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Poverty and Obesity in the United States

In underdeveloped and developing countries, 20,000 people die each day from malnutrition due to hunger and undernourishment, but a different kind of malnutrition exists in developed countries, including the United States (Questions about Hunger). One would think that the richest nation in the world would not have problems with malnutrition, but unfortunately this is not true in today's world. Most believe malnutrition is a lack of nutrients or food, but according to *Stedman's Online Medical Dictionary*, it simply means "faulty nutrition resulting from a poor diet or overeating". Malnourishment can affect anyone who does not eat enough, eats too much, or eats the wrong types of foods. The main factor contributing to malnutrition in the United States is the consumption of unhealthy, less expensive foods that are low in nutrition and packed with calories and fat. This leads to obesity. Many factors affect obesity and ironically, poverty happens to be one of them. Although this does not appear to be logical at first, poverty and obesity are, in fact, linked. If more attention is focused on this link, not only can the health of the country be improved, but the environmental health of the world can also benefit.

In the United States today, two-thirds of all adults and more than one-tenth of children are overweight or obese. At the same time, more than one-tenth of households have food insecurity (Obesity and Hunger). Food insecurity occurs when access to nutritionally adequate and safe foods is either limited or uncertain, or when foods are obtained in socially unacceptable ways, such as stealing (The Consequences). At first glance, this makes no sense, because lack of food should result in underweight human beings. However, poor children are about 2.6 times as likely as upper or middle class children to become obese (Ebbeling). Obviously, low-income citizens are at some type of disadvantage when it comes to obesity.

The average American family includes two parents and 2.1 children (Gardner). Poor people often lack a college education and work in blue-collar workers jobs with low wages. Unfortunately, not all American families have the monetary capabilities to provide adequate housing, transportation, utilities, education, food, and clothing that all families need. Families have to make difficult decisions as to where to spend their money. Many have to decide between healthy, but often more expensive foods, and less healthy but cheaper foods. Foods with low nutritional value relative to calorie content are often the most economical choice available to these families. Because of this, lower income families are at the highest risk for malnutrition.

Children add many financial burdens to families. According to a University of Minnesota study, in a family with a low income (under $38,000 per year), one child between the ages of 0-2 and one between the ages of 6-8, the average combined monthly cost for both children is $907. This includes housing, food, transportation, clothing, health care, child care, education, and miscellaneous expenses. The total yearly cost for these children is $10,884. If a family is making less than $38,000 a year, that leaves less than $27,116 for all other expenses for the parents and family (Bauer). Two children can take up almost one-third of a family's income. The financial pressure on parents to feed themselves and their children nutritiously is often too much to handle, so less expensive and less healthy foods are the alternative. Added to the financial pressure, the stress on families to prepare well-balanced nutritional meals can be overwhelming. For example, if two members of a household earn $8 per hour, they would have to each work about 46 hours a week, with no vacation to make $38,000 a year. After working for more than nine hours a day, five days a week, parents are expected to make dinner in addition to household chores. Requiring little or no preparation time, ready-to-eat meals, containing high levels of fat that most fresh meals don't have are often the most economical option to families (Defining Fat).

Many health problems associated with obesity, like hypertension and diabetes, are more common among low-income people, according to a recent study (2004 Southeastern). According to some estimates, the total cost of health-care due to obesity is $70 billion each year (Friedberg). Obesity affects many systems in the body, including psychological (poor self-esteem, depression, eating disorders), pulmonary (sleep apnea, asthma, exercise intolerance), gastrointestinal (gall stones, steatohepatitis), renal (glomerulosclerosis) , musculoskeletal (Blount's disease, flat feet, forearm fracture), neurological (pseudotumor cerebri), cardiovascular (dyslipidaemia, hypertension, coagulopathy, chronic inflammation, endothelial dysfunction), and endocrine (Type 2 diabetes, precocious puberty, polycystic ovary syndrome, hypogonadism) (Ebbeling). Addressing the problem of obesity could potentially save health care money and instead of spending $70 billion for treating these diseases and conditions, this money could be used towards improving the lives of poor people by paying for housing or college education, for example.

Poor nutrition not only affects health, but also a child's ability to learn. Lack of nutrition in poor children reduces their enthusiasm and curiosity, which leads to a decrease in play and exploratory activities. Consequently, mental and cognitive development is impaired (Silent Emergency). This hinders the child's interest in school, which reduces the child's chance of graduating from high school or going to college. Without an interest in higher education, the child is at a higher chance of experiencing poverty as an adult. Then, the poor adult will have children and this cycle is likely to repeat itself.

One factor that may contribute to obesity among poor families is the consumption of meat. Adjusted for inflation, the price of meat in the 1990s was at a 50-year low, which allowed more lower-income families to purchase meat (Agriculture Fact Book). As obesity rates have been increasing in the past few decades (Prevalence of Overweight), the price decline of meat has contributed to an increase in the consumption of meat. In 2000, an average of 195 pounds of meat was eaten per person. By contrast, in the 1950s, the average was 57 pounds less per year (Agriculture Fact Book). Meat is filled with calories and fat that contributes to obesity. One serving of ground beef (three ounces cooked) is 16% fat with 125 calories out of the 220 calories coming from fat. Twenty-five percent of one's daily cholesterol intake (based on a 2,000 calorie per day diet) is also in this one serving. Although ground beef contains a hefty source of protein (22 grams per serving), the high levels of calories, fat, and cholesterol decrease its nutritional value (TEFAP Commodity).

The consumption of meat can be decreased and replaced with healthier versions of protein. People question that one can get enough protein in a diet without meat, but there are many healthy alternatives to meat-based protein. Although many plant-source proteins are not complete proteins, the simple grouping of these proteins can create a complete protein. Lentils and rice, peanut butter and whole grain bread, beans and rice, corn tortillas and refried beans, and pea soup with whole grain crackers are all examples of plant-based proteins grouped into complete proteins. Soy is a plant-based complete protein that requires no grouping (Colby) and contains lower levels of fat than that of meat. In fact, in four ounces of uncooked tofu, there are only 4.71 grams of fat, 79 calories, and no cholesterol (Tofu).

Meat production has a devastating affect on the environment. Cattle ranchers destroy the rainforest to create space for their pastures. When cattle are used for hamburger, 220 square-feet of rainforest are destroyed per pound of meat. The production of beef adds to many other environmental concerns. Oil, coal, and other fossil fuels are burned to raise and slaughter cattle, freeze the meat, and then ship it to stores. When cows eat, they release methane gas. The carbon dioxide released from fossil fuels and the methane gas from the cows add to the greenhouse effect, a phenomenon when heat from the sun is trapped near the Earth's surface and can have devastating environmental affects, such as climate change. From raising the cows to shipping the meat, one pound of red meat requires 2,500 gallons of water, which is approximately how much water a family uses in one month. That same amount of water could be used to grow 100 pounds of grain which could be used to feed a family of four for a month (Facts about Beef).

The majority of cattle are raised on feedlots. Unfortunately, these feedlots also pose many environmental problems. According to a *New York Times* article, in the 1980s and 1990s spills of manure and urine contaminated 35,000 miles of rivers. Two-hundred and ninety-one billion pounds of manure are produced each day from cattle, hog, and chicken feedlots in the United States. Leaks of this manure can kill massive numbers of fish and marine life as well as contaminate local drinking water (Becker).

Fast food restaurants are another possible contributor to obesity in low-income families. Fast food chains specifically target lower-class neighborhoods and families in their advertising. People in the poorest urban areas have two and a half times more exposure to fast food than people in the wealthiest areas (Haas). Therefore, poor families have more opportunities to purchase fast food, even though it is not as nutritious as other foods that can be purchased for a similar price. Although these foods are cheap, they come with drastic amounts of calories and fat. A McDonalds Happy Meal with a hamburger, small french fries, and a twelve-ounce Sprite contains 600 calories, 20 grams of fat, 700 milligrams (mg) of sodium, 30 mg of cholesterol, and 35 grams (g) of sugar (Nutritional Information). The majority of calories in fast food come from sugar and fat, instead of whole-grain carbohydrates and fiber that will satisfy hunger and keep you full. Therefore, hunger will appear soon after eating fast food because the body was not satisfied with the lack of nutrition in the last meal. Then, if food is available, more may be consumed, which further contributes to obesity.

Eating at fast food restaurants not only increases the chance of obesity, but also harms the environment. The abundance of plastic, paper, and Styrofoam packaging are often left on the ground to dirty the streets and pollute the environment. If less fast food was eaten, the harm to the environment from the packaging of food and production of meat would be decreased.

Consuming more organic foods is one answer to the problem of obesity and malnutrition. Organic foods have more beneficial nutrients than non-organic foods and do not have the many toxins that commercial foods contain (Crinnion). Unfortunately, organic foods are expensive and therefore less available to poor families. In fact, shoppers who consistently buy healthy foods spend 20% more on groceries than those who don't (Harrison).

Many factors affect the price of organic food. Currently only one-tenth of Americans regularly purchase organic foods. If the demand for organics increases, eventually, the price should decrease. If one-third of Americans would buy organic foods frequently, the price would decrease to only a 10 to 30 percent mark-up compared to conventional foods, compared to the current 50 to 100 percent mark-up. Because the market is still relatively small contrasted to conventional foods, more labor is necessary for hand-picking, hand-weeding, etc. In addition, federal subsidies keep the price of conventional crops (Harrison). Therefore, low-class families do not have the opportunity to purchase these expensive, yet healthy foods.

More widespread consumption of organic food could help to decrease the price and make it more available to lower income individuals. This would also benefit the environment. Commercial farming methods have many disadvantages that organic farming can improve. Current farming practices erode topsoil, decreaseing farm yield by 6% for each inch eroded. Pesticide runoff contaminates rivers, lakes, and streams which endangers wildlife. Eight-percent of current pesticides are potentially carcinogenic, which are suspected of leading to increased rates of cancer and reproductive problems (Organic Foods 101). Also, the addition of pesticides decreases the amount of vitamins present in foods (Crinnion). Organic farmers do not utilize any synthetic pesticides or fertilizers, but focus on strengthening the plants to resist natural disease and pests. Crop rotation, mechanical tillage, and hand weeding prevent weeds. Pest populations are controlled by implementing natural insect predators, mating disruptions, traps, and barriers (Frequently Asked Questions).

To reverse the trend of increasing obesity among the poor, the first step should include helping the poor leave poverty. Increased education, training, and job production should be the main priority. If

the government funded college education to low-income students, these students would have the chance to receive a valuable education that would provide opportunities for higher-income jobs and decrease the current poverty level. Also, government subsidized child-care would allow for parents of young children to work, instead of taking care of their children, which would increase their income level. Additional affordable housing should be built to allow impoverished families to have a safe place to live. With these improvements, the levels of poverty should be decreased and one would expect the current problem with obesity to improve.

Other efforts should also be made. Opportunities for exercise and physical education could be improved. Physical education courses in poor school districts are often the first programs to be cut due to budget-deficits. High-tech gyms and workout facilities are available for the upper-class to help with weight management and fitness, but the lower-class does not have the money to subscribe to these facilities. More exercise programs should follow the example of the YMCA which provides scholarships for membership to low-income families.

In many cities, especially the ghettos of large cities, space for recreation is either not available or not safe. Once again, the state governments need to take action and become a part of childhood recreation. Physical education (PE) and recess in schools is often the only form of recreation or exercise many children receive. Experts from the United States Department of Agriculture (USDA) and the Department of Health and Human Services (HHS) state that moderate to vigorous exercise needs to be completed most days of the week for sixty minutes (Gavin). Many schools offer PE only once or twice a week. State governments needs to re-evaluate its standards for PE. School is a place for children to be educated about healthy lifestyles. Therefore, physical education should be a part of this learning tool and should be offered as many days as possible in public schools.

Head Start is an excellent government funded program that could be expanded to help improve the nutrition of young children. This program assists low-income families with children from birth to age five. The overall goal of the program is to prepare the children for school, but they also teach parents everything from child hygiene to nutrition (Head Start). If children learn to recognize healthy food as attractive instead of distasteful at a young age, these ideas will continue with them throughout their lives. Programs like Head Start should not only teach children, but also work with parents to educate them on how to teach their children themselves. This will also create parent-children bonds and improve the home life of many families. Parents must be taught time efficient and inexpensive ways to cook healthy foods, and learn to focus on eating nutritious meals at home, rather than fast foods.

The National School Lunch Program is another way to address poverty and obesity. Children of families at or below 185% of the poverty level are eligible for free-or reduced meals in public schools through the National School Lunch Program. As of June 30, 2005, 185% of the poverty level is $34,873 for a family of four (Nat'l School Lunch). This program is an excellent way to not only teach correct eating habits, but also nourish children with one or two of the only healthy meals they may receive each day. Only two percent of all children meet the recommended requirements for the food pyramid. Sixteen percent do not meet any of the requirements. Sixteen percent meet the saturated fat, less than twenty percent meet the vegetable, and only 25 % meet the grain recommendations (Eat Smart).

To be successful, however, the school lunch program must be appealing to kids and offer healthy alternatives. School lunches are often unappealing to students, who resort to vending machines which offer even less healthy alternatives such as candy bars, soda, and chips. The U.S. government stresses the importance of healthy eating in their studies about the food pyramid and other nutritional guides, which include eating more fresh fruits and vegetables, and whole grains. The school lunch program should put these ideas into actions. The school meal programs should be filled with fresh produce and whole grains, instead of canned peaches and pears with a processed white bread bun and a hamburger. As an alternative to concentrating the meals around a meat, they could be focused on a soy product or a group of incomplete proteins that together create a complete protein. Most kids are disgusted by the thought of

tofu or other soy products, but if they learned at a young age that it can be a delicious and nutritious food, it would be easy to implement these meat alternatives into school meal programs. As discussed earlier, the resources utilized on producing meat are enormous compared to that of producing grain. Therefore, the environment would also benefit. Of course, there is always the issue of money. With a budget deficit, the government wants to spend the least amount of money possible, but the health of this country's children should be worth spending money on as they are the future leaders of the United States.

Many families have the desire to eat healthy foods, but oftentimes, they are too expensive. Change can be made to reduce the prices of fresh food so that people at all income levels will have the opportunity to purchase nutritious foods. If organic foods are purchased more often, their prices will decrease. Instead of packing grocery stores with food imported across the country or world, stores should be stocked with locally grown food, if available. The farther away a product has to be shipped, the more expensive it will be. Therefore, if a product is shipped a shorter distance, the selling price can be less. Farmers would benefit because they would not have to pay as much in shipping fees. The environment would be improved because less gas has to be consumed to transport the items. Most importantly, community members would receive healthy foods at less expensive prices. Unfortunately, desert and extremely urban communities often do not have easy access to fresh foods because farming communities cannot be sustained in those environments. In this case, area governments should control prices on shipped fresh foods, to ensure their availability to all income levels.

As an alternative to grocery stores, farmers markets and local vendors are an excellent way to purchase foods. Farmers do not have to pay stores to sell their food. Instead, they get the entire price of the product, so they are able to lower the selling price. Local governments should be cooperative with farmers and small business owners so these markets can take root. The media should ensure that all families, including lower-class families, are aware of these events. Farmers markets not only offer nutritious produce at low prices, but they promote community building by fostering positive relationships between farmers and community members

Combating the paradox of obesity and poverty in the United States is not a one-step process. It could take years before obesity rates among the poor show a significant decrease. To achieve this, multiple programs need to band together before it is too late. In addition, our government should continue to address the root causes of poverty. Poor families need access to healthy, but inexpensive foods with the proper knowledge of how to prepare the food. Government agriculture programs should focus on making healthy foods, produced in environmentally safe ways, more affordable. Alternatives to meat should become more available to families and exercise needs to be a regular part of one's daily life. National and state government programs should start healthy eating classes at a young age to begin the reversal of the growing trend of obesity. If this epidemic is resolved in the United States, we can then put more effort towards helping less fortunate countries where their populations are faced not only with malnutrition and poverty, but also raging AIDS epidemics, civil wars, national food shortages, and other horrifying troubles that the United States is fortunate enough not to encounter.

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