



Urban Poor's Healthcare Status in Chittagong City, Bangladesh

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ABSTRACT

The study is an attempt to explore the existing status of urban poor's healthcare services and problems in addition to showing a way out of the current situation. Primary data collection was qualitative and quantitative approaches. The study reveals a significant spatio-temporal variation considering the current healthcare situation. The overall status of current healthcare was found moderate to very poor and very severe in Sandwip Colony. The absence of public sector healthcare services was identified inside the three study sites. Besides, community hospitals and clinics were the burning issues for maternity and child healthcare along with the unavailability of seeking medicine, especially in the Sandwip Colony. The study concluded that the urgency of establishing a community hospital in the Shershah Colony and a maternity clinic in Burma & Sandwip Colony for free treatment, with specialist doctors, the availability of ambulance by the government and the NGOs. Moreover, community people could arrange medical campaigns and personal hygiene awareness programs in their locality. Further study and a structural policy are needed to formulate the improvement of the urban poor's healthcare services in Chittagong city.

Introduction

Access to health care for the urban poor in developing countries is costly due to their low per capita income (Liu et al., 2008). In most cases, developing countries' government health care systems are weak, with inadequate attention given to the delivery of basic health care to slum-dwellers (Afsana and Wahid, 2013). A rapid influx of migrants and the increased number of people living in urban slums in large cities like Chittagong city (CC) Bangladesh is creating continuous pressure on urban Primary Health Care (PHC). Poor housing, unsafe water supply, weak environmental health services, lack of proper sanitation, overcrowded living conditions, poverty, and the be short of affordable PHC services have resulted in severe health maladies and malnutrition for the urban poor (Austen, 2009). Along with these limitations for PHC service, lack of crucial manpower, inappropriate equipment, and distribution of drugs, doctor-nurse ratio, challenging places, low per capita income, regional disparities, and high service costs are the major challenging health issues in Bangladesh (Jahan et al., 2015). In this connection healthcare service provision or delivery is an

immediate output of the inputs into the health system, such as the health workforce, procurement and supplies, and financing (WHO, 2010). Ensuring the availability of health services that meet a minimum quality standard and securing access to them are key functions of a health system.

Primary health care must be a whole-of-society approach to health and well-being centered on the needs and preferences of individuals, families, and communities. It addresses the broader determinants of health and focuses on the comprehensive and interrelated aspects of physical, mental, and social health and wellbeing (WHO, 2019). Healthcare service is an intangible product and cannot physically be touched, felt, viewed, counted, or measured like manufactured goods. It is often difficult to reproduce consistent healthcare services, which differ between producers, customers, places, and time. This "heterogeneity" can occur because different professionals (e.g. physicians, nurses, etc.) deliver the service to patients with varying needs (Mosadeghrad, 2013).

Besides, healthcare facilities are the indicators of any society's status that determine the people's health and socio-economic condition. Developing countries like Bangladesh face severe problems to mitigate the healthcare problems, especially for the urban poor. Chittagong city is the second-largest and commercial

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capital of Bangladesh. More than 36% of city dwellers live in the urban slums (Islam, 2006). Therefore, this study investigated the urban poor's especially maternal, child, and adult and aged people's healthcare status. Along with it had been identified the current problems and facilitated how to get rid of the healthcare-related problems of the urban slum residents in Chittagong City.

Literature Review

Healthcare services in Bangladesh are delivered through various channels including public health departments of the government, private institutions, and NGOs (Kabir et al., 2019). In the context of institutional perspective, in Bangladesh, the health care system is organized as a three-tiered system, which includes tertiary medical centers (including teaching hospitals), secondary hospitals (including urban district hospitals and rural county hospitals), and community health centers (CHCs) (including rural township hospitals). Despite this classification, patients may seek medical treatment, including primary care, from all three levels without a referral (Hu et al., 2016). Besides, there are other types of health care systems based on their treatment behavior and medicational points of view such as: (i) religious beliefs and rituals, (ii) herbals, (iii) allopathic, (iv) homeopathic, and (v) self-medication, etc. (Kabir et al., 2019). Moreover, health care administrators look after the core facility types: hospitals, outpatient clinics, long-term care facilities, clinical labs, and hospices. These facilities collaborate to deliver high-quality health care to patients and communities (Sultz et al., 2006). In this connection, the following sections of literature reviews were done on maternal health care, child health care, elderly people's health care services, and health care service management.

The WHO defined maternal health as the health of women during pregnancy, childbirth, and the postpartum period. It shows tremendous inequities affecting women; it is restricted by its exclusive focus on the risks of bearing children (Knaul et al., 2016). Maternal health is a crucial social, health, and economic priority of a country like Bangladesh (Roy and Shengelia, 2016). The millennium development goal 5 (MDG 5) also highlighted maternal health as a global public health priority because globally nearly 99% of 800 maternal deaths per day occur in developing countries. The distribution of key causes of maternal deaths such as hemorrhages, hypertension, sepsis, and abortion remains unchanged and occupies nearly 80% of maternal deaths; of which, Postpartum Hemorrhages (PPH) is the most commonest cause of maternal deaths in many developing countries including Bangladesh that cluster around delivery. In Bangladesh, nearly one-fourth of the total population lives below the poverty level and household out-of-pocket payments share over two-thirds of total health expenditure (Roy and Shengelia, 2016). Moreover, over 55% of the total

female population are in the age group 15-49 years with a total fertility rate of 2.3 and a high maternal mortality rate. The situation is worse in the country's urban slums with a neonatal mortality rate of 43.7 per 1000 live births. The main causes of maternal deaths are hemorrhage (31%), eclampsia (20%) according to a 2010 National survey (Khatun et al., 2012) which ultimately shows the underprivileged maternity health care status of the urban poor in Bangladesh.

Besides, child health is a state of physical, mental, intellectual, social, and emotional well-being and not merely the absence of disease or infirmity. Healthy children live in families, environments, and communities that provide them with the opportunity to reach their fullest developmental potential (WHO, 2018). Studies found urban slum child health is generally worse than national and rural averages. Data also show that children under five in slums suffer from the same illnesses as rural children (Fry et al., 2002). In Bangladesh, diarrhea and acute respiratory infections are the cause of two-thirds of all deaths of children <1 year of age and it is much higher among the urban slum children due to their very poor living conditions (Rahman, 2018).

Furthermore, the majority of aged people today live in developing countries. A greater proportion of the world's elderly men and women will live in those countries and regions with the least resources to respond to their needs and it is more acute in the urban slums areas of developing countries, like Bangladesh (WHO, 2001). According to the Bangladesh National Population Census reports between 1974 and 2011, the growth of elderly people is gradually increasing. The percentage of elderly people aged 60 years and above, in 1974 5.7%, in 1981 5.6%, in 1991 5.42%, in 2001 6.38% and 2011 it was 7.48 % respectively (Barikdar et al., 2016). The elderly persons in Bangladesh do not enjoy the privileges as in technologically advanced countries. There are no special services among the urban poor, especially for elderly people. They are not in a position to take their turn for physician's services or checkups in a general hospital let alone appointment with consultants when required by them seems difficult. The families are therefore compelled to pay for the service. In serious cases they have to part with a large portion of their modest property and even in daily life for primary treatment, elderly people have very few opportunities in getting health care services due to their financial inability and ignorance.

Healthcare issues are consistently less important among the urban poor compared to the urban average and the non-poor. Most of the childbirths among the urban poor take place at home. Similarly, data on complete immunization, nutritional status among children, and anemia among women reveal that the urban poor is worse than their non-poor counterparts (WHO, 2011). Essentially, it is the poor and vulnerable

members of society who are particularly prone to the largest burden of cost and poor service delivery (World Bank, 2004). In the circumstances, the urban poor's health care services and management in Bangladesh are very weak and the Government of Bangladesh (GOB) took many projects and initiatives to improve the situation. GOB's documents also mentioned to ensure the health of the urban population, particularly the urban poor, the urban public healthcare program, including public health care, requires expansion, both in coverage and quality, to have an immediate impact. Due to the complex nature of urban health problems, there is a need for joint actions and consolidated efforts of different ministries and other stakeholders. Ideally, urban public health sector programs should be comprehensive, necessitating the participation of all public, private, NGOs, community-based organizations (CBOs), civil society, and other stakeholders (MOHFW, 2012).

Methods and Materials

The study has been conducted using both qualitative and quantitative methods. The qualitative methods helped to identify present healthcare facilities of the urban poor in Chittagong city. However, the quantitative techniques were applied to determine the problems of healthcare, as well as how to improve the current health care condition in the urban slums in CC. The mixed type of questionnaire (open and close-ended) has been designed flexibly to collect both qualitative and quantitative information. In the case of a close-ended question, a 5-point Likert-type scale was used in getting the judgments of the respondents'. Even though the study was mainly based on primary data, available secondary sources of data and information were also reviewed. The key methods used in this research were–

- (i) **Field Observation:** Carefully observed the quality of the surroundings of the selected study sites in understanding the health care status, especially public health care services, drug stores, clinics, doctors' availability, maternity clinics, emergency transport, communication, etc.
- (ii) **Household Head Interview (HHI):** A total of 150 face-to-face household head interview was conducted among the slum dwellers (see figure 2). Male and female respondents were selected randomly purposively. A semi-structured questionnaire was used for the health care status information gathering from the interviewees.
- (iii) **Key Informant Interviews (KIIs):** A total of 18 key informant interviews were conducted at each study site (see Figure 2). Local community leaders, religious leaders, community clinic doctors, nurses,

drug sellers, teachers, NGO activists, etc. were selected randomly purposively from each study site for KII. A pre-structured checklist was used for the health care status information gathering from the KIIs.

- (iv) **Small Group Discussion (SGD):** A total of 6 small group discussions were executed at each study site (see figure 2). Around 7-10 local people instantly participated in the discussion. Each SGD was arranged in many gathering places usually at a tea stall or rickshaw or CNG auto-rickshaw stand. A pre-structured checklist was used for the health care status information gathering from the small group discussants'.

Sites for Respondent's Survey

Around 1,814 slum clusters and, nearly 35.4% of people out of 4,133,014 populations live in slum areas (Islam, 2006) in Chittagong city. Three urban slums locally named Burma Colony, Shershah Colony (migrated from India and Burma) (Ashraf, 1995), and Sandwip Colony were selected for primary data collection. In the Shershah Colony, people from Indian Muslims and in Burma Colony migrated people from Myanmar in 1947 when India and Pakistan divided based on religion. In course of time, many people from the rest of the country of Bangladesh currently live in these two colonies. Most of the slum dwellers in the Sandwip Colony came from Sandwip Island due to the victim of marine erosion. The government provided the land for the slum dwellers in 1973. It should be mentioned that these three slums are located in the government lands and they are very elderly as well.

The Shershah and the Burma colonies are very congested and the Burma Colony's environmental condition is very poor in comparison with the rest of the two slums areas. The population size is almost equal to the three slums and nearly 15000 (nearly 4000 households live in each slum). This is why these three slum areas were selected for primary data collection.

A study site map was made by using Arc GIS 10.8 software and Google Earth Pro. At first, a shape file of Chittagong Metropolitan Police (CMP) areas was collected from online sources. Then digitized each study site in the Google Earth map and made each area's Kml. files. After digitizing and Kml file preparation Arc GIS conversion tools were used for generating a map layer for each file. Then each Kml. file was converted into a shape file and added data in the CMP shape file. Finally, a layout map was made to show the study site in CMP. This map preparation helped spatial representation of detailed information of study area. Figure 1 shows the primary data collection sites.

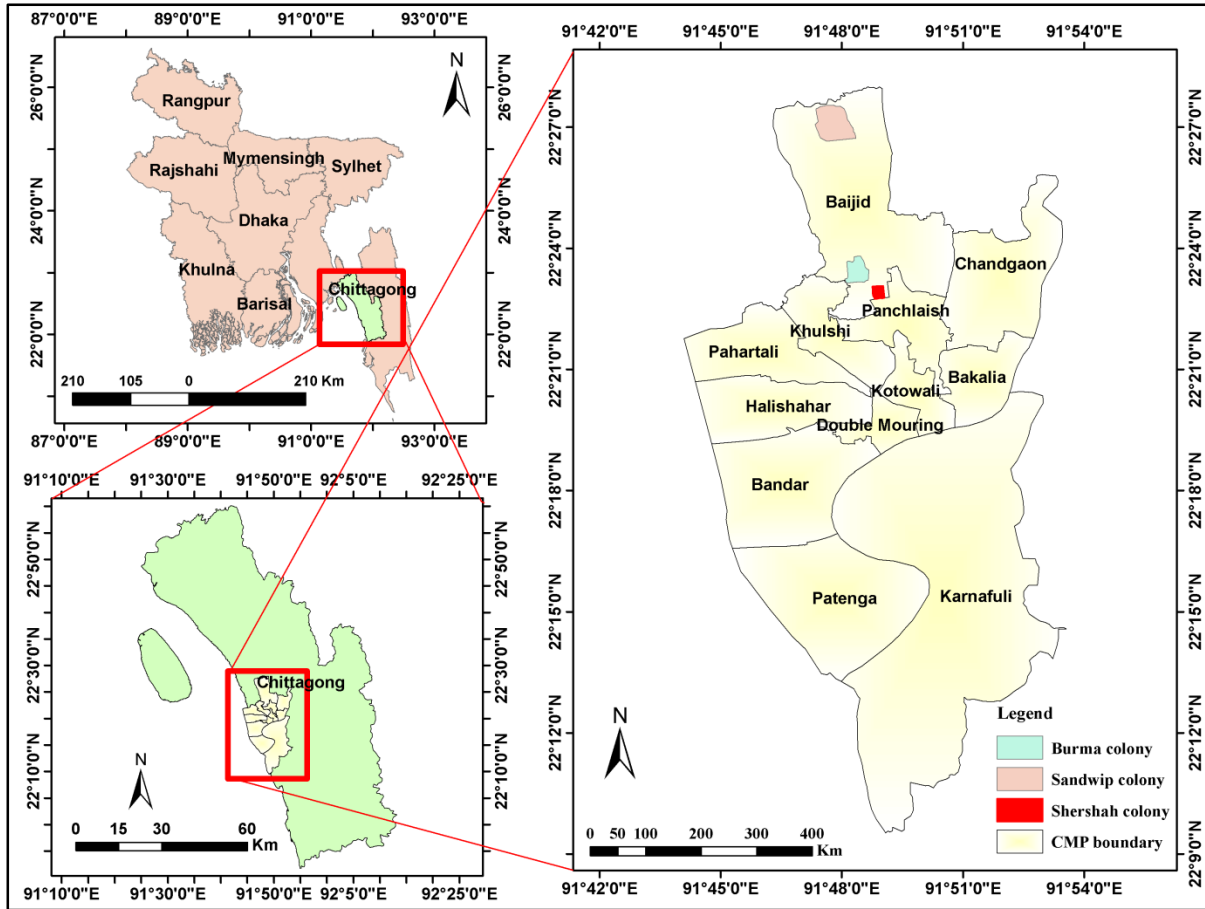


Figure 1: Primary Data Collection Sites (Burma, Sandwip, and Shersha Colonies)

Primary Data Collection Sample Size

The primary data samples (150 household head respondents, 18 key informants, and 6 small group discussants) were taken equally from each site due to the approximately similar size of population and households of the three study sites (See Figure 2). And the total sample size is 174.

Secondary Data Collection: The secondary sources data were collected from various sources such as online journal articles, research reports, books, etc.

Data Analysis: Data were analyzed using statistical analysis (quantitative data) including a statistical package for social science (SPSS) and qualitative data analyzed through qualitative statements, description, and explanation. Analysis of variances (ANOVA) was done to determine the spatial disparity. In brief, the analysis followed in this research was inductive, with the perception study of current health care conditions and identified the existing health care problems facing slum dwellers as well as how to solve the current health care problems and improve the status in their neighborhoods' by using descriptive and analytical statistics as well as tables and figures along with narrating and clarification. In analyzing the three types of respondents' (HHH, KI, and SGD) views regarding

current healthcare status, it was found that HHH respondents' opinion has a little variation in contrast with KI and SG discussants' judgments' but it was not significant. Therefore, HHH respondents, KI interviewees, and SG discussants' judgments' merged to show each study site's variation. Figure 2 shows the research methodology flowchart.

Findings and Discussion

Demographic and Socioeconomic Status of the Respondents'

The rapid growth of population in urban centers since the partition of the Indian sub-continent, natural hazards (especially river and marine erosion), and rural poverty have led to the emergence and growth of urban slums in Bangladesh and Chittagong city too. Development activities in Bangladesh are urban centers focused that also pull rural migrants due to higher wages and the illusion of urban life. These low-income rural migrants, most of them settle in the slum areas characterized by overcrowding, dilapidated dwellings, lack of sanitation, and civic amenities let alone modern and basic healthcare services. Table 1 shows the demographic and socio-economic features of the respondents of the three study sites.

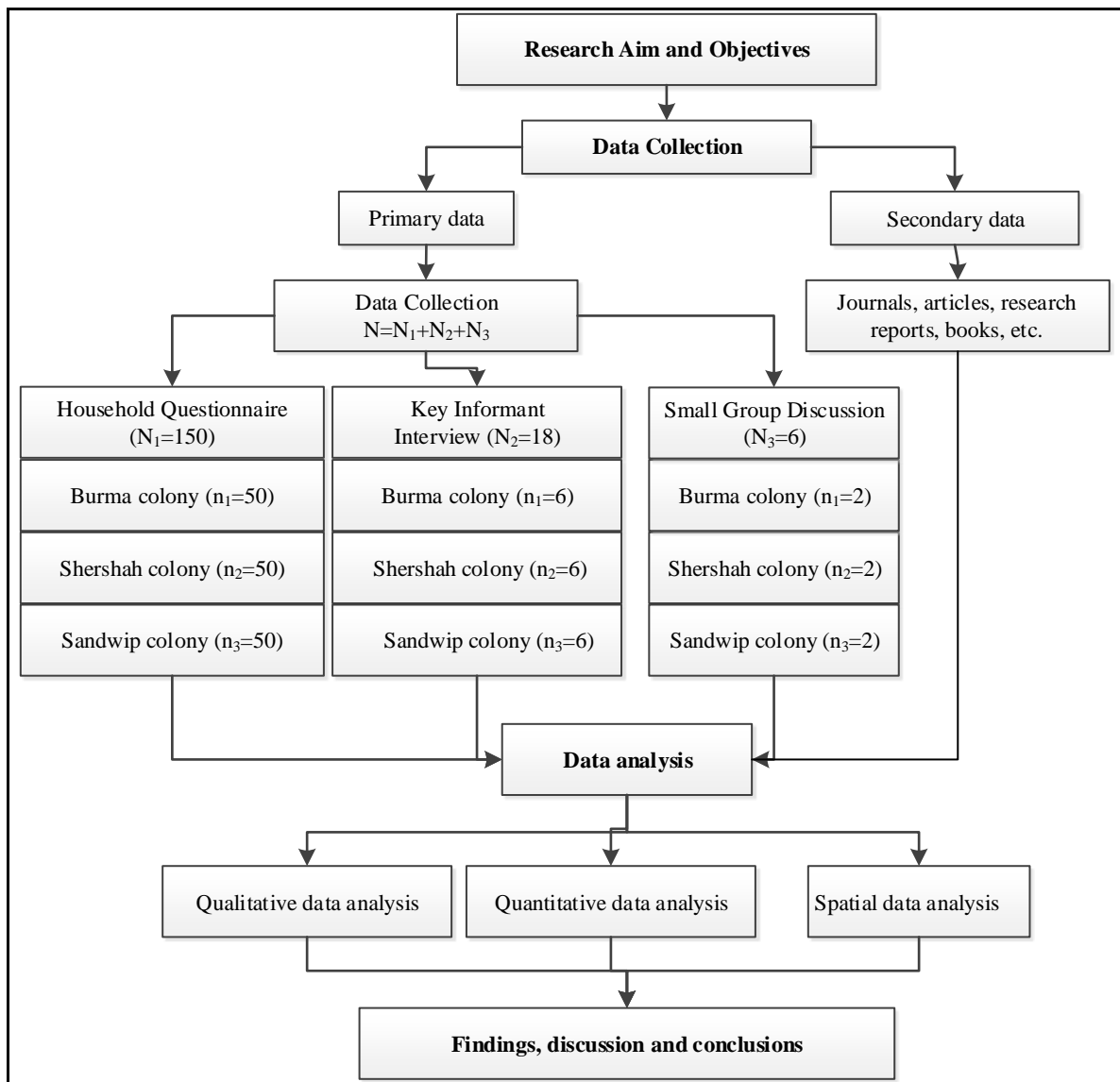


Figure 2: Research methodology framework

Table 1: Demographic and Socioeconomic Status of the Respondents'

Demographic and socio-economic variables	Measuring level	Burma Colony	Shershah Colony	Sandwip Colony	Grand Total (N)	
Sex	Male	26(52%)	30(60%)	43(86%)	99	66%
	Female	24(48%)	20(40%)	7(14%)	51	34%
Age group (in years)	Mean	41-50	41-50	31-40	41-50	15.3%
	Minimum	51-60 (8%)	Above 70 (2%)	61-70(6%)	Above 70	.7%
	Maximum	20-30 (50%)	20-30(46%)	20-30(44%)	20-30	46%
Marital status	Married	41(82%)	34(68%)	34(68%)	109	73%
	Unmarried	9(18%)	16(32%)	16(32%)	41	27%
Family member	Mean	5.02 (10.04%)	4.36 (8.72%)	5.34(10.68%)	4.91	9.8%
	Minimum	Below 2,(6%)	7 (4%)	3 (8%)	2	7.3%
	Maximum	4 (24%)	5 (24%)	4 (26%)	4	22%
Educational qualification	Minimum	Degree and above (4%)	Higher secondary (12%)	Degree and above (6%)	Degree and above	8.7%
	Maximum	Illiterate (40%)	Primary (34%)	Illiterate (36%)	Illiterate	32%
House type	Mean	Semi-brick house (78%)	Semi-brick house (44%)	Semi-brick house (40%)	Semi-brick house	54%
	Minimum	Full brick house	Non-brick house	Full brick house	Full brick house	19.3%

Demographic and socio-economic variables	Measuring level	Burma Colony	Shershah Colony	Sandwip Colony	Grand Total (N)	
		(6%)	(24%)	(20%)		
	Maximum	Non-brick house (16%)	Full brick house (32%)	Non-brick house (40%)	Non-brick house	26.7%
House ownership	Own	22%	36%	78%	68	45.33%
	Rent	78%	64%	22%	82	54.67%
Occupation	Mean	Day labour (12%)	Day labour (10%)	Day labour (22%)	Day labor	14.7%
	Minimum	Driver (2%)	Rickshaw puller (4%)	Rickshaw puller (2%)	Rickshaw puller	3.3%
	Maximum	Service (Garments worker (28%)	Service (Garments worker (44%)	Street vendor (34%)	Service (Garments worker)	32.7%
Monthly income (in Taka)	Mean	17760	18570	17990	17780	
	Minimum	Above 100,000 (2%)	50,000-100,000 (4%)	50,000-100,000 (2%)	Above 100,000 (2%)	0.7%
	Maximum	10,000-20,000 (72%)	10,000-20,000 (62%)	10,000-20,000 (72%)	10,000-20,000	70.7%
Duration of living in the slum	Mean	20.15(18%)	2.5 years (16%)	21.06(16%)	11-15	10%
	Minimum	21-25 years (2%)	21-25 (6%)	0-5(10%)	21-25	8%
	Maximum	6-10 years (32%)	6-10 (24%)	Above 30(26%)	6-10	22.7%

Note: We only presented three values (mean, maximum, minimum) of each variable of each study site and the total also demonstrated similarly without considering the spatial variation of data in the last two columns of Table 1.

The study exposed a significant spatial variation among the three study sites in the context of the demographic and socio-economic variables of the respondents.

Current Healthcare Status of Slum Dwellers in Chittagong City

Slum-dwellers usually receive several types of healthcare services such as i) allopathic, ii) homeopathic, iii) Ayurveda, and iv) traditional & spiritual. It was found most of them prefer to receive traditional and spiritual healthcare services due to low cost or religious emotion (actually lack of literacy and ignorance). But when the sufferings increase or intolerable they move to receive the allopathic (90.23%) and homeopathic healthcare service (9.20%). In the context of the availability of doctors, in the territory of the slum, no doctors were available. They usually need to go a far way (10-20 km.) to meet a qualified physician. Occasionally, they have the opportunity to meet some privately practiced physicians at least 5 km. away from their residence but in emergency cases, especially at night, this opportunity is almost not available. They habitually purchase medicine from the drug sellers without consulting with a qualified physician. Respondents (23%) did not know the qualification of the physicians and less than one-third of patients (28%) met with a qualified doctor to receive healthcare service.

A healthcare facility varies based on the different aged groups of people as well as urgent and regular needs. Typically, it could be child health, maternity,

elderly and specialized issues (ENT, Eye, Skin, Medicine, Orthopedics, Cardiology, Neurology, Urology, etc.). In the case of maternity healthcare status, it was showed poor (45.97%) considering the availability of hospitalization, obstetrician, nurses, medicine, diagnosis, emergency transport, personal hygiene awareness, nutrition intake, etc. They (20.11%) even mentioned, it is a very poor condition in associating with aforesaid services. Besides, the child healthcare situation demonstrates poor (54.02%) considering the facilities of hospitalization, pediatrician, nurses, medicine, diagnosis, etc. Usually, aged people in slum areas suffer from cumulative effects of a lifetime of deprivation, entering elderly age in a poor state of health, and without savings or material assets. Aged people have very limited access to healthcare services in general points of view let alone slum dwellers. Due to financial crisis, lack of awareness, and limited social safety net programs of elderly people in slum dwellers healthcare facilities are almost nil. The study found poor (74.71%) conditions of healthcare status for the elderly people considering the required facilities (physiotherapy, heart disease, diabetics, specialist doctor availability, diagnosis, handicapped, medicine, etc.) for the aged people. Table 2 displays the current healthcare status of slum dwellers in CC.

Furthermore, analysis of variance (ANOVA) was done for HHH respondents and key informants to expose the spatial difference regarding understanding level in evaluating the current healthcare status in the three study sites.

Table 2: Current Healthcare Status of Slum Dwellers in Chittagong City

Major Issues	Variables	Burma Colony		Shershah Colony		Sandwip Colony		Grand Total	
		<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Current healthcare condition	Very good	6	10.34	2	3.45	0	0.00	8	4.60
	Good	18	31.03	10	17.24	8	13.79	36	20.69
	Moderate	14	24.14	20	34.48	16	27.59	50	28.74
	Poor	15	25.86	16	27.59	14	24.14	45	25.86
	Very poor	7	12.07	10	17.24	20	34.48	37	21.26
Receiving healthcare services	Allopathic	55	94.83	50	86.21	52	89.66	157	90.23
	Homeopathic	2	3.45	8	13.79	6	10.34	16	9.20
	Spiritual	1	1.72	0	0.00	0	0.00	1	0.57
Availability of doctor	Yes	52	89.66	56	96.55	26	44.83	134	77.01
	No	6	10.34	2	3.45	32	55.17	40	22.99
Doctors qualification knowing	Yes	54	93.10	52	89.66	25	43.10	131	75.29
	No	3	5.17	4	6.90	33	56.90	40	22.99
	Not Applicable	1	1.72	2	3.45	0	0.00	3	1.72
Last meeting doctor	L.M.F	35	60.34	25	43.10	14	24.14	74	42.53
	M.B.B.S	18	31.03	24	41.38	8	13.79	50	28.74
	Homeopathic doctor	3	5.17	6	10.34	3	5.17	12	6.90
	Don't know	2	3.45	3	5.17	4	6.90	9	5.17
	Not applicable	0	0.00	0	0.00	29	50.00	29	16.67
Maternity healthcare condition	Very good	2	3.45	2	3.45	2	3.45	6	3.45
	Good	15	25.86	3	5.17	4	6.90	22	12.64
	Moderate	22	37.93	19	32.76	18	31.03	59	33.91
	Poor	16	27.59	15	25.86	16	27.59	47	27.01
	Very poor	5	8.62	20	34.48	19	32.76	44	25.29
Status of child healthcare	Very good	2	3.45	1	1.72	2	3.45	5	2.87
	Good	9	15.52	11	18.97	1	1.72	21	12.07
	Moderate	19	32.76	23	39.66	15	25.86	57	32.76
	Poor	23	39.66	12	20.69	21	36.21	56	32.18
	Very poor	6	10.34	12	20.69	20	34.48	38	21.84
Elderly people healthcare	Very good	1	1.72	0	0.00	0	0.00	1	0.57
	Good	4	6.90	2	3.45	2	3.45	8	4.60
	Moderate	15	25.86	11	18.97	9	15.52	35	20.11
	Poor	23	39.66	26	44.83	27	46.55	76	43.68
	Very poor	15	25.86	19	32.76	20	34.48	54	31.03
Current overall healthcare facilities condition	Very good	1	1.72	4	6.90	0	0.00	5	2.87
	Good	8	13.79	2	3.45	1	1.72	11	6.32
	Moderate	20	34.48	18	31.03	12	20.69	50	28.74
	Poor	24	41.38	24	41.38	25	43.10	73	41.95
	Very poor	5	8.62	10	17.24	20	34.48	35	20.11

Note: We presented three sources of primary data (HHH, KI, and SGD) together in individual study sites due to very insignificant variation of responses of each variable in Table 2

Table 3: Analysis of Variance (ANOVA)

	Household Head Respondents					Key Informants				
	Sum of squares	df	Mean square	F	Sig.	Sum of squares	df	Mean square	F	Sig.
Between groups	23.040	2	11.520	9.791	.000	1.000	2	.500	.789	.472
Within groups	172.960	147	1.177			9.500	15	.633		
Total	196.000	149				10.500	17			

The ANOVA results showed that HHH's judgments have a very significant variation ($F= 9.791$, and $p= 0.000$). On the contrary, KI's opinion doesn't have much variation ($F=0.789$ and $p=0.472$) regarding the current healthcare situation in their slum areas. This difference might be the lack of knowledge and awareness of healthcare services of HHH respondents. Table 3 illustrates the analysis of variance of the HHH respondents and KI.

Currently Prevailing Healthcare Problems

Healthcare services in Bangladesh are very poor in general, and it is extremely poor for the urban slum dwellers if we just consider the basic healthcare services as a need for a human being. Figure 3 displays the currently prevailing healthcare service-related problems in the three slum slums in CC.

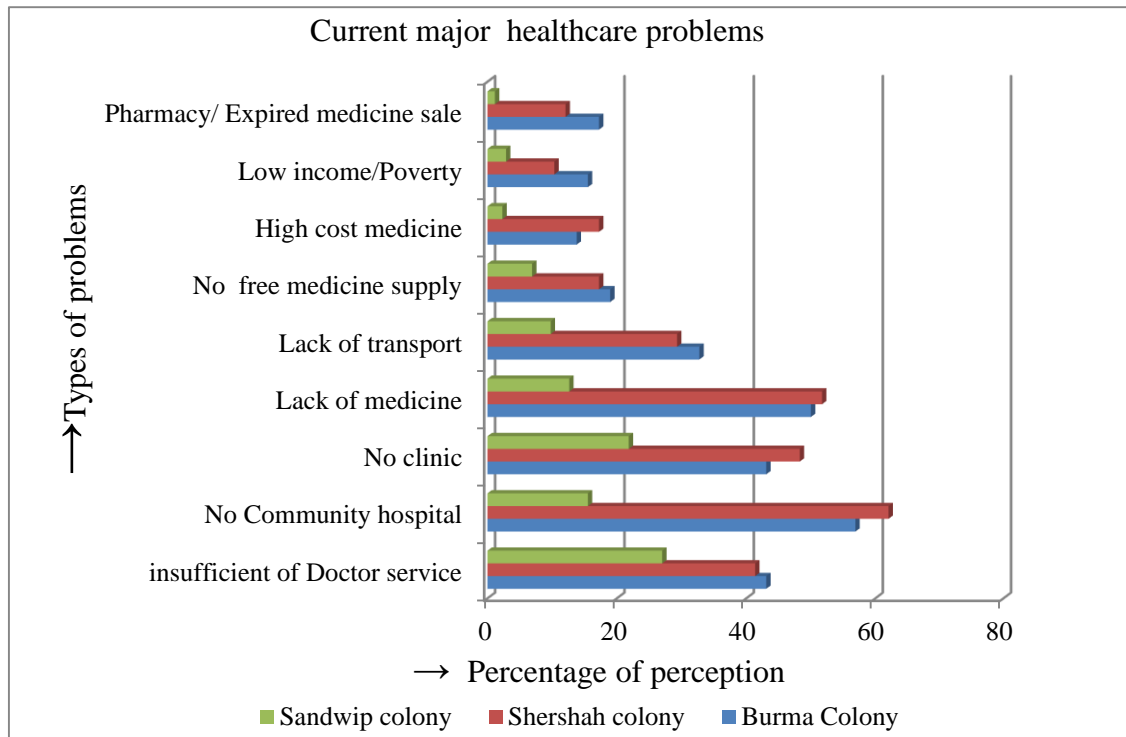


Figure 3: Current Major Healthcare Problems in the Three Study Sites

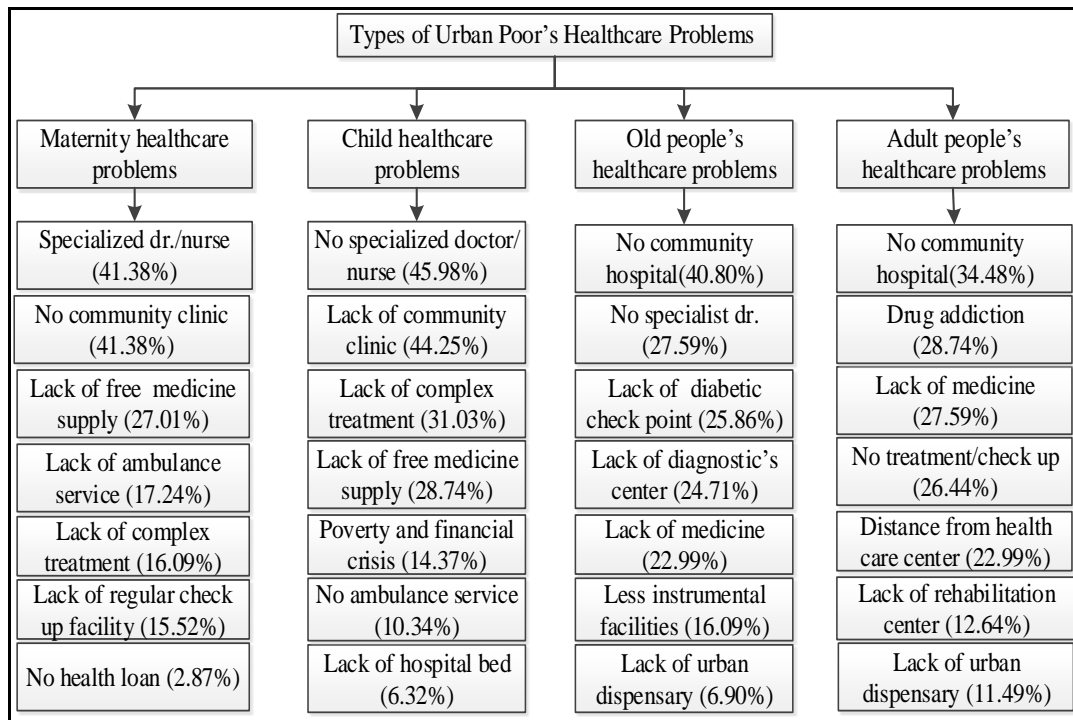
Based on the priority list of the slum dwellers; presently they are suffering from different types of healthcare issues such as lack of hospital (public and private) (55.17%), insufficient doctor (55.17%), absence of clinic (52.30%), and lack of medicine (46.55%), etc. In a densely populated area like a slum, maternity and child healthcare is a severe issue. But it is a matter of sorrow that lack of community clinics and obstetricians (41.38%) as their vital problem.

It was found that the unavailability of free medicine supply and costly treatment is a vital maternity healthcare problem. On the other hand, childcare status is very poor in Burma and Sandwip Colony. They haven't a community clinic in the Burma Colony and have been facing a lack of child specialists (45.98%) in the Sandwip Colony. Sufficient healthcare service enhances the life expectancy of human beings. Lack of sufficient public healthcare services and individuals' unaffordability of bearing healthcare expenditure of the aged people could not contribute to the national life expectancy percentage. The lack of community hospitals and specialist doctors (40.80%) in the slum areas had made it worse in Chittagong city. Adult people's healthcare is important for a nation for contributing national GDP as well as family and society (World Health Organization, 2018). In the context of adult people in slum areas, the study found that injured or sick people need to go a long distance in receiving healthcare service and it is very acute in Sandwip Colony and lack of a community hospital (60.92%) is the most important obstacle in ensuring sound health for an adult in their locality.

Besides, the scarcity of standard dispensaries in purchasing doctors' prescribed medicine is another serious problem. In three study sites, unavailability of doctor's prescribed medicine (86.78%) is crucial and all of them suffering from this issue and high cost and over the rate of medicine (46.55%) is another complaint. Figure 4 demonstrates the urban poor's health care problems in Burma, Shershah, and Sandwip Colony in Chittagong city.

Measures of the Urban Slum Dwellers' Healthcare Problems

Slum-dwellers regularly suffer many types of diseases especially diarrhea, asthma, anemia, skin diseases, fever, enteropathy, malnutrition, etc. Health may improve if houses and housing environments are improved in slum areas. Even that individual, CBO, social organization, GO-NGOs need to come forward to solve the healthcare service-related problems in the urban slum. The study found in improving the current healthcare condition in the urban slums, a lot of healthcare services related initiatives are required such as establishing a community hospital and maternity/community clinic for free treatment, specialist doctor, availability of ambulance, free medicine, or nominal fee of medicine from urban dispensary/pharmacy, healthy environment in the clinic, etc. Figure 5: shows the needed activities to improve health care status by the NGOs in Burma, Shershah, and Sandwip Colony in Chittagong city.



Note- Highest levels of % for each variable of the respondents' opinion on each category of the target group of people were shown in the figure

Figure 4: Types of Urban Poor's Healthcare Problems

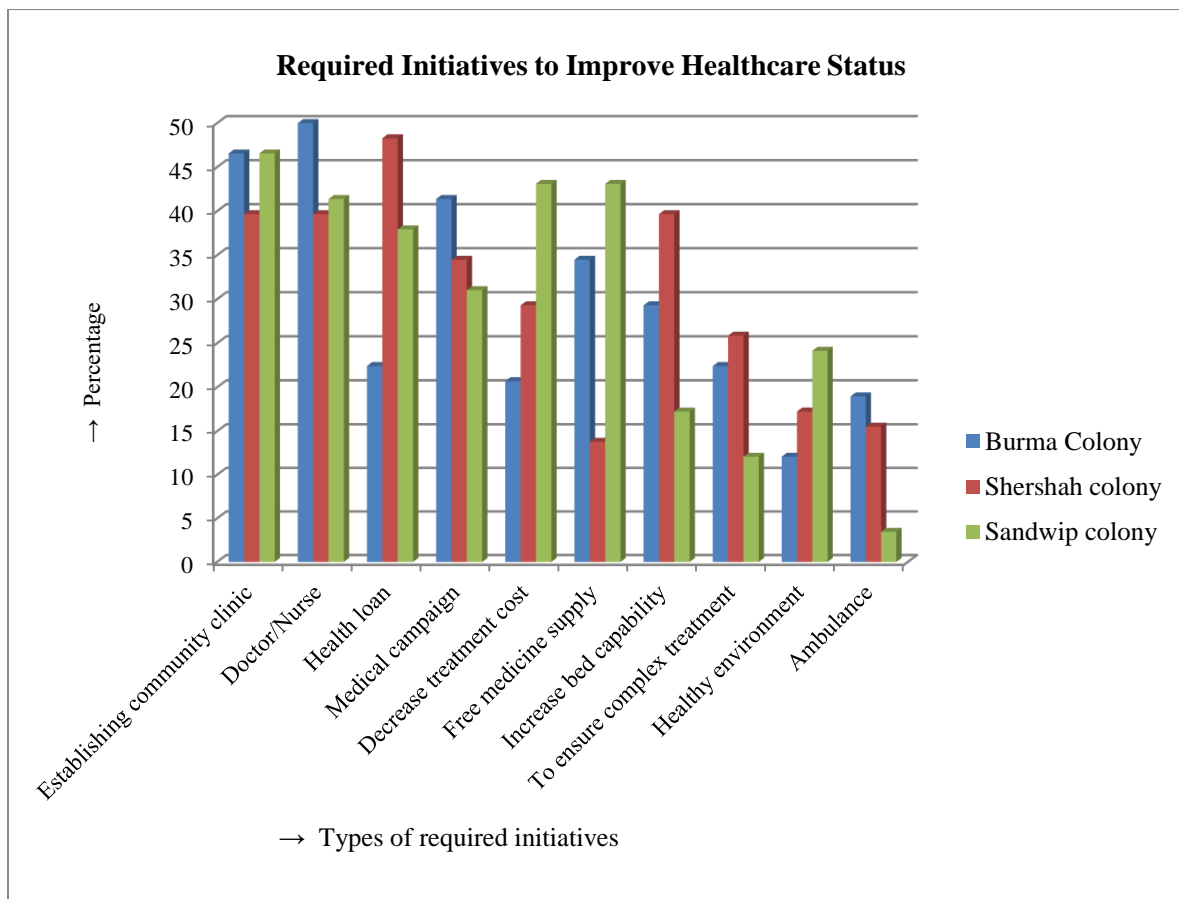
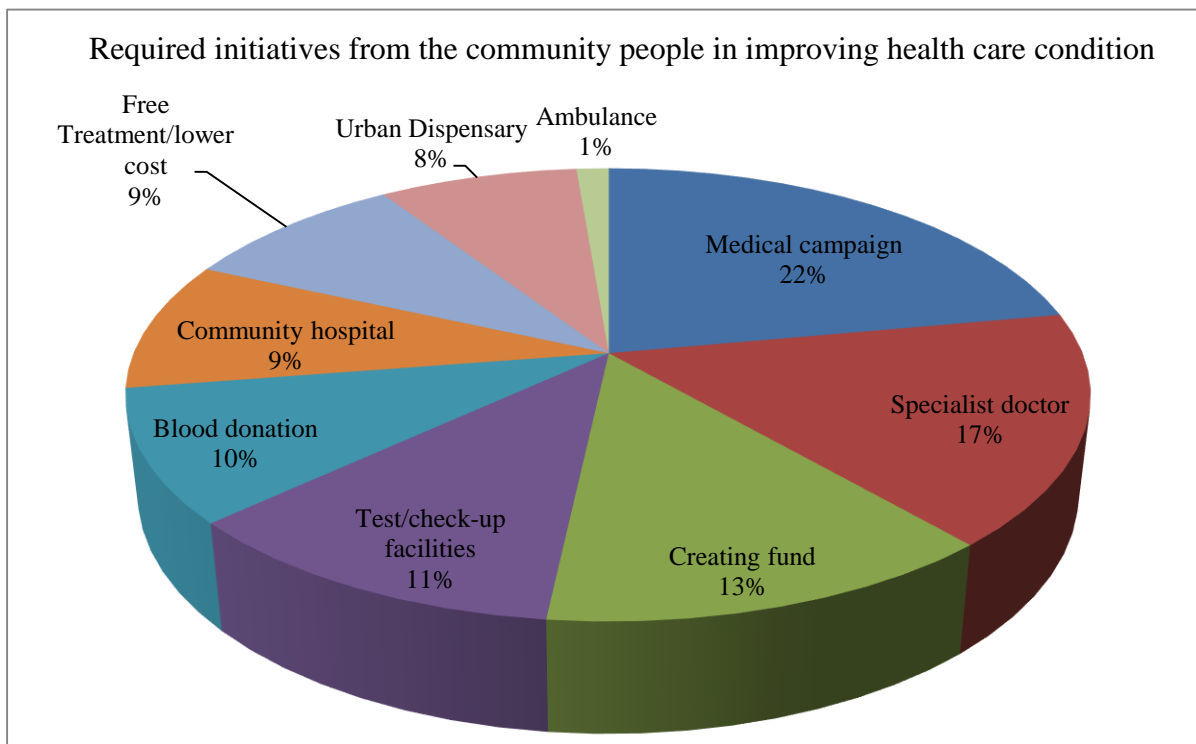


Figure 5: Expected Initiatives to Improve Healthcare Status by the NGOs

The NGOs could contribute accommodations in a way to a setup community clinic, available doctors and nurses, providing health loans, arranging medical campaign, taking nominal treatment fee, free medicine supply, increasing clinics' bed capacity, ascertain for intricate treatment, cognizance of building for a healthy environment and make a convenience of the ambulance, etc. In a spatial context, they could immediately establish a community clinic in Burma and Sandwip Colony where it's very much needed. Ensuring the availability of doctors and nurses in these areas, maternity and child healthcare quandaries could be identified, and withal opportune steps might be taken

for the treatment. The medical campaign is another consequential policy to overcome the sundry quandaries like medical check-ups for maternity-related issues and infants, blood tests and donations, eye tests, diabetics' check-ups for aged people and it is very necessary for Burma Colony. Distress, extremely poor, elderly people, and pregnant women urged medical loans during maternity and sickness. Figure 6 shows the required initiatives from the community people in improving health care conditions in the slum areas of Burma Colony, Shershah Colony, and Sandwip Colony in Chittagong city.



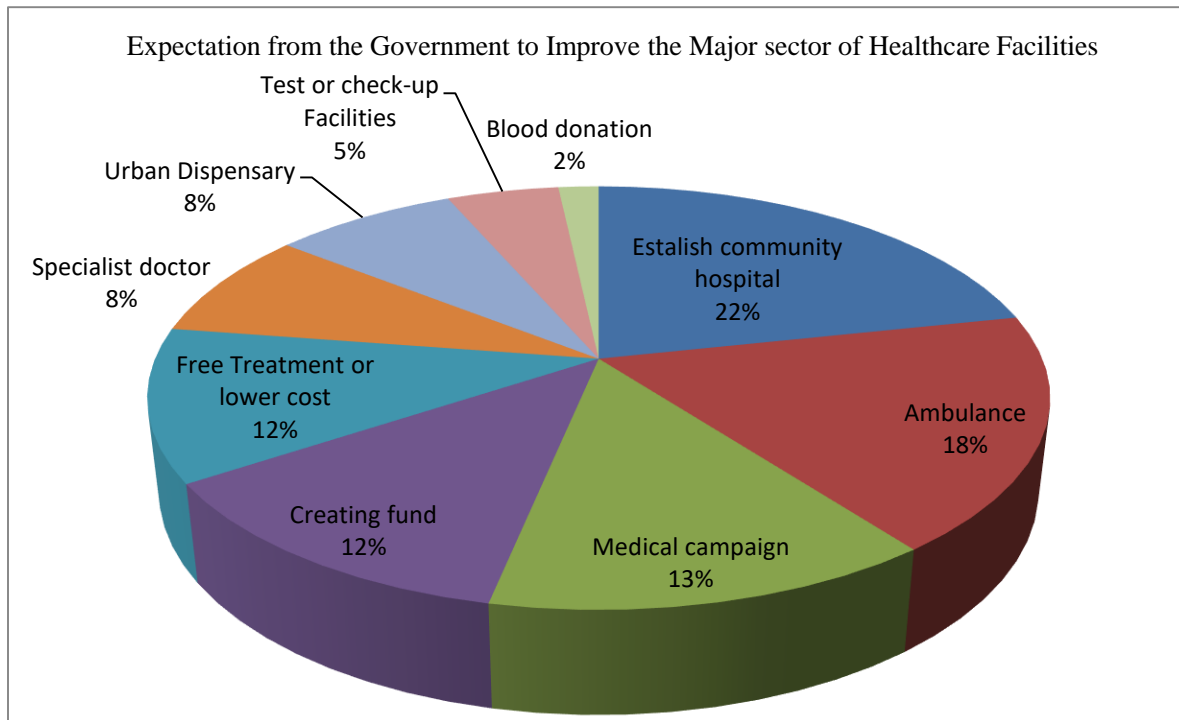
Note: Percentage of perception of all categories of respondents together.

Figure 6: Required Initiatives from the Community People in Improving Healthcare

Conditions in the Slum Areas

A society or community can play an important role to solve the various problems of their locality. Thus, slum dwellers must be proactive to improve the current healthcare facilities in their localities such as arranging medical campaigns (22%), specialist doctors (17%), low-cost diagnosis or check-up facilities (9%), blood donations programs (10%), make a convenience of the ambulance, creating a fund for distressed people (13%), set up an urban dispensary/pharmacy (8%), etc. to mitigate existing healthcare service problem in their surroundings. A medical campaign is very much urgent in Sandwip Colony for awareness building among the slum people to raise various healthcare issues. Besides, it is a crying need for specialized doctors (for maternity,

child health, and aged people) in the Shershah and Burma Colonies. The creation of a fund for emergency maternal and child healthcare treatment in their locality could help the penury people to meet their medical expenditures. Establishing a community-sponsored diagnostic center could eradicate the dwellers' fear of high-cost diagnosis and it is highly demanded from Burma colony. Similarly, the urban dispensary where poor people could buy medicine at a nominal price or in some cases extreme poor get free cost of medicine and it is another crying need that can establish by the slum community. Figure 7 shows the essential role of the Government to improve the health care status in Burma, Shershah, and Sandwip Colony in Chittagong city.



Note: Percentage of perception of all categories of respondents together.

Figure 7: Community People's Expectation from the Government to Improve the Major Sector of Healthcare Facilities in the Slum Areas

The financial crisis and lack of health awareness make the poor people largely dependent on the public health service for ensuring local people's health care facilities. The study found that the government could take several steps to improve healthcare facilities in the urban slum areas such as establishing a community hospital (22%) with the available ambulance (18%), specialist doctors (8%), nurses, as well as providing free medicine supply, nominal fees for diagnosis (arranging medical campaigns, blood donation programs (2%), and healthcare awareness activities, etc. The public health

sector plays a vital role in solving various health problems of slum dwellers. It exposed that majority of patients in the intricate condition ultimate destination are government hospitals (64.94%) even though they have complaints against the services. Maternity and child health services are urgently needed an ambulance (54.02%) and Sandwip colony is in dire need as it's far from the main city government hospital. Figure 8 shows the needed immediate actions for improving better health care conditions in Burma, Shershah, and Sandwip colony in Chittagong city.

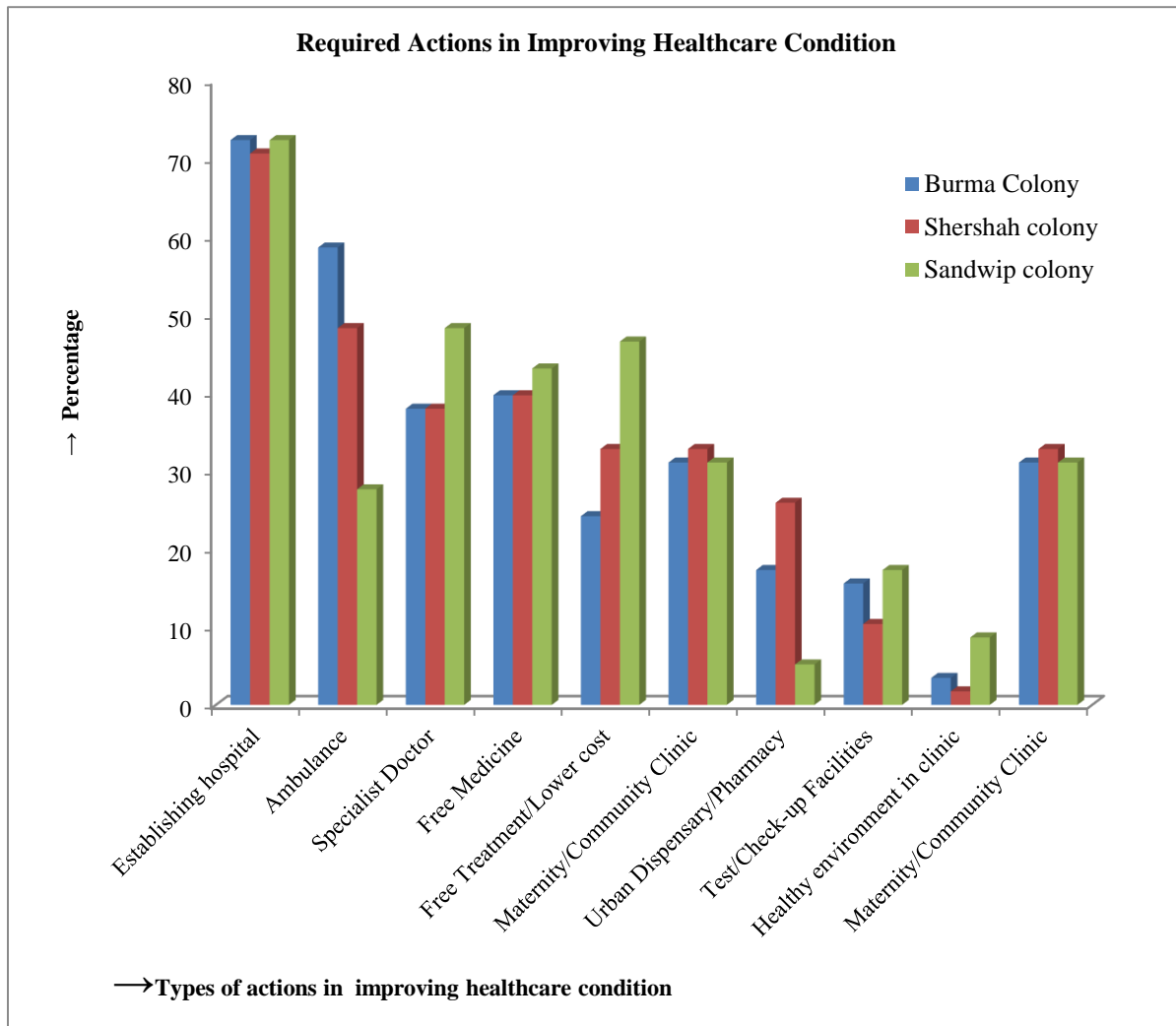


Figure 8: Required Instant action improving the Healthcare Conditioning the Slum

Areas

In response to urgent needs of healthcare service quality improvement in the urban slum dwellers, the study showed that community (71.84%) explicate the overall healthcare amenities in their locality by time-honored government sponsored a community hospital can play an important role. Emergency ambulance amenity (44.83%) also shows an essential role in the maternity time to quick amenities and it is comparatively compulsory in Burma colony (58.62%). Providing free medicine from government and urban dispensary (56.89%) in its adjacent is most practical and all three study sites; almost equally urged for it. Similarly, ensuring available specialist doctors is an essential concern to recover the innumerable complications in the slum areas and it is also alike three slum areas in Chittagong city. Besides, the establishment of a maternity clinic or community clinic (56.32%) could solve emergency delivery and safe childbirth.

Conclusion

Healthcare service is a basic need. A sound economy mainly depends on sound health and healthcare delivery systems in a country. Developing countries' public health sector sometimes could not accomplish this basic need due to several constraints. Bangladesh severely suffers from a shortage of basic healthcare facilities. The research investigated the current healthcare status of the three dominant slum areas in Chittagong city. It exposed that each slum has more than 15000 residents but inside the areas, no medical service is provided by the GOs and very few healthcare services (maternity and child health) were delivered by some NGOs. Even one slum (Sandwip colony) is very far (around 20 km) from the city center has no healthcare services and in any emergency cases (pregnancy or other serious illness) they struggle to manage a means of transport. Last ten years overall healthcare services in the city improved poorly (41.95%) and no effect of healthcare improvement was felt in the urban slum. The

study also found that all categories of individuals (maternal, child, aged, and adult) did not have the opportunity to reach for the health care services in their locality and they need to go far away to meet the doctor but due to financial insolvency and ignorance, many seriously sick person cannot reach to the healthcare center. Therefore, to ensure better healthcare service conditions government, NGOs, community people need to come forward. Government and local public representatives should take immediate initiatives to get rid of the slum dwellers' sufferings as well as more investigations are required to expose the proper solution of the problems of urban poor's healthcare services.

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