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Present Health Status in Bangladesh: Challenges and Achievements

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Abstract

The health status in Bangladesh relies heavily on the government or the public sector for financing and setting overall policies and service delivery mechanisms. Based on a review of secondary data, the paper assesses the overall challenges and evaluates the current situations of health status and health care development in Bangladesh. Here non-empirical study will apply and the analysis will be made from the data and contents collected from various articles and journals published by various authors and released through various sources. This study revealed that Bangladesh had achieved notable improvements in health status by achieving health-related MDGs where infant or child mortality rate and maternal mortality rate have changed insignificantly than many other developing countries and rapidly improving on other key indicators including immunization coverage, and survival from some infectious diseases including malaria, tuberculosis, and diarrhea. However, Bangladesh faces a lot of challenges in its health care system. These challenges must be resolved to improve the existing health system so that the deprived and vulnerable people can get better access to basic health care services.

Keywords: Child Health, Communicable and Non-Communicable Diseases, Health Care, Health Status, Maternal Mortality, Ministry of Health and Family Planning (MOHFW)

Abbreviations: ANC: Antenatal Care; ICDDR, B: International Centre for Diarrhoeal Disease Research, Bangladesh; HPNSDP: Health, Population and Nutrition Sector Development Program; MDGs: Millennium Development Goals; MMR: Maternal Mortality Rate; SDGs: Sustainable Development Goals

1. Introduction

Health is a fundamental requirement to improve the quality of life. A nation's social and economic development depends on the state of health. A large number of Bangladesh's people, particularly in rural areas and urban slum areas, remained with no or little access to health care facilities (Islam and Ullah, 2009). Health systems and policies have many challenges and barriers in Bangladesh. The main challenge is the lack of participation and accession of the mass population in health service. This challenge has many extent and complexities on the overall development of the health system and policy in Bangladesh. Lack of education among general people is

also an influential challenge or barrier in the development of the health sector. Administrative factors could play a significant role in increasing the people's participation and awareness in Bangladesh's health sector (Islam and Ullah, 2009). This study reveals the present health status and its achievements in Bangladesh.

The health system of Bangladesh is a pluralistic system with four key actors that define the structure and function of the system: government, private sector, non-governmental organizations (NGOs) and donor agencies (Ahmed, et al. 2015). The Government or public sector is the first key actor who by the constitution, is responsible not only for policy and regulation but for the provision of comprehensive health services, including financing and employment of entire health staff. The Ministry of Health and Family Welfare, through the two Directorates-General of Health Services (DGHS) and Family Planning (DGFP), manages a dual system of general health and family planning services through district hospitals, Upazila Health Complexes (with 10 to 50 beds) at sub-district level, Union Health and Family Welfare Centers at union level, and community clinics at ward level. In addition, the Ministry of Local Government, Rural Development and Cooperatives manage the provision of urban primary care services. Quality of services at these facilities, however, is quite low due to insufficient allocation of resources, institutional limitations and absence or negligence of providers.

In 2017 the total number of hospitals in Bangladesh was 6237. Of these 6237 hospitals, 1214 were government hospitals and 5013 were non-governmental (BBS, 2017). Moreover, services in private and public hospitals are not the same standard and category. In both public and private hospitals have many challenges besides some opportunities for both doctors and patients. Generally, private hospitals are too much expensive in most of the cases poor people cannot get support or admit into in the private hospitals like Appollo, Popular Diagnostics Centre, Square, Lab aid, etc. most renowned hospitals in Bangladesh. On the other hand, the quality of service in the public hospitals is not so standard and people-oriented. In both of the two cases for both doctors and patients have many challenges besides a small opportunity (Bangladesh Health Watch, 2016).

Although a very little number of studies have been done on this issue, most previous studies have only focused on the evaluation of the health care system in Bangladesh. No previous study has investigated the present health status under different health care systems like the Ministry of Health and Family Welfare (MOHFW) in Bangladesh elaborately. Therefore, this study will discuss a comprehensive explanation of recent trends in health status and trends in Bangladesh.

The main objective of this study is to describe and evaluate the current situations of health status and health care development in Bangladesh. The issues of health care and services have achieved an important issue in Bangladesh, especially when Bangladesh has made significant changes within the health-related MDGs like infant or child mortality rate and maternal mortality rate than many other developing countries and now on the new track of SDGs. This study also makes a comparative analysis of main health indicators among some Asian countries, including Bangladesh.

The paper is organized as follows. The recent health status of Bangladesh is presented in section 2. Here we elaborately discuss different health issues like child health, maternal health, communicable, and non-communicable diseases. Section 3 presents an overview of a few physical characteristics of the households in Bangladesh, while section 4 discusses shortly comparison of health indicators of selected South Asian countries. Finally, the conclusion of this work is presented in section 5.

1.1 Methodology

This paper is based on an extensive review of published and unpublished data and information on the health system in Bangladesh. These include relevant annual as well as special reports of different years by the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), the World Bank, Bangladesh Bureau of Statistics, National Institution of Population Research and Training (NIPORT), Ministry of Health and Family Planning (MOHFW) and the Bangladesh Health Watch Reports by the Directorate General of Health Services as well as that of other national and international agencies were also considered. Articles and research

papers published in social science and scientific journals were also reviewed. In short, the paper is a review article based on secondary data.

On the other hand, the study will be referring to several other literatures on the current health service situation in Bangladesh published by various sources. In this study, the non-empirical study will apply and the analysis will be made from the data and contents collected from various articles and journals published by various authors and released through various sources. The references of those will be given in the reference part.

2. Health Status in Bangladesh

Bangladesh is the most densely populated country in the world with a population estimated at 167 million, and a population density of more than 1290 people per square kilometer (Worldometers, 2019). About 64 percent of people live in rural areas.

Table 1: Trends in population/demographic indicators, selected years

| Indicator | 1970 | 1980 | 1990 | 2000 | 2010 | 2017 |
|---|--------|--------|---------|---------|---------|--------------------------------|
| Total population (million) | 66 309 | 82 498 | 107 386 | 132 383 | 151 125 | 157 826 (July 2017 est.) |
| Population aged 0–14 (% of total) | 44.7 | 44.4 | 42.1 | 37 | 31.7 | 27.76 |
| Population aged 15–64 (% of total) | 51.9 | 52 | 54.2 | 59 | 63.7 | 65.02 |
| Population aged 65 plus (% of total) | 3.5 | 3.6 | 3.7 | 4.1 | 4.6 | 6.23 |
| Population growth (%/year) | 2.4 | 2.8 | 2.5 | 1.8 | 1.1 | 1.04 |
| Population density (people/sq.km) | 509.4 | 633.8 | 825 | 1017 | 1161 | 1265 |
| Fertility rate (TFR) | 6.9 | 6.4 | 4.6 | 3.1 | 2.3 | 2.17 |
| Crude birth rate / 1000 | 47 | 43.1 | 35.1 | 27 | 20.9 | 18.8 |
| Crude death rate /1000 | 19.2 | 13.8 | 10.1 | 7.2 | 5.9 | 5.4 |
| Age dependency ratio (% of working age population) | 92.9 | 92.3 | 84.5 | 69.6 | 56.9 | 50.3 |
| Proportion population urban (% of total population) | 3.6 | 6.3 | 9.0 | 11.2 | 14.4 | 35.8 |

Source: <http://publications.worldbank.org/WDI/indicators>

Another trend is the rapid rate of urbanization. Natural disasters, small size and low productivity of land and rural unemployment, and the surplus agricultural labour force in rural areas are reported as key factors contributing to the movement of people from rural to urban areas. Bangladesh has experienced one of the highest urban population growth rates (nearly 7 percent per year in the urban slums) in the last three decades, with about 35.8 percent of the population now living in urban areas (Bangladesh Demographics Profile, 2018).

An analysis of the health in Bangladesh shows that the health status of the country's population has improved substantially over the past decade. Life expectancy at birth increased by 8.4 years from 2000-2017 (BBS, 2017). This happened due to the steady decline in childhood and maternal mortality. Between 1999-2003 and 2010-2017, under-5 mortality declined from 88 to 38 deaths per 1,000 live births (BBS, 2017). Maternal mortality also declined by 26 percent from 322 to 196 deaths per 100,000 live births between 2001 and 2016 (BMMS, 2016). As a result, Bangladesh has achieved its Millennium Development Goal (MDG) 4 target for under-5 mortality (48 deaths per 1,000 live births) and was expected to achieve its MDG 5 target for maternal mortality (143 deaths per 100,000 live births) by 2015. But the MMR in Bangladesh declined between 2001 and 2010 but has now stalled. Evidence suggests that changes in fertility behavior have been one of the major contributors to the steady decrease in mortality. Between 2000 and 2011, the total fertility rate in Bangladesh declined by a child from 3.3 in 1999- 2000 to 2.3 in 2011 (NIPORT, 2013) and in 2017 (NIPORT, 2018), it was 2.17 which is

remarkable progress, related to fertility reduction; increased access to maternal health care; increased use of maternal health services in the antenatal, delivery, and postpartum periods and socioeconomic improvements.

Bangladesh has also sustained an amazingly rapid reduction in the rate of a child under nutrition in the last two decades. The 2014 Bangladesh Demographic and Health Survey (BDHS) showed that Bangladesh had already achieved MDG 1 target for underweight among under-5 children (33 percent), according to the National Center for Health Statistics (NCHS) reference. Bangladesh is only 2 percentage points short of reaching the MDG 1 target for underweight with the WHO reference (BDHS, 2014). Rapid wealth accumulation and large gains in parental education are the two largest drivers of such accomplishment, although health, sanitation, and demographic factors have played significant secondary roles (Headey et al., 2015). Despite these achievements, Bangladesh continues to carry a high burden of disease that includes non-communicable diseases (NCDs), tuberculosis, respiratory infections, and neuropsychiatric conditions. As a country, Bangladesh is committed to addressing such health problems.

Table 2: Mortality and health indicators

| Indicator | 1970 | 1980 | 1990 | 2000 | 2010 | 2017 |
|--|------|--------|--------|--------|-------|-----------------|
| Life expectancy at birth, total (years) | 42 | 55 | 59 | 65 | 69 | 73.4 |
| Life expectancy at birth, female (years) | 44 | 54 | 59 | 65 | 69 | 75.6 |
| Life expectancy at birth, male (years) | 40 | 56 | 60 | 65 | 68 | 71.3 |
| Mortality rate, adult, female (per 1000 female adults) | - | - | - | 171 | 137 | 107(2016 est.) |
| Mortality rate, adult, male (per 1000 male adults) | - | - | - | 179 | 163 | 148(2016 est.) |
| Adolescent fertility rate (per 1000 women ages 15–19) | - | 195.38 | 163.68 | 116.63 | 83.83 | 84 |
| Infant mortality rate (per 1000 live births) | - | 133 | 99.5 | 64.2 | 37.5 | 31.7 |
| Neonatal mortality rate (per 1000 live births) | - | - | 54.1 | 40.7 | 27 | 18 |
| Under-5 mortality rate (per 1000 live births) | - | 197.8 | 143.6 | 87.7 | 47.2 | 32.4 |
| Maternal mortality ratio (per 100 000 live births) | - | - | 551.9 | 322 | 194 | 196 (2016 est.) |

Source: <http://publications.worldbank.org/WDI/indicators>, BBS, 2018; Bangladesh Maternal Mortality and Health Care Survey 2016

2.1 Recent trends in health status

2.1.1 Gender equity in the health sector

In 2001, MOHFW adopted its Gender Equity Strategy (MOHFW, 2001) for the Health and Population Sector Programme (HPSP). This was the first Gender Equity Strategy of MOHFW and was designed to provide coordination to the efforts of health planners and providers in identifying and dealing with gender equity issues in planning and implementing health policy. Later than, Gender Equity Strategy (GES) 2014 has been developed for a period of 10 years, (2014-2024) and the primary goals are to professionals' awareness of the role of gender norms, principles, and equity in development of health and nutritional status, and to promote the gender perspectives in different health development plans and programs with a view to achieving gender equity in health.

The goal of the GES 2014 is "to improve the health of the people of Bangladesh through better utilization of services especially for women, children, adolescents, socially excluded and geographically marginalized population and the poor." According to the Human Development Report 2018, Bangladesh ranked 134 out of

160 countries of the world in terms of the Gender Inequality Index in 2017, which is developed on the status of three elements: a) Reproductive health b) Empowerment; and c) the labour market.

2.1.2 Child and infant health

Bangladesh has succeeded in reducing under-five mortality by almost 70 percent, from 146 deaths per 1,000 live births in 1991 to 38 in 2017, has achieved the Millennium Development Goal 4 target—48 deaths per 1,000 live births by 2015—ahead of time (table 1). Bangladesh was one among only 19 countries that are on track, and it has the highest rate of decline among low-income countries.

Bangladesh Demographic and Health Survey (BDHS) data also show that the neonatal mortality rate declined from 54 per 1,000 live births in 1991 to 18 in 2017, showing progress overall but at a much lower rate compared with the under-five and infant mortality rates.

In the last two decades, under-5 and infant mortality declined by 65 percent and 56 percent, respectively. Neonatal mortality declined by 46 percent, while postneonatal mortality fell by 71 percent. The perinatal mortality rate is 44 deaths per 1,000 pregnancies (BDHS, 2011).

Only 37 percent of children receive appropriate care within 24 hours of birth and the challenge is that 62 percent of births occur in the home (BDHS, 2011). While it is difficult to determine trends with respect to low birth weight, it is estimated that about 40 percent of perinatal deaths are associated with low birth weight. There is no longer a notable difference in the post-neonatal mortality rates of male and female children (BDHS, 2007). Perinatal mortality is highest in the first pregnancy (51 deaths per 1,000 pregnancies). Overall, perinatal mortality has a negative association with the mother's education and wealth status (BDHS, 2014).

Figure 1: Reproductive, maternal, newborn and child health coverage (Latest available data 2010-17)

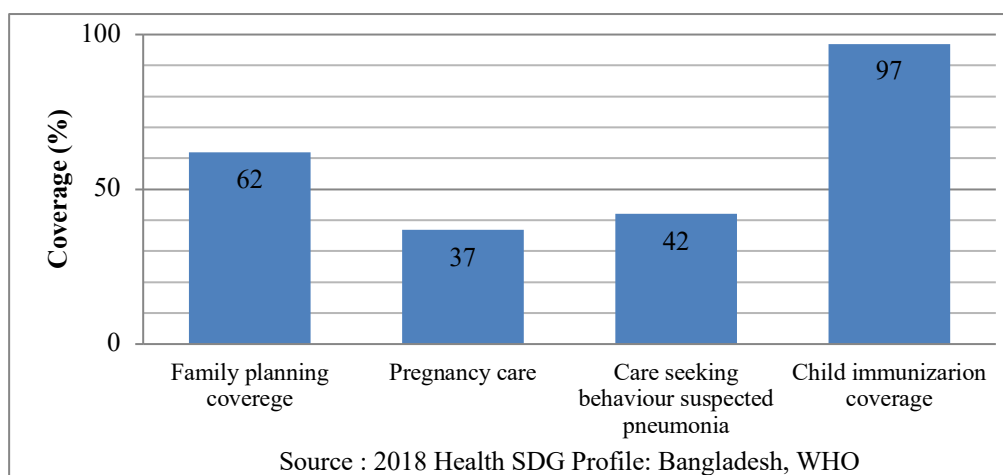


Table 3 shows that Bangladesh made a successful story of child immunization and coverage of vitamin A capsule in the last couple of years. The Expanded Programme on Immunization (EPI) in Bangladesh has had a large effect on vaccine-preventable illnesses and almost 90 % of children are now under the vaccination coverage. The current status of vitamin A supplementation raises concern because the Ministry of Health and Family Welfare (MOHFW)'s Health, Population and Nutrition Sector Development Program (HPNSDP) 2011-2016 was the target of 90 percent needed to be achieved during 2016 (MOHFW, 2011).

Table 3: Child and maternal health coverage

| | |
|---|---|
| Coverage of vitamin A capsule (EPI CES, 2016) | Vitamin A coverage: Infant (6-11 months) 86.1%; Children (12-59 months) 91.3%; Postpartum women 37.8% |
| Immunization (valid vaccination | ≤12 months old children: BCG 99.5%; OPV1 97.8%; OPV2 97.0%; |

| | |
|------------------------------|---|
| coverage) (EPI-CES, 2016) | OPV3 90.1%; Penta1 97.8%; Penta2 97.0%; Penta3 90.1%; MR1 87.5%; Full vaccination 82.3% ≤23 months old children: BCG 99.5%; OPV1 97.9%; OPV2 97.2%; OPV3 90.4%; Penta1 97.9%; Penta2 97.2%; Penta3 90.4%; MR1 92.3%; Full vaccination 86.8% |
| Family planning | Contraceptive prevalence rate (%): 62.3 (SVRS, 2016) Contraceptive prevalence rate (modern methods) in %: 58.4 (SVRS, 2016) Unmet need for family planning (%): 12.0 (BDHS, 2014) |
| HIV/AIDS (ASP, 2017) | Antiretroviral treatment (ART) coverage among adults needing ART in 2016: 44.5% HIV prevalence among key populations in 2016: Less than 1% People living with HIV (PLHIV) in 2016: 4,721 |

Source: Health Bulletin 2017

2.1.3 Maternal health

Despite the early and significant decline in the maternal mortality ratio in Bangladesh from 574 in 1990 to 320 in 2001, there was a main concern that this rate of decline had not been sustained. Between BMMS (Bangladesh Maternal Mortality Survey) 2001 and BMMS 2010, MMR (maternal mortality rate) declined significantly: from 322 to 194 maternal deaths per 100,000 live births. This decline was evidence of significant progress linked to fertility reduction; access to qualified maternal health care; increased use of maternal health services in the antenatal, delivery, and postpartum periods; and socioeconomic and infrastructural improvements (Arifeen et al., 2014).

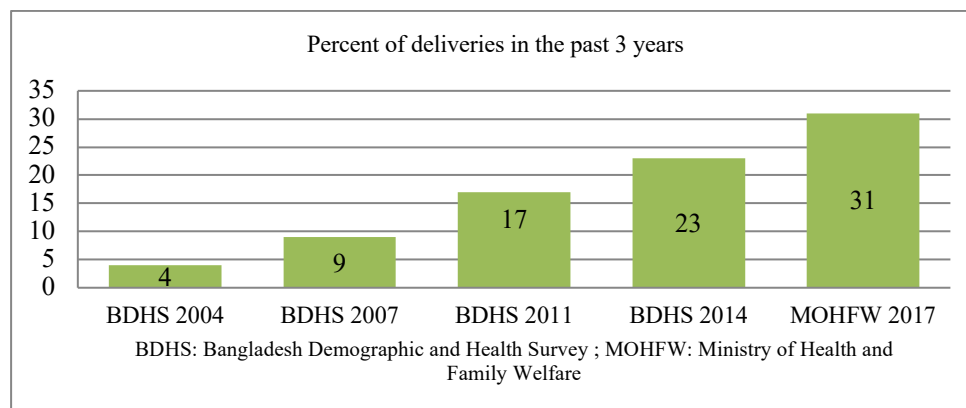
The MMR in Bangladesh declined between 2001 and 2010 but has now stalled, although Bangladeshi women are increasingly seeking maternal care from health facilities (BMMS, 2016). The MMR estimate from the BMMS 2016 in 196 maternal deaths per 100,000 live births, almost identical to the estimate of BMMS 2010. Bangladesh is not the only country that has experienced increased utilization of maternal services with no impact on MMR. There is international preference for a stall in MMR decline in low- and middle-income countries, even with increased care in facilities. An analysis of 37 countries in sub-Saharan Africa (SSA) and South and Southeast Asia (SSEA) found a weak association between the MMR and the percentage of deliveries occurring in a health facility (Hasib, 2017).

Bangladesh has made rapid progress in increasing the number of births attended by medically trained attendants. In 2016, 50 percent of births were attended by medically trained personnel, compared to 27 percent in 2010. Between 2010 and 2016, more women across Bangladesh delivered their babies in healthcare facilities. The percentage of births in health facilities increased from 23 percent in 2010 to 47 percent in 2016. Now, about 1.46 million births occur in health facilities every year (BMMS, 2016).

The risk of maternal death is high among first-time mothers (215 per 100,000 live births) as well as for parities 4 or higher. Hemorrhage was the most common cause of maternal mortality, followed by eclampsia, indirect causes, and abortion-related complications. Hemorrhage and eclampsia account for 54% of all maternal deaths in BMMS 2016, slightly higher than in BMMS 2010 (51%).

The private sector is now the most prominent source of ANC, both in urban and rural areas. Overall, 58 percent of ANC seekers went to the private sector to receive checkups, while 36 percent used the public sector. A notable proportion of pregnant women (22 percent) were receiving ANC at home.

Figure 2: Trends in birth delivered by C- section (2004-2016)



Bangladesh achieved the HPNSDP target of 50 percent of births attended by a medically trained provider by 2016. Deliveries by Cesarean section (C-section) increased from 12 percent to 31 percent during 2016. Eighty-three percent of births in private facilities are by C-section (MOHFW, 2015). Moreover, Bangladesh is facing a massive boom in the number of medically unnecessary C-sections - between 2016 and 2018 the number of operations increased by 51 percent (Save the Children, 2019).

2.1.4 Communicable diseases

In Bangladesh, the Communicable diseases—though decreasing in terms of the proportion of the overall burden of disease—continue to cause about 20 percent of overall mortality and morbidity in Bangladesh. The spread of communicable diseases is under good control due to comprehensive preventive measures and improved treatment protocols. Bacterial and protozoal diarrhea, hepatitis A and E, and typhoid fever are major food or waterborne diseases in Bangladesh. Dengue fever and malaria are high risks in some locations (Bangladesh Demographics Profile, 2018).

Tuberculosis (TB) is a major public health problem in Bangladesh. WHO's data estimate that TB has been accounted for 3.3 percent of all deaths in Bangladesh in 2012 (WHO 2012). While the prevalence of tuberculosis (TB) has declined substantially, Bangladesh still ranks among the top ten countries in the world with the highest TB burden. The disease is found primarily among the poor and least educated populations. After the National TB Prevalence Survey (2015-2016), the revised estimates by WHO for incidence and prevalence rates of all forms of tuberculosis in 2016 are 221 and 260 per 100,000 people, respectively. It is further estimated that about 40 per 100 000 people died of TB in the same year. Remarkable progress in TB control has been made in terms of DOTS (Directly-observed treatment-short course) coverage, detection of TB cases and treatment success since the introduction of DOTS in 1993.

Acute respiratory infection (ARI), particularly pneumonia, is the leading cause of communicable disease mortality (10 percent) and morbidity (7 percent) in Bangladesh, accounting for about a third of all deaths annually among children less than five years of age (Bangladesh Demographics Profile, 2018). According to the World Health Organization, nearly 400 children die each day from ARIs in Bangladesh. Pneumonia, infection, and birth asphyxia are major causes of under-five deaths in this country. ARIs were also accountable for about 39% of total pediatric hospital admissions and, 40 to 60% of the total pediatric outpatient department visits in Bangladesh (Kabir, 2016).

Diarrhoeal disease is also a leading cause of significant morbidity and mortality, accounting for 2.7 percent of all mortality in Bangladesh (WHO, 2012). In the last five years, approximately 12.9 million patients had visited health facilities for seeking care, while at least 115 patients died (MOHFW, 2017). Diarrhoeal diseases are one

of the major causes of hospitalization among under-five children in Bangladesh. According to the latest hospital-based surveillance in Bangladesh, childhood Diarrhoeal diseases were responsible for 40% and 18% of hospital admissions in sub-district and district-level hospitals, respectively, while at least 7% of under-five children were admitted to the medical college hospitals (MOHFW, 2017). The deaths due to diarrhea decreased almost each year but drastically from 2007 to 2015. The amazing reduction in diarrhea-related mortality over the last few years proves the effectiveness of the strategies adopted, which include the provision of early oral rehydration at the household level.

As one of the major public health problems in Bangladesh, malaria is endemic in 13 eastern and north-eastern border districts, a total of 17.52 million people living in these areas are at risk of malaria (Haque et al., 2009). Bangladesh has made significant progress against malaria. The annual malaria incidence declined from 7.77 per 1000 population in 2008 to 1.58 per 1000 population in 2016 and severe malaria gradually decreased by 78% from 2008 to 2016 (Laskar, 2017). However, about 17 million people still at risk from the disease, Bangladesh has a long way to go until elimination. The revised strategy has been drafted to ensure alignment with the WHO *Global technical strategy for malaria (2016–2030)*. This will also greatly contribute towards overall national development and the Sustainable Development Goals (SDGs). As part of the new plan, Bangladesh aims to achieve a “malaria-free Bangladesh by 2030” (APLMA, 2017).

HIV prevalence in Bangladesh is low and remains a concentrated epidemic because of the high prevalence in neighboring countries and the high mobility of people within and beyond the country. Inadequacy incorrect knowledge about HIV and AIDS due to illiteracy, ignorance, and gender inequity intensify the vulnerability. In total, 578 new HIV infections have been detected in 2016, in which the total number of detected cases was 4,721 (MOHFW, 2017). Over the last 10-15 years, dengue fever and dengue hemorrhagic fever have become the leading causes of hospitalization and deaths among both children and adults in South-East Asian regions. A similar situation can be seen in other countries, such as India and Sri Lanka, where DENV3 (prevalent serotypes of dengue) have been reported most of the time in dengue-related illnesses (MOHFW 2018). As a dengue-like disease, Chikungunya fever, Zika Virus, Filariasis, Kala-azar are emerging alarmingly in the country in recent years.

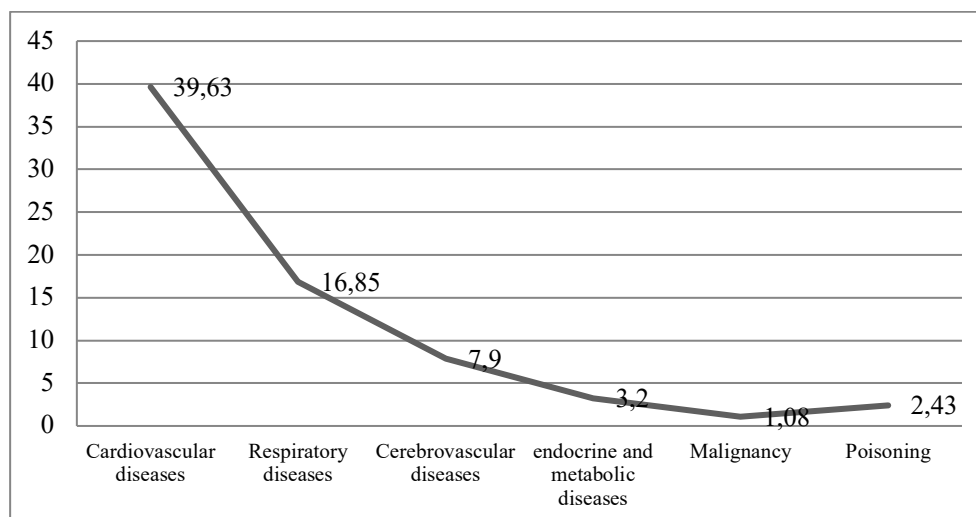
2.1.5 Non-communicable diseases

Non-communicable diseases (NCDs) are the most well-known cause of morbidity and mortality worldwide. Like many other developing countries, in Bangladesh also non-communicable diseases (NCDs) are emerging as a major cause of morbidity and mortality, accounting for 61% of all deaths (D. Iam et al., 2013). The most common NCDs in Bangladesh include cardiovascular diseases, diabetes mellitus, cancer and chronic respiratory diseases. These diseases are increasing in Bangladesh as the population becomes more urbanized. In the first national survey (2011) to measure blood pressure and blood glucose, about one in three women and about one in five men age 35 and older has elevated blood pressure and roughly one in ten has elevated blood glucose, an indication of diabetes (BDHS, 2011). Cancer is the sixth leading cause of death in Bangladesh, accounting for more than 150,000 deaths annually (Eminence, 2013).

Cardiovascular disease, particularly ischaemic heart and cerebrovascular disease (stroke), unintentional injury, cancer, and chronic obstructive pulmonary disease were among the top 10 causes of death in 2004. Further, a study published in 2009 (Karar, 2009) in medical college hospitals observed that about one-third of admissions were due to major NCDs for patients aged 30 or above.

According to ICDDR, B 2015, in South Asia, NCDs account for around half of annual mortality and burden of disease. NCDs account for an estimated 59% of total deaths in Bangladesh – 886,000 deaths a year. In Bangladesh, 48% of men smoke; 20% of men and 32% of women have raised blood pressure. There were 7.1 million cases of diabetes in 2015 and a further 3.7 million cases may go undiagnosed. An estimated 129,000 deaths were attributed to diabetes in 2015 (ICDDR, B, 2019).

Figure 3: National Trends in major causes of mortality among patients aged above five years during 2016



Source: District Health Information System software version 2, 2018

Respiratory tract infections were the topmost causes of mortality among under-five children nationwide in 2016. Other causes of mortality were asphyxia, sepsis, low birth weight, etc. The figure shows the major causes of mortality among patients aged above five years nationally in 2016 in percentages. Pregnancy and associated complications were the least, and cardiovascular disease was the highest cause of mortality. Other major causes were diseases of the respiratory system, cerebrovascular diseases, infectious diseases, poisoning, injury due to assaults and accidents, etc. (Sultana et al., 2015). This implies that a common scenario in mortality profile among patients aged above 5 years was reflected from both medical college hospitals and district-level hospitals.

3. Household Facilities

This section presents an overview of a few physical characteristics of the households, which reflect the general well-being and socio-economic status of the members of the households. The information provided includes such facilities as sources of drinking water, sources of fuels, and sources of electricity, toilet facility. Bangladesh society is primarily a dominant male society and as a consequence of this, most families are headed by males (BBS, 2017). It is well-documented that women almost everywhere are disadvantaged relative to men in their access to asset, credit, employment, and education. Consequently, it is often suspected that female-headed households are poorer than male-headed households, and are less able to invest in the health and education of their children (Folbre 1991, UNDP 1995, United Nations 1996, World Bank 2001). However, this feature is changing over time.

Table 4: Household characteristics and utilities of Bangladesh

| | |
|--------------------------------------|--|
| Household size (no. of persons): | 4.3 Male-headed (%): 87.2 Female-headed (%): 12.8 |
| Water and Sanitation (% households): | Drinking – water: Access to tap and tube well water 98% Toilet facility (%): Sanitary 75; others 22.3; Open defecation 2.7 |
| Sources of light(% households) | Kerosene: total 13.0; rural 18.9; urban 5.8 Electricity: total 81.2; rural 71.4; urban 93 Solar: Total 5.6; rural 9.5 urban 1.0 Others: total 0.2; rural 0.2; urban 0.2 |
| Information technology | Internet subscribers: Total 67.245 million Mobile internet 63.120 million WiMAX 0.089 million ISP+PSTN 4.036 million Mobile phone subscribers: 129.584 million |

Source: BBS, Health Bulletin 2017

4. Comparison of Health Indicators of Selected South Asian Countries

During the past 50 years Bangladesh has made remarkable improvements in life expectancy, child health (Table 5), literacy and disaster preparedness (Balabanova et al., 2013), Bangladesh has made more notable gains in a number of indicators than some of its neighboring countries which have higher per capita income. For instance, GDP per capita in Bangladesh (\$4200) are almost half that of India (\$7200) in 2017, and lower than that Pakistan (\$5400), yet average life expectancy, percentage of children immunized against various communicable diseases, family planning method and the literacy rate for young women are higher in Bangladesh than in Pakistan and in India (Basu, 2018). In the three decades between 1990 and 2017, under-five mortality has fallen by more than 75%, while infant mortality and neonatal mortality have declined by around half (Table below). The under-five mortality rate (32.4 deaths per 1000) in Bangladesh is significantly lower than India (39.4 per 1000) and Pakistan (74.9 per 1000) (World Bank, 2019).

Table 5: Comparison of health indicators of selected South Asian countries, 2018

| Country | Life expectancy at birth (year) | Infant mortality rate (per 1,000 live births) | Births skilled attendant (%) | Contraceptive prevalence (%) |
|------------|---------------------------------|---|------------------------------|------------------------------|
| Bangladesh | 72 | 34.2 | 50 | 72.5 |
| India | 69 | 43.0 | 86 | 72.0 |
| Pakistan | 66 | 78.8 | 55 | 47.0 |
| Srilanka | 75 | 9.4 | 99 | 74.1 |
| Nepal | 70 | 34.5 | 58 | 56.1 |

Source: World Health Statistics 2018, WHO

5. Conclusion

Despite many challenges, population health outcomes have shown marked improvement, with falls in maternal, infant and under-five mortality rates, and significant reductions in total fertility rate. In comparison with MDG targets, infant and under-five mortality and total fertility are already to reach; maternal mortality and prevalence of underweight are not so satisfactory despite significant reductions, while targets for HIV, malaria, and TB are still potentially achievable. These outcomes have been achieved by improvements in coverage with key interventions, such as delivery in a health facility, childhood immunization, and management of diarrhea with oral rehydration salts, and treatment success rates for TB. However, the provision and coverage of services for the growing burden of non-communicable diseases is just a good start. Quality of care in both public and private services is poor, with little consideration of the quality of provider care, low levels of professional knowledge, and poor application.

Bangladesh has set a surprising example of gaining good health at a very low cost and has been proposed as a role model for other developing countries in the region (Ahmed et al., 2015). While the gains in health have been credited to the Ministry of Health and Family Welfare, the progress of other ministries relevant to public health accelerated the success of the overall health agenda of the Government. It is a contradiction that despite the lack of coordination of the health ministry with other sectors, a number of vertical health programmes, particularly in preventive care such as immunization, control of diarrhea, TB and other emerging infectious diseases have been sustained successfully over a long period, impacting positively on health outcomes. Moreover, Bangladesh has made more notable gains in a number of indicators than some of its neighbours with higher per capita income, such as India and Pakistan.

Bangladesh has successfully applied IT to its information and management systems to ensure they are easily accessible for performance assessment of specific programmes at least up to the sub-district level. Overall, the Bangladesh health system would contribute to the improvement of the health of the population and fulfill the Government's mission to achieve complete health coverage within the anticipated future.

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