

# Snapshot

February 2011



## Obesity and access to healthy foods

In Minnesota, 1 in 4 adults are obese, up from about 1 in 6 a decade ago.

The prevalence of obesity is a national health concern—the rate among adults has doubled over the past three decades. In 2008-2009, about one-third (34%) of adults and an estimated 17 percent of children ages 2-19 years were obese, according to the Centers for Disease Control and Prevention.

Reducing obesity is vital. It is linked to a number of chronic health conditions, including heart disease, Type 2 diabetes, high blood cholesterol, high blood pressure, and several cancers. Obese adults and children may face social and emotional health concerns. An estimated 80 percent of obese children will become obese adults.

This snapshot explores obesity in Minnesota and provides approaches to promote effective policy and create community environments where healthy food is accessible to everyone.

### **Causes of obesity**

Obesity is caused by an imbalance in the amount of energy consumed and the amount of energy expended. Factors related to obesity are complex. Social factors such as increased portion sizes; increased marketing of foods high in fat,

calories, and added sugar; increased use of cars for transportation; and increased television and computer use are partly to blame. Environmental factors also play a role. For example, limited access to sidewalks and unsafe neighborhoods and parks can restrict opportunities for people to be physically active. Some people cannot afford healthy foods, such as fresh produce, or may live in neighborhoods that do not have a grocery store with healthy foods.

### **Obesity in Minnesota**

Obesity is determined by Body Mass Index (BMI), a calculation of height and weight.

In Minnesota, 1 in 4 adults were obese in 2009, up from about 1 in 6 a decade ago. Eleven percent of youth age 10–17 were obese and 12 percent were overweight in 2007. Based on 2010 self-reported height and weight data, between 5-11 percent of Twin Cities 9<sup>th</sup> graders were obese and 11-15 percent were overweight. Again, this is lower than the national average for obese adolescents, which is about 18 percent.

Of particular note are racial and income disparities in rates of obesity. Hennepin County's 2006 SHAPE survey, which assesses the health of its residents, found

higher rates among African American (4 in 10) and Hispanic (3 in 10) residents, than white (2 in 10) or Asian and Southeast Asian (fewer than 1 in 10) residents.

When looking at obesity in Minnesota by household income levels, the rate of obesity among households with incomes of \$50,000+ is just over 22 percent while the obesity rate among households with incomes below \$15,000 is over 37 percent, according to 2009 data compiled by Minnesota Compass.

## Food insecurity in the United States

Food insecurity is defined by the United States Department of Agriculture as instances where the availability or ability to acquire healthy foods is limited or uncertain.

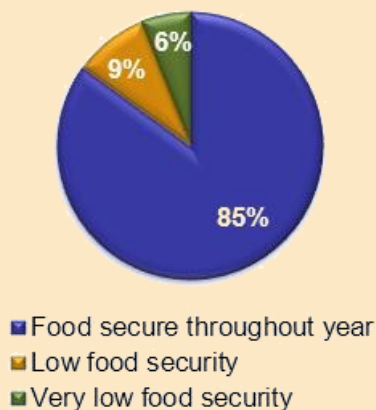
In 2009, nearly 50 million, or 16 percent, of U.S. households experienced food insecurity at some point during the year. Of those, 9 percent obtained enough food through use of food shelves, federal assistance programs, or other means to avoid significantly changing their diet or level of food intake (low food secure households). Nearly six percent had to reduce their food intake and change eating patterns due to lack of resources for food (very low food secure households.)

Children living in food insecure households may be at increased risk of poor health, have more frequent colds and stomachaches, and have higher hospitalization rates compared to children living in food secure households. Additionally, children living in food insecure households may experience behavioral, psychological, and emotional health problems.

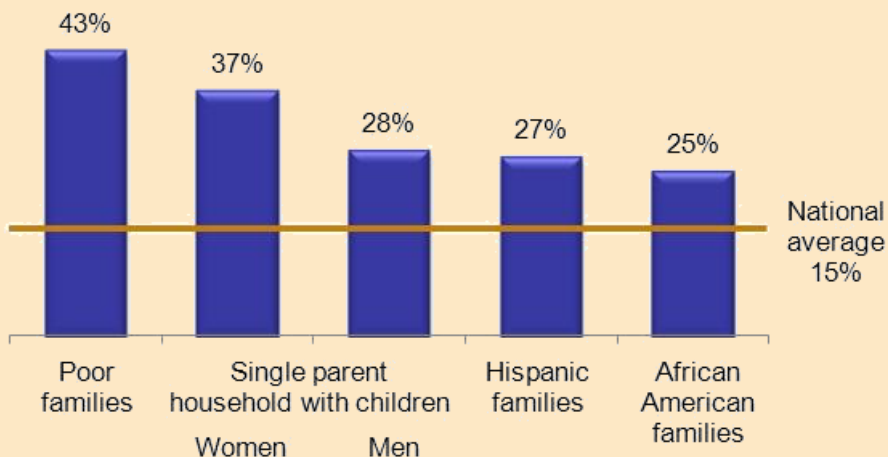
Almost five and a half million children lived in households with very low food security in 2009. However, research has demonstrated that children, even in households with very low food security, are often protected from reductions in food intake by their parents. It is estimated that about 1 million children experienced very low food insecurity, or had to go without food due to a lack of resources in their household.

Poor households, single-parent households (especially those headed by women), African-American households, and Hispanic households are more likely than others to experience food insecurity. In 2009, 43 percent of households below the federal poverty line were food insecure; likewise, more than one-third of households with children led by single women were food insecure. Roughly one quarter of African-American families and Hispanic families experienced food insecurity.

**FOOD SECURITY STATUS OF U.S. HOUSEHOLDS, 2009**



**PERCENTAGE OF U.S. FAMILIES EXPERIENCING FOOD INSECURITY**



Source: USDA Economic Research Service: <http://www.ers.usda.gov/>

## Food security in Minnesota

Between 2007-2009, an estimated 10.5 percent of Minnesota households experienced food insecurity at some point, up from 9.5 percent in 2005-2007.

While there has been an increase in the number of families eligible for assistance, a 2009 Minnesota Department of Human Services report concluded that only 45 percent of potentially eligible people actually use Food Support, Minnesota's food stamp program. Families may go without assistance due to lack of awareness of available supports, stigma associated with public programs, or other reasons.

## A potential link: food insecurity and obesity

A landmark 1995 study, *Does hunger cause obesity?*, was the first to link obesity with issues related to food insecurity. Additional research has identified a potential link between households who experience food insecurity and rates of obesity, especially among women. Still, the links between obesity and food insecurity remain unclear; the factors that tie these issues together are complicated and varied.

Women who experience food insecurity are more likely to be obese compared to other women. It is unclear if food insecurity leads to weight gain or if other, more complicated factors mediate the relationship. One hypothesis suggests that SNAP (Supplemental Nutrition Assistance Program) benefits may be used early in a given month, leading to overeating, followed by deprivation at the end of the month when benefits have run out. Other studies suggest that families in poverty may be inclined to purchase energy-dense foods, which are less expensive than fresh fruits and vegetables. Others propose that food insecurity may have a greater impact on women who grew up in food insecure households. Women who had previously experienced food insecurity may become preoccupied with food and have a tendency to over purchase and overeat preferred foods when available.

## Food insecurity and childhood obesity

The results are also mixed when establishing a link between food insecurity and childhood obesity. The relationship between food insecurity and obesity may be indirectly related, however, through the impact of food insecurity on parenting practices and family and household stress. Parents in food insecure households may exhibit different parenting styles when coping with food uncertainty, and less positive parenting styles may be related to childhood obesity. Children living in food insecure households are at increased risk of personal stress, which may increase their risk of obesity.

Some feel that any relationship between food insecurity and childhood obesity is likely mediated by parental protection from the impact of food insecurity. Additionally, children are eligible for several federally funded meal programs, namely the School Lunch Program and School Breakfast Program, which work to ensure that children have access to nutritionally sound meals at school.

## Strategies

Although food insecurity and obesity prevention are complex issues influenced by multiple factors, communities can take steps to address both concerns by implementing strategies to increase access to healthy foods. Policies and incentives can be used to create a community environment where healthy foods, particularly fresh produce, are more readily available.

Promising approaches include:

- Increasing the availability of healthier foods by establishing new farmer's markets, improving produce selection at convenience stores/markets, and increasing the number of grocery stores in underserved neighborhoods
- Realigning bus routes or providing other transportation to ensure residents can easily access grocery stores with large produce sections
- Modifying policies and zoning regulations to support the development of community gardens



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- Providing incentives to food retailers to locate in underserved neighborhoods through tax benefits, supportive zoning policies, and technical assistance regarding sales of fresh produce
- Improving the nutritional content of meals served to children through enhanced school lunch policies and meal guidelines for afterschool programs

Choosing the right strategy requires local stakeholders to understand the needs of the community and work with local residents, businesses, and policymakers to determine feasible, sustainable options. While there is no simple solution to reducing obesity and food insecurity, initiatives to increase the accessibility, availability, and affordability of healthy food are being implemented in communities throughout Minnesota and across the nation. Ongoing research is needed to better understand which strategies can have the greatest impact on curbing obesity and reducing food insecurity.

## Resources

The Centers for Disease Control and Prevention: <http://www.cdc.gov/obesity/index.html>

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