CHAPTER 1

INTRODUCTION

China is a developing country with a GDP per capita of $370 in 1991 (World Bank,1993). About 80 percent of the 1.18 billion population live in the huge rural areas of the country. Since the foundation of the People's Republic of China, the government has made great efforts to improve the health of the population and very significant achievements in prevention and control of communicable diseases have been achieved.

Life expectancy, at birth, has increased from 35 years in 1940 to 70 years in 1990. The infant mortality rate has been greatly reduced to 38 per 1000 live birth in 1991 (World Bank, 1993). This is the result of many factors including the development of a relatively complete system of health care services (preventive and curative).

The total expenditure on health in 1991 was 3.5% of GDP with about 2.1% public sector expenditure and 1.4% from private households (World Bank 1993).

However, there is still a long way to go to meet the health needs and demands of the population. Reforming the present health care financing system and developing suitable approaches to the supply of health care are considered to be both important and urgent. This is particularly important for the 80% of the population living in rural areas.

For several decades, there have been five major sources of health care finance in China (Prescott and Jamison 1984).

1. The Public Expenses Medical System, introduced in 1951, covers almost all medical expenses of the state cadres and college students, without any direct contributions by them. The government meets the cost through general taxation. About 2 percent of the population is covered by the system, excluding family dependents.

2. The Labour Medical Insurance System covers the workers or staff members in factories and state-owned firms. Introduced in 1951 and revised in 1953, this system is funded by factory employer's contributions about 2 to 3 percent of total factory income before salaries are distributed to workers. Beijing health officials have estimated that about 10 to 12 percent of the country's population are covered by the labour medical insurance, including the dependents of the factory workers (Hu, 1989).

3. In rural agricultural areas a Rural Cooperative Health System operated for nearly three decades. It was estimated, in the 1970s, that about 85 percent of villages (communes) had implemented the RCHS. The system was very successful both in financing health care consumption and in improving the health of people.

4. The Production Brigade was the basic unit of the rural collective economy prior to 1979. A number of production brigades could provide a small sum from collective funds to support some health care consumption by its members. The level of expenditure through this system was quite small.

5. Direct private payment is the more common method of payment and often the only way that rural populations can consume health care services. This situation is universal throughout the country.

Health insurance may be a strange concept to most people in China, due to the prevailing political and economic system of the country, even though two of the financing systems, Labour Medical System and Rural Cooperative Health System are judged to be insurance schemes by foreign experts. There are two possible explanations for this. Firstly, since these schemes were not described as insurance in the press they were simply accepted as being one of the advantages of the socialist system. secondly, the absence of the private sector in providing the insurance cover yielded the view that these are not insurance schemes. But many countries provide health care funded through a government managed health insurance system or through general taxation rather than a specific levy for medical care.

Before starting economic reform in 1978, the Rural Cooperative Health System (RCHS) played an important role in improving the health of people of rural areas. However, due to a variety of causes, the RCHS has been dissolved in nearly all villages. Consequently, there is no financial support to facilitate the consumption of health care by populations in most rural areas.

In the past decade, some attempts have been made by responsible authorities and academics to design a substitute system for the defunct RCHS. However a fully operative national system has not been implemented. In 1986 an experimental study of health insurance in two counties of Sichun Province, was undertaken jointly by the MOPH of China, Rand Corporation of USA, and Sino-American universities. The study results have been published in journals, but it is distressing and surprising that the authorities concerned have not taken any actions to apply the results to an operational scheme. Recently a collective health fund scheme has been conducted in some areas.

1.1 The Problem

As one of five ethnic minority autonomous regions of China, Guangxi may be confronting a more serious situation. It has 42 million population, of which more than 80 percent live in rural areas. Economic conditions are not as good as the coastal provinces particularly in the rural areas. Income per capita is lower than the average national level and health resources are less satisfactory in the rural areas (Table 1.1).

Table 1.1 Indicators of Health Resources

Indicators	National		Guangxi	
	Urban	Rural	Urban	Rural
Doctors / 1000 population	2.6	0.8	4.3	0.46
Nurses / 1000 population	2.7	2.0	3.4	0.46
Pharmacists / 1000 population	1.0	0.16	0.42	0.05
Hospital beds / 1000 population	6.1	1.5	7.5	1.05
Health expenditure / capita (yuan)	9.8	2.3	5.0	3.3

(Source : MOPH of China, 1987 and Health Bureau of Guangxi, 1990)

Although the supply of health care in the rural areas is significantly less than the national level, the needs and demands for care appear to be very similar to the national level (Table 1.2).

Since the figures were derived from a household survey the demand will be influenced by medical need, economic pressures (loss of income when not working) and the ability to pay for care. Since 90% of urban dwellers enjoy insurance cover for health care and 90% of rural dwellers nationally and in Guangxi do not enjoy insurance cover, it could be assumed that the normative need for care is considerably higher than the reported demand. The significance of economic pressures and consuming health care are shown in Table 1.3.

Table 1.2 Need and Demand for Health Care

Needs/demand	National		Guangxi	
	Urban	Rural	Urban	Rural
Prevalence of chronic diseases per 1000 population%	236	86	195	71
Illness rate / 1000 population in a two week survey period	105	69	89	65
Percentage of those ill in two week period seeking health care at a hospital	73.3	77.1	81.3	76.6
Illness days / 1000 population in a two week survey period	953	478	708	436
Working days lost due to illness / 1000 population in a two week survey period	192	207	116	172
Hospitalization rate (%)	5.03	3.15	6.93	2.48

(Source : MOPH of China, 1987 and Health Bureau of Guangxi, 1990)

Table 1.3 Reasons for Not Seeking Medical Care when Sick

Reasons for NOT seeking care	National		Guangxi	
	Urban	Rural	Urban	Rural
Self care	42.5	56.2	44.6	46.1
Economic constraint	2.5	18.0	3.36	22.6
Others - care is not required - too little time - too far to go for care	55.0	25.8	52.18	31.3
Total	100	100	100	100

(Source : MOPH of China, 1987 and Health Bureau of Guangxi, 1990)

The pattern nationally and in Guangxi is very similar. However two features of importance present themselves. Firstly the very clear effect that economic constraint has on consumption of care in rural

populations. Secondly there is a marginal difference in the percentage of causes when Guangxi rural population is compared with the national rural population. Economic constraint and other causes are marginally more significant in determining behavior.

A similar pattern of difference between urban and rural emerges when the cause for non hospitalization are analyzed (Table 1.4). In this retrospective household survey patients were asked why they had decided not to enter hospital when it was proposed by a doctor.

Table 1.4 Causes for Non Hospitalization

Reasons for NON Hospitalization	National		Guangxi	
	Urban	Rural	Urban	Rural
Bed occupied	37.8	8.6	19.5	1.2
Economic constraint	17.4	57.3	25.3	58.8
Others - facilities not acceptable - doubtful of benefits	45.8	34.1	55.2	45.0
Total	100.0	100.0	100.0	100.0

(Source : MOPH of China, 1987 and Health Bureau of Guangxi, 1990)

1.2 Rationale

To finance health care in rural areas, the MOPH and various experts have suggested that health insurance should be introduced. The justification for such action, at this time, is based upon two broad factors: need and opportunity.

1.2.1 Need

The consumption of health care by **the rural population in Guangxi** is significantly constrained by economic factors; charges imposed on the patient on consumption of care, low income and loss of income when not working (See table 1 - 4)

Since there is a mismatch between felt need and normative need for health care and demand implementing health insurance is one way to increase the consumption of health care, when needed, and to help achieve the goal of health for all.

Since the RCHS was disbanded in the early 1980's no substitute system has been provided in the rural areas.

There is inequality in the allocation of health resources

between urban and rural areas. Implementation of health insurance may help to improve the supply of services in rural areas.

1.2.2 Opportunity

The National Constitution bestows the right to implement social security including health insurance.

With the reform of rural economic system there is now an optimum opportunity to implement health insurance which was previously regarded as capitalism.

It is said that people in rural areas have a strong will to reform the present health system and share more social welfare in health care. A study showed that 89% would be willing to join a health insurance scheme (Yang Shuqin, 1989).

Health insurance should contribute to economic and social in rural areas.

Given the need and the opportunity to introduce health insurance for the rural population, which system, elements or approach is most appropriate to the specific conditions existing in the province?

In theory health insurance may be introduced in any country or region. But once introduced the outcomes will depend on many factors and conditions. To prevent unpredictable outcome from happening, it is desirable to explore the objectives and implications and try to evaluate the alternatives before a programme is implemented. But how could/should evaluation be made? What system of problem analysis and decision support could be appropriate to the decision makers in Guangxi Zhuang autonomous region?

Simon (1960) identified three iterative stages to decision making;

* **Intelligence;** information gathering for a situation demanding a decision and the formulation of initial objectives

* **Design;** brainstorming to generate, develop and analyze alternative courses of action

* **Choice;** in which the decision maker selects one of the alternative courses of action

For an effective and efficient decision to be made in the selection of a suitable health insurance system, there is an urgent need to provide a strategy for problem formulation, design of alternatives and choice among the alternative which may be generated.

1.3 Objectives

The primary objective is to develop an approach for evaluating alternative elements in any health insurance scheme. The evaluation is to be based upon the extent to which element meets social and economic objectives and operational and feasibility constraints. More specific objectives are:

1. To identify the social objectives and specific criteria to be met through the health insurance scheme.

2. To identify resource and operational constraints which could constrain implementation of any particular approach to health insurance.

3. To identify and analyze insurance elements and alternatives which could be included in an insurance scheme

4. To assess the extent to which each element meets social and economic objectives and operational and feasibility constraints

5. To evaluate the insurance elements using a selected method of multi criteria analysis.

6. Based upon the outcomes, select a possible insurance scheme (set of elements) and analyze the implications of the method used in the study for Guangxi, China.