Overweight and Obese

OVERWEIGHT

Definition: Overweight 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

o   South Dakota 72%
o   Nationwide median 68%

Trend Analysis

Overall, the percent of South Dakotans who are overweight has been increasing since 2011. In 2021, the overweight percent for South Dakotans is the highest it has ever been at 72 percent. The nationwide median for overweight is 68 percent, while South Dakota exceeds that with 72 percent.

Figure 1
Percentage of South Dakotans Who Are Overweight Based on Body Mass Index, 2011-2021
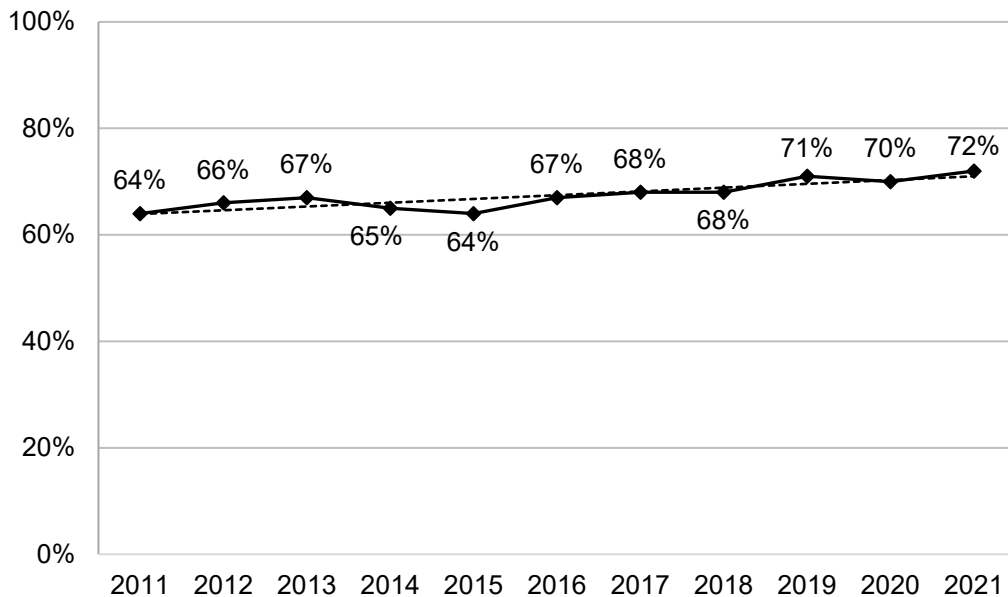
Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2011-2021

Table 4			
South Dakotans Who Are Overweight, 2017-2021			
			95% Confidence Interval	
		2017-2021	**Low**	**High**
Gender	Male	75%	73.2%	76.2%
	Female	64%	62.5%	65.5%
Age	18-29	53%	49.5%	55.6%
	30-39	69%	66.5%	72.2%
	40-49	77%	74.3%	79.4%
	50-59	78%	75.9%	80.0%
	60-69	77%	74.9%	78.7%
	70-79	73%	70.9%	75.4%
	80+	61%	57.5%	65.0%
Race/Ethnicity	White, Non-Hispanic	69%	68.4%	70.6%
	American Indian, Non-Hispanic	78%	74.5%	81.0%
	American Indian/White, Non-Hispanic	75%	63.7%	84.2%
	Hispanic	71%	62.9%	78.0%
Household Income	Less than $35,000	68%	66.2%	70.6%
	$35,000-$74,999	72%	70.4%	74.2%
	$75,000+	71%	69.3%	73.0%
Education	Less than High School, G.E.D.	72%	66.9%	75.9%
	High School, G.E.D.	70%	67.5%	71.4%
	Some Post-High School	70%	68.1%	71.8%
	College Graduate	69%	66.8%	70.3%
Employment Status	Employed for Wages	71%	69.0%	72.1%
	Self-employed	74%	71.3%	77.1%
	Unemployed	69%	62.9%	74.3%
	Homemaker	63%	56.8%	69.6%
	Student	42%	35.8%	47.8%
	Retired	72%	70.2%	73.6%
	Unable to Work	73%	68.3%	77.6%
Marital Status	Married/Unmarried Couple	73%	71.9%	74.5%
	Divorced/Separated	75%	71.9%	77.1%
	Widowed	65%	61.7%	68.1%
	Never Married	60%	56.7%	62.2%
Home Ownership Status	Own Home	73%	71.6%	73.9%
	Rent Home	63%	60.9%	65.9%
Children Status	Children in Household (Ages 18-44)	67%	64.7%	69.7%
	No Children in Household (Ages 18-44)	58%	54.7%	60.7%
Phone Status	Landline	72%	70.2%	73.2%
	Cell Phone	69%	67.6%	70.2%
Pregnancy Status	Pregnant (Ages 18-44)	-	-	-
	Not Pregnant (Ages 18-44)	59%	56.5%	62.2%
County	Minnehaha	69%	66.3%	71.4%
	Pennington	69%	66.8%	71.6%
	Lincoln	66%	60.5%	70.7%
	Brown	72%	69.4%	74.8%
	Brookings	61%	57.1%	65.2%
	Codington	71%	68.5%	74.1%
	Meade	64%	59.5%	69.0%

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2017-2021

Demographics

Gender
Males exhibit a significantly higher prevalence of being overweight than females.

Age
The prevalence of being overweight peaks for those in their 50s, including significant increases 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 very high prevalence of being overweight, while whites show a very low prevalence.

Household Income
The prevalence of being overweight does not seem to consistently change as household income increases.

Education
The prevalence of being overweight decreases as education levels increase.

Employment
Those who are employed for wages, 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 Status
Those who are married or divorced exhibit a very high prevalence of being overweight, while those who are widowed or 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
Minnehaha, Pennington, Brown, and Codington counties demonstrate a very high prevalence of being overweight, while Brookings and Meade 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.
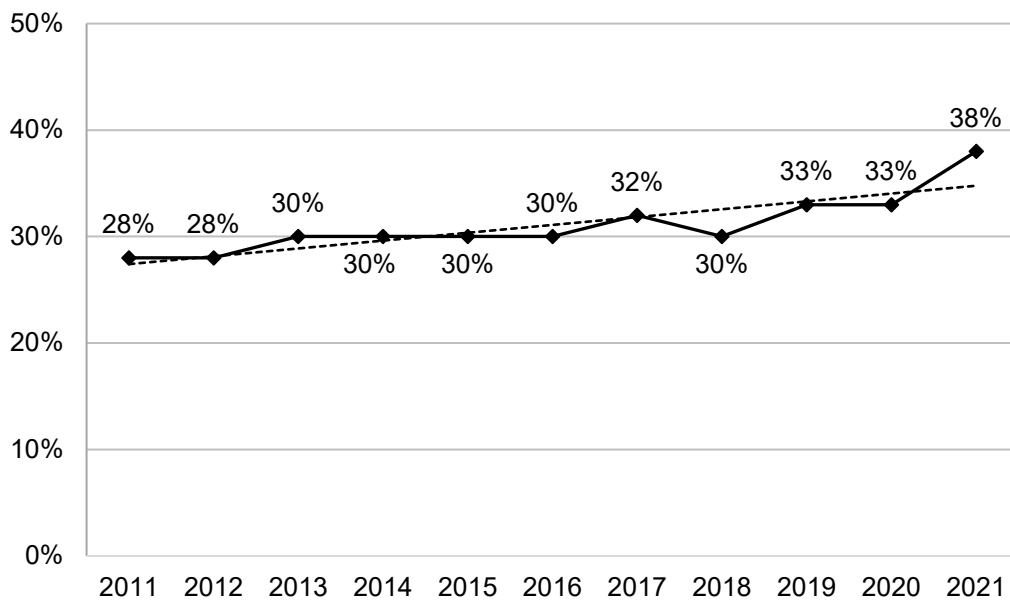
Prevalence of Obesity

o   South Dakota 38%
o   Nationwide median 34%

Trend Analysis

Overall, the percent of South Dakotans who are obese has been increasing since 2011 including a 15 percent increase from 2020 to 2021. In 2021, the obese percent is the highest it has ever been with 38 percent. The nationwide median for obese is 34 percent while South Dakota exceeds that with 38 percent.

Figure 2
Percentage of South Dakotans Who Are Obese Based on Body Mass Index, 2011-2021

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2011-2021

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			95% Confidence Interval	
		2017-2021	Low	High
Gender	Male	34%	32.7%	35.7%
	Female	32%	30.8%	33.9%
Age	18-29	23%	20.3%	25.2%
	30-39	35%	31.7%	38.0%
	40-49	38%	35.4%	41.7%
	50-59	39%	36.9%	42.0%
	60-69	38%	36.1%	40.6%
	70-79	33%	30.9%	36.0%
	80+	21%	18.0%	24.9%
Race/Ethnicity	White, Non-Hispanic	32%	30.9%	33.1%
	American Indian, Non-Hispanic	47%	42.4%	51.5%
	American Indian/White, Non-Hispanic	44%	33.2%	56.3%
	Hispanic	42%	33.8%	49.8%
Household Income	Less than $35,000	36%	34.2%	38.8%
	$35,000-$74,999	34%	31.8%	35.7%
	$75,000+	32%	29.9%	33.9%
Education	Less than High School, G.E.D.	39%	33.7%	44.0%
	High School, G.E.D.	34%	31.9%	35.9%
	Some Post-High School	33%	31.6%	35.2%
	College Graduate	31%	29.1%	32.5%
Employment Status	Employed for Wages	34%	32.1%	35.4%
	Self-employed	35%	31.6%	38.1%
	Unemployed	36%	30.4%	41.8%
	Homemaker	33%	26.0%	40.1%
	Student	17%	13.4%	22.2%
	Retired	32%	30.1%	33.9%
	Unable to Work	48%	42.8%	52.9%
Marital Status	Married/Unmarried Couple	35%	33.3%	36.1%
	Divorced/Separated	36%	33.2%	39.4%
	Widowed	28%	25.4%	31.6%
	Never Married	30%	27.3%	32.3%
Home Ownership Status	Own Home	34%	32.7%	35.2%
	Rent Home	33%	30.1%	35.0%
Children Status	Children in Household (Ages 18-44)	32%	30.0%	35.0%
	No Children in Household (Ages 18-44)	26%	23.9%	29.2%
Phone Status	Landline	34%	32.2%	35.4%
	Cell Phone	33%	31.8%	34.5%
Pregnancy Status	Pregnant (Ages 18-44)	-	-	-
	Not Pregnant (Ages 18-44)	30%	27.5%	33.0%
County	Minnehaha	33%	30.5%	35.7%
	Pennington	33%	30.2%	35.2%
	Lincoln	29%	24.6%	33.5%
	Brown	36%	33.0%	38.7%
	Brookings	26%	22.7%	28.5%
	Codington	34%	31.5%	37.2%
	Meade	26%	22.9%	30.0%

**Table 5
South Dakotans Who Are Obese, 2017-2021**

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2017-2021

Demographics

Gender — The prevalence of obesity does not seem to differ by gender.

Age — The prevalence of obesity peaks for those in their 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 — Whites demonstrate a significantly lower prevalence of obesity than all other races/ethnicities.

Household Income — The prevalence of obesity decreases as household income increases.

Education — The prevalence of obesity decreases as education levels increase.

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 Status — 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 — The prevalence of obesity does not seem to differ based on home ownership status.

Children Status — Those who live in a household with children demonstrate a significantly higher prevalence of being obese than those who live in a household with no children.

Phone Status — The prevalence of obesity does not seem to differ based on phone status.

County — Minnehaha, Pennington, Brown, and Codington counties demonstrate a very high prevalence of obesity, while Brookings and Meade 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

o   South Dakota 13%
o   *There is no nationwide median for severely obese*

Trend Analysis

Overall, the percent of South Dakotans who are severely obese has been increasing since 2011. From 2020 to 2021, this percent increased from 13 percent to 16 percent.

**Figure 3
Percentage of South Dakotans Who Are Severely Obese Based on
Body Mass Index, 2011-2021**
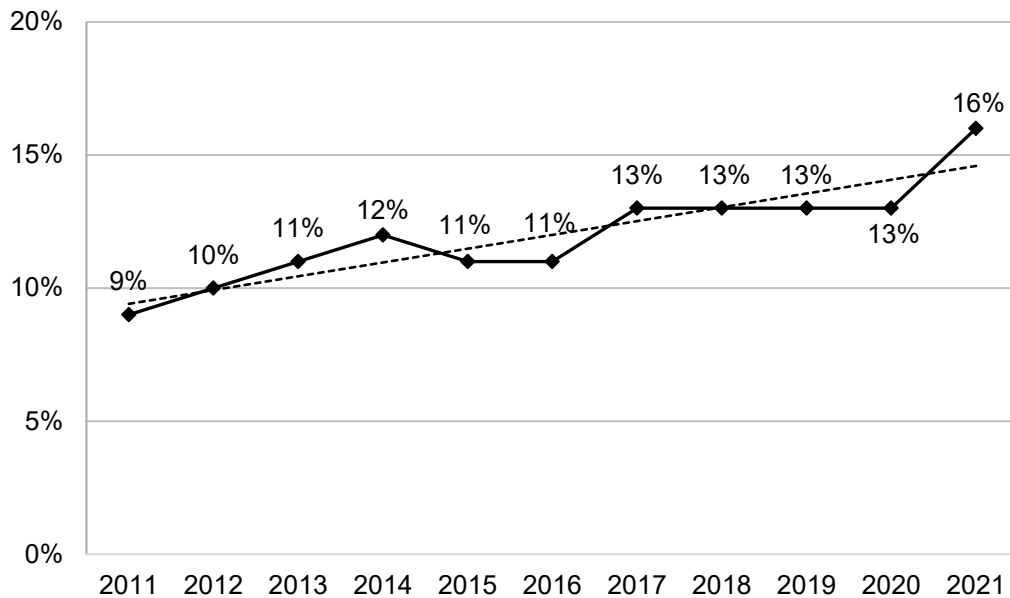
Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2011-2021

			95% Confidence Interval	
Table 6 **South Dakotans Who Are Severely Obese, 2017-2021**				
		2017-2021	**Low**	**High**
Gender	Male	13%	11.7%	13.8%
	Female	14%	13.2%	15.4%
Age	18-29	10%	8.3%	11.8%
	30-39	14%	11.9%	16.1%
	40-49	17%	14.4%	19.7%
	50-59	17%	14.8%	18.6%
	60-69	15%	13.3%	16.7%
	70-79	12%	10.1%	13.3%
	80+	6%	4.3%	8.5%
Race/Ethnicity	White, Non-Hispanic	13%	12.1%	13.8%
	American Indian, Non-Hispanic	19%	16.0%	22.0%
	American Indian/White, Non-Hispanic	19%	10.3%	31.7%
	Hispanic	17%	12.1%	24.5%
Household Income	Less than $35,000	17%	15.1%	18.6%
	$35,000-$74,999	14%	12.5%	15.3%
	$75,000+	11%	9.6%	12.3%
Education	Less than High School, G.E.D.	17%	13.4%	21.6%
	High School, G.E.D.	14%	12.5%	15.3%
	Some Post-High School	13%	12.1%	14.6%
	College Graduate	12%	10.9%	13.3%
Employment Status	Employed for Wages	14%	12.7%	15.0%
	Self-employed	12%	10.2%	14.5%
	Unemployed	16%	12.6%	21.3%
	Homemaker	15%	9.8%	22.2%
	Student	8%	5.0%	11.5%
	Retired	11%	9.8%	12.3%
	Unable to Work	28%	24.0%	33.4%
Marital Status	Married/Unmarried Couple	13%	12.2%	14.3%
	Divorced/Separated	15%	13.3%	17.6%
	Widowed	12%	9.6%	14.5%
	Never Married	14%	12.0%	15.4%
Home Ownership Status	Own Home	13%	12.2%	14.0%
	Rent Home	15%	13.3%	16.8%
Children Status	Children in Household (Ages 18-44)	13%	11.2%	14.6%
	No Children in Household (Ages 18-44)	12%	10.1%	13.9%
Phone Status	Landline	14%	12.8%	15.3%
	Cell Phone	13%	12.3%	14.3%
Pregnancy Status	Pregnant (Ages 18-44)	-	-	-
	Not Pregnant (Ages 18-44)	13%	11.6%	15.4%
County	Minnehaha	13%	10.9%	14.5%
	Pennington	14%	11.8%	15.6%
	Lincoln	11%	8.1%	13.9%
	Brown	14%	12.4%	16.3%
	Brookings	12%	9.7%	13.7%
	Codington	14%	12.4%	16.4%
	Meade	10%	8.3%	13.1%

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2017-2021

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Demographics

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

Age   The prevalence of being severely obese peaks in the 40s and 50s. This includes a significant increase as the 30s are reached. After that, the prevalence of being severely obese decreases as age increases with a significant decrease as the 80s are reached.

Race/ Ethnicity   American Indians demonstrate a very high prevalence of being severely obese, while whites show a very low prevalence.

Household Income   The prevalence of being severely obese decreases as household income increases. This includes a significant decrease as the $75,000+ income group is reached.

Education   The prevalence of being severely obese decreases as education levels increase.

Employment   Those who are unable to work demonstrate a very high prevalence of being severely obese, while those who are self-employed, a homemaker, a student, or retired show a very low prevalence.

Marital Status   The prevalence of being severely obese does not seem to differ based on marital status.

Home Ownership   The prevalence of being severely obese does not seem to differ based on home ownership status.

Children Status   The prevalence of the adults being severely obese does not seem to differ based on the presence of children in the household.

Phone Status   The prevalence of being severely obese does not seem to differ based on phone status.

County   The prevalence of being severely obese does not seem to differ among the available counties.

MORBIDLY OBESE

Definition: Morbidly obese 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.
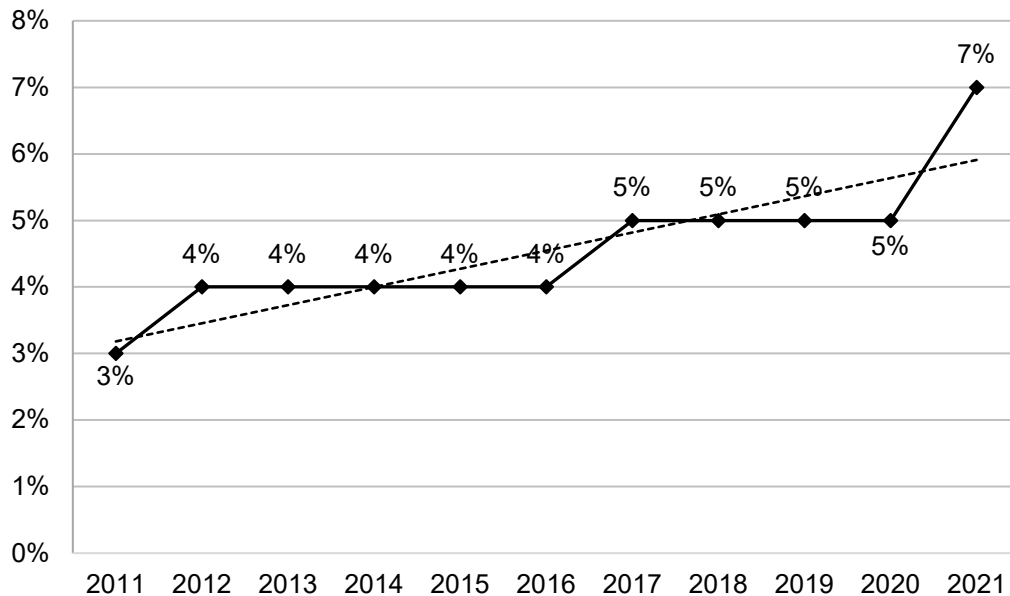
Prevalence of Morbid Obesity

o   South Dakota 5%
o   *There is no nationwide median for morbid obesity*

Trend Analysis

The percent of South Dakotans who are morbidly obese has been increasing since 2011. From 2020 to 2021, this percent increased from 5 percent to 7 percent.

Figure 4
Percent of South Dakotans Who are Morbidly Obese, 2011-2021

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2011-2021

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			95% Confidence Interval	
Table 7 **South Dakotans Who Are Morbidly Obese, 2017-2021**				
		2017-2021	**Low**	**High**
Gender	Male	5%	4.1%	5.5%
	Female	6%	5.2%	6.9%
Age	18-29	4%	2.8%	5.2%
	30-39	7%	5.7%	8.7%
	40-49	7%	5.2%	9.6%
	50-59	6%	5.2%	7.8%
	60-69	5%	4.4%	6.4%
	70-79	3%	2.6%	4.3%
	80+	2%	0.8%	3.5%
Race/Ethnicity	White, Non-Hispanic	5%	4.5%	5.6%
	American Indian, Non-Hispanic	7%	5.7%	9.5%
	American Indian/White, Non-Hispanic	6%	2.3%	14.2%
	Hispanic	10%	5.7%	16.3%
Household Income	Less than $35,000	7%	6.0%	8.6%
	$35,000-$74,999	5%	4.1%	5.8%
	$75,000+	4%	3.2%	5.2%
Education	Less than High School, G.E.D.	7%	4.4%	11.1%
	High School, G.E.D.	6%	5.0%	7.0%
	Some Post-High School	5%	4.1%	5.7%
	College Graduate	5%	3.9%	5.5%
Employment Status	Employed for Wages	5%	4.7%	6.3%
	Self-employed	4%	2.9%	5.5%
	Unemployed	8%	5.1%	11.5%
	Homemaker	8%	4.3%	15.3%
	Student	3%	1.5%	6.9%
	Retired	4%	2.9%	4.4%
	Unable to Work	15%	11.6%	19.0%
Marital Status	Married/Unmarried Couple	5%	4.3%	5.9%
	Divorced/Separated	6%	5.0%	7.9%
	Widowed	4%	3.0%	5.2%
	Never Married	6%	5.0%	7.2%
Home Ownership Status	Own Home	5%	4.3%	5.6%
	Rent Home	6%	5.3%	7.7%
Children Status	Children in Household (Ages 18-44)	5%	4.2%	6.5%
	No Children in Household (Ages 18-44)	6%	4.3%	7.3%
Phone Status	Landline	5%	4.7%	6.4%
	Cell Phone	5%	4.6%	6.0%
Pregnancy Status	Pregnant (Ages 18-44)	-	-	-
	Not Pregnant (Ages 18-44)	6%	4.9%	7.5%
County	Minnehaha	5%	4.3%	6.8%
	Pennington	5%	4.2%	6.7%
	Lincoln	4%	2.7%	6.6%
	Brown	6%	4.8%	7.8%
	Brookings	5%	3.8%	6.5%
	Codington	5%	4.1%	6.4%
	Meade	4%	3.1%	6.1%

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2017-2021

Demographics

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

Age   The prevalence of morbid obesity peaks with those in their 30s and 40s. This includes a significant increase as the 30s are reached and a significant decrease as the 70s are reached.

Race/ Ethnicity   American Indians and Hispanics exhibit a very high prevalence of morbid obesity, while whites show a very low prevalence.

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

Education   The prevalence of morbid obesity decreases as education levels increase.

Employment   Those who are unable to work demonstrate a very high prevalence of morbid obesity, while those who are self-employed, 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 differ based on home ownership status.

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

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

County   The prevalence of morbid obesity does not seem to differ among the available counties.