Mpox outbreaks in Africa constitute a public health emergency of continental security

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On Aug 13, 2024, the Africa Centres for Disease Control and Prevention (Africa CDC) declared mpox a public health emergency of continental security (PHECS) in Africa, acting under its mandate to address significant public health threats. This mandate was established in July, 2022, by the Executive Council of the Africa Union (AU) Assembly through its decision EX.CL/Dec.1169(XLI), empowering Africa CDC to coordinate responses to epidemics by mobilising African leaders, governments, and relevant agencies.[1]

The decision was driven by the worsening mpox situation on the continent: since 2022, 40 874 cases and 1512 deaths have been reported across 15 AU member states. In 2024 alone, 17 541 cases and 517 deaths have been reported from 13 AU member states. These figures represent a 160% and 19% increase in the number of cases and deaths, respectively, in 2024 compared with the same period in 2023. A 79% increase in the number of cases was observed in 2023 compared with 2022. The Democratic Republic of the Congo (DRC) accounts for 96% of all cases and 97% of all deaths reported in 2024.[2]

Investigations in the DRC suggest that heterosexual transmission, especially among female sex workers (9%), is driving the outbreak,[3] contrasting with the spread mainly among men who have sex with men in Europe in 2022. The high prevalence among women raises concerns about vertical transmission risks and adverse pregnancy outcomes.[4] The high risk of severe infection among people living with HIV, considerations for asymptomatic infections, poor vaccination strategies, limited access to medical countermeasures, and low detection rates were other concerns. The outbreak is further complicated by a high case fatality rate of over 3·9%, particularly among children younger than 15 years, who account for 60% of cases. Cross-border movements, low public awareness, high vulnerability due to factors such as HIV and malnutrition, limited understanding of mpox transmission, and insufficient response capacities, including vaccine shortages, pose significant challenges to containment. The risk of mpox spreading to neighbouring countries and globally is high.

The day before the PHECS announcement, 15 of the 20-member Emergency Consultative Group (ECG) met to advise the Africa CDC Director General on whether the mpox outbreak constituted a PHECS. The group redefined PHECS as a significant event posing a risk to other countries, requiring immediate continental-level action to prevent and mitigate disease spread—expanding the original definition in the Africa CDC statute.[1] They also developed specific criteria to assess the situation objectively. These criteria, organised into nine areas, included: disease severity, transmission dynamics, impact on health systems, vaccine and treatment availability, public health risk, economic and social impact, public concern, global health security, and political considerations (table). The framework was developed to guide a transparent and consistent decision-making process for declaring a PHECS in Africa.

The ECG also acknowledged concerns about the timing of declaring a PHECS due to the risk of causing global panic or complacency. This issue stems from the binary nature of the International Health Regulations (IHR) system, whereby a PHIEC declaration is the only alert level, limiting the WHO's ability to effectively communicate outbreak severity. The ECG supported the introduction of a phased alert system, integrating the IHR alert system, to focus on prevention, detection, and containment at global and regional levels. They proposed that each phase should have clear, transparent criteria and evidence-based recommendations, with a public health emergency of international concern (PHEIC) declaration as the highest alert level.

Finally, the ECG stressed the importance of providing clear guidance and defined obligations for governments after a PHECS declaration, recognising the political and economic sensitivities involved, such as the negative impact on international trade and tourism. For example, South Africa and Botswana faced travel bans after identifying the COVID-19 Omicron variant, which was criticised as punitive.[5] The ECG recommended reforms to incentivise timely reporting and international cooperation.

Key urgent issues for immediate action include clear guidance on vaccine negotiations and the establishment of an actionable plan. This plan should focus on enhancing surveillance, testing, diagnostic capabilities, contact tracing, and ensuring vaccine availability. In

	Description
1. Severity of the disease	
Morbidity and mortality rates	High rates of severe illness and death can prompt a PHECS declaration. The decision-makers consider the number of cases, severity of symptoms, and death rates.
Potential for severe outcomes	Even if current cases are not severe, the potential for severe outcomes, particularly in vulnerable populations (eg, immunocompromised individuals, children), is a critical factor
2. Transmission dynamics	
Spread across borders	If the disease is spreading across multiple regions or countries, this could indicate a significant threat to public health
Modes of transmission	Understanding how the disease spreads (eg, human-to-human transmission, animal reservoirs) is essential for assessing the potential for further spread
3. Impact on health systems	
Health-care system strain	If the outbreak overwhelms health-care facilities, leading to shortages in beds, supplies, or personnel, it could warrant a PHECS
Disruption to essential services	The impact on essential health services (eg, routine immunisation, maternal care) is also a factor
4. Vaccine and treatment availability	
Availability of effective interventions	If there are vaccines or treatments available, and their deployment could control the outbreak, this is a critical consideration
Equitable access	The ability to ensure equitable access to vaccines and treatments across affected regions is important for the decision
5. Public health risk	
Potential for international spread	The risk of the disease spreading internationally beyond the continent is a significant concern
Public health infrastructure readiness	The readiness of public health systems to detect, report, and respond to the outbreak is evaluated
6. Economic and social impact	
Economic disruption	The outbreak's impact on economies, including trade, travel, and broader economic stability, is considered
Social disruption	Considerations include the potential for social unrest, displacement, or significant societal disruption due to the outbreak
7. Public concern and fear	
Level of public concern	High levels of public fear or concern can influence the decision, especially if they lead to behaviours that exacerbate the outbreak (eg, stigma, avoidance of health care)
Misinformation and communication challenges	The spread of misinformation or lack of public understanding about the disease may necessitate a stronger coordinated response
8. Global health security	
Alignment with International Health Regulations	Coordination with global health entities, such as the WHO, to ensure consistency in response efforts and compliance with International Health Regulations is important
Collaborative response needs	If the outbreak requires significant international collaboration or resources, a PHECS might be declared to facilitate this
9. Political and governance considerations	
National and regional Government support	The decision often involves consultations with national and regional governments to ensure their support and alignment in the response
Need for emergency resources	If declaring a PHECS would unlock necessary resources, such as funding, personnel, or emergency powers, this could be a deciding factor

Table: **Criteria for decision-making on the declaration of mpox as a public health emergency of continental security (PHECS)**

addition, a research collaborative group should be established to drive the mpox research agenda, provide updated epidemiological data, share information across African countries, and address gaps in understanding the disease's spread, especially in the DRC. The group should also propose alternative strategies for mpox control, reprioritising vaccination efforts toward vulnerable groups.

The Africa CDC's decision to declare a PHECS is a major step in driving regional ownership of the mpox outbreak response. This declaration not only mobilises African leaders, governments, and partners but can also strengthen coordination among key stakeholders, ensuring a unified and proactive approach to addressing this and other future health crisis in the region. It underscores the importance of regional collaboration and leadership in managing public health threats, fostering a more resilient and self-reliant Africa in the face of global health challenges.

We declare no competing interests.

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1 Africa CDC. Statute of the Africa Centers for Disease Control and Prevention (Africa CDC). https://africacdc.org/download/statute-of-the-africa-centers-for-disease-control-and-prevention-africa-cdc/ (accessed Aug 14, 2024).

2 Africa CDC. Africa CDC epidemic intelligence weekly report, August 2024. https://africacdc.org/download/africa-cdc-weekly-event-based-surveillance-report-august-2024/ (accessed Aug 14, 2024).

3 Katoto PD, Muttamba W, Bahizire E, et al. Shifting transmission patterns of human mpox in South Kivu, DR Congo. *Lancet Infect Dis* 2024; **24:** e354–55.

4 Fahrni ML, Priyanka, Choudhary OP. Possibility of vertical transmission of the human monkeypox virus. *Int J Surg* 2022; **105:** 106832.

5 Jackson C, Habibi R, Forman L, Silva DS, Smith MJ. Between rules and resistance: moving public health emergency responses beyond fear, racism and greed. *BMJ Glob Health* 2022; **7:** e009945.