



# Health Reform through Financing Control of Epidemic Diseases in Uganda: A New Direction in Policy and Practice

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Received: Aug 27, 2024

Accepted: Sep 16, 2024

Published Online: Sep 23, 2024

Journal: Annals of Epidemiology and Public Health

Publisher: MedDocs Publishers LLC

Online edition: <http://meddocsonline.org/>

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## Introduction

On August 14, 2024, World Health Organization (WHO) declared the increasing spread of Mpox in Africa as a Public Health Emergency of international importance with over 17,000 cases reported globally since the beginning of 2024 [1]. In response, World Health Organization (WHO) appealed for US\$135 million to support member states over a 6-month period, as they began implementing priority public health measures [2]. In the realm of epidemiology and public health, the control of epidemic infectious diseases is a monumental challenge, especially in regions where outbreaks are commonly persistent, causing numerous public health emergencies of international concern, imposing an enormous impact on population health and the economy. Thus, hindering social development. This is a common phenomenon in Great Lakes region of sub-Saharan Africa.

## Epidemiology of Mpox

Burundi, Kenya, Rwanda and Uganda have each reported their first Mpox cases. All these cases have travel links to Eastern parts of the Democratic Republic of Congo (DRC). All these countries have identified clade Ib Monkeypox Virus (MPXV). The monkeys and bats are known reservoirs for such viruses. This fatal viral infection first identified in 1958 presents with a skin rash, chills, swollen lymph nodes, and general malaise. Symptoms last for two to four weeks. The incubation period is 5 - 21 days. The case-fatality rate of mpox is 0–11%. There are known clades of MPXV: clade I, Congo Basin clade, and clade II, West African. Mpox transmission to humans is by contact with the infected animals. Among humans, it spreads by direct contact with an infected person- sexual contact is more effective than skin-to-skin contact [3]. The diagnostic test is Polymerase Chain



**Cite this article:** Otieno E. Health Reform through Financing Control of Epidemic Diseases in Uganda: A New Direction in Policy and Practice. *A Epidemiol Public Health*. 2024; 7(2): 1123.

Reaction (PCR). Treatment of this self-limiting disease is symptomatic. Two vaccines are available for use to prevent Mpox - the Modified Vaccinia Ankara - Bavarian Nordic (MVA-BN) and LC16-KMB [1,4]. Other infection control and prevention measures include proper sanitization and hand washing after contact.

Mpox transmission in Eastern DRC is escalating rapidly with a new epicenter in North Kivu that is 100kms to Uganda. WHO reports show more than 14,000 cases and 524 deaths in Africa alone this year, surpassing last year's figures due to the emergence of a new variant. Close to 13 African countries have registered death due to Mpox. Over 96 per cent of all deaths and cases have occurred from DRC [5]. Most of the sub-Saharan African countries, including Uganda, where health sector suffers from inadequate finances, poor quality service delivery, and lack of National health insurance impedes access to health care, early diagnosis and treatment, and ultimately compromises early detection of epidemics. Notably, out-of-pocket expenditure for health in sub-Saharan Africa is 60.2 percent [6].

The epidemics are fueled by factors such as inadequate health financing, poor health security policies, poor sanitation and socio-economic disparities. Addressing such epidemics requires a multi-faceted approach that covers access to healthcare facilities, preventive measures, and socio-economic empowerment. All these measures need to be financed to realize effective outcomes. The early experience in countries with large-scale community transmission showed that the management of mpox cases require to mobilize health resources. By allocating budgets to epidemics through establishing strong health systems improve accessibility, and affordability and timely seeking of diagnosis and treatment. Thus, reduce the burden on communities and economy.

### Health reforms through financial reforms

Globally, epidemics are estimated to cost nearly \$60 billion a year [7]. The USA spends \$ 1 billion on emerging infectious diseases and pandemics [8]. Notably, the USA has enhanced response efforts of this outbreak to DRC and other affected countries in the African region to more than \$55 million [9]. Approximately, 630 million years of healthy life are lost due to disease, and costs Africa \$ 2.4 trillion cater for the emerging infectious diseases leading to epidemics [10]. It is estimated that Africa requires \$3.5 billion per year for its epidemic preparedness and response plan [11]. However, the WHO appealed for US\$ 1.5 billion to address 41 emergencies globally including infectious diseases outbreaks [12]. Cognizant of this, a new direction in practice and policy has emerged. Uganda allocated 57.8 billion UGX (US\$ 15.4 million) in epidemic preparedness financing from its UGX 72.1 trillion national budget for the financial year 2024-2025 [13].

On 24 July, Uganda detected its first cases of Mpox from two case-patients who travelled from the Democratic Republic of Congo (DRC). By 2nd August, the country declared an outbreak of Mpox. Geographically, Uganda is located at the Congo-basin tropical belt. There are 17 districts in Uganda that share a border with DRC with regular movement of people and 17 gazetted points of entry. This exposes the country to numerous pathogens of pandemic potential. Uganda has experienced outbreaks of Covid-19, Ebola, Anthrax, Marburg, Congo Crimean Hemorrhagic fever, Red-eye conjunctivitis, Foot and Mouth disease in the recent past 5 years. Currently, its experiencing Mpox outbreak.

The country's Public Health Emergency Operations Center (PHEOC) under the Ministry of Health monitors and responds to 23 real-time outbreaks. These risks have created a new health reform though domestic investment to address the urgency to the need for epidemic preparedness and response is still inadequate. In response to the outbreak, Uganda's Mpox preparedness and response plan for the financial year 2024-25 is worth US \$ 6.57 million (UGX 24 billion). This will provide a framework for coordinating and controlling Mpox by reducing importation, transmission, morbidity, and mortality in a bid to minimize the socio-economic disruption that might ensue.

### Non-financial interventions to control epidemics

The fundamental means of combating epidemic lies in prevention as a front-line defense against the outbreaks. Primarily, this involves empowering communities with knowledge and resources about the transmission modes, symptoms, and preventive measures associated with such infectious diseases. There is need to enhance One Health that aims to intervene shared health threats at the human-animal-environment interface [14]. Also, there is need to increase access to healthcare and address barriers that delay healthcare seeking behavior, such as distance to health centers, cultural beliefs and out-of-pocket expenditures.

Other social determinants of health such as poverty, inadequate housing, and lack of education which tend to amplify the risk of epidemic infectious diseases must be addressed to increase the opportunities of prevention. Multisectoral approach including the Non-Governmental Organizations (NGOs), international agencies and communities are instrumental in the control of epidemic infectious diseases. The contribution ranges from resource mobilization, educating the population and implementation of preventative measures. Reactivating pillars and cells of epidemic control structures adds to the importance of control. These include mobile health(mHealth) infrastructure, health promotion and education, disease surveillance systems, and engagement with Geographical Information Systems (GIS) to assist in mapping infectious disease prevalence and identifying high-risk areas. In Uganda the high risk 23 districts have been identified with 5 districts hosting DRC refugees at highest risk designated. An emergency response coordination mechanism and the incident management system have been reactivated.

In conclusion, the control of epidemic infectious diseases is a conundrum. However, needs a multilayered sectorial approach with adequate financing to realize a maximum impact. By allocating and prioritizing finances for the control of epidemics will help to strengthen health systems, so that communities are healthier, resilient and protected from the burden of illness. Thus, achieve universal health coverage for all and the Sustainable Development Goals

**Acknowledgement:** None.

**Conflict of interest:** The author declares there is no conflict of interest in publishing this article.

### References

1. WHO. Mpox - African Region. 2024. <https://www.who.int/emergencies/disease-outbreak-news/item/2024-DON528>.
2. WHO. WHO seeks \$135 million to defeat mpox. 2024. <https://news.un.org/en/story/2024/08/1153511>.

3. Low N, Bachmann LH, Ogoina D, McDonald R, Ipekci AM, et al. Mpox virus and transmission through sexual contact: Defining the research agenda. *PLoS Med*. 2023; 20(1): e1004163. <https://doi.org/10.1371/journal.pmed.1004163>.
4. Tomita N, Terada-Hirashima J, Uemura Y, Shimizu Y, Iwasaki H, et al. An open-label, non-randomized study investigating the safety and efficacy of smallpox vaccine, LC16, as post-exposure prophylaxis for mpox. *Human Vaccines & Immunotherapeutics*. 2023; 19(2). <https://doi.org/10.1080/21645515.2023.2242219>.
5. Klein HE. WHO Declares Another Mpox Global Emergency-What Americans Should Know. 2024. <https://www.ajmc.com/view/who-declares-another-mpox-global-emergency-what-americans-should-know>.
6. Gigar G, Gebregergs GB, Gebremeskel E, Abrha A, Mesfin B. Willingness to Pay for Community-based Health Insurance and its Correlates among Households in Wukro and Setit-humera Towns, northern Ethiopia: A Cross-sectional Study. *Momona Ethiopian Journal of Science*. 2023; 15(1): 48-61.
7. The cost of not preparing for infectious diseases <https://wellcome.org/news/cost-of-not-preparing-for-infectious-diseases>.
8. Yamada T, Ogawa V, Freire M. Policy: Security spending must cover disease outbreaks. *Nature*. 2016; 533: 29-31. <https://doi.org/10.1038/533029a>.
9. USAID. USAID Announces Additional \$35 Million to Support Mpox Outbreak Response in Central and Eastern Africa. 2024. <https://www.usaid.gov/news-information/press-releases/aug-20-2024-usaid-announces-additional-35-million-support-mpox-outbreak-response-central-and-eastern-africa>.
10. WHO. WHO launches an investment case to achieve SDGs and universal health coverage in Africa. 2019. <https://www.afro.who.int/news/diseases-cost-african-region-24-trillion-year-says-who>.
11. Nyaruaba R, Okoye C O, Akan O D, Mwaliko C, Ebido C, et al. Socio-economic impacts of emerging infectious diseases in Africa. *Infectious Diseases*. 2022; 54(5): 315-324. <https://doi.org/10.1080/23744235.2021.2022195>.
12. WHO. WHO launches appeal for US\$ 1.5 billion for key emergencies in. 2024. <https://www.who.int/news/item/15-01-2024-who-launches-appeal-for-key-emergencies-in-2024>.
13. Ministry of Financing, planning and economic development. 2024. National Budget. <https://budget.finance.go.ug/library/695>.
14. Zhang XX, Jin YZ, Lu YH, et al. Infectious disease control: from health security strengthening to health systems improvement at global level. *Glob health res policy*. 2023; 8: 38. <https://doi.org/10.1186/s41256-023-00319-w>.