

## Original article

# Socio-demographic Profile and Morbidity Pattern among Population in selected Upazila Health Complex, Dhaka

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### Abstract

This descriptive type of cross sectional study was conducted to reveal the morbidity pattern in the Medicine Outpatient Department of in Upazila Health Complex, Keranigonj, Dhaka, Bangladesh during the period from 1<sup>st</sup> December to 15<sup>th</sup> December 2019 with a sample size of 150 using interviewer administered semi-structured questionnaire employing purposive sampling technique. The study shows that about one third (32%) of the respondents belonged to the age group 16 to 30 years and only 3% were from age group 75 years and above, 55% of them were female, 95% were Muslim and 63% were married; 54.67% lived in semi paccha house and about 84% were literate. Regarding occupation, one third of the respondents were businessmen (33%) followed by services (26%); 76% of the respondents had monthly income more than 10,000 BDT. The study revealed that 97.33% of the respondents were suffering from illness due to diseases and among them 90% have investigation reports. It was found that loose motion (21%), fever (20%), abdominal pain (19.33%), cough (9%) and chest pain (7%) were the predominant complaints. Study showed gastroenteritis (20%), respiratory tract infections (16%), bronchial asthma (12%), and skin diseases (2%) were the illness diagnosed. Most (96.66%) of the respondents were satisfied with the service provided. The study findings highlights that most of the diseases are the preventable and chronic diseases and the service providers should prepare themselves understanding the needs and gaps to serve the community in appropriate manner.

**Key words: Morbidity pattern, Outpatient, Population, Community.**

### Introduction

The Health status of a nation is reflected by their morbidity and mortality patterns. Morbidity and mortality data are important for setting up and implementation of healthcare strategies and for monitoring health care services of the country. Hospital data are mostly obtainable for disease pattern. Community based study can reflect the true picture of the disease pattern in a given community.<sup>1</sup> To understand the major cause for hospitalizations or attending health professionals in rural area of Bangladesh; demographic and clinical data are collected from hospital records of Government provide health care facilities- Upazila Health Complexes at upazila level and through union sub center at union level, through Community Clinics at the grass root level- reflects the pattern of morbidity and mortality pattern of population of Bangladesh where more than 80 % of people live in rural areas.<sup>1,2</sup>

In health care delivery system at upazila level, there are 492 upazila health complexes. The Upazilas are the second lowest tier of regional administration in Bangladesh; consist with 10, 31 up to 50 bedded to provide inpatient

health care to its population. It provides outpatient care, primary health care, family planning services and other preventive healthcare services to the population. Each Upazila Health Complex represents 31% of the government health sector and it provides health care services to a population of about 100,000 to 400,000.<sup>3,4</sup>

The member countries of the WHO- SEAR bear a disproportionate burden of disease with 25% of the world's population and 30% of the global disease burden.<sup>5</sup> Bangladesh is in the midst of an epidemiological transition where the burden of disease is shifting from a disease profile dominated by infectious diseases, under nutrition, child birth conditions to one increasingly characterized by Non communicable diseases like diabetes, hypertension, stroke, cancer etc. Bangladesh is facing both communicable and non-communicable diseases which are responsible for half of annual mortality and almost half of the burden of diseases.<sup>6</sup> The attitude of the health provider and patient satisfaction with the treatment play a role in health seeking behavior and lead to decrease the morbidity pattern of diseases in a community.<sup>7</sup>

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The overall situation of health care system in developing countries like Bangladesh need to be more appropriate, time oriented, modern and cost effective health services by skilled health professionals to decrease the morbidity and mortality of disease pattern in our country. <sup>8</sup> One of the public health challenges in Bangladesh is to identify vulnerable groups and to provide them with needed preventive and curative health services through primary health care services.<sup>8,9</sup>

**Material and Methods**

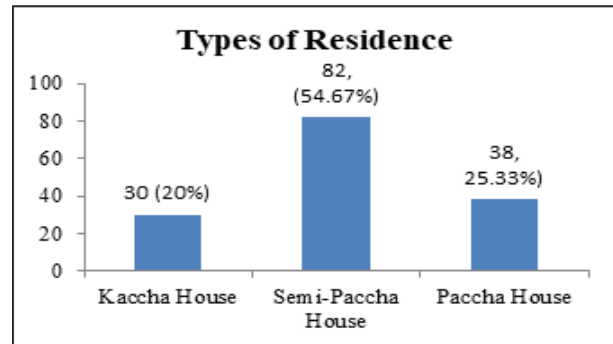
This descriptive type of cross sectional study conducted to know socio- demographic profile and morbidity pattern in the outpatient department of Medicine in Upazila Health Complex, Keranigonj, Dhaka, Bangladesh during the period from 1<sup>st</sup> December to 15<sup>th</sup> December 2019 with a sample size of 150 using interviewer administered semi –structured questionnaire employing purposive sampling technique. After collection, the data were checked, verified and edited. Compilation and tabulation of data according to key variables was done by using SPSS version 21.0. Data were presented by tables and diagrams based on nature of data.

**Results**

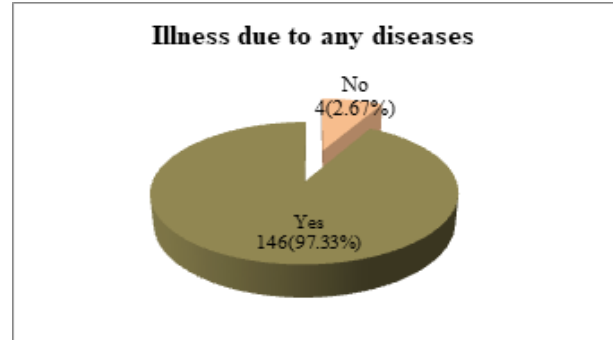
**Table-1: Socio-demographic characteristics of respondents (n=150)**

Socio Demographic Characteristics	Frequency	Percentage
<b>Age in Years</b>		
01-15	28	18.67
16-30	48	32
31-45	35	23.33
46-60	18	12
61-75	18	12
More Than 75	3	2
<b>Sex</b>		
Male	67	44.67
Female	83	55.33
<b>Religion</b>		
Muslim	95	63.33
Hinduism	55	36.67
<b>Marital Status</b>		
Married	95	63.33
Unmarried	49	32.67
Widow /Separated	06	4
<b>Educational Status</b>		
Illiterate	24	16
Primary	75	50
Secondary	29	19.34
≥Higher Secondary	22	14.66

Socio Demographic Characteristics	Frequency	Percentage
<b>Occupation</b>		
Business	50	33.33
Service holder	40	26.67
Housewives	35	23.33
Agriculture	25	16.67
<b>Monthly Family Income</b>		
Less Than 10,000 BDT	35	23.33
10,000-20,000 BDT	40	33.33
More Than 20,000 BDT	65	43.34
<b>Total</b>	<b>150</b>	<b>100</b>



**Fig. -1: Bar diagram showing distribution of respondents by types of residence**



**Fig.-2: Pie diagram showing distribution of respondents by illness due to any diseases**



**Fig.-3: Pie diagram showing distribution of respondents by having investigation reports**

**Table-2: Distribution of Respondents by chief complaints (n=150)**

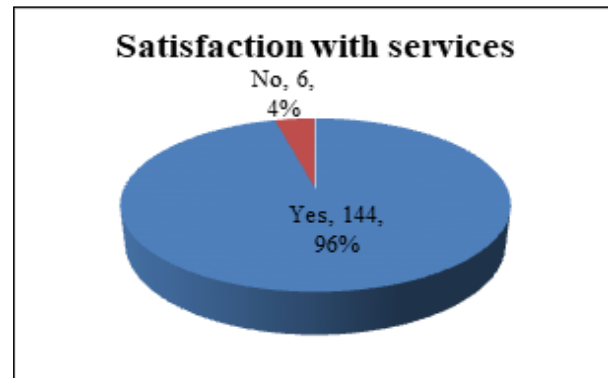
Chief Complaints of the respondents	Frequency	Percentage
1.Loose Motion	32	21.33
2. Fever	30	20
3. Pain	29	19.33
4. Cough	14	9.33
5.Chest Pain	11	7.33
6. Vomiting	10	6.66
7.Skin rash	10	6.66
8.Breathlessness	7	4.66
9. Burning micturation	4	2.66
10.Vertigo	3	2
<b>Total</b>	<b>150</b>	<b>100</b>

**Table-3: Distribution of respondents by name of investigation reports (n=150)**

Investigation	Frequency	Percentage
1.CBC	40	30
2.Chest X-ray	20	15
3.Urine RIMIE	18	13.33
4. Sputum Exam	12	8.88
5. Stool RIE	10	7.40
6.USG	8	6.0
7.Serum Electrolytes	7	5.18
8.RBS	7	5.18
9.ECG	7	5.18
10.Widal Test	6	4.44
<b>Total</b>	<b>150</b>	<b>100</b>

**Table-4: Distribution of respondents by type of disease pattern (n=150)**

Disease pattern of the respondents	Frequency	Percentage
1.Gastroenteritis	30	20
2.Respiratory tract infection	25	16.66
3.Bronchial asthma	18	12
4.Skin disease	18	12
5. Tuberculosis	15	10
6.Hypertension	12	8
7.Diabetes mellitus	10	6.66
8.Typhoid	8	5.33
9.Urinary tract infection	8	5.33
10.Peptic ulcer disease	6	4
<b>Total</b>	<b>150</b>	<b>100</b>



**Fig.4: Pie diagram showing distribution of respondents by satisfaction with the services**

### Discussion

The descriptive type of cross sectional study was conducted among the patients of outpatient department of Medicine in Keranigonj Upazilla Health Complex, Dhaka to explore morbidity pattern among the patients.

The study shows that 32% were from age group of 16 to 30 years and 3% from age group  $\geq 75$  years. Similarly finding were observed in a study in Ghaziabad, Tamil Nadu.<sup>10</sup> The study shows that more than half (55%) were female, 95% were Muslim and 63% were married and 54.67% lived in semi paccha house. A study, conducted by Gupta et al held in rural area of India showed slightly dissimilarity where 51% were male, and the study focus on disease pattern rather socio demographic profile of the respondent.<sup>11</sup>

Regarding occupation of the 33% of the respondents were businessmen and 26% service holders. A totally different picture was observed by where 6% of the respondents were businessman and 8% service holders. The dissimilarity may be due to the fact that the sample was from a agro-based community where 41% were farmers, 25% labours.<sup>12</sup>

The study revealed that 50% of the respondents had primary level of education and 16% were illiterate while only 14.66% had education  $\geq$  Higher Secondary. Similar findings were observed in a study conducted in Dhaka city by Rajat Das et al.<sup>13</sup>

Most of the respondents 43% had monthly income more than 20,000 BDT and 33% had 10,000-20,000 BDT in the current study. This corroborates the feature in relation to per capita income of Bangladesh where the rate of economically active population (more than 15 years of age group) is 63.5%.<sup>14</sup> It reveals from the findings that among the respondents majority 84% were literate and 16% were illiterate which correspondent to the adult literacy rate of Bangladesh Bureau of Statistics, 2011.<sup>15</sup>

The study revealed that 97.33% came with definite illness and among them 90% had investigation reports.

It was found that loose motion, fever, abdominal pain, cough and chest pain constitute 21%, 20%, 19.33%, 9%, 7% respectively were the predominant complaints of the respondents. A completely different picture was depicted in a study in Chattagram in 2019, although the study was conducted in a tertiary level hospital, the pattern of diseases among the patients according to affected organ system. Gastrointestinal system was the most common organ system 101(20.2%). 22(4.4%) were diagnosed as a PUD, Acute gastroenteritis were 19(3.8%) Oral ulcer were 6(1.2%), aphthous ulcer was most common. Acute viral hepatitis were 10(2%). Irritable bowel syndrome was 5(1%). Non alcoholic fatty liver disease NAFLD were 7(1.4%) asymptomatic cholelithiasis was 2(0.4%).<sup>16</sup>

Among the respondents suffering from illness, 66% of them had investigation report. Among them 30% had CBC, 15% had Chest X-ray, 13% had Urine R/M/E, 8% had Sputum examination, 7% had Stool R/E, 6% had USG, 5% had Serum electrolytes, ECG, RBS respectively and 4% had Widal test reports. This resembles the similar investigation reports in a study conducted in population of Pakistan.<sup>17</sup> Regarding diagnosis from clinical examination and investigation reports, maximum respondents 20% were diagnosed as gastroenteritis, 16% respiratory tract infections, 12% bronchial asthma and skin diseases respectively, 10% tuberculosis, 8% hypertension, 6% diabetes mellitus, urinary tract infections and minimum respondents were diagnosed as urinary tract infection, typhoid fever and peptic ulcer disease respectively 5%, 5% and 4%. Slightly different data was observed by in a study in South Nigeria, of Peter Ehizokhale in 2018 where they found that maximum patients were suffering from diabetes mellitus and hypertension.<sup>17</sup> Majority of the respondents 96.66% were satisfied with the service provided by Upazilla Health Complex which differ with similar study in Pakistan and Nigeria.<sup>17, 18</sup> Despite the limitations, this study gives a reasonable insight of the important causes for attending patient in upazila health complexes that will help public health planners and policy-makers in strengthening and prioritizing the healthcare needs at the upazila level in Bangladesh.

### Conclusion and Recommendations

Cause-specific mortality and morbidity are most fundamental indicators of population health. Appropriate health care service should be emphasizing to decrease morbidity rate among the population of rural area. So, for better health care service, awareness regarding health education and improvement of health care facilities among the population of rural area is much needed.

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