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COMMENTARY

The Mpox Threat: Challenges and Implications of Clade Ib for Afghanistan's Healthcare Stability

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Abstract: The global spread of the Mpox virus represents a significant public health challenge, particularly for regions with fragile healthcare systems. Afghanistan, already grappling with severe healthcare deficits, faces the added threat of Mpox, a zoonotic disease caused by the monkeypox virus. The recent emergence of Clade Ib, a new strain associated with rising outbreak cases, exacerbates concerns as Afghanistan's healthcare infrastructure continues to deteriorate due to reduced international aid, healthcare worker shortages, and an ongoing socio-political crisis. This commentary underscores the urgent need for international intervention to avert a potential public health crisis that could devastate Afghanistan's already weakened healthcare system. It calls for immediate support to enhance disease surveillance, improve healthcare infrastructure, and address the pressing challenges of malnutrition and access to medical services.

Keywords: monkeypox virus, outbreak, Afghanistan

The global spread of the mpox virus has emerged as a significant public health concern, especially in regions with fragile healthcare systems. Afghanistan, a country already struggling with severe healthcare challenges, now faces the additional threat of mpox, a zoonotic disease caused by the monkeypox virus (mpox) from the family Poxviridae and Orthopoxvirus genus.[1]

The virus has two primary clades: Clade 1 and Clade 2. Clade 1a and 1b, which spread more easily through close contact, have been associated with a severe surge in cases. Common symptoms include skin rashes, sore throat, fever, muscle pain, swollen lymph nodes, headache, and low energy. Mpox skin rashes begin as smooth lesions, which develop into fluid-filled blisters that may cause pain or itching, and eventually dry up, becoming scaly and falling off during recovery.[1]

Transmission of mpox occurs from animals to humans through direct contact with body fluids, animal waste, bites, contaminated objects, or consumption of infected animal meat. Human-to-human transmission involves direct contact with infected individuals, sexual contact, skin lesions, contaminated items, and vertical transmission from a pregnant mother.[2] Sexual contact is the most common transmission route (83.8%), followed by person-to-person contact.[3]

From January 2022 to June 30, 2024, 99,176 laboratory-confirmed cases and 208 deaths have been reported across 116 countries. Data shows that 96.4% of cases are male, with an average age of 34 years; only 1.3% are aged 0–17 years, with 0.4% under 5 years. Notably, the majority of cases in this age group were reported in the United States.[3] During the first half of 2024, 36% of reported cases were in the African region, with the Democratic Republic of Congo (DRC) accounting for 95% of these, including over 500 deaths.[4]

Clade Ib, a new strain identified in July 2024, is linked to outbreaks in the eastern DRC It spreads rapidly and primarily affects adults through sexual contact. In contrast, Clade IA, endemic to the DRC, primarily affects children and is transmitted through various contact forms. The Clade IA strain is associated with more severe manifestations than Clade II. Among 100 confirmed cases of Clade Ib in Burundi, 28% are children under five.[4]

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The lack of comprehensive data on mpox, exacerbated by the ongoing political instability, poses significant challenges in data collection and reporting. This is further complicated by limited diagnostic capabilities and the challenges in differentiating mpox from other viral diseases like smallpox. Afghanistan's fragile healthcare system, compounded by political turmoil, severely hampers the accurate tracking and reporting of mpox cases.[5]

With the emergence of Clade Ib-related mpox cases in previously unaffected countries like Burundi, Kenya, Rwanda, and Uganda, the World Health Organization declared mpox a Public Health Emergency of International Concern on August 14, 2024.[3] Sweden and Thailand were among the first non-African countries to confirm cases of Clade Ib, with the latter reporting a high mortality rate.[6]

In Afghanistan, the healthcare system, heavily reliant on international aid over the past two decades, faces a severe crisis due to reduced support and the exodus of healthcare professionals. The country's vulnerability to mpox outbreaks is exacerbated by widespread malnutrition,[7] limited access to healthcare services,[8] and inadequate disease surveillance systems,[8] which hinder early detection and response efforts. Additionally, the lack of public health infrastructure and ongoing political instability create an environment where infectious diseases can spread rapidly. The country is grappling with widespread malnutrition among children and women, exacerbated by droughts, poverty, and unemployment. This is while the World Food Program has eliminated 18 million people who are seriously food insecure and 3.4 million people (who are experiencing critical food insecurity) from its list of assistance in August 2023, and 1.4 million pregnant mothers, children, and other new mothers from the treatment of malnutrition. In addition, 262 mobile and fixed nutrition centers and 173 mobile health and nutrition teams collapsed due to the severe reduction of international funding.[9]

The confirmation of mpox cases in Pakistan has heightened concerns. The second case was reported on August 23, 2024, in Khyber Pakhtunkhwa, Pakistan, near the Afghan border.[10] The rapid deportation of Afghan refugees from Pakistan raises fears of further virus transmission.[11]

Since the Taliban's return to power, Afghanistan's healthcare system has deteriorated due to lack of technical and financial support. Access to adequate health and sanitation services is severely restricted, and the ban on women's education has obstructed the training of future female healthcare workers, exacerbating the shortage of health professionals. Approximately 4 million people suffer from acute malnutrition, with over 875,000 children under five and 804,000 pregnant and lactating women severely affected.[9]

Natural disasters and climate change have further weakened the healthcare system. The earthquake in Paktika and Khost provinces on June 21, 2022, which caused significant casualties and destruction, has compounded the country's vulnerability to infectious diseases.[12]

Access to healthcare services, especially for women and children, is critically constrained. The prohibition of women's education has not only impeded the development of future health professionals but also inflicted an economic loss of $5.4 billion.[12] The migration of health workers seeking better educational opportunities and the exclusion of women from medical fields has led to an alarming decrease in healthcare personnel, with a ratio of 9.4 health workers per 10,000 patients, well below the WHO recommendation of 22.8.[13]

The import of pharmaceuticals, already weak, has become even more problematic under the current regime. Trafficking and illegal drugs from neighboring countries have surged, and the Ministry of Public Health's laboratory lacks the necessary resources to ensure drug quality.[7] As Afghanistan's healthcare system continues to deteriorate due to political instability, economic hardship, and natural disasters, the emergence of the mpox virus poses an additional, grave threat. Without immediate international support and a focused response, the country risks a significant public health crisis that could overwhelm its already fragile healthcare infrastructure.

In addition to the data challenges, insights from local healthcare professionals could provide valuable perspectives on the ground. However, the political instability and limited access to health facilities make it difficult to obtain qualitative data that accurately reflect the on-the-ground challenges faced by healthcare workers and communities in Afghanistan.

In conclusion, the mpox virus poses a serious threat to Afghanistan's fragile healthcare system, which is already weakened by political instability and reduced international support. Immediate international intervention is essential, including financial aid to enhance disease surveillance systems, and the provision of necessary medical supplies. Partnerships with global health organizations could significantly improve diagnostic and treatment capabilities. In the long term, it is crucial to invest in building healthcare infrastructure, training healthcare professionals, especially women,

and implementing comprehensive public health education campaigns. These steps will be vital for stabilizing Afghanistan's healthcare system and preventing future outbreaks.

Disclosure

The authors report no conflicts of interest in this communication.

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