



## SMART SUMMARY JUNE 2013: SAPTARI

The nutrition survey was conducted in Saptari District located in the south-eastern part of Nepal in 2013. There was a need to establish a clearer estimate of the nutritional situation of the population in Saptari District. According to the most recent data available from Nepal Demographic and Health Survey (DHS) 2011, eastern terai sub region has a GAM<sup>1</sup> prevalence of 10.3% (SAM 2.2%)<sup>2</sup>. Action Contre la Faim (ACF) has supported the government to implement CMAM program in the district since its initiation in June/July 2012. As there was no district specific data available on nutritional indicators, **SMART** was conducted in Saptari district of Nepal from 12-24 June 2013.

**Objective:** To evaluate the nutritional situation and mortality rate of children aged 6 to 59 months in Saptari District, Nepal.

### Methodology

Standardized **M**onitoring and **A**ssessment of **R**elief and **T**ransitions (**SMART**) Methodology is an improved survey method for the assessment of severity of a humanitarian crisis based on the two most vital public health indicators i.e. nutritional status of children under-five and mortality rate of the population.

The SMART methodology was used for all the components of the survey from the preparation phase to the report writing. The seven days training phase included a standardization test and a field pilot test pre-survey. The surveyed populations selected by cluster sampling method were children from 6 to 59 months old for the anthropometric nutrition component and all household members in selected households for the retrospective mortality component. The sample size for each component was calculated with ENA Delta software (November 2012) using the highest sample size for both. The survey was conducted in 58 clusters each consisting of 18 households. The recall period for the mortality was 3 months (85 days) prior to the survey. Data collected were age, height, weight, presence of nutritional oedema and MUAC for the anthropometric nutritional component and the number of deaths in the households within the recall period for the mortality

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<sup>1</sup> Acute Malnutrition results from a recent weight loss or an inability to gain weight. In children, acute malnutrition is measured by the nutritional index of weight-for-height, bilateral edema and/or by MUAC. Acute Malnutrition is classified according to the degree of wasting and presence of edema. It is Severe Acute Malnutrition if the wasting is severe (MUAC <115 mm or W/H <-3 WHO growth standards 2006) or there is bilateral edema. It is Moderate Acute Malnutrition if the wasting is less severe (MUAC ≥ 115 to <125 mm or W/H between ≥ -3 and <-2 Z-score WHO standards 2006). Oedematous cases are always classified as severe. Global Acute Malnutrition refers to both moderate and severe acute malnutrition.

<sup>2</sup> Nepal Demographic and Health Survey 2011, Population Division, Ministry of Health and Population, Government of Nepal

component. A local events calendar was used to assess the age of the child where no birth certificate was available. Questionnaires were sub-translated in Nepali language and the interviews were mainly done in Nepali. The survey teams received 7-day training on SMART methodology, including practical exercises, standardization test and pilot field test.

## FINDINGS

<b>ANTHROPOMETRY</b>	
<b>Wasting (WHZ)<sup>3</sup></b>	
Global acute malnutrition	21.0 % (17.4 - 25.3 95% C.I.)
Moderate acute malnutrition <sup>i</sup>	18.1% (14.7 - 22.1 95% C.I.)
Severe acute malnutrition	2.9 % (1.9 - 4.5 95% C.I.)
<b>Wasting by MUAC</b>	
Global acute malnutrition	7.7 % (5.5 - 10.5 95% C.I.)
Moderate acute malnutrition	6.8 % (5.0 - 9.3 95% C.I.)
Severe acute malnutrition	0.8 % (0.3 - 2.2 95% C.I.)
<b>Stunting (HAZ)</b>	
Global stunting	37.3 % (32.4 - 42.5 95% C.I.)
Moderate stunting	26.3 % (22.6 - 30.3 95% C.I.)
Severe stunting	11.0 % (8.1 - 14.8 95% C.I.)
<b>Underweight (WAZ)</b>	
Global underweight	41.4 % (36.5 - 46.4 95% C.I.)
Moderate underweight	31.6 % (27.3 - 36.2 95% C.I.)
Severe underweight	9.8 % (7.2 - 13.1 95% C.I.)
<b>MORBIDITY</b>	
Prevalence of illness 2 weeks prior to survey (6-59 months)	50.0 % (n=242)
Proportion of sick children receiving medical treatment	81.8% (n=198)
<b>INFANT AND YOUNG CHILD FEEDING PRACTICES</b>	
Exclusive breastfeeding (0-5 months)	100% (n=37)
Continued breastfeeding (12-15 months)	90.6% (n=29)
Continued breastfeeding (20-23 months)	83.3% (n=25)
Adequate complementary feeding (breastfed 6-8 months)	35.7% (n=10)
Adequate meal frequency (breastfed 6-23 months)	72.9% (n=97)
Adequate meal frequency (non-breastfed 6-23 months)	58.3% (n=7)
<b>DIET DIVERSITY</b>	
Average score households (HDDS)	5.33 / 12
Average score children 6-59 months (IDDS)	3.98 / 8
<b>MORTALITY</b>	
Crude mortality rate (deaths/10'000 people/day)	0.58 (0.25-1.36) (95% CI)
U5 mortality rate (deaths/10'000 children/day)	2.23 (0.55-8.69) (95% CI)

<sup>3</sup> Weight-for-height is the criteria to classify the acute malnutrition among children aged 6-59 months, which is also used by the Nepal Demographic Health Survey and other standard nutrition surveys.

## Recommendation of SMART survey

- Another anthropometric nutrition and retrospective mortality survey during the lean period (February-March or August-September) in the same areas should be conducted to determine seasonal variations and their effect on the nutritional status of the children.
  - CMAM programme should be reinforced with regards to admission and treatment of both SAM and MAM, together with a strong component in prevention through nutrition education and good care practices promotion.
  - Given the fact that most of the SAM caseload consist in children with a  $WHZ < -3$  and  $MUAC \geq 115mm$ , then it is crucial that  $WHZ < -3$  (which is clearly an independent SAM definition criteria according to WHO's latest 2013 updates) remains an independent criterion for admission in SAM management programmes. In such a context, WHZ screening should be done wherever it is feasible (at health facility level) and encouraged wherever it is not yet feasible (in the community).
  - Also should be advised to look for these SAM children amongst those referred by the FCHW to SFP as having a MUAC between 115 and 125mm, by systematically measuring WHZ and referring those with  $WHZ < -3$ . Finally, FCHWs should be encourage to take into consideration the opinion of the caretaker as well as visible signs of severe wasting to refer children whose MUAC would be over 115mm.
  - Consider the provision of supplementary food targeting the most vulnerable in the community, pregnant and lactating women and children under 5.
  - Mid-/long term approach in Saptari District should be established to target improvement of maternal health and nutrition care, including awareness on nutrition and care practices.
  - Health education programme should be conducted targeting behaviour change for pregnant women, lactating mothers and caretakers of children less than two years, with a special focus on hygiene and sanitation and appropriate IYCF practices.
  - Multi-sectoral program should be implemented targeting food and nutrition security designed to reduce malnutrition for children and households, increasing the sustainability of reduced rates of GAM of children 6-59 months.
  - Nutrition and food security surveillance should be reinforced in Saptari District to better understand the nutrition and food security situation and all its variations and to target vulnerable groups with timely and appropriate interventions.
  - Integrated long-term community development programmes in food security and livelihoods, including income generating activities should be considered.
  - Awareness on good water, sanitation and hygiene practices through integration of WASH initiatives.
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