Fogarty International Center

Global Forum on Humanitarian Health Research (GFH2R): Background Paper: **Health research at the nexus of humanitarian crises and climate change**

Center for Global Health Studies

July 2024

Introduction

This paper provides an overview of existing literature and proposes questions, based on current knowledge gaps, to guide the preparation of case studies for the Global Forum on Humanitarian Health Research 2025 (GFH2R, or “Forum”). The background paper is not intended to be exhaustive but rather to create a shared awareness of current conversations at the humanitarian-climate nexus among Forum participants from diverse disciplinary backgrounds and to help stimulate applicants’ thinking. We encourage case study applicants to reflect on concepts or perspectives beyond this paper and/or to propose creative new methods or ways of approaching health research at the nexus of humanitarian crises and climate change that depart from the current knowledge base.

Summary

Hundreds of millions of people around the world are affected by sudden and protracted humanitarian crises, such as armed conflict, forced displacement, extreme weather events, and major disease outbreaks that adversely affect many aspects of human health. Over the past few decades, such crises have become more frequent, intense, and complex, with many places around the world experiencing concurrent and overlapping crises (1). These crises are occurring in the context of rising temperatures and their climactic and environmental consequences, such as increasing sea levels, extreme weather events, droughts, flooding, and wildfires, which are also impacting human health and livelihoods (2). Accordingly, GFH2R 2025 aims to bring together discussions of health research at the nexus of humanitarian crises and climate change.

Historically, there has been limited overlap between the disciplines of “climate change and health research” and “humanitarian health research“ (follow links for suggested definitions of these terms). Researchers are increasingly drawing attention to the ways in which planetary warming and climate change act as a “threat multiplier” (3, 4) and exacerbate the vulnerability of populations to concurrent health threats that may result from humanitarian crises and extreme weather events (5). Some researchers argue that climate change is itself a humanitarian and health crisis, with increasingly complex, frequent, and unpredictable climate risks that compound existing vulnerabilities and inequities within populations and contribute to cascading emergencies (3, 5).

Despite the staggering toll of humanitarian crises on human health, the evidence base for humanitarian responses is limited in quantity and quality (1, 6). Similarly, there is limited evidence on the links between climate change and health specifically from low- and middle-income countries (LMICs) (7), which have contributed the least to climate change but often bear the brunt of increasingly catastrophic events (8).

Responding effectively to increasingly frequent, intense, and complex humanitarian crises in the context of climate change requires a stronger evidence base. A growing

body of literature insists on the importance of valuing the knowledge and expertise of in-country partners and affected populations in research to generate better quality data and more relevant findings (9). In response, humanitarian health researchers have highlighted the ethical imperative of strategies like engaging with communities, cultivating equitable North-South research collaborations, partnering with humanitarian organizations, and relying on methods that are conducive to knowledge coproduction. However, there has been limited reflection on what such strategies look like in practice in diverse contexts.

The Global Forum on Humanitarian Health Research (GFH2R) 2025 is soliciting in-depth case studies that further describe these and other strategies for ensuring a robust and actionable evidence base in humanitarian settings where climate risks are compounding existing vulnerabilities. A pilot meeting of GFH2R—held virtually in November of 2021—brought together researchers and humanitarian organizations to share experiences and promote collaboration around health research in humanitarian settings. GFH2R 2025 will consist of a series of webinars and an in-person meeting focusing on conducting health research in humanitarian settings that are affected by climate change and/or with populations affected by climate-related humanitarian crises. The Forum will explore the challenges to, and strategies for, conducting humanitarian health research in a world increasingly affected by climate change.

This activity is a part of a larger project on *Advancing Health Research in Humanitarian Crises* led by the Fogarty International Center of the U.S. National Institutes of Health (NIH) in collaboration with the International Development Research Centre and Elrha.

Contents

1. Definitions and scope
2. Case studies overview
3. Meeting theme: Health research at the nexus of humanitarian crises and climate change
4. Case study sub-themes and questions
    4.1. Community engagement in research
    4.2. Equity in global research partnerships
    4.3. Academic-humanitarian collaboration
    4.4. Research methods innovation and adaptation in humanitarian settings
    4.5. Evidence use
    4.6. Additional topics of interest
5. Authorship and Acknowledgements
6. References

1. Definitions and scope

The following are definitions of some of the key terms related to the scope of the meeting and theme developed for the purposes of GFH2R.

Climate change

Climate change refers to changes in global or regional climate patterns attributed largely to human-caused increased levels of atmospheric greenhouse gases and planetary warming. Climate drivers affect health outcomes directly through weather events such as extreme heat, wildfires, droughts, storm surges, and floods, but also indirectly through a series of exposure pathways such as air and water quality, food quality, infectious diseases, and massive population displacement events (10). Climate change can act as a cause of humanitarian crises and/or as a threat multiplier of health risks in humanitarian settings.

Humanitarian crises

Humanitarian crises involve sudden or protracted events that disrupt and threaten lives and livelihoods on a large scale and require extensive assistance and/or response, broadly including armed conflict, forced migration and displacement, refugee crises, natural hazards and disasters (e.g., extreme weather events, earthquakes, and droughts), large-scale epidemics, and disease outbreaks.

Humanitarian health research

Humanitarian health research is inclusive of health research conducted in the setting of a humanitarian crisis and/or health research with a population directly affected by a humanitarian crisis (e.g., a refugee population fleeing conflict, relocated to a more stable setting, which may be in LMICs or high-income countries (HICs)). Such research may explore the effects of humanitarian crises on health systems or populations in specific contexts.

Humanitarian settings

Humanitarian settings include locations where humanitarian crises have occurred or settings with populations directly affected by humanitarian crises (e.g., a setting where refugees fleeing conflict reside).

Low- and middle-income country (LMIC)

Low- and middle-income country (LMIC) refers to a country categorized in "low-income economies," "lower-middle-income economies," or "upper-middle-income economies" by the World Bank (11). We recognize this terminology is not ideal and fails to account for many of the nuanced differences between nations. For consistency however, this language matches the current general NIH terminology used in NIH program announcements and funding opportunities. It is not intended to promote a hierarchy between different countries based on economic status.

2. Case studies overview

This paper accompanies a call for applications for the in-person component of GFH2R and serves to guide the preparation of case studies. For the purposes of GFH2R, a case study is a concise write up that provides insight into the planning and implementation of a funded research study. The case study will highlight challenges experienced and strategies employed throughout the research process. Unlike a traditional research paper focused on results and outcomes, a case study will provide an in-depth description of the research process and decision points throughout the study.

GFH2R case study proposals should describe an example of health research conducted at the nexus of humanitarian crises and climate change. Ideally, case studies should examine one of the sub-themes listed below but they may explore more than one sub-theme. Case study applications are also free to explore the intersection of two sub-themes or discuss other issues associated with conducting health research at the nexus of humanitarian crises and climate change beyond the sub-themes listed. Case studies should be relevant to research in LMICs. Applicants may choose one or more questions from section 4 below to build their case study around, though they are not limited to these questions or sub-themes. For more information on applying to GFH2R, please visit the project website: https://go.nih.gov/GFH2R

3. Meeting theme: Health research at the nexus of humanitarian crises and climate change

Based on input from a preliminary steering committee and increasing attention on the nexus of climate change and humanitarian crises from the global health research community, GFH2R will focus on health research at the nexus of humanitarian crises and climate change.

Hundreds of millions of people around the world are affected by sudden and protracted humanitarian crises, such as armed conflict, forced displacement, extreme weather events, and major disease outbreaks. Over the past several decades, such crises have become more frequent, intense, and complex, with many contexts experiencing concurrent and overlapping crises (1). Humanitarian crises adversely affect many aspects of human health that include, but are not limited to, maternal and child health; injury and physical trauma; infectious diseases; sexual and reproductive health; nutrition; non-communicable diseases; and mental health (12).

Despite the staggering toll of humanitarian crises on human health, the evidence base for humanitarian responses is limited in quantity and quality (1, 6). For example, health research in LMICs affected by armed conflict is often fragmented, underdeveloped, and driven by research agendas from the Global North (13). Recent examples of humanitarian health research also often lack an understanding of political, social, environmental, and economic factors and their effects on health in specific contexts (1, 12, 13), and they do not necessarily reflect the health issues of greatest concern in humanitarian settings (6). This weak evidence base stems in part from underfunded and overstretched organizations and institutions understandably prioritizing the immediate survival needs of populations over research. However, health research in humanitarian crises is needed to inform the design of effective humanitarian health programs and to set the stage for postcrisis health systems strengthening (12).

These crises are occurring in the context of rising temperatures and their climactic and environmental consequences, such as increasing sea levels, extreme weather events, droughts, flooding, and wildfires, which are also impacting human health and livelihoods (2). The evidence base on the links between climate change and human health globally is large but based on studies from high-income countries (HICs) (7). The direct effects of climate change on health include heat-related morbidity and mortality and disaster-related injury, while the indirect effects of climate change on health are mediated by changes to ecological and social systems, such as altered food yields, water insecurity, and changes in disease transmission and vector ecology (2, 4, 5, 7, 14).

The large evidence base on the links between climate change and human health has emphasized the meteorological impacts of climate change on adverse physical health outcomes, including infectious diseases and respiratory, cardiovascular, and neurological outcomes (2). Again, much of this evidence draws from studies in HICs (7). There is a dearth of evidence from LMICs (7), which have contributed the least to climate change but often bear the brunt of increasingly catastrophic events (8). There is also limited evidence on the impacts of climate change on mental health and broader social well-being (2).

While there has historically been limited overlap between research on the health effects of climate change and other types of humanitarian crises, researchers are increasingly drawing attention to the ways in which planetary warming and climate change act as a "threat multiplier" (3, 4) and exacerbate the vulnerability of populations to "concurrent health threats" (5) or polycrises. For example, climate-related factors like flooding, drought, and sea-level rise intersect with other economic, political, and social drivers of mobility, resulting in forced migration and diverse health impacts (4, 14). These health effects vary depending on existing health challenges in places that make up a person's migration journey and the nature of the journey itself (14). Because climate-related mobility has and will continue to occur within contexts with existing population health challenges, the extent to which climate-related health risks and existing population health challenges distinctly drive out-migration is uncertain (14).

Climate change is also a major driver of food insecurity, which is a known catalyst of political breakdown and conflict (3). Some researchers argue that climate change is itself a humanitarian and health crisis, with increasingly complex, frequent, and unpredictable climate risks that compound existing vulnerabilities and inequities within populations and cause cascading emergencies across different systems and sectors (3, 5).

4. Case study sub-themes and questions

The following subsections synthesize existing conversations related to the meeting sub-themes. Each section begins with a list of questions that are intended to stimulate applicants' thinking about the types of questions they could respond to in their case studies.

4.1. Community engagement in research

Note: For the purposes of the Forum, "community engagement in research" refers to researchers engaging with populations affected by humanitarian crises.

- How can communities be effectively engaged in health research at the nexus of humanitarian crises and climate change?
- How do the overlapping vulnerabilities associated with climate change and other humanitarian crises affect opportunities for engaging communities in humanitarian health research?
- How should researchers ensure that community-engaged research involves populations across the life course, such as pregnant women, minors, and elders? What are the complexities associated with engaging such populations in research, and how should researchers respond to these challenges?
- How should ethical or high-quality community engagement be evaluated for effectiveness in contexts affected by humanitarian crises and climate change?
- How should researchers maximize their understanding of "community" and complex community dynamics in contexts with concurrent crises?
- How could community-engaged research approaches like knowledge coproduction and community-based participatory research (CBPR) be used and/or adapted in contexts affected by humanitarian crises and climate change? What are the challenges of applying these and other community-engaged research approaches in such contexts, and how can they be overcome?
- What could a community-centered approach to health research look like at the nexus of humanitarian crises and climate change? How are previous community-centered models applicable and adaptable to this complex field?
- Who has the authority in setting the research agenda for climate change and humanitarian health? How can communities with lived experience, who are most affected by climate change and its impact on health, be driving and leading the agenda?
- How could ethical symmetry become a norm of community-engaged research? Ethical symmetry considers equality as a starting point, recognizing that communities are not fundamentally dependent upon researchers and treating community-level preoccupations as the central concern of the research.

The humanitarian health community – including practitioners, policymakers, and researchers – has consistently highlighted the importance of engaging with affected populations and local communities in the research process to help ensure that research reflects community priorities and that crisis-affected communities benefit from research findings (1, 12). Practitioners, policymakers, and researchers in the United States focused on climate and health have similarly highlighted the importance of engaging communities to identify and promote sustainable strategies to mitigate health inequities related to climate change (15). However, community representatives and affected populations in crisis settings remain marginalized in research processes, and there is limited guidance on how to effectively engage communities in humanitarian health research (1, 12, 16). Researchers have elaborated much more on the shortcomings of existing efforts to engage communities in research conducted in crisis settings. For example, Sibai et al. (13) have described how refugees and host communities also facing barriers in the Middle East have become over-researched populations who are expected to volunteer time and information while receiving minimal social, economic, and health benefits in return. Lokot and Wake (17) similarly describe how researchers in humanitarian settings often focus on obtaining data from communities in efficient, extractive ways rather than

through “participatory processes that are grounded in the lived experiences of conflict-affected communities.” This has the effect of making communities feel used, which is exacerbated by the infrequent sharing of research findings with communities who participated in the research (17).

Barriers to conducting community-engaged research in the context of humanitarian crises include issues related to understandings of communities (18) as well as challenges related to identifying community representatives, building relationships, timelines, and funding (16). Extensive social science literature has described how oversimplified understandings of communities that “project solidarity onto complex hierarchies and politics” or “reduce communities to particular geographies” can lead to ineffective policies and unintended consequences (18). In populations impacted by crises, lower levels of social cohesion and undefined and dismantled leadership structures can make it difficult to both identify “the community” and solicit community participation (16). Researchers, who often lack preexisting relationships or connection to the community of interest, may also struggle to engage a representative sample and avoid giving community gatekeepers too much control over who in the community engages in research (16). Hostile environments and a heightened sense of urgency in crisis settings pose threats to everyone and compress the time available to build relationships and engage meaningfully with communities before and during a research study (16). The determination of research priorities by funders and a lack of funding to support community-engaged humanitarian health research also limit meaningful community engagement (16).

Researchers and policymakers have also highlighted a few core components of ensuring meaningful and ethical community-engaged research in crisis settings, which include understanding social dynamics, coproducing knowledge with communities, and centering cultural and contextual factors. Based on their experiences with community-engaged research in the context of the Ebola epidemic in West Africa, Wilkinson et al. (18) highlight the importance of allowing understandings of “the community” to emerge from “how individuals within those settings regard themselves, and in the multiple identities and relationships that are salient in social and material life.” The same researchers also insist that such understandings of social dynamics are core to effective public health and emergency planning and the design of robust interventions.

Reflecting on knowledge coproduction, Lokot and Wake (17) argue that academics and practitioners should shift from their roles as experts and implementers to collaborators who value experiential knowledge and treat research participants as the experts of their own experiences and communities. Although knowledge coproduction is a way of doing research that values diverse knowledges rather than a methodological approach or a formalized research model like community-based participatory research (CBPR) (17), it will be explored in greater depth in the “Research methods innovation and adaptation in humanitarian settings” subsection of this paper. Furthermore, diverse humanitarian researchers, policymakers, and practitioners have warned that proliferating community engagement toolkits may not be well-suited to crisis settings that are dynamic, complex, and diverse. In such settings, community engagement guidance should emphasize cultural sensitivity and equity (16).

4.2. *Equity in global research partnerships*

- What should successful, equitable, and sustainable research collaborations look like and how can they be achieved in contexts affected by overlapping climate and humanitarian crises?
- How does climate change and its disproportionate effects in crisis contexts shape collaborations between LMIC and HIC researchers in humanitarian settings?
- What can funding agencies, collaborators, journal editors, international NGOs, intergovernmental organizations, and HIC academic institutions do to ensure more equitable and contextually led health research at the nexus of humanitarian crises and climate change?
- How can research collaborations serve as spaces of mutual learning?
- How should reflexivity (defined below) be operationalized within humanitarian health research processes?
- How can HIC academic institutions adopt reflective practices in evaluating their own global and humanitarian health researchers that would instill fair and ethical collaboration?

Over the past decade, researchers have increasingly drawn attention to inequities in LMIC-HIC global health research collaborations. Likewise, HIC researchers have produced most of the humanitarian evidence base and received the vast majority of humanitarian research funding (19). Humanitarian health research too often perpetuates structural LMIC-HIC inequities while attempting to alleviate suffering by marginalizing researchers in crisis contexts along with their critical perspectives, contextual knowledge, and relationships. The intensification of humanitarian crises, a quick influx of funding opportunities, and a need to produce quick, actionable data can additionally exacerbate power inequities in LMIC-HIC research collaborations in humanitarian contexts (13, 17).

Although there is growing consensus that LMIC-HIC research collaborations should be inclusive, elevate underrepresented voices and groups, and demonstrate fairness of opportunity as well as fair processes (20, 21), researchers have elaborated much more on the shortcomings rather than the strengths of existing LMIC-HIC research collaborations in humanitarian contexts. In general, research collaborations in crisis settings have been criticized for "ethically dubious fieldwork practices" and for structural inequities in the "funding, conduct, and dissemination of academic research across global North-South divides" (13). Reflecting on research collaborations between the United Kingdom (UK) and Syria, Sukarieh & Tannock (22) juxtapose a common framing of Syrian refugee research in the UK as "a noble and enlightened aid-based project of "helping the world's most vulnerable"" with the perspectives of Lebanon-based researchers who "speak of their experience of alienation from research projects, sense of exploitation during the research process, and disillusionment with the UK university research sector."

Over the past five years, literature on LMIC-HIC research collaborations in humanitarian contexts has focused heavily on inequities in roles. Reflecting on examples from the Middle East, Sibai et al. (13) summarize: "…institutions in HICs are incentivized to be the conceptualizers and producers, while Middle East partners become facilitators and executors."

Research on role inequities characterizes HIC researchers as relying on in-country partners to secure institutional review board approvals and other relevant permissions, access survey populations, collect data, and translate, thus marginalizing partners' participation in the interpretation of findings, research write-up, and academic authorship (13, 22).

Researchers have also reflected extensively on a common lack of contextual knowledge among HIC-based principal investigators (PIs) leading research in humanitarian contexts and the implications of this lack of contextual knowledge for populations in crisis settings (13, 22). For example, Lebanon-based research assistants who support UK-led research on the experiences of Syrian refugees argue that the aim and focus of research projects is too often estranged from the immediate concerns of Syrian refugees and Lebanese host communities (22). They have also expressed concerns about the transformation of research informants' stories and reflections into decontextualized knowledge that is dissociated from the context and social relations within which it was produced. In other words, a limited understanding of political, social, environmental, and economic factors among HIC-based PIs and the marginalization of LMIC-based researchers (and community members) in research conceptualization and production can obscure how such contextual factors affect study populations and their health in research write-up. This further undermines an already limited humanitarian health evidence base.

Although there is very little humanitarian health literature on the strengths of existing LMIC-HIC research collaborations, researchers and policymakers have produced broad guidance for ensuring more equitable and contextually led research in humanitarian settings. For example, Sibai et al. (13) encourage grant funding agencies to form direct lines of communication and provide incentives for equitable budgetary and financial arrangements in North-South research collaborations. Researchers have encouraged collaborators to establish guiding principles related to roles and responsibilities, authorship, data sharing and ownership, publication and dissemination of findings, project management and governance, compensation, and opportunities for future training (9, 12, 13). Collaborators are also encouraged to create the space for mutual learning (9); acknowledge and alleviate potential capacity deficits among HIC partners in the methodological and interpersonal skills and cultural competencies necessary for working in challenging humanitarian environments (12); and practice reflexivity in research (9, 17). Lokot and Wake (17) define reflexivity as the process of "critically reflecting on all aspects of the partnership and research cycle, specifically thinking about how our positionality (our own background, culture, identity) and perspectives (assumptions, beliefs, worldviews) shape the research process." Journal editors are urged to ascertain the extent to which equitable research practices have taken place and to ensure the contextual relevance of research questions and findings by assigning at least one peer reviewer from the research context (13). Last, Sibai et al. (13) encourage academic institutions in HICs to "adopt reflective practices in the evaluation of their own global health researchers that would instill fair and ethical collaboration."

Other researchers question the extent to which research partnerships can become more equitable and sustainable without a fundamental rethinking and restructuring of the global production of academic research (22). More in-depth reflections are needed, particularly from LMIC-based researchers, on the extent to which such measures ensure equity in humanitarian research partnerships; the unique challenges that may arise when implementing such guidance in humanitarian research collaborations; and how systemic issues like climate change that

disproportionately affect crisis contexts shape research collaborations in humanitarian settings.

4.3. Academic-humanitarian collaboration

- How can academics and humanitarian practitioners overcome differences in time frames, mandates, and measures of success to conduct research that is more ethical, actionable, and reflective of community priorities?
- How can academic-humanitarian partnerships be proactively cultivated?
- What expertise and experience should be reflected in academic-humanitarian partnerships in the context of climate change?
- What challenges do academics and humanitarian practitioners face with cultivating and sustaining academic-humanitarian partnerships in the context of climate change?

Humanitarian health researchers have consistently highlighted the importance of collaborating with humanitarian organizations, broadly defined (1, 12, 23). Likewise, the climate and health community has encouraged researchers to collaborate with community-based organizations to identify and promote sustainable strategies for mitigating health inequities related to climate change (15). In humanitarian contexts, academic institutions are experienced in conducting high-quality studies while humanitarian organizations have the logistical capabilities and community-level relationships necessary to operate in crisis settings (12). Despite the clear benefits to both parties of academic-humanitarian collaboration, differences in time frames, mandates, and measures of success can hamper effective partnerships (23). For example, academics work over years to develop and answer research questions, while humanitarian practitioners work under much more constricted timeframes (23). Additionally, humanitarian organizations have a mandate to protect populations in crisis situations and measure their success through easily quantifiable outputs, whereas academics have a mandate to produce knowledge and measure their success through academic publications (23).

Regardless of these differences, partnering with humanitarian organizations is essential in helping researchers address logistical and security challenges while increasing the likelihood of research uptake in humanitarian settings (1). Because humanitarian-academic partnerships can be difficult to develop in real time during an acute humanitarian crisis, practitioners and academics are encouraged to proactively forge such partnerships (23). Furthermore, humanitarian crises are often inextricable from climate-related vulnerabilities, which suggests that partnerships reflecting diverse expertise and experience in areas such as ecology, biodiversity, disaster preparedness, and humanitarian response will become increasingly important.

4.4. Research methods innovation and adaptation in humanitarian settings

- What methodological approaches are needed to better understand and respond to the effects of climate change and humanitarian crises on health and well-being?
- How can research methodologies be adapted in contexts affected by humanitarian crises and climate change?
- How can innovative research methods be applied in crisis settings?

- What are the ethical implications of applying innovative research methods or adapting existing research methods in crisis settings?
- How should research approaches/methodologies like knowledge coproduction be used and/or adapted in contexts affected by humanitarian crises and climate change?
- What are barriers to knowledge coproduction approaches in health research at the nexus of humanitarian crises and climate change, and how can they be mitigated?

Commentary on research methods in humanitarian contexts has highlighted the importance of flexible and adaptive methodologies as well as the use of mixed methods study designs and implementation research frameworks to better understand what works for which populations and settings, and why (6, 12, 24). An Elrha-commissioned review of research methods in humanitarian settings found that researchers generally adapted tried and tested methodological approaches rather than implementing new and innovative methods (24). While methods adaptation to sampling, randomization, follow-up, and other processes is commonplace in dynamic and unpredictable crisis settings, a lack of detailed reporting on methods has made it difficult to systematically analyze methods adaptation in humanitarian health research (6, 24). A recent systematic review of humanitarian health interventions drew attention to additional methodological deficits, including a need for more economic evaluations to inform resource prioritization and the importance of measuring longer term outcomes to enable better comparison of the effectiveness of different interventions against one another and across different contexts and populations (6).

Researchers in humanitarian settings and in contexts especially affected by climate-related uncertainties have both drawn attention to the important role of knowledge coproduction in ensuring more equitable, inclusive, and useful outcomes (17, 25, 26). Reflecting on research in humanitarian contexts, Lokot and Wake (17) recommend choosing methods that allow for coproduction within research, which they define as “a horizontal partnership between researchers (both academic and non-academic) and active research participants to undertake research that can inform action.” Such an approach recognizes people affected by crisis as the experts of their own experience and communities (17). Reflecting on research done in the rapidly changing Arctic environment, Yua et al. (25) highlight a coproduction of knowledge framework that seeks to equitably bring together people from different cultures and knowledge systems, with a special emphasis on indigenous peoples’ knowledge, to gain a broader and deeper understanding of the Arctic. Mehta and Srivastava (26) argue that creative and participatory social science-driven methods are essential in bringing to the fore multiple knowledges and alternative perspectives and solutions. Researchers in humanitarian settings and in contexts of climate precarity agree on the importance of horizontal partnerships and sustained engagement with diverse participants from different cultures and knowledge systems to generate more nuanced understandings of and more effective solutions to complex and concurrent crises.

4.5. Evidence use

- What have you learned from conducting research in a humanitarian setting about facilitating and encouraging the use of evidence that has been generated?
- In the context where you conducted research, what are the most significant barriers to evidence use and impact, and how might they be alleviated or addressed? What are the

most important enablers of/strategies for ensuring evidence use and impact in the context where you conducted research?
- How might diverse actors in the humanitarian sector work together to ensure that research evidence is effectively translated and communicated to humanitarian users? What should evidence brokering ideally look like?
- How might implementation research be leveraged to improve evidence use in the humanitarian sector?
- What steps are necessary to ensure that evidence is more demand led and responsive to critical priority evidence gaps and needs?
- How could key actors in humanitarian response be engaged by researchers or involved in setting research agendas to ensure the relevance of research evidence?
- Is there anything unique about using research evidence at the nexus of humanitarian crises and climate change that should be considered when it comes to strengthening the impact of humanitarian health research on policy and practice?

Although discussion around evidence use in humanitarian response has been ongoing for several decades, attention has only recently shifted from filling knowledge gaps by conducting new research in crisis contexts to strategies for strengthening the impact of research evidence on humanitarian policy and practice (27). An Elrha learning paper from 2021 synthesizes the most common barriers to using research evidence, which include its frequent lack of relevance to humanitarian policy and practice as well as to humanitarian actors in the Global South (28). For example, a lot of potentially relevant evidence is currently being presented without clear demonstrations of its applicability, and key actors in humanitarian response—like local and national organizations, governments, and communities in crisis-affected countries and regions—are not being sufficiently engaged by researchers or involved in setting research agendas (28).

There is a clear need to make sure that evidence is more demand led and responsive to the critical priority evidence gaps and needs of actors across the humanitarian sector through coordinated and cross-sectoral efforts. Diverse humanitarian actors have identified strategies that hold promise for enabling evidence use, such as evidence-brokering roles and services within and outside humanitarian organizations and humanitarian implementation research (28). The 2021 Elrha report emphasizes the importance of building greater ownership of research agendas and leadership of research by organizations and actors from the Global South in overcoming barriers to evidence use.

Elrha more recently developed a Research Impact Framework, based on a literature review and desk analysis of a collection of R2HC-funded impact case studies, to both help meet the need for practical guidance and strengthen the impact of humanitarian health research on policy and practice (29). The Research Impact Framework outlines five strategies for impact and nine enablers of impact that are common factors in research projects that have successfully influenced humanitarian policy and practice. The five strategies for impact include the following recommendations: 1) Focus on impact; 2) Look outward; 3) Respond to needs; 4) Turn evidence into products humanitarian practitioners can use and understand;' and 5) Socialize ideas. The nine enablers relate primarily to the three core categories of 1) Existing connections; 2) Context; and 3) Research consortium attributes. It is important for researchers and other key actors in

humanitarian response to continue to reflect on what factors are most important in ensuring evidence use and impact in diverse contexts.

4.6. Additional topics of interest

Although we have proposed the sub-themes noted above, applicants may decide to explore other relevant topics, such as ethical issues related to research and data issues, including access, quality, and sharing of data. Applicants are welcome to choose their own sub-theme to focus their case study around.

5. Authorship and Acknowledgements

This paper was authored by Jessica Ott (AAAS Science & Technology Policy Fellow, Fogarty International Center, NIH) with assistance from Blythe Beecroft (Fogarty International Center, NIH) and Amit Mistry (Fogarty International Center, NIH). The authors appreciate invaluable comments from the 2025 GFH2R Steering Committee and Nalini Anand (Fogarty International Center, NIH).

Disclaimer: The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the U.S. National Institutes of Health or Department of Health and Human Services.

6. References

1. Mistry AS, Kohrt BA, Beecroft B, Anand N, Nuwayhid I. Introduction to collection: confronting the challenges of health research in humanitarian crises. Conflict and Health. 2021;15(1):38.
2. Rocque RJ, Beaudoin C, Ndjaboue R, Cameron L, Poirier-Bergeron L, Poulin-Rheault RA, et al. Health effects of climate change: an overview of systematic reviews. BMJ Open. 2021;11(6):e046333.
3. Baxter L, McGowan CR, Smiley S, Palacios L, Devine C, Casademont C. The relationship between climate change, health, and the humanitarian response. Lancet. 2022;400(10363):1561-3.
4. Schwerdtle P, Bowen K, McMichael C. The health impacts of climate-related migration. BMC Med. 2017;16(1):1.
5. Romanello M, Di Napoli C, Drummond P, Green C, Kennard H, Lampard P, et al. The 2022 report of the Lancet Countdown on health and climate change: health at the mercy of fossil fuels. Lancet. 2022;400(10363):1619-54.
6. Doocy S, Lyles E, Tappis H, Norton A, Humanitarian Health Evidence Review Study T. Effectiveness of humanitarian health interventions: a systematic review of literature published between 2013 and 2021. BMJ Open. 2023;13(7):e068267.
7. Berrang-Ford L, Sietsma AJ, Callaghan M, Minx JC, Scheelbeek PFD, Haddaway NR, et al. Systematic mapping of global research on climate and health: a machine learning review. Lancet Planet Health. 2021;5(8):e514-e25.
8. Health, Wellbeing and the Changing Structure of Communities. In: Intergovernmental Panel on Climate C, editor. Climate Change 2022 – Impacts, Adaptation and Vulnerability: Working Group II Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge: Cambridge University Press; 2023. p. 1041-170.
9. Bingley K. Partnerships Review: Research for Health in Humanitarian Crises. London: Elrha; 2019.
10. Climate Change and Health Initiative Strategic Framework. National Institutes of Health; 2022.
11. World Bank Country and Lending Groups [Available from: https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups.
12. Kohrt BA, Mistry AS, Anand N, Beecroft B, Nuwayhid I. Health research in humanitarian crises: an urgent global imperative. BMJ Glob Health. 2019;4(6):e001870.
13. Sibai AM, Rizk A, Coutts AP, Monzer G, Daoud A, Sullivan R, et al. North-South inequities in research collaboration in humanitarian and conflict contexts. Lancet. 2019;394(10209):1597-600.
14. McMichael C. Human mobility, climate change, and health: unpacking the connections. Lancet Planet Health. 2020;4(6):e217-e8.

15. Alliance NCE. Alliance for Community Engagement Climate and Health (ACE-CH) Fact Sheet 2023 [Available from: https://nihceal.org/resources/alliance-community-engagement-climate-and-health-ace-ch-fact-sheet].
16. Knowlton A, Beecroft B. Summary Report: Community Engagement in Health Research in the Context of Humanitarian Crises. The Center for Global Health Studies of the Fogarty International Center at NIH; 2022.
17. Lokot M, Wake C. Research as usual in humanitarian settings? Equalising power in academic-NGO research partnerships through co-production. Conflict and Health. 2021;15(1):64.
18. Wilkinson A, Parker M, Martineau F, Leach M. Engaging 'communities': anthropological insights from the West African Ebola epidemic. Philos Trans R Soc Lond B Biol Sci. 2017;372(1721).
19. Issa ZL, A.; and Timmins, N. Global Insights: The Humanitarian Research and Innovation Landscape. London: Elrha; 2024.
20. Request for Information on Promoting Equity in Global Health Research. Fogarty International Center, U.S. National Institutes of Health; 2023.
21. Research Fairness Initiative Guides. Council on Health Research for Development, Research Fairness Initiative.
22. Sukarieh M, Tannock S. Subcontracting Academia: Alienation, Exploitation and Disillusionment in the UK Overseas Syrian Refugee Research Industry. Antipode. 2019;51(2):664-80.
23. Levine AC. Academics are from Mars, humanitarians are from Venus: Finding common ground to improve research during humanitarian emergencies. Clin Trials. 2016;13(1):79-82.
24. Smith J, Blanchet K. Research Methodologies in Humanitarian Crises. London: Elrha; 2019.
25. Yua E, Raymond-Yakoubian J, Daniel RA, Behe C. A framework for co-production of knowledge in the context of Arctic research. Ecol Soc. 2022;27(1).
26. Mehta L, Srivastava S. Uncertainty in modelling climate change: The possibilities of co-production through knowledge pluralism. In: Scoones I, Stirling A, editors. The Politics of Uncertainty: Challenges of Transformation. 1 ed. London: Routledge; 2020. p. 99-112.
27. Khalid AF, Lavis JN, El-Jardali F, Vanstone M. Supporting the use of research evidence in decision-making in crisis zones in low- and middle-income countries: a critical interpretive synthesis. Health Res Policy Syst. 2020;18(1):21.
28. Carden F, Hanley, T., Paterson, A. From knowing to doing: evidence use in the humanitarian sector. London: Elrha; 2021.
29. Lonsdale C. The Research Impact Framework: Elrha R2HC; 2023 [Available from: https://www.elrha.org/researchdatabase/research-impact-framework/.