

CHAPTER 1

INTRUDUCTION



1.1 Background and Rationale

At present, more and more people are interested in nutritional status of China and the changes of food pattern of Chinese people. Not only for Chinese people, it is also for a lot of foreigners who study in nutrition, food security and economic field. Nutrition is one of the most important signs of health and social development. More attention is given by department of social economic development and policy-maker. At the same time, with the improvement of living situation, Chinese people pay more attention to their nutrition and health status than that in the past.

China represents one of the world's most rapidly developing economies. With its 1.2 billion people, China has achieved major advances in her socioeconomic development within the space of less than a generation. Chinese per capita income grew at a remarkable 8.2 per cent annual rate between 1978 and 1996. During this period there has been a significant reduction in the number of absolute poor in China, in conjunction with a rapid increase in income inequality. Accompanying these economic changes has been a rapid improvement of food supply and consumption. China has attained a high measure of food security and has seen marked changes in dietary structure (1997, 'The World Food Situation: Recent Developments, Emerging Issues, and Long-term Prospects', Food Polity Report, International Food Policy Research Institute).

With one-fifth of the world's population and being one of the fastest-growing and most rapidly transforming economies in the world, China has the potential to significantly affect global food security mainly due to its rising future demand for food. Its capacity to meet its needs through production, and the degree to which it enters world markets to satisfy its unmet needs. Concerns about how China will meet its food requirements and changes of the its food pattern escalated recently. It is evident that China is already a significant player in world food markets and is likely to become increasingly important.

Demographic predictions based on present family formation practices indicate that China will grow from the present 1.2 billion inhabitants to 1.5 billion inhabitants by the year 2020 before there is a levelling off of population growth. This is probably the best prediction because inducements for restricting family size are now so onerous that it is more likely that they may be relaxed than that they will be made restrictive. In contrast to this expected 36% percent increase in population growth one can only foresee a small increase in lands available for cereal production that will not be compensated enough by any likely increase in cereal production per acre.

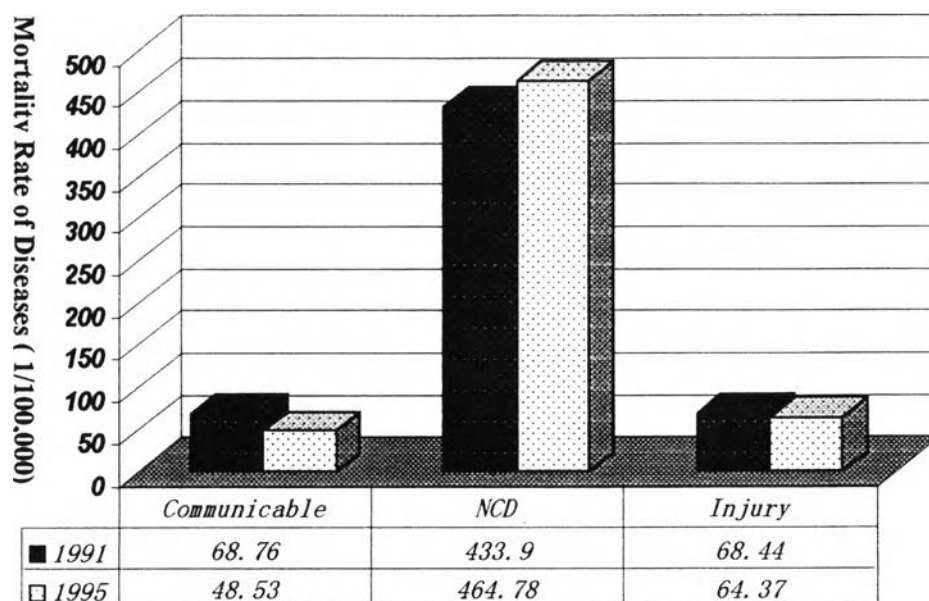
Not only is the population growth threatening to overtake the energy supply if energy consumption per capita remained constant, but the energy consumption is likely to rise many folds if improvements in real income continue at the present pace. This is because cereal consumption itself rises somewhat with increasing income. Of much greater importance is that for some meat, such as beefs, and other animal products many times as much cereal is needed as if the cereal were consumed directly by the consumer.

China has been self-sufficient in food since 1984. It appears that the issue now is the availability of this food at family level, that means food consumption.

This is all the more obvious from the nutritional surveillance data showing excessive consumption of expensive foods by those in the upper half of the socioeconomic scale in the cities. These foods are unhealthy when consumed in such excess. This consumption is even more wasteful because many of these foods, such as pork, consume many folds their weight in foods that the poor need. Hundreds of millions of Chinese in the urban areas are no longer at risk for malnutrition but will fall ill and die from nutritionally related diseases because they eat unhealthy diets. Lack of exercise is also a nutritional determinant, because when combined with excessive energy intake from over eating it results in obesity. Particularly among higher income groups, the incidences of high-fat diets and obesity have increased rapidly. There has been a marked shift not only in obesity but also in other diet-related chronic diseases, such as cardiovascular heart diseases, diabetes, and certain types of cancers. These are rapidly becoming major health problems in this population.

From present research, the disease pattern of Chinese people has been changed obviously. The death rate of children and incidence of infectious diseases are still decreasing, and the death rate of adult and incidence of chronic diseases are stable increasing (Figure 1.1). They are estimated that the proportion of adult death and chronic diseases will increase as population aging and unhealthy living mode. It escalated to become a serious social problem about unhealthy diet. How to get accurate evaluation of the current health and nutritional status? How to guide the food consumption at different income levels? The policy maker had to concern these two questions above and try to solve them.

Figure 1.1 Comparison of Mortality Rate of Diseases between 1991 and 1995 in China



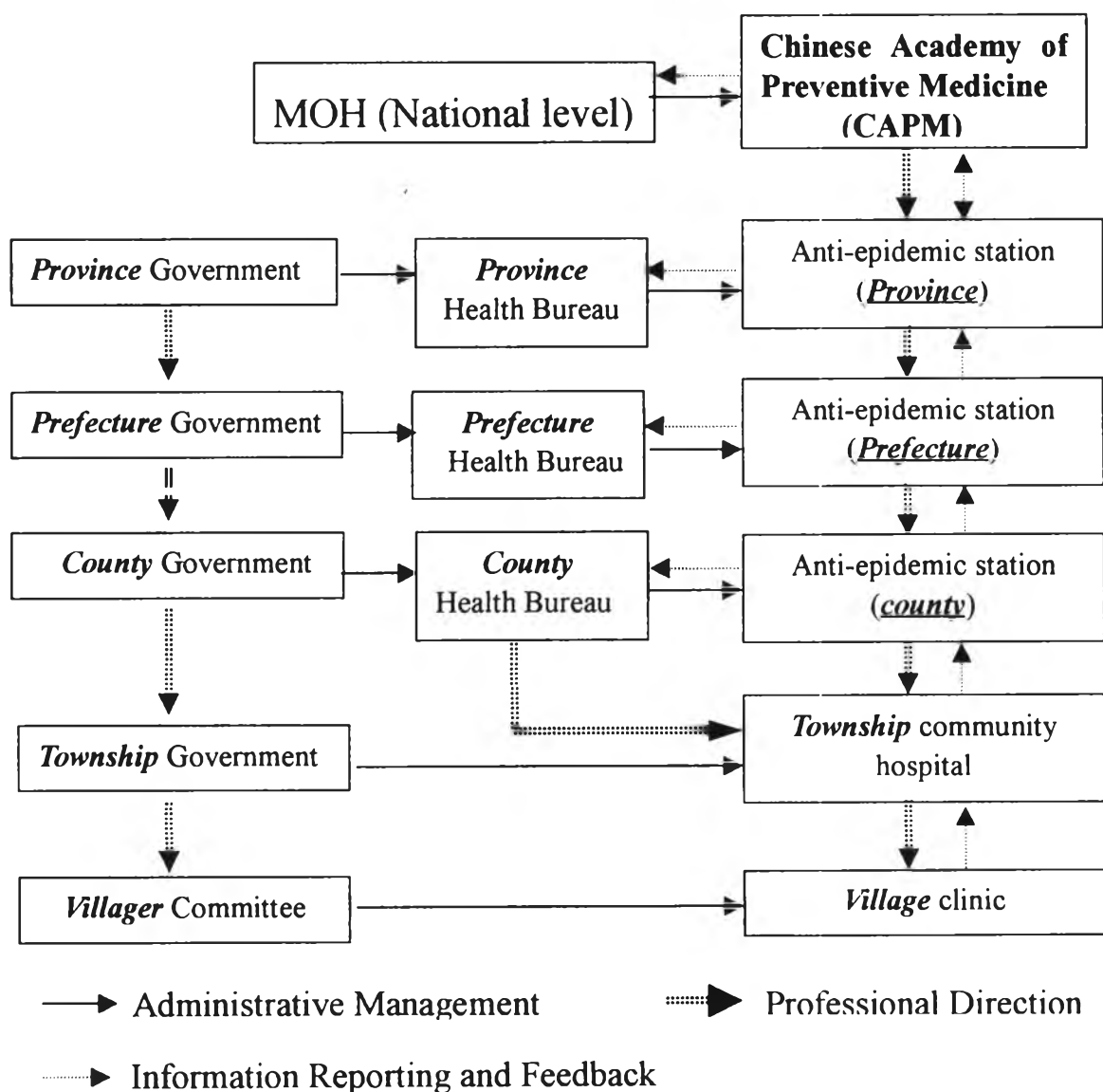
Source: 1995 Annual Report on Chinese Diseases Surveillance

For the past four decades Chinese farmers have been partially subsidizing the foods of the urban population through obligatory quotas sold to the government at below market prices. With the recent evidence that the urban population wealth and nutrition is much better than that of farmers in the same provinces. The people have called into question the need and the fairness of this subsidization by the farmers. Eliminating the subsidization might also raise production of the subsidized foods because there is more incentive to the farmer to supply them.

1.2 Basic Information of Diseases Reporting System and Diseases Surveillance System in China

In China, there are 35 notifiable communicable diseases, which are obliged to be reported monthly by all public health facilities from peripheral to central level. The anti-epidemic station at each level will be in charge of the diseases reporting and surveillance(Figure1.2).

Figure1.2 Disease Reporting and Surveillance System in China



In order to get the information more accurately and rapidly, in 1988, DSP system was established by Ministry of Health. DSP means Diseases Surveillance Points system, which is national level diseases surveillance system and include 145 anti-epidemic stations in county level. CAPM is charge of organization and professional direction. The Ministry of Health provided appropriable budget yearly to support its running. The function of DSP is to continuous and systematic collect, analysis and interpret public information which including diseases and death data in order to support decision making to public health activities. Up to now, the DSP system have already become a very important information reporting system in public health sector of China.

The nutritional surveillance project in China was initiated in 1990 with Chinese Academy of Preventive Medicine (CAPM) and State of Statistics Bureau (SSB). Especially from 1996, based on DSP system and the support of UNICEF, national wide Chinese Food and Nutrition Surveillance System (CFNSS) which involve 26 provinces, 40 counties, total 20,670,000 population had already been established (Figure 1.3). When the last figure of year is 2,5,8,0, for example, 1998, 2000, 2002, 2005 and so on, to process nutritional surveying. Since the nutritional improvement is a thing with long term effect, there is no necessity to take survey in every year. All of surveillance points belong to both DSP system and survey point of SSB in geographic distribution. Computerization and network communication are used for data collection, reporting and analysis in whole system.

Figure 1.3 Distribution of Nutrition Surveillance Point in China



1.3 Research Questions

- 1.3.1 What is the current nutritional status in China?
- 1.3.2 What are the determinants of household food consumption?
- 1.3.3 What is the relationship between food consumption and nutritional status?

1.4 Research Objectives

1.4.1. General Objective

To assess the determinants and correlation between household food consumption and nutritional status in China.

1.4.2. Specific Objectives

- 1) To take descriptive analysis about current nutritional status and nutritional evaluation in China.
- 2) To analyze the relationship between nutritional status and household food consumption, especially for malnutrition.

1.5 Scope of Research

In this study, cross-sectional data would be used in analyzing the nutritional status and the relationship between nutritional status and food consumption of China. The data was collected in 1998, which included two sections. The data base for growth performance of preschool children from cross-sectional nutrition survey by CFNSS (Chinese Food and Nutrition Surveillance System), household food consumption and other household information from household survey by SSB (State of Statistics Bureau).

Since the variation of nutritional status was a long-term effect, It was necessary to take uninterrupted surveillance and analysis in order to obtain

appropriate description about the alteration of nutritional situation and the change of food consumption of cohort. In fact, this study is part of whole nutrition program in China. The nutrition program in China is a longitudinal research that was implemented in 1990 with collaboration between CAPM (Chinese Academy of Preventive Medicine) and SSB.