REVIEW article

Health problems in Bangladesh: A struggle for equitable and accessible healthcare

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Abstract: A person's physical and mental well-being is referred to as their health. In the institutions of global governance, it is not just a requirement but also a recognized human right. Literatures search was conducted using Google Scholar secondary data from sources such as pertinent books, academic journal articles, newspapers, health reports, policy papers as well as convention papers and other government databases to retrieve relevant articles and research until June 2024. All important information was collected and presented briefly to gain a clear idea about the health sector in Bangladesh. This article represents the health landscape, characterized by a high rate of population growth, improper budget allocation in the health sector, and a lack of adequate health infrastructure and technology. It has been revealed that the government cannot deliver effective health services in the absence of appropriate health policies, plans, and execution. As a result, the public health system is unable to provide people with the proper medical care, which causes several problems for Bangladesh's healthcare system. Political unpredictability and a lack of dedication have hindered the viability of healthcare projects, while a lack of public health and management expertise at the district and upazila levels impacts the quality of healthcare services.

Introduction

A person's physical and mental well-being is referred to as their health. In the institutions of global governance, it is not just a requirement but also a recognized human right. The 1948 Universal Declaration of Human Rights states that everyone has the right to healthcare, which includes access to food, clothing, housing, medical attention, and basic social services. It also includes the right to be protected from unemployment, illness, disability, widowhood, old age, and other uncontrollable lack of means of subsistence [1]. According to the 1989 Convention on the Rights of the Child, the quality of health, the care of children's health, and their rehabilitation are also important. This convention places a strong focus on safeguarding children's rights by reducing child mortality, providing medical assistance, preventing illness, and facilitating supportive environments that encourage children's education and nutrition [1].

Healthcare in Bangladesh is essential for public safety. Basic healthcare is lacking in Bangladesh, a developing country with a growing population. Since gaining its independence, Bangladesh has advocated for human rights and dignity. The right to health is guaranteed under the Bangladeshi Constitution. A constant increase of productive forces and a steady improvement in the material and cultural standard of living of the people

shall be a fundamental responsibility of the state through planned economic growth, according to Article 15 of the Constitution [2]. Medical and surgical treatments are limited in rural locations. The majority of physicians reside in urban areas. The quality of health treatment has improved despite challenges. Healthcare is how society addresses the risk factors for sickness. Every culture has false beliefs about health. Healthcare begins with the value of life. The value of life in society influences medical expenses. A healthcare system must be utilized to benefit its people and be available, intelligible, and accepted. According to the Bangladeshi constitution, the government must provide the basic medical requirements to all segments of society and improve the nutritional and public health status of the people. [3]. Mothers, infants, and kids were the first to get healthcare in Bangladesh. Healthcare systems have been able to balance prevention and promotion of health since the 1990s because of the efforts of NGOs, UN agencies, and state-of-the-art medical research and technology. The healthcare industry has expanded. In rural Bangladesh, access to healthcare is limited. In Bangladesh, there are well-organized Upazila Health Complexes (UHC) at the sub-district level, Union Health and Family Welfare Centers (UHFWC) at the Union (group of a few villages) level, and Community Clinics (CC) at the village level [4]. Sound structural concepts serve as the foundation for health promotion, education, care, treatment, and rehabilitation. This covers all of the nation's districts, sub-districts, rural cities, and villages. Bangladesh is able to offer good medical treatment but the potential of this infrastructure is constrained by logistics. To realize its full potential, the healthcare system in Bangladesh has to be reformed [5].

Promoting cleanliness and changing behavior is the key to achieving the health benefits of sanitation coverage. The problem of complete sanitation coverage also necessitates a paradigm that encompasses environmental sanitation concerns related to the appropriate handling of solid waste, domestic wastewater, and stormwater in addition to excreta disposal, trash management, including solid trash, clinical waste, and wastewater from homes and businesses, is seriously harming the environment and endangering public health [6]. One issue that has to be addressed right once is the management of clinical waste, particularly sharps, at institutions and elsewhere. If corrective measures are not taken at the local and global levels, environmental pressures that are already severe and made worse by climate change might easily get worse. Growing affluence and huge population movements will put even more severe strain on ecosystems and the living environment, even if the population is predicted to stabilize at about 220 million [7]. The study's goal was to identify Bangladesh's main public health problems and present scenarios.

*Population problems in Bangladesh***:** Bangladesh, a country in South Asia, is very populous and extremely impoverished. Its 169.4 million inhabitants were predicted to increase to 218 million by 2030 [8]. The nation's society and economy are undergoing fast change. Urbanization is accelerating nationwide. By 2030, there were 28 million people living in the capital, Dhaka, up from 5.8 million in 1990 and 10.2 million in 2000 [9]. Many people lack access to secure housing, clean water, and sanitary facilities despite the city's expanding population. More than 70.0% of Bangladeshis reside in rural regions, despite the country's urbanization [10]. The daily income of many people is less than $1.25. Just 4.0% of the population is 65 years of age or older, making the country youthful. By 2025, 6.6% of the population is predicted to be old [11]. Although health indices have significantly improved recently, the government's capacity to plan and provide comprehensive health and population services remains severely challenged [12].

Health landscape of Bangladesh: More specifically, among the top 20 causes of death in 2019, 14 were non-communicable diseases and two were communicable diseases, in addition to neonatal disorders, congenital defects, road injuries, and drowning. The greatest drop in age-standardized mortality rates between 1990 and 2019 was shown in diarrheal illnesses (from 166.1 to 31.2 deaths per 100,000 population; an 81.2% decrease), which were followed by Tuberculosis (TB) (135.2-22.6 deaths per 100,000 population; an 83.3% decrease). However, when it comes to non-communicable diseases, only chronic obstructive pulmonary diseases (54.6% reduction) and asthma (72.9% reduction) saw a significant decrease in the age-standardized mortality rate;

modest declines were seen for stroke (22.8% reduction), ischemic heart disease (2.7% reduction), chronic kidney disease (20.2% reduction), and certain cancers; diabetes (5.8% increase), breast cancer (4.2% increase), and Alzheimer's disease (7.2% increase) [13-15]. The death rate from major non-communicable diseases has decreased, but the risk factors (**Table 1**), for these diseases are rising in terms of lifestyle and metabolism. While all five metabolic risk variables were among the top 10 risk factors linked to age-standardized all-cause fatalities in 2019, two metabolic risk factors were included on the list in 1990. Furthermore, the top 10 for 2019 also includes home and ambient air pollution. The decrease in non-communicable disease mortality and morbidity despite a corresponding rise in its direct risk factors requires more research. More research and explanation are also required for the plateauing of the declining trend in years lived with a disability and death after 2010 [13-15].

Table 1: Major risk factors associated with mortality in Bangladesh changes between 1990 and 2019 [16].

Leading risk 1990	Percentage of death 1990 with range	Leading risk 2019	Percentage of death in 2019 with range
Household air pollution	16·5% (12·1 to 21·1)	High blood pressure	21·8% (17·4 to 24·9)
Smoking	13·3% (11·9 to 14·8)	High fasting plasma glucose	12·6% (9·9 to 16·0)
High blood pressure	10·7% (08·8 to 12·6)	Smoking	12·1% (11·2 to 13·9)
Unsafe water	09·6% (06·3 to 13·7)	Ambient particulate matter	11·1% (7·6 to 15·01)
Child lose	07·8% (06·3 to 09·4)	High LDL cholesterol	08·7% (5·8 to 11·3)
Unsafe sanitation	07·2% (04·8 to 10·1)	Unsafe sanitation	05·7% (3·9 to 07·9)
Low birth weight	05·7% (05·1 to 06·4)	High BMI	04·7% (2·2 to 07·6)

Future obstacles for Bangladesh include lowering out-of-pocket medical costs and ensuring universal access to healthcare, [17], a lack of qualified healthcare professionals, the existence of unregulated, profit-driven private healthcare systems, [18], and a disregard for primary and secondary prevention of non-communicable diseases. The Sustainable Development Report 2023 recognizes Bangladesh's dual burden of infectious and non-communicable illnesses as well as associated circumstances [19].

Nutritional problems in Bangladesh: The period between birth and two years of age is known to be the critical window for promoting behavioral and cognitive development. In Bangladesh, nearly 50.0% of children under five suffer from stunting as a result of poor nutrition, with urban poor being the most affected. Poor nutrition, also known as undernutrition, can harm physical, intellectual, and mental health, resulting in decreased immunity, increased susceptibility to disease, impaired physical and mental development, and decreased educational and economic productivity [20]. Just 43.0% of newborns are exclusively breastfed, 41.0% of children under five are moderately to severely underweight, and 22.0% of babies are low birth weight. In Bangladesh, improving nutrition ought to be a top public health goal [20]. Poor nutrition is a major health issue in Bangladesh, notwithstanding a decline in baby and child mortality [21]. Four out of ten children aged 6 to 59 months are stunted, one out of three are underweight, and about half suffer from anemia. Bangladesh has one of the worst rates of undernourishment among children worldwide [21].

Lack of health-related knowledge in Bangladesh: Many infections, including West Nile Virus, SARS, Avian Influenza, HIV/AIDS, TB, Malaria, and Dengue, are currently viewed as serious threats to human health worldwide. Additionally, the range of these illnesses has been evolving daily. Dengue, malaria, kalajar, dengue, filariasis, TB, HIV/AIDS, cardiovascular disease, mental illness, cancer, drug misuse, smoking, alcoholism, and arsenic are among the common developing diseases that are spreading throughout Bangladesh and endangering public health [22]. Most recently, dengue has spread throughout the nation and turned into an epidemic. In 2019, an estimated 60,000 persons were afflicted with dengue. Despite these illnesses, some chronic conditions, long-lived infections, and newly developing diseases nevertheless have an impact on people's health [23]. Theoretically, however, education is the process of promoting learning and the development of values, beliefs, habits, and knowledge. Since no one can live a healthy existence without

adequate education, health, and education are closely connected topics. A healthy lifestyle and knowledge of nutrition, health education, and health research are imparted via proper education [24]. It has been noted that rural residents are ignorant of both their health rights and the medical services available in government healthcare facilities. Despite these factors, the majority of medical equipment and treatment plans in hospitals and clinics are based on the patterns of Western illnesses, and physicians and nurses tend to favor therapy that is centered on the West. Because of this, illiterate persons are unable to adopt on their own. Once more, it is a typical occurrence that the majority of illiterate people, particularly those from rural regions, are unable to locate suitable clinics or hospitals, and occasionally they are even unable to locate sufficient diagnostic facilities. As a result, people suffer when trying to access better healthcare in Bangladesh.

Inadequate health budget in Bangladesh: One of the key concerns for a nation to provide healthcare to all of its residents is the proper distribution of its money. However, in Bangladesh, due to insufficient health finance, disparities in health utilization, and inefficient use of resources, population growth is outpacing the increase of healthcare facilities and budgetary allocation for healthcare [25]. The most crucial elements for achieving a fully functional health service are health finance and the per capita health budget. The World Health Organization (WHO) believes that each nation needs to have US$54 per capita to have a fully functional health system (WHO, 2010). However, Bangladesh spends US$ 26.6 per person on healthcare [26], which is not enough to guarantee high-quality medical care. In contrast, neighboring nations that spend more on healthcare-for example, Sri Lanka spends US$97, India spends US$59, Nepal spends US$33, and Pakistan spends US$30-spend US$30 [27]. These values show that compared to other South Asian nations, Bangladesh's overall budget allocation and per capita health expenditure are insufficient and unsatisfactory. Most individuals cannot afford to pay for improved healthcare because of low per capita health spending and per capita low income, and so frequently do not seek better treatment. The budget allocation for the health sector in Bangladesh from 2016 to 2024 is shown in **Table 2**.

Table 2: Budget allocation for the health sector in Bangladesh

Year	Percentage of total budget
2016	2.4%
2017	5.3%
2018	5.0%
2019	4.9%
2020	2.8%
2021	5.4%
2022	5.4%
2023	5.0%
2024	5.2%

Environmental and sanitation problem: Diarrheal diseases kill over 2 million people annually, with children under the age of five being the most susceptible. The people in developing nations who are most impacted are those who live in extreme poverty, typically in rural or peri-urban areas. In general, sanitation refers to the latrines or toilets used for the secure disposal of human waste and urine. One of the main causes of sickness in the globe is poor sanitation. A tried-and-true public health measure at the home, neighborhood, and national levels is better sanitation. 'Sanitation' also means the safe disposal of environmental waste, including wastewater and trash. Conditions and behaviors that support health maintenance and illness prevention are referred to as hygiene [28].

Ensuring that all people have access to clean water is a task. 55.0% of people have access to basic sanitation, compared to 70.0% by 2025. Diarrheal illnesses continue to be a major source of morbidity among children and infants in Bangladesh, even though over 90 million people switched to fixed-point defecation in the previous five years. 1.0% of people wash their hands with soap and water before eating, 0.7% before feeding kids, and 30.0% after defecating, according to a survey [6]. Promoting cleanliness and changing behavior is

the key to achieving the health benefits of sanitation coverage. The problem of complete sanitation coverage also necessitates a paradigm that encompasses environmental sanitation concerns related to the appropriate handling of solid waste, domestic wastewater, and stormwater in addition to excreta disposal [26]. Trash management, including solid trash, clinical waste, and wastewater from homes and businesses, is seriously harming the environment and endangering public health. Sharps and other clinical waste management at hospitals and elsewhere is a problem that needs to be solved right away. Climate change has made environmental challenges even more severe, and if corrective measures are not adopted at the local and international levels, they might easily get worse. Although it is anticipated that the population will level off at about 200 million, rising prosperity and large-scale population shifts will put even more severe pressure on ecosystems and the quality of life [29].

Common diseases state in Bangladesh: Communicable diseases still account for almost 20.0% of all deaths and morbidities in Bangladesh, albeit declining in terms of their share of the country's total disease burden. Because of thorough preventative efforts and enhanced treatment protocols, the transmission of communicable illnesses is well under control. The three main food or waterborne illnesses in Bangladesh are typhoid fever, bacterial and protozoal diarrhea, and hepatitis A and E. Malaria and dengue fever pose serious threats in some areas [30] and gastric disease is also the most common type in Bangladesh [31]. In Bangladesh, TB is a serious public health issue. According to WHO data, 3.3 percent of all fatalities in Bangladesh in 2012 were caused by TB (WHO, 2012). Bangladesh continues to be one of the top ten nations in the world with the largest TB burden, despite a significant drop in the prevalence of TB. The impoverished and those with the least amount of education are the main groups affected by the disease. WHO's updated estimates for the incidence and prevalence rates of all types of TB in 2016 following the National TB Prevalence Survey (2015-2016) are 221 and 260 cases per 100,000, respectively. Additionally, it is believed that 40 out of 100,000 persons died from TB in the same year.

About one-third of all fatalities among children under five in Bangladesh are caused by acute respiratory infections (ARI), especially pneumonia, which is the primary cause of communicable disease mortality (10.0%) and morbidity (7.0%) [30]. The World Health Organization reports that in Bangladesh, ARIs claim the lives of around 400 children per day. Infection, birth asphyxia, and pneumonia are the leading causes of mortality for children under five in this nation. In Bangladesh, ARIs were also responsible for around 39.0% of all pediatric hospital hospitalizations and 40.0-60.0% of all pediatric outpatient department visits [32]. Malaria is widespread in 13 eastern and northeastern border districts of Bangladesh, putting 17.52 million residents at risk of contracting the disease, making it one of the country's worst public health issues. Bangladesh has made great strides in the fight against malaria. Severe malaria steadily dropped by 78.0% between 2008 and 2016, and the yearly incidence of malaria decreased from 7.77 per 1000 people in 2008 to 1.58 per 1000 population in 2016 [33]. HIV is not very common in Bangladesh, but it is nevertheless a concentrated pandemic due to the high prevalence in nearby nations and the high level of internal and international travel. Inadequate understanding about HIV and AIDS brought on by ignorance, gender inequality, and illiteracy increases susceptibility. During 2016, there were 578 new HIV infections, out of 4,721 total cases that were identified.

Conclusion: Bangladesh's healthcare system still has many problems to address, but three main ones are impeding the adoption of remedies for the country's public health problems: cost, accessibility, and governance. The prevalence of sickness is further increased by a filthy living environment, which highlights the low economic standing of both urban and rural residents. The majority of patients in rural areas lack health information and are dishonest about the need for timely medical attention. The health services' poor and desperate administrative administration and insufficient budget allocation are to blame for this predicament. Furthermore, patients' access to healthcare is made more difficult by the evolving nature of illnesses and

natural disasters. Nonetheless, the Bangladeshi government has made significant efforts to improve its healthcare system and has made some impressive advancements. The government has lately accomplished a number of significant MDG objectives, including lowering mother and infant mortality, enhancing maternal health, and raising public awareness of health services.

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