

SCOPING REVIEW

Mpox misinformation and disinformation in Africa, 2022–2025: a scoping review

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ABSTRACT

BACKGROUND:

The resurgence of mpox in 2022 and its subsequent outbreaks in Africa were accompanied by widespread misinformation and disinformation, undermining outbreak response and public trust.

OBJECTIVE:

This review aimed to map and categorize mpox-related misinformation circulating in Africa between 2022 and 2025.

METHODS:

A scoping review was conducted following the JBI Manual for Evidence Synthesis and reported in accordance with PRISMA-ScR guidelines. Data were sourced from fact-checking networks, peer-reviewed publications, and institutional reports in English and French published between May 2022 and July 2025. Misinformation items were charted, coded thematically, and summarized descriptively.

RESULTS:

Out of 201 records screened, 37 unique misinformation or disinformation narratives met inclusion criteria. The most prevalent themes were origin and conspiracy theories (27%) and vaccine-related misinformation (22%). Narratives commonly alleged laboratory creation of mpox, vaccine-induced infection, and depopulation agendas. Dissemination occurred primarily via Facebook, X/Twitter, TikTok, and WhatsApp. Peer-reviewed studies identified misinformation as a barrier to outbreak management, citing low health literacy and distrust in authorities. The mpox infodemic in Africa reflected recycled conspiracy and vaccine skepticism narratives, amplified through social and traditional media.

CONCLUSION:

Strengthening community trust, multilingual risk communication, and regional infodemic surveillance are essential to counter misinformation and enhance outbreak preparedness.

KEYWORDS:

Mpox, outbreaks, misinformation, disinformation, Africa, 2022-2025

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INTRODUCTION

The recent resurgence of mpox as a global public health concern has been accompanied by the rapid spread of misinformation and disinformation. Although mpox has been historically endemic in parts of Central and West Africa, the 2022 outbreak marked a significant epidemiological shift in both scale and geographic distribution, with over 99,500 confirmed cases and 207 deaths reported globally across 121 countries and territories between January 2022 and August 2024¹. Increased case notifications and renewed transmission were reported across multiple African countries, with the African region alone accounting for 37,583 cases and 1,451 deaths (case fatality rate ~3.9%) during this period². The Democratic Republic of the Congo continued to bear a substantial burden of disease, reporting 13,791 cases and 450 deaths in 2024 alone, while outbreaks and alerts were documented in countries including Nigeria (704 cases, 7 deaths in 2022), Ghana (107 cases, 4 deaths), Kenya (first case confirmed in July 2024), and South Africa (5 cases in 2022, 3 deaths in 2024)². In response to the expanding outbreak, the World Health Organization (WHO) declared mpox a Public Health Emergency of International Concern (PHEIC) on 23 July 2022, citing its rapid global spread and novel transmission patterns²⁻⁶. The Africa Center for Disease Control and Prevention (Africa CDC) declared mpox a Public Health Emergency of Continental Security (PHECS) in August 2024. This was the first time the Africa CDC had made such a declaration⁷. This renewed threat, compounded by emerging strains like the clade Ib strain identified in the Democratic Republic of the Congo in 2024, highlighted the critical need for public health interventions⁸.

Drawing lessons from the COVID-19 pandemic, it is clear that the spread of false and inaccurate information can significantly hinder outbreak control efforts. This "infodemic" can erode public trust in health authorities, fuel stigma, and lead to dangerous behaviors. The specific context of Africa is particularly vulnerable, given the continent's unique health system challenges, historical experiences with epidemics, and diverse media landscapes. Understanding the specific infodemic surrounding mpox in Africa is therefore crucial for developing effective, evidence-based public

health strategies to combat the disease and its social consequences.

METHODS

Study design and objectives

We conducted a scoping review to comprehensively map mpox-related misinformation and disinformation circulating in Africa between May 2022 and July 2025. The review followed the Joanna Briggs Institute (JBI) Manual for Evidence Synthesis for scoping reviews⁹ and was reported in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR). The objective of the review was to identify, categorize, and characterize misinformation and disinformation related to mpox that circulated within African countries during and after the 2022 global outbreak, with particular attention to their thematic content, sources, and dissemination channels.

Review question and PCC framework

The review question was structured using the Population–Concept–Context (PCC) framework recommended for scoping reviews⁹. The population of interest comprised individuals and communities in Africa exposed to mpox-related information. The central concept was false, misleading, or unsubstantiated claims about mpox, encompassing both misinformation and disinformation. The context included online and offline communication environments, such as social media platforms, news media, fact-checking websites, institutional reports, and peer-reviewed publications.

Operational definitions of misinformation and disinformation

For the purposes of this review, misinformation was defined as false or misleading information shared without clear evidence of intent to deceive, whereas disinformation was defined as false information disseminated deliberately, often in a coordinated manner, with the intention of misleading audiences or undermining trust in institutions. During data extraction and coding, items were classified based on how they were described in the original sources. Where primary reports explicitly documented coordinated campaigns, geopolitical manipulation, or intentional fabrication,

narratives were described as disinformation. In most cases, however, the available evidence did not allow definitive attribution of intent. Consistent with scoping review methodology, such items were therefore analyzed descriptively and discussed collectively as misinformation and disinformation narratives, with this distinction explicitly acknowledged as a limitation.

Information sources and search strategy

Data were drawn from multiple sources to capture the breadth of mpox-related misinformation. These included fact-checking networks operating in Africa (Africa Check, AFP Fact Check, Dubawa, and Pesacheck), international and regional health agencies (WHO Regional Office for Africa and Africa Centres for Disease Control and Prevention), peer-reviewed literature indexed in PubMed, Scopus, Web of Science, and SciELO, and relevant grey literature, such as news portals, policy briefs, and social media analyses. Searches were conducted in English and French using combinations of the terms “monkeypox” or “mpox” with “misinformation,” “disinformation,” “fake news,” “rumor,” “myth,” “infodemic,” or “fact-check.” The search period spanned from 1 May 2022 to 31 July 2025. All retrieved records were manually screened to confirm their relevance to African contexts. To improve reproducibility, the full electronic search strategy for PubMed is provided in Supplementary File 1.

Eligibility criteria

Sources were eligible for inclusion if they reported or analyzed mpox-related misinformation or disinformation originating in, or circulating within, African countries. Eligible materials included peer-reviewed studies, official fact-check reports, and grey literature from reputable sources that documented identifiable misinformation narratives. Editorials, opinion pieces, or commentaries without verifiable misinformation examples, as well as reports lacking clear geographic relevance to Africa or primary evidence of misinformation, were excluded.

Selection and data extraction

Two reviewers independently screened titles, abstracts, and full texts for eligibility. Data were extracted using a standardized charting form capturing the misinformation or disinformation statement (verbatim), date and geographic scope, source reference (URL or

DOI), thematic classification, and type of source (fact-checking report, media output, or research study). Discrepancies in screening or extraction were resolved through discussion.

Data synthesis and thematic coding

Data synthesis involved a directed content analysis in which misinformation and disinformation narratives were classified into nine thematic categories: transmission and susceptibility; origin and conspiracy theories; vaccines and medical interventions; treatment and prevention; stigma and social attributions; animal and food transmission; disease severity and denial; institutional trust and governance; and knowledge gaps and structural misinformation. Frequencies and proportions were calculated descriptively, and representative examples were summarized qualitatively.

The analytical approach was informed by established conceptual frameworks on infodemics and health communication. Thematic coding followed a combined deductive and inductive approach. An initial deductive coding framework was guided by the World Health Organization’s infodemic management framework, which conceptualizes misinformation as a dynamic interaction between information supply, public demand, and trust in institutions. During data charting, this framework was iteratively refined through inductive identification of recurring patterns and narratives emerging from the included sources, allowing incorporation of context-specific and previously underrecognized misinformation themes. Interpretation of findings was further informed by risk communication and community engagement (RCCE) principles, emphasizing the roles of trust, stigma, and social context in shaping public understanding during health emergencies. In addition, insights from social and structural theories of health misinformation were applied to contextualize how historical, political, and institutional factors influence the production and circulation of false narratives in African settings. Together, these frameworks supported a theory-informed synthesis while remaining consistent with the descriptive objectives of a scoping review¹⁰⁻¹¹.

Study selection, data extraction, and thematic coding were conducted independently by two reviewers.

Discrepancies in source inclusion, data charting, or thematic classification were resolved through discussion and consensus. Where necessary, disagreements were revisited with reference to the original source material to ensure consistent interpretation and alignment with the study objectives.

Selection of sources of evidence (PRISMA-ScR summary)

Figure 1. Flow chart of selected articles

The search across bibliographic databases, fact-checking archives, and grey literature sources retrieved 201 records between May 2022 and July 2025. After removal of 38 duplicates, 163 records were screened by

title and abstract. Sixty-three full-text items were assessed for eligibility, of which 37 met the inclusion criteria and were charted for analysis, corresponding to the 37 misinformation or disinformation narratives summarized in Table 1. Among the included sources, 17 were fact-checking reports, 16 were peer-reviewed studies, and 4 were institutional or media monitoring outputs. The primary reasons for exclusion at the full-text stage (n = 26) were the absence of identifiable misinformation examples, lack of African relevance, or publication type limited to editorial or commentary content without verifiable claims. The study selection process is summarized in Figure 1.

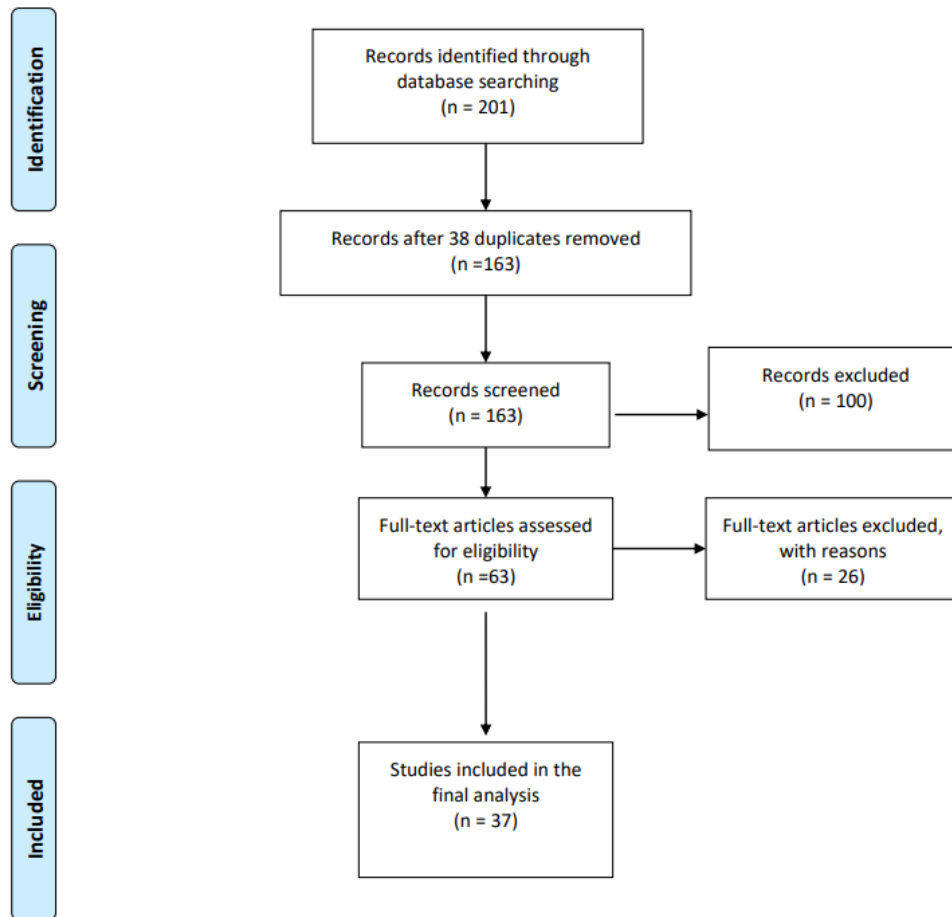


Figure 1. Flow chart of selected articles

Table 1. Summary of Mpox (Monkeypox) Misinformation and Disinformation in Africa, 2022–2025

Theme	Representative misinformation / disinformation claim	Country / Region	Year (first appearance)	Primary source / reference
1. Origin and conspiracy theories	US-funded “biolabs” in Nigeria created or released mpox; WHO asked to investigate	Nigeria / regional	2022	Africa Check (https://africacheck.org/fact-checks/meta-programme-fact-checks/health-agencies-deny-reports-us-funded-monkeypox-biolabs)
	Mpox intentionally manufactured in Western or Chinese labs; bioweapon narrative	Kenya / regional	2024	AFP Fact Check (https://factcheck.afp.com/doc.afp.com.36F4639)
	Mpox engineered by Western powers as a depopulation tool targeting Africa	Pan-African	2025	EUvsDisinfo (https://euvsdisinfo.eu/mpox-myths-and-media-manipulation/)
	Mpox created in European military labs to sterilize Congolese communities; Russian-backed influence operations	DRC / Nigeria	2025	ADF Magazine & Nigeria Health Times (https://adf-magazine.com/2025/07/shadowy-influence-campaign-stokes-mpox-fears/ & https://nigeriahealthtimes.com/health-experts-raise-alarm-over-russia-backed-mpox-disinformation-in-africa/)
	Mpox only circulates in countries distributing COVID-19 vaccines	Multiple African states	2022	AFP Fact Check (https://factcheck.afp.com/doc.afp.com.32FY3CM)
	Mpox “planned pandemic” narrative paralleling COVID-19	Global / Africa	2023	JMIR – Mapping Twitter Narrative https://doi.org/10.2196/43841
	“Mpox will mutate into Omega Mpox”; government hysteria narrative	Global / Africa	2023	JMIR – Mapping Twitter Narrative https://doi.org/10.2196/43841
	Mpox falsely linked to AstraZeneca COVID-19 vaccine or private-sector plots	Africa-wide	2022	Frontiers in Public Health (doi:10.3389/ijph.2022.1605149)
	Conspiracy theories blending religious/xenophobic frames (“divine punishment,” “foreign plot”)	Regional	2024–25	J R Soc Med Open (doi:10.1177/20499361251323709)
	Structural/systemic misinformation tied to distrust in authorities	Continental	2024	BMJ Global Health (doi:10.1136/bmjgh-2024-017090)
2. Vaccine-related misinformation	COVID-19 vaccines contain mpox virus or cause mpox	Kenya, South Africa	2022	Africa Check (https://africacheck.org/fact-checks/meta-programme-fact-checks/absolutely-bananas-dont-believe-claims-covid-vaccines)
	Pfizer COVID-19 vaccine linked to mpox; Pfizer “produces monkeypox vaccine”	Africa-wide	2022	AFP Fact Check (https://factcheck.afp.com/doc.afp.com.32BR9TD)

	Posts falsely linking mpox with COVID-19 vaccines (multiple examples)	Africa-wide	2024	AFP Fact Check (https://factcheck.afp.com/doc.afp.com.36EN4YM)
	Vaccine microchip / infertility claims (social media narratives)	Regional	2023	JMIR – Twitter Narrative https://doi.org/10.2196/43841
	Mpox vaccines ineffective or experimental	Continental	2024	SciELO Public Health (2024-09-24) https://doi.org/10.26633/RPSP.2024.113
	Vaccine skepticism rooted in distrust of Western pharma	Continental	2025	J R Soc Med Open (2025)
	Conflation of smallpox and mpox vaccines; depopulation agenda narrative	Continental	2025	EUvsDisinfo (2025) https://euvsdisinfo.eu/mpox-myths-and-media-manipulation/
	Underreporting of vaccine safety data; claims of cover-up	Africa-wide	2024	WHO/AFRO Infodemic Trends https://euvsdisinfo.eu/mpox-myths-and-media-manipulation/
3. Transmission and susceptibility	Mpox spreads faster in men who have sex with men (“gay disease”)	South Africa / regional	2022	Africa Check (https://africacheck.org/fact-checks/reports/monkeypox-does-not-spread-faster-men-who-have-sex-men-virus-spreads-through)
	Mpox only affects certain groups; others immune	Multiple countries	2024	BMC Public Health (doi:10.1186/s12889-023-15398-0)
	Myths linking mpox exclusively to sexual behavior	Global / Africa	2024	JMIR Scoping Review (2024-09-30) https://doi.org/10.2196/54874
	Confusion and stigma tied to mpox name change	Continental	2022	WHO/AFRO Infodemic Trends Report https://euvsdisinfo.eu/mpox-myths-and-media-manipulation/
	Misleading social-media comparisons to HIV epidemic	Global / Africa	2023	JMIR – Twitter Narrative https://doi.org/10.2196/43841
	Surprise at mpox spread outside Africa (denial of local risk)	Africa-wide	2024	JMIR Scoping Review https://doi.org/10.2196/54874
4. Treatment and prevention myths	Artemisinin or anti-malaria drugs cure or prevent mpox	Africa-wide	2024	AFP Fact Check (https://factcheck.afp.com/doc.afp.com.36EZ7TV)
	HIV antiretroviral drugs “prevent any virus”	Regional	2024	Trans R Soc Trop Med Hyg (doi:10.1093/trstmh/trae135)
	Traditional medicine more effective than “Western medicine”	Africa-wide	2025	Global Public Health (doi:10.1080/17441692.2025.2551008)
	Natural immunity from multiple partners / spiritual protection	Regional	2025	Global Public Health (ibid.)

5. Animal and food transmission	Mpox-infested fruits transported from northern to southern Nigeria	Nigeria	2024	Dubawa (https://dubawa.org/no-mpox-infested-fruits-not-sent-from-northern-nigeria-to-south/)
	Mpox inserted into imported semolina (“strange disease in semo”)	Nigeria	2024	Dubawa (https://dubawa.org/misleading-video-claims-strange-disease-imported-into-nigeria-through-semo/)
6. Disease severity and denial	“Mpox has disappeared / not real”	Central Africa / Pan-Africa	2025	Africa CDC (https://africacdc.org/news-item/strong-public-engagement-in-africas-mpox-fight-but-gaps-persist/)
	Only 537 deaths in DRC 2024 (understates toll)	DRC / regional	2025	Dubawa (https://dubawa.org/estimated-number-of-deaths-caused-by-mpox-in-dr-congo-in-2024-not-537/)
7. Institutional trust and governance misinformation	Mpox exaggerated or downplayed; comparisons to “mild rash”	Global / Africa	2023	JMIR – Twitter Narrative https://doi.org/10.2196/43841
	WHO reversed or lifted mpox emergency status (false)	Africa-wide	2024	AFP Fact Check (https://factcheck.afp.com/doc.afp.com.36EE2D8)
	Fabricated WHO advisory on mpox outbreak	Kenya / East Africa	2022	Pesacheck (https://pesacheck.org/fake-this-advisory-on-the-monkeypox-outbreak-attributed-to-the-who-is-fabricated-e16147c666ce)
8. Knowledge gaps and structural misinformation	WHO ordered “mega lockdowns” due to mpox	East Africa	2024	Pesacheck (https://pesacheck.org/false-who-has-not-ordered-governments-to-prepare-for-mega-lockdowns-due-to-mpox-397a0b859642)
	Limited public knowledge, media ineffectiveness, and poor communication	Continental	2023–24	Medicine (Baltimore) (doi:10.1097/md.0000000000017985)
	Misinformation as barrier to outbreak management; need for ethical communication	Africa-wide	2024	Dev World Bioeth (doi:10.1111/dewb.70001)
	Low literacy and stigma as indicators of misinformation	Regional	2024	Ann Ig (doi:10.7416/ai.2024.2637)
	Systemic and communication gaps fueling misinformation in Africa	Africa-wide	2024	J Public Health Afr (doi:10.4102/jphia.v16i1.874)

Abbreviations: DRC = Democratic Republic of Congo; WHO = World Health Organization; AFP = Agence France-Presse.

Note: Table constructed from 37 verified misinformation or disinformation items identified in fact-checking reports and peer-reviewed studies published between May 2022 and July 2025. Themes derived from WHO infodemic typology.

RESULTS

Table 1. Summary of Mpox (Monkeypox) Misinformation and Disinformation in Africa, 2022–2025

Overview of sources

A total of 37 distinct mpox-related misinformation or disinformation narratives circulating in Africa between 2022 and 2025 were identified and included in the review (Table 1). All 37 included sources were published in English. No eligible misinformation or disinformation reports published in French primarily met the inclusion criteria. Unless otherwise specified by source documentation, false narratives are described collectively as misinformation and disinformation, reflecting limits in attributing intent.

As summarized in Table 1, the misinformation and disinformation narratives identified across the included sources exhibited notable thematic consistency despite variation in geographic context and publication type. Fact-checking reports predominantly documented acute, event-driven misinformation, particularly origin-based conspiracies, vaccine cross-linking narratives, and fabricated institutional advisories that circulated rapidly during outbreak peaks. In contrast, peer-reviewed studies more frequently emphasized structural and contextual forms of misinformation, including low public awareness, stigma, distrust in authorities, and weaknesses in risk communication systems. Institutional and media monitoring reports often highlighted misinformation related to governance and data credibility, such as claims of underreporting or false changes in emergency status, which directly undermined confidence in public health institutions. Across all source types, Table 1 illustrates that similar misinformation narratives, especially conspiracy theories and vaccine-related claims, recurred across multiple countries and years, indicating the persistence and transnational migration of infodemic themes rather than isolated, context-specific phenomena.

Of these, 15 (40.5%) were derived from fact-checking networks, including Africa Check, AFP Fact Check, Dubawa, and Pesacheck; 14 (37.8%) were documented in peer-reviewed studies examining misinformation dynamics; and 8 (21.6%) originated from institutional or

media monitoring reports, such as those produced by WHO/AFRO and Africa CDC. Temporally, misinformation narratives clustered around key outbreak milestones. The highest concentration occurred between May and August 2022, coinciding with the WHO’s declaration of mpox as a Public Health Emergency of International Concern, with a secondary increase observed in mid-2024 during renewed outbreaks in the Democratic Republic of the Congo and parts of East Africa.

Although the review was not designed to estimate the prevalence or impact of misinformation, descriptive quantitative patterns emerged from the mapped evidence. Origin- and conspiracy-related narratives were the most frequently identified, accounting for 10 of the 37 items (27%). These included claims alleging the existence of “US-funded biolabs” in Nigeria, assertions of Western-engineered depopulation agendas targeting Africa, and narratives linked to coordinated foreign influence operations. Vaccine-related misinformation comprised 8 of the 37 items (22%), often falsely linking mpox to COVID-19 vaccines or alleging that pharmaceutical companies such as Pfizer produced a “monkeypox vaccine.” Narratives concerning transmission and susceptibility represented 6 items (16%) and frequently involved stigmatizing claims portraying mpox as a disease exclusive to men who have sex with men.

Treatment and prevention myths accounted for 4 items (11%), including false claims that antimalarial drugs, antiretroviral therapy, or traditional remedies could cure or prevent mpox. Animal- or food-related misinformation was less common, with 2 items (5%) describing rumors of “mpox-infested fruits” or contaminated food products. Stigma- and discrimination-related narratives were identified in 3 items (8%), disproportionately targeting marginalized and LGBTQ+ communities, while a further 3 items (8%) involved institutional or data-related misinformation, such as fabricated advisories attributed to WHO or Africa CDC and claims of systematic underreporting of mpox-related deaths. In addition, several peer-reviewed studies highlighted broader knowledge gaps and forms of structural misinformation, linking low public awareness, inadequate risk communication,

and systemic inequities in information access to the amplification of false narratives.

Geographically, misinformation narratives were pan-African in nature, with recurrent examples documented in Nigeria, Kenya, South Africa, and the Democratic Republic of the Congo, and evidence of regional echoing across both Anglophone and Francophone African contexts. Dissemination occurred primarily through social media platforms, notably Facebook, Twitter/X, TikTok, and WhatsApp, although some narratives were also traced to blogs, local radio, and informal media channels. Several misinformation themes were transnational, including vaccine-related conspiracies and laboratory-origin claims, and appeared to migrate rapidly from global online spaces into African information ecosystems.

Peer-reviewed studies identified misinformation as a barrier to outbreak management, citing factors such as limited health literacy, inadequate media reporting, distrust in government, and structural inequities in information ecosystems. Recurrent illustrative examples included false claims that mpox was caused by COVID-19 vaccination, allegations that the virus was deliberately engineered in Western or African laboratories, and fabricated public health advisories purportedly issued by international or regional authorities. Stigmatizing narratives portraying mpox as a “gay disease” or as divine punishment were also widely reported and were consistently identified as barriers to effective risk communication and community engagement.

Overall, the findings depict a dynamic and evolving mpox infodemic in Africa, dominated by origin-based conspiracies and vaccine-related misinformation, and characterized by cross-platform amplification and sociopolitical framing. Persistent knowledge gaps, distrust in public institutions, and structural weaknesses in health communication systems created conditions in which misinformation could flourish.

DISCUSSION

This scoping review provides a continental overview of mpox-related misinformation and disinformation that circulated in Africa between 2022 and 2025. The results

reveal an infodemic characterized by persistent conspiracy theories, vaccine skepticism, and stigmatizing narratives. The predominance of origin-based misinformation (27%) and vaccine-related claims (22%) highlights the ways in which health communication crises intersect with historical distrust, sociopolitical narratives, and limited access to credible information. Misinformation about mpox was not confined to social media spaces but also permeated traditional media and informal community networks, suggesting a multilayered communication challenge that extends beyond digital platforms.

This review has several limitations. First, it relied on publicly available and indexed sources; misinformation circulating in encrypted or oral community spaces could not be fully captured. Second, although searches were conducted in both English and French, all included sources were English-lapronlanguage publications. This likely reflects structural disparities in media monitoring, fact-checking capacity, and scholarly indexing rather than the absence of mpox-related misinformation in Francophone, Lusophone, or Arabic-speaking African contexts. As a result, misinformation narratives circulating in non-English information ecosystems may be underrepresented. Third, the analysis was descriptive rather than quantitative, focusing on the diversity of narratives rather than prevalence or reach. Fourth, thematic coding involved interpretive judgment, and overlaps between categories (e.g., conspiracy versus vaccine misinformation) were inevitable. Fifth, the evolving nature of mpox-related discourse means that newer narratives may have emerged after the study’s cutoff (July 2025). Finally, attribution of intent underlying false information was often not possible based on available sources, limiting the ability to consistently distinguish between misinformation and disinformation across all included items. Despite these constraints, the review provides a solid and timely synthesis of how misinformation dynamics shape health communication in Africa.

The observed patterns align with findings from global analyses of health misinformation during prior outbreaks. Studies conducted during the COVID-19 pandemic similarly reported that conspiracy theories such as laboratory origin claims, depopulation

agendas, and vaccine microchip myths were among the most persistent and transnational narratives^{16,17}. Likewise, infodemic monitoring during the 2014–2016 Ebola outbreak in West Africa identified parallel themes of distrust in government and external agencies, often amplified by political tension and legacies of colonial health interventions¹⁸. What distinguishes the mpox infodemic in Africa is the recycling and adaptation of misinformation from previous pandemics to fit local contexts. For instance, COVID-19 vaccine conspiracy narratives were rebranded to target mpox vaccines, illustrating what scholars describe as “misinformation migration” across health crises¹⁹. Furthermore, misinformation portraying mpox as a “Western disease” or a punishment linked to LGBTQ+ communities echoes stigmatizing discourse from early HIV/AIDS epidemics, reinforcing structural marginalization and inhibiting inclusive public health responses²⁰.

In line with earlier work in Ebola and Zika, this review underscores that infodemics are socially produced phenomena, reflecting inequalities in information access, literacy, and governance rather than merely the spread of falsehoods. Therefore, technical corrections alone, through fact-checking, are insufficient without addressing the deeper social and institutional drivers of distrust^{21,22}. The findings carry important implications for both national and regional public health systems. Misinformation tracking should become a core component of epidemic surveillance, alongside case detection and contact tracing²³. The Africa CDC’s “Strategic Framework for Managing Infodemics” provides a valuable starting point, but national adaptation and sustained funding remain essential²⁴. Institutional credibility is central to infodemic control. Authorities must communicate early, consistently, and transparently about uncertainties, side effects, and evolving guidance to prevent information vacuums that misinformation can fill.

Public health agencies should collaborate with fact-checking organizations, journalists, and social influencers to co-produce accurate and engaging content in local languages. radio, community theatre, and trusted faith-based networks can amplify culturally grounded narratives of care and solidarity. Public health messaging must explicitly counter narratives linking mpox with sexual orientation, morality, or divine

punishment. Partnering with community advocates, especially LGBTQ+ organizations and religious leaders, can help reframe stigma and promote empathy-based communication. Long-term investments in media literacy, critical thinking, and participatory science communication are crucial for building societal resilience against misinformation.

The mpox infodemic highlights the global interconnectedness of information ecosystems and the urgent need for coordinated, cross-border approaches to crisis communication. Lessons from this outbreak reaffirm WHO’s call to embed risk communication and community engagement (RCCE) as a core capacity under the International Health Regulations (IHR, 2005)²⁵. Effective preparedness requires moving from reactive debunking to proactive infodemic management through real-time misinformation observatories, social listening systems, and integration of behavioral insights into public health decision-making^{26,27}. These tools enable early detection of emerging rumors and more agile, evidence-informed communication responses.

Equity must be central to global preparedness strategies. Many low- and middle-income countries lack robust communication infrastructures, leaving populations more vulnerable to misinformation. These blind spots have important implications for regional preparedness and equity, as public health communication strategies informed primarily by Anglophone contexts may not fully align with local media ecosystems, linguistic practices, or trust structures in underrepresented regions. Strengthening regional fact-checking networks, supporting multilingual infodemic monitoring, and fostering collaborative research across African institutions are essential steps toward inclusive global health security and context-responsive outbreak communication across the continent. Ethical, participatory, and culturally attuned communication approaches can rebuild trust and ensure communities feel represented in outbreak response. Mainstreaming infodemic management into Global Health Security Agenda (GHSA) frameworks would ensure that misinformation surveillance, risk mapping, and community feedback become integral components of emergency preparedness worldwide^{28,29}.

Future research should focus on quantifying the reach and behavioral impact of misinformation across African countries, while also deepening understanding of how local beliefs, trust structures, and media habits shape the spread of false narratives. Ethnographic and participatory studies are needed to uncover community-level dynamics, and comparative analyses across outbreaks could identify recurring misinformation patterns and guide more effective communication strategies. Evaluating the effectiveness of countermeasures, including rumor-tracking dashboards, influencer engagement, and AI-driven fact-checking tools, will be crucial. Finally, expanding research to include indigenous languages and closed platforms like WhatsApp and Telegram can help capture the full scope of misinformation ecosystems and strengthen preparedness for future infodemics.

CONCLUSION

The mpox infodemic in Africa exposed how deeply misinformation can undermine outbreak response when trust, equity, and communication are neglected. Conspiracy theories, stigma, and vaccine skepticism thrived in the absence of timely, inclusive, and transparent engagement. Building resilience against future infodemics requires more than fact-checking; it demands embedding infodemic management, community trust, and ethical communication at the heart of global health preparedness. Strengthening these pillars will be vital to safeguarding both truth and public health in future emergencies.

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In line with ASFIRJ guidelines, AI tools were used in a limited capacity to enhance sentence clarity and coherence. All substantive ideas and interpretations were developed and validated by the authors.

CONFLICT OF INTEREST

IM and DD declare no competing interests. MS is employed by a company that manufactures an mpox vaccine; the employer had no role in the design, analysis, interpretation, or writing of this study.

AUTHORS' CONTRIBUTIONS

All authors contributed to the conceptualization of the study, manuscript writing, and the review and revision

of the final manuscript. All authors read and approved of the final manuscript.

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Supplementary File 1. Detailed search strategy

PubMed search strategy

The PubMed database was searched using the following Boolean query:

((("monkeypox"[Title/Abstract] OR "mpox"[Title/Abstract]) AND (misinformation[Title/Abstract] OR disinformation[Title/Abstract] OR "fake news"[Title/Abstract] OR rumor*[Title/Abstract] OR myth*[Title/Abstract] OR infodemic[Title/Abstract] OR "fact-check"[Title/Abstract]))

Filters applied

Publication date: 1 May 2022 to 31 July 2025

Language: English and French

No study design filters were applied. Reference lists of included articles and relevant reviews were hand-searched to identify additional eligible sources.