

**DISABILITIES AND HEALTH IN SOUTH CAROLINA, 2006: A  
REPORT FROM THE 2006 BRIEF RISK FACTOR SURVEILLANCE  
SYSTEM**

South Carolina Interagency Office of Disability and Health

## **INTRODUCTION**

Each year, the South Carolina Department of Health and Environmental Control (DHEC), in collaboration with the Centers for Disease Control and Prevention (CDC), conducts the South Carolina Brief Risk Factor Survey System (BRFSS). The BRFSS is a population based telephone survey of community dwelling adults aged 18 and older. Details of the survey methodology are available online at: <http://www.cdc.gov/brfss/>. Information specifically relating to the South Carolina BRFSS is available at: [http://www.scdhec.gov/hs/epidata/brfss\\_index.htm](http://www.scdhec.gov/hs/epidata/brfss_index.htm).

The BRFSS includes two questions relating to disability:

- 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?

Respondents are typically identified as having a disability if they answer at either or both of the questions affirmatively. Using this definition, approximately 20% of respondents in recent years have reported a disability.

People with disabilities are a potential health disparity group. Understanding the health status of people with and without disabilities is vital if interventions are to be developed for reducing disparities. This report describes a number of important health indicators for 2006 South Carolina BRFSS respondents with and without disabilities.

## **DEMOGRAPHICS**

Demographic data for survey respondents, by disability category, are displayed in Table 1. People with disabilities were significantly more likely to be aged 65 or older, female, and white. They were less likely to be Hispanic. Educational attainment income were significantly lower among people with disabilities, who were also less likely to report current employment and more likely to be either retired or unable to work.

**Table 1: SC BRFSS 2006. Demographic Data by Disability Status**

SOCIO DEMOGRAPHIC CATEGORY	DISABILITY		NO DISABILITY		P-value
	Percent	n	Percent	n	
All Respondents (ages >18)	21.76	2441	78.24	6503	
<b>AGE</b>					
18-64	72.96	1509	85.90	4936	0.0000
65+	27.04	932	14.10	1567	
<b>GENDER</b>					
Male	44.96	910	48.89	2556	0.0155
Female	55.04	1531	51.11	3947	
<b>RACE</b>					
White	72.29	1893	68.14	4895	0.0355
Black	23.03	448	26.64	1392	
Other	4.68	70	5.22	181	
<b>ETHNICITY</b>					
Hispanic	1.63	34	3.62	143	0.0002
Non-Hispanic	98.37	2331	96.37	6263	
<b>EDUCATION</b>					
Less than H.S.	31.61	538	12.12	785	0.0000
H.S. or higher	78.39	1897	87.88	5700	
<b>INCOME</b>					
<\$25,000	44.17	985	23.83	1437	0.0000
\$25,000 +	55.83	1046	76.17	4209	
<b>EMPLOYMENT</b>					
Employed	37.80	714	70.34	4057	0.0000
<b>Not employed</b>					
Retired	22.82	763	13.11	1452	
Student/ Homemaker	7.46	178	9.27	557	
Unemployed	6.52	140	5.74	276	
Unable to Work	25.30	636	1.54	142	

**GENERAL HEALTH**

Respondents were asked the following questions regarding their general health:

- Would you say that in general your health is – (Excellent to 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 or mental health keep you from doing your usual activities, such as self-care, work, or recreation?

People with disabilities reported significantly poorer general health than those with no disability. Only 4.5% of people with a disability reported being excellent health, compared to 19.8% in poor health. For respondents with no disability, the pattern was essentially reversed (22.8% in excellent health versus 1.5% in poor health). Table 2 illustrates these data.

**Table 2: General Health by Disability Status**

GENERAL HEALTH	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
EXCELLENT	4.5	3.3-5.7	102	22.8	35.5-38.7	1401
VERY GOOD	17.0	14.9-19.1	372	37.1	29.7-32.7	2346
GOOD	32.1	29.5-34.7	710	31.2	6.6-8.2	2051
FAIR	26.6	24.3-28.9	670	7.4	1.1-1.9	560
POOR	19.8	17.9-21.7	565	1.5	1.1-1.9	133

\*p < 0.0001

People with a disability also reported a greater number of days in which their physical health was not good. Almost 30% of people with disabilities reported that their physical health was not good for more than half of the previous 30 days, compared to 3.1% of people without disabilities. Table 3 reflects these data.

**Table 3: Days Physical Health Not Good**

NUMBER OF DAYS PHYSICAL HEALTH NOT GOOD	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
NONE	35.5	32.9-38.1	793	73.6	72.1-75.1	4778
1-15 DAYS	35.2	32.5-37.9	767	23.3	21.8-24.8	1363
16-30 DAYS	29.4	27-31.8	752	3.1	2.6-3.6	233

\*p < 0.0001

Mental health was described as not good for 16-30 of the past 30 days by 18% of people with disabilities and 4.2% of people with no disability. Table 4 reflects these data.

**Table 4: Days Mental Health Not Good**

NUMBER OF DAYS MENTAL HEALTH NOT GOOD	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
NONE	50.3	47.5-53.1	1263	69.4	67.8-71	4677
1-15 DAYS	31.7	29-34.4	650	26.4	24.9-27.9	1472
16-30 DAYS	18.0	15.9-20.1	413	4.2	3.5-4.9	262

\*p < 0.0001

Accordingly, people with a disability reported a significantly greater number of days in which poor physical or mental health interfered with their ability to participate in their usual activities (25.2% versus 2.4%). Table 5 displays these data.

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

POOR PHYSICAL HEALTH	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
NONE	38.6	35.5-41.7	695	69.6	67.2-72.1	2007
1-15 DAYS	36.2	33-39.4	576	28.0	25.6-30.4	668
16-30 DAYS	25.2	22.7-27.7	494	2.4	1.7-3.1	91

\*p < 0.0001

## WEIGHT AND PHYSICAL ACTIVITY

Respondents were asked to provide their height and weight, so that body mass index (BMI) could be calculated. A BMI less than 25 is considered to be healthy, while a BMI of 25 to 29.9 is overweight and a BMI of 30 or greater is obese. People with a disability were significantly less likely to have a healthy weight (26.9% versus 36.6%). The proportion of respondents who were in the overweight (but not obese) category was similar for the two groups.

**Table 6: Body Mass Index**

BMI	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
< 25	26.9	24.5-29.3	660	36.6	35-38.2	2312
25 – 29.9	33.7	31.1-36.3	778	36.7	35.1-38.3	2402
>=30	39.4	36.7-42.1	894	26.7	25.2-28.2	1578

\*P < 0.0001

We analyzed 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 in both the disability and no disability group reported at least some leisure time physical activity in the past month. However, people with a disability were significantly less likely (61.7%) to report physical activity than those with no disability (79.6%). Table 7 displays these data.

**Table 7: Physical Activity**

EXERCISE LAST 30 DAYS	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	61.7	59.2-64.2	1428	79.6	78.2-81	5144
NO	38.3	35.8-40.8	1006	20.4	19-21.8	1356

\*p < 0.0001

## TOBACCO USE

We analyzed 3 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 a disability were significantly more likely to have smoked at least 100 cigarettes in their lifetime. Among these people, there was not a significant difference in the proportion who currently smoke every day or some days, for those with and without a disability. Among those who currently smoke at least some days, people with a disability were significantly more likely to

have stopped smoking for a day or longer because they were trying to quit smoking (64.2% versus 54.7%). Tables 8- 10 display these data.

**Table 8: Smoked at Least 100 Cigarettes, Lifetime**

SMOKED AT LEAST 100 CIGARETTES	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	57.9	55.2-60.6	1420	43.7	42.1-45.3	2937
NO	42.1	39.4-44.8	1010	56.3	54.7-57.9	3539

\*p < 0.0001

**Table 9: Current Smoking**

FREQUENCY OF DAYS NOW SMOKING	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
EVERY DAY	34.4	31-37.8	428	35.7	33.2-38.2	908
SOME DAYS	10.5	8.3-12.7	130	13.0	11.1-14.9	305
NOT AT ALL	55.1	51.6-58.6	862	51.3	48.8-53.8	1724

\*p = 0.12

**Table 10: Tried to Stop Smoking, Past 12 Months**

STOPPED SMOKING IN PAST 12 MONTHS	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	64.2	59-69.4	328	54.7	50.8-58.6	626
NO	35.8	30.6-41	226	45.3	41.4-49.2	593

\*p = 0.049

Table 11 shows the current smoking status (every day, some days, former, and never). The distribution is significantly different for those with and without disability, but this difference is primarily due to the presence of more former smokers in those with a disability and more never smokers in those without a disability.

**Table 11: Smoking Status**

SMOKE STATUS	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
CURRENT SMOKER	19.9	17.6-22.2	428	15.6	14.3-16.9	908

- NOW SMOKES EVERY DAY						
CURRENT SMOKER - NOW SMOKES SOME DAYS	6.1	4.8-7.4	130	5.7	4.8-6.6	305
FORMER SMOKER	31.9	29.5-34.3	862	22.4	21.1-23.7	1724
NEVER SMOKED	42.1	39.4-44.8	1010	56.3	54.7-57.9	3539

\*p < 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, X = 4 for women] or more drinks on an occasion?

People with a disability were significantly less likely to report drinking any alcohol in the past 30 days (35.7% versus 49%). People with a disability were also significantly less likely to report binge drinking (5 or more drinks on a single occasion for men, 4 or more for women). At least one instance of binge drinking was reported by 8.5% of people with a disability, compared to 15.1% of those without a disability. Tables 12-13 illustrate these data.

**Table 12: Any Alcohol Use in the Past 30 Days**

DAYS IN PAST 30 HAD ALCOHOLIC BEVERAGE	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	35.7	33.1-38.3	808	49.0	47.3-50.7	3094
NO	64.3	61.7-66.9	1622	51.0	49.3-52.7	3370

\*p < 0.0001

**Table 13: Binge Drinking Past 30 Days**

HOW MANY TIMES DURING THE PAST 30 DAYS DID YOU HAVE 5 OR MORE DRINKS ON ONE OCCASION?	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n



<b>NONE</b>	91.5	0.83	2227	84.9	0.66	5580
<b>1 TIME</b>	3.0	0.48	61	6.1	0.46	298
<b>2-5 TIME</b>	4.2	0.65	76	6.7	0.45	344
<b>&gt;5 TIME</b>	1.3	0.28	28	2.3	0.28	113

\*p < 0.0001

## DIABETES MELLITUS

In 2006, the SC BRFSS included the following core question about diabetes:

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

People with a disability were significantly more likely to have been diagnosed with diabetes (not including gestational diabetes) than people without a disability (19.4% versus 6.9%). Table 14 illustrates these data.

**Table 14: Ever Diagnosed with Diabetes**

<b>EVER TOLD BY DOCTOR YOU HAVE DIABETES</b>	<b>DISABILITY</b>			<b>NO DISABILITY</b>		
	<b>%</b>	<b>95% CI</b>	<b>n</b>	<b>%</b>	<b>95% CI</b>	<b>n</b>
<b>YES</b>	19.4	17.4-21.4	517	6.9	6.2-7.6	600
<b>YES (FEMALE PREGNANCY)</b>	0.8	0.3-1.3	12	1.0	0.7-1.3	53
<b>NO</b>	78.2	76.1-80.3	1862	91.3	90.5-92.1	5779
<b>NO (PRE-DIABETES)</b>	1.6	0-4.8	49	0.8	0.5-1.1	66

\*p < 0.0001

A supplemental module on diabetes was also included, with 12 more detailed questions that were asked of all those who reported a diagnosis of diabetes. Those questions were:

- How old were you when you were told you have diabetes?
- Are you now taking insulin?
- Are you now taking diabetes pills?

- About how often do you check your blood for glucose or sugar? Include times when checked by a family member or friend, but do NOT include times when checked by a health professional.
- About how often do you check your feet for any sores or irritations? Include times when checked by a family member or friend, but do NOT include times when checked by a health professional.
- Have you ever had any sores or irritations on your feet that took more than four weeks to heal?
- About how many times in the past 12 months have you seen a doctor, nurse, or other health professional for your diabetes?
- A test for "A one C" measures the average level of blood sugar over the past three months. About how many times in the past 12 months has a doctor, nurse, or other health professional checked you for "A one C"?
- About how many times in the past 12 months has a health professional checked your feet for any sores or irritations?
- When was the last time you had an eye exam in which the pupils were dilated? This would have made you temporarily sensitive to bright light.
- Has a doctor ever told you that diabetes has affected your eyes or that you had retinopathy
- Have you ever taken a course or class in how to manage your diabetes yourself

Tables 15- 19 illustrate the supplemental diabetes data. Among respondents who reported being diagnosed with diabetes, there was not a significant difference in the age of diagnosis for those with and without a disability. People with a disability were significantly more likely to report taking insulin for their diabetes (32.1% versus 23.4%). There was not a significant difference in the proportion taking pills to treat their diabetes, or in the frequency of self-monitoring for blood glucose levels or foot sores.

**Table 15: Age of Diabetes Diagnosis**

AGE WHEN WERE TOLD HAVE DIABETES	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
<30	7.9	4.3-11.5	29	8.9	5.2-12.6	34
31-50	45.1	39.2-51	176	38.5	32.9-44.1	189

51-60	26.1	21.2-31	142	24.8	20.5-29.1	148
>60	20.9	16.8-25	126	27.8	23.2-32.4	183

\*p = 0.1517

**Table 16: Taking Insulin**

TAKING INSULIN	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	32.1	27.6-36.6	169	23.4	18.9-27.9	135
NO	67.9	62.7-73.1	347	76.6	72.1-81.1	465

\*p = 0.0129

**Table 17: Taking Pills for Diabetes**

TAKING PILLS	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	69.1	63.7-74.5	369	70.3	65.5-75.1	427
NO	30.9	25.5-36.3	147	29.7	24.9-34.5	172

\*p = 0.7453

**Table 18: Self-Monitoring of Blood Glucose**

HOW OFTEN CHECK BLOOD FOR GLUCOSE	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
TIMES PER DAY	68.2	62.8-73.6	356	59.1	53.7-64.5	354
TIMES PER WEEK	17.2	12.9-21.5	80	23.4	18.9-27.9	145
TIMES PER MONTH	3.9	2.1-5.7	22	6.5	3.7-9.3	32
TIMES PER YEAR	1.5	0.1-2.9	7	1.5	0.4-2.6	10
NEVER	9.2	5.5-12.9	40	9.5	5.7-13.3	51

\*p = 0.1127

**Table 19: Self-Monitoring for Foot Sores**

HOW OFTEN FEET FOR SORES OR IRRITATIONS	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
TIMES PER DAY	65.5	60.1-70.9	333	67.0	61.9-72.1	384
TIMES PER WEEK	18.3	13.8-22.8	90	19.0	14.8-23.2	115
TIMES PER MONTH	4.8	2.4-7.2	22	4.1	2-6.2	23
TIMES PER YEAR	0.9	0.7-1.1	5	0.7	-0.1-1.5	3

<b>NEVER</b>	10.5	7-14	47	9.2	6.1-12.3	55
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\*p = 0.9576

People with a disability did report significantly more frequent diabetes-related visits to a health care professional (10.4% versus 5.6%). Accordingly, they also reported more frequent foot examinations by a physician, and more frequent monitoring of hemoglobin A1c (a marker of long-term blood glucose control) (7.2% versus 2.9%). There was not a significant difference in the proportion of people who had received a dilated eye examination in the past year. Just over half the respondents in each group had ever taken a diabetes management class. Tables 20-24 report these data.

**Table 20: Visits to a Health Professional for Diabetes**

TIMES SEEN HEALTH PROFESSIONAL FOR DIABETES	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
<b>1-5 TIMES</b>	65.2	60.7-69.7	318	77.7	73.2-82.2	441
<b>6-11 TIMES</b>	13.3	9.3-17.3	66	3.9	2.4-5.4	34
<b>12+ TIMES</b>	10.4	8.3-12.5	46	5.6	2.9-8.3	27
<b>NEVER</b>	11.1	7.2-15	58	12.8	9.2-16.4	70

\*p < 0.0001

**Table 21: Hemoglobin A1c Testing**

TIMES CHECKED FOR GLYCOSYLATED HEMOGLOBIN	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
<b>ONCE</b>	11.7	7.6-15.8	44	17.8	13.4-22.2	98
<b>TWICE</b>	21.0	15.9-26.1	94	22.7	18.1-27.3	123
<b>3-4 TIMES</b>	38.3	32.5-44.1	178	35.9	30.5-41.3	188
<b>5+ TIMES</b>	7.4	4.3-10.5	33	2.9	1.4-4.4	18
<b>NEVER</b>	21.6	16.2-27	86	20.7	15.7-25.7	107

\*p = 0.0414

**Table 22: Foot Examinations by Health Professional**

TIMES FEET CHECK FOR SORES/IRRITATION	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
<b>ONCE/YEAR</b>	10.8	7.7-13.9	68	24.7	20-29.4	140
<b>2-3/YEAR</b>	25.8	20.6-31	118	27.0	21.8-32.2	147
<b>4+ /YEAR</b>	32.6	27.1-38.1	152	24.6	20-29.2	145
<b>NEVER</b>	30.8	25.3-36.3	138	23.7	19.3-28.1	146

\*p < 0.0001

**Table 23: Dilated Eye Examination**

LAST EYE EXAM WHERE PUPILS WERE DILATED	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
PAST MONTH	23.6	18.8-28.4	120	20.5	16.6-24.4	143
PAST YEAR	43.6	38.1-49.1	239	43.7	38.3-49.1	265
PAST 2 YEARS	15.2	10.7-19.7	66	17.3	12.9-21.7	83
2+ YEARS AGO	14.0	10.3-17.7	76	14.0	9.8-18.2	73
NEVER	3.6	0.9-6.3	10	4.5	2-7	23

\*p = 0.8490

**Table 24: Ever Taken a Diabetes Management Class**

EVER TAKEN CLASS IN MANAGING DIABETES	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	57.2	51.7-62.7	277	51.3	45.9-56.7	297
NO	42.8	37.3-48.3	238	48.7	43.3-54.1	301

\*p = 0.1330

People with a disability were almost three times as likely to have ever had a foot ulcer or irritation (19.1% versus 7.1%) and almost twice as likely to have ever been diagnosed with diabetic retinopathy (29.7 versus 16.9%). Tables 25-26 reflect these data.

**Table 25: Ever Had Foot Sores or Irritation**

EVER HAD FOOT SORES OR IRRITATION LASTING MORE THAN FOUR WEEKS	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	19.1	14.7-23.5	95	7.1	3.5-10.7	31
NO	80.9	76.5-85.3	420	92.9	89.3-96.5	569

\*p < 0.0001

**Table 26: Ever Diagnosed With Diabetic Retinopathy**

EVER TOLD DIABETES HAS AFFECTED EYES	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	29.7	24.6-34.8	145	16.9	13-20.8	100

<b>NO</b>	70.3	65.2-75.4	367	83.1	79.4-86.8	494
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\*p = 0.0001

### Mental Health

The 2006 SC BRFSS also included a supplemented module assessing symptoms of anxiety and depression. The following questions were included in the module:

- Has a doctor or other healthcare provider EVER told you that you had an anxiety disorder (including acute stress disorder, anxiety, generalized anxiety disorder, obsessive-compulsive disorder, panic disorder, phobia, posttraumatic stress disorder, or social anxiety disorder)?
- Has a doctor or other healthcare provider EVER told you that you have a depressive disorder (including depression, major depression, dysthymia, or minor depression)?
- Over the last 2 weeks, how many days have you had little interest or pleasure in doing things?
- Over the last 2 weeks, how many days have you felt down, depressed or hopeless?
- Over the last 2 weeks, how many days have you had trouble falling asleep or staying asleep or sleeping too much?
- Over the last 2 weeks, how many days have you felt tired or had little energy?
- Over the last 2 weeks, how many days have you had a poor appetite or eaten too much?
- Over the last 2 weeks, how many days have you felt bad about yourself or that you were a failure or had let yourself or your family down?
- Over the last 2 weeks, how many days have you had trouble concentrating on things, such as reading the newspaper or watching the TV?
- Over the last 2 weeks, how many days have you moved or spoken so slowly that other people could have noticed? Or the opposite—being so fidgety or restless that you were moving around a lot more than usual?

People with a disability were significantly more likely than those without a disability to report having been diagnosed with an anxiety disorder (26.6% versus 9.1%) or a depressive disorder (33.5% versus 12.8%). Tables 27-28 reflect these data.

**Table 27: Ever Diagnosed with an Anxiety Disorder**

EVER TOLD YOU HAD AN ANXIETY DISORDER	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
<b>YES</b>	26.6	24.1-29.1	586	9.1	8.1-10.1	566

<b>NO</b>	73.4	70.9-75.9	1772	90.9	89.9-91.9	5692
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\*p < 0.0001

**Table 28: Ever Diagnosed with a Depressive Disorder**

<b>EVER TOLD YOU HAD A DEPRESSIVE DISORDER</b>	<b>DISABILITY</b>			<b>NO DISABILITY</b>		
	<b>%</b>	<b>95% CI</b>	<b>n</b>	<b>%</b>	<b>95% CI</b>	<b>n</b>
<b>YES</b>	33.5	30.9-36.1	779	12.8	11.7-13.9	824
<b>NO</b>	66.5	63.9-69.1	1589	87.2	86.1-88.3	5433

\*p < 0.0001

On every measure of anxious or depressive symptoms in the past two weeks, people with a disability reported a significantly greater number of days with symptoms than people without a disability. For example, 15.7% of people with a disability reporting having little interest or pleasure in doing things for 8 or more of the past 14 days, compared to 4.9% of those without a disability. Similarly, 15.2% of people with a disability reported feeling down, depressed or hopeless for 8 or more days, compared to 3.0% of people without a disability. Tables 29-36 illustrate these data.

**Table 29: Number of Days with Little Interest or Pleasure in Doing Things**

<b>DAYS HAD LITTLE PLEASURE DOING THINGS</b>	<b>DISABILITY</b>			<b>NO DISABILITY</b>		
	<b>%</b>	<b>95% CI</b>	<b>n</b>	<b>%</b>	<b>95% CI</b>	<b>n</b>
<b>1-2 DAYS</b>	14.6	12.6-16.6	317	16.4	15.1-17.7	892
<b>3-7 DAYS</b>	17.7	15.5-19.9	375	10.2	9-11.4	497
<b>8-13 DAYS</b>	6.1	4.8-7.4	135	2.0	1.5-2.5	99
<b>14 DAYS</b>	9.6	7.9-11.3	201	2.9	2.3-3.5	162
<b>NONE</b>	52.0	49.2-54.8	1204	68.5	66.8-70.2	4420

\*p < 0.0001

**Table 30: Number of Days Felt Down, Depressed or Hopeless**

<b>DAYS FELT DOWN, DEPRESSED OR HOPELESS</b>	<b>DISABILITY</b>			<b>NO DISABILITY</b>		
	<b>%</b>	<b>95% CI</b>	<b>n</b>	<b>%</b>	<b>95% CI</b>	<b>n</b>

<b>1-2 DAYS</b>	18.2	15.8-20.6	377	15.0	13.8-16.2	869
<b>3-7 DAYS</b>	14.0	12.1-15.9	331	7.1	6.2-8	398
<b>8-13 DAYS</b>	5.0	3.9-6.1	117	1.4	0.9-1.9	63
<b>14 DAYS</b>	10.2	8.5-11.9	229	1.6	1.1-2.1	102
<b>NONE</b>	52.6	49.9-55.3	1292	74.9	73.4-76.4	4826

\*p < 0.0001

**Table 31: Number of Days Trouble Sleeping or Slept too Much**

<b>DAYS HAD TROUBLE WITH SLEEP</b>	<b>DISABILITY</b>			<b>NO DISABILITY</b>		
	<b>%</b>	<b>95% CI</b>	<b>n</b>	<b>%</b>	<b>95% CI</b>	<b>n</b>
<b>1-2 DAYS</b>	11.9	10.2-13.6	272	14	12.8-15.2	880
<b>3-7 DAYS</b>	18.4	16.2-20.6	404	15.7	14.4-17	961
<b>8-13 DAYS</b>	6.7	5.2-8.2	143	2.8	2.3-3.3	182
<b>14 DAYS</b>	22.0	19.7-24.3	534	7.6	6.6-8.6	411
<b>NONE</b>	41.0	38.3-43.7	970	59.9	58.2-61.6	3790

\*p < 0.0001

**Table 32: Number of Days Felt Tired or Little Energy**

<b>DAYS WERE TIRED OR HAD LITTLE ENERGY</b>	<b>DISABILITY</b>			<b>NO DISABILITY</b>		
	<b>%</b>	<b>95% CI</b>	<b>n</b>	<b>%</b>	<b>95% CI</b>	<b>n</b>
<b>1-2 DAYS</b>	16.7	14.5-18.9	366	26.3	24.8-27.8	1544
<b>3-7 DAYS</b>	25.2	22.8-27.6	586	21.5	20.1-22.9	1277
<b>8-13 DAYS</b>	7.9	6.3-9.5	167	3.7	3-4.4	217
<b>14 DAYS</b>	29.3	26.9-31.8	682	9.2	8.1-10.3	493
<b>NONE</b>	20.9	18.7-23.1	510	39.3	37.7-40.9	2667

\*p < 0.0001

**Table 33: Number of Days Poor Appetite or Ate too Much**

<b>DAYS ATE TOO LITTLE OR TOO MUCH</b>	<b>DISABILITY</b>			<b>NO DISABILITY</b>		
	<b>%</b>	<b>95% CI</b>	<b>n</b>	<b>%</b>	<b>95% CI</b>	<b>n</b>
<b>1-2 DAYS</b>	11.2	9.5-12.9	257	12.9	11.7-14.1	766
<b>3-7 DAYS</b>	18.8	16.5-21.1	391	12.1	11-13.2	774



<b>8-13 DAYS</b>	5.1	3.7-6.5	116	2.0	1.5-2.5	112
<b>14 DAYS</b>	14.1	12.2-16	338	5.2	4.4-6	291
<b>NONE</b>	50.8	48-53.6	1211	67.8	66.2-69.4	4279

\*p < 0.0001

**Table 34: Number of Days Felt Bad about Self**

<b>DAYS FELT LIKE FAILURE OR LET FAMILY DOWN</b>	<b>DISABILITY</b>			<b>NO DISABILITY</b>		
	<b>%</b>	<b>95% CI</b>	<b>n</b>	<b>%</b>	<b>95% CI</b>	<b>n</b>
<b>1-2 DAYS</b>	8.9	7.2-10.6	185	8.0	7.1-8.9	430
<b>3-7 DAYS</b>	7.7	6.2-9.2	173	4.4	3.6-5.2	229
<b>8-13 DAYS</b>	3.7	2.8-4.6	84	0.7	0.4-1	32
<b>14 DAYS</b>	9.1	7.6-10.6	201	1.7	1.2-2.2	91
<b>NONE</b>	70.6	68.1-73.1	1693	85.2	83.9-86.5	5466

\*p < 0.0001

**Table 35: Number of Days with Difficulty Concentrating**

<b>DAYS HAD TROUBLE CONCENTRATION</b>	<b>DISABILITY</b>			<b>NO DISABILITY</b>		
	<b>%</b>	<b>95% CI</b>	<b>n</b>	<b>%</b>	<b>95% CI</b>	<b>n</b>
<b>1-2 DAYS</b>	7.1	5.7-8.5	153	6.0	5.2-6.8	360
<b>3-7 DAYS</b>	11.3	9.5-13.1	236	5.0	4.2-5.8	280
<b>8-13 DAYS</b>	3.1	2.3-3.9	80	0.6	0.3-0.9	35
<b>14 DAYS</b>	8.6	7-10.2	204	1.9	1.4-2.4	97
<b>NONE</b>	69.8	67.3-72.3	1660	86.5	85.3-87.7	5470

\*p < 0.0001

**Table 36: Number of Days Moving Slowly or Being Restless**

<b>DAYS TALKED OR MOVED SLOWER OR FASTER THAN USUAL</b>	<b>DISABILITY</b>			<b>NO DISABILITY</b>		
	<b>%</b>	<b>95% CI</b>	<b>n</b>	<b>%</b>	<b>95% CI</b>	<b>n</b>
<b>1-2 DAYS</b>	5.7	4.4-7	122	4.3	3.6-5	225
<b>3-7 DAYS</b>	9.5	7.7-11.3	189	3.1	2.5-3.7	170
<b>8-13 DAYS</b>	2.2	1.5-2.9	59	0.4	0.2-0.6	23
<b>14 DAYS</b>	6.6	5.4-7.8	153	0.7	0.4-1	35

<b>NONE</b>	76.0	73.6-78.4	1772	91.5	90.5-92.5	5751
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\*p < 0.0001

## **SUMMARY**

Almost 22% of respondents to the 2006 SC BRFSS have a disability, as defined by either being limited because of physical, mental, or emotional problems or having a health problem that requires the use of special equipment. This is consistent with results from previous years. People with a disability fared relatively poorly on most of the measures of health status analyzed for this report. They were less likely to report leisure time physical activity and more likely to have smoked at least 100 cigarettes in their lifetime (though they were not significantly more likely to be current smokers). They were more likely to report poor physical and mental health, to be obese, and to have been diagnosed with diabetes, anxiety, and depression. Differences in mental health symptoms were striking, as people with a disability were 5 times as likely to report feeling down, depressed or hopeless for more than half of the past 14 days. Among people diagnosed with diabetes, those with a disability were significantly more likely to have foot sores/irritation and to have been told they have eye problems related to their diabetes. They were also more likely to be taking insulin for their diabetes. On the positive side, people with a disability were less likely to report binge drinking (or any use of alcohol, for that matter) than people without a disability.

Clearly, the self-reported health and health behaviors of South Carolinians with a disability are worse than for those without a disability. However, it is important to note that we cannot necessarily infer that having a disability leads to poorer health. It is likely that some people with a disability are disabled because of the very health issues described in this report – they may have severe diabetes that has caused foot wounds and subsequent amputations; they may have chronic lung disease due to past smoking; or they may have psychiatric conditions that cause them to consider themselves as having a disability. The latter is particularly problematic because the question about “physical, mental or emotional problem” combines all three of these types of disabilities together. Over 90% of people classified as having a disability answered this question affirmatively. Only 1.7% of the total sample reported using special equipment only. We re-analyzed the 10 questions on symptoms of anxiety and depression, stratifying by which disability question was answered affirmatively (“physical, mental, or emotional problem,” “special equipment,” or both). We found that people who reported using special equipment but did not report having their activities limited by a “physical, mental, or emotional problem” reported mental health symptoms at a level very similar to people who did not report a disability. Levels of mental health symptoms were much higher in respondents who reported having a “physical, mental, or emotional problem.”

This finding highlights a fundamental problem with the approach of the BRFSS to assessing the health of people with disabilities – since there is no inquiry about what the person views as his or her primary disability (specifically or even in the broad categories of “physical,” “mental,” or “emotional” problems), it is impossible to evaluate what medical or psychiatric conditions represent “secondary conditions.” Without this information, fair comparisons of health status for those with and without a disability cannot be made. We believe this weakness could be addressed fairly easily with the addition of a one to two questions about the nature of the perceived disability, and we recommend that South Carolina consider adding such a question to the BRFSS in future years. Doing so would permit much more effective assessment of the health of the almost 22% of South Carolinians with a disability.

### **Additional Information on Disabilities and Health**

The Disability and Health Team, which is part of the National Center on Birth Defects and Developmental Disabilities at the Centers for Disease Control and Prevention (CDC), is an excellent resource for national and state data on disabilities and health, and for resources to help improve the health of people with disabilities. These resources are largely available at the following web site:

<http://www.cdc.gov/ncbddd/dh/default.htm>.

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