Interim guidance on social and behavioural research for the mpox public health response

March 2025

World Health Organization

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Foreword

Mpox remains a serious public health challenge, affecting communities worldwide. Controlling its spread and reducing its impact requires more than medical interventions—we must also understand how people and communities respond to the disease. Social and behavioural research is essential to ensuring that public health measures are practical, effective, widely accepted, and do not inadvertently do harm through wider social and economic impacts.

Outbreaks do not affect all populations equally. Marginalized groups—including those with limited access to healthcare, those facing stigma, and communities in humanitarian settings—often bear the greatest burden. Without research that explores these social dimensions, public health interventions risk being ineffective, inequitable, or even harmful. By examining how vulnerabilities shape health behaviours, access to services, and community trust, social and behavioural research helps design tailored interventions that remove barriers to care, combat misinformation, and engage communities as equal partners in outbreak control. It also plays a critical role in addressing stigma and discrimination, ensuring that response efforts do not further marginalize those already at risk. To stop transmission, support affected populations, and protect health equity, social and behavioural research must be at the core of the mpox response.

This guidance on social and behavioural research for mpox public health response is the first of its kind. It provides clear principles for conducting high-quality, ethical social and behavioural research during an outbreak. Developed through global collaboration, it is designed to support governments, public health teams, risk communication and community engagement practitioners, operational partners, ethics committees, researchers, and community organizations in generating and using evidence to strengthen response efforts. World Health Organization is committed to supporting countries in their fight against mpox by providing the best available knowledge and guidance. This document reflects the expertise and dedication of specialists worldwide, and we thank all who contributed.

By applying the best available science and structured methods, we can improve response strategies, strengthen community engagement, and ensure that public health measures are relevant, fair, and effective. Working together, we can control this outbreak and build stronger, more resilient communities for the future.

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All external experts submitted to WHO a declaration of interest disclosing potential conflict of interest that might affect or might reasonably be perceived to affect their objectivity and independence in relation to the subject matter of the meeting and guidance. WHO reviewed these declarations and concluded that none could give rise to a potential or reasonably perceived conflict of interest related to the subjects discussed at the meeting or covered by the guidance.

Abbreviations

HIV	Human immunodeficiency virus
IHR	International Health Regulations (2005)
IHR EC	International Health Regulations (2005) Emergency Committee
MPXV	Monkeypox virus
PHEIC	Public health emergency of international concern
RCCE	Risk communication and community engagement
TWG	Technical Working Group
WHO	World Health Organization

Definitions

Behavioural science

The rigorous and systematic application of multidisciplinary scientific methods to study and understand human action, its psychological, social and environmental drivers, determinants and influencing factors (1).

Community engagement

The collaborative process that involves people in understanding the risks they face and includes communities in developing health and response practices that are acceptable and workable for them. The goal of community engagement is to empower communities and to develop shared leadership throughout the health emergency response *(1)*.

Community feedback mechanism

A community feedback mechanism is any system that is established to support two-way communication between communities and humanitarian response actors, with the goal of ensuring that the information exchanged with communities will feed into the design, implementation and improvement of different response operations. Community feedback mechanisms have three elements: 1) diverse channels for inclusive, two-way communication; 2) protocols and tools for feedback management; and 3) a structure and process for making decisions *(2)*.

Community protection

This refers to community-centred actions that protect those who are at risk from or affected by the health and social impacts of a health emergency *(3)*. These outcomes can be achieved through three core processes that intersect and work together in important ways, namely: 1) following technical approaches that include risk communication, community engagement and the delivery of community services; 2) enabling the implementation of population and environmental interventions that protect those affected against mpox; and 3) taking multisectoral action to mitigate wider social and economic impacts.

Participatory research

Participatory research encompasses research designs, methods and frameworks that use systematic inquiry in direct collaboration with those affected by the issue being studied for the purpose of action or change. It engages those who are not necessarily trained in research but who belong to or represent the interests of the people who are the focus of the research *(4)*.

Public health emergency of international concern (PHEIC)

An extraordinary event which is determined to constitute a public health risk to other States through the international spread of disease and which potentially requires a coordinated international response. This definition implies a situation that is serious, sudden, unusual or unexpected; that carries implications for public health beyond the affected State's national border; and that may require immediate international action *(5)*.

Rapid community assessment

Rapid community assessment is a process for quickly collecting community insights about a public health issue in order to inform programme design. The assessment involves reviewing existing data and conducting community-based interviews, listening sessions, observations, digital listening and surveys *(6)*.

Risk communication

Real-time exchange of information, advice and opinions between experts and people who face health threats. The purpose of risk communication is to provide people with accurate and timely information and to support them in making informed decisions to mitigate the effects of a threat *(1)*.

Stigma

In the context of health, social stigma refers to a negative attitude towards a person or group of people who share certain characteristics and a specific disease *(7)*.

Strategic preparedness and response plan

A high-level health sector response plan that is required to guide WHO and partners in response to an event. The plan outlines the context and provides the latest situation update with a summary of current response activities, strategic objectives and interventions, and the response plan itself (i.e. planning assumptions and summary of operations), as well as resource requirements and a monitoring framework. Wherever possible, the strategic preparedness and response plan should be part of the national plan, or closely aligned to that plan (8). WHO should clearly identify its priorities and resource requirements within this plan *(9)*.

Surveillance

The systematic ongoing collection, collation and analysis of data for public health purposes and the timely dissemination of public health information for assessment and public health response, as necessary *(10)*.

Introduction

On 14 August 2024, following an upsurge in cases and the emergence of the newly identified clade 1b with sustained human-to-human transmission, the Director-General of the World Health Organization (WHO) declared mpox a Public Health Emergency of International Concern (PHEIC) under the provisions of the International Health Regulations (2025) (IHR). The announcement followed a similar declaration made by the Africa Centres for Disease Control and Prevention (Africa CDC) the day before. On 13 August 2024, Africa CDC declared the event a Public Health Emergency of Continental Security (PHECS) for the African continent, activating this emergency mechanism for the first time. Since August 2024, transmission of mpox has been reported in all six WHO regions. The WHO African Region is the most affected by mpox outbreaks, with Burundi, the Democratic Republic of the Congo and Uganda *(11)* as the most affected countries in the region. These countries report sustained community transmission, including in large urban areas. Travel-related cases have been reported by other countries in the African Region as well as globally, with all six WHO regions affected.

On 22 November 2024, at a second meeting of the International Health Regulations (2005) Emergency Committee, the members were unanimous that the ongoing surge of mpox continues to meet the criteria of a PHEIC *(12).* The Emergency Committee updated temporary recommendations to States Parties experiencing mpox transmission. The recommendations are to be implemented together with current standing recommendations for mpox (extended to August 2025) *(13)*. These updated recommendations include advice to State Parties to invest in addressing evidence needs, as set out in *A coordinated research roadmap – mpox virus: Immediate research next steps to contribute to control the outbreak (14).* This research roadmap sets out 10 priorities for research to strengthen the public health response to mpox and includes social and behavioural research to support community-centred public health responses *(14).*

Social and behavioural research is increasingly integrated within standard public health responses. However, there is variability – both in understanding and in practice – as to what constitutes research and there is little to no guidance on quality standards for data use and research production in emergency contexts. For the mpox public health response, a wide range of research and related activities are underway to address important knowledge gaps related to the mpox PHEIC *(15).* These include studies led by academic groups, including stand-alone social science studies as well as studies being conducted as part of multidisciplinary consortia. Further, as with many public health outbreaks, there are many more operationally orientated activities that also involve systematic collection and analysis of data, aimed primarily at strengthening public health programming and response. Examples include rapid community assessments, e.g., for vaccine uptake *(6)*, community feedback mechanisms *(2),* message-testing *(16),* and social media monitoring. These activities are often conducted through operational response pillars, specifically risk communication and community engagement (RCCE) and represent routinely-collected data to steer RCCE activities. For high-quality practice, standard operating procedures for these activities should be set out in a protocol or a similar document and analyses should inform decisions related to the public health response *(17).* However, in practice, these activities vary in the extent to which they are structured, planned and delivered according to standard operating procedures or protocols.

WHO has thus developed interim guidance to support Member States, operational partners, academics, civil society groups and others in their goal to produce high-quality, rigorous and ethical social and behavioural research and public health assessments for the current mpox PHEIC. This guidance is based on principles of good practice for emergency-relevant research and sets out the application of these principles to relevant activities for mpox. By adopting a principles-based approach, the guidance avoids setting out prescriptive procedures or rules; rather, it presents a flexible approach that can be used to guide research and related activities in different contexts where there will be different challenges and operational realities. This approach is particularly important in view of the current dynamic nature of mpox outbreaks and highlight the contextualized nature of these events around the world. Member States are facing mpox in diverse epidemiological situations, with different clades of the virus spreading through distinct transmission dynamics. For instance, while some countries are experiencing sustained mpox transmission with a high burden of cases, others have no local transmission and may currently be managing imported cases only.

This interim guidance is primarily aimed at those conducting social and behavioural research and related public health activities to inform the response to the mpox PHEIC and potential future events. The focus is on research that seeks to address key questions that are relevant to stopping mpox transmission, understanding localized outbreak dynamics, and steering community-centred interventions that protect at-risk or affected communities. This focus is not intended to deprioritize other forms of social and behavioural research activity (e.g. research that can inform longer-term goals of mpox prevention and control, formative research to inform longer-term studies, or research to inform management of future mpox outbreaks). In accordance with standard WHO procedures, this interim guidance will be reviewed and updated periodically.

Mpox outbreaks: the current context

Mpox is a viral illness caused by orthopoxvirus that transmits from person to person through close contact, including sexual contact, and from unknown animal reservoirs in East, Central and West Africa. Current outbreaks around the world are heterogenous, driven by the two known clades (clade I and clade II) of the monkeypox virus (MPXV) with distinct epidemiological patterns affecting different populations.

Mpox from clade Ia MPXV is found in endemic areas of East and Central Africa – mostly in the Democratic Republic of the Congo – and is linked to zoonotic spillover events as well as some human-to-human transmission mainly through close physical contact, including sexual contact *(12).* Clade Ib MPXV affects non-endemic areas for mpox in the Democratic Republic of the Congo and neighbouring countries, where mpox is spreading mainly through human-to-human close physical, including sexual contact *(12).* MPXV clade I spreads internationally mainly through travel and population movements and is linked to sexual contact.

Clade II MPXV is mainly found in historically endemic areas of Nigeria and countries of West and Central Africa. These outbreaks affect children and adults and are linked to zoonotic spillover events, as well as human-to-human transmission. Mpox outbreaks from clade IIb MPXV predominantly affect adult men who have sex with men and transmission is mainly through sexual contact. From July 2022 to 23 May 2023, mpox was considered a PHEIC under the provisions of the International Health Regulations (IHR) (2005) following the emergence of clade IIb and an upsurge of cases – predominantly among key populations, including men who have sex with men and, additionally, newly recognized modes of transmission.

Banner for *Communities at the centre of mpox prevention and control*. ©WHO/Dan Kalaki

Mpox public health response strategies and community-based challenges

Mpox outbreaks are social events as much as biomedical ones. Human behaviour linked with broader political, economic and ecological processes, drives the emergence and amplification of disease and can also drive effective outbreak prevention and control. Dr Mike Ryan, Executive Director of WHO's Health Emergencies Programme and Deputy Director-General of the Organization, describes this as follows: "the ability of diseases to move has more to do with human behaviour than it has with any of the bugs that we fight" *(18).* Across diverse settings, common community-level challenges have emerged against which social and behavioural research can play a critical role in improving public health strategies *(15).* These include understanding and tackling social and behavioural drivers of transmission and the impacts of misinformation, stigma and discrimination, optimal approaches to community-based care, the support needs of community health workers, cross-border collaboration, and the wider impacts of conflict, humanitarian crisis, poverty and inequity *(19).*

The public health response to mpox is guided by major strategic preparedness and response plans *(8,20,21).* These plans set out public health strategies and include strategies and interventions for community protection at individual or household levels (e.g. risk communication, advice for home-based care), at institutional or facility levels (e.g. for prisons, schools, camps for internally displaced persons), and at national level (e.g. border health, mass gathering events). At the individual or household level, public health advice typically includes assessing personal risk, preventing infection, and providing advice for people with mpox to avoid the spread of infection, including when being cared for at home. Communities are engaged in standard public health practices such as contact tracing and surveillance. Recommendations also cover infection prevention and control measures, including strategies for low-resource settings, as well as community-based care – such as recognizing symptoms early, knowing where to seek care and practicing self-care to prevent transmission. In locations where vaccines are available, vaccination is a critical component of the response. Specific guidance is also provided for facilities and institutions (such as prisons, schools and camps for internally displaced persons) as well as for population-level activities, including managing risks at border crossings and mass gatherings. Human behaviour combined with social, cultural, political and economic contexts, is critical to the success of these strategies and interventions. Understanding social contextual factors, as well as pre-existing vulnerabilities among affected communities, can help in tailoring context-sensitive response interventions for the judicious use of scarce resources and in ways that anticipate and mitigate wider social and economic impacts of the mpox public health response.

Guidance aims

This interim guidance aims to clarify standards for high-quality, ethical, social and behavioural research to strengthen the public health response to the ongoing mpox PHEIC for community protection. The guidance is particularly relevant to rapid research that aims to inform near- to real-time decision-making and action but is equally applicable to longer-term research that may be critical for informing future outbreak preparedness and response. It sets out key scientific and ethical considerations for research to address questions related to social and behavioural dynamics in mpox outbreaks. Further, this guidance seeks to establish quality standards that promote harmonization in field-based practice while allowing flexibility for innovation and the development of novel methods and approaches. By setting agreed standards in advance, the aim is to ensure a more collaborative and efficient research process.

Guidance audience

This guidance is written for people working in the mpox public health response, with a particular focus on those planning, commissioning or conducting research and related activities, and for those intending to use outcomes in the ongoing mpox PHEIC and future outbreaks. It is aimed at public health decision-makers, mpox emergency teams, risk communication and community engagement practitioners, infodemic managers, researchers (including academic researchers), ethics committees, WHO country offices, operational partners conducting research (including United Nations agencies and international nongovernmental organizations) and contributing to the mpox emergency response across technical pillars, and donors funding research and programming for the mpox PHEIC.

Sophie Kayiba Nathalie, RCCE at Limete Health Zone, Kinshasa, Democratic Republic of the Congo. ©WHO/Dan Kalaki

Guidance scope

This guidance is developed to inform systematic approaches to the collection and analysis of data for a pre-defined purpose or in response to a pre-defined question for the public health response to the mpox PHEIC. This includes more formal research activities aimed at generating new knowledge to inform public health responses, as well as public health and community assessments and similar activities intended to strengthen response operations and programmes. This interim guidance does not aim to establish specific parameters for ethical oversight and other regulatory mechanisms governing research activities across this spectrum. Instead, its key message is that high-quality, ethical research practices should be upheld, regardless of the oversight mechanisms in place.

How the guidance was developed

Guidance development followed a structured and collaborative process, bringing together expertise from multiple disciplines, sectors and global regions. The development of the guidance began with a scoping phase that included a rapid evidence review of existing guidelines, ethical frameworks and scientific and grey literature, and an end-user survey to identify practitioner and researcher needs and priorities for social and behavioural research in the mpox response. An external technical working group (TWG) – including multidisciplinary experts in social and behavioural sciences, ethics and public health, as well as operational partners – was convened and, in parallel, an internal WHO advisory group provided additional technical input to guidance development. The guidance was developed in three substantive iterations following consultation – which included a meeting of over 70 multisectoral stakeholders which brought together Member States representatives, academics, operational partners and civil society groups in Kinshasa, Democratic Republic of the Congo [27–28 November 2024], and an in-person meeting of the external TWG in Brazzaville, Republic of Congo (30–31 January 2025). Full guidance development methods and findings are included in Annex 1.

Guidance

Social and behavioural science and research for mpox

The social and behavioural sciences represent an interdisciplinary field of sciences that focus on the study of individual and collective human behaviour and the sociocultural, structural and environmental factors that influence human behaviour. While similar in many ways, there are also important differences between the approaches taken by different disciplines and the theories and methods they use. For instance, some approaches informed by psychology might focus specifically on individual behaviour and the influences on that behaviour. Approaches informed by sociology might focus more on social relationships, patterns of human behaviour and the influence of social structures on people's lives – such as the drivers of inequities and inequalities. Approaches informed by anthropology might focus on understanding human behaviour within – but also across – diverse political, cultural and social contexts. Approaches informed by social epidemiology might focus on how social interactions and social conditions have an impact on the public's health *(22).* In the context of the mpox PHEIC, using these different disciplinary approaches will inform the kinds of research questions that are asked, the methods that are used, the analyses that are undertaken and the interpretations of study outcomes.

This interim guidance does not advocate for one approach, theory or framework over another. Different approaches will be useful in different contexts and situations. Applied (rather than purely theoretical) social and behavioural research will be most useful in the response *(23).* Common methods used in applied social and behavioural research for mpox to date include quantitative methods (such as cross-sectional surveys), qualitative methods (such as focus groups and key informant interviews), ethnographic methods (including participant observations), and social media analysis. Further, evidence reviews and syntheses are key to rapid summarizing of existing evidence and to informing knowledge gaps, as well as to laying the foundation for any new research.

Research is generally considered essential in a public health emergency such as mpox *(24–26).* While the public health response focuses on ending an emergency rapidly, research is driven by a need to first understand the science of these events and to use that as a basis for action *(27,28).* For mpox, social and behavioural research needs to inform decision-making in as near to real time as possible, and much can be gained by using rapid methods and tools to achieve this goal *(29).* Rapid research helps decision-makers to account for community views, preferences and solutions, and to understand local systems and structures (e.g. leadership structures, community health workers, volunteers, faith networks) as well as constraints (e.g. overcrowding, lack of access to water, sanitation and hygiene. This can then enable response teams to work more effectively in partnership with those who are affected and to put in place more targeted, culturally-appropriate and powerful public health interventions, such as those for risk communication and community engagement. Longer-term research captures key lessons that can become clear only over time – such as the wider or longer-term impacts on communities and health system resilience. The conditions under which research is conducted can present challenges and complexities.

Mpox is dynamic and changing. There are many knowledge gaps, most recently related to the emergence of the new clade Ib MPXV. The design of social and behavioural research must take account of social, political and economic contextual aspects as well as the general dynamics of the mpox outbreak. For instance, research might be delivered in low-resource or humanitarian settings, in high-density urban settings, or in settings of active crisis or co-circulation of other infectious diseases and health threats. Research in these settings often involves field-based (rather than remote) data collection, which can present safety risks to field teams. These (and other) aspects of mpox emergency research need careful ethical and safety analysis and judgement when research is being planned and implemented *(25,26,30).* Others have considered these dimensions of emergency-relevant research in detail, and there is a substantive body of existing guidance to draw from (see Annex 2). There are international ethical and quality standards that researchers, public health practitioners, funders, review bodies and others involved in mpox emergency-related research are expected to uphold when conducting research in emergencies, and these standards apply equally to social and behavioural research *(31–33).* This interim guidance considers the specific application of these principles to social and behavioural research for the mpox PHEIC, helping to ensure that research efforts are ethical, actionable and responsive to the unique social and epidemiological dimensions of the outbreak.

1. Design and delivery

Regardless of actual or perceived time pressures in the mpox emergency response, social and behavioural research requires a well-structured design and plan before it begins. This section sets out key considerations and foundational principles for planning and delivering social and behavioural research, including rapid operational social and behavioural assessments.

1.1. **Questions and objectives**: Social and behavioural research should have clearly defined research questions. These questions should prioritize community public health needs and priorities without compromising participants' rights *(32).* The questions should be locally relevant and contextualized to maximize the social value of the research *(25,33).* For mpox, social and behavioural research questions should be formulated to address critical knowledge gaps and should therefore be based on current knowledge of mpox transmission, prevention and control, recognizing that this understanding is dynamic and may evolve over time. There should be a clear logic in how the answer to the research question would be used to inform the outbreak response and guide disease control measures *(23).* As a result, research questions should ideally be jointly developed and/or refined with the anticipated end-users of the research, including with representatives of at-risk or affected communities, in order to align the response with their mpox-related priorities *(29,34).* For the mpox public health response, ministries of health are often key end-users with whom research questions and objectives should be co-developed. Other end-users include those delivering mpox-related support and/or routine health or clinical services, including humanitarian organizations, community-based organizations and civil society groups. Where research protocols include broad or generic domains of questioning, researchers should consider refining these questions rapidly as part of the research itself in order to optimize relevance and address emerging, immediate and localized outbreak dynamics.

1.2. **Design and documentation in a protocol**: Mpox-relevant social and behavioural research should have a detailed and structured plan that is documented in a protocol or similar document (for instance, rapid field-based assessments might be documented as terms of reference or a concept note) *(23,35).* Research protocols may set out a plan for stand-alone social and behavioural research, or there might be interdisciplinary plans where social and behavioural research is one part of a broader study. For mpox, master protocols have also been developed, setting out a consistent research plan that can be implemented in different locations.

- Research protocols set out the overall plan for how studies are designed and include information such as the background, rationale, aim, methods, participant selection, recruitment, approach to data collection and analysis, data storage and protection, ethical considerations and other relevant content. Relevant tools such as information sheets and informed consent forms are important inclusions in these documents. A protocol allows for a shared understanding of the research to be conducted, helps with budgeting sufficient costs for implementation, and facilitates a consistent approach to delivering the study. Protocols can be shared with ethics committees and others who provide oversight of the study. Interdisciplinary protocols that include social science components will set out overarching plans for the full study.
- Research methods that are set out in protocols must be coherent with the research aim, scientifically rigorous, ethically sound and designed to produce actionable and reliable results *(25,32).* Any specific theoretical approaches or conceptual frameworks underpinning study design and analysis should be clearly described. A conceptual or theoretical framework is a structure that sets out the logic of how different variables or factors are thought to relate to each other. These conceptual frameworks may describe individual, contextual, societal or

A WHO Emergency Officer for North Kivu talks to a woman who is sheltering at a camp north of Goma. ©WHO/Dan Kalaki

environmental factors that can influence health-related behaviours. The choice of theory or framework is often guided by the disciplinary approach and the theories about how knowledge is produced.

- This interim guidance is deliberately not prescriptive about theoretical approaches as these should ideally be guided by the social and/or behavioural scientists who are engaged in the design and delivery of a research study, or through consultation with those with appropriate expertise. Conceptual or theoretical frameworks can be used in different ways – e.g. in advance of the development of research questions and protocols, or later in a study where a specific theory might be chosen to help understand what has been studied and to make sense of the information collected during analysis. The planned use of conceptual and theoretical frameworks should be set out in the study protocol, which should also be clear about the logic guiding the choices made during study design. This can help to focus the analysis, interpretation and use of the study outcomes, as well as aid in the understanding of the limitations of the study. This advance investment when designing studies can save time and can optimize the usefulness of outputs.
- Research protocols can be developed at global, regional, national or subnational levels. To optimize feasibility, research plans should prioritize simplicity and ease of study implementation *(17)*. Implementation plans must be sufficiently flexible to account for contextual realities at each of the levels and research processes, and tools should be adapted. For example, survey questions and other communication with participants should be translated and pretested for implementation in local languages whenever possible *(36)*.
- Research protocols should also include plans for feeding back study findings to stakeholders, including participants *(29)*, and should account for these costs in their budgets.

1.3. **Rapid methods** involve adapting standard research methods to accelerate the time to report results. These methods prioritize speed over detail and adopt specific strategies for this *(29)*. Rapid methods must remain high-quality and transparent and must reflect international ethical principles to ensure trustworthiness. When protocols are used for the mpox emergency response, researchers must clearly explain how standard methods will be adapted to achieve speed without compromising the safety and well-being of human participants. This includes defining the specific methods and/or strategies used to expedite data collection, analysis and reporting, as well as acknowledging any limitations that these adaptations may introduce. Likewise, when reporting the outcome of studies using rapid methods (including rapid qualitative assessments), these aspects should be reported *(29).* For example, in circumstances where simultaneous translation during data collection and/or translation during analysis occurs, the limitations and potential biases arising from these methods should be reported for the sake of transparency. As far as possible, opportunities for collecting data and participant feedback in their own words should be encouraged.

1.4. **Participant selection**: As a general principle, participant selection should be diverse, inclusive and fair. This enables research benefits to be shared and research findings to reflect accurately the varied experiences, needs and challenges of mpox-affected populations *(24,25,33).* Research that fails to include affected populations equitably may lead to incomplete or biased conclusions, limiting the applicability and effectiveness of public health responses. Ensuring that research participation is fair, just and inclusive strengthens the credibility of research outcomes and enhances their usefulness in informing policies that address mpox equitably across different settings.

- The decision as to which specific groups of people should be included in mpox-relevant social and behavioural studies will be guided by the research questions, the context-specific transmission dynamics within affected localities and the wider social, economic and structural factors that influence health (3,37). Exclusion criteria should be clearly justified.
- Proactive efforts should be made to enable all groups – particularly those at higher risk of exposure, stigma or marginalization – to have fair access to participation in the research so that their perspectives and experiences can be included in the research outcomes *(26,32).* Exclusion perpetuates gaps in knowledge and can lead to inequitable public health responses.
- Research processes for participant recruitment need to be sensitively designed in ways that convey respect, minimize risks and avoid inadvertent reinforcement of stigma and discrimination *(25,33,38,39).* Participatory approaches to recruitment can assist study teams to understand the risks and vulnerabilities faced by various groups, including those facing specific vulnerabilities, stigma and marginalization, and in planning acceptable processes to facilitate their involvement.
- Mpox social and behavioural research teams should receive training on stigma and discrimination. Strong data protection measures must be in place to safeguard privacy and confidentiality (see section 4.1 on data protection). It is essential to anticipate and mitigate potential risks (e.g. related to stigma or security) for both participants and data collectors in order to ensure safe and ethical research practice.
- Processes for participant selection and inclusion should account for the needs of diverse groups. For instance, where research participants might include those with low literacy, language barriers or cognitive difficulties, information about the research and participants' rights must be provided in accessible formats *(36).*

1.5. **Data collection:** Data collection should be judicious, lean and purposeful, and should be focused on gathering only the necessary data to answer the research question *(40).* As with guidance for other kinds of research, this principle aims to reduce waste and the burden on participants and those conducting the research *(34).*

- Researchers should plan data collection carefully, ensuring that all data collected are directly relevant, actionable and likely to be used. Well-designed research questions and tools and well-trained data collectors can save time and improve the quality of the data collected. Examples include designing cross-sectional surveys that have fewer targeted questions based on conceptual models and using lean sample-size calculations that still enable the research question to be answered effectively. In qualitative studies, this does not mean avoiding deeper exploration during interviews or focus groups but rather prioritizing key lines of enquiry in order to ensure that studies can be completed within defined time frames to inform the ongoing public health response *(41,42).*

- At the same time, the mpox PHEIC is a dynamic event and research activities may give rise to emergent research questions that were not initially anticipated. Researchers should maintain flexibility in order to capture critical emerging data provided that this remains within the original scope of the research, balancing the value of capturing data with the risks, ethical considerations and practical constraints of research, particularly in the context of the current crisis. Rapid analysis performed in parallel with data collection can help research teams to identify new questions, as well as pinpointing topics for which data saturation may have occurred and therefore no further exploration is required. Social and behavioural scientists who are familiar with emergency research are trained to make these kinds of methodological judgements in context and can help with making decisions about the judicious collection of data.

1.6. **Data analysis:** Data analysis in social and behavioural research of mpox must balance efficiency and methodological rigour, including where rapid methods are used. Analysis plans are informed by the research question and the theoretical perspective that underpins the research.

- A well-structured analysis plan can ensure that findings are timely and relevant and can inform decision-making. This is particularly helpful in rapid response. To maximize the utility of research findings, analysis should be designed with the intended application in mind. For example, if research is meant to inform subnational decision-making, data should be disaggregated at the appropriate geographical or administrative level. Similarly, to capture the differential experiences and impacts of mpox and response measures across social groups, data should highlight variations across gender, age, socioeconomic status and other key demographic or social characteristics. The use of conceptual and theoretical frameworks can structure analysis plans and aid the interpretation of study outputs.
- If feasible, the plan should include provision of an interim report at the point at which the person leading the research feels confident that the findings are unlikely to change. These may be top-line descriptive findings from quantitative research or common emergent themes from qualitative analyses. The findings should be carefully presented together with the appropriate level of confidence in the outcomes in order to ensure that the interpretation of interim outcomes is appropriate. The presentation of interim findings may be key to ensuring that the research can inform the response in a timely way. It is important to maintain trust in the research process and its outcomes by clearly describing the limitations of any interim outcomes before the full analysis is completed.

1.7. **Reporting findings:** Those conducting mpox social and behavioural assessments and research have a duty to report their findings promptly and transparently in order to inform real-time decision-making for public health action and interventions *(23–25,38)* in ways that do not inadvertently exacerbate stigma.

- The way in which reporting is done currently varies and includes short reports, presentation formats, and publication in academic journals following peer-review. Timely action is a key principle in reporting results. Thus, interim and emerging findings should be shared as soon as they can be confidently reported, with clear disclaimers that the results are interim and may change with further analysis. Publication processes should not delay access to these findings.
- Research findings should also be communicated to research participants and their communities. This should be done in ways that are accessible, culturally appropriate and meaningful to them and through channels established from the outset *(16).* Local researchers who know the culture, norms and languages of the research participants can also guide the communication of research results. These plans should be included in research protocols with dedicated budget lines to facilitate implementation *(20).*

Patients at Kavumu Hospital in South Kivu, Democratic Republic of the Congo. ©WHO/Guerchom Ndebo

1.8. **Using findings to guide public health action:** A primary purpose of mpox social and behavioural research is to inform responsive, equitable public health actions on mpox that can protect the health and well-being of communities that are at risk or are affected. To drive actionable change, research findings should directly inform policies, shape or refine interventions and improve public health strategies. Given the urgency of delivering an effective public health response to the mpox emergency, translation of research findings into recommendations for action is a critical part of the research process. Examples include: refining risk communication and public health messaging; improving trust and tailored community engagement strategies; developing or refining equitable public health strategies and interventions; improving access to care; informing resource allocation (including, for instance, access to vaccines); or designing mpox-related behavioural interventions and evaluating their effectiveness and impact.

- Where feasible, recommendations related to implementing research findings should be jointly developed with those responsible for delivering those actions. While researchers are best positioned to analyse data and interpret outcomes, those responsible for the mpox response are best positioned to understand the response dynamics and structures through which interventions can be delivered. Thus, developing recommendations for action is best done as a joint process between the researchers and those intending to put the research findings into practice – such as persons leading the public health response or those delivering response-related programmes and services *(33)*. End-users are then responsible for implementing these actions.
- Where research outcomes inform the design of new community-based public health interventions, community engagement initiatives and/or revised risk communication strategies, these should ideally be jointly produced with representatives of the communities that will be the beneficiaries of these actions. This approach, coupled with engagement of the practitioners leading the public health response, will help increase the feasibility and acceptability of new initiatives informed by research outcomes. Representatives of the communities that have participated in research may be suitable participants for joint production activities.

- Mechanisms for tracking the implementation of recommendations can enhance accountability and strengthen trust *(25,33).* Dedicated funding and accountability mechanisms should be in place to ensure that research-driven actions are implemented.

1.9. **Team expertise**: Social and behavioural research in public health emergencies, including mpox, requires expertise beyond conventional research competencies. Teams must be equipped to work in dynamic, time-sensitive and ethically complex environments, where standard research approaches may require adaptation to fit the urgency and operational constraints of an emergency response *(25,33).* In crises or humanitarian settings, researchers may need to collaborate with humanitarian agencies, integrate research into existing response mechanisms and navigate complex operational environments in which research must align with urgent health and humanitarian priorities.

- Research teams should include experts with specialized skills and experience in emergency-relevant social and behavioural science which should be aligned with their research questions and methodologies. Depending on the study focus, the researchers may include anthropologists, sociologists, psychologists, social epidemiologists, and trained risk communication and community engagement specialists. Whether using qualitative, quantitative, participatory or mixed-method approaches, research teams must ensure that data collection, analysis and interpretation are led by those with appropriate training, experience and ethical awareness. Additionally, teams require expertise in the critical domains discussed in this guidance, including stigma reduction, cultural safety, stakeholder engagement and ethical standards.
- In interdisciplinary groups, social and behavioural research components should be led or advised by social and behavioural scientists with expertise in conducting social and behavioural research in emergency contexts. This ensures that research is methodologically sound, ethically robust and directly applicable to response efforts.

2. Stakeholder engagement for research

Stakeholder engagement is essential for conducting relevant, ethical and inclusive social and behavioural research during the mpox response. This section outlines key considerations and guiding principles for engaging multisectoral stakeholders and affected communities in relation to a specific study, while ensuring that research efforts are collaborative, contextually appropriate and aligned with public health priorities.

2.1. **Multisectoral stakeholder engagement:** Public health emergencies such as mpox involve diverse stakeholders with different priorities and expectations, working within varied structures and systems. It is important to engage multisectoral stakeholders both from the outset and throughout the research process in order to ensure that engagement is inclusive and meaningful *(25,33,35).* Stakeholder engagement fosters transparency, promotes shared ownership, improves the feasibility and acceptability of research, and can enhance the translation of research into practice *(17,25,26,32).* Stakeholder engagement also ensures alignment with broader public health efforts, response coordination and preparedness planning.

- Stakeholders should be identified in advance through rapid mapping, considering the specific focus and scale of the research. Stakeholders may include ministries of health, operational partners, civil society organizations, community organizations, faith-based organizations, humanitarian groups and representatives from the human health, animal health and environmental sectors. The level and type of engagement will vary depending on the stakeholder roles and responsibilities. Some stakeholders act as decision-makers or gatekeepers whose approval or oversight is required to conduct research (e.g. through ethical clearance or for research coordination). Early engagement with these stakeholders helps avoid delays in the research progress. Other stakeholders play a collaborative or advisory role and can support research design, implementation and/or governance. Certain groups may not be directly involved in conducting the research but may still need to be kept informed of study progress and findings in order to ensure alignment with broader public health efforts. Because engagement is a dynamic and evolving process, additional stakeholders may need to become involved as the research progresses *(33).*

- While broad and inclusive engagement is valuable, researchers must be strategic, balancing inclusivity with the need for timely action. Researchers must also ensure that engagement is meaningful rather than tokenistic and that it empowers stakeholders to contribute actively to the research process. Ensuring that governments and national health institutions are involved fosters their shared ownership of research and response efforts, strengthening the overall impact and sustainability of the research findings.

2.2. **Community engagement for social and behavioural research**: Community engagement for social and behavioural research and community engagement for public health response are distinct areas of activity. This distinction is important in order to ensure that both processes are designed and implemented effectively. Community engagement supports feasibility, acceptability and shared benefits (of research and/or the public health response), and social and behavioural research contributes evidence to inform public health responses. Research is a systematic and structured process of collecting and analysing data in relation to a clearly articulated, predefined question (or questions) *(23).* Community engagement is a collaborative process through which affected communities are actively involved in decision-making and planning. For mpox, as with other disease outbreaks, community engagement is important both for research and for the response delivered during the outbreak. For public health authorities, a frequent objective of community engagement is to optimize community ownership and the adoption of policies and advice. In the case of local communities, engagement is also about empowerment and accountability *(43,44).* The practice of community engagement intersects with broader agendas related to social participation and inclusion and is inherently shaped by power relations and by cultural and social hierarchies *(45).* Persons facilitating engagement therefore need to be attuned to these dynamics, to account for them and to counterbalance them as far as possible.

- Communities should be meaningfully engaged in the research process in order to show respect, build trust and increase the social and ethical value of the research *(24,25,32,33).* In practice, this means engaging with those intended as research participants and their communities and/or representatives with the intention of meaningfully shaping key features of how the research is designed and delivered. These engagements also provide opportunities for local communities to express their needs and concerns, thus promoting inclusivity, fairness and shared benefits from research activities *(24,38).* Through community workshops and engagements with civil society groups and/or community leaders, for example, research questions can be refined and aligned with local mpox health priorities, while acceptable community entry processes and participant recruitment strategies can be defined and facilitated. In addition, participant-facing information and research materials can be adapted and appropriately shared with potential participants, data collection tools can be refined, and strategies for feedback of research findings can be agreed. Research may also be jointly delivered with local communities – for instance, through their participation in study leadership, governance or advisory mechanisms, and/or through active participation in research implementation (e.g. where local community members are trained members of research teams).
- During the 2022–2023 mpox PHEIC, some excellent examples of community-led research surfaced, particularly among groups with long histories of citizen engagement and advocacy *(46).* Equally, there were many instances of research primarily being conceived and led by public health authorities or academic groups as a result of knowledge gaps. This guidance does not advocate for specific frameworks or approaches. Rather, it acknowledges that social and behavioural research may be conducted with varying degrees of participatory practice and with the adoption of many different research frameworks, including participatory or action research. However, given that this work is intended to drive an inclusive and community-centred public health response in the context of the mpox PHEIC, it is important to draw attention to the critical need for community engagement regardless of the methods, frameworks or research paradigms adopted.

2.3. **Multisectoral engagement is also critical for priority-setting:** For mpox, global and continental research priority-setting has included social and behavioural research as a core domain of activity *(14).* These priorities should be further shaped to balance national, regional and global priorities with local and subnational needs. Different stakeholders will be likely to be involved at these different levels and priorities will be refined in national, subnational and local contexts. Ethical practice requires aligning research efforts with the greatest public health benefit while addressing the specific needs of the affected communities, including those that may be facing stigma, marginalization and discrimination. Transparency and inclusivity in the prioritization process are essential for building trust and ensuring accountability. WHO is developing guidance on the ethics of research priority-setting. Key outcomes from the guidance will be incorporated into future iterations of this document.

3. Ethical conduct and oversight

Ethical considerations are fundamental to all social and behavioural research, including studies conducted during mpox outbreaks. This section sets out guidance for ethical oversight and researcher accountability for ethical practice. It also highlights the distinction between research and public health practice, the role of expedited ethics reviews in emergencies, and context-specific approaches to participant compensation to ensure that research is aligned with international standards.

3.1. **Ethical standards of research**: Social and behavioural research in mpox outbreaks should meet the same research and ethical standards as all research involving humans *(24,25,32,33).* Proactive efforts should be made regarding research literacy and the need to make communities aware of their rights concerning research and research participation, as well as the need to uphold the principle of informed consent, to limit risks of coercion and to support increased awareness and understanding of research in public health emergencies among affected populations *(47).*

3.2. **Research classified as assessments or public health practice**: In some countries, activity related to data collection, analysis and subsequent use of outcomes to inform mpox response might not be classed as research. For example, rapid assessments conducted to improve operational response may be classed as public health practice rather than research *(48).* Depending on national requirements, these activities might not be subject to formal ethics review or be eligible for ethics exemption. Regardless of whether data collection and analysis activities require ethical oversight, those leading these activities should, as far as possible, still adhere to international research norms and ethical principles *(40).* These include informed consent, respect for participant autonomy and dignity, protection of participants' rights to privacy and anonymity through robust data protection, and the minimization of harm *(32).* This is particularly important where data are identifiable and where data collected may present specific risks to participants. Ethical safeguards should be integrated into data collection protocols, particularly in low-resource settings or during emergency responses where formal institutional oversight may be limited *(48).* For instance, ethical safeguards can be upheld by implementing standard operating procedures that strengthen ethical practice, such as for data storage and management with agreed monitoring and accountability mechanisms, and ethics training provided for teams involved in data management *(17,33,35).*

3.3. **Research activities undergoing ethics review**: Ethical review processes need to be adapted to the urgency of the outbreak situation *(24,49).* Where expedited or rapid ethics review processes are available, social and behavioural research for mpox should be eligible for review under these mechanisms.

- Research ethics committees should include persons with social and behavioural research expertise among their membership in order to enable a fair assessment of ethical issues, including the scientific rigor and quality of research designs *(50).* These assessments should account for the use of novel approaches, including rapid methods, which are increasingly being adopted for emergency-relevant research. These methods must be planned with scientific rigor and appropriate protection of participants as the urgency to produce research outcomes does not justify poor-quality or unethical research *(29,30,51).*

- Research ethics committees are tasked with assessing the potential risks and benefits to participants. Risks associated with social and behavioural research methods that may need to be accounted for in the ethics review include risks of privacy and confidentiality violations, risks of research activity further exacerbating stigma and discrimination, risks of exploiting vulnerabilities and power dynamics, psychological risks of inadvertent disclosure or emotional distress, safeguarding risks for research teams and participants (e.g. when working in crisis or conflict settings) and risks of exacerbating community mistrust. Upfront community engagement in developing research protocols can help researchers to anticipate these issues and include mitigation measures in the protocols *(23–25).* Research teams with longstanding experience of working with local communities can also often anticipate these risks and have standard ways of working that mitigate them *(33,47).*
- When reviewing procedures for informed consent, research ethics committees should also be mindful of the burdens experienced by participants through complex, lengthy and unfamiliar study procedures. In their review of informed consent procedures and documents, research ethics committees should allow for proposed adaptations to these processes on the basis of community feedback and empirical evidence *(52,53).*

3.4. **Accountability**: While ethical approval from review boards provides some assurance, researchers are ultimately responsible for the ethical design and conduct of their work. Researchers must ensure that their processes are clear, culturally appropriate and sensitive to local norms *(23,40).* Procedures for informed consent should also, where feasible, align with local customs and practices *(23,24,32,54).* For example, consent may need to be provided on a collective level as well as obtained individually. However, community consent should not override individual consent *(40).* Informed consent procedures for people with cognitive impairments may require proxy consent from a trusted third party *(55).* In some instances, written informed consent is considered inappropriate but verbal consent is considered acceptable – e.g. when obtaining consent from people with low literacy, or if participants consider written consent to be a risk to their safety *(17,55).* Study details, including information regarding the risks and benefits of participation, confidentiality and data management, must be clearly communicated to participants in their local language and in ways that are accessible to them *(17,32,38).* Where appropriate, participants should also be informed of potential data-sharing with public health authorities during the informed consent process *(24).*

3.5. **Mitigating inadvertent risks of harm through research conduct**: Social and behavioural research for mpox may present risks to potential research participants and/or field teams. Ethical research design must prioritize confidentiality, safety and stigma reduction to ensure that participation does not expose those involved to legal, social, physical or psychological harm.

- There are heightened sensitivities when discussing mpox transmission that may have occurred through sexual contact, and where data collected would contain sensitive information about participants' sexual behaviour or livelihoods through sex work. This information is important for research that aims to understand the social drivers of disease transmission in order to guide wider public health responses. However, both research participants and those conducting the research may put themselves at risk of stigma and discrimination if they communicate or document this information. In countries where same-sex relationships between consenting adults are criminalized, this information may also put participants at risk of prosecution *(56).*
- Research teams must be trained to manage these risks *(57).* They should ensure anonymity or confidentiality by conducting research in safe places, securing collected data immediately *(57)* and erasing as quickly as possible any raw data that could lead to the identification of participants. Only strictly necessary data ought to be collected. If certain data bring a risk of discrimination and/or stigmatization and the research can reasonably proceed without it, it is best simply not to collect such data.

A health worker in charge of mpox talks to a patient at Nyiragongo General Referral Hospital. ©WHO/Guerchom Ndebo

- The language used in data collection tools, research interactions and reporting must be neutral and nonjudgemental *(39,57)*.
- Working with community-based partners, such as HIV networks and civil society organizations that work with and are trusted by key populations, can help researchers to understand local dynamics and the best approaches to conducting research in these contexts. Such collaboration can also help researchers to weigh the risks and benefits of conducting the research.

3.6. **Participant compensation:** Compensation for research participants must be context-specific and proportionate to the time, effort and burden of participation. The urgency of the response and pressures to address knowledge gaps rapidly must not compromise ethical compensation practice. While compensation can facilitate recruitment and participation, it should never constitute undue influence to participate.

- Communities in different countries have varying expectations and norms regarding compensation for research participation. Understanding context-specific practices is key to ensuring that plans for participant compensation align with those norms. Researchers who may be unfamiliar with local practices regarding compensation for participation in research should seek out other research teams with experience of conducting research in those settings in order to identify an approach that is consistent with usual practice. Research ethics committees should review compensation plans and budgets by way of oversight to ensure that compensation is fair and just and does not constitute an undue influence in the given context.
- Compensation should be proportionate to participants' burden and should not be coercive. Examples of acceptable forms of compensation include reimbursement for transport and communication costs (e.g. public transport fares if participants are asked to travel, telephone credit for remote participation), refreshments provided during research activities, non-monetary items such as soap, or per diem costs, for instance during lengthy focus groups or interviews.

4. Data protection and data-sharing

Policies and procedures for the protection and reuse of data from mpox social and behavioural research are important components of research planning and implementation. This section sets out standards for protecting data, the responsibilities of researchers and institutions, and considerations for secure and ethical data-sharing.

A mother sits with her daughter who is being treated for mpox. ©WHO/Guerchom Ndebo

4.1. **Data protection:** As with other forms of research, persons leading mpox-focused social and behavioural studies have a scientific and ethical responsibility to ensure that robust and sufficient policies and procedures for data management and protection are in place and are adhered to *(24,25,32,33,55).* These safeguards are critical for protecting participants' rights to privacy and anonymity, particularly when research involves marginalized groups and those facing risks associated with vulnerabilities and discrimination *(57).*

- Research protocols should include information about how data will be managed, stored and protected. Research teams should be trained in standard operating procedures for data management. Information about data protection procedures and any potential confidentiality and safety concerns should be included in the study information provided during the procedure for informed consent *(57).* It is especially important to highlight confidentiality and safety issues in settings where the interviewers and other team members are drawn from the community or are living within the community that is part of the planned investigation *(49).*
- Specific policies and procedures for social and behavioural research will depend on the type of study being conducted and what data are collected. Examples include de-identifying data at the point of collection to protect participant anonymity *(40),* using encrypted online platforms for secure data transfer, storing data on institutional servers, restricting data access to authorized personnel with a legitimate need, conducting regular audits to monitor data access and usage, and ensuring that data are retained only for as long as necessary and are securely destroyed after the retention period expires. Some forms of social and behavioural data – e.g. data collected through ethnographic methods – have specific features which require unique technical elements for data protection *(25).* Where data collection involves hard-copy materials, these must be securely handled, transported and stored. Lockable filing storage and offices may suffice, but consideration should be given to who can access these. Wherever possible, access should be limited to members of the research team only.
- Researchers should include considerations and the budget for data protection at the start of their planning when considering the feasibility of research.

4.2. **Data-sharing:** As far as possible, and subject to ethical requirements such as maintaining confidentiality and privacy, research data collected through social and behavioural mpox research should be made rapidly available for reuse by others *(38).* When done responsibly, data-sharing can optimize the benefits of social and behavioural research on mpox through reanalysis and use of existing data sets.

- For social and behavioural mpox research, data can be collected through quantitative, qualitative or mixed methods. Consideration should be given to the sharing of quantitative data in line with national and international frameworks and the principles of open science. It may be more challenging to share qualitative data due to the context-specific and sensitive nature of these data, the difficulties of fully de-identifying data sets and the resource requirements for doing so. Even when names and locations have been anonymized, there is the possibility of identifying participants through the content of qualitative data. Researchers need to consider carefully the circumstances in which any kind of qualitative data-sharing might result in a breach of confidentiality.
- Research budgets should include the time and resources for preparing data sets for sharing.
- Data-sharing policies and procedures are generally the responsibility of the lead researcher and the institution that is sponsoring the activity and receiving funding *(58).* Sponsoring institutions should therefore have policies and procedures for data-sharing *(33).* A typical model is to facilitate data-sharing on request – e.g. where there are pre-existing relationships between research teams that have collected data and others planning secondary analyses. Requests for data-sharing should clearly state the intended purpose and benefit of using secondary data so that a risk–benefit analysis can be made.
- Participants must be informed during the process of informed consent that their data may be shared and how their privacy would be protected *(33).*

5. Environment for social and behavioural research

Delivering timely social and behavioural research on mpox requires a supportive and enabling research infrastructure or environment. The term “research environment” refers to the institutional and operational structures, processes and systems that support research conduct, oversight and dissemination *(9,18,21,26).* Examples include mechanisms for funding, research governance, ethics oversight and data management, as well as strong partnerships, networks and coordination mechanisms *(44).* This section highlights key aspects of the research environment that can facilitate and enable social and behavioural and interdisciplinary research both for the current mpox PHEIC and for future events.

5.1. **Mechanisms for coordination:** Social and behavioural research should be coordinated effectively within the public health response in order to minimize duplication, to manage the risk of research fatigue among affected communities and potential participants, and to optimize the integration of research findings into response strategies. Coordination ensures that resources are utilized efficiently, information is managed effectively, and contradictory findings can be addressed to enhance the overall utility of research outputs. Further, coordination can ensure that affected communities in areas of lower research activity also have fair access to research. The management of research fatigue requires careful planning to avoid overwhelming communities and the broader response system. Balancing the independence of research with the need for coordination is critical to the maintenance of scientific integrity while ensuring that research efforts align with public health priorities and do not inadvertently strain the response infrastructure.

5.2. **Systems and structures:** Mpox presents an opportunity to evaluate the strengths and weaknesses of the existing research environment, identifying what works for facilitating the integration of social and behavioural research into mpox public health response and highlighting where gaps exist. This is an important opportunity to develop fit-for-purpose mechanisms that enable more effective emergency-relevant research both for the current mpox PHEIC and for future events. For the mpox PHEIC, an increased amount of social and behavioural research is being reviewed through existing ethics and governance mechanisms, and systems and structures are being adapted to accommodate this kind of research *(15).* It will be important to capture lessons learned regarding the ways in which existing systems are being strengthened to accommodate social and behavioural research for future emergencies.

- Research should not create parallel structures. It should aim to strengthen existing systems and capacities for sustainability (e.g. by working through local academic institutions and/or programmes) *(33).*

5.3. **Capacity-strengthening:** Where relevant and appropriate, social and behavioural research for mpox should **build and strengthen the capacities of local researchers** and the sustainability of research systems *(17,24,32,33,38).* This may involve the inclusion of local researchers in study design, the training of local researchers in rapid methods such as rapid qualitative methods, and the strengthening of multisectoral partnerships – e.g. between public health and academic institutions. Capacity development can include local health workers (such as community "relays"), journalists, schoolteachers, community leaders, and other local community actors who wish to contribute to the response and are able to do so productively.

- Where relevant and appropriate, social and behavioural research in mpox should **build and strengthen the capacities of research ethics committees** *(32,33,38,54).* The evaluation of social and behavioural research protocols requires a unique set of skills and considerations. This research may use methods that are unfamiliar to more biomedically-orientated ethics boards and could raise ethical issues with which they are less familiar. Research ethics committees should seek to engage experts with the necessary knowledge and experience to evaluate social and behavioural research. Further, to support rapid research in an emergency, ethical oversight of generic or standardized protocols in advance can build preparedness planning into the research system. This pre-approval of documents would allow rapid and timely ethical review when an emergency event escalates, allowing data to be collected more rapidly.

5.4. **Networks and partnerships:** Social and behavioural research should involve local and national researchers to the maximum extent possible, and should be based on fair partnerships – including regarding the distribution of benefits and risks, the review and publication of results, and with recognition of all partners' contribution in both authorship and acknowledgements *(26).*

- Social and behavioural research should be conducted in consideration of established response frameworks – e.g. in alignment with strategic response plans and, where appropriate, in partnership with those responsible for national, state and community health systems. These would include state and national departments of health, community health centres, community public health programmes, nongovernmental organizations and/or community-based organizations *(51).* Similarly, research should be conducted within the setting's established research frameworks, including for research governance and ethical oversight *(59).* For those conducting social and behavioural research, this means gaining a deeper understanding of emergency response frameworks, the decision-making structures that drive response actions, and the operational constraints that shape what is possible in real-time emergency settings. Understanding these factors helps researchers to identify appropriate entry points for conducting relevant research that can directly inform response efforts rather than being disconnected from practical realities. Conversely, response actors – such as public health officials, risk communication and community engagement practitioners, epidemiologists, infection prevention and control community workers – and others can benefit from insights into research processes, governance and methods. A stronger understanding of research helps those involved in the response to appreciate how social and behavioural research can enhance outbreak control strategies, best provide care and vaccines, improve risk communication as well as community engagement and infodemic management approaches, and

A man has samples taken for laboratory analysis during his treatment for mpox at Kavumu Hospital. ©WHO/Guerchom Ndebo

generate evidence that strengthens future preparedness and response.

- By fostering cross-learning between these systems, partnerships can help to bridge gaps between research timelines and response needs, ensuring that research is not only feasible within emergency settings but also produces actionable outputs that influence response policies and practices. Strengthening these relationships before an outbreak occurs ensures that mechanisms for collaboration are already in place, that research can thus be more rapidly mobilized and that findings can be used for public health decision-making. Different models for this way of working have been established – e.g. establishing specialist units within national public health institutes or through public health partnerships with academic institutions – to strengthen the emergency response systems. Where these mechanisms exist, they are being leveraged for the mpox response. New initiatives for working in this way are also emerging *(15).*

Conclusions

The integration of research into public health responses is still evolving, reflecting the growing importance of evidence-based decision-making in addressing health emergencies. The outcome of social and behavioural research – done rapidly, in context and together with those affected, those with lived experience and those leading the public health response – has real potential to drive change. Research conducted during the mpox response should not only generate knowledge but also contribute to strengthening the broader research system, including by building research capacities, enhancing ethics committee preparedness, improving coordination and data-sharing mechanisms, and developing standardized protocols and tools. At the same time, there remain many practical challenges to delivering timely research that can have a meaningful impact on the trajectory of an outbreak.

This guidance builds on a substantive body of work related to high-quality ethical research for public health emergencies. It also highlights some areas in need of further development. The guidance is relevant to and can provide valuable directions for structured approaches to social listening and community feedback activities. However, further detail regarding the specific application to these activities would be valuable in future iterations, including in relation to working with unstructured or unsolicited feedback. Additionally, research aimed at strengthening systems, including broader health-system improvements, remains an important but underdeveloped area.

The guidance does not include specific recommendations for evaluating interventions using methods such as randomized trials of social and behavioural interventions or of public health and social measures. During the COVID-19 pandemic the importance of evaluating public health and social measures and interventions in context was highlighted as an important gap in the evidence for steering public health decisions *(60).* Through the formative work that defined the scope of this interim guidance, it became clear that such evaluations are not prioritized among currently active research programmes, and therefore specific guidance related to evaluation of public health interventions was not an immediate need. There are specific considerations related to the kinds of studies that are best suited to evaluation of these interventions (e.g. observational studies or randomized controlled trials) that warrant further time and attention for developing guidance. Furthermore, this interim guidance does not provide specific information on programme evaluation or on monitoring and evaluation. While some aspects in this interim guidance (e.g. data protection) may be relevant, these topics were considered beyond the immediate scope of the interim guidance.

This guidance was developed to respond to the immediate need for ethical and quality standards for social and behavioural research on the mpox PHEIC. Since the guidance is principles-based, its core elements can be applied to other emergency events to support effective social and behavioural research practices. WHO is developing similar guidance that will be applicable to a wide range of public health emergencies. A next step for this guidance is implementation. The WHO secretariat is developing a suite of tools and bringing together with best practice case examples to illustrate implementation and impact. As this is interim guidance, it will be updated over time. WHO welcomes comments and feedback, including case examples, to ensure that the guidance continues to be relevant and continues to improve.

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Annex 1. Guidance methodology

The development of this guidance followed the approach for developing interim and rapid advice guidelines in the setting of a public health emergency *(61, 62).* It followed a structured and collaborative process over 4 months (Oct 2024 – Feb 2025), bringing together experts from multiple disciplines and regions. Development began with a scoping phase that combined a rapid evidence review with a global end-user survey to identify the need for guidance and key gaps. The outcome of the scoping phase informed core domains for the guidance. The content of the guidance was shaped iteratively following meetings with WHO's internal technical working group and an external technical working group. Ful details of the methodology for this guidance are set out in a manuscript (in preparation).

Scoping phase

The scoping phase involved two key activities. In October 2024, **a rapid review** was conducted to identify existing guidelines and technical documents relevant to social and behavioural research conducted during a public health emergency applicable to the mpox PHEIC. This was a rapid review as it had a targeted focus used more restricted search methods and criteria, and prioritised existing normative guidance for inclusion. This rapid review is in contrast to a more detailed scoping review, which is underway to inform wider normative WHO guidance on this topic as it applies to public health emergencies more broadly *(63)*. Three major databases (Google Scholar, PubMed and the WHO database) were searched between 29 October and 11 November 2024 for existing guidance, policy documents, frameworks and technical reports. The search strategy included terms related to social and behavioural research, ethics, guidance, community engagement, rapid research methods, and public health emergencies. Reference lists of key guidance documents and articles were also reviewed and related citations were followed up to capture additional guidance and evidence that might have been missed by the initial search strategy alone. Documents were included if they clearly and explicitly provided guidance on practical and ethical aspects of delivering research with human subjects in a public health emergency. Documents were excluded if they did not provide guidance, if they were not relevant to research involving human participants, or if they were not relevant to a public health emergency. In the initial screening, 152 documents were reviewed by title and type of article, followed by a second review of source abstracts (n=74) and a full text review of 39 documents. A total of 35 documents were included (annex 2). Each document was reviewed and relevant information for the core domains for the current guidance were extracted – i.e., research design and delivery, stakeholder engagement, ethical conduct and oversight, data protection and sharing, and the environment for social and behavioural research. The outcome of the review highlighted a gap in guidance specific to social and behavioural research in a public health emergency. Available guidance often has a biomedical focus. These guidance documents provided important transferable principles that are relevant to social and behavioural research, but there was a need for specific application of these principles to the social and behavioural sciences as well as to the current mpox PHEIC. Further, there was limited guidance on rapid operational social and behavioural research. Key gaps included methods for conducting research during emergencies, the ethical challenges of mpox (e.g., stigma) and the means of integrating research findings into public health responses.

In parallel to the rapid review, in October 2024, the Global Health Network conducted a **rapid survey**, to understand end-user views on the need for and scope of guidance on social and behavioural research for mpox. The target audience included global health researchers and practitioners, particularly those involved in the response to mpox. The survey consisted of seven closed questions and one open question and was available in English and French to ensure accessibility in both Anglophone and Francophone regions. Questions focused on identifying perceived gaps in existing guidance, ethics and methodological priorities, and operational challenges in conducting research in public health emergencies. The survey was distributed over a 10-day period through Global Health Network communication channels and the Social Science in Humanitarian Action Platform (SSHAP), including mailing lists, newsletters and social media. Descriptive methods were used to analyze quantitative data, and qualitative data were analyzed thematically supported by NVivo 14 software. An ethics exemption was granted as the survey was classified as a non-research activity aimed at informing guidance development. Ethical considerations such as informed consent, voluntary participation, and data anonymization were adhered to. In total, 418 responses were received from policymakers and researchers in 88 countries. The results showed demand for guidance, with 93% of respondents rating it as 'extremely' or 'very important' for an effective outbreak response. Barriers to research highlighted 3 key challenges: logistical constraints (resource limitations, security risks), social and behavioural issues (mistrust, stigma, community engagement) and institutional barriers (delays in ethical approval, competing priorities with emergency response). Among the priorities identified, the survey highlighted key needs for guidance on research design, quality standards, and the use of study outcomes.

Consultation and review

Findings from the scoping phase shaped the scope of the guidance and informed development of the first draft. The guidance was then refined through an iterative process of consultation and review, including:

Meetings of the Technical Working Group (TWG) and WHO internal advisory group: The TWG, comprising experts in social science, ethics and public health, met on 20 November 2024, 17 December 2024 and 13 January 2025 to review and refine the draft guidance. In addition to being discussed at the formal meetings, the draft guidance was circulated to TWG members and internally in WHO to (a) the WHO internal advisory group for mpox interim guidance development, and (b) the mpox WHO Community Protection Cluster of the Incident Management Support Team at global level for review and written feedback in January 2025. This feedback informed discussions at the face-to-face meeting in Brazzaville, Congo, on 30–31 January 2025, where key sections of the guidance were refined and its applicability to operational settings was reviewed. The draft was also shared with the WHO expert group on ethics and governance of infectious disease outbreaks and other emergencies for additional technical review. Final meeting with TWG members were held on 6 and 20 February 2025 to review and agree the final version of the guidance.

Working sessions in Kinshasa, Democratic Republic of the Congo (27–28 November 2024): A meeting titled *“Communities at the centre of mpox emergency response: driving local-level impact through social and behavioural science”* brought together a multidisciplinary and multisectoral group of more than 70 stakeholders, including representatives from WHO Member States, academic researchers, operational partners, and civil society organizations from 15 countries (eight from the WHO African Region, including the three countries most affected by mpox). Participants reviewed and discussed key ethical and scientific principles for social and behavioural research. Key outcomes included the need to differentiate between community engagement and social and behavioural research, the importance of contextualizing and localizing mpox research, the inclusion of people in vulnerable situations in research planning and implementation, and the need to address key response challenges such as stigma, delayed care-seeking, transmission dynamics and socioeconomic impacts.

A consultation with WHO’s mpox informal Community Reference Group, including civil society representatives, was held on 24 January 2025 to discuss priorities and needs for social and behavioural research and to ensure alignment with the lived experiences and priorities of people affected by mpox.

Annex 2. Guidance and related resources – summary

Document	Type	Key findings	Relevance for interim guidance
Council for International Organizations of Medical Sciences (2016). International ethical guidelines for health-related research involving humans	Guideline	• Focuses on health-related research involving humans. • Prioritizes ethical, community-engaged research, informed consent, stigma prevention, data protection, capacity-building and stakeholder engagement to co-develop recommendations.	Provides fundamental ethical and methodological principles applicable and relevant to social and behavioural research for mpox. Not specific to emergencies.
World Medical Association (2024). Declaration of Helsinki – Ethical principles for medical research involving human participants	Guideline	• Focuses on medical research involving humans with an emphasis on the importance of participants' rights, including in public health emergencies. • Standards guide participant protection, informed consent and community engagement during research. • Emphasizes the need to strike a balance between advancing knowledge and maintaining ethical principles to protect dignity and health.	Provides relevant and applicable core ethical principles and practical standards. Not specific to emergencies.
World Health Organization (2016). Guidance for managing ethical issues in infectious disease outbreaks	Guidance	• Prioritizes ethically robust research practices that uphold transparency, community engagement and equity. • Emphasizes the need for adaptive ethical review processes and meaningful involvement of local stakeholders. • Advocates data confidentiality, inclusive participation and capacity-building in local research ecosystems.	Provides applicable ethical frameworks and relevant operational recommendations, including for public health emergencies.
Nuffield Council on Bioethics (2020). Research in global health emergencies: ethical issues	Guidance report	• Emphasizes alignment of research with community health priorities, ensuring culturally and ethically acceptable protocols, and maintaining high standards of data collection and reporting. • Advocates expedited ethical review in emergencies, collaborative stakeholder engagement, inclusive practices to avoid stigma, and timely dissemination of results. • Stresses the need for well-supported ethics committees, ongoing informed consent processes, responsible data management and national capacity-building for sustainable expertise.	Highly applicable as it provides a relevant framework for research priorities aligned with communities' health needs, ethical conduct and stakeholder engagement. Supports the focus of the guidance on rapid but ethical research and long-term capacity-building to strengthen mpox research and response efforts.

Document	**Type**	**Key findings**	**Relevance for interim guidance**
World Health Organization (2024). Guidance for best practices for clinical trials		• Focuses on clinical research. • Emphasizes addressing of evidence gaps in clinical trials with inclusive criteria to ensure diverse representation and avoid duplication of effort. • Advocates simplified and focused data collection, early community engagement and collaboration with diverse stakeholders to build trust. • Emphasizes key ethical principles such as informed consent, participant autonomy and equitable data-sharing practices. • Emphasizes the need to involve local researchers to enhance relevance and capacity-building.	Provides guidance for clinical trials. Includes community engagement for clinical trials. Applicable as it includes some transferable principles in terms of relevant standards for inclusive, ethically-conducted research. Promotes focused data collection approaches, community engagement and local capacity-building. Not specific to emergencies.
World Health Organization (2021). Ethical standards for research during public health emergencies: distilling existing guidance to support COVID-19 R&D	Guidance	• Emphasizes scientific validity, social value and context-specific flexibility for research in emergencies. • Advocates for an inclusive and relevant approach to selection of participants, meaningful community engagement and robust ethical review. • Emphasizes the importance of informed consent in accessible formats and data-sharing practices that ensure privacy and ethical alignment. • Stresses the need to strengthen local research capacity and foster collaborative partnerships to improve emergency response.	Highly applicable, providing relevant standards for conducting ethical, context-sensitive research in emergencies.
World Health Organization (2007). WHO Ethical and safety recommendations for researching, documenting and monitoring sexual violence in emergencies	Guidance	• The guidance prioritizes ethical research design, minimizing risk and ensuring that data collection benefits survivors without causing additional harm. It advocates culturally-sensitive approaches, confidentiality and collaboration to support ethical outcomes.	The recommendations support key aspects of the interim guidance, particularly in research design, stakeholder engagement and ethical data management. Not specific to emergencies.
Dubois C, Wright K, Parker M (2022). Chapter 3.4. Ethics in research. In: WHO guidance on research methods for health emergency and disaster risk management, revised 2022	Book chapter	• Emphasizes robust ethical practices in health emergency research, including the inclusion of diverse and marginalized groups to ensure representative data. • Advocates collaborative relationships with local communities, effective stakeholder engagement, and systematic sharing of results to promote resilience. • Emphasizes transparency, informed consent, cultural sensitivity and participant privacy as core ethical principles. • Encourages innovative methods of consent and appropriate training in ethical issues to minimize harm and build trust.	Highly relevant, providing an applicable framework for equitable and ethical research practices in emergencies.
United States Centers for Disease Control and Prevention (2010). Distinguishing public health research and public health nonresearch	Policy	• Provides classification of research versus nonresearch activities in public health.	Applicable as it provides basic principles for distinguishing research from nonresearch, ensuring appropriate ethical oversight and collaboration with stakeholders. Not specific to emergencies.

Document	Type	Key findings	Relevance for interim guidance
Interagency Standing Committee (IASC) (2014). IASC recommendations for conducting ethical mental health and psychosocial research in emergency settings	Guidance document	• Guidelines designed for mental health research, emphasizing the importance of ensuring that research is both ethically sound and contextually relevant.	Applicable as it provides relevant standards for culturally-appropriate methods, ethical review and community involvement in research.
World Health Organization (2020). Working with Community Advisory Boards for COVID-19 related clinical studies	Toolbox	• Focus on operationalizing community engagement in clinical research during the COVID-19 pandemic.	Clinical trials focus. Included as it highlights the essential role of Community Advisory Boards as an advisory mechanism in ethical and inclusive clinical research.
Hankins C (2015). Good participatory practice guidelines for trials of emerging (and re-emerging) pathogens that are likely to cause severe outbreaks in the near future and for which few or no medical countermeasures exist (GPP-EP)	Guideline	• Focuses on operationalizing community engagement in clinical research through Community Advisory Boards. • Emphasizes inclusive approaches, ethical training and ensuring diverse representation, particularly for vulnerable populations. • Encourages stakeholders' engagement and their input into the protocol to gain trial acceptance and to build trust. • Emphasizes confidentiality and informed consent.	Guidance for clinical trials that include participatory practice throughout the research process. Included as it provides practical approaches to community engagement and inclusive representation in research.
World Health Organization (2021). Good Participatory Practice (GPP) with trial populations for the Solidarity Trial Vaccines (STV)	Toolbox	• Emphasizes community engagement in trials, tailored engagement plans, inclusion of minorities and adaptation of consent to local needs. • Stresses the importance of avoiding harm and ensuring the safety of participants.	Guidance for a specific clinical trial – provides an example of practical tools for promoting community engagement, inclusivity and culturally-appropriate consent processes.
Gobat N, Carter S, Kutalek R, Rashid SF, Lees S, Anoko JN (2024). Chapter 26. Social science evidence for outbreak and pandemic response: rapid research and analytics for public health emergencies	Book chapter	• Research in emergencies should prioritize response goals, rapid evidence generation and community-centred approaches. • Encourages documentation of study plans in advance. • Emphasizes culturally-relevant and inclusive practices, early community engagement and co-development with local partners. • Highlights the importance of ethical and flexible research methods tailored to local contexts, transparency and proactive measures to reduce harm. • Emphasizes local ownership of research, adaptive consent processes, data-sharing and collaboration to ensure mutual benefit.	Highly relevant, reinforcing the importance of localized, contextualized and ethical research processes, supported by skilled social scientists.

Document	Type	Key findings	Relevance for interim guidance
Higgs ES, Sorensen RA (2024). Chapter 3. Guiding principles for emergency research response	Book chapter	• Focus on clinical research. • Emphasizes the need for rapid, efficient research that is aligned with emergency response goals and supported by prioritization, coordination and early leadership. • Emphasizes the role of good participatory practices. • Advocates scientific rigor, protection of human subjects and active collaboration among stakeholders. • Emphasizes the importance of national leadership and capacity-building for effective research integration and response.	Highly applicable, providing practical principles for coordinated, ethical and community-centred research.
World Health Organization (2010). Research ethics in international epidemic response: WHO technical consultation, Geneva, Switzerland, 10–11 June 2009: meeting report	Meeting report	• Emphasizes the inclusion and protection of vulnerable groups in research, transparent communication of benefits, and timely generation of knowledge in emergencies. • Emphasizes informed consent tailored to cultural and linguistic differences, ethical oversight of research-like public health activities and streamlined review processes for emergencies. • Stresses the need for capacity-building in ethical review systems through collaboration between researchers and stakeholders.	Applicable and relevant as it provides guidance on the ethical inclusion of vulnerable populations, culturally-sensitive consent practices and expedited ethical review processes.
Nasser M, Viergever RF, Martin J. Chapter 2.7. Prioritization in research. In: WHO guidance on research methods for health emergency and disaster risk management, revised 2022	Book chapter	• Emphasizes the importance of prioritizing research in health emergency and disaster risk management to focus on critical studies, optimize resources and improve decision-making. • Recommends evidence-based prioritization exercises that involve key stakeholders.	Relevant, providing a structured framework for prioritizing research to address critical needs.
Newnham EA, Ho JY, Chan EYY. Chapter 2.5. Identifying and engaging high-risk groups in disaster research. In: WHO guidance on research methods for health emergency and disaster risk management, revised 2022	Book chapter	• Health emergency and disaster risk management research should address high-risk populations throughout the disaster cycle by adapting to the community and context. It should build trust through long-term relationships and use culturally-appropriate methods. • Flexible protocols, pilot-testing and accessible informed consent processes should be used to mitigate ethical risks and ensure inclusivity. • Results should be thoughtfully disseminated and participants' autonomy respected.	Relevant as it underpins research through strategies that promote ethical engagement, inclusivity and culturally-sensitive methods tailored to high-risk populations.
Clarke M, Zhang Y. Chapter 3.5. Determining the research question. In: WHO guidance on research methods for health emergency and disaster risk management, revised 2022	Book chapter	• Stresses the need to define clear research questions to fill evidence gaps in health emergency and disaster risk management.	Applicable, prioritizing well-defined research questions.

Document	Type	Key findings	Relevance for interim guidance
Fagan L, Carmichael K, Murray V. Chapter 7.5. Doing health research in the field. In: WHO guidance on research methods for health emergency and disaster risk management, revised 2022	Book chapter	• Maintaining research integrity requires careful planning, ethical compliance and clear communication. • Emphasizes cultural sensitivity and building of trust with host communities. Calls for formal mandates, adherence to standard operating procedures, informed consent and secure data management. • Emphasizes timely reporting, stakeholder engagement and the use of local experts to strengthen the research process.	Applicable, with emphasis on ethical rigor, stakeholder engagement and cultural sensitivity in emergency contexts.
Lo SK, Lam HCY, Chan EYY. Chapter 7.4. Getting ethical approval for your research. In: WHO guidance on research methods for health emergency and disaster risk management, revised 2022	Book chapter	• Research involving human subjects requires ethical approval to ensure ethical treatment and high standards and emphasizes the priority of participant safety and confidentiality. • Emphasizes the importance of locally acceptable procedures and the inclusion of local cultural input and collaboration with researchers.	Applicable, reinforcing research priorities of ethical oversight, participant protection and alignment with local cultural practices and norms.
Roderico H. Ofrin RH, Bhola AK, Buddhea N. Chapter 7.6. How to write up your research. In: WHO guidance on research methods for health emergency and disaster risk management, revised 2022	Book chapter	• Research may require formal approval from participants or government agencies. • Involving representatives can facilitate approval processes and help to build local research capacity.	Applicable as it supports research efforts through appropriate approval processes and strengthens local research systems through collaborative partnerships with key stakeholders.
Newnham EA, Reifels L, Gibbs L. Chapter 5.1. Disaster mental health research. In: WHO guidance on research methods for health emergency and disaster risk management, revised 2022	Book chapter	• Collaborative partnerships are essential in mental health research.	Applicable, emphasizing the importance of collaboration and capacity-building in research.
Pickering CJ, Phibbs S, Kenny C, O'Sullivan T. Chapter 4.1. Qualitative research. In: WHO guidance on research methods for health emergency and disaster risk management, revised 2022	Book chapter	• Rigorous methods are essential to produce high-quality, credible results. • Qualitative research design is important in health emergency and disaster risk management.	Applicable because it supports research using flexible and rigorous qualitative approaches.
Association of Social Anthropologists of the United Kingdom (ASA) (2021). Ethical guidelines 2021 for good research practice	Guideline	• Emphasizes ethical participant observation, context-appropriate consent, trust-building, community involvement and strict confidentiality to protect participants' welfare and privacy.	Applicable as it provides principles for ethical engagement, adaptable consent methods and rigorous data confidentiality practices.

Document	Type	Key findings	Relevance for interim guidance
World Health Organization (2015): Ethics in epidemics, emergencies and disasters: research, surveillance and patient care	Training manual	• Researchers must protect vulnerable groups, ensure informed participation, and involve communities in project design. • Consent processes should be adapted to emergencies, prioritizing trust and respect. • Strong ethical reviews and robust data protection measures are essential.	Applicable, reinforcing the research priorities of protecting vulnerable populations, promoting community engagement, ensuring ethical consent processes and protecting data privacy in emergency contexts.
Canadian Institutes of Health Research, the Natural Sciences and Engineering Research Council of Canada, and the Social Sciences and Humanities Research Council of Canada (2018): Tri-Council policy statement – Ethical conduct for research involving humans	National policy	• Researchers must share results publicly in culturally- meaningful formats, consult communities throughout, prioritize marginalized groups and adapt ethical approvals to local contexts. • Local representatives ensure culturally-respectful dissemination and address potential harms.	Applicable, as it strengthens principles of community engagement, ethical approval and culturally-appropriate dissemination of research findings.
European Association of Social Anthropologists (2021): EASA's Statement on Data Governance in Ethnographic Projects	Policy statement	• Ethnographers must balance the sharing of materials with ethical responsibilities, considering participant safety and privacy. • Informed consent should be ongoing and adaptive due to dynamic social contexts. • Data governance requires special protections for archiving, confidentiality and negotiated access to maintain data integrity and meet ethical standards.	Relevant for guiding research involving vulnerable populations or sensitive social contexts. Not specific to emergencies.
Research for Health in Humanitarian Crises – Elrha (2017). R2HC Ethics Framework 2.0	Framework	• Research must protect vulnerable populations, engage communities, include marginalized groups and ensure local relevance. • Tailored ethical approval and cultural sensitivity are essential, with local representatives being key to the assessment of benefits and harms.	Relevant, reinforcing the need for tailored ethical approaches, community engagement and cultural sensitivity in research, particularly when working with vulnerable populations.
World Health Organization (2023). Responding to the global mpox outbreak: ethics issues and considerations: a policy brief	Policy brief	• Collecting personal data, such as sexual history, during mpox epidemics is critical for prevention but poses risks, especially in settings where same-sex relations are criminalized. • Community participation in decision-making is essential for upholding rights and mitigating risks.	Aligns with the guidance focus on ethical data practices and emphasis on protecting vulnerable populations and preventing stigma.
Denford S, Holt L, Essery R, Kesten J, Cabral C, Weston D et al. (2024). Engagement in rapid public health research among young people from underserved communities: maximizing opportunities and overcoming barriers	Journal article	• Study participants (young people) value inclusive and tailored approaches that reflect their environment and motivations. • Many expressed mistrust of authority and research teams, fearing potential negative political repercussions. • Complex consent procedures increased anxiety and reduced participation, highlighting the need for simplified and familiar processes.	Highlights the need for adaptive and inclusive approaches to public health research, in line with the guidance priorities to promote inclusion and trust in underserved populations.

Document	Type	Key findings	Relevance for interim guidance
Dong D, Abramowitz S, Matta GC, Moreno AB, Nouvet E, Stolow J et al. (2023): A rapid qualitative methods assessment and reporting tool for epidemic response as the outcome of a rapid review and expert consultation	Journal article	• Provides an assessment and reporting tool with 13 criteria in three domains to document rapid qualitative methods used in response to epidemic emergencies, including: 1) design and development (time frame, training, applicability to other populations, applicability to low-resource settings, community engagement, available resources, ethical approval, vulnerability, tool selection); 2) data collection and analysis (concurrent data collection and analysis, target populations and recruitment procedures); 3) restitution and dissemination (transfer and dissemination of findings, impact).	Provides a practical framework for integrating, assessing and reporting on the quality and use of rapid qualitative methods in epidemic response research.
Ambrogi I, Brito L, Rego S (2023). Reflections on research ethics in a public health emergency: experiences of Brazilian women affected by Zika	Journal article	• Emphasizes the ethical importance of community input into research protocols in public health emergencies to address power imbalances, ensure meaningful consent and provide tangible benefits to participants. • Highlights the importance of transparency, benefit-sharing and community involvement in building trust and autonomy.	Underscores the importance of ethical conduct and the role of communities in shaping research design to ensure meaningful and culturally-appropriate informed consent procedures, address asymmetrical power dynamics, provide tangible benefits to participants, and promote trust and equity.
Ravinetto R, Adhimabo J, Kimani J (2024). Research ethics preparedness during outbreaks and public health emergencies: focus on community engagement	Journal article	• Research in emergencies often fails to include meaningful community engagement due to funding constraints, exacerbating power asymmetries and undermining ethical standards. Despite guidelines advocating engagement throughout the research process, implementation remains inconsistent.	Highlights the need to integrate systematic community engagement measures into research protocols to ensure equity, trust and adherence to ethical principles in public health emergencies.
Mutenherwa F,Wassenaar DR (2014). Ethics review of social and behavioural research in an African context	Journal article	• Ethical review for social and behavioural research requires explicit standards, the involvement of experts trained in social science ethics, and frameworks tailored to assess risks and benefits specific to this field. • The predominance of biomedical perspectives in ethics committees is identified as a major challenge.	Provides guidance for the development of specialized ethical review protocols and committees in African contexts.

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