WFP nutrition policy, nutrition programs and food supplements
Updated with new evidence, scientific knowledge and global partnerships
WFP in support of national government addressing nutrition
Partnerships needed to complement and address multiple causes

Focus of WFP’s interventions in nutrition

- Malnutrition
  - Inadequate dietary intake
  - Inadequate access to food
  - Inadequate care for children and women
  - Insufficient health services & unhealthy environment

- Disease

- Food prices
- Incomes
- Government expenditures

Framework brings together several actors addressing complementary issues with defined roles

Source:: UNICEF Framework
WFP’s support within SUN framework: consensus among countries, UN, academia, civil society, private sector

Scaling Up Nutrition (SUN) partners:
WFP’s support within REACH framework
a multi-sector framework for policy, advocacy, national capacity building

Interventions are proven and known to be effective.
The challenge is to scale them up
## Malnutrition indicators

<table>
<thead>
<tr>
<th>Nutrition indicator</th>
<th>Measurement indicator</th>
<th>Clinical Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Malnutrition (SAM &amp; MAM)</td>
<td>Weight-for-Height</td>
<td>Wasting, kwashiorkor</td>
</tr>
<tr>
<td></td>
<td>Mid-upper arm circumference</td>
<td>Wasting, Kwashiorkor</td>
</tr>
<tr>
<td>Chronic Undernutrition</td>
<td>Height-for-Age</td>
<td>Stunting</td>
</tr>
<tr>
<td>Underweight (composite indicator)</td>
<td>Weight-for-Age</td>
<td>Underweight</td>
</tr>
<tr>
<td>Overnutrition</td>
<td>Body Mass Index (weight/Height(^2))</td>
<td>Overweight/Obesity</td>
</tr>
<tr>
<td>Micronutrient Deficiencies</td>
<td>Biochemical indicators</td>
<td>Xerophthalmia, stomatitis, etc.</td>
</tr>
</tbody>
</table>
4 Shifts in WFP Nutrition Programming based on new knowledge
Providing the right food to the right people at the right time particularly ‘window of opportunity’

1. Programme Approach
   From treatment to treatment and prevention

2. Target Group
   Special attention 1000 days (children 6-23 months and PLW) i.e. ‘the window of opportunity’

3. Foods
   From foods to right food and right nutrients

4. Other Interventions
   Further emphasis to ensure other WFP interventions are nutrition sensitive
WFP Nutrition programming in support of national governments
Updated with new evidence and scientific knowledge and global movements

1. Treatment of Moderate Acute Malnutrition
   - Children 6-59 months
     - Pregnant and Lactating Women
     - Malnourished Individuals on ART or DOTS*

2. Prevention of Acute Malnutrition
   - Children 6-23 months
     - Pregnant and Lactating Women
     - In acute onset emergencies, also children 6-59 months

3. Prevention of Stunting
   - Children 6-23 months
     - Adolescent girls
     - Pregnant and Lactating Women

4. Treatment and Prevention of Micronutrient Deficiencies
   - Children 6-59 months

Addressing Micronutrient Deficiencies
## WFP Programmes and Strategic Objectives
### Nutrition objectives in SO1, SO3, SO4 and SO5

<table>
<thead>
<tr>
<th>WFP Strategic Objective (SO)</th>
<th>Nutrition interventions:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SO1</strong>: Save lives and protect livelihoods in emergencies</td>
<td>• Treatment of moderate acute malnutrition (MAM)</td>
</tr>
<tr>
<td></td>
<td>• Prevention of acute malnutrition</td>
</tr>
<tr>
<td><strong>SO3</strong>: Restore and rebuild lives and livelihoods....</td>
<td>• Treatment of moderate acute malnutrition (MAM)</td>
</tr>
<tr>
<td></td>
<td>• Prevention of acute malnutrition</td>
</tr>
<tr>
<td></td>
<td>• Prevention of stunting and MND</td>
</tr>
<tr>
<td><strong>SO4</strong>: Reduce chronic hunger and undernutrition</td>
<td>• Treatment of moderate acute malnutrition (MAM)</td>
</tr>
<tr>
<td></td>
<td>• Prevention of stunting and MND</td>
</tr>
<tr>
<td><strong>SO5</strong>: Strengthen the capacities of countries to reduce hunger</td>
<td>• Support to governments on nutrition policies, strategies, implementation, capacity building, etc.</td>
</tr>
</tbody>
</table>
Food is a source of nutrients: up to 40 different nutrients required regularly by young children.

Diet diversity is a must to meet RNI.

Difficult to meet requirements for essential amino acids & fatty acids, micronutrients particularly Title II nutrients, etc.

Even a diet of fish, oil, spinach ad rice, complemented by breast-milk may not meet requirements of all these nutrients.

Majority of households can’t afford to pay for nutrients.

Often nutrients are not available to households.

Requirements particularly difficult to meet for children 6-23 months.

Also, children with malnutrition have higher than normal requirements and more than provided through traditional fortified blended foods.
Relatively diversified diet of Bangladeshi child, 13-15 months, 7.4 kg, breastfed not meeting nutrient requirements

<table>
<thead>
<tr>
<th>Diet ingredients</th>
<th>Nutrients</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breastmilk, 530 g</td>
<td>Protein</td>
<td>136</td>
</tr>
<tr>
<td>Rice, plain, boiled—minimum 150 g</td>
<td>Vitamin A</td>
<td>73</td>
</tr>
<tr>
<td>Potato, cooked</td>
<td>Vitamin E</td>
<td>29</td>
</tr>
<tr>
<td>Spinach, cooked—maximum 40 g</td>
<td>Vitamin C</td>
<td>53</td>
</tr>
<tr>
<td>Onion</td>
<td>Thiamine</td>
<td>77</td>
</tr>
<tr>
<td>Lentil-dhal</td>
<td>Riboflavin</td>
<td>62</td>
</tr>
<tr>
<td>Small fish with bones</td>
<td>Niacin</td>
<td>140</td>
</tr>
<tr>
<td>Fish</td>
<td>Vitamin B₆</td>
<td>87</td>
</tr>
<tr>
<td>Soybean oil</td>
<td>Folic acid</td>
<td>139</td>
</tr>
<tr>
<td></td>
<td>Vitamin B₁₂</td>
<td>278</td>
</tr>
<tr>
<td></td>
<td>Pantothenic acid</td>
<td>117</td>
</tr>
<tr>
<td></td>
<td>Calcium</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Phosphorus</td>
<td>103</td>
</tr>
<tr>
<td></td>
<td>Magnesium</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>Potassium</td>
<td>98</td>
</tr>
<tr>
<td></td>
<td>Iron (10% bioavailability)</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>Zinc (moderate bioavailability)</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Copper</td>
<td>111</td>
</tr>
<tr>
<td></td>
<td>Manganese</td>
<td>483</td>
</tr>
</tbody>
</table>

De Pee & Bloem, FNB 2009
### Nutrient requirements for younger children

Challenges of local foods and traditional fortified blended foods to meet nutrient requirements

<table>
<thead>
<tr>
<th>Largely plant-based foods:</th>
<th>Fortified blended foods (CSB):</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Not enough:</strong></td>
<td><strong>Concerns:</strong></td>
</tr>
<tr>
<td>• Micronutrients (low intake Animal Source foods &amp; fortified food)</td>
<td>• Limited impact on growth and MN-status</td>
</tr>
<tr>
<td>• Omega 3 and 6</td>
<td>• Does not contain all required nutrients Title II, essential fatty &amp; amino acids</td>
</tr>
<tr>
<td>• Essential amino acids</td>
<td>• High content of anti-nutrients (non-dehulled/degermed)</td>
</tr>
<tr>
<td><strong>Too much:</strong></td>
<td>• High viscosity &amp; low energy density</td>
</tr>
<tr>
<td>• Phytate (PSF)</td>
<td>• No milk particularly an issue for children 6-23 months</td>
</tr>
<tr>
<td>• Other anti-nutrients</td>
<td></td>
</tr>
<tr>
<td><strong>Other:</strong></td>
<td></td>
</tr>
<tr>
<td>• Low energy density</td>
<td></td>
</tr>
<tr>
<td>• Bulky &amp; high viscosity</td>
<td></td>
</tr>
</tbody>
</table>
WFP at forefront of developing, testing, and expanding new products to better prevent & treat malnutrition among children

1. Improving Fortified Blended Foods

2. Development & piloting ready-to-use foods (RUFs) for moderate acute malnutrition

3. Development & piloting and evaluation of complementary food supplements (CFS)
   - Medium dose lipid based nutrient supplements (50gr and 250 kcal)
   - Low dose lipid based nutrient supplements (20gr and 125 kcal)

4. Continuation and expansion of food fortification:
   - Fortification of staples, oil and condiments
   - Home- or point-of-use- fortification using micronutrient powder (MNP) etc.

5. Seek partnerships to improve local diets
# Product Sheet: composition and use of various supplements as complement to improving local diets whenever possible

## Programme

<table>
<thead>
<tr>
<th>Programme</th>
<th>PREVENTION of Stunting:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All products listed below can be used for the prevention of stunting</strong></td>
<td></td>
</tr>
</tbody>
</table>

## PREVENTION of Acute Malnutrition:

<table>
<thead>
<tr>
<th>Generic Product Term</th>
<th>Lipid-based Nutrient Supplement (LNS)</th>
<th>Fortified Blended Food (FBF)</th>
<th>TREATMENT and PREVENTION of Micronutrient Deficiencies¹:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Medium Quantity</strong> (20-50g)</td>
<td>(100-200g)</td>
<td>LNS Small Quantity (≤ 20g)</td>
<td>Micronutrient Powders (1g)</td>
</tr>
<tr>
<td>Current WFP Nutrition Products</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Plumpy Doz™</strong></td>
<td><strong>WawaMum™</strong></td>
<td><strong>Supercereal Plus</strong></td>
<td><strong>Nutributter™</strong></td>
</tr>
<tr>
<td>(Peanut-based)</td>
<td>(Chickpea-based)</td>
<td>(mixed with oil and sugar)</td>
<td>(Peanut-based)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Micronutrient Powders (MNP)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Target Group

<table>
<thead>
<tr>
<th><strong>Target Group</strong></th>
<th>Children 6-23 months</th>
<th>Children 6-23 months</th>
<th>Pregnant and Lactating Women</th>
<th>Children 6-23 months</th>
<th>Children 6-59 months</th>
</tr>
</thead>
</table>

## Key Ingredients

<table>
<thead>
<tr>
<th><strong>Key Ingredients</strong></th>
<th>Vegetable fat, peanut paste, sugar, skim milk powder, whey, sugar, vitamins and minerals</th>
<th>Chickpeas, vegetable oil, milk powder, sugar, vitamins and minerals</th>
<th>Corn or wheat, soya, milk powder, sugar, oil, vitamins and minerals</th>
<th>Corn or wheat, soya, vitamins and minerals</th>
<th>Peanuts, vegetable fat, sugar, skim milk powder, whey, vitamins and minerals</th>
<th>Vitamins and minerals</th>
</tr>
</thead>
</table>

## Daily Ration

<table>
<thead>
<tr>
<th><strong>Daily Ration</strong></th>
<th>47g</th>
<th>50g</th>
<th>100-200g (200g includes provision for sharing)</th>
<th>100-200g (200g includes provision for sharing)</th>
<th>20g</th>
<th>1g every second day</th>
</tr>
</thead>
</table>

## Nutrient Profile

| **Nutrient Profile** | 247 kcal, 5.9g protein, 16g fat Essential fatty acids Meets micronutrient requirements | 260 kcal, 6.5g protein, 14.5g fat Essential fatty acids Meets micronutrient requirements | 420-840 kcal, 16-32g protein, 9-18g fat Essential fatty acids Meets micronutrient requirements | 500-1,000 kcal, 17.5-35g protein, 15-30g fat Meets micronutrient requirements | 108 kcal, 2.6g protein, 7g fat Essential fatty acids Meets micronutrient requirements |
| --- | --- | --- | --- | --- | --- | --- |

## Duration of Intervention²

<table>
<thead>
<tr>
<th><strong>Duration of Intervention²</strong></th>
<th>90-180 days</th>
<th>90-180 days</th>
<th>90-180 days</th>
<th>90-180 days</th>
<th>180-545 days</th>
<th>180-545 days</th>
</tr>
</thead>
</table>

## Shelf Life

<table>
<thead>
<tr>
<th><strong>Shelf Life</strong></th>
<th>24 months</th>
<th>6 months</th>
<th>12 months</th>
<th>12 months</th>
<th>18 months</th>
<th>24 months</th>
</tr>
</thead>
</table>

## Product Cost (USD) *Oct11

<table>
<thead>
<tr>
<th>*<em>Product Cost (USD) <em>Oct11</em></em></th>
<th>$ 3,703/MT (0.17/ration)</th>
<th>$ 3,389/MT (0.17/ration)</th>
<th>Supercereal Plus (corn or wheat based): $1,255/MT (0.13-0.25/ration)²</th>
<th>Supercereal Plus (corn based): $576/MT (0.06-0.11/ration)³</th>
<th>$ 4,077/MT (0.08/ration)</th>
<th>$ 25,178/MT (0.025/ration)</th>
</tr>
</thead>
</table>

---

¹ All nutrition products address the prevention of micronutrient deficiencies, but small quantity LNS and MNP do not prevent acute malnutrition. ² Can vary with different situations, contexts and objectives. ³ Cost does not include oil or sugar.

**Abbreviations:** LNS = Lipid-based Nutrient Supplements, FBF = Fortified Blended Foods, MNP = Micronutrient Powders, RNI = Recommended Nutrient Intakes, MT = Metric Ton.
Making other WFP interventions more nutrition sensitive and even nutrition specific (life-cycle approach/value chain)
## WFP Treatment of Moderate Acute malnutrition

particularly children aged 6–59 months, PLW, and people in treatment for HIV and tuberculosis

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Treating moderate acute malnutrition</td>
</tr>
<tr>
<td>2</td>
<td>Prevention acute malnutrition</td>
</tr>
<tr>
<td>3</td>
<td>Prevention chronic malnutrition</td>
</tr>
<tr>
<td>4</td>
<td>Addressing Micronutrient Deficiencies</td>
</tr>
</tbody>
</table>

### Government Capacity Building/Advocacy
Treatment of Moderate Acute Malnutrition
Under leadership of Governments with clear division of labour & support WFP and UNICEF

- Inadequate dietary intake
- Inadequate access to food
- Inadequate care for children and women
- Insufficient health services & unhealthy environment
- Food prices
- Incomes
- Government expenditures
- Global financial crisis

WFP interventions  UNICEF interventions  WHO (normative)
MOUs with UNICEF & UNHCR define roles and commitments

• **WFP** is responsible for the treatment of moderate acute malnutrition (**MAM**) while

• **UNICEF** (or **UNHCR**) is responsible for the treatment of severe acute malnutrition (**SAM**) 

• **WFP** is responsible for **supplementary feeding** populations vulnerable and at risk
Community Based Management of Acute Malnutrition (CMAM)
Critical framework for collaboration agreed upon UNICEF/WFP MOU and beyond
Why to engage in treatment of MAM

- Acute malnutrition is a major risk factor for child mortality
- A child with MAM is 3 to 4 times as likely to die as a well-nourished child.
- The total number of children affected by MAM is much greater, and therefore mortality is higher for MAM than SAM.
- No MAM intervention $\rightarrow$ SAM children $\uparrow$ Health system pressure $\uparrow$
- MAM intervention targets children and PLW – has an impact on nutritional status of PLW, birth outcomes and child mortality – “1,000 days” window
WFP’s nutrition-specific programming to treat MAM
In support of national protocols roll out or global nutrition cluster

What: Targeted supplementary feeding programmes (TSFP)

Objectives:
• Rehabilitate individuals with MAM
• Reduce mortality risk in children with MAM
• Provide follow up support for individuals who have been treated for SAM

Who: Individual who has MAM – particularly 6-59 months and PLW

How:
• Specialised nutrition product provided on a regular basis
• Duration 3 to 4 months
• Medical conditions and complementary interventions
• According to national guidelines

Where/When:
• Non-emergencies: GAM is at least 10 % or GAM is 5–9 % but aggravating factors
• Emergencies: pre-existing GAM and previous and current vulnerability guide response
• Beside its own programmes, WFP to build government capacity on MAM
Nutrient requirements for Moderate Acute Malnutrition Children
Technical note:
Supplementary foods for the management of moderate acute malnutrition in infants and children 6–59 months of age
DEcision Tool for MAM treatment updated for Cluster partners
WFP is leading the MAM task Force within the Global Nutrition Cluster

DECISION-MAKING TOOL FOR MODERATE ACUTE MALNUTRITION (MAM) IN EMERGENCIES:
A GUIDANCE NOTE

Final Draft
GLOBAL NUTRITION CLUSTER (GNC)
16th April 2012
Evidence & Success of MAM treatment

Various studies indicate effectiveness improved products

TSFPs in 3 countries found that programme costs were almost entirely offset by immediate benefits (RoI), with additional value created through a longer and more productive life.

Recent research shows TSFP can result in high recovery rates both with Supercereal Plus (CSB++) and high dose LNS/RUSF in Malawi (LaGrone et al, 2012).

Malawi: children receiving LNS showed significantly higher recovery rates (80%) after only 8 weeks, compared to previous formulation of CSB (72%) (Matilksy et al, 2009)

Niger: children receiving LNS showed higher weight gain, recovery rates (79% vs. 64%), a shorter length of stay and lower transfer rates compared to ‘old’ CSB (Nackers, 2010)

Ethiopia: children receiving LNS (Plumpy’sup) showed higher recovery rates (73%) compared to the previous formulation of CSB (67%) (Karakochuk, 2012 forthcoming)

WFP M&E changed to include programme performance indicators

Efforts on-going with MRP (SCF)
TFSP in three countries: Cost-Benefit analysis
1 US$ invested today pays back seven times…

Cost-Benefit Analysis
(average value in 2010 US$ per beneficiary)

Present Value US$

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Transfer</td>
<td>31</td>
</tr>
<tr>
<td>ROI</td>
<td>4</td>
</tr>
<tr>
<td>Increased productivity</td>
<td>103</td>
</tr>
<tr>
<td>Healthier and longer life</td>
<td>121</td>
</tr>
<tr>
<td>Externalities</td>
<td>18</td>
</tr>
<tr>
<td>Total Benefit</td>
<td>277</td>
</tr>
<tr>
<td>Total Cost</td>
<td>37</td>
</tr>
<tr>
<td>Commodity Transport</td>
<td>25</td>
</tr>
<tr>
<td>Operational costs</td>
<td>4</td>
</tr>
<tr>
<td>Overhead costs</td>
<td>5</td>
</tr>
</tbody>
</table>

Benefits

Costs
Cost per Treatment for Moderate Acute Malnutrition

New Foods more expensive per MT but not more expensive per Individual Treatment

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Commodity price (US$ / MT)</th>
<th>Ration cost (US$/ration)</th>
<th>Ration/day</th>
<th>Intervention duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUSF</td>
<td>3400</td>
<td>0.31</td>
<td>92 gr.</td>
<td>60 days</td>
</tr>
<tr>
<td>Supercereal +</td>
<td>1250</td>
<td>0.25</td>
<td>200 gr.</td>
<td>60 days</td>
</tr>
<tr>
<td>Supercereal</td>
<td>700</td>
<td>0.19</td>
<td>200 gr.</td>
<td>90 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20 gr.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20 gr.</td>
<td></td>
</tr>
</tbody>
</table>

Excluding oil & sugar

US$ Ration/day

US$ Intervention duration

US$ 21$ (120 days)
Still important gap between needs and interventions’ capacity

Working closely with governments is a crucial step to fill the gap

WFP treats 4-8 million MAM children U5

WFP countries

90 million¹ MAM children U5

Source: UNICEF SOWC 2010/2011, SPR 2010 and WFP PSN / ODXP calculations

¹ This corresponds to MAM incidence data (=2.25x MAM prevalence). Out of the 90 million, India represents 45 million. (incidence). MAM prevalence assumed as 80% of GAM prevalence published in UNICEF SOWC 2010 and 2011. MAM prevalence is 40 million are in WFP countries

²SPR 2010 - 4 million actual 2010 beneficiaries and 8 million planned 2011 beneficiaries
Prevention of Acute malnutrition
particularly children aged 6–59 months, PLW, and people in treatment for HIV and tuberculosis

1. Treating moderate acute malnutrition
2. Prevention acute malnutrition
3. Prevention chronic malnutrition
4. Addressing Micronutrient Deficiencies

Government Capacity Building/Advocacy
Prevention of acute malnutrition
In support of national protocols through similar partnerships and GNC
Why to engage in prevention of acute malnutrition
During peak of GAM in lean season or onset emergencies

• Acute malnutrition is a major risk factor for child mortality.

• A child with MAM is 3 to 4 times as likely to die as a well-nourished child.

• The total number of children affected by MAM is much greater, and therefore mortality is higher for MAM than SAM.

• No MAM intervention → SAM children ↑ Health system pressure ↑

• MAM intervention targets children and PLW – has an impact on nutritional status of PLW, birth outcomes and child mortality – “1,000 days” window

• MAM rates can at least double, if not more, during the lean season. Prevention can mitigate increases and associated risks in mortality, morbidity & child development.
WFP programming to prevent acute malnutrition

**What:** Blanket supplementary feeding programmes (BSFP)

**Objectives:**
- Prevent nutrition deterioration, increase incidence mortality and increase incidence SAM

**Who:** priority for children 6-23 months (possibly PLW and 6-59 months)

**How:**
- Specialised nutrition product during 3-6 months, according to national guidelines
- Admission does not depend on nutritional status
- Community-based or linked to a general food distribution

**What to provide:**
- Medium dose Lipid nutrient supplements and fortified blended foods (Supercereal Plus)

**When/Where:**
- Onset emergency and children at high risk or when wasting increases seasonally
- When GAM > 15% or 10-14% with aggravating factors
- When there is low access to MAM and SAM treatment
Evidence that prevention acute malnutrition works
Various studies indicate effectiveness improved products

- Haiti: a lower prevalence of GAM among children in the preventive group compared to children in the treatment group (Ruel et al, 2008)

- Niger: RUTF for 3 months to non-malnourished children resulted in a reduction in incidence of GAM and SAM compared to no intervention (Isanaka et al, 2009)

- Niger: LNS (Plumpy’doz) for 6 months reduced the incidence of SAM in children 6-36 months of age (Defourney et al, 2009)

- No increase of GAM during acute hunger period with 4 month preventive distributions of either LNS or improved CSB (oil, sugar, DSM) in South Darfur (Talley et al, 2011)

- Haiti following 2010 earthquake, WFP observed no difference in GAM after the crisis compared to pre-crisis levels (WFP, 2011)

- Sudan: Caseloads of SAM children can be kept low and peaks in acute malnutrition can prevented with CSB/DSM/oil and sugar (Acharya et al, 2012)

- WFP monitoring and evaluating operations in Horn, Niger and Sahel
POLICIES
Product compliance with national regulations
Development of and adherence to clear and harmonized product guidelines & distribution modalities

PRODUCTION & SUPPLY
Development of and adherence to QC/QA at level of production
Set up of procurement processes
Establishment of transport chain to the country warehouse
Setup of traceability of product shelf life

QUALITY
Identification of optimal products for the nutrition interventions
Develop a supply chain QC/QA system
Setup of adequate storage facilities

DELIVERY
Development of delivery system to the target beneficiaries
Training of agents charged with the distribution of products to target beneficiaries

BEHAVIOUR CHANGE COMMUNICATION
Engagement of government, other key stakeholders and cooperation partners
Development & implementation of intervention strategy for information, education & communication among target groups
Inclusion of adequate IYCF BCC messages

INPUTS
Policies, production, delivery, quality, & behaviour change communication

ACTIVITIES
Access & coverage
Knowledge, appropriate use, increased intake
Impact on status and function in target population

OUTPUTS
POLICIES
Availability of the appropriate nutrition intervention for the target beneficiaries
Coverage of target population intervention
Target population uses fortified food appropriately

PRODUCTION & SUPPLY
Adequate systems in place to identify and target the population in need, incl. robust referral systems
Access to or presence nutrition intervention communities

QUALITY
Distribution agents have knowledge & motivation to adequately distribute to & inform target population
Acceptability of the nutrition intervention

DELIVERY
Target population is clearly identified & knows, demands, accepts the nutrition intervention

BEHAVIOUR CHANGE COMMUNICATION
Target population uses fortified food appropriately
Increased consumption of and adherence to the nutrition intervention by the clearly identified target population

IMPAKT
Decreased mortality & morbidity
Improved nutritional status
Improved development, performance & productivity

Other interventions:
- Health services
- Safe water
- Vaccination
- Deworming
- Hygiene practices
- Adequate breastfeeding

EFFECTIVE PROJECT MANAGEMENT & MONITORING AND EVALUATION
Treating moderate acute malnutrition

Prevention acute malnutrition

Prevention chronic malnutrition

Addressing Micronutrient Deficiencies

Government Capacity Building/Advocacy
Very few children reach their full potential – example
Example: National stunting prevalence Rwanda 40-50%
Addressing stunting in support of national governments
WFP and many other players addressing a complex issue

- Inadequate dietary intake
- Inadequate access to food
- Inadequate care for children and women
- Insufficient health services & unhealthy environment
- Food prices
- Incomes
- Government expenditures
- Global financial crisis

Examples of partners in SUN framework:
- WFP
- UNICEF
- WHO (normative)

Source: UNICEF Framework
Why to engage in prevention of stunting particularly among children aged 6–23 and PLW ‘Window of Opportunity’

- Stunting and MND are associated with increased morbidity and mortality
- Stunting accounts for 15% of child mortality (Black et al, 2008)
- More child deaths are related to stunting and MND than SAM because they affect many more children (167 million in developing countries are stunted)
- Stunting is also associated with and reduced physical and cognitive capacity for life
- The Lancet 2008 studies reported that height-for-age at 2 years was the best predictor of human capital
- The effects of stunting are intergenerational
WFP’s nutrition specific programming to prevent stunting

Stunting accumulates gradually during the first 1,000 days and can’t be treated

What:
- Providing complementary food for children 6-23 months and PLW
- Fortification and/or home-fortification
- Promotion of nutrition-sensitive programmes
- Strengthening the capacity of national governments

Who:
- Children 6-23 months, PLW, and possibly adolescent girls

How:
- Supplement is provided on a regular basis for a specific period of time
- Research is on-going to define the optimal duration. In the interim, a minimum of 6 months.
- Various delivery mechanisms are looked into
- Linkages with social protection programme /voucher programmes, conditional cash

What to provide: Depending on nutrient gap: lipid nutrient supplements, micronutrient powders, fortified blended foods, etc.

Improved Analysis: Cost of Diet

Testing models & building further evidence (Malawi, Laos, Mozambique, Bangladesh)
Evidence that prevention stunting works
Various studies indicate stunting programmes with foods work

- Haiti: a lower prevalence of stunting among children in the preventive group with supplementary feeding (Ruel et al, 2008)

- Algeria: provision of multiple micronutrients through lipid nutrient supplement was able to induce catch up growth and reduce anaemia in children up to 6 years

- Nepal and Bangladesh: distribution of micronutrient powders resulted in a reduction of anaemia and stunting in children 6-59 months (de Pee et al, 2011; Rah et al, 2011)

- Malawi: 12 months of complementary food intervention using 50g of LNS reduced stunting by 16% when compared to no intervention (Phuka JC et al, 2009)

- Provision of complementary foods, both with and without nutrition education, can result in gains in height (Dewey et al, 2009; Imdad et al, 2011).

Evidence for food supplements to prevent stunting in large scale comprehensive programmes:

- Mexico (“Oportunidades” -ex-“Progresa” National Social Protection-Conditional Cash
- Brazil (“Bolsa Familia”, National Social Protection-Conditional Cash Transfer Program-,
WFP Addressing Micronutrient Deficiencies
particularly children aged 6–59 months, PLW

1. Treating moderate acute malnutrition
2. Prevention acute malnutrition
3. Prevention chronic malnutrition
4. Addressing Micronutrient Deficiencies

Government Capacity Building/Advocacy
WFP in partnerships with Governments, private sector and Home Fortification Technical Advisory Group
Why WFP engages in addressing micronutrient deficiencies particularly among children aged 6–59, PLW, but also school age children

- MND represent a largely invisible but devastating form of malnutrition that affects 2 billion people worldwide

- Zinc, iron, and vitamin A deficiencies in the top ten causes of disease burden in developing countries

- With rising food prices and climate change, it is likely that an increasing proportion of the world’s population will develop reduce diet diversity and MNDs

- Cost-effective strategies to address MNDs are evidence based (2008 Copenhagen Consensus ranked micronutrients second among all development interventions)

- WFP also operates in many of the most food insecure contexts where MNDs are also common. WFP has the infrastructure, opportunity, and comparative advantage to address MNDs.
**WFP’s nutrition specific programming addressing MND**
In support of national fortification and MNP roll out with UNICEF

**What:** Fortification & Home fortification with complementary food supplements (CFS)

**How:**
- Fortification
- Home-fortification
- Promotion diversified diet
- Supplementation

**Why:** To improve the diet quality and thus nutrient intake to the point where the combination of the diet and the home fortificant meets the daily recommended nutrient intake (RNI) for all nutrients

**How Home-fortification:** Provision of a home fortificant on a regular basis for generally 6-18 months

**What in Home-fortification:**
- Low dose lipid nutrient supplement (LNS)
- Micronutrient powder (MNP)

**Where/When:**
- When the micronutrient requirements of children 6-23 months are not met in the typical diet
- Where school meals are predominantly composed of unprocessed locally available ingredients
Evidence that prevention stunting works
Various studies indicate stunting programmes with foods work

• MNPs have been proven to impact nutritional anaemia

• MNPs have also been shown in certain contexts to have a positive impact on stunting, for example with long term use among refugees in Nepal (Rah et al, 2012)

• Positive impact of LNS (Nutributter) on MNDs, linear growth, and motor development has been proven (Adu-Afarwuah et al, 2007; Phuka et al. 2008, 2009).
WFP nutrition policy, nutrition programs and food supplements
Recent trends and scale up plans for 2012-2014/15
WFP increased focus on the window of opportunity
Trends in 6-23 months old receiving specialised foods

Year | Beneficiaries 6-23 months of age (thousands)
---|---
2008 | 55
2009 | 125
2010 | 2500
2011 | 3184
WFP increased focus on specialised foods for younger children

Trends in MT per product from 2009-2011

- **2009**: 2,130 Metric Tonnes
- **2010**: 17,554 Metric Tonnes
- **2011**: 34,344 Metric Tonnes

Legend:
- Orange: Plumpysup
- Teal: RUSF Pakistan
- Purple: Plumpydoz
- Green: Nutributter
- Red: WSB Supercereal Plus
- Blue: CSB Supercereal Plus
WFP aims to scale up efforts during ‘window of opportunity’

WFP aims to reach 20 million children aged 6-59 months (Management Plan 2012-2014)
WFP aims to scale up efforts to ensure right foods
Timely and cost effective delivery of nutrients to fill nutrient gap

- Fortification
- Micronutrient Powder
- Improved Corn Soy Blend
- Complementary food supplements
- Ready to use supplementary foods

2011
30% of children receive right food

2014-2015
80-100% children receive right food

Improve and complement local diet
Nutrition Policy Implementation Plan
Capacity Strengthening in 5 key areas required

1. National capacity building on nutrition & enhanced partnerships
2. Enhance staff & skills for nutrition throughout WFP
3. Improve nutrition situation analysis, cost effectiveness analysis, etc.
4. Make product delivery mechanisms fast & reliable
5. Improve monitoring and evaluation and operational research
Thank you for the opportunity for Nutrition this afternoon!

WFP Nutrition