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What evidence is available and what is required, in humanitarian assistance?

December 2014

Scoping Paper 1

International Initiative for Impact Evaluation

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3ie scoping papers

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About this scoping paper

This scoping paper provides an independent analysis of the evidence base of evaluations in humanitarian assistance and identifies key gaps and priorities in need of rigorous evidence. It is part of background scoping research and consultation undertaken to assess the scope and methods for impact evaluation in the humanitarian sector. The working paper, *What methods may be used in impact evaluations of humanitarian assistance?* examines the extent to which impact evaluation methods can provide evidence to help improve the effectiveness and efficiency in humanitarian action. All of the content is the sole responsibility of the authors and does not represent the opinions of 3ie, its donors or its Board of Commissioners. Any errors and omissions are also the sole responsibility of the authors. Any comments or queries should be directed to the corresponding author Mike Clarke at m.clarke@qub.ac.uk

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What evidence is available and what is required, in humanitarian assistance?

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Executive summary

This paper investigates the current landscape of evidence, with particular emphasis on evidence from impact evaluation, in the humanitarian sector. This is in an attempt to identify areas in which actionable evidence is available and those where more evidence is needed so as to direct research to where it will be most valuable.

The study incorporates a wide array of methods to assess available evidence including an online survey of 395 participants who are knowledgeable with regards to the humanitarian sector, semi-structured interviews with 53 experts from the humanitarian sector, extensive literature reviews of repositories of humanitarian studies and strategy documents of major humanitarian organisations, and a gap map that presents the results of a thorough search for completed, ongoing and planned impact evaluations of humanitarian interventions.

We find that, with the exception of health and nutrition, most areas in the humanitarian sector suffer from a paucity of evidence. An evidence gap map included in this study provides an illustration of the complete landscape of evidence in the sector. The upshot is that there is agreement amongst policymakers that decisions should be based on research evidence and it is recognised that impact evaluations can and should have a greater role to play in building the evidence base.

Key recommendations coming out of this study beyond informing the areas and questions for impact evaluation are that:

- Humanitarians must agree upon a way of prioritising research needs. This study puts forward a framework for choosing areas for further research.
- Efforts need to be made to index and classify existing evidence and a single unifying repository or portal should be made to improve the ease of accessibility to existing evidence.
- A single set of templates and reporting guidelines should be agreed upon to aid in the indexing and classification of evaluation studies. It would also be beneficial to agree upon standards for data collection in these studies.

One of the big challenges encountered in undertaking this project was that there is a lack of databases and repositories that index these studies and assessments. We confirmed that there is a general lack of evidence of good high quality evidence in humanitarian assistance, especially of studies that show a causal relationship between assistance and changes in targeted results. Our findings show that operational research within humanitarian assistance can be very useful and can be undertaken. Criteria that may inform prioritising further impact evaluation related research areas are assessing the feasibility of undertaking impact evaluation, seeing whether these address current or anticipated knowledge gaps, synthesising currently available results in different contexts to learn better, focusing on innovation and choosing the populations to study with care. Last but not least we also discuss the various phases of humanitarian assistance to gauge when evaluation related research is most required. Methods protocols can go a long way to plan and help programmes if planned in advance and included in a prospective manner in humanitarian programming.

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Abbreviations and acronyms

ACF	Action Contre la Faim
ALNAP	Active Learning Network for Accountability and Performance in Humanitarian Action
CAC	comprehensive abortion care
CHNRI	Child Health and Nutrition Research Initiative
DFID	Department for International Development
DG-ECHO	Directorate-General for Humanitarian Aid and Civil Protection (European Commission)
EA	Evidence Aid
ELRHA	Enhancing Learning and Research for Humanitarian Assistance
ERC	Evaluation Resource Center
FAO	Food and Agriculture Organization
GBV	gender-based violence
IAWG	Inter-agency Working Group in Humanitarian Settings
ICRC	International Committee of the Red Cross
IFRC	International Federation of Red Cross and Red Crescent Societies
IOM	International Organization for Migration
IPC-IG	International Policy Centre for Inclusive Growth
M&E	monitoring and evaluation
MCDEM	Ministry of Civil Defence and Emergency Management, New Zealand
MH-SET	Mental Health and Psychosocial Support in Humanitarian Settings –Research Priority Setting
MISP	minimal initial service package
MNH	maternal and newborn health
NGO	non-governmental organization
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
PDM	pre-hospital and disaster medicine
UKCDS	UK Collaborative on Development Sciences

UNECLAC	United Nations Economic Commission for Latin America and the Caribbean
UNEG	United Nations Evaluation Group
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
WADEM	World Association for Disaster and Emergency Medicine
WASH/WATSAN	water, sanitation and hygiene
WFP	World Food Programme
WHO	World Health Organization

1. Objectives

The specific objectives of this paper are:

- to provide an independent analysis of the quality of the evidence base of evaluations of humanitarian assistance;
- to identify the priority areas in need of evidence and research questions that are suitable for impact evaluations in the humanitarian sector;
- to recommend areas of humanitarian assistance where groups of more rigorous impact evaluations may add value;
- to provide a reference point to quickly identify what 'good-quality'evidence exists; and
- to provide a clear, communicable tool to support wider engagement in impact evaluations of humanitarian assistance.

2. Methods

Four studies undertaken by Evidence Aid (EA), in collaboration with Monash University, Melbourne, Australia, between November 2013 and February 2014, inform this paper:

- An online survey of stakeholders across the humanitarian sector to capture emerging research and evaluation priorities and research questions. We analysed a total of 395 responses for this report. Appendix 1 contains the methods and content of the online survey.
- We conducted semi-structured interviews with 53 key informants (Appendix 2) to identify evidence needs and priorities for research to inform policy and practice. Appendixes 3a and 3b show the methods used to conduct analyses, and Appendixes 4a and 4b present the coding sheets that were used.
- We reviewed recent humanitarian sector literature and strategy documents and identified emerging trends in evidence needs and research priorities for informing policy and practice. Appendix 5 shows the search strategies that were used.
- We identified completed, on-going and planned humanitarian assistance-related impact evaluations and related systematic reviews. Appendix 5 shows the search strategies that were used; Appendix 6 describes the methods used to identify and review the studies; Appendix 7 lists the repositories we searched; Appendix 8 shows the template used to record information on each repository.
- We convened a workshop in London on the 21 March 2014 that brought together donors, researchers and implementing agencies engaged in the humanitarian sector. We received feedback on the initial results from our scoping study at this workshop and also engaged stakeholders in various activities to help ascertain the areas in which they felt evidence was needed, the results of a card ranking exercise where participants did just this is available in Appendix 11.

- We identified 20 examples of reports that set out evidence needs or priorities for future research (see Appendix 9 for the methods used). Appendix 10 provides a summary of each of these reports.

3. Key findings from the scoping interviews

We conducted nine scoping interviews from 6 to 20 December 2013 to inform the design of the other three methodologies (some interviews were with more than one person). Appendix 2 lists the 10 interviewees.

Key outcomes were:

- Prioritisation of impact evaluations in the context of humanitarian crises is uncommon;
- Policymakers and practitioners are willing to consider evidence from impact evaluations when making decisions about humanitarian assistance;
- Respondents suggested that the scoping paper should focus on humanitarian crises during and following conflict, challenges for failed or failing states and a broad range of sudden-onset disasters and protracted emergencies;
- Respondents deemed the structure of the gap map appropriate (i.e. matching interventions against outcomes);
- Interviewees found the clusters not mutually exclusive and artificial, and recommended additional sources for organising the gap map;
- Many interventions and actions cut across sectors and require coordination across a variety of actors;
- Outcomes should include unintended consequences of the policy or intervention (e.g. misuse of the humanitarian assistance);
- Issues such as gender-based violence (GBV), shelter, and water, sanitation and hygiene (WASH), and settings such as conflict and the urban environment should be prioritised in understanding evidence;
- Forward-looking impact evaluations should be prioritised over those showing how effective the interventions and actions were in the past;
- The scoping paper's recommendations for the areas to study for impact evaluations should be broad and should avoid the granularity that might be introduced by people with a focus on technical issues;
- The scoping paper should recommend policies and interventions that are likely to be followed up; and
- The scoping paper will need to be explicit about the definitions used for various terms, including humanitarian assistance, impact, outcome, evidence and research.

4. Key findings from the online survey

This section provides the main results of an online survey, which was open for three weeks during January 2014, and advertised through a variety of means. The online survey form was tested for one week before it was disseminated widely.

Profile of respondents

We asked respondents to provide details of their current post, the region they are based in and their sectoral expertise relevant to sudden-onset disasters and protracted emergencies, including the length of their experience. Respondents came from a wide range of organisations, including national and international non-governmental organisations (NGOs) and United Nations agencies as well as independent consultants. They were based around the world and worked in a variety of low-, middle- and high-income countries and regions. The most represented regions were Europe and North America. The most represented region in which respondents usually worked was Africa followed by Asia (see Table 1). Almost half (46 per cent) of the respondents had more than 10 years of experience in the sector (Table 2). When asked about their area of expertise, 8% of the respondents did not provide this information. Of those who did, a large proportion (78 per cent) reported more than one area of expertise. Over half (52 per cent) worked in research, usually coupled with one or more other areas. The next most common area was health (41 per cent). Analysis of the 'other'areas revealed that monitoring and evaluation (M&E) and communication were particularly strongly represented (Table 3).

Table 1: Region in which survey respondents were based and worked

Region	Area where respondents were based (percentage of respondents)	Area where respondents worked (percentage of respondents)
Europe	29.6	13.8
North America	28.1	15.1
Asia	15.3	36.7
Africa	13.3	43.1
Middle East	5.4	16.8
Oceania	4.6	5.1
South America	1.5	3.3
Multiple regions	1.2	14.3
Central America	1.0	5.9

Note: Of a total of 392 respondents. (Three respondents did not provide these details.)

Table 2: Length of time working in humanitarian assistance or related areas

Length of experience	Percentage of respondents
<2 years	8.9
2–4 years	14.4
5–9 years	26.0
10–19 years	29.0
>20 years	16.8
Not applicable	5.0

Note: Of a total of 395 respondents.

Table 3: Areas of expertise and years of experience

Area of expertise	<2 years	2–4 years	5–9 years	10–19 years	>20 years	NA	Percentage of total respondents *
Camp coordination and management	4	6	8	17	12	1	13.3
Early recovery	3	4	21	22	19	0	19.0
Education	12	14	25	28	20	4	28.3
Emergency shelter	3	7	14	24	9	1	16.0
Emergency telecommunications	0	3	3	6	3	0	4.1
Food security	7	11	23	41	22	2	29.3
Health	16	17	37	41	30	9	41.3
Logistics	3	6	5	11	14	2	11.4
Nutrition	3	9	18	26	14	1	19.3
Protection	4	10	26	36	17	3	25.8
Research	20	29	42	53	33	12	52.4
Water, sanitation and hygiene	4	6	13	25	16	0	17.7
Other	11	23	51	54	32	5	48.5

Note: * Of a total of 363 respondents, with 181 providing more than one area of expertise.

Experience with impact evaluations

When asked about their experience with impact evaluation, almost two fifths of the respondents (56) said that they had commissioned or conducted an impact evaluation. However, the 125 responses to the free text question asking them to provide a brief outline of the impact evaluation (including the area of work and references to any reports) showed that some of these evaluations may not have been impact evaluations in accordance with the definition used for this study. For example, some respondents highlighted work that appeared to be related to the effects of particular disasters, rather than specific interventions, with entries such as 'impact of floods on food security' and '2010 Haiti Earthquake' and some provided very brief information only (e.g. 'shelter,

food and NFI', 'child protection intervention in emergency' and 'disaster management'). However, where specific details of an impact evaluation were provided, these were checked for the inventory of existing impact evaluations.

This variety of interpretations of the phrase impact evaluation makes it difficult to interpret the information provided on the costs of these impact evaluations (Table 4). First, only 28 per cent of all respondents provided this information. Second, it is clear that these figures might not relate to impact evaluations of the type envisaged in this study. For instance, the answer that an impact evaluation cost more than US$1,000,000 came from a respondent who did not provide her name or contact details, and the details they provided on the impact evaluation were limited to 'impact of religion on character and economic development; impact of food on resilience building'.

Table 4: Costs of impact evaluations

Cost	Percentage of respondents
Less than US$50,000	58.8
US$50,000–99,999	19.3
US$100,000–249,999	10.5
US$250,000–499,999	7.9
US$500,000–999,999	2.6
More than US$1,000,000	0.9

Note: Of a total of 115 respondents.

When asked if they had ever used the findings of an impact evaluation, almost 60 per cent of respondents (227) said that they had used the findings of an impact evaluation. However, as with the above, responses to the free text question (164 responses) seeking a brief description of the impact evaluation indicate that some of these evaluations may not have been impact evaluations in accordance with the definition used for this study.

When asked if they were aware of relevant impact evaluations but had not used their results, more than one third (141) wrote something in response. However, most of these answers provided little detail. Most merely made statements such as 'it has been used', 'unaware' and 'not aware of any'. Where a clear statement was made (35 respondents), a few wrote that they had not used any known impact evaluations because of the poor quality of impact evaluations, but most gave a reason such as a lack of time (9) or understanding (3) of how to apply the findings (see Box 1 for some reasons cited for under-utilisation of evidence from impact evaluations). These reasons are similar to those encountered in, for example, the use of research evidence by healthcare practitioners.[1]

[1]Kahveci and Meads 2009.

Box 1: Some reasons cited for under-utilisation of impact evaluations

- 'In general, I believe impact evaluations are underused, or need to be rendered more "user-friendly" in programmatic terms. The main reasons for not using the impact evaluations are the following:

    - the information is not specific enough to inform programming at a sufficiently detailed level (e.g. targeting and/or beneficiary profiling). To make them more

- 'In general, I believe impact evaluations are underused, or need to be rendered more "user-friendly" in programmatic terms. The main reasons for not using the impact evaluations are the following:

    - the information is not specific enough to inform programming at a sufficiently detailed level (e.g. targeting and/or beneficiary profiling). To make them more detailed evaluations would be too expensive and too time costly.

    - quantitative evaluations take too long a time. Programme response in emergencies have to be faster and are often designed before the evaluation results are available.'

- 'All reports are questionable, often biased by government (such as USAID) priorities and directives. The "impact evaluation" is often laden with political undertones, rather than understandable, transparent and accountable, that is to say balanced and accurate, findings.'

- 'Literature may not be accessible (e.g. results published only in scholarly journals), the

Thirty-seven per cent (119) respondents answered 'yes' when asked if they knew of studies that had been or are being undertaken to identify priorities for impact evaluations in the context of humanitarian crises. Of these respondents, 96 provided further information in their free-text response to the question that asked for brief details of this work but most of these answers were vague and identified general areas in which such work had taken place, rather than specific projects. Twenty responses related to specific projects, and 72 responses related to general activities, or were unclear or might have been the respondent's priorities (or areas in which they would like to see prioritisation). Specific projects included this current study, activities in mental health,[2] systematic reviews,[3] and the interventions noted in Section 6 of this paper by Blanchet *et al.,*[4] funded by the Department for International Development (DFID) and the Wellcome Trust.

Areas requiring evidence from impact evaluations

Seventy-five per cent of the respondents answered the question requiring them to select up to three areas (out of a total of 14) for which they would most like evidence to inform policy or practice in humanitarian assistance (Table 5).

Less than half of the respondents (45 per cent) selected impact measurement and 26.8 per cent selected monitoring, which appears to reflect both a general desire for impact

[2]Tol *et al.* 2011.
[3] Evidence Aid 2013.
[4]Blanchet *et al.* 2013.

studies and also the need to have better evidence and reliable ways to measure impact. This is in keeping with the challenges of impact measurement and evaluation in the humanitarian sector that have been highlighted recently.[5] Accountability and health were the most frequently mentioned areas after impact measurement (both 39.1 per cent).

Table 5: Areas requiring evidence to inform policy or practice in humanitarian assistance

Area	Total number of respondents indicating the category as a key area for evidence (1)	Column (1) as a percentage of total non-missing respondents	Number (percentage among those with expertise in this area)	Number (percentage among those without expertise in this area)
Clusters				
Camp coordination and management	24	8.0%	9 (19%)	15 (4%)
Early recovery	65	21.7%	25 (36%)	38 (1%)
Education	48	16.1%	32 (31%)	16 (4%)
Emergency shelter	41	13.7%	21 (36%)	20 (5%)
Emergency telecommunications	21	7.0%	7 (47%)	14 (4%)
Food security	69	23.1%	48 (45%)	19 (6%)
Health	117	39.1%	89 (59%)	27 (9%)
Logistics	32	10.7%	11 (27%)	21 (6%)
Nutrition	38	12.7%	18 (25%)	20 (5%)
Protection	79	26.4%	42 (45%)	35 (10%)
Water, sanitation and hygiene	61	20.4%	23 (36%)	37 (10%)
Evaluation				
Accountability	117	39.1%		
Impact measurement	135	45.2%		
Monitoring	80	26.8%		

[5]Giesen 2013; Knox Clarke and Darcy 2014.

Other	79

Note: Of a total of 299 respondents, with 284 marking more than one response.

One might expect a strong correlation between the area selected as in need of more evidence and the person's area of experience but it was only in health that we found that. More than half the people with a particular area of experience rated that area as a priority; this figure rose to 59 per cent (of 152 respondents) for the health sector. However, the proportions of people who prioritised an area did vary widely between those respondents who did, and did not, have personal expertise in that area. People with stated expertise in an area were much more likely to prioritise that area (Table 5).

More than three quarters (301) of the respondents answered the question about the humanitarian crises phases for which they would most like evidence to inform policy or practice in humanitarian assistance. Each of the four areas suggested were selected by 40–60 per cent of respondents (Table 6).

Table 6: Humanitarian crises phases requiring evidence to inform policy or practice in humanitarian assistance

Humanitarian crises phase	Percentage
Prolonged response or engagement	58.8
Immediate, short-term response	52.8
Resilience	51.8
Risk reduction	45.8
No opinion	2.0

Note: Of a total of 301 respondents, with 196 marking more than one response.

Seventy-two per cent of the respondents answered the question on which type of humanitarian crises they considered the most important for impact evaluations. Almost two thirds of these ranked sudden-onset disasters or protracted humanitarian emergencies equally (Table 7). Respondents were also able to suggest alternatives, but there were few such suggestions.[6]

Table 7: Type of humanitarian crises regarded as most important for study in impact evaluations

Type of humanitarian crises	Percentage

[6] Two respondents listed conflict and two listed extreme weather or seasonal disasters.

Protracted humanitarian emergencies and sudden-onset disasters *equally*	63.9
Protracted humanitarian emergencies	18.1
Sudden-onset disasters	13.2
No opinion	4.9

Note: Of a total of 288 respondents.

Areas recommended for further research

In both the interviews and the online survey, respondents recommended research at broad levels rather than highlighting specific types of intervention, action or strategy for evaluation.

In the online survey, respondents were asked to suggest up to three interventions or actions for which they would most like to see impact evaluations.[7] Respondents made nearly 650 suggestions.[8] These suggestions were coded to one of 67 categories (Appendix 4a), most of which related to a type of intervention but with some that prioritised interventions more generally for a specific setting, phase or population. Some categories were more finely coded than others, reflecting greater detail provided by some respondents. For some respondents, two or more of their suggestions fell within the same category, such that there is a total of 598 suggestions when the number per category is summed. The top priorities for interventions, actions and strategies to be evaluated are listed in Table 8.

Table 8: Top priorities for evaluations (percentage of responses)

Area or intervention	Percentage of responses
Health (in particular mental health)	38.0 (21.2)
Cash transfer or alternative (including vouchers or food)	33.6
Education	22.4
Shelter	17.6
Food aid (including food or cash)	18.4
Organisational aspects	18.4
Protection	16.0
Water, sanitation and hygiene	10.0

[7] The question included the following to orient respondents as to what was intended by the phrase 'interventions or action': 'such as cash transfer or food aid, types of emergency shelter, education programmes for children, psychotherapy following trauma, etc.'.
[8] 173 respondents made three suggestions each, 53 two suggestions and 24 one suggestion.

Disaster risk reduction	9.2
Livelihood	8.4
Nutrition	8.0

Note: Of 250 respondents.

Outcomes recommended for impact evaluations

In the online survey, when asked to provide up to three items in response to the question 'Which outcomes9 do you regard as the most important to be measured in impact evaluations in the context of humanitarian crises?', respondents provided just over 600 suggestions.10 Health was the dominant outcome, with 35 respondents suggesting mortality alone, 44 morbidity alone and 66 both. Many respondents stressed the importance of sustainability when considering outcomes.

Table 9: Top priorities for outcomes in impact evaluations

Outcomes	Percentage of response
Health (personal health outcomes or access to healthcare)	68.8
Income	30.8
Education	20.3
Resilience	11.4
Protection	10.1
Food security or access	8.4
Livelihoods	7.6
Nutrition	5.9
Empowerment	5.5
Equity	5.1
Recover	5.1

Note: Of 250 respondents.

[9] The question included the following to orient respondents as to what was meant by the term 'outcome': '(for example, educational ability, mortality, morbidity, sustainable income, etc)'.
[10] 161 respondents made three suggestions each, 54 two suggestions and 22 one suggestion. These suggestions were coded to one of 57 categories (Appendix 4b). Some categories were more finely coded than others, to reflect the greater detail provided by some respondents. If respondents noted the importance of sustainability for a specific outcome, this information was also captured by the coding. For some respondents, two or more of their suggestions fell within the same category, such that there is a total of 521 suggestions when the number per category is summed.

Several respondents highlighted a need for research to agree meanings for some of these outcomes and ways to measure them, in particular for issues related to equity, dignity, livelihood and resilience. This seems to reflect a broader debate about whether issues such as resilience and equity are within the remit of humanitarian action. It is important to note that humanitarian action can mean different things to different people and this needs to be recognised when launching a call for humanitarian impact evaluations. The meaning of 'impact' and a standard set of outcomes[11] that could be applied across a series of impact evaluations were also noted.

Two thirds of all respondents answered the question about the populations that they would regard as the most important for inclusion in impact evaluations in the context of humanitarian crises. Of these, 68 per cent replied that the focus should be on specific subgroups, with 17 per cent replying that all members of the population should be included; 8 per cent made the point that the choice of population should depend on the context of the intervention. Among the subgroups suggested, there was particular emphasis on children.

5. Key findings from the semi-structured interviews

Evidence Aid conducted semi-structured interviews with 53 key informants exploring issues in more depth than in the online survey (Appendix 2). The content of these interviews was analysed by coding the responses allowing quantitative analysis.[12] Of the respondents, 63 per cent were employed in research and more than 40 per cent in health.

Respondents indicated the need for research about long-term impact of humanitarian assistance, humanitarian assistance as a whole, high-level coordination, participation of local communities and disaster risk reduction. Respondents stressed the importance of context.

Respondents also suggested that impact should be evaluated based on humanitarian values, such as dignity and impartiality or from a human rights perspective, to avoid a 'too instrumental approach', in which the focus would be on outcomes that might be easier to measure such as morbidity and mortality.

Several interviewees stressed that there is a need to be more evidence-based in the choices they make about policies, interventions, actions and strategies. The interviews also identified a need to look at the utility of impact evaluations and what effect they

[11] Williamson *et al.* 2012.

[12] Forty interviews were conducted from 9 January to 6 February 2014, by one of three interviewers (CA, MC, AE). Most interviews involved just one interviewee, but there were two interviews in which two interviewees participated, so that a total of 42 people were interviewed in this phase. The interviews typically took 30–45 minutes, with the longest lasting 90 minutes. Their findings are combined with those from the interviewees in the first phase in the analyses presented in this paper, to provide information from 53 key informants (Appendix 2).

have on policy and practice, by making findings available to people working in the field, and not just those based in an organisation's headquarters.

Some interviewees highlighted the importance of moving from the discussions of research prioritisation and of how to do impact evaluations, to action. They noted that this will need adequate resources, and greater priority for research in sudden-onset disasters and protracted humanitarian crises, and for research to be undertaken outside of privileged or well-established universities.

6. Key findings from review of existing priorities in strategy documents and impact evaluations

We identified 20 examples of reports that set out evidence needs or priorities for future research (Appendix 10) the search strategies and methods used to identify these documents can be found in Appendixes 5 & 9. The documents on evidence needs and priorities include highly focused work on particular aspects of humanitarian assistance, such as medical rehabilitation of spinal cord injury following earthquakes,[13] as well as wide-ranging priority setting documents about how an organisation's research programme might ensure that its own work is as effective and efficient as possible, such as the Australian Aid research strategy.[14]

The examples span 16 years, from a meeting organised by the World Health Organization (WHO) in 1997,[15] to the comprehensive evidence review of research on health interventions in humanitarian crises by Blanchet *et al*., published in November 2013.[16] A number of organisations including CONCERN, Norwegian Refugee Council and the United Nations Children's Fund (UNICEF) are also developing research strategies. We found recent examples[17] that stressed the importance of evidence informing policy and practice as a basis for establishing priorities for research.

The following points summarise key findings from this part of our investigation:

- Most priorities in these reports match those identified by the online survey and interviews, in particular health,[18],[19] food aid and nutrition,[20] protection,[21] water, sanitation and hygiene,[22] disaster risk reduction,[23] and livelihood.[24]

[13]Gosney *et al.* 2013.
[14]Australian Aid 2012.
[15]WHO 1997.
[16]Blanchet *et al.* 2013.
[17]UNICEF 2011; United Nations Evaluation Group 2013; Haver *et al.* 2013.
[18] WHO 1997; Shaikh and Musani 2006; Tol *et al.* 2011; Australian Aid 2012; Institute of Medicine and New York Academy of Medicine 2012; Mackway-Jones and Carley 2012; Morof *et al.* 2012; Blanchet *et al.* 2013; Boyd *et al.* 2014; Evidence Aid 2013; Gosney *et al.* 2013.
[19] The frequency of reports focusing on priorities for health research, especially in the papers from the peer-reviewed literature, may reflect the research culture in this discipline (particularly in those areas of academia where publishing in the peer-reviewed literature is common), and the stronger demand or need for this type of evidence in health care.
[20] WHO 1997; ACF 2013; Blanchet *et al.* 2013; Evidence Aid 2013; Haver *et al.* 2013; organisational aspects WHO 1997; Rothman *et al.* 2006; Altevogt *et al.* 2008; Roy *et al.* 2011; Foran *et al.* 2012; Institute of Medicine and New York Academy of Medicine 2012; Mackway-Jones and Carley 2012; Boyd *et al.* 2014; Evidence Aid 2013.
[21]WHO 1997; Morof *et al.* 2012; Blanchet *et al.* 2013.

- Many of the reports originate from the UK or USA, in keeping with an imbalance noted by Roy *et al.* in the distribution of research: 'Considering that 85 per cent of disasters and 95 per cent of disaster-related deaths occur in the developing world, the overwhelming number of casualties has contributed insignificantly to the world's peer-reviewed literature. Less than 1 per cent of all disaster-related publications are about disasters in the developing world.'[25]

- Some of the reports specifically identified the need for improvements in the quality of research and evaluations,[26] in keeping with the conclusions of other recent reports.[27]

- We found few impact evaluations of high quality, the methods used to identify these are described in Appendix 6, the repositories that were searched are listed in Appendix 7 and the template used to record information on each of these repositories has been made available in Appendix 8. The majority of randomised trials were in healthcare, with many of these relating to mental health issues, such as the prevention or treatment of post-traumatic stress disorder. Better-quality impact evaluations from the grey literature are quite recent (typically published after 2009). A number of articles retrieved by our searches confirmed the lack of impact evaluations in the humanitarian sector. For example, a 2013 report on USAID evaluations noted that only 11 (3 per cent) of the 340 evaluations conducted from 2009 to 2012 and reviewed in the study, were impact evaluations that 'included a comparison group to help determine what would have occurred in the absence of USAID's assistance'. The authors did not regard this as a surprise because 'impact evaluations of this type are new to USAID', subsequent to 2011 policy.[28] In a similar context, a 2012 review of evaluations undertaken in the not-for-profit sector in the USA identified that 4–6 per cent of evaluations used controls or random allocation.[29] A 2008 report following a review of 1,000 US Department of Defense after-action reports and lessons learned found that seven (0.7 per cent) reports referred to, but did not discuss, 'impact assessment or outcome-based measures of effectiveness'.[30]

- We identified several systematic reviews relevant to the effects of humanitarian assistance, particularly in the last few years. This growth is not surprising given the considerable rise in the number of systematic reviews in recent years.[31] We did not have resources to assess each of the included studies in these systematic reviews to determine whether or not they were impact evaluations. For example, the Timbie *et al.* review of strategies to manage and allocate scarce resources

[22]Parkinson 2009; Blanchet *et al.* 2013; Evidence Aid 2013.
[23]UNISDR 2005; Treadgold 2006; Roy *et al.* 2011; Evidence Aid 2013.
[24]Roy *et al.* 2011; Australian Aid 2012.
[25] Roy *et al.* 2011.
[26] Shaikh and Musani 2006; Altevogt *et al.* 2008; Roy *et al.* 2011; Foran *et al.* 2012; Tol *et al.* 2012; ACF 2013; Gosney *et al.* 2013; Haver *et al.* 2013.
[27]Giesen 2013; Knox Clarke and Darcy 2014.
[28]Hageboeck *et al.* 2013.
[29]Morahu and Pankaj 2012.
[30]Reaves *et al.* 2008.
[31]Moher *et al.* 2007; Bastian *et al.* 2010.

during mass casualty events included 74 studies,[32] while Blanchet *et al.* identified more than 700 studies related to the effects of health interventions in humanitarian crises.[33]

7. Gap map of evidence needs and priorities

We produced an evidence gap map using broad domains, to reflect the generally high level of suggestions for impact evaluations.[34] Based on priorities from the online survey, semi-structured interviews and existing prioritisation exercises, the rows of the gap map are interventions and actions in each area of humanitarian assistance presented in the online survey, along with the need for an assessment of humanitarian assistance as a whole, and of organisational aspects (including the coordination of humanitarian assistance). These broad domains are the rows in the gap map. We used red for things that more than 20 per cent of respondents in the online survey suggested were a priority, yellow for things that 10–20 per cent of respondents in the online survey suggested or that were common in the interviews, and blue for things that 5–10 per cent of respondents in the online survey suggested.[35]

The column headings or outcomes relate to the policy, intervention, action or strategy in need of evaluations. Some of these (education, health and income) emerged as outcomes that were felt to be priorities for assessment across the range of interventions and actions in humanitarian assistance.

8. Gap map for needs

This shows the priority given to the need for evidence to inform policy and practice. Education, health and income are the highest priority. For clarity, the individual cells have been coloured to suggest the strongest associations between the intervention or action and the outcome. We provide information about each of the rows after the gap map showing the need for evidence.

[32] Timbie *et al.* 2013.
[33] Blanchet *et al.* 2013.
[34] However, finer detail can be provided within these to include, for example, specific types of intervention, and specific types of outcome measure. These might include access to education, school attendance and educational performance for the education domain and availability, accessibility and use for the food security domain.
[35] 'Impact measurement' and 'monitoring' have not been included because their frequency in the answers about the need for evidence seems likely to be a reflection of the need for impact evaluations in general and for research into the methods of impact evaluations.

Gap map 1: Map of evidence needs

Outcomes -> Interventions	Education	Empowerment	Equity	Food security	Health	Income	Livelihood	Nutrition	Protection	Recovery	Resilience
Accountability											
Camp coordination and management											
Early recovery											
Education											
Emergency shelter											
Emergency telecommunications											
Food security											
Health											
Mental health											
Humanitarian assistance as a whole											
Logistics											
Nutrition											
Organisational aspects											

Organisational aspects – coordination											
Protection											
Protection – gender-based violence											
Water and sanitation											

Gap map 2: Availability of evidence

Outcomes -> Programmes	Education	Empowerment	Equity	Food security	Health	Income	Livelihood	Nutrition	Protection	Recovery	Resilience
Accountability											
Camp coordination and management											
Early recovery											
Education											
Emergency shelter											
Emergency telecommunications											
Food security											
Health											
Mental health											
Humanitarian assistance as a whole											
Logistics											

Nutrition											
Organisational aspects											
Organisational aspects –coordination											
Protection											
Protection –gender-based violence											
Water and sanitation											

9. Gap map for existing evidence

We have presented the second gap map to illustrate the amount of evidence from impact evaluations in areas identified as in need of evidence to inform policy and practice. Empty cells should be interpreted as indicating uncertainty about whether there is any evidence from impact evaluations in these areas, rather than a definite lack thereof.

Discussion of the gap map for existing evidence

Several things are important to note here:

- **Searches:** Complete identification of all relevant impact evaluations for each cell requires more comprehensive or targeted searches of the published and grey literature, as well as searches for unpublished examples, than was possible with the resources available for this study.

- **Unintended consequences and duration of follow-up:** Respondents highlighted a need to assess both intended and unintended consequences of humanitarian assistance, to measure the medium- and long-term impact (in particular to explore the sustainability of any benefits), and to examine the utility of the evaluation itself.

- **Priorities:** A majority of respondents favoured including both sudden-onset disasters and protracted emergencies. Furthermore 40–60 per cent of respondents rated as 'important' each of the four phases (resilience, risk reduction, immediate short-term response, and prolonged response or engagement).

- **Subgroup analysis:** Respondents favoured the study of specific population groups in future impact evaluations, in particular children and vulnerable or underrepresented people. Several respondents stressed the importance of consulting with intended beneficiaries in impact evaluation.

- **Insufficient evidence:** There was general consensus that insufficient good-quality evidence is available, confirming the need for new, high-quality research in any priority area. This suggests that there is little risk that future research will duplicate efforts or that it could not be justified on scientific, ethical or environmental grounds. New, robust and well-designed impact evaluations could make an important contribution for most, if not all, of the areas covered by the gap map and would ideally be synthesised through systematic reviews of all available evidence.

10. Discussion of intervention and action domains (rows) in the needs gap map

In this section, we discuss some important findings about the needs for new research.

Accountability

Of the online survey respondents, 39.1 per cent identified accountability to beneficiaries, authorities and donors as a high priority (making it the most common priority, along with impact measurement and health). Accountability also features in several of the documents presenting evidence needs and research priorities. It has been assessed in several recent impact evaluations. For example, Fearon *et al.* report a randomised trial in which a DFID-funded community-driven reconstruction programme implemented by the International Rescue Committee in post-conflict Liberia was evaluated in 42 randomly selected communities compared with 41 control communities during 2006 to 2007.[36]

Camp coordination and management

Eight per cent of the respondents to the online survey identified this as a priority. Examples of impact evaluations were identified, for example in relation to specific aspects of camp management, such as the use of insecticide-treated plastic sheeting for malaria prevention.[37]

Early recovery

Of the respondents to the online survey, 21.7 per cent identified interventions after the initial life-saving phase (which is usually after about six weeks of a sudden-onset disaster) as a high priority. We identified several impact evaluations that examine the effects of interventions intended to improve early recovery.[38]

Education

Of the online survey respondents, 16.1 per cent identified education of children and young people as a high priority. Some respondents noted the importance of studies to assess the effects of better education for responders. We found several impact evaluations of education projects.[39]

Emergency shelter

Of the online survey respondents, 13.7 per cent identified impact of emergency shelter provision as a high priority (e.g. how to ensure that emergency shelter does not become a permanent solution). We identified a 2009 systematic review of health effects of relocation following disaster.[40]

[36]Fearon *et al.* 2008, 2009.
[37]Mittal *et al.* 2011; Burns *et al.* 2012.
[38] For example, Blanchet *et al.* 2013; Fox *et al.* 2012; Gerdin *et al.* 2013; Kilner *et al.* 2011; Korteweg *et al.* 2010; Slone *et al.* 2013; Timbie *et al.* 2013.
[39] For example, Baker *et al.* 2012; Bistaraki *et al.* 2011; Blattman *et al.* 2011; Kako *et al.* 2012; Yasunari *et al.* 2011.
[40]Uscher-Pines 2009.

Emergency telecommunications

Seven per cent of the respondents to the online survey identified telecommunication between those providing humanitarian assistance and the affected population as a high priority.

Food security

Of the respondents to the online survey, 23.1 per cent identified issues of food availability, access and utilisation following a sudden-onset disaster or during a protracted emergency as a high priority, and features in several of the documents presenting evidence needs and research priorities. The United Nations High Commissioner for Refugees (UNHCR) and the World Food Programme (WFP) commissioned an impact evaluation of food assistance in protracted refugee situations (Bangladesh, Chad, Ethiopia and Rwanda) in 2011–2012.[41] We also found a systematic review of the association between nutrition and food security in disasters.[42]

Health

Of the online survey respondents, 39.1 per cent identified health, including illness, disease and other health-related conditions, as a high priority (making it the most common priority along with accountability and impact measurement).

Respondents drew particular attention to mental health, mainly in relation to medium- and long-term outcomes in the prevention or treatment of post-traumatic stress disorder. We identified a relatively large number of randomised trials and controlled prospective studies, as well as other impact evaluations and systematic reviews.

The recent review by Blanchet *et al.* provides a comprehensive account of research into the effects of health interventions.[43] It provides details on outcomes related to accountability, coordination, nutrition, the security of healthcare workers, urbanisation, and water, sanitation and hygiene. This work also demonstrates the crucial importance of health as an outcome of nutrition and water and sanitation. For instance, the 2005 systematic review by Fewtrell *et al.* examined the effects of water, sanitation and hygiene interventions for reducing diarrhoea in low-resource settings.[44]

Humanitarian assistance as a whole

Many of the interviewees identified as a high priority the lack of robust evidence on the impact of humanitarian assistance as a whole. Evaluations of humanitarian assistance as a whole are unlikely given that it is difficult to imagine a control situation of no such response, but some elements might be evaluated. For example, the synthesis by Harvey and Bailey brings together some information on evaluation of cash transfer programmes.[45]

[41]Canteli *et al.* 2012.
[42]Rivero and Cantero 2013.
[43]Blanchet *et al.* 2013.
[44]Fewtrell *et al.* 2005.
[45]Harvey and Bailey 2011.

Logistics

Of the respondents to the online survey, 10.7 per cent identified logistics services for the humanitarian community as a whole as a high priority.

Nutrition

Of the online survey respondents, 12.7 per cent identified interventions to improve the nutritional status of the affected populations as a high priority. An example of a recent impact evaluation is the cluster randomised trial by Action Contre la Faim-France in Chad in 2010, assessing the impact of ready-to-use supplementary food on the prevention of wasting in 1,038 children aged 3 to 36 months.[46] We also identified a systematic review of the association between nutrition and food security in disasters.[47]

Organisational aspects

Many of the interviewees identified as a high priority the organisation of humanitarian assistance, such as coordination across the various agencies and actors providing assistance, and between them and local communities (including with local leaders and workers). We identified several impact evaluations, including a recently published protocol for a systematic review on the effects of multidisciplinary team response to support survivors of mass casualty disasters[48] and a 2009 systematic review considering disaster management in general.[49]

Protection

Several of the interviewees, as well as 26.4 per cent of the respondents to the online survey, identified protection to internally displaced persons and other populations as a high priority, with particular concerns around the need to protect women against gender-based violence. We identified several impact evaluations and a 2013 systematic review of studies to reduce the risk and incidence of sexual violence in armed conflict and other humanitarian crises.[50]

Water, sanitation and hygiene

Many of the interviewees, and 26.4 per cent of the respondents to the online survey, identified interventions to provide clean water, dispose of human and other waste, and safeguard health through improved sanitation and hygiene as a high priority. We identified several impact evaluations as well as the afore-mentioned systematic review by Fewtrell *et al.*, which brought together information from 46 studies of water, sanitation and hygiene interventions intended to reduce diarrhoea in low-resource settings.[51]

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[46]Huybregts *et al.* 2012.
[47]Rivero and Cantero 2013.
[48] Adams *et al.* 2013.
[49]Lettieri *et al.* 2009.
[50]Spangaro *et al.* 2013.
[51]Fewtrell *et al.* 2005.

11. Conclusions

The findings from the various studies conducted by Evidence Aid and reported in this paper highlight:

- wide-ranging acceptance of the role of research evidence in decision making;
- general agreement around the areas in most need of this evidence; and
- recognition of how existing impact evaluations have not met these needs but could do so in the future.[52]

We recognise that richer analyses of the results of these studies could be conducted, time permitting.[53] However, drawing on the findings presented above, we now discuss our conclusions about the quality of the current evidence base in humanitarian assistance, key areas for impact evaluation research and priorities for impact evaluations and, finally, the amenability of certain areas for impact evaluations.

Quality of the current evidence base

Lack of evidence base: Our studies **confirm the general lack of a reliable and robust evidence base** from studies assessing the causal relationship between a policy or intervention and outcomes or impact. These findings are further confirmed by other recent studies and systematic reviews. Only a small proportion of the many evaluations of humanitarian assistance use designs with a counterfactual, control or comparator group that allows studies to attribute a measurable change in outcomes or impact indicators to programmes or policies. However, we also found several examples of randomised trials, showing that it is **possible to generate evidence for specific questions through studies of this type**. However, this evidence base is limited and concentrated in certain areas, such as mental health.[54]

Quality and relevance of research: Many respondents in the online survey and the semi-structured interviews highlighted the need to improve the quality and relevance of research in humanitarian assistance. 'Impact measurement' was the most frequent selection as a priority area for evidence in the online survey. This reflects a desire for better evidence and knowledge about how to measure impact reliably, but it is worth noting that respondents might have a variety of definitions in mind for 'impact measurement'.

[52] Gerdin *et al.* 2014; Knox Clarke and Darcy 2014.
[53] Further work might inform the details within a thematic window and explore several issues further. For example, the richness and variety in the responses and data collected from the online survey would allow us to conduct many subgroup analyses to assess whether region, length of experience or area of expertise is associated with different priorities for impact evaluations.
[54] See, for example, Blanchet *et al.* 2013; Blattman *et al.* 2011; Fewtrell *et al.* 2005; Hensel-Dittmann *et al.* 2011; Matsuoka *et al.* 2011; Nishi *et al.* 2012; Rucklidge *et al.* 2011; Rucklidge *et al.* 2012; Ruggiero *et al.* 2012; Zang *et al.* 2013.

There are numerous recent guides to the conduct of impact evaluations and critiques of their methods, prepared by and for individual agencies and NGOs[55] and in the published literature.[56]

Repositories of data: Other key challenges to the quality of the evidence base relate to the difficulties of identifying studies (given the potential problems of publication or selective reporting biases) and the underlying routine data that might be used for studies in the future. The fact that different methodologies constitute impact evaluations makes it difficult to find them. There is no agreed indexing system for these studies (unlike, for example, the taxonomy used to index different types of healthcare study in bibliographic databases such as MEDLINE), and there is no single repository dedicated to them. People wishing to find studies to inform future policy or practice, or to justify and design future impact evaluations, need to search multiple places and may need to check through hundreds or thousands of irrelevant records if they wish to be comprehensive. **This problem could be improved by the indexing and classification of impact evaluations and the development of a repository that either collects all such studies in a single place or provides a portal through which they can be identified in other repositories.** Tagging papers with keywords like 'counterfactual analysis' or 'randomised trial' that help identify the methodological peculiarities of a study would considerably simplify the task of searching for studies particularly because broader terms like 'impact evaluation' seem to constitute a wide range of methodologies. A facility to register impact evaluations before they begin would also be beneficial for the identification of planned or ongoing unpublished or inaccessible work. These benefits are widely accepted for prospective registries of controlled trials in healthcare.[57]

Quality standards: Indexing and classification of impact evaluations would be made easier by clearer reporting through the use of **templates and reporting guidelines**, such as those brought together by the EQUATOR Network for a variety of types of research.[58] Other challenges in the quality of the evidence base relate to the data that are available for studies of outcomes and impact. This includes the lack of an agreed common set of data to be collected, variations in how data are collected, and concerns about the quality of that data.[59] The development and use of standardised data formats[60] and an agreed set of core outcomes[61] might mitigate some of these challenges. Care will have to be exercised, however. A recent systematic review of templates for reporting pre-hospital major incident medical management found 12 templates for the same purpose, and concluded 'our findings show that more than one template exists for generating reports from the medical management of major incidents. Limitations are present in the existing templates regarding internal and external validity, and none of them have been tested for feasibility in real-life incidents.'[62] These templates could be used to record relevant data in the immediate aftermath of a disaster and to report these data in a standard format. This would make it easier to compare, contrast and

[55]For example, ACF 2011; Giesen 2013.
[56]For example, de Pee *et al.* 2011; Pfefferbaum *et al.* 2013, 2014.
[57]Ghersi and Pang 2009.
[58]Simera and Altman 2013.
[59]Kar-Purkayastha *et al.* 2011.
[60]Debacker *et al.* 2012.
[61] Williamson *et al.* 2012.
[62]Fattah *et al.* 2013.

combine data from different settings and to use routine data in impact evaluations. Related to this, a June 2012 editorial by the Editor-in-Chief of *Prehospital and Disaster Medicine*, Samuel Stratton, advised that authors of future articles reporting on disaster and acute medical response research will need to use one such template.[63]

12. Key areas for impact evaluations

Importance of operational research

An evaluation of the European Commission integrated approach of food security and nutrition in the humanitarian context concludes that 'partners do not always understand why and when DG ECHO [Directorate-General for Humanitarian Aid and Civil Protection (European Commission)] supports operational research, indicating the need for greater collaboration with partners on research priorities'. The report made what it called a 'critical' recommendation that action was required at Headquarters to 'identify a forum to coordinate more with other donors, particularly USAID/Food for Peace, on policy operational approaches and research into the role of specific nutritional products'.[64]

Research prioritisation

There are a number of recent papers about the setting of research priorities for humanitarian assistance and there is a reasonable body of literature on the setting of priorities in healthcare research.[65] Among the articles specific to humanitarian assistance is a recent book chapter by Murray and Kessel, which highlights the need for agreement on the prioritisation process given that 'undertaking health and social research to help facilitate disaster risk reduction and disaster risk management is vitally important to increase preparedness to respond to disasters, to enable the most effective action to be taken once disasters have occurred and to understand better the consequences of disasters'.[66]

UNICEF also stressed the need for formal methods of prioritisation in 2011:

> The efficiency of knowledge generation and dissemination at both the global and country levels is diminished by a lack of coordinated, systematic planning and rigorous evaluations. Insufficient coordination among HQ [UNICEF headquarters], ROs [regional offices] and COs [country offices] in establishing research priorities and planning evaluations detracts from development of a focused research agenda in ECD [early childhood development] and results in missed opportunities to leverage resources for more rigorous, longer-term country-specific and multi-country evaluations.
>
> Current processes at the country and global levels do not facilitate sequencing of evaluations into formative and summative stages.[67]

[63] Stratton 2012.
[64] Haver*et al.* 2013.
[65] Oliver and Gray 2006.
[66] Murray and Kessel 2014.
[67] UNICEF 2011.

Helping the planning of impact evaluations and strengthening monitoring and evaluation systems

In another example, Action Contre la Faim (ACF) have the following policy on the evaluation of their own work:

> All ACF interventions should be evaluated: from single projects and multi-project programmes to country-level and regional strategies. Although this commitment to evaluations does not change, the type of evaluation used does vary according to the size and length of the intervention. Smaller interventions (<€400,000) should be evaluated once using internal self-evaluation tools, whilst larger interventions (>€1,000,000) should be evaluated twice using external evaluators.[68]

A framework for choosing areas for further research

The above examples help provide a set of criteria that might inform the process of prioritising research areas. We suggest that the following issues be considered:

- *Feasibility of undertaking impact evaluations:* Difficulties in undertaking impact evaluations may be methodological (it may be difficult to find comparison groups), operational (e.g. in the ability to define and deliver policies, interventions, actions or strategies that are being evaluated) or institutional (e.g. unwillingness to evaluate). All these factors should be considered when developing priorities for impact evaluations.

- *What to evaluate?* Is it better to choose areas that are likely to be particularly easy or difficult to evaluate for attributable impact? For example, an impact evaluation which examines the effects of a particular medical procedure, nutritional product or hand-washing strategy on a specific outcome might be relatively easy and could be conducted as a randomised trial in which people are randomly allocated to the intervention or an alternative. In contrast, a much more difficult impact evaluation might examine the effects of a complex intervention to improve the protection of women and children in a camp and require the assessment of a range of outcomes, some of which are difficult to measure including gender-based violence, dignity and livelihoods. Both are feasible impact evaluations. But one is easier. Another consideration might also be given to whether the impact evaluations should be undertaken in areas where there is a stronger tradition of prospective, comparative research (such as, but not limited to, those using mixed methods with valid counterfactuals). This would mean, in particular, those areas most closely associated with healthcare, where there is now an established tradition of randomised trials, with several hundred thousand controlled trials already conducted and tens of thousands ongoing.[69] On the other hand, it may also be important to undertake and demonstrate impact evaluations in those areas where they are less common.

[68]ACF 2011.
[69]Ghersi and Pang 2009; Bastian *et al.* 2010.

- *Use of existing evidence when prioritising individual impact evaluations:* Should the focus be on areas in which there is the least research already or areas where a relatively large amount of research has been conducted but this is not sufficiently reliable or robust? An advantage of conducting new research where a body of studies already exists (such as in relation to the prevention of mental health problems) is that the successes and failures of that past research might help to ensure the optimum design of a new study or might allow meta-analyses in which the findings of the new study are combined with the existing studies in a systematic review. On the other hand, an advantage of embarking on a study in an area that has been under-researched in the past is that this might provide the first, and only, evidence in an area of high priority and might stimulate further such research.

- *Creating review standards:* How should existing research be reviewed to confirm the scientific, ethical and environmental justification for new research studies, and to place their findings in context?[70] In healthcare research, it is now widely accepted that new studies should not be done without a systematic review of the existing evidence, to confirm that there is sufficient uncertainty to warrant the new study. Some funders of healthcare research now require details of such a systematic review in the application for funding. Furthermore, following the conduct of a new study, some journals now require that the findings be placed in the context of other relevant studies, to provide the reader with an up-to-date summary of the evidence base.[71]

- *Choosing the interventions to evaluate –innovation:* Should the focus be on assessing innovative interventions, rather than those that are already in wide use? By providing evidence that is deemed to be reliable and robust and to have minimised bias, high-quality impact evaluations might be particularly important for the uptake of innovative interventions. For example, the 2013 report by the Feinstein International Center, *The Use of Evidence in Humanitarian Decision Making*, noted: 'with most innovative ideas, the humanitarian community requires evidence to show that a new intervention is more appropriate and effective than traditional approaches (even though the same evidence isn't necessarily required to prove that the traditional approaches are appropriate)'.[72] It highlighted an analysis of the funding requirements for proposed food security interventions of five large donor agencies, which found that organisations are required to demonstrate a larger body of evidence to support innovative food assistance approaches compared with traditional programmes. This suggests that high-quality evidence on the benefits of innovative interventions may make risk-averse decision makers more comfortable with implementing the innovation. Of course, it is also possible that evidence from impact evaluations suggesting that widely used interventions are ineffective will have less impact, because of a reluctance to change.

[70]Clarke and Hopewell 2013.
[71]Clark and Horton 2010.
[72] Darcy *et al.* 2013.

- *Choosing the interventions to evaluate – relationship with the development sector:* Should the focus be on interventions where there is considerable overlap with the development sector? As the humanitarian and development sectors become more intertwined this is a much debated issue,[73] as there will be increased opportunities to conduct impact evaluations of policies and interventions that overlap these sectors. Given the wider experience with impact evaluations in the development sector,[74] this might help to demonstrate the feasibility of impact evaluations to people in the humanitarian sector who are sceptical of this.

- *Choosing the interventions to evaluate –uncertainty, controversy and debate*: Should the focus be on comparing policies or interventions where there is already considerable uncertainty, controversy or debate about their relative effects? Where there are policies or interventions currently with a wide variation in practice, disagreement or active debate about the most appropriate choice, high-quality impact evaluations may have more opportunity to lead to change than in areas where there is general acceptance of effectiveness and reluctance to change.

- *Choosing the populations to study:* Should the evaluations focus on particular subgroups of people (e.g. the vulnerable or disadvantaged[75]), or the population as a whole (with analyses for specific subgroups)? The respondents to the online survey strongly supported a focus on specific subgroups, with 68 per cent of those who commented on this issue favouring this approach. In contrast, 17 per cent replied that all members of the population should be included and 7 per cent that there should be a mixture of the whole population but with special attention to subgroups. Among the subgroups suggested, there was particular emphasis on children as a group that are often neglected in evaluations.

- *Settings for the impact evaluations:* Should the focus be on sudden-onset disasters (possibly with the need to put some impact evaluations 'on the shelf'for future events, as with the UK National Institute for Health Research programme of studies for pandemic influenza[76]) or for ongoing protracted emergencies? In both the online survey and the semi-structured interviews, there was widespread support for impact evaluations in both sudden-onset disasters and protracted humanitarian emergencies. Specifically, 63.9 per cent of the respondents to this question in the online survey rated both settings as equally important, while 18.1 per cent singled out protracted humanitarian emergencies and 13.2 per cent singled out sudden-onset disasters.

- *Phases for the impact evaluations:* Should the focus be on impact evaluations in some or all of resilience, risk reduction, immediate short-term response, and prolonged response or engagement? In the online survey, each of these was

[73]Whittall *et al.* 2014.
[74]White 2013.
[75] O'Neill *et al.* 2014.
[76]Yong 2012.

ranked as a priority by 40–60 per cent of the respondents: resilience (51.8 per cent), risk reduction (45.8 per cent), immediate short-term response (52.8 per cent), and prolonged response or engagement (58.8 per cent).

- *Choosing the outcomes to measure:* Should a core outcome set be developed, which would allow the effects of different interventions, actions and strategies to be compared and contrasted across the sector?[77]Information on 200 core outcome sets in healthcare have already been collated by the COMET Initiative's database.[78]These provide an agreed, standardised set of outcomes for measurement in all trials in a particular area of health and, in some cases, for other assessments as well, such as clinical audit. These are not intended as a closed list of outcomes, and researchers are encouraged to measure additional outcomes outside the core set, as appropriate to their study. However, if core outcome sets are used consistently, they would make it easier to compare, contrast and combine the results of separate studies on the same topic; and would also reduce the possibility that outcomes that are important to decision makers are overlooked or not reported by researchers.

- *Methodology research:* Bearing in mind the strength of the feedback on the need for evidence in the area of impact measurement, should research into the methods to be used for impact evaluations in humanitarian assistance be encouraged? Although it might be beyond the scope of the funding available for the Humanitarian Interventions Thematic Window to support such research directly, this might be something to discuss with agencies that fund such work. It could be achieved through a mixture of stand-alone research into the methodology and methodology research embedded within the impact evaluations. The potential benefits of the latter may be something to consider when evaluating future proposals for funding of impact evaluations. Furthermore, initiatives are now underway to develop simple protocols for methodology research, which could be included in prospective impact evaluations.[79]

- *Impact evaluation of the impact evaluations:* Should each impact evaluation include a self-evaluation to be conducted either by the team commissioned to do the impact evaluation or by an independent consultant, in order to determine the impact of the impact evaluation on future policy, practice and outcomes? This was raised in a few of the semi-structured interviews which highlighted the need for evidence to show that the findings of impact evaluations do influence practice and policy in future sudden-onset disasters and in ongoing and future protracted emergencies. This needs to be referenced to all work already done on utilisation.

- *Dissemination and implementation of findings*: Should each impact evaluation include an implementation or knowledge translation plan? Alongside the desire for evaluations of the effect of impact evaluations, there was a recognition that special efforts might be needed to ensure that the findings of impact evaluations

[77] Williamson *et al.* 2012.
[78] Gargon E, Gurung B, Medley N, Altman DG, Blazeby JM, Clarke M, Williamson PR. Choosing important health outcomes for comparative effectiveness research: a systematic review. PLoS ONE 2014; 9(6): e99111.
[79]Smith *et al.* 2013.

are accessible to those who might use them when making decisions and choices about practice and policy. It was noted that this should include both those based in the headquarters of agencies and those working in the field. It would also be worth considering how the findings might be made available to those who took part in the impact evaluation.

13. Priorities for impact evaluations

A list of the research questions identified for specific aspects of policy or for particular interventions through the online survey, semi-structured interviews and review of existing documents would include several hundred suggestions. Rather, in keeping with the objective to recommend areas of humanitarian assistance where groups of more rigorous impact evaluations would add value, we suggest the following broad areas for inclusion when planning and prioritising research. These were selected on the basis of the high frequency with which they were suggested as priority topics and the lack of reliable and robust evidence in existing impact evaluations:

- interventions to improve the livelihood of the affected population, in particular to explore the relative effects of providing goods (such as food), cash or vouchers;
- interventions to improve health (but with consideration to be given as to whether or not to exclude some areas of mental health because of the existence of several randomised trials and systematic reviews in this area already);
- interventions to protect vulnerable populations, in particular to prevent gender-based violence;
- interventions to improve food security and nutrition;
- interventions relating to water, sanitation and hygiene;
- specific elements within a whole programme of humanitarian assistance, which might allow a composite estimate of the overall effect of the programme to be inferred; and
- coordination of the humanitarian assistance, in particular across the different agencies and actors, and with members of the local communities (including local leaders and workers)–this might include an assessment of the effects of a programme of humanitarian assistance as a whole, and interventions to improve accountability.

For each of these areas, outcomes that are directly related to the policy, intervention, action or strategy should be measured, along with those that might identify unintended consequences. These outcomes should be measured in the short, medium and long term to explore the sustainability of any benefits. It is likely that different types of impact evaluation would be most appropriate and feasible for these topics, and that the specific policies, interventions, actions or strategies to evaluate would vary depending on the setting for the sudden-onset disaster or protracted humanitarian emergency.

14. Amenability of suggested areas to impact evaluation studies

In considering the amenability of these priority areas to impact evaluations, it is worth noting a 2013 report by the United Nations Evaluation Group of the importance of using

an **evaluability assessment** as part of the prioritisation process. They wrote that this would:

> ... include the mapping, systematization and analysis of any baseline and/or monitoring data that were produced by the managers of the intervention/body of work to be evaluated; these data will be important to inform the development of the impact evaluation tools. The main output of the evaluability assessment should be a full approach paper, including an evaluation matrix, that sets out in a detailed and explicit manner the analytical and methodological approach of the evaluation. …For the impact evaluation of very large or complex interventions, the evaluability assessment may be a study in itself. …By identifying what is possible to evaluate at a given point in time, highlighting those evaluation questions that are most critical, and specifying assumptions in the programme logic most in need of empirical verification, an evaluability assessment can identify priorities for impact evaluation.[80]

The amenability of the areas in Section 12 of this paper to impact evaluations will depend in large part on the **complexity** of the question to be addressed. For instance, where it is relatively easy to isolate the intervention to be investigated, a randomised trial in which participants are randomly allocated to the intervention, or not, may be feasible. Such trials could take place with randomisation at the level of individuals, or at the level of a group of individuals, such as a family, school, village or region in a 'cluster randomised trial'.[81]

Where the impact evaluation would seek to determine the effects of policies or more complex interventions, these are still amenable to randomised trials, which could be designed using frameworks developed for the assessment of such interventions.[82] However, impact evaluations that would seek to investigate the effects of system-wide policies or interventions might not be amenable to randomised trials, because of the difficulty of creating a sufficient number of intervention and control participants to benefit from the balancing out of confounding variables through the chance process inherent in random allocation. In such circumstances, **alternative designs** might be used. These include the assessment of individual elements of the policy or complex interventions in different geographic areas within a single disaster or protracted emergency, at different times within a single event, or in multiple events which happen frequently. Different types of disaster or protracted emergency would be more amenable to these different methods. For example, rare events that occur over a large geographic area (such as major earthquakes or tsunamis and extreme windstorms) might be suitable for the first option; protracted emergencies (such as famine and displaced populations) might be suitable for evaluating different interventions at different times; and small but repeated events (such as localised extreme weather, flooding or landslides) might be suitable for evaluating different interventions in different events.

In relation to **sudden-onset disasters**, a particular challenge will be the ability to have a prospective impact evaluation, such as a randomised trial or other comparative study

[80]United Nations Evaluation Group 2013.
[81] Clarke 2009.
[82]Craig *et al.* 2008; Corry *et al.* 2013.

pre-prepared and ready to be activated. Without such 'on the shelf' studies, the question might not be amenable to an impact evaluation, for example if it takes days or weeks to design and activate the study protocol. Therefore, to overcome this challenge, the impact evaluation should have been pre-designed and be ready to initiate at the appropriate time in the disaster. This is possible and it means that questions about the effects of early-phase interventions are amenable to high-quality impact evaluations, if the necessary preparation and investment has been made. Given that the uncertainty around the occurrence of sudden-onset disasters relates more to when and where they will occur, rather than whether or not they will occur somewhere at some time, this investment is unlikely to be wasted.[83]

Another issue for consideration is the importance of **ethical approval**. Few of the studies we identified discussed ethical approval or oversight. This issue was also raised by some respondents in the online survey and interviews, and noted in some documents.[84] Research ethics was the subject of a 2011 Brocher Foundation workshop, co-organised by Dublin City University and Evidence Aid.[85] It included a contribution from Doris Schopper at the Center for Education and Research in Humanitarian Action in Geneva, drawing on the experience of Médecins Sans Frontières,[86] which outlined the need for international guidance that would facilitate research in these emergency situations, bearing in mind the potential vulnerability of the population to be studied in the impact evaluation.[87]

A final concern that we would like to raise is that there seems to be little consensus in the humanitarian sector on what 'impact evaluation' is. In our investigation of repositories we found the term 'impact evaluation' used to describe a plethora of disparate studies. As such we would like to re-emphasize the need to clarify terminology associated with 'impact evaluation' to better organise the literature in this sector and the need for evaluators and researchers in the humanitarian sector to be exposed to training on impact evaluations.

[83]Yong 2012.
[84]For example, WHO 1997; Shaikh and Musani 2006; Roy *et al.* 2011.
[85] O'Mathúna *et al.* 2014.
[86]Brown *et al.* 2008; Schopper *et al.* 2009.
[87]Schopper 2014.

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Appendix 1: Methods and content of the online survey

The content of the online survey was agreed between Evidence Aid and 3ie through a series of drafts from late December 2013 to early January 2014. The final version had three main sections, with a mixture of closed (multiple choice) and open questions (see below). This was to facilitate analyses, while also giving respondents the opportunity to provide their opinions and experience in their own words. The first section asked about the respondent and their experience in humanitarian assistance and related areas. The second was designed to gather information about their experience of, and priorities for, impact evaluations, through a mixture of questions seeking either short answers or selection from multiple-choice lists. The survey concluded with an opportunity for respondents to provide additional comments. We stressed that participation in the survey was voluntary and that responses would not be linked to identifiable individuals in any reports.

The survey was made available on the internet, using SurveyMonkey. A 'soft launch' took place on 6 January 2014, to allow live testing by a small group of people working in the humanitarian sector or associated with Evidence Aid. The main launch took place on 8 January with distribution of an email notification to approximately 600 people connected with Evidence Aid and 3ie. We also made announcements through the Evidence Aid social media channels in Facebook, LinkedIn and Twitter, and on the homepage of the Evidence Aid website from 13 to 27 January (www.EvidenceAid.org). We are aware that the information was retweeted from many Twitter accounts, including @Reliefweb (32,600 followers on 8 January), @hildabast (2,233 followers on 10 January), @aid_leap (1,428 followers on 11 January), @UKCDS (1,369 followers on 15 January), @cochranecollab (27,826 followers on 20 January) and @HEARDatUNSW (1,059 followers on 27 January). We posted information to the email distribution lists of ISCRAM, DisasterOutreach and HIFA2015 on 8 January and placed notices on various websites, including those of ELRHA (Enhancing Learning and Research for Humanitarian Assistance) and People In Aid.

The closing date for the survey was set as 27 January 2014 and we retrieved 399 responses from SurveyMonkey on 3 February and loaded them into Excel for coding and analysis, excluding those that were part of the drafting or preliminary testing of the survey. (A subsequent check of SurveyMonkey on 15 February revealed a small number of additional responses.) We checked the retrieved records individually to remove any (n=4) that appeared to have been made by people working through the survey to see which questions were being asked, rather than to provide meaningful answers; leaving 395 for the analyses presented in this report. To assist with the analyses, we read all free text responses to the survey and developed a provisional coding sheet. This was supplemented with codes identified in the analysis of the notes of the semi-structured interviews and was then used to code responses. This facilitated the identification and aggregation of common themes. The coding sheets are shown in Appendices 4a and 4b.

The content of the survey is reproduced below:

INFORMATION SHEET

Dear Respondent,

Thank you for your interest in this survey. We are seeking responses from a wide range of actors in the humanitarian emergency sector and related areas, to identify areas of humanitarian assistance that most need evidence to inform policy and practice.

Please share the link (www.surveymonkey.com/s/VLP8JB2) with colleagues, as appropriate, so that they can also contribute.

OBJECTIVES

This survey will provide valuable information for an ongoing project being undertaken by Evidence Aid on behalf of the International Initiative for Impact Evaluation (3ie). The aims of the project are to:

- Help an international consortium of donors, including DFID and USAID, to identify priority areas and evaluation questions for impact evaluations in the humanitarian sector.
- Help inform the design of a thematic call for proposals to conduct impact evaluations of humanitarian assistance to crises arising from sudden-onset disasters and protracted emergencies.

STRUCTURE OF THE SURVEY

The survey has three sections. The first section asks about you and your experience in this sector. The second is designed to gather information about your experience of, and priorities for, impact evaluations, through a mixture of questions seeking short answers or selection from multiple choice lists. The survey concludes with an opportunity for you to provide additional comments.

Participation in the survey is voluntary and responses will not be linked to identifiable individuals in any reports.

Questions about the survey, or the project more generally, can be sent to Professor Mike Clarke, Evidence Aid and Queen's University Belfast (m.clarke@qub.ac.uk, +4428-90635059).

DEFINITIONS

To help orientate you to the issues covered in this survey, we are using the following definitions.

Humanitarian crisis: a situation in which there is an exceptional and generalized threat to human life, health or subsistence. These crises usually appear in the context of an

existing situation of a lack of protection where the consequences of preexisting factors (such as poverty, inequality, lack of access to basic services) are exacerbated by a natural disaster or armed conflict.

Humanitarian assistance: action designed to save lives, alleviate suffering and maintain and protect human dignity during and in the aftermath of emergencies.

Impact evaluations in the context of humanitarian crises: studies assessing the causal relationship between specific forms of humanitarian assistance and the impact on the ultimate beneficiaries of this assistance. These usually seek to estimate the magnitude of the impact, and also examine processes that enable and obstruct this impact. Some impact evaluations also examine differences between subgroups.

SECTION 1: PARTICIPANT DETAILS

This first section asks about you and your experience in this sector.

1. Your name and email address (optional)

2. Organisations you have worked for in the humanitarian sector or related areas

3. Your current position

4. What are your areas of expertise (select as many as necessary)?

Camp Coordination and Management

Health

Early Recovery

Logistics

Education

Nutrition

Emergency Shelter

Protection

Emergency Telecommunications

Research

Food Security

Water, sanitation and hygiene

Other (please specify)

5. How long have you worked in humanitarian assistance or areas related to it?

<2 years

2–4 years

5–9 years

10–19 years

>20 years

Not applicable

6. In which country/region are you currently based?

7. In which countries/regions do you usually work?

SECTION 2a: YOUR EXPERIENCE OF IMPACT EVALUATIONS IN THE CONTEXT OF HUMANITARIAN CRISES

8. Have you commissioned or conducted an impact evaluation in the context of a humanitarian crisis?

No / Yes

8a. Which intervention or project/programme did you do an impact evaluation for (please provide a brief outline of the impact evaluation, including the area of work and references to any reports)?

8b. How much did the impact evaluation cost?

Less than US$50,000

US$50,000–99,999

US$100,000–249,999

US$250,000–499,999

US$500,000–999,999

More than US$1,000,000

Don't know

9. Have you ever used the findings of an impact evaluation?

No / Yes / Don't know

9a. Please provide a brief description of the impact evaluation you have used, or a reference to it:

9b. Please outline how you used it:

10. If you are aware of a potentially relevant impact evaluation but have not used its findings, please provide a brief explanation for why you have not used it:

SECTION 2b: PRIORITIES FOR IMPACT EVALUATIONS IN THE CONTEXT OF HUMANITARIAN CRISES

11. Do you know of any work to identify priorities for impact evaluations that should be conducted in the context of humanitarian crises?

No / Yes

11a. Please provide brief details of this work to identify priorities for impact evaluations, including any outputs and references to any documentation:

12. Please select up to three areas for which you would most like evidence to inform policy or practice in humanitarian assistance:

Accountability

Camp Coordination and Management

Early Recovery

Education

Emergency Shelter

Emergency Telecommunications

Food Security

Health

Impact measurement

Logistics

Monitoring

Nutrition

Protection

Water, sanitation and hygiene

Other (please specify)

12a. If you would like to be more specific, please do so:

13. Please select the humanitarian crises phases for which you would most like evidence to inform policy or practice:

Resilience

Risk reduction

Immediate, short-term response

Prolonged response or engagement

No opinion

Other (please specify)

13a. If you would like to be more specific, please do so:

14. Which interventions or actions (such as cash transfer or food aid, types of emergency shelter, education programmes for children, psychotherapy following trauma, etc.) would you most like to see impact evaluations in the context of humanitarian crises (please provide up to three):

14a. If you would like to be more specific, please do so:

15. Which outcomes (for example educational ability, mortality, morbidity, sustainable income, etc.) do you regard as the most important to be measured in impact evaluations in the context of humanitarian crises (please provide up to three):

15a. If you would like to be more specific, please do so:

16. Which populations (for example children, elderly, people with physical disability, women, etc.) do you regard as the most important to be included in impact evaluations in the context of humanitarian crises:

16a. If you would like to be more specific, please do so:

17. Which type of humanitarian crisis would you regard as the most important for study in impact evaluations?

Sudden-onset disasters

Protracted humanitarian emergencies

Both equally

No opinion

Other (please specify)

17a. If you would like to be more specific, please do so:

SECTION 3: ADDITIONAL COMMENTS

18. Please provide any additional comments you wish to make:

Thank you for taking part in this survey.

If you have any questions about the survey or the project more generally, please contact Professor Mike Clarke (E-mail m.clarke@qub.ac.uk; telephone +442890635059; post: Evidence Aid, Centre for Public Health, (ICS B), Queens University Belfast, Grosvenor Road, Belfast, BT12 6BJ, Northern Ireland).

Appendix 2: People who were interviewed (* indicates those who were interviewed during the first round of semi-structured interviews)

*Jonathan Abrahams, Emergency Risk Management and Humanitarian Response, World Health Organization, Switzerland
Myriam Ait-Aissa, Action Contre la Faim, France
Colin Armstrong, UK Collaborative on Development Sciences, UK
Veronique Barbelet, Overseas Development Institute, UK
Xavier Bosch-Capblanch, Swiss Tropical and Public Health Institute, Switzerland
*Tilman Brück, Stockholm International Peace Research Institute, Sweden
Margie Buchanan-Smith, Overseas Development Institute, UK
Skip Burkle, Harvard Humanitarian Initiative, USA
Sally Burrows, United Nations World Food Programme, USA
Laura Cartana, Swiss Tropical and Public Health Institute, Switzerland
Andy Catley, Feinstein International Center, Tufts University, USA
Jennifer Chan, Northwestern University; Harvard Humanitarian Initiative, USA
*Rudi Coninx, Policy, Practice & Evaluation Unit, World Health Organization, Switzerland
John Cosgrove, independent consultant, UK
Annie Devonport, Disasters Emergency Committee, UK
*Belinda Duff, Evaluation Adviser (OCHA-RDC)
Wendy Fenton, Overseas Development Institute, UK
*Peter Giesen, Humanitarian Strategy Consultants, Netherlands
Brendan Gormley, independent consultant, UK
*Scott Green, United Nations Office for the Co-ordination of Humanitarian Affairs, USA
Paul Harvey, Humanitarian Outcomes, UK
Samuel Hauenstein Swan, Action Against Hunger, UK
Alistair Humphrey, Medical Officer of Health (Canterbury), New Zealand
Randolph Kent, Humanitarian Futures Programme, UK
*Paul Knox Clarke, ALNAP, UK
Nick Lezama, Uniformed Services University of the Health Sciences, USA
David Loquercio, Humanitarian Accountability Partnership, Switzerland
*Joanna Macrae, Department for International Development, UK
Daniel Maxwell, Feinstein International Center, Tufts University, USA
Virginia Murray, Extreme Events and Health Protection, Public Health England, UK
Alice Obrecht, Humanitarian Futures Programme, UK
Nuala O'Brien, Irish Aid, Ireland
Rachel Pounds, Enhancing Learning and Research for Humanitarian Assistance, UK
Bernadette Peterhans, Swiss Tropical and Public Health Institute, Switzerland
Monica Ramos, Save the Children, France
Tony Redmond, Humanitarian and Conflict Response Institute, University of Manchester, UK
Matthew Reid, Médecins Sans Frontières, South Africa
*Jennie Richmond, Oxfam, UK
Elias Sagmeister, Global Public Policy Institute, Germany
David Sanderson, Centre for Development and Emergency Practice, Oxford Brookes University, UK
Kevin Savage, World Vision International, Switzerland
Andy Seal, Nutrition in Crisis Research Group, University College London, UK

Hugo Slim, Institute for Ethics, Law and Armed Conflict, University of Oxford, UK
Emanuele Sozzi, University of Brighton, UK
Huw Taylor, University of Brighton, UK
*Vivien Margaret Walden, Oxfam, UK
Cara Winters, Norwegian Refugee Council, Norway
Anthony Zwi, University of New South Wales, Australia

A further four people were interviewed but did not confirm their willingness to be listed here.

Appendix 3a: Methods used during the first phase of scoping interviews

We used a semi-structured approach to ensure that specific topics were covered, while providing the opportunity for the depth and breadth of the discussion to vary depending on the response to each question. Notes were taken during the interviews, and subsequently analysed to identify key themes. This analysis involved the initial highlighting of elements of the interview of most relevance to this study, and then a careful reading through of the notes to identify key themes. We then sought out these themes in the notes for each interview, coded them and entered them into an Excel spreadsheet to facilitate analysis. The main purpose of these interviews was to guide the subsequent conduct of the scoping study, so that the final product would help those responsible for defining the content of the Humanitarian Interventions Thematic Window. The choice of people to interview reflected this need. The intention was that this first phase of interviews would take place before 24 December 2013, so as to inform the drafting of the online survey and the questions for the subsequent semi-structured interviews. Unfortunately, this was not possible in all cases and some members of the Steering Committee could not be interviewed. We covered the following issues during these interviews:

- Are you aware of any existing efforts to identify or prioritise impact evaluations that are needed in the context of humanitarian crises?
- In what areas would you like to see evidence from impact evaluations?
- Would policymakers and practitioners use evidence from impact evaluations?
- Should the scope of the Humanitarian Interventions Thematic Window cover certain types of humanitarian crises only (such as sudden-onset disasters or protracted emergencies, or more specific settings) or certain phases for the implementation of interventions and actions (such as risk reduction, response, recovery or resilience)?
- Would a structure for the gap map that matched interventions or actions against outcomes be an appropriate way to match evidence needs with existing impact evaluations?
- Should the presentation of the information be structured in accordance with the framework used to define the clusters in the humanitarian sector (camp coordination and management, early recovery, education, emergency shelter, emergency telecommunications, food security, health, logistics, nutrition, protection, telecommunications, and water, sanitation and hygiene)?
- Who else, and what resources, should we consult for this study?

Appendix 3b: Methods used during the second phase of semi-structured interviews

We selected people to invite for these interviews by reviewing a list of 535 people from the humanitarian sector for whom Evidence Aid or 3ie had contact information (name, address and organisation). 3ie suggested that Evidence Aid should interview two of these people in particular, and others were systematically chosen on the basis of the following: ideally, there would be only one interview per organisation; the person was already interacting with Evidence Aid and was likely to respond in the limited time available for the interviews; and their role within their organisation suggested that they would be involved in identifying evidence needs or conducting research. We contacted 50 people on 10 January and sent weekly reminders up to 31 January. As the early responses suggested that the target of 40 semi-structured interviews to supplement those from the scoping phase was achievable, if someone did not reply to their invitation we did not replace them with another person from the list of potential contacts. We also asked interviewees for their suggestions for other people to invite (a process called snowballing) and additional suggestions were made in discussions between 3ie and Evidence Aid. Many of the additional suggestions came from multiple interviewees and, in order to accommodate these people, we extended the original planned date for the closure of this phase. In total, we sent 100 invitations.

We conducted the interviews in parallel with the online survey, so that both elements could be completed during January 2014, for analysis in February. The framework for the interviews is shown below. As with the initial round of semi-structured interviews, notes were taken during the interviews, and subsequently analysed to identify key themes. This analysis involved the initial highlighting of elements of the interview of most relevance to this study, and then a careful reading through of the notes to identify issues that were added to the coding sheets developed for the analysis of the online survey. The final coding sheets (Appendices 4a and 4b) were then used on the notes for each of these interviews (and on the notes from the first phase of interviews) to categorise responses. We entered the resulting data into an Excel spreadsheet to facilitate analysis.

We used the following questions during these interviews:

<u>1. Background of respondent</u>

1a) In what way are you involved in humanitarian assistance?

1b) For how long have you worked in the humanitarian sector?

1c) What are the main areas of your work?

1d) Are you involved in research (if so, how)?

<u>2. Experience of impact evaluations</u>

2a) Have you been involved in impact evaluations in the context of humanitarian crises?

2b) How (for example, commissioning, conducting, or implementing the findings)?

3. Priorities for impact evaluations

3a) What are the general areas for which you consider impact evaluations are most needed to inform policy and practice (consider the type of humanitarian assistance, the outcomes to be addressed and the relevant setting and population)?

3b) Do you have specific topics for impact evaluations that you would like to see within these areas?

3c) Why do you think that these areas are of high priority?

4. Further information

4a) Are there any documents that might help with this project?

4b) Who else would you recommend that we speak to?

4c) How might we promote the online survey?

Appendix 4a: Categories used for coding of suggestions for interventions or actions for impact evaluations in the context of humanitarian crises

Acceptability
Accountability
Animal health
Behaviour change
Cash
Cash or voucher
Child focused
Climate change
Communication
Conflict mitigation
Development
Donation
Disaster risk reduction
Early phase interventions
Early warning
Education
Ethics
Evaluation
Food aid
Food or cash
Food security
Gender
Gender-based violence (GBV)
Health
Health: chronic diseases
Health: infectious disease
Health: lay workers
Health: mental
Health: routine healthcare
Health: vaccine
Humanitarian assistance as a whole
Impact evaluation
Information
Late phase interventions
Legal
Livelihood
Nutrition
Organisation
Organisation: camps
Organisation: certification
Organisation: community
Organisation: coordination
Organisation: financing
Organisation: government
Organisation: health
Organisation: human resources
Organisation: leadership
Organisation: local
Organisation: local government
Organisation: local workers
Organisation: private sector
Organisation: responders
Organisation: supply chain
Prioritisation
Protection
Protracted emergencies
Recovery
Refugees
Rehabilitation
Rehabilitation: urban
Resilience
Responders
Shelter
Sustainability
Technology
Vouchers
Water, sanitation and hygiene (WASH or WATSAN)

Appendix 4b: Categories used for coding of suggestions for outcomes for impact evaluations in the context of humanitarian crises

Access
Animal health
Assets
Behaviour change
Conflict
Cost
Displacement
Disaster risk reduction
Economic
Economic development
Education
Education: ability
Education: access
Education: access and ability
Efficiency
Employment
Empowerment
Environment
Equity
Family
Finance
Food: access
Food security
Health: access
Health: malnutrition
Health: morbidity
Health: morbidity and mortality
Health: mortality
Income
Information
Investment
Legal
Livelihood
Mobility
Nutrition
Organisation
Organisation: community
Organisation: government
Organisation: local
Organisation: policy
Organisation: prioritisation
Preparedness
Protection
Recovery
Resilience
Response
Risk reduction
Satisfaction
Services
Shelter
Social functioning
Sustainability
Violence
Vulnerability
Water quality
Water, sanitation and hygiene: access

Appendix 5: Search strategies used

We used a variety of searches to identify evidence needs, priorities for research, examples of impact evaluations of humanitarian assistance, and emerging trends in the design and conduct of impact evaluations. There was overlap between the searches and, for completeness, we list each of them here. These include both simple searches to find potentially pivotal documents that use specific terminology, as well as highly detailed searches that had been carefully designed by Evidence Aid to identify controlled studies and systematic reviews across a wide range of disasters and humanitarian emergencies which had been conducted in 2011 and which were run again in 2013 to identify more recent papers which were added to those found previously,[88] and tailored searches of the repositories of evaluations.

a. Ovid MEDLINE (November 2013) [controlled studies]

1 bhopal accidental release/ or chernobyl nuclear accident/ or radioactive hazard release/pc or exp radiation injuries/pc (10,397)

2 ((nuclear or atomic) adj3 (disaster$ or accident$ or incident$ or meltdown or melt-down or explosion$ or catastroph$ or calamit$ or crisis or crises or leak$ or seep$ or breach$ or hazard$)).ti,ab,ot. (2,104)

3 ((nuclear or atomic or dirty or biological$) adj3 (bomb$ or weapon$ or WMD or warfare or attack$ or assault$ or strike$ or missile$ or warhead$ or war-head$)).ti,ab,ot. (4,805)

4 (((Atomic or radiation or radio-active or radioactive or nuclear) adj3 (expos$ or contaminat$ or releas$ or fallout or fall-out or disaster$ or accident$ or incident$ or explosion$ or meltdown or melt-down or explod$ or leak$ or seep$ or breach$ or calamit$)) and (prevent$ or iodine or Radio-iodine or Radioiodine or I-131 or I131 or iodide)).ti,ab,ot. (2,222)

5 (chernobyl or fukashima or "three mile island").ti,ab,ot. (3,980)

6 or/1-5 (20,816)

7 mass casualty incidents/ (942)

8 avalanches/ or earthquakes/ or landslides/ or tidal waves/ or tsunamis/ or volcanic eruptions/ or cyclonic storms/ or tornadoes/ (4,114)

9 ((Natural$ or technological$ or man-made or manmade or climatolog$ or geophysical$ or geo-physical$ or hydrolog$ or meteorolog$) adj3 (catastroph$ or disaster$ or crisis or crises$ or emergency or emergencies or calamit$ or devastat$ or hazard$)).ti,ab,ot. (2,681)

[88]Misso *et al.* 2012.

10 (humanitarian adj3 (catastroph$ or disaster$ or crisis or crises or aid or relief or assist$ or support$ or respon$ or emergency or emergencies or calamit$)).ti,ab,ot. (881)

11 (earthquake$ or quake$ or seismic tremor$ or seismic temblor$ or seismic eruption$ or tsunami$ or avalanche$ or flood$ or cyclon$ or hurricane$ or tornado$ or limnic eruption$ or lake overturn$ or lake over-turn$ or wildfire$ or wild-fire$ or forestfire$ or forest-fire$ or bushfire$ or bush-fire$ or tidal wave$ or twister or twisters).ti,ab,ot. (17,320)

12 (landslide$ or volcanic or volcano$ or land-slide$ or mudslide$ or mud-slide$ or pyroclastic flow$ or lahar or lahars or pyroclastic density current$ or pyroclastic surge$ or debris flow$ or Jokulhlaup$).ti,ab,ot. (2,191)

13 bhopal.ti,ab,ot. (318)

14 ((armero or carabellda or Vargas) adj2 traged$).ti,ab,ot. (2)

15 or/7-14 (23,866)

16 refugees/ or disaster victims/ (6,751)

17 (displaced adj3 (population$ or people$ or person$) adj3 (site$ or shelter$ or accommodation$ or camp$ or tent$ or structure$ or settlement$ or housing$)).ti,ab,ot. (114)

18 ((victim$ or survivor$) adj3 displacement).ti,ab,ot. (8)

19 ((evacuee$ or refugee$) adj3 (site$ or shelter$ or accommodation$ or camp$ or tent$ or structure$ or settlement$ or housing$)).ti,ab,ot. (862)

20 ((temporary or emergency or evacuat$) adj3 (site$ or shelter$ or accommodation$ or camp$ or tent$ or structure$ or settlement$ or housing$)).ti,ab,ot. (1,201)

21 or/16-20 (8,158)

22 Disaster planning/ or rescue work/ (12119)

23 ((major incident$ or mass trauma$ or mass casualt$ or multiple casualt$) adj3 (incident$ or event$ or situation$ or disaster$ or emergenc$ or catastrop$) adj3 (plan$ or prepar$ or respon$ or train$ or equip$ or organis$ or organiz$ or arrang$)).ti,ab,ot. (272)

24 (MDI adj3 (plan$ or prepar$ or respon$ or train$ or equip$ or organis$ or organiz$ or arrang$)).ti,ab,ot. (56)

25 ((disaster$ or catastrop$) adj3 (plan$ or prepar$ or respon$ or equip$ or organis$ or organiz$ or train$)).ti,ab,ot. (3,692)

26 ((natural or humanitarian or technological or man-made) adj3 (disaster$ or emergenc$ or catastrop$) adj3 (plan$ or prepar$ or respon$ or train$ or equip$ or organis$ or organiz$ or arrang$)).ti,ab,ot. (212)

27 ((rail$ or train or trains or plane or planes or aeroplane$ or aviation or aircraft$ or jet or jets or seaplane$ or sea-plane$ or bus or buses or underground or subway$ or tube or station or station$ or airport$ or air-port$ or airterminal$ or air-terminal$) adj3 (crash or collision or accident$ or bomb$ or attack$)).ti,ab,ot. (1,352)

28 ((ferry or ferries or ship or ships) adj3 (crash or collision or accident$ or bomb$ or attack$)).ti,ab,ot. (34)

29 ((cruiseliner$ or cruise-liner$) adj3 (crash or collision or accident$ or bomb$ or attack$)).ti,ab,ot. (0)

30 or/22-29 (14,978)

31 ((natural or technological or man-made or manmade or humanitarian) adj3 (catastroph$ or disaster$ or cris$ or aid or emergency or emergencies or catastroph$)).ti,ab,ot. (2,865)

32 ((disaster$ or catastroph$) adj3 setting$).ti,ab,ot. (132)

33 (quake or seismic tremor$ or earthquake$ or landslide$ or land-slide$ or tsunami$ or volcanic or avalanche$ or flood$ or cyclon$ or hurricane$ or tornado$ or typhoon$ or whirlwind$ or whirl-wind$ or wildfire$ or wild-fire$ or forestfire$ or forest-fire$ or bushfire$ or bush-fire$ or tidal wave$ or twister or twisters).ti,ab,ot. (18,833)

34 (displaced population$ or refugee$ or displaced people$ or displaced person$ or evacuee$).ti,ab,ot. (6,220)

35 ((mass trauma$ or mass casualt$ or multiple casualt$) adj3 (event or events or episode$ or calamit$ or incident$ or situation$ or disaster$ or emergenc$ or catastrop$ or crisis or crises)).ti,ab,ot. (863)

36 (Mount St Helens or Pinatubo or Mount Etna or Tungurahua or Eyjafjallajokull).ti,ab,ot. (128)

37 ((terror$ or suicide) adj3 (attack$ or atrocit$ or bomb$ or campaign$)).ti,ab,ot. (1,833)

38 "September 11 Terrorist Attacks"/ or (twin towers or world trade centre).ti,ab,ot. (961)

39 or/31-38 (29,700)

40 (infrastructure or infra-structure or communication$ or sanitation or water or transport$ or shelter$ or accommodation$ or camp$ or housing or tent or tents or

settlement$ or power or electricity or sewage or road or roads or rail$ or phone$ or twitter$ or retweet$ or internet$ or web).ti,ab,ot. (1,322,418)

41 (health$ or wellbeing or well-being or hospital$ or doctor$ or medic$ or clinic or clinics or psycholog$ or clinician$ or practitioner$ or paramedic$ or first responder$ or first aid$ or emergency service$ or rescue worker$ or ambulance$ or physician$ or surgeon$).ti,ab,ot. (3,517,652)

42 (pam or pams).ti,ab,ot. (4,496)

43 ((hospital$ or health or surg$ or medical) adj4 (personnel$ or employ$ or worker$ or team$ or staff$ or workforce$ or work force$ or manpower$)).ti,ab,ot. (100,286)

44 (nursing or nurse or nurses or matron or matrons or auxillary or auxillaries or midwi$).ti,ab,ot. (324,690)

45 (peacekeep$ or peace-keep$ or security or NGO or NGOs or non-governmental organi?ation$ or nongovernmental organi?ation$ or Disaster Relief Operation$ or DRO or Non-combatant evacuation operation$ or Noncombatant evacuation operation$ or NEO).ti,ab,ot. (41,427)

46 (aid agenc$ or relief agenc$).ti,ab,ot. (235)

47 or/40-46 (4,767,839)

48 39 and 47 (16,991)

49 or/6,15,21,30,48 (65,067)

50 randomized controlled trial.pt. (390,995)

51 controlled clinical trial.pt. (90,070)

52 randomized.ab. (288,395)

53 placebo.ab. (157,299)

54 clinical trials as topic.sh. (175,750)

55 randomly.ab. (200,079)

56 trial.ti. (124,923)
57 or/50-56 (897,019)

58 animals/ not (animals/ and humans/) (3,974,347)

59 57 not 58 (826,270)

60 49 and 59 (1,534)

61 (201105$ or 201106$ or 201107$ or 201108$ or 201109$ or 20111$ or 2012$ or 2013$ or 2014$).ed,dc. or (2011$ or 2012$ or 2013$ or 2014$).yr. (2,385,711)

62 60 and 61 (309)

b. Ovid MEDLINE (November 2013) [systematic reviews]

1 bhopal accidental release/ or chernobyl nuclear accident/ or radioactive hazard release/pc or exp radiation injuries/pc (10,397)

2 ((nuclear or atomic) adj3 (disaster$ or accident$ or incident$ or meltdown or melt-down or explosion$ or catastroph$ or calamit$ or crisis or crises or leak$ or seep$ or breach$ or hazard$)).ti,ab,ot. (2,104)

3 ((nuclear or atomic or dirty or biological$) adj3 (bomb$ or weapon$ or WMD or warfare or attack$ or assault$ or strike$ or missile$ or warhead$ or war-head$)).ti,ab,ot. (4,805)

4 (((Atomic or radiation or radio-active or radioactive or nuclear) adj3 (expos$ or contaminat$ or releas$ or fallout or fall-out or disaster$ or accident$ or incident$ or explosion$ or meltdown or melt-down or explod$ or leak$ or seep$ or breach$ or calamit$)) and (prevent$ or iodine or Radio-iodine or Radioiodine or I-131 or I131 or iodide)).ti,ab,ot. (2,222)

5 (chernobyl or fukashima or "three mile island").ti,ab,ot. (3,980)

6 or/1-5 (20,816)

7 mass casualty incidents/ (942)

8 avalanches/ or earthquakes/ or landslides/ or tidal waves/ or tsunamis/ or volcanic eruptions/ or cyclonic storms/ or tornadoes/ (4,114)

9 ((Natural$ or technological$ or man-made or manmade or climatolog$ or geophysical$ or geo-physical$ or hydrolog$ or meteorolog$) adj3 (catastroph$ or disaster$ or crisis or crises$ or emergency or emergencies or calamit$ or devastat$ or hazard$)).ti,ab,ot. (2,681)

10 (humanitarian adj3 (catastroph$ or disaster$ or crisis or crises or aid or relief or assist$ or support$ or respon$ or emergency or emergencies or calamit$)).ti,ab,ot. (881)

11 (earthquake$ or quake$ or seismic tremor$ or seismic temblor$ or seismic eruption$ or tsunami$ or avalanche$ or flood$ or cyclon$ or hurricane$ or tornado$ or limnic eruption$ or lake overturn$ or lake over-turn$ or wildfire$ or wild-fire$ or forestfire$ or forest-fire$ or bushfire$ or bush-fire$ or tidal wave$ or twister or twisters).ti,ab,ot. (17,320)

12 (landslide$ or volcanic or volcano$ or land-slide$ or mudslide$ or mud-slide$ or pyroclastic flow$ or lahar or lahars or pyroclastic density current$ or pyroclastic surge$ or debris flow$ or Jokulhlaup$).ti,ab,ot. (2,191)

13 bhopal.ti,ab,ot. (318)

14 ((armero or carabellda or Vargas) adj2 traged$).ti,ab,ot. (2)

15 or/7-14 (23,866)

16 refugees/ or disaster victims/ (6,751)

17 (displaced adj3 (population$ or people$ or person$) adj3 (site$ or shelter$ or accommodation$ or camp$ or tent$ or structure$ or settlement$ or housing$)).ti,ab,ot. (114)

18 ((victim$ or survivor$) adj3 displacement).ti,ab,ot. (8)

19 ((evacuee$ or refugee$) adj3 (site$ or shelter$ or accommodation$ or camp$ or tent$ or structure$ or settlement$ or housing$)).ti,ab,ot. (862)

20 ((temporary or emergency or evacuat$) adj3 (site$ or shelter$ or accommodation$ or camp$ or tent$ or structure$ or settlement$ or housing$)).ti,ab,ot. (1,201)

21 or/16-20 (8,158)

22 disaster planning/ or rescue work/ (12,119)

23 ((major incident$ or mass trauma$ or mass casualt$ or multiple casualt$) adj3 (incident$ or event$ or situation$ or disaster$ or emergenc$ or catastrop$) adj3 (plan$ or prepar$ or respon$ or train$ or equip$ or organis$ or organiz$ or arrang$)).ti,ab,ot. (272)

24 (MDI adj3 (plan$ or prepar$ or respon$ or train$ or equip$ or organis$ or organiz$ or arrang$)).ti,ab,ot. (56)

25 ((disaster$ or catastrop$) adj3 (plan$ or prepar$ or respon$ or equip$ or organis$ or organiz$ or train$)).ti,ab,ot. (3,692)

26 ((natural or humanitarian or technological or man-made) adj3 (disaster$ or emergenc$ or catastrop$) adj3 (plan$ or prepar$ or respon$ or train$ or equip$ or organis$ or organiz$ or arrang$)).ti,ab,ot. (212)

27 ((rail$ or train or trains or plane or planes or aeroplane$ or aviation or aircraft$ or jet or jets or seaplane$ or sea-plane$ or bus or buses or underground or subway$ or tube or station or station$ or airport$ or air-port$ or airterminal$ or air-terminal$) adj3 (crash or collision or accident$ or bomb$ or attack$)).ti,ab,ot. (1,352)

28 ((ferry or ferries or ship or ships) adj3 (crash or collision or accident$ or bomb$ or attack$)).ti,ab,ot. (34)

29 ((cruiseliner$ or cruise-liner$) adj3 (crash or collision or accident$ or bomb$ or attack$)).ti,ab,ot. (0)

30 or/22-29 (14,978)

31 ((natural or technological or man-made or manmade or humanitarian) adj3 (catastroph$ or disaster$ or cris$ or aid or emergency or emergencies or catastroph$)).ti,ab,ot. (2,865)

32 ((disaster$ or catastroph$) adj3 setting$).ti,ab,ot. (132)

33 (quake or seismic tremor$ or earthquake$ or landslide$ or land-slide$ or tsunami$ or volcanic or avalanche$ or flood$ or cyclon$ or hurricane$ or tornado$ or typhoon$ or whirlwind$ or whirl-wind$ or wildfire$ or wild-fire$ or forestfire$ or forest-fire$ or bushfire$ or bush-fire$ or tidal wave$ or twister or twisters).ti,ab,ot. (18,833)

34 (displaced population$ or refugee$ or displaced people$ or displaced person$ or evacuee$).ti,ab,ot. (6,220)

35 ((mass trauma$ or mass casualt$ or multiple casualt$) adj3 (event or events or episode$ or calamit$ or incident$ or situation$ or disaster$ or emergenc$ or catastrop$ or crisis or crises)).ti,ab,ot. (863)

36 (Mount St Helens or Pinatubo or Mount Etna or Tungurahua or Eyjafjallajokull).ti,ab,ot. (128)

37 ((terror$ or suicide) adj3 (attack$ or atrocit$ or bomb$ or campaign$)).ti,ab,ot. (1,833)

38 "September 11 Terrorist Attacks"/ or (twin towers or world trade centre).ti,ab,ot. (961)

39 or/31-38 (29,700)

40 (infrastructure or infra-structure or communication$ or sanitation or water or transport$ or shelter$ or accommodation$ or camp$ or housing or tent or tents or settlement$ or power or electricity or sewage or road or roads or rail$ or phone$ or twitter$ or retweet$ or internet$ or web).ti,ab,ot. (1,322,418)

41 (health$ or wellbeing or well-being or hospital$ or doctor$ or medic$ or clinic or clinics or psycholog$ or clinician$ or practitioner$ or paramedic$ or first responder$ or first aid$ or emergency service$ or rescue worker$ or ambulance$ or physician$ or surgeon$).ti,ab,ot. (3,517,652)

42 (pam or pams).ti,ab,ot. (4,496)

43 ((hospital$ or health or surg$ or medical) adj4 (personnel$ or employ$ or worker$ or team$ or staff$ or workforce$ or work force$ or manpower$)).ti,ab,ot. (100,286)

44 (nursing or nurse or nurses or matron or matrons or auxillary or auxillaries or midwi$).ti,ab,ot. (324,690)

45 (peacekeep$ or peace-keep$ or security or NGO or NGOs or non-governmental organi?ation$ or nongovernmental organi?ation$ or Disaster Relief Operation$ or DRO or Non-combatant evacuation operation$ or Noncombatant evacuation operation$ or NEO).ti,ab,ot. (41,427)

46 (aid agenc$ or relief agenc$).ti,ab,ot. (235)

47 or/40-46 (4,767,839)

48 39 and 47 (16,991)

49 or/6,15,21,30,48 (65,067)

50 Cochrane database of systematic reviews.jn. or search.tw. or meta-analysis.pt. or MEDLINE.tw. or systematic review.tw. (234,508)

51 animals/ not (animals/ and humans/) (3,974,347)

52 50 not 51 (218,438)

53 49 and 52 (861)

54 (201105$ or 201106$ or 201107$ or 201108$ or 201109$ or 20111$ or 2012$ or 2013$ or 2014$).ed,dc. or (2011$ or 2012$ or 2013$ or 2014$).yr. (2,385,711)

55 53 and 54 (241)

c. Web of Science (January 2014)

(research OR "impact evaluation"OR "impact assessment"OR "impact measurement") AND (priorities OR prioritisation OR prioritization) AND (disaster OR humanitarian)
154 records

d. EMBASE (including MEDLINE) (January 2014)

(research OR "impact evaluation" OR "impact assessment" OR "impact measurement") AND (priorities OR prioritisation OR prioritization) AND (disaster OR humanitarian)
118 records

e. Web of Science (January 2014)

("impact evaluation" OR "impact assessment" OR "impact measurement" OR "randomised" OR "randomized" OR "systematic review" OR meta-analysis OR meta-analyses) AND (disaster OR humanitarian)
372 records

f. EMBASE (including MEDLINE) (January 2014)

("impact evaluation" OR "impact assessment" OR "impact measurement" OR "randomised" OR "randomized" OR "systematic review" OR meta-analysis OR meta-analyses) AND (disaster OR humanitarian)
578 records

g. www.Google.com (January 2014)

General search of the internet using "research priorities", "research strategy", "priorities for impact evaluation" or "impact evaluation priorities", linked with "disaster", "disasters" or "humanitarian".

h. ALNAP – Disaster preparedness, resilience and risk reduction (January 2014)

Full text search for 'evaluation': 170 records
Full text search for 'impact evaluation': 138 records
Full text search for 'impact evaluation' (January 2004 to February 2014): 86 records
Full text search for 'impact evaluation' and 'counterfactual'(January 2004 to February 2014): 2 records

i. ALNAP - Disasters (January 2014)

Full text search for 'evaluation': 487 records
Full text search for 'impact evaluation': 379 records
Full text search for 'impact evaluation'(January 2004 to February 2014): 312 records
Full text search for 'impact evaluation' and 'counterfactual'(January 2004 to February 2014): 1 record

j. 3ie (January 2014)

Search for 'evaluation': 2,272 records
Search for 'impact evaluation': 2,172 records
Search for 'impact evaluation disaster': 19 records
Search for '"impact evaluation"' (i.e. as a phrase): 2,039 records
Search for '"impact evaluation"' (i.e. as a phrase) and 'counterfactual': 31 records

k. 3ie – Impact evaluations (http://www.3ieimpact.org/en/evidence/impact-evaluations/) (January 2014)

Search for 'disaster': 5 records

Appendix 6: Methods used for review of existing impact evaluations

Our efforts to identify existing impact evaluations included searches of both the published and the grey literature. We sought studies in which an intervention and control group were compared (including randomised trials) and systematic reviews of the effects of interventions that might be used in humanitarian assistance. Studies were not eligible if they relied on computer-based simulation, table-top exercises or other simulations to estimate the effects that an intervention or strategy might have when used in the field.[89]

We searched bibliographic databases of the academic literature in health and social care (MEDLINE and EMBASE) and more generally (Web of Science). This draws on earlier work by Evidence Aid to identify research of this type across a wide variety of disasters and humanitarian emergencies.[90] It also benefits from other assessments of the disaster-related literature, which were not necessarily focused on the effects of interventions. For example, Smith *et al.* identified more than 2,000 peer-reviewed, event-specific publications in 789 journals, following 25 individual disasters or "overwhelming crises". They found a total of 652 publications following disasters or events caused by natural hazards, 966 following human-made or technological disasters or events, and 480 following conflict or complex humanitarian events.[91]

We searched a series of repositories that have collected evaluations from the humanitarian and development sectors. The intent was to undertake a structured review of a number of existing inventories and repositories of evaluation reports in the humanitarian sector to identify impact evaluations, including possible exemplars of good practice. The initial phase of this study had identified 12 repositories, all largely in the humanitarian sector, containing approximately 3,000 evaluation reports. During the study, 3ie supplied further repositories, and others were identified through secondary searching of the articles reviewed. We selected two repositories as an initial trial for analysis: ALNAP (Active Learning Network for Accountability and Performance in Humanitarian Action) and the IFRC (International Federation of Red Cross and Red Crescent Societies). The IFRC analysis identified 309 evaluation reports, of which 7 included 'impact evaluation' in their title, but only 3 included the term in their document, of which none included a counterfactual or comparison group in the study. The ALNAP analysis identified 1,100 reports, of which 15 mentioned impact evaluation in the title, but when the repository was searched further for counterfactual, comparison or control, 46 reports were retrieved. However, when we read these 46 reports, none actually used a counterfactual, comparison or control methodology, but merely mentioned these terms in the text. Other drill-down searches or filters used included disaster, humanitarian crises, evaluation, impact evaluation, counterfactual, control, compare, comparison and comparator. Appendix 8 shows the template that was developed to capture key features of each repository, and the search strategy was also documented on this. A list of the repositories and inventories located and searched is included as Appendix 7. We also

[89]Bradford *et al.* 2011; Lenert *et al.* 2011; Chung *et al.* 2012; Barthel *et al.* 2013; Brannen *et al.* 2013.
[90]Misso *et al.* 2012.
[91]Smith *et al.* 2009.

reviewed selected journals, based on their high frequency of disaster-related articles in the review by Smith *et al*.[92]

The searches were particularly challenging because of the lack of clarity and consistency in the description of impact evaluations, and the absence of any specific index terms or keywords. Furthermore, the classification of evaluations and their reports was not sufficiently consistent across the repositories to allow these categories to be relied upon when searching for relevant examples. The identification of randomised trials and other comparative, controlled studies in the health literature was easier because of concerted efforts to improve the indexing of such studies over the last two decades[93] and the adoption of reporting standards for such studies.[94]

The wide range of search strategies used across the variety of sources is shown in Appendix 5. These searches were not as comprehensive as they would be in formal systematic reviews but were intended to provide a broad overview of existing impact evaluations, in keeping with the scoping nature of this study. It was not possible to conduct a detailed examination of each individual impact evaluation or systematic review in the time available, but a fuller review of these might be particularly useful for areas chosen for the Humanitarian Interventions Thematic Window, in order to help with the selection and design of specific impact evaluations.

[92]Smith *et al.* 2009.
[93]Lefebvre *et al.* 2013.
[94]Turner *et al.* 2012.

Appendix 7: Repositories

Agency	Inventory provided by Monash	Inventory provided by 3ie	Search date
Journals and/or reports			
Prehospital and Disaster Medicine (PDM) –Journal Published by World Association for Disaster and Emergency Medicine (WADEM)	+		21/01/2014
Disaster Medicine and Public Health Preparedness –Journal Published by Society for Disaster Medicine and Public Health	+		22/01/2014
Kamedo –Socialstyrelsen –Swedish Disaster Medicine Study Organisation National Board of Health and Welfare –Sweden	+		21/01/2014
United Nations			
United Nations Economic Commission for Latin America and the Caribbean (UNECLAC)	+		20/01/2014
United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) UNOCHA Evaluation Reports	+		22/01/2014
United Nations High Commissioner for Refugees (UNHCR) UNHCR Evaluation Reports	+		20/01/2014
United Nations Children's Fund (UNICEF) UNICEF Evaluation and Research Database	+		21/01/2014
United Nations World Food Programme (WFP) WFP Evaluation Library	+	+	23/01/2014
United Nations Development Programme International Policy Centre for Inclusive Growth (IPC-IG)	+		06/02/2014

United Nations Evaluation Group (UNEG) UNEG Evaluation Resource Center (ERC)	+		26/01/2014
Food and Agriculture Organization of the United Nations (FAO) FAO Depository Libraries and Independent Office of Evaluation of International Fund of Agricultural Development		+	05/02/2014
International organisations/NGOs			

Appendix 8: Template used to record information about each repository

	Yes/No (if applicable)	Comments
Title of the website or name of the inventory		
Which organisation or authority owns the site?		
Who funds the site?		
URL		
Hyperlink for inventory		
What is the purpose of the inventory? • Disaster/emergency or humanitarian/development • What are the general themes?		
Currency: • Are dates given for when the site or repository was created? • Are dates given for when the site was last updated or modified? • Is the site 'up to date'with working links? ('up to date': last 3 months?)		
Date accessed		
Is access free/open or restricted?		
Do you need to register as a user?		

How many reports/articles can be found on the site? Number of reports: Filters: • Disaster / humanitarian crises • Evaluation • Impact evaluation under Aim • "Impact evaluation" • "Impact" and "evaluation" in title • Counterfactual, or control (+/- group) or compare or comparison or comparator How many documents should be quality checked and reviewed (including any good exemplars)		
Do they use standards or guidelines for the reports to be included?		
Can you add your own report or is the article reviewed or peer reviewed? If yes, by whom?		
Is there any advertising on the site?		
Language –is it English only or multilingual with options to select a language other than English?		
Are there further resources or links?		
How did we find the site? (e.g. Google)		
Comments: • Well designed and organised • Easy to read and navigate • Help screens are available • Search feature/site map is available		

Search capabilities: • Is the site searchable? • How do you search (e.g. using key words)?		
Interactive –(i.e., can you enter data or information and work with this and create your own documents)?		
Audience –to whom is the site directed?		
Does the website/organisation collect data on who is using their site?		
Do they use social media? If so, which ones?		

Brief outline of the organisation:

Appendix 9: Methods used to identify reports on evidence needs or priorities for research

We used a variety of methods to identify examples of where organisations, agencies or groups of stakeholders had identified evidence needs or priorities for future research into the effects of humanitarian assistance. These included drawing on the findings from the online survey, the semi-structured interviews and searches of the published and grey literature. We sought documents listing evidence needs and priorities for research into the effects of policies and interventions relevant to humanitarian assistance in sudden-onset disasters and protracted emergencies. These could be multi-sectorial, multi-agency or focused on a single agency, NGO or other actor.

We did not include documents that presented strategic approaches to improving the quality of research without proposing specific evidence needs or research priorities, such as the UK government's response to the Humanitarian Emergency Response Review, which stressed the importance of the implementation and dissemination of high-quality research, without providing specific research priorities.[95] Furthermore, if the evidence needs related to better understanding of particular outcomes, rather than the effects of interventions, these were excluded. Examples of such projects include a 2008 meeting and report by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) on sexual violence in conflict situations,[96] and a study of the capacity of health systems to cope with the surge in demand that arises after a disaster.[97] We did not include work which related to research priorities for emergencies arising from terrorist action, such as the release of radiological isotopes.[98] The recent work of Murray and Kessel to discuss different approaches to research prioritisation was also not eligible for inclusion, but provided useful insight into the issue.[99]

In addition to the question in the online survey seeking information on work to identify priorities for evidence needs and impact evaluations and discussion in the semi-structured interviews, we sought relevant examples through the examination of websites of key organisations, and our literature searches for existing impact evaluations and for documents in which evidence needs or research priorities were described. The need for efficiency in light of the time and resource constraints of this study limited the extent of the searches and, in designing them, we were faced with the challenges arising from the lack of clarity and consistency in the description of evidence needs and impact evaluations, and the lack of specific index terms or keywords. It was not possible, therefore, to develop a highly sensitive and specific search for relevant examples in the published literature. The search strategies used for all parts of this study are shown in Appendix 5. We also undertook website-specific searches, checking the websites of key agencies (including Action Contre la Faim (ACF), ALNAP, AusAID, DFID, IFRC, J-PAL,

[95]DFID 2011.
[96]OCHA 2008.
[97] Watson *et al.* 2013.
[98]Pellmar *et al.* 2005.
[99]Murray and Kessel 2014.

Médecins Sans Frontières (MSF), OCHA, Oxfam, UNICEF and WFP) for documents in which they presented priorities for evidence or for research that would help them to set policy relating to humanitarian assistance, or would inform policy and practice in the humanitarian sector more generally.

The information we wished to extract from each report is shown below:

- citation;
- lead organisation (where applicable);
- participants in any process to identify the needs or priorities;
- when the process took place;
- types of setting included (sudden-onset disasters / protracted humanitarian emergencies / major incident management);
- types of intervention or action included;
- method used to identify the evidence needs or priorities for research (e.g. survey, consensus, meeting, systematic review); and
- main conclusions.

Appendix 10: Summary of each report of research priorities(presented in chronological order, starting with the most recent report)

1. Blanchet, K, Sistenich, V, Ramesh, A, Frison, S, Warren, E, Hossain, M, Knight, A, Lewis, C, Smith, J, Woodward, A, Dahab, M, Pantuliano, S and Roberts, B, 2013.*An evidence review of research on health interventions in humanitarian crises*. ELHRA

Settings: sudden-onset disasters; protracted humanitarian emergencies

This substantial review of research on health interventions was commissioned by DFID and the Wellcome Trust in 2013 and provides information on communicable disease control, WASH, nutrition, sexual and reproductive health (including gender-based violence), mental health and psychosocial support, non-communicable diseases, injury and rehabilitation, health service delivery, health systems, access to healthcare, accountability to end-users, health assessment methods, coordination, security of healthcare workers, and urbanisation. The overall aim of the project was to provide a rigorous assessment of the current quality and depth of the evidence base that informs humanitarian public health programming globally, with a specific objective to identify, through consultation with practitioners and policymakers, priority areas where further investment in the research and evidence base is most needed. The project used two main research methods: a systematic literature review on evidence on interventions of the health topics and contextual factors, and qualitative expert interviews with practitioners, policymakers and academics. Each of the sections of the report includes information on the research studies that were identified, along with recommendations for future research which include specific suggestions for interventions, actions or strategies that should be evaluated. The number of research needs listed for each area are: communicable disease control (6), WASH (5), nutrition (12), sexual and reproductive health (10), mental health and psychosocial support (14), non-communicable diseases (5), injury and rehabilitation (6), health service delivery (5), health systems (6), access to healthcare (9), accountability to end-users (8), health assessment methods (7), coordination (9), security of healthcare workers (9) and urbanisation (4).

2. Boyd, A, Chambers, N, French, S, Shaw, D, King, R and Whitehead, A, 2014. Emergency planning and management in health care: priority research topics. *Health Systems*, 3(2), pp.83–92 [ePublication: 22 November 2013].

Settings: sudden-onset disasters

The main aim of this paper was to suggest a prioritised agenda for organisational and management research on emergency planning and management relevant to healthcare in the UK, using a scoping study that was commissioned by the National Institute for Health Research, and including comparisons with the USA. The authors write 'in general, emergency planning aims to increase the resistance and resilience of health-care supply and demand systems by implementing measures to prevent incidents, and preparing systems to respond to and recover from the incidents that do occur' and their focus is on how an emergency planning system can have structures, processes, resources and governance that enable it to develop suitable plans, and to implement those plans effectively, and to update and revise them as necessary. They conducted a scoping study

to identify future research priorities across a wide, complex area of policy and practice, spanning different hazards, organisations and sectors; with information gathering during 2010–2011. The study used a variety of methods: a structured literature review; a survey of researchers; semi-structured interviews with 13 people from a range of UK stakeholder groups (including the ambulance and fire services, the Department of Health, a local council, voluntary and community organisations, and the Health Protection Agency); an exploration of debriefs of 20 small-scale incidents and of 2 larger case studies (the H1N1 outbreak in 2009–2010 and the Cumbria floods (2005 and 2009); and a prioritisation workshop and survey. The workshop (16 participants) and survey (a further 16 participants) rated 18 potential research topics and associated research questions, leading to 4 priority themes: public affected by health emergencies; inter- and intra-organisational collaboration; preparing responders and their organisations; and prioritisation and decision making.

3. Evidence Aid Priority Setting Group, 2013. Prioritization of themes and research questions for health outcomes in natural disasters, humanitarian crises or other major healthcare emergencies. *PLoS Currents: Disasters*, October 16: Edition 1.

Settings: sudden-onset disasters; protracted humanitarian emergencies

The objective of the Evidence Aid Priority Setting exercise was to identify approximately 30 high-priority research questions under 10 themes that could be addressed by systematic reviews in the area of planning for or response to natural disasters, humanitarian crises or other major healthcare emergencies. There was a particular focus on topics of particular relevance to low- and middle-income countries where the health impact of disasters may be greater than in high-income settings. The process started with an online survey asking humanitarian aid workers and others to provide up to 3 research questions or areas of uncertainty for which they need research evidence (101 participants). These suggestions were supplemented at 2 Evidence Aid conferences in 2011 and 2012 and from published literature, before being arranged into 43 themes. A second online survey was then used to prioritise these themes (233 participants) and the top 10 themes, along with the associated questions, were prioritised using a nominal group technique at a 2-day face-to-face workshop with 28 participants from a range of agencies and NGOs, to arrive at the top 30 priorities for systematic reviews. A full list of named participants is provided in the report. The top 10 themes, in order of priority, are water, sanitation and hygiene, disaster preparedness, disaster response, nutrition and food security, maternal and child health, coordination of humanitarian relief, quality of data/assessment tools/evaluation/impact, shelter, disaster recovery and mental health.

4. Action Contre la Faim –International (ACF), 2013. Research Strategy/Scientific and Technical Department.*2012–2015 ACF Research Strategy*. Paris.

Settings: sudden-onset disasters; protracted humanitarian emergencies

This document presents the ACF research strategy for 2012–2015, which was compiled in 2011. It shows the main ACF axes for research and provides a list of activities needed to achieve or contribute to ACF's overall strategy for 2010–15. These axes relate to nutrition and include specific strategic objectives and research questions, many of which would be amenable to impact evaluations. The over-arching axes are: (1) produce scientifically based operational tools and methods to improve ACF's impact on

undernutrition; (2) identification of efficient, innovative and sustainable multi-sectoral approaches and tools to respond to disasters and build longer-term resilience to disasters; (3) produce scientific analysis on the global context in order to anticipate the main coming trends and challenges; and (4) contribute to stimulate ACF's pre-eminence as an advocate and reference source on hunger and undernutrition.

5. Gosney, JE, Reinhardt, JD, von Groote, PM, Rathore, FA and Melvin, JL, 2013. Medical rehabilitation of spinal cord injury following earthquakes in rehabilitation resource-scarce settings: implications for disaster research. *Spinal Cord*, 51(8), pp.603–609.

Setting: sudden-onset disasters

This project focused on the identification of research priorities for medical rehabilitation of people who had suffered a spinal cord injury (SCI) in an earthquake. It was underpinned by a narrative literature review to identify epidemiological studies relating to the Kashmir earthquake in Pakistan (2005), the Sichuan earthquake in China (2008) and the Haiti earthquake (2010), with a follow-up review on spinal cord injury rehabilitation services provided by local and foreign providers in response to these earthquakes. This work revealed that post-disaster services were expanded by adapting local resources with international assistance to manage the significant numbers of SCI survivors but that research was limited. The authors conclude that a global disaster research agenda for spinal cord injury in earthquake settings where rehabilitation resources are scarce is needed to strengthen the evidence base for clinical management and therefore outcomes for people injured in this way. Among their suggestions for this research agenda that would be amenable to impact evaluations are response, rescue, extrication and transfer mechanisms for thoracic and thoracolumbar (rather than cervical) spinal cord injury, and treatments for clinical complications and mental health sequelae. They note that the next step will be an expansion of the review into a systematic review to identify additional research gaps and that 'effective disaster setting data management and research collaborations of foreign and local SCI disability and rehabilitation stakeholders will be required for agenda implementation'.

6. Haver, K, Harmer, A, Taylor, G and Latimore, TK, 2013. *Evaluation of European Commission integrated approach of food security and nutrition in humanitarian context.*

Settings: sudden-onset disasters; protracted humanitarian emergencies

This evaluation was commissioned to assess the operational capacity of the European Commission's Directorate-General for Humanitarian Aid and Civil Protection (DG-ECHO) to fund integrated food security and nutrition operations, with the aim of exploring whether DG ECHO-funded food assistance supports or hinders attention being paid to causes of acute undernutrition. It included a document review, interviews at DG-ECHO and at regional and country levels, analysis of food assistance projects and case studies in Bangladesh, Niger and South Sudan. It drew the conclusion that 'generally there is a need for more operational research on making food assistance better suited to nutrition needs' and highlighted three 'important evidence gaps' in infant and young child feeding interventions, the use of specialised foods, and blanket feeding.

7. Australian Aid, 2012. *AusAID Research Strategy 2012–16*. Canberra.

Settings: sudden-onset disasters; protracted humanitarian emergencies

This report starts from the premise that the purpose of the AusAID research programme is 'to improve the quality and effectiveness of Australian aid in developing countries'. The report notes: 'AusAID's research investments will be driven by the research requirements of our country and regional programs working with partner governments in line with the Comprehensive Aid Policy Framework. Research funding decisions will also be based on an assessment of poverty, national interest, capacity to make a difference and current scale and effectiveness', with a particular emphasis on medical, agricultural and education. It also notes that 'the Asia-Pacific region will remain the primary geographic focus of our research support, with some expansion into Africa and South Asia'. The research priorities were developed 'through extensive consultation with AusAID program and thematic areas' and will be revisited in 2014 or 2015 to ensure their continued relevance. The report presents the priorities under five themes: saving lives, promoting opportunities for all, sustainable economic development, effective governance, and humanitarian and disaster response, with specific items for each of these. The report also sets out how AusAID will fund, implement and use studies within its research programme.

8. Foran, MP, Greenough, PG, Thow, A, Gilman, D, Schutz, A, Chandran, R and Baiocchi, A, 2012. Identification of current priorities for research in humanitarian action: Proceedings of the first annual UN OCHA policy and research conference. *Prehospital and Disaster Medicine*, 27(3), pp.260–266.

Settings: sudden-onset disasters; protracted humanitarian emergencies

In December 2011, the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) hosted a conference on 'Risk, Adaptation and Innovation in Humanitarian Action' to identify priority policy research areas for the humanitarian community, and to strengthen partnerships with and among policy and research organisations. There were more than 50 participants from a global network of research institutes, universities, international NGOs and United Nations agencies. This report summarises the presentations in each of four sessions ('Humanitarian action in a changing world', 'Adaptation and innovation in humanitarian action', 'Humanitarian action in protracted and violent conflict' and 'Effective humanitarian action'), and the conclusions that were drawn. It identifies four top priorities for humanitarian research : (1) evidence-driven humanitarian decision making (which would include research to understand how information can be used to ensure strategic decision making, particularly with respect to driving preventative action); (2) accountability and transparency (including research on better integration with development actors); (3) risk and agility (so that the humanitarian system can be more effective at managing risk); and (4) partnership, which was highlighted as being the most discussed issue but where the focus of the report is on the need for OCHA to build deeper and more strategic relationships with new actors in the humanitarian space, rather than the conduct of research into effective strategies to foster good partnerships.

9. Institute of Medicine and New York Academy of Medicine, 2012. *Identifying disaster medical and public health research priorities: Data needs arising in response to Hurricane Sandy: Meeting summary*.

Setting: sudden-onset disasters

This report comes from a one-day meeting in November 2012, which was hosted by the Institute of Medicine and the New York Academy of Medicine, following Hurricane Sandy. The objectives included the need to identify gaps in knowledge affecting disaster preparedness and response, and to develop a set of priorities for near-term research based on Hurricane Sandy and other recent disasters that may inform future disaster preparedness, response, and recovery plans. Participants included representatives of local and federal government agencies, healthcare providers, academia, first responders, community organisations, philanthropic organisations, and experts in disaster preparedness and response. A full list of participants is available in the report. The discussions during the meeting led to the prioritisation of more than a dozen specific research questions, which were grouped according to: healthcare institutions; community; health and response workforce; communications and the sharing of data to facilitate collaborations before, during and after emergencies.

10. Mackway-Jones, K and Carley, S, 2012. An international expert Delphi study to determine research needs in major incident management. *Prehospital and Disaster Medicine*, 27(4), pp.351–358.

Settings: sudden-onset disasters

This prioritisation exercise used a 3-round Delphi study with a panel of 26 people who had demonstrated their expertise through evidence of active research involvement in a literature analysis and evidence of current engagement with major incident education and training. Not all of the 26 participants contributed at each phase of the Delphi study. The first round asked participants to consider major incident research requirements broadly in 11 areas, and to identify areas where the research base was adequate, and additional areas in which research was required outside these 11 areas. Their replies were thematically reviewed and collated into a series of 221 statements, which were then rated in round 2. The 51 statements with a clear positive or negative consensus were removed after this round and the final round re-presented statements that had not reached consensus, leading to consensus being reached for a further 23 statements. In summary, the study identified 74 topics for research in the field of health service management of major incidents, which can be grouped into themes; and the statements and the themes are provided in the report. However, no prioritisation is provided, beyond this high-level identification of the 74 topics. The largest theme (10 topics) is education and training, followed by planning (9) and communications (8). Other themes include recovery, acute response, and prehospital care. The authors highlight that the panel did not identify any single topic that they agreed was well researched and understood.

11. Morof, D, Sami, S, Austin, J, Blanton, C and Tomczyk, B, 2012. Setting operational research priorities for reproductive health in crisis settings: Using the child health and nutrition research initiative methodology. *International Journal of Gynecology and Obstetrics*, 119(Suppl.3), p.s429.

Settings: sudden-onset disasters; protracted humanitarian emergencies

This conference abstract reports a study that used the Child Health and Nutrition Research Initiative (CHNRI) methodology to prioritise operational research gaps in reproductive health in crisis settings for the Inter-agency Working Group in Humanitarian Settings (IAWG). Researchers, public health and clinical practitioners working in the area compiled a list of 28 research gaps collected from prior IAWG meetings, working groups and consultations. These research gaps were reviewed by 68 researchers, public health and clinical practitioners selected from IAWG member agencies (academic, non-governmental and government), who submitted 66 additional gaps. The 94 research gaps were categorised into adolescent health, comprehensive abortion care (CAC), family planning, minimal initial service package (MISP) for reproductive health in crises, maternal and newborn health (MNH), gender-based violence (GBV), HIV/STI (sexually transmitted infections), and crosscutting issues. Sixteen members of the panel then rated the research gaps using preselected, defined criteria (need, feasibility, operationalisability, usefulness and relevance), in order to prioritise them. The highest priority gaps were in the following categories: MNH (7), family planning (7), cross-cutting (5), CAC (3), MISP (3), adolescent health (2) and GBV (n = 1). The authors conclude that, although MNH and family planning contained half of the top priority gaps, 'there remains a need to refine these issues into specific operational research questions to better identify, measure, and improve reproductive health outcomes in crisis settings'.

12. Roy, N, Thakkar, P and Shah, H, 2011. Developing-world disaster research: present evidence and future priorities. *Disaster Medicine and Public Health Preparedness*, 5(2), pp.112–116.

Settings: sudden-onset disasters; protracted humanitarian emergencies

This project used a systematic search of the medical literature database PubMed to identify articles related to evidence on disasters in the developing world, which were then graded in accordance with the Centre for Evidence-Based Medicine levels of evidence. The authors extrapolated from the identified literature to suggest research gaps in this area. They report that the most common topics (28.2%) in the literature they identified were missions, healthcare provision and humanitarian aid during developing-world disasters, with commentaries about policies, vulnerable populations, and food, water, and nutrition being the next most commonly found in citations. They conclude that there are definite gaps in the themes covered by the literature, noting that tools, mental health, specific diseases, conflicts, ethics and epidemiology were addressed in a small proportion of articles; and they highlight that 'mental health, in particular, lends itself to systematic research, using premeasures and comparison groups between exposed and the unexposed people'. They write that 'future priority areas in research include long-term economic outcomes, health system recovery, occupational rehabilitation of victims, community-based disaster preparedness, resilience of communities in low-resource settings, public health interventions, monitoring and evaluation of interventions, and research tools validated for the developing world', and conclude that 'aid for sustaining long-term disaster research may be a more useful investment in mitigating future disasters than short-term humanitarian aid missions to the developing world'.

13. Tol, WA, Patel, V, Tomlinson, M, Baingana, F, Galappatti, A, Panter-Brick, C, Silove, D, Sondorp, E, Wessells, M and van Ommeren, M, 2011. Research priorities for mental health and psychosocial support in humanitarian settings. *PLoS Medicine*, 8(9), e1001096.

Settings: sudden-onset disasters; protracted humanitarian emergencies

This report describes the Mental Health and Psychosocial Support in Humanitarian Settings –Research Priority Setting (MH-SET) project which took place in 2009–2010. The project aimed to establish a consensus-based research agenda to support the prevention and treatment of mental disorders and the protection and promotion of psychosocial well-being in humanitarian settings. The authors describe it as the first systematic effort to set research priorities in this field, to their knowledge. A total of 136 advisory group members, and 114 participants in 9 focus group discussions in Peru, Uganda and Nepal, generated a set of 733 research questions. These were consolidated into a list of 74 research questions through qualitative data analysis and grouped into 4 categories, 2 of which would be most amenable to impact evaluations: mental health and psychosocial support interventions, and research and information management. An online survey rated the questions, leading to a top 10, of which 3 related to the effects of interventions relevant to mental health and psychosocial support and 2 related to issues that could be addressed in impact evaluations in research and information management. In a companion paper, the authors present their findings on the attitudes of the stakeholders towards relevance of the research questions and conclude that 'research needs to be more sensitive to questions and concerns arising from humanitarian interventions, and practitioners need to take research findings into account in designing interventions'.[100]

14. Parkinson, J, 2009. *A Review of the Evidence Base for WASH interventions in Emergency Responses*.

Settings: sudden-onset disasters; protracted humanitarian emergencies

This report was submitted to the UNICEF WASH Steering Group in January 2009 and includes a brief review of existing evidence for WASH interventions and the identification of gaps in the existing evidence base, with proposals for research that would fill them, through consultation with key stakeholders from UN agencies, NGOs and academia. A list of the people consulted is provided in the report. The report identifies several specific topics for future research, which would be amenable to impact evaluations, and these are presented in sections, which reflect the structure used to present existing evidence, and are dedicated to: general issues; water supply; sanitation; hygiene promotion; social mobilisation; and cost-effectiveness.

15. Altevogt, BM, Pope, AM, Hill, MN and Shine, KI, 2008. *Research Priorities in Emergency Preparedness and Response for Public Health Systems: A Letter Report.* Washington.

[100]Tol *et al.* 2012.

Settings: sudden-onset disasters; protracted humanitarian emergencies

This report arose from a request from the Centers for Disease Control and Prevention's (CDC's) Coordinating Office for Terrorism Preparedness and Emergency Response (COTPER) to the Institute of Medicine to convene an ad hoc committee to delineate a set of near-term research priorities for emergency preparedness and response in public health systems that are relevant to the specific expertise resident at schools of public health. An expert committee was formed and met during December 2007, in conjunction with a two-day public meeting and workshop. The committee made four recommendations for research priorities: (1) enhance the usefulness of training, through research to create best practices for the design and implementation of training (e.g. simulations, drills and exercises) and facilitate the translation of their results into improvements in public health preparedness; (2) improve communications in preparedness and response, through research to identify and develop communications in relation to preparedness and response that effectively exchange vital and accurate information in a timely manner with diverse audiences; (3) create and maintain sustainable preparedness and response systems, through research to identify the factors that affect a community's ability to successfully respond to a crisis with public health consequences, and the systems and infrastructure needed to foster constructive responses in a sustainable manner; and (4) generate criteria and metrics to measure effectiveness and efficiency, through research to generate criteria for evaluating public health emergency preparedness, response and recovery, and metrics for measuring their efficiency and effectiveness.

16. Rothman, RE, Hsu, EB, Kahn, CA and Kelen, GD, 2006. Research priorities for surge capacity. *Academic Emergency Medicine*, 13(11), pp.1160–1168.

Setting: sudden-onset disasters

This report arose from a breakout session at the 2006 Academic Emergency Medicine Consensus Conference on the science of the surge, and includes the statement that 'research pertaining to surge capacity during extraordinary circumstances remains in its early stages'. There were 36 experts in disaster medicine and related fields involved in a broad discussion, and they used a structured nominal-group process to delineate 5 areas of research which they regarded as most critical from 14 potential areas of discovery identified by the group. These were: (1) defining criteria and methods for decision making regarding allocation of scarce resources; (2) determining effective triage protocols; (3) determining key decision makers for surge-capacity planning and means to evaluate response efficacy (e.g. incident command); (4) developing effective communication and information-sharing strategies (situational awareness) for public-health decision support; and (5) developing methods and evaluations for meeting workforce needs.

17. Treadgold, G, 2006. *Disaster impact assessment research report.* Christchurch.

Setting: sudden-onset disasters

The aim of this report for the Ministry of Civil Defence and Emergency Management (MCDEM) Disaster Impact Assessment Project Team in New Zealand is to investigate and

document current best practice in New Zealand and internationally on disaster impact assessment methodologies and processes. It used a combination of four methods: review of information held by the MCDEM; semi-formal interviews with stakeholders to identify key issues and relevant documents for research at the beginning of the project; literature review of New Zealand and international documents; and sampling of three CDEM Group plans to identify the coverage given to disaster impact assessment processes. The report recommends the development of a disaster impact assessment framework for New Zealand, and highlights some areas in particular need of research, noting 'a recurring theme when researching impact assessment was the strong focus that assessment had on response and recovery, and little to no guidance on reduction and readiness'.

18. Shaikh, IA and Musani, A, 2006. Emergency preparedness and humanitarian action: the research deficit. *Eastern Mediterranean Health Journal/La Revue de Santéde la Méditerranée orientale*, 12(Suppl.2), pp.s54–s63.

Setting: sudden-onset disasters

These authors from the Regional Office for the Eastern Mediterranean at the World Health Organization discuss what they call the 'research deficit' in relation to the evidence needed to respond to a disaster in the Eastern Mediterranean region. They make recommendations about the need for research in general, including the need for changes in education and training, which would include, for example, 'the incorporation of effective, action-oriented and user-driven approaches to research, learning and knowledge management methods into professional practices and encouraging interdisciplinary collaboration with the delivery of health care services'. They list several priority research areas for the Eastern Mediterranean region including some specific to health, the identification of barriers to the application of research results and best practices, communication and information sharing, and identification of 'the essential elements of humanitarian response and performance indicators'.

19. United Nations International Strategy for Disaster Reduction (UNISDR), 2005. *Hyogo Framework for Action 2005–2015: Building the Resilience of Nations and Communities to Disasters*.

Setting: sudden-onset disasters

The Hyogo Framework was adopted at the World Conference on Disaster Reduction in January 2005 in Kobe, Hyogo, Japan, following extensive consultation and meetings. One of the objectives was 'to increase the reliability and availability of appropriate disaster-related information to the public and disaster management agencies in all regions'. The Conference adopted five priorities for action, including 'use knowledge, innovation and education to build a culture of safety and resilience at all levels'. Within this, two key activities related to research were identified: (1) develop improved methods for predictive multi-risk assessments and socioeconomic cost–benefit analysis of risk reduction actions at all levels; incorporate these methods into decision-making processes at regional, national and local levels; and (2) strengthen the technical and scientific capacity to develop and apply methodologies, studies and models to assess

vulnerabilities to and the impact of geological, weather, water and climate-related hazards, including the improvement of regional monitoring capacities and assessments.

20. World Health Organization (WHO), 1997. Division of Humanitarian and Emergency Action. *Consultation on applied health research priorities in complex emergencies.* Geneva.

Settings: sudden-onset disasters; protracted humanitarian emergencies

This report followed a conference organised by WHO in October 1997, which focused on how to improve the health response to complex humanitarian emergencies, which were described as 'situations affecting large civilian populations which usually involve a combination of factors including war or civil strife, food shortages and population displacement, resulting in significant excess mortality'. There were 99 participants, representing WHO technical divisions, donor country missions, UN agencies, ICRC (International Committee of the Red Cross), IFRC, IOM (International Organization for Migration), NGOs and academic institutions; with a full list of named participants provided in the report. The methods used over the two-day conference included presentations and small group work, concluding with general discussion of the priorities. Among the objectives of the consultation was the need to 'develop research questions that are acceptable and valid to people whose dignity may have been compromised', with a focus on the early phase of the emergency, including, for the purposes of this document, applied health research to develop and deliver effective interventions. In total, the conference identified 18 priority topics for applied health research in complex emergencies, mostly related to the effects of interventions, and these were grouped under 6 themes: nutrition, reproductive health and women's health (including gender-based violence), communicable diseases (covering water supply, cholera, malaria and acute respiratory infections), mental health, health services management, and information management. The individual topics included specific suggestions for research that might now be considered impact evaluations. The report also includes the conclusions of the conference relating to the ethical aspects of research.

Appendix 11: Results from a card ranking exercise on priorities and actions

A workshop on 'Evaluating the Impact of Humanitarian Interventions: Scope, Methods and Experiences' was held in London, United Kingdom on 21 March 2014.

Participants were asked to place cards along a vertical and horizontal axis showing the following (items have been re-grouped under main headings to see patterns).

1. Things that are very important and very evident:

In disasters

- Standards for capacity building for disaster management.
- Disaster affected people should be involved in designing recovery interventions.
- Standards are required to improve relief and response.

Education

- The lack of access to early education fundamentally and irreversibly affects future earnings and social skills.

Cash

- The relative benefits of cash versus in-kind food aid under different conditions.

Water, sanitation and hygiene (WASH)

- There is a strong link between WASH programmes and health and nutrition outcomes.
- Access to clean water is fundamental.
- Links between WASH outcomes and health outcomes for children and women.
- The immediate restoration of availability of clean drinking water in the aftermath of a natural disaster is a very significant (if not the most significant) life-saving measure.

Gender-based violence

- Gender based violence interventions are a life-saving intervention.

Others

- True: humanitarian action can never compensate for a lack of political action.
- Use tranexamic acid to reduce problems of bleeding in trauma (CRASH-2).

2. Very important but not evident:

Protection

- What protects civilians in conflict zones?
- Protection
- Does 'protection by presence' really work?

Gender-based violence

- Impact of prevention of violence against women and girls programmes as a life-saving acute emergency programme.

Targeting
- How to target poor people in a way that works better than a lottery.

Evaluation
- Impact evaluation of response for management and disasters.
- Impact of livelihood programmes for women on raising household income.
- What forms of humanitarian assistance contribute to stability-related outcomes (e.g. violence)?
- How to deliver information on what works to people working in the field (which summary is most effective)?

Types of interventions
- Early childhood interventions.
- What humanitarian (or development) interventions contribute to social cohesion?
- Role of governance in resilience and sustainability.
- Hygiene promotion e.g. re: hand-washing practices as part of a community-backed approach reduce to reduce incidence of water borne diseases.

3. Moderately important, very evident

- Community involvement in decision-making for response and mitigation activities.
- Community-Based Management of Acute Malnutrition is the best way to tackle acute malnutrition.
- Cognitive behavioral therapy – post-traumatic stress disorder and Depression.
- We do not have enough evidence. We stifle learning and innovation with a fear of failure.
- No more 'bednets and malaria'.
- True: shelter, clean water, food distribution.
- Effects of ready-prepared supplementary foods in controlled contexts.

4. Moderately important but not evident:

Governance
- Which would be more cost effective in funding disaster response.
  (a) Donors funding disaster affected government directly.
  (b) Donors funding UN agencies.
  (c) Donors funding NGOs directly?
- Impact of different humanitarian leadership and coordination models.
- Impact of beneficiary accountability systems in improving early recovery.
- Whether third party monitoring works better than an agency monitoring itself (in terms of data quality, analysis quality and finding corruption).
- Impact of impact evaluation (including influencing factors and assumptions).
- Need to be tested: cooperation in humanitarian interventions.

Communication strategies
- Behavioural change programmes can drive down rates of stunting (chronic malnutrition).
- Incentives for learning.

Effectiveness
- Low funding for the Syrian crisis has forced NGOs and governments to work more effectively – a blessing in disguise, if lessons are learned from it.
- Supply chain cost efficiency.
- Impact of child friendly spaces on emotional wellbeing of children.

Cash versus in-kind

- Cash transfer programmes have long-term impacts on livelihoods.
- In many contexts it would be more effective to provide more people with less food or cash than the status quo.
- Tested: difference between cost-effectiveness of certain interventions, for example cash or food vouchers.
- Impact of cash versus non-food items.
- What works for prevention of malnutrition in fragile environments?
- What difference does the distribution of non-food items make to internally displaced persons?
- Sustaining impact versus cash/food interventions for better nutritional outcomes.
- What is the best way to support refugees going home? Packs of non-food items? Cash? Community support?

Disaster-risk reduction

- Models of District Disaster Response Plan and District Disaster Response Coordinators?
- What types of disaster-risk reduction programmes have demonstrable benefits?
- Linking relief and development in protracted refugee crises.

5. Not important but very evident:

- None

6. Not important and not evident:

Coordination

- Impact of humanitarian coordination on action.
- Impact of coordination.
- Ideas for impact evaluation: do the billions of dollars we invest in coordination make a difference for crisis affected people?
- Do current coordination approaches lead to more effective response?
- Inter-agency coordination in crises.

Others

- Understanding the epidemiology, effective package of services for newborn health in humanitarian settings.
- Feasibility and acceptability of long acting family planning services in humanitarian settings.
- Impact evaluations are expensive.
- Uses of (new) technologies in humanitarian action.

Most areas in the humanitarian sector suffer from a paucity of evidence. This scoping paper provides an independent analysis of the evidence base of evaluations in humanitarian assistance. It identifies key gaps and priorities in need of rigorous evidence to direct research to where it will be most valuable.

The study incorporated a wide array of methods to assess available evidence, including an online survey of participants, interviews with humanitarian sector experts, and extensive literature reviews of humanitarian studies and strategy documents of major humanitarian organisations. It also includes an evidence gap map that presents the results of a thorough search for completed, ongoing and planned impact evaluations of humanitarian interventions.

The scoping study presents conclusions about a general lack of a reliable and robust evidence base from studies assessing the causal relationship between a policy or intervention and outcomes or impact.

Scoping Paper Series

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