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Beyond the peak: Global health post-COVID-19 and Mpox: Successes, challenges and prospects

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ABSTRACT

The World Health Organization's recent declarations that COVID-19 and Mpox (previously known as monkeypox) are no longer public health emergencies of international concern marks a significant shift in the global health landscape. This commentary provides an examination of the implications of these declarations, highlighting the residual effects of these diseases on global health systems, the persistent risks they pose, and the potential impacts on health equity and access to healthcare. It further explores the indispensable role of epidemiology in informing public health policy and practices. The piece outlines a strategic approach for the future of global health, emphasizing the urgency to fortify health diplomacy, reform global health financing, harness digital health, invigorate health workforce development, implement multisectoral action, integrate climate change into health policy, mainstream mental health, and leverage precision public health. As we transition from crisis response to sustained disease management, this commentary underscores the need for unwavering commitment, international collaboration, and innovative thinking to navigate this new phase in global health.

Introduction

In the chronicles of global health, seldom have we encountered a time as paradoxically strenuous and transmutative as the recent era, distinguished by the dual emergence of two consequential health crises. Firstly, we grapple with the COVID-19 pandemic, a crisis that represents a global outbreak of a previously unknown disease, transcending geographical borders to touch lives in every corner of the world [1]. This pandemic has necessitated an unprecedented global response, reminding us of our interconnected vulnerability and the critical importance of international cooperation in health [2]. Concurrently, the world faces a multi-country outbreak of a disease known as Mpox, previously identified as monkeypox [3]. This outbreak, while significant, is geographically less pervasive than a pandemic. It illustrates a situation where the disease has extended its reach to multiple countries, but its spread is not necessarily comprehensive within those countries or universally across the globe.. Both diseases, owing to their transnational reach and considerable impact on

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public health, were rightfully designated as Public Health Emergencies of International Concern (PHEIC) by the World Health Organization (WHO) [4,5]. However, in a seminal shift, the WHO recently announced the cessation of the PHEIC status for both the COVID-19 pandemic and Mpox multi-country outbreak on May 5 and 11, 2023, respectively [2,3]. The Director-General, Dr Tedros Adhanom Ghebreyesus, based this decision on the recommendations of the organization's respective emergency committees. These committees, after meticulous consideration of the global health landscape, deduced that both diseases, whilst continuing to pose significant health threats, no longer necessitate the highest level of international public health alarm.

This momentous development marks a transition in our global struggle against these formidable diseases. It signals a shift from a state of emergency to a new phase of vigilance and management, where the focus is on integrating these diseases into our long-term public health strategies [2]. As we navigate this uncharted terrain, it is pertinent to reflect on the successes we have achieved, the challenges that persist, and the future of global health in this post-emergency world.

Therefore, the aim of this commentary is to dissect these aspects, providing a comprehensive picture of our present situation and offering informed insights for the path that lies ahead. The lessons learned from our experiences with COVID-19 and Mpox will undeniably shape our approach towards future health emergencies, making this examination not just timely, but also imperative for the global health community.

The successes

The extraordinary circumstances caused by the dual onslaught of COVID-19 and Mpox have, paradoxically, catalysed significant triumphs in the field of global health. These victories, born of necessity, provide a roadmap for managing the current diseases and inform strategies for future pandemic preparedness. One of the most notable achievements has been the rapid development and deployment of effective vaccines, particularly against SARS-CoV-2 [6]. Within a year of the virus's emergence, several vaccines had been developed, tested, and approved for emergency use—a feat previously unthinkable in the history of medicine [7]. The extraordinary scientific collaboration that facilitated this rapid response demonstrated a remarkable capacity for innovation and adaptation in the face of adversity. The global scientific community's response was further exemplified by the creation of an open-source knowledge base for COVID-19 [8], enabling researchers worldwide to share findings and accelerate scientific progress.

The response to Mpox, was equally remarkable. The integration of Mpox surveillance into existing disease monitoring systems, especially in regions where it had been endemic, proved to be an effective strategy [9]. Leveraging established networks and protocols allowed for a more efficient response [9], showcasing the importance of adaptable health infrastructure. A critical triumph to be emphasized in both instances is the increased resilience of healthcare systems. Both COVID-19 and Mpox posed significant operational challenges, compelling health systems worldwide to adapt rapidly to unprecedented demand. In response, healthcare providers implemented various innovative solutions, such as telemedicine, drive-through testing centers, and modular hospitals [3,10]. This experience has underscored the importance of flexible and scalable health infrastructure in managing health crises.

The mitigation efforts against COVID-19 and Mpox have also led to remarkable gains in population immunity. For example, the combination of natural infection and vaccination has significantly increased global immunity to SARS-CoV-2 as observed in two different reviews [11,12]. The latest data indicates that the decreasing numbers of deaths and hospitalizations can be attributed, in large part, to the high levels of population immunity against SARS-CoV-2 [13]. Similarly, systematic efforts to control Mpox have led to a significant reduction in new cases over the past three months. However, these successes are not without their caveats. The rapid development and deployment of vaccines have exposed deep-seated inequities in global health, as vaccine access remains disproportionately available in high-income countries [14]. The integration of Mpox surveillance into existing disease monitoring systems has been effective, but resource-limited settings continue to struggle with surveillance [15] and response capacity [16,17].

These triumphs, while notable, are only the first steps in a long journey. As we transition from emergency response to sustained management of COVID-19 and Mpox, it is crucial to recognize

these achievements, understand their limitations, and build on them to ensure a robust global health response in the post-emergency phase. As the WHO's declarations signal a new chapter in the fight against these diseases, the lessons learned from these victories will be instrumental in shaping the path ahead.

The challenges

The shift from an emergency response to sustained management of both COVID-19 and Mpox brings to the fore a set of formidable challenges, requiring careful consideration and decisive action. Successfully navigating these challenges is not just a matter of resolving current issues, but also a proactive step towards strengthening global health infrastructure in anticipation of future health crises. A central issue that remains unresolved is the enduring inequality in health outcomes. Despite the unprecedented speed of vaccine development and the creation of effective treatment regimes, their global distribution has been uneven [14,18]. Affluent countries have been successful in protecting their populations, whereas many low and middle-income countries are still grappling with limited access to these critical health resources [1,19]. This issue is especially pronounced in the case of Mpox, where African countries that have been dealing with endemic Mpox face an ongoing threat, while other regions have successfully contained the disease.

The question of equity extends beyond merely the access to vaccines and treatments. Disparities in diagnostic capabilities, healthcare infrastructure, and the resilience of health systems also play a significant role [1,16,20,21]. These inequities can intensify the impact of diseases in resource-limited settings, leading to a further entrenchment of global health disparities. Another significant challenge is the recalibration of health systems. The focus of global health resources has been heavily tilted towards managing COVID-19 and Mpox in recent years, neglecting other important diseases [22]. As we transition into the established and ongoing health matterphase of these diseases, a rebalance of health system priorities is imperative. Other vital areas of health concern, such as non-communicable diseases and maternal and child health, must be adequately addressed.

The withdrawal of the PHEIC status also brings with it the risk of complacency [2]. While the WHO's declaration marks a significant milestone, it should not be misinterpreted as the eradication of these diseases. Continued vigilance through persistent public health measures and robust surveillance systems remains crucial in preventing a resurgence of cases. Lastly, the systemic vulnerabilities exposed by the COVID-19 and Mpox crises cannot be ignored. These health emergencies have laid bare weaknesses in disease surveillance, the resilience of health systems, and pandemic preparedness [23]. Recognizing and addressing these deficiencies is vital, not only for managing the current diseases but also for enhancing the preparedness of global health systems for future health crises. Tackling these challenges demands a unified, collaborative effort from the global health community. The invaluable insights gained from managing these dual health emergencies provide a roadmap to navigate these challenges and to bolster global health systems for the challenges that lie ahead.

Strategic recommendations for the future of global health

Global health refers to the discipline that addresses health issues transcending national boundaries, with a focus on achieving health equity for all people worldwide [24]. It encompasses the study, research, and practice of medicine with a focus on improving health and achieving equity in health for all people worldwide, particularly those in disadvantaged communities or developing countries [24]. Global health takes into account both transmissible and non-transmissible diseases, the complexities of the global health system, and the interplay between health, economic, political, and social determinants of health outcomes [24].

As we shift from crisis response to the sustained management of COVID-19 and Mpox, it is time to envision a forward-looking approach that not only continues our fight against these diseases but also prepares us for future health challenges. This strategic vision spans eight key areas: fortifying health diplomacy, reimagining global health financing, harnessing the power of digital health, invigorating health workforce development, implementing multisectoral action, integrating climate change into health policy, mainstreaming mental health, and unleashing the potential of precision public health.

These innovative strategies signify a bold new direction for global health, building on the hard-earned lessons from the crises and preparing for the evolving health landscape. The challenge is

substantial, but with unwavering commitment, international collaboration, and innovative thinking, we can shape a more resilient, healthier future.

Table 1. Strategic recommendations for future global health: Potential impact and pathways for implementation.

Recommendation	Potential impact	Source
Bolster Health Diplomacy	Enhance international cooperation, effective communication, and joint crisis management.	[25]
Reform Global Health Financing	Foster sustainable and equitable funding for health initiatives and reduce disparities in health resources.	[18]
Harness Digital Health	Improve accessibility and efficiency of health services and accelerate disease surveillance and research.	[26]
Invigorate Health Workforce	Strengthen health systems, improve patient care, and ensure resilience in the face of health emergencies.	[19]
Implement Multisectoral Action	Achieve comprehensive and sustainable health outcomes by integrating health with other sectors.	[21]
Integrate Climate Change into Health Policy	Protect and promote public health by considering the health impacts of climate change.	[27]
Mainstream Mental Health	Improve mental health services and reduce the stigma associated with mental health issues.	[28]
Leverage Precision Public Health	Enhance disease prevention and control by using data-driven, personalized approaches to health.	[29]

Conclusion

As we reflect upon the ramifications of the World Health Organization (WHO) declaring the end of the emergency stages for COVID-19 and Mpox, it is evident that this transition marks a pivotal juncture in global health. This move, from emergency response to sustained management, highlights the resilience and adaptability of our health systems while shedding light on the persistent challenges that lie ahead. As we pivot towards this new phase, we must engage in comprehensive strategies that bolster health diplomacy, reimagine global health financing, harness the potential of digital health, foster health workforce development, promote multisectoral health action, and integrate climate change considerations into health policy. The mainstreaming of mental health and the utilisation of precision public health approaches are also integral to this transformative period. This juncture is one that demands unwavering commitment, collaboration on a global scale, and innovative thinking as we navigate this new landscape. The task ahead is formidable, but with these concerted efforts, we can strive to shape a future that is resilient, equitable, and conducive to the health and wellbeing of all.

Authors contribution

We declare that all listed authors have made substantial contributions to all of the following parts of the manuscript:

- Drafting the paper or revising it critically.
- Approving the submitted version.

We also declare that no-one who qualifies for authorship has been excluded from the list of authors.

Conflicts of interest

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