standardized EXPANDED NUTRITION SURVEYS (SENS) IN AMHARA REGION, ALEMWACH AND AFTIT REFUGEE SETTLEMENTS, ETHIOPIA FINAL REPORT 2025.

Survey dates: 29 December 2025 – 10 February 2026

Table of Contents

TABLE OF CONTENTS 0
ACRONYMS / ABBREVIATIONS 6
EXECUTIVE SUMMARY 7
1 INTRODUCTION 14
1.1 Alemwach Refugee Site 14
1.2 Aftit Refugee Site 14
1.3 Description of the population 14
1.4 Food security situation 15
1.5 Health situation 15
1.6 Nutrition situation 16
2 SURVEY OBJECTIVES 17
2.1 Primary objectives: 17
2.2 Secondary objectives: 18
2.3 Optional objectives: 18
3 METHODOLOGY 18
3.1 Sampling procedure: Sample size calculation and Sampling procedure 18
3.2 Study Population 18
3.3 Sample size 19
3.4 Sampling procedure: selecting households and individuals. 19
3.5 Questionnaire and measurement methods 19
3.6 Questionnaire 19
3.7 Measurement methods 20
3.8 Household-level indicators 20
3.9 Individual-level indicators 20
4 CASE DEFINITIONS, INCLUSION CRITERIA AND CALCULATIONS 21
4.1 Acute malnutrition 22
4.2 Stunting 22
4.3 Underweight 23
4.4 Overweight 23
4.5 Child enrolment in supplementary (TSFP) and therapeutic (OTP/SC) nutrition programme 23
4.6 Infant and young child feeding practices in children 0-23 months. 23
4.7 Classification of public health problems and targets 24
4.8 Anthropometric data: 25
4.9 Selective feeding programmes: 25
5 QUALITY ASSURANCE 25
5.1 Survey teams Composition and supervision 25
5.2 Training 26
5.3 Coordination 26
5.4 Data Collection Tools 26
5.5 Data collection 27
5.6 Standardization of the anthropometric tools 27
5.7 Standardization of the enumerators 27
5.8 Pilot test 27
5.9 Supervision 27
6 DATA ANALYSIS; 27
6.1 Ethical Considerations 28
7 RESULTS 29
7.1 Demography indicators 29

7.1.1 Sample size and clusters 29
7.2 Household size and composition 29
7.2.1 Population pyramid (show following figure) 30
7.2.2 Time of arrival (optional/if applicable) 30
7.2.3 Household Head Profile 31
7.2.4 Age dependency ratio 31
7.3 Children 6-59 months 32
7.3.1 Age and Sex Distribution 32
7.3.2 Anthropometric results (based on WHO Growth Standards 2006) 32
7.4 Mortality results (retrospective over 3 months/days prior to interview) 41
7.4.1 Enrolment into nutrition programmes results 41
7.5 Children's morbidity 41
7.5.1 Measles vaccination coverage results 42
7.5.2 Vitamin A supplementation coverage results 42
7.5.3 Deworming coverage results (if applicable) 43
7.5.4 Diarrhoea results 44
7.5.5 Anaemia results 44
7.5.6 Children 0-23 months 46
7.5.7 Prevalence of intake 48
8 WOMEN 15-49 YEARS 49
8.1 MUAC in women 49
8.2 TSFP enrolment (if applicable) 49
8.3 Anaemia 50
9 FOOD SECURITY 52
9.1 Access to food assistance 52
9.2 In-kind food distribution (if applicable) 54
9.3 Coverage of basic needs 54
9.4 Access to cooking fuel 55
9.5 Negative coping strategies results 55
9.6 Food Consumption Score (FCS) and FSC-Nutrition (FCS-N) results 57
10 MOSQUITO NET COVERAGE 61
11 WASH 63
12 LIMITATIONS 64
13 DISCUSSION 65
13.1 Nutritional status of children (and women) 65
13.2 Programme coverage 65
13.3 Anaemia – Children 6–59 Months and Non-Pregnant Women (Aftit Site) 66
13.4 IYCF indicators 67
13.5 Food security 68
13.6 Mosquito net coverage 69
13.7 WASH 69
13.8 Other collected information/data 69
13.8.1 Demography information: 69
14 CONCLUSIONS 71
15 RECOMMENDATIONS AND PRIORITIES 72
15.1 Nutrition Interventions 72
a. Address Inadequate General Food Distribution (GFD): 72
15.2 Food Security 72
15.3 Mosquito net 73
15.4 WASH Interventions 73
15.5 Monitoring and Future Nutrition Surveys 73

16 REFERENCES 73
17 ACKNOWLEDGEMENTS 74
18 APPENDICES 75
19 ALEMWACH_SITE 77
19.1 Result Tables for NCHS growth reference 1977 77
20 AFTIT_ SITE 81
20.1 Result Tables for NCHS growth reference 1977 81

TABLE 1 SUMMARY OF RESULTS 8
Table 4 : Desire précision 19
Table 54 : Sampling Information ..... **Error! Bookmark not defined.**
Table 5 : DEFINITIONS OF ACUTE MALNUTRITION USING WEIGHT-FOR-HEIGHT AND/OR OEDEMA IN CHILDREN 659 MONTHS 22
Table 6: MUAC MALNUTRITION CUT-OFFS IN CHILDREN 6-59 MONTHS 22
Table 7 : DEFINITIONS OF STUNTING USING HEIGHT-FOR-AGE IN CHILDREN 6-59 MONTHS 22
Table 8 : DEFINITIONS OF UNDERWEIGHT USING WEIGHT-FOR-AGE IN CHILDREN 6-59 MONTHS 23
Table 9 :DEFINITIONS OF OVERWEIGHT USING WEIGHT-FOR-HEIGHT IN CHILDREN 6-59 MONTHS 23
Table 10 : Mortality benchmarks for defining crisis situations (NICS, 2010) 24
Table 11 : Performance Indicator for sélective feeding programmes * 25
Table 12 : Performance Indicator for Measles vaccination and Vitamin A supplementation coverage 25
Table 12 : UNHCR WASH Programme Standards 25
TABLE 2 SAMPLING INFORMATION BY SITE 29
Table 3 HOUSEHOLD SIZE AND COMPOSITION, BY SITE 29
Table 4 ARRIVAL PROFILE BY SITE 30
Table 5 HOUSEHOLD HEAD PROFILE, BY SITE 31
Table 6 AGE DEPENDENCY RATIO*, BY SITE 31
Table 7 AGE DEPENDENCY RATIO CATEGORIES BY HOUSEHOLD, BY SITE 31
Table 8: CHILDREN 6-59 MONTHS - DISTRIBUTION OF AGE AND SEX OF SAMPLE IN ALEMWACH SITE 32
Table 9: CHILDREN 6-59 MONTHS - DISTRIBUTION OF AGE AND SEX OF SAMPLE IN AFTIT SITE 32
Table 11: PREVALENCE OF ACUTE MALNUTRITION BASED ON WEIGHT-FOR-HEIGHT Z-SCORES (AND/OR OEDEMA) AND BY SEX, BY SITE 32
Table 12: PREVALENCE OF ACUTE MALNUTRITION BY AGE, BASED ON WEIGHT-FOR-HEIGHT Z-SCORES AND/OR OEDEMA, IN ALEMWACH SITE 33
Table 13: PREVALENCE OF ACUTE MALNUTRITION BY AGE, BASED ON WEIGHT-FOR-HEIGHT Z-SCORES AND/OR OEDEMA, IN AFTIT SITE 34
Table 14: PREVALENCE OF MUAC MALNUTRITION, BY SITE 35
Table 15:PREVALENCE OF MUAC MALNUTRITION BY AGE, BASED ON MUAC CUT OFF'S AND/OR OEDEMA, IN ALEMWACH SITE 35
Table 16: PREVALENCE OF MUAC MALNUTRITION BY AGE, BASED ON MUAC CUT OFF'S AND/OR OEDEMA, IN AFTIT SITE 35
Table 17: PREVALENCE OF COMBINED GAM AND SAM BASED ON WHZ AND MUAC CUT OFF'S (AND/OR OEDEMA) AND BY SEX* 36
Table 18: Detailed numbers for combined GAM and SAM 36
Table 19: PREVALENCE OF UNDERWEIGHT BASED ON WEIGHT-FOR-AGE Z-SCORES AND BY SEX, BY SITE 36
Table 20: PREVALENCE OF UNDERWEIGHT BY AGE BASED ON WEIGHT-FOR-AGE Z-SCORES, AND OEDEMA IN ALEMWACH SITE 36
Table 21: PREVALENCE OF STUNTING BASED ON HEIGHT-FOR-AGE Z-SCORES AND BY SEX, BY SITE 38
Table 22: PREVALENCE OF STUNTING BY AGE BASED ON HEIGHT-FOR-AGE Z-SCORES, IN ALEMWACH SITE 38
Table 23: PREVALENCE OF STUNTING BY AGE BASED ON HEIGHT-FOR-AGE Z-SCORES, IN AFTIT SITE 39
Table 24 : Prevalence Of Overweight Based On Weight-For-Height Z-Scores (No Oedema), By Site 40
Table 25: Prevalence Of Overweight By Age Based On Weight-For-Height Z-Scores (No Oedema), In Sites 40
Table 26: MEAN Z-SCORES, DESIGN EFFECTS AND EXCLUDED SUBJECTS, BY SITE 40
Table 27: Mortality rates 41
Table 28: **PROGRAMME ENROLMENT FOR ACUTELY MALNOURISHED CHILDREN,** BASED ON ALL ADMISSION CRITERIA (**MUAC, WHZ AND/OR OEDEMA**) **BY SITE** 41
Table 28: **PROGRAMME ENROLMENT FOR ACUTELY MALNOURISHED CHILDREN,** BASED ON ALL ADMISSION CRITERIA **(MUAC AND/OR OEDEMA**) **BY SITE** 41
Table 29: COVERAGE OF THE BLANKET SUPPLEMENTARY FEEDING PROGRAMME, BY SITE 41
Table 30: MEASLES VACCINATION COVERAGE FOR CHILDREN AGED 9-59 MONTHS, BY SITE 42
Table 31: VITAMIN A SUPPLEMENTATION COVERAGE FOR CHILDREN AGED 6-59 MONTHS WITHIN THE PAST 6 MONTHS, BY SITE 42
Table 32: **Deworming Coverage For Children Aged 12-59/24-59 Months within the Past 6 Months, By Site** 43
Table 33: PERIOD PREVALENCE OF DIARRHOEA, BY SITE 44
Table 34: ORS AND ZINC USE DURING DIARROEA EPISODE, BY SITE 44
Table 35: PREVALENCE OF TOTAL ANAEMIA, ANAEMIA CATEGORIES, AND MEAN HAEMOGLOBIN CONCENTRATION IN CHILDREN 6-59 MONTHS OF AGE AND BY AGE GROUP, IN AFTIT SITE 44
Table 36:PREVALENCE OF MODERATE AND SEVERE ANAEMIA IN CHILDREN 6-59 MONTHS OF AGE AND BY AGE GROUP, IN AFTIT SITE 45
Table 37:PREVALENCE OF INFANT AND YOUNG CHILD FEEDING PRACTICES INDICATORS, BY SITE 47
Table 38: INFANT FORMULA INTAKE IN CHILDREN AGED 0-23 MONTHS, BY SITE 48
Table 40: WOMEN PHYSIOLOGICAL STATUS AND AGE, BY SITE 49

Table 41: PREVALENCE OF MUAC MALNUTRITION IN NON-PREGNANT, NON-LACTATING WOMEN, BY SITE..... 49
Table 42: PREVALENCE OF MUAC MALNUTRITION IN PREGNANT AND LACTATING WOMEN WITH AN INFANT LESS THAN 6 MONTHS, BY SITE 49
Table 43: PREVALENCE OF TOTAL ANAEMIA, ANAEMIA CATEGORIES, AND MEAN HAEMOGLOBIN CONCENTRATION IN NON-PREGNANT WOMEN OF REPRODUCTIVE AGE (15-49 YEARS), AFTIT SITE..... 50
Table 44: ANC ENROLMENT AND IRON-FOLIC ACID PILLS COVERAGE AMONG PREGNANT WOMEN (15-49 YEARS), BY SITE 50
Table 45: FOOD SECURITY SAMPLING INFORMATION, BY SITE 52
Table 46: FOOD ASSISTANCE TYPE, AMOUNT AND DISTRIBUTION SCHEDULE FOR THE LAST DISTRIBUTION IN ALEMWACH SITE..... 52
Table 47: FOOD ASSISTANCE TYPE, AMOUNT AND DISTRIBUTION SCHEDULE FOR THE LAST DISTRIBUTION (DEC 2025) IN AFTIT SITE 52
Table 48: FOOD ASSISTANCE COVERAGE..... 53
Table 49 REPORTED DURATION OF GENERAL FOOD DISTRIBUTION, BY SITE 54
Table 51: DESCRIPTION OF BASIC NEEDS NOT MET BY THE HOUSEHOLDS, IN SITES 54
Table 52: HOUSEHOLDS BY CATEGORIES OF COVERAGE OF BASIC NEEDS, BY SITES 55
Table 53: COOKING FUEL USE IN SITES..... 55
Table 54: NEGATIVE COPING STRATEGIES USED BY THE SURVEYED POPULATION IN SITES OVER THE PAST 4 WEEKS..... 55
Table 55: NEGATIVE COPING STRATEGIES USED BY THE SURVEYED POPULATION IN SITES OVER THE PAST 7 DAYS 57
Table 56 AVERAGE RCSI*, BY SITE..... 57
Table 57: AVERAGE FCS* BY SITE 57
Table 58: FOOD CONSUMPTION SCORE BY CATEGORY, BY SITE 57
Table 59: CONSUMPTION FREQUENCY CATEGORIES OF EACH NUTRIENT RICH FOOD GROUPS (FCS-N) IN SITES 57
Table 60: FOOD ACQUISITION SOURCES, BY SITES 58
Table 61: MOSQUITO NET COVERAGE SAMPLING INFORMATION BY SITE 61
Table 62: LIST OF MOSQUITO NET BRAND NAME OBSERVED DURING ASSESSMENT BY SITE 61
Table 63: HOUSEHOLD MOSQUITO NET OWNERSHIP BY SITE 61
Table 64: NUMBER OF NETS BY SITE 62
Table 65 : MOSQUITO NET UTILISATION BY SITE..... 62
Table 67: WASH SAMPLING INFORMATION BY SITE..... 63
Table 68: WATER QUALITY BY SITE..... 63
Table 69: WATER QUANTITY 1: AMOUNT OF LITRES OF WATER USED PER PERSON PER DAY, BY SITE 63
Table 70: WATER QUANTITY 2: AMOUNT OF LITRES OF WATER USED PER PERSON PER DAY BY CATEGORY, BY SITE..... 63
Table 71: ACCESS TO SOAP BY SITE 63
Table 72: TOILET/LATRINE USE BY SITE..... 64

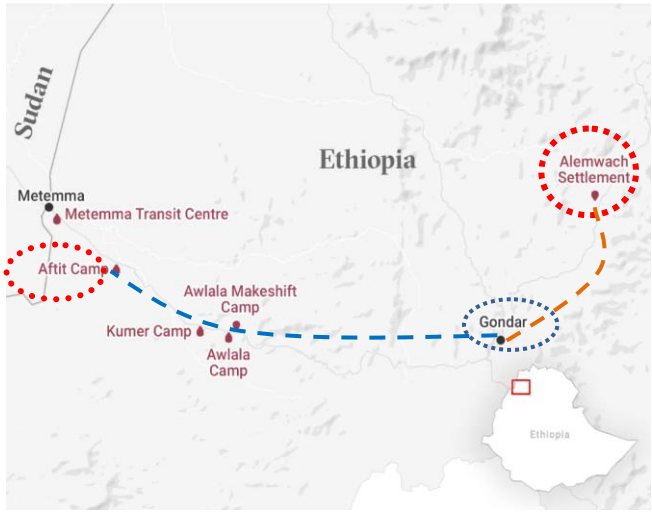
FIGURE 1 CRUDE AND UNDER-5 MORTALITY RATES 15
FIGURE 2 TOP FIVE CAUSES OF MORBIDITY IN CHILDREN UNDER-5.....15
FIGURE 3 NUMBER OF ADMISSIONS TO TREATMENT PROGRAMMES FOR MAM AND SAM IN CHILDREN 6-59 MONTHS 17
FIGURE 20 TRENDS OF FOOD CONSUMPTION PROFILES AND RCSI FROM 2017 TO 2018, BY SITE *(THIS FIGURE CAN BE AUTOMATICALLY GENERATED BY USING SENS PRE-MODULE TOOL 17B – TRENDS AND GRAPHS)* ..... **Error! Bookmark not defined.**
FIGURE 22 HOUSEHOLD OWNERSHIP OF AT LEAST ONE LLIN FROM 2015 TO 2017, BY SITE *(THIS FIGURE CAN BE AUTOMATICALLY GENERATED BY USING SENS PRE-MODULE TOOL 17B – TRENDS AND GRAPHS)* **Error! Bookmark not defined.**

ACRONYMS / ABBREVIATIONS

ANC	Ante Natal Clinic
CMR	Crude Mortality Rate
CI	Confidence Interval
CHWs	Community Health Workers
CSB+	Corn-Soya Blend+ Oil+ sugar
CSB++	Corn-Soya Blend+ Oil+ sugar+ dry skim milk
CMAM	Community Management Acute Malnutrition
ENA	Emergency Nutrition Assessment
EPI	Expanded Programme on Immunization
Epi Info	Epidemiological information
GAM	Global Acute Malnutrition
GFD	General Food Distribution
HAZ	Height-for-Age z-score
Hb	Haemoglobin
HH	Household
IPs	Implementing Partners
IYCF	Infant and Young Child Feeding
Kcal	Kilocalorie
MAM	Moderate Acute Malnutrition
MDC	Mobile Data Collection
MCH	Maternal and Child Health
MOH	Ministry of Health
MUAC	Mid Upper Arm circumference
NCHS	National Centre for Health Statistics
ODK	Open Data Kit
OTP	Out-patient Therapeutic Programme
RRS	Refugee and Returnee Services
ProGres	UNHCR Registration Database for Refugees
SAM	Severe Acute Malnutrition
SC	Stabilization Centre
SD	Standard Deviation
SENS	Standardized Expanded Nutrition Survey
TSFP	Target Supplementary Feeding Programme
SMART	Standardized Monitoring & Assessment of Relief & Transitions
TFP	Therapeutic Feeding Programme
U5MR	Under-5 Mortality Rate
UNHCR	United Nations High Commissioner for Refugees
WASH	Water Sanitation and Hygiene
WAZ	Weight-for-Age z-score
WFH	Weight-for-height
WHZ	Weight-for-Height z-score
WFP	World Food Programme
WHO	World Health Organization

Executive summary

The two refugee sites are named Alemwach and Aftit the refugee sites are located in North Gondar Zone of the Amhara Regional State, Ethiopia. As of end of Jan 2026, Alemwach site hosts 19,201 individuals (7,425 households) and Aftit site hosts 9,022 individuals (4,217 households). The number of Children under five year represent 16.4% of the population in Alemwach and 16.3% in Aftit sites.



Alemwach refugee site: It was established by the Government of Ethiopia through the Refugees and Returnees Service (RRS) and the United Nations Commissioner for Refugees (UNHCR) following conflict between the Federal Government and the Regional Government, which disrupted services in Adi-Harush and Mai-Aini refugee sites. Between July 2022, many Eritrean refugees were relocated to Alemwach site in Dabat Woreda, Amhara Region.

Aftit refugee site: It was established following the outbreak of conflict in Sudan in April 2023 between the Sudan Armed Forces (SAF) and the Rapid Support Forces (RSF). Refugees entered Ethiopia through the Metema Point of Entry in the Amhara Region. Initially, refugees were settled in Kumer site; however, due to security incidents, they were relocated to the newly established Aftit site in July 2024.

In 2025, a Standardized Expanded Nutrition Survey (SENS) was conducted in both sites. The main objective of the standard expanded nutrition survey (SENS) was to assess the health and nutrition status of refugees, and formulate workable recommendations for appropriate nutritional and public health interventions.

Training for enumerators and Data collection took place from 29 Dec 2025 to 12 Jan 2026 in Alemwach site and from 29 Jan to 10 Feb 2026 in Aftit site.

The survey methodology used simple random sampling technique was implemented in two refugee sites. All households were physically count and give a unique Identification number (ID) per zone/ block/ in each site prior a week of data collection. Empty or abandoned houses were excluded from the sampling frame and unit to precise the sample size.

The sample size was calculated with Standardized Monitoring and Assessment of Relief and Transitions (ENA for SMART) software and based on UNHCR SENS guideline. For each site, the sample size was calculated based on the previous year's (2024) upper confidence interval (CI) for GAM prevalence. The average household size was also used from the actual counting of households that are measured to the true value and near the reality on the ground.

SENS measured key indicators which are acute malnutrition (weight-for-height z-score, MUAC, and oedema), stunting Height-for-Age z-score), anaemia (Hb) among children and women of reproductive age, infant and young child feeding (IYCF) practices, diarrhoea morbidity, vaccination, vitamin "A" supplementation and deworming coverage, household food security (Food Consumption Score and coping strategies), mosquito net ownership and use, WASH conditions, and crude and under-five mortality rates. Finding in details are, its, here blow the following summary table:

TABLE 1 SUMMARY OF RESULTS

Surveyed Site	**Alemwach**		**Aftit**		**Classification of public health significance or target**
Data collection period	**29 Dec-12 Jan 2026**		**29 Jan to 10 Feb 2026**		
CHILDREN 6-59 months % [95% CI]	**No. /total**	**% (95% CI)**	**No. /total**	**% (95% CI)**	
Prevalence of combined GAM and SAM based on WHZ and MUAC					
Prevalence of combined GAM (WHZ <-2 and/or MUAC < 125 mm and/or oedema)	23/236	9.7 % (6.6 - 14.3%)	25/211	11.8 % (8.2 - 16.9%)	
Prevalence of combined SAM (WHZ < -3 and/or MUAC < 115 mm and/or oedema	2/236	0.8 % (0.2 - 3.0%)	2/211	0.9 % (0.3 - 3.4%)	
Acute Malnutrition (WHO 2006 Growth Standards)					
Global Acute Malnutrition (GAM)	18/235	7.7 % (4.9 - 11.8%)	19/205	9.3 % (6.0 - 14.0%)	critical if ≥ 15% (WHO) UNHCR Target of < 10%
Moderate Acute Malnutrition (MAM)	17/235	7.2 % (4.6 - 11.3%)	18/205	8.8 % (5.6 - 13.5%)	
Severe Acute Malnutrition (SAM)	1/235	0.4 % (0.1 - 2.4%)	1/205	0.5 % (0.1 - 2.7%)	UNHCR Target of < 2%
Oedema	0/235	0.0%	0/205	0.0%	
Mid Upper Arm Circumference (MUAC)					
MUAC <125 mm and/or oedema	16/235	6.8 % (4.2 - 10.8%)	9/211	4.3 % (2.3 - 7.9%)	
MUAC 115-124 mm	15/235	6.4 % (3.9 - 10.3%)	7/211	3.3 % (1.6 - 6.7%)	
MUAC <115 mm and/or oedema	1/235	0.4 % (0.1 - 2.4%)	2/211	0.9 % (0.3 - 3.4%)	
Stunting (WHO 2006 Growth Standards)					
Total Stunting	76/227	33.5 % (27.7-39.8%)	32/197	16.2 % (11.7 - 22.0%)	Very high/critical if ≥ 30% (WHO-UNICEF)
Severe Stunting	15/227	6.6 % (4.0 - 10.6%)	12/197	6.1 % (3.5 - 10.3%)	
Programme coverage					
Measles vaccination with card	161/227	70.93%	69/202	34.16%	

Surveyed Site	Alemwach		Aftit		Classification of public health significance or target
Data collection period	**29 Dec-12 Jan 2026**		**29 Jan to 10 Feb 2026**		
		(64.55-76.74%)		(27.65-41.14%)	
Measles vaccination with card or recall (9-59 months)	225/227	99.12% (96.85-99.89%)	199/202	98.51% (95.72-99.69%)	Target of ≥ 95%
Vitamin A supplementation in the last 6 months with card	16/239	6.69% (3.87-10.64%)	78/211	36.97% (30.44-43.86%)	
Vitamin A supplementation within past the 6 months with card or recall	238/239	99.58% (97.69-99.99%)	206/211	90.75% (86.21 - 94.18%)	Target of ≥ 90%
Diarrhoea Children aged 0-59 months					
Diarrhoea in the last 2 weeks	16/239	6.69% (3.87-10.64%)	34/227	14.98% (10.60-20.30%)	
Deworming					
Deworming within the past 6 months children age 24 to 59months	138/146	94.52% (89.49-97.60%)	131/145	90.34% (84.33-94.62%)	
Anaemia					
Total Anaemia (Hb < 11 g/dl)			56/209	26.79% (20.92-33.34%)	High if ≥ 40% Target of < 20%
Mild (Hb 10-10.9)			36/209	17.22% (12.37-23.04%)	
Moderate (Hb 7-9.9)			20/209	9.57% (5.94-14.39%)	
Severe (Hb < 7)			0/209	0.0%	
Mean Haemoglobin (g/dl) SD Range			11.6g/dl SD 1.4 [7.4, 20.7]		
CHILDREN 0-23 months % [95% CI]					
IYCF indicators	**WHO INDICATORS**				**UNHCR Target**
Timely initiation of breastfeeding	91/114	79.82% (71.28-86.76%)	73/81	90.12% (81.46-95.64%)	≥ 85%
Exclusive breastfeeding under 6 months	20/21	95.24% (76.18-99.88%)	11/16	68.75% (41.34-88.98%)	≥ 75%
Predominant breastfeeding under 6 months	20/21	95.24%	12/16	75.00%	≥90%

Surveyed Site	Alemwach		Aftit		Classification of public health significance or target
Data collection period	**29 Dec-12 Jan 2026**		**29 Jan to 10 Feb 2026**		
		(76.18-99.88%)		(47.62-92.73%)	
Continued breastfeeding at 1 year	20/21	95.24% (76.18-99.88%)	16/16	100.0%	≥90%
Continued breastfeeding at 2 years	14/30	46.67% (28.34-65.67%)	10/14	71.43% (41.90-91.61%	≥60%
Introduction of solid, semi-solid or soft foods	8/12	66.67% (34.89-90.08%)	4/9	44.44% (13.70-78.80%)	>60%
Consumption of iron-rich or iron-fortified foods	87 /93	93.55% (86.48-97.60%)	53/63	84.13% (72.74-92.12%)	≥ 60%
Bottle feeding	11/114	9.65% (4.92- 16.61%)	13/80	16.25% (8.95 -26.18%)	< 5%
UNHCR INDICATORS					
No breastfeeding under 6 months	0/21	0.0%	3/16	18.75% (4.05-45.65%)	<2%
No breastfeeding under 12 months	2/49	4.08% (0.50-13.98%)	4/38	10.53% (2.94-24.80%)	<5%
Minimum acceptable diet 6–23 months (MAD)	74/93	79.57% (69.95-87.23%)	54/65	83.08% (71.73-91.24%)	
Minimum meal frequency (MMF)	53/93	56.99% (46.31-67.22%)	43/65	66.15% (53.35-77.43%)	
Minimum milk feeding frequency (MMFF)	85/93	91.40% (83.75-96.21%)	43/65	66.15% (53.35-77.43%)	
Minimum Dietary Diversity	0.4731 SD 0.5 [0, 1]		0.31 SD 0.47 [0, 1]		
WOMEN 15-49 years % [95% CI]					
Anaemia (non-pregnant)					
Total Anaemia (Hb <12 g/dl)			26/120	21.67% (14.67-30.11%)	High if ≥ 40% (WHO) UNHCR Target of < 20%
Mild (Hb 11-11.9)			18/120	15.00% (9.14- 22.67%)	

Surveyed Site	Alemwach		Aftit		Classification of public health significance or target
Data collection period	**29 Dec-12 Jan 2026**		**29 Jan to 10 Feb 2026**		
Moderate (Hb 8-10.9)			8/120	6.67% (2.92-12.71%)	
Severe (Hb <8)			0/120	0.0%	
Mean Haemoglobin (g/dl) SD and Range			12.8g/dl SD 1.13 and [10.2 , 15.3]		
DEMOGRAPHY % [95% CI]					
Household size and Composition					
Average household size (mean, SD / range)	4.12		3.83		
Percent of children U2	103/1569	6.6%	65/1268	5.1%	
Percent of children U5	258/1569	16.4%	207/1268	16.3%	
Percent of pregnant women	23/1569	1.3%	40/1268	3.2%	
Household Head Profile					
Female headed households	99/381	25.98% (21.84 - 30.61%)	129/331	38.97% (33.87-44.32%)	
Male headed households	265/381	69.55% (64.76 – 73.96%)	185/331	55.89% (50.50-61.14%	
Children headed households	0/381	0.0%	0/331	0.0%	
Age dependency ratio					
Average age dependency ratio (mean, SD / range)	1.0 [SD 0.91]		0.8 [SD 1.0]		
FOOD SECURITY % [95% CI]					
Proportion of households receiving a food assistance (in-kind	181/181	100.0%	160/162	98.77% (95.61-99.85%)	
In-kind food distribution					
Proportion of households with a ration card	181/181	100.0%	160/162	98.77% (95.61-99.85%)	
Average No. of days general food ration lasts out of [insert cycle] days (mean, SD or range)	14.0 days out of 30 SD 4.6 Range [5 - 30]		16.8 days out of 30 SD 5.7 Range [5 to 30]		
Negative household coping strategies					
Proportion of households reporting using one or more negative coping strategies over the past 4	152/180	84.44% (78.31 – 89.41%)	142/162	87.65% (81.58-92.29%)	

Surveyed Site	Alemwach		Aftit		Classification of public health significance or target
Data collection period	**29 Dec-12 Jan 2026**		**29 Jan to 10 Feb 2026**		
weeks					
Proportion of households reporting using the following coping strategies over the past 7 days:					
Rely on less preferred and/or less expensive foods	153/181	84.53% (78.42-89.47%)	115/162	70.99% (63.35 – 77.84%)	
Borrow food, or rely on help from a friend or relative	82/181	45.30% (47.14-62.09%)	100/162	61.73% (53.78-69.24%)	
Reduce the number of meals eaten in a day	139/181	76.80% (69.96 - 82.74%)	113/162	69.75% (62.05-76.71%)	
Limit portion sizes at mealtime	142/181	78.45% (15.79 - 84.21%)	113/162	69.75% (62.05-76.71%)	
Reduce consumption by adults so children could eat	99/181	54.70% (47.14- 62.09%)	61/162	37.65% (30.17-45.60%)	
Average rCSI (mean, SD / range)	18.91 SD 11.43 [0 - 9]		15.91 SD 13.0 [0 9]		
Food Consumption Score (FCS)					
Average FCS (mean, SD / range)	40.9 SD 12.4 [0 - 90]		21.3 SD 15.4 [0 -9.5]		
FCS profiles:					
Acceptable FCS > 35	145/181	80.11% (73.54 - 85.66%)	28/162	17.28% (11.80-24.00%)	
Borderline 21.5 ≤ FCS ≤35	22/181	12.15% (7.78 - 17.82%)	41/162	25.31% (18.81- 32.73%)	
Poor FCS≤21	14/181	7.73% (4.29 -12.64%)	93/162	57.41% (49.41 -65.13%)	
MOSQUITO NET COVERAGE % [95% CI]					
Mosquito net ownership					
Proportion of households owning at least one LLIN	57/174	32.76% (25.85-40.27%)	88/154	57.14% (48.93-65.08%)	Target of > 80%
Average number of persons per LLIN (mean)					2 persons per LLIN
Mosquito net utilisation					

Surveyed Site	Alemwach		Aftit		Classification of public health significance or target
Data collection period	**29 Dec-12 Jan 2026**		**29 Jan to 10 Feb 2026**		
Proportion of household members (all ages) who slept under an LLIN	138/703	19.60%	94/569	14.3%	
Proportion of children 0-59 months who slept under an LLIN	40/148	27.10%	49/82	59.8%	
Proportion of pregnant women who slept under an LLIN	5/23	21.70%	21/21	100.0%	
WASH % [95% CI]					
Water quality					
Proportion of households collecting drinking water from protected/treated sources	180/180	100.0%	164/164	100.0%	Emergency: ≥ 70% Post-emergency: ≥ 95%
Water quantity					
Proportion of households that use domestic water collected from protected sources (with protected containers only): ≥ 20 lpppd	79/180	43.89% (36.52 – 51.47%)	75/164	45.73% (37.94-53.68%)	
Proportion of households that use domestic water collected from protected/treated sources (with protected containers only): 15 - <20 lpppd	17/180	9.44% (5.60 - 14.69%)	16/164	9.76% (5.68-15.36%)	
Proportion of households that use domestic water collected from protected/treated sources (with protected containers only): <15 lpppd	84/180	46.67% (39.21-54.24%)	73/164	44.51% (36.76 -52.46%)	
Toilet/Latrine use					
Proportion of households reporting defecating in a toilet	132/180	73.33% (66.24 – 79.64%)	164/164	100.0%	Emergency: ≥ 60% Post-emergency: ≥ 85%
Access to soap					
Proportion of households with access to soap	130/180	72.22% (65.07-78.63%)	136/164	82.93% (76.28-88.35%)	Emergency: ≥ 70% Post-emergency: ≥ 90%
Retrospective mortality occurred within the Sites (3 months recall)					
Crude death rate (CDR) Deaths/10,000/day (Mid Interval Population Size)	0.07 (0.01 -0.40%)		0.43 (0.17-1.11)		<1/day/10,000
Under five death rate Deaths/10,000/day (Mid Interval Population Size)	0.45 (0.08 – 2.49%)		0.74 (0.13-4.10)		<2/day/10,000

1 Introduction

The Government of Ethiopia (Refugee Returnee Services (RRS) in collaboration with UNHCR, WFP, and international non-governmental organizations hosts a number of refugees and asylum seekers from neighbouring countries. Most refugees in Ethiopia originate from Eritrea, Sudan, South Sudan, and Somalia and have been hosted in different regions of the country for many years.

One of the Amhara Region is hosting Eritrean refugees are in Alemwach and Aftit refugee sites, located in Dabat and Gendewuha Woredas of North Gondar Zone. These sites were established to accommodate Eritrean refugees were relocated from sites in the Tigray Region following the conflict that on May 2021 and April 2023 respectively. Humanitarian assistance in the refugee sites is coordinated by UNHCR in collaboration with the Government's Refugees and Returnees Service (RRS), WFP, Medical Teams International (MTI), Action for the needy in Ethiopia (ANE) and other operational partners. These partners provide essential services including protection, health care, food assistance, nutrition services, water and sanitation, and other life-saving interventions for refugees sites.

1.1 Alemwach Refugee Site

Alemwach site was established by the Government of Ethiopia's Refugees and Returnees Service (RRS) in collaboration with UNHCR to accommodate refugees relocated from sites in the Tigray region following the conflict between federal Government and Tigray regional government in Northern Ethiopia.

Alemwach is a refugee settlement hosting Eritrean refugees in Tigray region who were relocated from the Mai Tsebri town (Adi-Harush and Mai-Aini refugee camps). Alemwach site was officially opened on May 2021. The landscape of the area is generally highland with mixed flat and slightly hilling land, typical of the North Gondar highlands. The climate is characterized by a temperate highland climate with a rainy season usually occurring between June and September and a dry season during the rest the months. The survey was conducted during the dry season, between 29 Dec 2025 and 12 Jan 2026.

1.2 Aftit Refugee Site

Aftit refugee site was situated in the Amhara Region, West Gondar Zone, Metema district near Genda-Wuha town. The site was established in response to the influx of refugees fleeing the conflict that erupted in Sudan on 15 April 2023 between the Sudan Armed Forces (SAF) and the Rapid Support Forces (RSF).

Initially, refugees entered Ethiopia through the Metema Point of Entry and were temporarily accommodated in a Transit Centre after that transfer to a semi-permanent site in Kumer site. Due to security concerns in those locations, refugees and asylum seekers were relocated to the newly established Aftit site in July 2024. Aftit site is located in a lowland area characterized by relatively flat landscap and hot climatic conditions typical of the Metema area. The survey was conducted during the dry season from 29 Jan to 10 Feb2026.

To monitor the nutrition and health situation of the refugee population, UNHCR and partners conducted a Standardized Expanded Nutrition Survey (SENS) in 2025 in Alemwach and Aftit refugee sites. The survey aimed to assess the overall health and nutritional status of the refugee population and generate evidence to guide humanitarian programming and public health interventions.

1.3 Description of the population

Alemwach refugee site currently hosts approximately 19,201 individuals living in about 7,425 households and Children under five years of age represent approximately 16.4% of the population. The population mainly consists of Eritrean refugees who were relocated from the Tigray region refugee sites.

Aftit refugee site currently hosts approximately 9,022 individuals living in about 4,217 households and Children under five years of age represent approximately 16.3% of the population.
The population mainly consists of Sudanese refugees who fled the conflict in Sudan and were relocated from the earlier temporary sites to Aftit.

1.4 Food security situation

Food insecurity in the household is one of the underlying causes of malnutrition in the settlement area. One of the interventions is food assistance to provide in-kind food for all refugee populations.
Food security situation of refugee population is primarily dependent on the monthly cyclical food ration assistance supplied by WFP and distributed by the Action in needy in Ethiopia (ANE). General food ration cuts were applied in both sites below the recommended minimum dietary allowance (RDA) of 2,100 kilocalories per person per day.

Recent assessments indicate that a significant proportion of households employ negative coping strategies to meet their food needs, suggesting ongoing food insecurity among the refugee population. Limited income opportunities and dependency on food assistance remain key challenges affecting household food security.

1.5 Health situation

Health services in Alemwach are provided through one primary health care centre located within the Dabat Wereda health centre. The facility has been expanded with additional infrastructure constructed by Medical Teams International (MTI) to improve service capacity for both refugees and surrounding host communities.

Basic health services include outpatient care, maternal and child health services, immunization, and disease surveillance. However, resource constraints and occasional security concerns affect service delivery particularly, community outreach activities.

Health services in Aftit are provided through Aftit Health Centre, which serves the refugee population and surrounding host communities. Basic services include outpatient consultations, maternal and child health services, and vaccination programmes. These services aim to reduce morbidity and mortality among vulnerable groups, particularly children under five years of age and pregnant and lactating women. However, the health infrastructure remains relatively limited due to the recent establishment of the site.

FIGURE 1 TOP FIVE CAUSES OF MORTALITY FOR ALL POPULATION

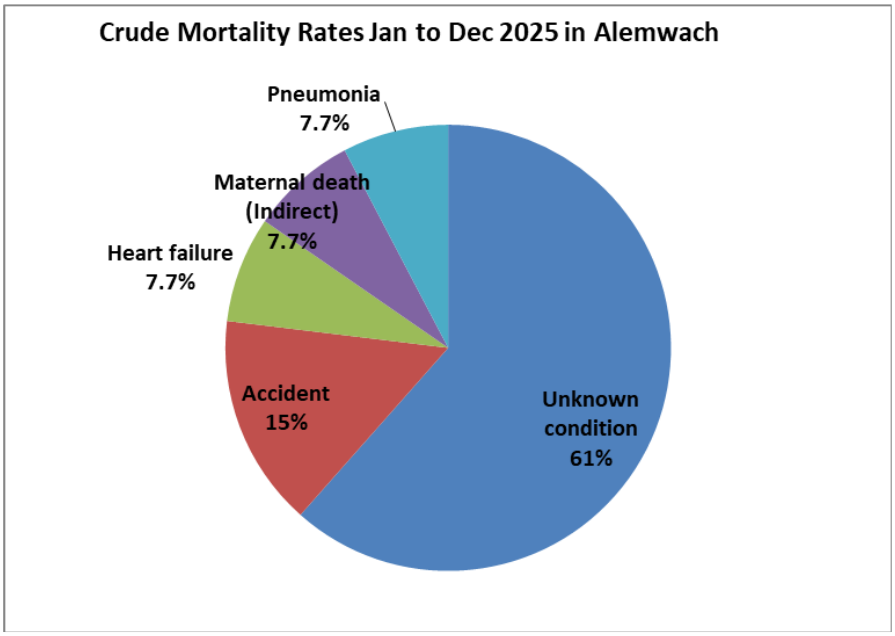
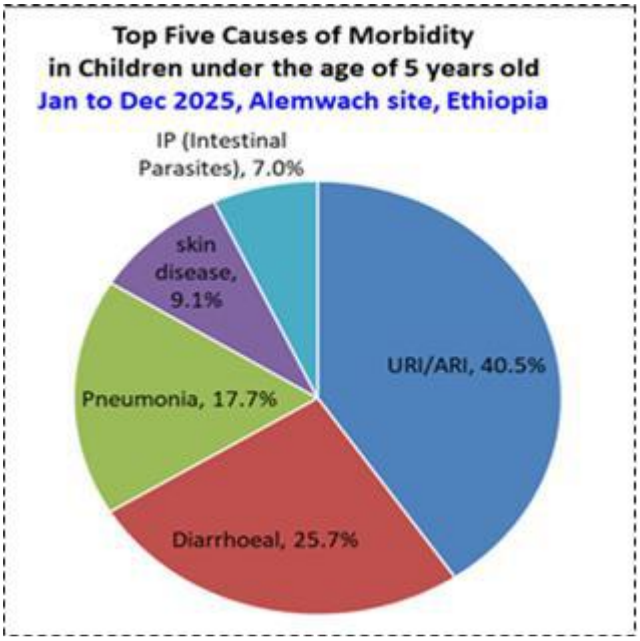


FIGURE 2 TOP FIVE CAUSES OF MORBIDITY IN CHILDREN UNDER-5



1.6 Nutrition situation

Nutrition programmes are implemented in the refugee sites to improve the nutritional status of refugees, particularly children under five years of age and pregnant and lactating women.

The main nutrition interventions include:

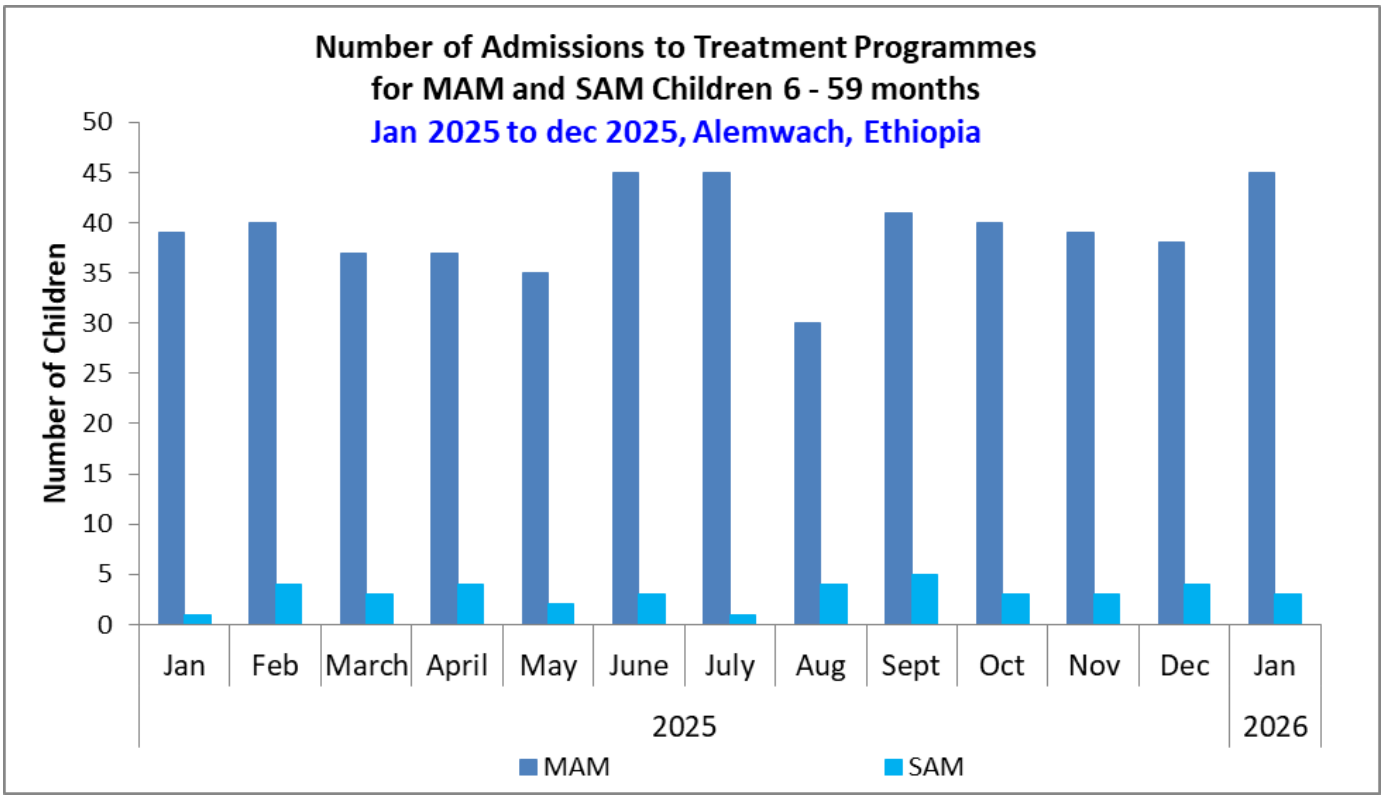
- **Outpatient Therapeutic Programme (OTP)** for treatment of severe acute malnutrition without medical complications; It is a community-based nutrition program designed to treat severe acute malnutrition (SAM) in children aged 6–59 months who do not have medical complications and have a good appetite.
- **Stabilization Centre (SC)** services for severe acute malnutrition with medical complications;
- **Targeted Supplementary Feeding Programme (TSFP)** for treatment of moderate acute malnutrition among children 6–59 months and pregnant and lactating women. TSFP is a nutrition initiative designed to treat moderate acute malnutrition (MAM) among vulnerable groups, primarily children aged 6–59 months and pregnant or breastfeeding women.
- **Blanket Supplementary Feeding Programme (BSFP)** for prevention of malnutrition among young children and pregnant and lactating women (Only Aftit site).

UNHCR supports the provision of therapeutic nutrition commodities such as ready-to-use therapeutic food and specialized milk products for the management of severe acute malnutrition. WFP provides specialized nutritious foods used in supplementary feeding programmes..

Additional nutrition services include regular nutrition screening, growth monitoring, community outreach, and follow-up of malnutrition cases. Infant and Young Child Feeding (IYCF) programmes are also implemented to promote optimal feeding practices among caregivers of children aged 0–23 months. These activities include counselling, mother support groups, home visits, and community awareness sessions. However, these services are available, limited funding and operational challenges restrict the full implementation of a comprehensive nutrition programme. In addition, security challenges

occasionally affect the timely implementation of screening activities, which is influence programme coverage.

FIGURE 3 NUMBER OF ADMISSIONS TO TREATMENT PROGRAMMES FOR MAM AND SAM IN CHILDREN 6-59 MONTHS



2 Survey Objectives

To comprehensively assess the health and nutrition status of the refugee population, including key mortality indicators, demographic characteristics, food security, WASH conditions, disease burden, and access to essential health and nutrition services, in order to generate evidence-based recommendations to guide appropriate nutrition, humanitarian, and public health interventions.

2.1 Primary objectives:

1. To determine the demographic profile of the population;
2. To determine the age dependency ratio;

3. To measure the prevalence of acute malnutrition and stunting in children aged 6-59 months;
4. To determine the coverage of measles vaccination among children aged 9-59 months;
5. To determine the coverage of vitamin A supplementation received during the last 6 months among children aged 6-59 months;
6. To determine the two-week period prevalence of diarrhoea among children aged 6-59 months;
7. To measure the prevalence of anaemia in children aged 6-59 months and in women of reproductive age between 15-49 years (non-pregnant) only Aftit site;
8. To investigate infant and young child feeding (IYCF) practices among children aged 0-23 months;
9. To determine the populations overall ability to meet their food needs with assistance:
   a) to determine the coverage of in-kind food assistance and the duration the general in-kind food distribution for recipient households;
   b) to determine the extent to which negative coping strategies are used by households;
   c) to assess household food consumption (quantity and quality);

10. To determine the population's access to, and use of, improved water, sanitation and hygiene facilities;
11. To determine the population's access to soap;

12. To determine the ownership of mosquito nets (all types and LLINs) in households;
13. To determine the utilisation of mosquito nets (all types and LLINs) by the total population, children 0-59 months and pregnant women;
14. To establish recommendations on actions to be taken to address the situation in *[insert refugee setting]*;

2.2 Secondary objectives:

1. To determine the enrolment into the targeted supplementary (TSFP) and therapeutic (OTP/SC) nutrition programmes for children 6-59 months;
2. To determine the coverage of the blanket supplementary feeding programme (BSFP) for children aged 6-36/6-59 months **only Aftit site**;
3. To determine the coverage of deworming (soil-transmitted helminth control) with mebendazole and/or albendazole in the last six months among young children (24-59 months);
4. To determine enrolment into Antenatal Care clinic and coverage of iron-folic acid supplementation in pregnant women;
5. To determine the population's access to and use of cooking fuel;

2.3 Optional objectives:

1. To determine the use of oral rehydration salt (ORS) and/or zinc during diarrhoea episodes in children ages 6-59 months;
2. To determine the prevalence of MUAC malnutrition in women of reproductive age 15-49 years (include if all, pregnant and/or lactating women are measured);
3. To determine the time of arrival of the children in the site;

3 Methodology

3.1 Sampling procedure: Sample size calculation and Sampling procedure

This nutrition survey a cross-sectional study which was type of survey implemented using simple random sampling in both sites, which collects data from individuals /households at a single point in time. All households were physically count and give a unique number with unique numbers per zone/ block/ in each site. Whereas reducing an empty household[1], as verified through neighbours Household, if the household was empty it's excluded from the sampling unit to ensure the sampling representativeness of the actual people living in the site at the time of the survey.

The survey was implemented and used the Standardized Expanded Nutrition Survey (SENS) guidelines and tools V3[2]. 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[3] (Standardized Monitoring and Assessment of Relief and Transitions) for survey design and an anthropometric assessment is adapted to the specific requirements of refugee settings.

3.2 Study Population

The study population were refugees residing in Alemwach and Aftit refugee sites who were registered with the

[1] An empty house is no PoC was present living in a house for the last one month. We was considered an abandoned house and then excluded from the nutrition survey sampling unit.

[2] SENS- Standardized Expanded Nutrition Survey for Refugee Populations Version 3 (2020).
[3] SMART- Standardized Monitoring and Assessment of Relief and Transitions. Available at: http://smartmethodology.org/

Government of Ethiopia and UNHCR.

3.3 Sample size

The sample size was calculated using the ENA software (ENA for SMART 2011, Jan 11th 2020) and based on SENS 2024, the percent of the estimated prevalence of global acute malnutrition (GAM) upper confidence (CI), and mortality rate in upper confidence intervals to maximize the sample size to ensure representativeness.
The sample size calculation was using other variables which are non-response rates (5%) and use correction of small population size and +/- desired precision 3.0-3.5% depending on the % estimate GAM prevalence.
The recommended desired Precision based on the global acute malnutrition (GAM) prevalence as follows:

Table 2 : Desire précision

Acute malnutrition prevalence	Desired precision +/- %
≤5	2.0-2.5
5-10	2.5 -3.0
10-15	3.0-3.5

3.4 Sampling procedure: selecting households and individuals.

A cross-sectional survey design was used in both Alemwach and Aftit refugee sites. The survey followed the Standardized Expanded Nutrition Survey (SENS) guideline, which is based on the internationally recognized ENA for SMART methodology for nutrition surveys.

All households in the refugee sites were assigned unique identification numbers according to zone and blocks within the sites. Empty or abandoned shelters were excluded from the sampling frame. Households were then randomly selected (non-zero chance) using simple random sampling generated through the ENA for SMART software. Within the selected households, all eligible children aged 0–59 months and reproductive women 15-49 years were included for anthropometric measurements and other child-related indicators, including vaccination status, vitamin A supplementation, deworming, recent illness, and infant and young child feeding practices. In addition, selected households participated in modules related to demographics information, food security, mosquito net, water, sanitation, and hygiene.

Table 3 : Sampling Information

Name of site	% of prevalence Upper CI in 2024 GAM	Desire precision	No. of households	No. of children 6-59 months
Alemwach	9.0%	± 3%	434	254
Aftit	11.6%	± 3.5%	346	236

3.5 Questionnaire and measurement methods

3.6 Questionnaire

The questionnaires were prepared in English and administered in the local language (Tigrigna in Alemwach and Arabic in Aftit sites) through trained enumerators /translators. Interviews were conducted by team leaders who were well trained on the SENS modules and methodology.

The Standardized Expanded Nutrition Survey (SENS) includes seven standardized modules developed for refugee settings. In Alemwach refugee site, six modules were implemented, while in Aftit refugee site all seven modules were implemented.

The following SENS modules were used in the survey:

Module 1: Demography:
This module collected demographic information necessary to generate key population indicators such as age

dependency ratio, average household size, proportion of children under five years of age (U5), and the survey non-response rate.

Module 2: Anthropometry and Health:
All eligible children aged 6–59 months in the selected households were assessed for anthropometric indicators and health-related variables.

Module 3: Anemia:
This module assessed the prevalence of anaemia among children aged 6–59 months and among non-pregnant women of reproductive age (15–49 years).

Module 4: Infant and Young Child Feeding (IYCF):
All eligible children aged 0–23 months in the selected households were assessed for infant and young child feeding practices.

Module 5: Food Security:
This module assessed household food security conditions. A sub-sample consisting of half of the selected households was randomly chosen for this assessment.

Module 6: Mosquito Net Coverage:
This module assessed the ownership and utilization of mosquito nets. Similar to the food security module, half of the selected households were randomly sampled for this component.

Module 7: Water, Sanitation and Hygiene (WASH):
This module assessed the population's access to and use of water, sanitation, and hygiene facilities, including access to protected or treated drinking water sources, adequate water quantity, use of latrines, and access to soap.

3.7 Measurement methods

3.8 Household-level indicators

I. **Demography and Mortality:** Demographic characteristics and mortality information were collected from all sampled households using pre-designed questionnaires based on the demographic module of the Standardized Expanded Nutrition Survey (SENS).
II. **Food Security:** Household food security information was collected using the standardized questionnaire. This module was administered to every other household (a sub-sample of 50%) among the sampled households.
III. **Mosquito Net Coverage:** This module assessed household ownership and utilization of mosquito nets. It was administered to every other household (a sub-sample of 50%) among the sampled households.
IV. **Water, Sanitation and Hygiene (WASH):** The WASH questionnaire was administered to every other household (a sub-sample of 50%) among the sampled households.

3.9 Individual-level indicators

a. **Sex of children:** gender was recorded as male or female.

b. **Birthdate or age in months for children 0-59 months:** the exact date of birth (day, month, year) is recorded from either an EPI card, child health care, or birth notification card or /and birth certificate; if available. If no reliable proof of age was unavailable, age is estimated in months using a local event calendar or by comparing the selected child with a sibling or the child of a neighbour whose ages are known and are recorded in months on the questionnaire. If the child's age cannot be determined by using a local events calendar or the child's height proxy which was measured between 67 cm and 110 cm (note that no stunting and underweight data were calculated for these children recruited based on height only and with no age data). In the final report, the proportion of children with age documentation should be recorded as well as the proportion of children recruited based on height.

c. **Weight of children 6-59 months:** children are weighed without clothes using an electronic scale. Measurements were taken to the closest 100 grams using an electronic scale (SECA scale) with a wooden board to stabilize it on the ground. Clothes were removed and only very light underwear was allowed. If this is a problem; teams were instructed to take weight inside the surveyed tent/house. The double weighting technique was used to weigh young children unable to stand on their own or unable to understand instructions not to move while on the scale.

d. **Height/Length of children 6-59 months:** children's height or length was taken to the closest millimeter using a wooden height board (Shorr@ Productions). Age or height can be used to decide whether a child should be measured lying down (length) or standing up (height). If Child less than 87cm were measured lying down, while those greater than or equal to 87cm were measured standing up position. All teams in the same survey use the same criteria and the same criterion is used from year to year in the same refugee settings/sites.

e. **Oedema in children 6 months-59 months**: bilateral oedema was assessed by applying gentle thumb pressure on the tops of both feet of the child for three seconds and after that observed for the presence or absence of an indent. All oedema cases reported by the survey teams must be verified by the survey coordinators and were referred to immediately after.

f. **MUAC of children 6 months-59 months**: MUAC was measured at the mid-point of the left upper arm between the elbow and the shoulder and taken to the closest millimetre using a standard tape. MUAC was recorded in centimetres.

g. **Enrolment of the selective feeding program for children 6-59 months**: selective feeding program coverage was assessed for the outpatient therapeutic program and the supplementary feeding program. This should be verified by card or by showing images of the products being given in each program (e.g. PlumpyNut, CSB++ sachet).

h. **Measles vaccination in children 6-59 months:** measles vaccination was assessed by checking for the measles vaccine on the EPI card if available or by asking the caregiver to recall if no EPI card was available. For ease of data collection, all children aged 6-59 months were assessed for measles but the analysis will only be done on children aged 9-59 months.

i. **Vitamin A supplementation in the last 6 months in children 6-59 months**: whether the child received a vitamin A capsule over the past six months was recorded from the EPI card or health card if available or by asking the caregiver to recall if no card is available. A vitamin A capsule sample is to be shown to the caregiver when asked.

j. **Diarrhea in the last 2 weeks in children 6-59 months**: an episode of diarrhea is defined as three loose stools or more in 24 hours. Caregivers were asked if their child had suffered episodes of diarrhea in the past two weeks.

k. **Deworming**: caregivers are asked if their child received a deworming tablet / an anthelminthic medicine in the past six months for intestinal worms. Deworming tablets should not be given to children below 12 months, during vitamin A and/or vaccination siteaigns. A tablet should be shown to the caregiver when asked to recall.

l. **Infant and young child feeding practices in children 0-23 months**: infant and young child feeding practices were assessed based on UNHCR Standardised Expanded Nutrition Survey Guidelines.

m. **Referrals:** Children aged 6-59 months were referred to the health post for treatment when MUAC was <12.5 cm, when oedema is present. Anaemia referral based on <7g/dl for children and <8g/dl.

4 Case definitions, inclusion criteria and calculations

Definition of household: In household surveys, a household is typically defined as a group of people who live together and routinely eat out of the same pot.

Head of household: The person responsible for making the decisions for the household whole family.

Age dependency ratio: The age dependency ratio is defined as the 'ratio of dependents number of people between <15 years and ≥ 65 years of people. The age 15 to 64 years of people are the working-age population (not dependent).
A higher age dependency ratio indicates greater pressure on the working members of a household, while a lower age dependency ratio represents lesser burden on the family's economic situation. It is calculated as follows:

Age dependency Ratio = Number of people aged 0 - 14 years and those aged 65 years and over Number of people aged 15 - 64 years

4.1 Acute malnutrition

Weight-for-Height (WHZ) is the nutritional index that reflects short term growth failure and is defined by a child's weight (kg) and height or length (cm) in relation to a standard or reference population of the same height.

Acute malnutrition is defined using WHZ index values or the presence of oedema. Acute malnutrition is classified as severe or moderate based on the cut-offs shown below. It is also used in the classification of global acute, moderate acute and severe acute malnutrition (GAM, MAM, SAM).

Table 4 : DEFINITIONS OF ACUTE MALNUTRITION USING WEIGHT-FOR-HEIGHT AND/OR OEDEMA IN CHILDREN 659 MONTHS

Categories of acute malnutrition	Z-scores (WHO Growth Standards 2006)	Bilateral oedema
Global acute malnutrition	< -2 z-scores	Yes/No
Moderate acute malnutrition	< -2 z-scores and ≥ -3 z-scores	No
Severe acute malnutrition	> -3 z-scores	Yes
	< -3 z-scores	Yes/No

Mid Upper Arm Circumference (MUAC) in children is considered to be an effective predictor of the risk of death when below 115 mm in children aged 6-59 months (or ≥ 67cm in height).

MUAC and weight-for-height measurements do not necessarily identify the same children as being malnourished. Because children can be admitted to nutrition treatment programmes using either low weight- for-height or low MUAC, it is important to include both indicators in SENS surveys.

Table 5: MUAC MALNUTRITION CUT-OFFS IN CHILDREN 6-59 MONTHS

Categories of low MUAC values	Classification of MUAC
<125 mm	Global acute malnutrition
>= 115 mm and <125 mm	Moderate acute malnutrition
< 115 mm	Severe acute malnutrition

4.2 Stunting

Height-for-Age (HAZ) is the nutrition index that reflects longer term growth failure (stunting) and is defined by a child's height (cm) and age (days or months) in relation to a standard or reference population of the same age. Stunting, also known as chronic malnutrition, is classified as severe or moderate based on the cut-offs shown below. Stunting is defined using height-for-age index values.

Table 6 : DEFINITIONS OF STUNTING USING HEIGHT-FOR-AGE IN CHILDREN 6-59 MONTHS

Categories of stunting	Z-scores (WHO Growth Standards 2006)
Stunting	<-2 z-scores
Moderate stunting	<-2 z-score and ≥-3 z-score
Severe stunting	<-3 z-scores

4.3 Underweight

Weight-for-Age (WAZ) is the nutrition index that reflects a combination of both chronic and acute growth failure. It is termed underweight and defined as a child's weight (kg) and age (days or months) in relation to a reference population of the same age. Underweight is classified as severe or moderate based on the following cut-offs. Underweight is defined weight-for-age index values.

Table 7 : DEFINITIONS OF UNDERWEIGHT USING WEIGHT-FOR-AGE IN CHILDREN 6-59 MONTHS

Categories of underweight	Z-scores (WHO Growth Standards 2006)
Underweight	<-2 z-scores
Moderate underweight	<-2 z-scores and ≥-3 z-scores
Severe underweight	<-3 z-scores

4.4 Overweight

Overweight and obesity are among the main risk factors for metabolic diseases in the population such as diabetes, hypertension, cardiovascular diseases and cancer. Overweight in children aged 6-59 months can be measured using WHZ indices and can be classified based on the cut-offs shown below.

Table 8 :DEFINITIONS OF OVERWEIGHT USING WEIGHT-FOR-HEIGHT IN CHILDREN 6-59 MONTHS

Categories of overweight	Z-scores (WHO Growth Standards 2006)
Overweight	>2 z-scores
Severe overweight	>3 z-scores

Diarrhoea: - Diarrhoea is defined as three or more loose or watery stools in a 24-hour period.

4.5 Child enrolment in supplementary (TSFP) and therapeutic (OTP/SC) nutrition programme

Nutrition programme enrolment is estimated in a SENS survey using the direct method as follows (reference: Emergency Nutrition Assessment: Guidelines for field workers. Save the Children. 2004):

$$\text{Enrolment into TSFP programme (\%)} = 100 \times \frac{\text{No. of surveyed children with MAM according to TSFP criteria who reported being registered in TSFP}}{\text{No. of surveyed children with MAM according to TSFP admission criteria}}$$

$$\text{Enrolment into TFP (OTP/SC) programme (\%)} = 100 \times \frac{\text{No. of surveyed children with SAM according to TFP (OTP/SC) criteria who reported being registered in TFP}}{\text{No. of surveyed children with SAM according to TFP (OTP/SC) admission criteria}}$$

Child enrolment in blanket supplementary feeding programme

$$\text{Enrolment into BSFP (\%)} = 100 \times \frac{\text{No. of surveyed children in the eligible age range who reported being registered in BSFP}}{\text{No. of surveyed children in the eligible age range}}$$

4.6 Infant and young child feeding practices in children 0-23 months.

- **Timely initiation of breastfeeding in children aged 0-23 months**: Proportion of children 0-23 months who were put to the breast within one hour of birth

Children 0-23 months who were put to the breast within one hour of birth

Children 0-23 months of age

- **Exclusive breastfeeding under 6 months**: Proportion of infants 0–5 months of age who are fed exclusively with breast milk: (including expressed breast milk or from a wet nurse, ORS, drops or syrups (vitamins, breastfeeding minerals, medicines)

Infants 0–5 months of age who received only breast milk during the previous day Infants 0–5 months of age

- **>Predominant breastfeeding under 6 months**: Proportion of infants 0–5 months of age who are predominantly breastfed.

Infants 0–5 months of age who received breast milk as the predominant source of nourishment during the previous day Infants 0–5 months of age

- **Continued breastfeeding at 1 year**:

Proportion of children 12–15 months of age who are fed breast milk Children 12–15 months of age who received breast milk during the previous day Children 12–15 months of age

- **Continued breastfeeding at 2 years**: Proportion of children 20–23 months of age who are fed breast milk.

Children 20–23 months of age who received breast milk during the previous day Children 20–23 months of age

- **Introduction of solid, semi-solid or soft foods**: Proportion of infants 6–8 months of age who receive solid, semi-solid or soft foods

Infants 6–8 months of age who received solid, semi-solid or soft foods during the previous day Infants 6–8 months of age

- **Consumption of iron rich or iron fortified foods**: Proportion of children 6–23 months of age who receive an iron-rich or iron-fortified food that is specially designed for infants and young children, or that is fortified in the home.

Children 6–23 months of age who received an iron-rich food or a food that was specially designed for infants and young children and was fortified with iron, or a food that was fortified in the home with a product that included iron during the previous day

Children 6–23 months of age

- **Bottle feeding**: Proportion of children 0-23 months of age who are fed with a bottle

Children 0–23 months of age who were fed with a bottle during the previous day Children 0–23 months of age

- **No breastfeeding under 6 months**: Proportion of infants 0–5 months of age who are not breastfed.

Infants 0–5 months of age who did not receive breast milk during the previous day or were never breastfed Infants 0–5 months of age

- **No breastfeeding under 12 months**: Proportion of infants 0–11 months of age who are not breastfed.

Infants 0–11 months of age who did not receive breast milk during the previous day or were never breastfed. Infants 0–11 months of age

4.7 Classification of public health problems and targets

Mortality: The following thresholds are used for mortality.

Table 9 : Mortality benchmarks for defining crisis situations (NICS, 2010)

Emergency threshold	**Description**	**Emergency** for U5MR thresholds
CDR > 1/10,000 / day	very serious	U5MR > 2/10,000 / day
CDR > 2 /10,000 /day	out of control	U5MR > 4 /10,000 /day
CDR > 5 /10,000 /day	major catastrophe	U5MR > 10 /10,000

4.8 Anthropometric data:

Anthropometric prevalence thresholds for stunting, wasting and overweight for children 6-59 months of age based on WHO-UNICEF revised on 13th December 2018.

4.9 Selective feeding programmes:

Table 10 : Performance Indicator for sélective feeding programmes *

Programme	**Recovery**	**Case fatality**	**Defaulter rate**
SFP	>75%	<3%	<15%
TFP (OTP/SC)	>75%	<10%	<15%

* UNHCR and WFP selective feeding guideline 2011 and SPHERE standards for performance

Table 11 : Performance Indicator for Measles vaccination and Vitamin A supplementation coverage

Programme	UNHCR/WHO Indicator
Measles vaccination (children aged 9-59 months)	>=95%
Vitamin A supplementation (children aged 6-59 months	>=90%

M**easles vaccination** is mainly relates to protecting children and preventing outbreaks of Measles, which is a highly contagious viral disease**.**
Measles vaccination and vitamin A supplementation protect children from malnutrition by preventing infection and strengthening immunity, keeping their nutritional status stable.
WASH: Diarrhoea disease caused by poor water, sanitation, and hygiene. Accounts for the annual deaths of over two million children under five years old. Diarrhoea disease also contributes to high infant and child morbidity and mortality by directly affecting children's nutritional status. The following standards (amongst others) apply to UNHCR WASH programmes:

Table 12 : UNHCR WASH Programme Standards

UNHCR Standard	**Indicator**
Average quantity of water available per person/day	> or = 20 litres
Latrine provision	20 people/latrine
Soap provision	> 250 g per person per month

5 Quality assurance

Data quality was ensured through comprehensive training**,** close supervision, and daily data checks, particularly for anthropometric measurements using SMART plausibility checks. Feedback was provided to teams each day to correct any errors before the next day of data collection. All measurement tools were calibrated every morning prior to starting data collection..

5.1 Survey teams Composition and supervision

The survey was implemented jointly by **UNHCR, RRS, and MTI**, under the overall supervision of technical personnel. **Technical support** was also provided UNHCR consultant for mobile data collection using Android-operated devices, and by **UNHCR-BO, field office** for data quality checks and supervision.

- The survey consisted of four and five teams, each with six person and three supervisors (one supervisor for every two teams). Each team included:
- 1 Team leader – responsible for anthropometric measurements (children and women), the IYCF section, and child health section.
- 1 Enumerator – responsible for household-level questions and food security section.

- 2 Anthropometric measurers – took anthropometric measurements.
- 1 Anemia measures.
- 1 Translator/locator – assisted with language and locating households.

All teams were supervised at all times, ensuring quality and consistency throughout the survey. Team members were selected based on their education and relevant experience, and supervisors had the qualifications and experience to oversee multiple teams effectively.

5.2 Training

The SENS survey training for the enumerator teams was conducted from 2nd to 5th Jan 2026 in Alemwach site Dabat **(4 days)** organized **MTI in Dabat**. The training brought together selected staff from Wereda health office and **MTI** a week before the survey.

The purpose of intensive training was to equip participants with skills on the **different SENS tools**, including the use of Kobo tool box and m**obile phones** for data collection.

Training coverage included:

- Overview of the survey and its objectives.
- Interviewing and communication skills.
- Random household selection and identification of individuals for measurement or interview.
- Completing questionnaires for **anthropometry, IYCF, food security, and child health**.
- Correct estimation or validation of age in months using the local events calendar.
- Plausibility checks and interpretation of **anthropometric measurements**.
- **Anthropometry standardization:** Each measurer measured **10 children under five twice** (height, weight, MUAC), and results were reviewed immediately to determine if further training was needed.
- Identification of **bilateral oedema** and referral of children or women with acute malnutrition to health centers.
- Practical training on **Android/Kobo tool Box and mobile data collection**.

A **field pre-test** was conducted as part of the training, though the exact number of children/households included in the pre-test was not specified.

5.3 Coordination

The SENS survey was coordinated at field level through close collaboration between the UNHCR, RRS nnd MTI. These organizations worked together to ensure smooth implementation of the survey activities across the sites.

In particular, MTI played a key operational role in the field. The organization was responsible for organizing the survey teams and selecting team members in the two survey sites. This included identifying qualified enumerators and supervisors, arranging team composition, and supporting the field logistics needed to conduct the survey effectively.

5.4 Data Collection Tools

Data were collected using Android smartphones with the KoboToolbox application. No paper-based data collection was used. Questionnaires were digitally developed in KoboToolbox with support from external technical experts. Each survey team used one phone for data collection.

5.5 Data collection

The data collection for the survey lasted four to five days in Alemwach and Aftit sites respectively. The survey team introduced themselves to the selected households as a group representing their organizations, explained the purpose of the survey, and requested oral consent from the household members before starting the interviews and measurements.

This approach ensured that participants understood the survey and agreed to take part voluntarily, maintaining ethical standards and transparency.

5.6 Standardization of the anthropometric tools

Before testing enumerators for measurement accuracy and precision, all anthropometric equipment was checked to ensure each tool functional for consistent measurements of a standard object (standard weight). Scales or height boards that did not provide exact measures were marked and removed before the standardization test and the main data collection.

5.7 Standardization of the enumerators

Anthropometric standardization was conducted at two refugee sites separately. Enumerators with strong measurement skills were assigned as measurers within each team. Conducting a standardization test is a critical step in training to ensure reliable and accurate measurements.

5.8 Pilot test

The teams were assigned to non-selected households in a different block and zone. Each team measured anthropometry measurements and conducted interviews from the three (3) households. Pilot test is important process ensured that survey methodology was well understood, survey equipment was used correctly, enumerators gained confidence and improved skills, and good teamwork was established

5.9 Supervision

Enumerators were assessed before the survey launch and continued to be monitored throughout data collection. Field supervision was provided by three supervisors, with one supervisor assigned to oversee two teams. Supervisors were drawn from MTI, UNHCR, and the Woreda Health Bureaus. UNHCR leads and coordinators managed all processes and reviewed each day's completed questionnaires on the phones to ensure completeness, consistency, and accuracy.

All data were transferred to the Kobo tool box server, and anthropometric measurements were checked using ENA for SMART plausibility checks. Feedback was provided to teams each morning to improve data quality as the survey progressed. Anthropometric data were cleaned and analyzed using ENA for SMART software; applying a flexible cleaning criterion of ±3 SD from the observed mean (SMART flags)

6 Data Analysis;

Data cleaning is a critical and necessary step before analysis. It ensures that the data are accurate, complete, and consistent, removes errors or outliers, and guarantees that results—such as malnutrition estimates—are reliable and valid. Without proper data cleaning, the analysis could produce misleading or incorrect conclusions.

Nutrition results were presented in the standard format following the ENA software template (ENA for SMART 2020, Jan 11th). This format includes GAM, SAM, stunting, underweight, and overweight estimates with 95% confidence intervals, calculated using the WHO 2006 growth references. Anthropometric data underwent quality control procedures, including plausibility checks and exclusion of outliers based on ±3 SD from the observed mean. Daily data review ensured completeness and accuracy. All household survey data (demography, food security, mosquito net, WAS,) were analyzed using Epi Info (versions 7.2.6.0).

6.1 Ethical Considerations

When the survey team arrived at a selected household, they **introduced the organization and explained the objectives of the survey**. The team leader read a **consent statement**, and the respondent was required to provide **verbal consent** before the interview began.

This survey is **not exposed to danger the** participants. The **privacy and confidentiality** of respondents were strictly maintained. Interviews were conducted in a **private and convenient location**, and all respondents were informed about the **purpose of the survey, their right to terminate the interview at any time, the option to skip questions they considered sensitive, and the confidentiality of their responses**.

During fieldwork, if **malnourished children** were identified, the team provided a **referral form** for immediate care at a health facility. The team leader completed **two copies of the referral form**—one for the caregiver and one for the supervision team.

7 Results

7.1 Demography indicators

7.1.1 Sample size and clusters

TABLE 13 SAMPLING INFORMATION BY SITE

Survey Site	Sampling Information	Total planned	Total surveyed	% of target	Non-response rate (%)
Alemwach	**Number of households**	436	381	87.4%	12.6%
	Number of children 6-59 months	254	*260*	102.4%	-2.4%
Aftit	**Number of households**	346	*331*	95.7%	4.3%
	Number of children 6-59 months	246	227	92.3%	7.7%

7.2 Household size and composition

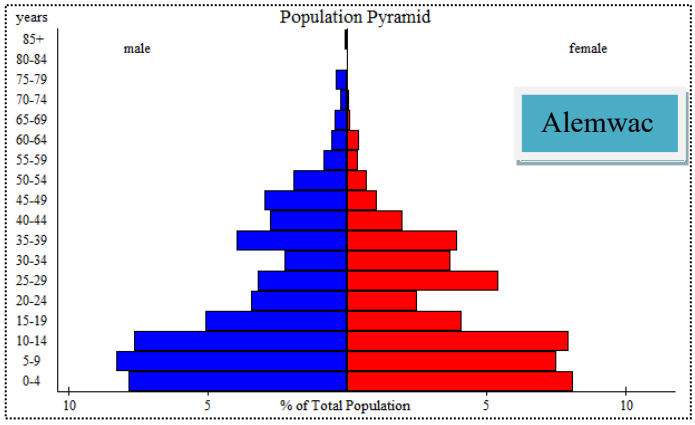
Table 14 HOUSEHOLD SIZE AND COMPOSITION, BY SITE

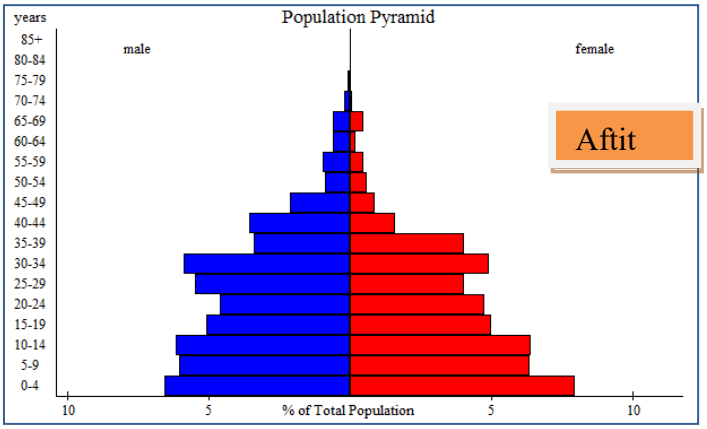
Household size and composition		Alemwach	Aftit
Population size – Total persons		*9980*	*8835*
Total population surveyed – Total persons		1569	1268
Total U2 surveyed		*103*	65
Total U5 surveyed		*258*	207
Average household size		4.12	3.83
Household size categories	1-4 person(s)	57.22% (52.20 -62.09%)	64.35% (59.05-69.32%)
	5-6 persons	25.46% (52.20 - 30.06%)	19.03% (15.17-23.61%)
	7-9 persons	15.49% (12.20 - 19.46%)	14.50% (11.12-18.70%)
	≥ 10 persons	1.84% (0.89 -3.74%)	2.11% (1.03-4.30%)
Household composition	Children under two	0.2703	0.2
	Children under five	0.6772	0.6
	Children aged 5-14 years	1.2835	1.0
	Members aged 15-64 years	2.1024	2.23
	Members aged 65 years and above	0.0551	0.1

Household size and composition	Alemwach	Aftit
Percent of children U2	*6.6%*	5.1%
Percent of children U5	*16.4%*	16.3%
Percent pregnant women (15-49 years)	*1.5%*	3.2%
Percent of elders (65 years and above)	*1.3%*	2.4%
Sex ratio (*Male/Female)*	*1.1: 0.9*	1.2

7.2.1 Population pyramid (show following figure)

FIGURE 4.1 POPULATION PYRAMID **IN ALEMWACH AND AFTIT SITES**





7.2.2 Time of arrival (optional/if applicable)

Table 15 ARRIVAL PROFILE BY SITE

Survey Site	N	Alemwach (95% CI)		N	Aftit (95% CI)	
		n	%		n	%
Arrival profile						
Proportion of households where all members arrived to [Alemwach and Aftit sites] at the same time	381	369	96.85% (94.58-98.19%)	318	331	96.07% (93.40-97.69%)
Household arrival dates						
1-3 months	357	1	0.28% (0.05 -1.57%)	311	2	0.64% (0.18 -2.31%)
4-6 months	357	0	0.0%	**311**	1	0.32% (0.06 -1.80%)
7-9 months	357	1	0.28% (0.05 -1.57%)	**311**	3	0.96% (0.33-2.80%)
9-12 months	357	0	0.0%	**311**	19	6.11% (3.95-9.34%)
1-2 years	357	0	0.0%	**311**	86	27.65% (22.98-32.87%)
2-3 years	357	1	0.28% (0.05 -1.57%)	**311**	189	60.77% (55.25 - 66.04%)
> 3 years	357	354	99.16%	**311**	11	3.54%

			(97.56 - 99.71%)			(1.99 - 6.22%)

7.2.3 Household Head Profile

Table 16 HOUSEHOLD HEAD PROFILE, BY SITE

Survey Site	N	Alemwach		N	Aftit	
		n	% (95% CI)		n	% (95% CI)
Female headed households (working age 15-64 years)	381	99	25.98% (21.84 - 30.61%)	331	129	38.97% (33.87-44.32%)
Male headed households (working age 15-64 years)	381	26	69.55% (64.76 – 73.96%)	331	185	55.89% (50.50-61.14%
Children headed households (under 15 years)	381	0/	0.0%	331	0	0.0%
Elderly headed households (65 years and above)	381	17	4.46% (2.80 – 7.03%)	331	17	5.14% (3.23-8.07%
Mean age of household head in years	381	40.5 years [18; 78]		331	38.0 years [17-97]	

7.2.4 Age dependency ratio

Table 17 AGE DEPENDENCY RATIO*, BY SITE

Age dependency ratio		Alemwach	Aftit
Mean (SD) [range]	**SRS design****	1.0 (SD 0.9) [0, 4]	0.8 (SD 1.0) [0, 6]

***Age dependency ratio** = $\frac{\text{Number of people aged 0 -14 years and those aged} \geq 65 \text{ years}}{\text{Number of people aged 15 – 64 years}}$

**When using the Means commands in Epi Info, it will provide the standard deviation (SD) when using the Statistics module and the 95% Confidence Interval when using the Advanced Statistics module.

Table 18 AGE DEPENDENCY RATIO CATEGORIES BY HOUSEHOLD, BY SITE

Survey Sites	Age dependency categories		Age dependency ratio	Number / Total	% (95% CI)
Alemwach	**Category I**	**1 dependent or less per non-dependent member**	≤ 1	244/381	64.04% (59.11 - 68.70%)
	Category II	**Up to 3 dependents per 2 non-dependent members**	1.1-1.5	30/381	7.87% (5.57-11.02%)
	Category III	**Up to 2 dependents per non-dependent members**	1.6-2.0	54/381	14.17% (11.03- 18.03%)
	Category IV	**More than 2 dependents per non-dependent members**	≥2.1	53/381	13.91% (10.79 - 17.75%)
Aftit	**Category I**	**1 dependent or less per non-dependent member**	≤ 1	246/331	74.32% (69.35-78.73%)
	Category II	**Up to 3 dependents per 2 non-dependent members**	1.1-1.5	24/331	7.25% (4.92-10.56%)
	Category III	**Up to 2 dependents per non-dependent members**	1.6-2.0	31/331	9.37% (6.68-12.99%)
	Category IV	**More than 2 dependents per non-dependent members**	≥2.1	30/331	9.06% (6.42-12.64%)

7.3 Children 6-59 months

7.3.1 Age and Sex Distribution

Table 19: CHILDREN 6-59 MONTHS - DISTRIBUTION OF AGE AND SEX OF SAMPLE **IN ALEMWACH SITE**

	Boys		Girls		Total		Ratio
Age (mo)	**no.**	**%**	**no.**	**%**	**no.**	**%**	**Boy:Girl**
6-11 months	31	59.6	21	40.4	52	21.8	1.5
12-23 months	31	46.3	36	53.7	67	28.0	0.9
24-35 months	22	53.7	19	46.3	41	17.2	1.2
36-47 months	31	50.8	30	49.2	61	25.5	1.0
48-59 months	6	33.3	12	66.7	18	7.5	0.5
Total	121	50.6	118	49.4	239	100.0	1.0

Table 20: CHILDREN 6-59 MONTHS - DISTRIBUTION OF AGE AND SEX OF SAMPLE **IN AFTIT SITE**

	Boys		Girls		Total		Ratio
Age (mo)	**no.**	**%**	**no.**	**%**	**no.**	**%**	**Boy:Girl**
6-11 months	22	50.0	22	50.0	44	20.9	1.0
12-23 months	23	48.9	24	51.1	47	22.3	1.0
24-35 months	27	46.6	31	53.4	58	27.5	0.9
36-47 months	25	56.8	19	43.2	44	20.9	1.3
48-59 months	9	50.0	9	50.0	18	8.5	1.0
Total	106	50.2	105	49.8	211	100.0	1.0

Things to note:

7.3.2 Anthropometric results (based on WHO Growth Standards 2006)

Table 21: PREVALENCE OF ACUTE MALNUTRITION BASED ON WEIGHT-FOR-HEIGHT Z-SCORES (AND/OR OEDEMA) AND BY SEX, BY SITE

	Alemwach			**Aftit**		
	All n = 235	**Boys** n = 119	**Girls** n = 116	**All** n = 205	**Boys** n = 103	**Girls** n = 102
Prevalence of global malnutrition (<-2 z-score and/or oedema)	(18) 7.7 % (4.9 - 11.8)	(14) 11.8 % (7.1 - 18.8)	(4) 3.4 % (1.3 - 8.5)	(19) 9.3 % (6.0 - 14.0)	(11) 10.7 % (6.1 - 18.1)	(8) 7.8 % (4.0 - 14.7)
Prevalence of moderate malnutrition (<-2 z-score & >=-3 z-score, no oedema)	(17) 7.2 % (4.6 - 11.3)	(13) 10.9 % (6.5 - 17.8)	(4) 3.4 % (1.3 - 8.5)	(18) 8.8 % (5.6 - 13.5)	(11) 10.7 % (6.1 - 18.1)	(7) 6.9 % (3.4 - 13.5)
Prevalence of severe malnutrition (<-3 z-score and/or oedema)	(1) 0.4 % (0.1 - 2.4)	(1) 0.8 % (0.1 - 4.6)	(0) 0.0 % (0.0 - 3.2)	(1) 0.5 % (0.1 - 2.7)	(0) 0.0 % (0.0 - 3.6)	(1) 1.0 % (0.2 - 5.3)

The prevalence of oedema is %

Figure 4: PREVALENCE OF GLOBAL AND SEVERE ACUTE MALNUTRITION BASED ON WHO GROWTH STANDARDS IN CHILDREN 6-59 MONTHS FROM 2022-2025, BY SITE

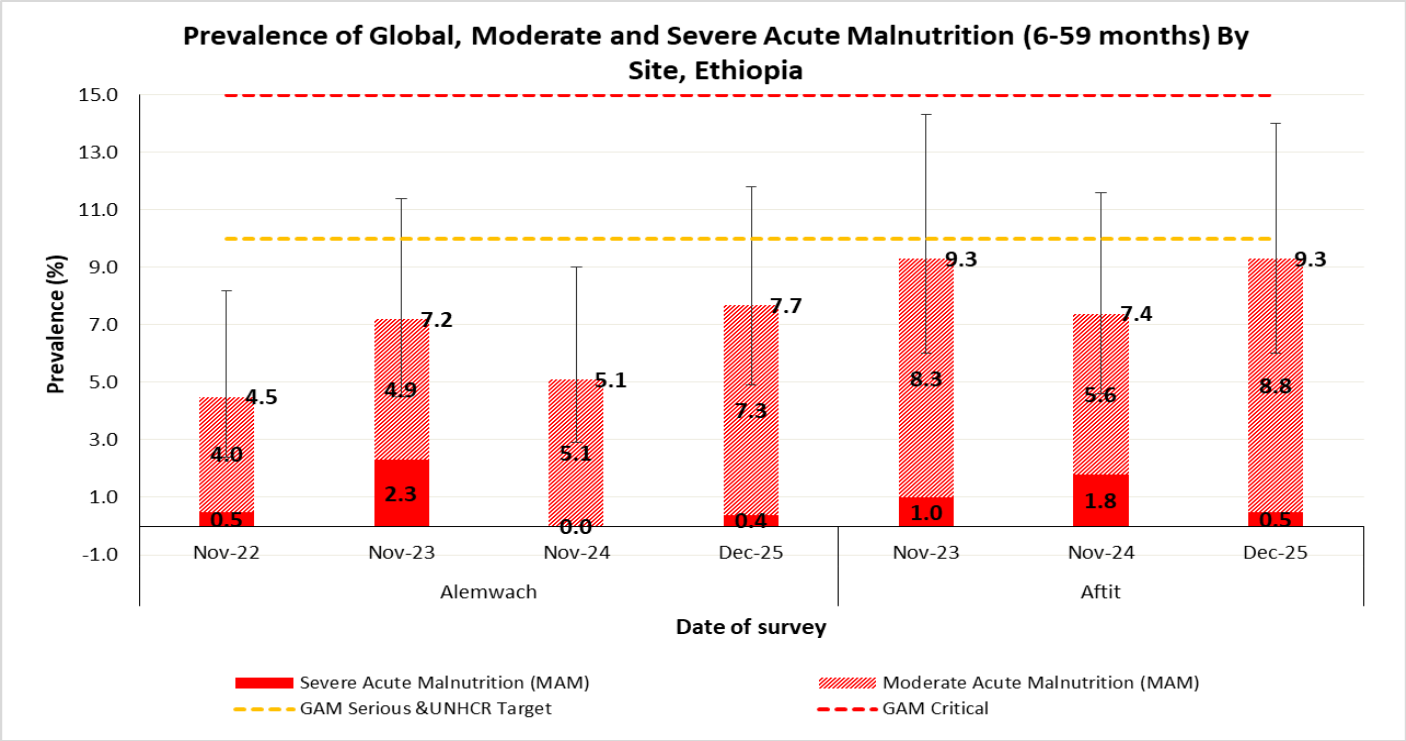


Table 22: PREVALENCE OF ACUTE MALNUTRITION BY AGE, BASED ON WEIGHT-FOR-HEIGHT Z-SCORES AND/OR OEDEMA, **IN ALEMWACH SITE**

Age (mo)	Total no.	Severe wasting (<-3 z-score)		Moderate wasting (≥ -3 and <-2 z-score)		Normal (≥ -2 z score)		Oedema	
		No.	%	No.	%	No.	%	No.	%
6-11	51	0	0.0	7	13.7	44	86.3	0	0.0
12-23	67	1	1.5	5	7.5	61	91.0	0	0.0
24-35	41	0	0.0	1	2.4	40	97.6	0	0.0
36-47	59	0	0.0	3	5.1	56	94.9	0	0.0
48-59	17	0	0.0	1	5.9	16	94.1	0	0.0
Total	235	1	0.4	17	7.2	217	92.3	0	0.0

Figure 5 : PREVALENCE OF WASTING BY AGE IN CHILDREN 6-59 MONTHS IN ALEMWACH SITE;

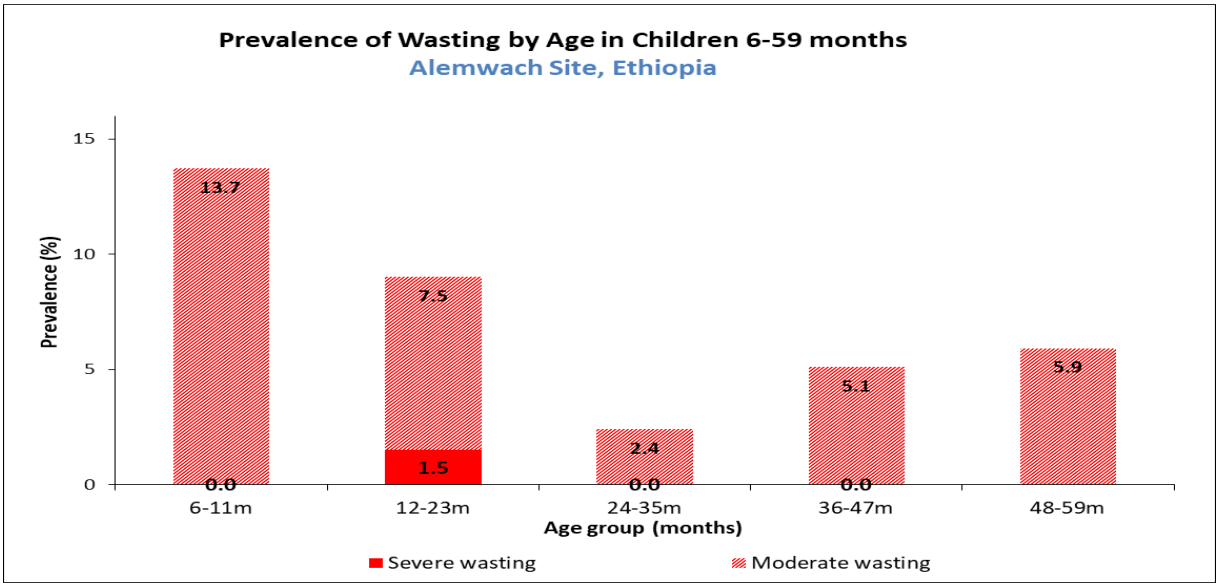


Table 23: PREVALENCE OF ACUTE MALNUTRITION BY AGE, BASED ON WEIGHT-FOR-HEIGHT Z-SCORES AND/OR OEDEMA, **IN AFTIT SITE**

Age (mo)	Total no.	Severe wasting (<-3 z-score)		Moderate wasting (≥ -3 and <-2 z-score)		Normal (≥ -2 z score)		Oedema	
		No.	%	No.	%	No.	%	No.	%
6-11	43	0	0.0	5	11.6	38	88.4	0	0.0
12-23	45	1	2.2	4	8.9	40	88.9	0	0.0
24-35	57	0	0.0	4	7.0	53	93.0	0	0.0
36-47	43	0	0.0	2	4.7	41	95.3	0	0.0
48-59	17	0	0.0	3	17.6	14	82.4	0	0.0
Total	205	1	0.5	18	8.8	186	90.7	0	0.0

Figure 6 : PREVALENCE OF WASTING BY AGE IN CHILDREN 6-59 MONTHS **IN SITE AFTIT**

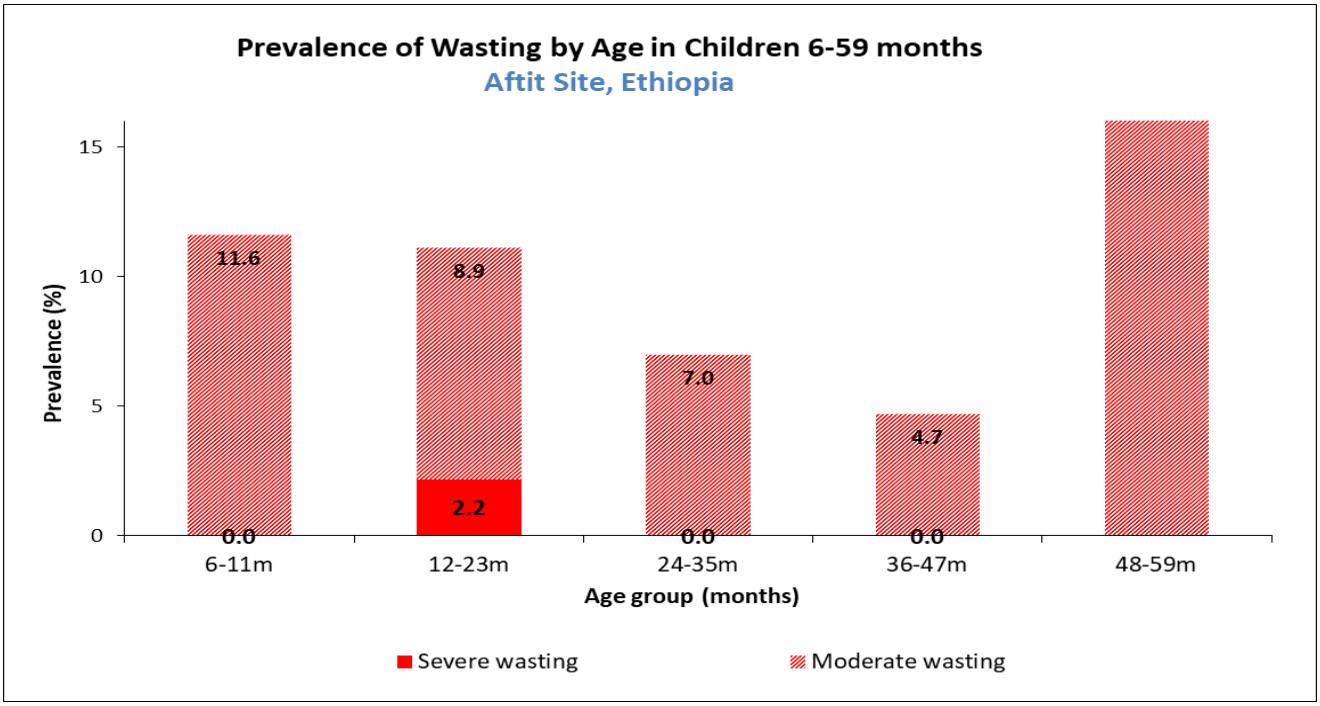
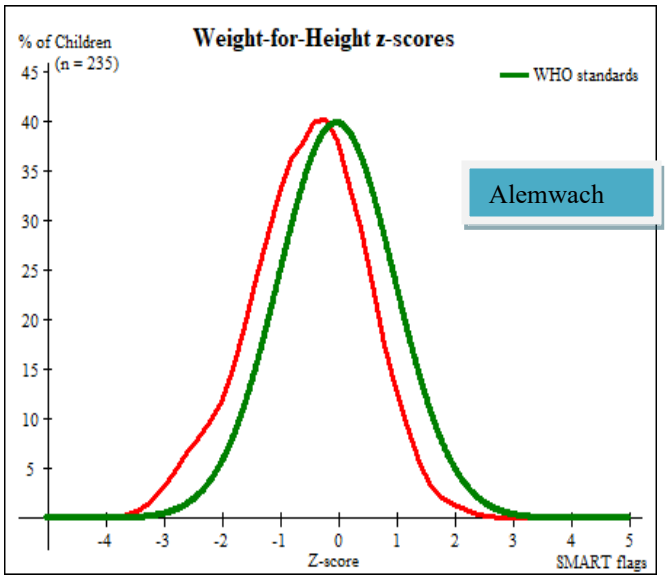


Figure 7 : DISTRIBUTION OF WEIGHT-FOR-HEIGHT Z-SCORES (Based On Who Growth Standards; The Reference Population Is Shown In Green And The Surveyed Population Is Shown In Red) OF SURVEY POPULATION **IN ALEMWACH AND AFTIT SITES**



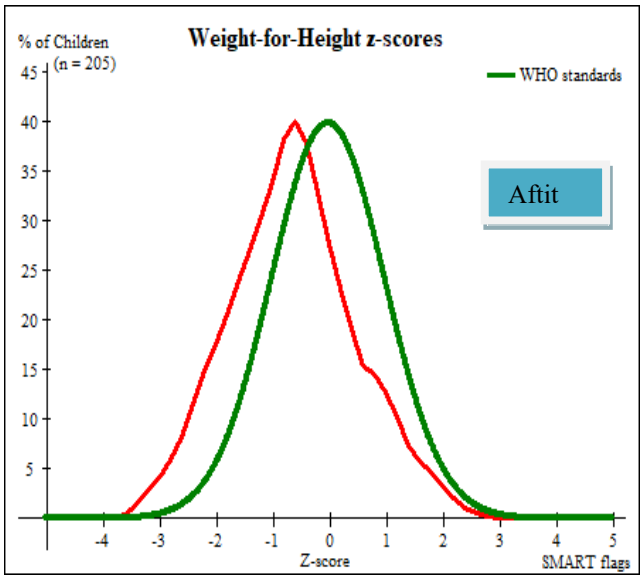


Table 24: PREVALENCE OF MUAC MALNUTRITION, BY SITE

	Alemwach			Aftit		
	All n = 235	**Boys** n = 119	**Girls** n = 116	**All** n = 211	**Boys** n = 106	**Girls** n = 105
Prevalence of global malnutrition (< 125 mm and/or oedema)	(16) 6.8 % (4.2 - 10.8)	(12) 10.1 % (5.9 - 16.8)	(4) 3.4 % (1.3 - 8.5)	(9) 4.3 % (2.3 - 7.9)	(4) 3.8 % (1.5 - 9.3)	(5) 4.8 % (2.1 - 10.7)
Prevalence of moderate malnutrition (< 125 mm and >= 115 mm, no oedema)	(15) 6.4 % (3.9 - 10.3)	(11) 9.2 % (5.2 - 15.8)	(4) 3.4 % (1.3 - 8.5)	(7) 3.3 % (1.6 - 6.7)	(4) 3.8 % (1.5 - 9.3)	(3) 2.9 % (1.0 - 8.1)
Prevalence of severe malnutrition (< 115 mm and/or oedema)	(1) 0.4 % (0.1 - 2.4)	(1) 0.8 % (0.1 - 4.6)	(0) 0.0 % (0.0 - 3.2)	(2) 0.9 % (0.3 - 3.4)	(0) 0.0 % (0.0 - 3.5)	(2) 1.9 % (0.5 - 6.7)

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

Age (mo)	**Total no.**	**MUAC < 115 mm**		**MUAC >= 115 mm and < 125 mm**		**MUAC > = 125 mm**		**Oedema**	
		No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-11	51	1	2.0	8	15.7	42	82.4	0	0.0
12-23	66	0	0.0	6	9.1	60	90.9	0	0.0
24-35	41	0	0.0	1	2.4	40	97.6	0	0.0
36-47	60	0	0.0	0	0.0	60	100.0	0	0.0
48-59	17	0	0.0	0	0.0	17	100.0	0	0.0
Total	235	1	0.4	15	6.4	219	93.2	0	0.0

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

Age (mo)	**Total no.**	**MUAC < 115 mm**		**MUAC >= 115 mm and < 125 mm**		**MUAC > = 125 mm**		**Oedema**	
		No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-11	44	0	0.0	3	6.8	41	93.2	0	0.0
12-23	47	2	4.3	4	8.5	41	87.2	0	0.0
24-35	58	0	0.0	0	0.0	58	100.0	0	0.0

36-47	44	0	0.0	0	0.0	44	100.0	0	0.0
48-59	18	0	0.0	0	0.0	18	100.0	0	0.0
Total	211	2	0.9	7	3.3	202	95.7	0	0.0

Table 27: PREVALENCE OF COMBINED GAM AND SAM BASED ON WHZ AND MUAC CUT OFF'S (AND/OR OEDEMA) AND BY SEX*

	Alemwach			**Aftit**		
COMBINED GAM AND SAM	**All** n = 236	**Boys** n = 120	**Girls** n = 116	**All** n = 211	**Boys** n = 106	**Girls** n = 105
Prevalence of combined GAM (WHZ <-2 and/or MUAC < 125 mm and/or oedema)	(23) 9.7 % (6.6 - 14.3)	(17) 14.2 % (9.1 - 21.7)	(6) 5.2 % (2.4 - 10.8)	(25) 11.8 % (8.2 - 16.9)	(14) 13.2 % (8.0 - 21.0)	(11) 10.5 % (6.0 - 17.8)
Prevalence of combined SAM (WHZ < -3 and/or MUAC < 115 mm and/or oedema	(2) 0.8 % (0.2 - 3.0)	(2) 1.7 % (0.5 - 5.9)	(0) 0.0 % (0.0 - 3.2)	(2) 0.9 % (0.3 - 3.4)	(0) 0.0 % (0.0 - 3.5)	(2) 1.9 % (0.5 - 6.7)

Table 28: Detailed numbers for combined GAM and SAM

Indices	**ALEMWACH SITE**				**AFTIT SITE**			
	GAM		**SAM**		**GAM**		**SAM**	
	no.	**%**	**no.**	**%**	**no.**	**%**	**no.**	**%**
MUAC	5	2.1	1	0.4	6	2.8	1	0.5
WHZ	7	3.0	1	0.4	16	7.6	0	0.0
Both	11	4.7	0	0.0	3	1.4	1	0.5
Edema	0	0.0	0	0.0	0	0.0	0	0.0
Total	23	9.7	2	0.8	25	11.8	2	0.9
Total Population				236	Total population			211

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

	Alemwach			**Aftit**		
	All n = 235	**Boys** n = 119	**Girls** n = 116	**All** n = 211	**Boys** n = 106	**Girls** n = 105
Prevalence of underweight (<-2 z-score)	(41) 17.4 % (13.1 - 22.8)	(25) 21.0 % (14.7 - 29.2)	(16) 13.8 % (8.7 - 21.2)	(27) 12.8 % (8.9 - 18.0)	(13) 12.3 % (7.3 - 19.9)	(14) 13.3 % (8.1 - 21.1)
Prevalence of moderate underweight (<-2 z-score & >=-3 z-score)	(33) 14.0 % (10.2 - 19.1)	(19) 16.0 % (10.5 - 23.6)	(14) 12.1 % (7.3 - 19.2)	(19) 9.0 % (5.8 - 13.6)	(8) 7.5 % (3.9 - 14.2)	(11) 10.5 % (6.0 - 17.8)
Prevalence of severe underweight (<-3 z-score)	(8) 3.4 % (1.7 - 6.6)	(6) 5.0 % (2.3 - 10.6)	(2) 1.7 % (0.5 - 6.1)	(8) 3.8 % (1.9 - 7.3)	(5) 4.7 % (2.0 - 10.6)	(3) 2.9 % (1.0 - 8.1)

Table 30: PREVALENCE OF UNDERWEIGHT BY AGE BASED ON WEIGHT-FOR-AGE Z-SCORES, AND OEDEMA **IN ALEMWACH SITE**

Age (mo)	**Total no.**	**Severe underweight (<-3 z-score)**		**Moderate underweight (≥ -3 and <-2 z-score)**		**Normal (≥ -2 z score)**		**Oedema**	
		No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-11	50	2	4.0	8	16.0	40	80.0	0	0.0
12-23	67	6	9.0	9	13.4	52	77.6	0	0.0
24-35	41	0	0.0	3	7.3	38	92.7	0	0.0
36-47	60	0	0.0	11	18.3	49	81.7	0	0.0

48-59	17	0	0.0	2	11.8	15	88.2	0	0.0
Total	235	8	3.4	33	14.0	194	82.6	0	0.0

TABLE 24 PREVALENCE OF UNDERWEIGHT BY AGE BASED ON WEIGHT-FOR-AGE Z-SCORES, AND OEDEMA **IN AFTIT SITE**

Age (mo)	**Total no.**	**Severe underweight (<-3 z-score)**		**Moderate underweight (≥ -3 and <-2 z-score)**		**Normal (≥ -2 z score)**		**Oedema**	
		No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-11	44	1	2.3	1	2.3	42	95.5	0	0.0
12-23	47	3	6.4	6	12.8	38	80.9	0	0.0
24-35	58	2	3.4	6	10.3	50	86.2	0	0.0
36-47	44	1	2.3	5	11.4	38	86.4	0	0.0
48-59	18	1	5.6	1	5.6	16	88.9	0	0.0
Total	211	8	3.8	19	9.0	184	87.2	0	0.0

Table 31: PREVALENCE OF STUNTING BASED ON HEIGHT-FOR-AGE Z-SCORES AND BY SEX, BY SITE

	Alemwach			Aftit		
	All n = 227	**Boys** n = 116	**Girls** n = 111	**All** n = 197	**Boys** n = 99	**Girls** n = 98
Prevalence of stunting (<-2 z-score)	(76) 33.5 % (27.7 - 39.8)	(38) 32.8 % (24.9 - 41.7)	(38) 34.2 % (26.1 - 43.5)	(32) 16.2 % (11.7 - 22.0)	(17) 17.2 % (11.0 - 25.8)	(15) 15.3 % (9.5 - 23.7)
Prevalence of moderate stunting (<-2 z-score and >=-3 z-score)	(61) 26.9 % (21.5 - 33.0)_	(27) 23.3 % (16.5 - 31.7)	(34) 30.6 % (22.8 - 39.7)	(20) 10.2 % (6.7 - 15.2)	(10) 10.1 % (5.6 - 17.6)	(10) 10.2 % (5.6 - 17.8)
Prevalence of severe stunting (<-3 z-score)	(15) 6.6 % (4.0 - 10.6)	(11) 9.5 % (5.4 - 16.2)	(4) 3.6 % (1.4 - 8.9)	(12) 6.1 % (3.5 - 10.3)	(7) 7.1 % (3.5 - 13.9)	(5) 5.1 % (2.2 - 11.4)

Figure 8: PREVALENCE OF GLOBAL AND SEVERE STUNTING BASED ON WHO GROWTH STANDARDS IN CHILDREN 6-59 MONTHS FROM 2022 -2025, BY SITE.

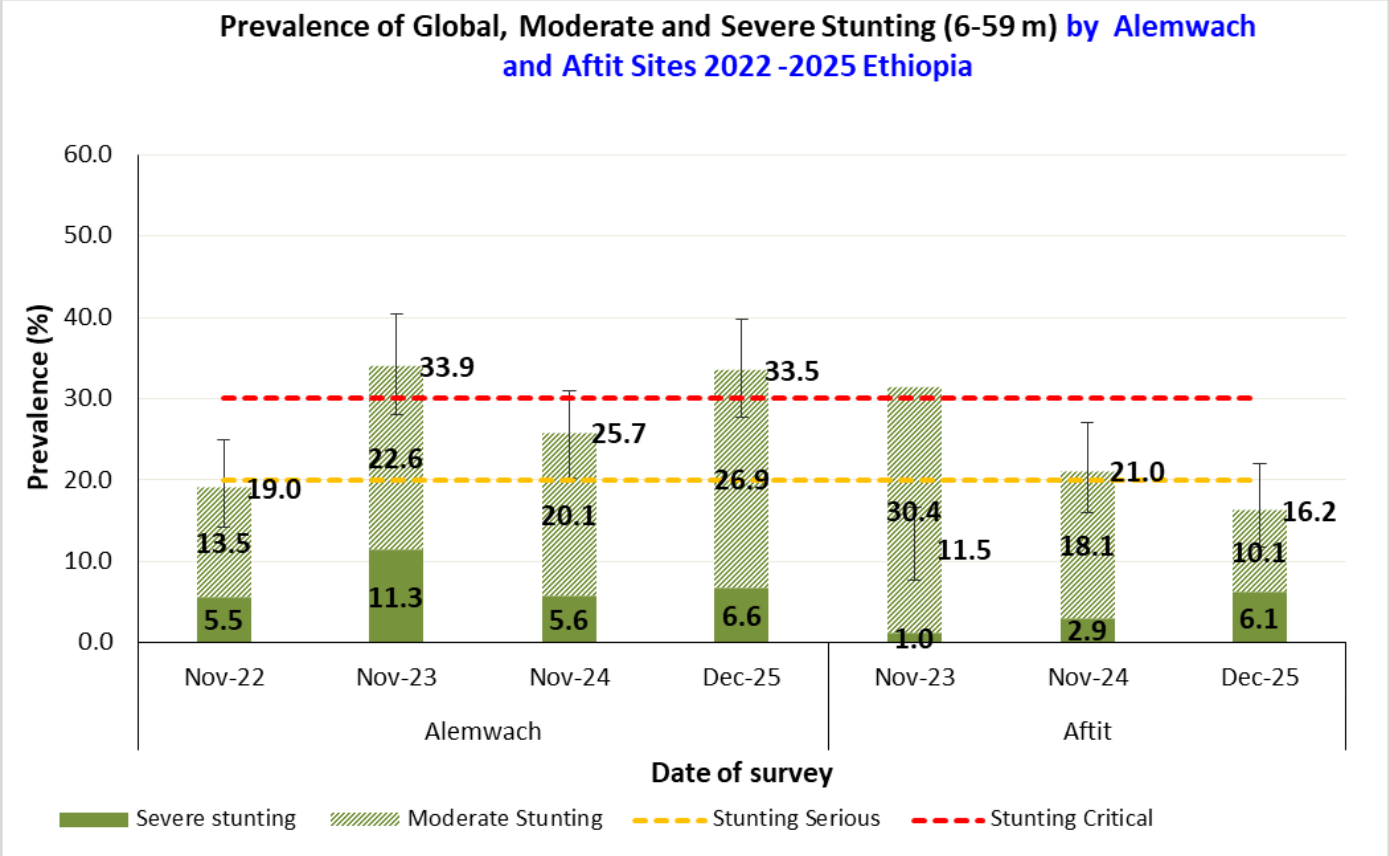


Table 32: PREVALENCE OF STUNTING BY AGE BASED ON HEIGHT-FOR-AGE Z-SCORES, **IN ALEMWACH SITE**

Age (mo)	Total no.	Severe stunting (<-3 z-score)		Moderate stunting (≥ -3 and <-2 z-score)		Normal (≥ -2 z score)	
		No.	%	No.	%	No.	%
6-11	48	2	4.2	9	18.8	37	77.1
12-23	63	7	11.1	23	36.5	33	52.4
24-35	41	3	7.3	12	29.3	26	63.4
36-47	58	3	5.2	15	25.9	40	69.0
48-59	17	0	0.0	2	11.8	15	88.2
Total	227	15	6.6	61	26.9	151	66.5

Figure 9 : PREVALENCE OF STUNTING BY AGE IN CHILDREN 6-59 MONTHS IN ALEMWACH SITE

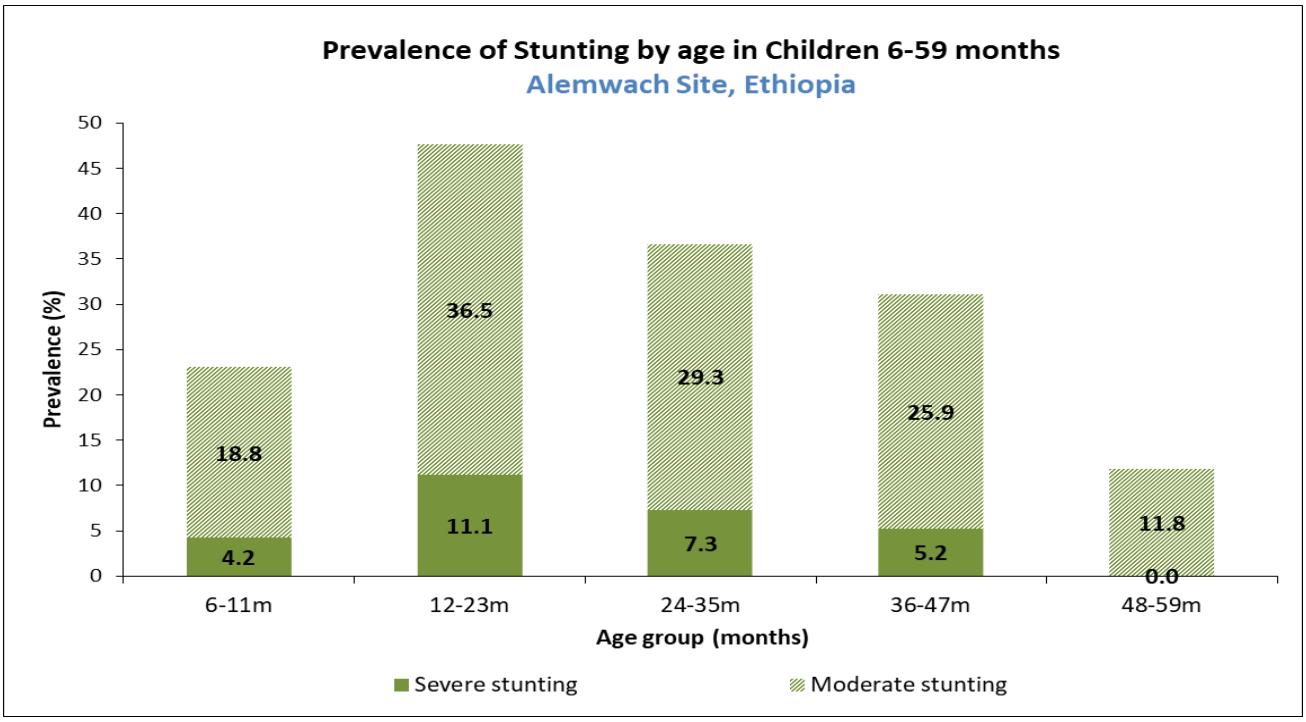


Table 33: PREVALENCE OF STUNTING BY AGE BASED ON HEIGHT-FOR-AGE Z-SCORES, **IN AFTIT SITE**

Age (mo)	Total no.	Severe stunting (<-3 z-score)		Moderate stunting (≥ -3 and <-2 z-score)		Normal (≥ -2 z score)	
		No.	%	No.	%	No.	%
6-11	43	1	2.3	2	4.7	40	93.0
12-23	43	5	11.6	7	16.3	31	72.1
24-35	51	3	5.9	4	7.8	44	86.3
36-47	42	3	7.1	5	11.9	34	81.0
48-59	18	0	0.0	2	11.1	16	88.9
Total	197	12	6.1	20	10.2	165	83.8

Figure 10 : PREVALENCE OF STUNTING BY AGE IN CHILDREN 6-59 MONTHS IN AFTIT SITE

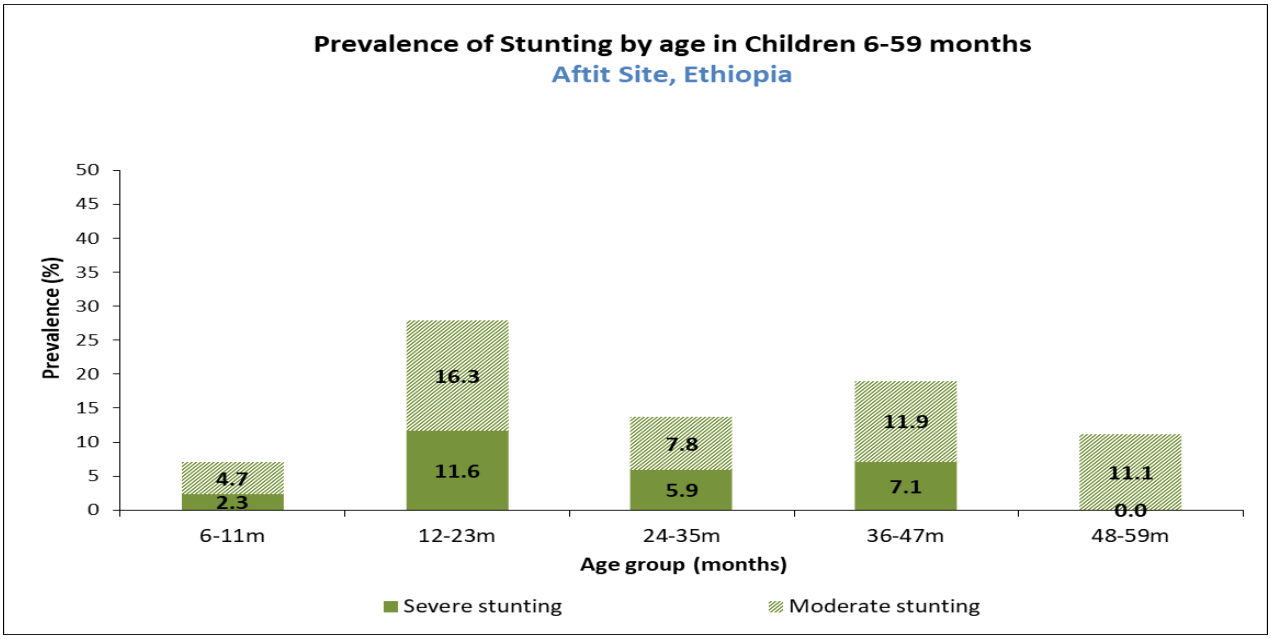
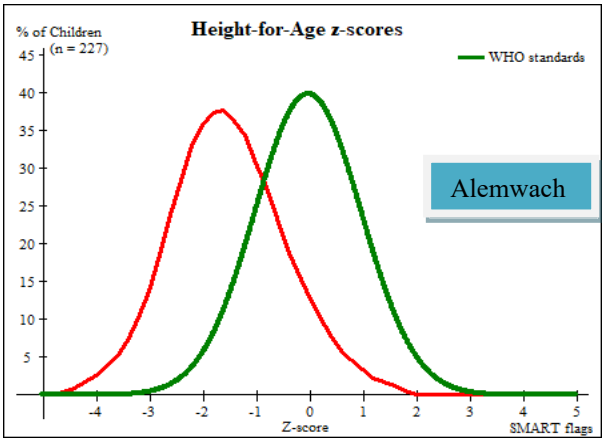


Figure 11: DISTRIBUTION OF HEIGHT-FOR-AGE Z-SCORES (BASED ON WHO GROWTH STANDARDS; THE REFERENCE POPULATION IS SHOWN IN GREEN AND THE SURVEYED POPULATION IS SHOWN IN RED) OF SURVEY POPULATION **IN ALEMWACH AND AFTIT SITES** COMPARED TO REFERENCE POPULATION



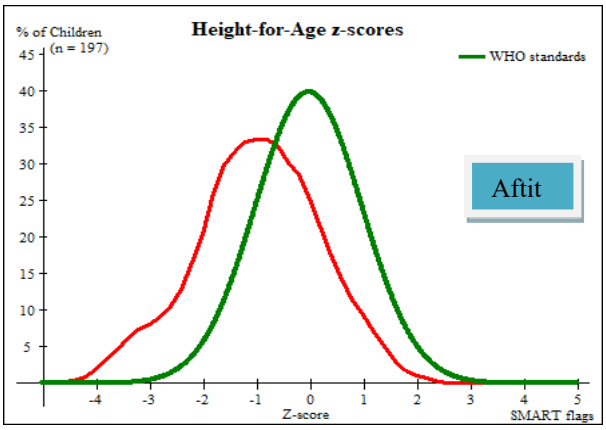


Table 34 : Prevalence Of Overweight Based On Weight-For-Height Z-Scores (No Oedema), By Site

Survey Site	N	Prevalence of overweight (>2 z-score)		Prevalence of severe overweight (>3 z-score)	
		n	%	n	%
Alemwach	235	1	(1) 0.4 % (0.1 - 2.4%)	0	(0) 0.0 %
Aftit	205	2	1.0 % (0.3 - 3.5%)	0	(0) 0.0 %

Table 35: Prevalence Of Overweight By Age Based On Weight-For-Height Z-Scores (No Oedema), **In Sites**

Age (mo)	Total no.	Alemwach				Total no.	Aftit			
		Prevalence of overweight (>2 z-score)		Prevalence of severe overweight (>3 z-score)			Prevalence of overweight (>2 z-score)		Prevalence of severe overweight (>3 z-score)	
		No.	%	No.	%		No.	%	No.	%
6-11	51	0	0.0	0	0.0	43	0	0.0	0	0.0
12-23	67	0	0.0	0	0.0	45	0	0.0	0	0.0
24-35	41	0	0.0	0	0.0	57	1	1.8	0	0.0
36-47	59	1	1.7	0	0.0	43	1	2.3	0	0.0
48-59	17	0	0.0	0	0.0	17	0	0.0	0	0.0
Total	235	1	0.4	0	0.0	205	2	1.0	0	0.0

Table 36: MEAN Z-SCORES, DESIGN EFFECTS AND EXCLUDED SUBJECTS, BY SITE

Indicator	n	Mean z-scores ± SD	Design Effect (z-score < -2)	z-scores not available*	z-scores out of range
Alemwach					
Weight-for-Height	235	-0.51±0.97	1.00	3	1
Weight-for-Age	235	-1.20±0.92	1.00	3	1
Height-for-Age	227	-1.51±1.04	1.00	3	9
Aftit					
Weight-for-Height	205	-0.64±1.07	1.00	0	6
Weight-for-Age	211	-1.01±0.98	1.00	0	0

Height-for-Age	197	-0.97±1.14	1.00	0	14

* contains for WHZ and WAZ the children with oedema.

The flagging criteria used for anthropometric indices should be added to analysis section of the final report. (e.g. SMART flags and ranges used like -/+3 from the observed mean).

7.4 Mortality results (retrospective over 3 months/days prior to interview)

Table 37: Mortality rates

Retrospective Crude **Mortality**	Alemwach	Aftit
CMR (total deaths/10,000 people / day): (95% CI)	0.07 (0.01-0.40)	0.43 (0.17-1.11)
U5MR (deaths in children under five/10,000 children under five / day): (95% CI)	0.45 (0.08-2.49)	0.74 (0.13-4.10)

7.4.1 Enrolment into nutrition programmes results

Table 38: **PROGRAMME ENROLMENT FOR ACUTELY MALNOURISHED CHILDREN,** BASED ON ALL ADMISSION CRITERIA (**MUAC, WHZ AND/OR OEDEMA**) **BY SITE**

Survey Site	Programme	Number/total	% (95% CI)
Alemwach	**Supplementary feeding programme (TSFP) enrolment**	12/23	52.17% (30.59-73.18%)
	Therapeutic (OTP/SC) feeding programme enrolment	1/2	50.00% (1.26-98.74%)
Aftit	**Supplementary feeding programme (TSFP) enrolment**	13/23	56.52% (35.49-76.81%)
	Therapeutic (OTP/SC) feeding programme enrolment	1/2	50.00% (1.26-98.74%)

Table 39: **PROGRAMME ENROLMENT FOR ACUTELY MALNOURISHED CHILDREN,** BASED ON ALL ADMISSION CRITERIA (**MUAC AND/OR OEDEMA**) **BY SITE**

Survey Site	Programme	Number/total	% (95% CI)
Alemwach	**Supplementary feeding programme (TSFP) enrolment**	10/15	66.67% (38.38-88.18%)
	Therapeutic (OTP/SC) feeding programme enrolment	0/1	0.0%
Aftit	**Supplementary feeding programme (TSFP) enrolment**	4/7	57.14% (18.41-90.10%)
	Therapeutic (OTP/SC) feeding programme enrolment	1/2	50.00% (1.26-98.74%)

It is calculated based on the admission criteria used in the survey setting. Where admission is based on MUAC, WHZ and oedema, you may show two tables of results, one table showing the programme coverage based on MUAC and oedema only.

Table 40: COVERAGE OF THE BLANKET SUPPLEMENTARY FEEDING PROGRAMME, BY SITE

Survey Site	Programme	Number/total	% (95% CI)
Aftit	**Blanket supplementary feeding programme (BSFP)**	143/207	69.08% (62.30-75.30%)
	Product name	Super Cereal Plus	
	Target age group	6-59 months	

7.5 Children's morbidity

you have collected data on children's morbidity using a household questionnaire then you should present in the format

shown below.

7.5.1 Measles vaccination coverage results

Table 41: MEASLES VACCINATION COVERAGE FOR CHILDREN AGED 9-59 MONTHS, BY SITE

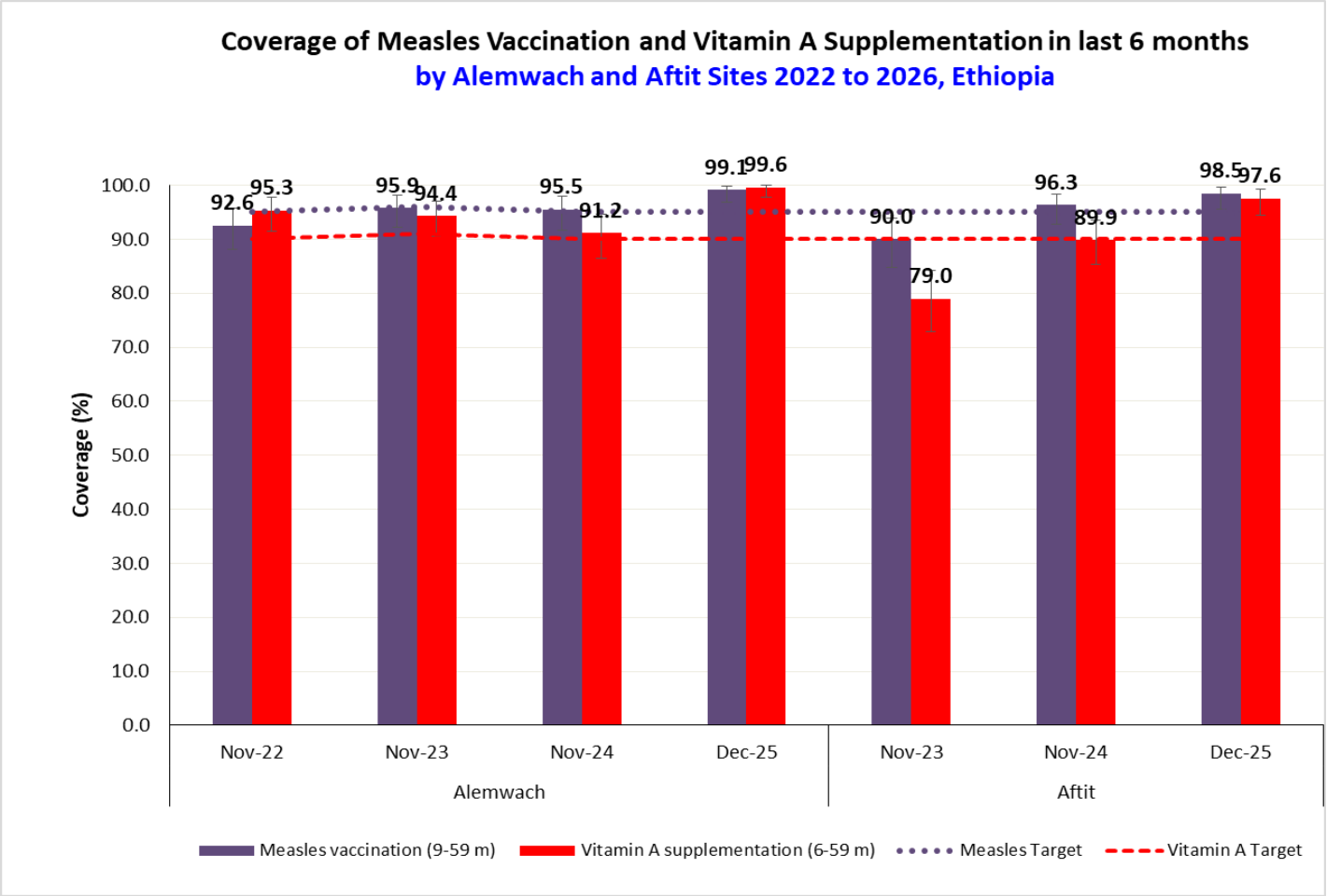
Survey Site	N	Measles vaccination with card		Measles vaccination with card or confirmation from mother	
		n	% (95% CI)	n	% (95% CI)
Alemwach	227	161	70.93% (64.55-76.74%)	225	99.12% (96.85-99.89%)
Aftit	202	69	34.16% (27.65-41.14%)	199	98.51% (95.72-99.69%)

7.5.2 Vitamin A supplementation coverage results

Table 42: VITAMIN A SUPPLEMENTATION COVERAGE FOR CHILDREN AGED 6-59 MONTHS WITHIN THE PAST 6 MONTHS, BY SITE

Survey Site	N	Vitamin A supplementation in last 6 months with card		Vitamin A supplementation in last 6 months with card or confirmation from mother	
		n	% (95% CI)	n	% (95% CI)
Alemwach	239	16	6.69% (3.87-10.64%)	238	99.58% (97.69-99.99%)
Aftit	211	78	36.97% (30.44-43.86%)	206	90.75% (86.21 - 94.18%)

Figure 12: Coverage Of Measles Vaccination, And Vitamin A Supplementation In Last 6 Months In Children 6-59 Months From 2022-2025, By Site



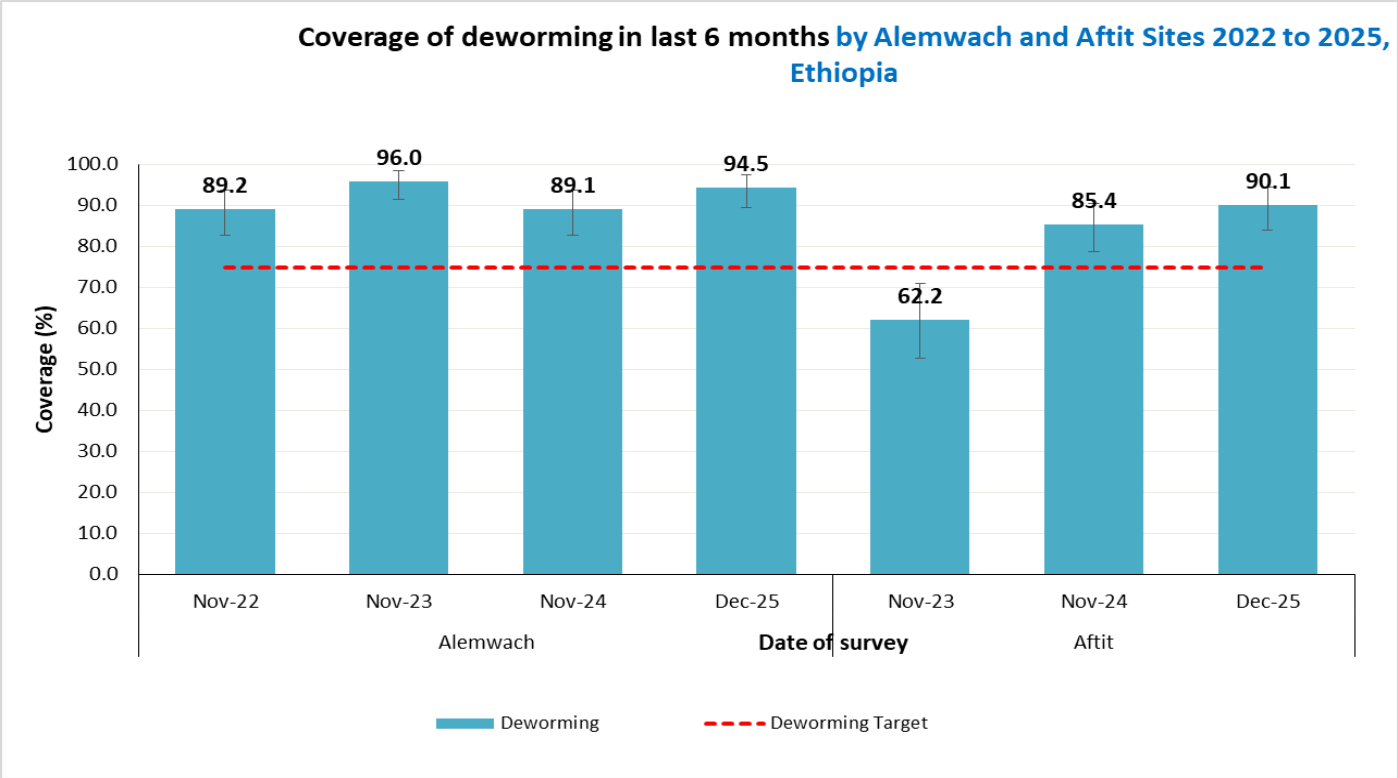
7.5.3 Deworming coverage results (if applicable)

Table 43: **Deworming Coverage For Children Aged 12-59/24-59 Months within the Past 6 Months, By Site**

Survey Site	N	Deworming within the past 6 months		
		n	% (95% CI)	
Alemwach	146	138	94.52%	(89.49-97.60%)
Aftit	145	131	90.34%	(84.33-94.62%)

*Note that this refers to large-scale siteaigns done with mebendazole and/or albendazole. To be included only if deworming siteaign done alongside a vaccination or vitamin A siteaign in the last six months.

Figure 13 : COVERAGE OF DEWORMING IN LAST 6 MONTHS IN CHILDREN 12-59/24-59 MONTHS FROM 2022 -2025, BY SITES



7.5.4 Diarrhoea results

Table 44: PERIOD PREVALENCE OF DIARRHOEA, BY SITE

Survey Site	N	Diarrhoea in the last two weeks	
		n	% (95% CI)
Alemwach	239	16	6.69% (3.87-10.64%)
Aftit	227	34	14.98% (10.60-20.30%)

Table 45: ORS AND ZINC USE DURING DIARROEA EPISODE, BY SITE

Survey Site	N	ORS use during diarrhoea episode		Zinc tablet or syrup use during diarrhoea episode	
		n	% (95% CI)	n	% (95% CI)
Alemwach	16	14	87.50% (61.65-98.45%)	14	87.50% (61.65-98.45%)
Aftit	34	21	61.76% (43.56 – 77.83%)	19	57.58% (39.22-74.52%)

7.5.5 Anaemia results

Table 46: PREVALENCE OF TOTAL ANAEMIA, ANAEMIA CATEGORIES, AND MEAN HAEMOGLOBIN CONCENTRATION IN CHILDREN 6-59 MONTHS OF AGE AND BY AGE GROUP, **IN AFTIT SITE**

	6-59 months n = 209	**6-23 months** n=63	**24-59 months** n=146
Total Anaemia (Hb<11.0 g/dL)	(56) 26.79% (20.92-33.34%)	(27) 42.86% (30.46-55.95%)	(29) 19.86% (13.72-27.26%)
Mild Anaemia (Hb 10.0-10.9 g/dL)	(36) 17.22% (12.37-23.04%)	(13) 20.63% (11.47-32.70%)	(23) 15.75% (10.26022.69%)
Moderate Anaemia (7.0-9.9	(20) 9.57%	(14) 22.22%	(6) 4.11%

g/dL)		(5.94-14.39%)	(12.72-34.46%)	(1.52-8.73%)
Severe Anaemia (<7.0 g/dL)		(0) 0.0%	(0) 0.0%	(0) 0.0%
Mean Hb (g/dL) (SD) [range]	**SRS design***	11.6g/dL (SD 1.4) [7.4, 20.7]	11.9g/dL (SD 1.2) [9, 18.8]	11.0g/dL (SD 1.7) [7.4, 20.7]

*When using the Means commands in Epi Info, it will provide the standard deviation (SD) when using the Statistics module and the 95% Confidence Interval when using the Advanced Statistics module.

Table 47:PREVALENCE OF MODERATE AND SEVERE ANAEMIA IN CHILDREN 6-59 MONTHS OF AGE AND BY AGE GROUP, **IN AFTIT SITE**

	6-59 months n = 209	**6-23 months** n=63	**24-59 months** n=146
Moderate and Severe Anaemia (Hb<10.0 g/dL)	(20) 9.57% (5.94-14.39%)	(14) 22.22% (12.72-34.46%)	(6) 4.11% (1.52-8.73%)

– Anaemia prevalence (mild, moderate and severe) and mean Hb results in children 6-59 should be presented from year to year as shown in the figures below.

Figure 14: Total Anaemia (Hb<11) and Moderate and Severe Anaemia (Hb<10) with 95% Confidence Intervals in Children 6-59, 6-23 and 24-59 months Aftit Site, Ethiopia

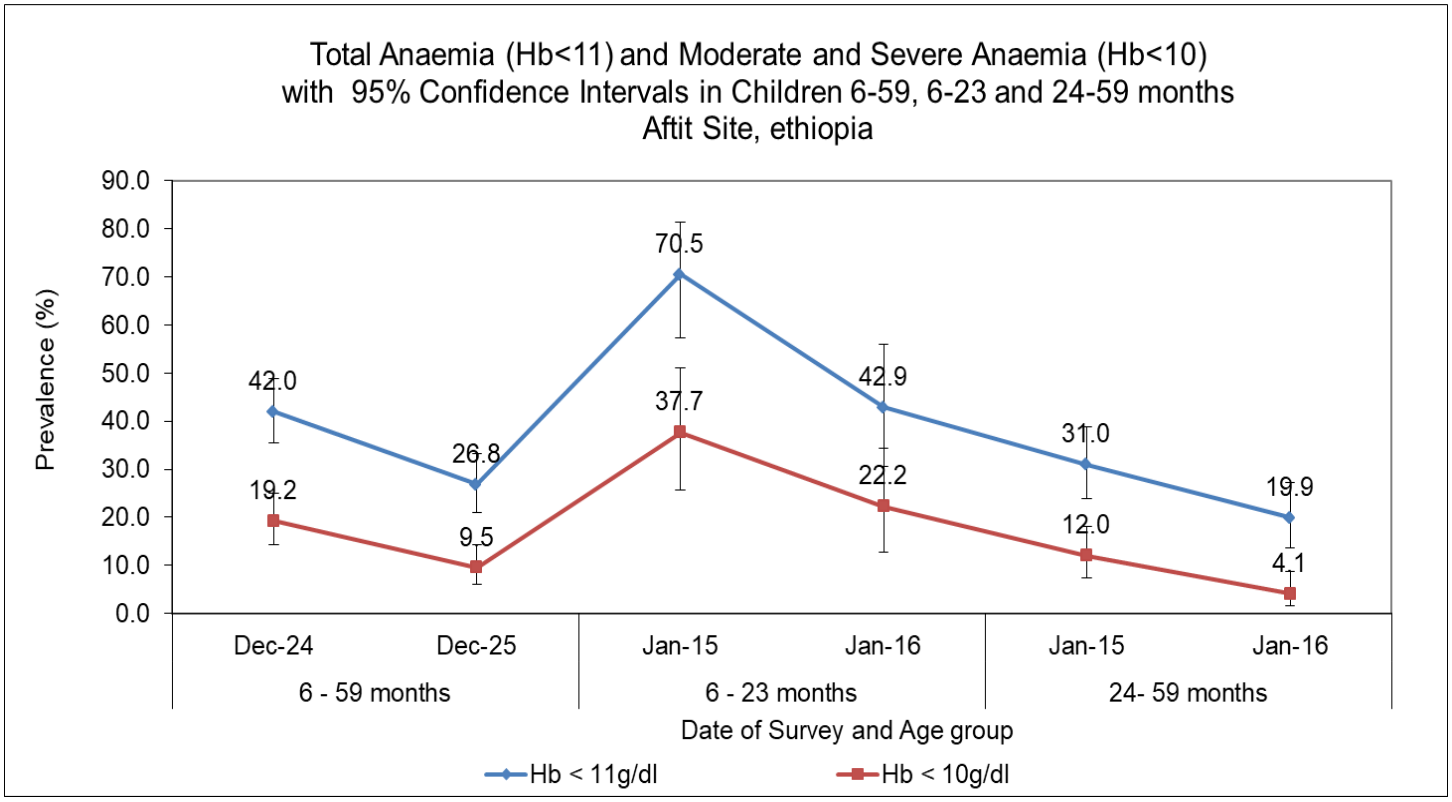


Figure 15 : PREVALENCE OF ANAEMIA BY CATEGORIES IN CHILDREN 6-59 MONTHS FROM 2024-2025, BY SITE

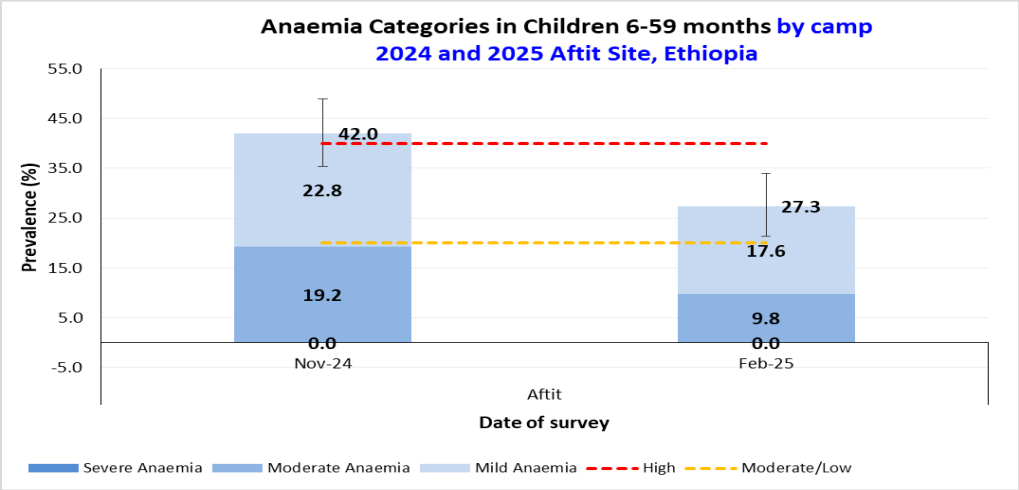


Figure 16: PREVALENCE OF TOTAL ANAEMIA (<11 G/DL), AND MODERATE AND SEVERE ANAEMIA (<10 G/DL) WITH 95% CI IN CHILDREN 6-59 MONTHS FROM 2024 -2025, BY SITE.

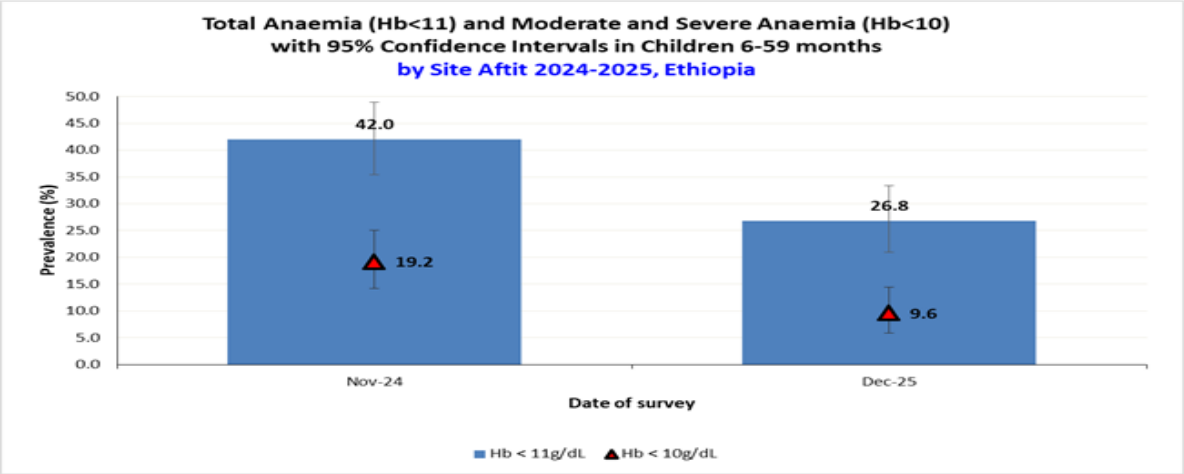
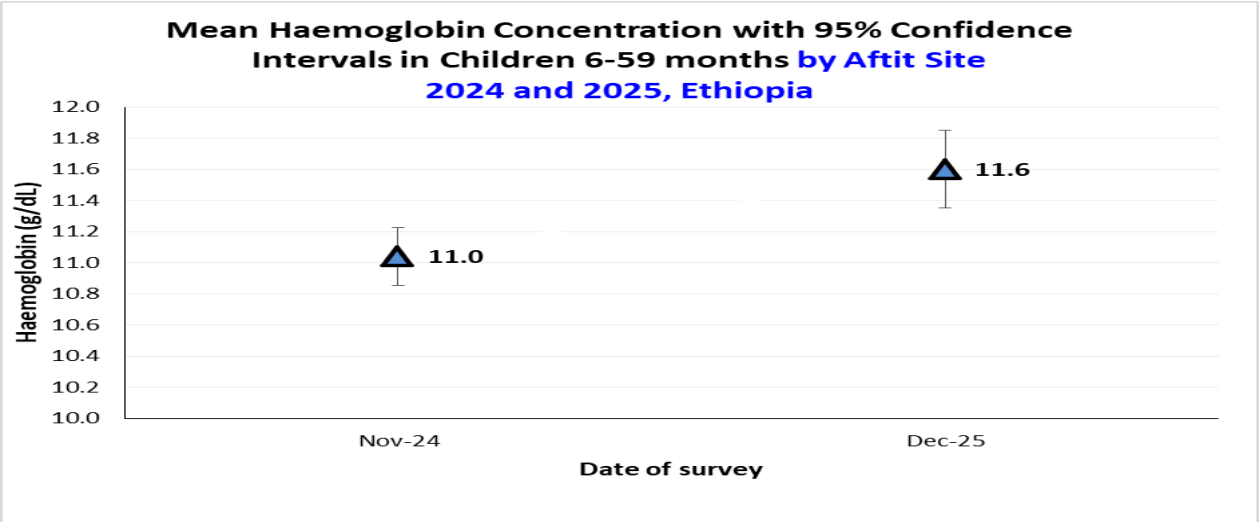


Figure 17: MEAN HAEMOGLOBIN CONCENTRATION WITH 95% CI IN CHILDREN 6-59 MONTHS FROM 2024-2025, BY SITE.

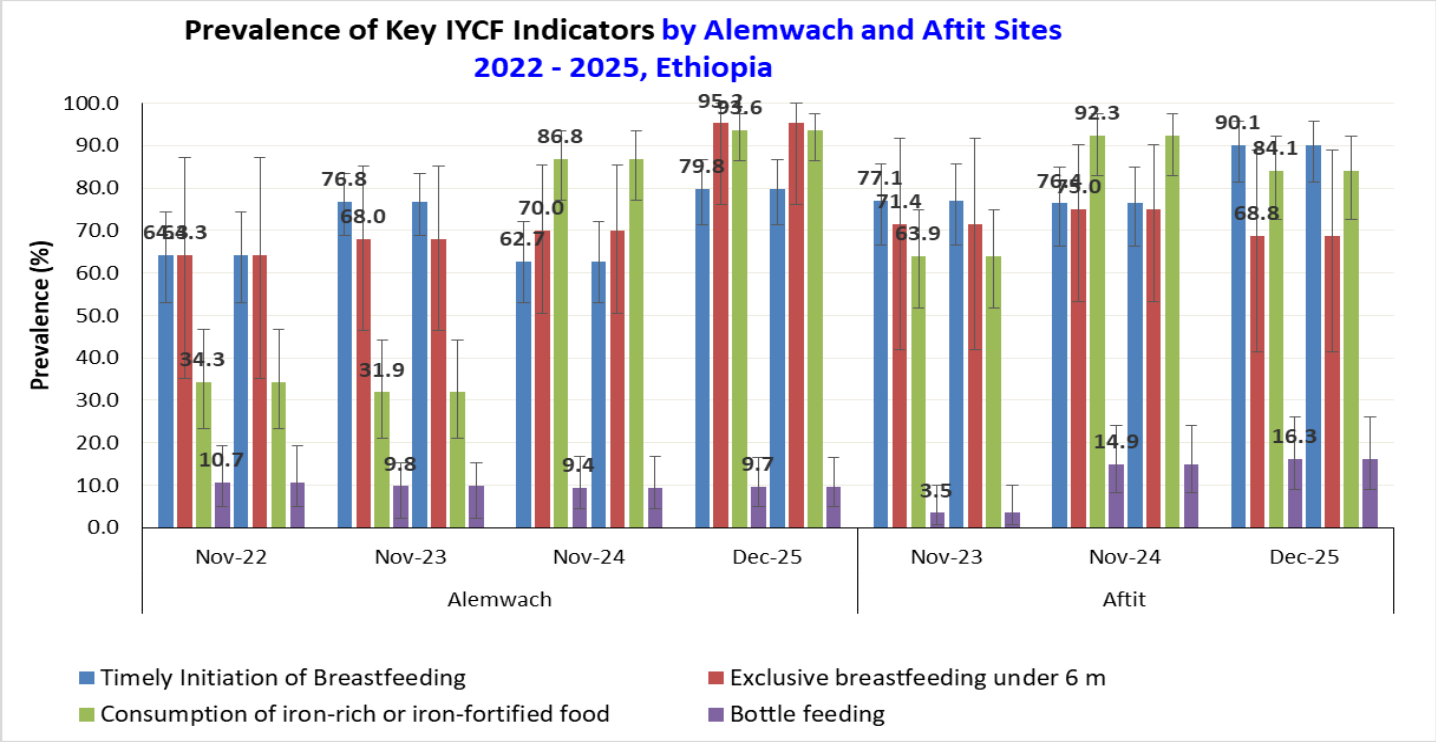


7.5.6 Children 0-23 months

Table 48:PREVALENCE OF INFANT AND YOUNG CHILD FEEDING PRACTICES INDICATORS, BY SITE

	Alemwach		Aftit		
Indicator	Number/ total	Prevalence (%) and 95% CI	Number/ total	Prevalence (%) and 95% CI	UNHCR Target
WHO INDICATOR					
Timely initiation of breastfeeding (0-23 mo)	91/114	79.82% (71.28-86.76%)	73/81	90.12% (81.46-95.64%)	≥85%
Exclusive breastfeeding under 6 months (0-5 mo)	20/21	95.24% (76.18-99.88%)	11/16	68.75% (41.34-88.98%)	≥75%
Predominant breastfeeding under 6 months (0-5 mo)	20/21	95.24% (76.18-99.88%)	12/16	75.00% (47.62-92.73%)	≥90%
Continued breastfeeding at 1 year (12-15 mo)	20/21	95.24% (76.18-99.88%)	16/16	100.0%	≥90%
Continued breastfeeding at 2 years (20-23 mo)	14/30	46.67% (28.34-65.67%)	10/14	71.43% (41.90-91.61%	≥60%
Introduction of solid, semi-solid or soft foods (6-8 mo)	8/12	66.67% (34.89-90.08%)	4/9	44.44% (13.70-78.80%)	>60%
Consumption of iron-rich or iron-fortified foods (6-23 mo)	87 /93	93.55% (86.48-97.60%)	53/63	84.13% (72.74-92.12%)	>60%
Bottle feeding (0-23 mo)	11/114	9.65% (4.92- 16.61%)	13/80	16.25% (8.95 -26.18%)	<5%
UNHCR INDICATOR					
No breastfeeding under 6 months (0-5 mo)	0/21	0.0%	3/16	18.75% (4.05-45.65%)	<2%
No breastfeeding under 12 months (0-11 mo)	2/49	4.08% (0.50-13.98%)	4/38	10.53% (2.94-24.80%)	<5%
Minimum acceptable diet 6–23 months (MAD)	74/93	79.57% (69.95-87.23%)	54/65	83.08% (71.73-91.24%)	
Minimum meal frequency (MMF) (6-23 months)	53/93	56.99% (46.31-67.22%)	43/65	66.15% (53.35-77.43%)	
Minimum milk feeding frequency (MMFF) (6-23 months)	85/93	91.40% (83.75-96.21%)	43/65	66.15% (53.35-77.43%)	
Minimum Dietary Diversity (MDD) (6-23 months)	0.4731 SD 0.5		0.31 SD 0.47		

Figure 18 : KEY IYCF INDICATORS FROM 2022 -2025, BY SITE



7.5.7 Prevalence of intake

Infant formula

Table 49: INFANT FORMULA INTAKE IN CHILDREN AGED 0-23 MONTHS, BY SITE

Survey Site	N	Proportion of children aged 0-23 months who receive infant formula (fortified or non-fortified)	
		n	% (95% CI)
Alemwach	114	7	6.14% (2.5-12.24%)
Aftit	80	10	12.50% (6.16-21.79%)

8 Women 15-49 years

Table 50: WOMEN PHYSIOLOGICAL STATUS AND AGE, BY SITE

	Alemwach		Aftit	
Physiological status	**Number/total**	**% of sample**	**Number/total**	**% of sample**
Non-pregnant, non-lactating	111/165	67.27% (59.55-74.36%)	92/154	59.74% (51.54-67.55%)
Pregnant	16/165	9.70% (5.64 - 15.27%)	28/148	18.92% (12.95-26.17%)
Lactating with an infant less than 6 months	15/38	39.47% (24.04-56.61%)	9/30	30.00% (14.73-49.40%)
Lactating with an infant greater than 6 months	15/38	39.47% (24.04-56.61%)	9/30	30.00% (14.73-49.40%)
Mean age in years [min, max] (all women)	29.8 [15 – 49 years]		28.7 years SD 8.2 [15, 48]	

8.1 MUAC in women

Table 51: PREVALENCE OF MUAC MALNUTRITION IN NON-PREGNANT, NON-LACTATING WOMEN, BY SITE

Survey Site	N	Prevalence of MUAC < 230 mm	
		n	% (95% CI)
Alemwach	78	18	23.08% (14.29-34.00%)
Aftit	91	8	8.79% (3.87-16.59%)

Table 52: PREVALENCE OF MUAC MALNUTRITION IN PREGNANT AND LACTATING WOMEN WITH AN INFANT LESS THAN 6 MONTHS, BY SITE

Survey Site	N	Prevalence of MUAC < 23 mm	
		n	% (95% CI)
Alemwach	29	10	34.48% (17.94-54.33%)
Aftit	36	1	2.78% (0.07-14.53%)

8.2 TSFP enrolment (if applicable)

TABLE 57 COVERAGE OF THE BLANKET SUPPLEMENTARY FEEDING PROGRAMME, BY SITE (IF APPLICABLE)

Survey Site	Programme	Number/total	% (95% CI)
Alemwach	**Target feeding programme enrolment**	13/31	41.94% (24.55 - 60.92%)
	Product name	RUST /Plumpysup	
	Target age group	Pregnant women and lactating mothers less than 6 months	
Aftit	**Target feeding programme enrolment**	29/37	78.38% (61.79-90.17%)
	Product name	RUST /Plumpysup	
	Target age group	Pregnant women and lactating mothers less than 6 months	

8.3 Anaemia

Table 53: PREVALENCE OF TOTAL ANAEMIA, ANAEMIA CATEGORIES, AND MEAN HAEMOGLOBIN CONCENTRATION IN NON-PREGNANT WOMEN OF REPRODUCTIVE AGE (15-49 YEARS), **AFTIT SITE**

		Number/total	% (95% CI)
Total Anaemia (Hb<12.0 g/dL)		26/120	21.67% (14.67-30.11%)
Mild Anaemia (Hb 11.0-11.9 g/dL)		18/120	15.00% (9.14- 22.67%)
Moderate Anaemia (8.0-10.9 g/dL)		8/120	6.67% (2.92-12.71%)
Severe Anaemia (<8.0 g/dL)		0/120	0.0%
Mean Hb (g/dL) (SD) [range]	**SRS design***	12.7733 g/dL (SD 1.1) [10.2, 15.3]	

*When using the Means commands in Epi Info, it will provide the standard deviation (SD) when using the Statistics module and the 95% Confidence Interval when using the Advanced Statistics module.

Figure 19: PREVALENCE OF ANAEMIA BY CATEGORIES IN WOMEN OF REPRODUCTIVE AGE (NON-PREGNANT) FROM 2024-2025, **AFTIT SITE**

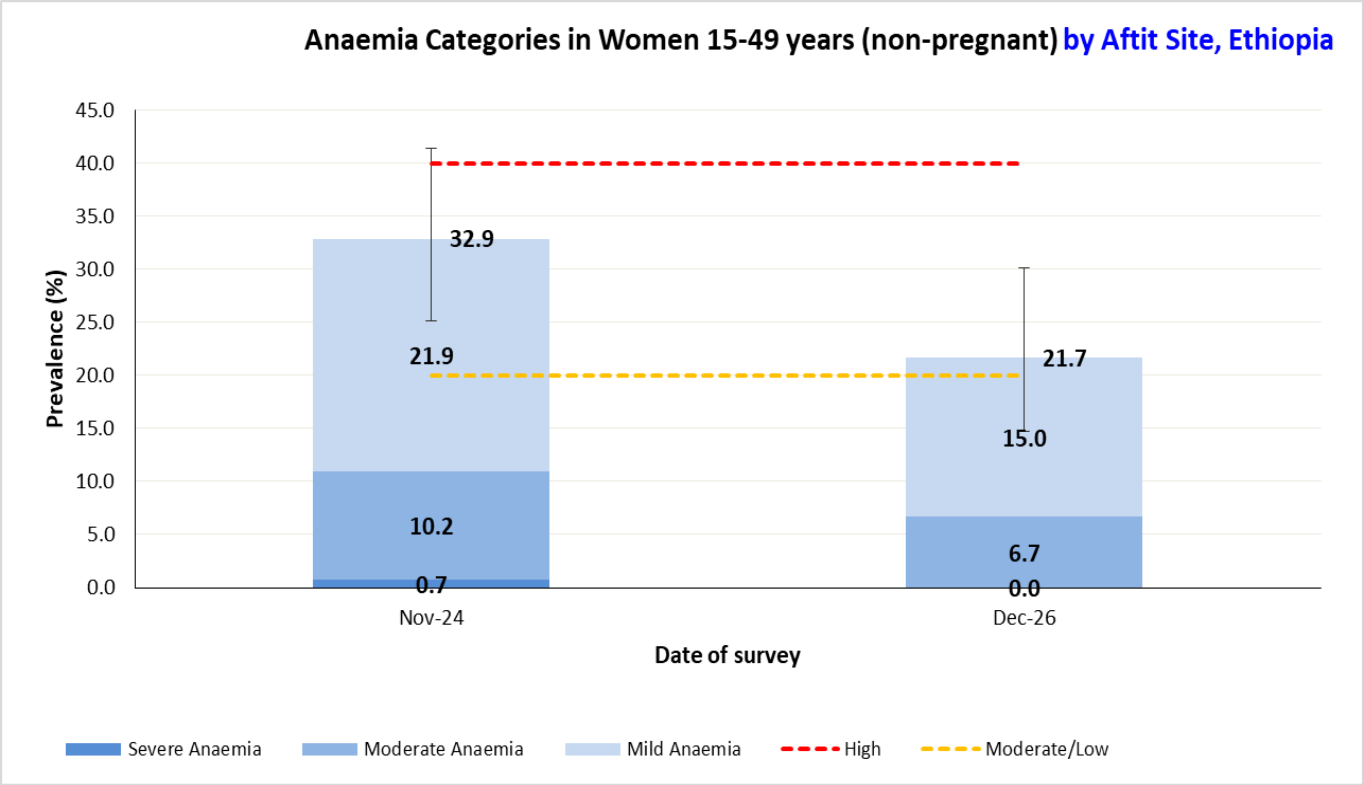
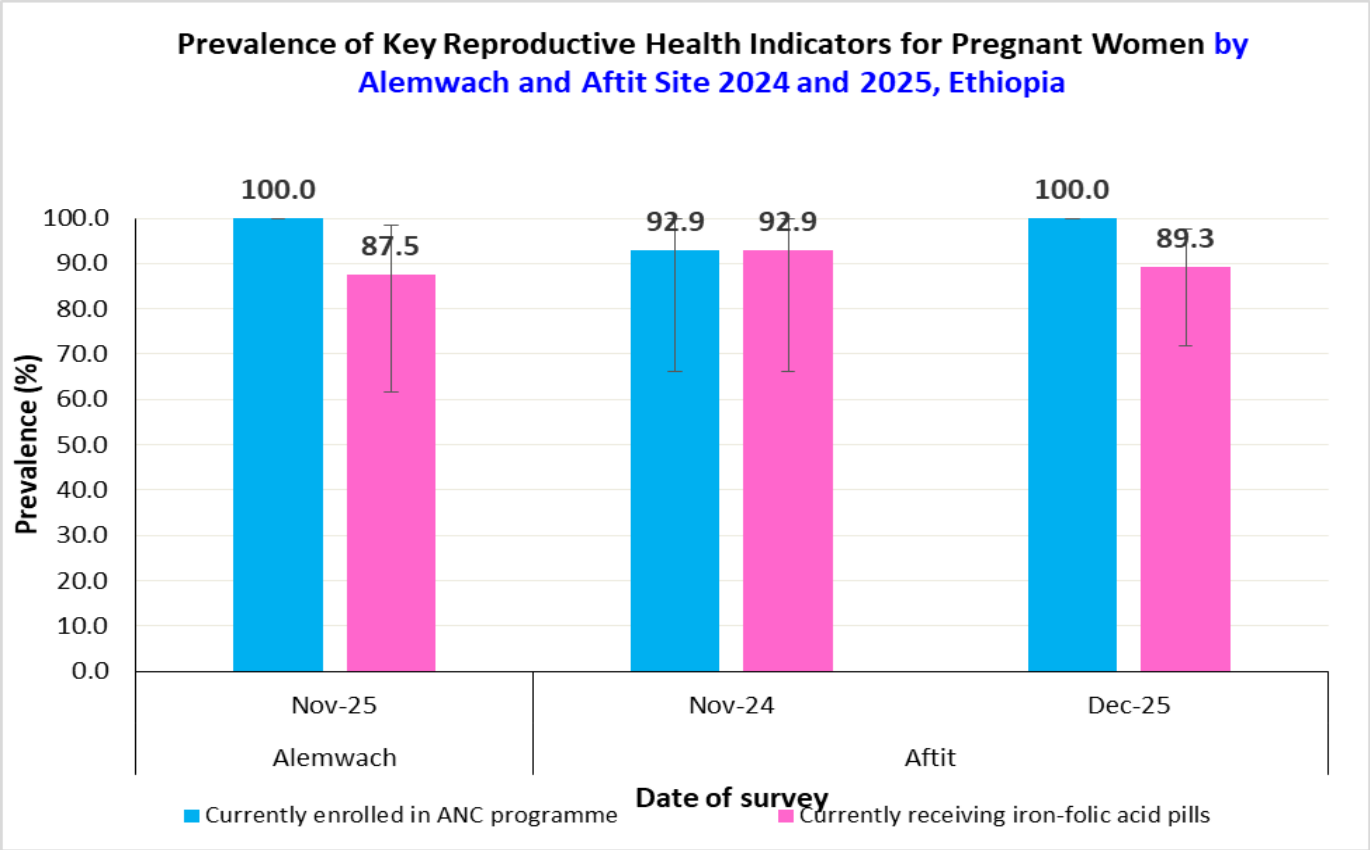


Table 54: ANC ENROLMENT AND IRON-FOLIC ACID PILLS COVERAGE AMONG PREGNANT WOMEN (15-49 YEARS), BY SITE

Survey Site	N	Currently enrolled in ANC programme		Currently receiving iron-folic acid pills	
		n	% (95% CI)	n	% (95% CI)
Alemwach	16	16	100.00%	14	87.50% (61.65- 98.45%)
Aftit	28	28	100.00%	25	89.29%

					(71.77-97.73%)

Figure 20: ANC ENROLMENT AND COVERAGE OF IRON-ACID FOLIC SUPPLEMENTATION IN PREGNANT WOMEN 15-49 YEARS FROM 2023-2025, BY SITE



9 Food security

Table 55: FOOD SECURITY SAMPLING INFORMATION, BY SITE

Total households surveyed for Food Security	Planned	Actual	% of target
Alemwach	207	*181*	87.4%
Aftit	173	165	95.4%

9.1 Access to food assistance

Table 56: FOOD ASSISTANCE TYPE, AMOUNT AND DISTRIBUTION SCHEDULE FOR THE LAST DISTRIBUTION DEC 2025 **IN ALEMWACH SITE**

Ration Type	Amount per person per day (gram)	**energy kcal**	**Protein (g)**	**fat (g)**
cereal	450	669	24.7	3.7
Pulses	50	170	11.0	0.6
Vegetable oil	30	269	0.0	29.9
Corn Soya Blend plus (CSB+)	33	77	2.8	1.2
Iodized salt	5	0	0.0	0.0
Ration totals:	**568**	**1,185**	**38**	**35**
Beneficiary requirements:		**2,100**	52.5	40
Set the % of requirements you want the ration to provide:		**56%**	**73%**	**89%**
Energy Require		**2,100**		
% of energy supplied by protein or fat:	100%	**60%**	13.0%	26.9%

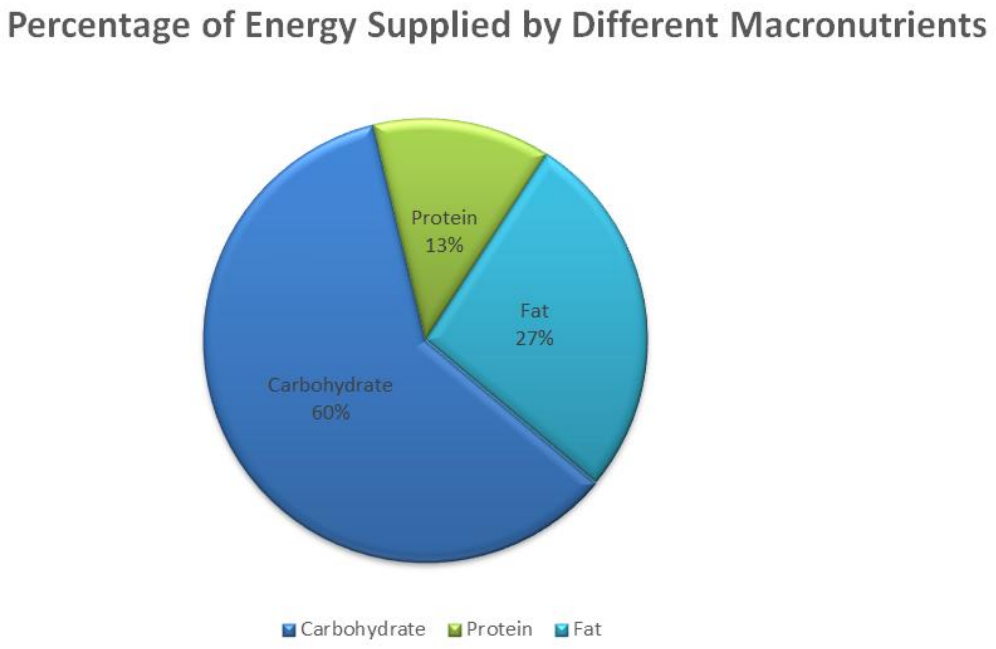


Table 57: FOOD ASSISTANCE TYPE, AMOUNT AND DISTRIBUTION SCHEDULE FOR THE LAST DISTRIBUTION (DEC 2025) **IN AFTIT SITE**

Ration Type	Amount per person per day (gram)	**energy kcal**	**Protein (g)**	**fat (g)**
cereal	450	1,506	55.5	8.4
Pulses	50	170	11.0	0.6
Vegetable oil	30	269	0.0	29.9
Corn Soya Blend plus (CSB+)	33	125	4.6	2.0
Iodized salt	5	0	0.0	0.0
Ration totals:	**568**	**2,070**	**71**	**41**
Beneficiary requirements:		**2,100**	52.5	40.0
Set the % of requirements you want the ration to provide:		**99%**	**136%**	**102%**
Energy Require	**100%**	**2,100**		
% of energy supplied by protein or fat:	13.7%		17.8%	

*Note that this data is not collected during a SENS survey in the household questionnaire. Every effort should be made to gather this data prior to the survey start and present it in the final report as outlined above. Distribution schedule was carried out every 30 days.

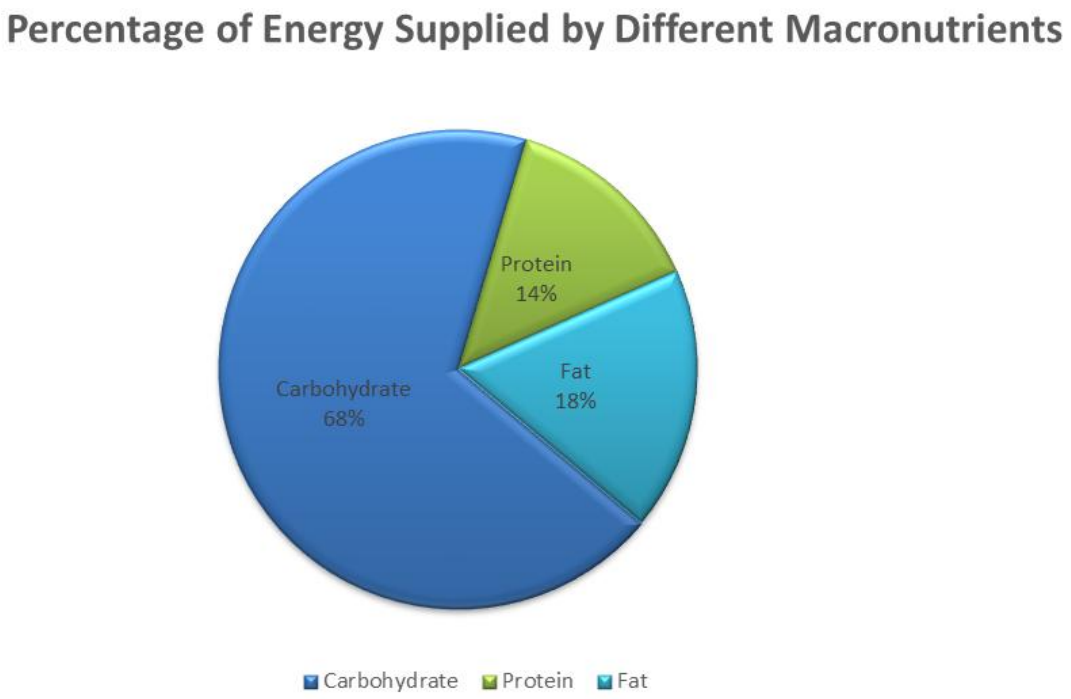


Table 58: FOOD ASSISTANCE COVERAGE

	Number/total	% (95% CI)	Number/total	% (95% CI)
Proportion of households receiving a food assistance including in-kind	181/181	100.0%	160/162	98.77% (95.61-99.85%)

Out of the households reporting not to have access to food assistance, add the following text description when relevant:
Proportion of Household had been said it was because they were not given a ration card due to not eligible for the

assistance.

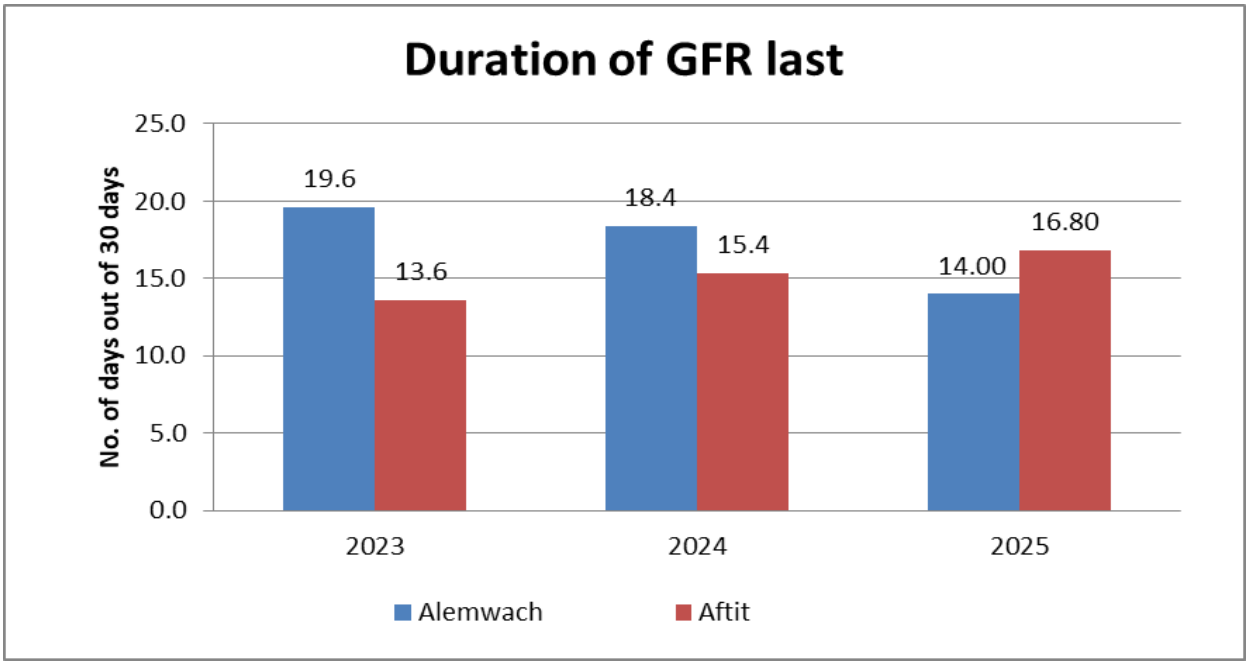
9.2 *In-kind food distribution (if applicable)*

Table 59 REPORTED DURATION OF GENERAL FOOD DISTRIBUTION, BY SITE

Average number of days the general food distribution lasts		**Alemwach** N = 174	**Aftit** N=157
Mean (Days) **(SD) and [range]**	**SRS design*** (days out of 30)	14.0 days SD 4.6 and [5, 30]	16.8 days SD 5.7 and [2 to 30]

*When using the Means commands in Epi Info, it will provide the standard deviation (SD) when using the Statistics module and the 95% Confidence Interval when using the Advanced Statistics module.

Figure 21: Trends of Average duration of the monthly General Food Ration Last 2023 -2025



9.3 *Coverage of basic needs*

Table 60: DESCRIPTION OF BASIC NEEDS NOT MET BY THE HOUSEHOLDS, **IN SITES**

	Alemwach		**Aftit**	
Basic needs not met by the households:	**Number/total**	**% (95% CI)**	**Number/total**	**% (95% CI)**
Food	26/181	14.36% (9.60-20.34%)	67/162	41.36% (33.69-49.35%)
Water	180/181	99.45% (96.96-99.99%)	128/162	79.01% (71.93-85.01%)
Hygiene items, clothes, shoes	84/181	46.41% (38.98-53.96%)	145/162	89.51% (83.73-93.77%)
Health costs (including medicines)	145/181	80.11% (73.54-85.66%)	126/162	77.78% (70.59-83.92%)
Shelter repair, household items (e.g. mattress, blankets, jerrycan)	137/181	75.69% (68.77-81.75%)	108/162	66.67% (58.84-73.87%)
Firewood / fuel for cooking or heating	103/181	56.91% (49.35-64.23%)	125/162	77.16% (69.92-83.38%)
Assets for a livelihood activity (e.g. seeds, tools, farming, fishing, petty trade, etc.)	167/181	92.27% (87.36-95.71%)	116/162	71.60% (64.00-78.40%)
Debts repayment	161/181	88.95% (83.45-93.12%)	133/162	82.10% (75.31-87.67%)
Other	140/181	77.35% (70.55-	153/162	94.44%

		83.23%)		(89.72-97.43%)

Table 61: HOUSEHOLDS BY CATEGORIES OF COVERAGE OF BASIC NEEDS, BY SITES

	Alemwach		Aftit	
Basic needs not met by the households:	**Number/total**	**% (95% CI)**	**Number/total**	**% (95% CI)**
All basic needs are met (100%)	0/181	0.0%	0/162	0.0%
More half basic needs are met (>50%)	174/181	96.13% (92.19 -98.43%)	156/162	96.30% (92.11-98.63%)
Few basic needs are met (<50%)	7/181	3.87% (1.57-7.81%)	6/162	3.70% (1.37-7.89%)
Basic needs are not met (0%)	0/181	0.0%	0/162	0.0%

9.4 Access to cooking fuel

Table 62: COOKING FUEL USE **IN SITES**

Proportion of households using the following cooking fuel:	**Alemwach**		**Aftit**	
	Number/total	**% (95% CI)**	**Number/total**	**% (95% CI)**
Wood	140/181	77.35% (70.55 - 83.23%)	131/162	80.86% (73.95 -86.61%)
Charcoal	41/181	22.65% (16.77 - 29.45%)	31/162	19.14% (13.39 - 26.05%)

9.5 Negative coping strategies results

Table 63: NEGATIVE COPING STRATEGIES USED BY THE SURVEYED POPULATION **IN SITES** OVER THE PAST 4 WEEKS

Proportion of households reporting using the following negative coping strategies over the past 4 weeks*:	**Alemwach**		**Aftit**	
	Number/total	**% (95% CI)**	**Number/total**	**% (95% CI)**
Stop a child from attending school	23/181	12.71% (8.23-18.45%)	25/162	15.43% (10.24-21.93%)
Sold any assets that would not have normally sold	87/181	48.07% (40.60-55.60%)	117/162	72.22% (64.65-78.96%)
Ask for money from strangers (begging)	32/181	17.68% (12.42-24.03%)	92/162	56.79% (48.79 - 64.54%)
Move to a poorer quality shelter	9/181	4.97% (2.30-9.23%)	21/162	12.96% (8.21-19.13%)
Send household members under the age of 16 to work	4/181	2.21% (0.61-5.56%)	5/162	3.09% (1.01-7.06%)
Send a member of the household to work far away	12/181	6.67% (3.49-11.36%)	47/162	29.01% (22.16-36.65%)
Engage in potentially risky or harmful activities	4/181	2.21% (0.61 -5.56%)	19/162	11.73% (7.21-17.71%)
Skip paying rent /debt repayments to meet other needs	61/181	33.70% (26.86 - 41.09%)	68/162	41.98% (34.28-49.97%)
Take out new loans or borrowed money	58/181	32.04% (25.32 - 39.37%)	82/162	50.62% (42.66-58.55%)
Reduce expenditure on hygiene items, water, baby items, health or education in order to meet household food needs	118/181	65.19% (57.77 - 72.11%)	92/162	56.79% (48.79-64.54%)
Proportion of households reporting using	152/180	84.44%	142/162	87.65%

one or more negative coping strategies over the past 4 weeks		(78.31 – 89.41%)		(81.58-92.29%)

* The total will be over 100% as households may use several negative coping strategies.

Table 64: NEGATIVE COPING STRATEGIES USED BY THE SURVEYED POPULATION **IN SITES** OVER THE PAST 7 DAYS

Proportion of households reporting using the following negative coping strategies over the past 7 days*:	**Alemwach**		**Aftit**	
	Number/total	**% (95% CI)**	**Number /total**	**% (95% CI)**
Rely on less preferred and/or less expensive foods	153/181	84.53% (10.53 - 21.58%)	115/162	70.99% (63.35 – 77.84%)
Borrow food, or rely on help from a friend or relative	82/181	45.30% (47.14-62.09%)	100/162	61.73% (53.78-69.24%)
Reduce the number of meals eaten in a day	139/181	76.80% (69.96 - 82.74%)	113/162	69.75% (62.05-76.71%)
Limit portion sizes at mealtime	142/181	78.45% (15.79 - 84.21%)	113/162	69.75% (62.05-76.71%)
Reduce consumption by adults so children could eat	99/181	54.70% (47.14- 62.09%)	61/162	37.65% (30.17-45.60%)

* The total will be over 100% as households may use several negative coping strategies.

Table 65 AVERAGE RCSI*, BY SITE

Average rCSI		**Alemwach** N =181	**Aftit** N=162
Mean (SD) [range]	**SRS design****	18.91 (11.4) [0, 9]	15.91 SD 13.0 [0 9]

*Maximum rCSI is 56.
**When using the Means commands in Epi Info, it will provide the standard deviation (SD).

9.6 Food Consumption Score (FCS) and FSC-Nutrition (FCS-N) results

Table 66: AVERAGE FCS* BY SITE

		Alemwach N=181	**Aftit N=162**
Mean (SD) [range]	**SRS design****	40.9 (12.4) [0 , 90]	21.3 SD 15.4 [0 -9.5]

*Maximum FCS is 112 (129.5 if specialized nutritious foods are included).
**When using the Means commands in Epi Info, it will provide the standard deviation (SD)

Table 67: FOOD CONSUMPTION SCORE BY CATEGORY, BY SITE

FCS profiles*	**Alemwach**		**Aftit**	
	Number/total	**% (95% CI)**	**Number/total**	**% (95% CI)**
Acceptable FCS > 35	145/181	80.11% (73.54 - 85.66%)	28/162	17.28% (11.80-24.00%)
Borderline 21.5≤FCS≤35	22/181	12.15% (7.78 - 17.82%)	41/162	25.31 (18.81- 32.73%)
Poor FCS≤21	14/181	7.73% (4.29 -12.64%)	93/162	57.41% (49.41 -65.13%)

*In countries where households have a high sugar and oil consumption (oil and sugar eaten on a daily basis - ~7 days per week), cut-off points of 28 (poor/borderline) and 42 (borderline/acceptable) are usually recommended.

Table 68: CONSUMPTION FREQUENCY CATEGORIES OF EACH NUTRIENT RICH FOOD GROUPS (FCS-N)

IN SITES

		Alemwach		Aftit	
Nutrient rich food groups	**Consumption frequency categories**	**Number/total**	**% (95% CI)**	**Number /total**	**Number/total**
Vitamin A rich foods	Never	158/181	87.29% (81.55-91.77%)	94/162	58.02% (50.03-65.72%)
	Sometimes	13/181	7.18% (3.88 -11.97%)	56/162	34.57% (27.28-42.43%)
	At least daily	10/181	5.52% (2.68-9.93%	12/162	7.41% (3.89-12.58%)
Protein rich foods	Never	109/181	60.22% (52.69 - 67.41%)	50/162	30.86% (23.85-38.59%)
	Sometimes	7/181	3.87% (1.57- 7.81%)	85/162	52.47% (44.49-60.36%)
	At least daily	65/181	35.91% (28.93-43.36%)	27/162	16.67% (11.28-23.31%)
Haem iron rich foods	Never	120/181	66.30% (58.91 -73.14%)	150/162	92.59% (87.42-96.11%)
	Sometimes	61/181	33.70% (26.86 – 41.09%)	11/162	6.79% (3.44-11.82%)
	At least daily	0/181	0.0%	1/162	0.62% (0.02-3.39%)

Table 69: FOOD ACQUISITION SOURCES, BY SITES

Food acquisition sources	**Alemwach**		**Aftit**	
	Number/total	**% (95% CI)**	**Number/total**	**% (95% CI)**
Purchase (using cash grants and/or with their own cash)	82/181	45.30% (37.91- 52.86%)	30/162	18.52% (12.86-25.37%)
Own production	5/181	2.76% (0.90-6.33%)	2/162	1.23% (0.15-4.39%)
Traded goods/services, barter	3/181	1.66% (0.34-4.77%)	22/162	13.58% (8.71-19.84%)
Borrowed (loan/credit from traders)	20/181	11.05% (6.88-16.55%)	24/162	14.81% (9.73-21.24%)
Received as gift	12/181	6.63% (3.47-11.29%)	16/162	9.88% (5.75-15.54%)
In-kind based food assistance	168/181	92.82% (88.03- 96.12%)	130/162	80.25% (73.27-86.08%)
Other	4/181	2.21% (0.61-5.56%)	2/162	1.23% (0.15-4.39%)

Figure 22 TRENDS OF FOOD CONSUMPTION PROFILES and rcsi FROM 2023 TO 2025, by site

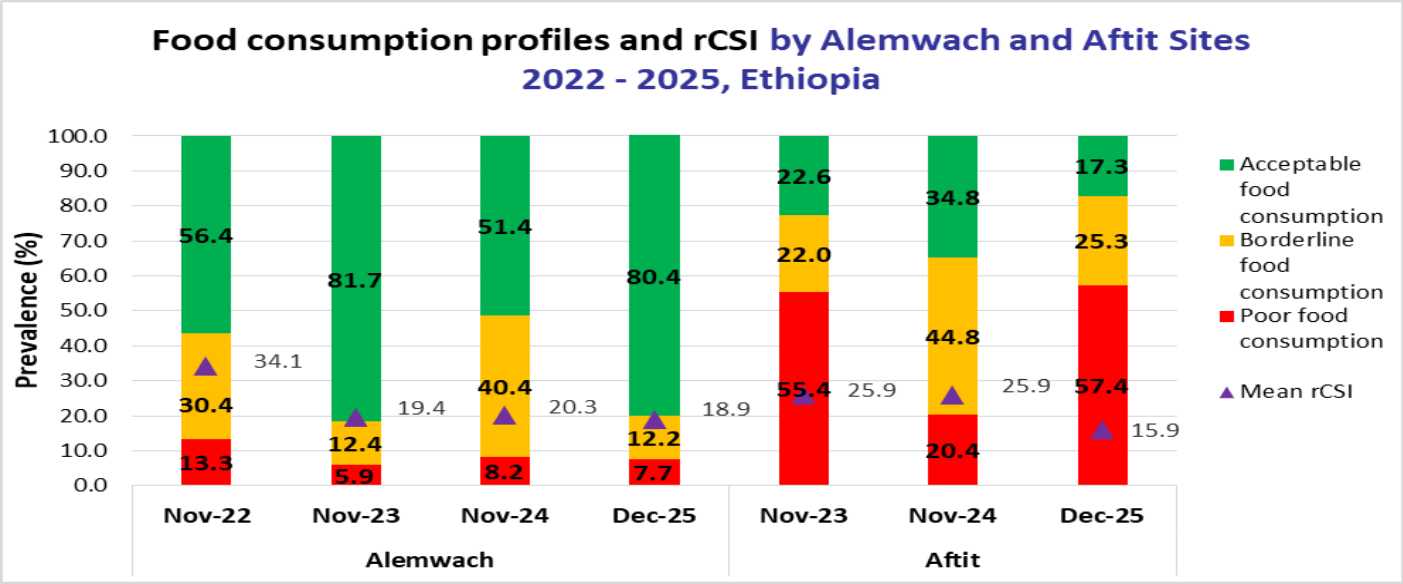
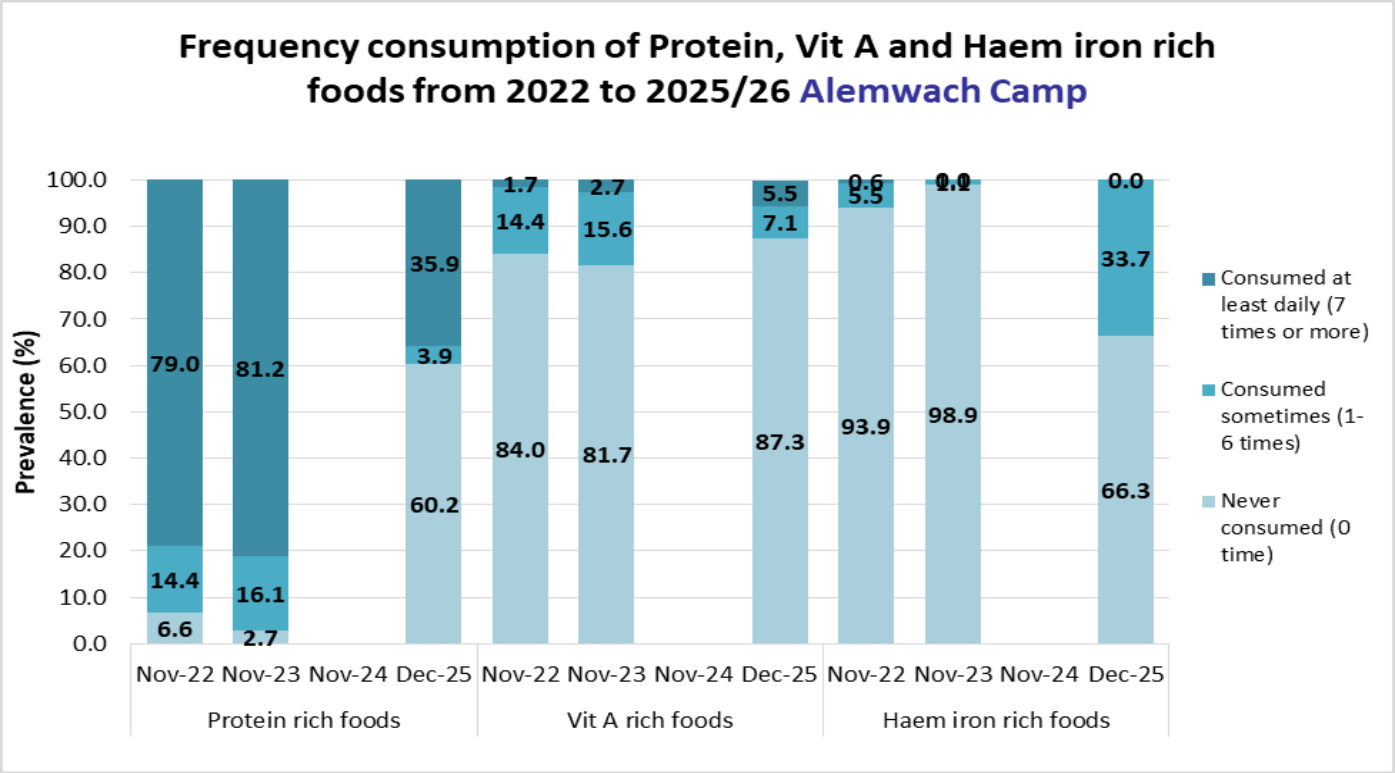
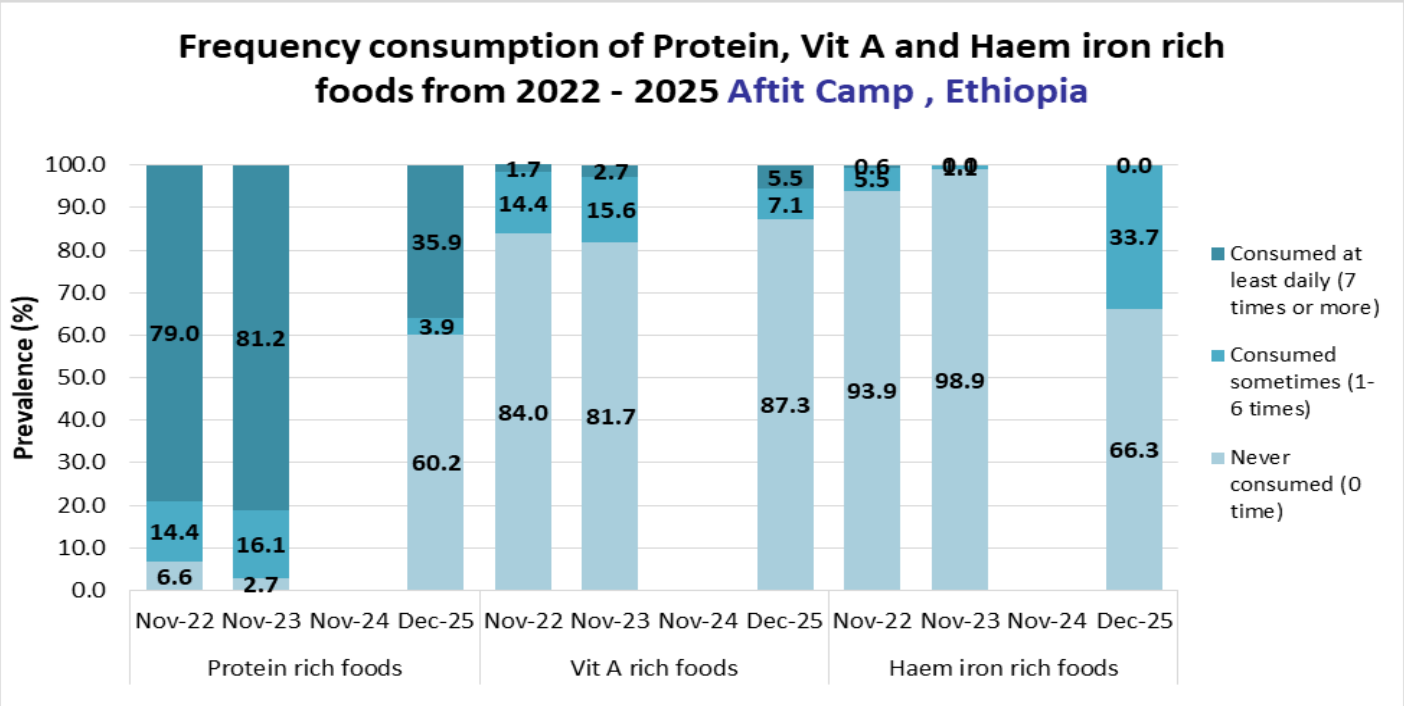


Figure 23 : TRENDS OF FREQUENCY CONSUMPTION OF PROTEIN, VITAMIN A AND HAEM IRON RICH FOODS FROM 2023 TO 2025, IN SITES:




Frequency consumption of Protein, Vit A and Haem iron rich foods from 2022 - 2025 Aftit Camp , Ethiopia
Prevalence (%)
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
79.0
14.4
6.6
81.2
16.1
2.7
35.9
3.9
60.2
1.7
14.4
84.0
2.7
15.6
81.7
5.5
7.1
87.3
0.6
5.5
93.9
1.1
98.9
0.0
33.7
66.3
Nov-22 Nov-23 Nov-24 Dec-25
Protein rich foods
Nov-22 Nov-23 Nov-24 Dec-25
Vit A rich foods
Nov-22 Nov-23 Nov-24 Dec-25
Haem iron rich foods
Consumed at least daily (7 times or more)
Consumed sometimes (1-6 times)
Never consumed (0 time)

10 Mosquito Net Coverage

Table 70: MOSQUITO NET COVERAGE SAMPLING INFORMATION BY SITE

Total households surveyed for Mosquito net coverage	Planned	Actual	% of target
Alemwach	207	175	84.5%
Aftit	173	154	89.0%

Table 71: LIST OF MOSQUITO NET BRAND NAME OBSERVED DURING ASSESSMENT BY SITE

	Alemwach		Aftit	
	Number/total	% (95% CI)	Number/total	% (95% CI)
LLIN mosquito net brands observed during the survey	58/175	33.14% (26.22-40.64%)	88/154	57.14% (48.93-65.08%)
Non-LLIN mosquito net brands observed during the survey	117/175	66.86% (59.36-73.78%)	66/154	42.86% (34.92-51.07%)

Table 72: HOUSEHOLD MOSQUITO NET OWNERSHIP BY SITE

Survey Site	N	Proportion of total households owning at least one mosquito net of any type		Proportion of total households owning at least one LLIN	
		n	% (95% CI)	n	% (95% CI)
Alemwach	175	115	65.71% (58.17-72.71%)	58	33.14% (26.22-40.64%)
Aftit	154	123	79.87% (72.66-85.89%)	88	57.14% (48.93-65.08%)

Figure 24 HOUSEHOLD OWNERSHIP OF AT LEAST ONE LLIN FROM 2024 TO 202025, BY SITES

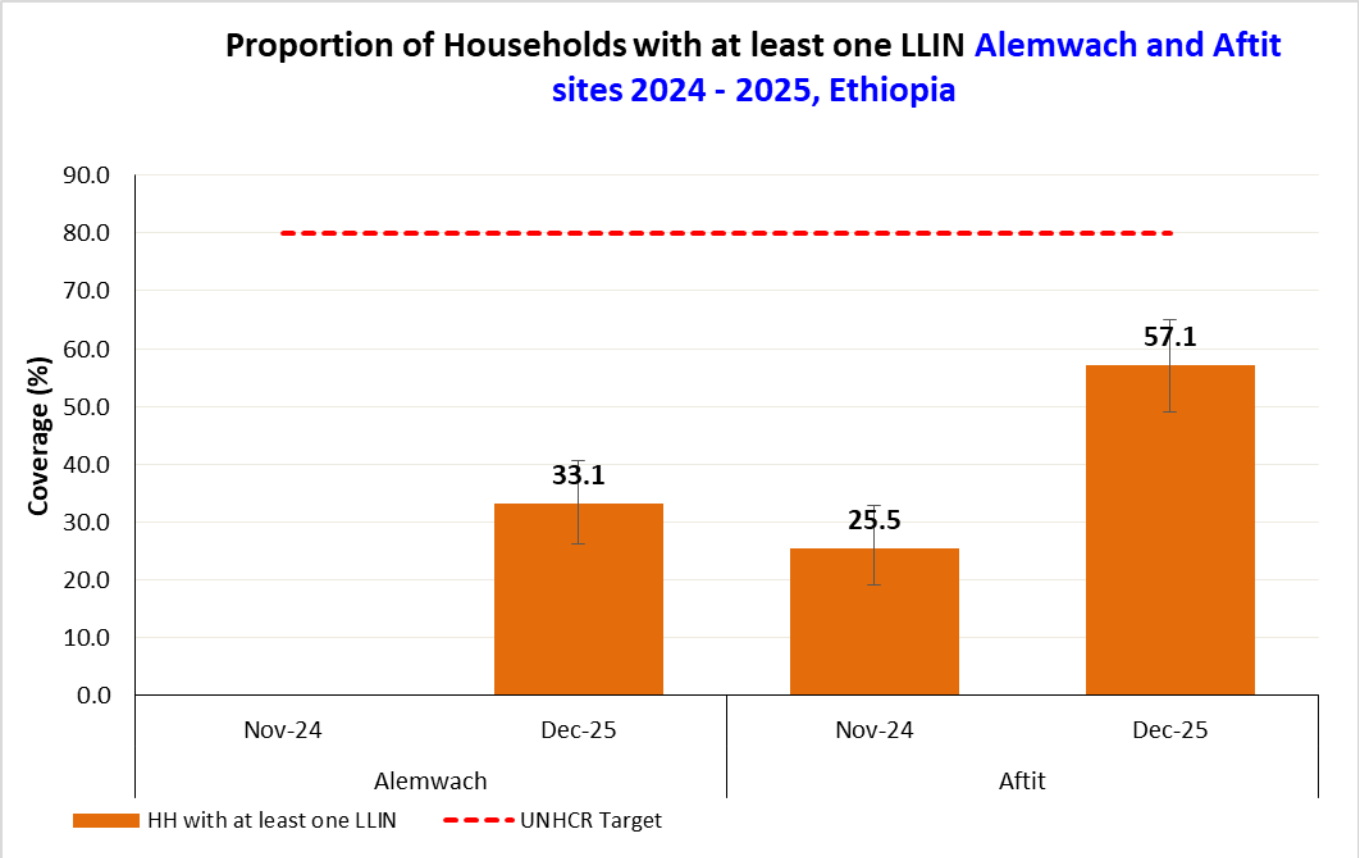


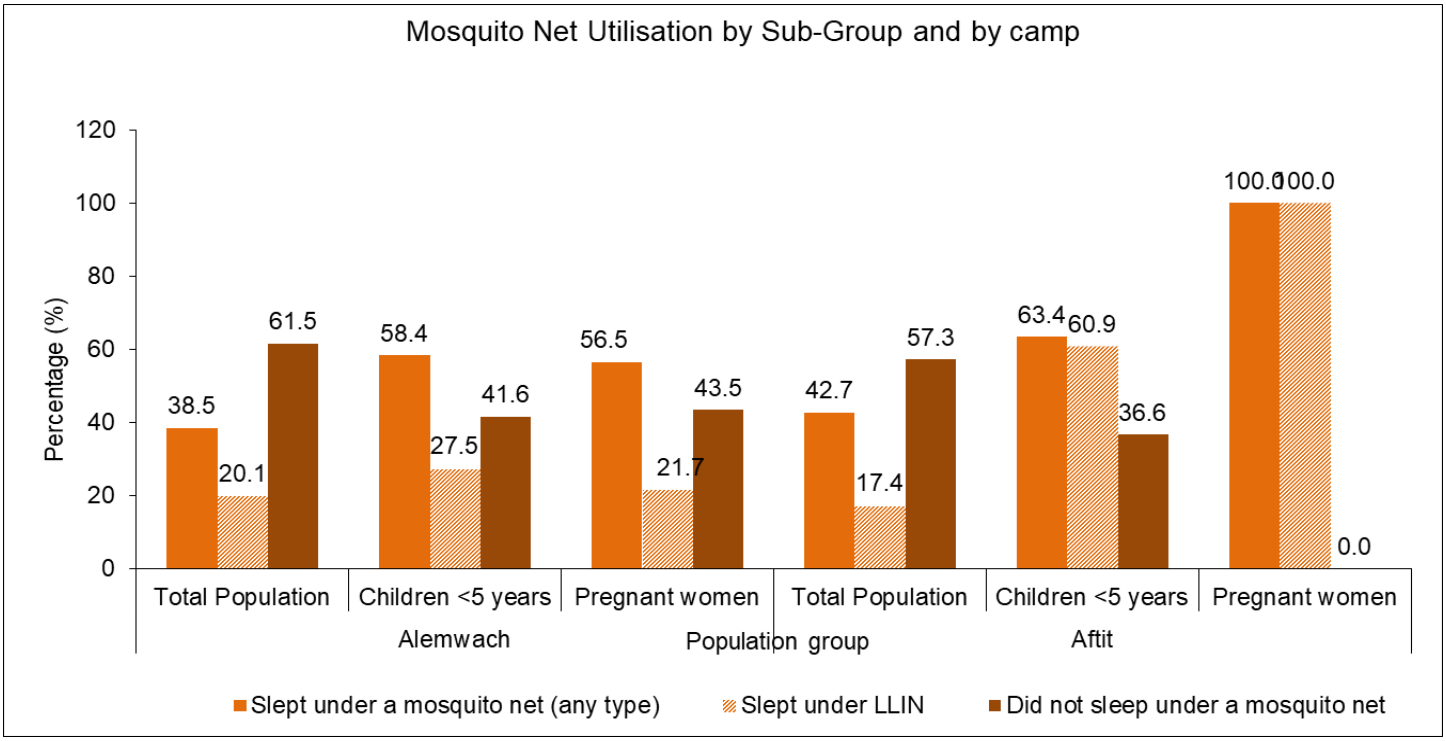
Table 73: NUMBER OF NETS BY SITE

Survey Site	N	Average number of LLINs per household	Average number of persons per LLIN
		Mean	Mean
Alemwach	115	0.72	8.2
Aftit	123	1.2	`4.0

Table 74 : MOSQUITO NET UTILISATION BY SITE.
(Note: That It Is Not Required To Include Confidence Intervals For These Indicators As They Are Complex To Calculate)

MOSQUITO NET UTILISATION	Site	Proportion of total population (all ages)		Proportion of 0-59 months		Proportion of pregnant women	
		N=707	%	N=149	%	N=23	%
Slept under net of any type	Alemwach	272	38.47%	87	58.39%	13	56.52%
Slept under LLIN		142	20.08%	41	27.52%	5	21.74%
		N=569	**%**	**N=82**	**%**	**N=42**	**%**
Slept under net of any type	Aftit	239	42.7%	52	63.4%	42	100.0%
Slept under LLIN		99	17.4%	50	61.0%	42	100.0%

Figure 25: MOSQUITO NET UTILISATION BY SUB-GROUP, BY SITE



11 WASH

Table 75: WASH SAMPLING INFORMATION BY SITE

Total households surveyed for WASH	Planned	Actual	% of target
Alemwach	207	*180*	87.0%
Aftit	173	165	95.4%

Table 76: WATER QUALITY BY SITE

Description	*ALEMWACH*		*AFTIT*	
	Number/total	**% (95% CI)**	**Number/total**	**% (95% CI)**
Proportion of households collecting drinking water from protected /treated sources	180/180	100.0%	164/164	100.0%
Proportion of households with at least 10 litres/person drinking water storage capacity	104/180	57.78% (50.21 – 65.09%)	100/164	60.98% (53.06-68.49%)

Table 77: WATER QUANTITY 1: AMOUNT OF LITRES OF WATER USED PER PERSON PER DAY, BY SITE

Survey Site	N	Average # L/p/d of domestic water collected at household level, from protected/treated sources <u>with containers of any type</u>	Average # L/p/d of domestic water collected at household level, from protected/treated sources <u>with protected containers only</u>
		Mean (SD)	**Mean (SD)**
Alemwach	180	20.6 SD 13.9	17.9 SD 15.2
Aftit	164	25.8 SD 50.7	23.6 SD 51.0

Table 78: WATER QUANTITY 2: AMOUNT OF LITRES OF WATER USED PER PERSON PER DAY BY CATEGORY, BY SITE

Water quantity	*ALEMWACH*		*AFTIT*	
Proportion of households that use domestic water collected from protected/treated sources <u>with protected</u> <u>containers only</u>:	**Number /total**	**% (95% CI)**	**Number /total**	**% (95% CI)**
water collected ≥ 20 lpppd	79/180	43.89% (36.52 - 51.47%)	75/164	45.73% (37.94-53.68%)
water collected 15-<20 lpppd	17/180	9.44% (5.60 - 14.69%)	16/164	9.76% (5.68-15.36%)
water collected <15 lpppd	84/180	46.67% (39.21-54.24%)	73/164	44.51% (36.76 -52.46%)

Table 79: ACCESS TO SOAP BY SITE

ACCESS TO SOAP	*ALEMWACH*		*AFTIT*	
	Number/ total	**% (95% CI)**	**Number /total**	**% (95% CI)**
Proportion of households with access to soap	130/180	72.22% (65.07-78.63%)	136/164	82.93% (76.28-88.35%)

Table 80: TOILET/LATRINE USE BY SITE

TOILET/LATRINE USE	*ALEMWACH*		*AFTIT*	
	Number/ total	**% (95% CI)**	**Number/total**	**% (95% CI)**
Proportion of households reporting defecating in a toilet	132/180	73.33% (66.24 – 79.64%)	164/164	100.0%

12 Limitations

Some children did not have birth certificates or written records of their date of birth. In such cases, the child's age was estimated by caregivers using recall or local event calendars. This may affect the accuracy of age-dependent indicators such as stunting and underweight, since small errors in age estimation can influence the calculation of these indicators.

The survey relied on information provided by respondents during interviews. As with most household surveys, there is a possibility of **recall bias** and **response bias**. Some respondents may not accurately remember past events, particularly for questions related to child illness, measles vaccination, vitamin A supplementation in the past six months, deworming, and deaths that occurred during the recall period.

In addition, some households may have been reluctant to fully report their situation. For example, respondents might under-report sensitive information such as deaths, household food insecurity, or the use of negative coping strategies if they believe that their responses could influence the assistance or benefits they receive. This may affect the accuracy of some reported indicators.

13 Discussion

13.1 Nutritional status of children (and women)

The sex distribution of the sampled children was **no significant sampling bias by sex**, as the ratio of boys to girls was 1:1.

The prevalence of **Global Acute Malnutrition (GAM) based on WHZ** was **7.7% (95% CI: 4.9–11.8) in** Alemwach and 9.3% (95% CI: 6.0–14.0) in Aftit. Most cases were moderate acute malnutrition, with 7.2% in Alemwach and 8.8% in Aftit, while severe acute malnutrition was low in both sites (0.4% in Alemwach and 0.5% in Aftit). This indicates that although acute malnutrition exists in both sites, the majority of cases are moderate rather than severe.

The trend of Global Acute Malnutrition (GAM) and Severe Acute Malnutrition (SAM) among children aged 6–59 months from 2023 to 2025 shows that all acute malnutrition indicators remain below the emergency threshold of 15% set by the World Health Organization and UNICEF, and also below the United Nations High Commissioner for Refugees (UNHCR) target of maintaining GAM below 10%.

Compared with 2024, the level of malnutrition in Alemwach and Aftit shows a slight increase, though the difference is not statistically significant, indicating that the nutritional situation has generally remained stable over the period. Overall, the prevalence of severe acute malnutrition among children continues to remain below the UNHCR target of 2%.

The trend of the weighted prevalence of Global Acute Malnutrition (GAM) and Severe Acute Malnutrition (SAM) among children aged 6–59 months from 2023 to 2025 shows that all acute malnutrition indicators remain below the emergency threshold of 15% established by World Health Organization and UNICEF, and also below the United Nations High Commissioner for Refugees (UNHCR) target of maintaining GAM below 10%.

In the 2025 SENS survey, the weighted prevalence of GAM was 8.5% and SAM was 0.4%, indicating that the nutritional situation in both sites remains within acceptable public health significant.

Overall, the prevalence of severe acute malnutrition among children remains well below the UNHCR target of less than 2%. Continuous monitoring and sustained nutrition and health interventions are still important to maintain and further improve the nutritional status of children in the sites. Integrated approaches addressing food security, health, and WASH will be important to prevent deterioration of the situation.

Chronic causes of malnutrition may include persistent household food insecurity, inadequate child feeding practices, poor dietary diversity, and repeated illness, which can affect children's growth and nutritional status over time.

13.2 Programme coverage

About 60% of the information on Measles vaccination, Vitamin A supplementation, and Deworming was obtained through parental recall, while 40% was verified from EPI card records.

Coverage of measles vaccination among children aged 9–59 months was very high in both refugee sites. In Alemwach, 99.1% (96.85–99.89%; 95% CI) of children had received measles vaccination based on card or caregiver recall. Similarly, in Aftit, 98.5% (95.72–99.69%; 95% CI) of children

were reported to be vaccinated. These results are above the ≥95% coverage target recommended by the World Health Organization, indicating strong performance of routine immunization services in both sites.

Coverage of vitamin A supplementation within the past six months was also high. In Alemwach, 99.6% (97.69–99.99%; 95% CI) of children received vitamin A, which is well above the ≥90% target recommended by the World Health Organization. In Aftit, coverage was 90.8% (86.21–94.18%; 95% CI), which also meets the target, though it is slightly lower than in Alemwach. The high coverage in both sites likely reflects effective outreach services and integration of supplementation into routine child health programmes.

The two-week prevalence of diarrhoea among children aged 0–59 months was 6.7% (3.87–10.64%; 95% CI) in Alemwach refugee site, while a higher prevalence of 15.0% (10.60–20.30%; 95% CI) was reported in Aftit. The higher prevalence in Aftit may indicate differences in environmental health conditions such as water quality, sanitation, or hygiene practices. Diarrhoeal disease remains an important risk factor for child malnutrition and requires continued attention through improved WASH interventions and health education.

Coverage of deworming among children aged 24–59 months within the past six months was 94.5% (89.49–97.60%; 95% CI) in Alemwach and 90.3% (84.33–94.62%; 95% CI) in Aftit, indicating good programme reach in both sites.

Regarding treatment of acute malnutrition, enrolment in the Targeted Supplementary Feeding Programme (TSFP) among identified moderately malnourished children was 52.2% in Alemwach and 56.5% in Aftit. Among children identified with Severe Acute Malnutrition, 50% of cases were enrolled in therapeutic feeding programmes such as the Outpatient Therapeutic Programme (OTP) or Stabilization Centre (SC) in both sites. Although the number of severe cases was very small, the findings suggest that not all identified malnourished children were enrolled in appropriate treatment programmes. This may indicate barriers related to referral systems, caregiver awareness, accessibility of services, or programme follow-up.

The trend of nutrition treatment programme coverage for TSFP and OTP/SC among children aged 6–59 months from 2024 to 2025 reflects the extent to which malnourished children access treatment services at the time of the survey. Overall, coverage of nutrition treatment programmes at a point in time remains low compared with the ≥90% target recommended by the United Nations High Commissioner for Refugees for refugee settings. This indicates that a considerable proportion of identified malnourished children may not be receiving appropriate treatment services.

Overall, preventive child health services such as immunization, vitamin A supplementation, and deworming show very good coverage, meeting or exceeding recommended targets. However, enrolment in programmes for treatment of acute malnutrition remains relatively low, highlighting the need to strengthen community screening, referral mechanisms, and follow-up to ensure that all eligible children receive appropriate nutrition treatment services.

13.3 Anaemia – Children 6–59 Months and Non-Pregnant Women (Aftit Site)

a) Children 6–59 months:

Among children assessed**,** 26.8%;(20.9–33.3%; 95% CI) were anaemic (Hb <11 g/dl). According to **WHO standards**, anaemia prevalence is classified as:

With 26.8%, anaemia among children in Aftit falls within the moderate public health concern

category, exceeding the UNHCR acceptable standard of <20%, but remaining below the WHO "high" threshold of 40%.

The mean haemoglobin was 11.6 g/dl (SD 1.4). This shows that while most children had haemoglobin levels near normal, a substantial proportion had mild to moderate anaemia, which may affect growth, immunity, and overall health if not addressed.

The overall prevalence of Anaemia remains above the UNHCR acceptable standard of <20%, but is still below the WHO "high" threshold of 40%**,** indicating a moderate public health concern. Most cases are mild, with haemoglobin levels of 10–10.9 g/dl affecting 17.2% (12.4–23.0%; 95% CI) of the population. Moderate anaemia, with haemoglobin 7–9.9 g/dl, was observed in 9.6% (5.9–14.4%; 95% CI), while no severe cases (Hb <7 g/dl) were reported.

b) Non-Pregnant Women (15–49 years):
Among non-pregnant women**,** 21.7%; (14.7–30.1%; 95% CI) were anaemic (Hb <12 g/dl). Using the same standards, this prevalence also represents a moderate public health concern, as it slightly exceeds the UNHCR target of <20%, but remains well below the WHO "high" threshold of 40%.

The mean haemoglobin **was** 12.8 g/dl (SD 1.13)**,** indicating that most women were within normal haemoglobin ranges, though a notable proportion had **mild or moderate anaemia**, which may affect work capacity and maternal health outcomes.

The **severity breakdown of anaemia shows that** mild anaemia (Hb 11–11.9 g/dl) affected children 15.0%; (9.1–22.7%; 95% CI)**,** moderate anaemia (Hb 8–10.9 g/dl) was 6.7%; (2.9–12.7%; 95% CI)**,** and no cases of severe anaemia (Hb <8 g/dl) were reported**.**

Children 6–59 months, the distribution of Anaemia among children aged 6–59 months in Aftit shows an improvement between 2024 and 2025, with a reduction in the proportion of children affected by anaemia. Despite this improvement, the overall prevalence remains above 20%, which according to the World Health Organization classification indicates a moderate public health problem.

Non-pregnant women 15–49 years, the prevalence of anaemia declined from 32.9% in 2024 to 21.7% **in** 2025, and this reduction was statistically significant ($p = 0.0409$). Although this represents a clear improvement, the prevalence still falls within the moderate public health significance category based on World Health Organization standards.

Overall, the findings from Aftit indicate **positive progress in reducing anaemia among both children and non-pregnant women**, but the levels remain high enough to require continued attention through nutrition interventions, micronutrient supplementation, and strengthened maternal and child health services

13.4 IYCF indicators

Over 2023–2025, Infant and Young Child Feeding (IYCF) practices in both refugee sites showed fluctuating trends, with several areas falling below UNHCR targets. Timely initiation of breastfeeding remained generally strong but fell below the ≥85% target in some years, suggesting gaps in maternal and child health services. Exclusive breastfeeding peaked at 82.8% in Alemwach in 2024 but declined to 68.8% in 2025 in Aftit, below the ≥75% target. Introduction of complementary foods improved from 56.2% in 2024 to 82.9% in 2025, exceeding the ≥60% target.

Consumption of iron-fortified foods was high in 2024 (89.1%) but dropped to 39.6% in 2025, remaining below the ≥60% standard, indicating inadequate micronutrient intake. Bottle feeding slightly exceeded the recommended <5% limit, with 12.8% in 2024 and 8.3% in 2025.

Overall, these trends reflect inconsistent adherence to recommended IYCF practices, with declines in exclusive breastfeeding, fluctuating complementary feeding, and low consumption of iron-rich foods. Strengthening IYCF programs, nutrition counseling, and monitoring is essential to achieve UNHCR targets and improve child nutrition outcomes across both sites.

In Aftit, IYCF indicators show good early initiation and continued breastfeeding up to 2 years. However, exclusive and predominant breastfeeding under six months and timely introduction of complementary foods remain below targets, highlighting areas for improvement. Dietary quality is mixed: while iron-rich food consumption is adequate, overall dietary diversity is low, suggesting that children may not be receiving a sufficiently varied diet to support growth and micronutrient needs. Additionally, bottle feeding exceeds recommended levels, and a small proportion of infants are not breastfed at all, increasing the risk of infections and malnutrition.

13.5 Food security

Alemwach Refugee Site; the Food Consumption Score (FCS) was mean 40.9 (SD 12.4)**,** with 80.1% of households acceptable, 12.2% borderline, and 7.7% poor. Intake of nutrient-rich foods was low: vitamin A rarely consumed (87.3% never), moderate protein intake (35.9% daily), and low haem iron consumption (66.3% never). Households primarily relied on in-kind food assistance (92.8%)**,** supplemented by purchases (45.3%)**.**

Aftit Refugee Site; the FCS was mean 21.3 (SD 15.4)**,** with 57.4% poor, 25.3% borderline, and only 17.3% acceptable, indicating severe food insecurity. Consumption of nutrient-rich foods was very low: haem iron (92.6% never), vitamin A (58% never), and protein (16.7% daily). Households depended heavily on in-kind assistance (80.3%)**,** with limited **cash purchases** (18.5%)**,** some borrowing, and trading.

FCS has remained consistently low from 2023 to 2025, and compared with Alemwach, Aftit shows significantly poorer food consumption patterns. The situation is compounded by delays in food assistance and disruptions in the General Food Distribution (GFD) pipeline, and the food basket has been reduced by ~40%**,** forcing households to adopt coping strategies such as borrowing, trading rations, or reducing meal frequency.

Duration of General Food Ration; most households received general food assistance, the ration did not last the full month. On average, it lasted 14 days in Alemwach and 16.8 days in Aftit, leaving a significant food gap before the next distribution. Trends from 2023–2025 show this gap has been consistent, contributing to food access challenges, particularly in **A**ftit, where poor food consumption is high.

The rCSI trends (2023–2025) indicate increased food stress in 2024, followed by slight improvement in 2025. However, continued use of coping strategies suggests that many households still face food shortages.

The combined analysis of FCS and rCSI (2022–2025) shows that Aftit households experience poorer food consumption and higher coping strategies compared to Alemwach, indicating more severe and persistent food insecurity.

Overall, these findings show high food insecurity, poor dietary diversity, and strong dependence on food aid, with ongoing uncertainty about the duration of pipeline interruptions.

13.6 Mosquito net coverage

In Alemwach, the mosquito nets observed, 33.1% household were long lasting incecticidal nets (LLIN) and 66.9% were non-LLINs. Overall, 65.7% of households owned at least one net, but only 33.1% had at least one LLIN. On average, there were **0.**72 LLINs per household, covering about 8.2 persons per LLIN.

Net utilization was 38.5% among all age groups, 58.4% among children aged 0–59 months, and 56.5% among pregnant women. These results indicate that while a majority of households owned nets, population-wide coverage is low and many households are undersupplied.

In Aftit, LLINs accounted for 57.1% of nets, while 42.9% were non-LLINs. Household ownership was with 79.9% owning at least one net and 57.1% owning at least one LLIN. The average number of LLINs per household was 1.2, covering approximately four persons per LLIN.

Net utilization was 42.7% for all ages, 63.4% for children 0–59 months, and 100% for pregnant women. Coverage for children and pregnant women is relatively good, but overall population coverage remains below the universal target, indicating a need for additional LLIN distribution, particularly for larger households. Overall, Aftit shows better LLIN ownership and utilization than Alemwach, but both sites require additional nets to achieve adequate population-wide coverage and protect against malaria effectively.

13.7 WASH

In both Alemwach and Aftit, all households (100%) collected drinking water from protected or treated sources, meeting safe water standards. In terms of water storage, 57.8% of households in Alemwach and 61.0% in Aftit had at least 10 litres per person, indicating moderate storage capacity. Average water collection from protected sources was 20.6 litres per person per day in Alemwach and 25.8 litres per person per day in Aftit. When using only protected containers, the averages were 17.9 L/p/d in Alemwach and 23.6 L/p/d in Aftit.

Only 43.9% of households in Alemwach and 45.7% in Aftit collected at least 20 litres per person per day, while nearly half collected less than 15 litres, showing a persistent water quantity gap, with Aftit performing slightly better. Soap availability was relatively high, with 72.2% of households in Alemwach and 82.9% in Aftit having soap for handwashing, supporting good hygiene practices. Toilet or latrine use was excellent in Aftit, with 100% of households reporting use, whereas Alemwach had 73.3% coverage, highlighting a sanitation gap.

Overall, water quality is strong in both sites, and Aftit shows better sanitation and hygiene coverage. However, insufficient water quantity remains a key gap, especially in Alemwach, and lower latrine coverage may affect hygiene and health outcomes. Continued efforts to improve water availability, storage, and sanitation, particularly in Alemwach, are needed to support overall health, hygiene, and disease prevention.

13.8 Other collected information/data

13.8.1 Demography information:

In both Alemwach and Aftit, the majority of households are headed by working-age adults. In Aftit, 39% of households are female-headed, 56% male-headed, and 5% elderly-headed, with no children-

headed households observed. The mean age of household heads is 38 years, indicating a relatively young adult population. The age dependency ratio in Aftit is 0.8, meaning there are about 80 dependents for every 100 working-age adults.

In Alemwach, the dependency ratio is slightly higher at 1.0, indicating more dependents per working-age adult. Female-headed households are also present but slightly lower than in Aftit, suggesting both sites have households that may face social and economic vulnerability. Elderly-headed households are few in both sites but should be considered in program planning.

Overall, both sites have a predominantly working-age population with moderate dependency burdens. The relatively high proportion of female-headed households and varying dependency ratios highlight potential differences in household resilience, resource management, and vulnerability, which should be considered when planning nutrition, food security, and WASH interventions.

14 Conclusions

- **Nutrition and Anaemia:** Global acute malnutrition is moderate (Alemwach 7.7%, Aftit 9.3%), mostly mild cases; severe malnutrition is very low. Anaemia among children (26.8%) and non-pregnant women (21.7%) exceeds ideal targets but remains below emergency thresholds, indicating moderate public health concern.
- **IYCF Practices:** Breastfeeding initiation and continuation are strong in both sites. Exclusive breastfeeding is high in Alemwach (95.2%) but below target in Aftit (68.8%). Complementary feeding and dietary diversity gaps, especially in Aftit, contribute to nutritional risk.
- **Programme Coverage:** Vaccination and vitamin A supplementation are high (>90–95%). TSFP/OTP enrolment is moderate, leaving some malnourished children not in the appropriate feeding programme.
- **Food Security:** Alemwach is relatively secure (FCS acceptable 80.1%), while Aftit is poor (FCS acceptable 17.3%; poor 57.4%). Reductions in rations (~40%) and GFD delays exacerbate vulnerability, especially in Aftit.
- **Mosquito Nets:** LLIN ownership is 33.1% in Alemwach and 57.1% in Aftit. Children and pregnant women have better utilization, but overall coverage is insufficient for malaria prevention.
- **WASH:** Water quality and sanitation are excellent, but ~45% of households have inadequate water quantity. Soap access is higher in Aftit (82.9%) than Alemwach (72.2%).
- **Demographics:** Moderate age dependency ratios (Alemwach 1.0, Aftit 0.8) and high female-headed households (Alemwach 26%, Aftit 39%) highlight socio-economic vulnerability.
- **Overall Assessment:** Malnutrition, anaemia, food insecurity, limited dietary diversity, gaps in LLIN coverage, and insufficient water quantity are the main risks, particularly in Aftit. Vaccination, WASH infrastructure, and breastfeeding practices are strengths.
- **Priority Actions:** Strengthen nutrition programmes, improve complementary feeding, ensure timely, strengthen IYCF awarnes particularly bottle feding, and avoid the delayance of food distribution.

15 Recommendations and priorities

15.1 Nutrition Interventions

a. Address Inadequate General Food Distribution (GFD):

- Current food rations are reduced, delayed, or nutritionally insufficient. Introduce or resume blanket supplementary feeding for children aged 6–59 months and pregnant and lactating women until Global Acute Malnutrition (GAM) falls below UNHCR or internationally accepted thresholds.
  Action in Immediate -Short-term: by WFP and UNHCR supported RRS (country office)

b. **Strengthen MUAC Screening:**

- Increase quality of measurement and frequency of community-level MUAC screening for children 6–59 months and pregnant women and lactating mothers.
- Refer all at-risk individuals for further assessment and treatment in the nutrition centre.
- Conduct quarterly mass MUAC screenings to increasing coverage /enrollement in the nutrition unit and monitor nutritional trends.

Action in Immediate -Short-term: by MTI and UNHCR-field office

c. **Support Infant and Young Child Feeding (IYCF):**

- Promote breastfeeding and exclusive breastfeeding through Baby Friendly Spaces and mother-to-mother support groups.
- Investigate use of breastmilk substitutes and bottle feeding, and provide safe guidance where substitutes are necessary.

Action in Immediate -Short-term: by MTI and UNHCR-field office

d. **Link and Strengthen Nutrition Programs:**

- Ensure effective integration between selective feeding programs (TSFP and OTP/SC) and blanket supplementary feeding for children and pregnant and lactating women.
- Strengthen coordination between nutrition programs and other health services.
  (*Action in medium term: by MTI & UNHCR-field office)*

e. **Nutrition and health Education and Behaviour Change:**

a. Implement targeted education for caregivers to improve complementary feeding, dietary diversity, and IYCF practices, with special focus on areas such as Aftit.
   (*Action in medium term: by MTI & UNHCR-field office)*

f. **Promote Nutrition-sensitive Interventions:**

- Support and promote nutrition-sensitive interventions, including livelihood programs, home gardening/backyard gadening, and food fortification initiatives, to sustainably improve household dietary diversity and food security.

Action in medium term: by MTI, WFP & UNHCR-field office

15.2 Food Security

a. **General Food Distribution (GFD):**

- Address **delays in General Food Distribution (GFD)** and restore **full food basket rations** to prevent further deterioration in household food security.
  Action in Immediate term: by WFP and UNHCR

- Promote local food production or cash/voucher programmes to reduce dependence on delayed food aid.
  Action in Medium term: by WFP and UNHCR

15.3 Mosquito net

- Even if the refugee settlement area is not highly malaria-prone, providing mosquito nets remains important to protect the most vulnerable groups, including children under five and pregnant women, by distributing additional long-lasting insecticidal nets (LLINs) to ensure that all households have sufficient coverage.
- Conduct community awareness campaigns to improve utilization of LLINs, particularly among adults.
  Action in Medium term: by MTI and UNHCR

15.4 WASH Interventions

- Ensure adequate water quantity and distribute water storage /jurrican at the household level to maintain safe drinking water for those households (<20 L/p/d), especialy in Alemwach.
- Maintain soap distribution and hygiene promotion campaigns to sustain high handwashing coverage.
  Action in Medium term: by WFP and UNHCR

15.5 Monitoring and Future Nutrition Surveys

- Jointly, health and nutrition programs should be closely monitored, with regular supportive supervision to ensure effective implementation, identify gaps promptly, and provide guidance for improving service delivery and outcomes for vulnerable populations.

  Action in Medium term: by UNHCR, WFP, MTI, RRS,HIS and ANE

16 References

- UNHCR (2023). Standardized Expanded Nutrition Survey version 3 https://www.unhcr.org/sens/
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- WFP (2023). Guide to Food Consumption Score. https://resources.vam.wfp.org/data-analysis/quantitative/food-security/food-consumption-score
- WFP (2023). Guide to reduced Coping Strategies Index. https://resources.vam.wfp.org/data-analysis/quantitative/food-security/reduced-coping-strategies-index
- ACF (2012). Emergency Nutrition Assessment for Standardized Monitoring and Assessment of Relief and Transition (ENA for SMART).Jan 11th 2020 version. https://smartmethodology.org/

17 Acknowledgements

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Survey Team: The survey team extends sincere appreciation to all team members and supporting staff from partner agencies and health offices whose commitment and teamwork ensured the successful completion of the survey.

- SENS Manager / Trainer / Analyst**:** Mulugeta Wtsadik
- Logistics and Administration**:** UNHCR, RRS, MTI
- Team Members**:** MTI health and nutrition staff, Woreda Health Office staff, and primary health clinic workers
- Translators**:** Refugee community health workers
- Drivers: MTI, UNHCR, and RRS

18 Appendices

18.1 Appendix 1- Plausibility check for

SMART Plausibility Check (PC) Report

Instructions for presentation of the PC report are as follows:

- If PC < 20%, only show the overall data quality summary table.
- If PC> 20%, carefully examine the anthropometric data for all teams and by teams; and show the details of the problematic Sites in the Appendix along with a short interpretation. UNHCR HQ should be contacted for assistance in analysing problematic scores from the SMART PC reports.

Plausibility check for: Alemwach_2025.as

Standard/Reference used for z-score calculation: WHO standards 2006
(If it is not mentioned, flagged data is included in the evaluation. Some parts of this plausibility report are more for advanced users and can be skipped for a standard evaluation)

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=0.846)
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=0.233)
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	**2** (8)
Dig pref score - MUAC	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**2** (9)
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** (-0.24)
Kurtosis WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (-0.07)
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	**5** %

The overall score of this survey is 5 %, this is excellent.

There were no duplicate entries detected.

Percentage of children with no exact birthday: 3 %

A) Plausibility check for: Aftit_2026_2.as

Standard/Reference used for z-score calculation: WHO standards 2006
(If it is not mentioned, flagged data is included in the evaluation. Some parts of this plausibility report are more for advanced users and can be skipped for a standard evaluation)

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	**5** (2.8 %)
Overall Sex ratio	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**0** (p=0.945)
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=0.411)
Dig pref score - weight	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**2** (10)
Dig pref score - height	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**2** (8)
Dig pref score - MUAC	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**2** (8)
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** (1.07)
Skewness WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (0.17)
Kurtosis WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (-0.18)
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	**11** %

The overall score of this survey is 11 %, this is good.

There were no duplicate entries detected.

Percentage of children with no exact birthday: 12 %

Appendix 2

19 ALEMWACH_SITE

19.1 Result Tables for NCHS growth reference 1977

Table 3.2: Prevalence of acute malnutrition based on weight-for-height z-scores (and/or oedema) and by sex

	All n = 236	**Boys** n = 120	**Girls** n = 116
Prevalence of global malnutrition (<-2 z-score and/or oedema)	(17) 7.2 % (4.5 - 11.2 95% C.I.)	(13) 10.8 % (6.4 - 17.7 95% C.I.)	(4) 3.4 % (1.3 - 8.5 95% C.I.)
Prevalence of moderate malnutrition (<-2 z-score and >=-3 z-score, no oedema)	(16) 6.8 % (4.2 - 10.7 95% C.I.)	(12) 10.0 % (5.8 - 16.7 95% C.I.)	(4) 3.4 % (1.3 - 8.5 95% C.I.)
Prevalence of severe malnutrition (<-3 z-score and/or oedema)	(1) 0.4 % (0.1 - 2.4 95% C.I.)	(1) 0.8 % (0.1 - 4.6 95% C.I.)	(0) 0.0 % (0.0 - 3.2 95% C.I.)

The prevalence of oedema is 0.0 %

Table 3.3: Prevalence of acute malnutrition by age, based on weight-for-height z-scores and/or oedema

Age (mo)	**Total no.**	**Severe wasting (<-3 z-score)**		**Moderate wasting (>= -3 and <-2 z-score)**		**Normal (> = -2 z score)**		**Oedema**	
		No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	51	0	0.0	6	11.8	45	88.2	0	0.0
18-29	67	1	1.5	5	7.5	61	91.0	0	0.0
30-41	41	0	0.0	1	2.4	40	97.6	0	0.0
42-53	60	0	0.0	3	5.0	57	95.0	0	0.0
54-59	17	0	0.0	1	5.9	16	94.1	0	0.0
Total	236	1	0.4	16	6.8	219	92.8	0	0.0

Table 3.4: Distribution of acute malnutrition and oedema based on weight-for-height z-scores

	<-3 z-score	**>=-3 z-score**
Oedema present	Marasmic kwashiorkor. 0 (0.0 %)	Kwashiorkor. 0 (0.0 %)
Oedema absent	Marasmic No. 1 (0.4 %)	Not severely malnourished. 235 (99.6 %)

Table 3.5: Prevalence of acute malnutrition based on MUAC cut off's (and/or oedema) and by sex

	All n = 235	**Boys** n = 119	**Girls** n = 116
Prevalence of global malnutrition (< 125 mm and/or oedema)	(16) 6.8 % (4.2 - 10.8 95% C.I.)	(12) 10.1 % (5.9 - 16.8 95% C.I.)	(4) 3.4 % (1.3 - 8.5 95% C.I.)
Prevalence of moderate malnutrition (< 125 mm and >= 115 mm, no oedema)	(15) 6.4 % (3.9 - 10.3 95% C.I.)	(11) 9.2 % (5.2 - 15.8 95% C.I.)	(4) 3.4 % (1.3 - 8.5 95% C.I.)
Prevalence of severe malnutrition (< 115 mm and/or oedema)	(1) 0.4 % (0.1 - 2.4 95% C.I.)	(1) 0.8 % (0.1 - 4.6 95% C.I.)	(0) 0.0 % (0.0 - 3.2 95% C.I.)

Table 3.6: Prevalence of acute malnutrition by age, based on MUAC cut off's and/or oedema

		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	51	1	2.0	8	15.7	42	82.4	0	0.0
18-29	66	0	0.0	6	9.1	60	90.9	0	0.0
30-41	41	0	0.0	1	2.4	40	97.6	0	0.0
42-53	60	0	0.0	0	0.0	60	100.0	0	0.0
54-59	17	0	0.0	0	0.0	17	100.0	0	0.0
Total	235	1	0.4	15	6.4	219	93.2	0	0.0

Table 3.7: Prevalence of combined GAM and SAM based on WHZ and MUAC cut off's (and/or oedema) and by sex*

	All n = 236	**Boys** n = 120	**Girls** n = 116
Prevalence of combined GAM (WHZ <-2 and/or MUAC < 125 mm and/or oedema)	(24) 10.2 % (7.0 - 14.7 95% C.I.)	(18) 15.0 % (9.8 - 22.6 95% C.I.)	(6) 5.2 % (2.4 - 10.8 95% C.I.)
Prevalence of combined SAM (WHZ < -3 and/or MUAC < 115 mm and/or oedema	(2) 0.8 % (0.2 - 3.0 95% C.I.)	(2) 1.7 % (0.5 - 5.9 95% C.I.)	(0) 0.0 % (0.0 - 3.2 95% C.I.)

*With SMART or WHO flags a missing MUAC/WHZ or not plausible WHZ value is considered as normal when the other value is available

3.8: Detailed numbers for combined GAM and SAM

	GAM		**SAM**	
	no.	**%**	**no.**	**%**
MUAC	7	3.0	1	0.4
WHZ	8	3.4	1	0.4
Both	9	3.8	0	0.0
Edema	0	0.0	0	0.0
Total	24	10.2	2	0.8

Total population: 236

Table 3.5: Prevalence of acute malnutrition based on the percentage of the median and/or oedema

	n = 236
Prevalence of global acute malnutrition (<80% and/or oedema)	(5) 2.1 % (0.9 - 4.9 95% C.I.)
Prevalence of moderate acute malnutrition (<80% and >= 70%, no oedema)	(5) 2.1 % (0.9 - 4.9 95% C.I.)
Prevalence of severe acute malnutrition (<70% and/or oedema)	(0) 0.0 % (0.0 - 1.6 95% C.I.)

Table 3.9: Prevalence of malnutrition by age, based on weight-for-height percentage of the median and oedema

		Severe wasting (<70% median)		Moderate wasting (>=70% and <80% median)		Normal (> =80% median)		Oedema	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	51	0	0.0	2	3.9	49	96.1	0	0.0
18-29	67	0	0.0	1	1.5	66	98.5	0	0.0
30-41	41	0	0.0	1	2.4	40	97.6	0	0.0
42-53	60	0	0.0	1	1.7	59	98.3	0	0.0
54-59	17	0	0.0	0	0.0	17	100.0	0	0.0
Total	236	0	0.0	5	2.1	231	97.9	0	0.0

Table 3.9: Prevalence of underweight based on weight-for-age z-scores by sex

	All n = 235	**Boys** n = 119	**Girls** n = 116
Prevalence of underweight (<-2 z-score)	(64) 27.2 % (21.9 - 33.3 95% C.I.)	(42) 35.3 % (27.3 - 44.2 95% C.I.)	(22) 19.0 % (12.9 - 27.0 95% C.I.)
Prevalence of moderate underweight (<-2 z-score and >=-3 z-score)	(56) 23.8 % (18.8 - 29.7 95% C.I.)	(36) 30.3 % (22.7 - 39.0 95% C.I.)	(20) 17.2 % (11.4 - 25.1 95% C.I.)
Prevalence of severe underweight (<-3 z-score)	(8) 3.4 % (1.7 - 6.6 95% C.I.)	(6) 5.0 % (2.3 - 10.6 95% C.I.)	(2) 1.7 % (0.5 - 6.1 95% C.I.)

Table 3.10: Prevalence of underweight by age, based on weight-for-age z-scores

		Severe underweight (<-3 z-score)		Moderate underweight (>= -3 and <-2 z-score)		Normal (> = -2 z score)		Oedema	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	50	2	4.0	14	28.0	34	68.0	0	0.0
18-29	67	6	9.0	20	29.9	41	61.2	0	0.0
30-41	41	0	0.0	5	12.2	36	87.8	0	0.0
42-53	60	0	0.0	15	25.0	45	75.0	0	0.0
54-59	17	0	0.0	2	11.8	15	88.2	0	0.0
Total	235	8	3.4	56	23.8	171	72.8	0	0.0

Table 3.11: Prevalence of stunting based on height-for-age z-scores and by sex

	All n = 229	**Boys** n = 118	**Girls** n = 111
Prevalence of stunting (<-2 z-score)	(63) 27.5 % (22.1 - 33.6 95% C.I.)	(32) 27.1 % (19.9 - 35.8 95% C.I.)	(31) 27.9 % (20.4 - 36.9 95% C.I.)
Prevalence of moderate stunting (<-2 z-score and >=-3 z-score)	(55) 24.0 % (18.9 - 30.0 95% C.I.)	(27) 22.9 % (16.2 - 31.2 95% C.I.)	(28) 25.2 % (18.1 - 34.0 95% C.I.)
Prevalence of severe stunting (<-3 z-score)	(8) 3.5 % (1.8 - 6.7 95% C.I.)	(5) 4.2 % (1.8 - 9.5 95% C.I.)	(3) 2.7 % (0.9 - 7.6 95% C.I.)

Table 3.12: Prevalence of stunting by age based on height-for-age z-scores

		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	48	1	2.1	8	16.7	39	81.3
18-29	65	6	9.2	19	29.2	40	61.5
30-41	41	0	0.0	12	29.3	29	70.7
42-53	58	1	1.7	14	24.1	43	74.1
54-59	17	0	0.0	2	11.8	15	88.2
Total	229	8	3.5	55	24.0	166	72.5

Table 3.13: Prevalence of overweight based on weight for height cut off's and by sex (no oedema)

	All n = 236	**Boys** n = 120	**Girls** n = 116
Prevalence of overweight (WHZ > 2)	(0) 0.0 % (0.0 - 1.6 95% C.I.)	(0) 0.0 % (0.0 - 3.1 95% C.I.)	(0) 0.0 % (0.0 - 3.2 95% C.I.)
Prevalence of severe overweight (WHZ > 3)	(0) 0.0 % (0.0 - 1.6 95% C.I.)	(0) 0.0 % (0.0 - 3.1 95% C.I.)	(0) 0.0 % (0.0 - 3.2 95% C.I.)

Table 3.14: Prevalence of overweight by age, based on weight for height (no oedema)

		Overweight (WHZ > 2)		**Severe Overweight (WHZ > 3)**	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**
6-17	51	0	0.0	0	0.0
18-29	67	0	0.0	0	0.0
30-41	41	0	0.0	0	0.0
42-53	60	0	0.0	0	0.0
54-59	17	0	0.0	0	0.0
Total	236	0	0.0	0	0.0

Table 3.15: Mean z-scores, Design Effects and excluded subjects

Indicator	n	Mean z-scores ± SD	Design Effect (z-score < -2)	z-scores not available*	z-scores out of range
Weight-for-Height	236	-0.74±0.86	1.00	3	0
Weight-for-Age	235	-1.42±0.89	1.00	3	1
Height-for-Age	229	-1.37±1.01	1.00	3	7

* contains for WHZ and WAZ the children with edema.

20 AFTIT_ SITE

20.1 Result Tables for NCHS growth reference 1977

Table 3.2: Prevalence of acute malnutrition based on weight-for-height z-scores (and/or oedema) and by sex

	All n = 202	**Boys** n = 103	**Girls** n = 99
Prevalence of global malnutrition (<-2 z-score and/or oedema)	(18) 8.9 % (5.7 - 13.6 95% C.I.)	(9) 8.7 % (4.7 - 15.8 95% C.I.)	(9) 9.1 % (4.9 - 16.4 95% C.I.)
Prevalence of moderate malnutrition (<-2 z-score and >=-3 z-score, no oedema)	(17) 8.4 % (5.3 - 13.1 95% C.I.)	(9) 8.7 % (4.7 - 15.8 95% C.I.)	(8) 8.1 % (4.2 - 15.1 95% C.I.)
Prevalence of severe malnutrition (<-3 z-score and/or oedema)	(1) 0.5 % (0.1 - 2.8 95% C.I.)	(0) 0.0 % (0.0 - 3.6 95% C.I.)	(1) 1.0 % (0.2 - 5.5 95% C.I.)

The prevalence of oedema is 0.0 %

Table 3.3: Prevalence of acute malnutrition by age, based on weight-for-height z-scores and/or oedema

		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	43	1	2.3	4	9.3	38	88.4	0	0.0
18-29	45	0	0.0	6	13.3	39	86.7	0	0.0
30-41	56	0	0.0	3	5.4	53	94.6	0	0.0
42-53	41	0	0.0	2	4.9	39	95.1	0	0.0
54-59	17	0	0.0	2	11.8	15	88.2	0	0.0
Total	202	1	0.5	17	8.4	184	91.1	0	0.0

Table 3.4: Distribution of acute malnutrition and oedema based on weight-for-height z-scores

	<-3 z-score	**>=-3 z-score**
Oedema present	Marasmic kwashiorkor. 0 (0.0 %)	Kwashiorkor. 0 (0.0 %)
Oedema absent	Marasmic No. 3 (1.4 %)	Not severely malnourished. 204 (98.6 %)

Table 3.5: Prevalence of acute malnutrition based on MUAC cut off's (and/or oedema) and by sex

	All n = 207	**Boys** n = 105	**Girls** n = 102
Prevalence of global malnutrition (< 125 mm and/or oedema)	(9) 4.3 % (2.3 - 8.1 95% C.I.)	(4) 3.8 % (1.5 - 9.4 95% C.I.)	(5) 4.9 % (2.1 - 11.0 95% C.I.)
Prevalence of moderate malnutrition (< 125 mm and >= 115 mm, no oedema)	(7) 3.4 % (1.6 - 6.8 95% C.I.)	(4) 3.8 % (1.5 - 9.4 95% C.I.)	(3) 2.9 % (1.0 - 8.3 95% C.I.)
Prevalence of severe malnutrition (< 115 mm and/or oedema)	(2) 1.0 % (0.3 - 3.5 95% C.I.)	(0) 0.0 % (0.0 - 3.5 95% C.I.)	(2) 2.0 % (0.5 - 6.9 95% C.I.)

Table 3.6: Prevalence of acute malnutrition by age, based on MUAC cut off's and/or oedema

		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	44	0	0.0	3	6.8	41	93.2	0	0.0
18-29	46	2	4.3	4	8.7	40	87.0	0	0.0
30-41	57	0	0.0	0	0.0	57	100.0	0	0.0
42-53	42	0	0.0	0	0.0	42	100.0	0	0.0
54-59	18	0	0.0	0	0.0	18	100.0	0	0.0
Total	207	2	1.0	7	3.4	198	95.7	0	0.0

Table 3.7: Prevalence of combined GAM and SAM based on WHZ and MUAC cut off's (and/or oedema) and by sex*

	All n = 207	**Boys** n = 105	**Girls** n = 102
Prevalence of combined GAM (WHZ <-2 and/or MUAC < 125 mm and/or oedema)	(24) 11.6 % (7.9 - 16.7 95% C.I.)	(12) 11.4 % (6.7 - 18.9 95% C.I.)	(12) 11.8 % (6.9 - 19.4 95% C.I.)
Prevalence of combined SAM (WHZ < -3 and/or MUAC < 115 mm and/or oedema	(3) 1.4 % (0.5 - 4.2 95% C.I.)	(0) 0.0 % (0.0 - 3.5 95% C.I.)	(3) 2.9 % (1.0 - 8.3 95% C.I.)

*With SMART or WHO flags a missing MUAC/WHZ or not plausible WHZ value is considered as normal when the other value is available

3.8: Detailed numbers for combined GAM and SAM

	GAM		**SAM**	
	no.	**%**	**no.**	**%**
MUAC	6	2.9	2	1.0
WHZ	15	7.2	1	0.5
Both	3	1.4	0	0.0
Edema	0	0.0	0	0.0
Total	24	11.6	3	1.4

Total population: 207

Table 3.5: Prevalence of acute malnutrition based on the percentage of the median and/or oedema

	n = 202
Prevalence of global acute malnutrition (<80% and/or oedema)	(10) 5.0 % (2.7 - 8.9 95% C.I.)
Prevalence of moderate acute malnutrition (<80% and >= 70%, no oedema)	(10) 5.0 % (2.7 - 8.9 95% C.I.)
Prevalence of severe acute malnutrition (<70% and/or oedema)	(0) 0.0 % (0.0 - 1.9 95% C.I.)

Table 3.9: Prevalence of malnutrition by age, based on weight-for-height percentage of the median and oedema

		Severe wasting (<70% median)		**Moderate wasting (>=70% and <80% median)**		**Normal (> =80% median)**		**Oedema**	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	43	0	0.0	3	7.0	40	93.0	0	0.0
18-29	45	0	0.0	2	4.4	43	95.6	0	0.0
30-41	56	0	0.0	2	3.6	54	96.4	0	0.0
42-53	41	0	0.0	2	4.9	39	95.1	0	0.0
54-59	17	0	0.0	1	5.9	16	94.1	0	0.0
Total	202	0	0.0	10	5.0	192	95.0	0	0.0

Table 3.9: Prevalence of underweight based on weight-for-age z-scores by sex

	All n = 207	**Boys** n = 105	**Girls** n = 102
Prevalence of underweight (<-2 z-score)	(41) 19.8 % (14.9 - 25.8 95% C.I.)	(20) 19.0 % (12.7 - 27.6 95% C.I.)	(21) 20.6 % (13.9 - 29.4 95% C.I.)
Prevalence of moderate underweight (<-2 z-score and >=-3 z-score)	(32) 15.5 % (11.2 - 21.0 95% C.I.)	(15) 14.3 % (8.9 - 22.2 95% C.I.)	(17) 16.7 % (10.7 - 25.1 95% C.I.)
Prevalence of severe underweight (<-3 z-score)	(9) 4.3 % (2.3 - 8.1 95% C.I.)	(5) 4.8 % (2.1 - 10.7 95% C.I.)	(4) 3.9 % (1.5 - 9.7 95% C.I.)

Table 3.10: Prevalence of underweight by age, based on weight-for-age z-scores

		Severe underweight (<-3 z-score)		**Moderate underweight (>= -3 and <-2 z-score)**		**Normal (> = -2 z score)**		**Oedema**	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	44	2	4.5	5	11.4	37	84.1	0	0.0
18-29	46	4	8.7	10	21.7	32	69.6	0	0.0
30-41	57	2	3.5	9	15.8	46	80.7	0	0.0
42-53	42	0	0.0	7	16.7	35	83.3	0	0.0
54-59	18	1	5.6	1	5.6	16	88.9	0	0.0
Total	207	9	4.3	32	15.5	166	80.2	0	0.0

Table 3.11: Prevalence of stunting based on height-for-age z-scores and by sex

	All n = 194	**Boys** n = 99	**Girls** n = 95
Prevalence of stunting (<-2 z-score)	(27) 13.9 % (9.7 - 19.5 95% C.I.)	(15) 15.2 % (9.4 - 23.5 95% C.I.)	(12) 12.6 % (7.4 - 20.8 95% C.I.)
Prevalence of moderate stunting (<-2 z-score and >=-3 z-score)	(20) 10.3 % (6.8 - 15.4 95% C.I.)	(11) 11.1 % (6.3 - 18.8 95% C.I.)	(9) 9.5 % (5.1 - 17.0 95% C.I.)
Prevalence of severe stunting (<-3 z-score)	(7) 3.6 % (1.8 - 7.3 95% C.I.)	(4) 4.0 % (1.6 - 9.9 95% C.I.)	(3) 3.2 % (1.1 - 8.9 95% C.I.)

Table 3.12: Prevalence of stunting by age based on height-for-age z-scores

		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	43	0	0.0	3	7.0	40	93.0
18-29	43	3	7.0	7	16.3	33	76.7
30-41	50	1	2.0	4	8.0	45	90.0
42-53	40	3	7.5	4	10.0	33	82.5
54-59	18	0	0.0	2	11.1	16	88.9
Total	194	7	3.6	20	10.3	167	86.1

Table 3.13: Prevalence of overweight based on weight for height cut off's and by sex (no oedema)

	All n = 202	**Boys** n = 103	**Girls** n = 99
Prevalence of overweight (WHZ > 2)	(0) 0.0 % (0.0 - 1.9 95% C.I.)	(0) 0.0 % (0.0 - 3.6 95% C.I.)	(0) 0.0 % (0.0 - 3.7 95% C.I.)
Prevalence of severe overweight (WHZ > 3)	(0) 0.0 % (0.0 - 1.9 95% C.I.)	(0) 0.0 % (0.0 - 3.6 95% C.I.)	(0) 0.0 % (0.0 - 3.7 95% C.I.)

Table 3.14: Prevalence of overweight by age, based on weight for height (no oedema)

		Overweight (WHZ > 2)		**Severe Overweight (WHZ > 3)**	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**
6-17	43	0	0.0	0	0.0
18-29	45	0	0.0	0	0.0
30-41	56	0	0.0	0	0.0
42-53	41	0	0.0	0	0.0
54-59	17	0	0.0	0	0.0
Total	202	0	0.0	0	0.0

Table 3.15: Mean z-scores, Design Effects and excluded subjects

Indicator	n	Mean z-scores ± SD	Design Effect (z-score < -2)	z-scores not available*	z-scores out of range
Weight-for-Height	202	-0.83±0.94	1.00	0	5
Weight-for-Age	207	-1.24±0.97	1.00	0	0
Height-for-Age	194	-0.80±1.11	1.00	0	13

* contains for WHZ and WAZ the children with edema.

Appendix 4

Maps of Site

Appendix 5- 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.

STANDARD SENS VARIABLE NAMES SHOWN IN RED.

IDENTIFICATION VARIABLES SHOWN IN BLUE TO BE ADAPTED DEPENDING ON CONTEXT (E.G. SURVEY DESIGN, MULTIPLE CAMPS, CAMP LAYOUT). Note that in some camps, the words 'block' and 'section' may not be used and other words may be used for these (e.g. zone, quarter). Adapt the wording accordingly.

OPTIONAL SENS VARIABLE NAMES SHOWN IN GREEN.

CAPITAL LETTERS refer to instructions for the surveyors. They should not be deleted from the questionnaire and should not be read to the respondent during the interview.

DEMOGRAPHY

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	Camp Name **CAMPNAME**	|_____|	
ID2	Section Code / Number **SECTION**		|___|___|___|
ID3	Zone Code / Number **ZONE**		|___|___|___|
ID4	Block Code / Number **BLOCK**		|___|___|___|
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.		
DM1A	Was consent given for conducting the interview? ENSURE THAT YOU HAVE INTRODUCED THE TEAM AND INFORMED THEM ABOUT THE INTERVIEW. **DMCONST**	Yes ..... 1 No .....2 Absent 3	|___| **IF ANSWER IS 2 or 3 STOP HERE**
DM1B	Was consent given for conducting the interview using Mobile Data Collection (use of smartphone or tablet)? 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.	RECORD THE NUMBER IN YEARS IF KNOWN. RECORD 97 IF 97 YEARS OR OLDER. RECORD 98 IF UNKNOWN.	|___|___| years

	Lower limit=6 **Upper limit=98** **HHHAGE**		
SECTION DM3: Survey of Household Members			
DM8	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.		
DM9	Name of household member ONLY WRITE FIRST NAME. **NAME**	|_____|	
DM10	What is the sex of the household member? **HHMSEX**	Male ..... m Female..... f	|___|
DM11	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
DM12	Is the household member currently pregnant? **HHMPREG**	Yes ..... 1 No ..... 2 Don't know..... 8	|___|
SECTION DM4: Time of Arrival in Country of Asylum (optional/if applicable)			
Note	EXPLAIN TO THE RESPONDENT THAT THESE QUESTIONS WILL BE KEPT CONFIDENTIAL AND WILL NOT AFFECT THE ASSISTANCE THEY RECEIVE / ARE ENTITLED TO.		
DM13	Did all household members arrive to [*camp name / country of asylum*] at the same time? **ARRIVE**	Yes ..... 1 No .....2 Don't know..... 8	|___| **IF ANSWER IS 2 GO TO DM15**
DM14	When did the household arrive to [*camp name / country of asylum*]? (OPTIONAL/IF APPLICABLE) **ARRIDATE**	1 month ago [*INSERT MONTH*] ..... 01 2 months ago [*INSERT MONTH*]..... 02 3 months ago [*INSERT MONTH*]..... 03 4 months ago *[INSERT MONTH*]..... 04 5 months ago [*INSERT MONTH*]..... 05 6 months ago [*INSERT MONTH*]..... 06 7 months ago [*INSERT MONTH*]..... 07 8 months ago [*INSERT MONTH*]..... 08 9 months ago [*INSERT MONTH*]..... 09 10 months ago [*INSERT MONTH*]..... 10 11 months ago [*INSERT MONTH*]..... 11 12 months ago [*INSERT MONTH]*..... 12 1-2 years ago..... 13 2-3 years ago..... 14 >3 years ago ..... 15 Other *[TO BE ADAPTED]*..... 16 Don't know..... 98	|___|___|
	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.

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**		|___|___|___|
ID3	Zone Code / Number **ZONE**		|___|___|___|
ID4	Block Code / Number **BLOCK**		|___|___|___|
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 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**
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 Other.....6 Don't know.....8	|___| **GO TO FS10**
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**	RECORD THE NUMBER OF DAYS IF KNOWN. RECORD 98 IF UNKNOWN.	|___|___|

	GFDLAST		
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	|___|___|
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)	Yes.....1 No.....2 Don't know.....8	|___|

	SHELTER		
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) **REDUCE**	Yes.....1 No.....2 Don't know.....8	|___|
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**	RECORD THE NUMBER OF DAYS, FROM 0-7.	|___|

	LESSMEAL		
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 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**	|___| **Lower limit=0** **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?	Purchase (using cash grants and/or with their own cash) ..... Own production (crops, livestock, fishing/hunting, gathering)	|___|___|

	FOODSOU	Traded goods/services, barter ..... Borrowed (loan/credit from traders) .. Receive as gift (from family relatives or friend/neighbor ..... In-kind or voucher based food assistance ..... Other ..... Don't know.....	
	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.		

MOSQUITO NET COVERAGE

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	Camp Name **CAMPNAME**	|_____|	
ID2	Section Code / Number **SECTION**		|___|___|___|
ID3	Zone Code / Number **ZONE**		|___|___|___|
ID4	Block Code / Number **BLOCK**		|___|___|___|
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 TN1: Details on the Household			
Note	THESE QUESTIONS NEED TO BE ASKED TO THE HEAD OF THE HOUSEHOLD OR, IF THEY ARE ABSENT, ANOTHER ADULT MEMBER OF THE HOUSEHOLD.		
TN1	Was consent given for conducting the interview? ENSURE THAT YOU HAVE INTRODUCED THE TEAM AND INFORMED THEM ABOUT THE INTERVIEW. **TNCONST**	Yes ..... No ..... Absent	|___| **IF ANSWER IS 2 or 3 STOP HERE**
TN2	What is the total number of household members? RECORD NUMBER. **TNHHSIZE**		|___|___|
TN3	How many people live in this household and slept here last night? RECORD NUMBER. **TOTHH**		|___|___|
TN4	How many children 0-59 months live in this		

	household and slept here last night? RECORD NUMBER OR TYPE 0 IF THERE AREN'T ANY CHILDREN BELOW 5 YEARS. **TOTCH**		|___|___|
TN5	How many pregnant women live in this household and slept here last night? RECORD NUMBER OR TYPE 0 IF THERE AREN'T ANY PREGNANT WOMEN. **TOTPW**		|___|___|
TN6	Did you have your house sprayed with insecticide in an indoor residual spray campaign in the past 6/12 months? (IF APPLICABLE) EXPLAIN THAT THIS IS NOT THE CAN OF INSECTICIDE THAT CAN BE SPRAYED IN THE HOUSE. **HHIRS**	Yes ..... No ..... Don't know 8	|___|
TN7	Do you have mosquito bed nets in this household that can be used while sleeping? **MOSNETS**	Yes ..... No ..... Don't know	|___| **IF ANSWER IS 2 OR 8 STOP NOW**
TN8	How many of these mosquito bed nets that can be used while sleeping does your household have? PROBE FOR ANY NETS CURRENTLY NOT IN USE THAT ARE BEING SAVED OR STORED (STILL IN THEIR PACKAGE). RECORD REPORTED NUMBER. **Lower limit=1** **Upper limit=10** **NUMNETS**		|___|___| Nets
SECTION TN2: Observation of Bed Nets THIS SECTION IS TO BE COMPLETED FOR ALL BED NETS USED FOR SLEEPING REPORTED BY THE RESPONDENT.			
Note	THESE QUESTIONS ARE ASKED FOR EACH BED NET USED FOR SLEEPING REPORTED BY THE RESPONDENT.		
TN9	Can the bed net be observed? ASK RESPONDENT TO SHOW YOU THE NET IN THE HOUSEHOLD. **NETSOBS**	Yes ..... No	|___| **IF ANSWER IS 2 SKIP TO TN12**
TN10	What is the brand of the net observed? LOOK AT THE TAG ON THE NET. IF THERE IS NONE OR IS UNREADABLE, SELECT	DAWAPLUS..... 0 DURANET..... 0 INTERCEPTOR ..... 0 LIFENET..... 0	|___|___| **IF ANSWER IS 96 GO TO**

	'UNIDENTIFIABLE'/'DON'T KNOW. **NETBRAND**	MAGNET ..... 0 MIRANET ..... 0 OLYSET..... 0 PANDANET ..... 0 PERMANET ..... 0 ROYALSENTRY ..... 1 SAFENET ..... 1 VEERALIN..... 1 YALE..... 1 YORKOOL..... 1 **Insecticide treated net** (**ITN**) NAME #1 . 1 **ITN** NAME #2 ..... 1 **ITN** NAME #3 ..... 1 Other (please specify) ..... 9 Unidentifiable/Don't know 9	**TN11**
TN11	If other, please specify the brand name of net **BRANDOTH**	|_____|	
	TOTLN		|___|___|

SECTION TN3: Survey of household members
THIS SECTION IS TO BE COMPLETED FOR EACH HH MEMBER WHO LIVES HERE AND SLEPT HERE LAST NIGHT.

Note	THESE QUESTIONS NEED TO BE COMPLETED FOR EACH HH MEMBER WHO LIVES IN THE HOUSEHOLD AND SLEPT HERE LAST NIGHT.		
TN12	ID of household member **HHMID**		|___|
TN13	What is the sex of the household member? **HHMSEX**	Male..... Female	|___|
TN14	How old is the household member? **HHMAGE**	<5 years ..... ≥5 years	|___|
TN15	Is the household member currently pregnant? **HHMPREG**	Yes ..... No ..... Don't know	|___|
TN16	Did the household member sleep under a net last night? **SLPNET**	Yes ..... No..... 2 Don't know..... 8	|___|
TN17	Select the brand of the net under which the household member slept ASK THE RESPONDENT TO PHYSICALLY IDENTIFY WHICH OF THE OBSERVED NETS S/HE SLEPT UNDER. **SLPBRAND**	RESPONSES FROM TN10 SHOWN HERE. EXAMPLE: NETBRAND1-PERMANET NETBRAND2-PERMANET NETBRAND3-Unidentifiable/Don't know NETBRAND4- OLYSET	|___|___|

WASH
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	Camp Name **CAMPNAME**	|_____|	
ID2	Section Code / Number **SECTION**		|___|___|___|
ID3	Zone Code / Number **ZONE**		|___|___|___|
ID4	Block Code / Number **BLOCK**		|___|___|___|
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 WS1: WASH interview questions			
Note	THESE QUESTIONS NEED TO BE ASKED TO THE HEAD OF THE HOUSEHOLD OR, IF THEY ARE ABSENT, ANOTHER ADULT MEMBER OF THE HOUSEHOLD.		
WS1	Was consent given for conducting the interview? ENSURE THAT YOU HAVE INTRODUCED THE TEAM AND INFORMED THEM ABOUT THE INTERVIEW. **WSCONST**	Yes ..... 1 No .....2 Absent 3	|___| **IF ANSWER IS 2 or 3 STOP HERE**
WS2	What is the total number of household numbers? RECORD NUMBER. **HHSIZE**		|___|___|
WS3	What is the principal source of drinking water for members of your household? SELECT ONE BUT DO NOT PROMPT WITH RESPONSES. CONSIDER DRINKING WATER	Public tap/standpipe ..... 01 Handpumps/boreholes ..... 02 Water seller/kiosks..... 03 Piped connection to house (or neighbour's house)..... 04	|___|___|

	ONLY. **SOURCE**	Protected spring ..... 05 Bottled water, water sachets ..... 06 Tanker trucks..... 07 Unprotected hand-dug well ..... 08 Surface water (lake, pond, dam, river) .. 09 Unprotected spring ..... 10 Rain water collection..... 11 Other ..... 96 Don't know 98	
WS4	Where do you and your household members (excluding children under 5) usually go to defecate? SELECT ONE BUT DO NOT PROMPT WITH RESPONSES. **TOILET**	Household latrine.....1 Communal latrine.....2 Open defecation.....3 Plastic bag .....4 Bucket toilet .....5 Other .....6 Don't know 8	|___|
SECTION WS2: WASH observation questions			
Note	EXPLAIN TO THE RESPONDENT THAT THESE QUESTIONS RELATE TO WATER USED FOR DOMESTIC PURPOSES. THIS INCLUDES: DRINKING, COOKING/FOOD PREPARATION, BATHING, AND PERSONAL HYGIENE PLUS LAUNDRY AND OTHER HOUSEHOLD CLEANING. EXCLUDED FROM THIS ARE ANIMAL USE, BRICKMAKING OR OTHER INDUSTRY, OR AGRICULTURE/GARDENING (NON DOMESTIC).		
WS5	Please show me the soap you have in the household. **SOAP**	Presented within one minute ..... 1 Not presented within one minute/no soap 2	|___|
WS6	How many containers do you have to <u>collect</u> or <u>store</u> water for domestic purposes for your house? Please show me all of them one by one RECORD ONE BY ONE. CHECK FOR ALL OF THE CONTAINERS. DO NOT INCLUDE BROKEN, LEAKING, OR NON-FUNCTIONAL CONTAINERS. **Lower limit=0** **Upper limit=25** **CONTAINER**		|___|___|
WS7	What is the type of container? **TYPE**	Jerrycan ..... 01 Bucket..... 02 Basin ..... 03 Bottle..... 04 Saucepan ..... 05 Drums..... 06 Other 96	|___|___|
WS8	What is the volume of container? ENTER THE AMOUNT OF LITRES THIS CONTAINER CAN HOLD TO THE NEAREST 0.5L **Lower limit=0.5L** **Upper limit=300.0L** **LITER**		|___|___|___| .|___| litres

WS9	Is the container covered? **PROTECT**	Yes ..... 1 No .....2 Don't know 8	|___|
WS10	Number of journeys made with container for the collection of water for domestic purposes yesterday? This includes all water collected morning, afternoon and evening. PLEASE ENTER '0' IF HOUSEHOLD DID NOT FILL IT YESTERDAY. **Lower limit=0** **Upper limit=10** **NUMTRIPS**		|___|___| journeys
	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 (OR 6-59 MONTHS OF AGE IF THE IYCF MODULE IS NOT INCLUDED).

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**		|___|___|___|
ID3	Zone Code / Number **ZONE**		|___|___|___|
ID4	Block Code / Number **BLOCK**		|___|___|___|
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 or 6-59 months THIS SECTION IS TO BE ADMINISTERED TO ALL CHILDREN IN THE SELECTED HOUSEHOLDS BETWEEN 0-59 MONTHS OR 6-59 MONTHS: DEPENDING ON WHICH SENS MODULE IS INCLUDED.			
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 ..... No	|___| **IF ANSWER IS 2 STOP HERE**
CH3	Name of the child ONLY WRITE FIRST NAME. **CHNAME**	|_____|	
CH4	Sex of [NAME OF CHILD]?	Male	

	SEX	Female.....	|___|
CH5	Do you have an official age documentation for [NAME OF CHILD]? XDOBK	Yes ..... No.....	|___| **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. FOR PAPER-BASED SURVEYS: RECORD FROM AGE DOCUMENTATION. LEAVE BLANK IF NO VALID AGE DOCUMENTATION. BIRTHDAT	Day/Month/Year.....|___|___| /|___|___| / ___|___||___|___|	
CH7	Age of [NAME OF CHILD] in months **Lower limit=0 months (or 6 months if the IYCF module is not included)** **Upper limit=59.99 months** MONTHS	SINCE NO AGE DOCUMENTATION IS AVAILABLE, ESTIMATE AGE USING A LOCAL EVENTS CALENDAR. FOR PAPER-BASED SURVEYS: IF AGE DOCUMENTATION AVAILABLE, RECORD THE AGE IN MONTHS FROM THE DATE OF BIRTH.	|___|___|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: Time of Arrival in Country of Asylum (optional/if applicable)
THIS SECTION IS TO BE ADMINISTERED TO ALL CHILDREN BETWEEN 0 AND 59 MONTHS OF AGE (OR BETWEEN 6 AND 59 MONTHS IS THE IYCF MODULE IS NOT INCLUDED).

Note	EXPLAIN TO THE RESPONDENT THAT THESE QUESTIONS WILL BE KEPT CONFIDENTIAL AND WILL NOT AFFECT THE ASSISTANCE THEY RECEIVE / ARE ENTITLED TO.		
CH8	Does [NAME OF CHILD] arrive to [camp name / country of asylum] before or after [INSERT THE EVENT RESPONSIBLE FOR THE INFLUX OF REFUGEES]? (OPTIONAL/IF APPLICABLE) CHARRIVE	Arrived before [*INSERT EVENT*].....1 Arrived after [*INSERT EVENT*] (new arrival)2 Don't know.....8	|___|

SECTION CHILD3: 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. EXCLUDE HB MEASUREMENTS IF SENS MODULE 3 (ANAEMIA MODULE) IS NOT INCLUDED.

IN MDC SURVEYS, THIS SECTION IS AUTOMATICALLY SKIPPED FOR THE CHILDREN NOT ELIGIBLE BASED ON AGE (<6 MONTHS).

CH9	Is [NAME OF CHILD] currently present in the household? CHPRES	Yes ..... No.....	|___| **IF ANSWER IS 2 GO TO CH16**
CH10	[NAME OF CHILD]'s weight in kilograms (±0.1kg)		|___|___|. |___| kg

	DON'T FORGET THE DECIMAL. **Lower limit=3.0kg** **Upper limit=31.0kg** **WEIGHT**		
CH11	Was the [NAME OF CHILD] dressed with clothes for the weight measurement? (OPTIONAL) **CLOTHES**	Yes ..... No	|___|
CH12	[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
CH13	Was [NAME OF CHILD] measured lying down or standing up? **MEASURE**	Child lying down ..... Child standing up.....	|___|
CH14	Clinical examination: Does the [NAME OF CHILD] present bilateral pitting oedema? **EDEMA**	Yes ..... No	|___|
CH15	[NAME OF CHILD]'s middle upper arm circumference (MUAC) in mm (±1mm) or cm (±0.1cm) MEASURE LEFT ARM. APPLICABLE ONLY IF MUAC MEASURED IN CM: DON'T FORGET THE DECIMAL. **Lower limit=70mm** **Upper limit=235mm** **MUAC**		|___|___|___|mm OR |___|___|. |___| cm
CH16	Is [NAME OF CHILD] currently being treated in [NAME OF NUTRITION PROGRAMMES] for malnutrition? SHOW COMMODITY GIVEN IN TSFP AND TFP (OTP/SC). **ENROL**	Yes TSFP ..... Yes TFP (OTP/SC) ..... No ..... Don't know	|___|
CH17	Is [NAME OF CHILD] currently enrolled in the BSFP? (IF APPLICABLE) SHOW COMMODITY/PACKAGING GIVEN IN BSFP.	Yes ..... No ..... Don't know	|___|

	BSFP		
CH18	Has [NAME OF CHILD] been vaccinated against measles? CHECK VACCINATION CARD (ONLY FOR CHILDREN OLDER THAN 9 MONTHS). **MEASLES**	Yes, card ..... Yes, recall ..... No or don't know	|___|
CH19	Has [NAME OF CHILD] received a vitamin A capsule in the past six months? CHECK VACCINATION/HEALTH CARD AND SHOW CAPSULE. **VITA**	Yes, card ..... Yes, recall ..... No or don't know	|___|
CH20	Was [NAME OF CHILD] given any drug for intestinal worms in the last six months? (IF APPLICABLE) SHOW TABLET. **DEWORM**	Yes ..... No ..... Don't know	|___|
CH21	Has [NAME OF CHILD] had diarrhoea in the past 2 weeks? CASE DEFINITION: THREE OR MORE LOOSE OR LIQUID STOOLS DURING 24 HOURS. **DIAR**	Yes ..... No ..... Don't know	|___| **IF ANSWER IS 2 OR 8 GO TO CH23**
CH22	Did you give [INSERT LOCAL NAME FOR WHO ORS] to [NAME OF CHILD] when s/he had diarrhoea? (OPTIONAL) SHOW ORS SACHET. **DIARORS**	Yes ..... No ..... Don't know	|___|
CH23	Did you give zinc tablets or syrup to [NAME OF CHILD] when s/he had diarrhoea? (OPTIONAL) SHOW ZINC TABLET OR SYRUP. **DIARZINC**	Yes ..... No ..... Don't know	|___|
CH24	Units of measurement of your HemoCue device (g/dL or g/L) **HBUNIT**	g/dL ..... g g/L	|___|___|___|
CH25	[NAME OF CHILD]'s haemoglobin (Hb) 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.		|___|___|. |___|g/dL OR |___|___|___|g/L

	Lower limit=2.0g/dL **Upper limit=22.0g/dL** **CHHB**		
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<125mm and MUAC≥115 mm 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<115mm 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**		
CH27	**Automatic referral for child who has severe anaemia:** • Child needs to be referred for severe anaemia (if Hb<7.0g/dL). FILL OUT A REFERRAL FORM: ONE SLIP IS FOR THE MOTHER/CAREGIVER AND THE OTHER IS FOR THE HEALTH FACILITY. **REFANEM**		
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. EXCLUDE IF SENS MODULE 3 (IYCF MODULE) IS NOT INCLUDED. IN MDC SURVEYS, THIS SECTION IS AUTOMATICALLY SKIPPED FOR THE CHILDREN NOT ELIGIBLE BASED ON AGE (≥24 MONTHS).			
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 ..... No ..... Don't know	|___| **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 ..... Between 1 and 23 hours ..... More than 24 hours ..... Don't know	|___|
IF3	Was [NAME OF CHILD] breastfed yesterday during the day or at night? **YESTBF**	Yes ..... No ..... Don't know	|___|
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. EXCLUDE IF SENS MODULE 3 (IYCF MODULE) IS NOT INCLUDED. IN MDC SURVEYS, THIS SECTION IS AUTOMATICALLY SKIPPED FOR THE CHILDREN NOT ELIGIBLE BASED ON AGE (≥24 MONTHS).			
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 [INSERT LOCALLY AVAILABLE BRAND NAMES OF INFANT FORMULA, *ALL TYPES*] **INFORM**	4B.....1 2 8	
	4C. Milk such as tinned, powdered, or fresh animal milk, for example [INSERT LOCALLY AVAILABLE BRAND NAMES OF TINNED AND POWDERED MILK] **MILK**	4C.....1 2 8	
	4D. Juice or juice drinks, for example [INSERT LOCALLY AVAILABLE BRAND NAMES OF JUICE DRINKS] **JUICE**	4D.....1 2 8	
	4E. Clear broth **BROTH**	4E.....1 2 8	
	4F. Sour milk or yogurt, for example [INSERT LOCAL NAMES] **YOGURT**	4F.....1 2 8	
	4G. Thin porridge, for example [INSERT LOCAL NAMES] **THINPOR**	4G.....1 2 8	
	4H. Tea or coffee with milk **WHTEACOF**	4H.....1 2 8	
	4I. Any other water-based liquids, for example [INSERT OTHER WATER-BASED LIQUIDS AVAILABLE IN THE LOCAL SETTING AND USE LOCAL NAMES] (e.g. *sodas, other sweet drinks, herbal infusion, gripe water, clear tea with no milk, black coffee, ritual fluids)* **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 IN MDC SURVEYS, THIS SECTION IS AUTOMATICALLY SKIPPED FOR THE CHILDREN NOT ELIGIBLE BASED ON AGE (≥24 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

IN MDC SURVEYS, THIS SECTION IS AUTOMATICALLY SKIPPED FOR THE CHILDREN NOT ELIGIBLE BASED ON AGE (<6 MONTHS AND ≥24 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. [INSERT COMMON MEAT, FISH, POULTRY AND LIVER/ORGAN FLESH FOODS USED THE LOCAL SETTING] *(e.g. beef, goat, lamb, mutton, pork, rabbit, chicken, duck, liver, kidney, heart)* **FLESHFD**	7A.....1	2	8	
	7B. [INSERT FBF AVAILABLE IN THE LOCAL SETTING AND USE LOCAL NAMES] (e.g. CSB+, WSB+) (IF APPLICABLE) **FBF**	7B.....1	2	8	
	7C. [INSERT FBF++ AVAILABLE IN THE LOCAL SETTING AND USE LOCAL NAMES] *(e.g. CSB++, WSB++)* (IF APPLICABLE) **FBFSUPER**	7C.....1	2	8	
	7D. [INSERT RUTF PRODUCTS AVAILABLE IN THE LOCAL SETTING AND USE LOCAL NAMES] *(e.g. Plumpy'Nut®, eeZeePaste™)* (IF APPLICABLE) SHOW SACHET. **RUTF**	7D.....1	2	8	
	7E. [INSERT RUSF PRODUCTS AVAILABLE IN THE LOCAL SETTING AND USE LOCAL NAMES] *(e.g. Plumpy'Sup®, eeZeeRUSF™)* (IF APPLICABLE) SHOW SACHET. **RUSF**	7E.....1	2	8	
	7G. [INSERT LOCALLY AVAILABLE BRAND NAMES OF *IRON FORTIFIED* INFANT FORMULA] *(e.g. Nan, S26 infant formula)* (IF APPLICABLE) **INFORMFE**	7G.....1	2	8	
	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 ANTHROPOMETRY, HEALTH & ANAEMIA

1 questionnaire per woman 15-49 years

THIS QUESTIONNAIRE IS TO BE ADMINISTERED TO ALL ELIGIBLE WOMEN AGED BETWEEN 15 AND 49 YEARS IN THE SELECTED HOUSEHOLD.

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**		|___|___|___|
ID3	Zone Code / Number **ZONE**		|___|___|___|
ID4	Block Code / Number **BLOCK**		|___|___|___|
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 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 **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. **WMCONST**	Yes ..... No ..... Absent	|___| **IF ANSWER IS 2 OR 3 STOP HERE**
WM3	Name of the woman ONLY WRITE FIRST NAME. **WMNAME**	|_____|	
WM4	Age of [NAME OF WOMAN] in years ONLY WOMEN BETWEEN 15 AND 49 ARE BEING INTERVIEWED.		|___|___|years

	Lower limit=15 years **Upper limit=49 years** **WMAGE**		
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? **PREGNANT**	Yes ..... No ..... Don't know	|___| **IF ANSWER IS 2 OR 8 GO TO WM8**
WM6	Are you currently enrolled in the ANC programme? **ANC**	Yes ..... No ..... Don't know	|___|
WM7	Are you currently receiving iron-folate pills? SHOW PILL. **FEREC**	Yes ..... No ..... Don't know	|___|
WM8	Are you currently breastfeeding? (OPTIONAL) **LACTAT**	Yes ..... No ..... Don't know	|___| **IF ANSWER IS 2 OR 8 GO TO WM10**
WM9	Is the child you are breastfeeding younger than 6 months old? (OPTIONAL) **LACTATU6**	Yes ..... No ..... Don't know	|___|
WM10	Are you currently enrolled in the BSFP? (IF APPLICABLE) SHOW COMMODITY/PACKAGING GIVEN IN BSFP. **WMBSFP**	Yes ..... No ..... Don't know	|___|
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. **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) **WMHBUNIT**	g/dL..... g g/L.....	|___|
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. **Lower limit=2.0g/gL** **Upper limit=22.0g/dL** **WMHB**		|___|___|. |___| g/dL OR |___|___|___| g/L
ID9	Please take a GPS reading (OPTIONAL) AVOID TAKING IT INSIDE THE HOUSE OR UNDER TREES (TO MAKE IT FASTER). **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. **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. **WMREFAN**		
	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.		

Appendix 6

Local event calendar used during the survey to estimate age of young children

Seasons	Religious Holidays	Local Event (surrounding)	Somali Calendar	Month/Year	Age in Months	Height proxy (Range)
End of Deyr	Mowlid celebration	_	Safar	25-Dec	0	45-64 cm
Mid of Deyr	_	_	Zako / MuhRRSm	25-Nov	1	
Beginning of Deyr	_	_	Arafo / Dul-Hijjah	25-Oct	2	
End of Xagaa	Eid Al Adha	_	Sidatal / Dul Qicdah	25-Sep	3	
Mid of Xagaa	Eid Al Fitri	_	Soon fur / Shawwal	25-Aug	4	
Beginning of Xagaa	_	Ramadhan	Soon/Ramadan	25-Jul	5	
End of Gu'	Beginning of Ramadhan	Refugee Day	Shacbaan	25-Jun	6	65-70 cm
Mid of Gu'	_	_	Rajab	25-May	7	
Beginning of Gu'	_	_	Jamadul Aakhir	25-Apr	8	
End of Jiilal	_	_	Jamadul awal	25-Mar	9	
Mid of Jiilal	_	_	Malmadone / RabicuThani	25-Feb	10	
Beginning of Jililal	Mowlid celebration	_	Mowlid/Rabicul Awal	25-Jan	11	
End of Deyr	_	_	Safar	24-Dec	12	71-76 cm
Mid of Deyr	_	_	Zako / MuhRRSm	24-Nov	13	
Beginning of Deyr	Eid Al Adha	_	Arafo / Dul-Hijjah	24-Oct	14	
End of Xagaa	_	_	Sidatal / Dul Qicdah	24-Sep	15	
Mid of Xagaa	_	_	Soonfur/Shawaal	24-Aug	16	
Beginning of Xagaa	Beginning of Ramadhan	Ramadhan	Soon/Ramadan	24-Jul	17	
End of Gu'	_	Refugee Day	Shacban	24-Jun	18	
Mid of Gu'	_	_	Rajab	24-May	19	
Beginning of Gu'	_	_	Jamadul Aakhir	24-Apr	20	
End of Jiilal	_	_	Jamadul awal	24-Mar	21	77-80 cm
Mid of Jiilal	_	_	Malmadone / RabicuThani	24-Feb	22	
Beginning of Jililal	Mowlid celebration	_	Mowlid/Rabicul Awal	24-Jan	23	
End of Deyr	_	_	Safar	23-Dec	24	
Mid of Deyr	_	_	Zako / MuhRRSm	23-Nov	25	
Beginning of Deyr	Eid Al Adha	_	Arafo / Dul-Hijjah	23-Oct	26	
End of Xagaa	_	_	Soonfur/Shawaal	23-Sep	27	81-86 cm
Mid of Xagaa	Eid Al Fitri	Ramadhan	Soon/Ramadan	23-Aug	28	
Beginning of Xagaa	Beginning of Ramadhan	Ramadhan	Shacban	23-Jul	29	
End of Gu'	_	Refugee Day	Rajab	23-Jun	30	
Mid of Gu'	_	_	Jamadul Aakhir	23-May	31	
Beginning of Gu'	_	_	Jamadul awal	23-Apr	32	
End of Jiilal	_	_	Malmadone / RabicuThani	23-Mar	33	
Mid of Jiilal	_	_	Mowlid/Rabicul Awal	23-Feb	34	
Beginning of Jililal	_	_	Safar	23-Jan	35	87-90 cm
End of Deyr	_	_	Zako / MuhRRSm	22-Dec	36	
Mid of Deyr	Eid Al Adha	_	Arafo / Dul-Hijjah	22-Nov	37	

Beginning of Deyr	-	-	Sidatal / Dul Qicdah	22-Oct	38	
End of Xagaa	Eid Al Fitri	-	Soonfur/Shawaal	22-Sep	39	
Mid of Xagaa	-	Ramadhan	Soon/Ramadan	22-Aug	40	
Beginning of Xagaa	-	-	Shacban	22-Jul	41	
End of Gu'	-	Refugee Day	Rajab	22-Jun	42	
Mid of Gu'	-	-	Jamadul Aakhir	22-May	43	
Beginning of Gu'	-	-	Jamadul awal	22-Apr	44	
End of Jiilal	-	-	Jamadul awal	22-Mar	45	
Mid of Jiilal	-	-	Malmadone / RabicuThani	22-Feb	46	
Beginning of Jililal	-	-	Mowlid / Rabicul Awal	22-Jan	47	
End of Deyr	Mowlid celebration	-	Safar	21-Dec	48	
Mid of Deyr	-	-	Zako / MuhRRSm	21-Nov	49	
Beginning of Deyr	-	-	Arafo / Dul-Hijjah	21-Oct	50	
End of Xagaa	Eid Al Adha	-	Sidatal / Dul Qicdah	21-Sep	51	91-99 cm
Mid of Xagaa	-	-	Soon fur / Shawwal	21-Aug	52	
Beginning of Xagaa	Eid Al Fitri	Ramadhan	Soon/Ramadhan	21-Jul	53	
End of Gu'	Beginning of Ramadhan	Refugee Day	Shacbaan	21-Jun	54	
Mid of Gu'	-	-	Rajab	21-May	55	
Beginning of Gu'	-	-	Jamadul Aakhir	21-Apr	56	
End of Jiilal	-	-	Jamadul Awal	21-Mar	57	
Mid of Jiilal	-	-	Malmadone / RabicuThani	21-Feb	58	100-110 cm
Beginning of Jililal	-	-	Mowlid / Rabicul Awal	21-Jan	59	