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United States, Malnutrition

## **Malnutrition in the United States**

The United States has been hailed as a developed, wealthy nation whose inhabitants can enjoy a higher standard of living, including having access to food and sustenance. However, Americans, for many years, have experienced a paradox: millions are food insecure while simultaneously, over a third of Americans are overweight. Suffering from diet -related illnesses and obesity, many Americans are wrought with malnutrition, despite the average American consuming over 3600 calories a day (Gould 2017). With both malnutrition and obesity related diseases disproportionately affecting low income communities, many factors perpetuate this problem. It may seem like a juxtapositioned jigsaw puzzle, but making changes to government policies, American food culture, and promoting local initiatives can help piece together a possible solution.

Malnutrition is the lack of proper nutrition and deficiency in essential nutrients that is caused by not having enough to eat, or not eating the right things. There are three types of malnutrition: undernutrition, overweight, and micronutrient-related malnutrition. Undernutrition means that a person does not consume enough food or nutrients for proper growth and health (Streit 2018). Although there are some cases of undernutrition malnutrition in the United States, it is usually more common in third world and underdeveloped countries. Most malnourished Americans suffer from overweight malnutrition and micronutrient related malnutrition, meaning that they eat enough calories but not enough essential vitamins and minerals (Streit 2018). A study in 2005 demonstrates the prevalence of malnutrition in America - with 53 percent of households housing both underweight and overweight persons (Bowers, Francis, and Kraschnewski 2018).

The effects of malnutrition can lead to harmful and often deadly conditions. Overweight and obese children have a higher chance of developing heart disease, and are more than four times likely to develop type two diabetes (Ball and McCargar 2003). Other research has shown that adolescents that suffer from malnutrition have higher blood pressure which can lead to atherosclerosis (hardening of the arteries) and heart complications later in life (Streit 2018; Mayo 2018). Overconsumption of sodium can also increase blood pressure, risk of stroke, heart failure, osteoporosis, stomach cancer, and kidney disease (Cox 2013), and with the popularity of sodium in American cuisine, it comes as no surprise that so many Americans suffer from said health conditions. In addition, malnutrition and the effects of malnutrition affects lower income Americans disproportionately. *Prevalence of Obesity Among Adults, by Household Income and Education*, a study published by the CDC, reported that obesity was more prevalent in women in lower income groups. 45.2 percent of women from the lowest income group, and 42.9

percent of women from the middle income group are obese in comparison to 29.7 percent of women of the highest income group, demonstrating a disparity with the presence of obesity and malnutrition in different income groups.

The prevalence of malnutrition in the United States is caused by various factors, including food insecurity. The US Department of Agriculture defines a food insecure household as one that is uncertain or unable to acquire, at some time during the year, enough food to meet all of the needs of the family, due to a lack of resources or money. The USDA reports that 11 percent of Americans, or 14.3 million people, experienced low or very low food security at some point in 2018. Low food security households are food insecure to the extent that normal eating habits are disrupted many times throughout the year by a lack of household resources (USDA 2019). A study done by King's College London researched the ramifications of the disrupted eating pattern of skipping breakfast, and concluded that children who skipped the meal are more susceptible to iron, calcium and iodine deficiencies. The study reported that 31.5 percent of those who skipped breakfast did not meet even the lower recommended nutrient intake (LRNI) of iron, and 21.5 percent did not meet lower levels for iodine. Although this research was done in the UK, the implications of this study are very applicable to food insecure Americans. Since skipping breakfast can inflict such harm on the human body, skipping other essential meals would lower nutrition levels even more. Millions of Americans living in food insecure households could suffer from malnutrition and various nutrient deficiencies, and it may lead to the development of serious health complications.

Another factor that may explain the prevalence of malnutrition in America is not having access to healthy foods. The USDA reported in a 2000 census that about 23.5 million people in the US live in low-income neighborhoods that are more than a mile from a supermarket, and 90 percent of food stamp participants live 1.8 miles from the nearest supermarket and travel 4.9 miles to buy groceries. Although people could drive to the nearest supermarket with their car, low-income Americans may not have access to transportation. According to research gathered by the USDA Economic Research Service, 2.3 million US households are located more than a mile from a supermarket and do not have access to a vehicle. This means that a significant group of people have no way of obtaining food at a supermarket, and this problem would likely continue for the time being. Zoning rules, high rent and inadequate space in low income neighborhoods discourage supermarkets from opening their businesses there (Ploeg 2010). However, some neighborhoods without supermarkets are serviced by small grocery or convenience stores, where a limited variety of vegetables and groceries are sold. Analysis by the ERS of prices of groceries in grocery, convenience and supercenter stores, concluded that convenience store prices were higher than that of grocery stores. Shoppers at a convenience store would have to pay 5 percent higher prices for milk, 35 percent higher for cereal, and 10 percent higher for bread, showing why it is much harder for low income Americans to purchase nutritious foods.

Just having access to food doesn't mean that people will eat healthy and consume enough of the right nutrients. Food swamps are areas with a high concentration of fast food restaurants and are associated with neighborhoods with higher rates of obesity and limited transportation (Cooksey-Stowers, Schwartz, and Brownell 2017). Research mapping fast food restaurants in New Orleans, Louisiana also show that the prevalence of fast food restaurants differ between higher income, predominantly white communities and low income, predominantly black communities. Predominantly black neighborhoods have an average of 2.4 fast-food restaurants per square mile in comparison to the 1.5 restaurants per square mile in white neighborhoods (Block, Scribner, DeSalvo 2004). The fact that black neighborhoods are surrounded by unhealthy food, and low income neighborhoods have limited access to healthy food, reinforces a cycle that festers obesity and malnutrition in low income minority communities.

The American food culture is unhealthy and has been unhealthy for some time, contributing to generations of malnourished Americans consuming unhealthy foods and foods in unhealthy ways. Traditional American foods, such as hot dogs, apple pie, and hamburgers are all heavily processed, calorie dense, and nutrient scarce. For decades, advertisements for fast food restaurants tout the great savings and convenience that they offer, and misconceptualized Americans into believing that unhealthy food is more convenient and cheaper than healthy foods. Although the aspect of convenience is true for low income Americans, fast food is decidedly not cheaper than healthy food. When factoring the cost per weight of unhealthy food versus the cost per calorie in an infamous 2013 study, Americans are not paying less to satiate their hunger with fast and junk food (Sodoma 2018). When Americans do try to be healthy, however, they do it in the wrong ways. In the 1990s, Americans consumed in great quantities low fat and fat free products (in which animal fats were exchanged with hydrogenated oils, and sugars) in hopes to lose weight (PublicHealth). The added sugar and trans fat in the hydrogenated oils increased cholesterol levels, risk of heart disease, stroke and diabetes instead of making people healthier. American food fads have been present in our culture for a long time, and continue to misinform Americans to this day. Due to the years of food misconceptions and mass consumption of unhealthy junk foods, American malnutrition is a norm, and has been the norm in this country for a long time.

To solve this problem, government policies should encourage and educate the American public to purchase healthy foods. The USDA Economic Research Service states that zoning modifications, grants and loans for new store development, and nutritional guidance would not make a difference unless Americans change their food purchasing behavior and have time and knowledge to prepare healthier foods. This means that grants and zoning modifications should be implemented with policies that educate the public and promote healthier choices. For example, the Healthy Bodegas and Health Bucks program incentivize convenience stores to increase offerings of healthy foods and SNAP participants to purchase groceries at farmers markets (Ploeg 2010). State and local governments can campaign against junk food like they did against

smoking - with public service announcements and educational ads, and inform the American public about malnutrition and obesity.

In addition, American food culture must be profoundly changed to encourage everyone to be healthy. The best way to do this is through teaching and encouraging American youths to make more knowledgeable and health-conscious decisions. American schools can learn from Japan, the country with the lowest incidence of childhood obesity, and their school lunch system. In Japanese schools, nutrition is embedded in their education, and lunch is served in the classroom so students know that they are eating and why (Study International 2019). There is a daily broadcast to explain the nutritional values of the school lunch of the day. The school lunch is mandatory (and subsidized for those who can't afford it), and the menu is created by nutritionists who know exactly what children need to eat (Study International 2019). America can take a small step in the right direction by having nutritionists approve the school lunches and establish food and nutrition education starting from elementary school.

Everyday citizens can contribute to solve the problem too. They can volunteer at food banks, soup kitchens and initiate food drives. Local food banks and food drives can change their policy on accepting junk food donations, like the Capital Area Food Bank of Washington, D.C. where they decided in 2016 to stop accepting candy, soda, and sheet cakes (Move For Hunger 2016). If local citizens are gardeners or farmers, they could donate their surpluses to food banks, and regular citizens could donate money instead of junk food and unhealthy canned and frozen meals. People who are currently food insecure, malnourished, and obese should take steps to educate themselves and make more health conscious decisions.

Ultimately, America is a country with its flaws and strengths. Millions of its citizens are plagued with malnutrition and obesity, and experience an unhealthy relationship with food - which causes deficiencies in various nutrients and health problems. The prevalence of obesity and malnutrition in the United States differs from socioeconomic statuses, and are exacerbated by poverty, and living in food deserts or food swamps affect the type of food and the amount of food someone can obtain. The American government, food culture and local citizens could all be modified to alleviate the problems of American food insecurity, malnutrition and obesity, through different policy changes and educational initiatives. By prioritizing the health of its inhabitants, Americans can promote a healthier culture and society.

#### Works Cited:

Access to Affordable, Nutritious Food Is Limited in "Food Deserts". (2017, December 22).

Retrieved February 3, 2020,  
from

<https://www.ers.usda.gov/amber-waves/2010/march/access-to-affordable-nutritious-food-is-limited-in-food-deserts/#box2>

Adult Obesity Facts. (2018, August 13). Retrieved February 3, 2020, from

<https://www.cdc.gov/obesity/data/adult.html>

Ball, G. D., & Mccargar, L. J. (2003). Childhood Obesity in Canada: A Review of Prevalence

Estimates and Risk Factors for Cardiovascular Diseases and Type 2 Diabetes. *Canadian*

*Journal of Applied Physiology*, 28(1), 117–140. doi: 10.1139/h03-010

Block, J. P., Scribner, R. A., & Desalvo, K. B. (2004). Fast food, race/ethnicity, and income.

*American Journal of Preventive Medicine*, 27(3), 211–217. doi:

10.1016/j.amepre.2004.06.007

Bowers, K. S., Francis, E., & Kraschnewski, J. L. (2018). The dual burden of malnutrition in

the United States and the role of non-profit organizations. *Preventive Medicine Reports*,

12, 294–297. doi:

10.1016/j.pmedr.2018.10.002

Cooksey-Stowers, K., Schwartz, M. B., & Brownell, K. D. (2017, November 14). Food

Swamps Predict Obesity Rates Better Than Food Deserts in the United States. Retrieved

February 3, 2020, from

<https://www.ncbi.nlm.nih.gov/pubmed/29135909>

Coulthard, J. D., Palla, L., & Pot, G. K. (2017). Breakfast consumption and nutrient intakes in

4–18-year-olds: UK National Diet and Nutrition Survey Rolling Programme (2008–2012).

*British Journal of Nutrition*, 118(4), 280–290. doi:

10.1017/s0007114517001714

Food Banks Reject Junk Food Donations. (2016, September 9). Retrieved February 3, 2020,

from

<https://www.moveforhunger.org/food-banks-reject-junk-food-donations>

Gould, S. (2017, May 10). 6 charts that show how much more Americans eat than they used

to. Retrieved February 3, 2020,

from

<https://www.businessinsider.com/daily-calories-americans-eat-increase-2016-07>

High blood pressure (hypertension). (2018, May 12). Retrieved February 3, 2020,

from

<https://www.mayoclinic.org/diseases-conditions/high-blood-pressure/symptoms-causes/sy>

c-2037341

0

Interactive Charts and Highlights. (2019, September 9). Retrieved February 3, 2020, from

<https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/interactive-charts-and-highlights/>

Ploeg, M. V. (2010, March 1). Access to Affordable, Nutritious Food Is Limited in "Food

Deserts". Retrieved February 3, 2020, from  
<https://www.ers.usda.gov/amber-waves/2010/march/access-to-affordable-nutritious-food-is-limited-in-food-deserts/#box2>

Sodoma, B. (2018, August 20). Is Fast Food Really Cheaper Than Healthy Eating? Retrieved

February 3, 2020, from  
<https://www.forbes.com/sites/capitalone/2018/08/20/is-fast-food-really-cheaper-than-healthy-eating/#3d955fe0410a>

Staff, S. I. (2019, November 5). School lunches in Japan: What other schools can learn from

them. Retrieved February 3, 2020,  
from  
<https://www.studyinternational.com/news/schools-japans-healthy-school-lunches/>

Streit, L. (2018, October 10). Malnutrition: Definition, Symptoms and Treatment. Retrieved

February 3, 2020, from  
<https://www.healthline.com/nutrition/malnutrition#bottom-line>

Why Is Too Much Salt Bad for You? (2013, May 30). Retrieved February 3, 2020, from

<https://www.livescience.com/36256-salt-bad-health.html>

Writers, S. (2020, January 31). Why are Americans Obese? Retrieved February 3, 2020, from

<https://www.publichealth.org/public-awareness/obesity/>