

NO 15

October 2024

All responses are local.

How behavioral systems
can enhance global
management of the
Mpox outbreak



LITERATURE
REVIEW

Key words:

Mpox
disease outbreak
public health response
community engagement
behavioral systems

Author affiliations:

[1] Busara
[2] Busara
[3] Busara

Conflicts of interest:

There are no conflicts of interest to declare for this study.

Copyedited by:

Michael Onsando

Designed by:

Lynette Gow

Abbreviations and acronyms

CDC	Center for Disease Control and Prevention
DRC	Democratic Republic of the Congo
NCDC	Nigeria Centre for Disease Control and Prevention
USAID	United States Agency for International Development
WHO	World Health Organization

Table of contents

Background and current landscape	4
World Health Organization (WHO)	6
Gavi, the Vaccine Alliance.....	6
USAID.....	7
How systemic behavioral science can enhance Mpox response.....	8
Conclusion	12
References.....	13



Background and current landscape

From January 1st, 2022 to October 6th, 2024, the Democratic Republic of the Congo (DRC) reported 6,169 confirmed Mpox cases, 31,350 suspected cases, and 992 deaths (WHO, 2024a). Although the cases began in DRC, they have since begun to spread even to countries where it is not endemic, such as Burundi, Kenya, Rwanda, and Uganda (Africa CDC, 2024; WHO, 2024b). In response to this surge, the African CDC declared Mpox a Public Health Emergency of Continental Security on August 13, 2024. A day later, the World Health Organization followed suit, declaring Mpox a public health emergency of international concern.

Mpox represents a dire threat to public health. We believe that behavioral science can play a crucial role in understanding and managing the Mpox threat as effective management of public health requires understanding and managing human behavior. However, behavioral science alone may not be enough: pandemics spread through complex networks of human behavior that we call behavioral systems (Diaz del Valle, Wendel, & Jang, 2023); responding effectively to Mpox may therefore require an interdisciplinary toolkit that integrates qualitative and quantitative methods from across psychology, behavioral economics, anthropology, political science, systems analysis, and computational methods to understand how individual behaviors fit within larger systems, and how these systems can, in turn, be changed through effective targeting of behavioral interventions within them. In the remainder of this Groundwork, we review what is known about Mpox and the response of multilateral organizations to Mpox. We conclude that the effective integration of behavioral science and systems analysis through the behavioral systems approach may aid Mpox response through enhancing community engagement and coordinating research and learning activities.

Mpox consists of two strains, referred to as Clade I and Clade II. The 2022 Mpox outbreak, which to date has totaled over 106,000 cases across 123 countries, was caused by an outbreak of Clade II Mpox (WHO, 2024a). In contrast, the latest Mpox emergency has been driven by Clade I (Ia and Ib) Mpox, which is associated with a higher rate of severe infections and a higher mortality rate (WHO, 2024a). Mpox transmission can occur through human-to-human close physical contact (sexual or non-sexual) and through human-to-animal contact. The Clade Ib outbreak in the DRC's non-endemic provinces has predominantly spread through female sex workers and their clients. In recent weeks, countries outside of Africa, including Sweden and Thailand, have begun reporting their first Clade Ib cases (WHO, 2024a). Outside Africa, transmission has predominantly affected men who have sex with men through sexual contact (Ndembi et al., 2024; WHO, 2024a).

Several populations, including children, immunocompromised individuals, such as HIV patients, and pregnant women, are at increased risk for severe Mpox infection (WHO, 2024a). In the DRC's endemic provinces, primarily involving Clade Ia Mpox, the majority of cases and deaths are among children under age 15; estimated mortality rates in children under 15 years old in these areas reach up to 8% (WHO, 2024a). In Nigeria, children under the age of 10 are currently leading in the confirmed cases of Mpox as of September 1, 2024 (NCDC, 2024). Vulnerable populations, such as internally displaced people (IDP) and sex workers, are also at higher risk of contracting Mpox (WHO, 2024b).

The Mpox response is hindered by systemic challenges, such as cross-border movement. Other behavioral factors, such as perceptions that Mpox is low risk, stigma, and low awareness or knowledge of its transmission, further hinder proper Mpox management. These challenges are further compounded by limited access to diagnostics, therapeutics, and vaccines in Africa, high rates of HIV co-infection, and inadequate surveillance and diagnostic capacity in the hardest-hit countries (Adamu et al., 2024; Ndembi et al., 2024; WHO, 2024a).



So far, multilateral organizations dealing with health have mainly responded in three primary ways:

- a. ensuring equitable access to vaccines and other medical supplies,
- b. engaging communities to promote disease surveillance and prevention, and
- c. coordinating stakeholders to promote learning and research.

Below we outline the specifics of the responses by some of the multilateral organizations.

World Health Organization (WHO)

On August 26, 2024, the WHO launched its 'Mpox global strategic preparedness and response plan,' which detailed its response to the Mpox emergency over the six months from September 2024 to February 2025. In its response plan, the WHO emphasizes “surveillance, research, equitable access to medical countermeasures, and community empowerment” ([WHO, 2024a](#)). Its strategy comprises five components, namely (a) strengthened surveillance and detection, (b) enhanced community protection, (c) safe and scalable care, (d) equitable access to medical countermeasures, and (e) emergency coordination ([WHO, 2024a](#)). According to a statement released by the WHO, the WHO and its partners (including UNICEF, Africa CDC, Gavi, the Pan Health American Health Organization, and others) are prioritizing vaccine access and production, in addition to ‘infection prevention and control, and risk communication and community engagement’ (WHO, 2024c).

Gavi, the Vaccine Alliance

Gavi declared an emergency for the Mpox outbreak and outlined three measures, which were approved in June 2024: (a) establishing a global stockpile of Mpox vaccines from 2026-2031, (b) supporting the outbreak

response in the DRC and its surrounding countries in the immediate term, and (c.) Investing in a learning agenda so that current responses can inform future efforts to combat Mpox.

In the short term, Gavi is focusing on vaccine response by repurposing funds for the direct procurement and donation of Mpox vaccines, as well as working with countries and other partners to design rapid-response vaccination campaigns (Gavi, 2024b). To date, Gavi has allocated USD \$2.9 million to the vaccine response in the DRC (Gavi, 2024a).

USAID

USAID has allocated an additional \$35 million in urgent health assistance to enhance response efforts for the Clade I Mpox in Central and Eastern Africa (USAID, 2024a). USAID's assistance covers surveillance support, diagnostic services, risk communication and community involvement, infection prevention and control measures, as well as vaccination and coordination efforts. As part of these initiatives, USAID has donated more than 50,000 doses of the Jynneos vaccine to countries such as DRC and Nigeria as of August 21, 2024, and is coordinating with other international stakeholders, and countries with Mpox vaccine stockpiles to deliver additional vaccines to the countries in need (USAID, 2024b).



How systemic behavioral science can enhance Mpox response

Following a period of rapid epidemic growth from May to August 2022, Mpox diagnosis decreased in Europe and the Americas, though low-level transmission persisted. To investigate the factors behind this decline, a retrospective survey was conducted among LGBTQ+ respondents across 23 countries in Europe and the Americas. The findings revealed that 50.9% of participants modified their sexual behavior in response to the global MPXV clade IIb outbreak, with 93.2% reducing the number of sexual partners and significant proportions avoiding group sex (88.4%), sex-on-premises venues (84.6%), and chemsex (53.6%). Additionally, 79.8% expressed a willingness to adapt their behavior again if necessary (Prochazka et al., 2024). These findings align with previous studies, indicating that behavioral changes, rather than vaccination alone, played a crucial role in the reduction of transmission by the end of 2022 (Delaney et al., 2022; Shamier & Jonas, 2024; Wang et al., 2024).

Behavioral science plays a crucial role in promoting equitable access to vaccines and supplies, enhancing surveillance and prevention through community engagement, and coordinating research and learning activities, which are the key response areas being implemented worldwide. Achieving access, fostering community engagement, and effectively coordinating stakeholders requires an understanding of the behavioral barriers that hinder access, the community's responses to engagement efforts, and the most effective strategies for aligning diverse stakeholder goals and objectives (Ashworth et al., 2021). These are all fundamentally behavioral problems and therefore necessitate a behaviorally informed approach. Yet vaccine access, community engagement, and stakeholder coordination are not just behavioral

problems, as a variety of cultural, political, and systemic factors affect the success of these and other pandemic surveillance and prevention efforts (Adamu et al., 2024, Ndembi et al., 2024). Thus, approaches that consider systemic and behavioral factors in combination, such as systemic behavioral science (Diaz del Valle, Wendel, & Jang, 2023), may be necessary to effectively combat Mpox. In the sections below, we consider some potential interventions that unite systemic and behavioral factors that could be usefully deployed in Mpox response.

Community engagement for surveillance, prevention, and control

Community engagement is crucial for effective disease surveillance, risk communication, and building trust in health programs and authorities at the grassroots level, which ultimately strengthens the resilience of health systems. However, key challenges observed during the COVID-19 response included inadequate and ineffective 'bottom-up' community engagement approaches (Gilmore et al., 2020). This gap diminished the effectiveness of the response, particularly by undermining trust in the strategies employed. For example, a study investigating trust levels in health authorities, governments, news media, and experts across eight countries during the COVID-19 pandemic revealed that trust in health experts was significantly higher than trust in politicians (Schluter et al., 2023). Meanwhile, trust in governments was a significant predictor of adherence to public health guidelines and vaccine uptake (Williams et al., 2021). Therefore, a lack of trust in political leaders can lead to decreased compliance with health recommendations and lower vaccination rates. The findings underscore the necessity of strengthening local health systems and institutions to enhance their credibility and foster greater trust within communities.

Considering the critical role of behavioral factors in the emergence, spread and control of disease, the WHO supports using behavioral science for community engagement to improve action by collecting evidence with and about communities (WHO 2023). This strategy emphasizes the development of



responsive and equitable policies, such as ensuring fair access to vaccinations and health information. It prioritizes the involvement of community members in the planning and implementation of interventions, including the co-creation of health messages and campaigns that resonate with local populations. Additionally, the strategy aims to promote the adoption and dissemination of healthy behaviors, which include adhering to public health guidelines, practicing safe sex, maintaining fewer and exclusive sexual partners, avoiding risky sexual activities, and upholding personal hygiene standards. By fostering community engagement in these areas, the strategy seeks to enhance public health outcomes and build resilience during health crises (WHO 2023). At a systems level, transparent, clear, and consistent communications to maintain trust in local institutions, combat misinformation, and deter conspiracy theories are paramount through local stakeholders ([Lewandowsky et al., 2023](#); [Williams et al., 2021](#)). Studies have also underscored the importance of making communication and adherence to guidelines accessible and culturally relevant for marginalized or vulnerable groups, who face additional barriers to accessing information and complying with guidelines ([Lewandowsky et al., 2023](#); [Williams et al., 2021](#)). To achieve this, it is important that scientific findings be translated into clear messages that the public can understand and act upon (Perrault, Hildenbrand, Nyaga, 2019).

Frameworks for guiding community engagement, such as the Four R's—Reciprocity, Relatability, Relationships, and Respect—are valuable during disease preparedness and response efforts (Dada et al., 2019). The Four R's emphasize **reciprocity** by addressing community concerns and encouraging open, two-way feedback, **relatability** by connecting through shared cultural norms, language, and local institutions, **relationships** by valuing familial and social bonds, and **respect** by honoring the community's practices of mutual respect and peaceful coexistence. Before, during, and after any community engagement, the Four R's should be continuously assessed using a simple checklist to ensure all key aspects are thoroughly addressed. This framework aided the set up and delivery of the EBOVAC-Salone and PREVAC Ebola

vaccine trials in Sierra Leone during and following the 2014–2016 West African Ebola epidemic (Dada et al., 2019).

Coordination, research and learning

Effective coordination during the COVID-19 response presented significant challenges at various levels. In a media briefing in May 2023, the WHO Director-General declared an end to COVID-19 as a global health emergency and acknowledged that “many mistakes were made, including a lack of coordination, equity, and solidarity, which hindered the optimal use of available tools and technologies to combat the virus” (United Nations, 2023). This sentiment was reiterated in his opening remarks at the launch of the Global Preparedness Monitoring Board at the 2024 World Health Summit, emphasizing the need for improved coordination and collaboration in future health emergencies (WHO, 2024d). Effective coordination and partnerships at all levels are therefore essential for disease outbreak control, facilitating the sharing of information, data, insights, and medical resources.

Regardless of the level, successful coordination relies on four key attributes: inclusivity (engaging diverse government sectors, stakeholders, and ensuring equitable representation), well-structured processes (clear roles, established mechanisms, and regular meetings), sufficient capacity (adequate staffing, funding, and communication infrastructure), and strong political support (incentivized collaboration) (Gooding et al., 2022). We recommend that key actors such as policy makers and health practitioners at the international, national, and subnational levels utilize and verify the four key attributes identified above whenever discussing, agreeing upon, and implementing response activities. By fostering social solidarity and collective responsibility, governments can cultivate an environment that encourages vaccination as a communal effort, ultimately leading to improved public health outcomes. Insights from systemic behavioral science can enhance coordination, promote equity, and strengthen solidarity in community-driven initiatives.



Conclusion

As the Mpox public health emergency continues to evolve, alongside other crises like the Marburg virus outbreak, it is crucial for key stakeholders to collaborate and exchange insights on effective strategies and how they can be adapted to different contexts. However, there are no universal lessons in behavioral science. Effective Mpox response will require contextualizing the lessons from other settings to the places where Mpox unfolds. Moreover, thoughtlessly applying behavioral interventions without considering the systemic factors at play could result in wasted resources, as the resulting interventions may be ill-targeted and their impacts erased by the complex interplay of social and political forces.

COVID-19 taught us that there are no one-size-fits-all approaches to public health emergencies. The most effective responses to these emergencies – including Mpox – will borrow the best tools across disciplines to address both the systemic and the behavioral factors that contribute to effective pandemic response.

References

1. Adamu, A. A., Okeibunor, J., Doshi, R. H., & Wiysonge, C. S. (2024). Enhancing mpox response in Africa with implementation science. *The Lancet*, 0(0). [https://doi.org/10.1016/S0140-6736\(24\)01807-5](https://doi.org/10.1016/S0140-6736(24)01807-5)
2. Africa CDC. (2024, September 5). Joint Press Release: The Democratic Republic of Congo receives first Mpox vaccines. Africa CDC. <https://africacdc.org/news-item/joint-press-release-the-democratic-republic-of-congo-receives-first-mpox-vaccines/>
3. Ashworth, H. C., Dada, S., Buggy, C., & Lees, S. (2021). The Importance of Developing Rigorous Social Science Methods for Community Engagement and Behavior Change During Outbreak Response. *Disaster Medicine and Public Health Preparedness*, 15(6), 685–690. <https://doi.org/10.1017/dmp.2020.163>
4. BMGF. (2024, August 20). Statement from CEO Mark Suzman on the mpox public health emergency. Bill & Melinda Gates Foundation. <http://www.gatesfoundation.org/ideas/media-center/press-releases/2024/08/mpox-outbreak-health-emergency>
5. Byrne-Davis, L., Turner, R., Amatya, S., Ashton, C., Bull, E., Chater, A., Lewis, L., Shorter, G., Whittaker, E., & Hart, J. (2022b). Using behavioural science in public health settings during the COVID-19 pandemic: The experience of public health practitioners and behavioural scientists. *Acta Psychologica*, 224, 103527. <https://doi.org/10.1016/j.actpsy.2022.103527>
6. Dada, S., McKay, G., Mateus, A., & Lees, S. (2019). Lessons learned from engaging communities for Ebola vaccine trials in Sierra Leone: Reciprocity, relatability, relationships and respect (the four R's). *BMC Public Health*, 19, Article 1665. <https://doi.org/10.1186/s12889-019-7838-7>
7. Dada, S., McKay, G., Mateus, A., & Lees, S. (2019). Lessons learned from engaging communities for Ebola vaccine trials in Sierra Leone: reciprocity, relatability, relationships and respect (the four R's). *BMC Public Health*, 19(1). <https://doi.org/10.1186/s12889-019-7978-4>
8. Delaney, K. P., Sanchez, T., Hannah, M., Edwards, O. W., Carpino, T., Agnew-Brune, C., Renfro, K., Kachur, R., Carnes, N., DiNenno, E. A., Lansky, A., Ethier, K., Sullivan, P., Baral, S., & Oster, A. M. (2022). "Strategies Adopted by Gay, Bisexual, and Other Men Who Have Sex with Men to Prevent Monkeypox virus Transmission - United States,



- August 2022.” *MMWR Morbidity and Mortality Weekly Report*, 71(35), 1126-1130. <https://doi.org/10.15585/mmwr.mm7135e1>
9. Diaz Del Valle, E., Jang, C., & Wendel, S. (2024). *Behavioral systems: Combining behavioral science and systems analysis*. Busara Groundwork (Research Agenda), No. 8. Nairobi: Busara.
 10. Gavi. (2024a, September 10). 15,000 mpox vaccine doses arrive in the Democratic Republic of the Congo. Gavi. <https://www.gavi.org/news/media-room/15000-mpox-vaccine-doses-arrive-democratic-republic-congo>
 11. Gavi. (2024b, August 15). Gavi statement on mpox emergency in Africa. Gavi. <https://www.gavi.org/news/media-room/gavi-statement-mpox-emergency-africa>
 12. Gilmore, B., Ndejjo, R., Tchetchia, A., de Claro, V., Mago, E., Diallo, A. A., Lopes, C., & Bhattacharyya, S. (2020). Community engagement for COVID-19 prevention and control: A rapid evidence synthesis. *BMJ Global Health*, 5(10), e003188. <https://doi.org/10.1136/bmjgh-2020-003188>
 13. Gooding, K., Bertone, M. P., Loffreda, G., & Witter, S. (2022). How can we strengthen partnership and coordination for health system emergency preparedness and response? Findings from a synthesis of experience across countries facing shocks. *BMC Health Services Research*, 22, 1441. <https://doi.org/10.1186/s12913-022-08859-6>
 14. Hooper, M. W., Nápoles, A. M., & Pérez-Stable, E. J. (2021). No Populations Left Behind: Vaccine Hesitancy and Equitable Diffusion of Effective COVID-19 Vaccines. *Journal of General Internal Medicine*, 36, 2130–2133. <https://doi.org/10.1007/s11606-021-06698-5>
 15. Lewandowsky, S., Schmid, P., Habersaat, K. B., Nielsen, S. M., Seale, H., Betsch, C., Böhm, R., Geiger, M., Craig, B., Sunstein, C., Sah, S., MacDonald, N. E., Dubé, E., Fancourt, D., Larson, H. J., Jackson, C., Mazhnaya, A., Dutta, M., Fountoulakis, K. N., ... Danchin, M. (2023). Lessons from COVID-19 for behavioural and communication interventions to enhance vaccine uptake. *Communications Psychology*, 1(1), 1–6. <https://doi.org/10.1038/s44271-023-00036-7>
 16. Nigeria Centre for Disease Control & Prevention (2024, September 17) An Update of Monkeypox Outbreak in Nigeria (Week 35). <https://ncdc.gov.ng/diseases/sitreps/?cat=8&name=An%20Update%20of%20Monkeypox%20Outbreak%20in%20Nigeria>

17. Ndembi, N., Folayan, M. O., Ngongo, N., Ntoumi, F., Ogoina, D., Rabbat, M. E., Okwo-Bele, J.-M., & Kaseya, J. (2024). Mpox outbreaks in Africa constitute a public health emergency of continental security. *The Lancet Global Health*, 0(0). [https://doi.org/10.1016/S2214-109X\(24\)00363-2](https://doi.org/10.1016/S2214-109X(24)00363-2)
18. Perrault, E. K., Hildenbrand, G. M., & Nyaga, R. G. (2019). Epigeneti-What? Approaches on translating research for primary breast cancer prevention. *Frontiers in Oncology*, 9. <https://doi.org/10.3389/fonc.2019.00267>
19. Prochazka, M., Vinti, P., Hoxha, A., Seale, A., Mozalevskis, A., Lewis, R., et al. (2024). "Temporary adaptations to sexual behaviour during the mpox outbreak in 23 countries in Europe and the Americas: findings from a retrospective cross-sectional online survey." *The Lancet Infectious Diseases*. Published online September 18, 2024. [https://doi.org/10.1016/S1473-3099\(24\)00531-0](https://doi.org/10.1016/S1473-3099(24)00531-0)
20. Ruggeri, K., Stock, F., Haslam, S. A., Capraro, V., Boggio, P., Ellemers, N., Cichocka, A., Douglas, K. M., Rand, D. G., van der Linden, S., Cikara, M., Finkel, E. J., Druckman, J. N., Wohl, M. J. A., Petty, R. E., Tucker, J. A., Shariff, A., Gelfand, M., Packer, D., ... Willer, R. (2024). A synthesis of evidence for policy from behavioural science during COVID-19. *Nature*, 625(7993), 134–147. <https://doi.org/10.1038/s41586-023-06840-9>
21. Shamier, M. C., & Jonas, K. J. (2024). "Mpox control strategies: using behaviour change to complement, not replace, vaccination." *The Lancet Infectious Diseases*. Published online September 18, 2024. [https://doi.org/10.1016/S1473-3099\(24\)00614-5](https://doi.org/10.1016/S1473-3099(24)00614-5)
22. Schluter, A. P., Génèreux, M., Landaverde, E., & Schluter, P. J. (2023). "In the COVID-19 pandemic, who did we trust? An eight-country cross-sectional study." *Journal of Global Health*, 13, 06036. Published online September 1, 2023. <https://doi.org/10.7189/jogh.13.06036>
23. United Nations. (2023, May 5). WHO chief declares end to COVID-19 as a global health emergency. UN News. Retrieved from <https://news.un.org/en/story/2023/1117392>
24. U.S. Agency for International Development. (2024a, August 21). USAID Announces Additional \$35 Million to Support Mpox Outbreak Response in Central and Eastern Africa | Press Release. U.S. Agency for International Development. Retrieved from <https://www.usaid.gov/news-information/press-releases/aug-20-2024-usaid-announces-additional-35-million-support-mpox-outbreak-response-central-and-eastern-africa>



25. U.S. Agency for International Development. (2024b, September 3). USAID Responds to Mpox Outbreak. <https://www.usaid.gov/global-health/us-government-response-mpox>
26. Van Bavel, J. J., Baicker, K., Boggio, P. S., Capraro, V., Cichocka, A., Cikara, M., Crockett, M. J., Crum, A. J., Douglas, K. M., Druckman, J. N., Drury, J., Dube, O., Ellemers, N., Finkel, E. J., Fowler, J. H., Gelfand, M., Han, S., Haslam, S. A., Jetten, J., ... Willer, R. (2020). Using social and behavioural science to support COVID-19 pandemic response. *Nature Human Behaviour*, 4(5), 460–471. <https://doi.org/10.1038/s41562-020-0884-z>
27. Vallis, M., Bacon, S., Corace, K., Joyal-Desmarais, K., Sheinfeld Gorin, S., Paduano, S., Pousseau, J., Rash, J., Mengistu Yohannes, A., & Lavoie, K. (2022). Ending the pandemic: How behavioural science can help optimize global COVID-19 vaccine uptake. *Vaccines*, 10(1), Article 1. <https://doi.org/10.3390/vaccines10010007>
28. Wang, H., De Paulo, K. J. I. D., Gültzow, T., Zimmermann, H. M. L., & Jonas, K. J. (2024). Brief Report: Determinants of Potential Sexual Activity Reduction in the face of the MPOX Epidemic. *International Journal of Behavioral Medicine*. <https://doi.org/10.1007/s12529-023-10252-4>
29. World Health Organization. (2024a). Multi-country outbreak of mpox. <https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report-35--12-august-2024>
30. World Health Organization. (2024b). Mpox global strategic preparedness and response plan. <https://www.who.int/publications/m/item/mpox-global-strategic-preparedness-and-response-plan>
31. World Health Organization. (2024c, August 31). UNICEF issues emergency tender to secure mpox vaccines for crisis-hit countries in collaboration with Africa CDC, Gavi and WHO. World Health Organization. <https://www.who.int/news/item/31-08-2024-unicef-issues-emergency-tender-to-secure-mpox-vaccines-for-crisis-hit-countries-in-collaboration-with-africa-cdc--gavi-and-who>
32. World Health Organization. (2024d, October 14). WHO Director-General's opening remarks at the launch of the Global Preparedness Monitoring Board. Retrieved from [World Health Summit]. Retrieved from: <https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-launch-of-the-global-preparedness-monitoring-board---14-october-2024>

33. World Health Organization. (2023, October 24). *Using behavioural sciences to support community engagement in Africa*. Retrieved from <https://www.who.int/news-room/feature-stories/detail/using-behavioural-sciences-to-support-community-engagement-in-africa>
34. Williams, S., Drury, J., Michie, S., & Stokoe, E. (2021). Covid-19: What we have learnt from behavioural science during the pandemic so far that can help prepare us for the future. *BMJ*, 375, n3028. <https://doi.org/10.1136/bmj.n3028>
35. Ye, Y., Zhang, Q., Wei, X., Cao, Z., Yuan, H.-Y., & Zeng, D. D. (2022). Equitable access to COVID-19 vaccines makes a life-saving difference to all countries. *Nature Human Behaviour*, 6, 207–216. <https://doi.org/10.1038/s41562-021-01298-3>



About Busara

Busara is a research and advisory organization, working with researchers and organizations to advance and apply behavioral science in pursuit of poverty alleviation. Busara pursues a future where global human development activities respond to people's lived experience; value knowledge generated in the context it is applied; and promote culturally appropriate and inclusive practices. To accomplish this, we practice and promote behavioral science in ways that center and value the perspectives of respondents; expand the practice of research where it is applied; and build networks, processes, and tools that increase the competence of practitioners and researchers.

About Busara Groundwork

Busara Groundwork lays the groundwork for future research and program design. As think pieces, they examine the current state of knowledge and what is needed to advance it, frame important issues with a behavioral perspective, or put forward background information on a specific context.

How to cite:

Alhaji, Mohammed M.; Nyaga, Robert G.; Forscher, Patrick S. *All responses are local. How behavioral systems can enhance global management of the Mpox outbreak. Busara Groundwork No. 15 (Literature Review)*. Nairobi: Busara, 2024. DOI: doi.org/10.62372/YEUP3422

38 Apple Cross Road,
Lavington, Nairobi, Kenya
www.busara.global

