Methodology

Participating Agencies

The South Dakota Behavioral Risk Factor Surveillance System is a combined effort between the South Dakota Department of Health (DOH) and the Centers for Disease Control and Prevention (CDC). The DOH contracted with Personal Group, Inc. to collect the data through telephone interviews. However, the DOH continues to supervise the survey process, as well as design and distribute the report. The CDC provides financial and technical assistance, develops the questionnaire, designs the methodology, and processes the data.

Method of Surveillance

This study uses a telephone survey rather than other survey methods because of its low cost, ease of administration in reaching respondents, and reliability. Telephone surveys are less representative of areas where a significant portion of the population does not have telephones. Cell phones were first called in 2011. Fifty percent of all surveys were completed via cell phone in 2017 with the intent to continue to increase this percentage in the coming years.

Questionnaire Development

The BRFSS is designed to collect information on the health behaviors of adults over time. For the 2017 survey (Appendix B), standard demographic questions were included along with sections on general health status, physical and mental health, health insurance, hypertension, cholesterol, chronic health conditions, cardiovascular disease, tobacco use, alcohol use, physical activity and nutrition, seat belt use, immunization, and HIV/AIDS. South Dakota also added several state-specific questions to the end of the core questionnaire including secondhand smoke, name recognition of the South Dakota *QuitLine*, cancer, advance directives, family planning, adverse childhood experiences, prescription pain medication, substance abuse, children's health insurance, and children's oral health.

Accuracy of Survey Data

It is important to remember that the survey data are **self-reported**. Therefore, people may tend to report a more favorable lifestyle than actually practiced. The accuracy of self-reported data may also vary according to risk factors, i.e., self-reported smoking status is thought to be more accurate than self-reported eating habits. These limitations do not negate the survey's ability to identify high-risk groups and monitor long-term trends.

Eligible Respondent Selection

Eligible respondents for the landline survey were individuals 18 years of age or over who resided a majority of the time at the household contacted. In households with more than one eligible respondent, a random selection was made to determine the actual respondent. Data included in the children's sections of this report were estimated based on responses from the adult respondent regarding a randomly selected child in the household. Automated prescreening was done to eliminate business phones and non-working numbers. "No Answers" and "Busy Signals" were re-dialed a minimum of three times on five different days at different times before they were removed.

Eligible respondents for the cell phone survey were individuals 18 years of age or over who did not also have a landline phone. Data included in the children's sections of this report were estimated based on responses from the adult respondent regarding a randomly selected child in the adult's household. Six attempts were made to complete a survey. After the sixth attempt the phone number was removed.

Data Collection Process

There were 7,012 interviews completed between January 1, 2017 and December 31, 2017, at an average of 584 interviews per month.

Data Processing

The DOH sent the data electronically to the CDC. The CDC then supplied a final data file with applicable data weights and several calculated variables included. The DOH used this file to calculate all the data presented in this report.

Weighting

Collecting data via telephone survey often produces an over-representation of certain demographic groups in the sample population. Therefore, the sample population may not be representative of the actual population. To account for this, the data are weighted to produce estimates that represent the actual population rather than the sample population.

Sample Description

Survey interviewers collected demographic variables including age, gender, and race. Those interested can find a summary of the demographic results in a table displayed in Appendix A: Demographics.

Appendix A also summarizes the age, race, ethnicity, household income, education, employment status, marital status, phone status (landline v. cell), home ownership status, presence of children in the household, and pregnancy status of female respondents ages 18-44 years old.

Completion Rate

Table 3 shows the outcome of all telephone calls. The 7,012 completed interviews represented a completion rate of 2.9 percent. The refusal rate was 9.8 percent.

Table 3
Disposition of All Telephone Numbers in the Sample, 2017

Final Outcome	Number	Percent
Completed interview	7,012	2.9%
Refused interview	23,861	9.8%
Nonworking number	172,878	70.8%
Not a private residence	12,842	5.3%
Technological barrier	8,968	3.7%
Telephone answering service (Multiple times)	7,319	3.0%
No answer (Multiple times)	2,966	1.2%
Cell phone (Landline study)	1,430	0.6%
Fax line	1,173	0.5%
No eligible respondent at this number	706	0.3%
Interview terminated within questionnaire	421	0.2%
Respondent not available during the interviewing period	280	0.1%
Physical/mental impairment	168	0.1%
On never call list	144	0.1%
Landline phone (Cell phone study)	117	0.0%
Language barrier	113	0.0%
Other	3,785	1.6%
Total	**244,183**	**100.0%**

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2017