Evaluation in Complex Settings: 3ie’s Experience with Humanitarian Assistance Programmes

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Who we are and what we do

3ie is a global leader in the generation and use of evidence for decision making

• **Funds, produces, quality assures** and synthesizes rigorous evidence on development effectiveness. We support evaluations and reviews that examine what works, for whom, why and at what cost in low-and middle-income countries. We are an efficient grant maker as well as producer of evidence.

• **Builds and facilitates** networks of evaluation to improve capacity and commitment to generate and use evidence in decision-making

  - **Provides global access to** knowledge products for policymakers, programme managers, researchers, civil society, the media and donors
Characteristics of Complex Settings

• Emergence: there may be multiple interventions to reach the same objective
• Non-linearity and unpredictability
  • Adaptive interaction: agents learn from each other when they interact
  • Physical systems that change in different ways depending on scale and proximity to other influences
The Challenges of Complexity for Evaluation: The Typical Logic Chain or Theory of Change

Outside factors

Inputs ➔ Activities ➔ Outputs ➔ Outcomes ➔ Impact
Evaluation in Humanitarian Settings

• Often Complex Interventions: Need to Change Systems
• Non-linear responses and unpredictable outcomes
  • Often post-conflict settings with changing actors and interactions
  • Or post-disaster settings with complex physical interactions
• Implementation of evaluation even more challenging than usual
3ie supported research in humanitarian contexts

- Rigorous, high-quality impact evaluations related to nutrition, food security, resilience, mental health.
3ie’s Humanitarian Assistance Programme

- Chad: MAM prevention and treatment
- Mali: Exposure to conflict and effectiveness of aid
- Niger: FFA with MAM prevention and treatment
- Sudan: MAM prevention and treatment
- DRC: NFIs vouchers for IDPs
- Pakistan: Vulnerability to emergency shocks
- Uganda: Improving quality of care

Multi-Donor Initiative
DANIDA, DFID, UNOCHA, USAID, WFP

WFP
ACTED, CUAMM
Synthesis report: 4 WFP programs

Main results and lessons from impact evaluations of nutrition and food security interventions in the Sahel region of Sub-Saharan Africa.

Objectives

• Identify specific lessons for WFP programmes in Chad, Mali, Niger and Sudan
• Provide insight into different components/combinations of programming
• Contribute to the literature on what works to improve nutritional and food security outcomes in humanitarian contexts
• Provide methodological and practical lessons on conducting IEs
### Timelines and types of data

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>FREQ.</th>
<th>TIMELINE</th>
<th>UNIT</th>
<th>TYPE OF DATA</th>
<th>SAMPLE SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Niger</td>
<td>Two waves of baseline and end line data</td>
<td>March 2014 and September 2016</td>
<td>Household and child level data</td>
<td>Panel survey data commissioned by WFP Niger, collected by the National Statistics Institute of Niger (INS)</td>
<td>1,619 children, 4,310 households</td>
</tr>
<tr>
<td>Chad</td>
<td>Two waves of baseline and end line data</td>
<td>June and November 2016</td>
<td>Household and child/sibling data</td>
<td>Primary data triangulated with information obtained through secondary sources and supported by a consultative approach</td>
<td>1,757 children at baseline, 1,270 children at end line</td>
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<tr>
<td>Sudan</td>
<td>Four waves of data collection</td>
<td>May to December 2016</td>
<td>Child and mother level data</td>
<td>Primary quantitative and qualitative data</td>
<td>Round 1: 610 children, Round 2: 848 children, Round 3: 909 children, Round 4: 867 children</td>
</tr>
<tr>
<td>Mali</td>
<td>Two waves of baseline and end line data</td>
<td>January 2012 and January 2017</td>
<td>Village and household level data</td>
<td>Primary quantitative data and extensive qualitative data from multiple sources</td>
<td>1,583 households</td>
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Synthesis methodology

Sources

- Final evaluation reports
- Progress reports
- Stakeholder engagement and evidence reports
- Interviews with study teams, implementing partners
- Literature mapping
<table>
<thead>
<tr>
<th>Country</th>
<th>Question</th>
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<tbody>
<tr>
<td>Chad</td>
<td>What is the impact of MAM prevention interventions on the incidence and prevalence of MAM in under 2 year olds under different levels of access to MAM treatment?</td>
</tr>
<tr>
<td>Mali</td>
<td>What are the impacts of conflict and food assistance on child malnutrition and other developmental outcomes?</td>
</tr>
<tr>
<td>Niger</td>
<td>What are the impacts of different combinations of programme components within WFP’s Protracted Relief and Recovery Operation on nutritional outcomes?</td>
</tr>
<tr>
<td>Sudan</td>
<td>What are the impacts of different MAM treatment and prevention interventions on the incidence and prevalence of MAM and SAM in children under 5 years and in pregnant and lactating women?</td>
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**Mixed methods evaluations**  
**Multiple types/sources of data**

MAM Moderate Acute Malnutrition (wasting) leads to rapid weight loss. If left untreated it can lead to Severe Acute Malnutrition (SAM) and death.
## Methodology and outcomes

<table>
<thead>
<tr>
<th>Country</th>
<th>Methodology</th>
<th>Key Outcomes</th>
</tr>
</thead>
</table>
| Chad    | • Analysis of covariates and propensity score matching  
           • Qualitative data to inform results | Nutritional status of children under 2 years of age |
| Mali    | • Use of qualitative and quantitative data to characterise exposure to conflict and humanitarian aid  
           • Natural experiment, Difference-in-differences and propensity score matching | Nutritional status of children under 5 years of age |
| Niger   | • Difference-in-differences with Instrumental Variables  
           • Qualitative analysis | Nutritional status of children under 5 years of age |
| Sudan   | • Stepped wedge cluster controlled trial design  
           • Qualitative analysis | Nutritional status of children under 5 years of age and pregnant and lactating women |
## Nutrition results

<table>
<thead>
<tr>
<th>Country</th>
<th>Description</th>
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<tbody>
<tr>
<td>Chad</td>
<td>Positive effect of the prevention programme (BSFP) on MAM incidence during the lean season. BSFP has a larger (positive) impact on MAM incidence for households with poorer access to treatment and those with seasonal livelihoods.</td>
</tr>
<tr>
<td>Sudan</td>
<td>Addition of MAM prevention components to MAM treatment shows no effect on MAM/SAM incidence or prevalence. Significant reduction in prevalence of children at-risk of malnutrition where MAM prevention was added to treatment (TSFP).</td>
</tr>
<tr>
<td>Niger</td>
<td>Provision of Food Assistance for Assets alongside treatment and/or prevention programmes significantly reduces the incidence of MAM. No evidence of positive impacts of treatment and / or prevention programmes alone.</td>
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<tr>
<td>Mali</td>
<td>Households receiving at least two forms of assistance show statistically positive effects on nutrition outcomes; Impacts concentrated in areas outside conflict zones possibly because of lack of access to aid.</td>
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</table>

**BSFP** Blanket supplementary feeding program; **TSFP** Targeted Supplementary feeding program.
## Other results

<table>
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<tr>
<th>Targeting and uptake</th>
<th>All 4 evaluations highlighted that geographic proximity to health and food distribution centers, and high level of awareness are necessary to improve access and increase program uptake</th>
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<tbody>
<tr>
<td>Differential effects</td>
<td>No difference in effects in outcomes for boys and girls in Chad and Sudan.</td>
</tr>
<tr>
<td></td>
<td>Closure of health centers in Mali due to conflict and staff availability impacted malnutrition significantly.</td>
</tr>
<tr>
<td>Cost Effectiveness</td>
<td>Was not done fully due to lack of disaggregated information on costs.</td>
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Recommendations

1. Strengthen **capacity** and **coordination** across partners
2. Improve **communication** with program recipients
3. Tailor program components **sustainably** as per local needs
4. Maximize opportunities to **align** and **share data** across agencies
5. Enhance **quality** and collection of **cost estimates**
Adaptation of methods for conflict-affected settings

• **Adaptations to the sample**: Sudan, Afghanistan (regions lost due to conflict), Liberia (high ranking officers excluded from the evaluation due to potential conflict)

• **Timing**: Rwandan radio program evaluation – interviews in prisons had to be done earlier due to sudden move to release prisoners

• **Question formulation**: Sierra Leone CDD – little reluctance to discuss ongoing conflict (and individual roles) but more personal tensions dropped (e.g., marital infidelity)

• **Focus group composition**: civic education program in Southern Sudan – if social divisions based on sect/ethnic group, single sect (or ethnic group) discussion groups organized

• **Enumerators’ experience and training**: trauma sensitivity, social work background, female enumerators for women in Afghanistan

• **Budget appropriately**: evaluation costs may be higher than anticipated
What evidence is available and what is required in humanitarian assistance?

This 3ie scoping paper offers an independent analysis of the evidence base of evaluations in the humanitarian sector and identifies key gaps and priorities in need of rigorous evidence.

What methods may be used in impact evaluations of humanitarian assistance?

This 3ie working paper examines the extent to which impact evaluation methods can provide evidence to help improve the effectiveness and efficiency in humanitarian action.

2019 Asian Evaluation Week, 2-6 September 2019, Kunming, People’s Republic of China
Learning brief and Synthesis paper

**Early implementation lessons from 3ie-supported impact evaluations of humanitarian assistance**

**Key lessons**
- Early and ongoing engagement is critical to ensure buy-in for the impact evaluation and to mitigate anticipated risks associated with study implementation in fragile and conflict-affected contexts.

**Synthesis of impact evaluations of the World Food Programme’s nutrition interventions in humanitarian settings in the Sahel**

Acute malnutrition in the Sahel region affects an estimated 6 million children under the age of 5, of whom approximately 1.4 million require treatment for severe acute malnutrition. Considerable evidence of the effectiveness of interventions to treat moderate acute malnutrition under optimal conditions exists. However, there is insufficient and equivocal understanding of the relationship between prevention and treatment of malnutrition.
Multimedia products

Video lecture 8: Assessing the impact of humanitarian relief assistance

Podcast

Listen to Dr Jo Puri talk about the need for rigorous evidence in the humanitarian sector and what to expect at the World Humanitarian Summit.

What works to improve nutrition and food security in the Sahel? A short 3ie video

Synthesis of impact evaluations of the World Food Programme's nutrition interventions in the Sahel.
Session Takeaways

• Evaluating humanitarian assistance is a complex undertaking
• Such evaluations need to be flexible in design
• They also need to be budgeted properly as they are likely to cost more
• Qualitative work even more important to account for sensitive contextual issues
• Training of evaluation staff also should take complexity
Thank you