CARE International UK Emergency Shelter Team and Centre for Development and Emergency Practice

Towards Healthier Homes in Humanitarian Settings

Proceedings of the Multi-sectoral Shelter & Health Learning Day 14th May 2020

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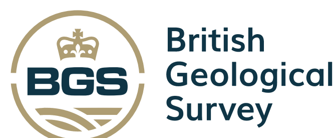

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EXECUTIVE SUMMARY

The Shelter and Health Multi-sectoral Learning Day was hosted online by Oxford Brookes University's Centre for Development and Emergency Practice (CENDEP) and CARE International UK, on 14th May 2020. Instigated and led by the 'Self-recovery from Humanitarian Crisis' research group, the Learning Day aimed to facilitate the sharing of knowledge about the connections between housing and health, in order to inform humanitarian action and enhance the wellbeing of crisis-affected populations.

Over 100 academics and practitioners from the fields of development housing, health, humanitarian shelter and WaSH came together to exchange and develop knowledge about the connections between housing and health and to discuss opportunities and challenges around adopting a wider environmental health lens in humanitarian action. This aligns with the humanitarian Shelter and Settlements Sector's increasing focus on the need to better understand the wider impacts of shelter assistance, including its health impacts.

While the linkages between housing quality and health are widely recognised in development fields, humanitarian shelter has historically focused on the immediate, life-saving elements of post-crisis response, and long-term initiatives have concentrated on safety from natural hazards. It is, however, recognised that emergency shelter has a wider impact in both the short- and long-term. Health is one of those impacts.

The recognition that emergency shelter plays an important role in long-term recovery following crises, and that most people 'self-recover', has prompted a desire within the Shelter Sector to better understand the ways in which housing reconstruction can contribute to physical and mental wellbeing in the short- and long-term. The important, but currently opaque, relationships between emergency shelter provision, long-term housing recovery and consequent health outcomes were explored during the Learning Day.

Twenty speakers presented on a variety of themes related to housing, emergency shelter and mental and physical health, sharing practical experience and academic research from development and humanitarian settings. Speakers also addressed the compounding issues of the climate emergency, protracted conflict displacement and the COVID-19 pandemic. These potentially 'game-changing crises' are shining a light on the increasing need to harness the co-benefits of improved housing for all.

Following speaker presentations, the participants had the opportunity to discuss the topics raised and the extent

to which best practice from development fields and from different humanitarian sectors is applicable for the humanitarian Shelter Sector. Comments, questions and written contributions were collected, coded and analysed by the organisers.

These themes are presented in Chapter 5 Findings under the headings of:

- Shelter realities and practice
- Research and evidence-building
- Advocacy and policy

Participants urged for 'out-of-the-silo' multi-sectoral working and a more holistic approach to programming. There are huge opportunities for further learning within and between sectors. Importantly, humanitarian practitioners must learn from the principal stakeholders, the home-makers themselves, who are often missing from these discussions.

The recommendations arising from the Shelter and Health Learning Day include:

1. An 'Environmental Health' inter-cluster Working Group should be formed, including Health, Shelter and WaSH experts.
2. The Shelter Sector, working in collaboration with other humanitarian and development actors and academics, should develop evidence of the beneficial impacts of improved shelter on mental and physical health. This report identifies a non-exhaustive list of further research that can inform practice.
3. A priority list of health-related standards and/or indicators should be developed, along with the means to allow it to be context-specific.
4. Context analyses should incorporate prevailing health risks and their relationship to housing, including community perceptions, plans and priorities.
5. The Shelter and Settlements Sector should use the current public interest in global health generated by COVID-19 to reinforce an understanding of the impacts of living conditions on mental and physical health.

STRUCTURE OF THIS REPORT

This report largely follows the order of the Learning Day; the agenda is included in the appendix on page 47. The online workshop consisted of a series of presentations, interspersed with discussion between over 100 participants. It started with an introduction to the connections between housing and health and the current state of knowledge of these connections in the humanitarian sector (summarised in Chapter 1). Subsequent speakers were organised into panels; two on the connections between housing and physical health (included in Chapter 2), one on mental health (Chapter 3) and one on the underlying context of 'game-changing crises' (Chapter 4). The 20 speakers, a mixture of academics and practitioners, included those experienced in humanitarian settings, such as Brett Moore, Chief of Shelter and Settlements at UNHCR and Global Shelter Cluster co-lead and Andy Bastable, WaSH Lead at Oxfam. Others, with backgrounds ranging from epidemiology to architecture, have researched housing and health in development settings. The presentations' contents and messages have been summarised by the presenters themselves, or by the editors of this report. Participants reflected that the Learning Day was the first time, for many, that they had engaged with interested parties from other sectors. The panel presentations and discussions were extended into 'breakout room' conversations with the wider audience. Comments and questions made during the presentations and views from the breakout discussions are summarised in the Findings sections in Chapter 5 and captured in the Conclusions and Recommendations in Chapter 6.

NOTE ON LANGUAGE

With people working across different sectors, the terms 'shelter' and 'housing' are used interchangeably throughout this report. The language used can be confusing. In general, 'shelter' refers to humanitarian response; the provision of physical protection from the elements and a safe, dignified place to live. Humanitarian shelter programmes come in many forms, including provision of toolkits, shelter materials, training, cash, construction of temporary housing and supply of household items. A 'shelter' is typically quite basic but may form the basis for something more long-term. An emergency 'shelter' may become permanent housing, depending on the context. Humanitarian programming that aims to support 'self-recovery' has a focus on long-term housing recovery from the start of the response. An explanation of self-recovery follows in section 1.2. 'Housing' generally refers to the development context; research is presented here from a range of settings, both urban and rural, including informal settlements. 'Shelter' and 'housing' are funded through different means and are frequently addressed by different agencies. One aim of the Learning Day was to facilitate cross-pollination of ideas between the shelter and housing, humanitarian and development sectors.

While the term 'shelter' may describe emergency and temporary conditions it is often inappropriately used in association with recovery. 'Shelter' as a noun would rarely be used in reference to a house or home and even has some negative connotations, yet it is embedded in the language of the humanitarian sector. Using an alternative term such as 'Homes and Communities', suggested by some INGOs, helps place people at the centre of the response and recovery, where health and wellbeing are common sector objectives. 'Homes and Communities' could be used in lieu of the current description of the sector as 'Shelter and Settlements'. It is a term that better reflects shelter as a process, recognising that a house is more than its structure, and community more than a place. This is a sustainability vision that encourages sector integration to provide safe, healthy and dignified living environments to meet the physical, cultural, and psychological needs of people surviving crisis and on their journey to recovery.

Notwithstanding suggestions of a need for changes in common language, throughout the Learning Day, participants referred to temporary and permanent homes as shelter and housing in a variety of ways. We have retained these contributions in the report, which records attempts by many humanitarian and development actors to develop a more holistic understanding of the process of recovery.

ACRONYMS

ARI	Acute respiratory infection
CCCM	Camp Coordination & Camp Management
CENDEP	Centre for Development and Emergency Practice, Oxford Brookes University
CRS	Catholic Relief Services
GAPPD	Global Action Plan for Pneumonia and Diarrhoea
GBV	Gender-based violence
(G)SC	(Global) Shelter Cluster
HAP	Household air pollution
HLP	Housing, Land and Property Rights
IDP	Internally displaced person
IEC	Information, Education, Communication
IFRC	International Federation of Red Cross and Red Crescent Societies
IOM	International Organization for Migration
LMIC	Low and middle income countries
MENA	Middle East and North Africa
MHM	Menstrual hygiene management
MHPSS	Mental Health and Psychosocial Support
M&E	Monitoring and evaluation
NCD	non-communicable disease (e.g. heart disease, diabetes).
NFI	Non-food item (e.g. blankets, cooking sets)
PoC	Protection of Civilians
PSEA(H)	Prevention of sexual abuse (and harm)
PTSD	Post-traumatic stress disorder
RCT	Randomised controlled trial
SDG	Sustainable Development Goal
UNHCR	The United Nations Refugee Agency
UNICEF	The United Nations Children's Fund
WaSH	Water, sanitation and hygiene
WHO	World Health Organisation

1. INTRODUCTION

BY BILL FLINN, SUE WEBB AND EMMA WEINSTEIN SHEFFIELD

1.1 Why Shelter and Health Day now?

Should all humanitarian interventions be directed towards the promotion of health and wellbeing and the alleviation of suffering? Should health be the bridge that links the humanitarian sectors together? Or, alternatively, is adequate housing the prerequisite, without which physical and mental health, livelihoods, protection and recovery will always be elusive aspirations?

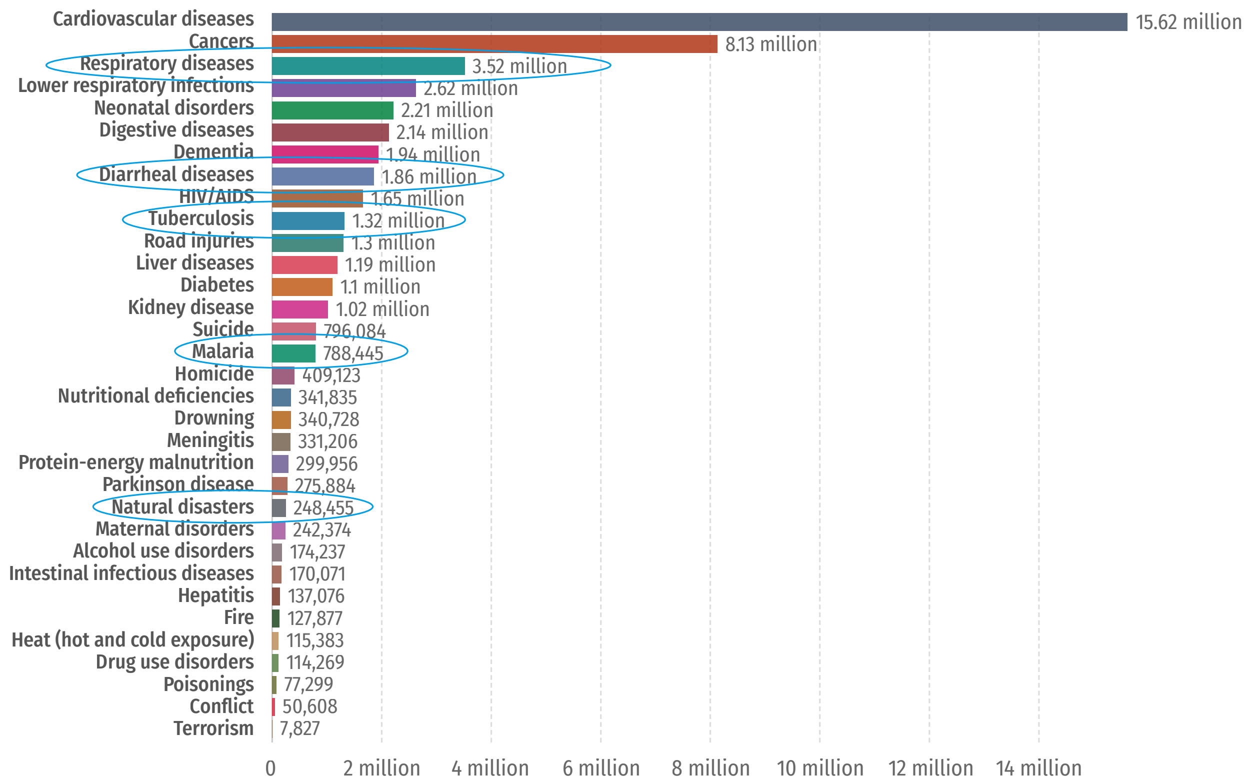
The premise of the Shelter & Health Learning Day is that it is neither one thing nor the other. Good health and adequate housing are both fundamental rights. The linkages between them are well understood: a healthy home not only contributes to the physical and mental wellbeing of the family and community, but also to economic recovery, security and safety. In the humanitarian sector, the potential connections and synergies between shelter and health have been raised, but not explored in depth or researched. This is true in both hazard-related disasters and conflict settings. In response to earthquakes, storms and floods, the Shelter Sector has focused on efforts to rebuild stronger and safer in order to withstand future natural hazards. Similarly, the humanitarian health sector has prioritised the immediate health concerns of injury, exposure and the threat and containment of disease outbreaks. One lesson from the presentations in this report is that a humanitarian crisis can, or should be, an opportunity to improve both health and housing and promote the connections between the two.

The topic of the May 2019 UK Shelter Forum was Shelter and Health and for the first time, the opportunities for rebuilding healthier houses were fully debated. The Sphere Handbook (Sphere Association, 2018) recognises that shelter is necessary for the promotion of health, along with other factors such as livelihoods, security and dignity. However, beyond this acknowledgment of the wider impact of shelter programming, there has been little guidance from the humanitarian sector on the potential for quality housing to reduce the impacts of such housing-related health risks as diarrhoeal diseases, malaria and respiratory illness.

Globally, these health conditions claim many more lives than earthquakes, floods and storms combined. On average, natural hazards kill around 60,000 people per year (Richie, 2018), while annual deaths attributed to diarrhoea

(1.5 million), malaria (600,000) and pneumonia (2.5 million) are many times greater.[1] The graph below, showing data from 2010, illustrates well the way in which deaths by natural hazards (dominated by earthquakes) are dwarfed by deaths from a range of communicable and noncommunicable diseases, even in a year in which the Haiti earthquake killed over 200,000 people.

Number of deaths by cause, World, 2010



Source: IHME, Global Burden of Disease OurWorldInData.org/causes-of-death

The realisation that so much mortality and morbidity is related to living conditions, including housing quality, prompted some practitioners in the Shelter Sector to question its traditionally narrow focus on structural safety and to suggest a broader approach. InterAction recently published a report on the *Wider Impacts of Humanitarian Shelter and Settlements Assistance*, which included livelihoods, education and health (Kelling, 2020). The report concluded that, although there is some good evidence of the links between poor housing and health, evidence on the impacts of provision of improved housing on health are harder to find. The report's author, Fiona Kelling, was one of the first speakers at the Learning Day; a summary of her presentation follows on page 15.

[1] Typical 21st century annual deaths from common causes related to living conditions, using 2017 data as an example (IHME, 2020). Poor housing, lack of access to sanitation and clean water and poor indoor air quality contribute to morbidity and the overall burden of disease as well as mortality.

1.2 Humanitarian Shelter Programming: self-recovery and the nexus

The Shelter and Health Learning Day was organised as part of a research project led by the Centre for Development and Emergency Practice (CENDEP), Oxford Brookes University, in partnership with CARE International UK, Catholic Relief Services, Habitat for Humanity, CRAterre and other academic and humanitarian partners (www.self-recovery.org). The project builds on the research of the past three years into an understanding of self-recovery and how best to support this inevitable process.

What is self-recovery?

Self-recovery is a term that has become common-place within humanitarian shelter discourse. It derives from a recognition that in the aftermath of disasters the majority of families rebuild their homes with little if any support from the humanitarian community. Supporting this inevitable process is seen as a powerful force for recovery, that respects people's agency, choice and priorities.

For more on self-recovery see: State of Humanitarian Shelter and Settlement, Chapter 4.

An approach to Shelter practice that puts people's choice and agency first aligns with policy discourse in the humanitarian sector. The Grand Bargain, which emerged from the 2016 World Humanitarian Summit, commits donors and humanitarian organisations to greater transparency, a focus on increasing aid directly to local organisations (known as 'localisation'), an appreciation of the links between humanitarianism and development (now often referred to as the 'nexus') and a 'participation revolution'. The Global Shelter Cluster, the humanitarian coordination system led by IFRC and UNHCR, recognises supporting self-recovery as one of its Strategic Approaches.

The first systematic review of the evidence for supporting self-recovery as a humanitarian modality reported very little evidence on the health outcomes following humanitarian self-recovery interventions (Maynard, Parker and Twigg, 2017). The review recommended that future research focus on the effects of humanitarian interventions that support self-recovery and the factors that influence the generation of positive effects. Addressing the humanitarian Shelter Sector's somewhat narrow focus on structural safety, at the expense of other sectors including health, may be overdue. The coincidence of factors – an evident recognition of the opportunity presented by a disaster to improve housing on many fronts, the alignment with current humanitarian policy – suggests that there is an appetite for change that is both needed and timely.

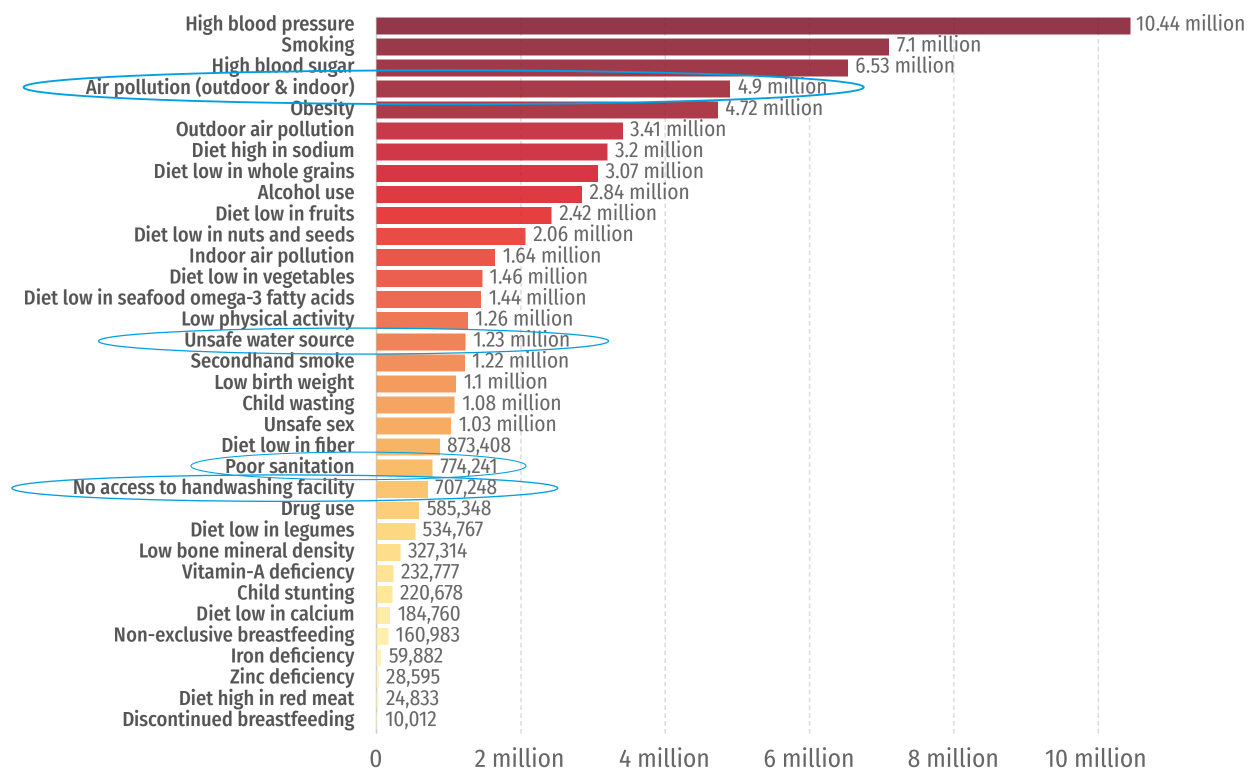
1.3 Housing and Health – what are the connections?

Housing affects health. This has long been recognised in the fields of public health and development. Mortality and morbidity are associated with poverty and, specifically, with housing-related risk factors. Respiratory infections, vector-borne and diarrhoeal diseases, as well as cardio-vascular conditions, are associated with inadequate home and settlement environments. Risk factors for ill-health include indoor air pollution, overcrowding, thermal extremes, damp and mould, noise, poor sanitation, unsafe water and lack of access to handwashing facilities. A significant proportion of global deaths are associated with several of these risk factors, shown in the data below from 2017. This data is not age or sex specific, yet indoor air pollution has a disporortionate impact on the health of children and women in many contexts, which can be attributed to socio-economic inequalities.

Number of deaths by risk factor, World, 2017

Our World in Data

Total annual number of deaths by risk factor, measured across all age groups and both sexes.



Source: IHME, Global Burden of Disease (GBD)

The Global Burden of Disease database, published by the Institute for Health Metrics and Evaluations (IHME), uses Disability Adjusted Life Years (DALYs)[2] to quantify the impacts of these risk factors on wellbeing. In low and middle income countries, the proportion of DALYs due to causes that can be linked to housing (such as respiratory diseases) is higher than for the global population. There are also significant geographical variations in causes of death, mortality rates and burden of disease figures. For example, most worldwide deaths from pneumonia occur in sub-Saharan Africa and SE Asia; malaria deaths are concentrated in sub-Saharan Africa. Whilst this report includes mainly global figures, contextual local cases also need to be considered carefully – many health risks require local analysis. Niall Roche, an environmental health consultant who has worked in both development and humanitarian settings, spoke in the introductory section of the Learning Day to urge humanitarians to adopt a broad perspective on environmental risks to health.

[2] Disability Adjusted Life Years (DALYs) are a measure of overall disease burden, expressed as the sum of years lost due to ill-health, disability or premature mortality.

1.4 An Environmental Health Lens: understanding risk

NIALL ROCHE
ENVIRONMENTAL HEALTH AND WASH CONSULTANT

As humanitarians, we all have a role to play in protecting and promoting health, no matter what sector, cluster or location we work in. **It is worth reminding ourselves of our humanitarian mandate to save lives, alleviate suffering, provide protection and security** for a life with dignity and to do no harm.

Médecins Sans Frontières (MSF), the leader in providing healthcare in emergencies, identified its Top 10 Public Health Priorities in 1997. Number Five was Shelter, site-planning and non-food items. Number One was Assessment. The first step in any Public Health emergency (indeed any humanitarian crisis) is to assess the situation which forms the basis for making good decisions. I stretch this out to include Context Analysis – a fundamental component of project and programme design.

Yet good assessments can be lacking. Humanitarians working within the Health Sector need to understand the layered global and local background health context of any emergency. So too do Shelter practitioners, along with an understanding that **health is about "physical, mental and social well-being and not merely the absence of disease**" (WHO Constitution, 1948). The health context is intricately bound up with the needs and appropriateness of shelter and recovery housing.

Global Burden of Disease (GBD) data, available at country and regional level via the interactive IHME website, illustrates the extent to which housing and settlement conditions (the Environmental Health characteristics of a place) can influence mortality and morbidity, especially in the Global South. Globally, the vast majority of deaths (73%) are due to non-communicable diseases (NCDs). A significant 8% are attributable to injuries, such as road traffic accidents, drowning and falls. In low Social Development Index countries, the NCD burden (including heart disease, stroke and diabetes), whilst smaller, is still significant. Therefore all working within the humanitarian-development nexus need to address the risk factors for all disease, not just the perhaps more 'visible' causes of communicable diseases.

Causes of death for the under-5s in low Social Development Index countries are dominated, after the neonatal period, by lower respiratory infections such as pneumonia as well as diarrhoea, malaria and protein/energy malnutrition. Many of these causes of death are being addressed outside clinical settings, so what we do in Shelter can have a part to play in reducing these child deaths. We can work with Health and WaSH to promote good public health. Some of the key links between Shelter and Settlement planning and poor health are inadequate latrines and handwashing facilities, overcrowded and poorly ventilated shelters and indoor cooking using biomass fuels which causes dangerous levels of household air pollution.

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 which is linked to cardiovascular and cognitive problems. Housing and settlement planning is also 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. In urban areas, 'heat islands' can accentuate regionally higher temperatures to a deadly extent.

The Sendai Framework for disaster risk reduction highlights the need to understand disaster risks clearly. These risks are often gendered; women exposed to household air pollution through cooking may be more at risk of COVID-19. Similarly, so may be male smokers. Vulnerabilities are so contextual, which points again for a need for careful assessments that include health issues. **An Environmental Health lens would allow Shelter practitioners to better understand and manage influential contextual risks.**

1.5 Characteristics of healthy housing – what do we know?

Several interrelated aspects of housing have links to health, including the quality and safety of the physical environment within homes, the conditions and opportunities in the surrounding neighbourhoods, the stability of housing tenure and housing affordability (Braveman et al., 2011; Hernandez and Swope, 2019). 24% of global deaths are due to environmental factors, many of which could be avoided through improvements to homes and their surrounding neighbourhoods (Prüss-Ustün et al, 2016). 'Adequate housing' is a basic human right (UN, 1948). Housing is considered inadequate if it does not provide protection against threats to health: any characteristic of housing that leads to poor health is an indication of inadequacy. Improved housing has potentially multi-dimensional positive impacts on people's lives directly, and indirect impacts on other factors including early years' education and employment prospects, both associated with long term good health. The World Health Organisation identifies a range of ways in which housing can expose people to health risks and defines 'healthy housing' in its Housing and Health Guidelines (WHO, 2018), that consider mental and social wellbeing in addition to physical health.

> ***Healthy housing is shelter that supports a state of complete physical, mental and social well-being.*** *Healthy housing provides a feeling of home, including a sense of belonging, security and privacy. Healthy housing also refers to the physical structure of the dwelling, and the extent to which it enables physical health, including by being structurally sound, by providing shelter from the elements and from excess moisture, and by facilitating comfortable temperatures, adequate sanitation and illumination, sufficient space, safe fuel or connection to electricity, and protection from pollutants outside its walls. It depends on the local community, which enables social interactions that support health and well-being. Finally, healthy housing relies on the immediate housing environment, and the extent to which this provides access to services, green space, and active and public transport options, as well as protection from waste, pollution and the effects of disaster, whether natural or man-made.* (WHO, 2018, 2)

Knudsen and von Seidlein (2014) highlight ways in which housing design can affect exposure to disease, particularly malaria, yet there are still many knowledge gaps (von Seidlein et al, 2019). With 56% of the global population living in urban areas (United Nations, 2018) and the fastest rates of urbanisation occurring in low-income regions, integrating health considerations with settlement planning has received increasing attention. "If the purpose of planning is not for human and planetary health, then what is it for?" (UN Habitat and WHO, 2020, x). However, even within high-income settings, there is a lack of reliable evidence of the effects of the built environment on physical and mental health (Ige et al, 2019).

The WHO Housing and Health Guidelines (HHGL) are intended for:

> *implementing actors such as government agencies, architects, builders, housing providers, developers, engineers, urban planners, industry regulators, financial institutions, as well as social services, community groups, and public health professionals. These stakeholders are directly involved in the construction, maintenance and demolition of housing in ways that influence human health and safety.* (WHO, 2018, xvi)

These 'implementing actors' do not include humanitarian organisations, nor people self-building or incrementally improving their own houses in informal settlements. The provision of shelter after disaster or in conflict/ displacement settings is stated to be outside the reach of the WHO Housing and Health Guidelines: "implementing the HHGL is likely to be more challenging in informal and emergency housing and will require different priorities, depending on the context" (WHO, 2018, 9). WHO points instead to the Sphere Standards on emergency shelter arrangements. However, clear guidelines for achieving healthy homes in humanitarian settings do not yet exist.

1.6 Humanitarian Shelter and Health: what are the guidelines?

The Sphere Handbook outlines what is meant by 'adequate' housing in humanitarian settings, stating that "in addition to providing protection from weather, shelter is necessary to promote health, support family and community life, and provide dignity, security and access to livelihoods" (Sphere Association, 2018, 241). Sphere emphasises that achieving the Minimum Standards of humanitarian provision in one area influences progress in other areas and urges humanitarians to collaborate across clusters. **"The right to adequate shelter is linked to the rights to water and sanitation, food and health"** (Sphere Association, 2018, 242). In the Shelter Standards section of Sphere, health is considered both directly and indirectly and included in checklists, as are questions about indoor cooking and fuel use. Under Health Standards, links between health, shelter and WaSH are stated. For example: "Adequate shelter, spacing of shelters and ventilation can help reduce transmission" of communicable disease (Sphere Association, 2018, 312). Whilst the Sphere Handbook states repeatedly that linkages between sectors should be made, overt connections and causal links between health and shelter during and after emergencies are limited and under-developed. One of the barriers to Shelter practitioners incorporating health objectives into programming is the lack of clear evidence on impacts. This issue was discussed by Fiona Kelling, the author of the InterAction study on the wider impacts of Shelter assistance.

1.7 Evidence! Issues of measuring impacts and implications for M&E

FIONA KELLING
HUMANITARIAN SHELTER CONSULTANT

InterAction commissioned a research study on the impacts of shelter and settlements assistance, including on health and mental health, with the aims of increasing the awareness of the potential wider impacts of Shelter and Settlements programming, improving inter-sectoral understanding and encouraging collaboration. Over 190 documents from humanitarian, development and social housing studies were included.

There is more information derived from the Health sector than from any other. The review found clear links between poor housing and health, but the impacts of providing assistance are harder to discern. Many of the significant gains in public health in the 19th and 20th centuries have been attributed to improved shelter conditions, but in one reliable meta-analysis, 40% of studies found no discernible association. Limitations in methodological processes resulted in weak findings that are unable to be generalised or sometimes even attributable. Even within the health sector, the highest quality studies made very clear that the data available were not conclusive.

ALNAP identifies six factors that constitute good evidence: accurate, representative, relevant, generalisable, attributed, methodological clarity. Good evidence pursues causal reasoning to answer what factors achieved what results. To accomplish this, the methodology must be appropriate to answer the questions being asked, with any limitations explicitly stated, while taking into account other factors that need to be considered. Using these criteria, the information included in the InterAction report contains more examples than evidence.

Obtaining good evidence in humanitarian contexts is complicated, as they are characterised by rapidly changing and unstable environments that pose genuine challenges for the collection of data. In these conditions, we need to make sure that it is not a case of 'the perfect being the enemy of the good'. The roots in evidence-based medicine mean that most people still consider randomised controlled trials (RCTs) to be the gold standard. But in humanitarian contexts, RCTs actually have some limitations that make them not impossible, but perhaps of limited value. There are however a number of tools and guidance that have already been produced for the humanitarian sector and examples of possible approaches that are only a step further and no more expensive than the evaluations agencies already undertake, which can

help organisations to understand what is required and assist in choosing an appropriate method, be that quantitative or qualitative.

In the face of increasing need and decreasing resources, there is pressure to have knowledge about what works – both to help make decisions, and to demonstrate effectiveness. The key recommendation from this report is the need for humanitarian practitioners to engage with how evaluations are designed and carried out in order to be able to strengthen the evidence base. **Humanitarians do not need to become impact evaluation experts or academics, but without a shift in the current practice, the level of evidence that currently exists will not change.** Engagement with what constitutes good evidence and how to achieve it within the constraints of the complex situations facing humanitarian response is required – including reflecting on the reasons we require evidence and at what level of certainty.

Partnerships between humanitarian agencies and academic institutions could increase the relevance and applicability of academic research and also allow more independent analysis, overcoming the risk of bias by implementing agencies and donors, who will continue to produce or commission the majority of evaluations.

The report contains additional practical recommendations for shelter providers, academics and donors to start to generate a stronger evidence base. The full report as well as the detailed findings and methodology can be accessed on the Interaction website, as well as related infographics as part of an advocacy toolkit.
Contact fionakelling@gmail.com or hilmi@interaction.org for further information.

1.8 Bringing together knowledge on Health, Housing and Shelter

Inadequate housing is one of the means by which social and environmental inequity feeds into health inequality, which in turn affects quality of life and wellbeing. The WHO Healthy Housing Guidelines identify housing as “a major entry point for intersectoral public health programmes and primary prevention” (WHO, 2018b, vi). Humanitarian Shelter is also identified by Sphere as a key location for the promotion and maintenance of dignified and healthy lives, yet little specific guidance is offered. A wider view of Shelter and Settlements planning and a better awareness of the intersections between emergency and transitional shelter and health, especially in protracted situations, would allow more sustainable outcomes for affected populations. For Shelter practitioners adopting a self-recovery approach, aiming to support people as they negotiate long-term recovery pathways, this is even more critical. The question of shelter/housing and health connections also needs to be placed within the context of the climate emergency and global patterns of urbanisation. One of the urgent challenges identified in the Lancet paper ‘Safeguarding human health in the Anthropocene epoch’ is the “failure to address social and environmental drivers of ill health” in conjunction with “historical scarcity of transdisciplinary research and funding” (Whitmee et al, 2015). Humanitarian Shelter responses are increasingly likely to be located in complex urban settings as well as situations of protracted displacement. The time is right for a closer analysis of the ways in which shelter programming can have a beneficial impact on physical and mental wellbeing, in line with SDG 3 (Good Health and Wellbeing) and 11 (Sustainable Cities). Success in improving health and sustainable settlement will also have a positive impact on progress towards SDGs 4 (Education), 7 (Affordable and Clean Energy), 13 (Climate Action) and 5 (Gender Equality).

Merging the combined knowledge and experience from the public health, development housing and humanitarian shelter sectors has the potential to significantly alter the practice of housing for people affected by environmental disasters, conflict and protracted displacement. Homes and communities can be healthier as well as safer.

For references to Chapter 1, please see page 43.

2. SHELTER, HOUSING AND PHYSICAL HEALTH

Introduction

This chapter consists of summaries of the presentations in the Learning Day which explored the relationships between physical health and housing, and the challenges of measurement and mitigation. Experts in academic architecture and epidemiology, development housing and humanitarian Health and WaSH shared their varied perspectives and experience; these presentations were later discussed further by workshop participants.

2.1 Epidemiology of shelter and child health

DR LUCY TUSTING
DEPARTMENT OF DISEASE CONTROL AT THE LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE

Lucy spoke about how epidemiologists measure the effects of interventions. Randomised controlled trials (RCTs) and systematic reviews of intervention studies are the gold standard of research. Observational studies however can be acceptable in certain circumstances, with appropriate methodology. Lucy emphasised the importance of understanding the impacts of incremental housing improvements on health, particularly in the context of rapid urbanisation and population growth in Africa. Her recent study (Tusting et al 2020), which used national survey data on 'improved housing' and child health in 33 African countries, found that improved housing is associated with reductions in malaria, diarrhoea, anaemia and undernutrition. She was asked in the Q&A about the impact of improved housing on acute respiratory infections (ARI), which showed no statistically significant association in her study. Lucy explained that, in her opinion, this was probably due to a data issue; other studies do show a clear link between housing quality and respiratory disease, especially in children. The measure of 'improved housing' in the study did not include windows and ventilation, nor cooking arrangements. In addition, the prevalence of ARI was measured by self-report by householders. Lucy ended her presentation by emphasising that Africa's housing transition is a prime opportunity for health – as people improve their homes, changes could be influenced that would improve health. She also made the point that many of these issues are similar in other regions of the Global South.

2.2 Spotlight on Pneumonia

ELIZABETH BERRYMAN
HEALTH TECHNICAL ADVISER, SAVE THE CHILDREN

Why do children die of pneumonia, a curable and preventable disease?

Save the Children, working in partnership with UNICEF and the Every Breath Counts Coalition, aims to address one of the greatest health challenges facing children around the world – pneumonia. Over 800,000 children under 5 died of pneumonia in 2018 (Every Breath Counts Coalition, 2020). Malnutrition and prematurity are the biggest risk factors for pneumonia, followed by ambient and indoor particulate air pollution and poor hygiene. The small particles produced from the indoor use of solid cooking fuels impair the immune system's ability to fight infection and contribute to a third of global child pneumonia deaths, according to the Institute for Health Metrics and Evaluation. Funding for research into childhood pneumonia has lagged behind that for other infectious diseases, such as malaria and diarrhoea. What investment there has been in reducing pneumonia has gone into vaccination development and roll-out, and treatment. There has been little funding for tackling the underlying causes such as poor sanitation and hygiene and air pollution.

In 2013, the Global Action Plan for Pneumonia and Diarrhoea (GAPPD) identified necessary actions to Prevent, Treat and Protect from pneumonia. GAPPD identified indoor air pollution as a key risk factor, but little effective action to ameliorate it was taken. The 2020 iteration of the GAPPD has a stronger emphasis on addressing air pollution and the need for multi-sector policy and action.

Combating childhood pneumonia in South Sudan; what role can the Shelter Sector play?

Save the Children and UNICEF are aiming for accelerated action on pneumonia, particularly in its top target countries. These include South Sudan which has some of the highest infant and child mortality rates in the world. High levels of persistent conflict, overcrowding in displacement camps, poor access to primary healthcare, low levels of food security are all contributory factors. 20% of South Sudan's child deaths are attributed to pneumonia and 47% of these child pneumonia deaths are caused by indoor air pollution from burning solid fuels in poorly ventilated houses. South Sudan's rural and urban poor, refugees and IDPs rarely have access to clean energy. The 2.5 million people currently living in Protection of Civilian (PoC) camps experience particularly high levels of overcrowding.

Having described the prevalence of pneumonia to the Shelter Cluster in South Sudan, I was asked to suggest a package of interventions that could be introduced in PoC camps to address the problems. Surprisingly, I discovered a gap in available guidance for field-level staff on how to tackle indoor air pollution. There is also a lack of relevant messaging accompanying Shelter packages and NFIs. Low-emission stoves are needed, along with advice about cooking practices and messages about the prevention of pneumonia. There is currently no clear set of guidelines for community health workers and facility based staff that Save the Children supports. These need to be developed by Health, WaSH and Shelter practitioners working together. From my perspective in the Health Cluster in South Sudan, I would like to see a strong partnership with the Shelter Cluster, which has not traditionally been the case.

The approach to reduce child mortality has to be multi-sectoral and must incorporate Shelter, Health and WaSH interventions. The COVID-19 pandemic has focussed attention on the challenges of dealing with respiratory-transmitted infectious disease in regions of high density and low socio-economic status. What we are learning now should also inform our future actions on pneumonia. The positive impacts of better access to clean fuels (and to better ventilation and education about the risks of smoke if clean fuel is impossible) could be considerable.

2.3 A call for coordinated action – small tweaks can make all the difference

JENNY LAMB
WASH TECHNICAL ADVISER, CRS

We need to get the basics right at the outset of an emergency to safeguard the wellbeing of affected populations. Robert Chambers called for a paradigm shift from 'things to people' in the 1990s, yet still today, WaSH and Shelter practitioners approach projects too often with a technical lens; empathy can be lost. Indeed, **the endpoint of a purely technical lens on Shelter and WaSH can be a compromised environment for health and dignified living for the communities with which we work**. We need to recognise and learn to mitigate sanitation-related psycho-social stressors (environmental, sexual, and social), which can lead to unhealthy regulatory behaviours, such as people not using latrines as they are shared and even limiting food and drink intake. These stressors require collective action with the communities – and require Shelter, WaSH and Health to work together. Sanitation programmes call for emotional intelligence of field staff, training, and effective two-way communications with communities. **We need to put ourselves more often in the shoes of the community – ask ourselves how we felt when we used a latrine in a camp for instance**. Menstrual Hygiene Management is an issue that suffers from a lack of coordination between sectors, and is often an after-thought not addressed from the outset of a response. It needs to be mainstreamed into all sectoral response efforts, including Shelter. Oxfam's Social Architecture project in Bangladesh emphasises the benefits of co-developing sanitation facilities with affected people, especially women and girls. Another example of best practice is Wash'Em, a project aiming to improve handwashing behaviour change in humanitarian crises. It exemplifies creative approaches for engagement and collective action to reduce public health risks. Shelter practitioners, together with WaSH and Health, should also engage with the creative 'tweaks' to programming – as it is the small tweaks that will make the difference between whether a woman or girl uses a latrine or not. We need to unpack the qualitative needs, preferences, and outcomes of interventions – on dignity, safety, privacy, and humanity.

2.4 Are there lessons for Shelter in the WaSH model of CONSULT-MODIFY-CONSULT?

ANDY BASTABLE
PUBLIC HEALTH ENGINEERING TEAM LEAD, OXFAM

There are opportunities for Shelter to have an impact on wellbeing, in coordination with other sectors, particularly WaSH and Health. These can be discussed under three key themes:

- Consultation
- Design to prevent disease
- Design for privacy

Displaced people live in diverse settings. Some camps, for example in Uganda, are well spaced. Others, for example in Bangladesh, are overcrowded, with consequent impact on stress levels and physical and mental health. The Sphere standards on space and density are not always met[3]. Health is not just the absence of disease: it is part of a broader wellbeing issue.

[3] The Sphere Handbook provides minimum standards for Shelter, WaSH, Health and Food security. It stipulates a minimum of 45 square metres per person as a minimum space requirement in camps.

Consultation

People need to feel listened to. Then they are much more likely to listen to, and act on, public health advice. This perspective drives Oxfam's aim to CONSULT-MODIFY-CONSULT (exemplified by Sani-Tweaks[4]) when implementing WaSH interventions, even in rapid-onset emergencies. This consultation model could well be appropriate for Shelter practitioners too – perhaps there is not always the willingness or capacity to adapt shelters after the initial emergency provision? Modifications after consultation with affected populations could result in ongoing modifications and have a positive impact.

Design to prevent disease and pests

Health and WaSH interventions are designed to prevent public health-related diseases. There has to be an awareness of the prevalent public health issues in the region. Especially relevant 'need to know' issues for Shelter practitioners include cooking practices and fuels, prevailing vectors of disease such as mosquitoes and incursions of snakes, scorpions and rats into homes and latrines. These issues can be addressed through shelter and settlement design and planning. Drainage – from individual shelters (grey water from cooking) and wider site drainage – can fall between sectors and needs a systematic response for the whole site. Provision of cooking and lighting facilities are also 'fuzzy' areas without clear sectoral responsibility.

Design for privacy

Whilst we have to acknowledge huge space constraints in some emergency settings, privacy issues are often related to shelter design and influence people's wellbeing. We know that, for many reasons, some people do not use shared latrines, choosing instead to use buckets within individual shelters. This has stress and hygiene consequences, particularly for people living with disabilities. Shelter could mitigate some of these issues through design, including tailored or bespoke design. Similarly, there could be better NFI provision – a commode could be more appropriate for some people with disabilities than attempting to make shared toilets accessible. Better collaboration between Shelter and WaSH would ensure that these and other vulnerable people are not left behind.

In summary, better communication and collaboration between the Shelter, WaSH and Health sectors at field level, wider-angled assessments and staff training could significantly improve health-related issues in emergency settings.

2.5 Lessons from contrasting low-income housing in Mumbai

DR RONITA BARDHAN
UNIVERSITY OF CAMBRIDGE

Ronita summarised her research in Mumbai, which found that air quality and indoor temperatures were worse in government rehabilitation apartments than in Dharavi, a slum housing district. **Data on air quality showed that new apartments frequently had concentrations of $PM_{2.5}$ several times greater than the recommended limits[5], very low air exchange rates and higher indoor temperatures than slum housing**. Poor health, measured by higher rates of visits to health facilities and TB prevalence, was associated with poor air quality and inadequate ventilation in the apartments. As well as size and design of the apartments, cultural factors play a part in air quality; privacy issues mean that people (especially women during the day) are reluctant to open doors and windows for ventilation. As the climate heats up, people will suffer even more discomfort in these poorly designed buildings. Ronita's research has led to specific recommendations on apartment size and design in future government slum rehabilitation housing projects, part of the Indian Government's policies of 'Housing for All' by 2022 and 'TB free India' by 2025.

[4] Sani-tweaks: a series of communications tools developed by the Oxfam WASH team to promote best practices in sanitation and address the problem of women and girls, in particular, being reluctant to use shared latrines.

[5] $PM_{2.5}$ is particulate matter 2.5 micrometers or smaller, associated with respiratory conditions

2.6 Evidence and experiences of housing and health in low-income settings

DR EMILY NIX
UNIVERSITY OF LIVERPOOL

Generating evidence on housing and health in LMICs remains neglected, with attention given mostly to issues of water and sanitation, overcrowding and indoor pollution from solid cooking fuels (Tusting et al. 2020). Routinely collected data on housing in developing countries fails to understand the multiple impacts of housing on health (Nix et al. 2020). Further evidence is vital to understand wider impacts and to assess current housing conditions across developing countries. Various frameworks that consider the multiple impacts of housing have been developed to assess housing conditions and health in developed countries; these often include housing inspections to identify hazards as well as the monitoring of environmental conditions to assess exposures (Keall et al. 2010). These approaches can help establish key housing issues and where remediation measures are needed, as well as generate the data to inform policy agendas.

Modelling approaches, particularly the use of building energy simulation as widely developed in high-income countries, can help predict housing-related exposures and the potential of interventions in reducing these exposures (Nix et al. 2015). Modelling provides a cost-effective approach to test interventions before field trials or community settings – this is vital to understand complexities and any unintended consequences of interventions. These modelling outputs can be combined with health impact modelling to estimate changes in population mortality and morbidity (e.g Hamilton et al. 2015). Good practice research assessing the impacts of housing interventions on health include: a collaboration between University College London and London School of Hygiene and Tropical Medicine (Shrubsole et al. 2012) that employs modelling based approaches; and those working at the intersection of vector-borne diseases and built environment (e.g. Shenton et al. 2019), particularly those employing experimental and field-trials to assess the impacts of housing modifications on vector control (Jatta et al. 2018).

Experiences of research-in-practice, from the Optihouse Project, Delhi

There is little research looking at how to implement housing improvements within the context of informal housing development. Given that the majority (60-90%) of housing is informally constructed across developing countries (UN-Habitat 2016) (i.e. built by households themselves or informal labourers) it is vital that housing solutions are accessible, affordable and can co-exist within these informal development practices. The Optihouse Project worked with a community in an informal settlement in Delhi to develop and test housing solutions using a participatory approach (Nix et al. 2019). The case study settlement was characterised by incremental growth with housing ranging from temporary structures of bamboo and plastic to three-storey houses with brick walls and concrete floors. **Housing deficiencies significantly affect daily practices, which in turn influence community perspectives and priorities for interventions** (Nix et al. 2020). Through a co-design approach, employing graphical resources to develop and present the benefits of solutions to the community, it was found that cultural and household practices affected the acceptability of solutions as well as confidence in new approaches. It was only through the demonstration of solutions that the benefits of housing improvements were realised and a shift in community perspective was achieved. Thus, **achieving healthy housing not only requires techniques to illustrate the benefits of improved design but financial support and, importantly, awareness and capacity building measures.**

2.7 Mud to Mortar: the power of the built environment to improve health outcomes

SARAH RUEL BERGERON
EXECUTIVE DIRECTOR, ARCHIVE GLOBAL

ARCHIVE Global (Architecture for Health in Vulnerable Environments) harnesses the power of the built environment to improve health outcomes in vulnerable communities around the world. ARCHIVE designs, implements and evaluates purposeful, human-centric projects that create healthy homes, increase health literacy and safe behavioural practices among beneficiary communities. ARCHIVE uses **one basic right – housing – to deliver one basic need – health.**

ARCHIVE focuses on a three-pronged approach:

1. Preliminary research helps to understand a community's health needs and its housing stock. Surveys then evaluate pre and post intervention impacts.
2. Interventions for existing housing stock are designed and constructed with local tradespeople.
3. Education and training improves behavioural practices within the community; and local tradespeople learn new construction methodologies.

ARCHIVE's Mud to Mortar project in Bangladesh began in 2014 because 63% of Bangladeshis live on dirt floors. The hypothesis was that eliminating dirt floors could decrease diarrhoeal disease. Since 2014 nearly 300 floors have been replaced, benefitting 1,248 people. The design is for existing households and is composed of a metal lath and concrete assembly replacing the dirt floors. The cost for labour and construction is $1.20 per square foot.

A research study included surveys, in depth interviews, and focus group discussions. These were conducted with family members receiving the floor and a control group. Highlights for the homes with new floors include:

- A decrease of diarrhoeal disease of 77%
- Breathing problems decreased by 83%
- Decrease in skin irritations, vermin infestations, and everyday stress

ARCHIVE's advocacy and education campaigns include training local masons, providing good sanitation and hygiene practice education to households participating in the project and to 2,885 community members. A national public service announcement about the importance of health and housing reached 2 million via social media.

ARCHIVE is also developing the Health through Housing Coalition, an online platform intended to connect people across disciplines, including health, housing/shelter, and climate change. Together, stakeholders will be able to work towards developing solutions to improve housing stock, and in turn, the health of a community, strengthening it against the impacts of climate change. Teams can come together across disciplines to improve health outcomes through housing. Some items that were discussed on the Learning Day that will be considered through the work of the HHC:

- What are appropriate indicators for measuring health impacts of shelter projects?
- Are Randomized Control Trials appropriate to measure the success for projects at the intersection of housing and health?
- Case studies are critical to understand what's possible and what the challenges may be, they should be widely shared.

- Humanitarian practitioners have to make quick design decisions so databases of case studies or catalogs of solutions that have been tested for particular health concerns could be helpful and should be hosted here.
- A chart which would be a quick reference of what aspect of the built environment has which impact on health could be a useful tool, ARCHIVE is developing this.

2.8 Integrating Health Issues in Context Analysis

A methodology in continuous evolution and adaptation to contexts

ENRIQUE SEVILLANO GUTIÉRREZ
ASSOCIATE RESEARCHER, CRATERRE, AE&CC RESEARCH UNIT

OLIVIER MOLES
LECTURER, ECOLE NATIONALE SUPÉRIEURE D'ARCHITECTURE DE GRENOBLE; ASSOCIATE RESEARCHER, CRATERRE, AE&CC RESEARCH UNIT.

CRAterre has been working for several years in the development of a methodology for the assessment of local building cultures. This method for context analysis related to shelter or housing projects and programmes is continuously evolving thanks to the joint work of CRAterre together with different organisations and partners both at the international and national levels (Global and National level Shelter Clusters, IFRC, CARE, HBC, IOM, among others). A summary of the latest version of this tool developed for a project in Timor-Leste can be found online here.

This methodology assesses local building cultures in a broad sense as local practices are not limited to construction aspects alone. The assessment of local construction includes: identification of local practices regarding housing production and life cycle, local knowledge and practical expertise, DRR practices, communication, decision making, gender issues and environmental factors. The data is gathered by means of interviews, focus group discussions, observation of the settlement, the building styles and the environment, and technical notes about construction. The central objective is to assess what people are doing and will do anyway in order to inform response planning. Then, it is necessary to define the nature of the support that will help inhabitants to achieve their goals faster and better than they would on their own, and without technical mistakes.

This tool is continuously evolving in order to fit local contexts and to include more relevant questions, easier forms for note taking and to go further in the analysis of aspects related to WaSH, gender, security, health, inclusion etc. As part of the evolution of the tool, there is a need to adapt the methodology to safe and remote analysis in the context of the COVID-19 pandemic.

How to integrate health issues in context analysis?

Different questions arise when considering the best way to access information on health issues during context analysis:

- What data would 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 and livelihoods?**

The methodology for context analysis is evolving and will soon be tested in new places by CRS/CRAterre/IFRC/CARE/CENDEP in the framework of the research project Self-recovery from Humanitarian Crisis.

To give feedback and collaborate on this topic, please contact e.sevillano.gutierrez@gmail.com and olivier.moles@neuf.fr.

2.9 Addressing health of shelters in the era of 'big-data'

SAMUEL YUTONG CAI
SENIOR EPIDEMIOLOGIST, NUFFIELD DEPARTMENT OF WOMEN'S AND REPRODUCTIVE HEALTH, UNIVERSITY OF OXFORD.

Nearly one billion people live in shelters or informal settlements, with the majority residing in low-middle-income countries (LMICs). People who live in these resource-poor settings face many hazards that adversely affect their physical and mental health. Indoor and outdoor air pollution, climate-related events (drought, flooding, extreme heat/cold etc), and living in close proximity to major traffic hot-spots and/or polluting industry are common environmental risks that face many of these communities. Although these risk factors can be easily identified, data scarcity, in particular from the perspective of health, remains a central barrier to research and policy for betterment of these marginalised populations.

Two useful approaches, relying on big-data analytical techniques, could fill such a data gap to better understand the exposures inside and around shelters/houses. First, measurement of residential air pollution is possible. Some residents are likely to be exposed to a higher level of household air pollution on a daily basis, because of the use of polluting fuel for cooking and heating and inadequate ventilation. In addition, there is greater penetration of outdoor air pollution due to poor quality housing materials. Exposure levels are greatly impacted by individuals' time-activity patterns. The rapid development of low-cost, wearable sensors is gaining popularity in scientific research on health impacts of personal air pollution exposure. These sensors gather a vast amount of both exposure and health data 24/7. However, these data require considerable technical effort to process and analyse. Nonetheless, if used wisely, these emerging tools could provide novel data and insights into 'shelter and health'.

The second approach is to utilise geospatial data from diverse sources, such as satellite observations, reports and data from NGOs and other open-source data to characterise the immediate neighbourhood physical environments that could harm residents' health. With the ever-increasing amount of such data, this approach again involves careful data gathering, processing and modelling at different spatial and temporal resolutions, but could generate knowledge in an efficient way. It is particularly useful to guide local health management, preparedness for potential disease outbreaks, and to contribute to the local community's advocacy, resilience building and self-recovery.

For references to Chapter 2, please see page 44.

3. SHELTER, HOUSING, MENTAL HEALTH AND PSYCHOSOCIAL SUPPORT

Introduction

The integration of mental health in the Shelter and Settlement sector has been largely neglected. There has been very little research conducted, particularly in the Global South. Displacement and emergencies result in significant psychological stress and can trigger the breakdown of traditional community and family structures that contribute to positive wellbeing. People may suffer from a range of mental health conditions such as post-traumatic stress disorder or depression, experience social challenges or develop negative coping strategies. Support that addresses any of these factors is commonly termed Mental Health and Psychosocial Support (MHPSS). MHPSS can be a standalone component of humanitarian programmes but can be integrated with Shelter and Settlements programming. The mental health session of the Learning Day was designed to introduce some of the programmatic actions, key issues and linkages between shelter, housing and mental wellbeing. The session raised several questions over whether shelter is, or can be, a therapeutic process, how to best equip shelter practitioners with a basic understanding of mental health and approaches to tackling what is a taboo subject in many cultures.

3.1 Secure housing tenure for healthier and more equitable cities

JILL BAUMGARTNER
ASSOCIATE PROFESSOR IN EPIDEMIOLOGY, McGILL UNIVERSITY

Jill researches non-communicable disease impacts of household air pollution and also works on tenure security and health; the latter was presented at the Shelter and Health day. Generally, housing tenure is the arrangement under which someone occupies a house; insecurity in housing tenure is a perceived risk of losing or being evicted from one's home. This could manifest in many forms, from foreclosure on home owners or being moved from a home due to informal settlement upgrading. Renters often experience insecurity due to the lack of protected rental agreements. Survey data from over 24,000 people in 33 countries indicates that nearly one in four urban dwellers perceives their housing tenure as insecure. The perception of tenure security varies, but those renting are much more likely to perceive their housing

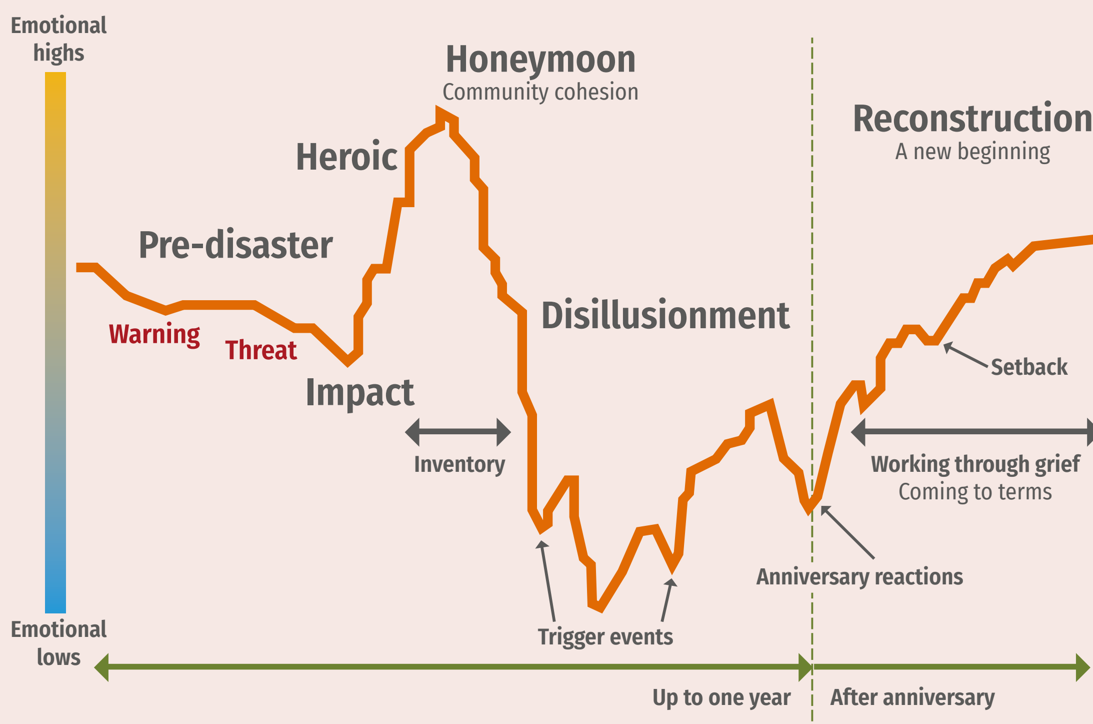
tenure as insecure. There is significant variation by country, with those renting or owning property in more formalised housing markets such as Europe less likely to perceive their tenure as insecure compared to those with more informal markets such as MENA and SE Asia (Prindex, 2019). Jill described the many ways in which tenure insecurity can impact physical and mental health, both for individuals at home and communities at settlement level. She suggested that further data are needed to establish whether ongoing programmes, such as slum upgrading and ownership promotion, contribute to improved perceptions of tenure security.

3.2 Mental Health and Psychosocial Support and Shelter

MELISSA TUCKER
TECHNICAL ADVISOR IN PSYCHOSOCIAL SUPPORT, CATHOLIC RELIEF SERVICES

CRS have been considering shelter and settlement factors that relate to mental health and psychosocial support (MHPSS), recognising the significant impact of people's living conditions on their ability to cope with and recover from crisis, including people with pre-existing mental health issues.

The emotional condition that people may experience is illustrated in the graph below, showing the lows and highs over a period of time. Providing a safe place to live is essential to helping overcome shock and trauma and, by enabling families to rebuild their homes, to support self-reliance and a positive view of their future. In these ways **shelter activities may be considered 'therapeutic' in terms of mental health**, while at the same time meeting physical shelter and housing recovery needs.



Adapted from Zunin & Myers as cited in DeWolfe, D. J., 2000.

Whether due to the loss of the home or displacement, people may find themselves in living conditions that create stress. Overcrowding, insecurity, unhealthy living conditions, lack of security of tenure can all contribute to stress and related mental health issues. Shelter support may mitigate or reduce the impact of these issues through effective programming.

Pathways to psychological wellbeing and resilience will inevitably be influenced by the living environment

but also by society, where the importance of community and the physical infrastructure to support this is part of settlement considerations. Shelter and Settlement (or Homes and Communities) programming can contribute to the psychological wellbeing landscape that is home and community. As an example of this, during a pilot study of community-led shelter and site improvements in a Rohingya refugee camp in Bangladesh, groups and individuals subsequently reported reduced stress, increased feelings of safety, and improved social cohesion.

In an effort to ensure that mental health and psychological wellbeing are integrated into Shelter and Settlement programming, CRS Shelter and Settlement and MHPSS teams are interested to see how best to coordinate and collaborate throughout the response cycle. This includes mapping the potential risk and mitigations, and considering the indicators, positive and negative, of mental health issues that relate to Shelter and Settlements. In part this may expand on existing Protection Mainstreaming activities, but CRS recognises the opportunity to consider in future the significance of psychological wellbeing as a shelter and settlement indicator.

3.3 Housing and Mental Health

OLIVIA NIELSEN
ASSOCIATE PRINCIPLE, MIYAMOTO INTERNATIONAL

The following is based on research by Olivia Nielsen and Luis Triveno (World Bank) originally published on the World Bank website (Triveno and Nielsen, 2020).

As the world fights the unprecedented COVID-19 pandemic, a large part of the world population has been ordered to ‘stay-at-home’- but the quality of our homes varies greatly. With close to one billion people living in slums without access to proper sanitation, much has been written on the negative health impacts of living in insalubrious conditions. Poor housing quality not only puts the physical health and lives of families at risk, it also impacts their mental health. Despite this, few studies have focused on the link between housing and mental health in the Developing World. The little research available has emerged out of the US and Europe, and has showcased that inadequate, risky, and overcrowded housing affects mental health in at least four ways:

1. Poor housing quality stunts self-esteem. In many cultures, our home is perceived as an extension of oneself and contributes heavily to personal identity. Poor housing conditions can undermine self-esteem (Rohe and Stegman, 2007) – while home improvements (Clark and Kearns, 2012) are likely to build self-confidence.
2. Poor housing quality and overcrowding increases levels of depression and stress which can lead to domestic violence. **Living in crowded conditions limits privacy and risks inflaming family relationships – to the point of domestic violence**. Studies of overcrowded housing reveal an increase in conflicts between couples and siblings (Barnes et al., 2013). However, overcrowding should not be confused with density. Well-developed density can lower housing costs whilst increasing wellbeing.
3. High housing costs are a major issue, with one in four adults suffering from stress of paying their rent or mortgage (Shelter, 2013). The COVID-19 pandemic has resulted in unimaginable job losses and the inability of households to pay housing costs. The stress of losing one’s home during the pandemic remains a major issue, triggering the #CancelTheRent movement.
4. Poor housing quality increases the risk of PTSD. Families surviving disasters often experience severe PTSD, not only due to the trauma of the event but also the displacement that often follows (Fussell ad Lowe, 2014). Nearly one quarter of earthquake survivors suffer from PTSD and the mental and emotional impact of earthquakes has been called “the other invisible disaster” (Bennett, 2015; Dai et al., 2016). **Reconstruction alone simply cannot build back what was lost**.

More research is necessary to understand linkages between poor housing quality and mental health in the Developing World. Meanwhile, cities need to implement solutions that focus on improving our communities and physical and mental wellbeing:

- Support home improvements to achieve better health outcomes.
- Make buildings stronger and more resilient.
- Upgrade neighbourhoods to make cities a better home for all.

Safe and affordable housing is a universal right. It is also essential to solving a growing global mental health crisis, which experts estimate will cost the global economy $16 trillion by 2030 (Lancet Commission, 2018). As COVID-19 spreads around the globe, our homes can provide the crucial protection we need for physical and mental health, but only if they are safe and comfortable. It is imperative for policymakers to adopt holistic housing strategies that focus not only on overcoming housing shortages, but also on improving the quality of the existing homes. Two out of three families need a better home, not a new one (de Duren, 2018).

3.4 Inclusive Shelter and Settlements Programming: Beyond the Physical

GUGLIELMO SCHININÀ
GLOBAL HEAD OF MENTAL HEALTH AND PSYCHOSOCIAL RESPONSE & INTERCULTURAL COMMUNICATION, IOM

In post-disaster and conflict scenarios, individuals are impacted physically and emotionally. Social and cultural elements are redefined, which can undermine the long-term mental health and psychosocial wellbeing of affected communities. Mental health and psychosocial support (MHPSS) goes beyond treatment and prevention of mental health disorders caused by emergencies and includes activation of context-specific, multidisciplinary support systems that build on existing strengths of affected communities.

There are two main links between Shelter and MHPSS:

- Lack of shelter and shelter conditions have an impact on MHPSS – a preventative function of shelter in mental health care that cannot be underestimated.
- People with mental health disorders need to receive adequate shelter and care from trained professionals.

IOM MHPSS Programming and Experience

IOM has mainstreamed MHPSS for over 20 years in 72 countries through integrated programmes or as programme components. There are 27 international and 400 national PSS staff working on programmes for migrants and refugees. Three MHPSS and shelter programme examples follow:

Haiti (2010): Whilst pre-existing conditions and trauma from the earthquake were mentioned, most people also stated housing and settlement conditions as stressors. Overcrowded camps and settlements with limited or no services were causing high stress levels. Lakou was noted as a resilience factor, a term referring to the courtyard around which all houses of the same extended family were built. Where possible, camps were organised following Lakou principles. Residents in these camps felt safer and less isolated and had fewer MHPS challenges than those in camps that could not follow Lakou (IOM, 2010).

Nigeria (2015): In response to displacement caused by the Boko Haram insurgency, an IDP camp assessment revealed worries around how shelters would sustain the forthcoming rainy season. The PSS expert attended CCCM and Shelter & NFI working group meetings to raise shelter concerns (IOM, 2015).

Cox's Bazar (2018): Inadequate shelter, lack of personal space and poor lighting were among the most common factors affecting MHPS wellbeing. Young women and girls reported feeling afraid and lack of space within shelters led to restrictions of family gatherings. This information was used to advocate for strengthened shelters and integration of cultural and family needs into camp design (IOM, 2018).

For references to Chapter 3, please see page 45.

4. GAME-CHANGING CRISES? CONFLICT, CLIMATE AND COVID-19

Introduction

The Shelter and Health Learning Day was framed against a backdrop of a global disaster. The COVID-19 pandemic coincides with climate breakdown and an all-time high in global displacement due to disasters and conflict (IDMC, 2020; Phillips et al., 2020). Just as the 2004 Indian Ocean tsunami resulted in structural changes to humanitarian response, will the current global pandemic trigger reform within the humanitarian Shelter and housing sectors? Our homes have certainly received increased focus (Barker, 2020), with Leilani Farha, the UN Special Rapporteur on the right to adequate housing, noting that "housing has become the front-line defence against the coronavirus" (OHCHR, 2020). Throughout the Learning Day, many speakers and participants commented on opportunities to tackle weaknesses within the current system, suggesting that COVID-19 might represent an opportunity to more closely align the processes of shelter and health. The Grand Bargain (2016) was not triggered by a specific crisis, but does COVID-19 represent an opportunity to implement 'localisation' of humanitarian response and facilitate meaningful 'participation' where the priorities of communities – in line with a self-recovery approach – are truly acknowledged?

4.1 The implications of COVID-19 and the climate emergency for shelter and health

ILAN KELMAN
PROFESSOR OF DISASTERS AND HEALTH, UNIVERSITY COLLEGE, LONDON

In 'game-changing crises', what is the game? Hopefully, it is always saving lives, meaning reducing vulnerabilities and thinking ahead of a crisis by highlighting prevention. This would especially be the case for shelter and health, both of which are long-term processes that are always needed, not just in a disaster's aftermath.

Consider the shelter process during the COVID-19 lockdown in early 2020. Without disputing the lives lockdown saved, the consequences of inadequate shelter and sheltering are clear, especially for mental

health, such as increased stress, self-harm including suicide attempts, domestic violence, and substance abuse. All are poorly treated epidemics within society anyway. All represent the meaning of shelter and health anyway. All need to be solved anyway.

Even the pandemic's typical vocabulary shows the distance from basic principles of the shelter process. The phrase 'social distancing' is typically used rather than 'physical distancing', despite the importance of remaining as socially close as possible without physical proximity. Blame is being foisted on hazards, although vulnerability causes most disasters. For COVID-19, is it the virus or is it inadequate local and international surveillance and response systems, plus the silencing and intimidating of doctors raising the alarm? Coupled with long-term underinvestment in health systems and in disaster science, we created the pandemic.

It is the same with climate change. By definition, climate change is a change in weather statistics. Human-caused climate change is changing the weather now. But weather is hazard, not vulnerability. We should be able to deal with weather, but at times we cannot due to vulnerabilities. The disaster is not the weather changing; it is that we cause and perpetuate vulnerabilities to weather. Within this context, one exception is heat. Human-caused climate change is leading to heat-humidity combinations over a length of time which will kill masses without 24/7 indoor cooling—which is not easy to provide for most of the world's shelter. Otherwise, disasters come from vulnerabilities, not due to the weather or climate change.

So where is the game-changer? It is not the consequences of inadequate shelter, the pandemic, or lockdown. These games have long been known. Instead, for shelter and health, the game-changer should be admitting, caring about, and tackling vulnerabilities; not blaming the environment for disasters; and avoiding the phrase "natural disaster". The game-changer should be a healthy shelter process which reduces vulnerabilities for avoiding disasters. This focus produces research questions which might not make an immediate difference for those suffering from inadequate shelter and health, yet which hopefully support long-term endeavours for improvements through applying vulnerability thinking:

1. How might shelter processes and health processes be used to gain donor support for prevention? It is hard enough achieving the response appeals, but we know that **prevention is better and cheaper than cure. Response is a donation; prevention is an investment.**

2. How could we shift the focus from hazards, such as viruses and specific climate change impacts, to using shelter processes and health processes to resolve long-term vulnerabilities?

Ultimately, how do we create the game-changing processes which people need and want, so that shelter, settlement, and housing become home? These are questions. I look forward to learning some answers.

4.2 Climate Change, Sustainable Development & One Health

NIALL ROCHE
WASH AND ENVIRONMENTAL HEALTH CONSULTANT

Climate change has been described as "the greatest global threat of the 21st Century" (Costello et al, 2009). Climate change is an issue that confronts all of us working in the humanitarian-development nexus and is indeed a 'game-changer', increasing environmental health hazards (Frumkin et al, 2008). Climate change creates and exacerbates health threats (Watts et al, 2017). For example, heatwaves, especially severe in urban areas due to the urban 'heat island' effect, increase the risks of cardiovascular disease. Climate change also has direct and indirect influences on nutrition, water and vector-borne diseases, as well as mental health. Environmental forced migration connected with climate change is another issue likely to increase the vulnerability of millions.

Health can be considered as contributing to all of the Sustainable Development Goals and of course humanitarian action cannot and should not be divorced from these (WHO, 2020). Humanitarian Shelter assistance is particularly connected with SDG 7 (Affordable and Clean Energy). Currently 3 billion globally use biomass fuels. In some countries, 90% of people in rural areas use biomass fuels; promotion of sustainable energy can promote healthy homes and lives. Likewise, for SDG 11 (Sustainable Cities and Communities) many aspects of health can be addressed through housing, to ensure safer living. If we can deliver on SDGs 7 and 11, we can have tremendous health impacts. The late Hans Rosling pointed out that **most cities in Africa have yet to be built; we have an opportunity to make a difference**.

Climate change mitigation actions are not just a cost – they are an opportunity to invest in public health. There are great co-benefits of mitigation actions such as increasing access to clean fuels which will reduce greenhouse gas emissions, raise finance on the voluntary carbon market for verified reductions and reduce particulate pollution which can have health benefits, especially for children. The concept of One Health, or Planetary Health (http://www.onehealthglobal.net/), which brings together human health, environmental health and animal health is useful and can be considered in relation to the Shelter Sector's aspiration of a more holistic approach.

4.3 'Out-of-the-Silo' thinking to improve humanitarian action

CECILIA SCHMÖLZER
GLOBAL SHELTER CLUSTER FOCAL POINT FOR TECHNICAL COORDINATION, IFRC

In my role for IFRC, I am deployed 50% of the time in post-disaster contexts, in different Shelter Cluster coordination positions. I am currently providing remote support to the Mozambique Shelter Cluster in what was originally the Cyclone Idai and Kenneth response, but is now heavily focused on COVID-19 response. This experience has shaped my perspective on the current sectoral approach to vulnerability and has raised questions about value for money in humanitarian action.

Shelter and COVID-19. Is adequate shelter 'life-saving' or 'nice to have'?

Protecting lives and alleviating suffering is the core principle and objective of every cluster – sometimes that gets forgotten as we work in our separate sectors. It seems generally poorly understood by other clusters, and indeed by donors, how critical shelter is for safety and health. It appears obvious that the interventions coordinated by the Health Cluster (such as providing PPE and training health workers) are prioritised in the pandemic response. Interestingly, activities coordinated through the Shelter or the WaSH Cluster, which clearly contribute to health outcomes (such as installing hand-washing stations, reducing congestion, and allowing separation of the sick within shelters) are not considered as health interventions and are therefore not prioritised for funding. However, adequate shelter is a critical element to decrease or prevent the spread of diseases and should be considered as such in future pandemic responses.

Currently, at the global level, there are efforts to develop an inter-sectoral framework that assesses vulnerabilities across sectors and tries to rank them according to severity and urgency[6]. Every cluster is putting forward indicators that are then ranked according to three criteria: 1. physical and mental health and wellbeing, 2. living standards and 3. coping mechanisms. The Shelter Cluster's Vulnerability Working Group is feeding into this process. Whilst we in the Shelter Cluster believe that some of our indicators should be classified as contributing to physical and mental health and wellbeing, rather than just 'comfort' of living standards, we do not have sufficient solid research and data to prove it. It can therefore be difficult to make the case that adequate shelter, for example the provision of ventilation and safe materials, is critical to the reduction of infection and other health threats, and can indeed be life-saving.

[6] The Joint Intersectoral needs Analysis (working) Group (JIAG) is producing the Joint Intersectoral Analysis Framework (JIAF)

Value for money and return on investment?

Shelter interventions usually come at a higher cost per person compared to other sectoral responses (such as food security, health, WaSH). Materials, skilled labour and technical knowledge are all expensive, even if sourced locally. These high costs often preclude a Shelter intervention. **We need to be able to evaluate the return on investment that these interventions have – not just in terms of the safe shelter itself being provided, but also its contribution to health, as well as providing protection, securing livelihoods, promoting education and giving a safe space for recovery and better living conditions.** Value for money really needs to be looked at in this wider frame. If we could quantify the wider co-benefits and therefore return on investment of improving different shelter elements, such as improved flooring, better roofing, improved ventilation, thermal insulation, it would help to determine, for any given context, which interventions to prioritise in the short- and long-term in order to to achieve the highest impact. With better knowledge, we could achieve easy wins, with small investments and high returns, and co-benefits.

Shelter is not a product but a process

Humanitarian Shelter activities are not about merely providing emergency shelter but about helping to 'build up' safer and healthier living conditions that provide the base for recovery and prepare the ground towards long term housing. Especially in contexts with prevailing high levels of vulnerability (poverty, lack of livelihood opportunities, lack of access to WaSH and health facilities) compounded by high density, adequate housing is key to supporting better health and mental wellbeing. As a sector we need to establish close collaborations with the health sector to collect more evidence for these correlations and promote the understanding that better shelter is the first step to improving health and mental wellbeing.

4.4 Conflict, COVID-19, Climate: how much of a 'game-changing' phase are we in?

BRETT MOORE
CHIEF, SHELTER AND SETTLEMENTS; CO-LEAD GLOBAL SHELTER CLUSTER, UNHCR

There are inherent challenges and contradictions within the structure of the humanitarian system; not least the separation of issues such as shelter and health. Within the humanitarian system, the 'clusterisation' of issues and top-down funding processes have led to a need for more purposeful links to be made. **There's an ample body of evidence of the relationship between housing and health but work to be done in translating this common bedrock knowledge into the humanitarian system**.

Shelter, Health and Conflict: crisis and recovery

Much of the emergency response discourse has developed around rapid-onset disasters. There's a very complicated process of response, but still a relatively linear trajectory to the recovery process and largely a reconstruction-focused approach. There are specific challenges in conflict settings, especially protracted crises, that are even more pronounced in refugee situations. When people are displaced outside their country of origin, what do Build Back Better, recovery and reconstruction mean? In refugee situations it falls to UNHCR, its partners and the humanitarian community to provide ongoing health and education services. In protracted crises, displaced people live in a state of extended emergency, without a clear pathway to durable solutions.

Vulnerability and Risk: local messages and reality

The key COVID-19 prevention messages of 'Stay at Home, Wash your Hands, Isolate' are not applicable in the contexts where we work. Refugees and IDPs often live in inadequate shelter lacking access to a toilet, running water, or electricity. They live in high-density conditions and need to leave their dwelling several

times a day to access services. In situations where people are already battling to survive, what does the risk of COVID-19 really mean? In NW Syria more than 700,000 people have been displaced since December 2019. Many did not survive a harrowing winter with aerial bombardment and consequent secondary and tertiary displacement. How does our understanding of the COVID-19 risk and vulnerabilities compare with their analysis of daily risks and issues?

Climate, Conflict Displacement: compounding effects

In 2019, there were over 70 million people displaced globally. Around 20 million of these were refugees. Around two thirds of IDPs are reportedly displaced due to climate and disaster, one third purely around conflict but these factors are often related. IDPs who do not reach a place of safety often cross a border so there is a process of becoming an IDP and then a refugee. In the Horn of Africa, climate change and conflict displacement, often leading to urbanisation, have been inseparable for decades. We know the links between human proximity, density, urbanisation and COVID-19 transmission: 90% of cases have been in urban areas. The historic relationships between displacement, conflict and urbanisation have exacerbated the impact of the pandemic. COVID-19 was initially seen as a health issue and then, with the loss of livelihoods, recognised as an economic concern. We will soon see the third wave of related political destabilisation – it will not take long for deep ethnic and religious grievances to surface.

Long term issues, short term response?

There are deep structural issues that have led to the exacerbation of COVID-19. The commodification of the built environment and a steadily declining investment in public housing have caused increasing inequity and inaccessibility of adequate housing. **COVID-19 is a compounding problem but also potentially transformative. One of the key game-changers has been for clusters and agencies to reorient the humanitarian response towards health outcomes**. This is the beginning of a long period of political and social destabilisation but there's also an opportunity for empowered local processes and for rearranging and improving humanitarian responses.

For references to Chapter 4, please see page 46.

5. FINDINGS OF THE LEARNING DAY: EMERGING THEMES

BY EMMA WEINSTEIN SHEFFIELD, SUE WEBB, BILL FLINN, BETH SIMONS AND CHARLES PARRACK

Following an examination of comments, questions and written contributions throughout the Shelter and Health Learning Day, three thematic areas emerged: shelter realities and practice; research and evidence and policy and advocacy. The contributions from speakers and Learning Day participants are summarised below under these three headings. All the quotations in this chapter are from Learning Day participants. Section 5.4 consists of a reflection on these themes and gaps in knowledge and suggests areas requiring further investigation.

5.1 Shelter realities and practice

"There's clearly a need for multi-disciplinary working and for learning from the development/housing sector. So much research is conducted that would be useful for practice but we don't hear about it".

"Does programming, although well intended, create another added stress? Efforts to put decision making in the hands of affected populations was an added burden".

*"COVID-19 raises a lot of questions. What does coordination and implementation actually look like?
How do you do that inter-sectorally? COVID-19 means that everything has to be done across the different sectors and I'm not sure that we know what that looks like yet. I'm not sure that that's been done before...I haven't seen it in the responses that I've been involved in".*

"The end point of a purely technical lens on Shelter and WaSH can be a compromised environment for health and dignified living for the communities with which we work".

"Local inter-sectoral working is the barrier. Even though at global level the discourse is around inter-sectoral working. Agency staff don't have the cross-over knowledge, so they tend to replicate what they did in the last programme".

Cluster Coordination Mechanisms

- One of the major themes of the day was the challenge of siloed working, which runs across all aspects of humanitarian programming, from the cluster systems to context analyses, evaluations, funding models and research. This current mechanism acts as a barrier to the dissemination of ideas. With health framed as a potential bridge connecting the sectors, siloed working diverts from our collective responsibility to mitigate public health risks.
- With many health issues that cut across current humanitarian practices, such as household air pollution (HAP) and vector control, there is a need for cross-cluster coordination at the global level. Better cross-cluster working will help to identify issues which may currently fall through the gaps in the cluster system. For example, agreement is needed over which cluster takes responsibility for addressing HAP as a key risk factor for pneumonia. Starting with cross-cluster working at global level will support this in field operations.
- Participants called for better coordination mechanisms between sectors and clusters that place health and wellbeing at the centre of what we aim to achieve. A focus on 'environmental health' is a potential bridge between the sectors.
- To encourage 'bigger picture thinking', participants suggested incorporating different types of holistic metrics into programming, for instance, setting overarching 'wellbeing' indicators. These could support linkages between the sectors and allow for the prioritisation of resources and interventions according to effectiveness. (The definition of wellbeing is outside the scope of this report but is an area of further research).
- To support shared learning, the Shelter Cluster should consider the most accessible and cost-effective transfers from development housing policy to humanitarian settings.
- There should be consensus about the co-benefits of healthy housing throughout the humanitarian and development sectors, strengthened by cross-disciplinary partnerships between academic and practitioner organisations, especially those from the Global South.

Protracted scenarios, camps and disasters

- There are stark differences between how shelter and health challenges are addressed in protracted scenarios, camps and post-disaster settings. For example, noise may represent a significant health concern in camps and urban collective centres, but not in post-disaster settings. These contextual factors require a variety of assessment methods, and links to wider discussions around the need to understand health risks relating to shelter across different settings.
- The COVID-19 pandemic brought to light challenges relating to communication of 'stay at home' health messages. People living in high-density areas such as camps, collective centres or informal settlements cannot isolate and have limited access to hand-washing facilities. These Euro-centric messages fail to consider the realities of protracted humanitarian settings.

Communication – IEC

- Participants called for a more holistic approach towards the production, collection and dissemination of information, particularly of IEC materials that promote health in recovery, alongside hazard resilience. The prioritisation of *which* key messages to communicate to affected populations needs to be carefully considered within a Shelter programme, especially in one promoting self-recovery, and should draw on existing community knowledge. To support informed decision-making, health education and promotion should be produced in collaboration with the community and with health specialists. As IEC materials are often disseminated too late after an event, there should be consideration of how to develop and communicate these messages as part of preparedness activities.

Capacity building

- There are structural issues within the sector that negatively affect practice. For example, high staff turnover creates a need for regular updating of knowledge and training to avoid ill-informed repeat actions from previous programmes.
- Dissemination of case studies of projects that incorporate Shelter, Health and WaSH interventions would be helpful. Shelter projects that have addressed health issues have not always expressed this explicitly, nor explained evaluation metrics or methods.
- Participants drew attention to the problems with translating information from global to field levels and vice versa. Innovative ideas and concepts are often not factored into programme design, resulting in limited organisational growth.
- Practitioners at all levels within organisations, including field staff and local partners, would benefit from training to support learning across and within agencies. Just one example would be training in psychological first aid to support mental health.

Assessments/context analyses

- Using the knowledge that adequate shelter contributes to physical and mental health and wellbeing, shelter indicators that measure characteristics of an ‘unhealthy home’ should be incorporated into joint vulnerability assessments. Any tools developed to capture the health impacts of shelter at the outset of an emergency response need to be manageable.
- Good context analysis will inform programming possibilities, directing strategy towards, for example, cash, self-recovery, owner-driven, or other approaches that enable people to respond to their own needs, plans and priorities. Context analysis that includes mental health will be particularly challenging as well as raising ethical issues about revisiting recent trauma. Trauma may impact a family or community’s capacity to recover, and its assessment may require the involvement of mental health experts.
- It is important that practitioners plan and implement humanitarian programmes with an empathetic lens, ensuring affected communities are involved in the provision of appropriate and equitable support. For example, understanding the specific needs of women and girls (MHM, privacy, GBV) and the realities of shared latrines needs to be improved. Shelter programming may overlook gender issues if it focuses on households as single units of assessment. Gender sensitive shelter assessments that include comprehensive sex and age disaggregated data will help identify the diverse needs of different groups and allow a more gender equitable response to be designed. All programming must be inclusive.
- An environmental focus needs to be used for all programming: questions of environmental sustainability of shelter programming also feed through to long-term health promotion, livelihoods and protection related to shelter and settlements.

Community participation

- Understanding health risks in different environments (e.g. urban/rural) is important. Community perceptions of health risks may differ from those of health specialists. Understanding community health priorities will facilitate the setting of programmatic health indicators.
- It is important that the design of context analyses allows for iterative improvements. The ‘consult, modify, consult’ model is useful to facilitate evolving priorities and equitable access to information, therefore ensuring real participation of affected communities.
- Shelter actors should ensure that the co-benefits of housing improvements are better understood by people recovering. Practical demonstrations of interventions are much more effective than other methods of explaining potential health benefits. This can have more impact on people’s priorities, perceptions of value and affordability and therefore decisions.

5.2 Research and evidence

“What are the appropriate activities, indicators and objectives to reorient the humanitarian response around a health outcome, as opposed to a protection or shelter outcome?”

“Is it the housing that leads to health outcomes or is it the economic and other status of the households that enables them to build better houses?”

“We are not looking at randomised control trials. it is probably a case of better articulating, knowing how to articulate or remembering to articulate what we are already doing.”

“...what would be the most added-value type of intervention that shelter actors should prioritise to improve health outcomes?”

“The key to making good decisions is good data. The key to getting good data is having good people who know what it is they’re supposed to be looking for. Many people in humanitarian action don’t know what they’re supposed to be looking for.”

“Defining success in metrics is valuable in outlining projects in the future. Bridge the gap between gold standard research projects (RCTs) and the reality of housing/shelter projects.”

“Literature is often confidential to agencies. The systems aren’t there to allow data to be collected and shared. Does the data fall between the sectors?”

“The lack of publicly available data on health [in humanitarian settings] is a real barrier to research.”

Causality

- Part of the discussions around shelter and health focused on understanding causality. Further research is needed to disentangle the linkages between shelter and health and the wider structural issues underpinning inadequate housing options. The ‘noise’ surrounding big data means that it is hard to identify causality of health impacts (e.g. housing improvements vs household income). Not all data represent humanitarian contexts, therefore can they be used to show links between shelter and health?
- A better understanding of people’s behaviour with regard to housing and health is also required. Health is not just affected by the buildings/facilities themselves and a social/cultural lens (e.g. cooking practices, doors and windows) is also required to address this gap in understanding.

Evaluations – evidence, value for money and impact

- The sector needs to look more systematically at what data it collects, how it is collected and interpreted, who uses it and how it is applied. Shelter practitioners need to engage with how evaluations are designed and carried out in order to be able to strengthen the evidence base on beneficial impacts of project interventions.
- Many participants raised the challenge of evidence. We need to consider what evidence is needed, why and for whom. Meaningful links between shelter and health do need to be evidenced to avoid perpetuating messages that cannot be validated. There are questions around whether Randomised Controlled Trials (RCTs) are the most appropriate form of evidence gathering in humanitarian contexts. Although RCTs are considered the most reliable evidence, they can be impractical and ethically questionable in humanitarian response. What needs to be considered is ‘good enough’ evidence that can be gathered within the very real limits of an emergency timescale.
- Health benefits take time to materialise and some aspects, such as mental health, will be hard to prove, especially within the reporting periods of most humanitarian projects.
- Value for money is one element of evidence and evaluation. With cross-disciplinary working, new ways of measuring co-benefits and cost-effectiveness of interventions are needed.

- Health data, qualitative as well as quantitative, should be incorporated into assessments, monitoring activities and evaluations. Data collection could enable different settlement types to be categorised according to their specific health risks; urban environments, for example, can pose heightened risks like isolation.
- As highlighted throughout the day, there is a body of evidence produced by the housing and development sectors and also governments. However, accessing relevant health data is often challenging. To help translate applicable research into humanitarian practice, the clusters have a responsibility to integrate with other sectors and promote more informed, expert analysis of data with representation from the Global South.

5.3 Policy and advocacy

"We need to see Shelter not as an emergency shelter but as a first step that leads to long-term improved housing. We need to start investing in that, knowing that it does contribute to public health improvements".

"Currently a large proportion of the emergency shelter response comprises NFIs only, so we can't demonstrate a link with longer term housing outcomes."

"I don't think it's a problem of the cluster system. We're mixing what is humanitarian and what is development....A lot of the poor housing out there has nothing to do with the humanitarian scope, or activities that the humanitarian actors do, but more due to developmental factors...It's a little bit the problem of the divide between humanitarian and development, which is artificial".

Longer term planning

- Within the Shelter and Settlements Sector, shelter is understood as a process; emergency shelter is often the first step leading to longer-term reconstruction and recovery. Emergency responses should consider the short and long-term health impacts of shelter on the household and community. To do this requires relationships with development actors and work with governments that may not always prioritise holistic approaches. We need to better understand and communicate what the role of Shelter is, and realistically what our impact is, or can be, on longer term housing.

Funding/donors

- Participants noted the numerous challenges relating to the current funding models that make working across sectors and considering wider and long-term impacts of shelter difficult. The unfortunate divide between humanitarian and development funding leads to limited remit and timescales for humanitarian response and does not adequately address the shelter process that spans the two. More flexible donor mechanisms that facilitate working across sectors and the humanitarian-development nexus are beneficial to achieving healthy homes.
- Working with Health and WaSH partners and better communicating research and lessons from Shelter would allow wider advocacy for more effective policies for longer-term healthy housing solutions. Examples might include, the requirement for landlords to provide toilets, the banning of asbestos, improved tenure security to avoid negative mental health impacts.
- There is also a link between funding and evidence. Working across sectors demonstrates how funding of holistic programming produces co-benefits, value for money and 'easy wins'; prevention is better than cure. To advocate for cross-sector funding requires new consideration of how we collect evidence and which metrics to use in evaluations to demonstrate positive health impacts.
- The relative risks to health and wellbeing in different settings (ranging from possible future damage from natural hazards to endemic health risks such as malaria) need to be evaluated and clearly articulated to policy makers. Shelter programming that is narrowly focused on structural safety is likely to be inappropriate. Opportunities to improve health, for example by advocating for the provision of chimneys, may be missed.

5.4 Reflections on emerging themes and links to research needs.

"How do we give learning more prominence within the shelter sector as an integral element in our work and understanding of shelter issues (i.e. not just standard M&E)? How is knowledge diffused and taken up within the humanitarian system?"

"Humanitarians do not need to become impact evaluation experts or academics, but without a shift in the current practice, the level of evidence that currently exists will not change"

The mix of academic researchers and operational agencies at the Learning Day strengthens research relevance and evidence production. Partnerships between the two offer a positive combination of the contextual understanding, access, and data gathering strengths of operational agencies, combined with methodological and analytical expertise of academics. There was also a strong sense amongst the Learning Day participants that there are significant opportunities for collaboration between health and shelter/housing researchers that would enable good evidence to be generated on health and housing in post-crisis response. There is a recognition amongst agencies that shelter programmes demonstrating reliable evidence of positive health outcomes would be of great value and enable shelter actors to make a strong case to donors and policy makers for much needed investment in better post-crisis housing.

From the presentations and discussions of the health and shelter Learning Day, key areas of research interest emerged:

- Measurement of settlement-level health outcomes and categorisation of different settlement and housing types for their health risks;
- A focus on causality; there is a need to understand better the linkages between housing characteristics and health outcomes, including the links between mental health, trauma, capacity to recover and the role of rebuilding;
- Although wellbeing is often said to be an important element in recovery, there is a need for better articulation of what wellbeing actually means.

There are some specific proposals for research including:

- Energy access, cooking facilities, ventilation and the links with HAP and ARIs;
- The impact of different construction materials and building design on indoor air quality;
- Smoke and insects: anecdotal and proven connections;
- Flooring and roofing: impact on disease and pests compared with cost and environmental impacts of different materials;
- Health benefits of toilets for each household;
- Health outcomes of noise pollution in different settings;
- The development of a common language between humanitarian clusters on mental health.

In order to facilitate research in these areas, shelter experts need to identify which data to collect by engaging with health and public health specialists. It is likely that both quantitative and qualitative approaches can be used. Case studies of shelter projects that are already engaging with and evaluating mental and physical health impacts will be valuable.

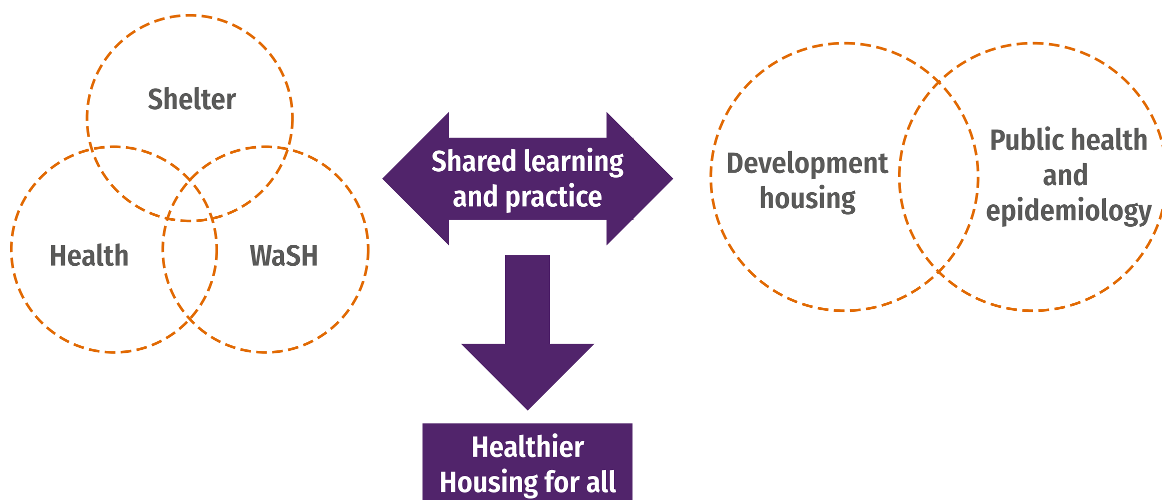
6. CONCLUSIONS

BY SUE WEBB, EMMA WEINSTEIN SHEFFIELD AND BILL FLINN

The findings of the Shelter and Health Learning Day are summarised in Chapter 5 under three thematic headings: shelter realities and practice; research and evidence; policy and advocacy. They highlight the opportunities for increasing the humanitarian Shelter Sector's knowledge of healthy housing and for widening the understanding of beneficial impacts of programming. The strong engagement with both academics and practitioners throughout the Learning Day is a positive demonstration of the sector's commitment to better understand its huge potential impact on physical and mental health and wellbeing.

There is of course much overlap between the three thematic areas discussed in Chapter 5; both practice and research inform learning within and between organisations and sectors. An expansion in knowledge and improved understanding should guide advocacy, policy and, in turn, changes in practice. The manner in which Shelter practitioners and organisations can take advantage of intersectoral shared learning and collaboration between humanitarian clusters, leading to healthier housing for all, is illustrated in the diagram below.

The humanitarian-development nexus



Perhaps the strongest theme emerging from the Learning Day was the need for shared learning and collaboration between usually siloed sectors. Deliberate coordination and cooperation between Shelter, Health and WaSH practitioners at all levels of organisations will allow a more integrated approach to programming and have overall positive impacts on the health of crisis-affected populations in the long-term. In addition, the desire to learn from other actors in development settings will lead to progress. The willingness to engage in shared learning was demonstrated in the Learning Day, which was characterised by open debate. These connections must be strengthened and put to practical effect. Several specific suggestions for further research were made; a non-exhaustive list is included in Chapter 5.

Research and practice will be augmented by adopting an 'Environmental Health lens'; a holistic humanitarian approach that recognises and uses the intersections between Shelter, WaSH and Health in particular. It also implies a need for the application of knowledge from other sectors, such as development housing and epidemiology. This approach would enable further progress on understanding the wider co-benefits that healthier emergency and long-term housing can bring. This is not to ignore Shelter's conventional mono-focus on structural safety, but to enhance its scope. A healthy home supports, in turn, other vital aspects of successful recovery, such as livelihoods and education.

Developing a more holistic approach to Shelter: co-benefits of a healthy home

A wide-angled 'Environmental Health lens' can be useful at all phases of the 'project cycle', from assessments, implementation to evaluation. For example, there is the potential to include health risks and health vulnerabilities into context analysis; IEC materials could include health information in addition to safer rebuilding messages.

The online format of the Learning Day had the unexpected benefit of including academics and practitioners from around the World. Despite this positive consequence of the COVID-19 lockdown setting, the voices of people living through humanitarian crises were not heard directly. The organisers of the Learning Day are conscious that this report includes the viewpoints of those working in humanitarian and development settings, rather than the knowledge and opinions of people affected by disaster and conflict. The principal stakeholders - or the home-makers themselves to call them by a different term - are missing from the discussion. This is a shortcoming which needs to be addressed. The imperative of real power-shifting community participation and the co-creation of knowledge about shelter and health comes through loud and clear. Ways must be found to learn from and to incorporate the lived experience of affected populations within a desire for better humanitarian programming.

The aspiration to address longer-term recovery pathways sits squarely within the humanitarian-development nexus. Funding for humanitarian projects is usually insufficient, time-limited and focused on emergency assistance. However, with increasing awareness of protracted disasters and the fact that most people self-recover, there is impetus within the Shelter Sector to advocate for more flexible funding and investigate different ways of responding that will have wide beneficial impacts over the long-term.The enthusiasm expressed in the Learning Day, and the determination of the participants to work together and broaden understanding of the wider impacts of shelter, will bring this aspiration a big step closer. Homes constructed after disasters, conflict and displacement can be both safer and healthier than before.

Recommendations

Following the Learning Day and the analysis of all the contributions, a number of recommendations are detailed below. If adopted, they will significantly contribute towards the Shelter Sector's understanding of the connections between housing and health and ultimately, its approach to policy and practice.

1. The formation of an 'Environmental Health' Inter-cluster Working Group – incorporating Health, Shelter and WaSH practitioners. This would promote an understanding of the magnitude of the opportunity provided by humanitarian action to address housing-related health issues and start the process of collaborative working towards a common goal: programming that has the co-benefits of improved housing and health.
2. A priority emerging from the Learning Day was the need for the Shelter Sector, working in collaboration with other humanitarian actors and experts from different fields, to develop evidence of beneficial impacts of improved shelter on mental and physical health. There is growing realisation that, without a shift in current practice, the level of evidence that currently exists will not change. Therefore, the humanitarian sector should encourage collaboration between academics and practitioners, ensuring the inclusion of actors from the Global South, for data sharing and co-development of research. This report identifies some specific research gaps which should be addressed in order to inform practice.
3. The sector needs to increase its practical understanding of the connection between adequate housing and good physical and mental health in different contexts. A priority list of health-related standards and/or indicators needs to be developed, along with the means to allow it to be context-specific.
4. Context analyses, both before and after disasters, should include an investigation of prevailing health issues and their relationship to housing, in order to provide baseline data and allow meaningful monitoring and evaluation of interventions. Context analysis must also include community perceptions of health and housing risks.
5. The sector should use the current public interest in global health generated by COVID-19 to reinforce an understanding of the impacts of living conditions on mental and physical health. There are new attitudes to health priorities and vulnerabilities; the Shelter and Settlements Sector has a central role in addressing these.

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Agenda of Shelter and Health Learning Day on 14th May 2020

Welcome from Professor Cathrine Brun, Director of CENDEP, Oxford Brookes University

Introduction: background and objectives of the day; the Global Burden of Disease and 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
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
Facilitators: Beth Simons (CARE International), Jamie Richardson (CRS)

Melissa Tucker. CRS
Guglielmo Schininà. International Organization for Migration (IOM)
Olivia Nielsen. Miyamoto International
Jill Baumgartner. McGill University and Imperial College, London

Panel 4. Game-changing crises? COVID-19 and the climate emergency.
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 rooms: group discussions involving all participants.
Plenary: group feedback

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

The presentations from the Learning Day can be accessed on the Self-recovery project website: www.self-recovery.org

LEARNING DAY SPEAKER DETAILS

Ronita Bardhan is University Lecturer of Sustainable Built Environment at the Department of Architecture, University of Cambridge and leads the Sustainable Design Group. She holds visiting positions at Stanford University and Indian Institute of Technology Bombay. She works on the niche sector of habitat design, energy decisions and gender equality for low-income housing in Global South, especially in the slum rehabilitation housing of Mumbai.
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Andy Bastable has over 30 years of practical emergency and development field experience in the sector of water and sanitation. Andy joined Oxfam in 1990 and has been involved responding to humanitarian crises across the globe since that time as well as being involved and leading a number of innovation projects both for emergency response and longer-term sustainability. Andy took over the leadership of Oxfam's Public Health Engineering team in 2002.

Jill Baumgartner is an Associate Professor of Epidemiology at McGill University and currently a Visiting Researcher at Imperial College London. Dr. Baumgartner studies exposure to environmental pollutants and their effect on human health in the context of urbanisation and development. She currently leads the Health Outcomes component of the Wellcome Trust-funded Pathways for Equitable and Healthy Cities program where she is investigating the links between housing tenure security and health.
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Elizabeth Berryman is currently working for Save the Children in South Sudan as a Technical Health Specialist. She has more than 20 years' experience in public health in development settings, fragile states and emergency response with established international NGOs. She has been working to raise awareness of childhood pneumonia and supported the joint Save the Children/UNICEF/Every Breath Counts Coalition Global Action Plan for Pneumonia.

Cathrine Brun is the Principal Investigator of the GCRF Translations Award-funded Self-recovery from Humanitarian Crisis project. She is Director of the Centre for Development and Emergency Practice (CENDEP) at Oxford Brookes University. CENDEP is a multidisciplinary centre under the School of Architecture that brings together academics and practitioners to develop practice-oriented approaches in disaster risk reduction and building urban resilience.

Samuel Cai is a senior epidemiologist at the Nuffield Department of Women's and Reproductive Health, University of Oxford. His research focuses on environmental epidemiology, studying health effects of multiple environmental stressors, climate change, and exposure assessment, by harnessing data science to better inform environmental health policy-making. He is currently co-leading the Informal Cities Programme, funded by the Oxford Martin School, on investigating environmental health impacts across informal settlements.

Fiona Kelling is an independent humanitarian shelter consultant based in Amman, Jordan. She has over a decade of experience spanning shelter project management and coordination, training and guidelines development, and strategic evaluation and research. With an undergraduate degree in architecture from the University of Edinburgh, she holds her Part II in architecture and a Masters in Development and Emergency Practice from Oxford Brookes University.
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Ilan Kelman is Professor of Disasters and Health at University College London, England and a Professor II at the University of Agder, Kristiansand, Norway. His overall research interest is linking disasters and health, including the integration of climate change into disaster research and health research. That covers three main areas: (i) disaster diplomacy and health diplomacy (ii) island sustainability involving safe and healthy communities in isolated locations and (iii) risk education for health and disasters.
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Jenny Lamb has over 17 years of experience from the humanitarian, development and private sectors in the field of WaSH. In the humanitarian sector Jenny has worked primarily with Oxfam, but also with GOAL and NRC either as emergency WaSH field staff and, more recently, as a Technical Advisor for CRS. Recently, she co-authored the revision of the WASH chapter of the 2018 Sphere Handbook.
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Brett Moore is the Chief of the Shelter and Settlements Section in UNHCR, and the Global Shelter Cluster co-lead. Brett has worked for more than 25 years as an architect, independent consultant, and also with governments, NGO's and with the UN in a variety of roles around post-disaster and post-conflict response, recovery and reconstruction. He professional background is in architecture and planning, with education in Australia, Italy and the USA. In recent years he has been involved in teaching and research and in 2015-16 was awarded a Loeb Fellowship at Harvard University in the USA.

Olivia Nielsen is an Associate Principal at Miyamoto International where she focuses on resilient housing solutions. From post-disaster Haiti to Papua New Guinea, she has developed and worked on critical housing programs in over 30 countries. Olivia has a decade of experience in housing finance, housing public-private partnerships, post-disaster reconstruction and green construction. Through her work she hopes to make safe and affordable housing available to all.

Emily Nix is a researcher focused on the interactions between housing, health and sustainability in low and middle-income countries. Her PhD assessed housing quality in Delhi, India and evaluated interventions to reduce household energy use and exposure to indoor pollution, heat and cold. Emily led a participatory project in an informal settlement in Delhi to co-create housing solutions for health and sustainability, securing additional funding to demonstrate and evaluate solutions.
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Jamie Richardson is the Shelter and Settlements Technical Advisor for CRS. He has over 20 years' experience working on shelter and infrastructure programs for the Red Cross and other NGOs including training, education, research and development. His current role at CRS has a focus on promoting sustainable and holistic approaches, including health and wellbeing. In May 2019, he co-facilitated a workshop and conference at the University of Bath on Health and Shelter.
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Niall Roche is an Environmental Health Officer by profession but has worked in the area of humanitarian assistance and development for close to 30 years. Much of his direct field experience has been gained working with international NGOs (Concern, MSF and CARE) and UNICEF. Since 2005 he has worked as a consultant in WaSH/Environmental Health and wider Public Health, engaged in monitoring and evaluation of public health interventions in a range of settings from sudden onset emergencies to more development contexts. He also works as a lecturer and trainer in many institutions across Europe on Public Health in Humanitarian Action, WaSH in Emergencies and Health, Environment and Climate.
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Sarah Ruel Bergeron is a licensed architect and the Director of Projects and Development at ARCHIVE Global, a non-profit working to combat diseases through interventions to the built environment in vulnerable communities worldwide, established in 2006. She designs, implements and evaluates projects that operate at the intersection of health and the built environment – her latest project focuses on replacing dirt floors with concrete in Bangladesh to prevent diarrheal disease and respiratory and skin infections.
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Photo credits:

Front cover: Alana Holmberg, CARE Australia. Zimbabwe, 2017
Shangurai, a CARE-trained toilet builder in Chivi District, rural Zimbabwe.

Page 5: Jennifer Bose/CARE, Ethiopia, 2018
Marta, who fled from conflict in her home town to Resiti camp, sells coffee as her livelihood.

Page 9: Bill Flinn, Philippines, 2018
An informal community, rebuilt after Typhoon Haiyan in Anibong, Tacloban, Philippines.

Page 17: Will Webb, Nepal, 2018
Ambika, in Jajarkot, West Nepal, cooks most of her family's meals over firewood.

Page 25: Adel Sarkozi, CARE. Beirut, 2013
A Palestinian Syrian refugee 'gathering' in a poor neighbourhood of Beirut, Lebanon.

Page 29: Step Haiselden, CARE UK. Bangladesh, 2018
Potibonia Camp, Bangladesh, showing shelter and site management efforts underway.

Page 34: CARE, Philippines, 2014
Home-owner who rebuilt following Typhoon Haiyan with the help of a shelter kit from CARE .

Page 40: Vincent Tremeau, UNHCR. Bangladesh
Rohingya family in their newly built bamboo house in Bangladesh.

Page 43: Josh Estey/CARE, Mozambique, 2020
Rooftops in Southern Mozambique, following Cyclone Idai in 2019.

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