Chapter 9

Summary and conclusion

9.1. Background, the problem, and objectives

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (WHO 1961). The International Conference on Primary Health Care in Alma Ata, Russia in 1978, mentioned that health is a fundamental human right and that a main social target of governments, international organisations and the whole world community in the coming decades should be the attainment by all people of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life. Primary health care is the key to attain this target as part of development in the spirit of social justice. India is a signatory to the Alma Ata Declaration of 1978 and was committed to attain the goal of 'Health for All' by the Year 2000 through the universal provision of primary health care services. However, India could neither achieve health related goals nor could develop a good health care infrastructure for common people. Functioning of the public health care system has always been questioned by scholars from many different fields. Performance of such a system not only depends on the service related factors or the factors in the supply-side economics of health care, such as availability of health facilities, cost, and quality of care, etc. Acceptability of health care services among common mass or demand for those is also equally important. Usually demand for health care varies according to disease profile of a community as well as socio-economic and demographic characteristics. It is to be mentioned that in India both private and public sectors run parallel and there are six officially recognised systems of medicine, such as Allopathy, Ayurveda, Homoeopathy, Naturopathy and Yoga, Siddha, and Unani. Utilisation of health care, in Indian context, may thus also depend on preference for a particular type of care or system of medicine. The present study makes an attempt to study epidemiologic profile, preference for care,

and reveal the true picture of the pattern of utilisation of care by incorporating both demand and supply-side factors in the rural and urban areas of in Cooch Behar and Jalpaiguri districts of North Bengal.

9.2. Economics of health care

Economists began to turn their attention to the matters concerning the efficiency in the health service sector around the end of the 1950s. However, much of the literature developed at that time was normative in nature consisting of studies on welfare aspects of medical care, what public health policy ought to be or studies being based upon the value judgments in health care. Also there has been quandary on the question of application of economics to analysis of health care. Much of the controversies regarding application of economics to health care analysis waned when Victor Fuchs 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 utilisation of health facilities, e.g., number of cases treated, hospital admission, etc. The inputs of health care industry are: labour input, physical capital, and intermediate goods and services. Empirical studies within this framework of supply side economics of health care began with the work of Martin S. Feldstein. 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. Utilisation of health services depends both on demand and supply of consumers and providers. Studies on utilisation of health services fall under a mixed demand-supply framework.

9.3. Issues in the literature

The problem of health services utilisation has been dealt with not only by the economists but also by the anthropologists, demographers, doctors, geographers, sociologists and others. Geographers applied 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. Within this sphere of research, conceptual frameworks have been developed to put some order into the gamut of possible interacting variables, which affect health services utilisation.

9.3.1. Health services utilisation

Utilisation of health care, according to Axel Kroeger, depends upon the following: characteristics of the subject (predisposing factors), characteristics of the disorder, and characteristics of the service (enabling factors). 'Characteristics of the subject' is to mean background characteristics of the morbid persons and their households such as age, gender, marital status, household size, education, employment, ethnicity, culture, household income, etc. These are also termed as 'predisposing factors' in literature. Such factors are supposed to make an individual susceptible towards a specific action or behaviour or experience.

'Characteristics of the disorder' are type, stage and intensity of illness, number of spells, duration of illness episode, identification of the disease, and aetiological considerations. These factors affect utilisation of health services. From the point of view of literature on economics of health care, both the characteristic of the subject and disorder may also be comprehended as factors in the demand-side economics of health care.

'Characteristics of the service' are nothing but the health service system factors or factors in the supply-side economics of health care, which have important bearing regarding the use or non-use of different types of care. Some possible facets of any health service system are: availability of health facilities, accessibility to health care, quality of care, and cost or price of care.

9.3.2. Morbidity

The term morbidity means the state of illness or disability in a population. Though death is clearly a well-defined event, illness is not. But it is staged somewhere between perfect health and death. Morbidity measures are of two types: self-perceived morbidity and observed morbidity. The objective and scope of the study require a measure of the first type. Commentators have projected the view that in progressing from high to low mortality levels, all population experience a shift in the major causes of illness and disease. Whereas infectious diseases and nutritional and reproductive health problems predominate in high mortality populations, chronic and degenerative diseases predominate in low mortality populations. Empirical studies have found that India is in the midst of an epidemiologic transition and has an epidemiological profile of a poor as well as an affluent country. This complex epidemiological profile has significant impact on the health seeking behaviour of people.

9.3.3. Patient's preference for a care

Individual preference or appeal towards a particular type of care or system of medicine is an important determinant of utilisation of health services. As in India, with different systems of medicine available in both public and private facilities, preference for a care may significantly affect utilisation pattern. Study of patients' (or households') preference for public or private type of care or different systems of medicine, in the Indian context, is thus important.

9.4. Logical gaps

While reviewing literature we found a dichotomy between the economic factors and the non-economic ones. We have also seen that technical studies in developed countries, by and large, consider allopathic system of medicine only. Technical studies in India also suffer from limitations as they focus primarily on maternal and child health care related issues. Moreover, scientific frameworks in studies of health care utilisation are based on hospital records. Inferences of studies based on hospital records may lose credibility in mixed cultural set up, as "doctor's disease" may not be identical with "patient's illness." The present study adopts a self-reporting approach of studying morbidity, examines epidemiologic profile based on that, analyses utilisation pattern in a quantitative

framework, and incorporates one qualitative section to find reasons behind choosing different types of care.

9.5. The present study

The study is based on primary data collected mostly thorough interview technique. For the section of preference for care the study adopted free-listing technique to collect patient's or household's opinion. The study based on two districts of North Bengal namely, Cooch Behar and Jalpaiguri, covers the Cooch Behar and Jalpaiguri towns and CD Blocks II and I of the two districts respectively. The size of the sample is 440 households. The study has three facets: morbidity analysis (examination of the phenomenon of epidemiological transition), study of household's preference for a care (sketching patient's or household's cognitive structure), and estimation of contribution of different need, predisposing, and enabling factors towards utilisation of a care (multivariate analyses using binary Logistic Regression Analysis, LRA and Multiple Classification Analysis, MCA).

In order to carry out studies on epidemiological transition, data on morbidity has been classified according to the Global Burden of Disease (GBD) study 1990 where there are three broad categories of disease (Group I: Communicable, maternal, perinatal, and nutritional diseases; Group II: Non-communicable diseases; Group III: Unintentional injuries, Intentional injuries). The observed distribution has been compared with the hypothesised ones (using Chi-square statistic) to test whether epidemiological transition has taken place in rural and urban areas of Cooch Behar and Jalpaiguri districts of North Bengal. Incidence and prevalence rates of disease have also been computed using appropriate statistical techniques.

Qualitative data on preference for care have been analysed with a simple analytical scheme for quantitative interpretation to compute salience or importance of each opinions in people's mind.

In order to investigate how different socio-economic, demographic, geographic, psychological and other factors contribute to the probability of utilising health care, binary-multivariate logit regression models have been estimated according to type of locality (rural / urban / combined). Multiple Classification Analyses have also been done

following standard practice to estimate probabilities of utilisation of care with respect to each variable in adjusted and unadjusted situations.

9.6. Household Structures

9.6.1. Sample characteristics

We have seen varied age-pattern of morbidity in both the rural and urban areas of North Bengal. Proportion of male and female population among the morbid persons is almost equal in the rural category. However, the proportion is higher for males in the urban category. Average figures for the rural and urban areas are 5.378 and 5.225 respectively. However, in the urban areas most of the persons belong to the small families. Educational backgrounds of most of the urban dwellers (with morbidity) are poor as compared to those of their rural counterparts. It is clear that rural people make frequent normal out-of-door trips than urban dwellers. Urban dwellers are seen to travel more to distant places than the rural mass. Agricultural possessions are high among the households in rural areas and the standard of living and household cash income are high among urban dwellers.

9.6.2. Characteristics of the service

In both the rural and urban category, most of the cases have been treated under the allopathic system of medicine. Also, in most of the cases households seek care from private health facilities. It is seen that rural people have reported low and the urban dwellers have reported high quality of care.

9.6.3. Health care expenditure

In the rural areas each household spends on an average Rs. 242 per illness episode (mean). Half of the households in the rural areas spend Rs. 60 or less per illness episode (median). Most of the households spend Rs. 50 per illness episode (mode). In the urban areas these figures are Rs. 1468, Rs. 100, and Rs. 200 respectively. On an average, one rural household spent nearly 9 per cent and one urban household spent nearly 21.5 per cent of their cash income per illness episode.

9.7. Morbidity analysis

Infrastructure of health services is passing through a phase of transition in North Bengal. The fact can be observed from the dwindling picture of the public health facilities and the flourishing of private sources of care at a faster rate in the region. The reasons behind this fact are, however, not very clear. The question is that – why is the public sector lagging behind its private counterpart in pulling crowd from all sections of population? The research question, which has been investigated in this regard, was that – whether pattern of morbidity or epidemiological profile of this region has transformed leading to a change in the appeal towards a particular type of care or system of medicine. If pattern of morbidity of one particular region changes, and existing health care infrastructure is not competent enough to meet growing and diversified demand for health care, people will either eke out a living with crumbled public health care system or flee to private sources of care if those are available and affordable.

The study revealed that in rural areas of Cooch Behar and Jalpaiguri districts of North Bengal, real burden of disease is very high. Both the incidence and prevalence rates of disease are markedly above the national and state-level averages. As of disease profile, rural people suffer more from communicable and other diseases, which prevail in the pre-transitional societies, i.e., in societies with poor socio-economic background. Burden of non-communicable diseases and injuries are, however, high in urban areas. According to the phenomenon of epidemiological transition, rural areas of this region remain in the pre-transitional stage, and the urban areas are passing through the mid-transitional stage. So, this particular region of North Bengal has an epidemiological profile of backward as well as advanced societies. It conveys that the problem of this region has at least two facets: one is associated with the real heavy burden of diseases and the other is with the complex epidemiological profile of pre-transitional and transitional societies. Health care infrastructure of this region must be competent enough to meet such complex needs. From the results it is clear that people from all societies (pre-transitional and transitional) have less dependability on the public health facilities. Consequently people are seen to flee to the private sources of care. However, the results do not help us to make any inference about people's inherent preference for public or private types of care.

Nevertheless, the fact remains that public sources of care (of this region) are not adequate enough to deal with the complex epidemiological profile of North Bengal.

9.8. Preference for health care

Importance of opinions and attitudes towards a type of care or system of medicine has been recognised greatly by the medical sociologists, anthropologists, and doctors. In India, the issue has been addressed mostly by the medical specialists. Such studies are restricted in counting frequencies of patients expressing various opinions. However, to move a step further one can use modern qualitative anthropological techniques to sketch patients' (or households') cognitive structure with respect to their choice of a type of care or system of medicine. The present study does an analysis of user's perception regarding choice of a care and computes importance or salience of different opinions in their mind towards utilisation of care.

The study indicates that in rural areas people utilised public health facilities mostly because of their availability in local areas or because no other option was available to them or because of the inexpensiveness of those as compared to the private ones. People in the urban areas preferred public health facilities for financial reasons: either price of a care or affordability of households. The main reason behind choosing private type of care both in rural and urban areas has been quality of care. Both rural and urban dwellers prefer allopathy for quick relief, permanent cure, reliability, etc. and homeopathy as it is cheap, good for children, and as it is assumed to have no side effect. The study thus provided us with a very good idea and precise measures on opinions and attitudes towards a type of care or system of medicine in this region of North Bengal. These measures can be suitably used for policy prescriptions for this particular region. For example, patients' or households' appeal towards homeopathy or opinions in favour of that can be honoured by introducing it in the primary health care institutions of this region. However, it is to be mentioned that results of such qualitative studies are not generalised the way researchers do in case of quantitative studies. However, findings of this section which usually explains 'why' could be thought as good supplement to those of the quantitative section where we find answers to questions on 'what' or 'how much'. One section seems to be the true complement of the other.

9.9. Utilisation of care

Over the years, infrastructure of health services and pattern of utilisation of care have changed radically in the region of North Bengal like in other parts of India. An enquiry into the reasons 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 revealed 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 preference for alternative systems of medicine has increased over allopathy or whether patient's preference for a care is purely rigid in response to socio-economic, demographic and other characteristics. The present study investigates such research questions empirically by evaluating contribution of different socio-economic, demographic, geographic, and other factors towards utilisation of different health care in the rural and urban areas of Cooch Behar and Jalpaiguri districts of North Bengal. Important findings based on logistic regression analyses (LRA) and multiple classification analyses (MCA) are presented below.

Among the characteristics of the subject, demographic factors like age and family size have been found important determinants of utilisation of a care.

Probability of utilisation is seen higher in small families. We have seen literature in support of this fact, which theorises that in small families, per capita income may be high and which may increase ability to pay for health care and chances of utilisation of a care. However, MCA shows that even if the effects of income and other variables are controlled, probability of utilising a care is higher in the small families in rural and urban areas than in large families.

Though not very sharp, but some degree of gender bias is present in both the rural and urban categories in terms of utilisation of care.

Negative relationship between education and utilisation of a care indicates chances of preferring self-treatment or family-treatment or the like among the educated ones. However, the gaps in probabilities between the illiterates (or primarily educated) and educated decrease under controlled situations.

While defining 'normal out-of-door trips' the range of 10 kms has been fixed according to the spatial set up of the study area. However, it has been found that those who (household head only) travel more within this range have tendency to utilise care more. It carries a good message as in the pace of development social mobility will increase which will always contribute to the probability of utilising a care.

Although the relationship between probability of utilisation and cash income is negative in the rural category, it is found to be positive in the urban category. The negative relationship again indicates preference for self-treatment or family-treatment or the like among the affluent households.

Probabilities of utilising a care, for three broad categories of diseases, in the rural category follow a U-shaped pattern. In other words, infectious diseases, etc. and injuries get more importance over non-communicable diseases. Urban dwellers also put more importance on infectious diseases, etc. and it then decreases gradually. This again indicates chances of self-treatment or family-treatment or like for non-communicable diseases, and injuries.

Probability of utilisation is very high in the rural category when the preference is for homeopathy. Similarly, demand for public health facilities is also very high among rural mass.

Utilisation of health facilities by rural people is associated with low reported quality of care. The reverse is true in the case of the urban dwellers. This conveys that unhappiness during sickness aggravates in case of a patient from a rural area owing to service related factors.

The relationship between cost and utilisation is positive in the rural category and almost inverted U-shaped in the urban category. Researchers and policy makers should justify the fact that whether rural people have less freedom to find cheaper options in the towns which are not their usual places of residence and on the contrary, this (finding cheaper options) may be a common practice among urban dwellers. Other reasons may include cost of travel, cost of accompanying persons, etc.

9.10. General inference

One basic research question, which has been investigated in the study, was that whether demand for health care depends on price of it. The usual relationship between price of a commodity and demand for it is negative. However, the present study revels that in rural areas demand for health care or utilisation of it is positively related with price or cost of it and in the urban areas demand increases initially and then decreases with cost. The second research question is whether appeal (or equivalently demand, attractiveness, preference, etc.) towards a system of medicine is more important than socio-economic consideration. In the qualitative section of 'preference for care', we have seen that in rural and urban areas people prefer allopathy for quick and permanent relief, etc., or in other words, for therapeutic reasons. Preference for homeopathy depends on aetiologic, economic, and therapeutic considerations. In the quantitative section, Multiple Classification Analyses show that in the rural category, adjusted probabilities of utilising care with respect to different systems of medicine are higher than respective unadjusted probabilities. As the adjusted probabilities are obtained when effect of all other socio-economic variables are controlled, it seems that in rural areas appeal towards a system of medicine outweighs socio-economic consideration. In the urban category, such adjusted probabilities are less than the unadjusted ones. It indicates that in urban areas socio-economic consideration influence preference for a system of medicine. However, in both rural and urban areas preference for system of medicine is not rigid with respect to characteristics of the disorder. We have seen that for communicable and other similar diseases, people preferred allopathy. We could not distinguish pattern of utilisation of care with respect to ethnicity or caste. Simple cross tabulations indicate preference for private health facilities among rural and urban mass. However, multivariate analyses show that in controlled situations people in the rural areas preferred public, and people in the urban areas preferred private health facilities. Pattern of utilisation also varies according to place of residence or type of locality. Probability of utilising a care is higher among rural mass than that of urban dwellers. Among the demographic characteristics, age has important bearing on the problem of health care utilisation. The age-pattern of morbidity shows almost an inverted U-shaped relationship, on the contrary the age-pattern of utilisation shows a U-shaped one in rural areas. It indicates sheer negligence of

the interests of the young and young-adults in the rural areas. We have found that prevalence of infectious diseases is higher than those of non-communicable diseases in rural areas, and prevalence of non-communicable diseases is higher than those of infectious diseases in urban areas. Among the individual or household behaviour, normal out-of-doors trips made by the household heads, influence utilisation of health services in rural areas. Unhappiness during sickness does not restrict the ability of patients or households to assess the quality of care.

9.11. Policy recommendations

- We have observed U-shaped relationship between age and probability of utilisation of a care. As demographic factors are not subject to sudden change, those cannot be considered as instruments in the hands of policy makers to fulfil their objectives. However, special care must be taken to raise the rate of utilisation of care for morbid children in the 5-14 age group and also in all other groups so that the probabilities of utilisation for all the age groups tend to one.
- Probability of utilisation is seen to be lower in large families. Appropriate measure should be taken to regularise the habit of utilisation of health care in such families.
- Special care must be taken for removal of gender bias in utilising health care. Awareness campaigns targeting couples may be undertaken to bring about attitudinal changes within the households.
- Negative relationship between education and utilisation of a care should be a matter of concern for both the policy makers and the service providers.
- Relationship between probability of utilisation and cash income is negative in the rural category and positive in the urban category. Policy makers and service providers must note this fact with care.
- As the demand for homeopathy is very high, appropriate measures should be taken to introduce it in the primary health care system.
- Demand for public health facilities is also very high among the rural mass. So, privatisation or plan of leasing out the primary health care system to private operators or any such measures will not be justified.

- As rural people usually do not receive quality care, service providers should consider the issue from moral point of view.
- Though there is no simple mechanism to minimise inequalities in expenditure pattern of health care between rural and urban communities, policy makers should rationalise these facts by taking appropriate price-discrimination policies, etc.

The above measures are proposed in keeping with the people's desire for health care services and the mettle of health care economy to safeguard our common future in this era of neo-liberal economic policies of privatisation and globalisation.

9.12. Conclusion

The study found patients' inherent preference for public care and alternative systems of medicines particularly in rural areas of North Bengal, which are in pre-transitional stage. Rapid Household Survey under the Reproductive and Child Health Project (RHS-RCH) also depicts that among the users of maternal health care in North Bengal, preference for public health care, particularly the public health care institutions at primary level, is very high. The study of GTZ, Germany or the Report of Inspiration for Cooch Behar also supports this fact. All these findings clearly indicate that demand for public as well as primary health care services is still high in the pre-transitional societies of North Bengal. In such a situation, it is apparent that privatisation of the primary health care system or leasing it out to private operators is purely unscientific. Rather, the Government should think of channelising resources to this system to deliver systematically quality health and family welfare services to its potential users. Inequalities in access to basic health care are the main factor behind inequalities in health outcomes. So, removing such inequalities from the supply side should be the first priority of the Government. RHS-RCH shows that in rural areas of Cooch Behar, more than 63 per cent of the mothers have visited sub-centres for maternal health care services (table 6). The same figure for Jalpaiguri is 44.3 (per cent). However, we know that one sub-centre is not well-manned and -equipped (as shown in the section 1.3.1.1) to meet health care needs of one pregnant mother. So, inequality in access to basic health care lies within the system. Such inequalities should be removed first by appropriate restructuring of the health care infrastructure. Another

important aspect is that of quality of care. The issue of poor quality of public health care services is discussed widely within India and abroad. While highlighting the social infrastructure of the Country to foreign investors, the Federation of Indian Chambers of Commerce and Industry (FICCI) has clearly mentioned (in their official website) a decline of the quality health services in the State of West Bengal. In his famous Cortona lecture, organised among others by the University of Pavia in 2005 in Italy on a multi-voiced dialogue on global society, Amartya Sen has mentioned about the dreadful state of health services in east India. Such depressing findings appeared in the first report of the Pratichi Trust, a Trust set up by Sen with his Nobel money. So, quality of care is an issue, which is to be addressed immediately by the Government. Finally, we move to the issue of preference for alternative systems of medicine. Our study revealed that in the rural areas of North Bengal (pre-transitional societies), people prefer alternative systems of medicine. The situation is similar to our observation on post-transitional societies. For example, in the Western Europe, governments spend huge amount of resources on both critical and chronic care. The state of chronic care, however, does not seem to be very promising to common mass. As a result people in the Western Europe are seen to rely gradually on various alternative systems, such as Indian Yoga and Meditation (including the traditional Chinese ones, shiatzu, zazen, etc.), and others for chronic care. Such a move in the preference for care took place in Europe, where basic care is made available to all long back during the early phase of industrial expansion. Nowadays, in India too people are gradually moving towards Yoga and Meditation or other alternative systems of medicine. However, the tragedy is that in our societies people are moving to alternative systems, as basic health care in the mainstream system of allopathy is either not available or accessible. The study thus concludes drawing attention of the policy makers, which is very crucial to determine the strategy of delivering health care in this phase of transition.