



# NUTRITION SITUATION REPORT FOR ARID AND SEMI ARID AREAS, AUGUST 2018

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# **CHAPTER 1: INTRODUCTION**

# 1.1 Background

Acute malnutrition among children and women remains a challenge in Kenya especially in the arid areas. This is often aggravated by other acute factors such as high prevalence of communicable diseases, acute food insecurity and decreased access to water as distances increase during dry spells. This is worsened by chronic issues such as poverty, low literacy levels and poor access to health services. Surveillance mechanisms such as the early warning system, rapids assessments, small scale surveys, routine data collection and analysis and, seasonal assessments exist to inform timely response and planning.

The Kenya Food Security Steering Group (KFSSG) under the leadership of the National Drought Management Authority (NDMA) undertakes the biannual seasonal assessments i.e. Long Rains Assessment (LRA) and Short Rains Assessment (SRA). Key sectors involved in the assessment include education, health, nutrition, agriculture, livestock and water sectors. The assessment findings are disseminated at the Kenya Food Security Meeting (KFSM) as well as respective sector coordination structures for contingency, and response planning as well as to inform medium and long-term actions to address acute food and nutrition insecurity.

### **1.2 Analysis Period**

The 2018 long rains assessment report writing workshop was conducted on 20<sup>th</sup> to 29<sup>th</sup> August 2018 and was preceded by a pre-assessment training for the LRA field teams and visit to counties. Integrated Phase Classification (IPC) for Acute Malnutrition was conducted alongside the Food Security Integrated Phase Classification. Specifically, nutrition IPC training was done on 20<sup>th</sup> and 21<sup>st</sup> August followed by a full analysis from 22<sup>nd</sup> to 25<sup>th</sup> August - this was done in a separate room within the same venue of the food security IPC analysis to allow for consultations and complementarity. The nutrition team joined the food security team from 26<sup>th</sup> to 29<sup>th</sup> August to consolidate analysis, finalize reports and prepare joint dissemination products.

### **1.3 Analysis Team**

The IPC for acute malnutrition analysis team comprised participants from the national and county governments, line ministries, UN agencies, Civil Society Organizations, IPC regional office and academic institutions. The analysis team was trained on IPC for acute malnutrition before analysis (See agenda and participants list in the appendix).

### **1.4 Geographic Coverage**

The assessment covered 23 counties classified as arid and semi-arid. These counties are also considered to be the most vulnerable to acute malnutrition. They include: Mandera, Garissa, Tana River, Wajir, Isiolo, Turkana, Samburu, Marsabit, Baringo, Laikipia, West Pokot, Kajiado, Narok, Kitui, Makueni, Nyeri (Kieni), Meru (Meru North), Embu (Mbeere), Tharaka Nithi (Tharaka), Kwale, Taita Taveta, Kilifi and Lamu. The unit of analysis was dependent on homogeneity/heterogeneity of the prevalence of acute malnutrition in a county. As such Turkana and Marsabit Counties had four units of analysis each while Wajir had 2 units of analysis. Since urban areas report high caseloads due to higher populations living in these areas especially in the informal settlements, caseload for urban areas were also calculated during the report writing workshop to inform planning.



# **1.5 Objectives**

The objective of the bi-annual the assessments conducted after the long and short rains is to determine how each season has affected food and nutrition security. Specific objective of the IPC for acute malnutrition workshop include:

- To conduct training on IPC for acute malnutrition to reinforce skills of analysis team to conduct quality analysis
- To assess the severity of acute malnutrition by referencing against international standards and identify areas that are most affected by acute malnutrition
- Identify the main contributing factors to acute malnutrition
- Determine the number (caseloads) of children 6 to 59 months and Pregnant and Lactating Women PLW to inform response
- Identify the major priority response objectives
- Develop communication and disseminate the findings:
  - Develop communication materials infographic, communication brief, situation report, updated website and survey dashboard
  - Present findings at the Kenya Food Security Meeting (KFSM) and Emergency Nutrition Advisory Group

### **1.6 Key Outputs**

- Participants trained on nutrition IPC two and half days training, coaching and mentorship during analysis
- Analysis worksheets by analysis area with repository/references
- Situation brief/Communication template
- Situation maps current and projected
- Infographic/one-page summary
- Full nutrition situation report
- Health and nutrition sector sections in the LRA reports reviewed/developed
- Dissemination slides
- Updated caseloads tracker
- Material submitted for uploading on the nutrition website <u>www.nutritionhealth.or.ke</u>
- Updated population based survey database

# **CHAPTER TWO: METHODS**

#### **2.1 Analysis Protocols**

The analysis applied the global protocols for Integrated Phase Classification for Acute Malnutrition released (November 2016). The IPC for Acute Malnutrition classified the severity of acute malnutrition into five Phases which was done based on the prevalence of GAM. A higher prevalence of acute malnutrition characterized the most severe phases as shown in Figure 2.1.

	PHASE 1 Acceptable	PHASE 2 Alert	PHASE 3 Serious	PHASE 4 Critical	PHASE 5 Extreme critical		
Phase Name and Description	Less than 5% of children are acutely malnourished by GAM by WHZ measure or Less than 6% of children are acutely malnourished by GAM by MUAC measure	Even with any humanitarian assistance, about 5- 10% of children are acutely malnourished by GAM by WHZ measure or about 6- 11% of children are acutely malnourished by GAM by MUAC measure.	Even with any humanitarian assistance, about 10-15% of children are acutely malnourished by GAM by WHZ measure or about 6- 11% of children are acutely malnourished by GAM by MUAC measure.	Even with any humanitarian assistance, 15-30% of children are acutely malnourished by GAM by WHZ measure or 11- 17% of children are acutely malnourished by GAM by MUAC measure, showing conditions for excess mortality <sup>3</sup> .	Even with any humanitarian assistance, >30% of children are acutely malnourished by GAM by WHZ measure or >17% of children are acutely malnourished by GAM by MUAC measure, showing conditions for widespread death <sup>3</sup> .		
Priority	Maintain the	Strengthen existing		$_{ m v}$ reduce acute malnutrition levels through $ ightarrow$			
Response Objective to decrease Acute Malnutrition <sup>4</sup>	low prevalence of acute malnutrition	response capacity and resilience. Address contributing factors to malnutrition. Monitor conditions and plan response as required.	Scaling up of existing capacity and response as well as addressing contributing factors to malnutrition	Significant scale up with external help, if needed, of nutrition response and addressing of contributing factors to malnutrition in close co-ordination with other sectors	Addressing widespread acute malnutrition and death by all means. Also address all causes of malnutrition through greater scaling up of all public health programme interventions in close co- ordination with all other sectors.		
GAM by WHZ) <-2 standard deviation and/or Oedema	< 5%	5.0 to 9.9%	10.0 to 14.9%	15.0 to 29.9%	≥30%		
GAM by MUAC < 125 mm and/or Oedema	<6%	6.0 to 1	10.9%	11.0 to 16.9%	≥17%		

Figure 2.1: IPC for Acute Malnutrition Reference Table

The analysis resulted to a current situation update and projection of the situation. Key contributing factors both food security and non-food security related factors were identified using the UNICEF conceptual framework (Figure 2.2) as laid out in the analysis work sheet. Since both IPCs were conducted simultaneously, results from the IPC for acute malnutrition were included Food Security analysis and results from Food Security IPC were also included in the IPC for acute malnutrition analysis. Finally, response actions were identified. A one page summary of the situation including maps was developed.

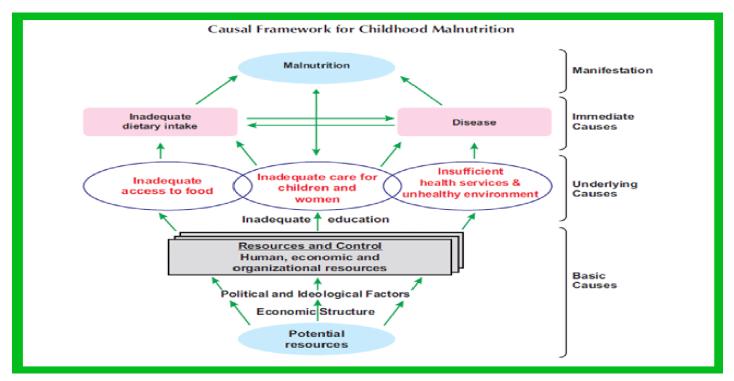


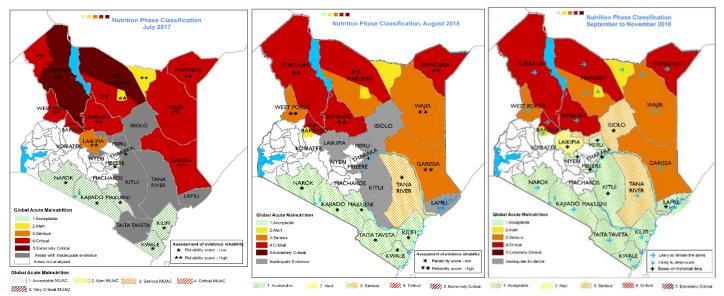
Figure 2.2: UNICEF Conceptual Framework

# 2.2 Data Sources and Quality

Data on Global Acute Malnutrition (GAM) used in the IPC for Acute Malnutrition were from representative surveys (GAM by WHZ) and the National Drought Management Authority sentinel sites (GAM by MUAC). Only data of acceptable quality was used in the analysis. Reliability scores were also assigned. Only areas with reliable information from the same season of analysis were classified for current classification while secondary information was used for the projection. Secondary data was gathered from multiple sources including the DHIS, small and large-scale survey reports, sentinel surveillance, rapid assessments etc.

# **CHAPTER 3: RESULTS**

### **3.1 National Nutrition Situation – Summary**



#### Figure 3.1. LRA 2017 Map Figure 3.2 Current Nutrition Situation Map Figure 3.3. Projected Nutrition

The nutrition situation has improved across the areas analyzed using Integrated Phase Classification (IPC) for acute malnutrition as part of the August 2018 Long Rains assessment compared to same season last year (Figures 3.1 and 3.2). The overall nutrition situation has significantly improved in Turkana South, North sub-counties, and Central, as well as North Horr from a *Very Critical (Phase 5*; GAM WHZ  $\geq$ 30 percent) to a *Critical (Phase* 4; GAM WHZ 15.0 - 29.9 percent) nutrition situation. The findings show that the acute malnutrition levels in several of these counties remain above emergency thresholds of Global Acute Malnutrition (GAM) above 15 percent despite the improvements. The prevalence of Acute malnutrition remains at *Critical* levels in Turkana, Samburu, Mandera, East Pokot in Baringo, and North Horr in Marsabit. *Serious* levels (*Phase 3*; GAM WHZ 10.0 -14.9 percent, MUAC 6.0 to 10.9 percent) are reported in West Pokot, Tana River, Garissa, and Wajir; while Moyale and Saku in Marsabit County, and Baringo North/Marigat reported *Alert* levels (*Phase 2*; GAM WHZ  $\geq$  5 to 9.9 percent). *Acceptable* levels (*Phase 1*; GAM WHZ <5 percent, MUAC <6 percent) are reported in Narok, Kajiado, Makueni, Taita Taveta, Kwale, and Kilifi counties. The overall nutrition situation is thus projected to remain stable in most areas (Figure 3.3).

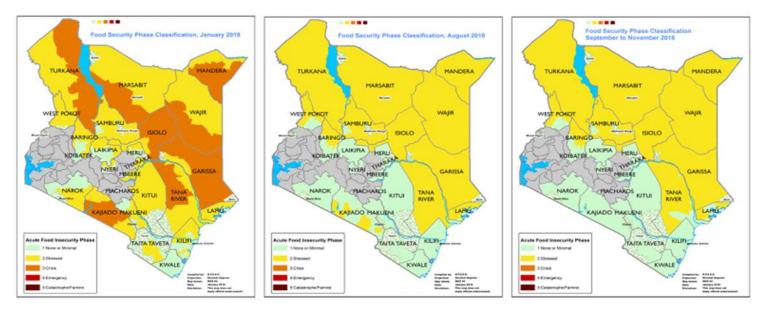


Figure 3.4. SRA February 2017 Figure 3.5 Current Food Security Situation Figure 3.6 Projected Food Security Situation

The improved nutrition situation is mainly attributed to an improvement in overall rainfall performance, which led to a subsequent improvement in food security (Figures 3.4, 3.5, 3.6). However, past trends indicate a potential for fast deterioration in the nutrition situation in highly vulnerable counties such as Turkana following a dry spell is likely as households have not yet recovered fully. In addition, poor child care practices, high morbidities, low literacy, limited access to health care services, and poverty are key challenges. Building the resilience of these communities through increased engagement with nutrition sensitive sectors therefore remains a priority for improvements in nutrition to be sustained.

Despite an overall improvement in the nutrition situation, the estimated number of children requiring treatment for acute malnutrition has increased compared to the same time last year. This is due to an updated caseload calculation methodology, which has been informed by global guidance, lessons from the 2017/2018 response, and coverage assessments conducted in 2017. The total caseload of children 6 to 59 months requiring treatment for acute malnutrition in ASAL and urban areas is 510,593 (MAM- 425,488; SAM- 85,105) while a total of 31,354 pregnant and lactating women require treatment in these areas (Table 3.1). Figure 3.7 presents caseloads by county.

Area	Global Acute Malnutrition 6 to 59 m	Severe Acute Malnutrition 6 to 59 m	Moderate Acute Malnutrition 6 to 59 m	Pregnant and Lactating Women (PLW)
ASAL	439,463	62,321	377,142	28,392
Urban	71,130	22,784	48,346	2,962
Total Caseload	510,593	85,105	425,488	31,354

Table 3.1: Estimated Caseloads of Children 6-59 months and PLW requiring treatment for Acute Malnutrition - ASAL and Urban counties, August 2018

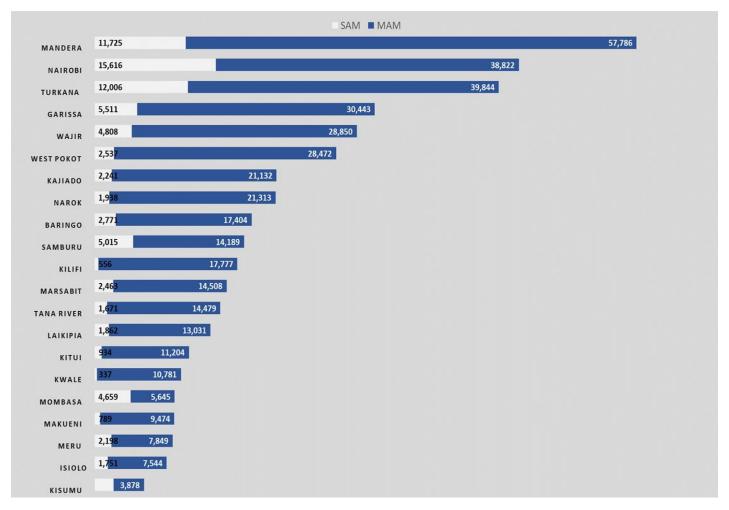


Figure 3.7: Estimated Caseloads for GAM and SAM

# **3.3 Key Ongoing Interventions**

#### IMAM program admissions and performance

A total of 38,952 severely malnourished children (71.5 percent of the target) and 82,670 moderately malnourished children (55.7 percent of the target) were admitted for treatment from January to July 2018 in the ASAL counties (Table 3.2, Figures 3.8, 3.9). All the sphere standard (deaths, cure, and defaulter) were achieved (Table 3.3 and 3.4).

Target group	2018 Target ASAL and Urban	Achieved ASAL and Urban Jan to July	Percent Achieved ASAL and Urban Jan to July	2018 Target ASAL	Achieved ASAL Jan to July	Percent Achieved ASAL Jan to July
Children 6 to 59 months with severe acute malnutrition (SAM)	62,797	45180	71.9%	54,474	38,952	71.5%
Children 6 to 59 months with moderate acute malnutrition (MAM)	169,216	91485	54.1%	148,322	82,670	55.7%

Table 3.2: IMAM Coverage Assessment (Proxy) Among Children 6 to 59 months

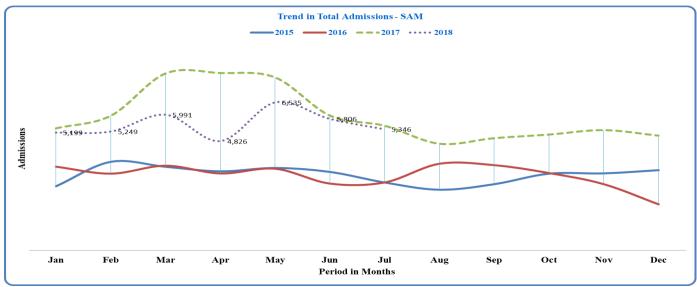


Figure 3.8: SAM Admission Trends for Children 6 to 59 months, ASAL counties

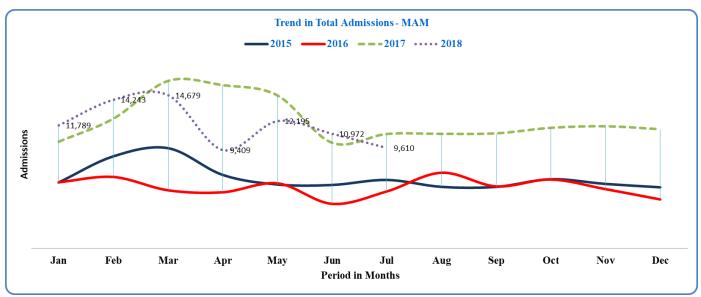


Figure 3.9: MAM Admission Trends for Children 6 to 59 months, ASAL counties

Table 3.3: Program performance – sphere standards: Severe acute malnutrition <5 years

Month	Proportion of	Proportion of	Proportion of
	discharges; Cured %	discharges; Deaths %	discharges; Defaulter %
January	80.9	0.9	16.2
February	80.2	0.8	14.0
March	77.4	0.9	12.6
April	79.3	0.8	15.1
May	74.0	1.4	20.6
June	79.6	1.0	11.1
July	83.6	1.0	12.0
Total	79.0	1.0	14.7

Month	Proportion of	Proportion of	Proportion of
	discharges; Cured	discharges;	discharges;
	%	Deaths %	Defaulter %
January	81.5	0.2	15.5
February	84.4	0.4	9.8
March	87.6	0.0	8.9
April	82.2	0.1	13.6
May	73.7	0.5	19.9
June	79.6	3.2	12.6
July	84.1	0.6	11.7
Total	81.6	0.7	13.3

Table 3.4: Program performance - sphere standards: Moderate acute malnutrition 6 to 59 months

#### Blanket Supplementary feeding program

Blanket supplementary feeding was implemented in the most affected counties/sub-counties of the country which included: Turkana, Mandera, East Pokot, North Horr, Laisamis and Isiolo from May 2017 to March 2018 (Figure 3.10). The total population in need was 518,000 children and pregnant and breastfeeding women, and prevention program targeted to reach at least 90 percent of the population in need. A total of 481,927 (92 percent) beneficiaries were reached against 518,000 planned, of which 389,739 were children (50 percent female and 50 percent male) and 92,188 were pregnant and breastfeeding women. BSFP was a major pull factor and it offered an opportunity to reach more women and children through integrated outreach services including: nutritional screening and treatment of acute malnutrition, treatment of common illnesses, vaccination, VAS supplementation, IYCF and other health messaging.

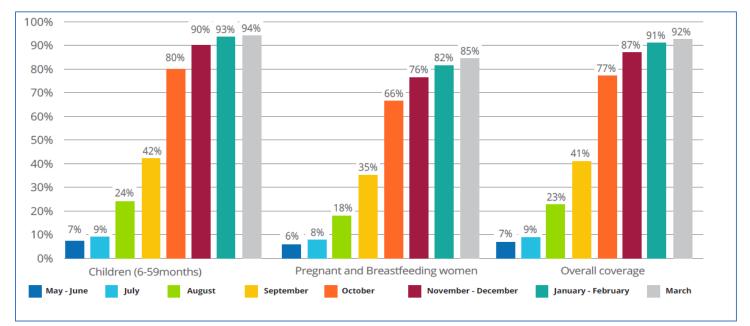


Figure 3.10: Program Coverage; May 2017 to March 2018

### **3.4 Key Recommendations**

- Update County Nutrition Action Plans based on county-led planning to identify and implement relevant nutrition sensitive activities to build resilience and prevent malnutrition, including livestock-related interventions in pastoral-dominant counties.
- Update national nutrition sector response plans and county contingency plans with continued support to effective coordination
- Scale up nutrition education and counselling for improved maternal, infant, and young child feeding behaviors and practices.
- Conduct integrated outreach programs in North Horr, where malnutrition levels have remained higher than 20 percent and strengthen community referral mechanism for acutely malnourished children
- Improve coverage of ongoing high impact health and nutrition interventions as informed by mapping
- Continued nutrition capacity strengthening for improved health and nutrition service delivery
- Continued health and nutrition surveillance especially in areas with emergency levels of acute malnutrition

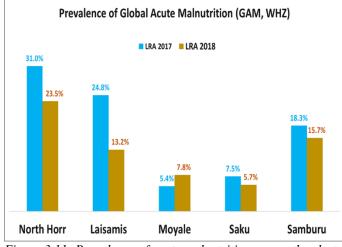
#### **3.5 Factors to Monitor:**

- High malnutrition levels in selected counties (GAM WHZ ≥15 percent) especially North Horr where malnutrition levels have remained very high
- Impacts of programs and interventions
- Performance of the 2018 October December short rains

#### 3.6 Cluster Nutrition Situation

#### **3.6.1** Pastoral North West (Marsabit, Turkana and Samburu Counties) Nutrition Situation

Notable improvement nutrition situation was reported in the cluster (Figure 3.11). Compared to the 2018 LRA, the overall nutrition situation significantly improved in Turkana County with overall nutrition situation improving from a very critical of above 30 percent to critical levels of 18.1 percent. North Horr is Marsabit also improved from a very critical level to critical levels although the prevalence remains high at 23.3 percent. Major improvements were observed in 2012 after 2011 Horn of Africa crisis as seen in 2018 following the crisis of 2017; illustrated using malnutrition trends in Turkana county in figure 3.12. The improvement is mainly attributed to improved food security situation including milk availability in arid counties (Figures 3.13 and 3.14). The biggest challenge remains; sustaining the gains as the counties are still highly vulnerable and prone to shocks despite a lot of effort to build resilience of the most affected communities.



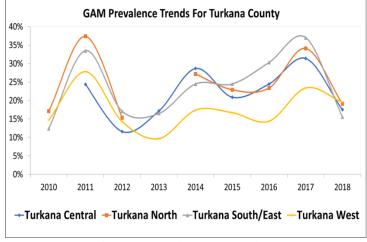


Figure 3.11: Prevalence of acute malnutrition across the cluster Figure 3.12: Trends of Acute Malnutrition, Turkana County

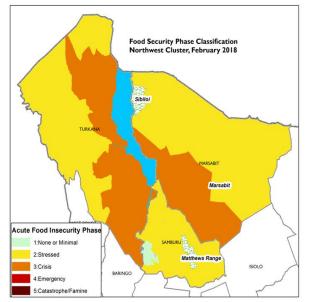


Figure 3.13: Food Security Situation, February 2018

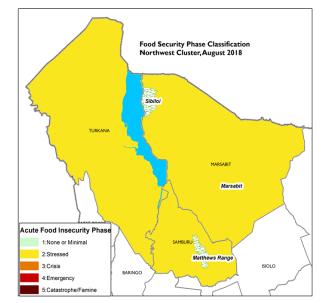


Figure 3.14 Food Security Situation, August 2018

A three-month projection of the nutrition situation from September to November 2018, based on historical data analysis indicates the situation will likely remain the same except for Moyale and Saku in Marsabit where the situation is expected to deteriorate. The contributing factors to the deterioration in Moyale is influx of refugee who have integrated within households thus straining existing resources while high prevalence of disease and crop failure are likely to contribute to the deterioration in Saku.

#### **Dietary intake**

Analysis of foods mostly consumed in the cluster during the analysis period indicated cereals, milk and milk products and pulses were the most consumed foods. There was a noted depressed consumption of the above foods groups in Laisamis sub-county in Marsabit. Household Dietary Diversity (HDDS) across the cluster was varied with households consuming from more than five food groups being 70, 35.5 and 32 percent for Marsabit, Samburu and Turkana counties respectively which was an improvement compared with the same period last year. In Marsabit County, North Horr sub-county registered the lowest proportion of households consuming from more than five food groups at 54.4 percent while Turkana North in Turkana county 18.1 percent of households consuming from the same category. Consumption of vitamin A rich food across the cluster was low except Samburu. Marsabit had the highest proportion of household never consumed Vitamin A rich foods at 78.1 percent while in Turkana was 40.2 percent. Households with acceptable food consumption scores in the cluster were 70.6, 69.8 and 68.1 percent for Marsabit, Turkana and Samburu respectively as shown in figure 3.15.

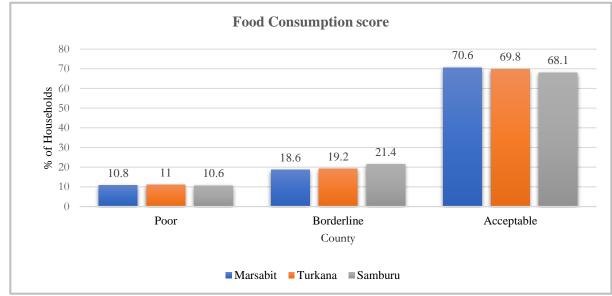


Figure 3.15: Food consumption Scores in the Cluster

#### **Morbidity and Mortality**

Analysis of three disease in the cluster (Acute respiratory infection, diarhoea and malaria) idicate a high prevalence of ARI and Malaria as in figure3. There was malaria upsurge in Turkana and Marsabit counties with a prevalence of 53.9 and 44.1 percent respectively. The prevalence of Accute respiratory infection (ARI) was also high across the cluster with more than 50 percent but notably highier in Marsabit at 64.0 percent. Diarhoea prevalence was at 12 percent in all the counties with Turkana North and Moyale in Marsabit with slightly highier prevalence at 15 and 21.7 percent respectively with improvining situation in all the counties compared with the same previous period last year. Cholera outbreak was recorded in Turkana County in the months of April- July with 126 cases while in Marsabit County, rift valley fever (RVF) outbreak was recorded in Moyale, North Horr and Laisamis subcounties. In addition, Kala azar was reported in Shurr and Laisamis. There were 3 cases of measles reported in Samburu County.

#### Child care practices

Analysis of the care practices for children 6-23 months shows that Minimum Acceptable Diet (MAD) was low across the cluster with Samburu, Marsabit and Turkana having MAD of 25.7 percent, 15.6 percent and 19.5 percent respectively. The Minimum Dietary Diversity (MDD) was 59.6 percent 46.7 percent, and 46.6 percent, while Minimum Meal Frequency (MMF) was 35.9 percent, 48.5 percent and 33 percent in Samburu, Marsabit and Turkana counties respectively. This is an indication that poor MAD still affects nutritional outcomes of children since it remains low across the cluster. Introduction of solid and semi-solid foods is generally poor across the cluster with Marsabit, Samburu and Turkana having 44 percent, 46 percent and 36 percent respectively. This can negatively affect nutrition outcomes due to inadequate dietary intake. Exclusive breastfeeding was common in all counties with above 70 percent prevalence across the cluster.

#### Immunization, Vitamin A supplementation, IFAS coverage and Deworming.

There was general improvement in coverage for immunization and Vitamin A supplementation across the three counties compared to a similar period in 2017. The routine immunization coverage for both polio and measles were above the recommended 80 percent during the period of analysis in all the counties in the cluster. Vitamin A supplementation coverage for children 6 to 59 was above 80 percent in Samburu and Marsabit counties while Turkana was sub-optimal at 65.3 percent. The SMART survey results June/July 2018 indicated immunization coverage was above 80 percent for polio and Measles in all the counties in the cluster. The proportion of children 12- 59 months supplemented with vitamin A at least twice was low in Turkana and Samburu at 33.4 and 28.6 percent respectively while in Marsabit Counties at 36.4 and 26.7 percent respectively while coverage for Marsabit was 72.4 percent. Utilization of IFAS >90 days according to SMART Survey June/July 2018 is significantly low despite adequate supplies in the three counties. According to the IFAS policy in Kenya, IFAS should be taken throughout pregnancy.

#### Water Hygiene and Sanitation (WASH)

The main sources of water for the cluster was surface water and highest in Samburu at 52.4 percent, dug well was highest in Marsabit at (32.7 percent) followed by Turkana at 26.7 percent, piped water was high mainly in Turkana at 24.2 percent, borehole was common in Marsabit and Turkana at 21.8 percent and 20.7 percent, protected and unprotected wells. Queuing time for 30 minutes or less was 45 percent, 42 percent and 35 percent in Turkana, Marsabit and Samburu respectively. Water treatment is generally low across the cluster at 3.5 percent, 20.1 percent and 16.5 percent in Marsabit Turkana and Samburu respectively. Open defecation is still high across the cluster but highest in Turkana and Samburu having levels above 70 percent while Marsabit as 50.1 percent. In Turkana, only 48.9 percent of the population practice proper hand washing, with Marsabit and Samburu having 26 percent. All the above water and sanitation factors, majority of which are poor contribute to high morbidity of diarrheal diseases and more time spent in search of water hence affecting care practices which have a major contribution on malnutrition.

#### Recommendations

Recommendations for Nutrition Situation *Immediate* 

- Active case finding and screening especially in North Horr county: mass screening exercises in hot spots
- Review/update of outreach mapping
- Review surge support mechanisms through existing partnerships to ensure services continue and utilization of early warning information in triggering response
- Establish and strengthen surge support and monitoring at sub-county and cluster level and regular review of the surge board

- Enhance community dialogues as a strategy to promote good practices and strengthening community ownership for community strategy and health systems support
- Scale up and integration of micro nutrient powders program
- Scale up of cooking demonstrations through the BFCI roll out using the mother to mother support groups *Medium to Long term* 
  - Scale up roll out of Baby Friendly Community Initiative
  - Lobby to respective county governments for increased staffing of nutrition staff and other cadres to improve health service delivery
  - Establishing/strengthening and reactivating non-functional CUs across the cluster to enhance community nutrition linkages
  - Lobbying and advocating for use of nutrition insecurity vulnerability in targeting access to social protection safety nets across the cluster
  - Promote household food security through supporting women empowerment by implementing capacity strengthening on entrepreneurship and business skills including scale up of viable business models to increase the ability of women to engage in profitable businesses

#### Recommendations for morbidity and Mortality

Immediate/short-term recommendations

- Strengthen disease surveillance activities to cub the emerging disease outbreaks in the cluster.
- Strengthen high impact nutrition Interventions including scale up of disease interventions to ensure adequate treatment for diarrhoea using ORS and Zinc

Medium to Long-term recommendations

- Improve access to safe water to reduce incidences of WASH related morbidities.
- Ensure availability of health care staff to enhance access to health care services and strengthen routine facility data collection
- Strengthen multi-sectoral linkages for nutrition sensitive programming (health, agriculture, WASH and social protection)
- Develop and implement a Social Behavior Change Communication (SBCC) strategy for WASH and Nutrition.

Recommendations for Immunization and Vitamin A supplementation Immediate/short-term recommendations

- Scale up Vitamin A supplementation interventions for all relevant target groups (awareness, distribution) in Turkana County
- Ensure availability of health care staff to enhance access to health care services and strengthen routine facility data collection.

Medium to Long-term recommendations

- Strengthen and expand BFCI interventions to promote optimal maternal and child care practices Recommendations for Water Sanitation and Hygiene *Immediate/short-term recommendations* 
  - Provision of water treatment chemicals at household level.
  - Hygiene promotion and education: increasing hand-washing facilities, use of latrines and access to safe drinking water.
  - Closely monitor cholera outbreaks and put up preventive measures
  - Conduct regular SMART surveys to assess the nutrition situation, MYCN KAP assessments to determine the nutrition practices in the county and continued integration of WASH assessments to understand the hygiene practices of the county.

Medium to Long term recommendations

• Increase sustainable access to safe water to households.

- Improve sanitation practices through appropriate community level interventions e.g. Community Led Total Sanitation (CLTS).
- Strengthen multi-sectoral linkages for nutrition sensitive programming (health, agriculture, WASH and social protection).
- Develop and implement a Social Behavior Change Communication (SBCC) strategy for WASH and Nutrition.

#### **3.6.2** Pastoral North-East Cluster (Wajir, Mandera, Garissa, Isiolo, Tana River) Nutrition Status and Dietary Diversity

Notable improvement of nutrition situation was reported in the cluster (Figure 3.16) mainly attributed to improved food security situation (Figure 3.17 and 3.18). Wajir North, Wajir East and Garissa recorded GAM prevalence of 10.6, 12.6 and 13.7 percent respectively and classified under the category of IPC phase 3 (serious) while Mandera was classified under IPC phase 4 (critical), with a GAM prevalence of 16.6 percent. Isiolo did not have adequate data to support current analysis, however, based on historical data and food security indicators; it is projected that the area will be in serious phase in the next three months.

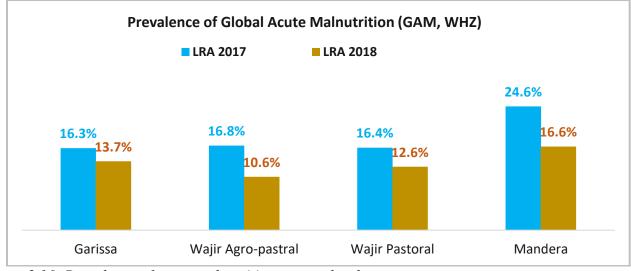


Figure 3.16: Prevalence of acute malnutrition across the cluster

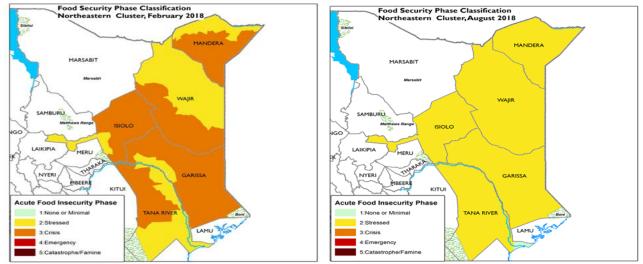


Figure 3.17: Food Security Situation, February 2018 Figure 3.18: Food Security Situation, August 2018

Analysis of MUAC data revealed that percentage of children at risk of malnutrition (MUAC< 135mm) was lower than the long-term average in all Counties apart from Tana River where the situation remained the same (figure 2). Trends in percentage of children at risk of malnutrition gradually decline from March to July 2018 in Tana river, Isiolo, Wajir and Mandera Counties with a slight increase in Mandera in the month of June 2018. Garissa County recorded an upward trend during the analysis period with a drastic decline in the month of July 2018 (Figure 3.19 and 3.20).

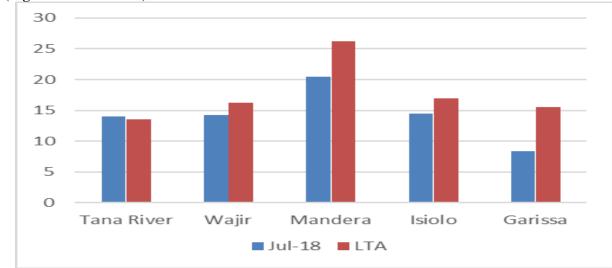


Figure 3.19: Proportion of Children with MUAC <113 mm, July 2018 versus July LTA

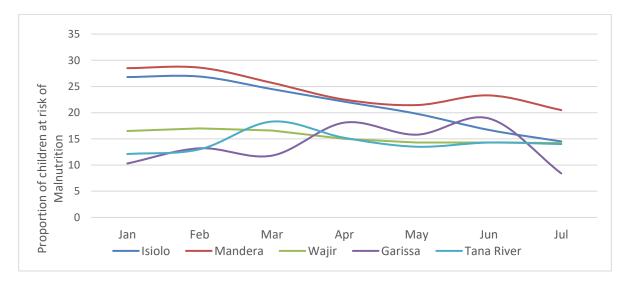


Figure 3.20: Trends of Malnutrition (MUAC<113mm) in PNE cluster, January to July 018

Majority of households in Isiolo, Wajir North, Wajir East and Garissa had acceptable food consumption score (FCS) at 97, 97, 91 and 86 percent respectively while Mandera County recorded the lowest percentage at 65.6 percent. Dietary diversification was poor across the cluster with Mandera County recording the lowest Women dietary diversity score of 2.9 percent. Wajir East, Wajir North and Garissa had only 14, 40 and 20.5 percent respectively of women of reproductive age consuming five or more food groups. Findings from Rapid Infant and Young Child Nutrition-Emergency (IYCF-E) assessment conducted in August 2018 in the IDP Camps in Tana Delta indicated that breastfeeding<sup>1</sup> practices had deteriorated due to stress, insufficient food for mothers, and excess workload associated with long walking distances to water and firewood collection points. Maternal and child illnesses, as well as lack of privacy in the IDP camps also limited mothers from breastfeeding.

<sup>&</sup>lt;sup>1</sup> Qualitative data collected from flood victims camp

#### Morbidity and Mortality Trends

Morbidity trends were higher compared to the same period in 2017 with a drastic increase in Malaria and diarrhea cases in the month of May 2018 across the cluster. This was attributed to above normal rains received during the analysis period that resulted to flooding. While URTI remained stable, diarrhea gradually reduced from May to July 2018 across the cluster. Malaria declined in June 2018 before assuming an upward trend in July 2018 in all counties apart from Garissa. Malaria cases remained relatively low and stable in Garissa County throughout the analysis period. Mandera County was the most affected by disease outbreaks, including measles and dengue fever, due to high influx of refugees from neighboring countries (Ethiopia and Somalia). Measles outbreaks were also reported in Wajir while cases of cholera were confirmed in Tana River and Isiolo Counties. Poor access to safe drinking water and sanitation facilities were the main contributing factors to diarrheal diseases.

#### **Immunization and Vitamin A Supplementation**

Routine immunization for basic vaccines shows that both polio and measles across the cluster were below the national level target of 80 percent apart from Isiolo County where the proportion of children immunized against polio and measles vaccines were 85.5 and 90.25 percent respectively. Garissa and Tana river Counties had a relatively high coverage of measles at 79.1 and 74.9 percent, and high polio vaccination coverage of 77.0 and 72.8 percent respectively. Mandera County had a low coverage of measles and polio vaccination at 68.0 and 59.8 percent respectively while Wajir County recorded the lowest performance in the cluster for both measles and polio at 47.4 and 49.5 percent respectively. Vitamin A supplementation performance was poor across the cluster. According to the routine data, Wajir County recorded the highest proportion of children supplemented with vitamin A at 67.7 percent, followed by Garissa and Tana River at 46.7 and 42.1 percent respectively. The performance in Isiolo and Mandera County was quite low at 27.3 and 22.2 percent respectively. However, according to the survey data, Garissa County recorded the highest proportions at 70.0 percent while Wajir and Mandera County recorded the highest proportions at 70.0 percent while Wajir and Mandera Counties were at 49.5 and 33.0 percent respectively.

#### Water Hygiene and Sanitation

Following the enhanced performance of long rains, water sources were recharged across the cluster. The per capita water consumption was high in Garissa at 39.5 liters with Mandera having the least in the cluster at 16.1 liters though above 15.0 liters per person per day threshold. Distances to the water sources significantly reduced during the analysis period across the cluster. In Garissa County, the proportion of households that accessed water from sources less than 500m was 75.0 percent. There were notable disparities in Wajir County where agro pastoral cluster recorded 67.0 percent of the households which accessed water from sources less than 500m while in pastoral livelihood zone only 23.0 percent accessed water from the same distances. In Mandera County, 63.8 percent of households accessed water from sources.

Cholera outbreaks and water borne disease like diarrhea were recorded in the cluster during the analysis period. The cluster remains vulnerable to such outbreaks in future due to poor WASH indicators. The most affected areas were Tana river and Isiolo Counties recording 389 and 122 cases of Cholera respectively during the reporting period. Tana River County also recorded an upsurge of diarrhea and dysentery during the reporting period.

The proportion of households treating their drinking water is quite low across the cluster with Wajir North (agro pastoral) performing relatively better at 44.0 percent while Garissa reported the lowest proportion at 11.6 percent. In terms of handwashing practices, while most households have been sensitized and are aware of the handwashing practices, the practice is quite low. Mandera County recorded the highest number at 39.7 percent while Tana River reported the highest proportion at 9.5 percent. Open defecation remains high across the cluster with Tana River County recording the highest population practicing open defecation at 56.9 percent, followed by Wajir County pastoral and agro pastoral livelihood zones at 46.3 and 40.3 percent respectively. In Garissa, Mandera and Isiolo Counties, the proportion of the households practicing open defecation are 31.0, 32.14 and 22.4 percent respectively.

#### **Recommendations for the Cluster**

- Integrated outreaches, as well as mass screening and referrals and linking acutely malnourished children and women to existing social safety net programs to enhance accessibility to health and nutrition services.
- Enhancing micronutrient activities such as vitamin A supplementation, iron and folic acid supplementation and deworming
- To enhance disease surveillance and vaccination against communicable diseases such as measles and polio
- Improving water treatment at household level and heightening surveillance for waterborne diseases such as cholera and diarrhea by providing the communities with water treatment chemicals, sensitization of handwashing practices etc.
- Upscaling health promotion activities to improve latrine coverage e.g. Community Led Total Sanitation(CLTS)
- Investment in health care systems such as construction of health facilities and employment of more health care staff e.g. doctors, nurses and nutritionists
- Investing in nutrition sensitive agriculture taking into consideration drought resistant crop varieties
- Investment in infrastructure such as markets and road networks to boost food accessibility and training the communities livelihood diversification
- Promoting use of locally available nutrient dense foods and nutrition education on maternal, infant and young child nutrition
- Improved water harvesting during rainy season, improving access to ground water and promoting knowledge on water purification
- Integrate nutrition interventions into development strategies across all sectors by strengthening multisector coordination forums in the counties.
- Continued peace building efforts by county to improve security and sustain livelihoods.

#### 3.6.3: Agro-Pastoral Cluster (West Pokot, Narok, Kajiado, East Pokot, Kieni (Nyeri North), Laikipia) Nutrition Status and Dietary Diversity

Improvement of nutrition situation was also reported in the cluster mainly attributed to improved food security situation (Figure 3.21 and 3.22). According to SMART surveys, West Pokot improved from critical nutrition levels of 20.4 percent (16.5 - 24.9.95 percent Confidence Interval) in July 2017 to Serious of 11.0 percent (8.9 - 13.5.95 percent Confidence Interval) in June 2018, while Baringo (Tiaty) there was improvement within the same phase (critical level) from 25.2 percent (19.7 - 31.7.95 percent Confidence Interval) in 2017 to 16.8 percent (13.9 - 20.2.95 percent Confidence Interval). The nutrition situation in Baringo North and Marigat sub counties was at poor levels of 7.8 percent (5.2 - 11.5.95 percent Confidence Interval). On the other hand, based on MUAC from sentinel sites was in phase 1 (acceptable) at 0.5 percent, 0.0 percent, in Narok, Kajiado, and Nyeri North respectively. Sentinel data showed the proportion of children under five years at risk of malnutrition, based on mid upper arm circumference (MUAC) of < 135 mm was at seven percent and 1.8 percent in Narok and Laikipia Counties respectively. The same scenario observed in the high vulnerable counties such as Turkana is also observed in West Pokot and East Pokot (Figure 3.23) where the situation dramatically improves during non-drought years and rapidly deteriorates during drought years.

The nutrition dietary diversity in Kajiado County is good in Loitoktok, Kajiado Central, East and North sub counties with FCS Score of above 96.7 percent for acceptable and borderline at 3.3 percent. Most households are consuming an average of one to two meals in a day for adults and more than three meals for children under the age of five in East Pokot. Dietary diversity score based on 24-hour recall reported majority (60.1 percent) of the HH consumed 3-5 food groups in West Pokot County.

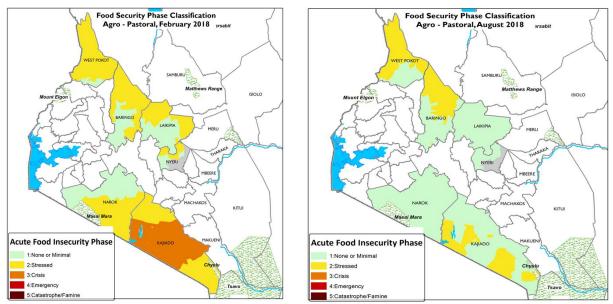


Figure 3.21: Food Security Situation, February 2018 Figure 3.22: Food Security Situation, August 2018

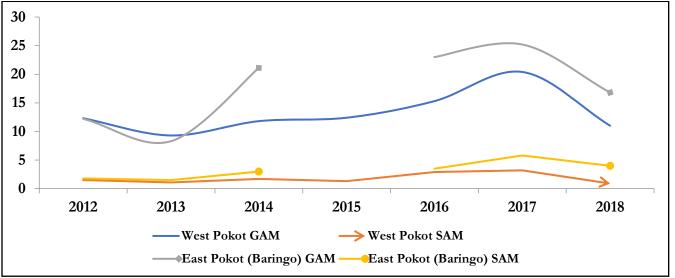


Figure 3.23: GAM Prevalence Trends for East Pokot and West Pokot

#### Morbidity and Mortality trends

Kajiado County recorded the highest cases which were high in the month of May 2018. Across the cluster the trends showed an upsurge in the months of March, May and July. Baringo and Kieni recorded the lowest cases of URTI in the year 2018. Diarrhea case were recorded across the cluster where kajiado had the highest followed by West Pokot. Baringo and Nyeri recorded the lowest cases. Across the cluster, diarrhea cases went down from the month of January to April. An upsurge was show in the month of May but decreased in the month of June. Within the cluster west Pokot had the highest number of cases for malaria. Nyeri and Kajiado had the lowest cases throughout the year 2018.

#### Vitamin A supplementation and Immunization

Vitamin A supplementation for children 6-59 months improved in the 1<sup>st</sup> semester (January – June) 2018 for all agro-pastoral counties compared to the previous semester July to December in 2017 (Figure 3.24). Based on Health Information System routine data for semester one 2018, Vitamin A coverage in most counties the counties

was below the national target of 80 percent. Narok and West Pokot counties performed dismally in Vitamin A supplementation for both age cohorts. While poor vitamin A coverage was conspicuously noted for children aged between 12 -59 months. Laikipia County performed notable well above the national target in supplementation of 6-59 months with coverage of 93.8 percent for semester one 2018. Poor documentation in all the counties was highlighted as a major challenge to Vitamin A coverage.

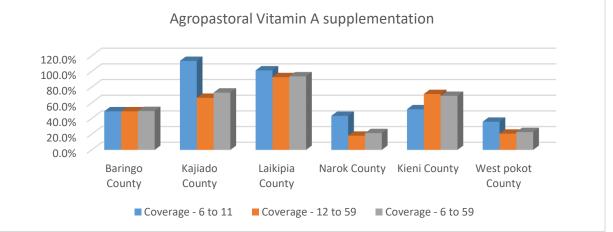


Figure 3.24: Vitamin A supplementation in the agro-pastoral cluster

Immunization for children in the agro pastoral zone improved considerably compared to similar season in 2017. However most counties in the zone with exception of Kajiado and Laikipia Counties did not meet the national target of 80 percent immunization coverage (Figure 3.25). Based on routine data from the Health Information System for the season. Immunization coverage in West Pokot County was relatively low for measles and Polio at 59.52 percent at 56.41 percent respectively. Proportion of children fully immunized in counties ranged between 48.5 percent in West Pokot to 104.8 percent in Kajiado. Kajiado County was one of the target twelve counties facilitated to conduct a polio campaign by the ministry of health following reported active measles cases in Nairobi County.

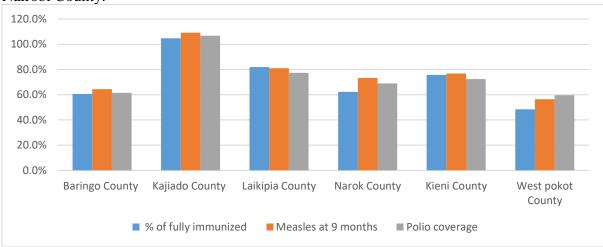


Figure 3.25: Immunization coverage in the Agro-pastoral cluster

#### Water Hygiene and Sanitation

Latrine coverage ranged between 6.6 – 97.68 percent across the cluster. Kieni Sub County was at 97.68 percent, Laikipia County 72.3 percent. Narok County 52.4 percent. West Pokot 48.8 percent, Kajiado County 41.8 percent and Baringo 6.6 percent. Access to safe drinking water was also high in Kieni at 82.7 percent of the households. Other counties registered low access with Laikipia at 50.6 percent, Baringo 33.7 percent and West Pokot at 22.8

percent. Washing hands four critical times was high in Kieni at 70 percent. Other counties had low proportion who washed hand four times where Baringo 23.1 percent and Laikipia 1.9 percent.

Different methods were used to treat water across the counties. Water treatment in Kieni using chemicals at household level is 40 percent with a small number of households using boiling method, in Laikipia treatment of water by boiling was carried out by only 22.3 percent of households, with 2.8 using water treatment chemicals and the remainder traditional herbs and pot filters. In West Pokot, the proportion of households treating water before drinking was low at 9 percent in 2018.

#### **Recommendations for the Cluster**

Immediate/short-term response

- Reinforce early detection of acute malnutrition through active case finding
- Improve hygiene and sanitation of the vulnerable community
- Sustain implementation of High Impact Nutrition Intervention at both health facility and outreach sites
- Strengthen weekly surveillance and reporting of the Nutrition and Health situation both at the sub county and county level
- Capacity build health workers and community health volunteers on MIYCN and MIYCN in emergency
- Provide nutrition education to promote dietary diversity
- Scaling up vitamin A among children under five and IFAS supplementation among women of reproductive age.
- Plans should be put in place for social safety net programmes and buffer stocks in response to any possible food insecurity issues
- The ongoing peace building initiatives should be strengthened in order to promote co-existence with the neighbouring communities who are expected to enter into the county for search of water and pasture.

#### Medium to Long term response

- More programs and project should be initiated by the county government targeting especially youths and women to address the high levels of poverty in the county
- Invest in community health units
- Improve the monitoring and evaluation of health services through capacity building
- Improve infrastructure including opening of more road network
- Enhance food and nutrition multi stakeholder collaboration to address the harmful cultural practices which affect overall health and nutritional status
- A county representative SMART Survey should be conducted in order to understand the magnitude of malnutrition in Kieni as there is no representative current data available on nutrition
- Increase the number of IMAM implementing facilities to fill the gap of service accessibility
- Promoting and supporting the establishment of more water points for animals and human consumption
- Increase active case finding, defaulter tracing and improve referral system at all levels
- Promote social behaviour change on MIYCN through advocacy, communication and social mobilization strategy
- Continue scaling-Up WASH activities to avert any possible deterioration in the future -There is need to scale-up micronutrients supplementation across the counties with low micronutrients supplementation coverage

#### **3.6.4** South Eastern Marginal Cluster (Meru North, Tharaka Nithi, Embu- Mbeere, Kitui and Makueni) Nutritional Status and Dietary Diversity

The current IPC acute malnutrition classification for Makueni County is IPC Phase one (acceptable levels). Analysis of the other four areas (Mbeere, Meru North, Kitui and Tharaka) for current IPC for acute malnutrition was not possible due to lack of current nutrition outcome data (GAM). Nutrition situation is expected to remain

stable across the cluster based on contributing factors linked to acute malnutrition. The nutritional status of underfive based on MUAC at risk (<135mm) as at July, 2018 was as follows; Meru North (16.0 percent), Mbeere (6.5 percent), Kitui (6.6 percent), Makueni (9.4 percent) and Tharaka (9.6 percent) respectively (Figure 3.26). The MUAC <135mm was below LTA (2013-2017) across the cluster except for Makueni and Mbeere. Further analysis of GAM prevalence for Makueni County based on MUAC cutoff of (<125mm) was 0.4 percent in the 4 sentinel sites.

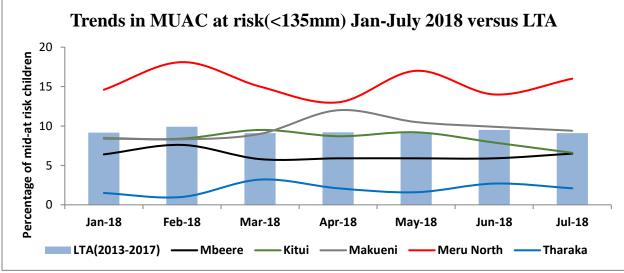


Figure 3.26: Trends in MUAC at risk(<135mm) Jan-July 2018 versus LTA

There was no data on dietary diversity across the cluster; however, it is expected that the harvesting season of rain-fed crops in Marginal Mixed Farming (MMF) and Mixed Farming (MF) Livelihood Zones will sustain households throughout the lean season with exception of localized zones of MMF. Availability of pasture and browse as result of good performance of long rains is likely to influence milk availability at household level. The Food Consumption Score (FCS) acceptable and borderline levels across the clusters was as follows; Makueni (77.5 percent and 22.5 percent respectively), Meru North (63.7 percent and 27.7 percent respectively), Mbeere (84.8 percent and 28.3 percent respectively), Tharaka (93.3 percent and 6.7 percent respectively) and Kitui (88.6 percent and 11.0 percent respectively). In general, the meal frequency across the cluster was 2-3 meals per day.

#### Morbidity and Mortality patterns

Trend analysis based on routine DHIS data revealed highest peak in URTI cases in the month of May to June 2018 across the cluster. These could be associated with seasonality as attributed to cold and wet conditions notable at the peak of long rain season. Across the cluster, malaria and watery diarrhea remained stable within the period (January-July 2018). No disease outbreaks were reported except for Meru North (Igembe South & North) and Kitui (Kitui West) where suspected cases of measles were reported in the month of June-July 2018.

#### Immunization and Vitamin A supplementation

The percentage of children fully immunized as at July, 2018 was as follows; Makueni (85.9 percent), Kitui (82.6 percent), Mbeere (80.2 percent), Tharaka (69.9 percent) and Meru North (67.1 percent) respectively. The OPV 3 was as follows; Makueni (77.0 percent), Kitui (81.9 percent), Mbeere (80.1 percent), Tharaka (77.3 percent) and Meru North (78.7 percent) respectively. The coverage of measles immunization among children above 9 months was as follows; Makueni (86.4 percent), Kitui (91.4 percent), Mbeere (81.5 percent), Tharaka (73.6 percent) and Meru North (81.2 percent) respectively. The coverage of polio and measles was above 80 percent national target with exception of Tharaka and Meru North. The percentage of vitamin A supplementation among children aged (6-59 months) was as follows; Makueni (91.7 percent), Kitui (142.0 percent), Mbeere (53.9 percent), Tharaka (50.5 percent) and Meru North (40.3 percent) respectively. The coverage of vitamin A supplementation across the cluster was above 80 percent national target with exception of Tharaka.

#### Water, Hygiene and Sanitation

The proportion of household accessing safe/improved water for drinking was as follows; Makueni (42.7 percent), Kitui (40.0 percent), Mbeere (62.5 percent), Tharaka (52.5 percent) and Meru North (68.2 percent) respectively (Figure 3.27). The percentage of households accessing safe water as well was above 50 percent minimum thresholds for SPHERE standards with exception of Kitui. The sanitation (latrine) coverage was as follows; Makueni (82.0 percent), Kitui (97.8 percent), Mbeere (89.1 percent), Tharaka (67.0 percent) and Meru North (93.4 percent) respectively. Households treating water before consumption was as follows; Kitui (19.4 percent) and Meru North (45.0 percent); the remaining counties did not have data on water treatment. There was no updated data on hygienic practices across the cluster with exception of Kitui where hand washing practices at 4 critical times was at 18.9 percent.

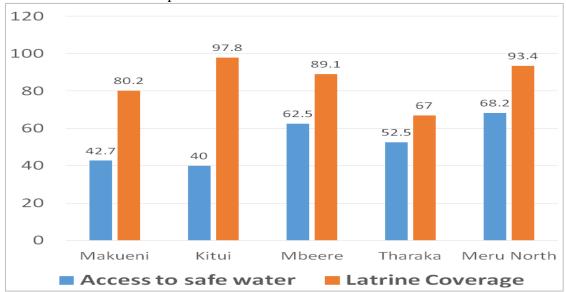


Figure 3.27: Access to safe water and latrine coverage in SEMA cluster

#### **Recommendations for the cluster**

#### Short-term recommendations

- Continue with IMAM program improvement at facility and community-based levels; routine screening, referral and follow-up. Initiate IMAM program in Tharaka.
- Strengthen disease surveillance, treatment and management at health facility and community level through disease surveillance, IMCI, Nutrition and EPI services. Integrated EPI services following reportedly measles outbreak in the neighboring counties.
- Scale up of micronutrient supplementation of vitamin A among under-fives, iron-folate supplementation among pregnant mothers and Zinc supplementation among diarrhoea cases at facility levels.
- > Deworming for children above one year targeting health facility and ECDE centres.
- Provision of water treatment chemicals at household levels as well as promoting BCC for adoption of treating drinking water at community levels.
- > General food distribution to affected households residing in flooded zones of Kiambere and Muminji.

#### Medium to longer-term recommendations

- Promote MIYCN activities to include baby friendly hospital and community initiatives, counseling of mothers during PNC visits and community level initiatives with regards to diversified diets and demonstrations.
- Conduct periodic nutrition surveys (KABP, SMART and Coverage) to provide information and monitor nutrition situation across the cluster.

- Establish community outreach programs in areas far from the health service delivery.
- > Development of complementary feeding recipes that are context specific.
- Promote consumption of diversified diets.
- Promote appropriate hygiene practices at the community level,
- Scale up Community Led Total Sanitation (CLTS).
- > Strengthen multi-sectoral integration and partnership for nutrition resilience.

# 3.6.5 Coastal Marginal Cluster (Kwale, Kilifi, Lamu and Taita Taveta Counties)

#### Nutrition Status and Dietary Diversity

The nutrition situation according to Acute Malnutrition IPC analysis across the cluster counties was acceptable (Phase 1). Kwale, Taita Taveta and Kilifi were classified using GAM by MUAC from sentinel data as 1.8 percent, 0.2 percent and 0.2 percent respectively as shown in Figure 1. Lamu did not have sufficient data for analysis from sentinel sites. The recent EWS sentinel site data shows that the proportion of children under five at risk of malnutrition with Mid Upper Arm Circumference below 135mm decreased to 5.2 percent compared to previous month of June at 5.4 percent in Lamu, Kwale from 8.3 percent to 7.3 percent, Kilifi county 5.6 percent and Taita Taveta had children at risk of 1.9 percent below the long-term average of 32 percent (2015-2017).

Dietary diversity situation for the region shows that in Kwale, 45.2 percent of women of reproductive age consumed food less than 5 food groups and only 30.5 percent of children aged 6-23 months received a minimum acceptable diet Minimum Acceptable Diet (KABP, 2018). The food consumption score has been on the improving trend as from April to July 2018, at an average of 41.8 percent. In Kilifi County minimum dietary diversity was 35.5 percent, minimum meal frequency was 65.5 percent, minimum acceptable diet was lowest at 25.1 percent and minimum dietary diversity for women was 26.1 percent. In Taita Taveta County the proportion of households with acceptable food consumption score was 53.9 percent.

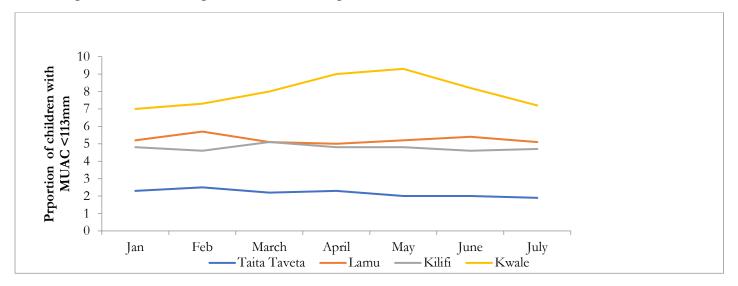


Figure 1: Trends of children at risk of malnutrition January-July 2018, Coastal counties

#### Immunization and Vitamin A supplementation, morbidity and mortality

Vitamin A Supplementation for children 6-59 months across the coastal cluster improved compared to the same season in 2017 however remaining below the national target of 80 percent. A coverage performance of Kwale, Kilifi, Lamu and Taita Taveta Counties was 62.4 percent, 66.0 percent, 33.6 percent and 59.1 percent respectively. The Fully Immunized Coverage, (proportion of children less than one year who are fully immunized), was also below the national target for all the counties where Kwale, Kilifi, Lamu and Taita Taveta Counties recorded 86.2 percent, 76.3 percent, 83.4 percent and 74.1 percent respectively. Fully Immunized Coverage this year increased

compared to same period in 2017. The improved coverages of VAS and immunization within the cluster is attributed to the Malezi Bora, rapid result initiatives and improved documentation of the interventions. There was no disease outbreaks reported in the cluster during the assessment period. However, there is need to monitor dengue outbreak and *chikungunya* infestation reported in the neighboring Mombasa County.

#### Water Sanitation and Hygiene

The major water sources for domestic use in the County are rivers, dams, boreholes, springs and piped water in kiosks. Most of Kwale Sub County residence rely on pans and dams most of which are currently 70 percent replenished (refilled) and expected to last for 3-4 months. In Lamu and Kwale, water sources for livestock improved, recharge of existing water source was above capacity (higher than usual). Improvement in water availability has resulted in reduced trekking distance to water point, except in Pastoral livelihood zone. In Kilifi County, there was no serious water shortage reported. However, the cost of water was relatively higher than normal in most of the livelihood ranging between KES 2 and KES 10 for a 20-liter jerrycan across the Coastal Cluster. The average return distance to water sources for households during the month of January 2018 was recorded at less than 4km across the county. This was due to significant rainfall amount received, which led to increase in water levels. In Lamu County the proportion of households that used water from protected sources was at 83 percent. Twenty one percent of households treated their water, while 18.0 percent practiced hand washing at all critical times. Overall, latrine coverage in the County stood at 82.3 percent in Lamu, 60.8 percent in Kwale, 92.3 percent in Taita Taveta and Kilifi recorded the lowest at 50.8 percent.

Ongoing Interventions for Kwale County

- Routine high impact nutrition interventions services including IMAM, MIYCN vitamin A supplementation, iron and folic acid supplementation to pregnant women at the health facilities and deworming
- Improvement of nutrition resilience through income generating activities and Kitchen gardening
- Excavation of dam and expansion of the Kwa-Diki water pan in Kinango sub-county with support from European Union through NDMA

• Cash transfer supported by Kenya Red Cross and County government, Department of Social Development Ongoing Interventions for Kilifi County

- Routine high impact nutrition interventions services including IMAM, MIYCN vitamin A supplementation, iron and folic acid supplementation to pregnant women at the health facilities and deworming
- Cash transfer supported by Kenya Red Cross, WFP and the County Government
- De-worming of children 1-5yrs
- Health Education
- Community dialogues
- Routine Immunization

Ongoing Interventions for Lamu County

- Vitamin A supplementation by MoH.
- IMAM program by MoH/NHP/USAID/RedCross.
- MIYCN intervention by MoH.

Ongoing Interventions for Taita Taveta County

- Routine high impact nutrition interventions services including IMAM, MIYCN/BFCI vitamin A supplementation, iron and folic acid supplementation to pregnant women at the health facilities and deworming
- Capacity building of healthcare workers
- Health and nutrition surveillance and DQAs
- Improvement of nutrition resilience through IGAs and Kitchen gardening

- Provision of traditional high value crops seeds
- CFA program was ongoing marking the onset of lean months Multi Sectoral
- Mainstreaming EDE to CIDP II plus integrated planning through public participation

# **Recommended interventions for Kwale**

#### Immediate/short-term recommendations

- Conduct integrated outreaches to improve immunization coverage
- Maintain the current nutrition IMAM intervention
- Conduct community dialogue targeting men, women and youths
- Enhance health and nutrition surveillance
- Provide MNPs at the facilities
- Strengthen malnutrition screening and active case search as well as strengthen integrated management of acute malnutrition
- Sustainable management of water practices e.g. rain water harvesting.
- Increase human resource for health
- Strengthen community linkages

Medium to Long-term recommendations

- Public health education, promotion of hygiene and sanitation
- Promotion of hygiene and sanitation through strengthening of community led total sanitation
- Diversify the employment opportunities
- Conduct periodic coverage and smart surveys
- Train CHVs and CHEWS on community nutrition module.

#### **Recommended interventions for Kilifi**

#### Short term:

- Carry out integrated mass screening and integrated mass screening and integrated outreaches in the identified hot spot
- Conduct Biannual integrated SMART survey
- Scale up HiNi intervention in all the Counties
- Train health workers on CLTS
- Procure and distribute water treatment chemicals
- Scale up sensitization to the CHVs on community screening and referral of malnourished children
- Strengthen and scale up SFP and OTP programs for treatment of acute malnutrition
- Procurement and prepositioning of RUTF and RUSF

#### Medium and Long Term Interventions:

- Establishment of more IMAM treatment sites in the county
- Strengthen multi-sectoral coordination which will include health, agriculture, education and other sector to address nutrition issues

#### **Recommended interventions for Lamu**

#### Short term

- Strengthen malnutrition screening and active case search as well as strengthen integrated management of acute malnutrition in the community.
- Enhance disease and nutrition surveillance and reporting.
- Scale up IMAM sites
- Scale up HiNi activities including Vitamin A supplementation.

#### Medium and long term

- Support to schools feeding programs for the most vulnerable communities focusing on the most vulnerable areas in the county to minimize school drop outs.
- Provide Food for fees for students hailing from Vulnerable and poor families

Survey Area	Survey date	GAM WHZ CHILDREN 6 TO 59 MONTHS (%, 95% CI)	SAM WHZ CHILDREN 6 TO 59 MONTHS (%, 95% CI)	GAM MUAC CHILDREN 6 TO 59 MONTHS (%, 95% CI)	SAM MUAC CHILDREN 6 TO 59 MONTHS (%, 95% CI)	PLW (%)	Plausibili ty Score
Turkana Central	rkana Central Jun-18 17.5 (14.1-21.5) 4.		4.7 (3.1-7.0)	3.9 (2.5 - 6.1)	1.1 (0.5-2.4)	6.3	7%
Turkana North	Jun-18	15.9 (12.1-20.6)	3.3 (2.0-5.4)	5.2 (2.6-8.7)	0.3 (0.1-1.4)	9.2	3%
Turkana South	Jun-18	19.5 (15.8-23.8)	2.7 (1.6-4.4)	4.7 (3.2-6.8)	0.7 (0.2-1.8)	4.8	7%
Turkana West	Jun-18	19.1 (15.3-23.7)	5.5 (3.8-8.1)	8.0 (6.1-10.4)	1.2 (0.5-2.5)	6.1	13%
Marsabit - Laisamis	Jul-18	13.2 (9.2-18.6)	2.4 (1.0- 5.4)	2.8 (1.5- 5.4)	0.5 (0.1- 2.2)	15.3	4%
Marsabit North Horr	Jul-18	23.5 (19.2-28.3	3.5 (2.2- 5.5)	4.6 (2.9- 7.2)	0.6 (0.1-2.3)	13.4	1%
Marsabit - Moyale	Jul-18	7.8 (4.7-12.5)	1.0 (0.4- 2.6)	3.0% (1.5- 5.7)	0.7 (0.2- 2.3)	5.3	5%
Marsabit - Saku	Jul-18	5.7 (3.5- 9.1)	0.3 (0.0- 2.1)	2.0% (1.0- 3.7)	0.6 (0.1-2.2)	6.9	5%
Wajir pastoral	Jul-18	12.6 (10.2 - 15.5)	1.8 (1.1 - 3.0)	4.5 (2.6 - 7.7)	1.5 (0.6 - 3.4)	5	6%
Wajir agropastoral	Jul-18	10.6 (7.9 - 14.1)	1.8 (1.0 - 3.4)	2.7 (1.6 - 4.3)	0.7 (0.3 - 1.7)	1.3	9%
Baringo (East Pokot)	Jul-18	16.8 (13.9 - 20.2)	4.0 (2.8 - 5.9)	3.4 (2.0 - 5.7)	0.9 (0.4 - 2.0)	6.3	2%
Baringo(North & Marigat)	Jul-18	7.8 (5.2 - 11.5)	0.2 (0.0 - 1.4)	2.6 (1.5 - 4.3)	0.3 (0.1 - 1.4)	1.9	5%
Samburu	Jul-18	15.7 (12.4 - 19.8)	4.1 (2.6 - 6.5)	4.7 (2.9 - 7.5)	1.2 (0.5 -2.8)	10.2	7%
West Pokot	Jun-18	11.0 (8.9 - 13.5)	0.9 (0.4 - 2.0)	4.0 (2.5 - 6.3)	0.5 (0.2 - 1.41.)	2	7%
Garissa	Jun-18	13.7 (11.1 - 16.8)	2.1 (1.3 - 3.2)	4.0 (2.6 - 6.2)	0.3 (0.1 - 1.0)	2.1	0%
Mandera	Jul-18	16.6 (13.3-20.4)	2.8 (1.6-4.7)	7.7 (5.5 - 10.7)	1.9 (1.0 - 3.6)	6	6%

# Annex 1: Prevalence of Acute Malnutrition (GAM by WHZ)

County	Global Malnutrit 6 to 59 m		Malnu	Acute trition, o 59 Months	Malnutrit	erate Acute ion, Children 6 i9 Months	GAM		
	Total Caseload	Target	Total caseload	Target	Total caseload	Target	Total caseload	Target	
Baringo	20,175	10,780	2,771	2,078	17,404	8,702	859	859	
Embu	2,214	1,207	148	111	2,067	1,033	162	162	
Garissa	35,954	19,355	5,511	4,133	30,443	15,221	1,026	1,026	
Isiolo	9,296	5,086	1,751	1,314	7,544	3,772	713	713	
Kajiado	23,373	12,247	2,241	1,681	21,132	10,566	3,702	3,702	
Kilifi	18,333	9,305	556	417	17,777	8,889	1,651	1,651	
Kitui	12,138	6,302	934	700	11,204	5,602	566	566	
Kwale	11,118	5,643	337	253	10,781	5,391	954	954	
Laikipia	14,892	7,912	1,862	1,396	13,031	6,515	1,503	1,503	
Lamu	2,181	1,193	409	307	1,772	886	152	152	
Machakos	1,313	682	101	76	1,212	606	80	80	
Makueni	10,263	5,329	789	592	9,474	4,737	515	515	
Mandera	69,511	37,687	11,725	8,794	57,786	28,893	4,846	4,846	
Marsabit	16,971	9,101	2,463	1,847	14,508	7,254	2,099	2,099	
Meru	10,047	5,573	2,198	1,648	7,849	3,924	909	909	
Narok	23,251	12,110	1,938	1,453	21,313	10,657	474	474	
Nyeri	1,389	6,534	99	74	1,289	645	112	112	
Samburu	19,203	10,855	5,015	3,761	14,189	7,094	1,585	1,585	
Taita Taveta	3,604	1,829	109	82	3,495	1,747	405	405	
Tana River	16,149	8,492	1,671	1,253	14,479	7,239	819	819	
Tharaka Nithi	1,570	871	343	258	1,226	613	134	134	
Turkana	51,850	28,927	12,006	9,004	39,844	19,922	3,237	3,237	
Wajir	33,659	18,032	4,808	3,606	28,850	14,425	1,127	1,127	
West Pokot	31,009	16,139	2,537	1,903	28,472	14,236	762	762	
ASAL	439,463	241,190	62,321	46,741	377,142	188,571	28,392	28,392	
Kisumu	6,387	3,821	2,509	1,882	3,878	1,939	552	552	
Mombasa	10,304	6,317	4,659	3,494	5,645	2,822	688	688	
Nairobi	54,438	31,123	15,616	11,712	38,822	19,411	1,722	1,722	
Urban	71,130	41,261	22,784	17,088	48,346	24,173	2,962	2,962	
GRAND TOTAL	510,593	282,450	85,105	63,829	425,488	212,744	31,354	31,354	

# Annex 2: Estimated Caseloads - MAM and SAM

# Annex 3: Summary of Contributing Factors by Cluster

Pastoral North East Cluster (Tana River, Garissa, Wajir, Mandera and Isiolo Counties)

2.0.         Main         Dista         Onta         CREDOR         VALUE         CREDOR         VALUE         VALUE <th< th=""><th></th><th>NTRIBUTING FACTORS BY AREA</th><th>MANDER A</th><th>WAJIR East</th><th>WAJIR NORTH</th><th>TANA RIVER</th><th>GARIS SA</th><th>ISIOL O</th></th<>		NTRIBUTING FACTORS BY AREA	MANDER A	WAJIR East	WAJIR NORTH	TANA RIVER	GARIS SA	ISIOL O
Image: sector of the se	contributing factor 3.0.	contributing contributing factor factor		(PASTOR AL)	PASTORA			
Image in the set of the	Inadequate dietary intake	Minimum Dietary Diversity (MDD)						
Inimit propersy - Wome         Initial sector         Initial sector         Initial sector         Initial sector           Denses         Denses         Denses         Initial sector         Init		Minimum Meal Frequency (MMF)						
IMD.W IORIORIORIORIORIORIORIORDeriveJarkicIORIORIORIORIORIORIORIORJoparityIORIORIORIORIORIORIORIORIORIORIndrioIOR <td< td=""><td></td><td>Minimum Acceptable Diet (MAD)</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>		Minimum Acceptable Diet (MAD)						
DasksDarkbeaImageImageImageImageImageDescriptionImage </td <td></td> <td>(MDD-W)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		(MDD-W)						
Image         Image <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>								
Maria         Maria <th< td=""><td>Diseases</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	Diseases							
IUVADS predace         Impact of the second of the sec		· · ·						
Accession         Accession <t< td=""><td></td><td>Malaria</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>		Malaria						
Indequate access for of the IPC for Acter Food Incentive analysis         IC         IC <thi< td=""><td></td><td>HIV/AIDS prevalence</td><td></td><td></td><td></td><td></td><td></td><td></td></thi<>		HIV/AIDS prevalence						
Image Mark Image 		Acute Respiratory Infection						
Inadequate access tor for Inacequate access tor for Inadequate access tor for Inadequate access tor for hall Inadequate access tor for hall Introduction of solid, semi-solid or sofit Indo Introduction of solid, semi-solid or sofit Introduction of hall Introduction of hall Introduction of hall Introduction of hall Introduction of hall Introduction I		Disease outbreak						
Insecurity analysis         Image and the section of soluting and the source of soluting at 1 year         Image and the soluting at 1 year <t< td=""><td></td><td>Others</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>		Others						
Image: section of the sectio	Inadequate access to food	Insecurity analysis						
Image: sector of the	Inadequate care for children	Exclusive breastfeeding under 6 months						
Introduction of solid, semi-solid or soff foods         Introduction of solid, semi-solid or soff foods         Interface         Int		Continued breastfeeding at 1 year						
Insufficient health services         Measles vacination         Image         Image <td></td> <td>Continued breastfeeding at 2 years</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		Continued breastfeeding at 2 years						
Insufficient health service         Meales vacination         Image: Meal		foods						
Number         Image: Note of the section of the								
Polo vaccination         Polo vaccination         Polo vaccination         Polo vaccination           Vitamin A supplementation         Image: Polo vaccination         Image: Polo vaccinati								
Skiled birth attendance     Image: Skile	,							
Health seeking behaviour       Image: Coverage of outreach programmes - CMAM programmes - CMAM programme coverage (SAM, MAM, or both)       Image: Coverage of outreach programmes - CMAM programme coverage (SAM, MAM, or both)       Image: Coverage of outreach programmes - CMAM programme coverage (SAM, MAM, or both)       Image: Coverage of outreach programmes - CMAM programme coverage (SAM, MAM, or both)       Image: Coverage of outreach programmes - CMAM programme coverage (SAM, MAM, or both)       Image: Coverage of outreach programmes - CMAM programme coverage (SAM, MAM, or both)       Image: Coverage of outreach programmes - CMAM programme coverage (SAM, MAM, or both)       Image: Coverage of outreach programmes - CMAM programme coverage (SAM, MAM, or both)       Image: Coverage of outreach programmes - CMAM programme coverage (SAM, MAM, or both)       Image: Coverage of outreach programmes - CMAM programme coverage (SAM, MAM, or both)       Image: Coverage of outreach programmes - CMAM programme coverage (SAM, MAM, or both)       Image: Coverage of outreach programmes - CMAM programme coverage of outreach programme coverage outper coverage of outreach programme coverage outper		Vitamin A supplementation						
Image: Constraint of outreach programmes - CMAM programme coverage (SAM, MAM, or boh)       Image: Constraint on the constraint of the		Skilled birth attendance						
CMAM programme coverage (SAM, MAM, or both)Image: Section of a sufficient quantity of waterImage: Section of a sufficient quantity of gaterImage: Section of a sufficient quant		Health seeking behaviour						
Access to a sufficient quantity of waterImage: Constraint of a constr		CMAM programme coverage (SAM, MAM,						
Access to a source of safe drinking water       Image: Constraint of the source of the s								
Image: constraint of the second sec		Access to sanitation facilities						
Basic causes     Human capital     Image: Capital </td <td></td> <td>Access to a source of safe drinking water</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		Access to a source of safe drinking water						
Physical capitalImage: Constraint of the second		Others						
Financial capitalImage: Second capital <td>Basic causes</td> <td>Human capital</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Basic causes	Human capital						
Natural capitalImage: Constraint of the c		Physical capital						
Social capital     Image: Constitutions and Processes       Policies, Institutions and Processes     Image: Constitutions and Processes		Financial capital						
Policies, Institutions and Processes		Natural capital						
		Social capital						
Usual/Normal Shocks		Policies, Institutions and Processes						
		Usual/Normal Shocks						

	Recurrent Crises due to Unusual Shocks			
	Other basic causes			
Other nutrition issues	Anaemia among children 6-59 months			
	Anaemia among pregnant women			
	Anaemia among non-pregnant women			
	Vitamin A deficiency among children 6-59 months			
	Low birth weight			
	Fertility rate			
	Others			

#### Pastoral North West (Marsabit, Turkana and Samburu Counties)

SUMMARY CONTRIBUT	TING FACTORS BY AREA	LAISAM IS	MOYALE	NORT H	SAKU	SAMBUR U	TURKANA CENTRAL	TURKA NA	TUR KAN	TURKAN A WEST
contributin co	inor Not a ntributin factor g factor			HORR				NORT H	A SOU TH	
Inadequate dietary intake	Minimum Dietary Diversity									
	(MDD) Minimum Meal Frequency									
	(MMF) Minimum Acceptable Diet									
	(MAD)									
	Minimum Dietary Diversity – Women (MDD-W) Others									
Diseases	Diarrhoea									
	Dysentery	-								
	Malaria									
	HIV/AIDS prevalence									
	Acute Respiratory Infection									
	Disease outbreak									
	Others									
Inadequate access to food	Outcome of the IPC for Acute Food Insecurity analysis									
Inadequate care for	Exclusive breastfeeding									
children	under 6 months Continued breastfeeding at 1									
	year Continued breastfeeding at 2 years									
	Introduction of solid, semi-									
	solid or soft foods Others									
Insufficient health services	Measles vaccination									
& unhealthy environment	Polo vaccination									
	Vitamin A supplementation	-								
	Skilled birth attendance									
	Health seeking behaviour									
	Coverage of outreach programmes – CMAM programme coverage (SAM, MAM, or both)									
	Access to a sufficient quantity of water									
	Access to sanitation facilities									
	Access to a source of safe drinking water Others									
Basic causes	Human capital									
- note encoco	Physical capital									
	Financial capital									
	Natural capital									
	Social capital									
	Policies, Institutions and									
	Processes Usual/Normal Shocks	<u> </u>								
	O Suai/ INOTINAI SHOCKS									

	Recurrent Crises due to Unusual Shocks					
	Other basic causes					
Other nutrition issues	Anaemia among children 6- 59 months					
	Anaemia among pregnant women					
	Anaemia among non- pregnant women					
	Vitamin A deficiency among children 6-59 months					
	Low birth weight					
	Fertility rate					
	Others					

#### Agro Pastoral Cluster (Kieni, West Pokot, Baringo, Laikipia, Narok and Kajiado Counties)

SUMMARY CONTRIBUTING	FACTORS BY AREA	Kajiad O	NAROK	ΤΙΑΤΥ	Baringo North	LAIKIPI A	KIENI	WEST POKOT
contributing co	inor Not a ntributing contributing ctor factor							
Inadequate dietary intake	Minimum Dietary Diversity (MDD)							
	Minimum Meal Frequency (MMF)							
	Minimum Acceptable Diet (MAD)							
	Minimum Dietary Diversity – Women (MDD-W)							
	Others							
Diseases	Diarrhea							
	Dysentery							
	Malaria							
	HIV/AIDS prevalence							
	Acute Respiratory Infection							
	Disease outbreak							
	Others							
Inadequate access to food	Outcome of the IPC for Acute Food Insecurity analysis							
Inadequate care for children	Exclusive breastfeeding under 6 months							
	Continued breastfeeding at 1 year							
	Continued breastfeeding at 2 years							
	Introduction of solid, semi-solid or soft foods							
	Others							
Insufficient health services & unhealthy environment	Measles vaccination							
	Polo vaccination							
	Vitamin A supplementation							
	Skilled birth attendance							
	Health seeking behavior							
	Coverage of outreach programmes – CMAM programme coverage (SAM, MAM, or both)							

		-	-		
	Access to a sufficient quantity of water				
	Access to sanitation facilities				
	Access to a source of safe drinking water				
	Others				
Basic causes	Human capital				
	Physical capital				
	Financial capital				
	Natural capital				
	Social capital				
	Policies, Institutions and Processes				
	Usual/Normal Shocks				
	Recurrent Crises due to Unusual Shocks				
	Other basic causes				
Other nutrition issues	Anaemia among children 6-59 months				
	Anaemia among pregnant women				
	Anaemia among non-pregnant women				
	Vitamin A deficiency among children 6-59 months				
	Low birth weight				
	Fertility rate				
	Others				

South East Marginal Agricultural C	Cluster (Meru North, The	araka, Mbeere, Kitui and Makue	ni Counties)
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SUMMARY CONTRIBUT	ING FACTORS BY AREA	MBEERE	THARAKA	KITUI	MAKUENI	MERU/N
Major contributing factor	Minor Not a contributing contributing factor factor					
Inadequate dietary intake	Minimum Dietary Diversity (MDD)					
	Minimum Meal Frequency (MMF)					
	Minimum Acceptable Diet (MAD)					
	Minimum Dietary Diversity – Women (MDD-W)					
	Others					
Diseases	Diarrhoea					
	Dysentery					
	Malaria					
	HIV/AIDS prevalence					
	Acute Respiratory Infection					
	Disease outbreak					
	Others					
Inadequate access to food	Outcome of the IPC for Acute Food Insecurity analysis					
Inadequate care for children	Exclusive breastfeeding under 6 months					
	Continued breastfeeding at 1 year					
	Continued breastfeeding at 2 vears					
	Introduction of solid, semi-solid or soft foods					
	Others					
Insufficient health	Measles vaccination					
services & unhealthy	Polo vaccination					
environment	Vitamin A supplementation					
	Skilled birth attendance					
	Health seeking behaviour					
	Coverage of outreach					
	programmes – CMAM					
	programme coverage (SAM, MAM, or both)					
	Access to a sufficient quantity of water					
	Access to sanitation facilities					
	Access to a source of safe drinking water					
	Others					
Basic causes	Human capital					
	Physical capital					
	Financial capital					
	Natural capital					
	Social capital					

	Policies, Institutions and Processes Usual/Normal Shocks Recurrent Crises due to Unusual Shocks Other basic causes			
Other nutrition issues	Anaemia among children 6-59 months Anaemia among pregnant			
	women Anaemia among non-pregnant women			
	Vitamin A deficiency among children 6-59 months			
	Low birth weight Fertility rate			
	Others			

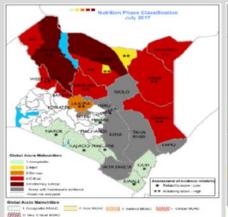
Major contributing factor         Minor contributing factor         Not a contributing factor           Inadequate dietary intake         Minimum Dietary Diversity (MDD)         Intervention           Minimum Acceptable Diet (MAD)         Minimum Acceptable Diet (MAD)         Intervention           Minimum Acceptable Diet (MAD)         Minimum Dietary Diversity - Women (MDD-W)         Intervention           Diseases         Diarrhoea         Diarrhoea         Intervention           Diseases         Diarrhoea         Intervention         Intervention           Diseases outbreak         Others         Intervention         Intervention           Inadequate access to food         Outcome of the IPC for Acute Food Insecurity analysis         Intervention         Intervention           Inadequate care for children         Exclusive breastfeeding at 1 year         Continued breastfeeding at 2 years         Introduction of solid, semi-solid or solf foods           Insufficient health services & unhealthy environment         Measles vaccination         Introduction of solid, semi-solid or solf foods         Intervention           Vatarin A supplementation         Skilled birth attendance         Intervention         Intervention           Health services & unhealthy environment         Vatarin A supplementation         Intervention         Intervention           Vatarin A supplementation         Skil	SUMMARY CONTRIBUTING F	ACTORS BY AREA (COASTAL MARGINAL LZ)	KILIFI	KWALE	LAMU	TAITA TAVETA
Minimum Meal Frequency (MMF)           Minimum Acceptable Diet (MAD)           Minimum Dietary Diversity – Women (MDD-W)           Others           Diseases           Diarrhoea           Dysentery           Malaria           HIV/AIDS prevalence           Acute Respiratory Infection           Diseases outbreak           Others           Inadeguate access to food           Inadequate care for children           Exclusive breastfeeding under 6 months           Continued breastfeeding at 1 year           Continued breastfeeding at 2 years           Introduction of solid, semi-solid or soft foods           Others           Insufficient health services &           unhealthy environment           Vitamin A supplementation           Vitamin A supplementation           Stilled birth attendance           Health seeking behaviour           Coverage of outeach programmes – CMAM           programme coverage (SAM, MAM, or both)           Access to a source of safe drinking water           Others           Basic causes           Human capital           Physical capital           Financial capital           Physical capital           Pho						
Minimum Meal Frequency (MMF)           Minimum Acceptable Diet (MAD)           Minimum Dietary Diversity – Women (MDD-W)           Others           Diseases           Diarrhoea           Dysentery           Malaria           HIV/AIDS prevalence           Acute Respiratory Infection           Diseases outbreak           Others           Inadequate access to food           Inadequate access to food           Outcome of the IPC for Acute Food Insecurity           analysis           Inadequate care for children           Exclusive breastfeeding under 6 months           Continued breastfeeding at 1 year           Continued breastfeeding at 2 years           Introduction of solid, semi-solid or soft foods           Others           Insufficient health services &           unhealthy environment           Vitamin A supplementation           Stalled birth attendance           Health seeking behaviour           Coverage of outeach programmes – CMAM           programme coverage (SAM, MAM, or both)           Access to a sufficient quantity of water           Access to a source of safe drinking water           Others           Basic causes         Human capital	Inadaguata diatany intaka	Minimum Diotony Diversity (MDD)				
Minimum Acceptable Diet (MAD)         Minimum Dietary Diversity – Women (MDD-W)           Others         0           Diseases         Diarrhoea           Dysentery         0           Malaria         0           HIV/AIDS prevalence         0           Acute Respiratory Infection         0           Disease outbreak         0           Others         0           Inadequate access to food         Outcome of the IPC for Acute Food Insecurity analysis         0           Inadequate care for children         Ecolusive breastfeeding under 6 months         0           Continued breastfeeding at 1 year         0         0           Continued breastfeeding at 2 years         0         0           Insufficient health services & unhealthy environment         Measles vaccination         0           Vitamin A supplementation         0         0         0           Skilled birth attendance         0         0         0           Health seeking behaviour         0         0         0           Coverage of outreach programmes – CMAM programme coverage (SAM, MAM, or both)         0         0           Access to a sufficient quantity of water         0         0         0           Access to a sufficient quantity of water	madequate dietary make					
Minimum Dietary Diversity - Women (MDD-W) Others         Image: Main of the second						
Others         Others           Diseases         Diarhoea         Imarhoea           Dysentery         Imarhoea         Imarhoea           Malaria         Imarhoea         Imarhoea           Malaria         Imarhoea         Imarhoea           Malaria         Imarhoea         Imarhoea           Inadequate access to food         Outcome of the IPC for Acute Food Insecurity analysis         Imarhoea           Inadequate care for children         Exclusive breastfeeding under 6 months         Imarhoea           Continued breastfeeding at 1 year         Imarhoea         Imarhoea           Continued breastfeeding at 2 years         Imarhoea         Imarhoea           Insufficient health services & unhealthy environment         Measles vaccination         Imarhoea           Vitamin A supplementation         Imarhoea         Imarhoea           Skilled birth attendance         Imarhoea         Imarhoea           Health seeking behaviour         Imarhoea         Imarhoea           Coverage of outreach programmes – CMAM         Imarhoea         Imarhoea           Policient quantity of water         Imarhoea         Imarhoea           Access to a sufficient quantity of water         Imarhoea         Imarhoea           Access to a source of safe drinking water <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
Diseases       Diarrhoea       Image: Construct of the second sec		, , , , , , , , , , , , , , , , , , ,				
Basic causes         Dysentery         Image of the set of	Diseases					
Malaria         Malaria         Malaria         Malaria         Malaria           HIV/AIDS prevalence         0 <td< td=""><td>Diseases</td><td></td><td></td><td></td><td></td><td></td></td<>	Diseases					
HIV/AIDS prevalence       Image: Contract Respiratory Infection       Image: Contract Respiratory Infection       Image: Contract Respiratory Infection         Disease outbreak       Others       Image: Contract Respiratory Infection       Image: Contract Respiratory Infection         Inadequate access to food       Outcome of the IPC for Acute Food Insecurity analysis       Image: Continued StreatSteeding under 6 months       Image: Continued breastSteeding at 1 year       Image: Continued breastSteeding at 2 years       Im						
Acute Respiratory Infection       Image: Constraint of the Con						
Disease outbreak Others         Image         Image         Image           Inadequate access to food         Outcome of the IPC for Acute Food Insecurity analysis         Image         Image <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
OthersImadequate access to foodOutcome of the IPC for Acute Food Insecurity analysisImadequate care for childrenImadequate for monthsImadequate care for childrenImadequate for children<						
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Anaemia among non-pregnant women		Anaemia among non-pregnant women				
Vitamin A deficiency among children 6-59 months		Vitamin A deficiency among children 6-59 months				
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Fertility rate						
Others						

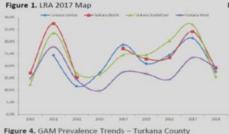
#### **Annex 4: Nutrition Situation - One Page Summary**



# **KENYA NUTRITION SITUATION OVERVIEW** ARID AND SEMI-ARID AREAS, AUGUST 2018

The nutrition situation has improved across the areas analyzed using Integrated Phase Classification (IPC) for acute malnutrition as part of the August 2018 Long Rains assessment compared to same season last year (Figures 1 and 2). The overall nutrition situation has significantly improved in Turkana South, North sub-counties, and Central, as well as North Horr from a Very Critical (Phase 5; GAM WHZ 230 percent) to a Critical (Phase 4; GAM WHZ 15.0 - 29.9 percent) situation. This is mainly attributed to an improvement in overall rainfall performance, which led to a subsequent improvement in food security. The findings show that the acute malnutrition levels in several of these counties remain above emergency thresholds of Global Acute Malnutrition (GAM) above 15% despite the improvements. The prevalence of Acute malnutrition remains at Critical levels in Turkana, Samburu, Mandera, East Pokot in Baringo, and North Horr in Marsabit. Serious levels (Phase 3; GAM WHZ 10.0 -14.9 percent, MUAC 6.0 to 10.9 percent) are reported in West Pokot, Tana River, Garissa, and Wajir; while Moyale and Saku in Marsabit County, and Baringo North/Marigat reported Alert levels (Phase 2; GAM WHZ ≥ 5 to 9.9 percent). Acceptable levels (Phase 1; GAM WHZ <5%, MUAC <6%) are reported in Narok, Kajiado, Makueni, Taita Taveta, Kwale, and Kilifi counties. The overall nutrition situation is thus projected to remain stable in most areas (Figure 3). However, past trends indicate a potential for fast deterioration in the nutrition situation in highly vulnerable counties such as Turkana (Figure 4) following a dry spell is likely as households have not yet recovered fully. In addition, poor child care practices, high morbidities, low literacy, limited access to health care services, and poverty are key challenges. Building the resilience of these communities through increased engagement with nutrition sensitive sectors therefore remains a priority for improvements in nutrition to be sustained.





Despite an overall improvement in the nutrition situation, the estimated number of children requiring treatment for acute malnutrition has increased compared to the same time last year. This is due to an updated caseload calculation methodology, which has been informed by global guidance, lessons from the 2017/2018 response, and coverage assessments conducted in 2017.

			AUG 2018	JULY 2017	
	Total caseloa malnourished		510,593	420,674	
	SAM 6-59m	caseload	85,105	83,110	
	MAM 6-59m	caseload	425,488	337,564	
T	PLW case	eload	31,354	39,068	
Area	GAM 6 to 59 m	SAM 6 to 59 m	MAM 6 to 59	m PLWs	
ASAL	439,463	62,321	377,142	2 28,392	
Urban	71,130	22,784	48,346	2,962	
Total Caseload	510,593	85,105	425,48	8 31,354	

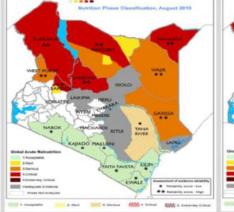


Figure 2. Current (LRA 2018) Nutrition Situation Map

#### Figure 3. Projected Nutrition Situation Map

on Phase Classification

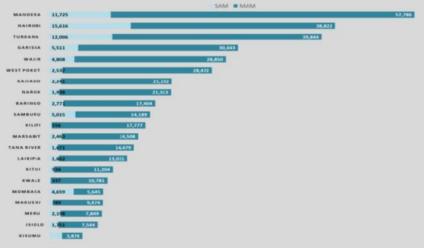


Figure 5. Estimated Caseloads of Children 6-59 months requiring treatment for Acute Malnutrition - ASAL and Urban counties, August 2018

#### Key response actions

- Update County Nutrition Action Plans based on county-led planning to identify and implement relevant nutrition sensitive activities to build resilience and prevent malnutrition, including livestock-related interventions in pastoral-dominant counties.
- Scale up nutrition education and counselling for improved maternal, infant, and young child feeding behaviors and practices.
- Conduct integrated outreach programs in North Horr, where malnutrition levels have remained higher than 20%
- Improve coverage of ongoing high impact health and nutrition interventions as informed by mapping

MAM - Moderate Acute Malnutrition, SAM - Severe Acute Malnutrition, PLW - Pregnant and Lactating Women

Created on 29th August 2018. Source: Kenya Food and Nutrition Security Seasonal Assessments. For further information please contact Veronica Kirogo, Head Nutrition and Dietetics Unit at headmutrition.moh@gmail.com; Lucy Kinyua at Luroy13@gmail.com; Lucy Maina at Lmaina@unicef.org; or Victoria Mwenda at vunwenda@unicef.org. Visit us on www.nutritionhealth.or.ke for more information