Chapter 1

Introduction

1.1. Introduction

The International Conference on Primary Health Care, co-sponsored by WHO and UNICEF at Alma Ata, Russia in 1978, expressed the need for urgent action by all governments, all health and development workers, and the world community to protect and promote the health of all the people of the world. The Conference strongly affirmed that the main social target in the coming decades should be the attainment of a level of health by all people of the world that will permit them to lead a socially and economically productive life (WHO 1978). India is a signatory to the Alma Ata Declaration and was committed to attain the goal of 'Health for All' by the Year 2000 through the universal provision of primary health care services. Experience gained within the country and outside led the Government to outline a long-term perspective plan for achieving the 'Health For All' goal (GOI 1997). The National Health Policy was officially adopted by the Parliament in 1983 (see GOI 1983, Kashyap 1987). The Government started concentrating on the development of rural health infrastructure to provide primary health care services to about 74 per cent rural population, which had by and large remained neglected (GOI 1997). Though health status improved considerably over the decades, (VHAI 1997, GOI 2002) and considerable progress has been made in developing infrastructure (GOI 2002), local action for achieving the goal has not been squared up with that of global thinking (Singh 2000). There has been a slippage in achieving the goal by 2000 (see Srinivasan 2000, Sood 2000). The call at present is to achieve it by 2025. This setback is a clear indication of gradual but sure decay in the health services of the country. The fact is reflected in the deep introspection and the consequent proclamation of National Health Policy 2002 (GOI 2002). All these developments lead us to rethink about the demand and supply aspects of health care or more specifically the sustainability of the public health care system in this era of neo-liberal economic policies of privatisation and globalisation.

1.2. System of medicine in India

India has a rich, centuries-old heritage of medical and health sciences. However, over the centuries, with the intrusion of foreign influences and mingling of cultures, various systems of medicines evolved and have continued to be practiced widely. The allopathic system of medicine gained popularity under the British rule and made a major impact on the entire approach to health care in the country after Independence (GOI 1983). At present with the mainstream system of allopathy five other alternative systems of medicine such as Ayurveda, Homoeopathy, Naturopathy and Yoga, Siddha, and Unani, are practiced officially (GOI 2002). Origin and growth of such systems are presented very briefly below.

Ayurveda means the science of life. This is one of the oldest formulated systems of medicine, which has spread to east and west and also contributed to the development of contemporary medical science. It is considered divine in origin and is widely practiced in southeastern Asia, especially in Bangladesh, India, Nepal, Pakistan, and Sri Lanka. There are scattered references to health, as well as to diseases in the Vedas (the book of wisdom) especially in the Rig Veda and Atharvaveda. Atharvaveda has as many as 114 hymns, which describe the treatment of diseases. Ayurveda originated from this Veda, which is the most ancient text and gives more information than any other extant literature (Kurup 1983).

Homeopathy is the youngest medical science and it has been in the service of mankind for almost two centuries. Its main emphasis is on the remedial agents in illness and in health. It is a low cost system using only non-toxic drugs (GOI 1993). It can be used to treat both acute and chronic diseases, but its greatest contribution lies in its successful treatment of chronic illness that have become difficult to manage by orthodox methods (Vithoulkas 1983).

Naturopathy is not mainly the system but a way of life. It is often referred to as drugless treatment of diseases (GOI 1993). In some countries 'naturopathy' simply singles out those practitioners of traditional medicine who concentrate on very simple formulae involving water treatments, dietetics and fasting, faith healing, with a background of philosophic and even religious attitudes. Elsewhere, the naturopath

operates on a very clinical basis, utilising all the latest diagnostic and treatment techniques used by latter-day practitioners of natural therapeutics. So, effectively, naturopathy for some people means all the forms of non-allopathic medicine, which depend on 'natural' remedies and treatments (Bloomfield 1983). Yoga is a traditional science, which helps us to coordinate body and mind more effectively. It enables a person to maintain tranquillity of mind and greater calmness in the conscious state and is perhaps the easiest and safest method to promote mental health. It can also be used as a preventive and curative technique for the management of various psychic and psychosomatic disorders. Although yoga had been described in the Veda about 4000 years ago, it was presented by Patanjali in an abridged form about 2500 years ago. Since then a large number of commentaries and books have been written to explain more clearly how one can promote mental health through the different practices of yoga (Udupa 1983).

The Siddha system of medicine owes its origin to the Dravidian culture, which is of the prevedic period. An examination of the ancient literature would reveal that the Vedic Aryas owed allegiance to the cult of Siva and the worship of the phallus (linga), which was later on absorbed by and incorporated into the Vedic culture. The Siv cult was associated with its medical counterpart, the Siddha system of medicine, which is mainly therapeutic. Mercury, sulfur, iron, copper and gold, bitumen, white, yellow and red arsenic, and other minerals as well as vegetable poisons are extensively used in the pharmacopoeia of the Siddha tradition. The Siddha system of medicine is prevalent in the sourthern states of India, and Sri Lanka, Malaysia and Singapore where the Dravidian civilization was dominant (Kurup 1983).

Unani Tibb or Graceo-Arab medicine may be traced to that system of Greek Medicine, which was developed during the Arab civilisation. The Muslims still call it Unani (Ionian) medicine out of adherence to its true historical derivation, where as European historians would call it Arab medicine. It is now practiced in the Indo-Pakistan subcontinent (Said 1983). In India, the Unani system of medicine became available after the development of contacts with the Islamic culture.

Allopathy or the allopathic system of medicine is defined as that discipline of medical care advocating therapy with remedies that produce effects differing from those of the

disease treated. The primary point of separation of allopathy from traditional medical system, from which it is evolved millennia ago, is unclear but its earliest beginnings would appear to include the detailed descriptions of a number of medical conditions found in the Vedic hymns. Further growth of the modern allopathic system occurred with the keen observations of a few giant figures, including Aretaeus of Cappadocia, Hippocreates of Greece, and Ibn Sina (Avicenna) of Persia, whose descriptive writings on medical conditions were followed by an ever-increasing number of European practitioners and observers. These were aided by the establishment of the great universities at Padua and Paris and their offsprings at Cambridge and Oxford (Canary 1983).

1.3. Health care infrastructure in India

The experience and concern in health development and primary health care in India dates back to the Vedic period. 'Arogya' or health was given high priority in daily life. The wards 'chikitshala' and 'arogyashala' have been used by different scholars during the reign of Emperor Ashok. India's rich heritage of medical care is reflected from the evidences of Indus Valley Civilization and works of various scientists during the Buddhist and subsequent periods, which formed the basis of the writings of Charaka and Susruta (Kashyap 1987, Porwal 1990). Development of health care infrastructure in the modern age began by the European and for the European during the period of colonial expansion. The first western type hospital in India was built at Cochin (Kerala) in the year 1506 by a Portuguese, Fransisco-de-Almadia for the Portuguese only. The East India Company established western type of hospital in Chennai (formerly Madras) in 1664, in Mumbai (formerly Bombay) in 1667, and in Kolkata (formerly Calcutta) in 1707. These hospitals were initially created for the company staff and the Europeans staying in India. Only in 1792, Indians were allowed to avail this facility, besides English people. Before 1835 no medical college was established, therefore, there was no Indian doctor in those existing hospitals. The first medical college for the Indians came into existence in 1835. After that all the three presidencies (Bombay, Calcutta, and Madras) had their medical colleges by 1847. These colleges were governed at the instruction of Royal British Medical Council. Between 1847-1900, the number of medical colleges increased from 3

to 14. The primary aim of the establishment of all these institutions was to maintain the health status of the British forces as well as the civilians of English origins staying in India. Few rich and elite Indians belonging to aristocratic families, or who were in government jobs also availed these services. An ordinary and poor person could not get either medical education or medical treatment. There were no primary health centres in British India (Banerjee 1985 and 1991, Faizi 1998).

Health care programme appraisal in India started just before its Independence. Government of India appointed the Bhore Committee in 1943, which submitted its report in 1946. The report of this committee provides the basis for Primary Health Care System in independent India. The Committee found that the low state of public health was mainly due to the absence of environmental hygiene, adequate nutrition, adequate preventive and curative health services and intelligent co-operation from the people themselves. The curative and preventive health services were totally inadequate. There was only 1 (one) doctor for 6,300 people and 1 (one) nurse for 43,000, 1 (one) health visitor for 4,00,000 and 1 (one) midwife for 60,000 people. Roughly one-forth the total number of doctors was in Government service, the rest being mostly in urban areas as private practitioners. Again there were only 70 to 80 women medical officers in public service engaged purely in maternity and child welfare work. Very few of them were medical graduates (Kashyap 1987).

Soon after, a number of committees have been appointed for the improvement of health and family planning programmes at the national level (Committee on Public health Act, 1953-55; Mudaliar Committee, 1959-61; UN Mission on Population Activities, 1961; Committee on Multipurpose workers under Health and Family Planning Programmes, 1972-73; etc.). Different qualitative changes have also taken place in different Five Year Plan periods (GOI 1983, Kashyap 1987).

In response to the Alma Ata Declaration of 1978, Government of India made a critical review of the approaches adopted during the previous Five Year Plans while formulating the Sixth Five Year Plan (1980-85). Based upon this, a long-term perspective plan was outlined by the Government for achieving the "Health for All" goals. The National Health Policy was officially adopted by the Parliament in 1983. "Health for All" principles and strategies were also incorporated in the Sixth (1980-85) and Seventh

(1985-90) Five Year Plans. The stress in the National Health Policy was on the preventive, promotive and rehabilitative health services to the people, thus representing a shift from medical care to health care and from urban to rural population. The main objective was to place the health of the people in the hands of the people through the primary health care approach (GOI 1997).

The plan of establishing health centers originated in 1951, when India initiated the process of planned development to raise the living standards of its people. Subsequently, the program of establishing Primary Health Centres in each Community Development Block having a population of 60,000 to 80,000 was launched as an integral part of the Community Development Programme. Over the past fifty years the health services organisation and infrastructure have undergone extensive changes. Progressive changes have been introduced into the program over the Sixth and Seventh Five Year Plan Period when the national norms for population coverage were adopted. The thrust has been on qualitative improvement in the health services through strengthening of physical facilities like provision of essential equipment, supply of essential drugs and consumables, construction of buildings and staff quarters, filling up of vacant posts of medical and paramedical staff and in-service training of staff (GOI 1997).

In India primary health care services are provided through a network of integrated health and family welfare delivery system. In 1951, India became the first country in the world by establishing a nationwide network of family planning services to check population growth. At the beginning, the programme has been the responsibility of the Ministry of Health. In 1966, a full-fledged Department of family Planning was established within the Ministry and it was renamed as Ministry of Health and Family Planning. Initially the programme was started with a very cautious approach namely, the Clinical (Cafeteria) Approach. Under this approach family planning personnel used to wait for eligible couples to come to the clinics for advice and supplies. As the approach could not make any significant achievement due to lack of demand for family planning services in the society, focus has been shifted to a Health Centre operated Incentive based Time bound Target oriented Sterilisation focused (HITTS) approach (Srinivasan 2000). However, experience gained within the country and outside led the policy makers to realise that the health of women in the reproductive age group and of small children (up

to 5 years of age) is of crucial importance for effectively tackling the problem of growth of population. This has led to change of the name of the programme from Family Planning to Family Welfare in 1977 (GOI 1998a). The universal Immunisation Programme (UIP) started in 1985-86 to check mortality and morbidity among infants and young children due to Vaccine Preventable Diseases. Various other programmes also started under the Maternal and Child Health (MCH) programme during the Seventh Plan. And all these programmes were brought under one umbrella namely, Child Survival and Safe Motherhood Programme (CSSM) and implemented from 1992-93. This was taken a step further when ICPD, Cairo recommended unification of all Reproductive and Child Health care services (GOI 1994). RCH programme in India is nothing but CSSM programme with two more additional components: specialised health care services for Reproductive Tract Infection (RTI) and Sexually Transmitted Diseases (STD), and specialised health care needs for the adolescents (GOI 1998b).

The public health care delivery system in India at present has a three-tier structure: primary, secondary, and tertiary.

1.3.1. Primary health care institutions

The primary tier has been developed to provide health care services to the vast majority of rural people. It comprises three types of health care institutions: Sub-Centre (SC), Primary Health Centre (PHC) and Community Health Centre (CHC). According to the national norms of population coverage there should be one Sub Centre for 5000 population in plain area and 3000 in hilly / tribal area, one Primary Health Centre for 30,000 population in plain area and 20,000 in hilly / tribal area, and one Community Health Centre for 1,20,000 population in plain area and 80,000 in hilly / tribal area.

1.3.1.1. Sub Centres (SC): SC is the first contact point between health workers and village community. SC is run by two paramedical staff and one voluntary worker. The staffing pattern for Sub Centres: Health Worker (Female) /Auxiliary Nurse Midwife, ANM (1), Health Worker (Male) (1), and Voluntary Worker (1). Total: 3.

1.3.1.2. Primary Health Centre (PHC): PHC is the first contact point between village community and doctor. A PHC is manned by a Medical Officer supported by 14 paramedical and other staff. It acts as a referral unit for 6 SCs. It has 4-6 beds for patients. The activities of PHC involve curative, preventive, promotive and Family

Welfare Services. Staffing Pattern for Primary Health Centre (PHC): Medical Officer (1), Pharmacist (1), Nurse Mid-wife (Staff Nurse) (1), Health Worker (Female) / ANM (1), Health Educator (1), Health Assistant (Male) (1), Health Assistant (Female) / LHV (1), Upper Division Clerk (1), Lower Division Clerk (1), Laboratory Technician (1), Driver (Subject to availability of vehicle) (1), Class IV (4). Total: 15.

Table 1: National norms of population coverage for primary health care institutions

Centre	Population coverage	
	Plain Area	Hilly/Tribal Area
Sub Centre	5000	3000
Primary Health Centre	30000	20000
Community Health Centre	120000	80000

Source: Bulletin On Rural Health Statistics, December 1997

1.3.1.3. Community Health Centre (CHC): CHCs work as referral centres for PHCs. It is manned by four medical specialists i.e., Surgeon, Physician, Gynecologist and Pediatrician supported by 21 paramedical and other staff. It has 30 in-door beds with one Operation Theatre (OT), X-Ray, Labour Room and Laboratory facilities. Staffing pattern of a CHC: Medical Officer, either qualified or specially trained to work as Surgeon, Obstetrician, Physician and Pediatrician. One of the existing Medical Officers similarly should be either qualified or specially trained in Public Health (4), Nurse Mid-Wives (7), Dresser (1), Pharmacist / Compounder (1), Laboratory Technician (1), Radiographer (1), Ward Boys (2), Dhobi (1), Sweepers (3), Mali (1), Chowkidar (1), Aya (1), Peon (1). Total: 25.

1.3.2. Shortfall in the primary health care institutions

Primary health care system is however, suffering from serious shortfall in terms of physical plants, equipments, and manpower. Primary health care system is however, suffering from serious shortfall in terms of physical plants, equipments, and manpower. Table 2 shows availability and shortage of medical personnel in the primary health care system in India. It is well evident from the table that scope for utilising specialised health care is very restricted in the primary health care system.

According to Bulletin on Rural Health Statistics (GOI 1997), nearly 40, 50, and 70 percents of the required physical plants, medical personnel, and paramedical staff

respectively, were available in the primary health care system of West Bengal in mid - 1997.

Table 2. Availability and shortage of manpower in the primary health care system

Resource	Required	In position	Shortfall (%)
Medical Specialists	11652	3731	67.98
Paediatrician	2913	448	84.62
Physicians	2913	586	79.89
Obstetrician	2913	777	73.32
Surgeons	2913	797	72.64
Doctors at PHCs	23179	25418	-

Source: Health Information 2000, Ministry of Health and Family Welfare, Government of India

1.3.3. Secondary and tertiary health care institutions

The secondary tier, which is primary to the urban mass (GOI 2002), includes medical care provided by the specialists at the district and sub-divisional hospitals. Tertiary health care encompasses sophisticated services provided by the super-specialists at medical colleges and specialised hospitals (VHAI 1997).

1.3.4. Private sources of care

Private sources of care may be divided into two broad groups: institutional and non-institutional. Institutional sources include private hospitals, private health care research institutes, nursing homes, private clinics, etc. Non-institutional sources include doctors and medical specialists of public health care institutions who do private practice, indigenous practitioners of allopathy or alternative or even unrecognised systems of medicine, chemists, druggists, etc. Though very limited, private sources of care also include sophisticated Cyber Clinics, which are run by various Ayurvedic and Homeopathic pharmaceutical companies and various centres of Yoga and natural remedies, and are operated from the major Indian commercial cities or places of religious interests. However, private sources of care are very uneven in both quantity and quality and their presence is parallel to the public health care system.

Other types of care, which strictly do not fall in any of the above categories, are various promotive care emanating through different medias or other sources.

1.4. An introduction to Cooch Behar and Jalpaiguri

Cooch Behar and Jalpaiguri are the two districts in the extreme northern part (North Bengal) of the state of West Bengal, India. According to the Encyclopaedic District Gazetteers of India (Bhall, 1997), the district of Koch Bihar (also spelled as Cooch Behar officially) geographically forms part of the Himalayan Terai of West Bengal. It lies between the parallels 25^0 57' 56" and 26^0 32' 46" north latitude and the longitude of the eastern most point being 89^0 52' 00" east and the longitude of the western most point being 88^0 45' 02" east. The northern boundary and most part of the western boundary are formed by the district of Jalpaiguri. The southern boundary of the district is bounded by the Rangpur district of Bangladesh, the eastern boundary is formed by the district of Goalpara of the state of Assam. Headquarters of this district is Cooch Behar.

Cooch Behar derives its name from two wards viz. Koch and Bihar. Koch is an ethnic group of people inhabiting in the vast tract of land to the north-east of the State of West Bengal. Bihar or more properly 'Vihara' on the other hand denotes an abode or spot. So, Koch Bihar means the land of the Koch. Total area of the district is 3387 sq. kms. The district is predominantly an agricultural area.

The district of Jalpaiguri lies between 26^0 16' and 27^0 0' north latitude and between 88^0 4' and 89^0 53' east longitude. Looking like an irregular rectangle, the district is bounded in the north by Bhutan and the district of Darjeeling, on the south by the district of Rangpur of Bangladesh and the district of Cooch Behar, on the west by the district of Darjeeling and Bangladesh and on the east by Assam.

The district has been so named after its principal town Jalpaiguri. The name Jalpaiguri is said to have derived from 'Jalpai' or olive tree and 'Guri' or place meaning thereby, the place abounds with the olive trees. The name Jalpaiguri might as well be associated with 'Jalpes', i.e. 'Siva', the presiding deity of the entire region from time immemorial. Headquarters of the district is Jalpaiguri. The total area of the district is 6227 sq. kms. Of the total area nearly 28 percent is covered by dense forest, 20 percent is under tea plantation, and 5 per cent is used for agricultural activities.

1.5. Status of health and some features of the study area

Table 3 shows some crucial health indicators of India and some other selected countries according to HDR 2004. Two countries (Norway and Iceland) have been selected from the top and two other (Niger and Sierra Leone) have been selected from the bottom of the list, which have been prepared by UNDP according to HDI score. Two other transitional economies (China and Russian Federation) have also been selected to compare the results with those of India. The figures show that India is somewhat at mid-way to the desired level of development.

Table 3. Some health indicators in India and other selected countries

Country	HDI Rank	IMR (2003)	TFR (2000-05)	LE (2003)
Norway	1	3	1.8	79.4
Iceland	2	3	2	80.7
Russian Federation	62	16	1.3	65.3
China	85	30	1.7	71.6
India	127	63	3.1	63.3
Sierra Leone	176	166	6.5	40.8
Niger	177	154	7.9	44.4

Source: Human Development Report 2005
IMR: Infant Mortality Rate, TFR: Total Fertility Rate, LE: Life expectancy at Birth

There is no unique source of data from which we can compare status of health at national, state, and district levels. Moreover, conventional health indicators like infant mortality rate, maternal mortality ratio, life expectancy at birth, etc. are not available at district level for Cooch Behar and Jalpaiguri districts. However, we have RHS-RCH Phase I & II each of which provides maternal and child health care related information of all the Indian districts (50 per cent in each phase) in 1998 and 1999 respectively. Table 4 shows utilisation rates of some maternal health care services in Cooch Behar, Jalpaiguri, West Bengal, and India. As data on health services utilisation also reflects status of health of a population (see VHAI 1993), we will assess health status of Cooch Behar and Jalpaiguri from such information. These are computed figures form the data files of eligible currently married women in the 15-44 age group who experienced at least one live birth since 01 January 1996.

Table 4. Utilisation of maternal health care$^{\Psi}$ according to RHS-RCH-Phase I & II

Phase	Place	Rural				Urban			
		IFA	TT	CU	ANC	IFA	TT	CU	ANC
I	Cooch Behar	69	81.3	28.8	20.6	50	81.8	59.1	22.7
	West Bengal	58.5	79.8	45	27.8	60.9	87.1	71.5	41
	India	46.8	56.5	27.8	19	59	75.6	61.1	39.6
II	Jalpaiguri	69.4	71.2	32.6	22.8	46.7	90	83.3	36.7
	West Bengal	53.3	76.6	39.1	21.8	52.6	87.1	75.9	41.5
	India	42.2	59.2	26.7	17.1	56.9	77.4	59.2	38.1

Ψ: Percentage of eligible population in the reference period (01 January 1996 – 31 December 1998)
IFA: Taken iron folic acid tablets / syrup during pregnancy
TT: Taken 2 tetanus toxoid injections during pregnancy
CU: Went for at least 3 antenatal check up
ANC: Antenatal care (3 check-ups, 2 tetanus toxoid injections and iron folic tablets / syrup)

It is clear from the above tables that both the districts of Cooch Behar and Jalpaiguri are above the average national level in terms of utilisation of different types of maternal care. However, if we compare the state level figures, both the districts lie below the average line. Figures of the rural areas are also far below than those of urban areas. Within each category (rural / urban), rates of antenatal check up and utilisation of complete antenatal package is very low. These poor rates of utilisation of maternal care indicate poor status of health in this region of North Bengal. This is one of the main reasons why we have focused on Cooch Behar and Jalpaiguri.

We have also presented data on pattern of utilisation of maternal health care according to type of facility from the Rapid Household Survey, Phase I & II as shown in Table 6. Though availability of health facilities differs sharply in both the districts, pattern of utilisation is almost similar. Cooch Behar, formerly a princely state, has a good public health care infrastructure, where health facilities are distributed evenly throughout the district. It is also to be noted that administrative areas (for example, size of villages in terms of areas and population, numbers of households in sampled villages in table 16) are also small in the district as compared to those of Jalpaiguri. On the contrary, public health care infrastructure is not good as much as that of Cooch Behar. Table 5 shows some health facilities (hospital and dispensary of which are not equivalent to those of table 6; in table 5 those may include private facilities also) available in Cooch Behar and Jalpaiguri.

Table 5. Availability of health facilities in rural areas of Cooch Behar and Jalpaiguri

Health facility	Cooch Behar		Jalpaiguri	
	Per village	Per 1000 pop	Per village	Per 1000 pop
Hospital	0.044	0.025	0.174	0.056
Dispensary	0.045	0.026	0.145	0.047
PHC	0.096	0.056	0.015	0.005
SC	0.129	0.075	0.165	0.053
Registered Private practitioner	0.031	0.018	0.052	0.017

Source: Census 1991, pop: population

We see that though average village level figures are higher in Jalpaiguri, figures per thousand of population are higher in Cooch Behar. It shows better availability of public health facilities in Cooch Behar as compared to Jalpaiguri. As Jalpaiguri has many tea gardens and each of which has private dispensary or hospitals, the relevant figures are higher in the district. In table 6, we see that majority of the respondents (63.1 percent) in the rural areas of Cooch Behar utilised services at village level sub-centres. In the urban areas, however, respondents preferred private hospitals or doctors (42.1 percent). In rural areas of Jalpaiguri, 44.3 percent of the respondents have utilised sub-centres and nearly 33 percent private hospitals or doctors. The figures of utilisation of private facilities in both the rural and urban areas of the district are slightly higher than those of Cooch Behar. However, though we see differentiable provision of health facilities in both the districts, we observe similar pattern of utilisation of health care in this geographical region. Moreover, as significant percentages of population of these two districts belong to scheduled caste and tribe categories, pattern of utilisation my also vary according to these attributes. There may also be significant differences in preference for care according to different alternative systems of medicines as we observe usually in our locality, and which has not been explored by scientific studies. All these lead us to explore further to find the true picture of the health care economy by examining the pattern of utilisation of care of this region.

Table 6. Place of visit by the respondents for ANC in Cooch Behar and Jalpaiguri

Health Facilities	Cooch Behar*				Jalpaiguri**			
	Rural		Urban		Rural		Urban	
	n	%	n	%	n	%	n	%
GH	4	2.1	3	21.1	9	4.9	4	21.4
GH, GD	-	-	-	-	-	-	-	-
GH, PHC	-	-	-	-	1	0.3	-	-
GH, SC	3	1.8	-	-	-	-	-	-
GH, SC, PDH	-	-	-	-	-	-	-	-
GH, PDH	1	0.4	-	-	-	-	2	10.7
GD	9	5.3	2	15.8	-	-	-	-
GD, SC	1	0.7	-	-	-	-	-	-
GD, SC, PDH	1	0.4	-	-	-	-	-	-
GD, PDH	3	1.8	-	-	-	-	1	3.6
PHC	-	-	-	-	12	6.6	-	-
PHC, SC	1	0.4	-	-	1	0.7	-	-
PHC, PDH	-	-	-	-	1	0.3	1	7.1
SC	112	63.1	1	5.3	81	44.3	1	3.6
SC, PDH	21	12.1	1	10.5	13	7.0	-	-
SC, Other	1	0.7	-	-	-	-	-	-
PDH	20	11.0	5	42.1	60	32.8	8	46.4
PDH, Other	-	-	-	-	1	0.3	-	-
Other	1	0.4	1	5.3	3	1.7	1	3.6
Total	178	100.0	12	100.0	182	100.0	18	100.0

** RHS-RCH-I, ** RHS-RCH-II*
ANC: Antenatal care, GH: Govt. Hospital/Community Health Centre/Rural Hospital, GD: Govt. Dispensary, PHC: Primary Health Centre, SC: Sub-Centre, PDH: Private Doctor/Hospital

1.6. Statement of the problem

We have witnessed radical changes in infrastructure of health services and pattern of utilisation of care over the years in all parts of the country. An enquiry into the fact would unveil some of the important alterations like introduction of user fees or more specifically hike in fees structure in the public health facilities, emergence of numerous private sources of care and showing-preference for alternative systems of medicine among rural and urban mass. Important research questions at this point are that whether demand for public health facilities has decreased or whether pattern of morbidity has changed or whether people's perception on illness and the art of healing have altered leading to a

change in the appeal towards a particular type of care or system of medicine. The present study will investigate such research questions empirically in the rural and urban areas of Cooch Behar and Jalpaiguri districts of North Bengal.

1.7. Location of the problem in the theoretical context

Economists began to turn their attention to the matters concerning the efficiency in the health service sector around the end of the 1950s (Culyer 1971). Much of the controversies regarding application of economics to health care analysis waned when Fuchs (1966) defined health service sector as health care industry, which provides different types of outputs such as medical services, hospitality or hotel services, and validation services to people utilising different inputs. These services are output of the health care industry measured in terms of utilisation of health facilities, e.g., number of cases treated, hospital admission, etc. (Feldstein 1967a, Feldstein 1967b). The inputs of health care industry as categorised by Fuchs (1966) are: labour input (manpower), physical capital (plant and equipment), and intermediate goods and services (drugs, bandages, etc.). Empirical studies within this framework of supply side economics of health care began with the work of Feldstein (1967a). He opened new avenues of research by estimating Cobb-Douglas type production function of hospitals for the British National Health Service. Studies in the demand side of health care economics also follow a similar framework, which considers a set of non-economic factors such as age, gender, education, culture, etc. with the economic ones (see Feldstein 1967b, Feldstein 1979). Utilisation of health services depends both on demand and supply of consumers and providers (Lee and Mills 1983). Studies on utilisation of health services fall under a mixed demand-supply framework.

1.8. Interdisciplinary relevance

The problem of health services utilisation should be analysed in an interdisciplinary framework as it has been dealt with not only by the economists but also by the anthropologists, demographers, doctors, geographers, sociologists and others. Among the geographers, Lefever (1926) was probably the first person to apply mechanical and mathematical tools to solve social problems regarding geographic location of some kind.

Contemporary medical geographers have systematically studied how geographical accessibility to a health facility affects utilisation of health care. Since 1950s demographers have also started focusing on acceptance of different family planning methods and utilisation of maternal and child health care in connection with the so-called population explosion in the developing countries. Since 1970s, social and medical anthropologists also applied their minds to patients' perspectives and conceptions about illness and medicine to study how patients comply with the sick role – how they perceive the causes of their condition and make choices regarding the use or non-use of different kinds of health care (Herzlich and Pierret 1985). Within this sphere of research, conceptual frameworks have been developed to put some order into the mass of possible interacting variables, which affect health services utilisation.

1.9. Rationale of the approach

Historically, utilisation of public health facilities in India is very low. According to Operation and Research Group (ORG 1987), level of utilisation of public health facilities in rural India is 37 percent. National Health Policy-2002 states that the current level of utilisation of public health facilities is less than 20 per cent (GOI 2002). District level reports of Rapid Household Survey – Reproductive and Child Health Project (RHS-RCH) for Cooch Behar and Jalpaiguri (MODE 1998, 1999) show, on an average, very low levels of utilisation of maternal and child health care services. The reports as such also reveal very high degrees of inequalities in utilisation between rural and urban population. The Report of Inspiration (2002) for Cooch Behar states that in spite of high incidence rates of disease, a sizeable proportion of health seekers prefer quacks and primary level public health facilities. However, RHS-RCH has not covered all sections of population and also not considered all types of illness or disease. Moreover, the Baseline Survey in Cooch Behar under Health Awareness Programme (Inspiration 2002) has been conducted in rural areas of the district only. The district of Jalpaiguri is yet to see such a study. It is also not possible to put the above two surveys in the theoretical and conceptual framework mentioned in the previous section. The research and sampling designs and overall essence of those projects would put lots of conceptual, theoretical and methodological constraints. The present study will address the research questions,

conceptual, theoretical and methodological issues and look forward to contribute significantly a gamut of new knowledge to the existing literature.

1.10. Hypothesis

The main research questions, which are to be investigated, or hypotheses, which are to be tested, appear below:

- Unlike other economic goods demand for health care is independent of price of it.
- Appeal towards a system of medicine outweighs socio-economic considerations.
- Patients' choice of a system of medicine is rigid in response to characteristics of disorder.
- Patients' preference ordering for a system of medicine is independent of ethnicity and culture.
- Acceptability of public health facilities dominates that of private health facilities.
- Utilisation of health services conforms according to place of residence.
- Demographic characteristics like age and gender has less bearing on the problem of health care utilisation.
- Prevalence rates of non-communicable diseases are higher than those of infectious diseases.
- Utilisation of health services is influenced by normal out-of-doors trips made by potential patients.
- Unhappiness during sickness restricts the ability of patients to assess the quality of care.

1.11. Specific aims of the study

The specific aims of this study are to:

- Analyse the incidence and prevalence of morbidity from patients' perception.
- Analyse the pattern of health care utilisation.
- Study pattern of health care expenditure.
- Investigate how different socio-economic, demographic, geographic, psychological and other factors contribute to the probability of utilising health care and make it a successful event.
- Analyse patient's preference for a type of care and system of medicine.
- Propose effective measures towards appropriate matching of people's desire and the mettle of health care economy to safeguard our common future.