

Assessment of Nutritional Status and Feeding Behaviors of Children through Standardized Monitoring and Assessment in Relief and Transition (SMART) Survey in the Flood Affected Terai Districts of Nepal



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Introduction

Nepal experienced nonstop rainfall during August 2017, triggering widespread flooding and landslides in 32 of the country's 77 districts.

Monsoon flooding and landslides claimed 143 lives, injured at least 43 people, affected 1.7 million people, and displaced 460000 people from 91400 families throughout the country; particularly in *Terai*. Nearly 65000 houses were completely destroyed; as a result an estimated 19000 persons are residing in informal displacements sites.

The disaster has brought insurmountable effects on livelihood of the people of the affected areas particularly in health, sanitation, education, infrastructures, and food intake including nutrition.

The effects on feeding practices as part of nutrition have been more serious in 10 *Terai* districts than in other affected districts and they required rehabilitation on food and nutritional components. A deeper understanding of effects is imperative for effective nutrition intervention.

Socio-economic, geographic and environmental factors all contribute to the poor nutritional status of Nepalese. Nutritional situation of children of poor households in *Terai* were very serious even earlier and have worsened since the onset of flooding as per the Rapid Nutrition Assessment conducted in August, 2017.

UNICEF in order to assess the nutritional status of the flood affected district recently conducted a survey in the 6 severely flood affected districts.

Objective/Aim

This analysis aims to assess the nutritional status of under five children in the flood affected six *Terai* districts of Province 1 and 2 of Nepal.

Methods

Received approval from the ethical committee prior to field implementation.

Used Standardized Monitoring and Assessment in Relief and Transition (SMART) survey data which was conducted in 2018 in six districts of Nepal.

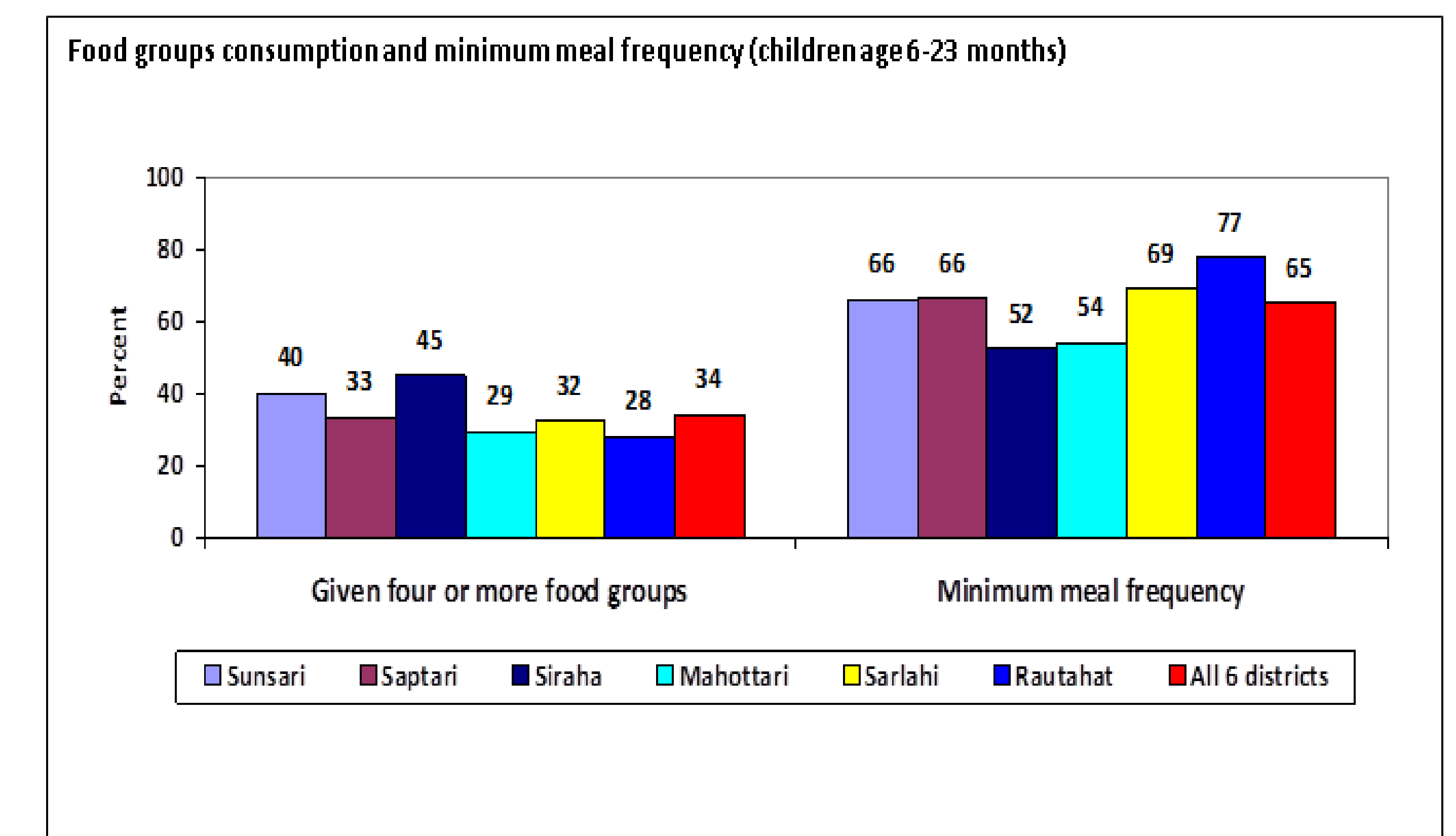
A multi-stage cross-sectional survey where quantitative method through face-to-face interviews among mothers of under five children, pregnant women and adolescent girls was conducted.

Anthropometric measurement of the women and children was taken in order to assess their nutritional status. Information regarding the feeding behaviors of the target beneficiaries was also collected.

A total of 4,500 households (750 from each district) from six study districts namely Sunsari (Province 1) and Siraha, Saptari, Mahottari, Sarlahi and Rautahat (Province 2) were included in the study.

Nutritional status of children under 5 years (n=3544) of age and their mothers (n=2858) were assessed. In addition, IYCF of children below 24 months (n=1518) was also examined.

Following FAO and FANTA guidelines, the minimally adequate Dietary Diversity Score (DDS) was determined to be 4 (out of 7).



Only 34% of the children between 6-23 months received 4 or more food groups; and approximately 2-in-3 children received minimum meal frequency (65%). The proportion of those receiving it varied significantly across the study districts ($p < 0.01$).

Conclusions

In this analysis, nutritional status of the children under 5 years of age was assessed. It was found that the nutritional status of children under 5 is highly alarming with level of malnutrition based on MUAC measurement being 7.7%; the prevalence of wasting (WHZ) being 18.5%, child underweight (WAZ) 29.4% and stunting (HAZ) being 28.9%. Hence, there is an urgent need to further intervene in these districts in order to uplift and improve the nutritional status of children in the flood affected districts.

Results

Indicators	Districts						Total	
	Sunsari	Saptari	Siraha	Mahottari	Sarlahi	Rautahat	%	N
Stunting Severe (<-3z scores)	4.7	9.0	8.0	11.0	11.4	9.8	9.0	3331
Stunting Moderate (-2 thru 2.99)	15.7	19.5	20.4	21.3	21.3	21	19.9	3331
Wasting Severe (<-3z scores)	3.9	3.6	2.6	2.6	5.0	4.8	3.8	3410
Wasting Moderate (-2 thru 2.99)	9.5	19.2	14.5	14.0	16.9	14	14.7	3410
Underweight Severe (<-3z scores)	4.7	6.8	7.4	7.7	9.6	8.3	7.4	3489
Underweight Moderate (-2 thru 2.99)	14.5	24.6	20.1	23.4	23.5	24.7	22.0	3489
MUAC Severe acute malnutrition (<115 mm)	1.2	1.5	0.2	1.6	1.0	1.4	1.2	3178
Moderate acute malnutrition (115 to less than 125mm)	3.9	8.6	5.5	6.6	6.2	7.8	6.5	3178

The level of malnutrition among children 6-59 months of age based on MUAC measurement was found to be 7.7%; likewise the prevalence of wasting (WHZ) among children below five years was 18.5%, underweight (WAZ) was 29.4%, stunting (HAZ) was 28.9%. The result shows significant difference ($p < 0.01$) in the nutritional status of children through anthropometry across the study districts.

Bibliography

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