Clade IIb mpox outbreak in Sierra Leone

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The current mpox outbreak in Sierra Leone is the largest ever recorded in the country and the first major epidemic caused by the clade IIb monkeypox virus in Africa. Since a public health emergency was declared on Jan 13, 2025,[1] 3682 confirmed cases have been reported in Sierra Leone (as of June 4, 2025), with 2225 (60·4%) cases in Freetown (western urban), 748 (20·3%) cases in nearby suburban towns (western rural), and 709 (19·3%) cases distributed across the 14 other districts. Case numbers remained low throughout mid-April, but surged in late April (week 17) and throughout May, exceeding 600 confirmed cases weekly and indicating sustained transmission despite early signs of stabilisation (unpublished data).

The outbreak is mainly affecting young adults aged 20–34 years—including sex workers—and genital lesions are prevalent, suggesting substantial sexual transmission, as seen in clade IIb outbreaks in non-endemic countries since 2022 (unpublished data). Unlike those outbreaks, however, females and males are equally affected in Sierra Leone (47·5% female and 52·5% male). This pattern contrasts with historical clade IIb outbreaks in west Africa, which were typically small, zoonotic, and had little human-to-human spread.[2] Instead, this outbreak resembles clade Ib outbreaks in DR Congo, Burundi, and Uganda,[3,4] which were larger in scale, with broader geographical and demographic spread and similar rates of infection among females and males. This blurring of traditional clade-related phenotypes suggests that host, environmental, and social factors might be as determinant as viral genetics.[2]

Unpublished genomic sequencing of 77 samples by the Ministry of Health with regional and international partners[5] shows a novel clade IIb lineage—A.2.2.1—derived from Nigerian A.2.2 viruses but forming a distinct monophyletic cluster, indicating local diversification. Bayesian analysis estimates the most recent common ancestor to be from mid-November, 2024, suggesting 1–2 months of undetected community transmission before the first confirmed case.[5] High *APOBEC3* mutation loads support ongoing human adaptation.

Clinical data from a preprint paper[6] of 161 patients with probable or confirmed mpox show high rates of rash, fever, and generalised pain, with many patients also reporting lymphadenopathy, sore throat, and cough. Admission to hospital was required in 28·9% of patients, often due to disseminated lesions—particularly genital—again indicating sexual transmission.[6]

Vaccination began in Freetown and surrounding high-risk areas in March, 2025, targeting health-care workers, known contacts of people with confirmed disease, people living with HIV, military workers, and university students. As of June 4, 2025, more than 43 000 people have been vaccinated, but with only 80 000 doses delivered, the remaining doses are insufficient for large-scale vaccination (unpublished data). A new 400-bed mpox treatment centre is now operational in Freetown, but many patients still isolate at home due to low capacity and personal preference (unpublished data). The Government plans to open large-scale centres outside the capital. Contact tracing is nationwide, but situation reports show a declining number of listed contacts per patient with confirmed disease, likely due to rising caseloads and increasing strain on the system. Molecular testing is active at eight sites, with plans to expand (unpublished data).

Surveillance gaps likely contribute to under-reporting in rural areas. The Government has deployed rapid response teams and trained personnel for case investigation, and backlog data entry into the national health database continues. Community outreach and risk communication via radio, television, and targeted messaging is ongoing. The Africa Centres for Disease Control and Prevention have flagged the outbreak as a growing threat to the region.[7] With Liberia reporting an increase in cases and with spillover effects in Togo and Ghana,[4,7] the risk of cross-border spread is real. Genomic data have shown both viral imports and exports to and from Sierra Leone, including two sequences sampled in the USA and two in Germany,[5] underscoring the need for coordinated surveillance, sequencing, and vaccine allocation across west Africa.

Accelerated vaccine delivery is urgently needed—not just in Sierra Leone, but across the region—to prevent wider dissemination of this evolving virus.

The unpublished data cited in this Correspondence come from situation reports supplied by the National Public Health Agency of Sierra Leone, to which the authors and editors have had access. We declare no competing interests.

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Leptospirosis deaths in children in the Amazon: syndemic inequities

We write to highlight an urgent, yet preventable public health tragedy unfolding in the Ecuadorian Amazon. In May, 2025, eight Indigenous Achuar children from Taisha—an Amazonic village from the Morona Santiago province—died from leptospirosis,[1] a zoonotic disease transmitted through contact with contaminated water or soil. The outbreak involved at least 46 symptomatic individuals,[2] some with confirmed co-infections of dengue virus and *Salmonella* spp.[3]

In Taisha, an isolated Amazonian district of just 26 773 inhabitants, the mortality rate from leptospirosis reached 29·8 per 100 000 people, nearly 600 times higher than the national average reported in the last 20 years of available data (0·05 per 100 000 people).[3] The fatality rate in Taisha (17·4%) far exceeds Ecuador's national average (3·06%) and echoes other deadly outbreaks, such as the 2022 outbreak in Lindi, Tanzania,[4] and the 2012 outbreak in Fiji, which caused 40 deaths (7·0% fatality rate).[5]

Leptospira thrive in tropical regions where environmental, socioeconomic, and infrastructural vulnerabilities converge. The Amazon rainforest is hot, humid, and remote, with little access to potable water and health care, high rates of child malnutrition, and Indigenous communities dependent on bushmeat for subsistence. These conditions create ideal circumstances for zoonotic diseases, which are further exacerbated by close contact with wild animals and rodents that roam freely over cooking utensils, water containers, and latrines, closing the loop of vulnerability and transmission.[6]

This crisis demands global attention, not only because it is one of the deadliest leptospirosis outbreaks ever reported, but also due to its pandemic potential stemming from intense human–animal–environment interactions in Amazonian communities, which have long been identified as viral spillover hotspots. These intersecting vulnerabilities converge most severely in remote, marginalised populations in which illness is often treated first by traditional healers or shamans. Formal medical care is typically sought only when symptoms worsen, often after long and arduous journeys. In Taisha, some patients survived after reaching hospitals late, but many died once the outbreak had already advanced beyond timely intervention.[7]

We urge the Ecuadorian Government to respond decisively. A culturally adapted intervention is essential. Emergency response teams must be deployed to affected areas with the capacity to implement onsite protocols, including point-of-care diagnostic tools and treatments. Health education must be delivered in Indigenous languages, accompanied by preventive interventions, such as water filtration systems, mosquito nets, and rodent control. Establishing community-managed first aid kits and training Indigenous health workers could reduce delays in care and improve early detection. Without sustained, equity-oriented interventions, future outbreaks will remain inevitable. The deaths of these children are not only a public health failure, but they are also a call to action for a One Health approach that upholds dignity and centres the most vulnerable in global health priorities.

We declare no competing interests.

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Population health impact of NICE-recommended new drugs

Huseyin Naci and colleagues[1] suggest lowering the quality-adjusted life-year (QALY) threshold for new drugs, thereby reducing the potential negative effect on population health by opportunity costs.

However, in our opinion, prices for new drugs are also based on protection of intellectual property rights and