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BANGLADESH HEALTH WATCH

POLICY BRIEF

Bangladesh's Evolving Response to the COVID Challenge

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Executive Summary

This policy brief is based on a series of studies conducted with support from Bangladesh Health Watch that provides an overview of the evolution of COVID-19 testing and management in the country, including the state and perception of frontline health workers, COVID-19 testing, overall case management, and trends in home-based care for patients. Across all five studies, a common picture emerges of a gradual shift from overwhelmed health systems and professionals, to a more rationalized state of care where despite significant constraints, both service providers and patients are somewhat better equipped to cope. On the other hand, the inefficiencies and disarray in the initial stages of the pandemic show clear need for improvements in both planning and implementation for pandemic response as well as healthcare more generally, many of which remain highly relevant and necessary even as response mechanisms gain ground. These are set out in a series of recommendations at the end of the brief, which emphasize the need for more cohesive and better-resourced action plans from the national to community level, with strong monitoring in place.

The five studies conducted include i-ii) surveys on frontline workers conducted in April and repeated in May; iii) a survey on the procedures of collection of clinical samples from the suspected patients; iv) a survey of the state of institutional and home-based care for COVID-19 patients and people at risk; and v) the state of home-based COVID-19 care and treatment management. All the studies were qualitative in nature, consisting mainly of in-depth and key informant interviews, along with observations and review of secondary sources where relevant.

Introduction

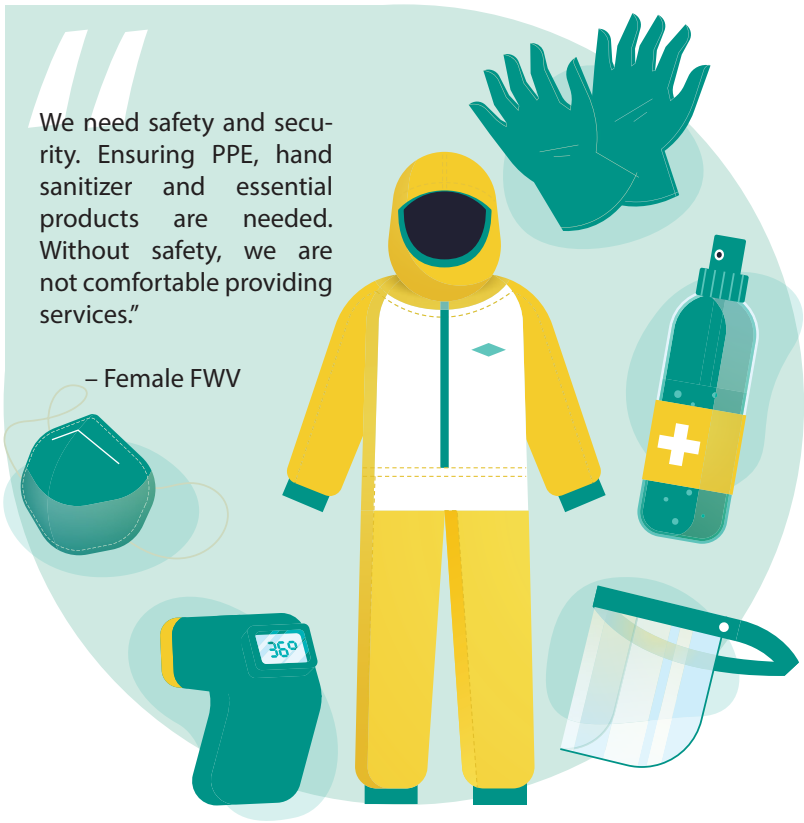
The COVID-19 pandemic officially hit Bangladesh in March, with the first case reported on March 8th by IEDCR. Despite the significant lead time this gave the country following the announcement of COVID-19 as a global public health emergency at the end of January, the initial response was ill-planned, fragmented and very much at odds with the scale of the crisis. The pandemic's spread to Bangladesh was marked by lax control and quarantining of incoming nationals; minimal testing and contact tracing capacities; massive dearth of medical and protective equipment; and no significant efforts to prepare health workers for community transmission despite the obvious risks given the country context.

Since then, the response to the pandemic has undergone several changes – from the panic and fear surrounding the March lockdown to a gradual resumption of daily life, albeit with a worrying trend towards a growing disregard for the disease in these later phases. This policy brief presents the findings from a series of studies conducted over the past eight months that allows for an overview of these changes – from the straggling initial response towards a more defined and streamlined state. Although there are still serious failings that continue to hamper proper healthcare, the intervening months have seen a gradual improvement in some areas which show up in the testimony of both health workers and patients. However, there is much that remains to be done, especially as the winter months approach and fears of a second wave grows.

Findings

Continuing challenges around protective equipment

One of the earlier set of studies in the series looked at the highly publicized crisis of personal protective equipment amongst frontline workers in the first two months of the pandemic. The first round of the survey in mid-April revealed a dismal abysmal picture of health workers state of



preparation, with only 58% of health workers reporting that they had been supplied with PPE, and around 57% having received any training or guidance on its use. A follow-up survey conducted a month later showed a slightly improved scenario, with a near 20 percentage point increase in the availability of PPE found. However, training rates for COVID-19 overall and PPE use were still low, and over 50% of respondents expressed dissatisfaction with the quality of PPE.

Belated expansion of testing

The early stages of the pandemic were defined by IEDCR's role as the central institution for sampling and testing. The scale of the task was well-beyond the capacity of the organisation, and the delay by authorities to establish decentralised testing contributed to the huge backlog in testing observed throughout the middle of the year. This was exacerbated by the lack of equipment and personnel – from mid-April onwards, the collection of samples far outstripped the capacity of laboratories to test. The spread of infection among medical technologists (MTs), also affected the pace and amount of sample collection in many areas, and more than 200 MTs were infected in the country by mid-June.

This phenomenon reflected a broader trend of sub-standard sample collection and testing practices. The study found a number of gaps around testing protocols, including inappropriate way of collecting and storing samples, affecting their viability; poor quality of sample collection tools such as transport media or swab sticks; and unsafe handling practices leading to higher possibility of contamination, such as infrequent hand washing and use of personal belongings and electronic devices in the laboratory. In part, this was due to the limited trainings provided to most sample collectors, mainly in the form of short video-based sessions which were an innovative solution to the constraints on mass physical trainings, but were inadequate in the face of a crisis of this scale without any further follow-up or monitoring.

However, from May onwards, a series of decisions was taken to redress the situation – 600 sample collection booths were opened throughout the country in phases supported by DFID and managed by BRAC; and the government changed the definition of eligibility for testing, requiring samples to be collected only from people who exhibited all key clinical features. The introduction of a fee for testing also helped reduce the number of tests. By mid-July, 81 PCR laboratories were also established across the country (with 45 in Dhaka), of which 36 were in the private sector and 45 in the public sector. While the private sector PCR laboratories charge a high fee of Taka 3,500 for testing, the expansion of sample collection and testing, combined with the emphasis on targeted rather than indiscriminatory testing, have reduced the massive backlogs of the initial phase.

Selected observations on quality of sample collection:

- *In April and the first week of May, the swab fiber used to be made of cotton in at least 40% of cases, as there was shortage of supply of the appropriate swab sticks. Swab sticks were also made of broom sticks, wood or even hair clips*
- *The swab stick was supposed to be gently rubbed and rolled constantly while it was being entered; but in 40% cases, it was not rolled along the entire length of the Nasopharyng*
- *Swab was supposed to be left in place for several seconds to absorb secretions, after pushing it the entire length of the nasal turbinate, but this was not practiced in 90% of the cases*
- *Each specimen container was labeled with the patient's name, ID number (e.g., medical record number), address and the date the sample was collected but addresses were missing or mixed up in 35% cases till mid-May*

Weak case management in a struggling health system

The impact of inadequate testing on the intensification of the crisis was also reflected in the fourth study on COVID-19 case management, which looked at the state of the full cycle of case management—from testing, tracing, quarantine and isolation, to hospitalization—from the perspective of policymakers, healthcare professionals and patients and families.

The lack of testing facilities, equipment, technicians and training was widely seen as having contributed to the transmission of the virus, especially in combination with disorganized and sporadic contact tracing, which lost momentum after some attempts in the early months of COVID-19. In the absence of widespread testing and tracing, isolation of positive patients and quarantine of suspected patients gain even more importance as preventive measures. However, from the beginning, the inability to communicate the difference between quarantine and isolation, along with very limited facilities both at the home or institutional level, meant that the standard requirements were rarely, if ever, met. The lack of community engagement and coordination with local authorities, and inadequate arrangements of quarantine or isolation facilities, food supply, medicines and other essentials, were widely cited as reasons for low levels of compliance amongst patients and families. The exception appeared to be facilities for physicians and nurses, several of whom reported that their hospital authorities provided rooms and meal facilities in hotels, hospital dormitories or hostels.

> *"The authority is trying their best to provide the best services, and we are satisfied with their services. In case of medicines […], hospital authority bears full package through social welfare unit of the hospital. Food quality is very good. Nurses take good care of the patients. When I was there, I saw they visited us often and asked if we needed anything, how we were feeling gave us medicines. However, there was a lack of oxygen supply, ward boys and nurses."*
>
> – Account of 37 year-old patient

> "At the beginning of the infection we successfully did contract tracing, and after that we failed due to a lot of people came from Europe especially from Italy".

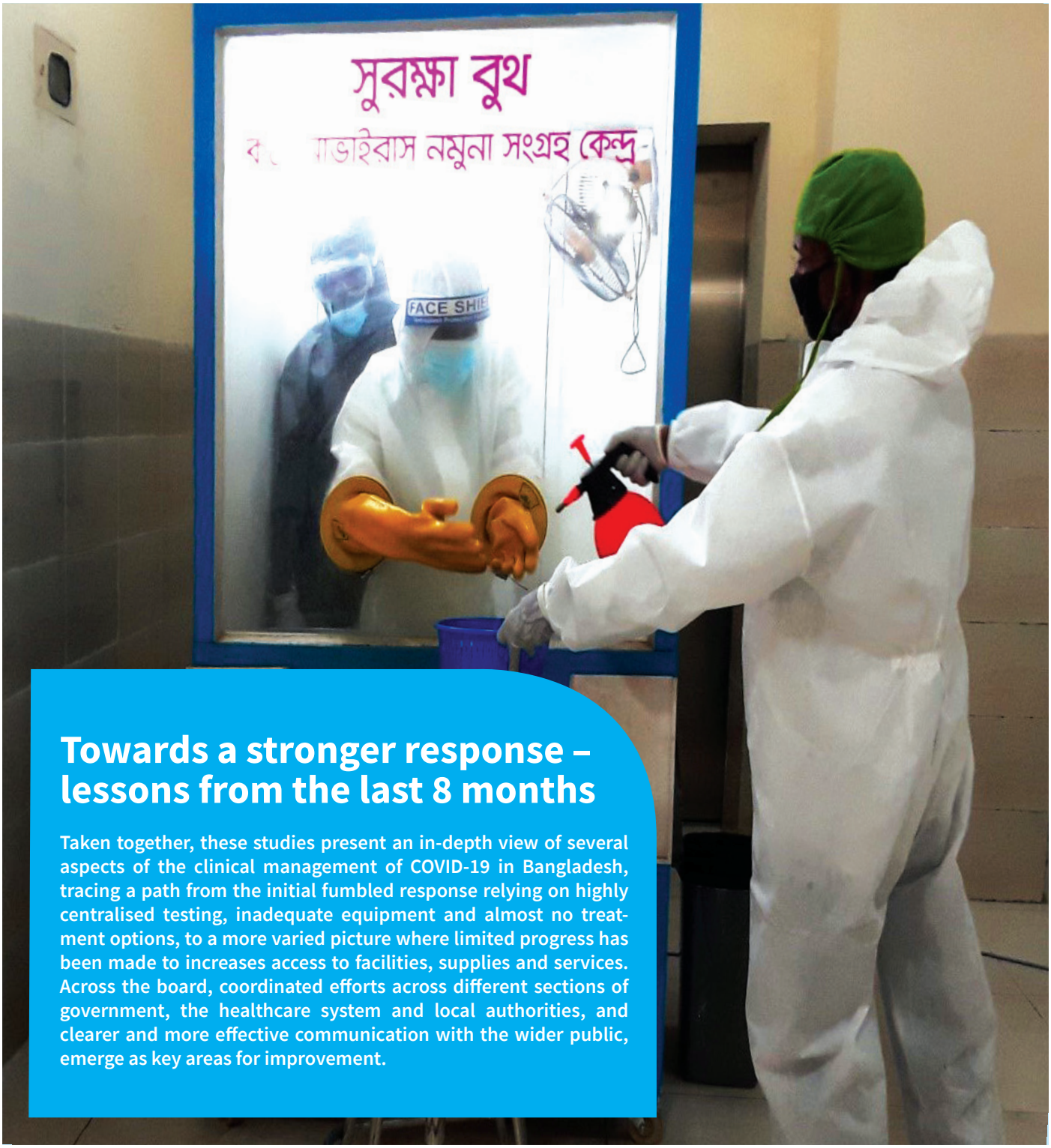
Almost all of the patient participants of the study reported that they were admitted in hospital after getting COVID-19 infection. While Bangladesh's serious shortage of hospital facilities, particularly ICU beds, are an oft-highlighted statistic in any analysis of the pandemic response, it should be noted that most of the patients and attendants reported very positive experiences of facilities and services, including quality of care and attitudes of doctors and nurses. There were exceptions however, with negative comments pertaining mostly to the lack of different types of medical supplies such as PPE, masks or medicines. It is also concerning that on the service providers' side, there were multiple reports of inadequate training and lack of supplies.

Proactive use of alternative therapies in the face of uncertainty

The final study looked at cases that were manage in the home setting, an important area of research given that the majority of patients in Bangladesh do not end up going to hospital. Though there are published guidelines and reviews of pharmacotherapy for COVID-19 from the Director-General of Health Services (DGHS), patients seemed unaware of this, utilizing a range of treatment options from allopathic medicines to supplements, herbal remedies and traditional practices that have become popular through word-of-mouth.
All of the patients interviewed took paracetamol followed by different vitamins such as vitamins A, B and, and most commonly, C (mentioned by 78% of respondents). 66% of patients reported taking Azythromycin, while 10% reported taking Doxycycline, and 9% mentioned Chloroquine and Hydroxychloroquine. In a handful of cases, patients reported using hydrocortisone and Ivermectine. In most cases, the medication was prescribed by doctors either through in-person or virtual consultations. Only 6% of the respondents took homoeopathic drugs and 2% considered the Ayurvedic treatment adjunct to the allopathic treatment.

Alongside antibiotics, all the participants mentioned taking supplementary food such as citrus fruits or extra protein, and traditional home remedies which are largely unproven but widely popular. Gargling hot water gargling (84%), steam inhalation (79%) and drinking hot water (76%) were the most commonly reported practices.

While the use of medicines, supplements and other practices seemed largely safe, a concerning finding is that on average, respondents spent Taka 12,000 on medicines, mainly because of unregulated price hikes and scarcity of some medicines commonly associated with COVID-19 treatment.



Towards a stronger response – lessons from the last 8 months

Taken together, these studies present an in-depth view of several aspects of the clinical management of COVID-19 in Bangladesh, tracing a path from the initial fumbled response relying on highly centralised testing, inadequate equipment and almost no treatment options, to a more varied picture where limited progress has been made to increases access to facilities, supplies and services. Across the board, coordinated efforts across different sections of government, the healthcare system and local authorities, and clearer and more effective communication with the wider public, emerge as key areas for improvement.

Recommendation:

- Proper implementation of national action plans and guidelines is needed, with engagement of local communities, law enforcement and local government. This should include establishing well-resourced quarantine and isolation mechanisms at the community level to allow for rapid detection and control of potential infection hotbeds.
- Targeted investment is required to bridge critical gaps in the healthcare system in terms of both personnel and equipment, including expanding the cadre of medical technologists, and providing all district level hospitals with PCR machines.
- All personnel involved in sample collection and testing, and COVID-19 treatment, should undergo standardized institutional training, with regular refresher sessions.
- Strong monitoring mechanisms need to ensure that across the full spectrum of case management – from testing to treatment – standard protocols are followed with clearly outlined roles and responsibilities for each stakeholder involved in the process.
- Standard treatment guidelines need to be widely communicated, and constructively address the widespread use of popular remedies through scientific, unbiased advice on what can be practiced safely, and what is potentially harmful.
- The cost of COVID-19 treatment appears to be artificially inflated due to the unregulated cost of key medicines – this has to be monitored by relevant authorities.

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