

## Review Article

# Critical analysis of non-COVID-19 healthcare management in Bangladesh during the pandemic

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## ABSTRACT

The corona virus pandemic had a severe impact worldwide. Specially the medical infrastructures got badly affected. Many developed countries faced severe interruption in their healthcare management and suffered a high death toll due to the pandemic. Developing countries like Bangladesh who has poor healthcare management with a weak infrastructure and lack of health care providers had to suffer a lot. The disease burden of non-communicable disease during this pandemic has also emerged as one of the significant public health problems. Despite the low fatality rate in Bangladesh people with co-morbidities were living in fear as the people with co-morbidities and age above 60 years are the most vulnerable. With this backdrop using secondary resources, this paper analyzed the healthcare system in non-COVID-19 disease management in Bangladesh during the pandemic. Analysis shows due to lack of preparedness besides managing the pandemic related challenges Bangladesh faced huge challenges in managing issues related to maternal and mental health related issues. Failure to manage non-communicable diseases properly made the overall health management more vulnerable. By taking proper policy and guideline to manage such challenges in future Bangladesh can be well equipped to face such unavoidable situation in future.

**Keywords:** Healthcare management, Fatality rate, Co-morbidities

## INTRODUCTION

The outbreak of Coronavirus disease (COVID-19) in December 2019 spread rapidly worldwide. Since identified it has become a public health concern and declared as global pandemic from February 2020. It was first identified in Wuhan, China as an acute respiratory disease like pneumonia which spread rapidly through respiratory droplets thus named severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2).

To our surprise many developed countries like the United States, Italy and Spain struggled a lot with this pandemic, however, less developed countries like Bangladesh with poor healthcare services survived better. Still, this pandemic shows the mismanagement and how poor our healthcare service is. Bangladesh is one of the world's most densely populated countries (1,115 people/km<sup>2</sup>)

with 21.8% of people living below the poverty line.<sup>1</sup> With this huge population burden, we have a healthcare system that lacks reliability, responsiveness, and empathy, and that has already been proven inadequate to deliver proper healthcare.<sup>2,3</sup> Furthermore, most of its tertiary medical facilities are mainly urban based which deprives the people living in rural areas.<sup>3</sup> The disease burden of non-communicable disease during this pandemic is one of the emerging public health problems. Despite the low fatality rate in Bangladesh people with co-morbidities were living in fear as the people with co-morbidities and age above 60 years are the most vulnerable.

With this backdrop using secondary resources, this paper analyzed the healthcare system in non-COVID-19 disease management in Bangladesh during the pandemic and shows some policy to improve it further. Thus, the paper has some policy value in the discipline of public health.

## HEALTHCARE IN BANGLADESH DURING PANDEMIC

Like most of the countries off the world at the very beginning of COVID-19 pandemic Bangladesh were having shortage of proper preparedness and planning from the health care services. The very first measure that most of the countries of the world took is social distancing, travel ban, maintaining personal hygiene, and nationwide lock down.

However, as a densely populated country for Bangladeshi policy makers it was really difficult to maintain social distancing properly in public places as well as to imposing other measures like complete travel ban and ensuring personal hygiene like frequent hand washing and others.

On the other hand, in the service delivery side, medical facilities like separate beds, intensive care units, and ventilators, for both COVID-19 and non-COVID-19 patient was far fewer than the required amount in both government and private hospitals. This makes health care professionals struggle to combat the spread of this highly infectious disease.

There are lot of incidents where health care professionals on the COVID-19 front-line tried their level best to help and treat patients with minimal support, even though they do have the ethical responsibility for their own protection.<sup>4</sup> The shortage of appropriate equipment, inadequate number of healthcare facilities make the doctors and other health professionals struggle to provide adequate support.<sup>5</sup>

Doctors and health workers are also vulnerable population during pandemic. Due to this at the beginning a lot of doctors and health workers lost their life due to corona virus. So, most senior doctors refrain themselves to give direct treatment, this also caused shortage of doctors and health workers. Thus, this pandemic created a huge impact on the physical and mental health of the people.

### *Non-communicable disease healthcare*

Access to health care services in low- and middle-income countries like Bangladesh has been interrupted due to this pandemic as nationwide lockdown have been imposed from the very beginning. As in Bangladesh tertiary health care depends on divisional health services mainly in Dhaka and Chittagong. So, movement become difficult for the people living far away from the capital and other major cities. There was disruption of both medical supplies and diagnostics due to this lockdown. On the other hand, most patient who is suffering from chronic disease like Cancer, Diabetes, Heart diseases had to frequently visit hospital for follow-up. The patient with co-morbidities and senior citizen's is at higher risk of developing infection from hospitals and other health care

facilities like laboratories. In Bangladesh About 7% of the country's population are senior citizens.<sup>6</sup> Most of them and many mid-aged people in the country is suffering from non-communicable diseases, including chronic obstructive pulmonary disease (11.9%), cardiac disorders (4.5%), diabetes (9.7%), and asthma (5.2%), and they are especially vulnerable to COVID-19.<sup>7-10</sup> In the other hand, immunocompromised patients like people suffering from cancer are also vulnerable to COVID-19 infection and thus around 1.3 to 1.5 million cancer patients of Bangladesh found at high risk of COVID-19.<sup>11</sup> As most of the hospitals in Bangladesh there is no proper guideline and plan to manage both COVID-19 and Non-COVID-19 patients separately, immune compromised patient like cancer, rheumatoid arthritis, diabetes who are in active therapy have an estimated two-fold increased risk of infection by COVID-19.

As a result, they stopped visiting hospitals to avoid infection, which causing disruption of routine health services, like screening and diagnosis. Thus increases the disease burden of this diseases. Besides, during the upward case surge if these population develops infection, they may require hospitalization and intensive care unit support, which is very limited in our country. During this period, we can see most people are moving from one hospital to other in a search of ICU and ventilation. Even due to shortage of supply of some drugs people were unable to access their regular medicines. This condition became worse when there was increased demand of medical staffs and supportive services due to covid. So, access to the proper health care professionals became difficult for the NCD patients.

### *Strategies for non-communicable disease management during pandemic*

Proper management strategy should be taken for treating patients with NCD during the COVID-19 epidemic which includes proper knowledge of personal hygiene, infection control measures by the healthcare personnel and ensure patient and doctors security, and proper knowledge about the signs and symptoms of COVID-19. To mitigate hospital transmission outpatient visit can be minimized by giving telemedicine and providing health care at home by the professional. Also, non-essential surgeries and hospital visit should be stopped during the high infection period to avoid hospital transmission. For this we need to increase public awareness and make them understand how we can reduce infection by restricting visits. Field hospitals with proper healthcare facilities should administered for the people who live in remote areas.

## MATERNAL HEALTHCARE

Another healthcare service that interrupted due to COVID-19 is maternal healthcare. Both ANC and PNC decreased significantly during lockdown are evident in both short and mid-term analyses of Bangladesh's district statistics.<sup>12</sup> Even Both normal deliveries and c-section

reduced in number which affected negatively on maternal and child health. This year increased death rate of pregnant women due to COVID-19 raise a big public health concern nationwide. It was sometimes advised to avoid pregnancy during pandemic situation. So proper healthcare strategy should be taken to provide antenatal and post-natal follow ups and making the pregnant mothers aware about the COVID-19 infection and side effects people are facing during pregnancy and encourage them to follow the safety measures properly. Maternal ward and delivery unit with ICU should be installed in every COVID-19 dedicated hospitals so that prompt action can be taken in case of emergency.

## MENTAL HEALTH DURING PANDEMIC

Major epidemic and pandemic outbursts have several negative impacts on individual and collective mental health in the society.<sup>13</sup> Mental health problems increased significantly worldwide from last year due to COVID-19 infection and its impact on socioeconomic condition. Coping with mental illness which includes loneliness, anxiety, paranoia, panic, is another public health concern as it has long-term psychosocial impacts. Social distancing, isolation and quarantine measures unduly affect people as interaction with family and friends greatly reduced.

Rajesh et al. shows in their study, three in every four people in Bangladesh suffered from loneliness during the lockdown period.<sup>14</sup> Among them, 39% were suffering from moderate to severe loneliness. People living without family during lockdown are more prone to developing loneliness than people living with family. They also showed, 38% people suffering from mild to moderate depressive illness which is increasing risk of suicidal cases specially women, people of low economic class, unemployed people, students and people living without a family suffering most in depression.

The prevalence rate of anxiety and stress among the students more due to uncertainty in examinations and the job market. People also suffering from sleep disorders during the COVID-19 pandemic. So psychological illness during COVID-19 pandemic rise a big concern for the healthcare personnel. To combat this health issue, the National Institute of Mental Health of Bangladesh has announced some recommendations.<sup>15</sup> Which includes psychotropics, avoiding COVID-19 news to avoid panic, authenticating sources of information, less use of social media, employing simple relaxation techniques such as breathing exercises, and so on.

## CONCLUSION

Analysis of this paper shows during COVID-19 Bangladesh not only fought with the management of pandemic but also struggled to manage with the impact of COVID-19 related other health problem particularly arise from non-communicable diseases. Most people of

Bangladesh struggled to earn their day to day living during the period of shutdown because of inability to access work and earnings. So, they preferred to go out for work instead of living at home. Further, due to the family culture and economic situation social distancing inside and outside home was difficult in Bangladesh. Besides, due to inadequate knowledge about the disease like how it spreads and how to maintain personal hygiene made the COVID-19 epidemic a huge threat to the nation. So good strategy, strict measures and effective implementation should be taken to fight with any such health challenge in future.

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