

COVID-19 Pandemic and Bangladesh: A Review

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Abstract

Bangladesh, a developing country in the world. Like the other countries in the world it also hit by COVID-19 pandemic. This review article particularly analyzed some issues (e.g. Government measures, Economy, Mental health, Social issues and Vaccine) of Bangladesh related to COVID-19. Based on the published articles, news from print and electronic media, websites of different government and non-government organizations, available public data and some personal discussions are used to write this review paper. As the pandemic still on at the time of data been collected and no one knows when it's going to stop, there can be addition of this paper in the future with updated data. It was a big challenge for Bangladesh to cope-up with the situation as a lower-middle-income economy with one of the world's densest populations. As winter is knocking the door here in Bangladesh, experts are assuming that the second wave will start very soon and the damage can be worst then the first wave. This paper may help the concerns to re-think what was there mistakes and how more organized way they can control the second wave and minimize the damage.

Keywords: COVID-19 • Pandemic • Bangladesh • Economy • Mental health • Social issues • Vaccine

Introduction

Bangladesh is the seventh most populous country in the world and population of the country is expected to be nearly double by 2050. The increasing burden of communicable diseases in Bangladesh can be attributable to rapid urbanization and nearly 50% of all slum dwellers of the country live in Dhaka division [1]. Researchers across the world are working hard to understand better the biology of nCoV-2 and the epidemiology of the novel coronavirus disease-19 (COVID-19). The estimated basic reproductive number of the virus is significantly higher than many other infectious diseases, and this can potentially result in the capacity of health facilities becoming overwhelmed, even in the countries that have the most developed healthcare systems [2,3]. The joint survey of the Power and Participation Research Centre and BRAC Institute of Governance and Development reveals that per capita daily income of urban slum and rural poor drops by 80% due to present countrywide shutdown enforced by the government to halt the spread of COVID-19. 40%-50% of these population took loans to meet the daily expenses. However, the country has just 127,000 hospital beds, 91,000 of them in government-run hospitals. Researchers say, the country's economy is losing BDT 33 billion every day from its service and agriculture sectors during the nationwide shutdown [1].

This pandemic is a health crisis but it is challenging the government to implement monetary and fiscal policies that support sustained economic activity [4]. COVID-19's impact on Bangladesh's economy is particularly pronounced because of the country's reliance on globalized supply chains of international fashion brands and human resource exports [5]. Fear, worry, and stress are normal responses to perceived or real threats, and at times when we are faced with uncertainty or the unknown. So it is normal and understandable that people are experiencing fear in the context of the COVID-19 pandemic in Bangladesh [6]. Although the country's recent economic growth has been outstanding, in the fiscal year 2018–2019, 20.5% of the population lived under the national poverty line, and 10.5% are in extreme poverty, according to the latest government announcement [7].

In a study released June 15, the Bangladesh chapter of Berlin-based anti-graft watchdog Transparency International claimed that 23% of hospitals have been negligent to patients who are relatively poor [8]. The state research organization the Bangladesh Institute of Development Studies, however, has made an optimistic projection taking into account the post-Covid recovery of the economy. It said that the overall rate of poverty would rise to 25.13%. The poverty rate, according to it, would be higher in urban areas [9]. The World Health Organization (WHO) has listed the Covid-19 vaccine developed by a Bangladeshi pharmaceutical company, Globe Biotech. Globe's vaccine was listed on the WHO's draft landscape of COVID-19 candidate vaccines on 15 October [10].

With almost every country adopting aggressive non-therapeutic measures to control the spread of nCoV-2, Bangladesh in Southeastern Asia has followed the same trend; however, there is an ongoing debate as to whether measures have been adopted adequately and implemented efficiently [3]. Bangladesh is one of the high-risk countries of the COVID-19 pandemic and its consequent losses due to social and economic conditions. There is a significant possibility that economic stagnation would push a large population back into poverty [7].

Government Measures During COVID-19 Pandemic in Bangladesh

In Bangladesh, the first infection of COVID-19 was reported on 8 March 2020. The first cases of coronavirus patients were confirmed by the Institute of Epidemiology, Disease Control and Research (IEDCR). Bangladesh reported its first confirmed COVID-19 death on 18 March 2020, 10 days after the first confirmed case. On 24 March 2020, aiming to prevent community transmission of COVID-19, the Bangladesh government declared the country's lockdown from 26 March to 4 April. The government also announced a countrywide shutdown of transportation services including buses, trains, and launch services [11]. The main goal of the proposed plan is to prevent and control the spread of COVID-19 in Bangladesh in

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order to reduce its impact on the health, wellbeing and economy of the country, as well as to set out the framework to treat the population that has been infected. The key interventions to achieve this goal include: the enforcement of compulsory mask-wearing and safe hygiene practices outside the home, including within the workplace; a zoning approach to containment; community-based prevention practices, case identification, and quarantining utilizing local community health capacity for slowing spread of disease and sustaining behavior change following lockdown; the maintenance of physical distancing regulations based on latest expert and industry guidance; and the empowerment of frontline health workers and other essential workers to make them agents of change to turn the epidemic around and address their potential COVID-19 related fears and concerns [12].

To avoid mass gatherings in order to prevent the spread of coronavirus in the country, on March 19, 2020, the government prohibited political and religious rallies; social and cultural gatherings; and on March 21, 2020, canceled all state public programs and events, including the celebration of the Independence Day [13]. All public and private offices remained closed from March 26, 2020, to May 30, 2020, except for emergency services; the government stopped public transportation and limited banking services also [14].

In an effort to prevent transmission of coronavirus and to improve the situation, the government has issued some directive imposing restrictions on the movement of people. According to the directives, all government offices, non-government, autonomous, private offices and their employees and staffers under 'red' zone will be under general holidays and the Public Administration Ministry will take necessary measures in this regard. The life and livelihood, movement of people in red, yellow and green zones under Bangladesh Risk Zone-Based COVID-19 Containments implementation Strategy guide, provided by Health authorities will be strictly controlled [15].

31 March: Government announces details of its BDT 50 bn (approx. USD 595 m) stimulus package for export-oriented industries. This includes assistance towards salaries and funding of 2 year loans to factory owners at 2% interest. 5 April: Prime minister announces another stimulus packages of BDT 677.5 bn (approx. USD 8 bn) planned to implement in immediate, short and long phases through four programs (increasing public expenditure, formulating a stimulus package, widening social safety net coverage and increasing monetary supply). 13 April: Prime minister announces: direct cash assistance of BDT 7.6 bn (approx. USD 91 mn) for informal sector workers; health insurance of BDT 5-10 lakh for health workers (doctors, nurses and others) and bankers in case of COVID-19 infected and BDT 25-50 lakh in case of death, total fund allocated BDT 7.5 bn (approx. USD 89 mn); special honorarium BDT 1 bn (approx. USD 12 mn) allocated for bankers, health workers and others [16].

Agriculture employs 40% of the workforce. The government has reduced duties on some agricultural equipment that will encourage mechanization. The above is a good move but will lead to a decline in jobs for farm laborers. No separate subsidy has been announced for this sector. The government also announced 50 lac families for vulnerable sector of 2.5 k each. Each family has been considered as four members, which means 2 crore population will be covered through cash subsidy [17].

Despite so many good measures taken by the government, there was also some criticism by health expert around the country. Public health experts in Bangladesh have expressed concern about the government's decision to charge people for COVID-19 tests amid a sharp decline in the number of tests being done. In late June, the government decided to charge 200 takas (£1.80) for testing done at government facilities and 500 takas (£4.50) for samples collected from home to "avoid unnecessary tests". The private sector charges 3500 taka (£32) per test where almost one in four Bangladeshis live below the national poverty line [18].

Since mid-March 2020, the authorities have apparently arrested at least a dozen people, including a doctor, opposition activists, and students, for their comments about coronavirus, most of them under the draconian Digital Security Act. The Information Ministry announced that it has formed a unit to monitor social media and various television outlets for "rumors" about COVID-19 cases [19]. Information of all the deaths from the corona virus is not available, as information of people who did not test, or did not report the death to the authorities in the home quarantine are not included in the official data [20].

Since the beginning of the health crisis, the Bangladeshi government has maintained that they are well prepared to deal with the coronavirus. But shortages in Personal Protective Equipment (PPE) for healthcare workers and an N-95 mask scandal brought to the fore the government's mismanagement of the crisis. Moreover, the government's labelling of the lockdown as a 'general holiday' sent mixed messages to the public leading to confusion. The latest decisions to reopen garments factories, restaurants and markets while the infection is still on the rise has been widely criticized across the country. Many activists think that journalists and activists are being sued or arrested to create fear in the minds of the people to stop criticism of government mismanagement [21].

COVID-19 and Its Impact on Bangladesh Economy

There are differing opinions on possible impacts of Covid-19 on the Bangladesh economy. Both the World Bank and the International Monetary Fund (IMF) have expressed apprehensions about the economic growth that may slide down to just over 2.0% during the current fiscal year. Their prediction appears to be realistic given the decline in or negative growth in developed and developing nations. The government still remains optimistic about growth prospect. However, damages to the Bangladesh economy will depend largely on duration and pervasiveness of COBID-19, as well as effectiveness of government measures to tackle the calamity [22].

Covid-19 has had a major impact on the global economy. Bangladesh is no exception. An official document now suggests that the pandemic is going to have a massive influence on Dhaka's economic policies in the medium term, as the country looks forward to graduating out of the least developed country status in 2024. Bangladesh paying the interest of the loans that have been taken from the external sources, the government will pay Tk 55.3 billion in the 2020-21 fiscal. The amount will be Tk 68.1 billion in 2021-22 fiscal, while Tk 80.9 billion in the next financial year [23].

In the 2021-22 fiscal, the debt status from the external sources will be Tk 5122.9 billion, which is 37.9% of the total amount. Some Tk 13,531.5 billion will be the debt status. This amount is 37.8% of the total GDP. Of the amount, internal sources will contribute Tk 8408.6 billion, which is 62.1% of the amount. In the current fiscal, the debt status stands at Tk 11,678.3 billion. This amount is 36.8% of the total GDP. Internal sources are contributing Tk 7355.5 billion, which is 63%, and external sources are contributing Tk 4322.8 billion, which is 37% [4]. According to the Export Promotion Bureau of Bangladesh (EPB), in March this year the export earnings were just 44.14 billion takas (€460.5 million, \$520 million), down from 256.66 billion takas (€2.68 billion, \$3.03 billion) in the same month of last year [24].

The impact of COVID-19 upon the Bangladesh economy has been no less dramatic in the first two months of lockdown. The economic impact has been felt in three main avenues: first, a drop in domestic economic activity, after the shutdown announced on March 26; the second is a decline in exports of ready-made garments, which represent more than 80% of Bangladesh's exports and have been strongly impacted (overall exports fell by 83% year-on-year in April). Finally, there has been a fall in remittances from Bangladeshis living mostly in Middle Eastern countries, affected not just by the pandemic but also by the decline in oil prices in Table 1.

Table 1. Five years' comparisons of Bangladesh economy (Nordea, October, 2020).

| Main Indicators | 2018 | 2019 (e) | 2020 (e) | 2021 (e) | 2022 (e) |
|---|--------|----------|----------|----------|----------|
| GDP (billions USD) | 274.01 | 302.53 | 317.77 | 338.39 | 372.56 |
| GDP (constant prices, annual % change) | 7.9 | 8.2 | 3.8 | 4.4 | 7.9 |
| GDP per Capita (USD) | 1e | 1 | 1 | 1 | 2 |
| General Government Gross Debt (in % of GDP) | 34.6 | 35.8 | 39.6 | 41.9 | 42.3 |
| Inflation rate (%) | 5.8 | 5.5 | 5.6 | 5.9 | 5.5 |
| Current account (billions USD) | -9.57 | -5.10 | -4.85 | -9.33 | -5.08 |
| Current account (in % of GDP) | -3.5 | -1.7 | -1.5 | -2.8 | -1.4 |

Source: IMF–World Economic Outlook Database, October 2020. Note: (e) Estimated Data

According to the World Bank, only 15% of the Bangladeshi population earn over \$6 a day, and over 90% of the workforce belongs to the informal sector. After the nationwide lockdown commenced on March 26, millions of rickshaw-pullers, day laborers, and factory workers rushed for their villages, leaving the streets of Dhaka with a ghostly look. The Bangladesh Economic Association (BEA) estimates that nearly 36 million jobs were axed during the 66 days of general holidays announced by the government in a bid to contain the coronavirus [25,26].

Large Ready-made Garments (RMG) companies which buy from Bangladesh are literally closing doors, many permanently, to reduce costs. Stores have closed for H&M, GAP, Zara, Marks & Spencer, Primark, which are all major buyers of Bangladeshi RMG products. From Mar 2020 to May 2020, RMG exports fell by 54.8% to USD 3.7 bn from USD 8.2 bn over the same period of 2019. During this time, 1,150 factories reported order cancellation/suspension of USD 3.18 bn which impacted around 2.28 mn workers in the industry [27-29]. Since the onset of COVID-19, shopping came to a virtual standstill as people avoid discretionary spending globally. Meanwhile, the other pillar of the Bangladesh economy, remittances sent by migrant workers, will also take an inevitable hit. Bangladesh has around 10 million workers overseas, a majority in the Middle East and the US, UK, and Malaysia. Travel restrictions as well as economic slowdowns and curfews in host countries, e.g., Saudi Arabia, UAE, Qatar, Kuwait, Malaysia, US and the EU means that the workers are losing out on wages [30]. The oil price collapsed and the economies in the Gulf States partially shut down. In Bangladesh, this led to fear of a drop in the value of remittances. In fact, exports in April and May 2020 were only 29% of the same two months in 2019. Remittances for the same period were 82% of the value in 2019 [31].

The post-COVID-19 world will not be the same again. The new normal may come up with changed lifestyle, purchasing behavior and way of doing business through new interfaces. The post-pandemic solutions of unique problems that we are facing through this pandemic may lay the foundation for many business ideas and can shape the future of our e-commerce industry in the coming years [29].

Growth of the economy of Bangladesh can be analyzed in two ways—first, one can examine the four driving forces—exports, private investment, government investment, and government non-development expenditures. Exports are unlikely to recover before the end of 2021; bad news from the clothing sector in the West keeps rolling in. Private investment will not recover strongly during the coming year; demand for domestic sales will be slow to signal favorable returns for new investment; investment in an increase of export capacity is premature; and with present interest rate caps, banks are not interested in making SME or consumer loans [31].

Good news is Bangladesh might be one of only two ASEAN and South Asian economies to register positive growth in 2020 when the world is almost certainly bound to a devastating recession caused by the coronavirus pandemic. Chief Economist, ASEAN and South Asia, Standard Chartered Edward Lee said while speaking at a media session held following the

2020 Bangladesh session of the Bank's Global Research Briefing series. While uncertainties remain, the worst is most likely over, said Standard Chartered's leading economists recently [32].

The Asian Development Bank in a recent report said Bangladesh's gross domestic product is expected to grow by 6.8% in fiscal 2020-21, while the government's target is 8.2%. The growth reflects a gradual recovery, supported by a strong manufacturing base and strengthening of growth in export destinations, the ADB said [33]. The country director for the ADB, Manmohan Parkash, said the government has managed the crisis well, "with appropriate economic stimulus and social protection measures" [34]. A rebound in garment orders after demand crashed during spring shutdowns is helping to revive the Bangladesh economy. Apparel makers, the country's main export industry, say they are looking ahead to Christmas orders from the U.S. and other major markets. Remittances from Bangladeshi workers employed overseas have also recovered, helping to relieve pressures from a pandemic quasi-shutdown during the spring. The Asian Development Bank also reported that the economic comeback was encouraging. It is forecasting the economy will grow at a robust 6.8% annual pace in the fiscal year that ends in June if current conditions persist [35].

However, the pace of the recovery is clearly visible. But challenges have been there too. The pace of the recovery will depend on how the pandemic behaves in the West over the next few months. That's the inestimable question facing everyone.

COVID-19 and Mental Health of Bangladeshi Citizens

The COVID-19 pandemic has disrupted or halted critical mental health services in 93% of countries worldwide while the demand for mental health is increasing, according to a new WHO survey. The survey of 130 countries provides the first global data showing the devastating impact of COVID-19 on access to mental health services and underscores the urgent need for increased funding. The survey was published ahead of WHO's Big Event for Mental Health—a global online advocacy event on 10 October that will bring together world leaders, celebrities, and advocates to call for increased mental health investments in the wake of COVID-19 [36].

There is much evidence that many individuals during the COVID-19 pandemic developed psychiatric symptoms, such as anxiety, stress, panic attacks, sleep problems, depression, and even self-harm [37]. The COVID-19 outbreak creates fear and stress on the Bangladeshi citizens. An online based survey was carried out among 340 Bangladeshi adult populations (65.90% male; mean age 26.23 ± 6.39) by utilizing the socio-demographics, possible human stress due to COVID-19 pandemic and its consequences. About 85.60% of the participants are in COVID-19-related stress, which results in sleep shortness, short temper, and chaos in family. Fear of COVID-19 infection (i.e., self and/or family member(s), and/or relatives), hampering scheduled study plan and future career, and financial

difficulties are identified as the main causes of human stress [37].

Another study showed that, COVID-19 pandemic poses a significant mental health threat among children in Bangladesh. This study was conducted among parents having children in Bangladesh through an online survey between 25th April to 9th May 2020 after completing 30 days of home-quarantine following lockdown declaration on 26th March 2020 by the Government of Bangladesh. Among the participants, there are 157 (40.9%) female and 227 (59.1%) male respondents. The majority of the participants tended to be aged 36–45 years (46.6%), had an educational level of post-graduation (35.4%), and lived in the urban areas (63.3%). A total of 56.3% of the respondents were involved in a job during the lockdown, where 25.3% of participants needed to go to the workplace, and a total of 67.7% were tensed about their financial condition because of the COVID-19 pandemic. The results demonstrate that large proportions of children are suffering from mental health disturbances in Bangladesh during the lockdown period. Mothers', as well as fathers' ability to forestall their emotional pain or manifestation of depression from influencing their role as a parent, might be a significant source of resilience for their children [38].

An online cross-sectional survey was conducted among Bangladeshi citizens aged ≥ 18 years from June 1 to June 10, 2020. The prevalence of moderate to the extremely severe levels of depression, anxiety, and stress was 47.2%, 46.0%, and 32.5%, respectively, with no significant gender differences. The prevalence of anxiety and stress was significantly higher in participants aged >30 than in participants aged 18–30 years. Daily follow up COVID-19 related news, having COVID-19 symptoms so far, having contact (direct or indirect) with COVID-19 infected person, and fear of infection were significantly associated with depression, anxiety, and stress [39].

According to WHO (October 05, 2020) report, countries reported widespread disruption of many kinds of critical mental health services:

- Over 60% reported disruptions to mental health services for vulnerable people, including children and adolescents (72%), older adults (70%), and women requiring antenatal or postnatal services (61%).
- 67% saw disruptions to counseling and psychotherapy; 65% to critical harm reduction services; and 45% to opioid agonist maintenance treatment for opioid dependence.
- More than a third (35%) reported disruptions to emergency interventions, including those for people experiencing prolonged seizures; severe substance use withdrawal syndromes; and delirium, often a sign of a serious underlying medical condition.
- 30% reported disruptions to access for medications for mental, neurological and substance use disorders.
- Around three-quarters reported at least partial disruptions to school and workplace mental health services (78% and 75% respectively)

There was a survey conducted by Ahmed [37]. A total of 476 university students living in Bangladesh participated in this cross-sectional web-based survey. A standardized e-questionnaire was generated using the Google Form, and the link was shared through social media-Facebook. Students were experiencing heightened depression and anxiety. Around 15% of the students reportedly had moderately severe depression, whereas 18.1% were severely suffering from anxiety.

The current COVID-19 pandemic takes a toll on mental health worldwide [37]. Another study was taken by Bodrud et al. [39], where the findings of this study indicate that 47.2% of participants had depression, 46.0% had anxiety and 32.5% had stress. Compared to a previous Bangladeshi study (assessing anxiety and panic disorder) conducted at the initial stage (March 29 to April 06, 2020) of the pandemic, the prevalence of anxiety was higher in the present study (46.0% vs. 37.3%) [39]. The COVID-19 pandemic is generating an additional burden on people's mental health. The results of the different study indicate that after the COVID-19 outbreak in Bangladesh, substantial proportions of participants had depression, anxiety and stress.

Some of the study also indicates that the factors linked to COVID-19 had a substantial effect on mental health of individuals. Therefore, authorities should consider developing appropriate guidelines to address psychological distress during the COVID-19 pandemic and afterwards.

Social Issues Related to COVID-19 in Bangladesh

Though the current pandemic may not be as catastrophic as the one that was caused by bubonic and pneumonic plagues, it certainly has resulted in massive changes to socio-economic and cultural norms that were seldom witnessed earlier. And although Covid-19 might not have discriminated among people while infecting, its impact is certainly not equitable among the privileged and disadvantaged classes of societies [40].

Across Bangladesh, many impoverished communities face a precarious existence in crowded environments, making them particularly vulnerable to COVID-19. Many Bangladeshis live in densely populated urban and slum areas and Rohingya refugees are stuck in cramped, squalid shelters, with up to 10 family members to a room. Maintaining physical distance in these settings is near impossible. In the refugee camps, around 860,000 Rohingya live in just 26 square kilometers of land in Cox's Bazar, with poor access to soap or clean water. They depend on communal distributions for drinking water, food and fuel, which means they must wait for hours in large groups to receive these [41].

As the pandemic continues, each new day brings in new conversations on social media and alarming developments of misinformation and propaganda, resulting in unnecessary psychological trauma and anxiety. Moreover, religious tension, personal tension, job insecurity, financial loss, and social insecurity could leave some people feeling particularly vulnerable and mentally unstable. Honest, transparent communication is vital for risk communication about the pandemic, while confusing or contradictory health messaging engenders mistrust and leads people to seek information from unreliable alternative sources and thus proliferates rumors.

The fear of becoming infected or fear for vulnerable family members has amplified along with the administrative procedures of testing and reluctance of other private clinics and hospitals to admit patients. At the beginning of this pandemic, Bangladesh had only 29 ICU beds in five dedicated hospitals in Dhaka for the treatment of COVID-19 patients. There were no ICU beds in hospitals outside Dhaka. This is a sign of weak governance in the healthcare system of Bangladesh. In this scenario, other critical care patients are denied admittance, experience negligence, and are often left to die without treatment. Moreover, the administrative procedure for the COVID-19 deceased, whether that be burial or cremation, has created more confusion and religious fear in the minds of the common people. Often, family members of the deceased have denied claiming the body due to fear of infection. In those cases, government authorities have intervened. Moreover, there is a rumor that the victims of COVID-19 are buried without the Muslim funeral procedures of bathing, which has created further religious tensions among people. It is, therefore, imperative that the Government manages people's fear and anxiety. Proper information should be circulated to reduce confusion. The Bangladeshi electronic and print media is not acting responsibly to disseminate truthful information and are instead reporting misguided stories on social media. Since the 26th of March, the Government of Bangladesh formed a division to monitor media to eradicate rumors or incorrect information being disseminated on social media platforms and in the mainstream media to protect the mental health of the people.

The socio-economic fall-out from this pandemic is already high, particularly for the disadvantaged poor communities, day laborers, wage earners, RMG-sector workers, and small and medium business start-ups. Already the country's RMG sector has lost many global orders due to the pandemic, and the remittance flow is at its lowest. Job insecurity and

financial insecurity is foreseeable, and concerns of a global depression will affect the local market as well as investors [42].

Social stigma is the extreme disapproval of a person or group on socially characteristic grounds that are perceived, and serve to distinguish them, from other members of society. On March 25 (2020), a 36-year-old Bangladeshi man (Zahidul Islam, from the village of Ramchandrapur) committed suicide because he and the people in his village thought he was infected with COVID-19 based on his fever and cold symptoms and his weight loss. The main factor that drove the man to suicide was prejudice by the others in the village who thought he had COVID-19 even though there was no diagnosis. Arguably, the villagers were xenophobic towards Mr. Islam [43].

Another incident took place in Tangail where a 50-year-old mother was left at the Sakhipur forest in Tangail at night by her children as they suspected her to be a coronavirus patient. Local vendors are hanging posters on their shops that say that no migrant workers will be allowed to purchase anything from their shops. An aged woman could not gain access to her own house in Rangpur city just because she traveled back to her home from Dhaka. These events have been particularly intense for Covid-19 patients and their family members or frontline workers (doctors, medical professionals and Law Enforces Agencies members) as many of them have been harassed just because of they are Covid-19 positive or are exposed to this virus [44].

A recent United Nations report stated that the social protection initiatives undertaken by the Bangladesh government have been limited in scope. To add insult to injury, numerous media reports have exposed the involvement of ruling party members and their affiliates with irregularities in distributing relief materials meant for the poor. This is highly problematic given that destitute people are now roaming Dhaka begging for food, which will only get worse as the days go by [45], without safeguarding the fundamental needs for the vulnerable ultra-poor group can undeniably cause the socioeconomic crisis and mental stress due to the COVID-19 lockdown. It has further created unemployment, deprivation, hunger, and social conflicts [46].

Since 17 March, all the educational institutes in Bangladesh have remained closed. Undeniably, the direct and most immediate impact of the Covid-19 on the education sector is the loss in learning opportunities. More than 36.0 million students (including 17.0 million in the primary) are now out of school. However, the loss in schooling hours is not the only impact looming out from the Covid-19 crisis. On top of learning, schools are also a vital source of social protection, nutrition, health as well as psychosocial supports to children and young adults. Therefore, on top of loss in learning, school closures have far-reaching impacts on social and economic issues such as school dropouts, digital divide, food insecurity and malnutrition, childcare, as well as disability services [47,48].

Risk mitigation measures concerning the psychosocial, socio-economic, and environmental components of the public are necessary to combat a global pandemic. Therefore, with great advancements in the speed and power of science, international collaborations are required to provide knowledge about the virus and disease recovery. Moreover, it is highly recommended by WHO and other stakeholders from the national level to raise the testing speed and facilities in Bangladesh. Multi-sectoral involvement and proper relief facilities for unprivileged populations must be ensured.

COVID-19 and Vaccine for Bangladeshi Citizens

Many potential vaccines for COVID-19 are being studied, and several large clinical trials may report results later this year. If a vaccine is proven safe and effective, it must be approved by national regulators, manufactured to exacting standards, and distributed. The vaccines must be proven safe and effective in large (phase III) clinical trials. Many potential vaccines for

COVID-19 are being studied, and some of the large clinical trials may report results in late 2020 or early 2021 [6].

The World Health Organization (WHO) has listed the Covid-19 vaccine developed by a Bangladeshi pharmaceutical company, Globe Biotech. Globe's vaccine was listed on the WHO's draft landscape of Covid-19 candidate vaccines on 15 October [10] and the government has decided to administer Covid-19 vaccines to all the citizens free of cost once those are procured. As per the decision at a high-level meeting recently, the government will purchase vaccines as soon as those are out in the market and administer those to all like it does under the existing immunization programs, said finance ministry officials.

Different organization throughout the world are ready to finance in purchasing vaccine for the developing countries like Bangladesh. The World Bank said its executive board approved \$12 billion in new funding for developing countries to finance the purchase and distribution of Covid-19 vaccines, tests and treatments for their citizens. The financing plan, part of \$160 billion in total resources that the multilateral development lender has pledged to provide to developing countries through June 2021 to help them fight the coronavirus pandemic, was first reported by Reuters in late September [6].

Bangladesh will get the Covid-19 vaccine on priority basis, once it is ready, as the government is in touch with all the countries and organizations trying to develop it. This optimism was expressed at the weekly Cabinet meeting held virtually with Prime Minister Sheikh Hasina in the Chair [15]. The government also has given approval to the phase 3, or human, trial of a Covid-19 vaccine in Bangladesh, developed by the Chinese company Sinovac Biotech Ltd. The International Centre for Diarrhoeal Disease Research, Bangladesh (icddr, b) will provide logistical support in conducting the trial in the country. Bangladeshi minister said that the government was negotiating with Russia for importing Covid-19 vaccine that the country developed few months back. Speaking to reporters at his office, Mr. minister said that the government already gave a letter to Russia expressing Bangladesh's desire to import the vaccine.

India, as a neighbor country also showed their interest to share vaccine with Bangladesh. Indian Foreign Secretary Harsh Vardhan Shringla in Dhaka said Bangladesh will receive COVID-19 vaccine from India on a priority basis. Also potential vaccine candidates that are being developed in India will soon be put on trials in Bangladesh and the country is expected to receive the early supplies of some successful candidates. According to Masud Bin Momen, Bangladesh's Foreign Secretary, India is positive about providing vaccines for other countries as well apart from Indian citizens. When vaccines enter the primary stage, they will be sent to Bangladesh [4].

China and India are competing to deliver coronavirus vaccines to Bangladesh in a diplomatic offensive carefully choreographed to expand their influence in the densely populated South Asian nation. The Bangladeshi government, however, is making sure not to put all its eggs in one basket. On August 28 it welcomed a tie-up that ensures local company Beximco Pharmaceuticals gets prioritized vaccine supplies from the Serum Institute of India.

Overall, the COVID-19 pandemic has added a new layer of complexity to Bangladesh's relations with its neighbors. Switching Bangladesh's foreign policy in favor of China over India will be no easy or quick task, but it seems that China is determined to dislodge New Delhi's influence in Dhaka.

Discussion

Bangladesh is not new to disasters or major humanitarian crises. Sitting astride a river delta at the bottom of the Himalayan range, the country is fighting a longstanding battle against the impact of climate change and currently hosts the world's largest refugee camp along its southern border. In its 49-year existence, Bangladesh and its people have shown tremendous resilience in fending off not only natural disasters such as

floods and cyclones but also manmade ones, like the 1997 Asian financial crisis and 2008 global financial crisis.

The COVID-19 pandemic, however, is a crisis of a completely different magnitude and one that will require a response of unprecedented scale. Bangladesh's leaders in the public and private sector must come together to respond to the immediate threats to health systems and the long-term effects to the country's economy. Despite government efforts in Bangladesh, there remain many major myths and misconceptions about how COVID-19 spreads and can affect people, and the failure to combat these myths has been extremely costly. To manage a crisis of this scale, government needs the trust of its people, and science-driven decision-making and good governance are crucial at all levels of government. In Bangladesh, even the best pandemic-fighting measures can't be implemented with misinformation so widespread.

While Bangladesh is not unique in having difficulty coping with the many challenges associated with the Covid-19 pandemic, matters have not been helped by years of neglect to its healthcare system. The inability to scale up testing has remained a significant roadblock in ascertaining a true picture of how far the pandemic has reached all across Bangladesh. Indeed, many deaths have not been counted as Covid-19 induced deaths due to the lack of testing.

Overall, the Covid-19 pandemic has added another layer of complexity into the already convoluted question of what lays ahead for Bangladesh. Only two years ago, concerns with Bangladesh were centered around mass protests in the country over road safety. Prior to that, fears focused on the rise of extremism in the country and the increasingly authoritarian bent in the ruling party. While these may be matters of the past, there is good reason to remain alert that after the worst of the Covid-19 pandemic passes, these issues will come back up onto the surface. New dynamics during the pandemic, such as increased Sino-Indo competition in South Asia, the economic fallout, as well as possible civilian-military tussles, and an increasingly heavy-handed approach toward dissent could create an environment for substantial unrest once the Covid-19 pandemic is clear.

The government should have also adopted a strategy centered on carrying out significant testing of suspected patients and isolate or quarantine those they had contact with to prevent further transmission of the virus. Not least due to these failures, there is now a significant risk that the uncontrolled spread of Covid-19 will overwhelm the severely underfunded and under-resourced health system, since even wealthy developed countries in Europe and North America have struggled to cope. Without a vaccine, good hygiene practices and physical distancing are the only viable means of reducing the threat and impact of the disease. In the coming months, Bangladesh has no room for failure, especially as it has neither the economic means nor the public health resources to protect its population, including its most vulnerable groups and those who are at greatest risk. If there is one thing that the pandemic has highlighted, it is that there remain numerous complexities and challenges when it comes to containing infectious diseases in large and under-resourced populations.

Viruses do not attack people based on their ethnicities. Regardless of race, religion, or creed, all susceptible to this global pandemic that is in front of us today. As everyone seek to make sense of our new normal, we can be equally susceptible to the fear that comes with this crisis. As the nation faces this unprecedented crisis, we must act as one community to support, help, and protect each other. Nothing is absolutely good or bad. It is not fair to say that the COVID-19 pandemic has only harmed us; it has taught us a lot. Honestly, we have learned a lot from this, and have been able to realize many things that we would not have realized without this experience.

One good lesson we have learned is on how to serve the patients through telephone consultations even if the home service stops, and how to keep the service running depending on the situation. We've also learned to do online sessions. Since we don't have the opportunity to do sensitization

meetings in this situation, we have learned how to campaign online using social media such as Facebook and YouTube. We have learned very well how to take care of the patients and to continue official works wearing protective equipment and keep ourselves safe. We're getting used to it. This habit will come in handy in the future. If we can maintain this habit all the time, we will not be easily attacked by any viral or bacterial diseases in the future. We have also learned that office work could be done in a short range from home. At this time, we have easily understood how important it is to protect oneself, how much self-care is needed. We realized how it is possible to maintain a good relationship with everyone like family members or neighbors from home, with the help of technology. The biggest thing is now we know better how to protect ourselves and our family and it'll help us in future.

There is still a hope that Bangladesh may not experience an explosive epidemic. A few things may work in favor of Bangladesh. Both Bangladesh and India have a relatively young age structure with a median age of 28 years. Bangladesh decided to open-up. It is timely to remind all of us that WHO recommended that the decision to lift public health measures to Combat Coronavirus should be based on a risk assessment with a standard methodology to balance the risk of relaxing measures, capacity to detect a resurgence in cases, capacity to manage patients in health facilities, and ability to re-introduce public health and social measures, if needed.

Conclusion

Much of Bangladesh's future will be affected by decisions made in the next year. If the government hopes to fix the country's deep issues, it must look to a future post-COVID-19, as well as dealing with the current crisis. If it can tackle its problems with corruption, healthcare, and employment, Bangladesh may have a bright future. But without action, it will be caught in the trap of its poor governance, enduring poverty, and human suffering for years to come.

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