JOINT EMERGENCY NUTRITION AND FOOD SECURITY ASSESSMENT OF THE CONFLICT AFFECTED INTERNALLY DISPLACED PERSONS IN CENTRAL MINDANAO, PHILIPPINES

JANUARY - MARCH 2009

UNICEF & WFP
DOH-ARMM, CHD 10 & 12
And Members of the Nutrition Cluster

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List of Acronyms

ACF	Action Contre la Faim (Action Against Hunger)
AFP	Armed Forces of the Philippines
ARMM	Autonomous Region in Muslim Mindanao
BDA	Bangsamoro Development Agency
BHW	Barangay Health Worker
CHO	City Health Officer
CI	Confidence Interval
CSI	Coping Strategy Index
DoH	Department of Health
DSWD	Department of Social Welfare and Development
EC	Evacuation Centre
EFSA	Emergency Food Security Assessment
ENA	Emergency Nutrition Assessment
FNRI	Food and Nutrition Research Institute
GAM	Global Acute Malnutrition
H/A	Height for Age
HB	Home Based (with reference to Internally Displaced Person)
HEB	High Energy Biscuits
HEMS- DoH	Health Emergency Management Staff - Department of Health
IDA	Iron Deficiency Anemia
IDD	Iodine Deficiency Disorder
IDP	Internally Displaced Person
IPHO	Integrated Provincial Health Office
IYCF	Infant and Young Child Feeding
LDN	Lanao del Norte
LDS	Lanao del Sur
LGU	Local Government Unit
MAM	Moderate Acute Malnutrition
MERN	Mindanao Emergency Response Network
MILF	Moro Islamic Liberation Front
MNLF	Moro National Liberation Front
MoA-AD	Memorandum of Agreement on Ancestral Domain
MUAC	Mid-Upper Arm Circumference
NCHS	National Center for Health Statistics
NGO	Non Governmental Organization
NDHS	National Demographic Health Survey
NNS	National Nutrition Survey
NSO	National Statistics Office
SAM	Severe Acute Malnutrition
SD	Standard Deviation
SMART	Standardized Monitoring and Assessment of Relief and Transitions
SPSS	Statistical Package for the Social Sciences
TRO	Temporary Restraining Order
UNICEF	United Nations Children's Fund
VAD	Vitamin A deficiency
W/H	Weight for Height
WASH	Water Sanitation and Hygiene
WFP	World Food Programme

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EXECUTIVE SUMMARY

In January 2009, World Food Programme and UNICEF with the support of government and nutrition cluster partners conducted a Joint Emergency Nutrition and Food Security Assessment of the conflict-affected IDP population in Central Mindanao. The purpose was to assess the food security and nutrition situation of the Internally Displaced People (IDP) in affected provinces to determine their needs and inform appropriate humanitarian interventions.

The assessment entailed review of secondary information, stakeholder consultation and primary data collection. The latter was a two-stage cluster sample survey of the entire IDP population (both in evacuation centres and home-based) in the four provinces of Lanao Del Norte, Lanao Del Sur, Maguindanao and North Cotabato. A total of 580 households were surveyed and anthropometric measurements and health data collected for 717 children between 6 - 59 months of age. Two other questionnaires were also administered: one to host (non-IDP) households to assess the effect of hosting IDPs and the other to community leaders to assess the impact of the displacement on community resources where IDPs were settled.

The findings indicate that more than 80% of IDPs faced food insecurity. This has resulted primarily from poor food access, a direct result of disconnection of IDP households from their main livelihoods. Prior to the displacement, almost two-thirds (62%) of these households relied on crop production compared with only 16% during the assessment. The IDP households were found to be asset-poor and therefore unable to provide any fallback position. While the asset base was generally poor prior to displacement, it was established that there had been considerable loss as a result of displacement, most especially in the case of livestock where the losses ranged between 50 to 90 percent.

Consequently, IDP households relied on food purchases that were also found to be the main source of food access. However, a large proportion of the purchases were on credit where some 80% of households relied on borrowing money to purchase food. The findings also revealed that approximately 77% of the purchases of the main staple, rice was on credit. More than two-thirds of the households also reported higher expenditure during displacement and that they were forced to borrow frequently to meet their basic needs. Over a third of the households also reported borrowing four or more times over a two-month period. Previous EFSA in 2007 highlighted high reliance on credit and borrowing to access to food and this has not changed. However such high reliance on borrowing without access to primary source of livelihood is unlikely to provide economic security in the longer term.

The findings also revealed that about 90% of these households received food assistance. Despite this large percentage, food assistance was found to be the second main source of food access after purchases. This highlights the insufficiency (low rations) and irregularity of the food assistance provided. However, it is clear that in the absence of the assistance, the situation could have been much worse.

The extent of IDPs' inadequate access to food is highlighted by the severity of coping mechanisms used. It was established that some 87% of the households in the survey were eating less preferred food and 75% were limiting their meal sizes. The strategies employed would appear to have decreased their dietary diversity, exacerbating preexisting deficiencies and increasing the likelihood of subsequent malnutrition

The rate of malnutrition among IDP children (6-59 months old) shows a potential worsening crisis. Global acute malnutrition (GAM) of 10%[1] (95% C.I. 7.8-11.7) requires the need for urgent intervention. From previous surveys, the GAM prevalence in Mindanao are consistently higher than the national average (6.3%), and are indicative of increased vulnerability in the region. Prevalence of GAM were found to be much higher among children 6-24 months of age, reaching a peak of 22.1% in the second year of life. Importantly all cases of severe acute malnutrition (SAM) were in the 6-30mths age group. A significant association between the incidence of GAM and illness was found, with illness being significantly associated with treatment of water at the household level.

Chronic malnutrition, stunting, remains a serious public health concern in Central Mindanao. The assessment found prevalence of chronic malnutrition at 41.1% [95% CI 36.4-45.7] based on the 1977 NCHS reference and 47.3% [95% C.I. 42.9-51.7] based on the 2006 WHO child growth standards. Consistent with the findings of past national nutrition surveys, the prevalence of stunting found in this assessment was lowest among the 6-12 month age group 18.3% [95% C.I. 7.5 -29.1], increasing through the ages of 12-17 months to 40.0% [95% C.I. 29.4-50.6]

[1] Based on WHO 2006 Growth Standards, using the 1977 NCHS reference

and, 54.4% [95% C.I. 40.2-68.6] in the 18-24 month age group with leveling off after two years of age at 40%. The stunting prevalence among IDP children is well over and statistically different than the national prevalence of 26.3% (FNRI, 2005). Furthermore prevalence nationally has been declining consistently for the last twenty years, while the prevalence in Mindanao remains high in both ARMM at 36.1% and Region XII 40.5% (FNRI, 2005).

The feeding care practices of infants indicate that current feeding practices has been affected by displacement, and require attention to ensure maximum health benefits and protection from malnutrition. Most notably, a considerable number of mothers (21.6%) reported that the displacement had resulted in breastfeeding children less. It was also indicated that complementary feeding practices were deficient. The mean number of times children under 2 years of age were given complementary foods was consistently less than the recommended 3 times a day.

The assessment revealed that host households played a very important role in supporting the home-based IDPs where up to 80% of the host households in the survey shared their food. About two-thirds of host households also confirmed that IDPs households that received food assistance shared this with the host household. Thus, sharing of these resources has put considerable pressure on the adequacy of resources; almost three quarters of households that hosted IDPs expressed that food had become inadequate. The results point to a burden on these households, which cannot be overlooked.

The findings of this assessment strongly point to the need for a strengthened multi-sector humanitarian intervention to assist the IDPs. Specifically, the following measures are recommended:

1. Response Strategy
    - Address the underlying causes of acute malnutrition - health and treatment of water immediately.
    - Global acute malnutrition of 10% requires urgent intervention, through appropriate treatment of severely acute malnourished children and prevention of deterioration of moderately acute malnourished children. In the conflict affected areas an estimated 7,230 children are acutely malnourished, of which 72 are severely malnourished (SAM) and 7,156 moderately malnourished.
    - Emergency nutrition programming should priorities children under 24 months of age due to the highly disproportionate rates of acute malnutrition seen in this age group.
    - Supplementary feeding programmes should be expanded and increased to include vulnerable population groups - the moderately acute malnourished children, pregnant women and lactating mothers.
    - Due to the limited food diversity and the poor infant feeding practices multiple micronutrient powders (MNP) for all children 6-59 months and multiple micronutrient supplements for pregnant and lactating women should be included in the response interventions.
    - Food ration should be increased from the current half ration provided to a full ration. In absence of any significant improvements in the livelihoods of IDPs (to access a diversity of foods), assistance should include essential food items – rice, pulses, oils and sugar to ensure adequate caloric intake, and nutritional balance.
    - Food assistance programmes should cover all IDP households – i.e., all IDPs in evacuation centres and living with host communities
    - Routine immunizations and vitamin A supplementation for both IDP and host community children should be increased to reach 95% coverage.
    - Local health centers' capacity to detect and treat severe and moderate acute malnutrition should be strengthened, including standardisation of protocols on referrals, treatment and the use of therapeutic foods.
    - Nutrition surveillance should be strengthened in Regions X, XII and ARMM to identify nutritional emergencies in a timely manner.
    - The food security situation of the IDPs should be monitored to ensure that the assistance provided is

relevant and appropriate. The main indicators to monitor would be those relating to food access, prices, and market availability of essential commodities (rice, oil, vegetables and sugar).

- School feeding programmes should be considered especially in schools where IDP children are enrolled, in hosting areas (near ECs or host communities).

2. Coordination
   - Multi-cluster coordination between WASH, Health, Nutrition, Food, Livelihoods and Early Recovery clusters is needed to devise a common response to prevent deterioration in food security and nutrition status of the IDP population while displaced and as returnees to their place of origin.

   - General food rations should be standardized across agencies, with coordination of operations.

   - The Nutrition Cluster should continue to advocate the importance of promoting appropriate infant and young child feeding practices in emergencies to government structures responsible for coordination and implementing response regarding and investigate sources of distribution of bottle feeding supplies to the IDPs.

3. Follow-up
   - Follow up assessment should be conducted in 6 months.

   - IDPs should be supported with assistance in the form of food and non-food items when they return to their homes. In the initial phase of return, IDPs would require a food assistance package and this should be a full ration for 2-4 months. It should then be adjusted in subsequent months to reflect improvement in their food access.

   - During resettlement it is crucial to provide assistance towards reestablishing livelihoods and long term food security. This should be in the form of relevant inputs reflecting the livelihoods options IDPs identified or reported (crop production, labour and fishing) as primary livelihoods in respective provinces prior to displacement.

   - Further investigation into the underlying factors related to chronic malnutrition, the age specific causes of acute malnutrition and barriers not continuing to breastfeed after displacement should be assessed.

1. Context and Background to the Assessment

Mindanao is the second largest island (after Luzon) and covers a total land area of 94,630 square kilometers, surrounded by the Sulu Sea to the west, the Philippine Sea to the east and the Celebes Sea to the south. It has diverse topography ranging from mountainous volcanic peaks to high rolling plateaus and swampy plains. As of 2006, it consisted of 6 regions, 27 provinces, 33 cities, 419 municipalities and 10,062 barangays. In 2007 the population was approximately 21,582,540 persons (nearly a quarter of the national population) and population density was 221.3 people per square kilometer.

It is inhabited by Christian settlers from Luzon and Visayas and by ethnic groups (or Lumads) consisting of the Teduray, Manobo, T'boli, B'laan, Tasaday, Subanon and the Moro (Maguindanaon, Tausug, Maranao, Yakan, Iranon, Samal, Badjao, among others) (source: NSO, Philippines). The Moro occupy mostly the southwestern region of the island (i.e. the provinces of Sultan Kudarat, Maguindanao, Cotabato, Lanao Del Sur and Lanao Del Norte) and some island provinces off the coast of the Zamboanga Peninsula (Sulu, Basilan, and Tawi-Tawi). The Moro inhabit the coastal areas around the lakes, rivers and plains that offer fishing and farming (rice and corn farming) as the main livelihoods. The Lumads inhabit the upland zones and practice shifting (or swidden) cultivation on hill or mountain slopes; and the Christian settlers generally occupy the lowlands and are mainly engaged in rice and corn production.

According to the National Statistics Office, the national incidence of poverty was 40 % in 2000 and the incidence was found to be considerably higher in the regions in Mindanao. It was estimated that about one third of the rural poor live in Mindanao. In the Autonomous Region of Muslim Mindanao (ARMM) alone this stood at 74 %, and was the highest in the nation. The incidence of rural poverty has persisted at high levels and this has been attributed to various factors including: low public investments in critical infrastructure and associated poor functioning of transport systems, rural markets and agricultural support services. The lack of integrated rural development planning and implementation and slow pace of decentralization and low capacity of Local Government Units (LGU) have also been cited. In particular, in some areas of Mindanao, these factors have become intertwined with decades of conflict and generated a vicious cycle of decline.

The conflict between the Moro National Liberation Front (MNLF)/ Moro Islamic Liberation Front (MILF) and the Government that goes back to the 1960s has created a general instability and has been a major contributing factor to relatively higher incidence of poverty in Central Mindanao. The current round of conflict since August 2008 has resulted in the displacement of a large number of persons, some of whom live in cramped, makeshift shelters in evacuation centres (ECs) and still others, home-based (HB), who are accommodated with host families often near the evacuation centres. The ECs are set up, often spontaneously, around town centers and in open grounds of public schools and *madrasahs*, along roadside and vacant plots of host communities.

By late February 2009, there were about 144 evacuation sites in Central Mindanao. Many were located in five municipalities in North Cotabato, Region XII and ten municipalities in Maguindanao, ARMM. The number of IDPs continued to increase as a result of fresh clashes between the Armed Forces of the Philippines (AFP) and MILF forces and to a lesser extent from encounters between the New People's Army (NPA) and AFP in isolated areas of North Cotabato. The pattern of displacement was similar in Region X, where there was a fresh influx of evacuees from Wao in Lanao Del Sur. According to the Humanitarian Situation Updates for Mindanao[2] for 08 January 2009, approximately 308,175 persons had been recorded as displaced in Central Mindanao by end of December 2008. It noted that most of the displaced were in the ARMM region, particularly in Maguindanao and Lanao Del Sur. The number of IDPs who were home-based, i.e. staying among host communities was reported to be three times as many as living in evacuation centres.

The IDPs have effectively been removed from their primary resource base for livelihoods, which has adverse food security and nutrition consequences. They have been receiving assistance from government and humanitarian community in key areas that include water, sanitation and hygiene; protection; food; non-food items and health; most of this assistance has focused on IDPs living in the ECs. Food assistance has come from government (DSWD, DOH), WFP, ICRC, ACF, among others. By the end of February 2009, WFP had distributed nearly 8,000 MT of food consisting of rice, oil, dates, high energy biscuits (HEB) and beans. During February WFP assisted approximately 32,504 households with total tonnage of 1,137.5mt of mixed commodities that consisted of rice (905mt), oil (40.6mt), HEB (8.7mt) and beans (183.3mt). However, the humanitarian assistance is fairly

[2] "Humanitarian Situation Update – Mindanao" from the Resident Co-ordinator, United Nations System's Operational Activities for Development in the Philippines (various issues).

limited; for example, WFP's food assistance only provides a half ration to IDP households..

The current level of assistance is in part due to the general uncertainty about the future of the IDP settlements, as the Government had intended to close most of the settlements. There has also been a general lack of information about actual IDP numbers, and about their needs as this has not been properly assessed. Presently, the situation remains in a state of flux with frequent clashes between Government forces and opposing groups resulting in new displacements and there seems no immediate prospect of a resolution to the conflict. The priority of the Government of the Philippines is resettlement of IDPs and rehabilitation of their livelihoods.

It is in this context that the Nutrition Cluster identified the need for assessing the nutrition and food security situation. UNICEF and WFP, with support of government and cluster partners agreed to conduct this Joint Emergency Nutrition and Food Security Assessment. The goal of the assessment was to determine the nutritional status of children and the food security situation of the IDPs in the affected provinces of Maguindanao, North Cotabato, Lanao Del Norte and Lanao Del Sur The assessment is therefore intended to provide a better understanding of the situation of the IDPs, determine their needs and inform programming decisions of the nutrition and food cluster partners.

2. Background to the Nutrition and Food Security Situation in Mindanao

2.1 Nutrition Situation of Children in Mindanao

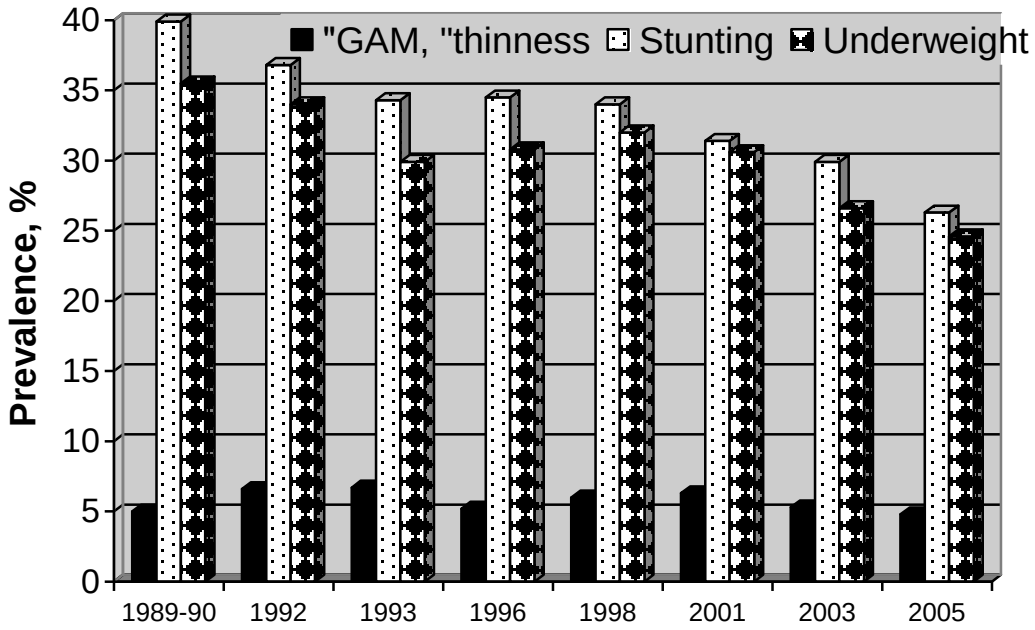
Nutrition and food security data in the Philippines is regularly collected through National Nutrition Surveys (NNS) conducted by the Food and Nutrition Research Institute (FNRI). Major surveys by the institute are conducted every 5 years with updates provided in the years between. Information on breastfeeding and infant and young child feeding is collected in the National Health Demographic Surveys (NDHS). The most recent data available from both surveys is from 2003, with a nutrition update from 2005 providing additional anthropometric data. While the NNS do report some data which is disaggregated at the regional level, most indicators, including those on nutrition status important to this assessment, are only consistently reported at the national level. This national data is essential to shedding some light on the potential nutrition situation in Mindanao in cases where data from Mindanao's regions is not available. The primary source of nutrition data specific to the provinces of Mindanao covered by the current assessment is the "Baseline Nutrition and Food Security Assessment in Mindanao" which was commissioned by UNICEF and WFP and conducted by the Food and Nutrition Research Institute in 2006. The survey covered the 5 provinces of Lanao Del Norte (Region X), Lanao Del Sur and Maguindanao (ARMM) and Sultan Kudarat and North Cotabato (Region XII). Key results from these surveys are summarized in the tables below.

2.1.1 Anthropometry

At the national level, the rate of global acute malnutrition[3] (GAM) has fluctuated over the past 20 years from 5.0% - 6.7%, and fell below 5% in 2005 (see NNS - FNRI, 1989-90- 2005). These rates are quite stable and do not indicate a national public health crisis. Rates of stunting and underweight, at 26.3% and 24.6% respectively, are still elevated and of concern, though they have been decreasing steadily over the last years (FNRI, 2005).

[3] Global acute malnutrition (GAM) is the term used to include all malnourished children whether they have moderate wasting, severe wasting or edema, or some combination of these conditions. GAM is defined as weight-for-height ratios that are less than 2 standard deviations below the mean (Z score of less than -2), or less than 80% median weight-for-height, or the presence of nutritional edema. (See *www.sphereproject.org*)

Graph 2.1 National Trends in Nutritional Status 1989 – 2005, Children 0-5 years old



At the regional level however, data from the NNS and those in the 2006 baseline survey in Mindanao indicate that the rates of stunting in the crisis affected regions and provinces in Mindanao are higher than the national prevalence and more concerning. The NNS update in 2005 showed stunting rates of 36.1% and 40.5% for the ARMM and Region XII respectively and the 2006 Mindanao Baseline Survey found rates of 36-37% in Lanao Del Sur and Maguindanao provinces (FNRI, 2006).

The same surveys show rates of GAM in Mindanao provinces to be elevated in comparison to the national average of 4.8%; Lanao Del Norte 6.4%, Lanao Del Sur 5.9%, Maguindanao 7.1%, North Cotabato 8.3%, and Sultan Kudarat 8.2% (FNRI, 2006). As 95% Confidence Intervals were not published for the 2006 baseline survey, it is unclear whether these differences represent a statistically significant difference or are due primarily to differences in sample size and methodologies. The only nutrition survey that is reasonably comparable to the current one was conducted specifically in IDP households by Oxfam during the 1999-2000 conflict and found 11.2% GAM (Oxfam, 2000). However this finding was not acted upon as it was seen not to differ statistically from the regional rate found in the 1998 NNS - 9.9% for North Cotabato & 9.2% for Maguindanao (FNRI, 1998).

Table 2.2: Child Nutritional Status in Mindanao, National Nutrition Surveys NCHS Reference

Child Nutritional Status in Mindanao – Data from National Nutrition Surveys				
Acute Malnutrition, Wasting/Thinness, GAM	**2001**			NNS (2001, FNRI)
ARMM – Weight for Height < - 2 SD	6.1%			
Region XII – Weight for Height < - 2 SD	8.8%			
Chronic Malnutrition, Stunting	**2001**	**2003**	**2005**	NNS, (2001-2005, FNRI)
ARMM – Height for Age <- 2 SD	42.0	35.9	36.1	
Region XII – Height for Age < - 2 SD	29.0	41.2	40.5	

2.1.2 Infant and Young Child Feeding

Infant and Young Child Feeding (IYCF) practices, especially with regards to breastfeeding, are still in need of improvement in Mindanao and throughout the Philippines to ensure maximum health benefits and protection from malnutrition. National data shows that only 33.5% of children less than 6 months are exclusively breastfed and only 23.3% of children continue to be breastfed up to months 20-23 (NHDS, 2003). Data from the FNRI 2006 baseline assessment in ARMM and Region XII found much higher rates of exclusive breastfeeding for children up to six months, ranging from 64.9% in Maguindanao and 78.6% in Lanao Del Sur, to 84.9% in North Cotabato and 91.6% in Sultan Kudarat (FNRI, 2006). These Mindanao provinces also have some of the highest rates in the country for children ever breastfed with ARMM at 91.6% and Region XII at 90.7% (NHDS, 2003). While the exclusive breastfeeding rates in the conflict affected provinces are higher than the national average, large numbers of children less than 6 months are still not being exclusively breastfed in these provinces. The highest deficiency is seen in Maguindanao with over 35% of children under 6 months not being exclusively breastfed. This is important to consider considering the cyclical nature of conflict and displacement in the region and that, in the current crisis, the largest proportion of IDPs living in evacuation centers is found in Maguindanao.

2.1.3 Micronutrients

Micronutrient deficiency disorders are common throughout the Philippines and pose a specific and important threat to the health and the nutritional status of children in Mindanao. While most available data from the NNS is not reported as disaggregated at the regional and provincial level, looking at the national data can provide understanding of the issues faced by the target population of this assessment and in Mindanao more generally.

In looking at iron deficiency, the national prevalence of iron deficiency anemia (IDA) among Filipino children 6 months to 5 years of age is 32.4 % (FNRI, 2003) indicating a public health problem. While anemia rates at the national level have decreased slightly among children 1-5 years old in recent years, the prevalence in the 6-11 month age range has increased steadily from 49.2% in 1993 and 56.6% in 1998 to 66.2% in 2003, indicating a severe public health problem in this age group (FNRI, 1993, 1998, 2003). In Mindanao, anemia is also a moderate to severe public health problem among children 6-59 months in the conflict affected regions. Data from 2006 FNRI survey showed prevalence rates of near or above 40% in all five provinces covered in the current assessment, including Lanao del Norte, Lanao del Sur, Maguindanao, North Cotabato, Sultan Kudarat (FNRI, 2006). Vitamin A deficiency (VAD) is also a public health problem in the Philippines with a prevalence of 40.1% in children 6 months to 5 years old (FNRI, 2003). Additionally concerning is the finding that the prevalence has been increasing over the last years, from 35.3% in 1993, to 38.0% in 1998 and 40.1% in 2003 (FNRI, 2003).

Despite the significant challenges Mindanao faces in overcoming IDA and VAD, iodine deficiency has shown improvement over the past years. Data from 2003 shows a median urinary iodine excretion level of 201 ug/L and 11.4% iodine deficiency (UIE <50ug/L) in children 6-12 years of age. This is a great improvement over the 1998 survey only 5 years earlier in which the median urinary iodine excretion level of school–aged children was 71 ug/L

and 35.8% were determined to be deficient in iodine (FNRI, 2003). Specifically in Mindanao, over 90% of salt in households was found to contain iodine in the 2006 survey (FNRI, 2006). However, looking at the national rates of only 44.5% of households with salt containing >15ppm (FNRI, 2005), it is unclear what proportion of salt used in Mindanao actually contains adequate amounts of iodine.

Table 2.3 Mindanao Specific Data from 2006 Nutrition and Food Security Baseline Survey

Indicators: Malnutrition and Underlying Causes	All Regions	Lanao Del Norte***	Lanao Del Sur***	Maguindanao	North Cotabato	Sultan Kudarat
Acute Malnutrition 0-59 months < - 2 SD W/H	No data	6.4	5.9	7.1	8.3	8.2
Chronic Malnutrition 0-59 months < - 2 SD H/A	No data	28.1	37.3	36.4	21.9	34.3
Underweight 0-59 months < - 2 SD W/A	No data	26.4	28.5	34.4	26.2	30.5
Anemia – 6 -59 Months	42.6	49.5	43.4	45.0	38.4	39.4
Salt Testing with RTK* Iodine Detected = Yes	92.1	93.4	90.7	91.5	92.8	92.8
Exclusive Breast Feeding up to Six Months	79.1	82.4	78.6	64.9	84.9	91.6
Measles Coverage, Verified with Yellow Card	No data	67.2	24.5	31.4	75.3	63.7

Baseline Nutrition and Food Security Assessment in Mindanao FNRI, 2006, NCHS reference.
** Rapid Test Kits*
****Unweighted Data*

Table 2.4 Summary of Key Nutrition Indicators at the National Level

Nutrition Indicators				**Notes and Sources**
Child Nutritional Status: National	2001	2003	2005	National Nutrition Surveys, and Update Surveys 2001-2005, FNRI, Philippines Based on 1977 NCHS reference
GAM/Thinness (moderate + severe) <-2 SD	6.3%	5.3%	4.8%	
Stunted (moderate + severe) <-2 SD	31.4%	29.9%	26.3%	
Underweight (moderate + severe) <-2 SD	30.6%	26.9%	24.6%	
Infant and young child feeding				
Ever Breastfed, National	86.5%			2003, NDHS
Ever Breastfed, Region XII	90.7%			
Ever Breastfed, ARMM	91.6%			
Excl. BF <6 months, National	33.5%			
Continued BF at 20-23 months, National	23.3%			
Micronutrient deficiencies				
Vitamin A Deficiency Children 6 mos. to 5 years old, <20ug/dl	40.1%			2003 NNS, FNRI.
Iron Deficiency Anemia	32.4%, 6 -59mths. 66.0%, 6-12mths. 29.1%, 12-59mths			2003 NNS, FNRI. In 6-12 month group anemia has increased from 49.2% in 1993 & 56.6% in 1998
Iodine deficiency (prevalence of goiter in school-aged children, 6-12 years of age)	11.4%			2003 NNS, FNRI. Large decrease from 1998, 35.8% IDD prevalence and Median UIE of 71ug/dl
Median urinary iodine excretion level	201 ug/dl			
Percentage of households with adequately iodized salt (> 15 PPM)	44.5%			2005 NNS Update, FNRI

2.2 Food Security background

As discussed earlier, Mindanao has fertile land and has been regarded as the 'food basket' of the Philippines. It produces diverse food and other agricultural commodities including coconut, banana, sugar cane, corn, rice (palay), pineapple, cassava, rubber, mango, sweet potato (*camote*), Manila hemp or abaca fibre, coffee and tomato. It was reported that in 2007, it produced 3,741,141 metric tons of palay, 3,766,915 metric tons of corn, 1,416,662 metric tons of cassava, 9,124,428 metric tons of coconut and 134,099 metric tons of sweet potato – the growth over the previous year ranged between 5% and 12%. Mindanao also produces livestock that include carabao, cattle, swine, goat, chicken and ducks with live-weights in 2007 estimated at 48,861 for carabao, 82,299 for cattle, 508,262 for swine, 240,575 for goats and 11, 367 for ducks. Fishery is also an important economic activity, consisting of commercial, municipal and aquaculture sectors.

The main exports are agricultural and fisheries products and include coconut (copra oil and its fraction) estimated at US$562 million; bananas (including plantains) at US$ 393 million; tunas (US$192 m); preserved and fresh pineapples (US$174m); and desiccated coconuts (US$41m). Main export destinations are Japan, USA, China, the Netherlands, South Korea, Iran, Singapore, Malaysia, Vietnam and Italy. Although palay (rice) is one of the main agricultural commodities produced in Mindanao (among the top five), it is in fact also the largest import. In 2007 it represented 12 % (in value terms) of total imports where nearly 77% (valued at US$105,800 million dollars) was imported from Vietnam, followed by Thailand (US$32,233 million) and Pakistan (US$260 million).[4]

Household level food security situation in Mindanao reflects a complexity of factors. Despite the high agricultural production potential and exports, most rural households in Mindanao are poor, as noted above. Food insecurity is intricately linked to poverty and the root causes are therefore generally similar to those that have contributed to high poverty levels discussed earlier. Production structure in terms of land ownership and assets particularly play important role in characterizing the state of food insecurity. Mindanao's predominantly agricultural system is based in a large part on share tenancy arrangements where farming households enter various forms of lease agreement with land owners for use of the land for agricultural production. The most common arrangement is to share the crop produced based on pre-agreed ratios. For example, if the land lord provides farm inputs, then the share of produce going to the landlord is expected to be higher. This tenancy arrangement inevitably contributes to the extent to which poor households have been able to feed themselves and in part appears to explain the paradox of high rice imports despite the commodity being a key crop of the island group[5].

WFP conducted a Food Assessment in Mindanao in October/November 2007 in six provinces[6] of conflict and non-conflict affected areas and accessible and remote villages (*barangays*). The survey covered 47 villages, 559 households and a separate market survey was undertaken concurrently where 70 traders were interviewed.

The findings of the report pointed out that structural factors "have caused a chronic food insecurity situation" and that 26% of the households interviewed were assessed to be "severely food insecure, 43% moderately food insecure and 31% of the households are food secure." The food consumption for an estimated 10% of the households was categorized to be "poor" while 28% of the households had "borderline" consumption. The report also established that households with poor consumption ate primarily rice, vegetables and sugar. The report further noted that poor access to food is one of the main factors for food insecurity in Mindanao. About 61% of households spent more than 65% of their total expenditure on food. The severely food insecure households spent more than 80% of their expenditure on food, with a very significant proportion of this purchased on credit.

The market assessment revealed that the price of most food products had increased and was affecting the ability of poor households to purchase adequate food. This was more so as the majority of them relied on one, often unreliable, income source. The report showed that less than 50% of the households had two income sources. Farming was the main income source for most of them who were tenant farmers, where they usually keep only 10-20% of the harvest and the rest of the produce went to the land owner. The situation is compounded by high cost of fertilizers, limited access to irrigation and overall poor agricultural practices that result in productivity and low yields.

The main findings of the 2007 WFP FEAS assessment indicate a state of chronic food insecurity. However, it should be noted that the two assessments are not similar and should not be directly compared. The 2007 report

[4] Mindanao Economic Development Council Report, 2007.
[5] World Food Programme 2007 *Emergency Food Security Assessment, Mindanao, Philippines*
[6] Cotabato, Lanao Del Sur, Sultan Kudarat, Magindanao, Lanao del Norte and Zamboanga

provides background context of "normal life" whereas this assessment has focused on displacement and has sought to assess the change since displacement – in particular the livelihoods and assets and how these have contributed to the food security situation. The 2007 assessment sought to describe the food security situation in the context of communities living in conflict, non-conflict and accessible and remote areas, therefore providing a picture of life and challenges faced by the communities pre-displacement. It is important to note that in the 2009 assessment, the analysis of food security situation is with the inclusion of food assistance, and the lower extent to which assets and incomes have featured in defining the food security status. It is also important to note that analysis of food frequency, food sources, expenditure were qualitative in both.

3. Assessment Methodology and Sampling Protocols

3.1 Assessment Design and Sampling

Prior to undertaking the assessment in the field, the joint team from UNICEF and WFP undertook an extensive review of existing literature and data on the food security and nutrition situation in Mindanao. Consultations were held with various stakeholders and cluster members in both Manila and Mindanao in order to receive feedback on the assessment tools and methodology and to incorporate the concerns and needs of all partners. All processes were designed and implemented on the ground by the UNICEF nutrition consultant, UNICEF nutritionist, and WFP Regional and Country staff with the support of Health Emergency Management Staffs (HEMS)-DOH, ARMM-DOH and Center for Health Development (CHD) X and XII and food and nutrition cluster members.

The Joint Emergency Nutrition and Food Security Assessment was designed as a two-stage cluster survey and the population of concern was defined as the entire IDP, i.e. Evacuation Centre (EC) and home-based (HB), currently displaced in the five crisis-affected provinces of Lanao Del Norte, Lanao Del Sur, Maguindanao, North Cotabato and Sultan Kudarat. The two-stage cluster survey was chosen as the sampling methodology given the complexity of the IDP context in Mindanao in which families are spread over a wide geographic area, mobile and living both in evacuation centers and with relatives.

The sampling frame of the assessment was composed of updated validation lists of IDP households by province and *barangay* – the smallest administrative division in the Philippines - which were obtained by WFP from provincial government centers. The validation lists indicated that 45,612 households would be covered in the assessment. Using the local estimate of an average of 6 people per household the total population covered in the assessment was estimated at 275,472 IDPs. Given the fluidity of the situation and other constraints in profiling IDPs, this population figure is not exact but represents a best estimate (See limitations below).

The methodology and sample size for the joint assessment was designed around the need to gain statistically strong data on the nutritional status of children from 6 to 59 months of age in the displaced population. The sample size was calculated using the formula below where:

p = estimated prevalence of malnutrition at 13%
d = estimated precision of .03
deff = design effect of 1.5

$$1.96^2 * \frac{p \times (1 - p)}{d^2} * \text{deff}$$

$$1.96^2 * \frac{.13 \times (1 - .13)}{.03^2} * 1.5 = 724$$

The total estimated sample size needed for the above criteria was 724 children. Taking into consideration constraints related to logistics, time-duration, team composition and the wide geographic area under concern, as well as the likelihood of lower design effect in the assessment, the team determined that a 36 clusters x 20 children per cluster design, with a total of 720 children, would be the best suited to maintain an acceptable degree of precision and tight 95% confidence intervals with the expected GAM prevalence of 10 – 15%.

For the first stage of cluster sampling, lists and population figures of all evacuation centers and *barangays* hosting IDPs were compiled from the validation lists. A number of *barangays*, especially in Lanao Del Sur, were pre-excluded from the assessment due to problems with access, including logistics, insecurity and/or flooding. Thus the final results do not represent the whole of the IDP population in ARMM, Region XII and Region X but only the population which was accessible. Thirty-six clusters were randomly selected proportional to population size (See Cluster List in Annex) using the Emergency Nutrition Assessment (ENA) software. As the IDP context in Mindanao was very fluid throughout the assessment, it was necessary to randomly choose additional replacement clusters which would be assigned to teams in the event that the IDPs in a chosen site had returned home or were for some reason inaccessible. Finally, the chosen clusters were divided between three assessment teams, with two teams based in Cotabato City and one in Marawi.

In the second stage of cluster sampling, households were randomly selected from the 'master lists' of all IDP households living in the selected evacuation centers or home-based sites/*barangays*. These 'master lists' were

obtained by WFP staff prior to undertaking the field assessment and represented the most up-to-date population data available. Upon the arrival of the team at the daily assessment site, evacuation center or *barangay*, the team leaders confirmed changes in IDP numbers with the community leaders and updated the 'master lists' to ensure that those who had left the EC were excluded and recent arrivals were included. Next, the teams utilized random start numbers obtained from a random number table in order to determine their first selected household from the list. Successive households were chosen using a sampling interval determined by dividing the total number of households by the number of households the teams expected to interview in order to reach the target of 20 children. While it was projected that around 15 households would need to be interviewed in one day, it was expected that some selected households would not be available to be interviewed and that replacements would be needed. Therefore, each team initially selected 20-25 households from this list. Thus, for example, if 20 households were to be selected in a cluster in which 200 households resided, and the team obtained a random start number of 15, the first selected household would be 15th on the list and the sampling interval would be 10 (200 households divided by target number of households, 20). The next households would be obtained by adding the sampling interval to the previous selected household number, resulting in the selection from the list of household numbers 25, 35, 45 and so on until the target of 20 households were obtained.

After selecting the households, the team leaders confirmed the presence or absence of these households in the community. If more than 10% of the selected households were no longer in the community, the household list was considered too inaccurate for use and a variation of the "spin the pen" method was employed. In the case where the list was considered valid for use, the selected households from the list were visited in a random order, to account for spatial and other bias that may have arisen from visiting a limited number of households in the order found on the master lists. Most clusters in the assessment were in fact able to make use of the 'master lists.'

Within each cluster, selected households were interviewed on both the food security and child health/nutrition questionnaire until anthropometric data was collected on the target number of 20 children ages 6-59 months. All children (6-59mths) in the selected household were measured and in clusters with less than 20 children 6-59 months, all households with eligible children were sampled. It was thus agreed that the sampling be structured around the need to measure 720 children (20 children x 36 clusters), but at the same time ensure all selected households – with and without children – were interviewed to avoid any biases for the food security part of the questionnaire. This would also ensure sufficient number of households were interviewed for any meaningful analysis – with coverage of 15-18 households projected per cluster.

3.2 Team Composition and Training of Enumerators

Team size and composition was guided by the assessment's need to cover the necessary number of 36 clusters in a reasonable time-period, to obtain the target sample of 20 children per cluster, and also to cover households without children, with each cluster being completed by one team each day. In order to meet these needs, three teams, each consisting of seven people worked to collect data over a period of 16 days.

In preparation for data collection, enumerators were recruited from the Regional and Central Health Departments, Provincial Health Office, the Provincial DSWD, and local and international non-government organizations participating in the nutrition cluster. A five-day training for all survey team members was held in Cotabato City. The objective of the training was to ensure that all enumerators and team leaders understood the assessment tools as well as the assessment background, objectives, conceptual frameworks for food security, livelihoods and malnutrition and anthropometric theory and practice.

The entire questionnaire was thoroughly discussed and practiced so that all enumerators both understood the questions and how to administer them in an unbiased manner. The training included a standardization test for anthropometric measurements and two days of on-site field testing and training. The teams' feedback from the field testing was integrated into the final version of the questionnaire. As the assessment was carried out in a region in which multiple languages and dialects are spoken, significant time was dedicated during the training to discuss the nuances of each question and how they should be asked appropriately in each of the local languages. Finally, team leaders attended an additional day of training to discuss their numerous roles and accountabilities.

The structure of each team consisted of one team leader (an experienced WFP staff member); two (2) Anthropometry/Food Security sub-teams composed of 2 people each; and one two-person Food Security team. The latter pair was dedicated to administering the household questionnaire in selected households without eligible children to ensure coverage without any bias, as well as administering the host family questionnaires in home-based IDP contexts (see Assessment Participant List in Annex). This in turn allowed the teams collecting

anthropometric data to focus on households with children to ensure meeting the target of 20 children per cluster while still administering the food security and livelihoods questionnaire to all selected households.

The team leaders were responsible for ensuring that teams adhered to strict household selection protocols. They also worked closely with teams in the field during and after each day's work to ensure all questionnaires were completed appropriately and consistently. During the course of the training and assessment, Team Three, which worked in Lanao del Sur and Lanao del Norte, was fortunate to have extra "back-up" enumerators thus increasing their team size above seven for much of the data collection process. On the other hand, Team One, which operated from Cotabato City, lost one enumerator due to family bereavement and therefore worked as a team of six for nearly half of the assessment. In the latter case, the integrity of the team and their data was ensured by the fully trained team leader carrying out additional work as an enumerator.

3.3 Assessment Tools

3.3.1 Household survey

A standard questionnaire covering demographic information, crop and animal productions, income and food sources, food consumption and expenditures, coping strategies and assistance received was developed utilizing WFP's Emergency Food Security Assessment framework adapted to the IDP situation. The nutritional status of all children ages 6 to 59 months old was also assessed by measuring the height and weight of all eligible children in selected households. The mother of each child under 5 years of age was interviewed regarding a number of issues related to the underlying causes of malnutrition. The questions concerned issues of child health, measles vaccination, de-worming and vitamin A supplementation, child feeding practices and hand washing behaviors. The questions on food security were asked to the head of the household while the questions on the child's health and food consumption were asked to the mother or child care-taker if he/she was not the household head.

Households were informed of the assessment purpose and content and consent was sought prior to administering the questionnaire. All households in the survey received a small token of iodised salt. For the purposes of the survey, a household was defined as a group of people who consistently share food and resources for meals together (i.e. 'eat from the same pot'). The Household Nutrition and Food Security Questionnaire and Samplijng protocol can be found in annex 5 and 9 respectively.

A total of 580 household questionnaires were obtained, including valid anthropometric and health data on 717 children 6-59 months of age.

3.3.2 Community Questionnaire

In each evacuation center or barangay, a short questionnaire was administered to the local leaders to enquire about the situation in which the IDPs were living and the extent to which community resources were impacted by the presence of the IDPs. The comparison was sought by asking these leaders whether they thought key resources and services (e.g. shelter, food, cooking fuel, water, land, health facilities, toilet facilities and education facilities) were adequate "before" and "during" the time IDPs settled in the area. A total of 36 key-informant forms were completed, one for each cluster.

3.3.3 Home Based Questionnaire

The survey also administered questionnaires to non-IDPs households which hosted IDPs. The questionnaire was administered in the "home-based" clusters to get some judgment on the impact of the IDP presence on their hosts. There were views that that IDP presence would impact negatively on host resources because IDPs were supported by relatives or friends hosting them; and that this impact would be greater in absence of humanitarian assistance provided to the IDPs living among host communities. The questionnaire sought to establish household profiles, the duration of hosting IDPs and their relationship with the IDPs. It also enquired about the extent of resource sharing and whether or not these resources were adequate in meeting both their needs and those of the IDPs. Selection of host households to be interviewed was linked to the selection of IDPs. The interview protocol was the same as described earlier; host households were only interviewed after an explanation of the purpose, and their consent was sought at the beginning. The outcome was that 69 host household questionnaires were administered in 16 municipalities across the four provinces which participated.

3.4 Anthropometric Methodology

Enumerators collected the measurements of weight, height/length, and assessed the presence of bipedal oedema. Children of 6-59 months of age were weighed to the nearest 100 grams with a UNICEF Electronic Mother-Child Scale. Height was measured using the Shorr height/length board and by following standard measurement procedures. For children younger than 2 years of age or less than 85 centimeters (cm), length was measured to the nearest millimeter in the recumbent position. Children 85 to 110 cm were measured in a standing position. The presence of nutritional oedema was assessed by applying thumb pressure to the feet for approximately 3 seconds and then examining for the sustained presence of a shallow print or pit. Numerical MUAC measurements were not recorded. Mid Upper Arm Circumference was recorded using the current color-coded MUAC cut-offs for risk of malnutrition.

Prior to the assessment, enumerators foresaw potential problems in gathering precise ages as many mothers were reported to not know their children's birthday. To estimate age in months a calendar of events was developed which included important religious, political and environmental events for the various Muslim and Christian communities in different localities over the last 5 years. Special attention was given to establishing events necessary for estimating age around the cut-offs of 6 – 59 months of age.

In each randomly selected household all children 6-59 months of age were measured, including all eligible children in the last household even if the target of 20 children was achieved. Thus, more than 20 children were often measured in any given cluster. If a child was absent from the household at the time of the interview, enumerators were instructed to return to the household later in the day to collect the measurements. In nine (9) cases, children could not be located, thus measurements were not taken and they were excluded from the analysis. Other data was excluded due to issues concerning age (3), lack of data on the sex of the child (8), and the feasibility of certain measurements (3). After these exclusions, a total 717 children provided valid anthropometric and health data for analysis.

3.5 Data Management

A Microsoft ACCESS database was created by a database specialist from WFP's regional office and was used to capture the data from the main food security and nutrition questionnaire and perform data cleaning. After attending the five-day enumerator training, four data encoders from DoH ARMM and Bangsamoro Development Agency were trained by the database specialist on the entry and preliminary data cleaning. This was followed by the database specialist conducting ten days of supervising the data entry and further training on checking the data each day for mistakes and inconsistencies related to missing entries and feasibility/outliers. Potentially problematic entries were then double checked by the encoders by referring to the hard copy questionnaires. Data entry took place simultaneous with the data collection process, data being entered the day after it was collected in the field. This allowed for the data to be immediately available for cleaning and analysis the day after data collection was finished. Data was finally cleaned by regional WFP staff in Bangkok.

The data was imported into the SPSS and Microsoft Excel programmes for analysis of the food security parts of the questionnaire. Analysis of the anthropometric data was done using ENA Smart software for three indices, weight for height (W/H), height for age (H/A) and weight for age (W/A). Weight for height, is an indicator for acute malnutrition, otherwise known as "wasting" or "thinness." It is especially important in emergencies as it measures the nutritional status of children at the time of the survey, thus highlighting the potential impact of the current emergency on the nutritional status of children. Height for age and weight for age on the other hand, are indicators for chronic malnutrition, or the longer term impacts of nutrition on children's growth. These indices were analyzed and reported in reference to both the 1977 NCHS reference and new WHO growth standards based on the cut-offs in Table 3.1 below.

Data from host-households and community questionnaires were captured in Excel templates and were also analysed using the same programme.

Table 3.1 Cut-off points and terminology used in classifying acute and chronic malnutrition children based on 1977 NCHS Reference and 2006 WHO Growth Standards

	Z Score	% of Median	Oedema
Weight for Height			
Global Acute Malnutrition (GAM/Wasted/Thin)	< -2 SD	< 80%	Present
Moderate Acute Malnutrition (MAM)	<-2 to ≥-3 SD	≥ 70 to < 80%	Absent
Severe Acute Malnutrition (SAM)	< -3 SD &/or Oedema	< 70% &/or Oedema	Present
Height for Age			
Chronic Malnutrition ('Stunted', under-height)	< -2 SD	≤ 89%	n/a
Moderately Stunted	< -2 and ≥-3 SD	85% - 89%	n/a
Severely Stunted	< -3 SD	< 85%	n/a

n/a not applicable

The NCHS reference was preferred for purposes of comparison with baseline data and for interpreting and analyzing the results for acute malnutrition in the emergency context given the widely accepted thresholds for analysis based on the NCHS reference and lack thereof for the 2006 WHO growth standards. These results were then fed back into the integrated database and analyzed along with all other variables - including those on child health, food security, consumption, and expenditure using SPSS.

3.6 Limitations and Potential Bias

Conducting an assessment in a displacement context such as the one in Mindanao presents a number of constraints with regards to identifying, locating and accessing the population of concern. The following limitations were encountered and they should be taken into consideration both in interpreting the current findings and especially in undertaking similar future assessments in Mindanao.

- Prior to selecting the clusters, the assessment team excluded a number of sites which were deemed either too far to visit in one day, too insecure for the assessment team to work in, or were inaccessible due to flooding or other logistical constraints. Due to the security situation, permissible times for travel were restricted, and a few sites over two and a half hours travel-time from base (Cotabato City for Teams 1 and 2 and Marawi for Team 3) were excluded. The travel time exclusion concerned a small number of areas.. Most other excluded sites were located in Lanao Del Sur and suffered from insecurity due to clan/family feuds and criminal activity. The exclusions due to security in Lanao del Sur were significant in number and this constraint is typical of the assessments conducted in this context in the past. Overall, however, excluded barangays were minimal when considering the total population size but do lend potential bias as those communities which are most isolated and most insecure could not be included in the assessment.

- The context of displacement is constantly changing and IDPs are a highly mobile population. Though inevitable, movements of IDP households are not easily monitored and it was often difficult to pinpoint exact population numbers or location of some families at any one time. Some IDPs returned to their land during the day to care for their livelihoods and returned to the town centers to sleep at night. Others tried to return home, only to face shelling one or two days later and thus returned to the evacuation sites in fear. Still others reportedly maintain multiple locations so as not to burden one set of relatives. Additionally, during the assessment new displacement was seen in a number of barangays. Because little information was known as to the new arrivals location, numbers or names, these arrivals were not included in the survey. This number is very small with regards to the total population under consideration however it is nevertheless important to recognize the challenge and limitations ongoing movements and displacements posed to the assessment.

- During the assessment, the situation was delicate as the government was in the process of discussing the closure of

the majority of evacuation centers and encouraging the IDPs to return to their place of origin, given adequate security was in place. While visiting evacuation centers prior to the survey, the team received anecdotal reports from many families expressing fear of returning while the military elements were still in their barangay or its vicinity thereby lending the possibility of further confrontations between AFP and the MILF forces. Families thus gave mixed responses as to whether they would follow the orders and return home or whether they would leave to another evacuation center or seek out private accommodation until they felt it was safe to return.

- The analysis of food security situation is with the inclusion of food assistance, and lower extent to which assets and incomes have featured in defining the food security status. It is also important to note that analysis of food frequency, food sources, expenditure were qualitative.

- The assessment also uncovered systematic problems with the official validation lists. In many clusters nobody in the community, including the center leader could identify or had heard of a number of selected households. In two cases, selected clusters which were still on the validation lists were empty or nearly empty upon arrival.

4. Respondent Demography and Household Characteristics

The majority of households interviewed were from Maguindanao (72.4%), followed closely by Lanao Del Sur (12.9%), North Cotabato (12.4%) and Lanao Del Norte (2.2%) with the least number. Of the 580 households interviewed, 383 (66%) were living in Evacuation Centres (EC) and 34% were Home-Based (HB). In general, most IDPs households were drawn from the ECs around Datu Piang, Datu Saudi, Mamasapano, Talayan, Datu Odin Sinsuat, Marawi City and Pikit.

On average, the IDPs had lived at the location for 5-6 months. The largest ethnic group was Maguindanaon (78%) followed by Maranao (14.5%) and Teduray at 2.4%. Other ethnic groups included Cebuano, Visayan, Ilonggo, Arumanon and Boholano, but their numbers were very small. Nearly half of the households in the survey had been displaced once; nearly one-third (32%) were displaced twice; and 18% were displaced three or more times.

About 41% of the household members interviewed were male against a majority of 59% who were female.[7] The mean age of those interviewed was 37 years and the range was 18 to 102 years. Average household size was found to be 6.9, but in a number of instances two or more families lived together as a single household resulting in large households sizes. The largest household size reported in the survey was 25.

It was established that fifty-one (51) households had one to two persons with disabilities; and eighty-three (83) households had between one and four members who were chronically ill.

The households collectively had 375 children of school-going age (6-12 years). Children from 81% of these households were attending school while 19% did not send their children to school. The main reasons given for not sending children to school ranged from 'no functioning school' (17.4%) to 'could not afford' (18.8%), 'insecurity' (23.8%) and 'others' (40.6%).

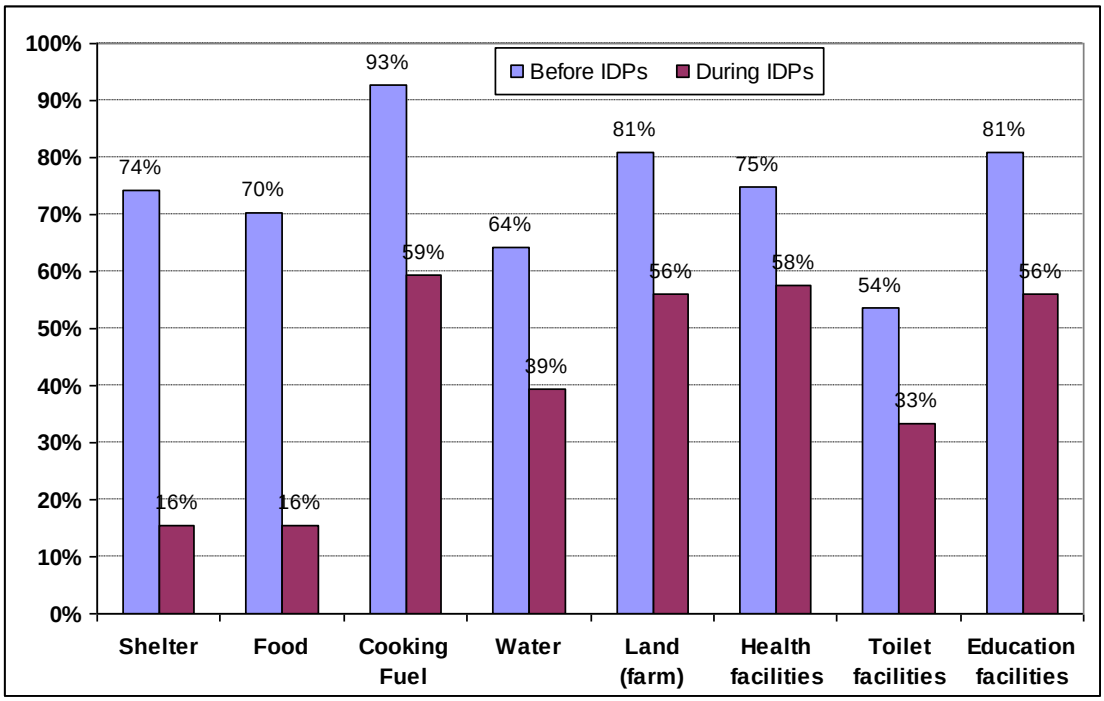
4.1 Community Questionnaire

The findings from interviews with key informants using the community questionnaire are presented in Figure 4.1, on average, around two-thirds or more of these *barangays* believed resources were adequate before the displacement compared with the situation during displacement where on average one-third thought resources were adequate. The change in perception of adequacy was most dramatic in the case of shelter and food where the percentage saying this was adequate fell from 74% and 70% respectively to 16% during displacement in both cases.

Of the 32 clusters that responded, the average length of time IDPs had lived in their respective locations was found to be six months (i.e. 5.9 months), which corroborates the information provided by IDPs.

[7] It was not systematically established if these were the true 'heads' of households, and should not be interpreted as such, since it was reported that IDPs routinely leave camp premises to pursue livelihoods opportunities including returning to their farms.

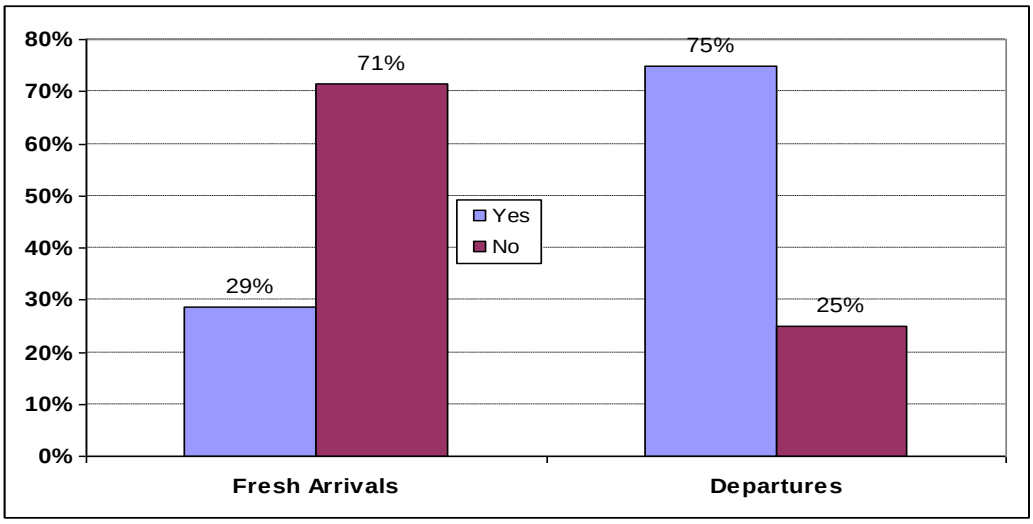
Figure 4.1: Perception of Host Communities Reporting Adequacy Of Resources "Before" And "After" Idps Settled In Their Communities



Community leaders were also asked about IDP movement, given the reports that government had planned to close evacuation centres. They were asked if there had been new IDP arrivals in the past month, and similarly, if IDP had left the area in the past month.

The findings of this question are summarised in Figure 4.2 which shows that 29% of the community leaders reported that there had been fresh arrivals compared with 71% of them who said there were no fresh arrivals. By contrast, departures were reported by 75% of the community leaders compared with 25% of them who said there had been no departures. However, the exact picture remains unclear and there were indications that some IDPs simply moved from ECs to live within communities – in some cases due to presumed fears about being forcefully moved to places of origin.

Figure 4.2: Percent of Community Leaders Reporting Fresh "Arrivals" And "Departures"



5. Findings and Discussion on the Nutritional Status of Children 6-59 Months

5.1 Anthropometry

Valid anthropometric and health data was obtained from a total of 717 children 6-months to 5 years of age (see methodology section for data exclusions). The final sample is broken down by age and sex as follows:

Table 5.1: Distribution of Age and Sex of Sample

	Boys		Girls		Total	
Age (months)	**no.**	**%**	**no.**	**%**	**no.**	**%**
6-17	82	49.4	84	50.6	166	23.2
18-29	84	55.3	68	44.7	152	21.2
30-41	81	52.6	73	47.4	154	21.5
42-53	94	55.0	77	45.0	171	23.8
54-59	39	52.7	35	47.3	74	10.3
Total	380	53.0	337	47.0	717	100.0

The age and sex breakdown shows that no group is over or under-represented. A sex ratio between 0.8 and 1.2 is considered an accurate representation of a population therefore the sample of this survey with a ratio of .88 is within the accepted range. The age distribution also meets standard expectations for nutrition surveys, with the 54-59 month age group comprising only 10% of the sample as it covers only a 6-month interval.

The findings of the assessment are synthesized in the tables below. Results are shown based on both the NCHS 1977 reference as well as the new WHO 2006 child growth standards as per IASC Nutrition Cluster guidance. The 1977 NCHS reference was used in this assessment for comparing current data to that of past surveys as well as for all analysis of acute malnutrition, "thinness", as emergency thresholds was already well established based on use of this reference population. See Annex "*Fact sheet on the implementation of 2006 WHO Child Growth Standards for emergency nutrition programmes or children aged 6-59 months"* (IASC Global Nutrition Cluster, 2009) for guidance on the application of WHO 2006 Child Growth Standards in emergency situations.

Table 5.2: Prevalence of Malnutrition Based on Z-Scores and By Sex – NCHS 1977 Reference

Indicator	**All** n = 717	**Boys** n = 380	**Girls** n = 337
Acute Malnutrition ("Thinness") Weight for Height			
Global acute malnutrition (GAM) (<-2 z-score and/or oedema)	**9.6 %** (7.6 – 11.6 C.I.)	10.5 % (8.2 - 12.9 C.I.)	8.6 % (4.8 – 12.4 C.I.)
Moderate acute malnutrition (MAM) (<-2 to ≥-3 z-score)	**8.8 %** (6.7 - 10.9 C.I.)	10.0 % (7.6 - 12.4 C.I.)	7.4 % (3.8 - 11.1 C.I.)
Severe acute malnutrition (SAM) (<-3 z-score and/or oedema)	**0.8 %** (0.1 - 1.6 C.I.)	0.5 % (-0.6 - 1.6 C.I.)	1.2 % (0.1 - 2.3 C.I.)
Chronic Malnutrition (Stunted) Height for Age			
Stunted (<-2 z-score)	**41.1%** (36.9-45.3 C.I.)	40.5% (35.0-46.1 C.I.)	41.8% (36.6-47.0 C.I.)
Moderate stunting (<-2 to ≥-3 z-score)	**24.3%** (20.6-27.9 C.I.)	23.7% (20.2-27.2 C.I.)	24.9% (19.2-30.7 C.I.)
Severe stunting (<-3 z-score)	**16.9%** (14.0-19.8 C.I.)	16.8% (11.9-21.8 C.I.)	16.9% (13.3-20.5 C.I.)
Underweight Weight for Age			
Underweight (<-2 z-score)	**39.9%** (35.6-44.3 C.I.)	40.3% (34.3-46.2 C.I.)	39.5% (34.7-44.2 C.I.)
Moderate underweight (<-2 z-score to ≥-3 z-score)	**31.0%** (27.1-34.8 C.I.)	31.6% (26.0-37.2 C.I.)	30.3% (26.4-34.2 C.I.)
Severe underweight (<-3 z-score)	**8.9%** (6.7-11.1 C.I.)	8.7% (5.4-12.0 C.I.)	9.2% (6.2-12.1 C.I.)

C.I. Confidence Interval. CI was set at 95% confidence
No Oedema was found in the assessment

Table 5.3: Prevalence of Malnutrition Based on Z-Scores and By Sex – WHO 2006 Growth Standards

Indicator	All n = 717	Boys n = 380	Girls n = 337
Acute Malnutrition ("Thinness") Weight for Height			
Global acute malnutrition (GAM) (<-2 z-score and/or oedema)	**9.8%** (7.8-11.7 C.I.)	9.7% (7.3-12.1 C.I.)	9.8% (5.9-13.7 C.I.)
Moderate acute malnutrition (MAM) (<-2 to ≥-3 z-score)	**7.5%** (5.5- 9.6 C.I.)	7.6% (5.3- 9.9 C.I.)	7.4% (3.5-11.3 C.I.)
Severe acute malnutrition (SAM) (<-3 z-score and/or oedema)	**2.2%** (1.1- 3.3 C.I.)	2.1% (0.4- 3.8 C.I.)	2.4% (0.4- 4.3 C.I.)
Chronic Malnutrition, (Stunted) Height for Age			
Stunted (<-2 z-score)	**47.3%** (42.9-51.7 C.I.)	47.4% (41.6-53.1 C.I.)	47.2% (42.0-52.3 C.I.)
Moderately stunted (<-2 to ≥ -3 z-score)	**26.6%** (23.3-30.0 C.I.)	25.0% (21.1-28.9 C.I.)	28.5% (23.3-33.7 C.I.)
Severely stunted (<-3 z-score)	**20.6%** (17.7-23.6 C.I.)	22.4% (17.3-27.5 C.I.)	18.7% (15.0-22.3 C.I.)
Underweight Weight for Age			
Underweight (<-2 z-score)	**32.1%** (27.7-36.5 C.I.)	32.1% (26.4-37.9 C.I.)	32.0% (27.3-36.8 C.I.)
Prevalence of moderate underweight (<-2 to ≥ -3 z-score)	**24.0%** (20.5-27.5 C.I.)	23.9% (19.0-28.9 C.I.)	24.0% (20.1-28.0 C.I.)
Prevalence of severe underweight (<-3 z-score)	**8.1%** (6.0-10.1 C.I.)	8.2% (5.2-11.2 C.I.)	8.0% (5.2-10.8 C.I.)

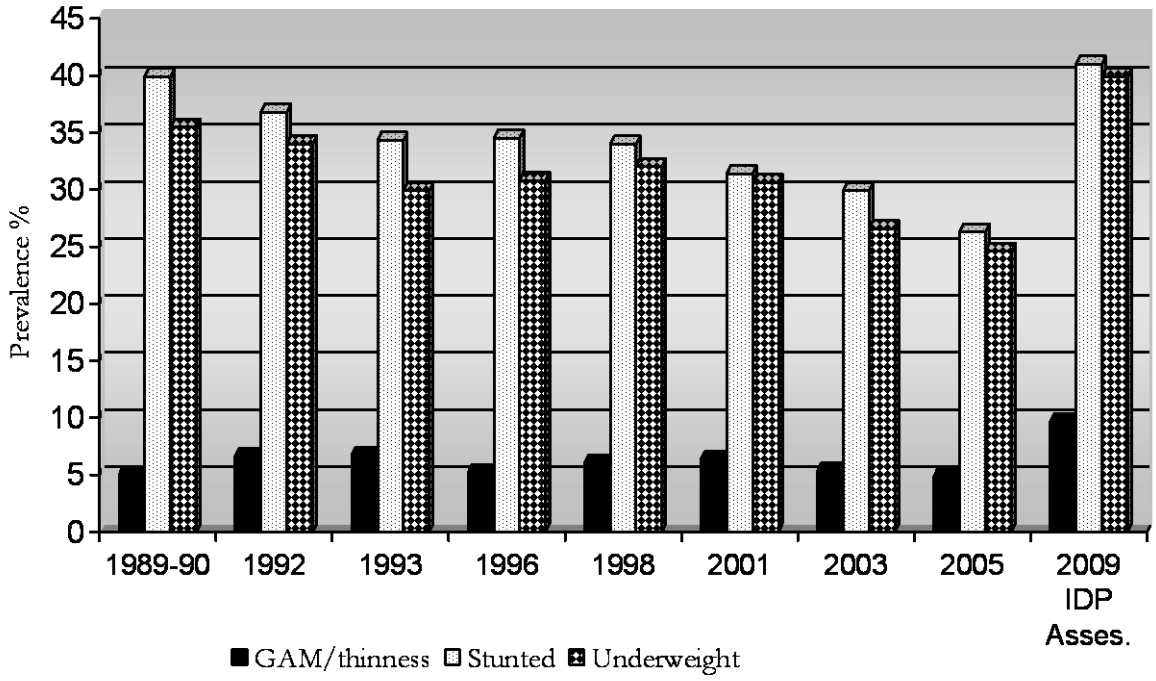
C.I. Confidence Interval; CI was set at 95% Confidence
No Oedema was found in the assessment

5.2 Global Acute Malnutrition

The assessment found a GAM prevalence of 9.6% [95% C.I 7.6 – 11.6] and prevalence of SAM of 0.8% [95% CI 0.1 – 1.6], with the 1977 NCHS reference. Using the new 2006 WHO growth standards, the prevalence of GAM and SAM were found to be 9.8% (95% C.I. 7.8-11.7) and 2.2% (95% C.I. 1.1- 3.3) respectively. No cases of oedema were found during the course of the assessment. Though GAM is significantly less than the emergency threshold of 15%, it is at the 10% cut –off indicating a serious level of concern, with the 95% CI indicating the true rate could be as high as 12.6%. This suggests that acute malnutrition is a point of concern, as any increased aggravating factors related to underlying causes could compromise the nutritional status of vulnerable children with z-scores just over threshold of -2 and raise GAM rates to emergency levels.

It should be noted that the primary difference in the results between the two NCHS reference and the WHO growth standards is seen in the prevalence of SAM, which is found to be higher when using the 2006 WHO growth standards, 2.2%, compared to 0.8%. The implications of elevated SAM rates when using the 2006 WHO growth standards for establishing new thresholds for emergencies and programming are still being developed.

Figure 5.1 Results Compared to National Data over Past 20 Years (FNRI, 1989-90- 2005)

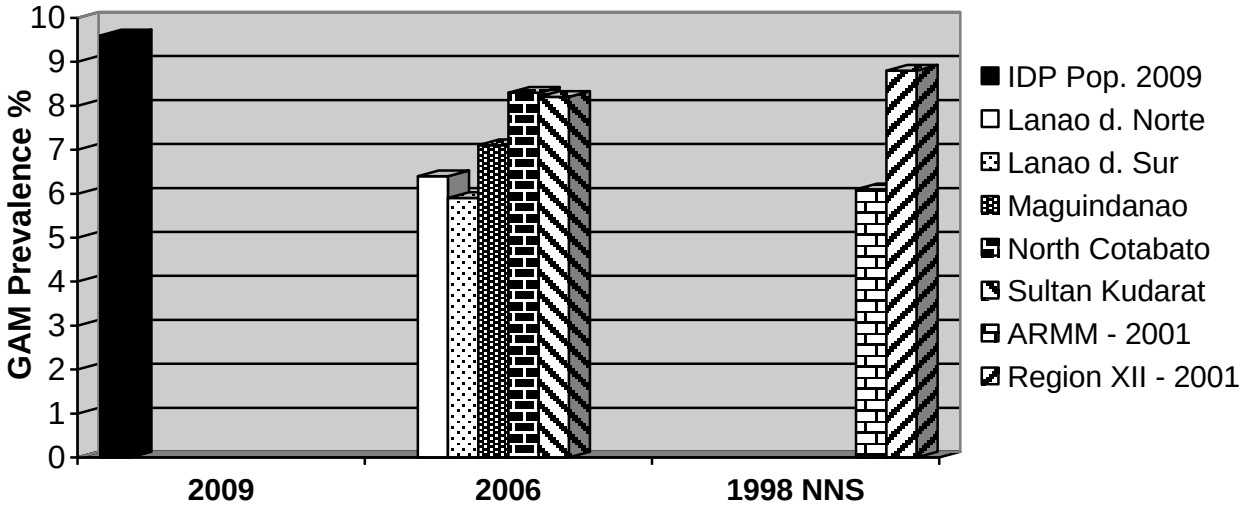


The surveys over the last 20 years, all based on NCHS reference, are plotted in Figure 5.1, above. Although, the survey methodologies are not exactly the same, a comparison between available data can offer some insight into national/regional trends and the current situation.

The GAM prevalence of 9.6% found in this assessment is higher than the national prevalence found in recent years (2005, 4.8%; 2003, 5.3%; 2001, 6.3%; source FNRI, 2001-2005). In fact, GAM prevalence in Mindanao is consistently higher than the national average and the findings of this assessment supports evidence of the increased vulnerability experienced by children in this region more generally. However the prevalence of 9.6% and 95% C.I, though slightly elevated, does not suggest the GAM prevalence is significantly higher for the current IDP population than for the general population of Mindanao in other years. This is seen in the rates of GAM in Region XII of 8.8% (2001 FNRI) and N.Cotabato and Sultan Kudarat, 8.3% and 8.2% (2006 FNRI), which are close to the findings of this assessment. In other provinces however, GAM rates for Maguindanao of 7.1 % in 2006 and 6.1% in 2001, and in Lanao Del Sur of 5.9 % and Lanao Del Norte of 6.4% in 2006 are noticeably lower than our current findings, with the means below this assessment's 95% CI of 6.8-12.6.

Though these differences are not completely comparable and may still not be statistically significant at 95% CI (CIs from 2006 were not published), 87% of the IDPs in the current assessment are residing in the same provinces of Maguindanao, Lanao Del Sur and Lanao Del Norte and the differences in GAM should be noted and considered.

Figure 5.2: GAM Prevalence in Mindanao



(Sources: 2009: this joint cluster assessment; 1998 & 2006 FNRI surveys)

5.2.1 Nutrition Status and Gender

While the GAM prevalence was elevated in boys, at 10.5% [95%C.I. 8.2 - 12.9] compared to the girls at 8.6% [95% C.I. 4.8 – 12.4] using the NCHS reference, the results based on 2006 WHO growth standards were nearly identical between boys and girls, with 9.7% [95% C.I. 7.3-12.1 C.I.] and 9.8% [95% C.I. 5.9-13.7] respectively. In both cases, no statistically significant differences were found due to gender. GAM prevalence vary even more by gender when the data is broken down according to age, however, this is likely due to issues specific to sample size as the confidence intervals overlap.

5.2.2 Nutrition Status and Age

GAM prevalence was found to be much higher in ages ranging from 6-29 months. By further breaking down the age groups by every 6 months, GAM prevalence is shown to rise sharply in the 12-17 month age group to 22.9% - from 14.1% in the 6-11 month age range - and remain elevated until ages 24-29 months when it drops down to 7.1%. This finding is consistent with the expectation that children are more vulnerable at these ages as mothers wean the children from breast-milk, children are introduced to complementary foods and are more exposed to the environment as they are crawling/walking. These factors all contribute to children being more exposed to the health risks of poor sanitation and poor water quality. The difference in prevalence of GAM, between boys and girls in the age group 12-17 months age range is large, 30.8 to 11.6, respectively.

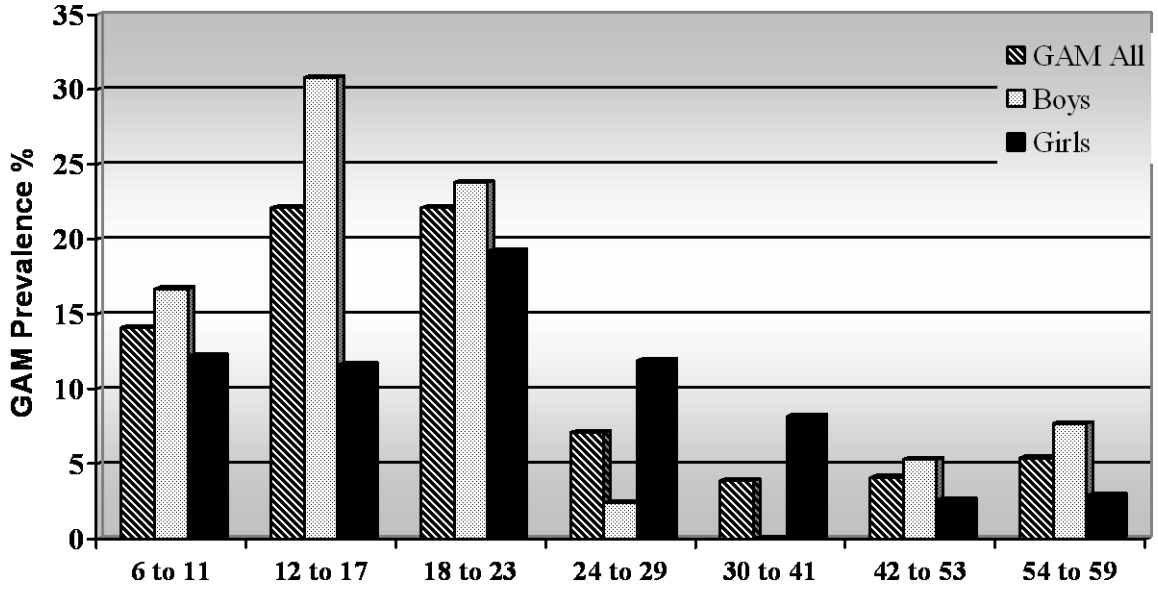
Importantly, the assessment found 20% [14.7 - 25.3 95% C.I.] GAM prevalence in children 6-24 months of age. Additionally, 5 out of the 6 children classified with sever acute malnutrition in this assessment were between 6-24 months and all cases were below 29 months. With 1 in 5 children in this age bracket suffering from acute malnutrition, this finding highlights the importance of interventions in WASH, IYCF and health which will address the likely underlying cause of malnutrition and needs of this specific age group.

Table 5.4: Acute Malnutrition by Age in Months and, Weight-for-Height Z-Scores

Age	Total	Severe wasting (<-3 z-score)		Moderate wasting (>= -3 & <-2 z-score)		GAM Prevalence (%)		
Mths	**No.**	**No.**	**%**	**No.**	**%**	**Total**	**Boy**	**Girl**
6-11	71	2	2.8	8	11.3	**14.1**	16.7	12.2
12-17	95	2	2.1	19	20.0	**22.1**	30.8	11.6
18-23	68	1	1.5	14	20.6	**22.1**	23.8	19.2
24-29	84	1	1.2	5	6.0	**7.1**	2.4	11.9
30-41	154	0	0	6	3.9	**3.9**	0.0	8.2
42-53	171	0	0	7	4.1	**4.1**	5.3	2.6
54-59	74	0	0	4	5.4	**5.4**	7.7	2.9
Total	**717**	**6**	**.8**	**63**	**8.8**	**9.6**	**10.5**	**8.6**

Based on 1977 NCHS Reference

Figure 5.3: Prevalence of GAM by Age in Months (*NCHS Reference)*



5.2.3 Percentage of the Median

In addition to z-scores, weight-for-height based on percentage of the median is also often utilized for designing feeding programs and determining admissions to feeding centres. WHO recommends admission to supplementary feeding programs for children with z-scores less than -2 and greater than or equal to -3 or weight-for-height less than 80% or greater than or equal to 70% of the median. Children with bipedal oedema and those with z scores less than -3 or weight-for-height less than 70% of the median are to be admitted to therapeutic feeding programs. These criteria are currently maintained for both the 1977 NCHS reference and 2006 WHO growth standards (IASC, 2009). The tables below of malnutrition rates based on percentage of the median and WHO 2006 child growth standards may assist with program planning.

Table 5.4: Prevalence of Acute Malnutrition based on the Percentage of Median

Prevalence of global acute malnutrition (<80% and/or oedema)	**2.8 %** (1.7 – 3.9 95% C.I.) (n= 20)
Prevalence of moderate acute malnutrition (<80% and ≥ 70%, no oedema)	**2.4 %** (1.5 – 3.3 95% C.I.) (n= 17)
Prevalence of severe acute malnutrition (<70% and/or oedema)	**0.4 %** (-0.1 - 0.9 95% C.I.) (n= 3)

Table 5.5: Distribution of Prevalence of Acute Malnutrition by Age, based in Percentage of Median

Age	**Total**	**Severe wasting (<70% median)**		**Moderate wasting (≥70% to <80% median)**		**Normal (≥80% median)**	
Mths	**No.**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	166	1	0.6	13	7.8	152	91.6
18-29	152	2	1.3	3	2.0	147	96.7
30-41	154	0	0.0	0	0.0	154	100.0
42-53	171	0	0.0	1	0.6	170	99.4
54-59	74	0	0.0	0	0.0	74	100.0
Total	717	3	**0.4**	17	**2.4**	697	**97.2**

5.3 Mid-Upper Arm Circumference (MUAC)

The assessment teams also used MUAC strips to classify risk of acute malnutrition along color-coded MUAC cut-off ranges of green for adequately nourished (>13.5 cm), yellow for moderate risk of malnutrition (> 11.0 cm and <13.5 cm) and red for 'severe' malnutrition and at risk of death (<11.0 cm). As numerical measurements were not recorded the data is interpreted in reference to the above cut-off ranges. Of the 717 children in the sample, 93.4% of children had MUAC in the 'green' range, 6.3% 'Yellow' and only 0.3% had a MUAC in the Red range below 11.0 cm. Therefore 0.3% were identified as severely malnourished using MUAC.

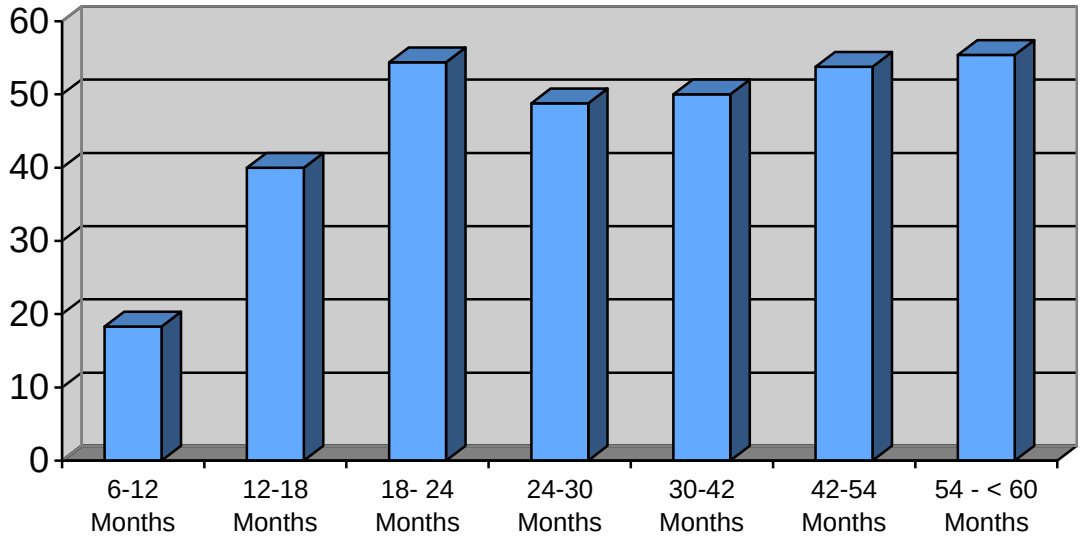
5.4 Chronic Malnutrition

The assessment also looked at the prevalence of chronic malnutrition or "stunted" in IDP children 6-59 months of age using data on both height and age in months. Low height-for-age z-scores (< -2) indicate chronic growth deficiencies/growth faltering which have occurred over time, often at critical points in a child's development, and result from a number of underlying causes including but not limited to disease, poor feeding practices, macro and micronutrient deficiencies.

In the Mindanao context gathering data on the exact ages of children can be difficult as many children are not registered and parents may not remember precise dates. As explained in the methodology section, teams made strong efforts to collect and verify birthdates when possible. When birthdates were not known teams utilized the local calendar of events to help parents estimate children's birthdates to the nearest day possible. Even though

great lengths were taken to ensure quality age data, the data must be understood in light of the limitations. The assessment found prevalence of chronic malnutrition (moderate + severe) at 41.1% [95% CI 36.4-45.7] based on the 1977 NCHS reference and 47.3% [95% C.I. 42.9-51.7] based on the 2006 WHO child growth standards. Consistent with the findings of past national nutrition surveys, the prevalence of stunting found in this assessment was lowest among the 6-12 month age group, 18.3% [95% C.I. 7.5% -29.1%], increasing through the ages of 12-17 months, 40.0% [95% C.I. 29.4-50.6], and 18-24 months, 54.4% [95% C.I. 40.2-68.6] before leveling off after two years of age (2006 WHO child growth standards).

Figure 5.3: Prevalence of Stunting by Age in Months *(2006 WHO growth standards)*



The stunting prevalence among IDP children is well over and statistically different than the national prevalence of 26.3% (FNRI, 2005). Furthermore prevalence nationally has been declining consistently for the last twenty years, while the prevalence in Mindanao remains high in both ARMM at 36.1 and Region XII 40.5% (FNRI, 2005). Thus, chronic malnutrition remains a serious public health concern in Mindanao. (See table 3.1 in nutrition overview for relevant tables)

5.5 Underlying Causes of Acute Malnutrition

The mean household size of acutely malnourished children was 8.1 compared to 7.7 for children not acutely malnourished. There was no significant difference seen between children in the two living contexts of evacuation centers and the home-based situation with respective acute malnutrition rates of 9.9% and 9.1%.

5.5.1 Health

Overall, 54.7% of children in the assessment were reported to have been sick in the previous two weeks[8]. Pearson Chi Square test showed an important and significant association (Pearson Chi Square sig. of .002) between reported illness and GAM/"thinness", with 72.5% of acutely malnourished children reporting illness in the past two weeks compared to 52.9% of those which were not acutely malnourished. Almost 50% of illness cases reported fever as the primary symptom/illness with 24.4% reporting 'repeated /coughs/colds' and 16.9% for diarrhea. No significance association was found between the type of illness and nutritional status.

Of the children who were sick (n=392), 69.3% were taken for treatment (Figure 5.5). The top places children were taken include Rural/Urban Health Unit (48.5%), Barangay Health Station (27%), Government Hospital (9.6%) and traditional healers (5.6%). The "other" sources where treatment was sought ranged from private doctor (2.6%),

[8] The data for illness of infants less than 6 months was excluded from the analysis as the question not asked correctly.

friends (1.5%), NGOs (1.5%), private clinics (1.1%), Pharmacy and *Barangay* service point (0.7% each), private nurse, shop and others (0.4% each). If children were not taken for treatment the overriding issue was a lack of money reported for 71.8% of cases (n=84).

This assessment found illness to be the strongest underlying factor associated with acute malnutrition, Pearson Chi square (significance value 0.002, and likelihood ratio 10). These findings support the need for addressing underlying factors related to child morbidity in order to protect children from illness and thus from acute malnutrition, Table 5.6.

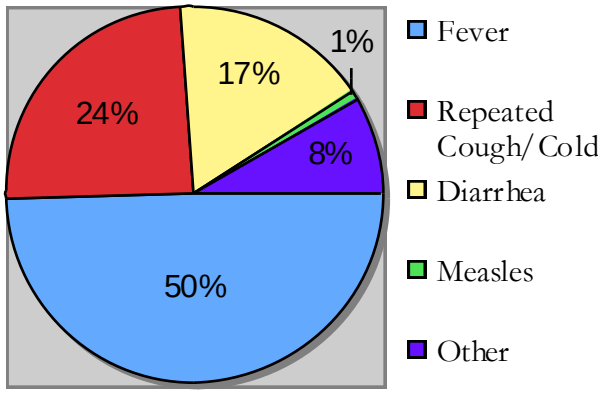
Table 5.6: Association between Reported Illness over the Last Two Weeks And current Acute Nutrition Status

Reported ill over the last two weeks	Malnourished*		Not-malnourished		Total	
	n	%	n	%	n	%
Yes	50	72.50	342	52.9	392	54.7
No	19	27.50	305	47.1	324	45.3
	69	100	647	100	716	100

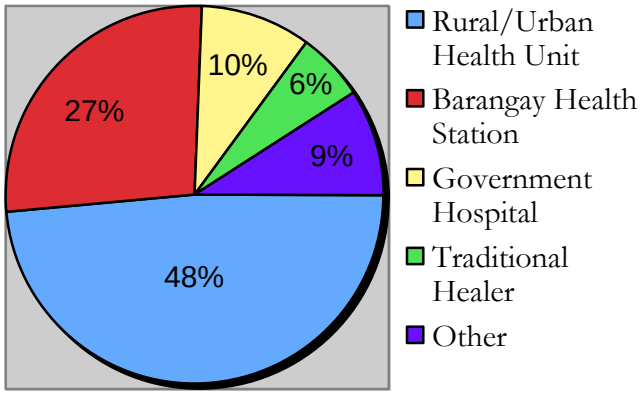
Mothers/carers of children in the survey were asked if the child (6-59mths) were ill in the last two weeks.
* Malnourished category = children with GAM < -2; Not malnourished category = children with GAM ≥-2
P < 0.05

Figure 5.4 & 5.5: Primary Illnesses Reported and Sources for Seeking of Treatment

5.4 Primary Reported Illness



5.5 Sources for Treatment

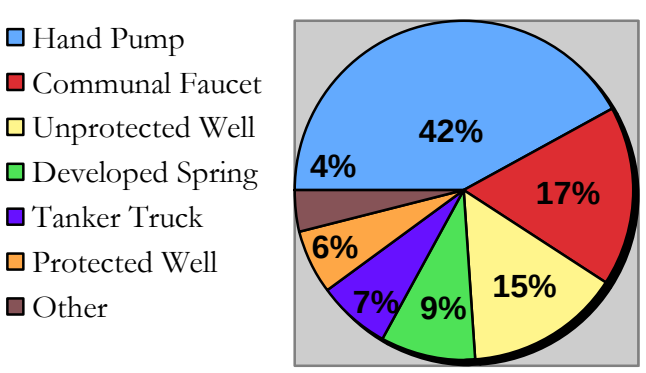


Illness reported is from mother/carer of children in the survey.
Sources for treatment is reported what the mother/carer did in response to her child being ill.

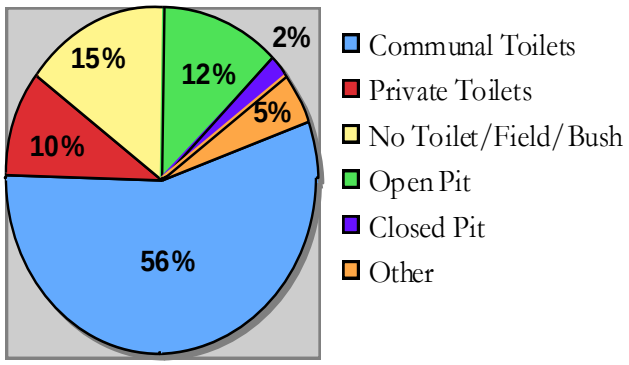
5.5.2 WASH

A high rate of hand washing was found with 89.9% of children's mothers reporting washing hands with soap and water before feeding the child and 94.2% reporting washing their hands after cleaning the child. No difference was seen in children with and without low weight for height z scores, however there is some concern as to how well this question was administered in the field as soap and hand washing was not regularly observed by enumerators.

Figure 5.6 & 5.7: Sources of Drinking Water and Types of Toilet Used



5.6 Source of Drinking Water



5.7 Type of Toilet Used

Most children in the assessment were in households which reported obtaining drinking water from hand pumps[9] (42%), communal faucets (17.1%), unprotected wells (14.7%), developed springs (9.2%) and tanker trucks (7.0%). Unfortunately the quality of water, in terms of safe, potable water from the different sources cannot be confirmed. However in response to the whether IDP households treated their water or not, it was found that among the acutely malnourished children over almost 80% (78%) came from households which did not treat their water, Table 5.7.

Table 5.7: Percent of Acutely Malnourished children and Treatment of Water at Household

	Treat water				Total	
	Yes		No			
	n	%	n	%	n	%
Malnourished	15	22	53	78	68	100

Malnourished = GAM < -2 Z-score;

The primary types of toilets reported by IDP households surveyed included communal flush toilets (56.1%), 'no toilet, field, bush' (14.8%) and open pits (12.4%).

Table 5.8: Distribution of Type of Toilets and Acute Malnutrition Status

Type of latrine used	Malnourished		Not malnourished		Total
	n	%	n	%	
Flush toilet (own)	3	4	67	10	70

[9] A conclusive statement cannot be made about the safety of drinking water in this assessment. Although standard EFSA assessments would normally assume hand pumps are fixed to drilled wells, and that these wells would be closed/ protected, and therefore deemed safe, the survey was unable to distinguish which of the wells fitted with hand pump were safe and which were not.

Flush toilet (communal)	38	55.1	364	56	402
Close pit	2	3	14	2	16
Open pit	12	17.4	77	11.9	89
Drop/overhanging	1	1	14	2.1	15
No toilet/field/bush	12	17.4	94	14.5	106
Other	1	1	18	2.8	19
Total	69		648		717

Malnourished = GAM < -2 Z-score; Not malnourished = GAM ≥ -2 Z-score

Neither the water sources, nor the type of toilet used were found to be associated with acute malnutrition (see Annex 3). However, Pearson Chi Square test found a significant difference (significance value of .025, with likelihood ratio of 5.0) in rates of reporting illness over the past two weeks between those children in households which treat their water and those which do not, Table 5.9. However, no significant difference was found in the 'types of illness' reported for those treating and not treating water.

Table 5.9: Association between Reported Illness over the Last Two Weeks and Treatment of Water by IDP Households

Ill over the last 2 weeks	Treat Water		Do Not Treat Water	
	n	%	n	%
Yes	117	30.2	271	69.8
No	73	22.7	249	77.3
Total	190		520	

$p < 0.02$

Given that illness is the primary factor found in this assessment to be associated with acute malnutrition (GAM), these findings highlight underlying WASH vulnerabilities and possible entry points for the WASH sector in improving quality of water sources and treatment options which may improve child health and nutritional status.

5.5.3 Infant and Young Child Feeding (IYCF)

The assessment did not indicate that infant and young child feeding practices, including breast-feeding practices, are significantly different between acutely malnourished children and those who were not acutely malnourished. While 92.9% of children in the assessment had ever been breastfed, breastfeeding rates predictably declined from 6 months to 24 months. The data on infant feeding for infants less than 6 months was excluded from the analysis as the question not asked correctly.

Almost 90% (86.7%) of children 6-11 months were reportedly being breastfed while at 20-23 months continued breastfeeding was at 63.6%. Though not perfect, these rates of children ever-breast fed and those with continued-breastfeed up to 2 years well exceed measured rates at the regional and national level in past surveys. The mean age of children still being breastfeed was 20.22 months, with a median of 17.18 months.

Figure 5.8: Distribution of Breastfeeding in Children 6 to 24 Months of Age

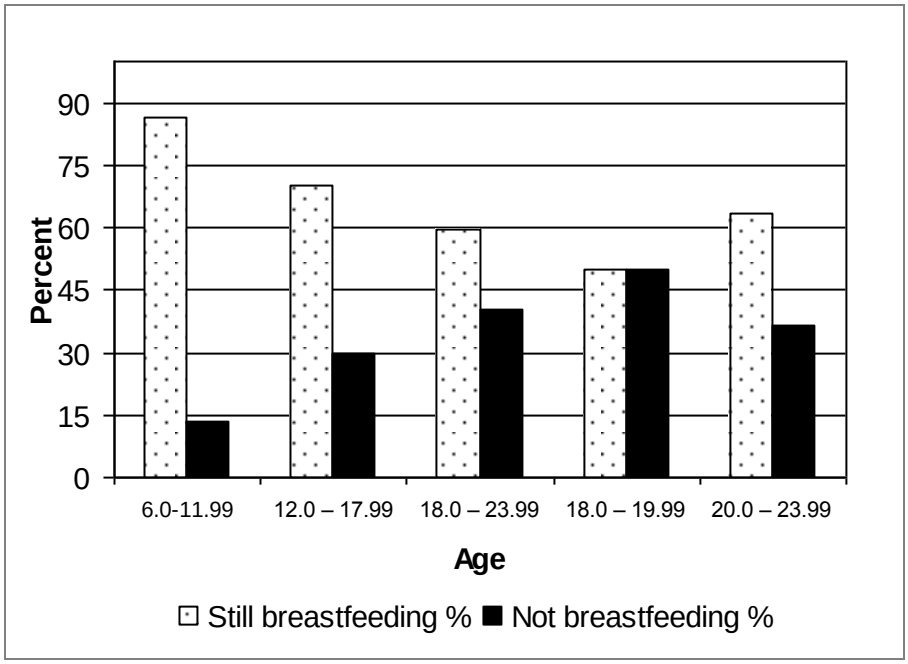
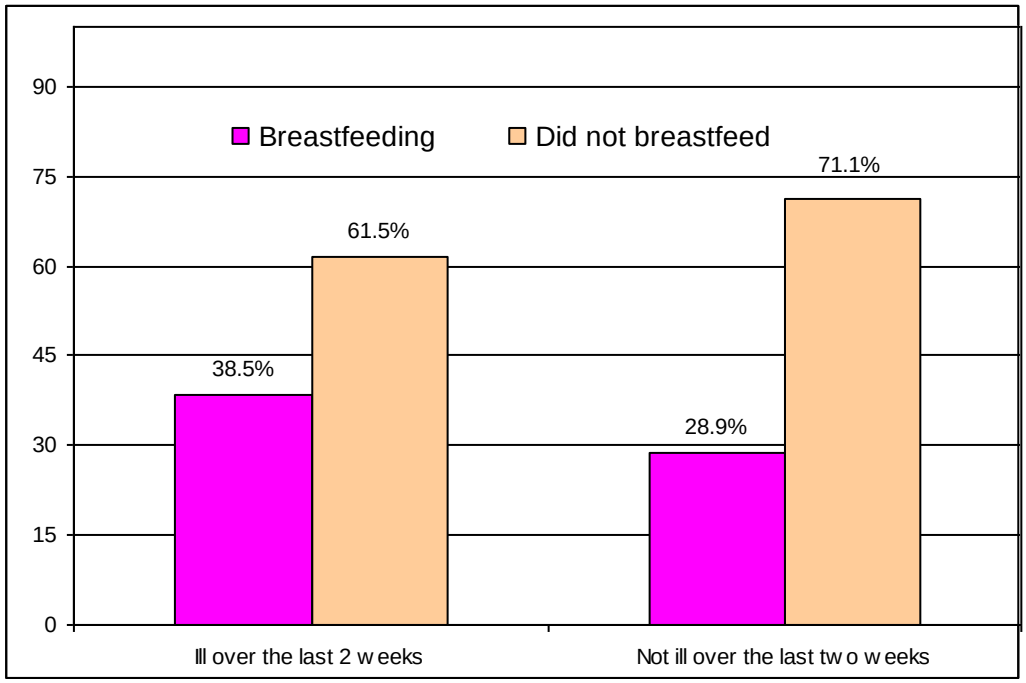


Figure 5.9: Reported Illness Over By Carer over the Last Weeks and Breastfeeding Status



The pearson Chi Square test found a significant difference (significance value of .02, with likelihood ratio of 6.7) in rates of reporting illness over the past two weeks and children who were breastfed and those not breastfed.

Mothers who reported to have stopped breastfeeding were also asked about the reason they had stopped breastfeeding the child (Figure 5.10). Over half (53.7%, n=14) of mothers reported ceasing breastfeeding due to the child's age. Around twenty percent (20.4%) reported that children stopped breastfeeding by themselves, while others stopped because of "no breast milk" (5.6%), because the mother became pregnant again (10.4%) and because the mother was working (4.9%).

Of the mothers who reported to be breastfeeding less, 21.6% (n=49) indicated that the displacement had resulted in breastfeeding children less, primarily due to stress (14.3%, n= 7) and lack of breast milk (14.3%, n=7). A large proportion of mothers (55.1%, n=27) gave 'other' or non-specified reasons for breastfeeding less after displacement. These feeding patterns and reasons given for stopping to breastfeed indicate the need for support and advocacy around continued breastfeeding up to two years of age and beyond with appropriate complementary feeding from 6mths, in particular when the population is displace due to "emergency conditions".

Figure 5.10: Reasons for Ceasing to Breastfeed

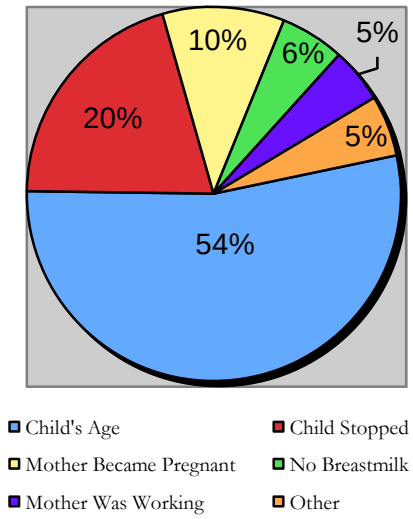
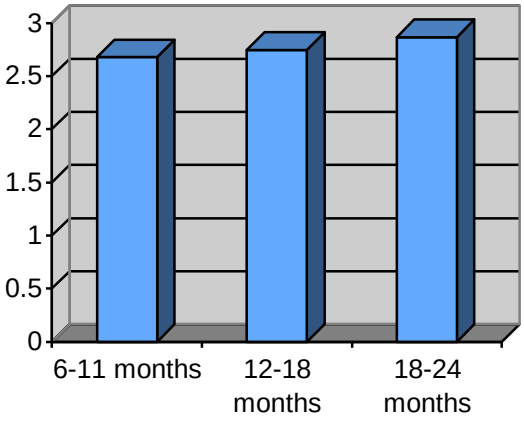


Figure 5.11: Frequency of complementary Feeding Per Day In Addition to Breastfeeding



Almost 4 percent (3.9 %) of children (n=28) were in households which had received supplies for bottle feeding with the major sources of this assistance coming from NGOs (60%) and the LGU/Barangay Captains (12%) - 28% from non-specified/'other'. There was no significant difference in acute malnutrition prevalence between those who did and did not receive feeding supplies, though this assistance should be monitored to ensure adherence to National and International ICYF protocols in emergencies and Milk Code EO 51 and its Revised Implementing Rules and Regulations (RIRR).

Regarding complementary feeding and its timely introduction, 22.6% of children 6-8 months (n=6) received only breast milk the previous day though the recommendation is 2 times fed per day for breastfed children at this age. The mean number of times children under 2 years were fed was consistently less than 3 times a day (6.0-11.99 months, 2.68 times; 12.0-17.99 months, 2.75 times; 18.0- 23.99, 2.87 times) suggesting a slightly lower rate of feeding than the recommended 3 times a day for 9-23 months old breastfed children and 4 times for those under 2 years old who are not breastfeeding.

5.5.4 Food Consumption Scores

The mean food consumption score for the households of children with acute malnutrition, < -2 W/H z-scores, was 54.6% compared to 56.1% for those children who where not acutely malnourished. The difference in household food consumption was shown not to be significant by independent samples t-test for difference of means and the mean of both groups were found to be in the "acceptable range of greater than 42". There was a slight, though insignificant, negative correlation between household food consumption scores and weight for height z-scores. This suggests that the food consumption patterns at the household level is not the primary deciding factor in whether or not children are acutely malnourished. Many cultures have intra-household priorities with regards to feeding, e.g. children's feeding needs are prioritised.

Table 5.10: Cross tabulation of Acute Malnutrition and Mean Food Consumption Score

Nutrition Status	Mean Food Consumption Score
GAM < -2 Z-score Malnourished	54.6
GAM ≥ -2 Z-score Not malnourished	56.1

Significance value >0.025

5.5.5 Program Coverage

Coverage of measles vaccination, Vitamin A and de-worming was found to be low, though no significant association was found with acute malnutrition, Table 5.11. Given rates of vitamin A deficiency in the Philippines it is noteworthy that nearly 4/10 children were reported to have not received vitamin A supplementation. Additionally, 38% of children were reported to have not received the measles vaccination, though the reason for this is unclear from the assessment.

Table 5.11: Program Coverage of Number of Key Child Survival Interventions and Association With Acute Malnutrition

Program Coverage		Total %	GAM W/H Z < -2 %	Normal W/H Z ≥ -2 %
Received Vitamin A in past 6 months?	Yes	57.30	52.20	57.90
	No	40.20	44.90	39.70
	Not eligible	2.50	2.90	2.50
Received de-worming tablet in past 6 months?				
	Yes	34.20	33.30	34.30
	No	58.50	56.50	58.70
	Not eligible	7.30	10.10	7.00
Received injection for measles vaccination in last 3 months				
	Yes, verified	25.80	20.30	26.40
	No	38.10	44.90	37.30
	Yes, verbal	32.90	31.90	33.00
	Not eligible	3.20	2.90	3.20

Regarding the coverage of food assistance programs, no statistically significant associations were seen between receipt of assistance and acute malnutrition rates. Frequency response tables on food program coverage are included in the annex 4 for programme and planning purposes.

5.5.6 Household Utilization of Iodised Salt

Using a rapid test kits, assessment teams tested household salt for the presence of iodine. The rapid test kits employed in the assessment are able to indicate whether salt has adequate iodine levels but can not measure the actual iodine content of the salt. After obtaining salt sample from the household, a few drops of the test solution is added to the sample, after which it is visually inspected by enumerators to determine whether the solution has changed color and to what degree. A dark purple color indicates adequately iodized salt (>15 ppm), with a light color change indicating the presence of iodine but at inadequate levels (<15 ppm) and no color change indicating the absence of iodine.

Of the 580 households in the assessment data was missing from 49 questionnaires thus leaving 531 households for which data was available. Of these 531 households 7.2 % (n=38) did not have salt at the time the questionnaire was administered. The assessment found 76.5% of households had adequately iodized salt while 13.6% of households had salt that did not have adequate iodine levels. 2.8% of households were using salt with no iodine. A total of 406 (82.4%) of tested salt samples were adequately iodized, while 72 (14.6%) were found to have inadequate iodine levels. 15 (3.0%) of the samples did not reveal the presence of iodine. The findings from this assessment are complimentary to those of the 2006 baseline nutrition survey in Mindanao in which 92.1% of

households were found to have salt containing iodine[10]. The data from the 2006 survey and the current assessment both indicate that the presence of adequately iodized salt (>15 ppm) in households in Central Mindanao is elevated in comparison to the national average of 44.5% seen in the National Nutrition Survey data from 2005 (FNRI, 2005).

Table 5.12: Availability of Iodised Salt in IDP Households Surveyed

Salt Testing Results	Number (n)	Percent (%)
Dark Purple (> 15 ppm)	406	76.5
Light Purple (<15 ppm)	72	13.5
No Change (no iodine)	15	2.8
No Salt in Home	38	7.2
Total	531	100

[10] The level of salt iodine was not specified in the 2006 survey.

6. Food Security Results and Discussion

6.1 Introduction

The focus of this assessment was on IDPs living in EC and with host communities.[11] The indicators analysed comprise those that capture how households obtain their food (household livelihoods, incomes and expenditure, and coping strategies); adequacy of the foods consumed to meet nutritional requirement (food consumption and food sources); unforeseen circumstances that impact food access and utilization (disasters and coping strategies); and living environment that influence utilization (housing, water and food preparation).[12] The issues are cast in the context of displacement to capture the extent to which these indicators of food security have changed or have been transformed and the resulting outcomes on food (in)security. These indicators are analysed and discussed below, and are based on the primary data collected through the survey.

The internal logic in the Emergency Food Security Assessment methodology is that household livelihoods are the primary sources of household food access. This can take the form of own production, if the household is directly involved in the production of food crops or through the conversion of their cash incomes from livelihoods activities into food through market purchases. Other livelihood-based variants of food access include exchange of non-food livelihood products for food and labour exchange (i.e. working for food). The analytical framework recognizes the importance of assets (both productive and non-productive) to household food access, in particular through cash sales of these assets to purchase food or by simply exchanging or bartering these assets for food. It is recognized that households would usually divest their assets in circumstances of acute food shortage when their primary means fail, for example during displacement. But when the livelihood-based and asset-based options do not yield sufficient access to food or if they fail altogether, households would usually seek credit (in cash or in-kind) to meet their food needs. However, in most situations households combine these options; the extent to which each is utilized will depend on the context.

In some circumstances when the usual options fail, households receive help to bridge their food access gap: e.g. receipt of cash or in-kind gifts from relatives, friends or neighbours, and food aid from humanitarian agencies and government. These options are usually beyond the control of households; the magnitude or share of household food access tend to vary markedly by context and from one household to another. But in extreme situations when households are not able to access sufficient food through all of the above options, they are forced to employ negative coping mechanisms to meet their short term survival needs. The most commonly used options include skipping of meals, reduction of meal sizes and consumption of food that is potentially hazardous to health. These options can pose serious risk to life and/or livelihoods, the latter through compromising their future capacity to earn food on their own, for example as a result of poor health. Sale of productive assets (e.g. farming tools and implements) also undermines future livelihood. To the extent possible, the above framework (and indicators) have formed the basis of the analysis in the following sections.

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[11] This contrasts with the WFP food security assessment in 2007 that analysed the food security situation of populations living in their places of origin. The two assessments are based on similar indicators that capture household food access and utilization. While not directly comparable, the 2007 assessment gives useful background on the general food security situation of the population in 'normal' times.

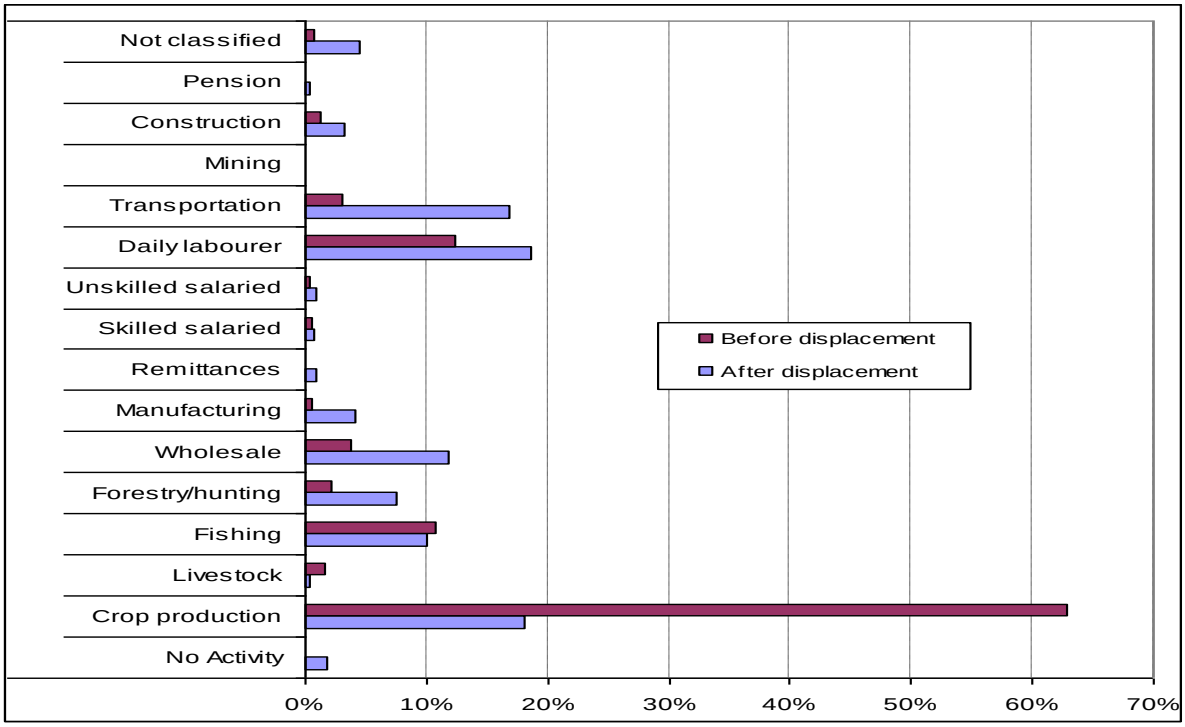
[12] The EFSA Handbook (WFP, 2006) identifies three pillars of food security – availability, access and utilization; 'availability' that represents the national or sub-regional picture of food security is treated implicitly in this analysis.

6.2 Summary of Main Findings

6.2.1 Household Livelihoods and Income

A household's livelihood is crucial to understanding their food security situation. This is often the main means by which households secure their food – in the form of own production of food or market purchase made possible by cash income from livelihood activities. During displacement, usual processes through which households secure their food are disrupted. Consequently IDPs have to find other livelihood activities, and this often depends on the opportunities and resources that become available to them. The survey sought to capture this change through establishing what the main sources of livelihoods "before" and "after" displacement were and then analyzing the change both in terms of shift in livelihoods opportunities and the percentage of households reporting this.

Figure 6.1: Main Livelihood/ Income Sources 'Before' and 'After' Displacement

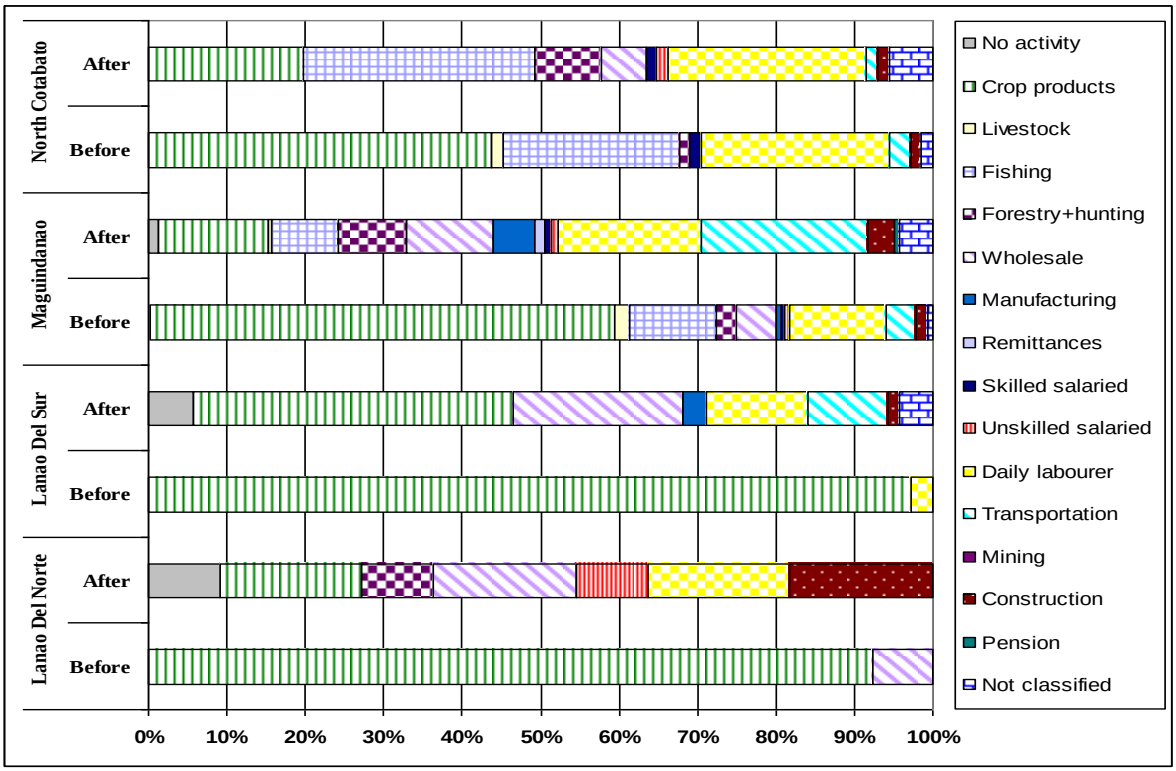


This is depicted in Figure 6.1 which shows that the primary (or first) livelihood reported most frequently after displacement was 'daily labour' (by 19%), followed closely by 'production of crops' (18%), transportation (17%), wholesale (12%) and fishing (10%). The rest of livelihoods were each reported by less than five percent of households. The situation contrasts with the livelihoods reported before displacement, showing that 62% of these households had 'production of crops' as their primary (or first) livelihood, followed by 'daily labour' at 12% and 'fishing' at 11%. The other livelihood options reported were by a very small fraction (less than five percent) of households sampled.

Regional Variation

Figure 6.2 of the main livelihood activities reported "before" and "after" by IDPs show variation across provinces. Prior to displacement, the majority of households assessed in all four provinces relied on crop production prior to displacement, Lanao Del Sur had the highest percentage (97%) followed closely by Lanao Del Norte at 92%, Maguindanao (59%) and North Cotabato as the least at 44%. Labour and fishing were reported as second and third important livelihoods activities in North Cotabato with shares of 24% and 23%, respectively, and in Maguindanao with corresponding percentages of 12% and 11%.

Figure 6.2: Main Livelihood Activities "Before" and "After" Displacement



Source; Joint Nutrition & Food Security Assessment IDPs 2009

The situation after displacement reveals a marked change in the main livelihood for a majority of respondents. The percentage of households that reported crop production as their main livelihood dropped to 41% in Lanao Del Sur, 20% in North Cotabato, 18% in Lanao Del Norte and to 14% in Maguindanao. Although crop production still remained the main livelihood in Lanao Del Sur, this was for a much smaller proportion of the IDP households; and it was followed by wholesale and daily labour with 22% and 13% shares, respectively. But crop production was pushed to third or fourth places in the rest of the provinces. It was overtaken by fishing and labour in North Cotabato (which had 30% and 25% shares, respectively); transportation and daily labour (with 21% and 18%, respectively) in Maguindanao; and by wholesale, daily labour and transportation, each with 18% share. The displacement in effect led to diversification of livelihoods; but the extent of their comparative contribution to food access is analysed later.

6.2.2 Household Assets

Household assets (both productive and non-productive) often provide crucial insurance in situations of acute food insecurity where they can be sold or exchanged for food. The analysis revealed that most of the households lacked assets; where the asset reported most (by one fifth of households) in the survey was mobile phone, followed by jewelry (owned by 7.8%) and bicycle or pedicab (owned by 5.3%). In general households have low asset ownership and this was indicated in the 2007 EFSA WFP assessment where less than 40% had radio and less than 5% had a form of transport mode. But losses associated with displacement or sales/ exchange to meet their food and non-food needs could have contributed to much lower assets ownership and with that, any contribution of assets to their food need. The analysis also reveals that livestock ownership declined substantially, possibly reflecting losses associated with displacement and/or sales and exchange to meet food and non-food needs. However this is from a low ownership base. In specific terms, the total number of cows and bullocks reported during the assessment was 88% lower in the period before displacement. The number of buffalo (caribou) declined by 82%, goats by 89%, sheep by 92%, poultry by 77%; horses by 50% and pigs by 63%.

6.2.3 Household Access to Credit

In the absence of assets that provide fallback position, households would tend to resort to credit to secure their

essential necessities, particularly food. The analysis shows that 80% of the households borrowed money to purchase food. This was possible due to the relative ease of access with most indicating they had access to borrow money – largely from relatives and friends (60%) and from local lender or pawn shops (17.4%). However, their access to other sources of credit such as charities/ NGOs, banks, cooperatives and local government units (LGUs) was very limited. Of the households (80%) that reported borrowing money, a majority (60%) reported borrowing more than two times; 37% said they borrowed four or more times in the past two months. This tendency was also reported in the 2007 EFSA which reported that the population in that survey was chronically indebt, living on credit or borrowing money for purchase of food items the whole year. The main difference with displacement is that this is less likely to be sustainable.

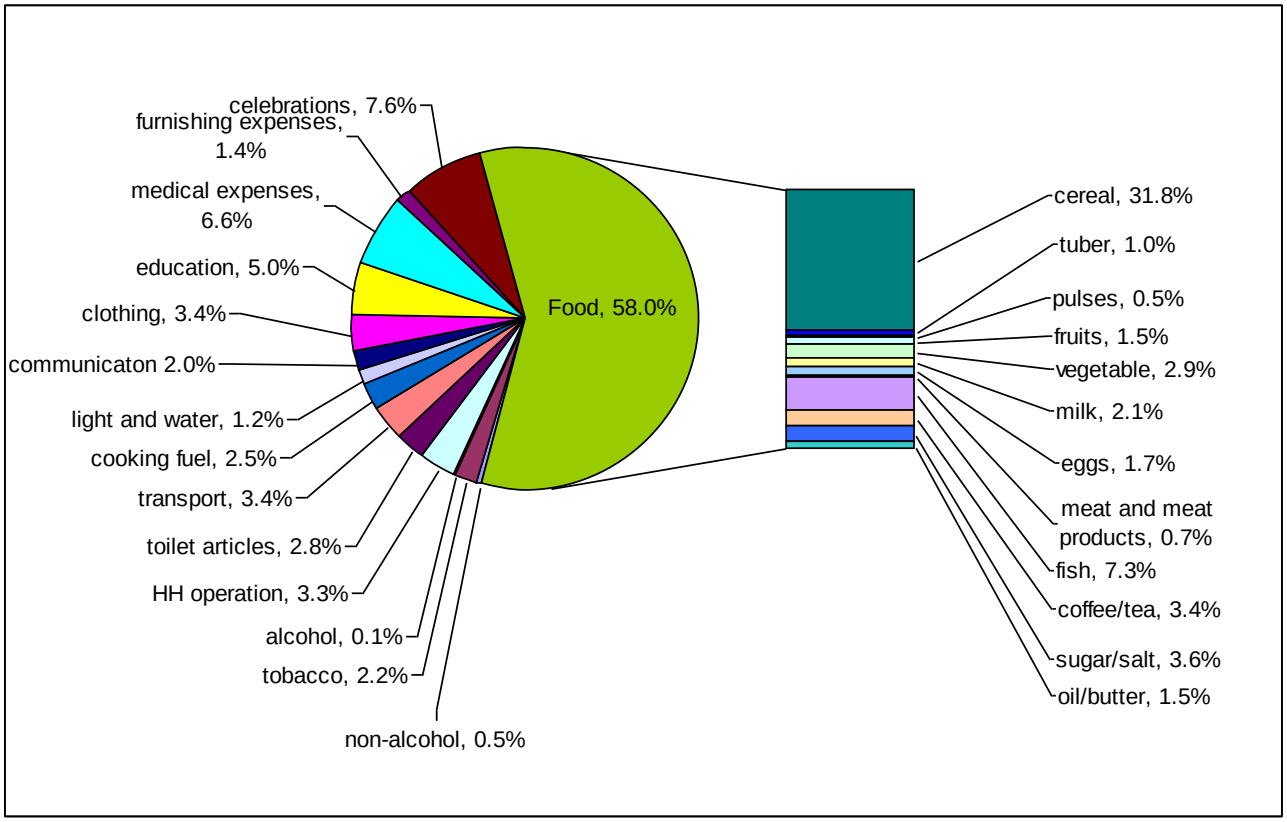
6.2.4 Household Access to Markets

Access to markets is critical to household food access, most especially in non-farming situations. Nearly all households (97%) indicated that they had access to markets that ranged from daily markets (48%), open 2-5 days a week (28%) or weekly (23%). Most of these markets are situated within IDP settlements or a short walking distance averaging one-half hour of return journey. The survey did not include a dedicated market module to assess market performance including food availability and prices, usually conducted through a trader survey. However, observations made in a few of these markets suggest the markets tended to be very basic, selling an assortment of basic foods and consumer goods such as salt, oil, vegetables, tinned foods (sardines), noodles, clothing among others. In some cases there were nearby stores that sold an assortment of local and imported rice.

6.2.5 Household Expenditure

The pattern of household expenditure can provide some insight into current food security status. Figure 6.3 provides a breakdown of expenditure on food and non-food items, showing that some 58% of their expenditure was on food, which is less than 70% reported in the previous EFSA. The largest portion of this food expenditure was on rice, which is the main staple. The average expenditure (across all households) during the past one month was Php865 (equivalent of US $18). The next highest expenditure was on fish and other marine products (Php345), followed by wheat (Php201) and vegetables (Php142). Much lower amounts were spent on meat, eggs, other proteins and fruits.

Figure 6.3: Household Expenditure on Food and Non-Food Items



Other related household expenditures included transportation (Php188), cooking fuel (Php 110), coffee (Php153) and toiletries (Php122). The non-food expenditures included medical care (Php370), education (Php267), celebrations and social events (Php460), clothing (Php197) and furnishing and household items (Php103). These latter expenditures represent sizeable proportions of the average expenditure – for example the average expenditure on health was about 6.6%. The average expenditure on celebrations represents 7.6% of total mean expenditure.

More than two-thirds (68%) of the households reported higher expenditure during displacement; about 20% of households spent 'more' and 48% 'much more' compared with less than 30% who reported spending less or much less. The relatively high expenditure may depict the need to buy more due to a lower contribution from own production as a result of displacement. But given the limited and less remunerative livelihoods options reported, it is very unlikely that the higher expenditure implies that they have been able to meet their food requirements. While it is not possible to compare the current expenditure on food with expenditure prior to displacement, the 2007 assessment appears to suggest similarity in the pattern.

As earlier noted a large proportion of the households chronically rely on borrowing, and most of this goes towards food purchases, which is similar to the pattern in the 2007 EFSA WFP assessment. The main food commodity purchased on credit was rice, at average credit expenditure of Php662. This amount is approximately 77% of the mean expenditure (of Php865) noted above. Credit purchases of the rest of the commodities were generally low, in all cases worth less than Php50 each.

6.2.6 Household Food Consumption and Food Sources

Household food consumption and food sources provide important second order measures of food security.[13] In this case household heads were asked to recall the kinds and frequency of food that were consumed during the previous seven (7) days. This entailed remembering how many days they ate each of the different food groups and

[13] However, measuring consumption that includes the quantities of food would require considerable interview time, and this approach is usually not taken in EFSAs.

what the main sources of these foods were. As discussed in more detail in the analysis section, a Food Consumption Score (FCS) was calculated for each household using the information on the types and frequency of food reported consumed. In the FCS calculation food groups are weighted according to their nutritional density. Based on empirical evidence in different regions, WFP has defined cut-off points for the calculated food consumption score that allow for differentiation of households into "poor" and "borderline" food "acceptable" food consumption categories. For Mindanao, households with a food consumption score less than 28 are regarded to have "poor" food consumption, and this reflects the fact that they do not eat staple and vegetables on a daily basis. Households with a food consumption score between 28 and 42 are considered to have "borderline" food consumption. Meanwhile households with a food consumption score greater than 42 are considered to have "acceptable" food consumption.[14]

The findings show that the food type most frequently consumed was rice; nearly all households reporting daily consumption (i.e. in all 7 days of the week). Rice is the main staple and is usually consumed 2 to 3 times a day – at breakfast, lunch and dinner. The second most frequently consumed food commodity was vegetables, followed by sugar and oil. On the other hand, animal protein, pulses, fruits and milk were consumed occasionally and by few households. As Table 6.1 shows, the number of days each food group was consumed by different Food Consumption Groups varies markedly – the "poor" Food Consumption Group consumed considerably less variety and less often, while those in the "acceptable" category consumed more food groups with greater frequency.

Table 6.1: Frequency of Consumption of Foods by Food Consumption Groups

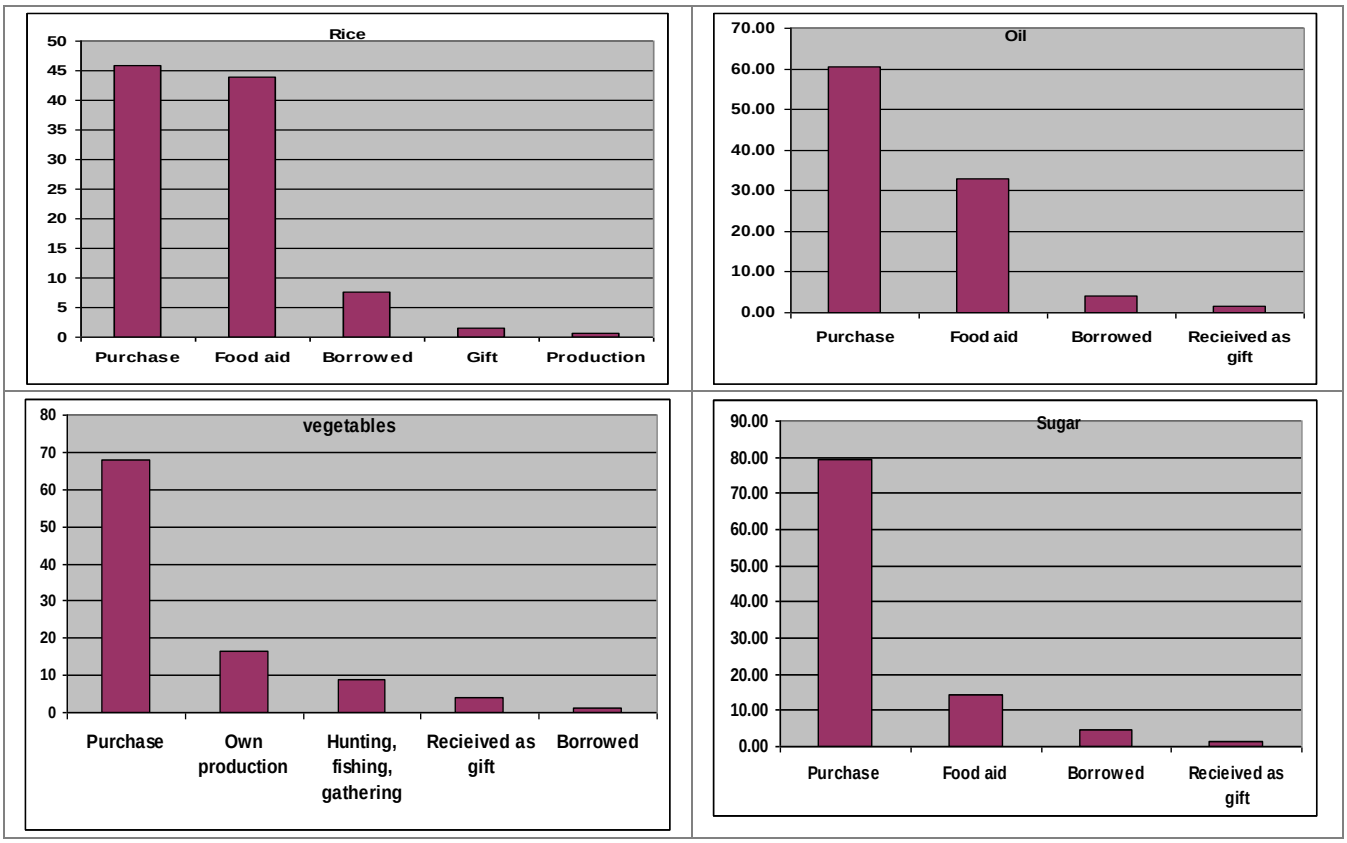
Food Group	Food Consumption Group		
	Poor	**Borderline**	**Acceptable**
Staple (rice)	6.8	7.0	7.0
Sugar	3.5	5.7	6.3
Vegetable	2.9	4.7	5.2
Oil	1.9	3.3	5.0
Animal protein	0.9	2.5	5.7
Pulses	0.3	0.5	2.1
Fruit	0.3	1.1	2.1
Dairy	0.0	0.1	1.3

Source: Joint Nutrition & Food Security Assessment IDPs 2009.

The analysis of food sources links consumption to food access and this gives a more concrete understanding of a household's food security situation. For example, this can help differentiate between households with good consumption but whose consumption is dependent on food aid from those who derive their foods from livelihoods activities – in this case the latter would be judged to have a higher level of food security. Figure 6.4 presents the findings for the four food types consumed most, and shows that purchase was overwhelmingly reported by households as the primary source of food. In the case of the main staple (rice), market purchase was reported by 46% of the households, food aid by 44%, followed by borrowing, gifts and own production in a distant fifth position with only 1%. Market purchase was reported as the main source of vegetables, oil and sugar; the roles of food aid (except for oil), own production and borrowing in all cases were found to be very low for these three commodities. As most of the food purchases were shown to be largely through credit purchases, the sustainability of adequate consumption and by implication the long term food security situation of IDPs remains weak.

[14] It is however important to note that this analysis does not capture the quantity of food consumed and this remains one of its major setbacks.

Figure 6.4: Contributions of the Main Sources of Main Food Types (%)



Source: Joint Nutrition & Food Security Assessment IDPs 2009.

The analysis also highlights the importance of food aid to the food security of IDPs as shown in its contribution to sources of rice at almost 45%. Food aid was also reported to be the main source of pulses by 50% of the IDPs against 42% who reported purchase. Thus the findings underscore the importance of food aid in cushioning the impact of the displacement and filling the gap created by reduced access to the primary source of income, agricultural production.

6.2.7 Disaster and Coping Strategies

Disasters or calamities often compound household food insecurity. Households were asked during the survey to list the main disasters encountered during the past six months in order of importance. The main ones reported were conflict and displacement, which collectively were reported by 64% of households in the survey. This was followed by loss of or lack of employment by 14%, unavailability of food reported by 10%, and serious illness by about 3%. IDPs reported that the disasters caused varying degrees of decrease or loss of income, decrease or loss of in-kind donations or assets, and reduced household ability to produce or purchase enough food, all of which impact on their food security.

Although a large proportion (90%) of these households received food assistance, this was not systematically planned to meet the full nutritional requirements of IDPs; for example, it was earlier noted that WFP assistance was only a half ration. Meanwhile the livelihood options the IDPs engage in tended to be of very low remunerative value as indicated by their contribution to food in the analysis of sources. Thus continued dependence on credit purchases features prominently. It should be noted that if the IDPs are not able to access their primary source of income pre-displacement in the near future, in the medium to long-term access to credit is likely to be unsustainable and the resultant indebtedness could also threaten future livelihood.

IDP's inadequate access to food is supported by the extent of coping mechanisms used. This is depicted in Table 6.2 showing the percentage of households that have reported relying on less preferred and buying less expensive foods, limiting portion size at mealtimes, restricting consumption by adults, and reducing the number of meals

eaten. Although the average number of meals taken by households in the sample was 2.5, it is shown that 87% of the household in the survey were eating less preferred food and 75% were limiting their meal sizes. In addition, 56% borrowed food, 53% were restricting adult food and 44% reduced the number of meals.

Table 6.2: Households Use of Coping Strategies

Coping strategy	**Daily or pretty often** (3-6 days /week)
Eating Less preferred and less expensive food	87%
Borrowing food	56%
Limit adult food for small children to eat	53%
Reduce number of meals	44%

6.3 Analysis of Findings

6.3.1 Food Access Score (Groups)

The indicators of food access (livelihoods, incomes and assets that represent the primary sources) discussed earlier are usually combined in a typical EFSA analysis to derive an index of household food access. Using appropriate thresholds, the index is used to group households into four categories "very poor", "poor", "average" and "good" food access groups. In this assessment, current livelihoods options were shown to have very low contributions to household food access. This is well demonstrated by the low contribution of daily labour, crop production and wholesale to the main foods consumed such as rice, vegetables, oil and sugar. In this case, livelihoods were judged to be a poor indicator of food security; therefore not considered as a serious indicator of food access. This was also the case with assets, in light of the limited assets reported and their very low imputable values.

As discussed earlier, market purchase was found to be the main source of food and was adopted as the principal indicator. Based on general evidence that poor households tend to spend a disproportionately large share of their income on food, and using food expenditure thresholds (Table 6.3a), households were grouped into Food Access Groups of "very poor", "poor", "average" and "good". The number and percentage of households in each category is presented in Table 6.3b showing that 46.7% of all households in the survey had "very poor" or "poor" food access.

Table 6.3a: Food Access Thresholds

Very poor	>75% expenditures on food
Poor	66-75% expenditures on food
Average	50- 65% expenditures on food
Good	<50% expenditures on food

Table 6.3b: Distribution of Food Access Groups

Categories	Frequency	Percent
Very poor	163	28.1
Poor	108	18.6
Average	160	27.6
Good	149	25.7

Source: Joint Nutrition & Food Security Assessment IDPs 2009

6.3.2 Food Consumption Groups

The seven day recall was used to compile a Food Consumption Score for each household in the survey.[15] This index was in turn used to group households into Food Consumption Groups that is depicted in Table 6.4.

Table 6.4: Distribution of Household Food Consumption Group For the Households in the Assessment

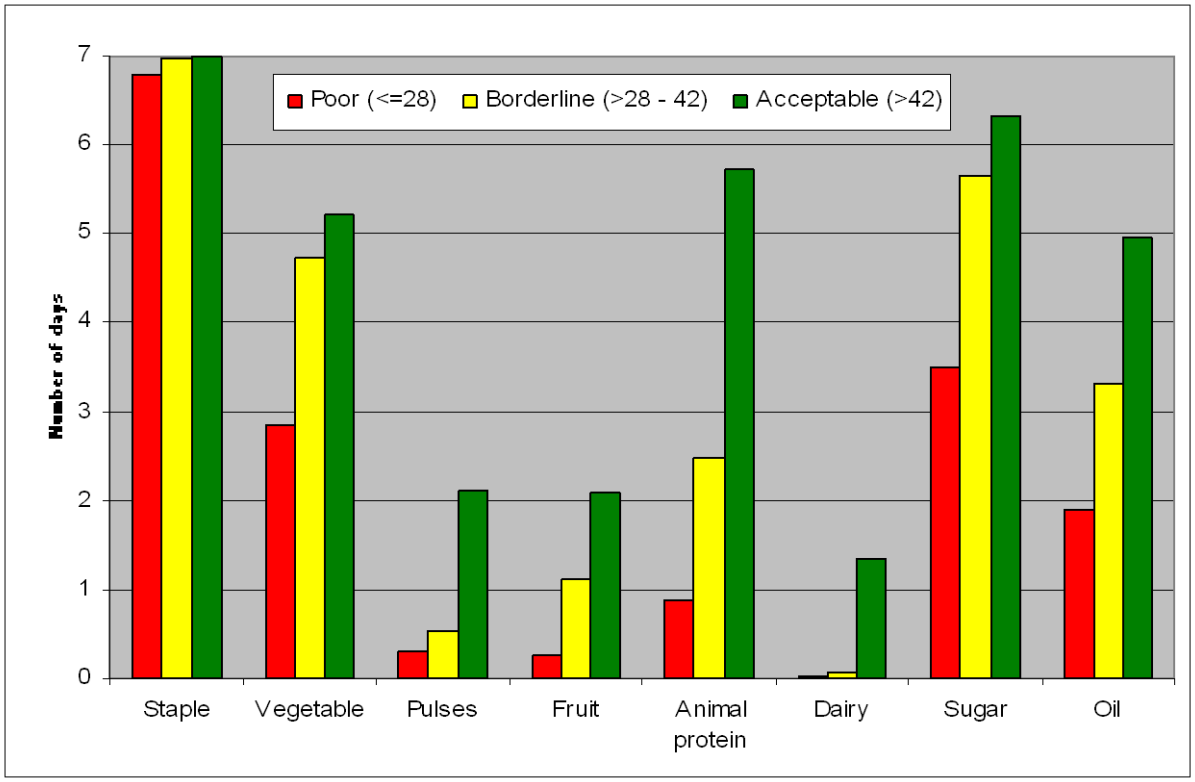
Groups	Frequency	Percent (%)
Poor	35	6
Borderline	118	20
Acceptable	427	74
Total	580	100

Source: Joint Nutrition & Food Security Assessment IDPs 2009

Typical diets of households in the different categories vary. The households at the top end of consumption, on average, were found to consume all food groups with higher frequency compared with their counterparts at the bottom of the scale. The analysis also reveals that the diet of the poor are based predominantly on staples, vegetables and sugar, with infrequent consumption of other food groups, with low intake of animal proteins and milk products. To illustrate this point, the food types consumed by the three food consumption groups are depicted in Figure 6.5, which shows distinct patterns. While the main staple was consumed with similar frequency averaging around 7 days per week, there are clear differences with regards to the consumption of pulses, fruits, animal protein, oil and diary products. The diet depicted here is similar to that from the 2007 EFSA WFP assessment.

[15] The methodology which is a standard EFSA tool is presented in Annex 8.

Figure 6.5: Frequency of Food Types Consumed by Different Food Consumption Groups in the Week Prior to Assessment



Source: Joint Nutrition & Food Security Assessment IDP 2009

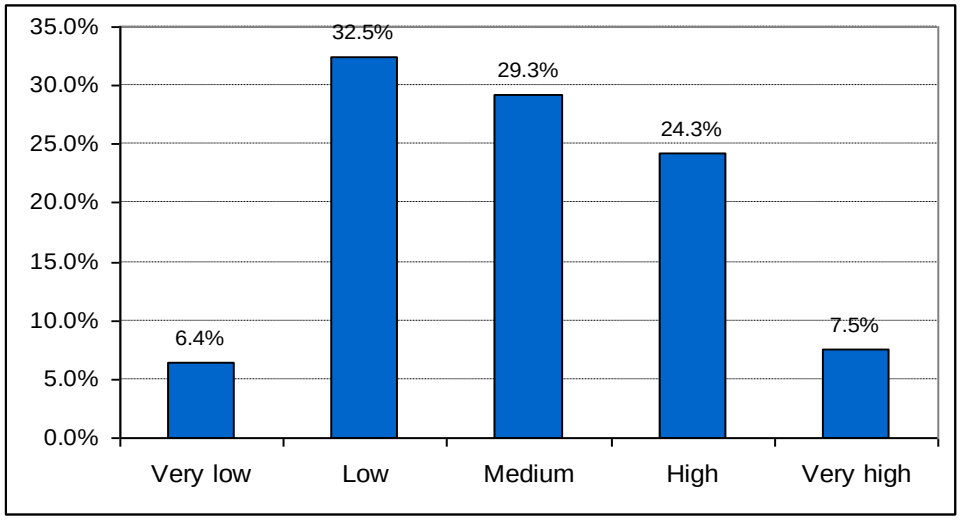
6.3.3 Coping Strategy Index/Group

It was noted earlier that households adopt a wide range of coping strategies[16] in efforts to cover their food gaps when faced with acute food decline. The analysis here is based on the responses to the consumption coping strategies: relying on less preferred and less expensive foods, limiting portion size at mealtimes, restricting consumption by adults and, reducing the number of meals eaten in a day. The frequency with which households use each of these strategies (daily, pretty often (3-6 days per week), once in a while (1-2 times a week) or never), are used to develop a composite Coping Strategy Index (CSI) for each household.

Households were subsequently ranked: at one extreme the households that used all the options daily fall into the "very high" coping strategy category. At the opposite end, households that never used any of the options fall in "very low" coping strategy category. Using thresholds, the households were grouped into five (5) coping strategy categorized as: "very low", "low", "medium", "high" and "very high" Coping Strategy Group. The findings presented in Figure 6.6 shows that nearly one third of the households fall into "high" or "very high" coping strategy group compared with about 39% in "low" or "very low" categories and 29% falling in the "medium" category.

[16] The term coping strategies can be used very broadly to include compensatory livelihood activities (i.e. those invoked during crisis), sale of assets, begging, and changes in consumption (e.g. reducing meal sizes, skipping meals, etc.). However, the analysis in this section focuses on the latter.

Figure 6.6: Distribution of Coping Strategy Groups (%)



Source: Joint Nutrition & Food Security Assessment IDP 2009

6.4 Extent of Food Insecurity

The preceding analyses give indications of household food security from access, consumption and coping strategy perspectives. These findings are combined through cross-tabulation to give an integrated picture of the food security situation. This section discusses the findings and draws some conclusions about the food security situation of the IDPs.

6.4.1 Food Access and Food Consumption

Table 6.5 presents the results of the cross-tabulation of the food access and food consumption analyses and shows the distribution (number and percentage of households). On this basis, about 15% of the households are classified to be food insecure. This represents combinations found to have "poor' or "borderline" food consumption and at the same have "very poor" or "poor" food access. Some 39% of the households were found to be moderately food insecure, representing households in the "poor" or "borderline" food consumption group who also had "average" food access, and households with "acceptable" food consumption but had "poor" or "very poor" food access. The last group representing 47.3% fall in a nominally "food secure" category and consists of all households found to have "good" food access and those who have average access combined with acceptable consumption.

Table 6.5: Distribution of Food Consumption Group and Food Access Group by Number and Percent of IDP Households

		Food Consumption Group			
		Poor	Borderline	Acceptable	*Total*
Food Access Group	Very poor	18 (3.1%)	41 (7.1%)	104 (17.9%)	*163 (28.1%)*
	Poor	7 (1.2%)	19 (3.3%)	82 (14.1%)	*108 (18.6%)*
	Average	6 (1.0%)	29 (5.0%)	125 (21.6%)	*160 (27.6%)*
	Good	4 (0.7%)	29 (5.0%)	116 (20.0%)	*149 (25.7%)*
Total		*35 (6.0%)*	*118 (20.4%)*	*427 (73.6%)*	*580 (100%)*

Note: due to rounding up, the sums may not reach exactly 100%

Source: Joint Nutrition & Food Security Assessment IDP 2009

The above findings are based on typical EFSA analysis, but must be put in the context of IDP. Food purchase was found to be the primary source of food, with a large proportion of this being credit purchase (77% in the case of rice). Thus, a "good food access" (representing 25.7% in this survey) could convey a distorted picture of the reality in a situation where access per se is not underpinned by strong livelihoods. Reported receipt of food aid by a large majority (over 90%) of the respondents and food aid also being the second largest source of food after purchases gives credence to this perspective. It follows that food aid would have contributed to the "acceptable food consumption".

The technical judgment is that the households that can be considered to be "food secure" in the strictest sense are those with "acceptable food consumption" that is backed by a livelihoods-based "good food access" (rather than food aid). Where access is based on purchases, it should be underpinned by cash incomes from livelihoods activities (rather than credit). It therefore follows that the percentage of IDP households that would be regarded food secure will be less than 20% of those who have "good food access" and "acceptable consumption". This means more than 80% of the households in the survey can be categorized to be food insecure.

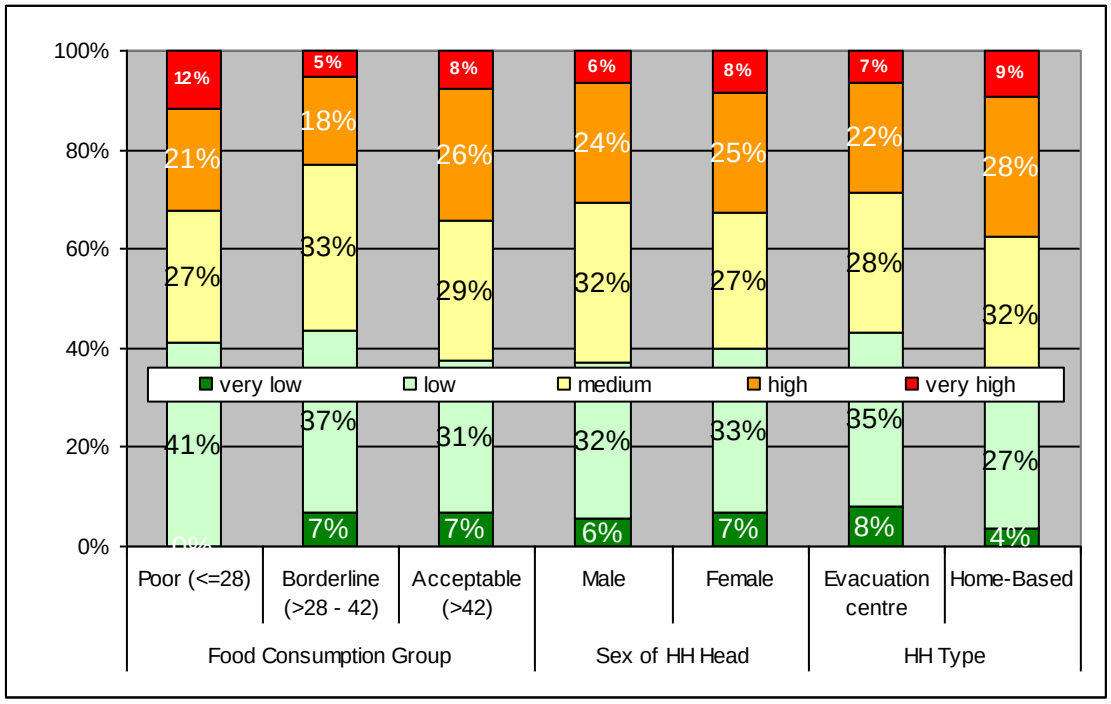
6.4.2 Food Consumption Group by Coping Strategy Categories

Figure 6.7 presents the results of cross-tabulation of Food Consumption Groups with Coping Strategy Groups discussed in previous sections. The findings were disaggregated by gender of household head and by location of IDPs (EC versus HB). It can be seen that households in the "poor" Food Consumption Group have the largest share (12%) of households in the "very high" Coping Strategy Group. The distribution was found to be less distinct between "borderline" and "acceptable" consumption groups. The distribution of Coping Strategy Group was found to be similar when

disaggregated by gender of household head (male vs female). However, by contrast, HB IDPs had higher proportions of households in "very high", "high" and "medium" coping strategy categories (relative to "low" and "very low" coping strategy categories) compared with IDPs living in EC. The latter would appear to suggest food insecurity among HB IDPs are comparable to those in the EC.

This would seem consistent with the fact that any food assistance given to the HB IDPs tends to be more ad hoc. The assessment reveals that HB IDPs receive support from relatives who host them, but this tends to be limited.

Figure 6.7: Distribution of Coping Strategy Group by Food Consumption Group, Gender and IDP location



Source: Joint Nutrition & Food Security Assessment IDPs 2009

6.4.3 Food Consumption Group by Expenditure

The cost of a food basket was established during the 2007 EFSA WFP assessment to be Php2500 per average household[17] per month. This threshold was used to divide households into two broad groups (those above and those below) and this was cross-tabulated with Food Consumption Group.

Table 6.6: Food Consumption Group by Expenditure Groups

		Food Consumption Group			
		Poor	Borderline	Acceptable	*Total*
Expenditure	Exp < 2500 Php	2.2	7.2	43.6	*53*
	Exp ≥ 2500 Php	3.8	13.1	30	*46.9*
	Total	*6*	*20.3*	*73.6*	*99.9*

Source: Joint Nutrition & Food Security Assessment IDPs 2009

The findings in Table 6.6 reveal that approximately 9% (2.2% + 7.2%) of households were severely food insecure, 47% were moderately food insecure, while 43% were food secure. The findings are broadly similar to the cross-tabulation of

[17] Average household = 7 members, 2 adults, 5 children, of which one is breast fed

food access and food consumption. And as noted in that section, most IDPs rely on credit purchases (with 77% of their staple (rice) purchases being on credit and this would suggest a significantly higher level of food insecurity and in comparison to 2007 EFSA WFP assessment indicates similar findings and reflects chronic food insecurity.

6.5 Impact of Home-based IDPs on Host Households

As part of this assessment, a short questionnaire was administered to non-IDPs households (Host Households) that were hosting IDPs. The purpose was to assess the impact of the HB IDPs on their hosts. There were speculations that IDP presence impacts negatively on the hosts, based on the premise that most HB IDPs lived with their relatives and effectively shared their resources. It would also be expected that the impact of HB IDP presence would be greater if no humanitarian assistance were provided to these HB IDPs. This questionnaire was administered to those host households willing to participate. The questionnaire (see Annex 5-7) sought to establish household profile, the duration of hosting IDPs and their relationship with the HB IDPs. In particular, it sought to establish the extent of resources sharing and whether these resources were adequate to meet their needs and those of the HB IDPs.

A total of sixty-nine host households from 16 municipalities participated across the four provinces. The largest proportion (52%) was from Maguindanao, and this was followed by Lanao Del Sur (32%), North Cotabato (9%) and Lanao Del Norte (7%). This reflects the general distribution of IDPs as well as home-based settlements. The findings are summarised below. The gender of household interviewee was nearly equally distributed - 49% male versus 51% female. However, there is insufficient information to suggest this represents the proportion of household heads. These host households were largely from Maguindanaon (55%) and Maranao (39%) ethnicities; there was a small proportion of Teduray (5.8%). A key finding was that about 93% of the HB IDP households that were hosted were relatives, confirming the pre-survey perceptions. It was also established that about two-thirds of the HB IDPs have lived with their hosts for 5-6 months; 27% had lived for 2-4 months, while only 6% for less than one month.

The host households were asked if they shared any of their resources or facilities with the IDP household they hosted, and if these resources were sufficient to meet their needs. The findings are summarised in Table 6.7 which shows that shelter was the most shared facility by 97% of the respondents. This was followed by sharing of toilet and drinking water with 92% and 91% respectively. While some 89% of host households shared cooking facilities, a slightly lower but quite high percentage (80%) also shared food. The least shared items were land for farming and fishing facilities at 28% and 24% respectively.

Figure 6.7: Distribution Of Host Households Reporting Sharing Of Resources With HB Idps

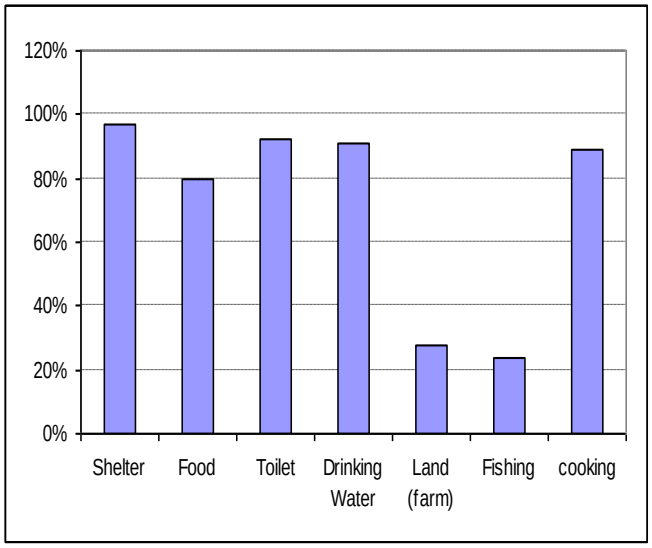


Table 6.7: Distribution Of Sharing & Adequacy Of Resources With HB IDPs By Host Households

Resource	Sharing	Adequate
Shelter	97%	43%
Toilet	92%	33%
Drinking Water	91%	75%
Cooking	89%	68%
Food	80%	28%
Land (farm)	28%	64%
Fishing	24%	35%

Source: Joint Nutrition & Food Security Assessment IDPs 2009

Regarding adequacy of facilities and services, majority host households indicated that drinking water (75%), cooking facilities (68%) and farm land (64%) were adequate. These contrast with respondents indicating shelter (43%), fishing (35%), toilet facilities (33%) and food (28%) were not adequate. It is clear that food was the most impacted, with up to 72% of host households (just under three-quarters) reporting inadequate availability for them and relatives hosted.

At the same time, an estimated 86% of host households in the assessment confirmed that the HB IDPs hosted received food assistance, which corroborates the response from HB IDPs. About 20% of the host households also reported that

medical services were also received by HB IDPs. Some two-thirds of host households also confirmed that HB IDPs that received food assistance shared their assistance with the host household. These findings broadly confirm the perceptions that HB IDPs live with relatives and that resources are shared.

7. Summary of Findings

• The rates of Global Acute Malnutrition (GAM) rates found in this assessment of 10% [95% C.I 7.6 – 11.6], based on NCHS reference, and 10% [95% C.I. 7.8-11.7], based on the WHO growth standards. Although the rate does not surpass the 15% emergency threshold, however, GAM of 10% indicates the need for urgent intervention

.

The consumption currently underpinned by credit purchases and food aid could have contributed to the current nutritional outcomes. However, it should be noted that malnutrition is a late indicator and the impact of inadequate consumption could yet emerge. Food consumption was not quantified to determine the overall nutritional adequacy.

• GAM prevalence was found to be much higher, at 20%, in ages ranging from 6-24 months. Additionally, 5 out of the 6 children classified with severe acute malnutrition (SAM) in this assessment were between 6-24 months.

• SAM rates of 0.8% based on the NCHS reference do not signify a nutrition emergency. However, given that the mortality rate of SAM cases is 9 times higher than children moderately malnourished, it is important that SAM cases are found and appropriately treated. Mortality OR for moderately SAM is 3 and with almost 9% moderately acute malnourished, the magnitude of number of moderate acute malnourished (7,156) is high and hence their nutritional rehabilitation is as important as the therapeutic care of the SAM cases.

• Acute malnutrition was found to be closely related to illness in this assessment, indicating the need to focus on underlying causes of health and WASH. However, acute malnutrition was not found to be associated with household food consumption nor with food assistance.

• Prevalence of chronic malnutrition, 'stunting' among IDP children was 47.3% (based on the 2006 WHO child growth standards). The stunting prevalence in Mindanao is higher than the national prevalence of 26.3% (FNRI, 2005) and remains a serious public health concern.

• Coverage of measles vaccination, Vitamin A supplementation and de-worming was found to be low. It is noteworthy that nearly 4 out of 10 children were reported to have not received vitamin A supplementation. Additionally, 38% of children were reported to have not received the measles vaccination.

• The main impact of the displacement was the loss or sharp reductions in the primary livelihoods and main source of food access prior to displacement. Some 62% of the households previously engaged in 'production of crops', 12% in 'daily labour' and 11% in 'fishing'. Due to limited or no access to land for production and fishing, the IDPs now engage in alternative livelihoods that include 'daily labour' (19%), 'production of crops' (18%), transportation (17%), petty trade (12%) and fishing (10%); some have no livelihoods. The alternative activities are less remunerative and contribute minimally to their food access.

• IDP households surveyed were asset-poor, and this was evident from pre-displacement findings and the current assessment which reported asset ownership of mobile phone, jewelry and bicycle as the main assets, and even so, by less than one-quarter of households in the survey. Similarly, livestock ownership was generally low in the pre-displacement period; their numbers fell dramatically (by more than half) after displacement: for example, the number of cows and bullocks fell by 88%; buffalo (known locally as karabao) by 82%, goats and sheep by about 90%, and poultry by 77%. Thus, ownership of household assets and livestock offers no cushion against any sharp fall in access to food i.e. purchasing power since any sale of assets would not be a viable option to compensate for the reduction and loss of food access emanating from the loss of main livelihoods. .

• As per pre-displacement a high proportion of the IDPs surveyed depended on credit and borrowing to access food. About 80% of IDP households relied on borrowing money to purchase food. Mostly, this was from relatives and friends (60%) and to a much lesser extent from local lender or pawn shops (17.4%). Some 60% had borrowed more than two times and over a third (37%) borrowed four or more times in the past two months, and this confirms the limited livelihoods options and the resulting (and potentially unsustainable) food access. Moreover, more than two-thirds of the households reported higher expenditure during displacement than before.

• The main source of food access was found to be "purchased", and as indicated above, most of this was on credit. This is confirmed by the average credit expenditure on the main staple, rice at Php662, which represents approximately 77% of the average household expenditure on the commodity. This reinforces a reported decline in food access through loss or decline of primary livelihoods (e.g. own food production). Considering the IDPs have lost access to their primary source of income the option of purchasing food on credit is not expected to be sustainable over a longer period.

• The main commodities consumed were rice (nearly all households reported daily consumption) and vegetables, followed by sugar and oil. Animal protein, pulses, fruits and milk were consumed occasionally and by very few households. The analysis suggests that access to these foods outside the contributions of purchases and food aid are very low.

• Some 90% of the IDPs households received food mainly as general food distribution, and to a lesser extent as food for work, supplementary feeding or school feeding. Food aid was found to be the second main source of food access, highlighting its importance in sustaining IDPs. Food aid appears to be filling the gap created from loss of access to primary source of livelihood. This is consistent with the nature of food assistance the IDPs have been receiving; for example, WFP distributes half ration. But in view of the high dependence on credit purchases and concomitant indebtedness, thus expected lack of sustainability, continuation of food assistance to the IDPs will be necessary to sustain them during the period of displacement and to maintain/prevent deterioration of nutritional status.

• Analysis suggests that access to main commodities consumed outside the contributions of purchases and food aid are very low. It would seem logical that in absence of any significant improvements in the livelihoods of these IDPs (to access these main foods), the assistance should include the main commodities (cereals, pulses, oils,sugar and supplementary food) to ensure nutritional adequacy.

• More than 80% of the IDP households could face acute food insecurity in the absence of food assistance, on the basis of the analyses of food access and consumption, taking into consideration the fragility of food purchases (due to high dependence on credit). Therefore, all IDP households should be covered in food assistance programmes – i.e., all IDPs in evacuation centres (formal and informal) and living in host communities.

• Host households have played an important role in supporting IDPs they host through sharing their resources (shelter by 97%; toilet and drinking water by 92%; 89% cooking facilities; 80% shared food). Sharing of these resources has clearly put pressure on the adequacy of resources; not surprisingly, nearly three quarters of host households said food was inadequate. The analysis also reveals that food insecurity among home based IDPs are comparable to those in the evacuation centres.

8. Recommendations

Response

- In all possible circumstances, sustainable responses should be considered to address health and WASH issues in both IDPs and host-communities since acute malnutrition was found to be closely related to illness in this assessment, thus indicating the need to focus on the underlying causes.

- The findings of global acute malnutrition in this assessment indicate need for urgent intervention. The cases of Severe Acute Malnutrition should be identified and treated. Furthermore, with the high magnitude of moderately acute malnourished children, particularly in the 6-24 months age group, preventing the deterioration of their nutritional status through provision of appropriate supplementary foods should be addressed.

- Emergency nutrition programming should focus primarily on children under 24 months of age due to the highly disproportionate rates of acute malnutrition seen in this age group as compared to older children. With 1 in 5 children in this age bracket suffering from acute malnutrition, this highlights the importance of interventions in Health, WASH and IYCF which will address the likely underlying cause of malnutrition and needs of this specific age group.

- Expand and increase the supplementary feeding programme to cater for the needs of special groups, malnourished children and pregnant women and lactating mothers.

- Due to the limited food diversity and the poor infant feeding practices multiple micronutrient powders (MNP) for all children 6-59 months and multiple micronutrient supplements for pregnant and lactating women should be included in the response interventions.

- Provide/maintain food assistance to all IDPs – this includes IDPs living in evacuation centres and in host communities; and should be through general food distribution. This takes into account the poor and potentially fragile food access, and the likelihood that the IDPs may not recover their pre-crisis livelihoods. Direct food assistance to host households is not recommended; it is expected that adequate assistance to the IDPs will ease the burden on the host households.

- The assistance should include essential food items – rice, pulses, oils and sugar to ensure adequate nutritional balance. It is recommended that the ration should be increased from the current half ration WFP provides, to a full ration; current food access and consumption are deemed poor and unsustainable due to the high dependence on credit.

- Given the coverage of measles vaccination, vitamin A supplementation and de-worming was found to be low in this assessment, and that in general there are high rates of vitamin A deficiency and iron-deficiency anemia in the country the nutrition cluster should increase attention to these needs in the emergency context. Local systems should be supported to improve coverage for routine immunizations and supplementation of vitamin A for both IDP and host community children.

- Local health centers should be sensitized on the identification of moderate and severe acute malnutrition to ensure early detection. These health centers should also be informed and trained in the appropriate treatment of acute malnutrition including standardization of protocols on referrals, treatment and the use of therapeutic foods.

- Given the ongoing crisis in Mindanao and the likelihood of future displacement due to natural disasters and/or conflict, the nutrition cluster partners and government counterparts should strengthen and institutionalize capacity for routine nutrition surveillance activities into government structures in Regions X, XII and ARMM. The nutritional status of children in the most vulnerable populations should be monitored more frequently than currently allowed for in the national nutrition surveys and updates in order to quickly identify and respond to emergencies.

- It is important that the food security situation of the IDPs is monitored to ensure that the assistance that is provided is relevant and appropriate. The main indicators to monitor would be those relating to food access, prices, and market availability of essential commodities (rice, oil, vegetables and sugar).

- School feeding programmes should be considered in schools where IDP children are enrolled, in hosting areas (near ECs or host communities); in addition to providing the extra nutritional needs, this would encourage enrolment and

school attendance.

Coordination:

- Multi-cluster coordination between WASH, Health, Food, Nutrition and Early Recovery Clusters is recommended to devise a common response to prevent further deterioration in food security and nutrition status of the IDP population as improving nutritional status in children demands ensuring multi-sectoral programming to prevent malnutrition. For example, current food distribution programs could be combined with raising awareness of appropriate health, hygiene and care practices.

- Food rations should be standardized across agencies to ensure consistency of support; this should go along with coordination of operations to minimize any duplications or gaps.

- The Nutrition Cluster should continue to advocate to government structures responsible for coordination and implementing response regarding the importance of promoting appropriate IYCF practices in emergencies as well as investigate sources of bottle feeding supplies.

Follow-up:

- The nutrition, health and food security situation of the conflict affected population should be monitored regularly (6mthly) until rates of GAM is below 10%.

- IDPs will all eventually be expected to return to their places of origin when the security situation in their places of origin stabilizes. In that case, they will need assistance with resettling in the form of food and non-food items, as well as provision of essential services.

- In the interim period, IDPs will require a food assistance package as they return home. This should be a full ration for 2-4 months that should be adjusted in subsequent months to reflect improvement in their food access, in principle until their next harvest season.

- It is also crucial to provide assistance towards reestablishing livelihoods and long term food security. This should entail relevant inputs that reflect the livelihoods options IDPs reported (crop production, labour and fishing) as their primary livelihoods in their respective provinces prior to their displacement.

- Further investigation is recommended into the underlying factors related to chronic malnutrition, the age specific causes of acute malnutrition and barriers to breastfeed after displacement.

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Annex 1 List of Selected Clusters

Cluster	Municipality, Barangay, Site Name	# of HH	Pop. Size	Team
01	Talayan Pob. MPC tent	136	816	1
02	Datu Saudi Dipiawan Elem School	579	3474	1
03	Mamasapano Tuka Tent	170	1020	1
04	Datu Piang Pob. Gumbay 1	134	804	1
05	Datu Saudi Pendililang H Basit Compound	137	822	1
06	Datu Anggal Pob. Abdillah Compound HB	158	948	1
07	Datu Abdullah Sangki Guinibon HB	120	720	1
08	Panicupan	58	348	1
09	Ampatuan Tumicor Tumicor Tent	180	1080	1
10	Pigcawayan Libungan Torreta	943	5658	1
11	Datu Piang LCR comp	133	798	2
12	Balingdong Dibarosan	52	312	3
13	D. Odin Sinsuat Pob. Bunkhouse	256	1536	1
14	Alamada Dado Elem/HSchool Camp Paulino	144	864	1
15	Talayan Pob. Market Site	1066	6396	2
16	Datu Saudi Pigatin Crossing	213	1278	2
17	Mamasapano Manungkaling (Old Maganoy) Tent & HB	932	5592	2
18	Datu Piang Pob. NDD	133	798	2
19	Datu Saudi Gawang EC	240	1440	2
20	D. Odin Sinsuat Kakar HB	427	2562	2
21	Dapiawan Madres	640	3840	2
22	Cotabato RH-3 (Near Sub-Office) HB	52	312	2
23	Datu Piang Pob. HB	1330	7980	2
24	Pikit Nalapaan	87	522	2
25	Shariff Aguak Pob. Limbongo Labu Labu HB	803	4818	2
26	Midsayap U Kadigasan	176	1056	2
27	Datu Piang Plaza Counpound Gym	117	702	2
28	Poblacian Bunkhouse	173	1038	3
29	Datu Saudi Kitango EC	825	4950	3
30	Momasapano Pob. Highway Tent	260	1560	3
31	Datu Piang DSUA Compound (Outside)	164	984	3
32	Marawi District II Paling	77	462	3
33	Marawi District IV Bubonga Marawi	112	672	3
34	Piagapo Radapan Proper health Center	12	72	3
35	Madalum Linuk	183	1098	3
36	Baloi East poblacion	122	732	3

Annex 2 List of Enumerators and Team Leaders

Teams for the Joint nutrition and food security assessment in Mindanao
February 9-21, 2009

Team I	Team II	Team III
Team Leader Ms. Aveen Acuna WFP Enumerators 1. Elias Salazar ACF 2. Hasna Abubakar WFP 3. Lucille Isnani ACF 4. Datusikie Ampilan ACF 5. Noor-Annie Tadtagan DoH ARMM 6. Nudin Amil DoH ARMM	Team Leader Mr. Mishael Argonza WFP Enumerators 1. Teresita Tenebro DoH Region 12 2. Baisahara Endong IPHO/BHW 3. Badruddin Karinda IPHO/BHW 4. Daren Diel WFP 5. Motalib Mokalam BDA 6. Jeihan Jein Gulo DoH ARMM 7. Leah Grace Yonting DoH ARMM	Team Leader Ms. Baicon Macaraya- Enumerators 1. Fatima Macapodi CHO-Marawi 2. Nelia Sarap IHPO-LDS 3. Adelah Saidar IHPO-LDS 4. Samia Dimakuta CHO- MArawi 5. Jose Omamos, Jr. MERN 6. Masa Mutia IPHO-LDN 7. Venus Lozano WFP

Annex 3 Frequency Response Tables for Child Health and Infant and Young Child Feeding

		W/H z-score < -2		W/H z-score >= -2		Total	
		Count	%	Count	%	Count	%
Child sick during the previous 2 weeks	Yes	50	72.50%	342	52.90%	392	54.70%
	No	19	27.50%	305	47.10%	324	45.30%
Main sickness	Fever	29	58.00%	161	48.10%	190	49.40%
	Repeated /coughs/colds	9	18.00%	85	25.40%	94	24.40%
	Diarrhoea	9	18.00%	56	16.70%	65	16.90%
	Measles	0	0.00%	4	1.20%	4	1.00%
	Other	3	6.00%	29	8.70%	32	8.30%
Treatment for the child	Yes	35	70.00%	236	69.20%	271	69.30%
	No	15	30.00%	105	30.80%	120	30.70%
Main resource for treatment for the child	Gov hospital	4	11.40%	22	9.40%	26	9.60%
	Rural/Urban Health Centre	13	37.10%	118	50.20%	131	48.50%
	Barangay Health Station	11	31.40%	62	26.40%	73	27.00%
	Baranggay Service Point	1	2.90%	1	0.40%	2	0.70%
	NGO	0	0.00%	4	1.70%	4	1.50%
	Pharmacy	0	0.00%	2	0.90%	2	0.70%
	Private doctor	0	0.00%	7	3.00%	7	2.60%
	Private nurse/midwife	1	2.90%	0	0.00%	1	0.40%
	Store	0	0.00%	1	0.40%	1	0.40%
	Mosque/Church	0	0.00%	0	0.00%	0	0.00%
	Friends/Relatives	1	2.90%	3	1.30%	4	1.50%
	Private clinic	0	0.00%	3	1.30%	3	1.10%
	Traditional Healer	3	8.60%	12	5.10%	15	5.60%
	Other	1	2.90%	0	0.00%	1	0.40%
Why the child was not taken	Not serious	1	6.70%	12	11.80%	13	11.10%
	Too Far/lack transport	0	0.00%	4	3.90%	4	3.40%
	Lack money	13	86.70%	71	69.60%	84	71.80%
	Does not like/distrust	0	0.00%	0	0.00%	0	0.00%
	Used traditional treatment at home	1	6.70%	9	8.80%	10	8.50%
	Other	0	0.00%	6	5.90%	6	5.10%

		WHZ < - 2		**WHZ >/= -2)**		**Total**	
		Count	%	Count	%	Count	%
Was the Child ever breastfeed?	Yes	68	98.60%	598	92.30%	666	92.90%
	No	1	1.40%	50	7.70%	51	7.10%
Are you still breastfeeding?	Yes	38	55.90%	189	31.60%	227	34.10%
	No	30	44.10%	409	68.40%	439	65.90%

Child received ONLY breast milk?	Yes	4	10.50%	22	11.50%	26	11.30%
	No	34	89.50%	170	88.50%	204	88.70%
Breastfeed the child less, the same or more?	More	1	2.60%	20	10.60%	21	9.30%
	Less	8	21.10%	41	21.70%	49	21.60%
	Same	28	73.70%	127	67.20%	155	68.30%
	Child born after displacement	1	2.60%	1	0.50%	2	0.90%
Why Less breastfeeding?	Age of child	0	0.00%	7	17.10%	7	14.30%
	No privacy	0	0.00%	0	0.00%	0	0.00%
	Stopped producing milk	1	12.50%	6	14.60%	7	14.30%
	Mother is stressed	2	25.00%	5	12.20%	7	14.30%
	Child stopped him/herself	0	0.00%	0	0.00%	0	0.00%
	Mother is not here with child	0	0.00%	1	2.40%	1	2.00%
	Other	5	62.50%	22	53.70%	27	55.10%
Why stopped breastfeeding?	Age of child	14	48.30%	218	54.10%	232	53.70%
	Stress	0	0.00%	3	0.70%	3	0.70%
	Lack of Privacy	0	0.00%	0	0.00%	0	0.00%
	Child stopped him/herself	3	10.30%	85	21.10%	88	20.40%
	No breast milk	2	6.90%	22	5.50%	24	5.60%
	Child was sick	1	3.40%	1	0.20%	2	0.50%
	Mother was sick	0	0.00%	7	1.70%	7	1.60%
	Pregnant again	8	27.60%	37	9.20%	45	10.40%
	Mother working	0	0.00%	21	5.20%	21	4.90%
	Nipple or breast problems	0	0.00%	5	1.20%	5	1.20%
	Other	1	3.40%	4	1.00%	5	1.20%

Distribution of Children Reported to be Ill over the Last Two Weeks and Quality of water

Ill over the last 2 weeks	Safe water	Unsafe	Unclassified	Total
Yes	264	60	65	389
No	213	61	50	324
Total	477	121	115	713

Nutrition status	Safe water	Unsafe	Unclassified	Total
GAM < -2 Z-score	43	14	11	68
GAM ≥ -2 Z-score	434	107	105	646
Total	477	121	116	714

Main Illness	Safe water	Unsafe	Unclassified	Total
Fever	124	28	36	188
Repeated coughs	63	15	16	94
Diarrhea	47	11	7	65
Measles	4	0	0	4
Other	21	6	4	31
	259	60	63	382

Annex 4: Frequency Response Tables for Coverage of Programmes

Program		W/H Z, < -2		W/H Z >/= -2		Total	
		Count	%	Count	%	Count	%
	Yes	36	52.20%	375	57.90%	411	57.30%
Received Vitamin A in past 6 months?	No	31	44.90%	257	39.70%	288	40.20%
	Not eligible	2	2.90%	16	2.50%	18	2.50%
	Yes	23	33.30%	222	34.30%	245	34.20%
Received tablet for de-worming in past 6 months?	No	39	56.50%	380	58.70%	419	58.50%
	Not eligible	7	10.10%	45	7.00%	52	7.30%
	Yes, verified	14	20.30%	171	26.40%	185	25.80%
	No	31	44.90%	242	37.30%	273	38.10%
Receive injection for Measles Vaccination in last 3 months	Yes, verbal	22	31.90%	214	33.00%	236	32.90%
	Not eligible	2	2.90%	21	3.20%	23	3.20%

Programme		W/H z-score < -2		W/H z-score >= -2		Total	
		Count	%	Count	%	Count	%
HH receive food aid in last 2 months	Yes	57	82.60%	577	89.50%	634	88.80%
	No	12	17.40%	68	10.50%	80	11.20%
General food distribution	No	12	17.40%	80	12.30%	92	12.80%
	Yes	57	82.60%	568	87.70%	625	87.20%
School feeding	No	69	100.00%	647	99.80%	716	99.90%
	Yes	0	0.00%	1	0.20%	1	0.10%
Food for work/for assets	No	69	100.00%	639	98.60%	708	98.70%
	Yes	0	0.00%	9	1.40%	9	1.30%
Supplementary feeding	No	67	97.10%	604	93.20%	671	93.60%
	Yes	2	2.90%	44	6.80%	46	6.40%
Other	No	69	100.00%	648	100.00%	717	100.00%
	Yes	0	0.00%	0	0.00%	0	0.00%
HH receive external assistance in last 2 months	Yes	37	53.60%	351	54.40%	388	54.30%
	No	32	46.40%	294	45.60%	326	45.70%

National Trends in Anthropometric Indicators, Children 0-5 years of Age

Nutritional Status	1989-90	1992	1993	1996	1998	2001	2003	2005
GAM "Thinness" W/H, <2 SD	5.0	6.6	6.7	5.2	6.0	6.3	5.3	4.8
Stunted H/A, <2 SD	39.9	36.8	34.3	34.5	34.0	31.4	29.9	26.3
Underweight W/A, <2 SD	35.5	34.0	29.9	30.8	32.0	30.6	26.6	24.6

**** 1989-90 to 2005 National Nutrition Survey's and Updates, FNRI based on 1977 NCHS reference*

JOINT NUTRITION AND FOOD SECURITY ASSESSMENT: MINDANAO 2009

INSTRUCTIONS:

A: Guidance: Introducing yourself and the purpose of the interview:

My name is _____ and I work for _____ (Govt Dept/WFP/UNICEF/NGO name) and my colleague is _____ and works for _____. We are part of a team carrying out a survey in this area to gather information nutrition and food security and overall well-being of the people (IDPs) living here. Your household is one of a few selected by chance from among all households in this area to be interviewed. The information that you provide us will be combined with information from other households to help us understand the way the people are living and challenges that they face. This will be used to prepare a report. This survey is voluntary; and the information that you provide will be kept confidential. Foe example, not ask or record your name; there will be no way to trace any information in the report to. Could you please spare some time for the interview that will last around 40 minutes?

NOTE TO ENUMERATOR:

- ***DO NOT suggest in any way that household entitlements could depend on the outcome of the interview, as this will prejudice the answers.***
- ***Respondent should be IDP household head or spouse of IDP household head.***

B: NOTES for Completing Questionnaire ID:

This provides a unique identification of each questionnaire that consists of six digits defined as follows:

ID |__||__| - |__||__| - |__||__|

- **The first two boxes (left) stand for Team and Sub-team numbers, respectively. First digit represents Team (e.g. 1, 2 or 3) and the represents sub-Team (e.g. 1, 2 or 3).**
- **The two middle boxes represent Cluster Code (i.e. 01, 02, … to 36)**
- **The last two boxes represent questionnaire number by each sub-team (e.g. 01, 02, 03, etc.)**

EXAMPLE: 22–05–06: stands for: Team #2, sub-Team #2; Cluster #05; and Questionnaire #06.

JOINT NUTRITION AND FOOD SECURITY ASSESSMENT: MINDANAO 2009				
0.1	Date: |__|__| / |__|__|/ 2009 *Day* *Month*	**0.2** Team ID |__|__|	**0.3** Cluster |__|__|	**0.4** HH # |__|__|
0.2	Evacuation centre |__| / Home-Based |__| (select one only) **(marks X)** ***Current location*** *Province* _____ *Municipality* _____ *Barangay* _____			
0.3	**Location of Origin** Province _____ Municipality _____ Barangay _____			
0.4	Gender of household head |__| female |__| male **(marks X)**			
0.5	Age of household head |__|__| years			

SECTION A1 – DEMOGRAPHICS:

Read **-** "May I ask you a few questions on the composition of your household?"
(NB: For the purpose of this survey, a household is defined as people eating together)

1.1 – *How many persons live in your household?* |__|__|

1.1.1 How many persons are in these age groups? a) Under 5 years? |__|__|; b) 5-14 years?|__|__|;
c) 15-59 years? |__|__|*; d) Over 60 years?* |__|__| ***(write the number, if none write 00)***

1.1.2 *How many members of your households are:* a) differently-abled? |__|__|;

b) chronically ill (more than 2 months of continuous illness)? |__|__| ***(write the number, if none write 00)***

1.1.3. Do you have a school aged child (6-12 years old)? 01 = YES 02 = NO If YES, How many? |__||__| If NO **→ 1.2**

1.1.4. If YES, are they attending school? 01 = YES 02 = NO If YES, how many? |__||__|

1.1.5. If NO, what is the main reason for child/ren not attending school?
a) No functioning school available **b)** cannot afford it **c)** do not believe in sending child to school **d)** child is sick
e) insecurity **f)** other *(specify)* _____ (*Circle the answer)*

1.2 What main ethnic group does your family belong to? |__|__| ***(choose only ONE from list below).***

[01. Maranao 02. Visayan 03. Cebuano 04. Boholano 05. Iranun 06. Ilonggo 07. Ilocano
08. Blaan 09. Maguindanaon 10. Tausug 11. Teduray 12. Arumanon 13. Manobo
14. Other (specify)_____]

1.3. How long have you and your family been at this location? **(months)** |__|__|

1.4. How many times have you been displaced since June 2008)?
Once |__|; Twice |__|; Three times or more |__| **(marks only ONE - X)**

SECTION A2 – HOUSING AND FACILITIES

2.1	What type of toilet facility does your household use? ***(Do not read answers. Circle one).***	01	Flush toilet (own toilet)
		02	Flush toilet (communal toilet)
		03	Close pit
		04	Open pit
		05	Drop/overhang
		06	No toilet/field/bush
		07	Other, specify _____
2.2	What is your main source of cooking fuel? ***(Circle one (example – electricity).***	01	Cylinder Gas
		02	Electricity
		03	Wood/charcoal/coconut husk
		04	Kerosene
		05	Other, specify _____

2.3	What is the main source of <u>drinking</u> water for your household? ***(Circle one only)***	01	Piped into the house(Level III)	07	River/stream/pond/lake/dam
		02	Communal faucet (Level II)	08	Bottled water/refilling
		03	Protected well	09	Rainwater
		04	Unprotected (Open dug well)	10	Tanker truck/Peddler
		05	Developed spring	11	Hand pump
		06	Undeveloped spring	12	Other, specify
2.4	Do you treat your water (e.g. boil, filtration, add chemicals, etc)?	01 = YES 02 = NO			
2.5	How far is the main source of water from your household? _____ Minutes ***(Record the time to <u>go and return</u> ; Write 888 if water on premises; but 999 if don't know)***				

SECTION A3 – HOUSEHOLD ASSETS, PRODUCTIVE ASSETS AND ACCESS TO CREDIT					
3.1 -	Does the household own any assets? ***NOTE:*** • ***Make observation*** • ***DO NOT READ LIST TO RESPONDENT*** • ***Circle all that apply*** • ***If no asset listed fill 999 in box*** |__|__|__|	01	Radio/Radio cassette	09	Component/ Karaoke
		02	Television	10	Personal computer
		03	Landline Telephone	11	Kubota/Tractor
		04	Cellular phone	12	Motorized banca/Boat
		05	Washing machine	13	Car/jeep/van
		06	Refrigerator/ freezer	14	Motorcycle/ Tricycle
		07	Cd/Vcd/Dvd player	15	Bicycle/ Pedicab
		08	Jewelry	16	Other
3.2	Where do you go if you need to borrow money? ***(Circle all that apply)***	01	Relatives / friends		
		02	Charities / NGOs		
		03	Local lender / pawn shop		
		04	Bank		
		05	Co-operatives		
		06	Local Govt Units (LDUs)		
		07	No access		
3.3	Do you borrow money to purchase food or purchase food on credit?	01 = YES		02 = NO **→ 3.4**	
3.3.1	If YES, in the last 2 months how <u>often</u> did you use credit or borrow money to purchase food? ***(Circle one)***	01 = Once 02 = two times 03 = three times 4 = Four or more times			

3.4	Do you have access to a market?	01 = YES 02 = NO **→ 3.5**
3.4.1	How long does it take to walk market? (If other modes of transport required, show time and mode of transport)	_____ minutes
3.4.2	How often is it open?	01 = daily 02 = 2 t0 5 days per week 03 = weekly
3.5	How many farm animals does your household own now and before displacement? ***(DO NOT READ THE FOLLOWING LIST TO THE RESPONDENT!)***	

		Now	**Before**
		Displacement	
	1. Cows / Bullocks	|__|__|__|	|__|__|__|
	2. Buffaloes	|__|__|__|	|__|__|__|
	3. Goats	|__|__|__|	|__|__|__|
	4. Sheep	|__|__|__|	|__|__|__|
	5. Chickens/Ducks/gees	|__|__|__|	|__|__|__|
	6. Pigeons	|__|__|__|	|__|__|__|
	7. Horses	|__|__|__|	|__|__|__|
	8. Pig	|__|__|__|	|__|__|__|
	9. Other	|__|__|__|	|__|__|__|

SECTION A5 – HOUSEHOLD LIVELIHOODS /INCOME

The purpose is to identify the main sources of livelihood/income (current and before displacement) using the activity codes below.

Activities	**5.1:** What are your household's current activities? **(NOTE: List up to 4 activities in order of importance)**	**5.2:** What were your household's main activities before displacement? ? **(NOTE: List up to 4 activities in order of importance)**
5.1 **First**	|__|__|	|__|__|
5.2 **Second**	|__|__|	|__|__|
5.3 **Third**	|__|__|	|__|__|
5.4 **Fourth**	|__|__|	|__|__|

Livelihood/Income sources codes

01 =Products from Crop farming and gardening
02 = Livestock and poultry raising *(such as raising of carabaos, cattle, hogs, horses, chicken, ducks, etc. and the production of fresh milk, eggs, etc.)*
03 = Fishing (such as capture fishing *gathering fry, shells, seaweeds, etc. ; and culturing fish, oyster, mussel, etc.)*
04 = Forestry and hunting *(such as tree planting (ipil-ipil), firewood gathering, small-scale logging excluding concessionaires), charcoal making, gathering forestry products (cogon, nipa, rattan, bamboo , resin, gum, etc.) or hunting wild animals/birds)*
05 = Wholesale and retail trade *(including market vending, sidewalk vending and peddling, small shop)*
06 = Manufacturing/handicraft *(such as mat weaving, tailoring, dressmaking)*
07 = Remittances
08 = Skilled salaried employment *(such as medical, teaching ,bank, government*
09. Unskilled salaried employment (assistant, hair dresser, massage, hotel staff, housemaid, laundry etc)
10. Daily/common labourer (agriculture, construction etc)
11 = Transportation, storage and communication services *(such as operation of jeepneys or taxis, storage and warehousing activities, messenger services, etc.)*
12. = Mining and quarrying *(such as mineral extraction like salt making, gold mining, gravel, sand and stone quarrying, etc.)*
13 = Construction/ skilled labour *(repair of a house, building/structure, etc.)*
14. Pension, Government allowances (*peace council member)*
15. Activities not elsewhere classified

SECTION A6 – EXPENDITURE

Read: "*In the Past* ***MONTH****, how much money did you spend on each of the following items or services?* **(NOTE: If goods have been exchanged please give a value in Philippines Peso).**		**a.** Spent in previous month 01 = YES 02 = NO ***(if NO, go to next item)***	**b.** Estimated Expenditure in Cash during the last month (Peso) ***(write 0 if no expenditure).***	**c.** Estimated expenditure in Credit during the last month (Peso) ***(write 0 if no expenditure)***
6.1	Rice	|__|	|__|__|__|__| peso	|__|__|__|__| peso
6.2	Corn	|__|	|__|__|__|__|	|__|__|__|__|
6.3	Wheat and other cereals/products	|__|	|__|__|__|__|	|__|__|__|__|

	(bread, biscuits, instant noodles)			
6.4	Roots and tubers *(such as cassava, potatoes, sweet potatoes (camote), gabi)*	|__|	|__|__|__|__|	|__|__|__|__|
6.5	Pulses (beans, lentils, groundnuts)	|__|	|__|__|__|__|	|__|__|__|__|
6.6	Fruits	|__|	|__|__|__|__|	|__|__|__|__|
6.7	Vegetables	|__|	|__|__|__|__|	|__|__|__|__|
6.8	Milk products	|__|	|__|__|__|__|	|__|__|__|__|
6.9	Eggs	|__|	|__|__|__|__|	|__|__|__|__|
6.10	Meat and meat products *(chicken, beef, pork, other meat)*	|__|	|__|__|__|__|	|__|__|__|__|
6.11	Fish and marine products	|__|	|__|__|__|__|	|__|__|__|__|
6.12	Coffee, cocoa and tea	|__|	|__|__|__|__|	|__|__|__|__|
6.13	Sugar/salt	|__|	|__|__|__|__|	|__|__|__|__|
6.14	Butter/ cooking oil. margarine	|__|	|__|__|__|__|	|__|__|__|__|
6.15	Non-alcoholic beverages	|__|	|__|__|__|__|	|__|__|__|__|
6.16	Tobacco/betel nut	|__|	|__|__|__|__|	|__|__|__|__|
6.17	Alcoholic beverages	|__|	|__|__|__|__|	|__|__|__|__|
6.18	Household supplies *(laundry soap / matches / brooms / batteries etc.)*	|__|	|__|__|__|__|	|__|__|__|__|
6.19	Toilet articles *(soap, shampoo etc.)*	|__|	|__|__|__|__||__|	|__|__|__|__||__|
6.20	Transportation	|__|	|__|__|__|__||__|	|__|__|__|__||__|
6.21	Cooking Fuel,	|__|	|__|__|__|__||__|	|__|__|__|__||__|
6.22	Electricity and water	|__|	|__|__|__|__||__|	|__|__|__|__||__|
6.23	Communication/mobile phone load	|__|	|__|__|__|__||__|	|__|__|__|__||__|

6.24 Was the total amount spent (in 6.1 to 6.23) more or less than before displacement?
01 = more, 02 = much more ; 03 = less; 04 = much less **(Circle only one)**

In the Past **MONTH**, how much money did you spend (in Peso) on each of the following?
Use the following table, write 0 if no expenditure.

6.26	Clothing, shoes and other wear	|__|__|__|__|,			
6.27	Education *(school fees/uniforms/supplies)*	|__|__|__|__|			
6.28	Medical care	|__|__|__|__|			
6.29	Furnishing and household equipment *(such as household utensils, accessories, household linen, mosquito nets)*	|__|__|__|__|			
6.30	Celebrations, social events, funerals, weddings	|__|__|__|__|			

SECTION A7 – FOOD CONSUMPTION AND SOURCES

Could you please tell me: 1) how many **days** in the past <u>week</u> your household has eaten the following foods? 2) what were the sources? ***(use the codes on the last column, and write 0 for items not eaten over the last 7 days)***

	Food Item	*# of days eaten last 7 days*	*Food Source (write all)*	
			Main	*Second*
7.1a	Rice	__	___	___
7.1b	Maize / Corn	__	___	___
7.1c	Other cereals (bread, biscuits, instant noodles etc.)	__	___	___
7.1d	Cassava	__	___	___
7.1e	Sweet potatoes (camote)	__	___	___
7.1f	Other roots and tubers (potatoes, gabi)	__	___	___
7.1g	Beans, groundnuts	__	___	___
7.1h	Vegetables	__	___	___
7.1i	Fruits	__	___	___
7.1j	Fish, fish paste	__	___	___
7.1k	Meat (beef, pork, chicken)	__	___	___
7.1l	Wild animals	__	___	___
7.1m	Eggs	__	___	___
7.1n	Milk and other dairy	__	___	___
7.1o	Sugar and sugar products	__	___	___
7.1p	Vegetable oil, coconut oil, fats	__	___	___

<u>Food Source codes</u>

01 = Purchase
02 = Own production
03 = Hunting, fishing, gathering
04 = Traded goods or services
05 = Borrowed
06 = Exchange of labor for food
07 = Exchange of items for food
08 = Received as gift
09 = Food aid
10 = Other specify: _____

7.2a	Did any member of your household receive food aid in the last 2 months?	01 = YES	02 = NO	If NO → **<u>7.3a</u>**

7.2b	If YES, please specify the type of program and the number of beneficiary in your household? **(circle all that apply and specify number of beneficiaries in the last column)**	01	General food distribution	__
		02	School feeding	__
		03	Food for work/for assets	__
		04	Supplementary feeding	__
		05	Other, specify _____	__

7.3a	Did any member of your household receive any other type of external assistance beside food aid in the last 2 month?	01 = YES	2 = NO	NO → **<u>Section 8</u>**

7.3b	What type of assistance? **(Circle all that apply)**	01	Money allowances / loans
		02	Education (fees, books, uniforms)
		03	Medical services (hygiene promotion/ immunization, etc)
		04	Construction material, building
		05	Agricultural assistance (tools / seeds)
		06	Other, specify_____

SECTION A8 – DISASTER AND FOOD SECURITY

Read: *What were the main problems or disasters that your household has faced in the last 6 months?*
(Do not read the options! Once all disasters have been identified ask respondent to rank the most important ones and write them down in the table below.

A. = Drought/irregular rains / Hailstorms
B. = Floods
C. = Landslides, erosion
D. = Unusually high level of crop pests & disease
E. = Unusually high level of livestock diseases
F. = Lack of employment
G. = Unusually high level of human disease
H. = Unavailability of food
I. = High food prices
J. = High costs of agric. inputs (seed, fertilizer, etc.)
K. = Loss of employment for a household member
L. = Reduced income of a household member
M. = Serious illness or accident of household member
N. = Death of a working household member
O. = Death of other household member
P. = Theft of Money/valuables
Q. = Theft of Animals
R. = Conflict
S. = displacement
T. = other (specify)

8.2a Rank & Cause *(copy code from above the four main causes)*	**First** _____	**Second** _____	**Third** _____	**Fourth** _____
8.2b- Did the disaster create a decrease or loss for your household of: 01 = Income & in-kind receipts 02 = Assets (e.g. livestock, cash savings) 03 = Both income and assets 04 = No change *(Write number)*	|__|	|__|	|__|	|__|
8.2c- Did the disaster cause a decrease in your household's ability to produce or purchase enough food to eat for a period of time? 01 = YES 02 = NO 3 = Don't know	|__|	|__|	|__|	|__|
8.2d - Has the household recovered from the decrease in income or assets or both from the disasters? 01 = Not recovered at all 02 = Partially recovered 03 = Completely recovered	|__|	|__|	|__|	|__|
8.3 - In the **"past month"**, have you used any of the		**Frequency**		

strategies when you did not have enough food or money to buy food? How often?	1= daily, 2= pretty often (3-6 days/week) 3= once in a while (1-2times/week) 4= Never
01 - Rely on less preferred and less expensive foods?	
02 - Borrow food, or rely on help from a friend or relative?	
03 - Limit portion size at mealtimes?	
04 - Restrict consumption by adults in order for small children to eat?	
05 - Reduce number of meals eaten in a day?	

Salt Testing

Ask to have a sample of the salt from the HH for iodine testing. 01 = Dark Purple 02 = Light Colour 03 = No Change 04 = No Salt in Home		|__|

SECTION A-9 – UNDER-5 CHILDREN HEALTH AND NUTRITIONAL STATUS

Ask for only for IDP children 0 to 5 years of age in Households
First ask how many children are <5 years of age and record names on a separate sheet of paper
Complete 1st child (column), then move to next child
DO NOT READ answer choices to respondent unless indicated to do so

	Child ID 01		Child ID 02		Child ID 03	
Sex of child - **1**= Male/ **2**= Female	9.1.1	|__|	9.2.1	|__|	9.3.1	|___|
Date of birth Verify birthdates with vaccination card or birth registration – **If unknown leave blank**	9.1..2	__ __ /__ __ /__ __ __ __ ***day / month / year***	9.2.2	__ __ /__ __ /__ __ __ __ ***day / month / year***	9.3.2	__ __ /__ __ /__ __ __ __ ***day / month / year***
Age in months If parent does not know age, use seasonal calendar to estimate **(BE SURE TO WRITE IN)**	9.1.3	|____| months	9.2.3	|____| months	9.3.3	|____| months
Was the **child sick during the previous 2 weeks**? **1**= Yes/ **2**= No	9.1.4	|__| ***If No, go to 9.1.9***	9.2.4	|__| ***If No, go to 9.2.9***	9.3.4	|___| ***If No, go to 9.3.9***
What was the **child's MAIN sickness**? **1**= Fever **2**= Repeated coughs/colds/ Breathing difficulties **3**= Diarrhoea (> 3 loose/watery stools in one day) **4**= Measles (diagnosed) **9**=Other_____	9.1.5	|__|	9.2.5	|__|	9.3.5	|__|
Did you seek advice or treatment for the child? **1**= Yes 2= No	9.1.6	|__| ***If no, go to 9.1.8***	9.2.6	|__| ***If no, go to 9.2.8***	9.3.6	|___| ***If no, go to 9.3.8***
What is your main resource for seeking advice or treatment for the child's sickness? **1=** Gov hospital **2=** Rural/Urban Health Centre **3=** Barangay Health Station **4=** Barangay Service point/ Health Worker **5=** NGO **6=** Pharmacy **7=** Private doctor **8=** Private nurse/midwife **9=** Store **10=** Mosque/Church **11=** Friends/Relatives	9.1.7	|__| **Go to 9.1.9**	9.2.7	|__| **Go to 9.2.9**	9.3.7	|__| **Go to 9.3.9**

	Child ID 01		Child ID 02		Child ID 03	
12= Private clinic **13=** Traditional Healer **14=** Other_____						
If child was **not taken**, why? **1**= Not serious **2**= Too Far / lack transport **3**= Lack money **4**= Does not like/ distrust **5**= Used traditional treatment at home **9**= Other (specify) 99 = Don't Know	9.1.8	|__|	9.2.8	|__|	9.3.8	|___|
Did the child receive a **vitamin A capsule** during the past 6 months? *Show the capsule!* **1**= Yes 2= No 9= Not eligible/Too Young 99= Don't Know	9.1.9	|__|	9.2.9	|__|	9.3.9	|__|
In the last 6 months did the child receive a tablet for de-worming? **1**= Yes 2= No 9= Not eligible/Too Young 99 = Don't Know	9.1.10	|__|	9.2.10	|__|	9.3.10	|__|
In the last 3 months did the child receive **injection** for Measles Vaccination? 1=Yes, Verified with documents 2= No 3= Yes, verbal confirmation 9= Not eligible/Too Young 99 = Don't Know	9.1.11	|__|	9.2.11	|__|	9.3.11	|__|
Do you (or others) wash your hands **with soap & water** before feeding the child? 1= Yes 2= No 99 = Don't Know	9.1.12	|__|	9.2.12	|__|	9.3.12	|__|
Do you and/or the child wash hands **with soap** and water after cleaning child or after child defecates? 1= Yes 2= No 99 = Don't Know	9.1.13	|__|	9.2.13	|__|	9.3.13	|__|
Have you ever breastfed the Child? 1= Yes 2= No	9.1.14	|__| **If No go to 9.1.21**	9.2.14	|__| **If No go to 9.2.21**	9.2.14	|__| **If No go to 9.3.21**
Are you still breastfeeding your child? 1= Yes 2 = No	9.1.15	|__| **If no, go to 9.1.20**	9.2.15	|__| **If no, go to 9.2.20**	9.3.15	|__| **If no, go to 9.3.20**
Did the child receive Breast Milk **yesterday**? **1**= Yes 2= No	9.1.16	|__|	9.2.16	|__|	9.3.16	|__|

	Child ID 01		Child ID 02		Child ID 03	
Did the child receive **ONLY** breast milk yesterday? **1**= Yes 2= No	9.1.17	|__|	9.2.17	|__|	9.3.17	|___|
Are you breastfeeding the child less the same or more than before displacement? 1= More 2= Less 3 = Same 9 = Child born after displacement	9.1.18	|__| **If more or same, skip to 9.1.21**	9.2.18	|__| **If More or Same, skip to 9.2.21**	9.3.18	|__| **If More or Same, Skip to 9.3.21**
Why are you breastfeeding the child less? (Don't read answers) 1= Age of Child 2= No Privacy 3= Stopped producing Breast milk 4 = Mother is Stressed 5= Child Stopped him/herself 6= Mother is not here with child 9=Other (specify) **----------**	9.1.19	|__| **Go to 9.1.21**	9.2.19	|__| **Go to 9.2.21**	9.3.19	|__| **Go to 9.3.21**
Why Did You Stop Breastfeeding your child? (Don't read answers) 1= Age of Child 2= Stress 3= Lack of Privacy 4= Child Stopped him/herself 5= No Breast Milk 6= Child was sick 7=Mother was sick 8=Became pregnant again 9-= Mother Working 10 = Nipple or Breast Problems 11=Other (specify)	9.1.20	|__|	9.2.20	|__|	9.3.20	|__|
Did the child receive **solid, semi-solid or soft foods** yesterday? 1 = Yes 2= No	9.1.21	|__| ***If No, go to 9.1.23***	9.2.21	|__| ***If No, go to 9.2.23***	9.3.21	|__| ***If No, go to 9.3.23***
How many times did the child receive **food** yesterday?	9.1.22	|__|	9.2.22	|__|	9.3.22	|___|

*****Anthropometric Measurements (for children who have reached 6 months of age and less than 5 years)**
*****If Children are absent, be sure ask when the child is likely to come back & return to do measurements later**

1 if child present **99** if Child Absent	9.1.23	|__|	9.2.23	|__|	9.3.23	|__|
Presence of **bilateral oedema**? **Write Y = YES or N = NO** If Oedema is observed do not take height and weight of children	9.1.24	|____|	9.2.24	|____|	9.3.24	|_____|
What is the child's **weight?**	9.1.25	|__| |__| . |__| **kg**	9.2.25	|__| |__| . |__| **kg**	**9.3.25**	|__| |__| . |__| **kg**
What is the child's **height?**	9.1.26	|__||__| |__|. |__| **cm**	9.2.26	|__||__| |__|. |__| **cm**	9.3.26	|__||__| |__|. |__| **cm**
What Colour is the Child's MUAC 1= Green 2= Yellow/Orange 3= Red	9.1.27	|__|	9.2.27	|__|	9.2.27	|__|

Have you received distributions of **Infant Formula or Supplies for Bottle Feeding** since being displaced? 1= Yes 2 = No **Read List of Supplies** Formula, Bottles, Teats, Dry milk, -**Bear Brand** - Liquid Milk etc	9.1.28	|__| **If No then skip 9.1.28**
Where did you receive these supplies from? 1= LGU Baranguy Captain 2= NGO 3= Mosque or Church 4= Local Business 5= Private Individual 9= Other (Specify) _____	9.1.29	|__|

Thank Respondents for their Time and Participation

Anthropometric survey data form

District/Village: _____ Survey Date: _____ Cluster number: _____ Team number: _____

Team ID	Child no.	Child ID # (CL, HH, CH) example (05, 04, 03)	Household ID (CL, HH)	Sex (f/m)	Birthday	Age in months	Weight (kg) ±100g	Height (cm) ±0.1cm	Oedema (y/n)
	EX.	050403	0203	m	02/03/2006	36	13.2	100.6	n
	01								
	02								
	03								
	04								
	05								
	06								
	07								
	08								
	09								
	10								
	11								
	12								
	13								
	14								
	15								
	16								
	17								
	18								
	19								
	20								

Calendar of Events (Maguindanao)

Month	Key Events	2004	2005	2006	2007
January			49	37	25 Armed conflict (until march)
February		**60** Births before Mid-Feb 2 excluded	48	36	24
March	Bataan Day	**59**	47 Easter (27)	35	23
April		**58**	46	34	22
May	**National Election** **Labor Day**	57 Presidential Election	45	33 Senatorial Election	21
June	"Araw ng Cotabato" (every year)	56	44	32 Bombing in Shariff Aguak (28th)	20
July		55	43 Ramadan	31	19
August		54	42 ARMM Election	30 Ramadan	18
September	Ramadan (Eid'l Fitr)	53	41	29	17 Ramadan
October		52	40	28	16 Barangay Electio
November		51 Datu Piang Foundation Day (12) every year	39 Datu Piang Foundation Day (12) every year	27 Datu Piang Foundation Day (12) every year	15 Datu Piang Foundation Day (12 every year
December	Shriff Kabunsuan (19) Christmas Day (25)	50 Christmas Day (25)	38 Christmas Day (25)	26 Christmas Day (25)	14 Christmas Day ARMM conflict Midsayap **Pilgrimage**

Calendar of Events (Lanao Del Norter)

Month	Key Events	2004	2005	2006	2007
January		Baroy Fiesta Bacolod Fiesta	49	37	25 Armed conflict (until march)
February		**60** Births before Mid-Feb 2 excluded	48	36	24
March	Bataan Day Womens Month (8)	**59**	47 Easter (27)	35	23
April		**58 Kauswagan Fiesta** **"Araw ng Marawi"**	46	34	22
May	National Election Labor Day	57 Presidential Election Almango Fiesta Linamon Fiesta Kolambugan Fiesta Maigo Fiesta Tubod Fiesta	45	33 Senatorial Election	21
June		56	44	32	20
July		55 "Araw ng Kalambagan" "Araw ng Lanao"	43 Ramadan	31	19
August		54	42 ARMM Election	30 Ramadan	18
September	Ramadan (Eid'l Fitr)	53	41	29	17 Ramadan
October		52 "Sagingan" Festival	40	28	16 Barangay Electio
November		51	39	27	15

December	Christmas Day (25)	50 Christmas Day (25) Maranding Fiesta (2-3) Kapatagan Fiesta (3-4)	38 Christmas Day (25)	26 Christmas Day (25)	14 Christmas Day

Annex 6 Community Questionnaire

COMMUNITY QUESTIONNAIRE: MINDANAO 2009	
0.1 Respondent(s): _____	
0.2	Date: |__|__| / |__|__| / 2009 *Day Month*
0.3	***Location*** *Province* _____ *Municipality* _____ *Barangay* _____

1. *How many persons live in community?* _____

2. How many of these are: a) IDP? _____% *b) Residents* _____

3. What are ethnic groups in the area ***(Circle ALL applicable)***
[1. Maranao 2. Visayan 3. Cebuano 4. Boholano 5. Iranun 6. Ilonggo 7. Ilocano 8. Blaan 9. Maguindanaon 10. Tausug 11. Teduray 12. Arumanon 13. Manobo 14. Other (specify)_____]

4. How long have IDPs been in this area? (months) |__|__|

5. Have there been new IDP arrivals in the past month? YES / NO. If YES, approximately what proportion arrived? ____%

6. Have some IDPs left this area in the past month? YES / NO; If YES, approximately what proportion left? ____%

5. What is the state of availability and adequacy of the following of community resources and facilities?

Resource/ Facility	Is this adequate for after the arrival of IDPs?	Is this adequate before the arrival of IDPs?
1. Shelter	1. = YES 2. = NO	1. = YES 2. = NO
2. Food	1. = YES 2. = NO	1. = YES 2. = NO
3. Cooking fuel	1. = YES 2. = NO	1. = YES 2. = NO
4. Water sources (pumps, etc)	1. = YES 2. = NO	1. = YES 2. = NO
5. Land for farming	1. = YES 2. = NO	1. = YES 2. = NO
6. Health facilities (clinics,	1. = YES 2. = NO	1. = YES 2. = NO
7. Toilet facilities	1. = YES 2. = NO	1. = YES 2. = NO
8. Education (schools, teachers, etc)	1. = YES 2. = NO	1. = YES 2. = NO
Other (specify)_____	1. = YES 2. = NO	1. = YES 2. = NO

Annex 7 Host Household Questionnaire

HOST HOUSEHOLD QUESTIONNAIRE: MINDANAO 2009 This additional questionnaire should be administered to host household, i.e. households who provide shelter or other forms of support to IDPs. It may be administered where IDP households.	
0.1	Date: |__|__| / |__|__| / 2009 *Day Month*
0.2	***Location*** *Province* _____ *Municipality* _____ *Barangay* _____
0.4	Gender of household head |__| female |__| male **(marks X)**
0.5	Age of household head |__|__| years

Read **-** "May I ask you a few questions on the composition of your household"
(NB: For the purpose of this survey, a household is defined as people eating together)

1.3 *How many persons live in your household?* |__|__|

1.1.1 How many of these are: a) children Under 5? |__|__|; b) 5-14 years?|__|__|*; c) 15-59 years?* |__|__|*;*
d) Over 60 years? |__|__| ***(write the number, if none write 00)***

1.1.2 *How many members of your households are* a) differently abled? |__|__|; or b) chronically ill? |__|__|
(write the number, if none write 00)

1.4 What main ethnic group does your family belong to? |__|__| ***(choose only ONE from list below).***
[1. Maranao 2. Visayan 3. Cebuano 4. Boholano 5. Iranun 6. Ilonggo
7. Ilocano
8. Blaan 9. Maguindanaon 10. Tausug 11. Teduray 12. Arumanon 13. Manobo
14. Other (specify)_____]

1.3. How long have you and your family been at this location? (months) |__|__|

1.4. If Yes, how many persons? |__|__|

1.5. What is there relationship to your household? 1. = Relative 2 = Friends 3 = Other

1.6. How long ago have you been hosting them? Up to one month |__|; 2-4 months; |__|; five or

more months |__|

1.7. Do you share any of the following resources/ facilities with the IDP household you are hosting? If so, are these resources sufficient?

Resource/ Facility	**YES**	**NO**	**N/A**	**If YES, is this sufficient?**
1. Shelter				1. = YES 2. = NO
2. Food				1. = YES 2. = NO
3. Toilet facilities				1. = YES 2. = NO
4. Drinking water				1. = YES 2. = NO
5. Land for farming				1. = YES 2. = NO
6. Fishing nets, rods, etc.				1. = YES 2. = NO
7. Cooking fuel				1. = YES 2. = NO
8. Other (specify)_____				1. = YES 2. = NO

1.8. Is this displaced household you are hosting receiving any assistance from other sources? 1. = YES 2. = NO

1,9. If YES, what type of assistance? 01 = Food; 02 = Water; 03 = Shelter; 04 = Medicine

2.0. Does the IDP households share any the assistance they receive with your household? 01 = YES 02 = NO

Annex 8 Household Sampling Protocol

Ideally we will be able to obtain and utilize HH lists for some or all Evacuation Centers and Barangays – This will involve 3 steps. First, establish the number of HH on the list. Second divide the total number of HH by the 'estimated HH' the team expects to visit, + a number of reserves – for our purposes we will use the number 20. For example if there are 200 HH, you take 200 divided by 20, which gives you 10. This is an important number, It is called your INTERVAL, so remember it. Third step, choose a random start number from the number table – if you choose the number 17 for example, you will count 17 HH from the beginning of the list. This is your first HH. Next you would use the Interval number you obtained earlier (in this case 10) and count that number till you reach the next HH on the list. Thus your HHs would be # 17, 27, 37, 47….147….7, until you reach your start number. You will record all 20 names on your reference paper. Once you have your HH list you will NOT visit them in the order you chose them, but visit them in a random order, by selecting them in a standard random procedure. Ask the head of the EC or Barangay as to the current location of the families on your list – If 10% or less are still IDPs and are residing at the center, continue. If more than 10% have left back to their place of origin, are made up names or are not IDPs, then continue with the methods below for sampling HHs in the cluster.

NEXT BEST OPTIONS – NO HH LIST

1. Spend the first 30 minutes of the day, during formalities, as a team, becoming familiar with the boundaries within which the days sample of HH will be drawn – The boundary should be delineated by relatively easy to recognize landmarks (streets, rivers, marsh boundary etc) and the team should become familiar with these boundaries. If no map is provided spend the first 30 minutes sketching a rough map from the "cluster" from which the sample with be drawn.

2. Using the map (or sketch), estimate the 'centre' of the 'cluster.' HH enumerators will start from this point and use the "spin the pen method" to determine their first direction. After spinning the pen the team should walk in that direction to the limit of the "cluster", in the direction indicated by the pen, or take a car if needed.

3. Once reaching the "cluster limit" chose the farthest dwelling from the centre within the "cluster", either a house, building, room or tent. This will be your first household. If it is a single HH dwelling, then you have your first household - if it is a multi-HH house dwelling space, you must randomly select a HH within the Dwelling. To do this you have various options depending on the situation.

   If the dwelling is a schoolroom – you may quickly make a list of households, number them and use a random selection procedure to chose a HH.

   When trying to chose a HH in a multi-story apartment building a random procedure must be used to select the floor - if there are 4 floors the team will choose randomly from chips 1-4; a similar procedure would be used to distinguish between rooms and families within a room

4. If working in a host community, try to take a community leader with you to help locate the HH who host IDPs – DO NOT just go to the HH suggested by the leader. This is ABSOLUTELY wrong and will hurt our work. When reaching the boundary point and choosing the dwelling, if the HH does not host IDPs, choose the next closest dwelling. If they do not host IDPs choose the next closest dwelling and so on until the HH is found.

5. After interviewing the first HH, the team returns to the centre and completes the procedure again - spinning the pen and finding the dwelling at the farthest limit of the "cluster" in the newly indicated direction. And then repeat all subsequent steps.

If Households are not at home remember ask neighbours when they will return and return to the HH before the end of the working day at the indicated time, before completing your sample. If time runs out near the end of the day and the family has not returned home, Complete selection procedure again and chose a new HH.