

America's Supersized Insecurity: Why are Americans getting bigger, yet hungrier?

Deliberation Issue Guide

March 2, 2020

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Krause Learning Center

221 Chambers Building

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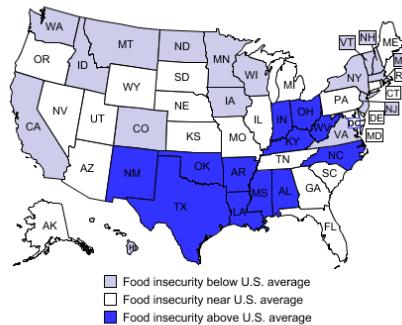
INTRODUCTION

What is the Problem?

America's GDP per capita places it among one of the world's wealthiest countries per person ("GDP per Capita"). This status has been upheld for years, and it is easy to believe that all Americans have access to necessities—but the wealthiest people are often not inclined to share their wealth. The "average" citizen has little issue being able to afford nutritious food on a day-to-day basis, so the "average" person never has to worry about where their next meal will come from. However, people fall on both sides of this average, meaning that while some Americans have no problem accessing nutritious food, others make less money than is necessary to provide food for themselves and their family. So, where does that leave the citizens who fall below the curve?

For decades, people below this curve were ignored and marginalized. In 1968, however, the nation was shocked by CBS' documentary entitled *Hunger in America*, which included footage of the hungriest and poorest Americans suffering from starvation and related diseases ("CBS Reports"). It was eye-opening to watch children suffer from hunger and malnutrition during a time when the nation was seemingly thriving. Before this, there was a sense of ignorance, a timid reaction limited by the elusive definitions of hunger and food insecurity. Since hunger is a physical state, it can be experienced on a scale from mild to extreme ("What Is Food"). Some of the wealthiest people still experience hunger for minutes at a time, but it becomes dangerous when it is long-lasting and unfixable. Thus, food insecurity was defined as a lack of reliable access to healthy and affordable food ("What Is Food"). This is a problem that our nation seeks to address, however, is difficult to address on the national scale.

Prevalence of food insecurity, average 2016-18



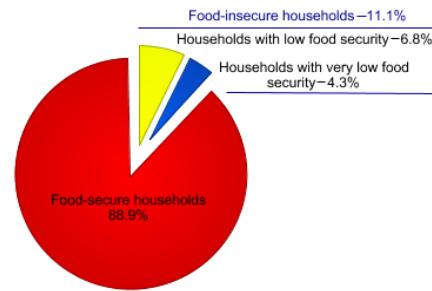
Source: USDA, Economic Research Service, using data from the December 2016, 2017, and 2018 Current Population Survey Food Security Supplements.

What is the Current Situation?

In 2018, the United States Department of Agriculture (USDA) reported that almost 89% of American households are "food-secure", meaning that these households show little to no indication of having difficulties accessing or affording food (Morrison). The remaining portion of the population falls under the "food-insecure" label, one that is then further divided into "low" and "very low" food insecurity (Morrison).

According to the USDA, low food secure homes generally do not face a decline in food consumption, but the variety and quality of their diet is noticeably and impactfully reduced (Morrison). Houses with very low food security, which make up over 4% of the American population (well over 5 million houses), face disrupted eating patterns and reduced food intake on a regular basis (Morrison). As food prices continue to rise, these families are forced to face the growing challenge of escaping a food-insecure life. However, this issue is even more complex than it appears; there is a strong connection between obesity and food insecurity, which is most prevalent in low-income areas. This relationship may be considered a paradox. How can low-income citizens be facing the concurrent issues of obesity and hunger? Obesity is a complex disease that can be influenced by multiple socioeconomic factors, but evidence shows a direct correlation with the availability, or lack thereof, of nutritious foods. A 2009 study reports that "Food insecure adults had 32% increased odds of being obese compared to food secure adults" (Pan, et al. 1). Without proper nourishment, Americans are excluded from engaging in a healthy lifestyle and are forced into a perpetual cycle of physical and mental vulnerability. How can our society break this unhealthy cycle and lead these economically marginalized people back onto a path of nutrition and wellness?

U.S. households by food security status, 2018



Source: USDA, Economic Research Service, using data from the December 2018 Current Population Survey Food Security Supplement.

What Will Be Discussed?

The dilemma of food insecurity is not easily solved. To address this issue, certain changes must be made. Money is needed to increase subsidies and in turn make nutritious food a more affordable option. There are also logistical issues with attempting to get healthier food in areas that have little access to it. Often, in remote or rural areas, access is limited simply because companies that sell the nutritious food have little presence in the area. "Healthy" foods have a much shorter shelf life than heavily processed foods. Educating the public on leading healthy lifestyles is also a necessity. Proper education can teach new generations to prioritize physical and mental health. These are all suitable approaches to managing the issue at hand.

Approach 1: Affordability

Walking through a grocery store, it is often difficult to make the right decisions about what types of food to buy. Food comes in different shapes, sizes, and most importantly, prices. According to a research study from Harvard School of Public Health, a healthy diet costs on average \$1.50 more per day than an unhealthy one (“Prescribing Healthy Foods”). Pair this with junk food being extremely appetizing, and it’s not surprising that Americans choose the tastier and cheaper option over the healthier option. Furthermore, in lower-economic-status neighborhoods, grocery stores often don’t offer much in terms of fresh produce; the stores are instead stacked with cheaper and unhealthier foods that cater to a financially limited family. There are multiple potential approaches to tackle this problem, some of which are detailed below:

- A junk food tax will look at implementing taxes on foods containing high amounts of sugar and salts, in hopes of lowering consumer demand.
- Banning large sugary beverages in general would force consumers to stop drinking unhealthy sodas in large doses.
- Increasing subsidies on fruits and vegetables will lower prices of such foods, likely prompting consumers to buy more.

Potential Strategies Regarding Affordability of Healthy Foods

Implement a junk food tax

One reason Americans consume large quantities of junk food is because junk food is so cheap. One solution is to raise the price of junk food. The economic theory behind it is simple. If price of the supply increases, the demand for that item decreases. Hungary and Mexico have implemented a junk food tax, and they seemed to work.

- In 2011, Hungary implemented a four-cent tax on foods and drinks containing high amounts of sugar and salt. This included sodas, candy, jams, and snacks filled with salt (Biro 1).
- In 2013, Mexico implemented an eight percent junk food tax, hitting all the “non-essentials”, such as sugary drinks, salty snacks, all kinds of high calorie foods (“Mexico's Household Consumption”).

Mexico is one of the leading countries in terms of obesity, accounting for nearly 33 percent in children and 70 percent in adults (“Mexico's Household Consumption”). In a study done through a collaboration between Mexico’s National Institute of Public Health (INSP) and the University of North Carolina at Chapel Hill, researchers found that the average purchase of taxed foods one year after a tax implementation declined by 25 grams per person (“Mexico's Household Consumption”). This shows a 5.1% reduction, based on expected pre-tax trends (“Mexico's Household Consumption”). Interestingly, low socio-economic status households had a greater response to the tax. In poorer families, there was a larger decline in junk food purchases. Researcher Carolina Batis

states that the findings “suggest that the junk food tax may help improve the diets of poor households the most” (“Mexico's Household Consumption”).

These results follow the 2011 junk food tax implemented in Hungary. In a research paper, researcher Aniko Biro discussed whether the tax truly made Hungarians eat healthier. Biro discovered that post tax introduction, processed food consumption went down by 3.4%, and unprocessed food consumption went up by 1.1% (Biro 1). These numbers are small, but they do show improvement. However, keep in mind that the values refer to processed and unprocessed food, rather than food solely impacted by the tax.

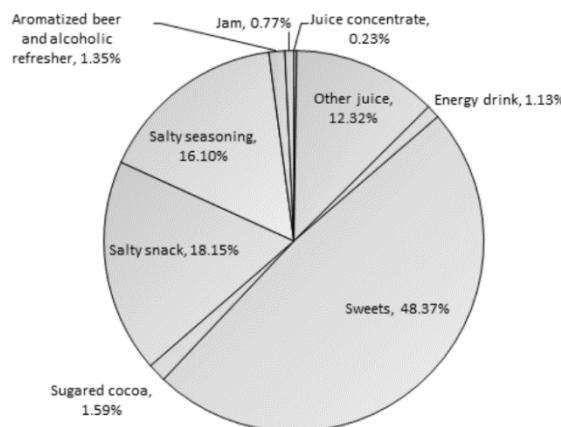


Figure 3. Biro. Distribution of tax revenue by product categories.

Big Soda Bans in America

Previous New York City mayor Michael Bloomberg proposed a ban on sugary beverages which would prohibit the sale of sodas bigger than 16 ounces in 2013, but the proposal was ultimately rejected by court (Joseph). The ban was Bloomberg’s attempt at combating obesity, and in turn damaged beverage companies. Yet, there were many who were opposed to Bloomberg’s proposed ban. According to judge Milton A. Tingling Jr, the ban was “arbitrary and capricious” (Joseph). A four-judge panel agreed unanimously that the appointed health board had gone overboard in approving the law and found that the board stepped beyond its power to regular public health.

A similar thing happened in California, where in 2019 lawmakers proposed a soda tax and warning labels. However, there were those that stood in opposition and ultimately shelved the bill. The American Beverage Association, understandably a chief opponent of the bill, argued that food and beverages should be affordable for everyone (McGreevey). Others debated that education would have a bigger impact than consumption than simply capping drink sizes. Theater owners stated that larger drinks are economically feasible for families going to the movies.

There are some places in America that have successfully implemented a soda tax, but it does not work as well as one might hope. In Philadelphia, a soda tax comes out to 1.5 cents per ounce, but it did not lower people’s health problems (Jacobs). Instead, Philadelphians just avoided the problem and drove outside the city to buy sodas where the tax had no effect. Of course, this could be combated similarly to how Mexico and Hungary attacked their health issues: by having it affect a much larger area.

Lowering Costs of Healthy Foods: Fruit and Vegetable Subsidies

Many Americans who have a low income also live in neighborhoods that are considered “food deserts”, which lack access to affordable and healthy food. They have fast food restaurants and convenience stores, which contain affordable, cheap options that cater to those who can’t afford to buy expensive foods all the time. Economic incentives alongside tougher access to healthy foods means that often, low-income diets are filled with unhealthy eating, leading to unhealthy outcomes. Over the past years, the prices of fruits and vegetables have increased faster than their less healthy counterparts, which reduces consumer incentive to purchase healthy foods.

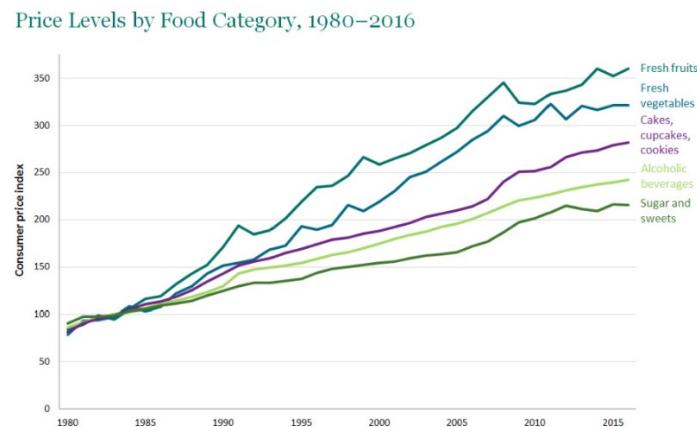


Figure 4. Brookings. Price Levels by Food Category, 1980-2016.

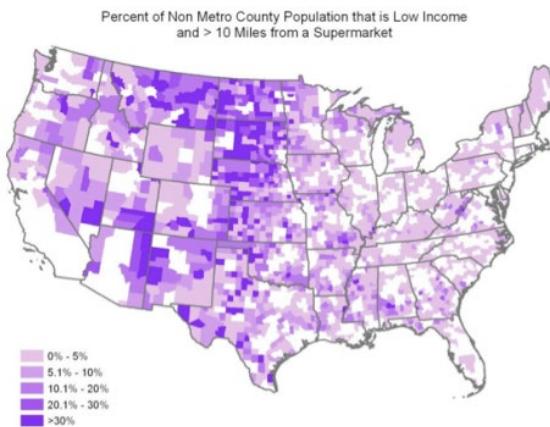


Figure 5. White House Task Force on Childhood Obesity. Food Deserts in Urban and Rural America.

People are shamed when receiving such aid, which can lead to them not using their SNAP benefits or hiding their eligibility.

Another way to reduce costs of healthy food is to help the farmers who grow it. Currently, farmers receive federal funding through multiple programs, though the support goes towards five main commodities: soybeans, corn, rice, wheat, and cotton. Fruit and vegetable farmers are left behind, as only a few subsidies support them. In fact, between 2008 and 2012, only 0.45% of subsidies went towards fruits and vegetables, which is surprising because according to the United States Department of Agriculture, 50% of our plates should be filled with the foods that are only aided by 0.45% of financial support (“A Comparison Between”).

One way to tackle this is using food stamps, which allow lower income families to get government assistance when buying food. Through the Supplemental Nutrition Assistance Program (SNAP), participants get an Electronic Benefits Transfer Card, which can be used like a debit card when buying food (Dwyer). Not everyone can access this resource though, only people who meet a certain financial limit. However, food stamps are not without their drawbacks, most notably the negative social stigma that comes with them.

There's a jarring mismatch between what's presented to us and what's being done about it by the government. Instead much of agriculture subsidies go to grain farmers, supporting crops that are used to feed animals that provide meat, milk, eggs, and are generally used in processed foods.



Figure 6. Narrative Content Group. A Comparison Between MyPlate Dietary Recommendations and the Money Allowed by USDA on Research.

Psychological Affordability

A study done by sociology researcher Priya Fielding-Singh at Stanford University found underlying psychological reasons behind low cost, unhealthy eating in poor families that go beyond financial barriers, though income certainly still plays a huge part (Fielding-Singh). Fielding-Singh interviewed many families about their eating habits, and one idea became clear: most parents wanted kids to eat nutritious food and believed in the importance of a healthy diet.

It's not surprising that many kids wanted to eat junk food. A bag of barbecue chips sounds much more appealing than a salad to children, so naturally they bombard their parents for requests regarding junk food. The financial and psychological factors, though, involve parents' response to those requests. In 96% of high-income families, parents reported that they decline such pleas. However, only 13% of low-income families declined (Fielding-Singh). This is because families with low income have a harder time indulging their children's requests. Family vacations, new accessories, or another pair of shoes are luxuries that simply cannot be afforded. However, since junk food is so cheap, it's easy for parents to afford such demands. By giving in and "affording" to give their kids junk food, parents received a sense of worth and competence.

On the contrary, wealthy parents saw denying junk food requests as adequate parenting. Since wealthy parents can afford the expensive luxuries that were out of reach for poor families, saying "no" in these types of families meant that the parents cared and were taking responsibility for their children. Junk food in wealthier families symbolized of a lack of care; as a result, the prevention of junk food became a symbol of love and care, but only in families who could afford luxuries other than food.

Approach 2: Accessibility

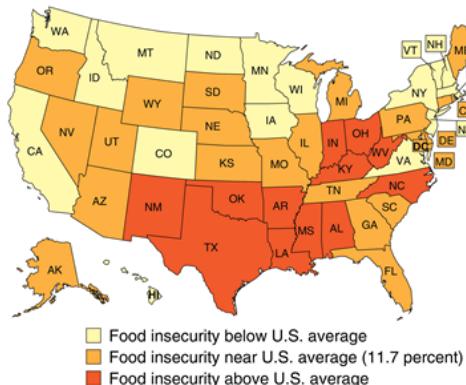
The U.S. Department of Agriculture (USDA) defines food insecurity as a lack of consistent access to enough food for an active, healthy life. Having physical access to sustaining, nutritious food is critical to the overall issue of American food insecurity. Moving forward, it is important for us to define physical food accessibility as the ability for a family or individual to tangibly acquire healthy, nutritious, and sustaining food regardless of their mode of transportation (foot, bike, car, bus, etc.). People that truly lack access to food cannot grow or purchase food that meets their dietary standards. A 2009 study by the U.S. Department of Agriculture found that about 23.5 million Americans do not have a market within one mile of their home (Treuhart, Karpyn), also considered as a food desert: “parts of the country lacking in adequate supply of fresh fruit, vegetables, and other healthy whole foods” (School of Social Work).

Additionally, there are about 418 rural areas in America that do not live within 10 miles of a supermarket (Treuhart, Karpyn). Poorer families in these areas struggle to find a way to get the food they need to stay healthy and typically have no transportation to help them get it.

Many of them are left to get food from cheap convenience stores and fast food restaurants which serve food that doesn't truly meet their dietary needs, and in fact, could result in having adverse effects on health.

At its simplest form, food is an essential component for human survival. It is necessary for all individuals, at all ages, of all genders, and all races. Thus, when we question the importance for all Americans to have access to food, the answer is simple: it is important. However, the answer can become complicated when we look at the current reality: all Americans don't have access, specifically physical access, to life-sustaining, nutritious food. Lacking access to food poses extreme risks to the American population such as health decline, decrease in American productivity, and increase in crime rates, which all have been recently reported by the Rural Health Information Hub (“Introduction to Food”). Regardless of these pressing issues and consequences, a clear plan of action to the lack of physical food access in America seems to be lacking. Sadly, America at its current state does not recognize the access to food as a basic human right. As the United States invests substantial effort into working for human rights, might it be time that food access is looked at as a right that all people should bear?

Prevalence of food insecurity, average 2016-18



Source: USDA, Economic Research Service using Current Population Survey Food Security Supplement data, U.S. Census Bureau.

Potential Strategies Regarding Accessibility of Nutritious Food

Identify the Communities

Minority individuals, senior citizens, along with demographic and geographic variables contribute to the population of those who are unable to have access to nutritious food. As previously mentioned, approximately 23.5 million people lack access to a supermarket within a mile of their home. According to the USDA, 26.1% of Hispanic households and 25.2% of black households experience food insecurity, which is rather high when compared to their white counterparts who come in around 10.8% that are experiencing food insecurity. In 2016, black and non-Hispanic households were found to be about two times more likely to be food-insecure than the national average (22.5% versus 12.3%, respectively). Among Hispanic households, the prevalence of food insecurity was 18.5% compared to the national average of 12.3% (Office of Disease Prevention and Health Promotion).

Disabled adults have also been found to be at a higher risk for food insecurity due to limited employment opportunities and health care-related expenses that reduce the income available to buy food. For example, a study found that in Albany, New York, 80% of nonwhite residents are unable to find low-fat milk or high-fiber bread in their neighborhoods (Treuhaft, Karpyn).

Studies also show that there is an increased rate of hunger among senior citizens. The rate of hunger among seniors (>60 years) has increased by 45% since 2001 (Feeding America). At the current rate, it is predicted that the number of food-insecure seniors may grow to more than 8 million by 2050. Households served by the Feeding America network that includes an adult of the age 50 or older are at an increased risk of having someone with a chronic health condition, including diabetes (41%) and high blood pressure (70%) — conditions that can be mitigated by healthy food options. (Feeding America).

It has also been found that households with children have almost twice the rate of food insecurity as households without children. Almost 14% of households experiencing food insecurity consist of a married couple with children, but 35.1% of households consist of a single woman with children, and 25.4% of households with a single father and children experience food insecurity. A study suggested that if a family has experienced food insecurity at any point during a child's toddler years, the child is 3.4 times more likely to be obese by the time they are 4.5 years old (Grief, Lee).

This is due to the common belief that lower income families tend to prefer supermarkets as they consistently have a cheaper, healthier, and more diverse selection of food, and they are used as the benchmark for the figures to the left because of this. However, the poor are often forced to shop at smaller stores such as 7-Eleven due to food deserts. Lack of adequate transportation services can explain much of this issue. A study found that approximately 2.3 million households live more than a mile from a supermarket, and an additional 3.4

million live between one-half to 1 mile from a supermarket and do not have access to a vehicle. It was also found that 11.5 million people (4.1%), reside in low income areas more than one mile from a supermarket (National Coalition for the Homeless). It is necessary that we learn how to identify these disadvantaged communities so we can place where action is needed.

Taking Action

Though there are many significant ways in which lack of food access can be combatted, it's imperative that there are people there to enforce certain changes and ideas. America needs to provide a common understanding of where the responsibility falls as changes are made to give people better food access.

Supermarkets' Responsibility

Perhaps it's private businesses and grocery stores that need to try to enter areas in which people struggle from food insecurity. This way, people would not need to travel miles just to get to a store that sells healthy food. Consequently, this might go against the very American ideals of individualism, market economy and capitalism that have been there for years. Many companies sell in places that they know they would be able to get the most profit. Going into more low-income areas might cost them large amounts of profit. Would it really be fair to have companies give up potential money they might make in other, more affluent areas?

Government

On the other hand, maybe it is the government and policy makers that need to step in to help. Today, about \$50 billion dollars is spent of nutrition assistance programs (Chilton, Rose). Could that price be increased to help struggling Americans, or perhaps might it be invested into things like transport so that people can find ways to get to stores? If not the federal government, should state and local governments be given the task of helping food deprived areas? This could make it easier to locate the places that need help and easier to propose more specialized and effective plans to help those places. Government mandated policies might be what helps ensure that people are given what they need to survive.

Community

Other than the government, the responsibility could fall on the communities that face these stated problems. In order to achieve great public health, it's important that there is an "interconnection among human beings... as well as individual and community participation in health promotion initiatives" (Azétsop, Joy). If people come together, then maybe they might be able to construct ways in which they can individually go against the lack of access to food. Of course, all three of these parties – grocery stores; federal, state, and local governments; and

individual communities – play a part in fixing food accessibility. But to move on, one of them might need to take most of the responsibility.

Global Impact

Along with a handful of other powerful nations, the U.S. acts as a global leader in economy, military, and global health. The U.S. also is a nation that has access to large amounts of resources. Thus, it can seem strange to envision that even as a first-world country with great power we are still struggling with providing physical access to food to our citizens. Nonetheless, we are struggling.

However, through finding a solution to tackle problems pertaining to the physical access of food, we could potentially act as a model for other nations struggling with similar issues. As Mariana Chilton and Donald Rose points out in “A Rights-Based Approach to Food Insecurity in the United States,” because we are a country with access to so many resources, we are in a secure place to test different strategies to tackle these issues (Azétsop, Joy).

Approach 3: Education

This approach focuses on educating the public on how to fight food insecurity. Adequate education could help ensure that the cyclical pattern of eating nonnutritive foods becomes an exception rather than a norm. Many people were never taught how to buy nutritious, healthy food for the same or lower costs as unhealthy foods. Devoting more attention and resources to education on the benefits of healthy eating could be an effective long-term approach to reduce obesity and other chronic illnesses that are prevalent among food-insecure individuals. Programs that start while kids are still in school can manifest good habits that will carry into adulthood. These programs could be focused on how to eat healthy, balanced meals as well as the health benefits of nutritious eating. For adults, educational programs could focus on how to budget, where to find affordable food, and how to manage resources. Adult programs could be tailored specifically to encourage adults to break their old habits and create new ones that will reduce their level of food insecurity.

Benefits of Education

Food insecurity is usually an issue that begins in childhood and is carried throughout adulthood. Children who grow up in food-insecure households tend to exhibit the same behaviors people around them do, making food insecurity stick with them. If we educate children, youth, and adults about how to fight food insecurity, the problem should eventually be reduced. Food insecurity is not just about access to food; it includes getting the adequate nutrition needed to live a healthy lifestyle. Low-income individuals tend to purchase low quality, low-nutrition foods because they tend to be the cheapest options. Educating people from a young age about nutrition and budgeting will help them know how to shop for the right foods with the money they have in the future. To fix this, we propose the implementation of free programs and classes on nutrition and food budgeting for families and adults. If adults change the way they are shopping and

consuming food, later generations will be accustomed to healthier eating habits and they will be more likely to make healthier decisions even when in poor financial situations.

Unhealthy eating and food insecurity affect human development and future health. In young children, food insecurity is linked to "poorer mathematics scores, grade repetition, absenteeism, tardiness, visits to a psychologist, anxiety, aggression, psychosocial dysfunction, and difficulty getting along with other children" (Jyoti et al.). Food insecurity tends to be linked with mood disorders and social disorders in teenagers as well. Food-insecure individuals tend to have a higher risk of obesity, diabetes, and chronic illnesses (Laraia).

It is obviously necessary to combat food insecurity in children especially, and one way to reduce some of the above negative effects is to teach the public about nutrition and budgeting. When people know how to save money for food and know what to buy to make sure they are getting adequate nutrients, their health and well-being, as well as their children's health and well-being, should improve.

Habitual Eating

Food-insecure individuals tend to buy the same "low-cost/energy-dense foods" at grocery stores and restaurants (Farrell 14). Cost is put above health, leading to dietary disorders and lack of nutritional health. Frozen meals and energy-dense foods are the most convenient to food-insecure individuals, and relying on these easy low-cost meals tends to become a pattern. Many food-insecure individuals and families tend to go grocery shopping only when they receive a paycheck which leads to shopping once a month. When individuals do this, they tend to purchase the same long-lasting foods repeatedly (Farrell 15). Some food-insecure individuals and families tend to splurge when they receive bonuses leading to purchases of higher-cost unhealthy foods, rather than higher-cost healthy foods (Farrell 15). One way to stop this cyclic pattern is to teach individuals how to budget their money, so they can purchase fresher and healthier foods more frequently rather than mass quantities of non-perishable foods monthly.

Potential Strategies Regarding Education of Life-Sustaining Food

Educating the Youth

A deep-rooted cause of food insecurity and the associated problems, such as obesity and related health issues, is the lack of education about food nutrition, specifically in children and youth. If kids are not learning at a young-enough age the importance of nutritional health, and how they can apply it to their lives, habits will follow them throughout their life. When kids learn this early on, it will encourage a healthier lifestyle throughout their adolescence, which will have a greater chance of then carrying over into their adult food practices. Kids are also at such an impressionable age, which can make the temptations of junk food harder to resist. Without this type of education, kids will grow up gravitating towards options that seem easier in the moment, because it's all they know. This can drive them to rely on more unhealthy snack foods and fast food instead of overall cheaper healthier options available.

Energy-dense junk food will continue to appear cheaper, and it will also taste good and seem convenient. Devoting greater attention and resources to education initiatives on the benefits of healthy eating for students in food deserts could be an effective long-term way to reduce obesity and food insecurity. Living in a food desert is not just defined by not having access to several sufficient supermarkets, but can also occur in areas where residents do not receive education on the benefits of healthy eating.

Schools are an ideal setting for teaching children basic skills in food, nutrition, and health, which are important skills they will need for life. Nutrition lessons can be made simple, interesting, and colorful; they are easily learned through demonstration, illustration, and examples—all of which are natural approaches in primary education. Schools reach children at an age when their food habits are being formed, when they are open to new ideas and they learn good practices and new skills effortlessly. This can be used to establish good eating habits early on. School gardens can also transform to promote better nutrition, which will expose children to healthier fruits and vegetables more, resulting in a more natural preference for them. Teachers can also teach and guide children by linking food and nutrition education with other subjects, such as science and incorporate fun activities. Overall, good nutrition education helps children become more "nutritionally literate" by being more informed about the value of nutritious foods, how it can be prepared, and make it appetizing all in one. This knowledge will help them in the future when they will eventually take on the responsibility of grocery shopping and planning their own meals.

Educating Food-Insecure Adults

There are many ways that educational programs can help food-insecure adults. The three main topics that would be most beneficial to these individuals would be financial education, how to find affordable food, and resource management. With this, educators and specialists sometimes find it hard to influence adults to make behavioral changes due to their reluctance to take on new information. However, with a specifically crafted program, it is possible to encourage new habits in these individuals.

The most substantial cause of food insecurity is low income. While educators may not be able to change how much money a person makes, they can teach people what to do with the funds that they do have. One way to fight food insecurity is by teaching individuals how to manage their budget in a way that allows them to buy nutritional food. Programs that teach adults about low-cost meals, couponing, store loyalty cards, and other benefits that they may be eligible to receive can all reduce the number of food-insecure individuals.

Within an educational program for adults, it is imperative to talk about the best places to find affordable food. In locations where there are very few stores that offer affordable or nutritious food, also known as food deserts, the focus must be centered on how to make the most of the resources that are offered. However, in locations where there are multiple stores that offer these foods, it is better to focus on education that instructs adults which products to buy based on their

nutritional value and prices. Regardless of the availability of resources, education on resource-finding is critical to decreasing food insecurity.

Once food-insecure adults have purchased groceries, they often lack the skills needed to manage these resources efficiently in order to prevent food insecurity. Educating adults about strategies on how to use resources in the most efficient way can be helpful. Some of these strategies could talk about using leftovers, freezing meals, and rationing food supplies. In combination with the other two educational strategies, a decrease in food insecurity is possible.

Long-Term Benefits

There have been several studies that show improvement in food security as a result of participants going through nutrition educational programs. One study focused on the effects of implementing the Expanded Food and Nutrition Education Program or EFNEP. The results showed that this education helped participants learn valuable information on how they can change their eating habits and budgeting and improved their sense of food security (Farrell).

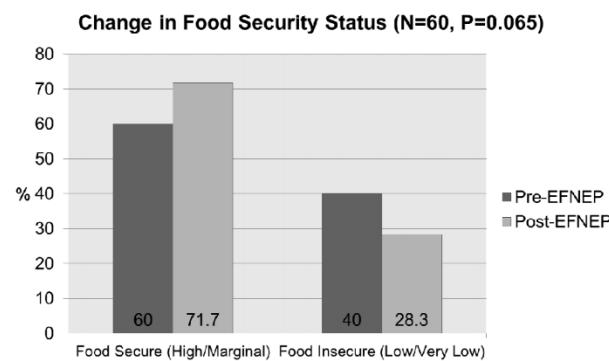


Figure 7. Effect of education on low/very low food security.

With the inability to afford healthy food, food-insecure individuals are often not able to practice healthy eating habits. Because of this, they often face a series of health complications. Compared to food-secure individuals, food-insecure individuals are more likely to suffer from obesity, cardiovascular disease and diabetes (Farrell). These individuals also suffer from decreased cognitive abilities that stem from hunger and other psychological ailments. Introducing educational programs for food-insecure individuals is a possible solution to avoid or reverse these effects. Introducing healthy eating habits to high-risk individuals and encouragement to choose nutritious options can empower people to invest in their futures. The benefits of changing one's behavior of healthy eating can empower individuals to change their lives for the better. Education could be necessary for creating new generations of healthy, food secure individuals.

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