

Research resources to support policy and new research

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3.7.1 Learning objectives

To understand:

1. Some of the key information resources that can be used to find existing research into the effects of interventions relevant to health emergency and disaster risk management (Health EDRM);
2. How to access these resources; and
3. How the evidence from this research might be used in decision making.

3.7.2 Introduction

Evidence derived from evaluation and research into the effects of interventions relevant to Health EDRM can help policy makers and practitioners to understand what works, where, why and for whom (1). Not only can evidence from research be used to help design interventions that effectively mitigate health and disaster risks, it can also help policy makers and practitioners avoid interventions which may cause harm, and avoid repeating the mistakes of the past.

This chapter explores some of the sources of such high-quality research evidence and how these can be accessed by policy makers and those designing new research studies; by accessing this existing research evidence, they will be better able to set well-informed policies and to design future research that will fill important gaps. This is explored in greater detail elsewhere in this book. For example, see Chapter 3.6 for the key steps in conducting a scoping review before embarking on a new study and Chapter 6.2 for information on how to search for literature and research evidence that might be used to support a proposal for a new study.

3.7.3 Challenges faced by policy makers looking for research evidence

Researchers and policy makers face several challenges when looking for research evidence on the effects of interventions that might be relevant to Health EDRM. The first is common to many fields and is the frequently

contested nature of ‘evidence’ itself (2). Scientific principles of proof, validity and reliability, or research frameworks in which credible steps have been taken to minimize bias, may find themselves crowded out by expert opinion, established ways of working (“we’ve always done it this way”) or ideological policy making (“we believe this is the right way to do things”). To some extent, resistance from policy makers and practitioners in health emergency and disaster management who feel that evidence is no substitute for experience, expertise and localized knowledge reflects a reasonable concern – research evidence showing what works is seldom definitive, and because it may have been generated under ideal or highly controlled circumstances, it often lacks ‘real world’ implications. Also, research evidence does not tell decision makers what to do or how to act. In the context of interventions, it merely indicates the likelihood of certain outcomes being achieved based on a rigorous comparative analysis with doing something else (Chapter 4.1). In other contexts, it might, for example, tell them about risk factors (Chapter 3.2) or how common a particular problem is likely to be after a disaster (Chapters 2.1, 2.2 and 2.4). Such research evidence requires interpretation and judgement by decision makers based on their experience, substantive expertise, and *in situ* knowledge.

Secondly, the complexity of disaster settings and the difficulties of conducting research in such environments may mean that high quality, relevant evidence is not available. For instance, there are relatively few controlled impact evaluations using experimental or quasi-experimental designs compared to other sectors (3) and, therefore, fewer systematic reviews of the effects of interventions. Blanchet and colleagues (1) have noted that it might be impossible to use a randomized trial to compare the relative effects of different ways to coordinate the response to a major emergency, or the impact of a national policy intended to improve the social inclusion of refugees. In such cases, researchers might use a quasi-experimental design to investigate the link between the interventions and the outcomes” (See Chapters 4.14 and 4.15). Puri and colleagues (4) listed some factors that limit the use of controlled evaluations in the broader humanitarian sector. These include:

- the urgency of humanitarian action, which makes advance preparation for evaluation very difficult;
- the absence of baseline data and the inability to plan for and construct counterfactuals;
- the multiplicity of agencies providing support in any one area, which makes it difficult to decouple actions and outcomes;
- the fact that conflict and disasters do not usually have clean boundaries means that it is also difficult to find or establish comparable groups that can serve as counterfactuals in a scientifically robust and ethically sound way;
- a lack of impact evaluation experts in the humanitarian sector and a lack of humanitarian experts in the impact evaluation sector.

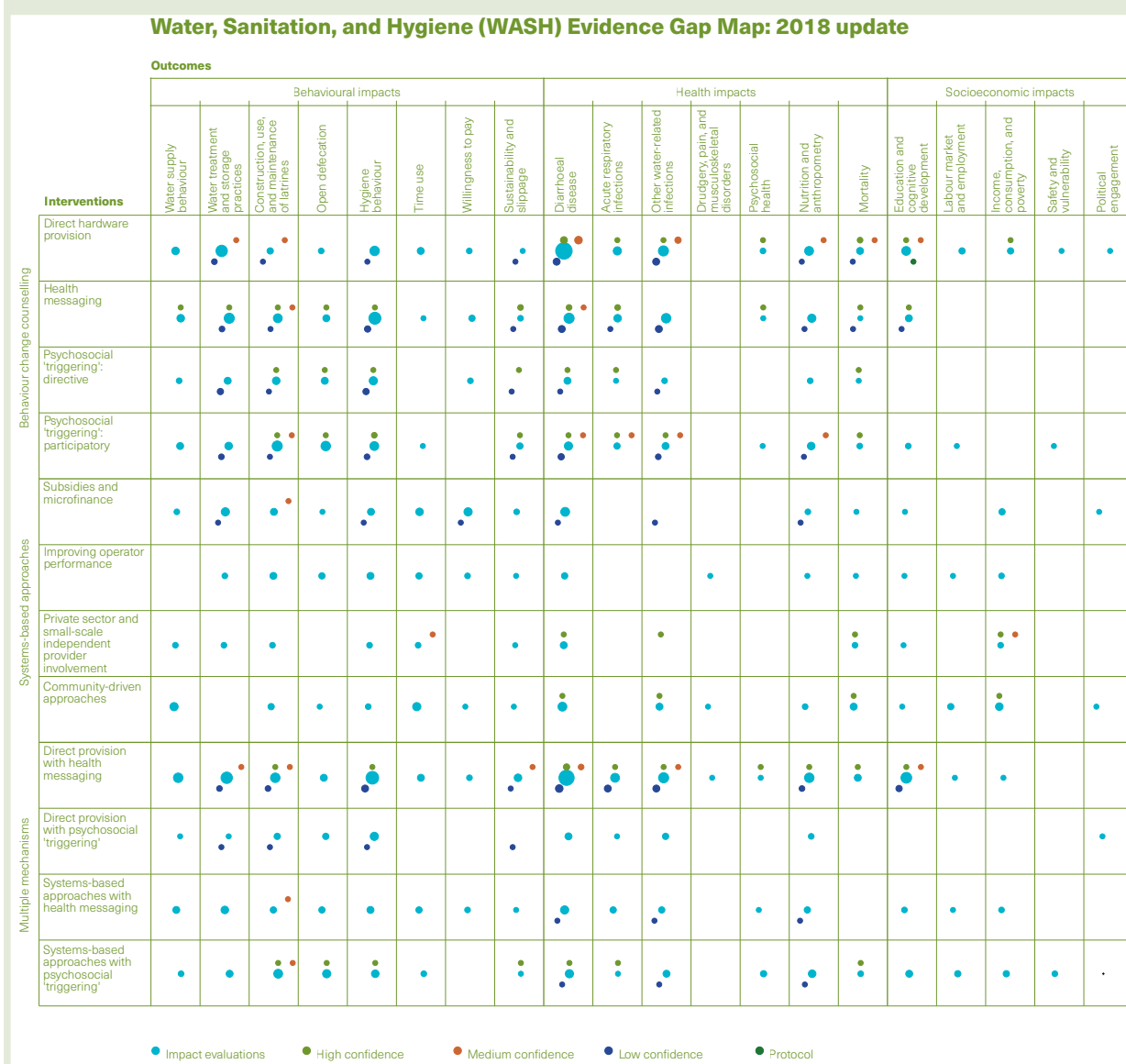
Notwithstanding these challenges, there is a growing body of evidence from experimental and quasi-experimental evaluations, and systematic reviews, as to what works, and what does not work, in disaster settings (see Case Study 3.7.1).

Case Study 3.7.1

Mapping and synthesizing the evidence base

3ie (The International Initiative for Impact Evaluation) was established in 2008 to support the generation and effective use of high-quality evidence to inform decision-making and improve the lives of people living in poverty in LMICs. 3ie now offers several searchable databases online. Two of these, the 3ie Database of Systematic Reviews and the Database of Impact Evaluations catalogue evidence of the effectiveness of interventions in the humanitarian sector. These databases also include systematic reviews and impact evaluations on the broader landscape of international development, many of which have relevance to interventions in emergency situations. Furthermore, 3ie's evidence gap maps provide a visual display of completed and ongoing systematic reviews and impact evaluations in a sector or subsector, structured around a framework of interventions and outcomes (for an example, see Figure 3.7.1). They provide both researchers and policy makers with a valuable 'at a glance' view of the quality of the existing evidence base and the confidence with which a link between particular interventions and outcomes can be established.

Figure 3.7.1 Example of a 3ie gap map, on water, sanitation and health*



*reproduced by kind permission of 3ie

However, where high quality research exists, it may be difficult to find, written in complex language or in a language other than that spoken by those responding to a disaster. The vast number of opportunities for researchers to publish or present their studies means that relevant studies may be scattered across tens of thousands of reports, thousands of websites and journals, or hidden within closed databases or behind paywalls. Even where research can be found on relatively established databases such as PubMed, Global Index Medicus (which includes the Latin American And Caribbean Health Sciences Literature database, LILACS), ERIC and OpenGrey, sifting through such evidence can be daunting and may require the services of an information specialist (see Chapters 3.6 and 6.2). For policy makers and practitioners, this means it is often difficult to understand what evidence actually exists even though they wish to use it (5). For researchers, it may be challenging to see what gaps are present in the evidence base and hence where to direct scarce research resources.

3.7.4 The evidence base for interventions in health emergency and disaster settings

Research synthesis is one solution to the problem of finding research studies. Research synthesis has been described as “the most important single offering by academics to the policy process” (6). Research synthesis is increasingly used in disaster preparedness and response, and humanitarian action to develop evidence-based guidelines and design interventions (7). For example, WHO seeks to support its guidelines with research evidence that has been brought together in systematic reviews (8) and several organizations (Table 3.7.1) seek to make available details of systematic reviews on a wide range of humanitarian- and disaster-related topics. These include Enhancing Learning and Research for Humanitarian Assistance (ELRHA), the Global Health Institute (GHI) at the American University in Beirut, Lebanon and Evidence Aid. Case Study 3.7.2 provides an example of how Evidence Aid organized systematic reviews relevant to malnutrition into one of its broader thematic collections (9).

Some international disaster response agencies, such as the International Rescue Committee, are also making increasing use of systematic reviews and other forms of research synthesis to underpin intervention design (Case Study 3.7.3).

Case Study 3.7.2**Special collection of systematic reviews of interventions for the prevention and treatment of moderate and severe acute malnutrition relevant to humanitarian and disaster settings**

The use of evidence to inform policy making can often be hampered by the sheer diversity, complexity and inaccessibility of evidence. Relevant research may be dispersed across many databases, may not be publicly available and requires assessment of its relevance to ensure generalizability to a given risk or context. Furthermore, there may be barriers to research uptake that are nothing to do with the accessibility, relevance or complexity of the evidence itself, but rather with the value attached to that evidence by policy makers.

By working with multistakeholder, multidisciplinary groups of specialists to curate and produce its research synthesis products, Evidence Aid seeks to address both the inherent challenge of conducting research synthesis relating to disaster settings and the potential challenges of research uptake. Working with groups that include policy makers and practitioners as well as researchers allows it to capture the broadest range of relevant and robust research evidence, and also to generate an enhanced sense of 'ownership' over the evidence base from those whose job it is to design interventions.

Between March 2017 and March 2018, Evidence Aid brought together a group of 21 stakeholders from a variety of backgrounds to review and curate a collection of systematic reviews of interventions for the prevention and treatment of moderate and severe acute malnutrition relevant to humanitarian and disaster settings (9). The methodology loosely followed general guidance for overviews of systematic reviews, with a pre-defined question formulated using the population, intervention, comparison, outcome, study design (PICOS) format, and search strategies applied to multiple databases. Pairs of collaborators first screened the search yields to identify potentially eligible reviews; other pairs then screened the list of potentially eligible reviews for relevance and thus inclusion in the final collections. Search strategies were run in 12 databases yielding a total of 4646 records after de-duplication.

Through this collaboration, Evidence Aid successfully generated collections of systematic reviews to guide prevention and management of acute malnutrition in humanitarian emergencies. These collections, made available on its website, provide accessible, synthesized evidence that can be used to inform decision-making on strategies and policies in the humanitarian emergency and disaster risk reduction sectors and to guide future research by identifying gaps in robust evidence and areas that are under-researched (10).

Case Study 3.7.3**Using research synthesis in practice**

The International Rescue Committee (IRC) is a long-established international humanitarian agency that offers emergency aid and long-term assistance to refugees and those displaced by war, persecution, or natural disaster. IRC has been placing increasing emphasis on high-quality evidence in the development of programme guidance documents and tools for field staff. It does this by conducting evidence reviews across many high-quality sources around specific interventions or approaches, and using what it learns about impact, contexts, populations and conditions to inform whether and how to adapt those interventions.

IRC's agency-wide effort to ensure that evidence is readily available to staff is framed by its Outcomes and Evidence Framework (11), a publicly available online platform in which it defines the outcomes and sub-outcomes that it wishes to focus on, the general theories of change or pathways through which it seeks to achieve those outcomes, and indicators for measuring them. For each outcome and sub-outcome, it has summarized the best available evidence on the effectiveness of relevant interventions, with a primary focus on evidence from systematic reviews. For topics where systematic reviews do not yet exist, IRC has identified and summarized individual studies. IRC's collection of systematic reviews is drawn from the databases of 3ie, the Campbell Collaboration Library, the Cochrane Library and the United Kingdom's Department for International Development (DFID) Research for Development website. IRC also has a collection of Evidence Maps on health, education, economic wellbeing, safety, and power, and cross-cutting maps that focus on cash transfer interventions, service delivery interventions, and interventions in humanitarian emergencies.

The increasing use of rapid evidence synthesis to inform health systems development in LMICs also opens up potential opportunities to support better evidence-based decision-making via research synthesis even in the midst of disasters (12).

3.7.5 Repositories of research evidence and systematic reviews

In order to help bring research evidence together, repositories have been established of systematic reviews and high-quality evaluations that are relevant to Health EDRM. Using these resources can make it easier and more efficient for both researchers and policy makers to navigate the existing evidence base. Table 3.7.1 shows several of these repositories; an up-to-date list is available from Evidence Aid on its website (13).

Table 3.7.1 Online repositories of systematic reviews, high-quality evaluations and research evidence relevant to Health EDRM

3ie (International Initiative for Impact Evaluation) (see also Case Study 3.7.1) www.3ieimpact.org

3ie was established in 2008 to support the generation and effective use of high-quality evidence to inform decision-making and improve the lives of people living in poverty in low- and middle-income countries. 3ie now offers several searchable databases online.

Global Health Institute (GHI) www.ghi.aub.edu.lb/about-us

The Global Health Institute was established within the American University in Beirut, Lebanon. Its library of resources reflects the outputs of its interdisciplinary programmes on conflict medicine, refugee health, and nutrition, obesity and related diseases. They have also formed strategic partnerships with local and international stakeholders in health, aspiring to strengthen South-North collaborations among organizations and academic institutions.

Australian Disaster Resilience Knowledge Hub <https://knowledge.aidr.org.au/>

This hub provides a national, open-source platform that supports and informs policy, planning, decision making and contemporary good practice in disaster resilience.

Campbell Collaboration www.campbellcollaboration.org

The Campbell Collaboration is an international research organization that publishes a library hosting a wealth of research and evaluation on the effectiveness of interventions in crime and justice, education, social welfare and international development, many of which have relevance for interventions in the humanitarian sector. The Campbell Collaboration also produces a Policy Brief Series and provides training for researchers in how to undertake systematic reviews.

Centre for Evidence-Based Practice (CEBaP) www.cebap.org

The Centre for Evidence-Based Practice is a non-profit global centre located in Belgium that uses scientific evidence to support humanitarian aid activities, including those of the Belgian Red Cross. The Centre uses systematic reviews to provide this evidence for a range of humanitarian activities, development programs and emergency relief.

Cochrane Library www.cochranelibrary.com

The Cochrane Library is an online publication offering a collection of high-quality, independent evidence to inform healthcare decision-making. Some of the reviews in the Cochrane Library have relevance for interventions in the humanitarian sector. The Cochrane Library is produced by an international organization called Cochrane (formerly 'The Cochrane Collaboration'), which also has a training arm that provides training in how to undertake systematic reviews, both online and at training events. Cochrane also publishes one of the leading handbooks for preparing and maintaining systematic reviews of the effects of interventions: training.cochrane.org/handbook.

Department for International Development (DFID) Research for Development Library <https://www.gov.uk/dfid-research-outputs>

The UK's Department for International Development is a major funder of research on international development, disaster relief and conflict. It has an online library of resources.

Enhancing Learning and Research for Humanitarian Assistance (ELRHA)
www.elrha.org/research-database

The Enhanced Learning and Research for Humanitarian Assistance is a global charity that seeks to find solutions to humanitarian problems through research and innovation. Its website hosts a free and easy to use resource library which holds every output from the work they fund as well as other publications, gap analyses, peer-reviewed journals, case studies and evaluations.

Evidence for Policy and Practice Information and Co-ordinating Centre
<http://eppi.ioe.ac.uk/cms/>

The Evidence for Policy and Practice Information and Co-ordinating Centre is based at University College London, United Kingdom. It covers a wide range of sectors, including the humanitarian sector, providing access to primary studies, systematic reviews and other types of evidence synthesis, including through its database of systematic reviews and database of primary research, which can be searched from its website.

Evidence Aid www.evidenceaid.org

Evidence Aid was founded by Cochrane staff to champion evidence-based decision-making in humanitarian action. Having initially worked by making the full text of several dozen Cochrane systematic reviews freely available online, it has now collated several hundred systematic reviews relevant to disaster settings, all of which are free to view on its website. Its resources also include Special Collections, which are bundles of reviews relevant to hazards (such as windstorms or earthquakes), specific disease risks (such as the Ebola and Zika viruses) or particular types of interventions (such as those relevant to prevention and treatment of malnutrition (Case Study 3.7.2).

Harvard Humanitarian Initiative
<http://hhi.harvard.edu/resources#publications>

The Harvard Humanitarian Initiative is a dedicated humanitarian research initiative at Harvard University, USA. It brings an interdisciplinary approach to promoting understanding of humanitarian crises and global health problems, and to developing evidence-based approaches to humanitarian assistance. Its Humanitarian Academy is dedicated to educating and training current and future generations of humanitarian leaders.

Health in Humanitarian Crises Centre
<https://www.lshtm.ac.uk/research/centres/health-humanitarian-crises-centre>

The Health in Humanitarian Crises Centre is based at the London School of Hygiene and Tropical Medicine, United Kingdom. It generates primary research and systematic reviews on public health in humanitarian crises, working closely with international humanitarian agencies and research centres in affected countries to address critical health challenges. A four-year research and capacity-building programme, RECAP was launched in 2018, focusing on decision-making and accountability in response to humanitarian crises and epidemics.

Humanitarian and Conflict Research Institute (HCRI)
<https://www.hcri.manchester.ac.uk/>

The Humanitarian and Conflict Research Institute is based in Manchester University, United Kingdom. It is a global centre for the study of humanitarianism and conflict response, global health, international disaster management and peacebuilding. Its library of research includes many studies on the effectiveness of interventions in areas such as health, wellbeing, social justice and peace-building.

International Rescue Committee (IRC) (see also Case Study 3.7.3)
www.rescue.org

IRC is a long-established international humanitarian agency that offers emergency aid and long-term assistance to refugees and those displaced by war, persecution, or natural disaster. It places an emphasis on high-quality evidence in the development of programme guidance documents and tools for field staff by conducting evidence reviews across many high-quality sources around specific interventions or approaches.

Johns Hopkins Center for Humanitarian Health
<http://hopkinshumanitarianhealth.org/research/publications>

The Johns Hopkins Center for Humanitarian Health is hosted at and administered by the Bloomberg School of Public Health, USA. The centre draws upon a variety of disciplines, including epidemiology, demography, emergency and disaster medicine, health systems management, nutrition/food security, environmental engineering, mental health, political science and human rights. Its library of resources includes many studies on evidence-based strategies for prevention, preparedness, response, recovery and reintegration.

Oxfam <https://policy-practice.oxfam.org.uk/>

Oxfam's Policy and Practice website offers free access to thousands of publications including training manuals, evaluations, research reports and policy briefs, as well as programme overviews, staff profiles and their practitioner blogs. It also includes a collection of systematic reviews and other types of evidence synthesis relevant to humanitarian emergencies.

Tufts University / Feinstein International Center's Humanitarian Evidence Program
<https://fic.tufts.edu/research-item/the-humanitarian-evidence-program/>

Tufts University / Feinstein International Center's Humanitarian Evidence Program produced a series of reviews to distil humanitarian evidence and communicate it to key stakeholders in order to enable better decision-making and improve humanitarian policy and practice. The initiative was a Department for International Development-funded partnership between Oxfam and the Feinstein International Center.

UNICEF – Office of Research-Innocenti www.unicef-irc.org/publications/series/methodological-briefs

UNICEF – Office of Research-Innocenti collaborated with Royal Melbourne Institute of Technology University, Better Evaluation and 3ie to produce methodological briefs and videos on counterfactual evaluation designs. The series covers the building blocks of impact evaluation, strategies for causal attribution, and different data collection and analysis methods.

WHO Health Emergencies Programme (HEP) / Humanitarian Health Action (HAA) www.who.int/hac/techguidance/en

WHO Health Emergencies Programme/Humanitarian Health Action works with countries and partners to prepare for, prevent, respond to and recover from all hazards that create health emergencies, including disasters, disease outbreaks and conflicts. The Humanitarian Health Action website includes technical guidance based on available evidence on a wide range of health emergency topics.

3.7.6 Conclusions

Policy makers and practitioners in Health EDRM can and should make systematic use of high-quality evidence to inform operational and strategic decision making. Likewise, researchers should consider the evidence from existing research before embarking on a new study (Chapter 2.6). Those who fund and commission research and evaluation in disaster-affected settings should publish what they fund on open access platforms where possible and these studies should be brought together in systematic reviews. Not doing so risks rendering the investments in research ineffective and contributes to publication bias. While the increasing number of studies and variability in study design may make it difficult for policy makers to understand and appraise the growing evidence base, systematic reviews and other forms of research synthesis offer effective pathways to bring evidence to bear on policy and practice. Furthermore, resources that collate these reviews, such as those described in this chapter, make it much easier for those who need and those who should use this synthesized research to find it.

3.7.7 Key messages

- o **Evidence derived from evaluation and research of the effects of interventions relevant to Health EDRM can help policy makers and practitioners to understand what works, where, why and for whom, and to avoid interventions which may cause harm.**
- o **There are a growing number of existing quality studies relevant to Health EDRM, but these can be difficult to access or to analyse in their 'raw' state.**
- o **Systematic reviews and other forms of evidence synthesis may offer a pathway to turn this high-quality evidence into sound policy and effective interventions.**
- o **Many such reviews are available in free-to-access repositories such as those listed in this chapter.**

3.7.8 Further reading

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3.7.9 References

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