Body Mass Index, 2011-2016.....	17
3.	Percent of Respondents Who Are Class I-III Obese Based on Body Mass Index, 1993-2010.....	20
4.	Percent of Respondents Who Are Class I-III Obese Based on Body Mass Index, 2011-2016.....	20
5.	Percent of Respondents Who Are Class II-III Obese Based on Body Mass Index, 2002-2010.....	23
6.	Percent of Respondents Who Are Class II-III Obese Based on Body Mass Index, 2011-2016.....	23
7.	Percent of Respondents Who Reported Leisure Time Physical Activity, 1990-1992, 1994-1996, 1998, and 2000-2010.....	26
8.	Percent of Respondents Who Reported Leisure Time Physical Activity, 2011-2016.....	26
9.	Respondents Who Report Seven or More Exercise Trips Per Week, 2015-2016.....	29
10.	Respondents Who Are Sedentary 12 or More Hours Per Day 2015-2016.....	32
11.	Percent of Respondents Who Currently Smoke Cigarettes, 1987-2010.....	35
12.	Percent of Respondents Who Currently Smoke Cigarettes, 2011-2016.....	35
13.	Percent of Smokers Who Have Been Advised by a Doctor, Nurse, or Other Health Professional to Quit Smoking in the Past 12 Months, 2011-2016 .....	38
14.	Respondents' Place of Work Smoking Policy, 2012-2016.....	39
15.	Respondents' Rules About Smoking Inside the Home, 2012-2016 .....	39
16.	Percent of Respondents Who Use Smokeless Tobacco, 1990, 1993-1996, 2001, 2003, and 2005-2010.....	40
17.	Percent of Respondents Who Use Smokeless Tobacco, 2011-2016 .....	40
18.	Percent of Respondents Advised to Quit Using Smokeless Tobacco by a Doctor, Nurse, or Other Health Professional, 2011-2016 .....	43

19.	Percent of Respondents Who Have Heard of the South Dakota <i>QuitLine</i> Program, 2013-2016.....	48
20.	Percent of Respondents Who Were Told They Have Diabetes, 1990-2010.....	51
21.	Percent of Respondents Who Were Told They Have Diabetes, 2011-2016.....	51
22.	Respondents Who Have Had a Test for High Blood Sugar or Diabetes Within the Past Three Years, 2011-2016 .....	54
23.	Respondents' Diabetic Status, 2012-2016 .....	54
24.	Respondents Who Use Insulin for Diabetes, 2012-2016 .....	55
25.	Respondents Who Check Their Blood for Glucose or Sugar One or More Times Per Day, 2012-2016.....	55
26.	Respondents Who Check Their Feet for Any Sores or Irritations One or More Times Per Day, 2012-2016.....	56
27.	Respondents Who Have Seen a Doctor, Nurse, or Other Health Professional for Their Diabetes Two or More Times in the Past 12 Months, 2012-2016 .....	56
28.	Respondents That Had Hemoglobin A1c Checked by a Doctor, Nurse, or Other Health Professional Two or More Times in the Past 12 Months, 2012-2016 .....	57
29.	Respondents Who Had a Health Professional Check Their Feet for Any Sores or Irritations at Least Once in the Past Year, 2012-2016 .....	57
30.	Respondents Who Had an Eye Exam in the Past Year in Which the Pupils Were Dilated, 2012-2016.....	58
31.	Respondents Told by a Doctor That Diabetes Has Affected Their Eyes or They Have Retinopathy, 2012-2016.....	58
32.	Percent of Respondents Who Have Ever Taken a Course or Class in How to Manage Diabetes, 2012-2016.....	59
33.	Percent of Respondents, Ages 18-64, Who Do Not Have Health Insurance, 2000-2010 .....	60
34.	Percent of Respondents, Ages 18-64, Who Do Not Have Health Insurance, 2011-2016.....	60
35.	Percent of Respondents, Ages 18-64, Who Needed to See a Doctor But Could Not Because of the Cost, 2011-2016 .....	64
36.	Percent of Children, Ages 0-17, Who Do Not Have Health Insurance, 2000-2010...	65
37.	Percent of Children, Ages 0-17, Who Do Not Have Health Insurance, 2011-2016...	65

38. Respondents Who Have Had a Routine Checkup Within the Past Two Years, 2011-2016 .....	68
39. Percent of Female Respondents, Ages 40 and Older, Who Have Had a Mammogram in the Past Two Years, 1990-2004, 2006, 2008, and 2010.....	71
40. Percent of Female Respondents, Ages 40 and Older, Who Have Had a Mammogram in the Past Two Years, 2012, 2014, and 2016.....	71
41. Percent of Female Respondents Who Had Cervical Cancer Screening in the Past Three Years, 1992-2004, 2006, 2008, and 2010 .....	74
42. Percent of Female Respondents Who Had Cervical Cancer Screening in the Past Three Years, 2012, 2014, and 2016 .....	74
43. Percent of Respondents Who Previously Had a Heart Attack, 2002, and 2004-2010 .....	79
44. Percent of Respondents Who Previously Had a Heart Attack, 2011-2016 .....	79
45. Percent of Respondents Who Have Angina or Coronary Heart Disease, 2002, and 2004-2010.....	82
46. Percent of Respondents Who Have Angina or Coronary Heart Disease, 2011-2016.....	82
47. Percent of Respondents Who Have Previously Had a Stroke, 2002, and 2004-2010.....	85
48. Percent of Respondents Who Have Previously Had a Stroke, 2011-2016 .....	85
49. Respondents, Ages 50 to 75, Who Met Colorectal Cancer Screening Recommendations, 2012-2016.....	88
50. Percent of Respondents Who Had a Sigmoidoscopy or Colonoscopy for Their Most Recent Colorectal Exam, 2012, 2014, and 2016 .....	89
51. Percent of Respondents, Age 50-75, Recommended By a Doctor, Nurse, or Other Health Professional to be Tested for Colorectal or Colon Cancer, 2014 and 2016...	90
52. Percent of Respondents, Ages 65 and Older, Who Have Had a Flu Shot Within the Past 12 Months, 1993-1995, 1997, and 1999-2010 .....	91
53. Percent of Respondents, Ages 65 and Older, Who Have Had a Flu Shot Within the Past 12 Months, 2011-2016.....	91
54. Percent of Respondents, Ages 65 and Older, Who Have Had a Pneumonia Shot, 1993-1995, 1997, and 1999-2010 .....	94

55. Percent of Respondents, Ages 65 and Older, Who Have Had a Pneumonia Shot, 2011-2016 .....	94
56. Respondents Who Have had a Tetanus Shot Since 2005, 2013-2016.....	97
57. Percent of Respondents Who Have Ever Been Diagnosed With Cancer (Excluding Skin Cancer), 2011-2016 .....	100
58. Number of Cancers that Respondents Have Had, 2015-2016 .....	102
59. Respondents Who Received a Written Summary of All Cancer Treatments, 2015-2016 .....	104
60. Respondents Who Received Instructions for Routine Cancer Check-ups, 2016 .....	104
61. Respondents Who Received Written Instructions on Paper for Routine Cancer Check-ups, 2016 .....	105
62. Respondents Whose Health Insurance Paid for Some or All of Cancer Treatments, 2016 .....	105
63. Respondents Denied Health Insurance or Life Insurance Due to Cancer Diagnosis, 2016 .....	106
64. Respondents Who Participated in a Clinical Trial as Part of Their Cancer Treatment, 2016 .....	106
65. Respondents Who Have Physical Pain Caused by Cancer or Cancer Treatments, 2016 .....	107
66. Percent of Respondents Who Have Ever Been Diagnosed With Skin Cancer, 2011-2016.....	108
67. Percent of Male Respondents, Ages 40 and Older, Who Have Had a PSA Test Within the Past Two Years, 2001-2002, 2004, 2006, 2008, and 2010.....	111
68. Percent of Male Respondents, Ages 40 and Older, Who Have Had a PSA Test Within the Past Two Years, 2012, 2014, and 2016.....	111
69. Percent of Respondents Who Stated That a Doctor, Nurse, or Other Health Professional Talked With Them About the Advantages of the PSA Test, 2012, 2014, and 2016 .....	113
70. Percent of Respondents Who Stated That a Doctor, Nurse, or Other Health Professional Talked With Them About the Disadvantages of the PSA Test, 2012, 2014, and 2016.....	114
71. Percent of Respondents Who Were Recommended by a Doctor, Nurse, or Other Health Professional to Have a PSA Test, 2012, 2014, and 2016 .....	114

72.	Respondents Who Had a PSA Test When Health Professional Recommended It, 2012, 2014, and 2016.....	115
73.	Respondents' Main Reason for Last PSA Test, 2012, 2014, and 2016.....	115
74.	Percent of Respondents Who Were Told They Have Asthma, 2000-2010.....	116
75.	Percent of Respondents Who Were Told They Have Asthma, 2011-2016.....	116
76.	Percent of Respondents Who Were Told They Have Arthritis, 2001, 2003, 2005, 2007, and 2009 .....	119
77.	Percent of Respondents Who Were Told They Have Arthritis, 2011-2016.....	119
78.	Percent of Respondents Who Were Told They Have COPD, 2011-2016.....	122
79.	Percent of Respondents Who Were Told They Have Depression, 2011-2016.....	125
80.	Percent of Respondents Who Have Been Told They Have Kidney Disease, 2011-2016.....	128
81.	Percent of Respondents Who Have a Vision Impairment, 2013-2016.....	131
82.	Percent of Respondents Who Always Wear a Seatbelt, 2011-2016.....	134
83.	Percent of Respondents Who Drank Alcohol in the Past 30 Days, 1995, 1997, 1999, and 2001-2010.....	137
84.	Percent of Respondents Who Drank Alcohol in the Past 30 Days, 2011-2016 .....	137
85.	Percent of Respondents Who Engage in Binge Drinking, 1987-1993, 1995, 1997, 1999, and 2001-2010.....	140
86.	Percent of Respondents Who Engage in Binge Drinking, 2011-2016 .....	140
87.	Percent of Respondents Who Engage in Heavy Drinking, 1987-1993, 1995, 1997, 1999, and 2001-2010.....	143
88.	Percent of Respondents Who Engage in Heavy Drinking, 2011-2016 .....	143
89.	Percent of Respondents Who Get Less Than Six Hours of Sleep in an Average 24-Hour Period, 2013, 2014, and 2016 .....	146
90.	Percent of Respondents Reporting Fair or Poor Health Status, 1993-2010 .....	149
91.	Percent of Respondents Reporting Fair or Poor Health Status, 2011-2016 .....	149
92.	Percent of Respondents Reporting Physical Health Not Good for 30 Days of the Past 30, 2000-2001, and 2003-2010 .....	152

93. Percent of Respondents Reporting Physical Health Not Good for 30 Days of the Past 30, 2011-2016.....	152
94. Average Number of Days Respondents' Physical Health Was Not Good in the Past 30 Days, 2011-2016 .....	155
95. Percent of Respondents Stating Mental Health Not Good for 20-30 Days of the Past 30, 2000-2001, and 2003-2010.....	156
96. Percent of Respondents Stating Mental Health Not Good for 20-30 Days of the Past 30, 2011-2016.....	156
97. Average Number of Days Respondents' Mental Health Was Not Good in the Past 30 Days, 2011-2016 .....	159
98. Percent of Respondents Reporting Usual Activities Unattainable for 10-30 Days of the Past 30, 2001, and 2003-2010.....	162
99. Percent of Respondents Reporting Usual Activities Unattainable for 10-30 Days of the Past 30, 2011-2016.....	162
100. Average Number of Days Poor Physical or Mental Health Kept Respondents From Usual Activities in the Past 30 Days, 2011-2016.....	165
101. Percent of Respondents Who Use Sunblock Most of the Time, 2007 and 2010 ....	166
102. Percent of Respondents Who Use Sunblock Most of the Time, 2011, 2014, and 2016 .....	166
103. Percent of Respondents, Ages 18-64, Who Have Been Tested for HIV, 2011-2016.....	169
104. Respondents That Provided Personal Care, 2016 .....	175
105. Respondents That Provided Household Tasks, 2016.....	175
106. Respondents That Expect to Provide Caregiving Assistance to a Friend or Family Member Who Has a Health Problem or Disability, 2016.....	176
107. Percent of Respondents Who Have Visited a Dentist or Dental Clinic for Any Reason Within the Past Year, 1996-1997, 1999, 2002, 2004, 2006, 2008, and 2010 .....	185
108. Percent of Respondents Who Have Visited a Dentist or Dental Clinic for Any Reason Within the Past Year, 2012, 2014, and 2016 .....	185
109. Percent of Respondents, Ages 45 and Older, Who Were Injured in a Fall in the Past 12 Months, 2012, 2014, and 2016 .....	188

