

The Malnourishment Epidemic

Medical Anthropology

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## Abstract

The title of my research paper is, “The Malnourishment Epidemic.” This is in reference to the malnourishment epidemic that has stricken many countries around the world, including the United States. The goal of my research and the reason I am choosing to do a paper on this topic is to destigmatize the meaning attached to the word malnourishment in regards to what plagues certain impoverished countries. My goal is to pull back the curtain and redefine conventionalized definitions of malnourishment. To reveal that it doesn't just look one way. It is not an epidemic that plagues the other side of the world, it is occurring in America's backyard. Malnourishment affects hundreds of thousands of lives globally and is a recurring issue that can be seen cross-culturally. It is important to first define the terminology that will be used in this analysis to understand the complexity and diversity of malnutrition. It is also of value to take a look at the materials and methods used to systematically diagnose and analyze severe malnourishment such as anthropometry. Then, to take a look at a map that clearly illustrates the global impact of this epidemic, not only in developing countries and regions like in South Africa but also in developed nations like the United States. Countries of all developmental stages struggle with attaining proper nourishment. Finally, the proposed solutions and programs in place to eradicate malnutrition will be addressed.

*Keywords:* malnourishment, nutrition, undernourishment, and poverty.

### The Malnourishment Epidemic

What does a malnourished person look like? Is he or she from a “third world” developing country, slouched onto the ground surrounded by ruins? Do they have sunken eyes, a bloated belly, and a frame that is eerily small for their age? Is this the way to identify someone whose nutritional needs are not being met? These questions are not meant to confuse, but to clarify. To state clearly, it is very naive to believe that malnourishment is an epidemic that plagues the other side of the world. It is naive to assume that someone is either healthy or not based on appearance alone. It is extremely naive to think that malnourishment looks one specific way and affects one specific type of person. It is a severe topic that is not as black and white as it seems.

It is important to understand that malnourishment affects hundreds of thousands of lives globally, and is a recurring issue that can be seen cross-culturally. This is due to the fact that culture has everything to do with diet and vice versa. It affects what one eats, how one eats, when one eats, where one eats, if one eats, etc. Dietary patterns are imperative to overall health and are directly related to an increased mortality rate if they are not up to par. Malnourishment can take many different forms, and affect many different cultural groups and populations. It is one of the main consequences that can be seen from improper dietary patterns. It can be seen not only in parts of the world that are defined as third world and developing countries but also in developed nations backyards such as the United States of America. Improper nutrition is a widespread issue that can affect anyone, anywhere and almost always has dire consequences. The goal of this

paper is to give readers a deeper understanding of the topic, increase awareness of its severity, and present the proposed solutions to eradicate malnutrition globally.

### **Understanding Malnourishment**

In order to understand the severity of the malnourishment epidemic, the basic definition of nutrition must first be evaluated. Nutrition can simply be referred to as the nutrients that one can obtain through their diet to meet certain physiological needs. In opposition, malnutrition, as defined by the Oxford Dictionary, is, “Nutrition which is not adequate to maintain good health, whether through insufficient or excessive intake of food,” (Oxford English Dictionary, 2019).

There are a number of factors that can lead to not having an adequate diet that meets nutritional needs. Malnourishment can be caused by food insecurity, poverty, poor nutritional habits, or a number of other factors.

By definition, malnourishment is normally caused by one of two improper nutritional practices: undernourishment and over nourishment. Undernourishment refers to insufficient nutrient intake, and over nourishment is an extreme intake of nutrients. Both can have drastic effects on the human body and lead to major health consequences. The real catch is that the two can co-exist within a population. Common types of nutrition-related illnesses from either under- or over-nourishment that can be seen cross-culturally are anemia, diabetes, and obesity.

Although the basis of this analysis will be focused on under-nutrition, it is crucial to understand that malnutrition is too broad a terminology.

To further reiterate this point, undernourishment can present itself in a number of different forms: stunting, wasting, and being under-weight. Stunting (height-for-age) is a measure of the linear growth deficiency in children, due to the fact that during early development

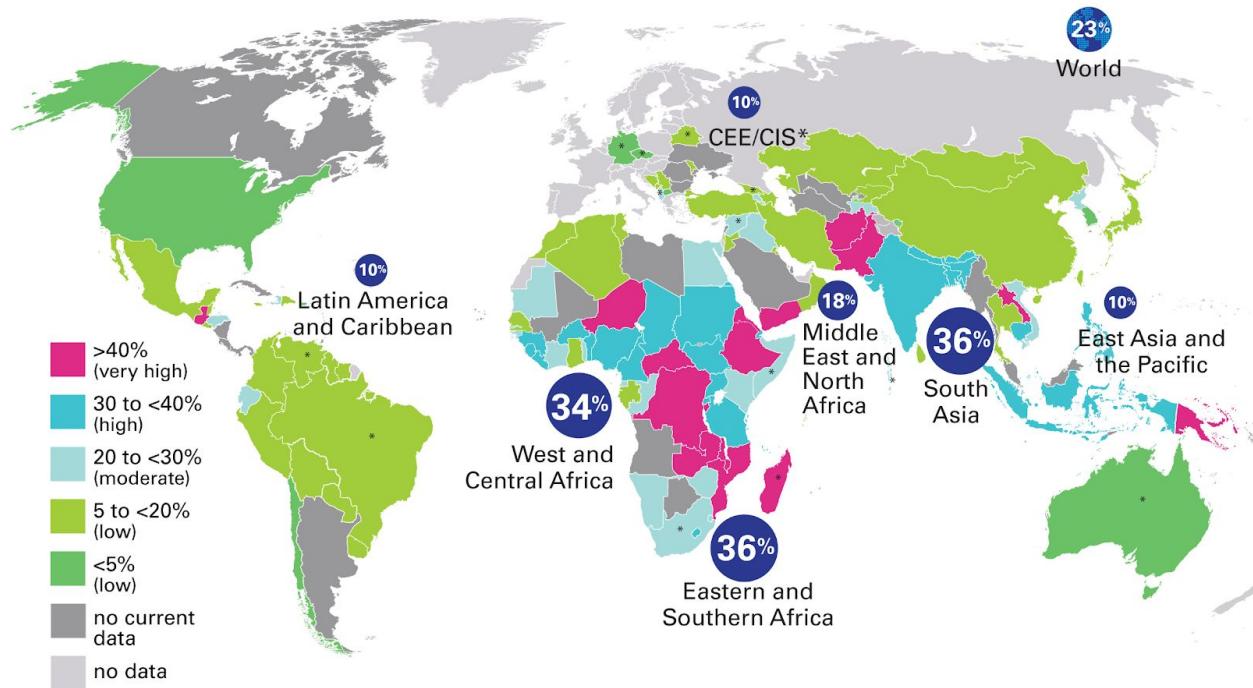
height is a good indicator of proper or improper nutrition. Wasting (weight-for-height) takes into account the body mass index and describes current nutritional status based on weight status.

While underweight (weight-for-age) is a combination of the two (WHO Child Growth Standards, 2006). These tools can be used to systematically diagnose and analyze severe malnourishment using anthropometry. This is often the way most malnourishment research is reported; a high child stunting rate and/or a high number of wasting.

### **Data on Malnutrition**

Malnourishment is addressed in many of the cases presented in this analysis, where undernourishment would be a more appropriate title. The epidemic that is undernourishment has been overly present in every country across the globe, with higher rates affecting developing countries. This may seem like a primitive issue, prominent during a forgotten time that predated modern medicine and McDonald's, but undernourishment/malnourishment still plague entire continents. Malnourishment can have detrimental effects on countries of all developmental

stages.



The above data was gathered from the available regions on their populations under 5 years of age that were considered malnourished by the aforementioned World Health Organization's Child Growth Standards. Malnutrition can affect people of all ages, but the reason young children are seen to be the target of most data research surrounding the topic is that children require proper nutrition early on to promote growth and development. Therefore, the effects of malnutrition at a young age are evident in improper growth and can be charted in the form of stunting and/or wasting as previously defined. Higher rates of undernourishment that have led to very high improper growth rates can be seen in countries such as those residing in South Africa pictured above.

### Food Insecurity in the United States

This information does not mean that even the most developed countries have eradicated malnutrition. One of the precursors of malnutrition is food insecurity. Food insecurity is an overwhelming topic and was analyzed by the U.S. Department of Agriculture, “The defining characteristic of very low food security is that, at times during the year, the food intake of household members is reduced and their normal eating patterns are disrupted because the household lacks money and other resources for food,” (United States Department of Agriculture, 2006). How can an individual living in the United States be malnourished? It is indisputable that the United States is one of the most developed countries in the world, but the high rate of food insecurity is perplexing. The United States, even as developed as it is or may seem, still has regions where poverty is widespread.

The Academy of Nutrition and Dietetics has released a position paper to address the issue of Food Insecurity in the United States. “In 2016, 12.3% of all US households (15.6 million households) experienced food insecurity sometime during the year. Of these households, 7.4% (9.4 million households) experienced low food security and 4.9% (6.1 million households) experienced very low food security,” (Holben and Berger-Marshall, 2017). It is important to realize that anyone, anywhere can be food insecure. When a household is food insecure, proper nutrition is probably the last concern. This is how malnutrition comes into play. “Unhealthy” and non-nutritious foods tend to be cheaper, and for a household surviving paycheck to paycheck, they also seem to be the first option. Not to mention being uninformed about what their healthy options are. The astonishing rate of food-insecure households is coupled with entire families suffering from improper nourishment. The effects of improper nourishment can be seen not just physiologically, but emotionally and mentally.

### **Malnourishment on a Global Scale**

Although there are a significant number of those in the United States that are reported as food insecure, and in turn malnourished, this is nothing compared to the number of people who are malnourished in underdeveloped, “third world” countries. Just one example of these poverty-stricken, underdeveloped countries is Cameroon, found in a region on the coast of West Africa. Cameroon has been stricken with poverty, and in turn with high rates of food insecurity and malnutrition, especially it’s populace under the age of 5. “It [Food Insecurity] coupled with the problem of accessibility, affordability, and transformation, especially in the northern and eastern parts of the country, leads to poor nutritional habits, ironically make malnourished persons out of those having plenty” (Jackson and Cumber, 2016). The epidemic that plagues this high-risk population can be traced back to poor nutritional habits. In this particular food insecure region, when food sources are available they aren’t necessarily nutrient-dense, and therefore can lead to severe malnutrition.

So, what exactly can occur when *severe* malnourishment sets in? When a child under the age of 5 becomes extremely emaciated, it can lead to a number of health issues. The lack of nutrients alone impair immune system function and can leave a child vulnerable and susceptible to disease and illness. A compromised immune system paired with exposure to everyday pathogens and bacteria, can result in what at first is perceived as seemingly harmless symptoms like diarrhea. This issue can be seen in countries where not only food security is an issue, but food safety and quality. More often than not, dehydration is a popular cause of death in young children suffering from diarrhea that can be brought on by diseases and illnesses attributed to under-nutrition.

Perhaps the worst part about malnutrition in this specific area of the globe, is that it can affect populations from one generation to the next. When a woman is chronically malnourished, she can give birth to an underweight child. And if that child is fortunate enough to survive to adulthood, even if just barely, the vicious cycle can continue. Just the same, a common practice among mothers is to wean their young children off of breast milk, a nutrient-dense substance, and then transition them to culture-specific diets that may not meet the same level of nutritional needs. This can lead to specific types of protein-energy malnourishment (PEM). A study done by the Department of Human Kinetics and Health Education at the University of Ibadan in Nigeria researched the direct links to malnutrition in this specific high risk population, “The finding of this study revealed that socio-cultural factors are significant predictors of PEM among breastfeeding mothers with customs having the highest contribution followed by nutritional knowledge of the mother and beliefs, while poverty took a distant fourth position” (Akintaro Opeyemi Akinpelu, 2015).

### **Solutions to Eradicate Malnutrition**

Simply supplying food will not be sufficient in eradicating malnutrition. It is evident that high rates of malnutrition is a global issue that affects both developing and developed countries. Clearly, the issue may not only be directly attributed to low food production. In 2016, the world hit a new record by producing over 2.5 billion metric tons of cereal grains in the same year the UN declared the Decade of Action on Nutrition (Food and Agriculture Organization of the United Nations, 2016). So if the problem cannot be solved by simply supplying populations with food, how can it be solved? First and foremost, the larger issue falls in the lack of education surrounding *proper* nutrition, and perhaps a lack of education in general.

Education, or lack thereof, is a leading cause of poverty and in turn high rates of malnourishment. It is a vicious cycle, and it is difficult to pinpoint the catalyst. A pregnant woman may lack proper education and therefore is living in poverty. If she struggles to make ends meet, and doesn't know the proper nutrients involved in prenatal care, her child could be born underweight, and stay that way for much of its life. If poverty and food insecurity continue, the child will probably not get to develop properly, especially when it comes to cognition. "Children from families with low socioeconomic position (SEP) have much greater chances of worse health and psychological well-being, as well as impaired cognitive and emotional development throughout the lifespan," (BMC Public Health, 2014). Food insecurity and poverty go hand in hand. If a child's basic needs are not being met, it would be difficult to perform well in school, and the lack of education continues.

The key is a multi-directional approach: supplying healthy, nutrient-dense foods to food-insecure families, and educating the general public about the importance of proper nutrition. The United States is fortunate enough to have developed programs like the Supplemental Nutrition Assistance Program (SNAP) and The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) that have been set in place to help combat the high rates of food insecurity by supplying food and education on nutrition (The Supplemental Nutrition Assistance Program: Analysis of Program Administration and Food Law Definitions, 2015).

There are other nutrition assistance programs in the United States and other developed countries but it is worth noting that it is not so easy in developing countries. On a global scale, improvements are slowly being made. In 2016, the United Nations began the Decade of Action

on Nutrition from 2016 to 2025. The goal wasn't to eradicate malnutrition completely by 2025, but to begin making measurable, attainable goals to take action and address the epidemic (United Nations General Assembly, 2016). The World Health Organization and the Food and Agriculture Organization of the United Nations joined together in implementing the Declaration. The measurable aspect being the aforementioned World Health Organization's growth standards. The only caveat is that the declaration was adapted from pre-existing, governmental structures that are not strict policy for any one country, more so guidelines and goals.

Biological Approach. As this decade comes to an end, it marks the halfway point through the Decade of Action. It is still out of reach to completely eradicate malnutrition on a local or global level, but with policies and programs in place, progress is inching forward. It is important to increase education on the subject and recognize that malnutrition affects countries of all developmental stages and cultures. Malnourishment doesn't look just one way and it doesn't have one clear cut cause or solution. Undernourishment, over-nourishment, stunting, wasting, and being under-weight all have their own part to play. There is no "cure-all" to this epidemic that has had fatal effects on hundreds of thousands around the globe, but the increased awareness on the severity of the situation is a step in the right direction. This paper is just one way in which one can begin to educate themselves on how severe the malnutrition epidemic truly is.

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