

Sydney Taylor  
Portage Collegiate Institute  
Portage la Prairie, MB  
Factor 10: Dietary Diseases, China

### **China: Growing in more ways than one**

China makes up almost 10 percent of the world population. China has made great strides in achieving the Millennium Development Goal of eradicating extreme poverty and hunger. "We have witnessed remarkable progress in China's hunger and poverty alleviation efforts during the past 34 years, from one-third of Chinese people suffering hunger to less than one-tenth," said Brett Rierson, Representative of the World Food Program (WFP) in China (*CCTC.COM*). China is a fast developing nation with an increasing urban population and changing diet. Along with these changes China is experiencing a rising rate of dietary diseases. Heart disease and cancer now rank in the top five causes of death in both the urban and rural population (Huang). Causes for this rise appear to be lack of income to buy nutritious food and lack of knowledge about what a nutritious diet is. Rierson said that China should focus more on nutrition besides calories, as malnutrition could undermine quality economic growth, and "may blunt children's physical health and intellectual development, impacting talent for driving economic growth." (*CCTC.COM*) Improving nutrition will also help to decrease the amount of dietary disease. I will discuss 4 solutions for increasing nutrition including nutritional education in schools, public nutrition awareness programs, urban garden training for poor urban students, and urban agriculture.

Traditionally the male in the family is responsible for maintaining, protecting and providing for his loved ones. The female would typically stay home to take care of the children and the home and provide most of the cooking. In some cases, the woman of the house would have a paid job outside the home as well. This often occurs because the family could not otherwise make ends meet with just having the male working. The family size would consist of one child or under special circumstances two children. This is due to the "one child policy". The main food staples in the diet of an urban poor family are grains and rice. The urban poor are often better off than the rural poor because the urban poor have better access to healthy foods at a lower cost than the rural do. The average urban male is taller and 3 kg heavier than rural males by age 14. Similarly, urban females on average are 3 centimeters taller than rural females and 4 kg heavier. (Food and Agriculture Organization of the United Nations)

Better nutrition for the urban poor is still needed however as the urban male is 10 centimeters shorter than the World Health Organization (WHO) average.

China has a user-pay healthcare system. Citizens are required to pay a basic fee as well as pay for each visit and each time they receive a treatment. There are no appointments so people wait in a line-up to see a healthcare provider which is an added cost in time lost. Some regions have poorly trained staff making it difficult for the urban poor to receive adequate care. The lack of trained health care professionals and the burden of cost, means people may end up delaying the diagnoses of a serious dietary disease.

Urban centers in China all have an area that they call a city center where all of the main shopping places are located. Most consumers shop at the Hyper Market, also called the Mega store, which carries everything you would need in a home from kitchen supplies to home goods to some furniture and even clothing. They also carry all the food you would need and are generally cheaper. The Mega stores are very busy all the time. Consumers also have the choice of shopping at outdoor food markets where vendors each offer different types of food and so consumers must make several stops to purchase their food. However these outdoor markets rarely have fresh food for sale because it is difficult to get fresh fruits and vegetables from the rural farming areas into these densely populated areas due to a lack of a good distribution system. Another option is the basic grocery store which is small, but carries most

necessary supplies, a better selection of fresh produce and a wider selection of meats than the outdoor food markets (Shanghai Guru).

Beyond the city center you will find smaller neighborhoods that are often referred to as villages. In each village you will find small markets. They offer fresh produce and their selection is usually fresher than the city center markets. The selection of meat in the village market locations is lacking. When meat is available it does not stay fresh for long and there is a lack of proper storage and refrigeration (*Chinese-Traditions-and-Cultures*). The selection of fresh meat is better, safer and more reliable in the city centers.

The urban poor deal with unemployment, lack of long term employment and low paid employment. An average monthly minimum wage in China is \$3900.00 (\$633.99 US) Yuan per month based on a 40 hour week and a four week month. The monthly amount of money recommended for a person to achieve the recommended amount of food in a 31 day month is \$242.96 US (Numbeo). People working in the agriculture industry, animal husbandry, forestry or even fishery have the lowest monthly wage, at just over \$2500.00 (\$406.41 US) Yuan a month (*China Labour Bulletin*). Although working in agriculture does often mean working for a lower wage you would have additional benefits such as access to better food sources than an urban employed worker.

The gap between the wages of the rich and the poor has greatly increased over the past 2 decades. Currently, the gap between the highest paid top executives is about 10 times the average wage. In major state-owned enterprises the top executive pay is about 16 times the average state owned enterprise employee (*China Labour Bulletin*). This means lower income level families are struggling to afford the increasing cost of food, housing, clothing, transportation and telecommunication and rarely have enough income to pay for more nutritious food choices or health care.

The number of people with dietary disease is increasing every year. The top five leading causes of death in China’s urban population are cancer, stroke, heart disease, chronic obstructive pulmonary disease and injury. (Huang) The ages at which dietary diseases are having an impact on people is slowly getting lower and lower.

China measures the impact and trend in dietary diseases by the number of deaths each dietary disease causes. In 1995, diet related chronic diseases accounted for 41.6 percent of all deaths (Popkin, Horton, and Kim). Studies show that by 2025, 52 percent of all deaths in China will be caused by some sort of diet related disease.

#### Impact of Dietary Diseases in China

##### 1995 Estimates

Number of adult deaths annually	2.57 million (41.6 % of all deaths)
Annual hospital costs	\$11.74 billion (22.6% of hospital costs; 1.6% of GDP)
Productivity losses due to premature death	\$3.41 billion (0.5% of GDP)
Total monetary cost	\$17.50 billion (about 2.1% of GDP)

##### 2025 predictions

Number of adult deaths annually	7.63 million (52.0% of all deaths)
---------------------------------	------------------------------------

Source: Authors’ calculations, based on Appendix Tables 19 and 20, and Table 5.

Note: US\$1 = 8.09 Yuan (Renminbi) and (Popkin, Horton, and Kim)

Research shows that a diet high in fats and low in vegetables and fruits increases the risk of cancer and heart disease (*Better Health Channel*). Other risk factors include smoking and second hand smoke (*Better*

*Health Channel*). High blood pressure is another risk for heart disease (NHS Choices). The Chinese diet is shifting toward higher fat and lower carbohydrate content. The Chinese people are eating more foods from animal sources, edible oils and dairy even though individuals in China have access to fresh produce and urban Chinese have comparable access to fresh produce as rural Chinese (Popkin, Horton, and Kim). The main issue appears to be a lack of knowledge about healthy nutrition and what foods to choose when shopping at the markets.

Individuals who have a dietary disease will require health care for the rest of their lives. Since China has a use-pay health care system part of the family's income every year will be needed to pay for treatment. Poor urban families already struggle to afford basic needs. They have no extra income to pay for health care so either they will not seek treatment or they will not have income needed to buy basics such as nutritious food after they have paid for medical expenses. Either way their health is likely to get worse. For a wage earner having a dietary disease may also mean more lost work days due to illness or not being able to work at all which will greatly reduce the family income sending the family deeper into poverty.

For the country, dietary diseases increase the long term demand for health care services on an already stressed health care system. Increasing rates of dietary disease will cause the overall productivity of the workforce to decrease which will lead to a slowdown in economic growth. Preventing dietary disease would result in a healthier population and a healthier economy.

The only way to decrease the amount of dietary disease is to have the Chinese people adopt a healthier lifestyle. Eating a balanced nutritious diet is a big part of a healthy lifestyle.

Educating youth can be used to help break the cycle of diet related diseases. If the youth entering the school system have classes about food and nutrition they are able to pass on this knowledge to the next generation and also bring knowledge home to their parents. As part of its technical assistance to the Government of China in the promotion of health-promoting schools, the Health Education and Health Promotion Unit of the World Health Organization collaborated with the Food and Agricultural Organization to pilot the China School Nutrition Project in six schools from May 2000 to November 2001 (Food and Agriculture Organization of the United Nations). Results showed that both primary and secondary students' knowledge of nutrition and their parents' knowledge showed significant improvements (Health Promotion International). Results also suggested that nutrition and health education become a regular part of the school curriculum (Health Promotion International). Expanding this program to all schools in China is one solution for decreasing dietary disease. Everyone will need to work together to expand the program. Programs that help with overall health are most successful when community, government, corporations and other organizations work together with a common goal (Food and Agriculture Organization of the United Nations).

Learning about healthy eating and the importance of proper nutrition in eliminating, managing and preventing dietary diseases is important at all ages. One way to reach beyond the classroom could be through public awareness campaigns delivered through TV, radio, social media and print including posters in restaurants, markets and shopping centers. In my country, Canada, public awareness campaigns use all of these ways to advertise and educate people about Canada's Food Guide as well as proper portion sizes and varieties of foods you need to eat for proper health. I believe that if China adopted a program similar to Canada's and advertised it as much as we do that would help tremendously. China could also look to Thailand as they have also successfully used mass media for other health promotion efforts and are moving to pilot schemes in the area of chronic disease (Popkin, Horton, and Kim).

Knowledge about nutrition alone will not help to improve the diet of a poor urban family if they do not have the income to buy the nutritional food they need. One way they could improve the quality of food they eat is through urban gardening. Urban gardening can be practiced on balconies and roof tops. Urban gardening is already being practiced in many areas of China. Providing urban poor families with urban gardening skills would allow them to grow many of their own fruits and vegetables instead of buying them. They would be able to use the income saved for other basic needs and have a healthier diet at the same time. Schools located in poor urban areas could have urban gardens and use them to teach students gardening skills. Then these students could go home and share this knowledge and build an urban garden with their family. This would go a long way to create healthy habits and long term health benefits for these families. One international not-for-profit organization that could provide assistance would be the RUAF Foundation, Resource Centre on Urban Agriculture and Food Security.

Improving the diet of all urban Chinese is also important if dietary diseases are going to be reduced. On a larger scale urban agriculture holds much promise. Urban agriculture is the practice of incorporating farming into city areas through mixed land use and innovative techniques that allow cultivation to occur on much smaller plots of land (Jianming Cai). Beijing has encouraged urban agriculture since the 1990's. In 2004, they started a program called the "221 Project". The project provides comprehensive guidelines and concrete actions for enhancing urban agriculture. The first "2" refers to a better understanding of agriculture resources and urban market demands; the second refers to technology application and investment inputs; and the "1" calls for a single information system that links agricultural production, exchange, and marketing" (Jianming Cai). Increasing the number of urban areas which include urban agriculture will increase the amount of healthy food grown and available in urban areas. Other cities wanting to create or expand urban agriculture can use Beijing as a model. The Beijing 221 project will provide them with easy access to information to use to create their own policies.

After reviewing the facts, statements and statistics we now have a better understanding of the difficulties of life in China as an urban poor family. China has taken many positive steps to eliminate extreme poverty in much of its population for which it is to be commended. Increasing wealth and urbanization has changed dietary habits and as a result increased dietary disease like heart disease and cancer.

Research concludes that accessibility to the right foods including fresh fruits and vegetables in most places is not an issue. Knowledge about the importance of purchasing, growing and using fresh fruits and vegetables will become an integral part of changing the health landscape in China. Additional promotion and awareness of urban gardening are positive steps in creating a solution.

The increasing rates of dietary disease will place a strain on China's health care system, lower worker productivity, slow economic growth and push poor urban families deeper into poverty. The present status of dietary diseases is not favorable and education is the key to reversing this trend. Creating a plan that brings together community, government, corporations and other organizations will bring China closer to success.

In closing, dietary diseases are and will continue to be a topical issue in China for the foreseeable future. It will forever be my dream that dietary diseases will be an issue of the past.

#### **References**

*About.com*. Geography. "China Population." 2 June. 2014. Web. July 2014.

*BetterHealthChannel*. "Cancer and food." 5 August 2014. Web August 2014.

*CCTC.COM*. "UN Official Praises China's Poverty reduction." 17 October 2013. Web. August 2014.

*China Labour Bulletin*. "Wages In China." 10 June 2013. Web. July 2014

*Chinese-Traditions-and-Cultures*. "Chinese Food Markets," 2010. Web. July 2014.

*countryeconomy.com*. "China-Population." 2014. Web. July 2014.

*Food and Agriculture Organization of the United Nations*. "Capacity building for nutrition education: China School Nutrition Project." 18 December 2012. Web. July 2014.

*Food and Agriculture Organization of the United Nations*. "Food Consumption and nutritional status in China." 1982. Web. July 2014.

*Food and Agriculture Organization of the United Nations*. "Promotion of healthy diets through nutrition education and changes in the food environment: an international review of actions and their effectiveness." 2013. Web. July 2014.

*Health Promotion International*. "Primary School Student." 2014. Web. August 2014.

Huang J, "The Health Care System and Public Health in China" *University of Pittsburgh*. 1999. Web. July 2014.

*Indesmundi*. "Historical Data Graphs Per Year." 1 Jan. 2011. Web. July 2014.

Jianming Cai. "Dawn of the Smart City" *Brazil Institute*, China Environment Forum, Environment Change and Security Program and Urban Sustainability Laboratory, Executive Summary. March 2001. Web. August 2014.

*NHS Choices*. "Stroke – Causes." 29 August 2012. Web. August 2014

*Numbeo*. "Cost of Living in Beijing, China." July 2014. Web. July 2014.

Popkin BM, Horton S, Kim S, Mahal A, and Shuigao J. "Trends in diet, nutritional status, and diet-related non communicable diseases in China and India: the economic costs of the nutrition transitions." *National center for Biotechnology Information, U.S. National Library of Medicine*, December 25 2011. Web. July 2014.

Popkin BM, Horton S, and Kim S. "The Nutritional Transition And Transition and Diet-Related Chronic Diseases In Asia: Implications for prevention" *Food Consumption and Nutrition Division*

*International Food Policy Research Institute*, Table 6: Summary of costs of diet related chronic diseases in China. March 2001. Web. July 2014.

*Shanghai Guru*. "Grocery Shopping in China," 2012. Web. July 2014.

*The Economic Times*. "China reduces poverty level 71% in three decades." 13 September 2013. Web. August 2014.

*Wikipedia*. "Agriculture In China." 20 July 2014. Web. July 2014.