Letter To The Editor

Mpox threads in Bangladesh: An emerging health challenge and call for action

Abstract

Bangladesh, is concerned about the risk of Mpox elaborately, monkeypox as a worldwide health emergencies, especially after the arrival of the rapid spreading Clade 1b strain in India. Bangladesh has not yet reported any instances, but there is a high danger of transmission due to huge population density and close border to India. The interim administration is urged in this letter to take proactive steps, such as disease surveillance, cross-border collaboration, and preparedness of healthcare infrastructure. Bangladesh has to improve its readiness in order to stop another breakout and lessen the possible social and economic effects, taking inspiration from the COVID-19 pandemic.

Keywords: Mpox, Disease surveillance, Zoonotic infections, Public health, Bangladesh.

The reemergence of Mpox, especially the fast-spreading Clade 1b strain in South Asia, is an urgent public health concern. With India's first case reported and Bangladesh at high risk, proactive measures are essential to prevent an outbreak. Given Bangladesh's strained healthcare system and dense population, swift action is necessary to avoid a potential crisis.

The Threat Landscape

In areas that had previously been immune to the disease, the resurgence of Mpox (formerly known as monkeypox) as a worldwide health issue has sparked concerns [1]. Although Mpox was once only found in Central and West Africa, recent outbreaks in non-endemic nations highlight a substantial change in the disease's epidemiology [2]. Following India's first case of Mpox involving the Clade 1b strain, which was recorded on September 23, 2024, in Kerala, has taken a concerning turn. This was the first instance of this rapidly spreading variety in the area that was known to exist [3].

Although Bangladesh has yet to report any cases of Mpox, the recent developments in neighboring India indicate that the virus may not be far from the nation's borders [4]. The Clade 1b strain, known for its higher transmission rate, poses a unique threat to densely populated areas. Transmission of Mpox can occur through direct contact with infected animals and humans, or contact with contaminated materials [5]. Given the mobility across the India-Bangladesh border and the presence of shared ecosystems that could harbor zoonotic diseases, the threat of Mpox crossing into Bangladesh cannot be ignored [4].

In addition to the burden on the population and healthcare resources, endemic diseases like dengue, chikungunya, and avian influenza are already causing problems for Bangladesh's healthcare system [6]. An already overburdened public health infrastructure might be severely strained by the introduction of a new viral threat, especially one like Mpox that has

the ability to spread both zoonoticly and human-to-human [7]. Controlling infectious diseases is made extremely difficult by the nation's densely populated cities, tight-knit communities, and high rate of internal movement. Prioritizing proactive measures to get ready for Mpox is essential before the situation worsens and becomes a serious public health emergency [8].

Call for Action

Given these difficulties, the interim administration needs to take immediate action to stop an outbreak of Mpox. A multi-sectoral approach is required, encompassing community leaders, educational institutions, economic sectors, and public health agencies.

Firstly, improving surveillance networks for the Institute of Epidemiology, Disease Control, and Research (IEDCR), especially in high-risk border regions and traffic hubs. By facilitating early case isolation and detection, real-time data sharing will stop transmission at the community level.Prioritize training for healthcare workers to quickly diagnose and manage Mpox cases. Additionally, The Directorate General of Health Services (DGHS) needs to invest in diagnostic labs to facilitate faster testing nationwide. Focusing on Mpox zoonotic nature, collaboration between veterinary, agricultural, and public health sectors is necessary.

Secondly,Public awareness initiatives should educate citizens about Mpox transmission, symptoms, and preventive measures. Mass media should use in these campaigns, focus on the general public, particularly in rural areas. Clear and inclusive messages are essential for combating social media misinformation and fostering a fact-based understanding of the disease.

Thirdly,the interim government should develop a comprehensive preparedness plan, which includes stockpiling of vaccines.Traditional smallpox vaccines that offer cross-protection, should be considered, while simultaneously engaging with international agencies for access

to Mpox-specific vaccines.Sharing real-time data on Mpox cases, virus strains and related information with neighborhood country. Regional cooperation organizations as South Asian Association for Regional Cooperation (SAARC) should be utilized to coordinate outbreak management efforts effectively.

In addition to government initiatives, public awareness can take an active role in preventing the spread of Mpox like Covid-19. Community awareness campaigns should highlight personal responsibility, including practicing hygiene measures. Engaging the public in health campaigns and following safety guidelines are essential for controlling the disease's spread. An informed and proactive public can act as the first line of defense against an outbreak.

Addressing Social and Economic Impacts

An Mpox outbreak in Bangladesh would pose both sociopolitical and economic ramifications, particularly in vital sectors such as the Ready-Made Garments (RMG) industry, foreign remittances, banking and financial institutions, food and agriculture sectors, local and international trade (including both exports and imports), tourism, and informal labor markets. . It could as well affect Gross Domestic Product (GDP) and the strides made towards the achievement of Sustainable Development Goals (SDGs), and employment all which are key to the economy of the nation. Individuals infected or suspected of being infected may experience stigmatization and discrimination, especially if the virus is thought to have zoonotic origins. Zoonotic diseases present a significant challenge to livestock farming, adversely affecting animal health, productivity, and overall agricultural sustainability. These diseases not only result in economic losses for farmers but also threaten food security, trade, and rural livelihoods, underscoring the urgent need for effective prevention and control measures. In order to mitigate these risks, the government needs to employ local and engagement based strategies of communication that are clear and inclusive

that target communities including those who keep or trade in animals. Additionally, the interim government ought to consider economic relief measures to assist families impacted by Mpox or the strategies used to contain it, such as isolation or lockdowns. This will be essential for ensuring adherence to public health measures.

Conclusion

Although Mpox has not yet established itself in Bangladesh, the current circumstances necessitate taking preventative action to safeguard the nation against this new danger. Important lessons regarding the necessity of readiness, quick thinking, and worldwide collaboration were imparted by the COVID-19 pandemic. These lessons must be applied by Bangladesh to the changing Mpox threat. By improving surveillance, raising public awareness, and developing healthcare capabilities, Bangladesh can protect its people from a possible Mpox outbreak and prevent the catastrophic outcomes observed in other places. To guarantee that Bangladesh is completely equipped to handle this new health problem, the interim government and organizations like IEDCR and DGHS must move quickly.

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