FEWS NET
FAMINE EARLY WARNING SYSTEMS NETWORK

2017 Ethiopia Food Security and Nutrition Survey in Dollo & Jarar Zones

Final Report

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Created in response to the 1984 famines in East and West Africa, the Famine Early Warning Systems Network (FEWS NET) provides early warning and integrated, forward-looking analysis of the many factors that contribute to food insecurity. FEWS NET aims to inform decision makers and contribute to their emergency response planning; support partners in conducting early warning analysis and forecasting; and provide technical assistance to partner-led initiatives.

To learn more about the FEWS NET project, please visit www.fews.net.

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Acronyms and Abbreviations

CI	Confidence Interval
CSA	Central Statistical Agency
DHS	Demographic and Health Survey
DPPB	Disaster Prevention and Preparedness Bureau
ENA	Emergency Nutrition Assessment
FCS	Food Consumption Score
FEWS NET	Famine Early Warning Systems Network
GAM	Global Acute Malnutrition
GF&N	Global Food & Nutrition Inc.
HH	Household
HHS	Household Hunger Score
IDP	Internally Displaced Population
MAD	Minimum Acceptable Diet
MAM	Moderate Acute Malnutrition
MDD-W	Women's Minimum Dietary Diversity
IDDS	Individual Dietary Diversity Score
IYCF	Infant and Young Child Feeding Practices
Mela	Mela Research PLC
MMF	Minimum Meal Frequency
MUAC	Mid-Upper Arm Circumference
NGO	Non-Governmental Organization
PPS	Probability Proportion to Size
rCSI	Reduced Coping Strategies Index
SAM	Severe Acute Malnutrition
USAID	United States Agency for International Development
WHO	World Health Organization
WHZ	Weight-for-Height Z-Score

Executive Summary

These surveys were commissioned by Chemonics International's Famine Early Warning Systems Network Phase III project (FEWS NET III), working in partnership with the Ethiopia National Disaster Risk Management Commission. Global Food & Nutrition Inc., a Washington D.C. based food and nutrition consulting firm, was contracted to conduct and manage the survey in collaboration with its partner, the Addis Ababa based survey and research firm, Mela Research PLC (AID-OAA-1-12-00006 SUB-404). FEWS NET III is funded by the United States Agency for International Development (USAID) and is a leader of early warning and analysis on acute food insecurity. Its evidence-based analysis helps government decision-makers and relief agencies plan for and respond to humanitarian crises. FEWS NET III's network of government ministries, international agencies, and NGOs produces forward-looking reports on more than 36 of the world's most food-insecure countries.

Methods

The survey was conducted in Dollo Zone and Jarar Zone of the Ethiopia-Somali Region, which are among the areas of greatest concern in Ethiopia due to persistent drought. The surveys were designed to provide information and insight into the food security, nutrition and livelihood situations in these zones. A two-stage cluster design was used to select clusters and households. In Dollo Zone, the survey collected data from internally displaced people (Dollo IDPs) and residents (Dollo Residents). The sample design included three reporting domains: Dollo Residents, Dollo IDPs, and Jarar Zone, each with a sample size (n) of 600 (total n = 1,800). By design, twenty (20) households were selected per cluster, with a total of 90 clusters surveyed in the three reporting domains. The survey gathered information from respondents through a structured, pre-coded multi-module questionnaire (the assessment tool) about household characteristics, water and sanitation, income, household food consumption, agriculture production, coping strategies, household food security and livelihood, recent shocks and coping strategies, access to food aid and other external aid, women's dietary diversity, infant and young child feeding practices (IYCF), childhood illness, and edema among other indicators. Weight, height/length and Mid-Upper Arm Circumference (MUAC) were measured among children aged 6-59 months and women 15 to 49 years. The assessment tool was translated into Amharic language. Nearly 150 people were involved in implementing the survey; 21 teams consisting of Interviewers, Measurers, and Supervisors collected the data. Data entry was conducted by Encoders and Editors; the Data Entry team was led by a Data Manger, who verified completeness, legibility, and consistency of the data and conducted double entry input and cleaning, following strict standard quality control methods.

Findings

Household Food Security

- **Food Consumption Score (FCS):** The highest proportion of households categorized as having Poor (FCS: 0-21) food consumption was among Dollo Zone IDP households (27.7%), followed by Dollo Resident (15.3%), and Jarar Zone households (5.8%). Virtually all households (99.5%) in the survey reported consuming cereals and tubers, but no fruits and/or vegetables.

- **Reduced Coping Strategy Index (rCSI):** Overall, about 96% of the participating households reported having adopted one or more coping strategy. In fact, 90.7% of the Dollo IDP, 80% of Dollo Resident, and 78.3% of Jarar Zone households reduced the number of meals consumed as a coping mechanism. About a fifth of the Dollo IDP households were categorized as having employed the highest coping strategies (rCSI score >42). Fewer Dollo Resident households (12.5%) and Jarar Zone households (3.9%) were in this category.

- **Household Hunger Scale (HHS):** According to the HHS, about 22% of Dollo IDP households are categorized as having experienced severe hunger, compared to 12.5% among Dollo Resident and 1.2% among Jarar Zone households. Moderate hunger level was estimated among 38.1%, 30% and 9.2% of the households in Dollo IDPs, Dollo Residents, and Jarar Zone households, respectively.

- **Livelihood Coping**: The most frequently reported livelihood coping strategy was: accessing credit or borrowing due to food shortage, as reported by 39% of Dollo IDP, 30.8% of Dollo Resident, and 43.2% of Jarar Zone households. This was followed by: engaging in agricultural or casual labors, borrowing money, reduction of expenses on fodder, veterinary, health and education expenses, and selling more sheep and goats. During times of food shortage, 45.8% of the households did not want to sell their sheep or goats. Similarly, more than half of the households interviewed (57.4%) did not want to sell their last female animal despite experiencing food shortage.

Women's Dietary Diversity

- **Minimum Dietary Diversity for Women (MDD-W):** Women's diets across all three zones were found to be of limited diversity and dominated by starchy staples. The MDD-W score showed that virtually none of the women in the survey

Zones met the MDD-W requirement of consuming five or more food groups in the previous seven days. In fact, 59.1% of Dollo Resident, 62.2% of Dollo IDPs, and 12.8% of Jarar Zone households reported consuming fewer than two food groups in the week prior to the interview.

Infant and Young Child Feeding (IYCF) Practices

- **Exclusive Breastfeeding among Children Under Six Months of Age:** The number of children exclusively breastfed from 0-6 months of age, based on a 24-hour recall, was highest among Jarar Zone households at 42.4%, with 32.9% in Dollo Resident, and 31.1% in Dollo IDP households.
- **Continued Breastfeeding:** 70.3% of all children in the survey aged 12-23 months continued breastfeeding for one year or longer.
- **Breastfeeding Frequency:** About 30% of mothers reported to have breastfed their 0-23-month-old children for the recommended eight or more times during the previous 24 hours (29%, 29.8%, and 30.5% in Dollo Resident, Dollo IDP, and Jarar Zone households, respectively).

Food Diversity and Meal Frequency among Children 6-23 Months of Age

- **Minimum Dietary Diversity (MDD)**: The proportion of children 6-23 months who were reported to have received four or more food groups on the day prior to the interview are considered to have met the minimum dietary diversity. None of the children aged 6-23 months included in this survey met this minimum.
- **Minimum Meal Frequency**: The proportion of children 6-23 months who met the minimum meal frequency was 22.7%, 19.5%, and 38.5% in Dollo Resident, Dollo IDP, and Jarar Zone, respectively.
- **Minimum Acceptable Diet (MAD):** Just 13.3% of children aged 6-23 months in the survey zones are considered to have met the minimum acceptable diet - 15.1% among Dollo residents, 6.4% among Dollo IDPs, and 19% in Jarar.

Prevalence of Malnutrition

- **Global Acute Malnutrition (GAM)**: The proportion of children aged 6-59 months with GAM (based on WHZ and/or edema criteria) was the highest among the Dollo IDPs, at 27.8%, followed by 21.7% and 19.4%, respectively, in Jarar and among Dollo Residents. The corresponding proportions with GAM based on MUAC<125 mm, were 12.3%, 10% and 5.2%, respectively.
- **Severe Acute Malnutrition (SAM):** Based on WHZ and/or edema criteria, 7.3% of the children in Dollo IDP households, 6.0% in Jarar Zone, and 3.9% in Dollo Resident households were categorized as suffering from SAM. Using MUAC<115 mm as the criteria, the corresponding rates were 3.3%, 1.6%, and 1.4% respectively.

Childhood morbidity

- Childhood illness appeared to be common in the survey areas: 23.9% of the children had fever, 12.9% had diarrhea, and 24.1% had a cough in the previous two weeks. A third of children in Dollo IDP households reported having had fever or cough in the previous two weeks. The prevalence of having had a fever in the last two weeks was reported for 22.8% and 13.7% of the children in Dollo Resident and Jarar Zone households, respectively. The corresponding occurrence of cough was 24.5% and 13.7%. Measles was relatively rare in the survey zones; only 1.3% of the children were reported to have had measles the two weeks prior to the interview.

Women's Nutrition Status

- The nutritional status of women was assessed using MUAC. Overall, just over a tenth (11.3%) of women aged 18-49 years in the survey areas suffered from acute malnutrition (i.e. MUAC<221mm). The rates are similar for women across the three groups: 9.3% in Dollo Resident, 13.1% in Dollo IDP, and 11.5% in Jarar Zone. Among pregnant and/or breastfeeding women (15-49 years), the acute malnutrition rate (MUAC<221) was the highest among women in Dollo IDP households (14.3%), followed by Jarar Zone (13.4%), and Dollo Resident (8.9%).

Conclusion

Dollo Residents were in a slightly better situation than the IDPs, but they were not as well off as the Jarar Zone. Even though the overall situation appears better in Jarar Zone, they are not too much better off than the Dollo Resident and IDP populations. The insights about the food security, nutrition, and livelihood situations from these surveys indicate that both Dollo Zone and Jarar Zone are areas of concern.

1. Introduction

Chemonics International's Famine Early Warning Systems Network Phase III project (FEWS NET III) is a leading provider of early warning and analysis on acute food insecurity, funded by the United States Agency for International Development (USAID). The project generates objective, evidence-based analysis to help government decision-makers and relief agencies plan for and respond to humanitarian crises. The FEWS NET network includes national government ministries, international agencies, and non-governmental organizations (NGO) to produce forward-looking reports on more than 36 of the world's most food-insecure countries.

The surveys described in this report were conducted as a baseline from which to assess the impacts of drought expected in Ethiopia and provide an updated insight on high-risk regions. In Ethiopia, FEWS NET III works in partnership with the Ethiopia National Disaster Risk Management Commission. Global Food & Nutrition Inc. (GF&N), a Washington D.C. based food and nutrition consulting firm, was contracted to conduct and manage the surveys with its partner, the Addis Ababa based survey and research firm, Mela Research PLC from July through December 2017 (AID-OAA-1-12-00006 SUB-404) .

Dollo Zone and Jarar Zone of the Ethiopia-Somali Region were selected for the survey because they were considered to be among areas of greatest concern in Ethiopia at the time. The survey was designed to gain an accurate picture of the severity of the food and nutrition situation, livelihoods, and local coping mechanisms. The GF&N-Mela team conducted data collection from September 13 to October 8, 2017 including travel time. This report presents the findings of the survey.

2. Methods

2.1 Survey Sample

The survey was designed to provide separate estimates of survey indicators for three reporting domains: (1) Dollo Zone Residents (non-displaced population), (2) Dollo Zone for internally displaced persons or population (IDPs), and (3) Jarar Zone. The survey used a two-stage cluster sampling design for the selection of clusters (primary sampling unit) and households for each region. Clusters were selected from each reporting domain using probability proportion to size (PPS) in the first stage and random selection of households in the second stage. The sample size was predetermined to generate estimates for the key indicators separately for each of the three domains. Sample size per domain was set to be sufficiently large to estimate Global Acute Malnutrition (GAM) with necessary precision. The total sample of 1,800 households comprised 600 households in each of the three (3) reporting domains; Dollo Resident, Dollo IDP, and Jarar Zone. As per the survey protocol, twenty (20) households per cluster were sampled, with thirty (30) clusters per domain, for a total of ninety (90) clusters.

2.2 Respondents

The survey gathered information and anthropometric measurements, as follows:

- ***One adult household member*** (preferably the wife or husband) answered questions related to the household's food security coping strategies, among other information.
- ***All women in the households*** responded to questions about women's dietary diversity, two-week morbidity of children and infant and young child feeding (IYCF) practices.
- ***All women aged 15-49 years in the household*** had their Mid-Upper Arm Circumference (MUAC) measurement taken.
- ***All children aged 6-59 months in the household*** had their height/length, weight, MUAC and edema measurements taken.

2.3 Survey Instruments

Questionnaire (Assessment Tool): The main data collection tool for this survey was a questionnaire organized into several sections or modules designed to collect household information on: descriptive characteristics, water and sanitation, income, household food consumption, agriculture production, household food consumption and security related information, coping strategies, recent schools, access to external assistance, women's dietary diversity, IYCF practices, and child morbidity, among other indicators. Language experts translated the questionnaires into Amharic.

Anthropometric Measurements: Weight, height/length, and Mid-Upper Arm Circumference (MUAC) of children aged 6-59 months were measured. Weight, height/length, and MUAC were taken according to the World Health Organization (WHO) recommended standard procedures. Digital Salter hanging scales were used for child weight measurements. MUAC was measured using the appropriate MUAC tapes for all children aged 6-59 months and women aged 15-49 years in selected households.

2.4 Training

Training Curriculum: Training was facilitated by five (5) Trainers and five (5) Logistics personnel. The training was conducted in two separate venues simultaneously: survey Interviewers and supervisors were trained in Dire Dawa (near to the survey region) while measurers were trained in Addis Ababa from September 8th to 10th, 2017. FEWS NET assigned a nutritionist from their Kenya office, who provided assistance and supportive supervision for the training of anthropometric measurers. Training included general and specialized sessions, an introduction to the survey, objectives, methodological approaches, roles and responsibilities of survey teams and specific members, item-by-item presentation and discussion of the questionnaire, household listing and selection procedure, the ethical aspects of the survey, supervision, and quality assurance. Extensive training on how to conduct anthropometric measurements and collect accurate age of children was included for anthropometric measures. Special attention was given to standardization of anthropometric measurement techniques, using the Emergency Nutrition Assessment (ENA) software for standardization evaluation of measurers. Training curriculum and materials are available separately.

Trained and Deployed Individuals: Sixty-three (63) Interviewers, thirty-eight (38) Anthropometric Measurers, twenty-one (21) Supervisors, and three (3) Zonal Coordinators participated in the training. All trained Interviewers and Measurers traveled to the field with the twenty-one (21) Supervisors and three (3) Zonal Coordinators.

Unanticipated Loss of Measurers Prior to Data Collection: Each team was comprised of at least one (1) Measurer who had participated in the original training and passed the standardization evaluation. Due to unanticipated security concerns upon arrival in the survey region, twelve (12) trained anthropometric Measurers were unable to continue with the survey. Replacement Measurers were identified and evaluated in close consultation with the Somali Region DPPC Office and our Nutritionist. The new Measurers had previous measurement experience and received a one-day training. Replacement Measurers who did not receive the full training and standardization evaluation were given a limited role as Assistant Measurers in the team. This ensured the highest quality measurements and standardization during data collection.

Field Practice: All teams completed a one-day field practice before being dispatched to their assigned clusters. The field practice was facilitated by the Coordinators and our Nutritionist.

2.5. Data Collection and Supervision

Data collection in Dollo Zone and Jarar Zone was conducted simultaneously from September 13th to October 8th, 2017. The teams collected data from 1,800 households in 90 clusters. 600 households were selected from fourteen (14) Woredas (seven per zone) for each of the three reporting domains: Dollo Resident, Dollo IDP, and Jarar Zones. Twenty-one (21) data collection teams composed of one (1) Supervisor, two (2) Anthropometric Measurers, and three (3) Interviewers collected the data. All team members spoke the local language of the Zone to which they were assigned. In each cluster, two (2) local Guides helped facilitate the household listing and data collection. Three Zonal Coordinators stationed in the survey Zones provided coordination and overall monitoring. One (1) Coordinator for each survey Zone travelled with the survey teams to the survey clusters. In addition to the Coordinators, the Somali Regional Disaster Prevention and Preparedness Bureau (DPPB) was actively involved in survey coordination and supervision.

Household Listing in Clusters: Household listing took place during the first day in the cluster. The entire data collection team gathered information on the total number of residential households in the cluster. The number of households listed per cluster ranged from 110 to 220 households, averaging 165 households per cluster. Supervisors verified the listing in close consultation with the local cluster Guide and Kebele administration. Supervisors then randomly drew twenty (20) households from the completed household listing using RANDOM, a mobile-based random number generator application.

Data Collection and Supervision: Each Interviewer was assigned an average of six to seven (6-7) households per cluster. The Measurers (one lead Measurer and one Assistant Measurer) coordinated their assignments with the Interviewers. The survey Supervisors assured data quality through spot checks and review of completed questionnaires. Survey Coordinators were required to visit each team during the data collection period to assure completeness and quality of the questionnaires. In addition to collecting completed questionnaires from Supervisors, the Coordinators held meetings with survey teams to give feedback, boost morale, and resolve any personal or team issues that may have arisen.

ENA–Based Anthropometric Data Monitoring: Supervisors and Coordinators conducted daily monitoring of anthropometric data to ensure quality and standardization. This was especially important during the first week of the survey and towards the end of data collection. Coordinators entered anthropometric data daily into the ENA software to run plausibility tests and provide feedback. Our Nutritionist accompanied the teams and monitored data quality in the first week of the fieldwork. Daily anthropometric data were sent to our central office to review and provide timely feedback to the teams.

Cluster Replacements: Out of the original 90 clusters selected, four (4) were replaced; two clusters in Dollo Zone and two (2) clusters in Jarar Zone. In Dollo Zone, one (1) IDP camp/site was replaced because the majority of households had moved leaving fewer than twenty (20) households at the site from which to choose when the survey team arrived. One Dollo Resident cluster was replaced due to lack of access. The two (2) clusters in Jarar Zone were replaced because of security concerns or lack of access. The cluster replacement was completed by the Addis office following the standard randomization using the sampling frame.

2.6 Data Processing and Cleaning

A data management team made up of three (3) office Editors, six (6) data Encoders, and led by one (1) data Manger processed the data. They verified the completeness, legibility, consistency, and accuracy of each questionnaire prior to data entry. Encoders entered the data into CISpro, using double data entry methods to maintain data quality and consistency. STATA 14 was used for quality assurance and consistency checks of the double data entry, which identified discordant records in the two entries for correction. The data quality for all variables was ensured using internal consistency checks built into CISpro and verification of ranges and skip rules. Corrections were made by checking against the hard copies of the questionnaires. Plausibility checks and estimation of anthropometric indices were conducted using ENA software.

2.7 Data Analysis and Presentation of Survey Results

The analysis was guided by the survey indicators as well as the nature and content of the data. The approved data analysis plan included several dummy tables developed to provide a framework for data analysis and report preparation. As per our contract, data analysis mainly focused on descriptive statistics and food security and nutrition indicators. The sample design included three (3) reporting domains: Dollo Residents, Dollo IDPs, and Jarar Zone, each with a sample size (n) of 600, totaling 1,800 (total n = 1,800). By design, twenty (20) households were selected per cluster, with a total of ninety (90) clusters surveyed in the three reporting domains. Of note, in Dollo Zone, by design, an equal number of households were selected from Dollo Residents and from Dollo IDPs, 600 households each. However, the actual population is classified as follows: 78.6% Residents (non-IDPs) and 21.4% IDPs. The non-IDPs were therefore underrepresented in our sample, while the IDPs were over-represented. Sample weighting and survey procedures were used as part of the analysis to ensure proper representation of the population. ENA software was employed for the estimation of nutritional indices; the rest of the data analyses were performed using STATA 14. The main data file was then converted to SPSS format for final submission.

2.8 Ethical Considerations

Survey participants were given complete information as to the objective of the survey and its potential benefits/risks. A one-page consent form was prepared in the local language and read aloud to each respondent before beginning the interview. When consent was granted, the Interviewer proceeded with the interview. Data Collectors and survey teams were trained on how to maintain ethical aspects of the survey. All the information and data collected were compiled, organized, stored, analyzed, and retrieved guaranteeing confidentiality. Information was analyzed as group data only; no individual was identified. Only the survey team had access to the questionnaires and personal identifier information, and were instructed to maintain confidentiality.

3. Results

3.1 Response Rate and Age-Sex Distribution

3.1.1 Response Rate

The survey targeted 1,800 households: in the Dollo Zone (n=1,200) and Jarar Zone (n=600) of the Somali Region. Dollo Zone samples were equally divided between residents (Resident) and internally displaced persons (IDP). A 100% response rate was achieved. In the surveyed households, 2,402 children aged 6-59 months were identified: 844 in Dollo Resident households, 858 in Dollo IDP households, and 600 in Jarar Zone households. Weight, height/length, and MUAC were measured in 2,377 children aged 6-59 months, yielding a 98.9% response rate for anthropometric measurements.

The number of survey-eligible women in the age bracket, 15-49 years, was 697 in Resident households, 678 in IDP households in Dollo Zone, and 597 in Jarar Zone households. The survey measured MUAC among 1,899 women aged 15-49 years (96.3% of the women). Table 1 presents information on the target and achieved sample sizes, as well as the response rates.

Table 1. Achieved Sample Size and Response Rates

	Survey Zone			Overall
	Dollo - Residents	Dollo - IDPs	Jarar	Total
Sampled households (n)	600	600	600	1,800
Interviewed households (n)	600	600	600	1,800
Number of children 6-59 months (n)	844	858	700	2,402
% eligible children 6-59 months in the household	104.7	143.0	116.7	133.4
Number of children 6-59 months (measured)	833	851	693	2,377
% children 6-59 months measured (of all children 6-59 months in the households)	98.7	99.2	99.2	98.9
Number of women 15-49 years in the households	697	678	597	1972
% women 15-49 years in the households	116.2	113.0	99.5	109.5
Number of women 15-49 years (MUAC measured)	667	659	573	1,899
% women 15-49 years MUAC measured (of all women 15-49 years in the households)	95.7	97.2	96.0	96.3

3.1.2 Age-Sex Distribution of Household Population

There were 1,800 household interviews with 10,790 household members: 3,664 in Dollo Resident, 3,433 in Dollo IDP households, and 5,193 in Jarar Zone. The average household size was 6.1, 6.2, and 5.7, respectively (Table 2). Children under 59 months of age made up roughly a quarter of the household population (24.2%), comparable across the three (3) survey domains. In general, women in Ethiopia-Somali Region are reported to have the highest fertility rate of the country, estimated at 7.2 children per woman in 2016[1], compared to the national fertility rate estimated at 4.6. The household age structure suggests that adults aged 18-60 years comprise a third of the population, and this compares well across the three survey groups. Overall, about 39% of the population in the survey zones falls in the age bracket of 5-17 years, indicative of the typical age structure in an area with high fertility area.

[1]Fertility rate information is from the 2016 DHS in Ethiopia.

Table 2. Age and Sex Distribution of Household Members

Age	Survey Zone									Overall		
	Dollo – Residents			Dollo - IDPs			Jarar			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	24.2	26.2	25.1	25.3	24.9	25.1	21.8	22.9	22.3	23.9	24.7	24.2
5-17	40.1	35.1	37.7	40.7	37.6	39.2	42.3	37.2	39.8	41.1	36.6	38.9
18-60	31.2	35.3	33.2	29,8	35.3	32.4	32.0	38.1	34.9	31.0	36.2	33.5
60+	2.4	0.8	1.6	2.4	0.7	1.6	4.0	1.9	3.0	2.9	1.1	2.0
Missing	2.1	2.6	2.4	1.8	1.5	1.6	0.0	0.0	0.0	1.3	1.4	1.4
Average HH size			*6.1*			*6.2*			*5.7*			*6.0*
Total	1,866	1,774	3,640	1,932	1,785	3,717	1,799	1,634	3,433	5,597	5,193	10,790

3.2 Household Characteristics

3.2.1. Migration Status

Respondents were asked about the migration of their household within the last year (Table 3). The vast majority of households sampled from Dollo Resident (93.7%) and Jarar Zone (95.8%) were permanent residents of the sampled Kebeles[2], since before September 2016. All Dollo IDP households were displaced and not permanent residents. Dollo Zone contains a large population of IDPs and the most recent IOM IDP tracking matrix (June-August 2017) put the total IDP households at 16,645 in Dollo Zone[3]. Most of these IDP households reported that they lived in another Kebele in the Somali Region before September 2016 and had moved to their current location recently. A closer look at the IDPs in Dollo Zone revealed that virtually all households interviewed had been displaced due to difficulty accessing food (Table 4).

Table 3. Household Migration/Displacement Status

Household Migration	Survey Zone			Overall
	Dollo - Residents	Dollo - IDPs	Jarar	Total
	N=600	N=600	N=600	N=1,800
Household has lived in this Kebele since before September 2016 (permanent residents in the Kebele)	93.7	0.0	95.8	63.2
Internally Displaced since September 2016	2.5	100.0	4.2	35.6
Before September 2016, household lived in a different Kebele but moved to current Kebele by choice	3.8	0.0	0.0	1.3
Before May September 2016 household lived in another country (Returnee)	0.0	0.0	0.0	0.0

Table 4. Main Reason for Displacement

Main Reason for Being Displaced	Survey Zone			Overall
	Dollo - Residents	Dollo - IDPs	Jarar	Total
	N=15	N=600	N=25	N=640
Conflict	0.0	0.8	0.0	0.8
Difficulty accessing food	100.0	91.5	100.0	92.0
Other /Do not know	0.0	7.6	0.0	7.2

[2] A Kebele is the lowest administrative unit in Ethiopia and a Kebele can have 3-4 clusters

[3] According to the June-August 2017 IOM IDP tracking matrix report

3.2.2. Recent Shocks

Households were asked to report any recent shocks (if any) experienced in the previous 12 months. They were further asked to rank the shocks in order of most to least significant. There is some overlap among the recent shocks ranked "most" and "second most" significant in terms of difficulty experienced: death of livestock, sickness of household member, loss of employment/reduced income, and water supply issues (see Table 5). For all groups, death of livestock was reported to be the most significant shock by far, with 62% of Dollo IDP households, 46.9% of Dollo Resident households, and 39.9% of Jarar Zone households reporting this reason. This was followed by loss of employment/reduced income, which was ranked as most significant by 28.6% of households in Jarar Zone and 12.8% among Dollo Resident households; this compared to just 7.4% among Dollo IDP households . Other shocks considered to be most significant but with relatively lower frequencies include: sickness of household member, food shortage, and irregular supply/unsafe water. While food shortage was reported to be the most significant shock in Dollo Zone (by 12.5% of Resident households and 8.4% of IDP households), it was rarely reported in Jarar Zone (1.7%).

Table 5. Recent Shocks

Recent Shocks	Survey Zone			Overall
	Dollo - Residents	Dollo - IDPs	Jarar	Total
	N=578	N=598	N=594	N=1,770
First most significant difficulty				
Death of livestock	46.9	62.0	39.9	49.7
Loss employment/reduced income	12.8	7.4	28.6	16.3
Sickness of household member	12.6	7.2	6.7	8.8
Food shortage	12.5	8.4	1.7	7.5
Irregular supply/unsafe water	8.5	6.9	4.7	6.7
Second most significant difficulty				
Sickness of household member	27.0	26.3	15.5	22.9
Death of livestock	24.9	18.1	19.5	20.8
Irregular supply/unsafe water	16.1	13.0	14.3	14.5
Loss employment/reduced income	11.1	11.5	12.1	11.6

3.2.3. Income

Respondents were asked to report their current sources of income, in order of importance (Table 6). In Dollo Zone, cash transfers through (external) aid were stated to be the leading source of income for the Residents and IDPs, as reported by 25% and 44.5% of households, respectively. Dollo Resident and Dollo IDP households listed wage labor, petty trade, and sale of livestock as their next most important sources of household income. In Jarar Zone, food aid was reported to be the most important source of income by a quarter of the households, followed by wage labor, sale of livestock, and cash transfer through aid. Overall, remittances were reported to be the most important household income source by a tenth of the households in the three survey groups combined. Another 14.6% cited remittances as their second most important income source, adding up to a quarter of the sample. Significantly, 48.8%, 56.5%, and 25.3% of households in Dollo Resident, Dollo IDPs, and Jarar Zone, respectively and 43.3% for the sample overall, reported having no other source of income besides the one they listed as the most important. In Jarar Zone, almost 20% of households reported remittances and food aid as their second most important source of income.

Table 6. Household Source of Income

Household income source	Survey Zone			Overall
	Dollo - Residents	Dollo - IDPs	Jarar	Total
	N=600	N=600	N=600	N=1,800
Most important				
Cash transfer through aid	**25.0**	**44.5**	15.0	28.2
Wage labor	16.3	13.8	23.7	17.9
Petty trade/small business	15.5	1.7	5.0	7.4
Sale of livestock	13.7	13.0	15.2	13.9
Remittance	11.5	7.3	9.7	9.5
Food aid	5.0	9.0	**26.0**	13.3
Second most important				
No other income	48.4	56.5	25.3	43.3
Remittance	14.5	9.8	19.3	14.6
Cash transfer through aid	12.5	7.7	10.8	10.2
Wage labor	7.0	5.2	5.8	6.0
Food aid	6.8	7.8	19.8	11.5
Sale of livestock	5.2	8.8	13.3	9.1

Color Code: ***red*** *is for primary source.*

3.2.4 Water and Sanitation

Water: The main source of water for Dollo Resident and IDP households was water distributed by the regional government through tanker truck, at 39.7% and 66.3%, respectively (Table 7). In Jarar Zone, having access to a protected well was reported by over a third of the households (35.8%) to be the primary source of water. Overall, roughly a tenth of the households cited sources including public tap and unprotected wells. About two-thirds (64.9%) of the households: 68% in Dollo Residents, 69.3% in Dollo IDPs, and 57.3% in Jarar Zone reported treating the water before drinking or cooking food (Table 8).

Table 7. Water: Source of Household Water

Main Source of Drinking Water	Survey Zone			Overall
	Dollo - Residents	Dollo - IDPs	Jarar	Total
	N=600	N=600	N=600	N=1,800
Piped into dwelling	0.0	0.0	0.0	0.0
Piped into yard/plot	0.2	0.0	0.0	0.1
Public tap/standpoint	11.5	15.0	18.3	14.9
Borehole	2.8	4.7	4.8	4.1
Protected well	3.7	0.5	**35.8**	13.3
Unprotected well	17.3	4.5	12.0	11.3
Protected spring	0.0	0.0	0.5	0.2
Unprotected spring	0.2	0.0	0.5	0.2
Rainwater	1.3	0.8	0.0	0.7
Tanker truck	**39.7**	**66.3**	19.2	**41.7**
Cart with small tank	5.3	0.2	0.8	2.1
River/lake/pond	2.7	0.0	8.0	3.6
Bottled water	0.0	0.2	0.0	0.1
Other (specify)	14.8	7.8	0.0	7.6

Color Code: ***red*** *is for primary source.*

Table 8. Water Treatment Practice

Water Treatment Practice	Survey Zone			Overall
	Dollo - Residents	Dollo - IDPs	Jarar	Total
	N=600	N=600	N=600	N=1800
Nothing	29.3	29.5	36.7	31.8
Boil	0.7	0.5	0.2	0.4
Add bleach/chlorine	**68.0**	**69.3**	**57.3**	**64.9**
Strain through a cloth	1.0	0.5	0.8	0.8
Let it stand and settle	1.0	0.0	5.0	2.0
Other	0.0	0.2	0.0	0.1

***Color Code**: **red** is for primary source.*

Sanitation: About two-third of the households in the survey areas (62.9%) reported to practice open defecation and did not have any type of latrine facility. This compares across the three survey groups. Shared facilities (any type) were reported by 30.7% of the IDP households in Dollo Zone, 19% in Dollo Residents, and 24.5% in Jarar Zone as the main facility. Pit latrines with or without a slab were reported by about a tenth of the households in the survey areas combined (Table 9).

Table 9. Sanitation: Household Latrine Facility

Latrine/Sanitation Facility	Survey Zone			Overall
	Dollo - Residents	Dollo - IDPs	Jarar	Total
	N=600	N=600	N=600	N=1,800
Open defecation (i.e., bush/field/around)	**55.3**	**64.0**	**69.3**	**62.9**
Bucket	0.7	0.2	0.2	0.3
Any type of facility that is shared with people outside the home	19.0	30.7	24.5	24.7
Open pit/pit latrine without slab	17.0	1.8	4.0	7.6
Flush or pour-flush to piped sewer system	0.3	0.8	1.2	0.8
Flush or pour-flush to elsewhere	0.0	0.2	0.0	0.1
Ventilated improved pit latrine	3.0	1.0	0.3	1.4
Pit latrine with slab	4.7	1.2	0.5	2.1
Composting toilet	0.0	0.0	0.0	0.0
Others/Do not know	0.0	0.2	0.0	0.1

***Color Code: **red** is for primary source.*

3.2 External Assistance

3.2.1. Description of Data Collection

The questions related to external assistance in the survey tool assume that support is given to households on a monthly basis, which is common for food-aid distribution and external assistance[4]. In the Zones surveyed, however, external assistance was reported to have been provided mostly on a quarterly basis, with the exception of a few unscheduled and sporadic distributions. Our team discovered this from Woreda officials at the beginning of data collection and confirmed distribution frequency during interviews with the respondents. The data collection teams then adjusted the questions about external support to reflect the actual distribution frequency, so as to capture the true magnitude of external support during the 30 days prior to the interview.

[4] Have you received {food aid, cash or any support} from {an NGO, the UN or the government} in the past 30 days? Please specify. [*For each type of commodity mentioned, ASK how much (in KG) did the household receive in the last 30 days from any other sources (other than PSNP)?]*

The Coordinators and Supervisors provided the Interviewers with the following instructions for asking the external support questions:

(a) Did you receive {external support} in the last 30 days?
(b) If 'No' to the last 30 days, the interviewer then asks: did you receive a quarterly support (that lasts for 3 months) in the months of July or August?
(c) If the response to (a) or (b) is "yes", then that household is considered to be receiving {external support}in the last 30-days.
(d) If quarterly, in recording the amount received, the quarterly amount was divided by 3 (only if a household receives quarterly support) to get the amount for the last 30-days. If not quarterly, this did not apply.

3.2.2. External Assistance

External Support from the Productive Safety Net Program (PSNP): PSNP is a national program offered to households in their original place of residence. The highest proportion of residences receiving PSNP lived in Jarar Zone (36.3%), followed by Dollo Residents (29%) and Dollo IDPs (9.2%). Of the Jarar Zone households receiving support from PSNP, 49.5% received cash, while only 32.2% of Dollo Residents and 18.2% of Dollo IDPs enrolled in the program received cash from PNSP. Among Dollo Residents receiving food items from the PSNP, most received wheat grain, sorghum and haricot beans while Dollo IDPs were most likely to receive oil, wheat grain and sorghum. In Jarar Zone those receiving food under PSNP were most likely to receive oil, wheat grain, and sorghum - the same commodities as Dollo IDPs (Table 10)

Table 10: Productive Safety Net Program (PSNP)

External support –PSNP	Survey Zone			Overall
	Dollo - Residents	Dollo - IDPs	Jarar	Total
	N=600	N=600	N=600	N=1800
% households that are beneficiaries of the Productive Safety Net Program (PSNP)	29.0	9.2	36.3	24.8
	N=174	N=55	N=218	N=447
% households that received PSNP cash in the last 30 days (among those who received PSNP)	32.2	18.2	49.5	38.9
% households that received the following food items from PSNP (last 30 days) (among those who received PSNP)	N=174	N=55	N=218	N=447
Oil	6.2	**30.9**	**5.0**	8.7
Beans	15.5	7.3	1.8	7.8
Soybeans	2.9	10.9	3.7	4.2
Soya-fortified bulgur	1.7	0.0	0.5	0.9
Wheat grain	**69.5**	**34.5**	**11.9**	**37.1**
Sorghum	**16.7**	**30.9**	**5.5**	13.0
Rice	0.6	1.8	0.0	0.4
Pasta	0.0	0.0	0.0	0.0
Lentils	6.9	5.4	3.2	4.9
Peas	9.8	16.4	3.7	7.6
Wheat Flour	0.0	0.0	0.0	0.0
Haricot beans	**36.8**	5.4	2.7	**16.3**
Sugar	0.0	0.0	0.9	0.4

Color Code: *red is for primary source*

External Support from NGO, UN or Government Agency: The highest percentage of households that reported receiving external support from an NGO, the UN, or a Government Agency in Dollo IDPs; 21.7% of IDP households received external support compared to 14.8% of Dollo Residents and 12.2% of households in Jarar Zone (Table 11). Overall, oil, wheat, and sorghum were received by 38.9% of households as part of external support in all survey zones combined. In Dollo Zone, 21.7% of IDPs households received rice (20.0%), sorghum (32.0%) or wheat (17.8%), and oil (30.5%) as part of this assistance. Dollo Residents received similar commodities minus the rice: wheat (16.5%), sorghum (17.2%) and oil (17.2%). More than half of Jarar Zone households received oil (58.2%) with fewer receiving staples such as wheat (12.7%) and sorghum (46.5%), and peas (17.7%).

Table 11: External Support Received Directly from an NGO, the UN, or Government Agency (Other than PSNP)

External support (other than PSNP- NGO/UN/GO)	Survey Zone			Overall
	Dollo - Residents	Dollo - IDPs	Jarar	Total
	N=600	N=600	N=600	N=1800
% households received cash support (other than PSNP) directly from an NGO, the UN or the government (the last the 30 days)	14.8	**21.7**	12.2	16.2
% households that received the following food supports (other than PSNP) (last 30 days)	N=600	N=600	N=600	N=1800
Oil	**17.2**	**30.5**	**58.2**	**35.3**
Beans	1.3	0.3	0.8	0.8
Soybeans	1.7	0.0	0.3	0.7
Soya-fortified bulgur	0.5	0.2	1.2	0.7
Wheat grain	**16.5**	**17.8**	**12.7**	**15.7**
Sorghum	**17.2**	**32.0**	**46.5**	**31.9**
Rice	5.7	**20.0**	2.8	9.5
Pasta	0.0	0.3	0.8	0.4
Lentils	6.5	6.5	22.2	11.7
Peas	3.2	1.8	**17.7**	7.6
Wheat Flour	1.7	2.3	0.2	1.4
Sugar	3.7	9.7	2.2	5.2
Corn flour	8.1	7.1	15.5	9.9
Maize	4.0	4.2	5.8	4.7
Haricot beans	3.3	1.2	1.2	1.9
Kidney beans	2.7	1.7	0.0	1.4
Fafa (special baby formula)	0.8	1.2	0.5	0.8

Color Code: *red is for primary source*

Other External Support: Respondents were asked if they had received any support other than food or cash in the previous 30 days (Table 12). Of those who received such assistance, nutrition, water and medical aid, were most often reported. Just over a third of the households (36.3%) overall had received nutritional support: 30.7% of Dollo Zone Residents, 35.7% of Dollo IDP households, and 42.7% of households in Jarar Zone. Overall, about a quarter of the households (24.1%) had received water aid, ranging from10.8% in Jarar Zone households to 37.5% in Dollo Zone IDP households. A little bit over a tenth of the households (10.7%) said they received medical aid overall. Please note that the sources and content of this external support are not known to this survey.

Table 12: Other Support (Non-Food and Non-Cash)*

Non-food and non-cash support (last 30 days)	Survey Zone			Overall
	Dollo - Residents	Dollo - IDPs	Jarar	Total
	N=600	N=600	N=600	N=1800
% received nutrition support	30.7	35.7	42.7	36.3
% received medical aid	15.0	14.0	3.2	10.7
% received livestock support	0.8	0.5	0.0	0.4
% received water aid	23.8	37.5	10.8	24.1
% received education related support	0.5	0.7	10.2	3.8

**** Source of support unknown***

3.3 Household Food Security

Three food security proxy indicators, the Food Consumption Score (FCS), reduced Coping Strategy Index (rCSI) and the Household Hunger Scale (HHS), are presented in this section.

3.3.1 Food Consumption Score

The Food Consumption Score (FCS) measures diversity and frequency of food consumed within a seven-day recall period. The higher the FCS, the better the diet and the more food secure the household.[5] Dietary diversity is defined as the number of individual foods or food groups consumed over seven days prior to the interview. Food frequency represents the number of days (in the past seven) that a specific food item had been consumed in a household. The score for each food group is calculated by multiplying the number of days the item was consumed and its relative weight based on nutrient density of the food. The FCS is classified into three categories: Poor (FCS: 0- 21), Borderline (FCS: 21.5-35) and Acceptable (FCS: >35).

Overall, food consumption is considered acceptable among 55.7% of the households across the three survey domains (Table 13). There were regional differences, however, with just 36.5% of IDP households in Dollo Zone having acceptable food consumption, 55.3% among Dollo Residents and 75.2% in Jarar Zone. Over a quarter of Dollo IDP households (27.7%) were categorized as having "poor" food security based on the FCS, which is much higher than among Dollo Residents (15.3%) and Jarar Zone (5.8%). Of note, the consumption patterns of the different food groups compare well across the three survey domains but with varying magnitude (Table 10). Across all survey zones there is almost no fruit consumption with the highest reported rate of 0.3% (Dollo Residents). The consumption of vegetables varies more, with only 8.2% of Dollo IDPs consuming vegetables compared to 12.2% of Dollo Residents and 18% of households in Jarar Zone. A higher percentage of Dollo Resident households (17.0%) consumed meat and fish than among Dollo IDPs (4.2%) or Jarar Zone (9.3%). Sugar/honey and oil/fats/butter were consumed frequently, even if in small amounts, by over 50% of households in all Survey Zones. This may raise the FCS and tilt the results towards higher scores.

[5]WFP (2008). Technical Guidance Sheet - Food Consumption Analysis: Calculation and Use of the Food Consumption Score in Food Security Analysis WFP FAO, Rome. URL: http://documents.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp197216.pdf (20.07.2015).

Table 13. Food Consumption Score (FCS)

% Households that Consumed the Following Food Groups in the Previous 7 Days	Survey Zone			Overall
	Dollo - Residents	Dollo - IDPs	Jarar	Total
	N=600	N=600	N=600	N=1,800
Cereals (bread, rice, maize, barley) and tubers (potatoes, sweet potatoes)	99.8	98.8	99.8	99.5
Pulses and nuts (beans, lentils, peas, peanuts, etc.)	29.2	20.5	24.6	24.6
Vegetables	12.2	8.2	18.0	12.8
Fruits	0.3	0.2	0.2	0.2
Meat and fish (all types)	17.0	4.2	9.3	10.2
Dairy products (milk, yoghurt, cheese, other milk products)	44.2	27.2	76.5	49.3
Sugar, honey	77.0	76.5	69.8	74.4
Oil, fat, butter	66.7	56.3	84.3	69.1
Food Consumption Score (FCS)				
Poor [0-21] 95% CI	15.3 (12.4-18.2)	27.7 (24.1-31.2)	5.8 (3.9-7.7)	16.3 (14.6-18.0)
Borderline [21.5-≤35] 95% CI	29.3 (25.7-33.0)	35.8 (31.9-39.7)	19.0 (15.8-22.1)	28.0 (26.0-30.1)
Acceptable [>35] 95% CI	55.3 (51.3-59.3)	36.5 (32.6-40.3)	75.2 (71.7-78.6)	55.7 (53.3-58.0)
Mean FCS	40.0	32.5	52.2	41.2

3.3.2 Reduced Coping Strategies Index

Reduced Coping Strategies Index (rCSI) is a proxy for household food insecurity. Households were asked how often they used a set of food-based coping strategies in situations where they did not have enough food to eat during the week prior to the interview. Five questions getting at coping strategies were included in this indicator; they are classified into three categories of strategies: stress coping, crisis coping, and emergency coping, as shown in Table 14 below

To create the rCSI, each of the five strategies was assigned a standard weight based on its severity, as shown in Table 14. Household rCSI scores were then computed by multiplying the number of days in the past seven days in which each strategy was employed by its corresponding severity weight, and then calculating the sum of the totals. The maximum rCSI of 56 is reached if all five strategies were used daily during the past seven days.

Table 14. Weights Assigned to Coping Strategies

Coping Strategy	Weights
Rely on less preferred and less expensive foods	1
Borrow food or rely on help from friends or relatives	2
Limit portion size at mealtime	1
Restrict consumption by adults in order for small children to eat	3
Reduce number of meals eaten in a day	1

Almost all households (96%) reported that they had adopted at least one of the rCSI coping strategies during the seven days prior to the interview (Table 15, top sections). There was a modest variation by zone, from 93.3% in Jarar Zone to 94.2% and 99.2% in Dollo Residents and Dollo IDP households, respectively. The mean rCSI values (Table 15, bottom row) suggest that more Dollo Zone IDP households adopted more coping strategies (mean=28.5) than did Dollo Residents (mean=21.7) or Jarar Zone households (mean= 20.5). About a fifth of the IDP households in Dollo Zone employed the highest coping strategies based on the rCSI score (>42), compared to 12.5% of Dollo Residents. Jarar had the fewest (3.9%) households scoring in the most severe coping strategy category.

Table 15. Reduced Coping Strategies Index

Coping Strategies	Survey Zone			Overall
	Dollo – Residents	Dollo – IDPs	Jarar	Total
	N=600	N=600	N=600	N=1,800
% reporting one or more of the following coping strategies	94.2	99.2	93.3	95.6
Types of Coping Strategies				
Rely on less preferred and less expensive foods (%)	84.2	89.5	77.8	83.8
Borrow food or rely on help from friends or relatives (%)	69.3	66.3	61.5	65.7
Limit portion size at mealtime (%)	79.0	91.3	77.7	82.7
Restrict consumption by adults in order for small children to eat (%)	70.8	82.3	54.3	69.2
Reduce number of meals eaten in a day (%)	80.0	90.7	78.3	83.0
Reduced Coping Strategy Index (rCSI)				
0 – 3	9.1	3.2	9.3	7.3
4 – 16	33.6	24.4	30.7	29.6
17 – 42	44.9	52.1	56.1	51.0
> 42	12.5	20.3	3.9	12.1
Mean rCSI (95% CI)	21.7 (20.5-22.9)	**28.5** (27.3-29.8)	20.5 (19.5-21.5)	23.6 (22.9-24.3)

3.3.3 Household Hunger Scale

Household Hunger Scale (HHS) measures the perceptions of hunger a household has experienced within 30 days prior to the interview, based on three questions (Table 16). The responses are assigned scores 0 (if never), 1 (if 1-10 times) or 2 (if more than 10 times). The HHS is the resulting sum of the scores and categorized in three groups: 0-1 (no or little hunger), 2-3 (moderate hunger) and 4-6 (severe hunger).

Overall, a third (33.8%) of the households in the three groups combined reported that they rarely/sometimes did not have enough to eat for ten or fewer days (during the last 30 days) due to lack of resources; 22.3% said this had happened more than 10 times in the reporting period (30 days). Almost a third of Dollo IDP households (28.8%), reported more than 10 days with no food of any kind because of a lack of resources, while 20.3% of Dollo Residents and 5.1% of Jarar Zone households did.

Close to a quarter (23.6%) of the households overall reported that one or more of their family members went to bed hungry more than 10 times in the past 30 days, due to lack of food. The occurrence of this event was the highest in Dollo Zone among IDP households (28.4%), followed by Dollo Residents (23.8%); the lowest percentage (4.3%) reported this in Jarar Zone. Households were also asked if any household member had to go a whole day and night without eating anything (last 30 days) because there was not enough food. On the whole, about a third (32%) of households reported the occurrence of this event for 10 or more days in the past 30 days. The reporting varied significantly from a high of 36.5% in Dollo IDP households to 30.9% among Dollo Residents and 2.9% of Jarar Zone households. In Jarar Zone households, 73.5% reported that no

household member went without eating (day or night) because of a lack of resources. According to the HHS, 21.7% of the IDP households in Dollo Zone, 12.5% in Dollo Residents and 1.2% in Jarar Zone suffered from severe hunger (HHS=4-6). The corresponding proportion of households facing moderate hunger (HHS=2-3) was 38.1%, 30% and 9.2%, respectively. Jarar Zone households were the best off, with 89.7% of households reporting no or little hunger while Dollo IDPs are the worst off with 38.1% and 21.7% of households reporting moderate or severe hunger, respectively.

Table 16. Household Hunger Scale (HHS)

	Survey Zone			
	Dollo - Residents	Dollo - IDPs	Jarar	Total
	N=600	N=600	N=600	N=1800
In Past 30 days, was there ever no food of any kind to eat because of lack of resources to get food, % who reported?				
Never (0 times)	46.0	38.3	57.6	43.9
Rarely/Sometimes (1-10 times)	33.8	32.9	37.3	33.8
Often (more than 10 times)	20.3	28.8	5.1	22.3
In Past 30 days, did household member (any) go to sleep at night hungry because there was not enough food, % who reported?				
Never (0 times)	44.2	37.0	53.2	41.8
Rarely/Sometimes (1-10 times)	31.9	34.5	42.4	34.6
Often (more than 10 times)	23.8	28.4	4.3	23.6
In Past 30 days, did household member (any) go a whole day and night without eating anything at all because there was not enough food, % who reported?				
Never (0 times)	37.0	33.8	**73.5**	37.9
Rarely/Sometimes (1-10 times)	32.0	29.7	23.5	30.1
Often (more than 10 times)	**30.9**	**36.5**	2.9	32.0
Household Hunger Scale (%)				
0-1 (no or little hunger)	57.5	40.2	89.7	62.4
2-3 (moderate hunger)	30.0	38.1	9.2	25.8
4-6 (severe hunger)	12.5	21.7	1.2	11.8
Mean HHS (95% CI)	1.5 (1.4-1.7)	2.3 (2.1-2.4)	0.4 (0.3-0.5)	1.4 (1.3-1.5)

3.3.4 Livelihoods Coping

Households were asked a series of 14 questions about livelihood coping strategies they had used in the last 30 days in response to food shortage (Table 17). The most frequently used strategy reported by more than one-third of households (37.7%) across the three survey groups was: accessing credit or borrowing due to food shortage. This was reported by 30.8% of Dollo Residents, 39% of Dollo IDP households, and 43.2% of Jarar Zone households. The second most frequently reported livelihood coping strategy was: engaging in agricultural or casual labors (more than usual) by household member(s) due to food shortage (28% in Dollo Residents, 19.3% in IDP households in Dollo Zone, and 35.7% in Jarar Zone). Between 10% and 20% of the households reported engaging other livelihood coping strategies: borrowing money; reducing spending on fodder, veterinary, health, and education; and selling more sheep and goats. Irrespective of food shortage, selling sheep or goats was not a preferred coping strategy for 45.8% of the households in the three groups combined (48.5% of Dollo Residents, 44.7% of Dollo IDPs, and 41.8% of Jarar Zone households. They further reported that they did not want to sell their sheep or goat despite the difficulty in accessing food. Similarly, more than half of the households interviewed (57.4%) did not want to sell the last female animal despite the food shortage (60.8% of Dollo Residents, 56.3% of IDP households in Dollo Zone, and 55.2% of Jarar Zone households).

Table 17. Livelihoods Coping Strategies

Livelihood Coping Strategies		Survey Zone			Overall
		Dollo - Residents	Dollo - IDPs	Jarar	Total
		N=600	N=600	N=600	N=1,800
1. In the past 30 days, has your household engaged in agricultural or casual labor more than usual given a shortage of food?	Yes	28.0	19.3	35.7	27.7
2. In the past 30 days, has your household sold more sheep or goats than usual due to a shortage of food?	Yes	11.7	16.3	18.2	15.4
	No, because HH did not want to sell	48.5	44.7	41.8	45.8
3. In the past 30 days, has your household reduced expense on fodder, veterinary expenses, health or education due to a shortage of food?	Yes	7.6	9.3	32.2	16.4
4. In the past 30 days, has your household purchased food on credit or borrowed food due to a shortage of food?	Yes	30.8	39.0	43.2	37.7
5. In the past 30 days, has your household borrowed money due to a shortage of food?	Yes	12.7	14.0	30.0	18.9
6. In the past 30 days, has your household sold more firewood than usual due to a shortage of food?	Yes	2.7	4.3	1.8	2.9
7. In the past 30 days, has your household sold more camels or cows than usual due to a shortage of food?	Yes	0.7	1.5	1.0	1.1
	No, because HH did not want to sell	11.8	16.5	23.2	17.2
8. In the past 30 days, has your household sent household members to live with relatives in other areas due to a shortage of food?	Yes	2.0	1.8	2.8	2.2
9. In the past 30 days, has your household sent household members to seek wage labor in urban/other areas due to a shortage of food?	Yes	2.7	4.7	6.8	4.7
10. In the past 30 days, has your household sold household/ personal assets e.g., mobile phone, etc. due to a shortage of food?	Yes	3.2	0.3	1.7	1.7
11. In the past 30 days, has your entire household migrated in search of assistance due to a shortage of food?	Yes	1.0	1.0	2.2	1.4
12. In the past 30 days, has your household sold more female camels or female cows than usual due to a shortage of food?	Yes	0.7	0.3	1.0	0.7
	No, because HH did not want to sell	11.8	17.7	23.2	17.6
13. In the past 30 days, has your household sold pack camels due to a shortage of food?	Yes	0.0	0.0	0.3	0.3
	No, because HH did not want to sell	10.2	18.0	12.5	12.5
14. In the past 30 days, has your household sold its last female animal due to a shortage of food?	Yes	1.5	1.3	10.0	4.3
	No, because HH did not want to sell	60.8	56.3	55.2	57.4

3.4 Dietary Intake of Women and Children

3.4.1 Women's Dietary Diversity

The Women's Minimum Diet Diversity Score (MDD-W) measures how many food groups (out of nine) are consumed during a one-week reporting period. Women consuming foods from five or more food groups have a greater likelihood of meeting their micronutrient (vitamins and minerals) needs than women consuming foods from fewer food groups, indicating a higher quality intake. This analysis is based on the Food and Agriculture (FAO) and Food and Nutrition Technical Assistance (FANTA) recommended Food Group Indicator (FGI) that is comprised of nine food groups (FGI-9) listed in Table 17: (1) All starchy staples; (2) All legumes and nuts; (3) All dairy; (4) Organ meat; (5) Eggs; (6) Flesh foods and other small animal protein; (7) Vitamin A-rich dark green leafy vegetables; (8) Other vitamin A-rich vegetables and fruits (including yellow- and orange-fleshed sweet potatoes and red palm oil) and (9) Other fruits and vegetables.[6]

The MDD-W suggests that none of the women in the three survey zones met the MDD-W requirement of consuming foods from five or more food groups in the previous seven days. In the three groups combined, 45.6% were categorized as having consumed from two or more food groups in the past seven days, while 59.1% of Dollo Residents, 62.2% of Dollo IDPs, and 12.8% of Jarar Zone households consumed from two or more food groups in the past seven days. Women's diets overall were dominated by starchy staples (98.5%), followed by dairy (39.6%) and legumes and nuts (17.1%). Of note, the consumption of dairy in the previous seven days varied greatly across the survey groups, ranging from 21.4% in Dollo IDP and 25.8% in Dollo Residents, to a high of 74.5% in Jarar Zone households, where more women consumed legumes, nuts, dairy, and organ meat than in the other survey zones. Notably, a majority of Dollo Resident and Dollo IDP women reported consuming fewer than two food groups: 59.1% and 62.2%, respectively. This is strikingly higher than the 12.8% of Jarar Zone women who reported having consumed fewer than two food groups in the last week.

Table 18. Women's Dietary Diversity

% who consumed from different food groups in the past 7 days	Survey Zone			Overall
	Dollo - Residents	Dollo - IDPs	Jarar	Total
	N=582	N=580	N=535	N=1697
All starchy staples	98.6	98.6	98.3	98.5
All legumes and nuts	13.4	13.8	24.6	17.1
All diary	25.8	21.4	74.5	39.6
Organ meat	1.2	0.5	1.5	1.1
Flesh foods and other miscellaneous small animal protein	6.5	0.9	6.0	4.4
Eggs	0.2	0.0	0.0	0.1
VA rich dark green leafy vegetables	0.2	0.2	0.4	0.2
Other VA rich fruits and vegetables (including yellow and orange fleshed sweet potatoes and red palm oil)	0.5	0.7	0.2	0.5
Other fruits and vegetables	1.9	5.5	0.6	2.7
Minimum Dietary Diversity Score (MDDS) (five or more groups) %	0.0	0.0	0.0	0.0
Mean DDS	1.4	1.4	2.1	1.6
% consuming less than 2 food groups	59.1	62.2	12.8	45.6

[6] *Martin-Prévela Y, Allemanda P, Wiesmannb D et al. On choosing a standard operational indicator of women's dietary diversity, FAO, Rome, 2015*

3.4.2 Infant and Young Child Feeding Practices

Table 19 presents key Infant and Young Child Feeding (IYCF) indicators, including: exclusive breastfeeding, breastfeeding continuation, and breastfeeding frequency. Breastfeeding practices are estimated from mother's recall of her child's breast milk intake and number of times the child was breastfed over the 24-hour period (past day and night) immediately preceding the interview (24-hour recall).

Exclusive Breastfeeding among Children Under Six Months of Age:

A little over a third of children were estimated to have been exclusively breastfed during the first six months of life. The proportion of children aged 0 through 5 months who were given only breast milk (exclusively breastfed) was 32.9% among Dollo Resident households, 31.1% in Dollo IDP households, and 42.4% in Jarar Zone. These findings should be interpreted with caution because the estimates were derived from small sample sizes (less than 75).

Continued Breastfeeding in Second Year of Life:

A high proportion of children 12-23 months of age were considered to have been breastfed for one year or longer; 70.3% overall. Over two-thirds of the mothers in Dollo Resident and Jarar Zone households (66.4% and 67.5% respectively) and over three-quarters (76.4%) of IDP households in Dollo Zone reported to have continued breastfeeding for one year or longer. Continued breastfeeding is important for older infants and young children, contributing significantly to overall nutrient intake.

Breastfeeding Frequency through 23 Months:

Mothers of children 0-23 months were asked to report the number of times they breastfed their children in the 24 hours preceding the interview. The vast majority of mothers, about 83% of all mothers, reported having breastfed their child during the previous 24 hrs. When asked to report the number of times they breastfed their child, 29% of children in Dollo Residents households, 30.5% of those in Dollo IDP households, and 29.8% of Jarar Zone households were reported to have been breastfed for the recommended eight or more times in the prior 24 hours.

Table 19. Breastfeeding Practices among Children 0-23 Months

Breastfeeding Practices	Survey Zone			Overall
	Dollo - Residents	Dollo - IDPs	Jarar	Total
Children 0-5 months	**n=70**	**n=74**	**n=59**	**n=203**
% Exclusively Breastfed (0-5 months)	32.9	31.1	42.4	35.0
Children 12-23 months	**n=137**	**n=157**	**n=157**	**n=451**
% Continued Breastfeeding at 1 year	66.4	76.4	67.5	70.3
Children 0-23 months	**n=321**	**n=325**	**n=285**	**n=931**
% Breastfed the Previous 24 Hrs	82.2	87.4	78.6	82.9
Frequency of Breastfeeding in the Previous 24 Hrs				
% None (no breastfeeds)	17.8	12.6	21.4	17.1
% Feeding 1-3 times	12.8	8.9	7.4	9.8
% Feeding 4-7 times	40.5	48.0	41.4	43.4
% Feeding 8 or more times	29.0	30.5	29.8	29.8

Food Diversity and Meal Frequency among Children 6-23 Months of Age:

Table 20 explores food diversity, consumption and feeding practices among children 6-23 months of age. It includes the Individual Dietary Score (IDDS), the Minimum Meals Frequency score (MMF), and the Minimum Acceptable Diet (MAD) among this age group.

Individual Dietary Diversity Score (IDDS): The proportion of children 6-23 months who received foods from four or more groups on the day prior to the interview, is considered to have met the minimum dietary diversity. To compute a value for this indicator, a seven food-group[7]score variable was created. We asked mothers/caretakers about the type of foods the child had consumed the previous day and grouped them into seven food groups listed in Box 1. A score, based on the food groups, was categorized into: (1) four or more food groups and (2) less than four food groups. This indicator is presented separately for three age categories: 6-11 months, 12-23 months and 6-23 months. Sadly, results show that virtually none of the children age 6-23 months included in this survey met the minimum dietary diversity, less than 1% across the survey zones (Table 20).

Minimum Meal Frequency (MMF): The minimum number of meals is defined as: two times for breastfed children aged 6-8 months, three times for breastfed children aged 9-23 months, and four times for non-breastfed children 6-23 months of age. 'Meals' include both meals and snacks; frequency is based on mother/caregiver report. The MMF is determined by the proportion of breastfed and non-breastfed children 6-23 months of age who received: solid, semi-solid, or soft foods (also includes milk feeds for non-breastfed children) for at least the minimum number of times recommended for the age group during the previous day. Based on the minimum meal frequency definition for breastfed and non-breastfed children, 22.7%, 19.5% and 38.5% of children ages 6-23 months among Dollo Residents, Dollo IDPs, and Jarar Zone households met the minimum meal frequency, respectively.

Box 1. List of food items/groups reported as consumed by the child in the previous day

Food Group	List of Food Items
Group 1: Grains, roots and tubers	▪ Any porridge or gruel (Made from grain other than Teff) ▪ Bread, pasta, rice, noodles, biscuits, cookies, or any other foods made from oats, maze, barley, wheat, sorghum, millet or other grain. ▪ Any food made from teff, like injera, kita or porridge ▪ Any white potatoes, white yams, bulla, Kocho, Cassava /boye or any other food made from roots
Group 2: Legumes and nuts	▪ Any food made from beans, peas, lentil or pulses ▪ Any nuts or seeds such as peanuts, sesame, sunflower
Group 3: Dairy products (milk, yogurt and cheese)	▪ Any milk product like cheese, yogurt ▪ Milk (non-human milk – cow, goat or powder)
Group 4: Flesh foods (meat, fish, poultry and liver/organ meats)	▪ Any liver, kidney, heart or organ meats ▪ Any beef, pork, lamb, goat, camel, rabbit or wide game meat such as antelope or deer ▪ Any chicken ducks or other birds ▪ Any fresh or dried fish or shell fish
Group 5: Eggs	▪ Any eggs
Group 6: Vitamin-A rich fruits and vegetables	▪ Any pumpkin, carrot, squash or sweet potato that are yellow or orange inside ▪ Dark green leafy vegetables (example: Kale, spinach or Amaranth leaves)
Group 7: Other fruits and vegetables	▪ Any other vegetables (any starchy vegetables)

Minimum Acceptable Diet (MAD): The MAD indicator is computed for children aged 6-23 months, first separately by child's breastfeeding status and then by combining breastfeeding and non-breastfeeding children, to yield a single indicator. The IDDS and MMF scores computed above were combined to form the MAD. The indicator is computed differently for the non-breastfed children. The dietary diversity score for non-breastfed children was computed using a six food-group score so as to exclude the dairy group from the calculation. The number of milk feeds was counted separately for non-breastfed children to determine if the child was fed appropriately, i.e., received at least two milk feed per day, the minimum number required for this indicator.[8] Accordingly, only 13.3% of the children aged 6-23 months in the survey overall were considered to have met the minimum dietary diversity: 15.1% among this age group in Dollo Resident households, 6.4% in Dollo IDP households, and 19% in Jarar Zone households.

[7]The 7 food groups used for calculation of this indicator are: (1) Grains, roots and tubers, (2) Legumes and nuts, (3) Dairy products (milk, yogurt and cheese), (4) Flesh foods (meat, fish, poultry and liver/organ meats), (5) Eggs, (6) Vitamin-A rich fruits and vegetables, and (7) Other fruits and vegetables.

[8]*For breastfeeding children:* [Breastfed children 6-23 months of age who had at least the minimum dietary diversity and the minimum meal frequency during the previous day / breastfed children 6-23 months].

For non-breastfed children: [Non-breastfed children 6-23 months of age who had at least the two milk feeds, at least the minimum dietary diversity, and the minimum meal frequency during the previous day / non-breastfed children 6-23 months].

Table 20. Minimum Dietary Diversity, Minimum Meal Frequency, and Minimum Acceptable Diet Scores: Children 6-23 months

	Survey Zone			Overall
	Dollo - Residents	Dollo - IDPs	Jarar	Total
Minimum Dietary Diversity (MDD)				
6-11 months old	**n=114**	**n=94**	**n=69**	**n=227**
% Minimum dietary diversity (6-11)	0.0	0.0	0.0	0.0
12-23 months old	**n=137**	**n=157**	**n=157**	**n=451**
% Minimum dietary diversity (12-23)	1.5	0.0	0.0	0.4
6-23 months old	**n=251**	**n=251**	**n=226**	**n=728**
% Minimum dietary diversity (6-23)	0.8	0.0	0.0	0.3
Minimum Meal Frequency (MMF)				
6-11 months old	**n=114**	**n=94**	**n=69**	**n=227**
% Minimum meal frequency (6-11)	17.5	11.7	33.3	19.5
12-23 months old	**n=137**	**n=157**	**n=157**	**n=451**
% Minimum meal frequency (12-23)	27.0	24.2	40.8	30.8
6-23 months old	**n=251**	**n=251**	**n=226**	**n=728**
% Minimum meal frequency (6-23)	22.7	19.5	38.5	26.5
Minimum Acceptable Diet (MAD)				
6-11 months old	**n=114**	**n=94**	**n=69**	**n=227**
% Minimum acceptable diet (6-11)	5.3	1.1	7.3	4.3
12-23 months old	**n=137**	**n=157**	**n=157**	**n=451**
% Minimum acceptable diet (12-23)	23.4	9.6	24.2	18.9
6-23 months old	**n=251**	**n=251**	**n=226**	**n=728**
% Minimum acceptable diet (6-23)	15.1	6.4	19.0	13.3

3.5 Children's and Women's Nutritional Status and Health

3.5.1 Acute Malnutrition among Children 6-59 Months

Assessment of Data Quality: The quality of the anthropometric data was evaluated by computing the proportion of out-of-range values for weight-for-height Z scores (WHZ score) (the flags) and running ENA plausibility checks. ENA flags are based on -/+3SD from the observed mean for WHZ. Any value out of this range was flagged. Table 21 shows that only 1% and 0.7% of the data was flagged for WHZ in Dollo Resident and Jarar Zone households, respectively. None of the WHZ score was flagged in Dollo IDPs (Table 21). ENA plausibility check results presented in Table 22 reveal excellent rating for Dollo Residents (4%), Dollo IDPs (9%), and Jarar Zone (1%).

Table 21. Flagged Data for Weight for Height Z Scores

Zone	Observed Mean	Mean -3	Mean +3	% Flagged
Dollo – residents				
WHZ	-0.99	-3.99	2.01	1.0
Dollo – IDPs				
WHZ	-1.31	-4.31	1.69	0.0
Jarar				
WHZ	-1.04	4.04	1.96	0.7

Table 22. ENA Plausibility Check Results

	Dollo – Residents	Dollo – IDPs	Jarar
Overall Sex ratio score	0 (P=0.703)	0(p=0.973)	0(p=0.305)
Age ratio (6-29 vs 30-59)	0 (P=0.180)	0(p=0.630)	0(p=0.180)
Dig preference score – weight	0 (4)	0(4)	0(5)
Dig preference score –height	0(4)	0(7)	0(3)
Dig preference score – MUAC	0(4)	0(4)	0(4)
Standard Deviation WHZ	0(1.09)	5(1.10)	0(1.08)
Skewness WHZ	0(-0.03)	0(0.09)	0(-0.01)
Kurtosis WHZ	1(-0.38)	1(-0.20)	0(-0.19)
Overall score	4% (Excellent)	9% (Excellent)	1% (Excellent)

Prevalence of Acute Malnutrition: The nutritional status of children was assessed using three indices of acute malnutrition: Global Acute Malnutrition (GAM), Moderate Acute Malnutrition (MAM) and Severe Acute Malnutrition (MAM). These indices are defined based on different cutoff values for WHZ score and MUAC as shown in Table 23.

The proportion of children aged 6-59 months with GAM based on the WHZ and/or MUAC cutoff values was the highest in IDP households in Dollo Zone, with a GAM Rate from WHZ at 27.8%, followed by 19.4% and 21.7%, respectively, in Dollo Residents and Jarar Zone households. Similarly, the prevalence of SAM was the highest among IDP children in Dollo Zone for both measurements. Using WHZ and/or edema to identify SAM, Dollo IDPs had a rate of 7.3%, followed by 6.0% in Jarar Zone, and 3.9% in Dollo Resident children under five years of age.

Table 23. Prevalence of Global, Moderate, and Severe Acute Malnutrition among Children 6-59 Months

GAM, MAM, & SAM Rates in Children 6-59 Months	Survey Zone			Overall
	Dollo- Residents N=833	Dollo-IDPs N=851	Jarar N=693	Total N=2377
Global Acute Malnutrition (GAM)				
GAM (WHZ and/or edema) % (95%CI)	19.4 (15.8-23.6)	27.8 (23.8-32.3)	21.7 (18.5-25.3)	23.3 (21.1-25.7)
GAM (MUAC <125mm and/or edema) % (95%CI)	5.2 (3.7-7.2)	12.3 (8.8-17.0)	10.0 (7.4-13.2)	9.1 (7.5-11.1)
Moderate Acute Malnutrition (MAM)				
MAM (WHZ and, no edema) % 95%CI)	15.5 (12.3-19.3)	20.6 (17.0-24.7)	15.7 (13.0-18.8)	17.3 (15.4-19.4)
MAM (MUAC <125mm and>=115mm, no edema) % (95%CI)	3.7 (2.5-5.5)	9.0 (6.3-12.7)	8.4 (6.2-11.1)	7.0 (5.7-8.6)
Severe Acute Malnutrition (SAM)				
SAM (WHZ and/or edema) % (95%CI)	3.9 (2.5-5.9)	7.3 (5.4-9.8)	6.0 (4.3-8.3)	6.0 (5.0-7.2)
SAM (MUAC <115mm and/or edema) % (95%CI)	1.4 (0.9-2.4)	3.3 (1.9-5.6)	1.6 (0.8-3.1)	2.1 (1.5-3.0)

3.5.2 Child Morbidity

The mothers or caretakers of children 0-59 months were asked a series of questions on the prevalence of fever, cough, diarrhea, and measles during the two weeks preceding the survey. Childhood illness appeared to be common in the survey areas with 23.9% of the children reported to have had a fever, 12.9% diarrhea, and 24.1% cough in the previous two weeks (Table 24). Children in IDP households in Dollo Zone were more likely than in the other two groups to have had fever and cough in the two weeks. Preceding the interview. About a third of the children in Dollo Zone households were reported to have had fever or cough during the previous two weeks. Two-week prevalence of fever was reported for 22.8% and 13.7% of the children in Dollo Resident and Jarar Zone households, respectively. The corresponding two-week occurrences of cough were 24.5% and 13.7%, respectively. Overall, children in the survey areas had a low prevalence of measles at 1.3%.

Table 24. Prevalence of Childhood Illnesses in the Previous Two Weeks

Mothers/Caretakers Reports	Survey Zone			Overall
	Dollo – Residents	Dollo – IDPs	Jarar	Total
	N=844	N=858	N=700	N=2402
% children 6-59 months with fever previous 2 weeks	22.8	33.2	13.7	23.9
% children age 6-59 months who had diarrhea previous 2 weeks	15.3	13.5	9.1	12.9
% children age 6-59 months who had cough previous 2 weeks	24.5	32.3	13.7	24.1
% children age 6-59 months who had Measles previous 2 weeks	2.4	0.8	0.7	1.3
% children age 6-59 months with one or more types illnesses in the previous 2 weeks	34.8	40.9	24.4	34.0

3.5.3 Nutritional Status of Women

The nutritional status of women was assessed using MUAC as shown in Table 25. Slightly over a tenth (11.3%) of all women aged 18-49 years in the survey suffered from acute malnutrition (MUAC<221). The rates are similar across the three survey zones: with 9.3% among female Dollo Resident households, 13.1% among women in Dollo IDPs, and 11.5% of women in Jarar Zone households. Among pregnant and/or breastfeeding women (aged 15-49 years), the acute malnutrition rate (MUAC<221) was the highest in Dollo IDP (14.3%), followed by Jarar Zone (13.4%), and Dollo Resident households (8.9%).

Table 25: Nutritional Status of Women (18-49 years) by Zone

Age Group	Survey Zone			Overall
	Dollo – Residents	Dollo – IDPs	Jarar	Total
Women (18-49 years)	**N=599**	**N=604**	**N=541**	**N=1,744**
MUAC: <180mm	0.7	0.7	1.3	0.9
MUAC: 180-200mm	1.8	2.0	1.9	1.9
MUAC: 201-220mm	6.8	10.4	8.3	8.5
MUAC: <221mm	**9.3**	**13.1**	**11.5**	**11.3**
MUAC: 221-240mm	17.7	23.3	20.3	20.5
MUAC: >240mm	72.9	63.6	68.2	68.2
Pregnant/lactating women (15-49 years)	**N=372**	**N=391**	**N=285**	**N=1,048**
MUAC: <180mm	0.8	1.0	1.4	1.1
MUAC: 180-200mm	1.1	1.5	2.5	1.6
MUAC: 201-220mm	7.0	11.5	9.5	9.4
MUAC: <221mm	**8.9**	**14.3**	**13.4**	**12.2**
MUAC: 221-240mm	19.9	22.0	17.9	20.1
MUAC: >240mm	71.2	63.9	68.8	67.8

Conclusion

Overall from this survey, Dollo Zone households in IDP camps had the highest food insecurity, lowest nutrition status among children under five years of age and pregnant and breastfeeding women, and employed the most coping strategies of the three domains. Dollo Zone IDP households received more external assistance from NGOs, the UN, and/or government than the other two groups. Households in Jarar Zone were somewhat better off than those in Dollo Zone, as they had support from the PSNP, reported fewer recent shocks, had better IYCF practices, and overall better conditions, as reflected by their food security and nutrition indicators. Dollo Residents were in a slightly better situation than the IDPs, but were not as well off as the Jarar Zone. Even though the overall situation appears better in Jarar Zone households, they are not too much better off than the Dollo Resident and IDP populations. The insights about the food security, nutrition and livelihood situations from these surveys indicate that both Dollo Zone and Jarar Zone are areas of concern and at risk if the situation continues to worsen.