

Deepa Joshi, Student Participant
Millard North High School, Nebraska

Hunger and Obesity: the Atomic Bomb of Nutrition

Beggars exist in hidden corners, tiny stomachs screaming loudly to the rest of the world, their needs desperate for one's generosity. With their hands cupped together their eyes convey the story of despair. They demand no lavish items; all they ask for is one of the basic tools of survival for all living organisms. The idea of hunger is a recurring, prevailing problem that has endured for multiple generations. However, instead of just worrying about hunger a new crisis has evolved and has started to invade lives of all people, the rich as well as the poor. It is the very adverse idea of hunger that has begun to sweep the homes of people globally. This new malady is obesity. The magnitudes of both situations, hunger and obesity, as we are beginning to see, are jarring. Various parts of society are beginning to recognize the severity of each situation, however, only as separate entities. People remain oblivious to the situation that is capturing a plethora of countries around the world. Though these problems seem paradoxical, together they are in fact continuing to twist the lives of millions by causing an increase in diabetes, heart disease, and a decrease in the general quality of life. This problem is evident in areas that have suffered from high rates of hunger for years, such as in eastern Asia. One country that is going through this developing calamity is China. To explore the predicament in China one must first examine the lifestyle of a typical Chinese family, an important factor creating malnutrition, the effects of this factor on the people, and finally ways this pressing issue can be resolved.

China is developing into a globally competitive and technologically driven nation. Along with their rapidly changing country, the functioning of Chinese families is also changing. The number one job held by at least one member of a family, according to a 2003 estimation, 49 percent of the worker force, which consists of more than 760.8 million people, is in agriculture, rice ranking as the number one produced product nationally. As a result of urbanization, the computer industry comes in second and is currently one of the top five areas in needed positions. This industry accounts for 24.3 percent of the work force and 52.9 percent of China's GDP. Thus, a great number of China's families balance their livelihood off of these two job types. These jobs have had a large effect on hunger and obesity. First, when looking at jobs, one can find a dramatic change. For example, farming was once a physically rigorous field, however, the increase in the mechanization of equipment has reduced the amount of physical toil necessary. Manual labor has given way to powerful machines that get the work done in one third of the time and with a decrease in physical exhaustion. Also, farmers are beginning to yield one cash crop instead of a diverse range of crops that supported their subsistence livelihoods. The computer industry has also altered the health of the Chinese. The majority of jobs in the computer field are sedentary. These people come from a physically inactive day at work and fail to do any physical activity later on at home. In addition to a lack of jobs that allow for physical fitness for the Chinese adults is the blanket that allows people to think that the food they eat is well balanced. Fewer than two generations ago, rice and vegetables was the staple for dinner. Now most meals include exuberant amounts of oils, meat, eggs and rice. A diverse choice of foods is good, however, this diet is high in saturated fats and causes an increase in the energy density level. To add to the problems more women in China are working away from the home and the traditional food preparation patterns are deteriorating, allowing for more commercialized, processed foods. These foods also include monosodium glutamate, an additive that is used for flavor, may be the cause of palpitations and other health problems. This, along with a lack of physical activity, not only affects adults but the children too. One in five children aged 4 to 10 have been identified as overweight. Most Chinese families, because of law reforms, now consist of about 3.39 people statistically. Nuclear family includes two adults and one child. However, although all these statistics relate to families all across China there is another factor affecting a fairly significant number of

people that has a huge impact on the relationship between hunger and obesity. This factor deals with the impoverished people of China.

According to a July 2005 count, China's population consists of 1,306,313,812 people. Out of the entire population approximately 130,631,381 people- ten percent of the population-lives under the poverty line. Trends show a strong link between malnutrition and poverty. Hunger, one cause of malnutrition, has been associated with poverty for centuries. However, nutritional scientists have recently discovered that those who were once hungry are rapidly falling into the category of obesity. As a matter of fact, when last counted, over 1.1 billion people were hungry globally. Now the number of people considered obese is a shocking one billion people, almost equivalent to the number hungry. China, which has the biggest population, has also been predicted to soon contain the greatest number of obese people. The Chinese have reached this point due to a process labeled as the accelerating "nutrition transition." Factors such as more sedentary careers, a change in dietary trends to high fatty foods, urbanization, and new technological advances, such as cars, that reduce physical activity have all contributed to the nutrition transition. However, although obesity has been coupled with the upper middle class, those impoverished are also being affected now. Poverty plays into this transition primarily because when someone has not eaten and must provide food for his or her family, he or she is not thinking about a nutritionally balanced meal. That individual's thoughts are simply looking for something edible. It has been noted that the poor do not eat what they desire, nor what they know that they should eat, but what they can find. Unfortunately, the most cost efficient foods are the one's that are high in fat and filled with sugars. Trends have shown industrialized foods have become cheaper and are hitting every corner of the global market because they are capable of being mass produced. The consumption of oils and fats used in processed foods has doubled over the last 30 years. Pop machines are spreading throughout China and are replacing bottled water. Because these foods are so inexpensive, those who do suffer from poverty leap at opportunities for food. The number of processed foods being purchased in China is rising, showing a greater change in dietary patterns. Another indicator of the situation is that more and more people are moving to growing cities, which is where these fatty foods have made their hub. Because these foods are in demand and are earning profits for companies, the law permits for the manufacturing and distribution throughout schools and stores. Eating fast, cheap food sporadically does not cause any major harm to one's health. However, millions of people eat foods high in fat day after day resulting in obesity. Malnutrition is penetrating deeply through China and many developing countries are trying to eliminate spreading hunger rates. This also constitutes yet another problem. Obesity has usually been associated with the richer, high income families of China. But, as one can now see, the low-income families are also being affected by this nutritional disaster. This is a problem because most nutritional scientists do research on how obesity is affecting only upper classes, where most people think the problem occurs, and forget to look at those living in poverty. The lack of research in this area is allowing the continuation of the atrocious effects of obesity and hunger.

The effects of malnutrition have gone well beyond the scope of a few less vitamins here and there. There are two pathways in which malnutrition takes for causing problems to its people. The first path consists of the effects of hunger. For generations the images of skeletal faces and prematurely aged adults and children have been impressed in people's minds. These external horrors have caused mankind to turn their backs on those inflicted with hunger. People only see the external, gaunt effects and are oblivious to the internal ones. The internal effects are the most overwhelming to developing countries and the poor due to their lack of stability. Common ailments, such as the flu, are killing or stunting over 226 million people! The lack of food weakens immune systems, altering the Dendritic Cell's relationship with T-cells resulting in premature death. According to the World Health Organization, premature death also occurs because of a lack in calories for nearly one in three people. Every year about 15 million children die of hunger-related causes. This means that throughout the world, 40 000 children die every day! The loss of human life is comparable to an atomic bomb - similar to the one that destroyed

Hiroshima - were to be dropped on a densely populated area approximately every three days. The four most common childhood sicknesses are diarrhea, acute respiratory illness, malaria and measles. The most heartbreaking part is that each of these diseases is treatable. However, poverty hinders parents' access immunizations and medicines because they can not afford them. Chronic undernourishment on top of insufficient treatment greatly increases a child's risk of death. Economic effects come with malnourishment also. The constant searching of food consumes valuable time and energy of poor people. This takes time away for time for people to work and to earn an income. Also shown was children with unbalanced dietary patterns have a stunted growth and are more likely to drop out of school. This results in the perpetuating cycle of poverty for this new generation because they shut off new jobs for themselves. This path is disastrous and a resolution is desperately needed. The other course that malnutrition takes is obesity. Chronic conditions, such as hypertension, stroke, diabetes and cardiovascular disease, are closely linked to this road. As of now, China is prospecting to become the world leader in cardiovascular disease. These diseases divert people's ability to work and also drain scarce resources into health care. In China, the economic cost of diet-related chronic disease has been over 2 percent of GDP! This is a great loss for the country. The continuation of this trend would be disastrous not only to developing economies, but already established ones too. In relation to one of the significant factors, poverty, by 2030 malnutrition related diseases are projected to be the number one killer of poor people around the world. This results in a greater magnitude for burdens placed on countries such as China. The obstacle of both obesity and hunger combined is underestimated in the present, which is why it is imperative that a solution is found.

Now one must contemplate on how to solve this growing dilemma. The answer is not as simple as finding the missing variable in an equation. Hunger has existed for generations and still exists. However, by acting now a change can occur, and any change will help the victims of this disease. First, to improve this condition, efforts must address root of the situation, be sustainable (that is, programs must pay for themselves), and they must be implemented collaboratively with the local people as a long-term scenario. As a first step, carefully planned food aid should be sent to those who are worst effected by organizations such as the World Bank and the United Nations. Also, transportation must be asessed to make sure that food reaches areas needed without disrupting national production. Another possibility for organizations could be opening soup kitchens in poor areas along with food stamps. Job training programs are also a good addition because if the people are able to work they will also become able to support themselves. Then they must proceed to promote self-reliance in countries suffering form hunger. This will thereby reduce dependency on imports, usually the unhealthy foods. Governments can work with international organization to examine farm policies so that they encourage farmers to produce a diverse range of foods while being ensured that they get fair prices for their products and also land and water use. International organizations should start pulling people out of the dark and make known the effects of diets common to that country. As said by Professor Chen Chunming from the Chinese Center for Disease Control "We need a country-specific strategy for China based on the current situation of the food industry and the food market and of people's dietary patterns which are different from elsewhere." Specificity is key to the success for each country. For instance, in China, less use of oils should be advocated and foods should be ranked on a scale of how healthy they are overall. A greater cooperation among developed and developing nations could help eliminate trade agricultural trade barriers among those nations, making healthy foods accessible and cheap. Also, countries could take part in stabilizing international prices for agricultural commodities. This would reduce malnutrition by making healthy foods available to more people at an affordable price. Individually, people all across the world, should try to stop the waste of food at home and also over consumption. A variety of global efforts as well as local efforts are necessary to end world hunger and obesity.

The hungry are in the background hoping someone will notice them and help. This time they are lucky. Their call is starting to be heard. Through collective efforts on an international scale hunger and

obesity can be conquered. Hunger by itself can be a heavy task to overcome; however, it is now known that obesity is beginning to reach the levels hunger in many nations. Foods once considered healthy are being taken over by saturated fats and are only giving the illusion of being healthy. People are resorting to more stationary lifestyles and new technological advances to reduce physical burdens. Obesity was once only linked to the rich but now is spreading to the poor. The effects are disastrous to countries and more importantly to the people. Diet-related non-communicable diseases are reaching atrocious levels in countries that are still struggling to eliminate poverty. One country shown in East Asia is China. The impoverished people of China are trying to battle this wide spreading threat. Even though family lifestyles are changing, with the help of more physical activity, healthy lifestyles can be restored. It is vital that solutions to malnutrition are found and implemented in order to stop a massive epidemic of malnutrition in China. By uniting together as a collective whole, hopefully, hunger and obesity can become a part of history instead of a daily burden on people's lives.

Bibliography

Burslem, Chris. "Obesity in Developing Countries: People are Overweight But Still Not Well Nourished." Hunger Notes. 11, November 2004. 12, August, 2005. Millard North High School. <<http://www.worldhunger.org/articles/04/global/burslem.htm>>

"China." CIA World Fact Book. 10, September 2005. Millard North High School. <<http://www.cia.gov/cia/publications/factbook/geos/ch.html>>

"Hunger and Food Today." Women Aid International. 15, September 2005. Millard North High School. <www.womenaid.org/press/info/food/food4.htm>

Sime, Richard, ed. "Obesity in China." Facts on the World. Austin: Holt, Green Haven Press, 2000.262.

"The Developing World's New Burden: Obesity." Food and Agricultural Organization of the United Nations. 22, August 2005. <<http://www.fao.org/FOCUS/E/obesity/obes1.htm>>