



**COMMUNITY HEALTH – DEVELOPMENT AND
IMPLEMENTATION OF NUTRITION INTERVENTION TO
ERADICATE MALNUTRITION IN NORTH EAST GONJA
DISTRICT**

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Executive Summary

There were 82 children seen from Bunjai and Jantong collectively. The number of children seen in Bunjai were 40 and that of Jantong were 42. The mean age of children was 17.94 months, SD 12.45 months. There were a total of 43 males and 39 females. Majority of the mothers in this sample were married (80, 98%) and had never attended school (54, 66%). Additionally, majority were farmers (36, 44%). Below is a summary table of variables obtained as well as visualisation of selected categories.

Project Summary

The purpose of this project was to assess the identify children below the age of 5 and establish the relevance and performance in accelerating nutrition improvements in the North East Gonja District of the Savannah region, Ghana. This project fulfills the dual objectives of Healthmates Nutrition commitment in eradicating malnutrition of all forms in Ghana as well as ensuring a social impact in relation to the **SDG 1**, as part of Hexagram's **CSR**.

The project supported two (2) out of the ten (10) CHPS compounds of the Ghana Health Service, in the North East Gonja District, specifically Jantong and Bunjai. The aim was to support the efforts of the Ghana Health Service to improve nutrition status of the children, critical for survival of the first 5 years of their lives.

The project was implemented by the Healthmates team jointly with the Nutrition Officers with the objective to

- I. Strengthen nutrition surveillance systems in the district with the district directorate of the Ghana Health Service.
- II. Conduct nutrition surveys in Bunjai and Jantong
- III. Support the scaling-up of evidence informed nutrition actions in Bunjai and Jantong through meal preparation demonstrations.
- IV. Provide support for children who are at risk of malnutrition of all forms.

This project will be conducted in two phases. The first phase has been conducted as the inception-screening of children in the two communities to identify children at risk of stunting, SAM and MAM. The first phase ensured the provision of adequate assessment tools and **RUTF** to the Nutrition team of the district to continuous monitoring and evaluation of the children, especially those identified to be as risk.

During the first phase, mothers were trained and offered the opportunity to experience practical preparation of various indigenous meals, modified to enhance the nutrition, for the prevention of malnutrition.

The second and culminating phase will be a follow up on the malnourished kids who were identified, evaluation of the intervention put in place to save them and evaluation of feeding practices among the mothers.

The project has made a major contribution to revitalize the district nutrition information system, although the project's duration was too short to measure sustainable impact. Healthmates has been provided an opportunity by Hexagram, and to this much, has executed this project to improve

programming of nutrition surveillance. It has also contributed to the nutrition agenda and has reinforced the district's health directorate's capacities in this field.

The project is highly appreciated by all the stakeholders; created a strong “buy-in” by the Ghana Health Service. The project has produced good outputs, such as assessment tools, guidelines, training modules and data to help with continuous improvement.

Key Findings

Eighty two (82) children were screened from Bunjai and Jantong collectively. The number of children seen in Bunjai were 40 (48.8%) and that of Jantong were 42, representing 51.2%. The mean age of children was 17.94 months, SD 12.45 months. There were a total of 43 (53.8%) males and 39 (46.2%) females. Majority of the mothers in this sample were married (80, 98%) and had never attended school (54, 66%). Additionally, majority were farmers (36, 44%). Below is a summary table of variables obtained as well as visualisation of selected categories.

NUTRITION ASSESSMENT

The children who were below the age of 5 were assessed using several nutrition assessment tools. Some of the assessments carried out were:

- **MID-UPPER ARM CIRCUMFERENCE (MUAC)**



- **HEIGHT**



- **LENGTH**



WEIGHT



Descriptive statistics

Table 1: Demographic characteristics of children and mothers in the sample

Variable	Overall (N=82)
Age of children (months)	
Mean (SD)	17.9 (12.4)
Sex	
Female	39 (47.6%)
Male	43 (52.4%)
Age of mothers (years)	
Mean (SD)	26.9 (6.79)
Marital status of mothers	
Cohabiting	1 (1.2%)
Married	80 (97.6%)
Separated/Divorced	1 (1.2%)
Educational level of mothers	
Never attended school	54 (65.9%)
Elementary/Primary	9 (11.0%)
Junior High	16 (19.5%)

Variable	Overall (N=82)
Senior High	3 (3.7%)
Occupation of mothers	
Dress maker	11 (13.4%)
Farmer	36 (43.9%)
Hair dresser	2 (2.4%)
Others	22 (26.8%)
Trader	11 (13.4%)
Number of children including stillborns	
Mean (SD)	2.96 (1.92)
Birth weight (kg)	
Mean (SD)	2.95 (0.491)
Mid-upper arm circumference (cm)	
Mean (SD)	14.2 (1.25)
Weight of children (kg)	
Mean (SD)	8.69 (2.39)
Height of children (cm)	
Mean (SD)	74.2 (9.57)

Variable	Overall (N=82)
Weight for height (WFH) z-scores	
Mean (SD)	-1.05 (1.33)
Height for age (HAZ) z-scores	
Mean (SD)	-1.43 (2.44)
Acute malnutrition (WFH < - 2 SD)	
Acute malnutrition	16 (19.5%)
Normal	64 (78.0%)
Chronic malnutrition (HAZ < - 2 SD)	
Chronic malnutrition	31 (37.8%)
Normal	51 (62.2%)

Table 2: Demographic Characteristics Stratified by Acute Malnutrition

	Acute malnutrition (N=16)	Normal (N=64)	Overall (N=82)
Age of children (months)			
Mean (SD)	18.8 (11.5)	16.9 (12.1)	17.9 (12.4)

	Acute malnutrition (N=16)	Normal (N=64)	Overall (N=82)
Sex			
Female	7 (43.8%)	32 (50.0%)	39 (47.6%)
Male	9 (56.2%)	32 (50.0%)	43 (52.4%)
Age of mothers (years)			
Mean (SD)	27.5 (8.34)	26.4 (6.19)	26.9 (6.79)
Marital status of mothers			
Cohabiting	0 (0%)	1 (1.6%)	1 (1.2%)
Married	16 (100%)	62 (96.9%)	80 (97.6%)
Separated/Divorced	0 (0%)	1 (1.6%)	1 (1.2%)
Educational level of mothers			
Never attended school	11 (68.8%)	41 (64.1%)	54 (65.9%)
Elementary/Primary	3 (18.8%)	6 (9.4%)	9 (11.0%)
Junior High	1 (6.2%)	15 (23.4%)	16 (19.5%)
Senior High	1 (6.2%)	2 (3.1%)	3 (3.7%)

	Acute malnutrition (N=16)	Normal (N=64)	Overall (N=82)
Occupation of mothers			
Dress maker	3 (18.8%)	8 (12.5%)	11 (13.4%)
Farmer	5 (31.2%)	30 (46.9%)	36 (43.9%)
Hair dresser	0 (0%)	2 (3.1%)	2 (2.4%)
Others	6 (37.5%)	15 (23.4%)	22 (26.8%)
Trader	2 (12.5%)	9 (14.1%)	11 (13.4%)
Number of children including stillborns			
Mean (SD)	3.25 (2.02)	2.81 (1.88)	2.96 (1.92)
Birth weight (kg)			
Mean (SD)	2.76 (0.403)	2.95 (0.430)	2.95 (0.491)
Mid-upper arm circumference (cm)			
Mean (SD)	13.0 (1.14)	14.5 (1.03)	14.2 (1.25)
Weight of children (kg)			
Mean (SD)	7.47 (1.88)	8.79 (2.20)	8.69 (2.39)

	Acute malnutrition (N=16)	Normal (N=64)	Overall (N=82)
Height of children (cm)			
Mean (SD)	75.5 (9.24)	74.3 (9.53)	74.2 (9.57)
Weight for height (WFH) z-scores			
Mean (SD)	-2.98 (0.791)	-0.562 (0.937)	-1.05 (1.33)
Height for age (HAZ) z-scores			
Mean (SD)	-1.73 (2.02)	-1.09 (2.04)	-1.43 (2.44)
Chronic malnutrition (HAZ < - 2 SD)			
Chronic malnutrition	6 (37.5%)	23 (35.9%)	31 (37.8%)
Normal	10 (62.5%)	41 (64.1%)	51 (62.2%)

Table 3: Demographic characteristics stratified by chronic malnutrition

	Chronic malnutrition (N=31)	Normal (N=51)	Overall (N=82)
Age of children (months)			
Mean (SD)	26.1 (10.6)	13.0 (10.9)	17.9 (12.4)

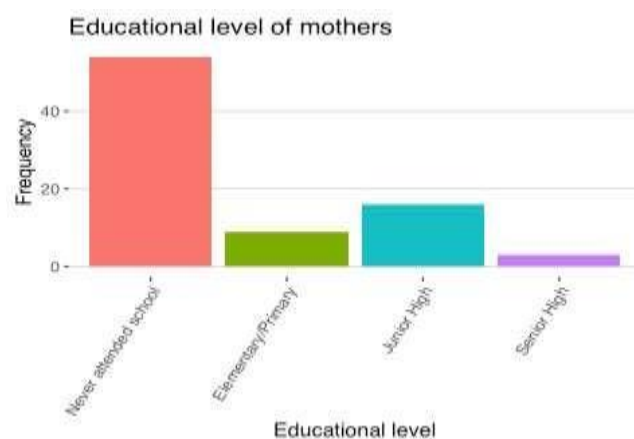
	Chronic malnutrition (N=31)	Normal (N=51)	Overall (N=82)
Sex			
Female	14 (45.2%)	25 (49.0%)	39 (47.6%)
Male	17 (54.8%)	26 (51.0%)	43 (52.4%)
Age of mothers (years)			
Mean (SD)	27.7 (8.44)	26.4 (5.61)	26.9 (6.79)
Marital status of mothers			
Cohabiting	0 (0%)	1 (2.0%)	1 (1.2%)
Married	31 (100%)	49 (96.1%)	80 (97.6%)
Separated/Divorced	0 (0%)	1 (2.0%)	1 (1.2%)
Educational level of mothers			
Never attended school	21 (67.7%)	33 (64.7%)	54 (65.9%)
Elementary/Primary	4 (12.9%)	5 (9.8%)	9 (11.0%)
Junior High	5 (16.1%)	11 (21.6%)	16 (19.5%)
Senior High	1 (3.2%)	2 (3.9%)	3 (3.7%)
Occupation of mothers			
Dress maker	3 (9.7%)	8 (15.7%)	11 (13.4%)
Farmer	15 (48.4%)	21 (41.2%)	36 (43.9%)

	Chronic malnutrition (N=31)	Normal (N=51)	Overall (N=82)
Hair dresser	1 (3.2%)	1 (2.0%)	2 (2.4%)
Others	9 (29.0%)	13 (25.5%)	22 (26.8%)
Trader	3 (9.7%)	8 (15.7%)	11 (13.4%)
Number of children including stillborns			
Mean (SD)	3.10 (2.09)	2.88 (1.83)	2.96 (1.92)
Birth weight (kg)			
Mean (SD)	2.82 (0.599)	3.04 (0.397)	2.95 (0.491)
Mid-upper arm circumference (cm)			
Mean (SD)	14.0 (1.18)	14.4 (1.29)	14.2 (1.25)
Weight of children (kg)			
Mean (SD)	9.30 (2.43)	8.31 (2.31)	8.69 (2.39)
Height of children (cm)			
Mean (SD)	75.3 (8.79)	73.5 (10.0)	74.2 (9.57)
Weight for height (WFH) z-scores			

	Chronic malnutrition (N=31)	Normal (N=51)	Overall (N=82)
Mean (SD)	-1.04 (1.37)	-1.05 (1.32)	-1.05 (1.33)
Height for age (HAZ) z-scores			
Mean (SD)	-3.74 (2.09)	-0.02 (1.31)	-1.43 (2.44)
Acute malnutrition (WFH < - 2 SD)			
Acute malnutrition	6 (19.4%)	10 (19.6%)	16 (19.5%)
Normal	23 (74.2%)	41 (80.4%)	64 (78.0%)

GRAPHICAL PRESENTATIONS OF STATISTICS

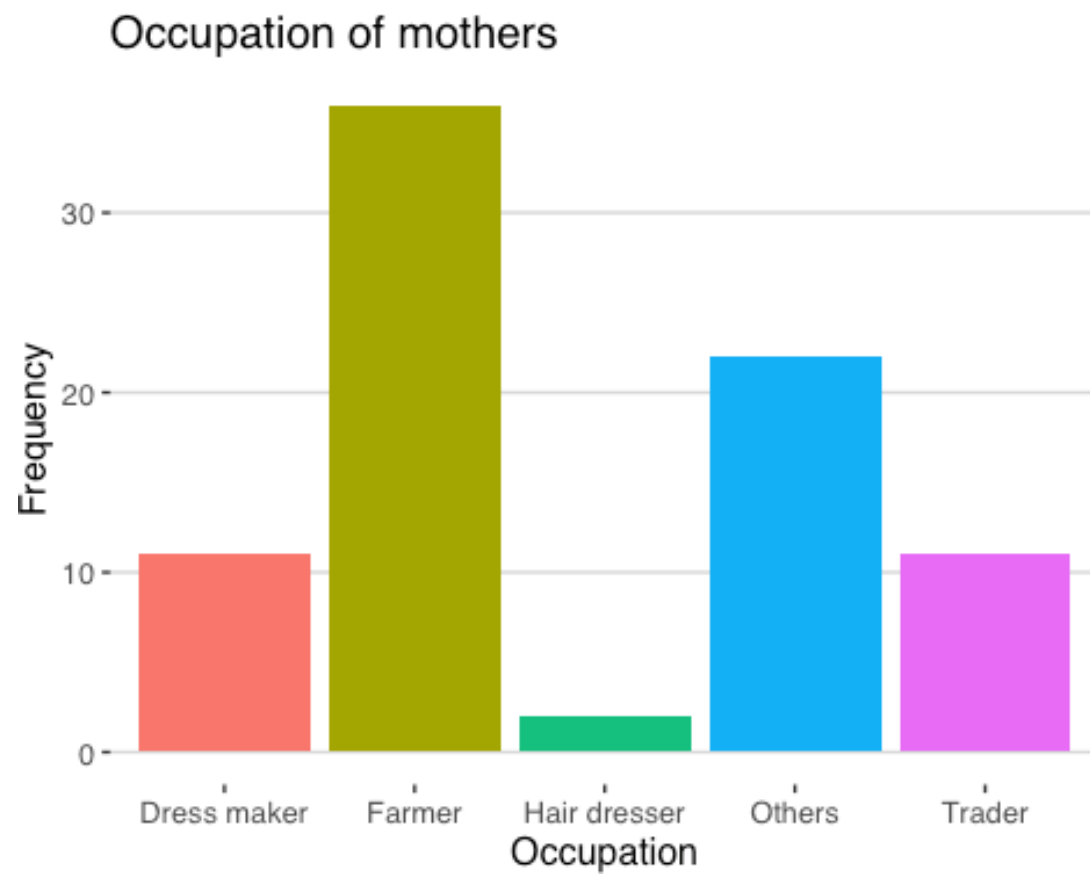
Educational level of mothers



Marital Status of mothers

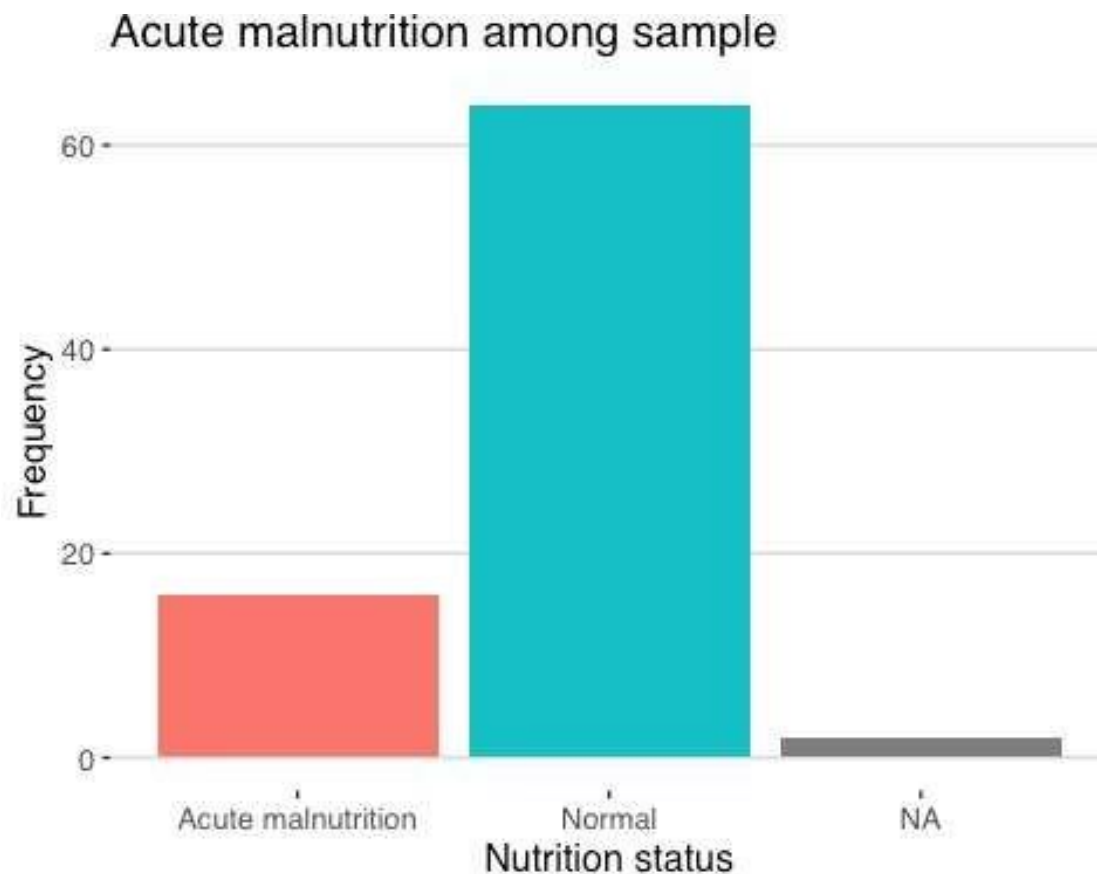


Occupation of Mothers

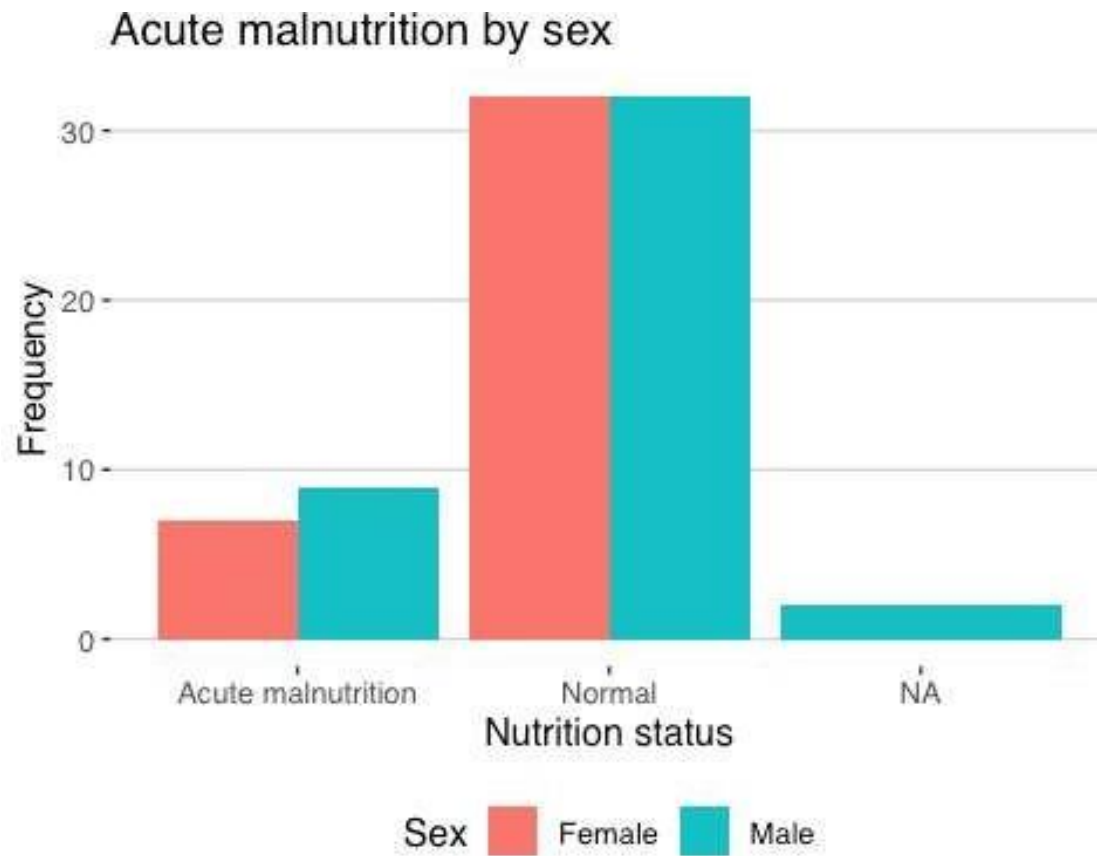


Acute Malnutrition

Acute malnutrition was defined as weight for height z score < -2 SD. Demographic characteristics of individuals classified as acutely malnourished and those classified as normal based on the established definition are shown in Table 2 above.

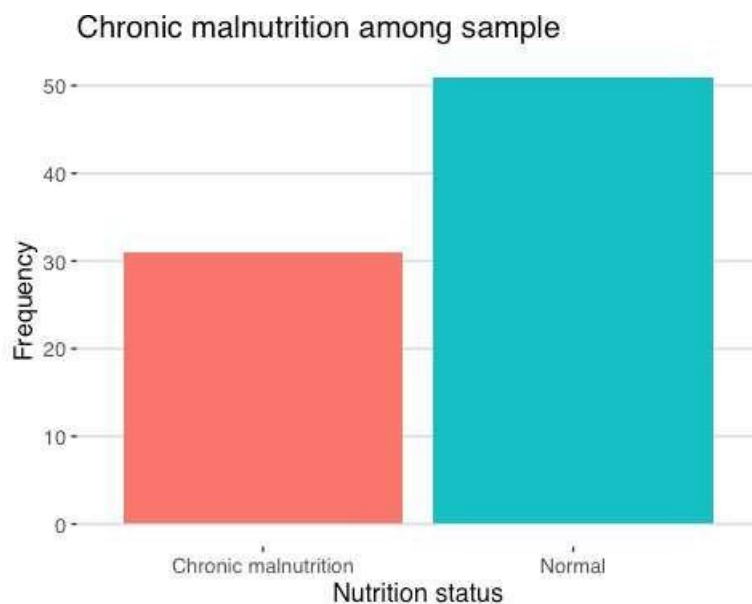
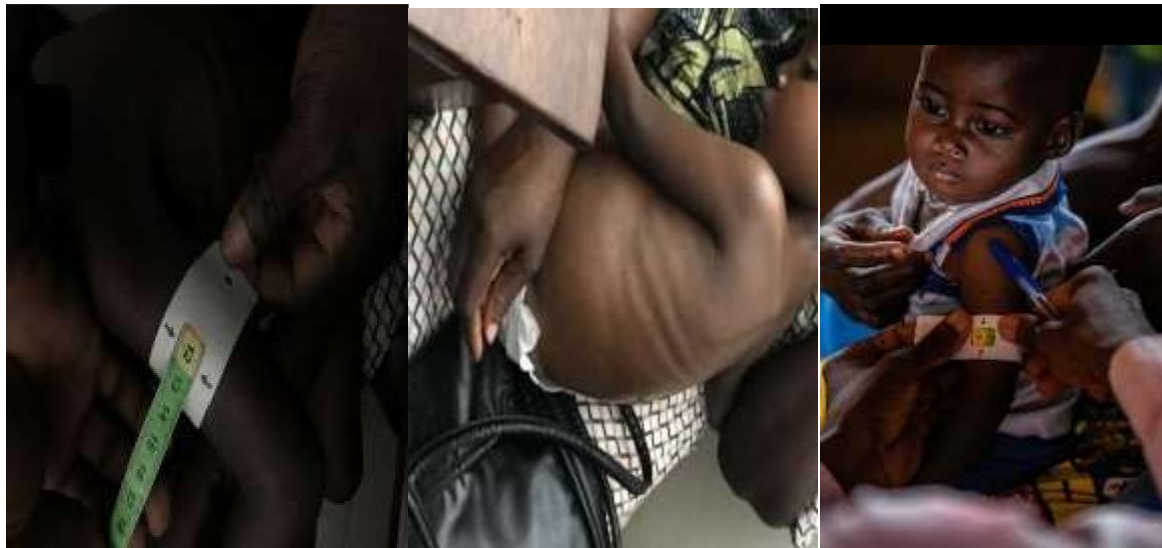


Acute malnutrition by sex

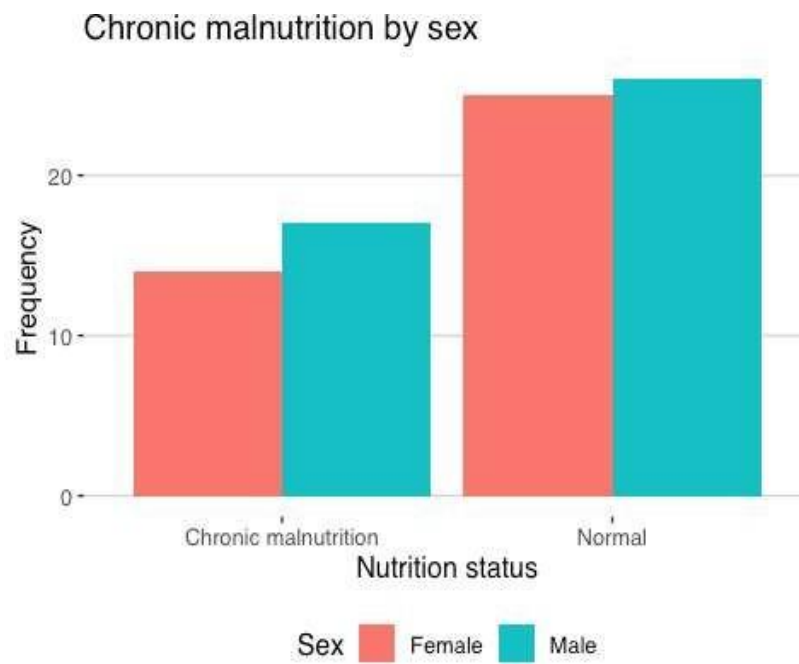


Chronic malnutrition

Chronic malnutrition was defined as height for age (HAZ) z-score < -2 SD. Demographic characteristics of individuals classified as malnourished based on HAZ criteria are shown in Table 3 above.



Chronic malnutrition by sex



INTERVENTION

The nutrition officers in the district were trained by the Healthmates Team on how to follow up, monitor, counsel and manage the various nutrition deficiencies and forms of malnutrition that prevailed during the assessment. They were adequately equipped with assessment and monitoring tools in order to be able to continuously support the survival of the affected children.

Donation

The district health directorate received nutrition assessment tools such as infantometers, body fat analysers, food scales, MUAC tapes and over one thousand pieces of Kokoplus food supplement.



TRAINING OF WOMEN IN THERAPEUTIC CATERING



About 128 women from Bunjai and Jangtong, including teenagers received training on the preparation of healthy and nutritious complementary meals. In all, 7 different dishes were prepared using ingredients that are readily available and accessible in the communities.



CONCLUSION

Making Nutrition a Development Priority

Direct nutrition improvement programmes have a unique, essential role to play in efforts to reach the SDGs. Good nutrition makes an essential contribution to the fight against poverty and malnutrition. It protects and promotes health; reduces mortality, especially among mothers and children; encourages and enables children to attend and benefit from school; and enhances productivity and incomes in adulthood.



By indirectly strengthening communities and health centres, good nutrition contributes to the achievement of other development objectives which, in turn, impact upon the SDGs. For example, the increased participation of poor and vulnerable people and of women in the development process that may arise from effective community nutrition programmes like what we have executed, will likely lead to more effective demands for improved health services and to better use of existing resources.

The use of nutritional goals and indicators and of participatory community nutrition approaches to design and monitor interventions would facilitate the development and implementation of such interventions. It is also essential to recognize and address the social, economic, cultural and political determinants of undernutrition.



RECOMMENDATION

Direct support for the continuous community based interventions related to counselling and nutrition education. This highlights the need for the implementation community health stations that are well equipped and resourced to adequately organize and monitor the growth of every child closely.

It is necessary to consider the implementation of Water, Sanitation and Hygiene (WASH) programme. Water accessibility is a great challenge since inhabitants would have to travel a long distance to fetch water. Needless to say, the water available to the community looks unhygienic and unhealthy to drink.



ABBREVIATIONS

SDG: Sustainable Development Goal

CSR: Corporate Social Responsibility

RUTF: Ready to Use Therapeutic Foods