



REVIEW

THE RAPID SPREAD OF MPOX

The recent spread of a new strain of the mpox (formerly monkey pox) virus across Africa has prompted the World Health Organization (WHO) to declare it a “public health emergency of international concern” (PHEIC) for the second time. The Democratic Republic of Congo is currently the hardest-hit nation. As we face yet another crisis, a question arises: what have we learned from past lessons?

TEXT BY / GAVINO MACIOCCO / DEPARTMENT OF HEALTH SCIENCES, UNIVERSITY OF FLORENCE

IN THE AFTERMATH OF COVID-19

We first became familiar with the term ‘spillover’ during the COVID-19 pandemic. Literally, it means “overflow”, but from a biological perspective it refers to the crossing of a pathogen from one species to another. Coronaviruses typically circulated among animals such as bats, dromedaries, and so forth. But at some point they were transmitted – “spilled over” – to humans, and began to spread within our species as well, resulting in an infectious disease to which nobody was immune.

Such events are not novel; they had occurred in the past. What’s new, however, and deeply alarming, is the speed and frequency with which these spillovers have taken place since the 1980s: HIV/AIDS, Ebola virus disease, avian influenza (bird flu), SARS, swine flu (H1N1 influenza), MERS and COVID-19. The trend is clearly linked to the growing overlap between animal and human habitats driven by deforestation, the growth of megacities, intensive livestock farming, and other environmental pressures.

MPOX

Mpox – formerly called monkeypox – is an infectious zoonotic disease caused by the monkeypox virus (MPXV). It was first identified in humans in 1970 in rural villages in the rainforest areas of Central and West Africa. Several animal species have been identified as susceptible to MPXV, which is especially widespread among primates and small rodents, primarily in Africa. The virus is rarely transmitted by air; the most common method of transmission is direct contact with infected skin lesions or body fluids. The World Health Organization (WHO) first made an emergency announcement about a multi-country outbreak of mpox, declaring it a “public health emergency of international concern” (PHEIC), in July 2022. In May 2023, the WHO declared an end to the PHEIC. However, on 13 August 2024, the Africa Centres for Disease Control and Prevention (Africa CDC) declared the ongoing outbreak a “public health emergency of continental security” (PHECS), and the WHO issued a second PHEIC one day later.

The current outbreak is driven by the emergence of a new clade variant of mpox that is better adapted to human-to-human transmission. The Democratic Republic of Congo is the hardest-hit

country: since January 2023, it has reported more than 27,000 suspected cases of mpox and over 1,300 deaths, with children under the age of 15 bearing the greatest burden of the disease: among this group, the fatality rate exceeds 8%.

A GLOBAL RESPONSE IS NEEDED

“Following WHO’s declaration of this mpox outbreak as a PHEIC,” ran a 15 August 2024 opinion piece in the BMJ¹, “rich nations may resort to travel bans against the affected African nations, rather than offer genuine support. The unjust, racist travel bans that were imposed on some African nations during the SARS-CoV-2 omicron wave are stark evidence. We worry about a resurgence of stigma and racism aimed at African nations, as we saw during the omicron wave and the 2022 mpox outbreak.”

It certainly doesn’t help that at the most recent World Health Assembly in May 2024, no agreement was reached regarding the global sharing of vaccines and medicines during pandemics. In fact, “Africa CDC has reported a need for approximately 10 million vaccine doses to control the outbreak, of which only about 280,000 are available, i.e. less than 3% of the estimated need”.

“In declaring the second mpox-related PHEIC, Tedros Adhanom Ghebreyesus, WHO Director-General, stated that ‘a coordinated international response is needed to stop these outbreaks and save lives.’ This is exactly the need of the hour. In fact, if we had learned the lessons of HIV, Ebola, COVID-19, and the earlier mpox outbreak, we would have already acted to support African countries quickly and cohesively to avert the present crisis. In the immediate term, we must ensure Africa CDC has adequate funding, as well as the full supply of mpox vaccines required to control the outbreak, along with diagnostics and medicines. We need more affordable vaccines and many more manufacturers involved. Africa CDC’s response plan needs the full support of the international community. African nations must work together and mobilize domestic resources to widen public health surveillance, contact tracing, and other measures critical to containing further spread”.

NOTES

¹ Ifedayo MO Adetifa, Madhukar Pai, Mpox outbreaks in Africa—we must avert another failure of global solidarity, BMJ 2024;386:q1803.