

## Unveiling the Syndemics in Pakistan: Navigating the Challenges of Emerging Diseases like Monkeypox

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Dear Sir,

Pakistan is currently facing a major public health crisis due to the COVID-19 pandemic, devastating floods, and the emergence of Omicron sub-variants malnutrition. In addition, the country is now grappling with the burden of syndemics compounded by the re-emergence of Monkeypox, which poses additional hurdles for healthcare systems and public health officials<sup>1</sup>.

Pakistan has recently confirmed its first two cases of monkeypox in individuals who had travelled to the country from abroad. One of the infected persons, who had been deported from Saudi Arabia, arrived in Pakistan on April 17th while exhibiting symptoms of monkeypox. Another person who had been seated with them during the flight also developed symptoms of the disease. This development has led to the declaration of a national incident in Pakistan. On 25th April 2023, the Ministry of National Health Services Regulations and Coordination confirmed that Pakistan has recorded its first case of Monkeypox. The Health Ministry's representative stated that contact tracing has begun. The virus's infectious nature was verified by the National Institute of Health (NIH) Islamabad, after receiving and examining the patient's samples. To prevent the virus from spreading, the patient's family members are being screened and asked to remain in quarantine<sup>1</sup>. As a precautionary measure, airports and hospitals throughout the country have been put on high alert, and other preventive actions have been implemented<sup>1</sup>.

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Monkeypox is a rare viral disease that is similar to smallpox and is caused by the Monkeypox virus. Monkeypox is typically prevalent in Central and West Africa, although it has also been documented in other regions on occasion. The disease is characterised by symptoms such as headache, chills, fever, muscle and back pain, exhaustion, rash and swollen lymph nodes. A rash commonly appears thereafter, starting from the face and extending to the torso and limbs. The rash evolves from macular and papular, then vesicular and pustular, and finally, crusts form and fall off, leaving a scar. Typically, the disease resolves on its own within a period of 2 to 4 weeks<sup>2</sup>. However, severe cases can occur in immunocompromised individuals, and fatalities have been reported in some outbreaks.

The disease pathology of monkeypox is akin to that of smallpox because both viruses are categorised under the Orthopoxvirus genus<sup>2-3</sup>. The virus replicates in the respiratory tract and enters the bloodstream, leading to a systemic infection. The virus then targets various organs, including the skin, causing the characteristic rash. The disease can be spread through respiratory droplets, direct contact with bodily fluids or contaminated objects, and possibly through the consumption of contaminated meat<sup>3</sup>.

To prevent the spread of monkeypox, public health officials recommend that individuals with suspected or confirmed cases of the disease be isolated and treated in a hospital setting. Contact tracing and surveillance measures should be implemented to identify and isolate any individuals who may have been exposed to the virus. Isolation and quarantine of infected individuals, contact tracing to identify and monitor individuals who have been in contact with infected individuals, vaccination of high-risk individuals, public education on the sign an-

d symptoms of the disease and how to protect against infection, surveillance to monitor incidence and detect outbreaks early, and animal surveillance and control measures to prevent transmission from animals to humans should be considered<sup>4</sup>. Moreover, measures aimed at prevention, including but not limited to, practising good hand hygiene, using face masks, and maintaining social distance, can be useful in preventing the transmission of the disease. Vaccination against smallpox can also provide some protection against monkeypox<sup>5</sup>.

To conclude, the recent resurgence of monkeypox in Pakistan has become an added burden on the public health officials and country's health-care system. This has necessitated the implementation of effective control measures in order to prevent the disease from spreading further. It is critical that these precautions are successful. The disease's impact on public health can be lessened, by implementing these steps and can decrease the likelihood of future outbreaks. Controlling the spread of monkeypox in Pakistan and mitigating its impact on the country's public health is attainable with co-ncerted measures.

## References

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