Chapter VI

CONCLUSION

6.1. Research Finding Once More

In this dissertation an attempt has been made to assess the nature of access to healthcare and benefit incidence of public subsidies on different health care services, when the pattern of morbidity is changing with development, urbanization and globalization. In the introductory chapter (Chapter I) a brief sketch of the context of the study has been presented. In the Millennium Development Goals (MDG) importance of health to development and alleviation of poverty has been highlighted. It has been elaborated in the literature that the health status of a given population is determined through the interaction among the biological, environmental, social and behavioral risks and availability and access to the healthcare system. However, these risks changes with the level of development and posed challenges to the society in public health management. It has been observed that pattern of morbidity changes with development and the share of disease burden due to infectious and communicable reduces and that of the chronic diseases increases – typifying an epidemiological change. With the emergence of novel infections and nutritional diseases, the first epidemiological transition occurred around 10,000 years ago. The major determinant of disease burden was resource dearth, which could lead to hardship, exposure, famine and local extinction. Improved nutrition, public health and development of medical practices facilitated by industrial revolution lead a number of developed nations toward the second epidemiological transition, which is characterized by a decline in pathogen induced infectious diseases and rise in man-made degenerative diseases. However, the industrial growth brought with it the industrial pollution and enhanced the environmental health risks. The spreading of the risk has been aggravated by the rapidly changing global economy where changes in global environment culminate into economic dislocation and population displacement with a consequent increase in health related risks. This influences the morbidity pattern and there is resurgence of familiar infections accompanied by an array of novel diseases, which can be identified as third epidemiological transition. Health burden from
environmental change has a natural bias towards the poor who are directly depend on nature.

Thus globalization is not only affecting the inert-country health status, even within the same society there is observed variation in morbidity pattern and access to healthcare services. So, conceptualization of any public health strategy needs to have a clear understanding of the socio-economic, demographic and cultural barriers in the process of utilization of healthcare. It has also been observed that with the process of globalization the stages of epidemiological transition is not uniform across all sections of the society and there is distinct evidence of stage overlap. When India is located between phase I and II in the epidemiological transition ladder, reemergence of drug resistance infectious and communicable diseases are revealing the signs of stage III of the transition. To assess the impact of socio-economic factors on the morbidity experience and access to publicly provided healthcare facilities as well as benefit incidence of public subsidies we have selected a representative state of India – West Bengal (WB). After calculating two separate indices on morbidity and mortality for Indian states following the Human Development Index (HDI) method, it has been found that WB is better placed in terms of mortality management compared to Indian average. However, the state is at the second quartile in terms of morbidity control. This mismatch between achievement in terms of mortality control and morbidity management encourage us to analyze the morbidity pattern and access to public healthcare services and its benefit incidence for the state.

Chapter II mainly focuses on the prevalence of communicable disease in the South East Asian region which comprises eleven countries including India. In the tropical region, global warming and environmental degradation enhances burden of communicable diseases, dominated by Dengue, Malaria, Chikungunya, Kala-azar, Tuberculosis, Diarrhea, HIV/ AIDS etc. It has been observed that a considerable proportion of the population die each year from such diseases in the region. Here population growth, urbanization, high birth rates, increasing population mobility, animal trade and livestock production, agriculture and changing land use pattern and climate change have identified as major causal influences for this the spread of communicable diseases. It has been
found that many diseases are reemerging in the drug resistant form. A brief description of the policy initiative taken by the countries of the region to control the diseases has been reported in this chapter. India is experiencing an overall increase in non-communicable diseases though a variety of communicable diseases are still dominating in the health map. Most of these diseases are preventable either by changing life style and improving the environment, housing condition or by vaccination or immunization. However, the complex organizational structure and lack of political will to control the diseases is taking the situation from bad to worse.

Chapter III discusses pattern of morbidity in West Bengal, its change over time and across regions on the basis of existing literature. An attempt has been made to verify the reported and detected morbidity pattern with the help of household level data available from NSSO. Morbidity pattern of the state shows that poor and socially ill-placed classes are suffering more from infectious and communicable diseases whereas socio-economically better-off classes are reporting more chronic diseases. It has also been observed that some infectious and communicable diseases are still reemerging in the drug resistant form. Thus the state is experiencing an overlap of epidemiological transition stages. The chapter provides a description of the NSS 52nd and 60th round data on Morbidity and Health Care used for the study and the information used for household and individual level analysis. Available information on ailments has been clubbed into fourteen groups and these following the World Development Report (1993) have rearranged into four major categories. It was observed from reported and detected morbidity that non-communicable diseases have increased over time in India and West Bengal. Prevalence of reported and detected morbidity of the state shows that chronic and non-communicable diseases are more prevalent among the more educated, aware and conscious groups whereas, infectious and communicable diseases are mostly concentrated among the relatively less conscious groups. Two sets of regressions are run with two alternative representation of morbidity (M₁ and M₂) to find out the socio-economic factors influencing the prevalence of communicable diseases in West Bengal. Here, M₁ is a binary variable which has classified households into communicable dominated or non-communicable dominated according to the incidence of morbidity. M₂
on the other hand, is the index of morbidity, defined as the percentage of spell of hospitalization due to communicable diseases out of total spell of hospitalization in a household. Since \(M_1\) is the dummy variable logistic regression and for the \(M_2\) OLS regression has been run. For the 52\textsuperscript{nd} round income and sanitary facility has come as important determinant of incidence of communicable diseases whereas for the 60\textsuperscript{th} round two additional factors - living condition and social group are also come out as important predictors. Similar result is also observed for the logistic regression. Additionally, result shows that incidence of communicable diseases decreases for the higher socio-economic groups and households with better living condition. Similar analysis has been carried out for each sector of the state separately. It was observed that the incidence rates for the two sectors in terms of morbidity prevalence and their determinants are significantly different. Therefore it was decided to run rest of the analysis separately for each sector. The chapter also tries to throw some light on the morbidity management part, which actually deals with the health policies to ensure proper allocation of health budget and distribution of benefits among the deserving sections of the society. The chapter concludes with a brief description of the two policy issue – access to healthcare and benefit incidence of public subsidies.

Chapter IV analyzes the magnitude and nature of the demand for access to non-hospitalized healthcare among the people of West Bengal. The actual need for healthcare is captured by self-reported morbidity pattern. It is then studied the nature of access along with its socio-economic barriers for the period 2004 and the results have been compared with the situation prevailing in 1995-96. It was observed that the higher socio-economic classes are reporting more morbidity and reporting of morbidity has increased significantly. Access to medical care is the maximum for the richest income class. However, poorest class has the highest access to public facilities. The most important barrier to access is the financial affordability in the rural sector, whereas for the urban sector it is not appeared important. To find out the determinants of access to healthcare and choice of provider logistic regression has been run and the marginal effect calculated. However, monthly per capita expenditure (MPCE) does not appear to be an important determining factor in access to healthcare facilities. Social group has no specific
influence on access also. A strong preference for the private healthcare services is observed among the higher income classes in both the region. To isolate the marginal influence of other explanatory factors such as gender and education in enhancing access to out-patient medical care, intersectional analysis has been carried out as suggested by Sen and Iyer (2012). Taking income and educational class the first decomposition has been done at the inter-household level, where both the factors have positive influence on access. Income did play an important role in determining access among the illiterate class of the rural sector but in the urban sector no such causal relation was found. Higher income and education class revealed strong preference for private providers. Decomposition analysis with income and sex at the intra-household level for 2004 shows that gender plays a dominant role in determining access not only within the same income class but also across income groups. However, in 1995-96, gender inequality only persisted within the same income class.

Chapter V mainly concentrates on in-patient care. The chapter aims to analyze access pattern of hospitalization in public run hospitals across different socio-economic and demographic classes. It also attempts to calculate the out-of-pocket (OOP) and catastrophic expenditure made during hospitalization and benefit derived from access to different healthcare services in public hospitals. It was observed that public sector hospitalization and access to free wards are impressive in the state. However, access to hospitalization does not cover access to other related healthcare services like medicine, diagnostic tests, and professional care etc. Patients were forced to purchase these facilities from the private market and make high OOP payments. To calculate the catastrophic health expenditure made by the households in West Bengal, information on average food and non-food expenditure available from NSS 61st round has been used. It was observed that considerable portions of the household are making health expenditure at the catastrophic level. To find out the socio-economic factors determining such catastrophic health expenditure, logistic regression has been run at the household level. Admission to private hospitals and the frequency of hospitalization in a household have come out as the major causes for the catastrophic health expenditure. To calculate the benefit derived from access to healthcare services during public sector hospitalization,
benefit incidence analysis has been carried out. No specific information on public subsidy is available for the inpatients care. Ailment wise per capita private expenditure for a particular service of an income class has been used as a proxy for the actual cost for the service. Then we have calculated the net subsidy and benefit incidence of these subsidies across socio-economic classes. It was found that in most of the cases, net subsidy is relatively low for the weaker sections in both the regions. Moreover, from the benefit incidence analysis it was clear that these sections are getting lower subsidy benefit as most of the benefits are enjoyed by the socio-economically better-off sections of the state. This situation calls for serious intervention from the planning and implementation side to correct these biases. The following section will take up that discussion.

6.2 Need for Innovative Policy Design

The present study appears to bring out crucial policy implications for the social planner. Though access to primary healthcare is available for most sections of the society, the policy intervention should be strong enough to reach these sections with enough public subsidies. More sophisticated services should be made available for them. Access and benefit of the women should be considered with utmost seriousness. The women report far higher self-perceived morbidity, but they hardly enjoy the benefit of publicly funded subsidies. Thus awareness must be improved among households to generate access for the women. In short, the public financed health care system in West Bengal posits an unsolved conundrum where access to health facilities fails to ensure enough subsidies for the poorest and the most vulnerable class of the society. Insufficient benefits accrued to these groups, in spite of high morbidity as well as high access, may hint towards a total failure of quality of services offered to them.

In July 1991 India has adopted New Economic Policy (NEP), which has helped to achieve a two digit growth rate for the nation. Unfortunately, the exclusive growth strategy fails to provide enough social security to different sections of the society. It has exposed the population to extreme vulnerability in general, and health insecurity in particular (Selvaraj and Karan 2009). NEP initiated in the early 1990s have resulted in
declining public expenditure in health and increasing presence of private provision of healthcare in both Rural and Urban areas of India. Along with the shift of priority to the market oriented services, some administrative inefficiencies like low revenue collection, competing demands for revenues and relatively low spending priority also contribute towards insufficient spending on healthcare in India (Rao and Choudhury 2012, Ravi and Bergkvist 2013). Over the years, private sector has emerged as a dominant provider of healthcare in all the sub markets like medical education and training, medical technology and diagnostics, production and sale of drugs, hospital construction and finally, provision of medical care services. However, private service providers in the rural sector are usually of poor standard and they fail to provide basic amenities to the patients. This poor quality at high price is inducing more distributive biases in the system. According to the World Health Organization (WHO), more than 80 per cent of total health expenditure in India is private. Most of this private expenditure is made by the household as OOP payments to the private providers. As the marginal people lack resources to make down payments, in most of the cases either they avoid going to doctor or become permanently indebted by getting caught into the health poverty trap (Ranson et al., 2006). So, it is important to enhance outreach of the healthcare services to extend the provision of quality care even in the remote areas.

However, this inadequacy of healthcare facilities should not be perceived solely as a supply-side problem. Due to better information about provider and increased awareness about health as well as diseases, there is a significant increase in demand for health care services. These have exerted a considerable pressure on the existing healthcare facilities in the country (Selvaraj and Karan 2009). To bridge the gap between demand and supply in this field a number of innovative policies have been adopted by the Government. A brief review of a few such policies for the state of West Bengal has been presented below. Since our primary concern is about health equity and the rural sector is relatively more neglected in this regard, hence we are going to concentrate on three recently launched policies like (a) National Rural Health Mission (NRHM), (b) National Rural Telemedicine Network (NRTN) and (c) Rashtriya Swastha Bima Yojana (RSBY). While
the first two are entirely focused on rural areas, the last one is covering those living below the poverty line in both rural as well as urban areas.

**NRHM**: NRHM is a comprehensive program initiated in 2005 by the union government to improve access to effective healthcare for the poor of the rural sector\(^1\). The program concentrated more on mother & child health and tried to promote institutional delivery and safe motherhood, referral transport system, integrated management of neonatal and childhood illness problems. At the organization side the health management information system was first introduced in 2008 under NRHM. So, in terms of intervention the program is prioritizing the basic requirement related to maternal and child mortality aversion and to ensure better access from all quarters, emphasis has been laid on the collection and dissemination of health management related information in an organized fashion. However, there are several problems in designing and implementation of the program. In terms of design, allocation of resources on a per capita basis is not adequate for the need of healthcare. Moreover, the state has to make matching contribution for the program, so the state can divert expenditure on healthcare in other areas and can still fulfill these matching requirements by avoiding the basic responsibility to enable the program to take off (Rao and Choudhury op. cit.).

**NRTN**: A medical network through telemedicine facility could be an effective alternative in reaching the medical problems of the people who cannot avail the existing facilities due to non-medical reasons. This program, if successful, will help to ensure better access for those in the remote areas and for those who cannot take a trip to a dispensary due to high opportunity cost of time and therefore, expected to be especially effective in reducing intra-household gender difference in access. Female are reluctant to take medical care during their ailment due to household duties (Ranson et. al. op. cit.). Expansion of telemedicine services through the NRTN would enable the remotely located

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\(^1\) In fact National Health Mission (2005) has been implemented in both the region of India; for the urban sector *National Urban Health Mission* (NUHM) and for the rural *National Rural health Mission* (NRHM). The NUHM has been set to meet the needs of the urban poor, particularly the slum dwellers by investing in health professionals, appropriate technology through *public private partnership* (PPP), and health insurance for the poor. However, in West Bengal, so far the Rural cell is more actively present.
people to avail healthcare services within their region without taking up any outbound travel, and thereby saving travel cost as well as time. Both government and private sector have been actively participating in tele-health programs. The telemedicine market has witnessed spectacular growth during the last two years mainly because of timely convergence in the areas of information technology, Communication and Healthcare along with launching of central e-health schemes of the Ministry of Health and Family Welfare (Mishra et al., 2012). A National Telemedicine Task Force was set up by the Ministry of Health in the year 2005. The National Knowledge Commission has also set up a Working Group for the development of an Indian Health Information Network which is supposed to design, develop and integrate an end-to-end electronic healthcare informatics system to improve public health, health research and the delivery of healthcare. Different state governments are introducing telemedicine services by taking guidance and assistance from Indian Space Research Organization (ISRO), The services include the linking up of primary health centers with secondary as well as tertiary care hospitals, launching of mobile clinics, making paramedics available in different call centers to suggest primary actions to be taken in case of any health emergency and suggesting some generic and over-the-counter drugs, and so on. In fact, NRTN project is getting implemented as a part of NRHM project.

**RSBY**: Access and affordability could be improved by making them more extensive and inclusive through private-public integration in terms of RSBY, an already taken health program by the government. This is also worth assessing for improvement in the future access to government healthcare through insurance at affordable price design. In an attempt to provide financial protection against high OOP expenditure, in 2007, Union Labor Ministry, Government of India, introduced RSBY, a health insurance scheme. The scheme provides insurance coverage for selected hospitalization in secondary sector hospitals to people below the poverty line (Shahrawat and Rao 2011). Thus a protection against financial risk is provided to the BPL population. But there is no reason to think that APL population does not face catastrophic payment obligations and consequent impoverishment. People just above the BPL line are most vulnerable in these cases. To finance the high-end surgical procedures at tertiary level, Tamil Nadu has implemented
Rajiv Arogyasri and the Tamil Nadu Scheme. Karnataka's Vajpayee Arogyasri provides coverage for both secondary and tertiary care hospitalization. Interestingly, Kerala has extended the RSBY scheme for the people above the poverty line (APL). Himachal Pradesh extended the RSBY coverage amount to Rs. 1.75 lakh for a family of five people per annum from the floor of Rs. 30,000 per annum. Gujarat has implemented Chiranjeevi Scheme for the maternal healthcare financing. In West Bengal only 2.88 per cent of the BPL population is taking advantage of the RSBY scheme. This is the possible fall out of two alternative explanations: either the outreach of the program is low due to inadequate infrastructure in remote areas and/or the presence of high OOP expenditure related to non-medical items not covered under RSBY is imparting detrimental effect.

Community based health insurance schemes allow many people's resources to be pooled to cover the coast of unpredictable health expenditure of an individual / household. Pre-payment mechanism facilitate access to expensive medical care, as it spreads costs over time and prevents people to pay at the time of treatment (Ahuja 2004). By pooling resources, insurance schemes can be improve equity of and access to health and can offer financial protection also. As the people of the lower socio-economic sections have less education and knowledge about disease they tend to be in poorer health than those with higher socio-economic condition. Thus, the former will gain from such risk-sharing insurance schemes. Similarly, cross-subsidization schemes can also be implemented. Premiums are indexed to the members' income for this type of insurance. In case of efficient implementation, access to health care for both poor and better-off would eventually be equal under this community health insurance arrangement (Ranson 2002).

Many state sponsored health financing schemes are based on the public private partnership (PPP). In these cases, government purchases the services in bulk from the private provider. Thus, government is getting the healthcare services at a much lower price than the market price (Bhat et al., 2009). The private sector has now asked by the government to take the responsibilities of providing much needed healthcare through RSBY. It has been presumed that these insurance schemes can mobilize the process without paying much heed to their intrinsic limitations. However, there is some conflict
of interest between state and private health providers. The state has an obligation to improve access and health financing scenario, while for any private provider, profitability is the primary motive. Sometimes, the state has to face the double burden for such financing schemes (Reddy and Mary 2013).

It has been observed that a hospitalization as the solution of health problem neglects disease prevention and promotes curative part of the health care. In fact, three major biases identified in our healthcare provisions are (a) urban bias, (b) doctor bias and (3) curative bias (Banerjee & Nag 1998). Private hospitals are making profit from hospitalization episodes, which otherwise would have been treated at the out-patient care level. Many such hospitalizations can be prevented by improving the strength of the primary care. But present insurance programs lack an overall vision of healthcare. Underinvestment, inefficient utilization of resources along with neglect of governance, poor monitoring and lack of accountability in the public healthcare system have given rise to mushrooming of an unregulated and unmanaged private sector. Selvaraj and Karan (2012) has argued that compartmentalization of health care is mostly responsible for such high health expenditure and poor health status in India. They suggested that the problem of healthcare should be treated as a continuum of care, rather than as a compartmentalized service taken in isolation.

6.3 Direction of Future Research

The study on the status of health equity in the state of West Bengal has been carried out on the basis of unit level NSSO data collected at least a decade ago. However, in the preceding section we have seen that the innovative health policies have been introduced since 2005 and their influence on both access and benefit distribution of healthcare would be interesting as well as important to study. The NSSO is about to complete another health round and since this is a very unique structure of data where household level information on different socio-economic characteristics are being combined with that of reported morbidity, the impact of these programs with recent data should be evaluated in the near future.
In this study we have concentrated on the realized subsidy benefit of the in-patients. However, health financing status for the out-patient visits would be very important research input in planning healthcare management. Many literatures indicate that a considerable proportion of morbid person are forced to endure huge out-of-pocket expenditure even for non-hospitalization care and this amount is mounting high with the increase in the share of chronic life-style induced diseases among the relatively affluent class. More studies should be undertaken to estimate the benefit incidence of public subsidies for out-patient care along with the possibility of insertion of any pre-payment mechanism along the line of public-private partnership.

Finally, the entire analysis presented here is motivated from the demand side. There is intrinsic limitation of this approach. So, to make it more comprehensive, in future, studies should be carried out on both demand and supply side issues within a single framework. This would provide stronger foundation for designing more effective policies for the public healthcare system.