

Most often, an assessment of the American diet leads to the conclusion that the problem is excess: too much sugar, too much fat, too much snacking, and overly large portion sizes. And these factors all present very real problems that ultimately lead to poor health. Seemingly less obvious is the opposite problem – that of scarcity – and the resulting effects. But for the millions of people in the U.S. who experience hunger, the negative consequences are very real and just as pernicious.

Food Insecurity

The U.S. Department of Agriculture (USDA) uses the terminology “food security” to describe the access individuals and families have to an adequate supply of healthy food. Households that, at times during the year, are uncertain of having, or unable to acquire, enough food to meet the needs of all members because they had insufficient money or other resources for food are described as being food insecure.¹

According to Feeding America, whose study of food insecurity drills down to the county level, in 2012 almost 16 percent of U.S. households – nearly 49 million people – experienced food insecurity. Of those, nearly 16 million were children. Ohio fared a bit worse, with more than 17 percent of households experiencing food insecurity, meaning nearly 2 million Ohioans, more than 671,000 of which were children, had difficulty accessing adequate food. In the six counties comprising The Center for Health Affairs’ membership area, more than 356,000 people – including more than 112,000 children – were food insecure in 2012.²

Food Insecurity in 2012³

	Percentage of Households	Total Number of People	Percentage of Children	Number of Children
U.S.	15.9%	48,966,000	21.6%	15,898,000
Ohio	17.2%	1,982,170	25.2%	671,090
Northeast Ohio Counties				
Ashtabula	16.1%	16,300	26.7%	6,360
Cuyahoga	18.7%	238,530	22.4%	64,800
Geauga	10.6%	9,910	20.2%	4,840
Lake	12.4%	28,570	21.1%	10,690
Lorain	14.7%	44,180	24.0%	17,230
Medina	11.1%	19,050	19.5%	8,480
Total in Northeast Ohio		356,540		112,400

Populations Most Affected

As with many conditions linked to economic status and income, food insecurity is not evenly distributed across the population, with some groups disproportionately affected. According to the USDA, which regularly reports on the topic, rates of food insecurity were substantially higher than the national average for households with incomes near or below the federal poverty line, households with children headed by single women or single men, and Black and Hispanic households.⁴

Disparities in Food Insecurity in 2012⁵

Population	Food Insecure
All households ⁶	14.5%
Female head, no spouse	35.4%
Male head, no spouse	23.6%
White, non-Hispanic	11.2%
Black, non-Hispanic	24.6%



The Link Between Hunger & Health

As one might expect, the experience of hunger, particularly if prolonged or repeated, has negative health consequences. Food insecurity has been found to be associated with a range of chronic illnesses, including hypertension, hyperlipidemia (elevated fat levels in the blood), and various other cardiovascular risk factors. It has also been associated with an increased risk in developing diabetes in adults.⁷ In addition, those suffering from hunger are 1.66 times more likely to suffer an iron deficiency, are 2.95 times more likely to have activity-limiting health impairments, have 1.3 times more hospitalizations and longer patient stays, and are 2.9 times more likely to have poorer overall health status.⁸

Hunger is also strongly associated with mental health conditions. Those experiencing hunger are 2 times more likely to suffer from anxiety or irritability, 3.5 times more likely to have depression, and 5 times more likely to experience suicidal thoughts or behaviors.⁹

Children are particularly vulnerable to the effects of food insecurity and hunger and are at risk of experiencing poor health and stunted development from the earliest stages of life. Pregnant women who endure food insecurity are more likely to experience birth complications than women who are food secure. Inadequate access to food during pregnancy has been shown to increase the risk for low birth weight in babies. Food insecurity has also been linked with delayed development, poorer attachment, and learning difficulties in the first two years of life. Children who are food insecure may also be at higher risk for chronic health conditions such as anemia and asthma and may also have more frequent instances of oral health problems.¹⁰

For children, food insecurity can also have negative consequences when it comes to learning. Children from food-insecure households are more likely than their food-secure peers to experience higher rates of various forms of educational problems. They are at least 50 percent more likely to miss days of school, nearly twice as likely to be suspended, and almost 50 percent more likely to have to repeat a grade. Because food insecurity impedes learning, it can have life-long consequences.¹¹

Food Insecurity & Obesity

Paradoxically, food insecurity has also been linked with obesity, at least among some segments of the population. A review of the literature by the Robert Wood Johnson Foundation concluded that while a few studies have found that children living in food-insecure households are more likely to be obese than children who are food secure, most studies have found no evidence of a direct relationship. However, women who experience food insecurity are more likely to be obese compared with food-secure women, yet it is unclear whether food insecurity promotes increased weight gain over time. Research among men has not consistently shown a relationship between food insecurity and weight status.¹²

Factors that can lead to obesity among the food insecure are many. They include a lack of full-service grocery stores and farmers markets and a prevalence of fast-food restaurants and convenience stores in poorer neighborhoods as well as the fact that healthy food is often more expensive than processed energy-dense and nutritionally deficient foods. The comparative lack of safe and appealing resources for physical activity, like parks and playgrounds, in lower-income neighborhoods also plays a role, as do the high stress levels that accompany poverty and the resulting effects on health.¹³

Also a factor is the cycle of food deprivation and overeating, wherein those who eat less or skip meals to stretch food budgets may overeat when food does become available. This results in chronic ups and downs in food intake that can contribute to weight gain and metabolic changes that promote fat storage. This cycle is especially a problem for low-income parents, particularly mothers, who often restrict their food intake and sacrifice their own nutrition in order to protect their children from hunger.¹⁴

Implications for Hospitals

The Center for American Progress estimates that because those who are hungry are also sicker, the healthcare needs and associated indirect costs of hunger were \$130.5 billion greater in 2010 than they would have been if these individuals had not suffered hunger or food insecurity. This includes \$16.1 billion associated with hospitalizations.¹⁵

Another study conducted at an urban, Level I trauma center in Minneapolis, Minnesota found food insecurity and hunger to be a significant issue for patients visiting that facility's emergency department (ED), with the hospital's ED patients disproportionately affected by hunger compared to the overall population of the state. According to that study, more than 38 percent of the hospital's ED patients in 2009 reported having gone without food at least once in the last year. Nearly 9 percent of patients reported missing a meal two or three times per week and another 10 percent reported doing so daily.¹⁶ This is compared to the statewide rate of food insecurity in Minnesota that year of 11.2 percent, according to Feeding America.¹⁷

People who have trouble buying enough food to feed their families naturally also tend to have trouble affording adequate medical care. According to the Minneapolis hospital study, in 2009, 22.6 percent of ED patients reported having had to choose between food and medicine.¹⁸ Another study found that food insecurity in children was independently associated with no usual source of care, postponed medical care, postponed medications, and not receiving the recommended well-child care visits.¹⁹

Federal Assistance

The federal government operates several programs that together provide support to those experiencing food insecurity. The most well-known among these include the National School Lunch Program, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and the Supplemental Nutrition Assistance Program (SNAP), which is the largest. In January 2013, 47.8 million people participated in SNAP, 30.7 million children participated each day in the National School Lunch Program, and 8.8 million people participated in WIC.²⁰

Through SNAP, formerly known as the Food Stamp Program, low-income households receive financial assistance for purchasing food. The SNAP benefit formula scales the level of assistance according to need: very poor households receive larger benefits than households closer to the poverty line. The benefit formula assumes that families will spend 30 percent of their net income for food; SNAP makes up the difference between that 30 percent contribution and the cost of the Thrifty Food Plan, a low-cost but nutritionally adequate diet established by the USDA.

To qualify for SNAP, federal rules require a household's gross monthly income to be at or below 130 percent of the federal poverty line, its net income to be at or below the poverty line, and its assets to fall below certain limits.²¹ In federal fiscal year 2013, the average SNAP recipient received about \$133 a month (or about \$4.45 a day) in benefits.²² However, a reduction in benefits went into effect near the beginning of the 2014 fiscal year.

The American Recovery and Investment Act provided a temporary boost to the program in 2009 in an effort to help the large number of households that were experiencing economic difficulties during the recession. That funding increase was not renewed by Congress and as a result expired Nov. 1, 2013. That means \$5 billion less in funding for the program in 2014 and a total of \$11 billion less over the fiscal year 2014 to 2016 period. Under this reduction in benefit, a family of three will be receiving \$29 less per month, the equivalent of 16 meals. Without the Recovery Act's boost, SNAP benefits in fiscal year 2014 will average less than \$1.40 per person per meal.²³

Conclusion

The effects of hunger on the nation are substantial and costly. In addition to the poor effects on health and the resulting avoidable healthcare costs, hunger decreases economic productivity and increases the cost of public education. The Center for American Progress estimates that these costs, combined charitable monies spent on feeding families, totaled \$167.5 billion in 2010. And this did not include the cost of SNAP and other federal nutrition programs.²⁴ Considering this, job creation and nutrition assistance initiatives that help American families put healthy food on their tables are worthwhile investments that make sense in broad economic terms, but also mean a tremendous difference for the millions of men, women and children who experience hunger.

Endnotes

¹United States Department of Agriculture. "Food Security in the U.S." <http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/key-statistics-graphics.aspx#U2Jk2IFdVS>. Accessed May 22, 2014.

²Feeding America. "Map the Meal Gap." <http://feedingamerica.org/hunger-in-america/hunger-studies/map-the-meal-gap.aspx>. Accessed May 22, 2014.

³IBID.

⁴Coleman-Jensen, Alisha, et al. United States Department of Agriculture. "Household Food Security in the United States in 2012." September 2013. <http://www.ers.usda.gov/publications/err-economic-research-report/err155.aspx>

⁵IBID.

⁶The USDA and Feeding America use slightly different methodologies for determining the number of food insecure households in the U.S., resulting in slight differences in their rates.

⁷Feeding America. "Physical and Mental Health." <http://feedingamerica.org/hunger-in-america/impact-of-hunger/physical-and-mental-health.aspx>. Accessed May 22, 2014.

⁸Center for American Progress. "Hunger in America: Suffering We Are All Paying For." October 2011. http://www.americanprogress.org/issues/2011/10/pdf/hunger_paper.pdf

⁹IBID.

¹⁰Feeding America. "Child Development." <http://feedingamerica.org/hunger-in-america/impact-of-hunger/child-development.aspx>. Accessed May 22, 2014.

¹¹Center for American Progress. "Hunger in America."

¹²Robert Wood Johnson Foundation. "Food Insecurity and Risk for Obesity Among Children and Families: Is There a Relationship?" April 2010. <http://www.rwjf.org/content/dam/farm/reports/reports/2010/rwjf58903>

¹³Food Research Action Center. "Food Insecurity and Obesity: Understanding the Connections." Spring 2011. http://frac.org/pdf/frac_brief_understanding_the_connections.pdf

¹⁴IBID.

¹⁵Center for American Progress. "Hunger in America."

¹⁶Miner, J, et al. Hunger and Food Insecurity Among Patients in an Urban Emergency Department. *Western Journal of Emergency Medicine*. 2013;14(3):253-262. <http://www.medscape.com/viewarticle/726275>

¹⁷Feeding America. "Map the Meal Gap."

¹⁸Miner, J, et al. Hunger and Food Insecurity Among Patients in an Urban Emergency Department.

¹⁹Ma, Christine T., et al. Associations Between Housing Instability and Food Insecurity With Health Care Access in Low-Income Children. *American Pediatrics*. Volume 8, Issue 1, pp 50-57. January 2008. [http://www.ambulatorypediatrics.org/article/S1530-1567\(07\)00155-4/abstract](http://www.ambulatorypediatrics.org/article/S1530-1567(07)00155-4/abstract)

²⁰United States Department of Agriculture. "Nutrition Assistance Programs Report." January 2014. <http://www.fns.usda.gov/sites/default/files/January%20Performance%202014%20data.pdf>

²¹Center on Budget and Policy Priorities. "Policy Basics: Introduction to SNAP." March 19, 2014. <http://www.cbpp.org/files/policybasics-foodstamps.pdf>

²²IBID.

²³Center on Budget and Policy Priorities. "November 1 SNAP Cuts Will Affect Millions of Children, Seniors, and People With Disabilities." Oct. 23, 2013. <http://www.cbpp.org/files/10-24-13fa.pdf>

²⁴Center for American Progress. "Hunger in America."