Nutrition-sensitive Interventions and Programmes: How Can They Help Accelerate Progress in Improving Maternal and Child Nutrition?

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Conceptual Framework

Benefits during the life course

- Morbidity and mortality in childhood
- Cognitive, motor, and socioemotional development
- School performance and learning capacity
- Adult stature
- Obesity and NCDs
- Work capacity and productivity

Optimum fetal and child nutrition and development

Nutrition specific interventions and programmes
- Adolescent health and preconception nutrition
- Maternal dietary supplementation
- Micronutrient supplementation or fortification
- Breastfeeding and complementary feeding
- Dietary supplementation
- Dietary diversification
- Feeding behaviours and stimulation
- Treatment of severe acute malnutrition
- Disease prevention and management
- Nutrition interventions in emergencies

Breastfeeding, nutrient rich foods, and eating routine

Feeding and caregiving practices, parenting stimulation

Low burden of infectious diseases

Food security, including availability, economic access, and use of food

Feeding and caregiving resources (maternal, household, and community levels)

Access to and use of health services, a safe and hygienic environment

Knowledge and evidence
- Politics and governance
- Leadership, capacity, and financial resources
- Social, economic, political, and environmental context (national and global)

Nutrition sensitive programmes and approaches
- Agriculture and food security
- Social safety nets
- Early child development
- Maternal mental health
- Women's empowerment
- Child protection
- Classroom education
- Water and sanitation
- Health and family planning services

Building an enabling environment
- Rigorous evaluations
- Advocacy strategies
- Horizontal and vertical coordination
- Accountability/incentives regulation, legislation
- Leadership programmes
- Capacity investments
- Domestic resource mobilisation

THE LANCET
Definition: Nutrition-sensitive Interventions and Programs

Interventions or programs that address the underlying determinants of fetal and child nutrition and development—food security; adequate caregiving resources at the maternal, household and community levels; and access to health services and a safe and hygienic environment—and incorporate specific nutrition goals and actions.

Nutrition-sensitive programs can serve as delivery platforms for nutrition-specific interventions, potentially increasing their scale, coverage and effectiveness.

Examples:

<table>
<thead>
<tr>
<th>Agriculture and food security</th>
<th>Social safety nets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early child development</td>
<td>Maternal mental health</td>
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<td>Women’s empowerment</td>
<td>Child protection</td>
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<tr>
<td>Schooling</td>
<td>Water, sanitation and hygiene</td>
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<td>Health and family planning services</td>
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Nutrition-sensitive Programs Can Impact Nutrition: Through Increases in Income

A 10% increase in GDP/PC leads to a 6% reduction in stunting.
Income Growth Can Have Unintended Consequences of Increasing Risks of Overweight and Obesity

A 10% increase in GDP/PC leads to a 7% increase in overweight and obesity in women.
Nutrition-sensitive Programs Can Impact Nutrition: Through Empowerment of Women

There is evidence that men and women allocate food and other resources differently

Evidence shows:

- Positive associations between dimensions of women’s empowerment and improved maternal and child nutrition
- Negative associations between disempowerment (e.g. domestic violence) and child nutrition outcomes
- Positive impacts of cash transfers and agricultural programs on measures of women’s empowerment
Evidence Review of Programs from 4 Sectors

✓ Agriculture
✓ Social safety nets
✓ Early child development
✓ Schooling

Selected based on:

Relevance for nutrition

Availability of evaluations of nutritional impact

High coverage of the poor

Targeting: programs that are or could be targeted to reach nutritionally vulnerable groups
Have impacts on several underlying determinants of nutrition:

- Livelihoods and income
- Household food security
- Diet quality
- Women’s income and empowerment

...and complement global efforts to stimulate agricultural productivity – increasing producer incomes while protecting consumers from high food prices
## Nutritional Impacts of Targeted Agricultural Programs

<table>
<thead>
<tr>
<th>Evidence of nutritional impact is inconclusive</th>
<th>Although there is some evidence of impact from home gardens and homestead food production systems on vitamin A intake and status of children</th>
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<tbody>
<tr>
<td></td>
<td>Strong evidence from roll out of biofortified vitamin A rich orange sweet potato on vitamin A intake of mothers and children and vitamin A status of children</td>
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<tr>
<td>Limited evidence likely due to</td>
<td>Weaknesses in program goals, design, targeting, implementation</td>
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<td>Lack of rigor in impact evaluation, including lack of theory-based program impact pathway analysis</td>
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## Social Safety Nets

### Are important poverty reduction tools:

- Provide transfers to a billion poor people and reduce poverty; are often implemented at scale and achieve high coverage of the poor; increase demand for health and education services
- Help mitigate negative effects of global changes, conflicts, shocks; protect income, food security, diet quality, assets and human capital investments among the poor
- Enhance women’s empowerment when targeted to women and when they include specific gender-focused interventions

### Key findings:

- Strong evidence of impacts on health care utilization, but limited impacts on child nutrition; some studies show impacts in younger, poorer children, with longer exposure
- Lack of clarity in nutrition goals, weaknesses in design and poor quality health services likely responsible for the limited nutritional impacts
Example of Unintended Effects of Social Safety Net Program in Mexico

Source: Leroy et al. J Nutr 2013
### Early Child Development

#### Stunting and poor cognitive development share many risks factors:

- Nutritional deficiencies
- Intra-uterine growth restriction
- Social and economic conditions such as poverty and maternal depression

Also share period of peak vulnerability: the first 1,000 days

#### Key findings:

- Evidence from small-scale programs targeted to at-risk children suggests additive or synergistic effects on child development and in some cases on nutrition outcomes

- Combining early child development and nutrition interventions makes sense biologically and programmatically and could lead to significant gains in both nutrition and child development outcomes
Schooling

Schooling is a critical input into nutrition:

Risk of stunting is lower among children whose mother has primary (OR: 0.89); and secondary (OR: 0.75) schooling

Schooling is important for the nutrition of the next generation

Key findings:

Positive global trends in schooling + reductions in gender gap: 58% to 86% (1950-2010)

Schools provide an opportunity to include specific nutrition promotion and education to prevent or treat undernutrition and obesity in school children and future generations

Assessments of the impact of emerging school health and nutrition curricula in developing countries on nutrition, and health knowledge of school children and on their future parenting skills are needed
Enhancing the Nutrition-sensitivity of Programs

Steps to enhancing nutrition-sensitivity:

- Improve targeting, timing and duration of exposure to interventions
- Use conditions to stimulate demand for program services
- Strengthen nutrition goals, design, implementation – use programs as delivery platforms for health and nutrition services
- Optimize women’s nutrition, time, physical and mental health and empowerment

Note: several of the programs documented were not originally designed with clear nutrition goals and actions from the outset and were retrofitted to be “nutrition-sensitive”
Nutrition-sensitive programs in agriculture, social safety nets, early child development and education have enormous potential, yet to be unleashed, to enhance scale, coverage and effectiveness of nutrition-specific actions.

**Targeted agricultural** programs and **social safety nets** play a key role in mitigating negative effects of shocks and global changes, supporting livelihoods, food security, diet quality, and women’s empowerment, and reaching nutritionally at-risk populations.

Incorporating nutrition in **early child development** programs and in **school** curricula can benefit both nutrition and child development and have long-lasting impacts into adulthood and for future generations and nations.

Investments in nutrition-sensitive programs can play a pivotal role in preventing excess undernutrition and impaired child development that scale-up of nutrition-specific interventions cannot resolve on its own.