

# Challenges and Opportunities in Bangladesh's Healthcare System: A Comprehensive Analysis

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## Abstract

Bangladesh's healthcare system has improved maternity, neonatal, child, and adolescent health, lowering mortality and improving well-being. The system still faces several challenges. This article covers Bangladesh's healthcare system's biggest difficulties, from infrastructure and medical specialists to accessibility and equity. The lack of regional design and devolutionary processes makes local community-specific healthcare plans hard to implement, mismatching central decisions with local reality. Misallocation of funds and materials makes it hard to offer essential healthcare. Lack of public health and management experience at district and upazila levels affects healthcare delivery quality, while political instability and lack of commitment have hampered healthcare project sustainability. Additionally, limited health information systems limit access to accurate and current data for decision-making. Despite these obstacles, this article suggests development areas. The healthcare workforce gap can be closed by investing more in healthcare training, especially in rural areas. A more comprehensive health information system that includes chronic noncommunicable diseases could improve healthcare planning and delivery. Encourage community empowerment and true community engagement for more effective and fair healthcare. Bangladesh's healthcare system needs a comprehensive approach and commitment from governments and stakeholders. Focused actions and accountability and innovation can help the nation build a more comprehensive and inclusive healthcare system that supports all inhabitants.

**Keywords:** Bangladesh, Challenges, Development, Health System.

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## Introduction

Bangladeshi health care is vital to public safety. Bangladesh, a developing nation with a burgeoning population, lacks basic healthcare. Bangladesh has promoted dignity and human rights since independence. Constitution of Bangladesh guarantees health as right. Article 15 of the Constitution states, “It shall be a fundamental responsibility of the state to attain, through planned economic growth, a constant increase of productive forces and a steady improvement in the material and cultural standard of living of the people.” The Bangladeshi hospital has 1 bed/1860 people. Most Bangladeshis live in rural areas.<sup>1</sup> Rural areas lack medical and surgical services. Also, most doctors live in cities. Despite obstacles, health care has improved. Society treats illness risk factors via health care. Each culture has incorrect health ideas. Healthcare starts with life’s worth. Society’s life worth affects healthcare costs. A healthcare system must be accessible, understandable, accepted, and used to serve its population. The Bangladeshi constitution demands the government to “improve the nutritional and public health status of the people” and “supply the basic medical requirements to all segments of society”.<sup>2</sup> Health care in Bangladesh began with mothers, babies, and children. Since the 1990s, UN agencies, NGOs, and cutting-edge medical research and technology have helped healthcare systems balance health promotion and prevention.<sup>3</sup> Health care has grown. Health care is scarce in rural Bangladesh. 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 are well-structured in Bangladesh.<sup>4</sup> Tertiary hospitals and large city districts support these.<sup>5</sup> Health education, promotion, treatment, care, and rehabilitation are based on sound structural notions. This includes all districts, sub-districts, rural cities, and villages in the country. Government wants optimal health for Bangladeshis. Health care in Bangladesh is world-class. Logistics limit this infrastructure’s potential. The Bangladeshi healthcare system requires reform to reach its potential. Good health extends life. Health education and disease

control necessitate HSS.<sup>6-8</sup> Poor health systems impede MDGs.<sup>8,9</sup> Health and development in Bangladesh have improved greatly since independence. It beat others in fighting poverty, famine, ignorance, and illness. Despite progress, Bangladesh’s healthcare system struggles.<sup>10</sup> Listing and commenting on these obstacles is hard. This study will examine Bangladesh’s healthcare system’s main issues.

## Methodology

This study reviews both published and unpublished Bangladeshi health care literature. The WHO, UNICEF, UNFPA, World Bank (2012), Bangladesh Bureau of Statistics (2009, 2011), and Bangladesh Health Watch (2007, 2011) have produced relevant annual and special reports. The Directorate General of Health Services and other national and international reports were analyzed. The analysis included scientific journal articles and studies. The paper is a secondary-source review. This study reviews English-language publications and reports.

## Country Context

South Asian Bangladesh has a vast population and considerable poverty. Its population of 169.4 million was expected to reach 218 million by 2030.<sup>11</sup> The country’s economy and society are changing rapidly. Table 1 summarizes demographic, economic, and health characteristics. Nationwide urbanization is rapid. Dhaka, the capital, grew from 5.8 million in 1990 to 10.2 million in 2000 and 28 million by 2030.<sup>12</sup> Despite the growing urban population, many individuals lack clean water, sanitation, and safe housing. Despite urbanization, over 70% of Bangladesh’s population lives in rural areas.<sup>13</sup> Many people live on less than \$1.25 per day.<sup>14</sup> A young nation, only 4% of the population is 65 or older. The elderly population is expected to rise to 6.6% by 2025.<sup>15</sup> Health metrics have improved dramatically in recent years, but the government still has serious problems with its ability to design and deliver comprehensive health and population services.<sup>16</sup>

**Table 01. Selected Bangladeshi socio-demographic indicators**

Subjects	Indicators	Value
Population	Total Population in million[17]	168.22
	Density (Population/km2)[14]	1140
	Crude death rate per 1000 population[14]	5.3
Life expectancy (years)	Male[14]	70.6
	Female[14]	74.28
	Persons per hospital bed[14]	1860
	Number of doctors per 10,000 population[14]	5.26
Economic Indicators	GNI per capita- US\$[18]	2820
	PPP GNI per capita- US\$[18]	7690
	Annual growth rate (percent) [17]	6.9
	Sub-district hospitals	413
	Secondary & tertiary hospitals	117
	Medical Colleges	121
	Infectious Disease Control Center	5
	Chest Hospital	14
	Community Clinics	14370
	Physicians	119350
Health Facilities/Hospitals	Nurses	13483
	Medical Technologies	5666
	Medical Assistants	3694
	Domiciliary staff	23285
Health Workforce in public facilities	Non-medical	218
	Person per hospital bed	1860
	No. of doctors per 10,000 population	7.7
	GDP spent on healthcare [2]	3%
	Health expenditure as a % government budget	7.4
Health Services	Out of pocket expenditure for health	65.9
	Per capita total expenditure on health (U.S.\$)	23
	Per cent coming from development aid/partners	8
Health Financing		

Sources: (18) World Bank 2013, (19) Bangladesh Bureau of Statistics 2011, (20) Trading Economics 2012a, (21) World Bank 2012a, (22) World Bank 2011c, (23) Bangladesh Health watch Report 2011 (24) Director General of Health Service 2010 (25) World Bank 2012 (26) Bangladesh Health Watch 2007.

Many people, especially the poor, suffer from socioeconomic inequalities-related health issues [22–24]. Bangladesh spends less on healthcare per person and as a percentage of GDP. The 2009–10 GDP and per capita national income were 750 and 684 USD [25]. Only 34% of health care spending is funded by the public sector, which is insufficient to meet population needs [26]. The WHO estimates that “nearly 16 percent of all health expenditures in Bangladesh are funded by international aid agencies,” even though table 1 shows that the health sector receives only 8% of development assistance. Whatever the level, it emphasizes the importance of development partners in setting national health care priorities.

### 3.1 Health Sector Reforms in Bangladesh

The Bangladeshi healthcare sector has been overhauled to fulfil demographic needs. The government’s goal of universal health coverage and healthcare system development inspired these reforms. After independence in 1971, Bangladesh’s health system prioritized rural needs. The 1973–78 First Five-Year Plan called for a hospital in every district, a Maternal and Child Welfare Centre (MCWC) in select districts, and an Upazila Health Complex (UHC) in every upazila. Vertical programs like malaria and smallpox eradication began in 1976. The Bangladesh Government (GOB) supervised the family planning programs and founded a Directorate of Family Planning in the Ministry of Health and Family Welfare after the First Five Year Plan (1973–78). The GOB received financial and technical help from a partnership of international development organizations and the World Bank for five- to six-year population and family planning projects in 1975. First Population Project (1975–80) rebuilt family planning service infrastructure damaged during 1971 independence fight. The Second Population and Family Health Project (1980–1986) funded national family planning expansion. The Third Population and Family Welfare Project (1986–1992) funded infant mortality reduction and family planning programs. The Fourth Population and Health Project (1992–1998) funded maternal and child health, illness control, and family planning. The country’s second five-year plan (1980–1985) stressed PHC as a cornerstone of comprehensive medical services. Thus, the publicly funded health care system and service delivery changed significantly.

### 3.2 Bangladesh Health System Achievements

Bangladesh’s health system has made significant progress in recent years, garnering international accolades. Bangladesh has made significant advances

in healthcare delivery, disease prevention, and patient access in recent decades. These achievements have improved mother-child health, infectious illness prevention, healthcare system building, and policy initiatives. Bangladeshi health care has been prioritized, leading to innovative methods. Well-planned policies and programs have reduced mother and child mortality, increased reproductive health care access, immunization coverage, and nutrition outcomes. These measures have greatly benefited public health, especially marginalized communities.

### 3.3 Child, adolescent, and maternal health improvement

Bangladesh has improved maternal, neonatal, child, and adolescent health, reducing mortality and enhancing well-being. Effective maternal health programs, antenatal care, birth attendance, and obstetric services have reduced maternal mortality. The Bangladesh Ministry of Health and Family Welfare and UNICEF have implemented the facility-based Emergency Obstetric Care (EOC) Program nationwide. This effort improves pregnancy, baby, and adolescent health. This health care area was one of the few to receive international recognition and honors during the MDGs. The under-5 and newborn mortality rates (IMR) in Bangladesh declined dramatically during the research period. Between 2011 and 2018, under-5 mortality dropped from 44 to 34 per 1,000 live births and the IMR from 43 to 31. From 11 per 1000 live births in 2011 to 7 per 1000 in 2018, infant mortality has dropped considerably. Although 2018 infant mortality statistics are unknown, encouraging trends have been noticed. Bangladesh also improved child nutrition, reducing stunting, wasting, and underweight rates among children under 5. Stunting dropped from 41% in 2011 to 31% in 2018, and severe stunting dropped from 15% to 9%. From 16% to 8%, waste dropped dramatically. The percentage of underweight children dropped from 36% to 22%, and extremely underweight children dropped from 10% to 4%. From 74% in 2011 to 86% in 2018, vaccination coverage for children under 5 increased significantly. Due to broad immunization programs, more children have been protected from deadly illnesses. Bangladesh has good maternal health. Births with a medical professional increased from 32% in 2011 to 53% in 2018. The maternal mortality rate (MMR) dropped from 194 to 173 per 100,000 live births, indicating improved mother health. The availability of prenatal care also expanded. The percentage of pregnant women receiving prenatal care rose from 67.70% in 2011 to 82% in 2018. The number of pregnant women who saw four or more doctors climbed from 25.50% to 47%, improving prenatal care.

**Table 2. Achievements of the Bangladesh health system over Maternal, newborn, child and adolescent health improvement**

	2011	2018
Infant mortality (IMR)	43 deaths per 1000 live births	31 deaths per 1000 live births
Under-5 mortality	44 deaths per 1,000 live births	34 deaths per 1,000 live births

Child mortality rate	11 deaths per 1,000 live births	7 deaths per 1,000 live births
Neonatal mortality rates		18 deaths per 1,000 live births
Vaccination Coverage	74%	86%
Under age 5 are stunted	41%	31%
Severely stunted	15%	9%
Overall wasting	16%	8%
Children under age 5 are underweight	36%	22%
Severely underweight	10%	4%
Skilled attendance at deliveries	32%	53%
Maternal Mortality rate (MMR)	194 per 100,000 live births	173 per 100,000 live births
Antenatal care coverage (1 visits) from any provider	67.70%	82%
Antenatal care coverage (4 visits) from any provider	25.50%	47%
Total Fertility rate	2.30	2.3

Source: Bangladesh Sample Vital Registration System (SVRS) 2023

## Discussion

Healthcare in Bangladesh is plagued by a lack of key health staff and funds. The lack of doctors, nurses, midwives, and other medical personnel hinders public health [32]. Physiotherapists and lab workers are few, worsening the problem. In rural locations where most health resources are focused in metropolitan centers, midwives and community health professionals are similarly scarce. Government-sanctioned healthcare delivery roles greatly outnumber filled ones, highlighting the need for more access to healthcare. The 2011 Bangladesh Health Watch (BNHA) found that 62% of Bangladeshi doctors are privately employed. Doctors to nurses (1:0.4) and doctors to technologists (1:0.24) are below the WHO's suggested ratios (1:3.5). Medical

worker data from private companies is unavailable. The healthcare infrastructure is also lacking. One community clinic per 6,000 rural residents is created, but implementation lags, leaving infrastructure gaps. Bangladesh has 0.4 hospital beds per 1,000 people, while Ghana and Kenya have 0.9 and 35% more. Healthcare financing is difficult for households, government, NGOs, and development partners. Due to poor social and private insurance coverage, rural and low-income people spend more out-of-pocket. Patient healthcare costs rose from 57% (1997) to 64% (2007). Despite public hospital free basic care rules, patients pay for drugs, diagnostics, and hidden costs. Registered and unregistered diagnostic centers, private clinics, and hospitals complicate matters. Few unregistered clinics offer free beds for economically disadvantaged patients, and most prioritize profit.



Healthcare IT initiatives focus on family planning, safe motherhood, child health, and immunization. Chronic non-communicable diseases (NCDs), which threaten Bangladeshis' health, are missing from the health

information system. This increased burden and financial restrictions highlight healthcare disparity, affecting low-income and middle-class people afraid of life-threatening diagnoses.

## Reference

1. A. Hossain, R. Quaresma, and H. Rahman, "Investigating factors influencing the physicians' adoption of electronic health record (EHR) in healthcare system of Bangladesh: An empirical study," *Int. J. Inf. Manag.*, vol. 44, pp. 76–87, Feb. 2019, doi: 10.1016/j.ijinfomgt.2018.09.016.
2. "International Relations and Security Network, Primary Resources in International Affairs (1972). Constitution of the People's Republic of Bangladesh."
3. [https://apps.who.int/iris/bitstream/handle/10665/208214/9789290617051\\_eng.pdf](https://apps.who.int/iris/bitstream/handle/10665/208214/9789290617051_eng.pdf)
4. A. Islam and T. Biswas, "Health System in Bangladesh: Challenges and Opportunities," *Am. J. Health Res.*, vol. 2, p. 366, Jan. 2014, doi: 10.11648/j.ajhr.20140206.18.
5. "lhb\_2020.pdf." Accessed: Jul. 10, 2023. [Online]. Available: [https://old.dghs.gov.bd/images/docs/vpr/lhb\\_2020.pdf](https://old.dghs.gov.bd/images/docs/vpr/lhb_2020.pdf)
6. R. J. Coker, R. A. Atun, and M. McKee, "Healthcare system frailties and public health control of communicable disease on the European Union's new eastern border," *The Lancet*, vol. 363, no. 9418, pp. 1389–1392, Apr. 2004, doi: 10.1016/S0140-6736(04)16053-4.
7. P. M. Barker *et al.*, "Strategies for the Scale-Up of Antiretroviral Therapy in South Africa through Health System Optimization," *J. Infect. Dis.*, vol. 196, no. Supplement\_3, pp. S457–S463, Dec. 2007, doi: 10.1086/521110.
8. S. Mahmood, "Health Systems in Bangladesh," *Health Syst. Policy Res.*, vol. 1, Jan. 2012, doi: 10.3823/1100.
9. G. Shakarishvili *et al.*, "Health systems strengthening: a common classification and framework for investment analysis," *Health Policy Plan.*, vol. 26, no. 4, pp. 316–326, Jul. 2011, doi: 10.1093/heapol/czq053.
10. <https://dspace.bracu.ac.bd/xmlui/bitstream/handle/10361/617/series%2011.pdf?sequence=1>
11. "Bangladesh," *World Bank*. <https://www.worldbank.org/en/country/bangladesh> (accessed Jul. 11, 2023).
12. URBANET, "Infographics: Urbanisation and Urban Development in Bangladesh," *Urbanet*, Mar. 10, 2022. <https://www.urbanet.info/infographics-urbanisation-urban-development-bangladesh/> (accessed Jul. 11, 2023).
13. S. E. Sharma, "Urban climate resilience under racial capitalism: Governing pluvial flooding across Amsterdam and Dhaka," *Geoforum*, p. 103817, Jun. 2023, doi: 10.1016/j.geoforum.2023.103817.
14. [https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/d6556cd1\\_dc6f\\_41f5\\_a766\\_042b69cb1687/2021-06-30-09-25-67bbe4c5c15d7773d82c86adbd26bba9.pdf](https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/d6556cd1_dc6f_41f5_a766_042b69cb1687/2021-06-30-09-25-67bbe4c5c15d7773d82c86adbd26bba9.pdf)
15. "World Development Report 2022: FINANCE for an Equitable Recovery." <https://www.worldbank.org/en/publication/wdr2021> (accessed Jul. 11, 2023).
16. Md. N. Momen and J. Ferdous, "Public Health Response and State Capacity in Bangladesh: COVID-19 Preventive Measures," in *Governance in Bangladesh: Innovations in Delivery of Public Service*, Md. N. Momen and J. Ferdous, Eds., in New Frontiers in Regional Science: Asian Perspectives. Singapore: Springer Nature, 2023, pp. 57–71. doi: 10.1007/978-981-99-0424-2\_5.
17. "Bangladesh - Health Sector Development Program Project," *World Bank*. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/201211514407103482/Bangladesh-Health-Sector-Development-Program-Project> (accessed Jul. 27, 2023).
18. "Bangladesh GDP Annual Growth Rate - 2023 Data - 2024 Forecast - 1994-2022 Historical." <https://tradingeconomics.com/bangladesh/gdp-growth-annual> (accessed Jul. 27, 2023).