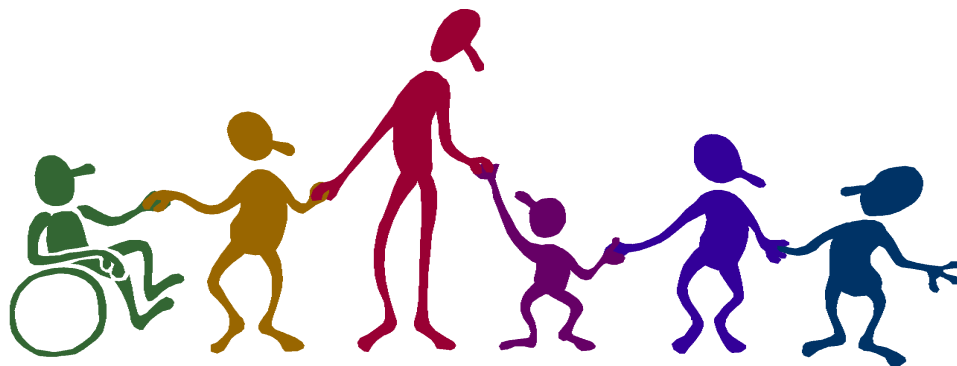


DISABILITY AND HEALTH IN SOUTH CAROLINA

REPORT FROM THE 2008 BRFSS RISK FACTOR SURVEILLANCE SYSTEM

**South Carolina Interagency Office of
Disability and Health**





From the Department of Family and Preventive Medicine,

University of South Carolina,

In Collaboration with the South Carolina Department of Health and Environmental Control

Table of Contents

	Page
INTRODUCTION	1
DEMOGRAPHICS	2
Table 1 SC BRFFS: 2008 Demographic Data by Disability Status	2
GENERAL HEALTH	3
Table 2 General Health by Disability Status	3
Table 3 Days physical Health Not Good	3
Table 4 Days Mental Health Not Good	4
Table 5 Poor Physical or Mental Health Interfered with Usual Activities	4
WEIGHT AND PHYSICAL ACTIVITY	5
Table 6 Body Mass Index	5
Table 7 Physical Activity	5
TOBACCO USE	6
Table 8 Smoked at Least 100 Cigarettes, Lifetime	6
Table 9 Current Smoking (Among those who have never smoked)	6
Table 10 Tried to Stop Smoking, Past 12 Months	6
Table 11 Smoking Status	7
ALCOLHOL CONSUMPTION	8
Table 12 Any Alcohol Use in the Past 30 Days	8
Table 13 Binge Drinking Past 30 Days	8
DIABETES	9
Table 14 Ever Diagnosed with Diabetes	9
Table 15 Age of Diabetes Diagnosis	9
Table 16 Visits to a Health Professional for Diabetes	10
Table 17 Hemoglobin A1c	10
Table 18 Foot Examinations by Health Professional	10
Table 19 Dilated Eye Examination	11
Table 20 Ever Diagnosed with Diabetic Retinopathy	11
CARDIOVASCULAR DISEASE	12
Table 21 Ever Diagnosed with Myocardial Infarction	12
Table 22 Ever Diagnosed with Angina or Coronary Heart Disease	12
Table 23 Ever Diagnosed with Stroke	12
WOMENS HEALTH	13
Table 24 Ever Had Mammogram	13
Table 25 Time Since Last Mammogram	13
Table 26 Clinical Breast Exam	14
Table 27 Time Since Last Breast Exam	14
Table 28 Ever Had Pap Test	14
Table 29 Time Since Last Pap Test	15
PROSTATE CANCER	16
Table 30 Ever Had PSA Test	16
Table 31 Time Since Last PSA Test	16
Table 32 Ever Had Digital Rectal Exam	17
Table 33 Time Since Last Digital Rectal Exam	17
Table 34 Ever Been Told Have Prostate Cancer	17

Table of Contents continued

page

COLORECTAL CANCER		18
Table 35	Ever Had Blood Stool Test Using a Home Kit	18
Table 36	Time Since Last Blood Stool Test Using Home Kit	19
Table 37	Ever Had Either Of Sigmoidoscopy and Colonoscopy Exam	19
Table 38	Most Recent Exam Is Sigmoidoscopy Versus Colonoscopy	19
Table 39	Time Since Last Sigmoidoscopy or Colonoscopy Exam	19
Table 40	Up To Date For Colorectal Cancer Screening	20
SLEEP		21
Table 41	Not Getting Enough Rest or Sleep	21
ORAL HEALTH		22
Table 42	Last Visited Dentist or Dental Clinic	22
Table 43	Number of Permanent Teeth Removed	22
Table 44	When Teeth Last Cleaned by Dentist or Hygienist	23
FALLS		24
Table 45	Fall In The Past 3 Months	24
Table 46	How Many Falls Caused Injury	24
SEAT BELT USE		25
Table 47	Use of Seatbelt When In a Car	25
Table 48	Driving When Had Too Much To Drink During Past 30 Days	25
SUMMARY		26
ADDITIONAL INFORMATION ON DISABILITIES AND HEALTH		27
FUNDING SOURCE		27

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.

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 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 2008 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. Educational attainment and 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)

Table 1: SC BRFS 2008. Demographic Data by Disability Status

SOCIODEMOGRAPHIC CATEGORY	DISABILITY		NO DISABILITY		P-value
	Percent	n	Percent	n	
All Respondents (ages >18)	23.92	3002	76.08	7076	
AGE					
18-64	71.86	1699	85.88	5063	0.0000
65+	28.14	1303	14.12	2013	
GENDER					
Male	45.32	1068	48.92	2615	0.055
Female	54.68	1934	51.08	4461	
RACE					
White	71.58	2075	68.09	4817	0.0881
Black	24.93	827	26.73	2029	
Other	3.49	73	5.18	190	
ETHNICITY					
Hispanic	2.15	36	2.99	141	0.2772
Non-Hispanic	97.85	2873	97.01	6777	
EDUCATION					
Less than H.S.	17.81	625	8.95	763	0.0000
H.S. or higher	82.19	2372	91.05	6304	
INCOME					
<\$25,000	43.44	1229	22.31	1643	0.0000
\$25,000 +	56.56	1254	77.69	4418	
EMPLOYMENT					
Employed	34.46	773	66.66	1061	0.0000
Not employed					
Retired	24.81	1019	13.09	1781	
Student/ Homemaker	7.95	236	11.48	673	
Unemployed	7.89	174	7.29	369	
Unable to Work	24.89	784	1.48	167	

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 7.4% of people with a disability reported being excellent health, compared to 20.4% with poor health. Among respondents with no disability 23.9% reported excellent health versus 1.1% with poor health. (Table 2)

Table 2: General Health by Disability Status

GENERAL HEALTH	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
EXCELLENT	7.4	5.6-9.6	141	23.9	22.1-25.8	1463
VERY GOOD	15.4	13.3-17.8	413	37.5	35.5-39.5	2478
GOOD	33.7	30.8-36.6	940	30.9	29.1-32.8	2336
FAIR	23.1	20.8-25.6	797	6.6	5.7-7.6	626
POOR	20.4	18.1-22.9	669	1.1	0.9-1.4	139

*p < 0.0001

People with a disability also reported a greater number of days in which their physical health was not good. 30.41% of people with disabilities reported that their physical health was not good for more than half of the previous 30 days, compared to 2.4% of people without disabilities. (Table 3)

Table 3: Days Physical Health Not Good

NUMBER OF DAYS PHYSICAL HEALTH NOT GOOD	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
NONE	35.7	32.7-38.8	1011	75.1	73.3-76.8	5194
1-15 DAYS	33.9	31.0-36.9	878	22.5	20.8-24.3	1501
16-30 DAYS	30.4	27.7-33.4	895	2.4	2.0-3.0	220

*p < 0.0001

Mental health was described as not good for 16-30 of the past 30 days by 20.7% of people with disabilities and 4.8% of people with no disability. (Table 4)

Table 4: Days Mental Health Not Good

NUMBER OF DAYS MENTAL HEALTH NOT GOOD	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
NONE	52.5	49.4-55.6	1644	70.8	68.8-72.7	5140
1-15 DAYS	26.8	24.2-29.7	732	24.4	22.6-26.3	1490
16-30 DAYS	20.7	18.0-23.6	485	4.8	4.0-5.8	311

*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; 27.3% of people with disabilities reported that this occurred on more than half of the prior 30 days, 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		
	%	95% CI	n	%	95% CI	n
NONE	37.1	33.7-40.6	854	73.4	70.6-76.0	2144
1-15 DAYS	35.6	32.3-39.1	708	23.9	21.5-26.6	709
16-30 DAYS	27.3	24.0-30.9	547	2.7	1.8-3.9	87

*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 (27.0% versus 36.3%). People with a disability were more likely to be obese (41.6% versus 27.3%). (Table 6)

Table 6: Body Mass Index

BMI	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
< 25	27.0	24.3-29.8	757	36.3	34.3-38.4	2338
25 – 29.9	31.4	28.8-34.2	968	36.4	34.4-38.4	2526
>=30	41.6	38.5-44.7	1147	27.3	25.5-29.2	1862

*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 (56.8%) to report physical activity than those with no disability (77.7%). (Table 7)

Table 7: Physical Activity

EXERCISE LAST 30 DAYS	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	56.8	53.8-59.9	1661	77.7	76.0-79.4	5402
NO	43.2	40.1-46.2	1336	22.3	20.6-24.0	1665

*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 (55.6% versus 42.0%). Among those who had smoked at least 100 cigarettes, there was not a significant difference in the proportion who currently smokes 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 in the previous 12 months (62.9% of those with a disability versus 56.16% of those without a disability). (Tables 8- 10)

Table 8: Smoked at Least 100 Cigarettes, Lifetime

SMOKED AT LEAST 100 CIGARETTES	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	55.6	52.5-58.6	1620	42.0	40.0-44.0	3049
NO	44.4	41.4-47.5	1362	58.0	56.0-60.0	3986

*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	29.2	25.9-32.8	435	33.0	30.0-36.1	842
SOME DAYS	12.4	9.9-15.4	161	12.5	10.5-14.8	338
NOT AT ALL	58.4	54.6-62.2	1023	54.5	51.4-57.6	1868

*p = 0.2391

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	62.9	57.0-68.5	377	56.1	51.2-60.9	638
NO	37.1	31.6-43.0	218	43.9	39.1-48.8	535

*p = 0.0795

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. This difference was primarily due to the presence of more former smokers in those with a disability and more never smokers in those without a disability, though the proportion of current, every day smoking was 2.3 percentage points higher in people with a disability (16.2% versus 13.9%).(Table 11)

Table 11: Smoking Status

SMOKING STATUS	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
CURRENT SMOKER - NOW SMOKES EVERY DAY	16.2	14.2-18.4	435	13.9	12.4-15.4	842
CURRENT SMOKER - NOW SMOKES SOME DAYS	6.9	5.5-8.6	161	5.2	4.4-6.3	338
FORMER SMOKER	32.5	29.8-35.3	1023	22.9	21.4-24.5	1868
NEVER SMOKED	44.4	41.4-47.5	1362	58.0	56.0-60.0	3986

*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 (33.9% versus 46.2%). 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 7.2% of people with a disability, compared to 14.0% 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	33.9	31.1-36.9	871	46.2	44.2-48.3	3061
NO	66.1	63.1-68.9	2114	53.8	51.7-55.8	3970

*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
NONE	92.8	91.0-94.2	2781	86.0	84.3-87.4	6164
1 TIME	1.8	1.2-2.8	49	5.0	4.1-6.1	244
2-5 TIME	4.0	3.0-5.4	79	6.9	5.8-8.2	355
>5 TIME	1.4	0.8-2.4	35	2.1	1.6-2.7	119

*p < 0.0001

DIABETES:

Participants were asked the following questions about diabetes:

- Have you ever been told by a doctor that you have diabetes?
- How old were you when you were told you have diabetes?
- 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 " A1c " 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 "A1c"?
- 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?

People with a disability were significantly more likely to have been diagnosed with diabetes (not including gestational diabetes) than people without a disability (20.2% versus 6.9%). (Table 14)

Table 14: Ever Diagnosed with Diabetes

EVER TOLD BY DOCTOR YOU HAVE DIABETES	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	20.2	18.0-22.6	709	6.9	6.2-7.8	749
YES (FEMALE PREGNANCY)	0.6	0.3-1.1	17	0.9	0.6-1.2	60
NO	76.5	74.1-78.9	2191	91.0	90.0-91.9	6156
NO (PRE-DIABETES)	2.7	1.9-3.7	75	1.2	0.9-1.7	105

*p < 0.0001

Among people who had been diagnosed with diabetes, age of diagnosis did not differ significantly for people with a disability compared to people without a disability.(Table 15)

Table 15: Age of Diabetes Diagnosis

AGE WHEN WERE TOLD HAVE DIABETES	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
<30	9.0	6.0-13.2	48	7.6	4.9-11.8	38
31-50	34.2	28.5-40.6	192	36.6	30.6-43.0	209
51-60	34.9	28.7-41.6	197	30.4	25.1-36.4	207
>60	21.9	17.8-26.8	189	25.4	21.2-30.0	232

*p =0.57

People with a disability who had diabetes reported significantly more frequent diabetes-related visits to a health care professional than their counterparts without disability. Almost 10% of people with a disability had 12 or more visits in the previous year, compared to approximately 3% of people without a disability. There were no significant differences in the frequency of glycosylated hemoglobin testing, foot examinations, or dilated eye examinations. (Table 16 - 19)

Table 16: Visits to a Health Professional for Diabetes

TIMES SEEN HEALTH PROFESSIONAL FOR DIABETES	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
1-5 TIMES	72.1	66.4-77.1	443	80.4	75.5-84.5	582
6-11 TIMES	8.3	5.7-11.9	69	8.0	5.3-12.0	51
12+ TIMES	9.7	6.8-13.9	65	2.9	1.7-4.9	26
NEVER	9.9	6.9-14.1	60	8.7	6.1-12.3	66

*p = 0.0051

Table 17: Hemoglobin A1c Testing

TIMES CHECKED FOR GLYCOSYLATED HEMOGLOBIN	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
ONCE	13.9	9.8-19.3	76	15.5	11.5-20.6	107
TWICE	21.0	16.0-27.0	112	32.1	26.1-38.7	188
3-4 TIMES	44.7	38.2-51.4	276	33.6	28.4-39.3	262
5+ TIMES	6.8	4.4-10.5	46	5.6	3.3-9.4	28
NEVER	13.6	10.0-18.1	96	13.2	9.5-18.1	89

*p = 0.0633

Table 18: Foot Examinations by Health Professional

TIMES FEET CHECK FOR SORES/IRRITATION	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
ONCE/YEAR	20.9	16.1-26.7	120	24.8	19.4-31.1	149
2-3/YEAR	23.1	17.7-29.6	149	26.2	21.1-32.1	177
4+ /YEAR	28.3	23.2-34.1	220	24.3	20.0-29.2	210
NEVER	27.7	22.8-33.2	175	24.7	20.1-29.9	191

*p = 0.4787

Table 19: Dilated Eye Examination

LAST EYE EXAM WHERE PUPILS WERE DILATED	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
PAST MONTH	20.9	16.7-26.0	151	20.8	16.8-25.5	154
PAST YEAR	44.9	39.0-50.9	343	44.8	39.0-50.7	366
PAST 2 YEARS	14.7	9.9-21.2	87	12.9	9.7-17.0	98
2+ YEARS AGO	15.6	11.5-20.9	91	17.5	12.6-23.9	99
NEVER	3.9	2.2-6.8	25	4.0	2.4-6.8	27

*p = 0.9795

People with a disability were more than twice as likely to have ever been diagnosed with diabetic retinopathy (24.74% versus 11.62%). (Table 20)

Table 20: Ever Diagnosed With Diabetic Retinopathy

EVER TOLD DIABETES HAS AFFECTED EYES	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	24.74	20.1-30.1	180	11.62	8.9-15.0	114
NO	75.26	70.0-80.0	511	88.38	85-91.1	627

* p < 0.0001



CARDIOVASCULAR DISEASE:

The following questions were asked regarding cardiovascular disease: Has a doctor, nurse, or other health professional EVER told you that you:

- had a heart attack, also called a myocardial infarction?
- had angina or coronary heart disease?
- had a stroke?

People with a disability were far more likely than people without disability to have been diagnosed with myocardial infarction (10.5% versus 2.2%), angina or coronary heart disease (11.4% versus 2.5%), or stroke (8.6% versus 1.5%). (Tables 21 – 23)

Table 21: Ever Diagnosed With Myocardial Infarction

EVER TOLD MYOCARDIAL INFARCTION	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	10.5	9.1-12.2	377	2.2	1.8-2.7	238
NO	89.5	87.8-90.9	2576	97.8	97.3-98.2	6797

*p < 0.0001

Table 22: Ever Diagnosed With Angina or Coronary Heart Disease

EVER TOLD ANGINA OR CORONARY HEART DISEASE	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	11.4	9.8-13.2	413	2.5	2.1-3.0	274
NO	88.6	86.8-90.2	2495	97.5	97.0-97.9	6747

*p < 0.0001

Table 23: Ever Diagnosed With Stroke

EVER TOLD STROKE	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	8.6	7.3-10.1	320	1.5	1.2-1.8	179
NO	91.4	89.9-92.7	2661	98.5	98.2-98.8	6884

*p < 0.0001

WOMEN'S HEALTH:

The following questions were asked relating to women's health:

- A mammogram is an x-ray of each breast to look for breast cancer. Have you ever had a mammogram?
- How long has it been since you had your last mammogram?
- A clinical breast exam is when a doctor, nurse, or other health professional feels the breasts for lumps. Have you ever had a clinical breast exam?
- How long has it been since your last breast exam?
- A Pap test is a test for cancer of the cervix. Have you ever had a Pap test?
- How long has it been since you had your last Pap test?
- Have you had a hysterectomy?

Based on United States Preventive Services Task Force guidelines, we limited the analysis of mammography and breast examinations to women at least 40 years old and younger than 75. We limited the analysis of Pap testing to women who had never had a hysterectomy and were 70 years or younger. People with a disability were significantly more likely to have ever had a mammogram (93.0% versus 90.0%, $p = .027$). However, among those who had ever had a mammogram, people with a disability were significantly less likely to have had one within the previous 12 months (60.1% versus 67.1%, $p = .019$). (Tables 24; 25)

Table 24: Ever Had Mammogram

EVER HAD MAMMOGRAM	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	93	90.6-94.9	1643	90	87.7-91.6	3180
NO	7	5.1-9.4	100	10	8.4-12.3	268

* $p = 0.0265$

Table 25: Time Since Last Mammogram

HOW LONG SINCE LAST MAMMOGRAM	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
LESS THAN 12 MONTHS	60.1	56.4-63.7	1003	67.1	64.5-69.6	2152
1-2 YEARS	18.9	16.1-21.9	297	17.1	15.2-19.4	529
2-3 YEARS	6.8	5.1-9.0	105	6.3	5.0-7.9	189
3-5 YEARS	5.0	3.6-7.1	76	3.5	2.7-4.5	119
5 OR MORE YEARS	9.2	7.1-11.7	141	6.0	4.7-7.5	166

* $p = 0.0194$

There was not a significant difference between people with and without disability in the proportion of respondents who had ever had a clinical breast examination (90.9% versus 91.8%, $p = .523$). However, people with a disability were significantly less likely to have had a clinical breast examination in the previous 12 months (61.1% versus 68.9%, $p .002$). (Tables 26; 27)

Table 26: Clinical Breast Exam

HAD CLINICAL BREAST EXAM	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	90.9	88.7-92.7	1547	91.8	89.9-93.3	3112
NO	9.1	7.3-11.3	173	8.2	6.7-10.1	315

$p = 0.5234$

Table 27: Time Since Last Breast Exam

HOW LONG SINCE LAST BREAST EXAM	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
LESS THAN 12 MONTHS	61.1	57.2-64.9	959	68.9	66.3-71.4	2163
1-2 YEARS	16.7	14.0-19.9	239	17.0	14.9-19.3	487
2-3 YEARS	8.1	6.0-10.9	103	5.0	3.9-6.4	149
3-5 YEARS	4.9	3.5-6.8	78	3.0	2.3-3.9	108
5 OR MORE YEARS	9.2	7.1-11.8	135	6.1	4.8-7.7	165

* $p = 0.0019$

Likewise, there was not a difference in the proportion of women who had ever had a Pap test to screen for cervical cancer, but women with a disability were significantly less likely to have had one within the previous 12 months (40.4% versus 52.9%) and more likely to have had their most recent Pap test 5 or more years ago (28.0% versus 14.7%). (Table 28; 29)

Table 28: Ever Had Pap Test

EVER HAD PAP TEST	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	98.04	96.5-98.9	472	97.97	95.5-99.1	771
NO	1.96	1.1-3.5	17	2.03	0.9-4.5	16

$p = 0.9474$

Table 29: Time Since Last Pap Test

HOW LONG SINCE LAST PAP TEST	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
LESS THAN 12 MONTHS	40.4	33.7-47.5	195	52.9	47.5-58.2	402
1-2 YEARS	15.6	11.7-20.6	85	16.7	13.0-21.4	135
2-3 YEARS	10.2	6.3-15.9	52	9.2	6.5-12.9	66
3-5 YEARS	5.8	3.5-9.5	28	6.5	4.4-9.5	52
5 OR MORE YEARS	28.0	21.8-35.2	106	14.7	11.3-18.9	106

P = 0.0125

PROSTATE CANCER:

Men were asked the following questions about prostate cancer screening:

- A Prostate-Specific Antigen test, also called a PSA test, is a blood test used to check men for prostate cancer. Have you ever had a PSA test?
- How long has it been since you had your last PSA test?
- A digital rectal exam is an exam in which a doctor, nurse, or other health professional places a gloved finger into the rectum to feel the size, shape, and hardness of the prostate gland. Have you ever had a digital rectal exam?
- How long has it been since your last digital rectal exam?
- Have you ever been told by a doctor, nurse, or other health professional that you had prostate cancer?

Our analyses were limited to men at least 50 years old. There were no significant differences between men with and without disability in the proportion who had ever had prostate cancer screening by PSA testing or digital rectal examination, or in the timing of the most recent examination. (Table 30 – 34)

Table 30: Ever Had PSA Test

EVER HAD PSA TEST	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	73.7	68.7-78.3	724	68.2	64.8-71.4	1428
NO	26.3	21.7-31.3	202	31.8	28.6-35.2	483

p = 0.061

Table 31: Time Since Last PSA Test?

HOW LONG SINCE LAST PSA TEST	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
LESS THAN 12 MONTHS	70.9	65.6-75.6	508	65.3	61.3-69.1	1015
1-2 YEARS	14.4	11.0-18.6	105	18.4	15.5-21.7	226
2-3 YEARS	5.0	3.3-7.8	42	6.7	4.7-9.5	66
3-5 YEARS	6.2	3.9-9.9	34	4.7	3.3-6.6	60
5 OR MORE YEARS	3.5	1.9-6.3	22	4.9	3.2-7.4	50

p = 0.2202

Table 32: Ever Had Digital Rectal Exam

EVER HAD DIGITAL RECTAL EXAM	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	82.7	78.3-86.4	815	78.9	75.9-81.6	1589
NO	17.3	13.6-21.7	147	21.1	18.4-24.0	386

p = 0.1328

Table 33: Time Since Last Digital Rectal Exam

HOW LONG SINCE LAST DIGITAL RECTAL EXAM	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
LESS THAN 12 MONTHS	53.5	48.2-58.8	442	50.9	47.2-54.6	880
1-2 YEARS	14.6	11.5-18.4	136	19.0	16.2-22.2	282
2-3 YEARS	13.1	9.6-17.6	82	8.9	6.9-11.5	119
3-5 YEARS	6.7	4.4-9.9	62	7.7	6.0-9.7	111
5 OR MORE YEARS	12.1	9.0-16.0	86	13.5	11.1-16.3	187

p = 0.1524

Table 34: Ever Been Told You Have Prostate Cancer

EVER BEEN TOLD HAVING PROSTATE CANCER	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	4.9	3.5-6.8	71	3.8	2.9-4.9	114
NO	95.1	93.2-96.5	908	96.2	95.1-97.1	1874

p = 0.246

COLORECTAL CANCER:

Colorectal cancer screening is recommended for adults 50 years old or older. Options for screening include fecal occult blood testing, sigmoidoscopy, and colonoscopy. The following questions were asked about colorectal cancer screening:

- A blood stool test is a test that may use a special kit at home to determine whether the stool contains blood. Have you ever had this test using a home kit?
- How long has it been since you had your last blood stool test using a home kit?
- Sigmoidoscopy and colonoscopy are exams in which a tube is inserted in the rectum to view the colon for signs of cancer or other health problems. Have you ever had either of these exams?
- For a SIGMOIDOSCOPY, a flexible tube is inserted into the rectum to look for problems.
- A COLONOSCOPY is similar, but uses a longer tube, and you are usually given medication through a needle in your arm to make you sleepy and told to have someone else drive you home after the test. Was your MOST RECENT exam a sigmoidoscopy or a colonoscopy?
- How long has it been since you had your last sigmoidoscopy or colonoscopy?

We limited our analysis to respondents who were at least 50 years old.

People with a disability were significantly more likely to have ever used a blood stool testing kit for fecal occult blood testing (46.1% versus 38.2%, $p = .0005$). Among those who had had fecal occult blood testing, there was not a significant difference in the timing of the most recent test. There was not a significant difference by disability status in the proportion who had ever had sigmoidoscopy or colonoscopy, or in the timing of the most recent sigmoidoscopy or colonoscopy. (Tables 35 – 39)

Table 35: Ever Had Blood Stool Test Using a Home Kit

EVER HAD BLOOD STOOL TEST USING HOME KIT	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	46.1	42.4-49.8	786	38.2	35.8-40.7	1378
NO	53.9	50.2-57.6	921	61.8	59.3-64.2	2050

$p = 0.0005$

Table 36: Time Since Last Blood Stool Test Using a Home Kit

HOW LONG SINCE LAST BLOOD STOOL TEST USING HOME KIT	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
LESS THAN 12 MONTHS	32.3	27.5-37.5	255	30.2	26.6-34.1	438
1-2 YEARS	15.3	12.0-19.4	135	21.7	18.4-25.5	256
2-3 YEARS	10.9	8.0-14.9	74	10.6	8.5-13.1	148
3-5 YEARS	13.4	10.2-17.3	106	11.4	9.0-14.4	159
5 OR MORE YEARS	28.1	23.3-33.4	197	26.0	22.7-29.6	341

p = 0.1961

Table 37: Ever Had Either of Sigmoidoscopy and Colonoscopy Exam

EVER HAD SIGMOIDOSCOPY OR COLONOSCOPY EXAM	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	67.2	63.5-70.7	1131	63.6	61.1-66.1	2151
NO	32.8	29.3-36.6	561	36.4	33.9-38.9	1264

p = 0.1138

Table 38: Most Recent Exam is Sigmoidoscopy versus Colonoscopy

MOST EXAM	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
SIGMOIDOSCOPY	5.5	4.1-7.4	71	5.9	4.7-7.4	129
COLONOSCOPY	94.5	92.6-96.0	1014	94.1	92.6-95.3	1975

p = 0.7124

Table 39: Time Since Last Sigmoidoscopy or Colonoscopy Exam

HOW LONG SINCE LAST SIGMOIDOSCOPY OR COLONOSCOPY EXAM	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
LESS THAN 12 MONTHS	24.0	20.5-27.9	294	27.1	24.4-30.0	574
1-2 YEARS	23.6	19.9-27.8	249	21.5	19.0-24.3	454
2-3 YEARS	17.1	14.0-20.6	193	17.5	15.1-20.2	349
3-5 YEARS	20.3	16.9-24.2	217	18.9	16.6-21.4	439
5-10 YEARS	10.6	8.2-13.7	119	10.5	8.7-12.6	225
10 OR MORE YEARS	4.4	2.9-6.6	47	4.5	3.3-5.9	87

p = 0.8157

We tabulated the number of respondents who reported being up to date for colorectal cancer screening based on any one of the following:

- Fecal occult blood testing within the previous 12 months;
- Most recent sigmoidoscopy within the previous 5 years; or
- Most recent colonoscopy within the previous 10 years.

We limited the sample to people from 50 to 75 years of age. The results are shown in the table below. Two-thirds of people with a disability reported being up to date on colon cancer screening, compared to 61.4% of people without a disability. This difference was statistically significant ($p = .034$). (Table 40)

Table 40: Up to Date for Colorectal Cancer Screening

RECENTLY SIGMOIDOSCOPY COLONOSCOPY BLOOD TEST	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
YES	66.1	62.4-69.5	1113	61.4	58.9-63.8	2115
NO	33.1	30.5-37.6	621	38.6	36.2-41.1	1376

$p = 0.0342$

SLEEP:

The following question was asked about quantity of sleep:

- During the past 30 days, for about how many days have you felt you did not get enough rest or sleep?

People with a disability reported significantly more days with insufficient rest or sleep than people without a disability. For example, 21.6% of people with a disability reported insufficient rest or sleep for 26 to 30 of the prior 30 days, compared to 10.3% of people without a disability. (Table 41)

Table 41: Not Getting Enough Rest or Sleep

NOT ENOUGH SLEEP IN PAST 30 DAYS	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
1-5 DAYS	16.9	14.9-19.0	500	29.7	27.8-31.6	1960
6-10 DAYS	12.9	10.9-15.3	322	13.3	11.9-15.0	755
11-15 DAYS	10.1	8.2-12.3	274	7.3	6.4-8.5	440
16-20 DAYS	6.0	4.8-7.6	163	3.9	3.2-4.8	247
20-25 DAYS	3.1	2.3-4.4	78	1.6	1.1-2.1	96
26-30 DAYS	21.6	19.0-24.4	548	10.3	9.1-11.7	617
NONE	29.4	26.8-32.2	994	33.9	32.0-35.8	2803

*p < 0.0001

ORAL HEALTH:

The following questions were asked about oral health:

- How long has it been since you last visited a dentist or a dental clinic for any reason? Include visits to dental specialists, such as orthodontists.
- How many of your permanent teeth have been removed because of tooth decay or gum disease? Include teeth lost to infection, but do not include teeth lost for other reasons, such as injury or orthodontics.
- How long has it been since you had your teeth cleaned by a dentist or dental hygienist?

People with a disability were significantly less likely to have visited a dentist recently ($p < .0001$). For example, 54.8% of people with a disability had visited a dentist within the prior 12 months, compared to 69% of people with no disability, while 18.6% of people with a disability had not visited a dentist within the previous 5 years compared to 9.8% of people without a disability. (Table 42)

Table 42: Last Visited Dentist or Dental Clinic

HOW LONG SINCE LAST VISIT TO DENTIST/HYGIENIST	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
LESS THAN 12 MONTHS AGO	54.8	51.7-57.8	1611	69.0	67.1-70.9	4789
1-2 YEARS AGO	13.6	11.5-15.9	364	12.1	10.8-13.5	836
2-5 YEARS AGO	13.0	10.8-15.6	359	9.1	7.9-10.4	620
5 OR MORE YEARS AGO	17.9	15.9-20.3	581	9.1	8.1-10.3	706
NEVER	0.7	0.4-1.1	38	0.7	0.5-1.0	62

* $p < 0.0001$

People with a disability reported having significantly more permanent teeth removed than people without a disability ($p < .0001$). 71.2% of people with a disability had had at least one tooth removed, compared to 55.4% of people with no disability. (Table 43)

Table 43: Number of Permanent Teeth Removed

NUMBER OF PERMANENT TEETH REMOVED	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
1-5	32.5	29.7-35.5	898	29.8	28.1-31.6	2371
6 AND MORE BUT NOT ALL	25.8	23.4-28.5	847	10.2	9.2-11.3	1094
ALL	12.9	11.4-14.6	506	4.6	4.1-5.2	544
NONE	28.8	25.8-31.9	626	55.4	53.4-57.4	2881

* $p < 0.0001$

Having had teeth cleaned recently was also less common in people with a disability. Only 54.3% of people with a disability had their teeth cleaned within the prior 12 months, compared to 69.9% of people without a disability ($p < .0001$). (Table 44)

Table 44: When Teeth Last Cleaned by Dentist or Hygienist

WHEN TEETH LAST CLEANED BY DENTIST OR HYGIENIST	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
LESS THAN 12 MONTHS AGO	54.3	50.9-57.6	1348	69.9	67.8-71.8	4501
1-2 YEARS AGO	12.6	10.5-15.1	299	11.8	10.5-13.3	762
2-5 YEARS AGO	11.9	9.6-14.7	266	8.2	6.9-9.6	493
5 OR MORE YEARS AGO	18.1	15.7-20.8	444	8.7	7.7-9.9	567
NEVER	3.1	2.2-4.4	85	1.4	1.0-2.1	102

* $p < 0.0001$

FALLS:

Participants were asked two questions about recent falls. The questions were:

- In the past 3 months, how many times have you fallen?
- How many of these falls caused an injury? By an injury, we mean the fall caused you to limit your regular activities for at least a day or to go see a doctor.

People with a disability were significantly more likely to have fallen within the past 3 months (24.4% versus 10.0%, $p < .0001$). Among those who had fallen, people with a disability were also more likely to have been injured (39.9% versus 19.5%, $p < .0001$). (Tables 45; 46)

Table 45: Fallen Times in the Past 3 Months

FALLEN TIMES IN PAST 3 MONTH	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
1 TIME	10.9	9.4-12.7	321	7.4	6.5-8.5	371
2 TIMES	6.2	4.8-7.8	161	1.5	1.1-2.1	77
3 TIMES	1.9	1.4-2.8	64	0.6	0.3-1.5	20
4 TIMES	1.5	0.8-2.6	37	0.1	0.02-0.14	6
5 AND MORE TIMES	3.9	2.9-5.3	89	0.4	0.2-0.9	8
NONE	75.6	73.0-78.0	1880	90.0	88.6-91.1	4376

* $p < 0.0001$

Table 46: How Many Falls Caused Injury

NUMBER OF FALLS CAUSED INJURY	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
1 TIME	27.4	22.5-32.9	179	18.63	14.2-24.0	101
2 TIMES	5.6	3.7-8.3	47	0.8	0.3-2.4	6
3 AND MORE TIMES	6.9	4.6-10.4	39	0.05	0.01-0.36	1
NONE	60.1	54.3-65.7	395	80.5	75.1-85.0	371

* $p < 0.0001$

SEATBELT USE:

Over 80% of people with and without a disability reported always using a seatbelt when riding in a car. Only 2.3% of people with a disability and 3.2% of people without a disability reported driving after having too much to drink in the previous 30 days. In both cases, there was not a significant difference in the responses of people with disabilities versus those without. (Table 47; 48)

Table 47: Use of Seatbelt in a Car

HOW OFTEN USE SEATBELT	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
ALWAYS	83.2	80.9-85.4	2519	81.7	80.0-83.4	5883
NEARLY ALWAYS	9.0	7.4-10.9	263	11.0	9.7-12.4	692
SOMETIMES	4.0	2.9-5.4	97	4.2	3.4-5.2	253
SELDOM	1.7	1.1-2.7	42	1.4	0.9-2.3	57
NEVER	2.1	1.4-3.2	45	1.7	1.2-2.4	104

p = 0.3757

Table 48: Driving When Had Too Much to Drink During past 30 Days

TIMES OF DRIVING WHEN HAD TOO MUCH TO DRINK	DISABILITY			NO DISABILITY		
	%	95% CI	n	%	95% CI	n
1 TIME	1.6	0.8-3.6	11	1.5	0.9-2.5	44
2 TIMES	0.2	0.04-0.7	3	1.1	0.6-1.9	22
3 AND MORE TIMES	0.5	0.1-2.6	4	0.6	0.3-1.1	17
NONE	97.7	95.5-98.8	855	96.8	95.6-97.7	2960

p = 0.0508

SUMMARY:

Almost 24% of respondents to the 2008 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 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 or mental health was not good. They were also more likely to report having too little sleep.

People with a disability were substantially more likely to report having diabetes. They were also significantly more likely to report a history of myocardial infarction or stroke, were less likely to have received recent dental care and more likely to have had permanent teeth pulled.

Clearly, the self-reported health of South Carolinians with a disability is 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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