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Access to Public Health Facilities in Bangladesh: A Study on Facility Utilisation and Burden of Treatment

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The government of Bangladesh spends substantial amounts of resources on health services but dissatisfaction is often expressed over availability and quality of these services. The study assesses, using primary information from a survey, whether the public health facilities suffer from inadequacies and identifies factors which act as barriers to effective utilisation of public health facilities. The findings show that, in general, women and the poor are more likely to use these facilities. The study notes that although physical accessibility is no longer a major barrier, economic accessibility remains as a major hurdle. The poorest are the largest users of public health facilities but they also bear a disproportionate share of the burden of ill health and sufferings. There also exist a number of governance issues which contribute to poor quality of services. The findings from the quantitative and qualitative data reveal that government efforts to improve health service delivery have not yet produced the desired results. Rebuilding hope among the patients requires that urgent governance issues be addressed to ensure that service providers are available at the facilities, minimum amount of drugs reach the patients and unofficial payments are at the lowest possible levels.

Keywords: Utilisation of Public Health Facilities, Health Care Expenditure, Disease Burden, Catastrophic Payment
JEL Classification: I10, I11, I18, I19

I. INTRODUCTION AND OVERVIEW

Health is now universally regarded as an important index of human development. Ill health is both the cause and effect of poverty, illiteracy and ignorance. Policies of human development not only raise the income of the people but also improve other components of their standard of living, such as life expectancy, health, literacy, knowledge and control over their destiny. Health is both a major pathway to human development and an end product of it. Health and development converge and contribute to each other. While it is true that

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health is not everything, it is also true that without health, everything else becomes meaningless.

It may be mentioned here that better health is one of the prime objectives of development. And we think that it is very important to realise this when we look at development at large. Whenever the health component is forgotten, we forget, at the same time, the vital factor in development, namely the human being, his creative energy, his physical energy. The interrelationship between health and general economic development is complex and poorly understood. The social components of a better quality of life are benefits in themselves, but, more importantly, they can be used as instruments of change or as means of increasing productivity. Better health is both an objective of and an instrument for development. Poverty denies access to health in terms of status and services and health is a crucial link between poverty and reproductive choice.

Health sector is an important indicator of the level of economic development and it includes mainly morbidity and mortality. Health has importance in three distinct ways: (a) intrinsic importance, (b) instrumental importance at personal and social levels, and (c) empowerment importance (Mahadevia 2000).

In intrinsic sense, health is important because it is a direct measure of human well-being and is an achievement in itself. It is fulfilment of life and a valuable achievement in itself. In the instrumental sense, better health is important in many ways. For example, good health has an economic rationale. Better health reduces medical costs, both of the government and of the households. In the case of children, better health leads to better attendance in school and higher levels of knowledge attainment. Better education and knowledge leads to better paid jobs and larger benefits to the future generation. For women and the poor, better health means empowerment because it also empowers them to participate in economic and public life.

Bangladesh has achieved significant progress in health and population indicators over the last few years (due to increased access to health and family planning services) through a combination of facility level, community and household level service provision strategies. The fertility transition is already underway in the country and the success of the immunization programme is most impressive, including reduction in infant and child mortality. Bangladesh is on track in achieving some of the Millennium Development Goals (MDGs). An example is child mortality, which has gone down dramatically in the last few years. Another is the Total Fertility Rate (TFR), which has decreased to 2.7 in 2007 and the Bangladesh Maternal Mortality Survey suggests that the current rate is even lower.

Despite the success, several challenges still remain unmet. The question of inequalities in health is all pervasive. The difference between the rich and the poor, between the urban and rural, between urban middle classes and urban slums, between men and women is disturbing (Bangladesh Health Watch 2007). Even though Bangladesh has made remarkable progress in reducing infant and child mortality and improving life expectancy, there has not been desired progress in improving nutritional situation of children and women, especially pregnant and lactating mothers. Hundreds of thousands of women and children in rural areas and people from the poorer strata, including those living in urban slums, have neither the "goods" to maintain health, nor access to services that could decrease the severity of their illness.

Though there are many notable successes in the Bangladesh health sector, there are also significant challenges in the areas of system losses, access and quality of services. When Government resources for health are constrained, good management of health services is particularly important to sustain health care access for the poor.

In Bangladesh, primary health care services, including the maternal and child programmes have been pursued mainly through supply-side interventions. However, although health services are free at public facilities, getting health services from semi-qualified or unqualified allopathic practitioners and traditional health care providers (ayurvedic, homeopathic, unanie/kabiraji and others) are common and popular in rural areas leading to low utilisation of public facilities.

There are a number of factors that affect health status of the people. There are demand side factors, such as income, assets, social and cultural practices, lifestyle and supply side factors such as the public health care delivery system, health expenditure, etc. There are also environmental factors and gender inequality related factors that influence health status.

1.1 The Public Health Care Delivery System

Compared to many other developing countries, Bangladesh has a relatively developed public infrastructure of health facilities as well as a relatively extensive human resource base for the delivery of health and family planning services. There is an extensive network of hospitals, health centres, dispensaries and training centres in Bangladesh. This network at the district level and below, comprises 64 district hospitals, 402 health complexes at the upazila level (UHCs), about 4,000 health and family welfare centres (HFWCs) at the union level and thousands of community clinics (11,000-13,000) at the ward level.

The country's health system is hierarchically structured and can be compared to a five layer pyramid. First, at the base of the pyramid, there is the ward level health facility (CC), consisting of a health assistant and a family welfare assistant. At the second level is the union health and family welfare centre (HFWC) staffed by a medical assistant, one family welfare visitor and one pharmacist, which concentrates on the provision of maternal and child health care, and provides only limited curative care. Third, there is the Upazila Health Complex (UHC) with nine doctors, two medical assistants, one pharmacist, and one radiographer and one EPI technician. The UHC is responsible for inpatient and outpatient care, maternal and child health services and disease control. Fourth, the district hospital (DH) is the first layer of the health care pyramid to have theatre facilities, but some selected UHCs have also got EOC facilities. Finally, the medical colleges and post-graduate institutes form the top of the health services pyramid offering a wide range of specialty services.

Theoretically, Bangladesh has a health care system of some sophistication. Massive investments have been made into infrastructural development and thousands of doctors, nurses and other health workers have been produced. But despite these, large segments of the population of Bangladesh have limited or no access to the health services at all and for many of the rest, the care they receive is inadequate. The national health services, established and administered for all, is allegedly being consumed by a selective few who are favoured by geography, social class, wealth or position. The under-served majority is largely rural but also includes the urban poor (Khan 1988, 1994, DHS 2004, 2007, Bangladesh Health Watch 2007, 2008).

Efforts to improve health have had modest impact on the health of the vast majority of the population in Bangladesh. This is commonly attributed to two main reasons. First, health activities have typically over emphasized sophisticated, hospital based care, while neglecting preventive public health programme and simple primary care provided at conveniently located facilities. Second, even where health facilities have been geographically and economically accessible to the poor, deficiencies in logistics, staff absenteeism, poor supervision, informal payments and lack of social acceptability have often compromised the quality of the care they offer and limited their usefulness. Essentially, it is the poor and vulnerable members of society who are particularly prone to the largest burden of cost and poor service delivery (Mannan *et al.* 2003, Euro Health/World Bank 2004).

Like many other developing countries, the public health sector in Bangladesh is plagued by absenteeism, informal payments and perceptions of poor quality.

One study observed that the overall public health care services have declined between 1999 and 2003, while the rate of utilisation of private health care facilities has increased for the same period (Andaleeb *et al.* 2007). Another study demonstrates that the overall utilisation rate for public health care services in Bangladesh is as low as 30 per cent (Ricardo et al 2004).

Available evidence suggests that poor governance in the health sector is negatively influencing service delivery mechanism in Bangladesh, which, in turn, results in low utilisation of public facilities. Non-availability of drugs and commodities, discrimination against the poor, imposition of unofficial fees, lack of trained providers, weak referral, feedback and monitoring systems, unfavourable opening hours and interdepartmental difficulties contribute to low use of public facilities in Bangladesh (Ahmed and Khan 2011, HEU 2010). There is also an extreme shortage in health providers, with overall shortages as high as 60,000 for doctors and 160,000 for nurses (Bangladesh Health Watch 2008). There are also huge disparities in the distribution of providers between urban and rural areas, with only 16 per cent of qualified doctors practicing in rural areas. Bangladesh has one of the lowest nurse ratios in the world and the capacity of the existing training institutions is insufficient to significantly increase these numbers in the near future (Bangladesh Health Watch 2008).

1.2 Access to and Utilisation of Health Services

The factors underlying access and utilisation are diverse. Income is only one factor that might explain access to health services in developing countries like Bangladesh. It is necessary but not sufficient–other factors such as institutional and non-economic factors (cultural and social constraints, gender, etc.) play an equally important role in determining access to health services and their utilisation.

The three aspects of health, such as status, access and utilisation, are distinct though interrelated. Indicators of health status, e.g. mortality and morbidity rates, can reflect whether health services have had any impact on the health of the population. A greater availability of health services is obviously intended to improve health status and to reduce inequity in the distribution of health services. Availability of health facilities and services is the essential prerequisite for access to health care. Availability should also conform to the cultural perspectives and specific needs of the population such as availability of required number of doctors and nurses, female doctors, specialist doctors and paramedics. However, it is important to consider the actual utilisation of available health facilities since equity and access are likely to have an impact on health status only if these facilities are actually utilised.

To be effective, health services should be available, accessible and affordable. But mere availability of health facilities does not result in their utilisation. Accessibility has a number of key dimensions ((Osmani 2003), which include:

(i) Physical Accessibility (distance, travel time and travel costs);

(ii) Economic Accessibility (cost of medicine, cost of consultation, cost of hospitalisation, cost incurred with respect to tests/investigations);

(iii) Social and cultural context (gender) affecting accessibility;

(iv) Perceived quality of services:

- availability of doctors
- availability of medicine
- attitudes of doctors/nurses

Physical accessibility includes distance to health facilities including travel time, cost of travel and waiting time, while economic accessibility includes costs incurred for accessing these services. Information accessibility, on the other hand, implies that people should have informed choice regarding the sources, types and quality of services.

For access to government health services, they should also be of good quality. The quality of health care may be defined in a variety of ways in the context of varying socio-cultural and development settings, but so far there is no consensus on a single set of accepted criteria to measure quality. Donabedian (1980) defines quality of care as that kind of care, which is expected to maximise patient welfare, and depends on whether effective care is sought and individual and social preferences regarding care is manifested. It also underscores the importance of performance of health care practitioners, health care system and relative costs and benefits of patients. One of the most widely cited recent definitions indicates that quality of care is the "degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge" (Lohr 1990). Quality of care is also defined in terms of two key dimensions, access and effectiveness, which implies whether the users get the care they need and whether the care they receive is effective (Campbell, Ronald and Buetow 2000).

Accessibility is an important and determining factor in fighting episodes of illness. Along with physical inaccessibility, financial inaccessibility is also very important. Costs of health care, especially cost of medicine, cost of diagnostic test including consultation fees, are beyond the reach of poor people. To be

economically accessible, services have to be affordable on the basis of equity in financial contribution.

1.3 Review of Existing Literature

1.3.1 Physical Accessibility

The three main aspects of physical accessibility are distance from the health facility, travel time and travel cost to arrive at the facility. Numerous studies have shown that physical access to health services is an important determinant of utilisation of public health facilities in Bangladesh. Location is one of the most important factors to determine the access to health services in Bangladesh as documented in the CIET baseline survey (CIET Canada and MOHFW 1999), Bangladesh Health and Demographic Surveys (DHS 2004, 2007) and Bangladesh Health Watch Report (2007). Geographic access at least partially explains why consumption rates are higher in urban areas compared to rural areas (NIPORT *et al.* 2001).

Earlier evidence shows that patients visiting public health facilities have to wait much longer to see the doctor (see, for example, Khan 1988). However, the findings from a recent study (Mannan *et al.* 2003) show that physical accessibility is not a major barrier in the sense that patients do not have to travel a long distance to reach health facilities at the district level and below (the average distance traveled by patients attending DHs was 8 km, compared to 3.2 and 1.8 km for patients at the UHC and HFWC, respectively). And once patients arrive at the facilities, they do not have to wait for a long time to get to the services (the average waiting time was 25 minutes for patients in the DHs, followed by 17 and 13 minutes in the UHC and HFWC respectively). But, according to the Euro Health/World Bank study (2004), patients visiting higher level facilities (district hospitals, teaching hospitals and specialised hospitals) have to wait much longer to see the doctor: waiting time was highest (82 minutes) for outpatients attending specialised hospital, second highest (65 minutes) for teaching (medical college) hospitals, and lowest (58 minutes) at the district hospital. However, physical access emerged as a barrier to maternal and child health services in particular. In the 1999-2000 DHS, 79 per cent of women reported that the lack of a health facility nearby was a constraint to consumption. In the same survey 50 per cent of women responded that getting to the health facility was a problem to them. Levin and colleagues (2001) confirmed the significant negative association between both distance to the provider and travel time and the use of health services. A child was less likely to be taken to a qualified allopathic provider or a traditional practitioner than a village doctor if

the travel time was 40 minutes or greater compared with travel time of 15 minutes or less. Other research has shown that a majority (74 per cent) of sick children in a rural area of Bangladesh were taken less than two miles for treatment, and that a majority of those children were seen by private practitioners. In contrast, children who were taken more than two miles for treatment received health care from qualified allopathic providers (Bhardwaj and Paul 1986).

1.3.2 Social and Cultural Context–Utilisation by Age and Gender

The social and cultural context has an important impact on the utilisation of health services in Bangladesh. Social and cultural factors particularly affect the role of gender and the participation of women in household decision-making. Women are less likely to utilise health services and receive lower allocation of food at the household level (Chen *et al.* 1981, D'Souza and Chen 1980). The DHS (Demographic and Health Survey) data show that 44 per cent of women reported difficulty in getting permission to go to a health provider as a constraint to health service consumption. In addition, 49 per cent of women reported that finding someone to accompany them was a problem. Amin and Colleagues (1989) found that men who were sick were more likely than women to utilise modern qualified providers in rural Bangladesh. The gender bias may reflect beliefs that it may not be appropriate for women to be seen by a male provider. In addition to the long-standing cultural biases against women, the fact that the health providers available in rural Bangladesh are predominantly male suggests that the problem of women's access to care will not be easily solved.

Further evidence from Mannan *et al.* (2003) shows how the gender bias affects the utilisation pattern of health facilities (at the district level and below). Compared to males, females are less likely to use services both during the early years of life (i.e. before age 5) and also during later years (i.e. after 60 years of age). The data indicate that younger boys (<5 years) and older males (65 years and over) are more likely to utilise public health facilities than their female counterparts. The same study also shows that utilisation patterns of health facilities for females are inversely related to the levels of care i.e. female utilisation decreases as one goes up along the levels of care (from UHFWC to UHC to DH).

1.3.3 Economic Accessibility

"Economic accessibility" means that health facilities, goods and services (drugs and other treatment related items) must be affordable by all. But the

findings from the present study suggest that out of pocket expenses have major consequences in the process of seeking care. Government facilities are the last resort for the hapless poor who cannot afford to consult a private qualified doctor. But evidence shows that even though health care services are supposed to be free at public facilities, patients have to bear the costs of medicine and laboratory tests, as well as some additional costs (Mannan *et al.* 2003, Euro Health/World Bank 2004, Transparency International 2006).

From the economic perspective, healthcare utilisation decisions depend on the relative magnitude of costs and benefits involved from the standpoint of persons who make these decisions to use healthcare for themselves or for others. The costs of seeking care typically include financial expenses and income losses that may be incurred as a result. Income losses can be high if considerable time is spent in commuting or standing in queues to obtain medical care.

For the same reason, the amounts paid for healthcare services, such as cost of medicine, consultation fees and hospital charges, are also likely to be an important determinant of health care utilisation. There are also other factors that influence healthcare utilisation behaviour. For people with higher education, the perceived benefits from effective treatment and/or preventive care may be higher than for the rest of the population. Benefits could be higher for individuals whose health is considered intrinsically more important in certain cultural settings, as for people belonging to higher socio-economic classes and for males. The perceived need for medical care would depend both on the availability of healthcare facilities and the capacity to pay for health services. An analysis in India using data from the 42nd round of the NSS shows that the chance of an ill person seeking treatment is greater among males, among members of households where the head is literate, and among scheduled castes and tribes (Gumber 1997). Finally, economic status of the household plays an important role in the health seeking behaviour. The perceived need for medical care would depend both on the availability of healthcare facilities and the capacity to pay for health services.

The cost of health care can be a strong determining factor of health care utilisation, as well as a cause of poverty. Ability to pay is a particularly important determinant of access when a high proportion of health care is financed privately, and without any type of financial risk protection from health insurance. In Bangladesh, 60 per cent of total health expenditure in 2000 was in the form of out-of-pocket payments by individuals, so that households' ability to pay for care is important (WHO 2002). There is essentially no social security or private health insurance, although public hospitals are intended to provide a form of insurance in the case of serious illness. The findings from Mannan *et al.* (2003) show that

economic status of the household plays an important role in the health seeking behaviour.

Different types of cost items can be barriers to the use of health care. Health care costs can be divided among direct medical costs (e.g. medicines and service fees), direct non-medical costs (e.g. transportation costs) and indirect costs (e.g. traveling and waiting time, lost earnings). The available evidence shows that the cost of medicines was the most important cost element that prevented people from using health services (CIET Canada and MOHFW 2001, Mannan *et al.* 2003).

In addition to cost, quality of services is an important determinant of use of public health services. According to the CIET survey, only 10 per cent of households in 2003 compared to 38 per cent in 1999 rated government health and family planning services as "good." During the same period, the proportion of patients visiting unqualified practitioners rose from 30 per cent to 49 per cent; the proportion of those receiving all the prescribed medicine fell from 33 per cent to 23 per cent; the percentage of patients who paid for health services rose from 80 per cent to 82 per cent; and the level of patient satisfaction with providers' behaviour fell from 66 per cent to 56 per cent. This is a significant decline within the span of four years (1999 to 2003) in the quality of services rendered by public health facilities. Inadequate and poor quality medicines were cited as the biggest problem affecting the quality of services provided at government facilities by 55 per cent of households. Similar findings also emerged from Mannan *et al.* (2003) and Euro Health/World Bank study (2004).

1.3.4 Disease Burden on the Poor

The poor bear a disproportionate share of the burden of ill health and suffering. Poverty is a significant constraint to health care access and utilisation. Expenditure incurred for health care has some adverse impact on household consumption. Findings from Mannan *et al.* (2003) show that expenditure on health resulted in withholding of other subsistence resources (reduced food consumption, less expenditure on children's education, etc). Thus, illness requiring treatment and hospitalisation has significant adverse implications for the economic well-being of affected households, particularly for the poor.

Poor health has significant adverse implications for the economic well-being of affected households and individuals, particularly for poor households. One way by which this occurs is in the form of out-of-pocket health expenditures for diseases that are relatively expensive to treat. Another way in which adverse health can influence the economic well-being of affected households arises from

incomes foregone on account of the morbidity (or mortality) of affected members, or taking time off from work to care for the sick individual. Krishnan (1995) points out that a single episode of hospitalisation can account for between 20 and 60 per cent of annual per capita income, with the proportion being even higher for poorer groups. This can lead to tremendous financial burden on poor households and indebtedness, sometimes resulting in liquidation of their assets. This would certainly indicate that episodes of illness affect the economic position of the households rather badly.

The findings from a recent study (Mannan *et al.* 2003) show that overall, 8.8 per cent of monthly household income was spent on illness treatment. But the poorest households had to spend about 38 per cent of household income to meet the treatment cost of illness episodes, which is a heavy burden by any reckoning. The findings clearly indicate that members from the poorer households have to undergo a lot of economic pressure to finance their treatment cost/medical needs. Thus, for low-income households there is a real risk of indebtedness in times of illness requiring treatment. The various sources utilised for meeting treatment costs include drawing from savings, borrowings from friends/moneylenders, and distress sale of assets/property.

The cost of health care often results in foregone medical treatment. The cost of medicine, various charges associated with tests/investigations and the cost of hospitalisation are some of the most important barriers to health services utilisation. The extreme poor households spend more than one-third of their household income on health care expenses. If this burden can be relieved through free supply of medicine and adequate supply of related items, this would have substantial impact on poverty reduction.

The situation becomes really precarious for patients who need hospitalisation. In the case of in-patient treatment in a government facility, especially if surgical intervention is required, the households have to incur a huge amount as out-of-pocket expenditures on medicines, diagnostic tests and other related items. To meet the hospitalisation expenses many households have to borrow money and even liquidate their assets. Thus, while the diseases mercilessly weaken the people, both physically and financially, the burden of treatment makes them more helpless, accelerating the process of pauperisation.

Any hospitalisation in the household involves huge expenditure, both medical and non-medical expenses, and this can very badly affect the household budget. This brings us to the question of providing financial protection to the poor households against such contingencies. Insurance schemes to cover the poor

and/or low-income households who are mostly in the informal or unorganised sector can be devised. Also, even if the government hospitals want to levy user charges, people below a certain income level should be exempt from paying such charges and this could be achieved through proper targeting.

1.4 Objectives of the Study

The government of Bangladesh spends huge amount of money for the delivery of health services. But resources allocated to health will not achieve their intended results without attention to the governance issues. Research is therefore needed to analyse the process and factors associated with access to public health services.

The present study has been undertaken to highlight governance issues in the health sector that hinder efficiency and effectiveness of service delivery. An attempt has also been made to identify and assess the major barriers faced by patients in accessing services including staff absenteeism, inadequate supply of medicine, unofficial payments, etc.

The specific objectives of the study are to:

i. Assess the utilisation of facilities by age (children, adults), gender (male/female) and socio-economic variation of the users;
ii. Identify the factors affecting accessibility to services (i.e. physical and economic accessibility);
iii. Estimate the amount of cost incurred by patients (by facility type and patient category), the sources of financing such costs and the impact of these costs on household consumption decisions;
iv. Assess the level of patient satisfaction and the quality of services received (with respect to availability of doctors, their attitude/ empathy, availability of medicine, clean premises, privacy and confidentiality, etc);
v. Identify and prioritise a list of governance issues/risk areas within the health sector which act as major barriers to effective utilisation of public health facilities (inadequate supply of drugs/MSR, imposition of unofficial fees, staff absenteeism, etc.).

II. DATA AND METHODOLOGY

The data for the present study mainly comes from the field survey of BIDS conducted during 2012 in connection with the study "Public Service Delivery Systems in Bangladesh: Governance Issues in the Health Sector." The study is based on primary data collection and interviews in each of the seven divisions of

the country in a range of facilities selected randomly at the district level and below. Within each division, the sample comprised two district hospitals, four UHCs and four UHFWCs, which is equivalent to 10 facilities per division. Thus, a total of 70 facilities from seven divisions have been covered for the study purpose. Facilities covered included 14 District Hospitals (DHs), 28 Upazila Health Complexes (UHCs) and 28 Union Health and Family Welfare Centres (UHFWCs).

The sample size is large enough and adequate for deriving statistically reliable estimates for the assessment of the utilisation pattern of public health facilities by age, gender and socio-economic characteristics of the users. An exit interview of patients was conducted in the selected facilities and a total of 1,820 patients were interviewed, of them 1,260 (69 per cent) were outpatients and the rest 560 (31 per cent) were inpatients.

Both quantitative and qualitative data were collected. To address the research questions from various angles and get as varied or complete a picture, the present study has obtained inputs from three categories of study population at different levels. The first group included policy makers at the apex bodies, and programme managers/decision makers of the health facilities (i.e. Civil Surgeons/UHFPOs/SACMOs, etc.). The second group comprised service providers such as doctors, nurses, pharmacists, technicians, etc. working at the facilities. The third group consisted of recipient of services/patients (both in-and-out) attending public health facilities.

2.1 Data Collection Instruments

In order to meet the objectives of the study, three sets of data collection instruments have been administered: (i) Key informant interview (KII) of program managers, i.e. Civil Surgeon at the DH, UHFPO at the UHC, and SACMO/FWV at the UHFWC; (ii) Key informant interview (KII) with service providers, i.e. doctors, nurses, technicians; and (iii) Exit interview of patients (both in-and-out) attending DHs, UHCs and HFWCs.

The questionnaire was designed with both open-and close-ended questions. This was pre-tested and necessary adjustments were made based on the results of the pre-test and comments and suggestions received from the sponsor. Data collection was carried out during July-September 2012. Seven teams, each consisting of four investigators and one supervisor, were deployed in the field. Each team was given the responsibility of data collection (through questionnaire survey, KII and FGD) from one division covering 10 health facilities (2 DHs, 4 UHCs and 4 UHFWCs).

2.2 Interviewing of Patients

The study has been carried out based on a survey of 1,820 patients (both in-and-out patients) from the sample health facilities. From each selected district hospital (DH), 20 in-patients and 30 out-patients were interviewed; the corresponding figures from each upazila health complex (UHC) were 10 in-patients and 20 out-patients respectively. As there is no scope for in-patients at the union health and family welfare centres (UHFWC), 10 out-patients were interviewed from each of the sample UHFWCs. In-and-out patients were selected in the following way.

For out-patients, the following methodology was applied. First, the average number of out-patients attending a particular facility by age (children, adults) and sex (male/female) of the users was determined, by taking the average attendance during the last 3 days preceding the survey. Once the number of patients to be interviewed was determined, then the investigators interviewed the estimated number of patients from the particular facility. For in-patients, a somewhat different methodology was followed. All in-patients who were occupying beds at the time of the survey (by age and sex) in the selected district hospitals and upazila health complexes were determined and then the estimated number of patients was interviewed from the sample facility.

Detailed information regarding their diseases, cost of treatment, sources of finance was collected based on a questionnaire designed to capture all relevant data on patients including their perception on quality of services and their level of satisfaction. If the patient was a child, his/her attendant was selected as the respondent. But if the respondent received services for himself or herself as well as for one or more of his/her children, information was collected from all of them.

During patient interview, both official and unofficial payments were recorded. Official costs include: fixed fees (admission/ticket, bed charge, etc.); variable fees (surgery, X-ray; ECG, ambulance, radiotherapy, blood bank charges, misc. collections); and optional fees ("paying" beds and cabins).

Unofficial health care fees at government health facilities are unauthorised fees/payments that coexist with "free care" and formally approved 'official' health service charges. They fall into three broad categories: fee-for-commodity payments (medicine and in some cases supplies and surgical equipment items); fee-for-services (attendant care or medical interventions); and fee-for-access (better bed status, transportation).

To assess users' satisfaction with the services provided, information was obtained on availability of service providers (doctors/nurses), supply of drugs,

extent of informal/unofficial payments (incurred for admission/drugs/other supplies/services), attitude of doctors and support staff, and the level of patient satisfaction with respect to quality of services.

Interviewers were instructed to take informed consent from each participant just before carrying out the interview. To ensure privacy and confidentiality, no other persons were present except the participant and the interviewer at the time of interview. The respondents were assured that information provided by them will be solely used for research purposes and the confidentiality of their responses will be strictly maintained at all times and the personal information provided by them will never be shared with any outside organisations or persons.

2.3 Data Limitations

The study has been carried out based on a survey of a range of health facilities at the district level and below. The findings are based on a survey of patients, doctors and health facility administrators. The sample locations have been selected in such a manner so that it yields a nationally representative sample of public health facilities at the district level and below.

The methodological approach and data used in this study have some limitations. As a sample survey, it necessarily has a margin of sampling error. In addition, these data are also likely to have non-sampling errors.

One major limitation of the study is that it addresses difficult and sensitive issues from technical and prescriptive viewpoint using data from a range of facilities at the district level and below rather than considering political feasibility. While the technical analysis could benefit from in-depth political and economic analysis, that research is beyond the scope of this study.

Despite these limitations, this research highlights governance issues in the health sector in Bangladesh that hinder the efficiency and effectiveness of service delivery. The study also provides some evidence of the level of corrupt practices and governance failure in the health sector of Bangladesh.

The data does permit an analysis of a number of topics including the extent of utilisation of health facilities by age, gender and socio-economic status, barriers faced by patients in accessing services, the proportion of users who made unofficial payments, average cost incurred by quintile groups, and the degree of satisfaction of the users.

III. UTILISATION OF FACILITIES BY SOCIO-ECONOMIC CHARACTERISTICS OF USERS

This section present an analysis of the extent of utilisation of public health facilities by age, sex and socio-economic status, the level of satisfaction of the users, and the barriers faced by patients in accessing services.

3.1 Users by Facility Type and Gender

Among 1,820 patients interviewed, about a third (38.5 per cent) utilised district hospitals (DHs), more than two-fifths (46.1 per cent) visited Upazila health complex (UHC), and about a seventh (15.4 per cent) visited Health & Family Welfare Centre (HFWC) at the union level. Table I shows the distribution of patients by sex and by facility type. Overall utilisation was 43 per cent by males as against 57 per cent by females. Females dominate utilisation of health facilities at all levels of care- district, upazila and union level. However, much of the difference in male-female utilization is accounted for by women belonging to reproductive age group (15-49 years). If reproductive age group is taken out, then overall utilization of males is higher than that of females, which will be clear from the following analysis.

However, male utilisation rate decreases sharply for facilities below upazila level female utilisation rate was the highest in the case of union level facilities (68.6 per cent for females compared to 31.4 per cent for males). This might be partly explained by the fact that health facilities below the upazila level primarily provide family planning services including antenatal, natal and post-natal care, although users also receive other services from these facilities related to child health (immunisation services) and health promotion advice (BCC). Thus, women and children are more likely to visit union level health facilities.

TABLE I
UTILISATION OF FACILITIES BY SEX OF PATIENTS AND BY TYPE OF FACILITY

Facility Type	Number	Users by Sex (%)	
		Male	Female
District Hospital (DH)	700	43.4	56.6
Upazila Health complex (UHC)	840	46.3	53.7
Union health and family welfare centre (UHFWC)	280	31.4	68.6
Overall	**1,820**	**42.9**	**57.1**

Source: Unless otherwise stated, the data comes from the BIDS Survey of 2012 undertaken for the study "Public Service Delivery Systems in Bangladesh: Governance Issues in the Health Sector."

3.2 Distribution of Users by Age and Gender

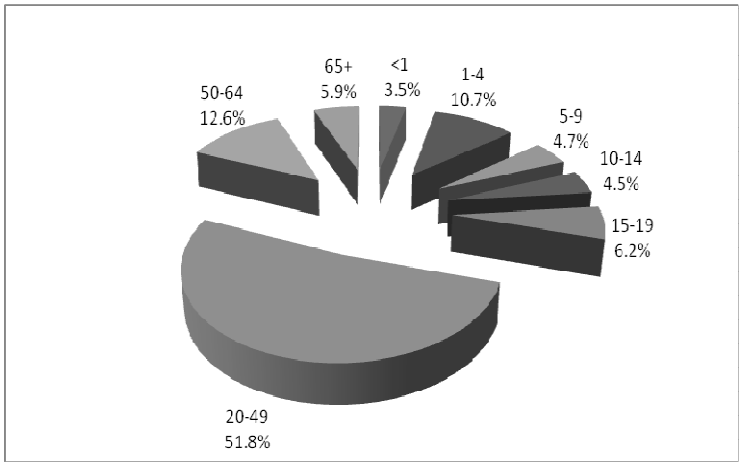
Figure 1 presents the distribution of facility users by broad age groups. Out of 1,820 facility users, more than half (51.8 per cent) were adult belonging to age

group 20-49 years and about 14 per cent of the patients were children under 5 years of age, while older patients of age 50 years and over constituted around one-fifth (18.5 per cent) of all patients . It needs to be emphasised here that the demographic characteristics of persons–pregnant women, lactating mothers, pre-school children and elderly persons–are especially vulnerable to diseases and illnesses because of their physiological status. The highest proportion of users from adult population may be explained by the fact that women belonging to the age group 20-49 years are more likely to visit health facilities in connection with reproductive health services including antenatal, postnatal care and contraceptive services.

Utilisation of facilities by age and gender shows that compared to males, females are less likely proportionately to use services both during early years of life (i.e. before age 15) and during later years (after 50 years of age).

It is evident that reproductive age bracket (15-49 years) is the only age group where female utilisation exceeds that of males. This can be explained by the fact that compared to males, females in the age group 15-49 years are more vulnerable to death and disease because of pregnancy and the risks associated with child birth and complications after delivery.

FIGURE 1: **Distribution of Facility Users by Age Group**



Source: Same as Table 1 (BIDS Survey of 2012).

3.3 Gender Differentials in Utilisation

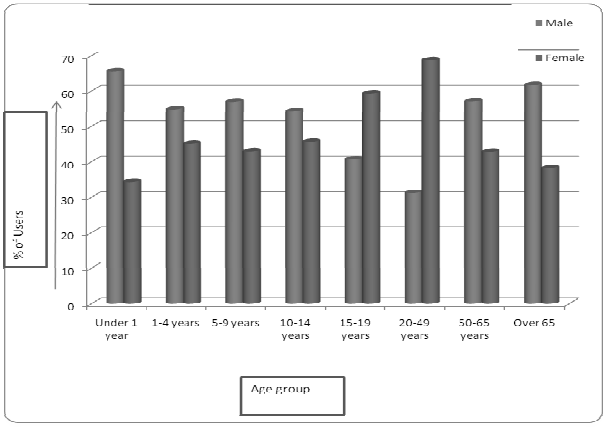
Figure 2 shows the distribution of facility users by broad age group and gender. It is evident that male dominates utilisation of facilities for all age groups

except the reproductive age group. Male utilisation rates are found to be higher than that of females for all age groups except the reproductive age span (15-49 years).

As already mentioned, women in the reproductive age groups are more likely to visit health facilities. Because, compared to men, a much higher burden of reproductive ill health is borne by women for the following reasons:

- Women assume most of the responsibility of contraception;
- Women face the risk of child bearing;
- Women are biologically and socially more vulnerable to sexually transmitted diseases including HIV/AIDS and cancers;
- Women are exposed to gender-based violence and abuse;
- Women can suffer from complications of unsafe abortions.

FIGURE 2: **Use of Services by Age and Sex**



3.4 Female Children and Elderly Women are the most disadvantaged

It is also evident from Figure 2 that gender differential in use of services is particularly striking for under-5 children and for women in the age group 65 years and over. The findings imply that gender differentials in utilisation of facilities are much more pronounced for young infants and older women, indicating that male-female disparity is higher for the youngest and the oldest age groups.

- For young infants, utilisation of facilities was 66 per cent for boys compared to 34 per cent for girls. For children 1-4 years, male utilisation

was 55 per cent as against 45 per cent by females. This indicates that the younger the child, the higher the disparity.

- For older persons aged 65 years and above, utilisation of facilities was only 38 per cent for females as against 62 per cent for males. This indicates that in terms of receiving care and treatment during old age women are much more disadvantaged compared to their male counterparts.

The higher utilisation of health facilities by males (compared to females) for all age groups, other than the reproductive age span (15-49 years), is consistent with findings of other studies (Begum *et al.* 2001, Mannan *et al*. 2003). According to Mannan *et al.* (2003), for young infants, utilisation of inpatient facilities was 62 per cent for males compared to 38 per cent for females. Similarly, for older persons aged 65 years and above, utilisation of outpatient facilities was only 30 per cent for females as against 70 per cent for males. This indicates that in terms of receiving care and treatment during early childhood and old age, females are much more disadvantaged compared to their male counterparts. These findings imply that in terms of receiving care and treatment, under-5 female children and older women are much more disadvantaged compared to their male counterparts.

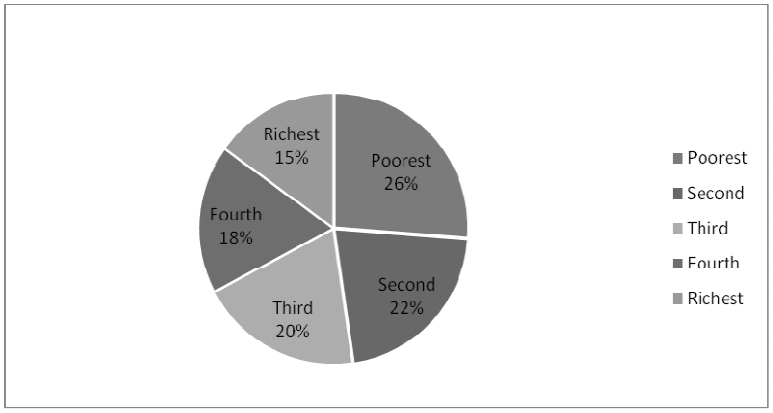
While not much is known about the incidence of diseases by gender, findings from Matlab (ICDDR, B) data do not show any sex differential up to 5 years of age in terms of exposure to infections (Chen *et al.* 1981). Thus, one can assume that the probability of being sick is more or less the same for male and female children. But the proportion of male children (< 5 years) who received treatment from the facilities was much higher in the present survey than among cases involving females (57.5 per cent males as against 42.5 per cent females), which clearly indicates that in terms of receiving health care, girls are especially disadvantaged compared to boys. These findings imply that despite nearly comparable incidence of diseases for males and females, male children are brought to the health facilities by their guardians far more frequently than female children.

The available evidence shows that compared to males, Bangladeshi females are disadvantaged in terms of their access to food, nutritional intake and utilisation of health services. This arises mainly because of the existence of parental preference for sons and anti-female bias in the intra-family allocation of food and health care for girls and women (Chen *et al.* 1981, Mannan 1988, 1989, Begum 1997).

3.5 Utilisation of Facilities by Quintile Groups

The provision of public health facilities is a necessary but not a sufficient condition for the utilisation of healthcare services. Economic status of the family does play an important role in the utilisation of public health facilities. But contrary to the widely held belief that non-poor households are more likely to benefit from public health facilities, the data from the present survey shows that members from the poorer section have higher utilisation of government health facilities. According to the present survey, the share of the poorest quintile is 26.2 per cent of total utilisation, while the share of the poorest two quintiles is 47.7 per cent of total utilisation (Figure 3). This trend of higher utilisation by poorer strata also holds true for both in-and-outpatients and by type of facility (Table IV and Table V). The findings from Tables IV and V imply that poor people and women tend to utilise government facilities more. With regard to utilisation of outpatient facilities by gender, the share of the poorest quintile is 22.3 per cent for males compared to 28.5 per cent by females, while the share of the richest quintile is the lowest–representing 16 and 15.9 per cent of total utilisation for males and females respectively. Similarly, for patients visiting indoor facilities, the share of the poorest quintile is 26.1 per cent for males as against 26.7 per cent by females. The data indicate that public spending on health is pro-poor and pro-gender.

FIGURE 3: **Utilisation of Services by Quintile Group**



These findings are consistent with those of two earlier studies (Begum *et al.* 2001, Mannan *et al*. 2003), which reported that the use of health services at the district level and below is dominated by bottom two quintiles. According to Mannan *et al.* (2003), 52 per cent of total utilisation of facilities was by the

poorest two quintiles, indicating that it is the poor people who tend to utilise government facilities more.

According to the findings of the present survey, the very poor (bottom 20 per cent of the population) are more likely to use the government health facilities compared to their non-poor counterparts. Why do the poor use the government facilities more than the rich? There may be several reasons. *First*, poor people are likely to be especially vulnerable to illness because of lack of proper diet and the generally unhygienic conditions in which they live. *Second*, low levels of education and income, and high levels of malnutrition and under-nutrition may result not only in higher actual morbidity for the poorest strata but also in higher level of utilisation of public facilities. *Third*, for people in the upper income strata with higher level of education, better nutrition and more health awareness, their morbidity rate is likely to be lower than the poorer strata. Again, when they fall sick the rich might prefer to visit a private clinic or qualified private physician in the hope of getting better care and treatment.

The findings show that people from the bottom quintiles utilise government facilities more and the rate of utilisation decreases with an increase in the economic status of the household. This difference reflects the fact that the rich avail themselves of the more expensive, but presumably also better quality, private facilities. This implies that economic reasons do play an important role in decision to utilise public facilities and the perceived need for treatment depends largely on the ability of the persons to seek treatment.

TABLE II

DISTRIBUTION OF USERS OF HEALTH FACILITIES BY SOCIO-DEMOGRAPHIC CHARACTERISTICS

Characteristics	%	N
Age (years)		
<1	3.5	64
1-4	10.7	195
5-9	4.7	86
10-14	4.5	81
15-19	6.2	113
20-49	51.8	943
50-64	12.6	231
65+	5.9	107

(Cont. Table II)

Characteristics	%	N
Size of Landholding (acres)		
No land	4.5	81
0.01-0.50 acre	68.2	1242
0.51-1.50 acre	17.5	319
1.51-2.50 acre	5.8	105
2.51-5.00 acre	3.4	61
5.00+ acre	0.7	12
Education of Head (years of schooling)		
00	37.1	676
Can read and write	7.1	130
1-5	21.0	383
6-9	17.9	326
10-12	13.0	236
13+	3.8	69
Sex of patient		
Male	42.9	781
Female	57.1	1039
Patient Category		
Outpatient	69.2	1260
Inpatient	30.8	560
All	**100.0**	**1,820**

TABLE III

UTILISATION OF HEALTH FACILITIES BY SOCIO-ECONOMIC CHARACTERISTICS AND BY GENDER: OUTPATIENTS AND INPATIENTS

Characteristics	Per cent Distribution by Gender						All (No.)
	Out-patients			In-patients			
	Male (%)	Female (%)	Both (No.)	Male (%)	Female (%)	Both (No.)	
Age group (years)							
<1	61.9	38.1	42	72.7	27.3	22	64
1-4	56.2	43.8	162	48.5	51.5	33	195
5-9	58.1	41.9	62	54.2	45.8	24	86
10-14	49.0	51.0	49	62.5	37.5	32	81
15-19	39.2	60.8	79	44.1	55.9	34	113

(Cont. Table III)

Characteristics	Per cent Distribution by Gender						All (No.)
	Out-patients			In-patients			
	Male (%)	Female (%)	Both (No.)	Male (%)	Female (%)	Both (No.)	
20-49	27.1	72.9	653	40.7	59.3	290	943
50-64	49.3	50.7	152	72.2	27.8	79	231
65+	55.7	44.3	61	69.6	30.4	46	107
Education of Head (years of schooling)							
00	33.2	66.8	464	59.0	41.0	212	676
Can read/write	41.5	58.5	82	45.8	54.2	48	130
1-5	46.5	53.5	258	48.8	51.2	125	383
6-9	41.0	59.0	244	45.1	54.9	82	326
10-12	38.7	61.3	168	47.1	52.9	68	236
13-16	47.7	52.3	44	40.0	60.0	25	69
Landholding size (Acres)							
No land	23.6	76.4	55	65.4	34.6	26	81
0.01-0.50 acre	37.5	62.5	853	48.8	51.2	389	1242
0.51-1.50 acre	46.1	53.9	230	53.9	46.1	89	319
1.51-2.50 acre	41.3	58.7	75	66.7	33.3	30	105
2.51-5.00 acre	53.8	46.2	39	50.0	50.0	22	61
5.00+ acre	37.5	62.5	8	25.0	75.0	4	12

TABLE IV

UTILISATION OF HEALTH FACILITIES BY INCOME QUINTILE AND BY GENDER

Quintile group	Out-patients						In-patients					
	Male		Female		Total		Male		Female		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Poorest	110	22.3	218	28.5	328	26.0	75	26.1	73	26.7	148	26.4
Second	115	23.3	158	20.6	273	21.7	60	20.9	58	21.2	118	21.1
Third	91	18.4	149	19.5	240	19.0	66	23.0	51	18.7	117	20.9
Fourth	99	20.0	119	15.5	218	17.3	51	17.8	54	19.8	105	18.8
Richest	79	16.0	122	15.9	201	16.0	35	12.2	37	13.6	72	12.9
Overall	494	100.0	766	100.0	1260	100.0	287	100.0	273	100.0	560	100.0

TABLE V

UTILISATION OF SERVICES BY TYPE OF FACILITY AND INCOME QUINTILE: BY GENDER OF PATIENTS

Facility Type	Quintile Group (%)						Overall					
	Poorest		Second		Third		Fourth		Richest			
	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%
Male Patients												
DH	73	24.0	64	21.1	54	17.8	71	23.4	42	13.8	304	38.9
UHC	87	22.4	92	23.7	87	22.4	65	16.7	58	14.9	389	49.8
UHFWC	25	28.4	19	21.6	16	18.2	14	15.9	14	15.9	88	11.3
Total	185	23.7	175	22.4	157	20.1	150	19.2	114	14.6	781	100.0
Female Patients												
DH	96	24.2	88	22.2	74	18.7	87	22.0	51	12.9	396	38.1
UHC	133	29.5	91	20.2	88	19.5	65	14.4	74	16.4	451	43.4
UFWC	62	32.3	37	19.3	38	19.8	21	10.9	34	17.7	192	18.5
Total	291	28.0	216	20.8	200	19.2	173	16.7	159	15.3	1039	100.0
All Patients												
DH	169	24.1	152	21.7	128	18.3	158	22.6	93	13.3	700	38.5
UHC	220	26.2	183	21.8	175	20.8	130	15.5	132	15.7	840	46.2
UFWC	87	31.1	56	20.0	54	19.3	35	12.5	48	17.1	280	15.4
Total	476	26.2	391	21.5	357	19.6	323	17.7	273	15.0	1820	100.0

3.6 Distance Traveled and Waiting Time

The constraints encountered in the utilisation of public health facilities are often associated with both physical accessibility and waiting time for treatment at the facility, factors that tend to facilitate or restrict health care use. The three main elements of physical accessibility are distance travelled, travel time and travel cost to visit the facilities. If the health facility is situated far away from home, it involves considerable travel time as well as travel costs to get to the facility depending on the mode of transport. Further, accessibility to services requires waiting time at the facilities that may induce or discourage usage.

The findings suggest that health care facilities are accessible to everyone (poor and non-poor) without any discrimination. Physical accessibility is no longer a barrier in the sense that people do not have to travel a long distance to reach the health facilities and once they arrive at the facilities, they do not have to wait for a long time to get to the services.

The average distance of the DHs from the usual place of residence of the clients is the highest at 9.4 kilometers, followed by UHC at a distance of 4.8 kilometers and the closest being the UHFWCs at 1.7 kilometers. However, the median distance traveled to reach the DHs, UHCs and UHFWCs 5, 3 and 1 kilometer respectively. Similarly, waiting time is 42 minutes at the DHs, which goes down to 27 minutes at UHCs, and 16 minutes at the UHFWCs. Median waiting time at the DHs, UHCs and HFWCs is 30, 20 and 10 minutes respectively.

The average travel expenses incurred by clients to travel to DHs, UHCs and UHFWCs are 87 taka, 49 taka and 9 taka respectively. The differentials in travel time and in travel cost by facility type may largely be explained by variation in the distance of health facilities and mode of transport used to reach these facilities. The reason behind travelling longer distance for visiting DHs and UHCs is because people afflicted with chronic and acute illnesses seek quality health care from these facilities where qualified doctors and specialists are available. Again, UHFWCs at the union level are the nearest public health facilities to the clientele population that provide selected immunization, health and family planning services. In general, the average travel cost of outpatients is higher for males than females.

IV. COST OF TREATMENT AND SOURCES OF FINANCE

Health care costs can be divided among direct medical costs (e.g. medicines and service fees), direct non-medical costs (e.g. transportation costs) and indirect

costs (e.g. travelling and waiting time, lost earnings). Different types of cost items can be barriers to the use of health care.

4.1 Cost Elements

The costs of seeking care typically include financial expenses and income losses that may be incurred as a result. Income losses can be high if considerable time is spent in commuting or standing in queues to obtain medical care. Apart from the direct cost related to consultation and purchase of medicine, there are also costs associated with transport, food and accommodation. In the present survey, out of pocket utilisation cost was recorded according to the type of costs incurred, such as traveling and transportation costs, consultation fees, purchase of medicine, pathology/clinical investigation (X-ray, blood test, ECG, urine/stool tests, etc.), food and various hotel costs (for inpatients only).

The survey finding reveals that on the average, an out-patient spent Tk. 90.1, while for the in-patient the average amount spent was Tk. 2477.5. The cost of treatment for out-patients varies between Tk. 132.7 and Tk. 17.0 depending on the type of facility. In the case of in-patients, this amount ranges between 1,836 taka and 3,117.94 taka. The average amount spent by an out-patient in a district hospital was almost six times more than the amount spent by an out-patient at a UHFWC (Tk. 132.7 vs. Tk. 17.0). Similarly, the average amount spent by an in-patient visiting a district hospital (Tk. 3117.9) was almost twice the amount spent by an in-patient at the UHC (Tk. 1,856.9).

Costs of medicine, various charges associated with tests/investigations and transportation and accommodation/food costs are some of the major cost elements patients have to incur while visiting a public health facility. For out-patients, two-thirds of the total cost is spent on medicines (Tk. 59.8), followed by the amount spent on investigation/ tests (Tk. 16.91). In the case of in-patients, the highest amount of taka 1,396.26 is spent on medicines/drugs (56.4 per cent), followed by taka 292.9 (12 per cent) on food and accommodation.

Table VI shows that an overwhelming proportion of total cost was spent on purchasing drugs. However, there were some variations between in and outpatients in the proportion of total costs spent on other items. For example, an average outpatient spent around 66 per cent on drugs, 19 per cent on different tests/investigations, 4 per cent on transport, 3 per cent on admission/ticket and another 1 per cent on food. Similarly, an inpatient spent about 56 per cent on drugs, 5 per cent on transport, 12 per cent on food/accommodation and 8 per cent on laboratory tests/investigations. Expenditure incurred on drugs and medicine, the most vital component of out-of-pocket expenditure, accounts for the largest

proportion of total cost for both in-and-out patients (56.4 per cent vs. 66.5 per cent).

It is worth noting here that on account of the way health care utilisation cost has been aggregated in this study, these estimates are comparable with other available estimates. For example, Ensor (2001) reports costs of out-patient visits ranging from Tk 66 (in UHC) to Tk 238 (in MCH), and the cost of in-patient treatment ranging from Tk 1,957 (in UHC) to Tk 11,872 (in MCH). Ensor also reports that only 5 to 11 per cent of all treatment episodes in UHC and higher level facilities are in-patient admissions.

Similar findings from Mannan *et al.* (2003) also show that on the average, an out-patient spent Tk. 44.8, while for the in-patient the average amount spent was Tk. 1,560.4. Again, the largest proportion of total cost was spent on drugs for both in-and-out patients. According to the survey, the cost of out-patient visits ranged from Tk 91 at the DH to Tk 35 at the UHC, Tk 11 at the UHFWC to Tk 4 at the CC. By contrast, the cost of in-patient visits ranged from Tk 1,991 at the DH to Tk 669 at the UHC. However, the proportion of total cost spent on medicine was similar, exceeding two-thirds of total expenses for both in-and-out patients (70 per cent vs. 72 per cent) (Mannan *et al.* 2003).

TABLE VI

AVERAGE COST INCURRED (TAKA) BY FACILITY TYPE: BY PATIENT CATEGORY

Patient/ Facility type	Ticket/ entry (Un-official)	Ticket/ entry (Official)	Consultation	Medicine	Tests	Trans-port	Food/ Accommodation	Others	Total treatment cost
Out-patient									
DH	0.6	4.84	0.01	77.61	32.9	5.98	1.61	9.14	132.7
UHC	0.38	2.37	2.32	70.03	12.29	3.08	1.3	2.82	94.59
UHFWC	0.06	0.18	0.04	13	2.18	0.43	0.07	1.07	17.03
Overall	**0.38**	**2.71**	**1.04**	**59.88**	**16.91**	**3.46**	**1.13**	**4.54**	**90.06**
In-patient									
DH	7.11	19.48	2.27	1574.36	298.83	168.85	383.11	663.92	3117.94
UHC	1.71	6.13	10.46	1218.16	114.68	99.05	202.77	184.02	1836.98
Overall	**4.41**	**12.8**	**6.36**	**1396.26**	**206.75**	**133.95**	**292.94**	**423.97**	**2477.46**
ALL Patients									
DH	3.2	10.7	0.92	676.31	139.27	71.13	154.21	271.05	1326.79
UHC	0.82	3.62	5.03	452.74	46.42	35.07	68.46	63.22	675.39
UHFWC	0.06	0.18	0.04	13	2.18	0.43	0.07	1.07	17.03
Overall	**1.62**	**5.81**	**2.68**	**471.08**	**75.33**	**43.61**	**90.92**	**133.6**	**824.64**

TABLE VII

COST OF TREATMENT BY FACILITY TYPE: BY GENDER AND PATIENT CATEGORY

Type of Facility	Out-patient		In-patient	
	Male	Female	Male	Female
DH	141.3	128.1	3293.7	2947.12
UHC	86.9	102.9	1905.0	1801.63
UHFWC	26.4	16.2	–	–
Overall	**104.3**	**78.0**	**2575.1**	**2401.8**

4.2 Treatment Cost by Gender

In general, the average cost incurred by a male patient was higher than that incurred by a female patient (Table VII). Overall, the average cost incurred by a male in-patient was about 7 per cent higher than that of a female in-patient (Tk. 2,575 vs. Tk. 2,402). Similarly, the average cost incurred by a male out-patient was about 30 per cent higher than that incurred by a female out-patient (Tk. 104 vs. Tk. 78). Again, there was also some variation in the amount of cost incurred by gender of patients and by type of facility visited.

For out-patients, costs of treatment were higher for males (than females) at the DH and UHFWC, while at the UHC cost incurred by female out-patients (Tk. 102.9) was higher than that of males (Tk. 86.9). However, in the case of in-patients, the average amount spent by males was higher than that of females irrespective of facility type. The average in-patient cost for males at the district hospital was almost 12 per cent higher than that incurred by females (Tk. 3,293.7 vs. Tk. 2,947.1), while at the UHC the amount spent by a male in-patient was about 6 per cent higher than that incurred by his female counterpart (Tk. 1905.0 vs. Tk 1801.6).

4.3 Differentials in Treatment Cost by Household Income: Disease Burden on the Poor

Economic status of the household is an important factor in affecting health-seeking behaviour. Because even though services are supposed to be free at the government facilities, there are other costs involved. A patient willing to visit a health facility has to spend on transport, food and accommodation. Again, due to non-availability or inadequate supply of medicine, both in-and-outpatients are required to purchase medicine from outside the facility.

It is observed from Table VIII that the average monthly household income of facility users was Tk.9,116. However, there were wide variations in monthly household income between the richest and the poorest households. The average monthly income of the richest households was 20 times higher than that of the poorest group (Tk. 30,723 vs. Tk. 1,506).

Variation in average treatment cost by monthly household income of the users is also presented in Table VIII. The data reveal an upward trend of treatment cost according to income group (with few exceptions), that is, as household income increases, the expenditure incurred for health care/treatment also goes up. The lowest expenditure on health care comes from the lowest income group (monthly income not exceeding Tk. 2,000) and the highest expenditure was incurred by the highest income group (monthly income exceeding Tk. 20,000).This trend of increasing treatment cost with increased household income is in the expected direction, since patients from poorer households can afford to spend much less compared to their counterparts from richer households.

TABLE VIII

PERCENTAGE OF INCOME SPENT ON HEALTH CARE BY INCOME GROUP

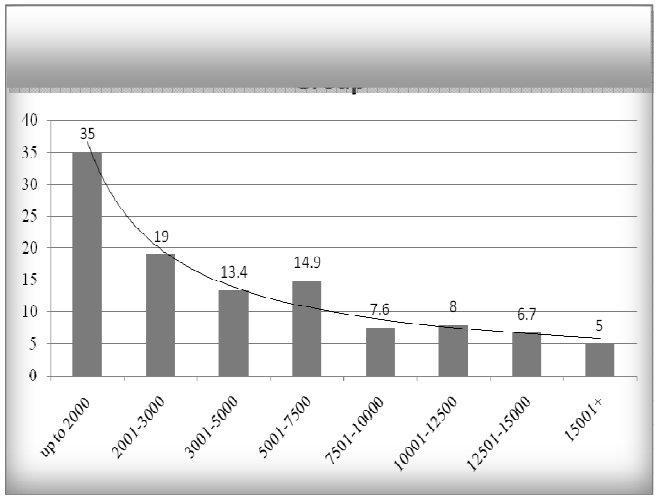
Income group (Tk.)	Average monthly income (Tk.)	Cost incurred for treatment (Tk.)	% of income spent on health care
up to 2000	1,506	527	35.0
2001-3000	2,887	549	19.0
3001-5000	4,514	605	13.4
5001-7500	6,461	964	14.9
7501-10000	8,863	676	7.6
10001-12500	11,471	918	8.0
12501-15000	14,150	951	6.7
15001-20000	17,733	881	5.0
20001+	30,723	1,538	5.0
All	**9,116**	**820**	**9.0**

On the average, 9 per cent of monthly household income was spent on illness treatment. However, there were wide variations between the richest and the poorest households in the proportion of household income spent for treatment purposes. The poorest households had to spend about 35 per cent of household income to meet the treatment cost of illness episodes, which is a heavy burden by

any reckoning. On the other hand, the richest households spent only 5 per cent of household income for treatment of illness episode. Again, the poorest households spent much less in absolute terms for treatment purposes compared to the richest households (Tk. 527 vs Tk.1,538). This is primarily because of very low income of the poorest group, most of their income is spent on purchasing food and other daily necessities of life leaving very little scope for spending on health care. The findings clearly indicate that members from the poorer households have less access to resources available for health care and that they undergo a lot of economic pressures to finance their treatment cost/medical needs. The findings imply that for low-income households there is a real risk of indebtedness involving "catastrophic payments." According to Selvaraj and Karan (2009), out-of-pocket (OOP) expenditure greater than 10 per cent of total household expenditure may be defined as catastrophic payments.

From the preceding analysis it is clear that there is a positive association between household income and the amount spent for treatment of ailments. It reflects that better income has a compound positive impact on people's health status. Among the upper income groups, higher socio-economic status leads to better exposure and opportunities which, in turn, leads to better understanding of health and allied issues, and also the upper strata can afford to spend more when they fall sick. One may argue that monthly income of household, which may be considered a proxy for economic prosperity, in itself does present a sufficient explanation in determining treatment status during sickness.

FIGURE 4: **Per cent of Income Spent on Health Care by Income Group**



An out-of-pocket payment for health care is considered catastrophic when the payment exceeds some threshold defined as a fraction of total household consumption or non-food consumption. Catastrophic payments (Berki 1986) are defined as a scenario in which households report in excess of a given threshold of medical expenditure during a year. The threshold could take cut-off point such as 5, 10, 15, 20 and 25 per cent of households' overall spending (Merlis 2002, Zu *et al.* 2003 and 2007, Wagstaff and Van Doorslaer 2003, Van Doorslaer *et al.* 2007). However, it is evident from other empirical studies that 10 per cent of total expenditure is widely accepted as the standard when the household is forced to cut down on subsistence needs, sell productive assets, incur debts, or be impoverished (Van Doorsaler *et al*. 2006). If we take 10 per cent as the cut-off point for catastrophic payment, then, according to the present study, all households having monthly income not exceeding Tk.7,500 fall under this category of "catastrophic payments." Any hospitalisation in the household involves huge expenditure, both medical and non-medical expenses, and this can very badly affect the household budget.

Evidence also shows that the poorest households bear a disproportionate share of the burden of ill health and treatment cost. The findings of the study by Mannan *et al.* (2003) show that overall, 8.8 per cent of monthly household income was spent on illness treatment. But the poorest households had to spend about 38 per cent of household income to meet the treatment cost of illness episodes, on the other hand, the richest households spent only 3.4 per cent of household income for treatment of illness episode. These findings imply that for low-income households incidence of sickness has adverse impact on household welfare. The available evidence shows that the cost of medicines was the most important cost element that prevented people from using health services (CIET Canada and MOHFW 2001, Mannan *et al.* 2003).

Findings from FGD also show that the situation becomes really precarious for patients who need hospitalisation. In the case of inpatient treatment in a government facility, especially if surgical intervention is required, the households have to incur a huge amount as out-of-pocket expenditures on medicines, diagnostic tests and other related items. To meet the hospitalisation expenses, many households have to borrow money and even liquidate their assets.

Any hospitalisation in the household involves huge expenditure, both medical and non-medical expenses, and this can very badly affect the household budget. The situation becomes really precarious for patients who need hospitalisation. In the case of inpatient treatment in a government facility, especially if surgical intervention is required, the households have to incur a huge amount as out-of-pocket expenditures on medicines, diagnostic tests and other related items. To meet the hospitalisation expenses many households have to

borrow money and even liquidate their assets. Thus, while the diseases mercilessly weaken the people, both physically and financially, the burden of treatment makes them more helpless, accelerating the process of pauperisation.

Poverty is one of the significant factors affecting health-seeking behaviour, and for members belonging to poorer households, pecuniary condition acts as a strong deterrent in their health expenditure behaviour. This brings us to the question of providing financial protection to the poor households against such contingencies. Insurance schemes to cover the poor and/or low-income households, who are mostly in the informal or unorganised sector, can be devised. Also, even if the government hospitals want to levy user charges, people below a certain income level should be exempt from paying such charges and this could be achieved through proper targeting.

4.4 Problems Faced in Financing Health Expenditure

The cost of medicine, various charges associated with tests/investigations and the cost of hospitalisation are some of the most important barriers to health services utilisation. The extreme poor households spend more than one-third of their household income on health care expenses. The cost of health care often results in foregone medical treatment. If this burden can be relieved through free supply of medicine and adequate supply of related items, this would have substantial impact on poverty reduction.

When the patients were asked about whether the health expenditure caused any problem affecting their daily life, 31 per cent of the out-patients (389 out of 1,260) and 79 per cent of the in-patients (442 out of 560) gave a positive reply. However, as expected, a higher proportion of patients from poorer groups mentioned about problems in financing their health expenditure. The data suggest that resources available at the household level for medical care are limited for the poor, where an overwhelming proportion of household income is spent on food, leaving very little scope for spending on health care.

The type of problems arising from health care expenditure may appear in the form of insufficient food for the family, children's education being affected or reduced essential purchases. Table IX shows that among inpatients who were adversely affected, food consumption was reduced or there was insufficient food for 57 per cent of households, expenditure had to be curtailed on other essential household items for another 79.2 per cent cases because of treatment cost, while 18.6 per cent households had to face problems in financing their children's education. Similar type of problems was also faced by outpatients. Thus, illness requiring treatment and hospitalisation has significant adverse implications for

the economic well-being of affected households and individuals, particularly for the poor households.

Any hospitalisation involves a lot of expenditure so it is but obvious that the households belonging to lower income category would rely on different sources to finance their health care needs. The various sources utilised for meeting treatment costs include drawing from savings, borrowings from friends/moneylenders, distress sale of assets/household articles. Even that may not be sufficient to buy the medicine in full. Hospitalisation that requires surgical interventions or prolonged stay in the facility ruins the families both economically and physically. They have to spend money on medication and they also lose their incomes - in some cases for months together, particularly in cases where the patient himself/herself is the earning member. While the diseases mercilessly weaken the people, both physically and financially, the burden of treatment makes them more helpless, accelerating the process of pauperisation.

TABLE IX
TYPE OF PROBLEMS FACED DUE TO HEALTH EXPENDITURE (MULTIPLE RESPONSES)

Type of Problems	Out-patients		In-patients	
	No.	%	No.	%
Insufficient food for the family	138	35.5	246	55.7
Children's education being interrupted	45	11.6	82	18.6
Essential purchases affected	314	80.7	350	79.2
Others	7	1.8	22	5.0
Overall	**389**	**100.0**	**442**	**100.0**

V. QUALITY OF HEALTH CARE AND SATISFACTION OF USERS

The study found that the poor dominate the utilisation of public health facilities. What are the reasons for this higher utilisation? Is it because the poor prefer to go to the public facilities for better services or their economic conditions compel them to go to the public facility? Do they receive quality health care during their visit to the facility? While quality of care is critical for clients' satisfaction, it is difficult to define and measure. Hence, the health care delivery system needs to be examined at various levels from different perspectives, including availability of drugs and service providers, the attitudes and behaviour of service providers including other facility staff, and the quality of health care received.

Initially, a question was asked regarding the reason for choice of the facility. More than four-fifths (84 per cent) of the clients preferred the facility because of its free/ low cost of treatment, a significant proportion (47 per cent) visited because of vicinity to home and another sizeable proportion (37 per cent) visited the facility for receiving quality care (Table X). With regard to indoor and outdoor patients, there is no major variation in their reasons for choice of the facility. This reflects the composition of patients, majority of whom are from poor households and in need of free/ low cost treatment.

TABLE X

REASONS FOR CHOICE OF THE FACILITY BY PATIENT CATEGORY

Reasons for visiting	Category of Patients		Total (%)
	Out-patient (%)	In-patient (%)	
Quality of treatment	34.3	42.3	36.8
Free/low cost of treatment	86.2	78.4	83.8
Vicinity to house	48.0	44.1	46.8
Friend/relative works in the facility	1.9	2.3	2.0
Low transportation cost	15.0	16.4	15.4
Others	0.6	2.0	1.0
No response	0.2	0.0	0.1
N	**1,260**	**560**	**1,820**

5.1 Quality Rating of Services by Facility Users

While quality of care is critical for clients' satisfaction, it is difficult to define and measure. Hence, the health care delivery system needs to be examined at various levels from different perspectives, including availability of drugs and service providers, the attitudes and behaviour of service providers/other facility staff, and the quality health services delivered. Access to quality services with adequate supply of essential drugs is expected to lead to better utilisation of public health services.

In this study, quality of care is judged on the basis of information on ten different aspects of quality of services, ranging from attitudes of doctors/service providers, availability of drugs to overall quality of treatment. However, quality of treatment is deemed to be the ultimate objective of the provision of all other services. Regarding patient satisfaction, respondents were asked to record their

level of satisfaction with respect to: (i) attitude of doctors, (ii) staff attitudes, (iii) facility cleanliness and hygiene, (iv) privacy and confidentiality, (v) quality and quantity of inpatient food, (vi) waiting time, (vii) staff availability, (viii) availability of drugs, (ix) availability of medical supplies, and (x) quality of treatment received.

A rating scale (such as, excellent, good, average, poor and very bad) was used and based on their responses, the respondents were categorised into five groups from highly satisfied to highly dissatisfied (e.g. from excellent to bad).

Those who had used government health services were asked their opinions about the quality of services they received on the day of visit. Their responses as presented in Table XI suggest that less than 40 per cent of the users were satisfied with the services of doctors, while more than 60 per cent of the users were not so happy with the services provided. The situation with respect to other aspects of hospital services (e.g. cleanliness and hygiene, privacy of treatment and waiting time, etc) was even worse, indicating that an overwhelming majority of users are hardly satisfied with those services.

The opinions of the service users about cleanliness and hygiene, privacy of treatment and waiting time for treatment are of similar nature; only around a tenth rated them as good and above, indicating that an overwhelming majority of the users are hardly satisfied with these services. Patients' rating of the remaining three services, quality of inmate food, availability of drugs and availability of other medical supplies, are the lowest in the opinions of the facility users; less than 5 per cent rated them as good and above. This means that indoor patients at both the DHs and UHCs are highly dissatisfied with the quality of food provided to them. The users also expressed dissatisfaction about the supply of drugs and other medical supplies at the health facilities. The FGD findings also show that there is a large majority of participants who find that doctors are not available, that support staff is showing a hostile attitude, that nurses and ward boys are not available and that they behave unkindly.

The type of services received while visiting the facilities may clarify some of the reasons for patients' dissatisfaction. Only 20 per cent of the clients who visited public health facilities were physically examined by the providers and 35 per cent received some advice from doctors /service providers. The fact that a vast majority of the clients did not receive any physical examination is a reflection of the attitudes of doctors towards patients.

TABLE XI
QUALITY RATING OF SERVICES AT PUBLIC FACILITIES: BY CATEGORY OF PATIENTS

Type of Services	Rating of Services (%)					Total (N)
	Excellent	Good	Average	Poor	Bad	
Out-patient						
Attitudes of doctors/service providers	1.8	36.7	52.3	8.9	0.4	1257
Attitudes of office staff	0.2	16.3	54.3	27.2	2.1	1251
Cleanliness & Hygiene	0.6	6.4	41.0	41.0	10.9	329
Privacy of Treatment	0.0	10.4	53.3	29.0	7.3	1236
Quality of Food	0.0	2.0	15.2	55.8	26.9	197
Waiting Time	0.0	8.4	38.7	41.5	11.4	1244
Availability of service providers	0.7	19.3	53.4	24.3	2.4	1225
Availability of Drugs	0.5	8.6	31.7	46.7	12.5	1243
Availability of other Medical Supplies	0.1	8.4	53.0	28.5	10.0	968
Quality of Treatment	0.3	27.1	58.8	12.3	1.5	1230
In-patient						
Attitudes of doctors/service providers	2.0	40.4	50.4	6.8	0.5	560
Attitudes of office staff	0.4	16.5	49.4	29.7	4.1	559
Cleanliness & Hygiene	0.2	4.3	33.1	44.2	18.3	541
Privacy of Treatment	0.4	10.1	53.2	31.6	4.7	554
Quality of Food	0.0	2.4	24.0	46.8	26.8	538
Waiting Time	0.2	4.7	51.9	38.2	5.0	555
Availability of service providers	0.5	15.2	54.7	27.0	2.5	559
Availability of Drugs	0.0	4.7	25.3	53.0	16.9	549
Availability of other Medical Supplies	0.2	9.2	52.1	27.4	11.1	522
Quality of Treatment	0.4	24.4	60.5	13.0	1.8	554

5.2 Opinion about Two Most Important Services

The service users were asked to give their opinions about the two most important services, in order of merit, from the list of ten essential services. A large proportion (around 50 per cent of the clients) viewed that availability of drugs was the most important service demanded by them. The second most

important aspect was attitude of doctors (46 per cent), availability of doctors occupied the third position (29 per cent), while quality of treatment was rated as fourth (as mentioned by 23 per cent).

The findings suggest that the highest proportion of patients point at availability of medicine as the most important factor (almost twice as high as presence of doctors at the facility) for their views on hospital services. The FGD findings also show that there is acute shortage of drugs and other medical supplies at the public facilities. People are extremely unhappy that they have to pay for drugs or buy medicine from outside. This implies that inadequate supply of medicine, availability of doctors and attitude of service providers towards patients are the main problems patients face at the public health facilities.

5.3 Past Visits to the Facility

The respondents were asked about the number of times they visited public health facilities during the last six months. One-fourth of the patients never visited a health facility during the last six months, about a third of the users visited the centres once during the last six months, a quarter visited twice and the rest had three or more visits (Table XII). Land poor households are found to have visited the centres slightly more frequently than the land rich households. When asked whether the respondents would visit the centre again in the future in case of necessity, an overwhelming majority of them (95.1 per cent) replied in the affirmative (Table XIII). Future intended visits to the health facility do not vary significantly by landholding status.

TABLE XII
NO. OF VISITS TO THE FACILITIES DURING LAST 6 MONTHS: BY SIZE OF LANDHOLDINGS

Landholding Size (acres)	Number of Visits					Total
	No visit	Once	Twice	Three times	4+ times	
No land	23.5	24.7	21.0	12.3	18.5	100.0
0.01-0.50	25.3	34.1	23.1	8.9	8.7	100.0
0.51-1.50	22.9	37.3	23.8	7.8	8.2	100.0
1.51-2.50	29.5	36.2	18.1	5.7	10.5	100.0
2.51-5.00	29.5	27.9	24.6	4.9	13.1	100.0
5.00+	33.3	33.3	16.7	8.3	8.3	100.0
All	**25.2**	**34.1**	**22.9**	**8.5**	**9.3**	**100.0**

TABLE XIII
INTENDED FUTURE VISITS TO PUBLIC FACILITIES: BY LANDHOLDING SIZE

Landholding size (acres)	Future visit		Total
	Yes	No	
No land	94.8	5.2	100.0
0.01-0.50	95.4	4.6	100.0
0.51-1.50	93.9	6.1	100.0
1.51-2.50	97.9	2.1	100.0
2.51-5.00	92.6	7.4	100.0
5.00+	81.8	18.2	100.0
All	**95.1**	**4.9**	**100.0**

In summary, the foregoing analysis reveals that despite clients' dissatisfaction on many counts of service delivery system at the public health facilities, three-fourths of the clients visited a facility at least once during the last six months and an overwhelming majority also expressed their desire to visit the facilities again in future. This attests to the fact that their choice of public health facilities hinges on among others, the three main considerations, as discussed earlier, such as low/free cost of treatment, quality of treatment and location or proximity to home.

VI. BARRIERS FACED BY PATIENTS IN ACCESSING SERVICES

Government facilities are the last resort for the hapless poor who cannot afford to consult a qualified doctor at his private chamber or in a private clinic. But there are a number of problems in the public health service provision, which contribute to poor quality of services. These include inefficiency in service delivery (medicine, logistics), inefficiency in managing health personnel, poor quality of services and negative perception about type of services available. The poor quality of services is indicated by non-availability of medicines and other supplies at the facilities, staff absenteeism, inadequate attention given by doctors, and informal payments to access services.

6.1 Inadequate Supply of Drugs

There is acute shortage of drugs and MSR at the public health facilities as reported by respondents. According to the responses on availability of medicine,

only 23.9 per cent of the outpatients received all the medicines prescribed, the corresponding figure for inpatients was even less, only 7 per cent. Similarly, about three-fifths (62 per cent) of the inpatients and 48.3 per cent of the outpatients received less than 50 per cent of their required medicine from the hospital.

Again, 14 per cent of inpatients and 8 per cent of outpatients did not receive any medicine at all from the hospitals. The situation was even worse with respect to injectables/IV fluids. More than half of the in-patients (54 per cent) did not receive any injectables from the hospital, while two-thirds of them (66 per cent) did not receive any IV fluids.

TABLE XIV

EXTENT OF REQUIRED MEDICINE/MSR RECEIVED FROM THE HEALTH FACILITY: BY QUINTILE GROUP AND BY CATEGORY OF PATIENTS

Patient Category	Items	% received	Q1	Q2	Q3	Q4	Q5	Overall
Outdoor	Medicine	100%	26.6	27.3	21.7	21.8	20.0	23.9
		More than 50%	17.3	18.2	20.0	22.7	23.1	19.9
		Less than 50%	49.5					48.3
		None	6.5	8.0	7.2	10.4	8.2	7.9
	Injectables	100%	5.5	6.9	6.6	3.3	5.4	5.5
		More than 50%	0.0	0.0	1.9	3.3	2.2	1.3
		Less than 50%	0.0	1.5	3.8	1.7	3.2	1.8
		None	94.5	91.5	87.7	91.7	89.2	91.3
	IV fluids/ Saline	100%	2.1	1.6	1.0	1.7	3.4	1.9
		More than 50%	0.0	0.8	1.0	5.2	1.1	1.6
		Less than 50%	3.5	2.4	3.0	0.9	3.4	2.6
		None	94.4	95.2	95.0	92.2	92.0	93.9
Indoor	Medicine	100%	12.3	10.3	3.4	2.9	4.2	7.2
		More than 50%	17.8	17.9	17.1	13.3	18.1	16.9
		Less than 50%	56.8	55.6	65.8	65.7	68.1	61.6
		None	13.0	16.2	13.7	18.1	9.7	14.4
	Injectables	100%	12.3	16.1	11.8	6.4	10.4	11.7
		More than 50%	9.8	8.0	11.8	2.1	9.0	8.3
		Less than 50%	19.7	22.3	27.3	31.9	31.3	25.7
		None	58.2	53.6	49.1	59.6	49.3	54.3
	IV fluids/ Saline	100%	11.4	10.6	18.8	5.6	15.0	12.1
		More than 50%	6.1	6.7	6.3	7.9	8.3	6.9
		Less than 50%	9.6	17.3	17.7	15.7	16.7	15.1
		None	72.8	65.4	57.3	70.8	60.0	65.9

Some other studies also found service users reporting that they had to buy medicines that were supposed to be supplied free at the facility but which had been put on the market (CIET 2004). Another study found a number of different practices through which medicines arrived on the market via local facility staff, as well as reports that supplies may be sold by *upazila* health officials to cover the costs of 'speeding' up the arrival of supplies or bribing audit officials (FMRP 2007). It is less easy to detect corruption in the system, however. For example, a close scrutiny of the financial and supplies accounts indicates that drugs leakage on a large scale does not show up in the records of transactions between the district and *upazila* facilities.

The Social Sector Performance Survey of primary health found that facilities were recording drug issues of two to three times that patients reported receiving (FMRP 2006). Other evidence has emerged of corruption in drugs and equipment in the public hospitals. A recent report by Transparency International Bangladesh (TIB 2005, 2006) shows that in Dhaka Medical College Hospital (DMCH), the country's largest hospital, 65 per cent of indoor patients and 68 per cent of outdoor patients receive some free medicine. An earlier TIB study had found that in district hospitals in Rajshahi division, only 4 per cent of outdoor patients and 6 per cent of indoor patients reported receiving free medicines, on grounds that they were not available in the hospital store (TIB 2005).

A number of studies findings report that fourth class and other lower ranking government employees sell costly medicines and other equipment (TIB 2006, FMRP 2007). The TIB report on DMCH states that:

There is a designated form to give free medicine to the patients. Only those patients are eligible to get free medicine whom doctors give prescription on this form. The fourth class dishonest employees involved with medicine smuggling manage to steal these forms. Then they write down the names of medicine on them, copy the signature of doctor, draw medicine from the store and sell them in outside pharmacies (TIB 2006).

6.2 Unofficial/Informal Payments

The evidence from the present study shows that getting admission in a public health facility is a lengthy and costly procedure, frequently involving unofficial payments. According to the present study, about a third (31.8 per cent) of the inpatients at the DH and one-fifth (19.6 per cent) at the UHC had to make extra payment for getting admission. Of those inpatients that made unofficial payments, about 60 per cent paid once, about a third had paid twice and 8 per cent had to make extra payments at least three times. However, the majority of payments were made to non-medical staff. About three-fifths of the patients paid

the class 3 and 4 employees (ward boy/clerks/administrative staff), while only a small minority of patients made extra payments either to the doctor or nurse.

In addition, 22 per cent of the patients at the DH and 12 per cent at the UHC had to consult the (health facility) doctor privately for getting admission. Again, 10 per cent of the patients needed recommendation from influential persons (bureaucrats, political leaders, MPs, etc). The study also found that:

- People from poorer households have at least the same risk of making unofficial payments as those from richer households.
- Since the poor are less likely to have friends or connections at the hospital and they are even less likely to obtain recommendation from influential people (bureaucrats, politicians), they are likely required more frequently to make unofficial payments.

During FGDs, patients were asked why they made extra payments for receiving treatment at the hospitals which is supposed to be free. More than half of the patients replied that they made informal payments because they feared that without these extra payments they would either receive no treatment at all or that they would be subjected to neglect/slow treatment.

Though health services at the public hospitals are supposed to be free of cost, findings from different studies show that doctors and other health workers demand payment. The 1987 BIDS survey shows that 36 per cent of the outpatients in rural health centres and 32 per cent in urban hospitals had to make extra payment for receiving treatment from the Government health centres (Khan 1988). This gloomy story is not growing brighter as more doctors, nurses and health workers pour out of medical schools. The findings from the present survey suggest that there has not been any significant improvement in this respect over the years.

Evidence from Euro Health/ World Bank Study (2004) also shows that about one-fourth (24 per cent) of the out-patients and two-thirds (65 per cent) of the in-patients reported making extra payments for receiving treatment. For in-patients, the incidence was as high as 94 per cent at the district hospitals, followed by 61 per cent at the teaching hospitals. Of those in-patients that made unofficial payments, 61 per cent paid once, 32 per cent had paid twice and 6 per cent had to make extra payments at least three times.

In the same study, in-patients were also asked to whom they made unofficial payments for obtaining services. About three-fifths (59.5 per cent) of the patients who made extra payments paid the third and fourth class workers (clerks/administrative staff/ ward boys/peons), while only a small

minority of patients made extra payments either to the doctors (13 per cent) or to the nurses (14 per cent).

Further evidence comes from studies conducted by Transparency International which shows that at the district and upazila level facilities patients have to make extra payment to access services. For instance, about 44 per cent patients who visited public health facilities at the district and upazila level facilities, had to pay consultation fee to the doctors in 2005 with mean payment of 44 taka and standard deviation of 103 taka (Transparency International 2006).

To give an impression of the perceptions, Transparency International Bangladesh (TIB) conducted a more general household survey in 2002 on corruption in Bangladesh that can be highlighted. Based on interviews of 3,030 persons, it was found that 46 per cent of the household members interviewed had been admitted to hospitals within the last year. About half (48 per cent) of those admitted had accessed the services through "alternative" means. Again, 56 per cent of these had paid money for the service, 22 per cent had accessed the services through influential persons or relatives and 18 per cent by knowing hospital staff. Similarly, 45 per cent of out-patients claimed to be victims of extortion. Those who had been subject to illegal payments claimed that they (on average) had paid 1,847 tk. annually out of a monthly income of 4,338 tk. When asked to rank the public sectors' level of corruption, 21 per cent of respondents ranked the health sector as number one, 25 per cent as the second and 18 per cent as number three. This ranking places public health facilities as the second most corrupt sector after police.

Corruption in the form of bribery limits both the indoor and outdoor services in city hospitals. The TIB report estimates that payments of around Tk. 4 million in bribes are made annually in order to get beds for patients in DMCH. The report also identifies a group of third class staff who control important sections of DMCH, and who ensure that no help is received, even in emergencies, without payment. The situation is similar in other tertiary, district and thana level hospitals, in which timely doctor's visits, buying tickets required for service, obtaining beds and access to essential medical equipment are all purchased through an organised group. Third and fourth class employees also solicit "tips" for transporting patients, administering injections or saline, for meals and for cleaning (TIB 2005).

The evidence on illegal payments for services suggests that this is a common problem. TIB's household survey on corruption in 2005 found that almost 30 per cent of the population who received treatment from outdoors of government hospitals paid Tk. 60 on average to the doctor for each visit. Other illegal

payments in government hospitals included paying for x-rays and pathological tests, which had been free for outdoor and free bed patients until the recent imposition of charges in November 2006. The Service Delivery Survey found similar proportions of the population reporting having paid for tickets to receive service (25 per cent in 2003, down from 40 per cent in 1999) and somewhat smaller proportions reporting having paid for services (16 per cent in 2003 down from 22 per cent in 2000; CIET 2004).

The matter of illegal payments for services may not be as straightforward as it seems. A patient exit poll, conducted for the Social Sector Performance Survey in primary health and family planning facilities, found that only around 3 per cent of patients reported having had to pay for services. However, around 25 per cent of communities in focus group discussions, conducted for the same study, reported the need for routine payments at their local *upazila* health complex and 20 per cent at union level facilities.

6.2.1 Reasons for Paying Unofficial Fees

While basic health care service is supposed to be free in public hospitals, evidence from different studies shows that access to services, particularly at the district and upazila level facilities, is constrained by high out-of-pocket expenditure, and patients end up bearing the costs of medicine and laboratory tests, as well as some additional unseen costs. It emerged during FGDs that when paying the illegal fee patients have a perception that if they don't pay, they will be penalised in the form of no or slow treatment or they will receive no medicine. The vast majority does pay this fee, but only few actually get the full required medicine. Only very few report that they get an over-average consultation time with the doctor. According to the FGD participants:

The informal fee more seems to be an actual fee – necessary to pay for the mere access to the facility – rather than a bribe to get actual preferential treatment.

According to opinion of majority of FGD participants, there seems to be no correlation between the fear out of which the informal payments are made and the reality. Perception of widespread preferential treatment on the basis of payments is apparently partly a myth, because almost everybody is treated equally bad. The consensus is that the majority of patients pay illegal fees out of the fear that unless they make informal payments, they would not have access to the facility or receive slow treatment or neglect.

According to Hossain and Osman (2007), differences in reported payments suggest that a dual system of consultation is going on at the facility level, in which there are normally free, quick consultations during the short actual

opening hours, during which some free drugs may be given, and another form of consultation, often conducted in private but on the facility premises, for which a fuller consultation is given, a private consultation fee taken, and a written prescription given (FMRP 2006). High levels of informal payments may thus reflect the lack of separation between private and public service provision in health facilities: both take place on the same premises, by the same practitioners, and often during opening hours (FMRP 2007, Osman 2004).

6.3 Staff Absenteeism

It is not possible on the basis of the survey to estimate the level of staff absenteeism since none of the hospitals in the survey keep reliable records on staff attendance. However, there are circumstantial indicators showing that it is widespread, around one-third of doctors are absent or unavailable at a given time.

A number of FGD participants in the present study stated that doctors work lesser hours than the scheduled working hour in public facilities. Though it is recorded as "present" on paper, in reality, they remain outside for few hours during usual office hours. One respondent said:

It is common for many doctors to come late in the facility and leave early. During their short working hours, they have to treat a huge number of patients, and therefore they cannot give enough time to a single patient.

It emerged during FGDs and through interviews that doctors generally do have private practices aside from their official duties at the hospital. It appears furthermore that non-medical staff is very difficult to discipline in case of absenteeism, because they are next to impossible to fire.

Regarding staff absenteeism, there are two problems to confront. The most important problem is that many posts at the public hospitals do not get filled in at all, that is, these posts are lying vacant. The other important problem is that even when positions are filled up, the doctor may not be there to attend to the patients i.e. the doctor is 'absent' from duty. These absent personnel receive their salaries (and other allowances) but are not regular in attendance. If doctors and other service providers are not on the job, the expenditures embodied on them also do not reach the (intended) beneficiaries.

Evidence from Chaudhury and Hammer (2003) suggests that on average 35 per cent of staff and 42 per cent of physicians were absent across the 60 facilities visited in rural areas in Bangladesh. Absenteeism in the remote rural areas was 74 per cent for doctors. The study using multivariate analysis showed that living outside the service facility/health post, being female, and poor road access increased the likelihood of absenteeism among physicians. Absenteeism was

associated with lower patient demand, suggesting that absenteeism compromises quality and quantity of services (Lewis 2006). The study found that 41 per cent of physicians slots were vacant, suggesting that the total available stock was already below what was optimally required and budgeted (Lewis 2006).

A recent study also suggests that due to absenteeism of a number of doctors, pressure on the providers who are present on the day becomes high. Hence, they allocate insufficient time to treat the patients. A study conducted by UNICEF showed that doctors spend 54 seconds per patient at upazila health complexes and rural dispensaries, while they take 37 seconds per patient to dispense medicine. Even though more recent figures are not available in this regard, it can be argued that there has not been any substantial improvement in this phenomenon as will be clear from the following analysis regarding allocation of time by service providers working in public health facilities.

The availability of doctors is a major problem for service quality and access. The problem is worst in rural areas, and particularly acute in the most remote union and *upazila* facilities. Part of the problem is that many sanctioned government doctor posts are not filled- about a quarter of *upazila* health complexes lacked a Resident Medical Officer (head of *upazila* indoor service facilities) and nearly half of union sub-centres lacked a doctor in 2003-04 (FMRP 2006).

Similar findings are also available from the present study. For example, in one particularly serious case of a district hospital, the study team found that out of 40 posts, only 13 doctors were in post; of whom, only 5 were regularly available.

But even when doctors are officially posted to rural health facilities, there is ample evidence that they are often absent or give less time to official service provision than they are supposed to. A World Bank survey in 2003 found absenteeism among doctors of 41 per cent for *upazila* health complexes and 44 per cent for union facilities (Chaudhury and Hammer 2003). However, the Social Sector Performance Survey in health found the situation to be slightly less serious, with absentee rates of 35 per cent at *upazila* and 42 per cent at union facilities. Of these, only 8 per cent at the *upazila* level and 22 per cent at union level were instances of absence without permission (FMRP 2006).

All studies concur that even while in post and present in the facility, doctors devote less time than they are supposed to. A study conducted by the Ministry of Health showed that the majority of respondents agreed that they were unable to access doctors' services during opening hours (Ministry of Health and Family Welfare 1997), while the TIB study of DMCH found that 71 per cent of outdoor

patients reported that doctors were not in attendance at the specified time (8:30 am to 1.30 pm). The FMRP survey found that many facilities were open for fewer than 4 hours per day, and none were reported by community group discussions to be open for more than 6 hours (2006). Many factors contribute to the short hours and high absenteeism among government doctors.

According to our FGD findings, a number of factors contributed to this problem:

- Junior doctors take time off from the facility or in their quarters preparing for postgraduate training,
- Doctors with families resident elsewhere work short weeks in order to spend time with their families back in the city; arrangements are made among colleagues to "cover" each others' shifts, and
- Many, in particular specialist doctors, have lucrative private practices in big cities where the demand for costly specialist services is greater.

Although doctors typically report that their private practice is conducted in the afternoon and off facility premises, there is strong evidence that private and public service provision tend to be provided on the same premises and during office hours (Osman 2004). According to the present study, an estimated two-thirds of the doctors at the district and upazila facilities are found to be engaged in private practice even during office hours.

The present study along with other surveys (e.g. Ghost doctors, absenteeism in Bangladesh health facilities, WB 2003) indicates a wide spread absenteeism either in the form of staff actually not being present or mental absenteeism in the form of indifference with the clientele or strong preferential treatment of patients. There seem to be no ways of disciplining staff for absenteeism, rude behaviour or non-attendance to patients needs. This is indicated in the present and other surveys through waiting time, consultation time, barriers faced in getting admission, and staff's behaviour. Especially, the FGDs gave an impression of negligent or rude behaviour and absence of staff.

VII. ABSENTEEISM AND TIME ALLOCATION BY SERVICE PROVIDERS: THE EVIDENCE

The survey conducted for this study found absenteeism to be a common feature in the public health facilities at district, upazila and union levels. The study also found a strong association between absenteeism and private practice. This correlation suggests that efforts to resolve one of these problems will likely have beneficial effects on both aspects.

The notion of "ghost doctors"–doctors who are on the payroll but make only token appearances in health facilities - has captured the public imagination, largely thanks to a World Bank survey, conducted in 2003, which showed absentee levels of 41per cent of government doctors in upazila and 44 per cent in union facilities (Chaudhury and Hammer 2003). The Social Sector Performance Survey in health, conducted in 2004, found similar levels of absence: 35 and 42 per cent respectively. However, the SSPS survey explored the causes of these absences, and found that a less startling 8 per cent of upazila and 21 per cent of union doctors were absent without permission, the rest were either on permitted leave or absent for official purposes (FMRP 2006).

Whether permitted or not, it is clear that the regular absence of doctors severely compounds the problem of high staff vacancy levels. A rough calculation by Hossain and Osman (2007) gives a sense of the scale of the problem. If just over half of doctors' posts in upazila facilities are filled, and more than a third are absent at any given time, the total number of hours of doctors' time actually available for service delivery at the upazila level can only be between one-quarter and one- third of that planned for within health policy. The situation is likely to be considerably worse in union facilities.

To make matters worse, available evidence shows that a higher proportion of doctor's time at the public facilities is spent on unproductive activities- leaving very little time for direct patient care. Howlader and Mannan (2004) undertook a study to examine how health facility staffs spend their time across a range of activities (e.g. patient care, administrative work, health promotion/prevention and unproductive/idle time). Their analysis shows that there is a high degree of staff-underutilisation at all levels of care, service providers at different levels of facilities worked only 45 to 55 per cent of the time.

In the case of district hospitals, physicians worked 55 per cent of the time in productive activities (the remaining 45 per cent was spent on unproductive activities). The proportion decreased to 52 per cent for physicians at the Upazila Health Complexes and to 42 per cent for physicians at the Union Health and Family Welfare Centres (UHFWCs).This implies that 45 per cent of the providers' time at the DHs, 48 per cent at the UHC and 42 per cent at the UHFWC was spent on unproductive activities. Again, of the time spent on productive activities, only 26 per cent of the providers' time was spent on direct patient care at the UHFWCs, the corresponding figures were 42 and 49 per cent for UHCs and DHs respectively. These findings suggest that health facilities were paying for labour which they did not obtain.

These figures give a very clear idea of how doctors apportion their time, and a picture emerges of the division of labour and tasks within a health facility. It

appears from the figures that less than 50 per cent of doctors' time is spent on direct patient care at the DHs, UHCs and UHFWCs, with the bulk of time being taken up by unproductive activities.

Some of the results are surprising, and show a wide discrepancy between the expected and observed activities. For example, the fact that about 60 per cent of staff time at the UHFWC is spent on unproductive activities is clearly an unacceptable use of health care personnel at a time when all health care resources are scarce. The findings suggest that health facilities were paying for labour which they did not obtain.

VIII. CONCLUDING REMARKS

The main purpose of this study was to assess whether the general perception that public health facilities suffer from staff absenteeism, widespread prevalence of unofficial payments and inadequate supply of MSR can be substantiated. Bangladesh government spends substantial amounts of money on health services; nonetheless, dissatisfaction is frequently expressed over the performance and quality of these services.

The following points summarise the salient features of the study findings and conclusions:

- The poor dominate the use of public health facilities; the share of the poorest quintile is 26 per cent of total utilisation, while the share of the richest 20 per cent in total utilisation is 15 per cent . Government facility is the last resort for the hapless poor who cannot afford to consult a private qualified doctor.
- The poorest are the largest users of public health facilities but they also bear a disproportionate share of the burden of ill health and suffering. Out-of pocket costs have major consequences in the process of seeking care. On the whole, 9 per cent of the monthly income was spent for the treatment of a single episode of illness. But the poorest households spent 35 per cent of their monthly income for treatment purposes, while the richest households spent only 5 per cent of their income for treatment purposes.
- There are a number of governance issues in the public health service provision, which contributes to poor quality of services. The poor quality is indicated by non-availability of medicines and other supplies, doctors/nurses are not available at the facilities, providers do not pay adequate attention to the patients, and patients have to make informal payments to access services.

- Availability of medicine seems to be the most decisive factor in patients' perceptions of hospital services.
- Prescribed or medicine necessary for treatment is generally not available at the hospital. Patients are very unhappy that they have to buy medicine from outside.
- Nepotism and informal payments are widespread. Mainly inpatients are subject to extortion and a significant number of patients pay more than once. People from poorer households have at least the same risk of making unofficial payments as those from richer households.
- Lower level employees (class III & IV workers) are more likely to demand illegal payments than medical staff.
- When paying the illegal fee, patients have a perception that if they don't pay then they will be penalised in the form of no or slow treatment or receive no medicine. There is widespread belief among patients that payments secure them preferential treatment- the vast majority does pay this fee, but only few actually get the full required medicine.
- There is widespread staff absenteeism at the public health facilities, around one-third of doctors are absent or unavailable at a given time.

The problems identified in this paper are by no means new or surprising, but the study does document the magnitude and it does make observations on the impact the problems have on the perception of the population on the services rendered- a perception that should give health ministry and other stakeholders food for thought because it does impact the view on those in charge of the system.

The findings from the quantitative and qualitative data reveal that government efforts to improve health service delivery have not yet produced the desired results. Interaction between service providers and patients is not always direct and often goes through intermediaries to get access. These intermediaries are very influential and are able to accelerate access to services by circumventing the system, in return for a fee. They facilitate "illegal" connections to essential services like getting admitted into a hospital or obtaining other services from the hospital. Once having access, patients encounter numerous problems getting the required medicine, care and attention by the service providers. In addition, they have to pay unofficial charges for various tests/investigations required to be done while at the hospital.

The findings suggest that it is the poor people who tend to utilise government services more for the simple reason that they cannot afford the cost of private

services. The findings also suggest that public spending on health is pro-poor and pro-gender, and government health services play a major role in providing critical services, either free or at heavily subsidised prices. The focus on the poor is especially important in the context of their large share in the total population. Therefore, the government will have to continue to play a significant role as a service provider, at least in the short to medium term, if basic services for the poor are to be ensured.

To be effective, health care services should be available, accessible and affordable. Accessibility has a number of dimensions, including physical and economic accessibility. It appears that physical accessibility is no longer a barrier in the sense that people do not have to travel a long distance to reach the health facilities and once they arrive at the facilities, they do not have to wait for a long time to get to the services.

"Economic accessibility" means that health facilities, goods and services (drugs and other treatment related items) must be affordable for all. But the findings clearly show that out- of-pocket costs have major consequences in the process of seeking care. People from the poorer strata have to undergo a lot of economic pressure to meet the treatment costs. Episodes of illness affect the economic position of households rather badly. Poor households have to undergo a lot of economic pressure to buy medicine and other health needs. Moreover, visit to a facility involves transportation cost, costs of medicine and diagnostic tests, informal payments while at the facilities, and disruption of the routine household activities.

Hospitalisation that requires surgical interventions or prolonged stay in the facility ruins the families both economically and physically. They have to spend money on medication and they also lose their incomes–in some cases for months together, particularly in cases where the patient himself/herself is the earning member. While the diseases mercilessly weaken the people, both physically and financially, the burden of treatment makes them more helpless, accelerating the process of pauperisation.

It can be concluded that the problems which affect access to public health facilities are manifold. It will, in all likeliness, be impossible to address one problem at a time. If the supply of medicine problem is tried and solved in isolation, it will probably result in an increase of pilferage and do no good to the patients.

Health care provision involves a complex series of transactions between health service providers and consumers. In the case of the health sector, good governance and management of these transactions are essential to ensure that the

right services are delivered to the right people at the right time and at the lowest possible price. Essentially, it is the poor and vulnerable members of society who are particularly prone to the largest burden of cost and deficient service delivery. The symptoms are staff absenteeism, pilferage of drugs and other supplies, and unauthorised or informal payments collected from consumers of health care at the public health facility.

Any policies, strategies and plans must give primacy to addressing core governance issues in the health sector. Rebuilding hope among the patients requires that urgent governance issues be addressed to ensure that service providers are available at the facilities, minimum amount of drugs reach the patients and unofficial payments are at the lowest possible levels.

Underinvestment, inefficient utilisation of resources and iniquitous distribution of public health care and poor governance have been the bane of the last four decades of development in Bangladesh health sector. And part of the problem lies in utter neglect of governance, poor monitoring and lack of accountability in the system. Therefore, improvements are needed in the quality of services rendered by public health facilities. Improvements in service delivery will also require improvements in core governance issues like unofficial payments, inadequate supply of MSR, staff absenteeism, etc.

The issue of access to health care has two related questions – access to whom and access to what? There seems to be two simple answers: there should be access to health care services for anyone in need of it. Specifically, it means that non-medical features of individuals (such as their community, sex, geographical location, or ability to pay) should not determine their access to health care. Second, the quality of services delivered at public facilities should meet patients' expectations. While public policy in the past has tended to remove some of the important barriers in access to health care, the quality of services delivered is much below the desired level.

In designing any policy for improving the health of the population, the following central questions should be taken into consideration:

(a) Does it improve the access to and maximise the quality of health care?

(b) Does it minimise the cost of health care? and

(c) Will it be politically and otherwise feasible and acceptable?

These questions may be approached in different ways, but the issues remain the same all over the world. The available resources are limited and therefore every Taka committed to health care would mean a Taka less for other things. We must know what we would get for every Taka that we give up. The trade-off

issue involved between cost of care and effectiveness (at individual and societal levels) is becoming more and more difficult to resolve over the years. The importance of this critical trade-off issue lies in the fact that the outcome of these decisions will determine "who shall benefit from the services."

There are a number of macro decisions that need to be considered while re-designing the health-care system for the country. These macro decisions determine (a) what kind of health care services will exist in the society, (b) who will get them and on what basis, (c) who will deliver them, (d) how the burden of financing them will be distributed, and (e) who will control and monitor these services. These decisions, which critically affect the level and distribution of our well-being ("the risk of our getting sick, the likelihood of our being cured, and the degree to which others will help us when we become impaired or dysfunctional") involve issues of social justice. The issues of social justice are: How much of equality should there be? What inequalities in access to health care are morally acceptable? How should the burden of achieving that equality be distributed? We are yet to evolve a framework and a set of principles which may serve as a basis for resolving governance issues about how basic institutions, such as health care institutions, should be designed.

Significant and sustained investment in the public health system is the need of the hour. Several promises and commitments made in the past by the government, to step up investment in public health system, must be realised. The government must turn its attention to providing free medicines to the poor and make it a reality. This is expected to improve health outcomes significantly, reduce the burden of costs and improve equity and access to health care in Bangladesh. A decisive and concerted action on the part of various stakeholders is critical to make it a reality, as we begin to step into the path of Universal Health Coverage.

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