Micronutrient programme overview

Arnold Timmer

Senior Adviser Micronutrients
Nutrition Section
Headquarters
New York
Global developments nutrition

1. Relevance of nutrition: increased attention from donors, development agencies, private sector, foundations, civil society, research community

2. Conceptually
   - Maternal-child seen as nutrition survival (SAM, BF, vit A) AND development priority (stunting, micronutrients)
   - SAM treatment at community level in non-emergencies, linked to preventive action - CMAM
   - Evidence based interventions across life cycle – (pre-)pregnancy → 2 years
   - Comprehensive approach – health, water, sanitation, nutrition, food security, social protection, education
   - Equity: reaching disadvantaged, most affected is cost-effective vis a vis reaching MDGs
“Nutrition-sensitive programming” -- moving from a narrow “nutrition lens” to a wider “development lens”

Financing envelope

Narrow nutrition lens

Transportation sector
Financial and credit sector
Agriculture sector
Health sector
Education sector
Private sector
Trade and tax policies sector
Multiple other sectors

Multisectoral nutrition lens

Presentation at CIDA
Tamar Manuelyan Atinc
Vice President, Human Development Network
The World Bank
December 2010
Global developments nutrition

3. Translate high level commitment into country action
   • High level leadership at PM level and country ownership
   • Working with an agreed approach – SUN, REACH..
   • National policies and action plans reflect conceptual change in thinking
   • Evidence based and scalable interventions
   • Bridge multi-sectoral gaps: program/community level, policy and governance/coordination level across sectors
   • Make programs work and make them better
     • For those most affected/disadvantaged
     • Reducing overall burden
     • Sustainable, capacity building
   • Measure results, evaluate, document
Overview micronutrient programmes

1. Micronutrient supplementation
   - Vitamin A (6-59m) mortality risk reduction
   - Therapeutic zinc (<5 years): more rapid recovery, increased immunity & growth
   - Maternal micronutrients (adol. girls, women child bearing age): birth outcomes, maternal MN status, child growth & development

2. Home fortification (6-24m): micronutrient status, feeding practices, stunting

3. Food fortification: salt (I), flour (Fe, Zn, FA), oil/sugar (Vit A) (women child bearing age, infants): IQ, NTDs, rickets, micronutrient status
## Micronutrient interventions in the life cycle and coverage rates

<table>
<thead>
<tr>
<th>Stage</th>
<th>Intervention</th>
<th>Coverage Rate</th>
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</thead>
<tbody>
<tr>
<td>Pregnancy</td>
<td>Iron &amp; folic acid supplements, Multi micronutrient supplementation, Iodized salt, Food supplements</td>
<td>-</td>
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<tr>
<td>Birth</td>
<td>Initiation of breastfeeding within 1 hr (Colostrum)</td>
<td>43%</td>
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<tr>
<td>0-6 months</td>
<td>Exclusive breastfeeding, Implementation of the Code on marketing of formula</td>
<td>37%</td>
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<tr>
<td></td>
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<td>100 countries</td>
</tr>
<tr>
<td>6-24 months</td>
<td>Introduction of complementary feeding, Continued Breastfeeding up to 1 yr, Multi micronutrient powder, Vitamin A supplementation (&amp; de-worming), Zinc supplementation</td>
<td>60%</td>
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<tr>
<td></td>
<td></td>
<td>75%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 countries</td>
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<tr>
<td></td>
<td></td>
<td>66%</td>
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<tr>
<td></td>
<td></td>
<td>&lt;10%*</td>
</tr>
<tr>
<td>24-60 months</td>
<td>Vitamin A supplementation (&amp; de-worming), Treatment of severe malnutrition, Treatment of moderate malnutrition, Social safety net programmes</td>
<td>66%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;10%*</td>
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</tbody>
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Developing country data based on SOWC 2012; * based on estimation
Vitamin A developments

• New guidelines supplementation WHO 2011 → 6-59 months
• A very high, but not yet universal coverage across developing countries, highest in LDCs
• Child health days successful delivery mechanism for combined interventions
• Shift from donor funding to country financing
• Improve outreach coverage among disadvantaged groups
• Technical consultation on vit A supplementation direction; fortification, progress MDGs
An average of 4 services were co-delivered in 2010 events. This ranged from one to 10+ services (e.g., Philippines) per event.

n=96 integrated events with complete data on event composition
Maternal micronutrients

• Iron folic acid and multimicronutrient supplements
• Some countries use IFA some multi MN. Guidelines accommodate both
• Include in stunting reduction programmes
• Understand barriers in scale up
• Improve demand/uptake of antenatal care at community level
• Need for innovative programming to reach adolescent girls/pre-pregnancy
Zinc

1. Preventative in specialized products
   • Optimal dosing for functional impact (diarrhea, growth)

2. Treatment in supplements in combination with ORS
   • Many countries adopted the zinc treatment in national policy
   • Product registration
   • Programme design and delivery
Households iodized salt consumption (%)

- East Asia and Pacific: 89
- Latin America and Caribbean: 87
- West and Central Africa: 74
- Middle East and North Africa: 60
- South Asia: 55
- East and Southern Africa: 53
- CEE/CIS and Baltic States: 51
- Developing countries: 72

Source: SOWC 2011

UNICEF
Distribution of countries by proportion of households consuming adequately iodized salt over time

Data availability increased significantly

16 more countries have attained USI
9 more are close to the goal
7 more have coverage of 50 to 69 per cent
The number of countries < 50 per cent remains stable

Time Period

1997 to 2000
Number of Countries
>90
70 -89
50-69
20-49
<20
no data
21
17
17
22
13
66

2003 to 2009
Number of Countries
>90
70 -89
50-69
20-49
<20
no data
37
26
24
28
11
31

Global Progress:
62 countries mandate flour fortification

As of July 2011
– source FFI
Micronutrient premix for food fortification

- KIO3 price increase – consequences for salt iodization programmes
- Development of devices for testing micronutrients in food (vitamin A, iron, iodine) – need for further development
- Premix procurement services at country level – GAIN premix facility and UNICEF support
Home fortification

• Micronutrient powder (MNP) and lipid based nutrient supplement (LNS)
• LNS for home fortification includes small quantity spreads (20g) to be mixed with the food, one per day
• Guidelines for MNP recently issued by WHO, also including for malaria areas
• No guidelines yet for LNS
• Home Fortification Technical Advisory Group to coordinate, develop program manuals, and provide technical support
• Rapid scale up in many countries
• UNICEF and CDC global assessment – direct technical support
Home Fortification - MNP

- MNP priority intervention (6-24m, compl feeding, effective to address iron and zinc)
- 3 regional workshops: 45 countries
- Scaled up programmes: +20 countries; estimated 6 million children reached; good impact >20% anemia
- Coherent, inter-agency approach
- UNICEF convening role; inter-sectoral (IYCF, WASH, health)
- Investments in impact evaluations, innovations and business delivery models
Countries with MNP plans/programs

- **Asia**
  - Indonesia, Philippines, Nepal, Sri Lanka, Viet Nam, Bangladesh, Cambodia, China, Timor Leste, India,

- **Latin America**
  - Mexico, Ecuador, Bolivia, Colombia, Belize, Peru, Uruguay

- **Africa**
  - Kenya, Rwanda, Ghana, Zambia, more are planning

- **Central Asia**
  - Mongolia, Kyrgyzstan
Global procurement micronutrient powders (2007-2010)

Sources: WFP and UNICEF supply division
Note: does not include NGO procurement and direct procurement from supplier
Breakdown MNP procurement (2010)

15 component:
- Asia: 2559754 (78%)
- CEE/CIS: 421600 (13%)
- LAC: 262960 (8%)
- MENA (Yemen): 16667 (1%)

5 component:
- CEE (Kyrgyzstan): 92%
- Asia (local procurement): 8%

Local label product:
- Asia: 783760 (54%)
- LAC (Haiti): 668440 (46%)
Home Fortification - LNS

- A promising strategy; not yet recommended for scale up
  - Numerous trials on going
  - Lack of established supply chains
  - Little programmatic experience regarding package design, provision of information regarding use
  - Inconclusive about impact on growth

- More attention to essential fatty acids intake
  - Emphasis on the first 1000 days of life
  - Omega-6 and (specially) Omega-3
  - LNS considered a potential source for pregnant and lactating women and infants and children
Home Fortification - LNS

- Acceptability, change in dietary habits
- Interest by countries, particularly those affected by emergency and food insecurity situations
- Peanut allergy concerns
- Populations where peanuts are not part of diet
- Sustainability: long term adherence, cost, 3 times as expensive as MNP (no data on implementations costs)
- Research gaps
- Pilot operational research (e.g. costs, shelf-life & storage, usage in home, process evaluation)
- No official WHO recommendation
Strategic priorities

• Improve outreach coverage among disadvantaged groups: vit A, iodized salt, fortified foods, home fortification → drivers

• Reduce stunting in 6-24 months: scale up community-based IYCF interventions & communication activities among populations with high stunting rates

• Home fortification as delivery and communication platform

• Focus on high burden and SUN countries, monitor and document successful examples
Strategic priorities

• Sustainability of mature interventions
  • vitamin A: national ownership & financing, vitamin A fortification
  • USI: sustainability, improve programming

• Integration of interventions
  • Achieve universal/sustained coverage of high impact child survival interventions by 2015 - emphasis on unreached
  • Micronutrient powders in IYCF and community based

• Innovations
  • Business models for delivery and self financing (micronutrient powder)