



## **Monkeypox: Did we learn the lesson from COVID-19?**

June 2022

Tommaso Osti<sup>1</sup>, Flavia Beccia<sup>1,\*</sup>, Vasco Ricoca Peixoto<sup>2,3</sup>, Nadav Davidovitch<sup>4</sup>, John Middleton<sup>5</sup>

1. Section of Hygiene, University Department of Life Sciences and Public Health, Università Cattolica del Sacro Cuore, 00168 Rome, Italy.
2. NOVA National School of Public Health, Public Health Research Centre, Universidade NOVA de Lisboa;
3. Comprehensive Health Research Centre (CHRC), Universidade NOVA de Lisboa
4. School of Public Health, Faculty of Health Sciences, Ben-Gurion University of the Negev
5. President, Association of Schools of Public Health in the European Region

\* Correspondence to Flavia Beccia [flavia.beccia@gmail.com](mailto:flavia.beccia@gmail.com)

Monkeypox (MPXV) is endemic in central-Africa. The Democratic Republic of Congo is one of the countries that have been hit harder by MPVX, with 1284 confirmed cases and 58 deaths between January the 1st and May the 8<sup>th</sup> 2022. Similarly, Nigeria recorded 512 confirmed cases between 2017 and 2021.<sup>1</sup>

Until the recent past, MPVX had been contained to the aforementioned areas, although there have been occasionally travel-related cases: in the UK and Israel in 2018, in Singapore in 2019, and in the USA in July and November 2021. These cases did not start community transmission.<sup>2,3</sup>

More recently global public health attention has been drawn to the outbreak of several non-travel related MPVX cases in different high-income countries. The alert started with one isolated travel-case in the UK on May the 7<sup>th</sup> 2022. A week later, on March the 14<sup>th</sup> another 2 cases (apparently unrelated to the first) were detected in community setting, and 4 more on March the 16<sup>th</sup>.<sup>4</sup> As of 31 May, a total of 321 cases have been confirmed from 17 EU/EEA Member States.<sup>5</sup>

The rapid growth of MPVX contagion in Europe and North America has raised concern but was this situation as unpredictable as it seems?

A more in-depth analysis shows the continued presence, over at least the past 5 years, of an uncontrolled spread of MPVX in central Africa, raising the question that it was only a matter of time for transmission to establish in other parts of the world, eventually facilitated by an advantageous mutation.<sup>6</sup>

We can make a comparison between the current situation and what happened with SARS-CoV-2: on December the 12<sup>th</sup> 2019 a cluster of patients in Wuhan began to experience shortness of breath and fever. The Western world observed Asia with mild concern, but even when, in January 2020, the first travel-related cases were recorded into neighboring countries, measures taken were limited to strict contact-tracing.<sup>7</sup> It is now clear that this approach was unsuccessful in limiting the diffusion of the virus as by February 2020, the first cases of community-spread were recorded in Europe and by March WHO had declared the pandemic state.<sup>8,9</sup>

A further parallel can be highlighted with the current management of MPVX: in both circumstances viruses have been treated as "sectoral" entities, including emerging racist sentiments as for the origin of outbreaks and the lack of political will to understand its global health importance, somehow confined to their own endemic area, namely China for SARS-CoV-2 and Central Africa for MPVX. The current approach of the international community seems to be to wait for the transmission to occur on a larger scale, waiting for viruses to spread in non-endemic countries before taking action.

We must dismiss the dangerous narrative that relegates communicable diseases to areas of lower development, using "neutral" terms such as endemicity, concepts totally unhinged by recent events.<sup>10</sup>

The strong level of interconnectedness between countries, coupled with the unpredictability that characterizes viruses when transmission is maintained, requires a radical change in the fight against these diseases.<sup>11,12</sup> We must aim for early elimination strategies on a global scale, aiming at blocking the circulation of infectious agents everywhere, especially through the application of primary prevention instruments. The windows of opportunity are short and we must consider early warning signs to avoid or effectively prevent the establishment of emergent infectious diseases all over the world. A common effort for a stronger implementation worldwide is needed, with adequate financing, capacity building based on local forces and a robust Emerging Pathogens Containment Programme for all countries.<sup>13</sup>

MPVX, as well as COVID-19, reminds us that we have to manage public health crises by learning from the past. There must be global leadership, based first on local capacity building and partnership, recognizing and deploying the knowledge and experience of low income countries, especially in Africa, but supported with the resources of wealthier countries contributing their scientific expertise as equal partners. And we need our politicians to show more global leadership than was the case early in the COVID-19 pandemic. We must stop accepting as deterministic "endemic" situations in poor countries, this is wrong both from a solidarity perspective and from public health utilitarian considerations. We need a reaffirmation of health as a human right. More pragmatically and from the viewpoint of self-interest, political leaders must recognise that promoting our personal safety protects all of us; instead postponing solutions until the problem affects us may be too late.<sup>12,14</sup>

On a longer term basis, the Global Pandemic Preparedness Treaty is being prepared through the International Negotiating Committee of the World Health Assembly.<sup>15</sup> It is essential that it recognizes the need for rapid global response on new outbreaks like MPVX.<sup>16</sup> It is also essential that we grow the capacity and expertise to equip all countries and WHO Regions to respond to health threats. The question is, can political leaders rise to this challenge?

## References

1. World Health Organization. Disease Outbreak News; Multi-country monkeypox outbreak in non-endemic countries. Published May 29, 2022. Accessed May 29, 2022. <https://www.who.int/emergencies/disease-outbreak-news/item/2022-DON388>
2. UK Health Security Agency. Monkeypox: background information. Published May 30, 2022. Accessed May 29, 2022. <https://www.gov.uk/guidance/monkeypox>
3. Center for Disease Control and Prevention. Monkeypox in the United States. Published May 27, 2022. Accessed May 28, 2022. <https://www.cdc.gov/poxvirus/monkeypox/outbreak/us-outbreaks.html>
4. UK Health Security Agency. Monkeypox cases confirmed in England – latest updates. Published May 31, 2022. Accessed May 30, 2022. <https://www.gov.uk/government/news/monkeypox-cases-confirmed-in-england-latest-updates>
5. European Centre for Disease Prevention and Control. Epidemiological update: Monkeypox multi-country outbreak. Published May 31, 2022. Accessed May 31, 2022. <https://www.ecdc.europa.eu/en/news-events/epidemiological-update-monkeypox-multi-country-outbreak-0>
6. Nextstrain. Genomic epidemiology of monkeypox virus. Published June 10, 2022. Accessed June 10, 2022. <https://nextstrain.org/monkeypox>
7. Centers for Disease Control and Prevention. CDC Museum COVID-19 Timeline. Published January 5, 2022. Accessed May 30, 2022. <https://www.cdc.gov/museum/timeline/covid19.html>
8. European Centre for Disease Prevention and Control. Risk assessment: Outbreak of acute respiratory syndrome associated with a novel coronavirus, China: first local transmission in the EU/EEA – third update. Published January 31, 2020. Accessed May 28, 2022. <https://www.ecdc.europa.eu/en/publications-data/risk-assessment-outbreak-acute-respiratory-syndrome-associated-novel-1>
9. WHO. WHO Director-General’s opening remarks at the media briefing on COVID-19 - 11 March 2020. Published March 11, 2020. Accessed May 30, 2022. <https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19--11-march-2020>
10. Becker K, Hu Y, Biller-Andorno N. Infectious diseases – A global challenge. *International Journal of Medical Microbiology*. 2006;296(4-5):179-185. doi:10.1016/j.ijmm.2005.12.015
11. Auladell M, Jia X, Hensen L, et al. Recalling the Future: Immunological Memory Toward Unpredictable Influenza Viruses. *Frontiers in Immunology*. 2019;10. <https://www.frontiersin.org/articles/10.3389/fimmu.2019.01400/full>
12. Labonté R, Mohindra K, Schrecker T. The Growing Impact of Globalization for Health and Public Health Practice. *Annual Review of Public Health*. 2011;32(1):263-283. <https://www.annualreviews.org/doi/10.1146/annurev-publhealth-031210-101225>
13. WHO, World Bank, Gavi, UNICEF, IMF, WTO. Accelerating COVID-19 Vaccine Deployment: Removing Obstacles to Increase Coverage Levels and Protect Those at High Risk.; 2022. Accessed May 30, 2022. <https://www.who.int/publications/m/item/accelerating-covid-19-vaccine-deployment>
14. Dr Tedros Adhanom Ghebreyesus. Health is a fundamental human right. WHO. Published December 10, 2017. Accessed May 27, 2022. <https://www.who.int/news-room/commentaries/detail/health-is-a-fundamental-human-right>
15. WHO. World Health Assembly agrees to launch process to develop historic global accord on pandemic prevention, preparedness and response. Geneva. Published December 1, 2021. Accessed June 1, 2022. <https://www.who.int/news/item/01-12-2021-world-health-assembly-agrees-to-launch-process-to-develop-historic-global-accord-on-pandemic-prevention-preparedness-and-response>
16. WHO. National workforce capacity to implement the essential public health functions including a focus on emergency preparedness and response. Published May 17, 2022. Accessed June 2, 2022. <https://www.who.int/publications/i/item/9789240050402>