# Overweight and Obese

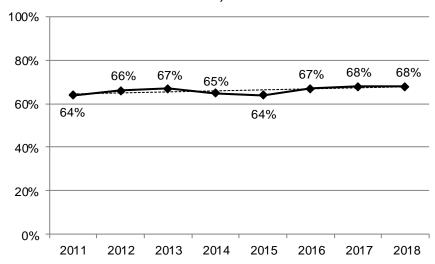
#### **OVERWEIGHT OR OBESE**

Definition: Overweight or obese is defined as having a Body Mass Index (BMI) of 25.0 or above. Body Mass Index (BMI) is calculated by taking a person's body weight in pounds, divided by their height in inches, divided by height in inches (again) times 703. The mathematical equation for BMI is: weight (lb)/height (in)  $^2$  x 703.

#### **Prevalence of Overweight or Obese**

- South Dakota 68%
- Nationwide median 66%

Figure 1
Percentage of South Dakotans Who Are Overweight or Obese Based on Body
Mass Index, 2011-2018



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

	South Dakotans Who Are Overwe	ight or Obese, 2	2014-2018		
			95% Confidence Interval		
		2014-2018	Low	High	
Gender	Male	73%	71.7%	74.4%	
Gender	Female	59%	57.8%	60.6%	
	18-29	48%	45.3%	50.8%	
	30-39	67%	64.1%	69.3%	
	40-49	73%	70.5%	75.2%	
Age	50-59	75%	73.0%	76.6%	
	60-69	75%	73.2%	76.6%	
	70-79	71%	68.7%	73.2%	
	80+	60%	56.3%	62.8%	
	White, Non-Hispanic	66%	65.4%	67.5%	
Race/Ethnicity	American Indian, Non-Hispanic	74%	70.1%	77.1%	
	Hispanic	66%	57.1%	74.2%	
	Less than \$35,000	66%	64.2%	68.0%	
Household Income	\$35,000-\$74,999	70%	68.0%	71.4%	
	\$75,000+	68%	66.2%	69.8%	
	Less than High School, G.E.D.	66%	61.5%	69.5%	
	High School, G.E.D.	68%	65.7%	69.3%	
Education	Some Post-High School	66%	64.6%	68.0%	
	College Graduate	66%	64.0%	67.1%	
	Employed for Wages	67%	65.9%	68.7%	
	Self-employed	70%	67.6%	72.9%	
	Unemployed	65%	59.3%	70.6%	
<b>Employment Status</b>	Homemaker	57%	52.2%	61.9%	
,,	Student	35%	30.3%	40.8%	
	Retired	71%	69.1%	72.3%	
	Unable to Work	74%	70.1%	78.0%	
	Married/Unmarried Couple	71%	69.4%	71.7%	
	Divorced/Separated	69%	66.6%	71.7%	
Marital Status	Widowed	64%	60.9%	66.5%	
	Never Married	55%	52.3%	57.4%	
Home Ownership	Own Home	69%	68.3%	70.4%	
Status	Rent Home	61%	58.8%	63.4%	
	Children in Household (Ages 18-44)	63%	60.4%	64.8%	
Children Status	No Children in Household (Ages 18-44)	55%	51.7%	57.4%	
	Landline	68%	66.6%	69.5%	
Phone Status	Cell Phone	66%	64.3%	66.9%	
	Pregnant (Ages 18-44)	-	-	-	
Pregnancy Status	Not Pregnant (Ages 18-44)	53%	50.5%	55.7%	
	Minnehaha	65%	62.4%	67.5%	
	Pennington	64%	62.0%	66.8%	
County	Lincoln	63%	59.2%	67.6%	
	Brown	72%	69.0%	75.0%	
	Brookings	62%	57.8%	66.6%	
	Codington	66%	62.9%	69.9%	
	Meade	63%	57.7%	67.3%	
	Lawrence	61%	56.9%	64.0%	

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 being overweight than

females.

Age The prevalence of being overweight increases as age increases with a peak

in the 50s and 60s including a significant increase as the 30s and 40s are reached. After that, the prevalence of being overweight decreases as age

increases with a significant decrease as the 80s are reached.

Race/Ethnicity American Indians demonstrate a significantly higher prevalence of being

overweight than whites.

Household Income

The prevalence of being overweight does not seem to change as household

income changes.

Education The prevalence of being overweight does not seem to change as education

levels change.

**Employment** Those who are self-employed, unemployed, retired, or unable to work

demonstrate a very high prevalence of being overweight, while those who are

a student show a very low prevalence.

**Marital** Those who are married or divorced exhibit a very high prevalence of being Status

overweight, while those who have never been married show a very low

prevalence.

Home Ownership

Those who own their home show a significantly higher prevalence of being

overweight than those who rent their home.

Children Status

Those adults with children in the household demonstrate a significantly higher

prevalence of being overweight than those with no children.

**Phone Status** The prevalence of being overweight does not seem to differ based on phone

status.

County Brown county demonstrates a very high prevalence of being overweight, while

Minnehaha, Pennington, Lincoln, Brookings, Meade, and Lawrence counties

show a very low prevalence.

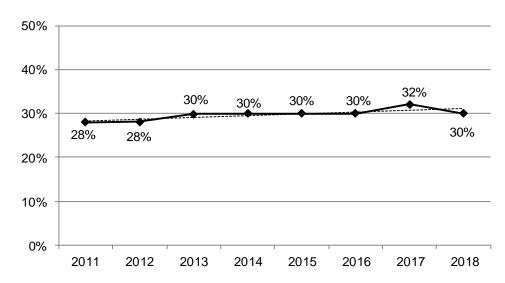
#### **OBESE**

Definition: Obese is defined as having a Body Mass Index (BMI) of 30.0 or greater. Body Mass Index (BMI) is calculated by taking a person's body weight in pounds divided by height in inches, divided by height in inches (again) times 703. The mathematical equation for BMI is: weight (lb)/height (in)  $^2$  x 703.

## **Prevalence of Obesity**

- South Dakota 32%
- Nationwide median 31%

Figure 2
Percentage of South Dakotans Who Are Obese Based on Body Mass Index, 2011-2018



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

Table 5 South Dakotans Who Are Obese, 2014-2018					
			95% Confidence Interval		
		2014-2018	Low	High	
0	Male	32%	31.0%	33.6%	
Gender	Female	28%	27.1%	29.6%	
	18-29	19%	17.4%	21.6%	
	30-39	32%	29.5%	34.4%	
	40-49	36%	33.6%	38.8%	
Age	50-59	37%	34.8%	39.0%	
J	60-69	35%	33.6%	37.3%	
	70-79	30%	27.4%	31.8%	
	80+	19%	16.3%	21.2%	
	White, Non-Hispanic	30%	28.7%	30.6%	
Race/Ethnicity	American Indian, Non-Hispanic	43%	39.3%	46.5%	
	Hispanic	31%	23.8%	39.7%	
	Less than \$35,000	33%	31.3%	34.9%	
Household	\$35,000-\$74,999	31%	29.6%	32.8%	
Income	\$75,000+	30%	28.0%	31.4%	
	Less than High School, G.E.D.	32%	28.1%	35.4%	
	High School, G.E.D.	30%	28.7%	31.9%	
Education	Some Post-High School	32%	30.1%	33.3%	
	College Graduate	28%	26.7%	29.5%	
	Employed for Wages	32%	30.2%	32.9%	
	Self-employed	30%	27.7%	32.8%	
	Unemployed	32%	26.9%	37.1%	
Employment	Homemaker	23%	19.5%	27.4%	
Status	Student	13%	10.3%	17.4%	
	Retired	29%	27.7%	30.9%	
	Unable to Work	46%	42.2%	50.6%	
	Married/Unmarried Couple	32%	30.9%	33.3%	
	Divorced/Separated	34%	31.0%	36.1%	
Marital Status	Widowed	27%	24.8%	29.9%	
	Never Married	25%	23.1%	27.1%	
Home Ownership	Own Home	31%	30.2%	32.3%	
Status	Rent Home	29%	27.5%	31.5%	
Status	Children in Household (Ages 18-44)	29%			
Children Status		24%	26.7%	30.7%	
	No Children in Household (Ages 18-44)		22.2%	26.8%	
Phone Status	Landline	31%	30.1%	32.8%	
	Cell Phone	30%	28.7%	31.0%	
Pregnancy Status	Pregnant (Ages 18-44)	-	- 04.007	-	
County	Not Pregnant (Ages 18-44)	26%	24.0%	28.5%	
	Minnehaha	29%	26.7%	31.3%	
	Pennington	28%	26.2%	30.7%	
	Lincoln	27%	24.0%	31.2%	
	Brown	35%	31.8%	38.0%	
<del> </del>	Brookings	25%	21.9%	28.6%	
	Codington	31%	28.1%	34.3%	
	Meade	26%	22.1%	29.2%	
	Lawrence	25%	22.2%	27.8%	

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 obesity than females.

Age The prevalence of obesity increases as age increases with a peak in the 50s

including a significant increase as the 30s are reached. After that, the prevalence of obesity decreases as age increases with significant decreases

as the 70s and 80s are reached.

Race/Ethnicity American Indians demonstrate a significantly higher prevalence of obesity

than whites.

Household Income

The prevalence of obesity decreases as household income increases.

**Education** The prevalence of obesity does not seem to change as education levels

change.

**Employment** Those who are unable to work demonstrate a very high prevalence of obesity,

while those who are a student show a very low prevalence.

Marital Those who are married or divorced exhibit a very high prevalence of obesity,

while those who are widowed or have never been married show a very low

prevalence.

Home Ownership

Status

The prevalence of obesity does not seem to change based on home

ownership.

Children Status The prevalence of the adults being obese does not seem to change based on

the presence of children in the household.

**Phone Status** The prevalence of obesity does not seem to change based on phone status.

County Brown and Codington counties demonstrate a very high prevalence of

obesity, while the other six available counties show a very low prevalence.

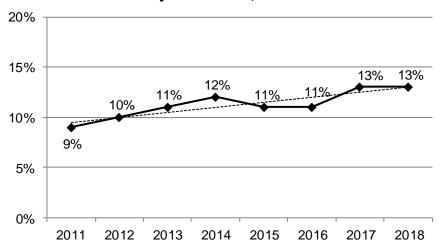
#### **SEVERELY OBESE**

Definition: Severely Obese is defined as having a Body Mass Index (BMI) of 35.0 or greater. Body Mass Index (BMI) is calculated by taking a person's body weight in pounds divided by height in inches, divided by height in inches (again) times 703. The mathematical equation for BMI is: weight (lb)/height (in)  $^2$  x 703.

### **Prevalence of Severe Obesity**

- South Dakota 13%
- o There is no nationwide median for severe obesity.

Figure 3
Percentage of South Dakotans Who Are Severely Obese Based on Body Mass Index, 2011-2018



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

Table 6 South Dakotans Who Are Severely Obese, 2014-2018				
			95% Confidence Interval	
		2014-2018	Low	High
Gender	Male	12%	10.9%	12.7%
Gender	Female	12%	11.4%	13.2%
	18-29	9%	7.1%	10.2%
	30-39	13%	11.0%	14.4%
	40-49	15%	13.2%	17.1%
Age	50-59	15%	13.2%	16.2%
· ·	60-69	14%	12.5%	15.1%
	70-79	10%	8.5%	11.2%
	80+	6%	4.8%	8.3%
	White, Non-Hispanic	12%	11.0%	12.3%
Race/Ethnicity	American Indian, Non-Hispanic	18%	15.6%	21.3%
	Hispanic	11%	7.1%	17.6%
	Less than \$35,000	15%	13.7%	16.3%
Household Income	\$35,000-\$74,999	12%	11.1%	13.3%
	\$75,000+	10%	8.8%	11.0%
	Less than High School, G.E.D.	13%	10.3%	15.7%
	High School, G.E.D.	12%	11.0%	13.3%
Education	Some Post-High School	13%	11.7%	13.9%
	College Graduate	11%	9.7%	11.6%
	Employed for Wages	13%	11.7%	13.6%
	Self-employed	10%	8.6%	12.1%
	Unemployed	13%	10.4%	17.1%
Employment Status	Homemaker	10%	7.8%	13.6%
Employment Status	Student	5%	3.3%	8.4%
	Retired	10%	9.2%	11.4%
	Unable to Work	25%	21.5%	28.6%
	Married/Unmarried Couple	12%	10.8%	12.4%
	Divorced/Separated	15%	13.2%	16.9%
Marital Status	Widowed	12%	10.2%	14.2%
	Never Married	12%	10.4%	13.2%
Hama Oumarahin	Own Home	11%	10.8%	12.2%
Home Ownership Status	Rent Home	14%	12.3%	15.2%
Jialus				
Children Status	Children in Household (Ages 18-44)  No Children in Household (Ages 18-44)	12% 11%	10.3% 9.2%	13.3%
	( )			12.2%
Phone Status	Landline	13%	12.2%	14.3%
	Cell Phone	11%	10.7%	12.3%
Pregnancy Status  County	Pregnant (Ages 18-44)	-	-	-
	Not Pregnant (Ages 18-44)	12%	10.3%	13.5%
	Minnehaha	11%	9.4%	12.4%
	Pennington	11%	9.9%	13.3%
	Lincoln	10%	7.6%	11.9%
	Brown	14%	12.3%	16.7%
	Brookings	10%	7.6%	12.4%
	Codington	12%	9.8%	14.1%
	Meade	10%	7.5%	12.2%
	Lawrence	7%	5.8%	8.6%

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**

Status

Ownership

Gender The prevalence of severe obesity does not seem to differ based on gender.

Age The prevalence of being severely obese increases as age increases with a

peak in the 40s and 50s including a significant increase as the 30s are reached. After that, the prevalence of being severely obese decreases as age

increases with significant decreases as the 70s and 80s are reached.

Race/Ethnicity American Indians demonstrate a significantly higher prevalence of being

severely obese than whites.

Household The prevalence of being severely obese decreases as household income Income

increases. This includes significant decreases as the \$35,000-\$74,999 and

\$75,000+ income groups are reached.

Education The prevalence of being severely obese does not seem to change as

education levels change.

**Employment** Those who are unable to work demonstrate a very high prevalence of being

severely obese, while those who are a homemaker or a student show a very

low prevalence.

Marital Those who are divorced exhibit a very high prevalence of being severely

obese, while those who are married show a very low prevalence.

Home Those who rent their home show a significantly higher prevalence of being

severely obese than those who own their home.

Children The prevalence of the adults being severely obese does not seem to change

**Status** based on the presence of children in the household.

**Phone Status** The prevalence of being severely obese does not seem to change based on

phone status.

County Minnehaha, Pennington, Brown, and Codington counties demonstrate a very

high prevalence of being severely obese, while Lincoln, Meade, and

Lawrence counties show a very low prevalence.

#### **MORBIDLY OBESE**

Definition: Morbidly Obesity is defined as having a Body Mass Index (BMI) of 40.0 or greater. Body Mass Index (BMI) is calculated by taking a person's body weight in pounds divided by height in inches, divided by height in inches (again) times 703. The mathematical equation for BMI is: weight (lb)/height (in)  $^2$  x 703.

#### **Prevalence of Morbid Obesity**

- South Dakota 5%
- There is no nationwide median for morbid obesity.

Table 7 South Dakotans Who Are Morbidly Obese, 2014-2018				
		<u>, , , , , , , , , , , , , , , , , , , </u>	95% Confidence Interval	
		2014-2018	Low	High
Candan	Male	4%	3.3%	4.3%
Gender	Female	5%	4.2%	5.4%
	18-29	3%	2.6%	4.7%
	30-39	5%	4.0%	6.2%
	40-49	5%	3.9%	5.9%
Age	50-59	5%	4.4%	6.3%
_	60-69	5%	3.9%	5.4%
	70-79	3%	2.1%	3.6%
	80+	2%	1.0%	2.7%
	White, Non-Hispanic	4%	3.7%	4.5%
Race/Ethnicity	American Indian, Non-Hispanic	6%	4.3%	7.7%
•	Hispanic	4%	2.5%	7.5%
	Less than \$35,000	6%	4.8%	6.6%
Household	\$35,000-\$74,999	4%	3.7%	5.1%
Income	\$75,000+	3%	2.1%	3.1%
	Less than High School, G.E.D.	4%	2.9%	5.9%
	High School, G.E.D.	4%	3.7%	5.0%
Education	Some Post-High School	5%	3.8%	5.3%
	College Graduate	4%	3.3%	4.5%
	Employed for Wages	4%	3.8%	5.0%
	Self-employed	4%	2.6%	5.0%
_	Unemployed	4%	3.0%	6.3%
Employment	Homemaker	3%	2.2%	5.4%
Status	Student	2%	0.7%	3.7%
	Retired	3%	2.8%	4.1%
	Unable to Work	12%	9.6%	14.7%
	Married/Unmarried Couple	4%	3.3%	4.3%
	Divorced/Separated	5%	4.2%	6.4%
Marital Status	Widowed	5%	3.5%	5.9%
	Never Married	5%	4.0%	5.8%
Home Ownership	Own Home	4%	3.5%	4.4%
Status	Rent Home	5%	4.4%	6.2%
	Children in Household (Ages 18-44)	4%	3.2%	5.0%
Children Status	No Children in Household (Ages 18-44)	5%	3.8%	5.9%
	Landline	5%	4.3%	5.7%
Phone Status	Cell Phone	4%	3.4%	4.4%

Table 7 (continued) South Dakotans Who Are Morbidly Obese, 2014-2018				
			95% Confidence Interval	
		2014-2018	Low	High
Pregnancy Status	Pregnant (Ages 18-44)	-	-	-
	Not Pregnant (Ages 18-44)	5%	4.0%	6.2%
County	Minnehaha	4%	3.1%	5.1%
	Pennington	4%	3.0%	5.1%
	Lincoln	4%	2.7%	5.9%
	Brown	6%	4.8%	8.0%
	Brookings	3%	2.0%	4.8%
	Codington	5%	3.3%	6.4%
	Meade	4%	3.1%	6.4%
	Lawrence	2%	1.5%	2.9%

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**

<u>Demographics</u>	
Gender	The prevalence of morbid obesity does not seem to differ based on gender.
Age	The prevalence of morbid obesity does not seem to change as age changes, but it does show a significant decrease as the 70s are reached.
Race/Ethnicity	The prevalence of morbid obesity does not seem to differ based on race or ethnicity.
Household Income	The prevalence of morbid obesity decreases as household income increases. This includes a significant decrease as the \$75,000+ income group is reached.
Education	The prevalence of morbid obesity does not seem to change as education levels change.
Employment	Those who are unable to work demonstrate a very high prevalence of morbid obesity, while those who are self-employed, unemployed, a homemaker, a student, or retired show a very low prevalence.
Marital Status	The prevalence of morbid obesity does not seem to differ based on marital status.
Home Ownership	The prevalence of morbid obesity does not seem to change based on home ownership.

# Status

Children

The prevalence of the adults being morbidly obese does not seem to change based on the presence of children in the household.

**Phone Status** The prevalence of morbid obesity does not seem to change based on phone status.

**County**Minnehaha, Pennington, Brown, Codington, and Meade counties demonstrate a very high prevalence of morbid obesity, while Lawrence county shows a

very low prevalence.