

***INTEGRATED FOOD SECURITY AND HUMANITARIAN  
PHASE CLASSIFICATION SYSTEM (IPC)***

***WORKING GROUP SESSION***

***5 February 2007, Jacaranda Hotel, Nairobi, Kenya***

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## ***LIST OF ABBREVIATIONS***

<b>ARI</b>	Acute Respiratory Infection
<b>BMI</b>	Body Mass Index
<b>CI</b>	Confidence Intervals
<b>CMR</b>	Crude Mortality Rate
<b>GAM</b>	Global Acute Malnutrition
<b>GIS</b>	Global Information System
<b>GMP</b>	Growth Monitoring Program
<b>HAZ</b>	Height for Age
<b>HIS</b>	Health Information System
<b>HC</b>	Health Centers
<b>INGO</b>	International Non-Government Organization
<b>IPC</b>	Integrated Phase Classification
<b>KCAL</b>	Kilo-Calorie
<b>MUAC</b>	Middle-Upper Arm Circumference
<b>NGO</b>	Non-Governmental Organization
<b>NIPHORN</b>	Nutrition Information Project In the Horn of Africa
<b>PPS</b>	Population Proportioned to Size
<b>SAM</b>	Sever Acute Malnutrition
<b>SD</b>	Standard Deviation
<b>SSS</b>	Sentinel Site Surveillance
<b>VAS</b>	Vitamin A Supplementation
<b>VHW's</b>	Village Health Workers
<b>WAZ</b>	Weight for Age
<b>WHZ</b>	Weight for Height

## ***WORKING GROUP SESSION***

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#### **Background**

The Integrated Food Security and Humanitarian Phase Classification System (IPC) was developed based on increasingly strong calls for improved analysis, including greater comparability of results from one place to another, increased rigor, greater transparency of evidence to support findings, increased relevance to strategic decision making, and stronger linkages between information and action within the fields of food security and humanitarian analysis. The IPC utilizes analytical input from both the food security and nutrition sections of the FSAU, and aims to improve analysis along these lines to enable food security and humanitarian interventions to be more needs based, strategic, and timely (FAO/FSAU, 2006).

The FSAU is composed of two separately managed and funded but highly integrated projects of analysis and reporting, the nutrition project and the food security project. The IPC is one tool that draws on both projects to provide an integrated analysis of the state for appropriate situational analysis. It enables a composite analytical statement on food security, nutrition, and humanitarian situations for current situation analysis and early warning, drawing together multiple indicators of human welfare and livelihoods for consistent and meaningful analysis. The key aspects of this analysis include severity, magnitude, immediate causes, underlying causes, geographical coverage, etc.

Although the data collection and analysis is led by FSAU, the approach is very much in an interagency fashion and includes validation of results by key stakeholders including governments, UN, and NGO agencies, donors, the media, and target communities (FAO/FSAU, 2006). Data sources from the food security analysis component include satellite imagery and GIS, market analysis, household surveys, coping strategies index, conflict analysis, risk factors analysis, crops and livestock production, and participatory research methods. The nutrition component collects regular data that is analyzed at the local level. Collected data focuses on socio-economic status, nutritional status, mortality data, political environment, household food security, dietary diversity, care practices, and overall health status and the public health environment of populations. It aims to improve nutritional status of vulnerable populations of Somalia through mitigation of deteriorating health and food security conditions. Data is collected through standardized 30x30 cluster surveys (including household surveys and qualitative questionnaires with key informants), sentinel sites surveillance from 130 sites, rapid nutrition assessments, selective feeding center trends (TFC/OTP/SFC), and both direct and indirect health information systems data. Data is collected regularly to provide a continual monitoring

system that can advise on appropriate responses to food insecurity crises and develop policies and strategies to address longer-term food and livelihood security issues.

## **Objectives**

**Focusing on MUAC, Health Information System/Health Center data, Sentinel Site Data, Dietary Diversity, and Feeding Centers. The workshop aims include:**

- **Determining usefulness of indicators in nutrition analysis and surveillance**
- **Determining reliability of indicators as a part of an integrated analysis in the Horn region.**
- **Looking at ways of improving indicators**
- **Looking at ways to standardize data for use in an IPC tool, (i.e. appropriate cut offs/thresholds, minimum number of indicators required to make an accurate analysis)**
- **Gathering consensus on ways forward**

## ***TECHNICAL UPDATE #1:***

### ***NUTRITION INDICATORS IN IPC AND USE OF THRESHOLDS. PRESENTATION OF POST DEYR 06 IPC - GRAINNE MOLONEY***

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When Somalia's government was overthrown in 1991, the country was left with no system of governance. This together with repeated environmental and conflict related shocks led to a high level of malnutrition in the population. In 1994, The World Food Program began collecting data to inform their food distribution program. Action Against hunger became involved from 1997-2000, providing technical support for the nutrition analysis. By 2000, the crisis phase had passed and data needs changed from immediate response to a subjective analysis. FAO took over the data collection system and commenced the nutrition component as a separate information system. The food security component, previously run by WFP, came under the support of the European Commission. Prior to the conflict, in 1991, coordination of nutrition issues was managed under the ministry of health both at the national and the regional level. Currently all sector coordination is under one governing body, the Somalia Support Secretariat (formerly SACB), supported by UNDP. Nutrition Working Group/Nutrition Cluster coordination is co chaired by UNICEF and FSAU with UNICEF chairing the cluster coordination. Monthly meetings with the UN, NGO's, and CBO's take place in Nairobi to update all groups on nutrition information, emergency response, health, food security, logistics, and new developments. Over the past 6 years, data collection and analysis has improved considerably, improved by the addition of the Integrated Phase Classification System (IPC)<sup>1</sup>, a method of analyzing humanitarian situations using a range of indicators.

The IPC consists of two reference tables that integrate information from both the nutrition and food security components to produce a contextual situation analysis. The food security reference table taps into existing global initiatives such as FEWSNET, Oxfam, Howe and Devereux, MSF, WFP, ODI, and others to pool pre-existing data and incorporate it into a system of multiple indicators that are combined to examine malnutrition in a contextual way. It utilizes cartographic protocols (maps), standardized population tables analysis templates, and a reference table, and is a flexible tool with great potential for replication and expansion. Table 1 illustrates the different goals and phases of the food security and humanitarian phase classification reference table. (Note, error for stunting reference should read height for age. This has been modified).

Phases consist of the following: Generally Food Secure, Chronically Food Insecure, Acute Food and Livelihood Crisis, Humanitarian Emergency, and Famine/Humanitarian Catastrophe. The goals of the IPC include creation of a common system of classification which can lead to food security and humanitarian interventions becoming more needs based, strategic, and timely; generating technical consensus for comparability over space

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<sup>1</sup> FSAU Technical Series Report No. IV.11, May 11, 2006; Integrated Food Security and Humanitarian Phase Classification: Technical Manual Version 1. [www.fsasomali.org](http://www.fsasomali.org)

and time, creating transparency through evidence based analysis, ensuring accountability, using clear early warning signals, and developing a more strategic response.

Table 1: Integrated Food Security and Humanitarian Phase Classification Reference Table (FAO/FSAU June 2006)

Integrated Food Security and Humanitarian Phase Classification Reference Table

Phase Classification		Key Reference Outcomes <i>(current or imminent outcomes on lives and livelihoods—based on convergence of direct and indirect evidence rather than absolute thresholds; not all indicators must be present)</i>	Strategic Response Framework <i>Objectives: (1) mitigate immediate outcomes, (2) support livelihoods, and (3) address underlying causes)</i>
1	Generally Food Secure	<i>Crude Mortality Rate</i> < 0.5 / 10,000 / day <i>Acute Malnutrition</i> < 3 % (w/h <-2 z-scores) <i>Stunting</i> < 20% (ht/age <-2 z-scores) <i>Food Access/ Availability</i> usually adequate (> 2,100 kcal ppp day), stable <i>Dietary Diversity</i> consistent quality and quantity of diversity <i>Water Access/Avail.</i> usually adequate (> 15 litres ppp day), stable <i>Hazards</i> moderate to low probability and vulnerability <i>Civil Security</i> prevailing and structural peace <i>Livelihood Assets</i> generally sustainable utilization (of 6 capitals)	Strategic assistance to pockets of food insecure groups Investment in food and economic production systems Enable development of livelihood systems based on principles of sustainability, justice, and equity Prevent emergence of structural hindrances to food security Advocacy
2	Chronically Food Insecure	<i>Crude Mortality Rate</i> < 0.5/10,000/day; USMR<1/10,000/day <i>Acute Malnutrition</i> >3% but <10 % (w/h <-2 z-score), usual range, stable <i>Stunting</i> >20% (ht/age <-2 z-scores) <i>Food Access/ Availability</i> borderline adequate (2,100 kcal ppp day); unstable <i>Dietary Diversity</i> chronic dietary diversity deficit <i>Water Access/Avail.</i> borderline adequate (15 litres ppp day); unstable <i>Hazards</i> recurrent, with high livelihood vulnerability <i>Civil Security</i> Unstable; disruptive tension <i>Coping</i> 'insurance strategies' <i>Livelihood Assets</i> stressed and unsustainable utilization (of 6 capitals) <i>Structural</i> Pronounced underlying hindrances to food security	Design & implement strategies to increase stability, resilience and resilience of livelihood systems, thus reducing risk Provision of 'safety nets' to high risk groups Interventions for optimal and sustainable use of livelihood assets Create contingency plan Redress structural hindrances to food security Close monitoring of relevant outcome and process indicators Advocacy
3	Acute Food and Livelihood Crisis	<i>Crude Mortality Rate</i> 0.5-1 /10,000/day; USMR 1-2/10,000/dy <i>Acute Malnutrition</i> 10-15 % (w/h <-2 z-score), > than usual, increasing epidemic, increasing <i>Disease</i> lack of entitlement; 2,100 kcal ppp day via asset stripping <i>Food Access/ Availability</i> acute dietary diversity deficit <i>Dietary Diversity</i> acute dietary diversity deficit <i>Water Access/Avail.</i> 7.5-15 litres ppp day, accessed via asset stripping <i>Destitution/Displacement</i> emerging; diffuse <i>Civil Security</i> limited spread, low intensity conflict <i>Coping</i> 'crisis strategies'; CSI > than reference; increasing <i>Livelihood Assets</i> accelerated and critical depletion or loss of access	Support livelihoods and protect vulnerable groups Strategic and complimentary interventions to immediately ↑ food access/availability AND support livelihoods Selected provision of complimentary sectoral support (e.g., water, shelter, sanitation, health, etc.) Strategic interventions at community to national levels to create, stabilize, rehabilitate, or protect priority livelihood assets Create or implement contingency plan Close monitoring of relevant outcome and process indicators Use 'crisis as opportunity' to redress underlying structural causes Advocacy
4	Humanitarian Emergency	<i>Crude Mortality Rate</i> 1-2 / 10,000 / day, >2x reference rate, increasing; USMR > 2/10,000/day <i>Acute Malnutrition</i> >15 % (w/h <-2 z-score), > than usual, increasing pandemic <i>Disease</i> severe entitlement gap, unable to meet 2,100 kcal ppp day <i>Food Access/ Availability</i> Regularly 3 or fewer main food groups consumed <i>Dietary Diversity</i> < 7.5 litres ppp day (human usage only) <i>Water Access/Avail.</i> concentrated, increasing <i>Destitution/Displacement</i> concentrated, increasing <i>Civil Security</i> widespread, high intensity conflict <i>Coping</i> 'distress strategies'; CSI significantly > than reference <i>Livelihood Assets</i> near complete & irreversible depletion or loss of access	Urgent protection of vulnerable groups Urgently ↑ food access through complimentary interventions Selected provision of complimentary sectoral support (e.g., water, shelter, sanitation, health, etc.) Protection against complete livelihood asset loss and/or advocacy for access Close monitoring of relevant outcome and process indicators Use 'crisis as opportunity' to redress underlying structural causes Advocacy
5	Famine / Humanitarian Catastrophe	<i>Crude Mortality Rate</i> > 2/10,000 /day (example: 6,000 /1,000,000 /30 days) <i>Acute Malnutrition</i> > 30 % (w/h <-2 z-score) <i>Disease</i> pandemic <i>Food Access/ Availability</i> extreme entitlement gap, much below 2,100 kcal ppp day <i>Water Access/Avail.</i> < 4 litres ppp day (human usage only) <i>Destitution/Displacement</i> large scale, concentrated <i>Civil Security</i> widespread, high intensity conflict <i>Livelihood Assets</i> effectively complete loss; collapse	Critically urgent protection of human lives and vulnerable groups Comprehensive assistance with basic needs (e.g. food, water, shelter, sanitation, health, etc.) Immediate policy/legal revisions where necessary Negotiations with varied political-economic interests Use 'crisis as opportunity' to redress underlying structural causes Advocacy

Early Warning Risk Levels	Probability / Likelihood <i>(of Worsening Phase)</i>	Severity <i>(of potential Phase decline)</i>	General Description and Changes in Process Indicators	Implications for Action
Alert	As yet unclear	Not applicable	Occurrence of, or predicted <i>Hazard</i> event stressing livelihoods; with low or uncertain <i>Vulnerability</i> and <i>Capacity</i> <i>Process Indicators</i> : small negative changes	Close monitoring and analysis Review current Phase interventions
Moderate Risk	Elevated probability / likelihood	Specified by predicted Phase Class, and indicated by color of diagonal lines on map.	Occurrence of, or predicted <i>Hazard</i> event stressing livelihoods; with moderate <i>Vulnerability</i> and <i>Capacity</i> <i>Process Indicators</i> : large negative changes	Close monitoring and analysis Contingency planning Step-up current Phase interventions
High Risk	High probability, 'more likely than not'		Occurrence of, or strongly predicted major <i>Hazard</i> event stressing livelihoods; with high <i>Vulnerability</i> and low <i>Capacity</i> <i>Process Indicators</i> : large and compounding negative changes	Preventative interventions—with increased urgency for High Risk populations Advocacy

The nutrition project is in the process of developing a reference table for the various nutrition indicators and draft one is shown below for reference. It should be noted that this is the first draft, and is currently undergoing peer review with partners in Somalia and externally, and is considered a working document. Data for the reference table is collected from direct sources on the ground, such as nutrition surveys, sentinel site surveillance systems, health center monitoring systems, maternal and child health clinics, therapeutic feeding centers, supplementary feeding centers, household surveys and key informant interviews. This data is compiled and analyzed in the context of the nutrition reference table (Table 2).

**Table 2: Nutrition Reference Table (FSAU Jan 07)**

<b>Nutrition Key Indicators</b>	<b>Alert</b>	<b>Serious</b>	<b>Critical</b>	<b>Very Critical</b>
GAM (WHZ) from nutrition surveys	5-9.9% usual range and stable	10-14.9%	15-19.9% (or 10-14.9% where there has been a significant increase from seasonally adjusted previous surveys)	>20% or (15-19.9% where there has been a significant increase from seasonally adjusted previous surveys)
SAM (WHZ) From nutrition surveys	>1.5%	1.5-2%	2-3%	>3%
CMR/10,000/day from nutrition surveys	0.45-0.99	1-1.99	>2	>2
MUAC Screening – TBC (% 12.5cm.)	<5%	5-9.9%	10-14.9%	>15%
Feeding Center Data (adjusted on length of operation and coverage)	Low admissions and stable	Low admissions but increasing in last 2 months (seasonally and coverage adjusted)	Significant increasing admission (seasonally and coverage adjusted)	Significant increasing admissions out of season
HIS Nutrition Trends (Seasonally Adjusted)	Low numbers of acutely malnourished for area and stable	Low numbers of acutely malnourished children from previous months but increasing in >2 rounds	High levels and stable numbers of acutely malnourished children	High with significantly increasing numbers in >2 rounds of acutely malnourished children from screening
Poor Dietary Diversity for population (<4 food groups) assessments and SSS	<5%	5-9.9%	10-25%	>25%
Meal Frequency (At least 5x daily for <5's)	>20%	5-19.9%	<5%	<20%
Senitnel Site Trend – levels of children identified as acutely malnourished from HC data	Low levels and one round indicating increase	Increasing levels to based on two rounds	High levels of malnourished children and stable (15-19.9%)	Increasing levels to with increasing trend
Affected pop with access to forma/informal humanitarian assistance: feeding centers health centers, clean water etc.	Access to humanitarian interventions for most vulnerable	Reduced access to humanitarian support for most vulnerable	Limited access to humanitarian support for majority	Negligible or no access
Health: Frequency of cases of ARI, Suspected malaria, and diarrhea, measles imm. Coverage and Vit A supp.	Within expected seasonal norms  1 case <95%	Seasonal increase in Suspected malaria, ARI, and Diarrhea – contained  1 case <95%	Seasonal increase – not contained, Epidemic  Epidemic <95%	Pandemic  Pandemic <95%
Food Security Situation (current IPC Status)	Chronically Food Insecure	Acute Food and Livelihood Crisis	HE	Famine/Humanitarian Catastrophe

Data is collected at village and district level from 13 staff located in different regions throughout the country. Nutrition surveys have been predominantly ad-hoc selected through the recommendations of NGO's operating in the areas, and in areas where there are concerns. Currently based on analysis of seasonal trends, the survey plan for 2007 for FSAU Somalia is based on livelihood level surveys done bi-annually before the expected peak of the hungry season. An interagency approach to conducting assessment is strongly encouraged through the nutrition working groups and therefore many partners can be involved in any one assessment. Primary and secondary data are collected at markets, health centers and through key informant interviews. All FSAU led preliminary reports are shared through the nutrition sector coordination for review and verification before final release. Detailed analysis of the FSAU led assessments is done in Nairobi, by 6 masters level field nutritionists and ancillary staff. All data collected is used to determine the severity of the crisis, to trigger a response, and to monitor program performance. Nutrition updates, which consolidate the key nutrition findings from the various sources, activities, and agencies, are published and circulated on a monthly basis. In addition to detailing the findings from all sources of data, reports highlight additional interesting topics relevant to nutrition in Somalia, for example, studies, training sessions, and interventions.

It was stressed that the IPC is NOT a method or an information system, but a tool or framework, that pools many different methods of collected data gathered from multiple sources. Data is triangulated to determine trends. FSAU analysts look at as many indicators as they have available for an area to determine its level of vulnerability. There is no direct comparison of indicators, instead all data is utilized to make an informed decision.

In summary, the IPC is a tool for summarizing and communicating a situation analysis, based on an integrated analysis of common standards that link complex information to action, and a technical forum for enabling technical consensus.

The IPC maps are produced on a seasonal basis linked to the bimodal rains in Somalia. This means two maps are produced after the rains in July (Gu Season) and January (Deyr Season). The map includes projections for the following six months based on the risk factors.

In addition to the IPC map, which integrates data from nutrition, food security, climate, and conflict, etc., a separate map illustrating the estimated nutrition situation is produced bi-annually. This is necessary because nutrition is an outcome indicator, and so in spite of the food security indicators indicating a significant improvement in the area, a direct improvement in nutrition situations may not be immediately reflected on the ground. Therefore, the two maps compliment each other but serve different objectives and audiences. This makes it even more important to compare the two different systems and keep the maps separate to provide for a fuller picture.

Some of the challenges with the current nutrition classification system include:

- The use of rigid thresholds of nutrition status. For example, a GAM of 15% or greater than usual. This will obviously vary by time of year and by livelihood group, but as it is currently used it is a standard threshold for all groups at varying times of the year.
- Over dependence on the use of survey based WHZ and CMR as main indicators. Other indicators need to be used for triangulation purposes (i.e. MUAC rapid assessments).
- Currently the IPC uses CMR cutoffs.
- Currently the IPC uses non-anthropometric indicators such as dietary diversity, disease frequency, etc. this requires more analysis as it varies significantly with context.

The use of an integrated approach to analyze food security, nutrition and health is very useful to give a wider picture of the overall vulnerability status of a population. The IPC provides a framework for this type of analysis and can be replicated, however there is a need to move away from rigid thresholds and an over reliance on anthropometric and mortality data in nutrition for improved analysis.

## **TECHNICAL UPDATE #2:**

### ***THE ROLE OF ACUTE MALNUTRITION IN DEFINING DIFFERENT TYPES OF MEANING AND MEASUREMENTS OF MALNUTRITION IN ACUTE EMERGENCIES – SUSANNE JASPARS***

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#### **Conference Paper -Annex 1- Young, H and Jaspars S. (2006 November) The Meaning and Measurement of Acute Malnutrition in Emergencies: A Primer for Decision Makers ODI Network Paper.**

##### **Objectives:**

- To present recent work on interpretation and decision making
- To discuss thresholds, decision-making frameworks and classification systems for nutrition in emergencies
- To discuss interpretation of nutrition thresholds in the region and the need for further research

In 2006, Helen Young and Susanne Jaspars published a paper aimed at helping decision makers understand, use and interpret nutritional information and analysis by reviewing in non-technical language how nutrition data is collected, analyzed and interpreted. The paper emphasizes that acute malnutrition data can be used as an indicator of severity of humanitarian crisis, as well as for programme planning and monitoring, and can be used to form an important part of an information system that promotes the global allocation of resources according to need.

##### *History*

The idea for writing the paper on “*Meaning and Measurement of Malnutrition*” came out of earlier involvement in the DfID benchmarking project and the WHO/UNICEF tracking service for humanitarian outcomes (now known as the health and nutrition tracking service). Acute malnutrition data were considered for the humanitarian tracking service because they are viewed as objective indicators of need. Global and Severe Acute Malnutrition (GAM and SAM) also help to develop an agreed picture of the nature, severity, and scale of crisis at country levels. Acute malnutrition indicators may also be useful to measure the performance and impact of the humanitarian sector as a whole. Using acute malnutrition data as a part of a tracking service could ultimately contribute to making the international system more accountable for responding to need.

In Young and Jaspars paper written for the nutrition tracking service, measurements of acute malnutrition and conducting nutrition and anthropometric surveys were consensually identified as areas of importance. The nutrition community has agreed upon the use of the UNICEF conceptual framework on the underlying causes of malnutrition and mortality and with the idea that nutritional status data cannot be used alone for decision-making. The main outstanding technical issues are around interpretation and response.

## *Interpretation and Decision Making*

The ODI Network paper proposed four steps for interpreting the prevalence of acute malnutrition. These steps include:

- Looking at the actual prevalence in relation to benchmarks and decision making frameworks;
- Monitoring trends over time and seasonality (inter – and intra-annual variations);
- Further investigation into area specific underlying causes of malnutrition;
- Further analysis of the relationship between area specific malnutrition and mortality.

### *Thresholds*

Currently no technical basis exists for thresholds. Different classification systems use them differently. SPHERE rejected the use of absolute thresholds and instead recommends examining trends by estimating whether the acute malnutrition prevalence is unusual for the time of the year and on the basis of a review of nutritional risks related to food, health and care. However, the needs of decision makers in allocating resources need to be recognized. Thresholds can be a starting point for interpretation rather than be the sole basis for interpreting nutrition data.

### *Trends Over Time*

It is important to interpret malnutrition prevalence's in relation to pre-emergency levels of malnutrition and to normal seasonal changes. There is a danger however of viewing unacceptable high malnutrition levels as normal, for example, in many countries in the Horn of Africa prevalences of malnutrition above emergency thresholds are found on a regular basis.

Seasonal changes are the highest where there are strong seasonal determinants, e.g. a single rainy season. A sudden increase in levels of malnutrition at a given point can say much more than prevalence at a single point in time, which means that an emergency response can sometimes be justified even if emergency thresholds are not crossed.

### *The Relative Importance of Underlying Causes*

There is no systematic way of assessing the relative importance of different underlying causes, food insecurity, public health, and the care environments, and proving causality is even more difficult. So we have to review each underlying cause in turn and make a judgment about nutritional risk.

Examples of food and health care crises include:

- Food Crisis
  - Entitlement failure in Niger in 2005 led to a GAM of 13%
  - Ethiopia's famine of 2003. From 3.6 to 12.6 million people with a food requirement of 1.5 million tones resulted in GAM levels up to 34%.

- Care Crises
  - Sarajevo, 1992-1993. The elderly were most nutritionally vulnerable
  - Iraq, 1991. Kurdish refugee crisis. Unsafe preparation of breast milk substitute lead to the high prevalence of GAM among children under 2 years.
- Health Crises
  - Goma, 1994. Cholera epidemic led to a CMR of 20-35 per 10,000 per day. Children with history of dysentery and those in women headed households were at a higher risk for malnutrition.

In practice, underlying causes frequently co-exist and care crisis are rare in the absence of food or health crises. The highest prevalences are usually a result of restricted access to food or a failure in two or more underlying causes. Public health problems or increased disease prevalence alone will rarely contribute to malnutrition prevalences above emergency thresholds. The exceptions are measles and cholera epidemics.

Some points to consider in interpreting food security as an underlying cause of malnutrition:

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- Is GAM an early or late indicator?
  - In some populations, malnutrition is an early indicator of food insecurity, but this is not always the case. This appears to depend in part on whether the reduction in food intake is a coping strategy and whether children are given a priority for food in the household. Surveys that have been done in populations with homogeneous livelihoods have shown a close relationship between malnutrition and food insecurity.
- Comparison of prevalence below and above 2 years of age.
  - The highest prevalences of malnutrition are usually found in children less than 2 years of age. When malnutrition is elevated in older children, this is usually an indicator of acute food insecurity.

### *Malnutrition and Mortality*

Can we review rates in order to diagnose food crises, health crises, and famines that kill? There is a strong relationship between malnutrition and mortality in refugee contexts, but this is not the case in all emergency contexts. This means that malnutrition cannot be used to predict mortality. Some emergency contexts will show high malnutrition and low mortality and others vice versa. Table 3 illustrates different types of crises based on the relationship between malnutrition and mortality. A normal situation is one where malnutrition and mortality are both below emergency thresholds. A health crisis exists in situations of elevated mortality, but prevalences of malnutrition are lower. This can be the result of disease epidemics, or when a large proportion of deaths is due to violence. A food crisis is when malnutrition prevalences are above emergency thresholds, but mortality is not. This had been found in some home-based settled populations. Finally, a famine that kills is when both malnutrition and mortality exceed emergency thresholds.

This is often associated with displacement, and a combined failure in food security, health and care.

Table 3: The relationship between malnutrition and mortality in different types of crises

<b>Increasing prevalence of mortality</b>  	<b>II. Health Crisis</b>	<b>IV. Famine that kills, a combined food and health care crisis</b>
	<b>I. 'Normal' situation</b>	<b>III. 'Food Crisis'</b>

**Increasing Prevalence of Malnutrition**  


### *Survivor Bias*

It is a widely held belief that mortality can mask malnutrition in crisis situations. However, a re-examination of the data from which this view is derived shows that mortality will only have an impact on the prevalence of malnutrition if mortality is greater than 10/10,000/day. At lower levels of mortality, which is most emergency situations, survivor bias is unlikely; in other words, mortality is unlikely to influence the prevalence of malnutrition.

### *Malnutrition and Mortality Over Time*

Studies amongst non-emergency affected populations' show that the mortality increases exponentially with declining nutritional status. This is due to the synergy between malnutrition and morbidity, and thus the combined effect of malnutrition and morbidity on mortality is greater than either factor on its own. In famine situations, such synergism could occur between all underlying causes. As famine progresses, food insecurity worsens, and public health and caring behaviors will also deteriorate. A combined failure in all three underlying causes could also act synergistically and explain why in some crises there is an exponential increase in mortality associated with malnutrition, and a sudden change from extreme food insecurity and to a famine that kills (for example, South Sudan in 1988 and 1998). This has implications for tracking the progression from food insecurity to famine that kills and highlights again the importance of assessing the underlying causes of malnutrition.

### *Decision Making Frameworks*

Malnutrition prevalence thresholds are commonly used in decision-making frameworks and classification systems. These link thresholds with severity of crisis in some cases identify responses. Feeding programme decision-making frameworks, such as the one in Table 4, have been used since the 180's and are still commonly used to make decisions on the need for different types of feeding programmes.

**Table 4: Example of a feeding program decision making framework**

Food availability at household level <2100 kcal/day	<b>UNSATISFACTORY SITUATION:</b> improve general rations
Malnutrition rate 15% or more or 10-14% with aggravating factors	<b>SERIOUS SITUATION:</b> general rations, supplementary feeding for all members of vulnerable groups, therapeutic feeding
Malnutrition rate 10-14% or 5-9% with aggravating factors	<b>RISKY SITUATION:</b> No general rations, but supplementary feeding targeted to malnourished individuals, therapeutic feeding for severely malnourished
Malnutrition rate under 10% with no aggravating factors	<b>ACCEPTABLE SITUATION:</b> No need for population interventions. Attention to malnourished individuals through regular community services

Summarized from WHO

There are a number of problems with these frameworks. These include:

- The reinforcement of the “food first” culture of emergency response
- The use of 2 or 3 aggravating factors such as general ration below mean energy requirement, CMR>1/10,000/day, and epidemics of measles of whooping cough) is inconsistent with the adoption of the conceptual framework on underlying causes of malnutrition.
- It does not take account of regional differences or normal season changes.

There are a number of food security phase classification systems that are aimed at achieving consistency in defining and classifying food insecurity and famine. Some classify according to severity, others according to typology. IPC appears to use both as it considers chronic food insecurity and humanitarian emergencies as well as acute food insecurity and famine.

Despite these challenges, it is important that the international aid community agree on a common classification system. There are frequent debates amongst the international community about whether or not a situation can be classified as “famine”. Without clear definitions and indicators, data can be misinterpreted and manipulated to suit objectives of different stakeholders. An agreement needs to be reached so that data cannot be easily manipulated to fit stakeholders interests rather than representing the true situation. There is a huge range and diversity of stakeholders involved in the humanitarian system, but the only sources of consolidated nutrition information come from NICS (SCN) and CEDAT (CRED). Within this wide range of actors with an interest in acute malnutrition in emergencies, there is a glaring lack of clear roles and responsibilities. National governments are formally responsible for interventions, but often lack capacity. Additionally, INGO’s, and UN agencies, which are generally the actual respondents, often have different or conflicting policies from national governments. Globally all agencies must be involved in an agreement on policy formulation and decision making protocol with regards to emergency malnutrition response.

### *Future Work*

To get a common agreement between the different stakeholders, further work needs to be done to review the actual use, analysis, and evidence base of nutrition thresholds in the

current classification systems. The findings of this can form the basis of an agreed system. Tufts and the SCN have submitted a proposal to the IASC nutrition cluster to do this work, and to organize a meeting with key stakeholders to agree on a common system for classifying nutritional risk.

In addition, there are a number of outstanding technical issues which will need further research such as the use of core humanitarian indicators to diagnose qualitatively different kinds of crisis, and addressing technical challenges such as nutritional surveys in pastoral populations, combining food security assessments and nutritional survey results should also be undertaken. Oxfam GB, SC-UK, and Tufts University have submitted a proposal to DfID to do this research.

### *Discussion of Key Issues*

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- The use of women's nutritional status as an index in the household was discussed. Past experiences from the Red Sea, Samburu, and Eritrea show that it is very common to have women show high levels of malnutrition before the children. The use of MUAC on women when children are weighed shows that pregnant women are the most vulnerable population. However, it was observed that in Madagascar, women tend to be very small so their size generally cannot be linked to child malnutrition.
- In Somalia, pregnant women have consistently been found to be highly malnourished. There is a need to consider whether the sudden shift in thresholds of MUAC <18.5cm(SCN) for non-pregnant to 23.0 cm in pregnant women is contributory, considering the insignificant weight change in the pregnant mother in the first trimester.
- The group discussed using thresholds as a starting point, but the major focus needs to be on changes over time as a clear indicator as is being done in the range estimates in FSAU.
- Plotting SAM instead of GAM as a possibly more responsive indicator was suggested. One of the highest percentages of GAM ever reported was in Ajiep in Southern Sudan at 80% in 1988. Liberia reported 60% GAM at it's worst. The point was made that in some situations like these, you don't need to have a nutrition survey to determine status, you can just observe. The risk of dying with moderate malnutrition varies with different contexts. We know that SAM is more highly related to mortality, so it may be a better indicator to report in the context of emergency reporting
- We don't know enough about how the relationship between GAM and SAM and mortality changes in different contexts. This point should be researched.

## **TECHNICAL UPDATE #3:**

### ***NUTRITION INFORMATION PROJECT FOR THE HORN OF AFRICA (NIPHORN) – PETER HAILEY***

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Peter Hailey reviewed the progress and findings of the Nutrition Information Project for the Horn of Africa as it related to the use of small-scale surveys to gather nutrition data in the Horn. One of the objectives of NIPHORN is to look at similarities and differences in methodologies, and at quality control. Additional research includes a preliminary cost analysis of small-scale surveys. Table 5 shows a cost analysis of small-scale nutrition surveys for the years 2000-2006 by country.

**Table 5: Cost Analysis of Small-Scale Surveys**

<b>Country</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>Total</b>
<b>Kenya</b>	34	31	15	8	16	13	15	132
<b>Uganda</b>	1	3	0	7	12	14	10	47
<b>Ethiopia</b>	24	16	93	106	65	73	50	427
<b>Eritrea</b>	7	10	2	4	6	4	11	44
<b>Somalia</b>	13	10	11	11	14	3	19	81
<b>Total</b>	79	70	121	136	113	107	105	731
<b>*Est. Costs (10,000 USD)</b>	790,000	700,000	1,210,000	1,360,000	1,130,000	1,070,000	1,050,000	7,310,000
<b>**Est Costs (15,000 USD)</b>	1,185,000	1,050,000	1,815,000	2,040,000	1,695,000	1,605,000	1,575,000	10,965,000

\*Estimating that each survey costs \$10,000 each.

\*\* Estimating that each survey costs \$15,000 each.

General observations from preliminary analysis of over 600 small-scale surveys include:

- By 2005 most surveys were using a harmonized method of data collection, including the utilization of guidelines in almost all countries specifying standard methodologies and rules to ensure compatibility between surveys.
  - All surveys use the 30x30 method of sampling
  - All surveys report nutrition data for the age band of 6-59 months, with z-scores and percentage of median. Most report confidence intervals.
  - Many surveys do not report sex ration or different age bands.
  - Oedema, MUAC, WAZ, and HAZ are anthropometric indicators reported far less frequently.
  - Very few surveys report BMI or MUAC of pregnant women, or women of childbearing ages.
  - Mortality is reported in many surveys but often without confidence intervals or sample sizes. Many use different questions, and many have the problem of nesting results.

- Commonly identified problems with data quality include
  - Evidence of age heaping and digit preference
  - No reporting of flags hides evidence of data cleaning
  - Results do not follow normal distributions, indicating missing data probably deleted during cleaning.

There needs to be attempts by each country to standardize methodology of data collection, analysis and reporting, and to put in place methods of quality control to ensure value of data being released.

### ***SURVEY QUALITY CONTROL IN ETHIOPIA – DOMINIQUE BRUNET***

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In Ethiopia nutrition coordination was established in 2000 under the early warning department of the DPPA. Their primary focus was the standardization of methods for carrying out nutrition surveys. This was supported through the development of national guidelines on emergency nutrition assessments, published in December of 2002. By 2005, the focus had shifted to quality assurance of nutritional surveys. This was supported by the introduction of the SMART methodology. Using SMART recommendations, quality control mechanisms were put into place, and activities of the ENCU were decentralized to the regional level.

Today each survey collected by the ENCU is thoroughly checked both in the raw data and in the preliminary results, for bias in the sampling procedures, and for quality of anthropometric measurements and their analysis. This process is very transparent and well accepted in Ethiopia. Clusters are selected based on the smallest geographic units using PPS. Most surveys introduce bias into cluster selection through deviations from recommended methods.

Additional biases become obvious when sampling children. By comparing the survey sample and its age breakdowns with the demographic profile of the area, and the presence of skewed sex ratios you can determine how accurate a representation of the population the sample represents. Bias can be a problem because a bias towards younger or older children could introduce a miscalculation of overall levels of malnutrition.

Digit preference has previously been addressed by working together with NGO's to perform training and supervision. This was an effective solution, because digit preference levels dropped dramatically in just one year.

Overall survey quality of all surveys is vigorously inspected by the ENCU for normal distribution standard deviation, skewness and kurtosis. If results fall out of the normal range, they are rejected (see Table 6).

In a good survey the WHZ distribution of the sample is expected to be close to a normal distribution. Key characteristics of the survey WHZ distribution curve are compared to those of a normal distribution and should fall under acceptable ranges. This includes:

- The SD (spread) of the WHZ curve should be between 0.8 to 1.2 (if normally distributed equal to 1.0)
- The skewness (symmetry) and the kurtosis (peakedness/flatness) of the curve; both should be between +1/-1 (if normally distributed equal to zero)

Nutrisurvey automatically calculates all these indicators so analysis is very straightforward.

Table 6: ENCU Survey Quality Check Table

Implementing Agency	Area surveyed	Digit preference		SD of WHZ	Skewness of WHZ	Kurtosis of WHZ	No of WHZ flags* (%)	Representativeness of the sample	
		Weight	Height					Age groups	Sex ratio (boys/girls)
ACF	Dole/Aleto Wondo Coffee LZ	No	No	0.930	0.082	1.066	0	Groups 1 & 2 under-represented Groups 4 & 5 over-represented	1.1
ACF	Dole/Aleto Wondo Mosa LZ	No	No	0.809	-0.058	-0.019	0	Groups 1 & 2 under-represented Groups 4 & 5 over-represented	1.2 girls under-represented
Concern	Ofa	No	No	0.819	0.105	0.005	0	No bias	1.0
Concern	Damot Weyde	No	No	0.814	0.081	0.219	0	No bias	1.2 girls under-represented
Concern	Kala	No	Digit 0 + Digit 5 +	0.814	0.245	0.245	0	No bias	1.1
Concern	Deble Zuria	No	No	0.795	-0.079	0.058	0	Group 1 under-represented	0.7 boys under-represented
ODAL	Deder	No	No	0.924	0.045	0.37	0	Group 1 under-represented	1.0
ODAL	Melo	No	No	0.893	0.270	0.697	0	Group 1 under-represented	1.1
ODAL	Doro Lemu	No	No	0.807	0.358	0.441	0	No bias	1.0
MSP-CH	Ghoshaga	No	No	0.950	-0.388	1.009	2 (0.2%)	No bias	1.2 girls under-represented
SC-US	Dolecha	No	No	1.033	0.228	37.157 kurtosis problem	4 (0.4%)	No bias	1.1
SC-UK	Mayale & Hudet	No	No	0.751	0.134	0.451	1 (0.1%)	Groups 1 & 2 under-represented Groups 4 & 5 over-represented	0.9
SC-UK	Dolo Adu, Dolo Bay & Sore	No	No	0.859	0.374	2.395 kurtosis problem	2 (0.2%)	Groups 1 & 2 under-represented Group 3 over-represented	1.0
SC-UK	Elkane & Hargale	No	No	0.842	0.162	0.539	2 (0.2%)	Group 1 under-represented	1.1
UNHCR/ VFP/ARRA	Shankole camp	No	Digit 0 ++	0.897	0.253	0.281	0	No bias	1.1
UNHCR/ VFP/ARRA	Pugnido (Anywaki) camp	No	Digit 0 +++ Digit 5 +	0.923	0.861	1.529 kurtosis problem	0	Groups 4 & 5 under-represented	1.3 girls under-represented
UNHCR/ VFP/ARRA	Pugnido (Nuer/Dinka) camp	No	Digit 0 +++ Digit 5 +	0.924	0.561	2.859 kurtosis problem	1 (0.1%)	No bias	1.2 girls under-represented
UNHCR/ VFP/ARRA	KiBejeh camp	No	Digit 0 +	0.836	0.031	-0.171	0	Group 1 under-represented	0.8 boys under-represented
UNHCR/ VFP/ARRA	Dimma camp	No	Digit 0 ++	0.864	0.219	0.020	0	Group 4 under-represented	1.0
UNHCR/ VFP/ARRA	Shemba camp	No	Digit 0 +	0.939	0.831	4.369 kurtosis problem	1 (0.1%)	No bias	1.0
UNHCR/ VFP/ARRA	Yerenja camp	No	Digit 0 +++ Digit 5 +	0.835	0.039	0.012	0	No bias	1.0
UNHCR/ VFP/ARRA	Bonga camp	No	Digit 0 +++ Digit 5 +	0.894	0.359	2.060 kurtosis problem	0	No bias	1.0

\* Based on Epi-Info criteria: WHZ outside of -4 and +5 SD



## NUTRITION SURVEY DATABASE

Table 12 presents the number of standardized nutrition surveys conducted in rural Ethiopia since 2000. It does not include surveys conducted in resettlement areas, IDP and refugee camps.

Table 12: Number of Surveys by year and region

Region	Years							Total
	2000	2001	2002	2003	2004	2005	2006	
SNNPR	9	5	35	30	14	25	15	133
Oromia	3	2	20	27	22	20	11	105
Amhara	5	9	24	17	9	7	4	75
Somali	8	5	5	5	8	11	10	52
Tigray	0	0	8	7	3	3	0	19
Afar	0	0	4	5	1	6	2	18
Gambella	0	0	0	0	0	0	0	0
Benshangul Gumez	0	0	0	0	0	0	0	0
Total	25	21	94	91	57	72	42	402

Since 2000, more and more surveys are collecting more and more information on indicators such as vaccination coverage, Vitamin A and Deworming coverage, morbidity, water and sanitation access, food security, access to food aid, infant feeding practices, and access to health facilities. There is a great variety on how questions are asked, analyzed, reported, and used for recommendations, but it is as yet unclear how useful these are for influencing action. The addition of these questions has resulted in a significant increase in time, cost and complication of collection, yet there is still limited proof that these indicators are useful.

There is a limited amount of planning or analysis according to the effects of morbidity, seasons and livelihood zones in terms of agricultural and climactic differences and their impact on levels of malnutrition. There is also a gap in the planning or analysis of possible effects of livelihood zones such as pastoralists and agriculturalists on survey results.

**REGIONAL TECHNICAL WORKING GROUP MEETING OVERVIEW**  
**NUTRITION INFORMATION PROJECT FOR THE HORN OF AFRICA – (NIPHORN)**  
**1-3 FEB 2007, NAIROBI, KENYA**  
**\*\*ACTION POINTS\*\***

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***THE AIM OF THE RECENT NIPHORN WORKING SESSION WAS TO PRESENT THE FINDINGS OF THE NIPHORN PROJECT TO DATE AND THEIR IMPLICATIONS FOR DEVELOPING COMPREHENSIVE AND EFFECTIVE NUTRITION INFORMATION SYSTEMS BY BUILDING ON STRUCTURES THAT ALREADY EXIST. COUNTRY CASE STUDIES FROM SYSTEMS IN VARIOUS STAGES OF DEVELOPMENT WERE USED TO PROVIDE PARTICIPANTS WITH LESSONS LEARNED AND INSPIRATION FOR DEVELOPING SIMILAR STRUCTURES IN THEIR COUNTRIES. IN ADDITION, ISSUES PAPERS ON SPECIFIC TECHNICAL ISSUES IN AREA BASED SURVEYS WERE PRESENTED AND DISCUSSED. THE FOLLOWING IS A SUMMARY OF THE INITIAL ACTION POINTS CONCERNING TECHNICAL ISSUES FOR AREA BASED SURVEYS.***

- **AREA-BASED NUTRITION SURVEYS;**

Whilst considerable work has gone into the standardization and harmonization of nutrition survey methods, more work is required.

- Countries can use the process of developing or updating nutrition survey guidelines to ensure greater standardization of survey methodologies. Many issues to be taken into account during this process are generic but NIPHORN identified the following points where particular attention should be paid:
  - Methods for training enumerators and supervisors as well checking the quality of their training are clearly detailed,
  - Standard quality control checks are made and reported in the survey report.
  - Number of and reasons for flags and exclusion of records are reported.
  - Reporting of standardized age bands.
  - Reporting of sex ratio's
- The NIPHORN study identified more than 700 area-based surveys conducted over 6 years in the five countries on the Horn of Africa. Whilst it was recognized that area-based surveys are conducted for a variety of reasons the working session agreed that the timing and justification of when to conduct surveys could be better clarified at a national level. The session agreed that there is a need to ensure:
  - National survey guidelines include a section on seasonality (agro-climatic and morbidity) that establishes the principal that the timing of a survey or series of surveys should take into account seasonality and clearly report on the implications of seasonality on the results.
  - The NIPHORN project also highlighted the advantages of an annual agreement on desirable timing for surveys to be agreed through the National Nutrition Coordination mechanism.
  - During the NIPHORN/IPC meeting the Ethiopia case study of developing a transparent standardized quality control system for nutrition surveys (part of NUTRISURVEY software) was highlighted as a success. The meeting agreed that it would be a good model to adapt and adopt in other countries as part of the national nutrition survey guidelines.

- The session recognized that survey results are very context specific and therefore agreed that as far as possible surveys should be conducted using livelihood zone rather than administrative areas as the limits for sampling.

- ***SAMPLING AND SEGMENTATION;***

The NIPHORN study noted that many area-based surveys are using the EPI spin-the bottle technique during the second stage of sample selection. This method does not provide a probability sample or allow for sample weighting. Therefore it was recommended that

- Organizations implementing area-based surveys should be working towards using segmentation methods at the second stage of sample selection.
- it was agreed that the EPI method might be the only one possible in areas of conflict or in highly nomadic populations.
- The working group agreed to pilot the segmentation method in a variety of different circumstances throughout the region during 2007. The piloting aims to establish the feasibility of segmentation in different circumstances.

- ***MORTALITY ESTIMATION;***

The working session recognized the limitations of estimating mortality using the area based survey methods and sample sizes, in particular for the estimation of under 5 mortality. The NIPHORN study also highlighted continuing weaknesses in the estimation methods used and reporting of mortality. Therefore, the following action points were agreed:

- A national nutrition survey guideline and coordination group should enforce the use of a standard method for estimating mortality, to reduce confusion between different methods and to enhance comparability.
- Confidence intervals for mortality estimates should be systematically reported and used in comparisons.
- Sample sizes for mortality estimates should be systematically reported.

80% confidence intervals be used instead of 95% CI for mortality.

- ***INDICATORS:***

The working session acknowledged the move towards including the measurement of indicators for underlying causes of malnutrition. Yet the NIPHORN study highlighted the lack of standardization of methods to collect, analyze and report on this data. Therefore the working session agreed that:

- It is important to be more critical about what indicators and questions are included in questionnaires.
- The standardization of questionnaires and reporting methods will allow for easier comparability between surveys.
- More investigation is needed into the utility of collecting additional indicators in area based surveys.

A final NIPHORN workshop will be held in Cape Town, 19<sup>th</sup> – 21<sup>st</sup> April to formalize the action points and recommend a way forward. Copies of country case studies, issues papers and other background materials are available on request from [phailey@unicef.org](mailto:phailey@unicef.org) or [esmith@unicef.org](mailto:esmith@unicef.org).

## ***MEETING PLENARY***

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Workshop members were split into two groups to discuss issues surrounding the Integrated Nutrition Phase Classification System. Topics to be covered by all groups included:

- MUAC
- HIS/HC type data
- Sentinel Site Data
- Dietary Diversity
- Feeding Centers

Working groups were asked to focus on the following questions in their discussions, as they related to the topics above.

1. What is the current experience of using x indicator in nutrition analysis/surveillance?
2. What is the reliability of these indicators as part of an integrated analysis in this region? – How could this be improved?
3. How could this data be standardized for use in an IPC tool? What are the current cut offs or thresholds being used? What are the minimum number of indicators needed to make an analysis?
4. Suggestions on ways forward.

## ***SUMMARY OF ISSUES/ACTION POINTS FORMULATED FROM THE MEETING PLENARY***

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### ***Discussion of Indicators***

- It was decided that MUAC is a useful indicator for assessing nutrition situations, as it is capable of triggering pockets of concern and highlighting the need for a more detailed nutrition assessment, however it is a bit misunderstood. Some Consensus needs to be reached in terms of universal cutoffs and comparability.
  - MUAC and WHZ results can vary considerably depending on the area assessed, due to the impact of inter-population and livelihood differences.
  - MUAC gives significantly lower estimates of malnutrition in pastoral communities compared to Z scores. However it gets similar results to Z scores for other livelihood groups. This lack of comparability and variable reliability means that they are not considered comparable indicators.
  - MUAC among adults use varying cutoffs from one country to the next. This needs to be reconciled.
  - There might be a need to review whether the sudden shift in thresholds of MUAC <18.5cm (SCN) for non-pregnant women to 23.0 cm in pregnant women is contributory to high levels of critical malnutrition in the latter category, considering the insignificant weight change in the pregnant mother in the first trimester.
  
- It was mentioned that Save the Children is currently doing an analysis of 700 small-scale surveys in the Horn of Africa comparing MUAC, Weight for Height, and Mortality indicators. This will hopefully provide some useful insight into these issues.
- Health Information System Data: It was agreed that HIS data is a useful tool for highlighting trends, but there is concern about data quality. It was noted that indicators vary by country, limiting comparability. More resources need to be committed to improve countrywide systems. This in turn will improve data quality and standardize indicators to allow for comparability.
- Sentinel Site Surveillance: SSS is currently in use in Kenya, Ethiopia, Sudan and Somalia. Again, indicators and cut-off points vary by country, but overall SSS is seen as a useful tool for analysis of trends. It was noted that it is important to have multiple sites for surveillance that are distributed throughout the country, representative of all livelihood zones in respective countries.
  - It was agreed that a sample size of 50 children per site is an adequate number.
  - It was noted that SSS is very expensive to sustain and a high level of supervision is needed to ensure quality.
- Dietary Diversity: Ongoing work by FAO looking at appropriate numbers of food groups per country should help to solidify guidelines for this indicator. The group noted that tools should be kept relatively simple for ease of application and analysis. Absolute food groups should be considered, but dietary quality also

- needs to be investigated. More research needs to be done to create a universal and useful indicator.
- Feeding Center Data: It was agreed that data from feeding centers is useful in emergency situations because it monitors progress of emergency situations and of interventions. Problems include delays in reporting, and a lack of access and questionable data quality in times of insecurity.

### *Country Experiences*

- In terms of utilizing the IPC in other Horn Countries, the general consensus was that systems need a significant amount of support to bring them to a level where data quality and coverage will be adequate enough to provide an adequate picture of national nutritional status.
- Taking into account the variability of indicators and data quality available from country to country, it is recommended that a minimum of 2 or 3 anthropometric indicators are necessary to make an analysis of the nutrition situation, with a further 2/3 indicators from other sections such as food security, and health for triangulation purposes. The country can determine which indicators are selected according to what information is available.
- The point was made that donors and decision makers will use data produced through these classification systems to determine need across countries. Therefore systems need to be comparable from country to country. Creating country specific contextual systems will make this problematic.
- How can we make different thresholds for GAM and CMR comparable across countries? A solution needs to be found
- The point was made that the IPC is contextual so we need to think about using these numbers as a reference. A certain degree of contextual application has to come into play, with documentation of how a decision was made in order to defend that decision. Ex: If in Malawi you choose to declare a humanitarian emergency with a GAM of 4%, you should have other contextual factors that prove that that is a reasonable decision. (I.E. a combined health and care crises with mortality at 20/10,000/day).
- It should be noted that thresholds used in the IPC are not precise cutoffs, but guides, and however much as those thresholds need to be adjusted is the responsibility of the experts to determine what makes sense.
- Finally, the IPC does not replace the need for nutrition tracking. Its purpose is to provide a medium to interpret data that is produced from these systems.

**Table 7: Country Specific, Existing Systems To Build Upon For IPC-Type Systems**

Country	Existing Systems		Source Data	District Analysis	National Analysis	Blockages
Tanzania	Health Facilities	Y	Clinics Community VHW's	Y	MOH	Lack of Staff Questionable utility of data Timeliness of data
	District	Y				
	National	Y				
Uganda	Health Facilities	N	GMP's (1x monthly)	Y	NOT REGULAR	Questionable utility of data
	District	Y				
	National	Y				
Kenya	Health Facilities	N	GMP's (weekly)	Y	MOH	Lack of demand for data Overworked staff Limited health facility reporting
	District	N				
	National	Y				
Malawi	Health Facilities	N	GMP's (weekly)	Y	MOH	
	District	?				
	National	Y				
Somalia	Health Facilities	Y	Clinics (1x monthly)	N	FSAU/UN	Lack of Demand for Data
	District	N				
	National	N				

***FINAL ACTION POINTS***

- Adapted IPC Systems should utilize a minimum of 2 or 3 anthropometric indicators to determine the classification as determined by availability of information within a country. Data should be collected consistently across the country, and triangulated to create a contextual analysis of nutrition situations.
- Systems need to be standardized to a sufficient degree allowing comparison from country to country to permit decision makers to decide where the greatest need exists.

***ADDITIONAL READING:***

FAO/FSAU Technical Series Report No IV. 11 May 2006. Integrated Food Security and Humanitarian Phase Classification: Technical Manual Version 1. FAO/FSAU.

Humanitarian Charter and Minimum Standards in Disaster Response The Sphere Project, 2004.

SMART (Standardized Monitoring and Assessment of Relief in Transitions) Guidelines Version 1, 2006 . [www.smartindicators.org](http://www.smartindicators.org).

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