Food Security and Nutrition Analysis Unit Somalia

Information for Better Livelihoods

FEWS NET
FAMINE EARLY WARNING SYSTEMS NETWORK

Post Gu '12

Presentation

August 21st, 2012

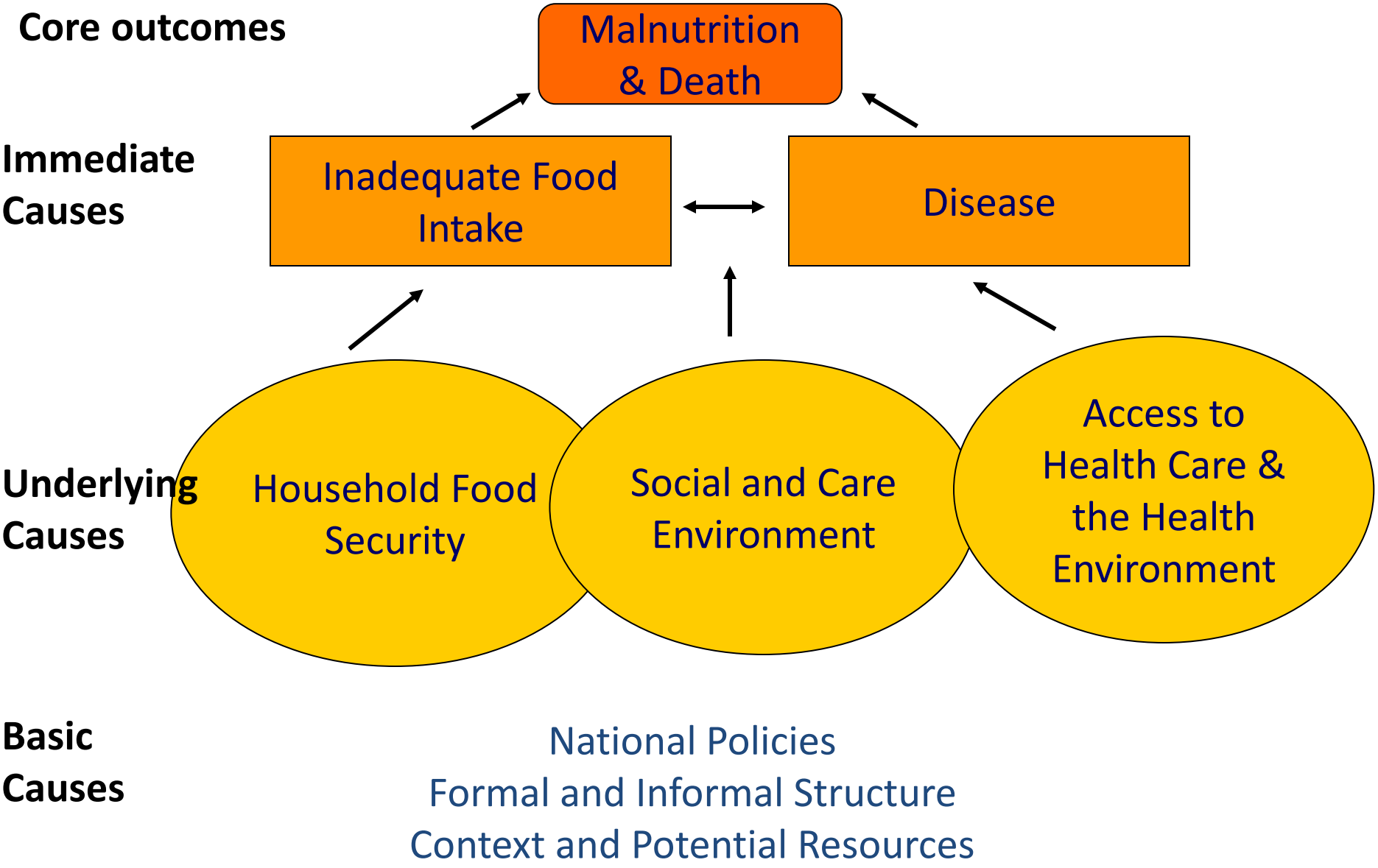
Integrated Nutrition Situation Analysis

Nutrition Situation Analytical Framework

EUROPEAN COMMISSION

Photos from Somalia depict diversity in livelihoods, sources of water , maternal and child feeding/care practices

UNICEF's Conceptual Framework on the Causes of Malnutrition



Nutrition Outcome Analysis

- **Diverse information** is required to estimate and interpret:
  - Core outcome: levels of acute malnutrition and deaths
  - Immediate causes: food consumption, and disease
  - Underlying causes: household food security, social care and health environment.

- In Somalia, **diverse sources** and **methods** are used to access the information:
  - Nutrition surveys (SMART methodology used)
  - Rapid MUAC assessments
  - Health facility nutrition data
  - Admissions trends to feeding programs
  - Secondary data on the food security, health, and on displacements.

- In Somalia, the **Nutrition situation analytical framework** is used to interpret findings of each outcome, which leads to convergence of evidence on the **overall situation**.

The Nutrition Analytical Framework

- The Nutrition Analytical Framework
  - **provides a contextual analysis** of the nutrition situation, rather than focus on prevalence estimates & thresholds which is traditionally the case in nutrition analysis.
  - **based on international thresholds** (WHO, Sphere and Fanta) where available, and contextually relevant analysis where these are not available.
  - forms the basis for the nutrition situation classification, the *Estimated Nutrition Situation maps*, & the caseloads Estimates maps.
  - **developed through a consultative process**,
- The current March 2011 version accommodates current research developments, and the switch from NCHS 1997 to WHOGS 2006.
- The Nutrition Analytical Framework has three sections:
  - Core Outcome Indicators (mainly anthropometry related information, and mortality)
  - Immediate Causes
  - Driving/Underlying Factors

NUTRITION SITUATION ANALYTICAL FRAMEWORK Reference Indicators	Acceptable	Alert	Serious	Critical	Very Critical	Extremely Critical
Global Acute Malnutrition *(IPC Reference) Reliability (R) =1*	<3%	3 to <10%; Usual range and stable	10 to<15% or where there is significant increase from usual/ seasonal trends in last ≥3 yrs	15 to<20% or where there is significant increase from baseline/ seasonal trends in last ≥2 yrs	20 to <30%	>30%
Mean Weight-for-Height Z (WHZ) scores *(R=1)*	>-0.40	-0.40 to -0.69; Stable/Usual	-0.70 to -0.99; >usual/increasing	<-1.00; >usual/increasing		<-1.5
SAM (WHZ and oedema) *(WHO to advice on thresholds) R=1)*	<2.0%	2.0 – 3.4%	3.5 – 4.4%	4.5 – 5.9	6.0-9.9%	≥10%
Crude death rate/ 10,000/day *(R=1)*	<0.5	<0.5 or doubling of rate in preceding phase	0.5 to <1 *or doubling of rate in preceding phase.*	1 to <2 *or doubling of rate in preceding phase.*	>2	>2
Under five death rates/10,000/day *(R=)*	<1	<1	1 to 1.9	2 to 3.9	≥4	≥4
MUAC Children: (% <12.5cm): *Ref: FSNAU Estimates (R=2)*	<2.0%	2.0-5.5% with increase from seasonal trends	5.6-8.0%	8.1-11.0 %, or where there is significant increase from seasonal trends	11.1-19. 9%, Or where there is significant increase from seasonal trends	≥20.0% Or where there is significant increase from seasonal trends
MUAC for children<11.5cm *(R=2)*	<1.0	<1.0 with increase from seasonal trends	1.0-2.0 or where there is significant increase from seasonal trends	2.1-3.0 or where there is significant increase from seasonal trends	3.1-5.5 Or where there is significant increase from seasonal trends	≥5.5 Or where there is significant increase from seasonal trends
Adult MUAC - Pregnant and Lactating(%<23.0cm,Meta Data-FSNAU	<12.5	12.6-19.9 or significant increase from seasonal trends	20.0-24.9 or significant increase from seasonal trends	25.0-34.9	>=35.0	>=35.0
CORE PROCESS/OUTCOME INDICATOR **HIS Trends of Acutely Malnourished Children** *(Ref: HIS), (R=3)*	V. low (<5%) proportion in the preceding 3mths; relative to ≥2yr seasonal trends	Low proportion (5 to <10%) and stable trend; or doubling of rate in the preceding 3mths relative to ≥2yr seasonal trends	Moderate (10 to <15%) and stable or low (5 to <10%) but increasing proportion in the preceding 3mths relative to ≥2yr seasonal trends	High (≥ 15%) and stable proportion in the preceding 3mths relative to ≥2yr seasonal trends	High (≥ 15%) and increasing proportion in the preceding 3mths relative to ≥2yr seasonal trends	
OVERAL NUTRITION SITUATION	***Acceptable***	***Alert***	***Serious***	***Critical***	***Very Critical***	***Extremely Ctitical***

IMMEDIATE UNDERLYING CAUSES **Reference Indicators**	**Acceptable**	**Alert**	**Serious**	**Critical**	**Very Critical**
Poor HH Dietary Diversity (% consuming<4fdgps) Mean HH dietary diversity Score	<5% TBC	5 – 9.9% TBC	10-24.9% TBC	25 – 49.9% TBC	≥50% TBC
Disease Outbreaks: (seasonally adjusted). Frequency of reported outbreaks of AWD &, malaria & measles	• Normal levels, & seasonal trends, • Review data in relevant context	-AWD 1 case -Measles 1 case -Malaria–doubling of cases in 2 weeks in hyper endemic areas–using RDT	Outbreak not contained and/or in non endemic area – limited access to treatment: CFR for AWD >2% rural CFR for AWD >1% urban AWD – duration exceed >6 wks		
Morbidity Patterns: Proportion of children reported ill in 2wks prior to survey *(R=2)* **Health facility morbidity trends (R=3) /WHO surveillance (R=1)**	TBC Very low proportion reportedly sick	TBC Low & stable proportion of reportedly sick based on seasonal trends	TBC Low proportion reportedly sick, from previous months but increasing in >2 months based on seasonal trends	TBC High levels and stable numbers in >2 months based on seasonal trends	TBC High with significant Increase in numbers of sick children, based on seasonal trends

UNDERLYING FACTORS **Reference Indicators**	**Acceptable**	**Alert**	**Serious**	**Critical**	**Very Critical**
Complementary feeding in addition to breastfeeding i. Introduction of complementary food at 6 months of age: %introduced ii. Meeting minimum recommended feeding frequency iii. Dietary diversity score	≥95% ≥95% ≥95%	80-94% 80-94% 80-94%	60-79% 80-94% 80-94%	0-59% 0-59% 0-59%	0-59% 0-59% 0-59%
Breastfeeding (BF) Practices *I. Exclusive BF for 6mths* *ii).Continued BF at 1 yr* *iii)Continued BF at 2yr reference*	≥90% ≥90% ≥90%	50-89% 50-89% 50-89%	12-49% 12-49% 12-49%	0-11% 0-11% 0-11%	
Measles immunization/Status **Vitamin A Supplementation Coverage**:1 dose in last 6 months	>95% >95%	80-94.9% 80-94.9%	<80% <80%		
Population have access i). to a sufficient quantity of water for drinking, cooking, personal & domestic hygiene–min 15lts pp/ day **ii).Sanitation facilities**	100% 100%	TBC TBC	TBC TBC	TBC TBC	TBC TBC
Affected pop with **access to formal/informal services:** health services	Should not be necessary	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
Selective Feeding Programs Available: Coverage of TFP /SFP & referral systems(Sphere04); **-Admissions trends** *(R=3)*	Should not be necessary	Access for most vulnerable	None available		
Food Security Situation- current IPC status	Generally Food Secure	Borderline Food Secure	Acute Food and Livelihood Crisis	Humanitarian Emergency	Famine/Humanitarian Catastrophe
Civil Insecurity	Prevailing structural peace	Unstable disrupted tension	Limited spread, low intensity	Widespread, high intensity	Widespread, high intensity
3 MONTH NUTRITION SITUATION OUTLOOK	*Convergence of evidence on immediate Causes/Driving factors vis-à-vis Projected trend in 3 months time* *No change: Stable; Uncertain: Potential to deteriorate Potential to improve:*				

Analytical Process: Key Points

- To make a statement on the
  - Nutrition situation: A minimum of **two Core indicators** are recommended ensuring a reliable analysis
  - Projected trend: A minimum of two **risk factors (immediate or underlying)** are recommended ensuring a reliable analysis.
- The overall classification of the nutrition situation for a given area is done taking into account historical nutrition and contextual data. Triangulation of all indicators is also undertaken.
- It is not necessary for all the indicators to fall into one category in fact this will rarely happen, the idea is to look at the bigger picture in terms of where the indicators are currently, where they have come from and where they are likely to go to make the overall statement of the situation.
- Where possible nutrition information should be analyzed at livelihood level, & not at administrative, this is the case in Somalia.
- The references or cut offs used for GAM, SAM, CDR and Immunization coverage are consistent with the international ranges. However, for many of the other indicators, agreed international ranges/ thresholds for each categorization are lacking. As such, the various ranges have been developed following analysis of available nutrition data from Somalia.
- Other contexts needed to refine certain indicators such as dietary diversity & MUAC - currently they are based on historical analysis from FSNAU
- Further inclusion of indicators relating to i). Displacement and ii). Population concentration for displacement is required.
- The age of the data needs to be considered and ideally should be from the current season. If the data is from an earlier season this needs to be considered in the overall analysis and may affect the results.
- This tool should only be used by nutrition experts who have the ability to critically evaluate and contextualize nutrition information

Example:Summary nutrition data & overall analysis, highlighting key indicators vis-à-vis previous season for trends

Outcome indicators	WEST GOLIS/GUBAN Livelihood Zone, Summary of Findings		
	Gu '11 (N=844) July 2011	Deyr'11/12 (N=819) December 2011	Gu 2012 (N=588) July 2012
Child Nutrition status			
○ *GAM (WHZ<-2 or oedema)*	22.0 (18.9-25.4)	13.8 (11.4-16.6)	21.7 (17.9-26.1)
○ *SAM (WHZ<-3 or oedema)*	5.0 (3.4-7.0	2.2 (1.4-3.5)	5.6(3.7-7.9)
○ *Oedema*	0.1	0.1	0
○ *Mean Weight-for Height Z (WHZ scores)*	-1.12± 1.12	-0.72±1.21	-1.06±1.15
○ *MUAC (<12.5 cm or oedema)*	7.0 (4.2-11.3)	4.9 (3.4-6.9)	6.5 (4.5-9.2)
○ *Severe MUAC (<11.5cm)*	2.3 (0.9-5.3)	0.5 (0.2-1.3)	1.2(0.5-2.7)
○ *HIS Nutrition Trends*	High (>15%) and fluctuating	High (>15%) and fluctuating	High (>20%) and increasing
○ *TFPs/SFPs Admission trends*	High and fluctuating	High and decreasing	High and increasing
Crude death Rate/10,000/day *(90days)*	0.77 (0.43-1.37)	0.54 (0.33-0.89)	0.24 (0.11-0.53)
Under 5 death Rate/10,000/day *(90days)*	0.91(0.39-2.09)	0.27 (0.06-1.13)	0.45 (0.10-1.89)
Non-pregnant women with MUAC <18.5 cm	0.9 (0.0-1.9)	0.7(0.1-2.4)	0
Pregnant & Lactating women with MUAC<21.0 cm	6.8 (2.8-10.7)	0.4 (0.0-2.4)	4.6(0.0-13.9)
Pregnant & Lactating women with MUAC<23.0 cm	17.8 (11.6-24.0)	16.5 (11.9-21.9)	28.1(8.6-47.6)
OVERALL NUTRITION SITUATION	***Very Critical***	***Serious***	***Very Critical***
Child Morbidity, Immunization, IYCF			
○ *Disease Outbreaks:* ○ *Morbidity based on 2wk recall*	No Outbreak Overall morbidity,24.9; Diarrhea,15.6; Pnuamonia,3.8; Fever,10.5; measles,1.5	No outbreak Overall morbidity:29.7 Diarrhea:18.2 Pneumonia:3.7 measles:1.1 Fever:19.7	No outbreak Overall morbidity:29.7 Diarrhea:12.9 Pneumonia:3.9; Measles 2.7 Fever:18.7
○ *Immunization status/Vit. A*	Vit.A:50.2; Measles vac:81.3; Polio:94.5	Vit A: 63.2; Polio:82.7 Measles Vac:65.1	Vit A: 72.8 Measles Vac; 75.3
○ *Children eating from <4 fdgps*	94.8	98	100
○ *Children meeting min. feeding freq.*	56.0	35.8	38.8
Public Health Indicators; Gender	**N=627**	**N=509**	**N=349**
○ *Households (HH) accessing safe water*	49.5	63.2	39.8
○ *HH accessing sanitation facilities*	31.1	43.2	40.4
○ *Relation between GAM & child sex*	Statistically insignificant	Statistically insignificant	Statistically insignificant
○ *Relation between GAM & sex of hh head*	Statistically insignificant	Statistically insignificant	Statistically insignificant
Proportion of hh consuming <4 fd gps	4.0	58.7	12.9
Mean Coping Strategy Index (CSI)	10.7	9.7	7.0
Food Security Phase	**BFI/Stressed**	**BFI/Stressed**	**Stressed/Crisis**
Overall Risk to Deterioration	**POTENTIAL TO IMPROVE**	***STABLE***	**UNSTABLE**

Nutrition Situation Estimates Maps

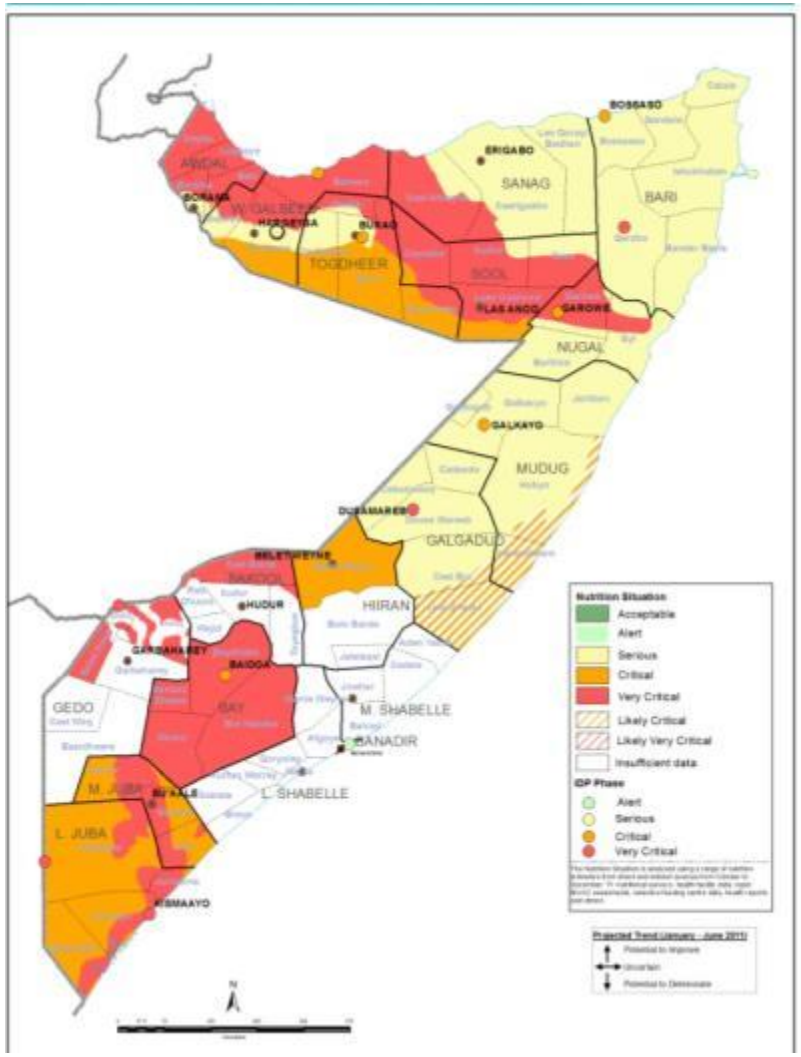
Reliability of data represented in solid lines or hash lines:

Solid Colours – when reliable surveys, or at least 3 sources of reliable anthropometric data

Hash lines if failed plausibility test
<3 sources of non survey data

LIMITATION:
The design of the survey design is to depict the situation
but not the actual cause.

Nutrition Situation, August 2012



Nutrition and gender, Gu 2012

- 46 nutrition surveys conducted in May-July 2012
- Sampling at the 2nd stage provided an equal chance for participation of
  i). boys and girls;
  ii). female and male headed households.
- Plausibility results for the overall sex ration indicate excellent-acceptable distribution of assessed boys and girls.
- In general, the relation between (i). Sex of child (ii). sex of household head, with acute malnutrition is statistically insignificant.
- Indicators (WHZ & MUAC) used in analysis depict different levels of acute malnutrition by sex:
  - Weight-for-height (WHZ scores) indicator depicts more of malnourished boys than girls – this is related to cut-offs.
  - MUAC indicator depicts more malnourished girls than boys. Discussions on the differences ongoing at global level

FSNAU
Food Security and Nutrition Analysis Unit - Somalia

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