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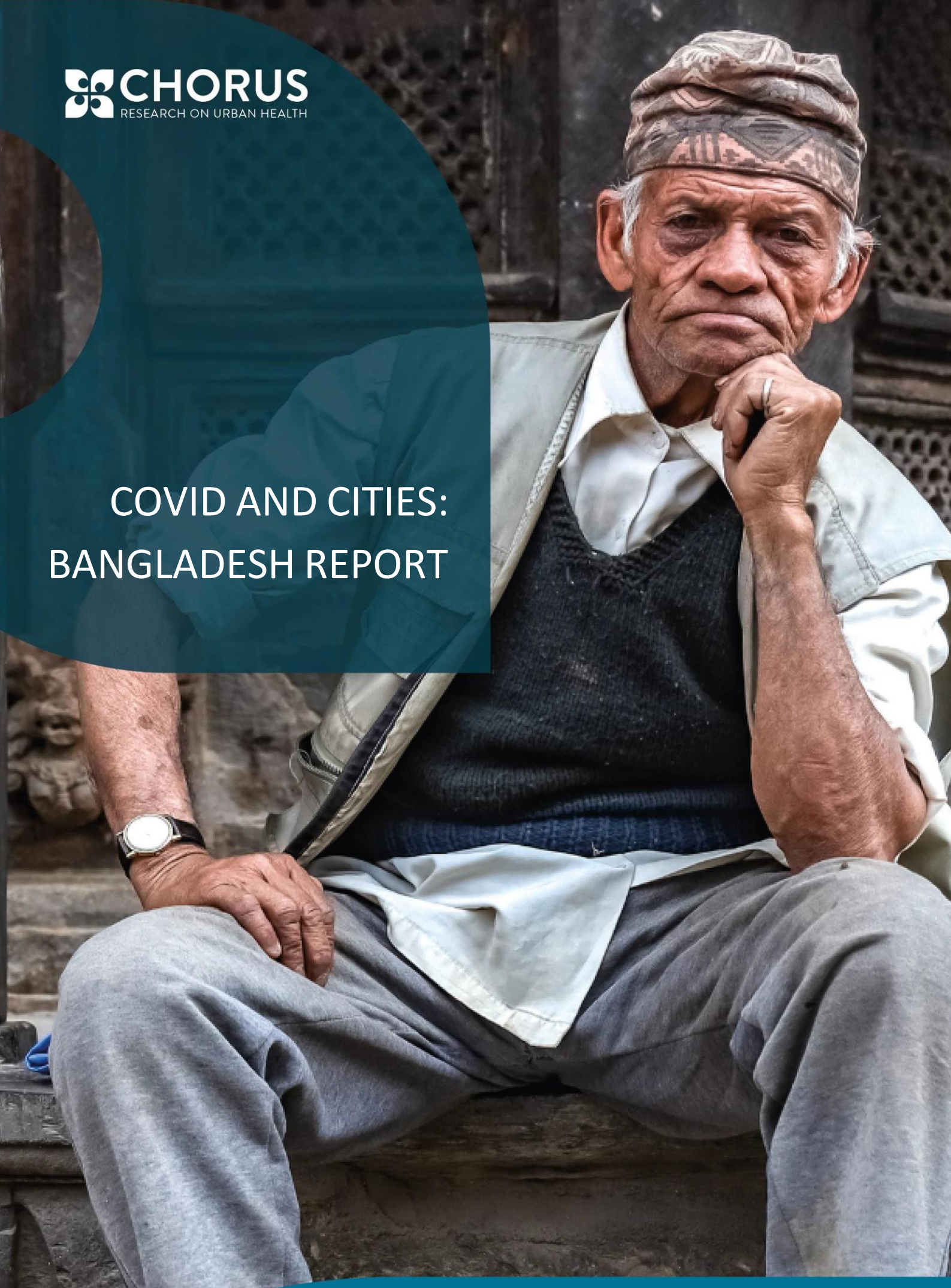
COVID AND CITIES: BANGLADESH REPORT



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COVID AND CITIES: BANGLADESH CASE STUDY REPORT

Submitted: September 2021

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Executive Summary

This report presents an overview of the COVID-19 response in the country from February to the End of August 2020. It focuses on the response related to urban health in the country and tries to portray the interaction of different stakeholders and the deciding authorities in Covid-19 management in urban areas.

The report is based on a qualitative case study that analysed published documents available online: media report and policy documents. We aimed to describe the scope of existing policies, and health system responses of COVID-19 to understand the differential impact on sub-groups of the urban population.

Government of Bangladesh had started taking necessary steps earlier in the year to prepare the public health facilities in the country. After the first case identified on 8th March 2020, the initiatives were scaled up, and multiple actors both in public and private sector came forward to tackle the pandemic. As a resource-constrained and densely populated area, the country experienced challenges of public compliance, awareness and coordination among different stakeholders.

The COVID-19 spread fast across the country which was reportedly initiated from the urban areas of Dhaka division. The country then experienced 66 days of unofficial lockdown while managing its public and private organisations, and service providers to control the spread of the disease. Different social and technical approaches were taken to tackle the community transmission of the virus such as temporarily closing industries, shutting down all educational institutions, restricting movements, limiting business hours, mandating public safety, building awareness and screening patients.

We found that coordination among different ministries was inadequate. Lack of public compliance and awareness were also challenging while implementing the safety rules on the ground. Confusion, lack of understanding and unregulated implementation of the public notices posed a risk of spreading the virus through travel and gathering. The health ministry was successful in regulating the tests and treatment in the public health facilities; however, the private hospitals were mostly unregulated, and quality of care became questionable. Several initiatives to ensure food security by the government also faced challenges while execution at the local level.

COVID-19 pandemic has challenged the health systems in Bangladesh, especially in urban areas, with inadequate structural and human resources. The role of the local government and city corporations in controlling the spread of the virus faced some challenges due to mismanagement and miscommunication. However, there were successful examples of safety measurements, aid supply, collaboration and communication at the local level coordinated by the local government.

The cross-sectoral collaboration was successful in terms of managing COVID-19 patients and assisting urban poor people during and after the lockdown. The government had announced several financial schemes targeting the small business and poor people suffering from income loss during the lockdown. However, the findings suggest that the distribution of aid and cash incentives often did not reach the target groups.

The livelihoods of the urban poor were mostly affected during the lockdown period; addressed by both public and private organisations by distributing food and cash to the most affected areas. The middle-class population also suffered a loss of income in urban areas. Some vulnerable groups such as children and disabled people were still suffering the economic effects months after the lockdown was lifted.

There were both strengths and weaknesses in the health system response against COVID-19, learning from which will be useful in planning and implementing responsive initiatives to tackle future health crises in the country.

List of Abbreviations

AIDS	= Acquired immunodeficiency syndrome
BDRCS	= Bangladesh Red Crescent Society
BEPZA	= Bangladesh Export Processing Zones Authority
BGMEA	= Bangladesh Garment Manufacturers and Exporters Association
BKMEA	= Bangladesh Knitwear Manufacturers and Exporters Association
CDC	= Communicable Disease Control
COVID	= Coronavirus Disease
DGHS	= Directorate General of Health Services
DIFE	= Department of Inspection for Factories and Establishments
DNCC	= Dhaka North City Corporation
DSCC	= Dhaka South City Corporation
EPZ	= Export Processing Zone
GDP	= Gross Domestic Product
GoB	= Government of Bangladesh
HNP	= Health, Nutrition and Population
HQ	= Head Quarter
ICT	= Information Communication Technology
IEDCR	= Institute of Epidemiology, Disease Control and Research
IPH	= Institute of Public Health
MoLGRD&C	= Ministry of Local Government, Rural Development and Cooperatives
MoHFW	= Ministry of Health and Family Welfare
NGO	= Non-government Organisation
NTAC	= National Technical Advisory Committee
PCR	= Polymerase Chain Reaction
PHC	= Primary Health Care
PPE	= Personal protective equipment
RAB	= Rapid Action Battalion
TIB	= Transparency International, Bangladesh
UHC	= Upazila Health Complex

1. Introduction

The World Health Organization (WHO) declared the novel Coronavirus 2019 (COVID-19) as an international public health emergency on 11th March 2020. This communicable disease became a global concern shortly after its' first emergence in December 2019 in Wuhan, China. This pandemic has created immense pressure on the health sector on a global scale. As of 20th September 2021, globally, 229,563,468 people have been diagnosed with COVID-19, and the death toll has been raised to 4,709,427 (1). This catastrophic situation has posed a hugely deleterious impact on world economies and global societies (2)(3), specifically in underdeveloped countries like Bangladesh. To control the increasing rate of transmission and the overall situation, the WHO recommended leaders of the Southeast Asian region to take appropriate and hasty public health measures. Despite the apprehension, numbers of cases and deaths have been mounting in this region, especially in India, Pakistan and Bangladesh(4).

Bangladesh is the 8th most densely populated country in the world, with a population of 162 million (4). According to the Sample Vital Registration System in 2020, the average household size is 4.3 and the life expectancy in the country is 72.8 years (74.5 years for females and 71.2 years for males)(5). An estimated 2.4 million Bangladeshis currently live abroad. Bangladesh has a unitary form of government, with no state or province. There are 64 districts in the country. Each district is divided into several Upazilas (sub-districts). There are 491 Upazilas in the country. The Upazilas are again divided into unions, and each union is divided into nine wards. There are 4,554 unions and 40,977 wards in the country and approximately 87,310 villages. The urban areas have 12 city corporations and 327 municipalities. There are 58 ministries and functional divisions.

Bangladesh has a pluralistic urban health system. The Ministry of Health and Family Welfare (MoHFW) is one of the largest ministries of the Government of Bangladesh (GoB). It is responsible for managing and responding to health issues in the country. Ministry of Local Government, Rural Development and Cooperatives (MoLGRDC) is responsible for providing primary health care in urban areas. They deliver primary health care for urban population through contracted Non-Governmental Organizations (NGO) in the project areas, while several city corporations have their own health facilities.

In Bangladesh, the first three coronavirus cases were diagnosed on 8th March 2020, and the first death of COVID-19 occurred on 18th March 2020 (6). As of 20th September 2021, a total of 1,544,238 confirmed cases, 27,251 deaths, and 1,503,106 cured cases were identified, and a total of 9,465,087 tests were done in Bangladesh(7). Bangladesh has rolled out the COVID-19 vaccination on 8th February, 2021. As of 20th September, 2021, 22,491,063 first doses and 14,909,884 second doses of vaccine had been administered(8).

The GoB deployed the police, army and the Rapid Action Battalion (RAB) to ensure social distancing (9). Subsequently, a complete lockdown was imposed by the GoB (10)(11). Corona tracer BD, a smartphone application was also introduced by the information communication technology (ICT) division and Directorate General of Health Services (DGHS) of GoB to provide essential information regarding COVID-19 and test facilities. Moreover, GoB and Institute of Epidemiology, Disease Control and Research (IEDCR) worked together and utilised various web-based platforms for regular updates of this vicious disease and established 629 institutes nationwide to provide immediate quarantine facilities With the help of the Bangladesh Army, the GoB also introduced a "hygienic" rationing system for an extended lockdown period (12). However, lack

of supply of testing kits for COVID-19, PCR machines, suitable biosafety labs, safety equipment and unprepared health workers deteriorated the situation(13)(14)(15)(16).

The existing urban health care system in Bangladesh is already malfunctioning and unregulated. Collaboration and coordination among the GoB, private sectors, non-governmental organisations (NGOs) and international developmental organisations are essential to keep the health system operational(17)(18). The struggle of the health system to deal with the existing communicable diseases such as Tuberculosis, Dengue, Malaria, AIDS, Chikungunya is evident in Bangladesh. This newly emerged communicable disease is an added burden to the current unprepared health sector and the GoB as well (19). Community transmission of COVID-19 is occurring in Bangladesh. To combat against a pandemic like COVID-19, Bangladesh needs a sound health policy, planning, judicial structures and an active health system. Strengthening of the health system set to be the priority of this "new normal life" with proper health guidelines and execution of social distancing. Appropriate emergency response and strategic planning and management are vital to combat COVID-19 (20).

The global record showed that nationwide crisis response plans, public health initiatives and national guidelines were able to control the development of this rapidly transmitting communicable disease and lower the scale of COVID-19 outbreak in several countries (21)(22)(23). Besides, multi-sector integration and coordination(16) and decentralised approaches were effective in COVID-19 containment (24). Since there is an absence of a noteworthy health policy to tackle such pandemic in Bangladesh, the GoB had to release a "National Preparedness and Response Plan for COVID-19, Bangladesh" for COVID-19 case management (20). Because COVID-19 has a substantial impact on the health and livelihoods of populations in low and middle-income countries like Bangladesh, placing the existing unprepared and malfunctioning health systems under great strain. Health system access is already skewed towards wealthier groups and with impacts on livelihoods disproportionately affecting the poorest; COVID-19 is likely to increase inequities (20).

The effect of inequality and inequity is prominent in urban areas because Bangladesh is experiencing rapid and poorly regulated urbanisation. The number of Bangladeshis living in urban centres is expected to rise from the current 53 million to almost 80 million by 2028. In urban areas, the impact of COVID-19 is likely to be highly variable across different socio-economic groups (25). For example, whilst middle and wealthier groups are often able to continue their employment from home, lower economic groups suffer a potentially catastrophic loss of income. They must continue to seek work in places that do not permit physical distancing. This disparity is the result of the lack of an adequate social safety-net and inflexibility of employment and reliance on the informal economy.

Furthermore, the same population often live in cramped conditions, have high levels of communicable and non-communicable disease to contend with, with limited access to handwashing and sanitation facilities and often also close to livestock and outdoor markets. In some communities, the measures that are designed to reduce infection rates across the general population may exacerbate transmission and economic and social hardship(25). Exceptionally high population densities and deteriorating city infrastructures worsen the already difficult living conditions of poor people living in urban areas. With these realities, urban areas became the epicentre of the pandemic in Bangladesh, with an estimated 90% case reporting. As a result, access to health, equity, finance, safety, unemployment, public services, infrastructure, and transport are disproportionally affecting the urban poor (26).

During the lockdown, small and medium businesses shut down and unemployment, a decline in tax revenues, and other economic losses created a substantial financial burden on the local governments. Urban areas have suffered substantially from negative economic impacts of COVID -19. Approximately 80% of global Gross Domestic Product (GDP) is produced by the urban economy. With limited or no income, the urban poor face risk of eviction, while overcrowding increases the risk of rapid transmission (26).

In this context, the government of Bangladesh adopted different action plans for containment of COVID-19 and prevention of community transmission since the epidemic had emerged. Corresponding measures have been taken to facilitate the management of COVID-19 from the central and local level. However, in the absence of a well-developed system, healthcare is delivered through a diverse set of state, NGO and private providers. There is little convergence or coordination between these service provision systems. It is the urban extreme-poor who suffer most severely from this situation. Bangladesh is a lower-middle income country and is hugely dependent on international contacts for financial and economic welfare. Such a pandemic situation tests the efficacy of multi-sector initiatives taken by the GoB and donors (12)(25).

1.1 Study Questions and Research Objectives

The main objective of this rapid research study was to describe the scope of policies, and health system responses of COVID-19 and to understand the differential impact on sub-groups of the urban population.

Research Questions

The study focused on four research questions:

How have city/local governments and national responses been coordinated? Are responses synergistic, or have they undermined each other? What have been the facilitators and barriers to this?

What has the role of city governments been in the response and what are the facilitators and barriers to an effective short-term and long-term response by city government?

Have city governments played any role in coordinating or managing the responses of public, private, NGOs providing healthcare or other services (water, sanitation, phone networks, public transport) in the response in the short and long-term?

How has COVID-19 and the national/city response affected, or is likely to affect, the health, wellbeing and livelihoods of poor urban populations? Any difference for informal settlement and other urban poor? Short-term (weeks/one month) and long-term (months/years).

2. Methods

We followed the method of document analysis for the qualitative case study. We extracted the information from policy documents, guidelines, blog articles, announcements and media reports in order to produce a description of the findings. Specific search terms or keywords that were used to get the information of interest are listed in Table 1. Some of the keywords were used individually, and some were used in combination with others while searching.

The search was restricted to the published documents between 31st January 2020 and 31st August 2020. The period considered for collecting information is extended to three months before and after the month of detection of the first COVID-19 case in the country (8th May 2020).

Table 1: Search terms and their use for the study

Keywords	Used individually	Used in combination
COVID-19	—	
Travel		—
Flight		—
Education		—
Urban	—	—
Urban poor	—	—
Urban area	—	—
Slum	—	—
Health	—	—
Health service	—	—
Healthcare	—	—
Social distance	—	
Lockdown	—	
Vaccine	—	—
Mask	—	
Sanitiser	—	
Handwash	—	

As the data source, we used the websites of different government bodies, international organisations, private organisations and news portals in the country. A list of the sources is shown in Table 2.

Table 2: Source of Policy Documents and Media Reports

SOURCE OF POLICY DOCUMENTS	SOURCE OF MEDIA REPORTS
Civil Aviation Authority of Bangladesh	The Daily Star
DGHS	The Business Standard
Ministry of Public Administration	Dhaka tribune
Facebook	Bangla tribune
Civil Aviation Authority of Bangladesh	Prothom Alo
Ministry of Foreign Affairs	bdnews24.com
Ministry of Disaster Management and Relief	Sarabangla.net
Bangladesh Parjatan Corporation.	Dainikazadi
Ministry of Agriculture	Somokal
Dhaka Stock Exchange (DSE)	Financial Express
Supreme Court	New Age Bangladesh
Asian Development Bank	Risingbd.com
NGO Affairs Bureau	Financial Express
Ministry of Education	The Independent
Cox's Bazar District Office Administration	Desh Review
Ministry of Power, Energy & Mineral Resources	New Age
Biman Bangladesh Airlines	Orthoshuchok
BGMEA	The Daily Sun
	The daily Ittefaq

We shortlisted 19 daily newspapers (see table 2) and then selected seven daily newspapers for media monitoring based on their readership and credibility. The newspapers were: Prothom Alo, Somokal, The Business Standard, Dhaka Tribune, Daily Star, New Age, The Independent, Financial express. Of these, two were in the local language (Bangla) and five in English. All these newspapers had both printed and online versions. We followed the online versions of all the selected newspapers.

We collated the news in two stages. First, we compiled news, report, feature, editorial, post editorial and article, interview and experts opinion related to health issues published in the selected newspapers. For this initial collation, issues included health system preparedness, health infrastructure, budgetary allocation, public health awareness, health services delivery, economic impacts, livelihood support for people, challenges faced by the government and private sector in providing health services and ways for addressing those challenges. We populated the links of the news in a google sheet.

Websites and social media posts of selected ministries and organisations including Ministry of Finance, Ministry of Health and Family Welfare of Bangladesh (MOHFW), Local Government, Bangladesh Bank, Centre for Policy Dialogue (CPD), DFID, The World Bank, BRAC were searched for relevant information.

At the second stage, we extracted the news following an excel-based template that was utilised by all CHORUS partners. The systematic analysis of published documents including reports, guidelines and grey literature has been considered a useful tool to track the importance given to a particular issue, how the information is disseminated, and the impact it had on the public. Most of the renowned newspapers in the country publish all their editorial content on their websites - many a time there is substantially more content than in the print version. Hence, we chose to explore the web versions of the media.

Key national planning documents were reviewed, including emergency preparedness plans, allocation statements, Ministry of Finance Orders, Bangladesh Bank Orders, national plans for COVID-19, related health planning documents, such as the National Health Policy, National Pandemic Influenza Preparedness and Response Plan, COVID-19 responses plan.

We analysed the contents of the documents to determine the presence of words, themes, and concepts related to urban health or urban poor. A descriptive style of data analysis has been adopted to explain the findings with a focus more on applicability to the urban context of the information. We present the inferences about the findings within the texts, the types of audience and the time surrounding the text, in the discussion section.

3. Results/Findings

A total of 455 documents have been obtained and reviewed that were published during the study period. Fifty-one of the documents mentioned explicitly about urban areas, 28 mentioned about the role of the city corporation, 67 mentioned about any other city-level actions or organisations, and 63 mentioned the need for the urban poor.

3.1 Background information

Urban health system in Bangladesh

Bangladesh has a pluralistic urban health system. Local Government Division (LGD) under MOLGDR&C is responsible for providing primary healthcare services to urban people, while MOHFW is responsible for secondary and tertiary level healthcare in urban areas(27).

Although responsible, LGD under MOLGDR&C lacks the resources and capacity to build an effective urban primary health care system. Services pertaining to public health are not highly prioritized by the urban governments (28). The City Corporation (CC) is responsible for a wide range of primary and public health services including sanitation, water supply, drainage, food and drink, registration, vector and infectious disease control etc. Public health is not a priority for CC, which is especially visible in the budget, where there is a lack of separate allocation for health (28–30).

MOHFW has the responsibility for providing policy and technical guidance, setting standards of services, licensing of private and NGO health providers and facilities, provision of medical supplies and logistics and execution of monitoring, supervision and coordination of healthcare services in urban areas. In addition, it

provides secondary and tertiary care to urban areas through outpatient departments of medical colleges and public hospitals (28,31).

The government health system in urban areas is weak, with inadequate attention given to the delivery of basic health care to slum-dwellers (32). With 90 percent of health related budget being transferred to the MOHFW (33), and no recent possibility of increased allocation from government for health for the MOLGRD&C (31), has eventually led to the induction of the USAID supported NGO Healthcare Services Delivery Programme (NHSDP), Gates Foundation supported MANOSHI run by BRAC and Asian Development Bank (ADB) funded Urban Primary Health Care Services Delivery Project (UPHCSDP), which are the major Primary Healthcare (PHC) projects in Bangladesh (34), with the latter being the largest. UPHCSDP functions on contracting out PHC to NGOs. The process however, depends on a low-cost bidding system (contract-out) in which the NGO, regardless of its technical competences, bidding for the lowest cost wins the contract(35). The NGOs play a vital role in providing community health care through their large network of community health care workers who work among marginalized populations.

With NGOs focusing primarily on Maternal and Child Health, and sexual and reproductive health, there is a large part of the population, especially the elderly and persons with disabilities, and those suffering from mental health issues, non-communicable and communicable diseases whose health needs are left unmet. Consequently, this along with the unavailability of government health care centres and uneven distribution of those which are present has eventually led to an increase in private sector health care centres – hospitals, clinics and pharmacies. However these are usually profit driven and are usually located in affluent and central areas (36) beyond the reach of slum dwellers.

Bangladesh Health system's response during COVID-19

The Director of the Communicable Disease Control (CDC) of the Directorate General of Health Services (DGHS) and the Institute of Epidemiology, Disease Control and Research (IEDCR) coordinated the pandemic response. IEDCR, the Institute of Public Health (IPH), the Institute of Public Health Nutrition and the National Institute of Preventive and Social Medicine are the major public health institutes of public sectors. Among these institutes, IEDCR is the focal institute for conducting public health surveillance and outbreak response. IEDCR is primarily responsible for identifying the presence of the new coronavirus in the country.

The NGOs have played important roles in spreading preventive messages during COVID-19 and have worked closely with local administrations (e.g. city corporation, police) and government functionaries (MOHFW, city corporation) in planning/managing quarantine/isolation centres. In urban areas, several hospitals/clinics in the private sector have been designated as COVID-19 hospitals and have been providing management of infected patients. A substantial number of testing laboratories enrolled for COVID-19 testing also belong to the private sector. Army medical corps usually provide curative and preventive services in the cantonments and neighbouring areas of the country. During the latest emergencies, these medical corps merged with the national level response in providing testing facilities, tertiary care to patients through well-equipped hospitals. Directorate General of Health Services (DGHS) is responsible for overall recording and reporting of the COVID-19 cases and hospitalisations across public, private and NGO facilities. All centres/providers have to send report (diagnosis, admission, recovery, death) to the central COVID-19 monitoring cell.

Thus, public-private partnerships have played an essential role in providing preventive services in urban areas with the help of NGOs funded by different donors. Bangladesh has shown a national capacity to confirm COVID-19 through Polymerase Chain Reaction (PCR) testing. Preparation also has been underway to expand the range of tests through the introduction of newly emerging COVID-19 tests according to WHO guideline.

Bangladesh has a nationwide network of health facilities, medical colleges, nursing and paramedical Institutes. There are 49 postgraduate medical teaching institutes (28 public, seven of them autonomous and 14 private), 113 medical colleges (75 of them are private), 77 nursing colleges (59 of them are private), 208 nursing institute (165 of them are private), 209 medical assistant training schools (200 of them are private), and 110 institutes of health technology (97 of them are private). In addition to the above institutes, there are 35 dental colleges and dental units (of them 26 are private), and six Armed forces & Armed Forces Medical Colleges. Despite this growth of the health workforce production, the country still has a health workforce shortage and geographical imbalances, with only 8.3 health workers per 10,000 population as compared to 45/10,000 recommended by WHO. The COVID-19 outbreak deepened this crisis. The MoHFW has already recruited an additional 2000 doctors and 5000 nurses to start addressing this situation, and the process is underway to recruit an additional 2000 health technicians. The existing health workforce of Bangladesh is periodically trained in responding to emerging and re-emerging diseases by CDC, DGHS & IEDCR. This trained workforce participates in surveillance and outbreak response at a national, district and Upazila level.

Health information system during COVID-19

A COVID-19 dashboard has been developed and is updated daily by the Management Information System (MIS) unit of DGHS. This portal displays the data from the laboratory, the number of people in quarantine and isolation as well displays the number of health facilities where COVID-19 patients can be managed and provide an overview of the stock availability of the health facilities, for both public and private hospitals. The Supply Chain Management data is managed through a separate system, namely eLMIS and has been made interoperable with the coronavirus data dashboard. While about 80% of the health facilities have reported the stock data, more work needs to be done to ensure full reporting and improved stock management, including at the Central Medical Store Department (CMSD). MIS includes the client feedback mechanisms and manages the e-health with Shashto Batayan as major telemedicine operator under DGHS. Additional telemedicine capacity will be required to address the COVID-19 response. A data management system has been developed for individual case monitoring of COVID-19 positive cases from lab sample testing, collection, results, and dissemination.

A key function of the information management system is not only to collect data from various sources and provide real-time status across a range of variables but also integrate epidemiological data with laboratory and health systems data to enable dynamic analytics and forecasting. The required data normalisation for such dynamic integration will be expedited and introduced into the core health MIS for existing datasets, and further data sources will be integrated using the normalised data structure as necessary. The director of MIS will lead this initiative. The systems incorporate hospital data on covid admission and deaths of both public and private sectors and disaggregated by district.

Public initiatives taken during coronavirus spread in Bangladesh

JANUARY

Bangladesh government started off 2020 with a very confident approach to the fast-spreading coronavirus in Wuhan, China. As was said by the foreign minister, the government was caution but not scared. (37) From the beginning of January 2020, passengers arriving from China were being screened at all international airports. (38) On 23rd January, DGHS officially stated that there were no COVID-19 cases carried to Bangladesh so far. (39) Yet, airports installed scanners(40)(38), saliva of Chine-returnee students were lab-tested for COVID-19 detection(41), public hospitals started opening isolation units(42) for upcoming needs and Bangladeshis stuck in China were being returned following WHO guidelines from both Bangladesh and China's ends(43). Chittagong port also took precautions to fight the virus(44).

Hospital officials said they had received an order to set up the flu corner | Date: 14th March | Credit: Dhaka Tribune

FEBRUARY

Up until 7th February, no China returnee were found to be COVID-19 positive (45). Although Bangladesh government showed promptness in ensuring isolation and quarantine of China returnees (46), the camp environment was not hygienic (47). Isolated returnees and Chinese citizens at the government set camps feared getting dengue (48); unhealthy camp environment supposedly posed risk of COVID-19 transmission among campers (49). Several people returning from China were hospitalised with fever and flu-like symptoms during February (50)(51)(52), among which one student in Rangpur was critical (53). However, none of the hospitalised patients were tested positive for coronavirus (54)(45). Chinese sailors stranded in a ship at Sitakundo were sent home(55), China returnees were released from quarantine(56)(57), travel between Singapore and Bangladesh were brought under close observation of IEDCR(58)(59)(60), IEDCR urged international travelers to be cautious about the virus(61), urged travelers from coronavirus affected countries to not visit Bangladesh(62); Bangladesh government ordered screening of the virus at major sea and land ports and railways(63)(64)(65). By the end of February, Bangladesh had procured 2500 coronavirus detection kits (66), including 500 kits received from China (67). Face mask procurement and the huge number of masks gifted by Japan (68) increased the use, hence the sale, of this protection equipment (69). On the other hand, Bangladesh economy started taking blows from the spread of COVID-19. The travel and hospitality industry being shaken(70)(71) at first was a clear enough hint for analysts to predict the upcoming economic upheaval.

Exports started declining(72)(73), business with China was gradually halted(74)(75)(76), and domestic production faced obstacles as raw material prices started to hike(77). Commerce minister and BGMEA were in agreement about the upcoming dangers on RMG sector(78)(79), and appealed for support to the government. The banking sector also buckled up for delay and failure in loan repayment as businesses suffered(80). Development projects also became slow due to the decline and unrest(81).

MARCH

March 2020 tested the strength and resilience of Bangladesh's governance, health system and public administration. Whether staying open to Chinese travelers in February was "too kind" of a gesture or not(82), receiving more travelers and returnees from Coronavirus affected in March certainly took a toll on the country.

On 7th March 2020, the first coronavirus case in Bangladesh was detected by IEDCR(83). Despite the government's continuous effort to prevent panic and rumours, people started hoarding essentials(84), safety gears and disinfectants(85), making markets extremely unstable which later urged the government to take regulatory steps(86)(87). Although government wanted both public and private hospitals to be ready to face a coronavirus outbreak, the health system in Bangladesh was too weak and clueless at that point in time for the battle(88). In one hand, Bangladesh government was to ensure detection tests, isolation, quarantine, proper treatment of the upcoming cases – in the other hand, part of the economy was already in shambles(89)(90)(91)(92).

Universities started going online as soon as COVID-19 entered Bangladesh(93); soon, all educational institutions started losing attendance and public university students started leaving campus(94)(95). Bangladesh Public Service Commission (BPSC) suspended all exams till March 31(96), following halt in academic and professional activities across the country. Bangladesh government declared general holidays for all public and private institutions from March 26 to April 4, 2020.

Bangladesh government, especially health authorities, failed the nation through several misleading and insincere activities(97). Airports were continuously receiving returnees and travellers depending on the health authorities' reassurance that each passenger was being screened on arrival, which turned out to be empty words. Sooner than expected, scanners were proven ineffective(98) and authorities failed to regulate quarantine and isolation of foreign returnees and suspects, depending uncertainly on home quarantine(99)(100)(101)(102)(103)(104)(105). Bangladesh government suspended visa-on-arrival in March(106), alongside demanding COVID-19 negative certificate for passengers arriving from virus-hit countries(107). Passengers coming from middle east, Italy and East Asian countries were monitored by IEDCR, but the hospitalization of fever struck passengers and death of several people in isolation units or camps with COVID-19 symptoms further embezzled the situation (108). As COVID-19 was declared a pandemic in March 7, WHO expected Bangladesh to be stricter in monitoring and regulating international travel from and to the country(109), which Bangladesh supposedly didn't consider boldly enough – aircrafts arrived at Dhaka despite bans(110), and international travel restrictions were strictly enforced a little too late to protect the country.(111)(112)

Public and private organizations started allowing staff to work-from-home(113)(114), and a large number of firms downsized and/or cut salaries due to big blow on business. Clustered areas were locked down at first following detection of coronavirus cases(115), which then turned into lock-down of whole cities and districts.

Government employed armed forces to ensure social-distancing. Regulating the markets, strengthening health system by increasing COVID-19 detection and treatment facilities, and bringing the poor under government's social safety program were prioritised(116). Although government didn't allow private hospitals and labs to run COVID-19 tests at first, several private organizations were given approval for the same later in March as cases increased(117)(118). To tackle the economic blow of COVID-19 in the export-based industries, PM Sheikh Hasina declared a 5000cr stimulus package to be used only to provide the wages of the workers.(119) On March 31, PM Sheikh Hasina extended general holidays till April 9, 2020(120).

Few people wear protective masks while offering Friday prayers (Jummah) as a preventive measure against the spread of Coronavirus at National Mosque in Dhaka | Date: 20th March | Credit: Sultan Mahmud Mukut.

The massive line for tickets inside the Kamalapur Railway Station | Date - 24th March | Credit: Dhaka Tribune

A man is giving sanitiser in front of the national mosque. Date- 24th March | Credit: Indiatimes

The army is showing placards to make people aware | Date- 26th March | Credit: Daily Ittefaq

APRIL

As the government failed to supply sufficient amount of safety gears, healthcare providers flinched at coming in contact with patients with COVID-19 symptoms(121). However, the government was strict about obliging doctors to provide care to anyone demanding it, and even threatened hospitals about cancellation of licenses

if patients were turned away(122). The PM ordered authorities to show promptness in detecting the virus(123). Private hospitals and public universities gained government approval for COVID-19 tests(124); 4 testing labs were dedicated to serve RMG workers(125). Health authorities took a strict stance against using unauthorised kits for detection(126)(127). Some public hospitals in different cities opened dedicated coronavirus units(128), while some declared not to treat infected patients(129). Government dedicated Sheikh Russel Gastroliver Hospitals for VIPS and diplomats infected with COVID-19(130).

On the other hand, law-enforcers continued being strict to people on the streets to ensure social distancing as Dhaka metropolitan went on with full scale shutdown(131). Bangladesh Police and armed forces worked relentlessly in ensuring social distancing and stability in markets(132); a large number of officers got infected with the virus while serving during the lockdown(133). Law-enforcers also came forward with relief programs for the poor in different places in the country(134)(135). Armed forces, DMP and CMP run several relief distributions in the metropolitans(136)(137).

Bangladesh Bank formed a 10,000 cr scheme to fund small businesses struck by the pandemic(138). The government sought funds from JICA to help revive the economy(139). PM allocated above 10cr taka to aid the coronavirus hit homeless poor around the country(140). Local organizations continued contributing to PM's Relief Fund and stimulus funds(141).

Regulation of relief, disbursement of incentives became a challenge for the government, as became controlling corruption in the private and public sectors(142)(143). An N-95 mask controversy created unrest among public servants, as personnel from inside ministries tried to dismiss the case without a convincing closure(144)(145). Government also took a stern stance to defend healthcare providers by taking action against house-owners who asked healthcare providers to leave(146); strict actions were taken against those spreading rumours, too(147)(148).

By walking with a banner army office telling people to wash hands in Narshinghdi | Date: 8th April | Credit: daily observer

Women standing in a queue to receive relief supplies without maintaining any distance| Date- 4th April | Credit: Dhaka Tribune

Volunteers from an organisation distribute relief supplies, amid the coronavirus disease in Dhaka | Date-23 April | Credit: bdnews.com

Garments workers washing their hands before entering | Date-29 April | Credit: ispnews.net

Disinfecting roads in Dhaka city | Date- 29th April | Credit: Dhaka Tribune

MAY

The government's fight against corruption went on in May, as public representatives and government officers were found to be involved in relief embezzlement(149). No action was taken even after the N95 mask controversy report was complete; government officials refused to pass any remark on the report(150). Relevant authorities issued guidelines for shopping malls(151) that were to be open before Eid-ul-Fitr. Again, law enforcers worked day and night to make sure guidelines were not being violated.

DMCH burn unit started admitting COVID-19 patients in May with a capacity to serve about 600(152). City authorities in Barisal dedicated 7 hotels for frontline health officials(153). Outdoors of public hospitals started serving 24 hours again by the end of May. Government made wearing masks mandatory for the general population(154), and waived VAT on PPE and surgical masks(155). However, unregulated hiking of safety gears and disinfectants' prices kept law enforcers on the edge(156)(157).

The already struggling economy took one more blow from cyclone Amphan in May 2020. The poorer population of the coasts, barely surviving the pandemic's economic impact, further lost belongings and

wellbeing. PM announced a 2000 cr interest subsidy for the banks(158), and Bangladesh Bank announced schemes for CMSMEs to further stabilize the vulnerable economy(159). No declaration about educational institutions' reopening came from the authorities(160).

At Narayanganj EPZ BSCIC workers are going to work without any necessary protection. Date: 4th May | Credit: unb.com.bd

Dhaka Metropolitan Police officials distribute relief packages among the needy in the Mirpur area of Dhaka | Date- 2nd May. Credit: arabnews.com

People wait in a queue outside BSMMU in Shahbagh, Dhaka for Covid-19 testing | Date-5 May | Credit: Dhaka Tribune

A volunteer sprays disinfectant inside a bus amid concerns about the spread of coronavirus disease in Dhaka | Date: 10th May | Credit: news18.com

People are waiting outside the Central police hospital | Date- 21st May | Credit: Dhaka Tribune

JUNE

In June 2020, government planned to divide the country into green, yellow and red zones to take need-based actions to tackle COVID-19(161). New areas of Narayanganj, Khulna, Gazipur, Jessore and Cox's Bazar cities fell into lockdown as the virus spread; law enforcers played their role(162)(163)(164)(165)(166).

Government extended the Kiosk model to intensify coronavirus detection tests(167). New private and government run labs were approved for testing(168); Chittagong city corporation launched a 70 bed isolation centre with 60 healthcare professionals(169). Government ensured more hospitals be prepared to treat COVID-19 patients, approved facilitation of centralized oxygen supply for 26 hospitals(170), enlisted 39 public hospitals as recipients of liquid oxygen tanks(171), revoked permission and regulated testing facilities for overcharging and mismanagement(172). Health ministry recruited new skilled staff and health technologists to strengthen the public hospitals(173).

JULY

COVID-19 treatment units, isolation units and testing labs were opened in different cities in July, including Chittagong and Khulna. Although 27 hospitals got approval for centralized oxygen supply, only 9 of them got budget allocation for the same(174). The Directorate General of Health Services (DGHS) revoked the coronavirus testing permission of five hospitals and diagnostic centres - Sahabuddin Medical College Hospital, Care Medical College, Stemz Healthcare, Thaicare Diagnostic and Chattogram's Epic Healthcare(172). COVID-19 negative certificates were made mandatory for air travel(175); icddr,b started providing COVID-19 negative certificates to foreigners(176). Government declared no COVID-19 tests or treatment were to be availed from facilities except those approved by the government(177).

AUGUST

The health ministry on July 29 issued a circular saying that the government would not bear the accommodation expenses in residential hotels for doctors and other health workers engaged in treating Covid-19 patients. At the same time, the ministry also discarded doctors' accommodation facility in designated hotels. Healthcare professionals demanded withdrawal of the "unscientific" directive(178).

Icddr,b started trial of the Chinese vaccine developed by Sinovac Biotech in July as Bangladesh government approved administration of the trial doses(179)(180). Gonoshasthya Kendra opened a plasma centre and an RT-PCR lab in the capital for lower-cost COVID-19 treatment for the population(181)(182); government later halted operation of the plasma centre.

The banking sector returned to normalcy after months in August 2020(183). Government officers were not allowed to work from home(184), and private firms gradually started increasing physical presence of employees at office(185). Government continued disbursement of the promised grants, incentives and compensations(186); BGMEA received 1.32 crore from the government as death compensation for 66 deceased workers(187). Ministry of Labour and organizations under the umbrella continued efforts to improve livelihood of the apparel workers hit by the pandemic.

COVID-19 Spread in Bangladesh

The figures below show the spread of the virus across the country over time, and increasing cases and deaths with important events in a timeline between March and August 2020.

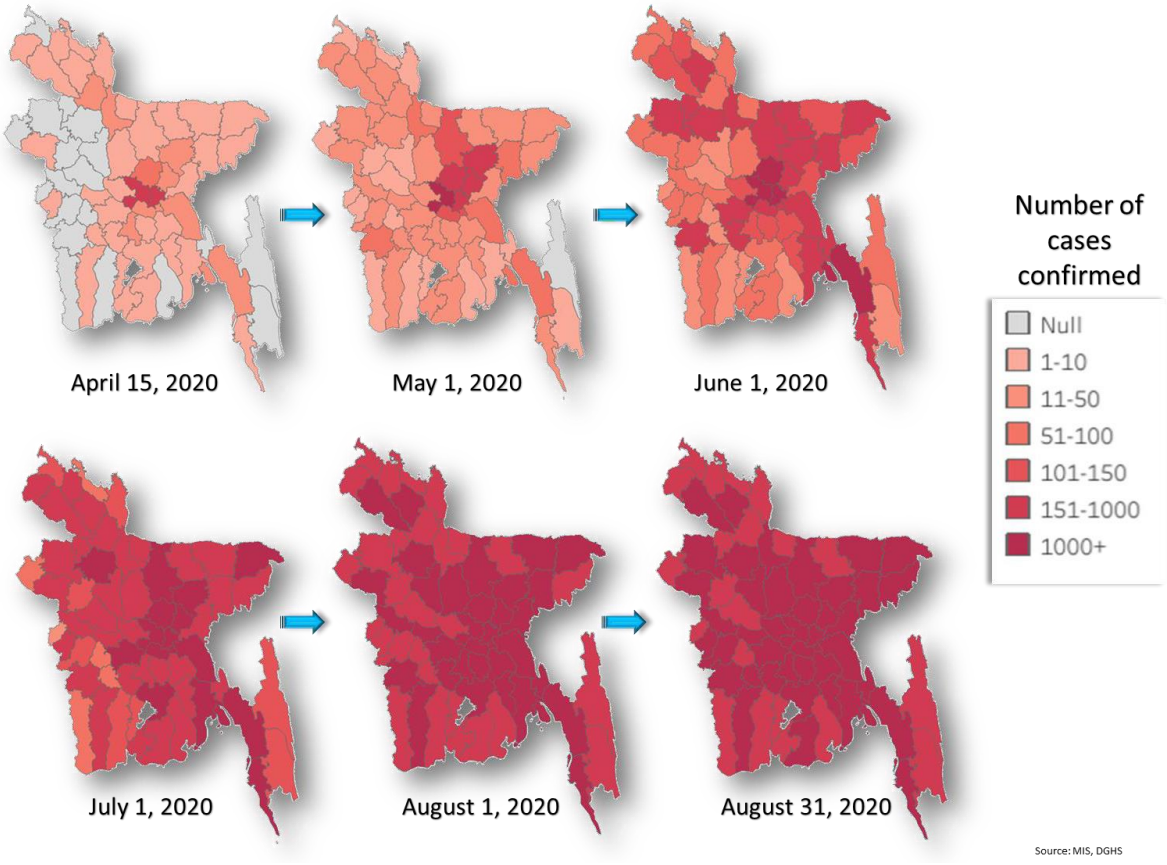


Figure 1: COVID-19 spread across the country over time

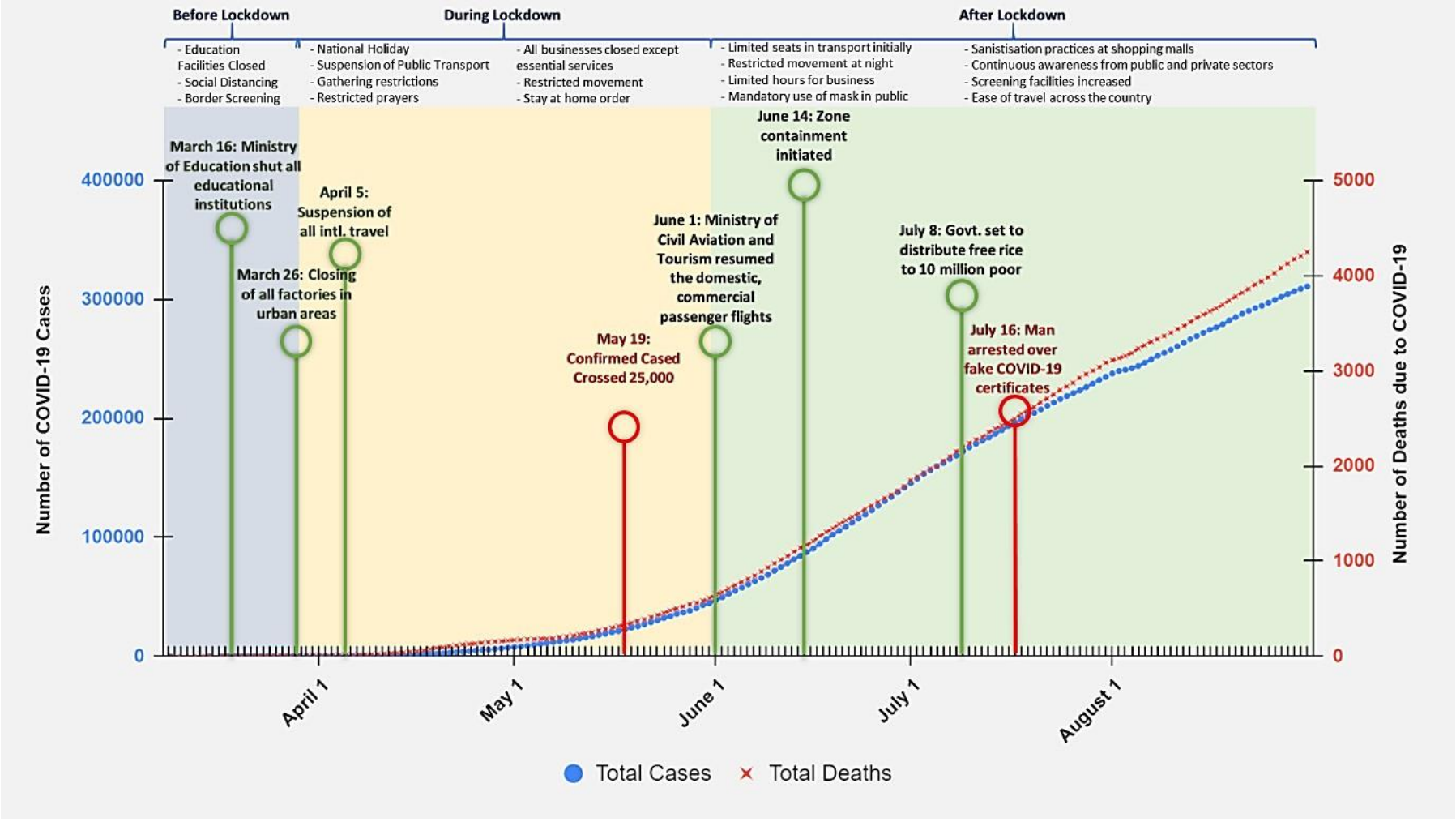


Figure 2: COVID-19 cases, deaths and events in Bangladesh over time

CHORUS
RESEARCH ON URBAN HEALTH

3.2 Coordination and synergies (or not) between local and national government responses

Key Findings on co-ordination and synergies
• Non-compliance of the Ministry of Aviation was evident in following the restrictions on flights suggested by DGHS • Delayed response from Ministry of Education in closing the educational institutions • Govt. announced several precautionary steps, however, public awareness and compliance was lacking across the country • Prices of personal protective equipment hiked up just after the onset of COVID-19 in the country. High court orders to control it did not work. • Delayed instruction from the govt. in restricting movements came in form of 'General Holidays' • Lack of understanding in the mass and implementation of restrictions by the local government resulted into huge mobility in the country • Testing of COVID-19 was delayed and lagging behind due to lack of capacity and coordination among labs. • DGHS monitored and regulated treatment in the public hospitals, however, there were anomalies for the private hospitals. • Steps taken for food and cash distribution which faced challenges at the local administration.

Earlier in February 2020, on-arrival visa for Chinese nationals was temporarily banned to prevent the spreading of the virus. For safety purpose, they would have to get a medical certificate to get visas in future. The foreign ministry also stated that products from China had to come to Bangladesh through Myanmar (188). It was publicly announced during the first week of February 2020 that the GoB had taken necessary steps stated by the health ministry (189). As a concrete step, it was announced that all incoming passengers' ports had to be screened by the authority to prevent the spread of the virus (190). In the first week of March 2020, the health ministry recommended restricting arrival of passengers from Iran, Italy and South Korea, as the spread of the virus had increased in these countries(191). However, despite the travel ban announced on 15th March for all European countries except the UK, 95 Bangladeshis came from Italy and other European countries on the next day. That day, the total number of detected cases in the country was eight; among them, four were infected by the family members who returned from Italy and Germany earlier. It was published that 349 Bangladeshis returned from Italy 2-3 days ago (192). It was evident that the ministry of civil aviation did not comply with the guidance of the DGHS, Ministry of Health and Family Welfare. Two quarantine centres had been prepared in Dhaka city for suspected returnees from foreign countries. These were handed over to the Bangladesh Army to run (50).

After confirming the first case of Covid-19, the education ministries stated that they would take necessary measures to prevent the spread of the virus. However, they did not consider shutting down educational institutions (193). With all the schools opened, the government and DGHS advised school and college students to wash hands frequently and avoid gatherings to prevent the spread of the virus (194). After about two weeks of the first case, government officials started to discuss the closure of educational institutions (195).

Meanwhile, as the people were becoming more aware of using the masks the price of the masks increased many fold and became unaffordable by poor people. The high court ordered government authorities to take necessary steps to stop the price hike of masks, handwash, sanitiser and also stated that government could

run mobile courts to prevent the price hikes. The court also required the use of adequate thermal scanners at airports and land ports (39).

On 12th March 2020, GoB converted six hospitals into facilities for treating COVID-19 patients in the Dhaka city. DGHS officials started appointing more doctors, nurses, health care employees and sent necessary pieces of equipment for those hospitals (196). On the following day, the government cancelled all the parade and gatherings for 26th March (Independence Day) (197). Institute of Epidemiology Disease Control and Research (IEDCR), a body under the Ministry of Health, recommended that citizens avoid mass public gatherings. In response to that, the planned events of birth centenary of the country's founder on 17th March were scaled down from their original intended size. However, many people gathered in the rallies and gathering of government officials, children and students were seen in many cities without maintaining social distance or using masks (198)(199)(200)(201).

On 19th March, mass gatherings were banned by the government. The ban, however, exempted, all religious places and government started considering to close down other places, such as shopping malls and restaurants in the cities where gatherings might occur (202). At the same time, DGHS restricted visitors in the hospitals to minimise the spread of the virus (203). On 24th March, the government announced that from 26th March to 4th April all the private and public offices would be closed but hospitals, kitchen markets, pharmacy and other emergency services will remain open (204). The announcement was the first formal step towards lockdown in the urban areas.

Since the declaration, lockdown in Bangladesh has not been observed very strictly for several reasons. Immediately following the government's announcement on general holidays and transport ban, people began leaving the capital for their hometowns. The pressure of homebound people was so high that there were daylong congestions on many highways of the country (205). The traffic congestion with thousands of people stuck on the road was the result of the term 'Shadharon Chuti' (General Holiday) in all government declarations, which created much confusion as people rushed to be with their family in their home villages and towns (206).

Long tailback on the eastern side of a bridge on 26th March 2020

Several factors prevented the ban on mass-gatherings being effective On the second month of infection in the country, a mass gathering occurred in one sub-district not so far from the capital city for a funeral of a religious leader which could not be avoided due to the inactivity of local administration (207). Furthermore, communal events were seen at places of relief distribution in many places in the country during the period which encouraged people to attend (208).

Mass gathering at places in April 2020

On June 30, a month after the nationwide lockdown (general holidays) was lifted, the public administration ministry declared 21-days of general holidays only for the red zones in the urban areas. However, when the city corporations struggled to get the addresses of the patients to test the families and neighbours of the infected patients from DGHS (209). Testing in other metropolitan areas such as Khulna was also hampered by a lack of capacity of the test facilities and a lack of coordination among the laboratories of the division (210). In the case of treatment, in July, GoB took initiatives to set up centralised oxygen supply in more than 50 public hospitals in the country to ensure uninterrupted oxygen supply (211). Plasma therapy was permitted to be tested in three hospitals during late July although some hospitals were already using plasma therapy as a treatment option without having proper guideline set by the public authority (212). In addition, private hospitals were left unregulated by the DGHS, which was evident by the absence of proper licensing (213)(214) and issuance of fake reports by hospitals (215).

Women in line at a COVID-19 emergency response activity in Dhaka | Date- 14 July | Credit: devex.com

According to the Bangladesh Bureau of Statistics, slum dwellers accounts for 6.33% of the urban population and 1.48% of the country's total population. Most residents of slums and low-income settlements in the cities survive on daily wages, which means they have little or no savings. On 31st May, the government declared that it was illegal to be seen outside without a face mask and violators could face a three-month prison service, a fine ranging from Tk. 50, 000 to 1 lakh, or both. However, the masks were not affordable by many urban poor. An 18-year-old female adolescent said, "*Masks are available, but the price is high. A normal mask worth Tk. 20 or Tk. 30 mask is now Tk. 90, 100 or 120*" (206). The statement indicated that the order from the high court in early March to stop the price hike did not work in reality.

The government of Bangladesh took several measures to mitigate the economic crisis created by COVID-19, e.g., through the emergency distribution of food and relief materials (216). Before Eid in July, the government was set to distribute 10 kilograms of rice for free to more than 10 million ultra-poor and destitute families (217). However, there were discrepancies and misappropriations reported on the unequal distribution among the urban poor in different cities and sub-districts (218)(219)(220).

Urban poor people came out on the road waiting for food distribution aid | Date- 5 June | Credit: The Financial Express

The Prime-Minister announced provision of cash assistance of BDT 2,500 to five million low-income families across the country affected by the coronavirus from 14th May 2020 (221). Here as well, massive anomalies were reported by the local governments who failed to coordinate the process as expected (222)(223)(224).

3.3 Role of local (city) government in response and facilitators and barriers

Earlier in February, when 312 people returned from Wuhan, China, it was planned that they be kept in quarantine for 14 days at a temporary quarantine centre near the airport. 302 people were kept there, and there were allegations that the place was dirty, mosquito-infested, and that the quarantined people did not get enough food from the authority. Ten people were hospitalised at Kurmitola General Hospital (225). However, it was not reported if all of the quarantined people completed the 14-day-period. Later, in March, when 142 returnees were similarly quarantined, allegations of mismanagement and lack of protective measures were reported again, and all of them were allowed to return to their homes located in different parts of the country at night (226). More people returned to the country from Italy, and it was then suggested that they remain in home-quarantine (227).

Key Findings on the roles of local governments

- Controlled facility-based quarantine did not work initially, apparently due to miscommunication and mismanagement from the local government
- Tracking of potential careers of the virus coming from abroad was late to start
- Changes of address of the returnees was a challenge to the local government while direct monitoring of cases
- A community support team was piloted to control the spread. No scale-up was reported later
- Mobile helplines were introduced by IEDCR which was also the single authority to conduct tests for the first two months
- In June, a local research organisation found poor governance, quality issues and misdeeds in private hospitals
- City corporations took many initiatives for the safety of its dwellers which faced challenges in public compliance and law implementation.

Since mid-March, Bangladesh started tracking returnees by their local passport addresses and a team of local administration health workers, and law enforcement personnel visited their houses to monitor their quarantine. Some places were locked down after the detection of potential infections. Despite such direct monitoring, many returnees could not be traced due to their changes of addresses, which has been a concern for local governments (228)(229). The health ministry suggested all of them to be in self-isolation for at least 14 days. However, there were reports of violations of home-quarantine from many districts in the country (230). Few of the expatriates were reported to be fined (231). A Community Support Team intervention was piloted so that individuals with symptoms could be evaluated and those who met the clinical criteria were isolated at home with their families. The team was comprised of MOHFW Community Clinic, BRAC community health, and available medical students and interns doctor staff volunteers. The Community Support Team also facilitates access to hospital care for those who develop severe disease.

People returning from COVID affected countries to Bangladesh

There were 17 hotlines launched by the Institute of Epidemiology, Disease Control and Research (IEDCR) to help the people with information and help regarding the symptoms, tests and treatment of COVID-19. However, they were not toll-free, were inaccessible at times and suffered from negligence with poor caller interaction and support (232). IEDCR, being the sole authority to determine whether tests were required, was also criticised for following the same protocol for months even after the cases were rising (233)(234).

After the lockdown (general holidays) was lifted at the end of May, the Local Government Department under the Local Government, Rural Development and Cooperatives Ministry had formed a coordination cell to prevent the coronavirus transmission during the last week of June (235). However, Transparency International, Bangladesh (TIB) found widespread deficiencies in governance indicators relating to measures taken by the Bangladesh government for tackling the pandemic. It highlighted the limitations in adhering to relevant laws. For example, 'Disaster Management Act, 2012' and 'Infection Diseases (Prevention, Control and Eradication) Act, 2018' was not applied correctly to tackle the pandemic. The report of TIB in June 2020 stated that complaints of low-quality PPE supplies were received from 59% of hospitals. 23% of hospitals were alleged for the negligence of duty. Private testing labs were charging additional fees other than what was fixed by the government. Furthermore, 'Corona-negative' certificates were being illegally sold.

The TIB study showed that around 25% of physicians and 34% nurses and other health workers did not receive PPE from the Central Medicine Storage Depot (236). These have been proven as barriers to increase service quality and coverage in urban areas.

An initiative had been taken to distribute relief by creating a priority list for low-income people who might feel hesitant to stand in line (237). However, about 0.8 million people were left out to receive any cash relief (223). Also, later in early August, the Ministry of finance found in an inquiry that about 1.5 million identities were fake on the list of cash distribution programme (238).

People are waiting for food relief provided by a local community | Date- 13 July | Credit: The Financial Express

Several steps were taken by the city corporations of the capital city for the safety of its dwellers, especially the poor. Upon the order from the court to stop the price hike of masks and other protective materials, during the 2nd week of March 2020 the mobile court fined at least 19 pharmacies in Dhaka, Savar, Narayanganj for selling mask, sanitisers and different medicines at excessive price. Dhaka North and South city corporations fined 16 pharmacies for excessive charges (239). After one week, Dhaka North City Corporation (DNCC) started a campaign of handwashing to prevent the spread of the coronavirus. It had set up handwashing stations at 25 points in the city (240). Furthermore, more around 200 handwashing stations were set up across Dhaka through the efforts of DNCC, Dhaka South City Corporation (DSCC), Dhaka Water Supply and Sewerage Authority and several NGOs(241). However, the initiative was later discontinued largely because the stations were not properly maintained.

During the last week of March 2020, DNCC started spraying antiseptic around the city to prevent coronavirus transmission (242). Reportedly, DNCC sprayed 80 thousand litres of antiseptic to different parts of the North Dhaka, Dhaka South City Corporation (DSCC) sprayed antiseptic in South Dhaka. Dhaka Metropolitan Police (DMP) also sprayed disinfectant at various places (243). At the end of March, DNCC mayor had distributed food packets to the slums of Mirpur and said that poor people living in DNCC areas would all be getting food relief (244). Ward councillors, local leaders, residents had come together to install handwashing facilities in different areas in the city as well (245). DSCC distributed food packets to day-labourer and rickshaw-pullers who were suffering because of the lockdown (246). The government extended the 'taka 10 a KG rice' programme on 12th May 2020 (247). However, the continuation of these steps and the results were not evident or reported much by the media.

Councillors, local leaders and residents in Dhaka have come together to install handwashing stations at different points, which were equipped with a supply of soap and water

Other city corporations were also taking steps targeting the urban poor. Rajshahi City Corporation said that they were providing food support to one hundred thousand of ultra-poor people in three phases (248).

The health ministry mandated the use of mask outside the home after six weeks of the end of unofficial lockdown in the country (249). However, people did not follow the mandate properly, and the law to fine or jail was not seen implemented in any place although at least five circulars were published regarding the need of using masks outside the home (250).

People without protective masks shop on the street as the coronavirus disease outbreak continues in Dhaka | Date- 12 August | Credit: news18.com

3.4 Coordination of cross-sectoral responses

Key Findings on cross-sectoral response
• Lack of coordination was evident multiple times between the health ministry and the local government • Many private organisations and NGOs have worked both individually and in collaboration with public actors to control the viral spread, treat the patients and provide aids to the needy people • Bangladesh bank announced financial schemes for low-income group people • Few private hospitals were found guilty of misdeeds; apparently due to lack of monitoring from the public side

On 19th April 2020, the government formed a 17-member national technical advisory committee (NTAC) to tackle the outbreak of coronavirus in the country. DGHS notified that the committee would advise the government on tackling the spread of COVID-19 and on improving the quality of medical services (251). However, many recommendations of the committee have been overlooked by other ministries and local organizations, making it less useful in controlling the pandemic. For example, at its 14th meeting on 10th July, to prevent the spread of coronavirus, NTAC advised stopping travel from Dhaka, Gazipur, Narayanganj and Chattogram to other places during the Eid holidays. As per the recommendation, on 15th July, the Ministry of Health directed the Ministry of Home Affairs to take necessary steps to ensure that nobody travelled out of these regions. However, on the next day, Road Transport and Bridges Minister said that public transport would be available countrywide for the upcoming Eid and only heavy vehicles would be stopped for three days before Eid like the other years. The NTAC also recommended not to set up cattle markets in Dhaka, Gazipur, Narayanganj, and Chattogram on the occasion of Eid-ul-Adha. As an alternative, the committee proposed that the government initiated digital marketplaces for sacrificial cattle trade. If the sacrificial animal market is set up in other areas, there must be preventive measures to limit the spread of COVID-19. However, ignoring the committee's recommendations, both city corporation authorities of Dhaka allowed opening of 11 sacrificial animal markets (252). These events suggest a general lack of coordination between the ministry of health and the local government.

There was also a general lack of Inter-ministerial coordination. Until June 2020, there was a shortage of lab technicians within MOHFW while there were a good number of technicians who were just sitting idle in the urban primary health care centres. Those trained lab operators could not be utilised because of the poor coordination across the two ministries (17).

Private organisations and NGOs worked in collaboration with public institutions in response to the COVID-19 crisis. For example, from 12th April till 3rd May, Bidyanondo Foundation, a not-for-profit social welfare organisation in the country, provided food aid to 1,058,000 families across the country in collaboration the Armed Forces and 73 non-government volunteer organisations. They also handed over 5,000 PPEs to Upazila and public hospitals (253). In Chittagong, an 80-bed facility was set up jointly by the Chittagong Metropolitan Police and Al Manahil Foundation for the treatment of COVID-19 patients. The organisation had been involved with arranging last rites for coronavirus victims in Chittagong since the onset of the deadly viral disease (254).

Wearing personal protective equipment, Volunteers of Al Manahil Welfare Foundation bring the body of a Covid-19 deceased to a graveyard in the port city | Date: June 8 | Credit: The daily star

BRAC supported the community as well by different means: it assisted 7,250 migrant returnees who were financially affected by the pandemic under a financial support programme worth Tk 3 crore (254), it also allocated a budget of Tk 15 crore to help low-income families in urban slums, semi-urban and remote areas whose livelihoods were impacted due to the social distancing measures taken to stem the Covid-19 pandemic (255). It initiated a second phase of its emergency food assistance program for another 100,000 families later in April 2020 (256). Other organisations also teamed up with BRAC to provide meals to 1.4 million low-income across the country and ultra-poor families across the country (257) and support thousands of families in the areas under lockdown (258).

Bidyanondo Field hospital in Chittagong | Date- 1 July | Credit: Dhaka Tribune

Basundhara group has given its space in one of its largest conference halls to the government to use it as a 2000-bed hospital which opened on Mid-May 2020 (259). Bangladesh Red Crescent Society (BDRCS) distributed cash assistance to vulnerable urban communities located in Dhaka South City Corporation with support of German Red Cross. These urban communities have lost their incomes as the country was under general holidays for almost two and a half months (260). Global Alliance for Improved Nutrition (GAIN) and Unnayan Shangha, in collaboration with USAID, launched a project titled 'EatSafe: Evidence and Action

towards Safe, Nutritious Food: COVID-19 Response' in August 2020 to help ensure nutritious food supply for people of the country during the ongoing coronavirus crisis (261).

The Bangladesh Bank launched the biggest financial scheme in April where a total of 3,000 crore taka loans will be available for low-income group people, farmers and marginal or small businesses. The loans from the scheme would be disbursed through the microcredit entities, also known as non-governmental organisations (262).

Despite the positive cross-sectoral approaches there were also reports of corrupt practices. In July 2020 fake COVID-19 reports and certificates by the Bangladeshi expatriates were reported which resulted in restricted entry for Bangladeshis to Japan, Italy and Korea. A private hospital was sealed off after finding evidence of forgery to about 6,000 reports for COVID-19 test (263). At the beginning of July, DGHS declared that they were monitoring all the hospitals and if any hospital rejected any patient, they would take action against the hospital(122). BSMMU filed a case against the supplier who provided fake N95 mask to the hospitals' isolation unit (264). Some private hospitals were found to be charging higher bills than usual because of the increasing number of Covid-19 patients (265). However, a few private organisations were facilitating vaccine procurement in the country, such as Beximco Pharmaceuticals announced that they would invest with Serum Institute of India (SII) to ensure Bangladesh receives Covid-19 vaccine on a priority basis, once they get approval (266).

Fake protective masks distributed to the public hospital

3.5 Socio-economic effects on livelihoods of the urban poor

Beyond the high human densities, especially in urban and slum areas, the main challenges in Bangladesh are the economic conditions compared to higher-income countries, the saturation of health structures in semi-urban and rural settings, and the inability of low and middle-income families to refrain from work due to their basic livelihood needs. As life had almost come to a halt due to shutdowns triggered by the coronavirus pandemic, lower-income people across the country were left to languish. According to Bangladesh Red Crescent Society, Bangladeshi urban communities and labour force have been disproportionately affected during the lockdown, with widespread layoffs leaving many in a perilous financial situation, unable to meet their basic needs, (BDRCS) (247). The government's timely efforts to support poor people were not well-coordinated (267).

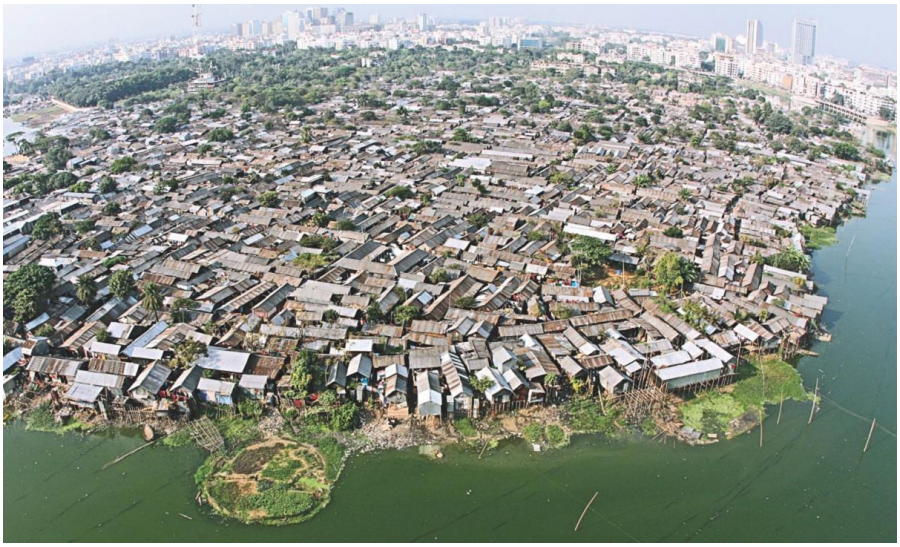
Key Findings on socio-economic effects

- Urban poor suffered mostly during the unofficial lockdown to control the pandemic
- Several humanitarian aid initiatives by the GoB and private organisations helped
- Inadequate and non-targeted awareness campaigns at the city level made it harder to control public safety
- Vulnerability increased for people with disability, children and people with no income source
- Aid distribution halted with the ending of the lockdown leaving the poor vulnerable to health risks

The city's poor have dealt the heaviest of blows of the measures to slow the spread of the virus as they mostly survive on the jobs in the garment factories, the daily wage labour market, and the informal economy. Urban low-income families in Dhaka have struggled without work, and with little cash in hand or savings – not only to keep themselves virus-free in crowded and badly-serviced settlements but to get enough to eat (268). Health and nutrition of Dhaka's urban poor have always been inadequate due to temporary food and income shortage. During the lockdown, low-income families have reduced their diet (269), and replaced more expensive, protein-rich foods like fish, chicken, and beef with inexpensive staples such as potatoes, lentils and rice. They have had to borrow for buying food, sell their belongings or draw from what savings they might have (268).

A large number of people in Dhaka city live in the slums, but there was no proper guideline or knowledge shared with them during the onset of the infection in the country. The awareness campaign on cleanliness and 'social distancing' done by the city corporations did not ultimately reach to the people who live in there, making them vulnerable to health risks (270). People who were living in the slums were not wearing masks or maintaining social distancing because there were no cases detected (271). Moreover, hospitals were not receiving patients with fever without the COVID-19 test reports, which made poor people more vulnerable during the lockdown (272).

Street children were one of the most vulnerable groups in urban areas who suffered from hunger during the lockdown. State Minister of the Ministry of Social Welfare stated that the social services department had shelter homes for street children, but a large number of the children did not want to stay in the homes and rather live on the streets (273). Persons with disabilities were another vulnerable group who found it hard to avail relief distributed by the government and private organisations (274).



Aerial view of the largest slum in the capital city | Credit: The daily star

As the lockdown extended to May in April, people with low income and who had lost jobs began to suffer more in the cities without any aid of food relief from the authorities (275). In the long term, children living in the slums were also becoming more vulnerable to physical and psychological disorders (276).

A physically challenged woman looking for food assistance during the lockdown

People living in the slums also fell victim of loan sharks as they lost their income sources due to the shutdown and became more vulnerable to poverty in the long run(277). Also, the middle class and lower-middle-class urban people began to leave the city being unable to pay rent for homes due to loss of income (278). Media reported that even though the lockdown was over, low-income people still needed help; however, the food relief and cash charity had almost come to a standstill (279). The government suspended the special open market sale of rice introduced to help the urban poor. Director general of food said that after the withdrawal of lockdown, they did not need that particular open market anymore (280).

3.6 Health system and COVID response in the country

The health system response for COVID-19 in the country has shown some strengths in terms of having the following features (illustrated in Figure 3):

- The service coverage of public and private hospitals in the country is widespread that can be utilised well to screen and treat patients during the pandemic
- There are multiple authorities in the health ministry and local government whose coordinated approach and effective monitoring can help tackle the health crisis.
- Though having less capacity and being less than the ideal number, a dedicated and willing workforce is there in the medical sector whose professionalism helped to treat COVID patients.
- There are a vast number of field workers from both public and private sectors whose experience and reach to the communities can be used to build awareness at the grass-root level
- Bangladesh's digital infrastructure and favourable policy environment allow the government to utilise innovative information technology to reach to the nation with targeted messages.
- Personal protective equipment is manufactured in the country. If the quality can be ensured and monitored, the manufacturers can provide excellent support during emergencies.
- Donor funding and aids allowed the government to import and distribute personal protective equipment for the health workforce. The MIS of DGHS tracks and publish the distribution.
- Public financing and donor grants contributed significantly to tackle the pandemic.
- Though suffering from a lack of coordination, the leadership at the public authorities have shown promising steps in identifying and punishing misdeeds during the rise of COVID-19.

Following challenges included in the health system's response to the crisis as well:

- Lack of monitoring and quality control of the service delivery by public and private hospitals.
- Unregulated supply chain and private services were prevalent in urban areas.
- The lack of capacity and training of the health workforce in managing emergency health response was evident.
- Coordination in screening, patient referral and management was absent across the country.
- Contextualised information and awareness campaigns for urban poor were missing. Also, proper implementation of rules and guidance at the field level was not controlled.
- Inadequate amount of protective equipment for professionals and mass people was there. The quality of the available products only raised concerns about safety in the mass.
- Absence of any financing mechanism at the facility level made it harder to avail services for the urban poor.
- Poorly coordinated approach from different leading actors and delayed implementation of the guidance were indicators of the poor governance in the health system response during the crisis management.

An illustrative demonstration of two different aspects of the health system response is shown below:

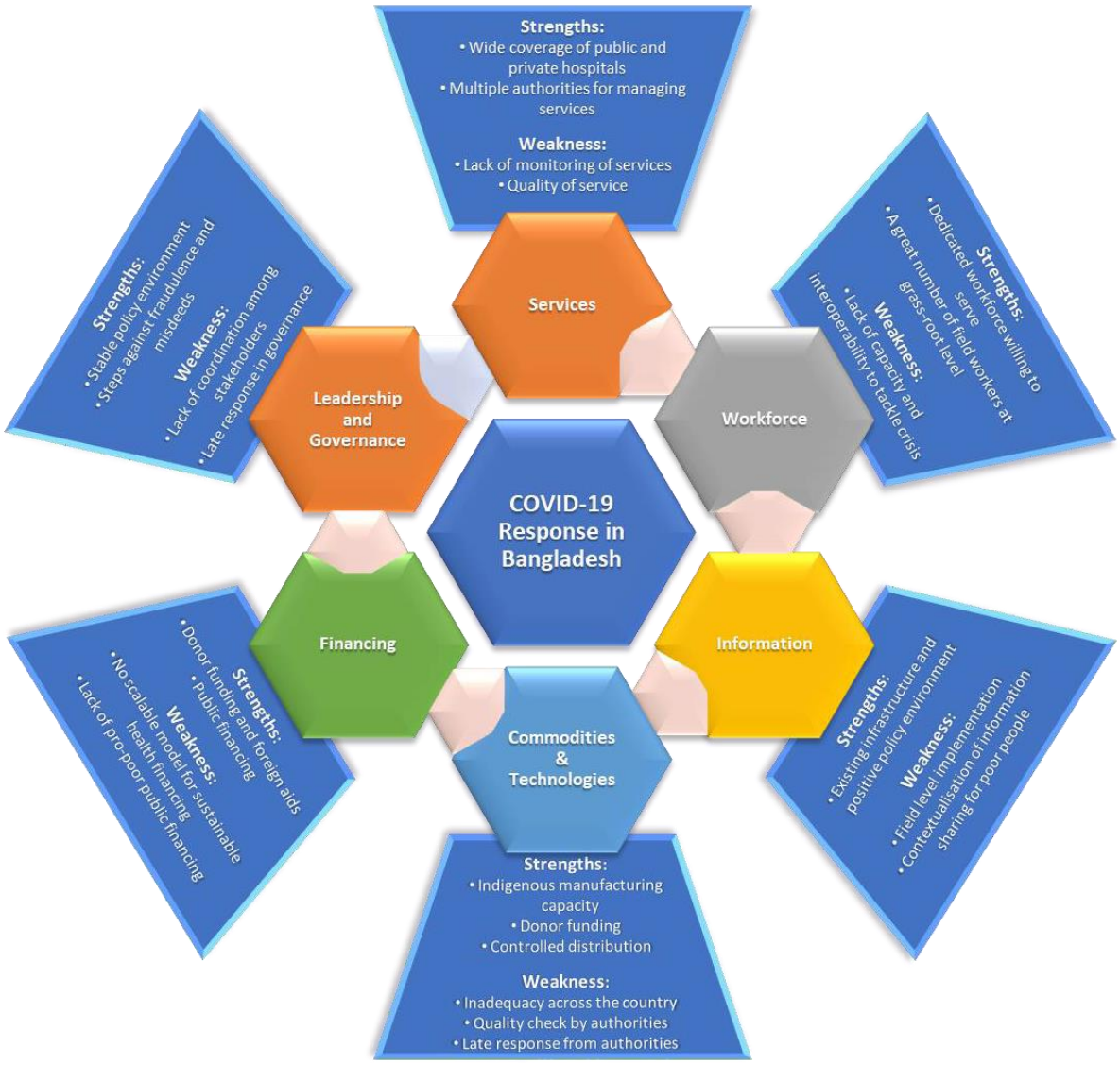


Figure 3: Strengths and weakness of COVID-19 response for each of the health system building blocks in Bangladesh

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4. Discussion

This paper highlights the critical challenges faced, policies and health system responses taken by the GoB to combat COVID-19. Moreover, this study portrays the differential impact of COVID-19 on urban population and several effects of health system responses and health policies on the urban population to combat COVID-19. COVID-19 has a substantial impact on the health, livelihoods of populations and on the existing malfunctioning urban health systems. COVID-19 contributed to the increasing inequalities in the community, as middle and upper quintile urban people are more able to access health care than the poorest. Along with the health and health service response crisis, there was a humanitarian emergency as well in Bangladesh, which lead to scarcity of fundamental essentials including foods, possessions, and services such as unemployment, economic and financial loss, social conflicts, and deaths. It harmed psychosocial health and wellbeing as well (20). Albeit Bangladesh had the vision to eliminate poverty by 2021 (278), as soon as this pandemic happened, within two weeks poverty rate increased up to 40.9% (281). Therefore, there was a crying need for emergency food and financial support for the underprivileged population.

Nationwide crisis response plans, public health initiatives and national guidelines and multi-sector integration and coordination and decentralised approaches were effective in COVID-19 containment (21)(23)(22). Since there is an absence of a noteworthy health policy for pandemic management in Bangladesh, the GoB had to release a "National Preparedness and Response Plan for COVID-19, Bangladesh" for COVID-19 case management. Although the GoB has now well explained the concept of social distancing and lockdown there was initial confusion on what these concepts meant. This had an impact on a behaviour in a number sectors including limits on public transportation(282), the closing of educational institutions, entertainment and business centres, and the prohibition of public meetings. The announcement of an extension of the lockdown followed by the general holidays by the Ministry of Public Administration accelerated the misperception regarding lockdown even more (283). The official term "general holiday" used by the GoB and "lockdown" used by the media and scientific community created confusion among the most socio-economically vulnerable groups in the country.

Nevertheless, since the majority of the people are daily wage earners (17), lockdown and social distancing strategy in a densely populated country of more than 165 million was not a reasonable solution in Bangladesh. Even though there were official notices making social distancing mandatory within public transportation, and also restriction on inter-district public transport, there was not such notice or restriction on private transportation. Consequently, after lockdowns were declared, people began to leave the cities, especially Dhaka; and as residents of a highly densely populated nation, people often found it difficult to maintain a social distance which in turn made it difficult to control the Covid-19 situation.

Moreover, the GoB weakened the lockdown to resume the industrial activities without proper guidelines or the scientific basis for such a risky decision. Although GoB provided healthcare guidelines and social distancing during work, the infection rates surged significantly among the workers in the industrial zones. Soon, GoB announced the withdrawal of current partial lockdown and the gradual opening of government Offices and people returned towards everyday living and increased movement. It was thereby increasing the number of confirmed cases without having any signs of flattening the infection curve.

The GoB had to deal with an insufficient test capacity for COVID-19 diagnosis including inadequate numbers of PCR machines, proper biosafety labs, testing kits, safety equipment and unprepared health workers (13)(14)(15). Though there were some donations, they were insufficient to meet the country need. Besides,

the ports of entry lack intense testing facilities, though after a while quarantine facilities were introduced in Dhaka (13)(14)(15) . In urban areas, several hospitals/clinics in the private sector have been designated as COVID-19 hospitals and have been providing management of infected patients. Vaccines are yet to be approved but non-therapeutic interventions have been proven to effectively control the transmission and the disease itself (3). Being a developing country, Bangladesh is struggling to control disease transmission in urban areas. Nonetheless, the GoB was able to implement current preventive measures to an extent to combat COVID-19 possible. The measures included the mandatory wearing of masks, avoiding close contacts, frequent hand washing, avoiding touching the eyes, nose or mouth with unwashed hands, and avoiding handshakes to lower the risk of infection (133).

However, public health experts in Bangladesh 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 (3). Experts say that the government's approach to testing and surveillance, including charging patients a fee, is hindering the crisis response strategy taken by the GoB (3).

Corruption has also hindered an effective response to the pandemic. The corruption in the unregulated private sector in health services and the fact that services have become substantially more expensive have impeded overall service access. The recent incidences of false and illegal certification about COVID-19 status has exacerbated the crisis. A few Dhaka-based private health facilities were selling fake coronavirus test certificates to profit from the COVID-19 pandemic. There indeed was also a lack of coordination among the different stakeholders in emergency healthcare and crisis management.

There is no formal, integrated state healthcare delivery system in urban Bangladesh. Currently, the Ministry of Local Government, Rural Development and Cooperatives (MoLGRD&C) are responsible for providing primary health care services through the City corporations and Municipalities. At the same time, the Ministry of Health and Family Welfare (MoHFW) is responsible for providing secondary and tertiary level health care, policy and technical guidance. Along with the GoB, local governments also need to take prompt action in COVID-19 crisis response, recuperation and transformation. In coordination with the GoB, the local/ city government can act as a driver in economic development, service delivery and investments in infrastructures. Instant, supportive collaboration among the central and local Government authorities including the healthcare workforce, along with three other sectors such as private, NGOs and the foreign aid organisations can minimise the impact of the COVID-19 pandemic in Bangladesh.

This pandemic has accelerated digitalisation, shifts to remote working, and virtual delivery of essential services, which is creating an unstable future for the cities. Though there was a lack of coordination among different divisions of the GoB, local government and, national and international stakeholders initially, today, local and regional governments are already demonstrating an impressive array of innovative solutions to address structural weaknesses exposed by the pandemic. Long-term policy choices by national, regional and local governments are needed to build our resilience against future pandemics, including climatic and economic hazards and shocks, while safeguarding human rights, sustaining peace and strengthening our ability to achieve the SDGs. Therefore, The GoB should take measures to increase surveillance and resource reallocation, the direct cash distribution, and private sector engagement as a mitigation strategy in this crisis.

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5. Conclusions and Recommendations

Although the GoB took many measures to combat COVID-19, appropriate risk assessment and risk management was absent. Moreover, the lack of proper coordination among stakeholders was evident in almost all cases. The GoB along with the non-governmental and social organisations and law enforcement should develop a comprehensive strategic plan to analyse the mode of transmission of the virus, detect the population at risk, track people's movement, estimate potential economic and financial losses, educational attenuations and employment disruption for a better insight of the current scenario. This strategic plan should comprise of comparatively short-term response, i.e. an emergency response plan and long-term plan including reconstruction. Emergency response plans should be introduced to safeguarding fundamental amenities for every citizen.

The GoB, along with the local government, should introduce a vigorous list of the population at risk for regular monitoring and surveillance. Rapid research can assist GoB to take appropriate measures to tackle COVID-19 in the urban areas. A proper waste management system should be there for biomedical waste to minimise environmental transmission and build an efficient incinerator to deal with hospital waste. Furthermore, it should take and execute a strict policy on risk communication and media communication during an emergency like COVID-19. A holistic and sustainable strategic plan with short, medium and long term goals need to be formulated for effective healthcare planning and preparations to deal with any future pandemic. Though social distancing can be preventive, lockdowns can be disadvantageous for the national economy. Therefore, effective coordination among the Government policymakers, local governments, NGOs and international organisations is necessary to ensure emergency health responses are in place to deal with the COVID-19 pandemic more effectively.

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