

Updating guidance on severe acute malnutrition

Nutrition Guidance Expert Advisory Group (NUGAG)

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**World Health
Organization**

EXECUTIVE BOARD

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Nutrition

**Maternal, infant and young child nutrition:
draft comprehensive implementation plan**



**World Health
Organization**



Actions

ACTION 1 : To create a supportive environment for the implementation of comprehensive food and nutrition policies

ACTION 2 : To include all required effective health interventions with an impact on nutrition in plans for scaling up

ACTION 3: To stimulate the implementation of non health interventions with an impact on nutrition

ACTION 4 : To provide adequate human and financial resources for the implementation of health interventions with an impact on nutrition

ACTION 5 : To monitor and evaluate the implementation of policies and programmes

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e-Library of Evidence for Nutrition Actions (eLENA)

[eLENA home](#)[A-Z list of interventions](#)[Health condition](#)[Life course](#)[Nutrient](#)[Intervention](#)[About eLENA](#)

WHO launches the e-Library of Evidence for Nutrition Actions



WHO/Christopher Black

10 August 2011 | WHO today launched the electronic Library of Evidence for Nutrition Actions -- or eLENA -- in Colombo, Sri Lanka. As part of a global effort to improve maternal, young child and infant health, e-LENA brings together the latest evidence-informed WHO guidelines, commentaries and evidence resources on the broad topic of nutrition. The aim of this new e-library is to stimulate effective nutrition actions and guide programme and policy design.

New in eLENA

WHO launches the e-Library of Evidence for Nutrition Actions

New guidelines on vitamin A supplementation

New guidelines on the use of micronutrient powders and iron supplements

Profiled interventions



Use of multiple micronutrient powders for home fortification of foods consumed by children 6–23 months of age




Intermittent iron supplementation for preschool and school age children



Vitamin A supplementation in infants 1–5 months of age

Global information System on the Implementation of Nutrition Actions (GINA)

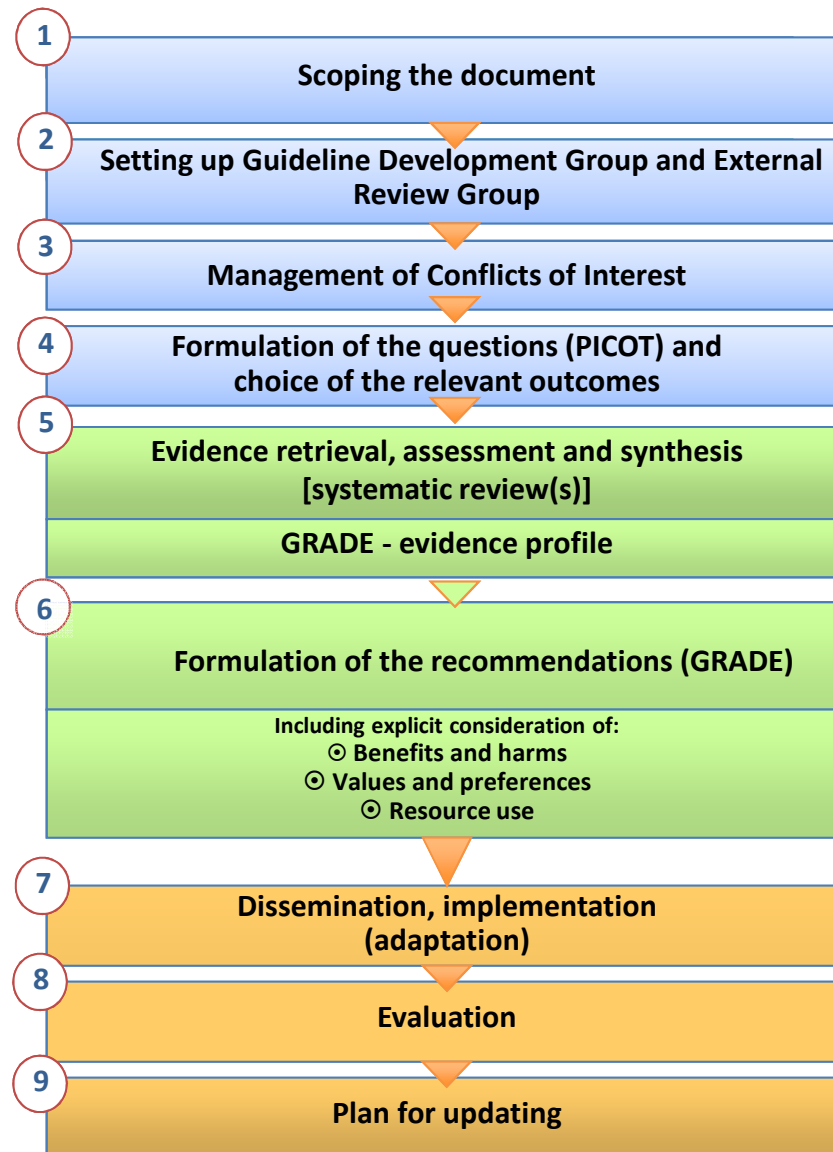


- Building on existing work in WHO to monitor nutrition policy and action since the 1992 ICN
 - WHO Global Database on National Nutrition Policies and Programmes
- Global Nutrition Policy Review (2009 – 2010)
 - Updated information on nutrition related policies and programmes for 123 countries



Main objectives of programme area on under-nutrition

1. Develop *guidelines, standards and methodologies* for improved prevention and management of under-nutrition
2. Improve *capacity of countries and partners to manage* severe and moderate under-nutrition in crises and stable situations.



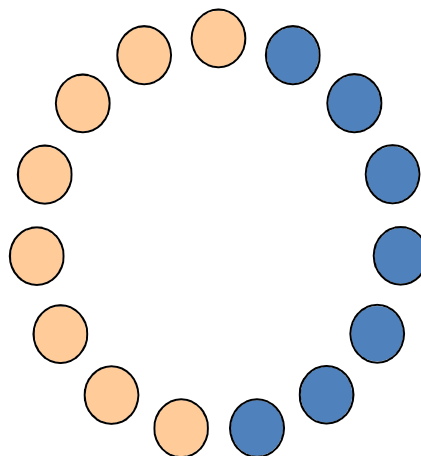
WHO evidence-informed guideline development process

WHO Nutrition Guideline Development Process



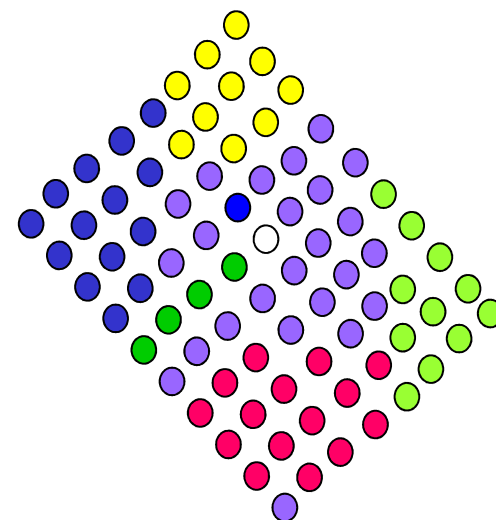
WHO Guideline Steering Committee

WHO Departments
Directors or alternate appointee




WHO Nutrition Guidance Expert Advisory Group

geographic representation
multi disciplinary
gender-balanced
un-conflicted as possible
40-50 members overall



External Experts and Stakeholders Panel

open documented process
•WHO Micronutrients Mailing List
•SCN Mailing List
•WHO Nutrition Website



WHO Nutrition Guidance Expert Advisory Group (NUGAG)

- Members provide advice to WHO on:
 - The scope of the global guidelines and priority questions for which systematic reviews of evidence will be commissioned
 - The choice of important outcomes for decision-making and developing global recommendations
 - The interpretation of the evidence with explicit consideration of the overall balance of risks and benefits
 - The final drafting of formulating global recommendations, taking into account existing evidence as well as diverse values and preferences, feasibility, balance between harms and benefits



The *Grading of Recommendations Assessment, Development and Evaluation* approach

Clear separation of the two issues:

1) **Quality of the evidence** (High, moderate, low, very low)

- methodological quality of evidence
- likelihood of bias
- by outcome
- Ideally, people who grade evidence should have available to them systematic reviews of the evidence regarding the benefits and risks of the alternative management strategies they are considering.
- Better research gives better confidence in the evidence (and the following decisions)

2) **Strength of recommendation:** strong or conditional (*for or against*)

- Quality of evidence only one factor
- Evidence alone is never sufficient to make a clinical or public health decision



Guideline:

Intermittent iron supplementation in preschool and school-age children

Suggested schemes for intermittent iron supplementation in preschool and school-age children

Target group	Preschool-age children (24–59 months)	School-age children (5–12 years)
Supplement composition	25 mg of elemental iron ^a	45 mg of elemental iron ^b
Supplement form	Drops/syrups	Tablets/capsules
Frequency	One supplement per week	
Duration and time interval between periods of supplementation	3 months of supplementation followed by 3 months of no supplementation after which the provision of supplements should restart. If feasible, intermittent supplements could be given throughout the school or calendar year	
Settings	Where the prevalence of anaemia in preschool or school-age children is 20% or higher	

^a 25 mg of elemental iron equals 75 mg of ferrous fumarate, 125 mg of ferrous sulfate heptahydrate or 210 mg of ferrous gluconate.

^b 45 mg of elemental iron equals 135 mg of ferrous fumarate, 225 mg of ferrous sulfate heptahydrate or 375 mg of ferrous gluconate.

Guidance on SAM



- Update:
 - **Management of severe malnutrition: a manual for physicians and other senior health workers. WHO, 1999.**
 - Recommendations on management of SAM in other guidelines, e.g. Pocket book of hospital care for children, 2005.
 - WHO Training Course on the management of severe malnutrition, 2002.



NUGAG I meeting

1. Scope of review discussed
2. List of questions agreed
3. PICO tables developed

NUGAG: SAM



1. Antibiotic treatment in children with SAM.
2. What are the implications of severe acute malnutrition on ART initiation and dosing?
3. Effectiveness and safety of vitamin A supplementation in children with SAM
4. Management of dehydration without shock due to diarrhoea (and vomiting) in children with SAM
5. Management of shock with IV fluids. in children with SAM
6. Blood or plasma transfusion in children with shock after failure of intravenous fluid in children with SAM
7. Feeding inpatient children with SAM and diarrhoea
8. Feeding outpatient children with SAM and diarrhoea
9. Feeding children with SAM in transition phase
10. Feeding the severely malnourished infants less than 6 months of age
11. Support to the mother/wet nurse for children under 6 months with SAM
12. Admission and discharge criteria for infants less than 6 months with SAM
13. Screening criteria for SAM children to be treated as outpatient
14. Discharge criteria for children over 6 months with SAM

Priority areas on SAM for review



- Admission/ discharge criteria + complicated /uncomplicated cases
- Fluid management
- Feeding approaches
- HIV
- Infants less than 6 months
- Antibiotics
- Micronutrients

Systematic reviews



- Southampton Health Technology Assessments Centre, University of Southampton
- Institute of Tropical Medicine, Antwerp
- University College London for International Health & Development, University College London, UK
- Washington University in St Louis School of Medicine, USA
- University of Malawi College of Medicine, Malawi

NUGAG II and III meetings



- Presentation of systematic reviews including GRADE tables - quality of evidence
- Discuss proposed recommendations and strength of each recommendation
- Present next steps on updating guidance on SAM – changes based on evidence that deviate from existing recommendations
- Formulation of research questions

Challenges:

Guideline development on SAM



- Outcome of systematic reviews: Lack of existing evidence on questions identified on SAM
- Recommendations often had to be based on indirect evidence or expert opinion
- Need to strengthen research agenda on SAM



Photo: UNICEF

**Whether or not
evidence is
global, the use
of evidence is
always local**

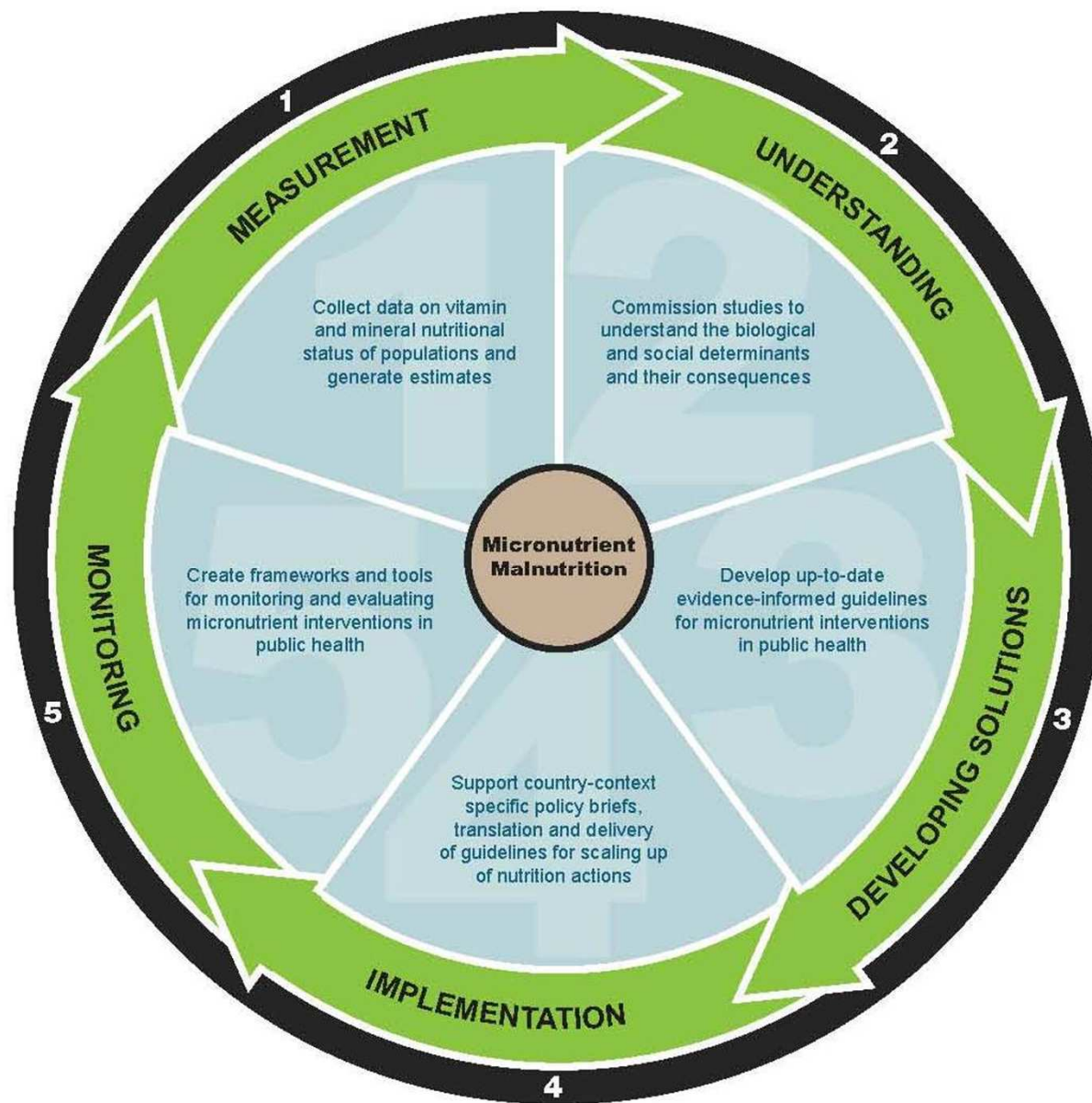
Challenges: Dissemination and use

- Guideline adaptation (contextualization)
- Implementation into policy into actions
- Monitoring and evaluation of guidelines and of impact of interventions recommended
- Need to evaluate process and use learnings



Evidence-informed policy network

- Promote systematic use of evidence in policy-making in low and middle-income countries.
- Promotes partnerships at country level between policy-makers, researchers and civil society to facilitate policy development and implementation through use of the best scientific evidence available.



WHO research and implementation strategy

IMTF: Filling key gaps



- Define research agenda on SAM and move agenda forward
- Improve capacities in countries both in conducting research and in managing SAM



<http://www.who.int/nutrition/en/index.html>