Mpox Outbreak in Uganda: Insights and Lessons Learnt

The World Health Organization Uganda Country Office team shares their experiences, challenges, and lessons learned from managing the Mpox outbreak in the country.



Training the community

Introduction

On July 24th, 2024, Uganda declared an Mpox outbreak, kickstarting a comprehensive response spearheaded by the Ministry of Health (MoH) with extensive support from the World Health Organization (WHO) and partners. By 16th April 2025, the country had reported 5,431 Mpox cases with 40 deaths, representing a case fatality rate of 0.74%.

The outbreak in Uganda is driven by Clade1b, which is also prevalent in Central Africa and the Democratic Republic of Congo. The 2022–2023 global outbreak was fueled by the Clade IIb strain and affected countries such as Nigeria, Cameroon, and South Africa. It continues to circulate at low levels in several countries.

Uganda's vulnerability to zoonotic diseases such as Mpox stems from multiple factors, including its geographical location in the epidemic-prone tropical belt of the Congo basin, high cross-border movements, and increased human-to-animal interaction. Population pressures and reliance on cultural practices, such as seeking treatment from traditional healers during illnesses, that delay early detection and treatment of outbreak diseases exacerbate the situation.

Although Uganda's vast experience in managing viral disease outbreaks such as Ebola and Marburg has strengthened the country's health systems to respond effectively, the Mpox outbreak has presented a unique set of challenges, including engaging and dealing with marginalized and key populations such Commercial Sex Workers (CSWs), drug users, and men who have sex with men. This article explores some of the critical insights and lessons drawn from Uganda's response to Mpox, which hopefully will contribute to strengthening the country's resilient health system even further.

Multisectoral and multi-level Coordination are Vital

Upon declaring the Mpox outbreak, the Ministry of Health, supported by WHO, established and operationalized the Public Health Emergency

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Operations Centre (PHEOC) Situation Room, equipping it with essential infrastructure and technology for coordinated incident management. The PHEOC supports communication and coordination between national, regional, and district-level teams.

Through its operation, the PHEOC has held regular high-level meetings, produced a 4W matrix (Who is doing What, Where, and When), and distributed situation reports. These have ensured transparency and minimized duplication, improving resource targeting as all stakeholders are informed and engaged in the response. To augment the PHEOC, WHO has also deployed 15 technical officers to support the Incident Management Team (IMT) and 16 districts countrywide to establish their response units.

Yet despite such achievements, the coordination and resource mobilization team has not been able to close an acute funding gap of over 53%. This has constrained the implementation of many planned activities, contributing to the continued spread of the infection. In addition, limited engagement of civic and political leaders and limited multisectoral collaboration hinder the full implementation of response plans.

A key insight from the PHEOC's operations is the critical role of multisectoral and multilevel coordination in outbreak management and leadership, which are inadequate in the current Mpox outbreak. Multisectoral and multilevel coordination must always be harnessed and integrated for an agile and sustained outbreak response.

Community Engagement for early Outbreak detection

WHO and MoH activated surveillance structures nationally and in the affected districts, deploying 16 epidemiologists and training 783 health workers to identify cases and trace contacts. Tools like case definitions, investigation forms, and contact follow-up templates were developed and distributed, including at Points of Entry (PoEs).

One major innovation was the school-based surveillance effort and Village Health Teams' (VHTs) orientation to support active community-level case searches. This has improved awareness levels and increased community alerts. More than 2,500 Mpox alerts have been received from communities. The decentralized surveillance structure has enabled real-time case mapping and informed targeted risk communication strategies, which are critical to suppressing the spread.

Key surveillance challenges have centered around delays in clinician data entry affecting real-time tracking and the need for more clinicians trained in digital data systems. At the same time, it was apparent that strengthening community-based surveillance and rapid response should be at the frontline of outbreak containment.



Protective gear for health workers

Decentralize and equip laboratory systems for timely diagnosis and outbreak control

WHO supported MoH in procuring and distributing sample collection kits, DNA extraction kits, and PCR reagents, in addition to facilitating the training of 2002 health workers in sample handling, biosafety, and biosecurity. Results dispatch systems were also activated, enhancing efficiency. However, the centralized nature of laboratory testing and reliance on routine transport schedules revealed a key bottleneck. WHO's proposed solution included activating mobile laboratories like the one in Adjumani and incorporating backup vehicles into the National Specimen Transport Referral Network to cut turn-around times, which is currently a big challenge. From this, the need for decentralized and well-equipped laboratory systems for timely diagnosis and outbreak control comes out clearly.

Holistic and Decentralized Case Management is essential for effective outbreak response

WHO worked closely with MoH to reactivate the case management pillar with sub-components addressing clinical care, infection prevention and control (IPC), nutrition, emergency services, Mental Health & Psycho-Social Support. The pillar developed and disseminated a national clinical guideline toolkit and a screening/triage algorithm to health facilities nationwide. In addition, mortality audits provided insights into areas that needed improved clinical response, while WHO's supportive supervision across the 16 health regions helped standardize care. National databases of case managers and specialists were created to guide response and capacity building. To improve sustainability, WHO assessed regional referral hospitals using the STAR-H tool and supported the construction of more permanent isolation units, a shift away from temporary structures. This has resulted



A health worker taking a sample

in a 99.46% recovery rate from Mpox, a significant public health success. Consequently, it is noted that case management requires a holistic, decentralized clinical care model, including mental health, which is essential for effective outbreak response.

Infection Prevention and Control (IPC) should be context-specific, well-resourced, and rapidly scalable

WHO and MoH developed and disseminated standardized mpox IPC training tools to boost IPC efforts and conducted assessments in 109 facilities. The organization also defined IPC supply needs for setting up isolation units. Stock-outs of sample kits and delays in test results due to rigid transport systems were key challenges in ensuring adequate IPC. A significant learning was the need to integrate IPC training early and broadly across health facilities, especially with Mpox's skin lesion presentation posing a high risk of cross-infection. In other words, IPC needs to be context-specific, well-resourced, and rapidly scalable.

Risk Communication and Community Engagement (RCCE) should leave no one behind.

WHO and MoH used multi-pronged risk communication and community engagement approaches, including conducting anthropological studies that assessed community perception and informed RCCE strategies through evidence-informed messaging, especially targeting key populations often facing stigma and misinformation. RCCE structures were activated in high-risk districts, supported by WHO-trained RCCE officers. Using other RCCE approaches such as strategic placement of Information, Education and Communication (IEC) materials in local languages, mass media campaigns, use of digital vans and engagement of journalists, community influencers, and peer educators, health teams were able to reach various audiences, including the hard-to-access key populations. However, the shortage of IEC materials and limited resources to engage stakeholders have dogged deeper community engagement activities.

From the RCCE activities, it was clear that engaging and working with marginalized and key populations such as Commercial Sex Workers (CSWs), drug users, and men who have sex with men using existing community platforms and ensuring culturally sensitive communication are key to building community trust and participation in outbreak response.

Prevent and respond to Sexual Exploitation, Abuse, and Harassment (PRSEAH)

WHO and MoH staff also took proactive steps to embed PRSEAH across all response structures by briefing deployed personnel and peers of key populations on PRSEAH. Reminder educational materials such as bracelets, T-shirts, and "No Excuse" cards were distributed to respective audiences. PRSEAH was integrated PRSEAH into the Incident Management System and the Inter-agency PRSEA Network. However, PRSEAH activities were hindered by limited trained structures at district and regional levels and weak integration with government systems. It is important to note that PRSEAH is a key aspect of any outbreak response as it builds accountability, trust, credibility, and safety in public health systems.

Recommendations

For effective coordination, it is critical to incorporate lessons learned from evaluating the response intra- or after into related plans and policies to sustain, adapt, and promote key elements of the response and inform public health policies and programmes. The coordination team should also scale up resource mobilization and advocacy with UN partners and integrate PRSEAH and multisectoral collaboration into all district-level responses.

Regarding surveillance, the overall aim should be to eliminate human-to-human transmission of mpox by anticipating, detecting, preparing for, and responding to mpox outbreaks and taking action to reduce zoonotic transmission, as appropriate. The National and District Surveillance team should train more clinicians on data entry and boost community-level surveillance using VHTs and digital tools. Quantifying resource needs is essential as this will contribute to timely detection and response to outbreaks and community transmission. Most importantly, including mpox as a notifiable disease in the national integrated disease surveillance and response (IDSR) system is vital.

IPC response teams should advise individuals suspected or known to have pox or who may be a contact of a case to adhere to measures to avoid exposing others. Procurement and distribution of surge IPC supplies must be quick and timely to reach the frontline health workers who need them to protect themselves and their patients. Related to this is the urgent need to finalize and distribute national IPC guidelines, which are lacking in this Mpox response.

Laboratory is a key pillar in any outbreak response, and efforts should be made to strengthen diagnostic capacity at all levels of the health care system and point-of-care diagnostics for confirmation of Mpox cases. Emphasis should be put on activating mobile labs, procuring diagnostic reagents, and fast-tracking community sample collection guidance.

Regarding case management, measures should be taken to ensure optimal clinical care, with infection prevention and control practices in place for suspected and confirmed pox in all clinical settings. Health care providers should be trained accordingly and provided with adequate and appropriate personal protective equipment. Most importantly, Mpox detection should be integrated into prevention, care and research within HIV and sexually transmitted disease prevention and control programmes, and other appropriate health services. Clinical training at lower-level health facilities should be enhanced, as should the construction of more permanent isolation infrastructures at the district level. Mental health and psychosocial support are often overlooked in outbreak response, yet they are critical not only in resettling recovered patients but also in addressing stigma and discrimination in communities.

This Mpox outbreak has demonstrated the critical role of using trusted local personalities or influencers to reach key and marginalized groups. RCCE teams should use these influencers to communicate risk, build awareness, and engage with affected communities and at-risk groups. Local, religious, cultural, and civic leaders, health authorities, and traditional healers, among others, should never be left behind. The real-time collection of community insights should be integral to all disease outbreak interventions and the production and dissemination of local language and easy-to-use IEC material. This will help prevent stigma and discrimination against any individuals or groups affected by Mpox.

The Mpox vaccine is now available in Uganda, albeit in inadequate quantities for primary prevention (pre-exposure) and post-exposure vaccination for persons and communities at risk of Mpox. The vaccine is important in this response but is not yet the magic bullet, meaning that there is a need to build and retain capacity in resource-limited settings and among marginalized groups, where mpox transmission continues to occur, to improve understanding of modes of transmission.

Finally, some response efforts globally have been challenged by sexual exploitation, Abuse, and Harassment of the responders or the beneficial communities. The government, WHO, partners, and actors in the disease outbreak space should own and enforce PRSEAH training and structures of its implementation. This should be continuous and integrated into all levels of the response.

Conclusion

An upsurge of Mpox in Uganda has spread to 109 districts and is majorly transmitted through close contacts. The outbreak of the Sudan Virus Disease presented a double jeopardy and slowed down the response to Mpox, given the virulent nature of Ebola. Through the relentless, coordinated actions explained above, decentralized capacity building, targeted outreaches, especially to marginalized groups, and vaccination, Uganda has achieved an impressive 99.46% recovery rate among Mpox patients. However, challenges still abound, such as inadequate logistics, community mistrust, and difficulties in the healthcare system that must be addressed.