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Brazil and Shifting Malnourishment

Throughout all of human history, malnutrition has been one of mankind's most prevalent health problems. Until now, hunger has been the main form of malnutrition, resulting in vulnerability to diseases and physical and mental impairment especially in children. Even though hunger is still the major problem in most of the developing world, a new form of malnutrition plagues the developed, obesity. Obesity (once dreamed of by the poor) is now surging through the world almost indiscriminately, causing many souls to fall prey to grave chronic diseases such as heart disease and diabetes. However, great differences occur between the people infected with hunger and obesity. Hunger is the more selective of the two. Hunger generally affects those who have been living with low incomes and generally in developing nations. Obesity, however, afflicts people of all ages, genders, incomes, and social statuses everywhere. Once unheard of just a couple of decades ago, the number of overweight people rivals that of the number of underweight people at 1.1 billion and the number is projected to shoot up past the number of underweight people in just a few years (Obesity among Hungry, 1999). In addition to hunger and obesity, another silent killer lurks not far behind, usually as the result of hunger and obesity. The third form of malnutrition, vitamin deficiency. Vitamin deficiency is an often ignored form of malnutrition, but the consequences are just as dangerous, causing a whole slew of diseases striking those of all ages. However, while developing nations of the world is rampant with hunger and as obesity is the main foe in the developed nations, an interesting coexistence between hunger, obesity, and vitamin deficiency sparks in those nations in transition from developing and developed, such as Brazil. In Brazil, around 16% of the population is underweight; a figure unheard of in the developed world. Meanwhile, 36% of Brazil's population is overweight, a figure that rivals that of many Western European countries (Rother, 2005). It's surprising that Brazil, a country that produces many of today's hottest supermodels, and a country where soccer is more of a religion than a sport, even knows what obesity means it. Even more interesting is the link of both problems and income. Although hunger generally affects only Brazil's poor and lower middle class, obesity, a problem once only expected to strike the middle and upper class of Brazil, now unexpectedly plagues the poor and lower middle class as well. The number of malnourished people is much higher in the urban areas of Brazil where 80% of Brazilians live (Rother, 2005). The ironic problem is how the poorest 30-40% in an urban environment actually faces a problem of both hunger and obesity (Brody, 2002). Brazil's poor and lower class take the full blast of malnutrition as well as cause serious economic and environmental problems. Inadequate income prevents Brazilians from purchasing a decent food basket to sustain a healthy eating style and body weight.

One main reason Brazilians in poverty are malnourished is simply because their income prevents the purchasing of a healthy food basket (Meade et al., 2004). Brazil is a lower middle class country, with a gross per capita national income of around \$3,300 per year (Meade et al., 2004). \$3,300 in Brazil is generally enough to buy a healthy supply of food and have enough left over for both other necessities and luxuries. The average however is shrouded by a highly unequal income distribution. In Brazil a typical lower middle class person makes around \$900 per year (Meade et al., 2004). The relatively low income of a lower middle class family of four living in Sao Paulo (for understanding of the problem, the family shall retain a name, Muniz) in Brazil is a major factor of hunger and obesity. At first the Muniz family was on the edge of starvation. Now, their income has relatively increased while processed food has become cheaper. The Muniz family now is faced with the problem quite different to hunger: obesity. Concerning hunger, Brazil still faces two major problems. First, an income of \$900 a year is too low in Brazil to maintain food security. Some families are simply unable to buy all the healthy food and consume the necessary vitamins and minerals to maintain a healthy eating style. In fact the poorest people in Brazil only have the capacity to purchase a dismal 80-90% of the necessary 2200 standard calorie diet (Meade et

al., 2004). Second, the financially deprived tend to do an alarming amount of manual labor even to the extent of sending young children to work illegally. The illegal child labor in Brazil towers at nearly 560,000 (Soca, 2004). Both the children and adults in strenuous labor, especially plantation and factory workers are generally overworked and underfed.

When obesity is taken into account, the link between poverty and malnutrition is much more complex. Experts believe that one of the greatest causes of obesity is Brazil's transition from a traditional diet and lifestyle to a western one (Obesity among Hungry, 1999). As a transitional country shifting from the developing world to the developed, Brazil has been subjected to westernization. For one thing, Brazilians are making more money while food prices have become relatively low in comparison. Thus many of Brazil's poor and lower middle class, such as the Muniz family have more capacity to buy food. As a result of a past haunted with a constant hunger, many Brazilians, even the tragically poor buy as much cheap food with the most calories as possible (Brody, 2004). Unbeknownst to the buyers, most of the cheap high-calorie foods are just packed with empty calories and unhealthy carbohydrates while lacking the necessary vitamins for survival. Since the western businesses invaded Brazil, processed and junk foods like hamburgers, potato chips, and ice cream have attracted many of Brazil's poor and lower middle class because it's cheap and filling. The junk food combined with Brazil's natural craving for sweets has led Brazil to be second in sugar consumption per person, just behind the USA (Rother, 2005). As the two vices of humanity meet, Brazilian families such as the Muniz may experience all three forms of malnutrition in the same household. The sad part is that even though Brazil's poor couldn't dream of anything better than being fat with more than enough food, all the impoverished did was move the trash they were eating from the dumpster to McDonalds.

Since malnutrition is obviously linked to poverty, it's vital to look into the hopeless status of poverty in Brazil when one takes in the environmental, gender, and economic policies into account. The poor and lower middle class like the families generally "get the short end of the stick" when dealing with economic distribution. The poorest 20% owned about 2.2% of the national income and assets while the richest owned over 64% (Meade et al., 2004)! Brazil's unfair economic policies leave the typical family in the lower classes with little chance to rise from their early grave of inadequate income dug in the last half century by corrupt business and government officials. However, Brazil's new president, Lula de Silva vowed to reverse the trend by using tax money to raise the income rate one which allows the purchase of a healthy food basket (Meade et al., 2004). Whether he succeeds or fails is hard to tell and is very debatable. The impoverished of Brazil also affect Brazil's environmental policies greatly. Because of the growing demand for food, one of Brazil's fastest growing industries is agriculture. Around one-third of Brazil's active population is working on agriculture (Puggina, 2002). Unfortunately, agriculture puts great strain on what's left of Brazil's rainforests. Although big businesses have deals and limits with the Brazilian government about deforestation, subsistence farmers have very few obstacles in using rainforests for bad farmland. To change that, the International Fertilizers Association plan to invest heavily on Brazil to increase crop yield by using fertilizer instead of siphoning more and more forest (Puggina, 2002). Even gender issues also are influenced by malnutrition and poverty. One example involves taking young girls in impoverished communities and forcing them to work as domestic servants for little pay or food. Today, the practice is used as a symbol of male dominance, and both the Brazilian government and the Catholic Church (Brazil's most powerful and popular church) are cracking down on it (Soca, 2004). Because nourishment and poverty are so intertwined with Brazil's economic, gender and environmental policies, Brazil's improvement involving the key policies allows for a step in the right direction to annihilate the major problems caused by poverty.

The present status between poverty and its influence on malnourishment, although improved, is still one of Brazil's greatest demons. As stated earlier, roughly 16% (a number matched by many countries of Southeast Asia) of Brazilians are underweight and undernourished while around 36%, a

number rivaling much of the developed world, are overweight. Combined, over half of Brazil is malnourished (Brody, 2002). The impoverished (defined as the bottom 15 percentile) can only safely afford 80% of the nutrients of a 2200 calorie diet, the calorie intake is much higher due to empty calories through processed and junk food. Even the lower middle class, middle class standard families, which can afford 110% of the nutrients, eat the empty calories at the expense of vital nutrients to avoid hunger (Meade et al., 2004). However, their diets often result in obesity with vitamin/mineral deficiency. Although the lower classes view obesity as heaven, they are unaware of the health problems it may cause. Vitamin deficiency still remains a serious problem even among the obese. For example, forms of nutritional deficiency in all main forms of malnutrition include Vitamin A deficiency. Vitamin A deficiency is a serious health problem, generally leading to protein deficiency and anemia. It affects all of Brazil, especially northern Brazil. In the poorer region of northern Brazil, the number of children (the most vulnerable populous to vitamin deficiency) could be anywhere from 16% to 55%! Even in the rich Sao Paulo region, the percentage of kids lacking Vitamin A still lingers at 15% (National Food, 1995).

The present status of the crisis among hunger, obesity and poverty in Brazil is still bleak. The number of underweight and overweight people still hangs at unacceptable levels. An estimated 16% of the urban populous are underweight, up to 34-36% are deemed to be overweight, and 8.4% are obese (Brody, 2002). The people who are the most affected by Brazil's health problems are the poor, women, and children. The poor, especially in the subsistence farming northern region and heavily developed urban communities and the lower middle class account for all the hunger and share the burden of obesity almost equally with their richer counterparts. The rate of people living below the poverty in Northern Brazil can climb up to around 50% (National Food, 1995)! The problem lies not just with the capacity to buy food, but also the lack of education concerning a healthy diet. The two major problem-areas of Brazil, the north and metropolitan areas do not value education. Many in the north quit school to join their parents in a subsistence farming at the expense of the rainforest. As stated earlier, not only does the practice destroy the rainforest. Since the practice is unprofitable and inefficient, the farmers have to deforest more land to survive. The deforestation devastates the ecosystem which in turn reduces land productivity, forming a deteriorating cycle (Soca, 2004). In urban Brazil, a similar cycle occurs as the youth leave school to take low paying factory jobs to support the family. Women and children are also greatly hit by malnutrition. The rate of malnourished children towers above 40% in urban Sao Paulo (Sawaya, Dallal, Solymos et al., 1995). The rate is almost exclusive to the lower classes. Children are often encouraged to eat more, especially by their uneducated parents, obese themselves, thus the rate of obesity in children increases as the parents are obese (Sawaya, Dallal, Solymos et al., 1995). Women and girls can be more affected by malnutrition than their male counterparts. In urban Brazil, the percentage of obese girls in the inner-city outnumbered that of obese boys almost 21 to 8 (Sawaya, Dallal, Solymos et al., 1995). Experts believe that a major problem is the poor society's portrayal of women. While the developed world portrays the ideal woman with a big bust and skinny body, Brazilians, especially the poor, believe the ideal woman with a "guitar-shaped body", thus causing much of the difference between girls and boys (Rother, 2005). In contrast, the richer half of Brazil adapted the western perception of women. Interestingly enough, the change introduced a spike in eating disorders among women (Rother, 2005). Brazilian health still has a long journey ahead. Although some may welcome the decline in hunger, sooner or later, obesity, the new malnourishment problem, will make itself known as Brazil's newest enemy.

Hunger may have dropped slightly from the last couple decades; however, the overweight population has skyrocketed since 1970, from virtually non-existent to 36% in some urban areas (Rother, 2005). Cardiovascular diseases are now the main Brazilian death factor, hovering around 34% (National Food, 1995). The nation's poor still make only \$300-\$700. A dismal number that is still only able to afford 80% of the proper nutrients even if 70% of the profits are used on food (Meade et al., 2004). If the obesity rate increases at this rate and the poverty gap between rich and poor continues to widen, one may well see the obesity rate shoot out of control in just a few years. Something must be done especially about obesity and poverty. In January of 2003, the newly elected President of Brazil, Luiz Inacio Lula

de Silva launched a very ambitious program called Zero-Hunger. The plan was to eradicate what, according to Silva, Brazil's biggest health problem, hunger. The plan was to, by 2007, bring financial aid and food security to around 40-50 million Brazilian citizens which, by international standards, were considered hungry (people who were too financially insecure to afford a decent supply of healthy food) (Meade et al., 2004). As noble as his plan was, many critics now think that Silva should be focusing on the other main form of malnutrition: obesity. However Silva denied the statistics and is still defending his stance on hunger even now (Rother, 2005). Even now, obesity is growing rampantly, but many government officials and local people deny the facts. In the future, either Brazil admits the problem of obesity or Brazil will taste the consequences of massive chronic illnesses that even now have begun to sprout.

Though Silva seems to lead the country in the wrong path as far as health problems, he may indirectly help Brazil's health with his programs. His eradication of hunger program also will probably lead to the eradication of poverty. As stated earlier, all forms of malnutrition are linked with poverty. Silva's plan is to increase financial aid to increase wages in order to increase the total food purchasing power. He also plans to, by 2007, increase wages of the poorest 15% by around three percent a year in order to make it so that the poorest are able to afford all the adequate nutrition they need while only spending 30-50% of their income on food (Meade et al., 2004). Silva set up a remarkable feat that sounds too good to be true, but Silva may be on the verge to eliminate both hunger and poverty. By eliminating poverty, Brazil's malnourishment rate may also plunge as well. If Brazilians families are able to afford a decent food supply, the family may then be able to receive a higher education in which the family will learn about health and buy food the family can now afford. The death of poverty may also help Brazil's environment. If the subsistence farmers up north have more money, the farmers then are able to afford better fertilizer which in turn may limit the need to deforest more of the native rainforest (Puggina, 2002). The elimination of poverty will definitely help control the rates of both hunger and obesity, but if the government of Brazil, however, continues to turn a blind eye on obesity, the anti-poverty programs can only go so far.

In conclusion, Brazil is still plagued with malnutrition. While the hunger rate has been decline slowly, the obesity rate has been surging since the 1970's. The impoverished living in urban slums and subsistence agriculture has been the ones ravaged the most by the storm of malnourishment. Both hunger and obesity are still major problems in Brazil, but only obesity has skyrocketed as the transition between traditional diets and western diets continues. Brazil has been struggling against hunger and poverty ever since it was created, yet now a new contender has joined the war zone yet the government continues to ignore it. No one knows whether Brazil will realize the problem in time before it consumes the nation or whether Brazil is equipped well enough to stand and fight it while still having the power to deal with hunger. However, hope is not lost. A solution can be found. The first step would involve Brazil admitting that the problem exists and spend more money to fight. The second step is to educate the populous of the ills of obesity while the final step should eliminate poverty so the healthy food is available to all who seek it. The three steps are crucial to the tactics of defeating obesity. Whether or not Brazil or any other nation is able to wield them effectively is on an entirely new plane of understanding.

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