

**FRAMEWORK FOR SUPPORTING COUNTRIES TO ADDRESS THE FOOD  
CRISIS AND MALNUTRITION IN THE AFRICAN REGION**

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## ABSTRACT

Of the world's undernourished children, 80% live in 20 countries; nine of these are in sub-Saharan Africa. Africa is home to 15 of the 16 countries where prevalence of hunger exceeds 35 per cent. This precarious food security situation in Africa has been compounded by economic and food crises which began in 2007, resulting in a rise by about 83% in food commodity prices. When food is in short supply, safety is compromised resulting in the consumption of unsafe food. Assuring safe food and ending malnutrition require decisive actions in several areas. In line with its Core Functions, global and regional agreements and as a key player in health, the WHO's vital role in addressing the food crisis is in preventing the effects of food insecurity, undernutrition and unsafe food. In order to scale-up actions to address the adverse effects of food insecurity and malnutrition in the African Region, the forty-fourth session of the Regional Programme Meeting (RPM44) discussed the topic *Food Crisis in Africa: Implications for Nutrition and Food Safety Actions in the Region*. A framework was therefore developed to facilitate joint actions in addressing the food crisis and malnutrition in the WHO African Region for better impact at country level. This paper provides a summary of the Framework which highlight WHO's role in the area of nutrition. It has four guiding principles: Country- level interventions, Community involvement and ownership; Adoption of multi-sectoral approach; Protection of vulnerable groups; and Evidence- based interventions. The Framework proposes actions to be implemented in countries with support of WHO and partners to meet the immediate food and nutritional needs of the vulnerable and build longer-term resilience to contribute to national food security. The expected impact of the implementation of these actions with support from WHO and partners is prevention of morbidity, mortality and the irreversible long-term effects of malnutrition on health and cognitive development.

**Key word:** Malnutrition, food, crisis, insecurity, unsafe

## INTRODUCTION

Access to safe and nutritious food, as a fundamental human right, was stressed by the International Conference on Nutrition in 1992 and by the World Food Summit in 1996. Despite this, foodborne diseases and malnutrition still represent a considerable public health burden in the African Region. The already precarious food security situation in Africa has been compounded by economic and food crises which began in 2007, resulting in a rise of about 83% in food commodity prices [1]. According to the latest FAO estimates, the increase in food prices between 2007 and 2009 has plunged an additional 24 million people into hunger in sub-Saharan Africa alone. Africa is home to 15 of the 16 countries where prevalence of hunger already exceeds 35 per cent [1].

Of the world's undernourished children, 80% live in 20 countries; nine of these are in sub-Saharan Africa [2]. About 35% of under-five mortality is attributed to undernutrition [3]. Furthermore, each year, African children suffer an estimated five episodes of foodborne and waterborne diarrhea [4]. Foodborne or zoonotic diseases, many of which are fatal or lead to severe sequelae including micronutrient deficiencies, affect millions others. When food is in short supply, food safety is often compromised resulting in the consumption of unsafe food. Outbreaks associated with food insecurity, such as, aflatoxicosis, chemical poisoning from consumption of seed grain contaminated with pesticides and 'konzo', acute paralysis associated with consumption of high cyanide cassava, have been reported. Underlying factors for food insecurity and malnutrition include issues related to governance (conflicts, inadequate agriculture policy, and food production-population imbalance); ecology, climate and environment (cycle of droughts and floods); economics (chronic poverty, effect of globalization, economic crisis) and cultural factors (food taboos) [5].

Nutrition, food safety and food security are cross-cutting issues that permeate the entire life-course from conception to old age. The consequences are far reaching: reduced cognitive function and productivity, and increased morbidity and mortality due to reduced resistance to infection. Furthermore, inadequate food intake can affect compliance to taking of antiretroviral and TB medicines as well as their effectiveness. For people living with HIV, the immunosuppression effect of poor nutrition aggravates their condition. This further interferes with the ability to access, handle, prepare, eat and utilize food. Overnutrition is also on the increase in some African countries, coupled with an increase in cardiovascular diseases and diabetes.

Malnutrition hinders social and economic development of the individual, local communities and of nations. Only nine countries on the continent are on track to reach the Millennium Development Goal 1 (MDG1) target of cutting hunger and malnutrition in half by 2015 [6]. Assuring safe food and ending malnutrition require decisive actions in several areas. Therefore, a comprehensive, coherent and coordinated strategy is needed to make progress in achieving MDG 1 as well as accelerate the attainment of MDG 4, 5 and 6.

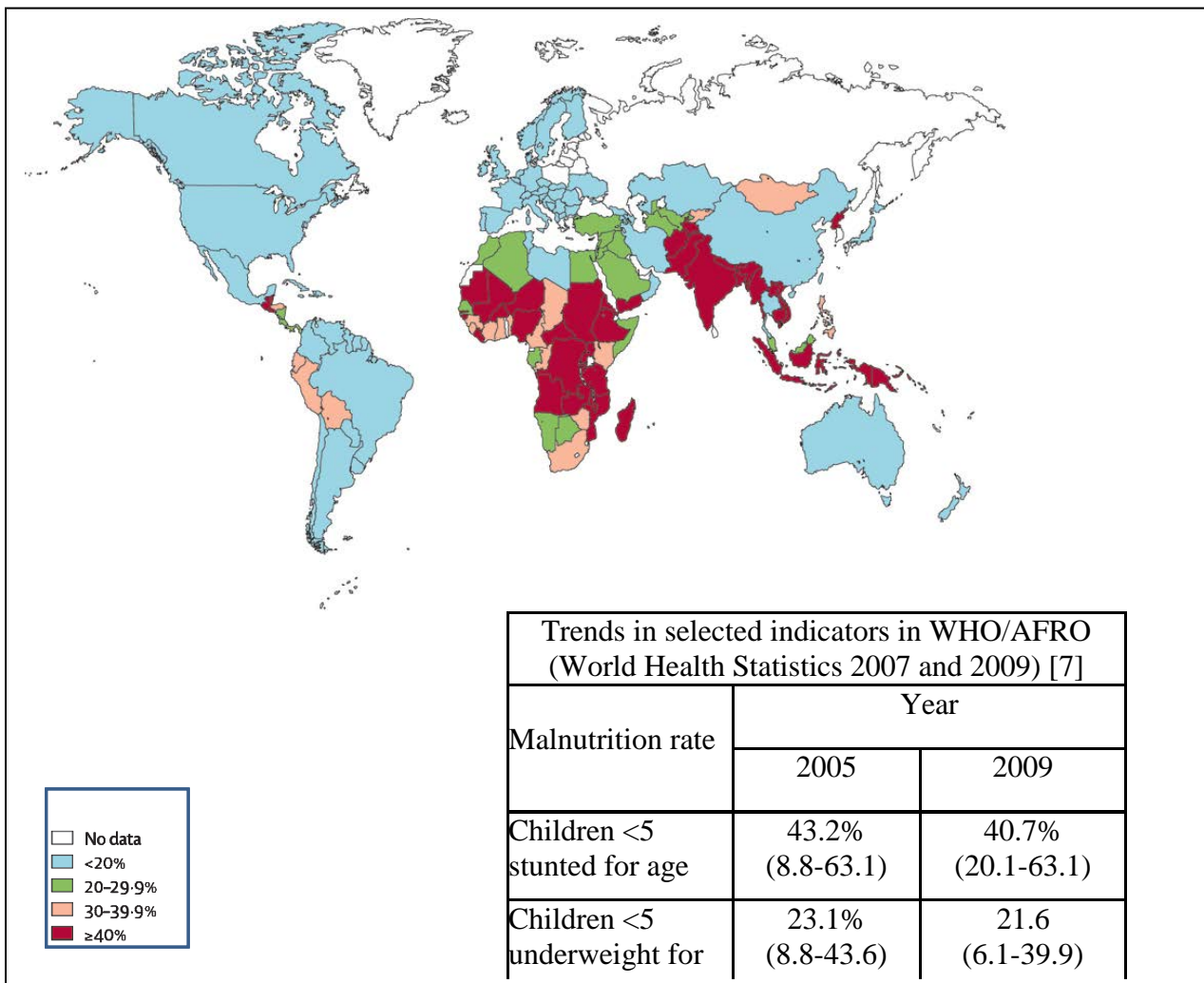
In order to address the adverse effects of food insecurity and malnutrition in the African Region, the forty-fourth session of the Regional Programme Meeting (RPM44) discussed the topic *Food Crisis in Africa: Implications for Nutrition and Food Safety Actions in the Region*. The recommendations from the meeting included *a definition of how best to use comparative advantages and limited resources to effectively guide and support WHO Country Offices with regard to the food crisis and malnutrition in the Region*. This is in line with Strategic Direction 6 of the document “Achieving Sustainable Health Development in the African Region: Strategic Directions for WHO 2010-2015”.

A framework was developed to facilitate joint support to countries to address the food crisis and malnutrition in the WHO African Region for better impact at country level. It took cognizance of the WHO Core functions and addresses only the health implications of the food crisis which includes prevention of morbidity, mortality and the irreversible long-term effects of malnutrition on health and cognitive development. This paper is a summary of the framework and the proposed actions for ensuring nutrition security in the WHO African Region.

#### **Nutrition-related public health challenges**

According to WHO, underweight in most African countries is as high as 30 %. The most affected countries are Madagascar, Ethiopia, and Eritrea on the Eastern region and Burundi and Chad in central Africa, Niger and Burkina Faso on the Western region. African children make up one quarter of the estimated 148 million underweight children globally. Although underweight prevalence decreased slightly globally (from 29 per cent around 1990 to 26 per cent around 2007), in Africa, the absolute number of underweight children increased by 8 million over this period, meaning that the rate of decline has not kept pace with population growth [7].

According to WHO, more than one-third of children under five (36 per cent) in Africa are stunted. Madagascar, Mozambique, Malawi, Angola, DRC, Burundi, Rwanda, Ethiopia Chad, Niger, Liberia and Guinea Bissau have the highest stunting prevalence. Of the 178 million children aged under five suffering from stunting in all developing countries, 57 million (32 per cent) are in Africa [8] (Figure 1).



(Source: [8])

**Figure 1: Prevalence of Stunting Globally**

Around one in seven infants (15 per cent) weigh less than 2,500 grams at birth in Africa, affecting five million newborns every year. Most of the countries have more than 10 % of prevalence from medium high (11 to 15 %) to high (16-20%) and very high (>20%). Mauritania, Liberia, Niger, Chad and Sudan have the highest rate above 20 %. Two-thirds of infants (65 per cent) are not weighed at birth in Africa [9].

Acute malnutrition rates range from five to 15 % in Africa with the peak prevalence from six to 24 months. Prevalence of above 15 %, the WHO threshold for emergencies, is reported in Mali, Burkina Faso, Ethiopia and Eritrea [8]. Acute malnutrition is strongly correlated to morbidity and mortality in children under five years. This situation could be attributed to inadequate diet which does not meet the nutrient requirements of the

individual. Additionally such food is often unsafe resulting in disease which does not, allow catch-up growth in malnourished children [8].

Infectious diseases – including foodborne diseases, malaria, HIV/AIDS, Tuberculosis – spread most rapidly with serious sequelae among poorly nourished populations. Infection worsens the nutritional status creating a vicious cycle of infection and malnutrition. The infection and malnutrition cycle begins in the womb, where pelvic and urinary infection and systemic illness may all contribute to low birth weight, prematurity and growth retardation. Such infants are prone to infection, especially if they do not receive breast-milk. Underweight infants and children are especially susceptible to respiratory and intestinal infections, resulting in growth retardation and micronutrient deficiencies. Unless nutritional recovery occurs, the problems continue into adolescence. This could lead to delivery of low birth weight babies, which is a risk factor for stunting. Combinations of approaches enable the infection–malnutrition cycle to be broken in individuals and communities. As a key player in health, WHO’s vital role in addressing the food crisis is in preventing the effects of food insecurity, undernutrition and unsafe food to break this unacceptable cycle.

### **Key nutrition strategies and frameworks at global and regional level for improving food security and nutrition**

A number of key nutrition strategies and frameworks have been adopted at global and regional level to combat malnutrition. Notable among these is Updated Comprehensive Framework for Action, September 2010. This framework sets out a two-pronged approach for a coordinated support to ensure food and nutrition security in countries. These are: (i) meeting the immediate food and nutritional needs of vulnerable groups and (ii) building longer-term resilience to contribute to national and global food security [10].

Based on Meta-analysis of surveys and programs, the Lancet Nutrition Series 2008 recommended the following key proven nutrition interventions in preventing underweight, stunting and low birth weight. These are: **Pre-natal** (Improved maternal nutrition and health before and during pregnancy to reduce low birth weight and stunting later in life, and also to enhance maternal survival); and **Post-natal** (Protection, promotion and support of optimal breastfeeding, adequate complementary feeding and prevention and appropriate nutritional management of infections including diarrhoea, HIV, malaria, tuberculosis, management of severe and moderate acute malnutrition, prevention and control of selected micronutrient deficiencies: vitamin A, iodine, iron-folic acid, zinc, psychosocial stimulation, healthy lifestyle, nutritious food and physical exercise) and ensure child growth monitoring and promotion [7].

The main strategic documents adopted by the African Union are the Comprehensive Agricultural Development Programme (CAADP) and the *Africa Regional Nutrition Strategy* (ARNS for 1993 to 2003 and for 2005 to 2015). The work of the WHO in nutrition and food safety within the African region has been guided by various global and

regional strategic frameworks: WHA 63.23 on *Infant and Young Child Nutrition*, WHA63.3 on *Advancing Food Safety Initiatives*, MDGs and Strategic Direction 6 of the document *Achieving Sustainable Health Development in the African Region: Strategic Directions for WHO 2010-2015*, as well as various Regional Committee Resolutions.

## **WHO's Key Role in addressing the Food Crisis and Malnutrition**

The role of WHO includes strengthening country capacities, provision of standards, norms, guidelines, manuals and tools; support to develop and implement multi-sectoral food and nutrition policies, strategies and plans of action; capacity building to assess and manage all forms of malnutrition; food safety assurance including strengthening of nutrition and foodborne disease surveillance systems.

The Core Functions of WHO do not include food production. WHO, therefore, advocates for production of foods that could meet the nutritional needs of various groups. WHO also provides guidance through its normative work on regulation, standards, norms, guidelines and manuals on preventing and managing malnutrition. Therefore, the framework for supporting countries to address the food crisis and malnutrition adopts the two pronged-approaches, partners to meet the immediate food and nutritional needs of the vulnerable and build longer-term resilience to contribute to national food security, in line with its Core Functions.

## **The Strategic Framework**

### *Guiding Principles*

The Framework was proposed to facilitate joint food and nutrition interventions with other WHO programmes and other stakeholders in addressing the food crisis and malnutrition in the Region for better impact at country level. The underlying principles guiding the framework included:

- a. Country level interventions, community involvement and ownership. Countries will use international and regional evidence of good practice, but interventions must be country owned, building on countries' specific needs. Interventions will include advocacy to ensure the inclusion of food security and nutrition in all policies; mainstreaming of nutrition in programmes; and capacity building to ensure appropriate use of relevant WHO tools and guidelines. Advocacy will be carried out for rapid scale-up of evidence-based cost-effective interventions to prevent and treat both undernutrition and overnutrition. Others include promotion of good nutritional practices; increased intake of micronutrients; and therapeutic feeding for the malnourished.
- b. Adopting multi-sectoral approach that includes integration of nutrition in related sectors. This is essential for action against food insecurity and would require close collaboration with agriculture, social protection and emergency relief, maternal and child health, immunization and family planning. Linkages with

- education, water and sanitation sectors are important. Attempts should be made to streamline existing working relationships and partnerships with UNICEF; FAO, WFP, the World Bank, NGOs and other partners involved in ensuring food security, adequate nutrition and food safety. Country nutrition strategies should apply the “Three Ones” that have been endorsed in the global fight against HIV to provide a basis for coordinating the work of partners: (i) One agreed Nutrition Action Framework that provides the basis for coordinating the work of all partners; (ii) One National Nutrition Coordinating Authority, with a broad-based multi-sectoral mandate; (iii) One agreed country-level Monitoring and Evaluation System.
- c. Protection of vulnerable groups, including people living with HIV and during emergencies. It is essential to ensure that relief food, replacement feeding and supplements conform to an agreed safety and standards, are affordable, feasible, available, safe and sustainable.
  - d. Support the evidence base by using indicators of undernutrition as one of the key measures of overall progress. Countries must be supported to strengthen data collection (including baseline data) monitoring and evaluation. Surveillance systems in countries require strengthening for early warning, prevention, detection and management of severe malnutrition. Development and dissemination of knowledge on malnutrition and efficacy and cost-effectiveness of interventions is also essential.

### **Proposed Actions**

Figure 2 is a summary of the key players, available resources, the areas of intervention, key activities and outputs for monitoring impact. In line with the multi-sectoral approach to address food and nutrition insecurity in countries, an integrated approach for capacity building will be adopted. This will include joint missions to countries by clusters and programmes and partners for needs assessments and response. Existing partnerships will be strengthened and new ones established to improve resource mobilization, resource allocation, leadership, collaboration and coordination of activities. Other activities include strengthening of nutrition and foodborne disease surveillance; scaling up of management and prevention of undernutrition; ensuring that emergency needs are fully met and protection of the basic consumption needs for vulnerable groups through advocacy. Support will be provided to scale-up of nutritional support and to reach all households with relevant public information on prevention of malnutrition and foodborne and other diseases. WHO will continue to support countries to develop the policy basis, develop norms, standards and ensure the correct use of tools at country level, and monitor the impact of programmes. This will contribute to meeting the immediate food and nutritional needs of the vulnerable and building longer-term resilience to contribute to national food security.

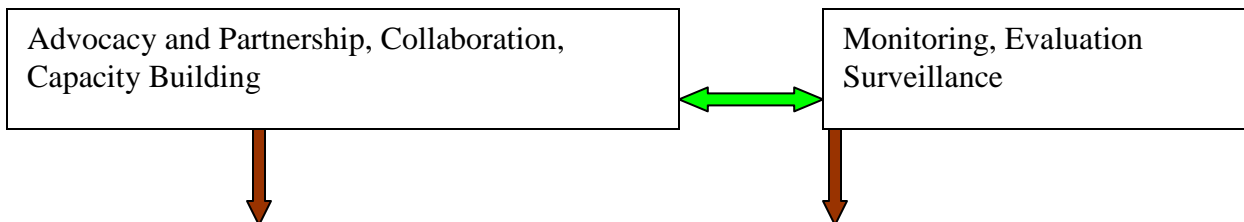


## Monitoring and Evaluation

Figure 2 provides details on the expected outcomes and impact on nutritional status and health of country actions. These would be applied in biennial monitoring and evaluation to assess the progress and impact of interventions over four year period.

## CONCLUSION

The rising cost of staples in recent times has worsened the food security situation in the African Region, resulting in an increased burden of malnutrition in certain countries. In order to address the adverse effects of food insecurity and malnutrition in the Region, a framework was developed to guide WHO's work in countries. In line with the WHO Core functions and other global and regional frameworks, only the health implications of the food crisis are addressed by WHO. These include actions to prevent morbidity, mortality and the irreversible long-term effects of malnutrition on health and cognitive development. Given the multi-sectorial and multidisciplinary nature of issues relating to the health impact of food insecurity, cooperation and collaboration among partners and coordination of their work are key to success.



Programmes	Key Interventions	Tools/Guidelines	Country adaptation and utilization of tools	Outcome of country actions	Impact on nutritional status and health
AIDS, Making Pregnancy Safer (MPS), Child and Adolescent Health (CAH) and Food Safety and Nutrition (FAN)	<p>Exclusive Breast feeding; Complementary Feeding HIV and Infant Feeding (IF) Growth monitoring and promotion</p> <p>Nutrition counseling for HIV patients and support of infant feeding in the context of HIV</p>	<p>GSIIYCF and WHA Resolution 63.23, Integrated IYCF counseling course Baby Friendly Hospital Initiative (BFHI) Assessment tools, Code of Marketing of Breast milk Substitutes Guidelines on HIV and IF; New Growth Standards Nutritional counseling, care and support for HIV infected women. WHO; 2004 Guidelines for an integrated approach to the nutritional care of HIV infected children (6 months – 14 years). WHO; 2009 Nutritional requirements for people living with HIV. WHO; 2004 Nutritional and support for people living with HIV and AIDS – A training</p>	<p>National Strategy on IYCF Trained counselors in IYCF BFHI facilities designated National Legislations to protect breastfeeding National guidelines on HIV and IF New national growth standard</p> <p>Adaptation of manuals and guidelines on counseling, care and nutrition requirements for PLWH</p>	<p>Increased Exclusive Breastfeeding rates Increased Complementary Feeding rates Reduced HIV (PMTCT) transmission rates and reduced mortality in infants Reduced growth faltering</p> <p>Improved nutritional status of PLWH and ART uptake</p>	<p>Reduced mortality, morbidity and malnutrition</p> <p>Improved therapy adherence and clinical outcome...</p>

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FAN, Epidemic Alert and Response (EPR)	Nutrition surveillance Prevention of Over nutrition  Foodborne disease surveillance and food safety education	New Growth Standards IDSR strategy Nutrition surveillance manual  The Five keys to Safer Food Five keys to good Agricultural practices	New national growth standard for surveillance National IDSR manuals Country nutrition surveillance manual FBD surveillance integrated in national IDSR. Posters and manuals in various languages	Early detection, prevention and management of malnutrition  Reduction in morbidity due to contaminated food e.g. diarrhoea and acute aflatoxicosis	Reduced morbidity and malnutrition
Noncommunicable Disease Prevention and Control (NPC), Health Risk Factors (HRF) and FAN	Advocacy and promoting healthy diet, physical activity and reducing harmful use of alcohol	- Action Plan for the Global Strategy for NCDs prevention and control - WHO African Region strategy for NCDs prevention and control - DPAS - Diabetes prevention and control: a strategy for the WHO African region - WHO-PEN	- National integrated action plan for NCDs prevention and control including diabetes, overweight and obesity - National strategy for Diet and Physical Activity	Reduced NCDs' risk factors  Reduced prevalence in overweight and obesity  Reduced NCDs incidence and NCDs complications	Reduce morbidity and mortality due to NCDs
Emergency and Humanitarian Action (EHA) and FAN	Nutritional Interventions in Emergencies  Community Based Nutritional Interventions	The Management of Nutrition in Major Emergencies  Community-Based Management Of Severe Acute Malnutrition	Nutritional Assessment Tools  Reference document for community based therapeutic feeding	Assessment of Nutrition in Emergencies  Early Management of malnutrition	Targeted nutritional interventions leading to decreased mortality Reduced mortality from malnutrition

**Figure 2: Proposed Framework for addressing the Food Crisis and Malnutrition**

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