Overview Of UNICEF-assisted Nutrition Programme

UNICEF Nutrition supplier Meeting
Copenhagen, 5-6 October 2009

Flora Sibanda-Mulder
>35% of under-five deaths are attributable to undernutrition (Lancet Series, 2008)
Types of malnutrition

- **Acute malnutrition**
  - Marasmus (wasting)
  - Kwashiorkor (oedematous)
- **Chronic malnutrition**
  - Stunting
- **Growth faltering (underweight)**
  - Composite of acute & chronic malnutrition
- **Specific nutrient (micronutrient) deficiency**
  - Anaemia, Iodine, Vitamin A, Zinc etc
- **Malnutrition secondary to disease**
  - HIV and AIDS / TB
  - Any illness (diarrhoea, pneumonia, measles, etc.)
Differences between acute and chronic malnutrition

- **Diagnostic indicators**
  - Acute malnutrition - MUAC or weight for height
  - Stunting - height for age
  - Underweight - weight for age

- **Types of intervention**
  - Acute malnutrition – short term treatment
  - Chronic malnutrition – long term preventative/antenatal care

- **Different Therapeutic regimes**
  - Acute malnutrition – complete therapeutic diet (200 Kcal/kg/day)
  - Chronic malnutrition – nutritional supplements (<200 Kcal/day)
Definition of Severe Acute Malnutrition

- Middle Upper Arm Circumference (MUAC) < 115mm in children between 6 – 59 months of age

  or

- Weight-for-height <70% of median or below -3SD of mean reference values
  ("wasted")

- Bilateral pitting oedema of nutritional origin
  ("oedematous malnutrition")
Infants who are not breastfed are far more likely to get sick and die.
Infants (<6mos) exclusively breastfed (%) in selected Asian countries

Source: SOWC 2009, UNICEF
Protection by breastfeeding is greatest for the youngest infants

Risk of death if breastfed is equivalent to one.

## Micronutrient Deficiencies and MDGs

<table>
<thead>
<tr>
<th>MDG 1: Eradicate hunger and poverty</th>
<th>Iron and iodine def are related to mental and physical incapacity and this has implications for learning and productivity leading to low earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDG 2: Universal primary education</td>
<td>Iron and iodine nutrition are closely related to cognitive function. Anaemia is also related to low school attendance independent of cognition</td>
</tr>
<tr>
<td>MDG 4: Reduction of Child Mortality</td>
<td>Vitamin A and zinc are directly related to child survival. Vitamin A and zinc deficiencies contribute to increased morbidity and mortality.</td>
</tr>
<tr>
<td>MDG 5: Improve maternal health</td>
<td>Anaemia is an important cause of maternal deaths. Severe vitamin and mineral deficiencies are associated with pregnancy complication</td>
</tr>
</tbody>
</table>

The combined effects of micronutrient deficiencies on mortality, morbidity and productivity are estimated to result in economic losses of billions of dollars.
Challenges
1. Malnutrition levels in most developing countries are unacceptably high in ‘normal times’. A nutrition crisis in children is already underway

2. As the price of staple foods increases beyond the coping capacity of poor households, levels of malnutrition and vulnerability increases

3. The economic downturn has resulted in loss of jobs and wages and reduced purchasing power

4. The current policy, programme, and safety-net responses are inadequate. In the near future, they risk to be driven by political considerations rather than by the needs of the most vulnerable children
The reality of food prices surge

3. High food prices and economic will affect first the nutrition situation of the most vulnerable children and women; however consequences are likely to go beyond nutrition.

4. The current crises open a window of opportunity to scale up advocacy, policy, programme, and budgetary action for child nutrition in vulnerable countries.
An emergency is extraordinary situation of natural or political origin that puts the health and survival of a population at risk.

An emergency can happen anywhere
'PRAY FOR US'
HORROR IN NEW ORLEANS - THE RELIEF FIASCO
AFTER KATRINA

Newsweek

September 12, 2005

A Katrina refugee and her two children, New Orleans, Sept. 1, 2005

USA hurricane

Associated Press
Nutrition in Emergencies

- Emergencies have an impact on a whole range of factors that can increase the risk of malnutrition, illness (*morbidity*) and death (*mortality*). Unfortunately, high malnutrition and mortality rates continue to occur during emergencies.

- Causes include: severe shortages of food combined with disease epidemics; poverty, chronic food insecurity and poor infrastructure; HIV and AIDS; climate change; volatile food prices; political and economic crises.

- The main nutritional problems of concern in emergencies are:
  - Acute malnutrition (wasting) especially in young children - *kwashiorkor* characterised by *oedema* (swelling due to fluid retention) and *marasmus*.

- Micronutrient deficiencies especially iron, vitamin A, iodine deficiencies and (common in disadvantaged populations). Outbreaks have occurred in emergency-affected populations – vit. C def in Afghanistan, Riboflavin in Uganda (2009).

- Poor infant and young child feeding practices, including distribution of infant formula.
The risks of artificial feeding

1. It does not have the protective properties of breastmilk
2. It actively increases vulnerability
3. It carries risks linked to the methods of feeding
4. Infant formula is not sterile
5. It increases food insecurity
Artificially fed infants are highly vulnerable in emergencies

Even a little artificial feeding carries risk
Relation between prevalence of diarrhoea and receipt of donated infant formula, Yogyakarta Indonesia post-2006 earthquake

The risks of artificial feeding in emergencies
Possible to prevent 26% of U5 deaths by scaling up key Nutrition interventions

Joint Health and Nutrition Strategy
Conceptual framework

Strategic result 1: Enhanced knowledge & evidence

Strategic result 2: Enabling Policies, Plan & budgets

Leveraging policies, legislation, plans and budgets through enhanced knowledge & evidence

Impact on MDGs

Translating policies, legislation, plans and budgets into large-scale accelerated action

Strategic result 3: Effective coverage

Learning by doing, and doing better by learning
How can we improve nutrition?

The “Window of Opportunity” for high impact nutrition interventions is very small...pre-pregnancy until 18-24 months of age.

Data Source: Shrimpton et al (2001)
Why is a lifecycle approach important?

- It helps in understanding that:
  - Maximum benefits in one age group can be derived from interventions in an earlier age group
  - Interventions at several points across the lifecycle are needed to sustain improvements in outcomes and have cumulative effect
  - There are intergenerational risks and benefits and essential linkages to managing risks for all age groups
UNICEF response in Nutrition

- Preventing malnutrition in children to promote growth, development and survival, and women
- Supporting the treatment of severe acute malnutrition in children in countries with SAM burden
- Protecting nutritional status of vulnerable groups affected by emergencies - crucial and a humanitarian right
Breastfeeding saves lives in emergencies all over the world
Prevention of malnutrition: IYCF

- **Promotion and Support for breastfed infants**
  - Early initiation (ErBF1)
  - Exclusive breastfeeding (ExBF6)
- **Promotion of timely and age-appropriate complementary feeding**
  - Ensure age-appropriate micronutrient fortified blended foods as part of general ration (WFP)
  - Advocate for additional nutrient-rich foods in supplementary feeding programmes
- **Support for non-breastfed infants**
  - Education of mothers and families on appropriate use of BMS
  - Ensure access to safe water and handwashing with soap
  - Monitor use of BMS
- Provide MMN preparation containing 1 RNI/daily or 2 RNI/weekly of 10-15 vitamins and minerals (depending on availability of fortified food aid)
- Preferably with food (in-home fortification)
- Continue VAC distribution and Zn as adjunct for diarrhoea treatment
Additional preventative interventions

- Increase and maintain high coverage of vitamin A supplementation
- Deworming of all children 1-5 years of age
- Promotion of hygienic practices – handwashing with soap (with WASH)
- ORT + Zinc for diarrhoea management
- Access to essential health services (immunization+)
- Access to impregnated bednets (in malaria-prone areas)
- Access to safe water
Management of Acute Undernutrition

- **Facility-based therapeutic feeding**
  → For children with SAM and medical complications

- **Community-based therapeutic management**
  → For children with SAM without medical complications
  → Using ready-to-use therapeutic foods (RUTFs)
  → to the extent possible locally produced

- **Supplementary feeding for management of moderate acute undernutrition**
  → Using age-appropriate supplementary foods
Thank You