



# Application of Implementation Science: the case of Infant and Young Child Nutrition programs

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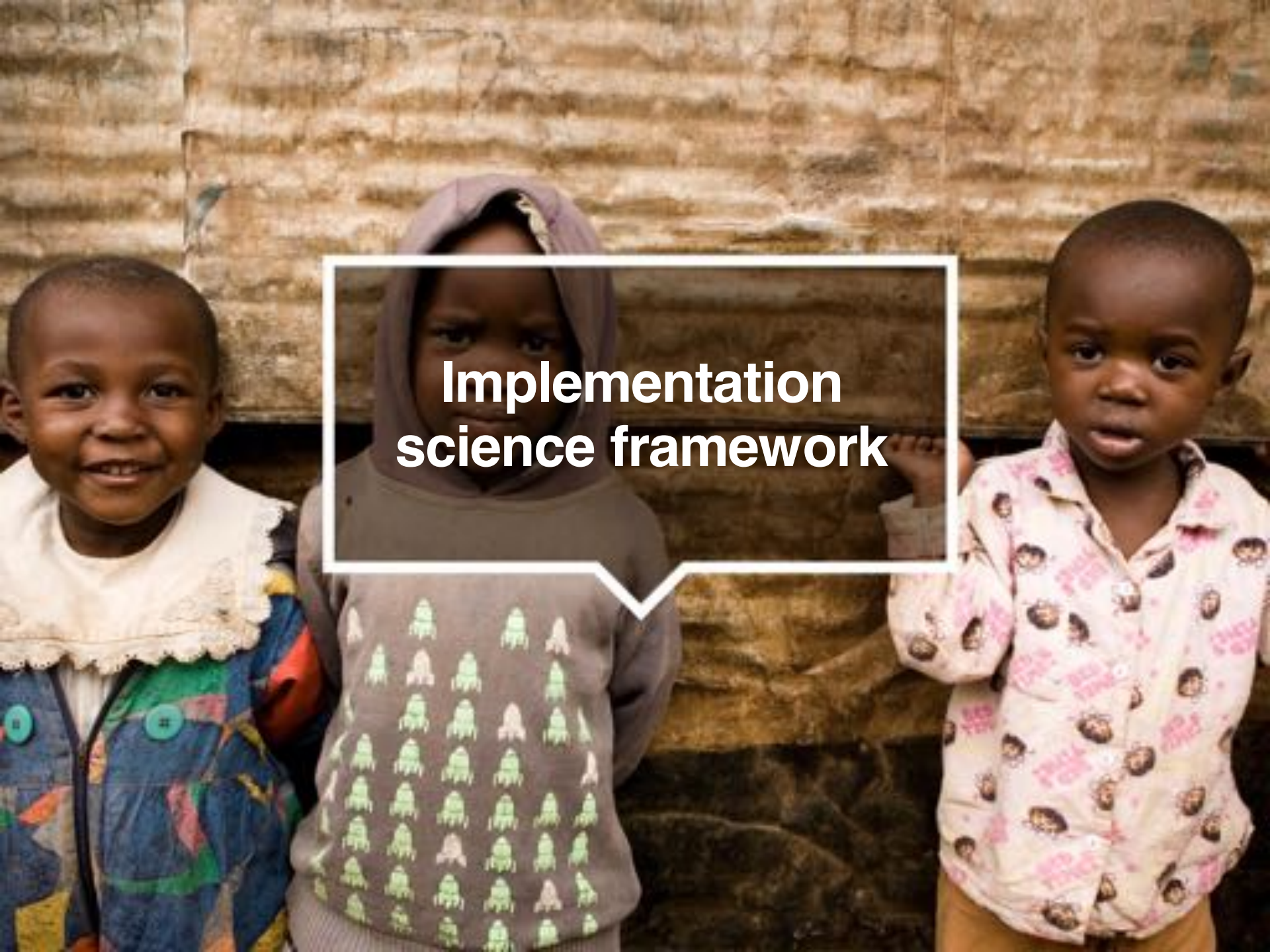
# Disclosures

<b>AFFILIATION/FINANCIAL INTERESTS (prior 12 months)</b>	<b>Funding sources</b>
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Speakers Bureau:	None
Stock Shareholder:	None
Employee:	Global Alliance for Improved Nutrition
Other	

# Outline

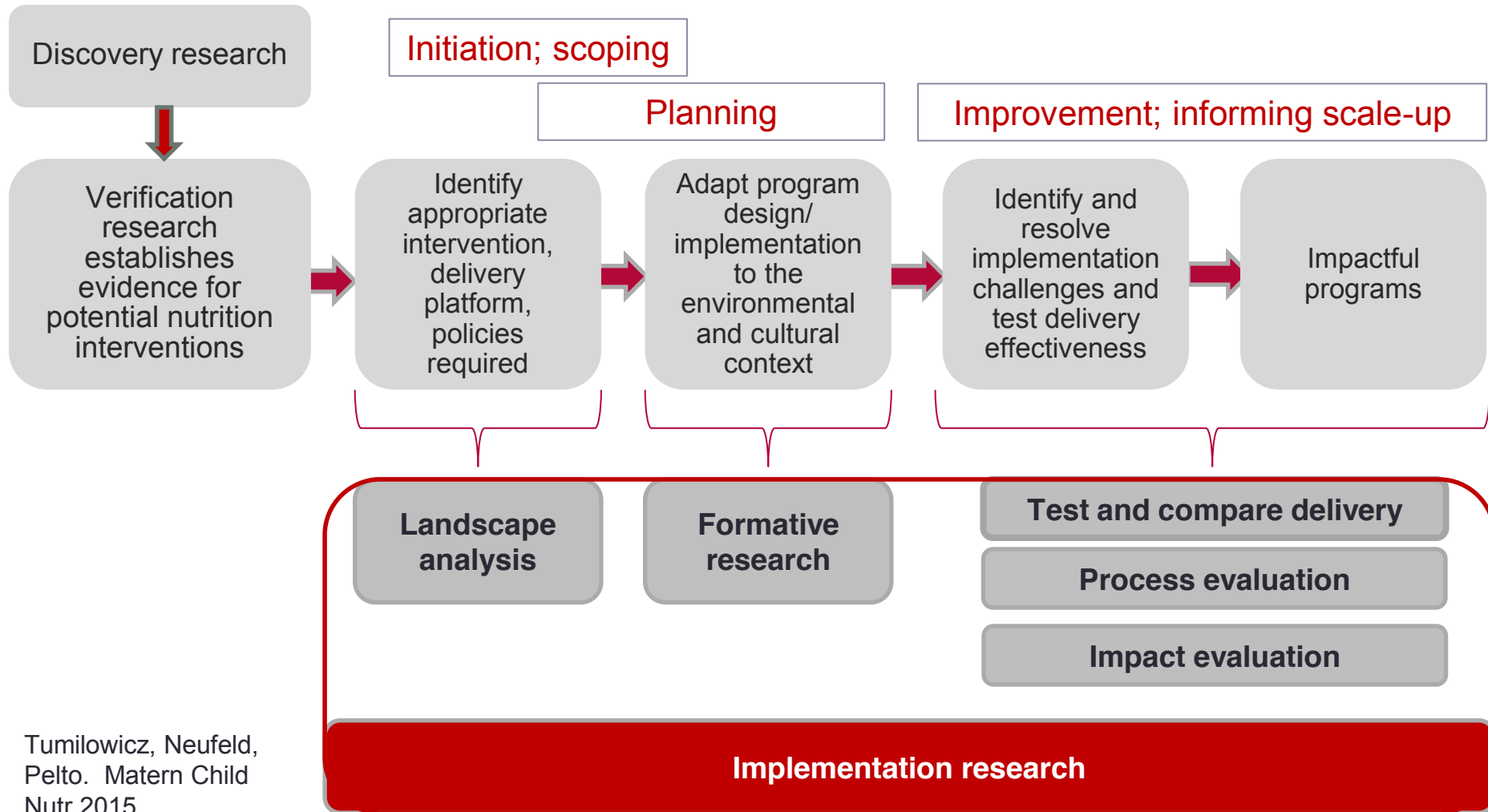


- The implementation science (IS) framework applied to program cycles
- A few examples from IYCN programs
  - **Short term feedback:** Identification of delivery platforms in Mozambique
  - **Medium term feedback:** Improving design and program delivery in Bangladesh
  - **Long term feedback:** Estimating program potential, impact and redesign in Mexico
- Final reflections



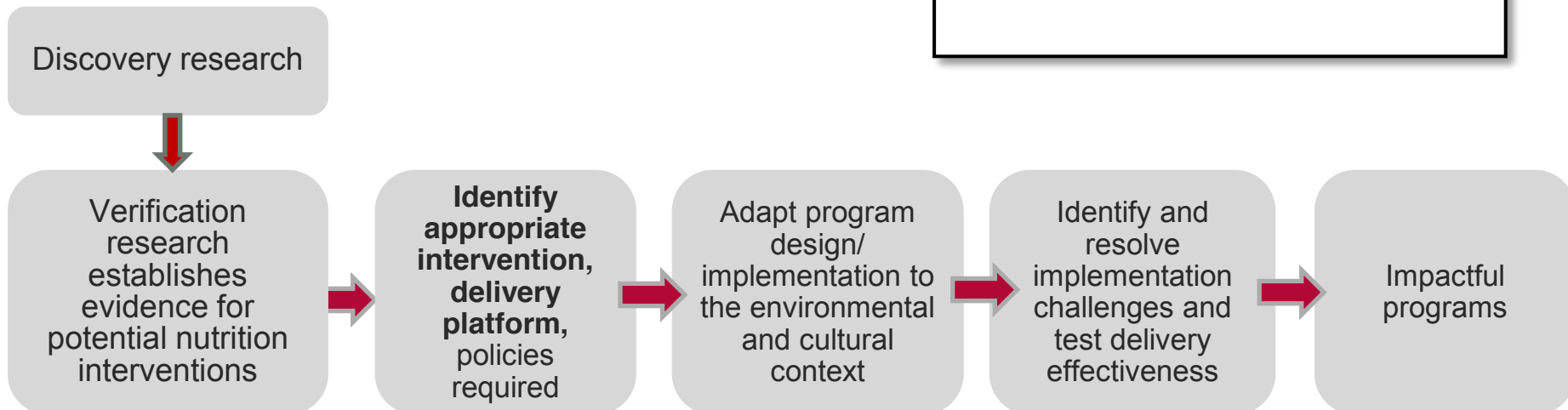
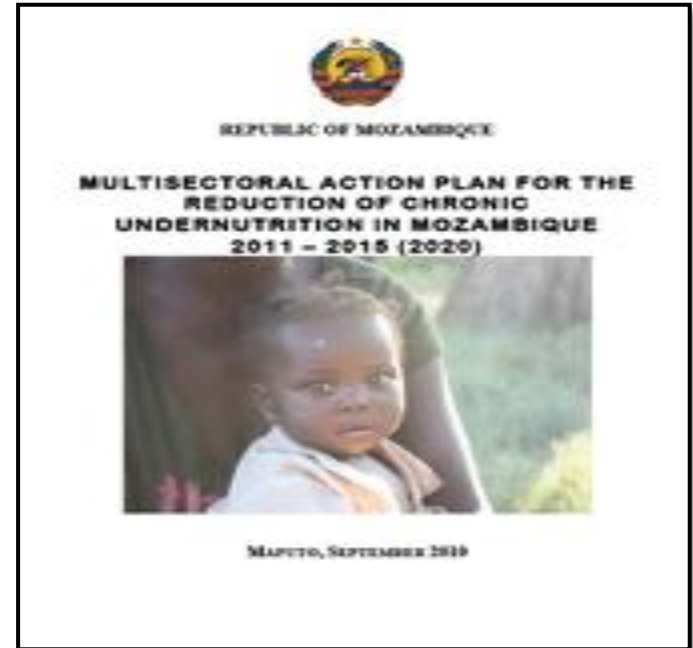
**Implementation  
science framework**

# Implementation science is defined by its objective and process, not by type of study or design

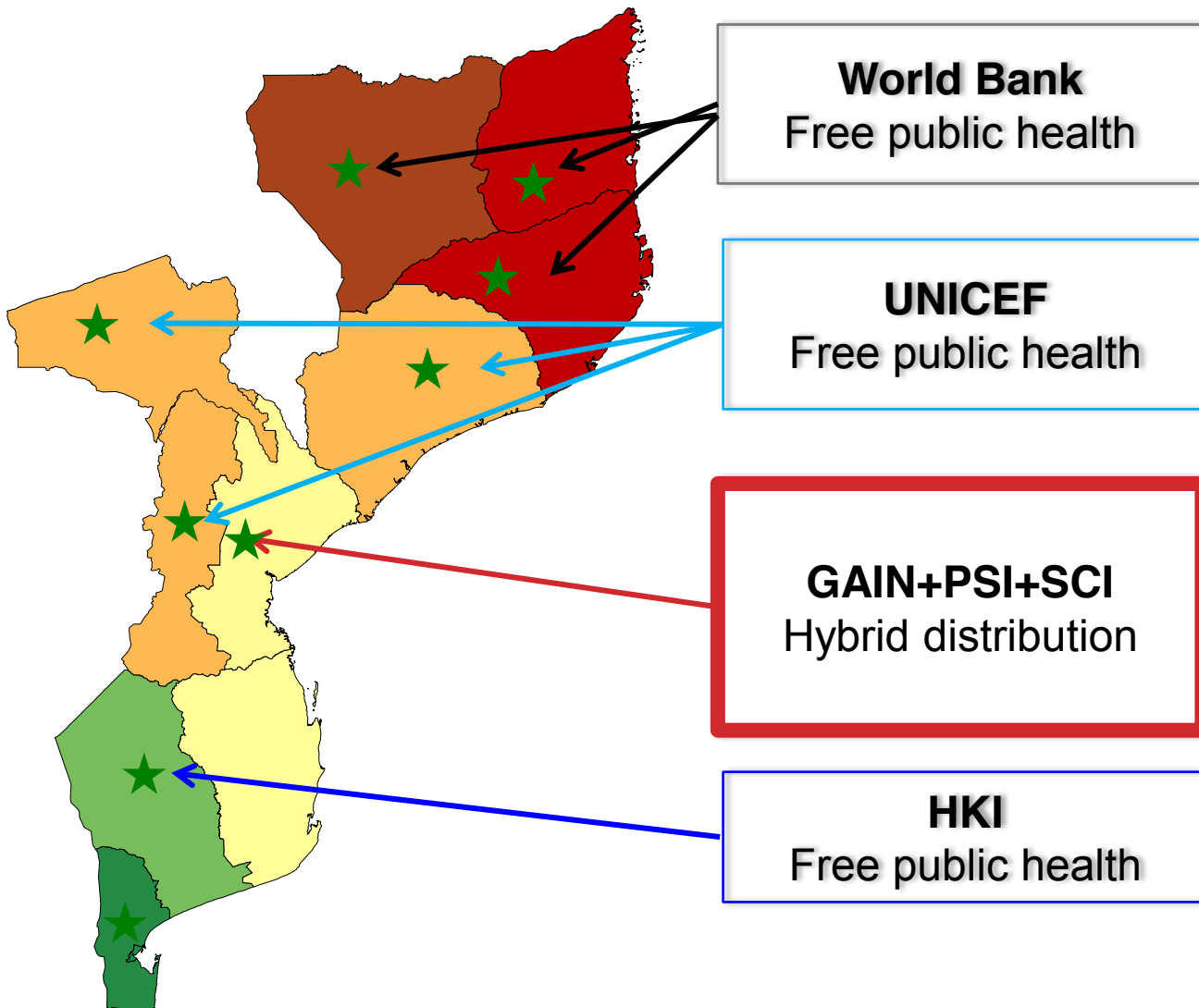


# Moving from policy to program in Mozambique: testing feasibility of implementation delivery platforms

In response to high prevalence of malnutrition, the Ministry of Health of Mozambique developed a comprehensive action plan – with many nutrition interventions, including provision of micronutrient powders (MNP) with counselling to improve infant and young child feeding



# Ministry of Health requested development partners to test diverse delivery platforms across different regions of the country



**Ultimate program goal:** to reduce ID anemia in children 6 to 23 months of age through improved infant and young child feeding (IYCF) practices and use of micronutrient powders.

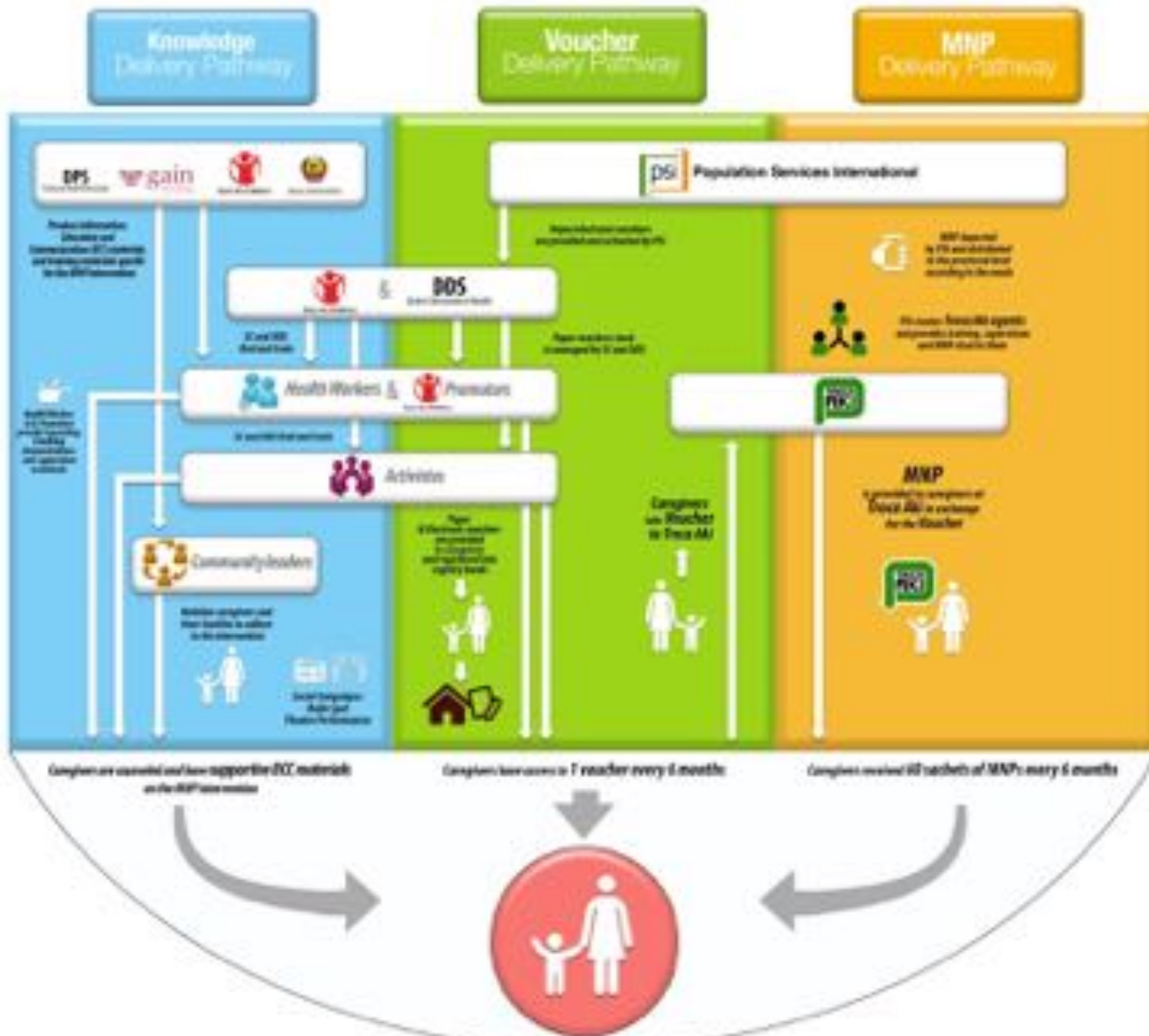
**Pilot program objective:**  
Test the viability of a hybrid model to motivate improved IYCF practices and MNP use among children 6 to 23 months of age

**Delivery:** Provision of vouchers and education on IYCF via voluntary community health workers (SCI) or cell phone – retrieve MNPs from community vendors (PSI - known and selling other goods)





# Delivering where national health systems don't reach



## Specific objectives of implementation research (on-going)

- Identify factors affecting the delivery of MNP vouchers to caregivers;
- Identify factors affecting the redemption of MNP vouchers by caregivers;
- Identify factors that modify (positively and negatively) acceptance and utilization of MNP by caregivers and their children;
- Identify factors affecting the delivery of BCC activities aimed at promoting IYCF and utilization of MNP by caregivers.



### Early results:

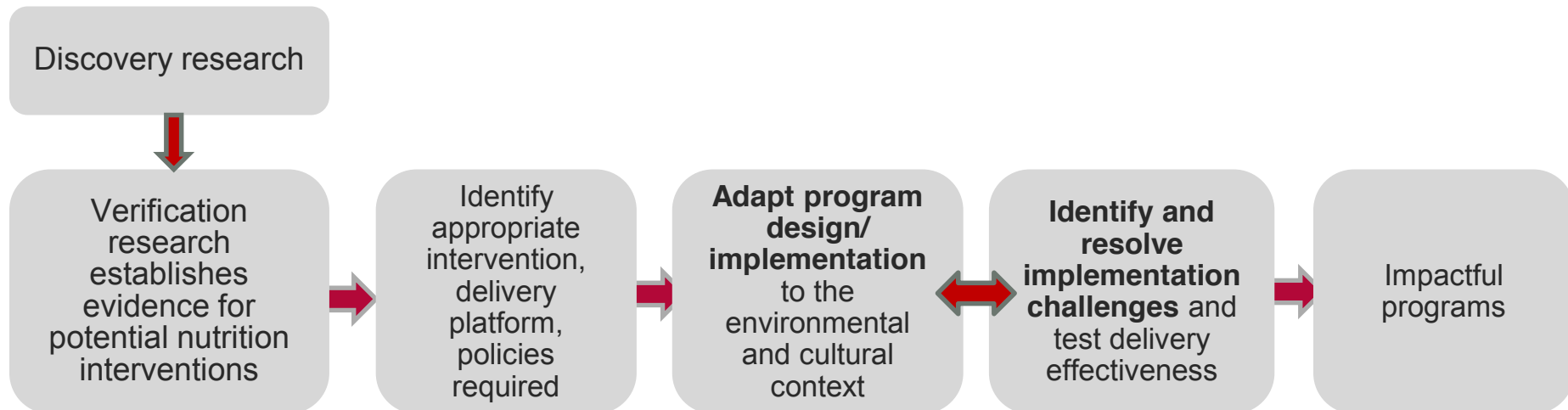
- Time constraints of voluntary community workers may be insurmountable
- Program cannot be fully reliant on volunteers

# Resolving implementation challenges: Bangladesh

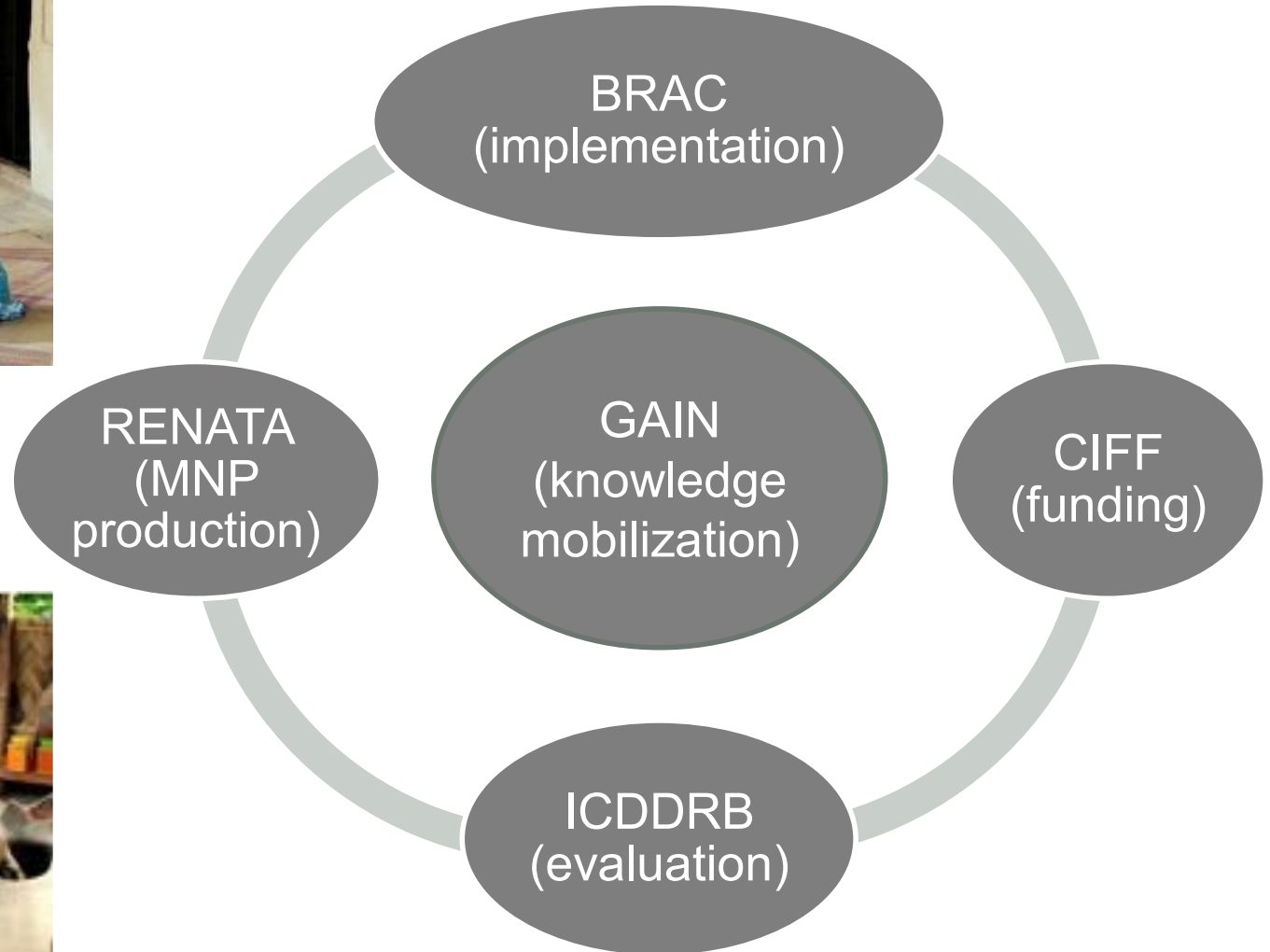
GAIN and partners with funding from BMGF developed a pilot program to promote complementary feeding for children aged 6-24 months, including subsidized sales of micronutrient powders (MNP) by BRAC volunteers:

- Evaluation (IFPRI) revealed:
  - High acceptance
  - Low coverage and utilization of MNP
  - Need for more consistent volunteer visits

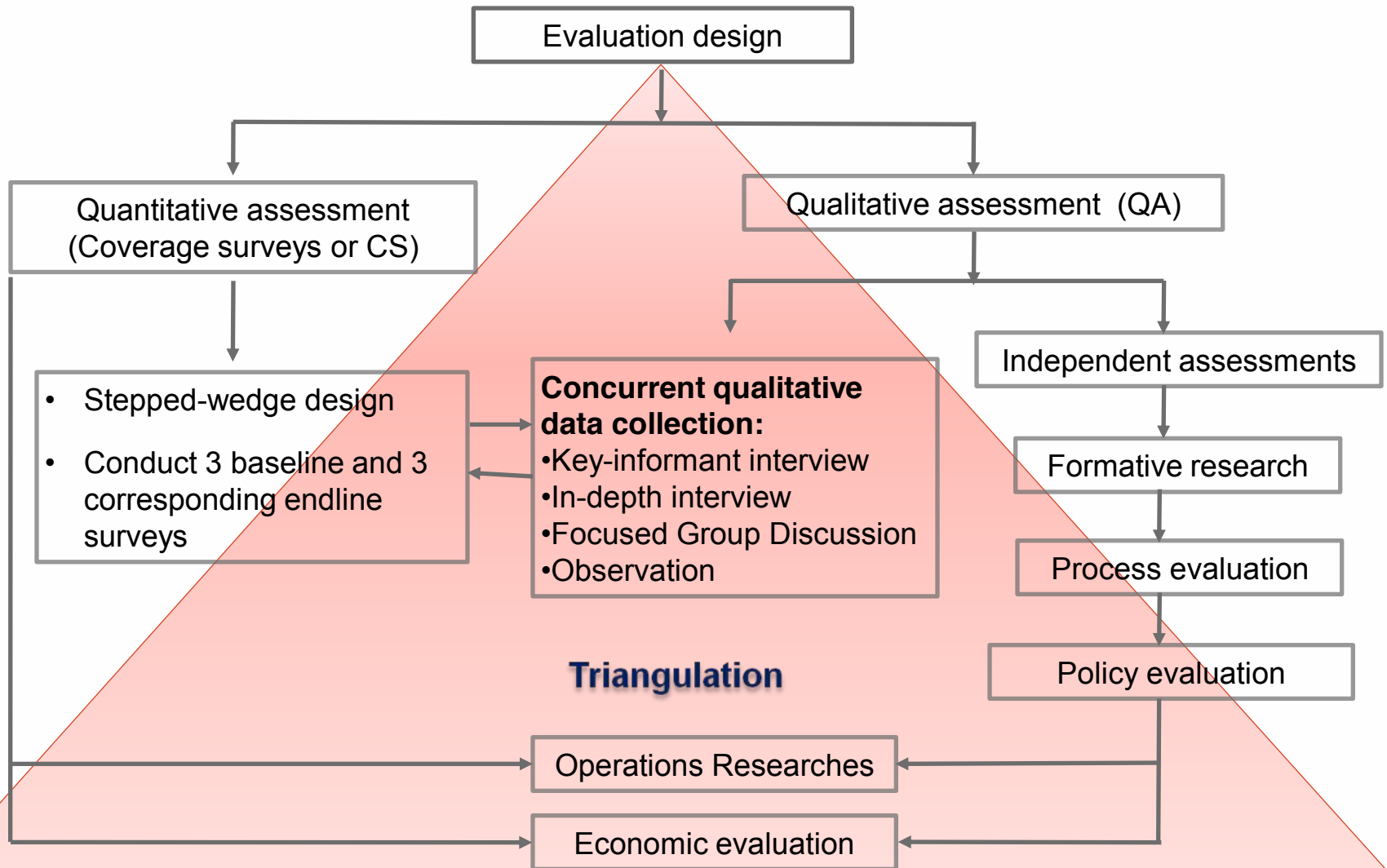
Interest from BRAC to scale up to additional regions – but implementation issues had not been addressed



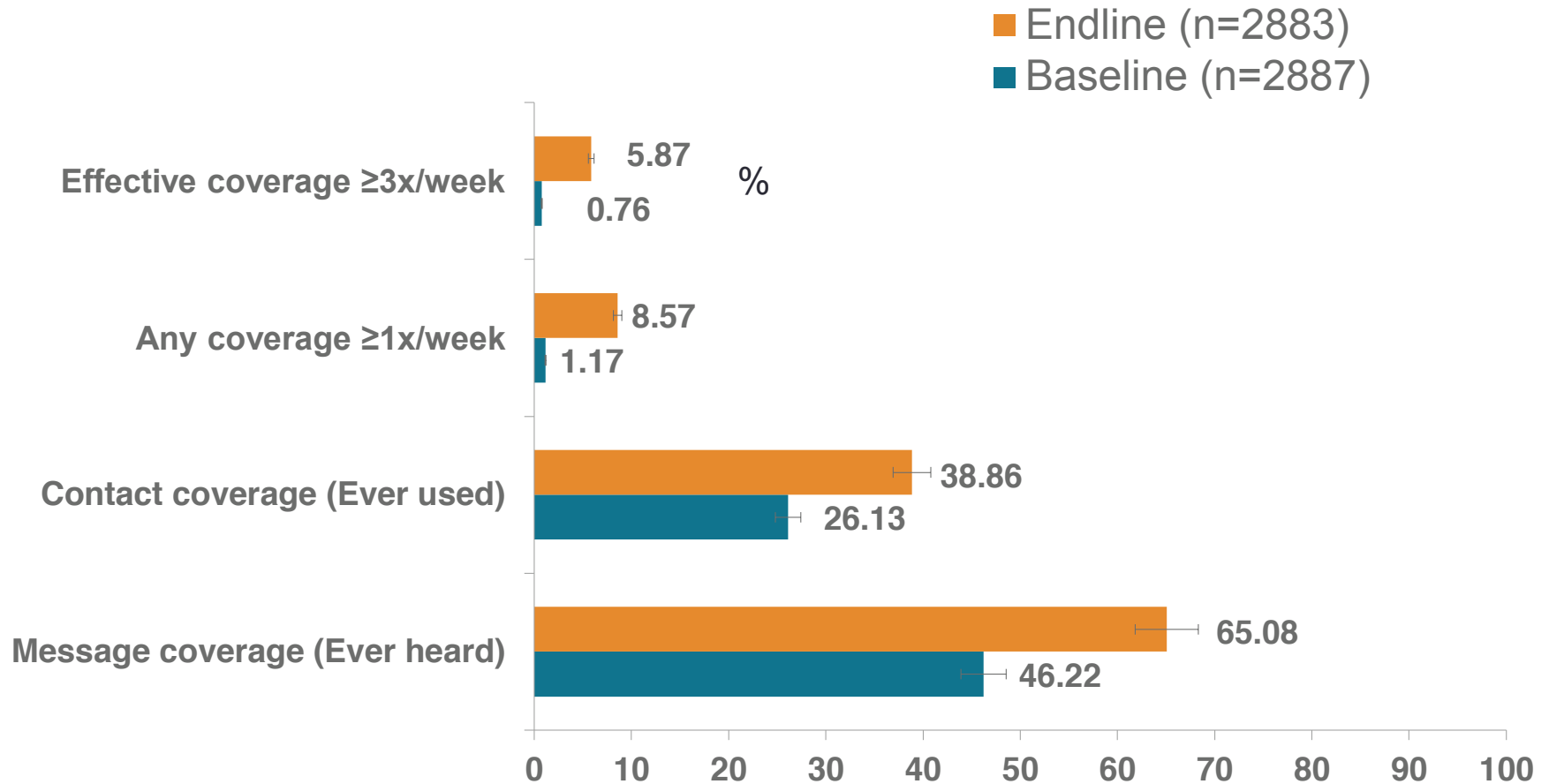
Good study design is not sufficient: effective implementation research requires process to define the questions and dialogue to identify feasible solutions to address challenges



# Partners work to prioritize research questions, interpret results and identify feasible modifications for testing



# Refine how we think about and assess coverage, based on Tanahashi (1978) model



## Studies identified diverse implementation challenges

Problem	Determinants and barriers to change
Persistent high prevalence of poor breast- and complementary feeding practices	<ul style="list-style-type: none"><li>• Low coverage of service platform (household visits by volunteers)<ul style="list-style-type: none"><li>• Tendency to be selective in households visited, not necessarily aligned with need</li></ul></li><li>• Lack of standardized, specific, implementable messages related to feeding</li><li>• Lack of time dedicated to promoting improved feeding<ul style="list-style-type: none"><li>• Lack of capacity of volunteers related to delivery of such promotion</li></ul></li></ul>
Low coverage of micronutrient powders	<ul style="list-style-type: none"><li>• Low coverage of service platform (household visits by volunteers)</li><li>• Insufficient/ inconsistent supply of MNPs</li><li>• Lack of demand for MNP<ul style="list-style-type: none"><li>• Low perceived need despite awareness of product</li></ul></li></ul>

# Program adjustments to improve implementation: evaluation results in 2018

## Training



- 7685 Shasthay Shebika
- 1815 Shasthya Kormis
- 100 PO & FO
- 44 UM and DM

## SS counseling card



- HH level counseling by SS,SK, PO
- Court yard session

## Behavior change strategy



- 1461 yard session with mothers
- 617 yard session with fathers
- 595 folk theater

## Supply



- Smooth management of supply chain
- Buffer stock at central and field level
- Ensured Zero stock out at SS level

## New Initiatives



- Piloting Business planning for SS
- Bi-monthly Refresher's for SS
- Incentive modification
- Piloting of Mobile App in one district



**Long-term  
investments in  
implementation  
research to improve  
design and delivery:**

**The case of Mexico's  
*Prospera* program**



***Progres***, a conditional cash transfer program began in 1997 in rural Mexico (100k pilot), expanded and scaled to national level (>25 million). Program later named ***Oportunidades***, now ***Prospera***

**Benefits**



**Co-responsibilities of beneficiary families**

- Educational scholarships
- Cash transfer
- Fortified food supplements



- Regular assistance of child in school
- Assistance of family members to preventative health care
- Health and nutrition education



# 20 year journey of research-program collaboration

## RURAL

Iron bioavailability in fortified food

Impact

Formative Research (supplements)

Impact

Impact

Early childhood stimulation

Rural model pilot

Rural model national scale-up

'97 '00 '02 '03 '04 '05 '06 '07 '08 '10 '12 '14 '17+

## URBAN

Impact

Formative research new model (urban & rural)

Urban model pilot

Urban model national scale-up

Supplement consumption

Efficacy of 3 supplements

Pilot, modified nutrition supplements and education



# Problems related to design and implementation

## Design issues:

Focus on supplements as *the* nutrition intervention

- *Extremely diverse population (language, culture, nutrition problems)*
- *Lack of consistency in messages and inappropriate education methods*
- *Poor alignment of approach with nutritional problems in some cases*
- *Lack of relevancy in messages and approaches*
- *Lack of follow-through with initial modifications*

## Implementation issues:

- *Little and poor training, high turn-over*
- *Inter-sector implementation but lack of coordination*
- *Inconsistent supplement availability, lack of materials*
- *Inappropriate storage conditions of supplements*



## Led to a set of concrete recommendations to Government: Final design developed by national expert panel based on those

- Comprehensive strategy to address nutritional issues, avoid over-emphasizing supplement as focus of that strategy
  - Breastfeeding protection and promotion
  - Healthy eating focus (appropriate to life stage)
  - Focus on “healthy growth” (weight and height)
  - Supplements aligned with nutritional needs and with high potential for impact
    - Eliminate high energy supplement for women, and children (urban areas only)
- Given population diversity, Program requires diverse package of benefits in Urban and Rural areas, requires translation and adaptation for Indigenous populations



# Integrated Strategy for Attention to Nutrition (EsiAN)

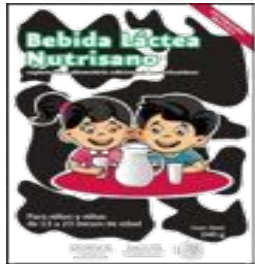
*Roll out at national scale completed in 2016*

Modified Nutritional  
supplement scheme:

Rural, Urban  
differentiation

Equip all health  
centers to facilitate  
continual training,  
growth monitoring,  
anemia detection

Communication and  
training plan with  
intensive support  
and follow up:  
75 000 workers  
1300 trainers  
130 master trainers



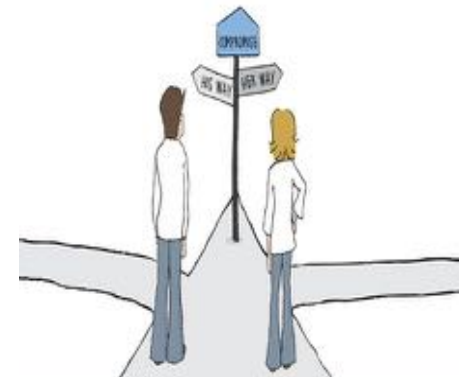
# What has made these examples successful?

1. *Culture of evaluation* in the program and *mission-driven* research institute facilitated joint planning and priority setting; “knowledge mobilizer” role supports this in Bangladesh and Mozambique
2. Explicit process to foster sense of ownership
2. Time and continuity of funding
3. Willingness to compromise:
  - Program:
    - Waited for results before acting
    - Included researchers in target setting
  - Researchers:
    - Best feasible design fit to purpose and context
    - Actionable recommendations



**Compromise**  
is *not* an act of weakness.

It demonstrates that you care for something or someone beyond yourself.



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Thank you

