Standardized Expanded Nutrition Survey (SENS)

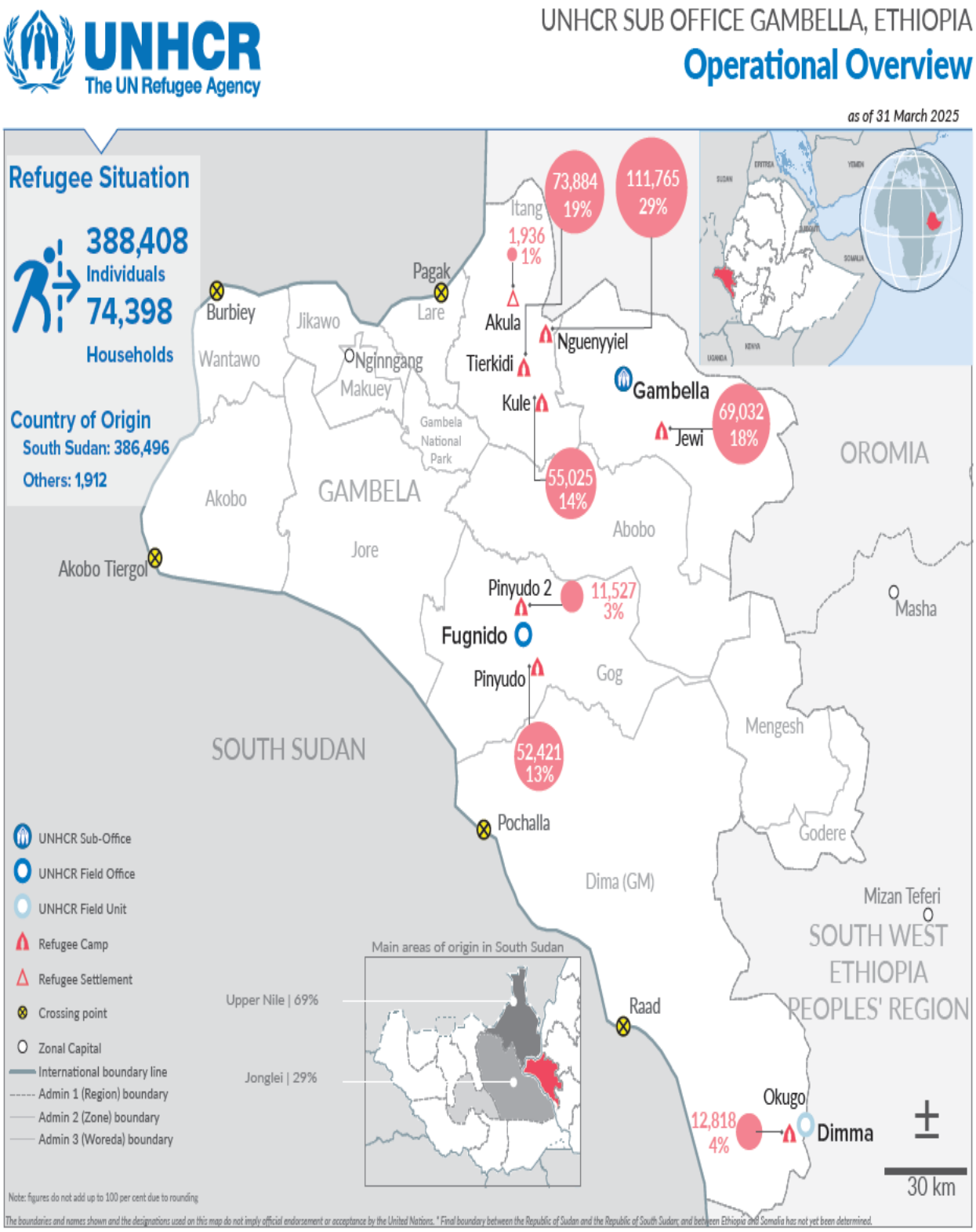
2025 Final Report

Gambella, Ethiopia refugee camps:

Kule, Tierkidi, Nguenyyiel, Jewi, Pinyudo_I, Pinyudo_II camps

Survey dates: 25 August – 13 October 2025

UNHCR GAMBELLA SO SITUATION OVERVIEW



Source: https://data.unhcr.org/en/documents/details/115842

ACKNOWLEDGEMNTS

Standardized expanded nutrition survey (SENS) in Gambella SO was commissioned and coordinated jointly by UNHCR, RRS, WFP, UNICEF, GOAL, WVI, CUAMM, DPO and AAH collaborating with other implementing partners.

We would like to acknowledge all agencies involved in planning and conducting the surveys. Our sincere gratitude was extended to RRS, WFP, UNICEF, UNHCR, GOAL, WVI, CUAMM, DPO and AAH for providing staff, logistics support and supplies for the nutrition surveys.

Finally, we sincerely thank the refugees residing in Gambella camps especially women of reproductive age and children who cooperated with the survey teams by providing all the information required and allowed the survey teams to take the necessary measurements, make observations as required in the SENS methodology.

TABLE OF CONTENTS

Contents

ACKNOWLEDGEMNTS 3
TABLE OF CONTENTS 4
LIST OF TABLES 5
LIST OF FIGURES 9
ABREVIATIONS AND ACCRONYMS 10
INTRODUCTION 19
SURVEY OBJECTIVES 20
Specific primary objectives of the survey 20
Secondary objectives 21
Optional objectives 21
METHODOLOGY 21
Survey design and sampling 21
Sample size calculation 22
Data collection and analysis 23
Results 24
Demography indicators 24
Sample size 24
Household size and composition 24
Children 6-59 months 25
Age and Sex Distribution 25
Anthropometric results (based on WHO Growth Standards 2006) 27
Measles vaccination coverage results 43
Measles vaccination coverage results 50
Vitamin A supplementation coverage results 50
Diarrhoea results 50
Children 0-23 months 50
MUAC Malnutrition in PLW 51
Food security 51
Negative coping strategies results 51
Mortality 51
In all camps the crude and under five mortality rates are below the SPHERE standards of <1% and <2% respectively, even if deaths are under reported always and we expect respondents may not respond accurately because they wants to use the food assistance for the died person as advantage. 51
RECOMMENDATIONS 52
Nutrition Recommendations 52
Food Security Recommendations 52
Appendices 53
Appendix 1 SMART Plausibility Check Report 53
Appendix 2: Evaluation of Enumerators (results from anthropometric standardisation test) 58
Appendix 3: Questionnaires 65
Appendix 4: Local event calendar used during the survey to estimate age of young children. 86

LIST OF TABLES

Table 1 : SUMMARY OF RESULTS 14

Table 2: Mortality sample size assumptions, Gambella, Ethiopia, 2022 27

Table 3: Mortality sample size assumptions, Gambella, Ethiopia, 2022 27

Table 4: Survey final sample size and design, Gambella, Ethiopia, 2022 28

Table 5 : SAMPLING INFORMATION BY CAMP 29

Table 6 : HOUSEHOLD SIZE AND COMPOSITION, BY CAMP 29

Table 7 : HOUSEHOLD HEAD PROFILE, BY CAMP 32

Table 8 : AGE DEPENDENCY RATIO CATEGORIES BY HOUSEHOLD, BY CAMP 33

Table 9 : Distribution of age and sex of sample, Kule, Gambella, 2022 34

Table 10 : Distribution of age and sex of sample, Tierkidi, Gambella, 2022 34

Table 11 : Distribution of age and sex of sample, Nguenyyiel, Gambella, 2022 34

Table 12 : Distribution of age and sex of sample, Jewi, Gambella, 2022 34

Table 13 : Distribution of age and sex of sample, Pinyudo_I, Gambella, 2022 34

Table 14 : Distribution of age and sex of sample, Pinyudo_II, Gambella, 2022 35

Table 15 : PREVALENCE OF ACUTE MALNUTRITION BASED ON WEIGHT-FOR-HEIGHT Z-SCORES (AND/OR OEDEMA) AND BY SEX, BY CAMP 35

Table 16: Prevalence of acute malnutrition by age, based on weight-for-height z-scores and/or oedema, Kule, Gambella, 2022 36

Table 17: Prevalence of acute malnutrition by age, based on weight-for-height z-scores and/or oedema, Tierkidi, Gambella, 2022 37

Table 18: Prevalence of acute malnutrition by age, based on weight-for-height z-scores and/or oedema, Nguenyyiel, Gambella, 2022 37

Table 19: Prevalence of acute malnutrition by age, based on weight-for-height z-scores and/or oedema, Jewi, Gambella, 2022 37

Table 20: Prevalence of acute malnutrition by age, based on weight-for-height z-scores and/or oedema, Pinyudo_I, Gambella, 2022 37

Table 21: Prevalence of acute malnutrition by age, based on weight-for-height z-scores and/or oedema, Pinyudo_II, Gambella, 2022 38

Table 22 : PREVALENCE OF MUAC MALNUTRITION, BY CAMP 2022 39

Table 23 : PREVALENCE OF MUAC MALNUTRITION BY AGE, BASED ON MUAC CUT OFF'S AND/OR OEDEMA, IN KULE 39

Table 24 : PREVALENCE OF MUAC MALNUTRITION BY AGE, BASED ON MUAC CUT OFF'S AND/OR OEDEMA, IN TIERKIDI 39

Table 25 : PREVALENCE OF MUAC MALNUTRITION BY AGE, BASED ON MUAC CUT OFF'S AND/OR OEDEMA, IN NGUENYYIEL 40

Table 26 : PREVALENCE OF MUAC MALNUTRITION BY AGE, BASED ON MUAC CUT OFF'S AND/OR OEDEMA, IN JEWI 40

Table 27 : PREVALENCE OF MUAC MALNUTRITION BY AGE, BASED ON MUAC CUT OFF'S AND/OR OEDEMA, IN PINYUDO_I 40

Table 28 : PREVALENCE OF MUAC MALNUTRITION BY AGE, BASED ON MUAC CUT OFF'S AND/OR OEDEMA, IN PINYUDO_II 40

Table 29 : PREVALENCE OF UNDERWEIGHT BASED ON WEIGHT-FOR-AGE Z-SCORES AND BY SEX, BY CAMP..... 41

Table 30 : PREVALENCE OF UNDERWEIGHT BY AGE BASED ON WEIGHT-FOR-AGE Z-SCORES, AND OEDEMA IN KULE 41

Table 31 : PREVALENCE OF UNDERWEIGHT BY AGE BASED ON WEIGHT-FOR-AGE Z-SCORES, AND OEDEMA IN TIERKIDI 42

Table 32 : PREVALENCE OF UNDERWEIGHT BY AGE BASED ON WEIGHT-FOR-AGE Z-SCORES, AND OEDEMA IN NGUENYYIEL 42

Table 33 : PREVALENCE OF UNDERWEIGHT BY AGE BASED ON WEIGHT-FOR-AGE Z-SCORES, AND OEDEMA IN JEWI 42

Table 34 : PREVALENCE OF UNDERWEIGHT BY AGE BASED ON WEIGHT-FOR-AGE Z-SCORES, AND OEDEMA IN PINYUDO_I 42

Table 35 : PREVALENCE OF UNDERWEIGHT BY AGE BASED ON WEIGHT-FOR-AGE Z-SCORES, AND OEDEMA IN PINYUDO_II 43

Table 36 : PREVALENCE OF STUNTING BASED ON HEIGHT-FOR-AGE Z-SCORES AND BY SEX, BY CAMP 43

Table 37 : PREVALENCE OF STUNTING BY AGE BASED ON HEIGHT-FOR-AGE Z-SCORES, IN KULE..... 44

Table 38 : PREVALENCE OF STUNTING BY AGE BASED ON HEIGHT-FOR-AGE Z-SCORES, IN TIERKIDI 44

Table 39 : PREVALENCE OF STUNTING BY AGE BASED ON HEIGHT-FOR-AGE Z-SCORES, IN NGUENNYIEL 44

Table 40 : PREVALENCE OF STUNTING BY AGE BASED ON HEIGHT-FOR-AGE Z-SCORES, IN JEWI 45

Table 41 : PREVALENCE OF STUNTING BY AGE BASED ON HEIGHT-FOR-AGE Z-SCORES, IN PINYUDO_I 45

Table 42 : PREVALENCE OF STUNTING BY AGE BASED ON HEIGHT-FOR-AGE Z-SCORES, IN PINYUDO_II 45

Table 43 : PREVALENCE OF OVERWEIGHT BASED ON WEIGHT-FOR-HEIGHT Z-SCORES (NO OEDEMA), BY CAMP 2022 46

Table 44 : PREVALENCE OF OVERWEIGHT BY AGE BASED ON WEIGHT-FOR-HEIGHT Z-SCORES (NO OEDEMA), IN KULE..... 46

Table 45 : PREVALENCE OF OVERWEIGHT BY AGE BASED ON WEIGHT-FOR-HEIGHT Z-SCORES (NO OEDEMA), IN TIERKIDI 47

Table 46 : PREVALENCE OF OVERWEIGHT BY AGE BASED ON WEIGHT-FOR-HEIGHT Z-SCORES (NO OEDEMA), IN NGUENYYIEL.....47

Table 47 : PREVALENCE OF OVERWEIGHT BY AGE BASED ON WEIGHT-FOR-HEIGHT Z-SCORES (NO OEDEMA), IN JEWI 47

Table 48 : PREVALENCE OF OVERWEIGHT BY AGE BASED ON WEIGHT-FOR-HEIGHT Z-SCORES (NO OEDEMA), IN PINYUDO_I 47

Table 49 : PREVALENCE OF OVERWEIGHT BY AGE BASED ON WEIGHT-FOR-HEIGHT Z-SCORES (NO OEDEMA), IN PINYUDO_II 48

Table 50 : MEAN Z-SCORES, DESIGN EFFECTS AND EXCLUDED SUBJECTS, BY CAMP 2022 48

Table 51 : MEASLES VACCINATION COVERAGE FOR CHILDREN AGED 9-59 MONTHS, BY CAMP 49

Table 52 : VITAMIN A SUPPLEMENTATION COVERAGE FOR CHILDREN AGED 6-59 MONTHS WITHIN THE PAST 6 MONTHS, BY CAMP 49

Table 53 : PERIOD PREVALENCE OF DIARRHOEA, BY CAMP 51

Table 54 : ORS AND ZINC USE DURING DIARROEA EPISODE, BY CAMP 52

Table 55 : PREVALENCE OF TOTAL ANAEMIA, ANAEMIA CATEGORIES, AND MEAN HAEMOGLOBIN CONCENTRATION IN CHILDREN 6-59 MONTHS OF AGE AND BY AGE GROUP, KULE 52

Table 56 : PREVALENCE OF MODERATE AND SEVERE ANAEMIA IN CHILDREN 6-59 MONTHS OF AGE AND BY AGE GROUP, KULE 52

Table 57 : PREVALENCE OF TOTAL ANAEMIA, ANAEMIA CATEGORIES, AND MEAN HAEMOGLOBIN CONCENTRATION IN CHILDREN 6-59 MONTHS OF AGE AND BY AGE GROUP, TIERKIDI 53

Table 58 : PREVALENCE OF MODERATE AND SEVERE ANAEMIA IN CHILDREN 6-59 MONTHS OF AGE AND BY AGE GROUP, TIERKIDI 53

Table 59 : PREVALENCE OF TOTAL ANAEMIA, ANAEMIA CATEGORIES, AND MEAN HAEMOGLOBIN CONCENTRATION IN CHILDREN 6-59 MONTHS OF AGE AND BY AGE GROUP, NGUENYYIEL 53

Table 60 : PREVALENCE OF MODERATE AND SEVERE ANAEMIA IN CHILDREN 6-59 MONTHS OF AGE AND BY AGE GROUP, NGUENYYIEL 53

Table 61 : PREVALENCE OF TOTAL ANAEMIA, ANAEMIA CATEGORIES, AND MEAN HAEMOGLOBIN CONCENTRATION IN CHILDREN 6-59 MONTHS OF AGE AND BY AGE GROUP, JEWI 54

Table 62 : PREVALENCE OF MODERATE AND SEVERE ANAEMIA IN CHILDREN 6-59 MONTHS OF AGE AND BY AGE GROUP, JEWI 54

Table 63 : PREVALENCE OF TOTAL ANAEMIA, ANAEMIA CATEGORIES, AND MEAN HAEMOGLOBIN CONCENTRATION IN CHILDREN 6-59 MONTHS OF AGE AND BY AGE GROUP, PINYUDO_I 54

Table 64 : PREVALENCE OF MODERATE AND SEVERE ANAEMIA IN CHILDREN 6-59 MONTHS OF AGE AND BY AGE GROUP, PINYUDO_I 54

Table 65 : PREVALENCE OF TOTAL ANAEMIA, ANAEMIA CATEGORIES, AND MEAN HAEMOGLOBIN CONCENTRATION IN CHILDREN 6-59 MONTHS OF AGE AND BY AGE GROUP, PINYUDO_II 55

Table 66 : PREVALENCE OF MODERATE AND SEVERE ANAEMIA IN CHILDREN 6-59 MONTHS OF AGE AND BY AGE GROUP, PINYUDO_II 55

Table 67 : PREVALENCE OF INFANT AND YOUNG CHILD FEEDING PRACTICES INDICATORS, BY CAMP 56

Table 68 : INFANT FORMULA INTAKE IN CHILDREN AGED 0-23 MONTHS, BY CAMP 58

Table 69 : FBF INTAKE IN CHILDREN AGED 6-23 MONTHS, BY CAMP [CSB+] 58

Table 70 : FBF++ INTAKE IN CHILDREN AGED 6-23 MONTHS, BY CAMP [CSB++] 59

Table 71 : PREVALENCE OF MUAC MALNUTRITION IN PREGNANT AND LACTATING WOMEN BY CAMP 59

Table 72 : COVERAGE OF THE BLANKET SUPPLEMENTARY FEEDING PROGRAMME, BY CAMP 59

Table 73 : PREVALENCE OF TOTAL ANAEMIA, ANAEMIA CATEGORIES, AND MEAN HAEMOGLOBIN CONCENTRATION IN NON-PREGNANT WOMEN OF REPRODUCTIVE AGE (15-49 YEARS), BY CAMP 61

Table 74 : ANC ENROLMENT AND IRON-FOLIC ACID PILLS COVERAGE AMONG PREGNANT WOMEN (15-49 YEARS), BY CAMP 62

Table 75 : FOOD SECURITY SAMPLING INFORMATION, BY CAMP 63

Table 76 : REPORTED DURATION OF GENERAL FOOD DISTRIBUTION, BY CAMP 63

Table 77 : NEGATIVE COPING STRATEGIES USED BY THE SURVEYED POPULATION IN KULE CAMP OVER THE PAST 4 WEEKS 63

Table 78 : NEGATIVE COPING STRATEGIES USED BY THE SURVEYED POPULATION IN TIERKIDI CAMP OVER THE PAST 4 WEEKS 64

Table 79 : NEGATIVE COPING STRATEGIES USED BY THE SURVEYED POPULATION IN NGUENYYIEL CAMP OVER THE PAST 4 WEEKS 64

Table 80 : NEGATIVE COPING STRATEGIES USED BY THE SURVEYED POPULATION IN JEWI CAMP OVER THE PAST 4 WEEKS 65

Table 81 : NEGATIVE COPING STRATEGIES USED BY THE SURVEYED POPULATION IN PINYUDO_I CAMP OVER THE PAST 4 WEEKS 65

Table 82 : NEGATIVE COPING STRATEGIES USED BY THE SURVEYED POPULATION IN PINYUDO_II CAMP OVER THE PAST 4 WEEKS 66

Table 83 : NEGATIVE COPING STRATEGIES USED BY THE SURVEYED POPULATION IN KULE CAMP OVER THE PAST 7 DAYS 66

Table 84 : NEGATIVE COPING STRATEGIES USED BY THE SURVEYED POPULATION IN TIERKIDI CAMP OVER THE PAST 7 DAYS 66

Table 85 : NEGATIVE COPING STRATEGIES USED BY THE SURVEYED POPULATION IN NGUENYYIEL CAMP OVER THE PAST 7 DAYS 67

Table 86 : NEGATIVE COPING STRATEGIES USED BY THE SURVEYED POPULATION IN JEWI CAMP OVER THE PAST 7 DAYS 67

Table 87 : NEGATIVE COPING STRATEGIES USED BY THE SURVEYED POPULATION IN PINYUDO_I CAMP OVER THE PAST 7 DAYS 67

LIST OF FIGURES

Figure 1: Number of Admissions to Treatment Programmesi for MAM and SAM in Children 6-59 Months 19

Figure 2: POPULATION PYRAMID IN KULE Figure 3: POPULATION PYRAMID IN TIERKIDI 24

Figure 4: POPULATION PYRAMID IN NGUENNYIEL Figure 5: POPULATION PYRAMID IN JEWI 24

Figure 6: POPULATION PYRAMID IN PINYUDO_I Figure 7: POPULATION PYRAMID IN PINYUDO_II 25

Figure 8: PREVALENCE OF GLOBAL AND SEVERE ACUTE MALNUTRITION BASED ON WHO GROWTH STANDARDS IN CHILDREN 6-59 MONTHS FROM 2021-2024, BY CAMP. 28

Figure 9: DISTRIBUTION OF WEIGHT-FOR-HEIGHT Z-SCORES (BASED ON WHO GROWTH STANDARDS; THE REFERENCE POPULATION IS SHOWN IN GREEN AND THE SURVEYED POPULATION IS SHOWN IN RED) OF SURVEY 32

Figure 10: PREVALENCE OF GLOBAL AND SEVERE STUNTING BASED ON WHO GROWTH STANDARDS IN CHILDREN 6-59 MONTHS FROM 2021-2025, BY CAMP. 37

Figure 11: DISTRIBUTION OF HEIGHT-FOR-AGE Z-SCORES (BASED ON WHO GROWTH STANDARDS; THE 40

Figure 8: PREVALENCE OF GLOBAL AND SEVERE ACUTE MALNUTRITION BASED ON WHO GROWTH STANDARDS IN CHILDREN 6-59 MONTHS FROM 2021-2024, BY CAMP. 48

ABREVIATIONS AND ACCRONYMS

ANC	Ante Natal Clinic
AAH	Action Against hunger
BSFP	Blanket Supplementary Feeding Program
CCW	Concern Worldwide
CMR	Crude Mortality Rate
CI	Confidence Interval
COA	Community Outreach Agent
CDC	Centre Disease Control
CSB	Corn Soya Blend
CUAMM	Doctors with Africa
ENA	Emergency Nutrition Assessment
DPO	Development for Peace Organization
EOS	Enhanced Outreach Strategy
EPI	Expanded Program on Immunization
Epi Info	Epidemiological information
GAM	Global Acute Malnutrition
GFR	General Food Ration
HAZ	Height-for-Age z-score
Hb	Hemoglobin
HQ	UNHCR Head Quarter
IYCF	Infant and Young Child Feeding
IRS	Indoor Residual Spraying
LLIN	Long-lasting insecticidal net
MAM	Moderate Acute Malnutrition
MSF-H	Médecins Sans Frontières- Holland
MUAC	Middle Upper Arm Circumference
ODK	Open data Kit
OTP	Out-patient Therapeutic Program
SAM	Severe Acute Malnutrition
SC	Stabilisation Centre
SD	Standard Déviation
SENS	Standardized Expanded Nutrition Survey
SFP	Supplementary Feeding Program
SMART	Standardized Monitoring & Assessment of Relief & Transitions
TFP	Therapeutic Feeding Program
RHB	Regional Health Bureau
RRS	Refugee and Returnee Services
U5MR	Under-5 Mortality Rate
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
WASH	Water Sanitation and Hygiene
WAZ	Weight-for-Age z-score
WHZ	Weight-for-Height z-score
WFP	World Food Program
WHO	World Health Organization
WVI	World Vision International

Table 1 : SUMMARY OF RESULTS

Surveyed Area	Kule	Tierkidi	Nguenyyiel	Jewi	Pinyudo_I	Pinyudo_II	Classification of public health significance or target (where applicable)
Data collection period	**25 August - - 29 August 2025**	**01 Sep - - 05 Sep 2025**	**Oct 06- 13, 2025**	**Sep 29 – Oct 08, 2025**	**Sep 29 – Oct 03, 2025**	**Oct 06- 10, 2025**	
CHILDREN 6-59 months n/N, % [95% CI]							
Acute Malnutrition (WHO 2006 Growth Standards)							
Global Acute Malnutrition (GAM)	120/492 24.4 % (20.8 - 28.4)	83/497 16.6 % (13.6 - 20.1)	82/495 16.6 % (13.6 - 20.1)	46/420 11.0 % (8.3 - 14.3)	67/519 12.9 % (10.3 - 16.1)	53/443 12.0 % (9.3 - 15.3)	Very high/critical if ≥ 15% (WHOUNICEF) UNHCR Target of < 10%
Moderate Acute Malnutrition (MAM)	112/492 22.8 % (20.0 – 25.2)	79/497 15.6 % (13.2 – 17.8)	73/495 14.8% (12.6 – 16.7)	41/420 9.8 % (7.8 – 11.5)	63/519 12.3 % (10.1 – 14.4)	49/443 11.1 % (8.9 – 13.0)	
Severe Acute Malnutrition (SAM)	8/492 1.6 % (0.8 - 3.2)	5/497 1.0 % (0.4 - 2.3)	9/495 1.8 % (1.0 - 3.4)	5/420 1.2 % (0.5 - 2.8)	3/519 0.6 % (0.2 - 1.7)	4/443 0.9 % (0.4 - 2.3)	UNHCR Target of < 2%
Oedema	(0.0 %)	0 %	0.2 %	0.0 %	0 %	0.2 %	
Mid Upper Arm Circumference (MUAC)							
MUAC <125 mm and/or oedema	36/492 7.3 % (5.3 - 10.0)	13/497 2.6 % (1.5 - 4.4)	22/495 4.4 % (3.0 - 6.6)	8/420 1.9 % (1.0 - 3.7)	15/519 2.9 % (1.8 - 4.7)	12/443 2.7 % (1.6 - 4.7)	
MUAC 115-124 mm	34/492 6.9 % (5.0 - 9.5)	10/497 2.0 % (1.1 - 3.7)	17/495 3.4 % (2.2 - 5.4)	6/420 1.4 % (0.7 - 3.1)	15/519 2.9 % (1.8 - 4.7)	9/443 2.0 % (1.1 - 3.8)	
MUAC <115 mm and/or oedema	2/492 0.4 % (0.1 - 1.5)	3/497 0.6 % (0.2 - 1.8)	5/495 1.0 % (0.4 - 2.3)	2/420 0.5 % (0.1 - 1.7)	0/519 0.0 % (0.0 - 0.7)	3/443 0.7 % (0.2 - 2.0)	

		Stunting (WHO 2006 Growth Standards)			

Total Stunting	42/482 8.7 % (6.5 - 11.6)	47/489 9.6 % (7.3 - 12.5)	38/489 7.8 % (5.7 - 10.5)	41/415 9.9 % (7.4 - 13.1)	14/514 2.7 % (1.6 - 4.5)	1/439 0.2 % (0.0 - 1.3)	Very high/critical if ≥ 30% (WHO-UNICEF)
Severe Stunting	8/482 1.7 % (0.8 - 3.2)	7/489 1.4 % (0.7 - 2.9)	6/489 1.2 % (0.6 - 2.7)	7/415 1.7 % (0.8 - 3.4)	1/514 0.2 % (0.0 - 1.1)	0/439 0.0 % (0.0 - 0.9)	
Prevalence of underweight	121/488 24.8 % (21.2 - 28.8)	57/500 11.4 % (8.9 - 14.5)	71/491 14.5 % (11.6 - 17.8)	60/420 14.3 % (11.3 - 18.0)	30/519 5.8 % (4.1 - 8.1)	14/440 3.2 % (1.9 - 5.3)	
		Programme coverage					
Measles vaccination with card or recall (9-59 months)	442/455 97.14% (95.17 - 98.32)	448/456 98.25% (96.5 -99.11)	446/470 94.89% (92.51- 96.54)	365/379 96.31% (93.90- 97.79)	365/379 96.31% (93.90- 97.79)	424/424 100% (100.0- 100.00)	Target of ≥ 95%
Vitamin A supplementation within past the 6 months with card or recall	467/494 94.5 % (92.16 - 96.22)	478/498 95.98% (93.88- 97.39)	462/498 92.77% (90.15- 94.73)	378/407 92.87% (89.95- 94.99)	378/407 92.87% (89.95- 94.99)	436/443 98.4% (96.77- 99.23)	Target of ≥ 90%
Supplementary feeding programme enrolment Based on all admission criteria (MUAC, WHZ)	81/118 68.6% (59.46 - 76.87)	41/79 51.9% (40.36- 63.29)	16/83 19.287% (8.54- 36.2)	7/37 18.99% (4.73- 47.3)	20/66 20.3% (15.5- 51.7)	16/53 30.1% (13.9- 54.7)	
Therapeutic feeding programme enrolment Based on all admission criteria (MUAC, WHZ, oedema)	4/6 66.67% (22.28 - 95.67)	5/5 100% (47.8-100.00)	4/9 44.44% (13.70- 78.80)	1/5 20% (0.51- 71.64)	0/3 0% (0.- 0)	1/4 25% (0.63% 80.59)	
		Diarrhoea					
Diarrhoea in the last 2 weeks	42/494 8.5 % (6.35 - 11.29)	27/498 5.42% (3.75- 7.77)	53/497 10.66% (8.25- 13.69)	56/404 13.86 (10.83- 17.57)	55/519 10.6% (8.23- 13.54)	36/442 8.14% (5.94- 11.07)	

Surveyed Area	Kule	Tierkidi	Nguenyyiel	Jewi	Pinyudo_I	Pinyudo_II	Classification of public health significance or target (where applicable)
Data collection period	**25 August - -29 August 2025**	**01 Sep - - 05 Sep 2025**	**Oct 06- 13, 2025**	**Sep 29 – Oct 08, 2025**	**Sep 29 – Oct 03, 2025**	**Oct 06- 10, 2025**	
CHILDREN 0-23 months, n/N, % [95% CI]							
IYCF indicators							
Timely initiation of breastfeeding	202/226 89.38 % (84.61 - 93.08)	211/231 91.34% (86.95- 94.63)	214/241 88.8% (84.12- 92.49)	117/166 70.48% (62.92- 77.30)	169/186 90.86% (85.77- 94.59)	175/203 86.21% (80.69- 90.63)	UNHCR Target of ≥ 85%
Exclusive breastfeeding under 6 months	47/55 85.45 % (73.34 - 93.50)	42/48 87.5% (74.75- 95.27)	44/48 91.67% (80.02- 97.68)	30/33 90.91% (75.67- 98.08)	27/31 87.1% (70.17- 96.37)	30/37 81% (64.84- 92.04)	UNHCR Target of ≥ 75%
Introduction of solid, semi-solid or soft foods (within 6-8 months)	10/39 25.64 % (13.04 - 42.13)	22/42 52.38% (36.42- 68.00)	9/28 32.14% (15.88- 52.35)	7/25 28% (12.07- 49.39)	12/21 57.14% (34.02- 78.18)	6/13 31.58% (12.58- 56.55)	
Consumption of iron-rich or iron-fortified foods	93/171 54.39 % (46.61 - 62.01)	84/183 45.9% (38.53- 53.41)	123/193 63.73% (56.52- 70.51)	68/133 51.13% (42.32- 59.89)	155/155 100% (97.65- 100.00)	154/166 92.7% (87.71- 96.21)	UNHCR Target of ≥ 60%
Minimum dietary diversity (MDD)	27/171 15.79% (10.67- 22.14)	22/183 12% (7.69- 17.63)	26/193 13.47% (8.99- 19.11)	14/151 9.27% (5.16- 15.07)	105/155 67.7% (59.77% 75.02)	100/166 60.24% (52.37- 67.74)	
Minimum Acceptable Diet (MAD)	11/171 6.43% (3.25- 11.22)	17/183 9.29% (5.51- 14.46)	8/193 4.15% (1.81- 8.00)	4/151 2.65% (0.73% 6.64)	57/155 36.77% (29.18% 44.88)	36/166 21.69% (15.68- 28.74)	
Bottle feeding	4/226 1.77 % (0.48 - 4.47)	1/231 0.43% (0.01- 2.39)	11/240 4.58% (2.31- 8.05)	4/135 2.96% (0.81- 7.41)	22/185 11.89% (7.60- 17.45)	5/203 2.46% (0.80- 5.65)	UNHCR Target of < 5%

81WOMEN 15-49 years, n/N, % [95% CI]							
Acute m7.95alnutrition (pregnant and lactating U6 month)							
Pregnant & Lactating under six-month MUAC <23 cm	29/139 20.86% (14.4- 28.5)	19/131 14.5% (8.9- 21.72)	13/81 16.05% (8.8- 25.88)	8/81 9.88% (4.36- 18.54)	13/107 12.15% (6.6- 19.88)	7/88 7.95% (3.26- 15.70)	Medium Alert/Stress 12.6-19.9%

Surveyed Area	**Kule**	**Tierkidi**	**Nguenyyiel**	**Jewi**	**Pinyudo_I**	**Pinyudo_II**	**Classification of public health significance or target (where applicable)**
Data collection period	**25 August - -29 August 2025**	**01 Sep - - 05 Sep 2025**	**Oct 06- 13, 2025**	**Sep 29 – Oct 08, 2025**	**Sep 29 – Oct 03, 2025**	**Oct 06- 10, 2025**	
DEMOGRAPHY, n/N, % [95% CI]							
Household size and Composition							
Average household size (Mean, SD / range)	8.16 (SD 2.87) [1-18]	7.4 (SD 2.5) [1-19]	7.74 (SD 2.92) [1-18]	8.16 (SD 3.4) [1-22]	6.4 (SD 2.92) [1-15]	6.8 (SD 2.68) [1-17]	
Percent of children U2	235/3398 6.9 %	239/3225 7.4 %	246/3159 7.7 %	217/2998 7.2 %	199/3243 6.13 %	210/2265 9.27 %	
Percent of children U5	568/3398 16.7 %	563/3225 17.4 %	561/3159 17.75 %	537/2998 17.9 %	569/3243 17.5 %	497/2265 21.9 %	
Percent of pregnant women	73/3398 2.14 %	63/3225 1.95 %	31/3159 0.98 %	49/2998 1.63 %	39/3243 1.2%	29/2265 1.28 %	
Household Head Profile							
Female headed households	377/416 90.63 % (87.44 - 93.07)	416/435 95.63 % (93.2 - 97.19)	375/408 91.91 % (88.86- 94.18)	331/367 90.19 % (86.72- 92.83)	453/503 90.06 % (87.13- 92.38)	298/333 89.49 % (85.73- 92.35)	
Male headed households	18/416 4.33 % (2.75 - 6.74)	13/435 2.99 % (1.75 - 5.05)	22/408 5.39 % (3.59- 8.03)	29/367 7.9 % (5.56- 11.12)	39/503 7.75 % (5.72- 10.42)	30/333 9 % (6.38% 12.57)	

Children headed households <15 yrs	1/416 0.24 % (0.04 - 1.35)	1/435 0.23% (0.04- 1.29)	3/408 0.74% (0.25- 2.14)	1/367 0.27% (0.05% 1.53)	1/503 2% (0.04- 1.12)	1/333 0.3% (0.05% 1.68)	
Elderly headed households >=65 yrs	20/416 4.81 % (3.13 - 7.31)	5/435 1.15% (0.49- 2.66)	8/408 1.96% (1.00- 3.82)	6/367 1.63% (0.75- 3.52)	10/503 1.99% (1.08- 3.62)	4/333 1.2% (0.47% 3.05)	
Age dependency ratio							
Average age dependency ratio (mean, range)	1.25 [0.0-Inf.]	1.3 [0.0-Infin.]	1.54 [0.0-Infin.]	1.47 [0.0-Infin.]	1.35 [0.0-Infin.]	1.8 [0.0-Infin.]	
Mortality							
Crude Death Rate (CDR) deaths/10,000/day	0.20 (0.09-0.43)	0.03 (0.01-0.19)	0.14 (0.05-0.35)	0.07 (0.02-0.26)	0.13 (0.05-0.33)	0.05 (0.01-0.27)	UNHCR target <1
Under 5 Death Rate (U5DR) deaths/10,000/day	0.00 (0.00-0.77)	0.00 (0.00-0.77)	0.39 (0.11-1.40)	0.20 (0.04-1.13)	0.19 (0.03-1.08)	0.22 (0.04-1.26)	UNHCR target <2
Percentage of **joined** in the last 3 months (90 days) recall period	195/3389 5.7%	144/3225 4.45%	72/3159 2.2%	55/2998 1.83%	55/3242 1.7%	49/2265 2.1%	
Percentage of **left** in the last 3 months (90 days) recall period	205/3389 6%	187/3225 5.79%	127/3159 4%	146/2998 4.87%	156/3243 4.8%	78/2265 3.4%	
FOOD SECURITY, n/N, % [97% CI]							
In-kind food distribution							
Average number of days general food ration lasts out of 30 days. (mean, SD/range)	15.19 [2-28]	15.6 [7-28]	15.67 [1-30]	18.06 [6-30]	22.4 [1-35]	18.97 [5-30]	
Negative household coping strategies							
Proportion of households reporting using one or more negative coping strategies over the past 4 weeks	150/205 73.17% (66.55 - 79.10)	152/214 71% (64.4 -77.01)	104/209 49.76% (42.79- 56.74)	92/191 48.17% (40.90- 55.50)	129/267 48.31% (42.18- 54.49)	70/170 41.18% (33.70- 48.97)	

Proportion of households reporting using the following coping strategies over the past 4 weeks:							
stop a child from attending school	0/205 0% (0.0 -1.8)	0/214 0% (0.0 -1.8)	20/210 9.52% (5.9- 14.33)	4/191 2.09% (0.57- 5.28)	1/267 0.37% (0.01- 2.07)	0/171 0% (0.0 -1.8)	
sold any assets that would not have normally sold in order to buy food or basic goods	67/205 32.68% (26.31 -39.56)	73/214 34.11% (27.79 - 40.88)	33/210 15.7% (11.07- 21.35)	18/191 9.42% (5.68- 14.48)	31/267 11.61% (8.03- 16.07)	23/171 13.45% (8.72- 19.50)	
ask for money from strangers (begging)	6/205 2.93% (1.08 - 6.26)	5/214 2.34% (0.76 -5.37)	8/210 3.81% (1.66- 7.37)	4/191 2.09% (0.57- 5.28)	1/267 0.37% (0.01- 2.07)	1/171 0.58% (0.01% 3.22)	
move to a poorer quality shelter	1/205 0.49% (0.01 - 2.69)	0/214 0% (0.0 -1.8)	11/210 5.24% (2.64- 9.18)	12/191 6.28% (3.29- 10.72)	7/267 2.62% (1.06- 5.33)	2/171 1.17% (0.14% 4.16)	
send household members under the age of 16 to work	16/205 7.8% (4.53- 12.37)	23/214 10.75% (6.94% 15.69)	16/210 7.62% (4.42- 12.08)	6/191 3.14% (1.16- 6.71)	47/267 17.6% (13.23- 22.71)	27/171 15.79% (10.67% 22.14)	
send a member of the household to work far away	72/205 35.12% (28.60 - 42.08)	90/214 42 % (35.36- 48.98)	31/210 14.76 % (10.26- 20.29)	19/191 9.95 % (6.10- 15.10)	38/267 14.23 % (10.27- 19.01)	24/171 14 % (9.20% 20.16)	
Engaged in works that puts you or other members of your household at risk of harm	28/205 13.66% (9.27- 19.13)	38/214 17.76% (12.88 - 23.55)	23/210 10.95% (7.07- 15.98)	2/191 1.05% (0.13- 3.73)	25/267 9.36% (6.15- 13.51)	14/171 8.19% (4.55% 13.36)	
skip paying rent / debt repayments to meet other needs	27/205 13.17% (8.86- 18.58)	49/214 22.9% (17.45 - 29.12)	14/210 6.67% (3.69- 10.93)	4/191 2.09% (0.57- 5.28)	40/267 14.98% (10.92- 19.84)	4/170 2.35% (0.64% 5.91)	
take-out new loans or borrowed money	73/205 35.61% (29.06- 42.58)	75/214 35% (28.67 - 41.85)	65/210 31.1% (24.89- 37.85)	53/191 27.75% (21.53- 34.67)	59/267 22.1% (17.27- 27.56)	32/171 18.71% (13.17% 25.38)	
Reduce the number of meals eaten in a day	74/205 36.1 % (29.52 - 43.08)	79/214 36.9 % (30.44 - 43.76)	67/210 31.9 % (25.66- 38.67)	56/191 29.32 % (22.97- 36.32)	90/267 33.71 % (28.06- 39.72)	57/171 33.33 % (26.32% 40.93)	

Proportion of households reporting using the following coping strategies over the past 7 days:							
rely on less preferred and/or less expensive food	203/205 99 % (96.52 - 99.88)	172/214 80.37 % (74.41 - 85.47)	112/210 53.33 % (46.34- 60.23)	137/191 71.73 % (64.77- 77.99)	213/267 79.78 % (74.45% 84.43)	116/171 67.84 % (60.28% 74.76)	
Borrow food, or rely on help from a friend or relative	176/205 85.85 % (80.32 - 90.32)	130/214 81.54 % (53.86 - 67.33)	97/210 46.19 % (39.31- 53.18)	132/191 69.11 % (62.03- 75.58)	191/267 7.54 % (65.72- 76.87)	102/171 59.65 % (51.89% 67.07)	
reduce the number of meals eaten in a day due to lack of food	202/205 98.54 % (95.78 - 99.70)	161/214 75.23 % (68.89 - 80.86)	104/210 49.52 % (42.57- 56.49)	136/191 71.2% (64.22- 77.51)	233/267 87.27 % (82.66- 91.02)	120/171 70.18% (62.72% 76.92)	
Limit portion sizes at mealtime	202/205 98.54 % (95.78 - 99.70)	164/214 76.64 % (70.38 - 82.13)	103/210 49 % (42.10- 56.02)	133/191 69.63 % (62.58- 76.06)	235/267 88.01 % (83.50- 91.66)	122/171 71.35 % (63.94% 77.99)	
Reduce consumption by adults so children could eat	193/205 94.15 % (90.00 - 96.94)	146/214 68.22 % (61.53 - 74.40)	98/210 46.67 % (39.77- 53.66)	129/191 67.54 % (60.40- 74.12)	225/267 84.27 % (79.34- 88.42)	85/171 49.71 % (41.98% 57.44)	
Average reduced coping strategy index; rCSI (mean, range)	21.5 [0-9]	14.1 [0-8]	10.74 [0-9]	14.8 [0-9]	18.17 [0-9]	12 [0-9]	

Food Consumption Score (FCS)							
Average FCS (mean, SD)	34.9 [13.1]	33.68 [11]	24.67 [9.46]	26.8 [13.5]	46 [16.5]	42.7 [15-55.5]	
FCS profiles:							
Acceptable (>35)	90/205 43.9 % (37.00 - 50.99)	68/214 31.78% (25.6 - 38.47)	22/210 10.48 % (6.68- 15.43)	45/191 23.56 % (17.73- 30.23)	197/267 74.16 % (68.47- 79.30)	107/171 62.57 % (54.86- 69.84)	
Borderline (21.5-35)	89/205 43.4 % (36.53 - 50.50)	131/214 61.2 % (54.3 - 67.78)	107/210 50.95 % (43.98- 57.90)	73/191 38.22 % (31.30- 45.51)	43/267 16.1 % (11.91- 21.07)	54/171 31.58 % (24.70- 39.11)	

Poor (0-21)	26/205 12.68 % (8.45 - 18.03)	15/214 7 % (3.98 - 11.30)	81/210 38.57 % (31.95- 45.52)	73/191 38.22 % (31.30- 45.51)	26/267 9.74 % (6.46- 13.94)	10/171 5.85 % (2.84% 10.49)	
Which of your household's basic needs can you not afford?	Hygiene items, clothes, shoes 42/205 20.49%	Hygiene-items, clothes, shoes 42/205 27.579%	Save some money 27/210 12.86%	Save some money 26/191 13.61%	Food 43/267 16.1%	Food 30/171 17.54%	

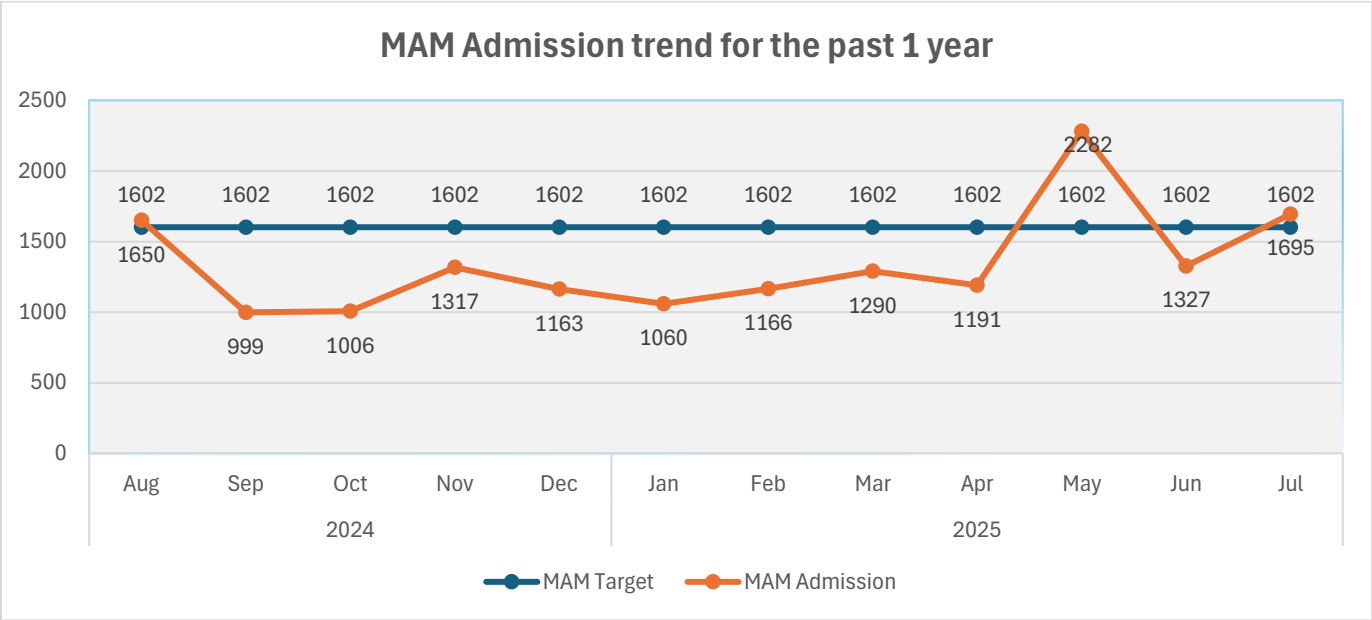
INTRODUCTION

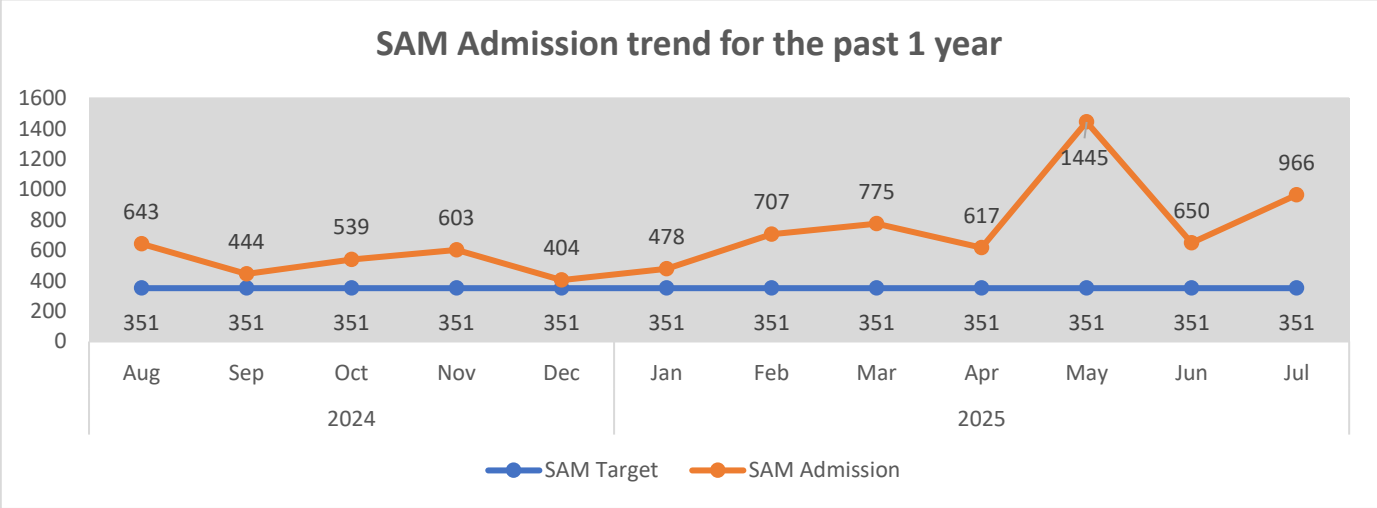
UNHCR's Gambella Sub-Office manages one of the largest refugee-hosting operations in Ethiopia, primarily accommodating South Sudanese refugees. The Gambella Region, located in the southwestern part of the country and bordering South Sudan, has a long-standing history of hosting refugees since 1993. As of 31 March 2025, the region was home to 388,408 refugees across seven camps and one settlement (Akula). The majority of refugees arrived between 2014 and 2017 following the outbreak of violence in South Sudan, entering through Pagak, Akobo, and Raad. The camps include Nguenyyiel, Tierkidi, Kule, Jewi, Pinyudo 1, Pinyudo 2, and Okugo. UNHCR oversees operations from its Sub-Office in Gambella, with additional presence in Pinyudo and Okugo. The refugee population is predominantly composed of women and children, with 65% under the age of 18, 17% under five years, and 4% being pregnant or lactating women.

Nutrition programming in Gambella is implemented across all camps through 17 decentralized nutrition centers. Key partners include GOAL, AAH, ASDEPO, and MSF-H for nutrition-specific interventions, and DCA for nutrition-sensitive programming. While nutrition-sensitive actions are integrated into some program designs, they remain limited in scale. The primary focus of these interventions is on children under five, pregnant and lactating women, and individuals with specific medical vulnerabilities. All activities align with the UNHCR Global Strategy for Public Health and the Ethiopia Country Multi-Year Multi-Partner and Solutions Strategic Plan, ensuring a coordinated and strategic approach to improving nutritional outcomes.

Coordination of nutrition and food security efforts is led by UNHCR and RRS, in collaboration with WFP and UNICEF. WFP provides general food assistance and supplementary feeding, while UNICEF supports with technical expertise and therapeutic nutrition products. Between 2017 and 2021, nutrition indicators showed marked improvement, with Global Acute Malnutrition (GAM) rates declining from emergency levels to acceptable thresholds. However, the situation has deteriorated in recent years, with GAM prevalence rising above UNHCR's target threshold of 10% in 2022 and again in 2024, despite a brief improvement in 2023. This SENS survey is therefore critical to assess the current nutrition status, identify gaps, and guide evidence-based interventions to address the evolving nutritional needs of the refugee population in Gambella.

Figure 1: ***Number of Admissions to Treatment Programmes for MAM and SAM in Children 6-59 Months***





Coordination is led by UNHCR and RRS in collaboration with WFP, the provider of food assistance and supplementary feeding, and UNICEF, who provide technical support as well as therapeutic feeding products. Nutrition and food security programming over the years has led to an improvement in the nutrition situation, from an emergency level prevalence of Global Acute Malnutrition (GAM) to a more acceptable level, although the weighted prevalence remains above the UNHCR <10% target. However, GAM prevalence according to the 2025 SENS results remains a major concern, with a prevalence among children generally above the emergency threshold of ≥15%. This is mainly due to the dependence of the population on the general food ration and in this year only 50-60% of food assistance is provided in each month which limited access to a diversified diet, which has been made more difficult in a context where livelihood interventions do not have a high coverage. Given the need to periodically assess the nutritional status of the refugee population and assess trends, an annual Standardized Expanded Nutrition Survey (SENS) was conducted between 25 Aug to 10 Oct 2025 in 6 of the 7 refugee camps in Gambella.

SURVEY OBJECTIVES

The overall objective of the survey was to assess the nutrition status of the refugee population and formulate workable recommendations for appropriate nutrition and public health interventions in the refugee camps in the Gambella region according to the UNHCR SENS version 3 methodology. In this year SENS survey UNHCR and partners agreed to select only 4 modules of SENS (Demography and mortality, child anthropometry and health, IYCF and Food security) while WASH assessment are done by WASH partners and results from that will be used for anaemia since it is costy and no intervention done to reduce anaemia we skip and agreed to use previous year results until further assessment and for mosquito net distribution since no distribution done this year we agreed to skip.

Specific primary objectives of the survey

1. To determine the demographic profile of the population.
2. To determine the age dependency ratio.
3. To measure the prevalence of acute malnutrition in children aged 6-59 months.
4. To measure the prevalence of stunting in children aged 6-59 months.
5. To determine the coverage of measles vaccination among children aged 9-59 months.
6. To determine the coverage of vitamin A supplementation in the last six months among children aged 6-59 months.

7. To determine the two-week period prevalence of diarrhea among children 6-59 months.
8. To investigate IYCF practices among children aged 0-23 months.
9. To determine the coverage of households receiving in-kind food assistance and the duration of the general in-kind food distribution for recipients' households.
10. To determine the extent to which negative coping strategies are used by households.
11. To assess household food consumption (quantity and quality).
12. To establish recommendations on actions to be taken to address the situation in the refuge population in the camps.

Secondary objectives

13. To determine the coverage of deworming with mebendazole in the last six months among children aged 24-59 months;
14. To determine the enrolment into the supplementary (SFP) and therapeutic (OTP/SC) nutrition programmes for children aged 6-59 months;
15. To determine enrolment into Antenatal Care clinic and coverage of iron-folic acid supplementation in pregnant women;

Optional objectives

1. To determine the use of oral rehydration salt (ORS) and/or zinc during diarrhea episodes in children aged 0-59 months.
2. To determine the prevalence of MUAC malnutrition in pregnant and lactating under six-month women.

METHODOLOGY

Standardized Expanded Nutrition Survey (SENS) was conducted in 6 refugee camps according to the version 3 guidelines and tools[1]. Only 4 SENS modules were covered: Demography, Anthropometry and Health, Infant and young child feeding (IYCF) and Food Security.

SENS is a standardized tool for conducting nutrition surveys in refugee populations developed by UNHCR in collaboration with expert organizations and individuals in the fields of nutrition, public health, food security, water sanitation and hygiene, and malaria prevention. SENS is based on the internationally recognized SMART Methodology[2] (Standardized Monitoring and Assessment of Relief and Transitions) for survey design and anthropometric assessments and adapted to the specific requirements of refugee settings. The SENS modules include standardized questionnaires, analysis guidance, reporting format and standard analysis procedures.

The study population was the South Sudanese refugees living in the 6 refugee camps in the Gambella region, Ethiopia who have been registered with UNHCR. Separate samples will be drawn from each of the 5 camps and exhaustive interview for punyido-II camp to provide a representative nutrition situation for each of them. Population data will be obtained from the UNHCR ProGress database updated as of 31 March 2025.

Survey design and sampling

A cross-sectional study design was used, Simple random sampling in the larger camps (Kule, Tierkidi, Nguenyyiel, Jewi and Pinyudo_I) and exhaustive (all HHs) interviewing and measurement in the smaller camp (Pinyudo_II). In simple random sampling all house in the camp were leveled and verified, after empty house hods are excluded, simple random sampling was used to select the representative samples. In Pinyudo-II camp, the required number of households were more than the actual present households, so exhaustive interviewing and measurement done for all present households without sampling.

[1] *SENS. Standardized Expanded Nutrition Survey for Refugee Populations Version 3 (2018).*

[2] *SMART. Standardized Monitoring and Assessment of Relief and Transitions. Available at:* http://smartmethodology.org/

Sample size calculation

The Standardized Monitoring and Assessment of Relief and Transitions (SMART) methodology (www.smartmethodology.org) was used for sample calculation in the ENA software, January 11, 2020 version based on the sample assumptions in Table 2 and 3. The sample size was based on anthropometry in children between 6 and 59 months and mortality. The expected prevalence of GAM, and mortality, as well as average household size, and the proportion below 5 years were obtained from the 2024 SENS results. The default value of 1 was used as the design effect for simple random sampling. The sample size was first calculated in number of children and then converted into number of households. The sample size was adjusted for non-response at 10%.

Table 2: Anthropometric Prevalence sample size assumptions, Gambella, Ethiopia, 2025

Parameters for Anthropometry	Value	Assumptions based on context
Population of children U5	%	## of children under five years old is obtained from ProGress, the UNHCR database for refugees, as of 31st March 2025
Estimated Prevalence of GAM (%) (Upper limit CI)	%	The prevalence of GAM for each derived from SENS 2024 is used. To be ensure the sample size to representative of the population, upper limit of the confidence interval is used.
± Desired Precision	±	The general purpose of this survey is to assess current nutrition situation, i.e., prevalence of global acute malnutrition (GAM). Hence, for each, a separate precision recommended **in table 3** above is used to determine the sample size.
Design Effect	1	Design effect is an adjustment made to find a survey sample size. This survey will use simple or systemic random sampling and, hence, a design effect of 1 is used.

Table 3: Anthropometry sample size assumptions, Gambella, Ethiopia, 2025

	Kule	Tierkidi	Nguenny iel	Jewi	P_I	P_II	Okugo[1]
Estimated prevalence GAM %, used Upper limit CI from SENS 2024)	16.10%	12.60%	16.80%	21.60%	12.9%	5.70%	
± Desire precision (%)	3.5	3	3.5	4	3	2.5	
Average household size [2]	6.99	6.93	6.7	6.64	5.14	3.79	
% Children under 5 years	17.50%	18.90%	18.75%	18.60%	22.50%	31.89 %	
%Non-response households	10%	10%	10%	10%	10%	10%	
No. of households	7,870	10,697	16,686	10,396	10,167	3,030	
Total population	55,009	74,128	111,798	69,031	52,258	11,483	
No. of children U5	9,627	14,010	20,962	12,840	11,758	3,662	
Households to be included for Anthropometry and Health module	428	443	431	406	512	337	
## of children to be included for Anthropometry and Health module	424	470	438	407	480	330	

For Okugo we are not conducting SENS because the GAM prevalence from last year is 6.5%.

Table 4: Mortality sample size assumptions, Gambella, Ethiopia, 2025

Camp Name	Estimated rate (death/10,000 /day) (upper CI 2022	±Desired precision	Average household size	Recall period	Non-response households (%)	No. Pop. to be included In the Sample	No. HHs to be included In the Sample
Jewi	0.21	0.3	5.9	93	10%	964	182
Kule	0.31	0.3	5.5	93	10%	1423	287
Nguennyiel	0.36	0.3	5.0	93	10%	1652	367
Pinyudo_I	0.35	0.3	5.5	93	10%	1606	325
Pinyudo_II	0.42	0.3	5.5	93	10%	1928	389
Tierkidi	0.28	0.3	5.2	93	10%	1285	275

Table 5: Survey final sample size and design, Gambella, Ethiopia, 2024

Camp Name	No. HHs included SENS	No. HHs for Anthropometry and Health/ IYCF	No. of children 6-59 months to include for Anthropometry	Demography and Mortality (HH)	No. of HHs visit / day /team	No. Of team	No. of days required for data collection
Jewi	**406**	406	407	182	14	6	5
Kule	**428**	428	424	287	15	6	5
Nguenyyiel	**431**	431	438	367	15	6	5
Pinyudo-I	**512**	512	480	325	17	6	5
Pinyudo-II	**389**	337	330	389	13	6	5
Tierkidi	**433**	443	470	275	15	6	5

Data collection and analysis

In each camp, 6 survey teams were recruited and trained over a period of 5 days, which included 3 days of theoretical training, followed by an additional 2 days of practical training, which included the standardization test for anthropometry and the pilot test. Each team was made up of 5 members: team leader, interviewer, anthropometric measurer, assistant measurer and translator. Data was collected over a period of 5 days in each camp using the Kobo collect application on Android tablets. There was supervision in the field, and at the end of each day, after verification, the completed questionnaires were sent to an online server on Kobo toolbox. A daily plausibility report of anthropometry was generated and shared with the teams to maintain data quality. Data for anthropometric and mortality variables was analysed using ENA software, 11 January 2020 version. The remaining variables were analysed using EPI INFO 7.2.5, November 23, 2021, version.

Results

Demography indicators

Sample size

Table 5 : SAMPLING INFORMATION BY CAMP

Survey Area	Sampling Information	Total planned	Total surveyed	% of target	Non- Response rate (%)
Kule	**Number of households**	406	405	99.7%	0.3%
	Number of children 6-59 months	407	*492*	120.8%	0%
Terkedi	**Number of households**	433	*430*	99.3%	0.7%
	Number of children 6-59 months	470	*497*	105.7%	0%
Nguenyyiel	**Number of households**	431	*408*	94.6%	5.4%
	Number of children 6-59 months	438	*495*	113%	0%
Jewi	**Number of households**	406	*369*	90.8%	9.2%
	Number of children 6-59 months	407	*439*	107%	0%
Punyido-I	**Number of households**	512	*504*	98.4%	1.6%
	Number of children 6-59 months	480	*519*	108%	0%
Punyido-II	**Number of households**	389	*334*	85.8%	14.2%
	Number of children 6-59 months	330	*443*	134%	0%

Household size and composition

*Figure 2: **POPULATION PYRAMID IN KULE***

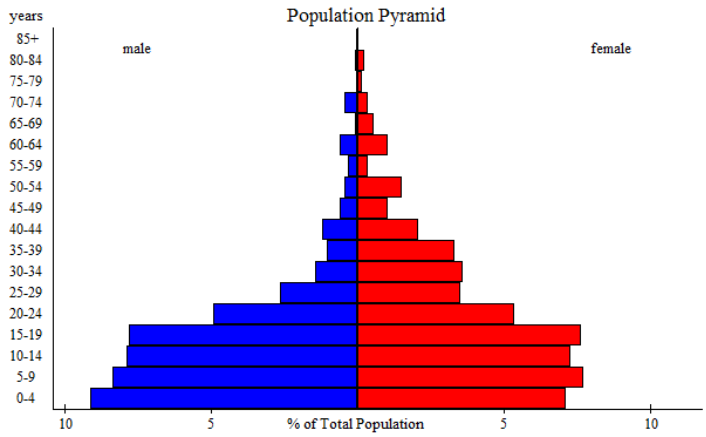


*Figure 3: **POPULATION PYRAMID IN TIERKIDI***

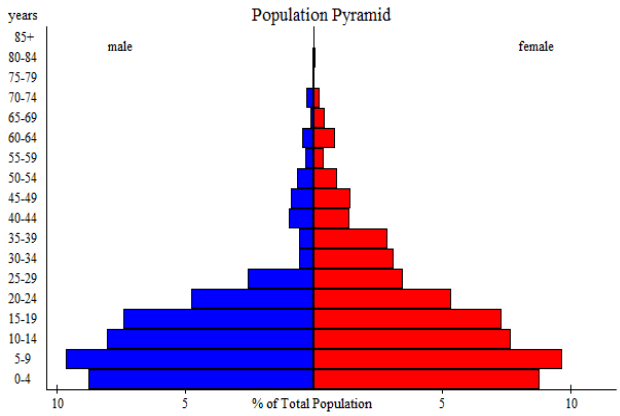
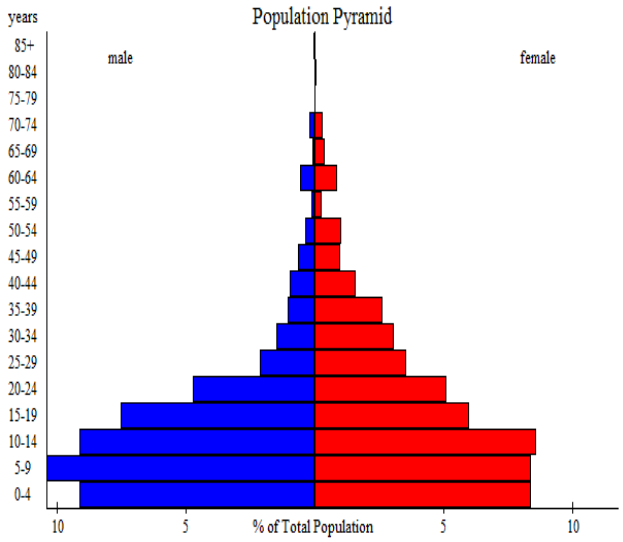


*Figure 4: **POPULATION PYRAMID IN NGUENNYIEL***

*Figure 5: **POPULATION PYRAMID IN JEWI***



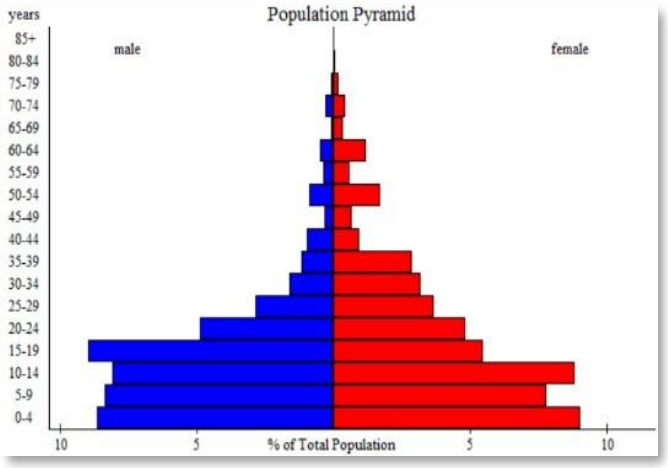
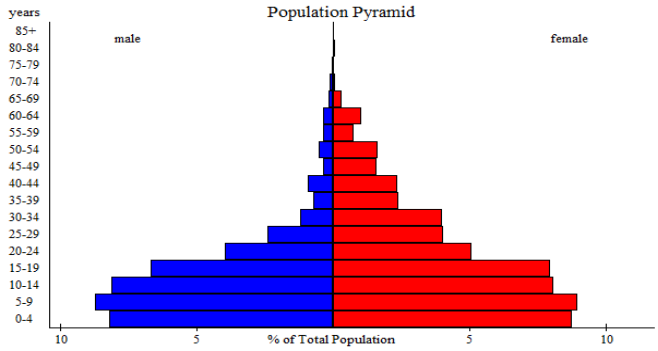
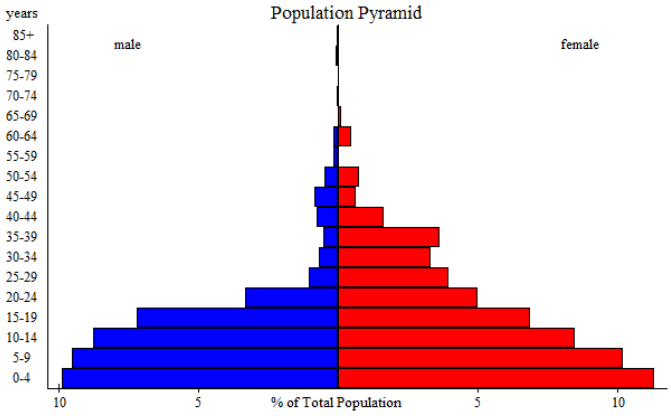


*Figure 6: **POPULATION PYRAMID IN PINYUDO I***

*Figure 7: **POPULATION PYRAMID IN PINYUDO II***





Children 6-59 months

Age and Sex Distribution

Table 9 : Distribution of age and sex of sample, Kule, Gambella, 2025

	Boys		Girls		Total		Ratio
AGE (mo)	no.	%	no.	%	no.	%	Boy:girl
0-5	0	0	0	0	0	0.0	
6-17	66	57.4	49	42.6	115	23.3	1.3
18-29	69	55.2	56	44.8	125	25.3	1.2
30-41	82	60.3	54	39.7	136	27.5	1.5
42-53	47	51.1	45	48.9	92	18.6	1.0
54-59	17	65.4	9	34.6	26	5.3	1.9
Total	281	56.9	213	43.1	494	100.0	1.3

Table 10 : Distribution of age and sex of sample, Tierkidi, Gambella, 2025

	Boys		Girls		Total		Ratio
AGE (mo)	no.	%	no.	%	no.	%	Boy:girl
0-5	0	0	0	0	0	0.0	
6-17	61	49.2	63	50.8	124	24.8	1.0
18-29	65	52.0	60	48.0	125	25.0	1.1
30-41	69	49.6	70	50.4	139	27.7	1.0
42-53	52	57.1	39	42.9	91	18.2	1.3
54-59	11	50.0	11	50.0	22	4.4	1.0
Total	258	51.5	243	48.5	501	100.0	1.1

Table 11 : Distribution of age and sex of sample, Nguenyyiel, Gambella, 2025

	Boys		Girls		Total		Ratio
AGE (mo)	no.	%	no.	%	no.	%	Boy:girl
0-5	0	0	0	0	0	0.0	
6-17	70	58.3	50	41.7	120	24.2	1.4
18-29	63	53.4	55	46.6	118	23.8	1.1
30-41	61	50.0	61	50.0	122	24.6	1.0
42-53	55	54.5	46	45.5	101	20.4	1.2
54-59	21	61.8	13	38.2	34	6.9	1.6
Total	270	54.5	225	45.5	495	100.0	1.2

Table 12 : Distribution of age and sex of sample, Jewi, Gambella, 2025

	Boys		Girls		Total		Ratio
AGE (mo)	no.	%	no.	%	no.	%	Boy:girl
0-5	0	0	0	0	0	0.0	
6-17	48	46.2	56	53.8	104	23.5	0.9
18-29	59	53.6	51	46.4	110	24.9	1.2
30-41	44	48.4	47	51.6	91	20.6	0.9
42-53	58	54.7	48	45.3	106	24.0	1.2
54-59	21	67.7	10	32.3	31	7.0	2.1
Total	230	52.0	212	48.0	442	100.0	1.1

Table 13 : Distribution of age and sex of sample, Pinyudo_I, Gambella, 2025

	Boys		Girls		Total		Ratio
AGE (mo)	no.	%	no.	%	no.	%	Boy:girl
0-5	0	0	0	0	0	0.0	
6-17	47	44.3	59	55.7	106	20.4	0.8
18-29	56	47.9	61	52.1	117	22.5	0.9
30-41	76	52.4	69	47.6	145	27.9	1.1
42-53	59	49.2	61	50.8	120	23.1	1.0
54-59	13	41.9	18	58.1	31	6.0	0.7
Total	251	48.4	268	51.6	519	100.0	0.9

Table 14 : Distribution of age and sex of sample, Pinyudo_II, Gambella, 2025

	Boys		Girls		Total		Ratio
AGE (mo)	no.	%	no.	%	no.	%	Boy:girl
0-5	0	0	0	0	0	0.0	
6-17	50	49.0	52	51.0	102	23.0	1.0
18-29	48	44.4	60	55.6	108	24.4	0.8
30-41	56	45.9	66	54.1	122	27.5	0.8
42-53	42	48.8	44	51.2	86	19.4	1.0
54-59	15	60.0	10	40.0	25	5.6	1.5
Total	211	47.6	232	52.4	443	100.0	0.9

Anthropometric results (based on WHO Growth Standards 2006)

WHO-UNICEF (2018) classification of public health significance for children under 5 years of age

Classification Prevalence thresholds (%)	Critical situation	Serious situation	Poor situation	Acceptable situation	
	Very High	High	Medium	Low	Very low

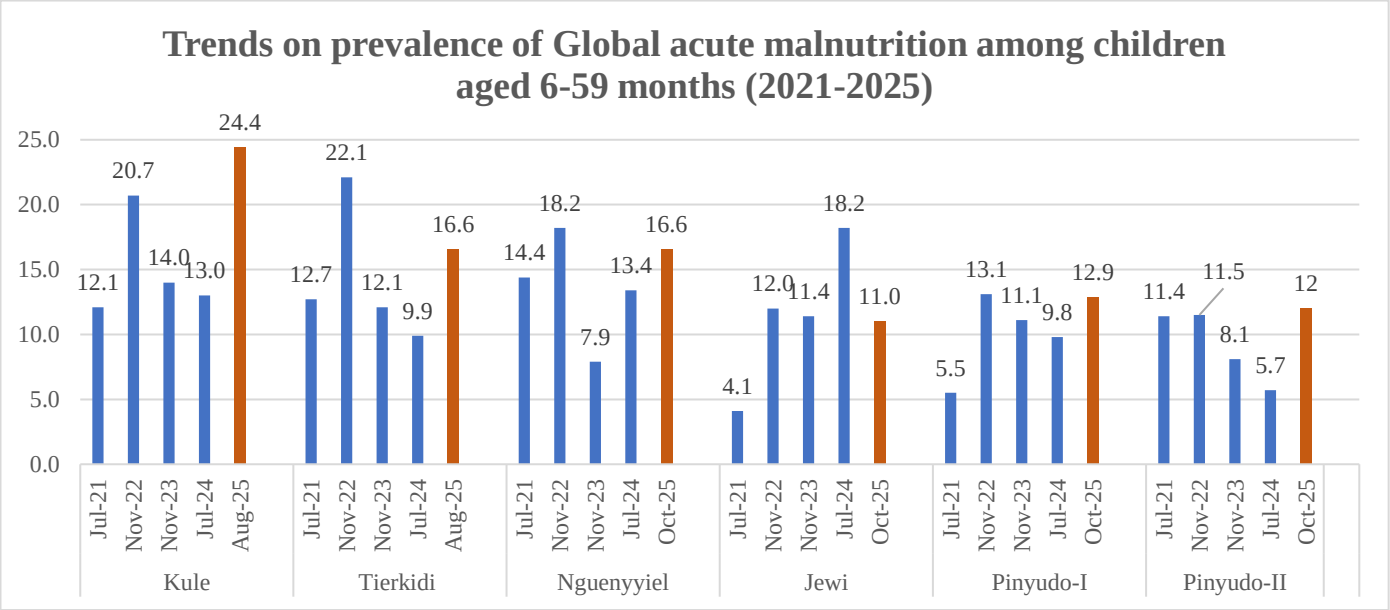
Wasting	≥ 15	10 - < 15	5 - < 10	2 5 - < 5	< 2 5
Stunting	≥ 30	20 - < 30	10 - < 20	2 5 - < 10	< 2 5
Overweight	≥ 15	10 - < 15	5 - < 10	2 5 - < 5	< 2 5
Underweight*	≥ 30	20 - < 30	10 - < 20	< 10%	

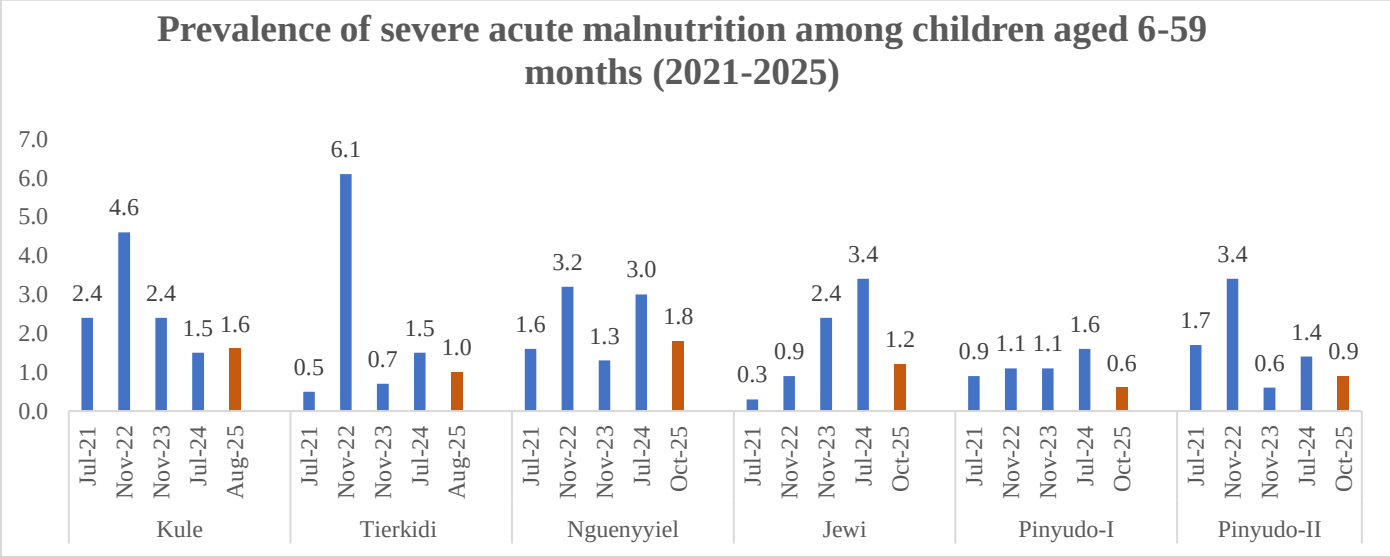
*Source: WHO (1995). Physical status: the use and interpretation of anthropometry. Report of a WHO Expert Committee. Technical Report Series No 854. Geneva, World Health Organization, 1995.

Table 15 : PREVALENCE OF ACUTE MALNUTRITION BASED ON WEIGHT-FOR-HEIGHT Z-SCORES (AND/OR OEDEMA) AND BY SEX, BY CAMP

Survey Area	**N**	**Global Acute Malnutrition** (WHZ <-2 z-score and/or oedema)						**Moderate Acute Malnutrition** (WHZ <-2 zscore and ≥-3 zscore)		**Severe Acute Malnutrition** (WHZ <-3 zscore and/or oedema)	
		All		**Boys**		**Girls**		**All**		**All**	
		n	**% (95% CI)**	**n**	**% (95% CI)**	**n**	**% (95% CI)**	**n**	**% (95% CI)**	**n**	**% (95% CI)**
Kule	486	109	22.4 % (18.9 - 26.3 95% C.I.)	57	20.5 % (16.2 - 25.6 95% C.I.)	52	25.0 % (19.6 - 31.3 95% C.I.)	103	21.2 % (17.8 - 25.0 95% C.I.)	6	1.2 % (0.6 - 2.7 95% C.I.)
Tierkidi	500	76	15.2 % (12.3 - 18.6 95% C.I.)	39	15.2 % (11.3 - 20.1 95% C.I.)	37	15.2 % (11.3 - 20.3 95% C.I.)	73	14.6 % (11.8 - 18.0 95% C.I.)	3	0.6 % (0.2 - 1.7 95% C.I.)
Nguenyyiel	495	77	15.6 % (12.6 - 19.0 95% C.I.)	49	18.1 % (14.0 - 23.2 95% C.I.)	28	12.4 % (8.8 - 17.4 95% C.I.)	71	14.3 % (11.5 - 17.7 95% C.I.)	6	1.2 % (0.6 - 2.6 95% C.I.)
Jewi	439	39	8.9 % (6.6 - 11.9 95% C.I.)	23	8.9 % (6.6 - 11.9 95% C.I.)	16	7.6 % (4.7 - 12.0 95% C.I.)	36	8.2 % (6.0 - 11.1 95% C.I.)	3	0.7 % (0.2 - 2.0 95% C.I.)
Pinyudo_I	516	59	11.4 % (9.0 - 14.5 95% C.I.)	32	12.9 % (9.3 - 17.6 95% C.I.)	27	10.1 % (7.0 - 14.3 95% C.I.)	56	10.1 % (7.0 - 14.3 95% C.I.)	3	0.6 % (0.2 - 1.7 95% C.I.)
Pinyudo_II	441	50	11.3 % (8.7 - 14.6 95% C.I.)	27	12.9 % (9.0 - 18.1 95% C.I.)	23	10.0 % (6.7 - 14.5 95% C.I.)	48	10.9 % (8.3 - 14.1 95% C.I.)	2	0.5 % (0.1 - 1.6 95% C.I.)

Figure 8: PREVALENCE OF GLOBAL AND SEVERE ACUTE MALNUTRITION BASED ON WHO GROWTH STANDARDS IN CHILDREN 6-59 MONTHS FROM 2021-2024, BY CAMP.





Global acute malnutrition prevalence in the six camps have shown to be above the standard of 10% in accordance with UNHCR standard for refugee camps. Except Jewi camp, other have shown significant ($P<0.05$) increment in comparison to 2024 SENS survey. In all camps the severe acute malnutrition prevalence is below the UNHCR standard for refugee camps (<2%).

Acute malnutrition is more prevalent in younger age groups (6-29 months) in almost all the camps (Table 16-21).

Table 16: Prevalence of acute malnutrition by age, based on weight-for-height z-scores and/or oedema, Kule, Gambella, 2025

		Severe wasting (<-3 z-score)		Moderate wasting (>= -3 and <-2 z-score)		Normal (> = -2 z score)		Oedema	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	111	3	2.7	28	25.2	80	72.1	0	0.0
18-29	124	3	2.4	36	29.0	85	68.5	0	0.0

30-41	135	0	0.0	18	13.3	117	86.7	0	0.0
42-53	90	0	0.0	19	21.1	71	78.9	0	0.0
54-59	26	0	0.0	2	7.7	24	92.3	0	0.0
Total	486	6	1.2	103	21.2	377	77.6	0	0.0

Table 17: Prevalence of acute malnutrition by age, based on weight-for-height z-scores and/or oedema, Tierkidi, Gambella, 2025

		Severe wasting (<-3 z-score)		Moderate wasting (>= -3 and <-2 z-score)		Normal (> = -2 z score)		Oedema	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	124	2	1.6	20	16.1	102	82.3	0	0.0
18-29	125	1	0.8	23	18.4	101	80.8	0	0.0
30-41	139	0	0.0	21	15.1	118	84.9	0	0.0
42-53	91	0	0.0	5	5.5	86	94.5	0	0.0
54-59	21	0	0.0	4	19.0	17	81.0	0	0.0
Total	500	3	0.6	73	14.6	424	84.8	0	0.0

Table 18: Prevalence of acute malnutrition by age, based on weight-for-height z-scores and/or oedema, Nguenyyiel, Gambella, 2025

		Severe wasting (<-3 z-score)		Moderate wasting (>= -3 and <-2 z-score)		Normal (> = -2 z score)		Oedema	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	120	4	3.3	21	17.5	95	79.2	0	0.0
18-29	118	1	0.8	19	16.1	97	82.2	1	0.8
30-41	122	0	0.0	20	16.4	102	83.6	0	0.0
42-53	101	0	0.0	9	8.9	92	91.1	0	0.0
54-59	34	0	0.0	2	5.9	32	94.1	0	0.0
Total	495	5	1.0	71	14.3	418	84.4	1	0.2

Table 19: Prevalence of acute malnutrition by age, based on weight-for-height z-scores and/or oedema, Jewi, Gambella, 2025

	Severe wasting (<-3 z-score)	Moderate wasting (>= -3 and <-2 z-score)	Normal (> = -2 z score)	Oedema

Age (mo)	Total no.	No.	%	No.	%	No.	%	No.	%
6-17	104	1	1.0	8	7.7	95	91.3	0	0.0
18-29	109	1	0.9	7	6.4	101	92.7	0	0.0
30-41	89	1	1.1	6	6.7	82	92.1	0	0.0
42-53	106	0	0.0	10	9.4	96	90.6	0	0.0
54-59	31	0	0.0	5	16.1	26	83.9	0	0.0
Total	439	3	0.7	36	8.2	400	91.1	0	0.0

Table 20: Prevalence of acute malnutrition by age, based on weight-for-height z-scores and/or oedema, Pinyudo_I, Gambella, 2025

		Severe wasting (<-3 z-score)		Moderate wasting (>= -3 and <-2 z-score)		Normal (> = -2 z score)		Oedema	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	104	1	1.0	16	15.4	87	83.7	0	0.0
18-29	117	2	1.7	15	12.8	100	85.5	0	0.0
30-41	144	0	0.0	9	6.3	135	93.8	0	0.0
42-53	120	0	0.0	10	8.3	110	91.7	0	0.0
54-59	31	0	0.0	6	19.4	25	80.6	0	0.0
Total	516	3	0.6	56	10.9	457	88.6	0	0.0

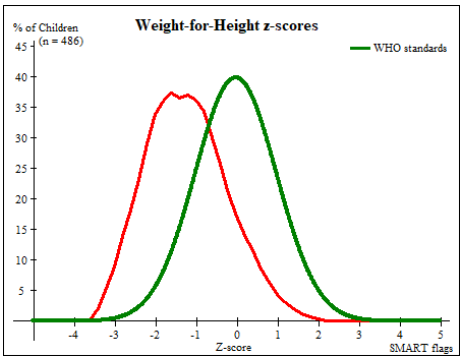
Table 21: Prevalence of acute malnutrition by age, based on weight-for-height z-scores and/or oedema, Pinyudo_II, Gambella, 2025

		Severe wasting (<-3 z-score)		Moderate wasting (>= -3 and <-2 z-score)		Normal (> = -2 z score)		Oedema	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	100	0	0.0	14	14.0	86	86.0	0	0.0
18-29	108	1	0.9	12	11.1	95	88.0	0	0.0

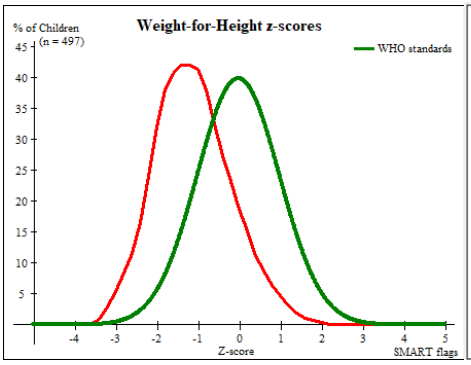
30-41	122	0	0.0	10	8.2	111	91.0	1	0.8
42-53	86	0	0.0	10	11.6	76	88.4	0	0.0
54-59	25	0	0.0	2	8.0	23	92.0	0	0.0
Total	441	1	0.2	48	10.9	391	88.7	1	0.2

Figure 9: ***DISTRIBUTION OF WEIGHT-FOR-HEIGHT Z-SCORES (BASED ON WHO GROWTH STANDARDS; THE REFERENCE POPULATION IS SHOWN IN GREEN AND THE SURVEYED POPULATION IS SHOWN IN RED) OF SURVEY***

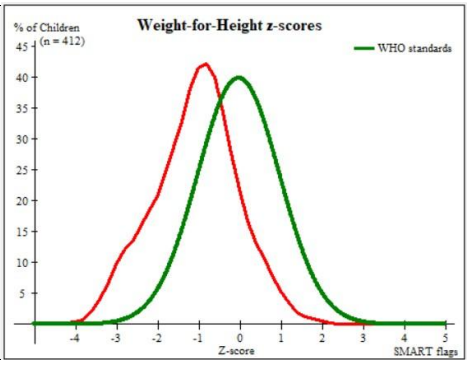
POPULATION IN KULE, TIERKIDI, NGUENNYIEL, JEWI, PINYUDO_I AND PINYUDO_II COMPARED TO REFERENCE POPULATION



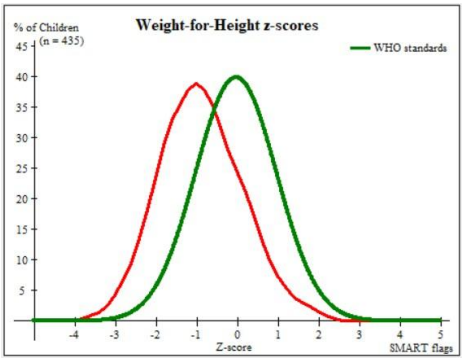
Kule



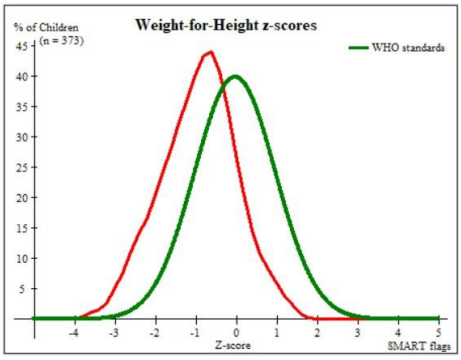
Tierkidi



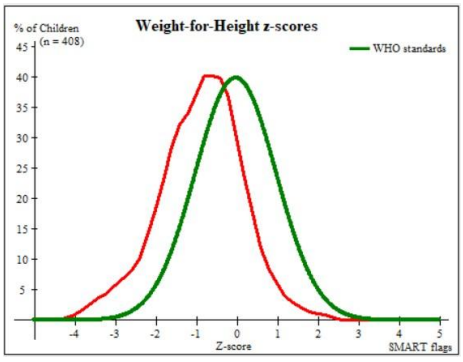
Nguenyyiel



Jewi



Pinyudo_I



Pinyudo_II

The height-for-age distribution for the survey (red) was compared to the WHO distribution (green) in Figure 9 for all camps. The distribution followed a typical bell shape and was also shifted to the left of the reference, indicating an average lower mean z-score for the survey samples.

Surveyed Area	Kule	Tierkidi	Nguenyyiel	Jewi	Pinyudo_I	Pinyudo_II	Classification of public health significance
Data collection period	25 Aug - -29 August 2025	01 Sep - 05 Sep 2025					
CHILDREN 6-59 months n/N, % [95% CI]							
Acute Malnutrition (WHO 2006 Growth Standards)							

Global Acute Malnutrition (GAM)	120/492 24.4 % (20.8 - 28.4)	83/497 16.6 % (13.6 - 20.1)	82/495 16.6 % (13.6 - 20.1)	46/420 11.0 % (8.3 - 14.3)	67/519 12.9 % (10.3 - 16.1)	53/443 12.0 % (9.3 - 15.3)	Very high/critical if ≥ 15% (WHOUNICEF) UNHCR Target of < 10%
Moderate Acute Malnutrition (MAM)	112/492 22.8 % (20.0 – 25.2)	79/497 15.6 % (13.2 – 17.8)	73/495 14.8% (12.6 – 16.7)	41/420 9.8 % (7.8 – 11.5)	63/519 12.3 % (10.1 – 14.4)	49/443 11.1 % (8.9 – 13.0)	
Severe Acute Malnutrition (SAM)	8/492 1.6 % (0.8 - 3.2)	5/497 1.0 % (0.4 - 2.3)	9/495 1.8 % (1.0 - 3.4)	5/420 1.2 % (0.5 - 2.8)	3/519 0.6 % (0.2 - 1.7)	4/443 0.9 % (0.4 - 2.3)	UNHCR Target of < 2%
Oedema	(0.0 %)	0 %	0.2 %	0.0 %	0 %	0.2 %	
Mid Upper Arm Circumference (MUAC)							
MUAC <125 mm and/or oedema	36/492 7.3 % (5.3 - 10.0)	13/497 2.6 % (1.5 - 4.4)	22/495 4.4 % (3.0 - 6.6)	8/420 1.9 % (1.0 - 3.7)	15/519 2.9 % (1.8 - 4.7)	12/443 2.7 % (1.6 - 4.7)	
MUAC 115-124 mm	34/492 6.9 % (5.0 - 9.5)	10/497 2.0 % (1.1 - 3.7)	17/495 3.4 % (2.2 - 5.4)	6/420 1.4 % (0.7 - 3.1)	15/519 2.9 % (1.8 - 4.7)	9/443 2.0 % (1.1 - 3.8)	
MUAC <115 mm and/or oedema	2/492 0.4 % (0.1 - 1.5)	3/497 0.6 % (0.2 - 1.8)	5/495 1.0 % (0.4 - 2.3)	2/420 0.5 % (0.1 - 1.7)	0/519 0.0 % (0.0 - 0.7)	3/443 0.7 % (0.2 - 2.0)	

Table 22 : PREVALENCE OF MUAC MALNUTRITION, BY CAMP 2025

Survey Area	**N**	**Prevalence of MUAC < 125 mm and/or oedema**						**Prevalence of MUAC < 125 mm and >= 115 mm, no oedema**		**Prevalence MUAC < 115 mm and/or oedema**	
		All		**Boys**		**Girls**		**All**		**All**	
		n	**% (95% CI)**	**n**	**% (95% CI)**	**n**	**% (95% CI)**	**n**	**% (95% CI)**	**n**	**% (95% CI)**
Kule	492	36	7.3 % (5.3 - 10.0 95% C.I.)	15	5.4 % (3.3 - 8.6 95% C.I.)	21	9.9 % (6.6 - 14.7 95% C.I.)	34	6.9 % (5.0 - 9.5 95% C.I.)	2	0.4 % (0.1 - 1.5 95% C.I.)
Tierkidi	500	13	2.6 % (1.5 - 4.4 95% C.I.)	7	2.7 % (1.3 - 5.5 95% C.I.)	6	2.5 % (1.1 - 5.3 95% C.I.)	10	2.0 % (1.1 - 3.6 95% C.I.)	3	0.6 % (0.2 - 1.7 95% C.I.)
Nguenyyiel	495	22	4.4 % (3.0 - 6.6)	9	3.3 % (1.8 - 6.2 95% C.I.)	13	5.8 % (3.4 - 9.6 95% C.I.)	17	3.4 % (2.2 - 5.4 95% C.I.)	5	1.0 % (0.4 - 2.3 95% C.I.)
Jewi	442	7	1.6 % (0.8 - 3.2 95% C.I.)	3	1.3 % (0.4 - 3.8 95% C.I.)	4	1.9 % (0.7 - 4.8 95% C.I.)	5	1.1 % (0.5 - 2.6 95% C.I.)	2	0.5 % (0.1 - 1.6 95% C.I.)
Pinyudo_I	519	15	2.9 % (1.8 - 4.7)	7	2.8 % (1.4 - 5.6 95% C.I.)	8	2.8 % (1.4 - 5.6 95% C.I.)	15	2.8 % (1.4 - 5.6 95% C.I.)	0	0.0 % (0.0 - 0.8 95% C.I.)

Pinyudo_II	443	12	2.7 % (1.6 - 4.7)	5	2.4 % (1.0 - 5.4 95% C.I.)	7	2.4 % (1.0 - 5.4 95% C.I.)	9	2.4 % (1.0 - 5.4 95% C.I.)	3	2.4 % (1.0 - 5.4 95% C.I.)

The prevalence of MUAC malnutrition was much lower than the GAM prevalence in all of the camps. This is consistent with findings in other nutrition surveys conducted in South Sudan across different years showing that WFH is a better index for treating acute malnutrition in this population. And in most camps girls are more malnourished than boys by MUAC malnutrition screening. (**Table 22)**

Table 23 : PREVALENCE OF MUAC MALNUTRITION BY AGE, BASED ON MUAC CUT OFF'S AND/OR OEDEMA, **IN KULE**

		Severe wasting (< 115 mm)		**Moderate wasting (>= 115 mm and < 125 mm)**		**Normal (> = 125 mm)**		**Oedema**	
Age (mo)	Total no.	No.	%	No.	%	No.	%	No.	%
6-17	115	0	0.0	24	20.9	91	79.1	0	0.0
18-29	125	2	1.6	9	7.2	114	91.2	0	0.0
30-41	136	0	0.0	1	0.7	135	99.3	0	0.0
42-53	90	0	0.0	0	0.0	90	100.0	0	0.0
54-59	26	0	0.0	0	0.0	26	100.0	0	0.0
Total	492	2	0.4	34	6.9	456	92.7	0	0.0

Table 24 : PREVALENCE OF MUAC MALNUTRITION BY AGE, BASED ON MUAC CUT OFF'S AND/OR OEDEMA, **IN TIERKIDI**

			Severe wasting (< 115 mm)		**Moderate wasting (>= 115 mm and < 125 mm)**		**Normal (> = 125 mm)**		**Oedema**	
Age (mo)		Total no.	No.	%	No.	%	No.	%	No.	%
6-17		124	3	2.4	7	5.6	114	91.9	0	0.0
18-29		125	0	0.0	2	1.6	123	98.4	0	0.0
30-41		139	0	0.0	1	0.7	138	99.3	0	0.0
42-53		91	0	0.0	0	0.0	91	100.0	0	0.0
54-59		21	0	0.0	0	0.0	21	100.0	0	0.0
Total		500	3	0.6	10	2.0	487	97.4	0	0.0

Table 25 : PREVALENCE OF MUAC MALNUTRITION BY AGE, BASED ON MUAC CUT OFF'S AND/OR OEDEMA, **IN NGUENYYIEL**

		Severe wasting (< 115 mm)		**Moderate wasting (>= 115 mm and < 125 mm)**		**Normal (> = 125 mm)**		**Oedema**	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**

6-17	120	3	2.5	16	13.3	101	84.2	0	0.0
18-29	118	1	0.8	2	1.7	115	97.5	1	0.8
30-41	122	0	0.0	0	0.0	122	100.0	0	0.0
42-53	101	0	0.0	0	0.0	101	100.0	0	0.0
54-59	34	0	0.0	0	0.0	34	100.0	0	0.0
Total	495	4	0.8	18	3.6	473	95.6	1	0.2

Table 26 : PREVALENCE OF MUAC MALNUTRITION BY AGE, BASED ON MUAC CUT OFF'S AND/OR OEDEMA, **IN JEWI**

		Severe wasting (< 115 mm)		**Moderate wasting (>= 115 mm and < 125 mm)**		**Normal (> = 125 mm)**		**Oedema**	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	104	2	1.9	3	2.9	99	95.2	0	0.0
18-29	110	0	0.0	1	0.9	109	99.1	0	0.0
30-41	91	0	0.0	1	1.1	90	98.9	0	0.0
42-53	106	0	0.0	0	0.0	106	100.0	0	0.0
54-59	31	0	0.0	0	0.0	31	100.0	0	0.0
Total	442	2	0.5	5	1.1	435	98.4	0	0.0

Table 27 : PREVALENCE OF MUAC MALNUTRITION BY AGE, BASED ON MUAC CUT OFF'S AND/OR OEDEMA, **IN PINYUDO_I**

		Severe wasting (< 115 mm)		**Moderate wasting (>= 115 mm and < 125 mm)**		**Normal (> = 125 mm)**		**Oedema**	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	106	0	0.0	13	12.3	93	87.7	0	0.0
18-29	117	0	0.0	2	1.7	115	98.3	0	0.0
30-41	145	0	0.0	0	0.0	145	100.0	0	0.0

42-53	120	0	0.0	0	0.0	120	100.0	0	0.0
54-59	31	0	0.0	0	0.0	31	100.0	0	0.0
Total	519	0	0.0	15	2.9	504	97.1	0	0.0

Table 28 : PREVALENCE OF MUAC MALNUTRITION BY AGE, BASED ON MUAC CUT OFF'S AND/OR OEDEMA, **IN PINYUDO_II**

		Severe wasting (< 115 mm)		**Moderate wasting (>= 115 mm and < 125 mm)**		**Normal (> = 125 mm)**		**Oedema**	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	102	2	2.0	9	8.8	91	89.2	0	0.0
18-29	108	0	0.0	0	0.0	108	100.0	0	0.0
30-41	122	0	0.0	0	0.0	122	100.0	1	0.8
42-53	86	0	0.0	0	0.0	86	100.0	0	0.0
54-59	25	0	0.0	0	0.0	25	100.0	0	0.0
Total	443	2	0.5	9	2.0	432	97.5	1	0.2

Table 36 : PREVALENCE OF STUNTING BASED ON HEIGHT-FOR-AGE Z-SCORES AND BY SEX, BY CAMP

Surveyed Area	**Kule**	**Tierkidi**	**Nguenyyiel**	**Jewi**	**Pinyudo_I**	**Pinyudo_II**	**Classification of public health significance or target (where applicable)**
Data collection period	**25 August - -29 August 2025**	**01 Sep - - 05 Sep 2025**	**Oct 06- 13, 2025**	**Sep 29 – Oct 08, 2025**	**Sep 29 – Oct 03, 2025**	**Oct 06- 10, 2025**	
Total Stunting	42/482 8.7 % (6.5 - 11.6)	47/489 9.6 % (7.3 - 12.5)	38/489 7.8 % (5.7 - 10.5)	41/415 9.9 % (7.4 - 13.1)	14/514 2.7 % (1.6 - 4.5)	1/439 0.2 % (0.0 - 1.3)	Very high/critical if ≥ 30% (WHO-UNICEF)

Severe Stunting	8/482 1.7 % (0.8 - 3.2)	7/489 1.4 % (0.7 - 2.9)	6/489 1.2 % (0.6 - 2.7)	7/415 1.7 % (0.8 - 3.4)	1/514 0.2 % (0.0 - 1.1)	0/439 0.0 % (0.0 - 0.9)	
Prevalence of underweight	121/488 24.8 % (21.2 - 28.8)	57/500 11.4 % (8.9 - 14.5)	71/491 14.5 % (11.6 - 17.8)	60/420 14.3 % (11.3 - 18.0)	30/519 5.8 % (4.1 - 8.1)	14/440 3.2 % (1.9 - 5.3)	

The prevalence threshold of stunting is low (<10%) for most camps), Whereas it has been evinced that in medium threshold (<20%) per WHO/UNICEF prevalence labels for all camps. In all the camps prevalence of stunting among boys is higher than in girls.

Figure 10: ***PREVALENCE OF GLOBAL AND SEVERE STUNTING BASED ON WHO GROWTH STANDARDS IN CHILDREN 6-59 MONTHS FROM 2021-2025, BY CAMP.***

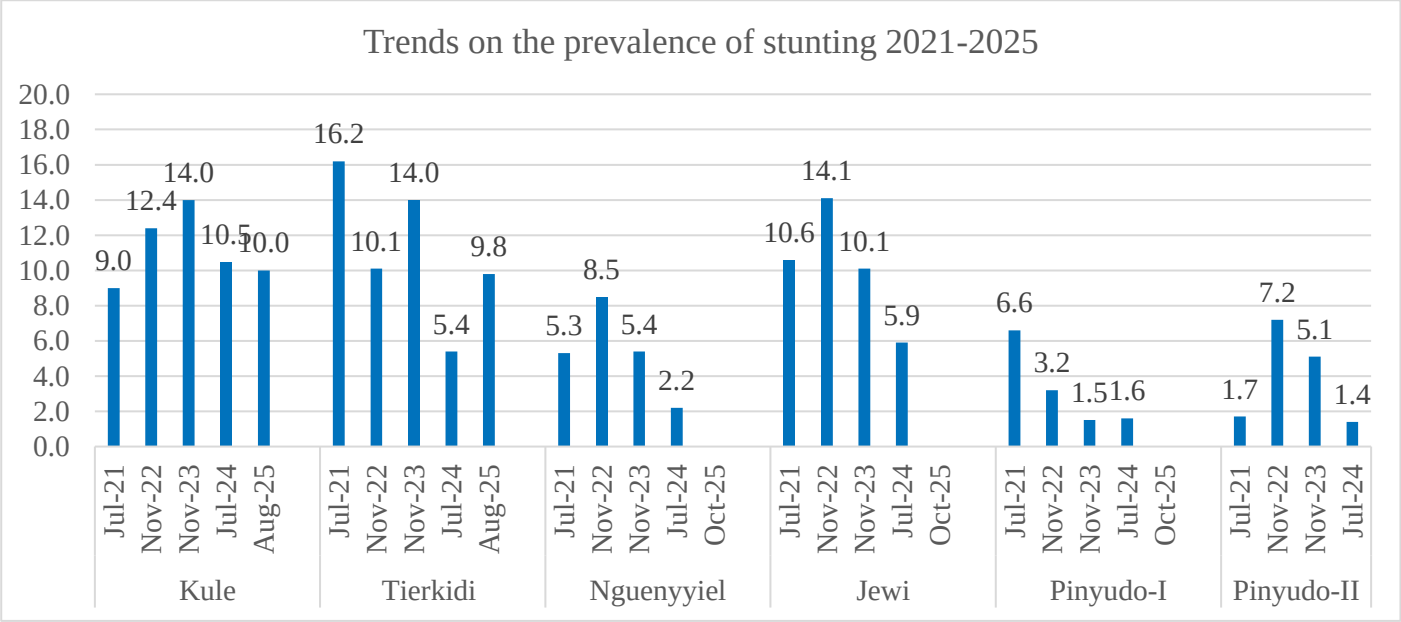


Table 37 : PREVALENCE OF STUNTING BY AGE BASED ON HEIGHT-FOR-AGE Z-SCORES, **IN KULE**

		Severe stunting (<-3 z-score)		Moderate stunting (>= -3 and <-2 z-score)		Normal (> = -2 z score)	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	111	5	4.5	14	12.6	92	82.9
18-29	120	7	5.8	7	5.8	106	88.3
30-41	135	1	0.7	6	4.4	128	94.8
42-53	89	1	1.1	7	7.9	81	91.0
54-59	26	0	0.0	0	0.0	26	100.0
Total	481	14	2.9	34	7.1	433	90.0

Table 38 : PREVALENCE OF STUNTING BY AGE BASED ON HEIGHT-FOR-AGE Z-SCORES, **IN TIERKIDI**

		Severe stunting (<-3 z-score)		Moderate stunting (>= -3 and <-2 z-score)		Normal (> = -2 z score)	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	121	0	0.0	15	12.4	106	87.6
18-29	123	4	3.3	12	9.8	107	87.0
30-41	138	1	0.7	6	4.3	131	94.9
42-53	88	2	2.3	8	9.1	78	88.6
54-59	21	0	0.0	0	0.0	21	100.0
Total	491	7	1.4	41	8.4	443	90.2

Table 39 : PREVALENCE OF STUNTING BY AGE BASED ON HEIGHT-FOR-AGE Z-SCORES, **IN NGUENNYIEL**

		Severe stunting (<-3 z-score)		Moderate stunting (>= -3 and <-2 z-score)		Normal (> = -2 z score)	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**

6-17	118	2	1.7	13	11.0	103	87.3
18-29	115	2	1.7	10	8.7	103	89.6
30-41	121	1	0.8	5	4.1	115	95.0
42-53	101	1	1.0	3	3.0	97	96.0
54-59	34	0	0.0	1	2.9	33	97.1
Total	489	6	1.2	32	6.5	451	92.2

Table 40 : PREVALENCE OF STUNTING BY AGE BASED ON HEIGHT-FOR-AGE Z-SCORES, **IN JEWI**

		Severe stunting (<-3 z-score)		**Moderate stunting (>= -3 and <-2 z-score)**		**Normal (> = -2 z score)**	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	101	2	2.0	6	5.9	93	92.1
18-29	109	2	1.8	12	11.0	95	87.2
30-41	89	2	2.2	12	13.5	75	84.3
42-53	106	0	0.0	4	3.8	102	96.2
54-59	31	0	0.0	1	3.2	30	96.8
Total	436	6	1.4	35	8.0	395	90.6

Table 41 : PREVALENCE OF STUNTING BY AGE BASED ON HEIGHT-FOR-AGE Z-SCORES, **IN PINYUDO_I**

		Severe stunting (<-3 z-score)		**Moderate stunting (>= -3 and <-2 z-score)**		**Normal (> = -2 z score)**	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	103	0	0.0	4	3.9	99	96.1
18-29	115	0	0.0	4	3.5	111	96.5
30-41	145	0	0.0	2	1.4	143	98.6
42-53	120	1	0.8	2	1.7	117	97.5

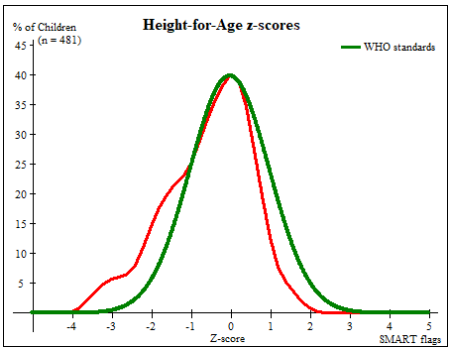
54-59	31	0	0.0	1	3.2	30	96.8
Total	514	1	0.2	13	2.5	500	97.3

Table 42 : PREVALENCE OF STUNTING BY AGE BASED ON HEIGHT-FOR-AGE Z-SCORES, **IN PINYUDO_II**

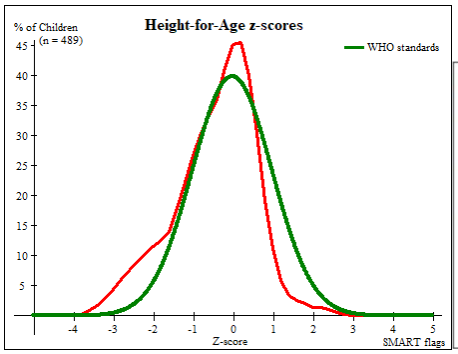
		Severe stunting (<-3 z-score)		**Moderate stunting (>= -3 and <-2 z-score)**		**Normal (> = -2 z score)**	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	99	0	0.0	1	1.0	98	99.0
18-29	107	0	0.0	0	0.0	107	100.0
30-41	122	0	0.0	0	0.0	122	100.0
42-53	86	0	0.0	0	0.0	86	100.0
54-59	25	0	0.0	0	0.0	25	100.0
Total	439	0	0.0	1	0.2	438	99.8

Figure 11: DISTRIBUTION OF HEIGHT-FOR-AGE Z-SCORES (BASED ON WHO GROWTH STANDARDS; THE

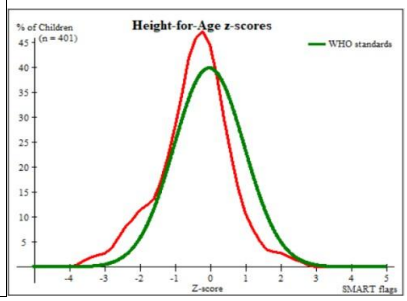
REFERENCE POPULATION IS SHOWN IN GREEN AND THE SURVEYED POPULATION IS SHOWN IN RED) OF SURVEY POPULATION **IN KULE, TERIKIDI, NGUENNYIEL, JEWI, PINYUDO_I AND PINYUDO_II**



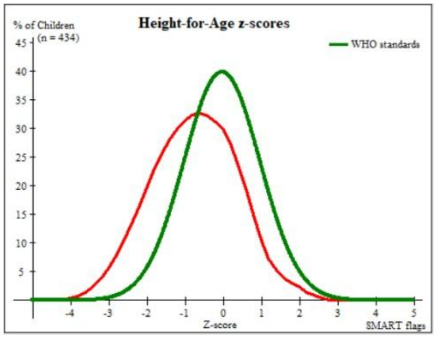
Kule



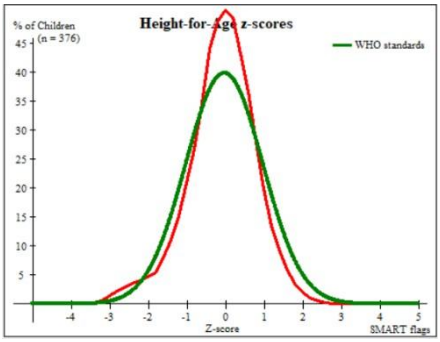
Tierkidi



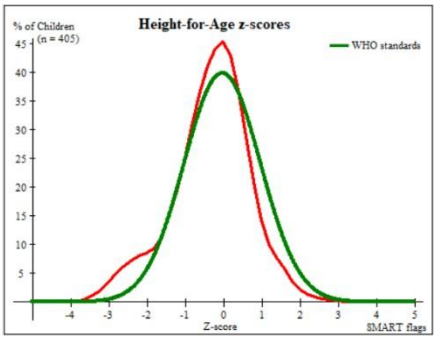
Nguenyyiel



Jewi



Pinyudo_I



Pinyudo_II

Table 44 : PREVALENCE OF OVERWEIGHT BY AGE BASED ON WEIGHT-FOR-HEIGHT Z-SCORES (NO OEDEMA), **IN KULE**

		Overweight (WHZ > 2)		Severe Overweight (WHZ > 3)	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**
6-17	111	0	0.0	0	0.0
18-29	124	0	0.0	0	0.0
30-41	135	0	0.0	0	0.0
42-53	90	0	0.0	0	0.0
54-59	26	0	0.0	0	0.0
Total	486	0	0.0	0	0.0

Table 45 : PREVALENCE OF OVERWEIGHT BY AGE BASED ON WEIGHT-FOR-HEIGHT Z-SCORES (NO OEDEMA), **IN TIERKIDI**

		Overweight (WHZ > 2)		Severe Overweight (WHZ > 3)	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**
6-17	124	0	0.0	0	0.0
18-29	125	0	0.0	0	0.0
30-41	139	0	0.0	0	0.0
42-53	91	0	0.0	0	0.0
54-59	21	0	0.0	0	0.0
Total	500	0	0.0	0	0.0

Table 46 : PREVALENCE OF OVERWEIGHT BY AGE BASED ON WEIGHT-FOR-HEIGHT Z-SCORES (NO OEDEMA), **IN NGUENYYIEL**

		Overweight (WHZ > 2)		Severe Overweight (WHZ > 3)	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**
6-17	120	1	0.8	0	0.0
18-29	118	0	0.0	0	0.0
30-41	122	0	0.0	0	0.0
42-53	101	0	0.0	0	0.0
54-59	34	0	0.0	0	0.0
Total	495	1	0.2	0	0.0

Table 47 : PREVALENCE OF OVERWEIGHT BY AGE BASED ON WEIGHT-FOR-HEIGHT Z-SCORES (NO OEDEMA), **IN JEWI**

		Overweight (WHZ > 2)		Severe Overweight (WHZ > 3)	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**
6-17	104	0	0.0	0	0.0
18-29	109	0	0.0	0	0.0
30-41	89	0	0.0	0	0.0
42-53	106	0	0.0	0	0.0
54-59	31	0	0.0	0	0.0
Total	439	0	0.0	0	0.0

Table 48 : PREVALENCE OF OVERWEIGHT BY AGE BASED ON WEIGHT-FOR-HEIGHT Z-SCORES (NO OEDEMA), **IN PINYUDO_I**

		Overweight (WHZ > 2)		Severe Overweight (WHZ > 3)	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**

6-17	104	0	0.0	0	0.0
18-29	117	0	0.0	0	0.0
30-41	144	0	0.0	0	0.0
42-53	120	0	0.0	0	0.0
54-59	31	0	0.0	0	0.0
Total	516	0	0.0	0	0.0

Table 49 : PREVALENCE OF OVERWEIGHT BY AGE BASED ON WEIGHT-FOR-HEIGHT Z-SCORES (NO OEDEMA), **IN PINYUDO_II**

		Overweight (WHZ > 2)		**Severe Overweight (WHZ > 3)**	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**
6-17	100	0	0.0	0	0.0
18-29	108	0	0.0	0	0.0
30-41	122	0	0.0	0	0.0
42-53	86	0	0.0	0	0.0
54-59	25	0	0.0	0	0.0
Total	441	0	0.0	0	0.0

Measles vaccination coverage results

Surveyed Area	**Kule**	**Tierkidi**	**Nguenyyiel**	**Jewi**	**Pinyudo_I**	**Pinyudo_II**	**Classification of public health significance or target (where applicable)**
Data collection period	**25 August - -29 August 2025**	**01 Sep - - 05 Sep 2025**	**Oct 06- 13, 2025**	**Sep 29 – Oct 08, 2025**	**Sep 29 – Oct 03, 2025**	**Oct 06- 10, 2025**	
Measles vaccination with card or recall (9-59 months)	442/455 97.14% (95.17 - 98.32)	448/456 98.25% (96.5 - 99.11)	446/470 94.89% (92.51- 96.54)	365/379 96.31% (93.90- 97.79)	365/379 96.31% (93.90- 97.79)	424/424 100% (100.0- 100.00)	Target of ≥ 95%
Vitamin A supplementation within past the 6 months with card or recall	467/494 94.5 % (92.16 - 96.22)	478/498 95.98% (93.88- 97.39)	462/498 92.77% (90.15- 94.73)	378/407 92.87% (89.95- 94.99)	378/407 92.87% (89.95- 94.99)	436/443 98.4% (96.77- 99.23)	Target of ≥ 90%

Supplementary feeding programme enrolment Based on all admission criteria (MUAC, WHZ)	81/118 68.6% (59.46 - 76.87)	41/79 51.9% (40.36- 63.29)	16/83 19.28% (8.54- 36.2)	7/37 18.99% (4.73- 47.3)	20/66 20.3% (15.5- 51.7)	16/53 30.1% (13.9- 54.7)	
Therapeutic feeding programme enrolment Based on all admission criteria (MUAC, WHZ, oedema)	4/6 66.67% (22.28 - 95.67)	5/5 100% (47.8- 100.00)	4/9 44.44% (13.70- 78.80)	1/5 20% (0.51- 71.64)	0/3 0% (0.- 0)	1/4 25% (0.63% 80.59)	
			Diarrhoea				
Diarrhoea in the last 2 weeks	42/494 8.5 % (6.35 - 11.29)	27/498 5.42% (3.75- 7.77)	53/497 10.66% (8.25- 13.69)	56/404 13.86 (10.83- 17.57)	55/519 10.6% (8.23- 13.54)	36/442 8.14% (5.94- 11.07)	

Surveyed Area	**Kule**	**Tierkidi**	**Nguenyyiel**	**Jewi**	**Pinyudo_I**	**Pinyudo_II**	**Classification of public health significance or target (where applicable)**
Data collection period	**25 August - -29 August 2025**	**01 Sep - - 05 Sep 2025**	**Oct 06- 13, 2025**	**Sep 29 – Oct 08, 2025**	**Sep 29 – Oct 03, 2025**	**Oct 06- 10, 2025**	
			CHILDREN 0-23 months, n/N, % [95% CI]				
			IYCF indicators				
Timely initiation of breastfeeding	202/226 89.38 % (84.61 - 93.08)	211/231 91.34% (86.95- 94.63)	214/241 88.8% (84.12- 92.49)	117/166 70.48% (62.92- 77.30)	169/186 90.86% (85.77- 94.59)	175/203 86.21% (80.69- 90.63)	UNHCR Target of ≥ 85%
Exclusive breastfeeding under 6 months	47/55 85.45 % (73.34 - 93.50)	42/48 87.5% (74.75- 95.27)	44/48 91.67% (80.02- 97.68)	30/33 90.91% (75.67- 98.08)	27/31 87.1% (70.17- 96.37)	30/37 81% (64.84- 92.04)	UNHCR Target of ≥ 75%
Introduction of solid, semi-solid or soft foods (within 6-8 months)	10/39 25.64 % (13.04 - 42.13)	22/42 52.38% (36.42- 68.00)	9/28 32.14% (15.88- 52.35)	7/25 28% (12.07- 49.39)	12/21 57.14% (34.02- 78.18)	6/13 31.58% (12.58- 56.55)	
Consumption of iron-rich or iron-fortified foods	93/171 54.39 % (46.61 - 62.01)	84/183 45.9% (38.53- 53.41)	123/193 63.73% (56.52- 70.51)	68/133 51.13% (42.32- 59.89)	155/155 100% (97.65- 100.00)	154/166 92.7% (87.71- 96.21)	UNHCR Target of ≥ 60%
Minimum dietary diversity (MDD)	27/171 15.79% (10.67- 22.14)	22/183 12% (7.69- 17.63)	26/193 13.47% (8.99- 19.11)	14/151 9.27% (5.16- 15.07)	105/155 67.7% (59.77% 75.02)	100/166 60.24% (52.37- 67.74)	

Minimum Acceptable Diet (MAD)	11/171 6.43% (3.25- 11.22)	17/183 9.29% (5.51- 14.46)	8/193 4.15% (1.81- 8.00)	4/151 2.65% (0.73% 6.64)	57/155 36.77% (29.18% 44.88)	36/166 21.69% (15.68- 28.74)	
Bottle feeding	4/226 1.77 % (0.48 - 4.47)	1/231 0.43% (0.01- 2.39)	11/240 4.58% (2.31- 8.05)	4/135 2.96% (0.81- 7.41)	22/185 11.89% (7.60- 17.45)	5/203 2.46% (0.80- 5.65)	UNHCR Target of < 5%

WOMEN 15-49 years, n/N, % [95% CI]							
Acute malnutrition (pregnant and lactating U6 month)							
Pregnant & Lactating under six-month MUAC <23 cm	29/139 20.86% (14.4- 28.5)	19/131 14.5% (8.9- 21.72)	13/81 16.05% (8.8- 25.88)	8/81 9.88% (4.36- 18.54)	13/107 12.15% (6.6- 19.88)	7/88 7.95% (3.26- 15.70)	Medium Alert/Stress 12.6-19.9%

Surveyed Area	**Kule**	**Tierkidi**	**Nguenyyiel**	**Jewi**	**Pinyudo_I**	**Pinyudo_II**	**Classification of public health significance or target (where applicable)**
Data collection period	**25 August - - 29 August 2025**	**01 Sep - - 05 Sep 2025**	**Oct 06- 13, 2025**	**Sep 29 – Oct 08, 2025**	**Sep 29 – Oct 03, 2025**	**Oct 06- 10, 2025**	
DEMOGRAPHY, n/N, % [95% CI]							
Household size and Composition							
Average household size (Mean, SD / range)	8.16 (SD 2.87) [1-18]	7.4 (SD 2.5) [1-19]	7.74 (SD 2.92) [1-18]	8.16 (SD 3.4) [1-22]	6.4 (SD 2.92) [1-15]	6.8 (SD 2.68) [1-17]	
Percent of children U2	235/3398 6.9 %	239/3225 7.4 %	246/3159 7.7 %	217/2998 7.2 %	199/3243 6.13 %	210/2265 9.27 %	
Percent of children U5	568/3398 16.7 %	563/3225 17.4 %	561/3159 17.75 %	537/2998 17.9 %	569/3243 17.5 %	497/2265 21.9 %	
Percent of pregnant women	73/3398 2.14 %	63/3225 1.95 %	31/3159 0.98 %	49/2998 1.63 %	39/3243 1.2%	29/2265 1.28 %	
Household Head Profile							
Female headed households	377/416 90.63 % (87.44 - 93.07)	416/435 95.63 % (93.2 - 97.19)	375/408 91.91 % (88.86- 94.18)	331/367 90.19 % (86.72- 92.83)	453/503 90.06 % (87.13- 92.38)	298/333 89.49 % (85.73- 92.35)	

Male headed households	18/416 4.33 % (2.75 - 6.74)	13/435 2.99 % (1.75 - 5.05)	22/408 5.39 % (3.59- 8.03)	29/367 7.9 % (5.56- 11.12)	39/503 7.75 % (5.72- 10.42)	30/333 9 % (6.38% 12.57)	

Children headed households <15 yrs	1/416 0.24 % (0.04 - 1.35)	1/435 0.23% (0.04- 1.29)	3/408 0.74% (0.25- 2.14)	1/367 0.27% (0.05% 1.53)	1/503 2% (0.04- 1.12)	1/333 0.3% (0.05% 1.68)	
Elderly headed households >=65 yrs	20/416 4.81 % (3.13 - 7.31)	5/435 1.15% (0.49- 2.66)	8/408 1.96% (1.00- 3.82)	6/367 1.63% (0.75- 3.52)	10/503 1.99% (1.08- 3.62)	4/333 1.2% (0.47% 3.05)	
Age dependency ratio							
Average age dependency ratio (mean, range)	1.25 [0.0-Inf.]	1.3 [0.0- Infin.]	1.54 [0.0- Infin.]	1.47 [0.0- Infin.]	1.35 [0.0- Infin.]	1.8 [0.0- Infin.]	
Mortality							
Crude Death Rate (CDR) deaths/10,000/day	0.20 (0.09-0.43)	0.03 (0.01- 0.19)	0.14 (0.05- 0.35)	0.07 (0.02- 0.26)	0.13 (0.05- 0.33)	0.05 (0.01- 0.27)	UNHCR target <1
Under 5 Death Rate (U5DR) deaths/10,000/day	0.00 (0.00-0.77)	0.00 (0.00- 0.77)	0.39 (0.11- 1.40)	0.20 (0.04- 1.13)	0.19 (0.03- 1.08)	0.22 (0.04- 1.26)	UNHCR target <2
Percentage of **joined** in the last 3 months (90 days) recall period	195/3389 5.7%	144/3225 4.45%	72/3159 2.2%	55/2998 1.83%	55/3242 1.7%	49/2265 2.1%	
Percentage of **left** in the last 3 months (90 days) recall period	205/3389 6%	187/3225 5.79%	127/3159 4%	146/2998 4.87%	156/3243 4.8%	78/2265 3.4%	
FOOD SECURITY, n/N, % [97% CI]							
In-kind food distribution							
Average number of days general food ration lasts out of 30 days. (mean, SD/range)	15.19 [2-28]	15.6 [7-28]	15.67 [1-30]	18.06 [6-30]	22.4 [1-35]	18.97 [5-30]	
Negative household coping strategies							
Proportion of households reporting using one or more negative coping strategies over the past 4 weeks	150/205 73.17% (66.55 - 79.10)	152/214 71% (64.4 - 77.01)	104/209 49.76% (42.79- 56.74)	92/191 48.17% (40.90- 55.50)	129/267 48.31% (42.18- 54.49)	70/170 41.18% (33.70- 48.97)	

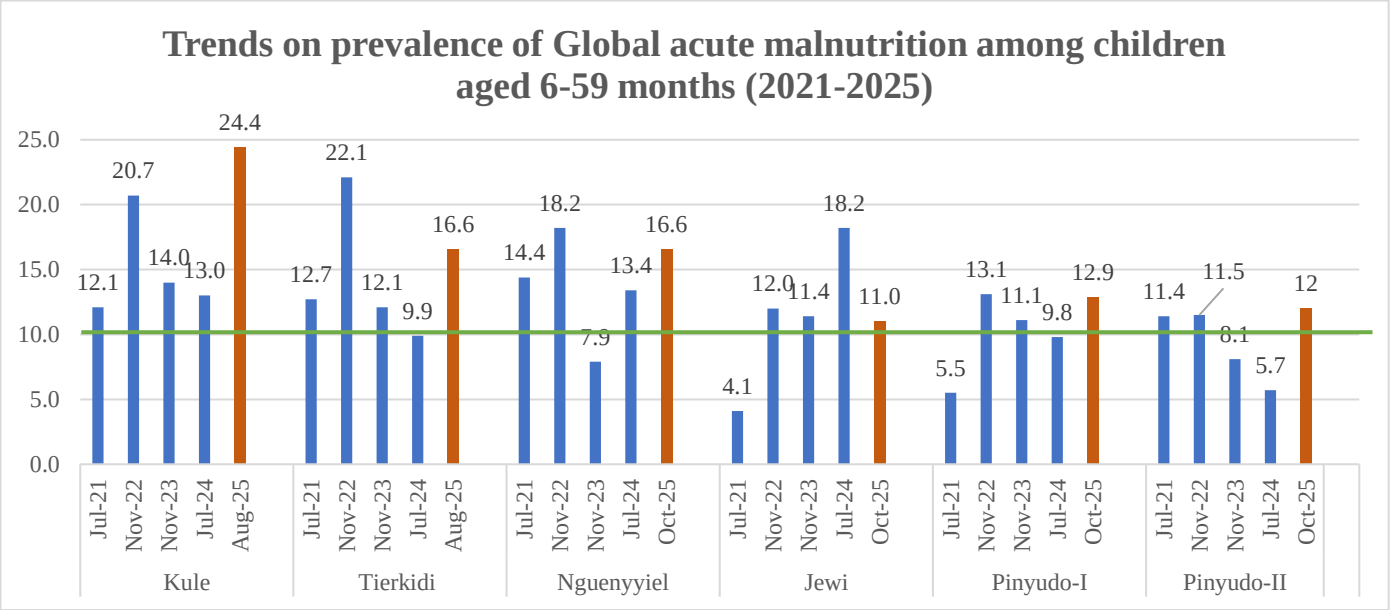
Proportion of households reporting using the following coping strategies over the past 4 weeks:							
stop a child from attending school	0/205 0% (0.0 - 1.8)	0/214 0% (0.0 -1.8)	20/210 9.52% (5.9- 14.33)	4/191 2.09% (0.57- 5.28)	1/267 0.37% (0.01- 2.07)	0/171 0% (0.0 -1.8)	

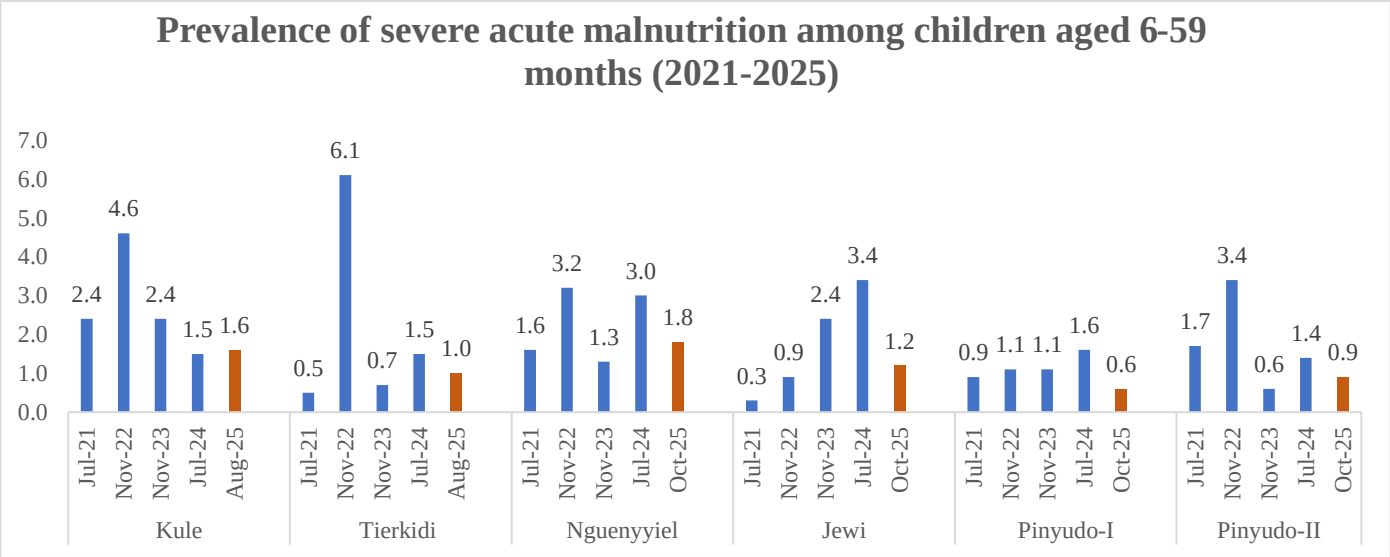
sold any assets that would not have normally sold in order to buy food or basic goods	67/205 32.68% (26.31 - 39.56)	73/214 34.11% (27.79 - 40.88)	33/210 15.7% (11.07- 21.35)	18/191 9.42% (5.68- 14.48)	31/267 11.61% (8.03- 16.07)	23/171 13.45% (8.72- 19.50)	
ask for money from strangers (begging)	6/205 2.93% (1.08 - 6.26)	5/214 2.34% (0.76 -5.37)	8/210 3.81% (1.66- 7.37)	4/191 2.09% (0.57- 5.28)	1/267 0.37% (0.01- 2.07)	1/171 0.58% (0.01% 3.22)	
move to a poorer quality shelter	1/205 0.49% (0.01 - 2.69)	0/214 0% (0.0 -1.8)	11/210 5.24% (2.64- 9.18)	12/191 6.28% (3.29- 10.72)	7/267 2.62% (1.06- 5.33)	2/171 1.17% (0.14% 4.16)	
send household members under the age of 16 to work	16/205 7.8% (4.53- 12.37)	23/214 10.75% (6.94% 15.69)	16/210 7.62% (4.42- 12.08)	6/191 3.14% (1.16- 6.71)	47/267 17.6% (13.23- 22.71)	27/171 15.79% (10.67% 22.14)	
send a member of the household to work far away	72/205 35.12% (28.60 - 42.08)	90/214 42 % (35.36- 48.98)	31/210 14.76 % (10.26- 20.29)	19/191 9.95 % (6.10- 15.10)	38/267 14.23 % (10.27- 19.01)	24/171 14 % (9.20% 20.16)	
Engaged in works that puts you or other members of your household at risk of harm	28/205 13.66% (9.27- 19.13)	38/214 17.76% (12.88 - 23.55)	23/210 10.95% (7.07- 15.98)	2/191 1.05% (0.13- 3.73)	25/267 9.36% (6.15- 13.51)	14/171 8.19% (4.55% 13.36)	
skip paying rent / debt repayments to meet other needs	27/205 13.17% (8.86- 18.58)	49/214 22.9% (17.45 - 29.12)	14/210 6.67% (3.69- 10.93)	4/191 2.09% (0.57- 5.28)	40/267 14.98% (10.92- 19.84)	4/170 2.35% (0.64% 5.91)	
take-out new loans or borrowed money	73/205 35.61% (29.06- 42.58)	75/214 35% (28.67 - 41.85)	65/210 31.1% (24.89- 37.85)	53/191 27.75% (21.53- 34.67)	59/267 22.1% (17.27- 27.56)	32/171 18.71% (13.17% 25.38)	
Reduce the number of meals eaten in a day	74/205 36.1 % (29.52 - 43.08)	79/214 36.9 % (30.44 - 43.76)	67/210 31.9 % (25.66- 38.67)	56/191 29.32 % (22.97- 36.32)	90/267 33.71 % (28.06- 39.72)	57/171 33.33 % (26.32% 40.93)	
Proportion of households reporting using the following coping strategies over the past 7 days:							
rely on less preferred and/or less expensive food	203/205 99 % (96.52 - 99.88)	172/214 80.37 % (74.41 - 85.47)	112/210 53.33 % (46.34- 60.23)	137/191 71.73 % (64.77- 77.99)	213/267 79.78 % (74.45% 84.43)	116/171 67.84 % (60.28% 74.76)	
Borrow food, or rely on help from a friend or relative	176/205 85.85 % (80.32 - 90.32)	130/214 81.54 % (53.86 - 67.33)	97/210 46.19 % (39.31- 53.18)	132/191 69.11 % (62.03- 75.58)	191/267 7.54 % (65.72- 76.87)	102/171 59.65 % (51.89% 67.07)	
reduce the number of meals eaten in a day due to lack of food	202/205 98.54 % (95.78 - 99.70)	161/214 75.23 % (68.89 - 80.86)	104/210 49.52 % (42.57- 56.49)	136/191 71.2% (64.22- 77.51)	233/267 87.27 % (82.66- 91.02)	120/171 70.18% (62.72% 76.92)	
Limit portion sizes at mealtime	202/205 98.54 %	164/214 76.64 %	103/210 49 %	133/191 69.63 %	235/267 88.01 %	122/171 71.35 %	

	(95.78 - 99.70)	(70.38 - 82.13)	(42.10-56.02)	(62.58-76.06)	(83.50-91.66)	(63.94% 77.99)	
Reduce consumption by adults so children could eat	193/205 94.15 % (90.00 - 96.94)	146/214 68.22 % (61.53 - 74.40)	98/210 46.67 % (39.77-53.66)	129/191 67.54 % (60.40-74.12)	225/267 84.27 % (79.34-88.42)	85/171 49.71 % (41.98% 57.44)	
Average reduced coping strategy index; rCSI (mean, range)	21.5 [0-9]	14.1 [0-8]	10.74 [0-9]	14.8 [0-9]	18.17 [0-9]	12 [0-9]	

Food Consumption Score (FCS)							
Average FCS (mean, SD)	34.9 [13.1]	33.68 [11]	24.67 [9.46]	26.8 [13.5]	46 [16.5]	42.7 [15-55.5]	
FCS profiles:							
Acceptable (>35)	90/205 43.9 % (37.00 - 50.99)	68/214 31.78% (25.6 - 38.47)	22/210 10.48 % (6.68-15.43)	45/191 23.56 % (17.73-30.23)	197/267 74.16 % (68.47-79.30)	107/171 62.57 % (54.86-69.84)	
Borderline (21.5-35)	89/205 43.4 % (36.53 - 50.50)	131/214 61.2 % (54.3 - 67.78)	107/210 50.95 % (43.98-57.90)	73/191 38.22 % (31.30-45.51)	43/267 16.1 % (11.91-21.07)	54/171 31.58 % (24.70-39.11)	
Poor (0-21)	26/205 12.68 % (8.45 - 18.03)	15/214 7 % (3.98 - 11.30)	81/210 38.57 % (31.95-45.52)	73/191 38.22 % (31.30-45.51)	26/267 9.74 % (6.46-13.94)	10/171 5.85 % (2.84% 10.49)	
Which of your household's basic needs can you not afford?	Hygiene items, clothes, shoes 42/205 20.49%	Hygiene-items, clothes, shoes 42/205 27.579%	Save some money 27/210 12.86%	Save some money 26/191 13.61%	Food 43/267 16.1%	Food 30/171 17.54%	

Figure 12: PREVALENCE OF GLOBAL AND SEVERE ACUTE MALNUTRITION BASED ON WHO GROWTH STANDARDS IN CHILDREN 6-59 MONTHS FROM 2021-2024, BY CAMP.


Trends on prevalence of Global acute malnutrition among children aged 6-59 months (2021-2025)
25.0
20.0
15.0
10.0
5.0
0.0
12.1
20.7
14.0
13.0
24.4
12.7
22.1
12.1
9.9
16.6
14.4
18.2
7.9
13.4
16.6
4.1
12.0
11.4
18.2
11.0
5.5
13.1
11.1
9.8
12.9
11.4
11.5
8.1
5.7
12
Jul-21
Nov-22
Nov-23
Jul-24
Aug-25
Oct-25
Kule
Tierkidi
Nguenyyiel
Jewi
Pinyudo-I
Pinyudo-II


Prevalence of severe acute malnutrition among children aged 6-59 months (2021-2025)
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
2.4
4.6
2.4
1.5
1.6
0.5
6.1
0.7
1.5
1.0
1.6
3.2
1.3
3.0
1.8
0.3
0.9
2.4
3.4
1.2
0.9
1.1
1.1
1.6
0.6
1.7
3.4
0.6
1.4
0.9
Jul-21
Nov-22
Nov-23
Jul-24
Aug-25
Oct-25
Kule
Tierkidi
Nguenyyiel
Jewi
Pinyudo-I
Pinyudo-II

Global acute malnutrition prevalence in the six camps have shown to be above the standard of 10% in accordance with UNHCR standard for refugee camps. Except Jewi camp, other have shown significant (P<0.05) increment in comparison to 2024 SENS survey. In all camps the severe acute malnutrition prevalence is below the UNHCR standard for refugee camps (<2%).

The prevalence of MUAC malnutrition was much lower than the GAM prevalence in all of the camps. This is consistent with findings in other nutrition surveys conducted in South Sudan across different years showing that WFH is a better index for treating acute malnutrition in this population.

Underweight is another form of malnutrition emerging as public health concern among refugees' populations. According to the findings of the SENS 2025 in the four camps (kule, terkedi, nguenyyiel and Jewi) it is >10%.

The prevalence threshold of stunting is low (<10%) for all camps. Whereas it has been evinced that in medium threshold (<20%) per WHO/UNICEF prevalence labels for all camps.

Measles vaccination coverage results

The measles vaccination coverage was above the standard of ≥ 95% target for all the camps (except Nguenyyiel 94.8%). The coverage with card was seen to be very low and there was a need to sensitize the community on retention of important documents.

Vitamin A supplementation coverage results

Supplementation of Vitamin A coverage in the past six months was above the standard of ≥ 90% target for all the camps.

Diarrhoea results

PERIOD PREVALENCE OF DIARRHOEA in the last 2 weeks, BY CAMP

Kule	Tierkidi	Nguenyyiel	Jewi	Pinyudo_I	Pinyudo_II
42/494 8.5 %	27/498 5.42%	53/497 10.66%	56/404 13.86	55/519 10.6%	36/442 8.14%

Diarrheal prevalence for the period of two weeks prior survey has been seen high in Jewi and Nguenyyiel camps whereas lowest in Terkedi camp.

Children 0-23 months

Timely initiation of breastfeeding with in 1 hour after delivery is within the UNHCR target of ≥85% in all camps except Jewi (70.48%).
Exclusive breastfeeding under 6 months is within the UNHCR target of ≥75% in all camps.

Introduction Solid, Semi-solid or soft foods have been observed to be below with public health target for all Gambella camps.
Consumption of iron-rich or iron-fortified foods is below the UNHCR target of ≥ 60% in 3 camps (kule, terkedi and Jewi).
Minimum dietary diversity (MDD) and Minimum Acceptable Diet (MAD) is low in most camps except P-I and P-II. In these 2 camps it may be attributed by availability of livelihood opportunities.

Bottle feeding rate has been found to be in accordance with the target (<5%) except for punyido-I camp (11.9%).

MUAC Malnutrition in PLW

Kule	Tierkidi	Nguenyyiel	Jewi	Pinyudo_I	Pinyudo_II
29/139 20.86%	19/131 14.5%	13/81 16.05%	8/81 9.88%	13/107 12.15%	7/88 7.95%

Though the sampling was not representative for women, the magnitude of MUAC malnutrition is not as serious as children it is within Medium/Alert/Stress (12.6-19.9%) category of WHO/UNICEF.

Food security

	Kule	Tierkidi	Nguenyyiel	Jewi	Pinyudo_I	Pinyudo_II
Average number of days the general food distribution lasts (mean, SD & range)	15.19 [2-28]	15.6 [7-28]	15.67 [1-30]	18.06 [6-30]	22.4 [1-35]	18.97 [5-30]

Negative coping strategies results

	Kule	Tierkidi	Nguenyyiel	Jewi	Pinyudo_I	Pinyudo_II
Proportion of households reporting using one or more negative coping strategies over the past 4 weeks	150/205 73.17% (66.55 - 79.10)	152/214 71% (64.4 - 77.01)	104/209 49.76% (42.79- 56.74)	92/191 48.17% (40.90- 55.50)	129/267 48.31% (42.18- 54.49)	70/170 41.18% (33.70- 48.97)

In all camps nearly half of the refugee population used one or more negative coping strategies for the last 4 weeks. The negative coping strategy use is higher in kule and terkedi camps and it aligns with the malnutrition findings which is (24.4% and 16.6%) respectively.

Mortality

	Kule	Tierkidi	Nguenyyiel	Jewi	Pinyudo_I	Pinyudo_II
Crude Death Rate (CDR) deaths/10,000/day	0.20 (0.09-0.43)	0.03 (0.01-0.19)	0.14 (0.05-0.35)	0.07 (0.02-0.26)	0.13 (0.05-0.33)	0.05 (0.01-0.27)
Under 5 Death Rate (U5DR) deaths/10,000/day	0.00 (0.00-0.77)	0.00 (0.00-0.77)	0.39 (0.11-1.40)	0.20 (0.04-1.13)	0.19 (0.03-1.08)	0.22 (0.04-1.26)

In all camps the crude and under five mortality rates are below the SPHERE standards of <1% and <2% respectively, even if deaths are under reported always and we expect respondents may not respond accurately because they wants to use the food assistance for the died person as advantage.

RECOMMENDATIONS

Nutrition Recommendations

1. Reduce Critical GAM Prevalence
    - Expand routine case detection, referral, treatment, and follow-up for children aged 6–59 months.
    - Strengthen monthly community-level screenings using both MUAC and WHZ methods.
2. Advocate for Restoration of Full General Food Assistance
    - Joint advocacy to resume general food rations to meet SPHERE standards (2100 Kcal/person/day).
    - Emphasize the link between food insecurity and rising malnutrition rates.
3. Reinstate Blanket Supplementary Feeding (BSFP)
    - Target children under 5 and pregnant/lactating women (PLWs).
    - Justify based on critical GAM levels and persistent aggravating factors in refugee camps.
4. Diversify Food and Address Micronutrient Deficiencies
    - Promote nutrition-sensitive agriculture, Fresh Food Vouchers, and micronutrient interventions.
    - Introduce LNS-SQ and MNPs to improve micronutrient intake.
5. Scale-Up Infant and Young Child Feeding (IYCF) Promotion
    - Focus on timely and appropriate complementary feeding from 6 months onward.
    - Integrate IYCF into community outreach and health services.

Food Security Recommendations

1. Food assistance
    - WFP and partners to continue the food assistance to the capacity possible to reach the recommended 100% 2,100Kcal p/p/day..
2. Land Access for Refugees
    - Strengthen joint UNHCR/WFP/RRS advocacy to the Gambella regional government.
    - Enable refugees to engage in self-sustained food production.
3. Expand Agricultural Initiatives
    - Scale up backyard and communal gardening to large-scale farming.
4. Promote Cash-Based Interventions (CBI)
    - Advocate for CBI to reduce food sales and improve purchasing power.
    - Tailor CBI to address ration cuts and market access.
5. Support Durable Solutions and Livelihoods
    - Advocate for alternative livelihood programs to enhance self-reliance.
    - Integrate vocational training, income-generating activities, and market linkages.

Appendices

Appendix 1 SMART Plausibility Check Report

Kule

Overall data quality

Criteria	Flags*	Unit	Excel.	Good	Accept	Problematic	**Score**
Flagged data	Incl	%	0-2.5	>2.5-5.0	>5.0-7.5	>7.5	
(% of out of range subjects)			0	5	10	20	**0** (1.2 %)
Overall Sex ratio	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**4** (p=0.002)
Age ratio(6-29 vs 30-59)	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**0** (p=0.207)
Dig pref score - weight	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (6)
Dig pref score - height	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (6)
Dig pref score - MUAC	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (5)
Standard Dev WHZ	Excl	SD	<1.1	<1.15	<1.20	>=1.20	
.			and	and	and	or	
.	Excl	SD	>0.9	>0.85	>0.80	<=0.80	
			0	5	10	20	**0** (0.97)
Skewness WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**1** (0.35)
Kurtosis WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**1** (-0.27)
Poisson dist WHZ-2	Excl	p	>0.05	>0.01	>0.001	<=0.001	
			0	1	3	5	**0** (p=)
OVERALL SCORE WHZ =			0-9	10-14	15-24	>25	**6** %

The overall score of this survey is 6 %, this is excellent.

Tierkidi

Overall data quality

Criteria	Flags*	Unit	Excel.	Good	Accept	Problematic	**Score**
Flagged data	Incl	%	0-2.5	>2.5-5.0	>5.0-7.5	>7.5	
(% of out of range subjects)			0	5	10	20	**0** (0.0 %)
Overall Sex ratio	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**0** (p=0.501)
Age ratio(6-29 vs 30-59)	Incl	p	>0.1	>0.05	>0.001	<=0.001	

(Significant chi square)			0	2	4	10	**2** (p=0.077)
Dig pref score - weight	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (3)
Dig pref score - height	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (7)
Dig pref score - MUAC	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (4)
Standard Dev WHZ	Excl	SD	<1.1	<1.15	<1.20	>=1.20	
.			and	and	and	or	
.	Excl	SD	>0.9	>0.85	>0.80	<=0.80	
			0	5	10	20	**0** (0.91)
Skewness WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**1** (0.35)
Kurtosis WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (-0.08)
Poisson dist WHZ-2	Excl	p	>0.05	>0.01	>0.001	<=0.001	
			0	1	3	5	**0** (p=)
OVERALL SCORE WHZ =			0-9	10-14	15-24	>25	**3** %

The overall score of this survey is 3 %, this is excellent.

Nguenyyiel

Overall data quality

Criteria	Flags*	Unit	Excel.	Good	Accept	Problematic	**Score**
Flagged data	Incl	%	0-2.5	>2.5-5.0	>5.0-7.5	>7.5	
(% of out of range subjects)			0	5	10	20	**0** (0.0 %)
Overall Sex ratio	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**4** (p=0.043)
Age ratio(6-29 vs 30-59)	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**0** (p=0.341)
Dig pref score - weight	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (4)
Dig pref score - height	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (3)
Dig pref score - MUAC	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (4)
Standard Dev WHZ	Excl	SD	<1.1	<1.15	<1.20	>=1.20	
.			and	and	and	or	
.	Excl	SD	>0.9	>0.85	>0.80	<=0.80	
			0	5	10	20	**0** (0.99)
Skewness WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (0.02)
Kurtosis WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**3** (-0.44)
Poisson dist WHZ-2	Excl	p	>0.05	>0.01	>0.001	<=0.001	
			0	1	3	5	**0** (p=)
OVERALL SCORE WHZ =			0-9	10-14	15-24	>25	**7** %

The overall score of this survey is 7 %, this is excellent.

Jewi

Overall data quality

Criteria	Flags*	Unit	Excel.	Good	Accept	Problematic	**Score**
Flagged data	Incl	%	0-2.5	>2.5-5.0	>5.0-7.5	>7.5	
(% of out of range subjects)			0	5	10	20	**0** (0.5 %)
Overall Sex ratio	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**0** (p=0.392)
Age ratio(6-29 vs 30-59)	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**0** (p=0.297)
Dig pref score - weight	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (4)
Dig pref score - height	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (3)
Dig pref score - MUAC	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (3)
Standard Dev WHZ	Excl	SD	<1.1	<1.15	<1.20	>=1.20	
.			and	and	and	or	
.	Excl	SD	>0.9	>0.85	>0.80	<=0.80	
			0	5	10	20	**10** (0.81)
Skewness WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (0.10)
Kurtosis WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (-0.08)
Poisson dist WHZ-2	Excl	p	>0.05	>0.01	>0.001	<=0.001	
			0	1	3	5	**0** (p=)
OVERALL SCORE WHZ =			0-9	10-14	15-24	>25	**10** %

The overall score of this survey is 10 %, this is good.

Pinyudo_I

Overall data quality

Criteria	Flags*	Unit	Excel.	Good	Accept	Problematic	**Score**
Flagged data	Incl	%	0-2.5	>2.5-5.0	>5.0-7.5	>7.5	
(% of out of range subjects)			0	5	10	20	**0** (0.4 %)
Overall Sex ratio	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**0** (p=0.456)
Age ratio(6-29 vs 30-59)	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**0** (p=0.173)
Dig pref score - weight	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (4)
Dig pref score - height	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (5)
Dig pref score - MUAC	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (5)
Standard Dev WHZ	Excl	SD	<1.1	<1.15	<1.20	>=1.20	
.			and	and	and	or	
.	Excl	SD	>0.9	>0.85	>0.80	<=0.80	
			0	5	10	20	**5** (0.85)
Skewness WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**1** (0.28)
Kurtosis WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**1** (0.32)
Poisson dist WHZ-2	Excl	p	>0.05	>0.01	>0.001	<=0.001	
			0	1	3	5	**0** (p=)
OVERALL SCORE WHZ =			0-9	10-14	15-24	>25	**7** %

The overall score of this survey is 7 %, this is excellent.

Pinyudo_II

Overall data quality

Criteria	Flags*	Unit	Excel.	Good	Accept	Problematic	**Score**
Flagged data	Incl	%	0-2.5	>2.5-5.0	>5.0-7.5	>7.5	
(% of out of range subjects)			0	5	10	20	**0** (0.5 %)
Overall Sex ratio	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**0** (p=0.318)
Age ratio(6-29 vs 30-59)	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**0** (p=0.538)
Dig pref score - weight	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (3)
Dig pref score - height	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (5)
Dig pref score - MUAC	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (4)
Standard Dev WHZ	Excl	SD	<1.1	<1.15	<1.20	>=1.20	
.			and	and	and	or	
.	Excl	SD	>0.9	>0.85	>0.80	<=0.80	
			0	5	10	20	**10** (0.82)
Skewness WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (0.04)
Kurtosis WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (-0.01)
Poisson dist WHZ-2	Excl	p	>0.05	>0.01	>0.001	<=0.001	
			0	1	3	5	**0** (p=)
OVERALL SCORE WHZ =			0-9	10-14	15-24	>25	**10** %

The overall score of this survey is 10 %, this is good.

Appendix 2: Evaluation of Enumerators (results from anthropometric standardisation test)

Kule-Terkedi

Standardisation test results				Precision				Accuracy		OUTCOME
Weight	subjects #	mean kg	SD kg	max kg	Technical error TEM (kg)	TEM/mean TEM (%)	Coef of reliability R (%)	Bias from superv Bias (kg)	Bias from median Bias (kg)	
Supervisor	10	11.2	1.4	0.4	0.12	1.1	99.2	0	0.07	TEM poor
Enumerator 1	10	11.2	1.4	0.3	0.08	0.7	99.6	0.06	0.08	TEM acceptable
Enumerator 2	10	10.2	3.7	9.9	3.13	30.6	29.9	1.02	1	TEM reject
Enumerator 3	10	11.2	1.5	0.8	0.25	2.2	97.1	0.19	0.18	TEM reject
Enumerator 4	10	11.1	1.4	0.2	0.08	0.8	99.6	0.09	0.08	TEM acceptable
Enumerator 5	10	11.2	1.4	0.2	0.06	0.5	99.8	0.06	0.05	TEM acceptable
Enumerator 6	10	11.2	1.4	0.1	0.04	0.3	99.9	0.08	0.04	TEM good
enum inter 1st	6x10	11.2	1.4	-	0.14	1.2	99.1	-	-	TEM acceptable
enum inter 2nd	6x10	10.9	2.4	-	1.79	16.5	45.7	-	-	TEM reject
inter enum + sup	7x10	11.1	1.9	-	0.89	8.2	76.3	-	-	TEM reject
TOTAL intra+inter	6x10	-	-	-	1.81	16.4	16.9	-	-	TEM reject
TOTAL+ sup	7x10	-	-	-	1.67	15.1	22.9	-	-	TEM reject

Height	subjects #	mean cm	SD cm	max cm	Technical error TEM (cm)	TEM/mean TEM (%)	Coef of reliability R (%)	Bias from superv Bias (cm)	Bias from median Bias (cm)	
Supervisor	10	91.8	5.7	5.5	1.25	1.4	95.2	0	0.88	TEM reject
Enumerator 1	10	92.4	5.7	10	2.56	2.8	79.9	1.27	1.36	TEM reject
Enumerator 2	10	83.7	29.1	87.6	27.82	33.2	8.6	9.89	9.69	TEM reject
Enumerator 3	10	91.3	5.7	1	0.36	0.4	99.6	1.81	1.27	TEM good
Enumerator 4	10	91.3	5.5	2.1	0.75	0.8	98.1	1.12	0.51	TEM poor
Enumerator 5	10	91.6	5.5	2.2	0.57	0.6	98.9	0.84	0.53	TEM acceptable
Enumerator 6	10	91.8	5.6	1	0.3	0.3	99.7	0.66	0.61	TEM good
enum inter 1st	6x10	91.9	5.4	-	1.8	2	88.9	-	-	TEM reject

enum inter 2nd	6x10	88.8	17.5	-	16.12	18.2	15.3	-	-	TEM reject
inter enum + sup	7x10	90.5	12.2	-	8.33	9.4	58.5	-	-	TEM reject
TOTAL intra+inter	6x10	-	-	-	16.18	17.9	-54.9	-	-	TEM reject
TOTAL+ sup	7x10	-	-	-	14.99	16.6	-50.3	-	-	TEM reject

MUAC	subjects #	mean mm	SD mm	max mm	Technical error TEM (mm)	TEM/mean TEM (%)	Coef of reliability R (%)	Bias from superv Bias (mm)	Bias from median Bias (mm)	
Supervisor	10	134.5	7.4	5	1.55	1.2	95.6	0	1.9	TEM good
Enumerator 1	10	132.1	6.7	7	1.72	1.3	93.3	2.85	1.14	TEM good
Enumerator 2	10	124.7	43.2	132	41.12	33	9.3	15.34	16.46	TEM reject
Enumerator 3	10	132.7	6.8	5	1.48	1.1	95.2	4.03	2.65	TEM good
Enumerator 4	10	134.8	7.4	8	2.5	1.9	88.6	2.45	2.11	TEM acceptable
Enumerator 5	10	136.4	7.7	8	2.44	1.8	89.8	2.8	3.66	TEM acceptable
Enumerator 6	10	134.6	7.8	3	0.81	0.6	98.9	1.93	2.22	TEM good
enum inter 1st	6x10	134.9	7.5	-	2.79	2.1	86	-	-	TEM poor
enum inter 2nd	6x10	130.1	25.4	-	23.32	17.9	16	-	-	TEM reject
inter enum + sup	7x10	132.8	17.6	-	12.13	9.3	57.7	-	-	TEM reject
TOTAL intra+inter	6x10	-	-	-	23.68	17.9	-58.2	-	-	TEM reject
TOTAL+ sup	7x10	-	-	-	21.96	16.5	-54.9	-	-	TEM reject

Jewi and Nguenyyiel

Standardisation test results					Precision				Accuracy		OUTCOME
Weight		subjects	mean	SD	max	Technical error	TEM/mean	Coef of reliability	Bias from superv	Bias from median	
		#	kg	kg	kg	TEM (kg)	TEM (%)	R (%)	Bias (kg)	Bias (kg)	
	Supervisor	10	10.6	1.6	2.6	0.83	7.9	74.3	0	0.41	TEM reject
	Enumerator 1	10	10.5	1.9	0.3	0.1	0.9	99.7	0.41	0.1	TEM acceptable

Enumerator 2	10	10.6	1.9	0.2	0.09	0.8	99.8	0.42	0.08	TEM acceptable
Enumerator 3	10	10.6	1.8	0.4	0.1	1	99.7	0.42	0.06	TEM poor
Enumerator 4	10	10.5	1.8	0.3	0.1	1	99.7	0.43	0.08	TEM poor
Enumerator 5	10	10.6	1.8	0.2	0.09	0.8	99.8	0.42	0.09	TEM acceptable
Enumerator 6	10	11	2	6.1	1.67	15.2	31.8	0.96	0.74	TEM reject
enum inter 1st	6x10	10.6	1.9	-	0.95	9	74.5	-	-	TEM reject
enum inter 2nd	6x10	10.6	1.8	-	0.06	0.6	99.9	-	-	TEM good
inter enum + sup	7x10	10.6	1.8	-	0.52	4.9	86.5	-	-	TEM reject
TOTAL intra+inter	6x10	-	-	-	0.96	9.1	72.7	-	-	TEM reject
TOTAL+ sup	7x10	-	-	-	0.99	9.4	70	-	-	TEM reject

Height	subjects #	mean cm	SD cm	max cm	Technical error TEM (cm)	TEM/mean TEM (%)	Coef of reliability R (%)	Bias from superv Bias (cm)	Bias from median Bias (cm)	
Supervisor	10	88	7.4	18.4	4.38	5	65.2	0	1.5	TEM reject
Enumerator 1	10	86.9	6.5	0.6	0.24	0.3	99.9	1.53	0.37	TEM good
Enumerator 2	10	87	6.5	0.7	0.32	0.4	99.8	1.61	0.3	TEM good
Enumerator 3	10	87	6.5	1	0.31	0.4	99.8	1.64	0.36	TEM good
Enumerator 4	10	87.1	6.5	2	0.58	0.7	99.2	1.7	0.4	TEM acceptable
Enumerator 5	10	86.9	6.5	1.1	0.39	0.5	99.6	1.68	0.26	TEM good
Enumerator 6	10	88.5	8	22.2	7.64	8.6	8.4	3.9	3.63	TEM reject
enum inter 1st	6x10	87.5	7	-	4.48	5.1	58.6	-	-	TEM reject
enum inter 2nd	6x10	86.9	6.4	-	0.37	0.4	99.7	-	-	TEM good
inter enum + sup	7x10	87.3	6.7	-	2.48	2.8	77.8	-	-	TEM reject
TOTAL intra+inter	6x10	-	-	-	4.47	5.1	54.8	-	-	TEM reject
TOTAL+ sup	7x10	-	-	-	4.68	5.4	51.7	-	-	TEM reject

MUAC		subjects #	mean mm	SD mm	max mm	Technical error TEM (mm)	TEM/mean TEM (%)	Coef of reliability R (%)	Bias from superv Bias (mm)	Bias from median Bias (mm)	
	Supervisor	10	138.4	11.8	4	1.88	1.4	97.4	0	0.95	TEM good
	Enumerator 1	10	140	12.1	5	1.3	0.9	98.8	1.75	2.6	TEM good
	Enumerator 2	10	139.6	11.7	7	2.18	1.6	96.5	1.48	2.41	TEM acceptable
	Enumerator 3	10	138.9	12.1	4	1.24	0.9	98.9	1.15	1.59	TEM good
	Enumerator 4	10	136.9	11.9	16	3.78	2.8	90	1.86	1.76	TEM reject
	Enumerator 5	10	138.4	11.7	6	2.17	1.6	96.6	1.34	1.38	TEM acceptable
	Enumerator 6	10	138.4	12.4	11	3.72	2.7	91	2.13	1.79	TEM reject
	enum inter 1st	6x10	139.4	11.8	-	2.79	2	94.4	-	-	TEM poor
	enum inter 2nd	6x10	138	11.8	-	2.85	2.1	94.2	-	-	TEM poor
	inter enum + sup	7x10	138.7	11.7	-	2.62	1.9	95.1	-	-	TEM acceptable
	TOTAL intra+inter	6x10	-	-	-	3.84	2.8	89.4	-	-	TEM reject
	TOTAL+ sup	7x10	-	-	-	3.63	2.6	90.4	-	-	TEM reject

Punyido-I and Punyido-II

Standardisation test results					Precision				Accuracy		OUTCOME
Weight		subjects	mean	SD	max	Technical error	TEM/mean	Coef of reliability	Bias from superv	Bias from median	
		#	kg	kg	kg	TEM (kg)	TEM (%)	R (%)	Bias (kg)	Bias (kg)	
	Supervisor	10	5.6	5.9	15.2	8.04	143.4	-85	0	4.47	TEM reject
	Enumerator 1	10	11.1	3.5	10.1	2.26	20.4	58	5.66	5.87	TEM reject

	Enumerator 2										
	Enumerator 3	10	11.6	2.3	0.3	0.13	1.1	99.7	5.01	4.93	TEM reject
	Enumerator 4	10	9.9	4.3	13.1	4.36	43.8	-1.9	6.46	6.38	TEM poor
	Enumerator 5	10	11.6	2.3	0.4	0.12	1.1	99.7	5.85	5.77	TEM reject
	Enumerator 6	10	10.8	3.4	11.1	2.7	25	35.9	6.46	6.38	TEM poor
	enum inter 1st	5x10	10.9	3.2	-	2.44	22.4	40.4	-	-	TEM reject
	enum inter 2nd	5x10	11.1	3.4	-	2.28	20.6	53.8	-	-	TEM reject
	inter enum + sup	6x10	10.1	4.3	-	3.71	33.7	-42.1	-	-	TEM reject
	TOTAL intra+inter	5x10	-	-	-	3.45	31.3	-12.8	-	-	TEM reject
	TOTAL+ sup	6x10	-	-	-	5.62	55.7	-71.9	-	-	TEM reject

Height		subjects #	mean cm	SD cm	max cm	Technical error TEM (cm)	TEM/mean TEM (%)	Coef of reliability R (%)	Bias from superv Bias (cm)	Bias from median Bias (cm)	
	Supervisor	10	46.1	47.8	108	65.56	142.2	-87.9	0	43.97	TEM reject
	Enumerator 1	10	88.9	23.9	87.7	19.61	22.1	32.7	44.11	40.82	TEM reject
51.16	44.42	TEM acceptable	R value good	Bias reject	Bias reject						
	Enumerator 3	10	92.8	12	1.1	0.46	0.5	99.8	41.01	33.77	TEM reject
	Enumerator 4	10	81.8	30.5	106.5	31.62	38.6	-7.2	51.37	44.23	TEM good

		Enumerator 5	10	93.4	11.7	0.5	0.16	0.2	100	46.88	39.75	TEM reject
		Enumerator 6	10	87.8	23.3	90.3	20.77	23.6	20.8			
		enum inter 1st	5x10	88.5	21.5	-	19.87	22.5	14.8	-	-	TEM reject
		enum inter 2nd	5x10	89.4	21.8	-	16.77	18.8	40.8	-	-	TEM reject
		inter enum + sup	6x10	81.8	31.8	-	29.25	32.8	-105.3	-	-	TEM reject
		TOTAL intra+inter	5x10	-	-	-	26.48	29.8	-50.9	-	-	TEM reject
		TOTAL+ sup	6x10	-	-	-	44.61	54.5	-97.2	-	-	TEM reject
MUAC			subjects	mean	SD	max	Technical error	TEM/mean	Coef of reliability	Bias from superv	Bias from median	
			#	mm	mm	mm	TEM (mm)	TEM (%)	R (%)	Bias (mm)	Bias (mm)	
		Supervisor	10	68.6	70.6	153	97.19	141.7	-89.3	0	64.2	TEM reject
		Enumerator 1	10	131.7	32	132	29.53	22.4	15	63.1	58.72	TEM reject
74.06	62.82		TEM good	R value acceptable	Bias reject	Bias reject						
		Enumerator 3	10	136.4	8.2	5	1.69	1.2	95.7	62.61	50.08	TEM reject
		Enumerator 4	10	123.2	42.9	142	42.63	34.6	1.2	73.91	61.86	TEM good
		Enumerator 5	10	136.3	8.3	3	0.74	0.5	99.2	66.69	54.69	TEM reject
		Enumerator 6	10	127.9	30.7	134	30.36	23.7	1.9			
		enum inter 1st	5x10	131	28	-	27.71	21.1	2.2	-	-	TEM reject

enum inter 2nd	5x10		131.1	28.2	-	26.02	19.8	14.8	-	-	TEM reject
inter enum + sup	6x10		120.7	44.7	-	42.02	32.1	-157.8	-	-	TEM reject
TOTAL intra+inter	5x10	-	-	-	-	38.02	29	-84.9	-	-	TEM reject
TOTAL+ sup	6x10	-	-	-	-	64.97	53.8	-111.7	-	-	TEM reject

Appendix 3: Questionnaires

UNHCR Standardised Expanded Nutrition Survey (SENS) Questionnaire

Greeting and reading of rights:

THIS STATEMENT IS TO BE READ TO THE HEAD OF THE HOUSEHOLD OR, IF THEY ARE ABSENT, ANOTHER ADULT MEMBER OF THE HOUSE BEFORE THE INTERVIEW. DEFINE HEAD OF HOUSEHOLD AS MEMBER OF THE FAMILY WHO MANAGES THE FAMILY RESOURCES AND IS THE FINAL DECISION MAKER IN THE HOUSE.

- Hello, my name is _____ and I work with *[organisation/institution]*. We would like to invite your household to participate in a survey that is looking at the nutrition and health status of people living in this [*camp / survey area*].
- UNHCR is sponsoring this nutrition survey.
- Taking part in this survey is totally your choice. You can decide to not participate, or if you do participate you can stop taking part in this survey at any time for any reason. If you stop being in this survey, it will not have any negative effects on how you or your household is treated or what assistance you receive.
- If you agree to participate, we will ask you some questions about your family and we will also measure all the children in the household who are older than 6 months and younger than 5 years *[and/or women]*. In addition to these assessments, we will test a small amount of blood from the finger of the children and women to see if they have anaemia.
- Before we start to ask you any questions or take any measurements, we will ask you to give us your verbal consent. Be assured that any information that you will provide will be kept strictly confidential.
- You can ask me any question that you have about this survey before you decide to participate or not.
- If you do not understand the information or if your questions were not answered to your satisfaction, do not declare your consent on this form. Thank you.

1. Demography questionnaire

1 questionnaire per household

This questionnaire is to be administered to the head of the household or, if THEY ARE absent, another adult member of the household.

No	QUESTION	ANSWER CODES	
SECTION IDENTIFICATION THIS SECTION IS TO BE COMPLETED IN ALL SELECTED HOUSEHOLDS. THIS MODULE IS MANDATORY TO COMPLETE.			
ID1	Name **NAME**	|_____|	
ID3	Zone Code / Number **ZONE**		|___|___|
ID4	Village Code / Number **VILLAGE**		|___|___|
ID5	Date of interview (dd/mm/yyyy) **SURVDAT**	Day/Month/Year….|___|___| /|___|___|	
ID6	Cluster Number **CLUSTER**		|___|___|
ID7	Team Number **TEAM**		|___|
ID8	Household Number **HH**		|___|___|

No	QUESTION	ANSWER CODES	
SECTION DM1: Household Head Information			
Note	THESE QUESTIONS NEED TO BE ASKED TO THE HEAD OF THE HOUSEHOLD or, if THEY ARE absent, another adult member of the household.		
DM1	Was consent given for conducting the interview using Mobile Data Collection (use of smartphone)? ENSURE THAT YOU HAVE INTRODUCED THE TEAM AND INFORMED THEM ABOUT THE INTERVIEW. **MDCCONST**	Yes 1 No 2 Absent 3	|___| **IF ANSWER IS 2 or 3 STOP HERE**
DM2	What is the sex of the household head? THE HOUSEHOLD HEAD IS THE PERSON RESPONSIBLE FOR MAKING THE DECISIONS FOR THE HOUSEHOLD AS A WHOLE. use the term agreed upon during the training. **HHHSEX**	Male m Female f	|___|
DM3	What is the age of the household head (years)? YOU DO NOT NEED TO SEE PROOF OF AGE. **Lower limit=6** **Upper limit=98** **HHHAGE**	RECORD THE NUMBER IN YEARS IF KNOWN. RECORD 97 IF 97 YEARS OR OLDER. RECORD 98 IF UNKNOWN.	|___|___| years

SECTION DM2: Survey of Household Members			
DM4	What is the total number of household members? **Lower limit=1** **Upper limit=30** **DMHHSIZE**	RECORD THE NUMBER.	|___|___| people
Note	ASK INTERVIEWEE IF THOSE ARE ALL THE MEMBERS IN THE HOUSEHOLD AND THAT NO ONE IS MISSING. THESE QUESTIONS NEED TO BE COMPLETED FOR EACH HH MEMBER WHO LIVES IN THE HOUSEHOLD.		
DM5	Name of household member ONLY WRITE FIRST NAME. **NAME**	|_____|	
DM6	What is the sex of the household member? **HHMSEX**	Male m Female f	|___|
DM7	What is the age of the household member (years)? YOU DO NOT NEED TO SEE PROOF OF AGE. **Lower limit=0** **Upper limit=98** **HHMAGE**	RECORD THE NUMBER IN YEARS IF KNOWN. IF AGE IS LESS THAN 1 YEAR, RECORD 0. RECORD 97 IF 97 YEARS OR OLDER. RECORD 98 IF UNKNOWN.	|___|___| years
DM8	Is the household member currently pregnant? **HHMPREG**	Yes 1 No 2 Don't know 8	|___|
DM9	Was consent given for taking the GPS coordinates of the household? **GPSCONST**	Yes 1 No 2	|___|
Note	Summary messages WRITE DOWN THE SUMMARY DATA PROVIDED BELOW ON THE PARTICIPANTS AND MEASURES CONTROL SHEET.		
DM10	**Total number of children under 5 (0-4 years) |___|___| children under-5** **TOTU5**		
DM11	**Total number of women aged 15-49 years |___|___| women** **TOTWM**		
DM12	**Total number of pregnant women aged 15-49 years |___|___| pregnant women** **TOTPREG**		
	Interviewer: I confirm that questionnaire is complete: yes/no		
	Supervisor: I confirm that questionnaire is complete.: yes/no MESSAGE TO INTERVIEWER: DO NOT ANSWER THIS QUESTION.		

UNHCR
United Nations High Commissioner for Refugees
Haut Commissariat des Nations Unies pour les réfugiés

FOOD SECURITY
1 questionnaire per household

This questionnaire is to be administered to the Main Caretaker WHO IS RESPONSIBLE FOR COOKING THE MEALS.

No	QUESTION	ANSWER CODES	
SECTION IDENTIFICATION THIS SECTION IS TO BE COMPLETED IN ALL SELECTED HOUSEHOLDS. THIS MODULE IS MANDATORY TO COMPLETE.			
ID1	Camp Name **CAMPNAME**	|_____|	
ID2	Section Code / Number **SECTION/ZONE**		|___|___|___|
ID4	Block Code / Number **BLOCK**		|___|___|___|
ID5	Date of interview (dd/mm/yyyy) **SURVDAT**	Day/Month/Year…..|___|___| /|___|___| / |___|___||___|___|	
ID7	Team Number **TEAM**		|___|___|
ID8	Household Number **HH**		|___|___|___|

No	QUESTION	ANSWER CODES	
SECTION FS1: Food assistance and cooking fuel (if applicable)			
Note	ThiS questionnaire NEED to be ASKED To the Main Caretaker WHO IS RESPONSIBLE FOR COOKING THE MEALS.		
FS1	Was consent given for conducting the interview? ENSURE THAT YOU HAVE INTRODUCED THE TEAM AND INFORMED THEM ABOUT THE INTERVIEW. **FSCONST**	Yes 1 No 2 Absent 3	|___| **IF ANSWER IS 2 or 3 STOP HERE**
FS2	What is your household's assistance category? (IF APPLICABLE) **HHASSIST**	Category A 1 Category B 2 Category C 3 Category D 4 Other 6 Don't know 8	|___|
FS3	Does your household receive food assistance (general in-kind food distribution and/or cash grants and/or food vouchers) [INSERT LOCAL NAMES OF FOOD ASSISTANCE PROGRAMMES]? **FOODASS**	Yes 1 No 2 Don't know 8	|___| **IF ANSWER IS 1 OR 8 GO TO FS5**
FS4	Why do you not have access to the food assistance programmes [INSERT LOCAL NAMES OF FOOD ASSISTANCE PROGRAMMES]? **YNOFOODA**	Ration card and/or cash grants and/or food voucher not given even if eligible 1 Not registered 2 Registered but determined not eligible 3	|___| **GO TO FS10**

		Other 6 Don't know 8	
FS5	How many days did the food from the general in-kind food distribution from the [INSERT] cycle of [INSERT LAST CYCLE MONTH] last? (IF APPLICABLE) **Lower limit=1** **Upper limit=98** **GFDLAST**	RECORD THE NUMBER OF DAYS IF KNOWN. RECORD 98 IF UNKNOWN.	|___|___|
FS6	Does your household receive cash grants to meet basic needs [INSERT LOCAL NAME FOR CASH GRANTS]? (IF APPLICABLE) **CASH**	Yes 1 No 2 Don't know 8	|___| **IF ANSWER IS 2 OR 8 GO TO FS8**
FS7	How did you spend the cash grants you received in [INSERT LAST CYCLE MONTH OR DISTRIBUTION]? (IF APPLICABLE) SELECT ALL THAT APPLY. **CASHSPNT: FOOD / WATER / HYGIENE / HEALTH / HOUSE / FUELA / LIVELI / DEBTS / SAVING / EDUCA / OTHER / DKN**	Food 01 Water 02 Hygiene items, clothes, shoes 03 Health costs (including medicines) 04 Rent, shelter repair, household items (e.g. mattress, blanket, jerrycan), utilities and bills (e.g. electricity, water bills, phone calling credit) 05 Firewood/fuel for cooking or heating 06 Assets for a livelihood activity (e.g. seeds, tools, farming, fishing, petty trade, etc.) 07 Debt repayment 08 Save some money or gave to other family members, relatives, friends 09 Education (e.g. school fees, uniform, books) 10 Other 96 Don't know 98	|___|___|
FS8	Does your household receive a food voucher [INSERT LOCAL NAME OF FOOD VOUCHER] for general food needs? (IF APPLICABLE) **VOUCHER**	Yes 1 No 2 Don't know 8	|___| **IF ANSWER IS 2 OR 8 GO TO FS10**

FS9	Did you sell any of the vouchers or products accessed with food vouchers received in [INSERT LAST CYCLE MONTH OR DISTRIBUTION] to access other goods and/or services? (IF APPLICABLE) **SELLVOU**	Yes 1 No 2 Don't know 8	|___|
FS10	Which of your household's basic needs can you not meet? DO NOT READ THE ANSWERS. SELECT ALL THAT APPLY. **NEEDSNOT: FOODB / WATERB / HYGIENEB / HEALTHB / HOUSEB / FUELB / LIVELIB / DEBTSB / SAVINGB / EDUCAB / NEEDSMET / OTHERB / DKNB**	Food 01 Water 02 Hygiene items, clothes, shoes 03 Health costs (including medicines) 04 Rent, shelter repair, household items (e.g. mattress, blanket, jerrycan), utilities and bills (e.g. electricity, water bills, phone calling credit) 05 Firewood/fuel for cooking or heating 06 Assets for a livelihood activity (e.g. seeds, tools, farming, fishing, petty trade, etc.) 07 Debt repayment 08 Save some money or support other family members, relatives, friends 09 Education (e.g. school fees, uniform, books) 10 All basic needs are met 11 Other 96 Don't know 98	|___|___|
FS11	What cooking fuel does your household usually use? (IF APPLICABLE) **HHFUEL**	Wood 01 Charcoal 02 Kerosene 03 Biogas 04 Liquid petroleum gas (LPG) 05 Ethanol 06 Briquettes 07 Other 96 Don't know 98	|___|___|
FS12	Does your household receive cooking fuel assistance? (IF APPLICABLE) **FUEL**	Yes 1 No 2 Don't know 8	|___| **IF ANSWER IS 2 or 8 GO TO FS14**
FS13	How many days did the fuel from the [INSERT] cycle of [INSERT LAST CYCLE MONTH] last? (IF APPLICABLE)	RECORD THE NUMBER OF DAYS	|___|___|

	Lower limit=1 **Upper limit=98** **FUELLAST**	IF KNOWN (RECORD 98 IF UNKNOWN)	
SECTION FS2: Coping Strategies and Reduced Coping Strategy Index (rCSI)			
Note	EXPLAIN TO THE RESPONDENT THAT THE QUESTIONS APPLY TO ALL HOUSEHOLD MEMBERS AND NOT ONLY TO HIM/HER.		
FS14	In the past 4 weeks, have you or anyone in your household needed to stop a child from attending school? (OPTIONAL) **SCHOOL**	Yes 1 No 2 Don't know 8	|___|
FS15	In the past 4 weeks, have you or anyone in your household needed to sold any assets that would not have normally sold in order to buy food or basic goods (e.g. sold items such as a car, motorbike, plough, sewing machine, tools, seed stock, livestock, productive land)? (OPTIONAL) **SELLLIV**	Yes 1 No 2 Don't know 8	|___|
FS16	In the past 4 weeks, have you or anyone in your household needed to ask for money from strangers (begging)? (OPTIONAL) **BEG**	Yes 1 No 2 Don't know 8	|___|
FS17	In the past 4 weeks, have you or anyone in your household needed to move to a poorer quality shelter? (OPTIONAL) **SHELTER**	Yes 1 No 2 Don't know 8	|___|
FS18	In the past 4 weeks, have you or anyone in your household needed to send household members under the age of 16 to work? (OPTIONAL) **CHILDLAB**	Yes 1 No 2 Don't know 8	|___|
FS19	In the past 4 weeks, have you or anyone in your household needed to send a member of the household to work far away? (OPTIONAL) **WORKAWAY**	Yes 1 No 2 Don't know 8	|___|
FS20	In the past 4 weeks, have you or anyone in your household needed to engage in activities for money or items that you feel puts you or other members of your household at risk of harm (e.g. illegal activities like hunting, fishing, survival sex, drug dealing, early marriage, joining armed groups, etc.)? (OPTIONAL) **RISKYACT**	Yes 1 No 2 Don't know 8	|___|
FS21	In the past 4 weeks, have you or anyone in your household needed to skip paying rent / debt repayments to meet other needs? (OPTIONAL) **RENTDEBT**	Yes 1 No 2 Don't know 8	|___|
FS22	In the past 4 weeks, have you or anyone in your household needed to take out new loans or borrowed money? (OPTIONAL) **LOANBRW**	Yes 1 No 2 Don't know 8	|___|
FS23	In the past 4 weeks, have you or anyone in your household needed to reduce expenditure on hygiene items, water, baby items, health or education in order to meet household food needs? (OPTIONAL)	Yes 1 No 2 Don't know 8	|___|

	REDUCE		
Note	EXPLAIN TO THE RESPONDENT THAT THE QUESTIONS APPLY TO ALL HOUSEHOLD MEMBERS AND NOT ONLY TO HIM/HER.		
FS24	In the past 7 days, how many days did your household rely on less preferred and/or less expensive food due to lack of food or money to buy food? **Lower limit=0** **Upper limit=7** **LESSEXP**	RECORD THE NUMBER OF DAYS, FROM 0-7.	|___|
FS25	In the past 7 days, how many days did your household borrow food or rely on help from a friend or relative due to lack of food or money to buy food? **Lower limit=0** **Upper limit=7** **BRW**	RECORD THE NUMBER OF DAYS, FROM 0-7.	|___|
FS26	In the past 7 days, how many days did your household reduce the number of meals eaten in a day due to lack of food or money to buy food? **Lower limit=0** **Upper limit=7** **LESSMEAL**	RECORD THE NUMBER OF DAYS, FROM 0-7.	|___|
FS27	In the past 7 days, how many days did your household limit portion sizes at mealtime due to lack of food or money to buy food? **Lower limit=0** **Upper limit=7** **REDMEAL**	RECORD THE NUMBER OF DAYS, FROM 0-7.	|___|
FS28	In the past 7 days, how many days did your household reduce consumption by adults so children could eat, due to lack of food or money to buy food? IN HOUSEHOLDS WIHTOUT CHILDREN UNDER 5 YEARS OF AGE, THE ANSWER SHOULD BE '0'. **Lower limit=0** **Upper limit=7** **REDADULT**	RECORD THE NUMBER OF DAYS, FROM 0-7.	|___|
SECTION FS3 : FCS and FCS-N			
FS29	How many days over the last 7 days, did members of your household eat the following food items, prepared and/or consumed at home? READ THE LIST OF FOODS AND DO NOT PROBE. ONLY RECORD THE CONSUMPTION OF SIGNIFICANT QUANTITIES OF FOOD BY THE HOUSEHOLD. WRITE '0' IF NOT CONSUMED IN THE LAST 7 DAYS.		
		Number of days eaten in past 7 days	
	1. In the past 7 days, how many days did your household eat any [INSERT CEREALS LOCALLY AVAILABLE] (*e.g. wheat, corn/maize, barley, buckwheat, millet, oats, rice, rye, sorghum, teff*) or any foods made from these	|___| **Lower limit=0**	

	such as [INSERT LOCAL FOODS] (*e.g. bread, porridge, noodles, ugali, nshima, pasta*). Or any [INSERT WHITE ROOTS AND TUBERS LOCALLY AVAILABLE] *(e.g. green bananas, lotus root, parsnip, taro, plantains, white potatoes, white yam, white cassava, white sweet potato)* or any foods made from roots such as [INSERT LOCAL FOODS]. Or any [INSERT OTHER STARCHY FOODS LOCALLY AVAILABLE] *(e.g. green bananas, plantains)* **CRLROTU**	**Upper limit=7**
	2. In the past 7 days, how many days did your household eat any [INSERT LEGUMES, NUTS AND SEEDS LOCALLY AVAILABLE] *(e.g. dried beans, chickpeas, lentils, nuts, seeds)* or any foods made from these such as [INSERT LOCAL FOODS] *(e.g. hummus, peanut butter)* **PULSE**	|___| **Lower limit=0** **Upper limit=7**
	3. In the past 7 days, how many days did your household eat any [INSERT MILK AND MILK PRODUCTS LOCALLY AVAILABLE] *(e.g. fresh milk, sour milk, infant formula, cheese, kefir, yogurt)* **MILK**	|___| **Lower limit=0** **Upper limit=7**
	4. In the past 7 days, how many days did your household eat any meat, fish and eggs *(e.g. goat, beef, chicken, pork, blood, fish including canned tuna, snails, and/or other seafood, eggs)* **PROT**	|___| **IF ANSWER IS 0 GO TO QUESTION 5** **Lower limit=0** **Upper limit=7**
	4.1. In the past 7 days, how many days did your household eat any [INSERT FLESH MEAT LOCALLY AVAILABLE] *(e.g. beef, goat, lamb, mutton, pork, rabbit, chicken, duck, cane rat, guinea pig, rat, agouti frogs, snakes, insects)* **FLSHMT**	|___| **Lower limit=0** **Upper limit=7**
	4.2. In the past 7 days, how many days did your household eat any [INSERT ORGAN MEAT or blood-based foods Locally available] *(e.g. liver, kidney, heart)* **ORGMT**	|___| **Lower limit=0** **Upper limit=7**
	4.3. In the past 7 days, how many days did your household eat any [INSERT FRESH, DRIED OR CANNED FISH OR SHELLFISH LOCALLY AVAILABLE] *(e.g. anchovies, tuna, sardines, shark, whale, roe/fish eggs, clam, crab, lobster, crayfish, mussels, shrimp, octopus, squid, sea snails)* **FISHSF**	|___| **Lower limit=0** **Upper limit=7**
	4.4. In the past 7 days, how many days did your household eat any eggs from [INSERT EGGS LOCALLY AVAILABLE] *(e.g. eggs from chicken, duck, guinea fowl)* **EGGS**	|___| **Lower limit=0** **Upper limit=7**
	5. In the past 7 days, how many days did your household eat any [INSERT ANY VEGETABLES and leaves locally available] *(e.g. spinach, cassava leaves, onion, carrot, lettuce, bamboo shoots, cabbage, pepper, tomato, eggplant, zucchini, etc.)*	|___|

	VEGL	**IF ANSWER IS 0 GO TO QUESTION 6** **Lower limit=0** **Upper limit=7**
	5.1. In the past 7 days, how many days did your household eat any [INSERT vitamin A rich vegetables and tubers locally available] *(e.g. carrot, pumpkin, squash, or sweet potato that are orange inside, red sweet pepper)* **VITAV**	|___| **Lower limit=0** **Upper limit=7**
	5.2. In the past 7 days, how many days did your household eat any [INSERT DARK GREEN LEAFY VEGETABLES locally available INLCUDING WILD FORMS AND VITAMIN A RICH LEAVES] (*e.g. amaranth, arugula (rocket), cassava leaves, kale, broccoli, spinach*) **GREENV**	|___| **Lower limit=0** **Upper limit=7**
	6. In the past 7 days, how many days did your household eat any [INSERT ANY FRUITS locally available INCLUDING WILD FRUITS], and 100% fruit juice made from these *(e.g. mango, apricot, peach, apple, avocados, banana, coconut flesh, lemon, orange, etc.)* **FRT**	|___| **IF ANSWER IS 0 GO TO QUESTION 7** **Lower limit=0** **Upper limit=7**
	6.1. In the past 7 days, how many days did your household eat any [INSERT VITAMIN A RICH FRUITS locally available], and 100% fruit juice made from these *(e.g. mango (ripe, fresh and dried), cantaloupe melon (ripe), apricot (fresh or dried), ripe papaya, passion fruit (ripe), dried peach)* **VITAFRT**	|___| **Lower limit=0** **Upper limit=7**
	7. In the past 7 days, how many days did your household eat any [INSERT OILS AND FATS LOCALLY AVAILABLE] added to food or used for cooking *(e.g. vegetable / nut oil made from almond, avocado, canola, coconut, cottonseed, groundnut, maize, olive, rapeseed, safflower, sesame, soybean, sunflower/walnut, ghee, butter, margarine, mayonnaise, palm oil -**not** red palm oil, shortenings, sour cream)* **FATS**	|___| **Lower limit=0** **Upper limit=7**
	8. In the past 7 days, how many days did your household eat any [INSERT SWEETS, SWEETENED SODA OR JUICE DRINKS AND SUGARY FOODS LOCALLY AVAILABLE] *(e.g. sugar, honey, syrup, soda drinks, chocolates, candies, cookies, sweet biscuits and cakes)* **SWTS**	|___| **Lower limit=0** **Upper limit=7**
	9. In the past 7 days, how many days did your household eat any [INSERT SPICES, CONDIMENTS AND BEVERAGES LOCALLY AVAILABLE] *(e.g. black pepper, salt, chilies, soy sauce, hot sauce, fish powder, fish sauce, ginger, herbs, magi cubes, ketchup, mustard, coffee, tea, milk/cream in small quantities)* **SPICE**	|___| **Lower limit=0** **Upper limit=7**
	10. In the past 7 days, how many days did your household eat any [INSERT specialized nutritious foods available] *(e.g. CSB, Super Cereals)* (IF APPLICABLE) **SPENUTF**	|___| **Lower limit=0** **Upper limit=7**

FS30	How was this food acquired? **FOODSOU**	Purchase (using cash grants and/or with their own cash) 01 Own production (crops, livestock, fishing/hunting, gathering) 02 Traded goods/services, barter 03 Borrowed (loan/credit from traders) 04 Receive as gift (from family relatives or friend/neighbor 05 In-kind or voucher based food assistance 06 Other 96 Don't know 98	|___|___|
ID9	Please take a GPS reading (OPTIONAL) AVOID TAKING IT INSIDE THE HOUSE OR UNDER TREES (TO MAKE IT FASTER). **GPS**	|_____|	
	Interviewer: I confirm that questionnaire is complete: yes/no		
	Supervisor: I confirm that questionnaire is complete.: yes/no MESSAGE TO INTERVIEWER: DO NOT ANSWER THIS QUESTION.		

Children 0-59 anthropometry, health, IYCF & anaemia

1 questionnaire per child 0-59 months

This questionnaire is to be administered to ALL CHILDREN BETWEEN 0-59 MONTHS IF THE IYCF MODULE IS INCLUDED

No	QUESTION	ANSWER CODES	
SECTION IDENTIFICATION THIS SECTION IS TO BE COMPLETED IN ALL SELECTED HOUSEHOLDS. THIS MODULE IS MANDATORY TO COMPLETE.			
ID1	Name **NAME**	|_____|	
ID3	Zone Code / Number **ZONE**		|___|___|
ID4	Village Code / Number **VILLAGE**		|___|___|
ID5	Date of interview (dd/mm/yyyy) **SURVDAT**	Day/Month/Year…..|___|___| /|___|___|	
ID6	Cluster Number **CLUSTER**		|___|___|
ID7	Team Number **TEAM**		|___|
ID8	Household Number **HH**		|___|___|
No	**QUESTION**	**ANSWER CODES**	
SECTION CHILD1: Details of the Child 0-59 months THIS SECTION IS TO BE ADMINISTERED TO ALL CHILDREN IN THE SELECTED HOUSEHOLDS BETWEEN 0-59 MONTHS.			
Note	These questions need to be asked to the MOTHER OR THE Main CareGIVER.		
CH1	ID Number **ID**		|___|___|
CH2	Was consent given for conducting the interview and the measurements? ENSURE THAT YOU HAVE INTRODUCED THE TEAM AND INFORMED THEM ABOUT THE INTERVIEW AND THE MEASUREMENTS. **CHCONST**	Yes 1 No 2	|___| **IF ANSWER IS 2 STOP HERE**
CH3	Name of the child ONLY WRITE FIRST NAME. **CHNAME**	|_____|	
CH4	Sex of [NAME OF CHILD]? **SEX**	Male m Female f	|___|
CH5	Do you have an official age documentation for [NAME OF CHILD]? **XDOBK**	Yes 1 No 2	|___| **IF ANSWER IS 2 GO TO CH7**
CH6	[NAME OF CHILD]'s date of birth THE EXACT BIRTH DATE SHOULD ONLY BE TAKEN FROM AN AGE DOCUMENTATION SHOWING DAY, MONTH AND YEAR OF BIRTH.	Day/Month/Year…..|___|___| /|___|___| / ___|___||___|___|	

	BIRTHDAT		
CH7	Age of [NAME OF CHILD] in months **Lower limit=0 months** **Upper limit=59.99 months** **MONTHS**	SINCE NO AGE DOCUMENTATION IS AVAILABLE, ESTIMATE AGE USING A LOCAL EVENTS CALENDAR.	|___|___|months
Note	Verify that the child is ${MONTHS} months old. Remember, if they are older than 59 months; they are not eligible for inclusion, and you should stop here.		
SECTION CHILD2: Nutrition, Health and Anaemia Status of the Child 6-59 months THIS SECTION IS TO BE ADMINISTERED TO ALL CHILDREN BETWEEN 6 AND 59 MONTHS OF AGE.			
CH8	Is [NAME OF CHILD] currently present in the household? **CHPRES**	Yes 1 No 2	|___| **IF ANSWER IS 2 GO TO CH15**
CH9	[NAME OF CHILD]'s weight in kilograms (±0.1kg) DON'T FORGET THE DECIMAL. **Lower limit=3.0kg** **Upper limit=31.0kg** **WEIGHT**		|___|___|. |___| kg
CH10	Was the [NAME OF CHILD] dressed in clothes for the weight measurement? **CLOTHES**	Yes y No n	|___|
CH11	[NAME OF CHILD]'s length/height in cm (±0.1cm) DON'T FORGET THE DECIMAL. **Lower limit=54.0cm** **Upper limit=124.0cm** **HEIGHT**		|___|___|___|. |___| cm
CH12	Was [NAME OF CHILD] measured lying down or standing up? **MEASURE**	Child lying down l Child standing up h	|___|
CH13	Clinical examination: Does the [NAME OF CHILD] present bilateral pitting oedema? **EDEMA**	Yes y No n	|___|
CH14	[NAME OF CHILD]'s middle upper arm circumference (MUAC) in cm (±0.1cm) MEASURE LEFT ARM. DON'T FORGET THE DECIMAL. **Lower limit=7.0cm** **Upper limit=23.5cm** **MUAC**		|___|___|. |___| cm
CH15	Is [NAME OF CHILD] currently being treated in the SFP or the OTP/SC for malnutrition? SHOW CSB++ SACHET AND PLUMPY NUT	Yes, SFP 1 Yes, TFP (OTP/SC) 2 No 3 Don't know 8	|___|

	ENROL		
CH16	Is [NAME OF CHILD] currently enrolled in the BSFP? SHOW CSB++ SACHET **BSFPCSB**	Yes 1 No 2 Don't know 8	|___|
CH17	Is [NAME OF CHILD] currently receiving MNPs sachets? SHOW MNPs SACHET **BSFPMNP**	Yes 1 No 2 Don't know 8	
CH19	Has [NAME OF CHILD] been vaccinated against measles? CHECK VACCINATION CARD (ONLY FOR CHILDREN OLDER THAN 9 MONTHS). **MEASLES**	Yes, card1 Yes, recall 2 No or don't know 3	|___|
CH19	Has [NAME OF CHILD] received a vitamin A capsule in the past six months? CHECK VACCINATION/HEALTH CARD AND SHOW CAPSULE. **VITA**	Yes, card1 Yes, recall 2 No or don't know 3	|___|
CH20	Was [NAME OF CHILD] given any drug for intestinal worms in the last six months? SHOW TABLET OF MEBENDAZOLE. **DEWORM**	Yes 1 No 2 Don't know 8	|___|
CH21	Has [NAME OF CHILD] had diarrhea in the past 2 weeks? CASE DEFINITION: THREE OR MORE LOOSE OR LIQUID STOOLS DURING 24 HOURS. **DIAR**	Yes 1 No 2 Don't know 8	|___| **IF ANSWER IS 2 OR 8 GO TO CH24**
CH22	Did you give ORS sachets to [NAME OF CHILD] when s/he had diarrhea? SHOW ORS SACHET. **DIARORS**	Yes 1 No 2 Don't know 8	|___|
CH23	Did you give zinc tablets or syrup to [NAME OF CHILD] when s/he had diarrhea? SHOW ZINC TABLET OR SYRUP.	Yes 1 No 2 Don't know 8	|___|

	DIARZINC		
CH26	**Automatic referral for child with signs of acute malnutrition who is not already enrolled in a nutrition programme:** • Child needs to be referred for moderate acute malnutrition (if MUAC<12.5 cm and MUAC≥11.5 cm and/or WHZ<-2 and WHZ≥-3 and if ENROL equals to 3 or 8). • Child needs to be referred for severe acute malnutrition (if MUAC<11.5 cm and/or WHZ<-3 and/or bilateral pitting oedema is yes and if ENROL equals to 3 or 8). FILL OUT A REFERRAL FORM: ONE SLIP IS FOR THE MOTHER/CAREGIVER AND THE OTHER IS FOR THE HEALTH FACILITY. **REFMAM/REFSAM**		
SECTION IYCF1: Breastfeeding Status of the Child 0-23 months (part 1) This SECTION is to be administered to the MOTHER OR THE Main CareGIVER WHO IS RESPONSIBLE FOR FEEDING THE CHILD AND THE CHILD SHOULD BE BETWEEN 0 AND 23 MONTHS OF AGE.			
Note	These questions need to be asked to the MOTHER OR THE Main CareGIVER WHO IS RESPONSIBLE FOR FEEDING THE CHILD.		
IF1	Has [NAME OF CHILD] ever been breastfed? **EVERBF**	Yes 1 No 2 Don't know 8	|___| **IF ANSWER IS 2 or 8 GO TO IF4**
IF2	How long after birth did you first put [NAME OF CHILD] to the breast? **INITBF**	Less than one hour 1 Between 1 and 23 hours 2 More than 24 hours 3 Don't know 8	|___|
IF3	Was [NAME OF CHILD] breastfed yesterday during the day or at night? **YESTBF**	Yes 1 No 2 Don't know 8	|___|
SECTION IYCF2: Breastfeeding Status of the Child 0-23 months (part 2) This SECTION is to be administered to the MOTHER OR THE Main CareGIVER WHO IS RESPONSIBLE FOR FEEDING THE CHILD AND THE CHILD SHOULD BE BETWEEN 0 AND 23 MONTHS OF AGE.			
IF4	Now I would like to ask you about liquids that [NAME OF CHILD] may have had yesterday during the day and at night. I am interested in whether your child had the item even if it was combined with other foods. Yesterday, during the day or at night, did [NAME] receive any of the following? ASK ABOUT EVERY LIQUID. EVERY QUESTION MUST HAVE AN ANSWER. IF ITEM WAS GIVEN, SELECT 'YES'. IF ITEM WAS NOT GIVEN, SELECT 'NO'. IF CAREGIVER DOES NOT KNOW, SELECT 'DON'T KNOW'. Yes No DK		
	4A. Plain water **WATER**	4A……1 2 8	
	4B. Infant formula, for example **Lactogen, NAN** **INFORM**	4B……1 2 8	
	4C. Milk such as tinned, powdered, or fresh animal milk, for example **Nido, Cowbell, Tanga Fresh, Al-mudhish, first choice** **MILK**	4C……1 2 8	

	4D. Juice or juice drinks, for example **Ceres, Azam, Mo juice**, **Jambo juice, etc.** **JUICE**	4D……1 2 8	
	4E. Clear broth **BROTH**	4E……1 2 8	
	4F. Sour milk or yogurt, for example **Asas, Tanga Fresh, Serengeti, Dar Fresh, Mara Milk** **YOGURT**	4F……1 2 8	
	4G. Thin porridge, for example made with maize, sorghum, millet, cassava or finger millet, CSB+/CSB++ **THINPOR**	4G……1 2 8	
	4H. Tea or coffee with milk **WHTEACOF**	4H……1 2 8	
	4I. Any other water-based liquids, for example sodas **Azam Cola, Pepsi, Twist, Coca cola**, other sweet drinks, herbal infusion, gripe water, **clear tea with no milk, black coffee**, ritual fluids (**togwa**) **WATLQD**	4I……...1 2 8	
IF5	Yesterday, during the day or at night, did [NAME] eat solid or semi-solid (soft, mushy) food? **FOOD**	Yes…….……...1 No…….…... 2 Don't know…….…... 8	|___|
SECTION IYCF3: Bottle Feeding for the Child 0-23 months			
IF6	Did [NAME OF CHILD] drink anything from a bottle with a nipple yesterday during the day or at night? **BOTTLE**	Yes…….……...1 No…….…... 2 Don't know…….…... 8	|___|
SECTION IYCF4: Iron-fortified or Iron-rich Foods for the Child 6-23 months			
IF7	Now I would like to ask you about some particular foods [NAME OF CHILD] may eat. I am interested in whether your child had the item even if it was combined with other foods. Yesterday, during the day or at night, did [NAME] consume any of the following? ASK ABOUT EVERY ITEM. EVERY QUESTION MUST HAVE AN ANSWER. IF ITEM WAS GIVEN, SELECT 'YES'. IF ITEM WAS NOT GIVEN, SELECT 'NO'. IF CAREGIVER DOES NOT KNOW, SELECT 'DON'T KNOW'.	Yes No DK	
	7A. Any meat such as beef, pork, lamb, goat, chicken, liver, kidney, heart or other organ meats, fresh or dried fish, sardines, seafood, insects, etc. **FLESHFD**	7A……..1 2 8	
	7B. CSB+ **FBF**	7B……...…….1 2 8	
	7C. CSB++		

	SHOW CSB++ SACHET **FBFSUPER**	7C……..……1 2 8	
	7D. Plumpy'Nut® SHOW SACHET. **RUTF**	7D……..…1 2 8	
	7E. Iron fortified infant formula, for example **Lactogen, NAN** **INFORMFE**	7E……..…….....1 2 8	
	7F. Iron fortified solid, semi-solid or soft foods designed specifically for infants and young children, for example **Cerelac, Weetabix** **FOODFE**	7F……....1 2 8	
IF8	Yesterday, during the day or at night, did [NAME] consume any food to which you added a MNPs sachet like this? SHOW MICRONUTRIENT POWDER SACHET. **MNP**	Yes…….……....1 No…….…..... 2 Don't know…….…..... 8	|___|
ID9	Please take a GPS reading AVOID TAKING IT INSIDE THE HOUSE OR UNDER TREES (TO MAKE IT FASTER). **GPS**	|_____|	
	Interviewer: I confirm that questionnaire is complete: yes/no		
	Supervisor: I confirm that questionnaire is complete.: yes/no MESSAGE TO INTERVIEWER: DO NOT ANSWER THIS QUESTION.		

WOMEN

No	QUESTION	ANSWER CODES	
SECTION WM1: Details of the Woman 15-49 years THIS SECTION IS TO BE ADMINISTERED TO ALL ELIGIBLE WOMEN AGED BETWEEN 15 AND 49 YEARS IN THE SELECTED HOUSEHOLDS.			
Note	THESE QUESTIONS NEED TO BE ASKED TO EACH ELIGIBLE WOMAN.		
WM1	ID Number **SURVEY MANAGER INSTRUCTIONS:** INCLUDE AS MANY ELIGIBLE WOMEN AS THERE ARE IN THE HOUsEHOLD. THE ID number is automatically generated IN MDC SURVEYS for each household starting at 1. **WMID**		|___|

WM2	Was consent given for conducting the interview and the measurements? ENSURE THAT YOU HAVE INTRODUCED THE TEAM AND INFORMED THEM ABOUT THE INTERVIEW AND THE MEASUREMENTS. **SURVEY MANAGER INSTRUCTIONS:** If an individual is absent, the team leader should record this information and determine another time to return on the same day. The team should revisit an absent individual up to two times, if it is logistically feasible, on the same survey day AND/or before to leave the survey Area. If they are unsuccessful after this, the individual should be recorded as an absence and they should not be replaced with another household or individual. REFER TO SENS PRE-MODULE TOOL: [**TOOL 8**- DATA COLLECTION CONTROL SHEET] FOR A MODEL TOOL TO HELP TRACK THE ABSENTEES. **WMCONST**	Yes 1 No 2 Absent 3	|___| **IF ANSWER IS 2 OR 3 STOP HERE**
WM3	Name of the woman ONLY WRITE FIRST NAME. **SURVEY MANAGER INSTRUCTIONS:** THIS IS ASKED TO FACILITATE THE INTERVIEW PROCESS. THE NAME OF THE RESPONDENT WILL NOT BE USED. USUALLY ONLY THE FIRST NAME IS ENTERED. **WMNAME**	|_____|	
WM4	Age of [NAME OF WOMAN] in years ONLY WOMEN BETWEEN 15 AND 49 ARE BEING INTERVIEWED. **SURVEY MANAGER INSTRUCTIONS:** Reported age is recorded. YOU DO NOT NEED TO SEE PROOF OF AGE SHOWING OFFICIAL DATE OF BIRTH. **Lower limit=15 years** **Upper limit=49 years** **WMAGE**		|___|___| years
SECTION WM2: Anthropometry, Physiological and Anaemia Status of the Woman 15-49 years THIS SECTION IS TO BE ADMINISTERED TO ALL ELIGIBLE WOMEN BETWEEN 15 AND 49 YEARS IN THE SELECTED HOUSEHOLD.			
WM5	Are you pregnant? **SURVEY MANAGER INSTRUCTIONS:**	Yes 1 No 2 Don't know 8	|___| **IF ANSWER IS 2 OR 8 GO TO WM8**

	Make sure to adapt the question to the context to ensure that it is asked in a culturally acceptable manner. If the answer is 'no' or 'don't know', the woman should STILL be assessed for anaemia and it will be assumed that she is not pregnant. IN SOME SETTINGS, MUAC IS ONLY MEASURED IN PREGNANT AND LACTATING WOMEN (PLW). Skip patternS will need to be added HERE IN ORDER TO ONLY MEASURE MUAC IN PLW. **PREGNANT**		
WM6	Are you currently enrolled in the ANC programme? **SURVEY MANAGER INSTRUCTIONS:** Make sure to USE THE LOCAL NAME GIVEN TO THE ANC PROGRAMME. **ANC**	Yes 1 No 2 Don't know 8	|___|
WM7	Are you currently receiving iron-folate pills? SHOW PILL. **SURVEY MANAGER INSTRUCTIONS:** Make sure to USE THE LOCAL NAME GIVEN TO THE IRON-FOLATE TABLET. **FEREC**	Yes 1 No 2 Don't know 8	|___|
WM8	Are you currently breastfeeding? (OPTIONAL) **SURVEY MANAGER INSTRUCTIONS:** INCLUDE THIS QUESTION ONLY IF MUAC IS MEASURED. IN SOME SETTINGS, MUAC IS ONLY MEASURED IN PREGNANT AND LACTATING WOMEN (PLW). Skip patternS will need to be added HERE IN ORDER TO ONLY MEASURE MUAC IN PLW. **LACTAT**	Yes 1 No 2 Don't know 8	|___| **IF ANSWER IS 2 OR 8 GO TO WM10**
WM9	Is the child you are breastfeeding younger than 6 months old? (OPTIONAL) **SURVEY MANAGER INSTRUCTIONS:** if the mother is breastfeeding more than one child, as long as one is younger than 6 months old, choose ANSWER option 1. **LACTATU6**	Yes 1 No 2 Don't know 8	|___|
WM10	Are you currently enrolled in the BSFP? (IF APPLICABLE) SHOW COMMODITY/PACKAGING GIVEN IN BSFP. **SURVEY MANAGER INSTRUCTIONS:**	Yes 1 No 2 Don't know 8	|___|

	INCLUDE THE LOCAL NAME OF THE BLANKET SUPPLEMENTARY FEEDING PRoduct (BSFP). **WMBSFP**		
WM11	[NAME OF WOMAN]'s MUAC in mm (±1mm) or cm (±0.1cm) (OPTIONAL) MEASURE LEFT ARM. APPLICABLE ONLY IF MUAC MEASURED IN CM: DON'T FORGET THE DECIMAL. **SURVEY MANAGER INSTRUCTIONS:** DEPENDING ON THE CONTEXT, MUAC CAN BE MEASURED IN MM OR CM. ADAPT ACCORDINGLY. **Lower limit=160 mm** **Upper limit=500 mm** **WMMUAC**		|___|___|___|mm OR |___|___|. |___| cm
WM12	Units of measurement of your HemoCue device (g/dL or g/L) **SURVEY MANAGER INSTRUCTIONS:** Data analysis and reporting is done in g/dl. The Hb concentrations in g/dl will be automatically calculated in the final database in case of devices in g/l. THIS VARIABLE IS NOT USED DURING ANALYSIS. **WMHBUNIT**	g/dL gdl g/L gl	|___|
WM13	[NAME OF WOMAN]'s haemoglobin in g/dL (±0.1 g/dL) or in g/L (±1g/L) APPLICABLE ONLY IF HB MEASURED IN G/DL: DON'T FORGET THE DECIMAL. **SURVEY MANAGER INSTRUCTIONS:** Hb is measured in non-pregnant women only. Record the data according to the unit given by the HemoCue machine (g/L or g/dL). For analysis AND REPORTING, always use or convert the value to g/dL. IN SURVEYS USING MDC METHODS The Hb concentrations in g/l will be automatically CONVERTed in the final database IN G/DL. At elevations above 1000m, Hb concentrations increase. Refer to SENS Anaemia tool for guidance on how haemoglobin is corrected for altitude: [**Tool 5** - Hb Adjustment for altitude]. IN SURVEYS USING MDC METHODS The Hb concentrations will be automatically corrected for altitude.		|___|___|. |___| g/dL OR |___|___|___| g/L

	Lower limit=2.0g/gL **Upper limit=22.0g/dL** **WMHB**		
ID9	Please take a GPS reading (OPTIONAL) AVOID TAKING IT INSIDE THE HOUSE OR UNDER TREES (TO MAKE IT FASTER). **SURVEY MANAGER INSTRUCTIONS:** Only if the consent was given in the Demography questionnaire. AN ADDITIONAL APPLICATION can be install to CALIBRATE THE GPS (GPS TEST+) in case of LONG WAITING TIME. **GPS**	|_____|	
WM14	**Automatic referral for woman with signs of acute malnutrition:** • Woman needs to be referred for acute malnutrition (if MUAC< [INSERT VALUE] mm) (TO BE INCLUDED ONLY IF MUAC IS MEASURED). FILL OUT A REFERRAL FORM: ONE SLIP IS FOR THE WOMAN AND THE OTHER IS FOR THE HEALTH FACILITY. **SURVEY MANAGER INSTRUCTIONS:** Adapt the ADMISSION CRITERIA CUT-OFFS to the SURVEY context. REFER TO SENS ANTHROPOMETRY AND HEALTH TOOL: [**TOOL 3** – REFERRAL FORM] for an example of a referral slip to use during the survey. THIS VARIABLE IS NOT USED DURING ANALYSIS. **WMREFMAL**		
WM15	**Automatic referral for woman who has severe anaemia:** • Woman needs to be referred for severe anaemia (if Hb<8.0g/dL). FILL OUT A REFERRAL FORM: ONE SLIP IS FOR THE WOMAN AND THE OTHER IS FOR THE HEALTH FACILITY. **SURVEY MANAGER INSTRUCTIONS:** REFER TO SENS ANTHROPOMETRY AND HEALTH TOOL: [**TOOL 3** – REFERRAL FORM] for an example of a referral slip to use during the survey. THIS VARIABLE IS NOT USED DURING ANALYSIS. REMOVE THIS AUTOMATIC REFERRAL IF THE ANAEMIA MODULE IS NOT INCLUDED. **WMREFAN**		
	Interviewer: I confirm that questionnaire is complete: yes/no **SURVEY MANAGER INSTRUCTIONS:** THE INTERVIEWER SHOULD ENSURE THAT THERE ARE NO MISSING VALUES WITHIN THE QUESTIONNAIRE **BEFORE LEAVING THE HOUSEHOLD**.		
	Supervisor: I confirm that questionnaire is complete.: yes/no MESSAGE TO INTERVIEWER: DO NOT ANSWER THIS QUESTION.		

	SURVEY MANAGER INSTRUCTIONS: REFER TO THE SENS PRE-MODULE: [TOOL 15- SOP FOR SENS DATA MANAGEMENT] SECTION 1, FOR GUIDANCE ON HOW TO COMPLETE THIS STEP.

Appendix 4: Local event calendar used during the survey to estimate age of young children.

Gambella 2025 local event calender

Season	Religious Holidays	Local Events	Agricultural events	Month	Age (m)
Rain				Sep-25	0
Rain			Maize harvest	Aug-25	1
Rain		Independence Day 9th July		Jul-25	2
Rain			Planting	Jun-25	3
Hot				May-25	4
Hot	Good Friday 15th April		Cultivation	Apr-25	5
Hot				Mar-25	6
Hot		School Term 2 starts		Feb-25	7
Cool		School Term 1 finishes		Jan-25	8

Cool	Christmas 25th December	New Year's Eve (31 Dec), civil war begins in South Sudan		Dec-24	9
Rain			Sorghum harvest	Nov-24	10
Rain				Oct-24	11
Rain				Sep-24	12
Rain			Maize harvest	Aug-24	13
Rain		Independence Day 9th July		Jul-24	14
Rain			Planting	Jun-24	15
Hot				May-24	16
Hot	Good Friday 15th April		Cultivation	Apr-24	17
Hot				Mar-24	18
Hot		School Term 2 starts		Feb-24	19
Cool		School Term 1 finishes		Jan-24	20
Cool	Christmas 25th December	New Year's Eve (31 Dec), civil war begins in South Sudan		Dec-23	21
Rain			Sorghum harvest	Nov-23	22
Rain				Oct-23	23
Rain				Sep-23	24
Rain			Maize harvest	Aug-23	25
Rain		Independence Day 9th July		Jul-23	26
Rain			Planting	Jun-23	27
Hot				May-23	28

Hot	Good Friday 15th April		Cultivation	Apr-23	29
Hot				Mar-23	30
Hot		School Term 2 starts		Feb-23	31
Cool		School Term 1 finishes		Jan-23	32
Cool	Christmas 25th December	New Year's Eve (31 Dec), civil war begins in South Sudan		Dec-22	33
Rain			Sorghum harvest	Nov-22	34
Rain				Oct-22	35
Rain				Sep-22	36
Rain			Maize harvest	Aug-22	37
Rain		Independence Day 9th July		Jul-22	38
Rain			Planting	Jun-22	39
Hot				May-22	40
Hot	Good Friday 15th April		Cultivation	Apr-22	41
Hot				Mar-22	42
Hot		School Term 2 starts		Feb-22	43
Cool		School Term 1 finishes		Jan-22	44
Cool	Christmas 25th December	New Year's Eve (31 Dec), civil war begins in South Sudan		Dec-21	45
Rain			Sorghum harvest	Nov-21	46
Rain				Oct-21	47
Rain				Sep-21	48

Rain			Maize harvest	Aug-21	49
Rain		Independence Day 9th July		Jul-21	50
Rain			Planting	Jun-21	51
Hot				May-21	52
Hot	Good Friday 15th April		Cultivation	Apr-21	53
Hot				Mar-21	54
Hot		School Term 2 starts		Feb-21	55
Cool		School Term 1 finishes		Jan-21	56
Cool	Christmas 25th December	New Year's Eve (31 Dec), civil war begins in South Sudan		Dec-20	57
Rain			Sorghum harvest	Nov-20	58
Rain				Oct-20	59