

# Nutrition Causal Analysis

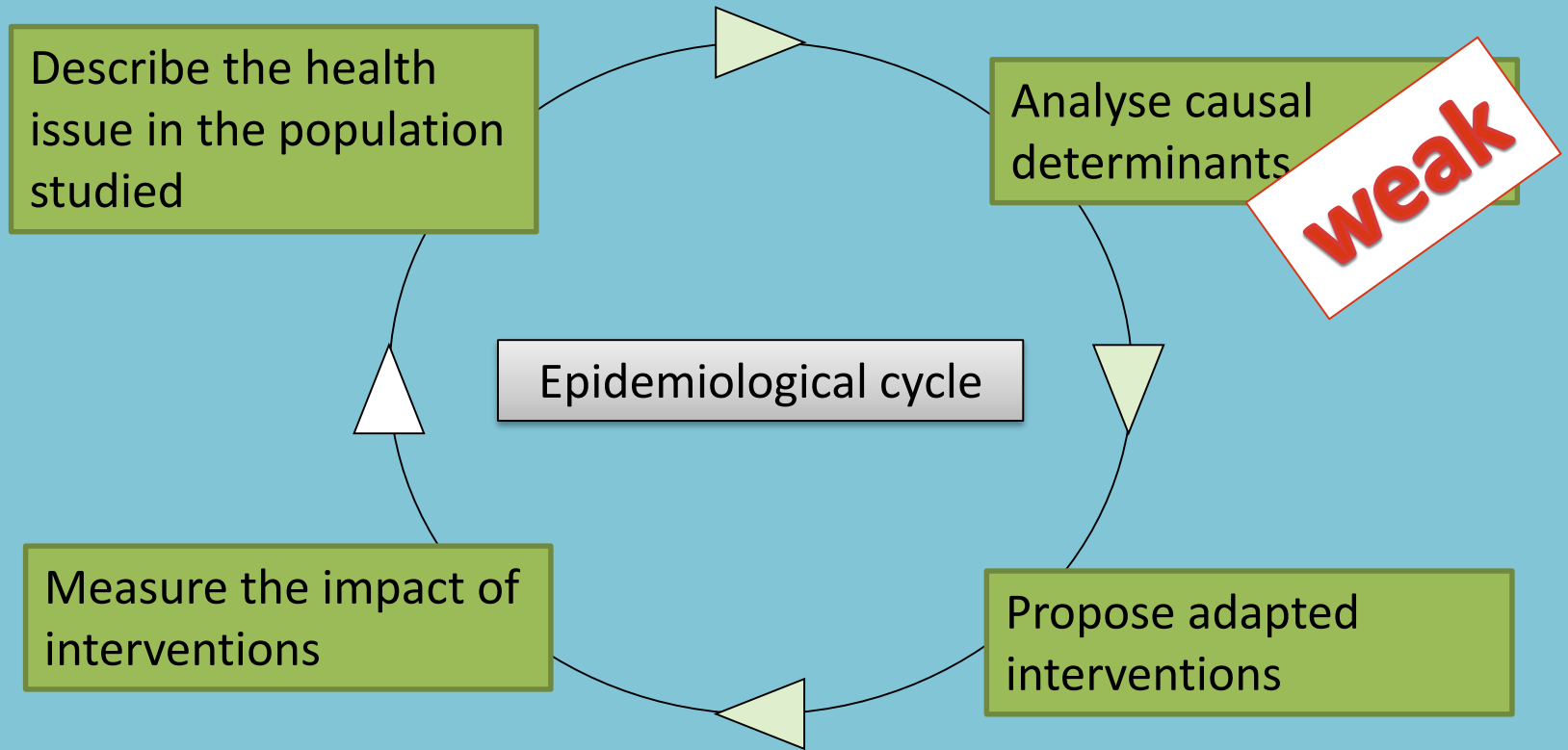
proposition for a new methodology

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# Justification (1)



# Justification (2)

**weak**

- Complexity
- Mutli-sectoral
- Under-nutrition considered as a natural outcome of food security, care practices, health
- Conceptual frameworks, yes, but no clear field assessment tool

# Requirements (1)

- Be local, Be specific



# Requirements (3)

- Be local, Be specific
- Holistic
- Ability to rate causes: **where** should we intervene?
- Understand how risk factors are related to under-nutrition (causal pathways to under-nutrition): **how** should we intervene? Where are the bottlenecks?
- Cost effective

# team



J. Coates

H. Young



Y. Martin-Prével



K. Ogden

S. Jaspars



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M.Ait-Aïssa; M.Calo; C.Bizouerne;  
N.Guibert; L.Boucher-Castel

External Peers: C.Dufour (FAO) and A.Dhur (ICRC)

Agronomy

Mental Health

Care Practices

Social Sciences

Food security

Epidemiology

Water Engineering

Anthropology

Nutrition

Public health

Sanitation



# NCA RESEARCH PROJECT

NCA METHOD v1

End 2010

Field Tests ZIMBABWE BANGLADESH

2011

NCA METHOD v2

2012

Field Tests BURKINA-FASO

End 2012

Internal Validation + Externally Peer-Reviewed

2013

Guidelines

End 2013



# Summary of NCA method (1)

Designing the NCA

Identifying causal hypothesis

Quantitative  
survey

Qualitative  
inquiry

Participatory rating of causal  
hypothesis

**4  
months**

# Summary of NCA method (2)

## Identifying causal hypothesis:

- Scientific and grey literature review
- key informants interview
- Hold technical expert workshop at national or regional level to review and validated hypothesis to be tested.

**who? when? what?**

# Summary of NCA method (3)

## **Quantitative cross sectional survey:**

- Similar to a SMART and KAP survey done simultaneously
- Anthropometric measurements
- 26 Key NCA indicators
- Typically 800-900 children and around 500 Households are sampled.

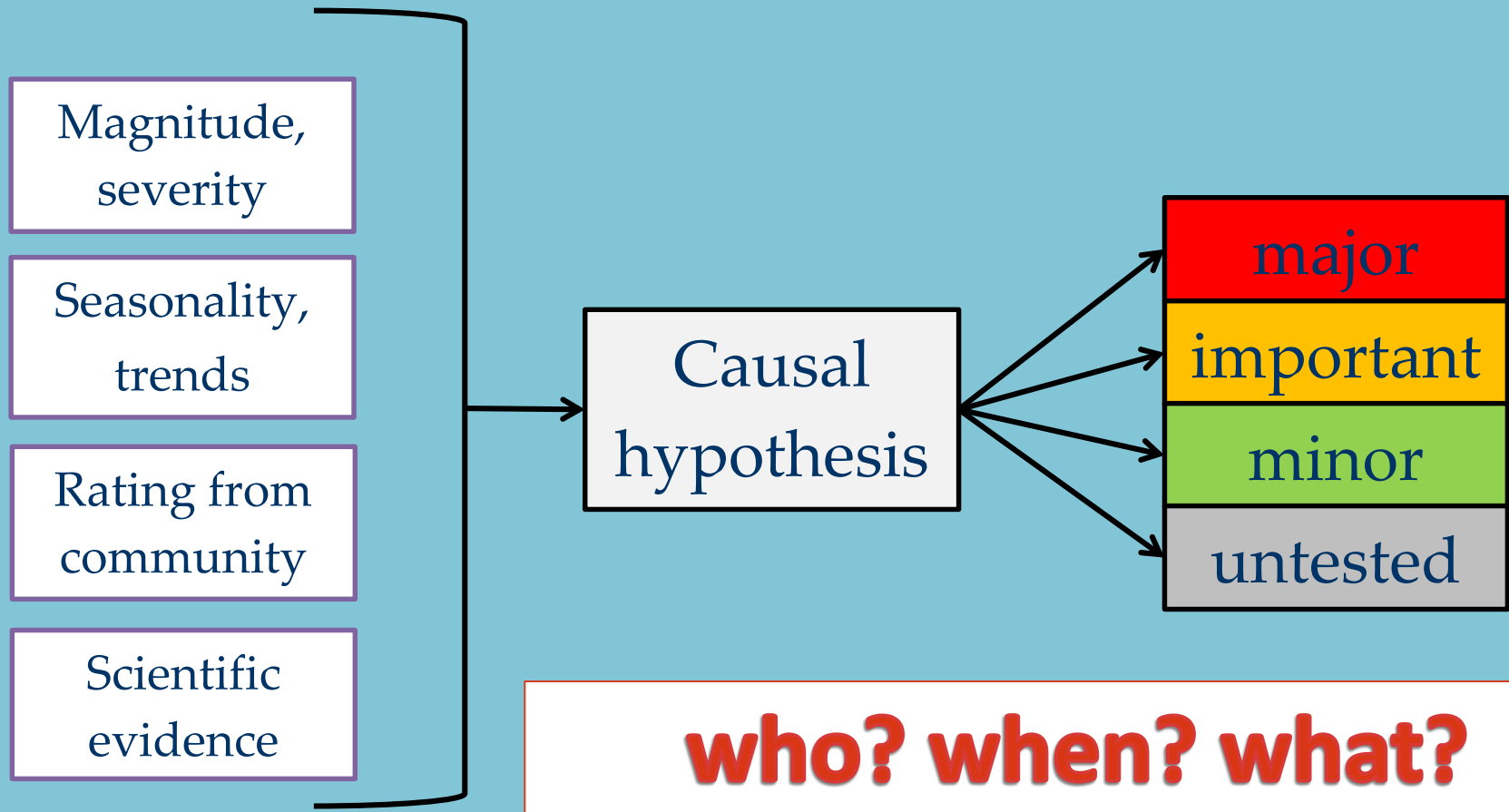
# Summary of NCA method (4)

**Qualitative Inquiry** in 4 randomly selected villages:

- 1 day interview with village gate-keepers.
- 3 days FGD and role playing with women on Food Security / Health-Wash / and Care Practices.
- 1 day FGD with women for rating exercise of main causes of under-nutrition.

# Summary of NCA method (5)

## Participatory rating of causal pathways



# Summary of NCA method (6)

Participatory rating of causal pathways

Rating by  
NCA analyst



Reviewed by  
communities



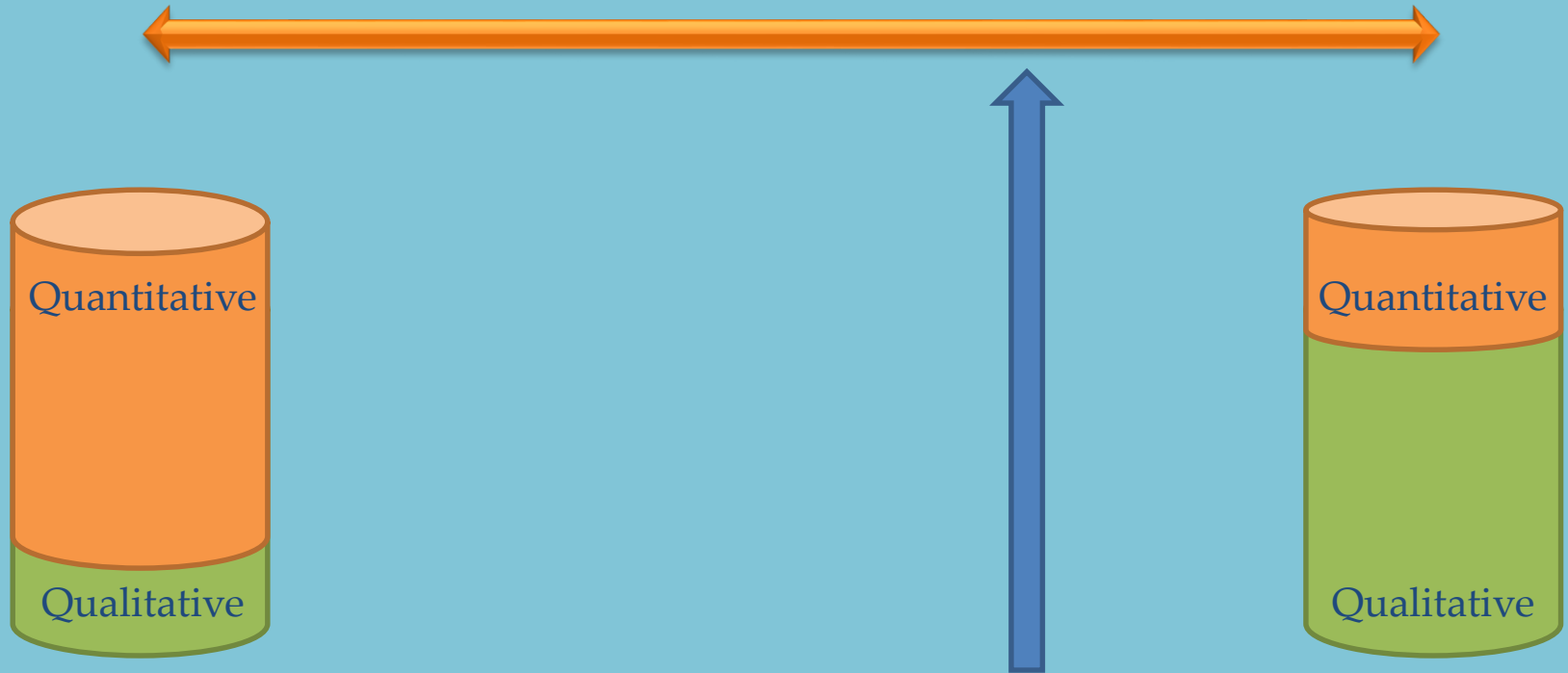
Reviewed by  
technical  
experts

# Summary of NCA method (7)

A NCA is a structured, participatory, holistic study, based on the UNICEF causal framework, to build a case for nutrition causality in a local context.

A NCA is **not** a statistical demonstration of nutrition causality that can be generalised at a national level.

# Trade off (1)



More adequate with  
resources available

Holistic

Better added value



# Trade off (2)



Academic  
exercise

Operational  
study

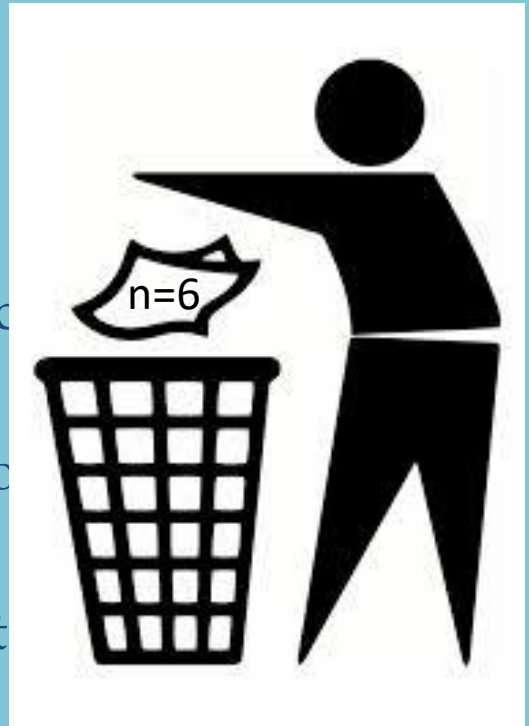


transparent on limitations  
scientific, rigorous method

part of an operational process

Optimising resources to get a method that is “good enough”

Costs 40 000€ (including SMART survey) - Duration 12 weeks



# Trade off (3)



**Basic  
causes**

There is under-nutrition because the “environment” is poor

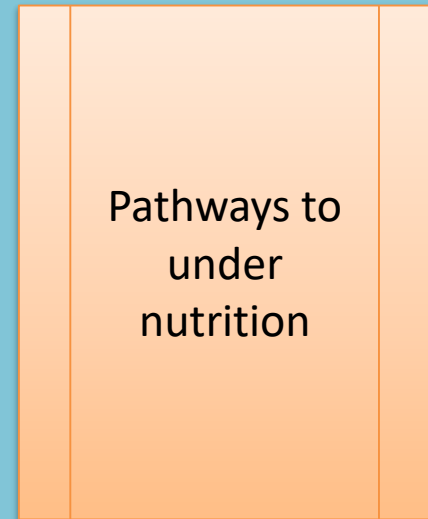
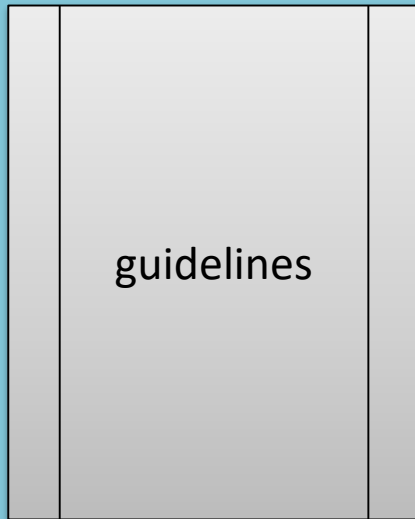
**Underlying  
causes**

From underlying to basic causes  
Even in a poor “environment”, you can achieve good nutrition outcomes  
Outlining the risk during interpretation

# Added value

- Connecting perceptions from scientific, technical experts and communities
- Forging a consensus
- Mutli sectoral tool
- Stories behind the data

# Outputs



# Optional Slides

# Why limiting the quantitative analysis to a descriptive analysis?

- Some risk factors are difficult to measure
- “reasonable resources” => No longitudinal study design possible
- Association or Causality (cycles and feed back loops)
- Complexity           => confounding factors  
                              => multivariate models
- Misleading !