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Challenges for Health Care Services in Bangladesh: An Overview

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Abstract: *Health service covers all of services which provide assistance to the people to keep healthy. Health service is recognized as basic human rights by the Declaration of Universal Human Rights in 1948 and as signatory country, it has to implement and ensure for all citizens health rights. Bangladesh also signed in the said declaration and achieved little progress in health sector. As findings, it is found that absence of proper health policy and their programs and proper implementation, government cannot provide an effective health services. As a consequence, people cannot get appropriate health services from public health system, thus, health system in Bangladesh faces in many challenges. Using secondary data such as relevant books, scholarly articles published in journals, newspapers, health reports, policy papers, convention paper contextualizing Bangladesh as a case, the paper also observed that that lack of adequate health infrastructure in health sector, acute poverty, high rate of population growth, inappropriate budget allocation in health sector etc. are key challenges for health services in Bangladesh. Data also show that scarcity of drugs, ambulance, insufficient medical equipment create this situation more critical. Moreover, administrative mismanagement has also negative impacts on health service system. As a consequence, the people of Bangladesh are deprived from a sound health services at a great extent.*

Key Words: *Health, Health Service, People, Challenge, Bangladesh*

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I. Introduction

Health refers the conditions of physical, mental well-being of a person. It is not only conditions but also a recognized human right at the global governance institutions. According to Universal Declaration of Human Rights in 1948, health is a rights of individuals which comprises foods, clothing, housing, medical care and essential social services, and the right to protection against unemployment, illness, disability, widowhood, old age or other deficiency of livelihood which beyond his control (Human Rights Declaration, 1948, Article 25/1). When we look to the international convention on 'Economic, Social and Cultural Rights in 1966' approve of physical and mental health as rights. This convention basically focuses on health rights for instance the decreasing rate of birth and infant mortality, the development of environmental and industrial health, the control of various types of diseases, and the making some of supply of all medical services to the illness (International Covenant on Economic, Social and Cultural Rights, 1966, Article 12). There are also importance on the quality of health, the caring of child health and rehabilitation of them in the Convention on the 'Right of the Child in 1989'. This convention emphasis on some protective measures to ensure children's rights which help to reduce child mortality, to provide medical support, to prevent from diseases, and to facilitate supportive conditions which promote education and nutrition of children. This convention further give importance on family planning, education for parents and on global scale cooperation to acquire the progress of child rights (Convention on the Rights of the Child, 1989, Article 24). Child health is connected with women health because women birth a child and make the shape of offspring. We also see health issues in CEDAW which is adopted by 'United Nations Organization in 1979' for the elimination of discrimination against women. This agreement gives importance on the major measures to secure the rights of women particularly health rights such as the taking initiatives to eliminate discriminations in health services between men and women, to provide free services and nutritional support to the pregnant women and even at the period of after birth (CEDAW, 1979, Article 12).

As a signatory party to these international conventions, Bangladesh is committed to improve health services of its all citizens (Health Policy, 2011). It is also committed to fulfill the basic needs like food, cloths, shelter, education and health services for all citizens (Constitution of Bangladesh, Article 15(a). It is first and

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foremost a duty of the state is to promote to the level of nutrition and health services of its citizens (Ibid, Article 18(a). But there are some challenges in the area which have to be solved in order to improve the significant level of health services (Health Policy, 2011). In this paper, we want to explore those challenges which obstacles to ensure proper health services for all citizens of Bangladesh.

Objectives: The major objective of this paper is to reveal the real picture of health service care of Bangladesh. More specifically;

- To explore the present condition of health care system of Bangladesh.
- To reveal the challenges for health service system and the factors related to the challenges of Bangladesh.
- To identify the Government initiatives to improve health service system of Bangladesh.

II. Methodology

This paper is entirely shaped and typed on the basis of narrative manner. In this paper we adopt mixed method approach to investigate the challenges for health service systems of Bangladesh. Mainly secondary sources have been used for data collection based on the analysis of various types of documents regarding health issues. Moreover, secondary data sources such as articles, newspaper, books, journals, reports, and online websites regarding health challenges have been used in this study.

III. Contestation in the Challenges of Health Services

World Health Organization (WHO) defined health in its 1948 constitution as a state of complete physical, mental and social well-being. WHO also identified some health determinants such as positive environment, income and social status, social support networks, education and literacy, employment, personal health practices and coping skills, health care services which assist to live healthy. Summing up of the guideline of World Health Organization, its center of interest is on health status of the people and at the same time it must ensure the quality of health to all human being. The quality of health relies on the quality of health service system. Health service system includes all services dealing with the diagnosis and treatment of disease or the promotion, maintenance and restoration of health. But it is observed that health services system over the globe is facing challenges and running with critical situation.

Many health policy makers, researchers and medical practitioners argued that health service system in public and private sector in many countries in the world, be it developing or developed countries, is now in crisis. Apart from that, it is observed a huge structural deficit in the fiscal budget in the government due to a large part of demographic trends which increasing health care expenditure. However, it is also believed that long-term care for incurable diseases and becoming aged people will be the challenges for future governments (21^{st} Century Challenges. p. 33-38, available at- www.gao.gov/challenges/healthcare.pdf).As challenges for developing health care, it is observed that many obstacles like mismatched information to supply the production and diffusion of health related data, lack of protection to ensure the privacy of electronic medical records, lack of transparency, and weak reporting which decreasing the quality of health services. In the recent years, despite of development in health sector, the national health infrastructure remains fragmented and lack of coordination and capacity, and thus it becomes difficult to handle in an effective manner against huge epidemic diseases such as HIV/AIDS, Tuberculosis, Dengue, Malaria, SARS, West Nile Virus, Avian Influenza etc. These are the unbearable challenges for health care system in many nations (Schlossberg and Wong, 1990) for the primary health care (Babar and Juanita, 2004).

In primary health care, some factors are considered as influential for instance poor socio-economic status, lack of physical accessibility, cultural beliefs and perceptions, low level of literacy of mothers and large family size. On the other hand, some empirical studies found some similar factors in primary health care that the proper utilization of health service systems depend on socio-demographic facts such as social structures, level of education, gender discrimination, status of women in society, economic and political systems, environmental conditions and the various types of diseases with health care systems itself (Kalung, PY 2001, Navaneetham, Kroor 2002, Fatimiz Z 2002, Uchudi JM 2001, Stephensor R 2004 Nyamongo IK 2002 and Asenso-Okyere WK 1998). In the research findings, they claimed that lack financial ability and proper social security system in the developing countries make health services vulnerable. Moreover, financial inability or poverty is another factor which limits the access of poor people to health services. It makes the poor people powerless, increases ill-health and finally ill-health increases poverty (WHO 2002, Vicious Cycle of Poverty as cited in Kaseje, 2006) that means poverty itself is a problem. However, some of health policy analysts predict that it has become impossible for Sub-Saharan Africa (SSA) countries to achieve satisfactory progress in health care services to its citizens by 2020 because of increasing rate of poverty (Dankaseje, 2006). It is observed that some of the cases poverty is the responsible for limiting the use of modern technology in health care system in the lower or developing countries.

The application of modern technology and medical equipments in health sector improve the quality of health service at a large scale. It has already been proved that the uses and application of technology helps to diagnose proper health problems which help to medical practitioner for better treatment. Uses of medical technology bring unprecedented speed and accuracy in earlier diagnosis, personalized treatments and other benefits to patients and medical practitioners. Schizznding (2002) in a finding, most of the people over the world do not get the benefits of technology intensive medical treatment in health care system due to unequal absorption and mal-distribution of medical technology. On the contrary, experienced medical professionals are inevitable and indispensable for sound health services of any country. Unfortunately, most of the underdeveloped countries face the crisis situation of it, and in some countries, most of health workers including doctors, nurses ignore to stay in rural areas which is major challenge for health services (Kaseje, 2006). This challenge is exist in not only in the underdeveloped countries but also in the developed countries too (Blendon and Catherine, 2003).

A study conducted by Blendon and Catherine (2003) in developed countries on health issues and revealed that there are some challenges in health services in many of the countries including the USA. In the USA, taking health care services is becoming more challengeable for people due to some factors for instance the raising health care costs, the tier of health care, growing number of elderly people, lacking of health insurance, insufficient savings to buy new technologies, changing trends of diseases and new emerging infectious diseases etc. It is seen that various types of newly diseases are being emerged and spread out over the globe such as severe acute respiratory syndrome, West Nile virus, HIV/AIDS, MARS, Zika virus and Avian Influenza as well as the raising of multidrug-resistant bacteria is the challenges for the quality of health care system (Blendon and Catherine, 2003). A study also focused that different types of health problems including these newly emerged diseases are spreading in the organization of economic cooperation and development countries (Hurst, 2000).

In the scenario of organization of economic cooperation and development countries, there have many problems in health care system despite of their economic development (Hurst, 2000). Although OECD countries achieved huge socio-economic development but their health care sector remains uncared for at some extent. For instance, health care cost of Mexican and Turkey per capita are under 500 US dollar at purchasing power parity exchange rates (Cichon 1999, OECD 1999) but there are some problems found in health sector such as less number of doctors compared to total population of a country, deficiency of health insurance, bribe for health services, lengthy waiting time for doctor care, limitations on access. Hurst also claims that there still mentioned challenges which decrease the quality of health services in OECD countries in spite of initiatives are being taken to upgrade these conditions (Hurst, 2000). However, in 2015, OECD has upgraded the ranking South Asian countries in which Bangladesh has possesses in at 5 of 7 of South Asian countries due to the promotion of resilience of economy and stable growth (Daily Star, 2015).

The government of Bangladesh has taken a perspective plan to achieve economic growth and stability to upgrade from lower middle to middle income by 2021. In the same way, government should take necessity steps to upgrade its health sector as well as achieve the Sustainable Development Goals (SDGs). To fulfill this requirement, the government of Bangladesh has been trying to increase health status of its citizens by providing proper health services. Bangladesh has achieved some remarkable achievement in health service systems as well as health related some Millennium Development Goals (MDGs) (Haque, 2015) like decrease child and maternal mortality rate, improve child and mother health, providing the nutrition of pregnant women, and successful implementation of family planning strategy within timeframe. But there are still many challenges in health service systems such as some diseases like diarrhea, tuberculosis, respiratory infections, preterm birth complication, heart diseases (Lind, 2017), poverty, high population growth, high mortality rate unplanned urbanization, HIV/AIDS, arsenic, flu, avian influenza, nipah virus, dengue, malaria (DGHS, 2012). Moreover, lack of medical equipments, insufficient health budget or financing, lack of proper health management including absence of accountability and transparency of health service providers, changing disease patterns, insufficient number of empirical research on health, inadequate supply of purified drinking water, high illiteracy rate, frequently natural disasters, inadequate supply of necessary drugs, and also lack of access to information access are responsible for low quality of health services. DGFS (2012) report also identified some important issues for health care system for Bangladesh such as inadequate and improper health service systems and improper implementation of these programs. Improper health services including neglecting the patient's rights and satisfaction is very crucial challenges for health service system (Andaleeb et al., 2007).

Patient's satisfaction is one of the important factors to assess the quality of health care of a country. Andaleeb et al. (2007) identified some tools such as reliability, responsiveness and assurance, tangibles, communication, empathy, process features; which help to explain patient's satisfaction in Bangladesh. It is seen that health service provider fully concentrate in getting money or financial interest rather than patient's satisfaction and proper treatment. Although in the developed countries patient have become more receptive to treatment cost in spite of their health insurance (Schlossberg, 1990 and Wong,1990) But in the third world countries treatment cost is the most concerning issue due to their poor earnings (Andaleeb et.al, 2007). Being a

poor patient, careless attitudes and negligence behaviors of doctors, nurses and other staffs to the patients, shortage of medicine and long waiting times in public hospital and long distance travelling to collect medicine (HEU, 2003), getting admission in hospitals is very complex are the major challenges for quality health services (Haque, 2015). In addition, misuse of medical equipments, weak health management and corruption, insufficient health facilities, health personnel and staff-people ratio, doctor-people ratio are not adequate to requirement make health service critical for the mass people.

In spite of these barriers, there are many clinics, health care centers, and various types of hospitals in Bangladesh which are run by government, Non-government Organizations (NGOs) and private enterprises for providing health services (Choudhury, 2004). The treatment cost in some private controlled hospitals and clinics are very expensive that general people do not get access there. Another problem is that most of the poor people live in rural areas with lack of public facilities than urban for instance unavailability of public transport and well renowned doctors which is a major cause for health deprivation (Rahman et al., 2005). Currently, public health services policy with private and non-government providers are partial against the rural people. Chowdhury (2004) explored that NGOs have 40 percent of health service units are concentrated in rural areas, while 60 percent are working in urban areas. An empirical study showed that there is an evident discrimination of health care services within rural and urban areas that challenges in health service systems across the country (Chowdhury, 2004). This regional discrimination is exhausted from weak administrative management and lack of good governance. Weak administrative management include mismanagement, lack of proper health workforce planning, weak health services monitoring and accountability, inconsistency in national health policies, lack of coordination and corruption which are the key hindrances to ensure the quality of health services in Bangladesh (Haque, 2015 and Chowdhury, 2004).

To ensure the quality of health services, the government of Bangladesh have a surprisingly improvement in infrastructure of health sector and achieve some remarkable achievements (Daily Star, 2019) but most of its health infrastructures remain unused due to the lack of health personnel, insufficient supply of public drugs, weakness in supervision of health equipment, administrative complexities in terms of organized referral system (DGFS, 2012). According to Bangladesh health policy (2011), there are huge challenges for instance scarcity of skill health workforces at birth-time, gender discrimination in health profession, changes spectrum of diseases, rural-urban migration, natural disasters, huge ratio-gap among doctors and nurses with people, shortage of medical equipments, inadequate of financing for reconstruction and maintenance of health infrastructures. In addition, the amount of financing in public and private sectors is not adequate and the allocation of budget for health sector is not satisfactory. As data says that the last nine years government budget had only on an average 4.58 percent for ministry of health and Family Welfare **(**BD Government Budget, 2011-2019). The data clearly indicates that the importance of health services is being neglected in the government budget in Bangladesh (World Bank, 2003).

From the above theoretical underpinning, we are now agreed for some factors and actors which challenges for ensuring the quality of health services in Bangladesh which are shown as below;

Dependent variables	**Independent variables**
The quality of health services	Health Infrastructure
	Poverty and Health Expenditure
	Health Workforce and Doctors-Nurses Ratio With People
	Availability of Drugs and Ambulance Services
	Medical Equipments
	Population Growth
	Changes Disease Pattern and Health Knowledge
	Government Budget
	Monitoring and Accountability
	Natural Disaster and Climate Changes
	Regional Discrimination

Table-1: Measurement of Quality Health Services

IV. Result and Discussion

Health Infrastructure

The health infrastructure of Bangladesh consists of primary, secondary and tertiary health care facilities.

(a) Primary Health Care

Primary health care is provided by community clinics. A community clinic set up for people within 30 minutes walking distance. As of 2012, there were 12527 functional community clinics in Bangladesh (MOHFW, 2013). In addition of community clinics, the primary health infrastructure includes upazila[4] hospitals. Data

[4] Upazila is the sub-district formerly called thana. It is a geographical region in Bangladesh used for administrative or other purposes. They function as sub-district.

shows that there are 494 hospitals at upazila level with bed capacity of 17686 with total 15000 health facilities under upazila in 2015. Which was 472 hospitals with 18880 beds in 2013 and 456 hospitals with 16387 beds in 2010 and 430 hospitals with 16781 beds in 2007 (Bangladesh Health Bulletin, 2007, 2010, 2013, 2015). It is observed that a huge amount of people receive health services form private health practitioners and health centers rather than public primary health care center due to the limited curative services of this sector.

(b) Secondary and Tertiary level

Secondary and tertiary health care infrastructure consists of general district hospitals, medical colleges, specialty and other hospitals. In this level of health care, DGHS operates 128 hospitals with 29278 beds up to 2015 and 126 hospitals with 27053 beds in 2012 and which was 117 hospitals with 22825 beds in 2010 and it was 108 hospitals with 19979 beds in 2007 (Bangladesh Health Bulletin, 2009, 2010, 2012, 2015). This data indicate that a minimum number of people can get health services form secondary and tertiary public health center due to the inadequate seats and insufficient services. So, it is seen that the health infrastructure in this level is not adequate with the population ratio of Bangladesh.

Population and Patient's Bed Ratio

The number of bed refers resources available for providing services to the patients. In 2012, Bangladesh had less than one bed per 1000 population which indicates insufficient resource for supplying hospitals services (OECD/WHO, 2012). Continuously, in 2015, there is one bed for every 1652 people which are refer the acute inadequacy of resources of delivering hospitals services (Economic Survey, 2015). Data shows that regional discrimination of hospital bed population seems as a key challenge to ensure equal health services to all citizens. It is observed that Khulna division has the highest population bed ratio (1:33897) while Dhaka division has 1:9260 bed population ratio. When we observed medical college wise population bed ratio it is found that Rangpur medical college hospital has the highest population bed ratio (1:17274) while Dhaka medical college hospital has 1: 6628 population ratio which is the lowest ratio over the country (Bangladesh Health Bulletin, 2015). So, it is seen that people do not get adequate services form public health center due to the insufficient hospitals resource services (BRAC, 2012). It is matter of hope is that there are huge numbers of private clinics and hospitals have been emerging in Bangladesh which helps to meet the health needs of general people.

Comparison among Dhaka and other Cities

There has been rapid increasing in private sector health facilities in Bangladesh since 1990s. So far many modern private hospitals have been established i.e, Apollo hospital, Square hospital, Lab Aid hospital, Holy Family, Kumudini, Ad-din hospital etc. but all of these hospitals are concentrated in Dhaka. The people who live outside of Dhaka, they sometimes cannot get easy access to these hospitals due to geographical distance and travel hassles. But when we looked to the overall situation, it is found that there are 90000 functional beds (both public and private) in the country as of 2015 While there were 2983 registered private hospitals and clinics with 45485 beds in 2013 (MOHFW, 2013). In spite of huge number of private clinics, mass and poor people do not get access to health services from this sector due to high treatment costs (Schlossberg and Wong, 1990 and Haque, 2015).

In spite of treatment cost, inequality of establishing health service infrastructure over the country is the most challenge for quality health services. It is seen that the health services infrastructure are not equally built up all over the country. Most of the secondary and tertiary hospitals are concentrated in Dhaka as well major cities, and a few numbers of hospitals are dispersed outside of Dhaka. Data shows that 38 percent or 48 of 128 secondary and tertiary hospitals are concentrated in Dhaka, while 6 and 8 percent in Sylhet and Barisal respectively. Another picture of public hospitals beds in secondary and tertiary level shows that 5550 beds in medical college hospitals and 7754 beds in general hospital and clinics are concentrated in Dhaka while 500 beds in medical college hospitals are concentrated in Khulna, and 690 beds in general hospital and clinics are concentrated in Barisal (Background Paper on Health Strategy for preparation of 7th Five Year Plan, 2014) which indicate serious health facilities gap between Dhaka and other cities.

Poverty and Health Expenditure

Poverty is associated with the undermining of public health. The poor are exposed to greater health risks, are less well nourished, have less information and are less able to access health care. As a consequence, they have a higher risk of illness and disability. On the contrary, illness can reduce household savings, lower learning ability, reduce productivity, and lead to a diminished quality of life and thereby perpetuating or even increasing poverty (WHO, 2016). Poverty also refers the inadequate supply of required things to maintain his or her health (Goderd as cited in Rangolal and Bishwamvar 2003, p. 487). The World Bank opined with data that less than 10% or 702.1 million people were living in extreme poverty in the whole world in 2015 (WB, 2015).

In Bangladesh, there is 13.9 percent gap in poverty situation between rural and urban people while 35.2 percent rural people are living under poverty line and 21.3 percent people are living under extreme poverty line (Economic Survey, 2015). In 2019, it is seen that 21.8 percent people living under poverty line and 11.3 percent living under extreme poverty line (BBS, 2019). Due to this high incidence of poverty, a large portion of the people in the country is not capable to maintain their health expenditure as well as nutrition, sanitation and health knowledge. In a study it has been positively tested that poverty creates powerlessness and increases ill-health, as ill-health increases poverty (WB, 2002). So, poverty is a major challenge for ensuring health services to the people in Bangladesh because it constrains the ability of health expenditure (Rahman et al., 2005).

On the other hand, health expenditure is a major factor in getting quality health services. Health expenditure consist of doctor's consultation fees, charges of laboratory test, travel costs to and from health clinics and hospitals, drugs and accommodation costs. It is seen that in the developed countries, patients have become much careful to health expenditure than health insurance coverage (Schlossberg and Wong, 1990). As more affluent afferents western countries like Ireland, New Zealand, The Nordic countries, Spain and the United Kingdom has level of per capita health expenditure between about US$ 1000 and 2000 (Jeremy Hurst, 2000). But in the developing countries particularly Bangladesh, health expenditure is much more sensitive factor for the patients due to their low earnings. A recent study by WHO NHA (2015) estimates, for health expenditure currently Bangladesh spends approximately US$ 26.60 per capita (WHO, Cited in Syed et al. 2015). In Bangladesh, basic health care is seemed to be free at some extent in public hospitals, but private hospitals are not free for patients (Andleeb at al., 2007). So, people cannot get access to health services equally due to their low rate of per capita health expenditure.

Crisis in Health Workforces and Doctor-Nurse Ratio with the People

Health workforce means all people in actions whose first commitment is to provide health services (WHO, 2010). However, health workforces cover professionals like doctors, nurses, midwives, dentists, public health professionals, and allied professionals (medical assistants, physiotherapists, pharmacists) and health care providers in the informal sector (Background Paper on Health Strategy for preparation of 7th Five Year Plan, 2014) who operate "outside the purview of regulation, registration or oversight by the government or other institutions" (Ahmed et al., 2009). In Bangladesh, the recruitment, training, promotion etc. are not managed properly due to the lack of Human Resource for Health Strategy and Plan (HRHSP) and Human Resource Information System (HRIS). However, Joint Learning Initiative (2004) pointed out five major challenges in health workforces in Bangladesh such as shortage of workforces, skill-mix imbalance, mal-distribution, negative work environment and weak knowledge. According to Health Policy (2011), Bangladesh is one of 157 countries of the world having crisis in health workforces (MOHFW, 2012). This crisis is seen in qualified professionals like doctors, nurses, medical technologists etc. which is more prevalent in rural areas. Bangladesh had been identified with a shocking shortage of over 60000 doctors, 280000 nurses and 483000 technologists (BHW, 2008). In the financial year 2011 to 2014, after recruitment of 42647 health workforces, four department of Ministry of Health and Family Welfare (MOHFW) like Directorate General of Health Service (DGHS), Directorate General of Family Planning (DGFP), Directorate of Nursing Services (DNS), Directorate General of Drug Administration (DGDA) collectively had 31439 vacancies which were 15 percent of total posts in health sector as of June 2014 (PMMU, 2014). There is also shortage of qualified managers for operating public health interventions and hospitals and skilled attendance during birth which are believed to be an important challenge to ensure the quality of health services in Bangladesh.

On the other hand, there are more physicians than nurses against global norms. National health policy (2011) identified Bangladesh had doctor-nurse ratio as 1:0.48 against global standard of 1:3 ratio and recognized this situation as unacceptable (MOHFW, 2012). The total seats for nurses of all public and private medical colleges and nursing institutions was 6600 against total seats for physicians as 8026 (MIS, 2014). Sanctioned posts of nurses under Directorate of Nursing Services (DNS) were 22061 where sanctioned posts of doctors under DGHS were 23061 in 2013 (MIS, 2014). However, the ongoing Health, Population and Nutrition Sector Development Program (HSNSDP) 2011-2016 aims to increase number of doctors and nurses by mid-2016 (MOHFW, 2011).

Another dimension is that there are not equally distributed of health workforces between urban and rural areas. Urban areas especially major cities (Dhaka, Chittagong, Rajshahi and Khulna) there are more concentration of qualified medical professionals and facilities than rural areas. On the other hand, geographical mal-distribution in terms of production of graduate physician is also mentionable. Data retrieved in 2012, for example, considering all medical colleges in Dhaka division[5] found to had 3680 seats as compared to 197 seats

[5] The administration of Bangladesh is divided into eight major regions called divisions. Each division is named after the major city within its jurisdiction that also serves as the administrative headquarters of that division. Each division is further split into districts which are then further sub-divided into upazilas.

of Barisal division in 2011 (DGHS, 2012). If we consider the availability of physicians and vacancy situation under DGHS-Dhaka division had highest number of sanctioned post of physician as 9041 with 21 percent vacancy its total posts of health sector while Sylhet division had 1403 sanctioned post of physician and vacancy in Barisal division was 53 percent of its total posts of health sector (MIS, 2014). Per 10000 populations physician was found as 10.8 in Dhaka division which was 1.7 in Barisal division. On the other hand, this mal-distribution could be seen over the country where 18.2 physician for 10000 people in urban and 1.1 physician for 10000 people in rural areas (BHW, 2007). Moreover, the overall situation of doctors and population is that per doctor populations is 2166 (Economic Survey, 2015). Thus, it results non-availability of required specialized care outside of Dhaka which actually constraints access to health services in Bangladesh.

Scarcity of Necessary Drugs and Poor Quality of Ambulance Services

The National Drug Policy (1982) was helpful in developing the supply of qualified drugs at manageable price (Islam, 1999). This was possible by permitting local pharmaceuticals to buy raw materials from international market and building a transparent mechanism for fixing prices (Ahmed, 2004). But concerning issue is that some of necessary lifesaving drugs such as cancer drugs, vaccines and insulin are not produced in the country because of the ingredients of medicine are not available in Bangladesh. So, government should take some initiatives to import these from international market (Hasib, 2012) or to promote local markets. Data found that 80 percent of Active Pharmaceuticals Ingredients (API) is imported and 21 companies are manufacturing 41 types of APIs (Syed et al., 2015) but this situation has been changing. As a result, many drugs are produced in the country and a mentionable number of produced drugs are being exported to the other countries like USA. Government provides the produced drugs to the people through community clinics. Community clinics are providing with more than 30 types of drugs where community health care providers has only 3 months training. Community Clinics were dispatched to be collection points of free drugs and available on demand rather than prescribed as required (David, 2012). But there are huge problems in supply of drugs systems such as lack of pharmacist, poorly educated people, unnecessary and deleterious drugs are sold without a prescription. Furthermore, so much availability of branded drugs rather than effective generic drugs, sub-standard and amalgamated drugs and lack of capacity to enforce the drug control related legislations challenges to the quality of health services (Syed et al., 2015).

Moreover, ambulance service is delivered by both public and private health care providers at different level from primary health care to tertiary health facilities in Bangladesh. It is an unfortunate reality that ambulance service is always not available in public health care due to some corrupted officials (Rahman et al., 2005). Sometimes this is used for other personal purposes of the health professionals. Added to that, number of ambulances are not adequate where data shows that on an average only one ambulance is active in upazila hospitals and two in district hospitals even many from existing ones are not active (TIB, 2014) while this service is not well equipped (Bangladesh Health System Review, 2015). Data shows that 93.6 percent upazila health centers has ambulatory services and 6.4 percent upazila health centers has been deprived from this services. On the issue of functionality of ambulance, 83.5 percent upazila level ambulatory services and its 97.5 percent district level ambulatory services have functional (BHFS 2011 cited as in Syed et al., 2015). It is observed that upazila health center provide a limited ambulance services rather than private clinics and health center due to the insufficiency of ambulance regarding the demand of the patient at local level.

Absence of Medical Equipment

With the advancement of technology human race improve his life standard at a great extent and the using of technology in health sector is increasing day by day all over the world. Now, health sector is the most advance sector in using modern technology. This sector is well equipped and able to ensure better health service to the patient. Better health service and well equipped health care is not equally available over the globe, for instance Singapore are far ahead in health care than other third world countries. In third world countries including Bangladesh, the mismanagement of medical equipments in public health care make this sector vulnerable and patient do not get proper diagnosis services. It is observed that only 50 percent of the medical equipments that was supplied under the Health and Population Sector Program (HPSP) between 1998 and 2003 were effectively used at its final destination. Of the remaining 50 percent of major medical equipment that was not used. Moreover, about 17 percent medical equipments were in working condition but not in use, 16 percent was not installed and 17 percent was out of order. This problem has been echoed by World Bank study that public health facilities in Bangladesh are poorly equipped with medical devices, instruments and supplies (World Bank, 2012). On the other hand, the private health sectors which are basically high-cost hospitals and clinics in particular, have state-of-the-art diagnostic equipments and facilities (Bangladesh Health System Review, 2015). This diagnosis and treatment facilities is becoming untouchable factor to the poor patients due to the lack of technologists in operating the diagnostic equipments in public hospitals. Most recent report shows that there are 4860 hospitals in Bangladesh where 120 hospitals are government, 425 hospitals are upazila health

center, and others are union health center. But study found that only 6000/7000 technologists are working in these hospitals while the demand of this sector is 57000 technologists all over the country. Data also identified that only 7 percent of the total technologists are working in health sector for providing diagnosis services to the patients. Moreover, it is observed that there are 3000 hospital in non government sector ant the number of diagnosis center is 5500 all over the country and this number is increasing day by day (Amader Somoy, 23.9.2019). But the diagnosis cost of these private health care and diagnostic centers is high which is unbearable for the poor patients. So, bearing the high treatment is not easy for the common people and as a result they do not dare to go there (Rahman et al., 2005).

High Population Growth and others Social Issues

Bangladesh has a large number of populations of 165 million with a limited area of 147,570 sq. km. Population growth rate is 1.37 percent with the highest density rate as 1066 per sq. km (UNFPA, 2019 and Economic Survey, 2019). So, population density directly effects on the basic needs such as health services especially on medical facilities of the people (Rahman et al., 2005). Apart from that, aged population is increasing, however, people aged 60 or above make up 12.3 percent of the world population (UNFPA, 2016). This aged people are supposed to be increased due to increasing the standard of life expectancy. Depending on the achievement of life expectancy by 2025 one in 10 will be elderly and by 2050 one in 5 will be elderly in Bangladesh (Kabir et al., 2013). In the contrary, early marriage can be found in every region in the world, from the Middle East to Latin America, South Asia to Europe. Report shows that one in every three girls are married before reaching age of 18 in developing countries (UNFPA, 2016). In Bangladesh, child marriage rate is high with 59 percent of girls are married before reaching age of 18. And one third of girls are married before the age of 15 (UNFPA, 2019). Finally, the growing number of elderly people and early marriage of young girls are increasing and thus, it is being difficult to ensure balance between population and their needs as well as with their health services (Rahman et al., 2005).

Changes in the Pattern of Diseases and Lack of Health Knowledge

Currently, different types of diseases such as West Nile Virus, SARS, Avian Influenza, HIV/AIDS, Tuberculosis, Malaria, and Dengue are drastically seen as a threat to the human being across the world. The spectrum of these diseases has also been changed day by day. In Bangladesh, The emerging new diseases such as dengue, malaria, kalazar, dengue, filariasis, tuberculosis, HIV/AIDS, cardiovascular disease, mental illness, cancer, substance abuse, smoking, alcoholism, arsenic are spreading all over the country and becoming a threat to public health (Lind, 2017and DGHS, 2012) . Most recently dengue has broken out all over the country and become an epidemic character. It is observed that about 60 thousand people are affected of dengue in 2019 (Prothom Alo, 2019). In spite of these diseases, some chronic disease, aged-old infectious and emerging new diseases continue to effect on the quality of health (Rahman et al., 2005).

On the other hand, in theory, education is the process of facilitating learning, the acquisition of knowledge, skills, values, beliefs, and habits. Education and health is closely related issues because without proper education no one can lead a healthy life. Proper education teaches the way of practicing a healthy lifestyle and aware about nutrition habits, health education and health research (Rahman et al., 2005). But it is seen that only 72.9 percent of the people are literate but a mentionable number remain illiterate that is only 27.1 percent in Bangladesh (Primary and Mass education Minister, 2019). Literacy rate is not equal all over the country for example literacy rate in rural people is 65.4 percent and in urban people is 80.7 percent that was big in 2017 (Habib and Molla, 2017). it is observed that rural people are unaware of health facilities in the government health institutions as well as about their own health rights (Shafiqul and Ullah, 2009). In spite of these things, most of the medical equipments and treatment plan in hospitals and clinics are based on western diseases pattern and doctors and nurses are partial to west centric treatment. As a result, illiterate people cannot spontaneously adopt with this situation. Again, it is also a common scenario that most of the illiterate people especially who comes from rural areas, they cannot find out appropriate clinics or hospitals and even sometimes they cannot trace out proper diagnosis places. Thus, they are being suffered in getting better health services in Bangladesh.

Inadequate Budget Allocation

The appropriate allocation of budget is one of the important issues for a country to ensure health services to all citizens. But in Bangladesh, the population growth is increasing than the expansion of health facilities as well as allocation of budget for health care due to inadequate health financing, inequality in health utilization and inefficient use of resources (Health Economic Unit, 2012). Health financing and per capita health budget are the most important factors to achieve full functioning health service. World Health Organization (WHO) estimates that US$ 54 per capita is needed to achieving a full functioning health system for any country (WHO, 2010). But Bangladesh spends US$ 26.6 per capita for health (Syed et al., 2015) which is insufficient to

ensure the quality of health services. When it is compared to the neighbor countries which spends higher amount of money for health care for instance Sri Lanka spends US$ 97, India spends US$ 59, Nepal spends US$ 33 and Pakistan spends US$ 30 (Islam, 2014). These pictures indicate that per capita health budget and the total allocation of budget in Bangladesh is not adequate and satisfactory than other South Asian countries. Due to low per capita health expenditure and per capita poor income, most of the people cannot afford to pay for better health services and very often they do not seek better treatment (O`Donnell et al., 2008).

Budget allocation for health sector			
Year	percentage	Year	percentage
2011	5.4	2016	2.4
2012	4.9	2017	5.3
2013	4.3	2018	5.0
2014	4.3	2019	4.9
2015	4.7		

Source: Ministry of finance, Government of Bangladesh Annual Budget 2011-2019 and Centre for Policy and Dialogue (CPD), 2018.

From the table, it is clearly evident that the allocation of budget for health sector is not increasing equally with the increasing growth rate of population. Because in 2011, population of the whole country was 153.9 million and the allocation of budget was 5.4 percent, but in 2019 population is 167 million and allocation of budget is 4.9 percent (Rahman, 2019 and Economic Survey, 2011-2019). The mentioned data refers that the allocation of budget for health is not increasing with the growth of population. Although budgetary allocation or financial assistance is more important factor to ensure health services for the people but the allocation is not sufficient especially for the rural people (Shafiqul and Ullah, 2009). On the other hand, most of the people of Bangladesh live in rural area and they are not always conscious about the facilities of public health services due to improper campaign and irregularity of clinics and health care centers. Improper campaign and irregularity in health sector are the outcome of lack of proper monitoring and supervision, and weak accountability which are the key challenges for the government health service system (Shafiqul and Ullah, 2009).

Lack of Monitoring and Weak Accountability

Despite of limited resources, the government of Bangladesh tries to ensure almost free health services in public hospitals to all of its citizens, but there is widely practiced of unofficial payment. It is observed that a portion of public hospital officials are corrupted (TIB, 2010). A study explored that 44.1 percent of the households seeking health service were victimized by corruption (TIB, 2010). In 2015 Bangladesh holds the position of thirteen numbers in world, according to Corruption Perception Index (TIB, 2015, The Daily Somokal, 28.01.2015). Corruption in health sector mostly prevails of purchasing health materials, supplying foods, buying and distribution of medicine and medical equipment, use of ambulance, transfer and posting of health personnel (Rahman et al., 2005). Moreover, there is another picture of corruption in health sector such as purchasing admission form for inpatient service and external illegal sales of public medicine (Syed et al., 2015). As a result mass patient do not get enough medicine form public medicine store. Corruption is the outcome of lack of proper accountability in health sector.

Proper accountability keeps every mechanism effective and fruitful. It ensures the efficiency and effectiveness in all systems. But without proper accountability health system faces some situation such as high absence of doctors in rural areas and poor performance of service providers (Syed et al., 2015). These situations have been created from an inaccurate job description, promotion based on subjective evaluation, ineffective system of reward and punishment. As a result a portion of staffs (doctor to nurse) has not well-defined of accountability (Hossain and Osman, 2007). Lack of accountability is emerged from lack of proper monitoring in health sector. Due to the lack proper monitoring, the performance of doctors, nurses, and staff remain poor. Lack of monitoring creates some unbearable challenges such as the unnecessary pressure on the nurse, disturbing by the medical representatives, unnecessary examination and diagnosis prescription (Rahman et al., 2005). Thus, general people cannot get proper treatment and better health services from public health center due to the lack of proper monitoring and weak accountability in Bangladesh.

Natural Disaster and Climate Change

Bangladesh is prone to natural disaster for its geographical location. It is observed that disasters such as flood, cyclone, and tornado that happen almost every year in the coastal areas in Bangladesh. For instance, cyclone Sidr was hit on 15 November 2007, cyclonic storm Aila on 29 May 2009, devastating Tornado affecting Brahmanbaria district on 22 March 2013, cyclone Mohasen was hit the coastal belt on 16 May 2013, and recently Fani hit on 05 May 2019. In spite of natural disasters, some manmade disasters are the responsible for suffering of the people. It is seem that Bangladesh being the most heavily populated country in the world has

more victims to road, rail and river traffic accidents than other developing countries. The high burden of disaster-related diseases emerges due to different forms of natural disaster and make public health vulnerable (Bangladesh Health Bulletin, 2015). Natural disaster is an outcome of climate change.

Climate change is affecting health system in Bangladesh. It is seen that coastal area people being affected by salinity are in danger of non-communicable diseases like hypertension, while women are in danger of pregnancy complications like eclampsia. Extremes of weather like heat stroke and cold wave are affecting coastal people's health. In the coastal region, vector-borne diseases like kalazar and dengue are re-emerging that put pressure on health service providers (Background Paper on Health Strategy for preparation of 7th Five Year Plan, 2014). Moreover, climate change affects regionally in Bangladesh for instance, southern part of the country is mostly affect by sea-made disasters like cyclone, over flood, tidal waves, salinity, and the northern part of it is mostly affected by drought, over flood, river erosion, and cyclone. These types of disasters damage their means of living and effect on livelihood and make them poor. As a result, most of the poor people do not address their health problems, because theoretically poverty limit access to health services (Rahman el al. 2005).

Air Pollution

Air is inevitable for the living human soul. Human body absorb 2000 litter air daily for living but the air pollution is being increased day by day. As a consequence, human being is becoming much more vulnerable. Although some of the high developed countries like China, America, Japan and Kuwait are responsible for emitting Co_2 and CFC which contaminate air adversely but most of the underdeveloped and developing countries are victimized of air pollution. In Bangladesh, air of the most of the major cities such as Dhaka, Chittagong, Khulna, Rajshahi is polluted day by day (The Daily Samakal, 2016). The department of environment of Bangladesh identify some causes for air pollution such as lack of covering surroundings and water spraying during construction, lack of technology using to control pollution in steel, recycling mills and cement factories, insufficient forestation and rapid deforestation, lack of environment friendly system in brick factory and huge number of date expired vehicles. These causes make air vulnerable to the people of Bangladesh and create diseases. According to heart disease research institute the patient of Chronic Obstructive Pulmonary Disease (COPD) is increasing at 25 percent in January 2016. Generally, smoking is the major cause for COPD, but in the urban areas particular matter and smoke are the main reason for COPD. Another view is that unlimited emitting of Carbon-mono-oxide, sisa, Nitrogen oxide, volatile organic compound, and Sal far di-oxide pollute air. According to environment department many cities of this country particularly Dhaka, there are many causes to air pollution such as lack of implementing building codes and road constructing codes, date expired vehicles, huge number of bricks factories. Finally, this polluted air is a threat for health sector of Bangladesh.

V. Conclusion

Health care service provide all types of health related services such as consultancy, prescription, diagnosis, treatment, nursing, healthy environment, clean and comfortable places and sanitation, available bed, available of doctors and nurses, good behavior of doctor and nurse, and follow up. But it is regret thing is that there is acute unavailability of these services in the developing or underdeveloped countries particularly in Bangladesh. This unavailability creates some challenges for the patients and as a result, they are not able to get proper health services. Study explore that there are many challenges in health care services such as inadequate infrastructure, population-bed ratio, doctor-nurse ratio, regional discrimination, low health expenditure, scarcity of drugs and high cost of rare drugs, high treatment cost, and unused of medical equipment in the public hospitals. Study also reveals that patient cannot access proper health care due to the illiteracy and poverty. Many of the cases, they are deceived by fraud to reach proper doctor and diagnosis services especially who comes from rural areas. Most of the rural patients do not aware about health knowledge and insincere about the necessity of the health care in appropriate time. Study also found that due to their poverty and unawareness, they are not able to get access better health care services from better places. This situation is created due to inadequate budget allocation and weak and desperate administrative management in health services. Moreover, changing character of diseases and natural calamities also make situation critical for the patients to get access to health care. However, the government of Bangladesh takes huge initiatives to upgrade its health care services and achieve some remarkable progresses. Most recently, government has achieved some important goals of MDGs such as reduced child and maternal mortality, and improves maternal health, and building consciousness about health care among the people. In spite of these achievements, government has to mitigate the challenges in health care services and ensure the quality health services for all its citizens.

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