

DATA BRIEF

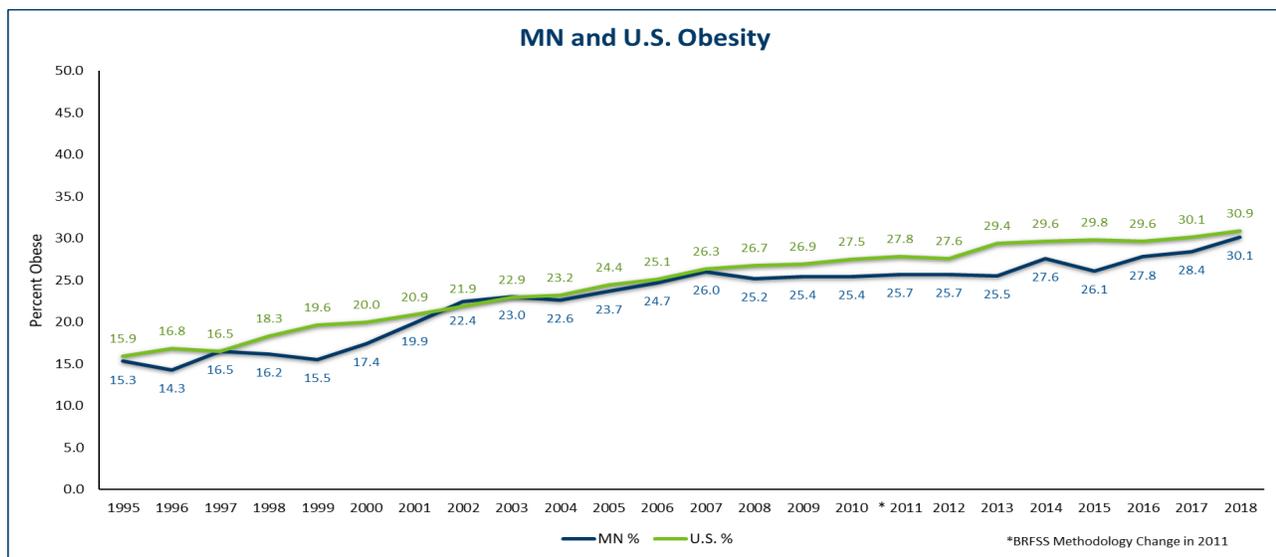
# Adult Obesity in Minnesota 2018

Since the 1980s, obesity has been recognized as a national problem [1-3]. The Centers for Disease Control and Prevention (CDC) monitors adult obesity rates annually and provides estimates for each state using data from the Behavioral Risk Factor Surveillance System (BRFSS). Data from BRFSS are used to monitor health behavior trends over time and inform public health programs at the state and national level. The Minnesota Department of Health (MDH) uses these data to inform the public about the prevalence of obesity in the state, track changes over time, and support planning of public health interventions designed to reduce obesity. This data brief presents findings on trends in obesity prevalence from the most recent national and Minnesota BRFSS data.

## Minnesota and U.S. Comparison

Minnesota’s obesity rates have generally been lower than the U.S. with the exception of 2002 to 2007 when they were nearly identical [Figure 1] [4]. Following national trends, Minnesota’s obesity rate has increased. From 2000 to 2007, the Minnesota obesity rate went from 17.4 percent to 26.0 percent, a 8.6 percentage point increase. The trend of Minnesota’s obesity rate closely followed the U.S. percentage from 2001 to 2007, and then diverged below the national percentage from 2008 to 2017. In 2018, Minnesota’s obesity rate increased by 1.7 percentage points to 30.1, which is not significantly different from the national rate of 30.9.

**Figure 1. Obesity rates: Minnesota vs. U.S., 1995-2018**

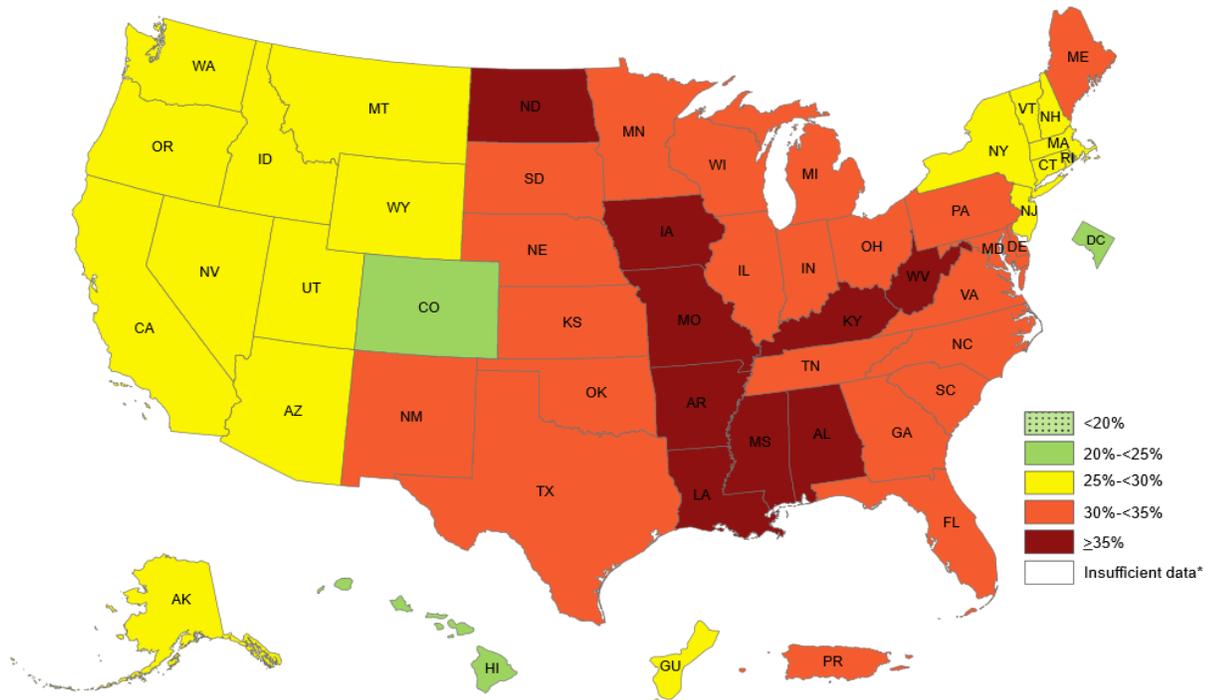


Data source: CDC Behavioral Risk Factor Surveillance System

ADULT OBESITY IN MINNESOTA: DATA BRIEF

Figure 2 maps the 2018 adult obesity rate for each state in five groupings. Colorado, District of Columbia, and Hawaii have the lowest obesity rates.

Figure 2. 2018 BRFSS obesity prevalence among U.S. adults by state and territory

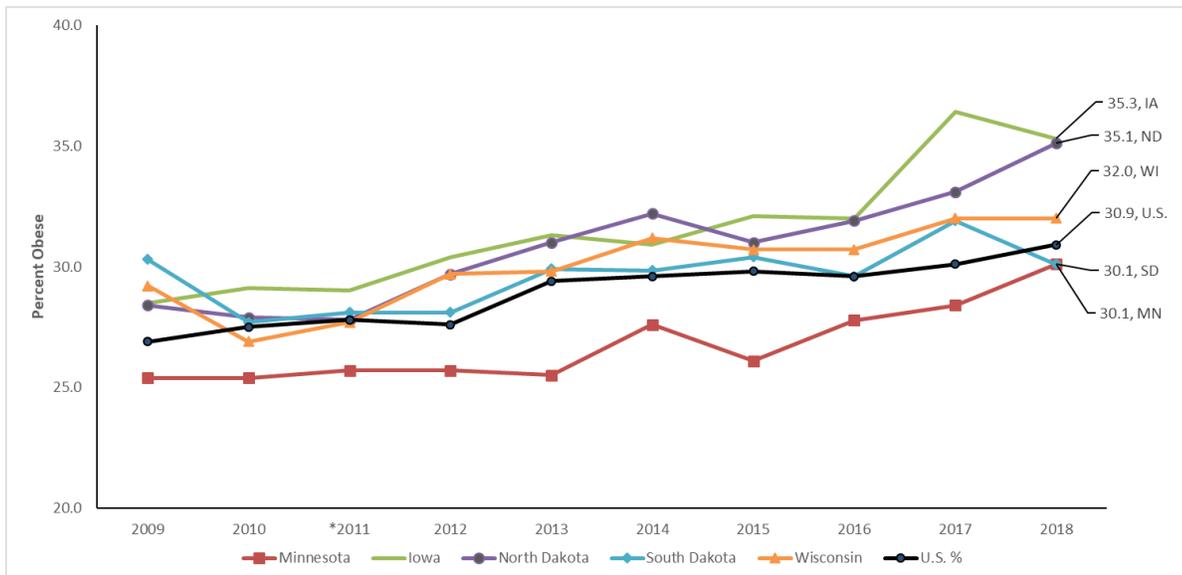


Data source: CDC Behavioral Risk Factor Surveillance System

### Minnesota and neighboring states

Minnesota’s obesity rate is significantly lower than the neighboring states of Iowa and North Dakota, but is not significantly different from South Dakota and Wisconsin in 2018 [Figure 3].

Figure 3. BRFSS obesity rates 2009-2018: Minnesota and neighboring states



## Discussion

Minnesota's obesity rate trend closely followed the U.S. percentage from 2001 to 2007, and then diverged below the national percentage. Results for 2018 show that Minnesota's obesity rate, which increased by 1.7 percentage points from 2017, is closer to the national estimate than in previous years. For Minnesota and the surrounding states, obesity rates seem to be trending upward over the past decade, although the change between 2017 and 2018 for Minnesota is not statistically significant [Figure 3].

It is important to remember that the data are sensitive to many factors. Estimates are influenced by sample size and changes in demographic make-up of survey respondents from year to year [5]. Health policies, economic opportunity, and differences in population demographics and natural resources may all help explain these differences and changes in obesity over time. The change in Minnesota's obesity rate this year reflects the continued need for policy, systems, and environmental changes that promote healthy lifestyles for all Minnesotans.

### Technical Notes

#### Obesity Definition

Obesity is an abnormal or excessive fat accumulation that may impair health [2]. Although there are a number of ways to measure fat accumulation, the most common population-level measure is a calculation based on weight and height called Body Mass Index (BMI) [3]. Using this system a person with a BMI of 30 kg/m<sup>2</sup> or greater is defined as obese [2].

#### Data Source and Methods

##### Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System

The Behavioral Risk Factor Surveillance System (BRFSS) is an annual statewide random telephone and cellular surveillance survey designed by the Centers of Disease Control and Prevention (CDC). The survey is conducted in all 50 states and U.S. territories. BRFSS monitors modifiable risk behaviors and other factors contributing to the leading causes of morbidity and mortality in the population. Data from the BRFSS are useful for planning, initiating, and supporting health promotion and disease prevention programs at the state and federal level [6]. The survey has three sections:

- Standard Core Questions – Asked every year and are required by all states.
- Rotating Core Questions – Asked every other year and are required by all states.
- Optional Modules – Sets of standardized questions on various topics that each state may select and include in its questionnaire. Once selected, a module must be used in its entirety and asked of all eligible respondents

Given the random selection of survey participants each year, the data collected each year are cross-sectional and do not follow a single group of individuals over time. This means that changes in estimates from year to year are affected by sample size and changes in demographics of survey respondents from year to year, and that determinations regarding changes in estimates must be made by examination of data trends over time.

## References

1. Ogden, C.L., et al., *Prevalence of overweight and obesity in the United States, 1999-2004*. *Jama*, 2006. **295**(13): p. 1549-1555.
2. World Health Organization, *Obesity and overweight. Fact sheet No. 311*. Geneva: WHO, 2013. 2013.
3. Snijder, M., et al., *What aspects of body fat are particularly hazardous and how do we measure them?* *International Journal of Epidemiology*, 2006. **35**(1): p. 83-92.
4. CDC, *Behavioral Risk Factor Surveillance System Survey Data*. 2018, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention: Centers for Disease Control and Prevention.
5. Centers for Disease Control and Prevention, *Behavioral Risk Factor Surveillance System Comparability of Data BRFSS 2015*, D.o.P.H. National Center for Chronic Disease Prevention and Health Promotion, Editor. 2016.
6. Centers for Disease Control and Prevention, *The BRFSS Data User Guide*, D.o.P.H. National Center for Chronic Disease Prevention and Health Promotion, Editor. 2018. p. 10.

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