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## Malnutrition and Obesity: China's Emerging Health Crisis

Though the Chinese government's incorporation of a market economy quickly brought China out of its repression and liberated its confined farmers, the economy's explosive growth has not come without consequence. Today's world paradox of obesity and hunger becoming equal opponents is reflected in China by the issues surrounding their rural and urban nutritional disparities. China's past malnutrition issues have primarily come from its rural inhabitants, revolving around their extreme poverty. However, China's future will be overwhelmed with new forms of malnutrition complexities and complications, in addition to its hungry population. These hardships, in the form of increasing obesity, hypertension, and heart disease, will come not from its rural centers, but from its emerging urban population, while large areas of poverty still remain for this developing country to eliminate. According to recent statistics, the biggest health crisis is in China's cities, with 12% of adults and 8% of children classified as obese, while in the past ten years, China's overall obesity rate has increased by an astronomical 97%. Despite China's 9% growth rate, there is enormous wealth disparity between provinces. Official statistics show the number of people living in absolute poverty rose last year, the first increase in 25 years.

Today the state of the world is unique, as the number of underweight has decreased to equal the rapidly increasing amount of overweight in the population, with approximately 1.1 billion people in each category. Inadequate nutrition affects both underweight people and overweight people. Obesity is a division of the overweight class and is defined as an abnormal body weight, typically 20 percent or more over a person's ideal weight or, a Body Mass Index (BMI) of 30 or greater. This global condition of malnutrition is reflected in the communist state of the People's Republic of China.

Throughout China's wide-ranging history the constant that remains is the guarantee for economic and political change. During the late 1970s China's communist government loosened controls and began to embrace a socialistic market economy. This dramatic change, abandoning Stalin's model of collective farming and disbanding the strict Hoku System, opened the doors for millions of awaiting rural Chinese migrants, which has resulted in the largest migration of people and resources in history. This migration from rural to urban areas is still gaining force today.

The Chinese farmer has suffered a history of oppression. This historic detail is a major factor in the country's inner migration. During China's Cultural Revolution from the late 1950's to 1970s, rural to urban migration was made virtually impossible under the Hoku system. Throughout this period where collective farms thrived, economic productivity was low as the system did not reward for extra work, due to their incorporation of the communist principle of equality. Thus farmers had no incentive to exceed production requirements. During the late 1970s when private enterprise was allowed again, the majority of farmers rushed away from their lives of hardship, towards lives of hopeful accomplishment in idealized cities.

Wang and Liu Yuan, residents of Shanghai China, are new members of China's economic awakening. Wang, a highly regarded employee at the Bank of Shanghai, has succeeded in making a profitable life for his family, living in a city where average incomes are ten times higher than in the surrounding towns. This is a feat his relatives of a generation ago would never have been able to accomplish.

Since 1979, family life in China, a country with some 340 million families averaging 3.63 people per household, has been shaped by the one-child policy. Though this government action did not have the

major affect upon the demographics as was planned, it did demonstrate to what extent the Chinese government is willingly to go to control the skyrocketing population. They do, however, offer a one-child certificate, which upon signing, one can obtain certain economic and educational advantages for their promised one child. This was taken advantage of by the Yuan family.

The Yuan family, though urban residents, have a rural past. Wang's father's family worked a plot in a surrounding Shanghai province. But when Wang was born it was to be during a time of change unknown to this family land. As Wang grew up so did the great city in the distance. He vowed to one day become of part of that progress and thus advance the Yuan family economically. Wang, having some education, succeeded in his pursuit, unlike so many of the other rural migrants overcome by poverty in Shanghai. It was in Shanghai that he met Liu. She had lived in the city all her life, as had her parents. Her father held a respectable position at a bank, and as Wang showed obvious dexterity with all things numerical, Liu's father had no trouble in recommending him to the banking corporation where Wang currently works. There he succeeded through hard work and talent, and Wang and Liu were married. Wang, Liu, their child Bin, and Wang's older sister, Sue, currently live in a small but comfortable apartment in Puxi. As now both Wang and Liu work, Sue is the primary caretaker of Henry. As the Yuan family income has increased so has the amount of money they spend on food, around 50% of their expenditure. As well, the average weight of the family has increased, thanks to an overall increase in consumption of western style foods. This family's weight situation shows no signs of improvement in the future.

Bin Yuan, having never seen a life like his father's, has grown to be a 10-year old unaffected by the starvation prevalent for much of China's population, both past and present. As he leads a mainly sedentary lifestyle coupled with a diet rich in western foods, Bin lacks the physical activity and healthy nutrition necessary to control his weight. Bin's weight has placed him in the obese category, though his family remains unfazed by his problem as they see his weight as a sign of their prosperity. He is their "little emperor".

Liu Yuan, an administrative assistant at a new western restaurant, utilizes her excellent English skills through interaction with customers. As a result of eating mostly restaurant prepared food and her favorite steamed buns from a local stand near the family apartment, coupled with little physical activity, Liu, previously a healthy weight, has gained approximately 35 lbs. in the past 7 years. In a recent annual physical Liu was shocked to learn she suffers from high blood pressure. As a result, she is reconsidering her diet and lack of physical exercise.

Aunt Sue, due to a great distrust in elevators, gets a good dose of daily exercise as the family resides on the 16<sup>th</sup> floor. She prefers the traditional methods of Chinese cooking, taught to her in the rural home of her youth. However, she is lenient with Henry as she allows the western style food from his mother's restaurant to be an additional part of his diet.

Wang Yuan is the most physically fit member of the family, having three years ago joined his company's health club. He prefers the more familiar traditionally prepared food of his past and is the only member of his family who upholds the average Chinese calorie consumption of 2,600 kcal per person per day. Wang remains primarily focused in providing an upwardly mobile life for his family.

Shanghai, China, "Queen of the Orient", is the center for economic, commercial, and financial progress in China. Its strategic positioning on the Yangtze River Delta has led it to become the busiest port city in the world. But the uniqueness of Shanghai lies in its metropolitan representation of the path of China's "new" economy. Separated by the Huangpu River, two districts form Shanghai. The older, "Puxi", lies on the river's west bank. In this area Shanghai's cultural and entertainment venues, as well as residential vicinities, are represented. To the east of the Huangpu lies the second district, "Pudong".

Contrasting with Puxi, this district has become China's financial and commercial hub. It is here that China's progress is best represented. The Pudong area was mostly farmland until the 1990's. The Chinese government then decided to make a "special economic zone" in the district. As a special economic zone, Pudong operates under special policies and flexible measures allotted by the central government in order to increase foreign investment. These include special tax incentives for foreign investors, products being mainly export-oriented, and encompassing economic activities largely determined by the market.

As a forerunner of Chinese economic progress, Shanghai also leads its nation in other matters. With a population of approximately 10 million, more than 15% of Shanghai's primary school students suffer from obesity, while 4.3% of adults share a similar fate; as well, 29.5% of Shanghainese adults are classified as overweight. This transition from overweight to obese occurs when excess fat accumulates to the point that it will adversely affect the health of an individual. The prevalence of obesity increased 13.5% from previous years for the student population, and there is now an average of every fifth child being obese in Shanghai, Bin Yuan being one of the five.

For a broad overall perspective, according to the World Health Organization, obesity-related ailments afflict more than 115 million people in the developing world, up from essentially none two generations ago. By 2030, these diseases as a group are projected to be the number one killer of poor people in the world. To be more focused, the biggest problem with malnourishment, specifically obesity, is in China's cities where 12% of adults and 8% of children are classified as obese, adults affected being primarily the middle aged, where physical exercise lacks priority. Middle-aged women aged 30-39 reported performing the least amount of physical exercise, a total of 23.9%. Zhao Yinghua, vice-chair of the Shanghai Physical Culture Administration, sees an urgent challenge in these figures: "Adults need to be educated on the health benefits of physical exercise", he said. An additional source discussing the ailments of the middle aged states that, "Among those between 30 and 59 the situation is worse: more than half of them are overweight." However, the problem is still significant among the younger generation. A national survey reported that 30 million Chinese over the age of 20 were overweight last year. Already China is a nation where 18% of the population is overweight and 100 million are suffering from high blood pressure. As well, an additional 26 million were diagnosed with diabetes.

The contributions to China's mounting obesity epidemic can be seen in the rise of excess caloric intake, a decrease of physical exercise due to a strengthened transportation infrastructure, and malnutrition deficiencies resulting specifically from impoverished citizens. According to Neville Rigby, a director at the International Obesity Taskforce based in London, "We are seeing the spread of a different form of malnutrition in the developing world and the globalization of chronic diseases due to the adoption of energy-dense high calorie diets, high in fat and sugars, and Western style work and social infrastructures." This globalization can be stopped but it requires a great amount of corporate support and cooperation.

If the factor of malnutrition was alleviated within the Yuan family, overall food consumption would not greatly decrease, but the nutritional quality of that food would greatly improve. The Yuan family represents the common misconception that if impoverished citizens are given the tools to increase their income a better diet would automatically accompany that. The issue is not that simple, and thus not easily improved. As stated by Wang Longde, China's Vice Health Minister, "The Chinese population does not have enough awareness and lacks knowledge of what is a reasonable nutrition and diet." What must accompany increased income is advice about how to live a healthy lifestyle and avoid nutritionally deficient foods.

To additionally emphasize the great impact of this epidemic on metropolitan areas, according to the China Population and Development Country Report, "the number of those living in rural poverty fell

from 80 million people by the end of 1993 to 29 million in 2003.” It additionally stated that, “In 2003, an estimated number of 22.48 million urban residents had incomes below the basic standard of living. The largest proportion of urban and poor is women and children.” To eliminate this problem, “an urban poverty reduction mechanism has been set up to address the issues of the poverty in China’s urban areas. Urban poverty differs from rural poverty and results primarily from changes in the structure of China’s economy and from resulting pressures on employment.” Poverty contributes largely to malnutrition as impoverished citizens lack the resources, convenient access, and nutritional education to maintain a healthy diet and lifestyle.

Though obesity in China is a serious epidemic, the Chinese nation cannot forget its dual malnutrition problem of hunger that must also be alleviated. Hunger in China is concentrated mainly in resource-deficient rural areas. An estimated 30 million people continue to live below the government’s poverty line of \$0.27 per person per day in China, with rural women and children remaining the most disadvantaged and vulnerable of citizens. But this grave problem of hunger remains hidden behind the government’s obvious economic successes. For example, according to the World Food Programme (WFP), “Per capita daily food availability and consumption rose from 1,700 kcal in 1960 to 2,570 kcal in 1995” (for China). “National food self-sufficiency, however, hides huge regional disparities in food insecurity in marginal and remote areas.”

Rural poor face many agricultural difficulties. “In 2003, China fed 1.26 billion people (20 percent of the world’s population) on 7 percent of the world’s arable land”, according to the WFP. China’s continually booming population puts constant strains on China’s available farmland. This population density factor, coupled with a low availability of arable land (29%) which continues to decrease at an annual rate of 200,000 ha, results in a high amount of rurally disadvantaged citizens. Other contributions to food insecurity include late spring droughts, summer flooding, occasional typhoons, water shortages, and an inadequate investment in research on the part of the Chinese government. This tendency of discrimination towards the small-scale farmers, in favor of large corporate agriculture, must be addressed.

However, in Shanghai, hunger issues are no longer so much of a concern, yet these have been replaced by those of an environmental nature. As stated by PBS, “Today, the nightmare of extreme hunger is long gone. Shanghai’s markets overflow with fresh produce and once unimaginable luxuries like milk, eggs, and beef. In a sense the abundance of food is both a monument to the country’s economic boom and a preview of China in the 21<sup>st</sup> century.” Shanghai’s agriculture, based on the Yangtze River Delta, thrives thanks to its reliance on China’s most fertile soil. Every available acre of land is under cultivation and harvests take place up to two or three times a year. Yet in exchange for this fruitful bounty, land and water resources have begun to suffer. “China’s most threatening agricultural problem is its booming industrial growth. Each year China loses about one million acres of farmland to new factories and real estate development.” China has set aside agricultural production for industrial growth, while ignoring environmental signs as more than half of China’s rivers and lakes are seriously contaminated from industrial waste and agricultural run-off. Shanghai’s water quality has previously failed to meet World Health Organization and Chinese standards due to these issues. The economy’s boom coupled with environmental degradation was addressed by Pan Yue, a deputy director of China’s State Environmental Protection Administration. “This miracle will end soon because the environment can no longer keep pace,” he stated.

In order for these complications to be reversed proper policies must be implemented immediately in order to change this country’s adverse future. The two malnourishment extremes of obesity and hunger affecting today’s China must be resolved with equally effective yet different techniques. But first, an overall acknowledgement towards the detrimental condition of its country by China’s people and government must take place. They must be made aware of the gravity of their mounting health crisis and

its potential impact upon their future. In both malnutrition extremities, a basic understanding could be employed through a nutritional education. In urban China a social education can be presented through China's media and advertising corporations to instill a basic knowledge of appropriate personal nutrition. In rural China, education may come second to strengthening their social and transportation infrastructures in order to improve overall food distribution, as well as increasing the government attention. This will also serve as a general means to connect to the educational sources. To eliminate hunger specifically, there must be an increase in the amount of funding for scientific and technological research in order to advance agricultural production and efficiency, in a nation increasingly market-orientated rather than agriculturally. Policies must also be enacted to reverse the environmental degradation currently taking place in China's metropolitan zones or China will soon be left with no land to cultivate, forcing them to turn to an entirely import-oriented economy. This in turn will cause an enormous strain on world exports causing a global shift that would push beyond Earth's limits of grain production in order to feed roughly 1.3 billion Chinese.

China's government is currently taking several steps to address these issues. Presently, obesity has been targeted in a national regulation, though now under the revision by the Ministry of Health. This is China's first regulation specializing in nutrition improvement and enforcement. According to the China Daily, "China is to work out a national nutrition regulation to safeguard healthier nutrition intake and ensure food safety among all of its 1.3 billion population." In other matters, hunger is being addressed through poverty reduction methods known for by the Chinese government, though more of a focus is needed for impoverished rural areas, as hunger is more a cause of poverty than an effect.

There are many things the Chinese government could consider to alleviate their unique problem. These solutions can be found by looking to their Western counterpart, America, to see what steps they are taking to alleviate their own, already prevalent, obesity epidemic. As stated by the Global Policy Reform, "To solve the world hunger crisis, it's necessary to do more than send emergency food aid to countries facing famine. Leaders must address the globalized system of agricultural production and trade that favors large corporate agriculture and export-oriented crops while discriminating against small-scale farmers and agriculture oriented to local needs. As a result of official inaction, more than thirty million people die of malnutrition and starvation every year. Excessive meat production, again largely for the affluent, requires massive amounts of feed grains that might otherwise sustain poor families. Giant agribusiness, chemical and restaurant companies like Cargill, Monsanto and McDonald's dominate the world's food chain, building a global dependence on unhealthy and genetically dangerous products. These companies are racing to secure patents on every plant and living organism and their intensive advertising seeks to persuade the world's consumers to eat more and more sweets, snacks, burgers, and soft drinks."

Leaders must also work with organizations within their own countries that are attempting to improve the nutritional health of their citizens. In the United States one such example may be found in the American Heart Association/Clinton Foundation Allegiance. (See [www.americanheart.org/heathierkids](http://www.americanheart.org/heathierkids) or [www.clintonfoundation.org](http://www.clintonfoundation.org) on the web.)

The People's Republic of China is a manifestation of the present world paradox of obesity and hunger, but China has the ability to alleviate these problems. China's embrace of a market economy in the 1970's reformed more than just their trade and economy; it fundamentally changed their culture. A Western-style lifestyle was adopted and, subsequently, the Chinese have begun to face Western-style problems. However, the Chinese have the unique advantage of foreseeing this epidemic of obesity. They have the tools and the resources required; they just need to awaken the sleeping giant within themselves and realize the necessity of using them. If policies are implemented now and government agencies are set up immediately in order to respond to this problem, the Chinese can avoid being impacted so significantly by this growing epidemic. They must look to America as an example of the negative effects of obesity. We as nations must work and learn together so that we as one can avoid the most easily avoidable killer,

obesity. With China's growing progress, they must not overlook the importance the role the small-farmer plays in hunger prevention in rural areas as they move to a more industrialized future. Equal attention must be given to these equally daunting issues of hunger and obesity for both place human lives in jeopardy through the dire effects of malnutrition. If the Chinese government acts magnanimously in the face of such a great atrocity of public health, they will avoid willfully condemning their own people to a life of obesity and the relegation of others to a life of want and hunger. China's emerging health problems of malnutrition and obesity can be used as way to actuate an effective solution for the world's twenty-first century health crisis.

## BIBLIOGRAPHY

"10 pc of China's Children Are Obese." AFP. May 4, 2004. Daily Times.  
<<http://www.dailytimes.com>>

Buslem, Chris. "The Changing Face of Malnutrition." International Food Policy Research Institute Forum. Oct. 2004. Reprinted as "Obesity in Developing Countries: People Are Overweight But Still Not Well Nourished." Hunger Notes Home Page.  
< <http://www.worldhunger.org>>

"China 'no longer needs food aid'." BBC News. Dec. 13, 2004.  
<http://www.news.bbc.co.uk>

"China's One Child Policy." Overpopulation.com Home Page.  
<http://www.overpopulation.com>

"China, People's Republic of." World Food Programme.  
[http://www.wfp.org/appeals/bluebook/by\\_countries/156.pdf](http://www.wfp.org/appeals/bluebook/by_countries/156.pdf)

"China: Shanghai Environment Project." World Bank.  
<<http://www.worldbank.org/nipr/china/pids/shanghai.htm>>

"China Warned of Obesity Time-Bomb." BBC News. June 18, 2005.  
<http://www.news.bbc.co.uk>

"Chinese Concern at Obesity Surge." BBC News. Oct. 12, 2004.  
<http://www.newsvote.bbc.co.uk>

"Consumer Expenditure of the Typical Shanghai Household." (Shanghai Statistical Yearbook, 2001.) Intage-the Intelligence Provider.  
<[http://intage.co.jp/express/02\\_02/shanghai/](http://intage.co.jp/express/02_02/shanghai/)>

"Country Profile: China." BBC News. Aug. 30, 2005. <http://www.bbc.news.co.uk>

"FAO's Priorities: First Hunger, Then Obesity." Food and Agriculture Organization of the United Nations. <<http://www.fao.org/Focus/E/obes3.htm>>

Fishman, Ted C. China, Inc. New York: Scribner, 2005.

Hewitt, Duncan. "China Battles Obesity." BBC News. May 23, 2000.  
<<http://www.news.bbc.co.uk>>

- Hope, Polly. "Big in Taiwan." BBC News. Sept. 1, 2000. <http://www.news.bbc.co.uk>
- Huo, Yongzhe. "Obesity Targeted in National Regulation." China Daily. July 18, 2005.
- "Hunger and the Globalized System of Trade and Food Production." World Hunger.  
<http://www.globalpolicy.org>
- Jackson, Annabel. Food of the World: China the Food and the Lifestyle. Bath, UK: Parragon, 2004.
- Kristof, Nicholas D., and Sheryl WuDunn. China Wakes. New York: Random House, 1994.
- Kurtenbach, Elaine. "Gap Between China's Rich, Poor Alarming." Associated Press. Sept. 21, 2005. Yahoo! News. <<http://news.yahoo.com>>
- Lynch, David J. "Pollution Poisons China's Progress." USA Today. July 4, 2005. Global Policy Forum. <<http://www.globalpolicy.org>>
- "Obesity and Cancer: Questions and Answers." March 16, 2004. National Cancer Institute. < [http://cis.nci.nih.gov/fact/3\\_70.htm](http://cis.nci.nih.gov/fact/3_70.htm)>
- "Obesity in China: The Nutrition Transition." University of Pittsburg. <<http://www.pitt.edu>>
- "Personal Income, Consumption, Savings." Welcome to Shanghai. <<http://www.shme.com>>
- Popkin, Barry M., Ph.D., and Colleen M. Dock, M.A. "The Obesity Epidemic Is a Worldwide Phenomenon." Nutrition Reviews. Vol. 56. No. 4. April, 1998. Carolina Population Center/China Health and Nutrition Survey. < <http://www.cpc.unc.edu/projects/China/Papers/>>
- "Rural Poverty Down, Urban Poverty Up." Xinhua News Agency. Sept. 8, 2004. China Internet Information Center. <<http://www.china.org>>
- "Shanghai." Wikipedia. <<http://www.en.wikipedia.org>>
- "Special Economic Zone in the People's Republic of China." Wikipedia. <http://www.en.wikipedia.org>
- "Stories of Hope." Journey to Planet Earth. <<http://www.pbs.org/journeytoplanetearth/hope/yangtze.html>>
- "The Atlas of Population, Environment, and Sustainable Development of China." Science Press, 2000. Socioeconomic Data and Applications Center. <<http://www.sedac.ciesin.org/china>>
- "The Problem." Monash University Center for Obesity Research and Education. <http://www.core.monash.org/problem.html>

