Hypertension and Cholesterol

HYPERTENSION

Definition: Respondents who report they have been told by a health professional their blood pressure is high.
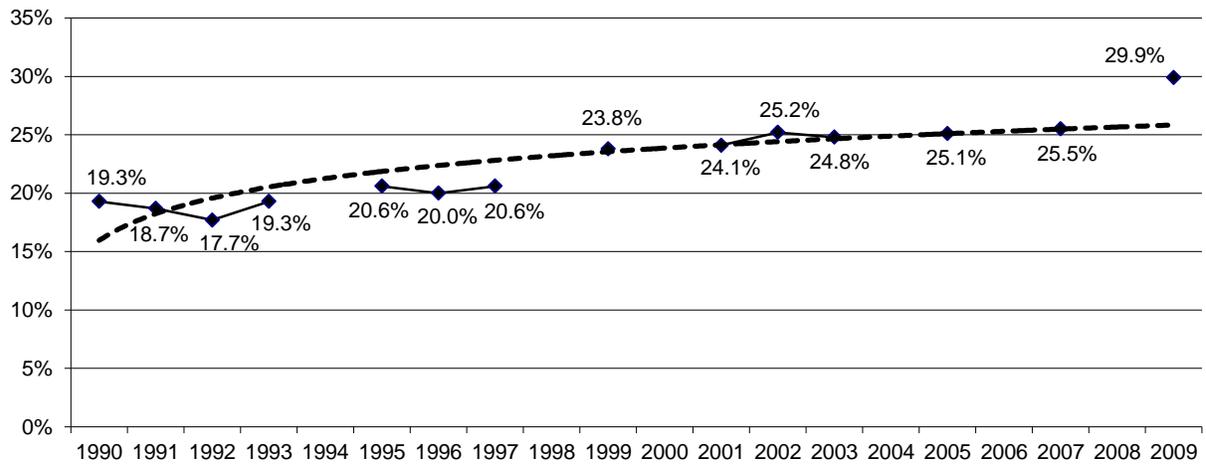
Prevalence of Hypertension

o South Dakota 31%
o Nationwide median 31%

Healthy People 2020 Objective

There was no comparable Healthy People 2020 Objective for adults with hypertension.

Figure 30
Percent of Respondents Who Were Told They Have Hypertension,
1990-1993, 1995-1997, 1999, 2001-2003, 2005, 2007, and 2009

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 1990-1993, 1995-1997, 1999, 2001-2003, 2005, 2007, and 2009

Figure 31
Percent of Respondents Who Were Told They Have Hypertension, 2011
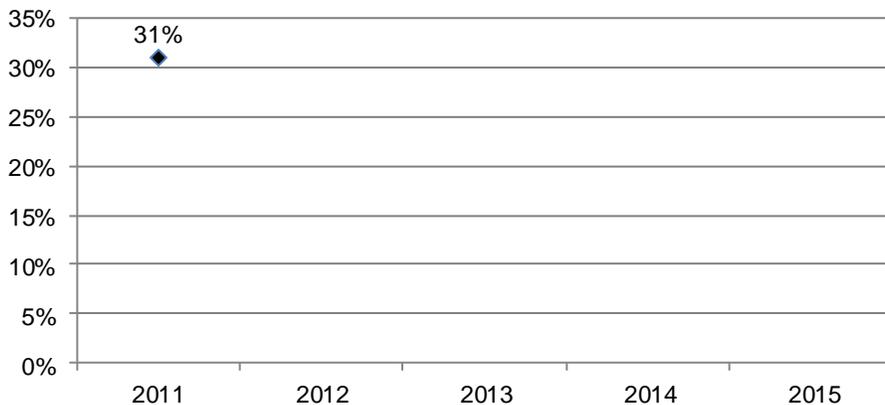
Note: Beginning in 2011, the CDC began using a different methodology to weight the data, therefore current data estimates cannot be compared to previous years.
Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2011

| Table 23 Respondents Who Were Told They Have Hypertension, 2011		#	% With	95% CI	
		Resp.	Hypertension	Lower	Upper
Total		**8,244**	**31%**	**29%**	**33%**
Gender	Male	3,314	33%	30%	36%
	Female	4,930	29%	27%	32%
Age	18-44	2,217	13%	11%	16%
	45-64	3,237	38%	35%	42%
	65+	2,742	60%	56%	63%
Race	White	7,086	31%	29%	33%
	American Indian	856	39%	31%	47%
Ethnicity	Hispanic	106	22%	13%	35%
	Non-Hispanic	8,125	31%	29%	33%
Household Income	Less than $25,000	2,009	36%	32%	39%
	$25,000-$49,999	2,109	35%	31%	39%
	$50,000+	2,909	26%	23%	29%
Education	High School, G.E.D., or Less	3,227	35%	32%	38%
	Some Post-High School	2,412	29%	26%	33%
	College Graduate	2,591	26%	23%	29%
Employment Status	Employed for Wages	3,653	23%	21%	26%
	Self-employed	890	28%	23%	34%
	Unemployed	342	28%	20%	37%
	Homemaker	461	27%	20%	34%
	Student	183	7%	4%	14%
	Retired	2,308	58%	54%	62%
	Unable to Work	395	52%	43%	61%
Marital Status	Married/Unmarried Couple	4,801	32%	29%	34%
	Divorced/Separated	1,089	36%	32%	41%
	Widowed	1,250	58%	53%	63%
	Never Married	1,092	17%	13%	21%
Home Ownership Status	Own Home	6,248	33%	31%	35%
	Rent Home	1,679	28%	24%	32%
Children Status	Children in Household (Ages 18-44)	1,512	13%	10%	16%
	No Children in Household (Ages 18-44)	702	14%	10%	18%
Phone Status	Landline	7,241	34%	32%	36%
	Cell Phone	1,003	16%	14%	19%

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

National Statistics

The national median for respondents who were told they have hypertension is 30.8 percent, as shown in Figure 32 on the next page. South Dakota had 31 percent of respondents who have hypertension. Utah had the lowest percent of respondents who have hypertension with 22.9 percent, while Alabama had the highest with 40.1 percent.

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Figure 32
Nationally, Respondents Who Were Told They Have Hypertension, 2011
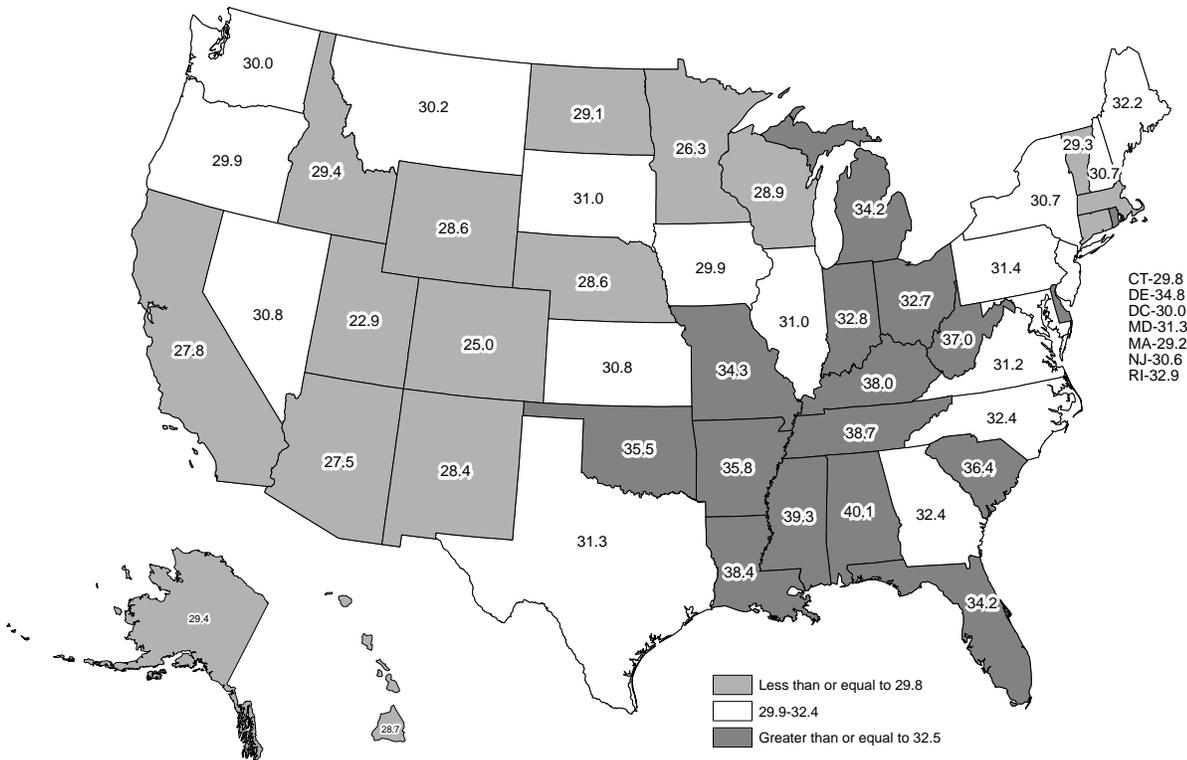
Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2011

Further Analysis

Following are data illustrating the percent of those who have hypertension for various health behaviors and conditions. For example, 49 percent of respondents who are obese with a BMI of 35.0 or more have hypertension, while 18 percent of respondents who are at the recommended weight with a BMI of 18.5 to 24.9 have hypertension.

Table 24				
Hypertension for Selected Health Behaviors and Conditions, 2011				
	#		**95% CI**	
Health Behavior or Condition	**Respondents**	**% Hypertension**	**Lower**	**Upper**
Underweight (BMI < 18.5)	104	27%	12%	49%
Recommended (BMI = 18.5-24.9)	2,467	18%	15%	20%
Overweight (BMI = 25.0-29.9)	2,939	32%	29%	35%
Obese - Class I (BMI = 30.0-34.9)	1,515	46%	41%	50%
Obese - Classes II & III (BMI = 35.0+)	781	49%	42%	55%
Leisure Time Exercise	5,787	28%	26%	30%
No Leisure Time Exercise	2,247	38%	34%	42%
Meet Aerobic Recommendations	3,739	28%	26%	31%
Did Not Meet Aerobic Recommendations	4,092	33%	30%	35%
At Least Five Servings of Fruits and Vegetables	1,040	29%	24%	34%
Less Than Five Servings of Fruits and Vegetables	6,995	31%	29%	33%
Current Smoker	1,478	26%	22%	30%
Former Smoker	2,476	41%	37%	44%
Never Smoked	4,261	28%	26%	31%

Table 24 (continued) Hypertension for Selected Health Behaviors and Conditions, 2011				
			95% CI	
Health Behavior or Condition	# Respondents	% Hypertension	Lower	Upper
Smokeless Tobacco	405	30%	22%	39%
No Smokeless Tobacco	7,839	31%	29%	33%
Diabetes	1,003	70%	64%	76%
No Diabetes	7,232	27%	25%	29%
High Blood Cholesterol	2,872	58%	55%	62%
No High Blood Cholesterol	4,032	25%	22%	27%
Flu Shot (65+)	1,873	63%	59%	67%
No Flu Shot (65+)	777	50%	44%	57%
Pneumonia Shot (65+)	1,749	65%	61%	69%
No Pneumonia Shot (65+)	814	46%	39%	52%
Drank Alcohol in Past 30 Days	4,239	27%	25%	30%
Did Not Drink Alcohol in Past 30 Days	3,693	36%	33%	39%
Binge Drinker	1,210	23%	19%	28%
Not a Binge Drinker	6,681	33%	31%	35%
Heavy Drinker	404	25%	19%	33%
Not a Heavy Drinker	7,461	31%	29%	33%
Always/Almost Always Wear Seat Belt	6,766	31%	29%	33%
Sometimes/Seldom/Never Wear Seat Belt	1,203	31%	26%	37%
Previously Had Heart Attack	564	64%	57%	71%
Never Had Heart Attack	7,645	29%	27%	31%
Have Angina or Coronary Heart Disease	535	76%	69%	82%
Do Not Have Angina or Coronary Heart Disease	7,642	29%	27%	31%
Previously Had a Stroke	304	69%	58%	78%
Never Had a Stroke	7,923	30%	28%	32%
Cancer	1,361	50%	45%	55%
No Cancer	6,852	28%	26%	30%
Skin Cancer	760	50%	44%	56%
No Skin Cancer	7,464	30%	28%	32%
Current Asthma	639	40%	33%	47%
Former Asthma	256	25%	17%	35%
Never Had Asthma	7,300	31%	29%	33%
Arthritis	2,581	51%	47%	55%
No Arthritis	5,622	25%	23%	27%
COPD	560	56%	48%	64%
No COPD	7,656	29%	27%	31%
Depression	1,318	36%	32%	41%
No Depression	6,899	30%	28%	32%
Kidney Disease	251	67%	57%	76%
No Kidney Disease	7,973	30%	28%	32%
Vision Impairment	1,764	46%	41%	50%
No Vision Impairment	6,440	28%	26%	30%
Good/Very Good/Excellent Health Status	6,860	27%	25%	29%
Fair/Poor Health Status	1,375	54%	49%	59%
Physical Health Not Good for 0-29 Days of the Past 30	7,546	30%	28%	32%
Physical Health Not Good for 30 Days of the Past 30	547	54%	46%	61%
Mental Health Not Good for 0-19 Days of the Past 30	7,682	31%	29%	33%
Mental Health Not Good for 20-30 Days of the Past 30	432	30%	23%	38%
Usual Activities Unattainable for 0-9 Days of the Past 30	7,582	30%	28%	32%
Usual Activities Unattainable for 10-30 Days of the Past 30	582	45%	38%	53%
Physical, Mental, or Emotional Problems	2,313	43%	39%	47%
No Physical, Mental, or Emotional Problems	5,678	27%	25%	29%
Disability with Special Equipment Needed	817	57%	49%	64%
No Disability with Special Equipment Needed	7,186	29%	27%	31%
Been Tested for HIV (18-64)	1,584	22%	18%	25%
Never Been Tested for HIV (18-64)	6,154	33%	31%	36%

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

HIGH BLOOD CHOLESTEROL

Definition: Respondents who report they have had their blood cholesterol checked and were told it was high by a health professional.
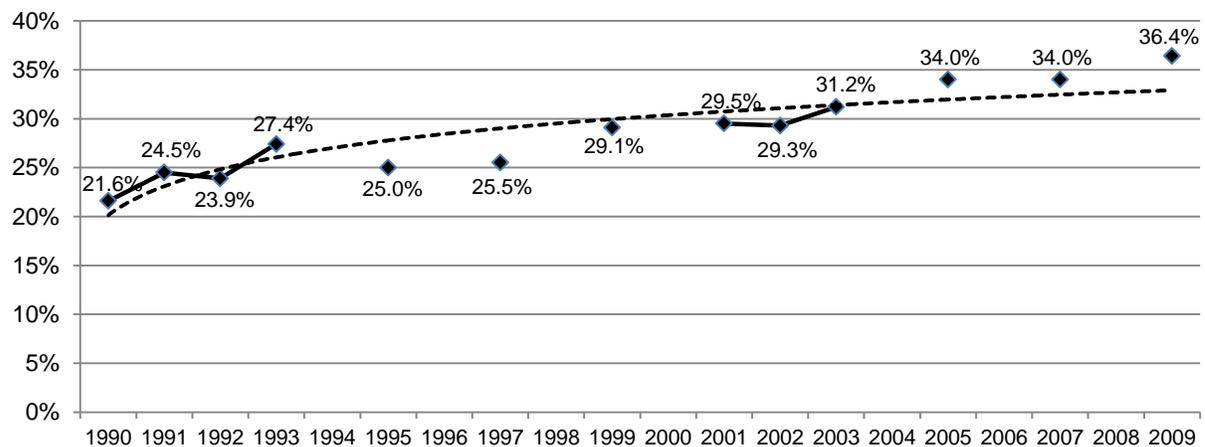
Prevalence of High Blood Cholesterol

o South Dakota 37%
o Nationwide median 38%

Healthy People 2020 Objective

There was no comparable Healthy People 2020 Objective for adults with high blood cholesterol.

Figure 33
Percent of Respondents Who Were Told They Have High Blood Cholesterol,
1990-1993, 1995, 1997, 1999, 2001-2003, 2005, 2007, and 2009

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 1990-1993, 1995, 1997, 1999, 2001-2003, 2005, 2007, and 2009

Figure 34
Percent of Respondents Who Were Told They Have High Blood Cholesterol, 2011
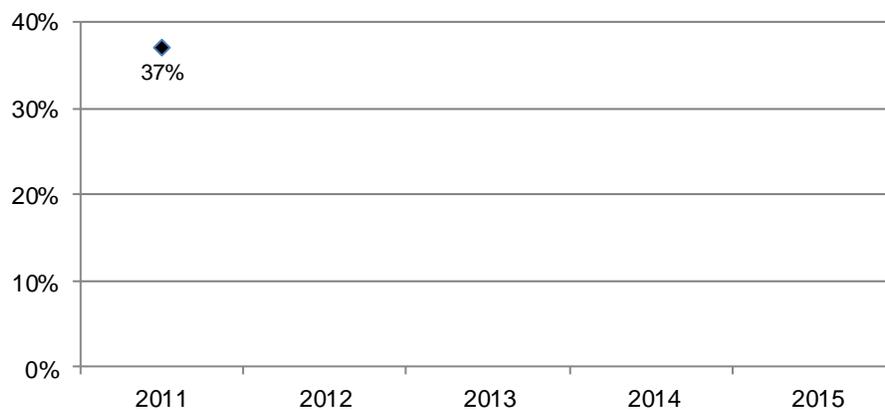
Note: Beginning in 2011, the CDC began using a different methodology to weight the data, therefore current data estimates cannot be compared to previous years.
Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2011

|		# Resp.	% With High Cholesterol	95% CI Lower	95% CI Upper
Table 25 Respondents Who Were Told They Have High Blood Cholesterol, 2011					
Total		**6,913**	**37%**	**35%**	**39%**
Gender	Male	2,666	39%	36%	42%
	Female	4,247	35%	32%	37%
Age	18-44	1,398	18%	14%	21%
	45-64	2,930	41%	38%	45%
	65+	2,543	54%	51%	58%
Race	White	6,077	37%	34%	39%
	American Indian	616	39%	31%	49%
Ethnicity	Hispanic	*	*	*	*
	Non-Hispanic	6,821	37%	35%	39%
Household Income	Less than $25,000	1,557	42%	37%	46%
	$25,000-$49,999	1,770	38%	34%	42%
	$50,000+	2,585	32%	29%	35%
Education	High School, G.E.D., or Less	2,572	43%	40%	47%
	Some Post-High School	2,020	33%	29%	37%
	College Graduate	2,309	31%	28%	35%
Employment Status	Employed for Wages	3,030	31%	28%	34%
	Self-employed	716	34%	28%	41%
	Unemployed	231	34%	24%	45%
	Homemaker	377	29%	22%	38%
	Student	*	*	*	*
	Retired	2,152	52%	49%	56%
	Unable to Work	324	50%	41%	59%
Marital Status	Married/Unmarried Couple	4,190	36%	33%	39%
	Divorced/Separated	904	45%	40%	51%
	Widowed	1,136	50%	45%	55%
	Never Married	673	24%	19%	30%
Home Ownership Status	Own Home	5,464	37%	35%	40%
	Rent Home	1,252	36%	32%	41%
Children Status	Children in Household (Ages 18-44)	1,025	20%	16%	25%
	No Children in Household (Ages 18-44)	372	13%	9%	18%
Phone Status	Landline	6,276	38%	36%	41%
	Cell Phone	637	24%	20%	28%

Note: *Results based on sample sizes less than 100 have been suppressed.
Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2011

National Statistics

The national median for respondents who have high blood cholesterol is 38.4 percent, as shown in Figure 35 on the next page. South Dakota had 36.6 percent of respondents who have high blood cholesterol. Colorado had the lowest percent of respondents who have high blood cholesterol with 33.5 percent, while Mississippi had the highest with 42.3 percent.

Figure 35
Nationally, Respondents Who Were Told They Have High Blood Cholesterol, 2011
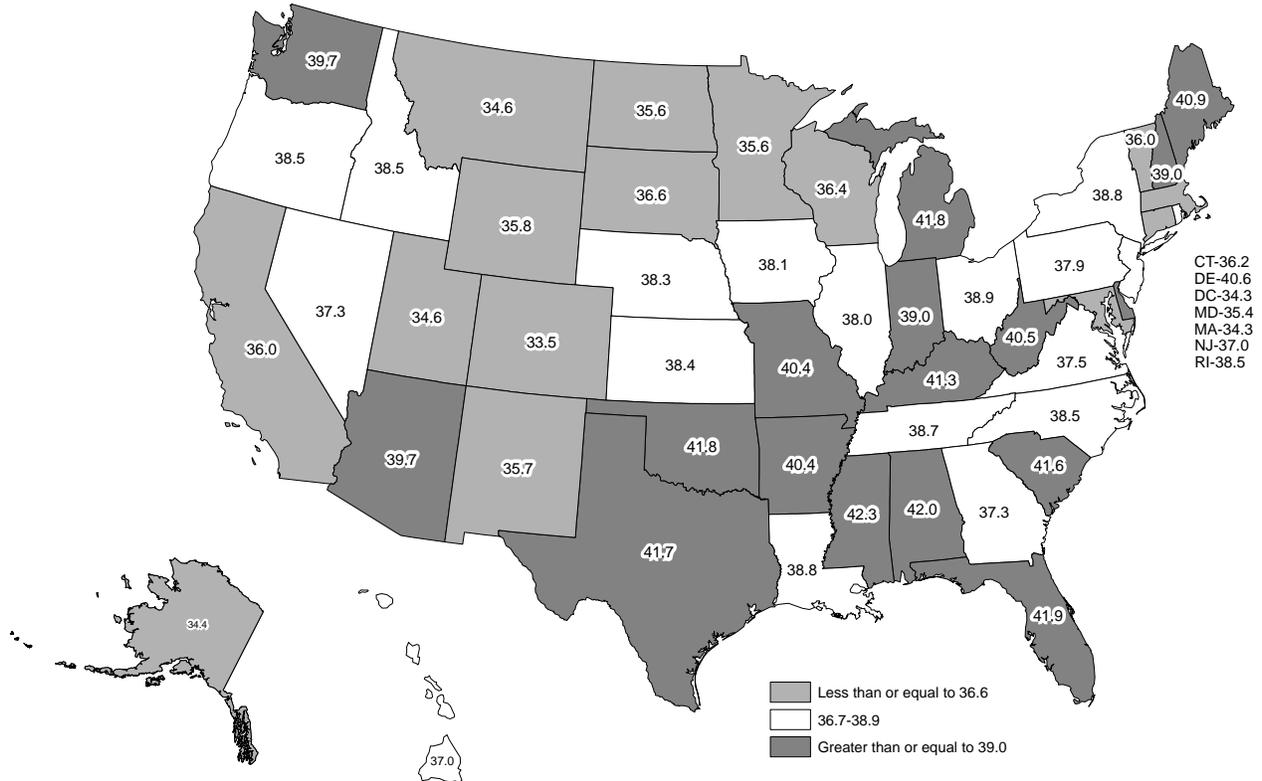
Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2011

Further Analysis

Following are data illustrating the percent of those who have high blood cholesterol for various health behaviors and conditions. For example, 72 percent of respondents who have angina or coronary heart disease have high blood cholesterol, while 34 percent of respondents who do not have angina or coronary heart disease have high blood cholesterol.

Table 26				
High Blood Cholesterol for Selected Health Behaviors and Conditions, 2011				
		% High Blood	**95% CI**	
Health Behavior or Condition	**# Respondents**	**Cholesterol**	**Lower**	**Upper**
Underweight (BMI < 18.5)	*	*	*	*
Recommended (BMI = 18.5-24.9)	1,985	28%	25%	32%
Overweight (BMI = 25.0-29.9)	2,502	39%	36%	43%
Obese - Class I (BMI = 30.0-34.9)	1,318	43%	38%	48%
Obese - Classes II & III (BMI = 35.0+)	690	46%	39%	53%
Leisure Time Exercise	4,930	34%	32%	37%
No Leisure Time Exercise	1,824	43%	39%	48%
Meet Aerobic Recommendations	3,233	35%	32%	38%
Did Not Meet Aerobic Recommendations	3,353	39%	36%	42%
At Least Five Servings of Fruits and Vegetables	932	28%	23%	33%
Less Than Five Servings of Fruits and Vegetables	5,828	38%	36%	40%
Current Smoker	1,063	38%	33%	44%
Former Smoker	2,195	44%	41%	48%
Never Smoked	3,630	32%	29%	35%

Table 26 (continued)
High Blood Cholesterol for Selected Health Behaviors and Conditions, 2011

Health Behavior or Condition	# Respondents	% High Blood Cholesterol	95% CI Lower	95% CI Upper
Smokeless Tobacco	283	38%	27%	50%
No Smokeless Tobacco	6,630	37%	34%	39%
Diabetes	947	59%	53%	65%
No Diabetes	5,960	34%	31%	36%
High Blood Pressure	2,961	58%	54%	61%
No High Blood Pressure	3,943	24%	22%	27%
Flu Shot (65+)	1,766	55%	51%	59%
No Flu Shot (65+)	697	53%	46%	60%
Pneumonia Shot (65+)	1,672	56%	52%	60%
No Pneumonia Shot (65+)	715	51%	44%	58%
Drank Alcohol in Past 30 Days	3,543	35%	32%	38%
Did Not Drink Alcohol in Past 30 Days	3,132	40%	37%	43%
Binge Drinker	869	31%	26%	37%
Not a Binge Drinker	5,781	38%	36%	41%
Heavy Drinker	302	35%	26%	45%
Not a Heavy Drinker	6,331	37%	35%	39%
Always/Almost Always Wear Seat Belt	5,837	37%	35%	40%
Sometimes/Seldom/Never Wear Seat Belt	864	34%	28%	40%
Previously Had Heart Attack	532	63%	54%	70%
Never Had Heart Attack	6,358	35%	33%	37%
Have Angina or Coronary Heart Disease	519	72%	64%	79%
Do Not Have Angina or Coronary Heart Disease	6,335	34%	32%	37%
Previously Had a Stroke	278	58%	46%	69%
Never Had a Stroke	6,623	36%	34%	38%
Cancer	1,269	48%	43%	53%
No Cancer	5,620	35%	32%	37%
Skin Cancer	713	49%	43%	55%
No Skin Cancer	6,185	36%	33%	38%
Current Asthma	531	43%	36%	50%
Former Asthma	209	17%	11%	24%
Never Had Asthma	6,132	37%	35%	39%
Arthritis	2,396	53%	49%	57%
No Arthritis	4,483	30%	27%	32%
COPD	504	56%	47%	64%
No COPD	6,388	35%	33%	38%
Depression	1,117	45%	39%	50%
No Depression	5,777	35%	33%	37%
Kidney Disease	223	51%	40%	62%
No Kidney Disease	6,675	36%	34%	38%
Vision Impairment	1,583	47%	42%	52%
No Vision Impairment	5,301	34%	32%	37%
Good/Very Good/Excellent Health Status	5,732	33%	31%	35%
Fair/Poor Health Status	1,174	56%	50%	61%
Physical Health Not Good for 0-29 Days of the Past 30	6,318	36%	34%	38%
Physical Health Not Good for 30 Days of the Past 30	477	42%	34%	50%
Mental Health Not Good for 0-19 Days of the Past 30	6,472	36%	34%	38%
Mental Health Not Good for 20-30 Days of the Past 30	343	41%	31%	50%
Usual Activities Unattainable for 0-9 Days of the Past 30	6,357	36%	33%	38%
Usual Activities Unattainable for 10-30 Days of the Past 30	495	48%	40%	57%
Physical, Mental, or Emotional Problems	2,034	49%	45%	53%
No Physical, Mental, or Emotional Problems	4,685	32%	30%	35%
Disability with Special Equipment Needed	743	45%	38%	51%
No Disability with Special Equipment Needed	5,982	36%	34%	38%
Been Tested for HIV (18-64)	1,275	29%	25%	34%
Never Been Tested for HIV (18-64)	5,235	39%	36%	41%

Note: *Results based on sample sizes less than 100 have been suppressed.

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