Research on Food Assistance for Nutritional Impact (REFANI)

Overview on Project Implementation

OVERVIEW

The REFANI Consortium is comprised of Action Against Hunger, Concern Worldwide, the Emergency Nutrition Network (ENN) and the University College London (UCL). REFANI is a 3-year research project funded by UK aid from the UK government, and co-financed through humanitarian aid from the European Commission. The project aims to strengthen the evidence base on the nutritional impact and cost-effectiveness of cash- and voucher-based food assistance programmes, as well as identify the mechanisms through which this effectiveness is achieved.

REFANI builds directly into DFID's Humanitarian Innovation and Evidence Programme (HIEP), contributing specifically towards improving the evidence base for humanitarian practice in emergency settings. REFANI outcomes will be: (1) the creation of high-quality, relevant research that fills gaps in the evidence base; (2) the accessibility of results and evidence to both technical and non-technical audiences; and (3) the successful uptake of REFANI research by key stakeholders in policy and practice.

EVIDENCE GAPS & RESEARCH QUESTIONS

The REFANI partners have identified a number of evidence gaps within their comprehensive literature review. In short, the review finds that, although complicated, given that the impact pathways of cash transfer programmes (CTPs) are numerous and context-specific, a greater understanding of *how* (i.e. the mechanisms through which) these transfers work is necessary. More evidence is also needed on a range of CTP design features (e.g. timing, duration, amount and frequency), modalities (e.g. cash or vouchers), and recipient targeting criteria. Finally, very little is known about the sustainability of such programmes and their cost-effectiveness, especially over the course of the post-intervention period.

REFANI's primary research questions have been specifically designed to explore a number of these gaps in the evidence base and will be investigated through a series of three complementary and comparable country studies. REFANI's main research questions revolve around examining the relationship between CTPs and changes to the nutritional status of children in a range of humanitarian crisis settings. Research questions explore the role of complementary interventions, specific design features of CTPs and recipient behaviours in supporting or limiting a CTP's impact on child nutritional status. Additionally, a variety of questions investigate the cost-effectiveness of CTP interventions as well as the main drivers of costs incurred through CTP implementation in crisis contexts. The studies have been designed to offer a degree of

comparability and the opportunity to address common research questions using similar methods.

REFANI COUNTRY STUDIES

REFANI's primary activities centre on the establishment of three country studies where cash and/or voucher-based food assistance intervention packages are being implemented. REFANI will determine whether there has been a reduction in acute malnutrition and/or an improvement in micronutrient status and identify the mechanisms through which the intervention works, as well as the key variables that affect movement along causal pathways (as described in the REFANI Theory of Change (ToC[1])). Finally, REFANI will determine the estimated costs and cost-effectiveness of each intervention in achieving nutritional impact.

The strength of REFANI's research lies in the combination of its studies, which are located within protracted emergency contexts in Pakistan, Niger and Somalia. Each of the REFANI studies are summarised below and in detailed subsequent Study Updates[2] and in the Cost-Effectiveness Analysis (CEA) Update.

STUDY	DESCRIPTION
PAKISTAN *(Dadu)*	A cRCT of the effectiveness and cost-effectiveness of different cash transfer (cash, 'double' cash and voucher) programmes on child nutrition status.
NIGER *(Tahoua)*	A cRCT of the effectiveness and cost-effectiveness of early initiation and longer duration of emergency/seasonal unconditional cash transfers on child nutritional status.
SOMALIA *(Afgoye Corridor)*	A case control study assessing the role of cash transfer programmes in reducing the risk of acute malnutrition in Somalia.

NUTRITION RESEARCH STEERING COMMITTEE

To enhance the quality of research protocols and outputs, as well as maximize the impact of the research on policy and practice, REFANI convenes a multi-stakeholder Nutrition Research Steering Committee

(NRSC) comprised of a cadre of external experts. The NRSC provides: technical guidance on project design; ethical guidance and validation; quality assurance through peer-review of research protocols, outputs and publications; and identification of opportunities and strategies for maximizing research uptake. Members of the NRSC include representatives from key donor institutions (UKAID, ECHO and USAID), as well as EpiCentre, the International Federation of Red Cross and Red Crescent Societies (IFRC), the Humanitarian Policy Group (HPG), Harvard University, University of Texas at Austin, the Cash Learning Partnership (CaLP) and country-level experts from each study country.

PROJECT TIMELINE

REFANI began in March 2014 and is currently within the early stages of implementation, focusing on data collection in both the Pakistan and Niger studies. In addition, the Somalia study is expected to begin in the fall of 2015. REFANI results will not be available until the end of the project in 2017, however, given increasing focus on research uptake, updates will be available on the project website and other venues. For more information, and to keep up-to-date, visit www.actionagainsthunger.org/REFANI or contact REFANI@actionagainsthunger.org.

_____

---

[1] The REFANI ToC has been embargoed, pending peer-review publication.

[2] Available on the REFANI website (www.actionagainasthunger.org/refani).

REFANI PAKISTAN STUDY:

A cRCT of the effectiveness and cost-effectiveness of different cash transfer programmes on child nutrition status.

Overview on Research Implementation

OVERVIEW

In collaboration between the Emergency Nutrition Network (ENN) and Action Against Hunger, the REFANI Pakistan study aligns with on-going implementation of the children/infants Improved Nutrition in Sindh (WINS) programme in Dadu District, Sindh Province, funded by the European Union. WINS is a 4-year integrated food security, WASH and nutrition programme reaching more than one million malnourished women and children in Sindh province. The REFANI Pakistan research uses a mixed methods approach to assess the short and longer-term effectiveness of seasonal cash transfer programmes (CTPs) on the nutritional status of mothers and children.

STUDY AIMS

This study aims to: (a) compare the nutrition status of children receiving seasonal unconditional cash transfers (UCTs) or a food voucher with those only receiving standard WINS care after 6 months and at 1 year; (b) assess the costs and cost-effectiveness of the different interventions; (c) understand the factors that determine the ways in which households use the different transfers;

and (d) explore the role of the different processes involved in the study outcomes and how they interact with the context.

STUDY DESIGN

As a complex public health intervention, this study has adopted a theory-based approach using both summative and formative methods to determine the impact (the *what*) and the processes involved (the *how*), as well as a cost-effectiveness analysis (CEA). The REFANI Pakistan study is a four-arm longitudinal cluster randomised controlled trial, with integral economic and mixed methods process evaluations. All beneficiaries in the villages of the study arms have access to the 'standard' WINS programme. Villages are then randomised into one of four groups – (1) those receiving WINS standard care only and those with the WINS standard care plus; (2) a seasonal UCT; (3) a seasonal "double" UCT; and (4) a seasonal food voucher.

STUDY ARM	DESCRIPTION
(1) Comparison Group (WINS)	Standard WINS intervention
(2) Seasonal Cash Transfer + WINS	CT of Pakistani Rupee (RS) 1,500 per month plus the standard WINS intervention
(3) Seasonal 'Double' Cash Transfer + WINS	CT of RS 3,000 per month plus the standard WINS intervention
(4) Seasonal Voucher + WINS	Voucher transfer of RS 1,500 per month plus the standard WINS intervention

Any child in participating households who becomes severely wasted during the study continues to receive standard out-patient therapeutic (OPT) care with complementary food vouchers (CFVs) for two months after discharge. Study households selected from intervention/comparison areas are given five key messages which have been designed for WINS. Action Against Hunger regularly monitors food markets and economic changes; this information will be used to make any necessary adjustments to UCT values according to inflation.

Finally, the study will use qualitative and quantitative methods to assess financial and economic resource use for each study arm. The CEA will use a societal perspective to estimate costs to participating households, communities, etc. in terms of direct and indirect costs (i.e. opportunity costs) in addition to collecting accounting data on the financial resources used. For more information on the CEA, please see the *REFANI Update on the CEA Research Implementation*.

PRIMARY RESEARCH QUESTIONS

The key question driving the REFANI Pakistan study is: How effective are the different CTPs (cash and voucher) at reducing the risk of undernutrition during the lean season and up to 1 year in children < 5 years from poor and very poor households with access to an integrated WASH/FSL/BCC programme aimed at reducing the risk of undernutrition in children aged 6-59 months? REFANI hypothesises that providing either UCTs or food vouchers to poor and very poor households will reduce the prevalence of wasting in children < 5 years after 6 months and at 1 year.

Additional REFANI Pakistan research questions delve deeper into impact on the prevalence of anaemia, morbidity, the improvement of ponderal and later growth, recovery and the prevention of readmission to treatment programmes and various other questions around the pathways through which the interventions function – i.e. the ways the transfers are utilised by households and identification of the barriers and/or drivers of nutritional status based upon the REFANI theory of change (ToC)[1].

SAMPLE SIZE & INCLUSION CRITERIA

Eligible households are those identified at baseline as poor or very-poor using wealth ranking, and those with a child aged 6-48 months. The sample size is fixed and aims to measure approximately 5,560 children among 2,500 households.

PRIMARY OUTCOME

REFANI-Pakistan's primary outcomes will be the prevalence of wasting (as measured by weight-for-height Z-score (WHZ) <-2 or the presence of bilateral pitting oedema) in children < 5 years and mean WHZ. Impact will be assessed at 6 months (short-term) and at 1 year ('longer'-term) after baseline.

ETHICAL CONSIDERATIONS

Ethical approval has been attained from the National Bioethics Committee in Pakistan and the Western Institutional Review Board (WIRB). The study's International Standard Randomised Controlled Trial Number (ISRCTN) is 10761532. Consent has also been sought at the village, household and individual levels for participation in the study.

CURRENT STATUS & FUTURE PLANS

Enrolment and baseline data collection has taken place between April and June 2015. The interventions will start in June/July 2015 and will continue until November/December 2015.

Data collection will take place every month during the six-month intervention period and a final data collection will occur in June 2016. Results of the REFANI Pakistan study, as well as the other REFANI research products are expected by early 2017. All results and REFANI research products will be integrated within the uptake strategy to achieve wide dissemination and use within relevant communities of practice.

For more information, please visit the REFANI website, www.actionagainsthunger.org/REFANI or contact REFANI@actionagainsthunger.org.

---

[1] The REFANI ToC has been embargoed, pending peer-review publication.

REFANI NIGER STUDY:

A cRCT of the effectiveness and cost-effectiveness of early initiation and longer duration of emergency/seasonal unconditional cash transfers on children's nutritional status.

Overview on Research Implementation

OVERVIEW

In collaboration between the Institute for Global Health at University College London (UCL), and Concern Worldwide, a trial of an unconditional emergency/seasonal cash transfer programme (CTP) is being implemented in Tahoua Department, Niger. Since 2003, Concern Worldwide has been working in Tahoua and began their first emergency CTP in the lean season of 2010, responding to a severe drought which caused food shortages and price increases. They have since continued to implement emergency Unconditional Cash Transfers (UCTs) every lean season to meet the needs of the most vulnerable populations, whilst also building a body of evidence on the use of CTPs in emergencies.

The REFANI study in Tahoua, Niger uses a mixed-methods approach to assess the effect of earlier initiation and longer duration CTP on the nutritional status of children, with the aim of determining whether modification of a standard, emergency/seasonal UCT improves its effectiveness and cost-effectiveness in reducing acute malnutrition prevalence in children 6-59 months of age.

Additionally, the study is exploring the mechanisms and pathways through which the CTP works in the Niger context.

STUDY DESIGN

Using a cluster randomised control trial (cRCT) design with two intervention arms, this study compares the Concern Worldwide 'standard' four-month emergency/seasonal UCT against an earlier, extended six-month UCT, both providing the same total cash value, but one initiated two months earlier.

CHARACTERISTICS	ARM 1	ARM 2
Type	Standard	Earlier-Extended
Duration	4-month	6-month
Period	Jun-Sep	Apr-Sep
Monthly transfer	32,500 West-African franc (CFA)	21,500 CFA (22,500 CFA in June)
Total transfer	130,000 CFA	130,00 CFA

Both cash transfer intervention arms target very poor households for the four-month duration of the lean season. Also, both intervention arms will be accompanied by a provision of a nutritional supplement for children (6-<24 months) and for pregnant and lactating women, as well as health, hygiene and nutrition education messages.

Researchers will first be assessing the nutritional impact of the interventions among the very poor households targeted with a cash transfer, and second, the communities in which these households are located. To this end they are undertaking: (1) a longitudinal cohort study of cash receiving households in the two trial arms;

and (2) a longitudinal cohort study of non-cash receiving households in the villages in which the very poor households are targeted with cash.

As mentioned earlier, this study is also describing the context in which the interventions are being delivered and the success of their implementation. It is also investigating the mechanisms through which the CTPs might work. This will enhance our understanding of the pathways through which the CTPs achieve intended outcomes in their given context, as well as whether changing the timing and duration of the UCT programme affects these mechanisms. This study will expand into specific themes such as the effect of the intervention modification on coping strategies for food acquisition, including labour migration, and how this may determine the intervention's effectiveness and the use of cash from the individual, household and community perspective, including women's decision-making, social networks and obligations.

Finally, the study will use qualitative and quantitative methods to measure the financial and economic resource use to implement the Concern Worldwide intervention. The cost-effectiveness analysis (CEA) will use a societal perspective to estimate costs of participating households, communities, etc. in terms of direct and indirect costs (i.e. opportunity costs) in addition to collecting accounting data on the financial resources used. For more information, please see the *REFANI Update on CEA Research Implementation*.

PRIMARY RESEARCH QUESTIONS

The primary research question driving the REFANI Niger study is: compared to the standard four-month, emergency/seasonal UCT, does earlier initiation and extended duration of an emergency/seasonal UCT of equal total value, reduce the prevalence of acute malnutrition among children aged 6-59 months in very poor, cash receiving households? REFANI researchers hypothesize that the study will show a reduction of this prevalence by the end of the lean season. Additional research questions delve deeper into how timing and duration of the CTP affects a variety of factors, such as household decision-making patterns, expenditure patterns, intangible assets, etc.

OUTCOMES

The primary research outcome in this study is the prevalence of acute malnutrition in children aged 6-59 months. Researchers will evaluate impact at the end of the intervention to assess the effect over the lean season.

ETHICAL CONSIDERATIONS

The study protocol has been approved by the National Ethics Board (Comite Consultatif National d'Ethique) at the Ministry of Health in Niger, and also by the University College of London Ethics Review Committee. The study's International Standard Randomised Controlled Trial Number (ISRCTN) is 25360839.

In addition to the study staff obtaining informed consent from study participants, Concern Worldwide's community-based staff and volunteers have also sensitised communities at the local level in order gain the consent of the local representatives and traditional authorities such as village leaders and elders.

Furthermore, any woman or child found by the study staff to be acutely malnourished or anaemic, will be referred to the nearest nutritional rehabilitation programme. The carer of any child found to be sick will be advised to attend the nearest health centre.

CURRENT STATUS & FUTURE PLANS

The first round of data collection from the two cohorts was completed in six weeks on 14 April 2015. The second round will commence in September 2015, following the last cash transfer. The first cash transfer in Study Arm 2 started on 15 April 2015, and started in June for Arm 1. Both cash interventions will end in September. CEA data collection will be done in August. Qualitative data collection on context and mechanisms started on 30 March 2015 and will continue until October. Collection of context data (e.g. market prices, nutrition rehabilitation programme data, etc.) and the implementation of the interventions (e.g. dates of distribution and coverage) commenced in May 2015, retrospectively gathering data from March and April 2015.

For more information, please visit the REFANI website, www.actionagainsthunger.org/REFANI or contact REFANI@actionagainsthunger.org.

REFANI Somalia STUDY:

A case control study assessing the role of cash transfer programmes in reducing the risk of acute malnutrition in Somalia

Overview on Research Implementation

OVERVIEW

In collaboration between the Institute for Global Health at University College London (UCL) and Concern Worldwide, the REFANI Somalia study will study the implementation of an unconditional emergency cash transfer programme (CTP) in the Afgoye Corridor region, close to Mogadishu.

STUDY DESIGN & RESEARCH QUESTIONS

The study uses a matched case control design, which assesses the impact of unconditional cash transfers (UCT) on the risk of developing severe acute malnutrition (SAM) in children aged 6-59 months, who are living in internally displaced person (IDP) camps.

Cases are children with SAM and attend Concern's Outpatient Therapeutic Programme (OTP) centres or health centres, and SAM cases found by case-finding in the community. Controls are Children without SAM who are aged 6-59 months and of similar age and residing in the same community/neighbourhood, recruited concurrently to the cases.

The primary research question for the Somalia study is: Does distribution of unconditional cash reduce the risk of developing severe acute malnutrition among IDP children aged 6-59 months and living in a peri-urban area of Mogadishu, Somalia? Secondary research questions relate to the role that other exposures may play in increasing the risk of developing SAM, the delivery process of the CTP as it relates to programme effectiveness, and qualitative research to ascertain the local perceptions of malnutrition, its risk factors and the mechanisms by which CTPS may alter these risk factors.

OUTCOMES & ETHICAL CONSIDERATIONS

The primary research outcome is an odds ratio of exposure, which describes the odds of IDP children, aged 6-59 months, developing SAM after exposure to the UCT.

The REFANI study has been approved by the Ministry of Health of the Federal Government in Mogadishu and is currently undergoing ethical review by the UCL Research Ethics Committee.

CURRENT STATUS & FUTURE PLANS

The first UCTs will be distributed in August 2015, going until January 2016. Data collection will commence in November 2015, ending in February 2016. For more information, please visit the REFANI website www.actionagainsthunger.org/REFANI or contact the REFANI@actionagainsthunger.org.

REFANI COST-EFFECTIVENESS ANALYSIS (CEA)

Overview on Research Implementation

OVERVIEW

Led by Action Against Hunger, the REFANI cost-effectiveness analysis (CEA) examines each of the country study interventions in terms of their cost-effectiveness for the nutritional impact achieved. The study employs a mixed-methods approach to assess resource use of the various programme interventions included in two REFANI studies (Pakistan and Niger) using a societal perspective.

Cost-effectiveness is an important measure of programme performance, bringing valuable contributions for improved program management and providing guidance for decision-making on resource allocation and priority setting. Cost-effectiveness is a method that measures the financial and economic cost of a programme, project or intervention divided by the impact or output it achieves. The results of a CEA are typically expressed as a cost-effectiveness ratio (CER), with total program resources divided by the effectiveness or outcomes of the intervention. Average cost effectiveness ratios (ACER) state the average cost per outcome achieved within an intervention. Incremental cost effectiveness ratios (ICER) are a comparative measure of the difference in costs and effects between an intervention and an alternative.

RESEARCH QUESTIONS

The following are the REFANI CEA primary research questions for each country study: which intervention is the most cost-effective in preventing cases of acute malnutrition; what is the cost per case of acute malnutrition averted in each country study; and how do the cost effectiveness results compare with evidence from other interventions aimed at addressing acute malnutrition? In addition to these overarching research questions, each country study asks the following, more specific questions: what are the total costs associated with each intervention; what is the cost per major activity (and its share of total costs) for each intervention; what is the cost per beneficiary; and what are the cost drivers of the intervention? In order to answer a wide variety of cost-related questions, the REFANI CEA will include both institutional and societal costs in order to derive a holistic perspective of resource use.

INSTITUTIONAL COSTS

Institutional costs are primarily assessed using accounting data wherever possible. Additional financial costs which are not included in the programme accountancy, such as any costs from other institutional partners, personnel, or other important costs which have been allocated to other programme budgets, etc., are identified via key informant interviews and review of any existing documentation. These costs which do not appear on accounting data are estimated using an "ingredients approach" where unit costs and quantities are estimated to build a complete cost calculation from the bottom up. The time spent by programme implementation staff on various activities related to the specific interventions under investigation is assessed via time allocation interviews.

SOCIETAL COSTS

Societal/household costs will be assessed using qualitative and quantitative methods. A household survey is being implemented alongside other ongoing data collection activities to get a quantitative estimate of programme costs to households in terms of direct and indirect costs, i.e. opportunity costs which they incur to participate in the interventions. Focus group discussions are also being undertaken towards the end of each intervention to provide more qualitative information on context, and greater insight to better understand the quantitative data.

Beneficiary and community costs may include the following, among others:

BENEFICIARY COSTS
- ❖ Participation in the transfer activity (e.g. attending/waiting at distribution)
- ❖ Associated travel time in the acquisition and use of cash transfer programmes (CTPs), e.g. walking/riding to the distribution or the market, time to exchange vouchers, etc.
- ❖ Additional time spent due to behaviour changes associated with the programme education or activities (e.g. responsive feeding according to education session, extra time spent feeding a child, etc.)
- ❖ Fees for transportation to/from distribution points, cost of overnight stays, fees paid to collect cash or vouchers

COMMUNITY COSTS
- ❖ Participation of local leaders in assisting programme set-up (e.g. developing a list of most vulnerable households, organizing a distribution, etc.)
- ❖ Time spent by other community members volunteering for a programme (e.g. a teacher working as a cash mobilisation volunteer)
- ❖ Resources donated for the intervention (e.g. an individual's private yard or community space in which cash is distributed or mobilisation is taking place)

ANALYSIS

Institutional and societal costs collected via accounting data, staff interviews, key informant interviews, focus group discussions and surveys will be combined together for the CEA. In addition to deriving the total cost per intervention, cost data will be structured and analysed via an activity-based costing methodology whereby the costs in each intervention are sub-divided by major intervention activities (e.g. beneficiary selection, cash distribution, etc.).

OUTPUTS

The primary output of each CEA country study will be a comparative analysis of CTP cost-effectiveness in preventing acute malnutrition expressed as the incremental cost per case of acute malnutrition averted compared to the control group or other intervention strategy implemented in the country study. Secondary economic analysis outputs will include program cost per beneficiary, cost per activity, cost-transfer ratios, proportion of cost centres among total costs, and cost drivers based on sensitivity analyses. A final analysis will compare cost-effectiveness across country study CEAs.

ETHICAL CONSIDERATIONS

Accounting data provided by the implementing organisations will be used exclusively for the purposes of the CEA and will be kept confidential. The data collected from programme beneficiaries for the CEA are typically not sensitive information, however all reasonable measures will be taken to prevent the release of identifying characteristics of the beneficiaries participating in the data collection.

CURRENT STATUS & FUTURE PLANS

The research protocol and accompanying data collection tools have nearly been finalised. Scoping visits were carried out in Pakistan in April 2015 and in Niger in June 2015. Data collection will begin in August 2015 with final results expected for mid to late 2016.

For more information, please visit the REFANI website www.actionagainsthunger.org/REFANI or contact REFANI@actionagainsthunger.org.

REFANI Research Uptake:

Communicating evidence to ensure more effective humanitarian interventions

Overview on the Research Uptake Strategy

OVERVIEW

Led by Action Against Hunger, the REFANI Research Uptake Strategy (RUS) makes project results available and accessible to both technical and non-technical audiences, enabling the use of REFANI's evidence in policy and practice. Central to the strategy is stakeholder engagement, which is intended to provide REFANI with the feedback necessary to tailor uptake activities for maximum impact.

RESEARCH UPTAKE

According the UK's Department for International Development (DFID), research uptake facilitates and contributes to the use of research evidence by policy-makers, practitioners and other development actors – supporting the supply of research (relevancy and tailored communication materials) and the usage of research (access, evaluation and synthesis). Building upon DFID's uptake guidelines, the REFANI RUS is a cyclical process driven by examination and engagement, with key stakeholders, which begins with a stakeholder analysis.

REFANI identifies a diverse array of relevant stakeholders and begins correspondence with each organisation. Through this interaction, REFANI is able to highlight significant project details whilst simultaneously collecting feedback on what the stakeholder is most interested in discovering. This feedback is critical for REFANI, as it ensures that the RUS can be successfully modified so that key stakeholders eventually become research users – those who use REFANI evidence to adapt their policies or activities based upon the project's results.

The aim of the RUS is therefore to make direct links between those who have information and those who need or want to use the information, throughout the life of the project. This habitual, proactive engagement with stakeholders sets the REFANI RUS apart from other research communication or dissemination strategies, which focus on sharing information at the end of the project and pay less attention to connecting with interested stakeholders before final results are available.

RESEARCH UPTAKE ACTIVITIES

The RUS has identified several ways to engage with stakeholders in the early stages of the project, before project results are available. Project briefs, an updated website and interviews with experts are just some of the REFANI materials which will retain and engage stakeholder and user attention until final project findings are published.

CURRENT STATUS & FUTURE PLANS

With introductory stakeholder engagement, the RUS began implementation in July 2015. The REFANI website was launched and implementation briefs and the literature review have been shared with target audiences. Project-related news and other materials will be shared periodically, culminating in the release of project findings in late 2016/early 2017.

For more information, please visit the REFANI website, www.actionagainsthunger.org/REFANI or contact REFANI@actionagainsthunger.org.