Chapter 1

Introduction and Objectives

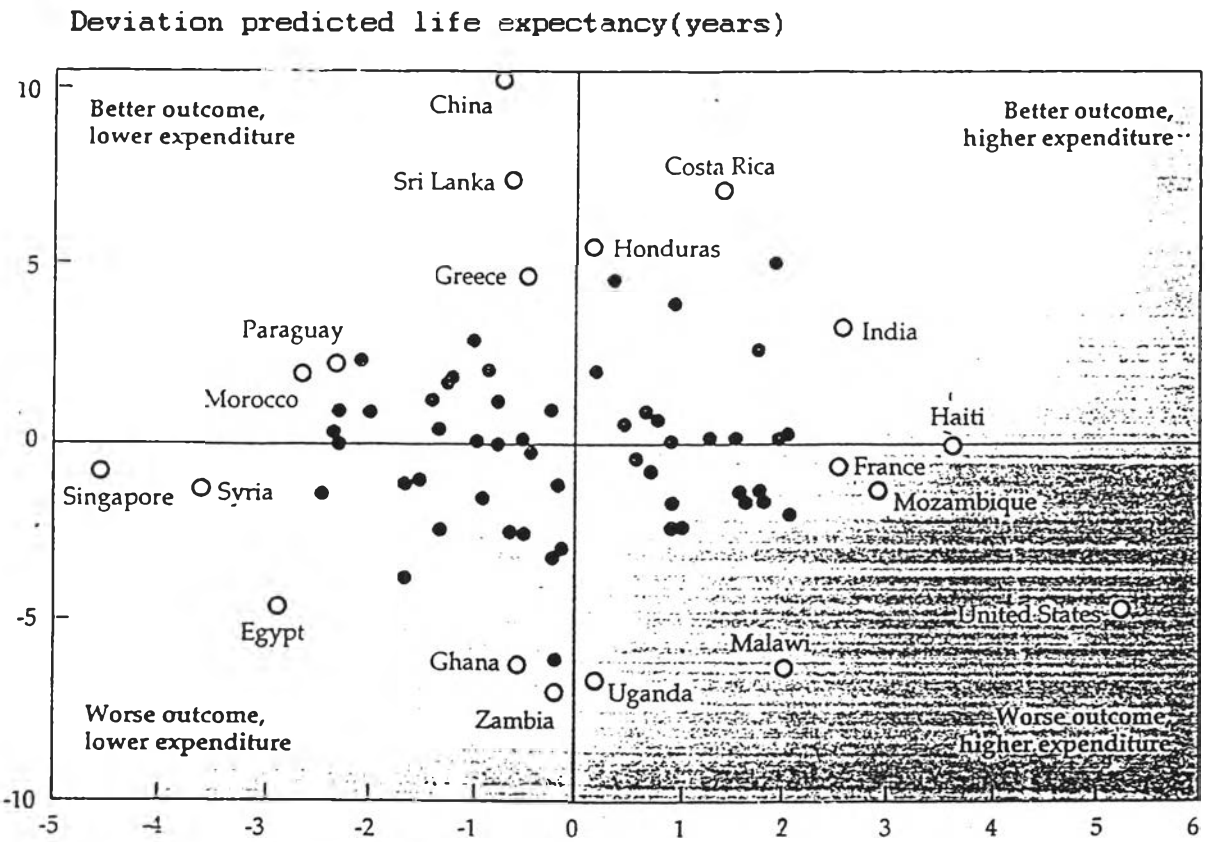
1.1 Background :

China led low-income countries in reducing infant mortality rate and extending life expectancy over three decades from 1950 to 1980. Rapid progress has given way in the past decades or more to improvement as the burden of disease has shifted from communicable and vaccine-preventable causes to chronic condition associated with population aging, such as heart disease, cancer and stroke. Even though the Chinese's economy developed slowly, it achieved a relatively good health indication with a relatively modest input compared with some other counties (Fig 1). Why could China achieve this progress in health care using lower expenditure? To a large extent, it is related to a health policy: Focusing on workers, farmers and soldiers, giving priority to prevention, merging modern medicine with traditional Chinese medicine , integrating health work with mass movements and putting the priority of health work into the rural areas.

1.2 Rationales:

China's economic system prior to 1978 was governed by the highly-centralized command economy that was characterized by an allocation of resources by government planning. The central government, including the MOH, MOF and State Planning Commission worked together. They carried out intersectoral planning for each province including allocation of facilities, health manpower and health budget. For example, MOF and MOH worked together to develop a budget for the whole national preventive system. They allocated resources to national level institutes and to each province directly. Following the national principle,

Figure 1.1 Life Expectancies and Health Expenditure in Selected Counties: Deviations from Estimates Based on GDP



Source: World Bank data

each provincial health bureau allocated the preventive budget to each county.

After introduction of the fiscal decentralization system began in the early 1980s, local governments become more responsible for the health sector. Most budgets were allocated by local government with greater decision making being transferred to the county level. They allocate limited budget between preventive and curative services.

In China, the most important preventive institutes are the Anti-epidemic Stations (EPS) and maternal and child health centers (MCH). They have played a very important role in disease control: since the early 50's there has been substantial progress in the reduction of mortality and prevalence of communicable diseases, especially the fulminating infectious diseases, which were the main cause of death in China before 1949 and at the beginning of the 50's. The huge decline of infant mortality, from greater than 200 per 1000 live births in the late 40's to 37 per 1000 live births in 1996 ; The large gain in life expectancy (From 54 in 1950 to 73 in 1996) , and the improvement of health status of Chinese, should be largely attributed to the efforts made by EPSs and MCHs(Huang, 1994).

With decentralization of the fiscal system and the diminishing leverage ability of the center, the resources shortage for preventive care increased. Compelled by the pressure from the public who faced long waiting times for hospital admission and operation, the local government strived to expand the supply capacity of health services, concentrating investment in curative services, which further drained the modest resources for preventive care. The proportion spent on preventive care in the government's recurrent budget dropped from 17.8% in 1978 to 14.1% in 1993, while at the same time, hospital budgets increased from 33.8% to 38.7% (MOH,1993). The financial status of preventive institutions deteriorated, especially those at grass-roots level. Generally speaking, the local government budget for preventive institutions at county level could only cover the pension of retirees and part of staff salaries. The rest of the salaries and operational costs had to be covered by income-generation activities. The government formulated a policy of allowing the institutions to provide charged services to supplement the gap in government budget. The policy helped preventive institutions survive through financial difficulties. But serious problems, such as stressing income-generating activities at the expense of free preventive services arose. Those unprofitable public health services have been unfavorably reduced. The whole effectiveness of health care services has declined. The consequences in some regions are that the immunization coverage rate has declined,

especially for children among mobile populations. The prevalence of some infectious diseases, such as STD, TB is increasing. In some provinces in southern China, schistosomiasis, which was announced as being eliminated recurred recently. The prevalence of hepatitis A in Shanghai in spring 1988, which was estimated to cause a lot of several hundreds of million Yuan was an inevitable outcome of the functional changes of EPS (Tu, 1994).

From the angle of health services, efficiency means low input and high output. Low input means the production factors are best combined at minimum amount. High output means improving local people's health status as much as possible. Efficiency includes many factors, such as efficiency of technology, of resources allocation and management. The efficiency of government health investment is now relatively low in respect of allocation in China. For instance, allocation of recurrent health expenditure is decided according to the staff numbers at each ever institute. The institute with many staff can obtain much more government investment. The result is that much more government investment subsidizes medical service institutes instead of public health services, especially preventive care services. Constrained by economic resource limitation, the county health authority should change to allocate financial resourcesaccording to maximum outcome.

The issue of equity in health care still leaves open the question of precisely what form it should or does take. Many suggestion have been made, such as equal expenditure for equal need, equal access for equal need, equal utilization, equal health, etc. The evidence would seem to suggest that equal access for equal need is most favored, essentially the principle of equal opportunity.

To evaluate the condition of health care finance in different economic develop region , support by World Bank, CAPM (Chinese Academy of Preventive Medicine) conducted a survey in three provinces in 1994. They are Jiangsu, Shanxi and Guizhou. Among these three provinces, Jiangsu is consider as the richest province compared to Shanxi and Guizhou, since it is highly

industrialized with per capita GPP of 2865 Yuan in 1993. Guizhou is one of the poorest provinces in China, with less industrialization and urbanization, its per capita GPP of 1225 Yuan in 1993, are less than 50% of Jiangsu's. Shanxi is at the middle position among the three: per capita GPP in 1993 was 2133 Yuan. among the 3 provinces a total of 5 counties were selected. They are Shouyang(SY) county, Qi county (Qi), Jurong(JR) county, Danyang(DY) county and Lipo(LP) county respectively. The profile of them is shown in Table 1.1.

Table 1.1 Basic Socio-economic Indicators in Selected Regions

	Population (thousand)	per capita GPP (yuan)	per capita revenue (yuan)	per capita expenditure (yuan)
Shanxi	30,126.2	2133.16	240.39	251.32
SY	217.3	1109.18	133.47	156.48
Qi	244.3	1637.05	126.87	130.96
Jiangsu	69670.0	3952.92	317.64	235.21
JR	594.7	3850.88	156.39	136.21
DY	805.3	5495.25	341.41	177.22
Guizhou	33323.0	1225.55	169.55	202.23
LP	145.7	1166.78	123.45	185.31

1. 3 Research Questions and Objectives

Research questions, general and specific study objectives are identified in this section.

1. 3 .1 Research Questions

1. How was the allocation of public health budget changed during the economic reform?

2. Did the allocative efficiency increase during economic reform ?

3. How did the equity change during the economic reform ?

1. 3 . 2 General Objective:

This study aims to assess the allocative efficiency and equity of the government at different levels during the health care reform .

1. To evaluate allocative efficiency of the government health budget for the curative and preventive medical care.

2. To evaluate the allocative equity among the different counties

3. To describe the trend of government budget for curative and preventive services in the 3 provinces.

1. 3 . 3 Specific Objectives:

1. To derive a model which can reflect the relation of local people's status and different inputs such as economic factors, education, health budget and so on . The parameters derived from model will be used to evaluate the allocative efficiency change.

2. To use the *Gini coefficient* to evaluate resources allocative equity

1. 4 Scope of the study

Five counties in the three provinces (Jiangsu, Shanxi and Guizhou) from 1985 to 1993.