



What can we learn from the first 100 days of the monkeypox outbreak?

Jeffrey S. Crowley,¹ Gregorio A. Millett,² Lawrence O. Gostin^{3,4}

¹ Infectious Diseases Initiative, O'Neill Institute for National and Global Health Law, Georgetown University.

² amfAR, The Foundation for AIDS research

³ O'Neill Institute for National and Global Health Law, Georgetown University

⁴ WHO Collaborating Center on Global Health Law

Cite this as: *BMJ* 2022;378:o1966

<http://dx.doi.org/10.1136/bmj.o1966>

Published: 05 August 2022

On 23 July 2022, the World Health Organisation's director-general declared monkeypox a public health emergency of international concern (PHEIC).¹ In the US, the monkeypox outbreak has been declared a national public health emergency, triggering additional resources to help combat the virus.

WHO is now fighting three global health emergencies simultaneously—polio, covid-19, and monkeypox. We are barely 100 days into yet another global crisis, with dire public health warnings that it is already too late to contain monkeypox, which could become endemic in regions outside central and west Africa. Yet, if governments, in coordination with WHO, urgently took three critical sets of actions, we could prevent this. We need to, firstly, fill key knowledge gaps to stem transmission; secondly, anticipate how the pandemic may unfold; and, finally, move from talking about a new global public health architecture to implementing it.

Research suggests that the new monkeypox strain behaves differently than those historically found in central and western Africa.² As of 26 July, there have been more than 19 000 confirmed cases worldwide in 2022, with more than 98% of these in 68 countries outside of the six countries where the virus has been endemic.³ According to data published on 6 July from the WHO, 99.5% of reported cases have been in men,⁴ and, so far, the majority of reported cases have been in communities of men who have sex with men. However, a small number of cases have been identified among transgender women, cisgender women, and children.⁵

Diagnostics, vaccines, and treatments exist for monkeypox, but are in short supply. Higher income countries, like the United States, have been accumulating much of the world's vaccine supplies. We know far too little about the durability of protection following monkeypox infection and monkeypox vaccination, making research and analysis an important priority. As with covid-19, equitable distribution of medical resources is vital and WHO should launch an effective mechanism for fair allocation. Funding and guidance are also needed on educating clinicians and patients, facilitating testing, and prioritising vaccines.

We cannot truly know the course that this outbreak will take, but the absence of detailed modelling is hindering public health strategies and planning. At present, the outbreak is concentrated in Europe and increasingly North America. While imperfect, these regions often have more civil and legal protections for men who have sex with men and transgender people than other parts of the world. As we predict growth in cases in the Middle East and north African countries, and in Brazil, Hungary, and other countries

where men who have sex with men and transgender people are stigmatised or criminalised, how can we focus the response on those currently most affected without fueling stigma and harming communities at elevated risk of monkeypox? The US, PEPFAR Program and the Global Fund for AIDS, TB, and Malaria should be leveraged. They have partnerships in many countries and have technical expertise in working with key populations, ministries of health, and heads of state. Gaps exist, however, and some nations have less developed civil societies and fewer available resources for responding appropriately to key populations.

Before this recent outbreak, monkeypox vaccines and antivirals existed, yet were not widely available in the countries where the disease is endemic, such as in the Congo Basin and west Africa. High income countries must be incentivised to do more to ensure adequate infrastructure, tests, vaccines, and treatments in lower-income countries, even in the face of domestic supply shortages. The covid-19 pandemic has amplified the need for equitable sharing of scientific information and the benefits of biomedical research. We are at a pivotal moment in re-imagining the global health architecture—from the next generation of the ACT Accelerator and its vaccine arm (COVAX) to reform of the International Health Regulations and a new pandemic treaty. Monkeypox adds urgency to the need to move from dialogue to effective action.

Current monkeypox outbreaks are both a warning and an opportunity. The monkeypox pandemic calls for a consistent and robust sexual health approach that focuses on community-led harm reduction strategies. The global community can show that it is capable of protecting civil and human rights and not stigmatising affected communities. Caring for and partnering with affected communities can limit harm and make all of us safer.

Competing interests: JC has written a policy brief on monkeypox for which he used grant support from Gilead Sciences, but this was developed independently without any prior knowledge of the funder. None further declared.

Provenance and peer review: not commissioned, not peer reviewed.

¹ World Health Organization. Second Meeting of the International Health Regulations (2005) (IHR) Emergency Committee regarding the multi-country outbreak of monkeypox. 2022 July 23. Available from: [https://www.who.int/news/item/23-07-2022-second-meeting-of-the-international-health-regulations-\(2005\)-\(ihr\)-emergency-committee-regarding-the-multi-country-outbreak-of-monkeypox](https://www.who.int/news/item/23-07-2022-second-meeting-of-the-international-health-regulations-(2005)-(ihr)-emergency-committee-regarding-the-multi-country-outbreak-of-monkeypox)

² Patel A, Bilinska J, Tam JCH, et al. Clinical features and novel presentations of human monkeypox in a central London centre during the 2022 outbreak: descriptive case series. *BMJ* 2022;378:e072410. doi: 10.1136/bmj-2022-072410. pmid: 35902115

³ Centers for Disease Control and Prevention. 2022 Monkeypox Outbreak Global Map. Updated 2022 July 20. Available from: <https://www.cdc.gov/poxvirus/monkeypox/response/2022/world-map.html>

- 4 World Health Organization. External Situation Report: Multi-country outbreak of monkeypox. 2022 July 6. Available from: https://cdn.who.int/media/docs/default-source/2021-dha-docs/20220706_monkeypox_external_sitrep_final.pdf?sfvrsn=1b580b3d_4&download=true
- 5 Thornhill JP, Barkati S, Walmsley S, et alSHARE-net Clinical Group. Monkeypox Virus Infection in Humans across 16 Countries - April-June 2022[Internet]. *N Engl J Med* 2022;•••-14. doi: 10.1056/NEJMoa2207323 pmid: 35866746