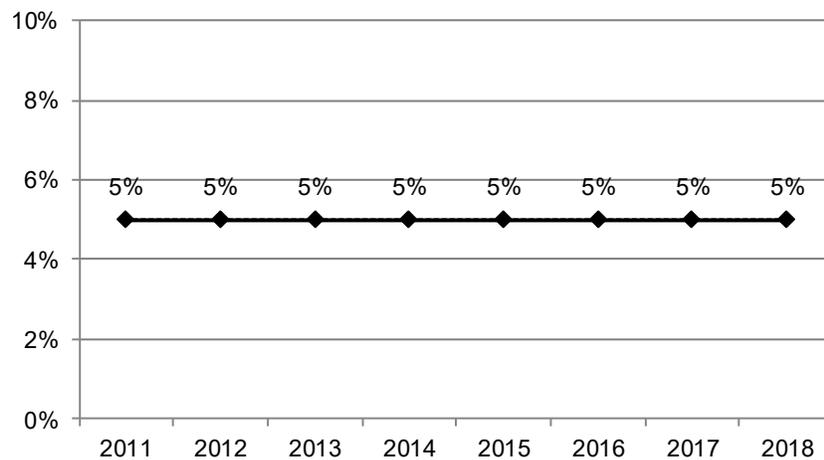# *Cardiovascular Disease*

PREVIOUSLY HAD A HEART ATTACK

Definition: South Dakotans who answered "yes" to the question: "Has a doctor, nurse, or other health professional ever told you that you had a heart attack, also called a myocardial infarction?"

Prevalence of Previous Heart Attack

o   South Dakota 5%
o   Nationwide median 5%

Figure 33
Percentage of South Dakotans Who Previously Had a Heart Attack, 2011-2018

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2011-2018

		2014-2018	95% Confidence Interval	
			Low	High
Gender	Male	6%	5.9%	7.1%
	Female	3%	2.9%	3.7%
Age	18-29	1%	0.5%	1.6%
	30-39	1%	0.5%	1.6%
	40-49	2%	1.7%	3.2%
	50-59	4%	3.6%	5.3%
	60-69	8%	7.5%	9.6%
	70-79	14%	12.3%	16.0%
	80+	15%	12.9%	17.1%
Race/ Ethnicity	White, Non-Hispanic	5%	4.5%	5.3%
	American Indian, Non-Hispanic	6%	5.1%	7.7%
	Hispanic	5%	2.3%	9.5%
Household Income	Less than $35,000	7%	6.5%	8.1%
	$35,000-$74,999	5%	3.9%	5.2%
	$75,000+	2%	1.9%	2.9%
Education	Less than High School, G.E.D.	8%	6.4%	9.7%
	High School, G.E.D.	6%	5.6%	7.2%
	Some Post-High School	4%	3.5%	4.6%
	College Graduate	3%	2.5%	3.4%
Employment Status	Employed for Wages	2%	2.0%	2.7%
	Self-employed	3%	2.7%	4.2%
	Unemployed	4%	2.6%	6.6%
	Homemaker	4%	2.1%	6.2%
	Student	0.3%	0.1%	1.2%
	Retired	13%	11.6%	14.0%
	Unable to Work	13%	10.9%	16.0%
Marital Status	Married/Unmarried Couple	5%	4.3%	5.3%
	Divorced/Separated	6%	5.4%	7.7%
	Widowed	12%	10.6%	14.3%
	Never Married	2%	1.5%	2.4%
Home Ownership Status	Own Home	5%	4.7%	5.6%
	Rent Home	4%	3.8%	5.2%
Children Status	Children in Household (Ages 18-44)	1%	0.8%	1.9%
	No Children in Household (Ages 18-44)	1%	0.5%	1.2%
Phone Status	Landline	7%	6.2%	7.5%
	Cell Phone	4%	3.5%	4.4%
Pregnancy Status	Pregnant (Ages 18-44)	0%	0.0%	1.4%
	Not Pregnant (Ages 18-44)	1%	0.5%	1.5%
County	Minnehaha	4%	3.6%	5.3%
	Pennington	5%	4.3%	6.2%
	Lincoln	3%	2.2%	4.1%
	Brown	5%	3.8%	5.8%
	Brookings	4%	2.7%	5.2%
	Codington	7%	5.5%	8.1%
	Meade	5%	3.3%	6.4%
	Lawrence	5%	3.7%	6.0%

Note: *Results based on small sample sizes have been suppressed.
Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2014-2018

Table 28
South Dakotans Who Previously Had a Heart Attack, 2014-2018

		2014-2018	95% Confidence Interval	
			Low	High
Gender	Male	6%	5.9%	7.1%
	Female	3%	2.9%	3.7%
Age	18-29	1%	0.5%	1.6%
	30-39	1%	0.5%	1.6%
	40-49	2%	1.7%	3.2%
	50-59	4%	3.6%	5.3%
	60-69	8%	7.5%	9.6%
	70-79	14%	12.3%	16.0%
	80+	15%	12.9%	17.1%
Race/ Ethnicity	White, Non-Hispanic	5%	4.5%	5.3%
	American Indian, Non-Hispanic	6%	5.1%	7.7%
	Hispanic	5%	2.3%	9.5%
Household Income	Less than $35,000	7%	6.5%	8.1%
	$35,000-$74,999	5%	3.9%	5.2%
	$75,000+	2%	1.9%	2.9%
Education	Less than High School, G.E.D.	8%	6.4%	9.7%
	High School, G.E.D.	6%	5.6%	7.2%
	Some Post-High School	4%	3.5%	4.6%
	College Graduate	3%	2.5%	3.4%
Employment Status	Employed for Wages	2%	2.0%	2.7%
	Self-employed	3%	2.7%	4.2%
	Unemployed	4%	2.6%	6.6%
	Homemaker	4%	2.1%	6.2%
	Student	0.3%	0.1%	1.2%
	Retired	13%	11.6%	14.0%
	Unable to Work	13%	10.9%	16.0%
Marital Status	Married/Unmarried Couple	5%	4.3%	5.3%
	Divorced/Separated	6%	5.4%	7.7%
	Widowed	12%	10.6%	14.3%
	Never Married	2%	1.5%	2.4%
Home Ownership Status	Own Home	5%	4.7%	5.6%
	Rent Home	4%	3.8%	5.2%
Children Status	Children in Household (Ages 18-44)	1%	0.8%	1.9%
	No Children in Household (Ages 18-44)	1%	0.5%	1.2%
Phone Status	Landline	7%	6.2%	7.5%
	Cell Phone	4%	3.5%	4.4%
Pregnancy Status	Pregnant (Ages 18-44)	0%	0.0%	1.4%
	Not Pregnant (Ages 18-44)	1%	0.5%	1.5%
County	Minnehaha	4%	3.6%	5.3%
	Pennington	5%	4.3%	6.2%
	Lincoln	3%	2.2%	4.1%
	Brown	5%	3.8%	5.8%
	Brookings	4%	2.7%	5.2%
	Codington	7%	5.5%	8.1%
	Meade	5%	3.3%	6.4%
	Lawrence	5%	3.7%	6.0%

Note: *Results based on small sample sizes have been suppressed.
Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2014-2018

Demographics

Gender
Males exhibit a significantly higher prevalence of a previous heart attack than females.

Age
The prevalence of a previous heart attack increases as age increases with significant increases as the 40s, 50s, 60s, and 70s are reached.

Race/Ethnicity
There are no significant racial/ethnicity differences regarding a previous heart attack.

Household Income
The prevalence of a previous heart attack decreases as household income increases. This includes significant decreases as the $35,000-$74,999 and $75,000+ household income levels are reached.

Education
The prevalence of a previous heart attack decreases as education increases. This includes significant decreases as the some post-high school and college graduate levels are reached.

Employment
Those who are retired or unable to work demonstrate a very high prevalence of a previous heart attack, while those who are students show a very low prevalence.

Marital Status
Those who are widowed exhibit a very high prevalence of a previous heart attack while those who have never been married show a very low prevalence.

Home Ownership
The prevalence of a previous heart attack does not seem to change based on home ownership status.

Children Status
The prevalence of a previous heart attack among adults does not seem to change based on the presence of children in the household.

Phone Status
Those who primarily use a landline phone show a significantly higher prevalence of a previous heart attack than those who primarily use a cell phone.

Pregnancy Status
The prevalence of a previous heart attack does not seem to change based on pregnancy status.

County
Codington county demonstrates a very high prevalence of a previous heart attack, while Minnehaha, Lincoln, and Brookings counties show a very low prevalence.
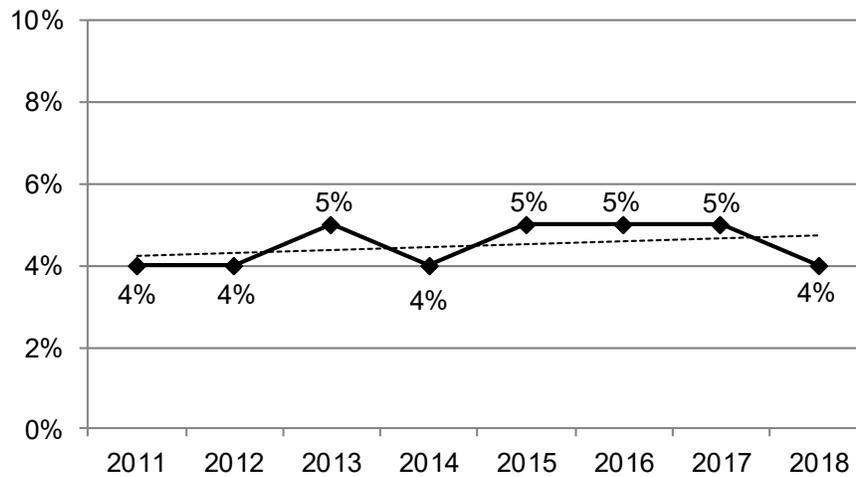
ANGINA OR CORONARY HEART DISEASE

Definition: South Dakotans who answered "yes" to the question: "Has a doctor, nurse, or other health professional ever told you that you have angina or coronary heart disease?"

Prevalence of Angina or Coronary Heart Disease

o   South Dakota 4%
o   Nationwide median 4%

Figure 34
Percentage of South Dakotans Who Have Angina or Coronary Heart Disease, 2011-2018

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2011-2018

			95% Confidence Interval	
Table 29 **South Dakotans Who Have Angina or Coronary Heart Disease, 2014-2018**				
		2014-2018	**Low**	**High**
Gender	Male	6%	5.2%	6.3%
	Female	3%	3.1%	3.9%
Age	18-29	1%	0.5%	1.6%
	30-39	0.3%	0.1%	0.6%
	40-49	1%	0.9%	2.0%
	50-59	4%	3.6%	5.2%
	60-69	8%	7.3%	9.3%
	70-79	14%	11.9%	15.4%
	80+	16%	13.8%	18.9%
Race/ Ethnicity	White, Non-Hispanic	5%	4.4%	5.1%
	American Indian, Non-Hispanic	5%	3.4%	6.2%
	Hispanic	4%	1.7%	7.6%
Household Income	Less than $35,000	6%	5.7%	7.2%
	$35,000-$74,999	4%	3.7%	4.9%
	$75,000+	3%	2.2%	3.2%
Education	Less than High School, G.E.D.	6%	4.7%	7.8%
	High School, G.E.D.	6%	5.0%	6.4%
	Some Post-High School	4%	3.6%	4.7%
	College Graduate	3%	2.9%	3.8%
Employment Status	Employed for Wages	2%	1.7%	2.4%
	Self-employed	3%	2.0%	3.5%
	Unemployed	3%	1.3%	5.0%
	Homemaker	2%	1.6%	3.7%
	Student	0.2%	0.0%	0.9%
	Retired	14%	12.9%	15.5%
	Unable to Work	10%	7.7%	11.9%
Marital Status	Married/Unmarried Couple	5%	4.1%	5.0%
	Divorced/Separated	6%	4.7%	6.9%
	Widowed	12%	10.5%	14.4%
	Never Married	2%	1.3%	2.4%
Home Ownership Status	Own Home	5%	4.6%	5.5%
	Rent Home	4%	3.2%	4.5%
Children Status	Children in Household (Ages 18-44)	1%	0.3%	0.9%
	No Children in Household (Ages 18-44)	1%	0.4%	1.3%
Phone Status	Landline	7%	6.1%	7.5%
	Cell Phone	4%	3.1%	3.9%
Pregnancy Status	Pregnant (Ages 18-44)	0%	0.0%	1.4%
	Not Pregnant (Ages 18-44)	1%	0.3%	1.1%
County	Minnehaha	4%	3.2%	4.7%
	Pennington	5%	4.2%	6.0%
	Lincoln	3%	2.3%	4.2%
	Brown	5%	4.3%	6.4%
	Brookings	3%	2.1%	3.5%
	Codington	5%	4.1%	6.3%
	Meade	4%	2.9%	5.5%
	Lawrence	4%	3.4%	5.5%

Note: *Results based on small sample sizes have been suppressed.
Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2014-2018

Demographics

Gender Males exhibit a significantly higher prevalence of heart disease than females.

Age The prevalence of heart disease generally increases as age increases with significant increases as the 40s, 50s, 60s, and 70s are reached.

Race/Ethnicity There are no significant racial/ethnic differences regarding heart disease.

Household Income The prevalence of heart disease decreases as household income increases. This includes significant decreases as the $35,000-$74,999 and $75,000+ household income levels are reached.

Education The prevalence of heart disease decreases as education increases. This includes a significant decrease as the some post-high school level is reached.

Employment Those who are retired demonstrate a very high prevalence of heart disease, while those who are students show a very low prevalence.

Marital Status Those who are widowed exhibit a very high prevalence of heart disease, while those who have never been married show a very low prevalence.

Home Ownership Those who own their home demonstrate a significantly higher prevalence of heart disease than those who rent their home.

Children Status The prevalence of heart disease among adults does not seem to change based on the presence of children in the household.

Phone Status Those who primarily use a landline phone show a significantly higher prevalence of heart disease than those who primarily use a cell phone.

Pregnancy Status The prevalence of heart disease does not seem to change based on pregnancy status.

County Pennington, Brown, and Codington counties demonstrate a very high prevalence of heart disease, while Lincoln and Brookings counties show a very low prevalence.
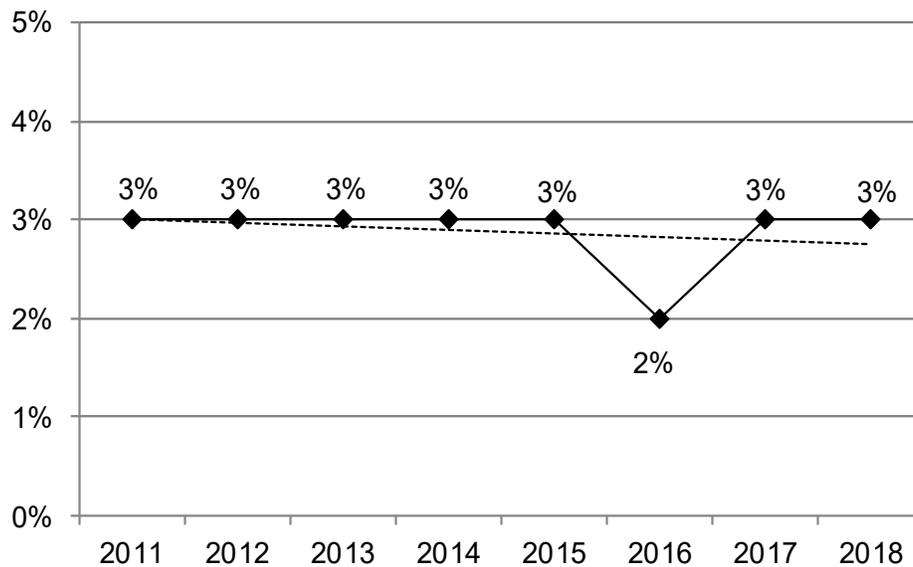
PREVIOUSLY HAD A STROKE

Definition: South Dakotans who answered "yes" to the question: "Has a doctor, nurse, or other health professional ever told you that you had a stroke?"

Prevalence of Previous Stroke

o   South Dakota 3%
o   Nationwide median 3%

Figure 35
Percentage of South Dakotans Who Have Previously Had a Stroke, 2011-2018

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2011-2018

Table 30				
South Dakotans Who Previously Had a Stroke, 2014-2018				
			95% Confidence Interval	
		2014-2018	**Low**	**High**
Gender	Male	3%	2.4%	3.2%
	Female	2%	2.2%	2.8%
Age	18-29	0.4%	0.2%	0.9%
	30-39	1%	0.5%	1.5%
	40-49	1%	0.7%	1.9%
	50-59	2%	1.8%	2.9%
	60-69	4%	3.3%	4.6%
	70-79	7%	5.9%	8.5%
	80+	10%	8.6%	12.4%
Race/ Ethnicity	White, Non-Hispanic	3%	2.4%	2.9%
	American Indian, Non-Hispanic	3%	2.7%	4.4%
	Hispanic	3%	1.2%	8.3%
Household Income	Less than $35,000	4%	3.8%	5.1%
	$35,000-$74,999	2%	1.3%	2.0%
	$75,000+	1%	0.9%	1.4%
Education	Less than High School, G.E.D.	5%	3.9%	6.8%
	High School, G.E.D.	3%	2.5%	3.4%
	Some Post-High School	2%	2.0%	2.7%
	College Graduate	2%	1.4%	2.0%
Employment Status	Employed for Wages	1%	0.7%	1.2%
	Self-employed	1%	0.9%	1.7%
	Unemployed	2%	1.1%	2.6%
	Homemaker	3%	1.8%	5.0%
	Student	0.3%	0.1%	1.4%
	Retired	7%	6.3%	8.0%
	Unable to Work	11%	8.5%	13.0%
Marital Status	Married/Unmarried Couple	2%	2.0%	2.7%
	Divorced/Separated	4%	3.0%	4.7%
	Widowed	8%	7.0%	10.0%
	Never Married	1%	0.8%	1.4%
Home Ownership Status	Own Home	3%	2.3%	2.9%
	Rent Home	3%	2.4%	3.3%
Children Status	Children in Household (Ages 18-44)	1%	0.5%	1.4%
	No Children in Household (Ages 18-44)	1%	0.4%	0.9%
Phone Status	Landline	4%	3.6%	4.6%
	Cell Phone	2%	1.6%	2.2%
Pregnancy Status	Pregnant (Ages 18-44)	0.1%	0.0%	0.4%
	Not Pregnant (Ages 18-44)	1%	0.4%	1.1%
County	Minnehaha	2%	1.4%	2.6%
	Pennington	3%	2.1%	3.2%
	Lincoln	2%	1.5%	2.9%
	Brown	3%	2.5%	4.3%
	Brookings	2%	1.6%	3.2%
	Codington	3%	2.3%	4.2%
	Meade	3%	2.1%	4.0%
	Lawrence	2%	1.8%	3.3%

Note: *Results based on small sample sizes have been suppressed.
Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2014-2018

Demographics

Gender There seems to be no significant gender difference regarding the prevalence of a previous stroke.

Age The prevalence of a previous stroke increases as age increases with significant increases as the 60s, 70s, and 80s are reached.

Race/Ethnicity There seems to be no significant racial/ethnic differences regarding the prevalence of a previous stroke.

Household Income The prevalence of a previous stroke decreases as household income increases. This includes a significant decrease as the $35,000-$74,999 household income level is reached.

Education The prevalence of a previous stroke decreases as education increases. This includes a significant decrease as the high school graduate level is reached.

Employment Those who are unable to work demonstrate a very high prevalence of a previous stroke, while those who are employed for wages, self-employed, unemployed, or a student show a very low prevalence.

Marital Status Those who are widowed exhibit a very high prevalence of a previous stroke while those who have never been married show a very low prevalence.

Home Ownership The prevalence of a previous stroke does not seem to change based on home ownership status.

Children Status The prevalence of a previous stroke among adults does not seem to change based on the presence of children in the household.

Phone Status Those who primarily use a landline phone show a significantly higher prevalence of a previous stroke than those who primarily use a cell phone.

Pregnancy Status The prevalence of a previous stroke does not seem to change based on pregnancy status.

County There are no significant differences among the eight counties regarding the prevalence of a previous stroke.