Nutrition sensitive interventions: what has been shown to work and implications for Zambia

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Objectives of the presentation

• Present an overview of nutrition sensitive interventions, requirements for impact and possible implications for Zambia

Defining nutrition sensitive interventions

• Nutrition-sensitive programmes that address key underlying determinants of nutrition status or enhance the coverage and effectiveness of nutrition-specific interventions.
UNICEF Conceptual Framework

- undernutrition
- Overweight/obesity
- Death/disability

Immediate causes:
- Inadequate dietary intake/overnutrition
- Inadequate maternal and child care

Underlying causes:
- Inadequate access to food
- Disease
- Inadequate Health services
- Unhealthy environment

Basic causes:
- Resources and control
  - Human, economic organizational resources
- Potential resources

Manifestation:
- Death/disability

Adapted from UNICEF, 1990
UNICEF Conceptual Framework: entry points

- **undernutrition**
- **Overweight/obesity**
- **Death/disability**

**Manifestation**
- Disease

**Immediate causes**
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**Underlying causes**
- Resources and control
  - Human, economic organizational resources

**Basic causes**
- Potential resources

Adapted from UNICEF, 1990
Three main areas of nutrition sensitive interventions

1. Nutrition sensitive agriculture
   • Improve the nutritional quality of the food basket through agriculture
   • Nutrition education, increasing agro-biodiversity, homestead gardens, biofortification

2. WASH (water, sanitation and hygiene)
   • Improved water sources, reduction of open defecation, hygiene and food safety

3. Social protection (conditional/non-conditional)
   • Cash transfers, productive safety nets
   • Protective, preventative, promotive, transformative (FAO, 2015)
   • Early childhood development
   • School feeding programmes (home grown school feeding programme)
   • Supplemental feeding
   • Fiscal policies
   • Schooling
Pathways from agriculture to nutrition

Adapted from Gillespie et al. 2012 and Headey et al 2012
What the evidence reflects: nutrition sensitive agriculture

Effect on nutrition largely inconclusive due to poor design and evaluation except for vitamin A (Ruel et al., 2013)

**In summary:** projects which involve stand-alone production strategies less effective than integrated projects including gender, nutrition education, maternal education, improving income and overall dietary quality, social and other types of capital (Berti et al., 2004; Webb & Kennedy, 2012; Gillespie et al., 2013).

**BCC & Gender are important:** Well-designed interventions with BCC and other targeted nutrition components, had better nutrition impact (Ruel, 2001 & 2013).

**Take possible trade-offs into account:**
Gains in one area should not be accompanied by losses elsewhere. e.g., ensuring that,
• Animal husbandry interventions do not increase prevalence of zoonotic diseases (Webb & Kennedy 2012). Parasite infestation? Malaria?
• Involvement of women does not negatively impact care practices
Available evidence raises the question

What is appropriate to measure for nutrition sensitive agriculture?
What the evidence reflects: WASH

Cochrane review: Dangour et al., 2013

• 14 studies, inclusion criteria, RCTs, quasi-randomized and non-randomized controlled trials, controlled cohort or cross-sectional studies and historically controlled studies, comparing WASH interventions.

• All 14 measured child anthropometry

• None of high methodological quality primarily due to lack of blinding; adherence reported by only 2 studies; short intervention periods.

On 5 cluster randomized trials

• Meta-analysis (n=4,627): no evidence of an effect of WASH on underweight.
• Meta-analysis (n=4,622): no evidence of an effect of WASH on wasting.
• Meta-analysis (n=4,627): borderline significant effect of WASH on stunting.

• Reported being hopeful that there were a number of well designed studies underway that may provide better evidence.

• This has implications on how interventions should be designed for evaluation to be meaningful
What the evidence reflects: Social protection

Cash transfers:

The Production to Protection (PtoP) project: (4-year collaboration, FAO, UNICEF and DFID), explored the impact of cash transfers: Ethiopia, Ghana, Kenya, Lesotho, Malawi and Zimbabwe.

Qualitative assessment results
- Impacts depends on a range of contextual factors,
- household asset base,
- livelihood strategies and levels of vulnerability,
- local economic institutions, complementary services and programmes.

Conclusion: need to make social protection policies and programmes context- and group-specific, narrowly targeted, and integrated in approach, covering multiple sectors.

Source: Barca and Pozarny, 2015 (20)
Percentage reduction in given indicators for every 10% increase in GDP

Adapted from Ruel et al., 2013
Most evidence on social transfers are from South America, little from Africa (Hoddinott, 2012)

- increased use of health services, specifically:
  - More timely vaccinations (Brazil, Colombia, Honduras)
  - Increased antenatal visits (Brazil)
  - Increased use of preventative/curative health services (Colombia, Honduras, Jamaica, Mexico, Nicaragua)
Cash transfers in different countries, % population

Ethiopia
South Africa
Mexico
Brazil
Ecuador

10
25
25
40
Nutrition sensitivity of maternal vs parental education is protective

DHS data 1999 to 2013?

Adapted from Ruel et al., 2013
Social protection can also have unintended consequences

Example

• Cash transfers in a rural poor community (Mexico) with already high overweight and obesity resulted in higher increases in overweight and obesity that in recipient households by increasing energy consumption that was not an issue (Leroy et al., 2013).
Conclusion:
Nutrition sensitive interventions: implications for Zambia

1. Calls for well planned and designed interventions that can yield meaningful results on evaluation.
2. Context matters: therefore the need for contextualization of interventions sub-nationally.
3. Implications on how competencies are addressed in workforce development/training and capacity strengthening of professionals already in practice.
4. The need for sustained intervention for the desired impact presents challenges of funding resources.
5. Also presents challenges in terms of the high dependence on development partner funding and the related limited duration of project cycles.
6. Need for flexibility in related programme designs to allow for lesson learning.
7. Need to imbed action research within programmes to inform lesson learning and progress. Opportunities for post-graduate research and fourth year research projects
8. In win-win scenarios.
Thank you!!

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