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EDITORIALS

COVID-19 in the Rohingya refugee camps of Bangladesh: challenges and mitigation strategies

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The UN Secretary General Antonio Guterres has described the Rohingya community of Myanmar as one of the most discriminated ethnic minorities in the world [1]. In August 2017, an escalation in the violence that is referred to as ethnic cleansing forced >600,000 Rohingyas to seek refuge in neighbouring Cox's Bazar District of Bangladesh from their homeland in fear of persecution and death. As of March 2020, there are >800,000 Rohingya refuges residing in 34 camps with the vast majority in the largest single site, the Kutupalong-Baukhali Expansion site in Cox's Bazar [2].This huge influx of Rohingya refugees has created an unprecedented humanitarian crisis in Bangladesh, a country already overwhelmed with its high population density and widespread poverty. The critical nature of the crisis posed the threat of not only social and economic instability, but also potential public health disasters including rapid outbreaks of infectious diseases. The Government of Bangladesh, in collaboration with non-government organizations and international aid agencies, implemented multiple interventions to safeguard the wellbeing of the Rohingya refugees. Nevertheless, refugee communities in the camps often live in overly crowded make-shift homes with sub-optimal sanitation and hygiene facilities and limited access to livelihoods and healthcare facilities, which make these communities hotspots for rapid transmission of infectious diseases[3, 4].

Given the vulnerabilities, since reporting of the first case of COVID-19 from Bangladesh on 8th March 2020, there has been heightened global concern around the potential impact of the pandemic within the Rohingya refugee camps. A rapid transmission of the pandemic within the refugee camps would result in hundreds of deaths and quickly exhaust the limited capacity of the health care system within the camps. A modelling study predicted that the pandemic would result in 18-370 infections in the first 30 days and exhaust the current hospital bed capacity after 55-136 days under low to high transmission scenarios. The study also predicted that there could be >2,000 deaths associated with COVID-19 in the Rohingya refugee camps [5]. As of July 28, 2020, there has been 52 cases and 5 deaths of COVID-19 in the Rohingya refugee camps, as well as 3,241 cases with 57 deaths in the host community. This does not imply that the pandemic will spare the Rohingya communities. As lockdowns and restrictions are prematurely being lifted in Bangladesh, the pandemic can rapidly ravage the refugee camps.

We read with great interest this timely paper by Kamal A-H M et al. titled "Translational Strategies to Control and Prevent Spread of COVID-19 in the Rohingya Refugee Camps in Bangladesh", where authors highlight some of the key challenges and strategies to control the transmission of COVID-19 within the Rohingya refugee camps. Along with the generic challenges faced by Bangladesh in controlling transmission of COVID-19 pandemic including limited testing and contact tracing capacities, complexity of isolation within densely populated households and inadequacy of health facilities[6], the Rohingya communities face unique challenges. The Rohingyas rely largely on food and relief aid for livelihood. As the authors have correctly pointed out, crowding of large number of people and lack of physical distancing during relief aid distribution can fuel rapid transmission of respiratory infections. This is particularly a challenge in reducing transmission of COVID-19 as the disease can spread from pre/asymptomatic carriers[7]. Household level aid distribution by community volunteer workers may work as an alternative approach to reduce transmission, which has already been initiated to deliver soap and other hygiene kits for high-risk populations within the camps such as elderly people, pregnant women and people with disabilities [8]. However, there can be disruption to aid services due to staff reduction and restrictions of mobility during the pandemic which can propagate social unrest, exacerbate inequalities and place women and girls, and other vulnerable populations at greater risks of domestic violence[9].

Considering the uniqueness of the challenges, the authors have divided their proposed translational strategies to prevent transmission of COVID-19 within Rohingya refugee camps into community level, healthprovider and health service level and political (national) level.

Health education

At the community level the authors emphasised the role of health communication to mitigate risk of transmission within the community. There are atleast five different languages spoken within Rohingya communities including Rohingya, Bangala, Burmese, Chittagonian and English and the literacy level remains low. Thus, communication messages should be developed through an interactive and iterative process involving key community stakeholders. The World Health Organization (WHO) also recommends development of communication messages for refuges and migrants in native languages [10]. As discussed in the paper, communication messages should be aimed to improve awareness in the Rohingya communities around symptoms of COVID-19, transmission, prevention, and control measures. Additionally, the authors highlight the need for risk communication to reduce stigma and mental health impacts of the pandemic. There is a rumour prevalent within the Rohingya communities that COVID-19 infected persons will be killed by the authority [3]. Such fear, coupled with anxiety and stress related to restricted mobility within the camps, limited recreational activities and social isolation, may aggravate mental health issues, which is already a concern within refugee camps[11]. The authors further stretch the need for culturally appropriate effective strategies to disseminate the educational messages. The Government of Bangladesh has restricted access to television, radio and internet in the campsites (15), which adds an extra layer of complexity in disseminating educational messages. Additionally, residents living deep inside the camps may have lack of access to these messages. Dissemination of risk communication through religious leaders in mosques/temples using loudspeakers or community volunteers using hand held mikes may have wider penetration and is being practiced within the camps[12].

Health providers and access to healthcare facilities

In discussing strategies to reduce transmission of COVID-19 at health provider and health service level, the authors explain the importance of risk communication for healthcare providers and improving access to healthcare facilities. Risk communication for health providers can be divided within two broad categories: risk communication for healthcare workers and for family members. Health education for healthcare workers to reduce risk of infection centres around appropriate use of personal protective equipment (PPE) and proper isolation of cases within the facilities. While the supply of PPE from the government is limited, international aid agencies have been providing PPE and training on how to appropriately use PPE for healthcare workers in the refugee camps [13, 14]. Practicing infection prevention control (IPC) measures when caring for COVID-19 cases at home can be very different and can be exceptionally challenging for Rohingya communities who live in extremely crowded households with five or more family members living in a single room of size 10-by-16-foot and up to 20 people sharing a single outdoor latrine [11]. Given the context, authors highlight the need for dissemination of home specific IPC measures in the camps to reduce family transmission. In this regard, community health workers who are also Rohingya refugees can play a vital role in educating household members, due to their acceptance within the community and familiarity with native cultural practices [15]. Education on how to wear and store a mask after use, wash hands properly, and other IPC measures for prevention of transmission within homes are particularly important. It is worth mentioning here that women from refugee and host communities have already made around 100,000 masks through community outreach programs [16]. Additionally the United Nations High Commissioner for Refugees (UNHCR) has set up around 13,500 handwashing stations within the refugee camps[17].

According to the Ministry of Health and Family Welfare of the Government of Bangladesh, there are approximately 3.4 physicians and two nurses per 10,000 refugees, which is lower than the national average of five physicians per 10,000 population [18, 19]. However, Rohingya refugees have access to 216 health posts, 36 primary healthcare centers, nine sexual and reproductive health centers, and 25 other specialized care centers within the camps [18]. Additionally, international aid agencies have built two field hospitals with 148 bed capacity specifically for the treatment of COVID-19 Rohingya patients. However, there is no intensive care facilities available in these hospitals which may prompt referral of patients to the 250-bed district tertiary hospital at Cox's Bazar. This hospital generally has a 200% occupancy rate with low infection control measures and suboptimal waste management [5]. To address this acute need, as authors mention there is need for expansion of health facilities within Rohingya refugee camps and developing effective referral pathway.

Political commitment

Multisectoral collaboration between government, non-government and international agencies will be pivotal in tackling the COVID-19 pandemic within the Rohingya Refugee communities. Fortunately, there exists a strong collaborative relationship between Government of Bangladesh, local political leaders, UNHCR, United Nation and other national and international non-government organisations (NGOs),

which places the Rohingya refugees in an advantageous position. This successful collaboration has been able to tackle health emergencies in the past. In 2017, when there was sudden influx of Rohingya refugees in Cox's Bazar , the international and national agencies were collaboratively successful in providing swallowable cholera vaccine to 900,000 Rohingyas (including the 200,000 existing Rohingya refugee) promptly upon their arrival [20]. However, controlling a pandemic is very different compared to controlling a vaccine preventable disease outbreak. As the authors point out, one of the major areas that require strengthened collaborative effort to contain the current pandemic is mobilization of adequate resources needed to test suspected cases, isolate COVID-19 cases and trace contacts of cases. In the absence of an effective vaccine, test, trace and isolate are classical infection control measures to control the pandemic[21].

Up until March 25, 2020, testing of COVID-19 cases using reverse transcriptase polymerase chain reaction (RT-PCR) was limited to only one laboratory based in the capital city of the country. As the Governmentof Bangladesh scaled up testing capacity, Cox's Bazar was one of the first districts outside of Dhaka city where laboratory diagnosis of COVID-19 was initiated (April 2, 2020). Additionally, international, and national NGOs have trained health volunteers to collect samples from Rohingya refugees with clinical symptoms/signs resembling to COVID-19. The single diagnostic facility available for testing is used for testing samples from not only the Rohingyas but also residents of the host community which can lead to substantial delay between sample collection, testing and making the results available. This time lag can further complicate isolation of cases and contact tracing activities. We agree with the authors that there is urgent need to scale up the testing capacity for Rohingya community members. However, testing of samples using highly sensitive RT-PCR technique requires human expertise which remains a constraint in low- and middle-income countries. An alternative approach could be mass testing of Rohingya refugees using antigen based rapid diagnostic tests [22]. Epidemiological modelling has shown that large scale testing, even with lower sensitivity, is beneficial over testing with higher accuracy but limited number of samples [23].

The population density in some of the refugee camps is >65,000 people/sq km which can be portrayed as 13 people living in one tennis court-sized area[24]. These figures highlight the difficulties in maintaining the required 1-2-meter physical distancing and tracing of contacts. In an effort to limit transmission, international donor organisations trained 1440 community health workers to identify suspected cases and also set up institutional isolation facilities. However, by the end June 2020, the isolation facilities were exhausted [24].Given the dire situation, people with mild symptoms are now encouraged to stay at home and health volunteers are being trained to educate Rohingya community members on home-based care [24]. Home isolation of COVID-19 cases within extremely cramped Rohingya households is almost impossible. This could potentially lead to a spike in family clusters of COVID-19 leading to catastrophic outcomes. Hence, institutional isolation and quarantine facilities may be the best strategy to control transmission of COVID-19 within the camps.

Responding to emergency situation in marginalised communities requires strong political commitment, intense collaborative approach and allocation of adequate funds. Despite all the international and national agencies working within the Rohingya camps, funding remains a major concern. Only 29% of the UN appeal for 2020 was funded, which can negatively impact pandemic containment strategies. While all the countries across the globe are grappling to contain the pandemic withing their own borders, the world has a mandate to ensure that the Rohingyas, one of the most marginalised Muslim communities, donot suffer from disproportionate burden of morbidity and mortality associated with the COVID-19 pandemic.

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