



South Carolina

BRESS

Behavioral Risk Factor
Surveillance System



Disability and Health in South Carolina

A 2016 Behavioral Risk Factor Surveillance System Report





ACKNOWLEDGMENTS

Data collection services for the **2016** South Carolina Behavioral Risk Factor Surveillance System survey were conducted by the Institute for Public Service and Policy Research, at the University of South Carolina. Many thanks are extended for their quality service and dedication.

We are especially grateful to the residents of South Carolina who agreed and took the time to participate in the survey.

Citation

J Devlin, A Broadway, D AlHasan, C Lynes and S McDermott 2018. *Disability and Health in South Carolina: A 2016 Behavioral Risk Factor Surveillance System Report.* Columbia, SC: South Carolina Department of Health and Environmental Control, Bureau of Health Improvement and Equity, Division of Surveillance.

This project was funded in part through cooperative agreement (U59/DD000945) from the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. The opinions, findings, and conclusions expressed herein do not necessarily reflect the opinions or policies of the federal Centers for Disease Control and Prevention.



INTRODUCTION

Since its inception in 1984, the South Carolina (SC) Behavioral Risk Factor Surveillance System (BRFSS) survey has been conducted annually by the SC Department of Health and Environmental Control (DHEC) with assistance from the Centers for Disease Control and Prevention (CDC). The BRFSS is a state-based cross-sectional telephone survey conducted to assess health behaviors and risk factor prevalence within the US, its states and its territories. The survey is administered to non-institutionalized adults aged 18 years or older from randomly selected households. Questions included on the survey gather information about lifestyle choices such as smoking, alcohol consumption, physical activity, preventive health practices, and health care access primarily related to chronic disease or injury. The information obtained from the survey is then weighted so that it is representative of the adult population of SC.

For information on SC BRFSS, please visit:

<https://www.scdhec.gov/Health/SCPublicHealthStatisticsMaps/BehavioralRiskFactorSurveys/>

The SC Disability and Health Project is a collaborative partnership between the University of South Carolina Arnold School of Public Health Department of Epidemiology and Biostatistics, the SC Department of Disabilities and Special Needs (DDSN), DHEC and the SC Developmental Disabilities Council (DDC). The primary purpose of the collaboration is to promote the health and wellness of persons with disability in SC through an integrated program of policy, practice, and evaluation. Since 1997, the main focus of the SC Disability and Health Project has been building an infrastructure for disability knowledge through education, service, and research.

To learn more about the SC Interagency Office of Disability and Health (SCIODH) and its partners, please visit <http://www.sciodh.com/>.

DHEC has partnered with the SC Disability and Health Project to produce the **2016** SC BRFSS report on Disability and Health in SC. This report utilizes data from the **2016** SC BRFSS survey to highlight health-related risks for individuals with disability in SC.

Table of Contents

ACKNOWLEDGMENTS.....	i
INTRODUCTION.....	ii
OVERVIEW.....	3
DEMOGRAPHICS.....	6
GENERAL HEALTH.....	7
INADEQUATE SLEEP.....	9
WEIGHT AND PHYSICAL ACTIVITY.....	10
TOBACCO USE.....	11
ALCOHOL CONSUMPTION.....	13
DIABETES.....	15
CARDIOVASCULAR DISEASE.....	17
PREVENTIVE SCREENING PROCEDURES.....	21
VACCINATIONS.....	22
DRIVING SAFETY.....	23
HYPERTENSION AWARENESS.....	24
HIV/AIDS.....	25
EMERGENCY PREPAREDNESS.....	26
CONCLUSIONS.....	27
APPENDIX.....	28
SMOKING BY SC BRFSS SAMPLING REGION.....	40
ACCESS TO WELLNESS PROGRAMS FOR THE DISABLED BY DEMOGRAPHICS.....	43
ACCESS TO WELLNESS PROGRAMS FOR THE DISABLED BY SC BRFSS SAMPLING REGION.....	44



OVERVIEW

People with disabilities are identified as a possible health disparity group. To reduce these disparities, it is important to understand the health status of those with and without disabilities. This report describes various critical health indicators for South Carolina adults with and without disabilities.

The 2016 BRFSS survey includes eight questions relating to disability:

- Are you deaf or do you have serious difficulty hearing?
- Are you blind or do you have serious difficulty seeing, even when wearing glasses?
- Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions?
- Do you have serious difficulty walking or climbing stairs?
- Do you have difficulty dressing or bathing?
- Because of a physical, mental, or emotional condition, do you have difficulty doing errands alone, such as visiting a doctor's office or shopping?
- Are you limited in any way in any activities because of physical, mental, or emotional problems?
- Do you now have any health problem that requires you to use special equipment, such as a cane, a wheelchair, a special bed, or a special telephone?

For the purpose of this report, the criteria to determine disability status* is as follows:

- **Individual has disability:** They answered "Yes" to any one of the eight questions.
- **Individual has no disability:** They answered "No" to four questions and had four missing responses; "No" to five questions and had three missing responses; "No" to six questions and had two missing responses; "No" to seven questions and had one missing response; or "No" to all eight questions.
- **Individual excluded from analysis, disability status undetermined:** five or more questions were missing a response."

*Please note that this definition of disability is different from the one used in SC Disability Reports prior to 2016.

The definition of disability used in this 2016 report differs from previous SC Disability Reports. Historically, defining disability with BRFSS utilized the following two questions:

- Are you limited in any way, in any activities, because of physical, mental, or emotional problems?
- Do you now have a health problem(s) that require you to use special equipment, such as a cane, a wheelchair, a special bed, or a special telephone?

In order to compare the rate of those with disabilities across years in SC, we previously defined disability as:

- **Individual has disability:** They answered “Yes” to either of the two questions.
- **Individual has no disability:** They answered “No” to both questions.
- **Individual excluded from analysis, disability status undetermined:** Both questions were missing a response; the individual answered “No” to one question, but did not provide a response to the other question.

In 2015, more than 25% of South Carolina’s adults reported having disability, which is on average higher than the nation. However, since the questions and definition of disability on BRFSS changed in 2016, the subsequent results presented in this report are not necessarily comparable to previous disability reports. Comparable results in SC to the rest of the nation have been published previously in [2015](#).

METHODOLOGY

Analysis for this study was conducted using survey procedures available in SAS v.9.4 (SAS Institute, Inc. Cary, NC). The data were weighted to adjust for population demographic factors (age, race, and sex) as well as the probability of being selected by phone number(s) and within a household. Unweighted frequencies, weighted percentages, 95% confidence intervals, and p-values calculated from chi-square tests for significance are presented for every measured statistic. Results are to be interpreted as prevalence estimates for individuals with and without disability among the general adult population of SC. It should be noted that the numbers reported in the tables that follow do not necessarily sum to the total sample size, because of missing answers by some participants.

More information on BRFSS survey methodology is available online at: cdc.gov/brfss.

Sample Statistics

Of the 11,236 SC BRFSS respondents who were interviewed in **2016**:

- 22% were 65 years of age or older
- 52% were female
- 67% Non-Hispanic (NH) White, 25% NH Black, 3% NH Other, and 5% Hispanic
- 85% had a high school education or higher
- 31% earned less than \$25,000 annually

DEMOGRAPHICS

Demographic data for survey respondents, by disability category, are displayed in Table 1. People with disability were significantly more likely to be 65 years of age or older, female, and NH Black. Educational status and income level were significantly lower for people with disability. Current employment was significantly lower for people with disability while being unable to work was significantly more likely.

Table 1: SC BRFSS 2016 Demographic Characteristics by Disability Status

Socio-demographic Characteristics	Disability				No Disability				P-value
	N	%	95% CI		N	%	95% CI		
All Adults (ages ≥ 18)	4462	34.2	33.0	35.5	6521	65.8	64.5	67.0	<0.0001
Age									
18-64 years	2188	67.0	65.3	68.7	4298	83.9	83.0	84.8	<0.0001
65 + years	2240	33.0	31.1	34.6	2136	16.1	15.2	17.0	
Gender									
Male	1717	44.8	42.7	47.0	2793	49.7	48.0	51.5	0.0006
Female	2745	55.2	53.0	57.3	3728	50.3	48.5	52.0	
Race									
Non-Hispanic White	2894	66.7	64.7	68.8	4442	67.0	65.3	68.7	0.0075
Non-Hispanic Black	1298	27.0	25.2	28.9	1680	24.5	22.9	26.0	
Hispanic	52	3.3	2.1	4.5	157	5.4	4.3	6.5	
Others	218	2.9	2.4	3.5	242	3.2	2.6	3.7	
Ethnicity									
Hispanic	52	3.4	2.2	4.6	155	5.5	4.4	6.6	0.0211
Non-Hispanic	4260	96.6	95.4	97.8	6246	94.5	93.4	95.6	
Education									
< High School	777	24.3	22.2	26.3	406	9.8	8.5	11.0	<0.0001
High School +	3682	75.7	73.7	77.8	6101	90.2	89.0	91.5	
Income									
< \$ 25,000	1759	48.9	46.5	51.3	1148	22.1	20.5	23.8	<0.0001
\$ 25,000 +	1826	51.1	48.7	53.5	4274	77.9	76.2	79.5	
Employment									
Employed	1041	32.0	29.9	34.1	3679	66.9	65.3	68.5	<0.0001
Unemployed	199	6.3	5.1	7.5	254	5.7	4.7	6.6	
Student/Homemaker	255	7.4	6.1	8.6	520	11.0	9.7	12.2	
Retired	1811	27.8	26.2	29.5	1917	15.1	14.2	16.0	
Unable to Work	1130	26.5	24.6	28.4	105	1.4	1.0	1.9	

GENERAL HEALTH

Respondents were asked the following questions regarding their general health:

- Would you say that in general your health is (Excellent, Very Good, Good, Fair, or Poor)?
- Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?
- Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?
- During the past 30 days, for about how many days did poor physical and mental health keep you from doing your usual activities, such as self-care, work, or recreation?
- Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, government plans such as Medicare, or Indian Health Service?

People with disability reported significantly worse general health than those with no disability. 6.4% of people with disability reported excellent health compared to 24.2% of people with no disability. A total of 16.3% of people with disability reported poor health compared to 0.8% of people with no disability. (Table 2)

Table 2: General Health by Disability Status

General Health	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Excellent	243	6.4	5.2	7.5	1438	24.2	22.6	25.7
Very good	752	17.4	15.8	19.0	2562	39.8	37.5	41.0
Good	1456	31.7	29.7	33.6	2000	29.3	27.7	30.9
Fair	1250	28.3	26.3	30.3	451	6.5	5.7	7.4
Poor	730	16.3	14.7	17.8	56	0.8	0.5	1.1
p-value < 0.0001								

People with disability reported a greater number of days in which their physical health was not good. A total of 28.4% of people with disability reported 16-30 days in which their physical health was not good compared to 2.5% of people without disability. (Table 3)

Table 3: Days Physical Health Not Good

Number of Days Physical Health not Good	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
None	1678	40.1	37.9	42.3	4994	77.7	76.2	79.2
1-15 days	1336	31.5	29.6	33.5	1260	19.8	18.3	21.2
16-30 days	1199	28.4	26.4	30.3	177	2.5	2.0	3.1
p-value < 0.0001								

People with disability reported a greater number of days in which their mental health was not good. A total of 21.5% of people with disability reported 16-30 days in which their mental health was not good compared to 3.7% of people without disability. (Table 4)

Table 4: Days Mental Health Not Good

Number of Days Mental Health not Good	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
None	2435	50.5	48.4	52.7	4883	71.4	69.7	73.0
1-15 days	1121	28.0	26.0	30.0	1361	24.9	23.4	26.5
16-30 days	781	21.5	19.6	23.3	243	3.7	3.0	4.3
p-value < 0.0001								

People with disability reported a greater number of days in which poor physical and mental health interfered with usual activities. A total of 25.4% of people with disability reported poor physical or mental health for more than half of the previous 30 days (16-30) compared to 2.7% of people without disability. (Table 5)

Table 5: Poor Physical or Mental Health Interfered with Usual Activities

Poor Physical or Mental Health Days	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
None	1272	40.6	38.1	43.1	1816	71.2	68.7	73.8
1-15 days	1041	34.0	31.6	36.4	639	26.1	23.6	28.6
16-30 days	807	25.4	23.3	27.6	72	2.7	1.7	3.6
p-value < 0.0001								

Respondents (aged 18-64) were also asked if they have any form of health care coverage. Fewer people with disability reported having health care coverage than those without disability. A total of 79.8% of people with disability reported having any kind of coverage compared with 85.8% of people without disability reporting coverage. (Table 6)

Table 6: Health Care Access Among Adults (Ages 18-64 years)

Aged 18-64 With Health Care Coverage	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	1813	79.8	77.2	82.4	3759	85.8	84.3	87.4
No	364	20.2	17.6	22.8	512	14.2	12.6	15.7
p-value = <0.0001								

Inadequate Sleep

Respondents were asked the following question regarding their sleep patterns:

- On average, how many hours of sleep do you get in a 24-hour period?

People with disability were significantly more likely to report sleeping fewer than 7 hours per night (44.8%) than people without a disability (33.4%). (Table 7)

Table 7: Inadequate Sleep

Inadequate sleep	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
< 4 hours of sleep	357	9.4	8.1	10.7	141	2.8	2.2	3.5
5-6 hours of sleep	1368	35.4	33.3	37.6	1842	30.6	28.9	32.3
7-8 hours of sleep	2010	43.0	40.9	45.1	3991	59.6	57.8	61.3
9-10 hours of sleep	436	9.5	8.2	10.8	416	6.0	5.2	6.8
> 10 hours of sleep	148	2.7	2.1	3.2	72	1.0	0.7	1.3
p-value < 0.0001								



WEIGHT AND PHYSICAL ACTIVITY

Respondents were asked to provide their height and weight so that body mass index (BMI) could be calculated (weight (kg) / height² (m²)). A BMI from 18.5 to 24.9 is considered to be healthy, a BMI of 25 to 29.9 is overweight and a BMI of 30 or greater is obese. People with disability were significantly less likely to report having a healthy weight (25.0% versus 33.8%) and were more likely to report being obese compared to those without a disability (40.6% versus 27.8%). (Table 8)

Table 8: Body Mass Index

BMI	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
<18.5	82	2.0	1.4	2.7	86	1.8	1.3	2.4
18.5-24.9	1013	25.0	23.1	26.9	2005	33.8	32.1	35.6
25-29.9	1375	31.3	30.4	34.5	2302	36.5	34.8	38.3
≥30	1750	40.6	38.4	42.7	1769	27.8	26.2	29.3
p-value < 0.0001								

Respondents were asked the following question about physical activity:

- During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?

A majority of people, both with and without disability, reported at least some leisure time physical activity in the past month. However, people with disability were significantly more likely (42.9%) to report no physical activity than those with no disability (18.5%). (Table 9)

Table 9: Physical Activity

Exercise in last 30 days	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	2471	57.1	57.1	59.2	5257	81.5	80.1	82.8
No	1983	42.9	40.8	45.0	1256	18.5	17.2	19.9
p-value < 0.0001								

TOBACCO USE

Respondents were asked three questions related to tobacco use:

- Have you smoked at least 100 cigarettes in your entire life?
- Do you now smoke cigarettes every day, some days, or not at all? (asked only of those who answered “Yes” to the first question)
- During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking? (asked only of those who answered “Yes” to the first two questions)

People with disability were significantly more likely to report having smoked at least 100 cigarettes in their lifetime (58.4% versus 39.4%). Among those who had smoked at least 100 cigarettes, people with disability were significantly more likely to report currently smoking every day (31.4% versus 26.0%). Also, among those who had smoked at least 100 cigarettes, people with disability were significantly more likely to have tried to quit smoking in the past 12 months (67.5% versus 60.9%). (Tables 10-12)

Table 10: Smoked at Least 100 Cigarettes Throughout Lifetime

Smoked At Least 100 Cigarettes	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	2428	58.4	56.3	60.5	2565	39.4	37.7	41.1
No	1985	41.6	39.5	43.7	3882	60.6	58.9	62.3
p-value < 0.0001								

Table 11: Current Smoking (Among those who have ever smoked)

Frequency of Days Now Smoking	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Every day	589	31.4	28.7	34.2	543	26.0	23.5	28.5
Some days	309	16.5	14.3	18.7	262	14.3	12.1	16.6
Not at all	1527	52.1	49.3	54.9	1757	59.6	56.8	62.4
p-value = 0.002								

Table 12: Tried to Stop Smoking, Past 12 Months

Tried to Stop Smoking in Past 12 Months	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	598	67.5	63.3	71.7	451	60.9	56.4	65.5
No	298	32.5	28.3	36.7	348	39.1	34.5	43.6
p-value = 0.0388								

Table 13 shows current smoking status for all respondents (every day, some days, former, and never). The distribution was significantly different for those with and without disability. Current smoker and former smoker were more frequent among people with disability (18.3% versus 10.3% and 30.4% versus 23.5%, respectively). A total of 41.6% of people with disability reported they have never smoked compared to 60.6% of people without disability. (Table 13)

Table 13: Smoking Status

Smoking Status	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Smokes every day	589	18.3	16.5	20.2	543	10.3	9.2	11.3
Smokes some days	309	9.6	8.3	11.0	262	5.1	4.7	6.6
Former smoker	1527	30.4	28.6	32.2	1757	23.5	22.1	24.9
Never smoked	1985	41.6	39.5	43.8	3882	60.6	58.9	62.4
p-value < 0.0001								



ALCOHOL CONSUMPTION

We analyzed two questions related to alcohol use:

- During the past 30 days, have you had at least one drink of any alcoholic beverage such as beer, wine, a malt beverage, or liquor?
- Considering all types of alcoholic beverages, how many times during the past 30 days did you have “X” [X = 5 for men and X = 4 for women] or more drinks on an occasion (defined as binge drinking)?

People with disability were significantly less likely to report drinking any alcohol in the past 30 days (39.3% versus 56.9%). However, there were no significant differences among the two populations with regards to reporting binge drinking during the past 30 days. (Tables 14 and 15)

Table 14: Any Alcohol Use in the Past 30 Days

In the Past 30 Days had Alcoholic Beverage	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	1533	39.3	37.2	41.5	3344	56.9	55.2	58.6
No	2833	60.7	58.5	62.8	3029	46.7	45.1	44.8
p-value < 0.0001								

Table 15: Binge Drinking Past 30 Days

How Many Times During the Past 30 Days Did You have “X” or More Drinks on One Occasion?	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
None	1127	68.0	64.4	71.5	2438	66.1	63.7	68.5
1 time	99	10.1	7.5	12.8	289	11.1	9.5	12.7
2-5 times	186	14.8	12.2	17.3	425	16.8	14.9	18.8
>5 times	83	7.1	5.1	9.2	139	6.0	4.7	7.4
p-value = 0.4744								

There were no significant differences between people with disability and people without disability with regards to heavy drinking in 2016. Most individuals in both groups reported a low number of drinks per day by sex where they would not be considered as heavy drinkers. (Table 16)

Table 16: Heavy Drinker (more than 2 drinks /day for men and more than 1 drink/day for women)

Heavy Drinker	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
No	4089	94.0	92.9	95.0	5894	92.8	91.9	93.8
Yes	224	6.0	5.0	7.1	404	7.2	6.2	8.1
p-value = 0.1208								



DIABETES

Participants were asked the following question about diabetes:

- Have you ever been told by a doctor that you have diabetes?

People with disability were significantly more likely to have been diagnosed with diabetes (excluding gestational diabetes) than people without disability (23.5% versus 7.7%). (Table 17)

Table 17: Ever Diagnosed with Diabetes

Ever Told by Doctor You have Diabetes	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	1211	23.5	21.8	25.2	742	7.7	7.0	8.5
No	3236	76.5	74.8	78.2	5767	92.3	91.5	93.0
p-value < 0.0001								

Participants who reported they did NOT have diabetes (or who reported they had pre-diabetes or borderline diabetes) were asked the following questions:

- Have you had a test for high blood sugar or diabetes within the past three years?
- Have you ever been told by a doctor or other health professional that you have pre-diabetes or borderline diabetes?

There was no significant difference between people with disability and people without disability in regards to getting tested for high blood sugar in the past three years. (Table 18)

Table 18: Tested for high blood sugar in past 3 years

Pre-diabetes Test	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	2021	60.5	57.8	63.1	3416	58.1	56.2	60.1
No	1050	39.5	36.9	42.2	1901	41.9	39.9	43.8
p-value = 0.1667								

People with disability were significantly more likely to have been told they had pre-diabetes or borderline diabetes (14.7%) than people without disability (6.9%). (Table 19)

Table 19: Pre-diabetes or borderline diabetes

Pre-diabetes Diagnosis	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	501	14.7	12.9	16.5	485	6.9	6.0	7.8
Yes, but female told only during pregnancy	39	1.4	0.8	2.0	53	1.0	0.6	1.3
No	2645	83.9	81.5	85.2	4973	92.1	91.2	93.1
p-value < 0.0001								

Participants who reported having been told they have diabetes were asked this follow-up question:

- How old were you when you were told you have diabetes?

Among people who reported having diabetes, people with disability were significantly less likely to be diagnosed under the age of 30 (9.1%) than people without disability (16.9%). (Table 20)

Table 20: Age of Diabetes Diagnosis

Age When Told You had Diabetes	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
<30	70	9.1	6.3	11.9	68	16.9	12.3	21.4
30-49	355	39.4	33.2	41.5	203	35.8	30.7	40.9
50-59	302	28.2	24.4	31.9	188	24.6	20.4	28.7
60+	331	25.4	22.1	28.6	222	22.8	19.0	26.6
p-value = 0.007								

CARDIOVASCULAR DISEASE

The following questions were asked regarding cardiovascular disease:

- Has a doctor, nurse, or other health professional ever told you that you:
 - had angina or coronary heart disease?
 - had a heart attack, also called a myocardial infarction?
 - had a stroke?

People with disability were more likely than people without disability to have had angina or coronary heart disease (9.7% versus 2.1%). (Table 21)

Table 21: Ever Diagnosed with Angina or Coronary Heart Disease

Ever Told Angina or Coronary Heart Disease	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	526	9.7	8.6	10.8	232	2.1	1.7	2.4
No	3828	90.3	89.2	91.4	6249	97.9	97.6	98.3
p-value < 0.0001								

People with disability were more likely than people without disability to have had a myocardial infarction (10.8% versus 2.1%). (Table 22)

Table 22: Ever Diagnosed with a Heart Attack, also called Myocardial Infarction

Ever Told Myocardial Infarction	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	536	10.8	9.6	12.0	207	2.1	1.7	2.4
No	3875	89.2	88.0	90.4	6292	97.9	97.6	98.3
p-value < 0.0001								

People with disability were more likely than people without disability to have had a stroke (8.6% versus 1.4%). (Table 23)

Table 23: Ever Diagnosed with Stroke

Ever Told Stroke	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	443	8.6	7.5	9.6	135	1.4	1.1	1.8
No	3992	91.4	90.4	92.5	6377	98.6	98.2	98.9
p-value < 0.0001								

OTHER CHRONIC CONDITIONS

The following question was asked inquiring about other chronic conditions:

- Has a doctor, nurse, or other health professional ever told you that you had any of the following:
 - Arthritis
 - Asthma
 - Skin Cancer
 - Other type of cancer
 - Chronic obstructive pulmonary disease (COPD), emphysema, or chronic bronchitis
 - Depressive Disorder, including depression, major depression, dysthymia, or minor depression
 - Kidney Disease

People with disability were over three times more likely to report being diagnosed with arthritis (56.2% versus 16.8%) than people without disability. (Table 24)

Table 24: Ever Diagnosed with some Form of Arthritis

Ever Told Arthritis	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	2821	56.2	54.1	58.4	1687	16.8	15.7	17.9
No	1603	43.8	41.6	45.9	4807	83.2	82.1	84.3
p-value < 0.0001								

Respondents with disability were significantly more likely to have been diagnosed with or told they have asthma (20.0%) compared to those without disability (10.2%). (Table 25)

Table 25: Asthma

Ever Told You had Asthma	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	861	20.0	18.3	21.7	606	10.2	9.1	11.3
No	3582	80.0	78.3	81.7	5907	89.8	88.7	90.9
p-value < 0.0001								

Additionally, if respondents reported that they have been diagnosed with asthma, they were asked if they still have asthma. People with disability were significantly more likely to state they still have asthma (76.6%) compared to those without disability (58.2%). (Table 26)

Table 26: Current Asthma Status

Still Have Asthma	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	635	76.6	72.6	80.7	355	58.2	52.4	63.9
No	200	23.4	19.3	27.4	234	41.8	36.1	47.6
p-value < 0.0001								

Respondents with disability were significantly more likely to have been told they have skin cancer (10.8%) compared to those without disability (5.6%). (Table 27)

Table 27: Skin Cancer

Ever Told You had Skin Cancer	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	616	10.8	9.7	12.0	631	5.6	5.1	6.2
No	3817	89.2	88.0	90.3	5876	94.4	93.2	94.4
p-value < 0.0001								

Respondents with disability were significantly more likely to have been told they have some other type of cancer (11.1%) compared to those without disability (4.8%). (Table 28)

Table 28: Other Types of Cancer

Ever Told You had Other Types Cancer	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	611	11.1	9.8	12.3	542	4.8	4.3	5.4
No	3823	88.9	87.7	90.2	5968	95.2	94.6	95.7
p-value < 0.0001								

Respondents with disability were significantly more likely to have been told they have a depressive disorder, including depression, major depression, dysthymia, or minor depression (39.0%) compared to those without disability (11.0%). (Table 29)

Table 29: Depressive Disorder

Ever Told You had a Depressive Disorder	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	1543	39.0	36.9	41.1	709	11.0	10.0	12.1
No	2881	61.0	58.9	63.1	5795	89.0	87.9	90.0
p-value < 0.0001								

Respondents were asked if they have ever been told they have a kidney disease that does not include kidney stones, bladder infections, or incontinence. Individuals with disability were significantly more likely to have been told they have kidney disease (6.5%) compared to individuals without disability (1.2%). (Table 30)

Table 30: Kidney Disease

Ever Told You had a Kidney Disease	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	331	6.5	5.6	7.4	123	1.2	0.9	1.5
No	4080	93.5	92.6	94.4	6387	98.8	98.5	99.1
p-value < 0.0001								

Respondents with disability were significantly more likely to have been diagnosed or told they have chronic obstructive pulmonary disease (COPD), emphysema, or chronic bronchitis (17.7%) compared to those without disability (2.7%). (Table 31)

Table 31: COPD, Emphysema or Chronic Bronchitis

Ever Told You had COPD, Emphysema or Chronic Bronchitis	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	806	17.7	16.1	19.3	234	2.7	2.3	3.2
No	3609	82.3	80.7	83.9	6269	97.3	96.9	97.7
p-value < 0.0001								

PREVENTIVE SCREENING PROCEDURES

Women were asked the following questions about preventive screening procedures:

- How long has it been since you had your last mammogram?
- How long has it been since you had your last Pap test?

Among women of ages 50-74 years, those with disability were less likely to have a mammogram within the past year or within the past two years compared to those without disability (55.8% versus 61.2%; 19.3% versus 20.5% respectively).. (Table 32)

Table 32: Mammograms Among Women ages 50-74 years

Time since last mammogram	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Within past year	833	55.8	52.2	59.4	1178	61.2	58.2	64.2
Within past 2 years	294	19.3	16.5	22.1	376	20.5	18.0	23.0
Within past 3 years	118	8.7	6.5	10.9	106	6.7	5.1	8.3
Within past 5 years	68	5.0	3.5	6.5	84	5.7	4.1	7.4
5 or more years ago	140	11.2	8.9	13.5	103	5.9	4.5	7.2
p-value = 0.0007								

Women ages 21-65 without disability were significantly more likely to have had a Pap test in the past year compared to women of the same age group with disability (50.4% versus 39.0%). (Table 33)

Table 33: Pap test Among Women ages 21-65 years

Time since last Pap test	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Within past year	476	39.0	35.2	42.8	1079	50.4	47.5	53.3
Within past 2 years	231	17.8	14.8	20.8	536	21.8	21.8	26.8
Within past 3 years	138	12.2	9.5	14.9	223	8.7	7.2	10.2
Within past 5 years	122	10.4	8.0	12.8	143	6.8	5.4	8.2
5 or more years ago	291	20.5	17.7	23.3	241	9.8	8.1	11.5
p-value = <0.0001								

VACCINATIONS

The following questions were asked about vaccinations:

- During the past 12 months, have you had either a seasonal flu shot or a seasonal flu vaccine that was sprayed in your nose?
- A pneumonia shot or pneumococcal vaccine is usually given only once or twice in a person's lifetime and is different from the flu shot. Have you ever had a pneumonia shot?

Individuals aged 65 or older with disability were significantly more likely to have received a influenza immunization (66.7%) than individuals of the same age group without disability (57.0%). (Table 34)

Table 34: Vaccination Status (Flu Vaccination ages 65+)

Adults Aged 65+ Who have had Influenza Immunization Within the Past Year	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	1450	66.7	64.1	69.3	1220	57.0	54.2	59.8
No	752	33.3	30.7	35.9	875	43.0	40.2	45.8
p-value = <0.0001								

Individuals aged 65 or older with disability were significantly more likely to have received a pneumonia vaccination than individuals of the same age group without disability (76.9% versus 65.7%). (Table 35)

Table 35: Vaccination Status (Pneumonia Vaccination ages 65+)

Adults Aged 65+ Who Have Ever Received had A Pneumonia Vaccination	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	1630	76.9	74.5	79.3	1384	65.7	63.0	68.5
No	497	23.1	20.7	25.5	659	34.3	31.5	37.1
p-value < 0.0001								

DRIVING SAFETY

The following question was asked concerning driving safety:

- How often do you use seat belts when you drive or ride in a car?

There was no significant difference between people with and without disability in regards to seatbelt use while driving. (Table 36)

Table 36: Use of Seat belt in a Car

How Often Use Seat belt	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Always	3875	87.5	85.9	89.0	5726	88.6	87.4	89.8
Nearly always	269	7.8	6.4	9.1	380	6.9	5.9	7.8
Sometimes	103	2.9	2.2	3.7	117	2.6	1.9	3.2
Seldom	26	0.8	0.4	1.2	39	0.8	0.5	1.1
Never	55	1.1	0.7	1.4	52	1.2	0.8	1.7
p-value = 0.6901								



HYPERTENSION AWARENESS

The following question was asked concerning hypertension (high blood pressure):

- Have you ever been told by a doctor, nurse, or other health professional that you have high blood pressure?

People with disability were significantly more likely to be told by a doctor, nurse, or other health professional that they have high blood pressure than people without disability (56.2% versus 30.1%). (Table 37)

Table 37: High Blood Pressure

High Blood Pressure told by a Doctor	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	2839	56.2	54.0	58.4	2537	30.1	28.6	31.6
No	1564	43.8	41.6	46.0	3704	69.9	68.4	71.4
p-value < 0.0001								



HIV/AIDS

The following question was asked regarding HIV/AIDS testing:

- Have you ever been tested for HIV? Do not count tests you may have had as part of a blood donation. Include testing fluid from your mouth.

There was no significant difference between people with or without disability in regards to ever getting tested for HIV/AIDS. (Table 38)

Table 38: HIV/AIDS Testing

Ever tested for HIV/AIDS	Disability			No Disability		
	N	%	95% CI	N	%	95% CI
Yes	1287	38.1	35.9 40.4	1781	36.5	34.7 38.3
No	2762	61.9	59.6 64.1	4195	63.5	61.7 65.3
p-value = 0.2781						



EMERGENCY PREPAREDNESS

Respondents were asked the following questions regarding their preparedness for large-scale disaster or emergencies:

- In the event of a large-scale disaster or emergency, which of the following do you have in place?
 - An emergency supply kit, including items such as water, flashlight or batteries
 - A disaster evacuation plan, including how to get out of your house or town and where you would go

There was no significant difference in having an emergency supply kit or an evacuation plan between people with and without disability (Tables 39-40).

Table 39: Emergency Preparedness (Supply Kit)

Do you have an emergency supply kit?	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	2919	67.8	65.7	69.9	4153	67.8	66.0	69.6
No	1219	32.2	30.1	34.3	1699	32.2	30.4	34.0
p-value = 0.9940								

Table 40: Emergency Preparedness (Evacuation Plan)

Do you have an evacuation plan?	Disability				No Disability			
	N	%	95% CI		N	%	95% CI	
Yes	2402	57.3	55.0	59.7	3579	58.5	56.6	60.3
No	1695	42.7	40.3	45.0	2233	41.5	39.7	43.4
p-value = 0.2662								

CONCLUSIONS

Approximately one-third of adult participants in the 2016 South Carolina BRFSS reported having disability. Historically, the prevalence of individuals with disability in South Carolina has been consistently higher than the national average. As has been the case in previous years, South Carolinians with disability were significantly less likely to have a high school diploma or higher degree, less likely to be employed, and more likely to have an annual income of less than \$25,000 compared to people without disability. People with disability reported significantly worse physical and mental health status, which is also consistent with BRFSS findings from previous years. People with disability were more likely to have been told they have chronic conditions such as arthritis, cardiovascular disease, and cancer. In addition, people with disability were also less likely to have access to any form of healthcare coverage.

These findings highlight the fact that there are significant health disparities in people with disability and are consistent with the literature. Some of this may represent disparities in health on the basis of disability, but some may represent the effects of the underlying causes of disability. For example, people may report having a disability as a result of diabetes, which would also contribute to a greater prevalence of diabetes in people with disability. However, certain outcomes highlight positive advances for those with disability; adults 65 years of age or older with disability were significantly more likely to receive an influenza vaccine within the past year (66.7%) or pneumonia vaccination (76.9%) than those without disability (57.0% and 65.7%, respectively).

The health disparities among individuals with disability has been well documented. Efforts to ensure access to and provision of indicated prevention and medical services is needed. Prevention services and public health interventions should address the needs of those with disability. This can be done in many ways, such as educating staff on disability knowledge, making facilities physically accessible, including proper equipment, providing transportation, and lowering costs of participation in fitness programs. Policies can better facilitate access to medical care and health promotion. Eliminating health disparities among this population should be a priority.

APPENDIX

DISABILITY AND HEALTH BY SC BRFSS SAMPLING REGION

This section highlights demographic and health characteristics among people with disability by SC BRFSS sampling region. The information in this section compares outcomes between people with disability and without disability among the nine BRFSS sampling regions in South Carolina.

The sampling regions serve as a guide for how SC BRFSS selects participants for the annual survey. The BRFSS regions are as follows:

- **Region 1:** Abbeville, Anderson, Greenwood, Laurens, McCormick, and Oconee counties.
- **Region 2:** Cherokee, Greenville, Pickens, Spartanburg, and Union counties.
- **Region 3:** Chester, Lancaster, and York counties.
- **Region 4:** Fairfield, Kershaw, Lexington, and Richland counties.
- **Region 5:** Aiken, Barnwell, Edgefield, Newberry, and Saluda counties.
- **Region 6:** Berkeley, Charleston, and Dorchester counties.
- **Region 7:** Georgetown, Horry, and Williamsburg counties.
- **Region 8:** Allendale, Bamberg, Beaufort, Calhoun, Colleton, Hampton, Jasper, and Orangeburg counties.
- **Region 9:** Chesterfield, Clarendon, Darlington, Dillon, Florence, Lee, Marion, Marlboro, and Sumter counties.

Table A1 shows the proportion of people with disability versus people without disability by SC BRFSS sampling region in South Carolina. Region 9 has the highest percentage of people with disability and Region 6 has the lowest percentage of people with disability in 2016.

Table A1: Proportion of disability by nine BRFSS regions

Region	Disability				No Disability			
	N	Weighted N	%	95% CI	N	Weighted N	%	95% CI
1	552	251871	32.9	29.7 36.1	828	513624	67.1	63.9 70.3
2	565	135018	39.9	36.1 43.6	721	203499	60.1	56.4 63.9
3	350	68615	33.1	29.0 37.2	544	138513	66.9	62.8 71.0
4	403	188077	31.3	27.0 33.6	696	413166	68.7	65.0 72.5
5	338	97622	33.9	29.9 37.8	548	190543	66.1	62.2 70.0
6	528	175524	30.3	27.0 33.6	848	403796	69.7	66.4 72.9
7	540	99105	32.9	29.9 36.0	867	201732	67.1	60.4 70.1
8	577	118360	36.1	32.1 39.4	794	209547	63.9	60.6 67.2
9	609	159071	42.8	39.1 46.5	675	212498	57.2	53.5 60.9

p-value = <0.0001



Demographic data for survey respondents by disability status and SC BRFSS sampling region are displayed in Table A2. The findings by region were generally consistent with those reported for the state as a whole.

Table A2: Socio-demographic Characteristics for BRFSS Regions by Disability Status, 2016

Socio-demographic Characteristics		Disability				No Disability				P-value
		N	%	95% CI		N	%	95% CI		
Region 1: Abbeville, Anderson, Greenwood, Laurens, McCormick, and Oconee counties.										
Age	18-64 years	263	67.8	63.2	72.3	556	85.0	82.6	87.4	<.0001
	65+ years	282	32.2	27.7	36.8	254	15.0	12.6	17.4	
Gender	Male	203	43.9	38.3	49.5	358	50.0	45.5	54.6	0.0969
	Female	349	56.1	50.5	61.7	470	50.0	45.4	54.5	
Race	NH-White	398	74.8	69.9	79.7	602	72.5	68.1	76.9	0.0906
	NH-Black	105	19.4	15.1	23.7	124	19.5	12.7	19.9	
	Hispanic	9	4.0	1.3	6.6	28	6.8	3.8	9.8	
	Others	18	1.8	0.6	3.1	51	4.4	2.8	6.0	
Region 2: Cherokee, Greenville, Pickens, Spartanburg, and Union counties.										
Age	18-64 years	263	66.4	61.7	71.1	436	80.9	78.0	83.8	<0.0001
	65+ years	298	33.6	28.9	38.3	282	19.1	16.2	22.0	
Gender	Male	214	43.8	37.9	49.6	313	51.9	46.7	57.0	0.0423
	Female	351	56.2	50.4	62.1	408	48.1	43.0	53.3	
Race	NH-White	382	75.1	69.9	80.3	534	78.0	73.7	82.3	0.3914
	NH-Black	124	20.6	15.7	25.5	145	17.8	14.1	21.6	
	Hispanic	4	1.4	0	3.2	9	2.7	0.2	5.2	
	Others	27	2.8	1.4	4.3	17	1.5	0.6	2.4	
Region 3: Chester, Lancaster, and York counties.										
Age	18-64 years	160	64.4	58.6	70.3	354	82.1	78.9	85.4	<0.0001
	65+ years	188	35.6	29.7	41.4	185	17.9	14.6	21.1	
Gender	Male	125	42.9	35.9	49.9	226	52.5	46.6	58.5	0.0373
	Female	225	57.1	50.1	64.1	318	47.5	41.5	53.4	
Race	NH-White	238	66.0	59.0	72.9	385	64.9	58.9	70.8	0.0055
	NH-Black	83	30.9	23.9	37.8	120	26.6	21.2	32.0	
	Hispanic	1	0.1	0	0.3	11	5.4	2.1	8.8	
	Others	16	3.1	1.3	4.9	12	3.1	0.5	5.7	

Table A2 continued:

Socio-demographic Characteristics		Disability				No Disability				P-value
		N	%	95% CI		N	%	95% CI		
Region 4: Fairfield, Kershaw, Lexington, and Richland counties.										
Age	18-64 years	203	67.9	62.4	73.5	507	88.1	85.9	90.4	< 0.0001
	65 + years	195	32.1	26.5	37.6	178	11.9	9.6	14.1	
Gender	Male	148	45.6	38.5	52.8	286	48.5	43.4	53.5	0.5233
	Female	255	54.4	47.2	61.5	410	51.5	46.5	56.6	
Race	NH-White	238	60.8	53.4	68.1	409	58.3	53.2	63.4	0.8795
	NH-Black	129	31.3	24.5	38.1	227	32.1	27.4	36.9	
	Hispanic	4	5.5	0	11.0	19	5.8	2.6	9.0	
	Others	19	2.4	1.0	3.8	31	3.8	1.9	5.8	
Region 5: Aiken, Barnwell, Edgefield, Newberry, and Saluda counties.										
Age	18-64 years	180	70.3	64.9	75.7	366	84.1	81.3	86.9	<.0001
	65 + years	157	29.7	24.3	35.1	173	15.9	13.1	18.7	
Gender	Male	125	42.4	35.5	49.2	238	50.4	45.1	55.7	0.0702
	Female	213	57.6	50.8	64.5	310	49.6	44.3	54.9	
Race	NH-White	241	73.2	66.7	79.6	415	72.4	67.1	77.7	0.9911
	NH-Black	67	19.3	13.8	24.8	97	19.3	14.9681	23.6	
	Hispanic	5	4.5	0.4	8.6	10	4.9	1.4	8.4	
	Others	14	3.0	1.1	4.8	15	3.5	1.0	5.9	
Region 6: Berkeley, Charleston, and Dorchester counties.										
Age	18-64 years	256	66.7	61.7	71.7	610	87.4	85.3	89.6	< 0.0001
	65 + years	269	33.3	28.3	38.3	226	12.6	10.4	14.7	
Gender	Male	235	46.9	40.7	53.1	397	49.5	44.9	54.1	0.5089
	Female	293	53.1	46.9	59.3	451	50.5	45.9	55.1	
Race	NH-White	331	67.5	61.4	73.6	563	68.6	64.2	73.1	0.4543
	NH-Black	136	24.2	18.8	29.7	211	22.5	18.6	26.3	
	Hispanic	7	4.2	0.5	7.9	27	6.5	3.5	9.5	
	Others	39	4.1	2.2	6.0	26	2.4	1.1	3.7	

Table A2 continued:

Socio-demographic Characteristics		Disability				No Disability				P-value
		N	%	95% CI		N	%	95% CI		
Region 7: Georgetown, Horry, and Williamsburg counties.										
Age	18-64 years	244	61.7	56.9	66.4	510	76.9	74.1	79.7	<.0001
	65+ years	290	38.3	33.5	43.1	340	23.1	20.3	25.9	
Gender	Male	216	47.8	42.4	53.3	357	47.9	43.5	52.2	0.9978
	Female	324	52.2	46.7	57.6	510	52.1	47.8	56.5	
Race	NH-White	298	57.7	52.3	63.2	504	57.8	53.4	62.1	0.1749
	NH-Black	183	36.4	31.168	41.657	290	32.4	28.4	36.4	
	Hispanic	8	3.6	0.7	6.5	24	7.7	4.3	11.0	
	Others	21	2.2	1.0	3.5	28	2.2	1.1	3.4	
Region 8: Allendale, Bamberg, Beaufort, Calhoun, Colleton, Hampton, Jasper, and Orangeburg counties.										
Age	18-64 years	335	69.9	65.7	74.1	458	83.4	80.7	86.2	<.0001
	65+ years	269	30.1	25.9	34.3	213	16.6	13.8	19.3	
Gender	Male	214	44.3	38.9	49.7	348	50.2	45.6	54.8	0.1033
	Female	363	55.7	50.3	61.1	446	49.8	45.2	54.4	
Race	NH-White	357	75.1	70.5	79.6	550	74.8	70.5	79.0	0.2333
	NH-Black	163	18.1	14.4	21.8	178	17.3	13.7	20.9	
	Hispanic	8	2.5	0.6	4.4	20	5.2	2.5	7.9	
	Others	22	4.3	1.6	7.1	28	2.7	1.3	4.1	
Region 9: Chesterfield, Clarendon, Darlington, Dillon, Florence, Lee, Marion, Marlboro, and Sumter counties.										
Age	18-64 years	342	70.5	66.3	74.7	582	82.7	80.1	85.4	<.0001
	65+ years	229	29.5	25.3	33.7	248	17.3	14.6	19.9	
Gender	Male	237	44.7	39.4	50.1	270	48.6	43.5	53.7	0.3071
	Female	372	55.3	49.9	60.6	405	51.4	46.3	56.5	
Race	NH-White	318	51.8	46.4	57.1	370	53.6	48.5	58.8	0.9497
	NH-Black	237	42.7	37.4	48.1	252	41.7	36.5	46.8	
	Hispanic	6	2.4	0	4.9	9	2.1	0.56	3.7	
	Others	30	3.1	1.6	4.6	28	2.6	1.4	3.7	

GENERAL HEALTH BY SC BRFSS SAMPLING REGION

For each sampling region, people with disability were significantly more likely to report “fair” to “poor” general health than people without disability. There was substantial regional variability noted in general health among people with disability with the proportion reporting “poor” general health ranging from a low of 10.1% in Region 6 to 22.6% in Region 9. (Table A3)

Table A3: General health status for for BRFSS Regions by Disability Status, 2016

General Health	Disability				No Disability				P-value
	N	%	95% CI		N	%	95% CI		
Region 1: Abbeville, Anderson, Greenwood, Laurens, McCormick, and Oconee counties.									
Excellent	35	7.6	4.3	10.9	201	26.2	22.1	30.5	< 0.0001
Very good	90	16.5	12.4	20.6	342	38.6	34.2	43.0	
Good	168	28.5	23.5	33.6	226	27.8	23.6	31.9	
Fair	152	29.7	24.5	35.0	50	6.19	4.0	8.4	
Poor	101	17.6	13.5	21.8	7	1.2	0.1	2.4	
Region 2: Cherokee, Greenville, Pickens, Spartanburg, and Union counties.									
Excellent	22	4.7	1.8	7.7	134	21.2	16.3	26.1	< 0.0001
Very good	90	14.8	11.0	18.7	278	38.6	33.5	43.6	
Good	185	35.8	29.9	41.7	245	32.3	27.6	37.1	
Fair	163	28.8	23.8	33.9	54	6.8	4.4	9.1	
Poor	100	15.8	12.1	19.6	9	1.2	0.3	2.1	
Region 3: Chester, Lancaster, and York counties.									
Excellent	18	8.2	3.7	12.6	121	24.3	19.1	29.5	< 0.0001
Very good	57	18.9	13.1	24.6	228	41.4	35.6	47.3	
Good	115	27.4	21.7	33.2	153	28.8	22.9	34.8	
Fair	88	24.8	18.7	30.8	34	4.7	2.6	6.8	
Poor	71	20.7	14.9	26.5	4	0.8	0	1.6	
Region 4: Fairfield, Kershaw, Lexington, and Richland counties.									
Excellent	24	6.2	2.4	10.0	170	23.3	19.0	27.5	< 0.0001
Very good	75	17.1	12.3	21.8	286	41.9	36.9	46.9	
Good	142	31.2	25.0	37.4	193	27.2	22.6	31.8	
Fair	102	28.3	21.3	35.3	44	7.6	4.8	10.3	
Poor	58	17.2	11.8	22.5	1	0.1	0	0.2	
Region 5: Aiken, Barnwell, Edgefield, Newberry, and Saluda counties.									
Excellent	12	5.9	1.9	9.8	121	22.8	18.3	27.3	< 0.0001
Very good	64	19.0	13.4	24.7	232	39.7	34.6	44.8	
Good	113	30.7	24.7	36.8	154	30.0	24.9	35.2	
Fair	102	30.8	24.6	37.1	39	7.2	4.5	9.9	
Poor	47	13.5	9.0	18.1	2	0.3	0	0.8	

Table A3 continued:

Region 6: Berkeley, Charleston, and Dorchester counties.									
Excellent	35	6.2	3.4	9.0	217	28.3	24.2	32.5	< 0.0001
Very good	105	22.1	16.7	27.4	332	39.0	34.5	43.4	
Good	170	34.0	28.0	39.9	245	26.7	22.7	30.6	
Fair	148	27.6	22.2	33.1	46	5.3	3.2	7.5	
Poor	66	10.1	6.2	14.1	7	0.7	0.0	1.4	
Region 7: Georgetown, Horry, and Williamsburg counties.									
Excellent	36	6.4	3.5	9.3	210	27.2	23.2	31.2	< 0.0001
Very good	101	19.9	15.2	24.5	309	34.8	30.7	39.0	
Good	189	36.6	31.3	41.9	275	31.3	27.2	35.4	
Fair	134	23.2	18.8	27.6	62	5.7	4.0	7.5	
Poor	77	13.9	10.5	17.2	8	0.9	0.2	1.7	
Region 8: Allendale, Bamberg, Beaufort, Calhoun, Colleton, Hampton, Jasper, and Orangeburg counties.									
Excellent	36	7.8	4.6	11.0	172	23.4	19.3	27.5	< 0.0001
Very good	95	19.6	15.2	24.0	310	40.9	36.3	45.4	
Good	185	30.4	25.6	35.3	252	29.9	25.7	34.1	
Fair	173	27.5	22.7	32.2	51	4.9	3.3	6.6	
Poor	84	14.8	11.0	18.6	9	0.9	0	1.9	
Region 9: Chesterfield, Clarendon, Darlington, Dillon, Florence, Lee, Marion, Marlboro, and Sumter counties.									
Excellent	25	4.5	1.6	7.4	92	15.0	11.2	18.7	< 0.0001
Very good	75	11.6	8.2	15.0	245	37.7	32.7	42.8	
Good	189	31.3	26.3	36.2	257	36.1	31.3	40.9	
Fair	188	30.1	25.3	34.9	71	10.4	7.5	13.4	
Poor	126	22.6	18.2	26.9	9	0.8	0.2	1.4	



The proportion of people with disability who reported their physical health was not good for 16 to 30 days in the previous month ranged from 24.5% in Region 6 to 32.2% in Region 1. Additionally, for all regions, people with disability were significantly more likely than people without disability to report their physical health was not good for 16 to 30 days in the previous month. (Table A4)

Table A4: Days Physical Health Not Good for BRFSS Regions by Disability Status, 2016

Number of Days Physical Health Not Good	Disability				No Disability				P-value
	N	%	95% CI		N	%	95% CI		
Region 1: Abbeville, Anderson, Greenwood, Laurens, McCormick, and Oconee counties.									
None	199	37.0	31.4	42.7	638	77.7	73.8	81.5	< 0.0001
1-15 days	149	30.7	25.4	36.1	152	18.6	15.0	22.1	
16-30 days	168	32.2	26.9	37.5	27	3.8	1.9	5.6	
Region 2: Cherokee, Greenville, Pickens, Spartanburg, and Union counties.									
None	218	41.2	35.3	47.1	540	78.1	74.0	82.2	< 0.0001
1-15 days	148	29.5	24.0	35.1	142	18.4	14.6	22.3	
16-30 days	169	29.3	24.1	34.5	30	3.5	1.8	5.1	
Region 3: Chester, Lancaster, and York counties.									
None	116	37.1	30.0	44.2	425	81.2	77.0	85.5	< 0.0001
1-15 days	111	33.8	27.0	40.6	97	16.5	12.5	20.5	
16-30 days	93	29.1	22.5	35.7	14	2.3	0.8	3.8	
Region 4: Fairfield, Kershaw, Lexington, and Richland counties.									
None	153	41.3	34.2	48.4	549	78.3	73.9	82.6	< 0.0001
1-15 days	113	27.3	21.1	33.4	129	20.1	15.8	24.4	
16-30 days	118	31.4	25.0	37.8	15	1.6	0.6	2.7	
Region 5: Aiken, Barnwell, Edgefield, Newberry, and Saluda counties.									
None	132	38.2	31.4	45.0	415	74.7	70.0	79.4	< 0.0001
1-15 days	105	34.3	27.7	40.9	119	23.3	18.8	27.9	
16-30 days	87	27.5	21.3	33.7	11	1.9	0.3	3.6	
Region 6: Berkeley, Charleston, and Dorchester counties.									
None	199	41.8	35.4	48.2	634	73.7	69.5	77.9	< 0.0001
1-15 days	172	33.6	27.9	39.4	190	24.3	20.2	28.4	
16-30 days	141	24.5	19.2	29.8	18	2.0	0.9	3.2	
Region 7: Georgetown, Horry, and Williamsburg counties.									
None	218	44.3	38.8	49.8	668	79.7	76.3	83.2	< 0.0001
1-15 days	159	29.8	24.8	34.7	161	16.9	13.8	19.9	
16-30 days	136	26.0	21.3	30.6	25	3.4	1.4	5.4	

Table A4 continued:

Region 8: Allendale, Bamberg, Beaufort, Calhoun, Colleton, Hampton, Jasper, and Orangeburg counties.									
None	227	44.4	38.8	49.9	618	80.1	76.4	83.7	< 0.0001
1-15 days	173	28.8	23.7	33.8	132	17.6	14.1	21.1	
16-30 days	135	26.9	21.9	31.8	24	2.3	1.0	3.5	
Region 9: Chesterfield, Clarendon, Darlington, Dillon, Florence, Lee, Marion, Marlboro, and Sumter counties.									
None	216	37.1	31.6	42.5	618	80.3	76.5	84.2	< 0.0001
1-15 days	206	37.7	32.5	43.0	132	18.3	14.5	22.0	
16-30 days	152	25.2	20.7	29.8	24	1.4	0.4	2.4	

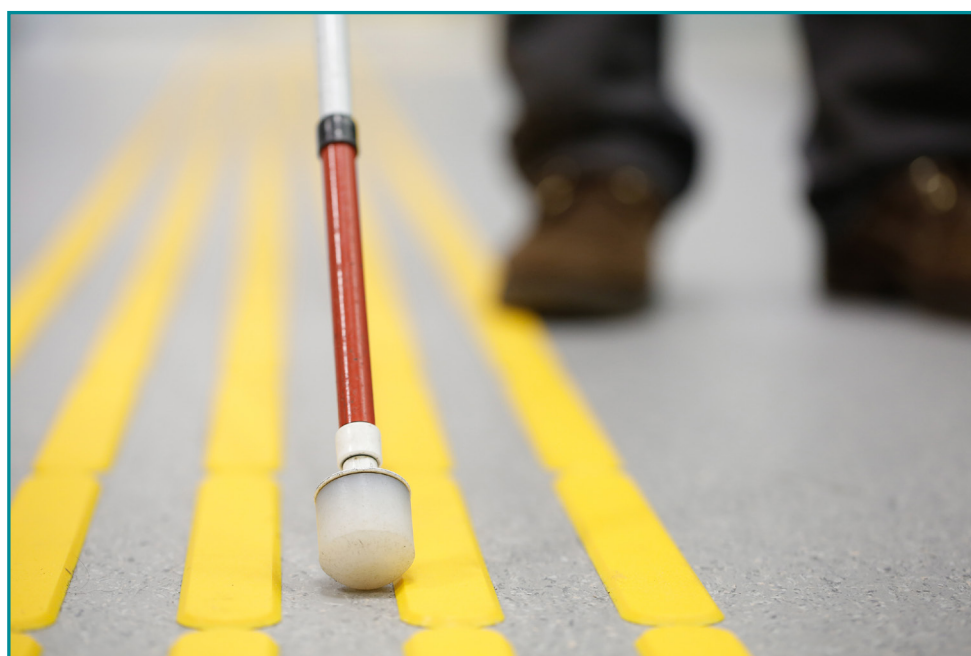
The proportion of people with disability who reported their mental health was not good for 16 to 30 days in the previous month ranged from 14.9% in Region 3 to 24.2% in Region 1. Additionally, for all regions, people with disability were significantly more likely than people without disability to report their mental health was not good for 16 to 30 days in the previous month. (Table A5)

Table A5: Days Mental Health Not Good for BRFSS Regions by Disability Status, 2016

Number of Days Mental Health Not Good	Disability				No Disability				P-value
	N	%	95% CI		N	%	95% CI		
Region 1: Abbeville, Anderson, Greenwood, Laurens, McCormick, and Oconee counties.									
None	283	49.5	43.8	55.2	628	74.5	70.5	78.5	< 0.0001
1-15 days	146	26.3	21.4	31.3	176	22.9	19.1	26.7	
16-30 days	110	24.2	19.1	29.2	19	2.6	1.1	4.0	
Region 2: Cherokee, Greenville, Pickens, Spartanburg, and Union counties.									
None	323	52.7	46.8	58.6	555	74.7	70.2	79.1	< 0.0001
1-15 days	127	25.0	20.0	29.9	135	20.8	16.6	24.9	
16-30 days	97	22.4	17.1	27.6	25	4.6	2.5	6.6	
Region 3: Chester, Lancaster, and York counties.									
None	196	51.8	44.7	58.9	431	77.7	72.8	82.6	< 0.0001
1-15 days	93	33.3	26.4	40.2	97	20.2	15.4	24.9	
16-30 days	49	14.9	10.2	19.7	12	2.1	0.69	3.5	
Region 4: Fairfield, Kershaw, Lexington, and Richland counties.									
None	208	50.7	43.5	57.9	494	65.7	60.8	70.7	< 0.0001
1-15 days	101	26.7	20.6	32.8	174	30.0	25.2	34.7	
16-30 days	81	22.6	16.6	28.6	22	4.3	2.1	6.5	

Table A5 continued:

Region 5: Aiken, Barnwell, Edgefield, Newberry, and Saluda counties.									
None	174	45.5	38.7	52.2	405	71.3	66.4	76.3	< 0.0001
1-15 days	101	30.0	24.0	37.1	120	26.1	21.3	30.8	
16-30 days	56	23.8	17.4	30.3	15	2.6	0.8	4.4	
Region 6: Berkeley, Charleston, and Dorchester counties.									
None	292	49.9	43.6	56.2	610	67.7	63.3	72.0	< 0.0001
1-15 days	124	29.0	23.0	35.0	191	28.5	24.2	32.7	
16-30 days	99	21.1	15.9	26.3	37	3.9	2.1	5.6	
Region 7: Georgetown, Horry, and Williamsburg counties.									
None	306	57.0	51.5	62.5	644	70.3	66.2	74.4	< 0.0001
1-15 days	135	26.4	21.4	31.4	193	26.0	22.1	29.9	
16-30 days	87	16.7	12.7	20.6	23	3.7	2.0	5.4	
Region 8: Allendale, Bamberg, Beaufort, Calhoun, Colleton, Hampton, Jasper, and Orangeburg counties.									
None	328	52.8	47.3	58.2	605	73.9	69.8	78.0	< 0.0001
1-15 days	128	26.0	20.9	31.1	130	21.0	17.3	25.0	
16-30 days	101	21.2	16.8	25.7	19	5.0	3.1	6.8	
Region 9: Chesterfield, Clarendon, Darlington, Dillon, Florence, Lee, Marion, Marlboro, and Sumter counties.									
None	325	47.7	42.4	53.0	520	73.0	68.3	77.7	< 0.0001
1-15 days	166	32.1	26.9	37.2	124	22.3	17.8	26.9	
16-30 days	101	20.2	15.6	24.9	26	4.6	2.6	6.6	



The proportion of people with disability who reported having poor physical or mental health interfere with their usual activities from 16 to 30 days in the past month ranged from 21.6% in Region 6 to 27.4% in Region 8. Additionally, for all regions, people with disability were significantly more likely than people without disability to report that poor physical or mental health has interfered with usual activities from 16 to 30 days in the past month. (Table A6)

Table A6: Poor Physical or Mental Health Interfered with Usual Activities for BRFSS Regions by Disability Status, 2016

Poor Physical and Mental Health Days	Disability				No Disability				P-value
	N	%	95% CI		N	%	95% CI		
Region 1: Abbeville, Anderson, Greenwood, Laurens, McCormick, and Oconee counties.									
None	155	40.4	33.9	46.9	214	68.7	61.6	75.7	< 0.0001
1-15 days	129	32.6	26.4	38.7	82	27.5	20.9	34.2	
16-30 days	109	27.0	21.2	32.7	9	3.8	0.4	7.2	
Region 2: Cherokee, Greenville, Pickens, Spartanburg, and Union counties.									
None	163	41.6	34.6	48.5	191	71.6	64.4	78.9	< 0.0001
1-15 days	117	31.3	25.2	37.5	70	25.5	18.4	32.5	
16-30 days	107	27.1	20.9	33.3	10	2.9	0.4	5.4	
Region 3: Chester, Lancaster, and York counties.									
None	107	40.7	32.8	48.5	141	77.0	69.6	84.4	< 0.0001
1-15 days	87	33.0	25.3	40.8	40	19.2	12.5	25.9	
16-30 days	57	26.3	18.9	33.7	7	3.8	0.4	7.1	
Region 4: Fairfield, Kershaw, Lexington, and Richland counties.									
None	130	41.4	33.3	47.2	192	69.7	62.4	77.0	< 0.0001
1-15 days	85	34.4	25.9	47.2	82	29.2	22.0	36.4	
16-30 days	70	24.2	17.6	27.4	3	1.1	0	2.8	
Region 5: Aiken, Barnwell, Edgefield, Newberry, and Saluda counties.									
None	109	42.3	34.2	50.4	169	76.1	69.5	82.8	< 0.0001
1-15 days	74	31.2	23.9	38.5	49	21.5	15.1	27.8	
16-30 days	58	26.5	19.3	33.8	6	2.4	0.0	4.8	

Table A6 continued:

Region 6: Berkeley, Charleston, and Dorchester counties.									
None	153	45.6	38.2	53.0	254	69.8	63.4	76.2	< 0.0001
1-15 days	129	32.8	26.2	39.3	96	27.9	21.6	34.2	
16-30 days	94	21.6	15.7	27.6	10	2.3	0.3	4.3	
Region 7: Georgetown, Horry, and Williamsburg counties.									
None	135	38.5	31.9	45.0	225	68.2	61.7	74.7	< 0.0001
1-15 days	121	34.4	28.1	40.6	97	25.9	20.2	31.6	
16-30 days	102	27.2	21.6	32.7	14	5.9	1.5	10.2	
Region 8: Allendale, Bamberg, Beaufort, Calhoun, Colleton, Hampton, Jasper, and Orangeburg counties.									
None	159	38.5	32.0	44.9	235	77.7	71.4	84.0	< 0.0001
1-15 days	140	34.1	28.2	40.1	62	21.1	14.8	27.3	
16-30 days	100	27.4	21.6	33.2	7	1.2	0.1	2.4	
Region 9: Chesterfield, Clarendon, Darlington, Dillon, Florence, Lee, Marion, Marlboro, and Sumter counties.									
None	161	35.2	29.3	41.1	195	71.7	64.1	79.2	< 0.0001
1-15 days	159	41.2	34.8	47.5	61	26.1	18.7	33.5	
16-30 days	110	23.7	18.3	29.0	6	2.2	0.0	4.4	

SMOKING BY SC BRFSS SAMPLING REGION

People with disability were significantly more likely to have smoked at least 100 cigarettes in their lifetime than people without disability in all regions. Region 6 had the highest proportion of people with disability that smoked at least 100 cigarettes in their lifetime (62.2%) while Region 4 had the lowest (52%). (Table A7)

Table A7: Smoked at Least 100 Cigarettes, Lifetime for BRFSS Regions by Disability Status, 2016

Smoked At Least 100 Cigarettes	Disability				No Disability				P-value
	N	%	95% CI		N	%	95% CI		
Region 1: Abbeville, Anderson, Greenwood, Laurens, McCormick, and Oconee counties.									
Yes	287	58.1	52.6	63.7	299	37.2	32.8	41.6	< 0.0001
No	257	41.9	36.3	47.4	521	62.8	58.4	67.2	
Region 2: Cherokee, Greenville, Pickens, Spartanburg, and Union counties.									
Yes	317	60.8	55.2	66.5	279	37.5	32.6	42.5	< 0.0001
No	244	39.2	33.5	44.8	432	62.5	57.5	67.4	
Region 3: Chester, Lancaster, and York counties.									
Yes	176	59.6	53.0	66.3	213	40.6	34.8	46.5	< 0.0001
No	170	40.4	33.7	47.0	327	59.4	53.5	65.2	
Region 4: Fairfield, Kershaw, Lexington, and Richland counties.									
Yes	213	52.0	44.9	59.2	232	35.5	30.6	40.4	0.0002
No	188	48.0	40.8	55.1	456	64.5	59.6	69.4	
Region 5: Aiken, Barnwell, Edgefield, Newberry, and Saluda counties.									
Yes	205	60.3	53.4	67.2	203	38.5	33.3	43.7	< 0.0001
No	130	39.7	32.8	46.6	341	61.5	56.3	66.7	
Region 6: Berkeley, Charleston, and Dorchester counties.									
Yes	312	62.2	56.2	68.2	341	40.1	35.6	44.6	< 0.0001
No	213	37.8	31.8	43.8	498	59.9	55.4	64.4	
Region 7: Georgetown, Horry, and Williamsburg counties.									
Yes	287	56.1	50.7	61.5	358	40.9	36.6	45.1	< 0.0001
No	246	43.9	38.5	49.3	497	59.1	54.9	63.4	
Region 8: Allendale, Bamberg, Beaufort, Calhoun, Colleton, Hampton, Jasper, and Orangeburg counties.									
Yes	307	59.0	53.6	64.4	352	45.9	41.3	50.5	0.0003
No	261	41.0	35.6	46.4	430	54.1	49.5	58.7	
Region 9: Chesterfield, Clarendon, Darlington, Dillon, Florence, Lee, Marion, Marlboro, and Sumter counties.									
Yes	324	59.5	54.4	64.6	288	44.8	39.7	49.9	< 0.0001
No	276	40.5	35.4	45.6	380	55.2	50.1	60.3	

All of the regions had a significant difference regarding smoking status among people with and without disability. The proportion of people with disability who reported current smoking every day ranged from 13.0% in Region 7 to 22.9% in Region 1. (Table A8)

Table A8: Smoking Status

Smoking status	Disability				No Disability				P-value
	N	%	95% CI		N	%	95% CI		
Region 1: Abbeville, Anderson, Greenwood, Laurens, McCormick, and Oconee counties.									
Smokes every day	94	22.9	17.8	27.9	55	7.9	5.4	10.4	< 0.0001
Smokes some days	40	9.8	6.1	13.5	29	5.3	2.7	7.8	
Former smoker	152	25.3	20.5	30.0	215	24.0	20.3	27.8	
Never smoked	257	42.0	36.5	47.6	521	62.8	58.4	67.2	
Region 2: Cherokee, Greenville, Pickens, Spartanburg, and Union counties.									
Smokes every day	79	20.7	15.5	25.9	64	12.3	8.7	15.9	< 0.0001
Smokes some days	38	11.0	6.7	15.2	30	5.6	3.0	8.2	
Former smoker	200	29.1	24.4	33.9	183	19.4	15.8	23.1	
Never smoked	244	39.2	33.5	44.8	432	62.6	57.7	67.6	
Region 3: Chester, Lancaster, and York counties.									
Smokes every day	37	16.8	11.2	22.4	50	12.9	8.7	17.2	0.0011
Smokes some days	16	7.5	3.1	12.0	23	4.3	2.1	6.5	
Former smoker	123	35.2	28.5	42.0	140	23.4	18.6	28.1	
Never smoked	170	40.4	33.7	47.0	327	59.4	53.5	65.2	
Region 4: Fairfield, Kershaw, Lexington, and Richland counties.									
Smokes every day	47	15.2	9.8	20.5	44	8.0	5.2	10.8	< 0.0001
Smokes some days	17	4.9	2.0	7.8	34	8.0	4.8	11.2	
Former smoker	148	31.9	26.0	37.9	154	19.4	15.6	23.3	
Never smoked	188	48.0	40.9	55.2	456	64.5	59.6	69.4	
Region 5: Aiken, Barnwell, Edgefield, Newberry, and Saluda counties.									
Smokes every day	52	16.5	11.6	21.3	48	13.7	9.5	17.9	< 0.0001
Smokes some days	36	15.4	9.8	21.0	16	3.5	1.6	5.3	
Former smoker	117	28.5	22.9	34.1	139	21.4	17.3	25.5	
Never smoked	130	39.7	32.8	46.6	341	61.5	56.3	66.7	
Region 6: Berkeley, Charleston, and Dorchester counties.									
Smokes every day	69	19.0	13.3	24.6	54	7.3	4.8	9.7	< 0.0001
Smokes some days	34	9.1	5.2	13.1	37	5.6	3.2	8.0	
Former smoker	209	34.1	28.7	39.6	250	27.2	23.3	31.2	
Never smoked	213	37.8	31.8	43.8	498	60.0	55.4	64.4	
Region 7: Georgetown, Horry, and Williamsburg counties.									
Smokes every day	58	13.0	9.2	16.8	66	10.4	7.5	13.2	0.0003
Smokes some days	31	9.9	5.8	14.0	32	4.8	2.8	6.9	
Former smoker	198	33.3	28.4	38.2	260	25.6	22.1	29.1	
Never smoked	246	43.9	38.5	49.3	497	59.1	54.9	63.4	

Table A8 Continued

Region 8: Allendale, Bamberg, Beaufort, Calhoun, Colleton, Hampton, Jasper, and Orangeburg counties.									
Smokes every day	70	17.4	12.9	21.8	78	12.7	9.5	16.0	0.0080
Smokes some days	36	7.8	4.8	10.9	35	6.1	3.6	8.7	
Former smoker	200	33.7	28.8	38.6	239	27.0	23.1	30.9	
Never smoked	261	41.1	35.7	46.5	430	54.1	49.5	58.7	
Region 9: Chesterfield, Clarendon, Darlington, Dillon, Florence, Lee, Marion, Marlboro, and Sumter counties.									
Smokes every day	83	18.3	13.6	22.9	84	16.5	12.5	20.5	0.0002
Smokes some days	61	12.8	8.9	16.8	26	5.3	2.8	7.7	
Former smoker	180	28.5	23.8	33.2	177	23.0	18.8	27.1	
Never smoked	276	40.5	35.4	45.6	380	55.2	50.1	60.3	



ACCESS TO WELLNESS PROGRAMS FOR THE GENERAL POPULATION AND IF PEOPLE WITH DISABILITIES ACCESSED THEM DISABLED BY DEMOGRAPHICS

The following question was asked only to those with a disability about their involvement in health or wellness programs:

- In the past 12 months, have you participated in any health or wellness programs designed for the general population?

Among those with disabilities, there were no significant differences in people who participated in health or wellness programs designed for the general population by age group, sex, or race.

(Table A9)

Table A9: Access to Health or Wellness Programs For the General Population

Participated in any Health or Wellness Programs for the General Population?		Yes				No				P-value
		N	%	95% CI		N	%	95% CI		
Age group	18-64	226	74.6	69.5	79.8	1195	63.7	61.3	66.0	0.0005
	65+	145	25.4	20.2	30.5	1304	36.3	34.0	38.7	
Sex	Male	132	74.6	69.5	79.8	962	63.7	61.3	66.0	0.4096
	Female	240	58.64	51.7	65.6	1560	55.5	52.7	58.2	
Race	NH-White	240	68.9	62.5	75.3	1615	70.5	67.9	73.0	0.9721
	NH-Black	103	25.9	19.8	31.9	661	24.7	22.3	27.1	
	Hispanic	2	1.7	0	4.1	21	1.8	0.8	2.7	
	Other	22	3.5	1.4	5.7	121	3.1	2.3	3.9	

ACCESS TO WELLNESS PROGRAMS FOR THE GENERAL POPULATION AND IF PEOPLE WITH DISABILITIES ACCESSED THEM BY SC BRFSS SAMPLING REGION

Among those with disabilities, there was a significant difference between people who participated in health or wellness programs designed for the general population by region. Region 3 had the lowest proportion of people participating (6.3%), while Region 1 had the highest (22.8) among all the regions. (Table A10)

Table A10: Access to Health or Wellness Programs Designed for General Population by region

Participated in any Health or Wellness Programs for the General Population?	Yes				No				P-value
	N	%	95% CI		N	%	95% CI		
Region 1	54	22.8	16.6	29.0	292	17.0	15.6	19.1	0.0366
Region 2	43	9.9	6.2	13.7	343	11.5	10.3	12.8	
Region 3	36	6.3	3.9	8.7	201	5.8	5.0	6.6	
Region 4	37	15.6	10.2	21.0	222	13.9	12.3	15.5	
Region 5	30	11.0	6.5	15.4	194	7.8	6.9	8.8	
Region 6	34	8.4	4.6	12.1	309	13.3	12.1	14.5	
Region 7	47	8.6	5.6	11.7	286	7.3	6.5	8.1	
Region 8	45	9.5	6.2	12.8	310	8.9	8.0	9.8	
Region 9	42	7.9	5.1	10.6	342	14.1	12.8	15.5	



