

*Commentary***Mpox outbreak: South Asia needs caution not fear****Mobashwer Ahmed**^{1,2,*}¹Department of Ortho Surgery, Rangpur Medical College Hospital, Rangpur, Bangladesh²Center for Multidisciplinary and Contemporary Research, Rangpur, Bangladesh**Article history**

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<https://doi.org/10.33846/hd10906>**ABSTRACT**

The re-emergence of Mpox (formerly monkeypox) has prompted global concern, including in South Asia where cases have surfaced in Pakistan and India. Mpox is a zoonotic virus, primarily spread through direct contact and respiratory droplets, with the 2022 outbreak notably linked to sexual transmission among men who have sex with men (MSM). In August 2024, the World Health Organization declared Mpox a Public Health Emergency of International Concern (PHEIC), urging heightened vigilance. This commentary emphasizes the importance of strengthening disease surveillance at ports of entry, raising public awareness, and targeting high-risk groups, including MSM and HIV-positive individuals. South Asia must also balance its Mpox response with other healthcare priorities. Regional collaboration through SAARC and leveraging local pharmaceutical capacities can enhance preparedness, minimizing the outbreak's impact.

Keywords: Mpox; virus, outbreak; monkeypox; zoonotic disease

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COMMENTARY

The global health community faces an urgent problem with the outbreak of Mpox (formerly known as monkeypox). Mpox virus belongs to the same family as cowpox and smallpox viruses and is a zoonotic illness that can infect humans. The virus was first discovered in 1958 in Denmark in monkeys used for scientific research. The first history of human contact of Mpox was reported in a 9-month-old child in the Democratic Republic of Congo in 1970. While no specific vaccine exists for mpox, the smallpox vaccine can effectively prevent it.⁽¹⁾

Typical Mpox symptoms include fever, headache, muscle aches, backache, lymphadenopathy, and a characteristic rash that leads to scabbing. It spreads mostly through direct physical contact, liquid of vesicle and pustule, body fluid, sneezing, and coughing. Sexual transmission, particularly between men-to-men sex, was a defining feature of the 2022 multi-country outbreak. Those who have previously been vaccinated against smallpox are significantly protected from mpox infection.

According to studies, young homosexual men are the key victims of the monkeypox virus (MPXV), which has significant viral loads in skin and anal lesions and may be spread by close physical contact, 95.3% of 647 instances in a multicenter study were homosexual-bisexual.⁽²⁾ Furthermore, regardless of HIV status, almost all patients with confirmed mpox showed an early increase of activated effector CD4⁺ and CD8⁺ T cells, as well as a pox-specific Th1 cell

response. The general population and MSM responded differently to mpox vaccines in term of antibody responses; individuals born after 1981 showed higher levels of neutralizing antibodies against vaccines, indicating that biological factors might have contributed to the outbreak's development.⁽³⁾

There are two genetically distinct viral clades: the Central African (Congo Basin) clade and the West African clade, now referred to as Clade I and Clade II, respectively. Clade II has two sub-clades: IIa and IIb. Clade II was responsible for the 2022 global outbreak.¹ On August 14, 2024, the WHO Director-General, Dr. Tedros Adhanom Ghebreyesus, once again designated Mpox as a Public Health Emergency of International Concern (PHEIC). Does this second declaration warrant concern for South Asian nations?

In South Asia, the first Mpox case was identified in Pakistan just two days after the WHO's announcement. To date, five cases have been confirmed in Pakistan, along with one case in India. However, no new strains have been detected, with only Clade II identified.^(4,5) According to health authorities, the Clade I strain is not currently present in the region, but it has been detected elsewhere, including in the Democratic Republic of Congo, prompting the WHO's August 14th warning. No Mpox cases have been reported in Bangladesh, Nepal, or Afghanistan. Most cases of Mpox outside Africa have shown low fatality rates, with studies reporting mild and uncomplicated clinical courses, including cases transmitted heterosexually.⁽⁶⁾

At this stage, the surveillance program in the airport, seaports should be the first priority. Education and public awareness are essential for a successful response. Customized messages regarding the prevention, symptoms, and treatment of Mpox should be disseminated using a variety of platforms, such as social media and already-running health initiatives. Special attention is needed for the high-risk categories, which include MSM, sex workers, and HIV-positive individuals. Both the risk of contracting the virus and the likelihood of having severe side effects are increased in these populations. South Asian nations also have to balance the Mpox response with other health objectives, which include addressing issues with finance and resource allocation. The creation of a special task force and the use of the pharmaceutical industry's ability to produce drugs and vaccines locally could improve the nation's readiness. Response efforts could be strengthened even further by regional cooperation

within the South Asian Association for Regional Cooperation (SAARC).

The Mpox outbreak serves as a stark reminder of the importance of investing in public health infrastructure, enhancing disease surveillance and response systems, and prioritizing the health and well-being of vulnerable populations. In conclusion, the risk of cross-border and global spread of Mpox remains significant. South Asian nations must collaborate to share knowledge, resources, and best practices to mitigate these risks effectively.

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Conflict of Interest

The authors declare no conflict of interest.

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