

**DISABILITIES AND HEALTH IN SOUTH CAROLINA, 2007: A  
REPORT FROM THE 2007 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 2007. Demographic Data by Disability Status**

SOCIO DEMOGRAPHIC CATEGORY	DISABILITY		NO DISABILITY		P-value
	Percent	n	Percent	n	
All Respondents (ages >18)	21.52	2700	78.48	7506	
<b>AGE</b>					
18-64	71.97	1624	85.75	5523	0.0000
65+	28.03	1076	14.25	1983	
<b>GENDER</b>					
Male	45.67	964	48.49	2887	0.0863
Female	54.33	1736	51.51	4619	
<b>RACE</b>					
White	70.79	2068	68.76	5696	0.41
Black	24.23	534	26.22	1561	
Other	4.98	73	5.02	208	
<b>ETHNICITY</b>					
Hispanic	0.83	25	3.62	133	0.0000
Non-Hispanic	99.17	2598	96.60	7281	
<b>EDUCATION</b>					
Less than H.S.	19.21	536	10.80	787	0.0000
H.S. or higher	80.79	2155	89.20	6703	
<b>INCOME</b>					
<\$25,000	42.74	1006	20.71	1459	0.0000
\$25,000 +	57.26	1226	79.29	5103	
<b>EMPLOYMENT</b>					
Employed	33.20	695	69.70	4568	0.0000
Not employed					
Retired	25.21	935	12.93	1808	
Student/ Homemaker	6.62	174	10.94	730	
Unemployed	6.01	139	4.87	260	
Unable to Work	28.96	743	1.56	127	

**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 6.8% of people with a disability reported being excellent health, compared to 22.1% with poor health. Among respondents with no disability 23% reported excellent health versus 0.9% with 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	6.8	5.1-9.2	119	23.0	21.6-24.4	1688
VERY GOOD	15.3	13.5-17.3	402	37.6	36.0 -39.3	2725
GOOD	29.0	26.7-31.5	799	32.0	30.4-33.5	2362
FAIR	26.8	24.5-29.2	743	6.5	5.9-7.4	590
POOR	22.1	19.9-24.4	616	0.9	0.7-1.1	109

\*p < 0.0001

People with a disability also reported a greater number of days in which their physical health was not good. 35.1% of people with disabilities reported that their physical health was not good for more than half of the previous 30 days, compared to 2% 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	34.7	32.0 -37.6	876	76.1	74.7-77.5	5593
1-15 DAYS	30.2	27.6-32.8	763	21.9	20.6-23.3	1565
16-30 DAYS	35.1	32.5-37.9	855	2.0	1.7-2.4	198

\*p < 0.0001

Mental health was described as not good for 16-30 of the past 30 days by 21.2% of people with disabilities and 4.5% 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	52.9	50.1-55.7	1464	70.6	69.0-72.2	5434
1-15 DAYS	25.9	23.5-28.4	647	24.9	23.4-26.4	1610
16-30 DAYS	21.2	18.8-23.8	463	4.5	3.9-5.3	338

\*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 (29.6% versus 1.9%). 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	39.4	36.3-42.5	796	73.4	71.0-75.6	2300
1-15 DAYS	31.0	28.1-34.1	594	24.7	22.5-27.1	722
16-30 DAYS	29.6	26.8-32.7	541	1.9	1.4-2.6	75

\*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 36.8%). 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	24.5-29.4	707	36.8	35.2-38.5	2680
25 – 29.9	33.2	30.6-35.9	868	37.1	35.5-38.7	2767
>=30	39.9	37.2-42.8	999	26.1	24.7-27.7	1779

\*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 (58.2%) to report physical activity than those with no disability (79.9%). Table 7 displays these data.

**Table 7: Physical Activity**

EXERCISE LAST 30 DAYS	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	58.2	55.5-60.8	1538	79.9	78.6-81.2	5956
NO	41.8	39.2-44.5	1152	20.1	18.8-21.4	1544

\*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, there was not a significant difference in the proportion

who had stopped smoking for a day or longer (59.6% of those with a disability versus 58.6% of those without a disability). 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	57.4	54.7-60.0	1533	44.0	42.3-45.6	3426
NO	42.6	40.0-45.3	1154	56.0	54.4-57.7	4044

\*p < 0.0001

**Table 9: Current Smoking (Among those who have ever smoked)**

FREQUENCY OF DAYS NOW SMOKING	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
EVERY DAY	36.7	33.1-40.5	469	34.9	31.7-36.6	981
SOME DAYS	9.6	7.5-12.1	131	12.1	10.8-14.5	324
NOT AT ALL	53.7	50.0-57.4	931	53.0	50.9-55.9	2119

\*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	59.6	53.8-65.1	354	58.6	54.6-62.4	695
NO	40.4	34.9-46.2	243	41.4	37.6-45.4	605

\*p = 0.76

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, with people without a disability more likely to be have never smoked.

**Table 11: Smoking Status**

SMOKE STATUS	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
CURRENT SMOKER	21.1	18.8-23.6	469	15.0	13.8-16.3	981

- NOW SMOKES EVERY DAY						
CURRENT SMOKER - NOW SMOKES SOME DAYS	5.5	4.3-7.0	131	5.5	4.7-6.4	324
FORMER SMOKER	30.8	28.4-33.3	931	23.5	22.2-24.8	2119
NEVER SMOKED	42.6	40.0-45.4	1154	56.0	54.4-57.7	4044

\*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 (35.3% versus 50.7%). 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 7.3% of people with a disability, compared to 15.7% of those without a disability (Tables 12-13).

**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	35.3	32.6-38.1	895	50.7	49.0-52.4	3615
NO	64.7	62.0-67.4	1799	49.3	47.7-51.0	3863

\*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>	92.7	89.9-93.8	2500	84.3	82.9-85.6	6448
<b>1 TIME</b>	1.1	1.0-2.5	37	5.0	4.3-5.8	316
<b>2-5 TIME</b>	3.9	2.7-5.8	79	7.8	6.9-8.9	444
<b>&gt;5 TIME</b>	2.3	1.5-3.7	37	2.9	2.3-3.8	138

\*p < 0.0001

## DIABETES MELLITUS

In 2007, 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 (20% versus 6.6%) (Table 14).

**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>	20.0	18.08-22.13	621	6.6	6.0-7.3	688
<b>YES (FEMALE PREGNANCY)</b>	0.4	0.18-0.74	11	0.9	0.6-1.2	59
<b>NO</b>	77.7	75.56-79.75	1999	91.7	90.9-92.4	6666
<b>NO (PRE-DIABETES)</b>	1.9	1.40-2.52	65	0.8	0.6-1.2	87

\*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 (38% versus 24.1%). 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. There was a significant difference in self-monitoring for foot sores; people with a disability were less than half as likely to report never checking their feet for sores than people without a disability (4.3% versus 9.3%).

**Table 15: Age of Diabetes Diagnosis**

AGE WHEN WERE TOLD HAVE DIABETES	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
<30	11.3	6.1-18.9	35	10.5	7.4-14.8	44
31-50	34.2	29.1-39.7	175	40.6	35.6-45.8	217

51-60	30.5	25.7-35.8	173	22.6	19.0-26.7	168
>60	24.0	19.9-28.7	172	26.3	22.4-30.5	209

\*p = 0.0691

**Table 16: Taking Insulin**

TAKING INSULIN	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	38.0	32.5-43.9	211	24.1	20.0-28.7	155
NO	62.0	56.1-67.6	410	75.9	71.3-80.0	533

\*p = 0.0002

**Table 17: Taking Pills for Diabetes**

TAKING PILLS	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	N
YES	69.8	64.5-74.6	443	74.1	69.5-78.2	523
NO	30.2	25.4-35.5	177	25.9	21.8-30.5	165

\*p = 0.2048

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

HOW OFTEN CHECK BLOOD FOR GLUCOSE	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
DAYLY	72.9	68.0-77.3	438	65.9	61.3-70.3	426
WEEKLY	17.4	13.9-21.7	106	20.8	17.3-24.6	154
MONTHLY	3.3	2.2-5.0	26	3.3	2.1-5.4	26
YEARLY	0.8	0.3-2.1	5	1.4	0.7-2.7	10
NEVER	5.6	3.4-9.0	33	8.6	6.2-11.9	58

\*p = 0.2467

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

HOW OFTEN FEET FOR SORES OR IRRITATIONS	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
DAYLY	70.7	65.5-75.5	422	65.3	60.6-69.9	437
WEEKLY	20.4	16.2-25.4	117	19.5	16.0-23.7	132
MONTHLY	4.0	2.5-6.3	24	5.3	3.5-7.9	32
YEARLY	0.6	0.1-2.5	4	0.6	0.2-1.4	5

<b>NEVER</b>	4.3	2.8-6.4	30	9.3	6.8-12.5	56
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\*p = 0.0451

People with a disability did report significantly more frequent diabetes-related visits to a health care professional (10% versus 1.9%). 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) (8.2% versus 4.7%). 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>	69.4	64.08-74.26	398	80.9	76.7-84.4	534
<b>6-11 TIMES</b>	11.5	8.41-15.42	65	7.6	5.2-11.2	42
<b>12+ TIMES</b>	10.0	7.21-13.63	53	1.9	1.1-3.3	16
<b>NEVER</b>	9.1	6.47-12.84	56	9.6	7.3-12.5	69

\*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>	11.3	8.1-15.5	58	18.4	14.7-22.8	106
<b>TWICE</b>	18.4	14.6-23.0	99	26.2	21.8-31.1	161
<b>3-4 TIMES</b>	44.7	38.7-50.9	231	37.1	32.2-42.2	221
<b>5+ TIMES</b>	8.2	5.9-11.4	47	4.7	2.9-7.7	26
<b>NEVER</b>	17.4	13.6-21.9	103	13.6	10.6-17.2	97

\*p = 0.0017

**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>	14.6	11.5-18.2	97	20.7	16.9-25.1	134
<b>2-3/YEAR</b>	21.1	17.1-25.7	127	27.0	23.0-31.4	183
<b>4+ /YEAR</b>	39.2	33.6-45.2	216	24.6	20.6-29.2	165
<b>NEVER</b>	25.1	20.5-30.5	138	27.7	23.4-32.4	178

\*p = 0.0009

**Table 23: Dilated Eye Examination**

LAST EYE EXAM WHERE PUPILS WERE DILATED	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
PAST MONTH	18.5	14.9-22.7	120	21.2	17.6-25.5	158
PAST YEAR	51.5	45.9-57.0	301	47.0	42.1-52.0	330
PAST 2 YEARS	12.1	9.3-15.7	82	14.1	10.9-18.0	84
2+ YEARS AGO	14.2	10.9-18.3	79	13.9	10.6-18.0	80
NEVER	3.7	2.2-6.2	21	3.8	2.2-6.2	21

\*p = 0.7357

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

EVER TAKEN CLASS IN MANAGING DIABETES	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	56.6	51.2-61.8	332	55.9	51.0-60.7	376
NO	43.4	38.2-48.8	287	44.1	39.4-49.0	311

\*p = 0.8542

People with a disability were almost three times as likely to have ever had a foot ulcer or irritation (16.8% versus 5.8%) and more than twice as likely to have ever been diagnosed with diabetic retinopathy (30.8 versus 14.1%). 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	16.8	13.1-21.4	98	5.8	3.8-8.6	35
NO	83.2	78.7-86.9	521	94.2	91.4-96.2	652

\*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	30.8	26.1-36.0	188	14.1	11.2-17.7	104

<b>NO</b>	69.2	64.0-73.9	421	85.9	82.3-88.8	580
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\*  $p < 0.0001$

### Cardiovascular Health

The 2007 SC BRFSS also included a supplemented module assessing cardiovascular or heart health. The following questions were included in the module:

- If a doctor, nurse, or other professional ever told you had a heart attack, after you left the hospital following your heart attack did you go to any kind of outpatient rehabilitation?
- If a doctor, nurse, or other professional ever told you had a stroke, after you left the hospital following your stroke did you go to any kind of outpatient rehabilitation?
- Do you take aspirin daily or every other day?
- Do you have a health problem or condition that makes taking aspirin unsafe for you?

**Table 27: Go to any kind of outpatient rehabilitation after Heart Attack**

GO TO OUTPATIENT REHABILITATION AFTER HEART ATTACK	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
<b>YES</b>	33.9	21.69-41.93	104	36.6	29.93-43.91	93
<b>NO</b>	66.1	58.07-73.31	201	63.4	56.09-70.07	165

\* $p = 0.6088$

**Table 28: Go to any kind of outpatient rehabilitation after Stroke**

GO TO OUTPATIENT REHABILITATION AFTER STROKE	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
<b>YES</b>	29.0	21.3-38.2	86	21.4	14.4-30.6	33
<b>NO</b>	71.0	61.8-78.7	190	78.6	69.4-85.6	102

\*p = 0.2178

**Table 29: Take aspirin daily or every other day**

TAKE ASPIRIN DAILY OR EVERY OTHER DAY	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	37.6	35.2-40.2	1157	23.2	22.0-24.5	2326
NO	62.4	59.8-64.8	1471	76.8	75.5-78.0	4961

\*p < 0.0001

**Table 30: Have a health problem that makes taking aspirin unsafe**

TAKING ASPIRIN UNSAFE	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES, NOT STOMACH RELATED	13.6	11.6-16.0	239	2.9	2.5-3.5	218
YES, STOMACH RELATED	12.7	10.8-14.9	225	3.9	3.3-4.6	258
NO	73.7	70.7-76.5	970	93.2	92.3-93.9	4458

\*p < 0.0001

### Arthritis Management

The 2007 SC BRFSS also included a supplemental module assessing health problem related to joint symptoms/arthritis. The following questions assessed the presence of joint symptoms:

- Did your first joint symptoms first begin more than 3 months ago?
- Have you ever been told by a doctor or other health professional that you have some form of arthritis, gout, lupus, or fibromyalgia?

People with a disability were significantly more likely to report having at least some joint symptoms beginning more than three months ago (Table 31). They were three times as likely to report being diagnosed with arthritis by a doctor or other health professional.

The following question was asked of all respondents who reported joint symptoms beginning more than 3 months ago or were told by a doctor or other health professional that they had arthritis, gout, lupus, or fibromyalgia:

- Thinking about your arthritis or joint symptoms, which of the following best describes you today (including I can do everything I would like to do, I can do something I would like to do, I can do something I would like to do, and I can hardly do anything I would like to do)?

As shown in Table 33, people with a disability (who had arthritis or joint symptoms) were far more likely to report that they could only do some things or could hardly do anything (56.9% versus 9.2%).

**Table 31: Joint symptoms first begin more than 3 months ago**

FIRST JOINTS SYMPTOMS BEGIN 3 MONTHS AGO	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	92.2	89.0-93.0	1837	77.7	75.2-80.0	2168
NO	8.8	7.0-11.0	174	22.3	20.0-24.8	525

\*p < 0.0001

**Table 32: Diagnosed some form of arthritis by doctor or health professional**

DIAGNOSED ARTHRITIS BY DOCTOR OR HEALTH PROFESSIONAL	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	61.6	58.7-64.4	1830	20.8	19.7-22.0	2119
NO	38.4	35.6-41.3	838	79.2	78.0-80.3	5313

\*p < 0.0001



**Table 33: Best describe today's Arthritis or joint symptoms**

TODAY'S ARTHRITIS OR JOINT SYMPTOMS	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
DO EVERYTHING	9.5	7.7-11.7	170	42.2	42.6-47.9	1216
DO MOST THINGS	33.6	30.8-36.5	718	45.6	43.0-48.2	1501
DO SOME THINGS	37.6	34.8-40.5	833	8.1	6.8-9.7	257
HARDLY DO ANYTHING	19.3	17.0-21.9	400	1.1	0.7-1.6	37

\*p < 0.0001

## SUMMARY

Almost 22% of respondents to the 2007 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 far more likely to report problems with poor physical or mental health that interfered with their usual activities, and to report having more than 15 days in the prior month when their physical health was not good. They were almost 5 times as likely to report that their mental health was not good for at least 16 of the prior 30 days.

People with a disability were substantially more likely to report having diabetes. Among those with diabetes, disability was associated with increased likelihood of taking insulin in addition to more frequent doctor visits related to diabetes and more frequent hemoglobin A1c testing and foot examinations. These findings would seem to imply greater severity of diabetes in people with disabilities, which is further supported by an increased prevalence of diabetic retinopathy and foot sores. Arthritis and other joint symptoms were also more common in people with a disability, and were more likely to cause significant limitations in people with 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 be disabled because of the joint problems they report; or they may have psychiatric conditions that cause them to consider themselves as having a disability.

This is a fundamental problem with the approach of the BRFSS for 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. Continued research addressing the health of people with disabilities is therefore needed.

### **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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this report, please contact Joshua R. Mann, MD, MPH in the Department of Family and Preventive Medicine at the University of South Carolina School of Medicine (phone: 803-434-4575; email: [joshua.mann@sc.edu](mailto:joshua.mann@sc.edu)).