

Bangladesh notable achievement against covid-19 despite facing crisis in controlling early infectious phase

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Abstract

Since the outbreak of COVID-19 world government has taken various steps to mitigate the spread of infection but low- and middle-income countries faced the most crisis despite their best efforts in place to control the infection. Bangladesh known for densely populated and lowest GDP expenditure in healthcare system. Notwithstanding country confronted various hardship over the COVID-19 pandemic infection control notable in early vaccination but country manage to overcome situation with key elements strategy covering 3 main area. These fortify the country position against COVID-19.

Keywords

Covid-19, Vaccination Program, Bangladesh, Community Support

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I. Introduction

The COVID-19 has triggered an unprecedented global crisis and the world was not ready for such a crisis in such magnitudes. Coronavirus infection not only has caused disease and death but has also affected almost every aspect of human life. Rolling data specifies that on 7 September 2022, more than 603,711,760 individuals were infected by the disease out of which 592,195,251 recovered and 6,484,136 did not survive from the infection [1].

The best-effort the governments all over the world took in order to control the spread of COVID-19 infection was the implementation of nationwide lock down to flatten the infection curve, causing the disruption of daily lives before proper treatment came into light. Imposed mass quarantine produced mass hysteria, anxiety and distress, due to the factors like the sense of getting infected and loss of regular life. These issues were further intensified with constant news of the spread of the COVID-19 on news-media, insufficient supply of basic essentials, financial losses which were magnified further by vague information and indecorous communications over social-media [2, 3].

II. Covid Vaccination

Vaccination is often cited as the most important achievement of public health to fight against any infectious disease. They are financially cheap and convenient for people to stop the spread of any infectious diseases [4, 5]. However, the success of vaccines has always been challenged by individuals and groups who raise questions, and sometimes refuse to accept it. Vaccine hesitancy was declared by WHO as one of the ten greatest global health threats [5, 6].

Worldwide covid vaccination started in the month of December 2020 and the UK was first to initiate the vaccination program against COVID-19, followed by other countries. They started giving permission to various companies to supply essential vaccines to fight against COVID-19. From the start of vaccination, 67.8% of the world population has received at least one dose of COVID-19 vaccine. 12.63 billion doses have been administered globally, and 4.15 million are now administered every day. Only 21% of people from low-income countries have received at least one dose of COVID-19 vaccine. According to the statistics, around 45% of COVID vaccines received by 7 richest countries under the group of the G-7, despite the total population of these countries are around 10% of world population [7]. This created a rush for other countries to secure deals for vaccination for their people to ensure a regular lifestyle.

III. COVID-19 and Bangladesh

COVID-19 was identified in Bangladesh on 8 March 2020 by the institute of epidemiology, disease control, and research (IEDCR), though several experts believed that the virus might have been circulating within the country long before the first diagnosis [8]. After the first death due to COVID-19 on March 18, Bangladesh government imposed a countrywide lockdown followed by two months of government reimposing subsequent lockdown in different phases [8]. People were barred from travelling, and social distancing rules were imposed,

even though there were strong arguments whether the rules for social-distance were being maintained as expected or not. Due to mass lockdown, lots of people lost their livelihood in the cities and forced around 11 million to leave to the countryside and created complications in favor of the spread of the disease [9].

Initially, the fatality rate in Bangladesh was much lower compared to the other highly densely populated countries [10]. However, the numbers of reported cases given by the Bangladesh Government were underrated, as many experts believed that the actual number of infected people was much higher but unidentified due to the shortages or unavailability of test kits [11]. The laboratory facilities for testing were only accessible in the urban areas and the majority of testing laboratories were still considered as few in a country of 165 million inhabitants. The fear of getting infected along with the bureaucratic administrative procedure of testing, and reluctance of private clinics and hospitals towards admitting new patients was a sign of weak governance in the healthcare of Bangladesh [12].

Mass people in Bangladesh had to go through social and economic crises including inflated pricing of daily commodities, financial uncertainties and food shortages. Infected people are sometime facing social stigma and showing suicidal tendency under lockdown. There were even financial reports expressing that the lockdown pushed the poverty level by 40% [9]. Loss of income and fear of losing one's job during the pandemic could be other reasons categorized for higher psychological distress and lower well-being across various professional groups [8].

The Bangladesh government took various steps to control and limit the spread of the infection. Authority tried to enrich knowledge, awareness, attitude and precautionary behavior to reduce the transmission of the highly contagious COVID-19 [13]. The Bangladesh government launched a vaccination program on 27 January 2021 and mass people needed to complete the registration process through a designated website to receive the vaccine, though the process was not convenient for the elderly and rural people [14, 15].

IV. Shadowing Achievement against COVID-19

Bangladesh was one of the fastest-growing economies globally and the second-fastest-growing economy in South Asia with a 166.5 million population in 2020, which is about 2.11% of the total world population [16]. Human development indicators also improved significantly in the past decade - Poverty declined from 43.5% in 1991 to 14.3% in 2016, based on the international poverty line; a sharp increase in life expectancy from 46 years to 72 years, and an increase in women's education and their economic participation [16].

During the pandemic, the government increased the number of test centers and provided necessary training to the expertise though the process was relatively slow and still way below the need compared to the large number of population [11]. Many studies showed that despite significant increase in hospital capacity and number of healthcare personnel during 2005-15 by 57 %, but still the healthcare system in Bangladesh was not fully prepared to handle the COVID-19 crisis. Approximately 80% of total hospitals either from private or public sector are mostly located in major cities, while the rest of the country left without proper facilities, thus rural people finding it difficult to receive health benefits during pandemic [17].

The inability to access affordable healthcare services by the major portion of the population, high population density, difficulties to maintain physical distance and lower hygiene practice provided a fertile ground for spreading the disease.

After the COVID-19 vaccine started to rollout, news regarding adverse effects of the vaccine along with conspiracy theories and misinformation on social media drew the public's attention towards the alternative therapy. Developing countries, like Bangladesh, are very common towards the practice of self-medication, low-cost treatment and avoidance of high cost clinical services. Thus, people are more prone to take alternative medication like antimicrobials, strong NSAIDs, etc. to fight against COVID without any prescription [3]. One study found that only 179 (28.59%) respondents followed or consulted with doctors and rest by media or internet (27.15%), pharmacy or dispensary (24.44%) and friends or family (19.8%) [3] when the sources or advice of medication were considered.

Bangladesh prepared the vaccination program with utmost capabilities as the government allocated more than 1000 hospitals (1005 hospitals) from both government and private oriented sectors and they provided vaccination services from 9am till 3pm. But according to many experts, some of the hospital did not meet their requirement to operate the vaccination program due to their deficiency like shortage of trained personnel to provide vaccines and lack of proper vaccination storage facilities [17].

On 7th February 2021, the government started mass vaccination against COVID-19. According to the health ministry, the government managed to vaccinate 23,08,157 people within 13 days just after the start of the vaccination program. Among those 15,18,715 were male and 7,89,442 were female [14, 15, 18]. According to the health ministry, the Bangladesh government made a deal for 50,00,000 doses of COVID-19 vaccine for the 1st phase of the vaccination program but due to uncertainty, it received 20,00,000 and then needed time to get from the Serum Institute of India, responsible for COVID-19 vaccine delivery. Due to this uncertainty, the speed of mass vaccination became slower [14, 15, 18].

Lack of awareness, distrust of government vaccine sources and safety concerns for vaccines created lower general public acceptance rate and thus developed vaccine hesitancy[19-21]. More than one-third of the participants (32.5%) reported vaccine hesitancy in the present comprehensive national study. Analysis of daily data suggested that vaccine hesitancy varied from 18% to 72% in Bangladesh[20].

V. Overcome hindrance to fight against COVID-19

Bangladesh has a diverse population and its harsh health inequalities, and widening economic and social disparities features presented extreme challenges to overcome the pandemic. The Bangladeshi people have a positive impression towards the vaccination program as the country has succeeded in preventing many infectious diseases through the Expanded Program on Immunization (EPI)[22].

WHO expressed that the majority of people from low-income countries will be remained unvaccinated as most of the vaccine dose was secured by the high-income countries. But the Government of Bangladesh (GoB) was able to initiate early vaccination against COVID-19 because of its prudent vaccine deals, vaccine diplomacy, and past vaccination experiences[12].

At the outset of the pandemic situation in Bangladesh, many private and government organizations mobilized their community health workers, including teachers and microfinance officers, and irregular community support people to reach a greater scale of general people. They focused initially on public awareness, mask wearing, social distancing and handwashing and later provided ground support for vaccinations[23].

Trust and confidence in any vaccine are considered crucial for its success[24]. The most common reason for being unwilling to be vaccinated at an early stage was the distrust in the vaccine[12]. In order to overcome from misinformation, communication strategies like informing the public regarding safety of the vaccine, providing information about registration process for vaccination, and filling the knowledge gaps of long term government policy to contain the infection are crucial[12].

Country heightened the awareness through three primary dimensions: at the individual level, community level and in greater public spaces. As many studies showed that, when community groups became involved, the infection rate declined [23]. Encouragement from others, either from social or professional background and health professional recommendations became the core immunization program to fight against COVID [5].

The GoB has adapted policies by lowering the age limit for vaccination, leaving aside issues of supply of vaccine, making vaccination registration process faster and smoother, addressing the gender gap issue in vaccine registration, tackling misconceptions about COVID vaccine and communicating the need for vaccination. After taking such policies, the vaccination rate improved dramatically in Bangladesh: as of February 27, 2022, GoB successfully administered the first dose to 72% of the total population and 102% of the initial targeted population (DGHS, 2022)[12].

VI. Conclusion

The pandemic like COVID is unique of its kind and we never faced such a scenario despite living in a technologically advanced stage. COVID-19 revealed the shocking delicateness of our healthcare system and societies. It has revealed our inability to cooperate, coordinate and to act together when needed.

Community support was not just a keyword in order to fight against the pandemic. It is important not only to be mindful of social health but also to overcome vaccination hesitancy. It is a complicated time and the government and communities need to come closer to harness key elements to defeat infectious diseases like COVID-19. Adjusted healthcare along with administrative and economic policies are essential measures of a holistic pandemic management without which a country cannot produce desired results for a long-term stream.

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