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"Public Health Facilities Utilization and Burden of Treatment in Bangladesh: A Surveillance Study"

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Abstract **Original Research Article**

Introduction*:** Health is currently universally considered a very important index of human development. Unhealthiness is each the cause and impact of financial condition, illiteracy and cognitive content. The government of Bangladesh occupies substantial amounts of resources on health services but dissatisfaction is often expressed over availability and quality of these services. ***Objective*:** To find out the Public Health facilities utilization and Burden of Treatment in Bangladesh. ***Methods*:** The data for the present study mainly comes from the field survey of Bangladesh Institute of Development Studies (BIDS) conducted during May 16, 2019 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. ***Data collection was carried out during Jun to August 2019. 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. ***Results:*** 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. ***Conclusion:*** 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: Utilization of Public Health Facilities, Health Care Expenditure, Disease Burden.

INTRODUCTION

Health is currently universally considered a very important index of human development. Unhealthiness is each the cause and impact of financial condition, illiteracy and cognitive content. Policies of human development not solely raise the financial gain of the folks however conjointly improve different parts of their normal of living, like lifespan, health, literacy, data and management over their destiny. Health is each a significant pathway to human development associated a final result of it. Health and development converge and contribute to every different. Whereas it's true that health isn't everything, it's conjointly true that while not health, everything else becomes insignificant. It's going to be mentioned here that higher health is one amongst the prime objectives of development and that we assume that it's important to understand this once we check out development at giant. 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. In intrinsic sense, health is important because it is a direct measure of human well-being and is an achievement in itself. It is fulfillment 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. 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 [1]. 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 utilization 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.

LITERATURE REVIEW

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 utilization 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) [1,2]. Geographic access at least partially explains why consumption rates are higher in urban areas compared to rural areas [3].Earlier evidence shows that patients visiting public health facilities have to wait much longer to see the doctor [4]. However, the findings from a recent study [5] 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 [6], patients visiting higher level facilities (district hospitals, teaching hospitals and specialized hospitals) have to wait much longer to see the doctor: waiting time was highest (82 minutes) for outpatients attending specialized 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 percent of women reported that the lack of a health facility nearby was a constraint to consumption. In the same survey 50 percent 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 percent) 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 [7].The

social and cultural context has an important impact on the utilization 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 utilize health services and receive lower allocation of food at the household level [8]. The DHS (Demographic and Health Survey) data show that 44 percent of women reported difficulty in getting permission to go to a health provider as a constraint to health service consumption. In addition, 49 percent of women reported that finding someone to accompany them was a problem. 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. 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 utilize public health facilities than their female counterparts. "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 [5,6,9].From the economic perspective, healthcare utilization 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 utilization. There are also other factors that influence healthcare utilization behaviour. The poor bear a disproportionate share of the burden of ill health and suffering. Poverty is a significant constraint to health care access and utilization. Expenditure incurred for health care has some adverse impact on household consumption. Findings from [5] 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 hospitalization 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. 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 [10]. Points out that a single episode of hospitalization can account for between 20 and 60 percent 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 [5] show that overall, 8.8 percent of monthly household income was spent on illness treatment. But the poorest households had to spend about 38 percent 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.

OBJECTIVE

To find out the Public Health facilities utilization and Burden of Treatment in Bangladesh

METHODS

The data for the present study mainly comes from the field survey of Bangladesh Institute of Development Studies (BIDS) conducted during May 16, 2019 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. ***Data collection was carried out during Jun to August 2019.*** 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 utilization 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 2000 patients were interviewed, of them 1330 (66.5percent) were outpatients and the rest 670 (33.5 percent) were inpatients. Both quantitative and

qualitative data were collected. To statement 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. The study has been carried out based on a survey of 2000 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.

Data Collection

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.

Data Analysis

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).All data are analysis SPPS Windows version 21.

Results

This study was 2,000 facility users, more than half (51.8 percent) were adult belonging to age group 20-49 years and about 14 percent 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 percent) of all patients . [Figure 1] presents the distribution of facility users by broad age groups. It needs to be emphasized 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. Utilization 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 utilization 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.

Table-1: Utilization of facilities by sex of patients and by type of facility (N=2000)

Facility Type	Number	Users by Sex (%)	
		Male	Female
District Hospital (DH)	800	43.4	56.6
Upazila Health complex(UHC)	880	46.3	53.7
Union health and family welfare centre (UHFWC)	320	31.4	68.6
Overall	2,000	43.05	56.95

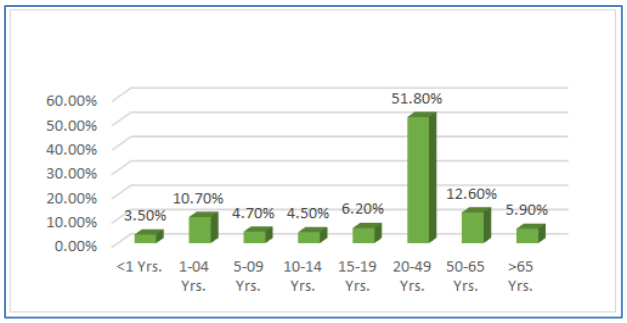

Fig-1: Distribution of Facility Users by Age Group.

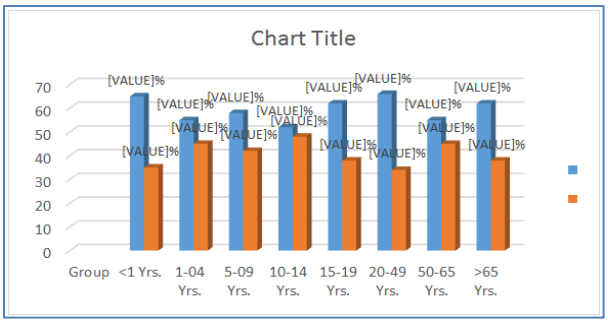

Fig-2: Use of Services by Age and Sex group

[Figure 2] shows the distribution of facility users by broad age group and gender. It is evident that male dominates utilization of facilities for all age groups except the reproductive age group. Male utilization 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. 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 utilization 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, utilization of facilities was 66 percent for boys compared to 34 percent for girls. For children 1-4 years, male utilization was 55 percent as against 45 percent by females. This indicates that the younger the child, the higher the disparity. For older persons aged 65 years and above, utilization of facilities was only 38 percent for females as against 62 percent for males.

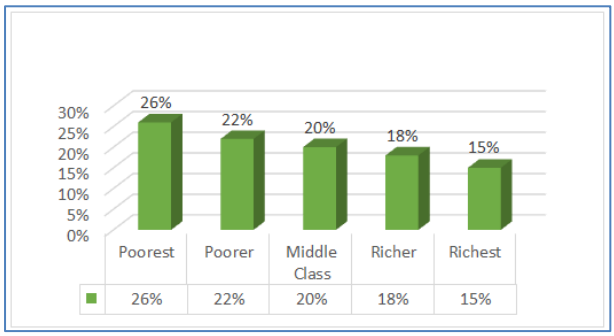

Fig-3: Utilization of Services by Quintile Group

The provision of public health facilities is a necessary but not a sufficient condition for the utilization of healthcare services. Economic status of the family does play an important role in the utilization 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 utilization of government health facilities. According to the present survey, the share of the poorest quintile is 26.2 percent of total utilization, while the share of the poorest two quintiles is 47.7 percent of total utilization [Figure 3].

Table-2: Distribution of users of health facilities by socio-demographic characteristics (N=2000)

Characteristics	%	N
Age (years)		
<1	4.2	84
1-4	11.75	235
5-9	5.3	106
10-14	5.05	101
15-19	6.65	133
20-49	48.15	963
50-64	12.55	251
65+	6.35	127
Characteristics Size of Landholding (acres)	%	N
No land	5.05	101
0.01-0.50 acre	63.1	1262
0.51-1.50 acre	20.95	419
1.51-2.50 acre	6.25	125
2.51-5.00 acre	3.55	71
5.00+ acre	1.1	22
Education of Head years of schooling)		
00	34.8	696
Can read and write	8.0	160
1-5	20.15	403
6-9	18.3	366
10-12	14.8	296
13+	3.95	79
Sex of patient		
Male	43.05	861
Female	56.95	1139
Patient Category		
Outpatient	66.5	1330
Inpatient	33.5	670
Total	100.0	2000

Distribution of users of health facilities by socio-demographic characteristics Size of Landholding (acres) and education level can read and write sex of male and female patients in shows [Table 2].

Table-3: Utilization of health facilities by socio-economic characteristics and by gender: outpatients and inpatients (N=2000)

Characteristics	Percent Distribution by Gender						All Number
	Out-patients			In-patients			
	Male	Female	Both	Male	Female	Both	
<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	14.9	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

Utilization of health facilities by socio-economic characteristics and by gender: is high Percent Distribution outpatients and inpatients age 1-4 years cases (196) shows in [Table 3].

Table-4: Utilization of health facilities by income quintile and by gender (N=2000)

Quintile group	Out-patients						In-patients				Total	
	Male		Female		Total		Male		Female			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Poorest	120	22.0	221	28.1	341	26.3	90	26.8	88	26.5	178	26.4
Second	125	22.9	160	20.3	285	21.5	70	20.7	68	20.5	138	21.1
Middle	101	18.5	153	19.4	254	22.2	76	18.5	61	20.5	137	20.9
Fourth	109	20.0	124	15.8	233	17.8	61	19.5	64	18.6	125	18.8
Richest	89	16.3	127	16.1	216	13.1	45	14.3	47	13.7	92	12.9
Overall	544	100.0	786	100.0	1330	100.0	342	100.0	328	100.0	670	100.0

According to the present survey, the share of the poorest quintile is 26.2% of total utilization, second quintile is 21.1%, middle quintile is 20.9%, fourth quintile is 18.8% and richest quintile is 12.9% shows [Table 4].

Table-5: Utilization of services by type of facility and income quintile: by gender of patients (N=2000)

Quintile Group (%)												Overall
FacilityType	No	%	No	%	No	%	No	%	No	%	No	%
Male Patients												
DH	83	24.8	69	20.6	59	17.7	76	22.8	47	14.0	334	38.7
UHC	97	23.1	97	23.1	92	21.9	70	16.7	63	15.0	419	48.7
UHFWC	30	27.7	24	22.3	21	19.5	17	15.8	16	14.8	108	12.6
Total	210	23.7	190	22.4	172	20.1	163	19.2	126	14.6	861	100.0
Female Patients												
DH	106	24.3	98	22.4	84	19.2	92	21.1	56	12.9	436	38.2
UHC	143	29.1	101	20.5	98	19.9	70	14.2	79	16.0	491	43.2
UFWC	67	31.6	42	19.8	43	20.2	25	9.5	35	16.5	212	18.6
Total	316	28.0	241	20.8	225	19.2	187	16.7	170	15.3	1139	100.0
All Patients												
DH	189	24.5	172	22.3	138	17.9	168	21.8	103	13.3	770	38.5
UHC	240	26.3	203	22.3	185	20.4	140	15.3	142	15.7	910	45.5
UFWC	97	30.3	66	20.6	64	20.0	40	12.5	53	16.5	320	16.0
Total	526	26.2	441	21.5	384	19.6	340	17.7	298	15.0	2000	100.0

Utilization of services by type of facility and income quintile: by gender of male patients DH survey 38.7% UHC 48.7% and UHFWC reports 12.6%. Female patients UHC reports survey 43.2% and all patients analyses high income survey reports UHC 45.5% shows [Table 5].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. The survey finding reveals that on the average, an outpatient 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 three 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 inpatients, the highest amount of taka 1,396.26 is spent on medicines/drugs (56.4 percent), followed by taka 292.9 (12 percent) on food and accommodation [Table 6]. 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 percent on drugs, 19 percent on different tests/investigations, 4 percent on transport, 3 percent on admission/ticket and another 1 percent on food. Similarly, an inpatient spent about 56 percent on drugs, 5 percent on transport, 12 percent on food/accommodation and 8 percent 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 percent vs. 66.5 percent). It is worth noting here that on account of the way health care utilization cost has been aggregated in this study, these estimates are comparable with other available estimates.

Table-6: Average cost incurred (taka) by facility type: by patient category (N=2000)

Patient/ Facility type	Ticket/entry (Unofficial)	Ticket/entry (Official)	Consultation	Medicine	Tests	Transport	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

However, there were some variations between in and outpatients in the proportion of total costs spent on other items. 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 percent), followed by taka 292.9 (12 percent) on food and accommodation [Table 6].

Table-7: Cost of treatment by facility type: by gender and patient category (N=2000)

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

Shows in cost of treatment by facility type: by gender and patient category overall male and female out-patients and in patients percent 182.3% and 4979.9%. In general, the average cost incurred by a male patient was higher than that incurred by female patients. In general, the average cost incurred by a male patient was higher than that incurred by a female patient [Table 7]. Overall, the average cost incurred by a male in-patient was about 7 percent higher than that of a female inpatient (Tk. 2,575 vs. Tk. 2,402). Similarly, the average cost incurred by a male out-patient was about 30 percent 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. Economic status of the household is an important factor in affecting health-seeking behavior. 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 8].

Table-8: Percentage of income spent on health care by income group (N=2000)

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
10001-15000	11,471	918	8.0
15001-20000	14,150	951	6.7
15001-20000	17,733	881	5.0
20001+	30,723	1,538	5.0

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.

Table-9: Reasons for choice of the facility by patient category (N=2000)

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	1330	670	2,000

Initially, a question was asked regarding the reason for choice of the facility. More than four-fifths (83.8 percent) of the clients preferred the facility because of its free/ low cost of treatment, a significant proportion (46.8 percent) visited because of vicinity to home and another sizeable proportion (36.8 percent) visited the facility for receiving quality care. With regard to inpatients and out patients, there is no major variation in their reasons for choice of the facility. This reflects the composition of patients, majority of who are from poor households and in need of free/ low cost treatment [Table 9].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 10] suggest that less than 40 percent of the users were satisfied with the services of doctors, while more than 60 percent 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 percent 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.

Table-10: quality rating of services at public facilities: by category of patients (N=2000)

Type of Services	Rating of Services (%)					Total
	Excellent	Good	Average	Poor	Bad	(N)
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

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 percent 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 percent), availability of doctors occupied the third position (29 percent), while quality of treatment was rated as fourth (as mentioned by 23 percent).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. There are three months landholdings visits Twice all the best 22.9 percent [Table 11].

Table-11: No. of visits to the facilities during last 3months: by size of landholdings (N=2000)

Landholding Size (acres)	Number of Visits					Total
	No visit	Once	Twice	Threetimes	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-12: Extent of required medicine/MSR received from the health facility: by quintile group and by category of patients (N=2000)

Items	Patients catarogy	% received	Q1	Q2	Q3	Q4	Q5	Over all
Oral drugs	Out-patients	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 drugs		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
Oral drugs	In-Patients	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 drugs		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

According to the responses on availability of medicine, only 23.9 percent of the outpatients received all the medicines prescribed, the corresponding figure for inpatients was even less, only 7 percent. Similarly, about three-fifths (62 percent) of the inpatients and 48.3 percent of the outpatients received less than 50 percent of their required medicine from the hospital. Again, 14 percent of inpatients and 8 percent 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 percent) did not receive any injectables from the hospital, while two-thirds of them (66 percent) did not receive any IV fluids [Table 12].

DISCUSSION

This study was 2,000 facility users, more than half (51.8 percent) were adult belonging to age group 20-49 years and about 14 percent 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 percent) of all patients. Presents the distribution of facility users by broad age groups. It needs to be emphasized 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 survey conducted for this study found absenteeism to be a common feature in the public health facilities at district, upazila and union levels. This study was utilization 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 utilization 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. 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 41percent of government doctors in upazila and 44 percent in union facilities [11]. It is also evident from 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 utilization 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, utilization of facilities was 66 percent for boys compared to 34 percent for girls. For children 1-4 years, male utilization was 55 percent as against 45 percent by females. This indicates that the younger the child, the higher the disparity. For older persons aged 65 years and above, utilization of facilities was only 38 percent for females as against 62 percent for males. 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 [14] gives a sense of the scale of the problem. According to [14], 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 [12]. 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 [12,13]. In this study economic status of the family does play an important role in the utilization 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 utilization of government health facilities. According to the present survey, the share of the poorest quintile is 26.2 percent of total utilization, while the share of the poorest two quintiles is 47.7 percent of total utilization. Initially, a question was asked regarding the reason for choice of the facility. More than four-fifths (83.8 percent) of the clients preferred the facility because of its free/ low cost of treatment, a significant proportion (46.8 percent) visited because of vicinity to home and another sizeable proportion (36.8 percent) visited the facility for receiving quality care. With regard to inpatients and out patients, there is no major variation in their reasons for choice of the facility. In the case of district hospitals, physicians worked 55 percent of the time in productive activities (the remaining 45 percent was spent on unproductive activities). The proportion decreased to 52 percent for physicians at the Upazila Health Complexes and to 42 percent for physicians at the Union Health and Family Welfare Centres (UHFWCs).This implies that 45 percent of the providers' time at the DHs, 48 percent at the UHC and 42 percent at the UHFWC was spent on unproductive activities. 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. Evidence from [11] suggests that on average 35 percent of staff and 42 percent of physicians were absent across the 60 facilities visited in rural areas in Bangladesh. 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 percent of the clients) viewed that availability of drugs was the most important service demanded by them. The second mostimportant aspect was attitude of doctors (46 percent), availability of doctors occupied the third position (29 percent), while quality of treatment was rated as fourth (as mentioned by 23 percent).Absenteeism in the remote rural areas was 74 percent 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 [15]. The study found that 41 percent of physicians slots were vacant, suggesting that the total available stock was already below what was optimally required and budgeted [15]. 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. 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 subcentres lacked a doctor in 2003-04 [12]. 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 was in post; of whom, only 5 were regularly available. Similarly, about three-fifths (62 percent) of the inpatients and 48.3 percent of the outpatients received less than 50 percent of their required medicine from the hospital. Again, 14 percent of inpatients and 8 percent 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 percent) did not receive any injectables from the hospital, while two-thirds of them (66 percent) did not receive any IV fluids. 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 percent for *upazila* health complexes and 44 percent for union facilities [11]. However, the Social Sector Performance Survey in health found the situation to be slightly less serious, with absentee rates of 35 percent at *upazila* and 42 percent at union facilities. Of these, only 8 percent at the *upazila* level and 22 percent at union level were instances of absence without permission [12]. 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 [16], while the TIB study of DMCH found that 71 percent of outdoor patients reported that doctors were not in attendance at the specified time (8:30 am to 1.30 pm). According to the responses on availability of medicine, only 23.9 percent of the outpatients received all the medicines prescribed, the corresponding figure for inpatients was even less, only 7 percent. Similarly, about three-fifths (62 percent) of the inpatients and 48.3 percent of the outpatients received less than 50 percent of their required medicine from the hospital. Again, 14 percent of inpatients and 8 percent of outpatients did not receive any medicine at all from the hospitals. 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 [12]. Many factors contribute to the short hours and high absenteeism among government doctors.

CONCLUSION

The main purpose of this study was to assess whether or not the overall perception that public health facilities suffer from workers absence, widespread prevalence of unofficial payments and inadequate provider of MSR are often verified. Bangladesh government spends substantial amounts of cash on health services; yet, discontent is usually expressed over the performance and quality of those services.

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