



**ACF International Network**

# **THE ESSENTIAL - NUTRITION & HEALTH**

The key to understand Nutrition & Health  
and ACF position



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# **THE ESSENTIAL**

The key to understand Nutrition & Health  
and ACF position

Scientific and Technical Department  
*Nutrition and Health Section*  
Action Contre la Faim - France



# INTRODUCTION

## USER GUIDE

The aim of this internal document is to provide a better understanding of the issues and technical breakthroughs in the domain of nutrition and health and also to clarify the positions of ACF regarding Nutrition and Health.

This document is a package of different technical sheets; each one covers a precise topic related to nutrition and health. It should not be seen as a book to be read from A to Z but rather as a tool to be consulted for in-depth inquiry about a specific subject.

It should be useful for Country Directors to increase their knowledge on ACF's positioning in terms of nutrition and health in general. It can also be used as a tool to prepare a meeting with a donor who is questioning ACF's approach regarding MAM for example. In this case the briefing sheet should allow a better understanding of the issues, references and ACF's positioning regarding this topic.

Above all this book aims at being used as a briefing and training tool. The technical heads of department will make sure that their expatriate and national teams master the important topics related to their context and the position of ACF. We strongly recommend using this tool systematically when expatriate and national staffs first arrive in their new position; a reading schedule of the chapters (on a weekly basis for example) should be proposed.

At the beginning of this document you will find a glossary of the acronyms used in order to facilitate the understanding of the technical vocabulary of ACF.

In order to facilitate the reading of the briefing sheets you can also consult the glossary published in 2011 by the Nutrition and Health sector, which presents a large panel of definitions related to the subjects mentioned.

The tool we propose is perfectible. Your contribution as an “Essential's user” will be highly appreciated. Therefore we thank you in advance for your feedbacks.



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Some chapters were written in collaboration with Rebecca Brown (Nutrition and Food security expert, ACF-IN), Elisa Domínguez (Nutrition advisor, ACF-Spain), Marie-Sophie Whitney (Nutrition advisor, ACF-US), Sandra Mutuma (Nutrition advocacy advisor, ACF-UK), Arnaud Jeannin (Medical advisor, ACF-France), Cécile Salpeteur (Nutrition research advisor, ACF-France), Phil James (Nutritionist, emergency pool, ACF-UK), Saul Guerrero (Evaluations Learning and Accountability Advisor, ACF-UK) and Elise Rodriguez (Nutrition advocacy advisor, ACF-France).

Two chapters are updates of documents written before 2008 by Caroline Wilkinson (former Nutrition advisor for Asia, ACF-France).

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## ACRONYMS

<b>ACF-IN</b>	Action Contre La Faim (International Network)
<b>ACF-Canada</b>	Action Contre la Faim - Canada (Montréal)
<b>ACF-France</b>	Action Contre la Faim - France (Paris)
<b>ACF-Spain</b>	Action Contre la Faim - Espagne (Madrid)
<b>ACF-UK</b>	Action Contre la Faim - United Kingdom (Londres)
<b>ACF-US</b>	Action Contre la Faim - United States (New-York)
<b>AFASS</b>	Acceptable, Feasible, Affordable, Sustainable, Safe
<b>AIDS</b>	Acquired Immune Deficiency Syndrome
<b>AMAI</b>	Acute Malnutrition Advocacy Initiative
<b>APR</b>	Activity Progress Report
<b>ARV</b>	Anti-Retroviral
<b>BMI</b>	Body Mass Index
<b>CDC</b>	Centre for Disease Control and Prevention (Atlanta)
<b>CMAM</b>	Community based Management of Acute Malnutrition
<b>CSB</b>	Corn Soya Blend
<b>CTC</b>	Community-based Therapeutic Care
<b>CV</b>	Coefficient of variation
<b>DHS</b>	Demographic & Health Survey
<b>ENN</b>	Emergency Nutrition Network
<b>FAO</b>	Food and Agriculture Organization (UN agency)
<b>GAM</b>	Global Acute Malnutrition
<b>GHI</b>	Global Hunger Index
<b>GNC</b>	Global Hunger Cluster
<b>HIV</b>	Human-Immunodeficiency Virus
<b>HNTS</b>	Health and Nutrition Tracking Service
<b>HR</b>	Human Resources
<b>HSS</b>	Health System Strengthening
<b>IBFAN</b>	International Baby Food Action Network
<b>IFE</b>	Infant Feeding in Emergency



<b>IFPRI</b>	International Food Policy Research Institute
<b>IMAM</b>	Integrated Management of Acute Malnutrition
<b>IYCF</b>	Infant and Young Child Feeding
<b>MAM</b>	Moderate Acute Malnutrition
<b>MAMI</b>	Management of Acute Malnutrition in Infant
<b>MDGs</b>	Millennium Development Goals
<b>MICS</b>	Multiple Indicator Cluster Survey (see nutrition glossary)
<b>MNCH</b>	Maternal Newborn and Child Health
<b>MoH</b>	Ministry of Health
<b>MoU</b>	Memorandum of Understanding
<b>NCA</b>	Nutritional Causal Analysis
<b>NCHS</b>	National Center for Health Statistics
<b>NGO</b>	Non-Governmental Organization
<b>OFDA</b>	Office of U.S. Foreign Disaster Assistance
<b>RUCF</b>	Ready to Use Complementary Food
<b>RUSF</b>	Ready to Use Supplementary Food
<b>RUTF</b>	Ready to Use Therapeutic Food
<b>SAM</b>	Severe Acute Malnutrition
<b>SCN</b>	Standing Committee on Nutrition
<b>SC-UK</b>	Save the Children United Kingdom
<b>SC-US</b>	Save the Children United States
<b>SFC</b>	Supplementary Feeding Center
<b>SMART</b>	Standardized Monitoring and Assessment of Relief and Transition
<b>SQUEAC</b>	Semi-Quantitative Evaluation of Access and Coverage
<b>SST</b>	Supplementary Suckling Technique
<b>SUN</b>	Scaling Up Nutrition
<b>UCL</b>	University College of London
<b>UN</b>	United Nations
<b>UNHCR</b>	United Nation High-Commissioner for Refugees
<b>UNICEF</b>	United Nations Children's Fund
<b>WFP</b>	World Food Program (UN agency)
<b>WHO</b>	World Health Organization



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# ACF NUTRITION & HEALTH<sup>1</sup> HISTORIC



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**Purpose of the document:**  
**To understand the history of the ACF Nutrition & Health Sector.**

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1 - The ACF technical and scientific department comprises several sectors which could also be called areas of activity: Nutrition and Health sector, food security sector...etc...



## Long ago, when talking about nutrition, they said<sup>2</sup> ...

Dates	Termes	Notes
1900 - 1930	Distrofia Pluricarencial	Term used by early Latin American workers meaning “multiple deficiency state”.
1935	Kwashiorkor	From the Ga language (Ghana) of West Africa, meaning “the disease of the deposed child”.
1955	Protein deficiency	Term which reflected current thinking on the primary cause of Kwashiorkor.
1959 - 1960	Protein-calorie malnutrition (PCM) Protein-energy malnutrition (PEM)	<ul style="list-style-type: none"><li>- PCM first introduced late 1950s.</li><li>- Evolved into protein-energy malnutrition (PEM).</li><li>- Used to cover a whole range of malnutrition states other than those due primarily to specific nutrients (i.e.: vitamin C deficiency, pellagra).</li><li>- Terms still widely used.</li></ul>
Years 1980 - 90	Energy-nutrient malnutrition (ENM)	<ul style="list-style-type: none"><li>- To express that a deficiency in nutrients (zinc, vit. A....) other than protein contributes to malnutrition and growth faltering.</li><li>- Not widely used.</li></ul>
Years 1990	Micronutrient malnutrition	Refers to key micronutrient deficiencies: vit. A, iodine and iron.
End of the 90's	Malnutrition	Term used widely by international organizations such as UNICEF to refer to ENM and growth faltering.
2000	Undernutrition	The use of undernutrition is now widely used (in order to distinguish the 2 facets of Malnutrition).

2 - Translation of the chronology of malnutrition terminology in Nutrition and Health in Developing Countries- Richard D. Semba/Martin W. Bloem (2008)

## Some dates prior to the creation of ACF..

- **1909:** Nutrition is recognized as a scientific discipline.
- **1912:** 1<sup>st</sup> use of the term “vitamins”. Diseases such as pellagra, scurvy, beriberi and rickets long recognized as resulting from a lack of specific fruits in the diet.
- **1915:** Discovery of many vitamins.
- **1930s:** Use of the term “Kwashiorkor”, first described in 1865 in Mexico.
- **1948:** The right to food is recognized with the adoption of the Universal Declaration of Human Rights
- **1969:** Biafra crisis, UNICEF provides food aid using a “house formula” of 100 gr of K-mix (casein-based powder, derived from milk) + 6 gr oil + 1 liter of water
- **Late 1960s/1970s:** The « French doctors » movement promotes the organization of groups of medical volunteer group and many NGOs are created. Jean-Christophe Rufin (former ACF president) refers to this movement as “without borders”.
- **1974:** Use of high energy density milk in famine situation (Dr. Waterlow’s group in the 1960s).

At the world food conference in Rome, **malnutrition is recognized as a problem of food availability** and further as a problem of protein deficiency, with poverty identified as the main cause.

- **1975:** UNICEF & WHO develop a new strategy to assist with primary health care, including a focus on improving child nutrition.
- **1977:** Creation of a United Nations (UN) Standing Committee on Nutrition (SCN), creation of NCHS standards (W/H expressed as % of the median).
- **1978 Alma Alta:** International conference on primary health care
- **1979, Creation of ACF:** *“Talking about world hunger while sitting on one’s sofa is all very well, but it would be better to do something about it,” stated Françoise Giroud. In 1979 this awareness led a group of French intellectuals to mobilize to demonstrate their condemnation of the hunger scandal. Expanded to include journalists and doctors, the group formalized its existence on November 15, helmed by Jacques Attali, François Giroud, Marek Halter, Guy Sorman and Bernard-Henry Lévi.*



*The following pages recall the key moments in the development of an international Nutrition and Health sector. A more comprehensive document is forthcoming.*



# THE 1980s

**In the 1980s**, malnutrition was still under-addressed and there was little established treatment. Mortality rates were as high as 40% in crisis situations.

**1979**

**Creation of Action Internationale Contre la Faim (AICF)**  
(international action against hunger)

**1979: World Food Day: October 16**

- UNICEF/WHO international meeting on food for infants and young children
- Creation of IBFAN (International Baby Food Action Network)

**1980**

- Missions: Pakistan/Afghanistan
- Mission: Uganda

**1981**

- Mission: Chad

**1982**

- Crisis in Thailand



ACF nutrition  
sector



ACF activities



International  
nutrition activities



Nutrition  
programs



Official  
publications

# THE 1980s

1985/89

**1989:**

AICF begins to use the prototype of High Energy Milk of Pr. M. Golden in the nutrition centers

**1985:**

- Great famine in Ethiopia => Emergency mission
- Mission: Sudan
- Mission: Haiti

**1989:** Mission opens: Cambodia

**1989: AICF is 10 years old**

- 30 programs

**1987: Bamako initiative** (reform of health management system adopted at the African health ministers meeting). In several countries, implementation of a number of health activities:

- Focus on primary health care
- Free vaccinations
- Creation of management committees

**1988:** WHA Resolution 39.28 is adopted by the World Health Assembly regulating maternal milk substitutes

**1989:** Adoption by the UN of the International Convention on the Rights of the Child

**1985:** Creation of Nutriset®

**1989:** Jamaica, research on High Energy Density milk prototypes (HD) + minerals, based on 100 Kcal/100 ml by Pr. M. Golden

1990/92

**1990:** Support to Kurd displaced people during the Gulf war.

**1991:** opening of Sierra Leone & Liberia Missions

**1992:** Opening of Bosnia & Somalia Missions

**1990:** UNICEF: "Conceptual Framework of Malnutrition"

**1991:** WHO & UNICEF: Baby-Friendly Hospital Initiative

**1992:** Conference in Rome on nutrition launches World Declaration on Nutrition and Plan of Action for Nutrition.

■ ACF nutrition sector   ■ ACF activities   ■ International nutrition activities   ■ Nutrition programs   ■ Official publications

# THE 1990s

**1990s:** 1<sup>st</sup> revolution in the development of treatment of SAM (Severe Acute Malnutrition)  
→ therapy innovation

The development of specialized therapeutic milk (F100 and F75), the use of antibiotics, the improved use of electrolytes and the development of specific protocols by WHO, greatly improved the treatment of SAM. This improvement was confirmed by a dramatically reduced mortality rates at centers providing such treatment.

1993/95

**1993:**

- **Consensus of all actors in the treatment of severe acute malnutrition**, with a protocol based on prescription of an energy milk powder at 100 Kcal per 100 ml (Dr. André Briend, Dr Mike Golden, ACF, MSF)  
→ Publication in medical journal, The Lancet, by Pr. Mike Golden and André Briend
- **ACF successfully tests the HD ready to dilute** (which becomes the F-100) in Rwanda. Study led by Claudine Prudhon.
- **1994:** Creation by AICF of a scientific nutritional consultation committee
- **1995:** 1<sup>st</sup> use of reconstituted F100 milk in a refugee camp in Ethiopia

**1994:**

- **Genocide in Rwanda:** nutritional aid to refugees
- **Angola:** Health personnel training, vaccination campaign

**1995:**

- Missions open: **Chechnya and Afghanistan**
- Crisis: **Sierra Leone**
- Offices open: **AICF-Spain and AICF-UK**

**1993:** UNICEF publishes the 1<sup>st</sup> report, "The Progress of Nations"

**1994:** Development of F-75, ReSoMal and CMV by Nutriset

**1994:** AICF and Y. Greletty, Pr. M. Golden (Aberdeen) & A. Briend (INSERM) work on improving supplementary feeding programs (SFP)  
→ Publication in the Journal of Clinical Nutrition (1995)



ACF nutrition sector



ACF activities



International nutrition activities



Nutrition programs



Official publications

# THE 1990s

1996/99

**1996:** 1<sup>st</sup> CNT integration programs are implemented in hospitals and health centers by health ministers to treat severely malnourished children

**1997:**

- ACF conducts first field tests of Plumpy'nut® in Chad, in Kanem, in collaboration with the Chadian minister of health and the IRD. Comparative studies are conducted to measure acceptance and effectiveness of Plumpy'nut® compared to F-100 milk
- Thesis by Claudine Prudhon results in Prudhon index (mortality risk prediction)

**1996-99:** Refinement of medical protocols based on the draft WHO Guide: use of antibiotics, implementation of the transition phase, monitoring of beneficiaries and of the program, training tools based on field experience in Tanzania, Burundi and Liberia

**1998:** Use of F75 milk in ACF therapeutic feeding centers

**1999:**

- Research on the effectiveness of Plumpy'nut® in Burundi
- Use of Plumpy'nut® in Tadjikistan

**1996:**

- AICF becomes Action Contre la Faim (ACF) (action against hunger)
- Mission open: in the former Zaïre (DRC)
- Start up of mission in Mali

**1997:**

- Departure from Chechnya and expulsion from South Sudan
- Office open: ACF New York
- Symposium: "Hunger is a weapon"
- ACF: headquarter in New-York

**1998:**

- Crisis in Honduras resulting from Cyclone Mitch
- Opening: nutrition program in South Sudan

**1999:**

- Emergency assistance in East Timor and Congo( Brazzaville)
- Extension of emergency programs in the Sudan
- Mission: Kosovo

**1996:** Creation of Emergency Nutrition Network (ENN)

**1997:** Creation of Infant Feeding in Emergency (IFE) Core Group of which ACF is a member

**1999:**

- ACF is represented at the UNSCN in Geneva
- Validation by WHO of the SAM treatment protocol of Pr. M. Golden and recommendation of F-100 and F-75 milk. Distribution of the protocol

**1996:** Creation of Plumpy'nut® (PN) by Nutriset® with André Briend (IRD)

**1998:** Large-scale use of PN by MSF in South Sudan.

**1999:** Publication in The Lancet of the comparative F100/PN study following trials by ACF in Chad in 1997

# THE 2000s

**The 2000s**, 2<sup>nd</sup> revolution in the development of treatment of SAM (Severe Acute Malnutrition)  
→ Ready to Use Therapeutic Food (RUTF) & home treatment of SAM

With the development of Ready to Use Therapeutic Food (RTUF) such as Plumpy'nut®, a decentralized model of community-based SAM treatment is created.

This approach is now called "Community-based Management of Acute Malnutrition (CMAM). Prise en Charge a base communautaire de la Malnutrition Aigue (PCMA) in French is officially endorsed by the agencies of the United Nations.

2000/03

**2000:** Creation of practical mental health care programs

**2001:** Clinical research in the acceptance of BP100 vs F100 in Sierra Leone (Dr. Carlos Navarro and Stephanie Laquiere) associated with research on the socio-anthropological aspects of recurrence in the home of severe malnutrition (Dr. Carlos Navarro and Adrienne Daudet)

**2002:**

- Integration of care practices into feeding programs including psychosocial support
- Integration of HIV program into ACF mandate and programming
- Discussion between Valid and ACF concerning the CTC approach
- ACF participates to the 1<sup>st</sup> SMART workshop; and becomes a leader in development and dissemination of the methodology

**2003:**

- ACF-UK starts 1<sup>st</sup> HIV/nutrition program in Malawi with introduction of the VTC and conducts research into current prevalence (Susan Thurstans)
- Collaboration of ACF UK, Concern and Valid International in Malawi on a CTC pilot program
- ACF participates to an international meeting in Dublin on home treatment of SAM (Valid International & Concern); ACF is guaranteed that complicated cases would continue to be treated at the Stabilization Center.

**2000:**

- ACF leaves North Korea
- Opening of educational feeding program in France and mission in The Filipinas

**2001:**

- Temporary withdrawal of expatriates from Afghanistan mission
- Opening: Mongolia mission



ACF nutrition sector



ACF activities



International nutrition activities



Nutrition programs



Official publications

# THE 2000s

## 2002:

- Opening missions: Ivory Coast, Zimbabwe and Palestine
- Closing: nutritional program in France
- Revision of ACF chart

## 2003:

- Opening: Iraq mission
- Strong expatriate presence in Liberia at the height of the civil war

## 2000:

- Declaration of the Millennium Development Goals signed by 189 governments agreeing to jointly establish 8 goals to be achieved by 2015
- 1<sup>st</sup> edition of the Sphere manual published in 2000, revised in 2004 and 2011

## 2000:

- Dr. Steve Collins & Concern Worldwide develop a community-based home treatment program in Ethiopia
- Thesis by Dr. Yvonne Grellety: "Management of severe malnutrition in Africa"

- Publication in The Lancet of Dr. Steve Collins on home treatment of SAM.
- Publication of ACF manual for therapeutic treatment and nutrition program planning (Claudine Prudhon)

2004/05

## 2004:

- ACF-F: Introduction of Home Treatment program in Kabul
- ACF-UK: Research begins in Malawi (2004-2009) for thesis, "Severe acute malnutrition and HIV in children in Malawi" (Pamela Fergusson) in collaboration with 2 universities (Centre for International Health and Development, UCL (Pr. Andrew Tomkins) and Liverpool School of Tropical Medicine)
- ACF collaboration with Nutriset to conduct QBMix acceptance testing
- With the IFE core group, ACF develops tools (Operational Guidance, Module 1 & 2)

## 2005:

- ACF official home treatment strategy
- Use of Sprinkles micronutrients in programs in Haiti and Mongolia
- ACF participates in SMART development meeting in New York
- Pilot methodology test of SMART (of manual and of Nutrisurvey software, later known as ENA) in Chad, Niger and Mali (Nutrition and Mortality)

■ ACF nutrition sector
 ■ ACF activities
 ■ International nutrition activities
 ■ Nutrition programs
 ■ Official publications

# THE 2000s

## 2004:

- Emergency assistance in Iran and Darfur

## 2005:

- Tsunami crisis
- Food crises in **Mali** and **Niger**
- Crisis in **Pakistan** following earthquake
- Opening: **Nepal** mission
- Opening: **Kenya** mission
- Opening: ACF **Canada** office in Montreal
- Piloting of SMART methodology in Chad

**2005:** Humanitarian reform by the Inter-Agency Standing Committee (IASC)  
ACF is very active in the Global Nutrition Cluster

## ACF internationally:

ACF, represented by Caroline Wilkinson, is co-president of the emergency feeding group of the UN Standing Committee on Nutrition (UNSCN) in 2005 & 2006, and becomes president of the group in the 3 following years (2007-08-09), an exceptional achievement within the UN organization

**2005:** Launch of PlumpyField network (local production of Plumpy'nut)

2006

## 2006:

- Retrospective study on suction supplementation techniques at a CNT in Kabul
- Acceptance testing of Sprinkle TopNutri compact
- Regional counselor recruitment for HIV and nutrition in Africa
- Thesis by Dr. Carlos Navarro on treatment of severe malnutrition in adults
- ACF uses "Nutrition and Mortality" module of SMART and ENA software for its nutritional research
- Development of micronutrients module
- ACF agrees to share its nutritional research data with CRED CE-DAT

## 2006:

- Seventeen ACF employees are savagely massacred in their office in Muttur, Sri Lanka
- Creation of emergency pool at ACF France



ACF nutrition sector



ACF activities



International nutrition activities



Nutrition programs



Official publications

# THE 2000s

2007

## 2006:

- Publication of CTC manual by Valid International
- MSF treats MAM with Plumpy'nut

**2006:** New WHO nutritional standard

## 2007:

- Research in DRC & Niger: Comparative study (2007-08) on the effectiveness of infant milk and diluted F100 in the treatment of severe malnutrition in children younger than 6 months by Caroline Wilkinson in collaboration with Sheila Isanaka (Department of Epidemiology and Nutrition, Harvard)
- Research in Darfur/Sudan: Comparative study between SP450 and Supplementary Plumpy
- Distribution of the adult malnutrition manual in ACF-IN missions following research carried out in Burundi, Congo Brazzaville, South Sudan, Sierra Leone and DRC (1999-2004)
- Presentation of SFP Review results conducted by Dr Carlos Navarro using approximately 30 ACF-IN reports on SFC programs over 3 years.
- Revision and publication of the 2004 HIV policy within ACF-IN as well as the technical HIV strategy

## Publication Nutrition-Health Sector:

**2007:** Strategic intervention program on community nutrition

## 2007:

- Bangladesh emergency (floods in August and cyclone in November)
- Murder of a volunteer expatriate in Burundi
- Closure of the Cambodia mission in June
- The Technical Department's research service becomes a full service
- Evaluation of Home Treatment done in DRC

## 2007:

- The CTC approach is introduced in the WHO guide
- Joint WHO/UNICEF/PAM/SCN declaration on the community-based management of SAM
- Creation of the Health & Nutrition Tracking Service (HNTS) of which ACF forms part

**2007:** Launch of Plumpy'doz. First used by MSF in Niger.



# SINCE 2008

**Since 2008:** 3<sup>rd</sup> Revolution in the progress of treatment of Severe Acute Malnutrition (SAM) → Community-Based Management of Acute Malnutrition (CMAM) and the Scaling Up of Nutrition. The combination of RUTF with community-based SAM treatment protocols for the first time increases treatment coverage both in emergency situations and also in non-emergency situations.

2008

## 2008:

Setting up new WHO growth norms in the field

- Introduction of the Minimum Package for the integration of HIV and nutrition
- ACF-Spain applies a methodology for a survey on nutrition among the nomadic people of northern Mali
- Production of validated ACF-IN positioning on the "Nutrition of Young Children in Emergency Situations"
- First versions of a White Paper on Nutrition or ACF's positioning on nutrition.

## Publication Nutrition-Health Sector:

- 2008:**
- Integrated manual of childhood development
  - HIV in ACF-IN programs (framework document)

## 2008:

- Hunger Riots
- Closure of Sri Lanka & Burundi missions following the tragedy
- Hostage-taking in Afghanistan (July) and Somalia (November)
- Opening of a Burkina Faso mission
- 2<sup>nd</sup> International scientific conference "Putting an end to malnutrition: a question of priority"
- ACF-IN: signature of an explicit MoU clarifying relations between the different ACF headquarters and drafting of the "International Protocol"
- Piloting of SQUEAC with Valid in Darfur in Oct/Nov 2008 (1<sup>st</sup> SQUEAC ever done)

## 2008:

- ACF is active within international committees (UN Cluster, SCN, ICN, HNTS) and is also present at the MAMI 1 in Rome.
- ACF participation in the Global Nutrition Cluster Assessment Working Group (AWG) meeting on the SMART initiative in Rome



ACF nutrition sector



ACF activities



International nutrition activities



Nutrition programs



Official publications

# SINCE 2008

## The burden of malnutrition:

- 55 million children under the age of 5 suffer from acute malnutrition
- 19 million children under the age of 5 suffer from severe acute malnutrition
- Maternal and infant malnutrition is the underlying cause of 3.5 million deaths per year
- 860 000 children under the age of 5 die each year from malnutrition

*2008 Lancet Publication*

2009

## 2009:

- Research in Burma in collaboration with the Institute for Research and Development (IRD) to analyse the impact - in terms of admissions to nutritional programs - of recent changes in international criteria (from NCHS references to WHO standards Ethiopia: collaboration with PAM within the framework of a comparative study on Supplementary Plumpy and CSB.
- Capitalisation of the ACF-IN network's experience in the integration of "Community-Based Management of Acute Malnutrition" (CMAM) within national healthcare facilities.
- Development and test of a new method to assess the nutritional status of pastoral communities
- 33 Nutrition surveys using the SMART methodology have been conducted by ACF-France.

## 2009:

- Freeing of hostages in Somalia
- Nutritional emergency in RCA.
- Expulsion from Darfur
- Closure of Laos & Nepal missions
- ACF-IN 2010-2014 strategy definition

**2009: ACF Turns 30:** 45 missions and more than 4 million beneficiaries.

ACF contributes to the development of a United Nations agencies guide on supplementary nutrition programs

2010

**Nutrition & Health Diagnosis:** Agreements with the CDC centre (Atlanta) and HNTS (Health and Nutrition Tracking Services) have been concluded to carry out research based program

### **SAM Management:**

- Burma: research on an alternative SAM treatment (2009-2010)
- Protocol developed for a research project on the use of antibiotics
- Realisation of AMAI project (nutrition advocacy)
- Corrections to a methodology for assessing the capacity of health systems
- Development of a module on health system strengthening (HSS)
- Writing a book on CMAM (will be delivered at the end of 2012)

### **Management of Moderate Acute Malnutrition:**

- Project: Compared Effectiveness of 3 nutritional products in the treatment of MAM in Burma
- Project: Compared Effectiveness of Food For Training with or without Plumpy Doz for children of 6 to 36 months, in the Prevention of Acute Malnutrition in Chad.
- Project: research on MAM treatment discontinuation carried out in 2010 in Chad
- ACF participation at the MAM2 meeting in Geneva with presentations of the lessons drawn from ACF nutritional supplementation programmes in Darfur

### **Prevention of Acute Malnutrition:**

- Baby Tents program in Haiti and capitalisation project resulting in an implementation guide for this type of response in collaboration with the Mental Health and Care Practices Service
- Use of the Semi-Quantitative Evaluation of Access and Coverage (SQUEAC) method

### **2010:**

- Haiti earthquake emergency
- Sahelian crisis: intervention in Chad and Burkina Faso
- Niger and Somalia food crises intervention
- Intervention in the cholera epidemics in Chad and Zimbabwe
- Hurricane Giri emergency in Burma
- Flood emergency in Pakistan
- ACF France: New Deal project initiation
- Intervention for displaced people in Ivory Coast and Liberia due to the Ivory Coast post-electoral crisis
- Opening: **Nigeria** mission



ACF nutrition sector



ACF activities



International nutrition activities



Nutrition programs



Official publications

SINCE 2008

### 2010, Presence of ACF at these International Meetings

- Consultations and work groups aimed at defining a road map for the SUN (Scaling Up Nutrition) international initiative
- HIV/AIDS World Conference in Vienna, Austria in order to limit discontinuation rates
- Cluster meeting in Geneva and New York
- Public health and nutrition international conference
- "1000 Days" meeting in addition to the international conference on millennium goals in New York
- Annual meeting of the work group on the treatment of infants in emergency situations in Oxford
- Meeting of the research group on moderate malnutrition (MMS) in London
- Meeting on the Standing Committee of Nutrition, "kick-off meeting» in Rome

**2010:** WHA resolution 63.23 on infant and young child nutrition has highlighted the importance of including nutrition on the Health Agenda of the Ministry of Health

**2008-2010:** MAMI Project

**2010 Publication:** Management of Acute Malnutrition in Infants (MAMI) project (ACF contribution)

2011

### 2011:

- Review of the treatment protocol of SAM (Mike Golden) and diffusion
- Bilingual glossary with the definitions of the technical terms in nutrition and health (1<sup>st</sup> version)
- Study on the "alternative treatment protocol" and the quality of programs
- Bangladesh: Study on vitamin A supplementation
- Collaboration "Aligning Nut and FS"
- Conducting project training in nutrition in West Africa in connection with Bioforce (ACF, Save the Children, Valid)

### 2011:

- 1 year after the Haiti disaster i, rebuilding continues
- ACF continues and intensifies its intervention in Ivory Coast
- Horn of Africa: Emergency: interventions in Djibouti, Ethiopia, Kenya, and Somalia
- Alert on expected Sahelian drought and crisis in Chad, Burkina Faso, Niger, ACF, keeps a close watch and actively prepares the response
- Response to the cholera epidemic affecting West and Central Africa
- Emergency response in Bangladesh and Pakistan following the floods
- Emergency response in Philippines following the floods

■ ACF nutrition sector   ■ ACF activities   ■ International nutrition activities   ■ Nutrition programs   ■ Official publications

2011

## ACF-Fr participates actively in international meetings on nutrition:

- Organization in Paris of the first informal meeting inter-NGOs in nutrition: Save the Children, Concern, Valid, MSF-Switzerland and André Briend: Sharing action plans and objectives, meeting analysis. The goal was to identify opportunities of partnership and optimize resources
- Annual Meetings of nutrition cluster in Nairobi (March) and New-York (October)
- Meeting UNICEF and cluster lead: Discussion for the development of a global PCA with UNICEF and refusal of ACF to take part in a “rapid response team” for the moment on the basis of the concerns of the HR which affects the sector of nutrition
- 2 Meetings of the MAM taskforce in Washington & Rome: Developing a plan of action for the production of operational guides
- Meeting ILNS (Washington): presentations of our latest research studies on complementary foods
- Meetings of CMAM core group
- Meeting for the implementation of the WHA resolution 63.23 (Harare and Ouagadougou)
- Meeting CMAM: in Addis-Ababa

2012

## 2012:

- Edition of the “Essentials of Nutrition and Health”
- Publication of the book on the integration of responsibility to take care of the MAS in the health systems
- Work on the approach of Nutritional Security
- Circulation of the seasonal calendar tool

## 2012:

- ACF continues and strengthens its response to emergency in the African Horn and to the Sahelian crisis.
- Strategy of systemization of how to measure coverage (surveys SQUEAC)
- SMART Survey with an integrated approach to Food Security (HFIAS and HFIAP) and practice in caring (IYCF)
- Zimbabwe: Launching of a project-oriented “Capacity Building” program. With the support of a Multisectoral Governmental Committee (“Food and Nutrition Council”) to promote the approach to Nutritional Security

## ACF-Fr will be present in the meetings and the international projects on nutrition:

- NUGAG
- IFE meeting
- WPHN conference
- FANTA 3
- Training project in West Africa - 1<sup>st</sup> edition
- 1<sup>st</sup> International conference on nutrition and growth
- Global Health & Innovation Conference
- RIO+20
- World Breastfeeding Conference 2012



ACF nutrition sector



ACF activities



International nutrition activities



Nutrition programs



Official publications



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## NUTRITION-HEALTH SECTOR<sup>3</sup>: THE PRIORITIES (2011-2015) – ACF-FR



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**Purpose of the document:**  
**To formalize the advances of the nutrition-health sector and allow the different ACF teams to make theirs the priorities of the Nutrition-Health sector.**

3 - ACF's technical and scientific department covers many sectors (fields) which can also be called areas of activity: Nutrition-Health sector, Food Security sector, etc.



Within the framework of drafting the strategy of action for 2010-2012, the Nutrition-Health sector has defined priorities about interventions and internal organization. These priorities are within the scope of the ACF-France's CAP 2015 and ACF's strategy for 2015. Moreover, these priorities have been shared with the ACF network and have served as a basis for drafting joint strategies. They have since been enriched by informal exchanges with the missions in 2011.

## INTRODUCTION

For some years now, the Nutrition sector has benefitted from increased international awareness (the initiatives REACH, SUN<sup>4</sup>, "1000 days," resolution 63.23 of WHO<sup>5</sup>). Many changes in terms of approach and policy initiative have occurred these past months. **Nutrition is altogether an extremely dynamic sector.** The emergence of new ideas and the production of scientific evidences are the main themes. However, a number of subjects remain to be explored, with questions still pending, a striking example being the management of acute moderate malnutrition. **The main objective of the international community in Nutrition and of ACF is to increase the efficiency and quality of interventions (preventive and curative) aimed at populations and individuals affected by undernutrition while proposing a scaling.**

The nutrition-health sector at ACF has moved forward these last two years, the rapid development of a nutrition research team at ACF-France being one of its great accomplishments. The challenge of scaling up the treatment of severe acute malnutrition (cf. chapter: evolution of SAM, page 117) has been central in our thoughts and has motivated a profound change in terms of internal knowledge, practices and methodologies of intervention.

**The technical priorities around which the nutritional-health sector organizes its interventions are the following:**

- ▶ Diagnosis and analysis
- ▶ Management of Severe Acute Malnutrition (SAM)
- ▶ Prevention of under nutrition

The groups of population targeted as priorities are children less than 5 years old and pregnant and lactating

**Three so-called "transversal" work priorities have thus been identified, and complete the priority technical orientations.**

These priorities facilitate the achievement of objectives in terms of development, efficiency and quality. They are:

- ▶ Human Resources;
- ▶ Transmission of knowledge;
- ▶ Quality approach.

4 - For more information on the REACH and SUN initiatives, see "Inventory of definitions currently used for the prevention, diagnosis and treatment of undernutrition" -ACF-France, December 2011

5 - See chapter: the feeding of the newborn and young child, page 75

However, the management of severe acute malnutrition is not the only working priority of the ACF teams in nutrition-health. Prevention and analysis of health in relation to the food supplies are also important and complementary priorities.

Indeed, it's not a choice between "prevent" and "cure" but to offer a complete response, one of quality and adapted to each context encountered.

To accomplish this task and accompany the changes and evolutions cited above, the headquarters of ACF must play a guiding role for the field but should also take in the experience acquired. Thus, the head office must articulate the reflections and experiences emanating from the field and the "knowhow" that moreover exists. The headquarters should be the link between the reality of operations and the reflections and new approaches emerging from the international scene.

## TECHNICAL PRIORITIES IN NUTRITION-HEALTH

### PRIORITY 1: DIAGNOSIS AND ANALYSIS

The main objective of this priority is to increase our capacity to provide pertinent diagnoses techniques and to measure the impact of our interventions.

- **Expertise in nutritional surveys (SMART)<sup>6</sup>**

ACF has been very active in disseminating SMART methodology in the field and is therefore regularly solicited to evaluate nutritional situations in different contexts. ACF-Ca is, since some years, proposing SMART training around the world to partners.

- **Nutritional database**

ACF is renowned for the databases it sells (program monitoring, nutritional surveys). From now on, ACF is concerned with maintaining the production and analysis of reliable data while developing other knowledge. An epidemiologist has joined the team in 2011 and agreements with the CDC center in Atlanta, HNTS (Health and Nutrition Tracking Services) and several universities (UCL, IMT, GENT) were obtained. The goal is to develop and disseminate the tools and methodologies used to produce these high quality data. The goal is also to analyse these data in order to answer research questions (for example: questions relative to the use and reliability of the MUAC are presently studied).

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6 - For more information on the SMART method, see "Inventory of definitions used currently for the prevention, diagnosis and treatment of undernutrition" - ACF-France, December 2011 and the internet site: <http://www.smartmethodology.org/>



## • Evaluation of the monitoring of coverage (SQUEAC)

The evaluation and monitoring of the coverage of curative programs is notably a working priority which has generated much interest in recent years at the international level. The development of the SQUEAC methodology (Semi-quantitative evaluation of Access and coverage)<sup>7</sup> systematized this step and ACF-UK is today a key actor in the development of field actors' skills in nutrition through the Coverage and monitoring network (CMN).

## • Indicators of performance and impact

The major challenge of these next years will be also to refine our performance and impact indicators and to harmonize their collection. It also concerns working in collaboration with other sectors in order to offer a common vision on how to measure the impact of our programs targeting under nutrition.

## • Research in the area of diagnosis

ACF-France wishes, moreover, through research activities, to develop its capability to formulate diagnoses. The recent clarification of a new survey method adapted to pastoral populations is an example. The development of the ability to analyze contexts and causes of under nutrition (the project, Nutrition Causal Analysis - NCA and the clarification of an analysis protocol which is fast and provides a cross-section of the context - the seasonal calendar), and of the coverage and quality of the management of Severe Acute Malnutrition (SAM) remains a priority.

## • Early warning system

Finally, concerning preparation for emergencies, ACF must implement early warning systems which allow anticipating crises, and must be in a position to manage fast evaluation activities. A pilot project of a new method of quick evaluation is currently being studied in collaboration with Valid International.



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7 - For more information on the SQUEAC method, see "Inventory of definitions used currently for the prevention, diagnosis and treatment of undernutrition" - ACF-France, December 2011 and the internet site: <http://fex.ennonline.net/33/low.aspx> (in English only)

## **PRIORITY 2: MANAGEMENT OF ACUTE MALNUTRITION**

The main objective of this work priority is to **promote and facilitate the access to treatment for persons suffering from acute Malnutrition in the world.**

It is essential today to accompany the changes in methodology concerning Severe Acute Malnutrition (SAM) and Moderate Acute Malnutrition (MAM) and to offer solutions adapted to the contexts. Major drawbacks which limit the access to treatment have been identified (limited capacities of health systems, cost, imported nutritional products ...).

In order to promote access to treatment, the nutrition sector proposes to follow these priorities:

### **• Advocacy**

SAM is an illness directly responsible for one million deaths per year (Lancet, 2008). The treatment must be seen as a public health priority for the countries which are most affected, and should be integrated into the minimum health packages in the same way that are pneumonia or malaria. **The advocacy** (cf. chapter: Advocacy and nutrition-health sector, page 205) around access to SAM treatment is a central building block of the nutrition sector's strategy (project AMAI). This advocacy is based on our developed expertise in the field concerning the treatment of severe acute malnutrition.

### **• Health Systems Strengthening (HSS)**

The development of health systems strengthening (HSS) taking into account the existing health sector is an absolute condition for maintaining our activities promoting access to treatment of SAM (cf. chapter: The strengthening of the health system, page 175). Indeed, ACF can no longer foresee its interventions in a vertical manner, it is necessary to build a solid base in the primary healthcare system to develop access to treatment of SAM.

A method of evaluation at the district level of health has been refined within the framework of a research project in 2010. A study on health systems based on the six building blocks of Health Systems is ongoing (April-May, 2012). At all levels of the health pyramid (cf. figure below: Example of the health pyramid at the district level - after WHO, 1994), ACF is strengthening the technical and organizational skills of health professionals in order for them to participate to the treatment of SAM in the minimum health package.

ACF is involved today in each of the 6 building blocks of the health system (deliverance of quality care, training of human resources, supply system, health information system, governance and financing).

A book (manual) combining ACF's experience and the expertise of other partner involved in guiding professionals confronted with the integration of their service into the care systems is being developed and should be ready by 2013. Moreover, ACF with many other international partners have taken the initiative to support the creation of an exchange platform on the



scaling up of SAM treatment (CMAM forum).). This platform was open in June 2012. (See link: <http://www.cmamforum.org/> ) and ACF is a member of the piloting committee (2011).

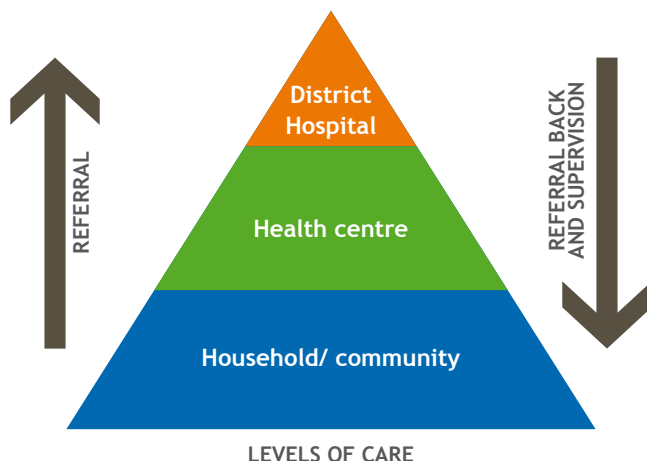


Figure 1: Example of health pyramid at the district level (after WHO, 1994)

### • Innovation in terms of protocols

In order to take up the challenge of integrating the treatment of severe acute malnutrition (SAM) in the health care systems, ACF-France wishes to invest, in ways to innovate in terms of protocols and nutrition products. Research projects have been developed since 2010.

ACF notably wishes to support partner initiatives to develop new formulae of Ready-to-use therapeutic foods (RUTF) produced locally, in helping testing their efficacy in different programs. New approaches to simplify protocols are currently the subject of scientific studies (research on antibiotics; study on an alternative treatment protocol).



### • The community approach

Community mobilisation is a key element in the strategy of scaling up the treatment of SAM. This element has not yet been given enough attention by decision makers at the international

or national levels (gap discussed at the international conference on scaling up the community treatment of SAM in Addis-Ababa in November 2011 (cf. chapter: dealing with severe malnutrition, page 117). The community is a building block and a major element in dealing with severe acute malnutrition. It is important for ACF to reflect on the strategies for integrating the treatment by taking into account the dynamics of the community. ACF must promote models which are best suited to contexts of intervention based on solid community strategies.

ACF has developed in recent months and must continue to reflect on the community approach and on ways to strengthen the health system. Many “community mobilisation” programs have been set up and functioning in connection with the strategies of prevention mentioned below.

### • HIV and under-nutrition

There is no longer any need to prove the close relationship between HIV and under-nutrition (cf. chapter: HIV & Nutrition, page 161). In countries affected by a high prevalence of infection, a significant proportion of children with SAM also suffer from HIV. ARV treatment is less beneficial among the malnourished compared to those who are not (Zachariah R. *et al*, 2006): the death rate is three times higher among patients with moderate malnutrition and six times higher among patients with severe malnutrition. This is why it is essential for ACF to continue its efforts in order to integrate the elements developed in the “minimum package of intervention on Nutrition and HIV”.

### • Linking relief and development

In order to be involved in the long term ACF has to maintain the full capacity of coping with emergencies for which it has been renowned for 30 years. **ACF must develop its capacity to cope with peak levels of SAM caused by sudden or predictable crises by working (in parallel) on longer-term strategies supporting the health systems** (See chapter: Evolution management of SAM, page 117). The challenge identified today is to succeed in preparing and effectively leading these emergency responses without destabilising the work carried out over the long term. Thus, it is necessary to identify the methods of interventions and responses prior to the crises and to define and setup contingency plans with the different partners. Each mission must include this aspect in its nutrition strategy. **ACF must, furthermore, implement regular evaluation in emergency situations of the possible impact of the crisis on the breastfeeding and nutrition of young children** (example: “baby tents” strategy). Since 2011, fundamental work has been launched by the operations department and its emergency pool. A framework note and an operational guide are in the process of being prepared on this subject.

### • Treatment of moderate acute malnutrition (MAM)

As previously discussed, treating MAM is an issue which has considerably occupied international technical forums (cf. chapter: progress in the treatment of moderate acute malnutrition, page



131). The efficacy of traditional approaches (supplementary feeding centres - SFC) and the lack of scientific evidence have been central in the discussions. ACF has invested time and effort on how to take care of **MAM** by joining international research groups on the issue. Several research tasks have been carried out in this area and are in the process of being completed (RUF Chad, SFP Burma, study of defaulters in Chad...).

Furthermore, ACF has, joined the “MAM task force” working group formed in March 2011 and which comprises five international agencies (PAM; UNICEF; SC-US; CDC). The aim of this new group is to rapidly formulate operational recommendations in terms of intervention (decision tree) and use of MAM products. An international operational scoping note has also been prepared.



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### **PRIORITY FOCUS 3: THE PREVENTION OF ACUTE MALNUTRITION**

The main objective is to develop innovative approaches based on an analysis of the issues which underlie the occurrence of under-nutrition in close collaboration with the food security and livelihoods, water, sanitation and hygiene and mental health/care practice sectors.

#### **• Innovative approaches for the prevention of acute malnutrition**

Traditionally, the nutrition and health sector has heavily invested in the fight against **Moderate Acute Malnutrition (MAM)**, mainly through standardised approaches applied to the majority of contexts (supplementary feeding centres - SFC, distribution of coverage for children under 5 or 3 years - Blanket). The main objective of these approaches was to prevent the onset of SAM and treat peaks of MAM in emergency situations. As stated above, for over two years the international community has been questioning the effectiveness of these interventions. Innovative approaches to prevent MAM have to be developed and alternative interventions to simple distribution of nutritional product devised. Promising leads are the distribution of cash, food vouchers or the promotion of optimal feeding practices. A research project on alternative approaches has thus emerged in 2011 and will be the subject of a PhD.

#### **• Prevention of under-nutrition**

The health and nutrition sector must play an important role in the activities related to the prevention of acute malnutrition which are proposed to the missions.



### ► Strengthening of inter-sector integration

The investment of our teams needs to be strengthened along with other sectors on projects with a nutrition component (vegetable gardens, culinary demonstrations, fresh food vouchers...). Also there is a need to promote complementary and synergistic activities between our different sectors of interventions (in the same vein as the guide developed by the food security and livelihoods sector in 2011 “Maximising the nutrition impact of Food Security and Livelihoods interventions”).



### ► Promotion of health and nutrition

The “promotion of health and nutrition” approaches based on the analysis of representations and behaviours having an influence on the nutritional status of the population have remained embryonic and not much transverse. Yet since 2009, several projects in this area have emerged as projects involving “Apprenticeship and Nutritional Rehabilitation Workshops” (French: Foyers d’Apprentissage et de Réhabilitation Nutritionnelle - FARN) (Ivory Coast, Haiti, Indonesia...). In the future, these approaches will receive very specific attention. The mental health and care practice sector began a fundamental discussion on this subject in 2011. Implementation and evaluation tools will enable us to increase the quality of ACF interventions in this area. Moreover, the important role played by diarrhoea in favouring under-nutrition is unanimously recognised. The health and nutrition sector must promote approaches integrated with the WASH sector, particularly in terms of hygiene promotion.

#### **FOCUS ON THE FARN PROJECT IN HAITI**

This is an approach preventing under-nutrition at community level which targets pregnant women and nursing mothers.

Women are therefore invited each week for two months to come to the community centre in order to follow a series of sessions on education, cooking demonstrations, distributions of packs for growing products, or poultry in order to improve dietary diversification. The results are evaluated based on a comparative evaluation of entry data with exit data.

The methodology has evolved through the different stages and, in the coming months, is going to be the subject of a report.

### ► Ethno-nutrition

The connection between approaches based on products and other “social protection” approaches have not been properly explored yet. Likewise, “ethno-nutrition” projects to evaluate locally grown food produce rich in nutritious elements have emerged. These projects bring together the food security and livelihoods sector and the nutrition and health sectors (a project on bio-fortification is currently being carried out by ACF-Spain).



## FOCUS ON AN ETHNO-NUTRITION PROJECT IN AFGHANISTAN

In 2002, a region of Afghanistan was affected by an outbreak of scurvy. As a first step, ACF distributed vitamin C tablets in order to quickly counteract the outbreak. Then, as a second step, a study was carried out in order to find a natural product able to provide a dose of vitamin C sufficient to prevent a new outbreak. A plant was then identified as a good source of vitamin C and consumed in the traditional way.

### ► Feeding practices of infants and young children

The important work carried out in recent years in terms of **feeding practices of infants and young children** (cf. chapter: Infants and young child feeding (IYCF), page 101) and notably during emergency responses will be capitalized. Our investment in international groups dealing with this subject remains one of our priority and will be continued. An intervention guide on “Baby tents”, from our experience in Haiti as part of the emergency response, is in the process of being completed with the Mental health and care practices sector (MHCP). An international workshop bringing together the teams of mental health and nutrition and health was held in France at the end of 2011 and has once again enabled to train the field teams on this central matter.

### ► Nutritional status of women

Micronutrient deficiency and the nutritional status of women both play an important role in the subsequent undernourishment of children. The window of opportunity (1,000 days) during which prevention of undernourishment is possible spans the nine months from conception to 24 months after birth, thereby taking into consideration the health and nutritional status of women who are pregnant or lactating.

In the next future, ACF wishes to offer this population a more systematic approach in our prevention programs. For a long time, ACF-Spain has implemented programs using innovative activities such as bio-fortification to prevent anemia in situations where this problem is widespread, (particularly in Latin America).



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### ► Chronic under-nutrition

Finally, for the past few months, ACF-France has considered extending its mandate to cover all forms of undernourishment, thereby including chronic malnutrition in a more official manner in its prevention activities. This brings up questions concerning a transversal (inter-sector approach) and, above all, degree of impact. At the beginning of 2011, a review of the literature on chronic



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malnutrition was prepared<sup>8</sup> and a joint effort with ACF-Spain were be launched in 2012 in order to better outline potential interventions.

## STRATEGIC AXES IN TERMS OF THE INTERNAL ORGANIZATION OF THE NUTRITION AND HEALTH SECTOR.

The availability of adequate human resources when needed, the necessity of maintaining high-level technical exchanges between headquarters, the field and the international community, as well as quality assurance, are among the top priorities of the technical department.

### HUMAN RESOURCES

In 2010, recent changes in the approach and intervention methodologies led ACF-France, to redefine the profiles and skills required to carry out ACF Nutrition and Health programs (updating post descriptions, job skills fact sheets). This work was carried out by the department of human resources with the support of the nutrition and health sector.

In addition to the need of reexamining profiles, we have also identified the need to define a strategy that would counterbalance the shortage of professionals with substantial experience in the field of severe acute malnutrition (SAM) treatment and integration within the health system.

- ▶ Projects such as « big and small seed » (ACF-France) and the « mentoring initiative » (ACF-US) have been implemented, their objective is to help field professionals who were recruited as program manager and program coordinator, and who require increased support to carry out their responsibilities.
- ▶ The redesign of health nutrition courses (training on three levels).
- ▶ ACF-France has developed a pilot project to identify and develop the skills and know-how of the international nutrition and health program officers. This project, « West africa Nutrition Capacity Development Initiative », developed with Bioforce<sup>9</sup>, and other international partners (Save the Children, Valid, Concern), was chosen by OFDA and received two years of funding. The first theoretical training session took place from July to September 2012 in Burkina-Faso, and was followed by 3 months of practical work for each participant. A similar project is being developed for South Asia.

8 - Literature review by June Hirsch - "Stunting and catch up growth - reversibility of stunting?" - ACF-France - August 2011

9 - Center for training in local and international solidarity, website: <http://www.bioforce.asso.fr/>



- ▶ Other contacts have been established with other international universities and centers which are dedicated to humanitarian and nutrition education (Nutrition in Emergency Regional Project).
- ▶ Regional training center in Nairobi, where the ACF staff can receive personalized training and optimize their technical skills.
- ▶ Creation of regional pools for SMART Asia and West Africa to be studied in 2012.
- ▶ CMN project : Coverage and monitoring network (SQUEAQ training project).

## **COORDINATION AND TRANSMISSION OF KNOW-HOW**

Headquarters plays an essential role in terms of handling and conveying information coming from the field and international bodies.

### **• Technical advocacy and international coordination**

See tables in appendix, page 227, main partners and forums of ACF)

- ▶ ACF's active participation in the main international technical forums is essential in order to share our field experiences, promote new approaches taken from our research, to carry out our technical advocacy and, in turn, enrich missions with the interesting experiences of other actors. The promotion of ACF approaches and donor advocacy also requires our attention.
- ▶ Coordination with major humanitarian and development actors is also essential. Particular effort was made these last few months to participate actively in international research and coordination initiatives. ACF is an active member of a number of networks, research and coordination groups and, in addition, created in February 2011 an informal group of NGOs working in the field of nutrition and health.

### **• Circulation of information at ACF**

Three channels of information have been identified within ACF and must be strengthened in the next future.

#### **▶ From the field to headquarters**

Organizing the capitalization of experience on innovative projects is of central importance, while other tools such as end-of-mission reports, the APR (Activity Progress Report), statistics and narratives or databases make it possible to promote the exchange of information between the field and headquarters.

► **From headquarters to the field (development of tools/methodologies, supply of information on international reach, progression of research, etc.)**

The necessity to ensure **continued training for the field teams has been identified as a top priority**. Headquarters capacity to supply clear, adequate information/training in due time must be strengthened. Each field visit of a nutrition advisor should be associated with specific objectives with regard to team training.

► **Sharing information within the mission**

A systematized exchange within inter-sector (between professions) teams should be implemented to promote the « transversal » approach, also known as the « integrated » or multisectorial approach. The organization of « sectorial/professional » workshops at least twice a year must be identified as a priority by the coordination team. The aim is to exchange information, transmit know-how and develop a technical strategy. An inter-sector technical workshop for exchange between professionals should take place at least once a year on each mission (in advance of traditional meetings on country strategies).

Regular communication remains the key to guarantee the smooth operation of these three streams of information between sector professionals, whether they are in the field or at headquarters.

Field teams need summary documents allowing them to clearly identify the rationale of the selected approaches and strategies, and to understand the methodologies of the proposed intervention. In addition, technical referents from the various headquarters should benefit from summary documents allowing them to harmonize the ACF approach, and speak with one voice in the international arena (briefing documents, position papers).

The glossary of nutritional terms and this book are tools that have been created to allow ACF teams (in nutrition and health, non-nutrition, in the field or at headquarters) to understand better the nutrition issues at the international level as well as ACF's position.



## **THE QUALITY APPROACH**

To guarantee the quality of interventions is the top priority of the technical department.

• **Quality control of nutritional products**

At present, there is a proliferation of new nutritional products (see chapter: Nutritional Products, page 139) on the market. The nutrition-health sector, in collaboration with the logistics department, pinpointed significant areas which need improvement and updating in



order to control the quality of these new nutritional produce. Several projects were scheduled beginning of 2011: development of an internal validation procedure of Ready-to-Use Therapeutic Food (RUTF) and development of an internal quality control procedure for distributed food.

### • Management and analysis tools

The quality of ACF programs and interventions also derives from the development of management tools which allow a better analysis of our programs and of their typology. The objectives and major priorities mentioned previously must be put in perspective with the reality of our actions. The nutrition and health sector within the ACF network has committed itself to improve the capacity of analyzing of our actions abroad.

The participation in the APR working group along with the operational department has been strengthened. The development of a service management tool allowing for sectorial analysis was carried out beginning of 2011.

Lastly, participation in the ACF « New Deal » initiative and more precisely, the group working on the quality of interventions has been identified as a priority for the sector.



## HUNGER COUNTS



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### **Purpose of the document:**

**Clarify the meaning of different estimates commonly used to describe the number and proportion of people who suffer from hunger and under-nutrition.**



## ESSENTIAL MESSAGES

- The **importance of proper terminology** and not to use words indiscriminately like hunger, undernourishment or under-nutrition, food energy deficiency and so on is essential for ACF.
- **925 million people suffer from chronic hunger /under-nutrition** (FAO).
- The majority of the hungry lives in developing countries, but hunger also occurs in the industrialized world.
- **Malnutrition is a broad term commonly used as an alternative to under-nutrition**, although technically it also refers to over-nutrition (obesity).
- **178 million children stunted/ chronically under-nourished.** (Lancet 2008)
- **112 million children underweight.** (Lancet 2008)
- **55 million children wasted** (acutely under-nourished), and amongst them 19 million children severely wasted (severe acute under-nutrition) at any time. (Lancet 2008)
- The different types of under-nutrition are not necessarily exclusive and they often co-exist within the same child.
- **In 2009, 8.1 million children across the world died before their fifth birthday.**
- Under-nutrition contributes to over a third of these deaths.
- The LANCET considers that around **one million children die each year from severe acute malnutrition.**

It is important to bear in mind that the figures used to qualify hunger and under-nutrition are different. The numbers produced are not always reliable and rarely updated annually.

For more detailed definitions, see "Inventory of definitions commonly used for prevention, diagnosis and treatment of under-nutrition" - ACF August 2011.

The following figures and explanations come mainly from the FAO publication, the State of Undernourishment in the World 2010 and the Lancet series on Maternal and Child Under-nutrition, January 2008.

- ▶ **Hunger** in this sense is a global measure and takes all population groups of a country into account.
- ▶ The figures for **Under-nutrition** concern only children under the age of 5. There are no systematic, comparable data collected at national levels to be able to determine levels of under-nutrition in older children, adults or the elderly, (although there are some data available on the nutritional status of women). There are also methodological difficulties, which would render this task particularly challenging.



# COUNTING HUNGER

## WHAT IS CHRONIC HUNGER / UNDERNOURISHMENT

It is a measure of food deprivation and food insecurity rather than an anthropometric outcome or manifestation of under-nutrition. It refers to the proportion of the population suffering from undernourishment (deprived of access to sufficient food).

**925 million people  
suffer from chronic hunger /  
under-nutrition**

(FAO 2010)

## HOW IS IT CALCULATED?

The estimates of undernourishment / chronic hunger are based on calculations of the amount of food available in each country (national dietary energy supply) and a measure of inequality in distribution, derived from household income / expenditure surveys<sup>10</sup>.

The FAO chronic undernourishment measure endeavors to capture the proportion and number of people in each developing country, “whose food access is deemed to be inadequate”. It is based on three statistics:

- ▶ Daily per capita dietary energy supply
- ▶ Coefficient of Variation (CV) in dietary energy intakes
- ▶ Minimum daily per capita dietary requirement

The combination of these three figures provides the percentage of chronically undernourished. (Refer to the annexes to have more details about the calculation methods above).

The number of undernourished in each country is calculated using the total population size<sup>11</sup>.

## HOW MANY ARE HUNGRY IN EACH REGION?

FAO estimates that a total of 925 million people were undernourished in 2010 compared with 1 billion in 2009. This number is higher than before the food and economic crises of 2008-2009 and higher than the level that existed when world leaders agreed to reduce the number of hungry by half during the World Food Summit in 1996.

10 - The state of Food Insecurity in the World 2002 FAO.

11 - IFPRI, Can FAO's Measure of Chronic Undernourishment be strengthened. Lisa C Smith. May 1998.

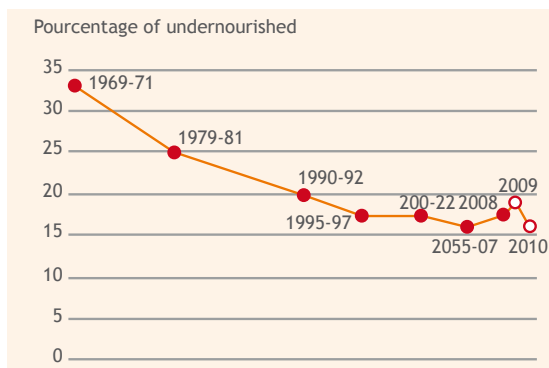


Figure 2: proportion of undernourished people in developing countries 1969-1971 to 2010 (source FAO)

The majority of hungry people lives in developing countries, but hunger also occurs in the industrialized world. Asia and the Pacific is home to the largest number of hungry while sub-Saharan Africa has the highest prevalence of hungry, with one out of three individuals being undernourished. Twenty-nine countries still have levels of hunger that are “extremely alarming” or “alarming.” The countries with “extremely alarming” 2010 GHI scores - Burundi, Chad, the Democratic Republic of Congo, and Eritrea - are in Sub-Saharan Africa. Most of the countries with “alarming” GHI scores are in Sub-Saharan Africa and South Asia. The largest deterioration in GHI scores was seen in the Democratic Republic of Congo, largely because of conflict and political instability<sup>12</sup>.

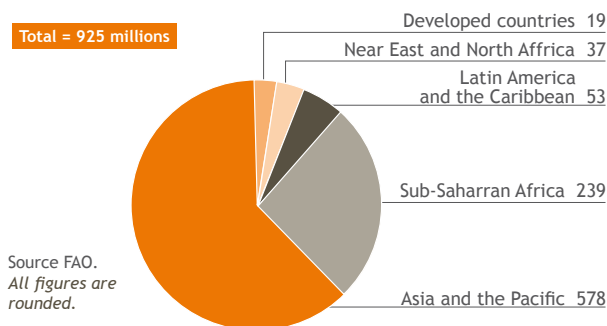


Figure 3: Undernourishment in 2010 by region (millions)

12 - <http://www.ifpri.org/publication/2010-global-hunger-index>

## THE FIGURES OF UNDERNOURISHED USED BY ACF

36 countries identified in Lancet that carry 90% of the stunting burden for which financing needs are estimated (Black <i>et al.</i> 2008)		Malnutrition «Hots Spots»: Population Reference Bureau 2007, World Population Data WHO Analysis of national nutritional surveys 2001-2006 UNICEF - The state of the World's Children 2008	List of countries we should look at are as following:
<ol style="list-style-type: none"> <li>India</li> <li>Indonesia</li> <li>Nigeria</li> <li>Bangladesh</li> <li>Pakistan</li> <li>Ethiopia</li> <li>DRC</li> <li>The Filipinas</li> <li>Viet Nam</li> <li>Afghanistan</li> <li>Tanzania</li> <li>Uganda</li> <li>Sudan</li> <li>Yemen</li> <li>Nepal</li> <li>Kenya</li> <li>Myanmar</li> <li>Egypt</li> <li>Madagascar</li> <li>South Africa</li> <li>Mozambique</li> <li>Niger</li> <li>Angola</li> <li>Turkey</li> <li>Malawi</li> <li>Iraq</li> <li>Guatemala</li> <li>Mali</li> <li>Ghana</li> <li>Burkina Faso</li> <li>Zambia</li> <li>Peru</li> <li>Cambodia</li> <li>Cameroon</li> <li>Ivory Coast</li> <li>Burundi</li> </ol>	>15% Acute Malnutrition	<ol style="list-style-type: none"> <li>Burkina Faso</li> <li>Chad</li> <li>Democratic Republic of Congo</li> <li>Eritrea</li> <li>India</li> <li>Lao People's Democratic Republic</li> <li>Madagascar</li> <li>Mauritania</li> <li>Sudan</li> <li>Yemen</li> </ol>	
	>10% Acute Malnutrition	<ol style="list-style-type: none"> <li>Bangladesh</li> <li>Central Africa Republic</li> <li>Comoros</li> <li>Ethiopia</li> <li>Guinea</li> <li>Guinea Bissau</li> <li>Haiti</li> <li>Mali</li> <li>Myanmar</li> <li>Namibia</li> <li>Nepal</li> <li>Niger</li> <li>Nigeria</li> <li>Pakistan</li> <li>Sierra Leone</li> <li>Somalia</li> <li>Timor Leste</li> <li>Togo</li> </ol>	<ol style="list-style-type: none"> <li>India</li> <li>Nigeria</li> <li>Bangladesh</li> <li>Pakistan</li> <li>Ethiopia</li> <li>Democratic Republic of Congo</li> <li>Sudan</li> <li>Yemen</li> <li>Nepal</li> <li>Myanmar</li> <li>Madagascar</li> <li>Niger</li> <li>Mali</li> <li>Burkina Faso</li> </ol>
	>4% Acute Malnutrition	<ol style="list-style-type: none"> <li>Afghanistan</li> <li>Angola</li> <li>Benin</li> <li>Burundi</li> <li>Cambodia</li> <li>Cameroon</li> <li>Democratic Republic of Congo</li> <li>Ivory Coast</li> <li>Equatorial Guinea</li> <li>Ghana</li> <li>Iraq</li> <li>Kenya</li> <li>Korea</li> <li>Liberia</li> <li>Malawi</li> <li>Mozambique</li> <li>Rwanda</li> <li>Tanzania</li> <li>Uganda</li> <li>Zambia</li> <li>Zimbabwe</li> </ol>	These countries have at least > 10% acute malnutrition AND are also appear among the list of 36 countries that carry 90% of the stunting burden for which financing needs are estimated, Black <i>et al.</i> 2008

Figure 4: Classification of countries suffering from undernourishment used by ACF



## UNDER-NUTRITION COUNTS

### WHAT IS MALNUTRITION?

Malnutrition is a broad term commonly used as an alternative to under-nutrition, although technically it also refers to over-nutrition (obesity). People are malnourished if their diet does not provide adequate nutrients for growth and maintenance, or if they are unable to fully utilize the food they eat due to illness (under-nutrition). Malnutrition often results from economic political and socio-cultural factors. People are also malnourished if they consume too many calories (over-nutrition). Underweight (including both stunting and / or wasting), overweight and micronutrient deficiencies are all forms of malnutrition<sup>13</sup>.

#### TERMINOLOGY / BE AWARE

Proper terminology is important, so do not use words indiscriminately i.e.: hunger, undernourishment or under-nutrition, food energy deficiency and so on.

While this is well understood, it is also true that as one moves from the technical field to that of politicians and public opinion, it is difficult to adhere to strict terminology and, even more, to avoid using public terminology.

The case of “hunger” is very clear. We all know that when the word “hunger” is used, it generally has a very loose, unscientific meaning, but everybody understands it, and therefore it tends to invade a broader field sometimes inappropriately. The ACF teams must remain aware of the terms they use.

### WHAT ARE THE DIFFERENT TYPES OF UNDER-NUTRITION?

Under-nutrition is one of the malnutrition types (over-nutrition being the other).

It includes:

- ▶ Being underweight for one's age, (underweight)
  - ▶ Too short for one's age  
(stunted - Chronic under-nutrition)
  - ▶ Dangerously thin for one's height  
(wasted - acute under-nutrition)
  - ▶ Deficient in vitamins and minerals  
(micronutrient malnutrition)<sup>14</sup>
- ▶ 178 million children stunted/  
chronically under-nourished
  - ▶ 112 million children  
underweight
  - ▶ 55 million children wasted  
(acutely under-nourished),  
and amongst them 19 million  
children severely wasted  
(severe acute under-nutrition)  
at any time

*(Lancet: Dénutrition Maternelle et  
infantile - Séries janvier 2008)*

13 - White paper\_Taking Action: Nutrition for survival,  
Growth & development\_ACF-In 2010

14 - Adaptation from UNICEF

The different types of under-nutrition are not necessarily exclusive and often co-exist in the same child.

The three forms that can be classified using anthropometric (body measure) data are explained in more details below.

### • Stunting/ Chronic under-nutrition

Stunting, also known as chronic under-nutrition reflects a child's nutritional history. (cf. chapter on Chronic malnutrition, page 147).

**Stunting significantly increases the likelihood of premature death. Stunted children are more vulnerable to infection, experience impaired cognitive development and low work capacity during adulthood.**

Stunting is a linear growth retardation and is thereby indicated by a low height-for-age

Ex: A 4 years old child who has a height of a 3 years old child

### • Under-weight

Underweight is a composite form of under-nutrition including elements of stunting and wasting. This index does not indicate whether the child has a low weight-for-age because of a low weight or a low height for his age.

Even nonspecific, this measure is frequently the only one collected in national nutrition programs.

Underweight is defined by a low weight for age

Ex: A 6 months child of 3.2kg

### • Acute Under-nutrition/ wasting

Acute under-nutrition reflects recent weight loss as highlighted by a small weight for a given height. Acute under-nutrition occurs as a result of a recent shock to a child's nutritional status, which can result from food shortage, a recent bout of illness, inappropriate care practices or a combination of these factors.

**Severely acutely malnourished children are very susceptible to infections and death.**

**There are two forms of acute under-nutrition: Wasting and Kwashiorkor.**

Under-nutrition is defined by a small MUAC and/or weight for a given height

### • What is wasting and what is kwashiorkor?

Wasting is indicated by severe loss of weight (low weight-for-height), such that a child is clinically thin. Kwashiorkor is a severe form of acute under-nutrition indicated by bilateral pitting oedema. (cf. chapter on Mechanism of installation of under-nutrition, page 85).

### • How are these figures calculated?

The prevalence of stunting, underweight and wasting worldwide is based on the meta-analysis



of 388 national surveys from 139 countries, applying comparable methods, including the use of the new WHO Child Growth Standards (2006).

In the Lancet series, **the figures for the type of severe acute under-nutrition known as Kwashiorkor are not shown.** This severe form of acute under-nutrition can represent a large proportion of children admitted into therapeutic feeding programs. Thus the figures provided by the Lancet series are **probably an underestimate of the global burden of acute under-nutrition.** At the same time our field teams often confront the figures used for the development of these figures (MICS or DHS nutrition surveys) and feel that they don't always represent the reality observed on the field (wasting figures often overestimated).

### • How many children are stunted?

For all developing countries, an estimated 32% (178 million) of children younger than 5 years had a height-for-age Z score of less than -2 in 2005. Eastern and middle Africa have the highest prevalence estimates with 50% and 42% respectively; the largest number of children affected by stunting, 74 million, live in south-central Asia.

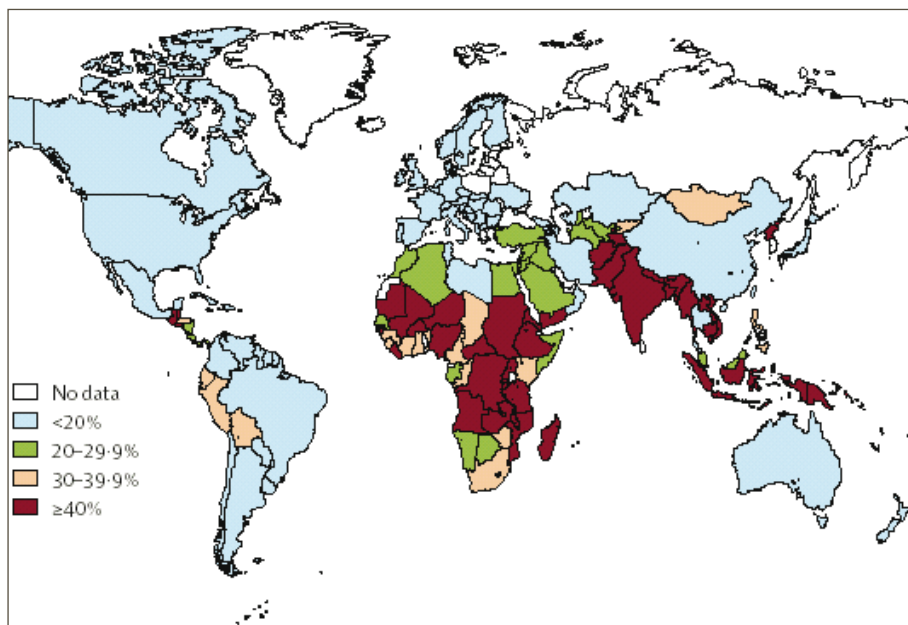
Out of the 40 countries with a prevalence of child stunting of 40% or more, 23 are located in Africa, 16 in Asia and one in Latin America. Out of the 52 countries with prevalence under 20%, 17 are in Latin America and the Caribbean, 16 in Asia, 11 in Europe and four in Africa and Oceania (see figure 5). Taking into account only the countries with a stunting prevalence of 20% or more, 36 countries account for 90% of all stunted children worldwide. Twenty one of these countries are in Africa and although fewer countries are in Asia (13), the latter account for 61% of the total stunted children because of their large populations.



L'Inde, avec une prévalence de retard de croissance estimée à 51%, a plus de 61 millions d'enfants qui ont un retard de croissance, c'est-à-dire 34% du total global. Cependant, cette prévalence varie considérablement selon les états à l'intérieur de l'Inde. A l'intérieur des pays, la prévalence de retard de croissance est généralement plus haute pour les couches les plus pauvres de la population.

### • How many underweight children?

In 2005, 20% (112 million) of children younger than 5 years in low-income and middle-income countries had a weight-for-age Z score of less than -2. Prevalence were highest in south-central Asia and eastern Africa where 33% and 28% respectively were underweight.



Source: Lancet Maternal and Child Undernutrition series paper 1

*Figure 5: Prevalence of Stunting in children under 5 years.*

### • How many wasted children?

The global estimate of wasting (weight-for-height Z score of less than -2) is 10%, 55 million children.

South-central Asia is estimated to have the highest prevalence (16%) and number of childrens affected (29 million). The same regional pattern is seen for severe wasting (weight-for-height Z score of less than -3), often used as a criterion for therapeutic feeding interventions, with a prevalence of 3.5% or 19 million children.

**The highest percentages of children with severe wasting are seen in south-central Asia and middle Africa.** Out of the 36 countries with 90% of stunted children, the prevalence of severe wasting varies from 0.1% to 12%<sup>15</sup>.



## UNDER FIVE MORTALITY

### WHY ARE CHILDREN MORE VULNERABLE TO DEATH?

During childhood, the immune system is under construction and even if a child has been exclusively breastfed during the first 6 months of life, gaining immune defenses from his mother, **children are quite vulnerable to illness** during the first years of life since they do not have yet acquire all their immune defenses. When a child is sick the body needs to spend more energy to fight illness and so increases the needs of nutrients intake. Most often a sick child loses its appetite (anorexia)...

The energy needs of a child are larger than those of an adult (Kcal number per kg of weight), but the energy stocks are less. The frequency of meals reduces gradually (during childhood) while the proportion of energy stocks increases. **This explains why, in periods of stress and food shortage the children are the first to be affected by undernutrition.** It also explains why diseases can have a greater impact on children's nutrition status.

In addition children are totally dependent on adults for their general care (hygiene, feeding, health...).

### IMPLICATION OF UNDER-NUTRITION IN UNDER 5 MORTALITY

In 2009, **8.1 million children across the world died before their fifth birthday.**

Most of these children lived in developing countries and died from a disease or a combination of diseases that could easily have been prevented or treated. **Under-nutrition contributes to over a third of these deaths<sup>16</sup>:** Depending on the reference source, under-nutrition is associated with between 35% and 56% of all deaths among children below the age of five<sup>17</sup>.

In 2008 the LANCET estimated that stunting, severe wasting, and intrauterine growth restrictions were responsible together for 2.2 million deaths of under 5 children. **Suboptimum breastfeeding, especially non-exclusive breastfeeding in the first 6 months of life, results in 1.4 million deaths and 10% of the disease burden in children younger than 5 years.**

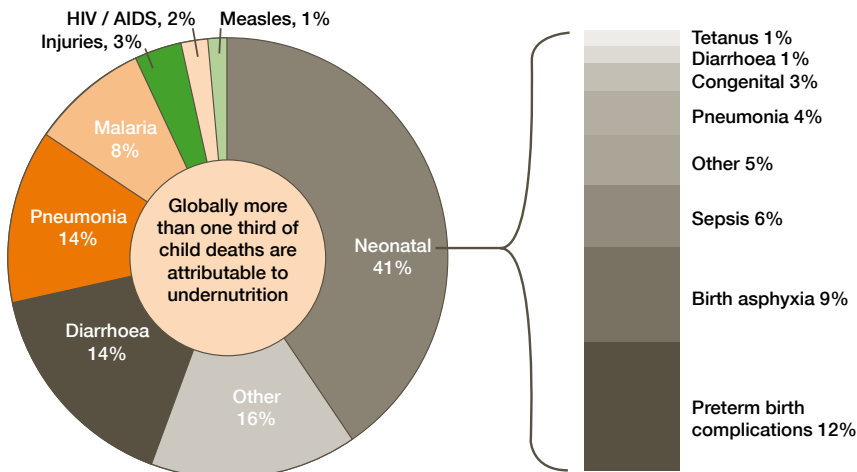
Although data on mortality associated with Severe Acute Malnutrition (SAM) is scarce, the case fatality rates of children hospitalized for severe malnutrition can range from 10-40%. The LANCET considers that around **one million children** die each year from severe acute malnutrition.

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16 - <http://www.childinfo.org/mortality.html>

17 -White paper\_Taking Action: Nutrition for survival,





Source: OMS/Child Health Epidemiology Reference Group (CHERG) from the Lancet June 2010

Figure 6: Causes of under-five deaths in 2008

## CONTEXT

High levels of child mortality are seen particularly in sub-Saharan Africa and South Asia, and in recent years little or no progress in reducing the number of child deaths has been noticed. Global progress is insufficient to achieve MDG 4 (Reduce child mortality).

An analysis carried out in 63 developing countries indicates that child mortality is considerably higher among children living in rural areas and in the poorest households.



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## MILLENNIUM DEVELOPMENT GOALS (MDGs)<sup>18</sup>

### MDG 1: REDUCE POVERTY, HUNGER AND UNDER-NUTRITION

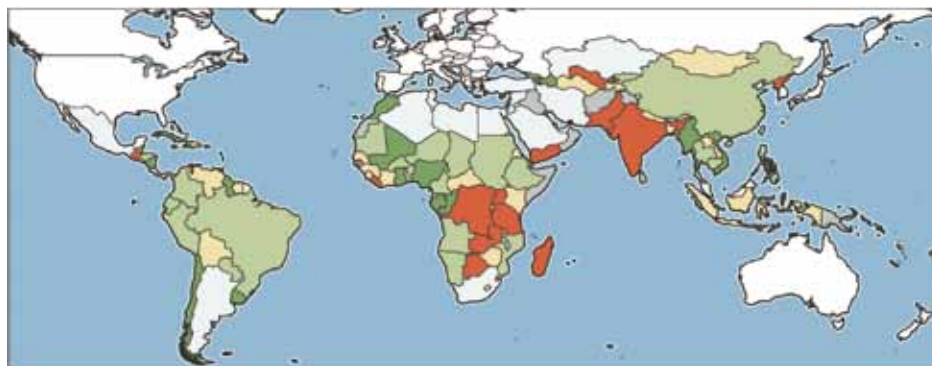
One indicator to monitor progress for this target is the proportion of children who are underweight. This anthropometric indicator is not specific, as it can indicate wasting (low weight-for-height index) or much more commonly, stunting (low height-for-age).

The number of people suffering from hunger has decreased but remains at an unacceptable level.

Despite this decline, the possibility of achieving the objectives of fight against hunger such as MDG 1 is still uncertain.

FAO estimates that a total of 925 million people were suffering from hunger in 2010, as compared to 1,023 billion in 2009. This figure remains above the level reached before the food and economic crises of 2008 and is also higher than during the World Food Summit of 1996, when world leaders agreed to reduce by half the number of hungry.

**MDG 1:**  
To halve between  
1990 and 2015  
the proportion of  
people who suffer  
from hunger.



Source: FAO/IFAD 2010 (www.fao.org/hunger/).  
Note: Cible 1C du premier objectif du Millénaire pour le développement, soit une réduction de moitié de la proportion des personnes souffrant de la faim entre 1990 et 2015. Le calcul de progrès compare les dernières informations disponibles de l'état des pays sur la prévalence de la sous-alimentation 2005-07 avec les taux qui existaient en 1990-92 (la période de référence pour l'objectif de la faim). La projection pour 2015 suppose que les tendances entre ces deux périodes sont se poursuivre à l'avenir. Les pays développés ne sont pas considérés.

Progress attained (1990-92 - 2005-07)

- A déjà atteint la cible ou est très près de l'atteindre
- Progrès suffisants pour atteindre la cible si les tendances actuelles perdurent
- Progrès insuffisants pour atteindre la cible si les tendances actuelles perdurent
- Aucun progrès ou détérioration de la situation
- Pas pertinent (le taux de sous-alimentation était inférieur à 5% en 1990)
- Données manquantes ou insuffisantes

Les données relatives à la prévalence de la sous-alimentation de la part de la FAO, à moins qu'il ne soit spécifié, se réfèrent à la période de 2005-07, à moins qu'il ne soit spécifié, se réfèrent à la période de 1990-92.



www.fao.org

Figure 7: Progress towards achieving first Millennium Development Goal

## **MDG 4: REDUCE CHILD MORTALITY**

Globally, the number of deaths among children under five has fallen from 12.4 million in 1990 to 8.1 million in 2009. **Under-five mortality is increasingly concentrated in a few countries.** About half of global under-five deaths in 2009 occurred in only five countries: India, Nigeria, Democratic Republic of the Congo, Pakistan and China. India with 21% and Nigeria with 10%, together account for nearly a third of under-five deaths worldwide.

Since 1990 the global under-five mortality rate has fallen by a third - from 89 deaths per 1,000 live births in 1990 to 60 in 2009:

- ▶ All regions except Sub-Saharan Africa, Southern Asia and Oceania have seen reductions of at least 50 percent.
- ▶ Northern Africa and Eastern Asia have made the most progress in reducing under-five mortality.

Some 40% of under-five deaths occur within the first month of life, and some 70% occur within the first year of life.

The two biggest killers of children under age five are pneumonia (18 percent of deaths) and diarrheal diseases (15%). **Although severe acute under-nutrition is responsible for a large part of deaths in under-five children, it remains insufficiently considered as a main cause.**

The rate of decline of under-five mortality remains insufficient to reach Millennium Development Goal 4, particularly in Sub-Saharan Africa, Southern Asia and Oceania<sup>19</sup>.

## **MDG 5: IMPROVE MATERNAL HEALTH**

To have good maternal health, we need reproductive health services quality and a range of interventions properly spaced to ensure a safe passage to maternity. It should be noted that most causes of maternal deaths could be avoided. (It is possible to prevent or manage the bleeding which accounts for nearly one third of all deaths).

### **MDG 4:**

**To reduce child mortality by two thirds between 1990 and 2015.**

### **MDG 5:**

- **Reduce by three quarters maternal mortality rate before 2015.**
- **Provide universal access to reproductive health before 2015.**

<sup>19</sup> - Levels & Trends in Child Mortality Report 2010\_Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation

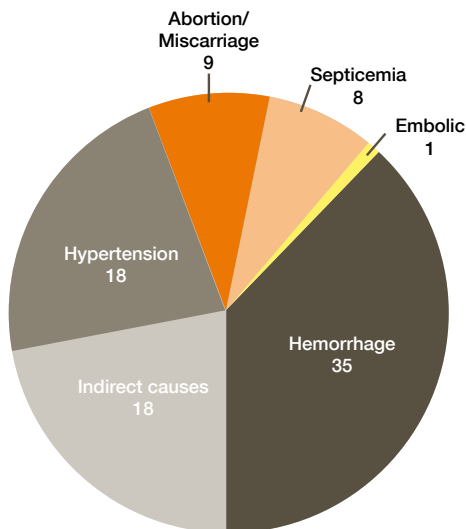


Figure 8: Causes of maternal mortality, in developing regions, UNICEF 2010

In every developing region, maternal mortality rate has declined by 34% from 1990 to 2008: i.e.: from 440 maternal deaths per 100,000 live births to 290. However, the objective is still far away (the MDG target is 5.5 percent).



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## MDG 6: FIGHT HIV/AIDS, MALARIA AND OTHER DISEASES

The latest epidemiological data indicate that, globally, the spread of HIV probably peaked in 1996, when 3.5 million people were newly infected. By 2008, that number had decreased to an estimated 2.7 million. AIDS-related mortality peaked in 2004, with 2.2 million deaths. By 2008, the toll dropped to 2 million, although HIV remains the world's leading infectious killer.

### MDG 6:

- To halt and begin to reverse the spread of HIV/AIDS by 2015.
- Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it.

The spread of HIV appears to have stabilized in most regions, but then more people survive longer.

Prevalence continues to rise in Eastern Europe, Central Asia and other parts of Asia due to a high rate of new HIV infections. Sub-Saharan Africa remains the most heavily affected region, accounting for 72 per cent of all new HIV infections in 2008.

Though the number of new infections has peaked, the number of people living with the virus is still increasing, largely due to the life-sustaining impact of antiretroviral therapy. An estimated 33.4 million people were living with HIV in 2008, of which 22.4 million were in sub-Saharan Africa. **But the rate of new HIV infections continues to outstrip the accessibility to treatment.**

An estimated 17.5 million children (under age 18) lost one or both parents to AIDS in 2008.



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### Site Internet

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- UNICEF: <http://www.unicef.org/>
- Child info: [www.childinfo.org](http://www.childinfo.org)

## ANNEXES

### Daily per capita dietary energy supply

The energy (in kilocalories) available for human consumption per day from the food supply, divided by the population. It is a measure of national food availability calculated from FAO food balance sheets for each country using food production and trade data.

### Coefficient of Variation (CV) in dietary energy intakes

An estimate of the variability in dietary energy intake across a country's population. The CV is a measure of the distribution of dietary energy intake within a country. It is a summary measure of the inequalities in the distribution of total energy available, equal to the standard deviation of each country's dietary intakes, divided by the mean distribution (from nationally representative household food consumption or expenditures surveys or projected from measures of income (or total expenditure), or are set as equal to the regional mean CV estimated for other countries).

### Minimum daily per capita dietary requirement

A cut-off point, below which the average person in the country would not be meeting his or her minimum daily dietary energy requirements. Minimum energy needs of age and sex differentiated groups are determined and are then aggregated to arrive at the "typical" person's energy requirement through a population-weighted average of the age-sex groups requirements.



## PUBLIC HEALTH



**Purpose of the document:**  
**Understand the essentials of the public health approach.**



## ESSENTIAL MESSAGES

- Public health includes all the interventions/strategies aimed at the reduction/disappearance of a health problem by fighting all its determining factors (example: ACF multi-sector approach aim at the eradication of under-nutrition).
- Public health is a discipline which takes care of the global health of populations in all its aspects: curative, preventive, educational and social. The objective is to implement systems and actions to promote health.
- Its intervention indeed is, not only on health, but also on the factors which contribute to modify health.
- The promotion of health is the process which confers to the populations the means to ensure better control and improvement of their own health.
- The health sector alone cannot ensure the preliminary and future frame as to the most suitable way to good health. Health promotion requires in fact, the coordinated action of all those interested: the governments, the health sector and all the other social and economic sectors.
- Contrary to popular belief, health promotion is not the exclusive domain of the health and nutrition sector, but also concerns the Food Security, Care practices and WASH sectors.

## WHAT IS PUBLIC HEALTH?

### DEFINITION OF HEALTH

3 types of definitions for health:

- ▶ Absence of disease, disability (biomedical concept)
- ▶ A state of physical, mental and social well-being (WHO 1946)
- ▶ Permanent capacity of adaptation to an environment/equilibrium, harmony of all human-being possibilities, biological, psychological and social (dynamic aspect of health)



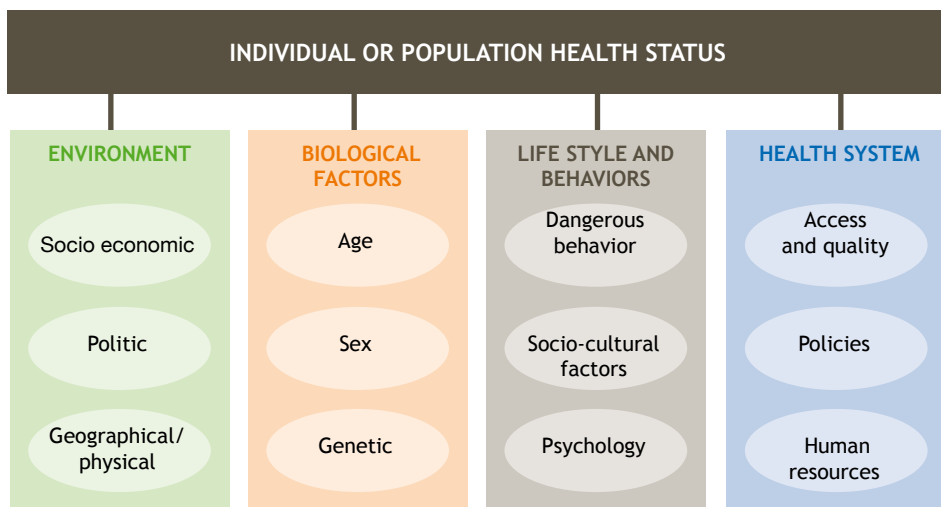


Figure 9: individual and population health status determinants

## DEFINITION OF PUBLIC HEALTH

1952: Public health was defined as the science and art of preventing diseases, improving and extending life, health, mental and physical vitality of individual through a concerted collective action which aimed to:

- ▶ To clean the environment, to fight diseases, to teach individuals private sanitation rules,
- ▶ To organize medical and nursing services in order to reach early diagnoses and prevent diseases,
- ▶ To implement social measures in order to ensure to each member of the community a standard of lifestyle compatible with good health. The final objective being to allow every individual to enjoy his/her innate rights for health and life.

Traditionally, the notion of public health covered essentially sanitation and the fight against catching diseases. However its scope has gradually grown.

The collective approach of public health was transformed little by little into the notion of public well being which implies the recognition of common values. Public health is not only the application of techniques, it is also gathering the people around shared values, and as such, it enters the political field. This "new" public health definition is based on a better understanding of how lifestyle and



living conditions determine health. The importance of the other sectors besides the health sector, and the necessity of mobilizing resources and political supports are also underlined. The problems are defined in a global context which leads to environmental preoccupations.

The practices of public health are based on analyses that propose acceptable, accessible, practical answers for the individuals and for society. Public health relies on methods stemming from various sectors: epidemiology which studies the frequency and distribution in time and space of health problems in populations, as well as the factors responsible for these problems (descriptive epidemiology, analytical and explanatory epidemiology or etiology and evaluative epidemiology), social sciences, health economy, medicine, demography, bio-statistics, engineering sciences. Etc...

Public health became an autonomous discipline (in the 80s). It takes care of the global health of populations in all its aspects: curative, preventive, educational and social. Its objective is the implementation of systems and actions of health's promotion.

We can say that public health is a sphere of action whose objective is the improvement of the health of populations. Public health is not oppose to personal health, but manages health problems at the collective level. It renews its knowledge through research and transforms knowledge into know-how. Public health is at the interface between the population, the health administration and the medical professions.

### • Public health: a multidisciplinary area

The outlines of public health as a discipline have moved constantly during these last years: it succeeds medical hygiene and preventive medicine. Today, Public health includes all the interventions in relation to the health of individuals and of communities, and thus it is extending beyond the field of medicine into economics and social awareness. We could say that it is a practical approach having health policies for object. Favoring inevitably a community approach, it has also to take into consideration the individuals, in particular those in the process of marginalization or exclusion, often revealing general dysfunctions in the social community.



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Its intervention indeed is not only around health, but also on the factors which contribute to modify it: elements of the physical and social environment, working and housing conditions, and the process of school or professional training. It exceeds then the strict technical domain of health to address questions of society, choices where health policies give way to the politic.

(BRUCKER G., FASSIN D. 1989)

## THE DIFFERENCE BETWEEN HEALTH PROBLEM AND PUBLIC HEALTH PROBLEM

**Health problem:** individual and group.

**Public health problem:** wider use: refers to the health definition and its determinants.

Two main types of criteria are usually used to assert that a health problem is a problem of public health:

- ▶ **Frequency:** it has to concern a large number of persons
- ▶ **Consequences** at three levels:
  - Gravity of the phenomenon (that is susceptible to lead to important changes in the quality of life of the patients, major incapacity or death)
  - Implications regarding the care system, requiring an important mobilization of resources and the energy of the professionals;
  - The cost which can be high for the society, the care system and/or the concerned individuals.

## HEALTH PROMOTION

Health promotion aims at giving to the individuals more control over their own health and more means to improve it. To reach a state of physical, mental and social well-being, the individual, or the group, must be able to identify and realize its ambitions, satisfy its needs and evolve with the environment or adapt to it. Health is thus perceived as a resource for daily life, and not as the purpose of life; it is a positive concept emphasizing social and personal resources, and physical abilities. Thus, health promotion includes besides the health sector the complete well-being of the individual.

“The promotion of health is the process which confers to the populations the means to ensure a bigger control over their own health and its improvement.”



#### FUNDAMENTALS CONDITIONS OF HEALTH:

- ▶ Peace
- ▶ Shelter
- ▶ Education
- ▶ Food
- ▶ Income
- ▶ Stable ecosystem
- ▶ Durable resources
- ▶ Social justice
- ▶ Equity



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### ADVOCACY FOR HEALTH

Good health is a major requirement for social, economic and individual development and is an important dimension of the quality of life. Many factors - political, economic, social, cultural, environmental, behavioral and biological - can promote or impair good health. **Health promotion aims at creating, the favorable conditions essential for the self-fulfillment of health.**

### ENABLE/IMPLEMENT THE MEANS

The effort of health promotion aims at the equity in health. The purpose is to reduce the current differences in health status and to give to each individual the means and the opportunities necessary to fulfill completely their health potential. It supposes in particular that individuals can rely on a favorable environment, have access to information, possess the necessary capacities to make sensible choices in health and to know how to benefit from the opportunities they are offered to opt for a healthy life. Without grip on the diverse parameters which determine the health, neither women nor men can hope to attain optimal health.

### INTER-SECTOR COORDINATION

**The health sector alone cannot ensure the most convenient preliminary and future frames of health.** Health promotion requires the coordinated action of different actors: the government, the health sector and other social and economic sectors, non-governmental and voluntary organizations, local authorities, industries and media. Whatever is their environment, people are brought to intervene as individuals, or as members of a family or a community.

The professional and social groups, as well as health workers are particularly responsible for the mediation between the divergent interests which often occur in the society in relation to health. **The programs and the strategies of health promotion must be adapted to the local possibilities and needs of the countries and regions and take into account the diverse social, cultural and economic systems.**

## CONCEPT OF HEALTH PROMOTION:

### THE 5 MAIN LINES OF OTTAWA CHARTER (1986)

#### 1. Build healthy public policy

The question of health arises in every political decision-making in all the sectors

#### 2. Create supportive environments

Working and living conditions, environment

#### 3. Strengthen community action

Effective and concrete participation of the community in the decisions concerning health

#### 4. Develop personal skills

Information, education for the health care, development of the psychosocial skills

#### 5. Reorient health services

Refocus on all the needs of an individual considered in its totality

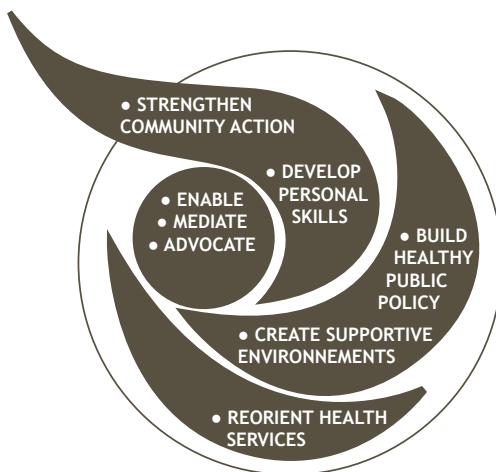


Figure 10: The Ottawa charter [http://www.who.int/hpr/NPH/docs/ottawa\\_charter\\_hp.pdf](http://www.who.int/hpr/NPH/docs/ottawa_charter_hp.pdf)



Contrary to popular belief, health promotion is not the exclusive matter of the health and nutrition sector.

Indeed when the WaSH department implements programs to improve the environment, or when the food security department is working with the Ministry of Agriculture to improve access to a better dietary diversity, these are interventions to promote health with the objective in fine of preventing under nutrition.

## INTERVENTION IN PUBLIC HEALTH

### THE TRIAD NEEDS-DEMANDS-RESPONSES

Applied to public health, this triad structures the reflection around the needs of health of populations, the demands or the absence of demands of the populations towards health and the responses of the health system and more widely the social system. The reflection has for object, in a public health approach, to direct the responses to the priority needs, to optimize these responses so that they match the demand and thus are really useful for the population.

The scheme below shows that the relations between needs, demands of health and the existing responses are not yet in adequacy. Certain needs are not the object of a demand; others are not covered by the action of a service: certain demands would not seem to correspond to a need, even if services responded, etc. The central zone, on the other hand, represents the "ideal" situation: to a need, corresponds an expressed demand and the services respond to both.

This triad is a key model which has to guide the reflection in public health; it enlightens the necessary consideration from the point of view of the persons aimed at by the action, the preliminary analysis of the present health status of the target population, and the indispensable consideration of the already available responses with their strengths and their weaknesses.

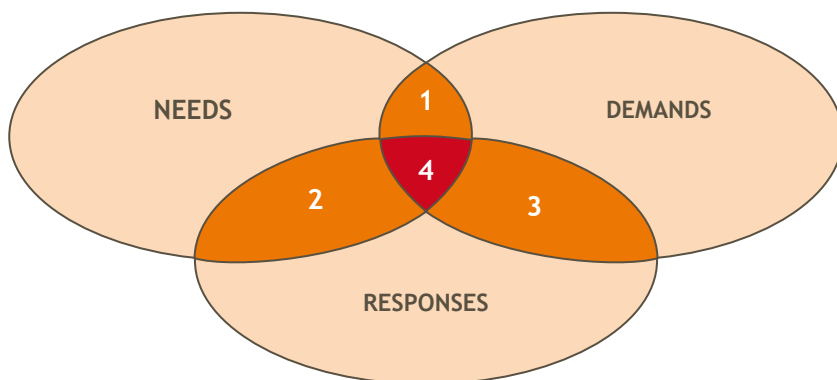


Figure 11: Diagram triad needs-demands-responses

#### Interpretation example:

1. A situation of dissatisfaction or discontent because there are needs and demands but there is no response.  
*Ex: a country with a significant number of cases of malnutrition but no health policy to meet this demand for care.*
2. Underutilization of health services. Indeed there is a need and a response but there is no demand.  
*Ex: The nutritional centers are there, the prevalence is important, but malnourished children do not come to the center (ignorance of the program)*
3. Underutilisation of health services. There is a demand and a response but no needs.  
*Ex: Admission of non-malnourished children in a program to keep the service running (misuse of the service)*
4. Ideal situation.  
*Ex: the means used are proportionate to the health needs and demands.*



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## NUTRITION IN 5 MINUTES



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**Purpose of the document:**  
Provide a tool that allows non-technical teams  
to acquire general notions in Nutrition.



## ESSENTIAL MESSAGES

- **Nutritional security** exists when food security (or “when the secure access to adequate nutritious food”) is **coupled** with a favourable health environment, adequate health and care services and suitable feeding practices in order to ensure a healthy life for all members of the household.
- **Under-nutrition** is one of the two types of malnutrition. It is defined as the outcome of insufficient food intake or repeated infectious diseases, often due to economic political and socio-cultural factors.
- During childhood, energy needs are higher than in adults. In young children the proportion of vital organs is much more important than the energy stocks. This explains why, in periods of stress and food shortages children are the first to be affected.
- During pregnancy and breastfeeding, the maternal body needs some 2500Kcal per day, the increase in energy intake is necessary to meet the nutritional needs of the baby. If undernourished during pregnancy, because of the lack of sufficient food, the maternal body uses its natural reserves at the expense of the growth of the foetus.

## NUTRITION DEFINITION

### NUTRITION DEFINITION

The collection of processes whereby living organisms utilize food to ensure life, growth, and the normal functioning of their organs and tissues as well as the production of energy.

The idea of ‘nutrition’ is often referred to as ‘feeding’, but the two terms are not synonymous.

For more details refer to "Glossary of terminology used for the prevention, diagnosis and treatment of under nutrition" - ACF, December 2011.

## FOCUS ON NUTRITIONAL SECURITY

Nutritional security is a widely used, but often misunderstood concept. The vast majority of key international players use this concept, without giving a clear definition of it.

### Definition:

**Nutritional security** exists when food security (or “when the secure access to adequate nutritious food”) is coupled with a favourable health environment, adequate health and care services and suitable feeding practices in order to ensure a healthy life for all members of the household (Shekar M, 2009; UNSCN, 2010; SUN, 2010).

**Nutritional insecurity** prevails when food insecurity is coupled with an unfavourable health environment, inadequate health and care services and feeding practices which lead to a poor lifestyle for some members of the household.

*A briefing document is in the process of being prepared.*

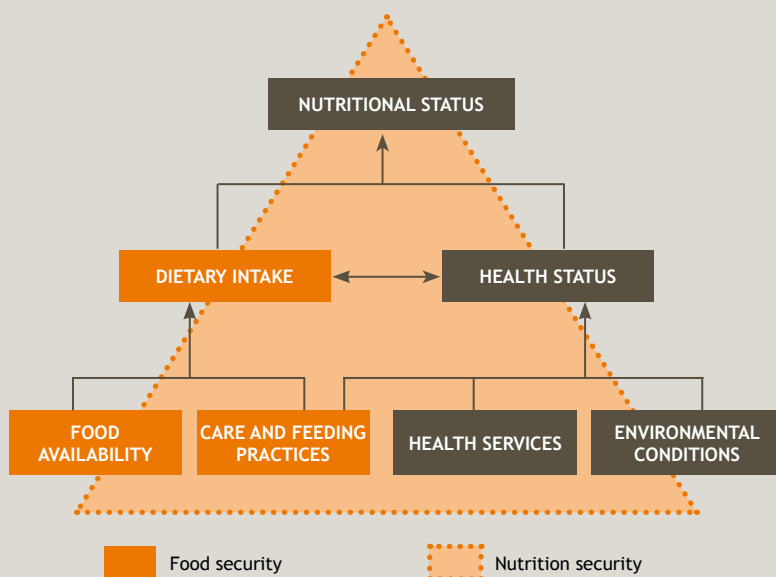


Figure 12: Nutrition security conceptual framework



# NUTRITION COMPONENTS

## NUTRIENTS

All the elements or components either organic or inorganic present in food, which can be assimilated by the cells without undergoing digestive degradation. The foods are transformed into their composite nutrients by the digestive juices<sup>20</sup>.

- ▶ There are about **40 nutrients essential to health**.
- ▶ If any of these elements is missing, **the person will not be in good condition to fight disease**. In case of acute illness this person will not have the necessary nutrients to recover and return to normal. This failure to recover is usually the link between infection and nutritional state.

### • Macronutrients

The **proteins, carbohydrates (sugars) and lipids (fats)** are required by the body in large amounts and, available to meet energy needs. They are measured in grams<sup>21</sup>.

#### ▶ Proteins (Essential and Non-essential Amino Acids)

Proteins constitute the skeleton around which the cell is built, **according to a rigorous composition. Proteins are absolutely necessary for life as they are needed for maintenance, growth, reparation, pregnancy and lactation.** The organism does not store proteins as such.

e.g.:

- Animal sources: meat, fish, milk, eggs
- Vegetable sources: peanuts, beans

*e.i.: Animal proteins are assimilated better than vegetable proteins.*

Energy supplied by proteins should represent 10 to 15 % of the total energy value of the daily ration.

#### ▶ Lipids

Lipids are the constituents of fats, both animal and vegetable. **Lipids play a role in the metabolic and structural balance of the body (cell membranes of organs and tissues, the nervous system).** They also constitute **important energy stores**, in the form of adipose tissue. Lipid intake is also important for the supply of lipid soluble vitamins (such as vitamin A and E).

Lipids should represent a minimum of 15% to 30% of total energy value of the daily ration.

20 -Flammarion Medical Dictionary; Module 1:The Basics of Nutrition; 2007

21 - Website, FIVIMS; Glossary; 2010

### ► Carbohydrates

Carbohydrates are sugars:

- Complex: slow (starches), present in cereals, roots and tubers
- Simple: rapid, present in milk (lactose) or fruits (fructose)

Lipids, carbohydrates supply most of the energy used and stored by the body. **Carbohydrates are essential for the production of energy in the brain.**

Carbohydrates should represent a minimum of 50% to 55% of total energy value of the daily ration.

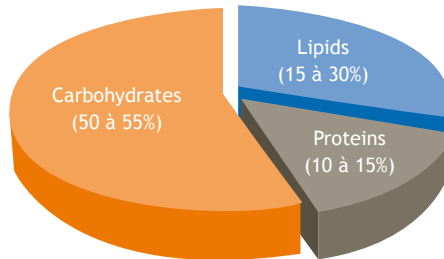


Figure 13: Proportion of energy necessary for a macronutrient balanced diet

### ► Water and electrolytes

**70 to 80% of the body is water.** Water is by far the most important constituent of the body (present in all of tissues). Water has various functions in the organism. Regulation of body temperature is one of them.

About half of body water is supplied by drinks, the other half, by water contained in food and the water produced by the organism during

oxidation reactions. Water requirements increase in people doing heavy muscular work (professional activity or sport) especially in warm climates or environments, (summer or tropical areas).



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The metabolism of water is closely linked to that of the electrolytes, especially sodium<sup>22</sup>.

## • Micronutrients

Essential vitamins (e.g. vitamin B, A, D) and minerals (e.g.; calcium, zinc, copper) are required by the body throughout the lifecycle in minuscule amounts<sup>23</sup>.

Along with underweight, the World Health Organization (WHO) classifies deficiencies in zinc, iron, and vitamin A in the top 10 causes of morbidity in developing countries. For the Copenhagen Consensus 2008<sup>24</sup>, micronutrients as the top priority of all development interventions (based on cost/efficiency ratio).

As individual needs for the different micronutrients are highly variable, levels of recommended dietary intakes have been established for most vitamins and minerals, by population group, as was done earlier for macronutrients.

Unless exceptional needs (folic acid for pregnant women, medical conditions, etc...), a rich diet in fresh and varied products can meet the levels of recommended dietary micronutrients and prevent the risk of deficiency.

### FOCUS ON NUTRITION EDUCATION

During education sessions, nutrients are presented in three groups to the beneficiaries which are encouraged to eat all three food types:

- ▶ Building foods (= proteins)
- ▶ Food providing energy (= lipids and carbohydrates)
- ▶ Protection food (= food rich in vitamin)

It is also interesting to proceed from theory to practice and to offer cooking demonstrations using locally available foods.



22 - Adaptation from: ACF Basic Nutrition\_2007

23 - Adaptation from: Tracking progress on child and maternal nutrition; November 200

24 - Consensus de Copenhagen: <http://www.copenhagenconsensus.com/Home.aspx>

## MINIMUM ENERGY REQUIREMENTS

An adequate, healthy diet must satisfy human needs for energy and all essential nutrients. Furthermore; dietary energy needs and recommendations cannot be considered in isolation of other nutrients in the diet, as the lack of one will influence the others.

Average Energy requirements/  
day = 2 100 Kcal  
*(Sphere standard)*

Gender, age, body weight and physical activity are the main determinants of total expenditure.

### TO GO FURTHER

Energy needs increase until 15-18 years old, because child and young people are active and grow quickly.

**After 18 years old**, energy needs are lower, depending on personal activity.

**After 50 years old**, energy needs are even lower, mostly because of the reduction of basic metabolism and of activity.

Recommendations given for a daily consumption of calories (Kcal) are about 2500 Kcal for a pregnant or lactating woman of moderate activity.

For women, it must be around 2000 and for men around 2500-2800 kcal per day.

Young children need about 1350 kcal per day.

Children from 7 to 10 years old need around 1970 kcal per day for boys and 1740 kcal for girls.



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# DIFFERENT TYPES OF MALNUTRITION

## OVERVIEW OF MALNUTRITION

Malnutrition is a broad term commonly used as an alternative to under-nutrition, although technically it also refers to over-nutrition (obesity). People are malnourished if their diet does not provide adequate nutrients for growth and maintenance (often due to economic political and socio-cultural factors), or they are unable to fully utilise the food they eat due to illness (under-nutrition). They are also malnourished if they consume too many calories (over-nutrition). Underweight (including both stunting and / or wasting), overweight and micronutrient deficiencies are all forms of malnutrition<sup>25</sup>.

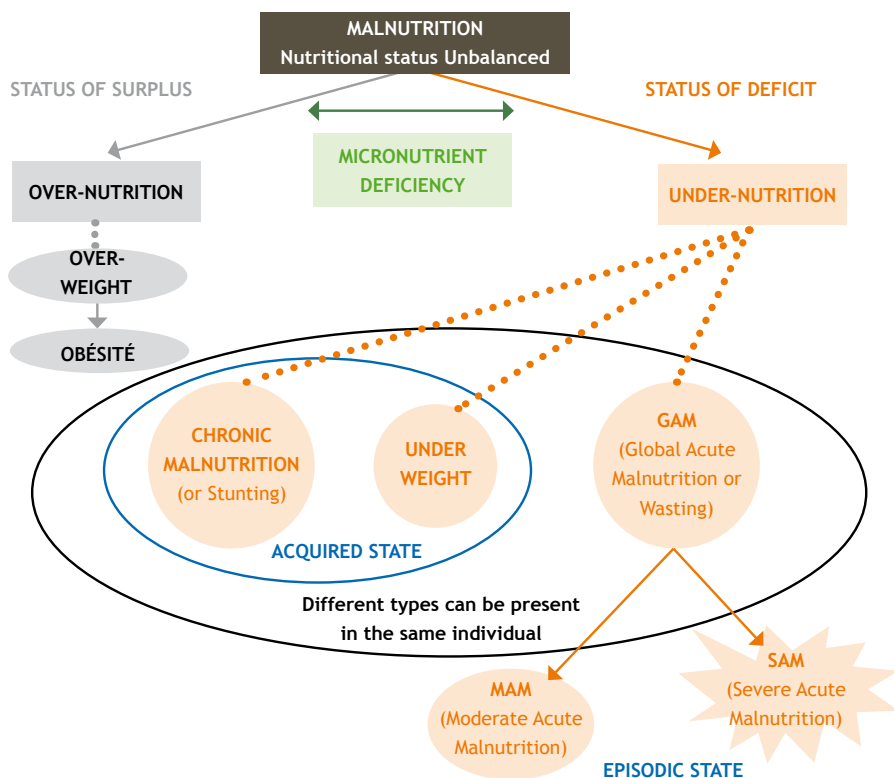


Figure 14: Malnutrition Tree<sup>26</sup>

25 - White paper\_Taking Action: Nutrition for survival, Growth & development\_ACF-In 2010

26 - La Malnutrition\_ Mémoire d'Agnès Chamayou\_ACF 2010



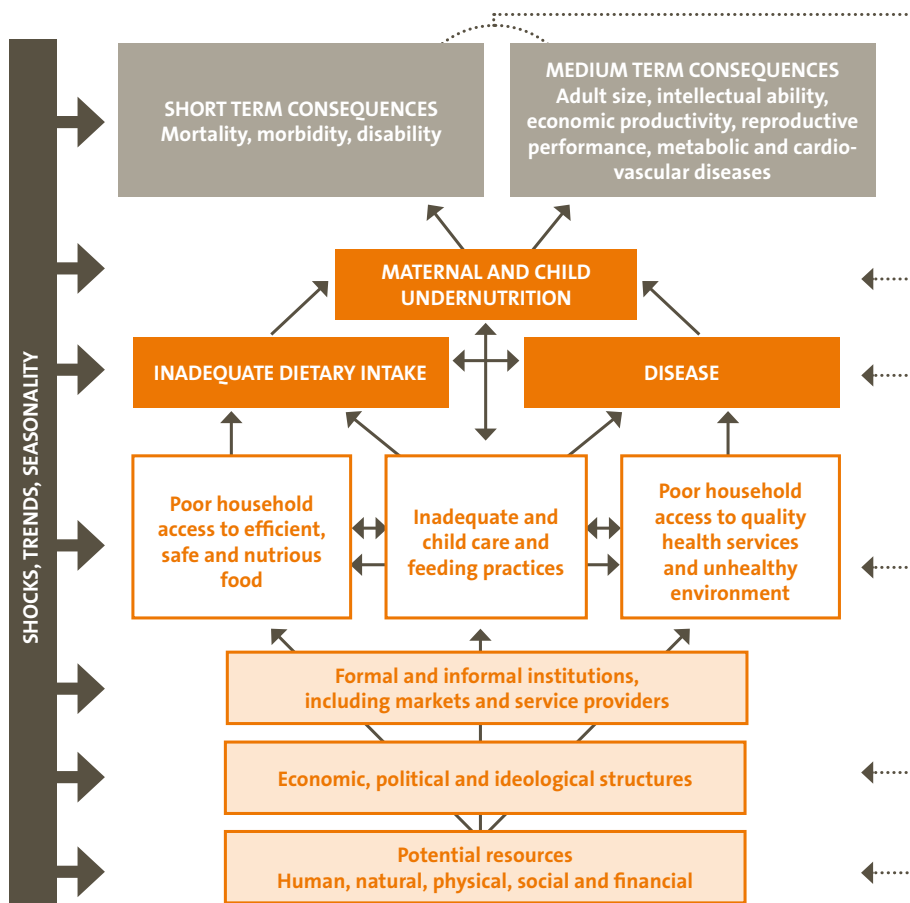


Figure 15: Conceptual framework (causes of under-nutrition)<sup>27</sup>

## UNDER-NUTRITION

Under-nutrition is one of the two types of malnutrition. Under-nutrition is defined as the outcome of insufficient food intake or repeated infectious diseases, often due to economic political and socio-cultural factors.

27 - ACF based on Black & al, 2008; UNICEF, 1992; DFID, 1999 and WFP, 2009



It includes being:

- ▶ Under-weight for one's age
- ▶ Too short for one's age (stunted - Chronic under-nutrition),
- ▶ Dangerously thin for one's height (wasted - acute under-nutrition)
- ▶ Deficient in vitamins and minerals (micronutrient malnutrition)<sup>28</sup>

Depending on the reference source, under-nutrition is a cause associated with between 35% and 56% of all deaths among children below the age of five<sup>29</sup>.

## TARGETING INFANTS, PREGNANT AND LACTATING WOMEN

### WHY ARE WE TARGETING INFANTS IN PRIORITY?

During childhood, energy needs are higher than for adults (about 1350 kcal per day, which represents more than half of adult needs - 2100 Kcal per day), this is a large amount compared to the body weight of a child.

In young children the **proportion of vital organs** compared to energy stocks (cf. figure below, children: have a big head for a small body) is **much larger than in adults**. The small energy stock explains why infants have to be fed every 3 hours "to refill the tank". The energy stocks are composed of muscles and fat.

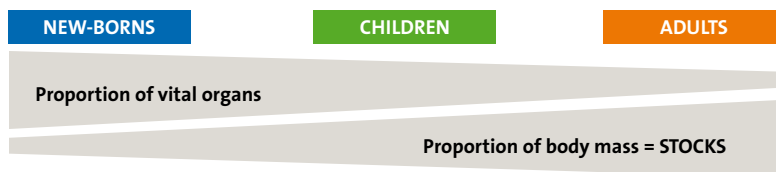


Figure 16: proportion vital organs/body mass according to the age

During childhood, the frequency of meals reduces gradually while the proportion of energy stocks increases. **This explains why in periods of stress and food shortage children are the first to be affected.** And also explains why diseases can have a greater impact on children's nutrition status.

During illness the body has to spend more energy to recover and this increases the needs of nutrients intake. Generally, a sick person has no appetite (anorexia) and loses weight. **This is the vicious cycle between illness and under-nutrition.**

In addition children depend on adults for their general cares (hygiene, feeding, health...).

<sup>28</sup> - Adaptation from UNICEF

<sup>29</sup> - Adaptation from: White paper\_Taking Action: Nutrition for survival, Growth & development\_ACF-In 2010

## **WHY ARE WE ALSO TARGETING PREGNANT AND LACTATING WOMEN?**

During pregnancy and breastfeeding, the maternal body needs some 2500Kcal per day, this increased energy intake is necessary to meet the nutritional needs of the baby. If undernourished, because of the lack of sufficient food, the maternal body uses its natural reserves to the detriment of the growth of the foetus. There is also a weakening of the immune system which decreases the capacity of the body to fight disease. Pregnant women are also exposed to medical difficulties linked to their pregnancy, in poor settings they often do not have access to health centres and the risk of death is high.

In the population, pregnant and lactating women, as well as children, are the more vulnerable individuals to malnutrition and diseases.



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## **THE VICIOUS CIRCLE OF MALNUTRITION**

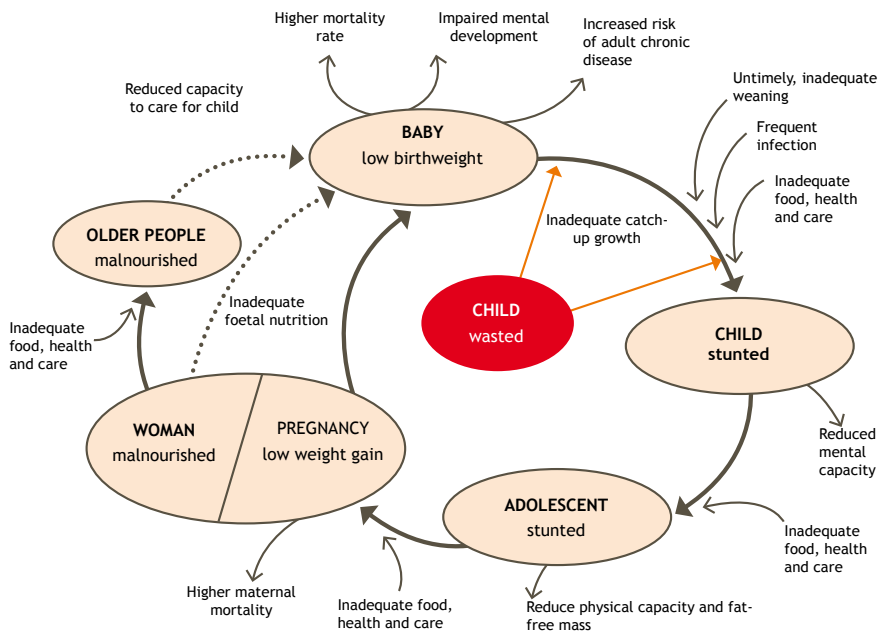
### **MECHANISM LEADING VICTIMS OF SEVERE ACUTE MALNUTRITION TO DEATH**

In case of Severe Acute Malnutrition (SAM), the priority of the body will be to maintain the functions of the vital organs (brain, heart and lungs) to preserve them. The function of other organs will also decrease. For example the digestive system slows down reducing the absorption of nutrients. The body of the child will not receive all the nutrients necessary to recover and the immune system (already more fragile, because still immature) -- will also be affected.

If this cycle is not stopped in time, the body's vital organs (heart, kidneys, liver, stomach ...) will slow down gradually until death.

### **UNDER-NUTRITION OVER GENERATIONS**

Girls who have experienced chronic under-nutrition in early life, either before birth or in early childhood, can later give birth to underweight babies. These babies are particularly vulnerable to under-nutrition and diseases throughout their growth. Thus, under nutrition and its consequences repeats itself, generation after generation<sup>30</sup>.



Source: SCC/SCN

Figure 17: The impact of hunger and malnutrition throughout the life cycle

## REFERENCES

### ACF Paper:

- Basic Nutrition concepts\_ACF 2008

### Other document:

- UNICEF: Tracking Progress on Child and Maternal Nutrition -2009: [http://www.unicef.org/french/publications/files/Tracking\\_Progress\\_on\\_Child\\_and\\_Maternal\\_Nutrition\\_FR\\_011510.pdf](http://www.unicef.org/french/publications/files/Tracking_Progress_on_Child_and_Maternal_Nutrition_FR_011510.pdf)



# MECHANISM OF INSTALLATION OF UNDER-NUTRITION



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**Purpose of the document:**  
**Explain how under-nutrition affects the body.**



## ESSENTIAL MESSAGES

- Children who are fed a monotonous diet can suffer from under-nutrition, even though they may not be hungry and may even be getting sufficient amounts of energy and protein.
- Energy needs of children are proportionately higher than those of adults (number of Kcal compared to body weight).
- There are two different causes of weight loss in marasmic children: either there is an energy deficiency and despite the body's adaptation strategies, tissues are destroyed in order to release the necessary energy supplies; or there is a more specific type 2 nutrient deficiency and tissues are destroyed in the body's attempt to compensate.
- For children with other symptoms in addition to weight loss, the immediate consequences are serious and dangerous. Identifying these children in a group of malnourished children is a priority for nutrition programs.
- **The pathophysiology of kwashiorkor** remains unclear and this form of malnutrition continues to attract a lot of popular beliefs.

## INTRODUCTION

In order for vital body functions to operate properly, the diet must contain a number of different elements in sufficient quantities:

- ▶ Energy: sugars and fats
- ▶ Protein and particularly the essential amino acids
- ▶ Nutrients: vitamins and micronutrients (minerals)

Of course, the quantities required vary depending on body weight and age.

In order to provide the recommended daily amounts of essential elements the diet must be varied. Each different type of food contains some of what we need and children who are fed a monotonous diet can suffer from under-nutrition, even though they may not be hungry and may even be getting sufficient amounts of energy and protein.

In this section we will firstly examine the nutritional needs of young children, the consequences of a lack of energy and protein in the diet, and the diseases that result from specific nutrient deficiencies.

An understanding of these concepts is necessary to be able to understand and choose between the various therapies available for the treatment of acute malnutrition.

# NUTRITIONAL NEEDS OF CHILDREN

## ENERGY AND PROTEIN NEEDS

At any age, the body has a basic need for energy which is derived from the breaking down of sugars and fats. Basal energy requirements are increased very little by activity. A third of basal energy is necessary to maintain the chemical balance of the body (metabolism of water and the sodium/potassium pump), another third is used for the turnover of proteins (i.e. to renew body parts that are constantly growing and renewed: skin, blood, liver, muscles, etc.), and the final third is used in activities related to key body functions. When there is a deficiency, the body slows down the first two of these processes in order to cope with the shortage.

Despite the body's ability to adapt its needs, if the diet continues to be inadequate the body will eventually start to destroy its own tissue in order to release the stores of energy and proteins. Children are very different from adults. Firstly, they are constantly growing and the body has very specialized dietary requirements for growth, and secondly, the composition of a child's body is completely different from that of an adult.

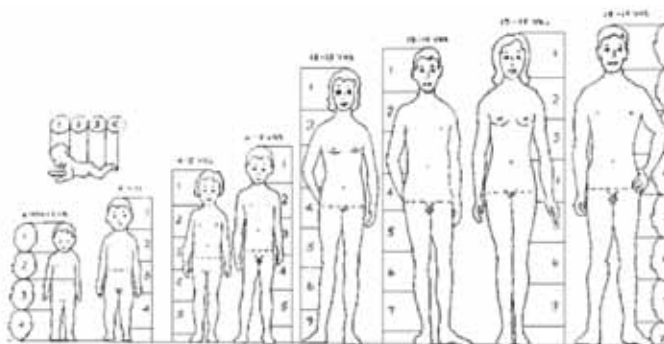


Figure 18: Size evolution

Growth is relatively linear after the age of two. By contrast, its pace decreases exponentially between birth and 24 months. Growth is very rapid during the first two years of life and much slower thereafter. Beyond the age of two the energy and protein required for growth represent a very small proportion of the body's total needs.

The size of the 4 major body parts (head, trunk, abdomen and legs) in proportion to the rest of the body changes with age. In children, the energy-hungry vital organs (liver, heart, kidney, brain) represent a much larger share of the body than in adults. Also, in children, energy-storing tissues (fat and muscle) represent a much smaller proportion of the body than in adults, and hence their



storage capacity is less. When a deficiency occurs, the body draws on its resources and reduces its non-essential functions in order to protect the key functions. **Consequently, owing to their anatomical differences, young children benefit from significantly less protection than adults.**

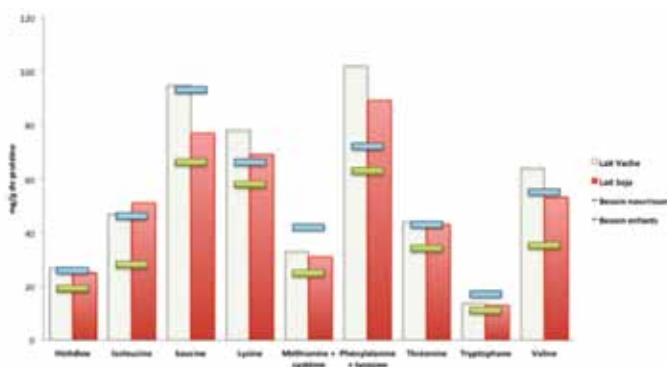
The energy needs of children are proportionately higher than those of adults. Apart from needing energy for growth, although this demand significantly decreases after the age of two, the higher energy needs of children are also the result of their body composition. As mentioned above, the vital organs use between 5 and 10 times more energy than other body parts and in children they represent a larger proportion of the body.

## **SPECIFIC PROTEIN REQUIREMENTS: THE AMINO ACIDS**

Proteins are composed of amino acids. Protein requirements are dependent on the minimum total mass of protein intake (see above), but the body also needs certain specific amino acids, some of which cannot be synthesized. These essential amino acids must be ingested in addition to the total mass of protein.

Growth requires a special diet in terms of amino acids and the younger the child the more the diet differs from that of adults. At the age of 6 months, animal supplements in the form of milk are essential to meet an infant's dietary requirements. Breast milk is much better to meet these needs than cows' milk. However, this biological specificity disappears at the age of one when it becomes possible to satisfy a child's amino acid requirements with soya milk. Nevertheless, evidence shows that children under two years who consume milk grow better than those who do not. This is true even in populations where the majority of adults suffer from milk intolerance.

It is also important to know, and this is of consequence in relation to malnutrition, that an excess of amino acids in the blood leads to anorexia.



*Figure 19: Essential amino acid requirements for nursing infants and children aged two compared to the protein levels in cows' and soya milk*



## NUTRIENT REQUIREMENTS

By nutrients we mean all the minerals (ions or micronutrients) and vitamins that are essential for the proper functioning of the body. **If energy is the fuel of the engine, and proteins the steel, then nutrients are the oil.** Without going into details about how the body uses nutrients, we must make a distinction between two types of nutrients in terms of how the body behaves when there is a deficiency. Nutrients are divided into two groups: those that circulate in the blood and those that are stored in body tissues, and it is important to understand how nutrients in each of these groups work.

Type 1 nutrients are the most commonly known. This group includes among others iron, vitamin C and iodine. Where there is a deficiency, a specific associated disease develops: anemia in the case of iron deficiency, scurvy in the case of vitamin C, hypothyroidism and mental disorders in the case of iodine. A deficiency in one type 1 nutrient does not affect the other nutrients. It is in fact relatively easy to measure circulating levels of the nutrient to confirm diagnosis and monitor treatment.

Type 2 nutrients rarely circulate in the body. Nutrients in this group are stored in body tissue and when a deficiency occurs, the body adapts by destroying tissues to release supplies of the missing nutrient. However, in the course of doing so it also destroys stocks of other type 2 nutrients which are not deficient. The process also causes the release of amino acids and in severe cases can lead to anorexia. All these factors naturally make the situation worse by increasing the body's deficiencies.

### TYPE 1 NUTRIENTS

IRON, Vitamin C, Iodine, calcium...

Not stored in body tissues

**Deficiency:**  
Specific diseases develop

*For example: Anaemia for iron deficiency,  
scurvy for vitamin C deficiency,  
hypothyroidism for iodine deficiency...*

Deficiency in one nutrient does not  
affect others

### TYPE 2 NUTRIENTS

Potassium, Sodium, Zinc,  
Phosphorous, magnesium...

Stored in body tissues

**Deficiency:**  
the body adapts by destroying tissues to  
release the missing nutrient

=> which destroys other type 2 nutrients.  
It also releases amino acids, and depending  
on the severity of this phenomenon can lead  
to anorexia and stunted growth



## EXPLANATION OF MARASMUS

The preceding information showed that there are two different causes of weight loss in marasmic children: either there is an energy deficiency and despite the body's adaptation strategies, tissues are destroyed in order to release the necessary energy supplies; or there is a more specific type 2 nutrient deficiency and tissues are destroyed in the body's attempt to compensate. This is why we see cases of marasmus in children with a diet that is sufficient in terms of energy but which is very monotonous. These phenomena are often

interlinked with other conditions, including anorexia brought on by the body's adaptation process. In maintaining the body's vital functions, the muscles and fatty tissues are affected first. This destruction may not have any immediate consequences, but if the deficiencies persist, vital functions are eventually affected. This shows itself in a number of different symptoms, any one of which requires hospital treatment. However, the most serious condition by far is anorexia. It becomes clear that the condition is more than just physical apathy and is in fact an advanced stage of tissue destruction caused by undernourishment.

At this stage, there is a kind of metabolic regression in the child and the proportion of body weight represented by the vital organs starts to resemble that of much younger children. This regression explains some of the problems faced by marasmic children: like babies, they have trouble regulating their temperature and are prone to hypothermia, so they often have difficulty digesting heavy meals and need to be fed at frequent intervals.



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## CONSEQUENCES OF MARASMUS

For children who receive treatment before reaching the stage of systemic cell destruction, in uncomplicated cases in other words, the marasmus will have no immediate consequences. The long-term consequences are still unclear.

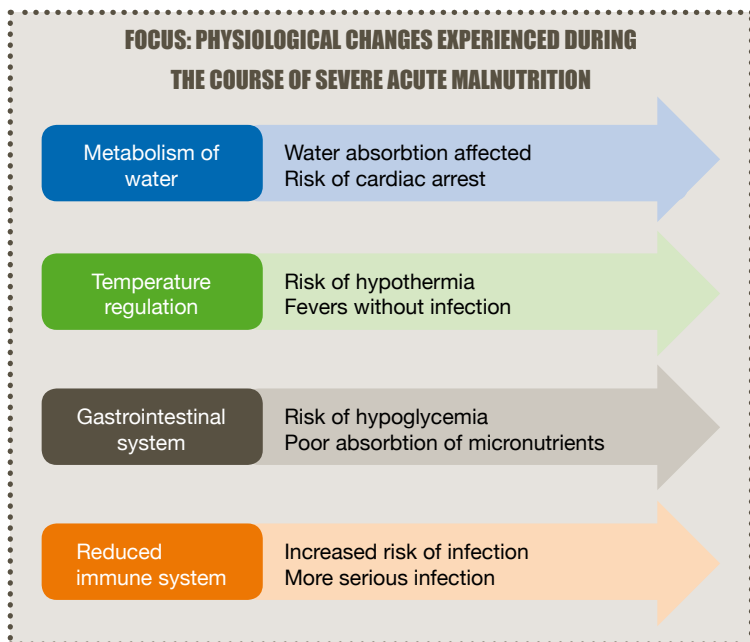
By contrast, for children with other symptoms in addition to weight loss, the immediate consequences are serious and dangerous. Identifying these children in a group of malnourished children is a priority for nutrition programs.

Regulation of body chemistry accounts for a large part of the body's energy usage. Slowing of the sodium/potassium pump and water metabolism in response to under-nutrition explains why children being treated in hospital for malnutrition are highly sensitive to changes in water. It is important to proceed very cautiously with any rehydration treatments or transfusions.

The slowdown of liver and kidneys functions reduces their ability to filter toxins and drugs. Consequently doses should be adjusted and some drugs are contra-indicated. Moreover, these

children are also less able to manufacture red blood cells and hence are susceptible to anemia. Metabolic regression causes a tendency to hypothermia in these patients and requires strict control of temperature in places where treatment takes place.

Finally, nutrient deficiencies and reduced metabolism inhibit the body's immune system and consequently malnourished children are susceptible to infection. Also, the temporary loss of the body's ability to regulate temperature means that these infections are not always accompanied by a fever. These silent infections explain why antibiotics and antimalarial drugs are systematically prescribed.



## CURRENT SITUATION ON KWASHIORKOR

**Definition:** A manifestation of severe acute malnutrition indicated by **bilateral pitting oedema**. A child suffering from Kwashiorkor may not appear to be undernourished, because the body swells as a result of oedema. The additional water retained by the body increases the child's weight, so that it may be within normal limits. In its most severe form, Kwashiorkor results in extremely tight, shiny skin, skin lesions, discoloured hair, fatty liver and apathy.



The mechanisms described above relate to marasmic children. In cases of kwashiorkor, the pathophysiology is still somewhat of a mystery.

Many different theories have been put forward to explain the origin of kwashiorkor but have been disproved. It is certain that kwashiorkor is NOT due to:

- ▶ A diet low in protein
- ▶ Hypoalbuminemia
- ▶ Prolonged breastfeeding
- ▶ A diet containing aflatoxins
- ▶ Etc.



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**It seems rather that:**

- ▶ The wall of the capillary vessels is disturbed and therefore becomes porous to water and minerals.
- ▶ There are very specific modifications in the metabolism of certain chemical elements that we still know very little about (vanadium, sulfates, selenium) and in aspects of the anatomy that we know little about (gut flora, glycosaminoglycans)...

Whatever it may be, the pathophysiology of kwashiorkor remains elusive and this form of malnutrition continues to attract many theories. Within ACF, no clear position has been taken on the definition of kwashiorkor. It is sensible to remain objective and not make any firm statements about the causes of this pathology.



## ACF & HEALTH

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**Purpose of the document:**  
**Clarify the connections between health and nutrition.**  
**Explain ACF positioning on health and possible evolutions.**



## ESSENTIAL MESSAGES

- Common infectious diseases increase the likelihood that an immune-compromised child will be affected by severe acute malnutrition.
- From conception through infancy, under-nutrition increases the frequency and intensity of infectious diseases.
- Worldwide, children with severe malnutrition die **9 times more** frequently than healthy children.
- Fighting severe acute malnutrition remains a medical activity involving health professionals.
- Strengthening the health systems and health care for mothers and children has become a prerequisite for achieving our objective of improving SAM treatment and supposes a revision of the 2005 statement.
- Among the medical factors which lead to malnutrition, some are predictable. **ACF proposes a prevention strategy adapted to these factors.**

## INTRODUCTION

For a number of years there has been confusion at ACF about the link between health and nutrition. While ACF is not an exclusively medical NGO, it provides medical-nutritional programs.

In addition to clarifying the interaction between nutrition and health, this chapter will outline current operations and possible developments in health programs.

## EPIDEMIOLOGICAL LINKS

**A vicious circle:** Common infectious diseases increase the likelihood that an immune-compromised child will be affected by severe acute malnutrition (a sick child loses appetite and weight). From conception through infancy, under-nutrition increases the frequency and intensity of infectious diseases. Severe acute malnutrition is therefore directly responsible for 1 million deaths annually, and under-nutrition is considered to be the cause of 3.5 million deaths (Lancet 2008).

Epidemiology confirms these observations and allows for quantification of the link between nutrition and health. Based on data from a number of different contexts, it can be determined that a child suffering from malnutrition has, due to the fact alone of his nutritional status, a 6 times greater risk of dying from diarrhea, a 9 times greater risk of dying from pneumonia, is twice as likely to die from acute malaria and has a 6 times greater chance of dying from measles. Worldwide, children with severe malnutrition die 9 times more frequently than healthy children.

When children with simple nutritional deficiencies such as iron, zinc, vitamin A or even iodine develop an infectious disease, they are at greater risk of dying than other children. The role of pathology in acute malnutrition is harder to demonstrate although it is common knowledge with respect to chronic malnutrition. The impact of chronic malnutrition on quality and length of life is also recognized. The link between the prevalence of chronic malnutrition and acute malnutrition is also well-known. It has been demonstrated that malaria during pregnancy leads to acute malnutrition in the baby (underweight for its age) and it makes sense that, in zones where poor populations lack adequate nutrition, an illness could precipitate a fatal episode of malnutrition in the most fragile children, that is, those under 3 years of age.

These links have been recognized for years. See the illustrations of causes of malnutrition which have not changed, or have changed little, over the past 30 years.

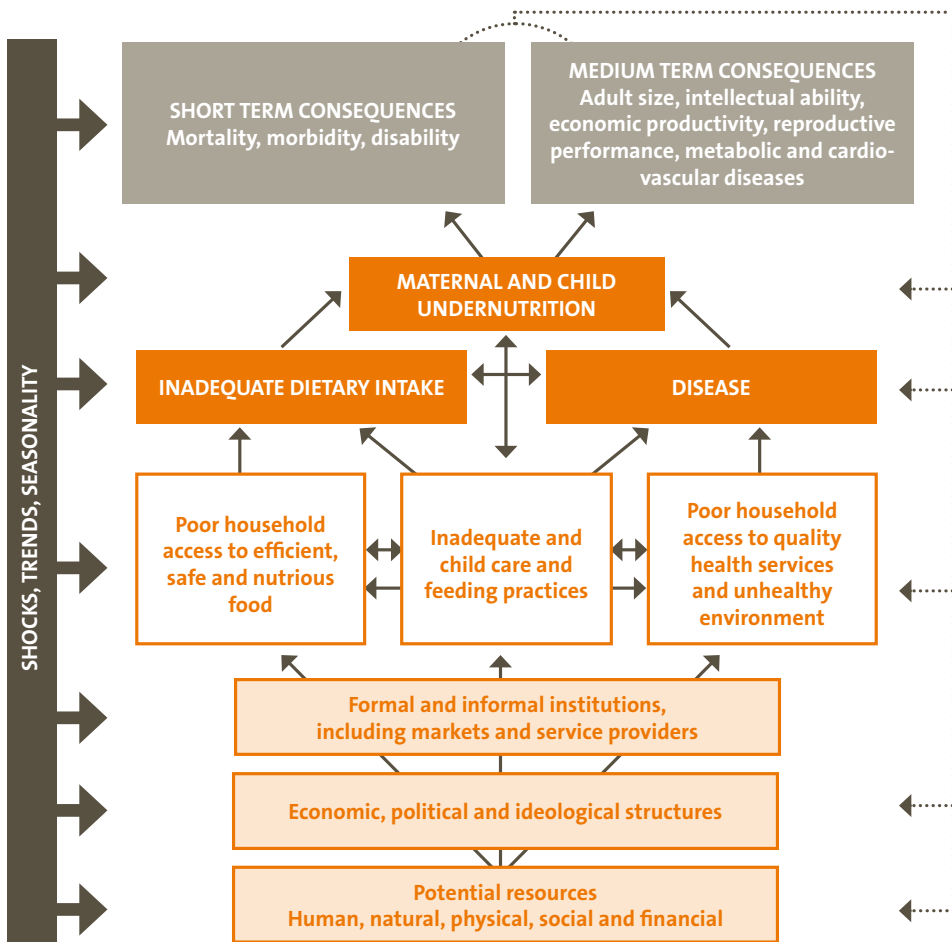


Figure 20: Conceptual framework (causes of under-nutrition)<sup>31</sup>

31 - ACF based on Black & al, 2008; UNICEF, 1992; DFID, 1999 and WFP, 2009.



## ACF MEDICAL APPROACH - HISTORY

Since the implementation in the 1990s of a medical program to treat severe acute malnutrition, ACF has been active in health programming. In addition to providing treatment, ACF has implemented and supported vaccination and cholera programs, along with various health programs. Since the beginning, ACF has developed many programs for primary and secondary health care while carrying out activity to treat severe acute malnutrition (Afghanistan, DRC, etc...). In 2005, a framework note proposed ending health programs which were not directly linked to ACF under-nutrition activities. The proposal was to leave that type of programming to dedicated NGOs, but ACF would still provide health programs in contexts in which no other partner could do so (ex: Burma reproductive health program, Somalia primary health care programs).

**Reducing its participation in general health programs does not mean that ACF has lost its health or medical aspect. Fighting severe acute malnutrition remains a medical activity involving health professionals.**

Since 2008 and the change in the international approach to SAM, ACF has deliberately returned to more health programming. ACF works jointly with health ministries and their teams that, in addition to dealing with SAM, must provide a minimum health care package which is often insufficient.

Strengthening the health systems and health care for mothers and children has become a prerequisite for achieving our objective of improving SAM treatment.



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## ACF HEALTH PERSPECTIVES

### THE CURATIVE APPROACH

It is important to distinguish the simple and the complicated forms of severe acute malnutrition in order to cover with precision the medical aspect in which ACF is involved.



	% cases	% cured	% deceased
Non-complicated	85 à 90%	>95%	20%
Complicated	10 à 15%	90 à 95%	80%
All		>90%	100%

This distinction, which combines anthropometric measurements, distinguishes between children treated in hospital and those treated at home. It indicates where there is a need for secondary medicine and where more basic activity is required. It indicates the need to triage children based on medical criteria. It also shows that a nutrition program cannot be limited to the distribution of therapeutic food.

Treatment of complicated cases is very efficient but expensive in terms of both money and human resources. A cost/benefit study of the two approaches will doubtless be useful, but it does not appear to be possible to be efficient without combining them.

Currently, to implement these medical programs, we must take a more global view of our approach and consider the health system globally. ACF is very active at primary health care level (PHC) and can, when necessary, be involved in supporting the system to deliver primary health care as a global package including SAM treatment as one of its component. Indeed promoting access to SAM treatment will never succeed if it is not included in a basic package of health services.

While ACF is very active in terms of primary health care (health centre), its support of hospitals remains relatively limited.

#### Support for hospitals must be determined based on a multi-variable analysis:

- ▶ **Technically:** the ability to effectively improve the situation when it is easy to do the opposite when trying to do more. Medical technology provides advanced diagnostics (rapid tests, i-Stat systems for reanimation, digital radiography and telemedicine, among others). However, experience shows that in health system problems, the major constraints are the staff and their motivation/training.
- ▶ **Ethically:** it is highly unlikely that teams will participate effectively in projects which restrict support to malnourished children, when deaths could easily be avoided in other children, parturient, etc...
- ▶ **Politically:** for people living in the intervention zones, just as for the authorities, hospitals represent medicine. Failure to support these facilities may considerably reduce the credibility of a nutritional program, i.e. a medical program.
- ▶ **Financially:** supporting hospitals requires significant financial involvement over the relatively long term. The didactic (humanitarian lesson) approach is always rejected. Dialog with backers and all levels of government is imperative in order to determine appropriate support.

## PREVENTION THROUGH HEALTH

Under-nutrition is always a function of acute or chronic poverty and invariably presupposes other issues which promote or result in nutritional deficiency.

**Among the medical factors which lead to malnutrition, the following can be prevented:**

### ▶ Routine paediatric medical care

- Treatment of common pathologies to avoid loss of weight
- Early detection of nutritional deficiencies (dynamic analysis)

### ▶ Vaccinations

- Against childhood illnesses (measles, diphtheria, polio)
- Against common childhood viral diarrhea (rotavirus: ROTARIX, ROTATEQ)
- Against serious diseases which are prevalent in a zone:
  - Meningitis
  - Cholera
  - Yellow fever

### ▶ Pregnancy and neonatal care:

- Treat nutritional deficiencies in mothers
- Early identification of puerperal infections, including malaria
- Prevention of vertical transmission of HIV
- Promotion of maternal breastfeeding

### ▶ Anti-parasite treatments [specific types of worms] and malaria

### ▶ Correction of latent micronutrient deficiencies

Preventive medical strategies use multiple approaches to achieve results based on the analysis of local health issues. The main issue is the intensity of the malnutrition. **The aggressiveness of the prevention strategy varies according to the prevalence of malnutrition.** Stress and resilience levels of people suffering from malnutrition are also important factors in prevention strategy. Finally, epidemiological analysis (locally and at the point of origin of migrants) and analysis of the different parts of the health care system are important points to consider.



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## ACF POSITIONING

In order to save more children from malnutrition, we propose a multi-sector approach which treats both the cause and effects of malnutrition. The preventive approach that includes sanitation programs, provision of clean water, food distribution and agricultural programs can boost simple medical treatment such as vaccinations and treatment of common pathologies such as diarrhea, respiratory illnesses and malaria. The curative program is well-developed but can be improved by increasing its scope, streamlining it and updating therapeutic and diagnostic tools available to ACF and partners medical teams (doctors, nurses and medical-nutritional coordinators). In order to promote and increase the access to SAM treatment, ACF must contribute to strengthening the curatives services proposed as part of the basic package of health services.



# INFANT AND YOUNG CHILD FEEDING



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**Purpose of the document:**  
**To understand the key points of infant and Young Child Feeding (IYCF)**  
**and the involvement of Action Contre la Faim's (ACF) in this area.**



## ESSENTIAL MESSAGES

- The following are the recommendations from the World Health Organization (WHO) and UNICEF regarding optimal feeding for infants and young children:
  - Early initiation of breastfeeding.
  - Exclusive breastfeeding for the first six months of life.
  - Breastfeeding continues until two years of age and beyond.
  - Introduction, at age six months, of complementary feeding of healthy solid or semi-solid foods suitable for the age of the child.
- Although the attachment to the breast is a natural action, it has to be learned and this requires the help and support of someone who is trained and aware of the issues.
- **Breastfeeding brings numerous benefits** both to the child and to the mother.
- It is therefore important to raise the awareness of mothers and of the entire community. **The practice of breast-feeding demands willingness and availability** from the mother, as well as the support of the community / family to enable her to breast-feed in the best possible way.
- A lack of milk linked to a pathophysiological inability of the mother to produce milk, or enough milk, is rare and involves perhaps less than 5% of mothers.
- **The transition** from exclusive breast-feeding and the introduction of supplementary food is pivotal for the child and his family.
- Breast-milk substitutes must be available if necessary, but must not be promoted.

Infant and young child feeding is a vehicle for many misconceptions and myths. It is therefore important to have some basic concepts about the issues in order to provide adequate arguments to promote breastfeeding and complementary feeding.

## INTRODUCTION TO OPTIMAL INFANT AND YOUNG CHILD FEEDING

Infant and young child feeding is one of the central points of ACF's involvement in nutrition as the period from conception until two years of age is crucial for the development and long-term maintenance of good physical, cognitive and behavioural development and good health (reference is made to the '1000-day window of opportunity'). Thus, the first two years of a child's life are particularly important as optimum nutrition during this period will reduce morbidity and mortality rates as well as the risk of chronic illness, and will contribute to improve general development.

This document will focus on the feeding of infants and young children aged 0 to 2 years.

**ACF recognizes that IYCF is an indispensable means of preventing malnutrition and of promoting good nutritional practice from the earliest age, breastfeeding being the very first stage.**

Even though breastfeeding is a natural action, it is also a behaviour which must be learned and which is not always done in the best possible way. ACF therefore has a leading role to play in IYCF by developing this area as an integral part of its programs (See table below)

Région	% of children (< 6 months) exclusively breastfed (2006)
Sub-Saharan Africa	30%
North/East-Central Africa	26%
South Asia	45%
East Asia/Pacific	32%
Latin America/Caribbean	N/A
Central Europe, Russia and Baltic States	19%
Industrialised countries	N/A
Developing countries	37%

*Figure 21: Exclusive breastfeeding statistics worldwide*

Among other things, ACF has written a position paper on IYCF in emergencies, making protecting and promoting correct child nutrition and development in emergencies central to its mandate<sup>32</sup>.

32 - Infant and Young Child Feeding in Emergency position paper, ACF 2008.



The following are the recommendations from the World Health Organization (WHO) and UNICEF regarding optimal feeding for infants and young children (cf. Figure 22: Stages of Infant and Young Child Feeding):

- ▶ Early initiation of breastfeeding in the hours following birth.
- ▶ Exclusive breastfeeding for the first six months of life: the infant receives only breast-milk and no other liquids, even water, with the exception of the necessary vitamin/mineral supplements or medicines.
- ▶ Breastfeeding continues until two years of age and beyond.
- ▶ Introduction, at age six months, of complementary feeding of healthy solid or semi-solid foods suitable for the age of the child. Adequate complementary feeding must provide enough energy and must be a sufficiently good source of proteins and micronutrients in order to meet the nutritional requirements of a growing child.

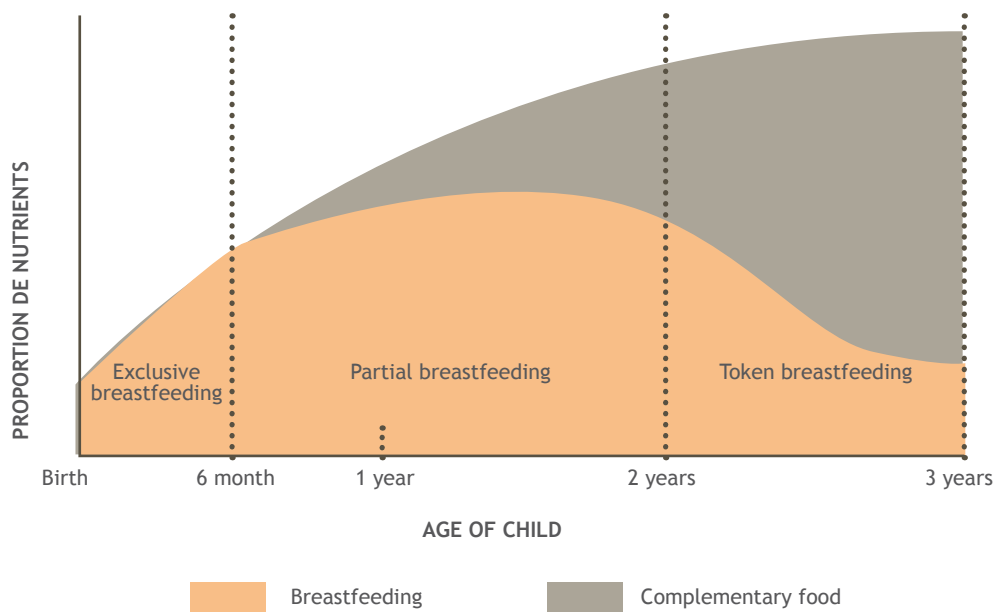


Figure 22: Stages of Infant and Young Child Feeding



## SOME FACTS AND FIGURES

- ▶ The prevalence of Severe Acute Malnutrition (SAM) is higher among young children and declines after 24 months of age. Conversely, chronic malnutrition progressively increases to reach a plateau at age 24 months<sup>33</sup>.
- ▶ Optimal feeding practices for infants and young children are the most effective means of improving child health.
- ▶ In 2006, it was estimated that 9.5 million children died before the age of five and two thirds of these deaths took place in the first five years of life.
- ▶ It is estimated that non-optimal breastfeeding, and especially non-exclusive breastfeeding in the first six months of life, is responsible for 1.4 million deaths.
- ▶ Breastfeeding can reduce infant mortality among children below five years of age by 12% to 20%, more than any other preventative measure<sup>34</sup>.
- ▶ Complementary feeding is part of the three key interventions for preventing deaths among under-five - a total of 6% may be averted<sup>35</sup>.
- ▶ Early initiation of breastfeeding significantly reduces the risk of neonatal death (death occurring in the first four weeks of life)<sup>36 37</sup>.
- ▶ A non-breastfed infant living in poor sanitary conditions is between six and twenty-five times more at risk of dying from diarrhoea than a breastfed infant<sup>38</sup>.
- ▶ A joint study led by WHO has shown that not being breastfed in less developed countries increases the risk of mortality six-fold in babies below two months old. The risk increases by 40% in babies aged 9-11 months<sup>39</sup>.

33 - The Lancet's Series on Maternal and Child Undernutrition, 2008.

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35 - Jones G et al (2003), How many child deaths can we prevent this year? (Child survival II), *The Lancet*, 65-71.

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38 - Cf.: [www.unicef.org/nutrition/index\\_breastfeeding.html](http://www.unicef.org/nutrition/index_breastfeeding.html).

39 - World Health Organization collaborative study team (2000), Effects of breastfeeding on infant and child mortality due to infectious disease in less developed countries: a pooled analysis, *The Lancet*, 355 (9202), 5 February 2000.



## BREASTFEEDING

**Breast-milk is the best natural food for infants:** it provides all the calories and nutrients a child needs during the first months of life and continues to meet half or more of the nutritional needs during the second six months of life, and up to one third of these needs during the second year.

Breast-milk promotes sensory and cognitive development and protects the infant against infectious and chronic diseases.

Breastfeeding contributes to the health and wellbeing of the mother, helps space out pregnancies, reduces the risk of ovarian or breast cancer and increases the resources of families and of the country. It is a safe and ecological way to feed a child.

### HOW TO BREASTFEED?

To obtain the breast-milk, the infant must suck properly. To suck properly the baby must take a fairly large section of the breast in the mouth in order to apply pressure to the milk ducts which carry the milk. In this position, the baby is correctly attached to the breast (cf. figure below). The infant cannot get any milk if he sucks only on the nipple.

**Although breastfeeding is a natural act, it has to be learned and this requires the help and support of someone who is trained and aware of the issues** (e.g. health professional, traditional midwife or simply another mother with experience).

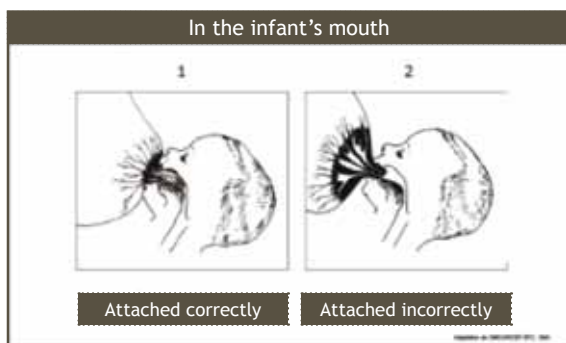


Figure 23: Nursing at the breast - Good practice (IFE module 2)

Two hormones - prolactin and oxytocin - play an important role in breastfeeding. Being aware of the physiology of breastfeeding makes it easier to understand the difficulties encountered by the mothers.

### Oxytocin

When an infant sucks, this stimulates secretion of a hormone called oxytocin.

This hormone causes the milk stored in the breast to flow via the milk ducts to the nipple.

The mother's wellbeing or discomfort influences the secretion of oxytocin and so the flow of milk.

### Prolactin

Prolactin is a hormone which stimulates the production of milk.

The quantity of milk produced by the mother depends on the amount of milk taken by the infant.

The more the infant feeds at the breast (either sucking at the breast more often or for longer periods, or both), the more milk is produced.

The less milk the infant takes, the less milk is produced.

## BENEFITS OF BREAST-MILK

Breastfeeding brings numerous benefits both to the child and to the mother.

BREAST-MILK	BREASTFEEDING
Provides ideal amount of nutrients	Helps mother-child bonding and child development
Easy to digest and efficient method of feeding	Helps postpone further pregnancy (under specific conditions)
Protects against infections	Protects the mother's health
Free (cheaper than bottle feeding)	

Figure 24: Benefits of breast-milk and breastfeeding

### • Psychosocial benefits

#### ► Emotional bond

- Close, loving relationship between mother and child
- Mother is more satisfied emotionally
- Baby cries less
- Mother behaves more affectionately
- Less likelihood of baby being abandoned or ill-treated



© ACF - Guatemala



### ► Development :

- Children perform better in intelligence tests during childhood

## ACF RECOMMENDATION

- Present breastfeeding as superior to any other form of nutrition
- Promote exclusive breastfeeding up to six months, initiate breastfeeding early and within the first hours of baby's life
- Encourage on-going complementary breastfeeding up to 24 months of age
- Help re-establish breastfeeding using the Supplementary Suckling Technique (SST) - cf. insert below
- Set up space for giving breastfeeding advice and care and, especially during emergencies, Baby Friendly Tents (BFT) and a 'breastfeeding corner'
- Run communication campaign about breastfeeding (e.g. take part in breastfeeding week, health education on breastfeeding, etc.)

## FOCUS ON THE KNOW-HOW DEVELOPED BY ACF

The Supplementation by Suckling Technique (SST) is a method used in nutrition units of hospital facilities for children under 6 months suffering from Severe Acute Malnutrition (SAM) or weighting less than 3kg for infants above 6 months.

This method aims to boost the milk production process through stimulation of the mother, and build up the baby's capacity to suck by providing an adequate energy intake.

### How does it work?

After the child has been put to the breast every 3 hours, a very thin tube is placed near the mother's nipple so that the child can suck in therapeutic milk from a cup while breastfeeding (see photo below). Lactation is thus stimulated thanks to the suckling which triggers the secretion of prolactin, the milk-production hormone (ref. Insert above). Little by little, the mother's breast milk production increases. The child's weight is checked every day, and serves as an indicator to progressively reduce the intake of therapeutic milk and stop completely when the mother's breast milk becomes sufficient (= the child will continue to gain weight without milk supplements).

The staff or better still, a mother already using the SST technique will help with the correct use of this practice. The mother also receives a nutritional supplement and advice on nutrition and breastfeeding.

It takes about 12 days to "boost" breastfeeding.

*Supplementation by Suckling Technique*



© ACF

## DIFFICULTIES ENCOUNTERED DURING BREASTFEEDING

It is therefore important to increase the knowledge of mothers and of the entire community. The practices of breastfeeding calls for the goodwill and availability of the mother, as well as the support of the community / family.

There are many factors which can upset effective breastfeeding. The main ones are listed in the table below:

Use of Bottle	Before the establishment of breastfeeding
	As a supplement
Factors Linked to the Mother	First baby (lack of experience)
	Has used a bottle before (has never breastfed or very little)
	Illness
	Stress, depression, trauma etc.
Functional Problems	Child is too weak (low birth weight)
	Limited breast sensitivity
	Engorgement
	Nipple sores, breast infection etc.
	Delayed start to breast-feeding
Lack of Qualified Support	Little traditional mutual help and support from the community
	Doctors, midwives and nurses not trained to assist
Cultural Beliefs	Practices unsuited to the child's needs
	Practices that do not contribute to mother-child bonding
	Practices that do not promote lactation (e.g. mother's fasting)

Figure 25: Factors negatively Influencing Breastfeeding

### • Lack of Breast Milk

A lack of milk linked to a pathophysiological inability on the part of the mother to produce milk, or enough milk, is exceptional and involves perhaps less than 5% of mothers – called primary milk insufficiency.

"Secondary" milk insufficiency is more common, and is generally the result of incorrect breastfeeding practices or insufficient demand from the child.

The perception of a lack of milk - called tertiary insufficiency - is the most common situation.

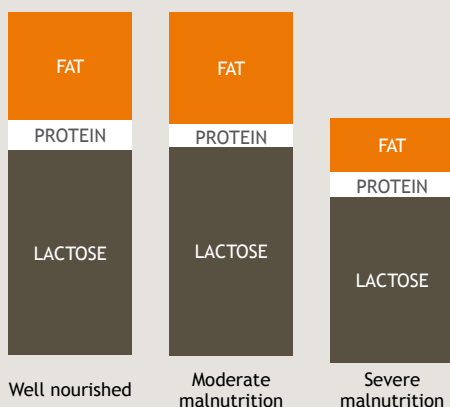


ACF intervenes in the event of a secondary and tertiary lack of breast milk by:

- ▶ Training and giving advice on breastfeeding to key people in the community (traditional birth attendants, mothers-in-law etc.) and in healthcare facilities
- ▶ Identifying factors that influence breastfeeding by proposing relevant action
- ▶ Boosting breastfeeding thanks to SST
- ▶ Psychosocial support

### FOCUS ON A PRECONCEIVED IDEA

**Malnourished mother = no milk production?**



Production of the mother's breast milk is sufficient to feed the child in terms of quantity and quality, even if the mother suffers from moderate acute malnutrition. It is important to bring nutritional assistance to the mother (family or supplementation rations) in order to avoid the deterioration of her own nutritional status, but continuing to breastfeed is still recommended.

*Milk production and quality related to the mother's nutritional status*

### • Problems linked to absence of Breastfeeding

- ▶ More diarrhoea and respiratory infections
- ▶ Persistent diarrhoea
- ▶ Malnutrition / Vitamin A deficiency
- ▶ Higher risk of death
- ▶ Higher incidence of allergies and milk intolerance
- ▶ Higher risk of chronic disease
- ▶ Over weight
- ▶ Lower IQ test results

- ▶ For the mother:
  - Falling pregnant sooner.
  - Higher risk of anaemia and ovarian and breast cancer.

Major dangers related to the use of breast milk substitutes are:

- ▶ Hygiene principles being ignored (mainly: danger of using unclean water for preparation)
- ▶ Problem of over-dilution: not knowing the protocol or to save on formula —as a result the child gets insufficient quantities of milk to meet his nutritional needs, and is unable to grow properly.
- ▶ Under-dilution problem: not knowing the protocol — as a result the child experiences absorption problems as the milk is too concentrated, leading to digestive problems.

## **WHEN BREASTFEEDING IS NOT AN OPTION**

There are cases where the mother cannot or does not want to breastfeed, or the mother is absent and / or it is not possible for the child to be breastfed by a wet nurse.

ACF must respect a mother's choice not to breastfeed. It is therefore important to inform and advise mothers about possible alternatives in order to ensure the well-being of the child and his mother. In developing countries, it is difficult to find entirely satisfactory alternatives and up to now, ACF has not ruled on a "protocol" for an alternative to breastfeeding. It is important for the team to examine with the mother, the possibilities available there and then in order to ensure a reasonable choice while keeping in mind AFASS principles (Acceptability, Feasibility, price Affordability, Sustainability and Safety).

## **PRINCIPLES OF COMPLEMENTARY FEEDING**

The transition from breastfeeding exclusively and the introduction of supplementary food is pivotal for the child and his family. Certain principles must be respected and followed so that this period goes smoothly (= no sudden changes).

- ▶ Introduce food supplements from the age of 6 months (180 days) and continue breastfeeding on demand until the age of 2 or beyond.
- ▶ Pay attention to the child during his meals by applying the principles of psychosocial care; practice good hygiene particularly when preparing food.
- ▶ Start from 6 months with small quantities of food and increase the quantity according to the child's age, while continuing to breastfeed.
- ▶ Gradually increase the consistency and variety of foods according to the child's growth, by adapting to the child's needs and abilities (e.g. presence of teeth).
- ▶ Increase the number of meals with complementary foods according to the child's age.



- ▶ Ensure that the child gets a variety of nutrient-rich foods so that his needs are met.
- ▶ Use fortified complementary foods or vitamin and mineral supplements as needed.
- ▶ Increase fluid intake during illness, including trying to breastfeed more often, and encourage the child to eat foods that are too consistent in texture, and propose his favorite meals.
- ▶ After an episode of illness, feed the child more often than usual, and encourage him to eat more. The work on Nutrition rehabilitation after illness should be a priority.

### ACF RECOMMENDATION

- ▶ Primacy of Breastfeeding Over All Nutritional Treatments.
- ▶ Promote continued supplemental breastfeeding until 24 months.
- ▶ Train key people in the community and health workers on the principles of supplementary feeding to support and advise families.
- ▶ Improve the quality of supplementary feeding through optimal use of local products: synergy between food safety and nutrition. => Improve communication between the different ACF departments.
- ▶ Improve the availability of high-quality local food by increasing agricultural production (e.g. vegetable garden, farm animals etc.).
- ▶ In populations experiencing food insecurity: provide of supplements for supplementary feeding (micro-nutrient powders, fat-based nutrient supplements and fortified food supplements).
- ▶ Social protection plan including a supplementary feeding / nutrition section (e.g. donations in kind by way of complementary foods, coupons, cash transfers to vulnerable families with children between 6 and 24 months).
- ▶ Another action which could be done with the partnership of the whole population: social and commercial marketing of nutritional supplements and complementary foods including stimulating their local production.



## THE IMPORTANCE OF IYCF IN EMERGENCIES

Emergencies have a considerable impact on the ability of the mother and the family to feed and take care of young children.

The risks of artificial feeding are increased in emergencies. It is important to make sure that humanitarian assistance actively supports and protects the principles of the IYCF at individual, household and community levels and does not interfere with the practices of the IYCF with inappropriate interventions such as the general distribution of baby formula milk, milk or dairy products. In 1981 the World Health Assembly adopted the International Code of Marketing of breast milk substitutes, in order to protect and to promote breastfeeding, by giving adequate information on appropriate infant feeding and by regulating the marketing of breast milk substitutes, baby bottles and teats (see below). In the following years the code has been more precisely defined and reinforced by other resolutions<sup>40</sup>.

All those involved in emergencies - from the decision-makers and national governments to the donors and field-based staff in each sector - have direct and indirect roles to play in the Code application and the follow-up of its violations by the companies which promote breast milk substitutes.

### TO FIND OUT MORE

The IFE (Infant Feeding in Emergencies) is an inter-agency collaboration between Agencies of the United Nations and non-governmental organisations (ENN, ACF, SC-UK and US, IBFAN, CARE, WFP, UNHCR, UNICEF) affected by the guidance on guidelines, implementation and capacity building on the subject of the IFE.

Since 2004, the ENN has been the coordinating agency for the IFE Core Group and represents an 'institutional home' for the initiative. The directives of the IFE Core Group come as an operational guide on the IFE for the staff and those in charge of emergency aid programs. The work of the IFE Core Group on capacity building is presented in two training modules for guidance (Module 1) and technical support (Module 2) in IFE.



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40 - UNICEF: [http://www.unicef.org/french/nutrition/index\\_24805.html](http://www.unicef.org/french/nutrition/index_24805.html)



## HIV AND BREASTFEEDING

### SOME FIGURES

- ▶ Out of 100 babies born to a HIV-positive mother not having taken preventive measures (i.e. not having received ARVs):
  - A majority (65%) will not be infected
  - A section (20%) will be infected during pregnancy or when giving birth
  - A minority (15%) will be infected during breastfeeding
  
- ▶ Out of 100 babies born to a HIV-positive mother having taken preventive measures (i.e. having taken ARVs):
  - A majority (82%) will not be infected
  - A section (3%) will be infected during pregnancy or when giving birth
  - A minority (2-3%) will be infected during breastfeeding<sup>41</sup>

In emergencies and/or situations of poverty, the AFASS<sup>42</sup> (Acceptability, Feasibility, Price Affordability, Sustainability, and Safety) criteria are rarely met

### WHO RECOMMENDATIONS

The 2009 WHO recommendations promote the use of antiretroviral (ARV) from the 14<sup>th</sup> week of pregnancy and until the end of the period of breastfeeding.

WHO recommends continuing breastfeeding until the age of one year, provided that the HIV-positive mother or the child takes ARVs during this period, which will reduce the risk of transmission and will improve the chances of survival for the child.

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41 - Chiffres OMS

42 - <http://www.linkagesproject.org/media/publications/ENA-Handouts/Ethiopia/Theme4HO8-11.pdf>

## LEGISLATIVE / NORMATIVE FRAMEWORK

### INTERNATIONAL CODE OF MARKETING BREAST-MILK SUBSTITUTES (1981)

The Code is a set of recommendations in order to regulate the marketing of breast-milk substitutes, bottles and teats. The Code has been developed in response to the realisation that poor infant feeding practices were adversely affecting the growth, health and development of children, and were a major cause of mortality among infants and young children. Thus, poor infant feeding practices represented a serious obstacle to socio-economic development. In 1981, at the 34<sup>th</sup> World Health Assembly, the International Code of Marketing of Breast-Milk Substitutes was recognised as the minimum requirement in order to protect and promote a suitable diet for infants and young children.

The Code aims “to contribute to providing infants with a safe and adequate nutrition by protecting and encouraging breastfeeding and by ensuring the correct use of breast-milk substitutes, whenever necessary, on the basis of adequate information and by means of appropriate marketing and distribution.” (Article 1). Breast-milk substitutes must be available if necessary, but must not be promoted.



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#### IMPLICATION FOR ACF

Vigilance: Breast-milk substitutes must be available if necessary, but must not be promoted.

The Code has been adopted during the resolution of the World Health Assembly and represents the expression of the collective voice of governments in order to ensure the protection and promotion of an optimal diet for infants and young children<sup>43</sup>.

### RESOLUTION 63.23 OF THE WORLD HEALTH ASSEMBLY ON “NUTRITION AMONG INFANTS AND YOUNG CHILDREN” (2010)

The sixty-third World Health Assembly (2010) has approved Resolution 63.23 which urges all member-States (193) to show more commitment and political determination to prevent and reduce forms of malnutrition. Countries should strengthen and accelerate, in a sustainable way, the implementation of the overall strategy for the diet of infants and young children; develop or revise the political frameworks for the fight against the double nutritional burden; scale up

43 - Translation: The International Code of Marketing of Breast-Milk substitutes\_Frequently asked question\_OMS\_2008



interventions in order to improve the nutrition of infants and young children and strengthen nutritional surveillance.

Resolution 63.23 also calls for sustained measures for the implementation of the International Code of Marketing of Breast-Milk Substitutes and calls to stop the inappropriate promotion of foods for infants and young children.

## REFERENCES

### ACF documents

- Glossary of terminology commonly used to prevent, diagnose and treat under-nutrition (ACF, December 2011)
- Infant and Young Child Feeding in Emergency position paper (ACF, 2008)

### Documents

- IFE - Module 2 (Core group IFE, 2007)
- Management of Acute Malnutrition in Infants (MAMI) - Project Summary Report - October 2009

### Web site

- Emergency Nutrition Network (ENN): <http://www.ennonline.net>
- Site WHO/OMS: <http://www.who.int/fr>
- La leche league internationale: <http://www.llli.org/>



# EVOLUTION IN THE MANAGEMENT OF SEVERE ACUTE MALNUTRITION



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## **Purpose of the document:**

**Know the key points concerning the changes in the management of Severe Acute Malnutrition (SAM) and the position of ACF on the subject.**



## ESSENTIAL MESSAGES

- The evolution of SAM treatment is best described as a series of 3 ‘revolutions’:
  - First revolution: the Therapy
  - Second revolution: the Community Approach
  - Third revolution: the Scaling-Up
- The goal of treating Severe Acute Malnutrition for ACF has expanded: it is no longer sufficient to just provide curative care: we must now build or strengthen the capacity of the health system and ensure that the treatment is and will remain available and accessible over the long term.
- Severe acute malnutrition really must be considered as a development as well as an emergency issue.
- Some key adaptations need to be made as to how CMAM programs are managed and funded. There is also a need to review the skill of the staff; bearing in mind the ability required to take on a more ‘hands-off’ role and focus on training, capacity building and supporting health workers and community-level agents.
- Long-term funding for nutrition programs is vital.
- Towards a fourth revolution? Treat earlier, the nearest community with fewer technical requirements, therefore cheaper.

The management of severe acute malnutrition is one of the three priorities of ACF (see document health nutrition priority axes in 2015). This document presents the different stages of evolution of the management of SAM and can therefore help to understand the basis of past issues and those emerging that ACF must face and respond to, efficiently and appropriately<sup>44</sup>.

## INTRODUCTION

Severe Acute Malnutrition (SAM) is a serious but little-acknowledged public health issue that causes high mortality, particularly in children under five.

It is estimated that 19 million children under five suffer from severe acute malnutrition **at any one point of time**, and that around one million children die each year from severe acute malnutrition<sup>45</sup>.

Studies show that children with SAM have a 9 time's higher risk of dying than well-nourished children<sup>46</sup>. Studies have also shown that the mortality risk from common childhood illnesses such as diarrhea and pneumonia are substantially increased when acute malnutrition co-exists. Although there have been major gains in the reduction of infant and child mortality in many parts of the world, for some countries, many of which are in Sub-Saharan Africa, the situation is still critical.

## CONTEXT

Until recently, SAM was been viewed by donors, health professionals, NGOs and other actors as an emergency issue. Therefore, interventions with short-term funding cycles were usually put in place and managed directly by NGOs like ACF. Longer-term development programs and funding, on the other hand, focused more on tackling chronic malnutrition. This is despite the fact that a huge proportion of cases of severe acute malnutrition are to be found in development rather than emergency contexts; indeed it is recurrent bouts of SAM that contribute to chronically poor nutritional status. **In other words, severe acute malnutrition really needs to be considered as a development as well as an emergency issue.**

It is important to realize that seemingly middle national prevalence rates translate into high absolute numbers of acutely malnourished children in countries of high population density, such as India and Bangladesh. Of the 19 million SAM cases globally, around eight million are in India and 500,000 in Bangladesh. This demonstrates very clearly the enormous caseload of SAM in non-emergency contexts.

In the case of India, for example, we can speak of nutritional crises with relatively low intensity (middle prevalence) but large amplitude (the number of people affected is very important)

It is therefore important to consider not only the prevalence, which gives the number of cases at a specific time, but also the incidence of under-nutrition, which will give the number of cases occurring over a given period.

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45 - Lancet 2008

46 - Community-Based Management of Severe Acute Malnutrition, A joint Statement by the World Health Organization, the World Food Program, the United Nations System Standing Committee on Nutrition and the United Nations Children's Fund.



The awareness of the need to tackle SAM in non-emergency contexts and to integrate this need within existing health services is increasing. In many countries, programs to treat SAM now fall under the responsibility and leadership of the Ministry of Health and its sub-national authorities. This facilitates the treatment of SAM within the health system as part of a basic healthcare package.

The approach to the management of severe acute malnutrition has changed substantially in recent years. There has been recognition that, despite huge advances over the last 25 years on how SAM is treated, coverage remains shockingly low. To meet **the challenge of scaling up treatments can only be achieved by ensuring availability of and access to treatment at all levels of the health system.**

The goal of treating of Severe Acute Malnutrition for ACF has expanded: it is no longer sufficient to simply provide curative care: **we must now build or strengthen the capacity of the health system and ensure that treatment is and will remain available and accessible over the long term.**

In November 2011 in Addis Ababa took place an international conference on Community Management of Acute Malnutrition (CMAM). Twenty three countries represented by their Ministry of Health took strong positions during the conference regarding the integration of the management of SAM into their health systems<sup>47</sup>.

## IMPLICATION FOR ACF

Given this change of perspective on the issue of SAM (from a vision of emergency to a broader vision of development with the integration of nutrition programs in existing systems and not just local but national ), ACF has adapted its nutrition interventions and must continue to advocate for and participate in the integration of nutrition in governmental policy.

## THE 3 REVOLUTIONS

The evolution of SAM treatment is best described as a series of 3 ‘revolutions’<sup>48</sup>. Prior to 1990, there was no specific treatment, and mortality rates were as high as 40% in emergency situations.

### THE FIRST REVOLUTION: THERAPY

During the 1990s, the first revolution occurred with:

- ▶ **The development of specialized therapeutic milks (F100 and F75)**
- ▶ **Combined with antibiotics**



47 - International conference on Management of Acute Malnutrition - <http://cmamconference2011.org/>

48 - Carlos Navarro-Colorado, FANTA CMAM Integration Workshop March 2008



- ▶ **Improvement of the management of electrolytes** (including the development of oral rehydration salts for severe acute malnutrition = ReSoMal)
- ▶ **The development by WHO of specific protocols for the management of SAM**

Mortality rates in programs providing treatment were drastically reduced, sometimes below 5%. Nevertheless this method had numerous limits:

- ▶ It was limited to inpatient care (need for numerous qualified staff),
- ▶ low coverage,
- ▶ inconvenience for carers (committing about four weeks of their time to remain at the centre with one child),
- ▶ and increased risk of nosocomial infection.

### **HISTORY & ROLE OF ACF IN THE FIRST REVOLUTION**

In 1993, in Rwanda, ACF was the first organization to test a <sup>2</sup>High Energy Milk "ready to dilute" (which later became known as F100). The study was conducted by Claudine Prudhon.



The F75 (therapeutic milk for the first phase of the treatment to stabilize the child health) was created in 1994.

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## **THE SECOND REVOLUTION= THE COMMUNITY APPROACH**

The second revolution started with the development of Ready-to Use Therapeutic Food (RUTF), an energy-dense, mineral and vitamin-enriched food similar in nutritional composition to F100. RUTF were developed in order to simplify the management of SAM to reach a greater coverage of the nutritional structures. In 2000 a decentralised model for the community-based treatment of severe acute malnutrition was developed. This model called 'Community-based Therapeutic Care' (CTC) involved the management of acute malnutrition within the community following a period of community sensitisation and mobilisation. One of the main aims of this approach was to increase treatment coverage beyond inpatient care, though it still depended principally on humanitarian agencies and was usually implemented in emergency contexts.

The idea that severe acute under-nutrition could occur with or without medical complications emerged and the SAM cases were treated depending on their medical state, and the appetite test was the determining factor.

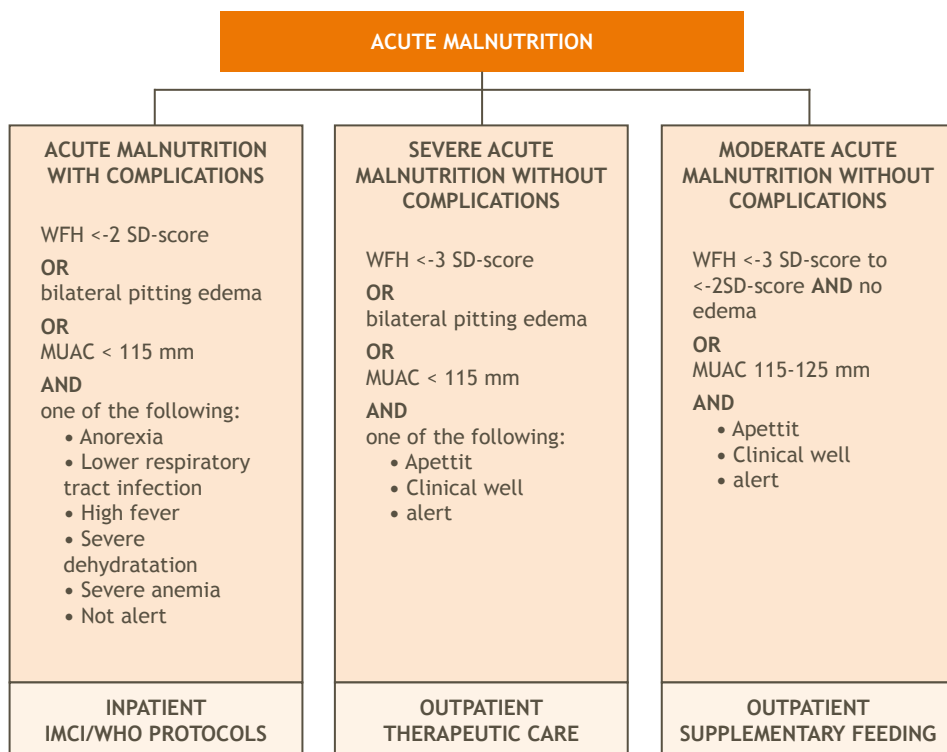


Figure 26: Suggested Classification and Treatment System for Acute Malnutrition

Adapted from "The need to update the classification of acute malnutrition", The Lancet 362 (2003): 249

**Notes on the classification:**

1. Who/IMCI does not have a category for moderate malnutrition with complications. WHO contends that there is no need to stabilize children with moderate acute malnutrition, even if they have complications.
2. This classification does not take into account the different grades of edema. Some agencies have treated children with grade 1 (i.e., edema +) and not other complications in the malnutrition-without-complications category and children with grades 2 and 3 (i.e., edema ++ and edema +++) in the malnutrition-with-complications category. Others have treated all cases with edema, irrespective of grade, as malnutrition with complications, requiring admission to center-based phase 1 treatment. This area needs further research and clarification.

The community approach reduced the load on hospital structures, and the treatment decentralized in the communities became more accessible and acceptable.

Early in the development of CTC, it was feared that the increased coverage would lead to a reduction of the medical follow up and an increase in mortality. Actually, the performance of CTC exceeded expectations, with mortality rates well below those recorded with the conventional approach (less exposure to nosocomial infections, earlier care of cases, better standards of treatment for the beneficiary), lower defaulter rates, and hence higher cure rates on average than those obtained with the classical approach.

This approach then became the "Community-based Management of Acute Malnutrition" (CMAM), and in 2007 was officially adopted by UN agencies<sup>49</sup> through a Joint Statement.

With the development of CMAM methodology, sometimes called IMAM, Integrated Management of Acute Malnutrition, approximately 80-85% of SAM cases can be treated at home with regular visits to the closest health center.

Only children with a poor appetite or presenting with medical complications<sup>50</sup> need to be treated in a stabilization center. Once these children have regained their appetite and the complications have been treated they can continue their treatment at home.

## **HISTORY AND ROLE OF ACF IN THE SECOND REVOLUTION**

In 1997, in Chad, ACF tested Plumpy Nut® for the first time (the 1<sup>st</sup> commercial version of RUTF).

Implementation of the CTC model was done gradually within ACF programs. The first mission to implement CTC was Uganda in 2003. The various missions have then adopted it progressively, according to the partners' availability and collaboration (Ministry of Health, UNICEF).

Faced with the difficulties experienced in some countries to use this new protocol, and the great "shyness" of ACF on this model in the absence of publication showing its efficiency, ACF established an intermediate protocol ("home treatment"), which was a combination of the conventional treatment (all cases of SAM were admitted to hospital and received therapeutic milk in phase 1) and CTC (phase 2 of the treatment was relocated to the home). This protocol had the advantage of creating a progressive acceptance of the concept of SAM outpatient treatment. The problem of treatment coverage however was not solved, since each case had to be admitted in the hospital, even for a few days.

The acceptance of CMAM by the international community however, has greatly facilitated its implementation, and the "home treatment" approach has been abandoned since 2006.

49 - Translation of: Community-based Management of Severe Acute Malnutrition- A Joint Statement by World Health Organization, the World Food Program, the United Nations Steering Committee on Nutrition and UNICEF.

50 - See: ACF Guidelines for the Integrated Management of Severe Acute Malnutrition: in and out-patient treatment - November 2011.



## FOCUS ON RUTF

- ▶ The RUTF should be offered after breastfeeding. Breastfeeding should be absolutely preserved and encouraged in children less than 24 months.
- ▶ The RUTF does not need cooking
- ▶ It is soft therefore easily consumable for young children over 6 months.
- ▶ The RUTF does not contain water, thus preventing the growth of bacteria, it does not require refrigeration and can be stored safely even in situations where hygiene is not optimal.
- ▶ The simplicity of use of RUTF i.e.: can be used from the institutional to the community level. The RUTF places the recipients and the community in an active process inducing a better acceptability and therefore better coverage of nutrition programs.



©ACF, Christina Lionnet - Chad

## THE THIRD REVOLUTION= SCALING UP

The third revolution is now in progress: The combination of RUTF with community-based SAM treatment protocols means that it is now possible for the first time to increase treatment coverage in both emergency and non-emergency contexts. **Addressing SAM through the health system and including treatment in the basic package of care** opens up the possibility of saving the lives of thousands and thousands of children, and of saving millions from chronic under-nutrition and its associated long-term consequences. For the success and scale-up of these services it is important that health staff at all levels take responsibility for the screening, diagnosis and management of acute under-nutrition.

### HISTORY AND ROLE OF ACF IN THE THIRD REVOLUTION

ACF has an important role to play in terms of advocacy for the integration of nutrition in primary health care (= minimum package of care). ACF must position itself as a referent for the technical and operational implementation of nutrition programs within the health system.

In other words, ACF must identify the weaknesses of the health system which delays the implementation of SAM management and help to strengthen the system.

## CMAM ADAPTATION TO CONTEXT

This new approach implies that participants must adapt their way of working in order to achieve proper integration in the management of acute malnutrition. For non-governmental organisations this has meant a fundamental change in approach, from direct implementation and often running

CMAM programs in parallel to health ministries to supporting all levels of the health sector in managing all aspects of acute malnutrition.

As more and more countries are interested and start developing protocols, policies and strategies on SAM management, NGOs are less and less required to intervene directly and their role is gradually changing. A 2009 document about ACF International's programs found that in 60% of cases, ACF was supporting the MoH in integrating CMAM<sup>51</sup> and that in nearly 90% of cases there was some sort of partnership between ACF and the MoH at central level to implement CMAM.

At the end of 2011, the trend observed in 2009 was still there as shown in the diagram below:

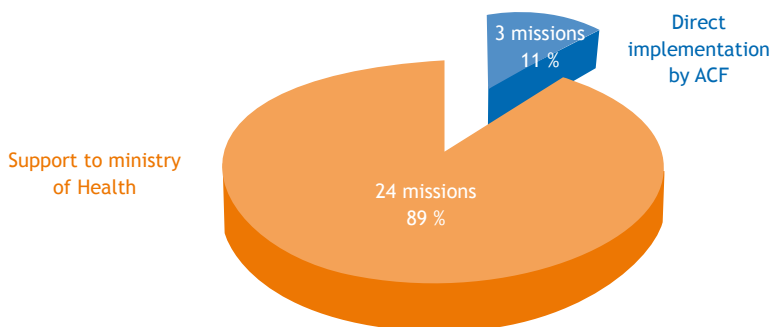


Figure 27: Type of management of SAM-ACF-IN, December 2011

## TECHNICAL ENVIRONMENT AND SUPPORT

As a result of the above changes, some key adaptations need to be made to the way in which CMAM programs are managed and funded. NGOs with a history of direct intervention in SAM management now need to revise the skills required from the staff running support programs. This means the ability to accept a more 'hands-off' role and focus on training, capacity building and supporting health workers and community-level agents. Longer-term staff contracts are required for the much slower process of providing technical support and capacity building and there is a need for continuity. Good skills in negotiation and training are required, as well as reliable medical or nutritional training and experience in the management of SAM. Indeed, skills in service delivery alone are no longer sufficient.

Moreover, NGO staff are now often physically part of the health system (at regional or district

51 - Louise Logre 2009 Learning Lessons from ACF's experience of the Integration of CMAM into National Health Systems



MOH offices, for example) to establish stronger working links and to promote the MoH leadership of CMAM integration process. Therefore, the staff must understand how the health system works. Finally longer term contracts must be proposed in order to ensure consistency with the timescale of the new program (technical support and capacity building).

## **FUNDING**

**Long-term funding for nutrition programs is crucial** as short-term emergency-type funding is no longer appropriate. Funding must take into account a more sequential and consequently slower set up of the programs.

Support strategies for SAM treatment to be reliably implemented for several years should include:

- ▶ An analysis of the health system and its actors (systemic approach),
- ▶ Assistance with policy and protocol developments,
- ▶ Implementation of policy and protocols,
- ▶ Staff / information system / supply system capacity building,
- ▶ Community sensitisation and mobilisation.

**Funding will also have to change in terms of cost repartition.** A smaller staff and less equipment will be required, and more time spent in coordination as well as more monitoring and training support.

## **THE CONTEXTUALIZATION**

It is also essential to understand that each country or region will have a different approach to treat under-nutrition. Indeed, the prevalence of acute malnutrition and population density as well as the status of the health system and public health (morbidity and mortality) will influence how acute malnutrition will be considered. Thus, when resources are scarce countries give priority to specific public health problems.

## **A HOLISTIC AND INTEGRATED APPROACH TO SAM**

It is important to mention that, although guidelines focuses on a curative approach to acute malnutrition and the integration of treatment into the health system, the teams must **ensure that the programs are embedded in a holistic, overall approach that also addresses the underlying causes of SAM.** All this is part of a **comprehensive preventive strategy implemented in close collaboration with communities.** It also includes improving services to address the underlying causes of malnutrition such as improving infant and young child feeding practices, addressing micronutrient deficiencies, improving access to primary health care and increasing vaccination

coverage. Resources have to be identified to support capacity building and recruit the appropriate technical staff to drive the process of preventative and curative care for acute under-nutrition.

**It is also necessary to consider other aspects of healthcare and make the link with specific programs and interventions, for example those addressing HIV/AIDS.**

### ACF RECOMMENDATIONS

#### The keys to success

For the success of CMAM integration it is essential that:

- ▶ The Ministry of Health leads the process at all levels.
- ▶ The strategies to include SAM treatment are elaborated together with all the actors involved.
- ▶ The health system capacity to absorb this new service is analyzed and reinforcement strategies are elaborated accordingly.
- ▶ The existing maternal and child health programs are used as vehicle for integration.
- ▶ The CMAM is part of pre- and in-service training.
- ▶ In most contexts, and apart from situations of nutritional emergencies, a direct NGO intervention approach is no longer possible or appropriate.

The roll-out and scale-up of CMAM will be context- and country specific and thus there is no single implementation strategy that will fit all situations. It is essential to know what influence this health problem compared to other health problems and propose an appropriate hierarchy. In other words it does not seem advisable to promote the implementation of CMAM in countries where the prevalence and other criteria mentioned above do not justify it.

It must be ensured that this is embedded in an overall holistic approach that also addresses the underlying causes of SAM and considers the other aspects of health care.

**Strategies** for improving nutrition must not be vertically-oriented but multi-sectorial and **should take into account** the various components of the health system. Resources have to be identified at country level and earmarked for improving nutrition support. All **the different sectors** (water, sanitation, agriculture, forestry, resource management, trade and enterprise etc.) should participate.



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## CMAM INTERNATIONAL CONFERENCE 2011: SUMMARY OF RECOMMENDATION (ADDIS-ABABA - NOVEMBER 2011)

ENN has led this initiative in collaboration with the Government of Ethiopia as a contribution to the lessons learned in the area. The aim of the conference was to provide a 'lively' forum to discuss CMAM. The issues of scaling up National CMAM from a governmental perspective were also discussed. A number of relevant factors for scaling up CMAM were identified and documented, e.g. environmental policy, coordination, and technical considerations of supply and financing mechanisms usually to establish, expand and support the services operating at the national level.

### THE CONCLUSIONS DRAWN DURING THE CONFERENCE

- ▶ CMAM is not and should not be presented, or be implemented, as a vertical program.
- ▶ Governments must clearly indicate the cost of CMAM, demonstrate a progressive financial commitment and identify which CMAM support elements need new resources.
- ▶ CMAM integrated into other health or nutrition service packages helps to leverage funds from the government and from outside sources.
- ▶ A mobilization strategy of the national community, including all sectors, should support the scaling of nutrition and other basic services.
- ▶ Governance (leadership) and authority for the scaling of nutrition must be decentralized at the district level - supplied with the necessary supportive resources.
- ▶ In an emergency, governments are prepared with clear strategies for scaling up the response until the increased demand is met. This can help limiting the loss of government leadership frequently seen in emergency situations.
- ▶ Governments must develop a clear policy for the local production of RUTF that can lead to new partnerships, tax exemptions and other measures reducing costs.
- ▶ The key barrier identified was the **inadequate capacity of health systems** - at all levels - and across all sectors (service delivery, taskforce, information systems, access to necessary medicines, funding for health, management and governance). The specific challenges for CMAM include: the number of staff; their skills; motivation; and over-reliance on volunteers.
- ▶ **The treatment of MAM with additional supply is not a sustainable national strategy for the government.** Thus, there is a need to explore alternative means to treat MAM through cross sectorial approaches and dedicated nutrition programs.
- ▶ **Advocacy based on evidence**, for example by champions, nutritional program value, must speak by way of development and political agendas.
- ▶ International coordination mechanisms, such as SUN and REACH, can support the installation of high level coordination agencies.



### TOWARDS A FOURTH REVOLUTION?

Today the major challenge remains to improve access to treatment.

This cannot be achieved as long as the health systems cannot cope with the needs of the population through their minimum health packages. The challenge is to work on strengthening the health systems while exploring other areas of improvement.

One of the tracks that ACF will explore in the future is to simplify protocols, the "democratization" of treatment, which will become less and less technical (relaxation of standards, RUTF, medical treatment ...). Treat earlier, with fewer technical requirements, therefore cheaper. This type of approach, called "Task shifting", brings very interesting perspectives in terms of early detection and coverage increase.

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- Report from the Addis-Ababa November 2011 Conference (in English only): <http://www.ennonline.net/resources/view.aspx?resid=900>





## EVOLUTION OF MAM TREATMENT



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### **Purpose of the document:**

**To know the key points about the changes in the management of moderate acute malnutrition (MAM) and the position of ACF on the subject.**



## ESSENTIAL MESSAGES

- Children with moderate malnutrition have a higher risk of dying and it is estimated that moderate malnutrition is associated with a large number of nutrition-related deaths.
- A "product-based approach" on its own should be considered in specific contexts, and should no longer be considered as the only way to treat or prevent moderate acute malnutrition. (There is also a lack of scientific evidence as to the efficacy of treating MAM with nutritional products.)
- Approaches such as cash transfers or food voucher are attracting increased attention as useful alternatives.
- MAM treatment through Supplementary Feeding Centers (SFC), coupled with SAM treatment using the CMAM approach, should not be systematized.
- The decision whether or not to implement a moderate acute malnutrition treatment program depends on the context.

## THE MANAGEMENT OF MODERATE ACUTE MALNUTRITION (MAM) SUBJECT OF DEBATE

Children with moderate acute malnutrition have an increased risk of dying and it is estimated that moderate malnutrition is associated with a large number of nutrition-related deaths.

"In contrast to severe acute malnutrition, programs of management of moderate malnutrition in children have remained virtually unchanged for the last 30 years - it seems timely to review how to improve their efficacy and effectiveness" (André Briend - WHO)

All these last years the quality of the protocols for treating MAM has been questioned. Indeed very often, the proportion of « cured » is not satisfying because of the high defaulter rates and/or non-reach /exit-cured criterion.

Furthermore, many questions remain unanswered about the pathophysiology of moderate acute malnutrition and the needs in term of rehabilitation (type of management and type of treatment).

- ▶ ACF has started activities of **analysis of performances** and has set on assumptions about their deficiency (of which among others, the one of the low efficiency of a product/ but also the approach as a whole...).

- ▶ ACF participated to a **data analysis** of SFP programs conducted by many NGO's in 2005-2006<sup>52</sup>.
- ▶ ACF participated to **research projects** on this subject (in particular, the study on defaulters with Carlos Navarro on going/ the study on products comparison in Myanmar/ MMS with ENN...).
- ▶ **Interventions to enhance performances** were launched (a good example of performances improving in Myanmar<sup>53</sup>).

The emergence of RUSF products (Ready to Use Supplementary Food) and the increased interest of private sector on production of supplementary, complementary and therapeutic products have focused the international community consideration on this subject.

In July 2008, in Somalia, within an ACF financing request to ECHO, a debate has been raised on supplementary products emerging and the lack of evidences on their efficiency.

The debate is not closed yet, but initiatives such as including these products in the Codex Alimentarius, the development of an international code on the marketing of complementary products and finally the WHO technical note released in June 2012 about extra nutrients, are all significant steps forward to provide a little more regulation.

During the CMAM international conference (Addis Ababa, November 2011), it was declared that MAM treatment through supplementary feeding is not a sustainable national strategy for government. Therefore, there is an urgent need to explore alternative means to address MAM through inter-sectorial approaches and nutrition-sensitive programming.



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52 - Measuring the effectiveness of Supplementary Feeding Programs in emergencies Working paper - HPN Network Papers 63, August 2008

53 - Document de capitalisation- Mathias Grossiord/ Aurelie Rozet-2010



## THE INTERNATIONAL NUTRITION COMMUNITY AND THE SUPPLEMENTARY FEEDING PROGRAMS

The debate that was raised in mid-2008 has accelerated the reflexion on the subject. It has never been envisaged to end SFP. The United Nations (UN) Agency in charge of this approach, WFP, continues to promote SFP. UNICEF, within the integration process of CMAM in many countries, does the promotion of Supplementary Feeding Centres within national nutritional politics (example of West Africa, of Kenya...)

### WHO CONSULTATIONS

Two experts' consultations have been proposed by WHO on the treatment of MAM (October 2008 & February 2010), ACF participated to both.

The international community pointed out the important gaps around MAM treatment. Indeed, since 1980 the scientific community has focussed primarily on the development and the improvement of SAM treatment and has strongly neglected MAM.

A long list of the research to be done has been established. Some background documents have been produced (2010 meeting) on treatment or prevention. But, up to now, none of these documents have provided clear operational indications.

### NUGAG ON MAM

End of 2011, a NUGAG (Nutrition Guidance Expert Advisory Group) on the management of moderate acute malnutrition was finally created. The objective of this initiative is to provide an update since 2010 of the studies that have been done and give recommendations based on official and good scientific evidence. It is clear that the exercise may be limited to a review of the production of evidence. Indeed, few research projects have concluded that the supplementary approach should be revisited.

It seems already that among the 8000 study projects / research reviewed as part of a systematic review of the literature (Cochrane method) exploring the topic of how effective products are, only 8 studies were selected and provided reliable information (4 studies already completed and 4 in progress).

This clearly reflects the lack of scientific evidence on the question of the effectiveness of treatment of MAM using nutritional products (such as RUSF / CSB + +, etc.).

### MAM TASK FORCE

In April 20011, after the requests of many donors and the absence of recommendations from WHO

and NUGAG, a UN and NGOs group has decided to set up a MAM Task force to produce quickly operational guidelines about MAM approach in emergency situations (decisional trees, products sheets).

Thus, UNICEF, WFP, UNHCR, OFDA, CDC, SC-US and ACF have had several meetings to produce guidelines on decision tools (July 2012).

## **ECHO AND MAM**

Within the framework of round-table talks organized by ECHO in June 2012, the topic of MAM in emergency situations was discussed once again.

Most of the contributors present agreed on the following points:

- ▶ A **"product-based approach"** alone should be considered only in specific contexts, and should no longer be considered as the only way of treating or preventing moderate acute malnutrition.
- ▶ Approaches such as cash transfers or food vouchers, whether coupled or not with product-based approaches and family support, are found increasingly as interesting and effective alternatives (a survey run by WFP with MSF in Niger is currently under way and has already shown promising results; ACF is also working on producing evidence on these alternative approaches).
- ▶ MAM treatment through Supplementary Feeding Centers (SFC), coupled with SAM treatment within the CMAM approach, should not be systematized.

This is an important turning point in the management of MAM.

MSF and ACF have clearly launched an appeal for more investment in the delivery of norms from the United Nations and significant investment in the preparation of guidance documents. It was also requested of ECHO to improve their support of INGOs in their research projects.

## **ACF'S POSITION**

Besides the different research programs ran for a few years, ACF held internal discussions on the topic of conventional programs aimed at MAM, and has actively participated in various forums and work groups.

From an operational viewpoint, the nutrition sector has never decided to end supplementary programs (whether targeted or as coverage). It was decided to measure the relevance of these programs on a case by case basis, and in relation to the context.



Broadly, the decision about whether or not to implement moderate acute malnutrition treatment programs depends on the context: whether there is a crisis, an increase in the prevalence of acute malnutrition, the presence of food distribution (GFD) and blanket distribution etc.

### **ZOOM ON SFP WITHIN ACF-IN IN 2012**

- ▶ **ACF-Spain:** on a total of 12 missions implementing nutritional programs, 5 are running SFP programs (in collaboration with partners, essentially MoH) = 33% of missions
- ▶ **ACF-US:** on a total of 6 missions implementing nutritional programs, 3 are running SFP programs (in collaboration with partners) = 50% of missions
- ▶ **ACF-Fr:** on a total of 19 missions implementing nutritional programs, 10 are running SFP programs (5 in collaboration with partners, 5 missions in direct intervention) = 53% of missions

### **ACF'S POSITION REGARDING MAM TREATMENT**

- ▶ The curative approach (supplementary programs) is only recommended in specific contexts, mainly in crisis situations (or chronic crisis situations), when overall levels of acute malnutrition, as well as mortality, are very high. It is important to associate prevention activities, such as comprehensive food distribution and coverage distribution targeting at children younger than 3 or 5 years in order to rapidly reduce acute malnutrition levels.
- ▶ On the whole, a preventive approach will be given priority in the long run. We can however, during peak season, propose supplementary short-term programs.
- ▶ ACF also wants to encourage integrated approaches mixing cash transfers for instance, to micro-nutrient supplementation and family support etc.
- ▶ On the contrary, when a country's Ministry of Health wants to implement this type of approach, ACF will offer to train and support the Ministry so that the national programme may be as effective as possible (e.g. West African countries). Experience however shows that it must be ensured that inputs are available and of the best possible quality. In fact, supporting programs which integrate the treatment of MAM, while partnerships struggle to provide constant supplies, can undermine the set of services offered by the medical centre.



- ▶ Within the framework of the government lobby in favour of integrating the treatment of SAM in their minimum health packets, **ACF does not want to push** governments to also incorporate the treatment of MAM. Questions are still unanswered regarding the effectiveness of the approach, as well as the low capacity of health systems, and do not allow for the promotion of the approach. It is in fact unethical to promote a costly approach, which strongly mobilises health teams that are already stretched, the effectiveness of which we do not really know, and the addition of which, besides, could undermine the quality of other services offered.

## QUESTIONS CURRENTLY BEING LOOKED AT BY THE TECHNICAL TEAM

Other than research projects already running and mentioned in the first section of this document, ACFIN Nutrition-Health Technical Teams are currently looking at various questions to bring answers and recommendations to teams on the field and to the international nutrition community.

- ▶ The question of products: a position paper has been written and sent out at the end of 2011.
- ▶ The question of the emergency MAM approach versus the development MAM approach (i.e. differentiating more clearly the *modus operandi* for each context).
  1. Work within the MAM task force and preparation of international recommendations for emergency situations is the departure point for this distinction
  2. ACF works with Save the Children and Emergency Nutrition Network (ENN) to test alternative and exclusive approaches based on products in emergency situations ("Moderate Malnutrition Study" research project)
  3. Plans for a thesis: testing the effectiveness of alternative approaches for the prevention of MAM in stable and development contexts (when the situation allows for it, what innovative approaches can replace traditional approaches based on the distribution of food products?).
- ▶ The question of integrating programs to supplement the health system (problem of extra work and loss of treatment quality) versus implementing community-based programs (through local / community NGOs). The "positive deviance model" or "learning and nutritional recovery center / hearth" (FARN) approaches have therefore been tested.





## THE NUTRITION PRODUCTS



S. Hauenstein Swan, ACF UK - Chad

### **Purpose of the document:**

- ▶ **Help policy makers and field practitioners understand the role products can play in nutrition programming and ACF's position on key issues.**
- ▶ **Provide a briefing on the different types of nutrition products available.**
  - ▶ **Give ACF positioning on the key issues around nutrition products.**



## ESSENTIAL MESSAGES

- ACF supports widespread use of the CMAM approach by health facilities and communities through government management, and the local production of RUTF to meet the demand.
- ACF believes that right now RUTF is the most effective treatment for SAM when used with proper management and medical protocols.
- Fortified blended foods with the addition of oil can be effective if efforts are made to minimize defaulting. ACF recommends continuing use of such products due to their lower cost and often local availability.
- Good management of programs, including close follow-up of children, and counselling in relation to caring and feeding practices is just as important as the choice of product.
- Preventing malnutrition requires a multi-sectoral approach.
- ACF acknowledges that there is not enough evidence in the field of products and preventative malnutrition and is continuing to conduct its own research in the field.
- ACF is fully supportive of procuring RUTF from local suppliers.

## INTRODUCTION

The management of acute malnutrition has been revolutionized in recent years, fuelled by innovations in nutrition products. Initially designed to treat severe acute malnutrition, there is now an expanding range of products to prevent acute malnutrition, treat moderate acute malnutrition, and tackle stunting and micronutrient deficiencies. The growing options can present opportunities to improve nutrition programming, but also introduce potential confusion and challenges as to which product to use, cost-effectiveness, local production, sustainability, patents, ethics and the evidence-base for impact.

Whilst chronic under-nutrition and the prevention of micronutrient deficiencies are hugely important, the paper focuses on the use of products in the prevention and treatment of acute malnutrition.

This document examines 3 axes:

- ▶ The treatment of severe acute malnutrition;
- ▶ The prevention and treatment of moderate acute malnutrition;
- ▶ The role of nutritional products as part of broader strategies to build resilience to, and prevent, under-nutrition.

The paper focuses on children aged 6-59 months, which represent the majority of beneficiaries within ACF's global programs. ACF interventions also focus on other sub-groups such as:

- ▶ Pregnant and lactating women, children under 6 months encompassing the window of opportunity for treatment and prevention of long term disability and chronic diseases,
- ▶ Adolescents and HIV-infected patients, for which separate guidance is available.

## ACF POSITION ON READY-TO-USE THERAPEUTIC FOOD (RUTF) AND WITHIN THE TREATMENT OF SEVERE ACUTE MALNUTRITION (SAM)

ACF recognizes that there are multiple factors that contribute to the recovery of patients from severe acute malnutrition.

Whilst therapeutic products, including RUTF, have been proved a key element of success, it is important to note from the beginning that the supply of a product is accompanied by other program components:

- ▶ **A medical protocol<sup>54</sup>** is used to take care of underlying infections and to respond to new or worsening symptoms appropriately.
- ▶ Within outpatient care **weekly follow-up is essential**, with criteria of how to respond to patients who are not recovering properly.
- ▶ In inpatient care: it is essential to have **continuous observations by qualified medical personnel**.
- ▶ Continual emphasis is placed on the **role of appropriate infant and young child feeding** within sustainable recovery.
- ▶ A number of ACF missions have found it helpful to introduce **focus groups, individual counselling and home follow-up** of non-responders and defaulters as a way of improving recovery rates and reducing the proportion of defaulters.



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54 - Guidelines for the integrated management of severe acute malnutrition: in- and out-patient treatment - ACF-IN December 2011 with the expertise of Professor Michael H. Golden and Dr. Yvonne Grellety



- In ACF experience, even if supply chain of RUTF is disrupted temporarily, the **continuation of good management procedures that emphasize the other elements of the program can help ensure successful outcomes.**

## **RUTF LOCAL PRODUCTION AND VALIDATION**

ACF procures ready-to-use therapeutic food (RUTF) directly from a variety of suppliers. However, many projects receive in-kind contributions from UNICEF which may be sourced from further suppliers.

ACF is in the process of validating several suppliers and has designed its own approval protocol following UNICEF and MSF validation mechanisms. ACF would support the establishment of an independent approval board so that it is not only the main RUTF customers who are the quality regulators.

We see the potential advantages and are therefore fully supportive of procuring RUTF from local suppliers based in developing countries using local food products wherever possible and will be pursuing our validation process with local suppliers where product efficacy, safety and quality has been demonstrated.

## **RUTF AND PATENTS**

ACF acknowledges that the global demand for RUTF will continue to increase, particularly as RUTF usage becomes integrated into existing health systems. As such no single producer can be relied on due to constraints on production capacity and the global supply chain. ACF therefore welcomes the steps Nutriset have taken recently to make access to the patent agreement more accessible to local producers.

ACF does not consider patents as inherently wrong, recognising the role they can play in protecting RUTF quality and local producer viability, as long as rules are set to ensure a sustainable global supply chain of RUTF.

### **ACF POSITION RUTF approbation**

ACF encourages governments to evaluate the wealth of existing data that supports use of RUTF as treatment for SAM. ACF supports widespread use of the CMAM approach by health facilities and communities through government management, and the local production of RUTF to meet the demand. The scale-up of CMAM should be alongside (and not replace) initiatives which look at all forms of malnutrition.

## **COST OF RUTF**

Since the cost of many RUTF products is highly linked to fluctuating milk powder prices, ACF welcomes continued research into lower cost alternatives using locally available products.

We also recognise that locally-made RUTF products may not be inexpensive due to lack of subsidies for key ingredients found in some developed countries. However, ACF feels the added benefit to the local economy brought about by local factories should be factored into any cost-benefit analysis when choosing products, and suggests that quantitative research into such local benefits is continued and published.

### **ACF POSITION Cost of RUTF**

ACF believes that for now RUTF is the most effective treatment for SAM when used with proper management and medical protocols, and should be continued despite the higher product costs in comparison to other nutrition interventions. We advocate for the scale-up of the treatment of SAM.



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## **COVERAGE AND FUNDING OF SAM TREATMENT**

ACF fully supports the scaling up of CMAM activities for the treatment of SAM. RUTF production and the CMAM approach needs to be dramatically increased if all children with SAM are to be treated.

**We believe that the only way to achieve substantial coverage is through supporting governments to integrate the CMAM approach into existing health facilities whenever possible.**

## **RUTF AND IMPACT ON BREASTFEEDING**

ACF fully supports and agrees that exclusive breastfeeding for children less than 6 months of age is essential for optimum child health. ACF actively promotes this best practice, as well as advocating for sustained breastfeeding for children aged 6-24 months. As a treatment for SAM, ACF does not consider that the use of RUTF undermines breastfeeding, but acknowledges that careful follow-up should monitor this risk. If

### **TO GO FURTHER**

IFE (Infant Feeding in Emergencies) is an inter-agency collaboration between United Nations Agencies and Non-Governmental Organizations (ENN, ACF, SC-UK & US, IBFAN, CARE, WFP, UNHCR, UNICEF) concerned by the orientation in terms of policies, implementation and capacity building about IFE.



international protocols are followed, then no RUTF should be given to children below 6 months, and for children aged 6-24 months breastfeeding is encouraged before the child is offered RUTF.

## **POTENTIAL NEGATIVE IMPACTS OF RAPID WEIGHT GAIN FOLLOWING RUTF TREATMENT**

There is research indicating an association between rapid childhood weight gain of thin children and later chronic disease. It is not clear whether the short period of weight gain seen in SAM children would have any negative consequences later in life, particularly if the child returned to a normal weight after recovery. Rapid early weight gain and then continued obesity for childhood would seem to be a greater cause for concern, although more research is needed to verify this.

ACF will continue to treat SAM children with RUTF as part of the management protocol due to the elevated risk of immediate mortality.

ACF acknowledges the obvious need for further research.

## **ACF POSITION ON PRODUCTS DESIGNED FOR THE TREATMENT OF MAM**

Regarding the use of products for treating MAM (which is not the only available approach):

- ▶ ACF acknowledges that programs involving traditional CSB<sup>55</sup> have not been highly effective, and that the general trend coming out of recent research shows RUSF may be a viable and potentially more effective alternative.
- ▶ Much of the research involving RUSF has come out of Malawi and Niger, and ACF welcomes further research in different settings to help validate RUSF for international use. ACF will also continue with its own research on the topic.
- ▶ **CSB++ is a promising product** that has been re-designed (milk and micronutrients have been added) to take account of many of the nutritional limitations of traditional CSB. Lack of field-based evidence surrounding CSB++ makes it difficult to take a position on it at this stage, but ACF welcomes further research on it.
- ▶ **Fortified blended foods with the addition of oil can be effective if efforts are made to minimise defaulting.** ACF recommends continuing use of such products due to their lower cost and often local availability. If CSB++ is not available, and fortified oil is not available to accompany other fortified blended products then effectiveness will be compromised. In this scenario ACF recommends the use of an RUSF like Plumpy'sup®.

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<sup>55</sup> - CSB: Corn Soya Blends = Farines mélangées maïs-soja maintenant CSB+ est appelé Supercereal et CSB++ supercereal+



- ▶ ACF notes the potential effectiveness of RUTF in treating MAM but does not support this practice. If given a choice between RUTF and RUSF for the treatment of MAM we recommend using RUSF due to the importance of keeping a sustainable pipeline of RUTF for those who most need it and its sometimes lower cost. It is important to avoid any potential confusion in the community regarding the use of RUTF as a therapeutic food which should not be shared or sold.
- ▶ Good management of programs, including close follow-up of children, and counselling in relation to caring and feeding practices is just as important as the choice of product. Further research is needed on this topic.
- ▶ ACF stresses the need to remember that products given for the treatment of MAM should be given in conjunction with the international medical protocol and close follow-up.

## ACF POSITION ON PRODUCTS DESIGNED FOR THE PREVENTION OF ACUTE MALNUTRITION

- ▶ ACF regards infant and young child feeding best practices as crucial in the effort to prevent malnutrition. Every effort should be made to ensure that the introduction of products does not undermine breastfeeding, and any focus on a product intervention should always be accompanied by adequate IYCF work. This should include the promotion of, and support to, appropriate caring practices and understanding what the barriers are to good IYCF and caring practices.
- ▶ There are many approaches to preventing acute malnutrition, of which the provision of products is just one option. **Preventing malnutrition requires a multi-sectoral approach and therefore even if products are used they should only form one part of the response.**
- ▶ Where it has been determined that a direct nutritional intervention is required, a food-based approach should be used where possible to prevent acute malnutrition because of its lower cost, better sustainability and cultural appropriateness. However, in contexts of **displacement or natural disasters** which have cut off food supplies, products may be the only viable option to prevent a high caseload of patients with acute malnutrition. **In this scenario Ready-to-Use Complementary Food (RUCF) could be used** (i.e. not RUTF or RUSF due to their overlap with treatment of SAM and MAM).
- ▶ ACF acknowledges that there is not enough evidence in the field of products and preventative malnutrition and is continuing to conduct its own research in the field.



## POSITION D'ACF Summary

- ▶ The solution to the management of acute malnutrition does not lie with products alone. Nutrition causal analysis should be used to determine which integrated approach should be used. Products can play a boosting role, but need to be considered as part of a wider package of support. Indeed, periods when there are temporarily reduced or interrupted supplies of therapeutic products emphasize the importance of continued medical monitoring and management to contribute to successful outcomes for the affected individuals and their families.
- ▶ **Treatment of severe acute malnutrition requires the use of therapeutic milks and RUTF in accordance with the CMAM approach.**
- ▶ The management of moderate acute malnutrition is less clear-cut. There is often an artificial divide between treatment and prevention, and approaches designed for one can have an impact on the other.
- ▶ If a direct nutrition intervention involving supplementation of diets is required, the choice between products and a food-based approach depends on:
  - the context considering nutrition requirements,
  - nutritional quality,
  - time frame, sustainability,
  - program setting,
  - available funding and
  - cultural acceptability.
- ▶ The field of nutrition products is rapidly evolving. ACF will continue to conduct relevant research to help inform program policy. A continual review of ACF positions will be needed as more products become available and as more research findings are shared.



## CHRONIC UNDER-NUTRITION



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**Purpose of the document:**  
**Know key issues about chronic under-nutrition and  
ACF's position on this subject.**



## ESSENTIAL MESSAGES

- Chronic under-nutrition is a process, which occurs since conception and over the long term especially in the period until 24 months old (1000 days) as opposed to acute malnutrition which reflects recent nutritional status.
- Chronic under-nutrition usually occurs in children aged less than 2 years old but after a child reaches two or three years of age, chronic under-nutrition may be irreversible and damage to the child's development is likely to be permanent.
- Many chronically malnourished individuals survive to reach adult age, however these individuals are "vulnerable survivors" with **specific developmental deficiencies** that are the result of chronic under-nutrition experienced during early childhood.
- The reproductive health of women who were chronically malnourished in childhood is also compromised, increasing both maternal and infant mortality risks and the rate of low birth weight babies.
- Under-nutrition restricts the development capacity of communities and **maintains inter-generational transmission of poverty**.

## WHAT IS CHRONIC UNDER-NUTRITION?

It is called as well **stunting or growth failure**.

- ▶ Characterized by a short Length/ height (for a given age).
- ▶ Measured using the length/height for age index (HFA) according to WHO growth standards 2006.
- ▶ Categorized into moderate ( $-3 \text{ SD} \leq \text{HFA} < -2 \text{ SD}$ ) and severe ( $< -3 \text{ SD}$ ).
- ▶ Difficult to evaluate in cases where the child's exact age is not known.
- ▶ **A process, which occurs since conception, and over the long term especially in the period until 24 months old (1000 days) as opposed to acute malnutrition which reflects recent nutritional status.**
- ▶ Children can be both acutely and chronically malnourished at the same time<sup>56</sup>.
- ▶ Child stunting leads to significant reduction in adult size and one of the main consequences is reduced work capacity which in turn has an impact on economic productivity.

56 - Claudine Prudhon. Assessment and Treatment of Malnutrition in Emergency Situations. Action contre la Faim. 2002.

# HOW TO MEASURE CHRONIC UNDER-NUTRITION?

## GROWTH STANDARDS

The World Health Organisation (WHO 2006<sup>57</sup>) has established Growth Standards based on the breastfed infant from 6 different regions in the world (Brazil, Ghana, India, Norway, Oman and the USA) as the normative growth mode. These replace those, which were developed on non-breastfed American children (NCHS 1977<sup>58</sup>). The new standards describe normal child growth from birth to 5 years, under optimal environmental conditions and can be applied to all children everywhere, regardless of ethnicity, socioeconomic status and type of feeding<sup>59</sup>.

## CHRONIC UNDER-NUTRITION IS NOT UNDERWEIGHT

Often wrongly termed chronic under-nutrition, underweight or a low Weight for age index (WFA) can be due to a low Weight for Height (WFH) or low HFA or both. It is a composite indicator and as such, WFA reflects both long term and recent malnutrition. This makes WFA an inappropriate indicator for the assessment of either acute or chronic under-nutrition. It is often used to track the growth of individual children over time, in growth monitoring programs.

## USE OF CHRONIC UNDER-NUTRITION INDICATORS

Stunting or low HFA is a measure of chronic under-nutrition. The long timescale over which HFA is affected makes it more useful for long-term planning and policy development rather than for emergencies. For example, it is useful for evaluating the effects of socio-economic change or development programs in a given context<sup>60</sup>.

The very high level of stunting in much of the developing world also means that it is not useful in emergency assessments or as a screening tool for entrance into emergency feeding programs<sup>61</sup>.

Emergency assessments, which report chronic under-nutrition, usually do so because the measure provides useful contextual data of the long term nutritional status of the children.

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57 - Child Growth Standards: <http://www.who.int/childgrowth>

58 - Hamill PVV, Hamill PVV, Drizid TA, *et al.* NCHS Growth Curves for Children Birth-18 Years. Vital and Health Statistics Series 11 No 165. Hyattsville, MD: USHEW-PHS; 1977. DHEW Publ. No. (PHS) 78-1650.

59 - Child Growth Standards: <http://www.who.int/childgrowth>

60 - Emergency Nutrition Assessment. Save the Children UK. 2004

61 - Emergency Nutrition Assessment. Save the Children UK. 2004



## CAUSES OF CHRONIC UNDER-NUTRITION

Chronic Under-nutrition is almost certainly due to a very complex interaction of multiple mechanisms (genetic, nutritional, environmental, social and economic) and whilst little is known about the causes of growth failure, it is assumed that repeated illness in childhood, deficiencies of certain micronutrients, inappropriate feeding or care practices, etc... contribute largely.

Height and weight are sensitive indicators of overall health, **height is considered to be a more accurate measure of growth process** (Saxena & al 2000). In fact, stunting is indicated by a low height-for-age and indeed, height for age at 2 years is the best health indicator of human capital (Black & al, 2008; Victora & al, 2008).

The first 1000 days (conception until 24 months) are crucial in the development of child. It is important to consider impact of the mother health during pregnancy and in first months of life on the proper development of child. In fact, if the mother health and nutrition status is low, there is higher risk of intrauterine growth retardation. Then the child will have a low birth weight, and could be too weak to be able to suckle. Also the mother could be tired if she is not in good health condition; she will be not able to take care of her baby properly and to breastfed adequately.

A child exposed to inadequate nutrition or bouts of disease for a long period of time will grow more slowly than other children of the same age who are not exposed to poor nutrition or disease. As the development of stunting is a slow, cumulative process, it may not be evident for some years, by which time nutrition may have improve<sup>62</sup>.

More generally, growth failure may be regarded as an indication of poverty, being caused by gender discrimination, limited access to food, health care and education and insufficient knowledge about child nutrition<sup>63</sup>.



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## CONSEQUENCES OF CHRONIC UNDER-NUTRITION

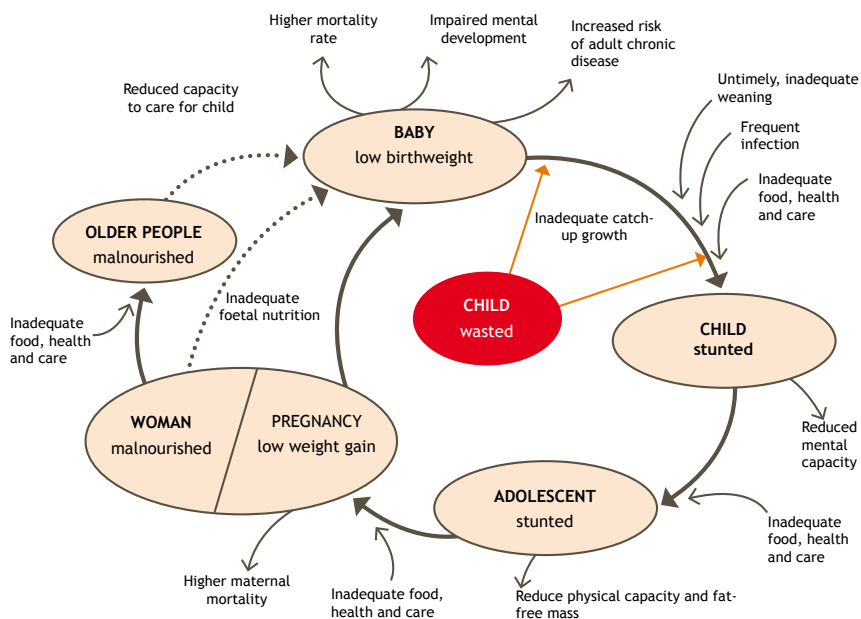
Chronic under-nutrition has long-term implications on a child's physical and mental development. It usually occurs in children aged less than 2 years old but after a child reaches two or three years of age, chronic under-nutrition may be irreversible and damage to the child's development is likely to be permanent.

62 - Emergency Nutrition Assessment. Save the Children UK. 2004

63 - IFAD workshop: <http://www.ifad.org/media/press/2001/01-26.htm> accessed 5<sup>th</sup> June 2006

Chronic under-nutrition is debilitating and stunted children also face a higher risk of mortality than well-nourished children.

Many chronically malnourished individuals survive to reach adult age, however these individuals are "vulnerable survivors" with **specific developmental deficiencies** that are the result of chronic under-nutrition experienced during early childhood.



Source: SCC/SCN

Figure 28: The impact of hunger and malnutrition throughout the life cycle

At the population level these deficiencies can affect the education potential, the economic opportunities the physical capacity and agricultural productivity. Chronic Under-nutrition restricts the development capacity of communities and **perpetuates inter-generational transmission of poverty**.

The reproductive health of women who were chronically malnourished in childhood is also compromised, increasing both maternal and infant mortality risks and the rate of low birth weight babies.



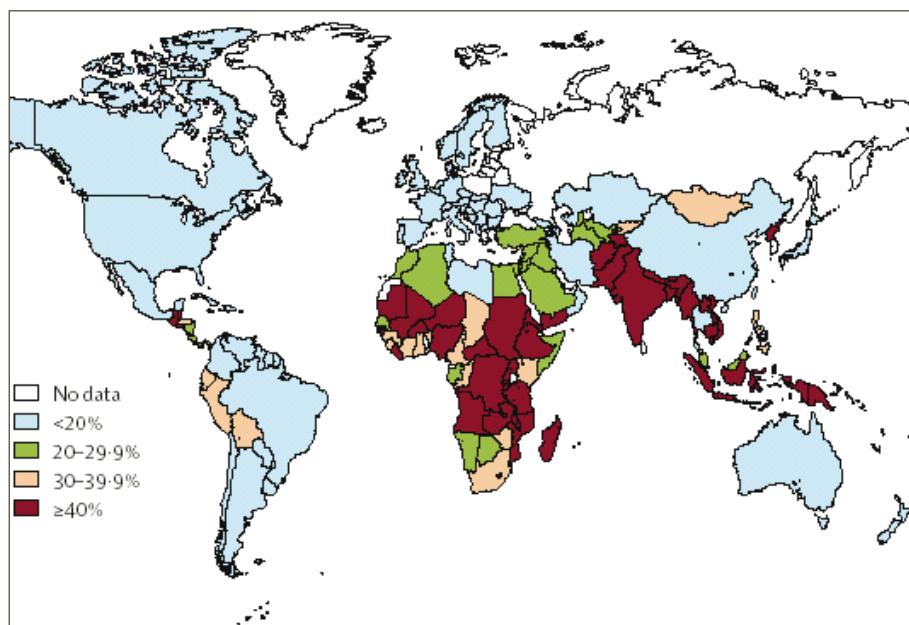
## SOME FIGURES

- ▶ 1% loss in adult height due to childhood stunting is associated with a 1.4% loss in productivity.
- ▶ Stunting may reduce a person's IQ by 5 - 11 points.

*The World Bank 2006 - Repositioning Nutrition as central to development.*

- ▶ 13 million children are born annually with Intra-Uterine Growth Retardation.
- ▶ 178 million children under 5 years suffer from stunting, the vast majority in south-central Asia and sub-Saharan Africa (see figure below).
- ▶ Of these, 160 million (90%) live in just 36 countries, representing almost half (46%) of the 348 million children in those countries.

*Lancet series 2008 - Maternal and Child Under nutrition*



Source: Lancet Maternal and Child Undernutrition series paper 1

Figure 29: Prevalence of Stunting in children under 5 years



## SOLUTIONS

International efforts to alleviate poverty and to improve food and nutrition security have been made. However, these have not generated results in line with expectations. The effects of treating cases of growth failure with nutritional supplements are uncertain; information derived from various operational sources is contradictory.

Programs aiming to decrease chronic under-nutrition rates need to be long term and comprehensive, including both community based approaches and governance issues at the national level. Specific legislative changes need to be made and enforced (e.g. national fortification and micronutrient supplementation).

A workshop conducted by the International Fund for Agricultural Development (IFAD) 2001<sup>64</sup>, concluded that chronic under-nutrition is closely linked to poverty and that placing chronic under-nutrition at the centre of poverty reduction strategies (PRSP: Poverty Reduction Strategy Papers) is important in future program design. It requires a considerable amount of sensitisation at all levels and improved inter-agency collaboration.

Community based organisations will have to own the strategy. The development assistance to reduce poverty and chronic under-nutrition will have to be provided within the framework of assistance for community based organisations. It would focus on activities the poor prioritize. Programs will emphasise empowerment of women and decentralised governance. Program design needs to establish explicit targets for reducing chronic under-nutrition, and measure the impact over the life of the program<sup>65</sup>. A specific focus on scaling up nutrition services and on the first 1000 days of life (conception to 24 months) should be done.



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### ACF POSITION

#### Chronic Under-nutrition

ACF-IN tries to take a transversal approach to programming wherever possible and whilst there is ground to be gained in this respect, transversal programming aims to improve some of the conditions, which ultimately lead to the problems of chronic under-nutrition.

There is obvious overlap between many of the activities we carry out on the field in improving conditions, which potentially lead to chronic under-nutrition, and as such we can consider that much of what we do contributes to the prevention of chronic under-nutrition, although it is recognised that these efforts remain just part of the picture. The water and sanitation programs, care practices activities, micronutrient interventions, and specific focus on pregnant or lactating women, food security activities, etc... all contribute to this effort.

64 - IFAD workshop: <http://www.ifad.org/media/press/2001/01-26.htm>

65 - IFAD workshop: <http://www.ifad.org/media/press/2001/01-26.htm>



In addition the activities in Guatemala, Colombia, Peru, Bolivia and Paraguay (ACF-Spain) tackle chronic under-nutrition with a focus on infant and young children development.

**Micronutrients are one of the contributing factors, which are undoubtedly involved in Chronic under-nutrition**, yet have remained a relatively unexplored area for ACF-IN. Progress has been made to improve our field knowledge about micronutrients and the different possibilities for programs, with a focus on future technical partnerships and participation to external technical groups.

**Currently ACF-Spain is working on a briefing paper on micronutrient deficiencies interventions that will be followed by a Strategy Paper.** Also, there are programs on micronutrients in Peru, Bolivia, Mali and Palestine and evaluation in Syria and Timor.

The approaches proposed to prevent chronic under-nutrition are numerous and are demanding a long term approach. In fact, most of the time, the approaches are focusing on feeding habits in term of quality of food (diversity, adapted to the age, enough rich in micronutrients...), and feeding practices (breastfeeding, complementary feeding...).

**It is important for ACF to conduct more researches to prove if there is a real impact on the incidence of stunting, to measure it and find the appropriate approach according to the context.**

Even the increasing interest of ACF on stunting issue, ACF is still giving priority to the treatment and prevention of acute malnutrition as the children are in direct danger of death.

## REFERENCES

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- Scaling Up Nutrition (SUN):
  - [http://www.unscn.org/en/scaling\\_up\\_nutrition\\_sun/](http://www.unscn.org/en/scaling_up_nutrition_sun/)
  - <http://www.scalingupnutrition.org/>
- Literature review June Hirsch - "Stunting and catch up growth - reversibility of stunting" - ACF-France - August 2011
- The World Bank 2006 - Repositioning Nutrition as central to development. Lancet 2008 (Series) - Maternal and child under-nutrition



# THE DOUBLE BURDEN OF MALNUTRITION



**Purpose of the document:**  
**To understand the relationship between under-nutrition, obesity and poverty.**



## ESSENTIAL MESSAGES

- ACF does not work on over-nutrition but takes account and keeps informed on the issues of over-nutrition in each mission.
- It is not uncommon to find families in which the obesity of the adults reflects the chronic under-nourishment of the children.
- Health problems associated with over-nutrition or excessive consumption of certain foods or food components are among the leading causes of death, taking the form of chronic diseases.
- It seems essential for teams combating chronic malnutrition to consider the problems of excess weight in adults.
- Obesity is preventable.

## WHAT IS THE DOUBLE BURDEN?

Although ACF teams are familiar with the issues of chronic and acute under-nutrition, they are less familiar with the problems caused by obesity. However, the teams are seeing a yearly increase in the prevalence of obesity. Obesity is a particular problem in countries experiencing strong economic growth but in which there remain great discrepancies in equality. In these regions, not only is the number of obese children becoming very high (42% in Mexico, 22% in Brazil, 22% in India<sup>66</sup>), but it is also not uncommon to find families in which the obesity of the adults reflects the chronic under-nourishment of the children.

## THE PROBLEM OF OBESITY

### EXCESS WEIGHT AND OBESITY (WHO DEFINITIONS)

Excess weight and obesity are defined as an abnormal or excessive accumulation of body fat that can be harmful to the health.

The body mass index (BMI) is a simple measurement of the weight-to-height ratio that can be used to estimate under-nutrition, excess weight and obesity in adults.

$$\text{BMI (Kg/m}^2\text{)} = \text{Weight} \div \text{Height}^2$$

66 - Childhood obesity in developing countries: epidemiology, determinants, and prevention. Gupta N, Goel K, Shah P, Misra A. Endocr Rev. 2012 Feb;33(1):48-70. Epub 2012 Jan 12.

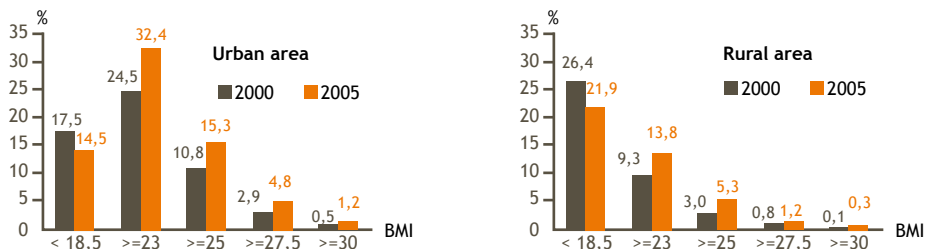


Figure 30: Changes in the distribution of the body mass index of adults in Vietna between 2000 and 2005

The WHO defines:

- ▶ excess weight as a BMI greater than or equal to 25;
- ▶ obesity as a BMI greater than or equal to 30.

BMI is the most useful measure of excess weight and obesity in a population, because for adults the scale is the same no matter the subject's gender or age. However, it is only an approximate guideline, since individuals may have the same BMI but different amounts of body fat.

BMI Chart (WHO)	
< 16.5	Under-nourished
16.5 to 18.5	Thin
18.5 to 25	Normal weight
25 to 30	Overweight
30 to 35	Moderately obese
35 to 40	Severely obese
> 40	Morbidly obese

## THE CONSEQUENCES

Health problems associated with over-nutrition or excessive consumption of certain foods or food components are among the leading causes of death, taking the form of chronic diseases such as heart disease, stroke, diabetes and cancer. In 2005, chronic diseases caused 35 million deaths worldwide, 80% of which were in low- or middle-income countries.

In Bangladesh, Bloem and his colleagues<sup>67</sup> found that over a third of the country's women suffered from under-nutrition (BMI<18.5 kg/m<sup>2</sup>: 39% in rural areas and 30% in towns), although this percentage fell between 2000 and 2004 to around 5%. At the same time, 9% of women in urban areas and 4% in rural areas were clearly overweight (BMI>25). Women with higher incomes and who had less access to a varied diet were at a distinctly higher risk of being overweight. Educated women living in the countryside were 8 times more likely than uneducated women (CI 6.6 - 8.7) to be overweight.

67 - Trends of under- and overweight among rural and urban poor women indicate the double burden of malnutrition in Bangladesh, Shafique S, Akhter N, Stalkamp G, de Pee S, Panagides D, Bloem MW, Int J Epidemiol, 2007 Apr; 36 (2) 449-57



According to WHO estimates<sup>68</sup> in 2010, there were 43 million children under age five and at least 300 million adults who were clinically obese (BMI>30). At the same time, it was estimated that 15% of children worldwide (170 million) were suffering from chronic malnutrition<sup>69</sup>.

## **PHYSIOPATHOLOGY OF OBESITY AND CHRONIC UNDER-NUTRITION**

The physiopathology of both obesity and chronic malnutrition are complex and largely misunderstood. We know that obesity is caused by the consumption of a large amount of high-calorie foods. The variety of available food is often reduced in countries in economic transition, whose populations face rapid urbanization and an increase in sedentary lifestyles. Families who have the means must consume food high in calories and low in nutrients. This chronic deficiency partly explains stunted growth in children. Their diet is relatively unvaried and lacks elements crucial to growth. This diet also partly explains parents' obesity. Unable to obtain daily recommended allowances from normal food portions, adults are partially forced into overconsumption.

## **THE LINK BETWEEN OBESITY AND UNDER-NUTRITION**

In order to better understand these trends, we will describe the situation of families with obese parents, the children and possible causes.

In a large study in Bangladesh and Indonesia (two countries where we have operations addressing severe malnutrition), Kraemer and his colleagues<sup>70</sup> describe the following situation:

- ▶ The problem occurs in 11% of families in Indonesia and 4% in Bangladesh
- ▶ Mothers afflicted by stunting were twice as likely to be obese while at the same time having a child with stunted growth (OR 2.32; 2.25 - 2.40)
- ▶ Families that were larger and who had greater expenses were at a higher risk (OR 1.94; 1.77 - 2.12)

**It seems essential for teams combating chronic malnutrition to consider the problems of excess weight in adults.**

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68 - <http://www.who.int/features/factfiles/nutrition/facts/en/index7.html> (accessed 7/7/12)

69 - Nationwide shifts in the double burden of overweight and underweight in Vietnamese adults in 2000 and 2005: two national nutrition surveys, Do TP Ha, Edith JM Feskens, Paul Deurenberg, Le B Mai, Nguyen C Khan and Frans J Kok, BMC Public Health. 2011; 11: 62.

70 - Predictors of maternal and child double burden of malnutrition in rural Indonesia and Bangladesh. Odoo VM, Rah JH, Sun

## • Figures

- ▶ The number of obesity cases has doubled worldwide since 1980.
- ▶ 1.4 billion Individuals aged 20 and over are overweight; among these, more than 200 million men and almost 300 million women are obese (2008 estimates).
- ▶ Nearly 43 million children under age 5 are overweight (2010 estimates).
- ▶ 65% of the world's population lives in countries where excess weight and obesity cause more deaths than being underweight.
- ▶ Obesity is preventable.

### ACF POSITION

ACF is known for combating malnutrition. People may become confused by the different types of malnutrition. It is important to:

- ▶ Use the word “under-nutrition” instead of “malnutrition” to define our area of work.
- ▶ Understand and stay informed about under-nutrition issues for each mission.
- ▶ Explain when necessary that although our work does not include over-nutrition, when we implement food diversification programs we are also combating other form of malnutrition.

#### **DO NO HARM :**

**REMINDER → Do not offer soda at community organizer training sessions**







## HIV & NUTRITION



**Purpose of the document:**  
**To know the key issues around HIV in nutrition programs  
and the implications for ACF.**



## ESSENTIAL MESSAGES

- A person HIV positive has increased energy needs, and necessitates a good diet.
- The food security and the nutrition are crucial to the HIV treatment. Recent data show that the people who start an antiretroviral therapy without an adequate nutrition have lower survival chances.
- Within a HIV program, multiple micronutrient supplementations may be appropriate. Therapeutic and supplementary feeding covers those beneficiaries identified as severely and moderately malnourished.
- Where targeted nutrition supplementation is not indicated, linkages can be established between ACF programs and community food based interventions.
- ACF-IN supports HIV counselling and testing both as a means of prevention and as a way to access care and treatment.
- In areas where access is still limited or not available, strong advocacy should take place.
- Ideally a HIV test should be offered to all children and their caretakers enrolled in ACF-IN programs in high HIV prevalence countries.
- Given the strong link between HIV, malnutrition and TB, regular TB screening should take place within programmes treating malnutrition and should be targeted towards both children and caretakers.

## WHAT IS HIV?

The human immunodeficiency virus (HIV) is a retrovirus which attacks the immune system cells and destroys it, or makes it inefficient. HIV is transmitted through the blood, sexual secretions and breast milk.

**At the first stages of the infection the person does not have any symptoms. However the infection evolution along years leads to the immune system weakening and a greater vulnerability to the opportunistic infections.**

**The acquired immunodeficiency syndrome (AIDS) is the last stage of the HIV infection. It can appear after 10 to 15 years. Antiretroviral treatment can slow its evolution down<sup>71</sup>.**

**HIV epidemic is a disease** as malaria or drought or disaster or other factors creating vulnerability among populations.

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71 - [http://www.who.int/topics/hiv\\_aids/fr/index.html](http://www.who.int/topics/hiv_aids/fr/index.html)

HIV infection has impact at all levels from individual to family, society, country, and world ones and at all ages.

It affects all sectors from health, to agriculture, education, economy, social and many others. ACF cannot ignore it as such.

## NUTRITION IMPLICATION

A person HIV positive has increased energy needs, and necessitates a good diet. He/she is more vulnerable to diseases hence needs better access to health services, to clean water and sanitation facilities.

This person often loses the physical capacity to work in case of loss of weight hence needs **support in order to maintain his/her food and nutrition security**. This can affect the whole family and can lead to a vicious cycle where the family gets impoverished by decreased income, additional health and funeral costs, etc.

A person HIV positive needs a supportive environment where people show solidarity and empathy, etc. in a “positive attitude” in order to adopt a “positive living” manner so that access to services is not conditioned or denied by stigma and/or discrimination.

ACF has to take these aspects in consideration when designing and delivering programs to population affected and/or infected by HIV.

## SOME FACTS / FIGURES<sup>72</sup>...

- From the beginning of the epidemic almost 60 million people have been infected by HIV, and 25 million people died from causes related to HIV.
- The 59<sup>th</sup> World Health Assembly, bringing together the Ministry of Health from 192 countries, adopted in May 2006 a resolution (59.11) which asks to the countries to include the nutrition as a part of the general riposte to HIV, by identifying the food interventions that can / must be immediately integrated in HIV programs<sup>73</sup>.

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72 - ONUSIDA - Le point sur l'épidémie de sida, décembre 2009 et Rapport ONUSIDA sur l'épidémie mondiale de sida - 2010.

73 - L'Assemblée de la Santé a également prié l'OMS d'élaborer un plan sur cinq ans pour contribuer à atteindre l'accès universel au traitement du VIH/sida d'ici à 2010. Voir WHA59.11 Nutrition et VIH/sida ([http://www.who.int/gb/ebwha/pdf\\_files/WHA59-REC1/f/Resolutions-fr.pdf](http://www.who.int/gb/ebwha/pdf_files/WHA59-REC1/f/Resolutions-fr.pdf)).

Ceci suivait une recommandation de la Consultation organisée en 2005 par l'OMS sur la nutrition et le VIH/sida en Afrique à Durban (Afrique du Sud), qui a passé en revue les données existantes sur la nutrition et le VIH et formulé des recommandations qui ont constitué la base de la politique future de l'OMS.



- ▶ Food security and Nutrition are essential to the HIV treatment. Some recent data show that the infected persons who start an antiretroviral therapy without an adequate nutrition have smaller survival rates<sup>74</sup>.
- ▶ The antiretroviral therapy itself can increase appetite, and it is possible to reduce some side effects and to encourage the treatment observance when some medications are taken along with a meal<sup>75</sup>.
- ▶ In ideal conditions the delivery of an antiretroviral prophylaxis and a substitution food ensures to reduce the mother-child transmission from 30-35% without any intervention to 1-2%.
- ▶ The extension of the access to treatment enabled to decrease of 19% the deaths among the people living with HIV between 2004 and 2009. However 10 million people living with HIV who respond to the criteria to receive the treatment according to WHO guidelines don't benefit from it.
- ▶ Amongst the 15 million people living with HIV in low or intermediate income countries who need a treatment, only 5.2 million have access to it.
- ▶ Sub-Saharan Africa is the most affected region and hosts 67% of the total people living with HIV in the world, and 91% of the total new infections amongst children.
- ▶ Today a very large part of the countries (89%) make an explicit place to human rights in their national strategy of fight against AIDS, and 92% of the countries declare that they have some programs aiming at reducing stigmatization and discrimination related to HIV.
- ▶ The benefit from the ARV treatment is fewer in malnourished people than in non-malnourished ones (Zachariah R. et al, 2006).
  - Mortality 3 times higher in moderately malnourished
  - Mortality 6 times higher in severely malnourished

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74 - Paton NI *et al.* (2006), op. cit. 4: cette étude réalisée à Singapour conclut que les patients qui commencent une thérapie antirétrovirale sans une nutrition adéquate ont une probabilité six fois plus élevée de mourir. D'autres argumentent qu'il n'existe pas encore suffisamment de données pour en tirer des résultats concluants - voir: Friis (2006), op. cit. 5 ; Drain P *et al.* (2007). Micronutrients in HIV-positive persons receiving highly active antiretroviral therapy. *The American Journal of Clinical Nutrition*, 85:333-345.

75 - Seume-Fosso *et al.* (2004), op. cit. 9 ; Banque mondiale (2007), op. cit. 9.

## HIV & NUTRITION

A good alimentation allows to a person affected by HIV to preserve her health and her quality of life. The infection by HIV destroys the immune system that leads to other infections, fever and diarrhoea. Those infections can reduce food consumption by affecting appetite and decreasing the body capacity to absorb nutrients. As a result the person suffers from under-nutrition by losing weight and thus is weaker.

At the declared state, one of the AIDS signs is a 6 to 7 kg weight loss for an adult. If a person already presents a weight insufficiency, an additional weight loss can have serious consequences. A healthy and balanced diet, an early treatment of the infection and an adequate nutritional rehabilitation after infection can reduce this weight loss and decrease the impact of a possible future infection<sup>76</sup>.

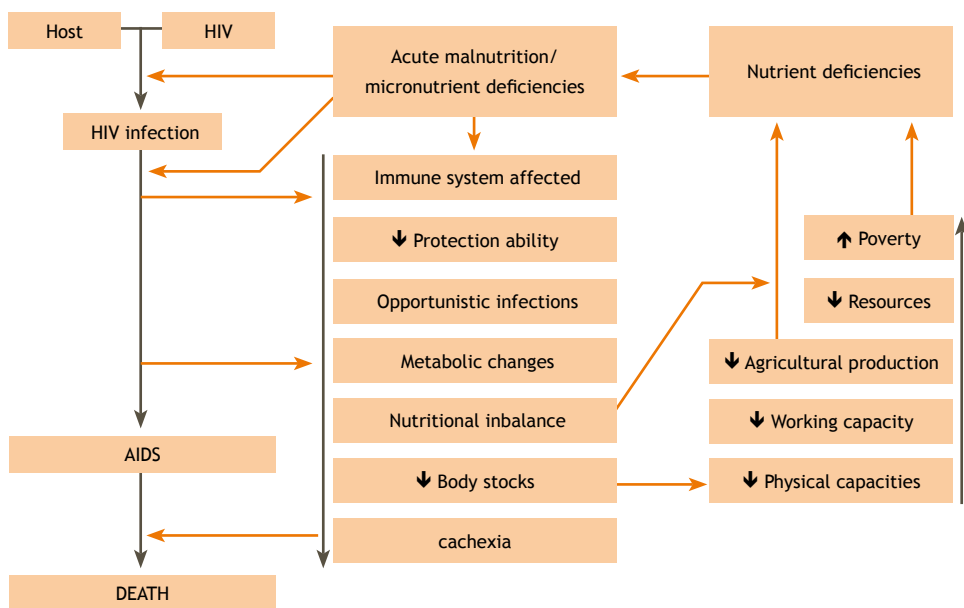


Figure 31: Malnutrition and HIV infection interactions (Chevalier, FAO-IRD, 2003)

76 - Extrait de: Vivre au mieux avec le VIH/SIDA - Un manuel sur les soins et le soutien nutritionnels à l'usage des personnes vivant avec le VIH/SIDA - FAO 2003.



## **“MAINSTREAMING OF HIV” WITHIN ACF USUAL ACTIVITIES**

Programs mainstreaming HIV are not Specific HIV programs i.e. they do not develop special activities for only HIV positive people such as HIV awareness campaigns for youth, Medical treatment programs for Antiretroviral Therapy and Opportunistic Infections, etc.

- **“Mainstreaming HIV” means we adapt what we already do to fit the needs of HIV infected people.**

*Examples:*

1. A latrine should provide a seat and handles for weak people so they can seat.
  2. Food distributions in a refugee camp need to provide more energy per person if the prevalence of HIV is high in this population (even more if they cannot access the treatment).
  3. Any Severely Acute Malnourished child suspicious of HIV or confirmed HIV positive should receive Cotrimoxazole prophylaxis in addition to Amoxicillin the first line antibiotic in Nutrition programs when under SAM treatment.
- **Several ACF policy documents have been developed in relation to HIV:**
    - ▶ ACF - HIV Mainstreaming into programme Policy 2008
    - ▶ ACF - HIV technical policy 2007
    - ▶ ACF-France Human Resources - HIV at the Workplace policy - draft 2007
    - ▶ ACF PEP policy 2005

## **HIV PROGRAMS WITH NUTRITION COMPONENT**

Nutrition should be mainstreamed into HIV programs through the following interventions:

- **Nutrition education and counselling**

Nutrition education and counselling can consist of basic health and nutrition messages, positive living, and specific nutritional requirements for people living with HIV. Tools for this can be as simple as country food group charts and cooking demonstrations or can be as advanced as country specific guidelines on nutrition for people living with HIV. An example that can be adopted is the FAO guidelines on nutrition for people living with HIV.

- **Routine anthropometric screening**

Evidence has shown the relationship between low body mass index and the increased risk of mortality. Routine anthropometric screening involves regular monitoring of the nutrition status of people living with HIV, inclusive of weight, height and MUAC. This can be implemented for

example in ART clinics and applies to children, adolescents and adults. In adolescents and adults BMI is usually the preferred indices. Regular monitoring allows any change in weight to be detected and the cause of weight determined. Where appropriate nutrition supplementation can be given as detailed below.

Targeted nutrition supplements:

- ▶ Micronutrient supplementation
- ▶ Therapeutic and supplementary feeding for acute malnutrition (adults and children)
- ▶ Food rations to manage mild weight loss and nutrition related side effects or promote maternal nutrition

Targeted nutrition supplements refer to specialised nutritional products or different target groups. For example within a HIV program, multiple micronutrient supplementation may be appropriate. Therapeutic and supplementary feeding covers those beneficiaries identified as severely and moderately malnourished. Treatment should be in line with approved local or international guidelines and can be institutional or community based. Some evidence suggests that nutrition interventions are most efficient in the early stages, for this reason, food rations to meet WHO recommendations on increased energy requirements can be given to vulnerable groups such as those with mild weight loss, those experiencing nutrition related side effects from ART, or women during the period of pregnancy and lactation. Children born to HIV positive mothers should also be strongly considered in this group for support to weaning where appropriate according to the most recent consensus from WHO on HIV and infant feeding.

### • Linkages with food based interventions

Where targeted nutrition supplementation is not indicated, linkages can be established between ACF programs and community food based interventions for example regular food distributions to vulnerable groups in food insecure areas, home based care programs with a nutrition component, community nutrition and garden programs, and income generating activity programs. These programs can be implemented by ACF or other partner organisations.

### • Support and advocacy to government programs and policies

ACF-IN should advocate for and participate in the integration of nutrition into government policies. For example national protocols for HIV counselling and testing, antiretroviral and cotrimoxazole should include components on nutrition and should facilitate access for children and their caretakers in paediatric settings, for example therapeutic feeding centres. Prevention of mother to child transmission programs should include a strong nutritional component and should be in line with international recommendations.



## “MINIMUM PACKAGE IN HIV & NUTRITION”

The aim of this chapter is to introduce and define what is the mainstreaming of HIV in the nutrition sector and how to do it. We call it “the Minimum Package of intervention in HIV and nutrition”. The package addresses two ways of mainstreaming HIV and nutrition, through mainstreaming HIV into nutrition programs and likewise mainstreaming nutrition into HIV programs. As ACF our priority is the mainstreaming of HIV into nutrition programs, however given the mandate of ACF to prevent and treat malnutrition according to the causal framework, the level of impact mitigation and prevention that can be integrated into HIV programming through nutrition should not be ignored or underestimated.

NUTRITION MAINSTREAMING WITHIN HIV PROGRAMMES	HIV MAINSTREAMING WITHIN NUTRITION PROGRAMMES
<ul style="list-style-type: none"><li>▶ <b>Nutrition counselling</b> on maintaining good nutritional status in HIV disease</li><li>▶ <b>Routine nutritional screening</b> of HIV clients</li><li>▶ <b>Targeted nutritional Supplements</b><ul style="list-style-type: none"><li>• micronutrients supplements</li><li>• Therapeutic and supplementary feeding</li><li>• Blanket food distributions for prevention</li></ul></li><li>▶ <b>Ensure integration of services</b> with food security &amp; livelihoods in particular, and others</li></ul>	<ul style="list-style-type: none"><li>▶ <b>Mapping</b> of existing HIV related services: HCT, OI, ART, CTX, PMTCT, HBC, support groups, etc.</li><li>▶ <b>Routine HIV counselling and testing</b> of upon admission</li><li>▶ <b>TB screening</b> upon admission</li><li>▶ <b>HIV prevention awareness</b> via all ACF activities</li><li>▶ <b>Ensure integration of services</b> with food security &amp; livelihoods in particular, and others</li><li>▶ <b>Ensure links with communities</b></li></ul>

*Figure 32: minimum package in HIV & nutrition*



## **HIV MAINSTREAMING WITHIN NUTRITION PROGRAMS**

HIV should be mainstreamed into nutrition programs through the following interventions:

- **Map existing HIV services and establish solid referral systems**

For: PMTCT; Paediatric and adult ART clinics; cotrimoxazole prophylaxis; immunisations; TB treatment; HBC; community based nutrition programs.

HIV is a complicated disease and one which requires a holistic long term package of care. Effective referral systems can facilitate access to long term follow up care such as provision of antiretroviral therapy, access to food security and livelihoods activities, safety nets, social security, legal advice for rights claims etc.

- **Routine HIV counselling and testing (child and caretakers)**

The ACF-IN policy on HIV states that ACF-IN supports **HIV counselling and testing both as a means of prevention and as a way to access care and treatment**. Many people have questioned the justification in HIV counselling and testing in areas where antiretroviral is not available. The reality is that in many of the settings where this package is most applicable, the Global Fund against HIV, TB and Malaria and UNITAID as well as PEPFAR or Clinton Foundation are working to scale up the provision of these drugs. **In areas where access is still limited or not available, strong advocacy should take place. However even in this context there are still benefits in HIV counselling and testing.** HIV counselling and testing is the principal intervention in determining a person's HIV status both as a means of prevention of new or further transmission and access to treatment. By knowing your status, access is gained to life saving drugs such as cotrimoxazole preventative therapy and treatment of other opportunistic infections.

The level to which HCT is recommended is contextual. For example in low level epidemic countries, and in areas of concentrated epidemic for example where HIV prevalence is higher than 5% in certain sub groups, testing should be prioritised within high risk groups such as STI clinics, antenatal clinics, tuberculosis and malnutrition services (where HIV and malnutrition are joint risk factors). In areas where HIV is generalised and affects a larger number of the population, HCT should be offered to all people attending health centres.

**Ideally a HIV test should be offered to all children and their caretakers enrolled in ACF-IN programs in high HIV prevalence countries.** For some children the NRU/TFC maybe a sole point of entry to HCT services, which they may not have been previously exposed to nor had access to. As this applies to the caretakers of malnourished children, testing should be offered routinely to all caretakers even when the child is too young for antibody testing, where other testing such as PCR is not available, as this can be a route of referral to PMTCT programs, OI treatment (if not being provided in the NRU/TFC) for both mother and exposed infant, and prevention programs.



Where ACF does not have the capacity to implement HIV counselling and testing, partnerships can be formed with institutional and community initiatives for HIV counselling and testing, however quality of these services should be assured.

In settings where HIV testing may be detrimental to outcomes such as in areas where gender based violence is common the benefits of HCT should be evaluated before implementation.

HIV Counselling and Testing can be integrated into many areas of ACF intervention, for example, therapeutic feeding and supplementary feeding programs, both community and institutional based, and growth monitoring sites.

Examples can also be seen of integrating HIV counselling and testing into more than nutrition and health programs, such as in Malawi in the Integrated food security and health education program, where a local NGO participated in community sessions offering HIV counselling and testing to those who accepted.

- **TB screening done on admission (child and caretakers)**

Given the strong link between HIV, malnutrition and TB, regular TB screening should take place within programs treating malnutrition and should be targeted towards both children and caretakers. TB screening should usually be done in line with national protocols where adequate guidelines exist. A TB risk score can be done for children using a simple questionnaire.

- **HIV prevention; HIV positive living and nutrition / HIV education given to all, including strong breastfeeding messages**

Nutrition programs provide an opportunity for HIV prevention and HIV education to be given. This can be as simple as prevention messages or can extend to messages on positive living.

- **Support and advocacy to government programs and policies**

ACF-IN should advocate for and participate in the integration of nutrition into HIV government policies. In addition national guidelines for the treatment of severe malnutrition should include a section on the management of HIV positive malnourished children.

INTERVENTION	TOOLS - EXAMPLES - NOT EXHAUSTIVE
Nutrition counselling and education	Uganda nutrition counselling tools
	FAO handbook "Living well with HIV"
	Positive living book
	<i>Use locally available material</i>
Routine anthropometric screening	ACF Guidelines treatment of severe malnutrition
	ACF Training presentations (CICLO 1/PAD)

Targeted nutrition supplements	ACF Guidelines for treatment of severe malnutrition
Therapeutic and supplementary feeding for acute malnutrition (adults and children)	ACF Adult malnutrition guidelines
Food rations to manage mild weight loss and nutrition related side effects or promote maternal nutrition	WHO recommendations on energy requirements for people living with HIV WHO guidelines for an integrated approach to the nutritional care of HIV infected children (6 months - 14 years) 2009 WHO & FAO training course on Nutritional Care and support for PLHIV 2009
Linkages with food based interventions	FANTA training guidelines, ACF training guidelines; USAID/AED/WFP/FANTA Guidelines 'Food Assistance Programming in the Context of HIV' FANTA consultation document- ' Nutrition Care and Support for People Living with HIV in eastern and southern Africa: Progress, experience and lessons
Routine HIV counselling and testing	ACF-IN HCT policy
TB screening done on admission	ACF-IN, TB malnutrition and HIV document
HIV prevention; HIV positive living and nutrition/HIV education given to all, including strong breastfeeding message	Positive living manual ACF Health education kit Malawi UNICEF Infant Feeding guidelines <i>Use locally available material</i>
Establish solid referral systems for: PMTCT; Paediatric and adult ART clinics; cotrimoxazole prophylaxis; immunisations; TB treatment; HBC; community based nutrition programs	ACF Malawi HIV and hunger report ACF Malawi example of register for referrals WHO PMTCT Guidelines CTX Policy
Community support worker follow up into referral systems	CORE guidelines for community participatory approach
Support and advocacy to government programs and policies	FANTA training guidelines, ACF-In training guidelines; USAID/AED/WFP/FANTA Guidelines 'Food Assistance Programming in the Context of HIV' FANTA consultation document- ' Nutrition Care and Support for People Living with HIV in eastern and southern Africa: Progress, experience and lessons

Figure 33: Tools for implementation of Minimum Package in HIV mainstreaming



## ACF RESEARCH ON HIV & MALNUTRITION IN MALAWI

During the period from 2004 to 2008, ACF Spain mission in Malawi launched several research projects in relation to nutrition programs conducted with Ministry of Health.

These research projects showed that:

- ▶ HIV prevalence among SAM children was quite high in Malawi NRUs during a certain season,
- ▶ that the existing nutritional treatment course using therapeutic milks and RUTF were efficient in curing SAM HIV positive children although the length of stay was longer due to the medical complications,
- ▶ and that there was discrimination and stigma within the nutrition units around these children that needed to be addressed.

Different documents were produced on the basis of these experiences and are available:

- ▶ ACF SAM research summary report 2007 (detailing findings in a technical report)
- ▶ Hunger & HIV research report Malawi 2007 - the version of the above document but simplified for wide audience - published by ACF UK Hunger Watch team
- ▶ AAH Stigma Study report - 2006 - technical report of a qualitative study of stigma & discrimination in nutritional units in hospital settings in Malawi
- ▶ PhD thesis report 2009 of Pamela Fergusson on HIV & SAM in Malawi - Pamela used to be the Scientific Researcher associated to ACF Malawi programs

Scientific articles were published as well based on these studies:

- ▶ Thurstans & Al - BMC paediatrics - 2008: HIV prevalence among SAM children in Nut Rehab Units Malawi
- ▶ Chinkhumba & Al - Transactions of the Royal Society of Tropical Medicine and Hygiene - 2008 - HIV impact on mortality in SAM children treated in NRU in Malawi
- ▶ Fergusson & Al - Arch. Dis. Child. - 2009 - Nutritional recovery of HIV positive and HIV negative SAM children
- ▶ Fergusson & Al - Maternal & Child Nutrition - 2009 - Quality of Care in NRU in HIV endemic Malawi: caregiver perspectives
- ▶ Fergusson P, Tomkins A. - Transactions of the Royal Society of Tropical Medicine and Hygiene - 2009 - Systematic review HIV prevalence in SAM children in sub Saharan Africa

## ACFIN MISSIONS – HIV PREVALENCE PER COUNTRY

COUNTRY	PREVALENCE 15-49 ANS (UNAIDS 2009)	VERY HIGH / HIGH / MEDIUM / LOW*
Afghanistan	> 0.5%	Low
Argentina	0.5% [0.3% - 0.6%]	Low
Arménie	0.1% [0.1% - 0.1%]	Low
Azerbaïdjan	0.1% [<0.1% - 0.1%]	Low
Bangladesh	<0.1% [<0.1% - <0.1%]	Low
Bolivia	0.2% [0.1% - 0.3%]	Low
Burkina Faso	1.2% [1% - 1.5%]	Medium
Central African Republic	4.7% [4.2% - 5.2%]	Medium
Colombia	0.5% [0.4% - 0.7%]	Low
RDC	[1.2% - 1.6%]	Medium
Ethiopia	2.3% [1.4% - 2.8%]	Medium
Georgia	0.1% [0.1% - 0.2%]	Low
Guatemala	0.8% [0.6% - 1%]	Low
Guinea	1.3% [1.1% - 1.6%]	Medium
Haiti	1.9% [1.7% - 2.2%]	Medium
India	0.3% [0.3% - 0.4%]	Low
Indonesia	0.2% [0.1% - 0.3%]	Low
Ivory Coast	3.4% [3.1% - 3.9%]	Medium
Kenya	6.3% [5.8% - 6.5%]	High
Laos	0.2% [0.2% - 0.4%]	Low
Lebanon	0.1% [0.1% - 0.2%]	Low
Liberia	1.5% [1.3% - 1.8%]	Medium
Madagascar	0.2% [0.2% - 0.3%]	Low
Mali	1% [0.8% - 1.3%]	Medium
Mauritania	0.7% [0.6% - 0.9%]	Low
Mongolia	<0.1% [<0.1% - <0.1%]	Low
Myanmar	0.6% [0.5% - 0.7%]	Low
Nepal	0.4% [0.3% - 0.5%]	Low
Nicaragua	0.2% [0.1% - 0.3%]	Low
Niger	0.8% [0.8% - 0.9%]	Low
Uganda	6.5% [5.9% - 6.9%]	High



Pakistan	0.1% [0.1% - 0.1%]	Low
Paraguay	0.3% [0.2% - 0.4%]	Low
Peru	0.4% [0.3% - 0.5%]	Low
The Filipinas	<0.1% [<0.1% - <0.1%]	Low
Sierra Leone	1.6% [1.4% - 2.1%]	Medium
Somalia	0.7% [0.5% - 1%]	Low
Sudan	1.1% [0.9% - 1.4%]	Medium
Swaziland	25.9% [24.9% - 27%]	Very High
Tanzania	5.6% [5.3% - 6.1%]	High
Chad	3.4% [2.8% - 5.1%]	Medium
Yemen	0.14 - 0.2%	Low
Zambia	13.5% [12.8% - 14.1%]	High
Zimbabwe	14.3% [13.4% - 15.4%]	Very High

\* WHO cut-offs: <0.1-0.9% = Low; 1.0 - 4.9% = medium; 5 - 14.9% = High; >=15% = Very High

Source: Internet Site ONUSIDA acceded on 29 December 2011

## REFERENCES

- ONUSIDA: VIH, sécurité alimentaire et nutrition - MAI 2008: [http://www.unaids.org/en/media/unaids/contentassets/dataimport/pub/manual/2008/jc1565\\_policy\\_brief\\_nutrition\\_long\\_fr.pdf](http://www.unaids.org/en/media/unaids/contentassets/dataimport/pub/manual/2008/jc1565_policy_brief_nutrition_long_fr.pdf)



## THE HEALTH SYSTEM STRENGTHENING

© Emmanuel Simiand, RCA



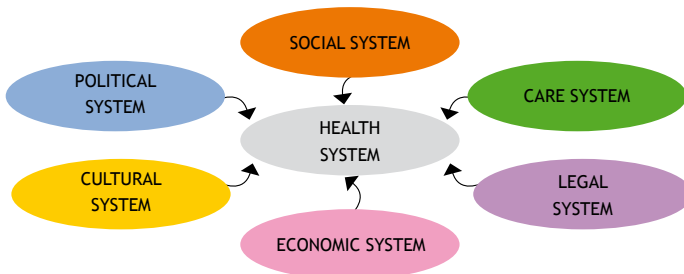
**Purpose of the document:**  
To know the key issues about health system strengthening and the position of ACF.

## ESSENTIAL MESSAGES

- ACF becomes an integral part of the health system of a country as soon as the association starts providing care services in order to increase the health of the population.
- The **6 building blocks of the health system** are: Service delivery, Medical products, vaccines and technologies, Health workforce, Health systems financing, Health information system, Leadership and governance.
- Development of the **health system strengthening (HSS)** approach is an absolute condition to maintain our promotional work on access to the treatment of severe acute malnutrition. We can no longer view our interventions vertically, but **we must build a solid base within the primary health care system to develop access to the treatment of SAM.**
- ACF technical teams must systematize the following steps in devising and implementing strategies aimed at reinforcing access to the treatment of SAM:
  - Initial and systemic analysis of the health system at national/regional level and by district per health building block (mapping of the different actors).
  - Based on this analysis, the ACF teams working with all the actors and keeping the Ministry of Health at the heart of the discussion have to develop reinforcement strategies aimed at strengthening each building block.

## WHAT IS A HEALTH SYSTEM?

A health system enfolds all the elements that determine a population's state of health. It is designed as a system organized around actions, with the goal of improving the population's health. In a broad vision of public health, the health system includes several "subsystems": economic, social, cultural, political, legal...





## DEFINITION OF HEALTH SYSTEMS (IN A RESTRICTIVE SENSE)

In the **broad definition** that is given of a health system, the health care system is one of the subsystems which contribute, with other subsystems, to the health standards of the population. The care system corresponds to all the services that provide services to the population, with the goal of improving its health. However, **the more common term "health systems" is frequently used in a more restrictive sense, which makes it synonymous with "health care systems"**. For WHO, the health system corresponds to all the organizations, institutions and resources dedicated to the production of health interventions. **When we speak about strengthening a health system at ACF, and at international forums, we are referring to the restrictive sense of health care systems.**

## COMPOSITION OF HEALTH SYSTEMS

Most national health systems are composed of public, private, traditional and informal sectors. The health systems mainly fulfill four essential functions: providing services, creating resources, financing, and administrative management.

ACF is an integral part of the health system, beginning when the association participates in providing a service to the population, in the goal of improving the population's health.

## MISSIONS OF THE HEALTH SYSTEM

The health system must be able to:

- 1) Identify the needs of the population,
- 2) Choose priorities action,
- 3) Implement a health policy adapted to the needs: distribution of individual and collective preventative or curative care, health action programs, research programs, etc.

## THE 4 ESSENTIAL VALUES OF A HEALTH SYSTEM

The WHO proposes 4 essential values for guiding the preparation and evaluation of health systems.

- ▶ **Quality:** ability of the system to provide satisfactory answers to a person's health needs. The quality of care can be examined from the perspective of the system's users (who expect that their needs are met humanely, with respect and personal attention, and that they are offered a complete range of services) and from the perspective of health professionals (care provided in accordance with good practice guidelines and current scientific knowledge).
- ▶ **Equality:** ability of the system to enable everyone in the population to have guaranteed



access to a minimum group of appropriate services, which meet their needs without discrimination based on race, sex, age, ethnic or religious groups, socio-economic class, etc.

- ▶ **Relevance:** capacity of the system to first recognize the most important needs or health problems (priority problems), and to target the services to the people or groups that have the greatest need.
- ▶ **Effectiveness:** ability of the system to make the best possible use of the available resources. This involves knowing the cost of the different services and their respective effectiveness, taking all this into account when defining a health policy.

## **THE 6 BUILDING BLOCKS OF THE HEALTH SYSTEM<sup>77</sup>**

The health systems are structured around six essential activities within WHO's framework for action to strengthen health systems.

- ▶ **Service delivery**

To be effective, health systems must offer quality services to those who need them, at the right time and place, while avoiding wasting resources.

- ▶ **Medical products, vaccines and technologies**

A health system must guarantee equal access to essential medical products, vaccines and quality technologies, for a reasonable price.

- ▶ **Health workforce**

Health professionals must meet the needs and respond in a fair manner to achieve the best possible results within the circumstances they find themselves in. There must be a sufficient number of staff, distributed fairly.

- ▶ **Health systems financing**

The objective is to have sufficient resources so the population is able to access necessary services, and is protected from the risk of impoverishment related to paying health services.

- ▶ **Health information system**

This system must assure the production, analysis, distribution and use of reliable information about the health determinants, the health system's operation, and the population's state of health.

- ▶ **Leadership and governance**

A health system presupposes the existence of strategic frameworks, regulations, effective supervision, and particular attention to system design and transparency.

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<sup>77</sup> - OMS: <http://www.who.int/healthsystems/topics/fr/index.html>

## WHO'S FRAME OF REFERENCE FOR HEALTH SYSTEMS

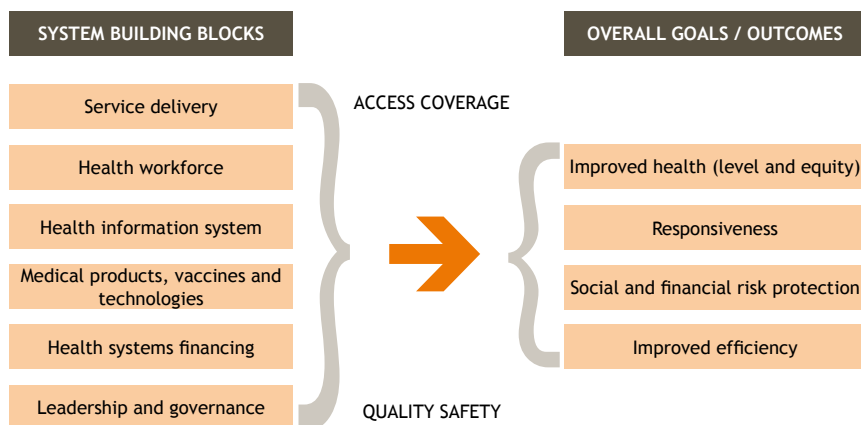


Figure 34: Source: *Everybody's business: Strengthening health systems to improve health outcomes. WHO's framework for action.* Geneva, World Health Organization, 2007. Disponible à l'adresse : [http://www.who.int/healthsystems/strategy/everybodys\\_business.pdf](http://www.who.int/healthsystems/strategy/everybodys_business.pdf)

## HEALTH SYSTEM STRENGTHENING (HSS)

### PROBLEM

In several developing countries, the poor state of health systems is one of the main barriers to access basic health care. However, poor countries are not the only countries to experience problems in their health systems. In certain wealthy countries, a large part of the population has no access to care because the social security systems are discriminatory; while other countries witness an escalation in costs because of inefficient resource utilisation. It is widely acknowledged that in order to preserve and improve health care among the world's populations, authorities must design robust and effective health systems that are capable of preventing diseases and offer treatment to all women, men and children, indiscriminately, wherever they live.

The effectiveness of proposed health interventions therefore depends on the proper operation of the health system and on the country's politics, economy and local practices. Basic interventions recommended by partners in maternal and child health care, when delivered in an integrated manner, have proved their effectiveness in their different contexts. For instance, a systematic



review of all community interventions for the prevention of maternal morbidity and mortality, and the subsequent improvement of neonatal results, shows that the totality of services delivered at community level can significantly reduce mortality in newborns.

**More and more WHO Member States, political leaders throughout the world and international health officials, recognize the need for an urgent, firm and long-term commitment to strengthen health systems.** This rise of political interest offers the opportunity to bring about necessary sustainable improvements in the fight against disease (like severe acute malnutrition) and in health programs, and enable greater efforts to reach the Millennium Development Goals.

During the past few years, several developing countries have committed more resources and interventions in favour of strengthening health systems, while many concepts and approaches compete, and no consensus has been reached on a formula to enable this strengthening. Consequently, for many decision-makers and health system administrators in the developing world, the improvement of health systems has become a balancing act. They must balance out programs focused on treating a given disease with those of the entire health system; national priorities with global initiatives; and general political directives with the reality of the "man on the street". In the face of such pressure, emphasis on principles of equity, universal coverage and people-centred approaches, only make the task more complex<sup>78</sup>.

## **THE SYSTEMIC APPROACH<sup>79</sup>**

Systems thinking demands - and engenders - a deep understanding of system behaviour. If a system changes constantly, if its components react and interact continuously, often in a contradictory way, **how can one understand the way in which an intervention can affect such a system?** Systems thinking are used to decipher the complexity of health systems, the acquired knowledge is used to develop and assess interventions in order to improve health and health equity as much as possible.

Systems thinking are a powerful tool to guide investments in favour of health systems. Systems thinking have been used for a long time in other disciplines in order to reveal the characteristics and relationships that underlie systems. It is a tool enabling the main players –from the national decision-makers to those who implement policies at the level of the "man on the street" – to analyse and evaluate the health system, to localise where are the **main blockages**



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78 - System thinking: <http://www.who.int/alliance-hpsr/resources/9789241563895/en/index.html>

79 - System thinking: <http://www.who.int/alliance-hpsr/resources/9789241563895/en/index.html>

and problems, and therefore to develop solid, complementary and suitable interventions in order to correct these weaknesses.

### ACF IMPLICATION

Systems analysis thus consist in looking at a system in a holistic and dynamic manner. For the health system, it consists of mixing the 6 building blocks with contributors who are already active in each of the areas (be they from the state, private sector or civil society).

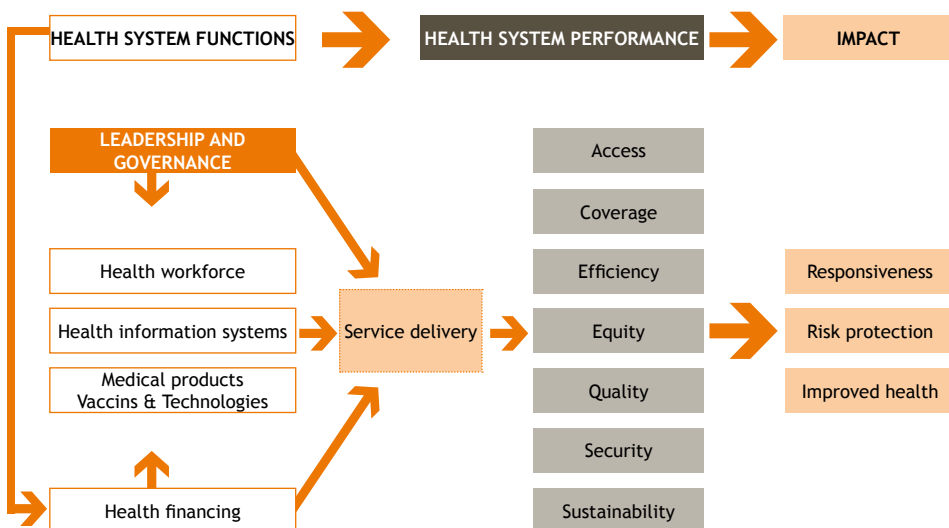
This also means predicting and understanding the way in which the proposed intervention is liable to positively or negatively influence the system, and therefore restrict the negative effects.

Finally, the more system components and players concerned have the opportunity to discuss together within a common framework working together to solve problems, the more an intervention has a chance of success.

### WHO'S FRAMEWORK FOR ACTION FOR HS STRENGTHENING:

A key goal of the framework for action is to promote a common understanding of what is a health system and what constitutes the strengthening of health systems. (The website is in French, but the report is in English only: <http://www.who.int/healthsystems/strategy/fr/index.html>)

### INTERACTION OF BUILDING BLOCKS





## RECENT HSS INITIATIVES

### 20/20 Health Systems<sup>80</sup>

20/20 Health Systems is USAID's flagship project for strengthening health systems throughout the world. By helping countries to improve financing healthcare, governance, operations and institutional capacity, 20/20 Health Systems enables the elimination of barriers to the delivery and the use of priority health cares, like HIV/AIDS, treatment for tuberculosis and maternal and child health care.

#### Capacity-building in organisations

- ▶ Financial risk protection & health insurance
- ▶ Governance
- ▶ Human resources for health
- ▶ Measuring and monitoring health and systems performance
- ▶ Resource tracking & national health accounts
- ▶ Performance-based incentives
- ▶ Costing and sustainability-planning

The project adopts a global view of capacity-building in the key areas of organisational development, resource mobilisation, technical assistance and training, organisational governance, management systems and technical expertise.

## ACF AND HEALTH SYSTEM STRENGTHENING (HSS)

The scaling-up of access to treatment for severe acute malnutrition is the objective of ACF within the framework of the 2015 (building block I) international strategy. In order to reach this objective in contexts where the Ministry of Health is first in guaranteeing this access, ACF has been implementing support interventions for the health system for years. Improved understanding of the health system, makes it easier now for ACF to get involved without the risk of compromising the system..

The development of the **health system strengthening (HSS)** approach and greater consideration for the section on health is an absolute condition to maintain of our promotional work on access to the treatment of severe acute malnutrition. We can no longer view our interventions vertically, but **we must build a solid base within the primary health care system to develop access to the treatment of SAM.**

At all levels of the health pyramid, ACF builds the technical and organizational capacity of health workers to enable them to include the treatment of SAM in the minimum health packet. Today ACF intervenes on each building block of the health system (delivery of quality health care, human resources training, supply system, health information system, governance and financing).

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80 - <http://www.healthsystems2020.org/>

A good understanding of the health system and how it works, is an essential requirement in order to build strategies acknowledging the weaknesses of the system.

A book (manual) on this subject summarizing the experience of ACF and other partners will be available early to 2013. The aim is to provide guidelines for professionals who want to incorporate this service into health care systems.

ACF technical teams must systematize the following steps in working out and implementing strategies aimed at reinforcing access to the treatment of SAM.

## METHODOLOGY

- **Initial and systemic analysis of the health system at national/regional level and by district per health building block.** Warning: the analysis must be considered from the access to the global minimum health package and not only from the prism of the access to the treatment of severe acute malnutrition. The simplified initial and systemic analysis grid proposed below provide a reflection frame to the team in order to conduct this initial analysis. **The main point is to put in perspective the health system building blocks and the actors involved in their strengthening.** This analysis should identify the weaknesses and locking points, the overlapping areas and the potential levers, the synergy zones and the priorities.

HEALTH SYSTEM BUILDING BLOCK	INDICATORS	PLAYERS PRESENT / ACTUAL RESPONSE
Service delivery		
Medicine and vaccines (medical products, vaccines and technologies)		
Health workforce		
Health systems financing		
Health information system		
Leadership and governance		

*An analysis grid detailing a series of standardised indicators will be available in the manual about the incorporation of SAM in health systems.*

- **Based on the analysis, ACF teams together with present actors, with the Ministry of Health at the center of the discussion, must develop reinforcement strategies aimed at each building block.** Strategies developed must take 3 components into account:
  - **A = GAP-FILLING STRATEGY.** This strategy is based on the health system's initial capacity to treat the number of acute malnutrition cases => the teams define a strategy that provides access to the best treatment to the populations which are covered. The difference between the total expected cases and the number that the structure is able to treat will be outlined



roughly. This strategy will propose a certain level of substitution and will complement the following strategy. It should not be sustained, but should wane as the system capacities are being reinforced (Strategy B progress).

- **B = REINFORCEMENT STRATEGY.** This strategy is built on the initial diagnosis per building block as presented above. ACF will increase its contribution to system strengthening according to the role of each actor involved. Thus the reinforcement strategies elaborated by ACF will not systematically target all six building blocks, but will complement some other initiatives already in place (systematic approach). This strategy should not exclusively target the SAM treatment delivery but the whole minimum health package, and is complementary to A & C strategies when needed.
- **C = CRISIS-MANAGEMENT STRATEGY.** Seasonal peaks should be identified and lead to the development of a specific strategy in addition to the other 2 strategies mentioned above. The supportive mechanisms in crisis situations will be predefined with the actors involved and negotiated with the donors. They will aim at treating the cases due to the crisis without destabilizing the A & B strategies. (The seasonal nutritional calendar presented below provides a good complement to this analysis).

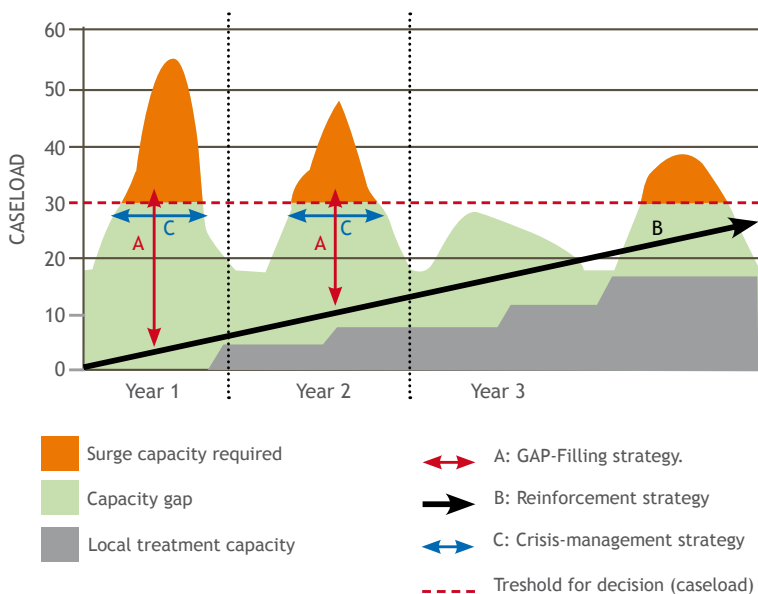


Figure 35: A+B+C Strategie illustration  
Modèle ACF adapté de Suggested New Design Framework for CMAM Programming  
- Peter Hailey and Daniel Tewoldeberha



**IMPORTANT:** A sound intervention strategy comprises A+B+C and proposes a long-term progression assumption in which the *modus operandi* proposed in A, B and C changes in parallel with the capacity of the systems.

Examples of Long-Term Strategies:

Modules	Year 1	Year 2	Year 3
<b>A</b>	<p><b>A stands for short-term gap-filling</b> which, as a result of the reinforcement of the system (B), should decrease over the years.</p> <p>A in the analysis, must be available for each of the building blocks and be complementary to items B and C.</p> <p><b>An example of A</b> on human resources (HP) addition or financing of HR to fill a gap.</p>	<p><b>A should decrease due to the action of B .</b></p> <p>Ideally, to go back to the given example, in second Year, as a result of B's action in Year 1, we will no longer see the addition or financing of human resources this year or in the following year.</p>	Reduction of A.
<b>B</b>	<p><b>B stands for long-term reinforcement.</b></p> <p>On the same example resources are not enough, and ACF will propose to the health district to train and speed the arrival of new resources (advocacy and training).</p>	<p><b>The 2<sup>nd</sup> year of B</b> would see the training of the available HR (newly arrived) and the progressive transfer of responsibilities.</p>	Training and supportive supervision.
<b>C</b>	<p><b>Pre identification and training of a HR roster</b> (recruited by ACF) before the crisis, and logistic organization.</p>	<p><b>Pre identification and training of a HR roster</b> (recruited by ACF) before the crisis, and logistic organization.</p>	Work with the health structures for an autonomous planning of the emergency response, if possible in terms of reinforcement.



## REFERENCES

- For a systemic approach of the HSS:  
[http://www.who.int/alliance-hpsr/resources/alliancehpsr\\_systemsthinking\\_french.pdf](http://www.who.int/alliance-hpsr/resources/alliancehpsr_systemsthinking_french.pdf)
- Health systems 20/20:  
<http://www.healthsystems2020.org>
- Health System Strengthening (HSS)  
[http://www.who.int/healthsystems/Glossary\\_January2011.pdf](http://www.who.int/healthsystems/Glossary_January2011.pdf)
- WHO's framework for action for HSS: everybody's business  
[http://www.who.int/healthsystems/strategy/everybodys\\_business.pdf](http://www.who.int/healthsystems/strategy/everybodys_business.pdf)



# MATERNAL NEW-BORN AND CHILD HEALTH (MNCH) PROGRAMS AND INITIATIVES

Integrating SAM treatment into MNCH programs

IF YOU DID NOT ALREADY READ THE HEALTH SYSTEM STRENGTHENING BRIEFING PAPER,  
PLEASE REFER TO IT BEFORE READING THIS ONE



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## **Purpose of the document:**

**The document aims at giving an overview of:  
The programs and initiatives of MNCH.**

**The remaining efforts that have to be done in order to include  
the Community management of acute malnutrition in  
minimum health services.**



## ESSENTIAL MESSAGES

- The SAM treatment and prevention should not be seen in a vertical manner (i.e: propose the implementation of programs targeting only this disease).
- It is not enough to understand the strengths and weaknesses of the health system. It is also essential to identify context by context the best ways to insert SAM prevention and treatment in the MNCH programs. **It is thus essential for ACF technical teams to fully understand the MNCH programs in order to facilitate the integration of the SAM prevention and treatment.**
- New approaches (CCM / task shifting) to decentralize medical care closest to sick people is very promising in terms of coverage increase.

## INTRODUCTION

The maternal new-born and child health is central to the Millennium Development Goal2 (MDG): the 4<sup>th</sup> objective- to reduce child mortality and the 5<sup>th</sup> objective- to improve maternal health (see chapter on Hunger figures (MDG) page 47).

Despite visible progress the MNCH is still bad in the 68 developing countries which include 97% of the maternal and child mortality in the world.

## LINK BETWEEN NUTRITION AND MATERNAL NEWBORN AND CHILD HEALTH

### MATERNAL HEALTH

The future of a child depends on the nutritional status of his mother during adolescence and pregnancy. Weight-insufficiency at birth (low birth weight) is due to poor maternal nutrition status and health and to poor growth of the fetus. According to the most recent estimates 18 million babies<sup>81</sup> (13 million according to the Lancet) suffer from weight insufficiency at birth each year - weighing less than 2.5 kilograms - almost 14% of the total living births. (UNICEF)

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81 - UNICEF

## CHILD HEALTH

A vicious circle: The common infectious diseases increase the probability for a fragile child to be affected by severe acute under-nutrition (a sick child loses appetite and weight). During the period lasting from conception to the end of childhood, under-nutrition increases the frequency and intensity of infectious diseases.

This interaction is directly responsible for the 1 million deaths which occur each year due to severe acute under-nutrition

We can estimate today that a malnourished child is 6 times more likely to die from diarrhoea, 9 times more from pneumonia, 2 times more from malaria and 6 times more from measles. Globally severely malnourished children are 9 times more likely to die than well-nourished children.

## SAM PREVENTION AND TREATMENT AND MNCH SERVICES

**Curative approach:** Treating severe acute under-nutrition requires the implementation of specific medical interventions (using precise treatment protocols) in the minimum health package provided by health services. The programs targeting MNCH reinforcement (as IMCI: integrated management of childhood illnesses) are **the perfect means to provide treatment to children suffering from SAM**. In countries with a high prevalence of SAM, this disease is one of the three main causes of the death of the under 5 (the others are: pneumonia, diarrhoea and malaria). However very few countries have integrated SAM treatment in their minimum health package or in their IMCI programme. Even the 2012 IMCI module proposed by WHO for primary health care still does not include the community management of SAM as recommended in the United Nations declaration published in 2007 (chapter 11 of the IMCI guide).

**Preventive approach:** It is important to take care of maternal health because it plays a vital role in the mother-child dyad. As long as the nutrition status of mothers and young girls remains inadequate, women will continue to give birth to babies with low birth weight- a high risk factor for child mortality. The reinforcement of actions targeting maternal health, including nutrition components, can help to prevent child under-nutrition. Interventions to reinforce reproductive health care and programs in order to promote optimal infant and young child feeding practices are attracting more and more interest from the MoH, and should mobilize ACF.



## ACF RECOMMENDATIONS

SAM treatment and prevention should not be understood in a vertical manner (i.e.: offering the implementation of programmes targeting only this disease). This statement is now the subject of an international consensus (Addis Ababa conference on community management of SAM - November 2011).

To understand how the health system operates, the strengths and weaknesses, is not sufficient. It is essential to identify context by context what will be the best way to promote and include MNCH programs in SAM prevention and treatment programs. It is thus necessary for ACF technical teams to fully understand the MNCH programs in order to facilitate the integration of SAM prevention and treatment into these programs.

## ESSENTIAL NOTIONS RELATED TO MNCH

Progress in women's and children's health depends on how well knowledge on effective strategies and interventions can be translated into action. Maternal, new-borns and children health are closely linked and call for integrated systems and strategies to address this problem.

### THE 'CONTINUUM OF CARE' IS A FRAMEWORK

The 'Continuum of Care' is a framework that includes service delivery of an integrated and comprehensive package of interventions. The concept of 'Continuum of Care' has two dimensions: time and place.

- ▶ The time dimension refers to care giving from pregnancy through to delivery, the immediate postnatal period, and childhood.
- ▶ The place dimension connects care giving that is provided at different levels: households, community and health facilities; clinical care at primary and tertiary health centres, outpatient and outreach services.

## INTERNATIONAL INITIATIVE ON MNCH

"Every woman, Every child" launched by UN Secretary-General Ban Ki-moon during the United Nations Millennium Development Goals Summit in September 2010, is an unprecedented global effort that mobilizes and intensifies international and national action by governments, multilaterals, the private sector and civil society to address the major health challenges facing women and children around the world.

The effort puts into action for Global Strategy for Women's and Children's Health<sup>82</sup>, presents a roadmap on how to enhance financing, strengthen policy and improve service on the field for the most vulnerable women and children.

It presents a solid plan to improve maternal and children's health and achieve MDGs 4 and 5. It emphasizes the key areas where action is urgently required to enhance financing, strengthen policy and improve service delivery, including:

- ▶ Increased and sustainable investment for country-led plans,
- ▶ Integrated delivery of health services and life-saving interventions,
- ▶ Innovations in financing, and efficient delivery of health services,
- ▶ Improved monitoring and evaluation to ensure that all actors are held accountable and best practices are shared.



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## MNCH PROGRAMS

### INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESSES (IMCI)<sup>83</sup>

#### • What is IMCI?

IMCI is an integrated approach to child health that focuses on the well-being of the child as a whole. IMCI aims to reduce death, illness and disability, and to promote improved growth and development among children under five years of age. IMCI includes both preventive and curative elements that are implemented by families and communities as well as by health facilities.

The strategy includes three main components:

- ▶ Improving the skills of the health-care staff in case management,
- ▶ Improving overall health systems,
- ▶ Improving family and community health practices.

In health facilities, the IMCI strategy promotes the accurate identification of childhood illnesses in outpatient settings, ensures appropriate combined treatment of all major illnesses,

82 - [http://www.everywomaneverychild.org/images/content/files/global\\_strategy/full/20100914\\_gswch\\_fr.pdf](http://www.everywomaneverychild.org/images/content/files/global_strategy/full/20100914_gswch_fr.pdf)

83 - [http://www.who.int/maternal\\_child\\_adolescent/documents/imci/fr/index.html](http://www.who.int/maternal_child_adolescent/documents/imci/fr/index.html)



strengthens the counselling of caretakers, and speeds up the referral of severely ill children. In the home setting, it promotes appropriate care seeking behaviours, improved nutrition and preventative care, and the correct implementation of prescribed care.

### • Why is IMCI better than single-condition approaches?

In developing countries, children in need of medical treatment are often suffering from more than one condition, making a single diagnosis impossible. IMCI is an integrated strategy, which takes into account the variety of factors that put children at serious risk. It ensures the combined treatment of the major childhood illnesses, emphasizing prevention of disease through immunization and improved nutrition. It is thus an ideal vehicle to propose the integration of SAM treatment which is not yet systematized.

### • How is IMCI implemented?

Introducing and implementing the IMCI strategy in a country is a graded process that requires a great deal of coordination among existing health programs and services. It involves working closely with local governments and ministries of health to plan and adapt the principles of the approach to local circumstances. The main steps are:

- ▶ Adopting an integrated approach to child health and development in the national health policy.
- ▶ Adapting the standard IMCI clinical guidelines to the country's needs, available drugs, policies, and to the local foods and language used by the population.
- ▶ Upgrading care in local clinics by training health workers to new methods to examine and treat children, and to effectively counsel parents.
- ▶ Making upgraded care possible by ensuring that basic low-cost medicines and equipment are available.
- ▶ Strengthening medical care in hospitals for those children too sick to be treated as outpatient.
- ▶ Developing support mechanisms within communities to prevent disease, to help families to care of sick children, and to transfer children to clinics or hospitals when needed.

IMCI has already been introduced in more than 75 countries around the world.

### • What has been done to evaluate the IMCI strategy?

Child and Adolescent Health Development (CAH) have undertaken a Multi-Country Evaluation (MCE) to measure the impact, cost and effectiveness of the IMCI strategy. The results of the MCE evaluation support: planning and advocacy for child health interventions by MoH in developing countries, and by national and international partners in development. To date, MCE have been completed in Brazil, Bangladesh, Peru, Uganda and the United Republic of Tanzania.



The results of the MCE indicate that:

- ▶ IMCI improves health worker performance and the quality of care;
- ▶ IMCI can reduce under-five mortality and improve nutritional status, if accurately implemented.
- ▶ IMCI is worth the investment, as the cost per child is almost six times cheaper than regular care.
- ▶ Child survival programs require more attention to all the activities that will improve family and community behaviour;
- ▶ The implementation of child survival interventions should be supplemented by activities that strengthen system support;
- ▶ A significant reduction in under-five mortality will not be obtained unless large-scale intervention coverage is achieved.

See: <http://www.who.int/imci-mce>



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## **INTEGRATED COMMUNITY CASE MANAGEMENT (ICCM)**

The percentage of children treated for the main childhood killer diseases are appallingly low:

- ▶ Only 39% of children receive correct treatment for diarrhoea
- ▶ Only 27% of children with suspected pneumonia receive an antibiotic
- ▶ Only 34% of children with fever (suspected malaria) receive antimalarial medicines

**The Integrated Community Case Management (I-MCI) is also called task shifting.**

It enables assessment, classification, treatment and referral of the main causes of under-5 mortality in the community: pneumonia, diarrhoea, malaria and severe acute malnutrition. It provides organized treatment at community and household level for sick children (from 2 months to 5 years of age).

A good Community Case Management (CM) strategy:

- ▶ Addresses access to, quality of, and demand for CCM services;
- ▶ Seeks to ensure that CCM has the support of decision-makers, health care providers, and community members; and
- ▶ Is put into action together with improvements of the health system.

CCM does not “stand alone.” Efforts should be made to upgrade the skills of the community health workers (CHWs) so they can provide curative interventions; these efforts also ensure strong links with existing health facilities.



CCM amplifies the treatment arm of Community-Integrated Management of Childhood Illness (C-IMCI).

C-IMCI acknowledges that many sick children never reach facilities (and, indeed, many healthy children never receive preventive care).

### ACF RECOMMENDATIONS

The Community Case Management (CCM) allows the community of health workers to provide medical care, to propose a treatment in addition to preventive activities.

The program design of this approach is an early identification of cases through care decentralisation, which provides medical help closest to sick people. This approach is very interesting in terms of coverage increase, since very often malnourished children do not have access to health structures. This type of approach, including SAM treatment, has been tested by Save The Children in Bangladesh. (<http://sites.tufts.edu/feinstein/2011/community-case-management-of-severe-acute-malnutrition-in-southern-bangladesh>). In Ethiopia a national program targeting SAM treatment was elaborated based on this model: the Health Extension Workers have a package of activities to deliver (from the promotion of infant and young child feeding to family planning).

ACF should explore the opportunities offered by this type of approach according to each context, and document the different experiences.

### ICCM TASK FORCE

The ICCM Task Force (Integrated Community Case Management of Childhood: Malaria, Pneumonia and Diarrhea) is a multilateral and bilateral association of agencies and NGO working for the promotion of the integrated community case management of childhood illnesses.

The steering committee of the working group is actually composed of USAID, MCHIP, UNICEF and Save the Children. The resources internationally accepted for ICCM include training kits (for example UNICEF/WHO materials), advocacy documents, indicators and reference points for guidelines planning, and advices on logistic. The selected tools from different country experiences are also included.

The fact that SAM is not included in this type of initiative shows how difficult it is for nutrition actors to be integrated in MNCH programs. It also shows that SAM is not yet recognized as the most deadly disease of young children.

## ANNEXES: THE TOOLS

### THE IMCI TOOLS

#### • The handbook (2004)

In each country, the IMCI clinical guidelines are adapted:

- ▶ To cover the most serious childhood illnesses typically seen at first-level health facilities,
- ▶ To make the guidelines consistent with national treatment guidelines and other policies, and
- ▶ To implement easily the guidelines through the health system and.
- ▶ To make the guidelines feasible to implement through the health system and by families caring for their at home.



French version (2001): [http://whqlibdoc.who.int/hq/2000/WHO\\_FCH\\_CAH\\_00.12\\_fre.pdf](http://whqlibdoc.who.int/hq/2000/WHO_FCH_CAH_00.12_fre.pdf)

English version (updated in 2005): <http://whqlibdoc.who.int/publications/2005/9241546441.pdf>

#### • The IMCI training materials and chart booklet (2006 updated version)

The handbook was originally developed in 1995, and is now used in more than 100 countries around the world. Over the past decade, new evidence have emerged which were synthesized and published as "technical updates" in 2006.

This revised version includes new sections on the management of new-borns illnesses. In addition, the young infant module for IMCI training has also been revised and can be shared on request. The handbook should be used in places where the prevalence of HIV is not high. The chart booklet is a tool for health workers at first-level health facilities. Because there is great demand to include assessment and care of HIV-exposed and HIV-infected children, the manual has been revised separately for use in high-HIV settings.

<http://www.ccmcentral.com/?q=node/249>

#### • ICATT (Integrated management of childhood illness computerized adaptation and training tool)

ICATT is an innovative software application to support the implementation of IMCI guidelines; it is available in several languages. ICATT-based training courses can be used to fit various training strategies and approaches. The Integrated Management of Childhood Illness (IMCI) strategy has been shown to improve care for sick children in outpatient settings in developing countries. A central component is





an 11-day in-service training course of the IMCI clinical guidelines for health workers. In some countries, the course has been shortened to reduce training costs and the time health workers are away from their clinics during training. A systematic review to compare the efficacy of the IMCI strategy using standard in-service training (duration >11 days) versus shortened training (5-11 days) was conducted.

### • Primary Child Care: A manual for health workers

This guide was written to help health workers who deliver primary health service to infants and children, either during home visits or at health facilities with limited resources, and usually with little opportunity to refer children for further help. This revised edition is the result of an international effort coordinated by the Department of Child and Adolescent Health and Development.

In addition, this manual has a section on Emergency Care. The focus is on how to carry out a basic assessment of the health of a baby or a child, and how to prevent the situations and diseases that cause the most deaths among children.

The revised edition is consistent with the guidelines for Integrated Management of Childhood Illness (IMCI), gives information about the latest treatments, and has been expanded to include different situations not covered in the earlier version.

Community-based activities are taking place in many countries. This Briefing Package offers a procedure to bring the main partners together in order to plan and implement health services at different levels: national, intermediary, district and community. This process will:

- ▶ facilitate development of coherent strategic and operational plans at various levels;
- ▶ Facilitate sharing the experiences, resources and expertise among projects from different geographical areas;
- ▶ And help ensure consistency.

The process is best carried out with the assistance of a facilitator.

The Briefing Package includes the following three documents:

- ▶ The Reference Document contains guidelines for: gathering and analysing information about on-going community activities at the national, intermediary, district and community levels; developing national strategic and effective plans at the national, intermediary, district and community levels; and implementing C-IMCI at the community level (with best practice examples from selected countries).
- ▶ The Training Guide is based on the Reference Document, and contains guidelines for training facilitators.



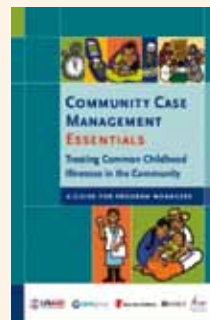
## THE CCM TOOLS

### • Community case management essentials (2010)

Le but de cet ouvrage est d'offrir une guidance opérationnelle pour dessiner, planifier, mettre en place, contrôler et plaider pour le CCM qui correspond aux besoins locaux. C'est un guide pratique pour les programmes autant que la source d'une guidance clinique.

La guidance technique pour la prise en charge des cas peut être trouvée dans le kit de formation OMS/UNICEF « Prendre soins de l'enfant malade dans la communauté », le kit inclut dans l'ouvrage et/ou le national IMCI task forces.

<http://www.ccmcentral.com/files/contents/CCM%20Essentials.pdf>



### • C-IMCI Program Guidance (2009)

This document provides an overview of the Community-based Integrated Management of Childhood Illnesses (C-IMCI) framework. The C-IMCI framework consists of three elements and a multi-sectorial platform that focus on specific behaviours and practices of health workers and caregivers of young children. Included in this document: the history of C-IMCI's development, its elements, benefits, and rationale for use.

The website <http://www.ccmcentral.com> is a product of the ICCM Task Force. The website aims to centralize resources, to provide examples of best practices and to give access to tools. There is also a forum for online questions and responses, and discussions of key challenges. The website is ready and is operated by the USAID-funded Maternal Child Health Integrated Program (USAID/MCHIP <http://www.mchip.net>).

### • Key Resources

The aim of the Partnership for Maternal, New-born and Child Health is to facilitate access to knowledge and promote policies and good practices to improve maternal, new-born, and child health. PMNCH Knowledge Summaries (<http://portal.pmnch.org>) synthesize the scientific evidence in a short, user-friendly format to inform about policy and practice; this web site is a useful tool to consult for policymakers, advocates, program managers and others.

The following tools are also available:

- ▶ PMNCH Knowledge Summaries: <http://portal.pmnch.org/knowledge-summaries>
- ▶ Essential Commodities: <http://portal.pmnch.org/knowledge-summaries>
- ▶ Procurement and supply management tools: <http://portal.pmnch.org/psm-tools>
- ▶ Making interventions effective: <http://portal.pmnch.org/effective-interventions>



- Strategies and systems to improve women's and children's health: <http://portal.pmnch.org/systems-and-strategies>



# MULTI-SECTORAL SEASONAL CALENDAR



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## **Purpose of the document:**

**Identify the key points of what are the aims of a multi-sector seasonal analysis and how to set up a systematic implementation during missions.**



## ESSENTIAL MESSAGES

- The nutrition seasonal calendar is a tool that is designed to conduct a quick **multi-sector analysis** in order to **improve understanding of nutrition insecurity as well as the fluctuations and peaks** of acute malnutrition in specific operation zones. But the aim is also to establish a seasonal **multi-sector study along with a strategic planning** in order to develop ACF mission strategies and programs.
- The multi-sector analysis of the different situations in which ACF is involved is an essential prerequisite to devise high quality, relevant, integrated programs to fight nutrition insecurity.
- The seasonality of malnutrition should be supplemented by an analysis of the risks of seasonal disasters, what are the operational implications in terms of preparation, monitoring of early warning signs, and risk management measures.
- The analysis must be completed each year.

## INTRODUCTION

Seasonal fluctuations and peaks of malnutrition are generally overlooked and thus poorly addressed, if not completely ignored, by political decision makers and practitioners.

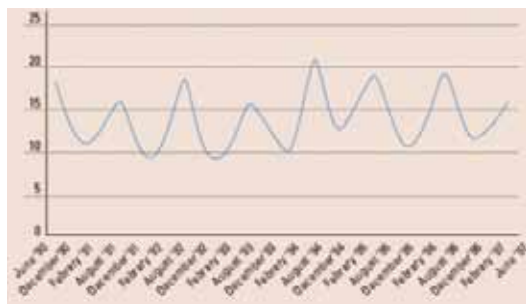
In many of the countries where ACF operates, the prevalence of acute malnutrition fluctuates throughout the year. Seasonal peaks of emaciation can be seen in Africa, Asia, and Latin America. ACF fieldworkers - specifically healthcare professionals and nutritionists - are generally well aware of these fluctuations.

In some countries or regions it is possible, thanks to monitoring systems, to measure these fluctuations throughout the year, as illustrated by the Helen Keller International (HKI) Nutrition Surveillance Project in Bangladesh (figure 36).

Today, it is essential to increase our understanding of the context surrounding humanitarian intervention, and to identify these fluctuations and peaks in order to develop a more appropriate response to the needs they create.

The nutrition seasonal calendar is a tool proposed to conduct a quick **multi-sector analysis in order to improve understanding of nutrition insecurity as well as fluctuations and peaks** of acute malnutrition in a specific operation zone. But the aim is also to carry a **seasonal multi-sector study at the same time as strategic planning** in order to develop ACF mission strategies and programs.





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Figure 36: Seasonal variations in Severe Acute Malnutrition in Bangladesh

## AWARENESS OF SEASONAL FLUCTUATIONS AT ACF

Seasonal fluctuations of acute malnutrition are caused by the sudden increase of one or more of the major risk factors (access to food and food intake, implementation of food and healthcare, disease, access to health services and/or unsanitary conditions). These seasonal fluctuations can be caused by climatic and environmental factors (for example seasonal floods) or by human or socioeconomic factors (for example high market prices of food).

It is now widely documented (see: *Scaling Up Nutrition: A Framework for Action* (2010)), that a multi-sector approach is necessary to reinforce nutrition security and to fight malnutrition. The multi-sector analysis of the situations in which ACF is involved is an essential prerequisite to devise high quality, integrated programs that are pertinent to fight nutrition insecurity.

For more details on nutrition security, see chapter: Nutrition in 5 min, page 73. Understanding the risk factors of malnutrition differs from one place to the other among ACF's missions. There are only a few operation zones where ACF has a global understanding of malnutrition and of the risk factors. There is also a lack of capitalization, often due to the fast turnover of the staff. The “ready to use” tools still lack capitalization formats. A series of tools and kits have already been distributed or are currently under development to support this multi-sector approach: a practical guide to help analyse the causes of malnutrition; guidelines for the monitoring, follow-up and

Country Directors, Field Coordinators, and HQ operations should encourage the use of the seasonal nutrition calendar as an aid to understand the context of the environment and define the strategies of country.



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evaluation of FSL; Maximizing the Nutritional Impact of FSL Interventions; and a worksheet on the seasonal calendar (released in June 2012).

## THE VARIOUS STAGES OF THE SEASONAL CALENDAR

(as detailed in the worksheet released in June 2012)

The design and creation of the seasonal calendar requires **several (7) stages**:

### 1. THE CONCEPTUAL FRAMEWORK

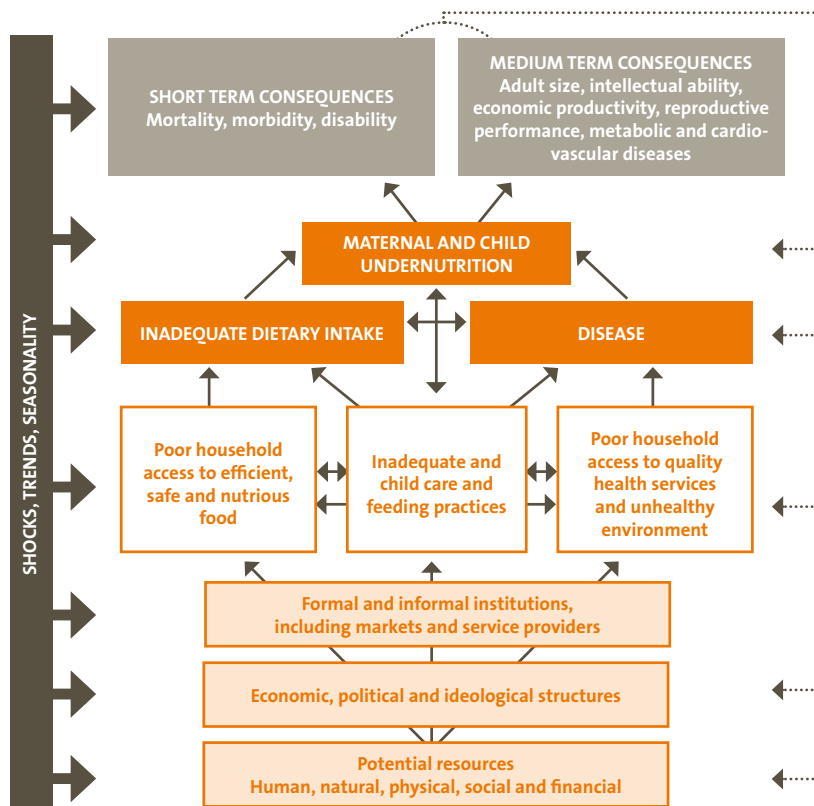


Figure 37: Conceptual framework (causes of under-nutrition)<sup>84</sup>

84 - ACF based on Black & al, 2008; UNICEF, 1992; DFID, 1999 and WFP, 2009

The Country Director must ensure that the team is familiar with the concept of nutrition security as well as the conceptual framework of malnutrition. The mission must have a clear idea of the immediate, underlying, and fundamental causes of malnutrition.

## **2. PREPARATION OF THE SECTOR-BASED SEASONAL CALENDAR**

Each Technical Department should prepare an annual seasonal calendar, which will put into perspective the key events and fluctuations of the principal sector-based indicators.

## **3. BRAINSTORMING AND CREATION OF THE CALENDAR**

One day/half-day of brainstorming is organised in each operational area with the goal of preparing a seasonal multi-sector calendar and propose strategic guidelines through a seasonal multi-sector study. The workshop - which should last at least 4 hours - offers 6 different activities (for more details, refer to the worksheet released in June 2012):

- ▶ **Activity 1:** Bringing the sectors together and defining shared responsibilities
- ▶ **Activity 2:** Introduction (30 minutes)
- ▶ **Activity 3:** Development of a multi-sector seasonal calendar for one operation zone (1 hour)
- ▶ **Activity 4:** Analysis of the link between incidents, fluctuations, and malnutrition (1 hour)
- ▶ **Activity 5:** Definition of strategic guidelines and “seasonal thinking” (1 hour). This stage must include supporting roles (Administration, Finance, and Logistics Departments)
- ▶ **Activity 6:** Conclusion (30 minutes)

## **4. SUMMARY REPORT**

A brainstorm summary report and a seasonal calendar are produced by the Field Coordinator or the person in charge of the sector.

## **5. APPROVAL AND CONCLUSION**

Country Directors and Heads of Departments also conduct a brainstorm in order to approve and finalise the seasonal multi-sector calendar and to highlight the operational strategic guidelines for the country.



## 6. INCORPORATION OF THE RECOMMENDATIONS INTO THE COUNTRY STRATEGY

Country Directors and Heads of Departments have to incorporate the most important recommendations into the Mission Strategy Paper. They have to check that “newcomers”

For more details, and obtain support tools, please refer to the seasonal multi-sector calendar worksheet (June 2012).

are aware of these seasonal trends in their operation zones and of the operational implications. Adequate capitalization is processed at the base, mission and headquarters levels. Ideally, the seasonal multi-sector calendar should come as an annexe to the Country Strategy Paper.

## 7. UPDATING

The seasonal calendar and the operational guidelines are regularly improved and adapted. The brainstorming exercise takes place at least once a year or every 2 years for each of the different sectors of activity.

## RISKS AND SEASONAL DISASTERS

The seasonality of malnutrition should be supplemented by an analysis of the risks of seasonal disasters and operational implications, in terms of preparation, monitoring of early warning signs, and risk management measures.

In 2010, the WFP issued an interesting publication entitled “Seasonal and Hazards Calendar”. This calendar combines authorized information on the main seasonal risks, such as floods, droughts, cyclones, and the prevalence of parasites such as grasshoppers, along with crop growth cycles and lean periods.

<http://www.preventionweb.net/english/professional/publications/v.php?id=17582>



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# ADVOCACY AND NUTRITION-HEALTH SECTOR



**Purpose of the document:**  
Provide an overview of advocacy and further advice and guidance on advocacy specific to Nutrition sector.



## ESSENTIAL MESSAGES

- The aims of advocacy within ACF is to obtain sustained changes in the policies, practices and intervention capacities in order to put an end to acute malnutrition by influencing political and/or economic decision makers and by mobilizing public support.
- We believe advocacy is indispensable to achieve the third revolution in the treatment of severe acute malnutrition, the scale-up of the CMAM approach and its integration into basic services.
- Having a good general overview of a country's nutritional situation, including the level of attention paid to nutrition as well as relevant policies, guidelines, programs, etc., is essential for advocacy.
- To a certain extent country-level donor policies are driven by government priorities and criteria. Therefore, advocacy for CMAM integration in the health policy of the government may be complemented by advocacy to donors who may provide support in this matter.

This briefing paper provides an overview of advocacy and further advice and guidance on advocacy specific to the Nutrition sector. (A more detailed chapter on how to develop a CMAM advocacy strategy is available in the CMAM book that will be published in 2012-sections below have been extracted from R. Brown chapter on advocacy).

## THE CONCEPT OF ADVOCACY

**“Advocacy within ACF aims to make lasting changes to the policies, practices and intervention capacities in order to put an end to acute malnutrition by influencing political and/or economic decision makers and by mobilizing public support.”**

While the concept itself is fairly simple, ‘influencing people with power to achieve change in policy and practice’ often is a fairly ambitious undertaking. It is important to remember that achieving positive policy change is one thing, and may be difficult enough. Ensuring that good policies are implemented is a different and potentially even harder, but also more rewarding task. In sum, successful advocacy may be fairly challenging but it is an essential complement to program and project implementation as it is the only way to ensure improved policy frameworks, environments for development and, importantly, sustainability.

## ADVOCACY IN ACF

Advocacy is one of the five building blocks of the ACF 2015 strategic plan. The plan aims to position the organization as a key reference source on hunger and malnutrition by improving ACF's effectiveness in achieving policy and practice change in the treatment of malnutrition and in the areas of food availability as well as water and sanitation.

We believe advocacy is essential for accelerating and achieving the third revolution in the treatment of severe acute malnutrition (see chapter on SAM treatment evolution, page 117) - the scale-up of the CMAM approach and its integration into basic services. Ultimately advocacy is of crucial importance for reducing the number of children suffering and dying from the condition every year.

### ACF IMPLICATION

#### Acute Malnutrition Advocacy Initiative (AMAI)

AMAI is ACF's first international advocacy initiative to address acute malnutrition.

It focuses specifically on diagnosis, prevention and treatment of acute malnutrition through health systems. With initiative ACF is calling on governments and international institutions to prioritise acute malnutrition as a major public health issue and to integrate prevention and treatment of acute malnutrition into national health systems, drastically increasing long-term investment in direct nutrition interventions as well.

The overall goal of AMAI is to accelerate progress towards MDGs 1 and 4 through international prioritisation of nutrition in all contexts (recovery, development and emergency). The focus is on ensuring treatment of acute malnutrition through health systems.

Full presentation of the Acute Malnutrition Advocacy Initiative available:  
[sad@actioncontrelafaim.org](mailto:sad@actioncontrelafaim.org)

## ADVOCACY IN NUTRITION AND HEALTH SECTOR

### UNDERSTANDING THE PROFILE OF ACUTE MALNUTRITION

Having a good general overview of a country's nutritional situation, including the level of attention paid to nutrition as well as relevant policies, guidelines, programs, etc., is essential for advocacy.

Such information is found in MoH, UN, INGO, academic and donor reports, and updates, details and other important aspects, such as updates, may be obtained in discussions with key informants. Having a good general picture at the outset helps to guide a more detailed analysis. Some questions



which are worth asking in the quest to understand a country's nutritional profile include:

- ▶ Is the extent of SAM and its associated mortality rates recognised?
- ▶ Is it understood that the management of acute malnutrition is significant in combating diseases such as malaria, measles, ARI, and reducing mortality?
- ▶ Is under-nutrition (and specifically acute malnutrition) raised as an important issue in key policy documents?
- ▶ Where does nutrition sit at national level? What influence does the Nutrition Unit enjoy?
- ▶ What are the disparities between policy and practice? Are protocols up-to-date?

## **POTENTIAL ENTRY POINTS FOR CMAM ADVOCACY**

Staffs involved in CMAM often encounter considerable obstacles, which can impede or stall the integration process and the quality of treatment. These can be addressed by advocacy.

Examples of such obstacles and entry points for advocacy as follows:

- ▶ The national government, including the Ministry of Health, shows a lack of interest for nutrition, and the treatment of acute malnutrition is not paid sufficient attention.
- ▶ A national government or Ministry of Health is reluctant to admit to the existence or extent of SAM.
- ▶ A National Nutrition Policy may exist on paper, as well as guidelines for the treatment of SAM, but the policy is not adequately implemented and service quality is poor.
- ▶ Donors and other international actors involved in health and nutrition are not aware of the magnitude of the problem of SAM and its significance in terms of under-five mortality.



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## **UNDERSTANDING CMAM INTEGRATION TO DATE AND BUILDING EVIDENCE**

If CMAM is already being implemented through the health system, it is important to understand what efforts have been made in regard to integration.

Systematic reviews of the system looking at the 6 building blocks can be done. Points to consider include:



- **Governance**

- Priority granted to CMAM by the MOH, including an analysis of whether the management of acute malnutrition by NGOs has come to be regarded as the norm.
- Status and influence of the MOH Nutrition Unit.

- **Finance**

- Resource allocations for CMAM compared to those for other basic health services.

- **Human Resources**

- Allocation of health staff time as well as space for CMAM activities.
- Expertise of health staff in CMAM.

- **Health care delivery**

- Issues with quality of care, coverage, mortality, uptake, attendance.

- **Health information system**

- M&E systems are in place, data are collected and analyzed.

- **Supply chain**

- Logistical implications of CMAM and potential capacity constraints.

Using facts and important country-specific data on under-nutrition, including acute malnutrition, improves credibility and allows for a more strategic approach to advocacy. Where possible, data derived from in-country surveys and sources should be used, and it should be up-to-date. Such data could include:

- ▶ Proportion of deaths attributable to malnutrition, both directly and indirectly
- ▶ Figures on stunting and wasting
- ▶ Economic implications of stunting and wasting
- ▶ Gaps in service delivery according to the national protocol (where applicable)
- ▶ Estimates on deaths that could be averted by treating SAM at the recommended standard
- ▶ Estimated cost of managing acute malnutrition through integration
- ▶ Cost-effectiveness of treating severe acute malnutrition as compared with other interventions

Building the evidence base on CMAM integration will be key to develop powerful messages and produce advocacy materials.



## SETTING GOALS AND OBJECTIVES FOR CMAM INTEGRATION

The desired change must be articulated clearly, and it must directly relate to the issues identified. Goals and objectives should be guided by a vision of what a well-functioning system to manage acute malnutrition would look like; yet they need to be specific and realistic.

Please note that these examples are not yet objectives, as they are too vague. They need to be adapted to the context and made SMART (Specific, Measurable, Achievable, Resourced and Time-bound).

### Testimony of the Advocacy consultant for ACF Liberia (2010):

‘The Ministry of Health and Social Welfare wants a well-defined problem, based on sound data and analysis, with a feasible, packaged and costly solution, based on the best international practices adapted to the Liberian situation’

### Buts et objectifs pourraient être formulés comme suit:

- ▶ Management of severe acute malnutrition is effectively implemented within a basic package of health services.
- ▶ The quality of services to manage acute malnutrition through in- and outpatient units is improved.
- ▶ Basic protocols and minimum standards for the management of severe acute malnutrition are in place and being followed.
- ▶ The plan for increased coverage with SAM treatment is matched by extra staffing with specialists at national and district level.
- ▶ Systems for the detection and referral of children with severe acute malnutrition are in place at health centre and community level.
- ▶ Capacity development requirements are addressed.

## MESSAGES ON CMAM INTEGRATION

Messages must of course be context-specific and can only be developed following solid analysis. Nevertheless, a few general examples of what messages may focus on are presented below<sup>85</sup>:

- ▶ Acute malnutrition is a major underlying cause of common diseases such as malaria, TB, diarrhoea, and its management will lower under five mortality rates.
- ▶ Management of acute malnutrition as part of a basic package of healthcare will reduce under five mortality rates.
- ▶ The new outpatient treatment of acute malnutrition is both more cost-effective and less labour-intensive. It offers an opportunity to treat the condition at scale and significantly reduce under 5 mortality.

85 - Liberia advocacy report, Kim Clausen 2010

- There is a need for much greater recognition of the importance of nutrition in achieving the Millennium Development Goals, in particular reduce under-five mortality (MDG 4).

Importantly, such messages must be adapted to contain clear advice on what the target should do, and ideally how. When delivering messages, rather than only pointing to gaps, it is important to recognise existing nutrition initiatives that have been successful, and to be constructive by stating what support can be offered.

## **UNDERSTANDING DONOR PRIORITIES**

A **stakeholder analysis** will help map out your key targets. The same tool will also help identify all relevant actors with an interest in the advocacy issue (partners, allies and opponents).

A briefing note on how to conduct a stakeholder analysis available: [sad@actioncontrelafaim.org](mailto:sad@actioncontrelafaim.org)

When aiming to influence high-level decision makers it helps to understand donor priorities as well. Likewise, country-level donor policies, to a certain extent are driven by government priorities and criteria. Therefore, advocacy for CMAM integration with the government may be complemented by advocacy to donors who may provide support in this matter.

Knowing which donors are supporting of CMAM integration and what their funding priorities are more generally is very useful. Funding modalities are also important. In some countries a health sector pool fund exists to which donors contribute, funding commonly agreed priorities for the Ministry of Health. Moreover, it is conceivable that performance-based funding may discourage the Ministry of Health from adding CMAM to its basic package of services, as this adds to the products to be provided and to the indicators to achieve.

## **THE ADVOCACY SECTOR IN ACF**

The ACF advocacy team is available for the fieldworkers to bring some support for any advocacy initiative. This support can be through a response to punctual demands, the delivery of complementary documents or briefing and the support from an advocacy team member (field visit including training and group work in order to define the advocacy strategy...).

**For any additional information you can contact:**

Elise Rodriguez, advocacy missions focal point, in ACF-France advocacy sector.

[eliserodriguez@actioncontrelafaim.org](mailto:eliserodriguez@actioncontrelafaim.org)

[sad@actioncontrelafaim.org](mailto:sad@actioncontrelafaim.org)





# NUTRITION CLUSTER: THE FUNDAMENTALS



Global  
**NUTRITION**  
CLUSTER

**Purpose of the document:**  
**To know the key points concerning Nutrition Cluster and the implications for ACF on the subject.**



## ESSENTIAL MESSAGES

- The Cluster Approach provides more strategic responses and a better prioritisation of available resources by defining clearly the distribution of work between organisations, and defining the roles and responsibilities of humanitarian organisations within the sectors.
- As a Cluster Lead Agency at global level for Nutrition, UNICEF is responsible for facilitating the discussion, analysis or recommendation on whether or not to activate Nutrition Cluster. At the same time, actors in nutrition at country level as well as the GNC-CT are able to make their contributions.
- Nutrition Cluster is open to all organisations who are committed to supporting nutrition response in line with agreed good practices standards, and who are willing to actively engage in strengthening capacity of nutrition in the country, and contribute to the strategic priorities and targets of the Nutrition Cluster.
- The cluster response strategy represents the global framework for emergency response in nutrition. It provides the vision and action plan for a complete and collective response.

## INTRODUCTION

Humanitarian emergencies can take many forms. They may result from natural disasters, such as floods or earthquakes, or from conflicts. The beginning of an emergency can occur very quickly, or alternatively evolve slowly over time.

Humanitarian response is an evolving and dynamic field, guided by fundamental humanitarian principles.

## HUMANITARIAN REFORM AND THE CLUSTER APPROACH

In response to the growing complexity of humanitarian contexts, a Review of the Humanitarian Response was completed in 2005 by the IASC<sup>86</sup>. This review pointed out significant gaps, notably due to fragmentation of responses, duplication of efforts, and insufficient involvement of governments and national actors.

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86 - Inter-Agency Standing Committee: forum involving key UN and non UN actors, responsible for the coordination, development of policies and decision-making. The IASC determines who is responsible for what in the humanitarian response identifies the gaps and recommends the application of international humanitarian principles. The IASC is managed by the Emergency Relief Coordinator (ERC).

Humanitarian Reform has thus been proposed in order to improve the predictability of funding and leadership of the response, the accountability to affected populations, and the partnership between UN and non UN humanitarian actors.



Figure 38: The 4 building blocks of Humanitarian Reform

## OBJECTIVES OF THE CLUSTER APPROACH

The development of the Cluster Approach aimed to strengthen the humanitarian response through the definition and strengthening of partnerships and accountability within key sectors.

- ▶ At a global level: strengthening the preparation and technical capacity of the response to humanitarian emergencies.
- ▶ At the country level: ensure a more coherent and effective response by mobilising agencies so that they are able to respond strategically, with one of the agencies managing the “cluster” (Cluster Lead Agency) designated at country level.

The Cluster Approach thus allows for more strategic responses and a better prioritisation of available resources by clarifying the distribution of tasks between the different organisations, and providing a better designation of the roles and responsibilities of the humanitarian organisations within the sectors.

## WHERE / WHEN TO ACTIVATE THE CLUSTERS?

When a humanitarian emergency exceeds the limits of the mandate of an agency and when the needs are so complex that what is called for is a multi-sector response and the commitment of a wide range of actors.



## ACTIVATION MECHANISM OF THE CLUSTERS

The procedure for activating the Clusters was developed by the IASC in 2007.

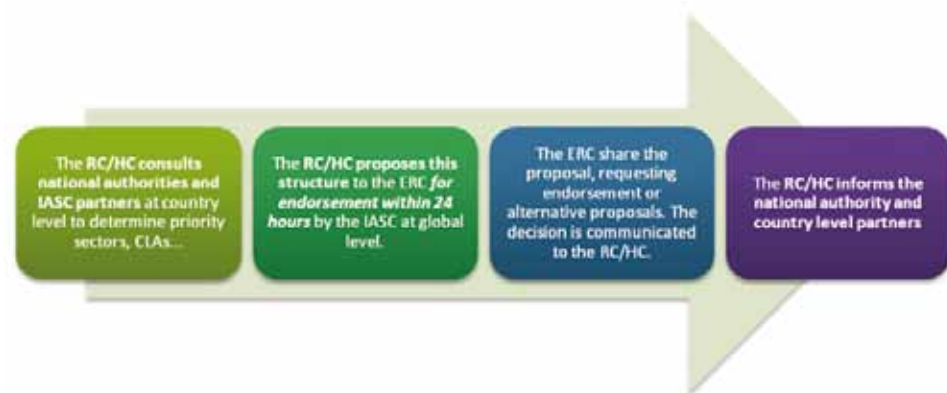


Figure 39: Activation mechanism of the Clusters

### • Acronyms

- ▶ **HC (Humanitarian Coordinator):** He/she is responsible for ensuring that the international response is strategic, well planned, coordinated and effective.
- ▶ **HCT (Humanitarian Country Team) :**the equivalent of the IASC at country level; managed by the HC.
- ▶ **ERC (Emergency Relief Coordinator):** at the head of OCHA, managing the IASC, and reporting to the United Nations Secretary-General, the ERC is responsible for the overall coordination of humanitarian assistance.
- ▶ **CLA (Cluster Lead Agency):** For Nutrition, UNICEF is the Cluster Lead Agency.

## WHEN MUST NUTRITION CLUSTER BE ACTIVATED?

The activation of specific Clusters depends on the humanitarian emergency and the response capacities at national level. Clusters are only supposed to be activated in sectors where existing coordination mechanisms are inadequate. Activating the cluster will depend on a decision made by the national authorities (see below).

As a Cluster Lead Agency at global level for Nutrition, UNICEF is responsible for facilitating the discussion, analysis or recommendation on whether or not to activate Nutrition Cluster. At the



same time, actors in nutrition at country level as well as the GNC-CT<sup>87</sup> are able to make their contributions.

- **The questions to ask in order to know whether Nutrition Cluster is necessary:**

- ▶ Are there any gaps in the availability of programs treating and preventing under-nutrition as a result of the emergency?
- ▶ Are the preparation and response to the emergency in nutrition already adequately coordinated by the national authorities?
- ▶ Is there a coordination mechanism for the nutrition sector with the capacity to prepare for and respond to emergencies?
- ▶ Do other sectors plan on activating the Cluster Approach?
- ▶ Are there any indicators for the increase in nutritional risk related to the emergency, and which would exceed the current response capacities?

## ROLES AND RESPONSIBILITIES

### GOVERNMENT

The government's role is defined in resolution 46/182 of the United Nations General Assembly: "Each State has the **responsibility first** and foremost to take care of the victims of natural disasters and other emergencies occurring on its territory. Hence, the affected State has the primary role in the initiation, organization, coordination, and implementation of humanitarian assistance within its territory."

Humanitarian assistance is provided in cases where national authorities neither have the will nor the capacity to provide it themselves.

Depending on the will of national authorities to participate in the Cluster, there are three partnership opportunities:

- ▶ The government is the lead or Co-lead of a cluster.
- ▶ The government wishes to coordinate, but delegates the authority of coordination to the CLA, and decision-making opportunities are regularly offered to it (the most common situation).
- ▶ The government is unwilling or unable to coordinate, and is kept informed of the cluster's progress at regular intervals.

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87 - Global Nutrition Cluster - Coordination Team



## CLUSTER LEAD AGENCY

An agency is designated as the CLA in each technical sector.

At global level, the CLA in Nutrition is UNICEF. At country level, UNICEF is also most often the CLA but other schemes are possible. At country level, the CLA may be any member organisation of the IASC as long as it has the necessary resources and expertise in order to respond to the terms of reference. ACF has already been the CLA in some countries (South Sudan, for example).

The areas of intervention of the CLA are:

- ▶ Standards and policies: development, consolidation, dissemination
- ▶ Construction of the response capacity: training, inventory, HR
- ▶ Operational support

### IMPLICATION FOR ACF

- ▶ **Operational presence:** It would be challenging and unrealistic for ACF to act as the CLA if it has limited operational presence on the field.
- ▶ **Staffing needs:** The CLA is responsible for covering the costs of the cluster coordination staffing, of necessary seniority, experience and number, for the duration of the emergency response and transition period.
- ▶ **Resource implications:** Funds are required both for staff costs and operational costs for the coordination function (for example meetings, logistical support, administrative support, printing costs, etc.).
- ▶ **The working relationship with the national authority:** While agencies should collaborate with each other based on the Principles of Partnership, different types of agencies (e.g. UN, NGO, institutions) may be treated differently by the national authority (for example the types of permits and travel documents needed). Agencies need to consider whether they will be able to address these issues.
- ▶ **Accountability:** The CLA agency commits to acting as the Provider of Last Resort, meaning that the agency will be held accountable to the RC/HC for ensuring that gaps are identified and addressed as best possible, and that where security and funding allow, the CLA will fill that gap.

### FOR MORE INFORMATION

**Provider of last resort:** At country level, the CLA is responsible for being the provider of last resort, which means that under certain conditions, the CLA is obliged to provide the necessary services in order to plug the gaps in emergency response. These conditions are the access, security and availability of funds.

## **THE CLUSTER COORDINATOR**

The role of the NCC (Nutrition Cluster Coordinator) is to ensure a coherent and effective response to a nutritional emergency. Its terms of reference cover 13 fields of action:

- ▶ Inclusion of all key partners;
- ▶ Establishing and maintaining appropriate coordination mechanisms;
- ▶ Ensuring links/coordination with national authorities, institutions and civil society;
- ▶ Ensuring the participatory approach and involvement of the community in evaluations, analyses and responses;
- ▶ Ensuring that cross-cutting issues are taken into consideration (gender, HIV, environment, etc.);
- ▶ Ensuring the effectiveness and consistency of the evaluations and analyses, and involving the appropriate partners;
- ▶ Preparation for emergencies;
- ▶ Strategy development;
- ▶ Application of standards: ensuring that the responses are in line with national policies;
- ▶ Monitoring and reporting: ensuring that the mechanisms are in place;
- ▶ Advocacy and mobilisation of resources;
- ▶ Training and development of the partners' capacities;
- ▶ Provider of last resort: request to the CLA in order to plug the gaps.

The credibility of the Nutrition Cluster Coordinator depends on the way in which he/she is able to demonstrate his/her impartiality, autonomy and independence in relation to his/her CLA.

## **PARTICIPANTS IN THE CLUSTER**

Nutrition Cluster is open to all organisations who are committed to supporting nutrition response in line with agreed good practices standards, and who are willing to actively engage in strengthening capacity of nutrition in the country, and contribute to the strategic priorities and targets of the Nutrition Cluster.

### **IMPLICATION FOR ACF**

- ▶ Endorse the overall aim and objectives of the Nutrition Cluster coordination mechanisms and incorporate them into their individual agency work plans;
- ▶ Be practical in exchanging information, highlighting needs and gaps, reporting progress and learning, mobilising resources (financial, human, material), engaging with affected communities, building local capacity;
- ▶ Share responsibility for Nutrition Cluster coordination mechanisms activities including assessing needs, developing plans, developing policies and guidelines through working groups and implementing activities in line with agreed objectives and priorities;
- ▶ Respect and adhere to agreed principles, policies, priorities and standards.



## GLOBAL NUTRITION CLUSTER (INTERNATIONAL LEVEL)

### • Composition

The GNC is made up of a wide range of participants, having different roles and responsibilities:

- ▶ **GNC Coordinator:** responsible for the overall management of the GNC, and assisted by a team (GNC-CT: GNC-Coordination Team);
- ▶ **Core partners of the GNC:** individuals or agencies that are formally part of the GNC, providing their technical expertise. ACF is one of them;
- ▶ **Contacts of the GNC:** network of Nutrition Cluster Coordinators and regional personnel of the CLA, who are called upon for specific contributions;
- ▶ **Observers of the GNC:** individuals or agencies who only participate in the GNC in order to share information (for example: MSF, CICR);
- ▶ **Expanded network of the GNC:** students, professionals, who are interested in the information shared by the GNC but who are not involved in the work.

### • The GNC's strategic approaches

- ▶ Coordination, advocacy and mobilisation of international resources
- ▶ Policies, standards, international guidelines
- ▶ Capacity development for humanitarian response
- ▶ Preparedness
- ▶ Assessment, monitoring and information management
- ▶ Best practices and lessons learnt

#### THE VISION OF THE GNC

“To safeguard and improve the nutritional status of emergency affected populations by ensuring an appropriate response that is predictable, timely, and effective and at scale.”

### • The GNC and Cluster countries

There is no hierarchical relationship between the GNC-CT and the Nutrition Cluster Coordinators. The GNC shares its resources (documentation) and offers technical support to the Nutrition Cluster Coordinators, upon request.

The GNC also ensures a relationship with other initiatives which concern nutrition, such as the IFE<sup>88</sup> Core Group, le SCN<sup>89</sup>, le SUN<sup>90</sup>, le NUGAG<sup>91</sup> and the REACH<sup>92</sup>.

88 - Infant Feeding in Emergency

89 - Standing Committee on Nutrition

90 - Scaling Up Nutrition

91 - Nutrition Guidance expert Advisory Group

92 - Ending Child Hunger and Undernutrition

## • UNHCR and Nutrition Cluster

In 2005, the UNHCR took on the role of CLA for the Protection and Shelter Clusters of internally displaced persons, as well as the coordination and management of the camps for internally displaced persons.

On the other hand, there are no directives on the way in which UNHCR and Nutrition Cluster must cooperate concerning the case of refugees.

In summary:

- ▶ **For internally displaced persons, outside the camps:** nutrition is under the responsibility of Nutrition Cluster;
- ▶ **For internally displaced persons, inside the camps:** nutrition is under the responsibility of Nutrition Cluster;
- ▶ **For refugees, in and outside the camps:** nutrition is under the responsibility of UNHCR.

## FIELDS OF ACTION FOR NUTRITION CLUSTER

### INFORMATION MANAGEMENT

Efficient information management is the foundation of efficient coordination. It is an essential component for improving planning, integration, and implementation of an emergency response in nutrition.

Information management includes 4 domains: collection, treatment, analysis, and dissemination.

#### ▶ Who is involved?

CLA (provides resources: IM personnel, the necessary computers and software), **IM manager**, **NCC** (assures data and appropriate usage creation), **Cluster participants** (proactive in information exchange, and contributing to the creation of standards and guidelines for IM), and **OCHA** (compiles information from the different Clusters).

### ASSESSMENT

The information that assessments generate provide a critical foundation for planning, delivering and monitoring the Nutrition Cluster response. They are the tools for generating a clear picture of the pre-crisis situation, including vulnerabilities and nutrition outcomes, as well as generating in-crisis information that outlines the scale of the impact of the emergency and those that are affected.

#### ▶ Who is involved?

The NCC and IM (identification of available information and gaps), the HC and OCHA (coordination of emergency inter-cluster evaluations) and cluster participants (conducting evaluations, identifying specific needs).



## NUTRITION CLUSTER RESPONSE STRATEGY

The cluster response strategy represents the global framework for emergency response in nutrition. It provides the vision and action plan for a complete and collective response. The Nutrition Cluster response strategy:

- Defines common goals
- Identifies priorities
- Elaborates a coherent and complete action plan, clearly defining roles and responsibilities
- Defines the monitoring mechanism and response operation

The response strategy must be based on the analysis of available information, consider transversal issues, make the link to other Clusters as required, and consider priorities and available capacities. The strategy must be regularly revised and updated so that it remains relevant.

### ► Who is involved?

The NCC (facilitates the development and updating of the strategy, with clear quality control and review mechanisms), and Cluster participants (contribute with information and ideas).

## PROMOTION OF STANDARDS AND CAPACITY DEVELOPMENT

### Promotion of standards

Standards must be in place in order to promote a quality response, and the goals of the Nutrition Cluster are achieved by the implementation of planned, implemented, and appropriately monitored activities.

### ► Who is involved?

The NCC (facilitates the identification, the revision, the development, and the promotion of standards), the **Cluster participants** (identify and prioritise the domains where standards are necessary, engage in development / revision), **institutions or organisations** outside of the Cluster (development of training materials, or otherwise).

### Capacity development

Competency development of Cluster participants, in a way that they are better equipped to maintain the nutritional status of the populations.

### ► Who is involved?

The NCC (supports efforts to reinforce the capacities of national authorities and civil society); Cluster participants (contribute to the identification and the prioritisation of development and capacity needs).

## ADVOCACY AND COMMUNICATION

### Advocacy

In practice, advocacy in emergency situations aimed at:

- Gaining acceptance and support for nutrition in emergencies as a humanitarian priority and right;
- Mobilising resources;
- Increasing awareness.

#### ► Who is involved?

The **NCC** (ensures that core advocacy concerns for the Nutrition Cluster are identified, and facilitates the joint advocacy process), the **IM** (collects and analyses the information used in the advocate's messages), the **Cluster Participants** (prioritise issues, produce evidence, implement advocacy, also determine the parameters of advocacy: who represents the Nutrition Cluster, under what conditions), the **CLA** (the representative of the CLA is responsible for Nutrition Cluster advocacy, taking advantage of all opportunities presented, and based on reports by the NCC).

### Communication

Communication is an important advocacy instrument, particularly with the media.

#### ► Who is involved?

The **NCC** (facilitates the definition and presentation of the Nutrition Cluster's point of view, and ensures that the messages represent the Nutrition Cluster's position and not that of a sole partner), the **IM** (collects and analyses information used in communication materials), **Cluster participants** (through the Cluster's RDTs, define the parameters for external communication: who represents the Nutrition Cluster, under what conditions, how is sensitive information managed), the **CLA** (communicates the Nutrition Cluster's needs and issues to the higher levels, provides technical support and facilitates contact with the media), **OCHA** (important communication role for all Clusters).

## RESOURCE MOBILISATION

### Fundraising

Fundraising ensures that adequate financial resources are available for the humanitarian partners, so that the Nutrition Cluster's response strategy can be implemented.

#### ► Who is involved?

The **NCC** (ensures that the Nutrition Cluster mobilises the necessary funds to address the primary needs, and ensures that the funds obtained via the Nutrition Cluster are used primarily for the most critical and underfinanced issues), the **CLA** (advocates for the Nutrition Cluster's financial needs surrounding HC, the sponsors, and the humanitarian community), the **Cluster**



participants (share data with the NCC in order to ensure that all financial needs are covered, contribute to the prioritisation of the projects at the heart of the Cluster, and mobilise funds themselves), **OCHA and the HC** (manage the fundraising processes, the tools, and the time dedicated to establishing financing priorities and the selection of projects).

## FOR MORE INFORMATION

Fund	What is it?	Who is eligible?	Who prepares it?
<b>FLASH APPEAL</b>	Gives an overview of the most urgent needs, the Cluster response strategies, and agency projects for the first 3 to 6 months. Normally reviewed after one month, according to additional information.	UN Agencies NGO  NO National authorities except within projects by the UN or an NGO.	Coordinated and compiled by HC and OCHA, with contributions by cluster coordinators and from the HCT. Within 5 to 7 days of the emergency.
<b>CERF Rapid Response Grant</b> (Central Emergency Response Fund)	Provides initial funding to start up « life-saving » programs developed in Flash Appeal, but still covered by other sponsors.	UN Agencies IOM  NO NGOs and National authorities except within projects by the UN or an NGO.	The NCC in collaboration with the Nutrition Cluster.
<b>CAP</b> (Consolidated Appeal)	Developed if an emergency lasts longer than the 6 months of the Flash Appeal. Composed by the CHAP (Common Humanitarian Action Plan) which is the emergency response strategic plan + the set of projects necessary for that strategy.	UN Agencies NGO FICR  National authorities may only be the implementing partner.	The HC directs the processes with the HCT, the cluster coordinators, and the other humanitarian organisations.
<b>Pooled Funds: ERF</b> (Expanded Humanitarian Response Fund)	Small fund, covering the needs that are not included in the CAP but are in line with the CHAP goals; short-term projects (max 6 months).	Often NGOs	
<b>Pooled Funds: CHF</b> (Common Humanitarian Fund)	Covers CAP's primary projects.		Consultation processes involve all clusters.



## **MOBILISATION OF INPUTS AND EQUIPMENT**

The capacity to implement interventions in nutrition requires adequate inputs and equipment at the right time and place.

The type and quantity of commodities necessary for the response should be included in the Nutrition response strategy.

The inputs used for the treatment of the MAS and the MAM are often categorised as food commodities, and subject to regulations at the country level. Establishing and respecting standards of quality control in line with the food inputs are equally critical questions for the Nutrition Cluster.

### **► Who is involved?**

The **NCC** (ensures that all the inputs and equipment necessary for the emergency response are identified, and that the Nutrition Cluster can identify and resolve pipeline problems), the **IM** (information management related to inputs and equipment), the **CLA** (advocates for all of the resources of the Nutrition Cluster), **Cluster participants** (share information concerning the needs and stocks of inputs in order to identify potential shortages).

## **MONITORING AND EVALUATION**

The purpose of monitoring in the Nutrition Cluster is:

- Track the changes in the emergency situation and the evolution of needs;
- Assess the progress and coverage of the response;
- Facilitate accountability;
- identify and address problems as they arise;
- Promote and highlight achievements.

Effective monitoring systems are essential to make the best use of the resources available.

### **► Who is involved?**

The **NCC** (ensures that the monitoring system is in place), the **IM** (monitoring system creation, capacity enhancement for partners concerned in monitoring), **Cluster participants** (define and use the monitoring system), **OCHA** (coordinates the monitoring data of all clusters).

## **EVALUATION AND LESSONS LEARNT**

Evaluations in the context of the Cluster approach occur at 2 levels:

- Partners may undertake evaluations of their programs (no obligation of sharing the results with the Cluster);
- Evaluation of general Cluster performance.

### **LES OUTILS DU CLUSTER NUTRITION**

- Harmonized Training Package
- Nutrition cluster toolkit
- Nutrition Cluster Hand-book
- Other tools: SMART, NutVal, etc.



### ► Who is involved?

The NCC (coordinates the evaluations at the Cluster level, and ensures the dissemination and use of information), the IM (technical support in defining methodology and performance of evaluation analysis), cluster participants (identify and prioritise their evaluation needs for the Cluster and for their own agencies), and OCHA (coordination between clusters).

## PERSPECTIVES

### TRANSFORMATIVE AGENDA

Weaknesses are still identified in multilateral humanitarian response.

3 primary areas of improvement:

- **Leadership:** rapid deployment of an experienced and high-level HC
- **Coordination:** trained and experienced cluster coordinators, coordination between clusters
- **Accountability:** improvement of mutual accountability between HC / HCT / Cluster Coordinators / Cluster participants

### **What the Nutrition Cluster can offer**

- Access to technical support and clarity on standards of response
- Reduced risk of duplication or conflict between agencies or beneficiaries
- Increased networking and means to engage with donors and government
- Collective power in advocacy, mobilizing resources, etc.
- Sharing of resources and expertise
- Reduced risk of lone decision-making and accountability to affected populations.

## Reference « To go further »

Nutrition Coordination Handbook - Version 1



## ANNEXES

### Scientific and technical international partnerships

Partner	Partner description	Link with ACF
<b>CDC</b> (Centre Disease Control)- Atlanta	Epidemiology center of the American government	<ul style="list-style-type: none"><li>• Partnership with the nutrition unit to exploit the database nutrition of surveys</li><li>• Discussion for a partnership on « Alternative study » research project</li></ul>
<b>CRED (Centre de recherche sur l'épidémiologie des désastres)</b>	Centre which lists the nutrition surveys from different actors and proposes analysis	From more than 10 years ACF has been transmitting all its data to the CRED.
<b>FANTA-2 and 3</b> (Food and Nutrition Technical Assistance)	FFANTA-2 proposes a support to USAID in the Food Security and Nutrition sectors. Elaboration of guidelines internationally endorsed and used.	Partnership on: <ul style="list-style-type: none"><li>• Listening post</li><li>• Contribution in the development of the CMAM guide</li></ul>
<b>Montréal University</b>	Nutrition department of the Faculty of Medicine (professor H. Deslile is part of the ACF scientific council)	ACF welcomes trainees to carry out several studies : <ul style="list-style-type: none"><li>• CMAM feasibility study (Bangladesh)</li><li>• Master work (Ivory Coast)</li></ul>
<b>IRD</b> (Institut de Recherche et de Développement)	Developed the RUTF with André Briend	ACF welcomes Master trainees to carry out several studies, for example: implementation of the new WHO standards in Burma. Participation in the scientific committee of the nutrition causal analysis project



<b>Gent University</b>	Food safety and quality department. Biosciences engineering faculty.	Scientific partnership on research projects: <ul style="list-style-type: none"><li>• Several research project (finished, on-going, incoming), RUTF in Chad</li><li>• Alternative preventative approaches PhD</li></ul>
<b>UCL (University college London)</b>	Institute of Child Health (ICH)	Scientific partnerships on research and training : <ul style="list-style-type: none"><li>• Nutrition and pastoralism 2007 / 2009-2010</li><li>• MAMI</li><li>• Work on the Nutrition in Emergency training</li></ul>
<b>LSHTM</b>	London school of hygiene and tropical medicine	Data sharing (database), MoU on a research project
<b>ITM</b>	Institute of Tropical Medicine, Belgium	Project study on MUAC
<b>MMS</b>	Moderate malnutrition study (ENN et save the children) funded by OFDA	ACF is part of the steering committee
<b>ILNS</b>	Research consortium on Lipid-based Nutrient Supplements	Research on Lipid-based Nutrient Supplements. ACF is part of the forum.
<b>Université Sheffield</b>	Human nutrition faculty	ACF welcomes Master trainees to carry out several studies : <ul style="list-style-type: none"><li>• PD efficacy on anaemia in Bangladesh</li><li>• Vit A study</li><li>• Qualitative study on alternative protocols</li></ul>

## International forums / coordination

Forum/ partners	Description	Link with ACF
<b>General coordination in Nutrition</b>		
<b>UNSCN</b> (United nation standing committee for Nutrition)	The mandate of the UNSCN is to promote cooperation among UN agencies and partner organizations in support of community, national, regional, and international efforts to end malnutrition in all of its forms in this generation. It will do this by refining the direction, increasing the scale and strengthening the coherence and impact of actions against malnutrition world-wide, and raise awareness of nutrition problems and mobilize commitment to solve them at global, regional and national levels.	ACF has been an active member since 1998. ACF was chairing one of the two work groups of the committee (emergency nutrition) from 2005 to 2010. Reform of the current agency since 2010, and activities on stand-by.
<b>Global Nutrition Cluster (GNC)</b>	Humanitarian reform. Coordination of the emergency nutrition interventions. Brings together a large group of NGO, UN agencies and donors. Different work groups.	Since the creation of GNC (2007) ACF has played an important role within the GNC. Active member in every working group and member of the small group defining the yearly action plans.
<b>Informal INGO group in Nutrition</b>	Group created by ACF in February 2011 and composed by Save the Children, Concern, Valid, Merlin, etc. (punctual participants: MSF-Switzerland, NiE of UCL).	Coordination of action plans in terms of development and research projects. Regular exchanges on operational and technical positioning. Partnerships on training projects initiated by ACF.
<b>ENN</b>	Emergency nutrition network (Publication of Field Exchange)	Several research projects conducted with ENN (MMs, MAMI, etc.), and several papers in Field Exchange
<b>Advocacy</b>		
<b>NAG</b>	Nutrition advocacy group (group of NGO aiming at advocacy) to influence the nutrition policies.	ACF is a founding member.
<b>Priority axis 1: Diagnosis and analysis</b>		
<b>HNTS (health and nutrition tracking service)</b>	Working group on the nutrition and health indicators follow-up and methodology harmonization.	ACF is a member of the steering committee. ACF gave its databases for the HNTS to conduct a research project.
<b>SMART Technical advisory group</b>	Technical group developing the SMART methodology and the software.	ACF is a group member and dissemination agency.
<b>CMN Coverage monitoring network</b>	Technical group disseminating the SQUEAC methodology and software.	Created by ACF-UK with partners (Save, Concern, Valid...)



Priority axis 2: Acute malnutrition treatment		
<b>CMAM forum</b>	CMAM international reference group	ACF was involved in its creation, and is co-chairing with Valid for the first phase.
<b>MAM task force</b>	Group created in 2011 elaborating international recommendations on MAM	ACF is an active member of this task force (with UNICEF, PAM; OFDA; Save)
Priority axis 3: Under-nutrition prevention		
<b>Infant feeding in Emergency (IFE)</b>	International working group hosted by ENN working on 0-24 months children and developing intervention guidance. The great agencies and donors who play an important role in terms of recommendations participate to this group which is recognized as the reference on this subject.	ACF is core group member and participated to the development of operational tools.



