

# Heart Disease among Adults with Disability in South Carolina

2019

## Adults with Disability in South Carolina

People with disability are identified as a possible health disparity group; therefore, to reduce these disparities, it is important to understand the health status of those with and without disability. The data presented here are from the 2017 South Carolina (SC) Behavioral Risk Factor Surveillance System (BRFSS). More details about SC BRFSS data and the definition of disability can be found on the back under 'Data Details.'

A table comparing the demographics of adults with and without disability in SC is given below.

**Table 1. Demographic differences between adults in SC with and without disability (2017 SC BRFSS); % ± 95% confidence limit**

	WITH DISABILITY	WITHOUT DISABILITY
Prevalence	28.0 ± 1.1	72.0 ± 1.1
<b>Age</b>		
<65	<b>65.7 ± 1.9</b>	<b>82.4 ± 0.9</b>
65+	<b>34.3 ± 1.9</b>	<b>17.6 ± 0.9</b>
<b>Race/ethnicity*</b>		
NHW	66.1 ± 2.3	67.1 ± 1.6
NHB	26.6 ± 2.1	24.3 ± 1.4
Hispanic	3.7 ± 1.1	5.5 ± 0.9
NHO	3.6 ± 0.8	3.1 ± 0.5
<b>Sex</b>		
Male	<b>45.0 ± 2.3</b>	<b>49.1 ± 1.6</b>
Female	<b>55.0 ± 2.3</b>	<b>50.9 ± 1.6</b>
<b>Educational attainment</b>		
≤High school	<b>56.2 ± 2.3</b>	<b>39.3 ± 1.6</b>
>High school	<b>43.8 ± 2.3</b>	<b>60.7 ± 1.6</b>
<b>Annual household income</b>		
<\$50K	<b>77.6 ± 2.1</b>	<b>48.3 ± 1.8</b>
\$50K+	<b>22.4 ± 2.1</b>	<b>51.7 ± 1.8</b>

Bold: significantly different; \*NHW: Non-Hispanic White; NHB: Non-Hispanic Black; NHO: Non-Hispanic Other, includes multi-racial

Among adults with disability in SC in 2017, there was a significantly higher prevalence of older adults, females, those with low educational attainment, and those with low annual household income, when compared to those without disability (Table 1).

## Coronary Heart Disease

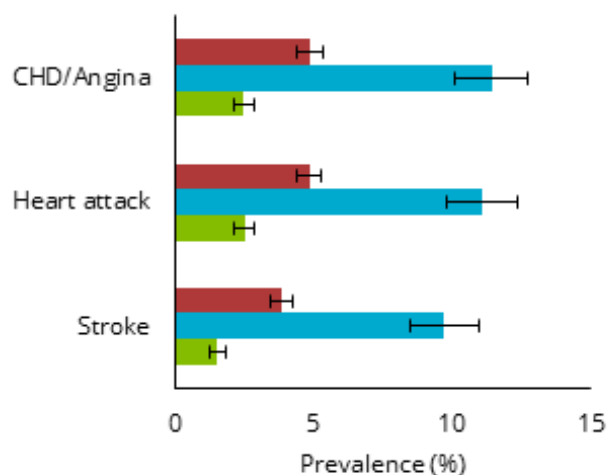
In the US, heart disease accounts for 25% of all deaths each year and is the number one cause of death in the nation.<sup>1</sup> Coronary heart disease (CHD) is the most common form of heart disease.<sup>1</sup> CHD is the result of plaque build-up in the walls of the coronary arteries, which restricts blood flow to the heart.<sup>2</sup>

There are several complications associated with CHD, including angina, heart attack, and stroke.<sup>2</sup> Angina is chest pain associated with CHD that is caused by inadequate blood supply to the heart.<sup>2</sup> Stroke occurs when blood flow to the brain is blocked; while, a heart attack occurs when blood flow to the heart is blocked.<sup>2</sup> Strokes and heart attacks can also occur in people who do not have CHD.

## Heart Disease and Disability in South Carolina

Chronic conditions, like heart disease, are the leading causes of disability and mortality in the nation, and they affect almost two-thirds of Americans.<sup>3</sup> Figure 1 shows the prevalence of diagnoses of various heart conditions among those with and without disability in SC. These data are limited, because we do not know which came first, the disability or the chronic condition. Additionally, these data are self-reported, so there could be additional people who have these conditions but not know it, which would underestimate the prevalence results. Finally, the groups are not mutually exclusive because an individual may have more than one of these chronic conditions.

**Figure 1. The prevalence of heart conditions among all adults and those with or without disability in SC (error bar: 95% confidence limit)**



In SC in 2017, compared to those without disability, those with disability had a significantly higher prevalence of having ever been diagnosed with CHD/angina, a heart attack, and a stroke (Figure 1).

After accounting for the demographic differences listed in Table 1, significant differences remained between the odds of people with and without disability of having ever been diagnosed with these heart conditions. Compared to those without disability, those with disability had:

- 260% higher odds of having ever been diagnosed with CHD/Angina.
- 198% higher odds of having ever been diagnosed with a heart attack.
- 300% higher odds of having ever been diagnosed with a stroke.

## CHD Prevention

Age, sex, and family history of CHD are non-modifiable risk factors or risk factors of CHD that you cannot change.<sup>4</sup> However, there are many things you can do to prevent CHD, even if you are at risk because of non-modifiable risk factors. Diet and physical activity are two modifiable risk factors that can help improve blood pressure, cholesterol levels, and stress, and prevent CHD. Exercising at least two and a half hours per week significantly reduces the risk of heart disease. A heart-healthy diet includes plenty of fruits, vegetables, and food high in fiber. Other ways to prevent heart disease include quitting smoking and reducing alcohol consumption. Practicing mindfulness, meditation, and good sleep habits are good ways to reduce stress, which positively impacts your heart health.

## Data Details

The SC BRFSS is administered by the South Carolina Department of Health and Environmental Control. It is a random digit-dialing, telephone-based survey of non-institutionalized adults (ages 18+) in the state. It is funded through a cooperative agreement with CDC. For more information, visit [cdc.gov/brfss](https://cdc.gov/brfss).

The 2017 SC BRFSS survey includes six questions relating to disability:

- Are you deaf or do you have serious difficulty hearing?
- Are you blind or do you have serious difficulty seeing, even when wearing glasses?
- Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions?
- Do you have serious difficulty walking or climbing stairs?
- Do you have difficulty dressing or bathing?
- Because of a physical, mental, or emotional condition, do you have difficulty doing errands alone such as visiting a doctor's office or shopping?

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

- Individual with disability: They answered "Yes" to any one of the six questions.
- Individual without disability: They answered "No" to 4 questions and had 2 missing responses; "No" to 5 questions and had 1 missing response; or "No" to all 6 questions.
- Individual excluded from analysis, disability status undetermined: 3 or more questions were missing a response.

## References

1. Heart Disease Facts. CDC. Accessed 10 Jul 2019. [URL: <https://www.cdc.gov/heartdisease/facts.htm>].
2. National Heart Lung and Blood Institute. Health Topics. Accessed 10 Jul 2019. [URL: <https://www.nhlbi.nih.gov/health-topics/>].
3. National Center for Chronic Disease Prevention and Health Promotion. CDC. Accessed 25 Jun 2019. [URL: <https://www.cdc.gov/chronicdisease/index.htm>].
4. Tabei SMB, Senemar S, Saffari B, Ahmadi Z, Haqparast S. Non-modifiable Factors of Coronary Artery Stenosis in Late Onset Patients with Coronary Artery Disease in Southern Iranian Population. *J Cardiovasc Thorac Res.* 2014;6(1):51-55. doi:10.5681/jcvtr.2014.010

## For more information about SC BRFSS

visit <https://scdhec.gov/health/sc-public-health-statistics-maps/behavioral-risk-factor-surveys>

