



# Shelter & Health Learning Day

14th May 2020

**Introduction:** background and objectives of the day, the Global Burden of Disease, connections between shelter and health, self-recovery, knowledge and evidence gaps.

*Sue Webb. CENDEP*

*Niall Roche. Environmental health consultant*

*Bill Flinn. CARE International*

*Jamie Richardson. Catholic Relief Services (CRS)*

*Fiona Kelling. Humanitarian shelter consultant*

*Enrique Sevillano Gutiérrez. CRAterre*

**Panel 1. Physical health issues related to shelter/housing**

Facilitator: Bill Flinn (CARE International)

*Lucy Tusting. London School of Hygiene and Tropical Medicine*

*Elizabeth Berryman. Save the Children South Sudan*

*Andy Bastable. Oxfam*

*Jenny Lamb. CRS*

**Panel 2. Measuring and mitigating health impacts in a variety of housing/shelter settings.**

Facilitator: Charles Parrack (CENDEP)

*Emily Nix. University College London and Liverpool University*

*Sarah Ruel Bergeron. ARCHIVE Global*

*Ronita Bardhan. University of Cambridge*

*Samuel Cai. University of Oxford*

**Panel 3. Mental health issues** related to shelter/housing in disasters and conflict.

Facilitator: Beth Simons (CARE International)

*Jamie Richardson and Melissa Tucker. CRS*

*Olivia Nielsen. Miyamoto International*

*Guglielmo Schininà. International Organization for Migration (IOM)*

*Jill Baumgartner. McGill University and Imperial College, London*

**Panel 4. Game-changing crises?** The implications of COVID-19 and the climate emergency for shelter, housing and health .

Facilitator: Cathrine Brun (CENDEP)

*Ilan Kelman. University College London*

*Cecilia Schmölzer. International Federation of Red Cross and Red Crescent Societies*

*Brett Moore. The United Nations Refugee Agency (UNHCR)*

*Niall Roche. Environmental health consultant*

**Breakout group discussions** involving all participants

***What have we learnt? What are the gaps? What are the next steps?***

# Professor Cathrine Brun

*Director of the Centre for  
Development and Emergency  
Practice (CENDEP),  
Oxford Brookes University.*



*Professor Cathrine Brun: Director of the Centre for Development and Emergency Practice (CENDEP), Oxford Brookes University.*

*“Welcome. It is a great honour for me to welcome you all today to this Shelter and Health Learning day. We are so grateful for the interest in attending this day, so a very warm welcome to all the participants and panellists.*

*The conference comes out of a collaboration between CENDEP, the Centre for Development and Emergency Practice and CARE UK International. With funding from the UK Research Councils, more specifically the Engineering and Physical Research Councils and its Global Challenges Research Funds, we are collaborating on a Translations Award titled ‘Self-recovery from Humanitarian Crisis’. The aim of the project is very much to translate research on self-recovery into practice and we work closely with Catholic Relief Services, CRAterre, Habitat for Humanity and other academic and practitioner organisations to make this happen. While we know that most people affected by a disaster recover without much assistance, we also know that assistance can become more efficient in facilitating people’s self recovery. One important discussion in this has been the ways in which we can move from a humanitarian logic – a short term logic - towards a development-logic – a more long term logic.*

*As part of this project, we have been working on health and shelter. Then in the midst of that work, the global pandemic struck and our current work and today’s discussion have become even more relevant. During today we are then coming together across different sectors and interests and asking how can we create healthy homes across different contexts?: and how can we learn from each other in this endeavour?:*

*What can we achieve in the short term and how can we start working for the long term? I am welcoming you all to engage actively during the day and sharing perspectives.*

*CENDEP is a meeting place for reflection and exchange of ideas, normally we would do it face-to-face. It is the first time we are organising such a big event online: I hope we will be able to accommodate you all in giving you a voice.”*

# Shelter and Health: multi-sectoral learning day

14<sup>th</sup> May 2020

Niall Roche

WaSH/Environmental Health Consultant

[roche.niall@gmail.com](mailto:roche.niall@gmail.com)



## Humanitarian Mandates

We all have a role to play in  
Protecting and Promoting  
Health no matter what  
sector/cluster we work in

- Save lives and alleviate suffering
- Protection and Security – Life with Dignity
- Prevent or alleviate human suffering
- Do No Harm

# MSF's Top 10 Public Health Priorities

## THE TEN TOP PRIORITIES

<b>1. Initial assessment</b> .....	<b>5</b>
<b>2. Measles vaccination</b> .....	<b>8</b>
<b>3. Water, hygiene and sanitation</b> .....	<b>9</b>
<b>4. Food and nutrition</b> .....	<b>18</b>
<b>5. Shelter, site planning and non-food items</b> .....	<b>25</b>
<b>6. Health care in the emergency phase</b> .....	<b>28</b>
<b>7. Control of communicable diseases and epidemics</b> .....	<b>29</b>
<b>8. Public health surveillance</b> .....	<b>32</b>
<b>9. Human resources and training</b> .....	<b>36</b>
<b>10. Coordination</b> .....	<b>38</b>

# Background Health Context

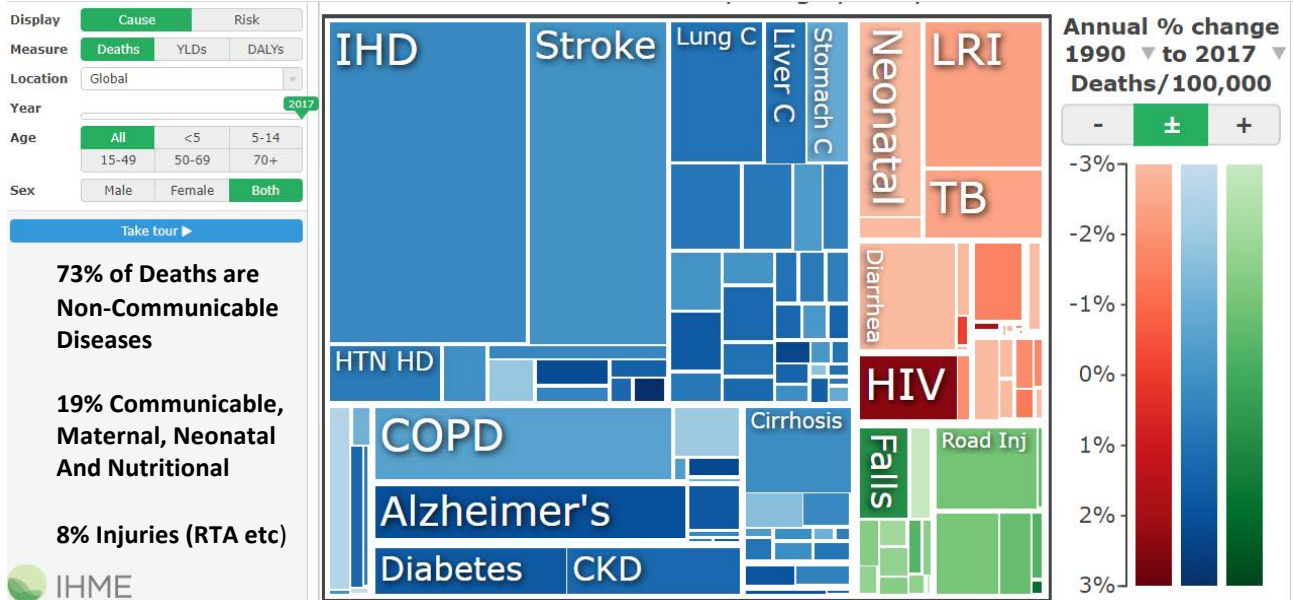
- Global

- Local

- Understanding the Burden of Disease (Causes of Mortality, Morbidity)
- Understanding that health is about “physical, mental and social well-being and not merely the absence of disease”(WHO definition of Health)

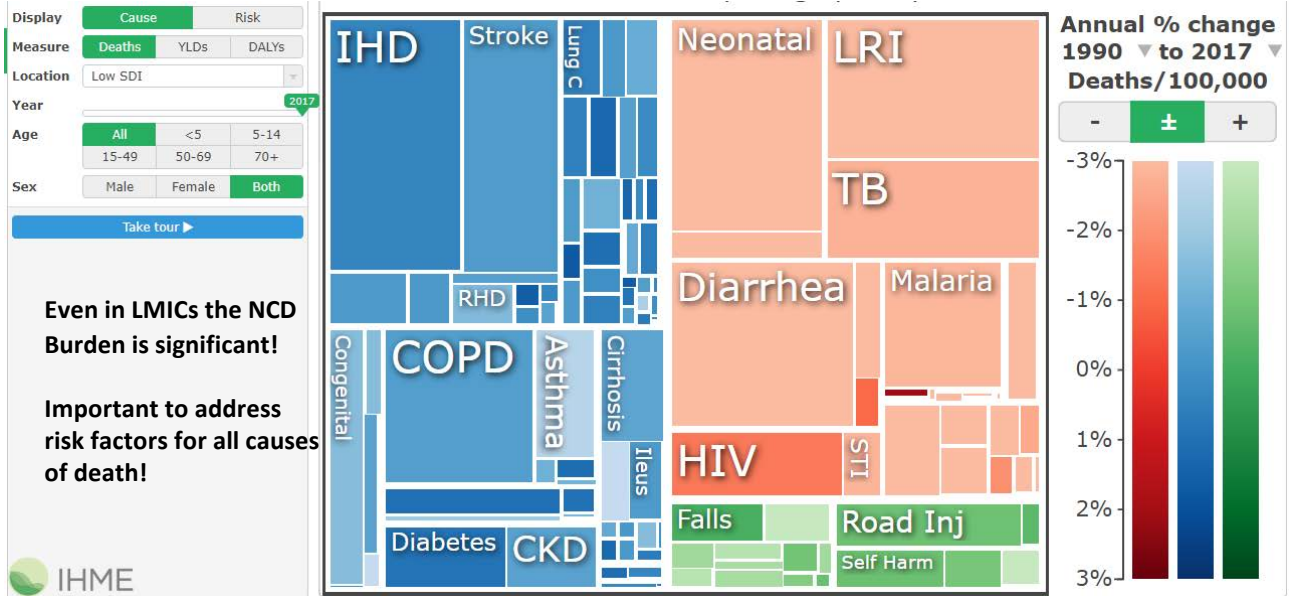


## Deaths from all causes in all age groups – Global – 2016 GBD



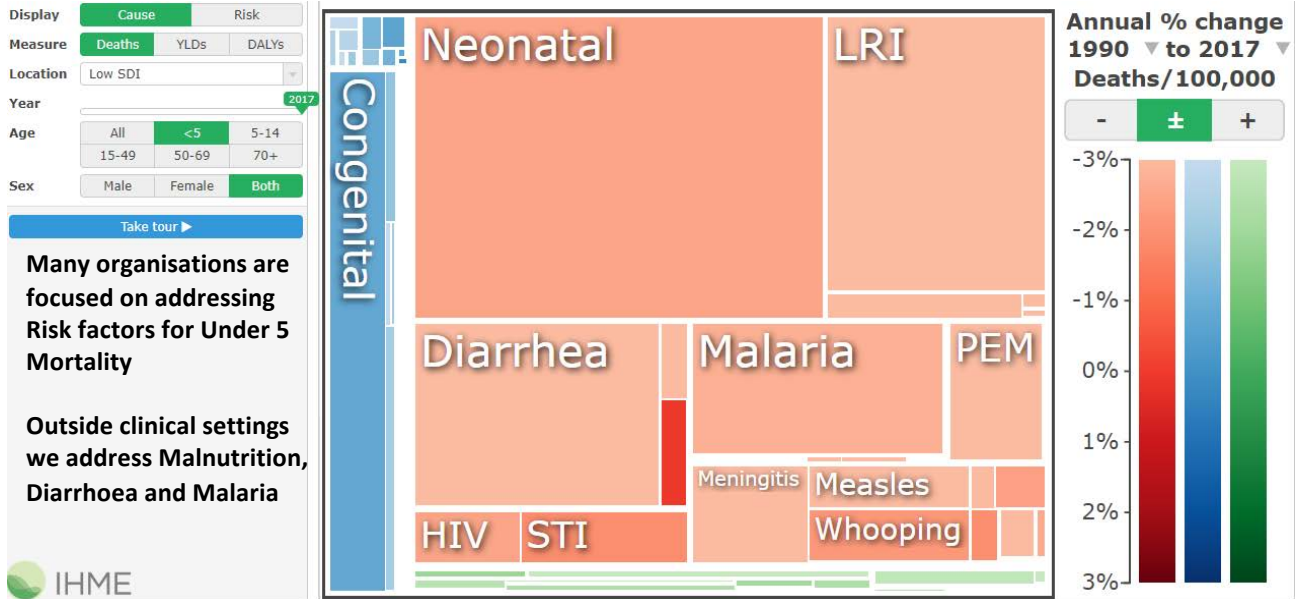
Source: <https://vizhub.healthdata.org/gbd-compare/> Accessed 12<sup>th</sup> May 2020

# Deaths from all causes in Low Social Development Index Countries for all ages – 2016 GBD



Source: <https://vizhub.healthdata.org/gbd-compare/> Accessed 12<sup>th</sup> May 2020

## Deaths in the under 5s in Low Social Development Index Countries - 2016 GBD



Source: <https://vizhub.healthdata.org/gbd-compare/> Accessed 12<sup>th</sup> May 2020

## Links between Health and Shelter/Settlement Planning – well articulated in Sue and Emma’s blog in April



Poor site selection and settlement planning makes public health more difficult. – IDP camps in Liberia not planned for latrines! An emphasis on communal handwashing facilities and not household facilities (only 4 in 10 HHs have soap and water on premises (JMP 2019) and handwashing after going to the toilet is not the only critical time to wash hands.



Overcrowded and poorly ventilated shelters/homes can be supportive of respiratory disease transmission – TB in the Somali region of Ethiopia. Covid 19 at present



Household air pollution from cooking indoors using dirty biomass fuels on inefficient stoves accounts for an estimated 4.3 million deaths globally. Women and children most affected. . 50% of child pneumonia deaths are linked to HAP



Protection risks exacerbated (not just in respect of GBV or PSEAH)– HAP is a protection risk (Dangers and Injuries). Stoves are a fire risk/trip hazard/burns or scalds. Khmer refugee camp in Thailand (over 1,200 bamboo and thatch homes burned )

# Links between Health and Shelter/Settlement Planning



Good housing or shelter can help protect from vector borne diseases – screens on windows and doors, insecticide impregnated shelter materials and even vector control kits as an NFI package



Good housing can protect people from Environmental Noise. Noise is linked to cardiovascular and cognitive health problems. In Western Europe alone one million healthy life years are lost from traffic noise



As I will mention later today housing and settlement planning is an important part of protecting people from the effects of climate change – not just windstorms and floods but heat stress events where the elderly are particularly vulnerable



Nyaragusu Refugee Camp, Tanzania, March 2018

# Sendai Framework 2015 – 2030

Four priorities for action to prevent new and reduce existing disaster risks

- Understanding disaster risk -
- Strengthening disaster risk governance to manage disaster risk
- Investing in disaster reduction for resilience and
- Enhancing disaster preparedness for effective response, and to "Build Back Better" in recovery, rehabilitation and reconstruction.



# Self-recovery from humanitarian crisis

## Shelter & Health



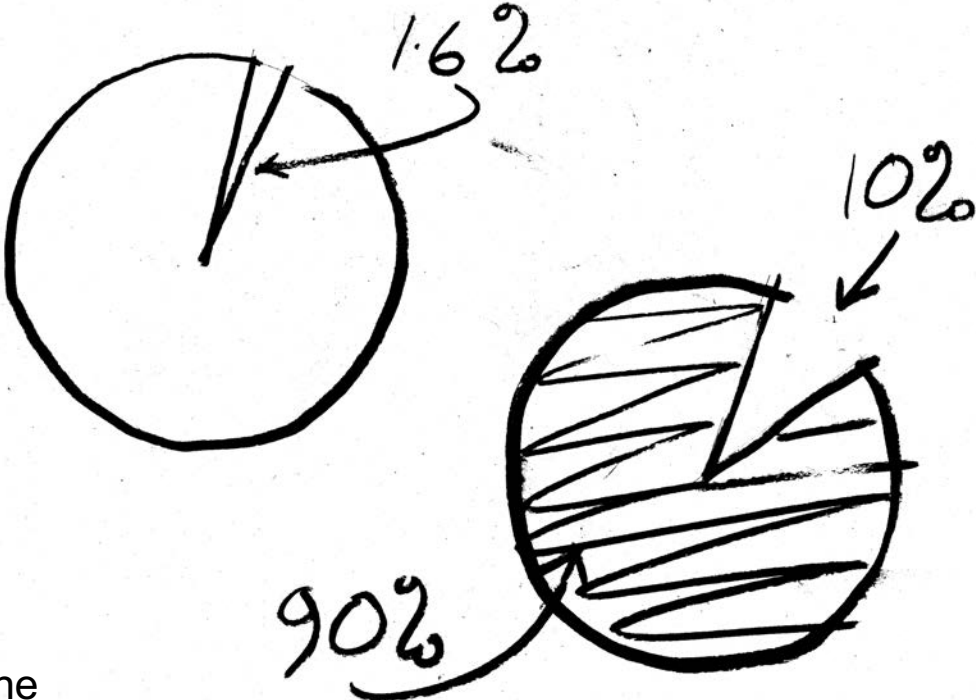


A close-up photograph of a person, likely a woman, working on a wooden structure. She is holding a hammer with a wooden handle and a black head, positioned to strike a wooden beam. The structure consists of several thick wooden beams, some of which are secured with metal brackets. The background is bright and overexposed, suggesting an outdoor setting. The overall tone is one of active reconstruction and self-recovery.

## Self-recovery from humanitarian crisis

**“People affected by disaster are not victims; they are the first responders ... and the most critical partners.”** Safer homes, Stronger communities, WB & GFDRR 2010

# Self-recovery from humanitarian crisis



What about the 90%?

# Self-recovery from humanitarian crisis

Padang earthquake,  
West Sumatra,  
Indonesia.  
2009.



# Self-recovery from humanitarian crisis

Padang earthquake,  
West Sumatra,  
Indonesia.  
2009.



# Self-recovery from humanitarian crisis



Typhoon Haiyan,  
Leyte,  
Philippines.  
2013

# Self-recovery from humanitarian crisis



Typhoon Haiyan,  
Leyte,  
Philippines.  
2013





# Self-recovery from Humanitarian Crisis

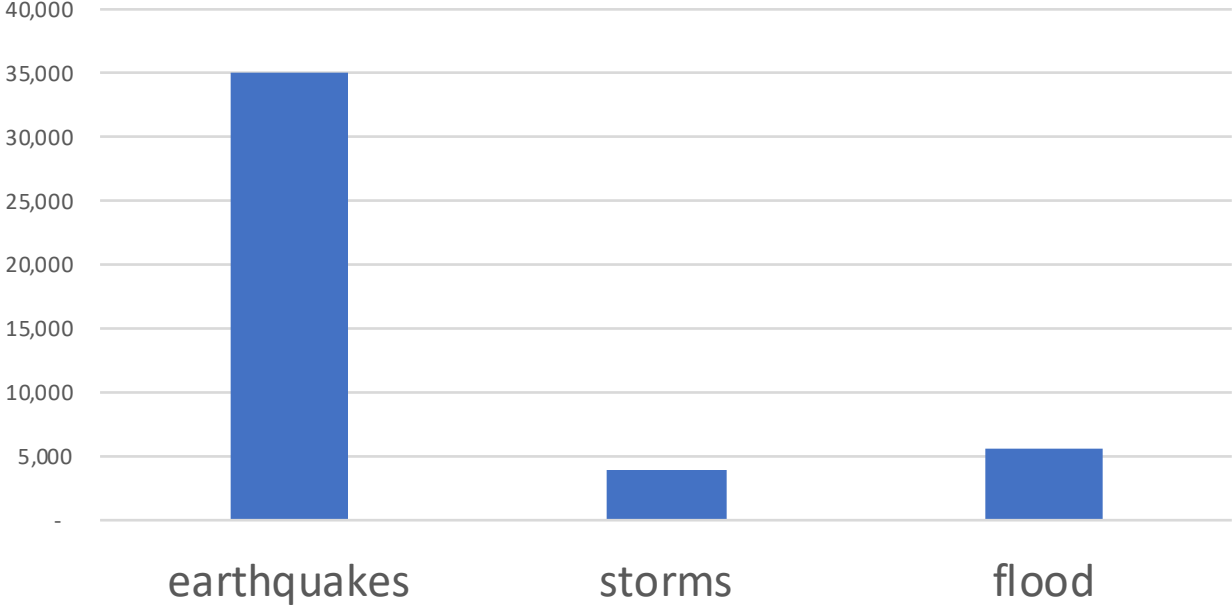
A research project on shelter self-recovery

<https://self-recovery.org/>

# Self-recovery from humanitarian crisis

Deaths each year from earthquakes, storms and floods

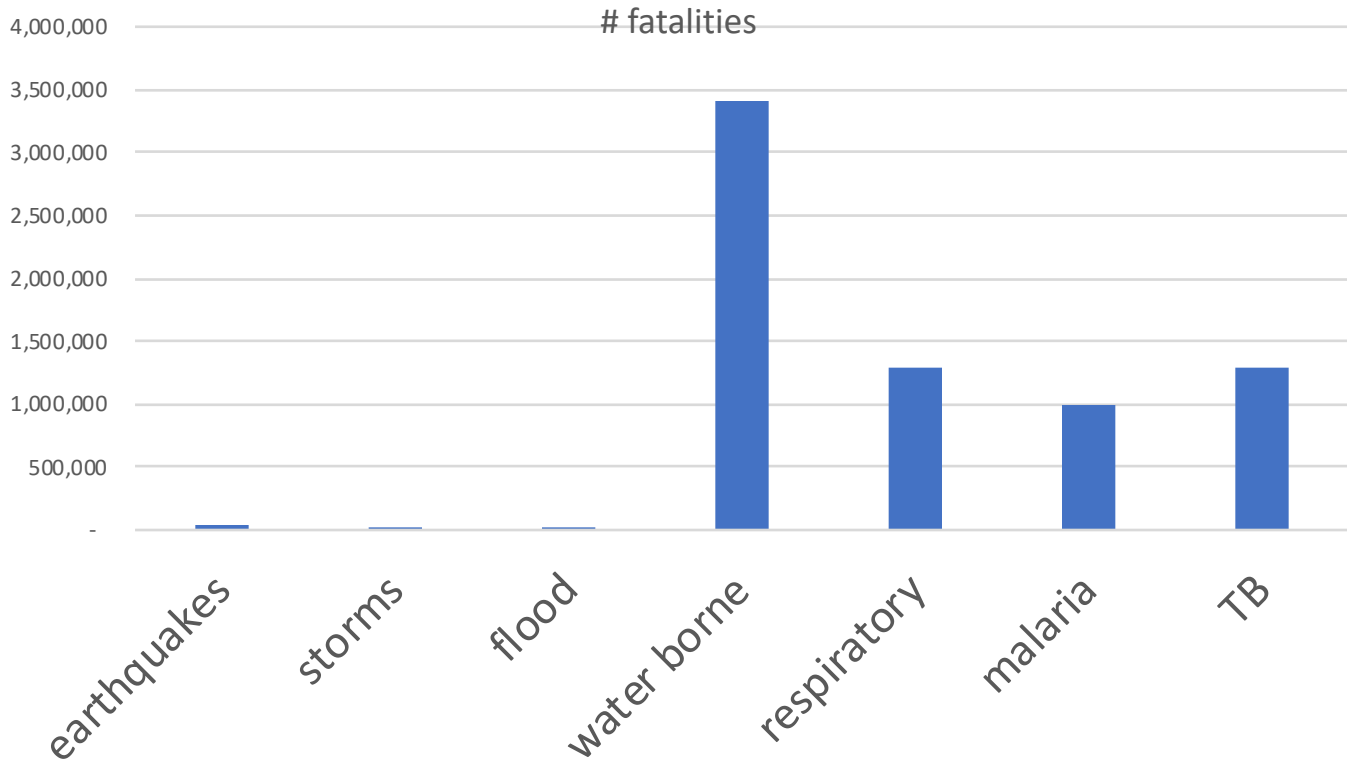
# fatalities pa





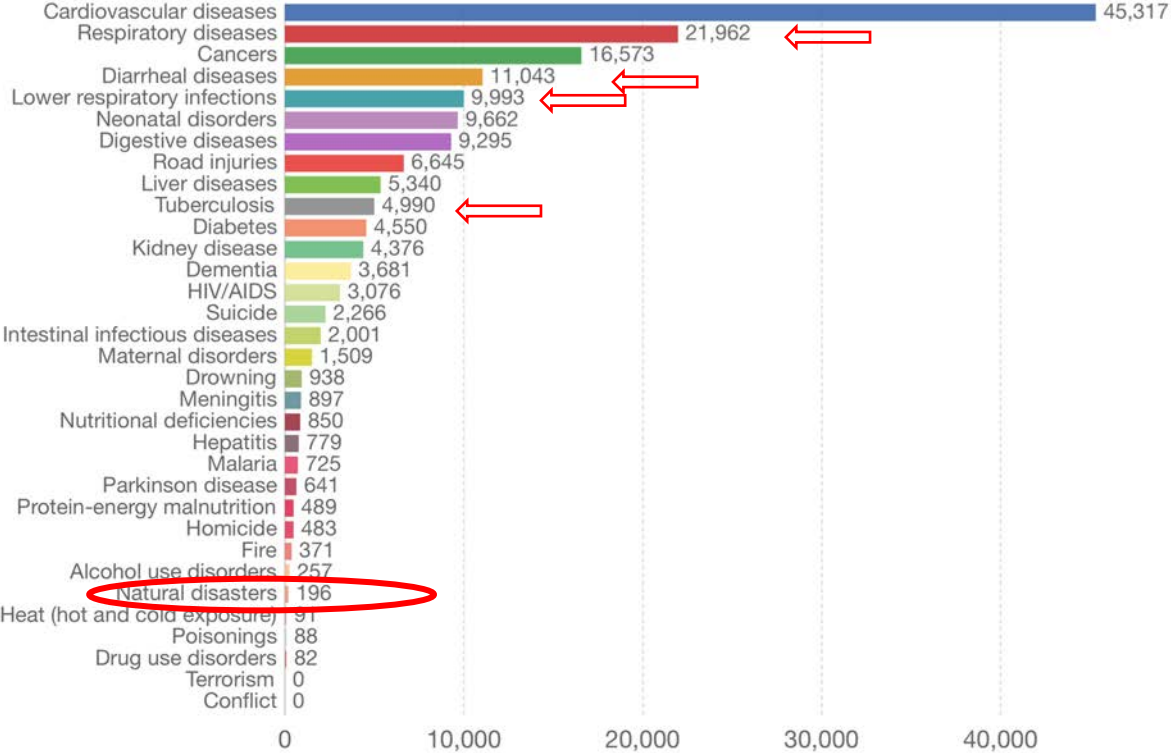
# Self-recovery from humanitarian crisis

Deaths each year from earthquakes, storms and floods, and water, smoke, malaria and TB



# Self-recovery from humanitarian crisis

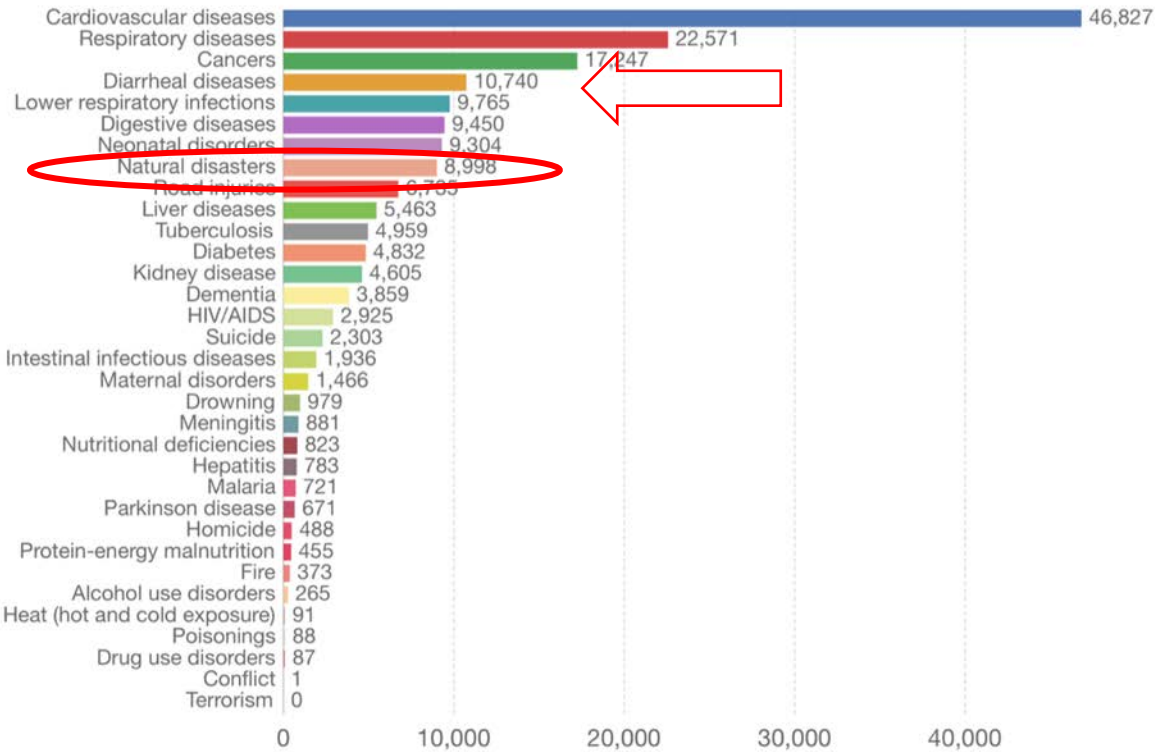
Number of deaths by cause, Nepal, 2014



Source: IHME, Global Burden of Disease

# Self-recovery from humanitarian crisis

## Number of deaths by cause, Nepal, 2015



Source: IHME, Global Burden of Disease



 CATHOLIC RELIEF SERVICES

**Health and Shelter  
Workshop and UK Shelter Forum**

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**BATH**

**faith. action. results.**



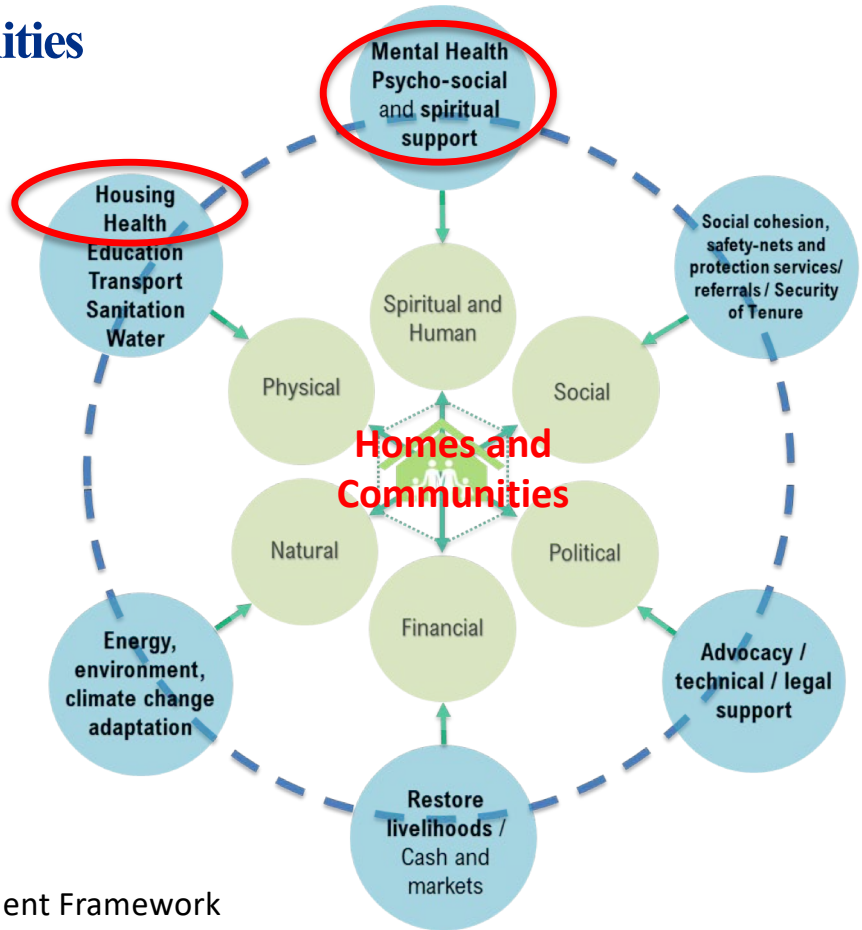


## Shelter Health Issues Rohingya Refugees

Overcrowding  
Ventilation  
Thermal Performance  
Vector Control  
Dirt Floors  
Security / Privacy

.....

# Homes and Communities



CRS Integral Human Development Framework

# Workshop and UK Shelter Forum – May 2019



## Technical Workshop

*Health and Shelter*  
5<sup>th</sup> May 2019  
Hosted by the University of Bath



**The workshop will include presentations and discussions on technical and social issues of shelter, housing and the built environment that have a physical and psychological impact on health.**

Sign up [here](#) to subscribe to the UK Shelter Forum's mailing list

If you wish to present, lead a discussion, or make an announcement, please contact [ukshelterforum2013@gmail.com](mailto:ukshelterforum2013@gmail.com)

The workshop will consist of three breakout, broadly based on the following themes:

1. Disease: vectors/WASH/waterborne/zoonotic/AQ/health & environment
2. Comfort: thermal/ventilation/light/energy/ventilation
3. Social & Psychological: cultural norms and shelter/ dignity and shelter/ gender-based violence and shelter/ livelihood and shelter.

Note: The UK Shelter Forum 24, also on the theme of Health and Shelter, will be held at the University of Bath on 10<sup>th</sup> May 2019. Contact us or visit our website for details.

Visit <http://www.shelterforum.info/>






## UK Shelter Forum 24

*Health and Shelter*  
10<sup>th</sup> May 2019  
Hosted by the University of Bath



**The UK Shelter Forum is a community of practice for individuals and organisations involved in shelter and settlement reconstruction activities after disasters.**

Sign up [here](#) to subscribe to the UK Shelter Forum's mailing list

If you wish to present, lead a discussion, or make an announcement, please contact [ukshelterforum2013@gmail.com](mailto:ukshelterforum2013@gmail.com)

This year, the Forum's theme of "Health and Shelter" will cover a wide range of topics and areas of interest and concern, including issues that relate to both psychological and physical health and well being. The meeting will consider issues of shelter from a Health Sector perspective and how this could influence the way we work. There will be opportunities for presentations and discussions on technical, policy and programmatic subjects. The agenda will be produced based on the submissions of the participants, with priority given to those that adhere to the theme.

Note: A Technical Workshop, also on the theme of Health and Shelter, will be held at the University of Bath on 5<sup>th</sup> May 2019. Contact us or visit our website for details.

Visit <http://www.shelterforum.info/>




# WOMEN'S GROUPS AND SHELTER SELF-RECOVERY



## Psychological impact of shock / disaster



«All Under One Roof»

Disability-Inclusive shelter and settlements in emergencies

Sandra D'Urso, Shelter unit IFRC, Geneva  
sandra.durso@ifrc.org

Saving lives, changing minds.

### Hot roofs, cool weaves: Energy for healthy communities in Jordan

Glada Lahou, Senior Research Fellow  
Energy Environments & Resources, Chatham House / Moving Energy Initiative/  
Renewable Energy & Refugees (RE&R)

Shelter Forum, University of Bath, 9<sup>th</sup> May 2018

### Shelter Adaptions for Thermal Comfort in Extreme Climates

Dr. Francis Moran University of Bath, UK  
f.p.moran@bath.ac.uk

bre www.bregroup.com

### UKSF 24 Technical Workshop : Indoor Air Quality

Dr Andy Dengel, BRE Fire & Building Technology Group

Building a better world together

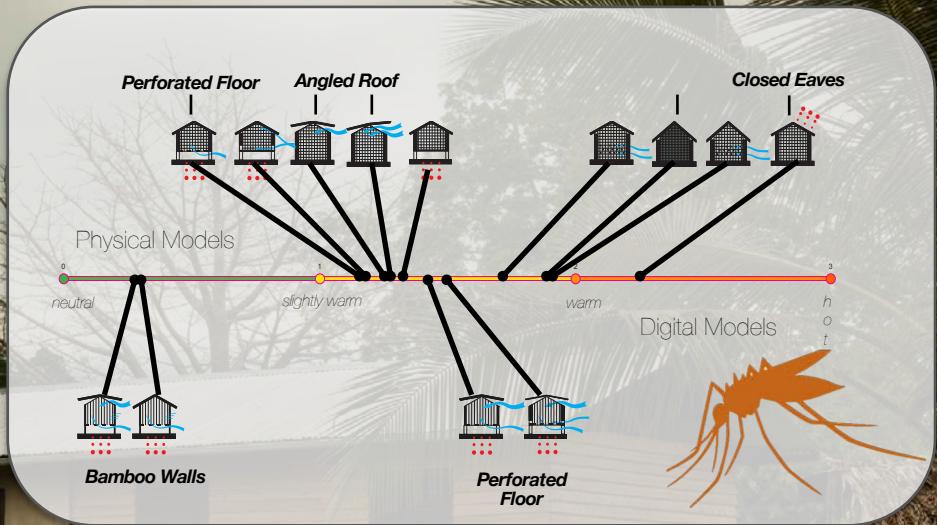
## Shelter & Health

Bill Flinn  
CARE International UK  
flinn@careinternational.org

**Healthy Homes**

UK Shelter Forum 24, 10.5.2019  
Jakob Brandtberg Knudsen  
Head of School of Architecture  
The Royal Danish Academy of Fine Arts  
School of Architecture

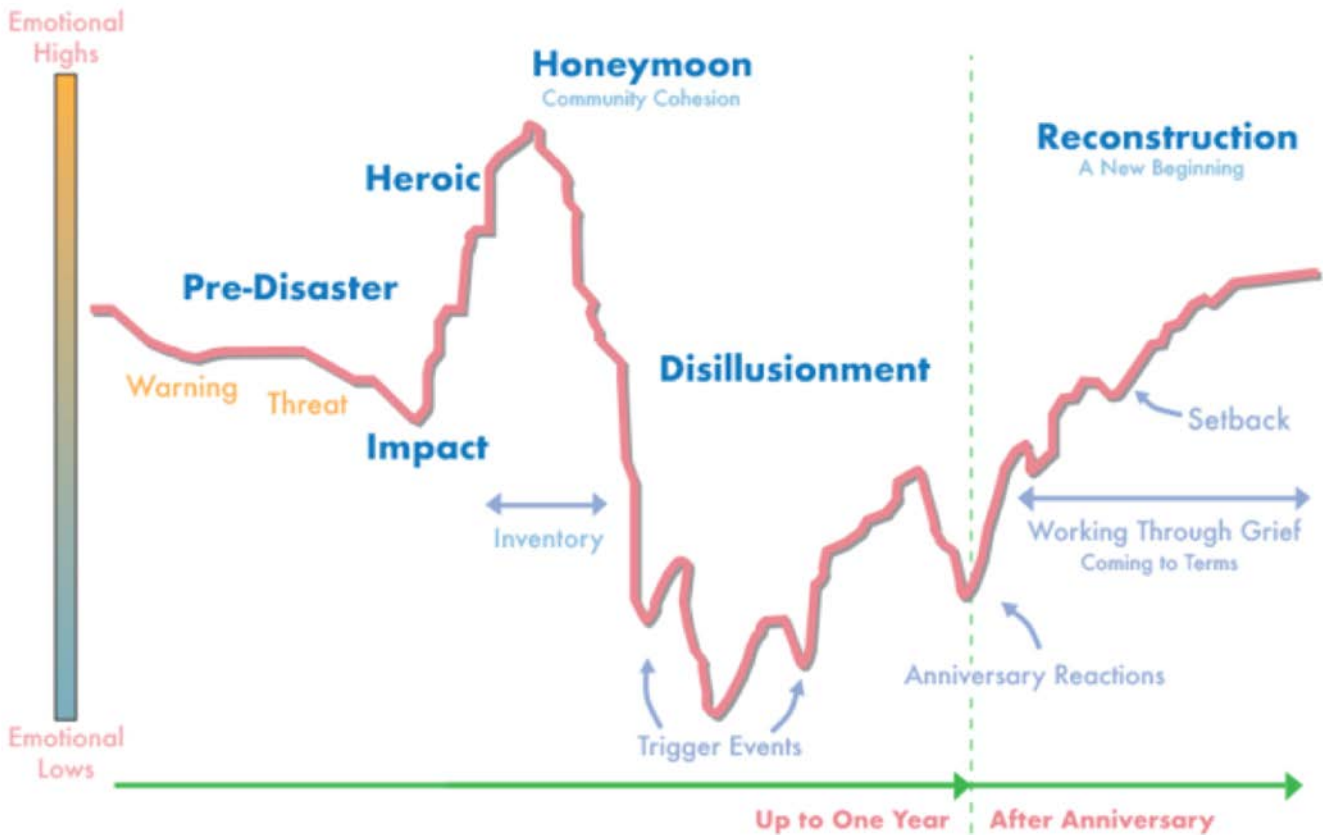




Timber Cladding, Single-storey House



# Psychological impact of shock / disaster



# Conclusions

- Research and Evidence
- Recovery links to Housing and Environmental Health
- Coordination and Collaboration

# Evidence?

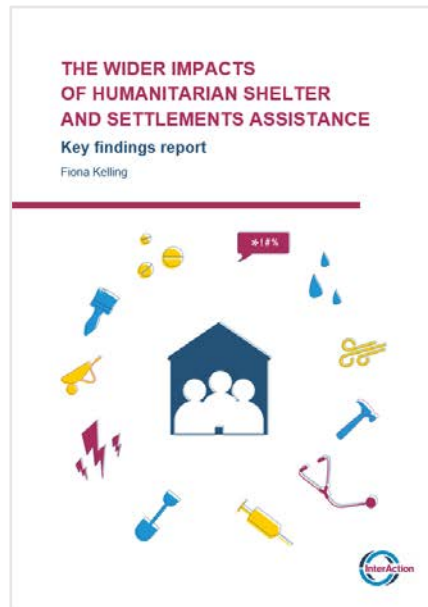
**Challenges in measuring impact and implications  
for M&E**

Shelter and Health Learning Day  
14<sup>th</sup> May 2020

**Part of the GCRF Translations 'Self-recovery from Humanitarian Crisis' Project**

# The wider impacts of humanitarian shelter and settlements assistance

- Provide an initial review of evidence on the impacts of providing shelter and settlements assistance to **increase awareness**.
- Contribute to **improved inter-sectoral understanding**, and **encourage collaboration** in emergency response and recovery processes.
- Research questions:
  - What information exists that shelter and settlements assistance has an impact on other sectors/themes?
  - What correlations are there between this sector/theme and shelter?
  - How has the provision of shelter/housing assistance had an impact on this sector/theme?



# The wider impacts of humanitarian shelter and settlements assistance

- Explored the **direct, indirect, and cumulative impacts** of shelter and settlements assistance.
- Review of **over 287 documents** of multiple sources and varying quality.
  - **191 documents with relevant information**
- Included literature from **humanitarian, development and social housing** studies.
  - 50% housing, 22% development, 28% humanitarian
  - 90 of 191 docs on health, 47% of total reviewed studies



# The wider impacts of humanitarian shelter and settlements assistance

[www.interaction.org/blog/more-than-four-walls-and-a-roof](http://www.interaction.org/blog/more-than-four-walls-and-a-roof)

- **Full report:**

- Key findings report
- Annex A: Detailed findings and bibliography
- Annex B: Methodology

- **Advocacy toolkit:**

- Posters
- Social media cards
- Twitter handles



Contact: [Shelter@InterAction.org](mailto:Shelter@InterAction.org)

or: [fionakelling@gmail.com](mailto:fionakelling@gmail.com)


# Shelter and ...Health

- Clearer links between health and poor housing – impacts of assistance harder to discern
- Certain factors have specific effects e.g. damp, mould, pest, infestation, toxins
- Poor quality housing impacts on the risk of ill health and life expectancy, especially for women and children, who spend more time in the home
- Shelter and settlements assistance can improve physical and mental health
- Shelter and settlements assistance can enhance well-being and morale

## HOW DOES SHELTER AFFECT HEALTH?


The strongest impacts of shelter were found to be on health, including **improved physical and mental health**, particularly for children, as well as **enhanced well-being** and morale. Poor quality housing has a substantial impact on the **risk of ill health and life expectancy**, especially on women and children who spend more time in the home.

"Substandard housing contributed to children's poor health at age 6, and developmental delays by age 2".




MacArthur Foundation

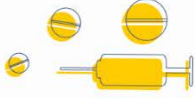
Housing interventions can **reduce doctor's visits, and lower healthcare spending and hospitalization rates.**




Housing deprivation **increases the risk of disability or severe ill health over the course of life by 25%.**





Improved shelter and settlements **reduce risks of diarrheal disease and water-borne illness.**



In Nigeria, the rate of **under 5 mortality** in adequate housing was **40% lower** than those living in inadequate housing.



**#SHELTERHELPS HEALTH**  
InterAction.org | @InterActionOrg



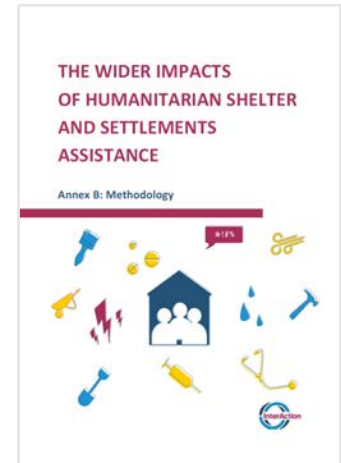
Sources: Adebisi et al (2017), MacArthur (2017), Cattaneo (2009), Brown (2017)



# Weaknesses in the available information

Limitations mentioned in the included documents are:

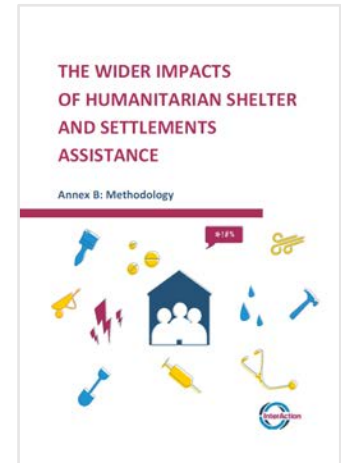
- Lack of adequate controls
- Questions over selection and variable bias
- Lack of clarity on contributing factor
- Lack of description of housing model
- Absence of baseline data
- Focus on outputs not impact
- High risk of bias, heterogeneity and evidence gaps
- Small quantitative studies less generalisable
- Lack of longitudinal not just cross-sectional studies.



# Weaknesses in health studies

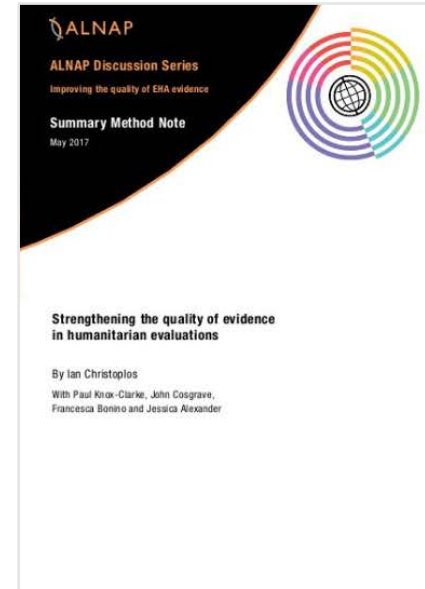
From the literature reviewed related to health:

- Few studies have focused on the impact of improvements
- Inability to specify the nature and size of health gain from a specific housing improvement due to small sample sizes or non-standardized evaluation indicators.
- Few studies articulated a logic model to show relationships and were not longitudinal enough
- If location changed, gains might be offset by adversely perceived changes in social networks – lack of controls



# What is evidence?

- ALNAP lays out six factors for evidence to be considered good (Christopolos et al, 2017):
  - **accuracy**
  - **representativeness**
  - **relevance**
  - **generalisability**
  - **attribution**
  - **clarity around contexts and methods**
- Systematically pursue causal reasoning
- Methods used to gather info and limitations made explicit
- Uses most appropriate study design to answer desired questions



# What challenges are there?

- Humanitarian responses are characterised by a rapidly changing and unstable environment:
  - **Counter-factuals or controls**
  - **Establishing causation / attribution**
  - **Assessing insecure populations**
  - **Uncertain population figures**
  - **Evaluating preventative action**
  - **Involving recipients as per CHS**
  - **Timeframes**
- 'Guidance and tools exist.. greater internal challenges?'
  - **Lack of capacity: human resources, turnover**
  - **Lack of organisational incentive**
  - **Confusion over terminology**

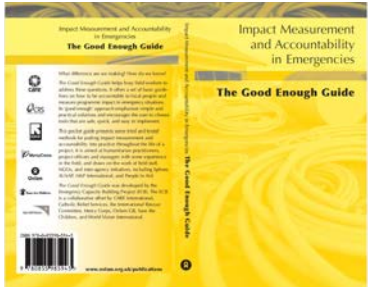
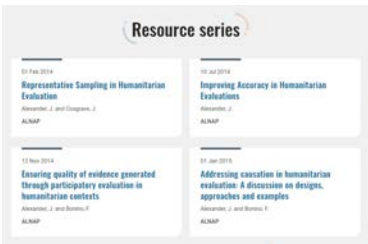
“

**Most organisations that claim to do impact assessments do not really appreciate what the terminology means – rather they feel that any measurement of results is a measurement of impact.**”

(ALNAP, 2009)

# What is realistic?

- Not saying needs to be an RCT
  - **Not impossible, but have limitations**
- Not saying quantitative better than qualitative.
- Value of well-conducted quasi-experimental and observational studies.
- Higher value given to context and other influencing factors.
- Importance of Theory of Change and outcome-focused design
- Guidance from:
  - **ALNAP series**
  - **ODI**
  - **Oxfam 'Principles of Impact Evaluations'**
  - **3ie**



# What is necessary?

- Better evidence through better designed evaluations!
- Need for engagement with methodology
- Accept and address challenges faced in humanitarian contexts and find ways to overcome
- Reflect on appropriate timeframes
- Form partnerships with academic institutions to bolster capacity
- Work with donors to support partnership and impact evaluation
- Take steps to improve impact evaluation starting now:
  - **See practical recommendations in full report**

“ There is a tendency to publish and republish simple, convenient numbers as universal rules of thumb when the original source research was...based on a very few or specific cases that were hard to disentangle or generalise about. ”

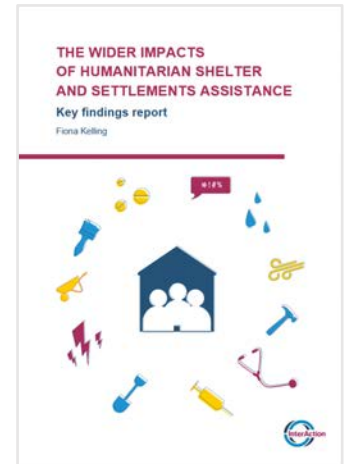
(Bell et al 2016: 81)

# Thank you

[www.interaction.org/blog/more-than-four-walls-and-a-roof/](http://www.interaction.org/blog/more-than-four-walls-and-a-roof/)

[Shelter@InterAction.org](mailto:Shelter@InterAction.org)

[fionakelling@gmail.com](mailto:fionakelling@gmail.com)



# CRATERRE'S METHODOLOGY FOR CONTEXT ANALYSIS

## WHAT HAS BEEN DONE SO FAR?

### A methodology in continuous evolution and adaptation to contexts

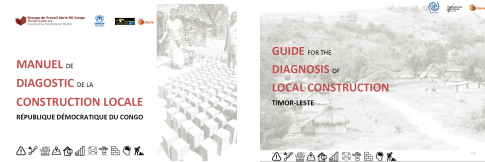
The methodology has been developed over the last years together with **different organisations and partners** both in the international and national levels.

It aims to help assess **local building cultures** in a broad sense as local practices are **not limited to construction aspects**. Indeed, the methodology for the assessment of local construction includes: identification of **local practices** regarding housing production and life cycle, local **knowledge** and **know-how**, impact in the pillars of **sustainable development**, **DRR practices**, **communication**, **decision making**, **gender issues**, **environmental factors**, etc. All this data is gathered to inform response planning.

The methodology comprises **interviews**, **observation** of building styles and the environment and **technical description and measurements** of housing dimensions.

The main objective is to **assess what people are doing and what they will do anyway**. Then, it is necessary to define supports in order to help inhabitants to achieve faster and without mistakes what they would have achieved on their own.

This **tool** is **continuously evolving** in order to fit to local contexts and to include more relevant questions and easier forms for note taking.



[Version for DRC](#)

[Version for Timor-Leste](#)



Assessments in Timor-Leste (December 2019)



## CRATERRE'S METHODOLOGY FOR CONTEXT ANALYSIS

WHAT HAS BEEN DONE SO FAR? -> WHERE WE ARE NOW?

**Work in progress for the evolution of the methodology in the framework of project «Self-recovery from Humanitarian Crisis»**

**Three main areas of reflection:**

1. **Adapt the methodology** to the **Protocol - Informing Choice for Better Shelter\*** together with IFRC / CRS / Care and CENDEP

\* The Protocol is online here: <https://www.sheltercluster.org/promoting-safer-building-working-group/protocol-informing-choice-better-shelter> )

2. Adapt the methodology to **safe and remote analysis** to respect **physical distancing** in the context of the **Covid-19** pandemia

3. **Go further** in the analysis of aspects related to **Watsan, gender, security, health...**



The adapted methodology **will be tested this year in Malawi** in the framework of the Self-recovery from Humanitarian Crisis

## CRATERRE'S METHODOLOGY FOR CONTEXT ANALYSIS

WHAT HAS BEEN DONE SO FAR? -> WHERE WE ARE NOW?

### How to integrate health issues in the methodology of context analysis

#### Main questions:

- **How can health become part of existing context analysis methodology?**
- **What data** would it be useful to gather and analyse?
- **How** is it possible to gather data on health issues during the context analysis?
- What are the **most pressing health issues related to housing/shelter**? How context-specific are they?
- What are the **connections** of health issues related to shelter/housing **with cross-cutting issues** such as protection, gender, children, people living with disabilities, energy, environment, socioeconomic impacts?

## CRATERRE'S METHODOLOGY FOR CONTEXT ANALYSIS

WHAT HAS BEEN DONE SO FAR? -> WHERE WE ARE NOW? -> WE NEED YOUR CONTRIBUTIONS

Do you want to share your ideas on how to integrate health issues in the methodology of context analysis?

You can contribute!



If you are keen on this topic but you **don't have much time**, you can have a look to the current reflections that are gathered in this **online document** and give your **feedback**:

<https://docs.google.com/document/d/1oa5Yae83vaw6YsXVN8xZdue5FhLIVX4M/edit>



If you have some **more time** you can of course have a look to the **online document** and **write an email to**:

[e.sevillano.gutierrez@gmail.com](mailto:e.sevillano.gutierrez@gmail.com) and [olivier.moles@neuf.fr](mailto:olivier.moles@neuf.fr)

We will come back to you to see how we can go further together in this reflection.

# THANKS TO ALL!!