

# Adult Obesity in Minnesota

## DATA BRIEF

### In this Data Brief

This data brief examines trends and patterns in Minnesota adult obesity rates and highlights key findings about modifiable risk behaviors and social context measures associated with obesity rates from the 2015 and 2016 Behavioral Risk Factor Surveillance Survey (BRFSS).

This briefing documents two important relationships.

- BRFSS data indicate that more active Minnesotans and those that eat fruits and vegetables more frequently are less likely to be obese.
- Data indicate that rates of obesity, physical activity and fruit and vegetable consumption vary based on a person's economic well-being. Minnesotans facing economic hardship have higher obesity rates than those who do not and report lower rates of physical activity and consumption of fruits and vegetables.

Physical activity and fruit and vegetable consumption are key behavioral factors that influence obesity outcomes. Positive relationships have been observed between lower obesity rates and recommended physical activity and eating behavior [1].

## Measuring Adult Obesity

Obesity is a major contributor to chronic disease and leads to increased health care costs [2-5]. Obesity is the result of complex interactions between behavior, epigenetics, structural environments (availability of opportunities for healthy choices) and social context (e.g., housing insecurity, food insecurity). For example, the opportunity to eat nutritious food may depend on the availability and affordability of food. In many communities, there is nowhere to buy fresh fruits and vegetables, and no safe or comfortable places to be physically active [6].

The Centers for Disease Control and Prevention (CDC) monitors adult obesity rates annually and provides estimates of modifiable risk behaviors 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 from the most recent national BRFSS data on trends in obesity prevalence and the relationship between obesity, physical activity, fruit and vegetable consumption and housing and food insecurity in Minnesota.





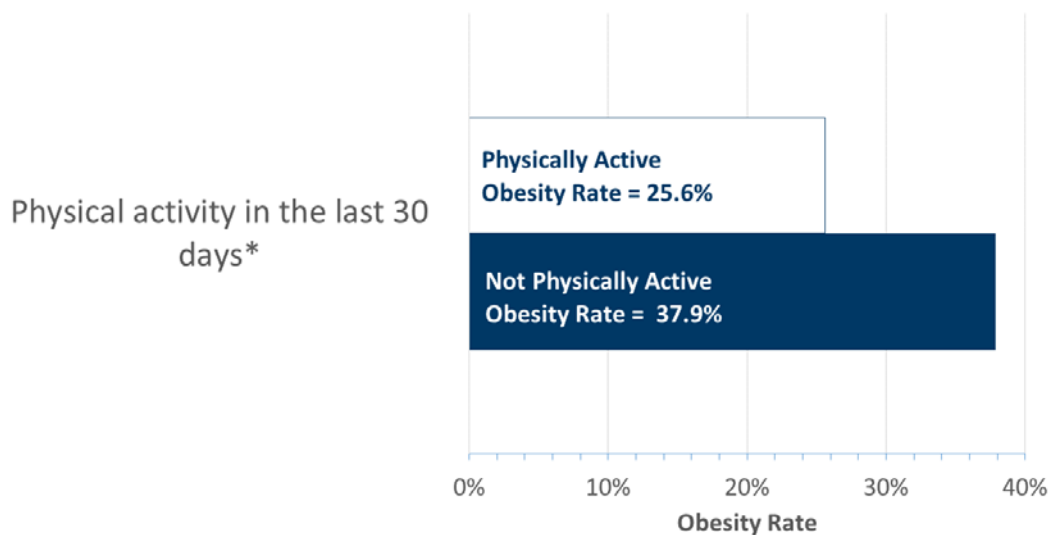
## Modifiable Risk Behaviors: Physical Activity & Fruit and Vegetable Consumption

Two important components of obesity prevention are a healthy diet and regular physical activity. Balancing the calories consumed with the number of calories the body uses for activity plays an important role in preventing excess weight gain [1, 13, 14].

### Physically active Minnesotans are less likely to be obese.

For Minnesotans who reported being physically active at least one day in the past 30 days, the obesity rate was 12.3 percentage points lower than for those who did not report this behavior [Figure 3]. This relationship is present in BRFSS data for each of the years 2011 through 2016 [12].

**Figure 3. Obesity Rate by Physical Activity, Minnesota, BRFSS, 2016**



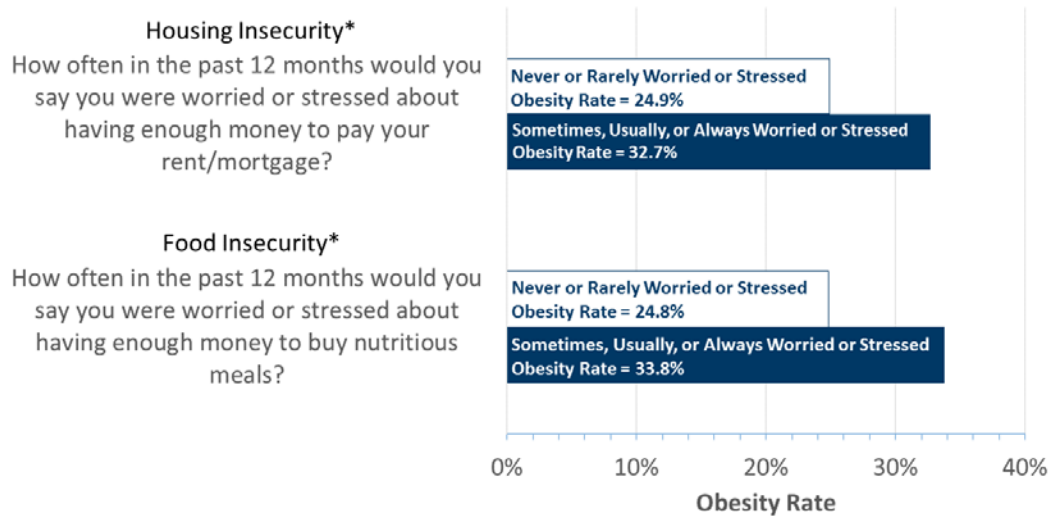
\*Differences between yes and no estimates are statistically significant.

### Minnesotans who consume fruits and vegetables are less likely to be obese.

The same positive relationship exists for people who reported they ate fruits and vegetables at least one time per day compared to those who did not [Figure 4]. For Minnesotans who reported consuming fruit one or more times a day, the obesity rate was 5.2 percentage points lower than those who did not. For Minnesotans who reported consuming vegetables one or more times per day, the obesity rate was 2.7 percentage points lower than those who did not. BRFSS collected these data in 2011, 2013 and 2015. The positive relationship between lower obesity rate and fruit and vegetable consumption is present for each of these years [12].



**Figure 5: Obesity Rate by Housing and Food Insecurity, Minnesota, BRFSS, 2015**

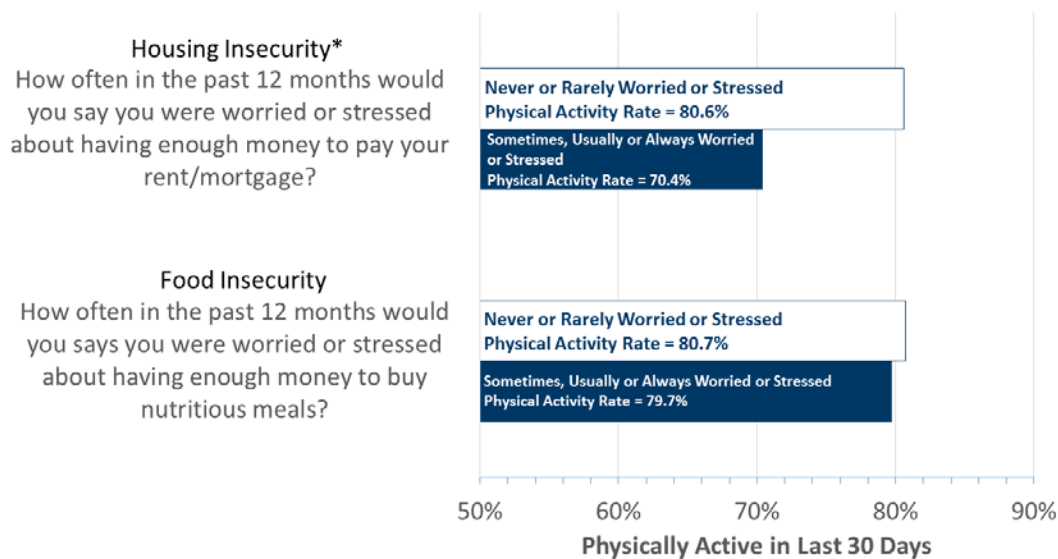


\*Differences between yes and no estimates are statistically significant.

**Minnesotans experiencing housing insecurity are less likely to be physically active.**

Minnesotans who reported being housing insecure were 10.2 percentage points less likely to report being physically active in the last 30 days [Figure 6]. Minnesotans who reported being food insecure were 1.0 percentage point less likely to report being physically active in the last 30 days, though this result was not statistically significant.

**Figure 6. Physical Activity by Housing and Food Insecurity, Minnesota, BRFSS, 2015**

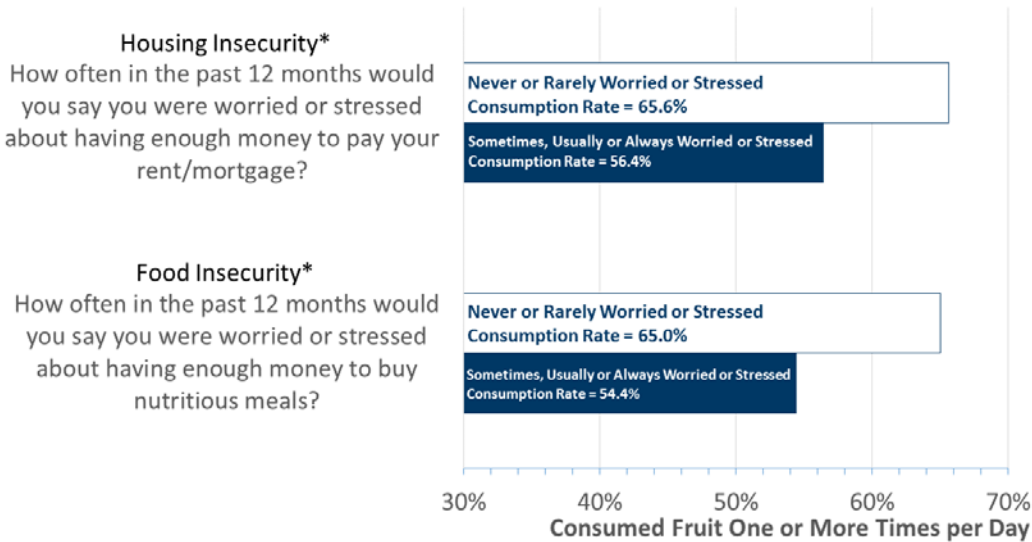


\*Differences between yes and no estimates are statistically significant.

## Minnesotans experiencing housing and food insecurity were less likely to eat fruits and vegetables.

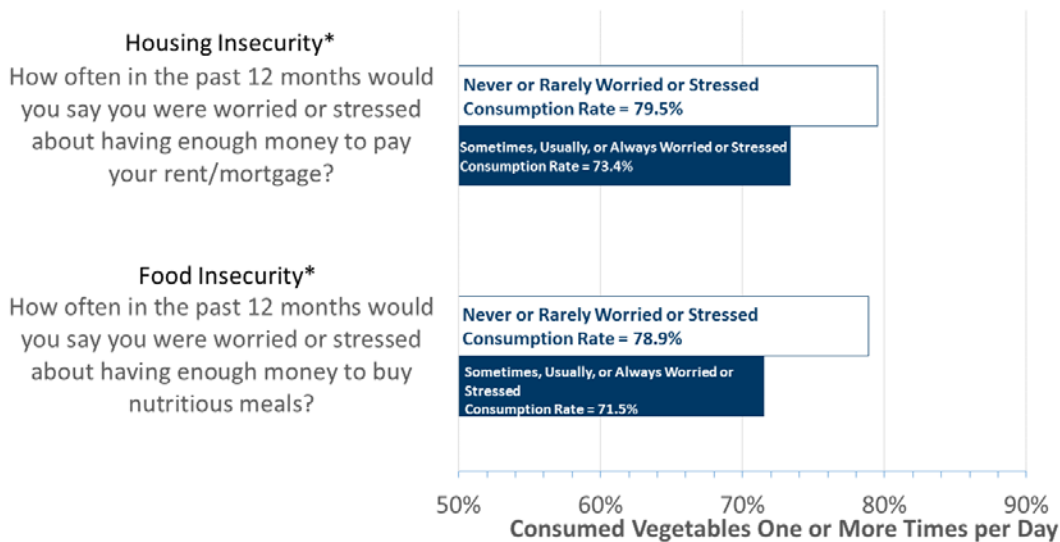
Adults who reported being housing insecure were 9.2 percentage points less likely to consume fruit one or more times per day and 6.1 percentage points less likely to consume vegetables one or more times per day [Figure 7]. Adults who reported being food insecure were 10.6 percentage points less likely to consume fruit one or more times per day and 7.4 percentage points less likely to consume vegetables one or more times per day [Figure 8].

**Figure 7. Fruit Consumption by Housing and Food Insecurity, Minnesota, BRFSS, 2015**



\*Differences between yes and no estimates are statistically significant.

**Figure 8. Vegetable Consumption by Housing and Food Insecurity, Minnesota, BRFSS, 2015**



\*Differences between yes and no estimates are statistically significant.









