# CONTENTS

## INTRODUCTION

| SUMMARY OF ACTION AGAINST HUNGER’S RESEARCH PORTFOLIO | 2 |
| GENERAL | 5 |
| FINANCING | 5 |
| PARTNERS | 6 |
| RESEARCH DESIGN AND SET-UP | 8 |
| RESEARCH UPTAKE AND PUBLICATION | 10 |

## ACTION AGAINST HUNGER’S RESEARCH PORTFOLIO 2018

### THEMATIC DEEPDIVE: RESEARCH INTO THE EFFECTIVENESS OF HUMANITARIAN ASSISTANCE

| CASE STUDIES | 12 |
| 1. COMPARATIVE STUDY ON THE EFFECTIVENESS OF TWO TREATMENT INTERVENTIONS FOR TRAUMA | 14 |
| 2. VALIDATION OF A NON-INVASIVE EASY-TO-USE SYSTEM FOR MEASURING HAEMOGLOBIN IN A POPULATION AT RISK OF ANAEMIA | 16 |
| 3. WASH SERVICE IMPROVEMENT: SMART DISTRIBUTION METERING AND GREYWATER MANAGEMENT IN INFORMAL TENTED SETTLEMENTS | 20 |
| 4. WASH’EM: IMPROVING HANDWASHING PROMOTION IN HUMANITARIAN CRISIS | 23 |
| 5. CONSTRAINTS AND COMPLEXITIES OF INFORMATION AND ANALYSIS IN HUMANITARIAN EMERGENCIES: EVIDENCE FROM NIGERIA | 26 |
| 6. BABY FRIENDLY SPACES PLUS: PROCESS EVALUATION OF AN INTEGRATED HEALTH APPROACH FOR LACTATING WOMEN AND THEIR BABIES IN HUMANITARIAN EMERGENCIES | 29 |

## CONCLUSION

| KEY DOCUMENTS | 35 |
| KEY CONTACTS | 36 |

### ANNEX

| 37 |
For almost 40 years, Action Against Hunger has been at the forefront of the fight against hunger worldwide. Our organisation has an established reputation for evidence-based action, with a proven track record of providing high-quality technical and operational support, even in the most challenging contexts.

Research is critical to the organisation in assessing and improving the effectiveness, scalability, and sustainability of our actions; of learning how to respond better and faster to the needs and vulnerabilities of people affected by emergencies, especially in times of crisis; and of leveraging evidence-based advocacy to produce the change we want to see in the world.

Action Against Hunger’s Research Strategy for 2016–2020 outlines three priority workstreams for our organisation’s research activities. This focuses our expertise and capacity to address critical gaps in the evidence base where we expect to contribute to tangible improvements in policy and practice.

These research workstreams are:

1. **PREVENTION OF UNDERNUTRITION:** understanding and addressing the causes of hunger;
2. **TREATMENT OF UNDERNUTRITION:** managing and mitigating the consequences of undernutrition;
3. **EFFECTIVENESS OF HUMANITARIAN ASSISTANCE AND EMERGENCY RESPONSE:** encouraging preparedness, improving reactivity and a higher quality of response.

In 2017, Action Against Hunger published our first ever Research Review to provide an overview of the status of research conducted by our organisation. Not only did this report highlight the breadth of exciting research that we are leading globally but also its strong programmatic and operational links.

Our research is designed as an integral part of our operations and with the explicit aim of generating evidence that will inform programme design and implementation. By focusing on learning and improvement via our research activities, we aim to increase our impact – reaching higher numbers of vulnerable people with safer and more effective interventions than we could have done before.

In this year’s annual Research Review, we are bringing you updates on our global research activities in 2018 including trends over time, as well as casting a lens on the third workstream of our research strategy - how we design and implement research in humanitarian and emergency contexts to improve the effectiveness of our assistance programmes. Our aim for this year’s edition is to highlight where and how Action Against Hunger is leading research efforts in this challenging space, with examples of what we’ve done and what we’ve learned, particularly in those cases where the results of our research were contrary to the proposed hypothesis.

For more information on all our research projects, including detailed project summaries and key documents, visit the Action Against Hunger Knowledge Hub: knowledgeagainsthunger.org
WHAT YOU’LL FIND IN THIS REPORT:

• AN OVERVIEW OF OUR GLOBAL RESEARCH ACTIVITIES IN 2018:
  what we did and where, our partners, and how we are tracking critical components of our research such as research uptake, partnerships, and capacity building.

• UPDATES ON THE RESEARCH WE REPORTED ON IN 2017:
  how some of our efforts progressed.

• RESEARCH ACTIVITIES IN 2018:
  a full list of Action Against Hunger’s research work that was started, ongoing and completed in 2018.

• THEMATIC DEEP-DIVE:
  analysis and case studies providing an in-depth look at projects that fit under our third Research Strategy workstream on ‘Effectiveness of Humanitarian Assistance’.

• RESOURCES AND CONTACTS:
  for our research work at Action Against Hunger.

• RESEARCH PUBLICATIONS IN 2018:
  a full list of Action Against Hunger’s publications from our research activities in 2018.
EMERGING FINDINGS FROM 2018

As you read this 2018 Research Review, we’ve summarised some key findings emerging from our global research portfolio:

ONGOING RESEARCH: while much of our research is ongoing, there are already significant learnings from the preliminary phases and emerging findings. In many cases, this can also inform future phases of research. For example:

1. The WASH’EM Literature Review carried out at the beginning of the research study (described in Case Study 4) highlighted major limitations in the quality of evidence around the determinants of handwashing behaviour. It also highlighted ‘quick wins’ for practitioners, including the fact that educating people about disease has no effect on handwashing while the presence of a desirable and convenient handwashing facility dramatically improves handwashing rates. The findings of this review were critical to inform the next phase of the WASH’EM project and our WASH programming. More information on this publication can be found in the Annex of this report.

2. The C-Project is an example of a multi-phase research project, where each phase builds on learning from the previous. Phase one of the C-Project demonstrated that community health workers in Mali can diagnose and treat severe acute malnutrition as part of the package on integrated Community Case Management (iCCM). These learnings led to a second phase of research to test this approach at scale in three districts in Mali and to understand which model of support would be most effective, and cost-effective, when delivered at scale by the Government of Mali. The project in Mali is still ongoing with results expected in 2019. Our research has also expanded to test this approach in additional countries, with three additional pilot studies underway in Kenya, Mauritania and Niger. Results are expected in 2019. More details of the study can be found at the Action Against Hunger Knowledge Hub.

COMPLETED RESEARCH: Three of our research projects came to completion in 2018. What did we learn?

1. Creating and enhancing TRUST-worthy responsible and equitable partnerships in international research (TRUST): Working with a consortium of partners, this project produced the Global Code of Conduct for Research in Resource-Poor Settings, a 23-article code laying out the ethical obligations of researchers from developed countries when implementing research in low and middle-income countries. It was presented at the European Parliament in 2018, where it was announced that its use will be made mandatory for all research projects receiving funding from the European Commission. Additional tools from this project include a complaints procedures guide, national and international compliance tools, and case studies based on Action Against Hunger’s work. More information and resources can be found at http://trust-project.eu.

2. Evidence from Nigeria to investigate obstacles to producing an independent food security analysis tool (Politics of Famine): Evidence from Nigeria to investigate obstacles to producing an independent food security analysis tool. As outlined in Case Study 5 of this report, this research found critical obstacles to effective use of Cadre Harmonisé tools and provided a set of recommendations to overcome the observed political influence. The uptake of these recommendations will improve the method by which we are able to classify, analyse and adapt to instances of famine.

3. The combined protocol for acute malnutrition study phase 2 (ComPAS): The combined protocol for acute malnutrition study (Phase 2). While data collection and field-level implementation of this study has concluded, data analysis is still underway and the final results on the effectiveness, cost-effectiveness and body composition follow-up are expected by mid-2019.
SUMMARY OF ACTION AGAINST HUNGER’S RESEARCH PORTFOLIO

AN OVERVIEW

In 2018, Action Against Hunger reported 25 active research projects. The drop in number of active research projects from 52 in 2017 is reflective of the natural ebb and flow of the research project cycle. For example, in 2018 our member office in the United States of America focused on development of a technical framework and related priorities rather than securing new research projects. One third (nine) of active projects began in 2018, lower than the 23 new projects that began in 2017.

Three research projects closed in 2018 and 13 were ongoing. The average project duration was 978 days (2.7 years). The longest project (FUSAM) has run since the beginning of 2013 and is expected to finish at the end of 2019. The shortest project was 304 days long.

In 2018, Action Against Hunger had active research projects in 25 countries, one less than in 2017 (see Figure 2). Of these countries, five did not have active research projects in 2017. Four of these new countries were in Europe as a part of the same research project focusing on partnerships (TRUST).

The most common countries for research were Burkina Faso and Senegal, both with four projects. The majority of our research projects (80 percent) involved countries from Africa. Of these, 15 were exclusive to Africa and five were multi-regional. Our research presence in Asia increased to 15 percent of total projects, up from 10 percent in the previous year. The remaining projects were distributed between the Middle East, Latin America and Europe.

ISP TARGET:

By 2020, all research projects by Action Against Hunger will aim to strengthen practical approaches to prevent and treat undernutrition.

1 Targets set out in the Action Against Hunger International Strategic Plan (ISP) 2016-2020.

2 Follow-up of severely malnourished children: effectiveness of a combined nutrition psychosocial intervention on health and development in Nepal.

3 Creating and enhancing TRUSTworthy, responsible and equitable partnerships in international research in the United Kingdom, France, South Africa, and Switzerland.
Our research projects incorporate a range of programmatic areas. In 2018, over half (62 percent) were multi-sectoral, 85 percent included a nutrition component, and 54 percent had a health component. The less frequent thematic areas were food security and livelihoods (12 percent of projects) and disaster risk reduction and disaster risk management (4 percent - 1 project). Research projects also incorporated mental health and care practices (31 percent of projects) and water, sanitation and hygiene promotion (23 percent). The majority (60 percent) of single-sector projects were nutrition focused, while all 14 projects with a health component were multi-sectoral.

We monitor the multi-year and annual budgets of our research projects where final financial spend for the year is not always available. Despite a decrease in the number of active research projects from 2017 to 2018, the total value of ongoing, multi-year research projects in 2018 was €12.9 million, an increase of €0.8 million from €12.1 million in 2017. This indicates that Action Against Hunger is focusing on fewer but larger research projects. The median multi-year value of our research projects that were conducted in 2018 was just over €187,000, up from €81,000 in 2017 and €46,000 in 2016. The average multi-year value was over €536,000 in 2018, a significant increase from €232,000 in 2017. The total multi-year budget for projects led by the French office was €5.3 million across 13 projects. The total budget was €4.6 million for projects led by the US office (across eight countries) and €3.0 million for projects led by the Spain office (across four projects). The project led by the UK office had a budget of €50,000. Projects ranged from a total value of €0 to €3.2 million.

Our largest research projects in 2018 included MERIAM (with a total multi-year budget of €3.2 million) and MANGO (with a total multi-year budget of €1.5 million). Of the total multi-year budget for all research projects, €3.1 million was for activities in 2018.

4 For the updated figures on our financial spending on research, please see the Global Performance Report 2018.
5 Some research projects are progressed using existing capacity and data, so do not require additional budget.
6 Modelling early risk indicators to anticipate malnutrition in Uganda, Kenya, Somalia, Niger, and Nigeria.
7 Modelling an alternative nutrition protocol generalisable to outpatient in Burkina Faso.
Figure 2: Global distribution of our research projects, and the sectors in which we work.
In 2018, Action Against Hunger collaborated with 49 partners on our research projects, one more than in 2017. We continue to develop partnerships globally to benefit from the expertise of a diverse range of organisations, and work collaboratively in order to deliver high-quality research projects.

Our most common partner types were academic/research institutions, who we collaborated with on 84 percent of projects. We also partnered with a range of non-governmental organisations, public and private institutions and United Nations agencies.

Twenty-eight (57 percent) of our 49 partners were internationally based while 21 (43 percent) were based in-country. Action Against Hunger also supported nine graduate degrees across eight research projects; this was down from 23 degrees in 2017.

The 25 projects conducted in 2018 had a total of 17 donors, up from 10 donors in 2017. Three of these funding sources were internal (the ACF Foundation, Action Against Hunger France and Action Against Hunger Spain) and co-funded 50 percent (13) of our research projects. We had 14 external donors across our 25 projects running in 2018, the Humanitarian Innovation Fund (Elrha) were our most frequent external donor, contributing to funding for four projects.

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8 The ACF Foundation has specific targets and distributes finances in order to reach these targets. Action Against Hunger France and Spain use unrestricted funds to act as funding sources for internal research projects.
OUR PARTNERS

IN-COUNTRY
- 2IE (INSTITUT INTERNATIONAL D’INGÉNIERIE DE L’EAU ET DE L’ENVIRONNEMENT),
- AFRICAN POPULATION AND HEALTH RESEARCH CENTRE (APHRC)
- CELLULE DE LUTTE CONTRE LA MALNUTRITION
- CENTRE DE RECHERCHÉ MEDICAL ET SANITAIRE (CERMES)
- CENTRE DE RECHERCHES MÉDICALE ET SANITAIRES CERMES NIGER
- ENLACE HISPANO AMERICANO DE SALUD,
- INSTITUT DE RECHERCHE EN SCIENCES DE LA SANTÉ (IRSS)
- INSTITUT FONDAMENTAL D’AFRIQUE NOIRE (IFAN) - UNIVERSITÉ CHEIKH ANTA DIOP
- INSTITUT PASTEUR DE BANGUI
- INSTITUT PASTEUR DE DAKAR
- INSTITUT PASTEUR DE MADAGASCAR
- INSTITUTE NATIONAL DE RECHERCHE ET SANTÉ PUBLIQUE (INRSP)
- INTERNATIONAL CENTRE FOR DIARRHOEAL DISEASE RESEARCH
- JIDAN FOUNDATION
- MINISTRY OF HEALTH AND SOCIAL ACTION
- REGIONAL HYGIENE BRIGADES
- REGIONAL MONITORING COMMITTEE
- SONGHAÏ
- UNIVERSIDAD CHEIKH-ANTA-DIOP
- UNIVERSITY OF BANGUI
- UNIVERSITY OF OUAGADOUGOU

INTERNATIONAL
- AGROPARISTECH
- CENTRE FOR AFFORDABLE WATER AND SANITATION TECHNOLOGY
- CENTRE FOR DISEASE CONTROL
- DIRECTION NATIONAL DE NUTRITION
- GHENT UNIVERSITY
- GRADUATE INSTITUTE OF GENEVA
- INSTITUT PASTEUR DE PARIS
- INTERNATIONAL RESCUE COMMITTEE
- JOHNS HOPKINS UNIVERSITY
- LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE
- MASIMO
- MCGILL UNIVERSITY
- NUTRITION DIRECTORATE OF THE MINISTRY OF HEALTH
- SAVE THE CHILDREN
- TUFTS UNIVERSITY
- TYRIS SOFTWARE
- UNITED NATIONS CHILDREN’S FUND (UNICEF)
- UNIVERSIDAD COMPLUTENSE DE MADRID (EPINUT GROUP)
- UNIVERSITÉ LIBRE DE BRUXELLES
- UNIVERSITÉ LYON II
- UNIVERSITY OF COPENHAGEN
- UNIVERSITY COLLEGE LONDON
- UNIVERSITY MEDICAL CENTER
- UNIVERSITY OF BERGEN
- UNIVERSITY OF LANCASHIRE
- UNIVERSITY OF MARYLAND
- UNIVERSITY OF WORCESTER
- WORLD FOOD PROGRAMME (WFP)
RESEARCH DESIGN AND SET-UP

We aim to ensure that all research goes through the appropriate channels in order to ensure quality control and a strong consideration of context. As part of this process we encourage all research projects to, where applicable, register on an online trial registry, obtain all relevant ethical approvals, and publish final protocols. See figure 3 for the percentage of our 2017 and 2018 projects that complied with these. From 2017 to 2018, the percentage of our projects with a trial registry remained more or less the same as 2017 at 40 percent. The percentage of our projects with a published research protocol dropped significantly from 25 to 12 percent. The percentage of our projects with approval from intervention review boards increased from 63 to 72 percent.

Figure 3: Proportion of research projects with a trial registry, published protocol and ethical approval
Research uptake remains a core element of Action Against Hunger’s work. Last year we saw positive trends towards the achievement of the ISP target, but we are still behind.

In 2018, 32 percent of research projects had a fully-funded uptake strategy, up from 19 percent in 2017. We also saw an increase in the total number of projects with an uptake strategy to 72 percent (up from 60 percent). Action Against Hunger is committed to generating evidence that contributes to changes in policy and practice, and well-designed and resourced research uptake strategies are critical to achieve that. While the progress from 2017 is positive, we have not yet achieved the strategic target. It must remain an organisational priority to ensure we proactively include this in all proposals and advocate for and secure funding for uptake activities, which remains a significant challenge.

In 2018, we produced 39 publications linked to our research projects, down from 65 in 2017. Almost half of these were articles published in peer-reviewed journals (up from 40 percent in 2017), and of these, 78 percent were open access. Even though publishing in open access journals is often more costly, this is an essential part of making our research more widely available and accessible especially to target audiences in policy and practice. In addition to peer-reviewed publications, research teams produced a variety of grey literature including: research protocols; operational and ethical guidelines; and conference posters and presentations. Alongside these more traditional mediums, our research teams endeavour to reach wider and wider audiences by exploring more accessible mediums like blogs and social media.

See page 12 for a list of the organisation’s research projects and page 37 for a list of our publications in 2018.
## ACTION AGAINST HUNGER’S RESEARCH PORTFOLIO 2018

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>COUNTRY</th>
<th>SECTOR</th>
<th>WORKSTREAM</th>
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<tbody>
<tr>
<td>Adaptation of a low-cost home filtration system. (France)</td>
<td>BURKINA FASO</td>
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<tr>
<td>BFS+: Baby Friendly Spaces+. (France)</td>
<td>ETHIOPIA</td>
<td></td>
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<tr>
<td>C-MAMI: Testing the C-MAMI tool for nutritionally vulnerable mothers and infants. (Spain)</td>
<td>MALI</td>
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<td>C-PROJECT – Phase 1: Increased coverage of management of severe acute malnutrition through the support of community health workers in Mauritania and Niger. (Spain)</td>
<td>MAURITANIA, NIGER</td>
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<td>C-PROJECT - Phase 2: The effect of integrating the management of severe acute malnutrition without complications into essential community health care in the Kita, Kayes and Bafoulabé health districts in Mali. (Spain)</td>
<td>MALI</td>
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<tr>
<td>Central America youth in action: Developing a counselling system/model to improve maternal and child health in communities. (Spain)</td>
<td>GUATEMALA</td>
<td></td>
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<tr>
<td>CHECK: Confirm real-life health benefits and effectiveness of community management of acute malnutrition programmes through improved knowledge. (France)</td>
<td>MULTI-COUNTRY</td>
<td></td>
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<tr>
<td>Comparative study on the effectiveness of two treatment interventions for trauma. (France)</td>
<td>CENTRAL AFRICAN REPUBLIC, IRAQ</td>
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<tr>
<td>ComPAS: The combined protocol for acute malnutrition study (Phase 2). (USA)</td>
<td>SOUTH SUDAN</td>
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<tr>
<td>ComPAS FU: Combined protocol for acute malnutrition study follow-up. (UK)</td>
<td>KENYA</td>
<td></td>
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<tr>
<td>Estimation of mortality risks associated with the different severe acute malnutrition diagnosis criteria. (France)</td>
<td>DEMOCRATIC REPUBLIC OF THE CONGO, NEPAL, SENEGAL</td>
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<tr>
<td>PROJECT</td>
<td>COUNTRY</td>
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<td>WORKSTREAM</td>
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<tr>
<td><strong>FUSAM:</strong> Follow-up of severely malnourished children - Effectiveness of a combined nutrition psychosocial intervention on health and development. <em>(France)</em></td>
<td>NEPAL</td>
<td></td>
<td>RUFF</td>
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<tr>
<td><strong>Health gardens and income-generating activities.</strong> <em>(France)</em></td>
<td>BURKINA FASO</td>
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<tr>
<td><strong>Integrating treatment of severe acute malnutrition into the integrated community case management package in Kenya study.</strong> <em>(USA)</em></td>
<td>KENYA</td>
<td></td>
<td>RUFF</td>
</tr>
<tr>
<td><strong>MALINEA:</strong> Malnutrition and infant infections in Africa. <em>(France/Spain)</em></td>
<td>MADAGASCAR, CENTRAL AFRICAN REPUBLIC, NIGER, SENEGAL</td>
<td></td>
<td>RUFF</td>
</tr>
<tr>
<td><strong>MANGO:</strong> Modelling an alternative nutrition protocol generalisable to outpatient care. <em>(Spain)</em></td>
<td>BURKINA FASO</td>
<td></td>
<td>RUFF</td>
</tr>
<tr>
<td><strong>MERIAM:</strong> Modelling early risk indicators to anticipate malnutrition. <em>(USA)</em></td>
<td>KENYA, NIGER, NIGERIA, UGANDA, SOMALIA</td>
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<td></td>
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<tr>
<td><strong>Opti'Diag:</strong> Biomedical investigations for optimised diagnosis and monitoring of severe acute malnutrition. <em>(France)</em></td>
<td>BANGLADESH, BURKINA FASO, LIBERIA</td>
<td></td>
<td>RUFF</td>
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<td><strong>Politics of famine:</strong> Evidence from Nigeria to investigate obstacles to producing an independent food security analysis tool. <em>(USA)</em></td>
<td>NIGERIA</td>
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<td><strong>Severe acute malnutrition mobile photo diagnosis.</strong> <em>(Spain)</em></td>
<td>SENEGAL</td>
<td></td>
<td>RUFF</td>
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<tr>
<td><strong>Social representations of severe acute malnutrition and health-seeking behaviours.</strong> <em>(France)</em></td>
<td>NEPAL</td>
<td></td>
<td>RUFF</td>
</tr>
<tr>
<td><strong>TISA:</strong> The effect of adding household water treatment and hygiene promotion to standard outpatient therapeutic treatment of severe acute malnutrition. <em>(Spain)</em></td>
<td>SENEGAL</td>
<td></td>
<td>RUFF</td>
</tr>
<tr>
<td><strong>TRUST:</strong> Creating and enhancing TRUSTworthy, responsible and equitable partnerships in international research. <em>(France)</em></td>
<td>FRANCE, UK, SOUTH AFRICA, SWITZERLAND</td>
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<tr>
<td><strong>Validation of a non-invasive system for measuring haemoglobin in population at risk of anaemia.</strong> <em>(Spain)</em></td>
<td>COLOMBIA</td>
<td></td>
<td>RUFF</td>
</tr>
<tr>
<td><strong>WASH'EM:</strong> Improving handwashing promotion in humanitarian crises. <em>(France)</em></td>
<td>IRAQ, DEMOCRATIC REPUBLIC OF THE CONGO</td>
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</table>
THEMATIC DEEPDIVE: RESEARCH INTO THE EFFECTIVENESS OF HUMANITARIAN ASSISTANCE

Action Against Hunger is committed to providing assistance in humanitarian contexts, and to sharing our knowledge and expertise with the world. Humanitarian and emergency crises, where the urgent needs of vulnerable populations are at the forefront of operational responses, can be difficult contexts in which to conduct research. The following chapter therefore focuses on our work in this key third priority work stream, and the challenges and outcomes of working in this context.

In total, our portfolio contained 13 research projects focused on humanitarian effectiveness in 2018 (these may also be classified as prevention and/or treatment – see Figure 5), spanning the full range of operational sectors and across diverse contexts. These projects cost more on average when compared to the prevention and treatment workstreams, with an average cost of over €660,000 per project. These higher research costs could be reflective of the challenges faced by research in complex humanitarian contexts, where there may be limited infrastructure and more support and supervision is needed for the research project itself. Furthermore, because research in humanitarian and emergency contexts can be difficult, it is important to recognise the difficulties in guaranteeing a rigorous research framework.

Despite the operational challenges and costs, we believe this research is vital for improving the effectiveness and efficiency of programming. By engaging in this type of research, Action Against Hunger can play an important role in demonstrating to the sector how we can effectively conduct quality research in humanitarian contexts and utilise the evidence generated to improve our programmes.

This year we highlight six of our humanitarian effectiveness research projects. The following case studies showcase some of our research in this area, highlighting what has and hasn’t worked, and helping us to better understand how we can continue to building on this evidence, and ultimately improve programme effectiveness.
Figure 5: Venn diagram showing the distribution of projects across our three research strategic workstreams, the average multi-year value for projects in each workstream (Euro), and the distribution of projects by sector per workstream.
CASE STUDIES

CASE STUDY 1

The first of our case studies follows on from phase one of a project presented in last year’s Research Review, which examined the transmission of trauma from mothers to their children in humanitarian contexts. This year, we look at the second phase of the project, which compares two treatment interventions to address this trauma in humanitarian crises. This project focuses on improving the effectiveness of humanitarian assistance through mental health and care practices, a sector which struggles to receive the attention it deserves.

ONGOING PROJECT: March 2018 – December 2019

BACKGROUND:

In emergency settings, the prevalence of post-traumatic stress disorder (PTSD) and depression is high, with an estimated 15-20 percent of the population suffering from the condition. This far exceeds statistics for the general population; in Europe for example, 1.9 percent of the population are expected to develop PTSD during their lifetime, while in the United States the prevalence is estimated at 12 percent.

As a result, the number of Action Against Hunger programmes which incorporate specialised treatment interventions to address these issues has increased significantly in recent years.

Two such treatment interventions for people suffering from PTSD are:

1. Group trauma-focused cognitive behavioural therapy (CBT); and
2. Group-traumatic episode protocol (G-TEP) therapy, based on the Eye Movement De-sensitisation and Reprocessing (EMDR) therapy.

These interventions require specific frameworks, methodologies and tools. Although both CBT and G-TEP are well established in non-emergency settings, the challenge is to adapt these approaches to humanitarian and emergency contexts where treatment might be delivered at scale and by non-clinical humanitarian staff trained in PTSD, CBT and G-TEP (paraprofessionals).
OVERVIEW:

In 2017, Action Against Hunger initiated phase one of this research study in Central African Republic, Chad and Cameroon. This first phase investigated the ways in which traumatic events experienced by the mother can be transmitted to their infant. These results highlighted the need for the implementation of effective and evidence-based trauma interventions in emergencies. As a result, in 2018 we initiated phase two of the project, which aims to generate evidence on the use of CBT and G-TEP therapy in humanitarian and emergency contexts.

The project is still ongoing, and being implemented in two different emergency contexts where, due to protracted conflicts spanning decades, the population has been exposed to a high frequency of traumatic events, and as a result have a higher risk of developing PTSD symptoms. The research project has already begun implementation in Bangui, Central African Republic and will begin in Iraq in 2019. The results of both arms are expected later in 2019.

The main objective of the study is to adapt and measure the effectiveness of these two trauma-focused treatment interventions for distressed people, delivered in groups and by paraprofessionals, in order to develop evidence-based therapeutic approaches to propose in humanitarian settings.

In each country, participant selection occurs through psychoeducation sessions, which are provided by Action Against Hunger to community members. After these sessions, participants are assessed with the revised Impact of Events Scale to determine their eligibility for trauma-focused therapy. Those that score above 33 on this scale show PTSD presence and are then invited to register if they wish to receive psychosocial support.

This research uses a prospective design in which participants are followed over time, from admission through treatment until its conclusion (the foreseen duration is six weeks). It applies an experimental approach, in which 200 subjects (100 for each country) are randomly allocated to one of the two treatments (CBT or G-TEP therapy). Each therapeutic group is composed of 10 participants. Treatment is carried out by staff, trained by international experts in the fields of PTSD, CBT and G-TEP therapy. Each therapeutic group receives six treatment sessions and staff use a treatment manual and fidelity checklist, developed specifically for the programme, to ensure quality.

KEY FINDINGS:

In 2018, the project began implementation in the Central African Republic. The mental health expert reached the country office in September and trained the mental health team on both of the trauma-focused treatments.

In Bangui, the capital of the Central African Republic, the inclusion of participants and their participation in the treatment sessions was more complicated than expected due to the security incidents experienced in Bangui and the unstable emergency context. A total of 148 participants were included across the two arms of the study, but only 75 were able to participate in all six treatment sessions due to insecurity. In Iraq however, where implementation has yet to start, we expect fewer barriers due to the more stable situation in the country.

While research in humanitarian and emergency contexts can be difficult, it is important to recognise that the difficulties in guaranteeing a rigorous research framework, and the volatile environment in the Central African Republic mean that the results are reflective of the real-life conditions of humanitarian emergencies.

The data analysis will be conducted in 2019 with more comprehensive results available by the end of the year. In Iraq, implementation began in April 2019, and final results including the efficacy of both approaches will be ready by the end of the year.
PUTTING EVIDENCE INTO ACTION:

In 2015, more than 60 million people worldwide were affected by conflicts or natural disasters. Many of these persons are traumatised and are in serious need of effective therapy services that are scalable and run by trained professionals. However, current technical and policy recommendations in mental health do not give the issue of PTSD enough space, despite its prevalence in emergencies, its effects on daily individual lives (the ability to function, to sleep, to concentrate, to learn and to run daily activities) and thus its effects on entire communities. Being able to treat trauma in a cost-effective manner within a context where human resources are scarce is a challenge, but critically important to alleviate individual suffering and build future societies.

We expect that our study will provide evidence showing: i) that the prevalence of PTSD among participants decreases after the intervention, improving their psychological wellbeing and their capacity to cope and function daily ii) that treating PTSD by paraprofessionals is possible, and iii) that a limited number of sessions might be effective. The evidence can be used for scaling up mental health and psychosocial interventions not only in humanitarian contexts, but also in non-humanitarian contexts, as PTSD does not only occur in emergency settings.

We aim to provide evidence and guidance for a range of humanitarian actors on the importance of treating PTSD in emergencies and how it could be treated in crisis-settings. Results will be useful for Action Against Hunger programmes and other implementers, as well as for the global mental health community.

EVIDENCE GAPS AND FUTURE RESEARCH:

As we noted in this case study, research conducted in complex humanitarian and emergency contexts is challenging but critically important. Not only will this provide evidence on what works in these very specific contexts, but also what doesn't work and the main challenges that we need to overcome in order to ensure high humanitarian aid effectiveness. As the results of this study are disseminated, it will be important to understand outstanding evidence gaps and future research needs.
CASE STUDY 2

Our next case study examines innovations in the diagnosis and treatment of health conditions in humanitarian contexts. Here we look at a project which aims to test a non-invasive means of diagnosing anaemia in humanitarian contexts, for which the traditional test and equipment required are often too cumbersome and time-consuming to use in complex emergency settings.

COMPLETED PROJECT: June 2018 - April 2019

VALIDATION OF A NON-INVASIVE EASY-TO-USE SYSTEM FOR MEASURING HAEMOGLOBIN IN A POPULATION AT RISK OF ANAEMIA

BACKGROUND:

Anaemia is a serious public health problem, estimated to affect more than 800 million women and children globally. In La Guajira, Colombia, there is a high prevalence of anaemia, with more than 57 percent of children under five suffering from the condition. Both indigenous populations and the Venezuelan refugee populations moving through the area are particularly at risk.

Currently, the measurement of haemoglobin levels requires the use of invasive techniques and disposable supplies. There are a number of disadvantages in this process: it is time consuming, requires sterilisation, necessitates trained personnel to operate them and it is unpopular with patients. Additionally, with communities that are in transit, such as refugee populations displaced by humanitarian or emergency crises for example, this approach is too invasive and does not enable a quick and simple identification of those at risk who are anaemic and require treatment.

Therefore, there is a need for an accurate, reliable and portable haemoglobin measuring system. Together, Enlace Hispano Americano de Salud and Action Against Hunger Spain have undertaken research into finding the best non-invasive approach for measuring haemoglobin levels.

OVERVIEW:

The ultimate goal of the research is to replace the currently invasive methods for measuring haemoglobin levels with non-invasive methods that do not require finger prick blood samples. To our knowledge, this is the first study on non-invasive methods carried out in children under five years of age.

The study was carried out at the Action Against Hunger base in La Guajira, Colombia and included both host communities (the Wayuu indigenous population) and the migrant refugee population from Venezuela.
The first step of the research was to assess existing portable devices available for measuring haemoglobin in adult populations, and identify a device to be used in the second step of the research. The project assessed three devices: 1) the Rad-67 ™ Press CO- Oximeter ® (Rad-67), which was used by mobile teams in communities and the district hospital; 2) the HemoCue®, a portable haemoglobinometer of peripheral blood commonly used at field level by Action Against Hunger in their projects; and 3) the Celltac F Nihon Kohden, a haemoglobinometer of peripheral blood used by the Hospital of Riohacha for the haematological analysis of their patients.

The Rad-67 was selected as the most suitable portable device to be used in the second step of the research because it produces accurate results coupled with non-invasiveness resulting in high acceptability amongst patients.

In the next step and main portion of the project, the research team conducted an exercise to validate the diagnosis capability of the Rad-67 portable device for children under five and pregnant and lactating women, by looking at both result accuracy and user acceptability of the Rad-67 device for these two groups.

**KEY FINDINGS:**

**Limited application for children:** During the sampling, it was found that the Rad-67 presented problems with the adaptability for the measurement of haemoglobin in children, and did not give usable results in 23 percent of the cases. It was often difficult to keep younger children calm and quiet during the measurement, which may have contributed to the high percentage of non-response.

**Successful for pregnant and lactating mothers:** The device was successful for all the pregnant and lactating mothers assessed. However, none of the statistical tests yielded enough results to affirm that the Rad-67 could replace any other invasive technique based on its diagnostic capacity in this population group, age and context.

**PUTTING EVIDENCE INTO ACTION:**

Given the number of migrant populations displaced globally by humanitarian and emergency crises, a method of effective, efficient and importantly, non-invasive testing for anaemia is required. The advantages of using a non-invasive system for the measurement of haemoglobin in humanitarian contexts include: improvements in speed; precision in the taking of samples and elimination of disposable supplies; the sample can be taken by unqualified personnel.

However, to effectively use the Rad-67 in such contexts, it would be necessary to either: (a) modify the device so that it is adapted to the child population and, more specifically, to those under two years of age, where the greatest number of sampling failures have been recorded, or: (b) to continue investigating and evaluating other existing devices already on the market.

It is recommended that the manufacturer of the Rad-67 improve the sensitivity and sampling/processing time of the device for child samples. In addition, it is necessary to improve the presentation of the probe/clamp of the device, so that it is more appealing to children under the age of five.
EVIDENCE GAPS AND FUTURE RESEARCH:

A number of steps need to be taken in order to validate a non-invasive system of measurement of haemoglobin in children. This includes adjustments to the device itself, such as development of the sensor and improving its adaptation to all ages, and refining of the technique itself, by avoiding the movement of children. These adjustments to the device and its use could provide the solution for aiding fast, accurate and non-invasive diagnosis of anaemia in humanitarian contexts.
CASE STUDY 3

One of the key sectors in which we conduct research into humanitarian effectiveness is in water supply, sanitation and hygiene promotion (WASH). WASH interventions broadly tackle two key areas: improving the hardware and infrastructure in place to support a healthy environment; and the behaviours of mothers and children required to ensure health. We look at both of these areas in the following two case studies, the first of which looks at efforts to improve WASH infrastructure and greywater management in Lebanon for refugee populations.

COMPLETED PROJECT: May 2016 - May 2018

WASH SERVICE IMPROVEMENT: SMART DISTRIBUTION METERING AND GREYWATER MANAGEMENT IN INFORMAL TENTED SETTLEMENTS

BACKGROUND:
In Lebanon, 20 percent of the population live in houses that are not connected to the local water and sewage system. The networks that are in place are unreliable, and only eight percent of sewage is effectively treated. The state of Lebanon’s water sector is a result of a number of factors that have put stress on the system over time, but are particularly strained due to the regional humanitarian crisis. This includes the damage sustained during the 15 year civil war, two decades of slow post-conflict development, and the recent influx of an estimated 1-1.5 million Syrian refugees (which has led to a 30 percent rise in the number of individuals requiring access to safe water and proper wastewater management).

The Syrian refugees living in the informal tented settlements are the most vulnerable population in the area, as they are not covered by any service, and many are not registered due to fear of prosecution. Additionally, these settlements do not have standard water and sewage connections, and as a result require provision of emergency response water supply, sanitation and hygiene promotion (WASH) services, which is very expensive. At the same time, there has been a reduction in the availability of funding to support wastewater management and WASH services within the country. Consequently, there is a need for innovative solutions that will allow for the continued provision of basic water and sanitation services (including environmentally friendly waste management systems) to Syrian refugees in informal tented settlements.

OVERVIEW:
This research project aimed to reduce the reliance on water trucking and de-sludging services within three chosen informal tented settlements in Bekaa Valley Lebanon. Specifically, the project assessed two different approaches:
APPRAOCH 1: The first approach involved the training of representatives from local WASH committees and the Bekaa Valley water establishment on the implementation of different grey- and black-water\(^9\) management solutions.

This included the construction of 31 grey-water management systems at household level and two centralised grey- and black-water management systems.

APPRAOCH 2: The second approach aimed to improve the monitoring of water supply services and de-sludging already being delivered, in order to accurately provide the correct quantity and quality of the water supply and improve accountability for these services. Currently monitored on paper by Action Against Hunger staff and beneficiaries, this approach added an extra layer of instrumental monitoring through the implantation of measuring devices, as well as a global positioning system and remote sensors, aimed to increase cost-effectiveness and appropriateness of services.

This included the installation of 21 monitoring devices of the water trucking and desludging services, using different technologies from two different companies.

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9 Grey-water refers to relatively clean waste water from baths, sinks, washing machines, and other kitchen appliances. Black-water refers to waste water and sewage from toilets.
KEY FINDINGS:
After ten months of implementation, results show that:

APPROACH 1: household greywater management systems and centralised sewage water systems were feasible in the informal tented settlements and effective in reducing flooding. However, maintenance of the systems was mixed:

- **Household greywater management systems**: the goal was not to recycle the water for irrigation (families could not own gardens) but to avoid flooding areas. Despite the training that was provided, with no economic benefit of the treated water, people tended not to take care of the system.

- **Centralised sewage water system**: the approach introduced a centralised sewage water system made out of plastic tanks (the Lebanese Government would not allow construction using concrete) and an infiltration field. No more de-sludging services were needed (beyond once a year for the septic tanks), and there was no more flooding of wastewater. People are still taking care of the system one year after its construction.

APPROACH 2:

- **Monitoring of distribution services**: Truck owners did not adhere to the monitoring of distribution services due to a perception that it would reduce profits. The technology used was delicate and easily sabotaged by the truck owners, which happened many times. Location data was not always received in the platforms and the volume of drinking water in the trucks did not match with reality in most cases. Despite the evidence that this technology was not successful in this project, the study generated important evidence on how the system can be better adapted to the context in the future.

PUTTING EVIDENCE INTO ACTION:
This pilot proves that grey- and black-water management systems are efficient and well accepted by users, and provides a cost-efficient solution to minimising the dependence on de-sludging services by households living in informal tented settlements. In addition, the health and environmental risk of discharging untreated wastewater can be overcome through the use of these systems.

Building on the evidence generated from this study, Action Against Hunger has been assessing other informal settlements in the same area where similar systems will be constructed. Work has begun to adjust the design so that it can be replicated, pending further funding, in more areas. This would greatly increase the control and accountability of this water service intervention in humanitarian and emergency contexts. This would ultimately result in improved operational efficiency and increased access to these key services by vulnerable people.

EVIDENCE GAPS AND FUTURE RESEARCH:
Action Against Hunger opts for sustainable and innovative technological solutions that reduce the health and environmental risks in the communities it serves, to stop the deterioration of the natural resources, and reduce the dependency and costs of services for the most vulnerable.

This was the first time that Action Against Hunger had used technology to improve the effectiveness and efficiency of our water service programmes in humanitarian contexts, using instrumental monitoring of the water distribution and desludging services using water tank measuring devices as well as global positioning systems and IT systems. This was a first step in the research testing innovative solutions to improve our efforts for vulnerable populations. Other proposals are being developed based on the use of similar devices for different purposes, including water resource management and low-cost irrigation and will soon be implemented in Central America and the Middle East.
BACKGROUND:
Hand washing with soap is an essential lifesaving activity. During the acute stages of an emergency, diarrhoeal disease is responsible for 40 percent of all deaths and up to 80 percent of deaths among children. Hygiene promotion in emergencies commonly uses education-based approaches and the distribution of hygiene kits, but these are insufficient in leading to substantial changes in behaviour. Furthermore, humanitarians often describe hygiene behaviour change as a specialised skill requiring staff with specific expertise, resulting in it being deprioritised and underfunded.

OVERVIEW:
Broader global research has already deepened our understanding of the challenges in altering hygiene behaviour in crisis and emergency contexts. The Wash'Em project aims to improve the way that the humanitarian water supply, sanitation and hygiene promotion (WASH) sector designs hygiene programmes to better address these challenges. The study aims to develop tools that will ensure that hygiene programmes can be designed rapidly whilst remaining evidence-based, context adapted, and sensitive to the needs of crisis-affected populations. It will also develop a decision-making online software.

The study includes three phases:
PHASE 1: Research into determinants of handwashing behaviour and programme design

The first phase of the project included a literature review of documents related to the determinants of handwashing behaviour from stable, outbreak and crisis settings. Interviews were conducted with representatives from organisations working within the WASH cluster in order to understand the determinants of handwashing behaviour in humanitarian crises in two types of emergencies: an armed conflict (Iraq) and a disease outbreak (cholera in the Democratic Republic of the Congo).
PHASE 2: Development and testing of the five rapid assessment tools for understanding handwashing behaviour in humanitarian crises

In the second phase of the project, findings from the literature review and qualitative research were used to develop five rapid assessment tools, designed to explore different determinants of handwashing behaviour. These tools can be adapted to the emergency context and are directly linked to programme design.

So far, the rapid assessment tools have been tested (in collaboration with local non-governmental organisations) across 12 countries.

PHASE 3: Development of the Wash’Em decision support software

The final phase of the project is currently underway and will focus on the development of the Wash’Em decision support software, which will allow users to generate intervention recommendations for their context. A multi-organisation, six-month pilot phase of the software will begin in mid-2019.
KEY FINDINGS:

Limited available evidence: The literature review highlights major limitations in the quality of evidence around the determinants of handwashing behaviour. Research on handwashing determinants during disease outbreaks tends to be theoretically biased and focused on risk perception, rather than considering a range of factors that may influence handwashing behaviour. There is also a scarcity of evidence around the determinants of handwashing in other crisis contexts.

A lack of evidence applied in designing programmes: When designing programmes in emergencies, interviewees mainly rely on their personal expertise. Community assessments are used in the early phases of an emergency but these are not standardised and practitioners do not have a clear process for utilising the information from assessments to shape programme design.

Barriers to improved programme design: The factors that prevent humanitarian actors from improving the way they design and deliver programmes are multiple and context-specific. Many of those interviewed feel that they are capable of distributing hygiene products and teaching people about hygiene but that hygiene behaviour change is the remit of experts.

Findings from Iraq: The qualitative research in Iraq records an increase in handwashing in post-displacement contexts. Here, handwashing is motivated by an increased perceived risk of disease; a heightened sense of disgust towards their surroundings; a desire to feel refreshed during the extreme heat of the Iraqi summer; and a desire to re-establish familiar routines in an attempt to reclaim agency and normalcy within their lives.

Findings from the Democratic Republic of the Congo: Although cholera is still feared in the Democratic Republic of the Congo, it is so widespread that fear is insufficient to motivate handwashing behaviour. The rare adverse outcomes of cholera are discounted by beliefs that they would not die of germs and that it is natural for children to get disease. As in Iraq, a perceived loss of control and psychological trauma also decreases hygiene behaviour.

PUTTING EVIDENCE INTO ACTION:

The Wash’Em project research allowed us to identify the behavioural determinants that typically vary most by context. We adapted and simplified the in-depth qualitative methods used for exploring determinants in order to develop the rapid assessment tools. We are now refining these and developing training tools based on user feedback. Our learnings from the literature review and the qualitative research are all now feeding in to the design of the software.

In the long term we hope that the Wash’Em tools will encourage humanitarians to engage with crisis-affected populations as well as evidence and theory in order to produce effective hygiene programmes. We recently revised all of the rapid assessment tools and are developing online and face-to-face training guides. We are trying to document the experiences of users and what they feel are the benefits of these new tools, available on our project website: www.washem.info.

EVIDENCE GAPS AND FUTURE RESEARCH:

Understanding the links between hygiene and other sectors such as mental health is an important gap in the evidence. Through our fieldwork, we learnt that mental health, poverty and hunger can substantially impair the daily hygiene activities among vulnerable individuals. It would be valuable to both better understand these links and to assess how hygiene programming could be further integrated across sectors.

Assessing impact of hygiene intervention, and the Wash’Em tools is an additional evidence gap. The current scope of our work does not include assessing the impact of interventions designed through the Wash’Em process. We do however plan to apply for further funding to evaluate this.
CASE STUDY 5

So far we have seen examples of how we use this type of research to test the effectiveness of interventions directly targeting beneficiaries, but research can also be used to examine the systems and processes that aid decision-making in humanitarian settings, and ultimately the timeliness of humanitarian response and design of interventions. The results from the Politics of Famine project, which are outlined in the following case study, are an important step to support these efforts as well as support and influence on-going research.

COMPLETED PROJECT: September 2017 – December 2018

BACKGROUND:
Nigeria has been experiencing an ongoing humanitarian crisis in the northeast of the country since the mid-2000s. This has primarily been the result of the Boko Haram conflict, which has led to widespread displacement and high levels of food insecurity and undernutrition in the population. To classify the severity of food security crises and famine conditions, the Government of Nigeria and humanitarian actors use the Cadre Harmonisé analysis, which synthesises and analyses nutrition, mortality, and food security data to produce reports on current levels of food insecurity. Much like the Integrated Food Security Phase Classification system, Cadre Harmonisé aims to inform decision-making; however, the links between the data and its analysis, as well as the subsequent action required to declare emergencies and famines are still not well understood.

OVERVIEW:
This Politics of Famine study was launched by Action Against Hunger in September 2017 under the leadership of Professor Daniel Maxwell, from Tufts University’s Feinstein International Center and in collaboration with Peter Hailey, from the Center for Humanitarian Change.

The objective of the research was to better understand the technical and political obstacles to producing an independent food insecurity analysis tool. The focus of the research was to identify key challenges facing the Cadre Harmonisé analysis, with a particular focus on independence from non-technical stakeholders.

Partners conducted an in-depth literature review, as well as a series of key informant interviews and meetings with stakeholders. Interviewees consisted of government officials, United Nations agencies, international non-governmental organisations and local organisations, all with some experience/insight into Cadre Harmonisé. In total, 50 interviews with 58 informants were conducted. These interviews consisted of mostly open-ended
questions with a view to capturing different perspectives on the performance of Cadre Harmonisé. Emerging themes from these interviews formed the structure of the final report.

**KEY FINDINGS:**

**Lack of financial and human resources:** Nearly all respondents noted that the Cadre Harmonisé process has improved since its first use in 2015; however, key challenges still exist. Primary issues relate to the lack of financial and human resources available to fund the project and analyse the data.

**Limited data for analysis:** Security-related and contextual challenges mean that the data required to conduct the analysis is often incomplete, out-of-date, unobtainable, or collected in uncoordinated timelines. Moreover, much like other early warning systems, only current information on food security status is collected, making it difficult to understand causal factors and key drivers of insecurity.

**Stakeholder interests undermining validity and independence of the analysis:** Even though Cadre Harmonisé is an analysis tool, it has become both an indicator of the overall conflict and an indicator of the need for additional funding for projects. Consequently, Cadre Harmonisé analysis has faced difficulties obtaining technical consensus and remaining free from political and donor influence.

For example, Governments are typically wary of declarations of famine, seeing it as a negative indicator of their leadership; respondents discussed the backlash from famine classifications made as a result of the analysis. Additionally, after the conflict ended there was pressure on the government and non-governmental organisations to see improvements in food security indicators. These improvements have not been evident, based on Cadre Harmonisé analysis, which further incentivises stakeholders to try to drive the analysis in a different direction. The research concluded that these pressures can undermine the validity and independence of the analysis.

**PUTTING EVIDENCE INTO ACTION:**

This research identifies key obstacles to effective use of Cadre Harmonisé and provides ways forward for overcoming political influence in the form of the following recommendations:

- **Ensuring capacity building and training on Cadre Harmonisé methodology:** participants in Cadre Harmonisé are often not food security or nutrition analysts. A focus on developing the technical capacity of such people can improve the quality of processes as well as hinder the authority of politics.

- **Improving coordination for data collection and sharing:** Greater data cohesion improves the robustness of subsequent analysis, and thus improves the validity of results and undermines any political influences.

- **Encouraging participation of scientific, operational and political stakeholders in design and analysis processes:** Input from a variety of experts will strengthen the quality of analysis. Political figures should be included in these inputs, however the role of the Government should be clear and should not compromise the intended objectives.

- **Obtaining an independent assessment of the analysis prior to finalisation:** For the Integrated Food Security Phase Classification analysis, an Emergency Review Committee conducts a ‘review of last report’, which seeks to ensure neutrality and quality of the report. A similar system should be considered for Cadre Harmonisé.

- **Including data from several other sectors to improve contextual analysis:** This is necessary for a greater consideration of more inaccessible communities as well as for strengthening an understanding of the drivers of outcomes from analysis.
The uptake of these recommendations will improve the method by which we are able to classify, analyse and adapt to instances of famine. They can enable Cadre Harmonisé analysis to more authentically declare famine, free from the implications for programme funding and the resultant interference from various stakeholders.

As a means to compliment the findings from this report and strengthen our understanding of using such tools in humanitarian contexts, the research team also investigated Integrated Food Security Phase Classification and other early warning systems in South Sudan and Somalia. These comparative case studies will allow for synthesis of findings across contexts, led by our partners at Tufts University and the Center for Humanitarian Change, and establish some of the main obstacles to producing high quality, independent, and operationally informative food insecurity analyses, especially when used for forecasting crises and declaring famines.

**EVIDENCE GAPS AND FUTURE RESEARCH:**

Ongoing assessment of the use of Cadre Harmonisé and similar tools to report on food security in new contexts will be important to ensure it is effectively and un-biasedly used. In addition to these existing tools for monitoring and reporting famine, there are ongoing efforts to better predict changes in nutritional risk for more advanced response and planning. This is an important area where future research can help us do better programming. At Action Against Hunger, we are currently working to develop new models that predict elevated levels of acute malnutrition, leading on the Modelling Early Risk Indicators to Anticipate Malnutrition (MERIAM) project, in collaboration with researchers at the University of Maryland, the Graduate Institute, and Johns Hopkins University. We will continue to engage with global stakeholders on the outputs of these studies and drive forward some of the key recommendations to address the barriers and challenges faced in conducting food and nutrition insecurity analyses.
**CASE STUDY 6**

In the previous case studies, we have shown examples of how research into humanitarian effectiveness can be used in the sectors of mental health and care practices, health, WASH, as well as looking at the systems and processes surrounding decision making. Our final case study brings all of these together with a process evaluation of the Baby Friendly Spaces Plus approach, which integrates all of the above sectors in order to improve early childhood development in humanitarian contexts.

ONGOING PROJECT: January 2017 – June 2019

**BABY FRIENDLY SPACES PLUS: PROCESS EVALUATION OF AN INTEGRATED HEALTH APPROACH FOR LACTATING WOMEN AND THEIR BABIES IN HUMANITARIAN EMERGENCIES**

**BACKGROUND:**

The Baby Friendly Spaces (BFS) programme aims to reduce vulnerabilities related to maternal status and children and enhance early child development. When it comes to child development, early childhood is pivotal. There is a wealth of evidence that shows that the development of competencies later in life builds upon developmental successes achieved during this period. As a result, many child development interventions target early childhood specifically.

The developmental risks to children of this age are compounded in humanitarian emergencies, where the prevalence of diseases that can affect physical and cognitive development in children under two years of age is higher, and death rates are also increased.

Evidence from low- and middle-income countries suggests that the most effective interventions to reduce developmental loss in children under five years of age are comprehensive programmes for young and disadvantaged children and families, integrated within health and nutrition services. Such programmes could include components related to nutrition, education, and social and economic development.

**OVERVIEW:**

The BFS programme aims to reduce vulnerabilities for mothers and children during this critical period and to enhance early child development by improving the health status, well-being, and survival of mothers and children under two years of age. The BFS programme provides a comprehensive package of interventions including breastfeeding and feeding practices counselling, maternal psychosocial support and child psychosocial stimulation. By ensuring a follow-up over several months based on the beneficiaries' needs, it is hypothesised that the BFS programme supports behaviour change around maternal and child care practices in humanitarian contexts.
To date, evidence only exists for the individual components included in the package, but integrated interventions have not commonly been assessed in humanitarian settings. As such, the BFS+ research project aims to assess the impact of the BFS programme's full package of interventions by assessing the implementation, effectiveness, and acceptability of a scalable and integrated health intervention package. This package is being delivered to new mothers and infants living in Nguenyyle refugee camp in Gambella, Ethiopia. The study uses a mixed-methods triangulation design that draws on primary data collection and analysis of routine monitoring data collected through a strengthened and streamlined system. Specifically, data are drawn from three sources:

1. An embedded qualitative study with programme participants and non-participants;
2. A prospective quantitative assessment administered at baseline and endline (two months later) to programme participants; and
3. Ongoing monitoring data collected from participants throughout their time in the BFS programme.

The qualitative interviews will be inductively coded to identify emerging themes. The quantitative assessment will evaluate changes in two primary outcomes, both focused on women in the BFS+ research project:

- **Outcome 1:** Depression symptoms using the Patient Health Questionnaire 9 (PHQ9) and the Kessler Psychological Distress Scale (K-6), which are two tests for objectively measuring the severity of depression.
- **Outcome 2:** Quality of breastfeeding practices using the World Health Organisation's B-R-E-A-S-T feed observation form.

The secondary outcomes are:

- the mother - assessing maternal post-traumatic stress disorder symptoms (PCL-C), maternal engagement in daily activities (WHO-DAS);
- the child - assessing nutritional status of the child (anthropometric measures) and gross motor development; and
- the quality of mother-child interactions.

These outcomes and tools were selected because of their strong psychometric properties, ease of use and previous use in low-resource settings. Mothers' scores in these two outcomes will be plotted over time, in addition to calculating mean scores, examining variable distribution and clustering, assessing missing data, and examining predictors of programme defaulting or loss to follow up.

**KEY FINDINGS TO DATE:**

The full results of the BFS+ research project will be available by the middle of 2019. Based on Action Against Hunger's experience with BFS programmes in various settings, we expect our evaluation will show results pertaining to the mother, the child and the mother-child interaction. We will determine whether and how participation in BFS activities are associated with three key outcome areas:

**Child morbidity and growth outcomes:** In humanitarian contexts, children under two years of age are considered to be highly vulnerable. Screening for the nutritional status of the child with anthropometric measures allows malnourished children not only to be identified and treated but also to be provided with psychostimulation interventions. Thus, participation in BFS+ activities is expected to improve the child’s health and prevent further developmental delays.

**Maternal wellbeing:** Mothers attend BFS+ group activities and individual psychological support that address maternal mental health issues and improve coping skills. It is expected that this participation will reduce symptoms
of depression and posttraumatic stress disorder, and improve overall functioning.

**Child care practices:** participation in the BFS+ project is expected to improve child care practices through a comprehensive package of interventions. These focus on breastfeeding practices (including identification of breastfeeding difficulties in order to prevent child malnutrition) and supporting the mothers’ knowledge and practice of child care that promotes psychostimulation through massage, hygiene and play.

**PUTTING EVIDENCE INTO ACTION:**

The BFS programme integrates low-cost behaviour change techniques with enhanced service delivery. We aim to provide convincing evidence and guidance to a range of humanitarian actors on how to implement and monitor BFS programmes in crisis settings. Based on the evaluation of BFS+ research project through rigorous quantitative and qualitative assessment, we will produce much needed evidence on the effectiveness of such interventions.

A locally contextualised manual for monitoring an innovative scalable intervention that addresses mother’s wellbeing, care practices and child morbidity in an integrated manner will be made available for other humanitarian actors to replicate and adapt in different settings.

At international level, Action Against Hunger plans to disseminate the results through peer-reviewed articles and non-technical policy briefs aiming at wider humanitarian audiences, and presenting at relevant global, regional and national working groups (Child Protection working group, Nutrition Cluster, Health Cluster, Integrated Agency Support Committee Mental Health and Psychosocial Support working group, Infant Feeding in Emergencies group) and international conferences. The dissemination will inform other humanitarian actors about the impact of mental health, health and care practices, integrated interventions on maternal and child health and well-being, as well as on mother-child interactions.

**EVIDENCE GAPS AND FUTURE RESEARCH:**

Further evidence gaps and future research recommendations will be identified as the study results are finalised.
As demonstrated in this report, Action Against Hunger plays an important role in efforts to shape policy and practice based on robust evidence that is rooted in real-world programming and contexts. We are consistently demonstrating how we do this across countries and sectors, building knowledge and learning how to better serve our beneficiaries through nutrition, health, WASH, mental health and other interventions.

We are also demonstrating this in complex and challenging contexts like humanitarian and emergency crises where research is less common but just as critically needed. Research from these contexts can provide essential results-based evidence that is responsive to real-life conditions of humanitarian emergencies. This is important to ensure that learnings are applicable and easily transferable to operational pilots and effective scale-up of interventions.

As in 2017, our goal continues to be to build and strengthen how we track and report our research activities. While we remain limited by the previously available data, which also limits comparison across years, we are increasingly establishing meaningful and robust indicators to improve our reporting going forwards.

A full list of our research publications can be found in the annexes of this report. In addition, the Action Against Hunger Knowledge Hub website (www.knowledgeagainsthunger.org) provides an overview of many of Action Against Hunger’s research projects, including the latest updates and publications.
KEY DOCUMENTS

Action Against Hunger Research Strategy 2016-2020¹⁰
Action Against Hunger Technical Strategy 2016-2020¹¹
Action Against Hunger International Strategic Plan 2016-2020¹²
Designing and Managing Research Projects: A Practical Guide for Fieldworkers¹³
Action Against Hunger Ethical and Research: Principles and Guidelines (2012)¹⁴
Action Against Hunger Research Review 2017¹⁵

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¹¹ https://knowledgeagainsthunger.org/research/technical-strategy-2020/
¹² https://knowledgeagainsthunger.org/key-documents/international-strategic-plan-2016-2020/
¹³ https://knowledgeagainsthunger.org/research/designing-and-managing-research-projects-a-practical-guide-for-fieldworkers/
¹⁴ https://knowledgeagainsthunger.org/research/ethics-and-research-principles-and-guidelines/
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**FOOD SECURITY & LIVELIHOODS**

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FOR FOOD.
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AGAINST LIVES
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FOR CROPS
THIS YEAR,
AND NEXT.
AGAINST
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FOR CHANGING
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