Raising the Bar on Food Aid Research: Challenges and Methodological Considerations to Guide Policy and Programming

June 28th, 2018
Food Assistance for Nutrition Evidence Summit
Washington D.C.
Please cite this presentation as:

Session Objectives

• Review the range of current studies addressing various aspects of food aid
• Become familiar with challenges in food aid research methods
• Learn how these challenges have been resolved through specific experiences
• Discuss and share ideas about best practices in food aid research

Goal

To strengthen the evidence base for programming and policy decisions
Landscape Scan of Methods in Food Aid Research

• Conducted by the FAQR / REFINE team
• Purpose to examine factors that influence the rigor of food aid product studies
• Knowing these factors enables the formation of actionable recommendations to improve the evidence base that programmers and policymakers rely on to make key decisions

https://refinenutrition.org
A Word About Systematic Reviews...

Systematic reviews are the “gold standard” for policymakers

Strengths:

– Aggregates evidence from multiple contexts
– Assesses strength of the evidence

Limitations:

– Narrow inclusion criteria
– Exclusion of grey literature
– Quality of included studies
Searched Web of Science and PubMed for publications; used REFINE database for ongoing trials

- Identified 811 records
- Narrowed down to 114 for inclusion (89 published studies; 25 ongoing trials)

Extracted information regarding:
- Study design and context
- Participants
- Sample size
- Interventions
- Self-identified limitations

<table>
<thead>
<tr>
<th>Inclusion Criteria</th>
<th>Exclusion Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Date range: January 2011-March 2017</td>
<td>× Participants with chronic medical conditions (HIV/AIDS)</td>
</tr>
<tr>
<td>✓ Use of SNFP</td>
<td>× Micronutrient supplement only without SNFP</td>
</tr>
<tr>
<td>✓ Outcomes: anthropometric or cognitive measures</td>
<td>× Outcomes: biomarkers, cost-effectiveness, acceptability without anthropometric outcomes</td>
</tr>
</tbody>
</table>
Landscape Scan of Methods in Food Aid Research

Description of Included Studies

**Contexts**
- 63 rural; 19 urban; 10 semi-urban
- 100 development; 8 emergency; 6 not specified
- 57 Africa; 53 Asia; 7 Central and South America
- 59 treatment; 56 prevention

**Study Designs**

<table>
<thead>
<tr>
<th>SNFP determined and assigned by researchers</th>
<th>SNFP not determined or assigned by researchers (observational)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Cluster randomization: 37</td>
<td>• Retrospective: 9</td>
</tr>
<tr>
<td>• Individual randomization: 45</td>
<td>• Prospective: 5</td>
</tr>
<tr>
<td>• Non-randomized: 6</td>
<td>• Multiple cross-sectional: 6</td>
</tr>
<tr>
<td></td>
<td>• Descriptive: 3</td>
</tr>
</tbody>
</table>
Landscape Scan of Methods in Food Aid Research

Key Findings and Recommendations

Risk of Bias, Threats to Comparability & Generalizability

- Heterogenous research methods
- Heterogenous interventions
- Passive recruitment strategy
- Comparability of study arms
- Inability to blind
- Reporting bias

Recommendations

- Enhance study reporting
- Include a comparison group
- Choose study designs that mitigate risk of bias and threats to comparability & generalizability
How do we get from the current research landscape to “best practices”? 
Issues and challenges in conducting food aid research: Effectiveness studies in Burkina Faso

June 28, 2018
Food Assistance for Nutrition Evidence Summit
Washington D.C.
Dr. Laetitia Ouedraogo Nikièma
• Study designs
  – Experimental and non-experimental, quantitative vs qualitative
• Data collection methods
  – Heterogeneity in definition of outcomes
  – Data quality, effective methods to measure food consumption and compliance with the program
  – Qualitative data
• Data analysis and interpretation
  – Intention to treat, Sensitivity analysis, Factors to be controlled
What study design?

Several factors to consider:

• Eliminate bias and confounding factors
• Possibility to have a comparator group?
• Compare to what?
• Ethical questions

– Therapeutic program
– MAM study in the Houndé district
– Counseling? Other intervention?
What study design?

• # design / Context
• Quasi experimental
• Observational
• Randomized design
  – Expensive to undertake rigorously
  – Challenge with the randomization
  – Contamination risks, logistical constraints
What data to be collected?

- Inputs, process, outputs, outcomes
- Pertinent indicators
- Clear definition for each indicator
Methods of data measurements

- Prospective / retrospective
- Primary / routine data
- Quantitative + qualitative methods
- Anthropometric data
- Potential influencing factors self reported
- Direct measure using observation methods
- Using biomarkers
Quality in data collection

- **Quality and accurate data**
  - Field team training and supervision
  - Standardized methods and instruments
  - Team motivation
  - Good material

- **Minimize missing data**

- **Lost to follow-up participants**

- **Final outcome for lost to follow-up**
Data analysis

• Intention to treat or per protocol?

• Intention to treat, with sensitivity analysis

• Control for: food consumption, compliance with the recommendations, other food intervention, food security, health and socioeconomic conditions…
**Keys points**

- Need to use the most robust design possible to minimize bias and maximize generalizability.
- Greater heterogeneity in the outcomes to be addressed and harmonization for accurate evaluation.
- Work to get consensus on best practices in protocol development, outcomes measured, and reporting outcomes.
- Need more work and innovation on direct methods for measuring influencing factors.
Raising the Bar on Food Aid Research: Real life challenges of research and evaluations in humanitarian contexts

Assistance for Nutrition Evidence Summit
Washington D.C.
Presented by: Jennifer Kim Rosenzweig, DrPh
Chief Knowledge Management, Nutrition Division WFP
Operations Research, Evaluation and Learning Agenda

➢ What works?
➢ For whom?
➢ In which contexts?
➢ Why?
➢ When?
➢ How?
➢ At what cost?
Partnerships are essential

- Bring together research expertise with operational know-how
- Recognize what works for implementation may not for research and evaluation
Design for evaluation and research

✓ Start with robust systems
✓ Chose the right indicators
✓ Check feasibility given context
✓ Recognize expertise of all involved
Adapt to implementation realities:

- Be ready to adapt the plan
- Invest time to understand the context
- Remember socio-cultural and gender norms matter.
- Programmes and interventions do not operate in isolation
Considerations in determining how much does it cost?

- Large scale programs often not designed for cost analysis
- Financial systems are not designed for cost-effectiveness studies
- Remember incremental costs, and volunteer and care-giver costs
- Programmes and interventions do not operate in isolation
When RCTs are not feasible

- Quasi experimental designs and mixed methods
- Be clear on the purpose of research and evaluation – what is good enough in what contexts?
- Applicability of existing monitoring & secondary data
- Consider the full body of evidence
Invest in uptake and utilization
Conclusions

✓ From the start design for learning, evaluation and research
✓ Adapt, design and analyse for context
✓ Mixed methods adds value
✓ Collaborative partnerships are essential
✓ Consider cost analysis from the start

Invest in uptake and utilization
Food Aid Research: Perspectives from the Field

28 June 2018
Food Assistance for Nutrition Evidence Summit
Washington D.C.

Dr Tahmeed Ahmed
icddr,b
Dhaka, Bangladesh
Strategies for improving the quality of food aid research

• **Design of program**
  – Food composition
  – Quality
  – Ration size commensurate with requirements
  – Target beneficiaries
  – Acceptability testing of an untested food
  – Phasing out should be planned beforehand

• **Nature of food aid**
  – Blanket not always desirable
  – Preventing pilferage and corruption
  – Minimizing sharing
  – Scope for course correction
Strategies for improving the quality of food aid research

• Impact
  – How to attribute impact of an intervention?
  – False attribution
  – Measure intake in a sub-group
  – Assess nutritional status
  – Assess functional capacity, e.g. cognition, biomarkers
  – Assess micronutrient status
  – Qualitative assessments important but should be meaningful
  – Negative reports don’t see the light of the day
Experience from Bangladesh

• Fortified rice project
  – Intervention for one year but end line done after 2 years
  – Staggered
  – Even then anemia and zinc deficiency decreased compared to control women
Experience from Bangladesh

• **Micronutrient powder trial, 2010**
  – 15 component MNP for both mother and child
  – Huge procurement done, sachets vs boxes
  – Excess distributed indiscriminately creating confusion and controversy
Admissible Evidence in the Court of Development Evaluation?
The Impact of CARE’s SHOUHARDO Project on Child Stunting in Bangladesh

Lisa C. Smith, Faheem Kahn, Timothy R. Frankenberger and Abdul Wadud
October 2011

The quasi-experimental vs the randomized dilemma
**Suchana: Ending the cycle of under nutrition in Bangladesh**

- Cluster randomised pre-post study
- Study area: Sylhet and Moulvibazar districts
- Study participants:
  - Children (12-23 months)
  - Reproductive age women (15-45 years)
- Timeline: Baseline Feb 2016
  End line Feb 2019
Evaluation of Suchana

• Nutrition, diet and food security
• WASH and health
• Livelihoods
• Access to services
• Women’s empowerment
• Governance
### Evaluation of Suchana

<table>
<thead>
<tr>
<th>Nutritional Assessment</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
<th>Year 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suchana P4</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suchana P3</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suchana P2</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Suchana P1</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>T₀</th>
<th>T₁</th>
<th>T₂</th>
<th>T₃</th>
<th>T₄</th>
<th>T₅</th>
<th>T₆</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveys</td>
<td>Sₓ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Nutritional Assessment**
- Suchana P4: Year 1 - 40, Year 2 - 40, Year 3 - 40
- Suchana P3: Year 3 - 40, Year 4 - 40, Year 5 - 40
- Suchana P2: Year 4 - 40, Year 5 - 40, Year 6 - 40
- Suchana P1: Year 1 - 40, Year 2 - 40, Year 3 - 40, Year 4 - 40, Year 5 - 40, Year 6 - 40
Local interventions should be promoted

- Helps local economy
- Perhaps offsets ‘spoon feeding’ of the beneficiaries
- Many examples in South Asia – the local RUSF and RUTF
**Conclusion**

- All food aid programming & research should have rigorous M&E
- Think before you actually leap – prepare robust methods for evaluation when you design the actual program
- Correct attribution should be the focus of evaluation
- RCTs may not always be possible
- We need to think about controls
- Food aid research should be done by RESEARCHERS who know the context as well as the trade
Discussion

• How can we move towards more standardized best practices in food aid research?
• How can we maximize the quality of studies and still control cost; what is “good enough” but still sufficiently rigorous?
• Are there changes in study design that can improve efficiency and still produce results that are useful?
THANK YOU!