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Health Equity in Bangladesh: A Comparative Review and Recommendations for Policy and Practice

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Abstract: This paper is an attempt to focus on the healthcare facilities and health equity in rural and urban Bangladesh, especially for those who are living below the poverty line and in the marginalized communities. The paper also intends to review the existing literature on health equity in Bangladesh to know the overall picture of it. The methodology of the study is content analysis and review of secondary documents. The key findings of the study are richer people in urban and rural areas have better access to health care facilities than the poorer segment of rural people spend much more money on their health benefits than urban ones due to income inequalities. Urban poor people take self-care and home remedies rather than sophisticated treatment for economic barriers and rural poor people get low-quality treatment from village doctors, community clinics, and pharmacies due to the same reasons as the urban poor ones. The study also finds that urban and rural rich people get treatment from private hospitals and tertiary hospitals whereas the rural and urban poor depend on drug sellers, pharmacies for general diseases, and public hospitals for acute diseases. Rural poor people depend on village doctors, pharmacists, community clinics, and traditional healers. The study reveals that there are physical, geographical, and infrastructural barriers to health care facilities in the rural areas than the urban areas of Bangladesh, and rural areas of the country are deprived of qualified skilled doctors, nurses, and technicians. To ensure health equity in rural and urban Bangladesh some pragmatic recommendations have been produced to minimize the challenges.

Keywords**:** Health Equity, Health Care Facilities, Rural, Urban, Poor People, Bangladesh

Introduction

Bangladesh has achieved considerable progress in Population, Health, and Nutrition (HPN) areas like increasing trend of adoption of modern birth control practices, a decline in total fertility rate, increased life expectancy, and an increase in child nutrition. The infant mortality rate has shown a steady decrease

but the maternal mortality rate has not reached its goal (Bangladesh Planning Commission, 2020). Health is improved for many people globally but not for everyone (Friel & Baker, 2009). In Bangladesh, various studies have shown the widening gap of health inequalities among the different classes, sexes, and occupational and social groups. Health inequalities are gradually widening among the various poverty groups within poor people in rural areas of Bangladesh (Karim et al., 2006). Bangladesh has a history of long struggle with the widespread inequities in health between the rural and urban areas (Akter & Kabir, 2023; Angeles et al., 2019). In Bangladesh, life in urban areas like Dhaka, Chattogram, Rajshahi, Khulna, etc. is parallel with the water, air, and noise pollution and these polluted water and land create multiple threats to the health of the people mostly the marginalized and poor ones who are living in the slums, roads, and unhealthy environment. In Bangladesh Health budget is not too much. The government of the country has proposed to allocate BDT 380.52 billion for the health sector for the financial year of 2023-24 and this is a small increase from the fiscal year 2022-23 of BDT 368.63 billion (The Financial Express, 2023). The public expenditure in healthcare and nutrition is still standing at 0.7% of GDP for a very long-time and that is very low according to the needs of the people (Bangladesh Planning Commission, 2020). The actual health budget for the poorest of the poor (20%) people in Bangladesh is only 16 percent of the total budget for health issues (O'Donnell et al., 2007; Werner, 2009).

The health system of Bangladesh is progressing day by day (Mujeri & Mujeri, 2020) and the country has already achieved some goals of MDGs especially the goal-4 and goal-5 with a very significant decline in child and maternal mortality. Besides, the country is also on track to reduce underweight children and achieve goal 1 of the MDGs (Millennium Development Goals) (Ministry of Health and Family Welfare (MOHFW) Bangladesh, 2015). The Bangladesh Demographic and Health Survey-2022 has shown a remarkable achievement in women and child health issues. According to the BDHS 2022, the mortality rate of under-five (5) children was only 31 among 1,000 live births in the three years prior to the 2022 BDHS. The infant mortality rate and child mortality rates were 25 and 6 deaths among 1000 live births respectively during 2019- 2021. The survey also found that the neonatal and postnatal mortality rates were 20 and 5 deaths per 1000 live births in Bangladesh respectively (National Institute of Population Research and Training (NIPORT); ICF, 2023, p. 61). Bangladesh has already achieved a goal of the 4th-HNPSP (Health, Population, and Nutrition Sector Program) that targets under-5 (five) mortality to 34 per 1000 live births. The country is near to achieving another goal of the HNPSP which targets neonatal mortality to 18 per 1000 live births (National Institute of Population Research and Training (NIPORT); ICF, 2023, p. 61). The country is providing comprehensive health services by the Ministry of Health and Family Welfare (MOHFW), and the Ministry of Local Government, Rural Development and Cooperatives (LGRD). These ministries are operating excellent disease surveillance, and warning systems so that communicable diseases are to be detected and controlled easily (World Health Organization & Asia Pacific Observatory on Public Health Systems and Policies, 2015, p. 156). The country is going ahead to achieve the SDG's universal healthcare by 2030, but the path will not be easier because many gaps are newly emerging between the policy and reality. In this sector, major inequalities are still present and need to be immediately addressed pragmatically. The major challenges regarding health issues in the country are inequalities between rich and poor, rural and urban people, mortality rates in non-communicable diseases, out-pocket expenditure, enhancing care facilities and health care services for all, accreditation for quality of care (Bangladesh Planning Commission, 2020).

Objectives

The objectives of the study are:

1. To know the current state of health equity in Bangladesh.
2. To explore the difference in health equity between rural and urban areas, rich and poor people.
3. To identify current policy instruments and future policy needs to ensure health equity.

4. To provide possible recommendations regarding health equity in Bangladesh.

Methods

The narrative literature review and content analysis were conducted on the literature of health equity and health services in rural as well as urban areas in Bangladesh. The study used databases from Google Scholar, PubMed, United Nations Databases, and other national databases related to health issues in Bangladesh, published between January 2000 to July 2023. The Keywords were "Health Equity", "Health Care Facilities", "Rural Areas", "Urban Areas", "Marginalized People", and "Bangladesh". The literature review was conducted between July 2023 to August 2023. After that, the literature was reviewed and synthesized for a comparative analysis manually. The study mainly discussed two key questions. (i) the difference between the health equity of rural and urban areas of Bangladesh, and (ii) the health equity between rich and poor people of the country. The review process was done following the three-stage process. Firstly, we have collected literature from databases. Secondly, we have screened the literature according to their affinity and relevance to the study objectives. Thirdly, we have reviewed the literature and analyzed it for comparative study.

Theoretical Underpinnings

In this study, the social justice theory of American Philosopher John Rawls will be applied to identify the primary areas of health-related issues in Bangladesh, especially the rural and urban health issues and injustice (Rawls, 1971). In this study, we will present Rawls's theory of "equity of opportunity" for ensuring social justice and then we will focus on Norman Daniel's approach. Daniel extended Rawls's theory into the area of public health, especially the social barriers and differences in public health in rural and urban areas of Bangladesh (Shafique et al., 2018). Besides, the study will also cover the approaches (a) health in the list of primary social goods (Coogan, 2007), and (b) Norman Daniel's normal function approach (Daniels, 2009; Ekmekci & Arda, 2015).

Although the theories of social justice are silent on the cases of health, the focus on health equity is addressed limitedly and the focus is only on access to health care (Daniels, 1985; Fried, 1975; Peter & Evans, 2001). John Rawls in his book 'A Theory of Justice' described the concept of "justice as fairness" (Rawls, 1971). Rawls's theory is often understood as demanding to give priority to the "worst off group" in society, especially in the case of health and health of the poorest segment of the people of society (Marchand et al., 1998; Peter & Evans, 2001). He also emphasized that the contribution of justice ought to play within the social attachment and his view directs the society to arrange the equitable distribution of resources (Rawls, 1971). To ensure equitable distribution, he proposes the idea of "original position" and the position is a state where no one knows nothing about their position in the society. The position is like a blank state, and the situation is termed by Rawls as "a veil of ignorance" (Rawls, 1971).

Rawls prioritizes the concept of the "veil of ignorance" for formulating the set of principles for the society to keep the social functioning smooth without the unfairness to anyone (Rawls, 1971). The veil prevents the individuals from remembering about their own "concept of good" and their "life plans" (Rawls, 2005). The main point of Rawls's theory is that rational individuals will fix the "principles of justice" by giving priority to the "worst off behind" the "veil of ignorance", where people are unacquainted with their personal belongings (Peter & Evans, 2001).

Extending Rawls, (1993) suggestion Peter and Evans concluded that "Inequalities in health are unjust if they are caused by unjust social arrangements" (Peter & Evans, 2001). Norman Daniel extended Rawls's theory of justice and argued that justice is a very necessary obligation to public health (Daniels, 2001), and he also prioritized the moral significance of health, so that it can contribute meaningfully to the inauguration of a variety of opportunities for the mass people. Daniel also advocates that the government

should formulate and implement policies for equalizing and distributing life opportunities to individuals, like elementary education, and reasonable housing, and those can reduce health inequities (Daniels, 2001).

Concept of Health Equity

American Center for Disease Control and Prevention (CDC) defined health equity as *"Health equity is the state in which everyone has a fair and just opportunity to attain their highest level of health"*(Center for Disease Control and Prevention (CDC), 2023). Attaining health equity continuous societal initiatives and support are required to address past and modern-day inequalities; overcome financial, social, and other impediments to health, health system, and healthcare facilities; and eliminate avoidable health inequalities (Braveman et al., 2017; Center for Disease Control and Prevention (CDC), 2023);(Office of Disease Prevention and Health Promotion (ODPHP), 2021). The World Health Organization (WHO) identified several social determinants of social equity from a holistic viewpoint. These determinants are shown in the following figure:

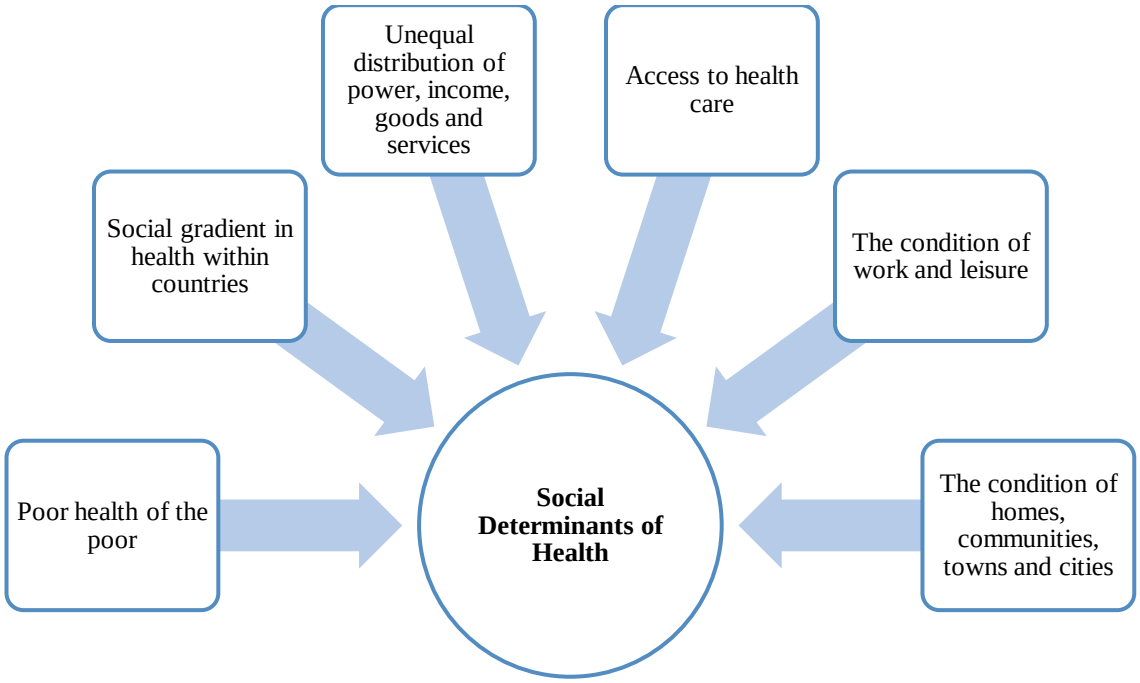

Figure 1: Social Determinants of Health [Source: (WHO Commission on Social Determinants of Health. & World Health Organization., 2008)]

World Health Organization (WHO) defined health equity as, ***"Health equity is achieved when everyone can attain their full potential for health and well-being"*** **(World Health Organization (WHO), 2023). It is also pronounced as the absence of systematic inequalities in health and social factors (determinants) of the health of the people who live in different tiers of social hierarchy** (Whitehead M., 1992; Zere et al., 2013)**.** For measuring equity in health Zere et al., (2013) suggest three key steps be followed: (a) identifying the variables of interest of the men whose needs should be measured; (b) measuring the socioeconomic positions (status) for classifying households, families or individuals into diverse socioeconomic layers; and, (c) measuring the degrees of inequalities (Zere et al., 2013, p. 3). The concept of equity is kept at the core of the agenda of the Sustainable Development Goals (SDGs) by entitling "leave no one behind". It encompasses some goals (1,3,4,5,10, and 17) and targets that are very

much linked to health issues, education, gender issues, equity, and partnerships (United Nations (UN), 2015). The universal coverage of health (SDG Goal-3) entails that the health-system should be regularly watchful of the coverage of interventions and outcomes of populations as well as the situation of the population subgroups (Hosseinpoor et al., 2014, 2015; Nambiar et al., 2019).

Findings of the Study

Country Profile of Bangladesh and Health-Related Indicators

In South Asia, Bangladesh is supposed to be a low-income country situated on the bank of the Bay of Bengal surrounded by India from three sides and Myanmar in the East. Among the 169.8 million people in the country, 68.34% live in rural countryside, and 31.66% live in urban areas (Bangladesh Bureau of Statistics (BBS), 2023b). According to the recent census of 2022, the population growth rate in Bangladesh was 1.22, and the population density per square kilometer was 1119 (Bangladesh Bureau of Statistics, 2022). Global Multidimensional Poverty Index (MPI) of 2023 shows that the value proportion of the population (multidimensionally poor) is 0.104, which consists of 24.6% of the total population. The intensity of deprivation of multidimensional poverty is 42.2, and the inequality among the poor is 0.010 (United Nations Development Programme (UNDP) and Oxford Poverty and Human Development Initiative (OPHI), 2023). MPI-2023 also revealed that about 6.5% of the population lives in severe multidimensional poverty, and 18.2% population is susceptible to multidimensional poverty (Mujeri & Mujeri, 2020). In these circumstances, the contribution of health to the vulnerable to multidimensional poverty is 17.2%, and about 24.3% of people live below the national poverty line (NPL). Moreover, the number of population living beneath the international poverty line (IPL) in Bangladesh ($2.15) a day is 13.5% (Mujeri & Mujeri, 2020; United Nations Development Programme (UNDP), 2022; United Nations Development Programme (UNDP) and Oxford Poverty and Human Development Initiative (OPHI), 2023). According to ADB, in Bangladesh, about 20.5% population lived below the NPL in 2021 (Asian Development Bank (ADB), 2023; Sattar, 2021). The Household Income and Expenditure Survey (HIES) -2022 reported that the upper poverty line (UPL) of Bangladesh is 18.7% and among them, 20.5% are from rural areas and 14.7% from urban areas (Bangladesh Bureau of Statistics (BBS), 2023a). The Human Development Report (2021/22) by the UNDP, the Human Development Index (HDI) rank of the country is 129, and the HDI value is 0.661. The life expectancy of the people of the country is 72.4 which covers SDG 3. On the other hand, the gross national income (GNI) of the country is 5472 USD and it also covers SDG 8.5 (United Nations Development Programme (UNDP), 2022). The Average annual growth in HDI of Bangladesh from 1990-2021 is 1.66. The coefficient of human inequality in Bangladesh is 23.1 and the Gini coefficient of Bangladesh is 32.4. Besides, the inequality in the income of the people is 16.6% (United Nations Development Programme (UNDP), 2022). The average monthly per capita income in Bangladesh according to the HIES-2022 is BDT 7,614, where BDT 6,091 in rural areas and BDT 10,951 in urban areas (Bangladesh Bureau of Statistics (BBS), 2023a). The income inequality in the country is 0.499 (Gini Coefficient) (Bangladesh Bureau of Statistics (BBS), 2023a). The average calorie intake according to HIES- 2022 is 2393.0 k.cal and the average of rural and urban areas are 2424.2 k.cal and 2324.6 k.cal respectively (Bangladesh Bureau of Statistics (BBS), 2023a). According to the WHO country representative to Bangladesh, a study of 2020 represents that Bangladesh has only 9.9 doctors, nurses, and midwives for each 10,000 (Nuruzzaman et al., 2022) people which is much lower

than the worldwide median of 48.6 (Ministry of Health and Family Welfare (MOHFW) Bangladesh & World Health Organization (WHO) Bangladesh, 2021). Bangladesh initiated a Sector-Wide Approach (SWAp) in 1998 under the Ministry of Health and Family Welfare to modify the health, nutrition, and population (HNP) sector (Sattar, 2021). Bangladesh has already completed the third (2011-2016) and fourth (201-2022) SWAps and the health-SWAp in the country offers a wide range of fruitful programs by adopting a complicated approach to health administrative structure (Ahsan et al., 2016). SWAp contributed to implementing successful programs in health care in Bangladesh over the decades.

Present Condition of Health Equity and Healthcare Facilities in Bangladesh

In Bangladesh, community clinics have facilitated more access to health benefits for people living in poverty and women in need through community participation (Bangladesh Planning Commission, 2020). The country's government has approved the "Community Clinic Health Assistance Trust Bill-2018" to ensure the benefits of rural poor people from community-based health services (Bangladesh Planning Commission, 2020). The review findings by Haque et al., (2020) revealed that a primary health care-based approach gives opportunities to the community people to better access to healthcare facilities. The approach also ensures noteworthy equity, efficacy, protection, safety, and timeliness that warrants better quality of health care outcomes at a much lower cost (M. Haque et al., 2020). A study by Ross (2015) on reproductive health equity in forty-six (46) middle and low-income countries including Bangladesh focused on the gap related to the health (reproductive health) indicators such as family planning issues, fertility issues, antenatal health care, infant mortality, and child mortality (Ross,2015). The study showed that the gap between the poorest ones and the richest ones is narrowing due to the development of poor countries (Ross, 2015, p. 419). The study revealed that the gaps are becoming narrower in the countries where family planning programs are stronger and the gap is narrowing for the cases of 18 reproductive health indicators. In South Asia, especially in Bangladesh, the gap has reduced by one-third in the cases of infant and child mortality (Ross, 2015, p. 419.

O'Donnell et al., (2007) found in their study that the distribution of public healthcare facilities is pro-rich for most of the developing countries in the world (O'Donnell et al., 2007). In developing countries like Bangladesh, health care services are somehow depended on the out-of-pocket (OOP) payment systems. On the contrary, another study by Van Doorslaer et al., (2007) showed that Bangladesh, Nepal, India, China, and Vietnam have the most catastrophic payment system as the countries' health systems mostly depend on OOP payments. As a result, the poorest of the poor people have to make a cut in their other basic human needs for the excessive treatment costs (Van Doorslaer et al., 2007). Another study pointed out that in Asian countries especially the poor and developing ones, the higher-income households generally contribute more to the financing of healthcare (O'Donnell et al., 2008). The better-off families were found to contribute more in low, and lower-income countries in Asia in healthcare expenses (O'Donnell et al., 2008).

A review study by Friel & Baker (2009) pointed out that there are no biological reasons for the difference in health (eg. diet-related health) observed in the Asian countries and Pacific regions rather than irregular economic growth, incapable/unequal upliftment in daily living conditions are responsible for health inequity. Besides, the unequal dispersal of technological developments and the defeat of human rights have made health inequities worsen (Friel & Baker, 2009, pp. 620–632). A mixed method study by

Mannan (2013) revealed that though the Government of Bangladesh allocates and spends a substantial amount of resources for the health sector, the outcome is not up to the mark. He identified that health facilities are suffering from inadequacies and multiple factors are causing barriers to the health facilities development (Mannan, 2013). The study by Mannan (2013) also found that women and the poor were mostly found to use public health facilities and a crucial finding is that physical accessibility of public health services is not a barrier, but economic accessibility has remained a major hurdle in this sector (Mannan, 2013, p. 25).

The Ministry of Health and Family Welfare (MOHFW), Bangladesh manages a duel system of health and family planning services (Sattar, 2021) by the Directorate General of Health Services (DGHS) and Directorate General of Family Planning (DGFP). The system includes (a) District General Hospitals (district headquarters), (b) Upazila Health Complexes (sub-district level), (c) Union Health and Family Welfare Centers (Union Level), and (d) Community Clinics (Village/ Ward level) (Sattar, 2021). Besides, the Ministry of Local Government, Rural Development and Cooperatives (LGRDC) manages the establishment of urban primary care services (Sattar, 2021; World Health Organization & Asia Pacific Observatory on Public Health Systems and Policies, 2015). The health service delivery organizational structure is shown in the figure 2:

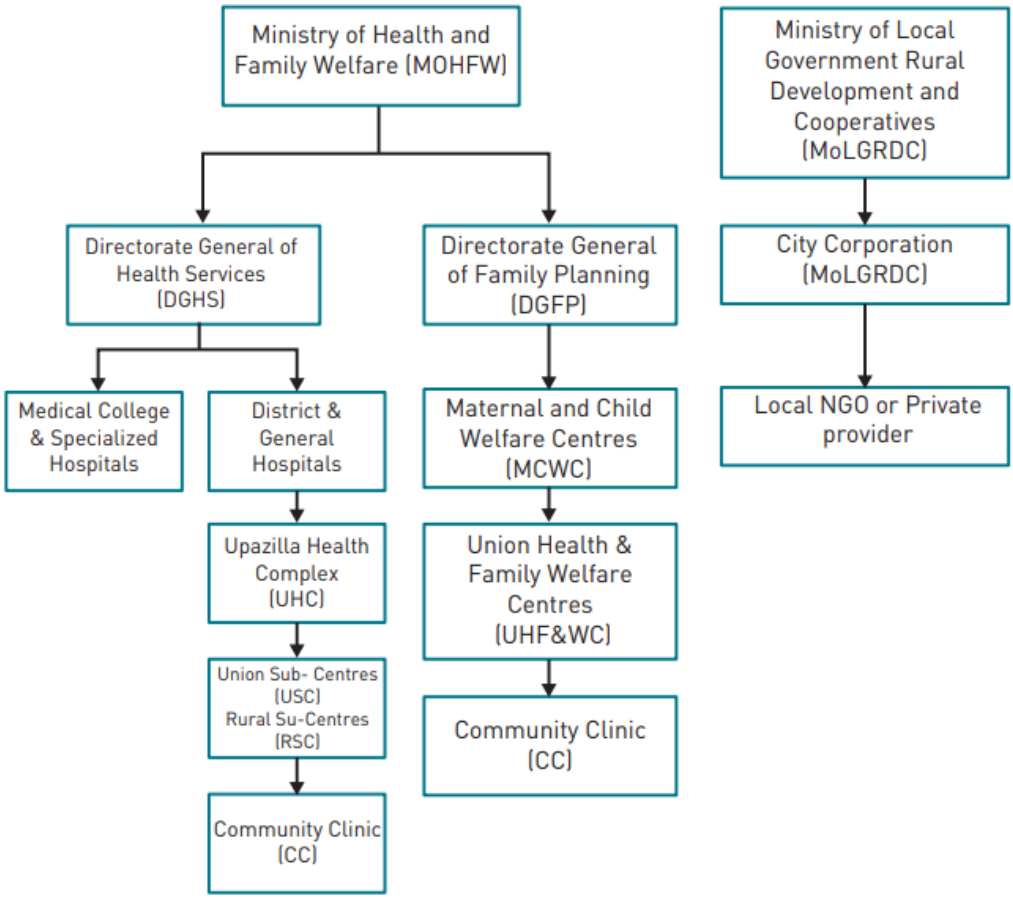

Figure 2: Health Service Delivery Organizational System in Bangladesh

[Source: (World Health Organization & Asia Pacific Observatory on Public Health Systems and Policies, 2015)]

The health system of Bangladesh follows a five-layer hierarchical system. The health system is shown in figure-3:

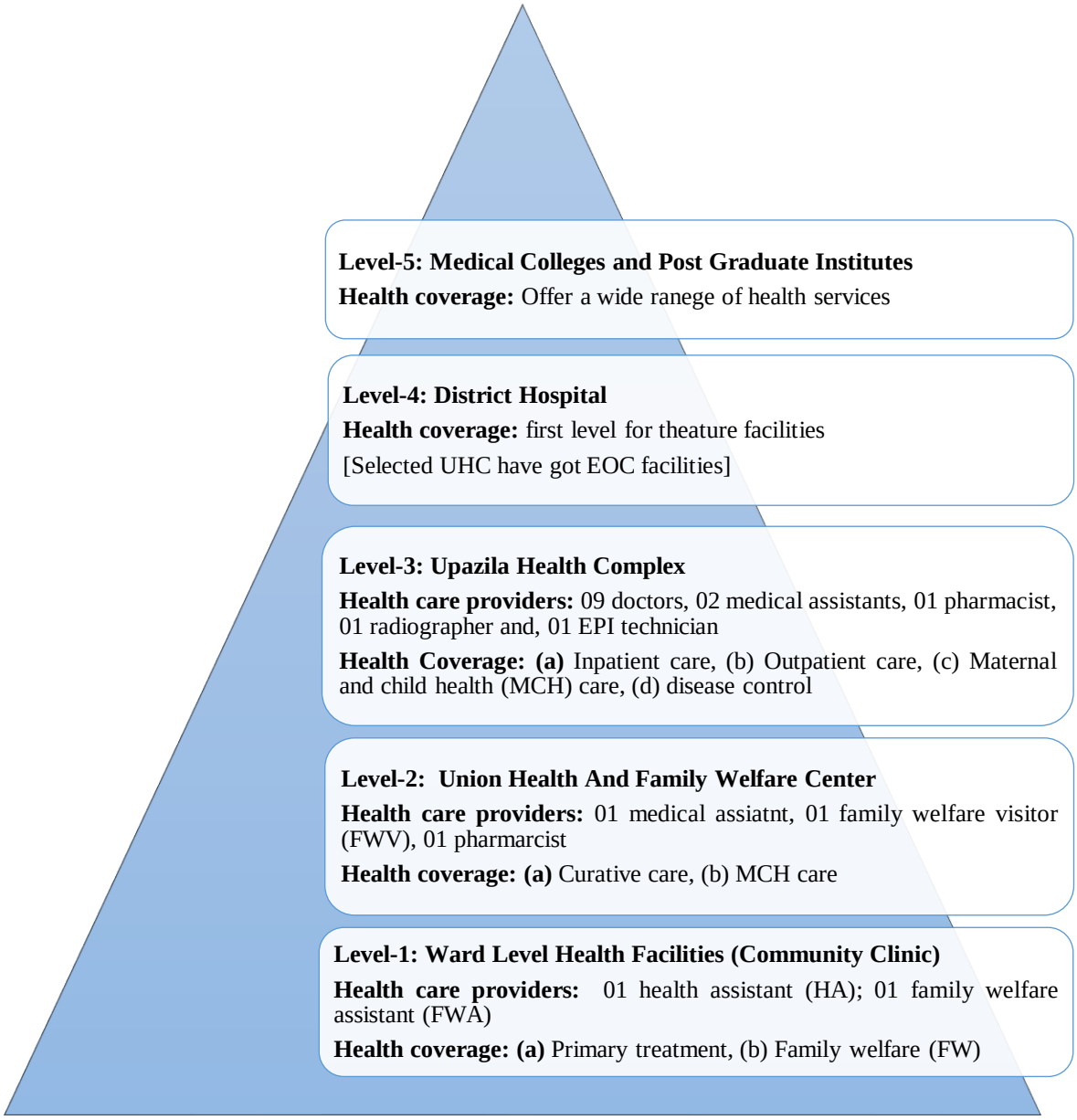

Figure 3: The Hierarchical Health Care System Pyramid of Bangladesh [Source: (Mannan, 2013; Roy et al., 2018, p. 34)]

Current healthcare facilities in Bangladesh and the health workforce have shown remarkable progress. The healthcare facilities and workforce of Bangladesh are shown in the following table:

Table 1: Healthcare Facilities and Workforce of Bangladesh

Serial No.	Healthcare Facilities, Services, and Workforce (Till 2018)	Number
1	Government health facilities	2558
2	Primary-level facilities (except Community Clinics)	2004
3	Secondary and tertiary-level facilities	254
4	Registered private hospitals and clinics	5,054
5	Registered private diagnostic centers	9529
6	Population per registered physician	1581
7	Registered physician per 10,000 population	6.33
8	Public hospital beds per 10,000 populations (Run by DGHS)	3.24
9	Private hospital beds per 10,000 populations (Registered in DGHS)	5.57
10	Health, Population and Nutrition Sector Program Dependency ratio (percent)	53 (Rural=57, Urban=47)

[Source:(Directorate General of Health Services (DGHS), 2018, pp. 3–7)]

The healthcare facilities in Bangladesh hold a mixt system that includes four (04) major actors for providing a clear description of the healthcare infrastructure of the country. These key actors are (a) governmental organizations (GOs), (b) private entrepreneurs, (c) non-governmental organizations (NGOs), and (d) donor agencies (World Health Organization & Asia Pacific Observatory on Public Health Systems and Policies, 2015). In Bangladesh, the major formally trained health workforce is constituted of physicians, dentists, nurses, midwives, medical assistants, technologists, domiciliary workforce, alternative medical care professionals, allied health professionals, and so on. From 2008 to 2014 the seats in medical colleges (public and private) increased 24% and 148% respectively (Ministry of Health and Family Welfare (MOHFW) Bangladesh, 2015). According to a study by Cockcroft et al., (2004) about 13% of patients use government healthcare services, 27% of people use services from private venture or NGO-based services, and the rest 60% of the people use unqualified services in Bangladesh (Cockcroft et al., 2004; Directorate General of Health Services (DGHS), 2018). Siddiqui et al., (2007) in their survey revealed the quality of healthcare services provided by the public, private/NGO, and foreign hospitals according to the views of the patients. The study found that the quality of services in private hospitals got higher scores than the public hospitals in terms of nursing care, visible hospital concerns such as cleanliness and hygiene, provision of utilities, and availability of drugs (Siddiqui et al., 2007). Foreign hospitals showed a better service quality than the private hospitals in the country from all factors. Even the foreign hospitals showed a better quality from the viewpoint of “perceived cost” (Siddiqui et al., 2007, pp. 221–230).

According to the study of Bangladesh Health Watch (2007), the distribution of healthcare providers in Bangladesh (per 10000 population) is shown in the figure 4:

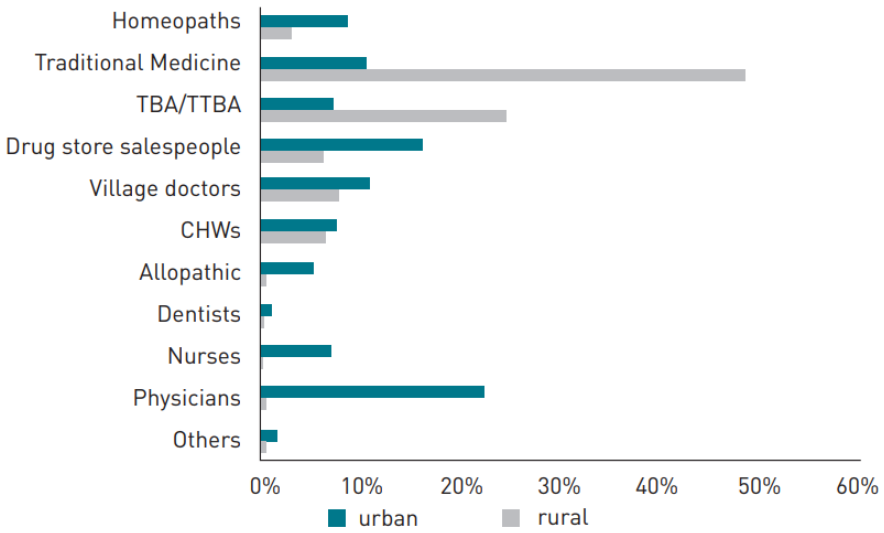

Figure-4: Distribution of health care providers in Bangladesh (Rural vs Urban) [Source: (Bangladesh Health Watch (BHW), 2008; World Health Organization & Asia Pacific Observatory on Public Health Systems and Policies, 2015, p. 95)**]**

According to the Bangladesh Health Watch Report 2007, the density of qualified allopathic doctors, nurses, and dentists in the formal healthcare setting is better projected in urban locations in Bangladesh than the rural ones. On the contrary, traditional birth attendants and healers are more prominent in the rural setting than the urban ones (Ministry of Health and Family Welfare (MOHFW) Bangladesh, 2015, p. 3).

Theoretically, Bangladesh has a sophisticated health system and massive investment has been made to develop the health infrastructure in the country. Besides, thousands of doctors, nurses, and technicians have been produced over the time being. But the bad example is that a considerable number of people in the country are deprived of basic health needs even though sometimes the care they receive is very inadequate. Although the country's health facilities and services are open to all, some special persons avail of these services who are much favored by geographical causes, position, social class, power, and wealth. A large number of underserved populations are mainly the rural and urban poor and marginalized ones (Bangladesh Health Watch (BHW), 2007, 2008; Mannan, 2013, p. 28). Although the public health benefits/services for the urban and rural poor people free of charge are supposed to exist in Bangladesh, the reality is quite different. Here the poor people are mostly deprived of or have low access to public health services. The basic reason of the fact is that the poor cannot offer money or gifts as bribes for making connections (Werner, 2009). A study by WHO reveals that very few specialized facilities in health services are primarily confined to Dhaka, a Capital City in Bangladesh, dealing with non-communicable diseases (NCDs). However, the public hospitals in districts and subdistricts have no qualified and trained medical professionals/ staff and available drugs necessary to treat NCDs (World Health Organization & Asia Pacific Observatory on Public Health Systems and Policies, 2015, p. 156).

In the cases of reproductive and maternal health services, wealth-related inequalities are found to be absent in terms of the use of modern contraceptives. However, inequalities were observed in the intervention style in favor of the poor people (Zere et al., 2013, p. 1). Zere et al., (2013) found that in the cases of antenatal care programs pro-wealth inequality was observed in Bangladesh. It was also observed that less wealthy women who attended antenatal care did not receive proper screening and treatment in time (Zere et al., 2013). The study also revealed that the delivery by skilled attendants increased four times for the wealthier than the poorer ones. The delivery by traditional birth attendants (TBAs), and child home deliveries have seen a significant increase among the poorest rather than the richest ones (Zere et al., 2013). Based on the evidence of BDHS Surveys 2014, Mamunur Rashid et al., (2019) showed the disparities between the rural and urban people in the cases of health issues. According to them the overall condition of health disparities in the richest group is better than the poorest group, and the richest population (rural-urban) is more than free from rural-urban and poorest-richest health inequalities than poorest populations (Md. M. H. Khan et al., 2013). The disparities are shown in the table-2 and table-3:

Table 2: Urban Rual Disparities of Health Indicators According to the BDHS 2014

Indicators	Urban (%)	Rural (%)	Urban/Rural Ratio	P- Value
Age at marriage	34.9	25.4	1.37	0.000
The ideal number of children	86.5	79.8	1.08	0.000
Adequate Anti Natal Care (ANC) visits for recent child	45.8	25.4	1.80	0.000
Health care facility for the recent child	79.0	59.4	1.32	0.000
Underweight	17.2	26.3	0.65	0.000
Overweight	25	12.1	2.06	0.000

[Source: (Mamunur Rashid et al., (2019), p. 18); (Md. M. H. Khan et al., 2013).

Table 3: Richest Poorest Disparities of Health Indicators According to the BDHS 2014

Indicators	Richest (%)	Poorest (%)	Richest/Poorest Ratio	P- Value
Age at marriage	39.2	21.0	1.86	0.000
The ideal number of children	86.3	78.9	1.09	0.000
Adequate Anti Natal Care (ANC) visits for recent child	48	20.9	2.29	0.000
Health care facility for the recent child	81.3	54.9	1.48	0.000
Underweight	14.2	29.8	0.47	0.000
Overweight	26.8	9	2.97	0.000

[Source: (Mamunur Rashid et al., (2019), p. 19); (Md. M. H. Khan et al., 2013)

Khan et al., (2017) found an overall pro-rich distribution of healthcare services was observed in their study (J. A. M. Khan et al., 2017). The private health benefit providers mainly favored the rich socio-economic groups. Little inequalities were seen in terms of the services provided by the public as well as NGO health providers (J. A. M. Khan et al., 2017). About 95.9% of inequity had been shown by the private providers of service to the total inequities. The study found that the poorest group constitutes

21.8% of healthcare needs and received 12.7% benefits on the contrary, the richest group (18.0%) received 32.8% of the total healthcare benefits (J. A. M. Khan et al., 2017). In the public health sector especially in the urban setting an approach by BRAC has succeeded in the critical periods of women like pregnancy, delivery, and post-partum care. A study by Adams et al., (2015) revealed that Manoshi (an approach by BRAC) community health workers (CHWs) have successfully influenced the networks that made the women rely on the approach during the critical periods of their reproductive phases. Besides, this approach has become an example of treating moving people by an approach in a reliable way with the help of community health workers and social networks (Adams, Nababan, et al., 2015). Civil society plays a key role in reducing health inequity and it was also seen that civil society worked as a helping hand and catalyst of reducing the health inequity. Rather, weak administrative capacity, internal multifaceted politics, haphazard funding, unclear status of the workers, and lack of awareness made the barriers to providing society-based health approaches (Schurmann & Mahmud, 2009).

Policy Instruments for Administering the Health Inequity in Bangladesh

Bangladesh has developed many instruments for ensuring health equity through public-private partnerships, proper management, and care facilities. The government of Bangladesh has proven its capabilities to achieve universal health coverage by 2032 (Ministry of Health and Family Welfare, 2012). Besides, in 2017, the WHO arranged a special workshop on monitoring the health inequalities in Bangladesh (Nambiar et al., 2019). In 2002, a Bangladesh Health Equity Watch (BHEW) survey was conducted which was a milestone for measuring health equity in Bangladesh (Ahmed et al., 2003). Currently, Bangladesh is going under the following health policies:

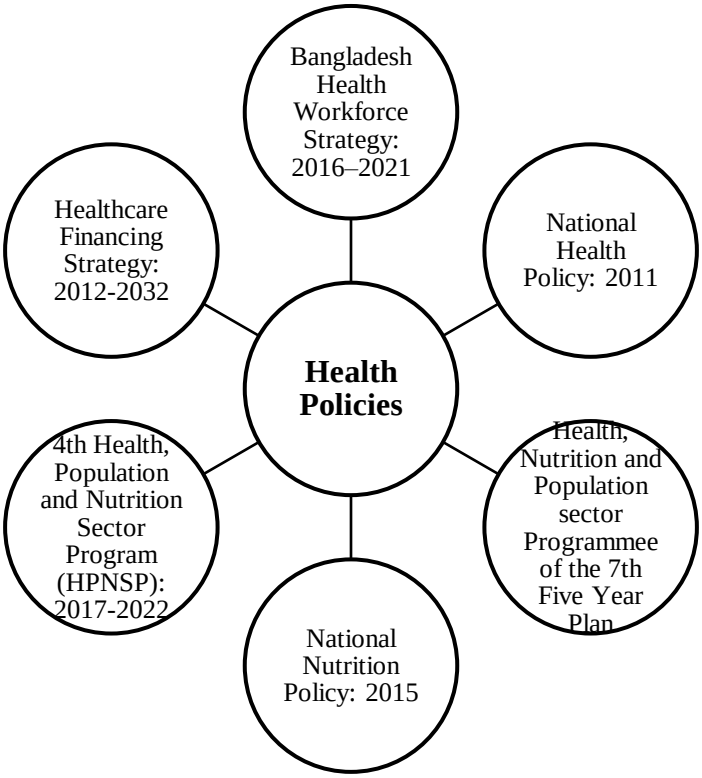

Figure 4: Important Milestones in Health Policies of Bangladesh [Source: (Directorate General of Health Services (DGHS), 2018)].

Bangladesh Health Watch (BHW) started its journey in 2006 to monitor the health system and "equity-linked reform" in Bangladesh. Till now, BHW has produced many reports regarding the health inequality in Bangladesh such as (a) health equity (2006), (b) health workforce (2007), (c) health sector governance (2009), (d) universal health coverage (2011), (e) urban health scenario (2014), (f) Rohingya Camp Health Perspective (2018-19), and (g) Covid-19 in Bangladesh (2020-21) (Nambiar et al., 2019). In the future, steps will be taken to strengthen these efforts and create a thrust among health workers, academia, administration, government, and civil society for equity-oriented changes in society.

Health Inequity in Rural and Urban Areas of Bangladesh

The health inequity and disparities in rural and urban areas of Bangladesh are very significant in terms of accessibility and availability of healthcare services, and the quality of care (Akter & Kabir, 2023). The health inequity of Bangladesh is discussed from the viewpoints of (a) access to healthcare services and benefits, (b) nature of taking/receiving services, (c) people are affected by the diseases, (d) health-seeking behavior, (e) inequities in physical infrastructures and service providers, and (f) inequalities in food and nutrition.

(a) People's Access to Healthcare Services and Benefits

Rural Areas

About 66% of people of Bangladesh live in rural countryside areas and a primary challenge is the lack of continual access to healthcare benefits (Akter & Kabir, 2023; Fauveau et al., 1990). Primary healthcare is mostly inaccessible due to the geographical barriers to well-distributed services. The lower quality of care and regular absenteeism influence the people to take care from informal sources like "village doctors" and direct purchase medicine from pharmacies (World Health Organization & Asia Pacific Observatory on Public Health Systems and Policies, 2015). Failure to attract skilled doctors, and nurses in some areas like the North-East or North-western part of the country make the care system in rural areas scarce (World Health Organization & Asia Pacific Observatory on Public Health Systems and Policies, 2015). Because of the inequalities, the rural people are suffering more from preventable diseases to restricted access to health care services (Akter & Kabir, 2023). The current reform in Bangladesh suggests one CC for every 6000 people in rural settings keeping access to medical treatment at no cost, although the service quality is questionable (World Health Organization & Asia Pacific Observatory on Public Health Systems and Policies, 2015). In Rural areas, the healthcare services are mainly for the pro-rich (J. A. M. Khan et al., 2017). Inequalities in health care are mostly contributed by the private sector in urban (96.4%) and rural (94.7%) and the public sector providers caring for the urban (4.5%) than the rural (3.0%) population of Bangladesh (J. A. M. Khan et al., 2017). In the rural areas, primary healthcare is at the community level, one secondary healthcare system at the sub-district (Thana) level, and, one tertiary healthcare system at the district level for 68.34% of people, and there are no specialized private or public institutions for the people. They are deprived of the urban facilities. (World Health Organization & Asia Pacific Observatory on Public Health Systems and Policies, 2015). In rural areas, it was seen that healthcare services are available from NGOs for the poor at a cheaper rate than the rich ones (J. A. M. Khan et al., 2017).

Urban Areas

Access to healthcare services in urban areas is higher than in rural ones, but the quality of services is below the standard (Akter & Kabir, 2023). High levels of care and diagnostic services are still available in the urban areas of Bangladesh such as the capital city Dhaka, and the specialist doctors and nurses prefer to stay in Dhaka. It was also observed that access to better medical facilities and care is easier for the higher socioeconomic quintiles of people like skilled delivery or better treatment (World Health Organization & Asia Pacific Observatory on Public Health Systems and Policies, 2015). The uncontrolled plethora of the private sector and dissipated practices of healthcare providers make a high range of out-of-pocket (OOP) expenditures from the urban poor people that are leading them to debt and destitution (Shafique et al., 2018). The non-state (private) providers are hired to convey the primary healthcare for the people in municipality and city corporations, and they charge fees or no fees for the poor who are certified (World Health Organization & Asia Pacific Observatory on Public Health Systems and Policies, 2015). Besides, almost all noteworthy public and private healthcare institutions are established in Dhaka or the divisional cities. As a result, urban poor people get some sort of healthcare services (World Health Organization & Asia Pacific Observatory on Public Health Systems and Policies, 2015). Healthcare services from NGOs are concentrated on the richer people in urban areas and somewhat pro-poor in rural areas (J. A. M. Khan et al., 2017).

(b) Nature of Taking/Receiving Services

Rural Areas

A study by Karim et al., (2006) revealed that degrees of health inequalities were present among extreme and moderate poor people. Health inequalities are very low among the poor, and non-poor people during taking easily available services that are free of cost like immunization, vitamin A capsules, and so on (Karim et al., 2006). Although government-operated hospitals generally provide low-cost healthcare facilities to the people, these are often unreachable, jam-packed, short-staffed, and inadequate medicines. According to Dr. Zafrullah Khan Choudhury, “In Bangladesh, there are 4000 [government-run] family and health-care centers” (Amin, 2008). Choudhury also said, “But they are empty most of the time. The doctors come for three to four hours a day; a health center should run 24 hours a day”(Amin, 2008). A study on rural community clinics found that only 36.7% of rural women were aware of the CCs, and they received various services like family planning services, immunization vaccines, tetanus vaccines, antenatal care (ANC), vitamin-A supply, child healthcare, and growth monitoring (Yaya et al., 2017).

Urban Areas

The responsibility of providing primary health care services depends on the local government institutions and the health ministry is not involved directly in this respect. The communication gap between the two ministries, insufficient financial and human resources, and inactive coordinating bodies the health needs of the urban people largely remain unmet (Bangladesh Health Watch (BHW), 2015). A recent study revealed that the richest quintile of urban patients spent only 5.2% of their household income on healthcare, while the poorest households had to spend about six (06) times more than their richest counterparts (Sarker et al., 2022). NGOs are filling the gaps by providing primary healthcare services. Moreover, the poor people are habituated to taking self-care, and home remedies, and visit the nearby

drug shops for their immediate remedies at a low cost and easy accessibility as they have less access to highly decorated and specialized high-expense hospitals (Bangladesh Health Watch (BHW), 2015).

(c) People Are Affected by the Diseases

Rural Areas

Rural people are generally suffering from or prone to or the possibility of experiencing some sorts of common diseases like malnourishment, infectious and non-communicable diseases, and child, and maternal mortalities (Akter & Kabir, 2023; Fauveau et al., 1990; Zahangir et al., 2017). Besides, family income and wealth status of the rural people or rural households play key roles in their nutritional status and their health-related outcomes (Akter & Kabir, 2023; Fauveau et al., 1990; Zahangir et al., 2017). In Bangladesh, among the diseases, preventable non-communicable ones like diabetes, hypertension, heart disease, and strokes are common, maternal and child mortality rates are higher, and most of the diseases are caused by behavioral factors (Akter & Kabir, 2023). A study by Siddique Md et al., (2016) found that in rural areas (study area) the number of people seek healthcare for fever (23%), maternal and child-linked conditions (22%), pain, paralysis, and arthritis/stiffness (22%), for hypertension (20%), and for diabetes (8%) (Siddique Md et al., 2016).

Urban Areas

Urban poor and marginalized people were seen to suffer from a varied types of communicable, and non-communicable diseases. A study on a poor community in Dhaka city revealed that urban women (39.2%) are more obese than urban men (18.9%), and (21.0%) of men were underweighted than women (7.1%) (Khalequzzaman et al., 2017). The study also reported that the frequency/prevalence of hypertension among men was (18.6%) and women was (20.7%). Diabetes is also identified more among women (22.5%) than men (15.6%) which is higher than the national average (7%) (Khalequzzaman et al., 2017). Another study by S. Rahman et al., (1989) found that common diseases of slum dwellers are (a) fever (31.6%), (b) intestinal and abdominal problems (26.3%), (c) measles (11.8%), (d) skin diseases (7. 9%), (e) chronic respiratory infection (9.2%) (S. Rahman et al., 1989) and the rests were "others". The study also reported that nearly one-third of the people (sick people received no treatment at all (S. Rahman et al., 1989). A recent study in Dhaka found that among the people affected by chronic illness, 9.6% of them have diabetes, and 5.3% have some type of blood pressure (High/Low) (Sarker et al., 2022).

(d) Health Seeking Behavior of the People

Rural Areas

A study on health-seeking behavior in the villages of Fatikchari of Chittagong revealed that 94% of respondents have visited hospitals in their lifetime. About one-third of the people have consulted with recognized healthcare providers such as government-approved professional degree holders (registered Doctors, Physiotherapists, Dentists, and Nurses) (Siddique Md et al., 2016) The research study also found that most of the participants (60%) seek healthcare from rural doctors, or nearby healthcare facilities such as clinics or drug sellers. Besides, 2% of people seek homeopathic and 3% seek ayurvedic treatment and the rest of 1% of them goes to traditional and religious healers. In another study by the World Health Organization; Regional Office for the Western Pacific, (2015), in Bangladesh about 75% of rural people

rely on private (small) and informal healthcare providers, and most of them are unskilled or semi-skilled (World Health Organization; Regional Office for the Western Pacific, 2015). A study in a village in Natore District of Bangladesh revealed that people get various treatment from village doctors (91.67%), Upazila (Sub-district) Hospitals (91.67%), District General Hospitals (88.33%), medical college hospitals, and other formal healthcare centers (80%) (Azam & Mazid, 2022, p. 162). Besides, people go to Union Health Center (51.67%), and religious and traditional healers (53.33%). People go to both types of healers (eg. Mosque's Imam, Snake Master- "Sapura", "Ojha" "Kobiraj") for the treatment of snake bites, dog bites, breaking legs, paralysis, and so on (Azam & Mazid, 2022, p. 162). A recent study on the health-seeking behavior of rickshaw pullers in rural areas of Bangladesh reveals that the financial hardship of bearing treatment costs, elongated waiting time for receiving healthcare benefits, inequalities in social class, lack of reliability to the diagnostic services, and the huge number of brokers in the hospital compound were identified as the predominant barriers to seek quality healthcare Services (Q. M. Rahman et al., 2022).

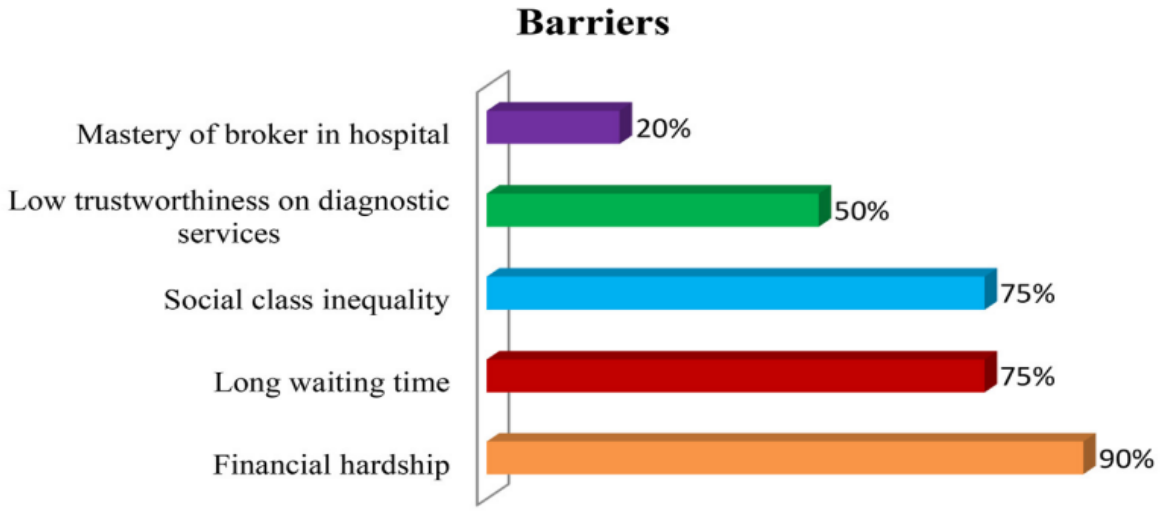

Figure 5: Barriers to Seeking Healthcare Services. [Source:(Q. M. Rahman et al., 2022, p. 4)]

On the other hand, a study on rural elderly people reveal that the most common self-reported disease is fever (43.8%) and the second most common disease is physical pain (15.2%). About 57.5% of elderly people have second health problems in rural areas (Hossain et al., 2019). The findings of the study clarify that only 33.8% of respondents (patients) took the treatment from qualified doctors who have Western degrees or better training from government-approved institutions. But 54% of elderly people had to spend out of pocket on their own. And only 2% of respondents had to sell their properties for their treatment (Hossain et al., 2019).

Urban Areas

A study on the street dwellers in Dhaka city by Tune et al., (2020) reported three major diseases of the urban street dwellers. These are acute illness, chronic illness, and drug abuse. The study reveals that almost all the street dwellers suffer from fever and various types of respiratory illness and the majority of them did not visit the recognized healthcare facilities (Tune et al., 2020). Generally, study respondents take treatment and advice from drug sellers/ shops for their recovery. They go to the formal care facilities

during the failure of the drug shop's advice and in cases of serious illness or traumatic injuries (Tune et al., 2020). Findings also showed that reproductive-aged women did not go to formal care centers for pregnancy care, and most of the deliveries occurred in street residences (Tune et al., 2020). A study by the World Health Organization; Regional Office for the Western Pacific, (2015) revealed that 84% of urban people depended on private, small, and informal unskilled/semi-skilled healthcare benefits providers (World Health Organization; Regional Office for the Western Pacific, 2015).

(e) Inequities in Physical Infrastructure and Service Providers

The transportation system of the rural areas is not developed enough, so people are reaching healthcare centers with a significant delay. As a result, the mortality rate increases from unexpected cases like myocardial infarction, cardiac arrest, brain stroke, types of poisoning, accidents, unusual labor, and so on. In the rural areas the nearby primary healthcare center to treat them as par said situations is the district cities (Akter & Kabir, 2023; Angeles et al., 2019). In these hospitals, resources, and staffing are not sufficient to fulfill the demands of the huge populations of the district. Moreover, well-trained doctors, nurses, and medical technicians are not available in rural areas, as they prefer to live in large cities for their benefit and better quality of life. As a result, the health service quality in rural areas could never reach its foresaid goals (Akter & Kabir, 2023; Kamal et al., 2016). A survey study by MOHFW and WHO revealed that in Bangladesh 33.17% qualified and recognized and 15.21% unqualified and unrecognized health providers are available per 10,000 population (Ministry of Health and Family Welfare (MOHFW) Bangladesh & World Health Organization (WHO) Bangladesh, 2021, p. 13). The study also found that among all categories of health providers, only 22.16 are in rural areas, but 98.36 in urban areas per 10,000 population which is four times higher in urban areas than the rural. On the other hand, the total number of skilled and qualified doctors in urban, and rural areas are 73.72 and 11.48 per 10,000 population respectively (Ministry of Health and Family Welfare (MOHFW) Bangladesh & World Health Organization (WHO) Bangladesh, 2021, pp. 14–15). The survey showed a disparity between the urban and rural areas in the cases of the ratio of health providers in Bangladesh.

(f) Inequities in Food and Nutrition

A study on non-pregnant women (15-49) across Bangladesh found that underweight status is relatively higher among less-educated and illiterate women, and higher among women from poor households (Hossain et al., 2022). On the contrary, overweight /obese people are mostly common among higher educated women, and women from wealthy families (Hossain et al., 2022). Studies reveal that urban poor people have an expenditure on food that is extremely higher than the income of the rural poor people. They have to eat less nutritious foods and consume less amount of calories than well-off families, although their physical labor demands more calories (Bangladesh Health Watch (BHW), 2015, p. xiii).

Discussions of the Study

The detailed review of the literature shows a clear finding that there is a vast inequity in health facilities and services between the rural and urban areas in Bangladesh. The present study clearly shows that there is better access to healthcare facilities/ services for the richest communities of both the urban and rural people than the poorer ones. The study by Sarker et al., (2022) supports the findings that the rich can spend more resources than the poor for healthcare (Sarker et al., 2022). A study in a developing country

Indonesia also shows similar findings that access to secondary and other health care services is pro-rich (Johar et al., 2018). Another study by (Zhu et al., 2017) in China shows similar findings. The study by Khan et al., (2017) found similar findings that the overall healthcare services and benefits are pro-rich and showed a greater inequality for private providers. The study also showed that public health service providers showed a lower inequality. Although the poorest people have the largest needs, they receive lower benefits (J. A. M. Khan et al., 2017). Another finding is that rural people have to spend more money on their health benefits than urban ones as there are income inequalities. Besides, the urban poor are habituated to taking self-care and home remedies rather than taking sophisticated health benefits for their economic barriers. Rural people were seen to take quality services from community clinics untrained doctors/pharmacists and traditional healers. A relevant study by (M. I. Haque et al., 2018) also supports the argument that traditional healing is widely used among the poor socioeconomic groups of people in rural areas of Bangladesh. The findings of the current review study show that rural and urban people are suffering from various types of communicable and non-communicable diseases due to their economic conditions, living conditions, and behavioral and nutritional conditions. Rural people are suffering from various types of fever, MCH conditions, hypertension, diabetes, pain and sorrows, stroke, paralysis, etc. and the urban people are generally suffering from obesity, hypertension, measles, fever, skin diseases, intestinal diseases, respiratory complications, and many other chronic illnesses. A study in six developing countries shows a similar trend for diseases in rural and urban areas such as urban people leading less healthy lifestyle than rural population (China, Ghana, South Africa, India, Russia, Mexico) and rural people are less obese (Ghana and India), diabetes is higher in urban people of six (06) countries (Oyebode et al., 2015). Zahangir et al., (2017) also showed that the wealth status of rural and urban households and the nutritional status of women showed a very substantial effect on the frequency of anemia, diabetes, and hypertension (Zahangir et al., 2017).

The review also revealed that the rich from rural and urban areas seek health care services from private hospitals or other tertiary-level hospitals. The rural poor people mainly depend on the village doctors, community clinics, drug sellers, and many other informal and traditional healers. The study by Billah et al., (2018) showed that village doctors have greater access to the health treatment of the rural poor (Billah et al., 2018). The urban poor especially the slum dwellers or street dwellers mainly depends on the pharmacy and drug sellers for general diseases and in acute cases they go to the public hospitals and medical colleges. Most urban people get treatment from private hospitals, clinics, and other government healthcare facilities. NGOs play active roles in health services to rural and urban areas of Bangladesh for free or taking a small amount of money. A study by Adams, Islam, et al., (2015) supported that pharmacies and informal and conventional doctors provide up to 75% of services of the private sector for the treatment of the urban poor (Adams, Islam, et al., 2015).

The study also reveals that there are physical, infrastructural, and geographical barriers to healthcare facilities in rural areas such as distances, poor condition of roads, and underdeveloped communication systems. Besides, there are shortage of quality skilled doctors in rural than in the urban areas of Bangladesh. Doctors and other medical service providers are preferring urban areas to the rural ones in Bangladesh. Besides, the health facilities and technologies in rural settings are far more up-to-date than the modern urban health facilities. The study also explored the areas of food and nutrition of the rural

and urban poor people and revealed that the urban people are spending more on food than the rural people. Urban women are suffering from obesity more than rural women due to nutritional imbalance and physical labor. Urban poor are taking less calorie intake than their physical demand for the poverty. Civil society and NGOs were seen to reduce the gaps of health inequities in rural as well as urban areas of Bangladesh. A study by Schurmann & Mahmud, (2009) revealed that except for some exceptions, civil society plays a key role in diminishing the health inequities in Bangladesh. Adams, Islam, et al., (2015) revealed that NGOs and private sectors are meeting the gaps of health services for the urban poor (Adams, Islam, et al., 2015).

Challenges to Ensure Health Equity in Bangladesh

For the lack of coordination and linkages among the different ministries delivering various types of health services the vertical health service system could not meet the needs of the people of the urban areas and develop urban health. As a result, an increase of alternative health care systems developed and the urban and rural poor depend on them (World Health Organization & Asia Pacific Observatory on Public Health Systems and Policies, 2015). The overall challenges of health equity in Bangladesh are as follows:

- Lack of proper awareness programs regarding the healthcare services for the rural-urban, ultra-poor, and gender-based target groups.
- Lack of women, and children, and poor friendly infrastructure for their health needs and nutritional support in the country.
- Lack of coordination among the government (public), private, and NGO-based services regarding the healthcare of poor mothers, children, disabled and elderly people.
- Education and awareness of the mother and daughters on reproductive health and the mother and child issues is limited and these are lacking in seeking the services.
- Health service workers are not well distributed in the country, as there are disparities in political health decision-making of the government and geographical barriers. As a result, sophisticated medical colleges, universities, and hospitals are not established equally in the country. The backward communities for socio-political causes cannot enjoy the health facilities for an abundance of services.
- Besides, region-wise development and powered government political will to develop some favored regions are creating an imbalance in healthcare facilities in Bangladesh.
- Income and wealth inequalities are also creating barriers to ensuring equity in Health in Bangladesh. Moreover, extreme corruption, nepotism, politically biased services, and lack of proper governance are posing a threat to health equity in Bangladesh as there are many reported cases of corruption and mismanagement in health care sectors in Bangladesh.

Possible Way Outs and Policy Recommendations

Bangladesh has initiated the National Urban Health Strategy 2014, Bangladesh Health Workforce Strategy 2015, 8th Five Year Plan (2021-2025), Health Care Financing Strategy- 2012-2032, Perspective Plan of Bangladesh- 2021-2041, and so on. Besides, Bangladesh is also approaching achieving the

Sustainable Development Goals (SDGs) of the United Nations. In light of the above-mentioned policies and upcoming challenges, the study suggests some recommendations that could make a positive change in thinking about policy interventions and the policy-making process in a pragmatic way. The policy interventions are as follows:

- Adopting right-based health care services in rural and urban settings to reduce the vulnerability and ensure scientific health care interventions.
- By adopting an equity lens for urban and rural healthcare services prioritizing the poor and marginalized ones to ensure a better health service at the macro level.
- Integrated infrastructure is essential for the public health care services in the rural and urban locations of Bangladesh in the administration of a pluralistic governance system and ensuring a corruption-free health sector.
- Allocating more resources in the budget for public health services is proportional to the other developing countries.
- By uplifting the conditions of daily life that can directly affect birth, growth, livelihood, working conditions, and age.
- By containing the inequitable distribution of resources, power, wealth, and opportunities to shape the overall living standard of the people.
- By inserting health equity at the center of the rural and urban planning and governance process.
- By promoting rural and urban health equity through sustainable ways and planning for investment in rural and urban development including the distress, landlessness, poverty situations, and displacement conditions of the people.
- Including the poverty reduction strategies and climate change impacts at the core of the rural development policies that will address the health inequity in Bangladesh.
- Building a sustainable healthcare system by keeping in mind health equity, prevention of diseases, promotion of health conditions, and reducing health hazards.
- By Enabling civil societies and NGOs and their activities to an extent that may positively affect/influence the social and health-related political decisions for ensuring health equity.

Continuous reform process to be maintained to make a balance between the rural and urban health services across the country.

Conclusions

The review study has found a difference between the rural and urban health facilities and scopes and the poor and rich people's health in Bangladesh. Generally, the rich in both rural and urban areas get better healthcare services due to their better socio-economic conditions and accessibility to health services. However, the urban and rural poor people still fighting for their health services closely linked to geographical, social, and accessibility barriers, and so on. However, the overall cost and OPP costs of

health services are higher in the country and the health services of Bangladesh are experiencing poor pragmatic policies, low budget allocation, and unequal distribution of skilled doctors, nurses, and technicians as well as management. Under these circumstances, proper management of health services, better training, equitable distribution of health services, sufficient budget allocation, and reduced corruption in the health sector can reduce health inequity in Bangladesh. Moreover, civil society engagement, awareness of people about their rights, ensuring income equality, reducing the resource gap among the people, and ensuring holistically corruption-free management in the health sector can be a helping force in reducing health inequity in Bangladesh.

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