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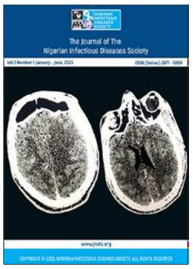

Editorial

Access to Drugs and Vaccines for Mpox in Africa: Lack of Indigenous Political Will or Global Health Inequity?

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Mpox (formerly monkeypox) disease, caused by the monkeypox virus was declared a Public Health Emergency of International Concern (PHEIC) by the World Health Organization (WHO) on July 23, 2022.[1] Following progress in public health responses in various countries leading to a significant reduction in the number of confirmed cases reported to the WHO, the mpox PHEIC status was declared over on May 11, 2023.[2] Despite nearly one year of a global emergency response, where does Africa stand in terms of access to drugs and vaccines against mpox? A journey through history indicates that for over 50 years mpox has been endemic in several African countries including Nigeria, Cameroon, Central Africa Republic, Ghana, Benin, South Sudan, Liberia and the Democratic Republic of Congo (DRC).[3] Two known clades of the causative monkeypox virus have been in circulation. One is the Clade I (previously known as the Congo Basin or Central African clade) and the other is Clade II (formerly known as the West African clade).[3] The virus was originally discovered in monkeys in 1958 by a Danish laboratory, hence the name: monkeypox virus.[4] However, it was not until 1970 that the first human case was identified in a child in the DRC.[4] The epidemiology, clinical presentations, diagnosis and treatment of mpox has been extensively described by others.[3-7] Our focus for this editorial is the accessibility of drugs and vaccines in African countries where there is known endemicity of the monkeypox virus and the issues that influence access or its lack thereof.

According to the United States Centers for Disease Control and Prevention (CDC), between January 2022 and July 19, 2023, there were 88,549 mpox cases reported in 113 different countries globally.[8] Nonetheless, before the 2022 multi-country outbreak, it is important to note that mpox was endemic in several African countries. Challenges in the global control of mpox include capacity building, surveillance, diagnostics, clinical management, intersectoral collaboration, prevention plans, stigmatization and discrimination, and inequitable access to treatments and vaccines.[9] Sadly, Africa, which bears a heavy burden of the disease, has more daunting gaps in these challenges of mpox control. A similar trend is seen in other epidemic-prone diseases, thus constituting a great challenge to global health security.

The WHO defines global health security as the activities required, both proactive and reactive, to minimize the danger and impact of acute public health events that endanger people's health across geographical regions and international boundaries.[10] Drugs, and vaccines in response to this and future outbreaks are critical and must reach endemic countries for any sustainable pushback on the virus.[7] Certainly, it appears that lessons learnt from decades of previous, albeit recurrent outbreaks stemming from African countries such as seen in Ebola virus diseases have been instrumental in the response to this most recent PHEIC. Thus, in the spirit and science of global health security and equity, it is expected that the armamentarium of public health responses unleashed to curb and manage this outbreak should be accessible to all affected countries. So far, this has not been the case.

The WHO has recommended vaccines that offer protection against mpox, including LC16m8, ACAM2000, and JYNNEOS vaccines. For instance, JYNNEOS, the mpox vaccine widely used in many Western countries, is yet to be available in any African country according to a GAVI report in June of 2023.[11] Rich countries quickly secured millions of doses of the vaccine which was produced by Bavarian Nordic.[12] Countries like the United States already vaccinated over 1.2 million individuals as of July 20, 2023.[13] Interestingly, 20 million doses of this vaccine, more than would be required to meet the immediate needs of poorer countries in Africa expired and were reportedly disposed, not shared out for use according to the New York Times of August 1, 2022.[14] South Korea in November of 2022 pledged to donate 50,000 doses of mpox vaccine to Africa CDC – but, none of this had arrived as of July 2023.[15] Dr Ahmed Ogwell Ouma of the Africa CDC was quoted by the Los Angeles Times to have said that "Even if we wanted to buy, there is nowhere to buy, because they are manufactured in modest numbers and then countries stockpile them in case they need them, while where it is actually needed, on the continent of Africa, we don't have access".[16] Hence, it appears that there is a failure of global health equity in mpox vaccine accessibility. Similarly, antivirals such as tecovirimat or ST-246 (TPOXX), cidofovir, and brincidofovir (Tembexa) which are used to treat mpox are owned by pharmaceutical monopolies and available at very high prices, hence, limiting access to African countries who are mostly classified as low- and middle-income countries (LMIC).[17]

Despite the inherent resource constraints in Africa, the major challenge militating against planning and response to epidemic-prone disease and resilient health system is the poor African government's political will. It is amply provided in the African Charter, which is the legal framework of member states. The charter provides that: Every individual shall have the right to enjoy the best attainable state of physical and mental health" and that States parties to the Charter "shall take the necessary measures to protect the health of their people and to ensure that they receive medical attention when they are sick".[18] It is imperative for the peoples of Africa to demand and hold governments accountable and for the global community to sustain political pressure on African governments. Indigenous political will should be mustered to encourage research and innovation in utilizing local resources to produce drugs and vaccines for diseases that are endemic in the continent. Africa cannot continue to wait for others to discover solutions to diseases and problems localized to the region. Political will is long overdue. Researchers, financiers, health organizations in Africa, and stakeholders need to come together and start early to take practical steps to ensure that the stage is set for indigenous manufacture of life-saving items, such as vaccines and drugs, especially for infections with outbreak potentials.

If vaccines were available in mpox endemic countries of Africa, perhaps there wouldn't have been a multi-country outbreak or PHEIC regarding mpox in the first place.

If the outbreak was a consequence of inaction in various quarters, the same inaction in ensuring access to drugs and vaccines would not only erode the public health gains of the 2022 global mpox outbreak but unfortunately guarantee future outbreaks and PHEICs. From the foregoing, and from what is known about infectious disease epidemiology, it should be clear that any strategy that does not include vaccinating at-risk populations in Western countries alongside vaccinating at the source in endemic countries of LMIC is a recipe for failure in global health.

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