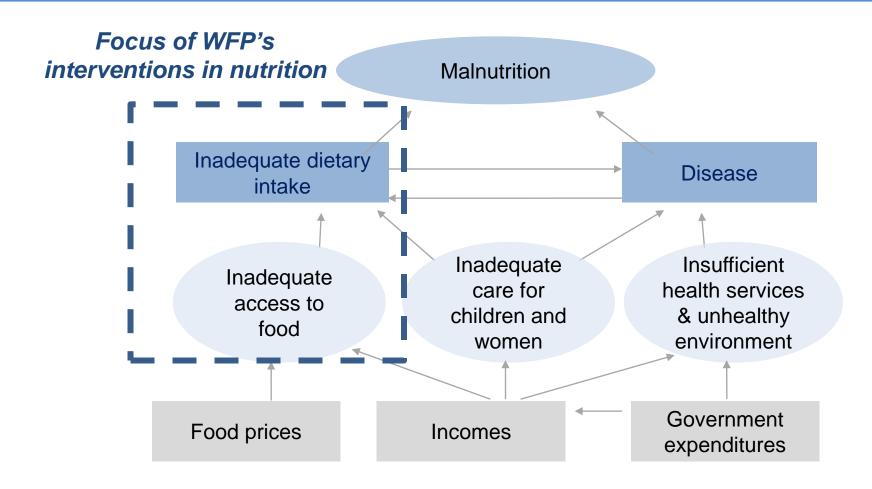
WFP nutrition policy, nutrition programs and food supplements

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



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:













EMORY















































































































































































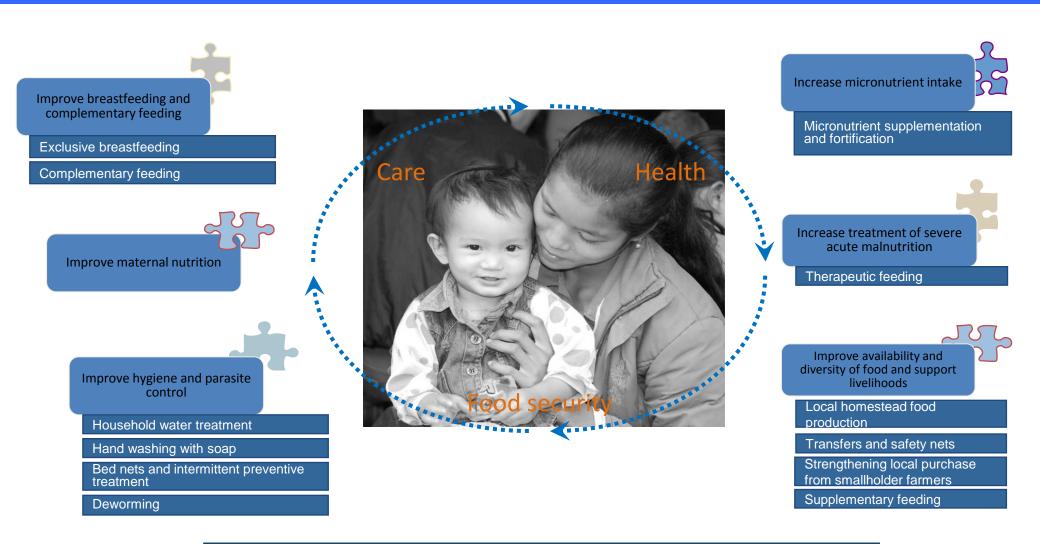






WFP's support within REACH framework

a multi-sector framework for policy, advocacy, national capacity building



Malnutrition indicators

Nutrition indicator	Measurement indicator	Clinical Indicator
Acute Malnutrition (SAM & MAM)	Weight-for-Height	Wasting, kwashiorkor
	Mid-upper arm circumference	Wasting, Kwashiorkor
Chronic Undernutrition	Height-for-Age	Stunting
Underweight (composite indicator)	Weight-for-Age	Underweight
Overnutrition	Body Mass Index (weight/Height ²	Overweight/Obesity
Micronutrient Deficiencies	Biochemical indicators	Xerophthalmia, stomatitis, etc.

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



Treatment of Moderate Acute Malnutrition

- · Children 6-59 months
 - Pregnant and Lactating Women
- Malnourished Individuals on ART or DOTS*



Prevention of Acute Malnutrition

- Children 6-23 months
 - Pregnant and Lactating Women
- In acute onset emergencies, also children 6-59 months



Prevention of Stunting

- Children 6-23 months
 - Adolescent girls
 - Pregnant and Lactating Women



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

WFP Strategic Objective (SO)	Nutrition interventions :	
SO1: Save lives and protect livelihoods in emergencies	 Treatment of moderate acute malnutrition (MAM) Prevention of acute malnutrition 	
SO3 : Restore and rebuild lives and livelihoods	 Treatment of moderate acute malnutrition (MAM) Prevention of acute malnutrition Prevention of stunting and MND 	
SO4 : Reduce chronic hunger and undernutrition	Treatment of moderate acute malnutritionPrevention of stunting and MND	
SO5 : Strengthen the capacities of countries to reduce hunger	Support to governments on nutrition policies, strategies, implementation, capacity building, etc.	

Providing the Right Food at the Right Time

WFP at forefront understanding nutrient requirements and consultations WHO and experts

- 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 housholds
- 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

	 	-	<u> </u>
Diet ingredients		Nutrients	%
	520	Protein	136
Breastmilk, 530 g	530	Vitamin A	73
Rice, plain, boiled—	150	Vitamin E	29
minimum 150 g		Vitamin C	53
Potato, cooked	56	Thiamine	77
		Riboflavin	62
Spinach, cooked—	40	Niacin	140
maximum 40 g		Vitamin B ₆	87
Onion	0	Folic acid	139
Lentil-dhal	80	Vitamin B ₁₂	278
		Pantothenic acid	117
Small fish with bones	15	Calcium	100
Fish	0	Phosphorus	103
Soybean oil	12	Magnesium	81
Soybean on	12	Potassium	98
		Iron (10% bioavailability)	67
		Zinc (moderate bioavailability)	32
D D 0 D1 FND 2000		Copper	111
De Pee & Bloem, FNB 2009		Manganese	483

Nutrient requirements for younger children

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

Largely plant-based foods:

Not enough:

- Micronutrients (low intake Animal Source foods & fortified food)
- Omega 3 and 6
- Essential amino acids

Too much:

- Phytate (PSF)
- Other anti-nutrients

Other:

- Low energy density
- Bulky & high viscosity

Fortified blended foods (CSB):

Concerns:

- Limited impact on growth and MN-status
- Does not contain all required nutrients
 Title II, essential fatty & amino acids
- High content of anti-nutrients (nondehulled/degermed)
- High viscosity & low energy density
- No milk particularly an issue for children 6-23 months

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

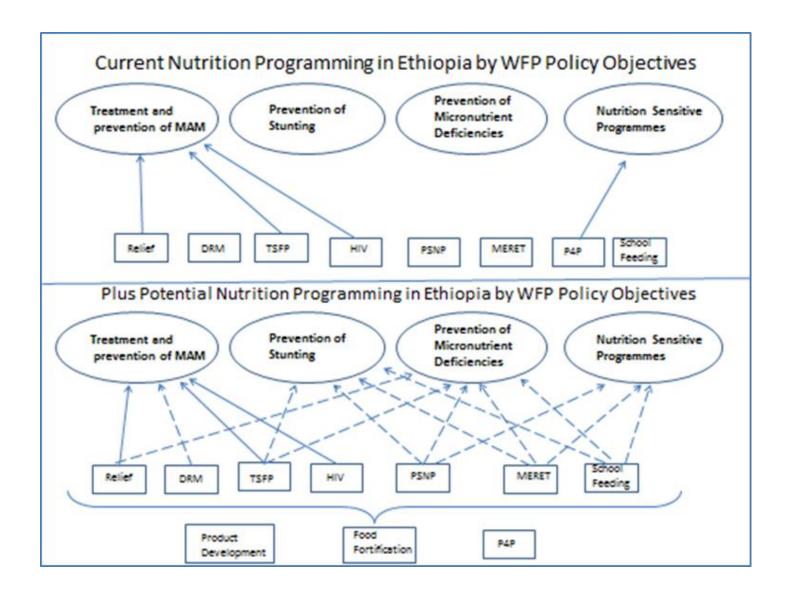
as complement to improving local diets whenever possible

Programme								
	All products listed below can be used for the prevention of stunting							
		PREVENTION of Acute Malnutrition:				TREATMENT and PREVENTION of		
	Four products specifically for the prevention of acute malnutrition				Micronutrient Deficiencies ¹ :			
Generic	Lipid-based Nutrient Supplement (LNS) Medium Quantity (20-50g)		Fortified Blended Food (FBF) (100-200g)		LNS Small Quantity	Micronutrient		
Product Term					(≤ 20g)	Powders (1g)		
Current WFP Nutrition Products	Plumpy Doz™ (Peanut-based)	WawaMum™ (Chickpea-based)	Supercereal Plus	Supercereal (mixed with oil and sugar)	Nutributter™ (Peanut-based)	Micronutrient Powders (MNP)		
Target Group	Children 6-23 months	Children 6-23 months	Children 6-23 months	Pregnant and Lactating Women	Children 6-23 months	Children 6-59 months		
Key	Vegetable fat, peanut	Chickpeas, vegetable	Corn or wheat, soya,	Corn or wheat, soya, vitamins	Peanuts, vegetable	Vitamins and		
Ingredients	paste, sugar, skim milk	oil, milk powder,	milk powder, sugar, oil,	and minerals	fat, sugar, skim milk	minerals		
	powder, whey, sugar,	sugar, vitamins and	vitamins and minerals		powder, whey,			
	vitamins and minerals	minerals	100.000 /000 : 1 1	100 000 /000 : 1 1	vitamins and minerals			
Daily ration	47g	50g	100-200g (200g includes provision for sharing)	100-200g (200g includes provision for sharing)	20g	1g every second day		
Nutrient	247 kcal, 5.9g protein,	260 kcal, 6.5g	420-840 kcal, 16-32g	500-1,000 kcal, 17.5-35g	108 kcal, 2.6g protein,	Meets micronutrient		
profile	16g fat	protein, 14.5g fat	protein, 9-18g fat	protein, 15-30g fat	7g fat	requirements		
	Essential fatty acids	Essential fatty acids	Essential fatty acids	Meets micronutrient	Essential fatty acids			
	Meets micronutrient	Meets micronutrient	Meets micronutrient	requirements	Meets micronutrient			
Duration of	requirements 90-180 days	requirements 90-180 days	requirements 90-180 days	90-180 days	requirements 180-545 days	180-545 days		
Intervention ²	30-100 days	30-100 days	30-100 days	50-100 days	100-343 days	100-545 days		
Shelf life	24 months	6 months	12 months	12 months	18 months	24 months		
Product Cost	\$ 3,703/MT	\$ 3,389/MT	Supercereal Plus (corn	Supercereal (corn based):	\$ 4,077/MT	\$ 25,178/MT		
(USD) *Oct11	(0.17/ration)	(0.17/ration)	or wheat based): \$1,255/MT (0.13- 0.25/ration)	\$570/MT (0.06-0.11/ration) ³ Supercereal (wheat based): \$630/MT (0.06-0.13/ration) ³	(0.08/ration)	(0.025/ration)		

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

Treating moderate acute malnutrition

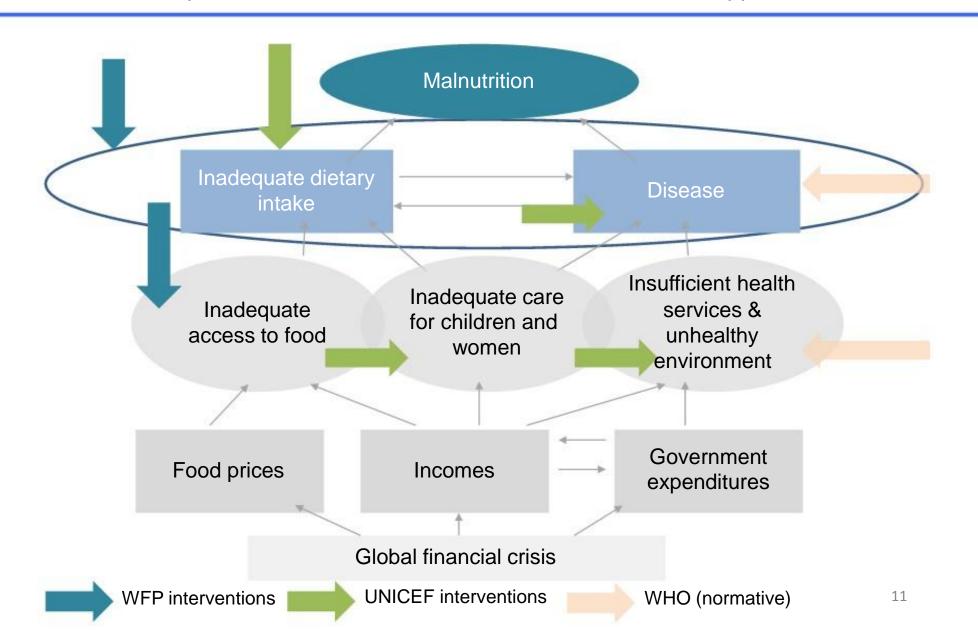
Prevention chronic malnutrition

Addressing Micronutrient Deficiencies

Government Capacity Building/Advocacy

Treatment of Moderate Acute Malnutrition

Under leadership of Governments with clear division of labour & support WFP and UNICEF



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





Updated Guidance on Mutual Areas of Responsibility and Collaboration for Nutrition

WFP and UNICEF have long collaborated in the field of nutrition at the country, regional and global level as reflected by the July 2005 MOU, which has governed the relationship between our two agencies.

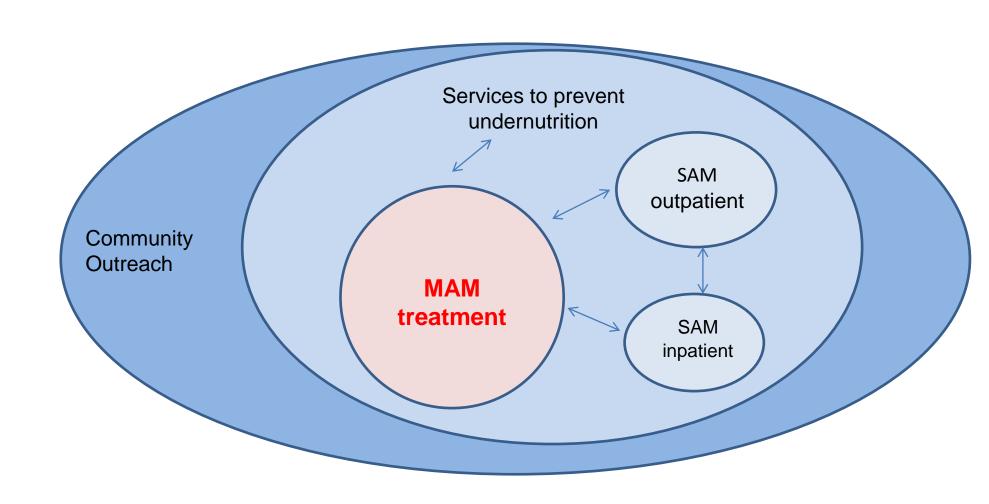
The attached document updates the matrix of the July 2005 MOU and reflects the updated agreement between our two agencies on the areas of responsibility and field action. The updated matrix will be immediately provided to our country offices to be used as a guide for action at the country, regional and global level.

Josette Sheeran
Executive Director
World Food Programme

Anthony Lake
Executive Director
United Nations Children's Fund

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.
- 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

Comprehensive review for WHO/UNICEF/WFP/UNHCR consultation (2008)



Supplementary Foods for Moderate Acute Malnutrition Children

WHO Technical Note forth coming (2012)

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

MAM TASK FORCE, GLOBAL NUTRITION CLUSTER

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

A GUIDANCE NOTE

Final Draft

GLOBAL NUTRITION CLUSTER (GNC)

16st 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)

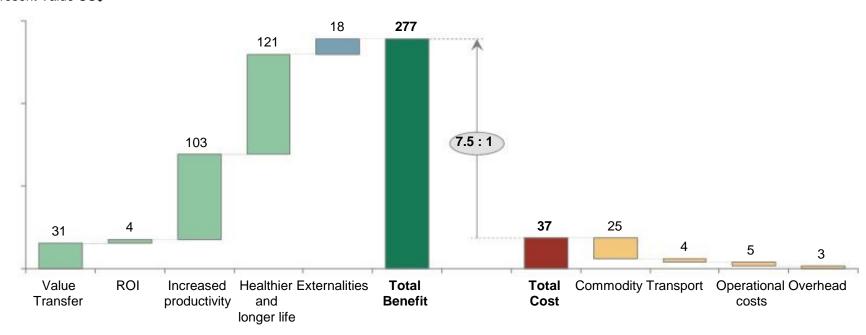
TFSP in three countries: Cost-Benefit analysis

1 US\$ invested today pays back seven times...

Cost-Benefit Analysis

(average value in 2010 US\$ per beneficiary)



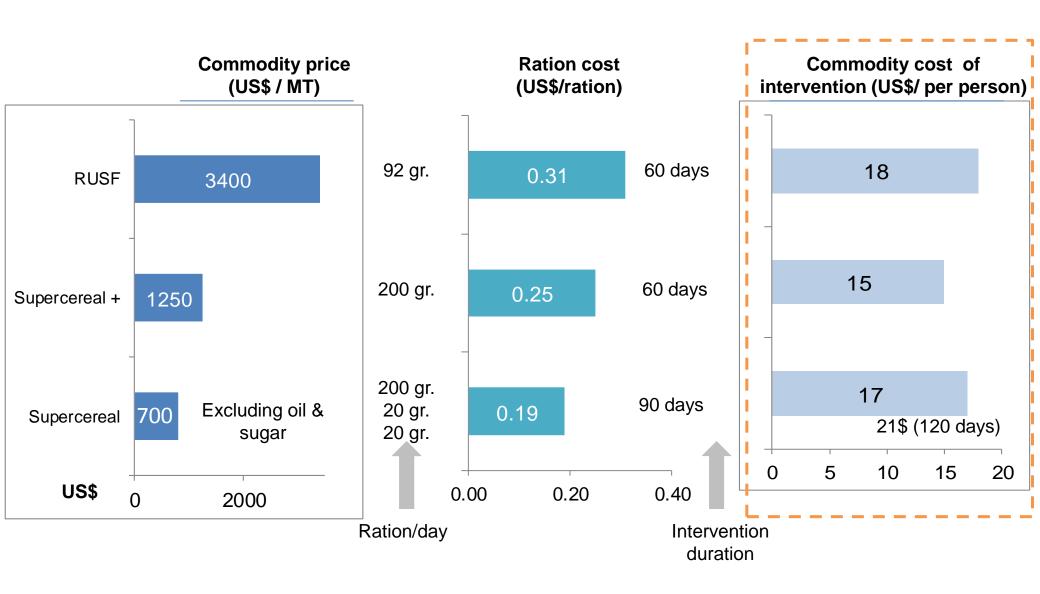


Benefits

Costs

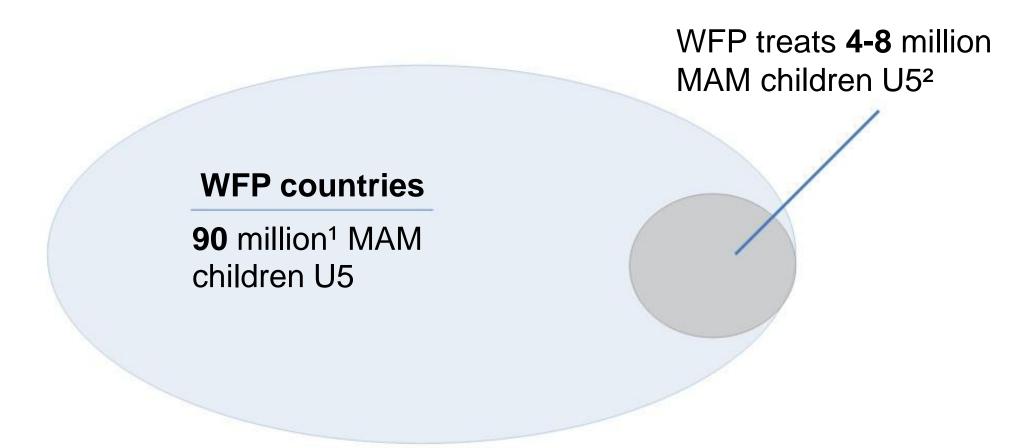
Cost per Treatment for Moderate Acute Malnutrition

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



Still important gap between needs and interventions' capacity

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



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

Prevention of Acute malnutrition

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

Treating moderate acute malnutrition

Prevention chronic malnutrition

Addressing Micronutrient Deficiencies

Government Capacity Building/Advocacy

Prevention of acute malnutrition

In support of national protocols through similar partnerships and GNC





Updated Guidance on Mutual Areas of Responsibility and Collaboration for Nutrition

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The attached document updates the matrix of the July 2005 MOU and reflects the updated agreement between our two agencies on the areas of responsibility and field action. The updated matrix will be immediately provided to our country offices to be used as a guide for action at the country, regional and global level.

Josette Sheeran Executive Director World Food Programme Anthony Lake Executive Director United Nations Children's Fund MAM TASK FORCE, GLOBAL NUTRITION CLUSTER

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

A GUIDANCE NOTE

Final Draft

GLOBAL NUTRITION CLUSTER (GNC)

16st April 2012

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.
- 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:

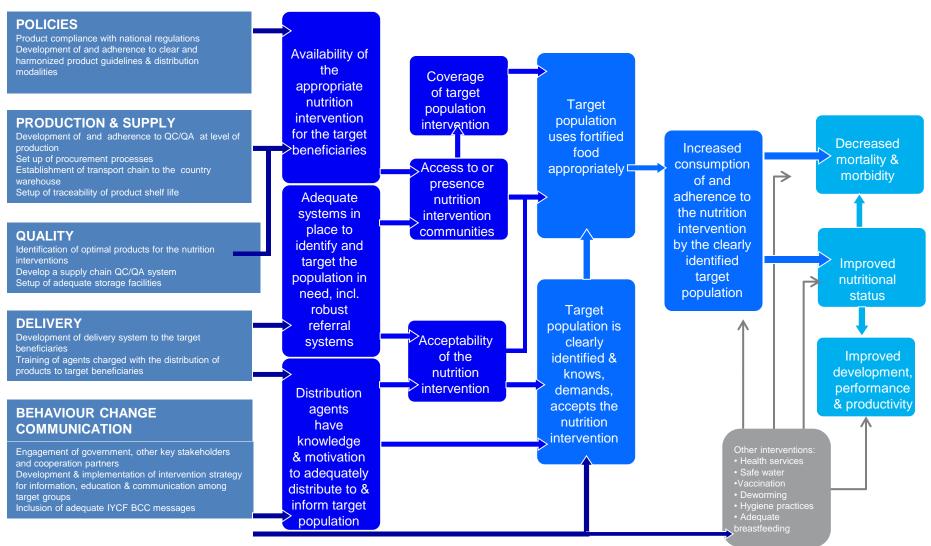
- Onset emergency and children at high risk or when wasting increases seasonally
- When GAM > 15% or 10-14% with aggravating factors
- When there is low access to MAM and SAM treatment

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





WFP Treatment of Moderate Acute malnutrition

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

Treating moderate acute malnutrition

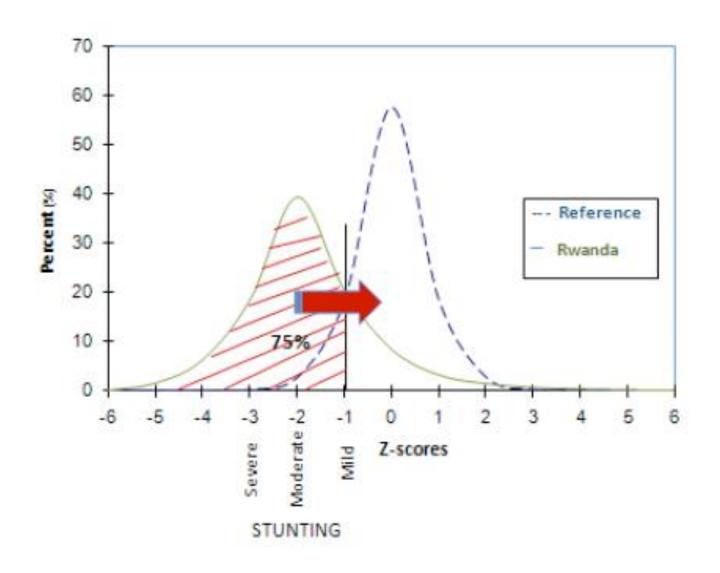
Prevention chronic malnutrition

Addressing Micronutrient Deficiencies

Government Capacity Building/Advocacy

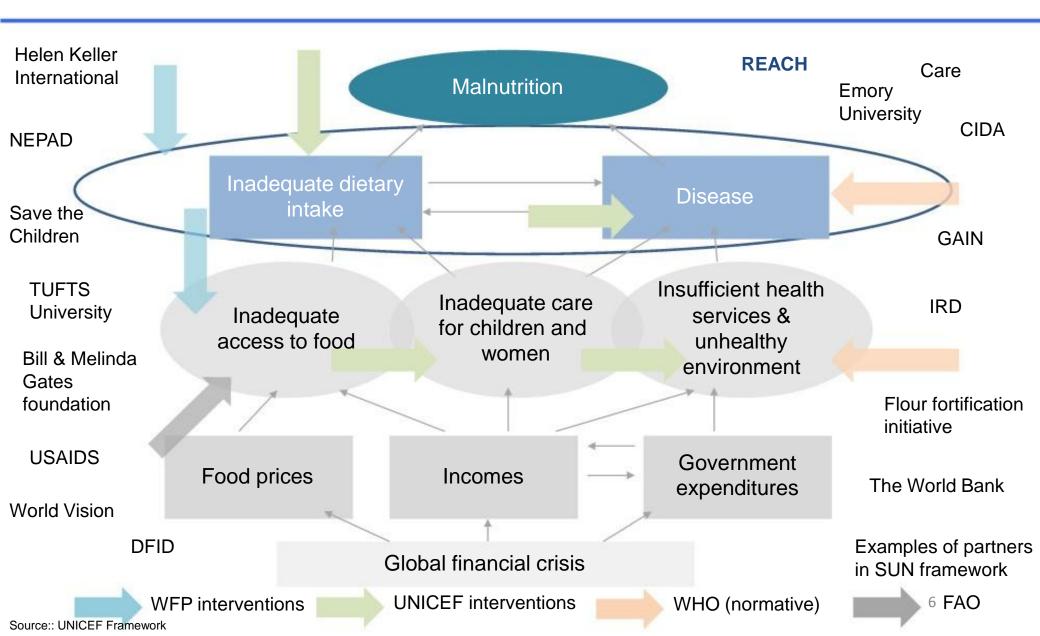
Very few children reach their full potential – example

Example: National stunting prevalence Rwanda 40-50%



Addressing stunting in support of national governments

WFP and many other players addressing a complex issue



Why to engages 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

Treating moderate acute malnutrition

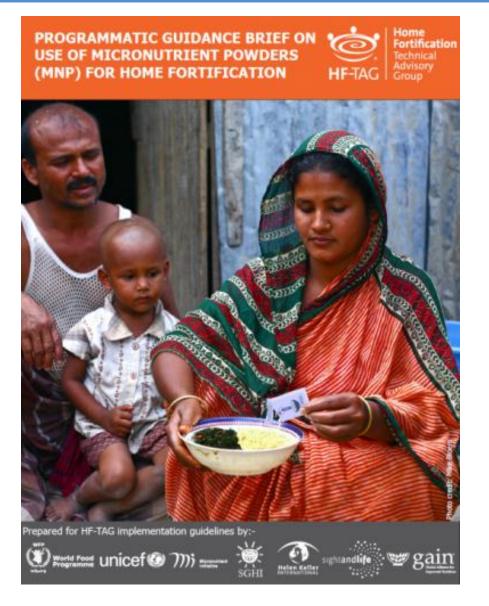
Prevention acute malnutrition

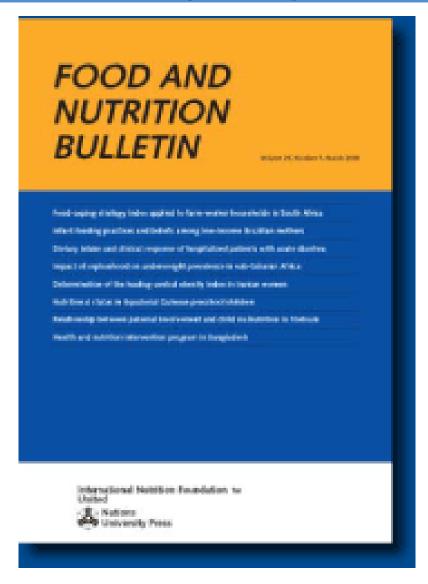
Prevention chronic malnutrition

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).

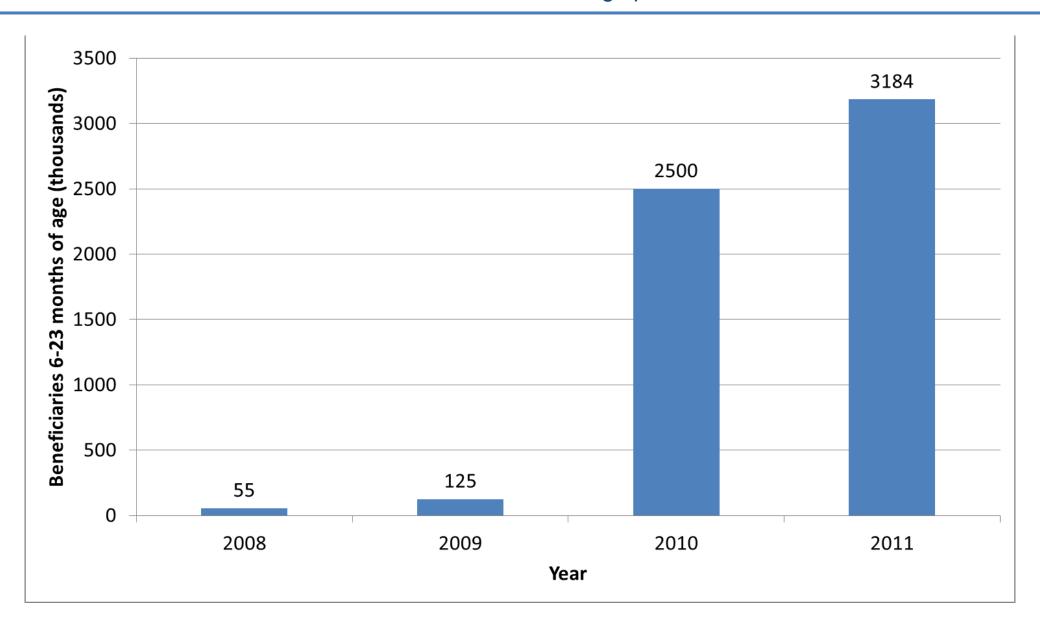
WFP nutrition policy, nutrition programs and food supplements

Recent trends and scale up plans for 2012-2014/15



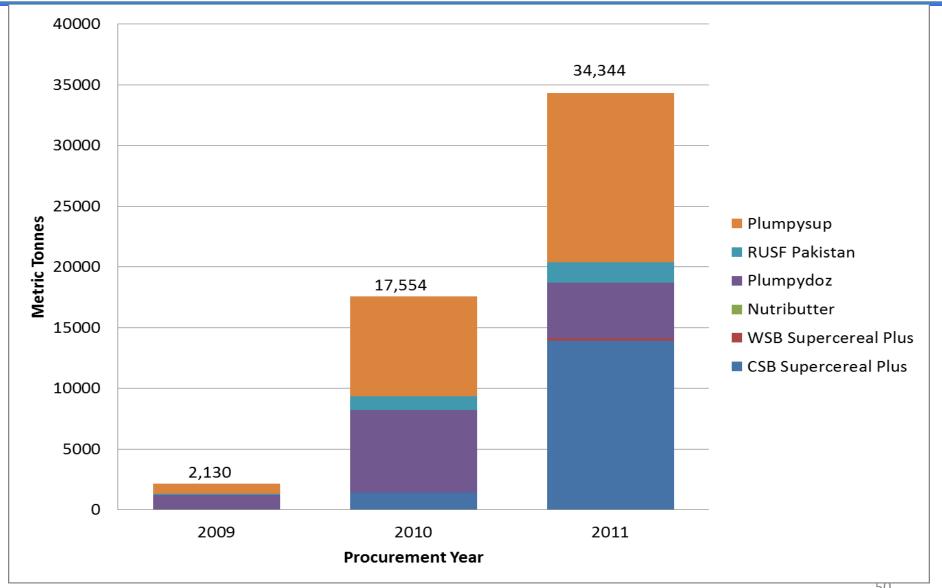
WFP increased focus on the window of opportunity

Trends in 6-23 months old receiving specialised foods



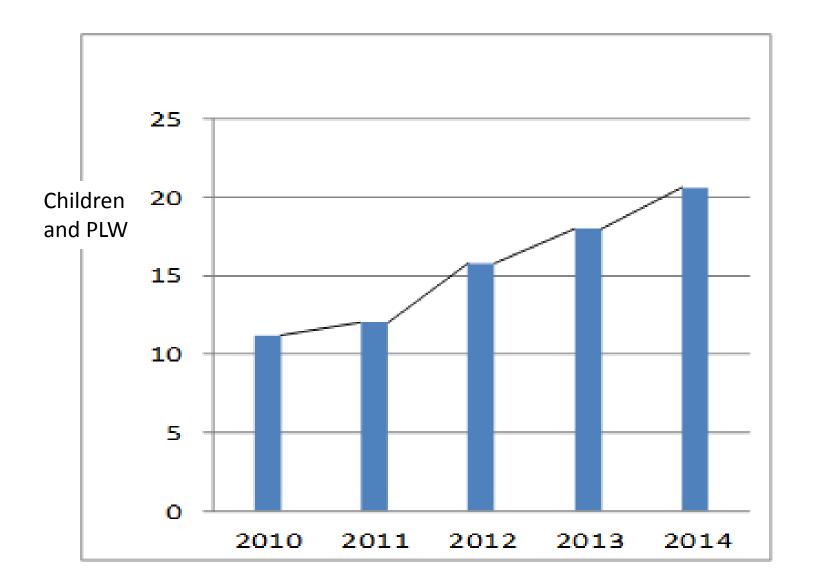
WFP increased focus on specialised foods for younger children

Trends in MT per product from 2009-2011



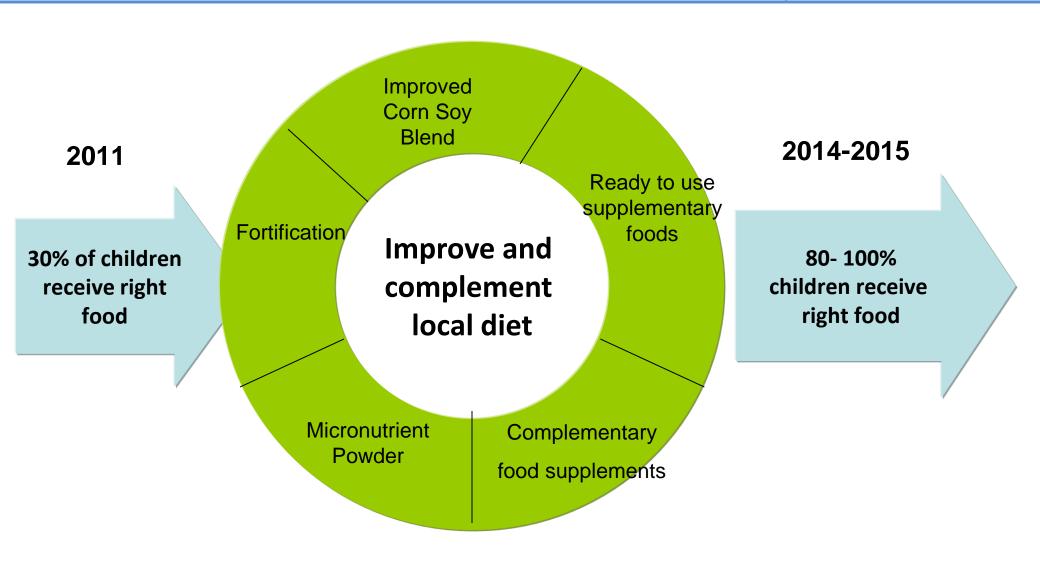
WFP aims to scale up efforts during 'window of opportunity'

WFP aims to reach 20 million children aged 6-59 months (Management Plan 2012-2014)



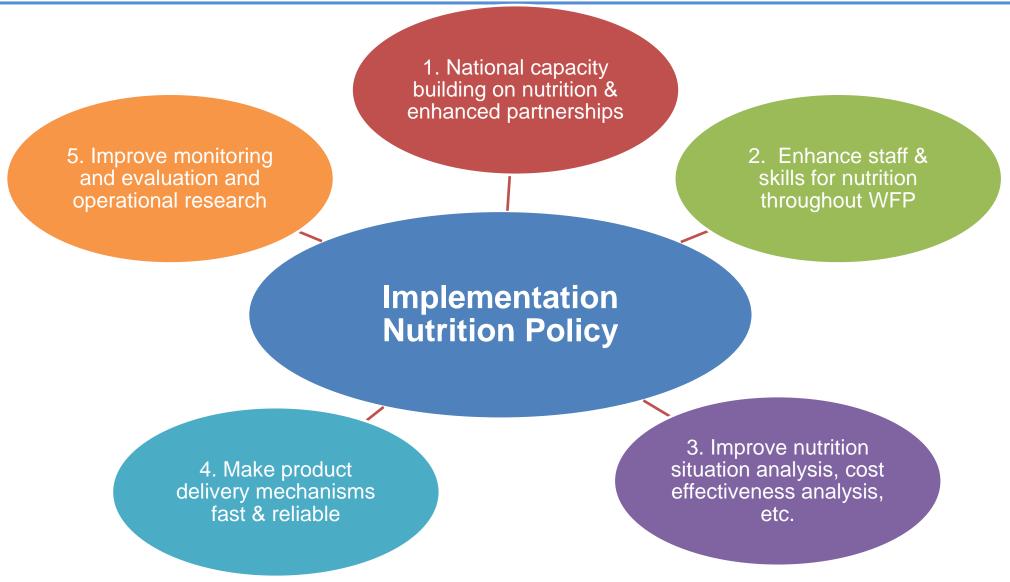
WFP aims to scale up efforts to ensure right foods

Timely and cost effective delivery of nutrients to fill nutrient gap



Nutrition Policy Implementation Plan

Capacity Strengthening in 5 key areas required



Thank you for the opportunity for Nutrition this afternoon!



WFP Nutrition